# Ivins City Staff Report
# City Council Meeting 10/3/19

Agenda Item: Discuss and consider approval of expenditure for construction of the 2019 Storm Drain Master Plan Improvements Project

Submitted by: Thomas J. Jorgensen, P.E., Assistant Public Works Director

**Recommended City Council Action:**
**Approve selection and expenditure of $1,620,419.81 for construction services for 2019 Storm Drain Master Plan Improvements Project, plus an additional $100,000 for contingency for a total of $1,720,419.81.**

**BACKGROUND:**

Ivins City has several storm water related projects that were identified as high priority projects in the 2016 Storm Water Master Plan. The intent of the 2019 Storm Drain Master Plan Improvements Project is to complete those projects that were of the highest priority.

The projects include the following: P-16 (200 South from 100 W to Main St), P-21 (Paiute Dr and Kwavasa Dr), P-6a & P-6b (600 W and HWY 91), and DB-1 (600 W and 450 N).

Refer to the 2016 Storm Drain Master Plan for more information regarding the importance of these projects.

It should be noted that City Staff is negotiating with the property owner where the DB-1 detention basin is to be located. Staff is negotiating the exchanging of the property for a storm drain line along 450 North, of which the land owner realizes a benefit.

Also included in this project is a small portion of irrigation transmission line. The purpose of installing this line now is so that we won't need to disturb new asphalt when we install this line in the future, which may be in the next year or two. The cost of this irrigation line has been separated out and will be billed under a different GL code. It should also be noted that Kayenta Water Users is also installing a portion of waterline for the same reason, to avoid disturbing the new roadway in the near future.

Staff has publicly advertised for the project and has also received bids from several contractors to complete the work. The results of the public bid can be found below.

**FINDINGS AND ANALYSIS:**

| CONTRACTOR | BID TOTAL |
|---|---|
| Interstate Rock Products | $1,620,419.81 |
| Feller Enterprises | $1,703,472.50 |
| Rhine Construction | $1,904,490.48 |
| Terry B. Brotherson | $1,943,960.18 |
| Progressive Contracting, Inc. | $2,647,323.15 |
| Condie Construction | $2,833,317.00 |
| Meadow Valley Contractors | $3,079,643.00 |

Staff has reviewed the bids and are recommending awarding the project to Interstate Rock Products. Staff recommends that Council approve the expenditure of $1,620,419.81 plus an additional $100,000 in contingency for a total of $1,720,419.81 for these projects.

**SUPPORT MATERIALS:**

- Map of 2016 Storm Drain Master Plan Recommended Improvements
- Bid Tabulation

**FINANCIAL IMPACT:**

The expenses are impact fee eligible and have been budgeted.
Storm Drain – GL 53-42-878: $1,523,847.39
Irrigation – GL 51-42-879: $196,572.42

Respectfully Submitted:

Thomas J. Jorgensen, P.E., Assistant Public Works Director

Content Review:

Dale Coulam, City Manager

## BID SCHEDULE SUMMARY

**Stormwater Improvements Project**

**Irvine City**

Bids Were Opened On: Thursday, September 5, 2019

| BID SCHEDULES A & B | | | | Terry B. Brotherson | | Progressive Contracting, Inc. | | Feller Enterprises | | Interstate Rock Products | | Meadow Valley Contractors | | Condie |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item No. | Description | Quantity | Unit | Unit Price | Amount | Unit Price | Amount | Unit Price | Amount | Unit Price | Amount | Unit Price | Amount | Unit Price |
| | **Bid Schedule A - 200 South** | | | | | | | | | | | | | |
| A1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 36,500.00 | $ 36,500.00 | $ 22,040.00 | $ 22,040.00 | $ 35,000.00 | $ 35,000.00 | $ 11,846.45 | $ 11,846.45 | $ 54,300.00 | $ 54,300.00 | $ 28,506.00 |
| A2 | Traffic Control | 1 | LS | $ 12,441.60 | $ 12,441.60 | $ 3,480.00 | $ 3,480.00 | $ 2,500.00 | $ 2,500.00 | $ 2,273.14 | $ 2,273.14 | $ 30,400.00 | $ 30,400.00 | $ 22,637.00 |
| A3 | Field Survey and Staking | 1 | LS | $ 1,168.88 | $ 1,168.88 | $ 1,740.00 | $ 1,740.00 | $ 3,000.00 | $ 3,000.00 | $ 1,079.48 | $ 1,079.48 | $ 6,280.00 | $ 6,280.00 | $ 2,432.00 |
| A4 | 18-inch Class III Reinforced Concrete Pipe | 20 | LF | $ 89.77 | $ 1,795.40 | $ 126.30 | $ 2,526.00 | $ 65.00 | $ 1,300.00 | $ 91.50 | $ 1,830.00 | $ 161.00 | $ 3,220.00 | $ 87.30 |
| A5 | 24-inch Class III Reinforced Concrete Pipe | 30 | LF | $ 127.32 | $ 3,819.60 | $ 135.42 | $ 4,062.60 | $ 65.00 | $ 1,950.00 | $ 108.21 | $ 3,246.30 | $ 98.50 | $ 2,955.00 | $ 98.20 |
| A6 | 36-inch Class III Reinforced Concrete Pipe | 650 | LF | $ 105.91 | $ 68,841.50 | $ 174.66 | $ 113,529.00 | $ 130.00 | $ 84,500.00 | $ 124.00 | $ 80,600.00 | $ 155.00 | $ 100,750.00 | $ 149.00 |
| A7 | 36-inch Equivalent Class III Elliptical Reinforced Concrete Pipe | 100 | LF | $ 164.39 | $ 16,439.00 | $ 232.49 | $ 23,249.00 | $ 190.00 | $ 19,000.00 | $ 184.32 | $ 18,432.00 | $ 265.00 | $ 26,500.00 | $ 220.00 |
| A8 | 8-foot Diameter Concrete Manhole, See Detail C/2550 | 4 | EA | $ 5,933.32 | $ 23,733.28 | $ 8,017.99 | $ 32,071.96 | $ 4,600.00 | $ 18,400.00 | $ 5,338.83 | $ 21,355.32 | $ 5,800.00 | $ 23,200.00 | $ 7,377.00 |
| A9 | Double Grate Catch Basin, See APWA Std. Plan 315 | 1 | EA | $ 4,981.68 | $ 4,981.68 | $ 7,845.59 | $ 7,845.59 | $ 4,700.00 | $ 4,700.00 | $ 4,773.00 | $ 4,773.00 | $ 5,630.00 | $ 5,630.00 | $ 6,492.00 |
| A10 | 9'x11' Cast-in-Place Combo Box | 1 | LS | $ 23,901.00 | $ 23,901.00 | $ 12,042.83 | $ 12,042.83 | $ 15,000.00 | $ 15,000.00 | $ 12,998.60 | $ 12,998.60 | $ 69,400.00 | $ 69,400.00 | $ 15,010.00 |
| A11 | 7'-6"x7' Cast-in-Place Concrete Vault | 1 | LS | $ 20,536.80 | $ 20,536.80 | $ 8,892.13 | $ 8,892.13 | $ 12,500.00 | $ 12,500.00 | $ 12,287.58 | $ 12,287.58 | $ 62,900.00 | $ 62,900.00 | $ 13,707.00 |
| A12 | Asphalt Trench Section Restoration (4" Thick asphalt over 6" roadbase), See Detail C/2124 | 1500 | SY | $ 42.42 | $ 63,630.00 | $ 32.41 | $ 48,615.00 | $ 35.10 | $ 52,650.00 | $ 30.01 | $ 45,015.00 | $ 35.50 | $ 53,250.00 | $ 79.30 |
| A13 | Curb and Gutter Replacement | 20 | LF | $ 58.60 | $ 1,172.00 | $ 29.00 | $ 580.00 | $ 40.00 | $ 800.00 | $ 25.59 | $ 511.80 | $ 139.00 | $ 2,780.00 | $ 135.00 |
| A14 | Concrete Sidewalk Replacement | 20 | SF | $ 13.80 | $ 276.00 | $ 6.10 | $ 122.00 | $ 8.00 | $ 160.00 | $ 4.80 | $ 96.00 | $ 89.00 | $ 1,780.00 | $ 134.00 |
| A15 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 4,744.16 | $ 4,744.16 | $ 11,159.42 | $ 11,159.42 | $ 3,500.00 | $ 3,500.00 | $ 3,232.71 | $ 3,232.71 | $ 8,310.00 | $ 8,310.00 | $ 6,570.00 |
| A16 | Replace Existing ¾- and 1-inch Water Service Line, Only as Directed by Engineer, See Irvine Std. Drawing W-01 | 2 | EA | $ 967.50 | $ 1,935.00 | $ 2,105.62 | $ 4,211.24 | $ 1,500.00 | $ 3,000.00 | $ 1,166.52 | $ 2,373.04 | $ 940.00 | $ 1,680.00 | $ 2,430.00 |
| A17 | Sanitary Sewer Service Lateral Relocation, Only as Directed by Engineer, See Irvine Std. Drawings S-05 to S-7 | 2 | EA | $ 1,607.40 | $ 3,214.80 | $ 1,493.86 | $ 2,987.72 | $ 1,200.00 | $ 2,400.00 | $ 2,047.87 | $ 4,095.74 | $ 1,480.00 | $ 2,960.00 | $ 2,660.00 |
| A18 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 118.56 | $ 5,928.00 | $ 198.80 | $ 9,940.00 | $ 250.00 | $ 12,500.00 | $ 82.06 | $ 4,103.00 | $ 129.00 | $ 6,450.00 | $ 130.00 |
| A19 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 38.48 | $ 3,848.00 | $ 29.33 | $ 2,933.00 | $ 35.00 | $ 3,500.00 | $ 39.73 | $ 3,973.00 | $ 53.50 | $ 5,350.00 | $ 38.60 |
| A20 | Quality Control/Material Testing | 1 | LS | $ 4,401.20 | $ 4,401.20 | $ 4,512.40 | $ 4,512.40 | $ 5,500.00 | $ 5,500.00 | $ 4,635.64 | $ 4,635.64 | $ 3,640.00 | $ 3,640.00 | $ 2,301.00 |
| | **Bid Schedule A Subtotal** | | | | $ 303,307.90 | | $ 316,539.89 | | $ 281,860.00 | | $ 238,757.80 | | $ 471,935.00 | |
| | **Bid Schedule B - Highway 91** | | | | | | | | | | | | | |
| B1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 54,156.00 | $ 54,156.00 | $ 67,280.00 | $ 67,280.00 | $ 35,000.00 | $ 35,000.00 | $ 8,272.23 | $ 8,272.23 | $ 61,300.00 | $ 61,300.00 | $ 49,309.00 |
| B2 | Traffic Control | 1 | LS | $ 17,552.00 | $ 17,552.00 | $ 29,696.00 | $ 29,696.00 | $ 2,400.00 | $ 2,400.00 | $ 14,548.12 | $ 14,548.12 | $ 52,000.00 | $ 52,000.00 | $ 39,615.00 |
| B3 | Field Survey and Staking | 1 | LS | $ 1,644.60 | $ 1,644.60 | $ 4,524.00 | $ 4,524.00 | $ 4,000.00 | $ 4,000.00 | $ 2,158.96 | $ 2,158.96 | $ 6,280.00 | $ 6,280.00 | $ 1,643.00 |
| B4 | 30-inch Class III Reinforced Concrete Pipe | 3200 | LF | $ 73.14 | $ 234,048.00 | $ 155.44 | $ 497,408.00 | $ 72.00 | $ 230,400.00 | $ 93.66 | $ 299,712.00 | $ 162.00 | $ 518,400.00 | $ 107.00 |
| B5 | 5-foot Diameter Concrete Manhole, See Detail C/2550 | 11 | EA | $ 4,472.90 | $ 49,201.90 | $ 7,480.03 | $ 82,280.33 | $ 4,500.00 | $ 49,500.00 | $ 5,126.71 | $ 56,393.81 | $ 4,960.00 | $ 54,560.00 | $ 6,444.00 |
| B6 | Replace Manhole Lid with Grate | 4 | EA | $ 652.28 | $ 2,609.12 | $ 1,912.65 | $ 7,650.60 | $ 300.00 | $ 1,200.00 | $ 244.88 | $ 979.52 | $ 836.00 | $ 3,344.00 | $ 1,683.00 |
| B7 | Connect 30-inch RCP to Existing Box Culvert, See Detail S/4600 | 1 | LS | $ 3,160.00 | $ 3,160.00 | $ 6,960.00 | $ 6,960.00 | $ 2,500.00 | $ 2,500.00 | $ 12,545.08 | $ 12,545.08 | $ 3,240.00 | $ 3,240.00 | $ 2,957.00 |
| B8 | Asphalt Trench Section Restoration (6" Thick asphalt over 8" roadbase), See Detail C/2124 | 3500 | SY | $ 51.64 | $ 180,740.00 | $ 40.24 | $ 140,840.00 | $ 44.00 | $ 154,000.00 | $ 41.10 | $ 143,850.00 | $ 42.50 | $ 148,750.00 | $ 91.50 |
| B9 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 3,872.64 | $ 3,872.64 | $ 10,179.28 | $ 10,179.28 | $ 3,500.00 | $ 3,500.00 | $ 2,719.93 | $ 2,719.93 | $ 6,770.00 | $ 6,770.00 | $ 3,849.00 |
| B10 | 10-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 5,478.56 | $ 5,478.56 | $ 12,033.84 | $ 12,033.84 | $ 5,000.00 | $ 5,000.00 | $ 5,687.91 | $ 5,687.91 | $ 9,990.00 | $ 9,990.00 | $ 6,712.00 |
| B11 | Drainage Berms, See Detail C/2125 | 350 | LF | $ 20.00 | $ 7,000.00 | $ 6.96 | $ 2,436.00 | $ 5.00 | $ 1,750.00 | $ 16.22 | $ 5,677.00 | $ 13.00 | $ 4,550.00 | $ 19.50 |
| B12 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 118.56 | $ 5,928.00 | $ 198.80 | $ 9,940.00 | $ 250.00 | $ 12,500.00 | $ 82.06 | $ 4,103.00 | $ 129.00 | $ 6,450.00 | $ 130.00 |
| B13 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 38.49 | $ 3,849.00 | $ 31.32 | $ 3,132.00 | $ 35.00 | $ 3,500.00 | $ 39.73 | $ 3,973.00 | $ 53.50 | $ 5,350.00 | $ 38.60 |
| B14 | Quality Control/Material Testing | 1 | LS | $ 5,624.20 | $ 5,624.20 | $ 5,933.40 | $ 5,933.40 | $ 6,500.00 | $ 6,500.00 | $ 6,374.01 | $ 6,374.01 | $ 4,640.00 | $ 4,640.00 | $ 6,902.00 |
| B15 | Solid Rock Excavation | 4000 | CY | $ 28.00 | $ 112,000.00 | $ 17.40 | $ 69,600.00 | | $ - | $ 13.63 | $ 54,520.00 | $ 34.50 | $ 138,000.00 | $ 37.70 |
| | **Bid Schedule B Subtotal** | | | | $ 696,864.02 | | $ 949,893.45 | | $ 511,750.00 | | $ 621,514.57 | | $ 1,923,824.00 | |
| | **Bid Schedule C - 450 North Intersection** | | | | | | | | | | | | | |
| C1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 4,160.00 | $ 4,160.00 | $ 8,120.00 | $ 8,120.00 | $ 6,000.00 | $ 6,000.00 | $ 5,562.77 | $ 5,562.77 | $ 26,900.00 | $ 26,900.00 | $ 7,832.00 |
| C2 | Traffic Control | 1 | LS | $ 1,500.00 | $ 1,500.00 | $ 3,480.00 | $ 3,480.00 | $ 1,500.00 | $ 1,500.00 | $ 3,637.02 | $ 3,637.02 | $ 11,000.00 | $ 11,000.00 | $ 11,319.00 |
| C3 | Field Survey and Staking | 1 | LS | $ 700.00 | $ 700.00 | $ 1,044.00 | $ 1,044.00 | $ 1,000.00 | $ 1,000.00 | $ 2,158.96 | $ 2,158.96 | $ 4,000.00 | $ 4,000.00 | $ 1,249.00 |
| C4 | 18-inch Class III Reinforced Concrete Pipe | 100 | LF | $ 62.33 | $ 6,233.00 | $ 132.22 | $ 13,222.00 | $ 65.00 | $ 6,500.00 | $ 125.61 | $ 12,561.00 | $ 89.00 | $ 8,900.00 | $ 112.00 |
| C5 | 5-foot Diameter Concrete Manhole, See Detail C/2550 | 2 | EA | $ 3,693.78 | $ 7,387.56 | $ 7,032.57 | $ 14,065.14 | $ 4,500.00 | $ 9,000.00 | $ 3,927.62 | $ 7,855.24 | $ 4,380.00 | $ 8,760.00 | $ 5,709.00 |
| C6 | Double Grate Catch Basin, See APWA Std. Plan 315 | 2 | EA | $ 4,386.30 | $ 8,772.60 | $ 7,817.72 | $ 15,635.44 | $ 4,700.00 | $ 9,400.00 | $ 4,322.71 | $ 8,645.42 | $ 5,540.00 | $ 11,080.00 | $ 6,460.00 |
| C7 | Asphalt Trench Section Restoration (4" Thick asphalt over 8" roadbase), See Detail C/2124 | 250 | SY | $ 53.07 | $ 13,267.50 | $ 37.63 | $ 9,407.50 | $ 42.65 | $ 10,662.50 | $ 41.85 | $ 10,462.50 | $ 45.00 | $ 11,250.00 | $ 89.60 |
| C8 | Curb and Gutter Replacement | 20 | LF | $ 68.60 | $ 1,372.00 | $ 30.23 | $ 604.60 | $ 40.00 | $ 800.00 | $ 25.59 | $ 511.80 | $ 139.00 | $ 2,780.00 | $ 135.00 |
| C9 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 3,872.64 | $ 3,872.64 | $ 9,599.28 | $ 9,599.28 | $ 3,500.00 | $ 3,500.00 | $ 2,895.31 | $ 2,895.31 | $ 6,140.00 | $ 6,140.00 | $ 4,204.00 |
| C10 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 120.72 | $ 6,036.00 | $ 198.80 | $ 9,940.00 | $ 250.00 | $ 12,500.00 | $ 82.06 | $ 4,103.00 | $ 129.00 | $ 6,450.00 | $ 130.00 |
| C11 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 38.49 | $ 3,849.00 | $ 31.30 | $ 3,130.00 | $ 35.00 | $ 3,500.00 | $ 39.73 | $ 3,973.00 | $ 53.50 | $ 5,350.00 | $ 38.60 |
| C12 | Quality Control/Material Testing | 1 | LS | $ 1,620.00 | $ 1,620.00 | $ 9,297.40 | $ 9,297.40 | $ 2,500.00 | $ 2,500.00 | $ 1,970.15 | $ 1,970.15 | $ 1,340.00 | $ 1,340.00 | $ 1,150.00 |
| | **Bid Schedule C Subtotal** | | | | $ 58,770.30 | | $ 97,545.36 | | $ 66,862.50 | | $ 64,336.17 | | $ 103,950.00 | |
| | **Bid Schedule D - Kwavasa Drive** | | | | | | | | | | | | | |
| D1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 72,540.00 | $ 72,540.00 | $ 102,800.00 | $ 102,800.00 | $ 40,000.00 | $ 40,000.00 | $ 14,138.72 | $ 14,138.72 | $ 91,600.00 | $ 91,600.00 | $ 96,977.00 |
| D2 | Traffic Control | 1 | LS | $ 20,160.00 | $ 20,160.00 | $ 6,960.00 | $ 6,960.00 | $ 4,500.00 | $ 4,500.00 | $ 3,637.02 | $ 3,637.02 | $ 68,900.00 | $ 68,900.00 | $ 39,615.00 |
| D3 | Field Survey and Staking | 1 | LS | $ 2,345.00 | $ 2,345.00 | $ 6,496.00 | $ 6,496.00 | $ 6,500.00 | $ 6,500.00 | $ 2,848.70 | $ 2,848.70 | $ 7,770.00 | $ 7,770.00 | $ 4,601.00 |
| D4 | 18-inch Class III Reinforced Concrete Pipe | 300 | LF | $ 47.33 | $ 14,199.00 | $ 125.90 | $ 37,770.00 | $ 65.00 | $ 19,500.00 | $ 46.38 | $ 13,914.00 | $ 65.50 | $ 19,650.00 | $ 70.80 |
| D5 | 24-inch Class III Reinforced Concrete Pipe | 2100 | LF | $ 55.58 | $ 116,718.00 | $ 140.06 | $ 294,126.00 | $ 62.00 | $ 130,200.00 | $ 58.87 | $ 123,627.00 | $ 96.50 | $ 202,650.00 | $ 80.60 |
| D6 | 30-inch Class III Reinforced Concrete Pipe | 1200 | LF | $ 65.31 | $ 78,372.00 | $ 148.48 | $ 178,176.00 | $ 74.00 | $ 88,800.00 | $ 71.55 | $ 85,860.00 | $ 371.00 | $ 445,200.00 | $ 153.00 |
| D7 | 30" Pre-cast Flared End Section | 1 | EA | $ 1,310.00 | $ 1,310.00 | $ 3,352.03 | $ 3,352.03 | $ 1,800.00 | $ 1,800.00 | $ 2,561.31 | $ 2,561.31 | $ 2,600.00 | $ 2,600.00 | $ 2,038.00 |
| D8 | 5-foot Diameter Concrete Manhole, See Detail C/2550 | 12 | EA | $ 4,344.48 | $ 52,133.76 | $ 8,123.63 | $ 97,483.56 | $ 5,000.00 | $ 60,000.00 | $ 4,600.84 | $ 55,210.08 | $ 5,060.00 | $ 60,720.00 | $ 6,558.00 |
| D9 | 2'x3' Drop Inlet Catch Basin, See Detail C/2556 | 9 | EA | $ 3,921.60 | $ 35,294.40 | $ 6,127.03 | $ 55,143.27 | $ 4,500.00 | $ 40,500.00 | $ 3,631.78 | $ 32,686.02 | $ 4,080.00 | $ 36,720.00 | $ 4,335.00 |
| D10 | 3'x5' Drop Inlet Catch Basin, See Detail C/2556 (sm) | 1 | LS | $ 6,503.40 | $ 6,503.40 | $ 9,891.30 | $ 9,891.30 | $ 6,500.00 | $ 6,500.00 | $ 6,401.10 | $ 6,401.10 | $ 6,970.00 | $ 6,970.00 | $ 7,314.00 |
| D11 | 4'x6' Cast-in-Place Junction Box, See APWA Std. Detail 331 | 1 | LS | $ 13,640.00 | $ 13,640.00 | $ 4,686.14 | $ 4,686.14 | $ 8,000.00 | $ 8,000.00 | $ 6,262.17 | $ 6,262.17 | $ 16,100.00 | $ 16,100.00 | $ 9,587.00 |

## BID SCHEDULE SUMMARY

**Stormwater Improvements Project**

**Irvine City**

Bids Were Opened On: Thursday, September 5, 2019

| BID SCHEDULES A & B | | | | Terry B. Brotherson | | Progressive Contracting, Inc. | | Feller Enterprises | | Interstate Rock Products | | Meadow Valley Contractors | | Condie |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item No. | Description | Quantity | Unit | Unit Price | Amount | Unit Price | Amount | Unit Price | Amount | Unit Price | Amount | Unit Price | Amount | Unit Price |
| D12 | Cast-in-Place Detention Basin Outlet Structure, See S-02 | 1 | LS | $ 45,768.20 | $ 45,768.20 | $ 22,366.25 | $ 22,366.25 | $ 32,500.00 | $ 32,500.00 | $ 27,608.73 | $ 27,608.73 | $ 61,700.00 | $ 61,700.00 | $ 12,099.00 |
| D13 | 450 North Detention Basin | 1 | LS | $ 70,000.00 | $ 70,000.00 | $ 106,227.00 | $ 106,227.00 | $ 70,000.00 | $ 70,000.00 | $ 17,567.91 | $ 17,567.91 | $ 33,100.00 | $ 33,100.00 | $ 53,454.00 |
| D14 | Asphalt Trench Section Restoration and New Road (4" Thick asphalt over 8" roadbase), See Detail C/2124 and Dwg C-07 | 3700 | SY | $ 41.01 | $ 151,737.00 | $ 29.00 | $ 107,300.00 | $ 34.20 | $ 126,540.00 | $ 30.48 | $ 112,776.00 | $ 33.00 | $ 122,100.00 | $ 78.20 |
| D15 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 4,244.16 | $ 4,244.16 | $ 10,247.64 | $ 10,247.64 | $ 3,000.00 | $ 3,000.00 | $ 3,328.31 | $ 3,328.31 | $ 6,090.00 | $ 6,090.00 | $ 4,824.00 |
| D17 | 16-inch C-900 PVC Irrigation Line | 1150 | LF | $ 67.34 | $ 77,441.00 | $ 64.74 | $ 74,451.00 | $ 78.00 | $ 89,700.00 | $ 69.41 | $ 79,821.50 | $ 102.00 | $ 117,300.00 | $ 73.40 |
| D19 | 16-inch Gate Valve | 2 | EA | $ 15,663.62 | $ 31,327.24 | $ 20,811.23 | $ 41,622.46 | $ 16,500.00 | $ 33,000.00 | $ 18,830.36 | $ 37,660.72 | $ 17,000.00 | $ 34,000.00 | $ 20,196.00 |
| D20 | Non-Woven Geotextile Fabric | 320 | SY | $ 1.93 | $ 617.60 | $ 4.54 | $ 1,452.80 | $ 3.00 | $ 960.00 | $ 1.74 | $ 556.80 | $ 2.70 | $ 864.00 | $ 15.40 |
| D21a | Class V Riprap Stabilization | 200 | CY | $ 32.96 | $ 6,592.00 | $ 49.72 | $ 9,944.00 | $ 35.00 | $ 7,000.00 | $ 45.28 | $ 9,056.00 | $ 102.00 | $ 20,400.00 | $ 219.00 |
| D21b | Class VII Riprap Stabilization | 100 | CY | $ 39.44 | $ 3,944.00 | $ 49.72 | $ 4,972.00 | $ 35.00 | $ 3,500.00 | $ 43.41 | $ 4,341.00 | $ 84.50 | $ 8,450.00 | $ 219.00 |
| D22 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 120.72 | $ 6,036.00 | $ 198.80 | $ 9,940.00 | $ 250.00 | $ 12,500.00 | $ 82.06 | $ 4,103.00 | $ 129.00 | $ 6,450.00 | $ 130.00 |
| D23 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 38.49 | $ 3,849.00 | $ 29.33 | $ 2,933.00 | $ 35.00 | $ 3,500.00 | $ 39.73 | $ 3,973.00 | $ 53.50 | $ 5,350.00 | $ 26.90 |
| D24 | Quality Control/Material Testing | 1 | LS | $ 8,756.20 | $ 8,756.20 | $ 5,800.00 | $ 5,800.00 | $ 9,500.00 | $ 9,500.00 | $ 9,387.18 | $ 9,387.18 | $ 7,840.00 | $ 7,840.00 | $ 6,902.00 |
| D25 | Solid Rock Excavation | 800 | CY | $ 28.00 | $ 16,800.00 | $ 17.40 | $ 10,440.00 | $ 50.00 | $ 30,000.00 | $ 9.96 | $ 5,976.00 | $ 64.00 | $ 38,400.00 | $ 38.70 |
| D26 | Import Select Backfill | 1000 | CY | $ 24.09 | $ 24,090.00 | $ 25.52 | $ 25,520.00 | $ 15.00 | $ 15,000.00 | $ 17.26 | $ 17,260.00 | $ 48.50 | $ 48,500.00 | $ 26.90 |
| D27 | Subgrade Preparation | 1700 | CY | $ 18.00 | $ 30,600.00 | $ 31.32 | $ 53,244.00 | | $ - | $ 8.97 | $ 15,249.00 | $ 6.30 | $ 10,710.00 | $ 28.50 |
| | Bid Schedule D Subtotal | | | | $ 895,017.96 | | $ 1,283,344.45 | | $ 843,000.00 | | $ 695,811.27 | | $ 1,480,134.00 | |
| | | Total Price: | | | $ 1,943,960.18 | | $ 2,647,323.15 | | $ 1,703,472.50 | | $ 1,620,419.81 | | $ 3,079,643.00 | |
| | | TOTAL BID PRICE: | | | $ 1,943,960.18 | | $ 2,647,323.15 | | $ 1,703,472.50 | | $ 1,620,419.81 | | $ 3,079,643.00 | |
| | | | | | $ 323,540.37 | | $ 1,026,903.34 | | $ 83,052.69 | | $ - | | $ 1,459,223.19 | |
| | | | | | 20% | | 63% | | 5% | | 0% | | 90% | |

Corrected arithmetic error

**BID SCHEDULE SUMMARY**
**Stormwater Improvements Project**
**Irvine City**
Bids Were Opened On: Thursday, September 5, 2019

BOWEN COLLINS & ASSOCIATES

| BID SCHEDULES A & B | | | | Construction | Rhine Construction | | Unit Price Summary | | |
|---|---|---|---|---|---|---|---|---|---|
| Item No. | Description | Quantity | Unit | Amount | Unit Price | Amount | Average | Low | High |
| | **Bid Schedule A - 200 South** | | | | | | | | |
| A1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 28,506.00 | $ 5,550.00 | $ 5,550.00 | $ 31,365.41 | $ 11,846.45 | $ 54,300.00 |
| A2 | Traffic Control | 1 | LS | $ 22,637.00 | $ 2,897.73 | $ 2,897.73 | $ 12,288.82 | $ 2,273.14 | $ 30,400.00 |
| A3 | Field Survey and Staking | 1 | LS | $ 2,432.00 | $ 4,000.00 | $ 4,000.00 | $ 2,616.73 | $ 1,079.48 | $ 6,280.00 |
| A4 | 18-inch Class III Reinforced Concrete Pipe | 20 | LF | $ 1,746.00 | $ 38.32 | $ 766.40 | $ 2,069.57 | $ 1,300.00 | $ 3,220.00 |
| A5 | 24-inch Class III Reinforced Concrete Pipe | 30 | LF | $ 2,946.00 | $ 47.71 | $ 1,431.30 | $ 3,163.25 | $ 1,950.00 | $ 4,062.50 |
| A6 | 36-inch Class III Reinforced Concrete Pipe | 650 | LF | $ 96,850.00 | $ 85.01 | $ 55,256.50 | $ 90,845.08 | $ 68,841.50 | $ 113,529.00 |
| A7 | 36-inch Equivalent Class III Elliptical Reinforced Concrete Pipe | 100 | LF | $ 22,000.00 | $ 150.35 | $ 15,035.00 | $ 20,936.67 | $ 16,439.00 | $ 26,500.00 |
| A8 | 5-foot Diameter Concrete Manhole, See Detail C/2550 | 4 | EA | $ 29,508.00 | $ 6,362.01 | $ 25,448.04 | $ 24,711.43 | $ 18,400.00 | $ 32,071.96 |
| A9 | Double Grate Catch Basin, See APWA Std. Plan 315 | 1 | EA | $ 6,492.00 | $ 3,700.71 | $ 3,700.71 | $ 5,737.05 | $ 4,700.00 | $ 7,845.59 |
| A10 | 8'x11' Cast-in-Place Combo Box | 1 | LS | $ 15,010.00 | $ 24,036.84 | $ 24,036.84 | $ 24,725.41 | $ 12,042.83 | $ 69,400.00 |
| A11 | 7'-6"x7' Cast-in-Place Concrete Vault | 1 | LS | $ 13,707.00 | $ 26,304.12 | $ 26,304.12 | $ 21,803.92 | $ 8,892.13 | $ 62,900.00 |
| A12 | Asphalt Trench Section Restoration (4" Thick asphalt over 8" roadbase), See Detail C/2124 | 1500 | SY | $ 118,950.00 | $ 33.18 | $ 49,770.00 | $ 41.13 | $ 30.01 | $ 79.30 |
| A13 | Curb and Gutter Replacement | 20 | LF | $ 2,700.00 | $ 187.00 | $ 3,740.00 | $ 87.74 | $ 25.59 | $ 187.00 |
| A14 | Concrete Sidewalk Replacement | 20 | SF | $ 2,680.00 | $ 170.75 | $ 3,415.00 | $ 60.92 | $ 4.80 | $ 170.75 |
| A15 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 6,570.00 | $ 6,670.57 | $ 6,670.57 | $ 6,312.41 | $ 3,232.71 | $ 11,159.42 |
| A16 | Replace Existing ¾- and 1-inch Water Service Line, Only as Directed by Engineer, See Irvine Std. Drawing W-01 | 2 | EA | $ 4,860.00 | $ 1,844.28 | $ 3,688.56 | $ 1,567.70 | $ 940.00 | $ 2,430.00 |
| A17 | Sanitary Sewer Service Lateral Relocation, Only as Directed by Engineer, See Irvine Std. Drawings S-05 to S-7 | 2 | EA | $ 5,320.00 | $ 2,740.49 | $ 5,480.98 | $ 1,889.95 | $ 1,200.00 | $ 2,740.49 |
| A18 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 6,500.00 | $ 127.19 | $ 6,359.50 | $ 147.94 | $ 82.06 | $ 250.00 |
| A19 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 3,860.00 | $ 54.15 | $ 5,415.00 | $ 41.26 | $ 29.33 | $ 54.15 |
| A20 | Quality Control/Material Testing | 1 | LS | $ 2,301.00 | $ 4,279.00 | $ 4,279.00 | $ 4,181.32 | $ 2,301.00 | $ 5,500.00 |
| | **Bid Schedule A Subtotal** | | | $ 395,575.00 | | $ 253,245.25 | | | |
| | **Bid Schedule B - Highway 91** | | | | | | | | |
| B1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 49,309.00 | $ 5,550.00 | $ 5,550.00 | $ 40,123.89 | $ 5,550.00 | $ 67,280.00 |
| B2 | Traffic Control | 1 | LS | $ 39,615.00 | $ 3,996.23 | $ 3,996.23 | $ 22,829.62 | $ 2,400.00 | $ 52,000.00 |
| B3 | Field Survey and Staking | 1 | LS | $ 1,643.00 | $ 4,000.00 | $ 4,000.00 | $ 3,464.37 | $ 1,643.00 | $ 6,280.00 |
| B4 | 30-inch Class III Reinforced Concrete Pipe | 3200 | LF | $ 342,400.00 | $ 66.94 | $ 214,208.00 | $ 104.31 | $ 66.94 | $ 162.00 |
| B5 | 5-foot Diameter Concrete Manhole, See Detail C/2550 | 11 | EA | $ 70,884.00 | $ 3,757.46 | $ 41,332.06 | $ 5,248.73 | $ 3,757.46 | $ 7,480.03 |
| B6 | Replace Manhole Lid with Grate | 4 | EA | $ 6,732.00 | $ 911.03 | $ 3,644.12 | $ 934.26 | $ 244.88 | $ 1,912.65 |
| B7 | Connect 30-inch RCP to Existing Box Culvert, See Detail S/4600 | 1 | LS | $ 2,957.00 | $ 7,927.50 | $ 7,927.50 | $ 5,612.80 | $ 2,500.00 | $ 12,545.08 |
| B8 | Asphalt Trench Section Restoration (6" Thick asphalt over 8" roadbase), See Detail C/2124 | 3500 | SY | $ 320,250.00 | $ 50.79 | $ 177,765.00 | $ 51.68 | $ 40.24 | $ 91.50 |
| B9 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 3,849.00 | $ 1,743.73 | $ 1,743.73 | $ 4,662.08 | $ 1,743.73 | $ 10,179.28 |
| B10 | 10-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 6,712.00 | $ 4,791.41 | $ 4,791.41 | $ 7,099.10 | $ 4,791.41 | $ 12,033.84 |
| B11 | Drainage Berms, See Detail C/2125 | 350 | LF | $ 6,825.00 | $ 6.40 | $ 2,940.00 | $ 12.73 | $ 5.00 | $ 20.00 |
| B12 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 6,500.00 | $ 127.19 | $ 6,359.50 | $ 147.94 | $ 82.06 | $ 250.00 |
| B13 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 3,860.00 | $ 54.15 | $ 5,415.00 | $ 41.54 | $ 31.32 | $ 54.15 |
| B14 | Quality Control/Material Testing | 1 | LS | $ 6,902.00 | $ 5,626.50 | $ 5,626.50 | $ 5,942.87 | $ 4,640.00 | $ 6,902.00 |
| B15 | Solid Rock Excavation | 4000 | CY | $ 150,800.00 | $ 51.83 | $ 207,320.00 | $ 30.51 | $ 13.63 | $ 51.83 |
| | **Bid Schedule B Subtotal** | | | $ 1,019,238.00 | | $ 692,619.05 | | | |
| | **Bid Schedule C - 450 North Intersection** | | | | | | | | |
| C1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 7,832.00 | $ 5,550.00 | $ 5,550.00 | $ 9,160.68 | $ 4,160.00 | $ 26,900.00 |
| C2 | Traffic Control | 1 | LS | $ 11,319.00 | $ 491.58 | $ 491.58 | $ 4,703.94 | $ 491.58 | $ 11,319.00 |
| C3 | Field Survey and Staking | 1 | LS | $ 1,249.00 | $ 4,000.00 | $ 4,000.00 | $ 2,021.71 | $ 700.00 | $ 4,000.00 |
| C4 | 18-inch Class III Reinforced Concrete Pipe | 100 | LF | $ 11,200.00 | $ 38.32 | $ 3,832.00 | $ 89.21 | $ 38.32 | $ 132.22 |
| C5 | 5-foot Diameter Concrete Manhole, See Detail C/2550 | 2 | EA | $ 11,418.00 | $ 3,757.46 | $ 7,514.92 | $ 4,714.35 | $ 3,693.78 | $ 7,032.57 |
| C6 | Double Grate Catch Basin, See APWA Std. Plan 315 | 2 | EA | $ 12,920.00 | $ 3,700.70 | $ 7,401.40 | $ 5,275.35 | $ 3,700.70 | $ 7,817.72 |
| C7 | Asphalt Trench Section Restoration (4" Thick asphalt over 8" roadbase), See Detail C/2124 | 250 | SY | $ 22,400.00 | $ 33.19 | $ 8,297.50 | $ 49.00 | $ 33.19 | $ 89.60 |
| C8 | Curb and Gutter Replacement | 20 | LF | $ 2,700.00 | $ 41.20 | $ 824.00 | $ 68.52 | $ 25.59 | $ 139.00 |
| C9 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 4,204.00 | $ 1,743.73 | $ 1,743.73 | $ 4,564.99 | $ 1,743.73 | $ 9,599.28 |
| C10 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 6,500.00 | $ 127.19 | $ 6,359.50 | $ 148.25 | $ 82.06 | $ 250.00 |
| C11 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 3,860.00 | $ 54.15 | $ 5,415.00 | $ 41.54 | $ 31.30 | $ 54.15 |
| C12 | Quality Control/Material Testing | 1 | LS | $ 1,150.00 | $ 1,650.00 | $ 1,650.00 | $ 2,789.65 | $ 1,150.00 | $ 9,297.40 |
| | **Bid Schedule C Subtotal** | | | $ 96,752.00 | | $ 53,079.83 | | | |
| | **Bid Schedule D - Kwavasa Drive** | | | | | | | | |
| D1 | Mobilization, Demobilization, and Administrative Items (not to exceed 8% of Total Base Bid) | 1 | LS | $ 96,977.00 | $ 5,550.00 | $ 5,550.00 | $ 60,515.10 | $ 5,550.00 | $ 102,800.00 |
| D2 | Traffic Control | 1 | LS | $ 39,615.00 | $ 4,446.76 | $ 4,446.76 | $ 21,174.11 | $ 3,637.02 | $ 68,900.00 |
| D3 | Field Survey and Staking | 1 | LS | $ 4,601.00 | $ 4,000.00 | $ 4,000.00 | $ 4,937.24 | $ 2,345.00 | $ 7,770.00 |
| D4 | 18-inch Class III Reinforced Concrete Pipe | 300 | LF | $ 21,240.00 | $ 38.32 | $ 11,496.00 | $ 65.60 | $ 38.32 | $ 125.90 |
| D5 | 24-inch Class III Reinforced Concrete Pipe | 2100 | LF | $ 169,260.00 | $ 47.71 | $ 100,191.00 | $ 77.33 | $ 47.71 | $ 140.06 |
| D6 | 30-inch Class III Reinforced Concrete Pipe | 1200 | LF | $ 183,600.00 | $ 66.94 | $ 80,328.00 | $ 135.75 | $ 65.31 | $ 371.00 |
| D7 | 30" Pre-cast Flared End Section | 1 | EA | $ 2,038.00 | $ 1,349.69 | $ 1,349.69 | $ 2,144.43 | $ 1,310.00 | $ 3,352.03 |
| D8 | 5-foot Diameter Concrete Manhole, See Detail C/2550 | 12 | EA | $ 78,696.00 | $ 3,757.46 | $ 45,089.52 | $ 5,349.20 | $ 3,757.46 | $ 8,123.63 |
| D9 | 2'x3' Drop Inlet Catch Basin, See Detail C/2558 | 9 | EA | $ 39,015.00 | $ 4,222.95 | $ 38,006.55 | $ 4,402.62 | $ 3,631.78 | $ 6,127.03 |
| D10 | 3'x5' Drop Inlet Catch Basin, See Detail C/2558 (sm) | 1 | LS | $ 7,314.00 | $ 7,496.66 | $ 7,496.66 | $ 7,296.64 | $ 6,401.10 | $ 9,891.30 |
| D11 | 4'x6' Cast-in-Place Junction Box, See APWA Std. Detail 331 | 1 | LS | $ 9,587.00 | $ 11,749.12 | $ 11,749.12 | $ 10,003.49 | $ 4,686.14 | $ 16,100.00 |

**BID SCHEDULE SUMMARY**

**Stormwater Improvements Project**

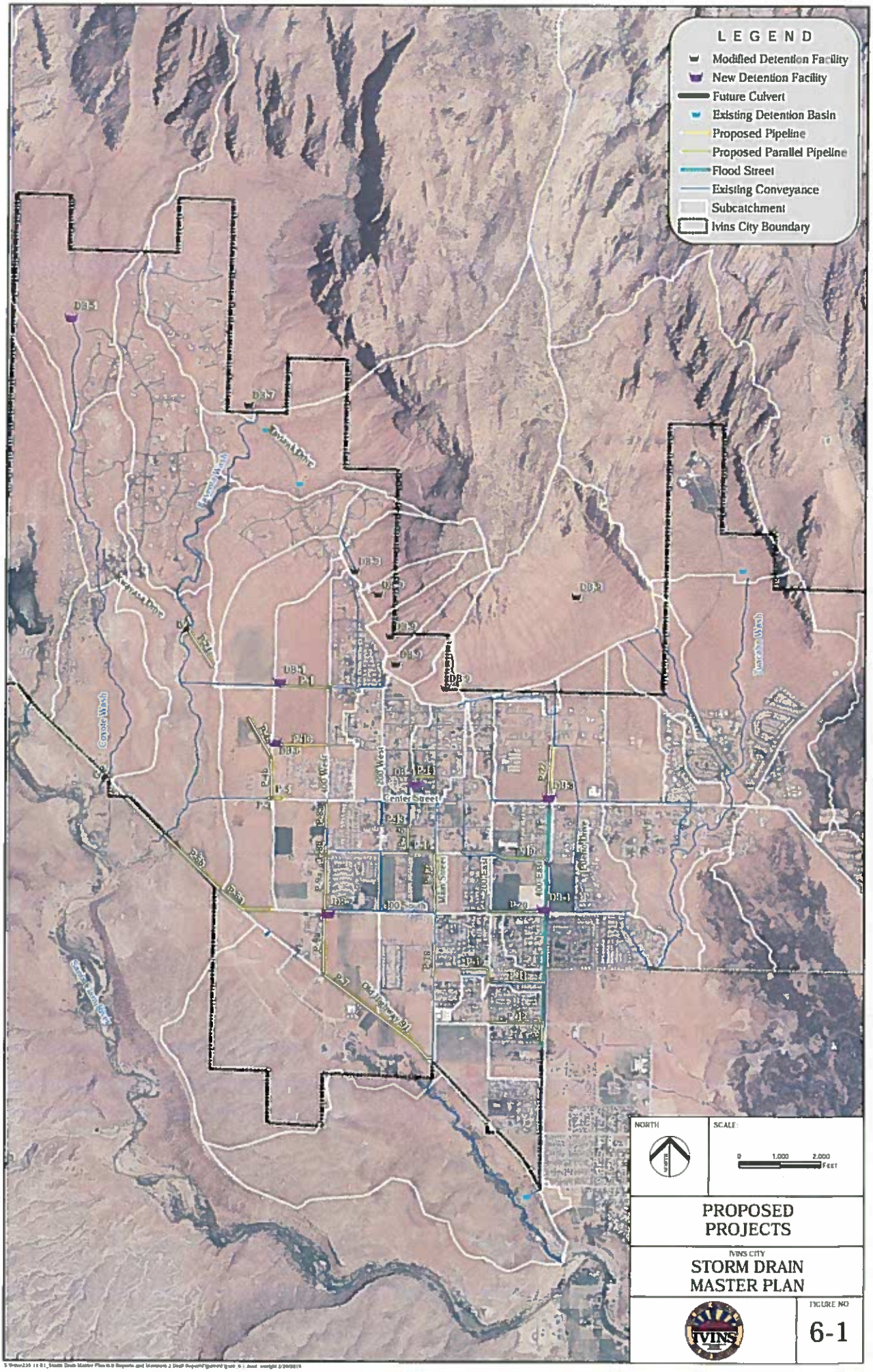
**Irvine City**

Bids Were Opened On: Thursday, September 5, 2019

BOWEN COLLINS & ASSOCIATES

| BID SCHEDULES A & B | | | | Construction | Rhine Construction | | Unit Price Summary | | |
|---|---|---|---|---|---|---|---|---|---|
| Item No. | Description | Quantity | Unit | Amount | Unit Price | Amount | Average | Low | High |
| D12 | Cast-in-Place Detention Basin Outlet Structure, See S-02 | 1 | LS | $ 12,099.00 | $ 32,140.00 | $ 32,140.00 | $ 33,454.60 | $ 12,099.00 | $ 61,700.00 |
| D13 | 450 North Detention Basin | 1 | LS | $ 53,454.00 | $ 61,235.82 | $ 61,235.82 | $ 58,797.82 | $ 17,567.91 | $ 106,227.00 |
| D14 | Asphalt Trench Section Restoration and New Road (4" Thick asphalt over 8" roadbase), See Detail C/2124 and Dwg C-07 | 3700 | SY | $ 269,340.00 | $ 33.19 | $ 122,803.00 | $ 39.87 | $ 29.00 | $ 78.20 |
| D15 | 8-inch Waterline Loop, Only as Directed by Engineer | 1 | EA | $ 4,824.00 | $ 6,670.57 | $ 6,670.57 | $ 5,486.38 | $ 3,000.00 | $ 10,247.64 |
| D17 | 18-inch C-900 PVC Irrigation Line | 1150 | LF | $ 84,410.00 | $ 63.62 | $ 73,163.00 | $ 74.07 | $ 63.62 | $ 102.00 |
| D19 | 18-inch Gate Valve | 2 | EA | $ 40,392.00 | $ 16,898.23 | $ 33,796.46 | $ 17,985.63 | $ 15,663.62 | $ 20,911.23 |
| D20 | Non-Woven Geotextile Fabric | 320 | SY | $ 4,928.00 | $ 4.12 | $ 1,318.40 | $ 4.78 | $ 1.74 | $ 15.40 |
| D21a | Class V Riprap Stabilization | 200 | CY | $ 43,800.00 | $ 253.21 | $ 50,642.00 | $ 105.31 | $ 32.96 | $ 253.21 |
| D21b | Class VII Riprap Stabilization | 100 | CY | $ 21,900.00 | $ 255.23 | $ 25,523.00 | $ 103.76 | $ 35.00 | $ 255.23 |
| D22 | Flowable Fill Backfill, Only as Directed by Engineer | 50 | CY | $ 6,500.00 | $ 127.19 | $ 6,359.50 | $ 148.25 | $ 82.06 | $ 250.00 |
| D23 | Trench Stabilization Material, Only as Directed by Engineer | 100 | CY | $ 2,690.00 | $ 54.15 | $ 5,415.00 | $ 39.59 | $ 26.90 | $ 54.15 |
| D24 | Quality Control/Material Testing | 1 | LS | $ 6,902.00 | $ 10,191.50 | $ 10,191.50 | $ 8,339.55 | $ 5,800.00 | $ 10,191.50 |
| D25 | Solid Rock Excavation | 600 | CY | $ 23,220.00 | $ 51.83 | $ 31,098.00 | $ 37.13 | $ 9.96 | $ 64.00 |
| D26 | Import Select Backfill | 1000 | CY | $ 26,900.00 | $ 54.04 | $ 54,040.00 | $ 30.19 | $ 15.00 | $ 54.04 |
| D27 | Subgrade Preparation | 1700 | CY | $ 48,450.00 | $ 47.91 | $ 81,447.00 | $ 23.50 | $ 6.30 | $ 47.91 |
| | **Bid Schedule D Subtotal** | | | **$ 1,321,752.00** | | **$ 905,546.55** | $ 1,060,658.03 | $ 695,811.27 | $ 1,480,134.00 |
| | | **Total Price:** | | **$ 2,833,317.00** | | **$ 1,904,490.48** | $ 2,247,518.02 | $ 1,620,419.81 | $ 3,079,643.00 |
| | | **TOTAL BID PRICE:** | | **$ 2,833,317.00** | | **$ 1,904,490.48** | | | |
| | | | | **$ 1,212,897.19** | | **$ 284,070.67** | | | |
| | | | | **75%** | | **18%** | | | |

Corrected arithmetic error




# PROPOSED PROJECTS

IVINS CITY
## STORM DRAIN MASTER PLAN

FIGURE NO
6-1