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## **Irrigation and Drainage System Relocation Guidelines for Land Development and/or Municipal Infrastructure Improvements**

### **1. Introduction**

The following Roosevelt Irrigation District (District) policies and standards are provided as guidelines for developers and planners (both public and private) involved in projects that may impact existing District facilities.

**These guidelines are generalized criteria only; the District reserves the right to modify policies, specifications, and/or design requirements for each project on a case-by-case basis.**

The District may retain engineers, attorneys, or other consultants whose professional expertise is needed for a particular project. All costs and fees associated with the review of development plans and/or the modification of District facilities are the responsibility of the Project Sponsor (Sponsor). These costs are typically incurred for, but not limited to, pre-design engineering, planning and analysis; engineering survey and design, legal work, construction, construction inspection and project administration.

An engineering consultant approved by the District will design all modifications to the District's facilities. All District facilities modified to accommodate a development project will be designed and constructed to current applicable District standards.

Generally, a licensed contractor selected by the developer will complete the construction of relocated District facilities. However, the District reserves the right to determine that some or all of the relocated facilities shall be constructed by the District. A construction observer selected by the District shall monitor the construction of all District facilities.

Prior to the commencement of work by the District beyond the initial planning and coordination stage of a development project, the developer must sign an agreement letter with the District and provide advance funding covering the estimated cost of the work as stated in the agreement.

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## **2. District Funding Requirements**

All costs associated with the relocation of District facilities are the sole responsibility of the developer. The District will not share in the costs of funding a relocation project.

Costs incurred by the District that must be funded by the developer include, but are not limited to: engineering, technical coordination, planning, development plan review and design, construction coordination and observation, as-built/constructed survey, project management, engineering and legal costs for modification of easements, coordination and plan review with utility companies, utility location/potholing services, governmental and/or municipal plan review fees, and project administration and overhead costs.

The District requires the developer to provide funds for the expected estimated costs that will be incurred by the District for a specific relocation project prior to the commencement of any substantial work by the District. The District will typically provide the developer with separate funding requirement notifications (funding notification) for the pre-design, design and post-design (construction) phases of the project. Any District funding notification submitted to a developer will remain valid for a period of sixty (60) calendar days from the date shown on the funding notification letter. The District reserves the right to reissue the funding notification if funding is not provided within the 60-day period.

The District will place these funds in a special account to be applied against costs incurred by the District in association with the relocation project. Once these funds are depleted, the District has no obligation to incur further costs or to proceed further with the design, modification, or relocation of its facilities until the developer provides subsequent funds in the amount(s) requested by the District.

Any funds remaining in the project account at the end of the design phase of the relocation project can either be credited towards the post-design phase of the project or refunded. Funds remaining in the project account after the final acceptance by the District of the relocated facilities and all developer work in the vicinity of the District facilities will be refunded to the payor.

## **3. General Procedure for the Relocation of District Facilities**

### **3.1 General**

The procedure for the relocation of District facilities is a multi-step process divided into three distinct phases; pre-design, design, and post-design.

### **3.2 Pre-Design Phase**

The pre-design phase of a District relocation project includes the initial meeting with the developer, and typically the developer's engineer, to discuss the details of the development project, District procedures and requirements, and the District's preparation of a scope-of-work and budget for the design phase.

The developer should arrange to meet with the District and the District's engineer as early as possible during the planning phase of the development project in order to obtain

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information concerning the District's rights, responsibilities, and requirements prior to the preparation of a preliminary plat and/or final plans. At this meeting, the developer should provide a plan or plat depicting the location of streets, lands dedicated for public use, open space, retention areas, lot layouts, utility locations, etc. It is the District's policy to cooperate with the developer's requests for information about the easements held by the District, the conditions upon which the District easements might be used, released or modified, and other planning matters of mutual interest.

If it is determined that relocation of District facilities is required for the development project and that relocating the District's facilities is in the District's best interest, the District and the District's engineer will work with the developer to determine the scope of relocations, and identify potential alignment alternatives. The acceptability of a new alignment, and/or the location of any new District facility, will be determined solely by the District.

At the developer's request, the District will prepare and submit a scoping package for the design phase of the project. This package will include a detailed scope of work, an engineering budget and an agreement letter. To initiate the preparation of this package the developer must provide a refundable scoping fee deposit to the District of approximately \$11,000. The amount will be outlined in the deposit request letter that will be provided upon request and may vary dependent on the complexity and nature of the proposed project. Only the unused portion of the deposit shall be eligible for refund.

The estimated scope of work and budget for the design phase will be determined based on the alternatives and features discussed with the developer and the developer's engineer and a schematic layout of the proposed relocated RID facilities. The agreement is the standardized contractual agreement between the District and the developer. Any changes proposed by the developer to this document must be reviewed by the District's attorney and may require approval of the District's Board of Directors.

### **3.3 Design Phase**

The design phase of the relocation project typically includes the engineering design of the District's facilities, the preparation of construction plans, and the coordination of procurement of any municipal and/or governmental approvals required for the plans. Any required modifications to the District easements within the development boundary are initiated in this phase of the project as well. Collected survey data will be shared with the District's engineer for the relocation design efforts. It is possible that additional supplemental survey will be required for the District's relocation design which is to be collected by the developer prior to the commencement of the District's design efforts.

To initiate the design phase the developer must return a signed agreement to the District along with the required funding as detailed in the scoping package. Once the agreement and funds have been received, the District will issue a notice to proceed on the project to the District's engineer.

The paving and grading design for the development should be no greater than 60% complete prior to the commencement of the District's relocation design. This will provide

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the best opportunity for the developer's engineer and the District's engineer to effectively coordinate and accommodate elements of the design projects.

The developer's engineer will need to provide all pertinent CADD files and preliminary plans for the development project, including the following on-site and off-site development items:

- Paving, Grading, and Drainage Plans
- Offsite Roadway Plans
- Utility Plans
- Phasing Plans
- Mass Grading Plans
- Storm Water Pollution Prevention Plans
- Landscape Plans
- Street Lights
- Traffic Signalization

The District's engineer will use the same horizontal coordinate system and vertical datum established for the development project by the developer's engineer to facilitate both the coordination of the design process and the construction of the District facilities. The District's engineer, to the extent practicable, will utilize the provided CADD files for the preparation of the District's construction plans.

The developer is solely responsible for the accuracy of the plans and/or CADD files supplied by the developer's engineer. The District and/or the District's engineer will not be responsible for any costs resulting from errors and/or emissions in the plans and/or CADD files provided by the developer. The Sponsor is responsible for ensuring the District's engineer is made aware of any changes to elevations of benchmarks, paving, grading and utilities.

The District's engineer will evaluate and identify the need for locating existing underground utilities that may conflict with the relocated facilities based on information provided by the developer. If utility locating is required, the District's engineer will provide a detailed request to the developer identifying these locations for the developer to obtain.

The completed preliminary relocation plans will be submitted by the District to the developer, the developer's engineer, and any appropriate municipal agencies for review and comment. It is the responsibility of the developer to route the RID relocation plans to any affected utilities. The developer is solely responsible for any review fees required by municipalities /agencies/utilities and any other reviewing entity following receipt of notification for payment of these fees received by the District's engineer. When the review comments have been addressed and any necessary approvals granted by the municipalities/agencies/utilities involved have been secured, the approved plans can be released by the District to the developer.

Prior to the release of the approved plans, any outstanding costs incurred by the District during the design phase that exceed the funds provided must be paid in full.

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The District's approved plans are valid for one year from the District Engineer's approval date. If construction of the project has not commenced within that period, the District reserves the right to reevaluate the plans for conformance to current applicable District standards, applicable municipal or agency standards, and specifications and any other changes that may affect the design and/or proposed location of District facilities. The determination of the suitability for construction of expired plans, and any modifications needed to bring the plans into conformance with the current standards, is solely at the discretion of the District.

It is the sole responsibility of the developer to inform adjacent property owners and lessees of planned improvements to the RID facilities and to coordinate with them the timing and impacts of the construction work. Proof of this communication is required to be provided to the District and their engineer.

### **3.4 Post-Design Phase**

The post-design phase of the relocation project covers the construction, testing, and final acceptance of the relocated District facilities.

The scoping package will include an estimated scope of work and budget for items including construction observation, Requests for Information (RFI's), as-built/construction survey coordination, post-design engineering support, revision and acceptance of record drawings (sealed by an Arizona RLS), review and acceptance of the testing records provided by the developer's contractor, and mapping updates for the District's records.

The package will also include a License to Construct for the project which is released at the required pre-construction meeting provided that the District is satisfied as to the ability of the selected contractor to complete the work proficiently. A formal schedule of construction will be issued by the developer's contractor at the pre-construction meeting and evaluated by the District and the District's engineer. The license must be signed by the developer and returned to the District's office, along with the \$500 license fee and a copy of the approved plans, for approval signature by the District. A copy of the signed license must always be available at the construction site. A signed License to Construct will not be issued by the District until the post-design funding has been provided in full.

Once construction has commenced the District has the right to revoke the License to Construct for any reason.

## **4. District Easements**

Except for the Main Canal and irrigation wells, the majority of the District's existing facilities area is covered by a "blanket" easement that may encompass multiple properties. The relocation of District facilities within an area covered by a blanket easement is generally acceptable to the District without any modification of the existing easement.

In some cases, the District will allow the termination of a blanket easement. However, there may also be instances in which the District determines that it may be in the District's best interest to

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simply release a portion of the blanket easement. The District will make the determination regarding whether to terminate the blanket easement and redefine a new easement or simply release a portion of the blanket easement. The District has prepared standardized forms to accommodate these circumstances.

All required legal descriptions and exhibits are the responsibility of the Sponsor and must be prepared and sealed by a registered Arizona land surveyor and describe the property using distances and directions from established legal monuments.

The District's engineer will determine appropriate dimensions and limits for the creation of these legal descriptions. These dimensions will be provided to the developer for the preparation of the respective legal descriptions and exhibits.

The developer will submit the completed legal descriptions and exhibits to both the District's engineer and attorney for review and approval. Once the documents have been approved by the District Board of Directors, the District's attorney will have them recorded.

Under no circumstance will the District agree to the termination of any existing blanket easement without the coincidental establishment of a defined easement covering their facilities that are active at that time.

An easement for a District pipeline may be non-exclusive. While the easement is typically centered along the pipeline, it may be offset to accommodate specific features of a particular project. District easements for open ditch facilities are typically exclusive; the inclusion of any other public or private facilities within these easements is solely at the District's discretion. These developer site improvements cannot materially interfere with the District's anticipated use, operation, maintenance and/or repair of the District's facility.

A District easement for a pipeline and appurtenant structures may be located either wholly or partially within a City, Town, or County right-of-way based on the consenting approval of the jurisdictional agency.

For development projects expected to include a modification or revision of the existing easement, a minimum \$5,000 allowance for potential District legal costs is typical in the funding requirement for the project.

Any of the developer's site improvements located within the easement property may be damaged or need to be removed in order for the District to use, operate, maintain and/or repair the District facility. The District shall not be responsible for any repairs and/or replacement of any of the developer's site improvements that are removed and/or damaged as a result of the District's use, operation, maintenance and/or repair of the facility. The developer will leave the worksite within the easement property in a clean and well-graded manner.

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## **5. Placement of Relocated District Facilities**

The District does not require that existing open ditch facilities be piped as part of a relocation project. However, the governing municipality generally requires the piping of the District's facilities within the boundary of the development project as part of the development agreement.

### **5.1 Open Ditch Facilities**

The District's existing open ditch facilities include not only the prism of the ditch, but also the adjacent operations and maintenance (O&M) road(s). When the prism of the ditch is located wholly outside of the development area boundary, the District's engineer must assess the impact of the development project on the District's ability to access, maintain and operate their facility and potential impacts to neighboring properties.

Should the developer wish to accommodate an existing District ditch without relocation, the District may require that a property wall or other permanent feature constructed for the development project be offset from the boundary line of the property to provide sufficient clearance for District use.

Typical cross-sections for lined and unlined District ditch and O&M road requirements are shown on Figure 1.

The construction of an unlined ditch as a relocation of a District facility is not allowed. Any existing unlined District ditch that will be relocated as part of a development project must be constructed as a concrete lined ditch or pipeline.

### **5.2 Piped Facilities**

As shown on Figure 2, the preferred location for a District pipeline is behind the proposed curb and gutter and beneath the sidewalk. This location will generally maximize the area that can be landscaped within the right-of-way while protecting the pipeline. Alignments placing a District pipeline within the paved section of a roadway are not preferred and are generally only considered for short, perpendicular crossings. If a pipe must be located under the street, a minimum horizontal clearance of two feet is required from the gutter to the outside wall of the pipe. A maintenance agreement with the owner of the roadway may be required. District pipelines may not be located beneath drainage channels or retention basins.

Manholes shall be installed on District pipelines at a maximum spacing of 750 feet.

Minimum clearance from the outside wall of a District pipe to any permanent above-grade structure such as a building or wall are illustrated in Figure 3. A four-foot minimum clearance is required around all sides of a District structure.

## **6. Utilities**

District facilities have senior prior rights over most municipal and public service utility lines. All utility lines must cross beneath the District facilities.

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Single service residential utility lines and landscape irrigation of 1" or less may be added above a District pipeline with a 6" minimum clearance, if approved by the District.

Utility crossing of an active RID facility must comply with one of the following:

- Outside of the annual 2 week dry-up in November, jack and bore is required
- Open trench only allowable during annual dry-up or with prior approval by District.

The developer is solely responsible for the coordination and relocation of all conflicting utilities.

## **7. District Landscaping Restrictions**

Restrictions concerning landscape plantings and hardscape adjacent to a District pipeline are shown on Figure 5. Mature vegetation canopies must horizontally clear the outside wall of the pipe by 4 feet. Spacing requirements between plant groupings are identical to those for tree spacing.

Landscape plantings and hardscape features such as street furniture and signage are not permitted within a District easement containing a lateral canal or ditch. Canopies of mature trees and shrubs planted adjacent to a District easement containing a lateral canal or drainage ditch may not encroach into the easement.

Landscape plans for the development project must be submitted to the District for review and approval. A "no-plant" zone must be clearly marked on the plans and staked prior to planting to ensure minimum clearance requirements are met.

Landscape plans only show a representation of the mature plantings' footprint since the ultimate plant growth cannot be predicted, only approximated. It will be the developer, homeowners' association, municipality or their authorized agent(s) responsibility for any on-going landscape trimming within the District easement/right-of-way to maintain landscape trimming providing the required District spacing and overhang requirements.

If the developer, homeowner's association, municipality, or their authorized agent(s) does not maintain landscape trimming activities to meet the required spacing and overhang requirements, the District reserves the right to remove landscaping and submit charges back to the developer, municipality or their authorized agent(s) for District reimbursement.

The District is not liable for any damage to any landscape or hardscape features sustained during District operation and maintenance activities, including but not limited to plantings, landscapes, irrigation lines, gravel, sidewalks, etc.

## **8. Acceptance of Surface Drainage**

The District may accept agricultural return flows at historically established points of inflow into their system. Under no circumstance will the District allow a proposed commercial, industrial or residential development to discharge storm water, surface water flows, or flood flows into District



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facilities. Any existing discharge situations where this occurs will be terminated as part of the facility relocation design.

## **9. District Irrigation Wells**

District irrigation well sites are typically located upon deeded property owned by the District. The site boundaries can generally be adjusted to meet the needs of the development provided the total area of the site provides for:

- The continued maintenance activities of the existing equipment located within a reconfigured closed fenced perimeter
- Accommodation of new access routes
- Accommodation of maintenance equipment staging

If a District irrigation well must be relocated for the benefit of the development project, the developer and developer's engineer must adhere to the District's Well Replacement Guidelines and Specifications. There are a number of minimum requirements regarding the location of the well pad relative to the site enclosure and the accessibility to the site for District equipment. The developer should discuss these requirements with the District's engineer on a case-by-case basis.

The District requires that all of their well sites be fully enclosed, and all construction plans prepared by the District's engineer will specify 8' chain link fence topped with a three-strand barbed wire per MAG standards. However, the developer may arrange for some other type of approved enclosure such as a decorative block wall. In this regard the developer must provide detailed construction plans for the alternative enclosure to the District's engineer for review and approval. All designs for alternative enclosures must include:

- A total minimum height of 9' including a feature designed to prohibit entrance by scaling the enclosure. An 8' high block wall topped outwardly curved wrought iron bars is an example of an acceptable alternative.
- A feature providing visibility into the site from the main point of access and/or adjacent roadways such as one or more panels of wrought iron bars set within a block wall.

## **10. Gates for Irrigation Delivery Structures**

The District specifies the installation of irrigation gates fabricated to meet the requirements at each of their delivery structures. The dimensions of the individual gates are unique to each delivery structure and must be designed and fabricated accordingly.

Shop drawings for any gates purchased directly by the developer or the developer's contactor must be reviewed and approved by the District's engineer. The installation of unapproved gates is not acceptable. Any gates rejected by the District under this circumstance must be removed and replaced with approved gates at the discretion of the District.

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### **11. Frames and Covers for Irrigation Manholes**

The District maintains an inventory of manhole frames and covers as specified in their construction plans. The developer's contractor is encouraged to purchase these items directly from the District. The District engineer must approve the use of frames and covers not purchased directly from the District. Any frames or covers installed without District approval is at the developer's own risk and may require removal and replacement at the District's discretion.

### **12. Maintenance of District Irrigation Service**

District facilities must remain operational 24 hours a day, 7 days a week, and may not be disturbed or rendered inaccessible to the District at any time.

The scheduling for an irrigation outage to complete a tie-in between new and existing facilities must be coordinated with the District watermaster. The District schedules an annual, district-wide "dry-up" for approximately twelve consecutive days typically, the second and third weeks of November as approved by the District Board. The availability and duration of an unscheduled irrigation outage during any other time period will be determined solely at the discretion of the District and is not guaranteed.

A temporary irrigation by-pass may only be considered between October 2nd and March 31<sup>st</sup> of any given year. All work associated with the by-pass to be performed by one of District's JOC contractors (Project Sponsor responsible for all associated costs). At the discretion of the District, sealed engineering plans for the proposed by-pass construction may be required. These plans must be submitted to the District for review and obtain approval prior to construction. The demolition of the existing District facilities replaced by the temporary by-pass may proceed only after the by-pass has been field verified and accepted as adequate by the District. Any and all maintenance and upkeep of the by-pass will be the sole responsibility of the constructor, this includes but is not limited to 24-hour 7 day/week pump operation or facility monitoring. If the District deems that the by-pass is not operating properly prior to the proposed permanent facility construction completion, the by-pass will need to be replaced and reverified by the District prior to any continuation of construction of any other kind.

### **13. Construction Plan Review**

Any construction that will be within the District right-of-way, easement and/or crossing or impacting District facilities requires a District review of the construction plans. The District estimates two (2) plan review submittals and signature approval within the District funding requirement. If reviews exceed the initial two (2) submittals, then the District may request additional funds prior to continuation of plan review activities.

The developer's engineer shall submit all construction plans for the development project as part of this effort. The District will provide redlined comments in either electronic or hardcopy format depending on the project size. Resubmittal of revised plans by the developer's engineer shall be accompanied by a written comment response letter providing responses to the District comments. Once all comments have been satisfactorily addressed, the District will provide an approval signature. After obtaining the signature, the District will hold a District Right-of-Way (ROW)

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Crossing Permit relative to each plan set and will issue the ROW Crossing Permit once the required municipalities have approved the developer plan sets related to the ROW Crossing Permit. No construction will be allowed to commence within the District Right-of-Way prior to the issuance of the District Right-of-Way Crossing Permit. Once the ROW Crossing Permit is obtained by the developer, it must be kept on site at all times throughout the construction procedure. All guidelines and language within the ROW Crossing Permit must be followed. The District reserves the right to revoke any District ROW Crossing Permit at any time if the District views the District's interests and/or the District's guidelines defined in the ROW Crossing Permit are infringed upon.

Approved by the Board in the meeting of the District, November 12, 2020.

**ROOSEVELT IRRIGATION DISTRICT**

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W. Bruce Heiden

President

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