City of Chandler Utility Permit Manual

Requirements for Working in the City Rights-of-Way and Utility Easements

UDM-148





Development Services

Engineering Division 215 E. Buffalo Street Chandler, Arizona 85225

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Table of Contents

| PART/SECTION - TOPIC | PAGE NUMBER |
|--|-------------|
| 1 - PURPOSE | 3 |
| 2 - PERMIT PROCESS – OVERVIEW | 3 |
| 3 - PERMIT APPLICATION AND FEES | 4 |
| 4 - CONSTRUCTION PLAN REQUIREMENTS | <u>5</u> |
| A – PLAN VIEW REQUIREMENTS | <u>5</u> |
| B - PROFILE REQUIREMENTS | 7 |
| C - UNDERGROUND AND OVERHEAD REQUIREMENTS | 8 |
| D - UTILITY CLEARANCE REQUIREMENTS | 9 |
| E - ABOVE GROUND UTILITY STRUCTURES | 9 |
| F - MANHOLE AND VAULT REQUIREMENTS | 10 |
| 5 - CONSTRUCTION REQUIREMENTS | 10 |
| A - NOTIFICATION FORMS AND CONSTRUCTION SCHEDULES | 10 |
| B – INSTALLATION REQUIREMENTS | 11 |
| C - TRAFFIC CONTROL PLANS | 11 |
| D - VACUUM EXCAVATIONS | 12 |
| E - HORIZONTAL, DIRECTIONAL AND HOG DRILLING | 12 |
| F - ABANDONMENT OF FACILITIES | 13 |
| G - UTILITY INSPECTION AND TESTING | 13 |
| H - BACKFILL, RESTORATION AND EARTHWORK REQUIREMENTS | 13 |
| I – OVERTIME REQUESTS | 13 |
| 6 - RECORD DRAWINGS (INSTALLATION RECORDS) | 14 |
| 7 – UTILITY PERMIT MANUAL SUPPLEMENTS | 14 |

Revised: 3-31-2023

1. PURPOSE

The purpose is to describe the requirements for securing a permit for utility construction in the public rights-of-way.

The City of Chandler grants permissions for locating existing utilities and for construction or maintenance work in Public Rights-of-Way (ROW) and Public Utility Easements (PUE) by issuance of a permit as outlined in <u>Section 2 of Chapter 46</u> of the Chandler City Code.

The City of Chandler administers planning, permitting, and construction process in accordance with the <u>Arizona Utility Coordinating Committee (AUCC) Public Improvement Project Guide</u>, the <u>Maricopa Association of Governments (MAG) Uniform Standard Specifications for Public Works Construction</u>, <u>the City of Chandler Engineering & Design Standards Manual</u> and <u>City of Chandler Specifications & Standard Details (Supplement to MAG)</u>.

Encroachment permits (including annual blanket permits and as-built permits) are necessary to assure that all utilities are constructed and maintained; in proper location with adequate spacing, built in accordance with current specifications, and liability issues properly addressed.

The placement of traffic-control markings on pavements and curbs by the City and the marking of pavements, curbs and sidewalks by utility companies, engineers and surveyors to indicate the location of underground utility lines and monuments in connection with surveying, design, construction and maintenance work may be done without a permit; however, all other pavement, curb and sidewalk marking require a permit.

Engineered construction drawings (plans) must be submitted for review. The objective is to make optimum utilization of the space available in the public rights-of-way and public utility easements, to assure compliance with all City policies and specifications, to coordinate with other utility companies, agencies, and City project activities, and to reduce the risk and/or inconvenience to the public.

2. PERMIT PROCESS – OVERVIEW

Permit applications are submitted to the City of Chandler, Development Services Department either in person (215 East Buffalo Street) or on-line together with a digital copy of construction drawings, details, notes, pictures, project quantities, and any other additional information as may be required by the City for a particular project.

Upon receiving the application and appropriate drawings, details, notes, etc., City staff will log the request into the City's electronic permit system and route the documents for technical review.

This review includes checking for compliance with construction standards, approving alignments, verifying that the work is in the public rights-of-way or public utility easement, determining if other work is occurring at the same time or site, verifying that all joint trench opportunities have been incorporated into the design, checking for conflicts, determining if the work is proposed in newly paved streets or alleys, verifying that proper pavement replacement or bore requirements have been incorporated into the plans, and verifying that all City requirements have been met. The City requires that all permitted projects comply with the <u>Arizona Utility Coordinating Committee</u> project models, including the <u>Joint Use Trench Model</u> (see Joint Use Trench section).

Revised: 3-31-2023

Upon completion of the review (approximately twenty (20) business days), the permit application will be either issued to the applicant or returned for further modification. Permits are generally issued to expire up to six (6) months from the date issuance, unless otherwise specified.

Special conditions or stipulations are added to the permit, so it is important that the applicant carefully review the permit for compliance. In addition, if the company obtaining the permit represents the company that has a License, Franchise or ROW Use Agreement with the City that is authorized by Chapter 46 of the Chandler City Code, then there may be other conditions attached to the permit and the company is responsible to adhere to these conditions.

If additions or corrections are required to the plans or permit application, the application will be considered incomplete and the applicant will be notified and asked to make corrections and resubmit.

3. PERMIT APPLICATION AND FEES

Permit applications are currently accepted electronically or by paper submittal. The City of Chandler encourages applications to be submitted electronically via the <u>Citizen Access Portal</u>. A <u>step by step submittal guide</u> can be found under the <u>Telecommunications & Utility Franchise page</u> on the <u>City of Chandler public website</u>. Completing the fields of the web form application and submitting the form through the on-line portal is the electronic equivalent of the paper application form. Consequently, a paper copy of the application form is not required for on-line submittals. Quantities should be completed during the application process and will not be adjustable by the applicant after submittal. Entering the appropriate quantities is required and applications without quantities or with improper quantities may be cancelled and a new application will have to be submitted by the applicant.

To obtain a paper permit, two (2) documents and three (3) plan sets must be submitted before a permit will be issued. The documents required for a permit are the "Civil Improvements/Encroachment Permit & Street Cut Application" form (UDM-012), and the "Certificate of Quantities for Encroachment Permits" form (UDM-008). The forms are supplied by the City of Chandler and are available online under "SECTION 7: Off-Site Inspection and Permitting" of the Unified Development Manual (UDM).

Annual Permits (which are sometimes referred to as Annual Blanket Permits or Annual Maintenance Permits) are issued for emergency work and for reoccurring minor facility maintenance work in public rights-of-way and public utility easements only. Maintenance permits authorize a company to perform routine minor work where no excavation is involved. Such work includes only: splicing in existing vaults or pedestals, module swaps, removal/replacement of faceplates, conduit proofing, removal or replacement of a single node, and to remove or replace single line extenders (aka amplifiers or repeaters). New placement of aerial facilities is **NOT ALLOWED** as part of these permits including: aerial span replacement of faulty plant and fiber/coax cable including over lashing to existing plant, or installation of new strands. Emergency work restoration (aka. as-built permits) must be permitted under a separate encroachment permit after the work is completed under an Annual Emergency Permit. Contact the City's Utility Coordinator for verbal instructions on emergency work restoration at 480-782-3310.

Permittees must demonstrate proof of insurance with agreed to limits of liability and naming the City as additionally insured before issuance of any permits. Specifics for these may be specified in the License, Franchise or ROW Use Agreement with the City. The fee and insurance requirement may be satisfied by agreement, but proof of such should be on file with the City and updated as required.

Revised: 3-31-2023

Permit fees and other construction costs are collected upon issuance of each individual permit in accordance with the Permit & Pavement Fee Schedule – except as specified by a License, Franchise or ROW Use Agreement.

Seal coat charges are also collected upon permit issuance in accordance with MAG Section 336.2.4.

Permission to excavate in new streets will not be granted for two (2) years after completion of street construction, rehabilitation, or renovation. Exceptions will be granted for emergencies, which endanger life or property, interruption of essential utility service, work mandated by government, or services for buildings where no feasible means of providing service exists. A pavement restoration fee for early deterioration will be assessed for cutting new or resurfaced pavement less than six (6) years old. To reference current street cut restrictions please see the City's Interactive Pavement Cut Restrictions Map. For more clarification refer to the Pavement Cut Restrictions Flowchart and detailed Chandler City Code, Chapter 46-2.7.

4. CONSTRUCTION PLAN REQUIREMENTS

- **A. Plan View Requirements** Refer to the <u>Plan Review Checklist</u>. Complete construction plan drawings must be provided in accordance with the following:
- 1. Include stationing and offsets for all existing and proposed above ground facilities within the proposed construction area.
- 2. Scale or dimension drawing to accurately depict relationships among the physical features within the construction area adequately enough to clearly identify potential conflicts. Preferably 1"=40' or 1"=20' for drawing scale.
- 3. Dimension ties of existing and proposed underground utility lines to monument lines in streets and to property lines in alleys and easements, not to back-of-curb, edge of pavement, sidewalks, etc. The lines tied to the dimensions should be clearly and easily identifiable and labelled or the dimension itself should be labelled to identify the line it is tied to.
- 4. All offsets and dimensions should be measured in decimal feet.
- 5. Show locations and limits of proposed construction to include existing and proposed rights-of-way and adjacent easements clearly labeled and dimensioned. Right-of-Way lines must be labeled "R/W", "RW" or "ROW." Clearly differentiate between City of Chandler and others' ROW.
- 6. Include property addresses or parcel numbers and lot lines.
- 7. Include correct street names
- 8. Show linear trench/bore feet in ROW and private property on plans.
- 9. Joint trench must identify all companies sharing in the trench.
- 10. Include the location and size of all existing and proposed facilities to which the proposed construction will either cross or run parallel to within the right-of-way corridor. Lip-of-gutter, edge of pavement, sanitary sewer lines, water lines, irrigation facilities, other utilities, landscaping, structures, street lights and traffic signals must be shown and drawn to scale extending a minimum of twenty feet (20') beyond the construction limits. Simply using a symbol to indicate these facilities is not sufficient.
- 11. A legend should be included to show all symbology used on the plans. Distinguish each type of improvement and differentiate between existing or proposed.

Revised: 3-31-2023

- 12. Show all proposed improvements and associated notes in black and in bold. For color plans, show all existing linework and facilities in 811 Uniform Color Code for Marking Underground Facilities which can be found on the AZ811 website at http://www.arizona811.com/.
- 13. Storm drains, sanitary sewer lines, water lines, and gas lines over twelve inches (12") in diameter drawn to scale. All conduit systems over twelve inches (12") in diameter/width or larger must be shown to scale.
- 14. Identify and dimension paving improvements. In areas with new development, all existing and proposed paving improvements must be shown.
- 15. Bore/trench depths must be in compliance with <u>City of Chandler Supplement to MAG Section 360</u> (page 8) and City of Chandler minimum coverage requirements. See the City of Chandler <u>Minimum Coverage Requirements</u> and <u>Engineered Utility Bore Detail C-112</u> for additional information.
- 16. Proposed utility crossings should be at or as near as is practicable to a 90-degree angle to the road monument line.
- 17. Show all bore/receiving/relief pits and potholes. The City waives the sewer main potholing requirement to help preserve the integrity of the streets. The contractor must check elevations at the up and down stream manholes.
- 18. Proposed improvements that fall within the vicinity of a proposed City Capital Improvements Program (CIP) or development project limits must be coordinated with the proposed capital or development project. The proposed improvements for all projects within and extending a minimum of twenty feet (20') beyond the construction limits must be shown on the plans and show that there are no conflicts.
- 19. Provide a complete title block to include the name and contact information of the designer or engineer.
- 20. Include a north arrow on each plan sheet, preferably with the orientation of north up or to the right.
- 21. Include a vicinity map indicating the nearest major cross streets.
- 22. Include an AZ811 note or symbol stating, "Contact Arizona 811 at least two (2) full working days before construction."
- 23. Include or call out all MAG and City of Chandler specifications and details as needed. Refer to City of Chandler Unified Development Manual for all City specifications and details at https://www.chandleraz.gov/government/departments/development-services/unified-development-manual.
- 24. Include the City of Chandler <u>Civil Engineering Utility Company Notes</u> on the plans. The most current notes can be found at: https://www.chandleraz.gov/sites/default/files/TelecommunicationsUtilityFranchise/UDM_UtilityCo
- 25. Separation from all facilities must be in accordance with Federal, State, and local requirements. See section D of Part 4 of this manual (see below), the <u>Civil Engineering Utility Company Notes</u>, and the <u>City of Chandler Supplement to MAG Section 608 (page 13)</u> and <u>Engineered Utility Bore Detail C-112</u> as applicable for City of Chandler requirements.
- 26. Include trench and bore cross section detail(s) showing width, depth and number of conduit(s) or pipe(s). Depth must be in accordance with the requirements in the City of Chandler Minimum Cover Requirements. No direct buried lines allowed. Unless otherwise noted, all conduits must be two (2) inch minimum PVC Schedule 40 or better. Conduits should be sized and placed to allow replacement of, or addition of, capacity to existing facilities without disturbing the surface.
- 27. All proposed equipment details must be shown and dimensioned on the plan such as pedestals, transformers & pads, switching cabinets, utility vaults, etc.

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Revised: 3-31-2023

- 28. Include the utility company logo and project number.
- 29. Design the running line route out of the paved roadway. If this option is unavailable, identify the conflict on the plan with a note explaining why the design must encroach into the pavement. Please note that the City of Chandler prefers utility installations behind the sidewalk and back-of-curb. If this option is unavailable, the second option is in the median. The final option should be to install under the roadway due to traffic congestion and pavement damage concerns. A pavement cut of new pavement is not allowed (0-2 years) or may be subject to damage/restoration fees (0-6 years). See Section 2.7 of Chapter 46 of Chandler City Code and section 7 of the Permit & Pavement Fee Schedule.
- 30. Design the running line route to minimize the impact to the public right-of-way and the safety of the travelling public and to avoid congestion as required by <u>Chandler City Code Section 46-6.1(A)</u>.
- 31. Comply with MAG and the City of Chandler Standard Details and Specifications. Refer to MAG Section 336 & 360 and Detail 200-1, as well as the City of Chandler supplements thereto and additionally, City Details C-103, C-104, and C-111.
- 32. All revisions to approved plans must be made distinctive on the revised plans. "Clouded" representation of revisions to approved plans is the preferred method. Changes to plans that have not been approved do not require "clouding".
- 33. Project is too large for a single submittal. Please limit each application to sections no longer than three-quarters (3/4) to one (1) mile in length or to no more than 5 separate locations unless all locations are contained within a single quarter section. Alternatively, a larger project may be accepted, at the discretion of the City, provided an additional file or files such as a dwg file or files may be required as a condition of acceptance.
- **B. Profile Requirements** Complete profile drawings showing the following minimum requirements must be provided for all projects that require utilities to be bored and for projects that are trenched in areas with proposed grade changes or proposed utility improvements. An accurate profile must be approved before starting the bore. These requirements apply not only to longitudinal and lateral street bores, but also utility bores outside paved areas crossing existing utilities.
 - 1. Profile required in accordance with the City Engineered Utility Bore Detail C-112 and the City of Chandler Supplement to MAG Section 608 (page 13). The bore profile should start at the bore drill rod entry point shown as point "A" in MAG Section 608 Figure 608-1. Typically, two options for achieving this requirement are available. The first option is to provide a "designed" bore profile as part of the permit application plan submittal. This method usually requires current pothole data acquired through a separate potholing permit. In some cases, this option may be required by the City due to proposed facilities that have been designed as part of a City or development project that may or may not yet be installed in the field at the time of construction of this project, or to verify that the proposed running line will be possible to install in areas heavily congested with existing facilities. Alternatively, for most projects a blank profile sheet can usually be completed in the field based on preliminary potholing at the time construction to provide an "actual" bore profile. "Actual" profiles are required for all drilling projects, including "hog drilling" and for projects that already have "designed" profiles and must be verified and approved by the City inspector prior to starting the drilling operation.
 - 2. Show all bore pit locations, including receiving and relief pits and indicate the sizes of each pit.
 - 3. Depth of cover or elevations should be taken from the existing surface grade at intervals of one hundred (100) feet or less in the same alignment as the proposed construction. If proposed

Revised: 3-31-2023

- grade changes are planned (such as, due to a CIP or development project), minimum covers should be based on whichever elevations are the lower of the existing and proposed grades.
- 4. A vertical scale that adequately depicts the installation of existing facilities is required. Please specify scale (1"=2', 1"=3', 1"=4', 1"=5'). Use of different vertical and horizontal scales on profile details is preferred for clarity.
- 5. Separation from all facilities must be in accordance with Federal, State and local requirements. See section D of Part 4 of this manual (see below), the <u>Civil Engineering Utility Company Notes</u>, and the <u>City of Chandler Supplement to MAG Section 608 (page 13)</u> and <u>Engineered Utility Bore Detail C-112</u> as applicable for City of Chandler requirements.
- 6. Existing and proposed grades at intervals of one hundred (100) feet or less in the same alignment as the proposed construction must be in a continuous line on the plans throughout the project.
- 7. Show all existing and proposed facilities that the proposed construction will cross. Storm drains, sanitary sewers lines, water lines, conduit systems, and other underground facilities (e.g. scuppers, catch basins, concrete footings, etc.), must be drawn to scale (showing approximate outside dimensions).
- 8. Show conduit/sleeve on profile. **No direct buried lines allowed**. Unless otherwise noted, all conduits must be two (2) inch minimum PVC Schedule 40 or better. Conduits should be sized and placed to allow replacement of, or addition of, capacity to existing facilities without disturbing the surface.
- 9. Elevations must be City of Chandler datum and indicated on the plans, if needed.

C. Underground and Overhead Requirements

- 1. Temporary overhead services for construction may be permitted for a six (6) month period, typically no more than 12 months is allowed and requires written approval from the Director of the Development Services Department. No final occupancy will be granted until all temporary services are removed. See <u>subsection F of section 4 of chapter 47</u> of Chandler City Code.
- 2. Minimum overhead clearances must be in accordance with NESC, section 23 (for example, typical clearances are 15.5 feet for insulated communications conductors and 16.0 feet for 0-750V electric supply cables).
- 3. Placement of new Aerial facilities or poles **IS NOT ALLOWED** including aerial span replacement of faulty fiber/copper/coax cable and over-lashing to existing plant or installation of new strand. Placement of new aerial equipment is also **NOT ALLOWED** including: pole mounted or strand mounted terminators, repeaters, line extenders, transformers, capacitor banks, aerial storage loops, splice enclosures, etc. All new facilities are required to be installed underground. See section 9.2 of Chapter 46 and section 4 of Chapter 47 of Chandler City Code.
- 4. Aerial overhead in City ROW or PUE must be shown and called out on plans. If a riser is to be placed, identify new connection or existing aerial plant being tied into and method of connection. Existing aerial fiber storage and splice enclosures are considered embargoed and must be converted to underground. A one-time installation of a riser stub cable may be permitted at the discretion of the City Engineer and should be sized appropriately and spliced accordingly so that future access to aerial splice enclosures is not required. New risers are not allowed on poles when high-voltage power lines (above twelve (12) kV) are present as required by section 4 of Chapter 47 of Chandler City Code. Any permitted aerial installations are also required to meet any applicable standards outlined in the City of Chandler Design Standards, Concepts, & Requirements for Small Wireless Facilities in the Right-of-Way.

Revised: 3-31-2023

- 5. Convert to first existing pole beyond property limits. Place underground all overhead utility lines, either within a proposed development or redevelopment project within public ROW or easements adjacent to the project. Utility poles and lines are defined herein as the poles, structures, wire, aerial cables and related facilities used in the distribution of electricity or in the transmission of telecommunications, telegraph, data, radio or video communications. This requirement includes both new and existing utility lines on and adjacent to the project, including lines which extend across public streets, alleys or easements adjacent to the property being developed or redeveloped. Existing utility lines adjacent to a project must be under-grounded up to the first existing pole beyond the limits of the property. This requirement includes the undergrounding of all existing overhead service lines attached to the lines to be removed along with necessary conduit, supports, restoration, etc., necessary to convert the service line from overhead to underground. The requirement must apply regardless of the existence of easements for overhead lines. When high-voltage lines (above twelve (12) kV or similar) are present, all lines other than the high-voltage lines must be placed underground. See section 4 of Chapter 47 of Chandler City Code.
- 6. Verify joint trench opportunities with utilities for installations greater than six hundred (600) feet and for arterial crossings. The most common joint trench designs involve some combination of dry utilities, i.e. electric, communication (telephone, cable, cable TV, fiber optic, data lines) and gas, with the exception of high pressure (greater than 60 psi) gas lines and lines that are six (6) inches or greater in diameter. If the associated utilities decline joint trench opportunities, submit written documentation to Utility Coordination via email at tuf@chandleraz.gov, or submit the documentation along with the plan set at the time of permit application.
- 7. Place all service lines underground. See <u>section 9.2 of Chapter 46</u> and <u>section 4 of Chapter 47</u> of Chandler City Code.
- **D. Utility Clearance Requirements -** Any and all more stringent separation requirements required by Federal, State, or Local codes or ordinances take precedence for the following:
 - 1. A six (6) foot minimum horizontal separation from the exterior wall of any underground non-City utility must be provided to the exterior wall of storm drains, water and sewer mains. All fire lines, regardless of size, (including hydrants and other fire service connections) are considered mains.
 - 2. A three (3) foot minimum horizontal separation from the exterior wall of any underground non-City utility must be provided to the exterior wall of water and sewer service lines. This separation applies to open trenching only. Refer to MAG section 608 and the <u>City Supplement to MAG Section 608</u> for clearance requirements while boring.
 - 3. A two (2) foot minimum vertical separation from the exterior wall of any underground non-City utility must be provided to the exterior wall of all wet utilities.
 - 4. Utilities should be installed in standard locations to minimize the impact to the public right-of-way and the safety of the travelling public and to avoid congestion as required by <u>Chandler City Code Section 46-6.1(A)</u>. For additional information regarding standard utility locations refer to the City of Chandler Standard Details and Specifications, Street Series, <u>C-200 C-254</u>.
 - 5. Depth requirements must be in accordance with City of Chandler <u>Minimum Cover Requirements</u> or at the discretion of the City Engineer.

Revised: 3-31-2023

- **E. Above Ground Utility Structures** Any permitted above ground utility structure installations are also required to meet any applicable standards outlined in the <u>City of Chandler Design Standards</u>, <u>Concepts</u>, <u>& Requirements for Small Wireless Facilities in the Right-of-Way</u>. All permit applications, excluding inside the boundaries of a new subdivision that place an above ground structure greater than twenty-four inches (24") in height, width or depth must be accompanied by the following:
 - 1. All above ground structures, over three (3) feet in height, must comply with the development standards of the underlying zoning district. See <u>Chapter 35 of Chandler City Code</u>.
 - 2. Identify potential location of structure within neighborhood. Select the site on the basis of aesthetics AND technical/engineering restrictions.
 - 3. Equipment cabinets with air-conditioning must be enclosed by walls and setback a minimum of fifteen (15) feet from lots where the existing or planned primary use is a residential dwelling.
 - 4. Structure must be placed on the same side as utility poles.
 - 5. Do not block trash truck access and alley access, including residential or commercial alley access gates or restrict gate functionality.
 - 6. No structure to exceed three (3) feet in height in front yard of residential homes.
 - 7. No structures over eighteen (18) inches in height are allowed within one (1) foot of the back-of-curb or the edge of a sidewalk. Utility structures, such as streetlight poles, utility poles, utility cabinets, or utility vaults are not allowed within five and a half (5.5) feet of the back-of-curb, but obstructions may be located as close as two and a half (2.5) feet from back of curb when adjacent to deceleration lanes, parking lanes, right turn lane or bus bays. See sections 4.2.4.3 through 4.2.5 in the Engineering & Design Standards Manual Chapter 4 Street Design and Access Control.
 - 8. Provide three (3) photographs of the location of the proposed structure, one (1) at 90 degrees, and the other two at 45 degrees on either side of the proposed location. Identify the location of the proposed structure, mark the location with white paint or tape, use an orange traffic cone, etc.
 - 9. Show the dimensions of all proposed structures (including poles) on the plans.
 - 10. Include detail(s) of the actual structure(s) being proposed.
 - 11. Verify sight-triangle compliance. No structure to exceed two (2) feet in height within the sight triangle. See Figure 4-D in the Engineering & Design Standards Manual Chapter 4 Street Design and Access Control and City Details C-246, C-247 and C-248.
 - 12. Obtain a License from the City to install bus shelter in City right-of-way.
 - 13. Electric Company Meter (aka Service Entrance Section):
 - a) To request an address for a private electrical service in City ROW indicate in the Detailed Description block of the permit application that "a new electrical service is being installed and a new address will be required".
 - b) All electric company meters shall be installed in the ROW or PUE. The location of the meter equipment shall have minimum ingress and egress clearance from private property lines and driveways.
 - c) All electric company meters shall maintain minimum clearance from above-ground utility cabinets and below-ground utilities.
 - d) All electric company meters shall be installed in a location that does not impair or interfere with the SDE or SVT safety requirements of the City.

Revised: 3-31-2023

- e) The electric company meters shall be screened or contained within a "Myers-type" or "Milbank-type" pedestal cabinet that is painted to match the ground equipment or as specified by the City. (see Exhibit E1 of the City of Chandler Design Standards, Concepts, & Requirements for Small Wireless Facilities in the Right-of-Way)
- f) In the case where screening is not required, the City may specify the paint color of the electric company meter cabinet on a case-by-case basis.
- **F. Manhole/Vault Requirements** Manholes, vaults, and handholes must be approved in advance of placement.
 - 1. Include a detail for each type and size of vault, (whether manhole or handhole) proposed on the plan. Show dimensions of all proposed vaults on the plans. Details for all components of multi-piece vaults must be included (lids, rings, collars, bottoms, tops, etc.).
 - 2. Vault lids should be designed and installed outside of existing and future sidewalk areas whenever possible. Changes to vault placement in the field must be approved by the City Inspector prior to excavation.
 - 3. Please place vaults outside of the paved area whenever possible. If this is not possible, please provide a note on the plans explaining why it is not.
 - 4. Structural engineering specifications for vaults must be included for all vaults placed in the right-of-way. For vaults placed in the pavement or alley, a traffic rating of H20/HS20 or better is required. Concrete vaults with a concrete base must include a sump, a concrete lid, a frame and cover that meets MAG Standard Details 422-425 and the associated MAG specifications. All precast manhole bases must be placed on 8 inches minimum of ABC as required by MAG section 702 compacted to 100% maximum density. All manholes and hand holes must be installed per manufacturer, MAG and City of Chandler specifications.
 - 5. Where the meet point between two companies is not a single vault (which is the 1st choice of the City since the DEMARC between the companies is typically only one splice/connection point in one of the vaults anyway) vaults should be placed as close together as possible (no more than 3 feet apart, but preferably butted up against each other with a conduit cored through the sidewalls) so as not to create a space between the vaults that neither company claims Locate responsibility for.

5. CONSTRUCTION REQUIREMENTS

A. Notification Forms and Construction Schedules

- 1. All projects require the Permit (Inspection) Notification to be submitted a minimum of 24 hours before the requested start of work date via the City of Chandler <u>on-line inspection scheduling system</u>. Do not provide notification on the inspector's cellular telephone or voice mail.
- 2. All projects within City of Chandler ROW or PUEs are required to hold a preconstruction meeting with City inspector unless otherwise specified in the permit conditions or approved by the City inspector. Projects that are indicated on the permit to require a precon may be subject to fines, penalties, or additional requirements (such as pavement reconstruction) if the contractor fails to contact the inspector listed on the permit to set up the preconstruction meeting.
- 3. All projects crossing a paved alley, residential, arterial or collector street require a preconstruction meeting.

Revised: 3-31-2023

B. All Installations Must:

- 1. Have a copy of the approved permit, construction plan, and traffic control plan on site at all times.
- 2. Submit notification of work through the inspection request process a minimum of 24 hours in advance.
- 3. Submit notifications to residents, homeowners associations, and businesses in accordance with <u>DSP-201</u>.
- 4. Be governed by the City Engineering & Design Standards Manual Chapter 7 Traffic Barricade Design or added specific traffic regulation, which must be attached to the approved permit whenever applicable. All sidewalks must remain open or have proper ADA compliant detours provided.
- 5. Have crews working with and wearing proper personal protective equipment for the type of work being performed.
- 6. Conform to the latest applicable <u>MAG Uniform Standard Details and Specifications</u> and the current <u>City of Chandler Supplements thereto</u>.
- 7. For all alley work, no matter the size of the work/staging area, have a warning sign acknowledging construction ahead at each alley entrance.
- 8. Not Hole-hog bore on arterial and collector streets.
- 9. Have prior City approval for all changes and variances when utility conflicts are found during the construction phase, by the inspector or by an approval plan revision as will be determined by the City inspector
- 10. Include trench excavation coverings for all excavations in the right-of-way and PUE whenever work is not active or the trench is not actively being monitored by the utility company or the contractor. Steel plates are required for covering trenches in the paved section of a roadway or sidewalk in accordance with MAG Standard Detail 211. Steel plates or plywood coverings are required for all trench excavation coverings in landscaped areas, unless otherwise completely caged off and made securely inaccessible to the public. If plywood coverings are utilized, they must be installed or secured in such a way as to prevent accidental displacement by the wind, equipment or other users of the right-of-way and must be capable of supporting, without failure, at least twice the weight of equipment, materials and users of the right-of-way that may be imposed on the cover at any one time.
- 11. Not utilize small plates. 1 foot by 1 foot and 2 foot by 2 foot plates are prohibited.
- 12. Have all trench plates be recessed on streets where the posted speed limit is 30 mph or greater. Steel plates must be able to withstand heavy traffic without any movement. Steel plates must recess on top of a milled surface of eighteen (18) inches minimum on all sides of the trench. Refer to MAG Detail 211.
- 13. Have all plates removed within four (4) calendar days and all backfill and restoration completed within seven (7) business days unless otherwise approved by the City inspector. Steel plates must be picked up when not in use and not be stored in the right-of-way, PUE, in an alley, or along the frontage of a business or residential property.
- 14. Have all barricades stored away from streets, alleys, sidewalks and occupied buildings so as not to be a hazard to the traveling public and all excess barricades must be removed from the job site daily.
- **C. Traffic Control Plans –** Work in the street will require an approved construction plan and site-specific traffic control plan (TCP) before beginning construction.

Revised: 3-31-2023

- 1. Traffic Control Plans must be submitted a minimum of 24 hours prior to the requested start time. Traffic Control Plans submitted on Fridays, weekends, or holidays, will have the 24 hour time period begin on the next business day.
- 2. Traffic control plans can be discussed, but TCPs are approved by the Traffic Engineering Division. For questions, plan revisions, or date revisions, please contact the Traffic Engineering Inspector, at (480) 782-3453 (office), or tcp@chandleraz.gov (email).
- 3. Construction signs Refer to <u>City Code Section 46-2.7(E)</u> outlining the City ordinance pertaining to construction signs.
- 4. Any work outside of the time frame requested is not permitted, and is subject to sanctions as described in the City Engineering & Design Standards Manual Chapter 7 Traffic Barricade Design.
- 5. The contractor is responsible to maintain the work zone and jobsite in a safe and clean manner.
- 6. The contractor must ensure that all traffic control devices no longer needed are removed from the roadway prior to the Job Foreman leaving the job site for the day.
- 7. Refer to City of Chandler <u>Engineering & Design Standards Manual Chapter 7 Traffic Barricade</u>
 <u>Design</u> for barricading requirements and additional information.

D. Vacuum excavation in the right of way must be accomplished as follows:

- 1. Sanitary sewer location and depth must be verified by checking BOTH the up and downstream manholes.
- 2. A permit is required for all utility location excavations. Refer to City of Chandler <u>Detail C-111</u> for vacuum excavation spacing requirements.
- 3. Backfill and restoration must be in accordance with section H of this document
- 4. 1 foot by 1 foot and 2 foot by 2 foot temporary pot-hole plates are not allowed. If crews choose to use them as a work zone safety device they should be used only during the bore process with a crewmember onsite and only within barricaded areas. Pot-hole plates must be removed daily and either restored temporarily or permanently. Permanent restoration is required to be completed within 7 working days.
- 5. An approved traffic plan must be on site with the crew.
- 6. Unauthorized nighttime digging is not allowed and penalties will be assessed if caught doing so.
- 7. At least one hole at each location must be marked with the initials of the excavating company and pothole date. A spray stencil is acceptable.

E. Horizontal Directional and Hog Drilling

- 1. Bore Profiles are required for all horizontal drilling in accordance with the City <u>Engineered Utility</u> <u>Bore Detail C-112</u> and the <u>City of Chandler Supplement to MAG Section 608</u> (page 13), including "hog drilling" and for projects that already have "designed" profiles and must be verified and approved by the City inspector prior to starting the drilling operation.
- 2. All Horizontal Directional Drilling must be accomplished in accordance with <u>MAG section 608</u> and the <u>City of Chandler Supplemental Specifications and Details</u>.
- 3. Before street bore or trench that crosses a roadway, the contractor must schedule a field meeting with the City Inspector to verify:
 - a. Each crew has a copy of the approved plans and permit.
 - b. A utility survey was conducted. The utility survey is conducted to accurately locate all existing (active or abandoned) utilities within the area of interest that could conflict with the planned installation. Verification of survey will be submittal of an "actual" bore profile, which indicates utility crossing inverts and clearances and identifies the exterior bounds and depths of all

Revised: 3-31-2023

- structures such as vaults thrust blocks, above ground structure foundations, encasement of duct banks, etc. The bore profile should start at the bore drill rod entry point shown as point "A" in MAG Section 608 Figure 608-1.
- c. Verification of obvious existing conditions before construction. Existing site conditions along and adjacent to the alignment should be carefully documented (photos and/or video is recommended) to support against claims. Without documentation the City will likely take the word of the claimant.
- d. The City inspector identifies the restoration limits.
- 4. Tracing or locating wire must be installed.
- **F. Abandonment of Facilities –** For all facilities that are being abandoned please refer to <u>Abandoned Utilities in the Right of Way</u> Policy.
- **G. Utility Inspection and Testing –** The utility company is to inspect their work with the City providing periodic oversight. The City inspector will be responsible for inspecting the restoration of City facilities and MAG requirements and City Supplements to the MAG requirements. Testing will be required according to MAG specifications and City of Chandler Supplements to the MAG. Tickets and test results must be given to the City's utility coordinator or to the City inspector upon request.

H. Backfill and Restoration Requirements:

- 1. Trenches must be cleared of excess debris, (i.e. cans, trash, etc.) before slurry is installed.
- 2. Final backfill must be CLSM per MAG Section 604, ABC per MAG Section 702, or granular material or native backfill material per MAG Section 601.4.8. Typically, half-sack ABC slurry is recommended for all work within the right-of-way.
- 3. Slurry must aerate (air dry) for a minimum of two days prior to permanent pavement installation.
- 4. All restoration must be to like or better conditions. When decomposed granite (DG) replacement is required the DG must be of the same size, type and color and be approved by the City Inspector prior to installation. Any trees, shrubs or bushes removed, must be replaced or relocated as directed by the City Inspector. All landscaping irrigation lines must be repaired, replaced or relocated to deliver water to new plant locations. Any turf removed must be replaced with sod or seeded and covered with soil. Any grade adjustments not approved on the plans must be approved by the City Inspector prior to making those grade adjustments.
- 5. Asphalt restoration must be in accordance with MAG Detail 200-1 and Detail 200-2.
- 6. Concrete restoration must be in accordance with MAG Section 340
- 7. Sidewalk ramp restoration must be in accordance with City of Chandler Details <u>C-243, C-245, C249, C-257 & C258</u>
- 8. Spoil piles and contaminated millings must be removed. Back-dragging dirt is prohibited.
- 9. AC millings must be replaced and compacted over the excavation area.
- I. Overtime Request Overtime including after-hours, weekend and holiday work will need to be scheduled and approved by the City inspector 24-48 hours before the overtime work is to occur. A letter authorizing payment of overtime work on company letterhead from an authorized agent of the permit holding company in conjunction with the City of Chandler "Request for Inspection Outside Normal Business Hours" must be submitted to the inspector or emailed to permit.notification@chandleraz.gov by the utility representative accepting responsibility for payment before the City can approve overtime work. The utility company must be notified and

Revised: 3-31-2023

approve overtime work. The request from the utility company must include a contact name, phone number, email address, and mailing address for the person accepting responsibility to ensure the overtime invoice from the City gets processed and paid. All invoices are due at the time of issuance and are typically sent out on a monthly basis unless other arrangements have been made with the City.

6. RECORD DRAWINGS (INSTALLATION RECORDS) – "Record Drawings" must be maintained by the owner of the facility in accordance with State Statutes and made available to the City upon request.

This manual summarizes selected City Code and City of Chandler Design Manual provisions to assist private utilities and developers installing facilities in rights-of-way, PUEs and City easements. If any discrepancies exist between this manual and the City Code or the City of Chandler Technical Design Manual (TDM), the respective Code provision or City of Chandler TDM must prevail over this manual.

For clarification or more information, please contact the Engineering Division's utility coordinator at 480-782-3310.

7. UTILITY PERMIT MANUAL SUPPLEMENTS

- <u>Utility Company Encroachment Permit On-line Application Submittal Step-by-Step Example</u>
- Civil Engineering Utility Company Notes (Supplemental Conditions for Approval)
- Plan Review Checklist
- Pavement Cut Restrictions Map
- Pavement Cut Requirements Flow Chart
- Minimum Coverage Requirements
- Sight Distance Compliances (see Figure 4-D of <u>Engineering & Design Standards Manual Chapter 4 Street Design and Access Control</u> and City Details <u>C-246</u>, <u>C-247 and C-248</u>).
- Permit & Pavement Fee Schedule (see section 7 for Development Services)
- Inspection Request Work Notification Instructions
- Notification Requirements to Residents, HOAs and Businesses (DSP-201)
- <u>Utility Work Preconstruction Meeting Form</u>
- Certificate of Insurance Example
- Arizona ROC License Requirements for performing work in the public rights-of-way
- Engineered Utility Bore Detail C-112 and Blank Bore Profile Sheets 8.5x11 & 11x17
- Abandoned Utilities in the City's Right of Way, PWU-130
- Request for Inspection Outside Normal Business Hours
- Ramp Replacement Requirements (see City Details C-243, C-245, C249, C-257, C-258 & C-259)
- Regulatory Guide on Ground Laid Temporary Facilities (aka "Temp Lines")
- Temp Line Resolution Process
- List of Approved Products
- <u>Civil Improvements/Encroachment Permit Application, Street Cut Application & Certificate of Quantities</u> (for paper application submittals)

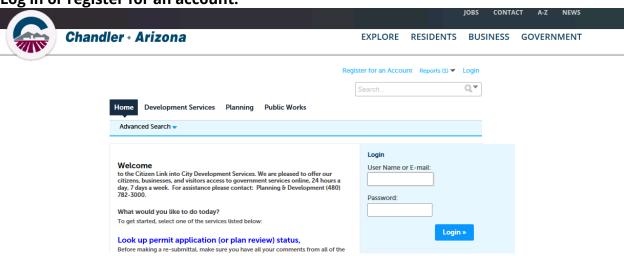
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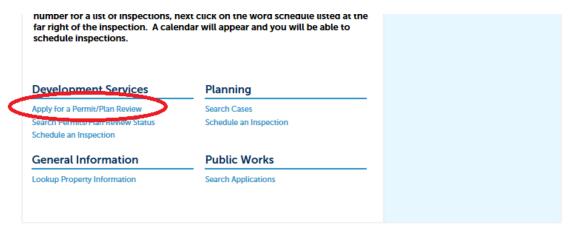
Utility (UTL) Permit Application Online Submittal Process

Go to: https://chandleraz.gov/clics/

Log in or register for an account:



Click on "Apply for a Permit/Plan Review:"



To ensure plans are accepted, applicants are highly encouraged to read the requirements for an electronic application.

Online Application

Welcome to City's Online Permitting System. Using this system you can create a permit, schedule inspections, and track the status of your application, 24-hours a day,

7 dave - Joek

Please "Allow Pop-ups from This Site" before proceeding. Click here for Electronic Submittal Requirements

Building remise

Use this option for the construction of buildings in the following areas:

- Fire resistance, life safety & means of egress
- Fire suppression system

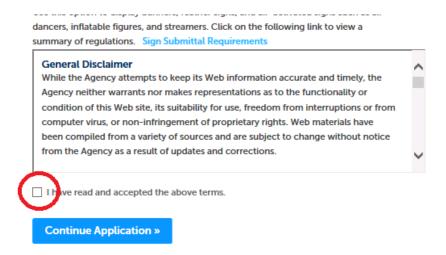
- Structural system

- Barrier free accessibility
- Mechanical, plumbing, electrical systems
- Energy conservation

Mailing Address Mail Stop 405 PO Box 4008 Chandler, Arizona 85244-4008 Development Services Department Telecommunication & Utility Franchise Telephone (480) -782-3315 www.chandleraz.gov

Location 215 E. Buffalo Street Chandler, Arizona 85225 Page **1** of **14**

Next, please read the disclaimer and click "Continue Application:"



Select Utility Permit then click "Continue Application:"

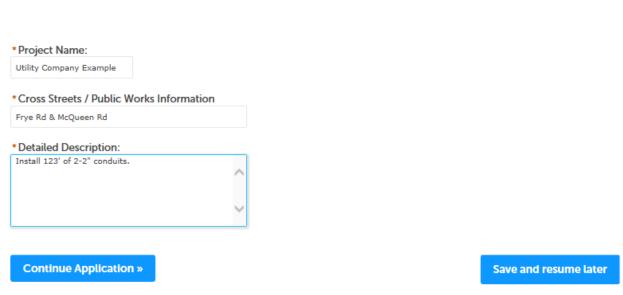
please contact us at (480)782-3000. Please REGISTER FOR AN ACCOUNT prior to printing your permit. The Temporary Sign Permit must be displayed on dates listed on Permit. Failure to enter ALL dates INDIVIDUALLY invalidates the Permit. Search Development Services Building Permit Pretech Civil Plan Review Encroachment Permit us so a view Utility Permit Signs Temporary Sign Permit Traffic Traffic Road Restrictions and Closures Continue Application >

Select a Record Type

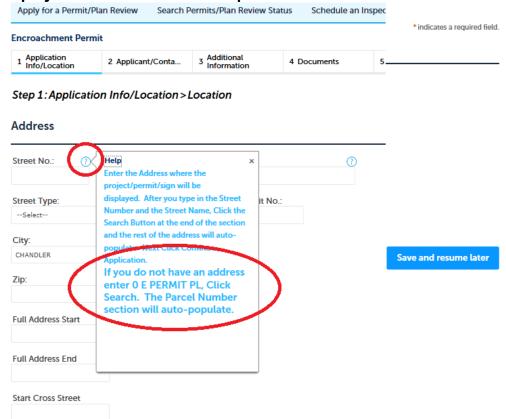
Input the Project Name and Project Description information, then click "Continue Application:"

Choose one of the following available permit or plan review types. For assistance or to apply for a permit type not listed below

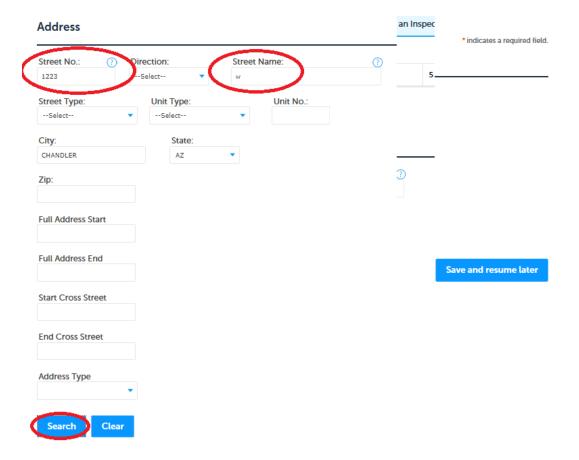
Detail Information



Next, enter the address for the work is occurring. For work in the right-of-way that is not associated with a specific project location or address utilize the closest address to the project or for annual blanket permits utilize 0 E Permit PI:



Less is better when it comes to this search screen as this search will only find official addresses already registered in the system. In this example only the Street Number and the first letter of the Street Name have been entered:



Result example:

Address Search Result List

Addresses



Selecting a location will automatically populate other fields:

Address Search Result List



Associated Parcels

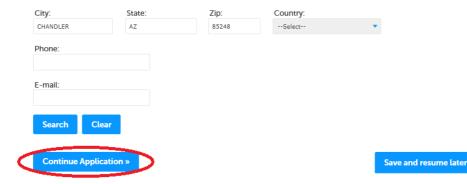


Associated Owners





Next scroll down and click "Continue Application:"



Input Applicant Information by selecting, "Select from Account" or create a new applicant by selecting "Add New." Then click "Continue Application:"

Step 2: Applicant/Contacts > Applicant

*indicates a required field.

Applicant

To add new contacts, click the Select from Account or Add New button. To edit a contact, click the Edit link.

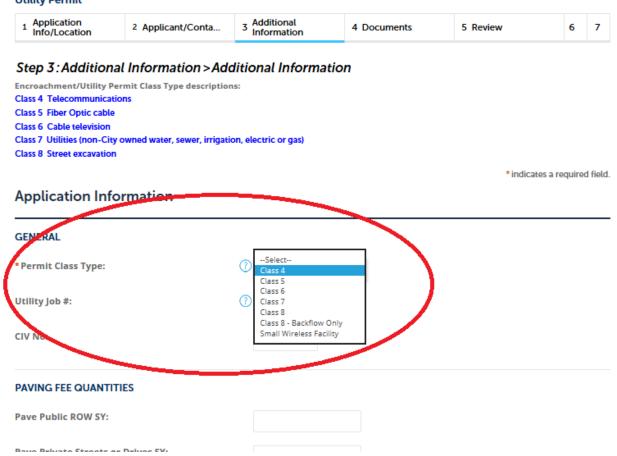
Select from Account

Add New

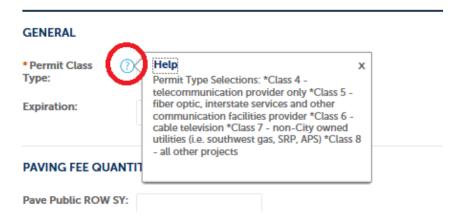
Continue Application »

Save and resume later

Select permit class type:

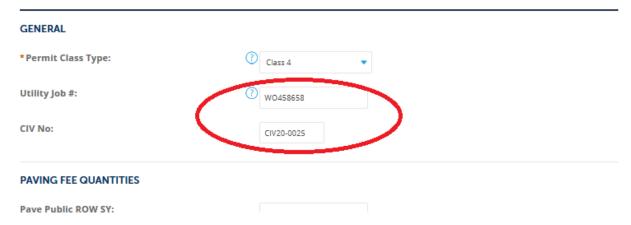


Class Type help can be found by clicking on the "?" to the left of the dropdown: Application Information

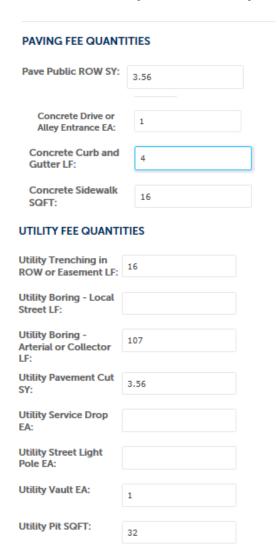


Enter the Utility Job # (required for Class 4-7) and the CIV No (if applicable – a CIV might be required for a large pipeline or duct bank project):

Application Information



Next, enter ALL of the quantities for any and all work being performed in the rightof-way or in a utility easement. For a permit application to be considered complete, ALL construction and restoration quantities must be entered. Permits without quantities will not be accepted. Please pay attention to the units; some are in feet and others are in yards for example:

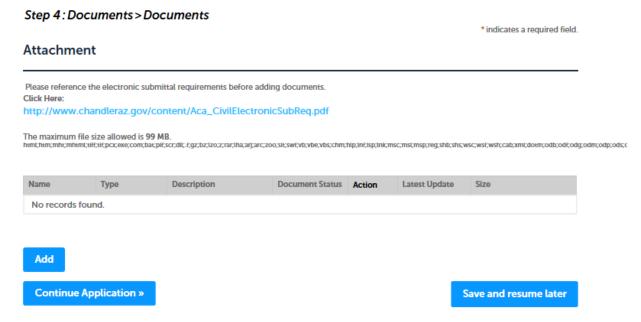


For long bores where the number of bore pits is not yet known or relief pits are going to be needed City staff will estimate a 2' wide by 4' long bore/relief pit for every 500' of boring unless those pits are shown on the plans.

Please note that ALL QUANTITIES ARE REQUIRED for the City of Chandler to be able to account for all work within the right-of-way and utility easements. So, even if a company has a franchise agreement that covers the payment of fees through another avenue such as a percentage of gross revenues all quantities must still be included.

After ALL quantities are input, click "Continue Application".

Next, upload project plans and any additional documents, as applicable. Additional documents might be Permit Application Supplemental Forms, Photos of the site – to include at least 3 angles with a cone showing where equipment is going, Letters of Authorization, Utility Pole Attachment Clearances, Geotech Reports, Structural Calculation, Title Work, etcetera.:



When uploading documents please provide a description of the document in the description box and indicate which submittal you are uploading. If the document is a revision (e.g. a resubmittal after a permit has been approved) please include "REVISION –" in front of the description and send an email to plans.coordination@chandleraz.gov as revisions don't automatically alert the permit counter the same way resubmittals do. See the section below on RESUBMITTALS AND REVISIONS for a step-by-step example or for more information if needed.

| File: | |
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| Construction Plans | |
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| 100 Percent - Utility Coodination review comments | |
| 100 PERCENT PLANS | |
| 1st Civil correction report | |
| 1st Civil redlines | |
| 1st Civil Redlines (Additional Documents) | |
| 1st Civil St Lt Report | |
| 1st Civil Streetlight Redlines | |
| 1ST REDLINES, ALL DISCIPLINES | |
| 1ST REVIEW, ALL DISCIPLINES | |
| 1st Site Dev correction report | |
| 1st Site Dev redlines | |
| 1st Site Dev Reviewer docs | |
| ✓ 1st Submittal | |
| 1st Submittal St. Lights | |
| 1st Traffic Review, redline | |
| 1 to Helity Condination radius | |

Please note that only the work shown on the plan set is what is being permitted. For example, if the project includes an underground conduit portion and an aerial cable portion and that aerial portion is not included on the project plan set then that scope of work has not been permitted and the permittee could be subject to penalty fees or possibly permit revocations for performing work without a permit.

After all documents are uploaded, click "Continue Application."

Next, review the application, then please read and acknowledge the authorized agent, click "Continue Application." Otherwise, please contact the authorized agent and have them submit the permit application:

| I certify that I am an authorized agent or owner of the subject property; that I have read and understand accompany this application; that statements made as part of this application are true, complete and conknowledge; and that no material information has been omitted. By checking the box below, I understate electronically signing and filing this application. | rrect to the best of my | ^ |
|--|-------------------------|----|
| | | ~ |
| By checking this box, I agree to the above certification. | Date: | |
| Continue Application » | Save and resume late | er |

Mailing Address Mail Stop 405 PO Box 4008 Chandler, Arizona 85244-4008 Development Services Department
Telecommunication & Utility Franchise
Telephone (480) -782-3315
www.chandleraz.gov

Location 215 E. Buffalo Street Chandler, Arizona 85225 Page **9** of **14** Finally, applicants should receive confirmation that a permit application was received and a record number was issued. The record number will be on the bottom of the page in blue and is a link to be able to follow the status of the permit as it makes its way through the review process:

Step 3: Receipt/Record issuance

Submitted



Your application(s) has been successfully submitted.

4100 W CHANDLER BL



For any questions, please contact the Development Services Department or the Telecommunications & Utility Franchise Division at the number listed below.

Other documents related to right-of-way and utility work can be found on the Telecommunications and Utility Franchise web page:

https://www.chandleraz.gov/government/departments/development-services/telecommunications-and-utility-franchise
and the

Development Services web page:

https://www.chandleraz.gov/government/departments/development-services

RESUBMITTALS AND REVISIONS

RESUBMITTALS:

Should a plan set get rejected and need corrections please upload the corrected plans as a resubmittal through the portal. Prior to plan approval the system will automatically detect the new document and generate an email to the permit counter who will process the corrected plans and route them for a subsequent review. If multiple documents require corrections, please wait until all of the documents being corrected are ready to be resubmitted and then upload them altogether.

To upload documents after an application has already been submitted the user on the account for that application will first need to sign in to access the required functionality of the system in order to upload a document to an existing permit application:

Building Permits

Traffic - Road Restrictions and Closures Permi

https://www.chandleraz.gov/sites/default/files/

Plan-Review-Submittal-Instructions.pdf

Civil

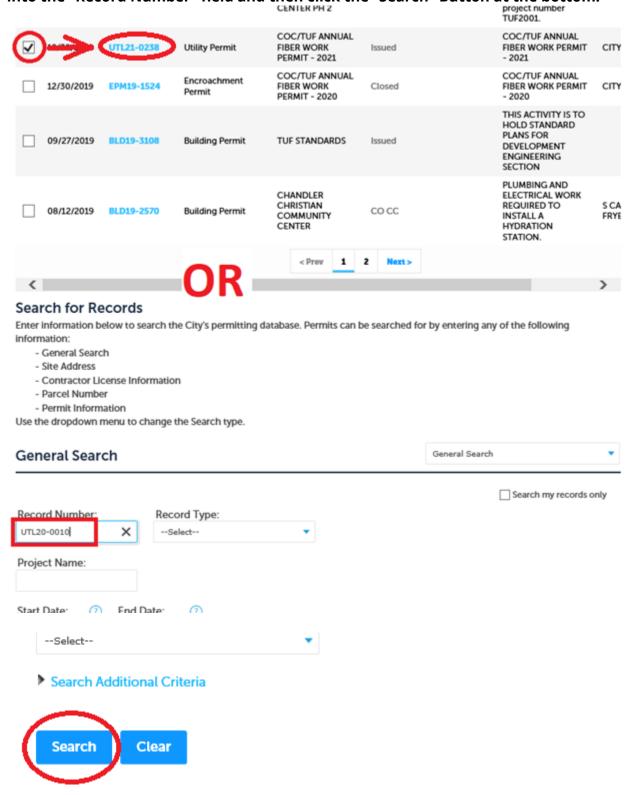
Site

To Apply, Pay and Issue Permit please register for an account by clicking in the right corner where it reads "Register for an Account". Once you register, log in, then click on Apply for a Permit under Development Services, next click the box above Applicant will auto-fill with your registration info. Once the permit is paid for; you will be able to

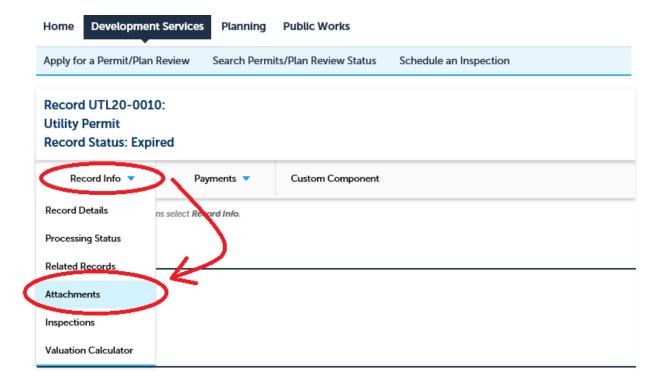
Next, click on "Search Permits/Plan Review Status" at the bottom of the page:

applicant will receive an email and link with instructions on printing your permit, please keep a copy of permit at job site. To schedule inspection requests click on Search Permits under Development Services. Type in your permit number and click on the search option, your permit number will be listed under the Search option. Click on the permit number for a list of inspections, next click on the word schedule listed at the far right of the inspection. A calendar will appear and you will be able to schedule inspections. **Development Services** Planning Create an Application Search Permits/Plan Review Status Search Cases Schedule an Inspection General Information **Public Works** Lookup Property Information Create an Application Search Applications Schedule an Inspection

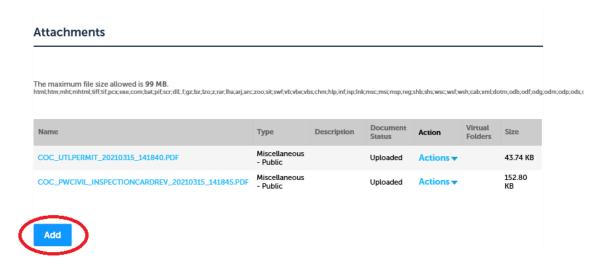
Then, either check the box to select the permit to be accessed from the list of Records and click on the permit number or scroll down and enter the permit number into the "Record Number" field and then click the "Search" Button at the bottom:



Next, select the "Record Info" drop down tab and then click on "Attachments":



Then click on the "Add" button and follow the prompts to upload the document.



REVISIONS:

Please note that any significant changes in the field may require a revision and an additional review by Engineering prior to work continuing in the field. Please work with the City Inspector to determine if a revision submittal is required or not.

If a revision is required, please follow the requirements listed in the plan review checklist for clouding the changes to the approved plans. Plans can then be uploaded using the same process as is described for a resubmittal above, but the additional step of sending an email to plans.coordination@chandleraz.gov must be taken as the system will no longer alert the permit counter that new documents have been

uploaded after a permit has been approved, otherwise the permit counter would get emails anytime an inspection document was uploaded during the construction process that they are not required to act on. Please include the permit number in the subject line of the email.

Also, when submitting a revision, please include the word REVISION and the date in the document filename.

REVISION VERSUS RESUBMITTAL CLARIFICATION:

Please note the difference between the term "revision", which is used only after plans have already been approved by the City, run into field problems that require changes, and have been uploaded for an additional review and the term "resubmittal", which is used when plans have not yet been approved, but have been sent back for corrections, have been updated, and have been uploaded for a subsequent review. Since there is a different process with how the front counter processes the different types of requests this clarification helps keep things straight.

Revisions require clouding around the changes that were made to the design and resubmittals do not. That is a distinction that is significant for plan reviewers and inspectors in the field, but most importantly construction contractors, so that they know whether they are working from the correct set of plans or not.

More simply put:

Resubmittal = before City stamps plans approved; no clouding required. Revision = after City stamps plans approved; clouding is required.



Civil Engineering Utility Company Notes (Supplemental Conditions of Approval)

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT M.A.G. STANDARD SPECIFICATIONS AND DETAILS AS SUPPLEMENTED BY THE CITY OF CHANDLER.
- 2. THE CITY ENGINEER'S OFFICE SHALL BE NOTIFIED OF WORK THROUGH THE ON-LINE INSPECTION REQUEST PROCESS AT https://chandleraz.gov/clics/ OR BY CALLING THE AUTOMATED PHONE SYSTEM AT (480) 782-3100. PLEASE SEE THE INSPECTION CARD ISSUED WITH THE PERMIT FOR MORE INFORMATION ON HOW TO SCHEDULE AN INSPECTION. A CONTACT NAME AND PHONE NUMBER MUST BE INCLUDED IN THE SCHEDULING COMMENTS. EMERGENCY WORK PERFORMED AFTER NORMAL WORK HOURS SHALL BE REPORTED TO THE POLICE DISPATCHER AT (480) 782-4132.
- 3. ALL STREET CROSSINGS SHALL BE BORED USING HORIZONTAL DIRECTIONAL DRILLING (H.D.D.) IN ACCORDANCE WITH M.A.G. SECTION 608 AND CITY OF CHANDLER SUPPLEMENTAL SPECIFICATIONS UNLESS APPROVAL TO OPEN CUT HAS BEEN RECEIVED FROM THE CITY ENGINEER AND SUCH APPROVAL HAS BEEN NOTED ON THE PERMIT. ALL PAVEMENT REPLACEMENT SHALL BE IN ACCORDANCE WITH M.A.G. STANDARD DETAIL 200, "T" TOP, WITH FULL DEPTH ABC BACKFILL.
- 4. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE CHANDLER TRAFFIC BARRICADE MANUAL. TRAFFIC RESTRICTIONS ARE NOT PERMITTED ON ARTERIALS AND MAJOR COLLECTORS PRIOR TO 8:30 A.M. OR AFTER 4 P.M.
- 5. RESTRICTIONS IN ALLEYS WILL BE COORDINATED IN ADVANCE WITH THE SOLID WASTE SERVICES DIVISION (480) 782-3510.
- 6. PERMITS ARE REQUIRED FOR ALL WORK IN CITY RIGHTS-OF-WAY. A COPY OF THE PERMIT AND APPROVED PLAN SHALL BE AVAILABLE AT THE JOB SITE. FAILURE TO SECURE PERMITS PRIOR TO STARTING CONSTRUCTION WILL RESULT IN THE ASSESSMENT OF PENALTY FEES.
- 7. ALL WORK IN THE RIGHT-OF-WAY SHALL BE COMPACTION TESTED AND RESULTS KEPT ON FILE FOR A MINIMUM OF ONE YEAR.
- 8. ANY DAMAGE TO IRRIGATION SYSTEMS WITHIN THE CITY RIGHT-OF-WAY SHALL BE REPAIRED, WITHIN 48 HOURS OF SAID DAMAGE, TO PREVENT LOSS OF LANDSCAPE MATERIAL.
- 9. WHEN TRENCHING IN ALLEYS, ALL TRENCH SPOILS SHALL BE REMOVED FROM THE AREA AND ALL TRENCH BACKFILL SHALL BE AGGREGATE BASE IN CONFORMANCE WITH M.A.G. SECTION 702.2 AND INSTALLED PER SECTION 601.4.4, BACKFILL TYPE I (PER TABLE 601-2). A MINIMUM OF 36" DEPTH OF COVER SHALL BE MAINTAINED BY ALL UNDERGROUND FACILITIES INSTALLED IN THE ALLEY AND THE ALLEY SURFACE OVER AND ADJACENT TO THE TRENCH SHALL BE NEAT AND CLEAN OF ALL SPOILS.

EXCEPTION: IF A TRENCH IS 24" WIDE OR WIDER, NATIVE MATERIAL MAY BE USED AS BACKFILL TO WITHIN 6" OF FINISHED GRADE AND INSTALLED PER MAG SECTION 601.4.4, BACKFILL TYPE I (PER TABLE 601-2). THE TOP 6" OF THE TRENCH BACKFILL SHALL BE COMPLETED WITH AGGREGATE BASE.



Civil Engineering Utility Company Notes (Supplemental Conditions of Approval)

ALL TRENCH SPOILS ADJACENT TO THE TRENCH SHALL BE REMOVED FROM THE AREA AND THE ALLEY LEFT IN A NEAT AND CLEAN CONDITION.

10. WHEN CONTRACTORS OR UTILITY COMPANIES CALL IN FOR BLUESTAKING OR CONSTRUCTION AREAS, "SEMI-PERMANENT", OR APPROVED ALTERNATE 3-6 MONTH DURATION BLUE-STAKE PAINT SHALL BE SPECIFIED. IN ADDITION, "STAKE CHASERS" WILL BE SPECIFIED FOR MARKING ACROSS LANDSCAPED YARDS/AREAS.

UTILITY COMPANIES OR CONTRACTORS FOR UTILITY COMPANIES THAT EMPLOY INDISCRIMINATE/EXCESSIVE BLUE-STAKE MARKING ACROSS RESIDENTIAL/BUSINESS DRIVEWAYS OR YARDS WILL BE RESPONSIBLE FOR RESTORING RIGHT-OF-WAY, UTILITY EASEMENT, AND/OR ADJOINING PROPERTY OWNERS AREA TO ITS ORIGINAL UNMARKED CONDITION.

EXCEPTION: FOR LONG DURATION CONSTRUCTION PROJECTS ON MAJOR ARTERIALS OR MAJOR STREETS, OR CERTAIN SPECIALTY TYPE CONSTRUCTION PROJECTS, THE CONTRACTOR/UTILITY COMPANY MAY ASK THE CITY ENGINEER FOR APPROVAL TO USE LONGER DURATION BLUE-STAKE PAINT. IN ADDITION, IF THE REMOVAL OF "STAKE CHASERS" OCCURS OR IS EXPECTED TO RESULT, THE CONTRACTOR/UTILITY COMPANY MAY ASK THE CITY ENGINEER FOR APPROVAL TO USE BLUE-STAKE PAINT MARKING ACROSS LANDSCAPED AREAS.

11. UTILITY CLEARANCE REQUIREMENTS: ANY AND ALL MORE STRINGENT SEPARATION REQUIREMENTS REQUIRED BY FEDERAL, STATE, OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

A SIX-FOOT MINIMUM HORIZONTAL SEPARATION FROM THE EXTERIOR WALL OF ANY UNDERGROUND DRY UTILITY SHALL BE PROVIDED TO THE EXTERIOR WALL OF WATER AND SEWER MAINS. ALL FIRE LINES, REGARDLESS OF SIZE (INCLUDING HYDRANTS AND OTHER FIRE SERVICE CONNECTIONS) ARE CONSIDERED MAINS.

A THREE-FOOT MINIMUM HORIZONTAL SEPARATION FROM THE EXTERIOR WALL OF ANY UNDERGROUND DRY UTILITY SHALL BE PROVIDED TO THE EXTERIOR WALL OF WATER AND SEWER SERVICES. REFER TO M.A.G. SECTION 608 AND CITY OF CHANDLER SUPPLEMENTAL SPECIFICATIONS FOR HORIZONTAL DIRECTIONAL DRILLING (H.D.D.) CLEARANCE REQUIRMENTS.

A TWO-FOOT MINIMUM VERTICAL SEPARATION FROM THE EXTERIOR WALL OF ANY UNDERGROUND DRY UTILITY SHALL BE PROVIDED TO THE EXTERIOR WALL OF ANY WET UTILITIES.

FOR ADDITIONAL INFORMATION REGARDING STANDARD UTILITY LOCATIONS REFER TO THE CITY OF CHANDLER STANDARD DETAILS AND SPECIFICATIONS, <u>STREET SERIES</u>, <u>C-200 – C-259</u>.

DEPTH REQUIREMENTS SHALL BE IN ACCORDANCE WITH CITY OF CHANDLER MINIMUM COVER REQUIREMENTS OR AT THE DISCRETION OF THE CITY ENGINEER.



Utility Plan Review Checklist

Reasons for Permit Rejection:

| A. | PLAN REQUIREMENTS – Refer to the <u>Utility Permit Manual (UDM-148)</u> . Complete construction plan drawings must be provided in accordance with the following: |
|----|--|
| | 1. Include stationing and offsets for all existing and proposed above ground facilities within the proposed construction area. |
| | 2. Scale or dimension drawing to accurately depict relationships among the physical features within the construction area and adequately enough to clearly identify potential conflicts. Preferably 1"=40' or 1"=20' for drawing scale. |
| | 3. Dimension ties of existing and proposed underground utility lines to monument lines in streets and to property lines in alleys and easements, not to back-of-curb, edge of pavement, sidewalks, etc. The lines being tied to the dimensions should be clearly and easily identifiable and labelled or the dimension itself should be labelled to identify the line it is tied to. |
| | 4. All offsets and dimensions should be measured in decimal feet. |
| | 5. Show locations and limits of proposed construction to include existing and proposed rights-of-way and adjacent easements clearly labeled and dimensioned. Right-of-Way lines must be labeled "R/W", "RW" or "ROW". Clearly differentiate between City of Chandler and others' ROW. |
| | 6. Include property addresses or parcel numbers and lot lines |
| | 7. Include correct street names. |
| | 8. Show linear trench/bore feet in ROW and private property on plans. |
| | 9. Joint trench must identify all companies sharing in the trench. |
| | 10. Include the location and size of all existing and proposed facilities to which the proposed construction will either cross or run parallel to within the right-of-way corridor. Lip-of-gutter, edge of pavement, sanitary sewer lines, water lines, irrigation facilities, other utilities, landscaping, structures, street lights and traffic signals must be shown and drawn to scale extending a minimum of twenty feet (20') beyond the construction limits. Simply using a symbol to indicate these facilities is not sufficient. |
| | 11. A legend should be included to show all symbology used on the plans. Distinguish each type of improvement and differentiate between existing and proposed. |
| | 12. Show all proposed improvements and associated notes in black and in bold. For color plans, show all existing linework and facilities in 811 Uniform Color Code for Marking Underground Facilities which can be found on the AZ811 website at http://www.arizona811.com/ . |
| | 13. Storm drains, sanitary sewer lines, waterlines, and gas lines over twelve inches (12") in diameter must be shown drawn to scale. All conduit systems over twelve inches (12") in diameter/width or larger must be shown to scale. |
| | 14. Identify and dimension paving improvements. In areas with new development, all existing and proposed paving improvements must be shown. |
| | 15. Bore/trench depth must be in compliance with <u>City of Chandler Supplement to MAG Section 360 (page 8)</u> and City of Chandler minimum coverage requirements. See the City of Chandler <u>Minimum Coverage Requirements</u> and <u>Engineered Utility Bore Detail C-112</u> for additional information. |
| | |

Revised: 3-31-2023

Utility Plan Review Checklist

| u | 16. Proposed utility crossings should be at or as near as is practicable to a 90-degree angle to the road monument line. |
|---|--|
| | 17. Show all bore/receiving/relief pits and potholes. The City waives the sewer main potholing requirement to help preserve the integrity of the streets. The contractor must check elevations at the up and down stream manholes. |
| | 18. Proposed improvements that fall within the vicinity of a proposed City Capital Improvements Program (CIP) or development project limits must be coordinated with the proposed capital or development project. The proposed improvements for all projects within and extending a minimum of twenty feet (20') beyond the construction limits must be shown on the plans and show that there are no conflicts. |
| | 19. Provide a complete title block to include the name and contact information of the designer or engineer. |
| | 20. Include a north arrow on each plan sheet, preferably with the orientation of north up or to the right. |
| | 21. Include a vicinity map indicating the nearest major cross streets. |
| | 22. Include an AZ811 note or symbol stating, "Contact Arizona 811 at least two (2) full working days before construction." |
| | 23. Include or call out all MAG and City of Chandler specifications and details as needed. Refer to the City of Chandler Unified Development Manual for all City specifications and details at: https://www.chandleraz.gov/government/departments/development-services/unified-development-manual . |
| | 24. Include the City of Chandler <u>Civil Engineering Utility Company Notes</u> on the plans. The most current notes can be found at: https://www.chandleraz.gov/sites/default/files/TelecommunicationsUtilityFranchise/UDM_UtilityCompanyNotes.pdf |
| | 25. Separation from all facilities must be in accordance with Federal, State, and local requirements. See section D of Part 4 of the <u>Utility Permit Manual (UDM-148)</u> , the <u>Civil Engineering Utility Company Notes</u> , and the <u>City of Chandler Supplement to MAG Section 608 (page 13)</u> and <u>Engineered Utility Bore Detail C-112</u> as applicable for City of Chandler requirements. |
| | 26. Include trench and bore cross section detail(s) showing width, depth and number of conduit(s) or pipe(s). Depth must be in accordance with the requirements in the City of Chandler Minimum Cover Requirements. No direct buried lines allowed. Unless otherwise noted, all conduits must be two (2) inch minimum PVC schedule 40 or better. Conduits should be sized and placed to allow replacement of, or addition of, capacity to existing facilities without disturbing the surface. |
| | 27. All proposed equipment details must be shown and dimensioned on the plan such as pedestals, transformers & pads, switching cabinets, utility vaults, etc. |
| | 28. Include the utility company logo and project number. |
| | 29. Design the running line route out of the paved roadway. If this option is unavailable, identify the conflict on the plan with a note explaining why the design must encroach into the pavement. Please note that the City of Chandler prefers utility installations behind the sidewalk and back-of-curb. If this option is unavailable, the second option is in the median. The final option should be to install under the roadway due to traffic congestion and pavement damage concerns. A pavement cut of new pavement is not allowed (0-2 years) or may be subject to damage/restoration fees (0-6 years). See section 7 of the Permit & Pavement Fee Schedule . |
| | 30. Design the running line route to minimize the impact to the public right-of-way and the safety of the travelling public and to avoid congestion as required by Chandler City Code Section 46-6.1(A). |

| | 31. Comply with MAG and the City of Chandler Standard Details and Specifications. Refer to MAG Section 336 & 360 and Detail 200-1, as well as the City of Chandler supplements thereto and additionally, City Details C-103, C-104, and C-111. |
|----|---|
| | 32. All revisions to approved plans must be made distinctive on the revised plans. "Clouded" representation of revisions to approved plans is the preferred method. Changes to plans that have not been approved do not require "clouding". |
| | 33. Project is too large for a single submittal. Please limit each application to sections no longer than three-quarters (3/4) to one (1) mile in length or to no more than 5 separate locations unless all locations are contained within a single quarter section. Alternatively, a larger project may be accepted, at the discretion of the City, provided an additional file or files such as a dwg file or files may be required as a condition of acceptance. |
| В. | PROFILE REQUIEMENTS – Complete profile drawings showing the following minimum requirements must be provided for all projects that require utilities to be bored and for projects that are trenched in areas with proposed grade changes or proposed utility improvements. An accurate profile must be approved before starting the bore. These requirements apply not only to longitudinal and lateral street bores, but also utility bores outside paved areas crossing existing utilities. |
| | 1. Profile Required per City <u>Engineered Utility Bore Detail C-112</u> and the <u>City of Chandler Supplement to MAG Section 608</u> (page 13). The bore profile should start at the bore drill rod entry point shown as point "A" in <u>MAG Section 608</u> Figure 608-1. |
| | Two options are typically available: |
| | a. Provide a "designed" bore profile using current pothole data. Potholing requires it's own separate permit. In some cases this option may be required by the City due to proposed facilities that have been designed as part of a City or development project that may or not yet be installed in the field at the time of construction of this project or to verify that the proposed running line will be possible to install in areas heavily congested with existing utilities. |
| | b. Or, in most cases, by completing a blank profile sheet in the field based on preliminary potholing at the time of construction to provide an "actual" bore profile. "Actual" profiles are required for all drilling projects, including "hog drilling" and for projects that already have "designed" profiles and must be verified and approved by the City inspector prior to starting the drilling operation. |
| | 2. Show all bore pit locations, including receiving and relief pits and indicate the sizes of each pit. |
| | 3. Depth of cover or elevations should be taken from the existing surface grade at intervals of one hundred (100) feet or less in the same alignment as proposed construction. If proposed grade changes are planned (such as, due to a CIP or development project), minimum covers should be based on whichever elevations are the lower of the existing and proposed grades. |
| | 4. A vertical scale that adequately depicts the installation of existing facilities is required. Please specify scale (1"=2', 1"=3', 1"=4', 1"=5'). Use different vertical and horizontal scales on profile details is preferred for clarity. |
| | 5. Separation from all facilities must be in accordance with Federal, State and local requirements. See section D of Part 4 of the <u>Utility Permit Manual (UDM-148)</u> , the <u>Civil Engineering Utility Company Notes</u> , and the <u>City of Chandler Supplement to MAG Section 608 (page13)</u> and <u>Engineered Utility Bore Detail C-112</u> as applicable. |
| | 6. Existing and proposed grades at intervals of one hundred (100) feet or less in the same alignment as the proposed constructions must be in a continuous line on the plans throughout the project. |
| | 7. Show all existing and proposed facilities that the proposed construction will cross. Storm drains, sanitary sewer lines, water lines, conduit systems, and other underground facilities (e.g. scuppers, catch basins, concrete footings, etc.), must be drawn to scale (showing approximate outside dimensions). |

Utility Plan Review Checklist

| | B. Show conduit/sleeve on profile. No direct buried lines allowed. Unless otherwise noted, all conduits must low (2) inch minimum PVC schedule 40 or better. Conduits should be sized and placed to allow replacement of or addition of, capacity to existing facilities without disturbing the surface. | |
|----|---|----------------------|
| | . Elevations must be City of Chandler datum and indicated on the plans, if needed. | |
| C. | UNDERGROUND AND OVERHEAD REQUIREMENTS | |
| | . Temporary overhead services for construction may be permitted for a six (6) month period, typically no more han 12 months is allowed and requires written approval from the Director of the Development Services Department. No final occupancy will be granted until all temporary services are removedSee subsection F of Section 4 of chapter 47 of Chandler City Code. | |
| | 2. Minimum overhead clearances must be in accordance with NESC, section 23 (for example, typical clearances are 15.5 feet for insulated communications conductors and 16.0 feet for 0 to 750V electric supply cables). | ; |
| | B. Placement of new Aerial facilities or poles IS NOT ALLOWED including aerial span replacement of faulty liber/copper/coax cable and over-lashing to existing plant, or installation of new strand. Placement of new aer equipment is also NOT ALLOWED including: pole mounted or strand mounted terminators, repeaters, line extenders, transformers, capacitor banks, aerial storage loops, splice enclosures, etc. All new facilities must be blaced underground. See <u>section 9.2 of Chapter 46</u> and <u>section 4 of Chapter 47</u> of Chandler City Code. | |
| | A. Aerial overhead in City ROW or PUE must be shown and called out on plans. If a riser is to be placed, identify new connection or existing aerial plant being tied into and method of connection. Existing aerial fiber storage and splice enclosures are considered embargoed and must be converted to underground. A one-time installation of a riser stub cable may be permitted at the discretion of the City Engineer and should be sized appropriately and spliced accordingly so that future access to aerial splice enclosures is not required. New risers are not allowed on poles when high-voltage power lines (above twelve (12) kV) are present as required by section 4 of Chapter 47 of Chandler City Code. Any permitted aerial installations are also required to meet any applicable standards outlined in the City of Chandler Design Standards, Concepts, & Requirements for Small Wireless facilities in the Right-of-Way. | - |
| | Fig. Convert to first existing pole beyond property limits. Place underground all overhead utility lines, either within a proposed development or redevelopment project within public ROW or easements adjacent to the project. Utility poles and lines are defined herein as the poles, structures, wire, aerial cables and related facilities used in the distribution of electricity or in the transmission of telecommunications, telegraph, data, radio or video communications. This requirement includes both new and existing utility lines on and adjacent to the project, including lines which extend across public streets, alleys or easements adjacent to the property being developed or redeveloped. Existing utility lines adjacent to a project must be under-grounded up to the first existing pole beyond the limits of the property. This requirement includes the undergrounding of all existing overhead service lines attached to the lines to be removed along with necessary conduit, supports, restoration, etc., necessary to convert the service line from overhead to underground. The requirement must apply regardless of the existence of easements for overhead lines. When high-voltage lines (above twelve (12) kV or similar) are present, all lines other than the high-voltage lines must be placed underground. See section 4 of Chapter 47 of Chandler City Code. | ss / he ice |
| | Verify joint trench opportunities, with utilities for installations greater than six hundred (600) feet and for arterial street crossings. The most common joint trench designs involve some combination of dry utilities, i.e. electric, communication (telephone, cable, video service, fiber optic, data lines) and gas, with the exception of high pressure (greater than 60 psig) gas lines and lines that are six (6) inches or greater in diameter. If the associated utilities decline joint trench opportunities, submit written documentation to Utility Coordination email at tuf@chandleraz.gov, or submit the documentation along with the plan set at the time of permit application. | via |
| Má | ing Address Development Services Department Utility Plan Review Check | dist |

Revised: 3-31-2023

| | 7. Place all service lines underground. See <u>section 9.2 of Chapter 46</u> and <u>section 4 of Chapter 47</u> of Chandler City Code. |
|----|---|
| D. | <u>UTILITY CLEARANCE REQUIREMENTS</u> - Any and all more stringent separation requirements required by Federal, State, or Local codes or ordinances take precedence for the following: |
| | 1. Maintain a six (6) foot minimum horizontal separation from the exterior wall of any underground non-City utility must be provided to the exterior wall of storm drains, water and sewer mains. All fire lines, regardless of size, (including hydrants and other fire service connections) are considered mains. |
| | 2. Maintain a three (3) foot minimum horizontal separation from the exterior wall of any underground non-City utility must be provided to the exterior wall of water and sewer service lines. This separation applies to open trenching only. Refer to MAG section 608 and the <u>City Supplement to MAG Section 608</u> for clearance requirements while boring. |
| | 3. Maintain two (2) foot minimum vertical separation from the exterior wall of any underground non-City utility must be provided to the exterior wall of all wet utilities. |
| | 4. Utilities should be installed in standard locations to minimize the impact to the public right-of-way and the safety of the travelling public and to avoid congestion as required by <u>Chandler City Code Section 46-6.1(A)</u> . For additional information regarding standard utility locations refer to the City of Chandler Standard Details and Specifications, Street Series, <u>C-200 – C-254</u> . |
| | 5. Depth requirements must be in accordance with City of Chandler <u>Minimum Cover Requirements</u> or at the discretion of the City Engineer. |
| Ε. | ABOVE GROUND STRUCTURES |
| | 1. All above ground structures, over three (3) feet in height must comply with the development standards of the underlying zoning district. See <u>Chapter 35 of Chandler City Code</u> . |
| | 2. Identify potential location of structure within neighborhood. Select the site on the basis of aesthetics AND technical/engineering restrictions. |
| | 3. Equipment cabinets with air-conditioning must be enclosed by walls and setback a minimum of fifteen (15) feet from lots where the existing or planned primary use is a residential dwelling. |
| | 4. Structure must be placed on the same side as utility poles. |
| | 5. Do not block trash truck access and alley access, including residential or commercial alley access gates or restrict gate functionality. |
| | 6. No structure to exceed three (3) feet in height in front yard of residential homes. |
| | 7. No structures over eighteen (18) inches in height are allowed within one (1) foot of the back-of-curb or the edge of a sidewalk. Utility structures, such as streetlight poles, utility poles, utility cabinets, or utility vaults are not allowed within five and a half (5.5) feet of the back-of-curb, but obstructions may be located as close as two and a half (2.5) feet from the back-of-curb when adjacent to deceleration lanes, parking lanes, right turn lane or bus bays. See sections 4.2.4.3 through 4.2.5 in the Engineering & Design Standards Manual Chapter 4 - Street Design and Access Control. |
| | 8. Provide three (3) photographs of the location of the proposed structure, one (1) at 90 degrees, and the other two at 45 degrees on either side of the proposed location. Identify the location of the proposed structure; mark the location with white paint, use an orange traffic cone, etc. |
| | 9. Show the dimensions of all proposed structures (including poles) on the plans. |
| | 10. Include detail(s) of the actual structure(s) being proposed. |
| | |

| | Figure 4-D in | ght-triangle compliance. No structure to exceed two (2) feet in height within the sight triangle. See in the Engineering & Design Standards Manual Chapter 4 - Street Design and Access Control and City 6, C-247 and C-248. |
|----|--|---|
| | 12. Obtain L | icense from the City to install bus shelter in City right-of-way. |
| | 13. Electric (| Company Meter (aka Service Entrance Section): |
| | | a. To request an address for a private electrical service in City ROW indicate in the Detailed Description block of the permit application that "a new electrical service is being installed and a new address will be required". |
| | | b. All electric company meters shall be installed in the ROW or PUE. The location of the meter equipment shall have minimum ingress and egress clearance from private property lines and driveways. |
| | | c. All electric company meters shall maintain minimum clearance from above-ground utility cabinets and below-ground utilities. $ \\$ |
| | | d. All electric company meters shall be installed in a location that does not impair or interfere with the SDE or SVT safety requirements of the City. |
| | | e. The electric company meters shall be screened or contained within a "Myers-type" or "Milbank-type" pedestal cabinet that is painted to match the ground equipment or as specified by the City. (see Exhibit E1 of the <u>City of Chandler Design Standards, Concepts, & Requirements for Small Wireless Facilities in the Right-of-Way</u>) |
| | | f. In the case where screening is not required, the City may specify the paint color of the electric company meter cabinet on a case-by-case basis. |
| F. | MANHOLE | /VAULT REQUIREMENTS |
| | dimensions | detail for each type and size of vault, (whether manhole or handhole) proposed on the plan. Show of all proposed vaults on the plans. Details for all components of multi-piece vaults must be included collars, bottoms, tops, etc.). |
| | | should be designed and installed outside of existing and future sidewalk areas whenever possible. vault placement in the field must be approved by the City Inspector prior to excavation. |
| | | ace vaults outside of the paved area whenever possible. If this is not possible, please provide a note s explaining why it is not. |
| | vaults place concrete ba and the asso as required | l engineering specifications for vaults must be included for all vaults placed in the right-of-way. For d in the pavement or alley, a traffic rating of H20/HS20 or better is required. Concrete vaults with a se must include a sump, a concrete lid, a frame and cover that meets MAG Standard Details 422-425 ociated MAG specifications. All precast manhole bases must be placed on 8 inches minimum of ABC by MAG section 702 compacted to 100% maximum density. All manholes and hand holes must be r manufacturer, MAG and City of Chandler specifications. |
| | DEMARC be should be p other with a | e meet point between two companies is not a single vault (which is the 1 st choice of the City since the tween the companies is typically only one splice/connection point in one of the vaults anyway) vaults laced as close together as possible (no more than 3 feet apart, but preferably butted up against each conduit cored through the sidewalls) so as not to create a space between the vaults that neither aims Locate responsibility for. |

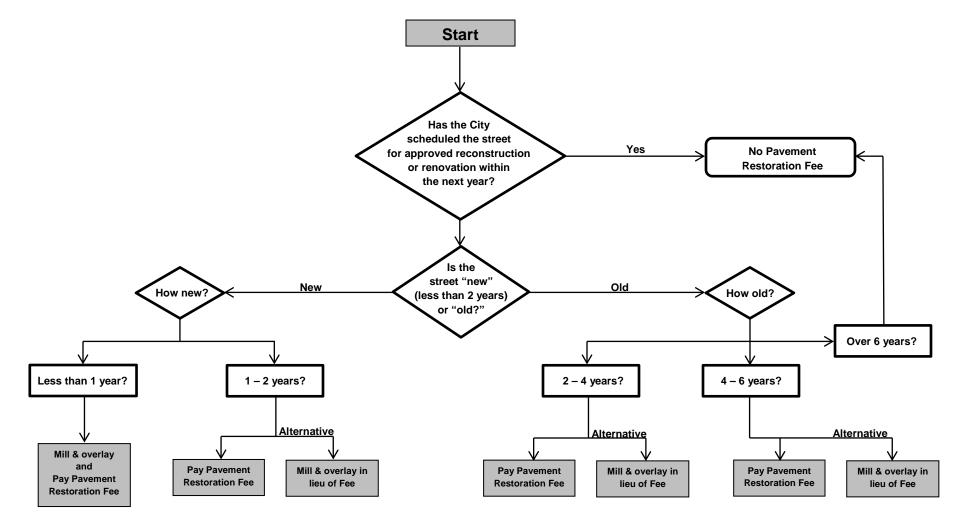
Please Correct All Deficiencies and Resubmit

Mailing Address Mail Stop 405 PO Box 4008 Chandler, Arizona 85244-4008 Development Services Department Telecommunication & Utility Franchise Telephone (480) -782-3310 www.chandleraz.gov Utility Plan Review Checklist Revised: 3-31-2023

Page 6 of 6



Pavement Cut Requirements*



*Including entities with Franchise agreements – Approval to cut pavement is required and the payment of Pavement Restoration Fees (if pavement is less than 6 years old) and mill & overlay/inlay (for pavement less than 1 year old). A company does have to apply IN WRITING for approval to mill & overlay in lieu of paying the Pavement Restoration Fee and meet the associated reconstruction requirements of the Pavement Restoration Fee Ordinance (Section 46-2.7 of City Code).

Version 3.2



MINIMUM COVER REQUIREMENTS FOR PROPOSED UTILITIES IN DEVELOPED AREAS

| ITEM | DESCRIPTION | ARTERIAL OR | LOCAL STREETS | UNDEVELOPED (No Curb & | PRIVATE PROPERTY | * UNDEVELOPED (No Ultimate ROW) |
|--------------------------------|-------------------|----------------|------------------|---------------------------|---------------------|------------------------------------|
| | | COLLECTOR | & ALLEYS | Gutter) | TROTERT | Oitimate NOVV) |
| | | STREETS | | , | | |
| POWER | | | | | | |
| | 0-600 Volts | 36"* | 36" | 36"* | 24" | Please be |
| | 601-7200 Volts | 42" | 42" | 48" | 42" | advised that all |
| | 12kV (Local Dist) | 42" | 42" | 48" | 42" | proposed |
| | 12kV + (30 | 48" | 48" | 54" | 48" | utilities |
| | Feeder) | | | | | designed in |
| | Street Light | 36" | 36" | 36" | 36" | locations that |
| | Circuit | | | | | are not fully |
| | | | | | | developed will |
| | | | | | | need to be |
| GAS | | | | | | |
| GAS | | | | | | installed lower |
| | Services | 36" | 36" | 36" | 24" | than the |
| | 1" – 6" Diameter | 36" | 36" | 36" | 36" | minimum |
| | > 6" Diameter | 36"* | 36" | 36" | 36" | requirements. |
| | | | | | | Refer to the |
| MANHOLES | | 36" | 36" | 48" | 36" | next page if |
| | | | | | | proposed |
| | | | | | | utilities will be |
| TELECOMMUNICATIONS | Telco and CATV | 48"* | 36"* | 48"* | 24" | placed within future road |
| (Copper or Fiber Optic) – | | | | | | widening ROW. |
| In accordance with <u>City</u> | | | | | | Wideling NOW. |
| of Chandler Supplement | | | | | | |
| to MAG Section 360 | | | | | | |
| | | | | | | |
| | | 1 | | l | 1 | |

NOTE: THE CITY ENGINEER MAY APPROVE DEVIATIONS FROM THESE STANDARDS UNDER UNUSUAL AND COMPELLING CIRCUMSTANCES.

<u>Minimum Coverage Requirements for Utility Placement within Ultimate Right-of-Way to</u> <u>Accommodate Future Road Widening and Street Reconstruction</u>

The City of Chandler will be expanding roadways to accommodate population growth.

Roadway expansion projects will disturb the existing cross-section and cross-slope of the street during the construction process. The City has implemented minimum coverage requirements for new street installments to reduce utility conflicts and relocations in the future. **Refer to the next page if proposed utilities will be placed within future road widening ROW.**



MINIMUM COVER REQUIREMENTS FOR PROPOSED UTILITIES IN UNDEVELOPED AREAS ARTERIAL STREET – See Detail C-203

| ITEM | DESCRIPTION | UNDER EXISTING & FUTURE | FUTURE BACK OF |
|--------------------------|----------------------|-------------------------|----------------|
| | | PAVEMENT & MEDIANS | CURB |
| POWER | | | |
| | 0-600 Volts | 60" | 48" |
| | 601-7200 Volts | 66" | 54" |
| | 12kV (Local Dist) | 66" | 54" |
| | 12kV + (30 Feeder) | 72" | 60" |
| | Street Light Circuit | 60" | 48" |
| | | | |
| | | | |
| GAS | | | |
| | Services | 60" | 48" |
| | 1" – 6" Diameter | 60" | 48" |
| | > 6" Diameter | 60" | 48" |
| | | | |
| | | | |
| TELECOMMUNICATIONS | Telco and CATV | 60" | 48" |
| (Copper or Fiber Optics) | | | |
| | | | |

NOTE: THE CITY ENGINEER MAY APPROVE DEVIATIONS FROM THESE STANDARDS UNDER UNUSUAL AND COMPELLING CIRCUMSTANCES.

COLLECTOR STREET - See Detail C-206

| | COLLECTOR STRE | See Detail e 200 | |
|--------------------------|----------------------|-------------------------|----------------|
| ITEM | DESCRIPTION | UNDER EXISTING & FUTURE | FUTURE BACK OF |
| | | PAVEMENT & MEDIANS | CURB |
| POWER | | | |
| | 0-600 Volts | 36" | 36" |
| | 601-7200 Volts | 42" | 42" |
| | 12kV (Local Dist) | 42" | 42" |
| | 12kV + (30 Feeder) | 48" | 48" |
| | Street Light Circuit | 36" | 36" |
| | | | |
| | | | |
| GAS | | | |
| | Services | 36" | 36" |
| | 1" – 6" Diameter | 36" | 36" |
| | > 6" Diameter | 36" | 36" |
| | | | |
| | | | |
| TELECOMMUNICATIONS | Telco and CATV | 60" | 48" |
| (Copper or Fiber Optics) | | | |
| | | | |
| | | | |

NOTE: THE CITY ENGINEER MAY APPROVE DEVIATIONS FROM THESE STANDARDS UNDER UNUSUAL AND COMPELLING CIRCUMSTANCES.

Table 4.3
Typical Intersection Curb Return Radii

| TYPE OF INTERSECTION | TYPICAL RADII (FACE OF CURB, FT.) |
|---|--------------------------------------|
| Arterial-Arterial, Arterial-Collectors, and Industrial Roads | 30 |
| Arterial-Locals *, Collector-Collectors, and Collector-Locals | 25 |
| Local-Locals | 20 |

^{*} For gated entries, refer to Table 4.5 for driveways.

4.2.4.3 Sight Distance

Corner sight distance requirements at intersections are given on City Details C-246 and C-247. An additional requirement from the Zoning Code, known as the "triangle area," is shown in Figure 4-D. There is an additional engineering requirement for traffic control device visibility noted on Figure 4-D.

No obstructions of any type over 18 inches high, including landscaping, are allowed within 1 foot of the back-of-curb.

Stopping sight distance is the minimum sight distance allowable for all intersection approaches. Minimum stopping sight distances are shown in Table 4.1 for flat terrain. Roadways on grade will increase or decrease these distances, and in such cases, references such as the American Association of State Highway Transportation Official's (AASHTO) policies and guidelines for roadway design should be consulted.

Three types of movements for traffic entering a major street from a minor side street or driveway result in three different sets of sight distance requirements:

- a. Right turns from the minor street onto the major street.
- b. Left turns from the minor street onto the major street.
- c. Left turns into the intersection or access point from the major street.

Sight-distance requirements for entering arterial or collector streets are shown on City Detail C-246. Heights of buildings, walls, landscaping and other similar obstructions should be restricted within the sight triangles. Sight distance is measured from a driver's eye height of 3.5 feet to an approaching target 4.25 feet high.

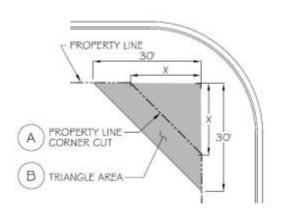
Along local or collector streets with residential frontage where motorists can expect frequent conflicts with vehicles entering or exiting driveways, a minimum sight distance of 200 feet is required, as illustrated in City Details C-247 and C-248. As explained above for arterial and collector streets, heights of obstructions should be restricted within the sight triangles to

provide a clear field of vision from a driver's eye height of 3.5 feet to an approaching target 4.25 feet high.

4.2.4.4 Corner Restrictions

The City's Municipal Code Chapter 48-10.2 (Public Works - Subdivision) specifies a range of triangular cutoffs for the corner property line at intersections. Additionally, Figure 4-D below requires that the $30' \times 30'$ area be kept clear of visual obstructions between 2' and 6' in height.

Figure 4-D Triangle Area



X = 10' FOR ALLEYS
15' FOR LOCAL-LOCAL INTERSECTIONS,
20' FOR ALL OTHER INTERSECTIONS,
PER MUNICIPAL CODE CHAPTER 48-10.2

GROUND COVER, FLOWERS, AND GRANITE LESS THAN 2' (MATURE) IN HEIGHT AND /OR TREES WITH BRANCHES NOT LESS THAN 6' ABOVE GROUND IN THIS AREA.

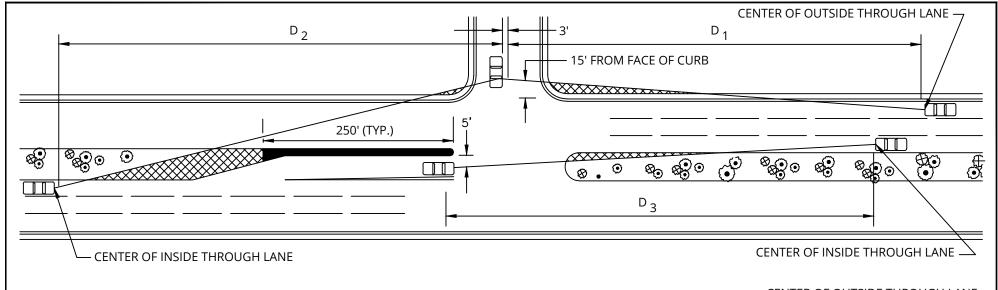
TREES SHALL NOT BE SPACED LESS THAN 8' APART.

PER MUNICIPAL CODE CHAPTER 35-2204

SEE STANDARD DETAIL NO. C-246, C-247 AND C-248 FOR SIGHT DISTANCE REQUIRED AT DRIVEWAYS AND INTERSECTIONS.

4.2.5 Clearance to Obstructions

Streetlight poles, utility poles, and similar obstructions are not allowed within 1 foot of a sidewalk. Streetlight poles are not allowed within 2.5 feet of the back-of-curb. Utility poles and similar obstructions are not allowed within 5.5 feet of the back-of-curb, but obstructions may be located as close as 2.5 feet from back of curb when adjacent to deceleration lanes, parking lanes, right turn lanes or bus bays. All dimensions above refer to face-of-pole.



GROUND COVER, BUSHES, AND BOULDERS LESS THAN 24" (MATURE) IN HEIGHT, OR TREES TRIMMED TO 6' CLEARANCE ABOVE FINISHED GRADE ALLOWED IN THIS AREA. NO OTHER OBSTRUCTION ALLOWED UNLESS APPROVED BY THE CITY TRANSPORTATION ENGINEER,

FLUSH DECORATIVE PAVING, DECOMPOSED GRANITE, AND GROUND COVER LESS THAN 12" IN HEIGHT. ALL LANDSCAPE AND HARDSCAPE MATERIAL, AND OTHER DECORATIONS MUST BE SUBMITTED FOR APPROVAL TO THE CITY TRANSPORTATION ENGINEER.

| RIGHT TURN | LEFT TURN | LEFT TURN |
|----------------|-----------------------------|--|
| ONTO THRU | ONTO THRU | FROM THRU |
| D ₁ | D ₂ | D ₃ |
| 24.0 | 100 | 200 |
| 310 | 400 | 290 |
| 360 | 470 | 340 |
| 410 | 530 | 380 |
| 460 | 600 | 430 |
| | ONTO THRU D 1 310 360 410 | ONTO THRU ONTO THRU D 1 2 310 360 470 410 530 |

DETAIL NO.

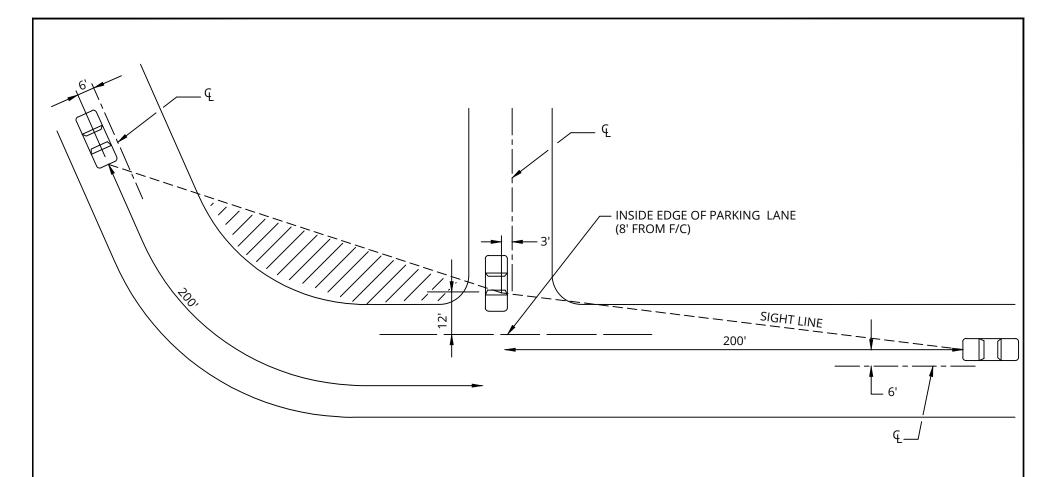
C-246



SIGHT DISTANCE FOR ARTERIAL AND COLLECTOR STREETS

APPROVED: 01-27-2011

DETAIL NO. **C-246**



NOTE:

THIS STANDARD APPLIES ONLY TO DRIVEWAY AND CROSS-STREET ENTRIES ONTO STREETS WITH A 25 MPH SPEED LIMIT AND ON-STREET PARKING. ONCOMING VEHICLE MUST BE VISIBLE TO DRIVER OF ENTERING VEHICLE FOR AT LEAST 200 FEET FROM INTERSECTION, MEASURED ALONG PATH OF ONCOMING VEHICLE. NO GROUND COVER, SHRUBS, FLOWERS, MOUNDS, WALLS OR STRUCTURES OVER 24 INCHES IN HEIGHT ALLOWED ON STREET SIDE OF SIGHT LINE. TREES MUST BE TRIMMED TO 6 FEET ABOVE GROUND ON STREET SIDE OF SIGHT LINE.

DETAIL NO.

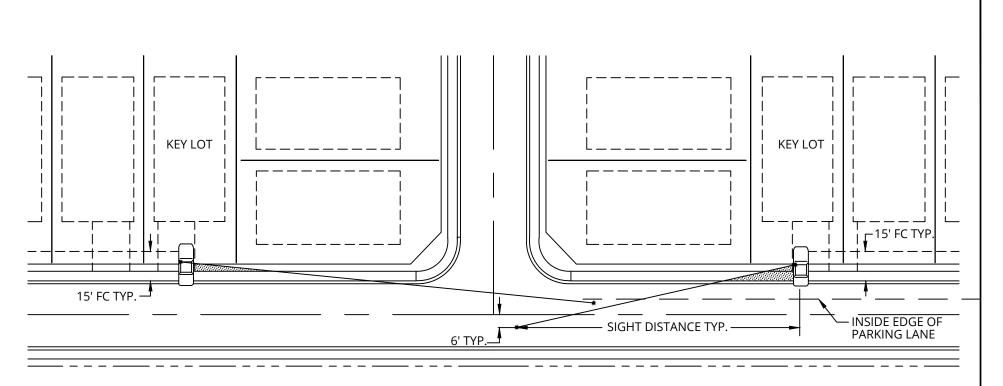
C-247



SIGHT DISTANCE FOR LOCAL STREETS

APPROVED: 01-27-2011

DETAIL NO. **C-247**



NO STRUCTURES OR LANDSCAPING ABOVE 24" IN HEIGHT ALLOWED IN THIS AREA EXCEPT TREES WITH BRANCHES NOT LESS THAN 6' ABOVE THE GROUND.

NOTE:

DRIVEWAY ON KEY LOTS NEED TO BE PLACED ON FAR SIDE OF LOT FROM REAR FENCE OF CORNER LOT.

| DESIGN SPEED | SIGHT DISTANCE |
|--------------|----------------|
| 25 MPH | 200 FEET |

DETAIL NO.

C-248



KEY LOT SIGHT DISTANCE

APPROVED: 11-19-1999

DETAIL NO.

C-248

City of Chandler Fee Schedule Effective – July 1, 2022

Sec. 7 Public Works & Utilities:

7.1

| Pu | blic Wor | ks Encroachment and Inspection, (Chapter 46): |
|----------------|--|--|
| 7.1.1 | | chment Permit |
| | (a) Clas | ss 1 encroachment permit application base fee [§46-3]\$97.00 |
| | | ss 2 encroachment permit application base fee [§46-4]\$97.00 |
| | (c) Clas | ss 3 encroachment permit application base fee [§46-5] (Res. 3336)\$97.00 |
| | | ss 4 encroachment permit application base fee [§46-6] (Res. 3336)\$97.00 |
| | (e) Clas | ss 5 encroachment permit application base fee [§46-7] (Res. 3336)\$97.00 |
| | (f) Clas | ss 6 encroachment permit application base fee [§46-8] (Res. 3336)\$97.00 |
| | (g) Clas | ss 7 encroachment permit application fee [§46-9] (Res. 3336)\$97.00 |
| | (h) Clas | ss 8 encroachment permit application fee [§46-10] (Res. 3336)\$97.00 |
| | (i) Clas | ss 9 encroachment permit application fee [§46-11] (Res. 4504)\$97.00 |
| | (j) Enc | roachment Permit ROW use fee (Res. 4430, Res. 4703)\$2.27 per linear foot |
| | | (for calendar year 2019)* |
| | | ursuant to the approved agreements, the linear foot fee shall be adjusted annually, without further |
| | - | Council action, on January 1st of each year by an amount equal to the percentage increase, if any, |
| | | ne Consumer Price Index (CPI-U, Western Region - All items) over the previous 12-month calendar |
| | | od. In no event shall the rate be increased more than three and eight-tenths (3.8%) per cent over twelve (12) month period between anniversary dates, unless otherwise approved by City Council. |
| | - | uld the annual change in the CPI-U indicate a decline, the fee shall not diminish. |
| | 5110 | and the difficult for the CFF of indicate a decline, the fee shall not diffinish. |
| 7.1.2 | Cable T | relevision License application base fee [§46-8.8E]\$10,000.00 |
| 7.1.3 | Liconce | applications base fee for all Chapter 46 licenses except cable (Res. 3336)\$3,000.00 |
| 7.1.5 | LICEIIS | applications base lee for all chapter 40 licenses except cable (Nes. 3330)\$3,000.00 |
| | | |
| 7.1.4 | Penalty | Assessment for failure to obtain encroachment or street cut permit\$1,000.00 |
| | | |
| 7.1.4 7.1.5 | Pavem | ent Damage Restoration Fee (Res. 3692) |
| | Pavem (a) Wit | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street |
| | Pavem (a) With | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): |
| | Pavem (a) Wit | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: |
| | Pavem (a) With | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) Witi (as i. | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavema (a) Witi (as i. | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) Witi (as i. | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) Witi (as i. | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Paveman (a) With (as i. iii. iii. (b) Fro | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With (as i. ii. (b) From streen | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Paveman (a) With (as i. iii. iii. (b) Fro | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With (as i. ii. (b) From streen | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With (as i. ii. (b) From streen | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With (as i. ii. (b) From streen | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |
| | Pavem (a) With (as i. ii. (b) From streen | ent Damage Restoration Fee (Res. 3692) nin one year of construction of new streets, renovation, or reconstruction of a street defined by City Code): For Each Cut: a. For 5 sq. yds. or less |

City of Chandler Fee Schedule Effective – July 1, 2022

reconstruction of a street, the applicant may choose to perform a mill and overlay/inlay, in accordance with City Code §46-2.7 in lieu of paying the above fee.

- (c) From two to four years after construction of new streets or renovation or reconstruction of a street (as defined by City Code):
 - i. For Each Cut:
 - a. For 5 sq. yds. or less\$230.00 per sq. yd. of cut
 - b. For larger than 5, to 100 sq. yd.
 -\$1,150.00 plus \$13.00 per sq. yd. of cut over 5 sq. yds.
 - c. For larger than 100 sq. yds.
 -\$2,385.00 plus \$10.00 per sq. yd. of cut over 100 sq. yds.
- (d) From four to six years after construction of new streets or renovation or reconstruction of a street (as defined by City Code):
 - i. For Each Cut:

 - b. For Larger than 5, to 100 sq. yds.
 -\$650.00 plus \$8.00 per sq. yd. of cut over 5 sq. yds.
 - c. For larger than 100 sq. yds.
 -\$1,410.00 plus \$5.00 per sq. yd. of cut over 100 sq. yds.
- (f) For cuts from two to six years after construction of new streets, renovation, or reconstruction
 - of a street, the applicant may choose to perform a mill and overlay/inlay, in accordance with City Code §46-2.7 in lieu of paying the above fee.
- (g) The minimum fee shall be based on one square yard. If a pavement cut is so extensive, or the cuts in one area are so numerous that the permittee prefers to perform a renovation (major rehabilitation) of the street in accordance with the City Engineer's requirements, for the full width of any impacted lane and the full length of any cuts plus fifty feet in both directions from the area of the cut on arterial streets and twenty-five in both directions from the area of the cut on collector streets, the permittee may choose to do such renovation in lieu of the Pavement Restoration Fee and such reconstruction shall satisfy the fee requirement. Provided, however, this does not apply to pavement cuts in streets within two years of construction, renovation, or reconstruction. During the first two years, those who desire to perform reconstruction in lieu of paying the pavement restoration fee will be required to reconstruct the street to the satisfaction of the City Engineer. Those companies exempt from the Pavement Restoration Fee shall perform the required repairs and restoration in accordance with City Code §46-2.7 and their contracts with the City unless their written application to pay the established fee in lieu of such restoration is granted by the City Engineer.
- (h) For pavement cuts or potholes less than two square feet, no fee will be charged, or for companies with license and franchise agreements that require street reconstruction no reconstruction will be required, provided the pavement cut or pothole meets the spacing requirements shown on Standard Detail No. C-111.
- (i) If a pothole cut is done in advance of construction that will remove that portion of the pavement within a reasonable time as specified by the City Engineer, no fee will be charged.
- (j) The definitions set forth in Section 46-2.7 are applicable to the provisions herein.
- (k) This Pavement Restoration Fee shall not be charged to nor paid by the City Street Division or the City Traffic Engineering Division.

7.1.6 Small Wireless Facility §46-10.3 (Pursuant to A.R.S. §9-592(L), §9-592(D)(4), §9-595(C) and §9-595(D))

| | and 35-353(D)) | |
|--------|--|------------------|
| | (a) Application Fee | |
| | i. New/Replacement Pole | \$750.00 |
| | ii. Pole exceeding 50ft in height | \$1,000.00 |
| | iii. Consolidated Application Fee, Existing Pole, Sites 1-5 | \$100.00 |
| | iv. Consolidated Application Fee, Existing Pole, Sites 6-25 | \$50.00 |
| | (b) Annual Right-of-Way Use Fee | \$50.00 |
| | (for each facility in the City's right-of-way or utility easements) | |
| | (c) Annual Right-of-Way Use Fee, Pole exceeding 50ft in height | \$450.00 |
| | (d) Annual City Pole Use Fee | \$50.00 |
| | (for each facility installed on a City-owned pole or on a City owned wireless su | upport structure |
| | in the City's right-of-way or utility easements) | |
| 7.1.7 | Application for disposition of roadway or easement [§47-16.2] | |
| 7.1.7 | (a) ROW vacation application fee (developed residential) | \$400.00 |
| | (b) ROW vacation application fee (non-residential) | |
| | (c) ROW appraisal fee (deposit of \$200.00 required) | |
| | (d) Extinguishment of easements application fee (developed residential) | |
| | (e) Extinguishment of easements application fee (non-residential) | |
| | (f) Extinguishment of easements apprication ree (flori-residential) | |
| | (i) Extinguishment of easements appraisance (deposit of \$200.00 required) | Actual Cost |
| 7.1.8 | Fire Hydrant Meter Deposit [§52-5] (Res. 4703) | \$1,450.00 |
| 740 | | † 400.00 |
| 7.1.9 | Reimbursement Agreement Transaction fee [Ch. 51] | \$100.00 |
| 7.1.10 | Median & Street Light Construction Buy-In Assessment [§47-12 & 47-15] (Res | . 3482) |
| | ½ Front Foot | <u>Per foot</u> |
| | (a) Median construction | \$11.00 LF |
| | (b) Streetlighting in median | \$11.00 LF |
| | (c) Landscaping in median | \$1.80 SF |
| | (d) Streetlighting behind curb | \$9.00 LF |
| | | |

7.1.11 Water Service Buy-In Assessment [§52-26] (Res. 3482)

| | 6" | 8" | 10" | 12" | 16" |
|---------------------|-------|-------|-------|-------|-------|
| (a) Full front foot | 24.00 | 33.00 | 38.00 | 43.00 | 66.00 |
| (b) ½ front foot | 12.00 | 16.50 | 19.00 | 21.50 | 33.00 |

7.1.12 Reclaimed Water Buy-In Assessment [§53-12] (Res. 3482)

| | 12" |
|-----------------|-------|
| Full front foot | 37.00 |
| ½ front foot | 18.50 |

7.1.13 Sewer Service Buy-In Assessment [§51-20] (Res. 3482)

| Full Front Foot | 8" | 10" | 12" | 15" |
|--------------------|-------|-------|-------|-------|
| (a) 0 – 10' depth | 25.00 | 31.00 | 35.00 | 43.00 |
| (b) 10 – 18' depth | 43.00 | 48.00 | 52.00 | 61.00 |
| (c) *Over 18' | 49.00 | 53.00 | 54.00 | 63.00 |

| 1/2 Front Foot | 8" | 10" | 12" | 15" |
|-------------------|-------|-------|-------|-------|
| (d) 0 – 10' depth | 12.50 | 15.50 | 17.50 | 21.50 |
| (e) 10 – 18' | 21.50 | 24.00 | 26.00 | 30.50 |
| (f) *Over 18' | 24.50 | 26.50 | 27.00 | 31.50 |

^{*(}add \$2.50 per full front foot for each additional foot in depth)

7.1.14 Inspection and Testing Fees [§47-7.2] (Res. 3336, Res. 3482, Res. 4505)

| Pavement | Unit | Fee/unit without testing |
|---|------|-----------------------------|
| (a) Paving Public Right of Way/Private Streets & Drives | SY | 0.36 |
| (b) Parking Areas | SY | 0.10 |
| (c) Overlay (all) | SY | 0.12 |
| (d) Alley Surface | SY | 0.36 |
| (e) Street Sign Bases [Ch. 48-12.7] | EA | 10.00 |
| (f) Street Sign (City) | EA | 80.00 |
| (g) Mill & Overlay | SY | 0.25 |

| Concrete | Unit | Fee/unit without testing |
|--------------------------------|------|-----------------------------|
| (h) Driveway or alley entrance | EA | 41.17 |
| (i) Valley Gutter | LF | 0.36 |
| (j) Apron | EA | 10.98 |
| (k) Curb & gutter | LF | 0.19 |
| (l) Sidewalk | SF | 0.07 |
| (m) Catch Basin/Scupper | EA | 41.17 |
| (n) Sidewalk Ramp | EA | 82.34 |

| Water | Unit | Fee/unit |
|--|------|-----------------|
| Water | | without testing |
| (o) Water Pipe (4" or larger) | LF | 0.82 |
| (p) Water Services | LF | 0.55 |
| (q) Pavement Cut | SY | 23.87 |
| (r) Tapping Sleeve & Valve (non-fire or fire line) | EA | 82.34 |
| (s) Landscape Irrigation System with Backflow Prevention Devices | EA | 82.34 |
| | | |
| (t) Fire Line with and without backflow prevention devices | LF | 0.82 |

City of Chandler Fee Schedule Effective – July 1, 2022

| Reclaimed Water | Unit | Fee/unit |
|------------------------------------|------|-----------------|
| | | without testing |
| (u) Reclaimed Water (4" or larger) | LF | 0.82 |
| (v) Reclaimed Water Service | LF | 0.48 |
| (w) Pavement Cut | SY | 23.87 |
| (x) Tapping Sleeve and Valve | EA | 82.34 |

| Sewer | Unit | Fee/unit without testing |
|--------------------------------|------|-----------------------------|
| | | without testing |
| (y) Sewer pipe (8" or larger) | LF | 1.10 |
| (z) Sewer service | LF | 0.82 |
| (aa) Manhole | EA | 82.34 |
| (bb) Pavement cut | SY | 23.87 |
| (cc) Clean out/drop connection | EA | 42.54 |

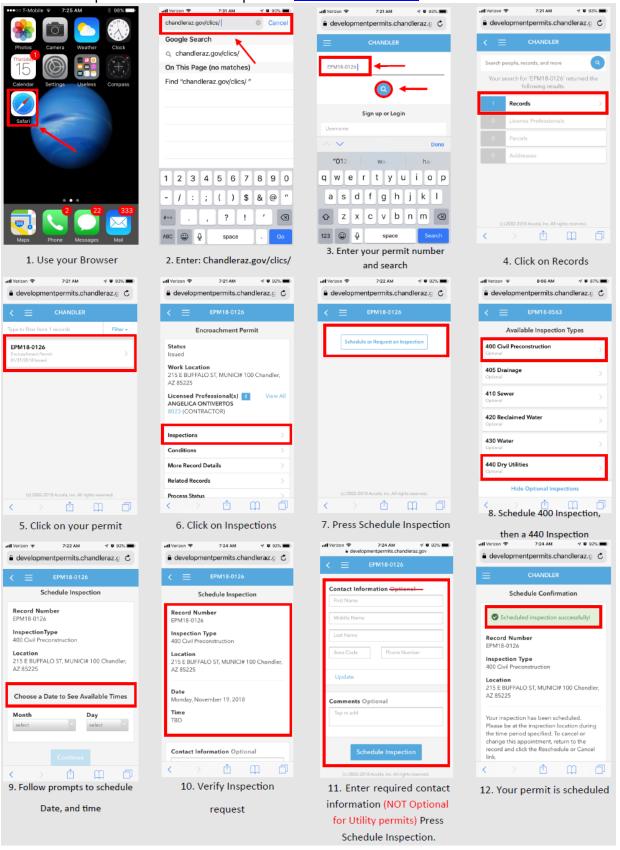
| | Drainage | Unit | Fee/unit without testing |
|------|--|------|-----------------------------|
| (dd) | Retention Basin (Grading) | Acre | 68.62 |
| (ee) | Irrigation Pipe (SRP, RWCD, Private) | LF | 1.07 |
| (ff) | Stormwater Pipe (including Box Culverts) | LF | 1.16 |
| (gg) | Headwalls | EA | 42.54 |
| (hh) | Pavement Cut | SY | 23.87 |
| (ii) | Drywells | EA | 76.85 |
| (jj) | Stormwater Retention Pipe | LF | 1.16 |

| Utilities [Ch §47-7.2] | Unit | Fee/unit without testing |
|---|------|-----------------------------|
| (kk) Utility trenching in ROW/Easement | LF | 0.22 |
| (II) Street Light Pole (public) | EA | 41.17 |
| (mm) Repealed by Ord. 4104 adopted 10/30/08 | | |
| (nn) Repealed by Ord. 4104 adopted 10/30/08 | | |
| (oo) Borings on a local street | LF | 0.14 |
| (pp) Borings on an Arterial or collector street | LF | 0.21 |
| (qq) Pavement cut | SY | 23.87 |
| (rr) Service Drops | EA | 20.59 |
| (ss) Offsite After-hours inspection fee | HR | 97.00 |

| Permits [Ch §47-7.2] | | nit Fee/unit |
|--|-----------|-----------------|
| Fermits [Cir 347-7.2] | Oil | without testing |
| (tt) Permit application fee | E.A | EA 97.00 |
| (uu) As Built Approval fee | SHE | EET 13.72 |
| (vv) Blanket Permits | E.A | A 450.00 |
| (ww) New Construction Pavement Preservat | rive Seal | ′D 0.90 |
| Coat Permit | Y L | 0.90 |

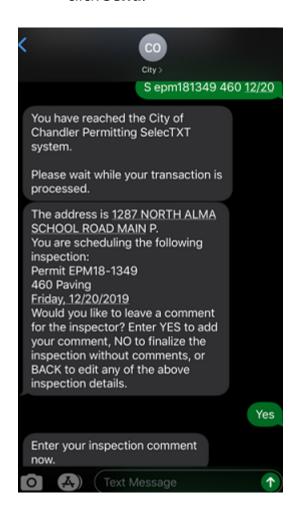


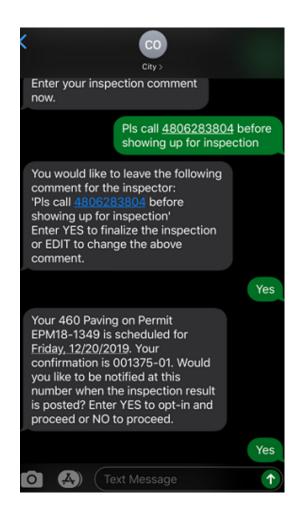
Schedule inspections on a smartphone schedule via text or via web browser:



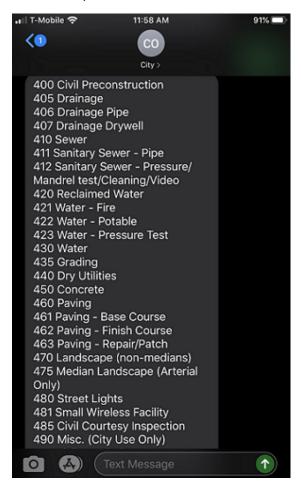
SelecTXT Inspections – Texting option

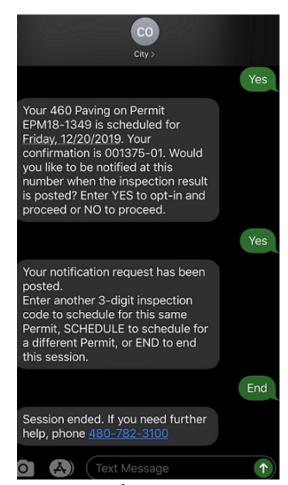
- Text S UTL##-### 406 12/20 to the following phone number: 844-281-3520.
- 2. Verify info is correct and add a comment text **Yes**.
- 3. Type in the name and phone number of the foreman/supervisor that will be on site (NOT optional) and any other pertinent information as the comment, click **Send**.





List of inspections:





Examples:

S UTL##-#### 406 12/11 Schedule UTL##-#### 407 12/12/19

For **Cancel and Reschedule** requests text the command (c, can, cancel, canc, reschedule, resched), the desired permit number and Inspection code with spaces in between.

Examples

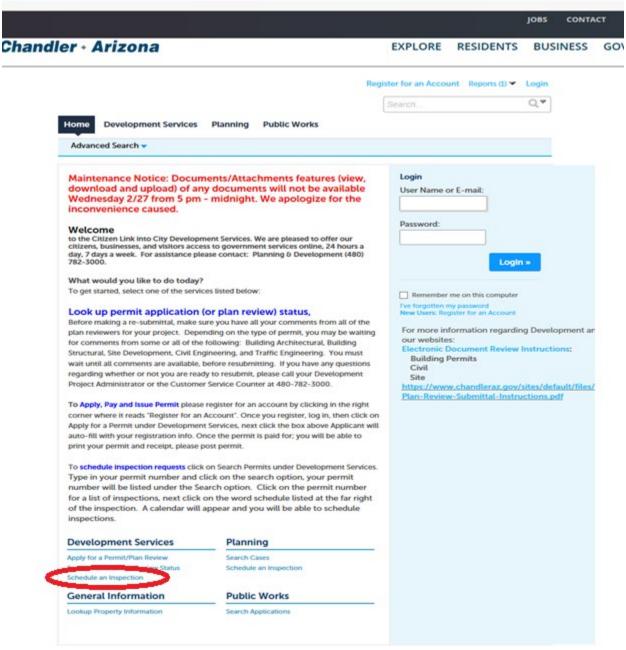
C UTL##-### 406 Resched UTL##-### Can UTL##-### 407 Reschedule UTL##-### 400

For **Result** requests text the command (r, result, results) and the desired permit number with spaces in between.

Examples

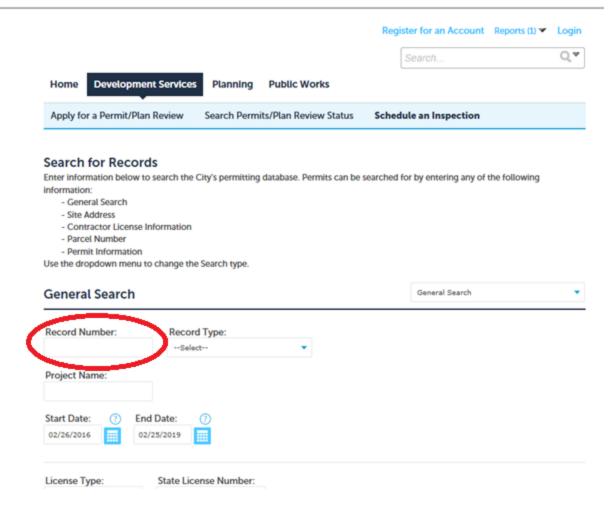
R UTL##-###
Result UTL##-###
Results UTL##-###

Or schedule inspections on a desktop computer through the Citizen Access portal:



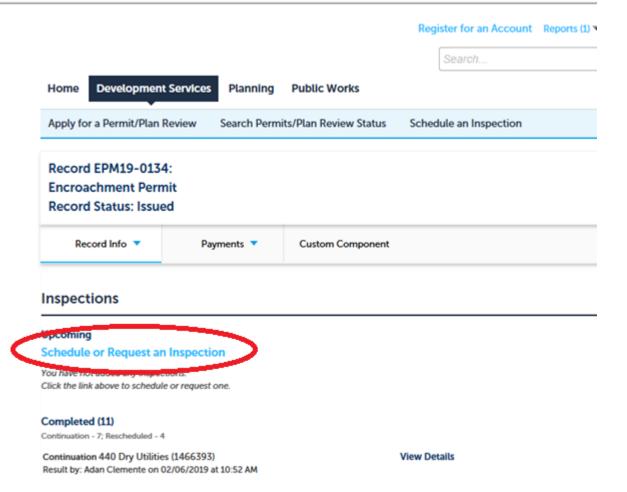
Step 1)
On a desktop/laptop login to the following web address: https://developmentpermits.chandleraz.gov/clics/

Under the "Development Services" heading near the bottom of the page on the left side, click on the "Schedule an Inspection" link.

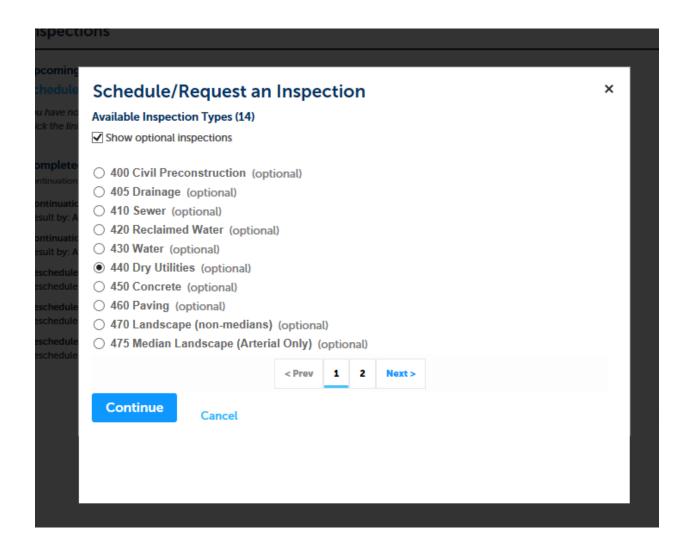


Step 2)

Under "General Search", enter Permit Number in the "Record Number" box and press the "Enter" key on the keyboard.



Step 3) Under "Inspections", click on the "Schedule or Request an Inspection" link.



Step 4)

Select - 400 Civil Preconstruction for a Pre-construction meeting.

**For utility company projects call the inspector or send an email to tuf@chandleraz.gov to schedule a time for the pre-con and for Development projects call the inspector or contact Civil of the Day at 480-782-3079 **

Or

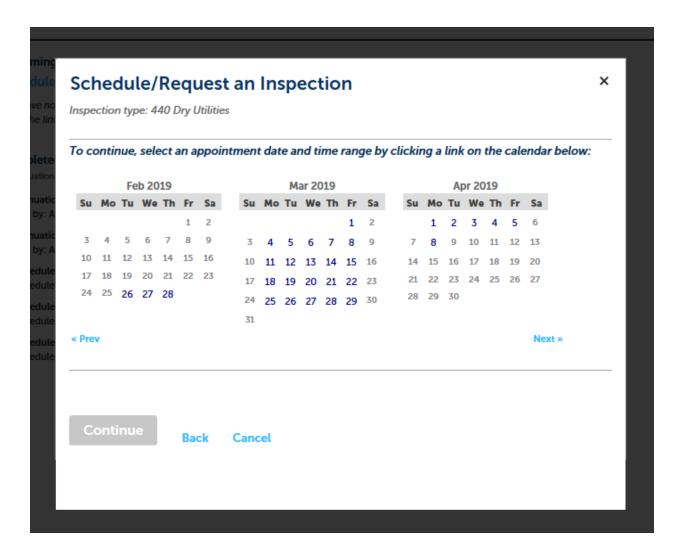
Select Inspection Type (for example: 440 Dry Utilities for the inspection).

Or

Select - 499 Civil Final Inspection for the final inspection.

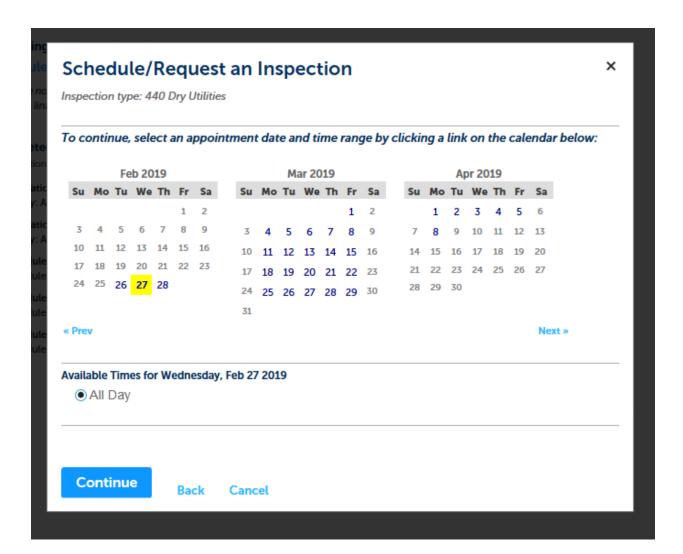
Final Inspection is required once everything is complete (work, restoration, etc.). The one year MAG Warranty period does not begin until the 499 inspection is approved by the City inspector.

Click on "Continue".



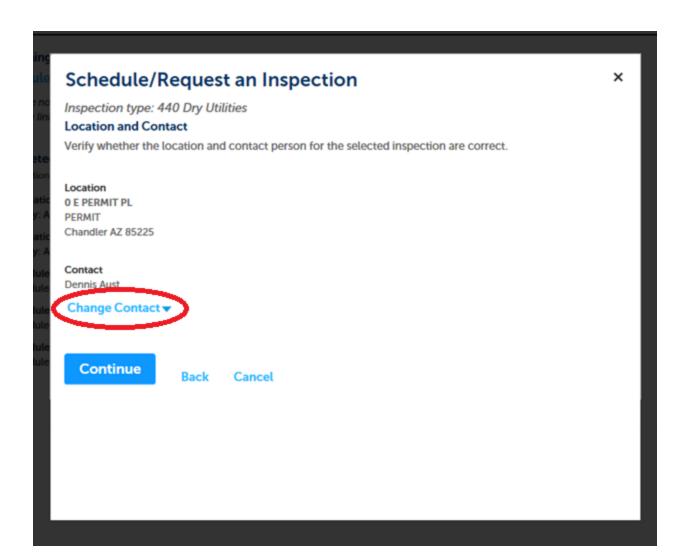
Step 5)
Select the date for the work.

Weekends are not selectable **Please contact the City inspector for night and weekend work requests.**

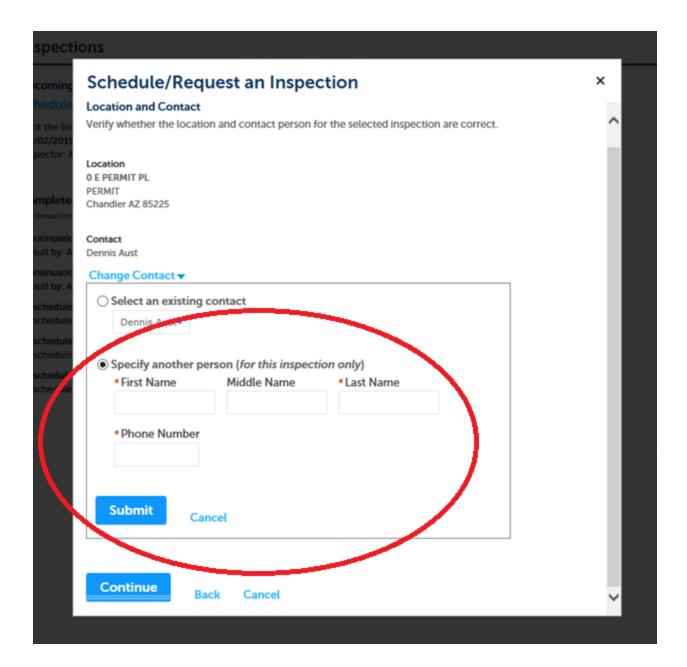


Step 6) Select "All Day".

Click on "Continue".



Step 7)
Select "Change Contact".

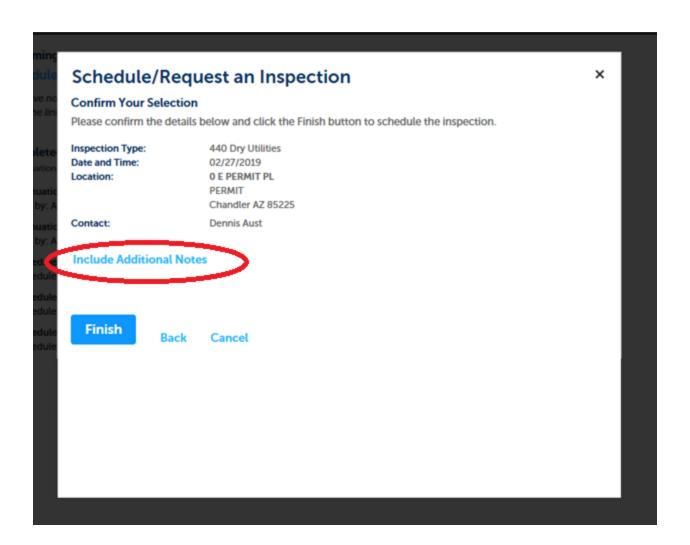


Step 8)
Select "Specify another person".

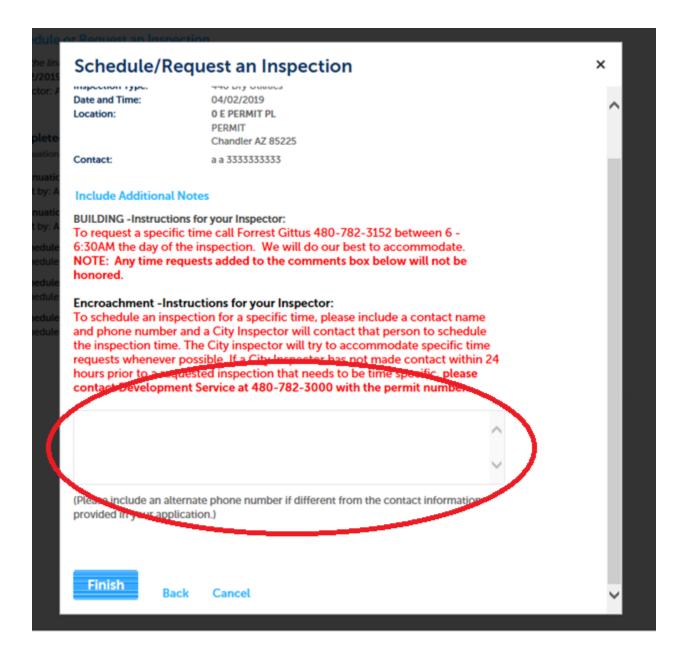
Fill in the name and phone number of the contact person that will be in charge and at the job site.

Click on "Submit".

Click on "Continue".



Step 9)
Select "Include Additional Notes".



Step 10) In the text box - Fill in the address or cross streets where the work will be done.

Click on "Finish".

City of Chandler Development Services Department Policy/Procedure

| Subject: Public Notification for Non-City Utility Projects | | No.: DSP-201 | |
|--|----------------------------------|-------------------------------|--|
| | | Page: 1 | |
| Supersedes: N/A | Effective Date: December 2, 2020 | Review Date: December 2, 2020 | |

- I. PURPOSE: To establish guidelines for notification procedures of non-City-owned, utility-driven construction projects within the right-of-way and public easements.
- II. RESPONSIBILITY: The Development Project Administrator for the Telecommunications and Utility Franchise Division is responsible to ensure that non-City-owned utility companies and their contractors are providing notification to neighbors, businesses and registered homeowners associations (HOA) affected by their construction projects in accordance with the procedure and guidelines below.

III. POLICY/PROCEDURES:

- A. The utility company is responsible for ensuring that notice is provided to all affected residents and businesses within a three hundred (300) foot radius of physical construction or barricade installations prior to the preconstruction meeting with City staff. The notice will occur at least seven calendar days before the commencement of barricading and construction. If more than two (2) weeks has elapsed between the preconstruction meeting and the start of construction, a second notification must also be provided prior to crews entering the right-of-way. If a resident or business manager is not available for personal contact, then a door hanger or other such printed notification will be left at the location with the contact information of the utility company or their designated contractor. The notification language is subject to City staff review and approval.
- B. Any work commencing within a location covered by a HOA registered with the City must also require prior notification to the HOA by a letter from the utility company or designated contractor. The notice shall be postmarked or hand-delivered at least ten (10) calendar days before the commencement of barricading and construction.
- C. Proof of notification must be provided to the City Inspector at the time of the preconstruction meeting. If more than two (2) weeks has elapsed between the preconstruction meeting and the start of construction, proof of the second notification must also be provided to the City Inspector prior to crews entering the right-of-way.
- D. Proof of notification must be in the form of a signed receipt of notification from a resident, business owner or HOA officer/representative; photos of door hangars

City of Chandler Development Services Department Policy/Procedure

| Subject: Public Notification for Non-City Utility Projects | | No.: DSP-201 Page: 2 |
|--|----------------------------------|-------------------------------|
| Supersedes: N/A | Effective Date: December 2, 2020 | Review Date: December 2, 2020 |

delivered; certified mail receipts; or an affidavit signed by the utility company or their designated contractor.

E. In accordance with Section 47-14 of Chandler City Code, Private Streets are not exempted from this requirement.

Development Services Director



Utility Work Preconstruction Meeting

Notify the inspector of ALL emergencies and concerns immediately.

Must have onsite at all times

- Permit, Plans, 811 Ticket & TCP (if required)
- TCP's are reviewed and approved by Traffic Engineering 480-782-3453 tcp@chandleraz.gov.
- All work is to be completed per approved plans, unless a change is approved by the City Inspector. Facilities not placed in accordance with the approved plans will be removed and placed per the plans.

Notification

- Submit Pre-Construction meetings and Inspection notifications and requests electronically a minimum of 24 hours in advance.
- The City Inspector **must** be notified of changes to the notification.

Review of the Job

- Verification of utility survey. The proposed running line is to be marked in white in the field where the actual work is to be done.
- Designate conflict locations to the inspector. Running line changes must be approved by the City Inspector prior to deviating from the plans.
- Pothole a two (2) foot circumference around the utility per State Law ARS 40-360.2(4). The existing utility **must** be found.
- Bore separation to be maintained from other utilities per MAG section 608.
- Construction bore profile must be approved by the City inspector prior to starting the bore.
- Depth of cover for telecommunications facilities (48" minimum on Arterials and Collectors and 36" minimum on all others per City of Chandler supplement to MAG section 360).



Restoration

- Must be done to like or better conditions.
- Must be completed within 7 business days.
 - Details or Specs found at City of Chandler website: (https://www.chandleraz.gov/government/departments/development-services/telecommunications-and-utility-franchise)
- Spoil piles are to be hauled off and disposed of by the contractor and not spread or back-dragged in the work area.
- All affected ramps will be brought up to current City standards.
- A new notification will be submitted prior to restoration work (restoration work in the "type of work being done" box).
- Striping restoration may be required at the discretion of the City inspector.
- A copy of concrete/slurry/asphalt tickets will be turned in to the inspector at time of restoration. Mixes must be pre-approved.
- The one year MAG warranty period for concrete and pavement restoration does not begin until a (499) Civil Final Inspection is approved by the City inspector.

Work Schedule

 Weekends and nights will require an overtime slip and an approval letter/email from the utility company (permit holder) on their company letterhead or from their company email address emailed to permit.notification@chandleraz.gov and approved by the City a minimum of 2 days in advance.

*Note: These are not all of the regulations for the City of Chandler. Call the inspector anytime questions or a need for more information arises.

| Utility Representative: | |
|-------------------------|--|
| Contractor: | |
| Date: | |

| DATE | (MM/DD/YYYY) | |
|------|-----------------|--|
| DAIL | (11111/00/1111) | |

CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to

| the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). | | | | | | | | | | | |
|---|---|--------|--------|---------------------------------|--|--|----------------------------|--|-------|--|--|
| _ | ertificate floider in fieu of Such efidor DUCER | seme | ent(S) |). | CONTACT NAME: | | | | | | |
| TRODUCK | | | | | | PHONE FAX | | | | | |
| | | | | | (A/C, No, Ext): (A/C, No): | | | | | | |
| | | | | | ADDRES | | | NEW 2017 105 | NAIC# | | |
| | | | | | | INSURER(S) AFFORDING COVERAGE INSURER A: | | | | | |
| INSURED | | | | | | INSURER B: | | | | | |
| | | | | | | INSURER C: | | | | | |
| | | | | | | INSURER D : | | | | | |
| | | | | | | INSURER E : | | | | | |
| | | | | | INSURER F: | | | | | | |
| СО | VERAGES CEF | RTIFI | CATE | E NUMBER: | REVISION NUMBER: | | | | | | |
| THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. INSR POLICY EFF POLICY EXP | | | | | | | | | | | |
| INSR LTR | TYPE OF INSURANCE | INSR | WVD | POLICY NUMBER | | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | | | |
| | GENERAL LIABILITY | | | | 7 | | | EACH OCCURRENCE \$ | | | |
| | COMMERCIAL GENERAL LIABILITY | | | | | | | DAMAGE TO RENTED PREMISES (Ea occurrence) \$ | | | |
| | CLAIMS-MADE OCCUR | | | | | | | MED EXP (Any one person) \$ | | | |
| | | | | | | | | PERSONAL & ADV INJURY \$ | | | |
| | | | | | | | | GENERAL AGGREGATE \$ | | | |
| | GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO- JECT LOC | | | | | | | PRODUCTS - COMP/OP AGG \$ | | | |
| | AUTOMOBILE LIABILITY | | | | | | | COMBINED SINGLE LIMIT | | | |
| | ANY AUTO | | | | | | | (Ea accident) \$ BODILY INJURY (Per person) \$ | | | |
| | ALL OWNED SCHEDULED | | | | | | | BODILY INJURY (Per accident) \$ | | | |
| | AUTOS AUTOS NON-OWNED AUTOS | | | | | | | PROPERTY DAMAGE & | | | |
| | HIRED AUTOS AUTOS | | | | | | | (Per accident) \$ | | | |
| | UMBRELLA LIAB OCCUR | | | | | | | EACH OCCURRENCE \$ | | | |
| | EXCESS LIAB CLAIMS-MADE | | | | | | | AGGREGATE \$ | | | |
| | DED RETENTION \$ | | | | | | | \$ | | | |
| WORKERS COMPENSATION AND EMPLOYERS' LIABILITY | | | | | | | | WC STATU- TORY LIMITS ER | | | |
| ANY PROPRIETOR/PARTNER/EXECUTIVE | | N/A | | | | | | E.L. EACH ACCIDENT \$ | | | |
| OFFICER/MEMBER EXCLUDED? (Mandatory in NH) | | | | | | | | E.L. DISEASE - EA EMPLOYEE \$ | | | |
| If yes, describe under DESCRIPTION OF OPERATIONS below | | | | | | | | E.L. DISEASE - POLICY LIMIT \$ | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| DES | CRIPTION OF OPERATIONS / LOCATIONS / VEHIC | CLES (| Attach | ACORD 101, Additional Remarks S | Schedule, | if more space is | required) | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| CE | RTIFICATE HOLDER | | | | CANC | CANCELLATION | | | | | |
| | | | | | SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. | | | | | | |
| | | | | | AUTHORIZED REPRESENTATIVE | | | | | | |



Acceptable License Classifications

for contractors performing work within the City of Chandler Rights-of-Way

All contractors working within the City of Chandler right-of-way need to be registered with the Arizona Register of Contractors (ROC) and be appropriately licensed to perform work within the right-of-way.

The list below serves as an acceptable list of licenses the ROC can issue to allow certain types of work within the right-of-way (RoW).

GENERAL DUAL ENGINEERING CONTRACTING

KA-DUAL ENGINEERING - *(This is the preferred license classification required to do utility related work in the City of Chandler.)

This classification allows the scope of work permitted by the commercial A- General Engineering and the B-4 General Residential Engineering licenses.

ENGINEERING CONTRACTING (COMMERCIAL)

All class A (A4-A19) - GENERAL ENGINEERING - *(This is the minimum license classification required to work in the RoW and applies to the specific function of the license.)

This classification allows the licensee to construct or repair:

- 1. Fixed works
- 2. Streets
- 3. Roads
- 4. Power and utility plants
- 5. Dams
- 6. Hydroelectric plants
- 7. Sewage and waste disposal plants
- 8. Bridges
- 9. Tunnels
- 10.Overpasses
- 11. Public parks

12. Public rights-of-way

Also included are the scopes of work allowed by the A-4 through A-19.

A-4 DRILLING

This classification allows the licensee to drill, including horizontal and vertical drilling or boring, constructing, deepening, repairing, or abandoning wells; exploring for water, gas, and oil; and

constructing dry wells, and monitor wells. Also included is the erection of rigs, derricks and related substructures, and installation, service and repair of pumps and pumping equipment.

A-5 EXCAVATING, GRADING AND OIL SURFACING

This classification allows the licensee to apply oil surfacing or other similar products; place shoring, casing, geotextiles or liners; and perform incidental blasting or drilling as required for the licensee to move, alter, or repair earthen materials by:

- 1. Digging
- 2. Trenching
- 3. Grading
- 4. Horizontal boring
- 5. Compacting
- 6. Filling

This license does not allow the licensee to excavate for water, gas or oil wells.

A-7 PIERS AND FOUNDATIONS

This classification allows the licensee to install piers and foundations using concrete, rebar, post-tension and other materials common to the industry. Includes pile driving, excavation, forming and other techniques and equipment common to the industry.

A-11 STEEL AND ALUMINUM ERECTION

This classification allows the licensee to install and repair architectural and structural steel and aluminum materials common to the industry. This classification also includes reinforcing steel and field layout, cutting, assembly, and erection by welding, bolting, wire tying or riveting.

A-12 SEWERS, DRAINS AND PIPE LAYING

This classification allows the licensee to install and repair any project involving sewer access holes, the laying of pipe for storm drains, water and gas lines, irrigation, and sewers. Includes connecting sewer collector lines to building drains and the installation of septic tanks, leach lines, dry wells, all necessary connections, liners and related excavating and backfilling.

A-14 ASPHALT PAVING

This classification allows the licensee to install asphalt paving, and all related fine grading on streets, highways, driveways, parking lots, tennis courts, running tracks, play areas, and gas station driveways and areas, using materials and accessories common to the industry. Only permitted as it pertains to the larger scope of work, the classification also permits excavation and grading for height adjustment of existing sewer access holes, storm drains, water valves, sewer cleanouts, and drain gates. Also included is the scope of work allowed by the A-15 Seal Coating Classification.

A-15 SEAL COATING

This classification allows the licensee to apply seal coating to asphalt paving surfaces. This classification also allows repair of surface cracks and application of painted marking symbols.

A-16 WATERWORKS

This classification allows the licensee to perform all work necessary for the production and distribution of water including drilling well, setting casing and pump, related electrical work, related concrete work, excavation, piping for storage and distribution, storage tanks, related fencing, purification and chlorination equipment.

A-17 ELECTRICAL AND TRANSMISSION LINES

This classification allows the licensee to install, alter, and repair transmission lines on public rights-of-way, including erection of poles, guying systems, tower line erection, cellular and communication towers, street lighting of all voltages, and all underground systems including ducts for signal, communication, and similar installations. This classification also allows the licensee to install transformers, circuit breakers, capacitors, primary metering devices and other related equipment of all commercial electrical construction.

SPECIALTY DUAL LICENSE CONTRACTING

CR-2 EXCAVATING, GRADING AND OIL SURFACING

This classification allows the scopes of work permitted by the commercial A-5 Excavating, Grading, and Oil Surfacing and the residential R-2 Excavating, Grading, and Oil Surfacing licenses.

CR-17 STEEL AND ALUMINUM ERECTION

This classification allows the scopes of work permitted by the commercial A-11 Steel and Aluminum Erection and the residential R-17 Structural Steel and Aluminum licenses.

CR-66 SEAL COATING

This classification allows the scopes of work permitted by the commercial A-15 Seal Coating and the residential R-13 Asphalt Paving licenses.

CR-69 ASPHALT PAVING

This classification allows the scopes of work permitted by the commercial A-14 Asphalt Paving and the residential R-13 Asphalt Paving licenses.

CR-80 SEWERS, DRAINS AND PIPE LAYING

This classification allows the scopes of work permitted by the commercial A-12 Sewers, Drains, and Pipe Laying and the residential R-37R Sewers, Drains and Pipe Laying licenses.

Below are some examples of ROC issued licenses that **DO NOT ALLOW** work within the right-of-way.

SPECIALTY DUAL LICENSE CONTRACTING

CR-11 ELECTRICAL - *(This license alone is NOT sufficient to be permitted to do utility conduit, conductor, or MAG spec restoration work in the RoW, though it is sufficient to do landscape only work in the RoW)

This classification allows the scopes of work permitted by the commercial C-11 Electrical and residential R-11 Electrical licenses.

CR-21 LANDSCAPING AND IRRIGATION SYSTEMS - *(This license alone is NOT sufficient to be permitted to do utility conduit, conductor, or MAG spec restoration work in the RoW, though it is sufficient to do landscape only work in the RoW)

This classification allows the scopes of work permitted by the commercial C-21 Hardscaping and Irrigation Systems and the residential R-21 Hardscaping and Irrigation Systems licenses. Upon the effective date of these rules, existing CR-21 Landscaping and Irrigation Systems licenses will be reclassified as CR-21 Hardscaping and Irrigation Systems.

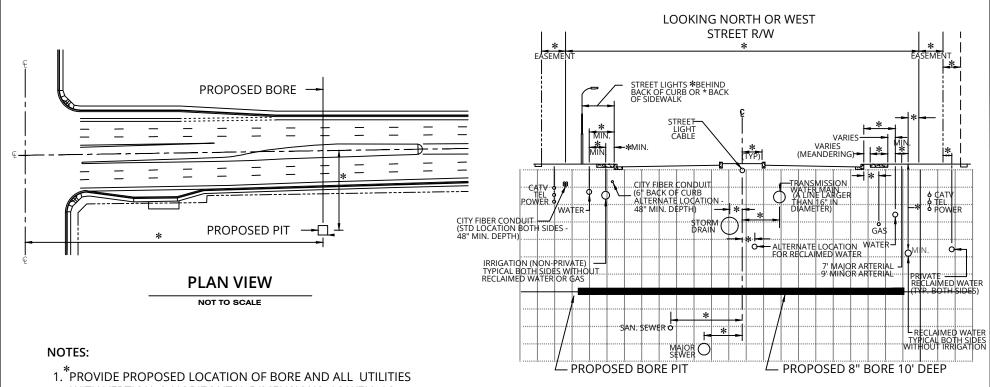
CR-67 LOW VOLTAGE COMMUNICATION SYSTEMS - *(This license alone is NOT sufficient to be permitted to do utility conduit, conductor, or MAG spec restoration work in the RoW, though it is sufficient to do landscape only work in the RoW)

This classification allows the scopes of work permitted by the commercial C-67 Low Voltage Communication Systems and the residential R-67 Low Voltage Communication Systems licenses.

*B, C, and R class licenses are not sufficient license classification to perform work within the City rights-of-way on their own.

* Indicates a City of Chandler note.

This information is available at: https://roc.az.gov/license-class



- *PROVIDE PROPOSED LOCATION OF BORE AND ALL UTILITIES WITH VERTICAL & HORIZONTAL DIMENSIONS, AS WELL AS DIMENSIONS OF FACILITIES TO BE CROSSED.
- 12" BY 12" MAX. SIZE POTHOLES ALLOWED TO VERIFY UNKNOWN UTILITY LOCATIONS AND TO MONITOR BORES PASSING WITHIN 2' OF EXISTING UTILITIES. CORE DRILLING IS PREFERRED.
- 3. 1' X 1' AND 2' X 2' POTHOLE PLATES ARE NOT PERMITTED. RESTORE POTHOLES PER MAG DETAIL 212.
- 4. ALL BORES TO BE SLEEVED IN SCHEDULE 40 PVC OR BETTER.
- BACKFILL REQUIREMENTS OF PIT MUST BE PER MAG SECTION 601.
- JURISDICTION MUST BE NOTIFIED IF OBSTRUCTIONS ARE ENCOUNTERED.
- GUIDED BORE REQUIRED PER MAG SECTION 608 & CITY SUPPLEMENT SPECS.

8. THE CONTRACTOR MUST MAKE ARRANGEMENTS WITH THE OWNER OF ANY DAMAGED FACILITY FOR ITS REPAIR OR REPLACEMENT. COST OF SUCH REPAIRS MUST BE IN COMPLIANCE WITH MAG OR SPECIAL AGREEMENTS.

BORE PROFILE

TYPICAL SECTION

- REPLACE OR REPAIR ANY LANDSCAPING/SPRINKLER DAMAGED DURING THE COURSE OF THE WORK PER MAG SECTION 107.9.
- 10. PERMISSION REQUIRED FROM THE CITY PRIOR TO REMOVING OR TRIMMING AND LANDSCAPING.
- 11. 24" MIN. CLEARANCE MUST BE PROVIDED BETWEEN BORE AND ALL EXISTING UTILITIES.

DETAIL NO.

C-112-1

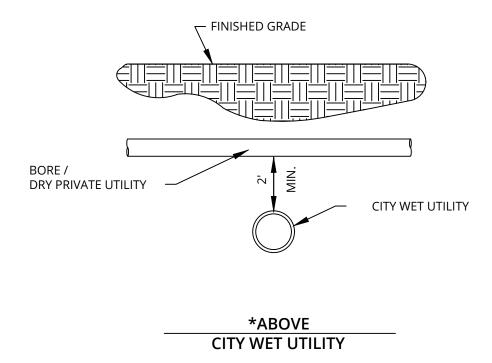


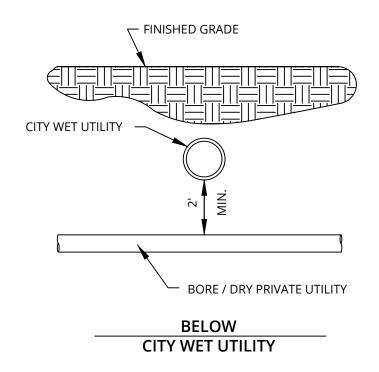
ENGINEERED UTILITY BORE

APPROVED:

01-28-2021

DETAIL NO. **C-112-1**





*AVAILABLE ONLY IF THE UTILITY CAN ALSO MEET THE MINIMUM DEPTH REQUIREMENTS FOR THEIR RESPECTIVE UTILITY MINIMUM COVERAGE REQUIREMENTS:

https://www.chandleraz.gov/sites/default/files/TelecommunicationsUtilityFranchise/UDM_MIN_CVR_RQMT.pdf

DETAIL NO.

C-112-2



MINIMUM SEPARATION FROM CITY WET UTILITY

APPROVED: 01-28-2021

DETAIL NO. **C-112-2**

| | | | City of Chandler - Telecommunication and Utilities Franchise Division |
|---|------------------|---------------------|---|
| | CHAN arız | DLEK on a | Permit #: UTL |
| | <u> </u> | o a | Location |
| | | | Date |
| _ | | | Utility Company |
| | <u>DOCUMENT</u> | | Contractor |
| | <u>ALL</u> | | Foreman |
| | <u>UTILITIES</u> | | Inspector |

Please Document Start and Stop locations utilizing APPROVED PLAN STATION NUMBERS

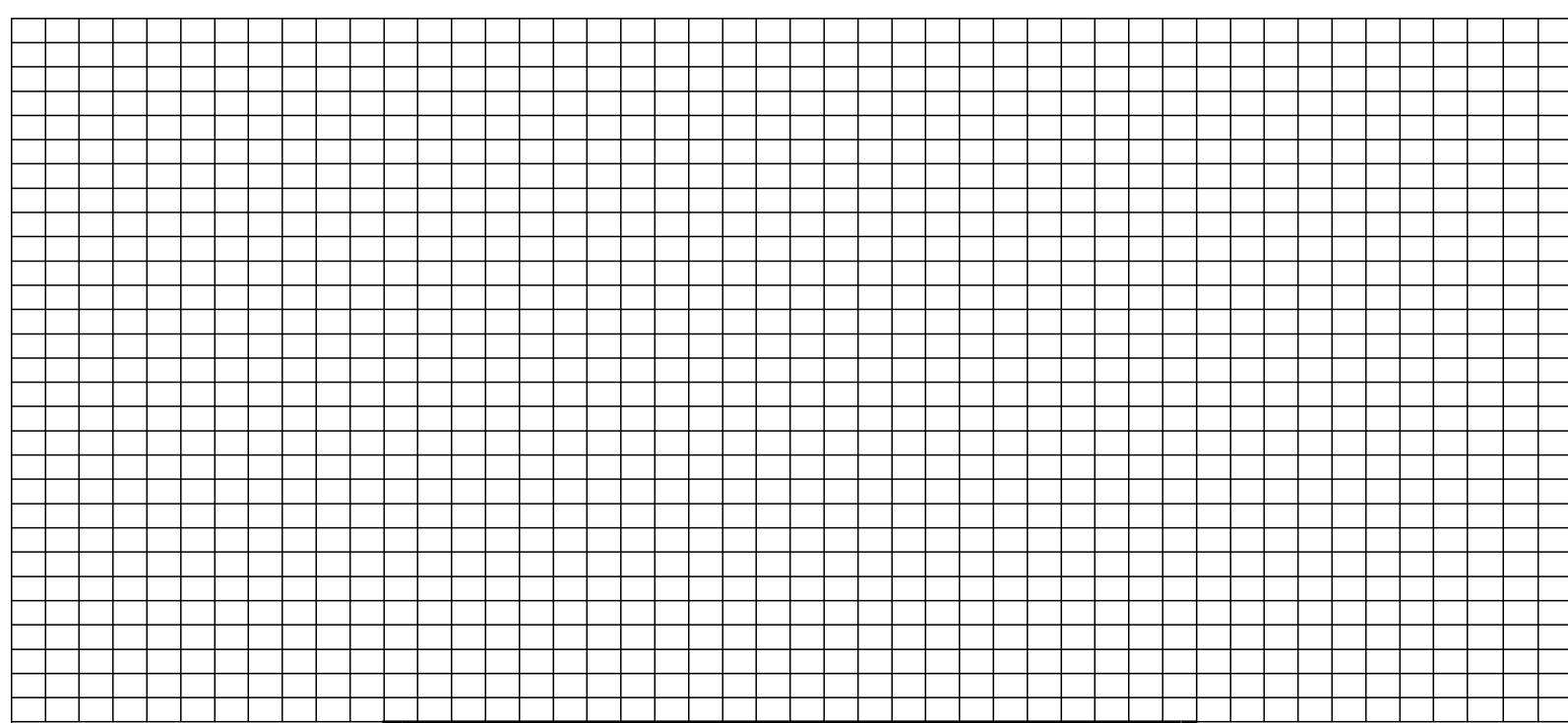
The "Start Location" is where the drill head breaks grade and enters the ground.

| C | H | A | N | D | LE | R |
|---|---|---|---|---|----|---|
| a | r | I | Z | 0 | n | a |

| City of Chandler - Telecommunication and Utilities Franchise Division | DOCUMENT | Utility Company |
|---|-----------|-----------------|
| Permit #: UTL | ALL | Contractor |
| Location | UTILITIES | Foreman |
| Date | | Inspector |

★ Please Document Start and Stop locations utilizing APPROVED PLAN STATION NUMBERS!





City of Chandler Public Works & Utilities Department Policy/Procedure

| Subject: Abandoned Utilities in the | e City's Right of Way | No.: PWU-130 |
|--|--------------------------------|-----------------------------|
| | | Page: 1 of 3 |
| Applies to: Public Works & Utilities Employees | Effective Date: September 2015 | Supersedes: TDP-275 |
| | Review Date: May 11, 2020 | Section: 1 - Administrative |

- I. PURPOSE: The purpose of this policy is to outline the procedure the City will follow to determine if utility facility removal is required or if alternatives may be used.
- II. RESPONSIBILITY: It shall be the responsibility of the City Engineer or designee to ensure that all provisions of this Policy are followed.

III. POLICY/PROCEDURES:

- A. The Chandler City Code and the Utility Manual cite regulations related to utilities being abandoned in City Right-of-Way. This includes but is not limited to City Code Chapter 46 2.9 (Abandonment or Removal) and Chapter 46-8.12 K (Removal and abandonment of property of licensee). In addition, many Use Agreements approved by Ordinance between the City and an individual Utility may have specific requirements related to abandonment. The City will review proposals to abandon utility facilities within its right-of-way on a case-by-case basis given the requirements in place related to the City Code, Use Agreements and the Utility Manual. The City Engineer or designee will determine if utility facility removal is required or if alternatives may be utilized.
- B. Utility facilities may be considered for abandonment in the right-of-way when one or more of the following conditions apply:
 - 1. The City plans to transfer ownership of the right-of-way to another party and the receiving party allows abandonment of utilities within its right-of-way;
 - 2. Removal of the utility would involve cutting a pavement structure less than two years old;
 - 3. Removal of the utility would disrupt traffic or create a threat to public safety;
 - 4. The Utility submits justification to the City that the cost of removal would exceed the public benefit;
 - 5. The abandoned facility would not create significant conflict for future improvements;
 - 6. Removal of the facility can be accomplished by the Utility at a later date during future project construction/reconstruction;

City of Chandler Public Works & Utilities Department Policy/Procedure

| Subject: Abandoned Utilities in the | No.: PWU-130 | |
|--|--------------------------------|-----------------------------|
| | | Page: 2 of 3 |
| Applies to: Public Works & Utilities Employees | Effective Date: September 2015 | Supersedes: TDP-275 |
| . , | Review Date: May 11, 2020 | Section: 1 - Administrative |

- 7. City determines that it may remove the abandoned utility without a cost increase to the current or future projects;
- 8. The Utility has a future need to re-use the facility.

C. PROCEDURES

- Requests to abandon a utility facility shall be made as part of the City's
 Encroachment process as outlined in City Code. A request to abandon the facility
 with appropriate justification shall be attached to the Utility's permit application.
 The following procedures are taken into consideration and may be adapted when
 interpreting how the individual case relates to any Use Agreement held by the
 Utility and the City Code.
- 2. The Utility shall maintain installation records for all facilities that are approved for abandonment. The Utility shall make these records available to the City at the time of request for abandonment. When the City provides copies of plans for City projects, the Utility shall respond to the City identifying conflicts with their abandoned facilities. If the abandoned facility must be removed to accommodate City project, the City will notify the Utility.
- 3. The Utility shall remove all above-ground appurtenances to all facilities approved for abandonment.
- 4. The Utility shall purge, cap or plug the ends of all facilities and conduct whatever procedures are necessary to safely abandon the facility.
- 5. The Utility shall be responsible for all of the costs associated with the maintenance, removal or relocation of its abandoned facilities within the City's right-of-way.
- 6. In the event of conflict between a City project and an abandoned utility facility, the Utility shall remove or pay for the removal of the facility provided that the Utility did not have prior rights.
- D. Conflict is defined as and caused by the following:
 - 1. A grade change resulting in less separation from the proposed work than is acceptable.

City of Chandler Public Works & Utilities Department Policy/Procedure

| Subject: Abandoned Uti | lities in the | e City's Right of Way | No.: PWU-130 |
|--|---------------|--------------------------------|-----------------------------|
| | | | Page: 3 of 3 |
| Applies to: Public Works Utilities Employees | s & | Effective Date: September 2015 | Supersedes: TDP-275 |
| | | Review Date: May 11, 2020 | Section: 1 - Administrative |

- 2. The proximity of the abandoned facility interferes with the constructability or construction method.
- 3. The utility facility impacts construction efficiency, project schedules or phasing.
- 4. The location, type, or size of the facility interferes with construction and/or operations of City projects and results in an increase in cost of work.
- E. If the Utility decides to remove the abandoned facility, the Utility shall insure the removal will not interfere with City projects or other facilities in the right-of-way.
- F. Should the Utility request to include the facility removal in a City construction project, there shall be sufficient time to allow for any special conditions to be placed into the contract documents. The Utility will reimburse the City for costs associated with the removal.
- G. If the City's contractor removes the abandoned facilities under its contract, the Utility owner shall reimburse the City for all costs associated with the removal and disposal of the facility.
- H. Appeals may be made in accordance with City Code.

Public Works & Utilities Director



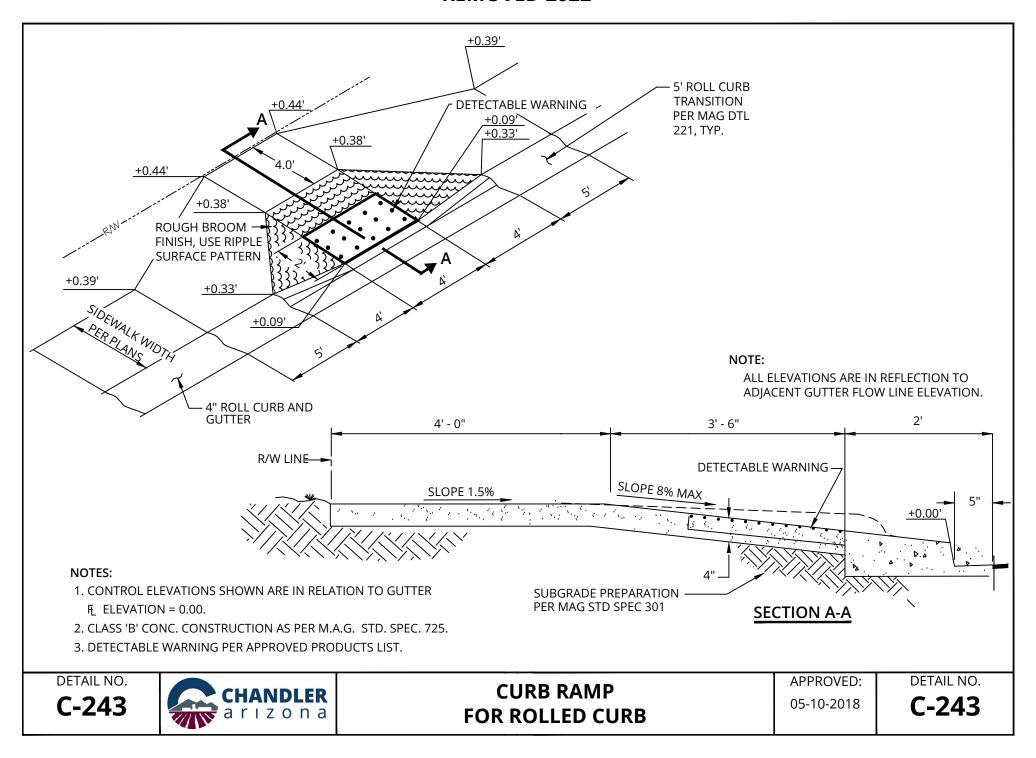
Request for Inspection Outside of Normal Business Hours

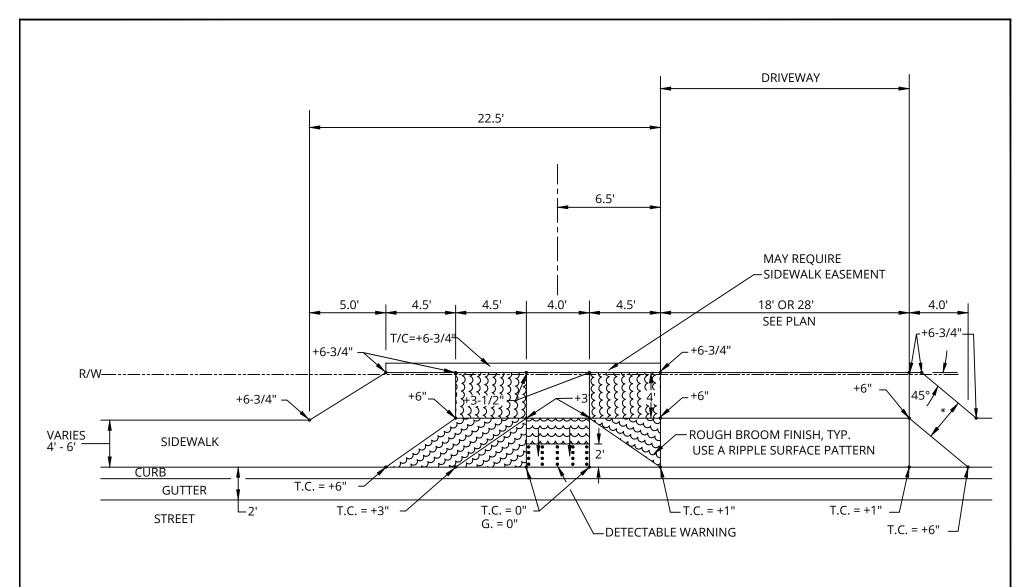
| Construction Date(s): Start End (This must be for the actual date range of construction. If these dates change for any reason the inspector must be notified and a new form may be required). Anticipated Start and Stop Times: Start End (If these times change by more than 30 minutes the inspector must be notified). Project Name: Project Location: Contractor Name: Purpose, description of work to be performed: Field Contact Name: Field Contact Phone Number: Field Contact Phone Page Page Page Page Page Page Page Pag |
|--|
| notified and a new form may be required). Anticipated Start and Stop Times: Start End (If these times change by more than 30 minutes the inspector must be notified). Project Name: Project Location: Contractor Name: Purpose, description of work to be performed: Field Contact Name: |
| Anticipated Start and Stop Times: Start End (If these times change by more than 30 minutes the inspector must be notified). Project Name: |
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| Project Name: Project Location: Contractor Name: Purpose, description of work to be performed: Field Contact Name: |
| Project Location: Contractor Name: Purpose, description of work to be performed: Field Contact Name: |
| Contractor Name: Purpose, description of work to be performed: Field Contact Name: |
| Purpose, description of work to be performed: |
| Purpose, description of work to be performed: |
| Field Contact Name: |
| Field Contact Name: |
| Field Contact Name: |
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| |
| |
| |
| Signature of Developer Requesting Overtime Date |
| Inspector's Signature / Hours Worked Date |

Normal Inspection Hours are: 6:00 am to 3:30 pm Monday through Friday.

Before working hours outside of the normal inspection hours listed above, including nights, weekends or a City observed Holiday, a request for inspection outside of normal business hours must be submitted and approved by the inspection supervisor. The rate for this time is **\$97.00 per hour**. There is a minimum charge of **\$194.00** (2 hour minimum charge) per project on these days. Work that requires an inspector's presence after normal working hours may be subject to this charge. Failure to notify the City prior to working may result in civil penalties to the full extent allowable by law. If you have any further questions, please contact the Development Services Department at (480)782-3000.

REMOVED 2022





NOTE:

MINIMUM DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 3" (MIN) BIT. SURFACE.

* 4' CONSTANT WIDTH FOR 4' SIDEWALK VARIABLE WIDTH FOR SIDEWALK GREATER THAN 4' GUTTER ELEVATION = 0 CURB HEIGHT = 6"

DETAIL NO.

C-245

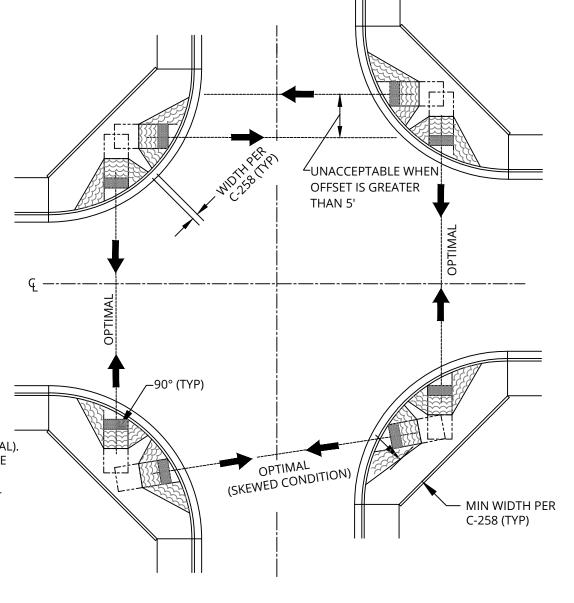


COMBINED SIDEWALK RAMP AND RESIDENTIAL DRIVEWAY

APPROVED: 01-09-2014

DETAIL NO.

C-245



NOTES:

- 1. ALL RAMPS AND TRUNCATED DOMES MUST BE ALIGNED SUCH THAT A LINE DRAWN PERPENDICULAR TO THE DOMES ALIGNS WITH THE CENTER OF THE OPPOSING RAMP (OPTIMAL). IN NO CASE SHALL SAID LINE BE GREATER THAN 5' FROM THE CENTER OF OPPOSING RAMP (UNACCEPTABLE).
- 2. PEDESTRIAN AND TRAFFIC CONTROL INCLUDING PAVEMENT MARKINGS AND SIGNAGE MUST CONFORM TO CITY AND MUTCD REQUIREMENTS.
- REFER TO THIS PROJECTS APPROVED PEDESTRIAN ROUTING PLAN FOR RAMP LOCATION.
- 4. ALL PEDESTRIAN CROSSINGS MUST MAINTAIN A MINIMUM 4' WIDTH AND NOT EXCEED A 2% CROSS SLOPE.

DETAIL NO.

C-249

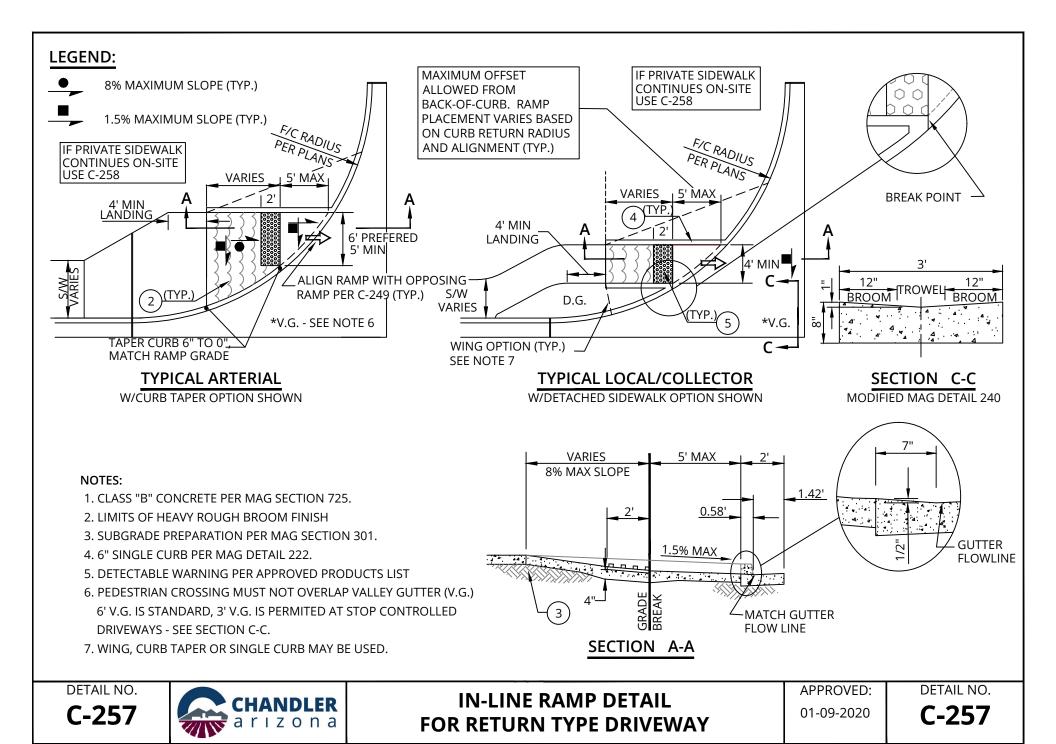


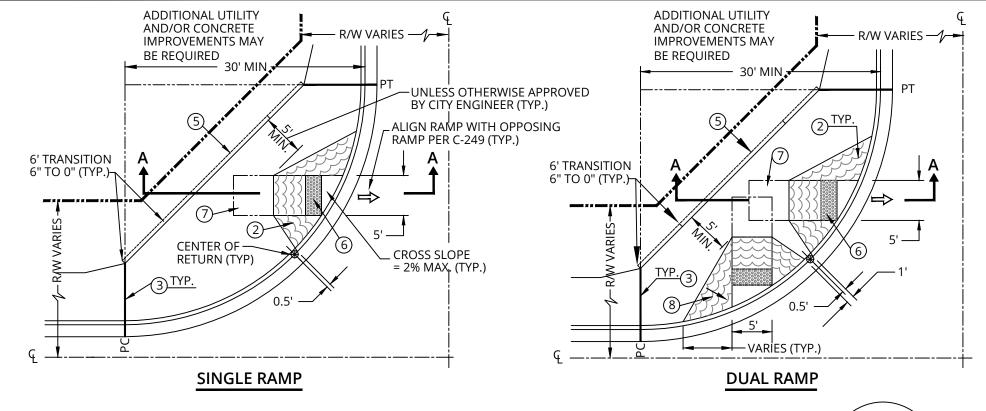
ACCESSIBLE CURB RAMP
ALIGNMENT

APPROVED:

DETAIL NO.

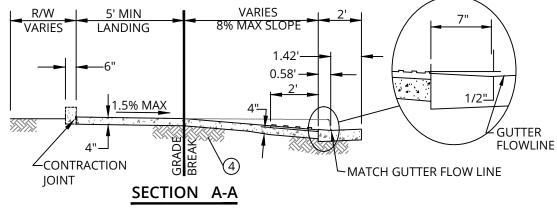
05-10-2018 **C-249**





NOTES:

- 1. CLASS "B" CONCRETE PER MAG SECTION 725.
- 2. LIMITS OF HEAVY ROUGH BROOM FINISH
- 3. EXPANSION JOINTS PER MAG SECTION 340.
- 4. SUBGRADE PREPERARATION PER MAG SECTION 301.
- OPTIONAL 6" CURB WITH 3" MIN. TRANSITION AS SHOWN, UNLESS OTHERWISE DIRECTED.
- 6. 2' x 5' DETECTABLE WARNING PER APPROVED PRODUCTS LIST.
- 7. MUST MAINTAIN A 5' x 5' LANDING PAD (TYP).
- 8. 10% MAXIMUM WING SLOPE, ADJUST WING LENGTH AS NECESSARY (TYP).



DETAIL NO.

C-258-1

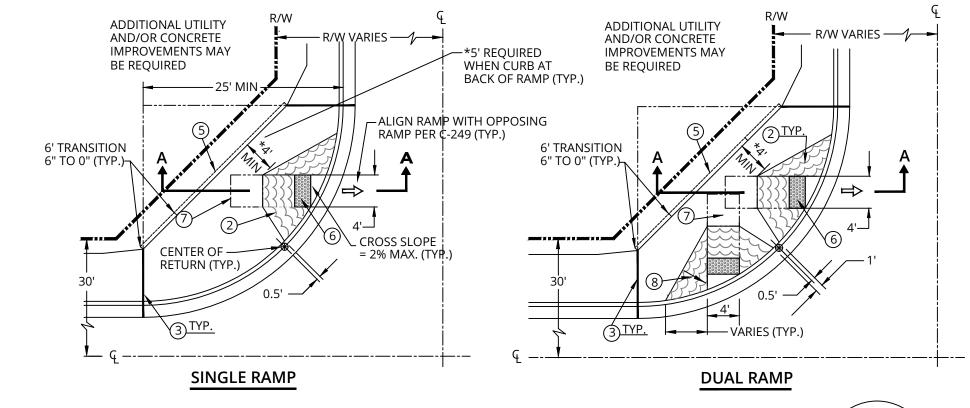


DIRECTIONAL CURB RAMP
ARTERIAL STREETS

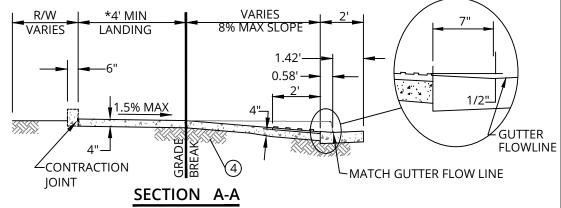
APPROVED: 07-09-2015

DETAIL NO.

C-258-1



- 1. CLASS "B" CONCRETE PER MAG SECTION 725.
- 2. LIMITS OF HEAVY ROUGH BROOM FINISH
- 3. EXPANSION JOINTS PER MAG SECTION 340.
- 4. SUBGRADE PREPERARATION PER MAG SECTION 301.
- 5. OPTIONAL 6" CURB WITH 3" MIN. TRANSITION AS SHOWN, UNLESS OTHERWISE DIRECTED.
- 6. 2' x 4' DETECTABLE WARNING PER APPROVED PRODUCTS LIST.
- 7. MUST MAINTAIN A 4' x 4' LANDING PAD (TYP).
- 8. 10% MAXIMUM WING SLOPE, ADJUST WING LENGTH AS NECESSARY (TYP).



DETAIL NO.

C-258-2

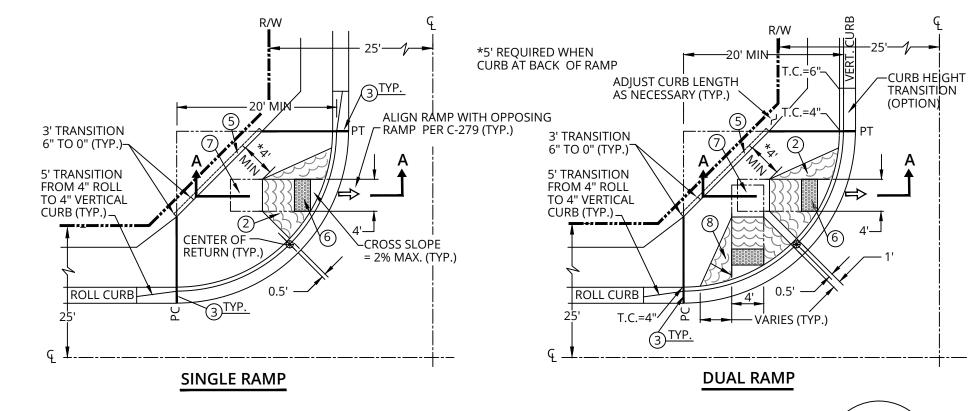


DIRECTIONAL CURB RAMP COLLECTOR STREETS

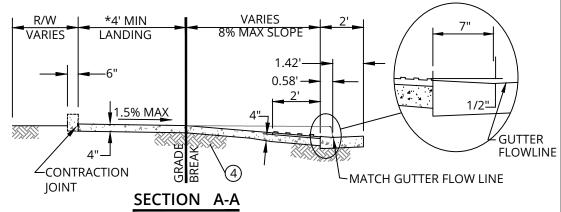
APPROVED: 07-09-2015

DETAIL NO.

C-258-2



- 1. CLASS "B" CONCRETE PER MAG SECTION 725.
- 2. LIMITS OF HEAVY ROUGH BROOM FINISH
- 3. EXPANSION JOINTS PER MAG SECTION 340.
- 4. SUBGRADE PREPERARATION PER MAG SECTION 301.
- OPTIONAL 6" CURB WITH 3" MIN. TRANSITION AS SHOWN, UNLESS OTHERWISE DIRECTED.
- 6. 2' x 4' DETECTABLE WARNING PER APPROVED PRODUCTS LIST.
- 7. MUST MAINTAIN A 4' x 4' LANDING PAD (TYP).
- 8. 10% MAXIMUM WING SLOPE, ADJUST WING LENGTH AS NECESSARY (TYP).



DETAIL NO.

C-258-3



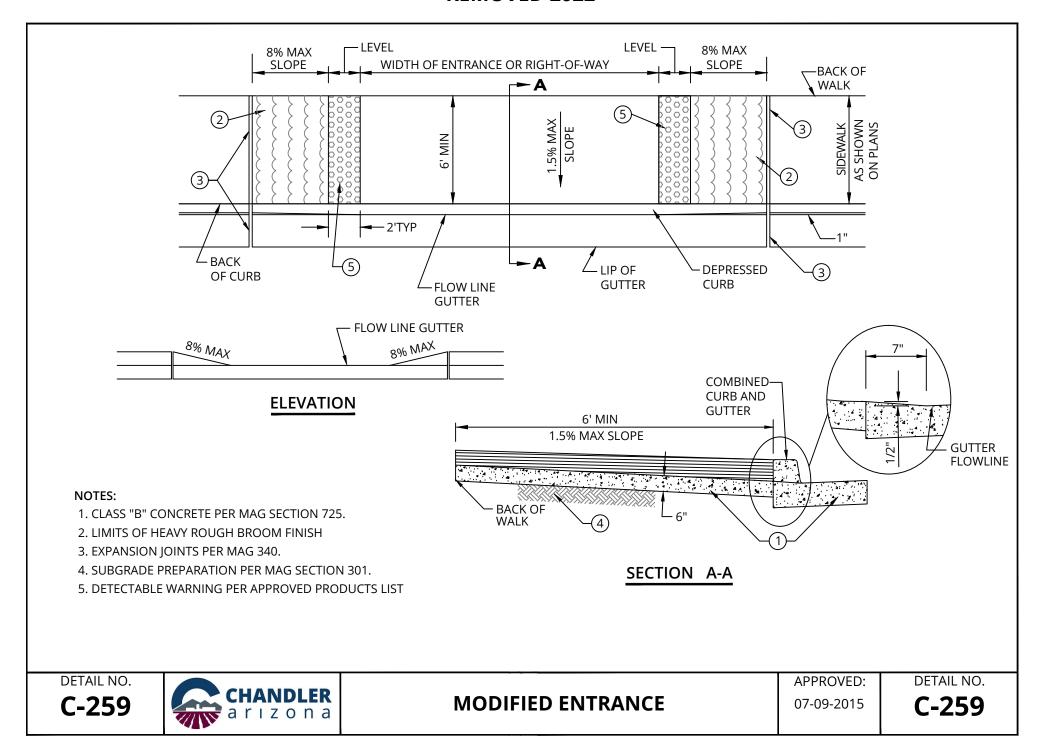
DIRECTIONAL CURB RAMP LOCAL STREETS

APPROVED: 07-09-2015

DETAIL NO.

C-258-3

REMOVED 2022





Regulatory Guide on Ground Laid Temporary Facilities aka "Temp Lines"

The City of Chandler's (CoC) primary goal is to work with all utilities to resolve the ongoing temp line problem in a way that works for both the utility and the citizens of Chandler into the foreseeable future.

1. Utility position on Temp lines

- a. Utility companies overall perspective is that a temp line is not the ideal situation but it's a required temporary solution to keep customers service active during a service outage.
- b. Utility companies consider the placement of a temp line an emergency repair to provide a temporary solution until the line can be repaired permanently using available resources in a reasonable amount of time.

2. COC's position on Temp lines

- a. They are a safety hazard to the public and the COC receives calls from residents, HOA's and other departments from the COC regarding temp lines. Most current methods of placing temp lines in City Right-of-Way are not acceptable.
- b. As typically placed within the COC, they are in violation of National Electric Safety Code (NESC), Arizona Administrative Code (ACC) and COC Municipal Code.
- c. Temp lines often remain in place for several months and often will only be removed when a complaint is received asking the utility company to have the line removed.

3. NESC Rules

- a. 230A2d Supply and communication cables may be laid directly on grade if they are guarded or otherwise located so that they do not unduly obstruct pedestrian or vehicular traffic and are appropriately marked. Supply cables operating above 600V shall meet either Rule 230C or Rule 350B.
- b. NESC Rule 014A4 Emergency installations shall be removed, replaced or relocated, as desired, as soon as practical.
- 4. ACC Title 14, Chapter 2, Article 5.

a. In accordance with NESC 507 E Construction standards. Each utility shall construct all facilities in accordance with the provisions of Institute of Electrical and Electronic Engineers, Inc., Pub. No. C2-2007, the National Electrical Safety Code (2007), which is incorporated by reference in R14-2-207(E)(3)(c). R14-2-507. Provision of Service A. Utility responsibility. Each utility shall be responsible for maintaining in safe operating condition all equipment and fixtures used in providing utility service to the customer that are owned by and under the exclusive control of the utility.

5. CoC Municipal Code Chapter 46, Division 1, Section 2

- a. No person shall excavate, erect, construct, place or maintain any pipe, conduit, wire, cable or other structure, on, over or under the surface of any public place, highway, right-of-way, pathway, street, sidewalk, driveway, curb, gutter, paving or other surface or subsurface drainage structure or facility for any purpose whatsoever, without first obtaining a permit from the City in accordance with the provisions set forth herein.
- b. This chapter does not prevent any person from maintaining any pipe or conduit lawfully on or under any public highway, or from making excavations necessary for the preservation of life or property when an urgent necessity therefor arises while City offices are closed. A person making an emergency use or encroachment on a public street shall apply for a permit therefor within one (1) calendar day after the offices of the City are opened and shall pay all applicable fees, perform required pavement restoration and comply with all other applicable requirements of this chapter.

6. Temp line resolution process:

- 1) The utility technician notifies his supervisor of the need for preservation of life or property requiring an urgent necessity to restore service to **an existing customer**.
- 2) The utility company tech, supervisor, dispatcher, or coordinator notifies the City of Chandler by submitting an Inspection Request through the Inspection Request process on line at chandleraz.gov/clics or by calling (480)782-3100.
- 3) The utility company notifies their contractor of the temp line (if the repair is to be handled by a contractor).
- 4) The utility company or their contractor calls AZ811 for locates (Blue Stake).
- 5) The utility company or their contractor submits a traffic control plan to

- tcp@chandleraz.gov or contacts Chandler PD at 480-782-4130 (as necessary).
- 6) The utility company or their contractor replaces the temp line as soon as Blue Stake has cleared under the emergency annual blanket permit.
- 7) Utility company sends in an after-the-fact permit through the normal permitting process with a note in the scope of work that the application is for an "As-built of emergency repair".
- 7. Utility companies making an emergency use or encroachment on a public street and choosing to use a temporary line installation will require they be installed in a safe manner per all NESC and ACC guidelines and using the COC emergency notification & repair process to have the line removed as outlined above. The utility company placing a temporary line does so at its own risk and the City of Chandler considers them a safety hazard that needs to be removed as soon as practical. Following this process will expedite the repair of the temp line and provide notice to the COC that the utility company is working on resolving the issue. If the resolution process isn't followed, the COC could issue fines for temp line installations that do not follow the emergency annual notification and repair process in a safe manor as outlined above.
- 8. At the discretion of the Development Services Director, the Development Project Administrator may impose a penalty assessment of up to \$1,000 per incident on a communications company for failure to apply for an encroachment permit within thirty (30) business days from either the date of the report submitted by the public regarding the location of a temporary service line or the date of the notification to the utility from the City of an unreported temporary service line (in the case of a discovery of such a temporary service line by City staff). The thirty (30) day time frame is for temp lines that are in an alley or other low traffic areas that do not pose an immediate and sever hazard to public safety. Should the temp line pose an immediate and severe hazard to public safety this time frame can be reduced to as little as five (5) business days, which gives one (1) day to report and call Blue Stake, seventy-two (72) hours for Blue Stake to clear, and the fifth day for construction to occur.



Utility Company Temp line resolution process

- 1) The utility technician notifies his supervisor of the need for preservation of life or property requiring an urgent necessity to restore service to **an existing customer**.
- 2) The utility company tech, supervisor, dispatcher, or coordinator notifies the City of Chandler by submitting an Inspection Request through the Inspection Request process on line at chandleraz.gov/clics or by calling (480)782-3100.
- 3) The utility company notifies their contractor of the temp line (if the repair is to be handled by a contractor).
- 4) The utility company or their contractor calls AZ811 for locations (Blue Stake).
- 5) The utility company or their contractor submits a traffic control plan to tcp@chandleraz.gov or contacts Chandler PD at 480-782-4130 (as necessary).
- 6) The utility company or their contractor replaces the temp line as soon as Blue Stake has cleared under the emergency annual blanket permit.
- 7) The utility company sends in an after-the-fact permit through the normal permitting process with a note in the scope of work that the application is for an "As-built of emergency repair".



List of Approved Products

Table of Contents

The following chapters correspond with the Engineering & Design Standards Manual:

| Chapter 1 - | Water System Design | 3 |
|----------------------------|--|-----|
| 1.1 | Potable and Reclaimed Water Pipe Materials | 3 |
| 1.2 | Joint-Restraining Materials | 3 |
| 1.3 | Water Valve Manufacturers | 3 |
| 1.4 | Insertion Valves | |
| 1.5 | Fire Hydrants | |
| 1.6 | Water Meter Angle Ball Valves and CORP Stops | |
| 1.7 | Water Meter Adaptors | |
| 1.8 | Backflow Prevention Assemblies | |
| 1.9 | Combination Air/Vacuum Assemblies (Potable & Reclaimed) | |
| Chapter 2 - | Wastewater and Reclaimed System Design | 5 |
| 2.1 | Composite Frames and Covers | |
| 2.2 | Composite Adjustment Rings | |
| 2.3 | Composite or Polymer Concrete Manholes | |
| 2.4 | CORROSION PROTECTIVE Coating Systems | |
| 2.5 | Wastewater Manhole Pesticide Coating System | |
| 2.6 | Sanitary Sewer Pipe Materials | |
| 2.7 | Wastewater Force Main Pipe Materials | |
| Chapter 3 - | Storm Drainage System Design | 7 |
| 3.1 | Storm Drain Pipe Materials | |
| 3.2 | Storm Drain Catch Basins | |
| 3.3 | Underground Storage Retention Facilities | 7 |
| Chapter 4 - | Street Design and Access Control | 8 |
| 4.1 | Detectable Sidewalk Warning Devices | 8 |
| 4.2 | Striping Obliteration Surface Slurry Sealant | 8 |
| 4.3 | Median Interlocking Paving Stones | 8 |
| 4.4 | Approved EVAC Mix Designs | 8 |
| Chapter 5 - | Traffic Signal Design | 9 |
| 5.1 | Approved Products/Models | 9 |
| Chapter 6 - | Streetlight Design | 13 |
| 6.1 | Approved Products | .13 |
| Chapter 7 - Chapter 8 - | Traffic Barricade Design Landscape Design of City Owned R.O.W. and Retention Basins | |

(480)782-3400

www.chandleraz.gov

Form No: UDM-180/Engineering (Revised: 12/19/22) Page 1



List of Approved Products

| 8.1 | Decomposed Granite | .15 |
|-------------|--|------|
| Chapter 9 - | Survey and Vertical Control Benchmarks | . 15 |

(480)782-3400

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Form No: UDM-180/Engineering (Revised: 12/19/22) Page 2

Chapter 1 - Water System Design

1.1 POTABLE AND RECLAIMED WATER PIPE MATERIALS

- A. Ductile Iron Pipe (DIP), Pressure Class 350 in accordance with MAG Section 750. Polyethylene encasement is required and must conform to MAG Specification 610.6.
- B. PVC Pipe in accordance with City MAG Supplement Section 751.
 - 4" 12" diameter must conform to AWWA C900 with a 200 psi pressure rating.
 May be used in roadway areas.
 - 14" 24" diameter must conform to AWWA C905, with a 235 psi pressure rating. May only be used outside of roadway areas.
- C. Water pipe less than 4" in diameter must be PVC schedule pipe in accordance with ASTM D1785 or D2241 with a minimum working pressure of 200 psi.

1.2 JOINT-RESTRAINING MATERIALS

APPROVED RESTRAINED JOINTS FOR PIPE:

- A. TR Flex Gripper Ring and TR Flex joint products with exact specifications as manufactured by US Pipe (DIP)
- B. American Fast-Grip and Flex-Ring joint as manufactured by American Cast Iron Pipe Company (DIP).
- C. MEGALUG Pipe Restraints as manufactured by EBAA Iron Inc. (DIP or PVC).

APPROVED RESTRAINED JOINTS FOR FITTINGS:

- A. EBAA Iron MEGALUG: Series 1100 (DIP), Series 2000PV (PVC).
- B. Star Pipe Products StarGrip: Series 3000 (DIP), Series 4000 (PVC).
- C. Sigma ONE-LOK: SLDE Series (DIP), SLCE Series (PVC).
- D. Tyler Union Tufgrip: Series 1500 (DIP or PVC), Series 2000 (PVC)

1.3 WATER VALVE MANUFACTURERS

- A. Clow Valve Co.
- B. Mueller Co. or products manufactured with the exact specifications i.e. all parts are interchangeable.
- C. Kennedy Valve Co.
- D. American Flow Control.

1.4 INSERTION VALVES

A. PermaSeal Insertion Valve by Mueller Co. LLC.

1.5 FIRE HYDRANTS

- A. Mueller Centurian.
- B. Clow Medallion.
- C. Waterous Pacer.
- D. Kennedy Guardian.

1.6 WATER METER ANGLE BALL VALVES AND CORP STOPS

- A. Ford.
- B. Mueller.
- C. AY McDonald.
- D. Jones.

Only, no approved equals.

1.7 WATER METER ADAPTORS

A. The Ford Meter Box Company, Meter Adapters to change meter spud size and/or length.

1.8 BACKFLOW PREVENTION ASSEMBLIES

A. Backflow prevention assemblies must conform to the current list issued by the Foundation for Cross Connection Control and Hydraulic Research, University of California and/or the American Society of Safety Engineers and be UL listed or FM approved for fire protection use when used for fire protection systems.

1.9 <u>COMBINATION AIR/VACUUM ASSEMBLIES (POTABLE & RECLAIMED)</u>

16" AND SMALLER MAINS:

- A. **A.R.I. D-040.**
- B. Dorot DAV-P-2-NPT-KA.

MAINS LARGER THAN 16":

- A. A.R.I. D-046.
- B. Dorot DAV-MH-KA.

Chapter 2 - Wastewater and Reclaimed System Design

2.1 COMPOSITE FRAMES AND COVERS

A. Composite Access Products (CAP), CAP ONE.

Frame and cover must be H-20 traffic certified and per Chandler Detail C-400, including raised City logo.

2.2 <u>COMPOSITE ADJUSTMENT RINGS</u>

A. Ladtech, Inc. high density polyethylene (HDPE) manufactured in accordance with ASTM D4976.

Adjustment rings must be interlocking, H-20 traffic certified and installed per manufacturer, and Chandler Detail C-401, TYPE 'B'. Use only approved adjustment rings, no shims of any kind are allowed.

2.3 COMPOSITE OR POLYMER CONCRETE MANHOLES

- A. Containment Solutions, Inc. (fiberglass reinforced polyester).
- B. LFM Fiberglass Structures (fiberglass reinforced polyester).
- C. JPCI Services Inc., Sewer Shield Composites LLC (epoxy resin reinforced with fiberglass)
- D. Armorock, Polymer Concrete.

Manholes must be stand-alone, H-20 traffic certified and installed per manufacturer, MAG and City of Chandler's specifications. Base must be cast-in-place only using polymer concrete or concrete with approved protective coating.

2.4 CORROSION PROTECTIVE COATING SYSTEMS

- A. Sauereisen Sewergard Lining No. 210 as manufactured by Sauereisen Cements, Pittsburgh, PA.
- B. Sewer Shield 150 Epoxy Lining as manufactured by Environmental Coatings, Mesa. AZ.
- C. Raven 405 Epoxy Lining as manufactured by Raven Lining Systems, Tulsa, OK.

All coatings must be in accordance with MAG Section 626 and City MAG Section 626 Supplement. The applicator of the corrosion protective coating is required to have a minimum of three years of experience coating wastewater manholes. The City Inspector may request written verification of said experience at any time. The applicator must have written verification from the manufacturer of the corrosion-

protective coating system that is being applied that said applicator is an approved, certified applicator of the manufacturer's products. The City Inspector may request said written documentation at any time. Application must be done in accordance with the City of Chandler's specifications.

2.5 WASTEWATER MANHOLE PESTICIDE COATING SYSTEM

A. Insecta Insecticide Coating.

2.6 SANITARY SEWER PIPE MATERIALS

- A. Polyvinyl Chloride (PVC) SDR 35 in accordance with MAG Section 745.
 - Greater than 15" diameter is not allowed.
 - Up to 15" diameter is allowed to depths of cover of less than 10'.
- B. Polyvinyl Chloride (PVC) SDR 26 in accordance with MAG Section 745.
 - Greater than 15" diameter is not allowed.
 - 15" diameter and smaller is allowed.
- C. Extra-Strength Vitrified Clay Pipe (VCP) in accordance with MAG Section 743.

2.7 WASTEWATER FORCE MAIN PIPE MATERIALS

- A. PVC Pipe in accordance with City MAG Supplement Section 751.
 - 4" 12" diameter must conform to AWWA C900 with a 200 psi pressure rating.
 - 14" 24" diameter must conform to AWWA C905, with a 235 psi pressure rating.
 - PVC may only be used outside of roadway areas.
 - All pipe fittings must be DIP in accordance with MAG Section 750.
- B. PVC Pressure Pipe SDR-26 in accordance with ASTM D2241. Not allowed under roadway areas.
- C. HDPE per Municipal Utilities Department requirements.

Chapter 3 - Storm Drainage System Design

3.1 STORM DRAIN PIPE MATERIALS

- A. Rubber Gasket Reinforced Concrete Pipe (RGRCP) in accordance with MAG Section 735.
- B. Polypropylene (PP) Pipe (ADS HP Storm) in accordance with MAG Section 740.
 - At outlet conditions in City right-of-way that include a concrete headwall, the last two lengths of pipe must be RGRCP.
- C. High Density Polyethylene (HDPE) Pipe in accordance with MAG Section 738.
 - Not allowed in public right-of-way or private streets.
 - Up to 60" diameter allowed in landscape areas and in parking lots.

3.2 STORM DRAIN CATCH BASINS

- A. Catch basins within public right-of-way and private streets must be concrete with a steel grate.
- B. Catch basin on private property connected to a private storm drain system within landscape areas or areas subject to wheel loading may be composite or Nyloplast (or approved equal) and must be a manufactured product intended for use as a catch basin.

3.3 UNDERGROUND STORAGE RETENTION FACILITIES

- A. ADS StormTech underground storage chambers (or approved equal)
- B. Cast In Place Concrete Pipe (CIPP) in accordance with MAG Section 620.
 - Allowed only on private property for retention storage pipe.
 - Not allowed to be used as conveyance pipe for stormwater systems.
 - Allowed in sizes 6' through 10'.
 - Not allowed within public Right-of-way or on City owned property.
- C. Precast concrete chambers (Oldcastle or approved equal)
- D. High Density Polyethylene (HDPE) Pipe in accordance with MAG Section 738.
 - Not allowed in Public Right-of-way or private streets
 - Up to 60" diameter allowed in landscape areas and in parking lots.
- E. Corrugated Metal Pipe (CMP) is NOT allowed for use in any storm water retention storage facility application on public or private property.

Chapter 4 - Street Design and Access Control

4.1 <u>DETECTABLE SIDEWALK WARNING DEVICES</u>

- A. CASTINTACT Wet Set.
- B. TekWay Dome Tiles with anchor system.
- C. ADA Arcis Tactile.

Detectable warning must be raised truncated domes, terracotta color and contrast to pavement. Installation must be in accordance with manufacturer's recommendations.

4.2 STRIPING OBLITERATION SURFACE SLURRY SEALANT

A. Brewer Cote Resurfacer II.

4.3 MEDIAN INTERLOCKING PAVING STONES

- A. Pavestone: City Stone II type, Old Town Blend color, and Random Ashlar pattern.
- B. Phoenix Paver: Standard Paver type, Tierra Norte color, and Random Ashlar Pattern.
- C. Belgard: Catalina type, Old Town Blend color, and Random Ashlar pattern.
- D. Acker-Stone Industries: Street Stone I (3"x6", 6"x6") / Street Stone II (6"x9") type, Gila River color, and Random Ashlar pattern.

Pavers may be 6 cm or 8 cm thickness and Random Ashlar pattern using 3"x6", 6"x6" and 6"x9" stones. When approved for use in crosswalks, min. thickness must be 8 cm, and with Polymetric Paver Sand (or approved equal) swept between all joints.

4.4 APPROVED EVAC MIX DESIGNS

- A. Arterial Streets: EVAC ¾" PG 70-10 Mix, and EVAC ½" PG 70-10 Mix (Gyratory Mix Design preferred).
- B. Collector and Local Streets: EVAC ½" PG 70-10 Mix (Marshall Mix Design preferred).

Chandler approved East Valley Asphalt Committee (EVAC) mix designs can be found on the **Miscellaneous Mixes** list (<u>Link</u>).

Chapter 5 - Traffic Signal Design

5.1 APPROVED PRODUCTS/MODELS

| EQUIPMENT | APPROVED PRODUCTS | MODEL NUMBER |
|------------------------------------|--|---|
| TRAFFIC SIGNAL POLES/ARMS | VALMONTAMERONOR APPROVED EQUAL | SEE CITY OF CHANDLER STANDARD DETAILS |
| TRAFFIC SIGNAL CONTROLLER | MCCAIN | ATC eX2 TS2 TYPE 1 WITH TS-2-1 TO TS2-1 CONTROLLER ADAPTER |
| TRAFFIC SIGNAL CABINET ASSEMBLY | EAGLE TRAFFIC CONTROL SYSTEMS | EAGLE EL712-BASE MOUNT EAGLE UA242 ANCHOR BOLTS EAGLE TF5012 LOAD BAY STRUTHERS-DUNN W21ACPXD-5 TRANSFER RELAY EDI PS-250 POWER SUPPLY EDI BIU-700 EDI MMU2-16LEip CONFLICT MONITOR UNIT EDI MODEL 510 LOAD SWITCHES EDI MODEL 810 FLASHERS MCCAIN GPS TIME SOURCE STAND ALONE 2070 PLUG-IN (2070-7G) MODULE (GMT-7), 4-FT BNC CONNECTOR, GPS Receiver to 2070-7A, WITH POWER WIRES & CABLE ASSEMBLY |
| TRAFFIC SIGNAL MOUNTING ASSEMBLIES | MCCAIN PEEK | MCCAIN VEHICLE SIGNAL MOUNT MAST ARM # M18282 MCCAIN TYPE IV # M25677 (LEFT OF DOOR) MCCAIN TYPE IV # M18538 (RIGHT OF DOOR) MCCAIN TYPE V # M25585 (LEFT OF DOOR) MCCAIN TYPE V # M25586 (RIGHT OF DOOR) |
| TRAFFIC SIGNAL HOUSINGS | MCCAIN PEEK | MCCAIN 12 INCH DIAMETER TRAFFIC SIGNAL HOUSING, POLYCARBONATE, BLACK MCCAIN STANDARD BACKPLATE, FIVE INCH, LOUVERED, ALUMINUM, BLACK MCCAIN SIGNAL VISORS, ALUMINUM, TUNNEL, BLACK MCCAIN PEDESTRIAN HOUSING TYPE V # M30789 (LEFT OF DOOR) MCCAIN PEDESRTIAN HOUSING TYPE V # M30788 (RIGHT OF DOOR) *MUST USE ALUMINIUM HEADS FOR 4 OR 5 SECTION HEADS ON SIGNAL MASTARM. |

| EQUIPMENT | APPROVED | MODEL NUMBER |
|---|--|---|
| TRAFFIC SIGNAL LED LUMINAIRE | • GE • COOPER • PHILLIPS | 120 VOLT, MEDIUM CUTOFF |
| LED VEHICULAR INDICATIONS | DIALIGHTGELCORELEOTEC | 12-INCH LED INDICATIONS, COMPLY WITH VEHICLE TRAFFIC CONTROL SIGNAL HEAD (VTCSH) STANDARDS OF ITE. |
| LED PEDESTRIAN SIGNAL INDICATIONS PEDESTRIAN PUSH BUTTONS | DIALIGHT GELCORE LEOTEC CAMPBELL MCCAIN POLARA? | 18-INCH LED COUNTDOWN INDICATIONS, COMPLY WITH PEDESTRIAN TRAFFIC CONTROL SIGNAL INDICATORS (PTCSI) STANDARDS OF ITE. • CAMPBELL FOUR HOLE 4EVR BUTTON • MCCAIN PUSHBUTTON PLAT # M42648 • MCCAIN PUSHBUTTON FRAME AND COVER ASSEMBLY # M47437 • POLARA BDL3, BULLDOG III RBDL3AX-B-2H, X NEEDS L FOR LEFT, R FOR RIGHT |
| ACCESSIBLE PEDESTRIAN SIGNALS (APS) PEDESTRIAN PUSH BUTTONS | • CAMPBELL | GUARDIAN 5.0 FS 912 WITH BLUETOOTH MODULE (501-0650) |
| VIDEO DETECTION SYSTEM | • FLIR | FLIR TRAFISENSE DUAL 2 (ONE PER APPROACH) TI BPL2 EDGE BIU&SIU INTERFACES (TWO PER TRAFFIC SIGNAL CABINET) SDR-240-48 MEAN WELL POWER SUPPLY, & CABLES. (ONE POWER SUPPLY FOR FOUR SENSORS MAX) ONE 10" STEEL DIN RAIL AND TWO UNISTRUT CLIPS WITH SCREWS (PER POWER SUPPLY) PHOENIX CONTACT GROUND TERMINAL BLOCK MFR # 3044092 (ONE PER CAMERA) PHOENIX CONTACT WHITE TERMINAL BLOCK MFR # 3045075 (ONE PER CAMERA) PHOENIX CONTACT BLACK TERMINAL BLOCK MFR # 3045088 (ONE PER CAMERA) ALTECH CORP FUSEBLOCK MFR # CF4U (ONE PER POWER SUPPLY) LITTELFUSE SLOW BLOW 3.15A 5X20MM GLASS CARTRIDGE 250VAC MFR 02183.15HXP (ONE PER FUSEBLOCK) PELCO ASTRO-BRAC PRODUCT # AG-0169-74-96-PNC (ONE PER APPROACH THAT IS UNABLE TO MOUNT ON LUMINARE ARM OF SIGNAL) |

| EQUIPMENT | APPROVED PRODUCTS | MODEL NUMBER | | |
|------------------------------------|---|--|--|--|
| CCTV SYSTEM | • AXIS | P5655-E T91L61 MOUNT T8134 60W MIDSPAN POE BELDEN 7929A CAT5E CABLE SHIELDED EZ-RJ45 CONNECTOR ON BOTH ENDS | | |
| GATOR PATCH CABLE | FIBER CONNECTIONS INC. | G220J012LNB-##-0, ## LENGTH DETERMINED BY FIELD MEASUREMENT FROM THE NEAREST SPLICE LOCATION TO THE CABINET. ADD 50 FEET OF SLACK LOOP IN EACH #7 EXTENTION PULL BOX ADD 100 FEET OF SLACK LOOP IN EACH #9 VAULT | | |
| FIBER & WIRELESS NETWORK SWITCH | • ETHERWAN | FIBER SWITCH: EX78934E-0VB EPOW-54-600 600W (ONE PER EX78934E-0VB SWITCH) SFP TRANSCEIVERS EX-1250TSP-MB5L-AS (FOUR PER TRAFFIC SIGNAL CABINET) FOUR FOOT CAT6 BOOTED COMMERCIALLY PRODUCED CABLES (SEVEN PER TRAFFIC SIGNAL CABINET) LLY PRODUCED OS2 9/125µm SINGLE MODE FIBER PATCH | | |
| FIBER PATCH COORDS | CABLE, 3 METER ≥50dB, 1310/15 SIGNAL CABINE COMMERCIALLY CABLE, 3 METER ≥50dB, 1310/15 SIGNAL CABINE COMMERCIALLY CABLE, 3 METER ≥50dB, 1310/15 | COMMERCIALLY PRODUCED OS2 9/125µm SINGLE MODE FIBER PATCH CABLE, 3 METERS LONG, LC/UPC - SC/UPC DUPLEX, IL: ≤0.3dB, RL: ≥50dB, 1310/1550nm, 2.0mm CABLE DIAMETER. (TWO PER TRAFFIC SIGNAL CABINET, DEPENDANT ON CONNECTION TYPE IN CABINET.) COMMERCIALLY PRODUCED OS2 9/125µm SINGLE MODE FIBER PATCH CABLE, 3 METERS LONG, LC/UPC - ST/UPC DUPLEX, IL: ≤0.3dB, RL: ≥50dB, 1310/1550nm, 2.0mm CABLE DIAMETER. (TWO PER TRAFFIC SIGNAL CABINET, DEPENDANT ON CONNECTION TYPE IN CABINET.) COMMERCIALLY PRODUCED OS2 9/125µm SINGLE MODE FIBER PATCH CABLE, 3 METERS LONG, LC/UPC - LC/UPC DUPLEX, IL: ≤0.3dB, RL: ≥50dB, 1310/1550nm, 2.0mm CABLE DIAMETER. (TWO PER TRAFFIC SIGNAL CABINET, DEPENDANT ON CONNECTION TYPE IN CABINET.) | | |
| TWISTED PAIR NETWORK SWITCH | • ETHERWAN | TWISTED PAIR SWITCH: ED3575-622 TWISTED PAIR SWITCH POWER SUPPLY: EX41-145046-1 (ONE PER SWITCH) FOUR FOOT CAT6 BOOTED COMMERCIALLY PRODUCED CABLES (SEVEN PER TRAFFIC SIGNAL CABINET) | | |

| EQUIPMENT | APPROVED PRODUCTS | MODEL NUMBER |
|---|---|--|
| ARID DEVICES (ONE EACH PER CABINET) | • ITERIS | ITERIS VELOCITY ARID TS2 RACK MOUNT PRODUCT # VELOCITY-RM ITERIS VELOCITY ARID BLUETOOTH PRODUCT # VEL-ADAPTER-BT ITERIS VELOCITY ARID WIFI PRODUCT # VEL- ADAPTER-WIFI ITERIS VELOCITY ARID ANTENNA PRODUCT # VEL- ANT-NO-BKT |
| METER PEDESTAL | MYERSTESCO | |
| ILLUMINATED STREET NAME SIGNS | | • LED? |
| PREEMPTION SYSTEM | OPTICOM | 721 (ONE PER APPROACH) 762 PHASE SELECTOR (TWO PER TRAFFIC SIGNAL CABINET) OPTICOM 138 DETECTOR CABLE |
| FIBER OPTIC BACKBONE CABLE | CORNING ORAPPROVED EQUAL | CORNING 144ER4-T3122A20 |
| WIRELESS RADIO UNITS | • COMMSCOPE • ENCOM | FOSC 450-D6 E-LITE PRODUCT # E LITE 5.8 INT (MUST INCLUDE TWO RADIOS WITH TWO POE) BELDEN 7929A CAT5E CABLE (IF NOT USING MANUFACTURER'S CABLE) SHIELDED EZ-RJ45 CONNECTOR ON BOTH ENDS (IF NOT USING MANUFACTURER'S CABLE) FOUR FOOT CAT6 BOOTED COMMERCIALLY PRODUCED CABLES (ONE PER TRAFFIC SIGNAL CABINET) |
| SCHOOL FLASHER (STAND ALONE POLE MOUNTED) | • TAPCO | TAPCO 500039, SOLAR CHARGER CONTROLLER (ONE EACH) TAPCO 2180-BRKT-R, CABINET BRACKET (ONE EACH) TAPCO SLR-55-B, 55W/12V SOLAR PANNEL, TOP OF POLE MOUNT (ONE EACH) TAPCO 101494 BATTERY, DEKA 12V SOLAR BATTERY (ONE EACH) TAPCO 2180-BBSAY-LU, AMBER BLINKER BEACON SINGLE ASSEMBLY (TWO EACH) TAPCO 2180-TIMECLOCK (ONE EACH) TAPCO 2180-20002, CIRCUIT PROGRAMMING KIT (ONE EACH) |

| EQUIPMENT | APPROVED PRODUCTS | MODEL NUMBER |
|--|-------------------|---|
| | | TAPCO 109482, ALUMINUM SQUARE COLLAR BASE (ONE EACH) TAPCO 101920-18, POLE PACKAGE (ONE PER POLE) |
| SCHOOL FLASHER (STREETLIGHT MOUNTED) | • TAPCO | TAPCO 500039, SOLAR CHARGER CONTROLLER (ONE EACH) TAPCO 2180-BRKT-R, CABINET BRACKET (ONE EACH) TAPCO SLR-55-A, 55W/12V SOLAR PANNEL, SIDE OF POLE MOUNT (ONE EACH) TAPCO 101494 BATTERY, DEKA 12V SOLAR BATTERY (ONE EACH) TAPCO 2180-BBSAY-LU, AMBER BLINKER BEACON SINGLE ASSEMBLY (TWO EACH) TAPCO 2180-TIMECLOCK (ONE EACH) TAPCO 2180-20002, CIRCUIT PROGRAMMING KIT (ONE EACH) |

Chapter 6 - Streetlight Design

6.1 APPROVED PRODUCTS

| EQUIPMENT | APPROVED PRODUCTS |
|------------|---|
| LUMINAIRE | GE EVOLVE |
| | PHILLIPS ROADFOCUS |
| | COOPER NAVION |
| LED | • SELC #8483 |
| PHOTOCELLS | • RIPLEY #6390 |
| | FISHER PIERCE TRS SERIES |
| HPS | ELECTROMECHANICAL: |
| PHOTOCELLS | • FISHER PIERCE NO. 7760 (120V) |
| | GENERAL ELECTRIC NO. C402G600 (120V) |
| | AMERICAN ELECTRIC 8060-4F (120V) |
| | • FISHER PIERCE NO. 7770 (240V) |
| | GENERAL ELECTRIC NO. C402G660 (240V) |
| | PRECISION MULTIPLE CONTROLS NO. 8690 (105-280V) |
| | ELECTRONIC: |
| | • FISHER PIERCE NO. 7571B (120V) |
| | FISHER PIERCE NO. 7572B (240V) |
| | PRECISION MULTIPLE CONTROLS NO. EC-120 (120-277V) |
| | • TORK NO. 5227 (120V) |

| EQUIPMENT | APPROVED PRODUCTS |
|---|---|
| POLES SL-1, SL-6, SL-8, SL-16 AND SL-17 | CEM-TEC CORPORATIONAMERONSOUTHWEST FABRICATION |
| PAINT | A. POLE SL-16; COLOR: VALSPAR V40-07 DARK BRONZE OR EQUIVALENT SHERWIN WILLIAMS (POLYURETHANE ENAMEL) PITTSBURGH PAINT (PITTHANE-ACRYLIC URETHANE ENAMEL) VAL SPAR PAINT (HIGH SOLID -URETHANE, 40 SERIES OR GREATER) B. POLE SL-1 (FOR MAINTENANCE PURPOSES ON EXISTING POLES) COLOR: SILVER COLOR TO MATCH GALVANIZED POLES. |
| CONDUIT | CARLON FINN INDUSTRIES, INC. |

Chapter 7 - Traffic Barricade Design

No approved products for this chapter.

Chapter 8 - Landscape Design of City Owned R.O.W. and Retention Basins

8.1 DECOMPOSED GRANITE

- A. Desert Gold, preferred
- B. Sunset Gold
- C. Arizona Gold

Typically, 2.5" minimum depth, 1 1/4" screened material.

Chapter 9 - Survey and Vertical Control Benchmarks

No approved products for this chapter.



Civil Improvements/Encroachment Permit Application

| Da | te: | | | | | Fo | or City Use | |
|--|-------------------------------|-------------------------|------------|--------------------------------|-----------|-------------------------------|---------------------------------|--|
| Pro | oject Name | | | | | Log No. | | |
| Un | it/Block/Parcel | | | Phase | | Encroachment Class | | |
| | | | | 1 11430 | _ | | | |
| Pro | oject Location (Nearest | Attach a photogra | nh with | traffic cone(s) showing exact | locat | ion of proposed cor | estruction where annlicable | |
| | intersection) | Allacii a priologia | pri witi | tranic cone(s) snowing exact | iocai | ion or proposed con | ізписноп wnere арріісаріе | |
| | | Check | items | for which you are reques | sting | ı a permit: | | |
| | Paving (streets) | | □ V | /ater (mains, service, taps) | | Landscaping | Install Maintenance | |
| | Paving on-site (pa | arking lots) | □ S | ewer (mains, service, taps) | | Gas or electric trea | nching | |
| | Grading | | □ Ir | rigation | | Coaxial cable | | |
| | Grading at owner' | 's risk | □ S | tormwater or drainage | | Fiber | | |
| | Concrete (drivewa | ays, sidewalks, etc.) | □ S | treet lights (in right-of-way) | | Traffic signals | | |
| | Fire line | | □R | eclaimed water mains | | Other | | |
| | Trenching | | | | | | | |
| Pro | | edule (estimated dat | e and | , | | | | |
| | vement Cuts/Remo | - | □ Ci | If | yes | , please compl Application | ete the Street Cut on page 3 | |
| Ap | plicant Name (app | licant shall be develor | er/own | er - not contractor) | | | | |
| Ad | dress | | | City/State/Zip | | Phone No. | Fax No. | |
| | | | | | | | | |
| | ntractor (List all c eded) | ontractors employe | d to pe | rform work pursuant to per | mit; a | additional space p | provided on page 4, if | |
| | dress | | | | | | | |
| Cit | y/State/Zip | | | Phone No. | Cit | y Tax No. (Require | rd) | |
| Contact Person (contact for permit pickup) | | Phone No. | Em | ergency 24-hour F | Phone No. | | | |
| | | | | | | | | |

Mailing Address:

P.O. Box 4008, MS 401

| - | Phone 480-782-3320 for inspection 24 hours in advance. | | For City Use | | | | | |
|---|---|----|---|-------------------------------|--|--|--|--|
| | Fax written notice 24 hours before start of work to Construction Management at Fax # 480-782-3316. | | Insurance Certificate | Received by | | | | |
| - | For road closures, a traffic control plan must be approved by Traffic Engineering at least one week prior to commencing work. Application can be submitted online at | | Performance Bond Indemnity Agreement | □ Approved □ Denied By: Date: | | | | |
| • | www.chandleraz.gov For traffic restriction (less than a full road closure), a traffic control plan must be submitted for approval to Traffic Engineering at least 24 hours prior to commencing work. Application can be submitted online at www.chandleraz.gov | Co | nditions, Restrictions & | Comments: | | | | |

FOR AND IN CONSIDERATION of the granting of a permit for the purpose set forth herein, Applicant hereby agrees, covenants, and binds said applicant, employees, agents and contractors to the terms and conditions set forth below and those included on or attached to the permit when it is issued:

- 1. All work done shall be at the sole cost and expense of the Permittee and shall be done at such time and in such a manner as to be least inconvenient to the traveling public, and as directed by the City, work must be finished in the time specified on permit. Permittee shall allow all inspections deemed necessary by City and herein agrees to pay in advance inspection and testing fees as established by City.
- 2. When the proposed work is completed, the Permittee shall repair or replace the sidewalk, roadbed or other surface and landscaping and replace the surfacing material thereon, and will leave the highway, right of way, easement or other public property (hereinafter referred to as highway) in as good a condition as it is now, so far as the area is affected by the Permittee.
- 3. If the subject of the permit fails to pass final inspection, the Permittee will remove or replace the same within such time as specified by written notice from the City; or if at any time hereafter, within the warranty period any material used by the Permittee in replacing or reconstructing any part of said highway proves defective, the Permittee will replace the same with the kind and quality of material which the City shall specify.
- 4. If the title and possession of any property placed in, under or upon the highway by the Permittee remains in said Permittee, the Permittee shall and will promptly perform all necessary repair work upon written notice from the City, and will not permit or allow any condition to exist which would be a hazard or source of danger to the traveling public or other users of the highway.
- 5. If at any time hereafter, the highway or any portion thereof occupied and used by the Permittee may be needed or required by the City, any permit granted in pursuance of this application may be revoked by the City and all right there under terminated, and upon sufficient notice, the Permittee shall and will remove all property belonging to Permittee.
- 6. In the event that the work to be done under the authority of this permit necessitates the creation of any hazard or source of danger to any person or vehicle using said highway, said Permittee shall and will provide and maintain at all times during the existence of said hazard sufficient barriers, hanger signals, lanterns, detours and shall and will take such other measures of precaution as the City shall direct.
- 7. In the event any property belonging to Permittee or the area occupied by such property being used by the Permittee within any portion of the highway interferes with or is necessary to facilitate any public purpose or any City project, said Permittee shall at his/her own expense, relocate, remove, lower, or raise such property within a reasonable time, when requested to do so by the City in writing.
- 8. All conditions of this permit shall be in conformity with current City requirements, provided, however, if Permittee has a lease or license with the City the more strict provision shall apply in the event of a conflict. Permittee certifies that s/he has on file with the City of Chandler a performance bond and certificate of insurance as required by City. It is the sole responsibility of the Permittee to maintain coverage in force for the term of the permit and to name the City as an additional insured. Said coverage shall be primary and failure to conform to the above requirements shall not waive any responsibility of the Permittee. Fifteen day written notice of change or cancellation of the policy shall be served on the City Construction Management Division.
- 9. In consideration of City granting this encroachment permit, to the full extent permitted by law, throughout the term of this permit, until all construction authorized by this permit is completed, and all equipment or facilities built or installed pursuant to this permit are removed, Permittee, and all other persons using, acting, working or claiming through this permit shall jointly and severally pay, indemnify, defend and hold harmless City, its officers, agents and employees from and against any and all claims, suits, damages, loss, expenses, penalties, fines or other matters (together with all attorney fees, court costs, and the cost of appellate proceedings), arising out of or in connection with the

construction, installation, existence, maintenance, use or location of the equipment or facilities built, installed or maintained pursuant to this encroachment permit or any use of the city's right of way, highway or public easement area or City's property related to this encroachment permit or any actions, acts, errors, mistakes or omissions relating to work or services in the performance of or related to this encroachment permit, including any injury or damages or cause claimed or caused by any employees, contractors, subcontractors, tenants, subtenants, agents or other persons upon or using the service area or surrounding areas related to this permit, including without limitation, claims, liability, harm or damages caused in part by City or anyone for whose mistakes, errors, omissions or negligence Permittee or City may be liable. Permittee agrees that it shall have no recourse whatsoever against the City, its officers, agents, boards and commissions, agents or employees for any loss, costs, expenses, or damages arising out of any provision or requirement of the City because of the enforcement of any provision or requirement of the City because of the enforcement of the relevant Chapters of the City Code, or this permit as a result of any damage that may result from the City's exercise of its authority under this permit or applicable provisions of law. [See Chapters 46, 47 and 48 of the Chandler City Code.]

| Applicant Name (please print) | Date | Applicant Signature |
|-------------------------------|------|---|
| | | By signing here you certify that you have |
| Company | | authority to sign on behalf of the applicant. |

Development Services Department Form No: UDM-012/Civil



City of Chandler Public Works Development Street Cut Application

| Requestin | g street cut to | install: | | | |
|--------------|----------------------------------|------------------|---------------------------|---------------|-----------------------------|
| | Water | | Gas | Coax | Other |
| _ | Sewer | | Electric | Fiber | |
| Size of cut: | Length: | Width: | Total Sq. Yds.: | | _ Street: |
| Size of cut: | Length: | Width: | Total Sq. Yds.: | | _ Street: |
| Size of cut: | Length: | Width: | Total Sq. Yds.: | | _ Street: |
| Size of cut: | Length: | Width: | Total Sq. Yds.: | | _ Street: |
| Size of cut: | Length: | Width: | Total Sq. Yds.: | | _ Street: |
| | n For Street Cu Attach 3 copies | | il plan sheet showing loc | ation and typ | pe of work to be performed. |
| | Appl | licant Signature | , | | Date |
| | | | FOR CITY US | E | |
| | Pavement Co | ndition: | | C | Classification: |
| | | | Excellent | _ | Arterial |
| | | | Moderate | _ | Collector |
| | | | Poor | _ | Residential |
| | | | Age | | _ |
| Pavement Da | amage Fee: | | Inspection | n Fee: | |
| City Engine | er: | | | Date: | |
| Approved: | | Approved W | ith Conditions: | | Denied: |



Additional Contractor Information

All contractors employed to perform work pursuant to permit must be listed.

| Contractor | | |
|----------------|-----------|-------------------------|
| Address | | |
| City/State/Zip | Phone No. | City Tax No. (Required) |
| Contractor | | |
| Address | | |
| City/State/Zip | Phone No. | City Tax No. (Required) |
| Contractor | | |
| Address | | |
| City/State/Zip | Phone No. | City Tax No. (Required) |
| Contractor | | |
| Address | | |
| City/State/Zip | Phone No. | City Tax No. (Required) |
| Contractor | | |
| Address | | |
| City/State/Zip | Phone No. | City Tax No. (Required) |



Civil Engineering Certificate of Quantities For Encroachment Permit

| Whe | ere Values Make The Diffe | erence | | |
|-----------------|---------------------------|---|----------------------|--------------|
| | | | _og No: | |
| | | | | |
| Pı | roject: | | | |
| | | | | |
| L | ocation: | | | |
| | includ | e items with an (*) if within the public r/w or p e the quantity of (*) items on private property. ivate street tract and private property. | All other quantiti | _ |
| D | | Inspection Fee Quanti | | Our modifies |
| | ving | A of way down to also also and also as | Unit | Quantity |
| 1. | | nt-of-way/private streets and drives | Square yards | |
| 2. 3. | Parking ar | | Square yards | |
| | Overlay (a | | Square yards | |
| 4. 5. | Alley surfa | n base (City Code Chapter 40-12.7) | Square yards Each | |
| <u>ა.</u> 6. | | ne sign (City) | Each | |
| 7. | Mill and ov | <u> </u> | Square yards | |
| | | renay | Oquale yalus | |
| | ncrete | | | |
| 1. | | driveway or alley entrance | Each | |
| 2. | Concrete v | valley gutter * | Lineal feet | |
| 3. | | apron, one per intersection corner where applicable | Each | |
| 4. | Curb and | | Lineal feet | |
| 5. | Sidewalk * | | Square feet | |
| 6. | Catch bas | | Each | |
| 7. | Sidewalk r | amp * | Each | |
| Wa | ater | | | |
| 1. | | e (4" and larger) | Lineal feet | |
| 2. | Water serv | | Lineal feet | |
| <u></u> 3. | Pavement | | Square yards | |
| 4. | | leeve and valve (non-fire or fire line) | Each | |
| 5. | | e irrigation system connection with backflow device | Each | |
| 6. | | ith and without backflow prevention device | Lineal feet | |
| | claimed Wa | ' | | 1 |
| 1. | | I water pipe (4" and larger) | Lineal feet | |
| 2. | | water services | Lineal feet | |
| _ 3. | Pavement | | Square yards | |

Tapping sleeve and valve

Each

| Se | wer | | | | | |
|----------------------|---|-------------|---------------|---------|-------|-------------------|
| 1. | Sewer pipe (8"and larger) | | Lineal feet | | | |
| 2. | Sewer service | | Lineal feet | | | |
| 2. 3. 4. | Manhole | | Each | | | |
| 4. | Pavement cut * | | Square yar | ds | | |
| 5. | Clean out/drop connection | | Each | | | |
| Dra | ainage | | | | | |
| 1. | Retention basin, on-site plus offsite (grading) | | Acre | | | |
| | Irrigation pipe (SRP, RWCD and private) | | Lineal feet | | | |
| 2. 3. 4. | Stormwater pipe (include box culvert) | | Lineal feet | | | |
| 4. | Headwall | | Each | | | |
| 5. | Pavement cut * | | Square yar | ds | | |
| 5. 6. 7. | Drywell | | Each | | | |
| 7. | Stormwater retention pipe | | Lineal feet | | | |
| Uti | lities- this section is for dry utilities only | | | | | |
| 1. | Utility trenching, in right-of-way and utility easement | | Lineal feet | | | |
| | Streetlight pole * | | Each | | | |
| 3. | Boring on local street | | Lineal feet | | | |
| 4. | Boring on arterial or collector street | | Lineal feet | | | |
| 2. 3. 4. 5. | Pavement cut * | | Square yar | ds | | |
| 6. | Service drops | | Each | | | |
| | Pavement Damage F | ee Qua | antities | | | |
| Pa | ving | | | | | |
| 1. | Pavement removal (0 - 1 year old) | Squ | are yards | | | |
| | Pavement removal (1 - 2 years old) | | are yards | | | |
| 3. | Pavement removal (2 - 4 years old) | | are yards | | | |
| 2. 3. 4. 5. | Pavement removal (4 - 6 years old) | | are yards | | | |
| 5. | Pavement removal (over 6 years old) | | are yards | | | |
| 6. | Pavement reconstruction ** Yes No | | are yards | | | |
| | ** Option in lieu of paying the pavement damage fee. | 1 1 | | | | |
| | | | | | | |
| | Certification | on | | | | |
| l h | oroby portify those guantities are accurate and they correct | nond to t | ha nlana tha | at hove | hoor | propored for this |
| | ereby certify these quantities are accurate and they corres oject. | φυτία το τ | ne pians the | at Have | חבפוו | prepared for this |
| | | _ | | | | |
| | eal, date, expiration and signature of Registered Civil | | | | | |
| E | ngineer: | Printe | ed Name | | | |
| | | | | | | |
| | | | | | | |
| | | D' | Amadian Nicos | h a u | | Evelentian D. (|
| | | Regis | tration Num | ner | | Expiration Date |
| | | | | | | |

Form No: UDM-008/Civil Rev: 1-26-17 Page No. 2