



Report to the Board of Supervisors

Prepared by the Maricopa County Planning and Development Department

Board Hearing Date:	October 4, 2017
Cases #/Title:	<ol style="list-style-type: none">1. CPA2015003 – Sun Streams Solar2. Z2017017 – Sun Streams Solar Silver Spoon Unit3. Z2017018 – Sun Streams Solar Unit II
Supervisor Districts:	4 & 5
Applicant/Owners:	First Solar, LLC/Arizona State Land Department & Silver Spoon Properties LLC
Requests:	<ol style="list-style-type: none">1. Comprehensive Plan Amendment (CPA) to the Old U.S. Highway 80 Area Plan to change the land use designation from Rural Densities to Utilities. CPA approval is by Resolution.2. Zone Change from Rural-190 to IND-2 Industrial Unit Plan of Development (IUPD) to allow for a solar energy facility.3. Zone Change from Rural-190 & Rural-43 to IND-2 Industrial Unit Plan of Development (IUPD) to allow for a solar energy facility.
Site Location:	Generally located at Narramore Rd. and 355 th Ave. in the Arlington area
Site Size:	Approximately 339 acres (CPA2015003), 257 acres (Z2017017) & 1,130 acres (Z2017018)
County Island Status:	No
Additional Comments:	N/A
Commission Recommendation:	<p>On 9/7/17, the Commission voted 6-0 to recommend approval of CPA2015003 subject to conditions 'a' – 'd':</p> <ol style="list-style-type: none">a. Development of the site shall be in conformance with the Narrative Report entitled "Proposed Photovoltaic Solar Project in Maricopa County", consisting of 15 pages including the land use exhibit, dated stamped received June 16, 2017, except as modified by the following conditions.

- b. The following Maricopa County Department of Emergency Management (MCDEM) condition shall apply:
 - 1. The developer shall contact the Palo Verde Nuclear Generating Station (PVNGS) Emergency Planning Department. They will provide placards for posting on the subject property, indicating the proximity of the subject site to PVNGS and actions to be taken upon hearing the Outdoor Warning Siren System.
- c. If the Board reverts the zoning back to Rural-190, this land use plan shall be considered for amendment to change the land use designation back to Rural Densities.
- d. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows the property owner to enjoy uses in excess of those permitted by the land use existing on the date of application, subject to conditions. In the event of the failure to comply with any condition of approval, the property shall change to the land use designation that existed on the date of application. It is, therefore, stipulated and agreed that such change due to the failure to comply with any conditions does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such change.

On 9/7/17, the Commission voted 6-0 to recommend
approval of Z2017017 subject to conditions 'a' – 'j':

- a. Development of the site shall be in conformance with the Site Plan entitled, "Sun Streams Solar Silver Spoon", consisting of 9 full-size sheets, stamped received June 16, 2017 except as modified by the following conditions.
- b. Development of the site shall be in conformance with the Narrative Report entitled "Sun Streams Solar Energy Farm (Silver Spoon Unit)", consisting of 28 pages stamped received June 16, 2017, except as modified by the following conditions.
- c. The applicant/property owner shall submit a 'will serve' letter from The Tonopah Valley Fire District for fire protection services for the project site. A copy of the 'will serve' letter shall be required as part of the initial construction permit submittal.
- d. The following IND-2 IUPD standards shall apply:
 - 1. Front Yard Setback – 0'
 - 2. Side Yard Setback – 0'
 - 3. Rear Yard Setback – 0'
 - 4. Setbacks for Major Streets, Section Line Roads, and Highways – 0' for 355th Ave.; 0' for 363rd Ave. (preserve 40' ROW on east side); 0' for Narramore Rd (preserve 40' ROW on north side, west of 355th Ave.). No service roads required.
 - 5. Setbacks for Mid-Section Line Roads – 0' for 359th Ave.; 0' for Carver Rd.
 - 6. Lot Coverage – 60% (not to include solar panels)
 - 7. Industrial Uses within an enclosed building – waive requirement

8. Screening – Minimum 6' (h) chain link fence with barbed wire
 9. Parking – Minimum 6 spaces provided
 10. Loading/un-loading – 0 spaces provided
 11. Site Visibility Triangles – waive corner lot and screening restrictions within these SVT requirements (355th & Carver, 359th & Carver, 363rd & Carver, 355th & Narramore, 359th & Narramore, & 363rd & Narramore)
- e. The following MCDOT conditions shall apply:
1. Preservation of right-of-way along the following roadway alignments is required:

363rd Avenue: 40 feet (east side);
Narramore Road: 40 feet (north side) west of 355th Avenue
 2. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant and during AM and PM peak school hours.
- f. The following Drainage conditions shall apply:
1. Prior to issuance of a building permit for construction of the project, a drainage easement for the offsite channels north of the site must be obtained from the adjacent land owner. Recordation information will be required to be shown on the construction plans.
 2. Final design shall address the need for dissipation of flows from the offsite channels north of the site at their outfall locations.
- g. The following Flood Control District conditions shall apply:
1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site for any work with regulated floodplain(s).
 2. Pads for inverters and other electrical equipment; and any buildings within the Zone A Floodplain must be elevated to the regulatory flood elevation or otherwise designed to meet the requirements of the Floodplain Use Regulations.
 3. All development and engineering design shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.
- h. Noncompliance with any Maricopa County Regulation shall be grounds for initiating a revocation of this Zone Change as set forth in the Maricopa County Zoning Ordinance.
- i. The property owner/s and their successor waive claim for diminution in value if the County takes action to rescind approval due to noncompliance with conditions.
- j. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows

the property owner to enjoy uses in excess of those permitted by the zoning existing on the date of application, subject to conditions. In the event of the failure to comply with any condition, the property shall revert to the zoning that existed on the date of application. It is, therefore, stipulated and agreed that either revocation due to the failure to comply with any conditions, does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such revocation of the Zone Change. The Zone Change enhances the value of the property above its value as of the date the Zone Change is granted and reverting to the prior zoning results in the same value of the property as if the Zone Change had never been granted.

On 9/7/17, the Commission voted 6-0 to recommend **approval** of Z2017018 subject to conditions 'a' – 'i':

- a. Development of the site shall be in conformance with the Site Plan entitled, "Sun Streams Solar II", consisting of 15 full-size sheets, stamped received June 16, 2017 except as modified by the following conditions.
- b. Development of the site shall be in conformance with the Narrative Report entitled "Sun Streams Solar Energy Farm (Sun Streams Unit II)", consisting of 27 pages stamped received June 16, 2017, except as modified by the following conditions.
- c. The applicant/property owner shall submit a 'will serve' letter from The Tonopah Valley Fire District for fire protection services for the project site. A copy of the 'will serve' letter shall be required as part of the initial construction permit submittal.
- d. The following IND-2 IUPD standards shall apply:
 1. Front Yard Setback – 0'
 2. Side Yard Setback – 0'
 3. Rear Yard Setback – 0'
 4. Setbacks for Major Streets, Section Line Roads, and Highways – 0' for 355th Ave.; 0' for Arlington Canal Rd.; 0' for Narramore Rd. (40' south side west of 355th Ave.); 0' for Cactus Rose Rd. (40' north side). No service roads required.
 5. Setbacks for Mid-Section Line Roads – 0' for 359th Ave.; 0' for 351st Ave.; 0' for Knox Rd.; 0' for Ray Rd.
 6. Lot Coverage – 60% (not to include solar panels)
 7. Industrial Uses within an enclosed building – waive requirement
 8. Screening – Minimum 6' (h) chain link fence with barbed wire
 9. Parking – Minimum 6 spaces provided
 10. Loading/un-loading – 0 spaces provided
 11. Site Visibility Triangles – waive corner lot and screening restrictions within these SVT requirements (351st & Narramore, 359th & Narramore, 351st & Knox, 355th & Knox, 359th & Knox, 351st & Arlington Canal, 355th & Arlington Canal, 359th & Arlington Canal, 351st & Ray, 355th & Ray, 351st & Cactus Rose, 355th & Cactus Rose, & 359th & Cactus Rose)

- e. The following MCDOT conditions shall apply:
 - 1. Preservation of right-of-way along the following roadway alignments is required:

Cactus Rose Road: 40 feet (north side);
Narramore Road: 40 feet (south side) west of 355th Avenue
 - 2. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant and during AM and PM peak school hours.
- f. The following Flood Control District conditions shall apply:
 - 1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site for any work with regulated floodplain(s).
 - 2. Pads for inverters and other electrical equipment; and any buildings within Regulated Floodplain(s) must be elevated to the regulatory flood elevation or otherwise designed to meet the requirements of the Floodplain Use Regulations.
 - 3. All development and engineering design shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.
- g. Noncompliance with any Maricopa County Regulation shall be grounds for initiating a revocation of this Zone Change as set forth in the Maricopa County Zoning Ordinance.
- h. The property owner/s and their successor waive claim for diminution in value if the County takes action to rescind approval due to noncompliance with conditions.
- i. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows the property to enjoy uses in excess of those permitted by the zoning existing on the date of application, subject to conditions. In the event of the failure to comply with any condition, the property shall revert to the zoning that existed on the date of application. It is, therefore, stipulated and agreed that either revocation due to the failure to comply with any conditions, does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such revocation of the Zone Change. The Zone Change enhances the value of the property above its value as of the date the Zone Change is granted and reverting to the prior zoning results in the same value of the property as if the Zone Change had never been granted.

Presented by: Ray Banker, Planner
Reviewed by: Darren Gérard, AICP, Deputy Director
Attachments: 9/7/17 P&Z Packet (138 pages)
CPA Resolution (2 pages)

Note: 9/7/17 Draft P&Z Minutes are not available as of the writing of this report, but can be provided upon request later when available.



Report to the Planning and Zoning Commission

Prepared by the Maricopa County Planning and Development Department

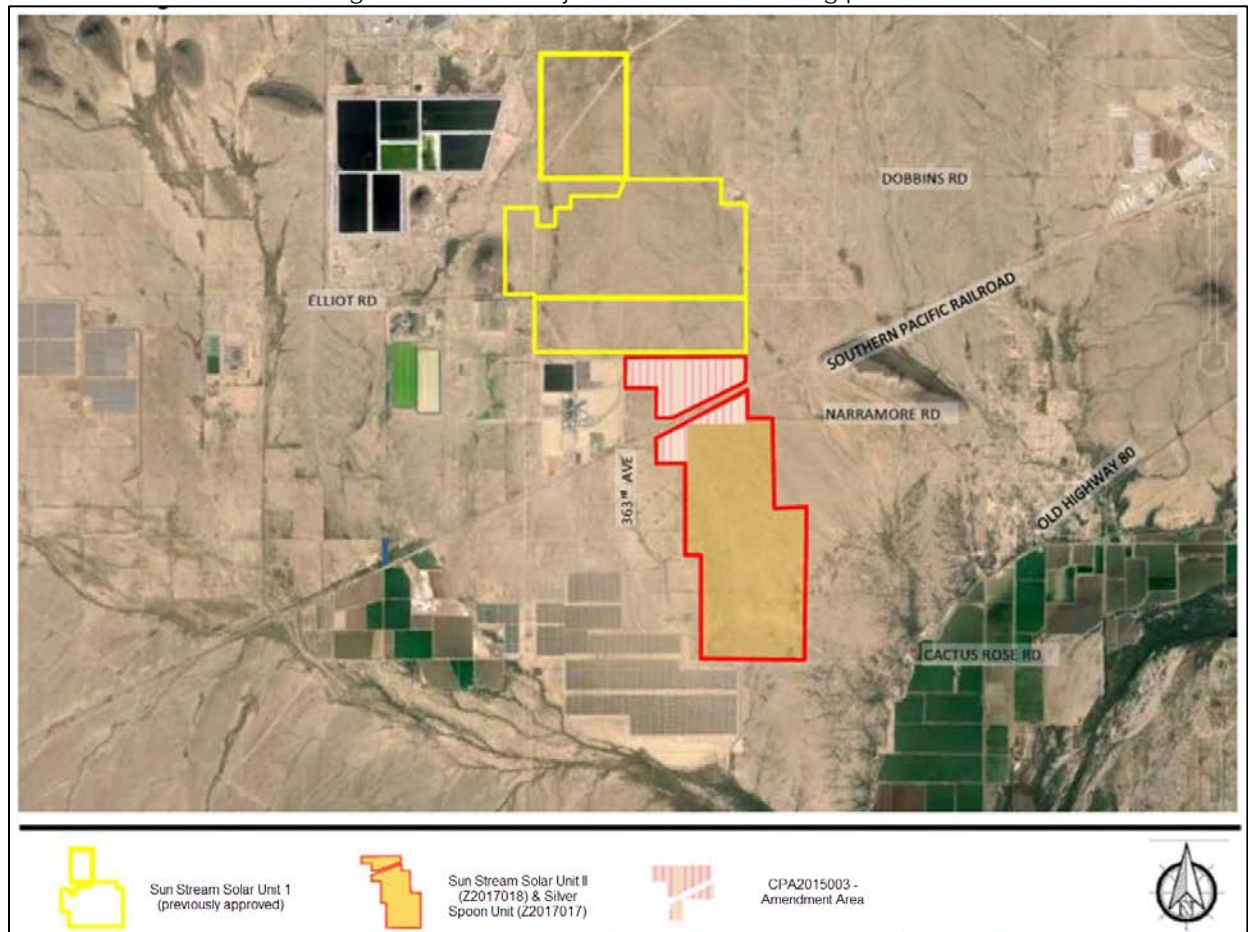
Cases:	1. CPA2015003 – Sun Streams Solar 2. Z2017017 – Sun Streams Solar Silver Spoon Unit 3. Z2017018 – Sun Streams Solar Unit II
Meeting Date:	September 7, 2017
Agenda Items:	1. 1 2. 2 3. 3
Supervisor Districts:	4 & 5

Applicant:	First Solar, LLC
Owners:	Arizona State Land Department & Silver Spoon Properties LLC
Requests:	1. Comprehensive Plan Amendment (CPA) to the Old U.S. Highway 80 Area Plan to change the land use designation from Rural Densities to Utilities. 2. Zone Change from Rural-190 to IND-2 Industrial Unit Plan of Development (IUPD) to allow for a solar energy facility. 3. Zone Change from Rural-190 & Rural-43 to IND-2 Industrial Unit Plan of Development (IUPD) to allow for a solar energy facility.
Site Location:	Generally located at Narramore Rd. and 355 th Ave. in the Arlington area.
Site Size:	Approximately 339 acres (CPA2015003), 257 acres (Z2017017) & 1,130 acres (Z2017018)
Density:	N/A
County Island:	No
County Plan:	Old U.S. Highway 80 Area Plan – Rural Densities and Industrial (as approved through CPA2010015).
Municipal Plan:	N/A
Municipal Comments:	N/A
Support/Opposition:	No known opposition or support

Project Summary:

1. First Solar, LLC is requesting a Comprehensive Plan Amendment (CPA2015003) to change the Old U.S. Highway 80 Area Plan land use designation on approximately 339 acres from Rural Densities to Utilities. In addition, the applicant is requesting two zone changes from Rural-190 to IND-2 with an Industrial Unit Plan of Development (IUPD) overlay. Z2017017 is approximately 257 acres and Z2017018 is approximately 1,130 acres. The requests are to entitle future solar energy facilities known as Sun Streams Solar (Silver Spoon Unit and Unit II). Z2017017 currently is under three separate parcels under the same private ownership while Z2017018 is located completely on State Trust lands. This would be photovoltaic (PV) solar energy generation facilities which combined could produce 223 megawatts (MW) of electric power, which would be able to meet the energy needs to 78,000 households. The image below as provided by the applicant shows the entire subject site outlined in red with the CPA2015003 request area included.

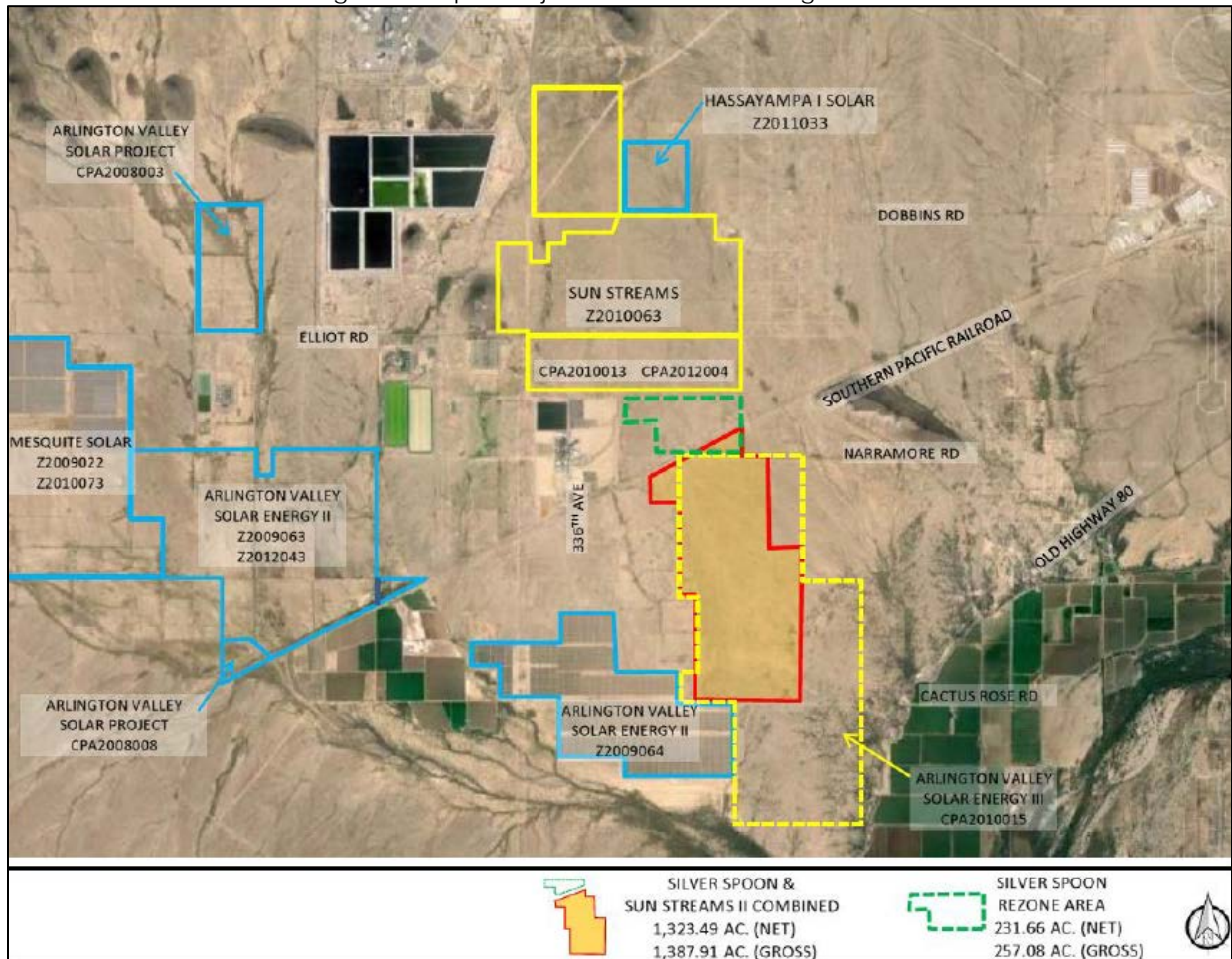
Figure1: Aerial of subject site and surrounding parcels



2. The proposed facilities are just south from the previously entitled Sun Streams Solar Unit I energy facility which was approved under a Special Use Permit. It should be noted that previous entitlement for this type of facility required a Special Use Permit per the Maricopa County Zoning Ordinance (MCZO). The MCZO was amended with TA2014006 to allow for public utility solar plants within the IND-2 zoning district (Article 902.2.17). The subject site is also located near other existing and/or entitled generating facilities

including Arlington Valley Solar and Mesquite Generating Solar. It should be noted that as Figure 2 shows, CPA2010015 was previously approved and subsequently amended under CPA2013007 to allow for 'Industrial' land use designation on 2,190 acres for solar energy generation (see attached for BOS letters including conditions of approval). A large portion of the Zone Change area for Z2017018 is located within this already approved CPA boundary.

Figure 2: Map of subject site and surrounding land uses



3. The CPA narrative report asserts that the proposed development meets the Comprehensive Plan Amendment criteria in the following manner:

Whether the amendment constitutes an overall improvement to the Comprehensive Plan and is not solely for the good or benefit of a particular landowner or owners at a particular point in time.

The State of Arizona has excellent solar radiation resources suitable for large-scale solar electric generation. However, siting solar energy projects requires consideration of other site characteristics equally important to ensuring that a project is commercially viable. Those factors include:

- Large, contiguous areas of flat or nearly flat land
- Compatible zoning or land use designations on project lands and nearby lands.

- Absence of sensitive resources such as high quality habitat for sensitive or protected species or other wildlife.
- Proximity to existing electrical substations and transmission infrastructure
- Sufficient supply of water of suitable quality.

Consideration of all these siting criteria significantly reduces the areas where commercially viable solar energy development is possible which, in turn, highlights the importance of allowing these developments on lands where these criteria are all satisfied.

Amending the Old U.S. Highway 80 Area Plan to allow for the proposed solar development would constitute an improvement to the Plan because the subject lands have the necessary characteristics that make them very suitable for solar energy generation. Furthermore, it would make better use of the subject lands than their current or proposed use.

Nearly all land used for solar energy projects are developed for the large fields of solar collectors that capture the energy from the sun for subsequent conversion into electricity. The subject lands are relatively flat allowing for the development of solar energy with little or no additional grading.

In addition, the general area contains significant local electrical infrastructure including several power generation facilities (nuclear, gas, and solar), transmission lines, substations, and switchyards. The development of the proposed PV Project would be consistent with these surrounding uses, and the existence of the existing transmission and switchyards will allow the proposed solar energy to be connected to the regional electrical system without the development of significant new transmission lines. The proposed PV Project would interconnect to the existing Hassayampa switchyard, about a mile and a half to the northwest.

The proposed PV Project would not require the development of additional groundwater resources. The panels themselves do not require cleaning, and the PV Project is mostly automated, so the Project does not require the regular presence of a maintenance staff.

Development of the Subject Property for solar energy uses would take advantage of these key elements associated with the Subject Property, and would constitute a higher beneficial use over its current and planned use for Rural Densities. Development of the proposed PV Project would not detrimentally affect the ability to achieve these intended purposes for the following reasons:

- Air quality impacts resulting from fugitive dust emissions from the subject lands would be lessened from current conditions by the development of the PV Project. Dust/dirt would affect the performance of the solar panels. Therefore, after development of the solar fields, the ground surface would be treated with palliative to reduce potential fugitive dust. In addition to minimizing the effects this dust would have on the solar panels, this would also significantly reduce the amount of fugitive dust from these lands that could affect local air quality.
- As stated above, no new water would need to be developed for this Project.

This area in western Maricopa County is an area of significant energy infrastructure around the Palo Verde Nuclear Station. Western Maricopa County continues to experience significant utility-scale solar energy development and as of December 2012, the Maricopa County Board of Supervisors had approved approximately thirty (30) Comprehensive Plan Amendments relating to utility-scale solar energy encompassing approximately 27,000 acres of land, together with approximately twelve (12) related Special Use Permits.

The PV Project also meets the goals of the Maricopa County Comprehensive Plan Objective L8 – Support innovative technological operations and facilities to encourage an appropriate balance of automobile uses and encourage energy efficiency and the use of renewable resources.

Therefore, for the reasons described above, amending the Old U.S. Highway 80 Area Plan to allow for the proposed use of the Subject Property for solar energy generation would constitute an improvement to the Area Plan.

Whether the amendment will adversely impact all or a portion of the planning area by:

A. Altering acceptable land use patterns to the detriment of the plan.

The proposed amendment would not impact any nearby land uses or patterns. The proposed solar energy use would be consistent with the other adjacent and nearby energy uses already designated for Industrial use (under older County policies that pre-date the Utility designation) as solar sites. It would also be compatible with nearby agricultural uses.

B. Requiring public expenditures for larger and more expensive infrastructure. Requiring public improvements to roads, sewer, or water systems that are needed to support the planned land uses.

The proposed use would not require any additional public infrastructure and will take advantage of the local electrical infrastructure. There would be no significant increase in traffic during the operational life of the PV Project that would require road improvements. The PV Project would not require the development of any additional water resources on the Subject Property or the PV Project overall.

C. Adversely impacting planned uses because of increased traffic.

There would be increased traffic during the relatively short construction period for the delivery of equipment / supplies and the commuting of the construction work force. But there would be no significant increase in traffic during the operational life of the PV Project.

D. Affecting the livability of the area or health or safety of present and future residents.

The proposed use of the subject lands for solar energy generation would not impact the health and safety of those individuals in the vicinity of the PV Project. It would not utilize or store hazardous materials, would not generate significant

emissions (and would actually reduce fugitive dust emissions), or have other potential negative effects on health and safety.

- E. *Adversely impacting the natural environment or scenic quality of the area in contradiction to the plan.*

None of the subject lands are in “natural” condition as all have been previously used for agriculture. Therefore, there would be no impacts to natural habitats or environments. The proposed solar collector fields have a relatively low profile, would be located on relatively flat lands located low on the landscape, and would not be located near any population centers or heavily travelled roads. Indeed, the PV Project has extremely limited adjacency to any public roads; any specific issues regarding such adjacent areas should be addressed during a companion or subsequent rezoning process. Therefore, the proposed use would not significantly impact scenic quality.

Whether the amendment is consistent with the overall intent of the Comprehensive Plan

The overall intent of the comprehensive plan is to promote healthy communities by encouraging growth in suitable areas, development of an efficient transportation system, maintaining a healthy environment, and creating a diverse economy. The proposed use is consistent with that intent as indicated below.

The Extent to which the amendment is consistent with the specific goals and policies contained within the plan

The applicant has provided details in the narrative pertaining to specific goals, objectives, and policies within the plans regarding different elements including land use, environment/environmental effects, economic development, open space, water resources, and cost of development.

4. Access to the Silver Spoon Unit (Z2017017) site would be from a proposed 24' (wide) driveway with ingress/egress to 363rd Ave. on the west side of the site. There would be an access gate further into the driveway where prior to the gate a turnaround lane is provided. As can be seen on the site plan, the area would be secured by chain link fencing with barbed wire up to 8' (h). There is a 4' x 8' sign proposed on the fencing near the entrance. Unit II would have a 24' access driveway off Narramore Road to the north of the subject site with signage and fencing mirroring the Silver Spoon details. There would be various 20' wide access roads around the array fields for maintenance purposes. Dust control is to be provided by water on non-paved surfaces where gravel is to be used. The site does not have much traffic as maintenance is not needed often.
5. Most of the Silver Springs Unit and Unit II sites are to be used for solar array “blocks” to create a field of these panels. The plans show a maximum height of 14' for these arrays. The site plan for the Silver Springs Unit shows a provided area near the main entrance to the site where temporary (office trailers, construction warehouse, etc.) and permanent (storage yard) facilities would be located. There are no specific plans for this at this time and would be reviewed during permitting if developed. A future 69KV substation and battery storage is also provided on the plans. As the site plan indicates, the parcel located south of the Southern Pacific Rail right-of-way is not planned for development

at this time and has potential for future phasing of the facility. The Unit II details for other than the solar panel layout are much like the Silver Springs Unit where temporary and permanent facilities are shown as well as future substations as indicated in the narrative report. The substation layouts are approximate and could change when final design is determined. There would be setbacks from the solar array fields to the property lines to allow for fencing, natural desert landscaping, and retentions basins for the required on-site drainage. There are also yard lights proposed at 24' (h) with security cameras to ensure the safety of the facility.

6. It should be noted that if transmission lines are provided on either of the sites, they could be 90' (h) where IND-2 only allows 40' (h) maximum. However, the transmission line height would refer to Article 1111.7 of the MCZO which allows for 120' (h) for electrical transmission lines. The site plans show that the tower height of the substation would be 75'. The applicant mentions that the nearby Hassayampa Switchyard is accessible through Sun Streams Solar 1 which clarifies the future possibility of substations to route power, it is also stated that energy storage systems may be used on-site to collect and store energy.

Figure 3: Z2017017 Proposed Site Plan

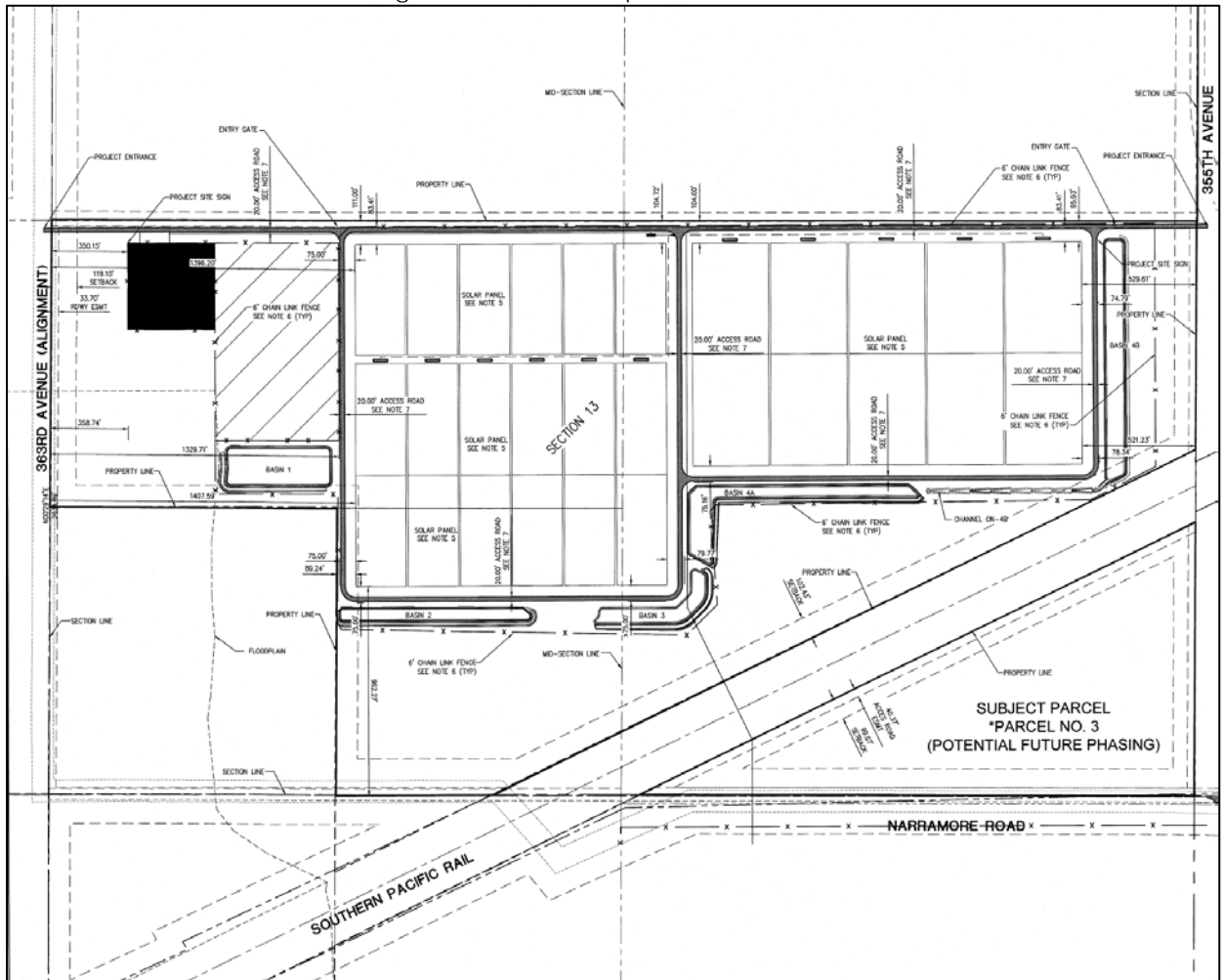
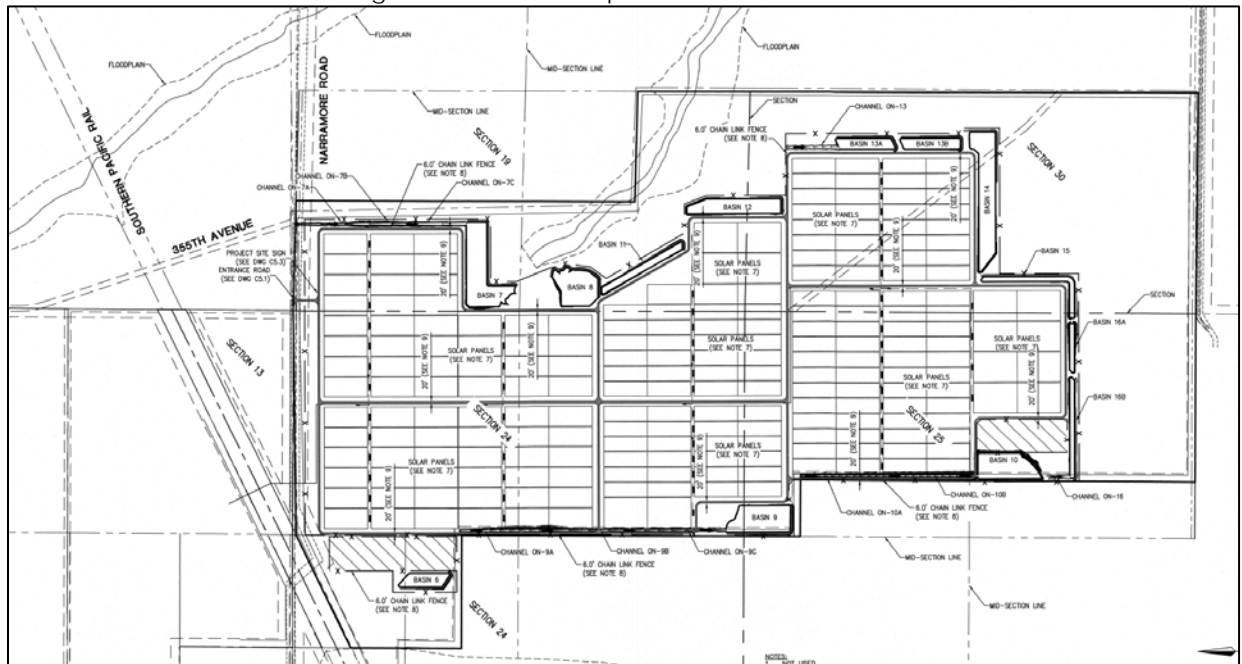


Figure 4: Z2017018 Proposed Site Plan



7. The applicant proposes changes to the IND-2 zoning district and other Ordinance standards as requested through the IUPD overlay. The following charts outline these variations from the requirements set forth in the MCZO. Justification by the applicant for these deviations is provided following the IUPD chart.

Z2017017 (Silver Spoons Unit) IND-2 IUPD Zoning District Standards		
Development Standards	IND-2 Base	IND-2 IUPD (Z2017017)
Front Yard Setback	25' (two intersecting streets); 20' (major street/section line/highway); 15' (collector/mid-section line)	0'
Side Yard Setback	10' (corner lot adjacent to rural zoning) 5' (adjacent to rural zoning) 3' (if a side yard is otherwise provided)	0'
Rear Yard Setback	25' (adjacent to rural zoning district)	0'
Setbacks for Major Streets, Section Line Roads, and Highways	75' (both sides of centerline where service roads are required);	0' for 355 th Ave.; 0' for 363 rd Ave.; 0' for Narramore Rd.; no service roads required

	55' (where service roads are not required)	
Setbacks for Mid-Section Line Roads	40' (both sides of centerline)	0' for 359th Ave.; 0' for Carver Rd.
Lot Coverage	60%	60% (not to include solar panels)
Minimum Lot Area	6,000 sq. ft.	6,000 sq. ft.
Minimum Lot Width	60'	60'
Maximum Height	40'	40'
Uses Within Enclosed Building	Article 902.9.1 under IND-2: "All uses except for parking, loading, unloading or storage shall be conducted within a completely enclosed building."	Waive requirement
Screening	6' (height) solid wall required alongside and rear property lines abutting rural or residential zoning districts. Outdoor use requires view obscuring material.	6' (h) minimum chain link fencing (with additional barbwire) (not concertina, razor, or electrical wire) would be installed.
Parking Requirements	Varies (no structure information provided at this time)	Min. 6 spaces provided
Loading and Unloading	1 space/10,000 sq.ft. of floor area or a fraction thereof.	Waive requirement
Site Visibility Triangles	Required for corner lots and screening (max. 2' height) within said SVT's	Waive requirements for corners (355th & Carver, 359th & Carver, 363rd & Carver, 355th & Narramore, 359th & Narramore, & 363rd & Narramore)

Z2017018 (Unit II) IND-2 IUPD Zoning District Standards		
Development Standards	IND-2 Base	IND-2 IUPD (Z2017018)
Front Yard Setback	25' (two intersecting streets); 20' (major street/section line/highway); 15' (collector/mid-section line)	0'

Side Yard Setback	10' (corner lot adjacent to rural zoning) 5' (adjacent to rural zoning) 3' (if a side yard is otherwise provided)	0'
Rear Yard Setback	25' (adjacent to rural zoning district)	0'
Setbacks for Major Streets, Section Line Roads, and Highways	75' (both sides of centerline where service roads are required); 55' (where service roads are not required)	0' for 355 th Ave.; 0' for Arlington Canal Rd.; 0' for Narramore Rd.; 0' for Cactus Rose Rd.; no service roads required
Setbacks for Mid-Section Line Roads	40' (both sides of centerline)	0' for 359 th Ave.; 0' for 351 st Ave.; 0' for Knox Rd.; 0' for Ray Rd.
Lot Coverage	60%	60% (not to include solar panels)
Minimum Lot Area	6,000 sq. ft.	6,000 sq. ft.
Minimum Lot Width	60'	60'
Maximum Height	40'	40'
Uses Within Enclosed Building	Article 902.9.1 under IND-2: "All uses except for parking, loading, unloading or storage shall be conducted within a completely enclosed building."	Waive requirement
Screening	6' (height) solid wall required alongside and rear property lines abutting rural or residential zoning districts. Outdoor use requires view obscuring material.	6' (h) minimum chain link fencing (with additional barbwire) (not concertina, razor, or electrical wire) would be installed.
Parking Requirements	Varies (no structure information provided at this time)	Min. 6 spaces provided
Loading and Unloading	1 space/10,000 sq.ft. of floor area or a fraction thereof.	Waive requirement
Site Visibility Triangles	Required for corner lots and screening (max. 2' height) within said SVT's	Waive requirements for corners (351 st & Narramore, 359 th & Narramore, 351 st & Knox, 355 th & Knox,

		359 th & Knox, 351 st & Arlington Canal, 355 th & Arlington Canal, 359 th & Arlington Canal, 351 st & Ray, 355 th & Ray, 351 st & Cactus Rose, 355 th & Cactus Rose, & 359 th & Cactus Rose)
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There are numerous section/mid-section line roads along the boundaries of the subject parcel (provided on site plan) which the applicant is requesting a 0' setback requirement. This would allow maximizing use of solar panel arrays as the site would still require screening and provided landscape buffers. The screening would be requested to be chain link fencing (minimum 6' height) with barbwire attached. Parking and loading/unloading areas are also being asked to be waived as there are no occupied structures anticipated for the facility. Lastly, Site Visibility Triangle and height for screening requirements are requested to be waived. The proposed driveways would include the SVT requirements where there is no need to enforce on other areas where access is not proposed.

Existing On-Site and Adjacent Zoning / Land Use:

8. On-site: Rural-190 & Rural-43 / Vacant
North: Rural-190 / Vacant
East: Rural-43/ Vacant (State Trust Land)
South: Rural-190 & Rural-43 / Vacant
West: Rural-190 / Red Hawk Power Plant (SUP)

Utilities and Services:

9. Water: ADWR exempt wells
Wastewater: On-site wastewater treatment facilities (i.e. septic)
Electric: Arizona Public Service (APS)
Fire: Tonopah Valley Fire District
Police: Maricopa County Sheriff's Office

Adopted Plan:

10. **Old U.S. Highway 80 Area Plan** – 'Industrial' per CPA2010015 & CPA2013007 ('Rural' for remaining portion subject to CPA2015003).

Public Participation Summary:

11. The applicant complied with the Maricopa County Citizen Review Process with the required posting of the site and notification by first class mail to adjacent property owners within at least 300' of the subject parcel and interested parties. The applicant did not receive opposition to the proposal during the public participation process. Staff received no calls or letters of opposition/support as of the writing of this staff report. Lastly, the applicant provided staff with a "Citizen Participation Results Report" which explains that all requirements were met. There was a neighborhood meeting held on March 22, 2017 at Arlington Elementary School to discuss the project with the community and other agencies

and stakeholders. There was also a meeting held with the Tonopah Valley Community Council (TVCC) on April 18, 2017. Both of the meetings had individual inquiries but no formal support or opposition filed.

Outstanding Concerns from Reviewing Agencies:

12. N/A

Staff Analysis:

13. Staff believes that the proposal provides justification for the requested CPA and Zone Changes for the subject site. Solar generation facilities are an important land use in Maricopa County to provide sustainable energy for the region and other areas while providing jobs and revenue as well. As mentioned, there were previously approved CPA's for a large portion of the site to 'Industrial' land uses while CPA2015003 would be for 'Utilities' which would also allow for the proposed solar energy facilities. The applicant has provided justification in the narrative report stating the change of use is consistent with the previously approved cases and the Comprehensive Plan policies and goals. The land use proposed is consistent with the surrounding area which includes many other generation facilities in an otherwise remote area.
14. The requested IUPD variations offer relief from required standards for the specific land use (solar energy facility) which needs these changes to make the development work for the site and would limit the land use to the solar facility requested. The adequate screening provided with fencing and natural desert landscape would also provide a security feature for the site. The solar panels as part of the solar field are mentioned to be a maximum 14' (height) where screening and buffers would be adequate to block most views of the facility. There would be the ability to include energy storage systems, electrical collection systems, onsite substations, and electrical lines to connect to the existing Sun Streams Solar Unit I facility or Hassayampa Switchyard if needed. There is limited need for parking spaces (6 minimum per site) or loading as the project anticipates minimal employees on-site. Only periodic maintenance of the facility would be needed. All other future proposed structures/building would be unmanned other than for maintenance.
15. Water would only be used for cleaning the solar panels and controlling dust along the drive paths. Otherwise water is not needed for production of electricity. Per Maricopa County Department of Emergency Management (MCDEM) comments, since the site is within the Palo Verde Nuclear Generating Station (PVNGS), a condition will be included that the applicant/owner will contact PVNGS for emergency evacuation requirements, etc. for the site. Water would be provided by private wells and wastewater through private septic systems. Fire protection services would be provided through the Tonopah Valley Fire District and a 'will serve' letter would be required once construction plans are submitted for review.
16. The applicant provided separate documentation to the narrative report which includes emergency response plan, cultural resources reports, special status species review, traffic impact statement, and water and wastewater plans which are summarized in the narrative report. These documents will not be included as attachments to the report but would be available in the case file if needed.

17. Engineering has required preservation of right-of-way for 363rd Ave. (40' east side), Narramore Rd. (40' north side) west of 355th Ave., Narramore Rd. (40' south side) west of 355th Ave., and Cactus Rose Rd. (40' north side). These will be included in the proposed conditions and will be clarified within the IUPD conditions details. Staff has received memos from Maricopa County Sheriff's Office (MCSO) and Arizona Department of Transportation (ADOT), both having no concerns or comments on the requests.

Recommendations: (three motions - CPA2015003, Z2017017 & Z2017018)

18. For the reasons outlined in this report, staff recommends the Commission motion for **Approval** with conditions 'a' – 'd' of **CPA2015003**.
- a. Development of the site shall be in conformance with the Narrative Report entitled "Proposed Photovoltaic Solar Project in Maricopa County", consisting of 15 pages including the land use exhibit, dated stamped received June 16, 2017, except as modified by the following conditions.
 - b. The following Maricopa County Department of Emergency Management (MCDEM) condition shall apply:
 - 1. The developer shall contact the Palo Verde Nuclear Generating Station (PVNGS) Emergency Planning Department. They will provide placards for posting on the subject property, indicating the proximity of the subject site to PVNGS and actions to be taken upon hearing the Outdoor Warning Siren System.
 - c. If the Board reverts the zoning back to Rural-190, this land use plan shall be considered for amendment to change the land use designation back to Rural Densities.
 - d. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows the property owner to enjoy uses in excess of those permitted by the land use existing on the date of application, subject to conditions. In the event of the failure to comply with any condition of approval, the property shall change to the land use designation that existed on the date of application. It is, therefore, stipulated and agreed that such change due to the failure to comply with any conditions does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such change.
19. For the reasons outlined in this report, staff recommends the Commission motion for **Approval** with conditions 'a' – 'j' of **Z2017017**.
- a. Development of the site shall be in conformance with the Site Plan entitled, "Sun Streams Solar Silver Spoon", consisting of 9 full-size sheets, stamped received June 16, 2017 except as modified by the following conditions.

- b. Development of the site shall be in conformance with the Narrative Report entitled "Sun Streams Solar Energy Farm (Silver Spoon Unit)", consisting of 28 pages stamped received June 16, 2017, except as modified by the following conditions.
- c. The applicant/property owner shall submit a 'will serve' letter from The Tonopah Valley Fire District for fire protection services for the project site. A copy of the 'will serve' letter shall be required as part of the initial construction permit submittal.
- d. The following IND-2 IUPD standards shall apply:
 - 1. Front Yard Setback – 0'
 - 2. Side Yard Setback – 0'
 - 3. Rear Yard Setback – 0'
 - 4. Setbacks for Major Streets, Section Line Roads, and Highways – 0' for 355th Ave.; 0' for 363rd Ave. (preserve 40' ROW on east side); 0' for Narramore Rd (preserve 40' ROW on north side, west of 355th Ave.). No service roads required.
 - 5. Setbacks for Mid-Section Line Roads – 0' for 359th Ave.; 0' for Carver Rd.
 - 6. Lot Coverage – 60% (not to include solar panels)
 - 7. Industrial Uses within an enclosed building – waive requirement
 - 8. Screening – Minimum 6' (h) chain link fence with barbed wire
 - 9. Parking – Minimum 6 spaces provided
 - 10. Loading/un-loading – 0 spaces provided
 - 11. Site Visibility Triangles – waive corner lot and screening restrictions within these SVT requirements (355th & Carver, 359th & Carver, 363rd & Carver, 355th & Narramore, 359th & Narramore, & 363rd & Narramore)
- e. The following MCDOT conditions shall apply:
 - 1. Preservation of right-of-way along the following roadway alignments is required:

363rd Avenue: 40 feet (east side);
Narramore Road: 40 feet (north side) west of 355th Avenue
 - 2. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant and during AM and PM peak school hours.
- f. The following Drainage conditions shall apply:
 - 1. Prior to issuance of a building permit for construction of the project, a drainage easement for the offsite channels north of the site must be obtained from the adjacent land owner. Recordation information will be required to be shown on the construction plans.
 - 2. Final design shall address the need for dissipation of flows from the offsite channels north of the site at their outfall locations.

- g. The following Flood Control District conditions shall apply:
 - 1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site for any work with regulated floodplain(s).
 - 2. Pads for inverters and other electrical equipment; and any buildings within the Zone A Floodplain must be elevated to the regulatory flood elevation or otherwise designed to meet the requirements of the Floodplain Use Regulations.
 - 3. All development and engineering design shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.
 - h. Noncompliance with any Maricopa County Regulation shall be grounds for initiating a revocation of this Zone Change as set forth in the Maricopa County Zoning Ordinance.
 - i. The property owner/s and their successor waive claim for diminution in value if the County takes action to rescind approval due to noncompliance with conditions.
 - j. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows the property owner to enjoy uses in excess of those permitted by the zoning existing on the date of application, subject to conditions. In the event of the failure to comply with any condition, the property shall revert to the zoning that existed on the date of application. It is, therefore, stipulated and agreed that either revocation due to the failure to comply with any conditions, does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such revocation of the Zone Change. The Zone Change enhances the value of the property above its value as of the date the Zone Change is granted and reverting to the prior zoning results in the same value of the property as if the Zone Change had never been granted.
20. For the reasons outlined in this report, staff recommends the Commission motion for **Approval** with conditions 'a' – 'i' of **Z2017018**.
- a. Development of the site shall be in conformance with the Site Plan entitled, "Sun Streams Solar II", consisting of 15 full-size sheets, stamped received June 16, 2017 except as modified by the following conditions.
 - b. Development of the site shall be in conformance with the Narrative Report entitled "Sun Streams Solar Energy Farm (Sun Streams Unit II)", consisting of 27 pages stamped received June 16, 2017, except as modified by the following conditions.

- c. The applicant/property owner shall submit a 'will serve' letter from The Tonopah Valley Fire District for fire protection services for the project site. A copy of the 'will serve' letter shall be required as part of the initial construction permit submittal.
- d. The following IND-2 IUPD standards shall apply:
 - 1. Front Yard Setback – 0'
 - 2. Side Yard Setback – 0'
 - 3. Rear Yard Setback – 0'
 - 4. Setbacks for Major Streets, Section Line Roads, and Highways – 0' for 355th Ave.; 0' for Arlington Canal Rd.; 0' for Narramore Rd. (40' south side west of 355th Ave.); 0' for Cactus Rose Rd. (40' north side). No service roads required.
 - 5. Setbacks for Mid-Section Line Roads – 0' for 359th Ave.; 0' for 351st Ave.; 0' for Knox Rd.; 0' for Ray Rd.
 - 6. Lot Coverage – 60% (not to include solar panels)
 - 7. Industrial Uses within an enclosed building – waive requirement
 - 8. Screening – Minimum 6' (h) chain link fence with barbed wire
 - 9. Parking – Minimum 6 spaces provided
 - 10. Loading/un-loading – 0 spaces provided
 - 11. Site Visibility Triangles – waive corner lot and screening restrictions within these SVT requirements (351st & Narramore, 359th & Narramore, 351st & Knox, 355th & Knox, 359th & Knox, 351st & Arlington Canal, 355th & Arlington Canal, 359th & Arlington Canal, 351st & Ray, 355th & Ray, 351st & Cactus Rose, 355th & Cactus Rose, & 359th & Cactus Rose)
- e. The following MCDOT conditions shall apply:
 - 1. Preservation of right-of-way along the following roadway alignments is required:

Cactus Rose Road: 40 feet (north side);
Narramore Road: 40 feet (south side) west of 355th Avenue
 - 2. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant and during AM and PM peak school hours.
- f. The following Flood Control District conditions shall apply:
 - 1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site for any work with regulated floodplain(s).
 - 2. Pads for inverters and other electrical equipment; and any buildings within Regulated Floodplain(s) must be elevated to the regulatory flood elevation or otherwise designed to meet the requirements of the Floodplain Use Regulations.

3. All development and engineering design shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.
- g. Noncompliance with any Maricopa County Regulation shall be grounds for initiating a revocation of this Zone Change as set forth in the Maricopa County Zoning Ordinance.
- h. The property owner/s and their successor waive claim for diminution in value if the County takes action to rescind approval due to noncompliance with conditions.
- i. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows the property to enjoy uses in excess of those permitted by the zoning existing on the date of application, subject to conditions. In the event of the failure to comply with any condition, the property shall revert to the zoning that existed on the date of application. It is, therefore, stipulated and agreed that either revocation due to the failure to comply with any conditions, does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such revocation of the Zone Change. The Zone Change enhances the value of the property above its value as of the date the Zone Change is granted and reverting to the prior zoning results in the same value of the property as if the Zone Change had never been granted.

Presented by:

Ray Banker, Planner

Reviewed by:

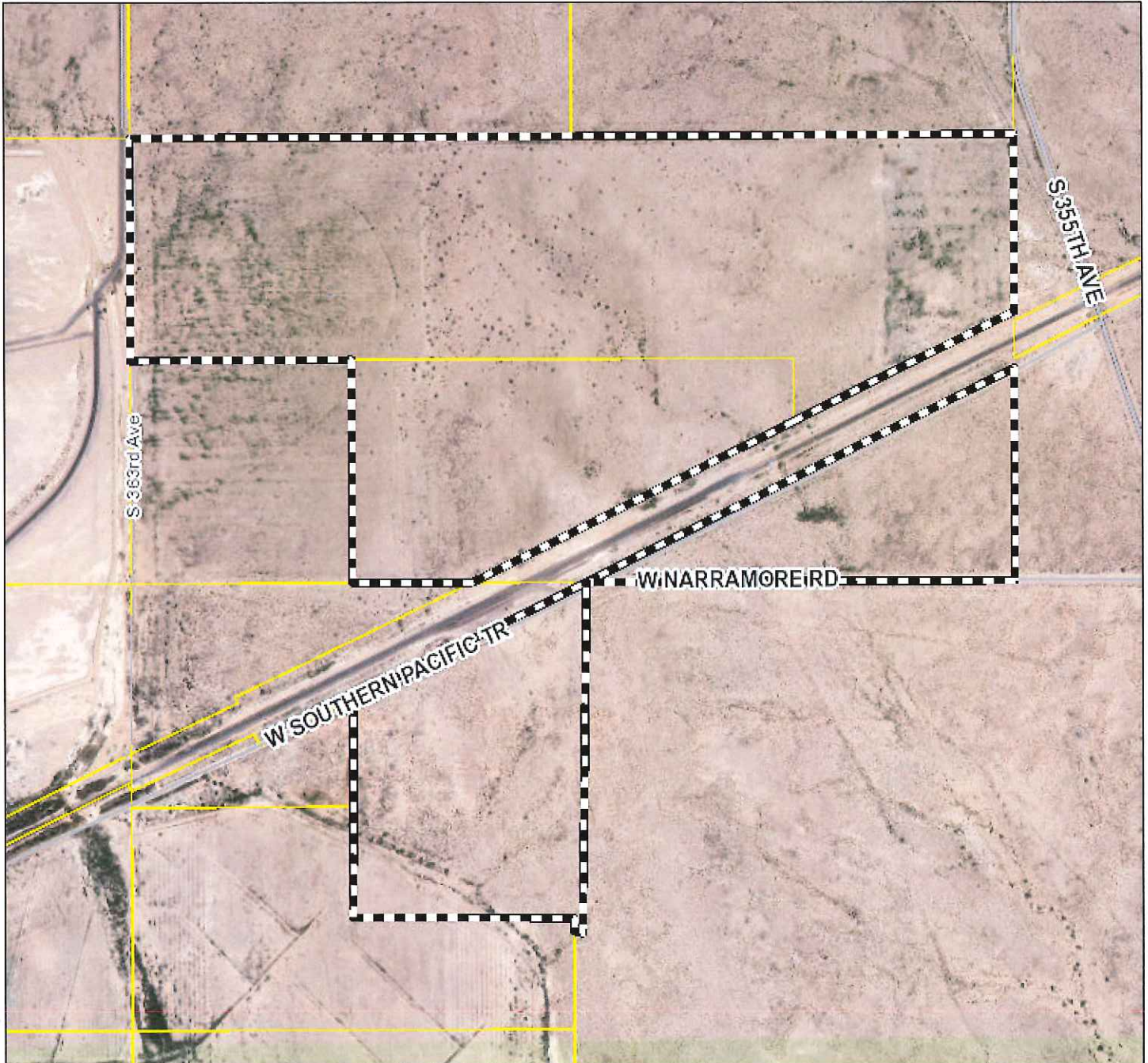
Matt Holm, AICP, Planning Supervisor

Attachments:

Case maps (3 pages)
Vicinity maps (3 pages)
CPA2015003 Narrative Report w/land use exhibit (15 pages)
Z2017017 Narrative Report (28 pages)
Z2017018 Narrative Report (27 pages)
Z2017017 Site Plan (8 1/2" X 11" reduction, 9 pages)
Z2017018 Site Plan (8 1/2" X 11" reduction, 15 pages)
Engineering Review comments (6 pages)
MCESD comments (3 pages)
MCSO emails (3 pages)
MCDEM memo (1 page)
ADOT emails (2 pages)
AZ Game and Fish Department memo (2 pages)
CPA2010015 Approval Letter (2 pages)
CPA2013007 Approval Letter (2 pages)



MARICOPA COUNTY



Application Name: First Solar

Legal Description

Applicant

MAX BAKKER for FIRST SOLAR

Applicant Phone/Email

415.935.2538

MAX.BAKKER@FIRSTSOLAR.COM

Case Address

Parcel Primary:

401-43-022B, 401-43-023B, 401-43-023C+

CPA2015003

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Gross Acres: 339 approx.

Map scale 1:12,964
Aerials Sep-Nov 2014

Supervisor District No.4

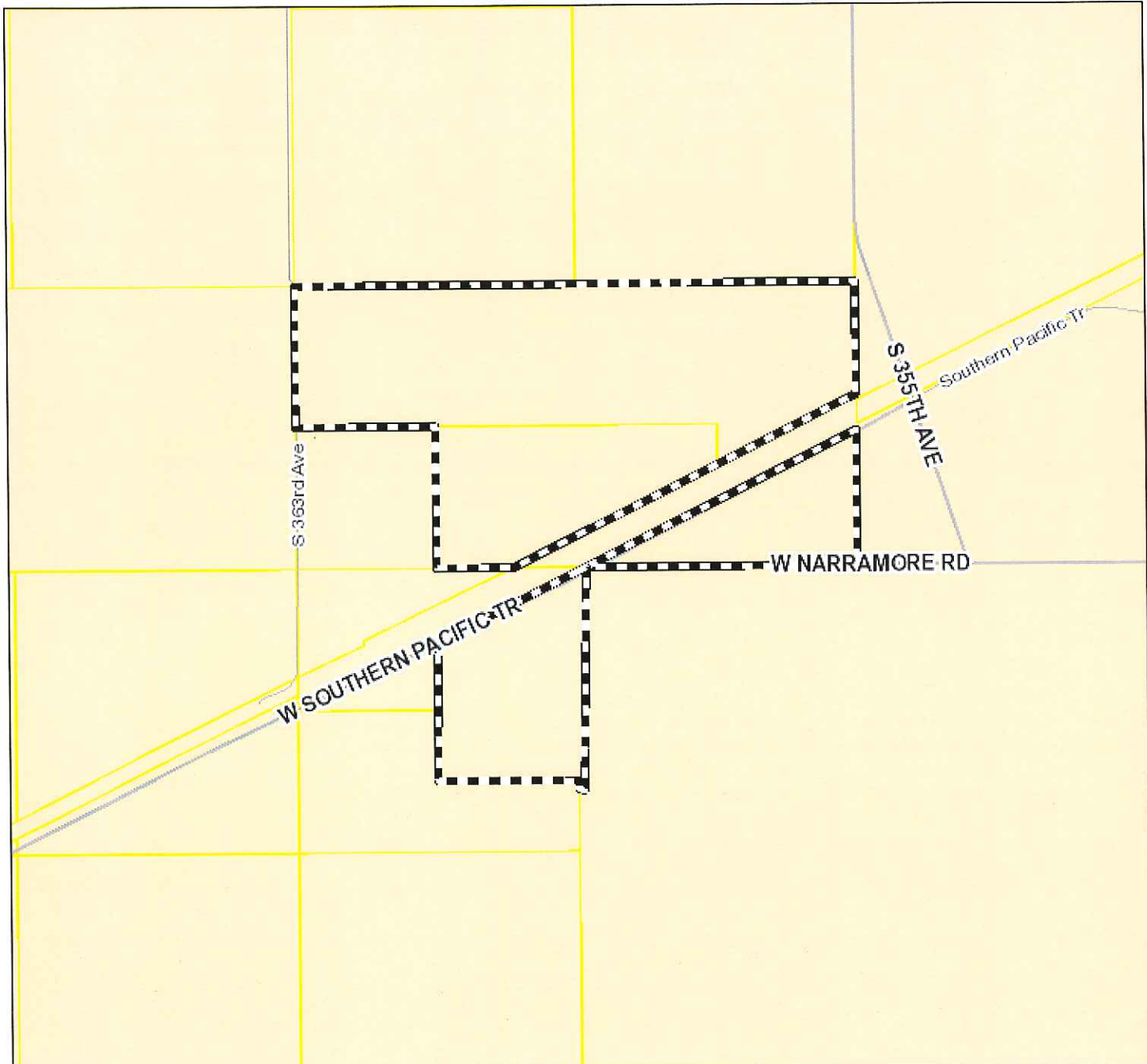
PROPOSED PHOTOVOLTAIC SOLAR PROJECT/CPA TO CHANGE LAND USE OF OLD US HIGHWAY 80
PLAN FROM RDA TO UTILITIES

Maricopa County Planning & Development - Phoenix, AZ





MARICOPA COUNTY



Application Name: First Solar

Legal Description

Applicant

MAX BAKKER for FIRST SOLAR

Case Address

Applicant Phone/Email

415.935.2538

MAX.BAKKER@FIRSTSOLAR.COM

Parcel Primary:

401-43-022B, 401-43-023B, 401-43-023C+

CPA2015003

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Gross Acres: 339 approx.

Map scale 1:20,400
Aerials Sep-Nov 2014

Supervisor District No.4

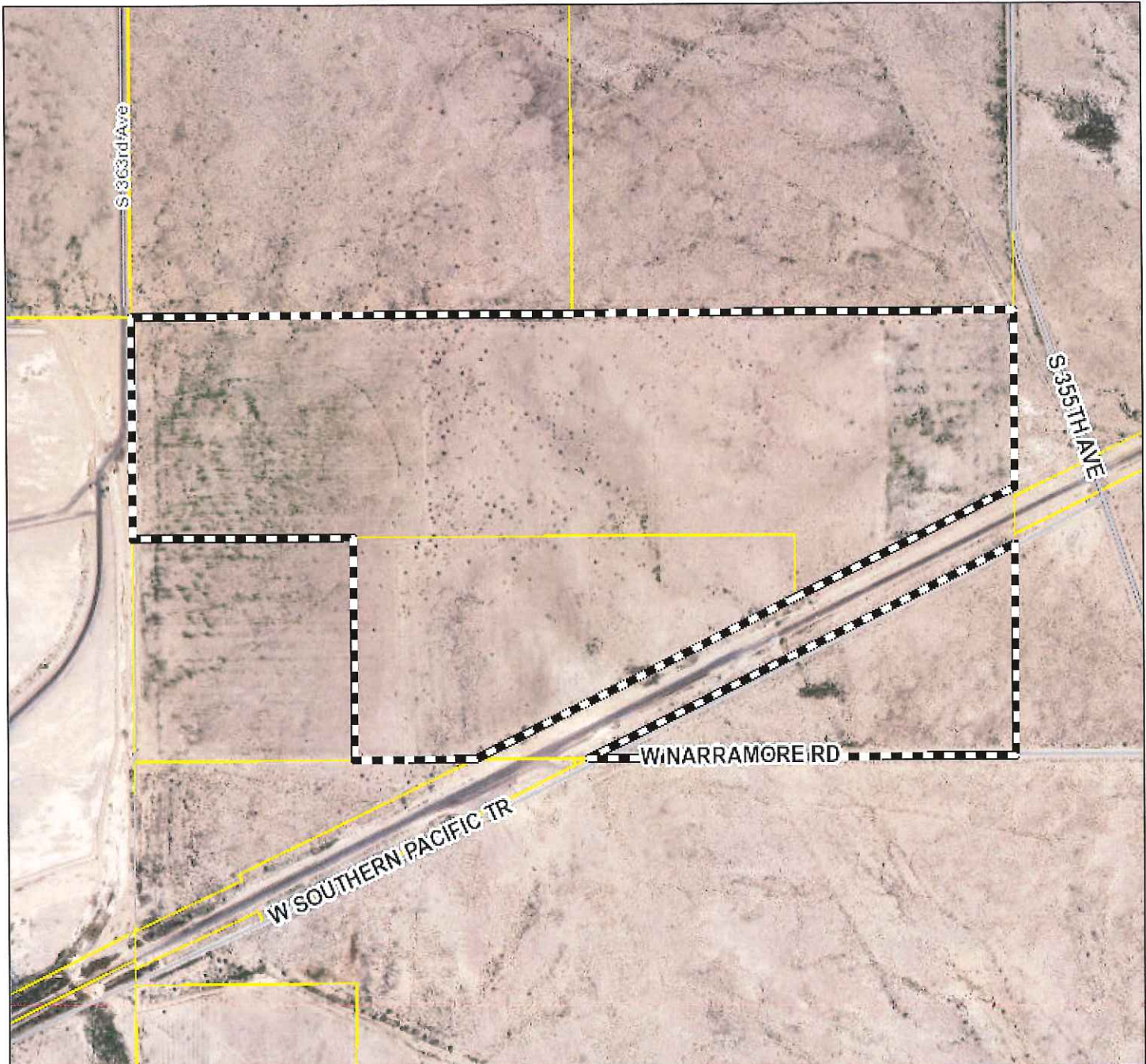
PROPOSED PHOTOVOLTAIC SOLAR PROJECT/CPA TO CHANGE LAND USE OF OLD US HIGHWAY 80
PLAN FROM RDA TO UTILITIES

Maricopa County Planning & Development - Phoenix, AZ





MARICOPA COUNTY



Application Name: Sun Streams Solar Energy Farm (Silver Spoon Unit)

Legal Description

T01S R06W 013, T1S R06W 13

Applicant

MAX BAKKER for FIRST SOLAR LLC

Applicant Phone/Email

415.935.2538

MAX.BAKKER@FIRSTSOLAR.COM

Case Address

11801 S 363RD Ave
ARLINGTON AZ 85322

Parcel Primary: 401-43-023B

401-43-022B, 401-43-023C

Z2017017

Generated August 21, 2017 17:02 PM

Gross Acres: 257 approx.

Map scale 1:12,964
Aerials Sep-Nov 2014

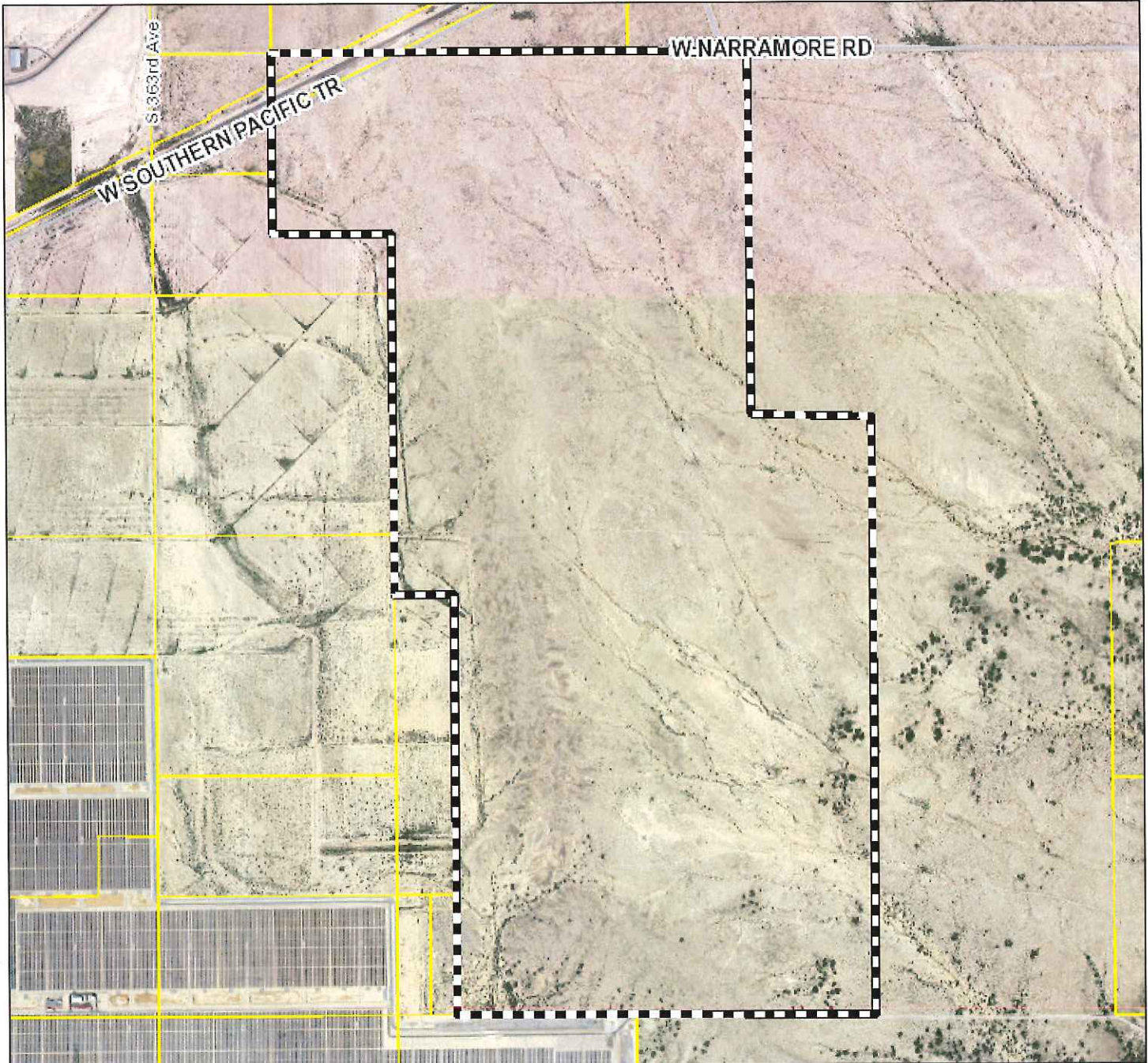
Supervisor District No.5

ZONE CHANGE TO IND-2 WITH IUPD OVERLAY TO ALLOW FOR A SOCIAL ENERGY FACILITY





MARICOPA COUNTY



Application Name: Sun Streams Solar Energy Farm (Sun Streams Unit II)

Legal Description

T01S R05W, T1S R06W 19, T1S R06W 24, T1S R06W 25, T1S R06W 30

Applicant

MAX BAKKER for FIRST SOLAR LLC

Applicant Phone/Email

415.935.2538

MAX.BAKKER@FIRSTSOLAR.COM

Case Address

Parcel Primary: 401-44-IPR

Z2017018

Generated August 21, 2017 17:14 PM

Gross Acres: 1130 approx.

Map scale 1:24,000
Aerials Sep-Nov 2014

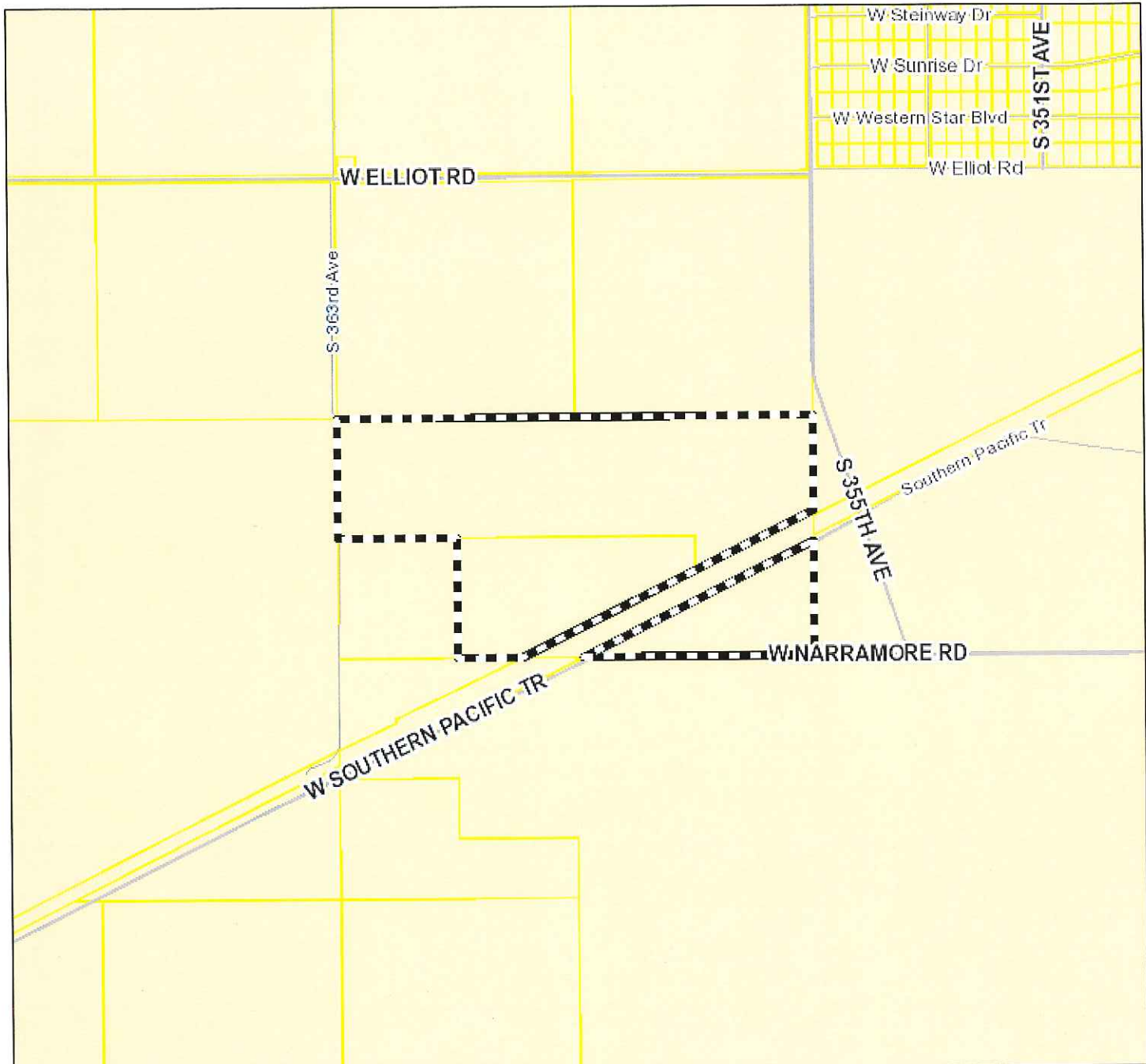
Supervisor District No.4

ZONE CHANGE TO IND-2 WITH IUPD OVERLAY TO ALLOW FOR A SOCIAL ENERGY FACILITY





MARICOPA COUNTY



Application Name: Sun Streams Solar Energy Farm (Silver Spoon Unit)

Legal Description

T01S R06W 013, T1S R06W 13

Applicant

MAX BAKKER for FIRST SOLAR LLC

Applicant Phone/Email

415.935.2538

MAX.BAKKER@FIRSTSOLAR.COM

Case Address

11801 S 363RD Ave
ARLINGTON AZ 85322

Parcel Primary: 401-43-023B

401-43-022B, 401-43-023C

Z2017017

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Gross Acres: 257 approx.

Map scale 1:24,000
Aerials Sep-Nov 2014

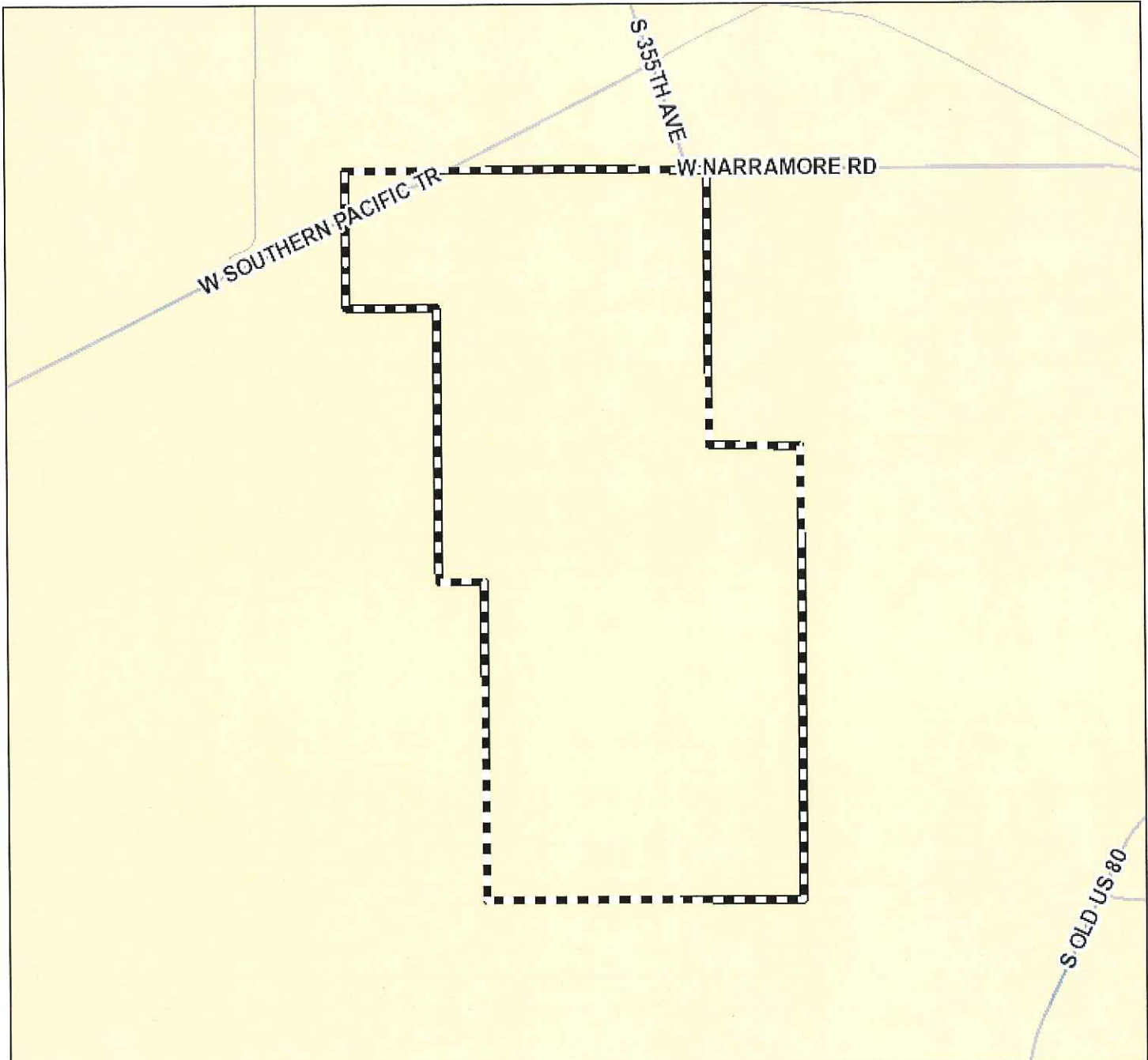
Supervisor District No.5

ZONE CHANGE TO IND-2 WITH IUPD OVERLAY TO ALLOW FOR A SOCIAL ENERGY FACILITY





MARICOPA COUNTY



Application Name: Sun Streams Solar Energy Farm (Sun Streams Unit II)

Legal Description

T01S R05W, T1S R06W 19, T1S R06W 24, T1S R06W 25, T1S R06W 30

Applicant

MAX BAKKER for FIRST SOLAR LLC

Applicant Phone/Email

415.935.2538

MAX.BAKKER@FIRSTSOLAR.COM

Case Address

Parcel Primary: 401-44-IPR

Z2017018

Generated August 21, 2017 17:14 PM

Gross Acres: 1130 approx.

Map scale 1:31,680
Aerials Sep-Nov 2014

Supervisor District No.4

ZONE CHANGE TO IND-2 WITH IUPD OVERLAY TO ALLOW FOR A SOCIAL ENERGY FACILITY



Application for a
Comprehensive Plan Amendment
Narrative

CPA2015003

Proposed Photovoltaic Solar Project
in Maricopa County
(Sun Streams Unit II and Silver Spoon Unit)



Submitted to:
Maricopa County
Planning and Development Department

May 2015

First Revised Submittal: March 9, 2017

Second Revised Submittal: June 12, 2017

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NARRATIVE REPORT

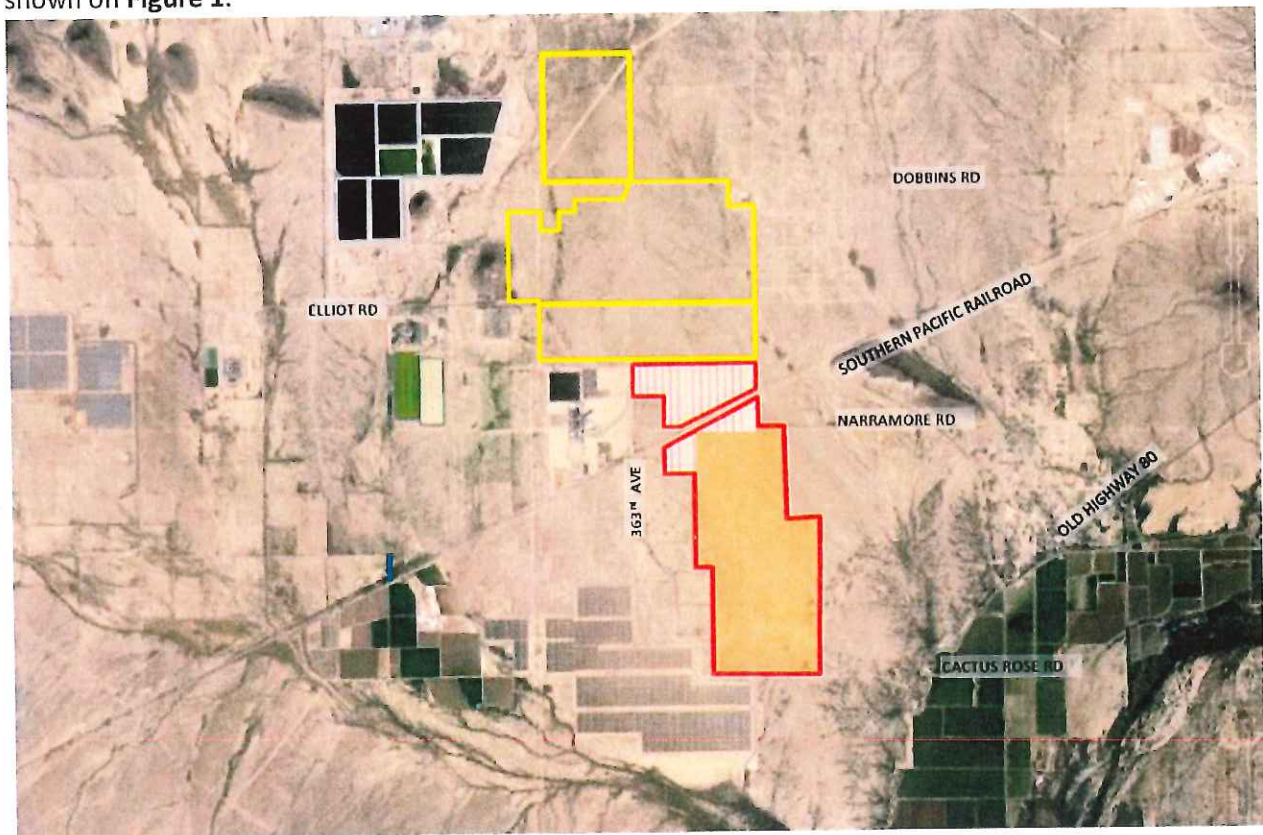
Proposed Photovoltaic Solar Project

Comprehensive Plan Amendment

This narrative report addresses the required information to support the request for a Comprehensive Plan Amendment for the First Solar Photovoltaic Solar Project (PV Project or Project) on lands in unincorporated, western Maricopa County.

EXECUTIVE SUMMARY

The PV Project is about 2 miles west of the community of Arlington and about 12 miles west / southwest of the City of Buckeye. The PV Project covers approximately 1,387 acres. The location of these lands is shown on **Figure 1**.



Sunstreams Solar
Energy Farm
Unit I



Sunstreams Solar
Energy Farm
Unit II



Proposed CPA
Amendment area
339.42 acres



Figure 1: Location of Comprehensive Plan Amendment

This application requests a Comprehensive Plan Amendment (CPA) for only a limited portion of lands that are part of this larger PV Project. This CPA specifically covers 339 acres of land located on **Figure 1** (Subject Property). The lands that are the subject of this application are located in western Maricopa County in Section 19, Township 1 South, Range 5 West and Section 24, Township 1 South, Range 6 West.

The CPA is being requested to change the land use of the Subject Property in the Old U.S. Highway 80 Area Plan from Rural Densities to Utilities. The balance of the lands included in the PV Project are

designated for Industrial Uses under the Old U.S. Highway 80 Area Plan, including certain amendments that have been made to that Plan under older County policies that pre-date the Utilities designation.

First Solar already has an approved PV solar farm located immediately north of this PV Project. Known as Sun Streams I, that project has a Special Use Permit (Case No. Z2013015) approved under the County's prior policy that used SUP's for PV solar farms. Sun Streams I now has a Power Purchase Agreement in place, and anticipates starting construction within the next 24 months. First Solar now wishes to initiate the entitlement process for this PV Project because of the long lead time involved in securing Power Purchase Agreements.

ONSITE AND REGIONAL LOCATION

The PV Project is located in a part of Maricopa County covered by the Old U.S. Highway 80 Area Plan that was finalized in 2007. The closest municipality included in this Plan is the City of Buckeye. Prior to completion of the 2007 Plan, this area was previously within the Arlington/Tonopah Area Plan planning area. Currently, most of the Old U.S. Highway 80 planning area remains unincorporated. There are few existing residences in the general area. The 1990 census showed a population of 800 increasing to 1,150 by the 2000 census for the entire planning area.

The Subject Property is located south of Elliot Road and east of the existing Red Hawk Power Station and 363rd Ave. The Subject Property is bisected by the Union Pacific Railroad (UPRR). The Subject Property is about 2 miles west of the community of Arlington and about 12 miles west / southwest of the city of Buckeye.

CPA SIZE AND DESCRIPTION OF LAND USE TYPES BY ACREAGES

Land ownership in the area is a mix of private lands, state lands, and federal lands managed by the Bureau of Land Management. Most of the lands in the immediate vicinity of the PV Project are private and state. The land use in this immediate area is dominated by industrial uses, which include the Southern Pacific Railroad, the Red Hawk Power Station, the AVSE II Solar Project, and the Hassayampa Switching Station, along with the associated transmission lines and other needed infrastructure. Additionally, the larger area includes some large lot residential, rural densities and former agricultural properties converted to open space through the conversion of water rights from agricultural use to industrial uses associated with the power generation plants in the area.

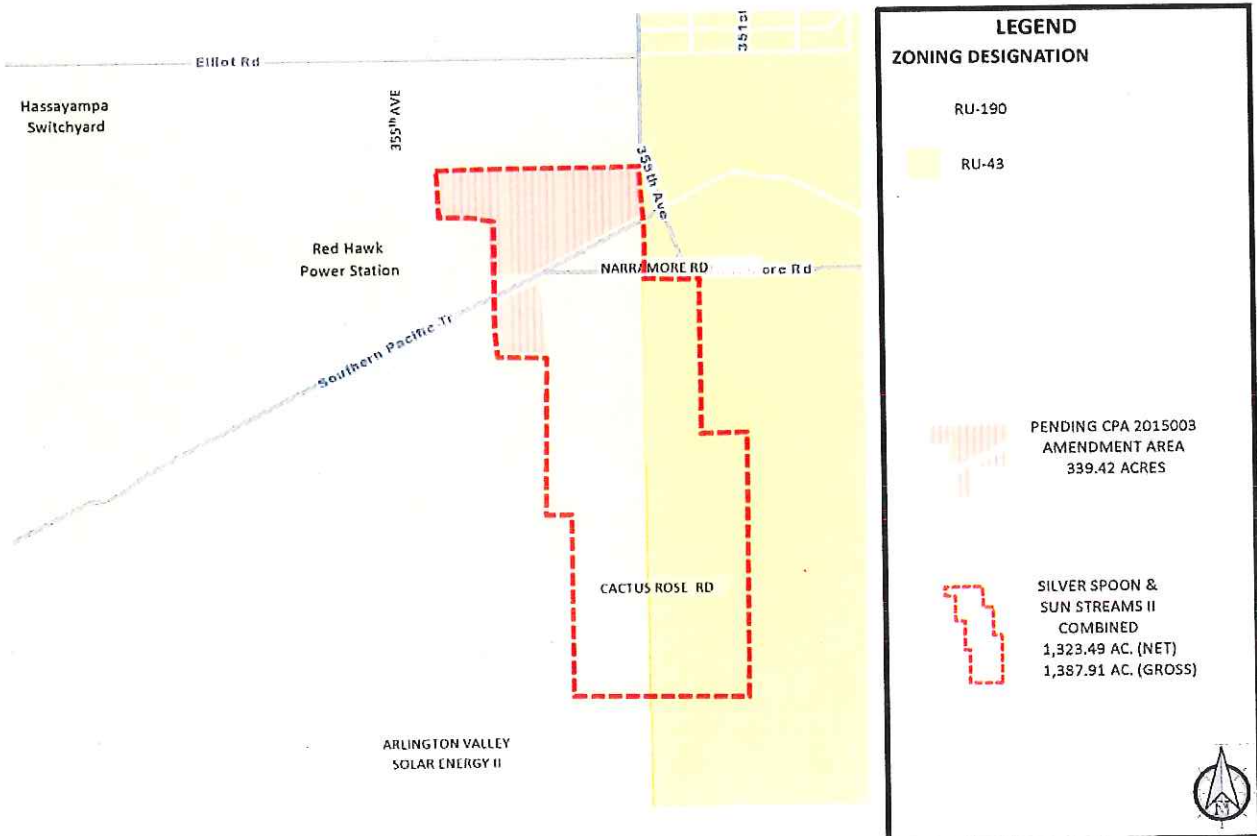
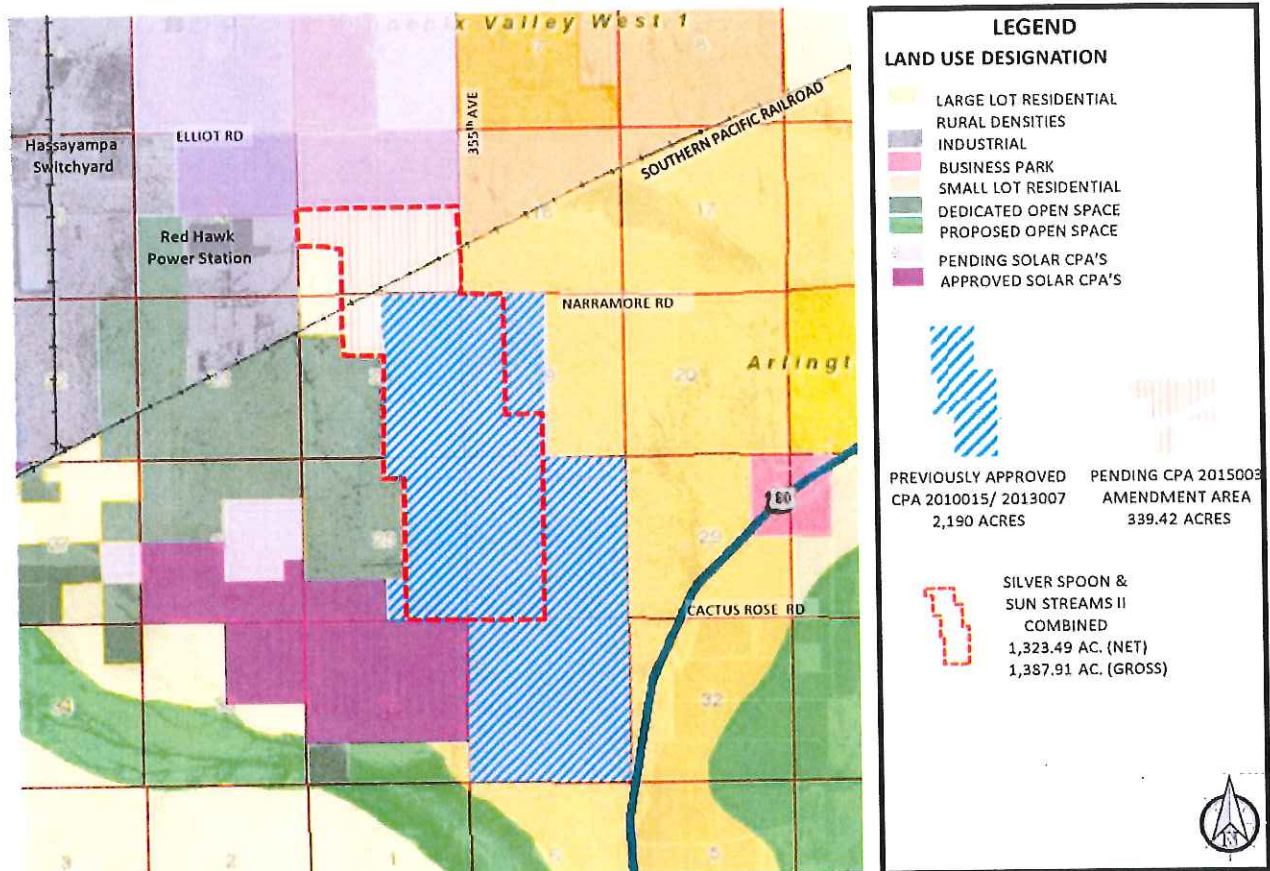
This application requests a CPA for the 339 acres of land located on **Figure 1**. The lands that are the subject to this CPA request are currently designated as Rural Densities.

Figure 2 shows the proposed land uses in the PV Project area as currently designated in the Old U.S. Highway 80 Area Plan.

A large portion of the PV Project (approximately 1,048 acres) is already covered by previously approved CPAs for solar facilities (CPA2010015 and CPA2013007). The location of these existing CPAs relative to the PV Project are depicted **Figure 2**.

Figure 3 shows the current zoning designations for the area.

The existing land use for the PV Project is currently undeveloped or vacant land owned by the Arizona State Land Department (ASLD) and a single private land owner (excluding the Railroad). First Solar is in the process to obtain the necessary lease for the parcels from the ASLD.



ROADS AND TRANSPORTATION SYSTEMS SERVING THE PROPOSED PROJECT

Access to the Project site would be provided via existing roads. Access would be from Elliot Road and 363rd Ave as shown on **Figure 1**.

SUITABILITY WITH SURROUNDING LAND USES

Most of the lands in the immediate vicinity of the PV Project are private and state. The land use in this immediate area is dominated by industrial uses, which include the Southern Pacific Railroad, the Red Hawk Power Station, the AVSE II Solar Project, and the Hassayampa Switching Station, along with the associated transmission lines and other needed infrastructure. Additionally, the area includes some large lot residential, rural densities and former agricultural properties converted to open space through the conversion of water rights from agricultural use to industrial use associated with the generation plants in the area.

PROPOSED USE

The Applicant is proposing the development of a PV solar generation facility and associated facilities. At this time, the Applicant estimates that the PV Project will generate approximately 225 megawatts. In general, the PV Project could occur on all the property identified on the attached Figure 1 with the exception of obvious restrictions such as floodways, setbacks and easements or other rights-of-way.

The individual PV modules will be mounted on steel support structures or single axis trackers that are anchored to or driven into the ground. The PV Project would interconnect to the existing Hassayampa Switchyard.

NARRATIVE RESPONSE

Below are responses to each of the questions required to be addressed that are relevant to this request.

WHETHER THE AMENDMENT CONSTITUTES AN OVERALL IMPROVEMENT TO THE COMPREHENSIVE PLAN

The State of Arizona has excellent solar radiation resources suitable for large-scale solar electric generation. However, siting solar energy projects requires consideration of other site characteristics equally important to ensuring that a project is commercially viable. Those factors include:

- Large, contiguous areas of flat or nearly flat land
- Compatible zoning or land use designations on project lands and nearby lands.
- Absence of sensitive resources such as high quality habitat for sensitive or protected species or other wildlife.
- Proximity to existing electrical substations and transmission infrastructure
- Sufficient supply of water of suitable quality.

Consideration of all these siting criteria significantly reduces the areas where commercially viable solar energy development is possible which, in turn, highlights the importance of allowing these developments on lands where these criteria are all satisfied.

Amending the Old U.S. Highway 80 Area Plan to allow for the proposed solar development would constitute an improvement to the Plan because the subject lands have the necessary characteristics that make them very suitable for solar energy generation. Furthermore, it would make better use of the subject lands than their current or proposed use.

Nearly all land used for solar energy projects are developed for the large fields of solar collectors that capture the energy from the sun for subsequent conversion into electricity. The subject lands are relatively flat allowing for the development of solar energy with little or no additional grading.

In addition, the general area contains significant local electrical infrastructure including several power generation facilities (nuclear, gas, and solar), transmission lines, substations, and switchyards. The development of the proposed PV Project would be consistent with these surrounding uses, and the existence of the existing transmission and switchyards will allow the proposed solar energy to be connected to the regional electrical system without the development of significant new transmission lines. The proposed PV Project would interconnect to the existing Hassayampa switchyard, about a mile and a half to the northwest.

The proposed PV Project would not require the development of additional groundwater resources. The panels themselves do not require cleaning, and the PV Project is mostly automated, so the Project does not require the regular presence of a maintenance staff.

Development of the Subject Property for solar energy uses would take advantage of these key elements associated with the Subject Property, and would constitute a higher beneficial use over its current and planned use for Rural Densities. Development of the proposed PV Project would not detrimentally affect the ability to achieve these intended purposes for the following reasons:

- Air quality impacts resulting from fugitive dust emissions from the subject lands would be lessened from current conditions by the development of the PV Project. Dust/dirt would affect the performance of the solar panels. Therefore, after development of the solar fields, the ground surface would be treated with palliative to reduce potential fugitive dust. In addition to minimizing the effects this dust would have on the solar panels, this would also significantly reduce the amount of fugitive dust from these lands that could affect local air quality.
- As stated above, no new water would need to be developed for this Project.

This area in western Maricopa County is an area of significant energy infrastructure around the Palo Verde Nuclear Station. Western Maricopa County continues to experience significant utility-scale solar energy development and as of December 2012, the Maricopa County Board of Supervisors had approved approximately thirty (30) Comprehensive Plan Amendments relating to utility-scale solar energy encompassing approximately 27,000 acres of land, together with approximately twelve (12) related Special Use Permits.

The PV Project also meets the goals of the Maricopa County Comprehensive Plan Objective L8 - Support innovative technological operations and facilities to encourage an appropriate balance of automobile uses and encourage energy efficiency and the use of renewable resources.

Therefore, for the reasons described above, amending the Old U.S. Highway 80 Area Plan to allow for the proposed use of the Subject Property for solar energy generation would constitute an improvement to the Area Plan.

**WHETHER THE AMENDMENT WILL ADVERSELY IMPACT ALL OR A PORTION OF THE PLANNING AREA
BY:**

- **Altering acceptable land use patterns** – The proposed amendment would not impact any nearby land uses or patterns. The proposed solar energy use would be consistent with the other adjacent and nearby energy uses already designated for Industrial use (under older County policies that pre-date the Utility designation) as solar sites. It would also be compatible with nearby agricultural uses.
- **Requiring public expenditures for larger or more expensive infrastructure** – The proposed use would not require any additional public infrastructure and will take advantage of the local electrical infrastructure.
- **Requiring public improvements to roads, sewer, or water systems that are needed to support the planned land uses** – There would be no significant increase in traffic during the operational life of the PV Project that would require road improvements. The PV Project would not require the development of any additional water resources on the Subject Property or the PV Project overall.
- **Adversely impacting planned uses because of increased traffic** – There would be increased traffic during the relatively short construction period for the delivery of equipment / supplies and the commuting of the construction work force. But there would be no significant increase in traffic during the operational life of the PV Project.
- **Affecting the livability of the area or health and safety** – The proposed use of the subject lands for solar energy generation would not impact the health and safety of those individuals in the vicinity of the PV Project. It would not utilize or store hazardous materials, would not generate significant emissions (and would actually reduce fugitive dust emissions), or have other potential negative effects on health and safety.
- **Adversely Impacting the natural environment or scenic quality of the area** – None of the subject lands are in “natural” condition as all have been previously used for agriculture. Therefore, there would be no impacts to natural habitats or environments. The proposed solar collector fields have a relatively low profile, would be located on relatively flat lands located low on the landscape, and would not be located near any population centers or heavily travelled roads. Indeed, the PV Project has extremely limited adjacency to any public roads; any specific issues regarding such adjacent areas should be addressed during a companion or subsequent rezoning process. Therefore, the proposed use would not significantly impact scenic quality.

**WHETHER THE AMENDMENT IS CONSISTENT WITH THE OVERALL INTENT OF THE COMPREHENSIVE
PLAN**

The overall intent of the comprehensive plan is to promote healthy communities by encouraging growth in suitable areas, development of an efficient transportation system, maintaining a healthy environment, and creating a diverse economy. The proposed use is consistent with that intent as indicated below.

THE EXTENT TO WHICH THE AMENDMENT IS CONSISTENT WITH THE SPECIFIC GOALS AND POLICIES CONTAINED WITHIN THE PLAN

The proposed use associated with this amendment would be consistent with the goals, objectives, and policies identified in the Plan. Each goal, objective, and policy contained in the current plan is listed below followed by a description of whether each is relevant to the proposed use and, if so, why it would be consistent.

Land Use

Goal L1: Promote efficient land development that is compatible with adjacent land uses, is well integrated with the transportation system, and is sensitive to the natural environment.

The amendment will be consistent with this goal as it will be compatible with adjacent uses, will have no long-term affect on the transportation system, and would not impact the natural environment as described in the sections above.

Objective L1.1: Encourage orderly, efficient, and functional development patterns.

The development contemplated by the amendment will complement the existing and planned development patterns in the area by further consolidating energy uses and being compatible with the other primary uses in the area – industrially designated lands used for solar and other forms of power generation and transmission.

Policy L1.1.9: Encourage cooperation and coordination among the Arizona Department of Homeland Security, Maricopa County Department of Emergency Management, PVNGS, and other power plants to ensure security and compatibility with adjacent land uses and associated infrastructure.

The proposed PV Project will work with all of the mentioned entities as well as the regional utilities to ensure security and compatibility.

Objective L1.4: Preserve the scenic and where appropriate, the rural character of the Old U.S. Highway 80 planning area.

For the reasons stated above, the solar energy development would not be expected to affect the visual quality of the area. The proposed PV solar panels have a relatively low profile, would be located on relatively flat lands located low on the landscape, and would not be located near any population centers or heavily travelled roads. Because of the remote nature of the site and the low profile of the panels, the applicant is not proposing any blocks walls around the perimeter of the site. Instead, the applicant is proposing visually porous chain-link fencing around the perimeter of the site. Therefore, the proposed use would not significantly impact scenic quality.

Policy L1.4.1: Encourage development that enhances the scenic quality of the Old U.S. Highway 80 area.

See above.

Policy L1.4.3: Discourage urban commercial, residential, industrial development in rural designated areas of the Old U.S. Highway 80 planning area.

This area is compatible with the existing land uses as there are several existing generation facilities and there are existing CPAs that cover the majority of the site.

Policy L1.4.5: Encourage new utility lines to be located underground where feasible.

Short new utility lines would be needed from the site to the Hassayampa Switchyard, a mile and a half to the northwest, but would not be associated with or near residential or commercial uses. Any required lines would be relatively high voltage lines built above ground like all of the other transmission lines in the area.

Environment/Environmental Effects

Goal E1: Promote development that mitigates adverse environmental impacts on the natural and cultural environment, preserves highly valued wildlife habitat, minimizes flooding and drainage problems, and protects historical and archaeological resources.

The proposed amendment would minimize impacts to the natural and cultural environment because there is no significant or highly valued wildlife habitat on the subject lands. Drainage and flooding patterns would be incorporated into final development plans to ensure that they are not negatively impacted. The subject lands do not have significant historical or archaeological resources based on survey results.

Objective E1.1: Encourage development that is compatible with natural environmental features.

The Subject Property does not contain significant natural features. The most significant natural features in the area that is subject to the proposed amendment are the small drainage ways that cross the area.

Policy E1.1.1: Encourage land uses and development designs that are compatible with environmentally sensitive areas such as the Palo Verde-Saguaro community, floodplains, significant washes, hillsides, protected wildlife species habitat, scenic areas, and unstable geologic and soil conditions.

The Subject Property does not contain Palo Verde-Saguaro community, significant washes, hillsides, protected wildlife species habitat, scenic areas, or unstable geologic and soil conditions. There are limited drainages on these lands. Any development in the floodplain would be conducted in accordance with the requirements of the Maricopa County Flood Control District.

Policy E1.1.2: Encourage building envelopes and localized grading to minimize blading and cut and fill in environmentally sensitive areas and leave the remaining portion of the lot undisturbed.

Proposed development would not occur in sensitive areas. All lands targeted for development are relatively flat, which will minimize necessary grading.

Policy E1.1.6: Encourage the preservation of washes in their natural state.

The largest of the small washes would be avoided to the extent possible.

Policy E1.1.7: Edges of major washes or rivers should remain undisturbed.

The largest of the small washes would be avoided to the extent possible.

Policy E1.1.8: Encourage property owners to consult with the Maricopa County Planning & Development Drainage Review division prior to land division to adequately plan for local washes and landforms.

The development on the Subject Property would be subject to all applicable requirements of the Drainage Review Division.

Objective E1.2: Preserve significant natural and cultural resources.

This is not expected to be applicable to the Subject Property as discussed above.

Policy E1.2.4: Prior to development, excavation, or grading, request that developers submit a letter from the Arizona Historic Preservation Officer stating that the proposed land development will have no effect on historical or cultural resources.

Even though no significant historical resources are expected on the Subject Property as discussed above, the PV Project will consult with the State Historic Preservation Office to ensure that the proposed land development will have no effect on historical or cultural resources.

Objective E1.3: Improve air quality, water quality, and reduce noise impacts.

This proposed amendment would be expected to result in improved air quality relative to fugitive dust emissions as discussed above. Stormwater quality would likewise expect to be improved due to the application of stormwater management practices and as an ancillary benefit of the application of soil binding agents to reduce fugitive dust emissions. There would be no significant noise emissions associated with the operation of the proposed Project.

Policy E1.3.3: Discourage the construction of new dirt roads where feasible by encouraging common access that is agreed to by end users. Encourage revegetation of abandoned dirt roads.

Access to the development sites will be largely via roads that already exist, although those roads could require some upgrades. Any roads developed within the Subject Property as part of the PV Project would be treated and managed to minimize fugitive dust. If the PV Project requires development or improvement of short access roads on neighboring private or state-owned properties, those roads will also be managed consistent with the goals of this policy.

Objective E1.4: Preserve significant habitat areas for wildlife and native plant species.

There is currently no significant plant or wildlife habitat on the Subject Property.

Policy E1.4.1: Support natural drainage corridors and protective buffering techniques along significant wash systems where new development is proposed, to provide flood control, preserve wildlife corridors, and protect open space.

As stated above, the largest wash on the Subject Property would be avoided to the extent possible.

Policy E1.4.2: Encourage protection of sensitive, threatened, or endangered plant and animal species.

No habitats of sensitive species are known to occur on the subject lands. To ensure that no impacts to these species will occur, the US Fish and Wildlife Service and Arizona Game and Fish Department will be consulted.

Policy E1.4.3: Encourage cooperation with the Arizona Game and Fish Department (AGFD) and the U.S. Fish and Wildlife Service to help prevent encroachment on riparian scrub habitat and/or channels associated with significant local wash systems.

As mentioned above, the Arizona Game and Fish Department and the US Fish and Wildlife Service will be consulted.

Policy E1.4.4: Encourage the use of native vegetation replacement.

Revegetation efforts on the subject lands could be conducted using native species.

Economic Development

Goal ED1: Promote a growing, balanced, efficient, and diversified economy, consistent with available resources, that enhances quality employment opportunities, improves quality of life, and is sensitive to the natural and cultural environment.

The proposed amendment would promote diversity in the area and be compatible with the area environment and resources as discussed in the sections above.

Objective ED1.1: Encourage quality employment opportunities by supporting efforts that encourage business formation and expansion.

The PV Project will provide many jobs during the construction of the Project. Once constructed, it should be noted that the facility will be mostly automated, and will require minimal attention from employees. However, during construction, the overall Project should generate approximately 600 personss

Policy ED1.1.1: Encourage rural type, light industrial development near Palo Verde NGS and along the railroad.

The PV Project would be light industrial and would occur along the railroad and near the Palo Verde NGS and other power and transmission facilities in the area.

Open Space

Objective O1.3: Protect and enhance environmentally sensitive areas, including existing natural washes; steep slopes; historical, cultural, and archaeological resources; view corridors; sensitive desert; and significant wildlife habitat and ecosystems.

These resources would be protected as discussed above under the environmental objectives.

Objective O1.6: Promote the economic, environmental, and quality of life benefits of natural open space.

Policy O1.6.1: Encourage communication efforts with stakeholders to share information and discuss current issues and development applications.

Communication with stakeholders will occur through implementation of the Citizen Participation Plan.

Policy O1.6.4: Support efforts to maintain power plant water rights properties as open space.

This proposed amendment would not affect the power plant water rights properties.

Water Resources

Goal W1: Promote development that makes conservative use of renewable water supplies such as effluent, surface water, and Central Arizona Project water when feasible, as well as nonrenewable sources like groundwater.

The development of the Project would not result in use of ground water or CAP water. The panels are not cleaned, and so water is not necessary for that purpose. The facility does not require significant or regular staff, so substantial water is not required on-site for employee needs.

Goal W2: Reduce the impacts of development on water quality.

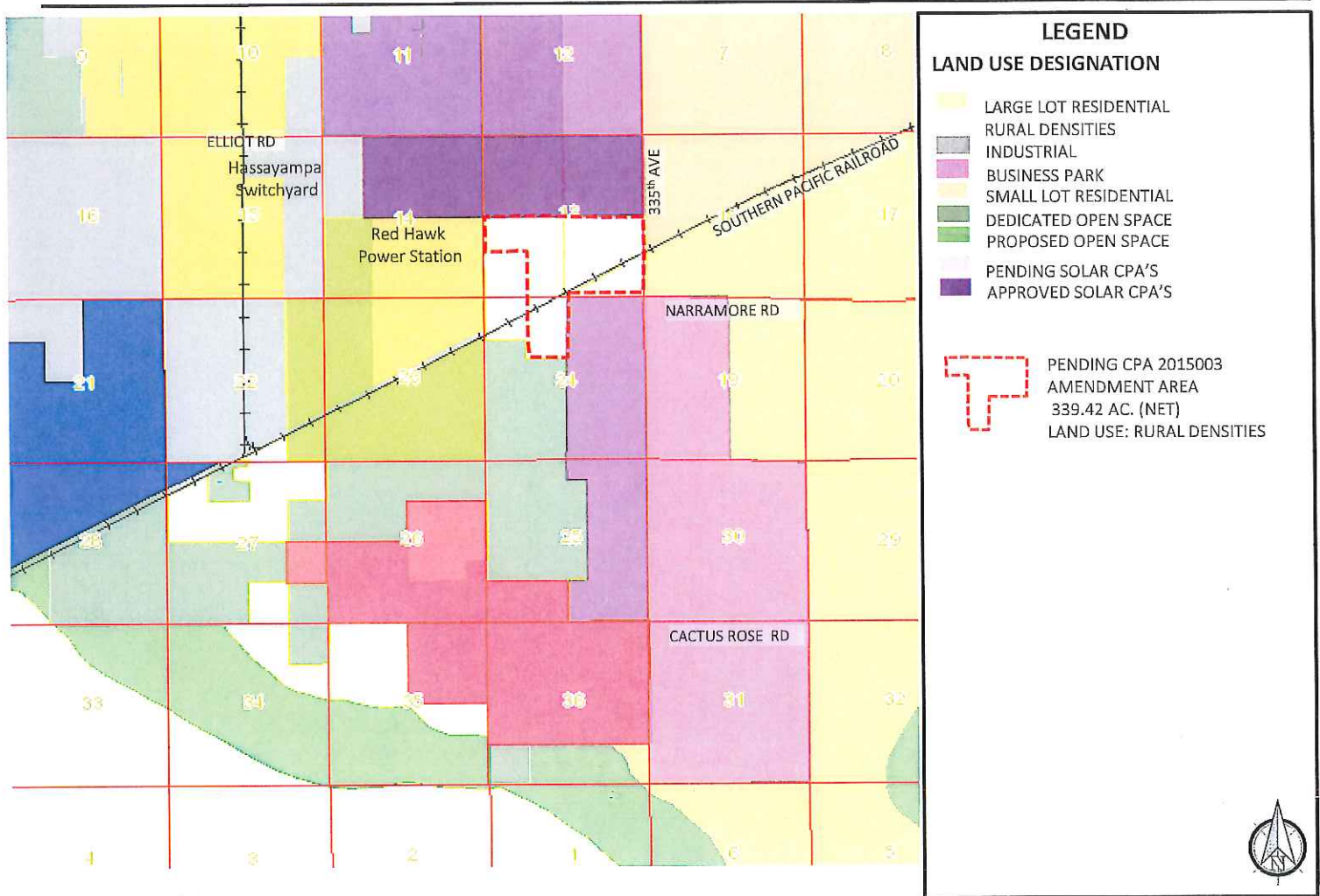
The development will comply with storm water management requirements and will not result in detrimental impacts on water quality. Storm water management practices at the PV Project might even result in improvements to water quality relative to the uncontrolled conditions that currently exist.

Cost of Development

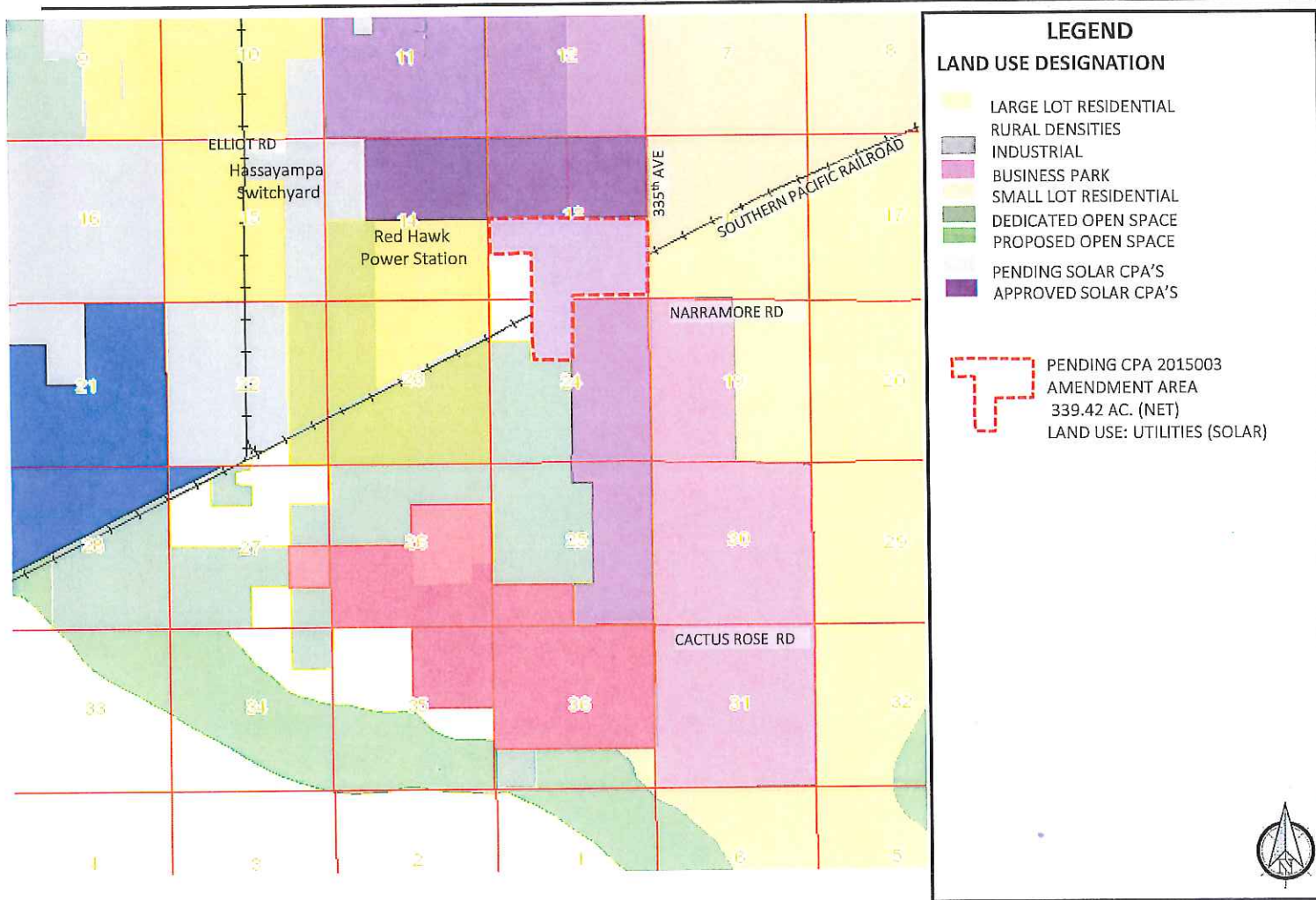
All goals, objectives and policies associated with this topic deal with projects that require new public infrastructure, facilities, and service needs. Since this amendment would not require additional infrastructure, facilities, or services, these concerns would not be impacted by this amendment.

OTHER PERTINENT INFORMATION AS REQUESTED BY THE MARICOPA COUNTY PLANNING DEPARTMENT

The Applicant is submitting a Citizen Participation Plan simultaneously with this submittal.



Existing- Land Uses



Proposed- Land Uses

Maricopa County

IND-2 (Industrial) Rezoning and Industrial Unit Plan of Development

Case No. Z2017017

Sun Streams Solar Energy Farm (Silver Spoon Unit)

Project Narrative Report



Submitted by:

**Sun Streams 2, LLC, a wholly owned subsidiary
of First Solar, Inc.**

Prepared by:



Original Submittal Date: March 9, 2017

Revised Submittal Date: June 13, 2017

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Exhibits

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Exhibit C	IUPD Modified Development Standards Table
Exhibit D	Project Cultural Resources Reports
Exhibit E	Special Status Species Review
Exhibit F	Project Traffic Impact Statement
Exhibit G	Project Water and Wastewater Plan
Exhibit H	Emergency Response Plan

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Table 1: Adjoining Land Uses

5

1.0 Narrative Report Notarized Statement

I, Stephen W. Anderson, being owner or owner's authorized agent for IND-2 (Industrial) Rezoning and Industrial Unit Plan of Development Case No. Z2017017, recognize and acknowledge that this Narrative Report will become a part of the application to which it applies and that the truth of its contents will be relied upon by the Maricopa County Planning and Development Department, the Maricopa County Planning and Zoning Commission and the Maricopa County Board of Supervisors.

I certify that all of the information in this Narrative Report is complete and true. If any of the statements in the Narrative Report is willfully false or incomplete, I understand that I am subject to punishment and that any approvals or permits granted by Maricopa County in reliance upon the truthfulness of the above statements may be revoked or rescinded.

Owner/Owner's authorized agent signature: _____

SUBSCRIBED AND SWORN before me the 13th day of June, 2017

Dawn M. McCombs
(Notary Public)



DAWN M. McCOMBS
Notary Public - Arizona
Maricopa County
Expires 11/30/2017

My Commission Expires: 11/30/2017

2.0 Project Overview

2.1 Project Name

The name of the project is Sun Streams Solar Energy Farm, Silver Spoon Unit (IND-2 and IUPD Case No. Z2017017), hereinafter referred to as the "Project" in this narrative report.

2.2 The Applicant

The applicant is Sun Streams 2, LLC, a wholly owned subsidiary of First Solar, Inc. (referred to hereafter as "Sun Streams"). As the leading global provider of comprehensive photovoltaic (PV) solar energy solutions, First Solar delivers power plant solutions that maximize value and mitigate risk for customers worldwide.

2.3 Request & Proposed Project

This request is to rezone a 257 acre parcel from RU-190 to IND-2 Industrial, with an Industrial Unit Plan of Development (IUPD), to allow the development of a photovoltaic (PV) solar energy generating facility on approximately 257 acres gross acres generally located in the Rural-190 zoning district at the northwest corner of the Narramore Road alignment and the 335th Avenue Section line alignment.

This site is adjacent to the existing, 2,155 acre Sun Streams Unit I Solar Farm. Specifically, the north perimeter of the subject property is adjacent to the south edge of the existing Sun Streams Unit I Solar Farm. The Maricopa County Board of Supervisors has reviewed and approved the Sun Streams Unit I Solar Farm on numerous occasions, most recently approving a Major Amendment to the Sun Streams Unit I Solar Farm Special Use Permit on July 30, 2014, in Case No. Z2013015.

This application for the Silver Spoon Unit of Sun Streams is crafted to track the existing Sun Streams Unit I Solar Farm approval as closely as possible. The County's policy regarding solar farms has changed since that time, encouraging the use of IND-2 zoning instead of Special Use Permits. This application does reflect that change in policy, but otherwise is intended to operate in a manner that duplicates the existing approval.

The subject property is currently designated as Rural under the Old U.S. Highway 80 Area Plan. First Solar has previously filed a Comprehensive Plan Amendment regarding additions to Sun Streams, Case No. CPA2015003, seeking to redesignate targeted areas for additional solar opportunities near the Sun Streams Unit I Solar Farm. Simultaneously with the submittal of this rezoning application, First Solar is submitting a revised Comprehensive Plan Amendment proposal in Case No. CPA2015003 that includes the subject property, and seeks to change its designation under the Old U.S. Highway 80 Area Plan from Rural to Utilities, to allow for use as a solar energy farm. All of the existing Sun Streams Unit I Solar Farm site has already been designated for Industrial uses.

The Project consists of arrays of PV panels that absorb sunlight and directly produce electricity. PV panels produce electricity without the use of heat transfer fluid or cooling water. Sun Streams, LLC's goal is to produce at least 28 megawatts (MW) of clean solar power from the Project, which would meet the energy needs of 10,000 households. If Sun Streams, LLC can exceed that level of power generation at this Project, it will do so.

Sun Streams, LLC's conceptual phasing intent for the Project is to develop it simultaneously with the Sun Streams Unit I Solar Farm to the north. Nevertheless, it is possible that the Project might be developed independent of the Sun Streams Unit I Solar Farm. It should also be noted that simultaneous with this rezoning application, First Solar will also be filing a rezoning application for the Sun Streams Unit II Solar Farm, a 1,130 acre solar farm project immediately south of this Project (Case No. Z2017018). It may also be possible that this Project is developed as part of the larger Sun Streams Unit II Solar Farm. The Sun Streams Unit II project is separated from this Project by the Southern Pacific Railroad. To be clear, however, Sun Streams, LLC will develop this Project in response to market demand, and may exceed the noted levels of power generation associated with each phase. Thus, First Solar envisions this Project to have maximum flexibility with respect to phasing.

2.4 Overall Project Benefits

Solar energy diversifies the energy supply, reduces the country's dependence on foreign oil, improves air quality, offsets greenhouse gas emissions, and avoids the construction of additional fossil fuel powered plants. In warm climates like ours, solar energy is also beneficial for satisfying peak energy demands, as solar energy is generated when the demand for electricity is at its peak (bright daylight hours). In addition to the environmental benefits, construction of a facility of this magnitude stimulates the local economy by creating construction jobs during installation, and by generating fee and tax revenue for Maricopa County.

On a neighborhood basis, development of a PV solar facility at this location is an appropriate and compatible land use. The area is very rural with minimal nearby population. The immediately developed uses are industrial: the APS Red Hawk natural gas power plant is adjacent to the west, and an Arlington Valley Solar Energy PV solar facility is located to the southwest. As previously stated, the Southern Pacific Railroad bisects the Property, although Sun Streams is not proposing any immediate development on the portion of this site located south of the Railroad. The Project itself is relatively low profile, it is relatively noiseless, odorless, and has very little nighttime lighting or activity.

3.0 Project Context

3.1 Location

The Project is generally located at the northwest corner of the Narramore Road alignment and the 335th Avenue Section line alignment (the "Site"). The Site, which is currently unimproved private land, comprises approximately 257 gross acres. The Site includes portions of Section 13 of Township 1 South, Range 6 West, Gila and Salt River Base and Meridian. The Site is located approximately 5 miles southeast of Wintersburg, approximately 12 miles southeast of Tonopah, and approximately 15 miles west of Buckeye. The Vicinity Map provided in **Figure 1** depicts the location and boundaries of the Site.



Figure 1: Site Vicinity and Regional Map

Note: PVNGS (Palo Verde Nuclear Generating Station)

The predominant land use in the area is energy production and transmission. As previously noted, the APS Red Hawk natural gas power plant is adjacent to the west. The Site is located about 3 ½ miles southeast of the Palo Verde Nuclear Generating Station (“PVNGS”), the largest nuclear power plant in the United States. Other power plants near the Site are the Arlington Valley Solar Energy facility to the southwest and the Mesquite Power Generating Station about two miles to the west, as shown by **Figure 2**. The Hassayampa Switchyard is a major energy transfer facility located a mile and a half northwest of the Site; First Solar already has an access right into the Hassayampa Switchyard through the Sun Streams Unit I Solar Farm.

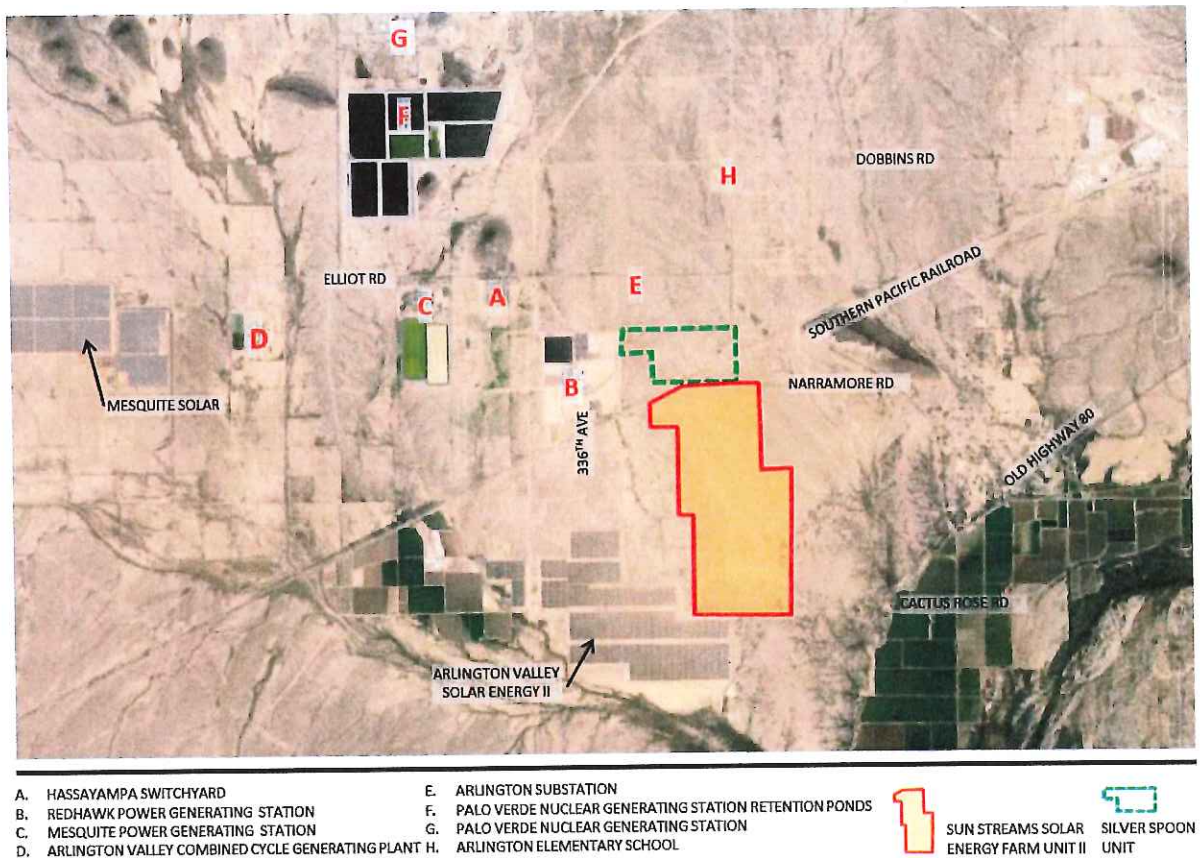


Figure 2: Surrounding Uses

As reflected by the list of adjoining uses provided in **Table 1**, the Site is located among existing industrial power generation and transmission uses. As mentioned above, the APS Red Hawk Power Generating Station is located immediately west of the Site. The Arlington Valley Solar Energy facility dominates the area to the southwest. The Hassayampa Switchyard is located a mile and a half northwest of the Site, an existing sand and gravel mining operation is north of that, and PVNGS sits north of there. The relatively odorless, waterless and noiseless characteristics of this PV solar energy Project are compatible with these existing industrial uses.

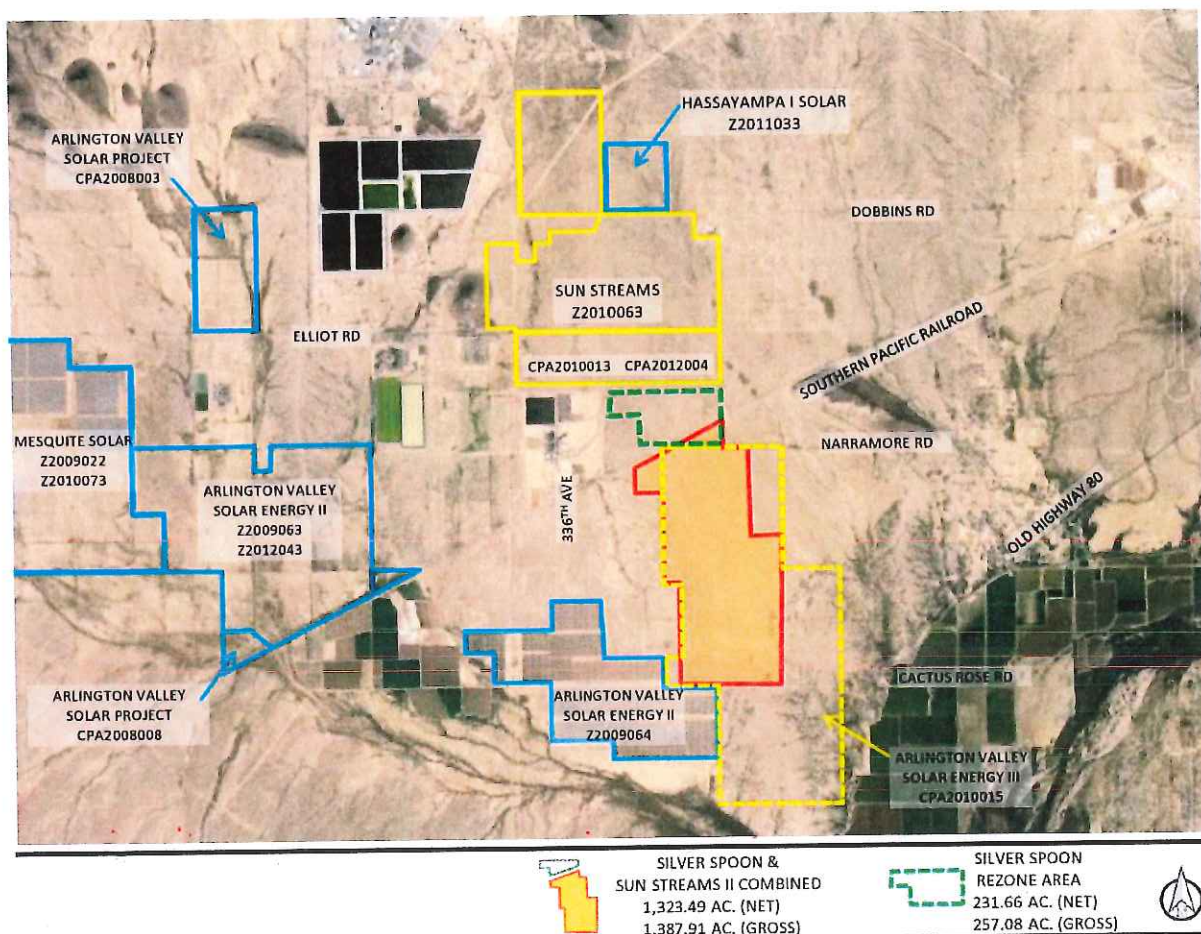
Table 1: Adjoining Land Uses

	EXISTING USE	COMPREHENSIVE PLAN DESIGNATION
On-Site	Vacant	Utilities (Pending)
West	Red Hawk Power Plant	Industrial
South	Vacant, Sun Streams Unit II (Proposed)	Industrial / Utilities (Pending) / Rural Densities
East	Vacant	Rural Densities / Small Lot Residential
North	Sun Streams Unit I	Industrial
Northwest	Hassayampa Switchyard, sand and	PVNGS / Industrial

	gravel operation, and Palo Verde Nuclear Generating Station	
--	-------------------------------------------------------------------	--

Indicative of the area's appropriateness for power generating uses, several SUP and Major CPA applications have been approved by the Maricopa County Board of Supervisors for solar energy generating facilities located adjacent to or within three miles of the Site over the past decade. As shown by **Figure 3**, these solar energy facilities include Sun Streams Unit I, Mesquite Solar, Arlington Valley Solar Energy ("AVSE") II and III, Hassayampa I Solar and AV Solar Project. Both the Mesquite Solar and AVSE II Solar projects have been developed and are currently in use and producing power. As previously stated, First Solar already has the right to connect to the Hassayampa Switchyard through the Sun Streams 1 solar farm, which is adjacent to the Switchyard.

As shown by **Figure 3**, existing non-power generating uses in the area are generally limited to the Railroad that bisects the Site; the sand and gravel operation off to the northwest; the rural lot Phoenix Valley West 1 Subdivision located east of 355th Avenue, a mile to the northeast; and the Arlington Elementary School across 355th Avenue from those homesites, about a mile and half to the north.



3.2 Site Suitability

As a general matter, Arizona is the natural solar center of the United States, as shown by Figure 4.

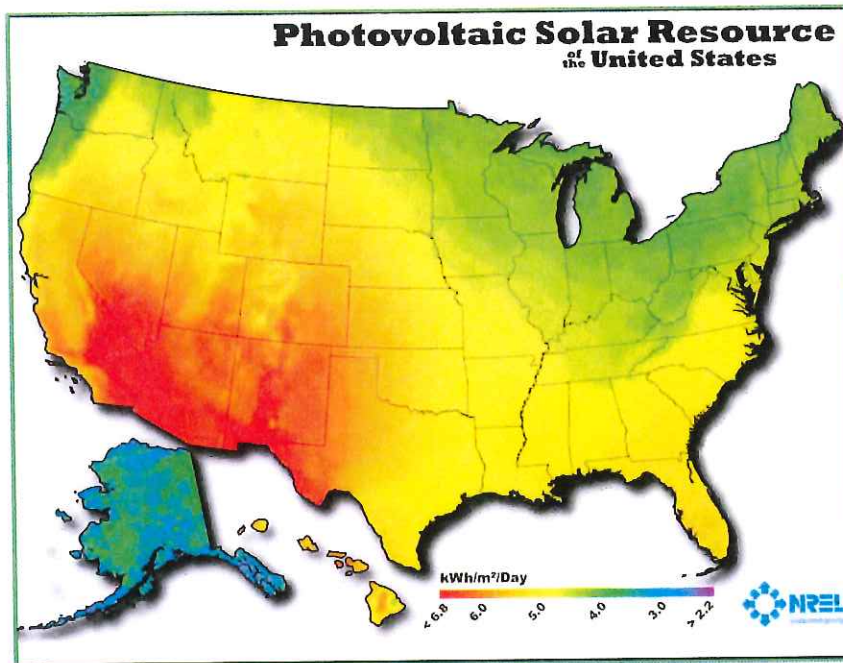


Figure 4: United States PV Solar Resource Map

Note: The above map shows solar photovoltaic resource potential for the U.S. Arizona and the Arlington area, in particular, have a high resource potential for solar power.

Source: "Solar Maps." National Renewable Energy Laboratory. 14 May 2010. <http://www.nrel.gov/gis/solar.html>

Factors critical to the siting of PV solar energy generating facilities include: large, contiguous areas of flat or nearly flat land; proximity to existing electrical substations and transmission infrastructure; and compatibility with nearby land uses. The Site meets each of these criteria.

The Site is relatively flat and mostly contiguous. As previously reported, the Site is bisected by the Southern Pacific Railroad, including an unimproved service road that runs on the south side of the track, but is otherwise unremarkable. All immediate panel development will occur north of the tracks. An unimproved portion of Narramore Road runs along the south edge of the site until it ends at the Railroad's service road. When it appears, water accumulates on the north side of the Railroad track, within the Railroad's easement, and is controlled there by culverts.

As discussed above, the Site is located in proximity to existing electrical substations and transmission infrastructure, and is affiliated with Sun Streams Unit I, giving it immediate access to the Hassayampa Switchyard, limiting the need for overhead transmission facilities.

Finally, to reiterate, the Site is compatible with nearby land uses. The area is dominated by the power generation and transmission facilities, including the largest nuclear power plant in the United States and an adjacent natural gas power plant that sits in plain view. The addition of a low intensity power project like this Project compliments those uses. The Silver Spoon solar energy farm will be low profile, noiseless, and odorless, and will have minimal nighttime activity and lighting.

4.0 Related Applications

4.1 Comprehensive Plan Amendment

The Site is located within the planning boundaries of the Old U.S. Highway 80 Area Plan (the "Area Plan"). As noted previously, the entire Site is currently designated for Rural land uses under the Area Plan, but it is adjacent to Industrial uses. First Solar has a pending Minor Comprehensive Plan Amendment application with the County, Case No. CPA2015003, to change the designation of the Property to Utilities. If approved, this Amendment will make the Property compatible with its existing neighboring land uses and consistent with the Project as proposed here.

The Sun Streams Unit I solar farm to the north is already designated for Industrial uses. The majority of the Sun Streams Unit II solar farm to the south is already designated for Industrial uses, although a small portion of the Sun Streams Unit II land is included in CPA 2015003.

4.2 Rezoning Cases

The Sun Streams Unit I solar farm to the north already has an approved Special Use Permit.

Simultaneous with this application, First Solar is filing an application to rezone approximately 1,130 acres of land to the south to Industrial (IND-2) to allow development of the Sun Streams Unit II solar energy farm (Case No. Z2017018).

At this time, First Solar intends to develop the current Project, Silver Spoon, in conjunction with Sun Streams Unit I. However, as previously indicated, market demand will ultimately determine when this Project is built.

4.3 Floodplain Use Permit and Nationwide Permit

The Project does not impact major floodways or anticipated jurisdictional waters of the United States. However, if necessary, Sun Streams, LLC will apply for a Floodplain Use Permit from the Flood Control District of Maricopa County ("FCD") for the limited construction to occur within any floodplains. Sun Streams, LLC is also in the process of coordinating with the U.S. Army Corps of Engineers to verify the limits of jurisdictional waters within the Project boundary through the Preliminary Jurisdictional Determination (PJD) process. The PJD did not

identify any drainageways within the Project limits that meet the criterion of a jurisdictional water under a PJD.

4.4 Transmission Siting

Sun Streams, LLC is planning for a primary electric interconnection with the Hassayampa switchyard. As previously indicated, Sun Streams LLC already has a connection to the Switchyard through the Sun Streams Unit I solar farm. As part of the planned Hassayampa interconnection, Sun Streams, LLC will perform any necessary line siting through the exclusive jurisdiction of the Arizona Corporation Commission. The final location of the interconnection(s) will ultimately be determined by the sale of power.

5.0 Project Description

5.1 Overview

To allow the development of the Silver Spoon Unit of Sun Streams, this rezoning application includes the following:

- A solar field of PV modules mounted on a single-axis tracking system, along with supporting weather tracking equipment;
- Electrical collection systems, including photovoltaic combining switchgear, power conversion stations, inverters and transformers;
- Up to one substation;
- Energy Storage System (ESS) structures for the deployment of batteries;
- Up to one utility / operation and maintenance building, including a microwave tower for transmission of current data to remote monitoring sites;
- Up to one maintenance / laydown area; and,
- Civil infrastructure, including up to: one well; access gates; driveways; on-site parking; drainage channels; retention basins; fences; signage; and up to one septic tank and leach field. With respect to lighting, there may be motion activated or infrared (IR) security lighting and cameras mounted on poles up to 24 feet in height generally located at the Project's perimeter and the entrances to the Project's operation and maintenance building; built-in and/or switch activated yard lighting not to exceed 24 feet in height at substations; and built-in switch activated lighting not to exceed a height of 14 feet at each power conversion station and photovoltaic combining switchgear. If installed, this lighting will also be available for maintenance and safety purposes at night,

See **Exhibit A** for a complete set of site plan drawings.

The Project will operate year-round. Because the Project generates power during daylight, some routine maintenance may be performed during the night. Any nighttime maintenance activities will be performed using directed lighting carried by maintenance personnel, in addition to the lighting referenced above. With the exception of the built-in and/or

yard lighting to be provided at the substation, photovoltaic combining switchgear and power conversion stations, the operation and maintenance building and the ESS structure, Sun Streams, LLC does not intend to provide fixed exterior lighting for maintenance purposes. Sun Streams, LLC may install security cameras throughout the Project to remotely monitor the Site. The cameras, if installed, will be mounted on poles up to 24 feet in height to allow for optimal monitoring of the Site.

5.2 The Solar Array Field

The solar field will consist of PV modules mounted on a racking system supported by driven posts, driven concrete piles, ground screws and/or concrete ballasts. **Photograph 1** shows constructed PV modules at a solar energy generating facility.



Photograph 1: PV Modules in an Array Block at a Solar Energy Generating Facility

The typical height of the photovoltaic modules, when mounted on the racks, will be approximately eight feet. The maximum height at full rotation will be fourteen feet. The height will also vary because the rack bases will be allowed to follow the natural contours of the ground to a limited extent. This reduces the need for grading on the Site while allowing a uniform presentation of the panels to the sun.

To ensure optimal solar energy capture, the racks will track the sun, throughout the day, by rotating on an east-to-west alignment. As the panels rotate, their appearance and height changes, but the fourteen foot height limit is measured from the maximum point of rotation. The rotation of the panels will be extremely slow, and essentially noiseless. **Figure 5** and **Photograph 1** show a typical single axis tracker system.

To support the solar collection process, weather tracking equipment will be installed in appropriately spaced locations to collect critical data for plant operation. Approximately five (5) separate weather tracking equipment sets may be installed within the solar field or along the perimeter of the solar power plant. Stations include electronic instrumentation and transmission antennas for remote reporting. The stations are about the size of a traffic signal box and the remote transmission arrays may be up to 25 feet tall.

The Site Plan depicts the Solar Array Field located entirely north of the Southern Pacific Railroad tracks. At this time, Sun Streams is only proposing to place solar panels in that portion of the Property, because it is more efficient to do so. However, if it becomes appropriate to do so, Sun Streams will develop a Solar Array Field on that portion of the Property that is located south of the railroad tracks. Such development will be subject to the same development standards and accessory uses as set forth throughout this document for the depicted Solar Array Field.

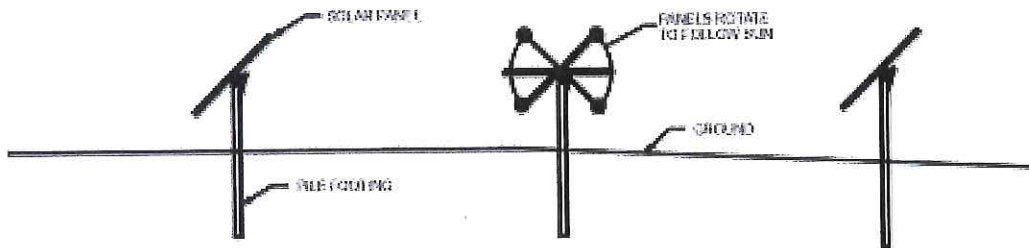


Figure 5: Typical Single Axis Tracker System

5.3 Electrical Collection System

The panels will be organized into approximately 1-5 MW groups referred to as “Array Blocks.” The Array Block is the level at which the PV Project can efficiently collect the electricity being generated by each of the panels.

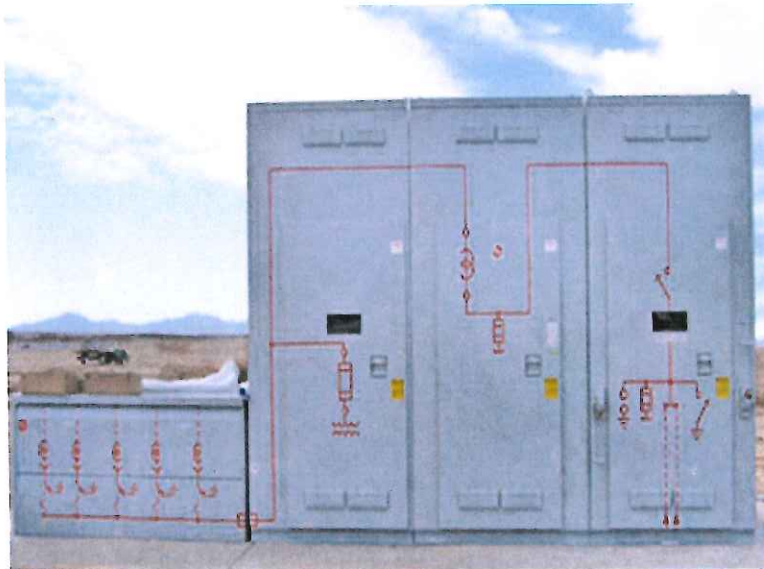
A typical 1-5 MW Array Block can be up to 25 acres in size and include more than 20,000 PV panels. The exact number of panels to be included in each Array Block is not known at this time, as the specific PV panel to be utilized has not yet been selected. Each panel, including its rack and rotational hardware, is referred to as a “Module.” The Modules are aligned in rows identified as “Strings.”

The varying sizes of the Array Blocks will allow for the Site to be utilized in a manner that optimizes the Project’s power generation capability. At the same time, utilizing PV panels of a consistent height, the north-to-south orientation of all Strings on the Site and the application of consistent perimeter setback standards regardless of an Array Block’s size will ensure that the appearance of all Array Blocks is generally uniform and consistent from the Site’s perimeter.

Near the center of each Array Block is a power conversion station (PCS) or its equivalent, consisting of up to two static power inverters, one inverter step-up transformer, cabling systems, and grounding systems. The PCS may be prefabricated metal or pre-cast concrete enclosures, or have no enclosures. The electrical equipment within the PCS prepares the solar power for use in the electrical grid. The inverters convert the low voltage direct current (DC) electricity generated by the panels to alternating current (AC) electricity. The inverter step-up transformer then steps up the voltage of the AC electricity to medium voltage (i.e., 34.5 kV). The various electrical equipment included in the PCS will be less than nine feet tall, and will thus not be visible from the Site perimeters. If Sun Streams, LLC chooses to utilize shade

structures for its PCS sites, the shade structures will be restricted to a maximum height of 14 feet.

The electricity is routed through underground cabling from each PCS to a photovoltaic combining switchgear (CS) site, or its equivalent. Equipment in the CS will be mounted to a cast-in-place or pre-cast concrete foundation, vault or piers. The CS will be metal enclosed or air insulated. The various electrical equipment at each CS will be less than 14 feet in height and will be located on up to 500 square feet of land area. **Photograph 2** shows a typical CS. The site plan submitted with this application only shows a conceptual illustration. CS can efficiently serve as little as 10 MW of power and as much as 40 MW of power, and their exact number and location will be determined during final design.



Photograph 2: Typical Photovoltaic Combining Switchgear (CS)

Once the voltage is stepped up to 34.5 kV, the electricity is routed from the CS through above-ground transmission lines supported by wooden or steel poles up to 60 feet tall to the internal substation detailed below. While located above ground, the visual impact of the on-site transmission lines will be negligible in comparison to the visually dominant feature of the area (the APS Red Hawk natural gas power plant).

5.4 Energy Storage Systems

As solar energy becomes a more important part of the nation's energy supply system, the need to store solar energy into evening hours has become a growing part of the solar energy production process. To accommodate this expansion of solar into nighttime availability, the Project may optionally have onsite Energy Storage Systems (ESS). The ESS will be able to provide up to approximately four hours of energy storage capacity.

Each ESS will occupy approximately 4 acres of land within the Project and will consist of self-contained battery storage modules placed in racks, switchboards, integrated heating, ventilation, and air conditioning (HVAC) units, inverters, transformers, and controls in

prefabricated metal containers or in a building near the on-site substation. The battery storage modules would use proven storage technologies such as Lithium Ion, Sodium-Sulphur, or Vanadium-Redox-Flow batteries.

The final ESS design will be completed after the completion of the facility. The enclosures or building would have appropriate fire suppression systems built to code. The final design would include an apron incorporating containment features to prevent the escape of liquids or spills from the ESS site. The construction could include trenching cable runs, placing or pouring concrete vaults or foundations, and moving the ESS enclosures with a crane or forklift to the appropriate location.

5.5 Substations

From the inverters and CS, the power is then routed to a substation. For purposes of the Silver Spoon Unit, Sun Streams LLC may or may not have an on-site substation. If there is no on-site substation, Sun Streams LLC will be routing the power to a substation at Sun Streams Unit I, already approved, or at Sun Streams Unit II, proposed, and the remaining area of the Project will be devoted to additional solar panel Array Blocks. The immediately following text in the balance of this section of this application describes an internal substation should Sun Streams LLC choose to develop one.

Internally, the Project envisions one possible substation. The substation will prepare power for transmission to the 500 kV substation in Sun Streams I, and then into the Hassayampa switchyard. The substation will be approximately five acres in size. The substation will likely be constructed in the northwest corner of the Site, as close as possible to the Hassayampa Switchyard.

Once the power is generated and converted, it will need to inter-connect into the regional power grid. A clear advantage of the Site is its proximity to Sun Streams Unit I, which already has an approved connection into the Hassayampa Switchyard, which means this Project will have minimal transmission needs. Off-site transmission line siting decisions lie within the exclusive jurisdiction of the Arizona Corporation Commission (the "ACC"). Lines of 115 kV or more must be approved; lines of lesser voltage may be constructed by right up to a height of 120 feet per Maricopa County Zoning Ordinance Article 1111.7. Off-site transmission lines, unless constructed by an Arizona utility holding a Certificate of Convenience and Necessity issued by the ACC, are not exempt from local jurisdiction construction code authority.

Figure 6 illustrates the possible substation outcome for this Project.

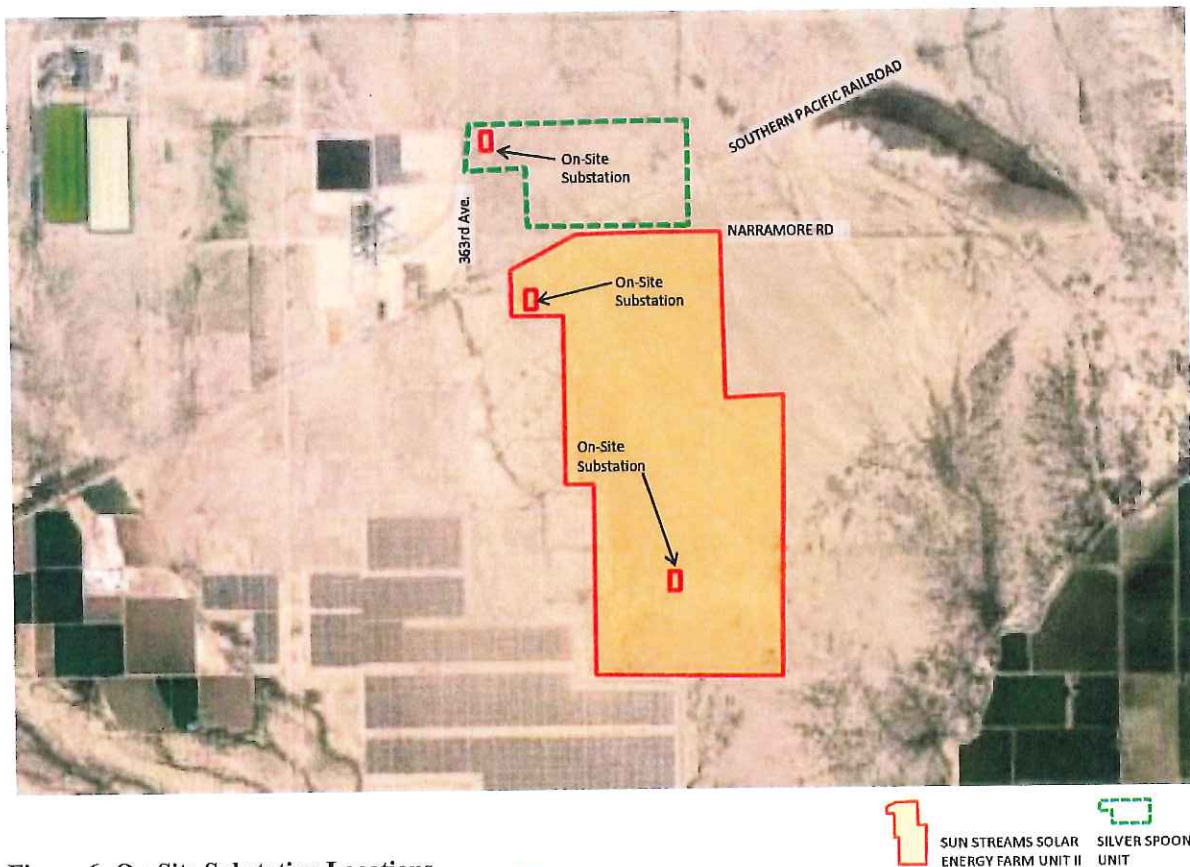


Figure 6: On-Site Substation Locations

5.6 Drainage Design

The existing condition of the Site with respect to drainage is as follows. Stormwater runoff generally flows from the north to south across the Site in both sheet flow and concentrated flow in small desert washes. The Site contains a single predominant ridgeline that divides the flow towards separate outfalls along the southwest and southeast perimeter property lines. Flow leaving the Site exits as both shallow sheet flow and concentrated flow and ultimately contributes to the Gila River.

A wash named “T1S-R6W S28” and mapped by the Federal Emergency Management Agency (“FEMA”) as a Zone A Special Flood Hazard Area is located in the eastern portion of the Site. The Zone A approximates the areas that are subject to inundation by the 1 percent annual chance flood, which has a one percent chance of being equaled or exceeded in any given year. See **Exhibit B** for the Project Drainage Report.

Sun Streams, LLC currently does not intend to construct Array Blocks within the washes and waterway. However, if necessary Sun Streams, LLC will apply for a Floodplain Use Permit from the Flood Control District of Maricopa County (“FCD”) if future plans call for the construction of the limited number of Array Blocks within the floodplain. Although not anticipated to be necessary at this time in light of the PJD findings, Sun Streams, LLC Solar will also coordinate with the U.S. Army Corps of Engineers as necessary for the limited construction

within any jurisdictional waterways. In addition, any portion of a fence to be constructed within the regulatory floodplain will be designed with adequate openings to maintain historic flow patterns.

Unlike a typical development, a PV Project renders a small portion of the Site impervious. The buildings, electrical equipment and paved driveways create impervious areas, but the modules sit elevated above the ground on poles. While the Sun Streams Project intends to cover much of the Site with PV modules, the poles that support the modules will cover less than five percent (5%) of the Site. The modules themselves simply drain off their edges onto the ground beneath each module. As a result, nearly full access to the ground surface will be retained.

Generally, Sun Streams, LLC will be constructing channels, retention basins and berms on the Site to route and capture drainage. The channel, retention basins and berms are reflected in Sheets C.3.0 through C.4.1, and Sheets in **Exhibit A**.

5.7 Grading Design

Unlike a typical project, where a site is mass graded at the start of construction, Sun Streams, LLC will not need to mass grade this Site. It is the intent of the Project's grading design to minimize the amount of earthwork required. The main areas that will be mass graded are the drainage basins and the substation and services areas of the Site. In order to minimize the amount of disturbance, most of the Site will be spot cleared and/or mowed. If required, select areas of the Site may be disced and rolled. As shown by Sheets C.3.0 through C.4.1 in **Exhibit A**, grading will generally follow the Site's existing topography. Grading activities will not involve significant dredging or filling within the T1S-R6W S28 wash. As detailed above, Sun Streams, LLC is prepared to address appropriate permitting requirements of both the FCD and U.S. Army Corps of Engineers, as necessary.

5.8 Landscaping

The intent of the Project's landscaping design is to preserve native shrubs outside the solar array in their natural and organic groupings as much as possible for the purposes of preserving the aesthetically pleasing natural desert environment and conserving water resources. As detailed above, the Project will be able to keep much of the existing landscaping in place. This area is one of the driest parts of the already dry Sonoran Desert. It is ideal for solar generation, but not for irrigated plantings.

Unlike a more typical industrial or commercial project that might have a perimeter wall and man-made landscaping, Sun Streams, LLC is taking a different approach. The Sun Streams Silver Spoon Unit is extremely isolated from public rights-of-way, and is therefore mostly invisible to passersby. In addition, because this area is so dry, non-natural landscaping and opaque walls would make the site more, not less, visible. Thus, as much as possible, at the edges of the Project, the natural desert will remain undisturbed and fencing will be chain link.

Along the east, south and west perimeters, the panels will be set back from the property lines, and the fences necessary to secure the Site will be setback as well. The north perimeter is

adjacent to Sun Streams Unit I. The fences themselves will be chain link topped with barbed wire, to be as visually porous as possible. Thus, to the passerby, the site will have natural desert and grade, and then the low-height panels. The primary exceptions to this appearance will be drainage basins, which may be partially bermed on their downhill side to a height as much as four feet also further limiting visual impact. None of the basins or berms will be adjacent to and public rights-of-way.

In addition to these generous setbacks, as already noted, Sun Streams also will not have a traditional perimeter fence. Instead, Sun Streams will pull its fence back from the property line to be as close to the Array Blocks where reasonably practical. To keep people from approaching the panels, Sun Streams will be erecting a fence a minimum of six (6) feet and as high as eight (8) feet in total height consisting of a minimum of six (6) feet of chain link topped with up to two (2) feet of barbed wire around its panels. However, in keeping with the Sun Streams approach of leaving the natural appearance relatively undisturbed, the Sun Streams fence will not be opaque, and therefore will not draw the attention of any passerby.

See Sheet L1.0 of **Exhibit A** for the location of perimeter landscape setbacks to be provided.

5.9 Industrial Unit Plan of Development

To develop the Silver Spoon Unit as planned, Sun Streams will be seeking several modifications from County development standards using the Industrial Unit Plan of Development mechanism to do so. The vast majority of these modifications are related to the remote nature of this site, specifically accommodating the large array fields that maximize the efficiency of the Site's solar power capability. As a result, Sun Streams is seeking to confirm that none of the mile or half-mile street alignments will actually be developed through the Site, and thus none of the typical street development standards, including setbacks, improved landscaping, fencing and site triangles, are necessary at the Site. Sun Streams is also using the IUPD mechanism to confirm the exclusion of arrays and substations from lot coverage calculations.

The specific modifications of County development standards are set forth in **Exhibit C**.

6.0 Project Operation and Maintenance

When operational, the Project can be remotely monitored, and controlled by Sun Streams, LLC or a contracted O&M company. At full build-out, there may be an administrative facility on the Site. There will be up to three full-time employees at the facility, or a total of six full-time employees on the Site. These employees will work normal shift hours (generally 8 a.m. to 5 p.m.).

PV solar energy generating facilities require a limited amount of maintenance. Maintenance activities include but are not limited to the following:

- Periodic inspections;
- Cleaning PV Modules;
- Dust control;
- Weed control;
- Maintaining electrical collection system components (i.e. inverters, switchgear, transformers, and ESS); and,
- Maintaining on-site infrastructure (i.e. driveways, drainage channels and retention basins), as well as responding to issues detected by remote monitoring.

The only maintenance activities which could possibly require regular water use are the cleaning of PV modules and controlling dust. As noted above, to allow the Modules to function continuously through daylight hours, some maintenance, including some panel cleaning, may be performed at night, using directed, not overhead, lights. Water use for cleaning purposes is small. The rough estimate for the amount of water needed for cleaning panels on an annual basis at build-out is less than 400,000 gallons per year, enough to supply two Arizona households with water for a year. This is indeed a very small amount of annual water usage for a 250 acre site.

No major equipment is anticipated to be required for maintenance of the facility except as necessary for periodic re-grading of driveways or equipment replacement. Because the driveway providing access to the Site from 363rd Avenue will be asphaltic paved, these surfaces will not require re-grading. However, interior driveways providing access to the solar array field will not be paved. While main access driveways extending from 363rd Avenue into the Site may be surfaced with gravel, if needed, the majority of interior driveways will be native compacted soil. Non-paved interior driveways may require re-grading from time to time.

6.1 Site Security

To provide a secure and safe environment, lands will be enclosed by an open chain link fence topped with barbed wire and all access points will be gated with swinging or rolling chain link gates topped with barbed wire. The fence and gates will be a minimum of six (6) feet and as high as eight (8) feet in total height and will be comprised of a minimum of six (6) feet of chain link topped with up to two (2) feet of barbed wire. Sun Streams, LLC is expected to use open chain link fencing to maintain a secure but visually open appearance. Substations will be separately fenced as well with the same type of fencing. The fence height may change if requested by County officials for drainage purposes at the base of portions of the fence.

For night time security, the Project may use motion-activated lights or IR illumination mounted on 24 foot tall poles. Because these security lights will be motion-activated or IR illuminated only, Sun Streams, LLC expects the Site to be dark at night. The motion detectors on the security lighting system will not react to animal movement. Furthermore, to ensure that lighting will not be cast onto neighboring properties, all security lighting installed will be directed downward and into the Site. All on-site lighting will also comply with Maricopa County Zoning Ordinance Article 1112. Additional security measures that may be implemented include cameras to remotely monitor the Site and periodic patrols of the Site's perimeter. As previously discussed, the cameras, if installed, will be mounted on 24-foot tall poles to allow for optimal monitoring of the Site.

6.2 Weed Management

Following initial mowing of the Site, vegetation will be allowed to reestablish to the extent it does not interfere with equipment or facility operation and maintenance. Sun Streams, LLC will need to ensure its retention areas continue to function by using weed control. To ensure that these areas remain free of an overabundance of weeds, herbicides will be used on a periodic basis by licensed or certified applicators. For other areas of the facility, including ground surface located beneath solar panels, hand removal or mechanical methods (i.e. small drivable weed mowers) and herbicide applications can be used to achieve weed control when necessary and practical.

Because weeds can create a fire safety hazard, the presence of weeds (especially tumbleweed) on the Site will be regularly monitored and managed throughout the life of the Project. When necessary and practical, hand removal and mechanical methods (i.e. small drivable weed mowers) and herbicide applications can be used to achieve weed control.

7.0 Environmental Impacts

7.1 Noise

When the Project is fully operational, it is not anticipated that there will be any regular activities on the Site that will result in discernable off-site noise. The use of construction equipment for performing earthwork and installation may produce noise that is noticeable off-site during construction.

7.2 Air Quality

The Project will not produce any noticeable odors. Sun Streams, LLC will use construction dust control measures as required by Maricopa County. Details of the construction dust control plan will be submitted and approved under separate permit through the Maricopa County Environmental Services Department. Dust control measures will be supported in part by minimizing the areas requiring ground disturbance.

7.3 Visual Resources

The Project will not affect the visual quality of the area, as the Site is located on relatively flat desert land at a low elevation, is several miles from the nearest population center, and is located in an area that does not provide recreational opportunities or attract public attention. The visually dominant features of the area are the PVNGS and the natural gas fired power plants. In addition, the Project will also have a relatively low profile (height) and the PV Modules, which absorb sunlight, will not cause substantial glare. Visual impacts resulting from the development can be mitigated by the maintenance of native vegetation on areas located between the perimeter property line and the security fence.

7.4 Cultural Resources

Sun Streams has not performed cultural resources research for the Sun Streams Silver Spoon site. However, Sun Streams has completed a Class III Cultural Resources Survey for all of the adjacent 1,130 acres of Sun Streams Unit II. We are including a copy of that report here to provide a sense of the general nature of resources in the immediate vicinity. The Survey was prepared by Archaeological Consulting Services. The associated fieldwork was completed in April of 2011. The survey identified only seven small sites for avoidance, six of which are clustered along the southeast edge of the site, near the wash, and an area which Sun Streams has already planned to avoid for construction of arrays. Consistent with standard practice, Sun Streams is not submitting a copy of the specific site map, and treating that information as confidential to ensure the sites are not disturbed. The survey also specifically references the presence of the Southern Pacific Railroad, which bisects the Silver Spoon property, and did not assign any special significance to its local presence. See **Exhibit D** for the Project Cultural Resources Reports.

7.5 Biological Resources

Information was obtained from both the U.S. Fish and Wildlife Service and the Arizona Game and Fish Department ("AGFD") regarding the potential occurrence of special status species with the Project Study Area for the Silver Spoon parcel. Because of lack of suitable habitat, only two of the wildlife species, the Western Burrowing Owl and Le Conte's Thrasher, could likely occur on the site. Potential impacts to these species would be minimized by implementation of appropriate conservation measures under the Migratory Bird Treaty Act and the application of measures identified by AGFD in the Project Evaluation Program for the borrowing owl. See **Exhibit E** for the Special Status Species Review.

8.0 Traffic Generation

The projected traffic generation for the Project is minimal. No improvements to surrounding streets are expected as a result of the Project.

The primary access to the Project will be from 363rd Avenue. 363rd Avenue is not classified on the Old US Highway 80 Area Plan. It currently serves as the service drive for the Red Hawk power plant next door to the west.

The Project will have a single access driveway off 363rd Avenue. In addition, there will be multiple perimeter and internal driveways. This driveway will be asphaltic paved between the edge of pavement for 363rd Avenue and the entry gates. The main access driveway will provide access to any substations, the initial construction and permanent storage yards, any utility / operation and maintenance buildings, and the wells. All other driveways on the Site will be of unpaved engineered construction having a design based on engineering considerations, including native soil characteristics, frequency and weight of traffic, drainage and dust control. If necessary, a secondary driveway could be created off 355th Avenue.

Traffic trips generated during operations will be from up to six full-time employees at full build-out. As detailed above, it is possible that the Project will be remotely monitored.

Construction activity will generate trips for a limited duration. This traffic will be associated with worker trips and the delivery of construction materials to the Site, which will occur during on-peak and off-peak hours. The Project's construction will require the delivery of materials from Interstate 10 that will add approximately 5 semi-trucks per day to Elliot Road. At its peak, the Project's construction is anticipated to require a workforce of up to 100 persons. The construction workforce may add approximately 75 vehicles to Wintersburg and Elliot Roads per day. Due to the distance workers may travel, this number anticipates some rate of carpooling by the construction workforce. The mobilization and demobilization of equipment used for earthwork, including scrapers, graders, water wagons, compactors, truck-mounted post drivers, skid loaders, and forklifts, is anticipated to generate a minimal amount of traffic. The staging yards for the project are located off the primary 363rd Avenue driveway.

First Solar will maintain its longstanding commitment to minimizing the impact of construction traffic impacts on the Arlington Elementary School and the residences on the east side of 355th Avenue. Sun Streams, LLC intends to honor this commitment by requiring all construction traffic, both workforce and deliveries, to access the Site from the Interstate 10 Wintersburg Road exit. As a result, traffic will be funneled away from the School and residential community to the northeast, and toward PVNGS and the other industrial neighbors to the west. This pattern may require coordination with work shifts at PVNGS. In addition, Sun Streams, LLC will meet with Arlington Elementary School District officials in advance of construction to discuss traffic safety.

A Project Traffic Impact Statement (TIS) prepared by HilgartWilson addressing construction traffic is provided as **Exhibit F**. The TIS concluded that there will be negligible impacts on the existing area roadway system resulting from the construction of the Project.

9.0 Public Services

9.1 Fire Protection

Fire response services will be provided by the Tonopah Valley Fire District ("TVFD"). TVFD handles emergencies closer to Tonopah, located approximately 10 miles northwest of the Site. On-site driveways will provide egress for emergency and fire department access. However, the anticipated level of fire protection needed for the Site is very minimal, as PV Modules are constructed of non-combustible materials (glass and steel) and the electricity generation process does not involve combustible fuel, high temperature, or high pressure. For these reasons, PV solar energy generating facilities are considered to be much safer than other energy production processes. In addition, all materials used on the Site will be managed according to applicable federal, state and local regulations. Lastly, native vegetation located beneath PV modules will be periodically monitored and controlled to ensure that the growth rate of this vegetation does not have any impact on wildfire suppression activities.

9.2 Police Protection

The Maricopa County Sheriff's Office, operating out of one main station in Avondale and a satellite station in Buckeye, provides protective services for the Old US Highway 80 planning area. The Site is located within the District II patrol area, and the nearest police substation is located at 920 E. Van Buren Avenue in Avondale.

9.3 Water & Wastewater Resources

The Project does not impose any new water and wastewater requirements on the area. The Site is located within an Arizona Department of Water Resources (ADWR) regulated Active Management Area (AMA). The need for water on the Site will be minimal, necessary only for needs of employees and cleaning of the panels. Water for construction purposes will be delivered to the Site. As indicated above in Section 6.0, there will be up to six full-time employees on the Site, with the possibility of remote monitoring. The potable water needs of six employees will be from ADWR exempt wells. As further indicated in Section 6.0, the water needed to clean the panels is expected to be less than 400,000 gallons per year, again a minimal amount on a 257 acre Site. This IUPD calls for up to two exempt, potable wells on site with a capacity of less than 35 gallons per minute for each well to serve these two water needs. This insignificant amount of water use does not require a Public Water System.

The wastewater generated at the facility is anticipated to be treated with an on-site wastewater treatment facility, such as a conventional septic tank system or similar alternative system as regulated by Arizona Department of Environmental Quality and administered by Maricopa County Environmental Services Department. See **Exhibit G** for the Project Water and Wastewater Plan.

9.4 Electric

APS is the electrical service provider for this area.

9.5 Community Facilities & Services Impact

During operations, the Sun Streams Silver Spoon Solar Energy Farm will have no impact on community facilities and services, such as schools and parks, as the Project is anticipated to only require a minimal number of full-time employees. As previously mentioned, the Project is expected to require a peak workforce of up to 100 persons during construction. However, it is not anticipated that the workforce will have a significant impact on the community's facilities and services, as it is anticipated that the construction workforce will draw upon the existing labor pool in Maricopa County.

9.6 Emergency Response Plan

Sun Streams, LLC has prepared an Emergency Response Plan for Sun Streams Unit I, and is working with APS on a similar plan for the Silver Spoon Unit. The new Plan will specify notification, assembly, accountability and evacuation planning in the event of an emergency at the PVNGS, as the Site is located within the 10-mile Plume Exposure Pathway Emergency

Planning Zone (EPZ) for PVNGS. See **Exhibit H** for the existing Sun Streams I prepared Emergency Response Plan. Sun Streams will replace this existing Plan with the new Plan when APS has approved the new Plan.

10.0 Phasing and Construction

10.1 Phasing Schedule

Sun Streams, LLC will construct the Sun Streams Silver Spoon Unit in response to market demand. Sun Streams' preference is to develop the Silver Spoon Unit in conjunction with Sun Streams Unit I. As Unit I moves into the construction phase and detailed planning occurs, Sun Streams will be able to determine whether its current Power Purchase Agreement warrants construction of the Silver Spoon Unit as a part of that larger project. If immediate development of the Silver Spoon Unit is not justified at this time, Sun Streams could develop the Silver Spoon Unit as a separate entity, or in conjunction with Sun Streams Unit II in the future.

Sun Streams, LLC is aware that County Drainage regulations require that the drainage functions in an acceptable manner from a Drainage standpoint, regardless of phasing. Sun Streams, LLC acknowledges that this may require the development of build-out or interim drainage facilities in earlier construction phases.

Sun Streams, LLC's design goal for the Sun Streams Silver Spoon Unit is to generate at least 28 MW of solar power. However, because the power generating phases represent Sun Streams, LLC's best forecast for the Site, the capacity of this Project may change during final design.

The construction of the Silver Spoon Unit is anticipated to require about one year to complete, but again will ultimately depend on market conditions. Regardless of timing and phasing, all construction is subject to normal County oversight.

As stated previously, there are components of the Project that may not be included as part of the ultimate development of the Silver Spoon Unit. Specifically, Sun Streams may choose not to develop a substation or an ESS at this Project. If those accessory uses are not built, Sun Streams may use that acreage for additional solar panels. As also stated previously, Sun Streams may also ultimately choose to develop the land south of the Southern Pacific Railroad with additional solar arrays, in accord with the development standards set forth in this narrative.

Photograph 3 provided below shows the process for driving posts into the ground surface to support PV modules.



Photograph 3: Installation Process – Posts Driven into the Ground Surface to Support PV Modules at a Solar Energy Generating Facility

10.2 Temporary Facilities and Construction Workers

Temporary facilities, such as office trailers, laydown yards, containers, construction warehousing buildings up to 40 feet in height, parking areas and equipment storage areas will be required from move-on to completion of construction. Sun Streams, LLC currently plans to locate its temporary facilities at the northwest corner of the Site near the existing Hassayampa Switchyard and near the existing Redhawk power plant. Temporary facilities will be removed upon the completion of construction. Approximately 100 construction workers will be employed during construction. This workforce will vary with phases of construction. Once temporary construction uses are complete, Sun Streams may choose to develop additional solar panels on these lands.

As previously indicated, Sun Streams, LLC will coordinate construction traffic management with the Arlington Elementary School District.

11.0 Summary

Sun Streams, LLC is excited to bring the Sun Streams Silver Spoon Unit to this Site. The Site is mostly flat and located in close proximity to the regional power grid. The Sun Streams Silver Spoon Unit will be low profile. It will be relatively odorless and noiseless. It will not cause a substantial amount of glare. It will generate minimal traffic. For these reasons, the Sun Streams Silver Spoon Unit Solar Energy Farm is an ideal addition to the power generating facilities that already dominate the local area.

Maricopa County

IND-2 (Industrial) Rezoning and Industrial Unit Plan of Development

Case No. Z2017018

Sun Streams Solar Energy Farm (Sun Streams Unit II) Project Narrative Report



Submitted by:

**Sun Streams 2, LLC, a wholly owned subsidiary
of First Solar, Inc.**

Prepared by:



Original Submittal Date: March 9, 2017

Revised Submittal Date: June 13, 2017

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1.0 Narrative Report Notarized Statement

I, Stephen W. Anderson, being owner or owner's authorized agent for IND-2 (Industrial) Rezoning and Industrial Unit Plan of Development Case No. Z2017018, recognize and acknowledge that this Narrative Report will become a part of the application to which it applies and that the truth of its contents will be relied upon by the Maricopa County Planning and Development Department, the Maricopa County Planning and Zoning Commission and the Maricopa County Board of Supervisors.

I certify that all of the information in this Narrative Report is complete and true. If any of the statements in the Narrative Report is willfully false or incomplete, I understand that I am subject to punishment and that any approvals or permits granted by Maricopa County in reliance upon the truthfulness of the above statements may be revoked or rescinded.

Owner/Owner's authorized agent signature: _____

SUBSCRIBED AND SWORN before me the 13th day of June, 2017

Dawn M. McCombs
(Notary Public)



DAWN M. McCOMBS
Notary Public - Arizona
Maricopa County
Expires 11/30/2017

My Commission Expires: 11/30/2017

2.0 Project Overview

2.1 Project Name

The name of the project is Sun Streams Unit II Solar Energy Farm (IND-2 and IUPD Case No. Z2017018), hereinafter referred to as the "Project" in this narrative report.

2.2 The Applicant

The applicant is Sun Streams 2, LLC, a wholly owned subsidiary of First Solar, Inc (hereafter referred to as "Sun Streams"). As the leading global provider of comprehensive photovoltaic (PV) solar energy solutions, First Solar delivers power plant solutions that maximize value and mitigate risk for customers worldwide.

2.3 Request & Proposed Project

This request is to rezone a 1,130 acre parcel from RU-190 to IND-2 Industrial, with an Industrial Unit Plan of Development (IUPD), to allow the development of a photovoltaic (PV) solar energy generating facility on approximately 1,130 gross acres located in the Rural-190 zoning district generally south of the Narramore Road alignment and straddling the 335th Avenue Section line alignment.

This site is near to the existing, 2,155 acre Sun Streams Unit I Solar Farm, and adjacent to the proposed Sun Streams Silver Spoon Unit Solar Farm. Specifically, the north perimeter of the subject property is adjacent to the south edge of the proposed Sun Streams Silver Spoon Unit, which is in turn itself adjacent to the existing Sun Streams Unit I Solar Farm. The Maricopa County Board of Supervisors has reviewed and approved the Sun Streams Unit I Solar Farm on numerous occasions, most recently approving a Major Amendment to the Sun Streams Unit I Solar Farm Special Use Permit on July 30, 2014, in Case No. Z2013015. First Solar is processing a separate rezoning application for the Sun Streams Silver Spoon Unit simultaneously with this application.

This application for the Sun Streams Unit II Project is crafted to track the existing Sun Streams Unit I Solar Farm approval as closely as possible. The County's policy regarding solar farms has changed since the time of its approval of Unit I, now encouraging the use of IND-2 zoning instead of Special Use Permits. This application does reflect that change in policy, but otherwise is intended to operate in a manner that duplicates the existing approval.

The subject property is currently designated as Rural under the Old U.S. Highway 80 Area Plan. First Solar has previously filed a Comprehensive Plan Amendment regarding additions to Sun Streams, Case No. CPA2015003, seeking to redesignate targeted areas for additional solar opportunities near the Sun Streams Unit I Solar Farm. Simultaneously with the submittal of this rezoning application, First Solar is submitting a revised Comprehensive Plan Amendment proposal in Case No. CPA2015003 that includes relevant portions of the subject property, and seeks to change its designation under the Old U.S. Highway 80 Area Plan from Rural for that approximately 23 acre portion of the subject property (as well as all of the adjacent 257 acre Silver Spoon Unit) to Utilities, to allow for use as a solar energy farm. All of the balance of this 1,130 acre Project site, as well as the existing Sun Streams Unit I Solar Farm site, has already been designated for Industrial uses.

The Project consists of arrays of PV panels that absorb sunlight and directly produce electricity. PV panels produce electricity without the use of heat transfer fluid or cooling water. Sun Streams, LLC's goal is to produce at least 195 megawatts (MW) of clean solar power from the Project, which would meet the energy needs of 68,000 households. If Sun Streams, LLC can exceed that level of power generation at this Project, it will do so.

Sun Streams, LLC's conceptual phasing intent for the Project is to develop it after development of the Sun Streams Unit I and Silver Spoon Unit sites to the north. Sun Streams Unit I has a Power Purchase Agreement in place that allows for its development in the immediate future. This rezoning application for Sun Streams Unit II is the first step in bringing this Project into the market for a future Power Purchase Agreement for Sun Streams Unit II. To be clear, Sun Streams, LLC will develop this Project in response to market demand, and may exceed the noted levels of power generation associated with each phase. Thus, First Solar envisions this Project to have maximum flexibility with respect to phasing.

2.4 Overall Project Benefits

Solar energy diversifies the energy supply, reduces the country's dependence on foreign oil, improves air quality, offsets greenhouse gas emissions, and avoids the construction of additional fossil fuel powered plants. In warm climates like ours, solar energy is also beneficial for satisfying peak energy demands, as solar energy is generated when the demand for electricity is at its peak (bright daylight hours). In addition to the environmental benefits, construction of a facility of this magnitude stimulates the local economy by creating construction jobs during installation, and by generating fee and tax revenue for Maricopa County.

On a neighborhood basis, development of a PV solar facility at this location is an appropriate and compatible land use. The area is very rural with minimal nearby population. The immediately developed uses are industrial: the APS Red Hawk natural gas power plant is adjacent to the west and northwest, and an Arlington Valley Solar Energy PV solar facility is located to the southwest. The Southern Pacific Railroad runs along a small portion of the northern perimeter of the Property. The Project itself is relatively low profile, it is relatively noiseless, odorless, and has very little nighttime lighting or activity.

3.0 Project Context

3.1 Location

The Project is generally located south of the Narramore Road alignment and straddling the 335th Avenue Section line alignment (the "Site"). The Site, which is currently unimproved Arizona State Land Department trust land, comprises approximately 1,130 gross acres. The Site includes portions of Sections 24 and 25 of Township 1 South, Range 6 West, Gila and Salt River Base and Meridian, as well as portions of Sections 19 and 30 of Township 1 South, Range 5 West, Gila and Salt River Base and Meridian. The Site is located approximately 5 miles southeast of Wintersburg, approximately 12 miles southeast of Tonopah, and approximately 15 miles west of Buckeye. The Vicinity Map provided in **Figure 1** depicts the location and boundaries of the Site.



Figure 1: Site Vicinity and Regional Map

Note: PVNGS (Palo Verde Nuclear Generating Station)

The predominant land use in the area is energy production and transmission. As previously noted, the APS Red Hawk natural gas power plant is adjacent to the northwest. The Site is located about 4 ½ miles southeast of the Palo Verde Nuclear Generating Station (“PVNGS”), the largest nuclear power plant in the United States. Other power plants near the Site are the Arlington Valley Solar Energy facility to the southwest and the Mesquite Power Generating Station about two miles to the northwest, as shown by **Figure 2**. The Hassayampa Switchyard is a major energy transfer facility located about two miles northwest of the Site; First Solar already has an access right into the Hassayampa Switchyard through the Sun Streams Unit I Solar Farm.

Figure 2: Surrounding Uses

As reflected by the list of adjoining uses provided in **Table 1**, the Site is located among existing industrial power generation and transmission uses. As mentioned above, the APS Red Hawk Power Generating Station is located immediately northwest of the Site. The Arlington Valley Solar Energy facility dominates the area to the southwest. The Hassayampa Switchyard is located two miles northwest of the Site, an existing sand and gravel mining operation is north of that, and then PVNGS sits north of there. The relatively odorless, waterless and noiseless characteristics of this PV solar energy Project are compatible with these existing industrial uses.

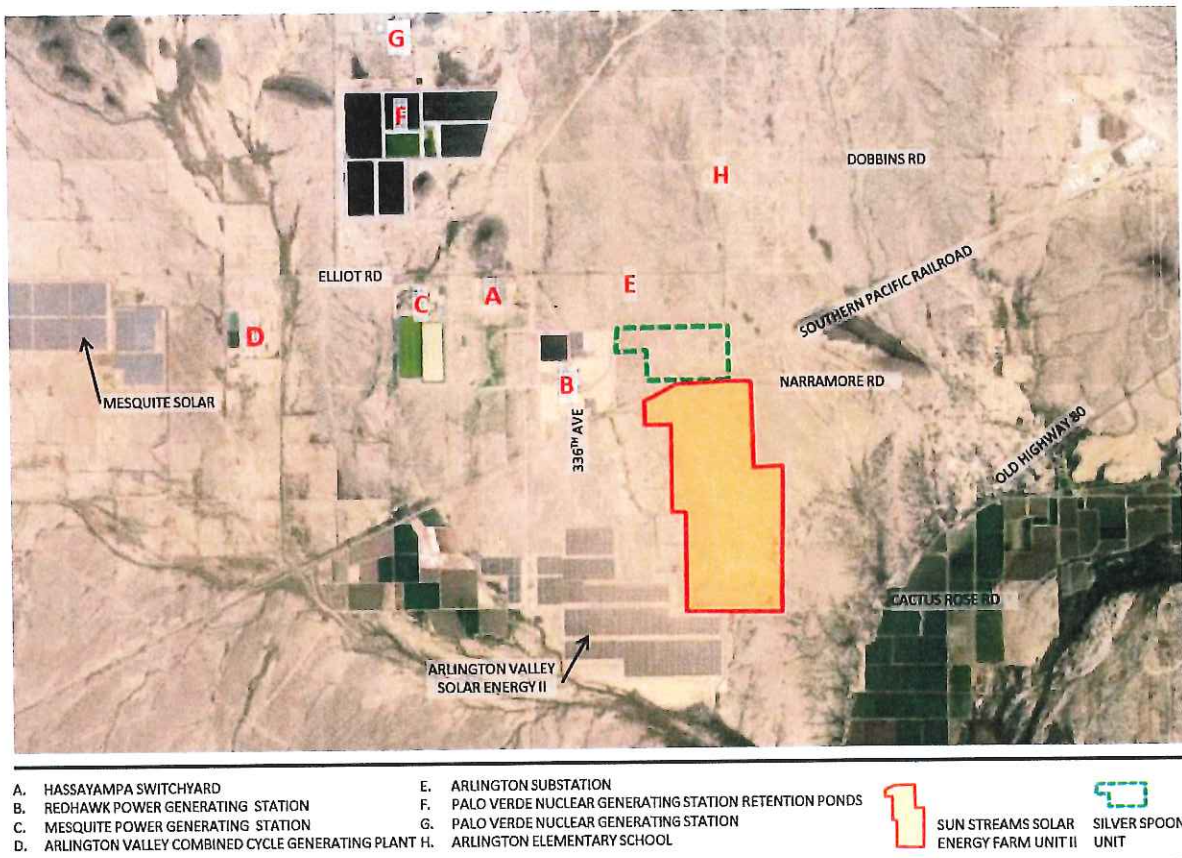


Figure 2: Surrounding Uses

Table 1: Adjoining Land Uses

	EXISTING USE	COMPREHENSIVE PLAN DESIGNATION
On-Site	Vacant	Industrial (Pending)
West	Vacant, Arlington Valley Solar Energy facility	Industrial
South	Arlington Valley Solar Energy facility, Vacant	Industrial / Rural Densities
East	Vacant	Industrial / Rural Densities / Small Lot Residential
North	Sun Streams Silver Spoon Unit (pending), Sun Streams Unit I Solar Farm	Industrial and Utilities (some Pending)
Northwest	Red Hawk Natural Gas Power Station, Hassayampa Switchyard, Sand and Gravel Operation, Palo	Industrial

	Verde Nuclear Generating Station	
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Indicative of the area's appropriateness for power generating uses, several rezonings, Special Use Permits, and CPA applications have been approved by the Maricopa County Board of Supervisors for solar energy generating facilities located adjacent to or within three miles of the Site over the past decade. As shown by **Figure 3**, these solar energy facilities include Sun Streams Unit I, Mesquite Solar, Arlington Valley Solar Energy ("AVSE") II and III, Hassayampa I Solar and AV Solar Project. Both the Mesquite Solar and AVSE II Solar projects have been developed and are currently in use and producing power. As previously stated, First Solar already has the right to connect to the Hassayampa Switchyard through the Sun Streams 1 solar farm, which is adjacent to the Switchyard.

As shown by **Figure 3**, existing non-power generating uses in the area are generally limited to the Railroad adjacent to the north perimeter of the Site; the sand and gravel operation off to the northwest; the rural lot Phoenix Valley West 1 Subdivision located east of 355th Avenue and north of Elliot Road, a mile to the northeast; and the Arlington Elementary School across 355th Avenue from those homesites, two miles to the north.

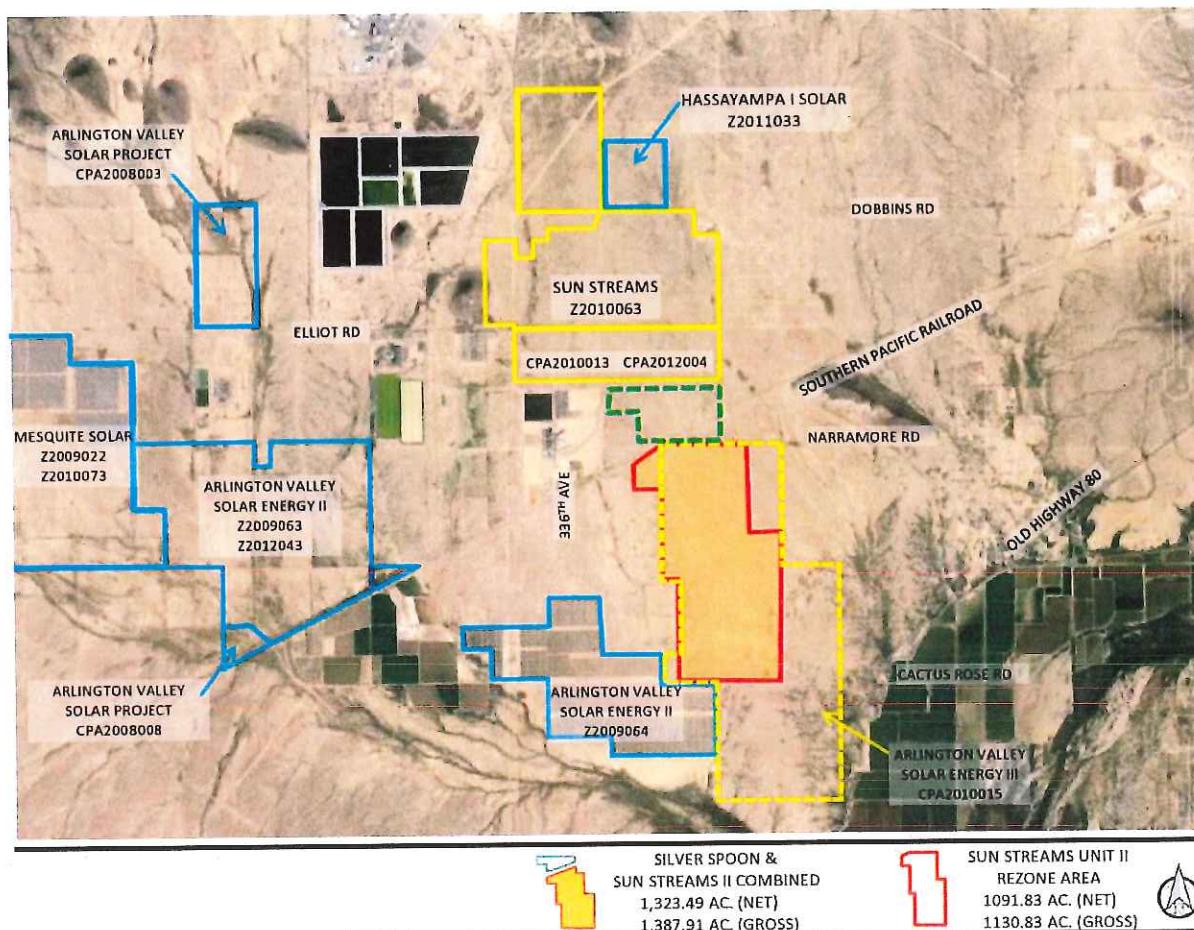


Figure 3: Surrounding Solar Energy Generating Facility Sites

3.2 Site Suitability

As a general matter, Arizona is the natural solar center of the United States, as shown by Figure 4.

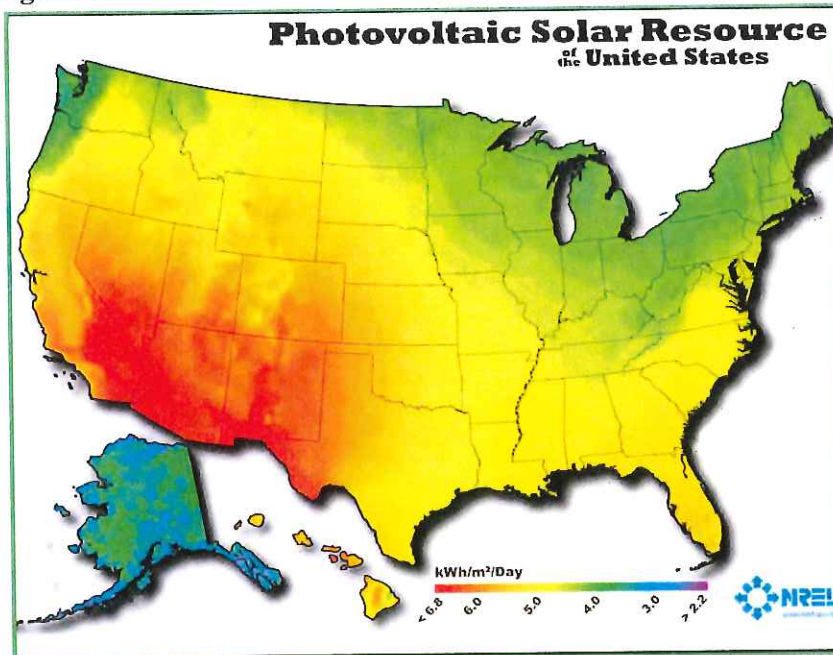


Figure 4: United States PV Solar Resource Map

Note: The above map shows solar photovoltaic resource potential for the U.S. Arizona and the Arlington area, in particular, have a high resource potential for solar power.

Source: "Solar Maps." National Renewable Energy Laboratory. 14 May 2010. <http://www.nrel.gov/gis/solar.html>

Factors critical to the siting of PV solar energy generating facilities include: large, contiguous areas of flat or nearly flat land; proximity to existing electrical substations and transmission infrastructure; and compatibility with nearby land uses. The Site meets each of these criteria.

The Site is relatively flat and mostly contiguous. The Railroad serves as a natural dam for waters coming from the north. There is a small wash that starts along the eastern edge of the site, flowing east and offsite, and the applicant intends to leave that area undisturbed.

As discussed above, the Site is located in proximity to existing electrical substations and transmission infrastructure, and is affiliated with Sun Streams Unit I, giving it immediate access to the Hassayampa Switchyard, limiting the need for overhead transmission facilities.

Finally, to reiterate, the Site is compatible with nearby land uses. The area is dominated by power generation and transmission facilities, including the largest nuclear power plant in the United States and a natural gas power plant that sits in plain view. The addition of a low intensity power project like this Project compliments those uses. The Sun Streams Unit II solar energy farm will be low profile, noiseless, and odorless, and will have minimal nighttime activity and lighting.

4.0 Related Applications

4.1 Comprehensive Plan Amendment

The Site is located within the planning boundaries of the Old U.S. Highway 80 Area Plan (the "Area Plan"). Most of the site is designated for Industrial uses, as the result of previously approved CPAs 2010015 and 2013007. There are small parcels at the north end of the Property that are still designated for Rural uses. First Solar has a pending minor Comprehensive Plan Amendment application with the County, Case No. CPA2015003, to change the designation of the remaining Rural lands in Sun Streams Unit II and all of the Sun Streams Silver Spoon Unit to Utilities. If approved, this Amendment will make the entirety of the Property compatible with its existing neighboring land uses and consistent with the Project as proposed here.

The Sun Streams Unit I solar farm to the north is already designated for Industrial uses.

4.2 Rezoning Cases

The Sun Streams Unit I solar farm to the north already has an approved Special Use Permit.

Simultaneous with this application, First Solar is filing an application to rezone approximately 257 acres of land to the north to Industrial (IND-2) to allow development of the Sun Streams Silver Spoon Unit solar energy farm (Case No. Z2017017).

At this time, First Solar intends to develop the current Project, Sun Streams Unit II, after the development of Sun Streams Unit I. Unit I already has a Power Purchase Agreement in place. This rezoning application is the first step in positioning Sun Streams Unit II into the marketplace for a Power Purchase Agreement. Market demand will ultimately determine when this Project is built.

4.3 Floodplain Use Permit and Nationwide Permit

The Project does not impact major floodways or anticipated jurisdictional waters of the United States. However, if necessary, Sun Streams, LLC will apply for a Floodplain Use Permit from the Flood Control District of Maricopa County ("FCD") for the limited construction to occur within any floodplains. Sun Streams, LLC is also in the process of coordinating with the U.S. Army Corps of Engineers to verify the limits of jurisdictional waters within the Project boundary through the Preliminary Jurisdictional Determination (PJD) process. The PJD has identified a single drainageway near the eastern edge of the site that meets the criterion of a jurisdictional water under a PJD. However this potential jurisdictional water is well outside of the proposed limits of disturbance.

4.4 Transmission Siting

Sun Streams, LLC is planning for a primary electric interconnection with the Hassayampa switchyard. As previously indicated, Sun Streams LLC already has a connection to

the Switchyard through the Sun Streams Unit I solar farm. As part of the planned Hassayampa interconnection, Sun Streams, LLC will perform any necessary line siting through the exclusive jurisdiction of the Arizona Corporation Commission. The final location of the interconnection(s) will ultimately be determined by the sale of power.

5.0 Project Description

5.1 Overview

To allow the development of Sun Streams Unit II, this rezoning application includes the following:

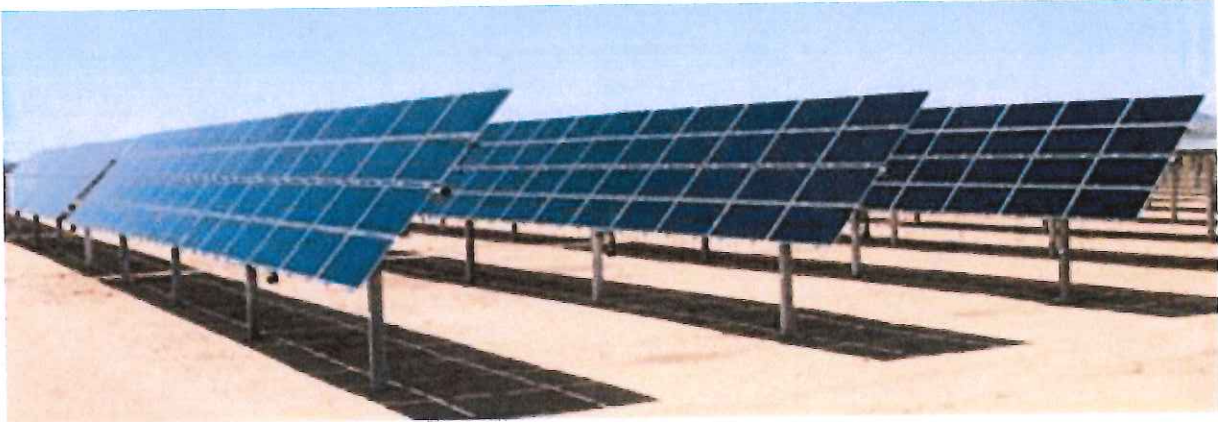
- A solar field of PV modules mounted on a single-axis tracking system, along with supporting weather tracking equipment;
- Electrical collection systems, including photovoltaic combining switchgear, power conversion stations, inverters and transformers;
- Up to two substations;
- Energy Storage System (ESS) structures for the deployment of batteries;
- Multiple utility / operation and maintenance buildings, including a microwave tower for transmission of live Project data to remote monitoring locations;
- Multiple maintenance / laydown areas; and,
- Civil infrastructure, including up to: one well; access gates; driveways; on-site parking; drainage channels; retention basins; fences; signage; and up to one septic tank and leach field. With respect to lighting, there may be motion activated or infrared (IR) security lighting and cameras mounted on poles up to 24 feet in height generally located at the Project's perimeter and the entrances to the Project's operation and maintenance building; built-in and/or switch activated yard lighting not to exceed 24 feet in height at substations; and built-in switch activated lighting not to exceed a height of 14 feet at each power conversion station and photovoltaic combining switchgear. If installed, this lighting will also be available for maintenance and safety purposes at night,

See **Exhibit A** for a complete set of site plan drawings.

The Project will operate year-round. Because the Project generates power during daylight, some routine maintenance may be performed during the night. Any nighttime maintenance activities will be performed using directed lighting carried by maintenance personnel, in addition the lighting referenced above. With the exception of the built-in and/or yard lighting to be provided at the substations, photovoltaic combining switchgear and power conversion stations, the operation and maintenance buildings, and the ESS structures, Sun Streams, LLC does not intend to provide fixed exterior lighting for maintenance purposes. Sun Streams, LLC may install security cameras throughout the Project to remotely monitor the Site. The cameras, if installed, will be mounted on poles up to 24 feet in height to allow for optimal monitoring of the Site.

5.2 The Solar Array Field

The solar field will consist of PV modules mounted on a racking system supported by driven posts, driven concrete piles, ground screws and/or concrete ballasts. **Photograph 1** shows constructed PV modules at a solar energy generating facility.



Photograph 1: PV Modules in an Array Block at a Solar Energy Generating Facility

The typical height of the photovoltaic modules, when mounted on the racks, will be approximately eight feet. The maximum height at full rotation will be fourteen feet. The height will also vary because the rack bases will be allowed to follow the natural contours of the ground to a limited extent. This reduces the need for grading on the Site while allowing a uniform presentation of the panels to the sun.

To ensure optimal solar energy capture, the racks will track the sun, throughout the day, by rotating on an east-to-west alignment. As the panels rotate, their appearance and height changes, but the fourteen foot height limit is measured from the maximum point of rotation. The rotation of the panels will be extremely slow, and essentially noiseless. **Figure 5** and **Photograph 1** show a typical single axis tracker system.

To support the solar collection process, weather tracking equipment will be installed in appropriately spaced locations to collect critical data for plant operation. Approximately fifteen (15) separate weather tracking equipment sets may be installed within the solar field or along the perimeter of the solar power plant. Stations include electronic instrumentation and transmission antennas for remote reporting. The stations are about the size of a traffic signal box and the remote transmission arrays may be up to 25 feet tall.

The Site Plan depicts the Solar Array Field located on the northern three-quarters of the site, with the southern quarter of the Property vacant. At this time, Sun Streams is only proposing to place solar panels in that portion of the Property, because it is efficient to do so. However, if it becomes appropriate to do so in the future, Sun Streams will extend the Solar Array Field on that vacant southern quarter of the Property. Such development will be subject to the same development standards and accessory uses as set forth throughout this document for the depicted Solar Array Field.

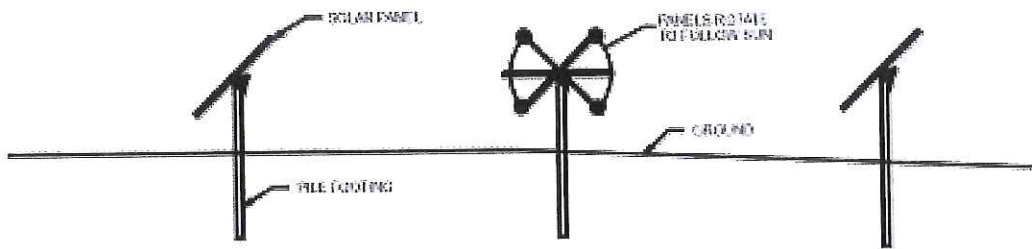


Figure 5: Typical Single Axis Tracker System

5.3 Electrical Collection System

The panels will be organized into approximately 1-5 MW groups referred to as “Array Blocks.” The Array Block is the level at which the PV Project can efficiently collect the electricity being generated by each of the panels.

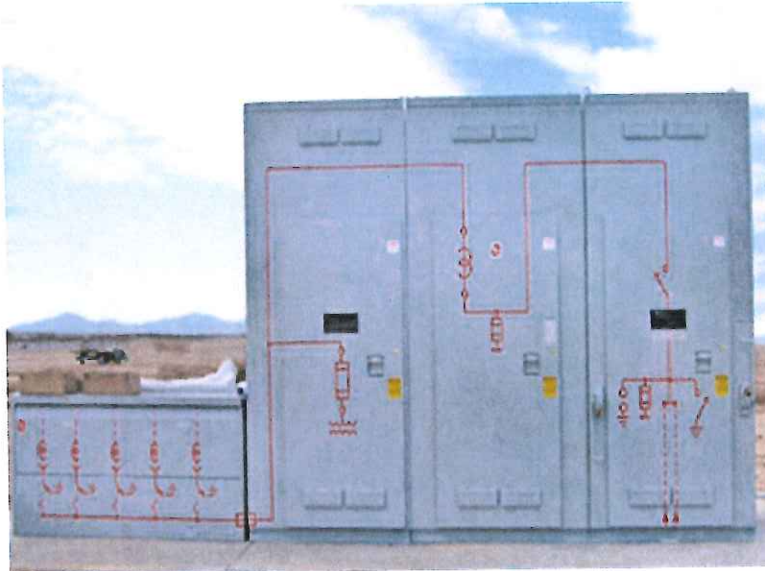
A typical 1-5 MW Array Block can be up to 25 acres in size and include more than 20,000 PV panels. The exact number of panels to be included in each Array Block is not known at this time, as the specific PV panel to be utilized has not yet been selected. Each panel, including its rack and rotational hardware, is referred to as a “Module.” The Modules are aligned in rows identified as “Strings.”

The varying sizes of the Array Blocks will allow for the Site to be utilized in a manner that optimizes the Project’s power generation capability. At the same time, utilizing PV panels of a consistent height, the north-to-south orientation of all Strings on the Site and the application of consistent perimeter setback standards regardless of an Array Block’s size will ensure that the appearance of all Array Blocks is generally uniform and consistent from the Site’s perimeter.

Near the center of each Array Block is a power conversion station (PCS) or its equivalent, consisting of up to two static power inverters, one inverter step-up transformer, cabling systems, and grounding systems. The PCS may be prefabricated metal or pre-cast concrete enclosures, or have no enclosures. The electrical equipment within the PCS prepares the solar power for use in the electrical grid. The inverters convert the low voltage direct current (DC) electricity generated by the panels to alternating current (AC) electricity. The inverter step-up transformer then steps up the voltage of the AC electricity to medium voltage (i.e., 34.5 kV). The various electrical equipment included in the PCS will be less than nine feet tall, and will thus not be visible from the Site perimeters. If Sun Streams, LLC chooses to utilize shade structures for its PCS sites, the shade structures will be restricted to a maximum height of 14 feet.

The electricity is routed through underground cabling from each PCS to a photovoltaic combining switchgear (CS) site, or its equivalent. Equipment in the CS will be mounted to a cast-in-place or pre-cast concrete foundation, vault or piers. The CS will be metal enclosed or air insulated. The various electrical equipment at each CS will be less than 14 feet in height and will be located on up to 500 square feet of land area. **Photograph 2** shows a typical CS. The site

plan submitted with this application only shows a conceptual illustration. CS can efficiently serve as little as 10 MW of power and as much as 40 MW of power, and their exact number and location will be determined during final design.



Photograph 2: Typical Photovoltaic Combining Switchgear (CS)

Once the voltage is stepped up to 34.5 kV, the electricity is routed from the CS through above-ground transmission lines supported by wooden or steel poles up to 60 feet tall to the internal substation detailed below. While located above ground, the visual impact of the on-site transmission lines will be negligible in comparison to the visually dominant feature of the area (the APS Red Hawk natural gas power plant).

5.4 Energy Storage Systems

As solar energy becomes a more important part of the nation's energy supply system, the need to store solar energy into evening hours has become a growing part of the solar energy production process. To accommodate this expansion of solar into nighttime availability, the Project may optionally have onsite Energy Storage Systems (ESS). The ESS will be able to provide up to approximately four hours of energy storage capacity.

Each ESS will occupy approximately 4 acres of land within the Project and will consist of self-contained battery storage modules placed in racks, switchboards, integrated heating, ventilation, and air conditioning (HVAC) units, inverters, transformers, and controls in prefabricated metal containers or in a building near the on-site substation. The battery storage modules would use proven storage technologies such as Lithium Ion, Sodium-Sulphur, or Vanadium-Redox-Flow batteries.

The final ESS design will be completed after the completion of the facility. The enclosures or buildings would have appropriate fire suppression systems built to code. The final design would include an apron incorporating containment features to prevent the escape of liquids or spills from the ESS site. The construction could include trenching cable runs, placing

or pouring concrete vaults or foundations, and moving the ESS enclosures with a crane or forklift to the appropriate location.

5.5 Substations

From the inverters and CS, the power is then routed to a substation. For purposes of the Sun Streams Unit II Project, Sun Streams LLC may or may not have on-site substations. If there is no on-site substation, Sun Streams LLC will be routing the power to a substation at Sun Streams Unit I, already approved, and the remaining area of the Project will be devoted to additional solar panel Array Blocks. The immediately following text in the balance of this section of this application describes an internal substation should Sun Streams LLC choose to develop them.

Internally, the Project envisions two possible substations to step up power for ultimate transmission to the Hassayampa switchyard. Both substations will be less than five acres in size each. One substation would be constructed in the northwest corner of the Site, as close as possible to the Hassayampa Switchyard, while the other substation would be built in the center area of southern half of the Array Blocks, away from the eastern perimeter of the site; the western perimeter is already adjacent to an existing solar energy farm.

Once the power is generated and converted, it will need to inter-connect into the regional power grid. A clear advantage of the Site is its relationship with Sun Streams Unit I, which already has an approved connection into the Hassayampa Switchyard, which means this Project will have minimal transmission needs. Off-site transmission line siting decisions lie within the exclusive jurisdiction of the Arizona Corporation Commission (the "ACC"). Lines of 115 kV or more must be approved; lines of lesser voltage may be constructed by right up to a height of 120 feet per Maricopa County Zoning Ordinance Article 1111.7. Off-site transmission lines, unless constructed by an Arizona utility holding a Certificate of Convenience and Necessity issued by the ACC, are not exempt from local jurisdiction construction code authority.

Figure 6 illustrates the possible substation outcome for this Project.

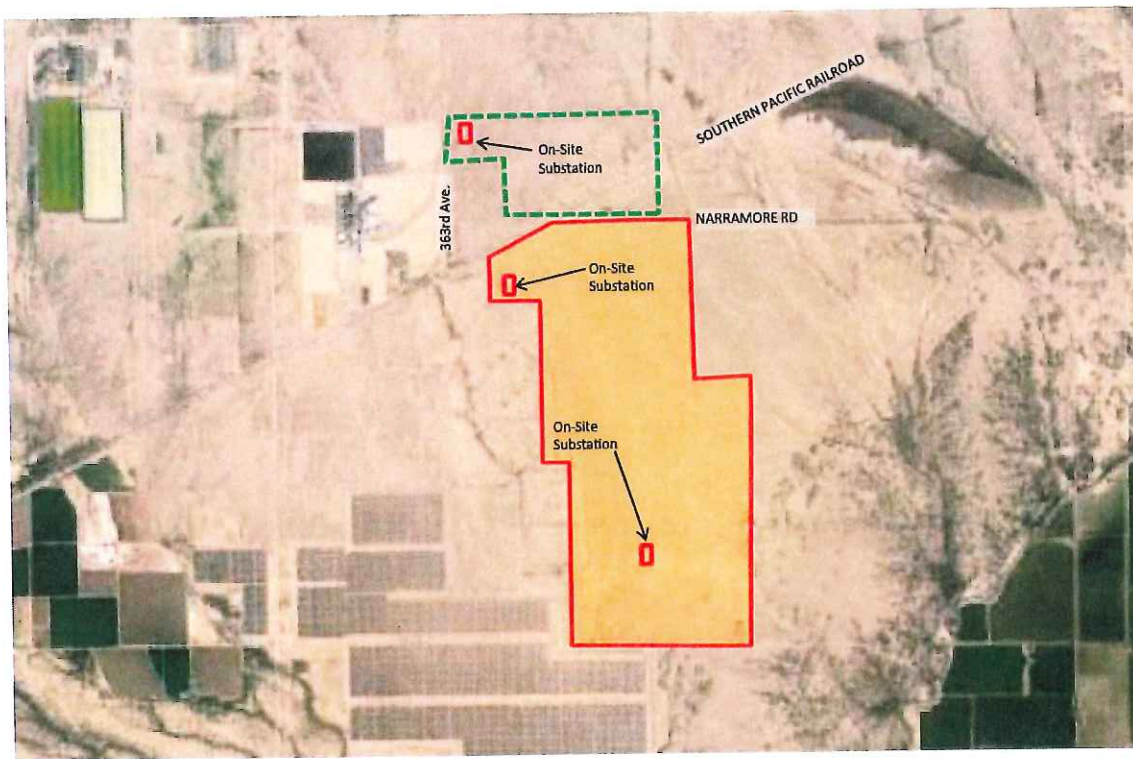


Figure 6: On-Site Substation Locations

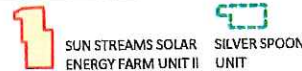


Figure 6: On-Site Substation Locations

5.6 Drainage Design

The existing condition of the Site with respect to drainage is as follows. Stormwater runoff generally flows from the north to south across the Site in both sheet flow and concentrated flow in small desert washes. The Site contains a single predominant ridgeline that divides the flow towards separate outfalls along the southwest and southeast perimeter property lines. Flow leaving the Site exits as both shallow sheet flow and concentrated flow and ultimately contributes to the Gila River.

A wash named "T1S-R5W S29W" and mapped by the Federal Emergency Management Agency ("FEMA") as a Zone AE Special Flood Hazard Area is located in the eastern portion of the Site. The Zone AE areas are subject to inundation by the 1 percent annual chance flood, which has a one percent chance of being equaled or exceeded in any given year. The limits of the aforementioned potential jurisdictional waterway extends from the northwest to the southeast within the Zone AE Hazard Area. See **Exhibit B** for the Project Drainage Report.

Sun Streams, LLC currently does not intend to construct Array Blocks within the washes and waterway. However, if necessary Sun Streams, LLC will apply for a Floodplain Use Permit from the Flood Control District of Maricopa County ("FCD") if future plans call for the construction of the limited number of Array Blocks within the floodplain. Sun Streams, LLC Solar, if necessary, will also coordinate with the U.S. Army Corps of Engineers for the limited

construction within the jurisdictional waterway. In addition, any portion of a fence to be constructed within the regulatory floodplain will be designed with adequate openings to maintain historic flow patterns.

Unlike a typical development, a PV Project renders a small portion of the Site impervious. The buildings, electrical equipment and paved driveways create impervious areas, but the modules sit elevated above the ground on poles. While the Sun Streams Project intends to cover much of the Site with PV modules, the poles that support the modules will cover less than five percent (5%) of the Site. The modules themselves simply drain off their edges onto the ground beneath each module. As a result, nearly full access to the ground surface will be retained.

Generally, Sun Streams, LLC will be constructing channels, retention basins and berms on the Site to route and capture drainage. The channel, retention basins and berms are reflected in Sheets C.3.0 through C.4.1, and Sheets in **Exhibit A**.

5.7 Grading Design

Unlike a typical project, where a site is mass graded at the start of construction, Sun Streams, LLC will not need to mass grade this Site. It is the intent of the Project's grading design to minimize the amount of earthwork required. The main areas that will be mass graded are the drainage basins and the substation and services areas of the Site. In order to minimize the amount of disturbance, most of the Site will be spot cleared and/or mowed. If required, select areas of the Site may be disced and rolled. As shown by Sheets C.3.0 through C.4.1 in **Exhibit A**, grading will generally follow the Site's existing topography. Grading activities will not involve significant dredging or filling within the T1S-R5W S29EW wash or the potential jurisdictional waterway. As detailed above, Sun Streams, LLC is prepared to address appropriate permitting requirements of both the FCD and U.S. Army Corps of Engineers, as necessary.

5.8 Landscaping

The intent of the Project's landscaping design is to preserve native shrubs outside the solar array in their natural and organic groupings as much as possible for the purposes of preserving the aesthetically pleasing natural desert environment and conserving water resources. As detailed above, the Project will be able to keep much of the existing landscaping in place. This area is one of the driest parts of the already dry Sonoran Desert. It is ideal for solar generation, but not for irrigated plantings.

Unlike a more typical industrial or commercial project that might have a perimeter wall and man-made landscaping, Sun Streams, LLC is taking a different approach. Sun Streams Unit II is extremely isolated from public rights-of-way, and is therefore mostly invisible to passersby. In addition, because this area is so dry, non-natural landscaping and opaque walls would make the site more, not less, visible. Thus, as much as possible, at the edges of the Project, the natural desert will remain undisturbed and fencing will be chain link.

Along the north, east and south perimeters, the panels will be set back from the property lines, and the fences necessary to secure the Site will be setback as well. The fences themselves

will be chain link topped with barbed wire, to be as visually porous as possible. Thus, to the passerby, the site will have natural desert and grade, and then the low-height panels. The primary exceptions to this appearance will be drainage basins, which may be partially bermed on their downhill side to a height as much as four feet also further limiting visual impact. None of the basins or berms will be adjacent to and public rights-of-way.

In addition to these generous setbacks, as already noted, Sun Streams also will not have a traditional perimeter fence. Instead, Sun Streams will pull its fence back from the property line to be as close to the Array Blocks where reasonably practical. To keep people from approaching the panels, Sun Streams will be erecting a fence a minimum of six (6) feet and as high as eight (8) feet in total height consisting of a minimum of six (6) feet of chain link topped with up to two (2) feet of barbed wire around its panels. However, in keeping with the Sun Streams approach of leaving the natural appearance relatively undisturbed, the Sun Streams fence will not be opaque, and therefore will not draw the attention of any passerby.

See Sheet L1.0 of **Exhibit A** for the location of perimeter landscape setbacks to be provided.

5.9 Industrial Unit Plan of Development

To develop Sun Streams Unit II as planned, Sun Streams will be seeking several modifications from County development standards using the Industrial Unit Plan of Development mechanism to do so. The vast majority of these modifications are related to the remote nature of this site, specifically accommodating the large array fields that maximize the efficiency of the Site's solar power capability. As a result, Sun Streams is seeking to confirm that none of the mile or half-mile street alignments will actually be developed through the Site, and thus none of the typical street development standards, including setbacks, improved landscaping, fencing and site triangles, are necessary at the Site. Sun Streams is also using the IUPD mechanism to confirm the exclusion of arrays and substations from lot coverage calculations.

The specific modifications of County development standards are set forth in **Exhibit C**.

6.0 Project Operation and Maintenance

When operational, the Project can be remotely monitored and controlled by Sun Streams, LLC or a contracted O&M company. At full build-out, there may be an administrative facility on the Site. There will be up to three full-time employees at the facility, or a total of six full-time employees on the Site. These employees will work normal shift hours (generally 8 a.m. to 5 p.m.).

PV solar energy generating facilities require a limited amount of maintenance. Maintenance activities include but are not limited to the following:

- Periodic inspections;
- Cleaning PV Modules;
- Dust control;

- Weed control;
- Maintaining electrical collection system components (i.e. inverters, switchgear, transformers, and ESS); and,
- Maintaining on-site infrastructure (i.e. driveways, drainage channels and retention basins), as well as responding to issues detected by remote monitoring.

The only maintenance activities which could require regular water use are the cleaning of PV modules and controlling dust. As noted above, to allow the Modules to function continuously through daylight hours, some maintenance, including some panel cleaning, may be performed at night, using directed, not overhead, lights. Water use for cleaning purposes is small. The rough estimate for the amount of water needed for cleaning panels on an annual basis at build-out is less than 2.5 million gallons per year, enough to supply 14 Arizona households with water for a year. Given that the Site exceeds 1,000 acres in size and is expected to produce renewable energy sufficient to serve tens of thousands of houses, this is indeed a very small amount of annual water usage.

No major equipment is anticipated to be required for maintenance of the facility except as necessary for periodic re-grading of driveways or equipment replacement. Because the driveways providing access to the Site from 355th Avenue will be asphaltic paved, these surfaces will not require re-grading. However, interior driveways providing access to the solar array field will not be paved. While main access driveways extending from 355th Avenue into the Site may be surfaced with gravel, if needed, the majority of interior driveways will be native compacted soil. Non-paved interior driveways may require re-grading from time to time.

6.1 Site Security

To provide a secure and safe environment, lands will be enclosed by an open chain link fence topped with barbed wire and all access points will be gated with swinging or rolling chain link gates topped with barbed wire. The fence and gates will be a minimum of six (6) feet and as high as eight (8) feet in total height and will be comprised of a minimum of six (6) feet of chain link topped with up to two (2) feet of barbed wire. Sun Streams, LLC expects to use open chain link fencing to maintain a secure but visually open appearance. Substations will be separately fenced as well with the same type of fencing. The fence height may change if requested by County officials for drainage purposes at the base of portions of the fence.

For night time security, the Project may use motion-activated lights or IR illumination mounted on 24 foot tall poles. Because these security lights will be motion-activated or IR illuminated only, Sun Streams, LLC expects the Site to be dark at night. The motion detectors on the security lighting system will not react to animal movement. Furthermore, to ensure that lighting will not be cast onto neighboring properties, all security lighting installed will be directed downward and into the Site. All on-site lighting will also comply with Maricopa County Zoning Ordinance Article 1112. Additional security measures that may be implemented include cameras to remotely monitor the Site and periodic patrols of the Site's perimeter. As previously discussed, the cameras, if installed, will be mounted on 24-foot tall poles to allow for optimal monitoring of the Site.

6.2 Weed Management

Following initial mowing of the Site, vegetation will be allowed to reestablish to the extent it does not interfere with equipment or facility operation and maintenance. Sun Streams, LLC will need to ensure its retention areas continue to function by using weed control. To ensure that these areas remain free of an overabundance of weeds, herbicides will be used on a periodic basis by licensed or certified applicators. For other areas of the facility, including ground surface located beneath solar panels, hand removal or mechanical methods (i.e. small drivable weed mowers) and herbicide applications can be used to achieve weed control when necessary and practical.

Because weeds can create a fire safety hazard, the presence of weeds (especially tumbleweed) on the Site will be regularly monitored and managed throughout the life of the Project. When necessary and practical, hand removal and mechanical methods (i.e. small drivable weed mowers) and herbicide applications can be used to achieve weed control.

7.0 Environmental Impacts

7.1 Noise

When the Project is fully operational, it is not anticipated that there will be any regular activities on the Site that will result in discernable off-site noise. The use of construction equipment for performing earthwork and installation may produce noise that is noticeable off-site during construction.

7.2 Air Quality

The Project will not produce any noticeable odors. Sun Streams, LLC will use construction dust control measures as required by Maricopa County. Details of the construction dust control plan will be submitted and approved under separate permit through the Maricopa County Environmental Services Department. Dust control measures will be supported in part by minimizing the areas requiring ground disturbance.

7.3 Visual Resources

The Project will not affect the visual quality of the area, as the Site is located on relatively flat desert land at a low elevation, is several miles from the nearest population center, and is located in an area that does not provide recreational opportunities or attract public attention. The visually dominant features of the area are the PVNGS and the natural gas fired power plants. In addition, the Project will also have a relatively low profile (height) and the PV Modules, which absorb sunlight, will not cause substantial glare. Visual impacts resulting from the development can be mitigated by the maintenance of native vegetation on areas located between the perimeter property line and the security fence.

7.4 Cultural Resources

Sun Streams has completed a Class III Cultural Resources Survey for all of the 1,130 acres of Sun Streams Unit II. The Survey was prepared by Archaeological Consulting Services. The associated fieldwork was completed in April of 2011. The survey identified only seven small sites for avoidance, six of which are clustered along the southeast edge of the site, near the wash, and an area which Sun Streams has already planned to avoid for construction of arrays. Sun Streams will also either avoid disturbance of the seventh site within its array field, or perform subsurface archaeology and mitigate that site prior to construction. Consistent with standard practice, Sun Streams is not submitting a copy of the specific site map, and treating that information as confidential to ensure the sites are not disturbed. See **Exhibit D** for the Project Cultural Resources Reports.

7.5 Biological Resources

Information was obtained from both the U.S. Fish and Wildlife Service and the Arizona Game and Fish Department (“AGFD”) regarding the potential occurrence of special status species with the Project Study Area for the Sun Streams Unit II parcel. Because of lack of suitable habitat, only two of the wildlife species, the Western Burrowing Owl and Le Conte’s Thrasher, could likely occur on the site. Potential impacts to these species would be minimized by implementation of appropriate conservation measures under the Migratory Bird Treaty Act and the application of measures identified by AGFD in the Project Evaluation Program for the borrowing owl. See **Exhibit E** for the Special Status Species Review.

8.0 Traffic Generation

The projected traffic generation for the Project is minimal. Because of its isolation, the right-of-way dedications expected for the Site are also minimal, and no improvements to surrounding streets are expected as a result of the Project.

The primary access to the Project will be from 355th Avenue. 355th Avenue is classified as a minor arterial in the Old US Highway 80 Area Plan.

The Project will have one main access driveway. In addition, there will be multiple internal driveways. The Project’s main access driveway on 355th Avenue will be at the northeast corner of the Site. This driveway will be asphaltic paved between the edge of pavement for 355th Avenue and the entry gates. The main access driveways provide access to any supporting civil infrastructure. Any additional driveway providing access to the Site from 355th Avenue will also be asphaltic paved between the edge of the respective road’s pavement and the Site’s property line. All other driveways on the Site will be of unpaved engineered construction having a design based on engineering considerations, including native soil characteristics, frequency and weight of traffic, drainage and dust control.

A secondary access point to the Site may be created at the southeast corner of the site, where a dirt service road currently links the AVSE II solar energy project out to Old U.S. Highway 80.

Traffic trips generated during operations will be from up to six full-time employees at full build-out. As detailed above, it is possible that the Project will be remotely monitored.

Construction activity will generate trips for a limited duration. This traffic will be associated with worker trips and the delivery of construction materials to the Site, which will occur during on-peak and off-peak hours. The Project's construction will require the delivery of materials from Interstate 10 that will add approximately 20 semi-trucks per day to Wintersburg and Elliot Roads and 355th Avenue. At its peak, the Project's construction is anticipated to require a workforce of up to 600 persons. The construction workforce may add approximately 450 vehicles to the three roads per day. Due to the distance workers may travel, this number anticipates some rate of carpooling by the construction workforce. The mobilization and demobilization of equipment used for earthwork, including scrapers, graders, water wagons, compactors, truck-mounted post drivers, skid loaders, and forklifts, is anticipated to generate a minimal amount of traffic. The staging yards for the project are located off the primary 355th Avenue driveway.

First Solar will maintain its longstanding commitment to minimizing the impact of construction traffic impacts on the Arlington Elementary School and the residences on the east side of 355th Avenue. Sun Streams, LLC intends to honor this commitment by requiring all construction traffic, both workforce and deliveries, to access the Site from the Interstate 10 Wintersburg Road exit. As a result, traffic will be funneled away from the School and residential community to the northeast, and toward PVNGS and the other industrial neighbors to the west. This pattern may require coordination with work shifts at PVNGS. In addition, Sun Streams, LLC will meet with Arlington Elementary School District officials in advance of construction to discuss traffic safety.

A Project Traffic Impact Statement (TIS) prepared by HilgartWilson addressing construction traffic is provided as **Exhibit F**. The TIS concluded that there will be negligible impacts on the existing area roadway system resulting from the construction of the Project.

9.0 Public Services

9.1 Fire Protection

Fire response services will be provided by the Tonopah Valley Fire District ("TVFD"). TVFD handles emergencies closer to Tonopah, located approximately 10 miles northwest of the Site. On-site driveways will provide egress for emergency and fire department access. However, the anticipated level of fire protection needed for the Site is very minimal, as PV Modules are constructed of non-combustible materials (glass and steel) and the electricity generation process does not involve combustible fuel, high temperature, or high pressure. For these reasons, PV solar energy generating facilities are considered to be much safer than other energy production processes. In addition, all materials used on the Site will be managed according to applicable

federal, state and local regulations. Lastly, native vegetation located beneath PV modules will be periodically monitored and controlled to ensure that the growth rate of this vegetation does not have any impact on wildfire suppression activities.

9.2 Police Protection

The Maricopa County Sheriff's Office, operating out of one main station in Avondale and a satellite station in Buckeye, provides protective services for the Old US Highway 80 planning area. The Site is located within the District II patrol area, and the nearest police substation is located at 920 E. Van Buren Avenue in Avondale.

9.3 Water & Wastewater Resources

The Project does not impose any new water and wastewater requirements on the area. The Site is located within an Arizona Department of Water Resources (ADWR) regulated Active Management Area (AMA). The need for water on the Site will be minimal, necessary only for needs of employees and cleaning of the panels. Water for construction purposes will be delivered to the Site. As indicated above in Section 6.0, there will be up to six full-time employees on the Site, with the possibility of remote monitoring. The potable water needs of six employees will be from ADWR exempt wells. As further indicated in Section 6.0, the water needed to clean the panels is expected to be less than 2.5 million gallons per year, again a minimal amount on a site that exceeds 2,000 acres. This IUPD calls for up to two exempt, potable wells on site with a capacity of less than 35 gallons per minute for each well to serve these two water needs. This insignificant amount of water use does not require a Public Water System.

The wastewater generated at the facility is anticipated to be treated with up to two on-site wastewater treatment facilities, such as a conventional septic tank system or similar alternative system as regulated by Arizona Department of Environmental Quality and administered by Maricopa County Environmental Services Department. See **Exhibit G** for the Project Water and Wastewater Plan.

9.4 Electric

APS is the electrical service provider for this area.

9.5 Community Facilities & Services Impact

During operations, Sun Streams Unit II will have no impact on community facilities and services, such as schools and parks, as the Project is anticipated to only require a minimal number of full-time employees. As previously mentioned, the Project is expected to require a peak workforce of up to 600 persons during construction. However, it is not anticipated that the workforce will have a significant impact on the community's facilities and services, as it is anticipated that the construction workforce will draw upon the existing labor pool in Maricopa County.

9.6 Emergency Response Plan

Sun Streams, LLC has prepared an Emergency Response Plan for Sun Streams Unit I, and is working with APS on a similar plan for Sun Streams Unit II. The new Plan will specify notification, assembly, accountability and evacuation planning in the event of an emergency at the PVNGS, as the Site is located within the 10-mile Plume Exposure Pathway Emergency Planning Zone (EPZ) for PVNGS. See **Exhibit H** for the existing Sun Streams I prepared Emergency Response Plan. Sun Streams will replace this existing Plan with the new Plan when APS has approved the new Plan.

10.0 Phasing and Construction

10.1 Phasing Schedule

Sun Streams, LLC will construct the Sun Streams Unit II Project in response to market demand. No other approach would make sense for an investment of this size and magnitude. At this time, absent a Power Purchase Agreement, actual development is too remote to speculate about actual phasing.

Sun Streams, LLC is aware that County Drainage regulations require that the drainage functions in an acceptable manner from a Drainage standpoint, regardless of phasing. Sun Streams, LLC acknowledges that this may require the development of build-out or interim drainage facilities in earlier construction phases.

Sun Streams, LLC's design goal for the Sun Streams Unit II Project is to generate at least 195 MW of solar power. However, because the power generating phases represent Sun Streams, LLC's best forecast for the Site, the capacity of each phase may change during final design.

The construction of the tentative power generating phases is anticipated to require between one and two years each to complete, but again will ultimately depend on market conditions. Regardless of timing and phasing, all construction is subject to normal County oversight.

As stated previously, there are components of the Project that may not be included as part of the ultimate development of Sun Streams Unit II. Specifically, Sun Streams may choose not to develop substations or ESS structures at this Project. If those accessory uses are not built, Sun Streams may use that acreage for additional solar panels. As also stated previously, Sun Streams may also ultimately choose to develop the southern quarter of the Property with additional solar arrays, in accord with the development standards set forth in this narrative.

Photograph 3 provided below shows the process for driving posts into the ground surface to support PV modules.



Photograph 3: Installation Process – Posts Driven into the Ground Surface to Support PV Modules at a Solar Energy Generating Facility

10.2 Temporary Facilities and Construction Workers

Temporary facilities, such as office trailers, laydown yards, containers, construction warehousing buildings up to 40 feet in height, parking areas and equipment storage areas will be required from move-on to completion of construction. Sun Streams, LLC currently plans to locate its temporary facilities at the northeast corner of the Site near the closest existing street access. Temporary facilities will be removed upon the completion of construction. Approximately 600 construction workers will be employed during construction. This workforce will vary with phases of construction. Once temporary construction uses are complete, Sun Streams may choose to develop additional solar panels on these lands.

As previously indicated, Sun Streams, LLC will coordinate construction traffic management with the Arlington Elementary School District.

11.0 Summary

Sun Streams, LLC is excited to bring the Sun Streams Unit II Project to this Site. The Site is mostly flat and located in close proximity to the regional power grid. The Sun Streams Unit II Solar Energy Farm will be low profile. It will be relatively odorless and noiseless. It will not cause a substantial amount of glare. It will generate minimal traffic. For these reasons, Sun Streams Unit II Solar Energy Farm is a compatible land use to the numerous power generation facilities already operating in this area.

LEGAL DESCRIPTION

NCS-744/22-0N1

PARCEL NO. 1:

THAT PORTION OF THE NORTH HALF OF THE SOUTH HALF OF SECTION 13, TOWNSHIP 1 SOUTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, LYING NORTH OF THE NORTHERLY RIGHT OF WAY LINE OF THE ARIZONA EASTERN RAILROAD COMPANY, AND THAT PART OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 13, LYING NORTH OF THE NORTHERLY RIGHT OF WAY LINE OF THE ARIZONA EASTERN RAILROAD COMPANY.

PARCEL NO. 2:

THAT PORTION OF THE SOUTH HALF OF THE SOUTH HALF OF SECTION 13, TOWNSHIP 1 SOUTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, LYING NORTH OF THE NORTHERLY RIGHT OF WAY LINE OF THE ARIZONA EASTERN RAILROAD COMPANY;

EXCEPT ANY PART THEREOF LYING WITHIN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 13;

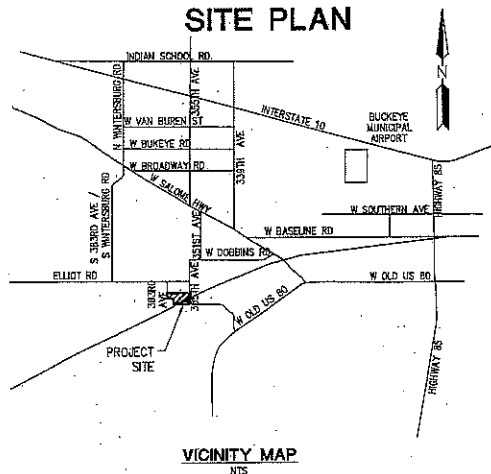
AND EXCEPT ANY PART THEREOF LYING WITHIN THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 13;

AND ALL OF THAT PART OF THE EAST HALF OF THE SOUTH HALF OF SAID SECTION 13, LYING SOUTH OF THE SOUTHERLY RIGHT OF WAY LINE OF THE ARIZONA EASTERN RAILROAD COMPANY.

CONTAINING 257.089 ACRES, MORE OR LESS

First Solar[®]

SUN STREAMS SOLAR SILVER SPOON SITE PLAN



SITE PLAN DESIGN SUBMITTAL FOR IND-2 (LIGHT INDUSTRIAL ZONING) WITH AN INDUSTRIAL ZONING PLAN OF DEVELOPMENT

HILGARTWILSON Project No.
1211.

Case Reference No.
Z2017017

Northwest Corner of 355th Avenue and Southern Pacific Rail
Arlington, Maricopa County, AZ

OWNER & DEVELOPER

SUN STREAMS, LLC.
C/O FIRST SOLAR, INC.
135 MAIN STREET, 6TH FLOOR
SAN FRANCISCO, CA 94105

ENGINEER

HILGARTWILSON
2141 E. HIGHLAND AVE. SUITE #250
PHOENIX, ARIZONA, 85016
PHONE: (602) 490-0535
FAX: (602) 368-2438
CONTACT: AUBREY THOMAS

SITE DATA

PROJECT SITE
GROSS AREA: 257.089 ACRES
GROSS AREA: AREA BOUND BY ADJACENT PROPERTIES AND CENTERLINE OF THE ROADS
NET AREA: 231.668 ACRES
NET AREA: GROSS AREA LESS ROW DEDICATION FROM CENTERLINE/ROAD ALIGNMENT (SOUTHERN PACIFIC RAILROAD, 353RD AVE, 355TH AVE.)

EXISTING ZONING: RU-150

EXISTING LAND USE: VACANT

PROPOSED ZONING: IND-2 (LIGHT INDUSTRIAL ZONING) WITH AN INDUSTRIAL UNIT PLAN OF DEVELOPMENT

BENCHMARK

NORTHEAST CORNER OF SECTION 25,
TOWNSHIP 1 SOUTH, RANGE 6 WEST, FOXING
3/4" OLD BRASS CAP, UP 12", STAMPED
"U.S. GENERAL LAND OFFICE SURVEY, T1S,
R6W, R6W, S25 S19 S25 S30 DATED 1914"
ELEVATION: 1050.684
DATUM: NAVD83

BASIS OF BEARING

S83°30'22"E ALONG THE NORTH LINE OF
THE NORTHEAST QUARTER OF SECTION
25, TOWNSHIP 1 SOUTH, RANGE 6 WEST
OF THE GILA AND SALT RIVER MERIDIAN,
MARICOPA COUNTY, ARIZONA AS SHOWN
ON AN ALTA SURVEY DONE BY
FERGUSON LAND SERVICES INC. DATED
APRIL 2013.

SCHOOL DISTRICT

ARLINGTON SCHOOL DISTRICT 47
9410 S 355TH AVE, ARLINGTON, AZ 85322

REQUEST

IND-2 (LIGHT INDUSTRIAL ZONING) WITH AN INDUSTRIAL ZONING PLAN OF DEVELOPMENT

UTILITIES

WATER
WASTEWATER
PRIVATE WELL
PRIVATE SEPTIC
FIRE PROTECTION
POLICE
ELECTRIC
TELEPHONE
REFUSE PROVIDER
PRIVATE WELL
TOKOPAH VALLEY FIRE DISTRICT
MARICOPA COUNTY SHERIFF
APS
QWEST
ALLIED WASTE

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G0.1 UPD TABLES
D0.1 LEGEND AND ABBREVIATIONS
C1.1 BOUNDARY/EASEMENT/ADJACENT PROPERTY EXHIBIT
C2.0 SITE PLAN
D4.1 SITE DETAILS
C3.1 ACCESS ROAD PLAN SHEET
CS.2 SUBSTATION GENERAL ARRANGEMENT
CS.3 PARKING, FENCE AND SIGN DETAILS

HILGARTWILSON ENGINEER PLAN SURVEY MAPS 2141 E. HIGHLAND AVE. SUITE #250 PHOENIX, AZ 85016 P: 602.490.0535 / F: 602.368.2438 www.hilgartwilson.com	
SUN STREAMS SOLAR SILVER SPOON-SITE PLAN MARICOPA COUNTY, AZ	COVER SHEET, DRAWING INDEX & VICINITY MAP
PROJ NO: 1211 DATE: MAY, 2017 SCALE: DRAWING NO: DESIGNED: HW APPROVED: AT	CASE: Z2017017 REV DATE: MAY, 2017 SHEET: 1 OF 9

RECEIVED JUN 16 2017

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STANDARD	DESCRIPTION	NO-3 ZONING DISTRICT STANDARD	PROPOSED SINGLE-DWELL ZONING DISTRICT STANDARD	APPLICABLE NOTIFICATION
SETBACK	<p>CONCRETE DRIVEWAY 30' MIN. WIDE 30' MIN. WIDE MANIPULATOR</p> <p>ADJACENT/NEIGHBORING DRIVEWAY CONCRETE DRIVEWAY 30' MIN. WIDE</p>	<p>EXCEEDING THE MINIMUM SETBACK REQUIREMENTS, THE SETBACK LINE SHALL BE PERPENDICULAR TO THE CENTERLINE OF THE DRIVEWAY AND SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE TO THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET. THE SETBACK LINE SHALL BE A STRAIGHT LINE AND A STRAIGHT LINE.</p> <p>1. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>2. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>3. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>4. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p>	<p>FOLLOWING ALIGNMENTS: 30' MIN. WIDE 30' MIN. WIDE MANIPULATOR CONCRETE DRIVEWAY</p>	<p>ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER.</p>
SETBACK	<p>CONCRETE DRIVEWAY 30' MIN. WIDE 30' MIN. WIDE MANIPULATOR</p> <p>ADJACENT/NEIGHBORING DRIVEWAY CONCRETE DRIVEWAY 30' MIN. WIDE</p>	<p>EXCEEDING THE MINIMUM SETBACK REQUIREMENTS, THE SETBACK LINE SHALL BE PERPENDICULAR TO THE CENTERLINE OF THE DRIVEWAY AND SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE TO THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET. THE SETBACK LINE SHALL BE A STRAIGHT LINE AND A STRAIGHT LINE.</p> <p>1. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>2. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>3. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>4. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p>	<p>FOLLOWING ALIGNMENTS: 30' MIN. WIDE 30' MIN. WIDE MANIPULATOR CONCRETE DRIVEWAY</p>	<p>ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER.</p>
SETBACK	<p>CONCRETE DRIVEWAY 30' MIN. WIDE 30' MIN. WIDE MANIPULATOR</p> <p>ADJACENT/NEIGHBORING DRIVEWAY CONCRETE DRIVEWAY 30' MIN. WIDE</p>	<p>EXCEEDING THE MINIMUM SETBACK REQUIREMENTS, THE SETBACK LINE SHALL BE PERPENDICULAR TO THE CENTERLINE OF THE DRIVEWAY AND SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE TO THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET. THE SETBACK LINE SHALL BE A STRAIGHT LINE AND A STRAIGHT LINE.</p> <p>1. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>2. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>3. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p> <p>4. ADJUTANT DRIVEWAY SETBACK, CONCRETE DRIVEWAY SHALL BE SETBACK FROM THE DRIVEWAY CENTERLINE BY A MINIMUM OF 10 FEET.</p>	<p>FOLLOWING ALIGNMENTS: 30' MIN. WIDE 30' MIN. WIDE MANIPULATOR CONCRETE DRIVEWAY</p>	<p>ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER. ADVANCE OF SETBACK PRODUCTION REQUIREMENTS TO THE CITY ENGINEER.</p>

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MARICOPA COUNTY, ARIZONA

PROJ NO	1211	
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PROJ NO	1211	
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DATE: MAY, 2017

SCALE:	NTS	HILDARTWILSON
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DESIGNED: HW	DRAWN: SL	APPROVED: AT
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REV.	DWG. NO.
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	GO.1
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SHT. 2 OF 5

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SHEET NAMING CONVENTION

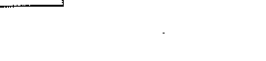
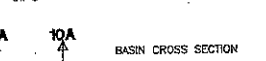
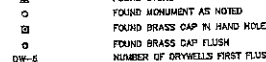
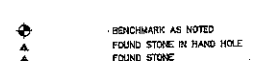
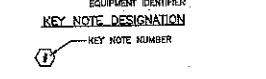
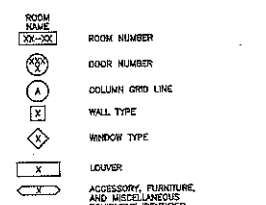
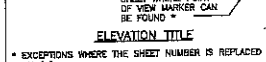
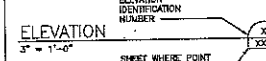
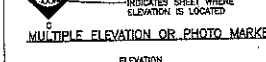
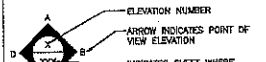
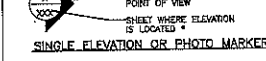
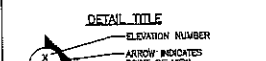
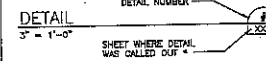
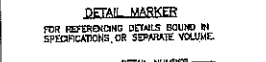
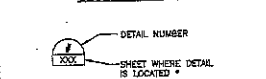
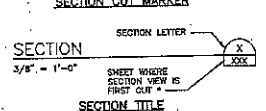
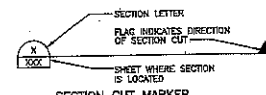
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Q GENERAL
A ARCHITECTURAL
L LANDSCAPING
C CIVIL
E ELECTRICAL
D DRAINAGE

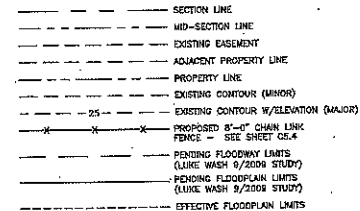
ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
AC	ACRE, ALTERNATING CURRENT
APS	ARIZONA PUBLIC SERVICE
AVE	AVENUE
BM	BENCHMARK
BK	BOOK
BOT	BOTTOM
CVT	CAPACITOR VOLTAGE TRANSFORMER
CL	CENTERLINE
OLD	CONCRETE LINED DITCH
CON	CONCRETE
G.T.	CURRENT TRANSFORMER
D.E.	DEAD END
DIA	DIAMETER
ELEV	ELEVATION
EDP	EDGE OF PAVEMENT
ESMT	EASEMENT
EXIST, EX	EXISTING
FT	FOOT
GA	GAGE (METAL THICKNESS)
GALV	GALVANIZED
KV	KILOVOLT
L.A.	LIGHTING ARRESTOR
LF	LINEAR FOOT
LFC	LOW FLOW CHANNEL
LLC	LIMITED LIABILITY COMPANY
WAG	MARICOPA ASSOCIATION OF GOVERNMENTS
MAX	MAXIMUM
MIN	MINIMUM
MVA	MEGA VOLT AMPERE
NO	NUMBER
NTS	NOT TO SCALE
PAE	PUBLIC ACCESS EASEMENT
PCB	POWER CIRCUIT BREAKER
PL	PROPERTY LINE
PROP	PROPOSED, PROPERTY
PSI	POUNDS PER SQUARE INCH
P.T.	POTENTIAL TRANSFORMER
PUE	PUBLIC UTILITY EASEMENT
REF	REFERENCE
ROW	RIGHT OF WAY
SRP	SALT RIVER PROJECT
SW	SWITCH
SWC	SOUTH WEST CORNER
SWGR	SWITCH GEAR
T	THICKNESS
TEMP	TEMPORARY
TYP	TYPICAL
VPROV	VOLUME PROVIDED
VREQ	VOLUME REQUIRED
W/	WITH
W/O	WITHOUT
YR	YEAR

GENERAL SYMBOLOLOGY



UTILITY/CIVIL LINE SYMBOLOLOGY



GENERAL NOTES:

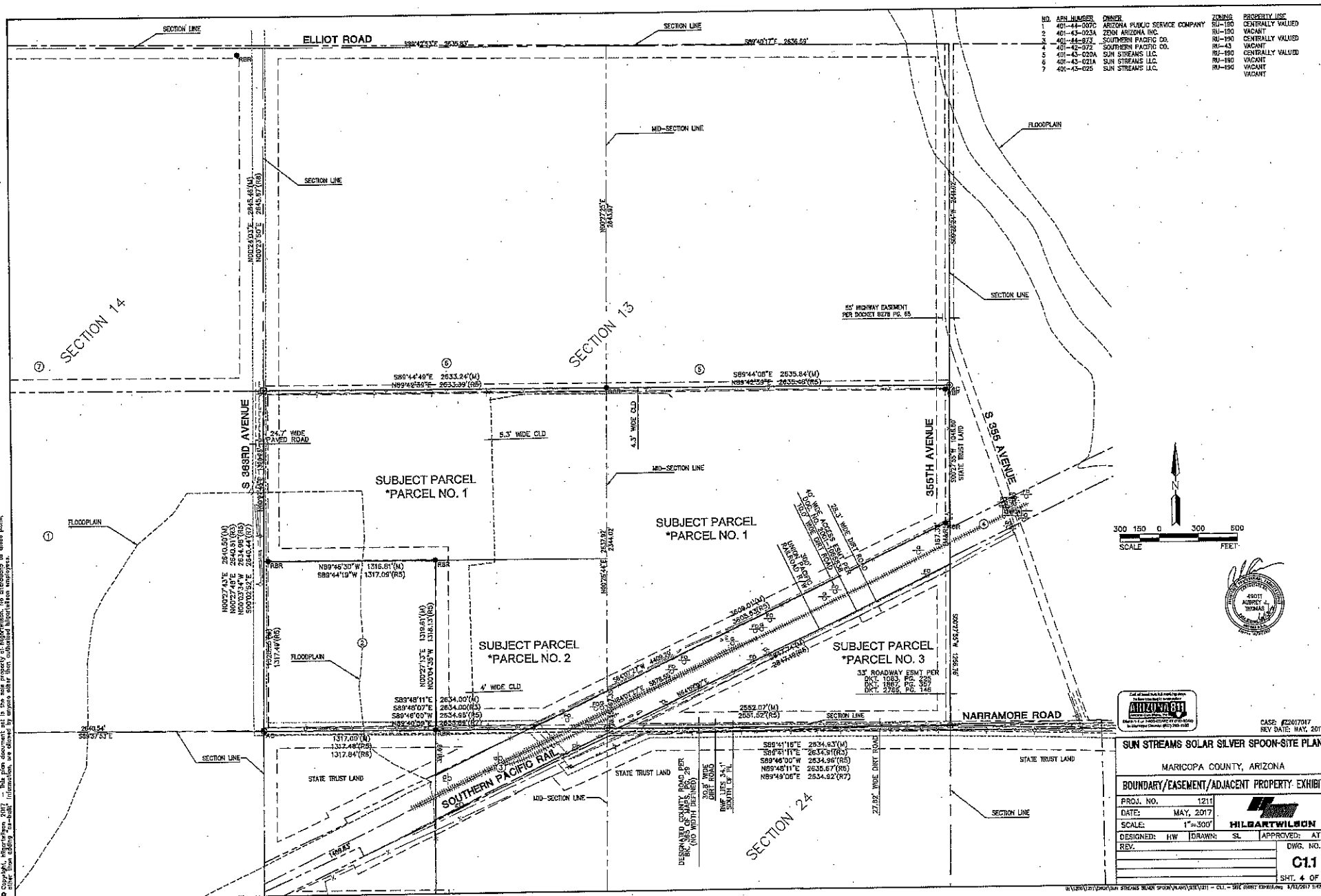
1. THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DIS-SURPRISE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.



CASE: #22017017
REV DATE: MAY, 2017

SUN STREAMS SOLAR SILVER SPOON-SITE PLAN	
MARICOPA COUNTY, ARIZONA	
LEGEND AND ABBREVIATIONS	
PROJ. NO.	1211
DATE:	MAY, 2017
SCALE:	NTS
DESIGNED: HW	DRAWN: SL
REV.	APPROVED: AT
DWG. NO.	
C0.1	
SHT. 3 OF 9	

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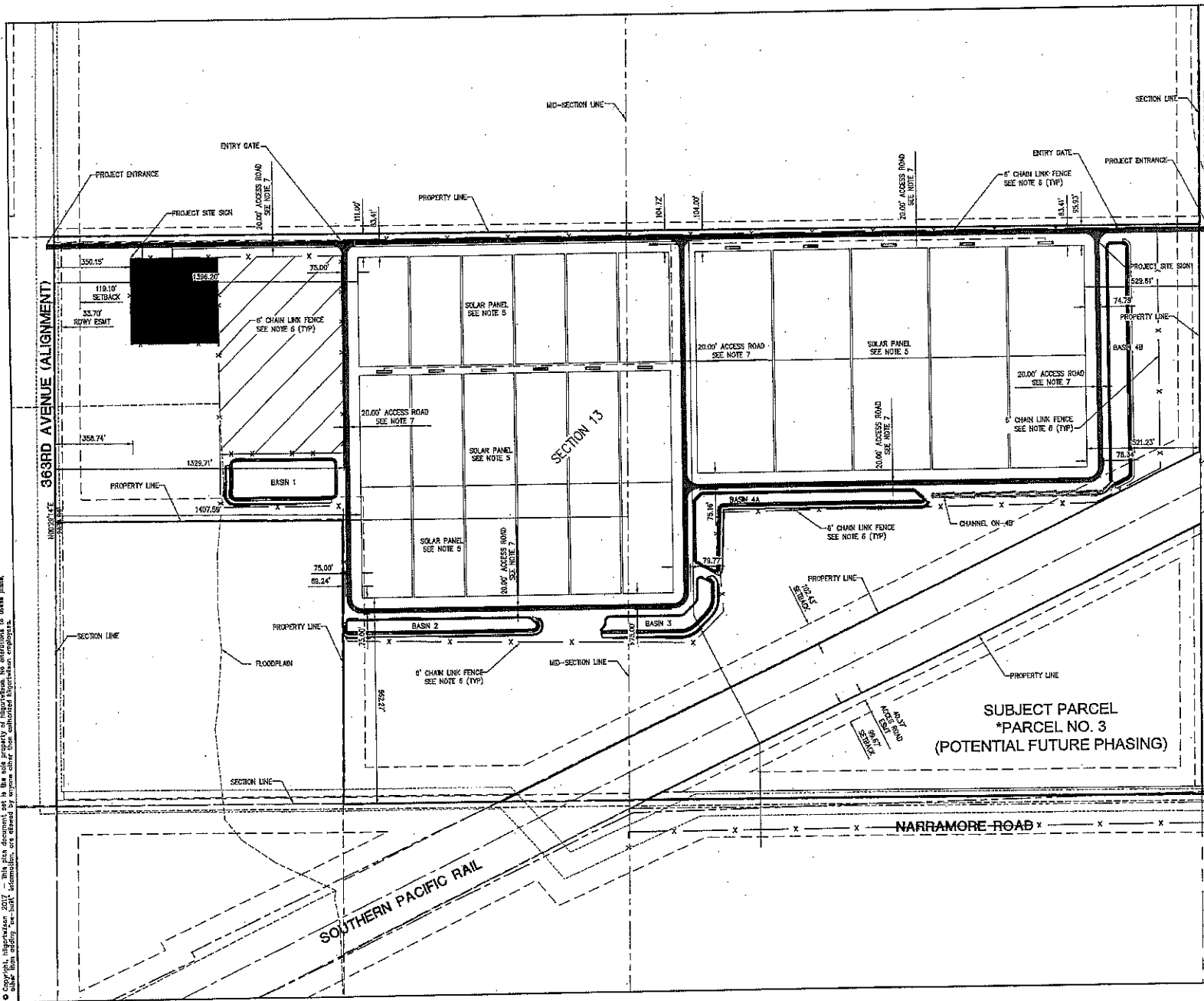
CASE: 2207017
REV DATE: MAY, 2017

SUN STREAMS SOLAR SILVER SPOON-SITE PLAN

MARICOPA COUNTY, ARIZONA

BOUNDARY/EASEMENT/ADJACENT PROPERTY EXHIBIT

PROJ. NO. 1211
DATE: MAY, 2017
SCALE: 1"=300'
DESIGNED: HW DRAWING: SL APPROVED: AT
REV. _____ DWS. NO. _____
C1.1
SHT. 4 OF 9



- NOTES:**
1. PARCELS WILL BE COMBINED TO ONE PARCEL PRIOR TO CONSTRUCTION/BUILDING PERMIT SUBMITTAL.
 2. ALL NECESSARY DRAINAGE STRUCTURES WILL BE CONSTRUCTED DURING THE PHASE NEEDING THE REQUIRED STRUCTURES: RETENTION BASINS, CHANNELS, AND BOWNS.
 3. ALL PROPOSED GRADES ARE APPROXIMATELY EXISTING GRADES.
 4. ALL PROPOSED ROADS WITHIN COUNTY ROW WILL BE ASPHALT PAVED FOR MCDOT STANDARDS.
 5. SEE SHEET C-4.1 FOR SOLAR PANEL DETAILS.
 6. SEE SHEET C-5.3 FOR FENCE, GATE, LIGHTING AND SIGN DETAILS.
 7. SEE SHEET C-5.1 FOR ROADWAY DETAILS.
 8. NO STRUCTURES, LANDSCAPING, FENCE, WALL, OR TERRACE OR OTHER OBSTRUCTION TO VIEW IN EXCESS OF TWO FEET IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE STREET SHALL BE PLACED WITHIN THE REQUIRED 25-FOOT SIGHT TRIANGLE.
 9. A HIGHLY VISIBLE BARRIER WILL BE PROVIDED TO INDICATE THE LIMITS OF DISTURBANCE DURING CONSTRUCTION.
 10. ALL SECURITY LIGHTING TO BE PROVIDED WILL BE MOTION ACTIVATED OR INFRARED (IR) ILLUMINATION.
 11. BUILT-IN LIGHTING TO BE PROVIDED AT POND CONVERSION STATIONS (PCS) AND PHOTOVOLTAIC COMBINING SWITCHGEARS (PVCs) FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES WILL BE SWITCH ACTIVATED.
 12. BUILT-IN AND/OR YARD LIGHTING TO BE PROVIDED AT SUBSTATIONS FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES WILL BE SWITCH ACTIVATED.

- DUST CONTROL:**
- PROPOSED CONSTRUCTION DUST CONTROL MEASURES INCLUDE THE FOLLOWING:
1. WATER SPRAYED ON-SITE.
 2. ESTABLISH AND MAINTAIN NATURAL CRUST ON SOIL SURFACE BY WATER AND BY LIMITING DISTURBANCE.
 3. AVOID DISTURBANCE OF VEHICLES AND FOOT TRAFFIC ON THE ESTABLISHED CRUST. LIMITED ACCESS OF VEHICLES TO DESIGNATED TRAVEL WAYS OR ACCESS ROADS.
 4. USE WATER DURING PERIODIC RE-GROWING OF ACCESS ROADS.

KEYMAP
NTS

SCALE
200 100 0 200 400
FEET

DATE
MAY, 2017

SCALE
1"=200'

DESIGNED: HW **DRAWN:** SL **APPROVED:** AT

REV.

DWG. NO.
C2.0

SHT. 5 OF 9

CASE: #22017017
REV DATE: MAR, 2017

SUN STREAMS SOLAR SILVER SPOON-SITE PLAN

MARICOPA COUNTY, ARIZONA

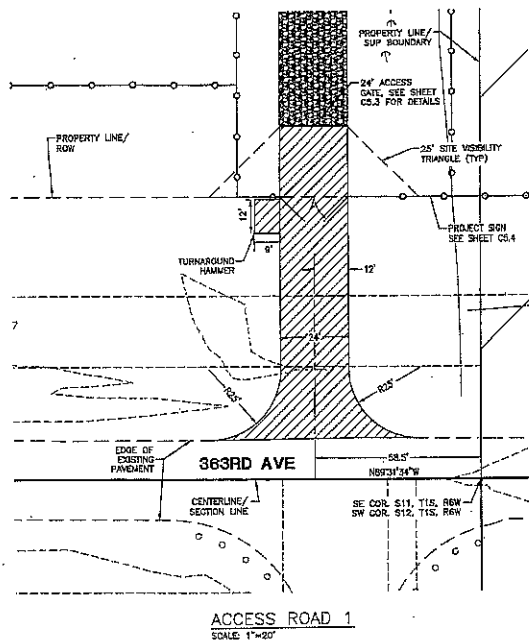
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PROJ. NO. 1211
DATE: MAY, 2017
SCALE: 1"=200'
DESIGNED: HW
DRAWN: SL
APPROVED: AT

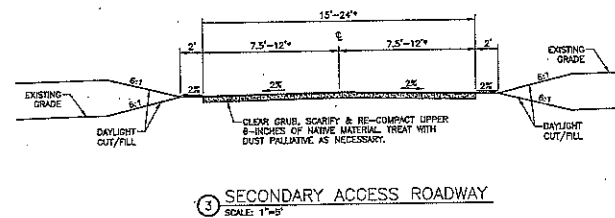
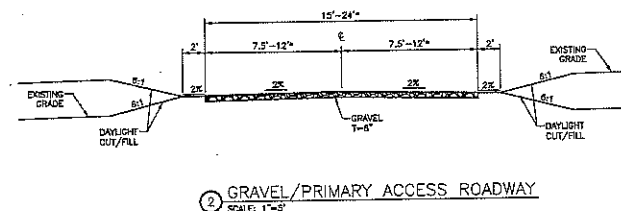
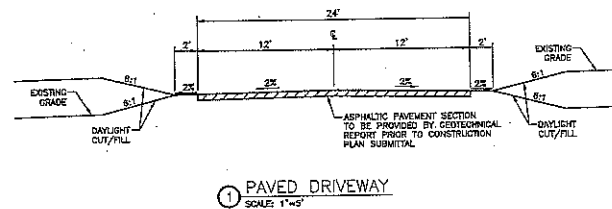
HILGARTWILSON

C2.0

SHT. 5 OF 9



NOTE:
NO STRUCTURES, LANDSCAPING, FENCE, WALL, OR TERRACE
OR OTHER OBSTRUCTION TO VIEW IN EXCESS OF TWO FEET
IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE
STREET SHALL BE PLACED WITHIN THE REQUIRED 25-FOOT
SIGHT VISIBILITY TRIANGLES.

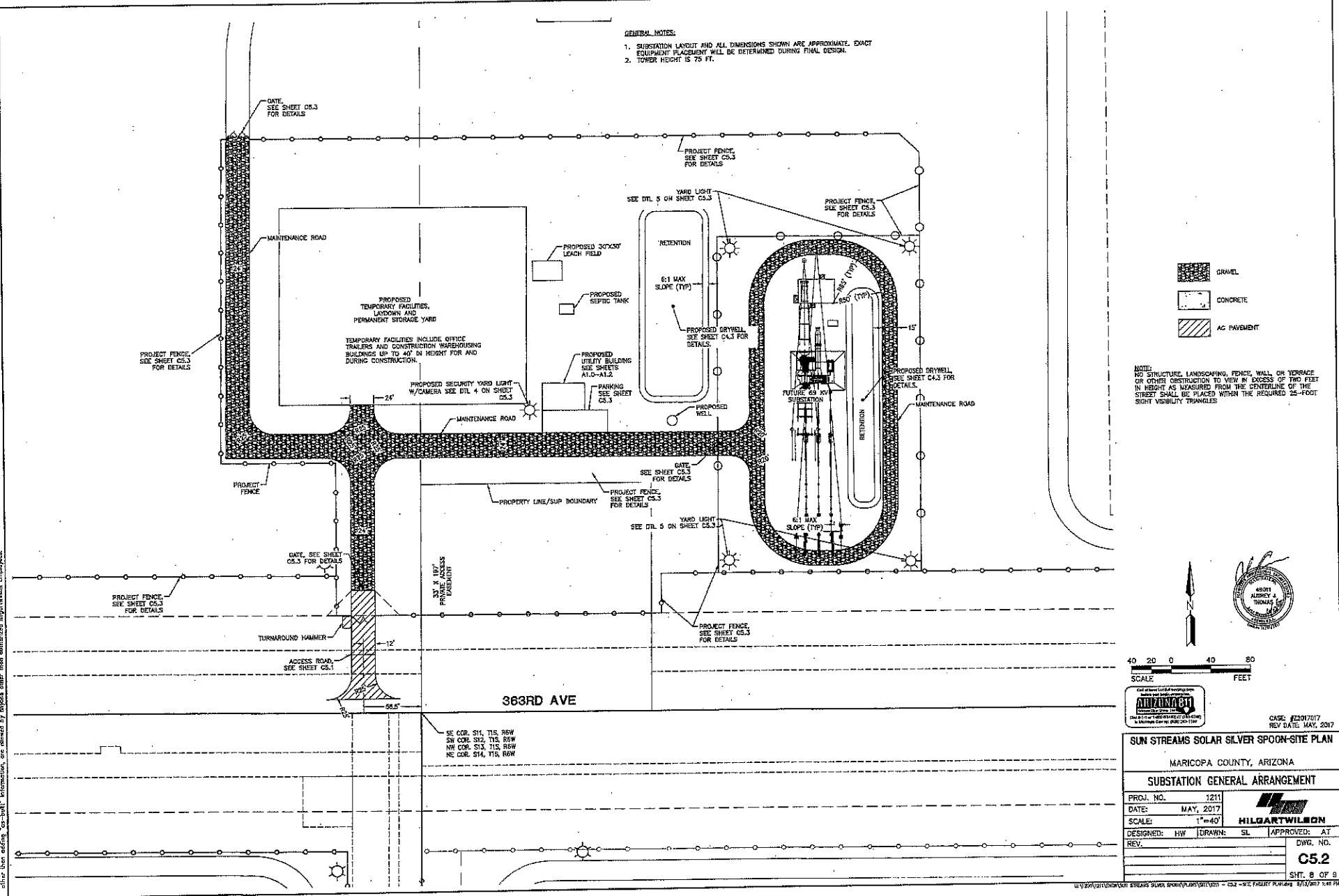


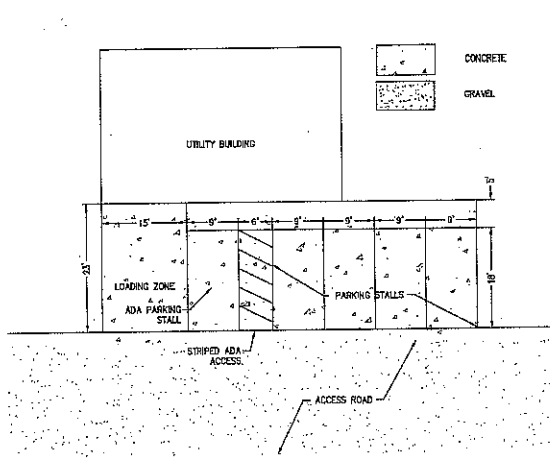
CASE: E2017017
REV DATE: MAY, 2017

SUN STREAMS SOLAR SILVER SPOON-SITE PLAN			
MARICOPA COUNTY, ARIZONA			
ACCESS ROAD PLAN SHEET			
PROJ. NO.	1211		
DATE	MAY, 2017		
SCALE	1"=20'		
DESIGNED: HW	DRAWN: SL	APPROVED: AT	
REV:		DWG. NO.	
		C5.1	
		SHT. 7 OF 9	

6/15/2017 10:45 AM SUN STREAMS SOLAR SILVER SPOON-SITE PLAN - C5.1 - SITE ACCESS ROADWAY 6/15/2017 10:45 PM

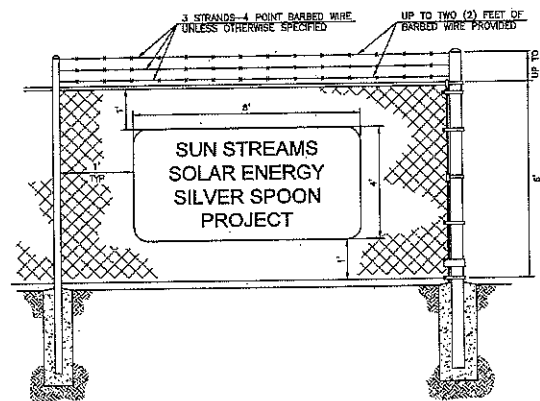
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NOTE: SURFACING MATERIALS MEETING FM-10 REQUIREMENTS FOR AIR QUALITY.

PARKING DETAIL
SCALE: 1"=10'



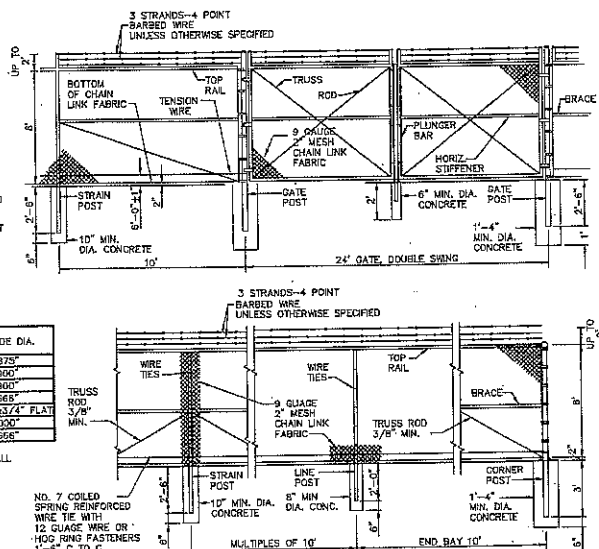
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NTS

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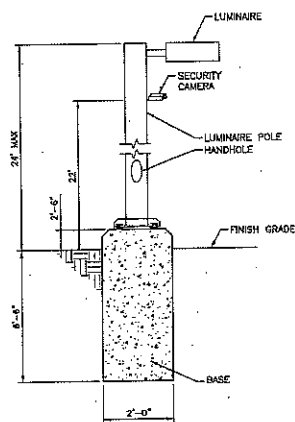
1. ALL CONCRETE SHALL BE CLASS "C" PER SECT. 722.
2. FITTINGS NOT SPECIFICALLY DETAILED SHALL BE HEAVY DUTY DESIGN.
3. STRAIN POSTS SHALL BE SPACED AT 500' MAXIMUM SPACING.
4. BOTH CORNER AND STRAIN POSTS SHALL HAVE STRAIN PANELS.
5. ALL POSTS SHALL BE CAPPED.
6. MEMBER SIZES SHALL BE THE FOLLOWING:

MEMBER	AISC SIZE	OUTSIDE DIA.
CORNER POST	2-1/2"	2.875"
LINE POST	1-1/2"	1.900"
STRAIN POST	1-1/2"	1.900"
BRACE	1-1/2"	1.665"
STRETCH BAR	3/16"x3/4" FLAT	3/16"x3/4" FLAT
GATE POST	3-1/2"	4.000"
TOP RAIL	1-1/4"	1.665"

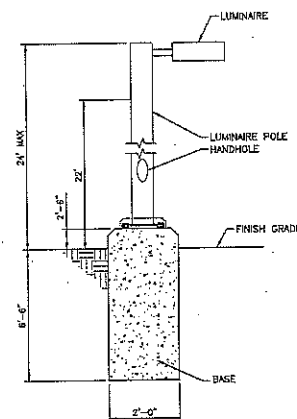
7. CONSTRUCTION AND MATERIALS SHALL CONFORM TO SECT. 420 AND 722, RESPECTIVELY. SEE TABLE 722 FOR WEIGHTS OF MEMBERS.



CHAIN-LINK FENCE DETAIL
NTS



SECURITY YARD LIGHT WITH CAMERA DETAIL
NTS



YARD LIGHT DETAIL
NTS



CASE: #2207017
REV DATE: MAY, 2017

SUN STREAMS SOLAR SILVER SPOON-SITE PLAN			
MARICOPA COUNTY, ARIZONA			
PARKING, FENCE AND SIGN DETAILS			
PROJ. NO.	1211		
DATE:	MAY, 2017		
SCALE:	NTS		
DESIGNED:	HW	DRAWN:	SL
REV.		APPROVED:	AT
		DWG. NO.	
		C5.3	
		SHT. 9 OF 9	

LEGAL DESCRIPTION

NCS-801265-CH2

PARCEL NO. 1:

THE EAST 1/2, AND THE NORTHEAST 1/4 OF THE NORTHWEST 1/4, AND THE NORTH 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 24, TOWNSHIP 1 SOUTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 2:

THE WEST 1/2 OF THE NW 1/4, AND THE NW 1/4 OF THE SW 1/4, AND SOUTH 1/2 OF THE SW 1/4 OF SECTION 19, TOWNSHIP 1 SOUTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 3:

THE WEST 1/2 OF THE SECTION 30, TOWNSHIP 1 SOUTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 4:

THE EAST 1/2 OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPTING THEREFROM EACH OF THE FOLLOWING:

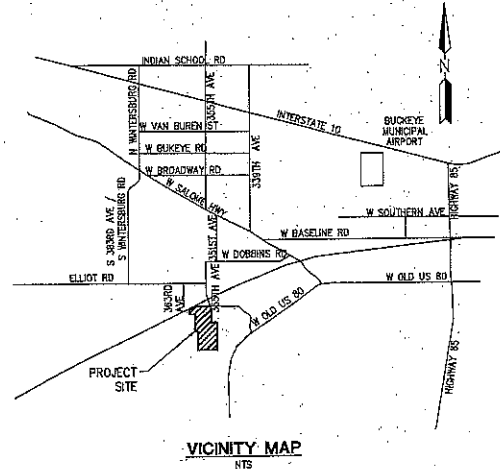
THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4;
THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4;
THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4;
THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4;
THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4;
THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4; AND
THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SUCH SECTION.

CONTAINING 1130.831 ACRES, MORE OR LESS

NOTE: THE LEGAL DESCRIPTION FOR PARCEL NO. 1 AS PROVIDED IN THE TITLE REPORT DOES NOT EXCEPT OUT THE 300' RIGHT OF WAY FOR THE UNION PACIFIC RAILROAD, FOR THE PURPOSE OF THIS SURVEY THE UNION PACIFIC RAILROAD RIGHT OF WAY HAS BEEN EXCLUDED FROM THE PARCEL NO. 1 BOUNDARY LINE WORK AND AREA COMPUTATIONS.

First Solar[®]

SUN STREAMS SOLAR II SITE PLAN



DESIGN SUBMITTAL FOR IND-2 (LIGHT INDUSTRIAL ZONING) WITH AN INDUSTRIAL ZONING PLAN OF DEVELOPMENT

HILGARTWILSON Project No.
1211.

Case Reference No.
Z2017018

Southwest Corner of 355th Avenue and Narramore Road
Arlington, Maricopa County, AZ

OWNER & DEVELOPER

SUN STREAMS, LLC
C/O FIRST SOLAR, INC.
135 MAIN STREET, 6TH FLOOR
SAN FRANCISCO, CA 94105

ENGINEER

HILGARTWILSON
2141 E. HIGHLAND AVE. SUITE #250
PHOENIX, ARIZONA, 85016
PHONE: (602) 460-0535
FAX: (602) 365-2430
CONTACT: AUBREY THOMAS

SITE DATA

PROJECT SITE
GROSS AREA: 1130.831 ACRES
GROSS AREA: AREA BOUND BY ADJACENT PROPERTIES AND CENTERLINE OF THE ROAD
NET AREA: 1091.839 ACRES
NET AREA: GROSS AREA LESS ROW DEDICATION FROM CENTERLINE/ROAD ALIGNMENT (NARRAMORE RD, 355TH AVE, SOUTHERN PACIFIC RAILROAD)

EXISTING ZONING: RU-190

EXISTING LAND USE: VACANT

PROPOSED ZONING: IND-2 (LIGHT INDUSTRIAL ZONING) WITH AN INDUSTRIAL UNIT PLAN OF DEVELOPMENT

BENCHMARK

NORTHEAST CORNER OF SECTION 25,
TOWNSHIP 1 SOUTH, RANGE 5 WEST, FOUND
3/4" OLD BRASS CAP, UP 1/2" STAMPED
"U.S. GENERAL LAND OFFICE SURVEY, T1S,
R5W, R6W, S25 S19 S25 S30 DATED 1914"
ELEVATION: 850.584
DATUM: NAD83

BASIS OF BEARING

S89°38'02"E ALONG THE NORTH LINE OF
THE NORTHEAST QUARTER OF SECTION
25, TOWNSHIP 1 SOUTH, RANGE 5 WEST
OF THE GILA AND SALT RIVER MERIDIAN,
MARICOPA COUNTY, ARIZONA AS SHOWN
ON AN ALTA SURVEY DONE BY
FERGUSON LAND SERVICES INC., DATED
APRIL 2013.

SCHOOL DISTRICT

ARLINGTON SCHOOL DISTRICT 47
9410 S 355TH AVE, ARLINGTON, AZ 85322

REQUEST

IND-2 (LIGHT INDUSTRIAL ZONING) WITH AN INDUSTRIAL ZONING PLAN OF DEVELOPMENT

UTILITIES

WATER
WASTEWATER
FIRE PROTECTION
POLICE
ELECTRIC
TELEPHONE
REFUSE PROVIDER
PRIVATE WELL
PRIVATE SEPTIC
TONGAH VALLEY FIRE DISTRICT
MARICOPA COUNTY SHERIFF
APS
ONSET
ALLIED WASTE

INDEX OF DRAWINGS

GENERAL
G0.0 COVER SHEET, DRAWING INDEX & VICINITY MAP
G0.1 LUMP TABLE

CAL

C0.1 LEGEND AND ABBREVIATIONS
C1.1 BOUNDARY/EASEMENT EXHIBIT/ADJACENT PROPERTY EXHIBIT
C2.0 OVERALL SITE PLAN
C2.1 SITE PLAN
C2.2 SITE PLAN
C2.3 SITE PLAN
C2.4 SITE PLAN
C2.5 SITE PLAN
C2.6 SITE PLAN
C4.4 SOLAR PANEL DETAILS
C5.1 ACCESS ROAD PLAN SHEET
C5.2 SUBSTATION GENERAL ARRANGEMENT
C5.3 PARKING, FENCE AND SIGN DETAILS

HILGARTWILSON
ENGINEERING, PLANNING & SURVEY
2141 E. HIGHLAND AVE., STE. 250 / P.O. BOX 340345
PHOENIX, AZ 85016
www.hilgartwilson.com



SUN STREAMS SOLAR II - SITE PLAN

MARICOPA COUNTY, AZ

HILGARTWILSON
PROJECT NO.: 1211
DATE: MAY 2017
SCALE:
DRAWN BY:
DESIGNED BY:
APPROVED BY:
DWG. NO.:
G0.0
SHEET 1 OF 15



CASE: #Z2017018
REV DATE: MAY, 2017

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CASE: 172017018
REV DATE: MAY, 2017

MARICOPA COUNTY, ARIZONA

PROJ NO	1211	///
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DATE:	MAY 2017	ALLEN
SCALE:	NTS	HILGARTWILSON

DESIGNED: RW	DRAWING: 20	DATE: 10/10/01	BY: RW
REV		DWG. NO.	

GU.1

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SHEET NAMING CONVENTION

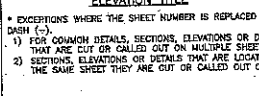
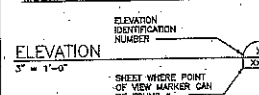
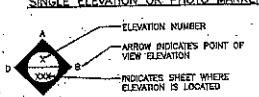
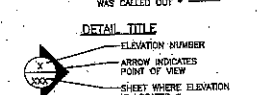
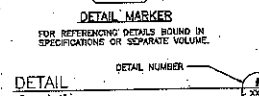
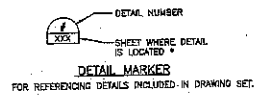
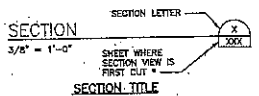
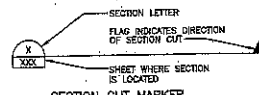
DISCIPLINE DESIGNATOR & DISCIPLINE ORDER

C GENERAL
A ARCHITECTURAL
L LANDSCAPING
C CIVIL
E ELECTRICAL
D DRAINAGE

ABBREVIATIONS

ASC AGGREGATE BASE COURSE
AC ALTERNATING CURRENT
APS ARIZONA PUBLIC SERVICE
AVE AVENUE
BM BENCHMARK
BK BOOK
BOT BOTTOM
CVT COUPLING CAPACITOR VOLTAGE TRANSFORMER
CL CENTERLINE
CLD CONCRETE LINED DITCH
COR CORNER
CTF CURRENT TRANSFORMER
D.E. DEAD END
DIA DIAMETER
ELEV ELEVATION
EOP EDGE OF PAVEMENT
ESMT EASEMENT
EXIST. EX. EXISTING
FT FOOT
GA GAGE (METAL THICKNESS)
GALV GALVANIZED
KV KILOVOLT
LA LIGHTING ARRESTOR
LF LINEAR FOOT
LFC LOW FLOW CHANNEL
LIC LIMITED LIABILITY COMPANY
MAG MARICOPA ASSOCIATION OF GOVERNMENTS
MAX MAXIMUM
MIN MINIMUM
MVA MEGA VOLT AMPERE
NO NUMBER
NTS NOT TO SCALE
PAC PUBLIC ACCESS EASEMENT
PDB POWER DISTRIBUTION BREAKER
PL PROPERTY LINE
PROP PROPOSED
PSI POUNDS PER SQUARE INCH
P.T. POTENTIAL TRANSFORMER
PUE PUBLIC UTILITY EASEMENT
REF REFERENCE
ROW RIGHT OF WAY
SRP SALT RIVER PROJECT
SW SWITCH
SWC SOUTH WEST CORNER
SWGR SWITCH GEAR
T THICKNESS
TEMP TEMPORARY
TYP TYPICAL
Vprov VOLUME PROVIDED
Vreq VOLUME REQUIRED
W/O WITH
W/O WITHOUT
YR YEAR

GENERAL SYMBOLOLOGY



ROOM NAME
XX-XX
ROOM NUMBER
DOOR NUMBER
COLUMN GRID LINE
WALL TYPE
WINDOW TYPE
LOUVER
ACCESSORY, FURNITURE, AND MISCELLANEOUS EQUIPMENT IDENTIFIER

KEY NOTE DESIGNATION
KEY NOTE NUMBER

BENCHMARK AS NOTED
FOUND STONE IN HAND HOLE
FOUND STONE
FOUND MONUMENT AS NOTED
FOUND BRASS CAP IN HAND HOLE
FOUND BRASS CAP FLUSH
NUMBER OF DRYBELLS FIRST FLUSH

BASIN CROSS SECTION

UTILITY/CIVIL LINE SYMBOLOLOGY

SECTION LINE
EXISTING EASEMENT
ADJACENT PROPERTY LINE
PROPERTY LINE
EXISTING CONTOUR (MINOR)
EXISTING CONTOUR (MAJOR)
PROPOSED 8'-0" CHAIN LINK FENCE - SEE SHEET C2.4
PENDING FLOODPLAIN LIMITS (LAKE WASH 9/2009 STUDY)
PENDING FLOODPLAIN LIMITS (LAKE WASH 9/2009 STUDY)
EFFECTIVE FLOODPLAIN LIMITS

GENERAL NOTES:
1. THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.



CADD: #22017018
REV DATE: MAY, 2017

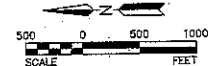
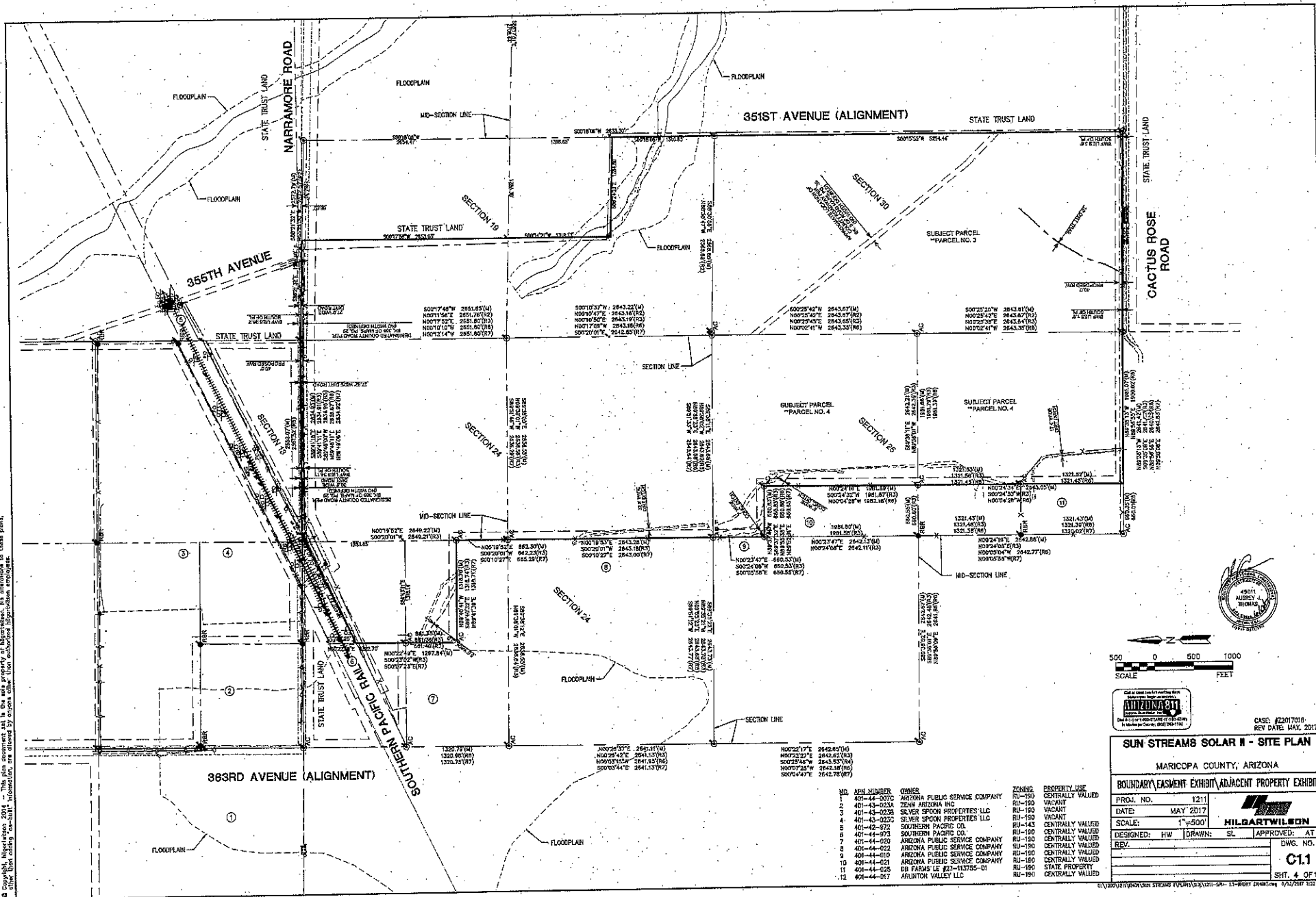
SUN STREAMS SOLAR II - SITE PLAN

MARICOPA COUNTY, ARIZONA

LEGEND AND ABBREVIATIONS

PROJ. NO. 1211
DATE: MAY 2017
SCALE: NTS
DESIGNED: HW DRAWING: SL APPROVED: AT
REV. DWG. NO.
C0.1
SHT. 2 OF 15


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CASE: #2017018
REV DATE: MAY, 2017

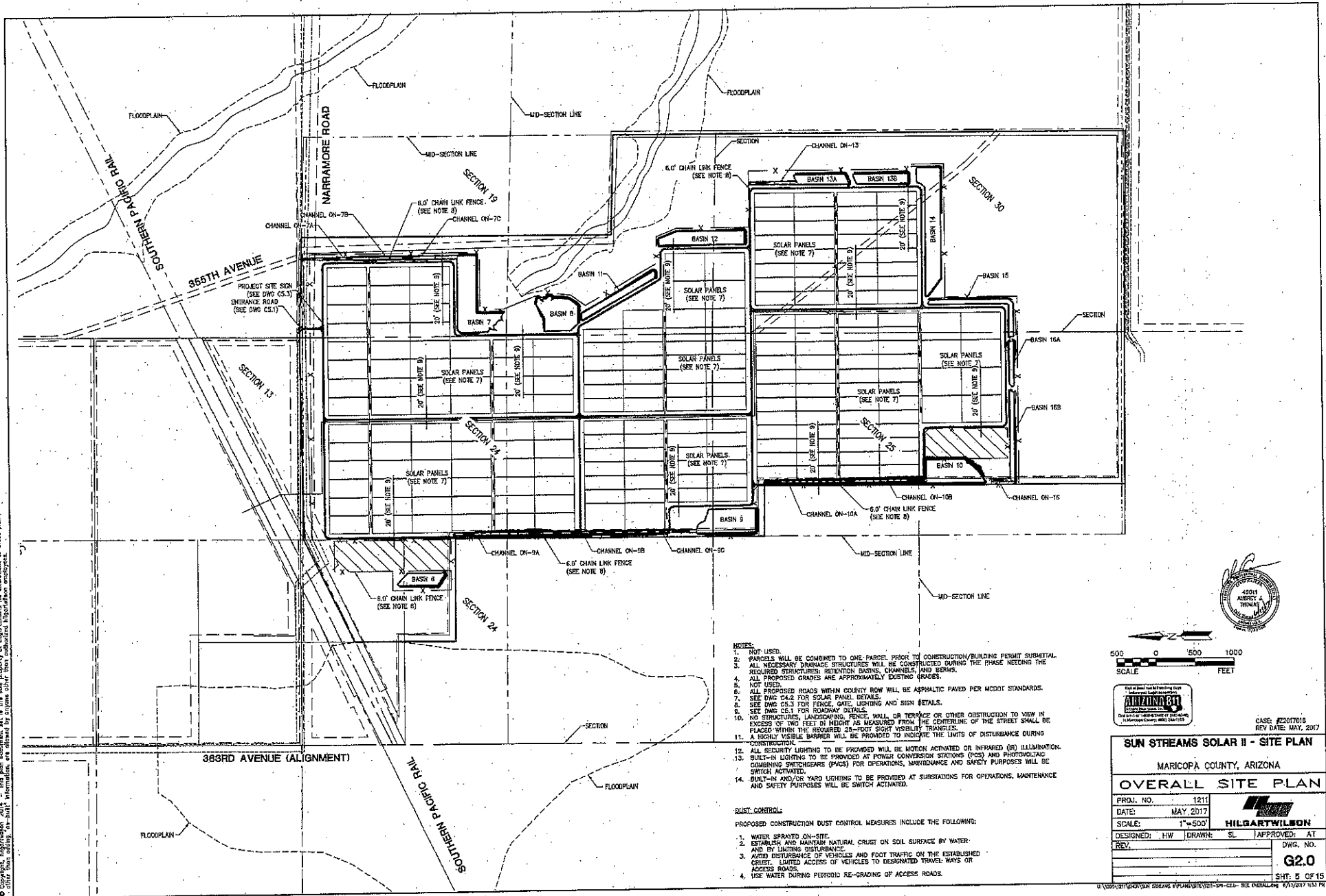
SUN STREAMS SOLAR II - SITE PLAN MARICOPA COUNTY, ARIZONA

BOUNDARY/EASEMENT EXHIBIT/ADJACENT PROPERTY EXHIBIT

PROJ. NO.	1211	 HILGART WILSON
DATE:	MAY 2017	
SCALE:	1"=500'	
DESIGNED: HW	DRAWN: SL	APPROVED: AT
REV.		DWG. NO.
		C1.1
		SHT. 4 OF 15

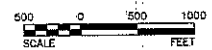
BY: [Signature] FOR: [Signature] DATE: 5/12/2017 1:22 PM

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- NOTES:
1. NOT USED.
 2. PARCELS WILL BE COMBINED TO ONE PARCEL PRIOR TO CONSTRUCTION/BUILDING PERMIT SUBMITTAL.
 3. ALL NECESSARY DRAINAGE STRUCTURES WILL BE CONSTRUCTED DURING THE PHASE NEEDING THE REQUIRED STRUCTURES: RETENTION BASINS, CHANNELS, AND BERMS.
 4. ALL PROPOSED GRADES ARE APPROXIMATELY EXISTING GRADES.
 5. NOT USED.
 6. ALL PROPOSED ROADS WITHIN COUNTY ROW WILL BE ASPHALTIC PAVED PER MCDOT STANDARDS.
 7. SEE DWG 154.2 FOR SOLAR PANEL DETAILS.
 8. SEE DWG C5.3 FOR FENCE, GATE, LIGHTING AND SIGN DETAILS.
 9. SEE DWG C5.3 FOR ROADWAY DETAILS.
 10. NO STRUCTURES, LANDSCAPING, FENCE, WALL OR TERRACE OR OTHER OBSTRUCTION TO VIEW IN EXCESS OF TWO FEET IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE STREET SHALL BE PLACED WITHIN THE REQUIRED 24'-FOOT SIGHT VISIBILITY TRIANGLES.
 11. A HIGHLY VISIBLE BARRIER WILL BE PROVIDED TO INDICATE THE LIMITS OF DISTURBANCE DURING CONSTRUCTION.
 12. ALL SECURITY LIGHTING TO BE PROVIDED WILL BE MOTION ACTIVATED OR INFRARED (IR) ILLUMINATION.
 13. BUILT-IN LIGHTING TO BE PROVIDED AT POWER CONVERSION STATIONS (PCS) AND PHOTOVOLTAIC COMBINING SWITCHGEAR (PCS) FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES WILL BE SWITCH ACTIVATED.
 14. BUILT-IN AND/OR YARD LIGHTING TO BE PROVIDED AT SUBSTATIONS FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES WILL BE SWITCH ACTIVATED.

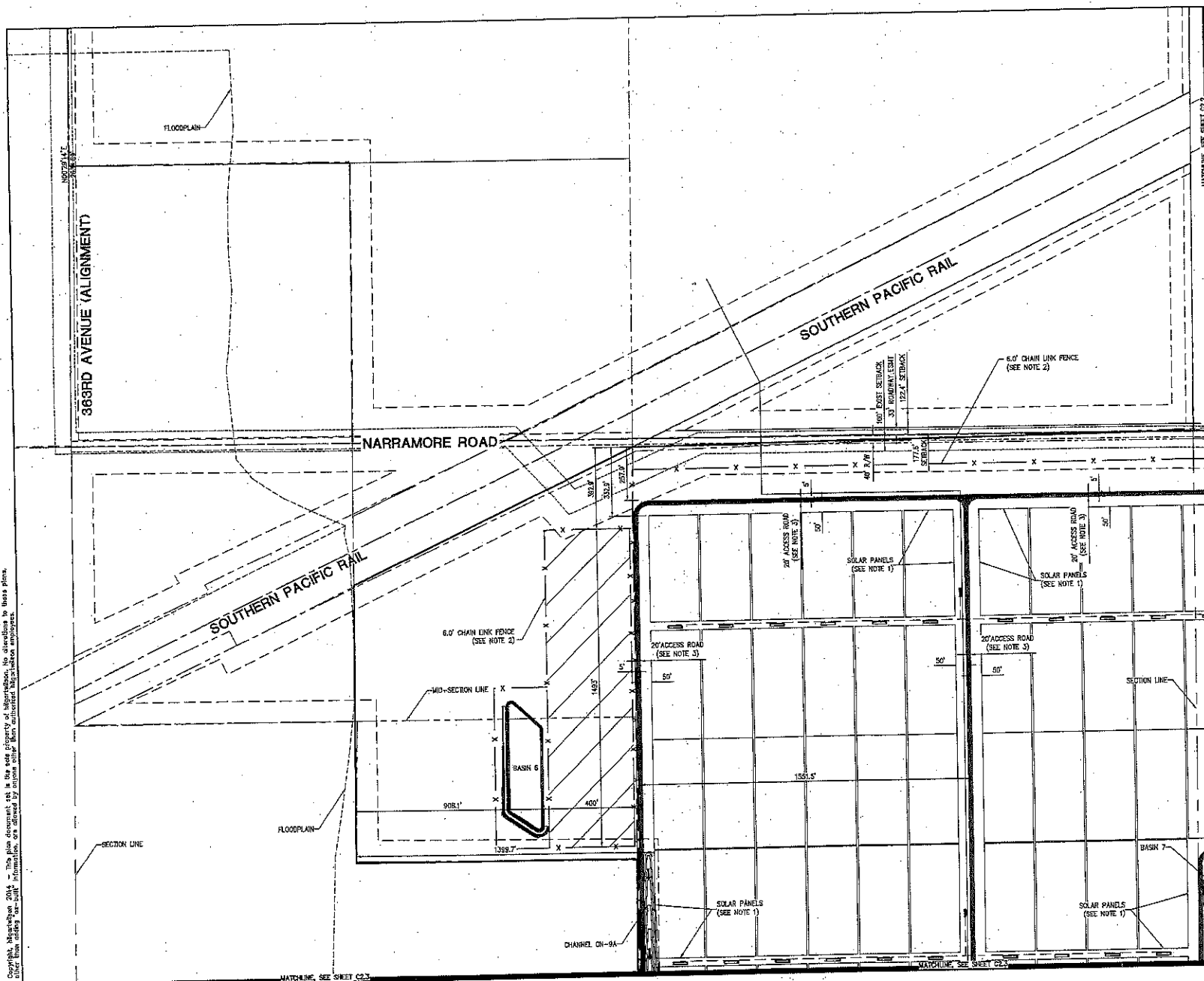
- DUST CONTROL
- PROPOSED CONSTRUCTION DUST CONTROL MEASURES INCLUDE THE FOLLOWING:
1. WATER SPRAYED ON-SITE.
 2. ESTABLISH AND MAINTAIN NATURAL CRUST ON SOIL SURFACE BY WATER AND BY LIMITING DISTURBANCE.
 3. AVOID DISTURBANCE OF VEHICLES AND FOOT TRAFFIC ON THE ESTABLISHED CRUST. LIMITED ACCESS OF VEHICLES TO DESIGNATED TRAVEL WAYS OR ACCESS ROADS.
 4. USE WATER DURING PERIODIC RE-GRADING OF ACCESS ROADS.



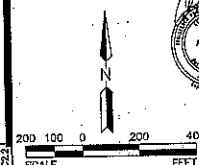
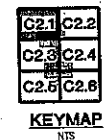
CASE: #2207018
REV DATE: MAY, 2017

SUN STREAMS SOLAR II - SITE PLAN			
MARICOPA COUNTY, ARIZONA			
OVERALL SITE PLAN			
PROJ. NO.	1211		
DATE	MAY, 2017		
SCALE	1"=500'		
DESIGNED:	HW	DRAWN:	SL
REV.		APPROVED:	AT
		DWG. NO.	
		G2.0	
		SHT. 5 OF 15	

U:\PROJECTS\2017\SUN STREAMS SOLAR II\DWG-G2.0-SITE PLAN.dwg 6/1/2017 1:14 PM



- NOTES:
- SEE SHEET C4.4 FOR SOLAR PANEL DETAILS.
 - SEE SHEET C5.3 FOR FENCE, GATE, LIGHTING AND SIGN DETAILS.
 - SEE SHEET C5.4 FOR ROADWAY DETAILS.
 - NO STRUCTURES, LANDSCAPING, FENCE, WALL, OR TERRACE OR OTHER OBSTRUCTION TO VIEW IN EXCESS OF TWO FEET IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE STREET SHALL BE PLACED WITHIN THE REQUIRED 25-FOOT SIGHT TRIANGLE.
 - LOCATION OF SECURITY YARD LIGHTS ARE APPROXIMATE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
 - POWER CONVERSION STATIONS (PCS) AND PHOTOVOLTAIC COMBINING SWITCHGEAR (PVC) MAY INCLUDE BUILT-IN SWITCH ACTIVATED LIGHTING FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES.



CASE: #22017018
REV DATE: MAY, 2017

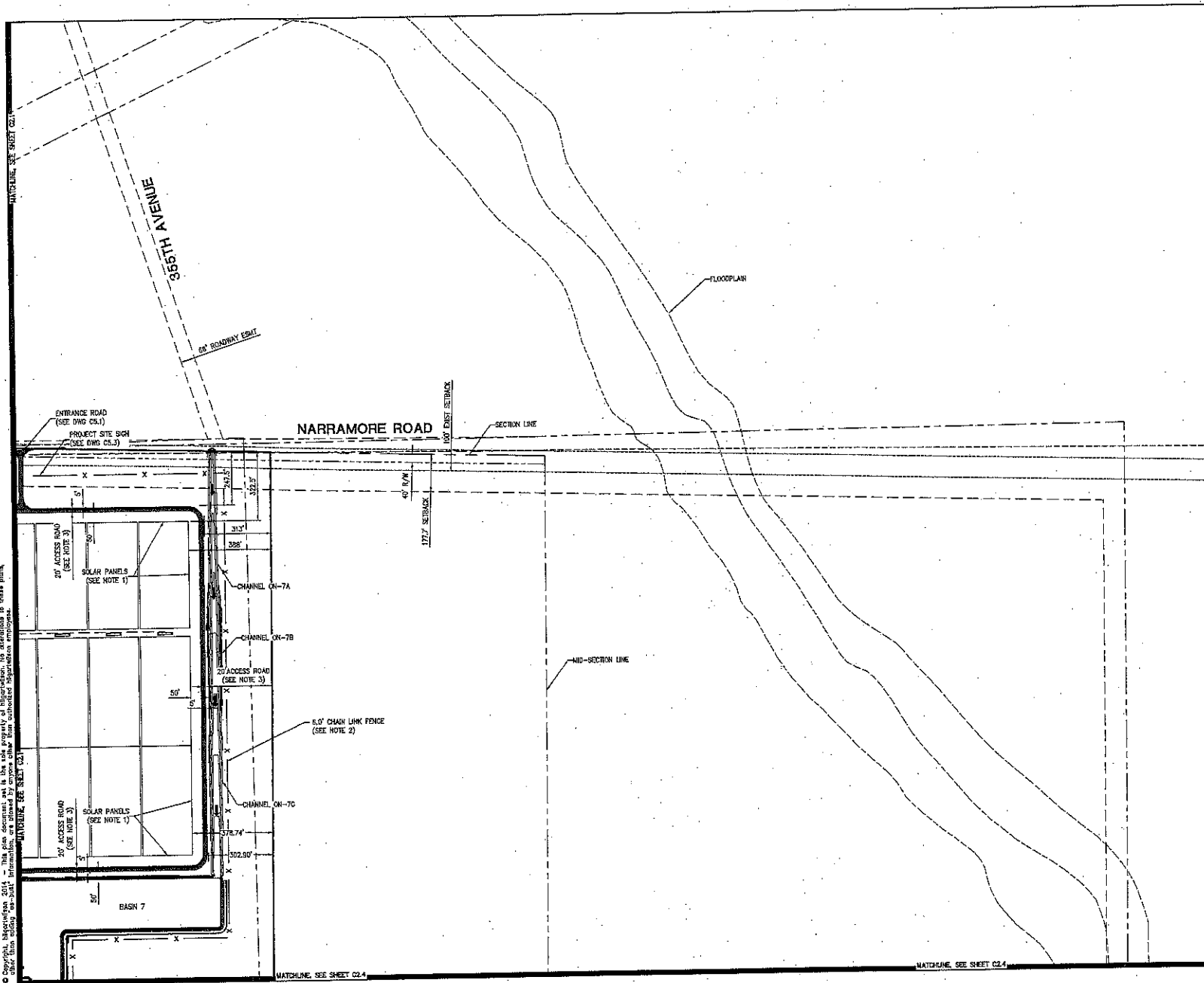
SUN STREAMS SOLAR II - SITE PLAN

MARICOPA COUNTY, ARIZONA

SITE PLAN

PROJ. NO. 1211
DATE: MAY 2017
SCALE: 1"=200'
DESIGNED: HW DRAWN: SL APPROVED: AT
REV. _____

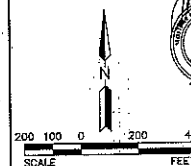
DWG. NO. **C2.1**
SHT. 6 OF 15



- NOTES:
1. SEE SHEET C4.4 FOR SOLAR PANEL DETAILS.
 2. SEE SHEET C5.3 FOR FENCE, GATE, LIGHTING AND SIGN DETAILS.
 3. SEE SHEET C5.1 FOR ROADWAY DETAILS.
 4. NO STRUCTURES, LANDSCAPING, FENCE, WALL, OR TERRACE OR OTHER OBSTRUCTION TO VIEW IN EXCESS OF TWO FEET IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE STREET SHALL BE PLACED WITHIN THE REQUIRED 25-FOOT SIGHT TRIANGLE.
 5. LOCATION OF SECURITY YARD LIGHTS ARE APPROXIMATE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
 6. POWER CONVERSION STATIONS (PCS) AND PHOTOVOLTAIC COMBINING SWITCHGEAR (PVS) MAY INCLUDE BUILT-IN SWITCH ACTIVATED LIGHTING FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES.

C2.1	C2.2
C2.3	C2.4
C2.5	C2.6

KEYMAP
N



CASE: #22047018
REV DATE: MAY, 2017

SUN STREAMS SOLAR II - SITE PLAN

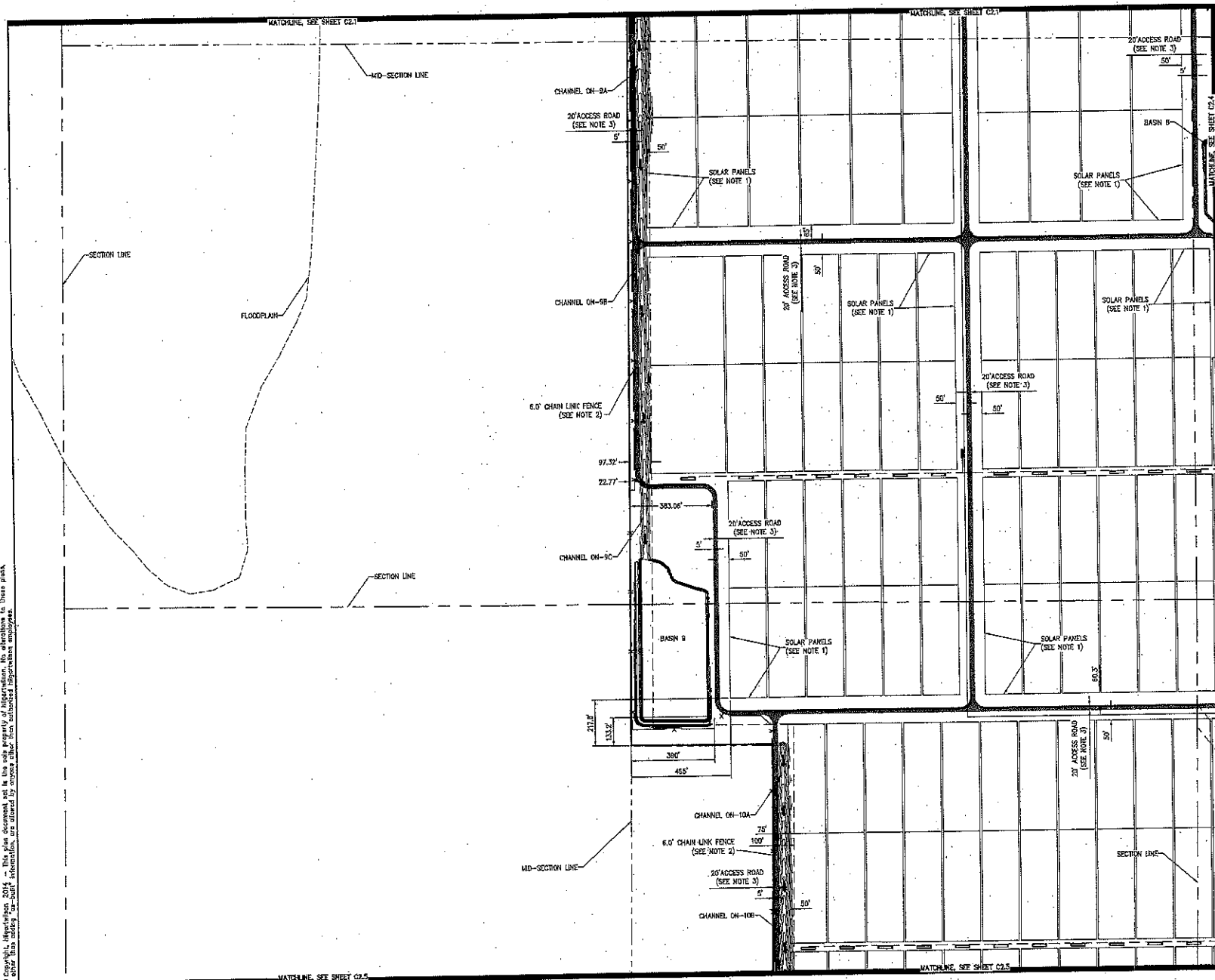
MARICOPA COUNTY, ARIZONA

SITE PLAN

PROJ. NO. 1211
DATE: MAY, 2017
SCALE: 1"=200'
DESIGNED: HW DRAWN: SL APPROVED: AT
REV. _____ DWG. NO. _____

C2.2

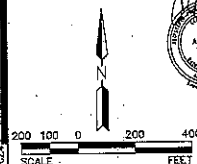
SHT. 7 OF 15



- NOTES:
1. SEE SHEET C4.4 FOR SOLAR PANEL DETAILS.
 2. SEE SHEET C5.3 FOR FENCE, GATE, LIGHTING AND SIGN DETAILS.
 3. SEE SHEET C5.1 FOR ROADWAY DETAILS. NO STRUCTURES, LANDSCAPING, FENCE, WALL OR TERRACE OR OTHER OBSTRUCTION TO VIEW IN EXCESS OF TWO FEET IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE STREET SHALL BE PLACED WITHIN THE REQUIRED 25-FOOT SIGHT TRIANGLE.
 4. LOCATION OF SECURITY LIGHTS ARE APPROXIMATE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
 5. POWER CONVERSION STATIONS (PCS) AND PHOTOVOLTAIC COMBINING SWITCHGEAR (PVCS) MAY INCLUDE BUILT-IN SWITCH ACTUATED LIGHTING FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES.

C2.1	C2.2
C2.3	C2.4
C2.5	C2.6

KEYMAP
NTS



CASE: #22017018
REV DATE: MAY, 2017

SUN STREAMS SOLAR II - SITE PLAN

MARICOPA COUNTY, ARIZONA

SITE PLAN

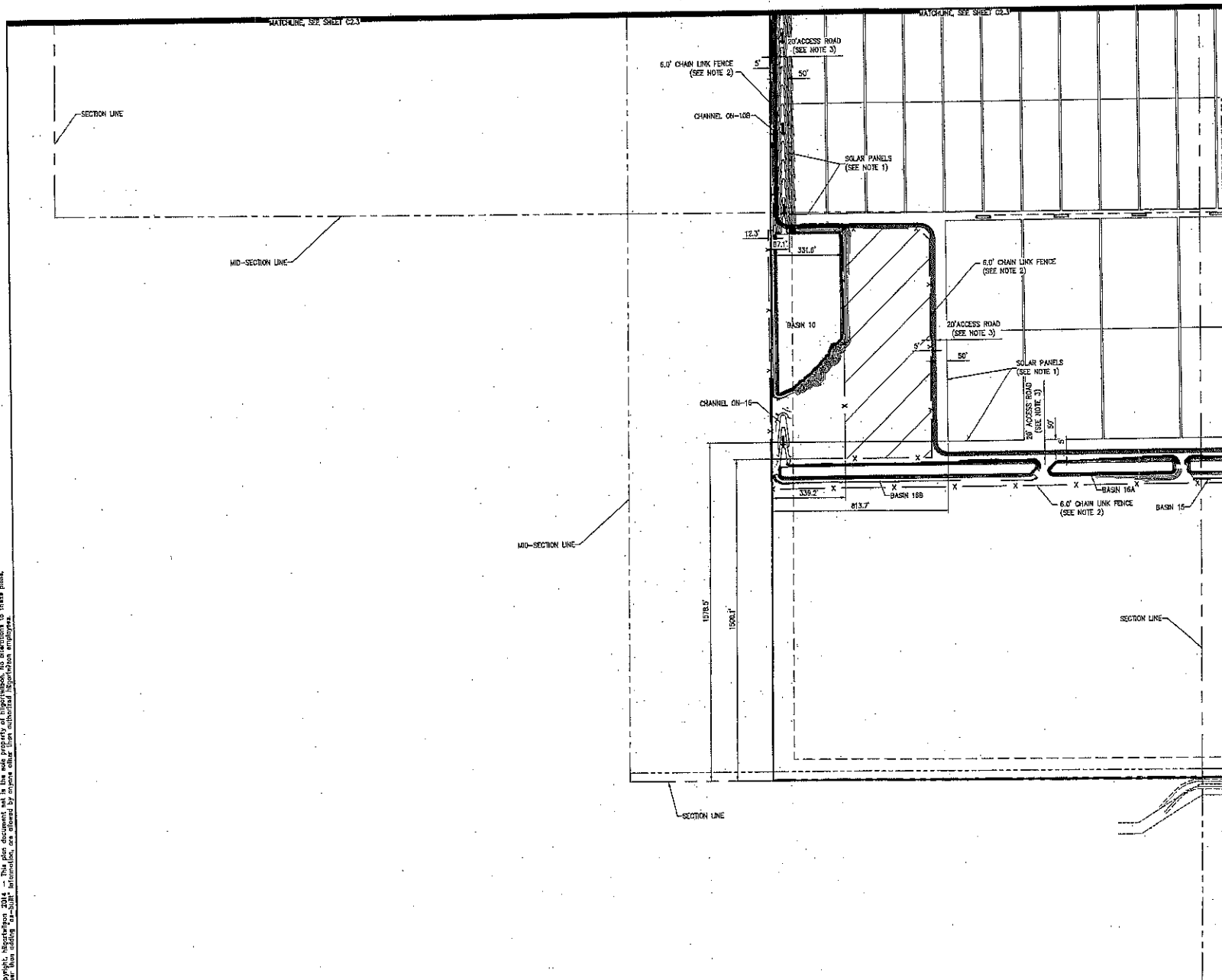
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DATE:	MAY 2017
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DRAWN:	SL
APPROVED:	AT
REV.	



DWG. NO.

C2.3

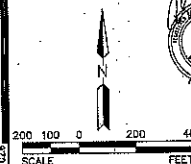
SHT. 5 OF 15



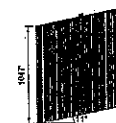
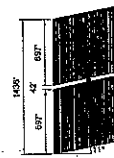
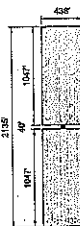
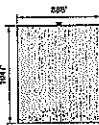
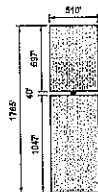
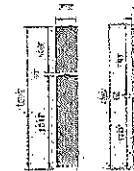
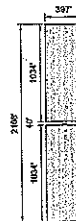
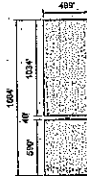
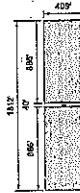
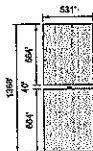
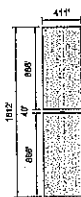
- NOTES:
1. SEE SHEET C4.4 FOR SOLAR PANEL DETAILS.
 2. SEE SHEET C5.2 FOR FENCE, GATE, LIGHTING AND SIGN DETAILS.
 3. SEE SHEET C5.1 FOR ROADWAY DETAILS.
 4. NO STRUCTURES, LANDSCAPING, FENCE WALL OR TERRACE OR OTHER CONSTRUCTION TO VIEW IN EXCESS OF TWO FEET IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE STREET SHALL BE PLACED WITHIN THE REQUIRED 25-FOOT SIGHT TRIANGLE TRIANGLES.
 5. LOCATION OF SECURITY YARD LIGHTS ARE APPROXIMATE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
 6. POWER CONVERSION STATIONS (PCS) AND PHOTOVOLTAIC COMBINING SWITCHGEAR (PVCS) MAY INCLUDE BUILT-IN SWITCH ACTIVATED LIGHTING FOR OPERATIONS, MAINTENANCE AND SAFETY PURPOSES.

C2.1	C2.2
C2.3	C2.4
C2.5	C2.6

KEYMAP
NTS



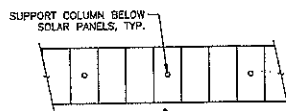
CASE: J2017016 REV DATE: MAY, 2017			
SUN STREAMS SOLAR II - SITE PLAN			
MARICOPA COUNTY, ARIZONA			
SITE PLAN			
PROJ. NO.	1211		
DATE:	MAY, 2017		
SCALE:	1"=200'		
DESIGNED: HW	DRAWN: SL	APPROVED: AT	
REV.			
			DWG. NO.
			C2.5
			SHT. 10 OF 15



TYPICAL TRACKER ARRAYS

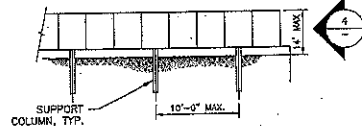
NTS

NOTE:
PCS AND PVCS MAY INCLUDE BUILT-IN SWITCH
ACTIVATED LIGHTING FOR OPERATIONS, MAINTENANCE
AND SAFETY PURPOSES.



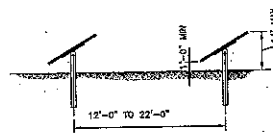
SOLAR PANEL STRING
TOP VIEW

NTS



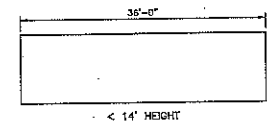
SOLAR PANEL STRING
FRONT VIEW ELEVATION

NTS



SINGLE AXIS TRACKING

NTS



PCS & PVCS FOOTPRINT DETAIL

NTS



CASE: 172017018
REV DATE: MAY, 2017

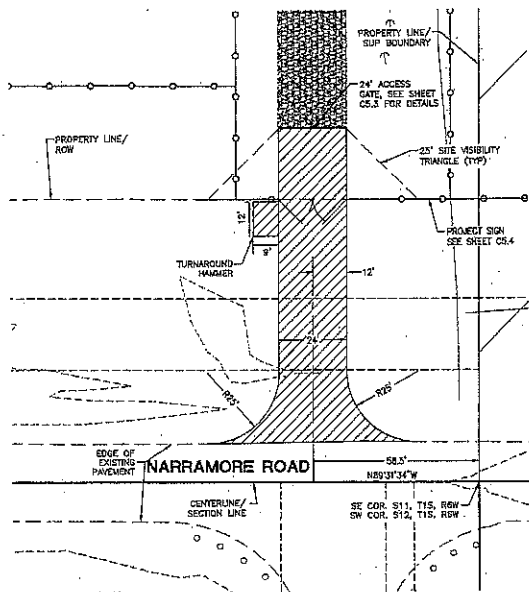
SUN STREAMS SOLAR II - SITE PLAN

MARICOPA COUNTY, ARIZONA

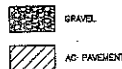
SOLAR PANEL DETAILS

PROJ. NO.	1211
DATE:	MAY 2017
SCALE:	NTS
DESIGNED:	HW
DRAWN:	SL
APPROVED:	AT
REV.	
DWG. NO.	C4.4

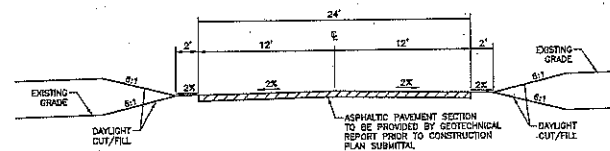
SHT. 12 OF 15



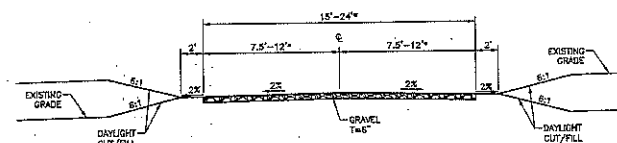
ACCESS ROAD 1
SCALE: 1"=20'



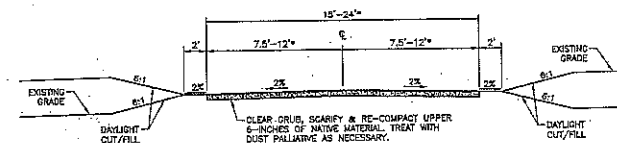
NOTE:
NO STRUCTURES, LANDSCAPING, FENCE, WALL, OR TERRACE
OR OTHER OBSTRUCTION TO VIEW IN EXCESS OF TWO FEET
IN HEIGHT AS MEASURED FROM THE CENTERLINE OF THE
STREET SHALL BE PLACED WITHIN THE REQUIRED 25-FOOT
SIGHT VISIBILITY TRIANGLES.



① PAVED DRIVEWAY
SCALE: 1"=5'



② GRAVEL/PRIMARY ACCESS ROADWAY
SCALE: 1"=5'



③ SECONDARY ACCESS ROADWAY
SCALE: 1"=5'



CASE: #22017016
REV DATE: MAY, 2017

SUN STREAMS SOLAR II - SITE PLAN

MARICOPA COUNTY, ARIZONA

ACCESS ROAD PLAN SHEET

PROJ. NO. 1211

DATE MAY 2017

SCALE: 1"=20'

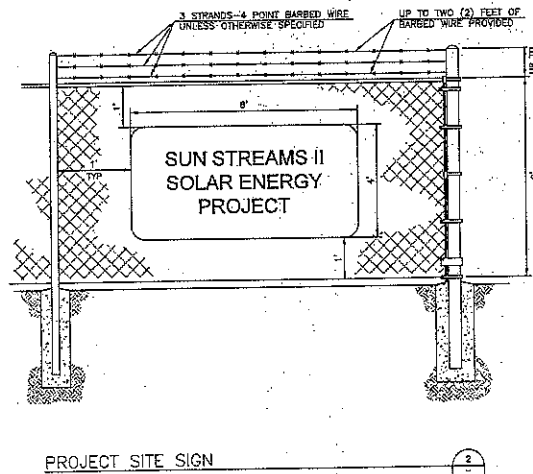
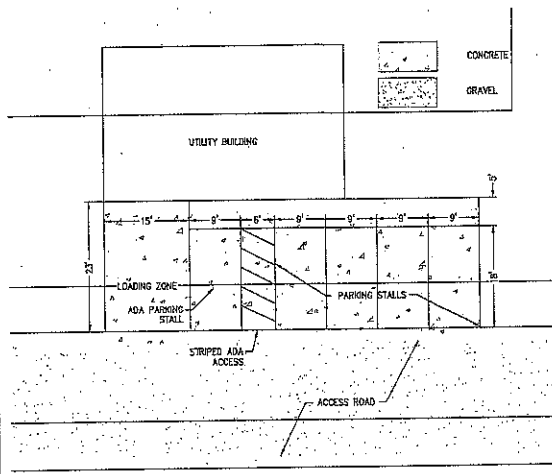
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REV. _____ DWG. NO.

C5.1

SHT. 13 OF 15

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PARKING DETAIL
SCALE 1"=10'

NOTE: SURFACING MATERIALS MEETING
PA-10 REQUIREMENTS FOR AIR QUALITY.

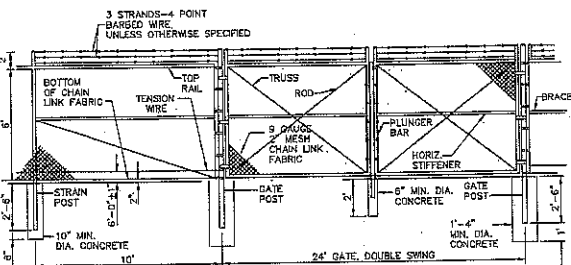
PROJECT SITE SIGN
NTS

NOTES

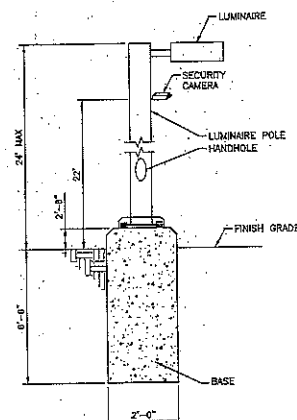
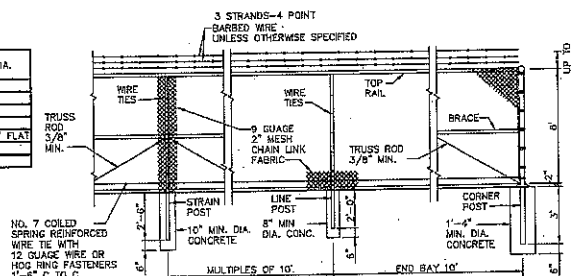
1. ALL CONCRETE SHALL BE CLASS 'C' PER SECT. 725.
2. FITTINGS NOT SPECIFICALLY DETAILED SHALL BE HEAVY DUTY DESIGN.
3. STRAIN POSTS SHALL BE SPACED AT 600" MAXIMUM SPACING.
4. BOTH CORNER AND STRAIN POSTS SHALL HAVE STRAIN PANELS.
5. ALL POSTS SHALL BE CAPPED.
6. MEMBER SIZES SHALL BE THE FOLLOWING:

MEMBER	AISC SIZE	OUTSIDE DIA.
CORNER POST	2-1/2"	2.875"
LINE POST	1-1/2"	1.900"
STRAIN POST	1-1/2"	1.900"
BRACE	1-1/4"	1.668"
STRETCH BAR	3/16"x3/4" FLAT 3/16"x3/4" FLAT	4.000"
GATE POST	3-1/2"	4.000"
TOP RAIL	1-1/4"	1.668"

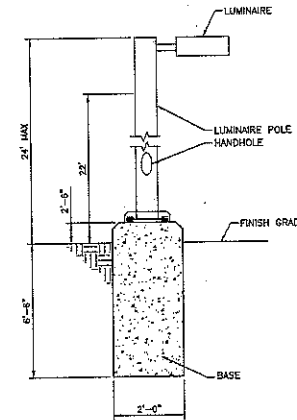
7. CONSTRUCTION AND MATERIALS SHALL CONFORM TO SECT. 420 AND 722, RESPECTIVELY. SEE TABLE 722 FOR WEIGHTS OF MEMBERS.



CHAIN-LINK FENCE DETAIL
NTS



SECURITY YARD LIGHT WITH CAMERA DETAIL
NTS



YARD LIGHT DETAIL
NTS



CASE: 22017018
REV DATE: MAY, 2017

SUN STREAMS SOLAR II - SITE PLAN

MARICOPA COUNTY, ARIZONA

PARKING, FENCE AND SIGN DETAILS

PROJ. NO.	1211
DATE:	MAY 2017
SCALE:	NTS
DESIGNED:	HW
DRAWN:	SL
APPROVED:	AT
DWG. NO.	C5.3
SHT. 15 OF 15	



Maricopa County

Planning & Development Department
Engineering Plan Review

Robert Fedorka, P.E.
Planning & Development
501 North 44th Street, Suite 200
Phoenix, Arizona 85008
Phone: (602) 506-7151
Fax: (602) 506-8762
www.maricopa.gov/planning
Email address:
RobertFedorka@mail.maricopa.gov

Date: June 11, 2015

Memo To: Darren Gerard, AICP, Deputy Director, Department of Planning & Development

Attn: Rachel Applegate, Senior Planner, Planning & Development Services

From: Robert Fedorka, P.E., Drainage Engineering Supervisor, Planning & Development Services

cc: Michael Norris, P.E., Drainage Engineering Manager, Planning & Development

Subject: CPA2015003 – First Solar - Proposed Photovoltaic Solar Project (E1 Memo)

Job Site Address: South of Narramore Road, near 355th Avenue.

APN(s): State Trust Land

I have reviewed the CPA application date stamped 05/29/2015. Engineering Plan Review (DPR, FCDMC and MCDOT) has no objections to the application.

Approval of this case should include the following stipulations:

Drainage Plan Review

1. Drainage review of planning and/or zoning cases is for conceptual design only and does not represent final design approval nor shall it entitle applicants to future designs that are not in conformance with Section 1205 of the Maricopa County Zoning Ordinance and the Maricopa County Drainage Policies and Standards.
2. All development and engineering design shall be in conformance with Section 1205 of the Maricopa County Zoning Ordinance and current engineering policies, standards and best practices at the time of application for construction.

Flood Control District Review

1. The site contains regulated Special Flood Hazard Areas (Floodplains and Floodways). Prior to any development on the site, a Floodplain Use Permit must be obtained.

MCDOT Review

1. Preserve a total half-width right-of-way of 65 feet on Narramore Road, east of 355th Avenue.

Please contact me if you have any questions or require any additional information.



Maricopa County

Planning & Development Department

Robert Fedorka, P.E.
Planning & Development
501 North 44th Street, Suite 200
Phoenix, Arizona 85008
Phone: (602) 506-7151
Fax: (602) 506-8762
www.maricopa.gov/planning
Email address:
RobertFedorka@mail.maricopa.gov

Date: July 19, 2017

Memo To: Darren Gerard, AICP, Deputy Director, Department of Planning & Development

Attn: Raymond Banker, Planner, Planning & Development Services

From: Robert Fedorka, P.E., Engineering Supervisor, Planning & Development Services

cc: Michael Norris, P.E., Engineering Manager, Planning & Development

Subject: Z2017017 – Re-Zone & IUPD for Sun Streams Solar – Silver Spoon Unit (E2 Memo)

Job Site Address: 11801 South 363rd Avenue, Tonopah, AZ 85354

APN(s): 401-43-022B, 023B & 023C

I have reviewed the Plans and Drainage Report, date stamped June 16, 2017 for the Re-Zoning (I-2) with IUPD for the Sun Streams Solar – Silver Spoon Unit project. Engineering review has no objections to the submittal.

Approval of this case should include the following stipulations:

Drainage

1. Prior to issuance of a building permit for construction of the project, a drainage easement for the offsite channels north of the site must be obtained from the adjacent land owner. Recordation information will be required to be shown on the construction plans.
2. Final design shall address the need for dissipation of flows from the offsite channels north of the site at their outfall locations.
3. Drainage review of planning and/or zoning cases is for conceptual design only and does not represent final design approval nor shall it entitle applicants to future designs that are not in conformance with Section 1205 of the Maricopa County Zoning Ordinance and the Maricopa County Drainage Policies and Standards.
4. All development and engineering design shall be in conformance with Section 1205 of the Maricopa County Zoning Ordinance and current engineering policies, standards and best practices at the time of application for construction.
5. Owner or owner's agent shall be responsible for identifying and procuring any permit(s) for disturbance of, or work within delineated jurisdictional (404) washes.
6. Detailed Grading and Drainage Plans showing the new site improvements must be submitted for the acquisition of building permits.

MCDOT

1. Preservation of right-of-way along the following roadway alignments is required:

363rd Avenue: 40 feet (east side); and
Narramore Road: 40 feet (north side) west of 355th Avenue
2. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant and during AM and PM peak school hours.

FLOOD CONTROL DISTRICT

1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site for any work with regulated floodplain(s).
2. Pads for inverters and other electrical equipment; and any buildings within the Zone A Floodplain must be elevated to the regulatory flood elevation or otherwise designed to meet the requirements of the Floodplain Use Regulations.
3. All development and engineering design shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.

Please contact me if you have any questions or require clarification of these comments.



Maricopa County

Planning & Development Department

Robert Fedorka, P.E.
Planning & Development
501 North 44th Street, Suite 200
Phoenix, Arizona 85008
Phone: (602) 506-7151
Fax: (602) 506-8762
www.maricopa.gov/planning
Email address:
RobertFedorka@mail.maricopa.gov

Date: July 21, 2017

Memo To: Darren Gerard, AICP, Deputy Director, Department of Planning & Development

Attn: Raymond Banker, Planner, Planning & Development Services

From: Robert Fedorka, P.E., Engineering Supervisor, Planning & Development Services

cc: Michael Norris, P.E., Engineering Manager, Planning & Development

Subject: Z2017018 – Re-Zone & IUPD for Sun Streams Solar II (E2 Memo)

Job Site Address: Generally SWC Narramore Rd. & 355th Ave., North of Cactus Rose Rd.

APN(s): State Land

I have reviewed the Plans and Drainage Report, date stamped June 16, 2017 for the Re-Zoning (I-2) with IUPD for the Sun Streams Solar II project. Engineering review has no objections to the submittal.

Approval of this case should include the following stipulations:

Drainage

1. Drainage review of planning and/or zoning cases is for conceptual design only and does not represent final design approval nor shall it entitle applicants to future designs that are not in conformance with Section 1205 of the Maricopa County Zoning Ordinance and the Maricopa County Drainage Policies and Standards.
2. All development and engineering design shall be in conformance with Section 1205 of the Maricopa County Zoning Ordinance and current engineering policies, standards and best practices at the time of application for construction.
3. Owner or owner's agent shall be responsible for identifying and procuring any permit(s) for disturbance of, or work within delineated jurisdictional (404) washes.
4. Detailed Grading and Drainage Plans showing the new site improvements must be submitted for the acquisition of building permits.

MCDOT

1. Preservation of right-of-way along the following roadway alignments is required:

Cactus Rose Road: 40 feet (north side); and
Narramore Road: 40 feet (south side) west of 355th Avenue

2. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant and during AM and PM peak school hours.

FLOOD CONTROL DISTRICT

1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site for any work with regulated floodplain(s).
2. Pads for inverters and other electrical equipment; and any buildings Regulated Floodplain(s) must be elevated to the regulatory flood elevation or otherwise designed to meet the requirements of the Floodplain Use Regulations.
3. Any development with the Regulated Floodplain(s) shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.

Please contact me if you have any questions or require clarification of these comments.



Maricopa County

Environmental Services Department
Water and Waste Management

Subdivision Infrastructure &
Planning Program
1001 N. Central Avenue #150
Phoenix, Arizona 85004
Phone: (602) 506-1058
Fax: (602) 506-5813
TDD 602 506 6704

DATE: June 2, 2015

TO : Rachel Applegate, Planning & Development Dept.
Senior Planner

FROM: Souren Naradikian, P.E.
Senior Civil Engineer

SUBJECT: PV First Solar Energy facility CPA; CPA2015003

The Maricopa County Environmental Services Department (MCESD) has reviewed documents received from the Maricopa County Planning and Development Department for the above referenced project. This project is a Comprehensive Plan Amendment (CPA) for a proposed PV First Solar Energy facility. The proposed PV First Solar Energy facility would be located on a 2,170-acre irregularly shaped parcel near Narramore Road and 355th Avenue, southwest of Town of Buckeye.

No discussion of the provision of potable water or sanitary sewer services was provided. MCESD assumes that potable water will be discussed at later time. Sanitary sewage could be managed by an onsite septic system. The site is not located in the Urbanized Unincorporated Area, and therefore, not regulated by the Maricopa County Stormwater Quality Program.

Based on the above, MCESD **raised no objection** for this project to the Planning & Development Department in Accela Automation on June 2, 2015 and can allow the project to proceed at this time subject to the following stipulations:

Stipulations: None

It should be noted that several other Maricopa County agencies must review and recommend approval of this project.



Maricopa County
Environmental Services Department
Water and Waste Management
Division

Subdivision Infrastructure &
Planning Program
1001 N. Central Avenue #150
Phoenix, Arizona 85004
Phone: (602) 506-1058
Fax: (602) 506-5813
TDD 602 506 6704

DATE: March 15, 2017

TO : Raymond Banker, Planning & Development Dept.
Planner

FROM: Souren Naradikian, P.E.
Senior Civil Engineer

SUBJECT: Sun Streams Silver Spoon unit. Z2017017

The Maricopa County Environmental Services Department (MCESD) has reviewed documents received from the Maricopa County Planning and Development Department for the above referenced project. Applicant request is for zone change from RU-190 to I-2 to allow future solar energy development at property APN # 401-43-023C/023B & 022B. Water/Sewer service – water will be provided by privet well and sewer will be provided by septic system, septic permit will be require prior to any construction permit been issued. Stormwater - The parcel is not located in the urbanized unincorporated area, and therefore, not regulated by the Maricopa County Stormwater Quality Program.

Based on the above, MCESD **raised no objection** to this project to the Planning & Development Department on March 15, 2017 and can support the status report at this time subject to the following stipulations:

Stipulations: None

It should be noted that several other Maricopa County agencies must review this project.



Maricopa County
Environmental Services Department
Water and Waste Management
Division

Subdivision Infrastructure &
Planning Program
1001 N. Central Avenue #150
Phoenix, Arizona 85004
Phone: (602) 506-1058
Fax: (602) 506-5813
TDD 602 506 6704

DATE: March 15, 2017

TO : Raymond Banker, Planning & Development Dept.
Planner

FROM: Souren Naradikian, P.E.
Senior Civil Engineer

SUBJECT: Sun Streams Silver Spoon unit II. Z2017018

The Maricopa County Environmental Services Department (MCESD) has reviewed documents received from the Maricopa County Planning and Development Department for the above referenced project. Applicant request is for zone change from RU-190 to I-2 to allow future solar energy development at property APN # None it is State land. Water/Sewer service – water will be provided by privet well and sewer will be provided by septic system, septic permit will be require prior to any construction permit been issued. Stormwater - The parcel is not located in the urbanized unincorporated area, and therefore, not regulated by the Maricopa County Stormwater Quality Program.

Based on the above, MCESD **raised no objection** to this project to the Planning & Development Department on March 15, 2017 and can support the status report at this time subject to the following stipulations:

Stipulations: None

It should be noted that several other Maricopa County agencies must review this project.

Rachel Applegate - PLANDEVX

From: Ian Thompson - SHERIFFX
Sent: Tuesday, June 02, 2015 1:23 PM
To: Rachel Applegate - PLANDEVX
Subject: RE: First Solar Comprehensive Plan Amendment CPA2015003

Follow Up Flag: Follow up
Flag Status: Flagged

Rachel: I have reviewed the application for the Sheriff's Office, and see no difference between this project and the various other solar projects submitted. As such, the Sheriff's Office has no comments for the Technical Advisory Committee regarding the Comprehensive Plan Amendment.

Thanks,

Ian

The information contained in this e-mail and any files transmitted with it are confidential and/or privileged, and are intended solely for the use of the recipients listed above. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of the transmitted information is strictly prohibited. If you received this transmission in error, please immediately notify the sender and delete and destroy all copies and attachments.

From: rachelapplegate@mail.maricopa.gov [<mailto:rachelapplegate@mail.maricopa.gov>]
Sent: Tuesday, June 02, 2015 12:40 PM
To: Julie Symopoulos - EMERMGTX; Stella Sheridan - EMERMGTX; Ian Thompson - SHERIFFX; redletter@azdot.gov; dhenning@westvalleyview.com; David.Crozier@aps.com; dmheisler1@aol.com; ronsatt@ev1.net; swilken@azmag.gov; VWolfe@azmag.gov; hrquenther@azwater.gov; gritter@azgfd.gov; lc1@azdeq.gov; mwalsh@azstateparks.gov
Subject: First Solar Comprehensive Plan Amendment CPA2015003



Reviewing Agencies,

Attached with this e-mail includes the application materials for a Comprehensive Plan Amendment for First Solar case CPA2015003. A Technical Advisory Committee Meeting has been scheduled for Tuesday, June 16th at 9:00 a.m. Please send comments to me prior to the TAC meeting date. Please download these documents as soon as possible as the website will not be active for an extended period of time.

Thank you,
Rachel Applegate
Senior Planner
Maricopa County Planning & Development
Rachelapplegate@mail.maricopa.gov

Raymond Banker - PLANDEVX

From: Ian Thompson - SHERIFFX
Sent: Tuesday, March 28, 2017 8:24 AM
To: Raymond Banker - PLANDEVX
Subject: FW: Sun Streams Solar Silver Spoon Unit (Case #Z2017017
Attachments: Z2017017 TAC route sheet.pdf; Silver spoon- signed application.pdf; Silver Spoon Narrative.pdf; Silver Spoon Site Plan Set (Signed 2017-0308).pdf

Hi Raymond:

The Sheriff's Office has no comments for the TAC regarding the rezoning.

Thanks,

Ian J. Thompson
Division Commander
550 W. Jackson Street, Suite 135
Phoenix, AZ 85003
Office Number (602) 876-4701
Fax Number (602) 876-0050
I.Thompson@MCSO.Maricopa.Gov

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From: Raymond Banker - PLANDEVX
Sent: Monday, March 27, 2017 5:36 PM
Subject: Sun Streams Solar Silver Spoon Unit (Case #Z2017017)

Good afternoon,

You are receiving this email as the above mentioned case (Z2017017) is in an area which you are considered an "Area of Interest". Attached are documents relating to the subject case and information regarding the scheduled Technical Advisory Committee (TAC) Meeting. Please let me know if you have any questions.

Sincerely,

Ray Banker
Planner
Maricopa County
Planning and Development Department



Raymond Banker - PLANDEVX

From: Ian Thompson - SHERIFFX
Sent: Tuesday, March 28, 2017 8:25 AM
To: Raymond Banker - PLANDEVX
Subject: FW: Sun Streams Solar Unit II (Case #Z2017018)
Attachments: Z2017018 TAC route sheet.pdf; Sun Streams- signed application.pdf; Sun Streams II Narrative.pdf; Sun Streams II Site Plan Set (Signed 2017-0308).pdf

Hi Raymond:

The Sheriff's Office has no comments for the TAC regarding the rezoning.

Thanks,

Ian J. Thompson
Division Commander
550 W. Jackson Street, Suite 135
Phoenix, AZ 85003
Office Number (602) 876-4701
Fax Number (602) 876-0050
I.Thompson@MCSO.Maricopa.Gov

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From: Raymond Banker - PLANDEVX
Sent: Monday, March 27, 2017 5:38 PM
Subject: Sun Streams Solar Unit II (Case #Z2017018)

Good afternoon,

You are receiving this email as the above mentioned case (Z2017018) is in an area which you are considered an "Area of Interest". Attached are documents relating to the subject case and information regarding the scheduled Technical Advisory Committee (TAC) Meeting. Please let me know if you have any questions.

Sincerely,

Ray Banker
Planner
Maricopa County
Planning and Development Department




Maricopa County


Department of Emergency Management

5630 East McDowell Road
Phoenix, Arizona 85008-3403
Phone: (602) 273-1411
Fax: (602) 275-1638

DATE: June 22, 2015

TO: Rachel Applegate, Senior Planner

FROM: Julie Symopoulos, Operations Manager 

THROUGH: Stella Sheridan, Planner 

RE: First Solar Comprehensive Plan Amendment (CPA2015003)

The Maricopa County Department of Emergency Management has reviewed the First Solar Comprehensive Plan Amendment (CPA2015003) provided by the Maricopa County Planning and Development Department.

We offer the following as information; the proposed development is completely within the 10-mile Plume Exposure Pathway Emergency Planning Zone (EPZ) for the Palo Verde Nuclear Generating Station (PVNGS). There is a potential for radioactive contamination to whole body (external), as well as thyroid and other organs (inhalation) in the event of a major emergency at PVNGS. An Outdoor Warning Siren System is used to alert residents in time of emergency within the 10-mile EPZ. It is critical that the population living and working within the 10-mile zone, including a future expansion of the existing solar farm, know what actions to take upon hearing the sirens; protective action instructions given to the public are keyed to sector designation mile rings indicated on the placards (e.g. Sector A, Mile Ring 7).

The Maricopa County Department of Emergency Management (MCDEM) offers the following language as a stipulation to any future zoning application:

"The developer shall contact the Palo Verde Nuclear Generating Station (PVNGS) Emergency Planning Department. The PVNGS Emergency Planning Department will provide placards for posting on the subject property, indicating the proximity of the subject property to PVNGS and actions to be taken upon hearing the Outdoor Warning Siren System."

If you have any questions regarding our comments, please contact Stella Sheridan at (602) 273-1411.

Rachel Applegate - PLANDEVX

From: Don Solon <DSolon@azdot.gov>
Sent: Monday, June 08, 2015 1:51 PM
To: Rachel Applegate - PLANDEVX
Cc: Vanessa Nunez
Subject: RE: First Solar Comprehensive Plan Amendment CPA2015003

Follow Up Flag: Follow up
Flag Status: Completed

Dear Ms. Applegate,

Thank you for the notice of application for the First Solar Comprehensive Plan Amendment CPA 2015003. After review, we have determined that the proposed project will not have an impact to our highway facilities in this area.

ADOT reserves the right to review any future plans, additions, and/or changes to this development that may have an impact on the State Highway System in this area.

Please contact me if you have any questions.

Thank you,

Don Solon, SR/WA
Consultant Project Coordinator

205 S. 17th Ave
Phoenix, AZ 85007
602-712-7933
WWW.AZDOT.GOV

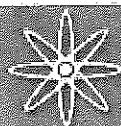


From: rachelapplegate@mail.maricopa.gov [<mailto:rachelapplegate@mail.maricopa.gov>]

Sent: Tuesday, June 02, 2015 12:40 PM

To: JulieSyrmopoulos@mail.maricopa.gov; SheridanS@mail.maricopa.gov; I.Thompson@MCSO.maricopa.gov; Redletter; dhennning@westvalleyview.com; David.Crozier@aps.com; dmheisler1@aol.com; ronsatt@ev1.net; swilken@azmag.gov; VWolfley@azmag.gov; hrguenther@azwater.gov; gritter@azgfd.gov; lc1@azdeq.gov; mwalsh@azstateparks.gov

Subject: First Solar Comprehensive Plan Amendment CPA2015003



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Reviewing Agencies,

Raymond Banker - PLANDEVX

From: Michael Wilson <MWilson@azdot.gov>
Sent: Tuesday, March 28, 2017 9:38 AM
To: Raymond Banker - PLANDEVX
Cc: Michael Wilson; Vanessa Nunez
Subject: Zoning Change (2): Sun Streams Solar Energy Farm 1) Silver Spoon Unit 2) Unit II
Attachments: 201703280920.pdf

Mr. Banker,

We've reviewed the two proposals for rezoning mentioned above, and can find no concerns or negative impacts to ADOT roads/systems, that would be caused by the rezoning or development of these properties. Our 'official' position is one of neutrality neither supporting or opposing the two rezoning proposals. We will not be attending the TAC meeting(s) scheduled for April 18th. Thank you for the opportunity to comment. Mike

Mike Wilson, SR/WA
ADOT ROW Project Coordinator
LPA (Local Public Agency) R/W Coordination Right of Way Agent III
205 S. 17th Ave. MD: 612E
Phoenix, AZ 85007
602-712-7175
WWW.AZDOT.GOV

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THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

GOVERNOR
DOUGLAS A. DUCEY

COMMISSIONERS
CHAIRMAN, ROBERT E. MANSELL, WINSLOW
KURT R. DAVIS, PHOENIX
EDWARD "PAT" MADDEN, FLAGSTAFF
JAMES R. AMMONS, YUMA
JAMES S. ZIELER, ST. JOHNS

DIRECTOR
LARRY D. VOYLES
DEPUTY DIRECTOR
TY E. GRAY



June 11, 2015

Ms. Rachel Applegate
Maricopa County Planning & Development Department
501 North 44th Street, Suite 200
Phoenix, AZ 85008

Re: First Solar CPA2015003

Dear Ms. Applegate:

The Arizona Game and Fish Department (Department) has received your letter dated June 2, 2015, requesting a review of the proposed photovoltaic (PV) solar project in Maricopa County, Arizona. The Department understands First Solar proposes to construct and operate a solar generating station on approximately 2,590 acres. We encourage the applicant review and implement the Department's *Guidelines for Solar Development in Arizona* which can be found at <http://www.azgfd.gov/hgis/guidelines.aspx>. In addition, the Department has the following comments for your consideration in processing this permit.

While the Department recognizes the purpose and supports the need for energy development, we also recognize that they may impact wildlife habitat. We believe project mitigations should focus on the following primary issues related to wildlife and their habitats:

- Wildlife habitat connectivity
- Depletion of water resources and/or impacts to surface hydrology
- Wildlife impacts resulting from site development, facilities, and transportation/access
- Project monitoring to evaluate project impacts and inform adaptive mitigation solutions

The Department is concerned about the impacts that may occur to water resources from the project, specifically surface hydrology. Sonoran desert habitats and its associated fauna are highly dependent on the minimal precipitation received each year. The resulting sheet flows contribute significantly to the hydrology of areas where rain events often occur in isolated patches. Any disruptions to surface flows, both in washes and across uplands, could lead to broad scale mortality of desert vegetation and potentially change wildlife species distributions and abundance beyond the project footprint.

The Department is also concerned about the possible effects of facility lighting on nocturnal wildlife. Artificial night lighting, which may be intensified by the collection mirrors, may attract

June 11, 2015

Page 2

insects and the species that prey on them (e.g. bats). It could also impair the ability of nocturnal animals to navigate and may negatively affect reptile populations. The Department recommends using only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, cantered, or cut to ensure that light reaches only areas needing illumination.

Lastly, the project will substantially alter or eliminate wildlife habitat in the area. Therefore, if wildlife is encountered during construction of the facility, it should be moved outside the project area within 1 mile of its original location. A scientific collecting permit is required for this activity. A permit can be obtained by emailing Scpermit@azgfd.gov for more information. If wildlife will need to be removed from the facility once it is operational, annual renewal of the permit will be required.

Thank you for the opportunity to provide comments on this proposed project. We look forward to continued communications with the county and the applicant regarding project development and implementation. Please contact me at 623-236-7606 if you have any questions, or would like to further discuss our concerns and recommendations.

Sincerely,

A handwritten signature in black ink that reads "Ginger Ritter". The signature is fluid and cursive, with the first name "Ginger" and last name "Ritter" clearly distinguishable.

Ginger Ritter

Project Evaluation Project Specialist, Habitat Branch

cc: Laura Canaca, Project Evaluation Program Supervisor, Habitat Branch
Bill Knowles, Habitat Program Supervisor, Region IV

AGFD # M15-06041233



Planning & Development Department



December 20, 2010

Mr. Kevin Johnson
Arlington Valley Solar Energy II, LLC
5000 Hopyard Rd., Suite 480
Pleasanton, CA 94588

SUBJ: Comprehensive Plan Amendment CPA2010015

On December 15, 2010, the Maricopa County Board of Supervisors (BOS) approved your request to change the Old U.S. Highway 80 Area Plan land use designation from Rural (0-1 d.u./ac.) and Large Lot Residential (1-2 d.u./ac.) to Industrial for a solar energy generation facility. The Arlington Solar Energy III solar energy generation facility involves approximately 2,190 acres, located approximately south of Narramore Rd., west of 349th Ave. alignment, north of Pecos Rd. alignment, east of 359th Ave. alignment, as shown on the attached case map.

Approval is subject to the following stipulations:

- a. Development and use of the site shall comply with the narrative report entitled, "Application for a Major Comprehensive Plan Amendment for the proposed project: Arlington Valley Solar Energy III", including exhibits dated August, 2010 and October 2010, and stamped received October 22, 2010, except as modified by the following stipulations.
- b. If a Special Use Permit for Arlington Valley Solar Energy III has not been approved by the Board of Supervisors within three (3) years from the date of comprehensive plan amendment approval, this comprehensive plan amendment will be null and void.
- c. The land use designation of 'Industrial' approved as part of case CPA2010015 shall be subject to the time limits set forth in the subsequent Special Use Permit, and shall revert to the previous 'Rural (0-1 d.u./ac.) and Large Lot Residential (1-2 d.u./ac.)' land use upon Special Use Permit expiration.
- d. The property owner and their successors waive claim for diminution in value if the County takes action to rescind approval of this major comprehensive plan amendment due to non-compliance with any of the approved stipulations or other conditions of approval.


- e. That the following Drainage Administration stipulations shall apply:
 - 1. All development and engineering design shall be in conformance with the Drainage Regulation and current engineering policies, standards and best practices at the time of application for construction.
 - 2. Drainage review of planning and/or zoning cases is for conceptual design only and does not represent final design approval nor shall it entitle applicants to future designs that are not in conformance with the drainage regulations and design policies and standards.
- f. The following Maricopa County Department of Transportation stipulations shall apply:
 - 1. Preserve a total half-width right-of way of 65 feet on Narramore Rd. east of 355th Ave.
- g. That the following Environmental Services Department stipulation shall apply:
 - 1. The source/method of providing potable water to the solar facility must be presented before approval of the Special Use Permit.
- h. That the following State Historic Preservation Office stipulation shall apply:
 - 1. Prior to issuance of any building permits, the applicant shall inspect the project site for cultural resources in a manner consistent with that outlined in the June 10, 2010 memorandum from Mr. David Jacobs of the State Historic Preservation Office.

Please feel free to call me if you have any questions at 602-506-8520.

Sincerely,



John R. Verdugo, AICP, Senior Planner
Maricopa County Planning and Development



Matthew Holm, AICP, Principal Planner
Maricopa County Planning and Development



**Planning & Development
Department**



February 3, 2014

Kevin Johnson
LS Power Development, LLC
5000 Hopyard Road, Suite 480
Pleasanton, CA 94588

Re: CPA2013007 Modification of Stipulation for the AVSE III Solar Electric Generating Station

Mr. Johnson,

On January 30, 2014 the Maricopa County Board of Supervisors (BOS) approved your request for a Modification of Stipulation pertaining to the timing of Special Use Permit acquisition as outlined under stipulation "b" of CPA2010015.

Per stipulation "a" of CPA2013007, stipulation "b" of CPA2010015 now reads:

"Until such time as a Special Use Permit for the AVSE III Solar Generating Facility is approved by the Board of Supervisors, the applicant shall submit a written report every five years from the date of Board of Supervisors' approval of CPA2010015, which details the status of this project, including progress on obtaining necessary entitlements; compliance with the conditions of approval; compliance with the approved narrative report; compliance with the approved land use plan; and justification as to how the approved land use plan still represents appropriate land use planning for the property and unincorporated Maricopa County in accordance with the goals and policies in its comprehensive and applicable area plan. This report shall be scheduled for public hearing by the Maricopa County Board of Supervisors (Board), upon recommendation by the Maricopa County Planning and Zoning Commission (Commission), to consider whether the planning justification for this CPA is still present, and whether the land use designation associated with this CPA still represents appropriate and better long-term land use planning in accordance with the goals and policies of the Maricopa County Comprehensive Plan and applicable area plan."

Per stipulation "b" of CPA2013007, all other conditions of CPA2010015 shall remain intact.

Please call me if you have any questions at 602-506-6533.

Respectfully,



Robert H. Kuhfuss, AICP
Program Manager, Solar Development

cc: Darren Gerard, AICP, Deputy Director
Matt Holm, AICP, Comprehensive Planning Supervisor

Attachments: Resolution of Amendment

RESOLUTION OF AMENDMENT

Maricopa County Board of Supervisors

Eye to the Future 2020, Maricopa County Comprehensive Plan

**Resolution Amending the Maricopa County Comprehensive Plan –
- Old U.S. Highway 80 Area Plan
Case Number: CPA2015003
October 4, 2017**

BE IT RESOLVED by the Maricopa County Board of Supervisors as follows:

WHEREAS, Maricopa County adopted its Comprehensive Plan and Old U.S. Highway 80 Area Plan in accordance with Arizona Revised Statutes to help bring about coordinated physical development consistent with the present and future needs of Maricopa County; and

WHEREAS, Maricopa County recognizes the importance of having a comprehensive plan amendment process so that this plan can be responsive and flexible to meet the changing conditions of Maricopa County; and

WHEREAS, Maricopa County has procedures to determine when comprehensive plan amendments are necessary, how comprehensive plan amendments are processed, and at what point comprehensive plan amendments can be presented at a public hearing by the Board of Supervisors, upon recommendation by the Planning and Zoning Commission; and

WHEREAS, Arizona Revised Statutes requires that amendments to the Comprehensive Plan be approved by resolution of the Board of Supervisors; and

WHEREAS, the Maricopa County Board of Supervisors has carefully considered this comprehensive plan amendment, has held a public hearing regarding this comprehensive plan amendment, and finds that this comprehensive plan amendment constitutes an overall improvement to the Maricopa County Comprehensive Plan, the Old U.S. Highway 80 Area Plan, and to Maricopa County in general.

NOW, THEREFORE BE IT RESOLVED that the comprehensive plan amendment for case number CPA2015003, is hereby approved this 4th day of October 2017.

Chairman

Date

Clerk of the Board

Date



9.7.16

Deputy Director,
Planning and Development Department

Date

Approved as to form

Date