

This packet contains the following forms/documents:

- 1. Sewer Agreement Packet Cover Page TRT 00807
- 2. Sewer Main, Plan Checklist TRT 00085
- 3. Water and Sewer Repayment Agreement TRT 00803
- 4. Water and Sewer Repayment Agreement Guidelines TRT 00803G
- 5. Water / Wastewater Main Extension Application TRT 00806
- 6. Professional Engineer's Cost Estimate Water and Sewer Main 00808
- 7. Sewer Design Report Guidelines TRT 00804
- Application to Construct Water Distribution and Sewage Collection Systems TRT 00206
- 9. Approval to Construct, Water/Sewage Packet TRT 00201
 - a. Water / Sewage Approval to Construct TRT 00977
 - b. Water / Sewage Interim Approval of Construction TRT 00978
 - c. Water / Sewage Approval of Construction TRT 00979
- 10. Environmental Responsibility & Certification for Projects Constructed by Private Developers TRT 00412
- 11. Public Utility Easement Adjustment, Approval Request TRT 00273
- 12. Construction Staking, Requirements TRT 00919

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COP Project (KIVA) 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 sewer mains and to set the minimum submittal requirements for sewer plans. Source of sewer development code and design policy is the Water Services Department Design Standards Manual for Water and Wastewater Systems.

This checklist serves to minimize redline comments on the check prints and to maintain consistency among plan reviewers on plans for public sewer main construction in the public right-of-way and public 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 sewer 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 SIGNATI	JRE: DATE:	
Please complete and return this checklist a comments on plans or this checklist should		

Professional engineer of record (ENG) must fill out all boxes	in the first column as either \checkmark (Addressed) or
N/A (Not Applicable).	
Civil plan reviewer (RVW) shall check the <u>second</u> column as been properly addressed.	X (Required) when requirements have not

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For more information or for a copy of this publication in an alternate format, contact Planning & Development at (602) 262-7811 voice / (602) 534-5500 TTY.

REQUIRED SUBMITTALS

□ Plan sheets shall be 24" X 36"; submit four (4) sets of Sewer main 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 Conflict Notices form the appropriate utility companies **OR** a printed disclaimer on the cover sheet (if work is on a local or residential street), a signed agreement form indicating 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 completed Notice of Intent form, a completed Approval to Construct form, a completed Environmental Responsibility form, and a completed and signed Sewer Main Checklist.

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

GENERAL REQUIREMENTS:

- 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 and scale of drawing (North arrow is to be up or to the right).
- A cover sheet is required on plans of two (2) sheets or more.
- Each sheet shall be identified by sheet number, project name, and match lines.
- All sheets shall have the Civil Professional engineer's Arizona registration seal with original signature and date prior to plan submittal.
- All plan sheets shall be sufficiently clear to allow legible prints to be reproduced from microfilm. The size of lettering and symbols shall be 1/8-inch minimum. Shading or zip tape is not permitted. Refer to Water Services Department Design Standards Manual (P-69) for information required on record drawings ("As-Builts").
- □ 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.
- This project is subject to a sewer line repayment as redlined on the plans. Any questions shall be directed to the Civil Services Permit Counter, 602-262-6551 (Voice) or (602) 534-5500 (TTY). These fees shall be paid prior to the issuance of construction permits.

COVER SHEET REQUIREMENTS:

- Provide the appropriate processing numbers including: KIVA#, CPSE#, and city Quarter Section Number in lower right corner.
- Provide a project title block with name and address of project.
- Provide a project description.
- Provide the Owner and Developer's name, address, and telephone number. Owner must be listed on the Arizona Corporation Commission website if they are a corporation.
- Provide Professional engineer's name, address, and telephone number.
- A vicinity map, properly oriented with north up or to the right, is required.

ENG	RV	V
		Provide Signature Approval Block. (In lower right-hand corner)
		APPROVED FOR: THE CITY OF PHOENIX
		HEALTH DELEGATE DATE PLANNING & DEVELOPMENT DEPARTMENT
		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
		 A key map 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 "unsubdivided." Sewer mains with types & sizes, manholes, cleanouts, and any associated facilities. Direction of flow must be indicated. Manholes and cleanout must be numbered consecutively (cleanouts are only allowed for a temporary condition when the next phase of a project extends the sewer and the cleanout is removed). Index of plan sheets indicated by single line with arrows showing beginning and end of each sheet.
		Provide a Blue Stake notification decal.
		For major or collector streets provide utility conflict transmittal letter, along with all responses from companies. The following disclaimer can only be used for local or residential streets. Do not use for major or collector streets:
		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
		Elevation datum and bench marks (city datum required). Please dial (602) 495-2050, ext. 265 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).
		Provide a material list for Right-Of-Way or easement work only.

NOTES FOR SEWER PLANS:

ENG	<i>I</i> Planning & Development Department's Civil/Site Inspection Staff shall be notified 48 hours before any construction begins, telephone (602) 262-7811.
	Any sewer main 15 inch in size or 12 feet 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.
	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.
	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 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).
	Traffic Regulations: All work must comply with requirements of the current city of Phoenix "Traffic Barricade Manual".
	The following M.A.G. Details are specifically not approved: 425 24" Aluminum Frame and Cover.
	New manholes are to be built without steps.
	Compaction shall comply with M.A.G. section 601 & city of Phoenix supplements.
	New sewer lines are to be built in accordance with city of Phoenix "Standard Utility Locations".
	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.

ENG	RVV	V
		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.
		Any and all more stringent separation requirements required by Federal, State, County, or local codes or ordinances take precedence.
		Any sewer lines that are installed with less than .004 ft/ft slope must be installed using a laser.
		When DIP sewer pipe is used, lining is required per city of Phoenix Supplement to M.A.G. Sec. 750.1.
		Concrete or asphalt damaged during the course of construction shall be removed and replaced in kind prior to final inspection.
		Record drawing submittals must comply with Water Services Department Engineering Policy P-69. A copy of the policy can be obtained in the department's website: http://phoenix.gov/waterservices/design/engpolicies/index.html .
		Asphalt restoration is required for any street cut. 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.
		Place the following note on each sheet of the plans: Per Phoenix 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.
		OPTIONAL NOTES FOR 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 Department Policy P-1, Sewer Ordinance G-2358, section D. For information, call 262-6551.
		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.
		<u>PLAN AND PROFILE SHEETS:</u> The plan and profile sheets shall show the following to proper scale:
		Title block shall be on all sheets.
		All sheets shall be numbered with match lines (if required).

ENG	RVV	
		Orientation of each sewer line shall be shown by a north arrow and scale of drawing. (North arrow is to be up or to the right.)
		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.
		All new manholes shall have stationing 0+00 AHD (ahead) and station the length of pipe to the downstream manhole as STA X+XX BK (back). Provide ties to monument lines at manholes. Accumulative station is not allowed. All stationing shall be rounded to nearest foot.
		All existing and proposed utilities shall be shown with size, material, and location in right-of-way in plan and profile.
		Rim and flow line elevations shall be shown for all manholes and cleanouts.
		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.
		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 <u>not</u> be allowed in the city of Phoenix R.O.W.
		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.
		Existing and proposed paving shall be shown. Shading is not allowed. Cross-hatching is acceptable.
		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.
		Proposed sewer mains 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."
		The minimum easement width for sewer mains shall be per Table 3.2 in the city of Phoenix Design Standards Manual for Water and Wastewater Systems.
		Each lot in subdivision shall be served by a separate tap, with stationing from nearest downstream manhole.
		Show encasements of water and sewer lines per M.A.G. Standard Detail 404 in plan and profile. Double protection is required when sewer crosses over water. Where both water and sewer are new, both materials shall be Ductile Iron Pipe (DIP).

ENG	v Show total lineal feet of pipe between manholes (calculated from center of manhole to center of manhole) with calculated slope. All pipe dimensions rounded to nearest ft.
	Review all slopes; must meet minimum design requirements per Table 5.1 Design Velocity in the City of Phoenix Design Standards Manual for Water and Wastewater Systems.
	Show all utilities in plan and profile. Where city utilities cross other utilities, show complete dimensional data measured from street monument lines.
	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.
	Locate all existing and proposed utilities, structures, paving, and other topographic features affected by construction.
	Label all connections to existing sewer lines with method of connection specified.
	Existing and proposed water main size and location must be shown. Water main shall be shown in a "lighter weight" line to identify it as being information only and not part of this construction plan. Label as existing or proposed.
	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 $1" = 20'$.
	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.
	Sewer taps are not to be under sidewalk ramps and driveways, if possible.
	5' manhole required over 15" and larger sewer lines and on sewer mains 12' in depth or greater. (Special notes on cover.)
	Discussion of redline comments on plans or in this checklist should be directed to the plan reviewer.
	Sewer Design Report:
	Provide the average and peak design flow rates for the sewage collection system. The basis of the projection of initial and future flows shall be included and must be based upon the initial service area and the ultimate upstream service area that can be served by gravity even if it is outside a development's project area.
	Provide the basis of design for the sewage collection system including pipe sizes and slopes. Include the sizing calculations and calculations showing that there is sufficient hydraulic capacity to transport the design flows at the proposed sizes and slopes.
	PLANS FOR REVISION
	All original plan approvals, signatures, and seals are to remain on the revised plans.
	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 next to each revision. Δ Changes on each plan sheet shall be highlighted with "clouding".

All revised sheets, including the cover sheet are to be re-sealed, signed and dated.

New approval signature block is required to be added to the cover sheet for approval of the revisions.

APPROVED FOR: THE CITY OF PHOENIX

HEALTH DELEGATE PLANNING & DEVELOPMENT DEPARTMENT

DATE

ENG RVW

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: <u>http://phoenix.gov/pdd/development/sitecivil/civil/index.html</u>. Provide a copy of the approved application with the plan submittal.
- Plan approvals for extension are valid for a period of 12 months from the date of plan approval.



ATTACHMENT A

Date:	
Developer:	
Professional Engineer:	
Project Name:	
KIVA #:	

Subject: Repayment Agreements (Sections 28-23 and 37-35 through 37-38 Phoenix City Code).

This project has been designed with an approach on water or wastewater main and may be eligible for a repayment agreement. An approach main is defined as a main extended beyond the limits of the project or a main constructed along the total frontage or boundary of the development.

In order to be eligible for a repayment agreement, an established procedure must be followed. This procedure is explained in Water Services Department Policy P-77. To allow for orderly and timely processing, the developer is encouraged to become familiar with and use this procedure.

Please indicate your agreement preference below:

_____ Repayment Agreement

_____ Standard Agreement

DEVELOPER'S SIGNATURE: _____

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Purpose

To provide the City of Phoenix Water Services Department (WSD) and Development Services Department (DSD) procedures for water and sewer repayment agreements.

Background

The water main repayment policy of the City for developer constructed water main extensions is described in Sections 37-35, 37-36, 37-37, and 37-38 of the Phoenix City Code. The sewer main repayment policy of the City for developer constructed sewer main extensions is described in Section 28-23 of the Phoenix City Code.

Procedures

1. Repayment Agreements for water and sewer mains 12-inches in diameter and below will be initially processed by the Development Services Department (DSD), Water Services Counter, 200 W. Washington St., 2nd Floor, Phoenix, AZ, 85003, phone 602-262-6551.

Repayment Agreements for water and sewer mains larger than 12-inches in diameter, for wastewater lift stations, and for all mains located outside Phoenix City limits will be initially processed by the Water Services Department (WSD), Technical Support Counter, 200 W. Washington St., 8th Floor, Phoenix, AZ, 85003, phone 602-495-5601.

- 2. If a developer will be constructing an approach main, the City's DSD or WSD plan reviewer, during initial plan review, will provide a copy to the developer's engineer of this procedure and a form (Attachment A) for the developer to fill out indicating preference for a repayment agreement or a standard agreement.
- 3. Repayment agreements must be requested in writing from the developer. The developer will fill out a form indicating preference for either a standard agreement or repayment agreement for the approach main, sign the form, and submit to their plan reviewer prior to plan approval.
- 4. WSD will make the final determination of whether the approach main is eligible for a repayment agreement. The costs of water and/or sewer mains within the boundary of the development are not eligible for repayment.
- 5. The developer's engineer shall submit the following documents for the approach main that is subject to repayment agreement. Repayment agreements will not be processed prior to the submission of all of these documents.
 - a. Engineering plans and specifications
 - b. An exhibit for the agreement showing the proposed repayment area or frontage. Exhibit C-1 shall be used for water repayment agreements and shall show the water repayment area on a front footage basis. Exhibit C-2 shall be used for sewer repayment agreements and shall show the sewer repayment area using local drainage conditions on an acreage basis. Instructions on preparing the exhibits and sample exhibits are included in Attachment B.

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- c. Water and/or Wastewater design report in accordance with the WSD Design Standards Manual Section 5.2.2. The wastewater design report will provide the justification and the criteria for the benefited drainage area.
- d. A bid form (Attachment C) showing the repayment items and quantities.
- 6. As per Section 28-23 of the Phoenix City Code, if a developer will also be receiving impact fee credits for the approach main (typically for sewer mains greater than 18-inches in diameter that are part of the City's Impact Fee Infrastructure Finance Plan), then the credits for impact fees will be allocated based on the proportional allocation of costs as specified in the repayment agreement. The developer may reduce the repayment amount in order to receive a larger allocation of the impact fee credits. The developer must request this in writing to WSD and provide the repayment reduction amount prior to the preparation of the agreement.
- 7. After City approval of 5a-d above, the developer shall submit a minimum of three (3) sealed bids for the construction of the approach main to DSD Water Services Counter (mains 12-inches in diameter and less) or WSD (mains greater than 12-inches in diameter, lift stations, or all mains outside City limits). Unit pricing shall be shown on all bids. These bids will be opened by the City on a predetermined date agreeable to the developer and the City. The developer or a representative must be present for the bid opening. The developer shall contact the City at least one week prior to schedule the desired bid opening date. The City reserves the right to reject any or all bids. The developer shall choose one of the contractors whose bid is opened to perform the work.
- 8. Per City Code Section 37-37 and Section 28-23, engineering costs for the repayment approach main can be added to the total project cost. Engineering costs shall not exceed 10 percent of the low bid cost. The developer shall submit documentation of engineering costs to the City on the Engineer's letterhead with signed and dated seal.
- 9. The City department that is initially processing the repayment agreement will prepare the bid tabulation and calculate the total project cost, the developer's share of the cost, the repayment amount, and the connection charge for future connections.
- 10. After the low bid has been established and the connection charge determined, the City will prepare a water and/or wastewater repayment agreement. The developer shall sign and notarize the agreements and return all four copies to the City department that is initially processing the repayment agreement.
- 11. The developer shall provide a copy of the signed contract with the contractor that will be constructing the approach main to the City department that is initially processing the repayment agreement. The contract shall show the contract amount for the repayment approach main. The date the repayment period begins is the date the developer signs the repayment agreement.
- 12. DSD Water Services Counter will issue permits for the approach main upon receipt of the signed repayment agreements, construction contract, payment or posting of appropriate bonds, a Grading and Drainage permit, resolution of holds, and contractor license and insurance information. The developer will be required to pay an administrative fee for each repayment agreement at the time of permit issuance. Permits for projects eligible for repayment will not be issued prior to bid openings and acceptance of agreement.

- 13. The City department that is initially processing the repayment agreement will return one copy of the executed agreement to the developer.
- 14. Upon construction completion and acceptance, the approach main or facility will become property of the City. The City will have exclusive control of connections to the proposed approach main.
- 15. DSD Water Services Counter will collect a connection charge from anyone who subsequently connects into and obtain service from the approach main and is located in the benefited area shown on Exhibit C-1 or C-2.
 - a. A direct connection to a water approach main will be charged on a cost per front footage basis. This connection charge is determined by the cost per front foot as written in the agreement.
 - b. A connection to a sewer approach main or lift station will be charged on a cost per acre basis. This connection charge is determined by the costs per acre as written in the agreement and the total acreage of the new development
- 16. The City will repay the connection charge to the original developer. For sewer repayment agreements, the City will deduct a portion of each connection charge as an administrative fee. The total amount of repayments shall not exceed the total cost eligible for repayment per the agreement. The entire repayment contract will terminate in ten (10) years, or 20 years for Class 2 wastewater projects¹, or when the total repayment amount is repaid, whichever is sooner.

Carlos Padilla, P.E. Assistant Director for Water Services Department

 Class 2 wastewater projects are regional projects involving construction costs in excess of \$3 million, that are located in targeted growth areas, and that involve large regional facilities such as lines of 18" in diameter or greater, or lift stations with 5 MGD or greater capacities. This new class of repayment agreement will have a 20 year time span, instead of the usual 10 year time span.

ATTACHMENT A

Date:	_
Developer:	
Engineer:	
Project Name:	
KIVA #:	

Subject: Repayment Agreements (Sections 28-23 and 37-35 through 37-38 Phoenix City Code).

This project has been designed with an approach on water or wastewater main and may be eligible for a repayment agreement. An approach main is defined as a main extended beyond the limits of the project or a main constructed along the total frontage or boundary of the development.

In order to be eligible for a repayment agreement, an established procedure must be followed. This procedure is explained in Water Services Department Policy P-77. To allow for orderly and timely processing, the developer is encouraged to become familiar with and use this procedure.

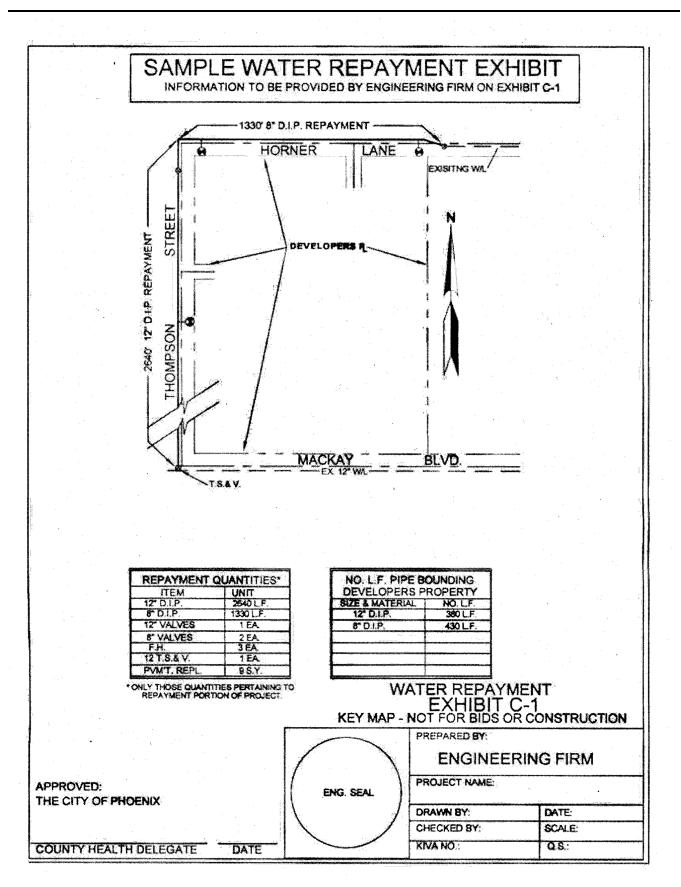
Please indicate your agreement preference below:

_____ Repayment Agreement

_____ Standard Agreement

DEVELOPER'S SIGNATURE: _____

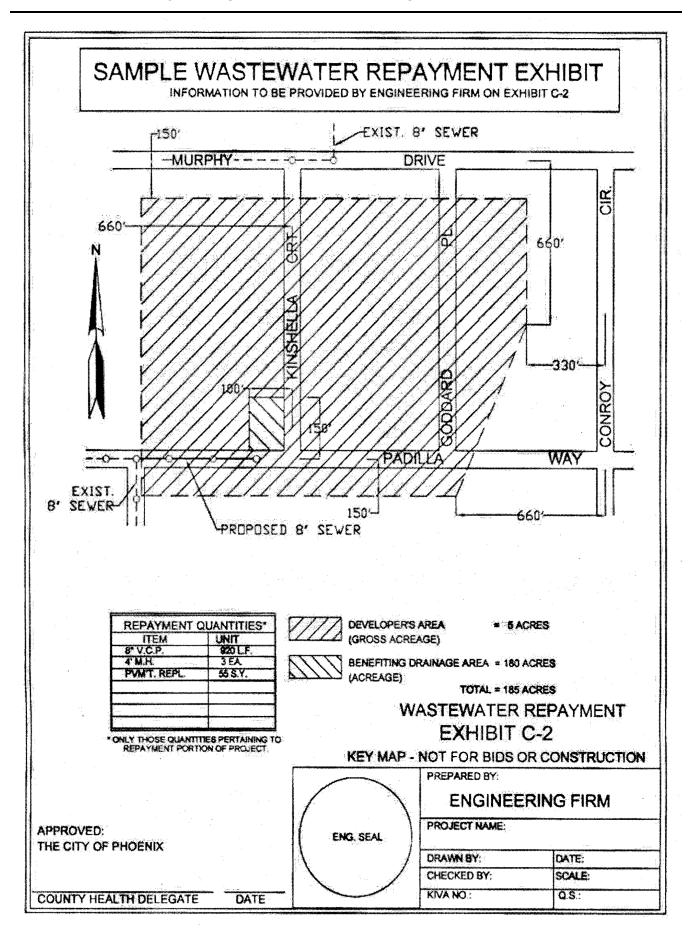
City of Phoenix Planning & Development Department Water and Sewer Repayment Agreement Guidelines – Page 5 of 8



ATTACHMENT B

INSTRUCTIONS FOR SEWER REPAYMENT AGREEMENT EXHIBIT C-2

- 1. The developer's consulting engineer shall prepare Exhibit C-2 to the repayment agreement and submit to the City for review and approval.
- 2. The following information shall be shown and labeled on the drawing in Exhibit C-2:
 - a. Sewer pipe, lift station, and appurtenances which are eligible for repayment. Show with dark or thick line. Do not show mains located inside the developer's area.
 - b. Existing sewer mains to which the approach main will connect. Show with lighter dashed line. Also include City manhole number, if connecting to existing manhole.
 - c. Developer's gross area. This should be shaded using cross hatching.
 - d. Benefited area. This should be shaded using cross hatching in the opposite direction as the cross hatching for the developer's area. This area should correspond to the area shown in the engineer's design report.
 - e. Streets in which repayment pipe is located, streets which bound the developer's area and benefiting area, and all major streets.
 - f. Dimensions of each side of the developer's area and the benefiting area.
 - g. Offset distances from the center lines of nearest rights-of-way to the boundaries of the developer's area and benefiting area.
- 3. The following quantities shall be provided on Exhibit C-2, which reflects only those items eligible for repayment:
 - a. Benefiting area in gross acres.
 - b. Developer's area in gross acres.
 - c. Total area in gross acres.
 - d. Lineal feet of pipe and number of manholes. Include pipe size and material.
 - e. Pavement replaced (S.Y.) and type per M.A.G. and City standards.
- 4. Engineer shall add the engineering firm name, the project name, the developer's name, the project (KIVA) number, the drawing scale, and the quarter section number. Engineer shall seal, date, and sign the exhibit.
- 5. City's plan reviewer will review exhibit and attain signature from a County Health Delegate for approval. The City will not approve the exhibit until the approach main plans are approved.



ATTACHMENT C

The items listed below are the only items eligible for repayment purposes.

QUANTITY	UNIT	ITEM	UNIT PRICE	TOTAL
				· · · · · · · · · · · · · · · · · · ·

TOTAL_____

By signing this bid, I hereby state the above noted charges will be applied if our firm is awarded this job

	Print Name	
	Signature of Authorized Agent	Date
Phone:		
	i de la companya de l	
Address:		
FIRM SUBMITTING BID:		•



APPLICATION FOR WATER AND/OR WASTEWATER MAIN EXTENSION

Date:		_		
Project Name:				
Name of Develope (Individual/Cor	er: rporation as it will appear	on Service Agree	ment and on approved construction plans)	
Contact Person:			Phone:	
Address of Develo	oper:			
			Phone:	
Engineering Firm:				
			Phone:	
	REQUEST FO	R SERVICE (C	Check one below)	
<u>WATER</u>		<u>SE</u>	WER	
One per Unit /	Lot	🗌 On	e per Unit / Lot	
🗌 One per Buildir	ng	One per Building		
One Master Me	eter	Common Connection(s) For Project		
Fireline		🗌 Oth	ner (Explain):	
Other (Explain))	Oth	ner (Explain:	
	TYPE OF AGRE	E MENT (Signat	ture Form Attached)	
Standard	Repayment	Tie-In	Fee Required: 🗌 Yes 🗌 No	
	FOF	R STAFF USE	ONLY	
Project Engineer:				
Comments:				
			Page 1 of 1	

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Project Name:	Phase	Date	
KIVA Number:	CPR	SDEV	
ACP:	WATER RELATED COSTS:		
12" @ \$90.00/LF 10" @ \$71.00/LF		_4" @ 38.00/LF	
TS&V: 12X12 @ \$6952.00 12X10 @ \$6180.00 12X8 @ \$5407.00 12X6 @ \$4949.00 12X4 @ \$4635.00 DUCTILE IRON PIPE: 12" @ \$90.00/LF 10" @ \$71.00/LF LINE VALVE: 12" @ \$2703.00/EA 10" @ \$2027/EA SERVICES: 6" @ \$5912.00/EA 4" @ \$4419.00/EA 3" @ \$2558.00/EA FIRE HYDRANT FIRELINES	10X10 @ \$4635.00 10X8 @ \$4429.00 10X6 @ \$4171.00 10X4 @ \$3862.00 8% @ \$4326.00 8% @ \$61.00/LF 8% @ \$61.00/LF	 8X6 @ \$3862.00 8X4 @ \$3553.00 6X6 @ \$3399.00 6X4 @ \$3399.00 4X4 @ \$3090.00 4" @ \$38.00/LF 4" @ \$922.00/EA 3/4" @ \$512.00/EA 	
MISC(DESCRIPTION)	@ (Qty) (unit cost) KY GROUND – DOUBLE PRIC		
	ndicular to CL \$50/SY Parallel to	o CL \$40/SY	
S	SEWER RELATED COSTS:		TOTAL
15" @ \$123.00/LF MANHOLE LINED MANHOLE SEWER CLEANOUT SEWER TAP MISC (DESCRIPTION) NOTE: UNDER 500' OR ROC UNDER 1000' – ADD	12" @ \$93.00/LF 10" @ \$77.00/LF @ \$5119.00/EA @ \$15000.00/EA @ \$1689.00/EA @ (Qty) (unit cost) CKY GROUND – DOUBLE PRIC \$4.00LF. endicular to CL \$50/SY Parallel to	_6" @ \$47.00/LF E	
Professional Engineer's Sea	<u>l</u> (required)		TOTAL

Page 1 of 1

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In accordance with Arizona Administrative Code Title 18 Chapter 9-E301, a new sewage collection system or an expansion to an existing sewage collection system requires a sewer design report. The report should describe the proposed construction and basis of design, provide design data and other pertinent information that defines the work to be done, and establish the adequacy of the design to meet the system demand.

In accordance with this state requirement, the city of Phoenix now requires a sewer design report be submitted for all proposed sewer systems within the city. The following is a general guideline for information to include in the report:

- Project Description. Describe the type of development including number of units. Provide a site map of the project showing major streets and physical features such as canals, floodplains, railroads, washes, etc. Describe the proposed collection system including lift stations and force mains. Describe the existing system adjacent to proposed development and specific locations where the proposed collection system will connect to the existing system. Show the service area that will be served by the proposed sewage collection system, including offsite areas. Show alignment of proposed off-site mains and on-site mains with diameter of 12 inches and greater.
- Design Flows. Provide the design average and design peak flows for the sewage collection system. The basis of the projection of initial and future flows shall be included and must be based upon the initial service area and the ultimate upstream service area that can be served by gravity even if it is outside a development's project area. Flow projections shall be based on the land use plan data calculated using the per capita flows, persons/home densities, and peaking factors in this chapter.
- Basis of Design. Provide the basis of design for the sewage collection system, including pipe sizes and slopes. Include the sizing calculations and calculations showing that there is sufficient hydraulic capacity to transport the design flow at the proposed sizes and slopes.
- Conformance with Master Plans. The engineering report shall show that the proposed collection system conforms to the city's master plan for the area and the development's specific master plan.
- Environmental Issues. The report shall address potential compliance issues with Clean Water Act Section 404, cultural resources, or any other environmental requirements.

Page 1 of 1

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Application for Approval to Construct Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

Complete and submit this form to obtain authorization to construct a drinking water system under Arizona Administrative Code (AAC) R18-5-505, or to construct a waste water collection system under General Aquifer Protection Permit (APP) 4.01, AAC R18-9-E301. Instructions are on Page 3.

APPLICATIONS WILL NOT BE ACCEPTED UNLESS FULLY COMPLETED.

Any changes in the approved construction-ready plans that require additional plan review after issuance of the Approval to Construct and/or Notice of Intent to Discharge under APP General Permit 4.01 will require a reissuance of the Approval to Construct and/or Notice of Intent to Discharge under APP General Permit 4.01.

Project Name:	Project Location:
 COP Project (KIVA) No	Nearest intersection:
SDEV or CCPH No.	City Quarter Section Number(s)
Project Applicant: Name	Professional Engineer Information:
	Name
Firm:	Firm
Address	
	Address
Phone Email	
	Phone Email
City of Phoenix Water System. Proposed drinking wate City of Phoenix.	r distribution system will be owned and operated by the
City of Phoenix Sewage System. Proposed sewage co City of Phoenix.	
Project description including title of plat and legal description in	

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City of Phoenix Development Services Department

Application to Construct Water Distribution and Sewage Collection Systems - Page 2 of 3 TRT/DOC/00206

Quantities: Water Main	L.F L.F	_ Size in _ Size in _ Size in	1	Sewer Main	L.F L.F L.F L.F	Size	in
Taps	L.F Quantity	_ Size in 	1	Force mains Taps	L.F Quantity	Size	in
Schedule:							
	Date:			Estimated Con	pletion Date:_		
		bmittal requirer Il Permit 4.01 ai			struct and/or	Notice of In	tent to
provide wat construction the design Developme treatment p the existing	ter demands and n and basis of de of the water and ont Department (lants and collec water system w	Design Reports d wastewater flor esign; provide d l/or sewer syster PDD) will confirm tion system to re vill meet the dom sealed by an A	ws including esign data a m to meet sy m with Wate eceive the flo nestic and fir	the basis for th nd hydraulic cal ystem water den r Services Depa ows from the pro- re demands of th	e calculations; lculations; and nands and sew artment that the pposed sewage ne proposed po	describe the establish the ver flows. Pla ere is capacit e collection s	a proposed adequacy of anning and y in the existing ystem and/or
Complete professional		leady Design P	lans. Plans	shall be signed	and sealed by	an Arizona ı	registered
	-						
4.01 and all atta knowledge, true I certify that the the approved pl 9-E301); the ap	Application for achments were p accurate, and sewage collections and specific oplicable required	ion system desc cations; the term ments of Arizona	my direction ribed in this is and condi a Revised S	or authorization form will be des tions of General tatutes, Title 49,	and all inform signed and con Aquifer Protec Chapter 2; Ar	ation is, to th structed in a ction Permit 4 izona Admini	ccordance with 4.01 (AAC R18- strative Code,
		quifer Protection nit revocation as					
accordance with (AAC R18-5-50 Code Title 18, 0	h the approved µ 5) and requirem Chapter 5. I am a	listribution syste plans and specif tents of Arizona aware that there possibility of fir	ications; the Revised Sta are signific	terms and cond tutes Title 49, C ant penalties for	ditions of the D Chapter 2, and submitting fals	rinking Wate Arizona Adm se informatio	r Systems inistrative
Signature of Ap				- <u>D</u>	ate		
Printed Name c	n Applicant						

APPLICATION FOR APPROVAL TO CONSTRUCT AND/OR NOTICE OF INTENT TO DISCHARGE UNDER APP GENERAL PERMIT 4.01

Instructions for Completing Form

Project Name: The Project Name should match the name as specified on the related plans and the recorded subdivision plat.

COP Project No.: Provide the "KIVA" number that was provided by Development Services Department.

Project Location: Indicate the nearest major intersections

Project Applicant: The person named on the form must be the **owner of the project or a person with fiduciary responsibility with an established legal entity** (e.g. corporation, LLC, partnership). Only the owner or a person with fiduciary responsibility for the entity can be issued a permit or can be inclusively viewed as responsible for compliance.

Professional Engineer Information: Name of Engineer must be an Arizona Registered Professional Engineer (in active status) with an Arizona Registered Engineering Firm.

City of Phoenix Water System. Check this box if proposed drinking water distribution system will be dedicated to the City of Phoenix to own and operate.

City of Phoenix Sewer System. Check this box if proposed sewage collection system will be dedicated to the City of Phoenix to own and operate.

Project Description: Clearly state the scope of the project indicating if it is on-site or off-site infrastructure and how the project relates to the subdivision plat. This field will be used to match the permits issued with the approved plat when an Approval of Sanitary Facilities for Subdivision is requested from the Arizona Department of Environmental Quality for the Arizona Department of Real Estate, Subdivision Public Report.

Quantities: Estimate the lengths of water and sewer main to be constructed

Schedule: Entries for estimated start date and estimated completion date are restricted by State code. For water systems: begin construction within one year of this document and complete construction within three years after the date construction begins, or this document shall be void unless a time extension is requested and approved in writing. For sewer systems: complete construction within two years after the date construction begins, or this document shall be void and a new Notice of Intent to Discharge must be submitted for review and approval.

Required Attachments: Instructions are provided in that section of form.

Certification of Compliance: This certification must be signed by the project owner. The person named on the form must be the **owner of the project or a person with fiduciary responsibility with an established legal entity** (e.g. corporation, LLC, partnership). This person's name will be on the approval certificate (or issued the permit).



Approval to Construct and/or Construction Authorization

For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

Project Name:	Project Owner: Name
COP Project No.	Firm
SDEV or CCPH No.	Address
CPSE/CPWT No	Professional Engineer:
P&D Permit No	Name
P&D Permit No	Firm
P&D Permit No	Address
P&D Permit No.	
City of Phoenix Water System. Proposed drink City of Phoenix.	ing water distribution system will be owned and operated by the
	age collection system will be owned and operated by the
Project Description including title of plat, legal des	scription with section, township and range, and latitude and
longitude:	
 Checklist for Approval to Construct and/or Construct Application for Approval to Construct and/or Notic Professional Engineer's Design Report Submittee P&D has confirmed with WSD that there is capace flows from the proposed sewage collection system 	ce of Intent to Discharge submitted and complete. I. ity in existing treatment plants and collection system to receive m
Approved design plans and enseifingtions, signed	WSD Representative Date I and sealed by an Arizona registered professional engineer.
Approved design plans and specifications, signed Other	and sealed by an Anzona registered professional engineer.
Title 18, Chapter 5 (Reviews and Certifications); Title is authorized to construct the above-described facilitie requirements of the 4.01 General Permit and the appli Article 3. For water systems: begin construction within years after the date construction begins, or this documents of the systems.	rization is in accordance with Arizona Administrative Code (AAC), 18, Chapter 9, Article 3 (Aquifer Protection Permits). The applicant s in accordance with the approved plans and specifications, the icable requirements AAC, Title 18, Chapter 5; Title 18, Chapter 9, n one year of this document and complete construction within three nent shall be void unless a time extension is requested and istruction within two years after the date construction begins, or this Discharge must be submitted for review and approval.
City of Phoenix Health Delegate Signature	
Date letter created	Date signed
Sewer main plans and/or water main plans approved	by Water Service Department as shown by asterisks (**)

Page 1 of 1

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Interim Approval of Construction and/or Interim Discharge Authorization

For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

Project Name:	Project Owner:
	Name
	Firm
COP Project No	Address
SDEV or CCPH No	
CPSE/CPWT No.	Professional Engineer:
P&D Permit No	Name
P&D Permit No	Firm
P&D Permit No	Address
P&D Permit No.	
City of Phoenix Water System. Proposed drin City of Phoenix.	king water distribution system will be owned and operated by the
	vage collection system will be owned and operated by the
City of Phoenix. Project Description including title of plat legal de	escription with section, township and range, and latitude and
longitude:	
Checklist for Interim Approval of Construction ar	nd/or Discharge Authorization
Professional Engineer's Certificate of Completio	
As-Built Plans Submitted, Approved, and Mappe All testing satisfactorily completed, and reports	ed submitted
☐ Other	
This Interim Approval of Construction and/or Dischar	rge Authorization is issued in accordance with City of Phoenix State Delegate, Interim acceptance of public water & sewer mains).
City of Phoenix Health Delegate Signature	Date
	by Water Services Department as shown by asterisks (**)

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Approval of Construction and/or Discharge Authorization

For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

Project Name:	Project Owner:
	Name
	Firm
COP Project No	Address
SDEV or CCPH No	
CPSE/CPWT No	Professional Engineer:
P&D Permit No	Name
P&D Permit No	Firm
P&D Permit No	Address
P&D Permit No	
City of Phoenix Water System. Proposed dr the City of Phoenix.	inking water distribution system will be owned and operated by
	ewage collection system will be owned and operated by the City
of Phoenix.	
	description with section, township and range, and latitude
and longitude:	
Checklist for Approval of Construction and/or D Professional Engineer's Certificate of Complete As-Built Plans Submitted, Approved, and Mapp Final adjustments completed and accepted All testing satisfactorily completed, and reports Other	ion submitted bed s submitted
	thorization is issued in accordance with Arizona Administrative ns); Title 18, Chapter 9, Article 3 (Aquifer Protection Permits).
City of Phoenix Health Delegate Signature	
Date signed	
Sewer main plans and/or water main plans approve	ed by Water Service Department as shown by asterisks (**)

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Environmental Responsibility and Certification For Projects Constructed by Private Developers (Plan Submittal)

Project Name:		Project No.	:	
Project Address:				
City:			Zip Cod	e:
Quarter Section: APN:			Acreage:	
Project Description:				
Property Owner Name:		Phon	e No.:	
Mailing Address:	City:			
Architect/Professional Engineer of Record Name	:		Phone N	No.:
Mailing Address:	City:		St.:	_ Zip Code: _
License # (if applicable):				
General Contractor Name:			Phone N	No.:
Mailing Address:	City:			
License #:				

Environmental Responsibility Acknowledgement and Certification

As the property owner, or an agent authorized by the property owner, I acknowledge and understand that this project and the activities related to this project may be subject to county, state, tribal and Federal environmental, natural and cultural resource rules and laws including, but not limited to, those regarding:

Air Quality / Dust Control	Clean Water Act (NPDES, Section 404, Water Quality
Archaeological / Cultural /	Comprehensive Environmental Response Compensation and Liability
Historic Resources	Act (CERCLA, superfund)
Asbestos / Lead Abatement Act	County Environmental health (Septic Systems, Wells, Water /
Endangered Species	Wastewater, Vector Control)
Hazardous Substances	Resource Conservation and Recovery Act (Hazardous Waste)

In addition, as the property owner, or as an agent authorized by the property owner, I hereby certify that all County, State, Tribal and Federal permits applicable to this project will be obtained, and all requirements or conditions of such permits and all environmental laws will be complied with to the best of my knowledge. **NOTE: This certification must be completed, notarized, and submitted to the city of Phoenix Planning and Development Department before plans or permits may be approved for any part of this project. Use or occupancy of any part of this project without final approval from the city of Phoenix is a violation of the Phoenix City Code.**

Owner / Authorized Agent Name (printed)		
Signature	Date	
Acknowledged before me this Day of	, 20	
My Commission Expires:	Notary Public:	

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This form is used to request the modification to, elimination of, or encroachment within a public utility easement. After completing this application, attach a sketch of the affected area. This form must accompany the technical appeal form requesting the change or removal of the standard PUE.

Date:	KIVA #:	CCPR/CSPR #:			
Project Name:					
Project Locatio	n:	City of Phoenix Q	uarter Sectio	on #:	
Applicant:					
Address:		City:	State:	Zip:	
Contact Name:	<u>.</u>	Phone:			
Email Address	:				
	Chee	ck all applicable boxes			
Request:					
Modification Technical A		ce standard width of PUE to	be dedicate	ed)	
Elimination		val of PUE dedication requ	irement)		
	ent within PUE oppeal Required (Struct	ure placed within existing F	PUE)		
		n proximity to PUE or ALLE or immediately adjacent to		•	
Description of V	Work:				

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Provide an exhibit (11" x 17" maximum) that clearly indicates the limits of construction. Easements, right-of-way, paving, and all existing utilities should be fully dimensioned. Contact all pertinent utility companies. Provide written confirmation of approval from all 7 (seven) utility representatives. *The list below is provided for reference. Inform your civil plan reviewer of any new contact information.*

Arizona Public Service			Approved	□ N/A
Contact:	Kimberley Paxson (<u>kimberley.paxson@aps.com</u>) (480) 589-0617			
Salt River Project https://www.srpnet.com/about/land/secure/landdepartm			Approved	
Contact:	Sherry Wagner Fax:	602-236-3126 602-236-8193		
Southwest Gas Corporation			Approved	□ N/A
Contact:	<u>caz-rowrequest@swgas.c</u> Right of Way Department Fax:			
Cox Communications			Approved	N/A
Contact:	<u>az.jointuse@cox.com</u> Traffic Management Cent Phone: Fax:	er (TMC) 623-328-3554 623-322-7500		
CenturyLink			Approved	□ N/A
Contact:	nre.easement@centurylin Right of Way Department			
El Paso Na	atural Gas Company (Plea	,	Approved	□ N/A
Contact:	steve_weatherhead@kind Right of Way Department Steve Weatherhead			
City of Ph	oenix Water Services Depa		Approved	N/A
Contact:	<u>irspubliccounter.wsd@ph</u> Infrastructure Records Se Phone: Fax:			
Other (describe):			Approved	□ N/A
Contact Name:		Phone	e:	
Email:				
_				

Blue Stake – 602-263-1100



This policy is for construction staking within the public right-of-way or easement. The staking requirements are for permits relating to grading and drainage, drainage facilities, sanitary sewer, storm drain, water, concrete, and paving within the public right-of-way or easement. The information shown is the minimum required construction staking for commercial and residential construction. It is the responsibility of the Civil/Site Inspector to confirm that the construction staking is installed as defined by this policy. The inspector may allow deviations from the policy when extraordinary field conditions exist.

Sanitary Sewer/Storm Drain

- 1. Cut stakes shall be set for grade and line at 25 foot intervals and at each manhole. Grades shall be set to the invert of pipe. The contractor and consultant shall agree upon offset. Line stakes shall be provided for all services.
- 2. An offset grade stake shall be set for each manhole.

Water

- 1. Cut stakes shall be set for grade and line at 50 foot intervals. Grades shall be set to the invert of pipe. Line stakes shall be provided for all services, fittings, and other critical points. The contractor and consultant shall agree upon offset.
- 2. Offset stakes shall be set for location and grade for fire hydrants.

Curb and Gutter

- 1. Curb stakes shall be set to grade (i.e., bluetops) and tacked for line at 25 foot intervals. The contractor and consultant shall agree upon offset.
- 2. Cut and fill stakes will be allowed only in instances where offset grades preclude the setting of stakes to grade.
- 3. Control point stakes (i.e., grade breaks, angle points, transitions, end of aprons, returns, etc.) shall be set to grade, tacked to line, and provided with distinct flagging to differentiate from curb and gutter staking.
- 4. A reference hub shall be installed for each control point stake.

Sidewalks

- 1. Staking of sidewalk is not required if it is installed adjacent to curb.
- 2. Stakes shall be set to line and grade on 25 foot intervals for detached sidewalk.
- 3. Stakes shall be installed for all control points.

Paving

- 1. Centerline subgrade shall be staked to grade at 50 foot intervals. Streets wider than 40 feet from face of curb to face of curb shall also be staked to grade at 1/4 points at 50 foot intervals.
- 2. Centerline ABC shall be staked to grade at 50 foot intervals. Streets wider than 40 feet from face of curb to face of curb shall also be staked to grade at 1/4 points at 50 foot intervals.
- 3. After paving, locations for monuments shall be re-established, and after installation, monuments shall be punched.
- 4. Following paving, locations of all utilities that are to be adjusted shall be re-established.

Page 1 of 1

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