



**COP Project No.:** \_\_\_\_\_ **Project Name:** \_\_\_\_\_

**Reviewed By:** \_\_\_\_\_ **Phone:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Professional Engineer:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

The purpose of this checklist is to offer comments on plan design for construction of water/sewer main combination plans and to set the minimum submittal requirements for water/sewer combination plans. Source of water/sewer development code and design policy is the Water Services Department Design Standards Manual for Water and Wastewater Systems. A water/sewer main Combination Plan submittal shall not exceed a maximum of six (6) sheets (including cover sheet).

This checklist serves to minimize redline comments on the check prints and to maintain consistency among plan reviewers on plans for public water and sewer main construction in the public right-of-way and public water and sewer easements. Plan approval and issuing permits depend on compliance with the comments made on the check prints and this checklist. The professional engineers of record shall satisfy themselves of the completeness and accuracy of the design.

A completed checklist must be attached to the water/sewer main combination plans when submitted for first review. The following Certification Statement must be signed by the Professional Engineer of record certifying that all applicable requirements on this checklist have been met.

Plan review correction cycles and/or approvals are valid for 12 months. Additional review fees (see Fee Schedule – Phoenix City Code, Chapter 9, Appendix A.2) shall be charged for extensions/reinstatements to update expired plan reviews.

### **CERTIFICATION**

**I CERTIFY THAT THE REFERENCED PLANS COMPLY WITH ALL APPLICABLE CITY ORDINANCES AND STANDARDS, INCLUDING FEDERAL, STATE AND COUNTY REQUIREMENTS AND REGULATIONS. IN ADDITION, I CERTIFY THAT THIS CHECKLIST HAS BEEN COMPLETED ENSURING ALL ITEMS LISTED ARE PROPERLY ADDRESSED. I UNDERSTAND THAT IF I FAIL TO ADDRESS ALL APPLICABLE ITEMS IN THIS CHECKLIST, THE PLANS MAY BE IMMEDIATELY RETURNED TO ME WITHOUT ANY FORMAL REVIEW BEING PERFORMED.**

**PROFESSIONAL ENGINEER'S NAME:** \_\_\_\_\_

**PROFESSIONAL ENGINEER'S SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

Please complete and return this checklist and the check prints with your next submittal. Discussion of redline comments on plans or this checklist should be directed to the plan reviewer listed above.

Professional Engineer of record (**ENG**) must fill out all boxes in the first column as either ☒ (Addressed) or ☐ (Not Applicable).

Civil plan reviewer (**RVW**) shall check the second column as ☒ (Required) when requirements have not been properly addressed.

**REQUIRED SUBMITTALS**

**ENG RVW**

- ☐ ☐ Plan sheets shall be 24" X 36"; submit four (4) sets of Water/Sewer Main Combination plans, one (1) copy of the approved preliminary Site plan for major projects **OR** one (1) copy of the first review Site plan mark-up for minor projects, utility conflicts from appropriate utility companies **OR** print the disclaimer on the cover sheet if work is being proposed on a local or residential street, a signed agreement form indicating a standard or repayment agreement, a completed Application for Main Extension form, a sealed cost estimate, a signed and sealed Sewer Design Report by the professional engineer of record, a signed and sealed Water Design Report by the professional engineer of record, a completed Notice of Intent form, a completed Approval to Construct form, a completed Environmental Responsibility Compliance form, signed by owner/authorized agent, and a completed and signed Water/Sewer Main Combination Checklist.

**Note:** If submitting through the Electronic Plan Review system, multiple copies of submittal documents are not required.

**GENERAL REQUIREMENTS**

- ☐ ☐ All sheets shall have the Civil Engineer's Arizona registration seal with original signature and date prior to plan submittal.
- ☐ ☐ A cover sheet is required on plans of two (2) sheets or more.
- ☐ ☐ Maximum of six (6) sheets per submittal (including cover sheet).
- ☐ ☐ Symbols shall be per M.A.G. Specifications and Details supplemented by Water Services Department Details.
- ☐ ☐ Orientation of each plan sheet shall be shown by a north arrow (up or to the right) and a scale of the drawing.
- ☐ ☐ Each sheet shall be identified by sheet number, project name, and match lines.
- ☐ ☐ All plan sheets shall be sufficiently clear to allow legible prints to be reproduced from scanned images. The size of lettering and symbols shall be 1/8-inch minimum. Shading is not permitted. Refer to Water Services Department Design Standards Manual (P-68 & P-69) for information required on record drawings ("As-Built").
- ☐ ☐ If the existing sewer main that is to be used as a point of outfall is 15" or larger, contact Water Services Departments (WSD) at 602-534-2297 for further information prior to submitting to the city of Phoenix Planning & Development Department for plan review. Provide approval from WSD with 1st submittal.
- ☐ ☐ Any newly created water/sewer easements will require a current Phase 1, or Phase 2, Environmental Assessment Report, depending on the existing conditions, and an Environmental Assessment Declaration Form.
- ☐ ☐ This project is subject to a sewer/water line repayment as redlined on the plans. Any questions shall be directed to the Project Engineering Permit Counter, (602) 262-6551 (Voice) or (602) 534-5500 (TTY). Connection fees shall be paid prior to the issuance of construction permits.
- ☐ ☐ Ductile Iron Pipe (D.I.P.) is required in major (mile) and collector (half-mile) streets and all easements (MINIMUM PRESSURE CLASS 350).
- ☐ ☐ All water line valves and fittings must be restrained per the city of Phoenix Supplement to M.A.G. Specifications, section 750.3.
- ☐ ☐ Joint restraint limits per M.A.G. Standard Detail 303-1 and 303-2 must be shown on all water main construction plans which require a profile in addition to plan view.

**COVER SHEET REQUIREMENTS**

**ENG RVW**

- ☐ ☐ Provide a project title block with a name and address of the project.
- ☐ ☐ Provide a project description.
- ☐ ☐ Provide a vicinity map, properly oriented with north up or to the right.
- ☐ ☐ Provide an index of plan sheets if more than one plan sheet is included.
- ☐ ☐ Provide the Owner and Owner must be listed on the Arizona Corporation Commission's website if they are a corporation/Developer's name, address, and telephone number.
- ☐ ☐ Provide the Professional Engineer's name, address, and telephone number.
- ☐ ☐ Provide the appropriate processing numbers including: KIVA#, CPSW, and city Quarter Section Number in lower right corner.
- ☐ ☐ Provide a Signature Approval Block (In lower right-hand corner):

**APPROVED FOR:  
THE CITY OF PHOENIX**

\_\_\_\_\_  
**Health Delegate  
Planning & Development Department**

\_\_\_\_\_  
**Date**

- ☐ ☐ Provide an As-Built Certification Statement as follows (include on all sheets):

**AS-BUILT CERTIFICATION:**

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

\_\_\_\_\_  
Registered Engineer

\_\_\_\_\_  
Date

Registration Number \_\_\_\_\_

- ☐ ☐ A separate key map for water and for sewer (they may **not** be combined) is required on plans with more than two (2) sheets. A key map is a small-scale map of the project site that provides a system overview and is used to index the plan sheets. The key map shall clearly show the following:
- All streets with names, alleys, easements, tracts, and parcels shall be identified or shown "un-subdivided."
  - Sewer mains with types & sizes, manholes, existing cleanouts (new cleanouts are not allowed in city of Phoenix right-of-way or easement), and any associated facilities. Direction of flow must be indicated.
  - Water mains with types and sizes, fire hydrants, valves and production facilities (tanks, boosters, etc.) proposed and existing.
  - Index of plan sheets indicated by single line with arrows showing beginning and end of each sheet.

**ENG RVW**

☐ ☐ Provide a Blue Stake notification decal.

☐ ☐ **The following disclaimer can only be used for local or residential streets. Do not use for major or collector streets. For major or collector streets, provide utility conflict letter along with responses from companies:**

I hereby certify that all utility companies with facilities in the area of this project have been contacted and the data provided is shown on this plan. I agree to indemnify, defend, save and hold harmless the city of Phoenix, its officers, officials, agents, employees and volunteers from any and all claims, demands, actions, liabilities, damages, losses, or expenses incurred for any utility conflicts that may arise.

\_\_\_\_\_  
Professional Engineer's Signature and seal

\_\_\_\_\_  
Date

☐ ☐ Provide a material list for offsite water main installation (all materials used in city of Phoenix right-of-way or easement).

☐ ☐ Provide a material list for offsite sewer main installation (all materials used in city of Phoenix right-of-way or easement).

☐ ☐ Elevation datum and benchmarks (city datum required). Please dial (602) 495-2050, Voice or (602) 534-5500 TTY, to obtain city datum for existing benchmark closest to the project site. Equations cannot be used. Note on plans NGVD 29 (National Geodetic Vertical Datum 1929)

**NOTES FOR WATER/SEWER PLANS**

(To appear on the cover sheet)

☐ ☐ This set of plans has been initially reviewed by the city of Phoenix. Such review is part of the process that developer(s)/contractor(s) must go through in order to obtain a Construction Permit. The results of such initial review, however, shall not dictate the city of Phoenix's final determination as to the acceptability of the plans, nor shall it prevent the city of Phoenix from requiring that errors and omissions, as found on plans, be addressed by developer(s)/contractor(s), where such errors and omissions cause the plans to be in violation of or inadequate under applicable federal/state/county/local codes, ordinances, regulations, or other laws. This reviewed and stamped set of plans must be kept at the construction site at all times.

☐ ☐ Planning & Development Department's Field Inspection Staff shall be notified 48 hours before any construction begins, telephone (602) 262-7811.

☐ ☐ All construction in city of Phoenix Right-of-Way, or easement, is to conform to M.A.G. Specifications and Details and city of Phoenix Supplement to M.A.G. Specifications and Details, unless modified on the plans.

☐ ☐ All Ductile Iron Pipe water main valves, fittings, and bends shall be restrained. Restrained joint requirements and approved restraining system are shown in city of Phoenix Supplement to M.A.G. Specifications, section 750.3. The length of the restraints must be per M.A.G. Standard Detail 303-1 and 303-2. Thrust blocks are not allowed to be used in lieu of approved restrained joint systems. Thrust blocks can be used in addition to the approved restrained joint systems where a specific city of Phoenix Supplement to M.A.G. Standard Detail calls out for thrust blocking, such as current details, P1343, P1351, and P1360 or when otherwise approved by the Water Services Department.

☐ ☐ Compaction shall comply with M.A.G. Sec. 601 & C.O.P Supplements.

☐ ☐ Traffic Regulations: All work must comply with requirements of the current city of Phoenix "Traffic Barricade Manual."

**ENG RVW**

- ☐ ☐ Compaction shall comply with M.A.G. Sec. 601 & C.O.P Supplements.
- ☐ ☐ Proposed water and sewer shall be installed in standard utility locations per city of Phoenix "Standard Utility Locations." Pavement cuts will not be a valid reason for not using "Standard Utility Locations."
- ☐ ☐ Minimum coverage over the top of water mains shall be four (4) feet if the main is located in a major street or the main is 12" or larger. Otherwise, three (3) feet of cover over the top of the pipe is required.
- ☐ ☐ A six (6) foot minimum horizontal separation from any underground utility shall be provided for sewer mains, sewer services, water mains, and water services. The minimum horizontal separation is measured from outside of sewer main, sewer service, water main, or water service to outside of underground utility.
- ☐ ☐ A one (1) foot minimum vertical separation from any dry underground utility crossing shall be provided for sewer mains, sewer services, water mains, and water services. The minimum vertical separation is measured from outside of sewer main, sewer service, water main, or water service to outside of dry underground utility.
- ☐ ☐ A two (2) foot minimum vertical separation shall be provided between any sewer main or storm drain main crossing a water main. The minimum vertical separation is measured from outside of water main to outside of sewer main or storm drain main. See M.A.G. Standard Detail 404 for additional information and/or provisions for clearance.
- ☐ ☐ Exceptions or deviations from the above minimum clearances must be approved and shown on the approved water and sewer plans. When utility conflicts are found during construction, all changes and revisions must be preceded by an approved plan revision.
- ☐ ☐ Water main pipe deflection shall be per manufacturers' recommendations.
- ☐ ☐ The following M.A.G. Details are specifically **NOT** approved:
  - 425 24"more Aluminum Frame and Cover.
  - 302-1 Joint Restraint with Tie Rods
  - 302-2 Joint Restraint with Tie Rods – Anchor Blocks
  - 321 Standard Water Meter Vault
  - 345-1 3", 4", and 6" Water Meter
  - 345-2 4" and 6" Water Meter with On-site Fire Hydrants
  - 370 Vertical Realignment of Water Mains
  - 381 Anchor Blocks for Vertical Bends
  - 390 Curb Stop with Flushing Pipe
  - 391-1 Valve Box Installation
- ☐ ☐ Any sewer lines that are installed with less than .004ft/ft slope must be installed using a laser.
- ☐ ☐ When Ductile Iron Pipe is installed as sewer main, lining is required per C.O.P. Supplement to M.A.G. Sec. 750.1.
- ☐ ☐ Any sewer main 15" in size or 12' in depth, or greater, requires 5' manholes.
- ☐ ☐ All manholes newly constructed or existing that are worked in for connections shall be painted with insecticide paint per city of Phoenix Supplement to M.A.G. Section 627.
- ☐ ☐ Manholes with 60" diameter and pipes greater than 12" require coating per C.O.P. Supplement 626. Any existing manholes with corrosion coating that are disturbed or adjusted to new finish grades shall have any damaged coating repaired, including all adjusting rings.
- ☐ ☐ New manholes are to be built without steps.

- ☐ ☐ Record drawing submittals must comply with the Water Services Department Engineering Policy P-68 and P-69. A copy of the policy can be obtained from the department's website: [http://www.phoenix.gov/water\\_services/design/eng\\_policies/index.html](http://www.phoenix.gov/water_services/design/eng_policies/index.html).

**ENG RVW**

- ☐ ☐ All sewer mains must have a T.V. inspection before accepted as complete (See city of Phoenix Supplement to M.A.G. Specification Section 615.11(C).
- ☐ ☐ Water services shall be installed perpendicular from the water main to the meter box. Water services at the end of cul-de-sacs may vary as necessary but will be approved on a case by case basis.
- ☐ ☐ All services shall run in a straight line from the water main to the meter box.
- ☐ ☐ Any and all more stringent separation requirements required by Federal, State, County, or local codes or ordinances take precedence.
- ☐ ☐ In accordance with A.A.C. R18-4-213, all materials added after January 1, 1993 which may come into contact with drinking water shall conform to National Sanitation Foundation Standards 60 and 61.
- ☐ ☐ Concrete or asphalt damaged during the course of construction shall be removed and replaced in kind prior to final inspection.
- ☐ ☐ **Place the following note on each sheet of the plans:**  
Per City Code Chapter 2, Section 2-28, these plans are for official use only and may not be furnished for inspection or copying, except as specifically stated in the City Code or as required by law.
- ☐ ☐ Asphalt restoration is required for any street. Refer to Street Pavement Cut Policy (TRT 00164 and Ordinance G-6308)
- ☐ ☐ Plan approval is valid for 12 months. Prior to plan approval expiration, all associated permits shall be purchased, or the plans shall be resubmitted for extension of plan approval. The expiration, extension, and reinstatement of Civil Engineering plans and permits shall follow the same guidelines as those indicated in the Phoenix Building Construction Code Administrative Provisions Section 105.3 for Building permits.

**OPTIONAL NOTES FOR WATER/SEWER PLANS**

- ☐ ☐ For lots fronting an existing sewer main, sewer services shall be constructed by the contractor after proper application and payment of prevailing fees for city forces to provide the connection or "wye" in accordance with Water Services Dept. Policy P-1, Sewer Ordinance G-2358, section D. For information, call 262-6551.
- ☐ ☐ When the water quarter section data indicates leaded joint pipe, the Professional Engineer shall make a special note on the plan regarding leaded joint pipe and to use caution when excavating; "To hand dig if necessary."
- ☐ ☐ For Lot Numbers \_\_\_\_\_, the contractor is responsible for installing the water service. When the service is ready for the wet tap, the contractor is to contact the Development Services Civil Engineering Inspector to coordinate with the city of Phoenix Water Distribution staff to install the wet tap. The contractor is responsible to pay the city of Phoenix for the wet taps on a time and materials basis.
- ☐ ☐ This plan is approved subject to completion of some lines labeled "EXISTING" which have been proposed as a part of another development. The developer of this project may be required to construct those lines per city requirements prior to receiving service for this project.

**PLAN AND PROFILE SHEETS**

**ENG RVW**

- ☐ ☐ Provide a title block on all sheets.
- ☐ ☐ All sheets shall be numbered with match lines (if required) and street names.
- ☐ ☐ Orientation of each water/sewer line shall be shown by a north arrow (up or to the right) and scale of the drawing.
- ☐ ☐ Vertical scale shall be 1" = 2' or 1" = 4'. Horizontal scale shall not be smaller than 1" = 40'. For major streets and cases of unusual topography or complex situations, where more detail is necessary, the scale shall be 1" = 20'.
- ☐ ☐ Show all streets, alleys and easements. Streets shall be identified by name. Streets, alleys and easements shall be dimensioned at least once and at all breaks. Monument line of streets shall be shown.
- ☐ ☐ Show and dimension all right-of-way and easements. Show both sides of the streets.
- ☐ ☐ The minimum easement width for water mains shall be per Figure 4 and Figure 6 for sewer mains, in the city of Phoenix Design Standards Manual for Water and Wastewater Systems.
- ☐ ☐ Existing and proposed paving shall be shown. Shading is not allowed. Cross-hatching is acceptable.
- ☐ ☐ Locate all existing and proposed utilities, structures, paving, and other topographic features affected by construction.
- ☐ ☐ Show all existing and proposed utilities with size, material, and location in right-of-way and easements. Dimensions and/or stationing shall be from monument line and shown in plan and profile (when profile is necessary).
- ☐ ☐ Show all onsite pipe sizes and lengths for both water and sewer in plan view.
- ☐ ☐ Show all utilities in plan and profile. Where city utilities cross other utilities, show complete dimensional data measured from street monument lines.
- ☐ ☐ Proposed water and sewer are to be installed per the city of Phoenix "Standard Utility Locations." Pavement cuts will not be a valid reason for not using the "Standard Utility Locations."
- ☐ ☐ Show the total lineal feet of pipe between manholes, from center of manhole to center of manhole, with the calculated slope. All pipe dimensions rounded to nearest foot.
- ☐ ☐ New manholes built on existing lines require showing its station from the nearest existing downstream manhole and its distance to the nearest upstream manhole. Note the city of Phoenix manhole number with verified inverts, rim and slope.
- ☐ ☐ 5' manholes are required on sewer mains with pipe 15" and larger and on sewer mains 12' in depth or greater.
- ☐ ☐ Rim and invert elevations shall be shown for all manholes.
- ☐ ☐ Proposed finished grades at centerline of sewer shall be shown in profile with a solid line. Existing grades of ground surface at centerline of sewer shall be shown with a dashed line.
- ☐ ☐ All new manholes shall have stationing OTOO AHD (ahead) and station the length of pipe to the downstream manhole ad OTOO BK (back).

**ENG RVW**

- ☐ ☐ Review all slopes; must meet minimum design requirements per Figure 20 Design Slopes in the City of Phoenix Design Standards Manual for Water and Wastewater Systems.
  - ☐ ☐ Each lot in subdivision shall be served by separate water and sewer taps. Sewer taps shall be stationed from nearest downstream manhole. Sewer taps that are located in manholes shall be shown in the manhole and dimensioned to the applicable property line.
  - ☐ ☐ Water services may be stationed from street intersection monuments, except on curved streets and in cul-de-sacs where the tap will be angled. Then the tap must be stationed on the main and dimensioned to the applicable property line. Intended use of the service shall be noted, i.e., domestic, irrigation, etc.
  - ☐ ☐ Provide top and bottom elevations for any water and sewer lines crossing wet utilities (water, sewer, storm drain, irrigation, etc.) in city of Phoenix R.O.W. Separation is to be maintained per M.A.G. Standard Detail 404.
  - ☐ ☐ 3'0" minimum horizontal clearance shall be maintained between sewer services. 3'0" minimum horizontal clearance shall be maintained between water services.
  - ☐ ☐ 6'0" minimum horizontal clearance shall be maintained between water and sewer lines, water and sewer services, and between sewer mains and all other utility lines, measured from outside of pipe to outside of pipe.
  - ☐ ☐ Sewer taps, water meter boxes, or any portion of a water service, shall not be installed under existing or proposed sidewalk ramps or driveways.
  - ☐ ☐ Label all connections to existing sewer lines with method of connection specified.
  - ☐ ☐ Indicate the locations of the beginning(s) and the end(s) of the construction, and all valves, fire hydrants, pipe fittings, and service connections. Their locations must be shown by stationing and dimensioning from appropriate monument lines, or in their absence, appropriate easement references. No dimensioning from points of curvature or tangency is acceptable. The drawings must clearly indicate the specific points of reference.
- NOTE:** In all cases where the pipe is constructed within or parallel, in close proximity, with the right-of-way, all stationing and dimensioning must be from the nearest appropriate monument line and monument line intersection.
- ☐ ☐ The water services stationing shown must specify the location of the taps at the main and their intended use called out, i.e., domestic or irrigation. Their locations must be measured perpendicular or radial relative to the appropriate right-of-way monument line or easement centerline. Service tap locations must be indicated by using the following method throughout the plan set. All stationing rounded to nearest foot. No negative stationing allowed.
- NOTE:** Stationing in the same general direction along a straight or curvilinear pipe run starting with the nearest appropriate monument line intersection, or in their absence, appropriate easement line references shall be designated as 0 + 00. The relative stationing of all monument line intersections along such pipe runs must also be shown. When monument line intersection occurs along such pipe runs, the plans preparer begins the stationing again with station 0 + 00 at the intersection and repeats this process to the end of the pipe run. Do not locate 0 + 00 at the closed end of a cul-de-sac or similar type street.
- ☐ ☐ Joint restraint limits per M.A.G. Standard Detail 303-1 and 303-2 must be shown on all water main construction plans which require a profile in addition to plan view.
  - ☐ ☐ All fittings shall be identified and stationed.
  - ☐ ☐ All water lines to end with (size of pipe)" x 2" tapped cap and 2" I.P. Corp.



**ENG RVW**

- ☐ ☐ Meter service connections shall be shown to each lot or parcel. Services may be stationed from street intersection monuments, except on curved streets and in cul-de-sacs where the tap will be angled, therefore, the tap must be stationed on the main and dimensioned to the applicable property line. Intended use of the service shall be noted, i.e., domestic, irrigation, etc.
- ☐ ☐ Meter box locations must be out of traveled roadway/walk/driveway. They may be located in planter areas, parking lot islands, etc., and should be set sufficiently above finished grade to minimize flooding. Meter locations shall be easily accessible from a street or traveled way and must be located in right-of-way or easements.
- ☐ ☐ Show existing and proposed utility crossings in profile (if used) and include encasements if any. Show complete dimensional data measured from street monument lines. Label the type of both proposed and existing, (i.e., A.C.P., D.I.P. cl.50, etc.) pipe.
- ☐ ☐ A profile is required for 12" lines in major streets and for all size of lines in special situations where conflicts arise with other utilities. In profile, vertical scale shall be 1" = 2' or 1" = 4'. Horizontal scale shall not be smaller than 1" = 40'. For major streets and cases of unusual topography or complex situations where more detail is necessary, then the scale shall be 1" = 20'.
- ☐ ☐ On combo water/sewer plans, as well as water plans, where only a plan view is required, a construction note callout must be shown at all tees, bends, dead ends, line valves, and fittings that reads: "Joints must be restrained per M.A.G. Standard Details 303-1 and 303-2 and city of Phoenix Supplement to M.A.G. Specifications, section 750.3."
- ☐ ☐ Existing valves to be shut down during construction shall be shown with city valve numbers as shown on the city of Phoenix Quarter Section map. One existing valve shall be shown and labeled, with the city valve number, on each side of a new tap in case an emergency shutdown is required.
- ☐ ☐ All existing valves shown on the plan shall be labeled with city valve numbers as shown on the city of Phoenix Quarter Section map.
- ☐ ☐ Location of fire hydrants and valves at intersections shall be referenced from the intersection monument line.
- ☐ ☐ Valves shall be located at point of curvature of the curb return at intersections and at property lines in mid-block.
- ☐ ☐ Fire hydrant design shall be per the city of Phoenix Water Services Department Design Standards Manual for Water and Wastewater Systems, section 4.8.
- ☐ ☐ Fire hydrants shall be located in accordance with city of Phoenix Supplement to M.A.G. Detail P1362.
- ☐ ☐ Mid-block fire hydrants shall be located on the lot line between two lots, but 4' out of D/W wings.
- ☐ ☐ Encasement of water and sewer lines shall be per M.A.G. Standard Detail 404. Show in plan and profile. Double protection is required when sewer crosses over water.
- ☐ ☐ For water line to be relocated because of sewer conflicts, show all valves involved in shutdown, with city Quarter Section Valve Numbers as labeled. Plan may be required for such relocation.
- ☐ ☐ Pavement replacement thickness and type are to be per M.A.G. Section 336 and C.O.P. Detail P1200 - Type B. Curb and gutter replacement shall be a minimum of one (1) full section, per M.A.G. Standard Detail 220. Sidewalk replacement shall be a minimum of one (1) full panel per C.O.P. Detail P1230. At the discretion of the city of Phoenix Planning & Development offsite inspector, tunneling under existing curb and gutter, in city of Phoenix R.O.W., will be allowed. Tunneling under existing sidewalk will not be allowed in the city of Phoenix R.O.W.

**ENG RVW**

- ☐ ☐ When replacing curb, gutter, and sidewalk, show, and label, existing and proposed concrete. Construct sidewalk ramps to accommodate access per ADA requirements. One half (1/2) sack slurry backfill is highly recommended. Tunneling under curb and gutter should not be shown on plans. Plans should indicate removal and replacement of the curb when crossing under the curb. The field inspector will determine if tunneling is acceptable based on the condition of the curb. Tunneling under sidewalks is not acceptable.
- ☐ ☐ Discussion of redline comments on plans or in this checklist should be directed to the plan reviewer.

**PLANS FOR REVISION**

- ☐ ☐ All plans revised after the original approval shall be resubmitted for review and approval. The nature of the revisions must be called out on the cover sheet and on the sheet(s) which have been revised. The revision number itself shall consist of a numeral within a triangle. Δ Changes on each plan sheet shall be highlighted with "clouding" drawn on the reverse side of originals.
- ☐ ☐ Resealed, signed and dated. If the plan is by a new professional engineer, the plan must be resealed and signed.
- ☐ ☐ A new signature approval block, with a delta to the left and numbered accordingly, is required.
- ☐ ☐ Signature Approval Block for revised plans:

**APPROVED FOR:  
THE CITY OF PHOENIX**

\_\_\_\_\_  
**County Health Delegate  
Planning & Development Department**

\_\_\_\_\_  
**Date**

**EXTENSIONS**

- ☐ ☐ All plans submitted for extension require a new signature block and are to be re-signed by the submitting designer. Plan extensions are to be highlighted with "clouding" as specified in the plan revision process above. The plan sealant shall note that this change is a plan extension. A new approval signature block is required to be added to the coversheet for approval of the extension. All plan extensions must have prior approval by completing the Plan Review Extension Application. The Plan Review Extension Application can be found at the following site:  
[https://www.phoenix.gov/content/dam/phoenix/pddsite/documents/trt/external/dsd\\_trt\\_pdf\\_00304.pdf](https://www.phoenix.gov/content/dam/phoenix/pddsite/documents/trt/external/dsd_trt_pdf_00304.pdf)  
  
Provide a copy of the approved application with the plan submittal.
- ☐ ☐ Plan approvals for extension are valid for a period of 180 days from the date of plan approval.