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CITY OF TUCSON, ARIZONA  
DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION  
ACTIVE PRACTICES GUIDELINES

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APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
Engineering Division Administrator

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SUBJECT: ACTIVE PRACTICE GUIDELINE NO. 10  
UTILITY COORDINATION  
FOR PUBLIC IMPROVEMENT PROJECTS

1.01 PURPOSE

- A. To ensure proper and timely notification of impending construction to all affected utility companies, and to verify their facilities located in existing or proposed City of Tucson rights-of-way for the purpose of Utility Design and relocation coordination necessitated by proposed public improvement projects.

1.02 UTILITY COORDINATION PROCESSES

- A. The extent of utility notification and coordination effort for each public improvement project will depend on the anticipated utility impacts of the project. Complex projects will require extensive coordination, while simple projects will require only limited utility contacts.

The following three levels of utility coordination (notification) are defined for Engineering Division projects.

- B. Full Utility Coordination Process. The full utility coordination process will be required for all Engineering Division projects unless otherwise indicated in the design contract, or in written instruction provided by the Engineering Design Section Manager. All federally funded projects subject to the FHWA/ADOT certification acceptance procedures must use this process. The full utility coordination process requires Blue Stake For Design, at least two intermediate plan submittals to all affected utilities, at least one project-specific utility coordination meeting (unless waived by affected utilities), distribution of final plans to all affected utilities, and a utility clearance

finding by the City before release of construction contract documents for bid. Except for resurfacing or sidewalk ramp installation projects, all projects using the FHWA/ADOT certification acceptance procedures will also include a blue-stake-for-design field meeting at the beginning of the design process.

- C. Limited Utility Coordination Process. The limited utility coordination process will be used when specified in design contract documents, or upon written instructions from the Engineering Design Section Supervisor. Projects using this process must have utility relocation requirements that will be conceptually simple and will not be sensitive to changes in the design features. The limited utility coordination process will include: blue stake for design, at least one intermediate utility submittal, distribution of final plans to all affected utilities, and a final utility clearance process. A project-specific utility coordination meeting may or may not be required, depending on the complexity of utility conflicts encountered during design. Under the limited utility coordination process, the first utility submittal will be at the 75% design stage.
- D. No Design Utility Submittals. When identified in the design contract or allowed in a written statement by the Engineering Design Section Supervisor, certain projects will be designed and sent to construction without utility submittals. These projects must have the following characteristics: Maximum depth of excavation 24 inches, no anticipated impacts on existing utilities, all City and utility standards are met (examples: No water meters in driveways no pull boxes in sidewalk ramps) or the utility has provided a letter of waiver, a street cut moratorium will not be created, and no utility relocations will be required. Projects will be modified in the field to eliminate any utility conflicts. Utility coordination on these projects will be limited to construction blue staking. If utility conflicts are encountered that cannot be eliminated by field changes, then the project will be stopped, and sent back to design under the limited or full utility coordination process.

### 1.03 UTILITY COORDINATION COMMITTEE (UCC) REVIEW

- A. All projects requiring either full utility coordination or limited utility coordination will be identified on the Design Project Status Report and brought to the Tucson Utility Coordination Committee (UCC) at least once. Projects following the "No Design Utility Coordination" process may or may not be brought to the UCC, based on the judgement of the project manager and the Design Section Supervisor.
- B. The City's Transportation Utility Coordinator shall maintain a current utility contact list. (See sample attachment 6.)

### 2.01 UTILITY WORK TO BE PERFORMED UNDER CITY CONSTRUCTION PROJECTS.

- A. Water, sewer, and storm drain relocations will generally be performed under the City's construction contract. Upgrades to these facilities may also be included. It is the design consultant's responsibility to research locations of the existing water, sewer and storm drain facilities, and (with review oversight of the affected utility agencies) prepare

relocation/upgrade plans to be included in the final construction plans. Water and Wastewater design guidelines area available at the following websites:

Tucson Water: [www.tucsonaz.gov/water](http://www.tucsonaz.gov/water) (select: "Planning and New Development")

Wastewater: [www.wwm.pima.gov](http://www.wwm.pima.gov) (select: "Standard Details and Specs")

- B. Tucson Water base maps and As-built Water plans, must be obtained from Tucson Water Support Services Section. It is the design consultant's responsibility to identify (from a review of the base maps) which as-built plans will be needed. Sewer system information and as-built plans can be downloaded from the Pima County website or the TDOT Maps page of the Tucson Transportation Department website. Sewer plans may also be obtained at the PCWWM Mapping and Records Section on the 5<sup>th</sup> floor of the Public Works Building. Storm drain As-builts (often included as part of the roadway plans) are available at the TDOT Maps website. If needed, full-sized copies of original plans can be obtained at the Tucson Engineering Maps and Records Section, 3<sup>rd</sup> Floor of the Public Works Building.
- C. Utility companies who will have relocations performed as part of the City's construction contract will receive plan submittals each time a plan submittal is made to the City. It is the design consultant's responsibility to provide all intermediate plan submittals to the affected utilities, and to obtain approval signatures on the 100% plans from these agencies. The City's project manager will arrange for final distribution of the 100% all utilities.
- D. If utility comments for utility work shown on the plans are unclear, the design consultant will contact the originators of these comments and/or arrange for a meeting, as needed to obtain clarification.
- E. Approval signatures are required on Tucson Water and Pima County Waste Water Management plans, and may be required on plan sheets showing other utility relocations. It is the design consultant's responsibility to obtain these approval signatures from the affected utilities before submitting the 100% plans to the City.

### 3.01 BLUE STAKE FOR DESIGN

- A. When a project is in the initial Design stage (before initial plan submittal), the design engineer (consultant) shall contact Blue Stake Center and request Blue Stake For Design. (See Attachment \_\_\_ for detailed instructions for making a Blue Stake for Design Request.) The design engineer's blue stake for design request will be timed so that the consultant surveyor will have the opportunity to pick up location information on any utility that chooses to provide physical location of facilities at the project site. (The requestor can specify 10 working days or later. )
- B. When the design engineer (consultant) initially contacts the Blue Stake Center, he must identify his request as a Blue Stake for Design" request. He must provide the official name and job plan number of the project. ~~and identify it as such to the Blue Stake Center when requesting bluestaking for Design purposes.~~ The design engineer will identify the project limits, and any part of the project which may be located outside the

existing right-of-way. The design engineer shall make a record of the blue stake for design ticket number, and keep a list of all utilities with facilities in the area, as identified by the Blue Stake Center.

- C. If the design project is eligible for federal funding under the City of Tucson Certification Acceptance Procedures approved by ADOT 7/6/95, then the design engineer will request a blue-stake-for-design field meeting in advance of the normal blue-stake-for-design request, except as noted below. Exception: federally funded projects that are limited to resurfacing and sidewalk ramp installations will not require a blue-stake-for-design field meeting; these projects will still require blue stake for design.
- D. Current blue stake law allows utilities to provide installation records or other written records as a substitute for physical location (blue staking) of facilities on the ground. All utilities who do not blue stake the requested site are required to contact the blue stake requestor (the design engineer) within 10 working days, and provide either location records or a statement that no facilities exist on the site. A statement of no facilities may be provided orally. For oral statements, the design engineer will create a record showing: Date of Statement, Utility, Name of Utility Representative, Confirmation that no facilities are located on the site, Name of person receiving the statement, any pertinent comments.
- E. It is the responsibility of the design consultant to confirm that each utility identified by the Blue Stake Center has:
  - 1. Blue staked the site;
  - 2. Made contact with a "no facilities" statement; or
  - 3. Provided installation information.

Note, however, that per agreement between the various government agencies, the Engineering Division's design consultant will research and gather utility information for Tucson Water, Pima County Waste Water and all storm drain facilities as part of his/her contract. (See Section 2.01 Utility Work To Be Performed Under City Construction Projects.)

- F. As part of the first plan submittal, the design engineer will provide a utility contacts report which includes:
  - 1. Copy of the Blue Stake For Design Ticket
  - 2. A record of oral statements by utilities (may be in table form).
  - 3. A summary of all utility contacts (describing the method used for locating each utility).
- G- In addition the method for locating each utility shall be identified on the plan cover sheet per the example (Attachment No. 5).

#### 4.01 POTHOLING FOR UTILITY LOCATIONS

- A. Potholing may be required at any time existing utility locations appear to be in conflict with planned improvements, or when horizontal or vertical utility location information is not accurate enough to rule out conflicts with planned improvements.
- B. The design consultant will be prepared to make a determination on the need for potholing after receiving utility comments on each plan submittal. Potholing, if needed, will be a topic at each utility coordination meeting. The design consultant will identify where potholing is required, with concurrence by the City Project Manager.
- C. At each potholing location the potholing contractor (or the utility performing independent potholing) shall mark the horizontal location of the utility on the surface and provide the depth to top of pipe at each marked location.
- D. The design consultant will survey the pothole locations, and combine this survey data with the utility depth data supplied to revise the project plans. Survey of pothole locations is an expected part of the standard design contract (no additional payment).
- E. Utilities may opt to perform their own potholing or to participate in potholing performed by the City. The cost of potholing will generally be born by the utility, depending on the terms of their franchise or license agreement with the City. When a utility opts to participate in a joint potholing effort performed by the City, the cost apportionment for the potholing work will be determined in advance, with the concurrence of the Design Section Manager.
- F. If potholing is to be performed by the City, the City project manager will arrange for the potholing to be done, using pothole locations provided by the design consultant.

#### 5.01 UTILITY PLAN SUBMITTALS - UTILITY PLAN RECEIPT

- A. The design consultant is responsible for making all intermediate utility submittals. The City's project manager is for the final plan distribution to utilities.
- B. A Utility Plan Receipt form shall be created for each general utility plan submittal (30%, 75%, 100%, etc.) for each project. Utility plan receipt forms will include all utilities identified by the blue stake for design process as having facilities in the area, plus utilities operating on a regional basis within the City (TEP, SWG, Qwest, Tucson Water, Pima County Waste Water, Tucson Inet, Cox), whether identified by blue stake or not. All blanks must be filled in on the utility receipt form, using official Project Title, Job No., Plan No., City Project Manager, and Consultant, with Submittal Status (30%, 75%, etc.), except that, if authorized by the Engineering Design Section Manager, the Job No. may be left blank.
- C. Before each utility submittal, the consultant shall obtain the latest utility plan receipt form (containing current utility contact information) from the City project manager or utility coordinator. It is not acceptable to copy a recent utility receipt form and change

project information or project status, as some utility contacts change frequently. Consultants who distribute plans based on out-dated utility receipt forms will be required to resubmit to the correct utility contact. It is the City's responsibility to maintain current utility contact information for utility design review. A sample utility receipt form is provided as Attachment 2. Note, however, that an updated copy must be used for each submittal.

- D. The consultant shall deliver to each utility the number of plan review sets specified on the utility receipt form, and obtain a signature showing receipt of plans. For utilities with offices located out of town, the consultant shall make arrangements for two day mail service, and submit evidence of receipt at the out of town address.
- E. Immediately after plan distribution has been completed, the consultant shall provide copies of the signed utility plan receipt to the City's Project Manager and to the City's Transportation Utility Coordinator.
- F. The Transportation Utility Coordinator's copy of each utility plan receipt will be filed in the official project file.

#### 5.02 SUBMITTAL TO UTILITY (30%)

- A. After the utility information is accurately drafted upon the plans by the engineer (consultant), the engineer (consultant) shall deliver plan sets to all affected utilities along with the 30% Utility Letter (Attachment No. 1). This will afford the utility the opportunity to review their facility location and to determine potential conflicts. If a roadway or drainage design, horizontal and vertical location of the proposed improvements and preliminary gradelines shall be provided to the utilities in order to assess conflicts.
- B. When spot projects are submitted to utilities which will become part of a larger bid package, that bid package shall be identified to the extent possible.
- C. When delivering the 30% Plans to the utilities, the engineer (consultant) shall have each utility sign a "Utility Plan Receipt" (See Section 5.01) and shall then deliver a copy of the signed receipt to the City's Project Manager and the City's Transportation Utility Coordinator. A more detailed utility contact list is included as Attachment No. 6.
- D. Upon receiving the approved, corrected, or revised plans back from each utility, the engineer (consultant) shall arrange a utility coordination meeting between the utilities, the consultant, the City's Transportation Utility Coordinator, and the City's Project Manager to discuss potential conflicts and possible remedies. For projects where utility conflicts appear minimal, the 30% utility meeting can be part of the regularly scheduled UCC meeting.

### 5.03 SUBMITTAL TO UTILITY (75%)

- A. At the 75% Design Stage, after horizontal and vertical controls, and storm sewer and drainage crossings have been established, the engineer (consultant) shall deliver plans with a 75% Utility Letter to all utilities (Attachment No. 3). This will provide a final opportunity for the utility to verify the location of their facilities, will advise of the anticipated project construction start date, and will provide the utility company advance notification so they can commence planning and scheduling for potential conflicts and utility relocations. At this point the utility will be requested to provide anticipated relocation time requirements.
- B. When delivering the 75% Plans to the utilities, the engineer (consultant) shall have each utility sign a "Utility Plan Receipt" (See Section 5.01) and shall then deliver the signed receipt to the City's Project Manager and the City's Transportation Utility Coordinator.
- C. At the completion of the 75% utility submittal and the 30 day response period, the consultant shall provide to the City's Project Manager all information requested on the 75% utility letter. This information shall be summarized and provided to the City Project Manager. It shall be the consultant's responsibility to ensure that all utilities respond to the 75% submittal.
- D. Upon receiving the approved, corrected, or revised plans back from each utility, the engineer (consultant) shall arrange a coordination meeting for all utilities and the City's Project Manager, at which time major conflicts shall be addressed.
- E. At the 75% utility submittal stage, if there are any significant design changes since the 30% submittal, those changes shall be identified and described either within the 75% utility letter or highlighted on the plans themselves.

### 5.04 90% SUBMITTALS

- A. A utility submittal at the 90% stage will only be required if:
  - 1) A utility has relocation work to be performed under the City's construction contract.
  - 2) A 90% submittal has been requested by the utility, or
  - 3) Plan features have changed since the 75% submittal.
- B. The engineering design consultant will use a utility plan receipt as in other submittals.

### 5.05 SUBMITTAL TO UTILITY (100%)

- A. The 100% submittal to the utilities (Final Utility Letter, Attachment No. 4) with a blue-line copy of the plans, shall be submitted to the utilities by the City's

Transportation Utility Coordinator (not the consultant). This letter instructs the utility to immediately begin relocation as may be required to ensure that project construction can begin as scheduled. Unless the utility notifies the City in advance, of greater time requirements, the final utility submittal shall be made at least 90 calendar days in advance of the project construction start date.

- B. Every attempt will be made to deliver signed final plans to the utilities; however, it may be occasionally necessary to deliver unsigned plans and indemnify the utility against second moves. The indemnification shall be provided by the City's Transportation Utility Coordinator (not the consultant) when/if it becomes necessary to provide the utilities greater lead time to allow relocation of their facilities prior to the anticipated construction start date.
- C. 100% Plans will be delivered to all utilities identified in the blue-stake-for-design process, except for utilities that responded "No Facilities in the project area". (Note that utilities who responded "No Impacts" will still need to receive the 100% Plans.) When delivery of the 100% Plans or indemnification is made to the utilities, each utility shall be required to sign a "Utility Plan Receipt" (See Section 5.01).
- D. At the 100% utility submittal stage, if there are any significant design changes since the 75% submittal, those changes shall be identified and described either within the 100% utility letter or highlighted on the plans themselves. This will provide for a more expeditious review by the utility companies.

#### 6.01 UTILITY CLEARANCE LETTER

- A. Upon receipt of a letter of indemnification of 100% design completion, the utilities shall provide a "utility clearance letter" to the City's Transportation Utility Coordinator (or the City's Project Manager if no separate utility coordinator has been identified), providing the projected date the utility feels confident the work will be completed.
- B. For federally funded projects, the City's Transportation Utility Coordinator (or the City's Project Manager if no separate utility coordinator has been identified) shall provide a clearance status memo (See Attachment 4b) to the Engineering Construction Section Manager. A Utility Clearance Form (See Attachment 4c), showing the status of each utility identified in the blue-stake-for-design process, shall be attached to the Utility Clearance Memo. Projects for which three years or more have elapsed since blue stake for design will require a re-check of affected utilities. The utility coordinator will contact the Blue Stake Center and with an "information only" blue stake request, and then compare the newly generated utility list to the original blue stake for design ticket. Any additional utilities identified at this time will be contacted.

#### Attachments:

1. 30% Utility Letter
2. Utility Plan Receipt
3. 75% Utility Letter

- 4a. 100% Utility Letter
- 4b. Utility Clearance Memo
- 4c. Utility Clearance Form
5. Methods of Utility Location for Design
6. Utility Contact List
7. Checklist- Project Eligibility for Limited or No Utility Coordination
8. Blue Stake for Design Instructions

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## LIST OF ATTACHMENTS:

Attachment No. 1	30% Preliminary Utility Letter
Attachment No. 2	Utility Plan Receipt
Attachment No. 3	75% Utility Letter
Attachment No. 4a	Final Utility Letter (Send a minimum of 90 days prior to construction.)
Attachment No. 4b	Utility Clearance Memo
Attachment No. 4c	Utility Clearance Form
Attachment No. 5	Example Methods of Utility Location For Design
Attachment No. 6	Utility Contact List