LEE'S SUMMIT

# PUBLIC WORKS ENGINEERING DIVISION

# **Inspection Summary**

Permit #: PRPWFR20171746, Public Works Infrastructure Permit - Residential Manor at Stoney Creek 2nd - street, storm, sewer and water

Address:

This work has been inspected and the inspection results noted below. Please call for re-inspection once all corrective actions have been completed. Do not cover any work until approved.

Inspection Item: Inspection:	Inspector:	Outcome:	Date:
DEI-Water Line - Construction Inspection	n Brice Lawson	Partial	Wednesday, February 21, 2018

#### Informational

1 Brice Lawson 11/10/2017 11:30 AM

Redford installed 40' of 8" C900 water main with tracer wire and water line marker tape. The line appeared to be installed at least 42" from current grade. The pipe was bedded in clean rock. This line was installed on water line 1 from approx. STA. 11+48 to approx. STA. 11+88. The line was being backfilled in lifts. The trench was opened up over 48" wide and KC Testing was on site to perform compaction testing.

Informational

2 Brice Lawson 11/10/2017 2:57 PM

Redford installed 40' of 8" C900 water line on water line 1 from STA 3+25 to STA. 3+65. Tracer wire and bury tape have been installed with this water line.

Informational

3 Brice Lawson 11/13/2017 11:47 AM

Redford installed the 8" C900 water line with tracer wire for water line 1 from approx. STA. 0+29.17 to STA. 1+39.99. The Tee fitting has been installed at STA. 1+39.99.

Informational

4 Brice Lawson 11/13/2017 2:46 PM

Redford installed the 8" gate valve on line 2 near STA. 0+00. Approx. 74' of C900 water line has been installed from STA. 0+00 to approx. STA. 0+74. Tracer wire has been installed with this pipe and utility marker tape is being installed in the trench. Two vertical 45 degree bend fittings have been installed with rebar loops around the fittings. The rebar loops have been installed in a thrust block below the 45 degree fittings. KC Testing is on site to observe compaction testing for the water line. The DI fittings have been wrapped in 12 mil poly wrap and the T bolts have been sprayed with an undercoating.

A thrust block has been installed on the 45 degree bend fitting on line 1 at STA.0+95.15.

MCIB WA610 concrete was used for the thrust blocks.

Informational

5 Brice Lawson 11/14/2017 1:23 PM

Redford installed an 8" Clow gate valve just west of the Tee fitting located at STA. 0+00 on water line 2. A 1' piece of C900 was installed between the valve and the tee fitting. A thrust block has been installed on the tee fitting. A tracer wire has been installed over to the tee fitting.

Informational

6 Brice Lawson 12/08/2017 8:00 AM

Redford has installed the 8" water main for water line 1 from approx. STA. 3+65 to approx. STA. 10+00. The majority of this line has been backfilled. The areas that have not been backfilled show that the pipe is being bedded in clean rock, the tracer wire has been installed and the marker tape is being installed. It appears that the pipe is at least 42" deep. The Tee fittings have been installed for both of the fire hydrant sets on this run of pipe.

It appears that the 8" water main has been installed from approx. STA. 2+10 to approx. STA. 5+13. It appears that the line is being bedded in clean rock, tracer wire has been installed and marker tape has been installed. The majority of this line has been backfilled. A thrustblock has been installed behind the tee fitting at STA. 2+92.5. It appears that the pipe is at least 42" deep at the areas that have not been backfilled.

## Informational

7 Brice Lawson 12/08/2017 3:08 PM

The 8" water main for line 1 has been installed from approx. STA. 10+10 and connected on the east side of Grindstone where it was previously installed under grindstone. The Tee fitting and 2 gate valves have been installed on the east and south side of the Tee fitting. A thrust block has been installed behind the tee fitting. The DI fittings appear to be wrapped and the tracer wire has been installed. A thrust block has been installed behind the Tee fitting at STA. 8+36.84 on line 1. A thrust block has been installed behind the tee fitting for the hydrant assembly shown at STA. 4+61.84. When I measured the distance of this tee fitting to the back of the curb on Alibaster, it appeared that the tee fitting is 5' east of where it scales on the plans. I let Darren with Redford know about this and he said that the Tee was installed according to the survey stakes provided.

# Informational

# 8 Brice Lawson 12/11/2017 1:54 PM

The 8" C900 water line #4 has been installed from the 8" valve at STA. 0+00 to approx. STA. 1+06. The pipe appears to be bedded in clean rock. The tracer wire has been installed and it appears that marker tape is being installed 18' to 24" below grade. It appears the the water line is at least 42" below grade. The existing 12" water main at the proposed tie-in location at 1+39.67 has been exposed. The contractor plans to cover the exposed line with blankets to insulate during the cold weather.

Redford is workin on installing the water line #1 from the 8" gate valve at STA. 1+39.99 towards the west. 3-20 sections of pipe have been installed. The pipe is being bedded in clean rock. It appears that the pipes are at least 42" below grade.

#### Informational

#### 9 Brice Lawson 12/12/2017 2:39 PM

The remainder of water line 1 from approx. STA. 2+00 to STA. 3+25 has been installed.

Water line 3 has been installed from STA. 0+00 to approx. STA. 1+25. A temp. blow off has been installed at STA. 1+25. The two gate valves and Tee fitting have been installed at STA. 0+00. The gate valves are installed on the south and west sides of the tee fitting. Tracer wire has been installed. Schedule 40 valve boxes have been installed with the tracer wire running up the outside of the valve box. The existing 12" main has been exposed at the tie-in location on water line 3. Concrete blankets have been installed to insulate during the cold weather.

The existing 12" water main at the tie-in to existing on water line 4 has been covered with mulch to act as insulation during the cold weather.

## Informational

10 Brice Lawson 12/21/2017 9:32 AM

The 8" water water main has been flushed at all of the fire hydrants and at the temporary blow offs that have been installed at the ends of the lines near the proposed tie-in at Alabaster and Merryman. This flush was performed after the hydrostatic test was performed.

Informational

11 Brice Lawson 12/21/2017 3:11 PM

Redford chlorinated the water lines #1, #2, #3 and #4 to. It appeared that the chlorine level was at a minimum of 25 mg/l at the ends of the lines and at the fir hydrants.

Informational

12 Brice Lawson 12/22/2017 5:01 PM

It appeared that Redford dechlorinated the water main that has been installed at this site. The ends of each line and each fire hydrant have been flushed.

Informational

13 Brice Lawson 12/28/2017 1:29 PM

Redford Construction installed a construction tap on the water line near the west end of Merryman and one near the temporary fire hydrant at the north end of Amethyst.

Informational

14 Brice Lawson 01/09/2018 10:29 AM

The 12" water main was shutdown at Alabaster at approx. 8:15 a.m. Redford Construction installed a 12" Prat butterfly valve, a 12" by 8" tee fitting and a 12" sleeve on the existing 12" water main. The 8" water main was installed from the location where the temporary blow off was and connected to the 12" by 8" tee fitting. An 8" sleeve was used to connect the two 8" C900 pipes. An 8" Clow valve has been installed on the 8" line on the north side of the tee fitting.

Informational

15 Brice Lawson 01/09/2018 4:18 PM

Redford installed the 4500 MCIB thrustblock at the 12" by 8" tee fitting that is located on the existing 12" watermain at SW Alabaster Dr. The tracer wire has been installed at this tie-in. It appears that the DI fittings have been wrapped with poly wrap and sealed with tape.

The Water Dept. flushed the 12" water main and put it back in service. They let me know that the chlorine level in the 12" main was 2.02 Mg/L

Informational

Brice Lawson 01/10/2018 11:02 AM

The water dept. shutdown the existing 8" water main at the location of the tie-in on the east end of Merryman Dr. The contractor has removed the existing temporary fire hydrant and began installing the tee fitting for the location of the permanent fire hydrant location.

Informational

17 Brice Lawson 01/10/2018 2:28 PM

Redford completed the tie-in to the existing water main at the east end of Merryman. The temporary fire hydrant was moved to the permanent location. A 45 degree bend, an 8" by 6" tee fitting, an 8" sleeve, a 6" by 1' anchor coupling, and a 6" Clow gate valve were installed. The DI fittings have been wrapped in clear poly wrap and sealed with tape. The tracer wire has been installed. The thrust blocks have been installed behind the fire hydrant, at the tee fitting and at the 45 degree bend. The Water Dept. came and put the existing line back in service up to the existing 8" gate valve.

Informational

18 Brice Lawson 01/11/2018 4:03 PM

The water dept. flushed the remainder of the water main that was closed for the tie-in located at the east end of Merryman Dr. The new water main that has been constructed at this site has been opened up to the existing water system.

Corrective Action Required

19 Brice Lawson 02/06/2018 3:05 PM

Move the existing FH located in the southwest corner of the site to the oppisite side of the water main as shown in the note on page C.406 of the plans.

Install extension stems on the valve nuts to bring the valve nuts to within 3' of finished grade.

It appears that the existing FH located in the beauty berm along County Line Rd is low. Make proper adjustments to the FH and valve box elevations.

Informational

20 Brice Lawson 02/21/2018 7:27 AM

The Water Dept. has performed the bond inspection on the new water main for this site. They said everything checked out good.

DEI-Wate Restraint	er Line - Thrust	Brice Lawson	Passed	Wednesday, February 21, 2018	
Informatio	onal				
1	Brice Lawson 02/21/2018 7:17 AM				
	The wet block have been installed to restaring the water wasing that all been do to as and fine				

Thrust blocks have been installed to restrain the water main at all bends, tees and fire hydrants. Redford Construction informed me that straddle blocks have been installed between the 8" isolation valve and the temporary fire hydrants that have been installed at the west end of Merryman and the north end of Amethyst.

DEI-Street - Base Lift	Brice Lawson	Passed	Wednesday, February 21, 2018
Informational			

1 Brice Lawson 12/03/2017 3:25 PM

Superior Bowen installed the 4" Type 2 recycled asphalt base course for the streets at this site. The temperature of the base rock was from 43.5 degrees to 44.5 degrees at the beginning of the paving operation. The temperature of the asphalt behind the paver was spot checked and was from 277 degrees F to 308 degrees F. Three rollers were used for compacting the asphalt mat. It appeared that the joint at the C/L was offset from the C/L. KCTE was on site to perform density testing and the geotech informed me that the tests were all passing.

Informational

2 Brice Lawson 12/13/2017 8:13 AM

The density test report for the aphalt base lift using the nuclear gauge has been submitted. It appears that all of the tests show the density to be over 95%.

DEI-Water Line - Fire Hydrant	Brice Lawson	Passed	Wednesday,
			February 21,

## Resolved

1 Brice Lawson 01/02/2018 3:59 PM

The fire hydrant at the west end of Merryman, the fire hydrant just east of Grindstone, and the fire hydrant at the end of Amethyst were not operating properly. Daniel with Redford Construction said he thought they are frozen at the base of the hydrant.

2018

Brice Lawson 02/21/2018 7:12 AM

The fire hydrants have been flushed by Redford Construction and are operating properly. The Water Dept. has performed the bond inspection and there report says that the fire hydrants are operating properly. **Comments:**