

Colette Street Well D-048 SCADA Upgrade Special Exception

8650 East Colette St. Tucson, Arizona 85710

Submitted to:

City of Tucson Planning & Development Services Department

201 North Stone Avenue Tucson, Arizona 85701

Prepared for:

Tucson Water Department

P.O. Box 27210 Tucson, Arizona 85701-7210 (520) 837-2185

Prepared by:

The Planning Center

2 East Congress Street, Suite 600 Tucson, Arizona 85701 Telephone: (520) 623-6146

February 2022





I.	Introduction & Policy	1
	A. Background	2
	B. Tucson Water Policy Guidance	
	C. Conformance with Plan Tucson and Area Plan	4
	1. Plan Tucson	4
	2. Pantano East Area Plan	5
	D. Conflicts with Adopted City Ordinances or Policy	6
II.	Site Analysis	3
	A. General Information	9
	1. Project Location	
	2. On-site and Adjacent Land Uses	
	B. Circulation & Trips	
	C. Cultural Resources	
	D. Hydrology & Drainage	
	E. Views	
III.	Plan Proposal	3
	A. Site Layout	19
	B. Design Compatibility	
	1. Applicable Use-Specific Standards	22
	2. Building Setbacks	23
	3. Transition of Building Heights	24
	4. Landscaping & Screening	24
	5. Vehicular Use Areas	24
	C. Post-Development Hydrology	24
	D. Utilities	24
	f Exhibits	
	oit I.A: Project Location	
	pit I.B: Location within Pantano East Area Plan Boundary	
	pit II.C: Existing Conditions	
	oit II.D: Surrounding Zoning and Land Uses	
	pit II.E.1: Site Photos	
	pit II.E.2: Site Photos (continued)	
	oit II.E.3: Site Photos (continued)	
	oit II.E.4: Site Photos (continued)	
-ynir	NUMER PREMININGRY DEVELOPMENT PION	/ I





This document is submitted on behalf of the City of Tucson Water Department (Tucson Water) as a requirement for a Special Exception application for minor technology improvements to the existing well located at 8650 East Colette Street. The site is south of Speedway Boulevard and west of Camino Seco at the southwest corner of East Colette Street and North Camino Seco in Township 14 South, Range 15 East, Section 9.

The well site occupies a 0.25-acre parcel owned by the City of Tucson. The parcel is identified by Assessor's Parcel Number (APN) 133-250-180 and is zoned R-3 (Residence Zone). See Exhibit I.A: Project Location.

Per Unified Development Code Section 4.8.2, the proposed utility distribution use is permitted as a special exception use within the R-3 Zone upon approval from the Zoning Examiner.

Background Α.

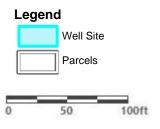
Tucson Water's Water Quality and Operations Division have been diligently working to install several technology and instrument upgrades to better monitor water service at more than 200 wells, 61 reservoirs, and 266 sampling stations throughout the Tucson Water service area as part of a long-term water management strategy to improve water quality and delivery services. The Colette Street Well Site (Well D-048) serves as a critical water supply facility within the Tucson Water service area and requires some upgrades to the existing Supervisory Control and Data Acquisition (SCADA) system in the well yard's southwest corner.

The SCADA system is a computerized remote monitoring system that moves water efficiently throughout the community, maintains water pressure, collects water system data, and regulates water monitoring. The upgrades are primarily technology improvements; however, such modifications require adding equipment to the existing well and installing a new shade structure to protect new and existing electrical components. Due to the site's existing zoning and the proposed modifications, it was determined that approval of a special exception is necessary. In addition to the new SCADA system and shade structure, a 10-foot landscape border will be installed adjacent to Colette Street and Camino Seco, and new vinyl privacy slats will be inserted into the existing chain link fence to replace any in disrepair. Equipment within the yard will also be repainted as needed. Aside from those previously listed, no other site modifications are proposed.





Exhibit I.A: Project Location





File Name: D-048 Project Location Source: MapTucson GIS 2020



B. **Tucson Water Policy Guidance**

Tucson Water has a long-term strategy to improve water system redundancy and upgrade existing infrastructure elements to monitor water service throughout the City's distribution system. Water supply redundancy is being accomplished by drilling replacement wells within the older Central Well Field System. Substantial capital investment has already been made in replacing the 30-year-old SCADA system, and the main central control system hardware and software have already been replaced. The next step involves upgrading the SCADA system capabilities at remote locations, including well sites, booster stations, and reservoirs.

Policy guidance for this work is provided through the 2020 Drought Preparedness and Response Plan. Further authorization for completing upgrades to the SCADA system is also provided in the Department's Capital Improvement Plan budgets. In the early 2000s, Tucson Water discontinued pumping non-renewable groundwater resources and converted to renewable Colorado River water resources. This action has been taken to comply with the 1980 Arizona Groundwater Code, which aims to reduce the over-drafting of local aquifers. One of the consequences of over-drafting aquifers is lowering the water table, ultimately rendering older wells inoperable.

C. Conformance with Plan Tucson and Area Plan

The project site is subject to the policies set forth in the City of Tucson's General and Sustainability Plan, Plan Tucson, and the Pantano East Area Plan.

1. Plan Tucson

The subject property is within an area designated by Plan Tucson as an "Existing Neighborhood." The proposed SCADA upgrade aligns with this designation as it provides a low-impact upgrade to an existing use in a predominantly residential area. The SCADA system upgrade allows Tucson Water to continue to provide a safe and sustainable clean drinking water supply for the community while creating little to no negative impact on neighboring properties. The following policies in *Plan Tucson* support the proposed well site:

LT28.1.3 – Improve the appearance of above-ground utilities and structures.

A new shade structure will be installed to protect electrical equipment and painted to match the existing equipment and structures as part of the improvements. The chain link fencing will be refreshed with new tancolored privacy slats, and a landscape border will be installed along Colette Street and Camino Seco to further screen the well site.

LT28.2.12 - Support environmentally sensitive design that protects the integrity of existing neighborhoods, complements adjacent land uses and enhances the overall function and visual quality of the street, adjacent properties, and the community.



Existing healthy vegetation along Camino Seco will remain in place and will be supplemented with additional canopy trees, shrubs and ground cover to continue screening the utility equipment while improving the visual quality of the street. A landscape border will also be provided along Colette Street and new privacy slats will be installed in the fence to complete the visual screening.

Other policies that support the SCADA upgrade include:

- P11 Invest in the highest priority needs to manage and maintain public infrastructure and facilities that are fundamental to economic development and to sustaining and enhancing living conditions in the community;
- PI2 Prioritize major public infrastructure investments in developed areas and for improvements of existing infrastructure; and
- PI3 Expand the use of state-of-the-art, cost-effective technologies, and services for public infrastructure and facilities.

2. Pantano East Area Plan

The Pantano East Area Plan, adopted by Mayor and Council on June 28th, 1982, and amended in 1984, provides policy direction for approximately an eleven-square-mile area on the east side of Tucson. The plan area is bounded by Tanque Verde Road and the Tanque Verde Wash to the north, Golf Links Road on the south, Houghton Road on the east, and Pantano Parkway and the Pantano wash on the west. The well site is located in the northern portion of the area plan planning boundary, south of Speedway Boulevard. (see Exhibit I.B: Location Within Pantano East Area Plan Boundary).

The Pantano East Area Plan intends to provide guidelines for future growth while protecting the existing development in the Pantano East area.

Tucson Water's SCADA improvements to the existing well site conform to the following Pantano East Area Plan policies:

- The integrity and style of established neighborhoods shall be preserved and maintained (Residential Policy 1).
 - The new additions to the well site are set back at least 20 feet from any adjacent residential property. The proposed shade structure is about 9 feet tall. Just as the existing shade structure, it will have minimal impact on the character of the existing neighborhood as it will be screened by the new privacy slats, which create an opaque barrier, and improved landscaping. The landscape border, new privacy slats and refreshed paint will provide aesthetic improvements that effectively blend the site in



with the community and offer little to no intrusion compared to what is existing on the site.

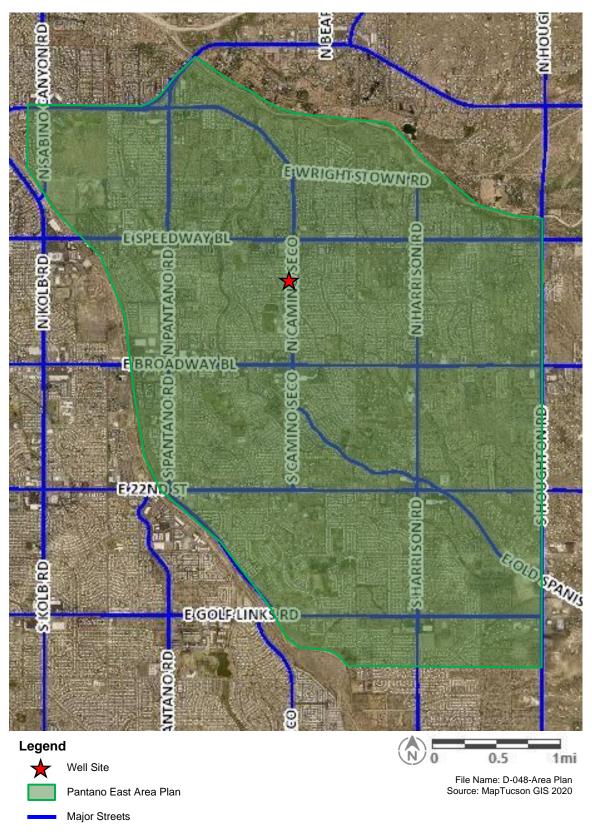
- Promote residential infill of vacant land where adequate provisions of streets and utilities are available (Residential Policy 2).
 - o The SCADA improvements will allow this site to offer more optimal water service to the area. This, in turn, will promote infill and development to the community in the short and the long term by preparing its utilities to accept potential growth.
- Ensure compatibility with existing land uses by requiring appropriate design elements (fences, walls, vegetation, etc.) during the rezoning and development review processes when locating multi-family dwellings and nonresidential uses within proximity of established neighborhoods (Residential Policy 3).
 - o To ensure compatibility with adjacent residences, privacy slats will be updated to provide screening to the well site equipment. Additionally, a 10-foot landscape border will be installed along the north and east property lines. Existing vegetation in the rightof-way will remain. The drainage channel to the west and alleyway along the west and south perimeter of the lot also serve as a buffer to nearby residences.

Conflicts with Adopted City Ordinances or Policy D.

The proposed utility use does not conflict with the Pantano East Area Plan or Plan Tucson. The proposed use is permitted by the City of Tucson Unified Development Code pending the approval of the special exception application.



Exhibit I.B: Location within Pantano East Area Plan Boundary







A. General Information

1. Project Location

The area subject to this request is a 0.25-acre city-owned parcel located at 8650 East Colette Street, identified by APN 133-250-180. The site is in the Carriage Park Neighborhood at the northwest corner of Colette Street and Camino Seco (See *Exhibit I.A: Project Location*).

2. Onsite Land Uses

As demonstrated on **Exhibit II.C: Existing Conditions**, the site contains the following:

- One active well (D-048)
- Electrical control components with existing 8' shade structure;
- Communication antenna (20' in height);
- Chlorine building;
- 12' Vehicular Gate
- 3' Pedestrian Gate
- 6' chain link fence topped with 1' of barbed wire and vinyl privacy slats (poor condition);
- 7' Masonry Block Wall Corners
- 5,000-gallon hydrotank; and
- Piping and other necessary equipment to properly function the well.

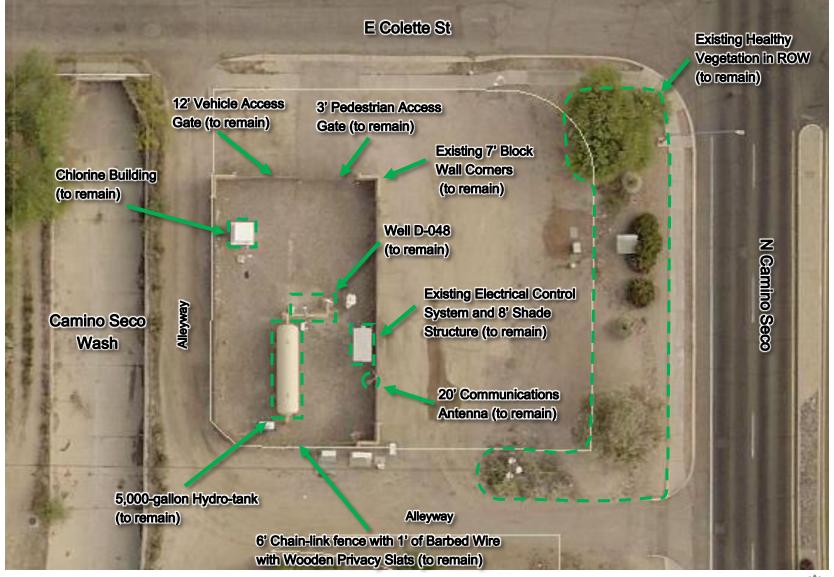
3. Surrounding Zoning and Land Uses

Most adjacent properties are zoned R-1 (Low-Density Residence Zone). The site itself and the properties across Colette and Camino Seco are zoned R-3 (High Density Residence Zone). The residence to the south is separated by an alleyway and a vacant parcel that is owned by the State of Arizona. This is the closest residence to the well site. The distance from property line to property line is roughly 45 feet. The residence to the west is separated by the same alleyway and the Camino Seco Wash. The aforementioned alleyway serves the existing homes as an access point for trash collection with outlets onto both Colette Street and Camino Seco.

Refer to Exhibit II.D: Surrounding Zoning and Land Uses and Exhibit II.E: Site Photos.



Exhibit II.C: Existing Conditions







E-SPEEDWAY-BL SUBJECT PROPERTY E-BROADWAY-BL

Exhibit II.D: Surrounding Zoning and Land Uses





B. Circulation & Trips

The site subject to this request is at the northeast corner of East Colette Street, which is a minor local road, and North Camino Seco, an arterial roadway. Approximately 0.3 miles to the north is Speedway Boulevard, which is the next closest arterial, and it links with Camino Seco. Colette Street is a two-lane road while Camino Seco is a four-lane road with corresponding right-of-way widths of 50 feet and 75 feet. Both streets feature vertical curbs and have sidewalks. Camino Seco offers lane striping, an elevated median, and two bike lanes. Colette Street is unstriped but does offer street parking.

Primary ingress/egress to the well site is gained from Colette Street via an existing curb cut near the northwest corner of the property. Vehicular access to the well yard is provided through a locked vehicular access gate on the yard's northern border. A pedestrian gate is also located on the northern border west of the vehicle gate. These access points will remain in their current configuration.

The only trips generated for this well site are those generated for routine maintenance. As such, the proposed improvements will have no significant traffic impacts on the existing street network.

C. Cultural Resources

The well site has been in use for decades, with numerous improvements and maintenance occurring over time. The site is also fully graded. Given this, it is unlikely any significant cultural resources are present on the site.

D. Hydrology & Drainage

The site has been entirely graded, and the internal yard has been covered with gravel to prevent erosion. The subject property is not located within the FEMA 100-year floodplain. It does it contain any drainageways subject to the Environmental Resource Zone (ERZ) provisions, Watercourse Amenities, Safety, and Habitat (WASH) ordinance, or erosion hazard setback areas. The Camimo Seco Wash is located to the west of the parcel and is entirely contained within the drainage channel. The proposed shade structure addition will not alter the current drainage of the site in a significant manner.



E. Views

A chain link fence with tan privacy slats encloses the well yard. It is 6 feet in height and topped with an additional 1-foot of barbed wire for security purposes. The existing vegetation on the eastern perimeter is located in the right of way and offer visual screening to the site from the street. Additionally, a 10-foot landscape border will be added along the property line on the north and east sides of the parcel. The alleyway on the south and west sides of the lot, in conjunction with the vacant parcel (south) and the Camino Seco Wash (west) serve as a buffer to the nearest neighboring properties. See *Exhibit II.E: Site Photos*.

As shown on **Exhibit II.C: Existing Conditions**, two onsite structures currently extend above the wall/fence; the existing shade structure (approximately 8 feet in height) and a communications antenna (approximately 20 feet in height). Both structures are low-profile and currently do not pose significant impacts to the views from neighboring properties. While the new shade structure is 1 foot taller, it will not pose any impacts for adjacent neighbors as it will be constructed with a similar low-profile design and painted to blend with the other equipment onsite.



Exhibit II.E.1: Site Photos



Exhibit II.E.2: Site Photos (continued)



Exhibit II.E.3: Site Photos (continued)



Exhibit II.E.4: Site Photos (continued)







Site Layout

As demonstrated in Exhibit III.F: Preliminary Development Plan (PDP), the proposed improvements consist of constructing an additional shade structure to protect the new SCADA upgrades, repairing or replacing existing equipment, and installing SCADA upgrades.

Shade Structure

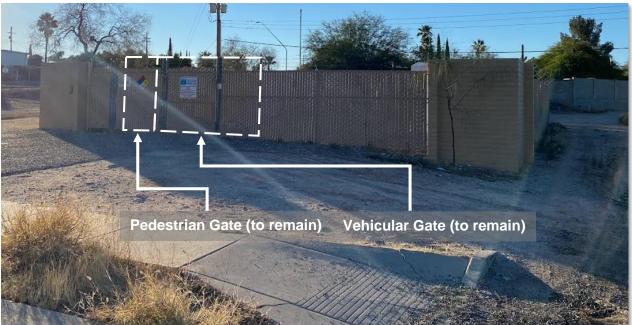
This plan proposes installing a similar shade structure as the existing one over the second control panel to protect it from the elements. The new shade structure will be 9 feet tall. cover approximately 90 square feet, and painted to match the existing shade structure. The new shade structure will be set back approximately 11' from the property line in the southeast corner of the parcel. The added shade structure



will be roughly 25 feet from the vacant lot property line and roughly 45 feet from the property line of the residence to the south.

Circulation

Tucson Water technicians will enter the site through the existing vehicular and pedestrian gates on the northern border of the well yard to service the equipment as necessary. Onsite parking is provided for technicians, eliminating the need for on-street parking.





Landscape and Screening

Existing vegetation at the corner street will remain and a 10-foot landscape buffer will be added to the north and east perimeter of the site property line. If the current vegetation is healthy and doesn't pose any health or safety risks, these screening elements will remain in place.



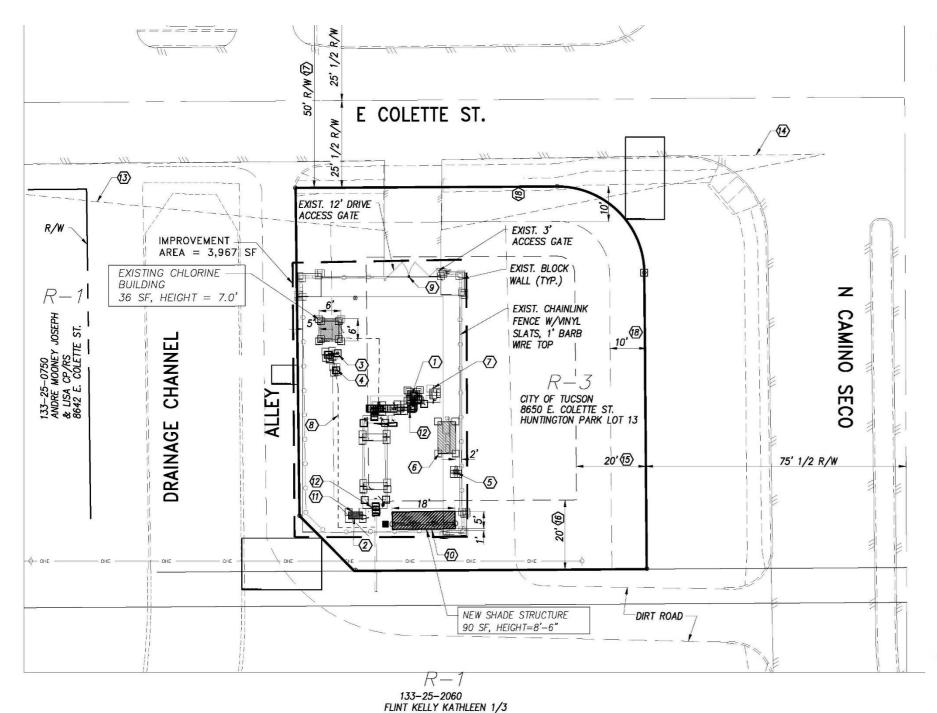


Landscaping and chain link fencing with privacy slats screen the well yard from neighboring views. The 6-foot chain link fence spans the entire well yard with an additional 1-foot of barbed wire on top to provide security. Refreshed tan privacy slats will be inserted into the chain link as needed to maintain the overall appearance of the site.



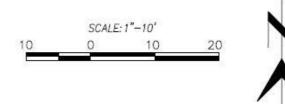


Exhibit III.F: Preliminary Development Plan



& FLINT KANE CURRY 1/3, FLINT KEITH ALAN 1/3 725 N CAMINO SECO SITE KEYNOTES

- (1) EXIST. WELL SUBMERSIBLE PUMP & MOTOR
- (2) EXIST. AIR COMPRESSOR & ENCLOSURE
- (3) EXIST. EMERGENCY SHOWER/EYEWASH
- (4) EXIST. VALVE BOX
- (5) EXIST. ANTENNA, POST AND CONCRETE FOUNDATION
- (6) EXIST. SHADE STRUCTURE FOR ELECTRIC CONTROL PANELS
- (7) EXIST. CONCRETE PAD
- (B) EXIST. WATER SERVICE LINE, (EYEWASH, SHOWER)
- (a) EXISTING GATE POST HOLE TO BE REPLACED WITH GATE MUSHROOM STOP, SEE DETAIL 6, SHEET 5
- (10) INSTALL SHADE STRUCTURE WITH SUN SHEILD
- PAINT EXISTING AIR COMPRESSOR ENCLOSURE, SEE SPECIFICATIONS, DIVISION 9 (b)
- (12) PAINT MISCELLANEOUS LOCATIONS WHERE NEEDED ON DISCHARGE PIPING,
- (13) SIGHT VISIBILITY TRIANGLE (DRIVE/LOCAL) 180' NEAR SIDE.
- (14) SIGHT VISIBILITY TRIANGLE (DRIVE/LOCAL) 110' FAR SIDE.
- (15) STREET PERIMETER YARD: 20' PER UDC SECTION 6.4.5.C.1.o.
- (16) PERIMETER YARD: 20' PER UDG SECTION 4.9.11.A.1 (FROM ANY ADJACENT RESIDENTIAL ZONE).
- (17) 50' PUBLIC R/W PER BK. 15 M&P, PG. 48.
- (18) STREET LANDSCAPE BORDER AND SCREENING:





B. Design Compatibility

This Special Exception request allows Tucson Water to provide upgrades to the well's SCADA system and to install a new shade structure to protect a new electrical control panel. While individual well components may be replaced or added, the overall site layout maintains its current configuration and preserves existing screening and landscaping with additional landscaping to be supplemented. All visual upgrades will match the existing style or improve the visible appearance of the site.

The proposed utility distribution system is appropriate within the R-3 zone when special consideration is given to minimize the adverse impacts of the use on adjacent properties. The following lists the applicable use-specific standards as required by the UDC for utility distribution systems in the R-1 zone and demonstrates how the SCADA control building meets the intent of all applicable use specific standards outlined in UDC Section 4.9.11.A.1, .2, .5, .8, .9, and .11.

1. Applicable Use-Specific Standards

 <u>Use Specific Standard 4.9.11.A.1</u>: The setback of the facility, including walls or equipment, shall be 20 feet from any adjacent residential zone.

Exhibit III.F: Preliminary Development Plan demonstrates that the new shade structure will be located on the well yard's southern boundary, set back approximately 11 feet from the southern property line. The new shade structure conforms with the 20-foot setback from the north, east, and west property lines. While a 20-foot setback cannot be accommodated on the southern boundary, the alleyway that borders the west and south side of the property provides a significant buffer to the nearest residences. The nearest residential property line to the well site is about 60 feet to the north.

 <u>Use-Specific Standard 4.9.11.A.2</u>: Where a facility is not enclosed within a building, the surrounding screen shall be used as the building wall for the purposes of setbacks.

As demonstrated in *Exhibit III.F: Preliminary Development Plan*, the well yard is enclosed by chain link fencing with privacy slats. The SCADA system will be entirely contained within the well yard and the configuration of the well yard will remain unaltered by the SCADA upgrade. The well yard is too small to meet the required setbacks if enforced from the fence. The new shade structure meets the required 20-foot setback from the property line rather than the fence line, with the exception of the southern border, where it is set approximately 11 feet from the property line.



 <u>Use-Specific Standard 4.9.11.A.5</u>: The use shall not have any service or storage yards.

No permanent service or storage yards are proposed with this special exception application.

<u>Use-Specific Standard 4.9.11.A.8</u>: Any building housing such facility shall be
in keeping with the character of the zone in which it is located. The Design
Review Board (DRB) shall review all applications and make
recommendations to the Zoning Examiner. The DRB shall review
architectural style, building elevations, materials on exterior facades, color
schemes, new mechanical equipment locations, light of outdoor areas,
window locations and types, screening, landscaping, vehicular use areas,
and other contributing design features.

If deemed necessary, an application will be submitted to the DRB to ensure the new shade structure and landscape improvements are designed to be compatible with the surrounding neighborhood.

• <u>Use-Specific Standard 4.9.11.A.9</u>: The use shall be located wholly within an enclosed building or within an area enclosed on all sides with a masonry wall or compact evergreen hedge, not less than six feet nor more than ten feet, in height.

Exhibit III.F: Preliminary Development Plan demonstrates that the SCADA upgrade and new shade structure will be located within the well yard and enclosed by the existing chain link fence with privacy slats. The existing landscape screening is comprised of some trees and bushes on the eastern side of the site. These will remain in place to continue screening the site from neighboring views. A landscape border will be added along the northern and eastern property line to supplement the existing vegetation and further screen the well yard.

 <u>Use-Specific Standard 4.9.11.A.11</u>: The use shall be limited to water pumping and storage facilities, telephone exchanges, and power substations with an input voltage no greater than 138 kilovolts.

The improvement area and entire well site are solely used for water pumping and distribution facilities. No other uses are proposed.

2. Building Setbacks

Exhibit III.F: Preliminary Development Plan shows that the proposed shade structure will be set back at least 11 feet from the southern property line and at least 20 feet from the north, east, and west property lines. While the structure does not meet the setback requirement on the southern property line, it should



be deemed acceptable due to its distance from the nearest residence which exceed 60 feet. The existing well equipment and structures will remain in their current configuration. Existing fencing around the well yard and surrounding vegetative screening will minimize any impacts created by the new structure.

3. Transition of Building Heights

The proposed shade structure will be approximately 9 feet tall and located next to the existing shade structure in the southeast corner of the well yard. The new shade structure will be constructed with similar materials as the existing shade structure onsite. Because the proposed structure is screened by a 7-foot opaque fence with barbed wire and walls on other nearby properties that are similar in height, views of the 9-foot-tall shade structure will be negligible. The location and materials of the new shade structure ensure it will blend in with the existing one to further minimize impacts on neighboring views.

4. Landscaping & Screening

The existing perimeter fences and any healthy vegetation adjacent to Camino Seco will remain unaltered. Any vegetation that is no longer healthy or poses a health or safety risk to residents will be removed. A 10-foot landscape border is proposed along the northern property boundary adjacent to Colette Street and the eastern property boundary adjacent to Camino Seco.

5. Vehicular Use Areas

The well site accommodates the minimum parking standards outlined in UDC Section 7.4.4. The Utilities Use Group requires one (1) parking space per 500 square feet of Gross Floor Area (GFA), with a minimum of two (2) parking spaces per facility. Space within the well yard via the vehicular gate and on the site's northern portion, outside the well yard, provides ample space for motor vehicle parking.

C. Post-Development Hydrology

The new shade structure is the only new impervious surface proposed. Runoff from such a small structure, approximately 90 square feet, will be minimal and contained onsite. The site's natural drainage condition will remain in its current state with no adverse impacts created by the proposed improvements.

D. Utilities

All utilities necessary for the well to properly function currently exist on the property.

