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**PUBLIC WORKS ENGINEERING DIVISION**

## Inspection Summary

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

Address:

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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.

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Inspection Item:

Inspection:	Inspector:	Outcome:	Date:
DEI-Water Line - Construction Inspection	Brice Lawson	Partial	Wednesday, December 13, 2017

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.

Corrective Action Required

10 A main inspection has uncovered the following problems.

Brice Lawson 12/13/2017 3:03 PM

Replace the blue polywrap that has been installed at the fire hydrant with clear polywrap.

Redford is working on installing the fire hydrants on this site.

DEI-Curb - Compression  
Strength

Brice Lawson

Partial

Wednesday,  
December  
13, 2017

Informational

1 Brice Lawson 12/13/2017 8:06 AM

2-7 day compressive strength test results have been submitted for the curb. One test showed the compressive strength at 5510 psi and the other showed the compressive strength at 5840 psi.

DEI-Sanitary Sewer - Mandrel

Brice Lawson

Passed

Wednesday,  
December  
13, 2017

Informational

1 Brice Lawson 12/13/2017 8:02 AM

On 12/6/17 Brian Byrd witnessed the madrel test on all of the sanitary sewer main line

segments. All of the line segments passed the mandrel test.

DEI-Sanitary Sewer - Vacuum Brice Lawson

Passed

Wednesday,  
December  
13, 2017

Informational

1 Brice Lawson 11/14/2017 6:45 AM

On 11-9-17 Bryan Byrd witnessed vacuum testin on the following manholes:

MH A-5 - Test Passed

MH A-6 - Test Passed

MH B-1 - Test Passed

MH B-2 - Test Passed

MH B-3 - Test Passed

Informational

2 Brice Lawson 11/20/2017 12:30 PM

Redford vacuum tested the following manholes:

MH E-1

Start test 10" mercury

End test 9.75" mercury

Test Duration 2.5 min

Test passed

MH C-1

Start test 10" mercury

End test 10" mercury

Test Duration 3:00

Test passed

MH C-2

Start test 10" mercury

End test 9.75" mercury

Test Duration 2:30

Test passed

Informational

3 Brice Lawson 12/13/2017 7:59 AM

On 12/5/17 Brian Byrd witnessed the following manhole vacuum testing:

MH C3 - Passed  
MH C4 - Passed  
MH D3 - Passed  
MH D2 - Passed  
MH D1 - Passed

DEI-Sanitary Sewer - Air Test    Brice Lawson

Passed

Wednesday,  
December  
13, 2017

Informational

1        Brice Lawson 11/14/2017 6:52 AM

On 11-9-17 Bryan Byrd witnessed air testing on the following sanitary sewer line segments.

MH B-1 to MH B-2    Test Passed

MH B-2 to MH B-3    Test Passed

Informational

2        Brice Lawson 11/20/2017 12:24 PM

Redford performed air testing on the following line segments:

Cherne Gauge Cal. Date 10/31/17

MH E-1 to MH B-3

Start press. 3.9 psi

End press. 3.85 psi

Test Duration 7:34

Test Passed

MH B-3 to MH C-1

Start press 3.65 psi

End press 3.5 psi

Test Duration 23:01

Test passed

Resolved

3        Sanitary Sewer Testing needs to be completed.

Brice Lawson 11/29/2017 11:57 AM

Bryan Byrd witnessed an air test on the sanitary main from MH A-5 to MH A-6. This test failed.

Make corrections and retest.

Brice Lawson 12/13/2017 7:55 AM

On 12/5/17 Brian Byrd witnessed a retest of this line segment and the test passed.  
RESOLVED

Informational

4 Brice Lawson 12/13/2017 7:56 AM

On 12/5/17 Brian Byrd witnessed the air tests on the following sanitary sewer line segments:

MH A5 to MH A6 - Passed

MH C2 to MH C3 - Passed

MH C3 to MH C4 - Passed

MH C3 to MH D1 - Passed

MH D1 to MH D2 - Passed

DEI-Street - Base Lift

Brice Lawson

Partial

Wednesday,  
December  
13, 2017

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 asphalt base lift using the nuclear gauge has been submitted. It appears that all of the tests show the density to be over 95%.

DEI-Street - Surface Course

Brice Lawson

Partial

Wednesday,  
December  
13, 2017

Informational

1 Brice Lawson 12/04/2017 9:39 AM

Superior Bowen began installing the Type 3 virgin surface course at 8:30am. The base temp was 63 degrees at 8:30am. The temperature of the asphalt behind the paver was 310 degrees at 8:30am and 310 degrees at 9:10am on Amethyst. A tack coat has been placed on the road. Three rollers are being used for compaction. CMTG is on site and they let me know that the compaction tests so far are passing.

Partial Correction

2 Enter Information about Asphalt Placement

Brice Lawson 12/04/2017 4:00 PM

Superior Bowen installed the Type 3 virgin asphalt on the roads at this site. A tack coat of SS-1HP was applied to the base prior to laying the surface. It appeared that at least 2" of surface was being installed.

The north bound lane of SW Grindstone from STA. 0+00 to approx. STA. 2+00 was installed in the rain. The pavement surface was soaked the asphalt was seperating as it was being rolled. Nathan and Dennis with Superior plan to remove and replace the surface asphalt in this lane.

Make proper repairs to the asphalt surface.

Brice Lawson 12/06/2017 4:14 PM

The surface of the northbound lane of Grindstone was milled and replaced today.

RESOLVED

After the surface was installed at STA. 0+00 on Grindstone a rain storm moved in. There was an approx. 30' long puddle of water that collected at the seam where Grindstone ties into SW County Line Rd. Nathan and Dennis with Superior Bowen said that this puddle is due to the existing road slope and that they could not get this puddle to drain by changing the slopes of their work.

Make proper repairs to achieve proper drainage.

A

Informational

3 Brice Lawson 12/06/2017 11:14 AM

Dennis with Superior Bowen informed me that they are going to mill and replace only the northbound lane of Grindstone. They are not going to mill any of County Line Rd where Matt Schilcht shows on the drawing to get the water to drain properly.

Informational

4 Brice Lawson 12/06/2017 11:27 AM

I called Thomas with Redford to let him know that Superior is on site and they are not going to mill county line per the plan that Engineering SOLutions submitted to fix the drainage issue on Grindstone.

Informational

5 Brice Lawson 12/06/2017 1:26 PM

Superior Bowen has milled the northbound lane of SW Grindstone from County Line Rd to the approx. C/L of Merryman Ln. Tack oil has been applied to the area that has been milled. The asphalt temperature directly behind the paver was 315 degrees. The base temperature was 47 degrees. The surface asphalt has been installed on the northbound lane of Grindstone.

Informational

6 Brice Lawson 12/13/2017 8:09 AM

The testing report for the compacted asphalt surface using the nuclear gauge has been submitted. It appears that all of the test show the in-place density to be over 96%.

**Comments:**

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