



*P. O. Box 52025
Phoenix, AZ 85072-2025
(602) 236-5900
www.srpnet.com*

**Design and Approval Process Requirement for Public Recreational Amenities on SRP
Canal Rights-of-Way and Adjacent SRP Power Easement**
SRP Water Engineering Department
Revised April 20, 2012

SRP allows for the construction of public recreational amenities by municipalities within SRP canal right of way (ROW) if the improvements are in conformance with the SRP Canal Multiple Use Principles dated 2008 (See Exhibit A). These amenities typically include paved pathways, landscaping, lighting, public art, and various recreational trail amenities for use by the general public.

All improvements shall be reviewed and approved by SRP. The right to install improvements on the SRP canal banks will be granted via a Land Use License issued by SRP. The right to install improvements within an SRP power easement will be granted via a Consent to Use of Easement issued by SRP. Construction may begin only after execution of the agreements and receiving a written "Notice to Proceed" from SRP that all plans of the proposed improvements have been approved.

Process to obtain Land Use License and Consent to Use of Easement:

To obtain a Land Use License and a Consent to Use of Easement (if applicable), plans must be submitted to the SRP Land Rights Management Department which will coordinate the distribution to the appropriate SRP departments for review. Required numbers of plans to be submitted will vary and will include both full-size paper copies as well as electronic copies, in PDF format.

Mail plans to:

ATTN: Land Rights Management, Manager PAB348

SRP

PO Box 52025

Phoenix, AZ 85072-2025

Or

Deliver plans to:

ATTN: Land Rights Management, Manager PAB348

SRP Mail Services Shipping/Receiving Center

2727 E Washington Street

Phoenix, AZ 85034-1403

Typical Steps in Plan Review Process:

1. Kick-off meeting with Municipal Project Manager, Design Team representatives and SRP representatives. Discussion of project concept, timeline and goals. SRP land agent will initiate the Land Use License and Consent to Use of Easement with the municipality.
2. Submission of plans for review typically at 60%, 90%, 95% and Construction drawings. SRP requires a minimum of three weeks for review of each submission.
3. All plan submissions are to be coordinated through the SRP Land Department. Assigned Land Agent will attend the kick-off meeting.
4. Field meetings and specific item reviews as needed to be coordinated through the CMU Program manager, SRP Water Engineering.
5. Acceptance of final plans and issuance of a written "Notice to Proceed" from SRP Land Agent.
6. Field inspections during construction and change order issues to be coordinated through CMU Coordinator, SRP Water Engineering.

Design Requirements for Development of Plans:

General Requirements:

1. Plans to be drawn at no less than 1" = 40' (40 scale).
2. All canal ROW, property lines, limits of construction and if applicable, SRP power easements are to be shown. Canal ROW shall indicate outside edge and top of bank or top of lining at canal edge.
3. All existing non-SRP utilities to be shown as well as proposed utilities
4. All proposed improvements shall be shown.
5. No improvement on the canal banks shall prohibit general public recreational use.
6. Plant material approved for use on SRP canal ROW is the same as plant material approved for use under SRP overhead power facilities whether or not overhead facilities currently exist. This information will be provided at the kick-off meeting. (SRP approved Trees and SRP approved Groundcover lists).
7. All additional surface flow generated due to improvements must be channeled to and contained by municipal drainage facilities.
8. SRP requires a **minimum** 20' wide drivable service road on the canal bank adjacent to the top of canal lining with a maximum slope of 20:1 (4%).
9. Canal ROW shall not to be used for fulfillment of City mandated zoning requirements other than for fulfillment of recreational amenities for use by the general public.

Irrigation Requirements:

1. All SRP irrigation facilities to be shown on plans, these include but are not limited to: top of canal lining, irrigation turn-out structures, well-sites, radial gate or canal flow control gates, access ramps into canal and SRP measurement bridges.
2. Modification of any SRP irrigation facility including pedestrian bridges shall require a Construction License, a separate license from the Land Use License used for the addition of public amenities. This additional license will require the submission and review of plans by SRP

Water Engineering. Contacts and specifications related to SRP irrigation facilities and requests for SRP irrigation facility location drawings can be found at:

www.srpnet.com/water/services/WE/default.aspx.

Coordination handled by CMU program manager, SRP Water Engineering.

3. Design guidelines for pedestrian bridges can be found at:
www.srpnet.com/water/services/WE/pdfx/otherDocs/bridgeguide07.pdf
4. On roadways having curb and gutter, fully depressed curbs thirty (30) feet wide (minimum) are required at entrances to canal roads.
5. On divided roadways having a concrete curb median, an opening of sixteen (16) feet wide minimum is required through the median and shall be aligned with the depressed curbs of the canal roads.
6. Existing canal road gates may be eliminated with SRP approval or replaced by SRP with a recreational friendly canal road gate.
7. No plant material is allowed at water's edge of the canal.
8. The canal road shall be graded at a 2% cross slope away from the canal to facilitate drainage.
9. No surface flow of any type of water shall be permitted to enter the canal.
10. Fences and handrails will be reviewed by SRP on a case-by-case basis for compatibility with SRP O&M requirements. All fences and handrails shall be removable.
11. Landscaping, fencing, walls signs or any other objects shall not restrict the safe site distance necessary for safe transition of vehicles from canal roadway to public roadway.
12. No grade changes to the canal bank.

Electrical Requirements:

1. All SRP power facilities to be indicated, these include: transformers, poles, both overhead and underground power facilities and overhead wire locations.
2. Lighting structures must meet SRP electrical clearances with respect to SRP overhead conductors and towers/poles. In general, lighting structures 12 feet high or less adhere to SRP electrical clearances. Proposed lighting plans need to be reviewed and approved by SRP. SRP may require the municipality to provide a survey of SRP wires and structures as part of calculating clearances and approving lighting. (Please contact SRP to obtain a copy of

Information Required for SRP Electrical Clearance Calculations, prior to survey of SRP transmission line.) The lighting consultant must submit Electrical Clearance calculations (sealed by an Arizona licensed Engineer) to SRP for review to verify that all electrical clearances are acceptable. Contact SRP to obtain conductor sag data. Also the lighting consultant shall consider OSHA clearances on the municipalities' behalf. SRP will not take outages on SRP transmission lines to allow lights to be maintained.

3. Maintenance equipment/crane setup areas are required at poles/towers and at intervals parallel to the wires. The setup area at a pole/tower differs depending upon the voltage of the line. The Electrical High Voltage (EHV) (115KV, 230KV and 500KV) pole/tower setup area is generally defined as, a length of approximately 50 ft in each direction from the pole/tower, by the width of the ROW. The 69KV pole setup area is generally defined as, a length of approximately 30 ft in each direction from the pole/tower, by the width of the ROW. Depending upon the transmission line voltage, the distance between setup areas along the wires and the size of the setup areas will vary. Due to the complexity of issues involved, pole/tower setup areas and wire setup areas will need to be designed by consultants based upon input from SRP.
4. All pipes, manholes, or other proposed facilities need to be located at or below grade and must be designed to withstand a minimum of 320 / psi on a 27 inch diameter outrigger pad. Load calculations sealed by an Arizona licensed Civil Engineer must be provided to SRP for review.
5. SRP does not allow buildings or dry wells within the canal ROW or power easement.
6. SRP may allow retention basins within the SRP power easement but not within the canal ROW. Please contact SRP for additional information.
7. Within the SRP power easement, SRP requires maintenance roads (with a maximum slope of 20:1) along the length of the canal ROW and/or power easement, parallel to the transmission line. Multiple maintenance roads may be required to maintain multiple wires/circuits. The appropriate offset for the maintenance road with respect to each of the transmission line wires is determined by SRP. The roads are generally 20 ft wide, not including the width required for setup areas at poles/towers and at specific intervals along the wires. SRP maintenance roads must be accessible from public ROW. Due to the complexity of issues involved, maintenance roads will need to be designed by the consultants based upon input from SRP.
8. No grade changes, cut or fill is permitted within SRP electrical easement without prior written approval. Changes in elevation near power structures (cuts and fill) can endanger pole or tower

foundation stability because of the loss of support soil. A detailed engineering analysis is required to determine the impact of excavations on adjacent SRP poles, towers, and facilities. It is the municipality's responsibility to provide and pay for this engineering analysis. Please contact SRP to obtain a copy of, *Information Required for SRP Electrical Clearance Calculations*, prior to survey of SRP transmission line. You will also need to obtain a copy of *General Analysis Guidelines for Excavations Adjacent to SRP Electric Power Poles*. The analysis must be performed by an Arizona Licensed Engineer and the Engineer must provide a sealed report to SRP. Depending on workload, SRP may perform this engineering analysis for a fee. Please contact SRP if you desire to pursue this option.

9. For Transmission pole bracing, pole relocations, conductor warning device placements or transmission line conflict checks, please contact SRP's Transmission Line Design at 602 236-0841.



P. O. Box 52025
Phoenix, AZ 85072-2025
(602) 236-5900
www.srpnet.com

**Canal Multiple Use Principles
Mandated by SRP Board & U.S.B.R.
Approved by SRP Water Committee 2008**

The following principles govern the approval and licensing of all Canal Multiple Use which is defined as:

Aesthetic and recreational amenities designed and placed on the SRP canal system exclusively for use and enjoyment by the general public.

- 1. Reimbursement of incremental costs of operations and maintenance.**
Any use of the canal rights-of-way for canal multiple use must not cause additional costs to SRP. To the extent SRP incurs additional costs to operate and maintain its facilities, attributable to the approved development, the licensee shall reimburse SRP.
- 2. Paramount Rights of the USA.**
The license agreement preserves the paramount rights of the United States of America in and to the licensed property, and conditions the licensed uses on federal reclamation law and all agreements existing and to be made between and among the USA and SRP regarding the management, care, operation and maintenance of the Reclamation Project.
- 3. Non-exclusive.**
The rights granted under the license are nonexclusive and nothing in the license shall be construed to prevent or restrict SRP from either making use of, or granting other privileges to use, the licensed property.
- 4. Indemnification of SRP and USA.**
Licensee must indemnify and hold harmless SRP and USA from any liability arising out of any dispute or claim regarding actual or alleged interests in the licensed property, or arising out of the licensee's use of the property.
- 5. Public Access.**
No development shall exclude or prohibit the use of the canal banks by the general public.

- 6. Revocability.**
License is revocable without cause by SRP upon no less than 360 days written notice.
- 7. Water Quality.**
Water quality shall not be impacted by any development and shall be subject to the standards established by the State of Arizona, the Federal government and the local health department. Water that leaves the SRP system and returns into it may be required to be tested at frequencies and by methods established by SRP. The costs of such tests shall be borne by the licensee.
- 8. Insurance provided by Licensee.**
The licensee must provide for insurance to cover the obligations and responsibilities of the licensee set forth in the license.
- 9. Government agency as Licensee.**
Licenses to be executed with State, County or municipal agencies only.
- 10. Compatibility with Water and Power O&M.**
Approval of CMU projects are allowed only after review and approval of such plans by various SRP departments. This review ensures compatibility with SRP water and power O&M policies and standards.