LAKE HAVASU CITY, ARIZONA
ADMINISTRATIVE SERVICES DEPARTMENT
♦ PROCUREMENT ♦

# INVITATION TO BID
# WATER MAIN REPLACEMENT PROJECT 2025
# PROJECT NO. B26-PW-108037-500678
# ADDENDUM NO. 3
# JULY 31, 2025

Attention is called to the following changes, additions, clarifications and/or deletions to the original solicitation and they shall be considered in preparing submissions:

There is no change in the opening date. **Submissions are due no later than 3:00 p.m., Arizona Time, AUGUST 6, 2025**, at the City Clerk's Office, 2330 McCulloch Blvd. N., Lake Havasu City, AZ 86403.

**ITEM ONE (1): PRE-BID ATTENDANCE**

The corrected attendance sheet from the pre-bid conference is hereby attached (Attachment A). Signatures from attendees who were at the wrong pre-bid conference have been removed.

**ITEM TWO (2): QUESTIONS AND ANSWERS**

The following questions were received at the pre-bid conference and via email after the conclusion of that meeting.

***Question 1:*** *The base bid has a bid item for " Connect to Existing Water Line" but none of the alternates do, is there a reason that they are not called out?*

**Answer 1:** These quantities are updated in the revised bid schedule provided with this addendum (Attachment B). Each alternative will have a connection to existing water line(s).

***Question 2:*** *Can there be a bid item for concrete R&R?*

**Answer 2:** The "pavement repair" pay item has been split into curb repair, sidewalk repair, driveway repair, and asphalt pavement repair. Curb, sidewalk, and driveway repair are mostly the result of service connections and fire hydrants. Asphalt repair is mainly due to the main line trench; 10x10 bore pit areas will be accounted for on each end of the two bores of Acoma. The bid schedule and pay item description updates reflected in this addendum capture these changes.

***Question 3:*** *Can there be a bid item for landscape R&R?*

**Answer 3:** Landscape restoration is considered subsidiary to project costs. It is required per notes 20 and 25 on page 2 of the construction plans. Additionally, quite a few pay item descriptions in the contract require "restoration to original condition of all damaged

surface improvements" or "property restoration". Landscape restoration is to be completed by the contractor and is to be considered subsidiary to the other bid items.

***Question 4:*** *Is there a geo tech or an allowance for hard rock excavation, many of these areas in the past have had several hard rock excavations?*

**Answer 4:** No Geotech was performed, and no allowance is provided for hard rock excavation as no hard rock is anticipated.

***Question 5:*** *On page 00310-11, there is an item "BASE BID TOTAL4 + FORCE ACCOUNT" what does the lowercase 4 stand for?*

**Answer 5:** The number "4" references a footnote on the same page (00310-11). Please note these footnotes have been removed from the revised Bid Schedule (Attachment B).

***Question 6:*** *Does the casing need to have flowable fill inside? This is per the specification - "3.3 FLOWABLE FILL AND END SEALS Construct end seals and fill annular space between carrier pipe and casing with flowable fill as follows: 1. After inside of casing has been thoroughly cleaned and approved by Engineer. 2. After carrier pipe has been permanently placed inside casing, tested, and approved. 3. Brick end seals, or approved equal."*

**Answer 6:** Flowable fill will not be required inside the casing pipe; however, casing spacers will be required. Flowable fill may be required outside the casing pipe as indicated in Section 02445.

***Question 7:*** *Please clarify the install of the water line around the structure at Pony Lane?*

**Answer 7:** An updated plan sheet WL07 has been included with this addendum (Attachment C). Service lines are to be routed around the storm structure to avoid impacts.

***Question 8:*** *What is the pavement section for each street?*

**Answer 8:** Asphalt varies throughout the city. The bid item is by SY. Typically side streets are 2 to 2-1/2 inches and main arterials are 4 inches. The asphalt pavement repair thickness will be required to match existing thickness of both pavement and base course per LHC Detail 200.

***Question 9:*** *Is there an engineer's estimate?*

**Answer 9:** The engineer's estimate will not be provided.

***Question 10:*** *Can there be a bid item for concrete curb, concrete sidewalk and concrete driveway flat work?*

**Answer 10:** Refer to Answer 2.

***Question 11:*** *Can there be a bid item for concrete curb, concrete sidewalk and concrete driveway flat work?*

**Answer 11:** Refer to Answer 3.

***Question 12:*** *Are flaggers required at all times on Acoma Blvd?*

**Answer 12:** Certified Flaggers are required when needed. Please show on TCP.

***Question 13:*** *Can there be added calendar days due to the total amount of footage for this project and due to the many holidays that pipeline cannot be installed?*

**Answer 13:** The 180 calendar days is for the Base Bid. The City will add calendar days to the project based on which, if any, additive alternates are awarded.

***Question 14:*** *Is there a hard rock excavation contingency?*

**Answer 14:** Refer to Answer 4.

***Question 15:*** *What is the Engineer's Estimate?*

**Answer 15:** Refer to Answer 9.

***Question 16:*** *Is slurry required for crossings?*

**Answer 16:** No, unless the work has a utility conflict.

***Question 17:*** *It was stated at the pre-bid meeting that Acoma Blvd has 4" thick asphalt presently and will require the same thickness for patching. Can this be confirmed, and if so, can it be replaced in 1 lift, or will 2 lifts be required?*

**Answer 17:** Refer to Answer 8.

***Question 18:*** *The bid items labeled "Pavement Repair" quantities seem to be for the main line only. Will all service lateral pavement repairs be included in this item on an installed measured quantity inclusively?*

**Answer 18:** Refer to Answer 2.

***Question 19:*** *Pre-bid meeting note b. states 150 calendar days. Does this include holidays, or are they excluded from the count?*

**Answer 19:** Refer to Answer 13.

***Question 20:*** *Primarily on Acoma, will channel lane closures/or any closures (single lane on multi lane areas) be allowed to be left up overnight, or will the street need to be completely opened each overnight?*

**Answer 20:** The City does not allow Traffic Control to remain up after working hours each day. Contractor shall set up and tear down each day.

***Question 21:*** *Boring – Bid Schedule Item 11 – Steel Casing by bore. Will any deviation from this be allowed, such as upsizing the casing diameter to 24" to allow steering capabilities not practical with 16" casing? Also, if subsurface conditions make boring impractical, such as encountering river run soil conditions consisting of unstable sand*

*and/or cobble material (requiring a 36" hand tunnel), or hard dig/rock, will the General Conditions (Section 00700) Subsurface Conditions (Section 19.0) apply to the required change in methods/cost associated with the differing conditions?*

**Answer 21:** Contractor can upsize the casing due to field conditions, with approval from the engineer, at no additional cost to the owner unless determined under General Conditions section 19.0.

***Question 22:*** *How will concrete flatwork (drives/sidewalks) and curbing (vertical, curb & gutter, roll curb) be accounted for in the bid schedule? Is this to be lumped into item 7? How is it to be bid/measured/paid?*

**Answer 22:** Refer to Answer 2.

***Question 23:*** *Will the city provide the bacteria/chlorine level tests as in the past?*

**Answer 23:** Yes, the City will provide the testing.

***Question 24:*** *Is there a geotechnical report available?*

**Answer 24:** Refer to Answer 4.

***Question 25:*** *Is the project expected to encounter any unsuitable material?*

**Answer 25:** No, City spec only allows up to 4 inch or smaller rock as return backfill.

***Question 26:*** *Please confirm the desired asphalt depth. (Removal/Replace).*

**Answer 26:** Refer to Answer 8.

***Question 27:*** *Are the anticipated bore and receiving pits included in the LHC paving quantities?*

**Answer 27:** Refer to Answer 2.

***Question 28:*** *Please quantify the existing valves and valve box salvage anticipated.*

**Answer 28:** New valves need new valve cans. Existing valve cans can be reused.

***Question 29:*** *Will flaggers be required each day on both ends of the traffic control during the project?*

**Answer 29:** Flaggers are required when needed (i.e. - crossing intersections, main intersections, unsafe conditions, etc.). Contractor to show this on all TCP submitted to the project manager for approval.

***Question 30:*** *Will business service tie-ins be required to be conducted at night?*

**Answer 30:** Yes, typically most tie-ins are installed during the night shifts. Impact to residents is a case-by-case bases.

***Question 31:*** *Is there any other anticipated nighttime work?*

**Answer 31:** The contractor is to determine the scope of work and means and methods.

***Question 32:*** *Please quantify the required R&R of existing curb, sidewalk, and driveways.*

**Answer 32:** *Refer to Answer 2.*

***Question 33:*** *150 – 180 days for this project seems aggressive. Is it possible to extend the allowable calendar/working days?*

**Answer 33:** Refer to Answer 13.

***Question 34:*** *Is there an option to use directional drilling utilizing HDPE pipe in lieu of jack & bore using steel casing at the storm drain crossings?*

**Answer 34:** No, there are concerns with future accessibility and maintenance. Additionally, there are capacity differences between the pipe materials.

***Question 35:*** *What locations is 401C protection anticipated?*

**Answer 35:** This question is unclear. Water main installation must comply with City and ADEQ standards for drinking water.

***Question 36:*** *The LHC specifications state "The Contractor shall set each fire hydrant on a 8 inch x 12 inch precast concrete pad with a 4 inch thickness and shall place a minimum of 1/3 cubic yard of Aggregate Base around the lower part of the hydrant to at least six (6) in." this is different from the LHC fire hydrant detail 320. Please confirm which is to be followed.*

**Answer 36:** Defer to the LHC fire hydrant detail 320.

***Question 37:*** *LHC AC Patch detail 219 states "In areas where pavement is cracked, potholed, failed or otherwise partially removed, contractor shall replace pavement to 10' either side of limit for the full width of the street." Will this requirement be waived for potholing?*

**Answer 37:** Potholing should remain within the trench section; therefore, the 6-foot-wide trench section should cover this area. In the case where potholing falls outside the established trench width, the paving repair required by LHC detail 219 shall be considered subsidiary to the contract.

***Question 38:*** *Please confirm that the trench width of 6'-6" per LHC detail 200 for paving replacement over 8" waterline was used for the paving quantities.*

**Answer 38:** 6-foot-wide full depth trench is typical for trench repair.

***Question 39:*** *Is there an available location for use as a laydown yard for the project? Will this location be provided by LHC? Will a TUP be required?*

**Answer 39:** The contractor is responsible for finding and receiving permission for use of a laydown yard. The City does have one option for a laydown yard.

***Question 40:*** *Sheet WL07 shows a drainage structure at the end of the Cul de sac. Please provide a bid item for this scope and detail.*

**Answer 40:** Refer to Answer 7.

***Question 41:*** *Bid item 7: The measurement quantity seem very low given that the curb driveways and walks are lumped in with this. Also the patch for the 4 bore and jack pits are included as well and they can get large very easily exceeding 200 SY each. Is the quantity going to be increased?*

**Answer 41:** Refer to Answer 2.

***Question 42:*** *Bid Item 7: The plans call for a 2.5" thick patch. The existing roadway is 4" thick and a paving improvement project is expected to follow this project. Will the thickness remain 2.5"?*

**Answer 42:** Refer to Answer 8.

***Question 43:*** *Bid item 7: The asphalt, concrete and curb are lumped in as one pricing. Concrete cost much more than asphalt. How will the concrete be priced fairly if the concrete quantity goes over?*

**Answer 43:** Refer to Answer 2.

***Question 44:*** *Bid Item 7: Will the concrete, curb and asphalt remain as one payment item?*

**Answer 44:** Refer to Answer 2.

***Question 45:*** *Bid item 7: The asphalt patch is a 6' minimum width. Can the patch be made 9' wide and payment be made for the 6' width?*

**Answer 45:** A 6-foot-wide trench patch is quantified for this project. If the contractor chooses to place asphalt wider than this, it should be considered subsidiary to the project costs.

**ITEM THREE (3): REVISION/CORRECTION**

A revised Section 01210 (Measurement and Payment) has been provided (Attachment D). This supersedes the Section 01210 provided in the original ITB Package.

Andrew Klos, CPPB
Senior Procurement Specialist

# 2025 Water Main Replacement Project
# Non-Mandatory Pre-Bid Meeting Sheet
# Thursday, July 24th, 2025 @ 11:00 am

| Name | Organization | Phone Number | Email Address |
|---|---|---|---|
| Brent Cummings | LHC PW | 928-680-5463 | Cummingsb@lhcaz.gov |
| Adam Ledrich | Premier Backhoe | 702-203-3519 | aledrich.premierbackhoe@yahoo |
| Brad Duncon | Standard Construction | 623-986-1956 | estimating@standardaz.com |
| Drew Booth | Pat Bern Construction | 928-279-9932 | Drew.Patbern@gmail.com |
| Tom Summers | Pronghorn Services | 928-420-1005 | Tsummers@pronghornservices |
| Steve Ashley | Groundwater Partners | 928-733-8703 | Steve@groundwaterpartners.com |
| Rose Weaver | Groundwater Partners | 928-856-1546 | Rose@groundwaterpartners.com |
| | | | |
| Sydney McDonald | Kimley-Horn | 719-377-0370 | SydneyMcdonald@kimley-horn.com |
| Andrew Klos | LHC | | |
| Kody Graham | LHC | | |
| Greg Hanson | LHC | | |
| Brent Morris | LHC | | |
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SECTION 00310
**BID SCHEDULE**
LAKE HAVASU CITY

**2025 Water Main Replacement Project, Project No. PW-25-108037-500678**

Lake Havasu City Council
Lake Havasu City
2330 N. McCulloch Boulevard
Lake Havasu City, AZ 86403

The City Council:

Pursuant to request for bids to be opened the August 6, 2025 at 3:00 P.M., Arizona Time, at Room 109 of Lake Havasu City Hall, for the above project, the Contractor proposes to complete work, including furnishing all labor and materials, per the Specifications and Plans at the Following prices.

This Schedule of Items and Prices shall be completed in ink or typed by the Bidding Contractor. In case of discrepancy between the word and figure amount description, the word description shall control extensions.

Prices must be entered for each item and the appropriate subtotal and total blank shall be filled out. Bid prices shall include sales tax and all other applicable taxes and fees.

Bidder agrees to perform all the necessary work to complete the **2025 Water Main Replacement Project, Project No. PW-25-108037-500678**

SECTION 00310

## BID SCHEDULE – 2025 Water Main Replacement Project, Project No. PW-25-108037-500678

| Item No. | Description | Estimated Quantity | Unit of Measure | Unit Price (Word and Figure Amount) | Item Total Costs |
|---|---|---|---|---|---|
| GENERAL ITEMS | | | | | |
| 1 | Mobilization/Demobilization, Bonds, and Insurance | 1 | LS | | |
| 2 | Traffic Control Plan & Implementation | 1 | LS | | |
| 3 | SWPP Plan & Implementation | 1 | LS | | |
| 4 | Contractor Quality Control | 1 | LS | | |
| 5 | Construction Staking | 1 | LS | | |
| 6 | Utility Trench (DTL 200) | 9,772 | LF | | |
| 7 | Asphalt Pavement Repair | 7,404 | SY | | |
| 8 | Remove and Replace Existing Sidewalk per LHC STD DTL 216 | 707 | SF | | |
| 9 | Remove and Replace Existing Curb per LHC STD DTL 213 | 462 | LF | | |
| 10 | Driveway Repair (Allowance) | 1 | LS | $82,000 | $82,000 |
| WATER IMPROVEMENTS | | | | | |
| 11 | 6" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) | 3,410 | LF | | |

| | | | | | |
|---|---|---|---|---|---|
| 12 | 8" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) | 6,272 | LF | | |
| 13 | 8" C151 Pressure Class 350 Ductile Iron Water Line - Installed in Casing Pipe (Tee, Cross, Bends, Thrust Block) | 90 | LF | | |
| 14 | 16" Steel Casing by Bore | 90 | LF | | |
| 16 | 6" Gate Valve | 25 | EA | | |
| 17 | 8" Gate Valve | 49 | EA | | |
| 18 | 1" Combination Air/Vacuum Valve & 2" Blow-Off | 7 | EA | | |
| 19 | 2" Blow-Off Assembly In-Line | 2 | EA | | |
| 20 | Fire Hydrant Assembly (Valve, Bends, Tee, Thrust Block) | 22 | EA | | |
| 21 | Water Service Assembly | 31 | EA | | |
| 22 | Cross Street Water Service Assembly | 39 | EA | | |
| 23 | Connect to Existing Water Line | 11 | EA | | |
| 24 | Abandon Existing Water Line in Place per LHC Tech Spec 02550 | 9,328 | LF | | |
| 25 | Remove Existing Fire Hydrant | 13 | EA | | |
| | | | | **Base Bid Total** | |
| | Force Account | 1 | LS | $100,000 | $100,000 |
| | | | | **Base Bid Total + Force Account** | |

Above line items and totals shall include all work shown on the plans and specified herein, including taxes, insurance and bonding.

The Owner reserves the right to award any alternative or combination of alternatives in addition to the base bid. Owner will determine the award of alternatives prior to issuing the notice to proceed. Alternative item pricing shall be all inclusive of additional costs incurred for general items. Alternative bid amount shall include all costs to perform all construction associated with the additional quantities.

## Alternative 1 – Serenidad Verada & Plaza Del Sol

| Item No. | Description | Estimated Quantity | Unit of Measure | Unit Price (Word and Figure Amount) | Item Total Costs |
|---|---|---|---|---|---|
| GENERAL ITEMS | | | | | |
| 1.1 | Mobilization/Demobilization, Bonds, and Insurance | 1 | LS | | |
| 2.1 | Traffic Control Plan & Implementation | 1 | LS | | |
| 3.1 | SWPP Plan & Implementation | 1 | LS | | |
| 4.1 | Contractor Quality Control | 1 | LS | | |
| 5.1 | Construction Staking | 1 | LS | | |
| 6.1 | Utility Trench (DTL 200) | 501 | LF | | |
| 7.1 | Asphalt Pavement Repair | 412 | SY | | |
| 8.1 | Remove and Replace Existing Sidewalk per LHC STD DTL 216 | 11 | SF | | |
| 9.1 | Remove and Replace Existing Curb per LHC STD DTL 213 | 36 | LF | | |
| 10.1 | Driveway Repair (Allowance) | 1 | LS | $7,000 | $7,000 |
| WATER IMPROVEMENTS | | | | | |
| 11.1 | 6" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) | 501 | LF | | |
| 16.1 | 6" Gate Valve | 6 | EA | | |
| 18.1 | 1” Combination Air/Vacuum Valve & 2” Blow-Off | 2 | EA | | |

| | | | | | |
|---|---|---|---|---|---|
| 20.1 | Fire Hydrant Assembly (Valve, Bends, Tee, Thrust Block) | 1 | EA | | |
| 21.1 | Water Service Assembly | 2 | EA | | |
| 22.1 | Cross Street Water Service Assembly | 3 | EA | | |
| 23.1 | Connect to Existing Water Line | 2 | EA | | |
| 24.1 | Abandon Existing Water Line in Place per LHC Tech Spec 02550 | 490 | LF | | |
| | | | | **Alternative 1 Bid Total** | |
| | Force Account | 1 | LS | $12,500 | $12,500 |
| | | | | **Alternative 1 Bid Total + Force Account** | |

## Alternative 2 – Rango Place

| Item No. | Description | Estimated Quantity | Unit of Measure | Unit Price (Word and Figure Amount) | Item Total Costs |
|---|---|---|---|---|---|
| GENERAL ITEMS | | | | | |
| 1.2 | Mobilization/Demobilization, Bonds, and Insurance | 1 | LS | | |
| 2.2 | Traffic Control Plan & Implementation | 1 | LS | | |
| 3.2 | SWPP Plan & Implementation | 1 | LS | | |
| 4.2 | Contractor Quality Control | 1 | LS | | |
| 5.2 | Construction Staking | 1 | LS | | |
| 6.2 | Utility Trench (DTL 200) | 340 | LF | | |
| 7.2 | Asphalt Pavement Repair | 268 | SY | | |
| 10.2 | Driveway Repair (Allowance) | 1 | LS | $10,000 | $10,000 |
| WATER IMPROVEMENTS | | | | | |
| 11.2 | 6" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) | 340 | LF | | |
| 16.2 | 6" Gate Valve | 3 | EA | | |
| 18.2 | 1” Combination Air/Vacuum Valve & 2” Blow-Off | 1 | EA | | |
| 19.2 | 2” Blow-Off Assembly In-Line | 1 | EA | | |
| 20.2 | Fire Hydrant Assembly (Valve, Bends, Tee, Thrust Block) | 1 | EA | | |

| | | | | | |
|---|---|---|---|---|---|
| 21.2 | Water Service Assembly | 1 | EA | | |
| 22.2 | Cross Street Water Service Assembly | 3 | EA | | |
| 23.2 | Connect to Existing Water Line | 1 | EA | | |
| 24.2 | Abandon Existing Water Line in Place per LHC Tech Spec 02550 | 327 | LF | | |
| 25.2 | Remove Existing Fire Hydrant | 1 | EA | | |
| | | | | **Alternative 2 Bid Total** | |
| | Force Account | 1 | LS | $12,500 | $12,500 |
| | | | | **Alternative 2 Bid Total + Force Account** | |

## Alternative 3 – Rango Court

| Item No. | Description | Estimated Quantity | Unit of Measure | Unit Price (Word and Figure Amount) | Item Total Costs |
|---|---|---|---|---|---|
| GENERAL ITEMS | | | | | |
| 1.3 | Mobilization/Demobilization, Bonds, and Insurance | 1 | LS | | |
| 2.3 | Traffic Control Plan & Implementation | 1 | LS | | |
| 3.3 | SWPP Plan & Implementation | 1 | LS | | |
| 4.3 | Contractor Quality Control | 1 | LS | | |
| 5.3 | Construction Staking | 1 | LS | | |
| 6.3 | Utility Trench (DTL 200) | 756 | LF | | |
| 7.3 | Asphalt Pavement Repair | 549 | SY | | |
| 10.3 | Driveway Repair (Allowance) | 1 | LS | $20,000 | $20,000 |
| WATER IMPROVEMENTS | | | | | |
| 11.3 | 6" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) | 756 | LF | | |
| 16.3 | 6" Gate Valve | 3 | EA | | |
| 18.3 | 1” Combination Air/Vacuum Valve & 2” Blow-Off | 1 | EA | | |
| 20.3 | Fire Hydrant Assembly (Valve, Bends, Tee, Thrust Block) | 1 | EA | | |
| 21.3 | Water Service Assembly | 4 | EA | | |

| | | | | | |
|---|---|---|---|---|---|
| 22.3 | Cross Street Water Service Assembly | 6 | EA | | |
| 23.3 | Connect to Existing Water Line | 1 | EA | | |
| 24.3 | Abandon Existing Water Line in Place per LHC Tech Spec 02550 | 750 | LF | | |
| 25.3 | Remove Existing Fire Hydrant | 1 | EA | | |
| | | | | **Alternative 3 Bid Total** | |
| | Force Account | 1 | LS | $12,500 | $12,500 |
| | | | | **Alternative 3 Bid Total + Force Account** | |

## Alternative 4 – Pony Lane & Pony Place

| Item No. | Description | Estimated Quantity | Unit of Measure | Unit Price (Word and Figure Amount) | Item Total Costs |
|---|---|---|---|---|---|
| GENERAL ITEMS | | | | | |
| 1.4 | Mobilization/Demobilization, Bonds, and Insurance | 1 | LS | | |
| 2.4 | Traffic Control Plan & Implementation | 1 | LS | | |
| 3.4 | SWPP Plan & Implementation | 1 | LS | | |
| 4.4 | Contractor Quality Control | 1 | LS | | |
| 5.4 | Construction Staking | 1 | LS | | |
| 6.4 | Utility Trench (DTL 200) | 1,044 | LF | | |
| 7.4 | Asphalt Pavement Repair | 859 | SY | | |
| 9.4 | Remove and Replace Existing Curb per LHC STD DTL 213 | 60 | LF | | |
| 10.4 | Driveway Repair (Allowance) | 1 | LS | $28,000 | $28,000 |
| WATER IMPROVEMENTS | | | | | |
| 11.4 | 6" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) | 1,044 | LF | | |
| 15.4 | 4" Gate Valve | 1 | EA | | |
| 16.4 | 6" Gate Valve | 5 | EA | | |
| 17.4 | 8" Gate Valve | 2 | EA | | |

| | | | | | |
|---|---|---|---|---|---|
| 18.4 | 1" Combination Air/Vacuum Valve & 2" Blow-Off | 2 | EA | | |
| 20.4 | Fire Hydrant Assembly (Valve, Bends, Tee, Thrust Block) | 1 | EA | | |
| 21.4 | Water Service Assembly | 7 | EA | | |
| 23.4 | Connect to Existing Water Line | 2 | EA | | |
| 22.4 | Cross Street Water Service Assembly | 6 | EA | | |
| 24.4 | Abandon Existing Water Line in Place per LHC Tech Spec 02550 | 949 | LF | | |
| 25.4 | Remove Existing Fire Hydrant | 1 | EA | | |
| | | | | **Alternative 4 Bid Total** | |
| | Force Account | 1 | LS | $12,500 | $12,500 |
| | | | | **Alternative 4 Bid Total + Force Account** | |

| FINAL | TOTALS |
|---|---|
| **Base Bid Total + Force Account** | |
| **Alternative 1 Bid Total + Force Account** | |
| **Alternative 2 Bid Total + Force Account** | |
| **Alternative 3 Bid Total + Force Account** | |
| **Alternative 4 Bid Total + Force Account** | |
| **Total Base Bid + Alternatives 1 Through 4 + All Force Accounts** | |

The unit prices for **2025 Water Main Replacement Project, Project No. PW-25-108037-500678,** shall include all labor, materials, water disposal, bailing, shoring, removal, disposal, overhead, profit, insurance, and all other related costs and work to cover the finished work of the several kinds called for. Changes in the Contract shall be processed in accordance with Paragraph 16 of the General Conditions.

Bidder understands that the Owner reserves the right to reject any or all Bids, or portions thereof, and to waive any informalities in the bidding.

The Bidder agrees that this Bid shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving Bids.

Upon receipt of written notice of the acceptance of this Bid, Bidder shall execute the formal Contract attached within 10 days and deliver a Performance Bond, Payment Bond, and Certificates of Insurance as required by Paragraph 25 of the General Conditions and the Special Provisions.

The Bid security attached in the sum of $_____ is to become the property of the Owner in the event the Contract and Bond(s) are not executed and provided within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Bidder hereby acknowledges receipt of the following Addenda: ___, ___, ___.

RESPECTFULLY SUBMITTED BY:

BY: _____

TITLE: _____

FIRM: _____

ADDRESS: _____

_____

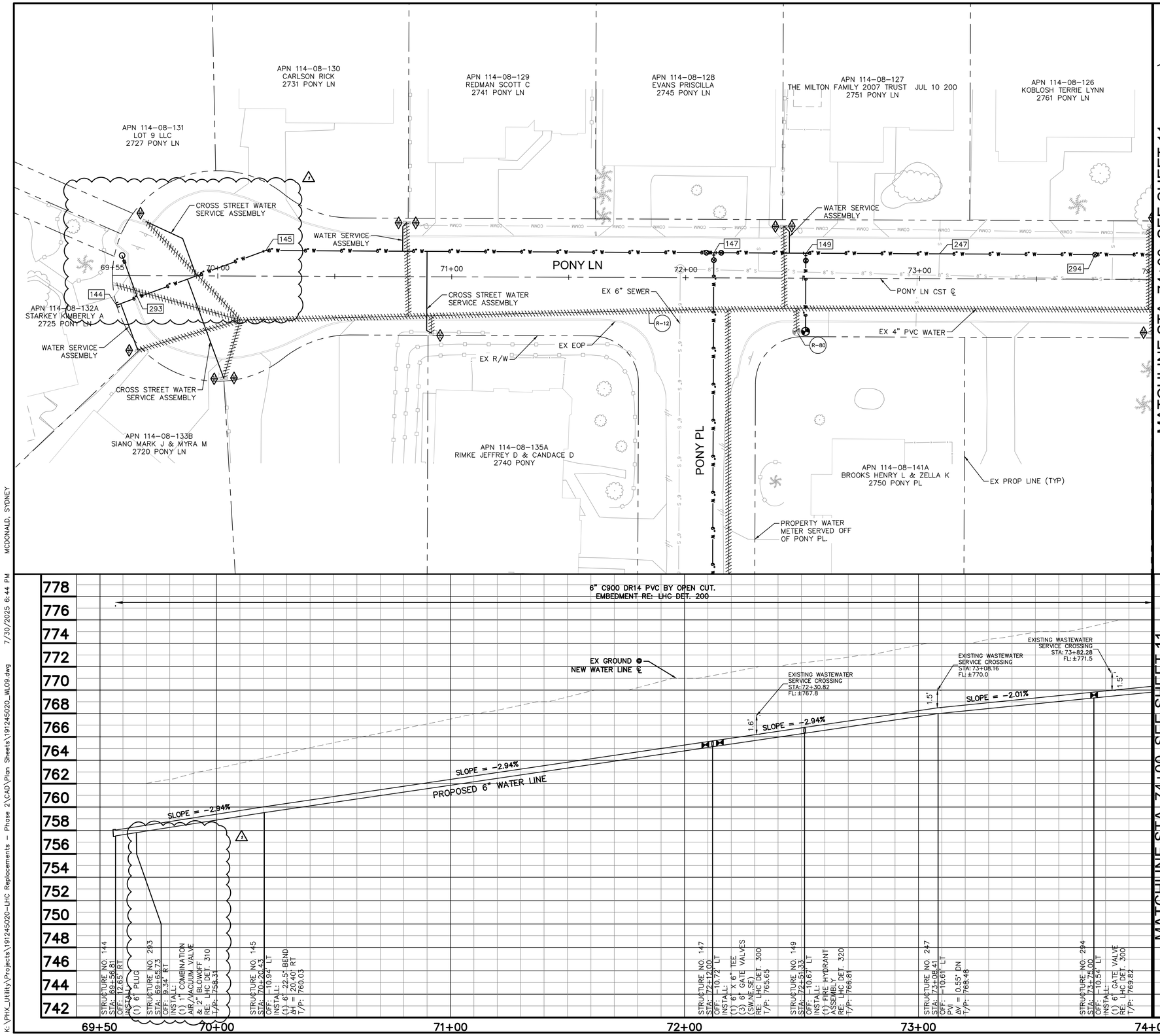
PHONE: _____FAX_____

EMAIL: _____

Seal - if Bid by a corporation

AZ Contractor's License No:_____ Type_____

** END OF SECTION **







## WATER CONSTRUCTION NOTES

| STRUCTURE NO. | DESCRIPTION | STATION OFFSET |
|---|---|---|
| 144 | INSTALL:<br>(1) 6" PLUG<br>INV 6" OUT: 757.53<br>N: 1259735.59<br>E: 534513.94 | STA: 69+56.81<br>OFF: 12.65' RT |
| 145 | INSTALL:<br>(1) 6" 22.5° BEND<br>ΔH = 20.40' RT<br>INV 6" IN: 759.53<br>INV 6" OUT: 759.53<br>N: 1259803.28<br>E: 534518.46 | STA: 70+20.43<br>OFF: -10.94' LT |
| 147 | INSTALL:<br>(1) 6" X 6" TEE<br>(3) 6" GATE VALVES (SW,NE,SE)<br>RE: LHC DET. 300<br>INV 6" IN: 765.15<br>INV 6" OUT: 765.15<br>INV 6" OUT: 765.15<br>N: 1259977.97<br>E: 534597.09 | STA: 72+12.00<br>OFF: -10.72' LT |
| 149 | INSTALL:<br>(1) FIRE HYDRANT ASSEMBLY<br>RE: LHC DET. 320<br>INV 6" IN: 766.31<br>INV 6" OUT: 766.31<br>N: 1260013.84<br>E: 534613.23 | STA: 72+51.33<br>OFF: -10.67' LT |
| 247 | PVI<br>ΔV = 0.55' DN<br>INV 6" IN: 767.98<br>INV 6" OUT: 767.98<br>N: 1260065.89<br>E: 534636.66 | STA: 73+08.41<br>OFF: -10.61' LT |
| 293 | INSTALL:<br>(1) 1" COMBINATION AIR/VACUUM VALVE & 2" BLOWOFF<br>RE: LHC DET. 310<br>INV 6" IN: 757.81<br>INV 6" OUT: 757.81<br>N: 1259745.07<br>E: 534514.57 | STA: 69+65.73<br>OFF: 9.34' RT |
| 294 | INSTALL:<br>(1) 6" GATE VALVE<br>RE: LHC DET. 300<br>INV 6" IN: 769.32<br>INV 6" OUT: 769.32<br>N: 1260126.61<br>E: 534663.98 | STA: 73+75.00<br>OFF: -10.54' LT |

## REMOVAL AND ABANDONMENT NOTES

| STRUCTURE NO. | DESCRIPTION |
|---|---|
| R-12 | ±441 LF 4" WATER LINE ABANDONMENT |
| R-80 | REMOVE EXISTING FIRE HYDRANT AND APPERTENANCES PER LHC TECH. SPEC. 02550 |

NOTES:

1. CONTRACTOR SHALL POTHOLE AND TAKE ALL REASONABLE EFFORT AND ACTION TO SATISFY HIMSELF ON THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF NEW MAIN. CONTRACTOR WILL BE RESPONSIBLE FOR FIELD ADJUSTMENTS REQUIRED TO CONNECT TO EXISTING MAINS SHOWN AT DIFFERENT ELEVATIONS THAN IN PLANS.
2. WATERLINE SHALL BE INSTALLED AT THE ELEVATIONS SHOWN ON THE PLANS. CONTRACTOR SHALL MAINTAIN MINIMUM COVER PER CITY STANDARDS.
3. CONTRACTOR SHALL PLACE FLOWABLE FILL IN AREAS OF PUBLIC UTILITY MAIN CROSSINGS WHERE APPROPRIATE COMPACTION CANNOT BE MET.
4. CONTRACTOR TO POTHOLE ANY/ALL POINTS OF CONNECTION FOR ALIGNMENT AND GRADE. CONTRACTOR SHALL BEAR ALL COSTS OF FITTINGS NOT SHOWN IN PLANS REQUIRED TO MAKE GRADE.
5. SEE SHEET 09 FOR WORK ON PONY PLACE

GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 2 4 8
VERTICAL

ARIZONA BLUE STAKE
CALL TWO WORKING DAYS BEFORE YOU DIG
Dial 811 or
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

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PHONE: 602-944-5500 | WWW.KIMLEY-HORN.COM

LAKE HAVASU CITY, ARIZONA • INCORPORATED 1978

| NO. | REVISIONS / SUBMISSIONS | DATE |
|---|---|---|
| 1 | STORM STRUCTURE AVOIDANCE | 07/2025 |
| # | - | - |
| # | - | - |
| # | - | - |

# LAKE HAVASU CITY
## 2025 WATERMAIN REPLACEMENT PROJECT
## CITY PROJECT NO. PW-25-108037-500678

Designed by: SMM
Drawn by: JAP
Checked by: CAW
Date: 07/2025
Dwg scale: 1" = 20'

## PONY LANE WATERLINE PLAN & PROFILE

Registered Professional Engineer (Civil)
CERTIFICATE NO. 77523
Craig Wenger
Date Signed 7/30/25
ARIZONA, USA

Sheet Number:
WL07
Sheet 10 of 37

SECTION 01210
# MEASUREMENT AND PAYMENT

## PART 1 - GENERAL

### 1.1 Description

The outline of measurement and payment in this section is intended to provide a general guideline to the Contractor in preparing bids and submitting pay requests. Listing of work included in each bid item is not intended to include all work but is to provide general guidance to the Contractor for allocating costs. All work will be paid for on a unit price basis with payment made for the quantity of each item completed.

All materials required for construction shall be furnished by the Contractor unless specifically stated. Items not specifically measured and paid for shall be considered as subsidiary items required to complete the installation in accordance with the intent of the contract documents. The Contractor shall include in the unit price bid items, all costs associated with subsidiary items not being measured for payment.

### 1.2 Authority

Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of this section govern.

The Contractor shall take all measurements and compute quantities. The Engineer will verify measurements and quantities.

### 1.3 Unit Quantities

Quantities indicated in the Bid Form are for bidding and contract purpose only. Quantities and measurements supplied or placed in the Work and verified by the Engineer shall determine payment.

If the actual Work requires more or fewer quantities than indicated, provide the required quantities at the unit prices contracted. Changes to quantities shall be approved by Owner.

## PART 2 – PRODUCTS - Not Used

## PART 3 – CONSTRUCTION - Not Used

## PART 4 – METHODS OF MEASUREMENT

### 4.1 General

All items that are included in the bid for measurement and payment are included herein. All other items of work shall be considered subsidiary to construction and will not be measured for payment.

### 4.2 Measurement and Payment

#### 1. Mobilization/Demobilization, Bonds, and Insurance (Items 1, 1.1, 1.2, 1.3, and 1.4 included)

The quantity of "Mobilization/Demobilization, Bonds, and Insurance" measured for payment shall be lump sum.

The CONTRACT lump sum bid price for "Mobilization/Demobilization, Bonds, and Insurance" shall be full compensation for furnishing all materials, labor, equipment and tools for all required bonds, insurance, mobilization of staff and equipment, environmental control measures and documentation, and any other costs associated with complying with the contract administrative requirements and commencing WORK at the project site. This item also includes all work and materials necessary to complete the work and to demobilize and perform project closeout as described in the PLANS and SPECIFICATIONS. Payment for this item shall not be requested until at least thirty days from the notice to proceed has elapsed.

Payment for this item shall be made in accordance with Table A.

TABLE A

| | |
|---|---|
| Payment for Mobilization on First Partial Payment | Not to exceed 2.5% of the Lump Sum Base Bid |
| Subsequent payments for Mobilization | Not to exceed 2.5% of the Lump Sum Base Bid |
| Payment For Mobilization on Final Partial Payment | Any remaining Mobilization in excess of 5% of the Lump Sum Base Bid |

#### 2. Traffic Control Plan & Implementation (Items 2, 2.1, 2.2, 2.3, and 2.4 included)

The quantity for "Traffic Control" measured for payment shall be lump sum.

The CONTRACT lump sum price for "Traffic Control" shall be full compensation for furnishing all materials, labor, equipment and tools to complete all Traffic Control as shown in the Project Plans and in accordance with Section 02650 – Traffic Control of the LHC Standard Specifications and the Section 02650 – Traffic Control Supplement of the Technical Specifications, including Traffic Control Plan and coordination with Owner and local law enforcement. For roadway closures the Contractor shall provide certified flaggers for vehicles access to businesses and homes. All closures must be coordinated with the engineer of record and Lake Havasu City a minimum of 1 week in advance. All Traffic Control Plans (TCP's) shall be in compliance with MUTCD. This shall include all signage, temporary striping, flaggers, barricades, lighting, and related items necessary to ensure the safety of workers and convenience of local residents throughout the project. This item also includes all work and materials necessary to complete the work as described in the Plans and Specifications. Payment of this item shall be lump sum.

## 3. SWPP Plan & Implementation (Items 3, 3.1, 3.2, 3.3, and 3.4 included)

The quantity for "SWPP Plan & Implementation" measured for payment shall be lump sum.

The CONTRACT lump sum bid price for this item shall constitute full compensation for furnishing all materials, labor, equipment and tools for the development and implementation of the Storm Water Pollution Prevention Plan (SWPPP) Plan(s) in accordance with the Specifications and acceptable to the Engineer. All SWPPP's shall be in compliance with the City and Arizona Department of Environmental Quality (ADEQ). This shall include all netting, straw wattles, sandbags, stabilized entrance(s), washout areas, vehicle storage and maintenance areas, and related items necessary to ensure the stormwater quality is maintained throughout the project, at all times. This item also includes all work and materials necessary to complete the work as described in the Plans and Specifications. Payment of this item shall be lump sum.

## 4. Contractor Quality Control (Items 4, 4.1, 4.2, 4.3, and 4.4 included)

The quantity for "Quantity Control" measured for payment shall be lump sum.

The CONTRACT lump sum price for "Quality Control" shall be full compensation for furnishing all materials, labor, equipment, and tools to

complete all quality control as described in Special Provision 00800, Section 16.0 and 19.0, as necessary for conformance with the plans.

## 5. Construction Staking (Items 5, 5.1, 5.2, 5.3, and 5.4 included)

The quantity of "Construction Staking" measured for payment shall be lump sum.

The CONTRACT lump sum bid price for this item shall be full compensation for furnishing all materials, labor, equipment and tools to complete all construction layout and staking necessary for conformance with the plans.

## 6. Utility Trench (DTL 200) (Items 6, 6.1, 6.2, 6.3, and 6.4 included)

This contract bid item shall be measured by linear feet of trench that is excavated for water main and corresponding appurtenances that will be constructed.

The contract unit price shall include materials, labor, equipment and tools used for shoring and sheeting. Refer to Section 02300 of the LHC Technical Specifications and LHC Standard Detail 200.

## 7. Asphalt Pavement Repair (Items 7, 7.1, 7.2, 7.3, and 7.4 included)

The quantity of "Asphalt Pavement Repair" measured for payment shall be per square yard installed.

The CONTRACT unit bid price "Asphalt Pavement Repair" shall constitute full compensation for furnishing all materials, labor, equipment and tools for the removal and replacement of pavement, in kind (material, pavement thickness, bedding material and thickness, and design). Unless otherwise directed, new pavement will match finish and be placed at a depth to match existing conditions. Work includes but is not limited to construction staking necessary to ensure lines and grades of new surface, removal of existing pavement, preparation and grading of subgrade, removal and disposal of excess material, forming, pouring/laying of new pavement, tack coat for asphalt, and paint to match existing, all in accordance with the Plans and Specifications and as directed by the ENGINEER.

Refer to LHC Technical Specification Section 02630 for asphalt concrete surface course overlay and Section 02620 for bituminous prime and tack

coat. Trench width, pavement repair limits, and saw cut depths shall be in accordance with LHC Standard Detail 200.

Payment of this item shall only be made after the new pavement has successfully passed acceptance testing, visual inspection, right-of-way has been fully restored, and all structures have been properly adjusted.

Adjustment of existing structures that are affected by pavement repair shall be included in this pay item and should include materials, labor, equipment and tools used for adjusting the valve collar or manhole rim to finished pavement grade. Contractor to verify that the existing valve can is screw type. Valve cans found not to be screw type shall be considered replaced and are subsidiary to this bid item. Valve collar, rim, and other existing structure adjustments shall conform Section 02550 and 02515 of the LHC Technical Specifications.

**8. Remove and Replace Existing Sidewalk per LHC STD DTL 216 (Items 8 and 8.1 included)**

The quantity of "Remove and Replace Existing Sidewalk per LHC STD DTL 216" measured for payment shall be per square foot installed.

The CONTRACT unit bid price shall constitute full compensation for furnishing all materials, labor, equipment and tools for the removal and replacement of sidewalk, aggregate base and any necessary subgrade preparation to match existing design (width, thickness, etc.). Sidewalk replacement shall be completed from nearest panel joint to nearest panel joint to ensure full panel replacement. Sidewalk repair is anticipated at water service line, hydrant fire line assembly, and other lateral connections that cross. Refer to Section 02110 and 03310 of the LHC Technical Specifications.

**9. Remove and Replace Existing Curb per LHC STD DTL 213 (Items 9, 9.1, and 9.4 included)**

The quantity of "Remove and Replace Existing Curb per LHC STD DTL 213" measured for payment shall be per linear foot installed.

The CONTRACT unit bid price shall constitute full compensation for furnishing all materials, labor, equipment and tools for the removal and replacement of curb and gutter (if applicable) to match existing design. Vertical curb is the only style of curb anticipated in this contract; however, should a variation of curb style be encountered, the Contractor is to replace with existing style at a cost subsidiary to this pay item. Curb repair is

anticipated at water service line, hydrant fire line assembly, and other lateral connections that cross. Refer to Section 02110 and 03310 of the LHC Technical Specifications.

**10. Driveway Repair (Allowance) (Items 10, 10.1, 10.2, 10.3, and 10.4 included)**

The quantity of "Driveway Repair" measured for payment shall be a lump sum allowance to be utilized as required for driveway repairs necessary because of water service lines, hydrant fire line assembly, and other lateral connections that impact driveways.

The CONTRACT unit bid price shall constitute full compensation for furnishing all materials, labor, equipment and tools for the removal and replacement of driveway pavement, in kind (material and design). This item includes but is not limited to hardscape and driveways. Unless otherwise directed, new pavement will match finish and be placed at a depth to match existing conditions. Work includes but is not limited to construction staking necessary to ensure lines and grades of new surface, removal of existing pavement, preparation and grading of subgrade, removal and disposal of excess material, forming, pouring/laying of new pavement, and paint to match existing, all in accordance with the Plans and Specifications and as directed by the ENGINEER. Anticipated driveway materials include, but are not limited to, concrete and decorative pavers.

Payment of this item will be made incrementally for labor and materials as work is completed and will only be made after the new pavement has successfully passed acceptance testing, visual inspection, right-of-way has been fully restored, and all structures have been properly adjusted. Refer to Section 02110 and 03310 of the LHC Technical Specifications.

**11. 6" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) (Items 11, 11.1, 11.2, 11.3, and 11.4 included)**

The quantity of "6" PVC (C900 DR 14) Water Line - Installed by Open Cut" measured for payment shall be linear foot installed as measured along the longitudinal axis between the ends as laid.

The CONTRACT unit bid price for "6" PVC (C900 DR 14) Water Line - Installed by Open Cut" shall be full compensation for furnishing all materials, labor, equipment and tools to install 6" PVC C900 pipe complete and in place as shown and specified in the CONTRACT DOCUMENTS, including, but not be limited to; potholing to determine location of existing utilities, trench

excavation, the control of ground and surface waters, shoring, disposal of excess material, furnishing and placing of bedding and backfill material, 6" PVC C900 DR14 pipe, placing and joining of pipe, fittings and appurtenances including, but not limited to, bends, couplings, crosses, tees, caps, plugs, flanges, reducers, flange by mechanical joint adapters, thrust blocks and/or joint restraints, tracer wire, testing, cleaning, compaction, temporary resurfacing/steel plating, cleaning and disinfection, inspection, cleanup, support and protection of all adjacent utilities, the capping, blocking, and abandonment of existing waterlines, services, and fire hydrants as shown in the plans, the abandonment/removal of all conflicting existing utilities in accordance with Section 02550, and any/all other work associated with the installation as shown on the Plans, as specified in the Specifications, and as directed by the ENGINEER. All abandonments require visual inspection. Hydrostatic testing and disinfection shall be performed in accordance with LHC Technical Specification Section 02550.

**12. 8" PVC (C900 DR 14) Water Line - Installed by Open Cut (Tee, Cross, Bends, Thrust Block) (Item 12 included)**

The quantity of "8" PVC (C900 DR 14) Water Line - Installed by Open Cut" measured for payment shall be linear foot installed as measured along the longitudinal axis between the ends as laid.

The CONTRACT unit bid price for "8" PVC (C900 DR 14) Water Line - Installed by Open Cut" shall be full compensation for furnishing all materials, labor, equipment and tools to install 8" PVC C900 pipe complete and in place as shown and specified in the CONTRACT DOCUMENTS, including, but not be limited to; potholing to determine location of existing utilities, trench excavation, the control of ground and surface waters, shoring, disposal of excess material, furnishing and placing of bedding and backfill material, 8" PVC C900 DR14 pipe, placing and joining of pipe, fittings and appurtenances including, but not limited to, bends, couplings, crosses, tees, caps, plugs, flanges, reducers, flange by mechanical joint adapters, thrust blocks and/or joint restraints, tracer wire, testing, cleaning, compaction, temporary resurfacing/steel plating, cleaning and disinfection, inspection, cleanup, support and protection of all adjacent utilities, the capping, blocking, and abandonment of existing waterlines, services, and fire hydrants as shown in the plans, the abandonment/removal of all conflicting existing utilities in accordance with Section 02550, and any/all other work associated with the installation as shown on the Plans, as specified in the Specifications, and as directed by the ENGINEER. All abandonments require visual inspection. Hydrostatic testing and disinfection shall be performed in accordance with LHC Technical Specification Section 02550.

**13. 8" C151 Pressure Class 350 Ductile Iron Water Line - Installed in Casing Pipe (Tee, Cross, Bends, Thrust Block) (Item 13 included)**

The quantity of "8" C151 Pressure Class 350 Ductile Iron - Installed in Casing Pipe" measured for payment shall be linear foot installed as measured along the longitudinal axis between the ends as laid. **The casing pipe is not included in this bid item.**

This bid price includes DI pipe installation inside casings. All DI pipe within casing pipe shall be restrained joint pipe. Pipe manufacturer shall be responsible for determining the total linear footage of pipe required. Contractor shall be responsible for all installation processes and procedures associated with the installation inside casings in accordance with Section 02550 and 02445 of the LHC Technical Specifications.

The Contractor shall be required to perform hydrostatic testing and disinfection for the proposed water line. Hydrostatic testing and disinfection shall be performed in accordance with LHC Technical Specification Section 02550. Payment for water line shall include any and all extra precautions or construction requirements necessary to adequately protect and support existing utilities. Payment for water line shall include all costs required to have utility companies, or other parties, repair any damage inflicted to their lines by the Contractor and any cleanup, property damages, fines, etc. resulting from damage inflicted to any utility line by the Contractor.

**14. 16" Steel Casing by Bore (Item 14 included)**

The quantity of "16" Steel Casing by Bore" measured for payment shall be linear foot installed as measured along the longitudinal axis between the ends as laid.

This contract bid item shall consist of all work, labor, materials, and equipment associated with the installation of steel casing pipe by bore. This bid item shall include all equipment; steel casing pipe; excavation; hauling; dewatering; disposal of surplus or unsuitable materials; contact grouting; furnishing, placement, and compaction of backfill; clean-up; and all other incidental work, in accordance with Section 02550 and 02445 of the LHC Technical Specifications.

Support and protection of existing utilities will not be measured or paid for separately and shall be included in this bid item.

**15. 4" Gate Valve (Item 15.4 included)**

The quantity of "4" Gate Valve" measured for payment shall be per each installed.

The CONTRACT unit bid price for "4" Gate Valve" shall be full compensation for furnishing all materials, labor, equipment and tools to provide the 4" Gate Valve as shown on the CONTRACT DOCUMENTS, including, but not limited to, 4" gate valve with 2" operating nuts, valve wells, valve well covers, concrete collars, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, exothermic welding of bond materials, gaskets, nuts and bolts, wax tape coating, thrust and anchor blocks and walls, restraint joints, warning tape, pressure testing and disinfection, inspection, cleanup, restoration to original condition of all damaged surface improvements, and protection of all adjacent utilities and any/all other work associated with the installation of the waterline system as shown on the Plans and as directed by the ENGINEER. Refer to Section 02550 and 02515 of the LHC Technical Specifications.

## 16. 6" Gate Valve (Items 16, 16.1, 16.2, 16.3, and 16.4 included)

The quantity of "6" Gate Valve" measured for payment shall be per each installed.

The CONTRACT unit bid price for "6" Gate Valve" shall be full compensation for furnishing all materials, labor, equipment and tools to provide the 6" Gate Valve as shown on the CONTRACT DOCUMENTS, including, but not limited to, 6" gate valve with 2" operating nuts, valve wells, valve well covers, concrete collars, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, exothermic welding of bond materials, gaskets, nuts and bolts, wax tape coating, thrust and anchor blocks and walls, restraint joints, warning tape, pressure testing and disinfection, inspection, cleanup, restoration to original condition of all damaged surface improvements, and protection of all adjacent utilities and any/all other work associated with the installation of the waterline system as shown on the Plans and as directed by the ENGINEER. Refer to Section 02550 and 02515 of the LHC Technical Specifications.

## 17. 8" Gate Valve (Items 17 and 17.4 included)

The quantity of "8" Gate Valve" measured for payment shall be per each installed.

The CONTRACT unit bid price for "8" Gate Valve" shall be full compensation for furnishing all materials, labor, equipment and tools to provide the 8" Gate

Valve as shown on the CONTRACT DOCUMENTS, including, but not limited to, 8" gate valve with 2" operating nuts, valve wells, valve well covers, concrete collars, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, exothermic welding of bond materials, gaskets, nuts and bolts, wax tape coating, thrust and anchor blocks and walls, restraint joints, warning tape, pressure testing and disinfection, inspection, cleanup, restoration to original condition of all damaged surface improvements, and protection of all adjacent utilities and any/all other work associated with the installation of the waterline system as shown on the Plans and as directed by the ENGINEER. Refer to Section 02550 and 02515 of the LHC Technical Specifications.

**18. 1" Combination Air/Vacuum Valve & 2" Blow-Off (Items 18, 18.1, 18.2, 18.3, and 18.4 included)**

The quantity of "1" Combination Air/Vacuum Valve & 2" Blow-Off" measured for payment shall be per each installed. The CONTRACT unit bid price for "1" Combination Air/Vacuum Valve & 2" Blow-Off" shall be full compensation for furnishing all materials, labor, equipment and tools to provide the combination Vacuum/Air Release Valve and blowoff assembly as shown on the CONTRACT DOCUMENTS, including, but not limited to, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, exothermic welding of bond materials, gaskets, nuts and bolts, wax tape coating, thrust and anchor blocks and walls, warning tape, MUNICIPEX pipe, fittings, concrete, cage, pressure testing and disinfection, inspection, cleanup, seeding, restoration to original condition of all damaged surface improvements, and protection of all adjacent utilities and any/all other work associated with the installation of the waterline system as shown on the Plans and as directed by the ENGINEER. Refer to Section 02550 and 02515 of the LHC Technical Specifications and LHC Standard Detail 310.

**19. 2" Blow-Off Assembly In-Line (Items 19 and 19.2 included)**

The quantity of "2" Blow-Off Assembly" measured for payment shall be per each installed.

The CONTRACT unit bid price for "2" Blow-Off Assembly" shall be full compensation for furnishing all materials, labor, equipment and tools to provide the Blow-Off Assembly as shown on the CONTRACT DOCUMENTS, including, but not limited to, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, exothermic welding of bond materials, gaskets, nuts and bolts, wax tape coating, MUNICIPEX pipe, thrust and anchor blocks and walls, warning tape,

pressure testing and disinfection, inspection, seeding, cleanup, restoration to original condition of all damaged surface improvements, and protection of all adjacent utilities and any/all other work associated with the installation of the waterline system as shown on the Plans and as directed by the ENGINEER. Refer to Section 02550 and 02515 of the LHC Technical Specifications and LHC Standard Detail 313.

## 20. Fire Hydrant Assembly (Valve, Bends, Tee, Thrust Block) (Items 20, 20.1, 20.2, 20.3, and 20.4 included)

The quantity of "Fire Hydrant Assembly" measured for payment shall be per each installed.

The CONTRACT unit bid price for "Fire Hydrant Assembly" shall be full compensation for furnishing all materials, labor, equipment and tools to provide the Fire Hydrant Assembly as shown on the CONTRACT DOCUMENTS, including, but not limited to, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, potholing for connections, exothermic welding of bond materials, steel plating, cleaning, fire hydrants, 6" CL350 DI pipe, 6" DI flanges, 6" DI fittings, DI pipe and fitting bituminous coating and cement-mortar lining, 6" gate valves with 2" operating nut, valve wells, valve well covers, concrete collars, thrust blocks, restraint joints, reinforced concrete pad, polyethylene wrap, warning tape, wax tape coating, gaskets, nuts and bolts, neutral sand bedding, pressure testing and disinfection, inspection, seeding, cleanup, restoration to original condition of all damaged surface improvements, and protection of all adjacent utilities and any/all other work associated with the installation as shown on the Plans and as directed by the ENGINEER. Fire hydrant assemblies shall have fully restrained joints. Refer to Section 02550 and 02515 of the LHC Technical Specifications and LHC Standard Detail 320.

## 21. Water Service Assembly (Items 21, 21.1, 21.2, 21.3, and 21.4 included)

The quantity of "Water Service Assembly" measured for payment shall be per each main line connection installed.

The CONTRACT unit price paid for each "Water Service Assembly" installed shall be considered full compensation for furnishing all materials, labor, equipment and tools to install the water service assembly, in like size to the existing, complete as shown on the CONTRACT DOCUMENTS, including, but not limited to, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, potholing

for connections, service saddle, corporation stop, MUNICIPEX pipe (like size to existing service), fittings, curb stop valve, meter yoke, connection to existing service or services, polyethylene wrap, gaskets, nuts and bolts, neutral sand bedding, testing and disinfection, inspection, seeding, cleanup, restoration to original condition of all damaged surface improvements (including pavement repair), removal of existing pipe, and protection of all adjacent utilities and any/all other work associated with installation of the water service assemblies at the locations shown on the Plans and/or as directed by the ENGINEER. Should the existing set up be a dual service (per LHC Detail 301), connection of the second water meter shall be considered subsidiary to this pay item. Refer to Section 02550 and 02515 of the LHC Technical Specifications and LHC Standard Detail 301 and 303.

**22. Cross Street Water Service Assembly (Items 22, 22.1, 22.2, 22.3, and 22.4 included)**

The quantity of "Cross Street Water Service Assembly" measured for payment shall be per each main line connection installed.

The CONTRACT unit price paid for each "Cross Street Water Service Assembly" installed shall be considered full compensation for furnishing all materials, labor, equipment and tools to install the water service assembly, in like size to the existing, complete as shown on the CONTRACT DOCUMENTS, including, but not limited to, excavation, furnishing and installation bedding, pipe zone material, backfill, compaction, offsite disposal of excess material, potholing for connections, service saddle, corporation stop, MUNICIPEX pipe (like size to existing service), schedule 40 PVC conduit, fittings, curb stop valve, meter yoke, connection to existing service or services, polyethylene wrap, gaskets, nuts and bolts, neutral sand bedding, testing and disinfection, inspection, seeding, cleanup, restoration to original condition of all damaged surface improvements (including pavement repair), removal of existing pipe, and protection of all adjacent utilities and any/all other work associated with installation of the water service assemblies at the locations shown on the Plans and/or as directed by the ENGINEER. Should the existing set up be a dual service (per LHC Detail 301), connection of the second water meter shall be considered subsidiary to this pay item. 1" cross street services shall be in 2" schedule 40 PVC conduit; 1 ½" and 2" cross street services shall be in 4" schedule 40 PVC conduit. Refer to Section 02550 and 02515 of the LHC Technical Specifications and LHC Standard Detail 301 and 303.

**23. Connect to Existing Water Line (Item 23, 23.1, 23.2, 23.3, and 23.4 included)**

This contract bid item shall be measured by each connection assembly proposed.

This item shall consist of furnishing all the labor, materials, tools and equipment necessary to locate, cut, and connect the proposed water lines to an existing water lines. The bid price shall include all excavation and disposal of excavated soil, pavement and concrete; furnishing, hauling, and laying of pipe fittings and thrust restraint; protection of existing structures and utilities; property restoration; clean-up; and any incidental work and materials not otherwise provided for in these specifications. The Contractor is responsible for locating the existing water line and determining the existing pipe material. All the work associated with the connection due to location shall be included in the bid price.

**24. Abandon Existing Water Line in Place per LHC Tech Spec 02550 (Items 24, 24.1, 24.2, 24.3, and 24.4 included)**

This contract bid item shall be measured per linear foot of existing pipes shown for abandonment.

This item shall consist of all work, labor, materials and equipment necessary for complete abandonment grouting, including pumping, air venting, testing, temporary plugs, fill lines, excavations, and incidentals for the abandonment of existing water lines at the locations indicated on the drawings and in compliance with the specifications. All quantities are approximate, and no additional payment will be made for the abandonments above what is shown on the plans.

Per LHC Technical Specification Section 02550, existing valves are to be removed, salvaged, and delivered to the City Utility Maintenance Shop.

**25. Remove Existing Fire Hydrant (Items 25, 25.2, 25.3, and 25.4 included)**

This contract bid item shall be measured by each hydrant to be removed.

The contract unit price shall include all materials, labor, equipment, and tools used for removal of the entire hydrant fire line assembly, valve, and existing fire hydrant in accordance with LHC Technical Specification Section 02550.

**END OF SECTION 01210**