
PUBLIC WORKS ENGINEERING DIVISION

Inspection Summary

Permit #: PRPWFC20162083, Public Works Infrastructure Permit - Commercial

WATER UTILITIES FACILITY

Address: 1200 SE HAMBLER RD, LEES SUMMIT, MO 64081

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:
PW-Backflow Preventer and Vault	Brice Lawson	Partial	Wednesday, May 17, 2017
Informational			
1	Brice Lawson 04/17/2017 2:12 PM		
	She Digs It submitted the backflow preventer test data sheet for the 6" backflow preventer.		
Informational			
2	Brice Lawson 05/17/2017 10:14 AM		
	It appears that the backflow preventer and vault have been properly installed.		
PW-Water Line - Valve	Brice Lawson	Partial	Wednesday, May 17, 2017
Informational			
1	Brice Lawson 11/28/2016 11:40 AM		
	The 6" gate valves have been installed for the fire hydrants at STA. 6+50 and STA. 10+04.99.		
Informational			
2	Brice Lawson 02/15/2017 7:37 AM		
	I checked with Gene Williams to see if a 6" gate valve needs to be installed on the 6" fire line between the 4" domestic line and the backflow preventer. I explained that if in the future there is a problem with the backflow preventer that the domestic line would be taken out of service. He stated that the 6" gate valve does not need to be installed between the 4" domestic line and the backflow preventer.		
Informational			
3	Brice Lawson 02/17/2017 3:09 PM		
	She Digs It installed cast iron valve box on the new 8" valve that is installed where the		

north commercial drive entrance will be located.

They also installed a cast iron valve box on the existing 12" valve 3089 as this valve box will be located in the north commercial drive entrance.

Informational

4 Brice Lawson 02/22/2017 3:37 PM

She Digs It installed a 6" Mueller gate valve, cast iron valve box and DI sleeve near the 6" by 6" tee fitting that is located south of the doublecheck detector vault. This valve was installed approx. 3' from the tee fitting on the 6" fire line that feeds the two fire hydrants on the west side of the site.

Informational

5 Brice Lawson 04/24/2017 2:33 PM

She Digs It replaced the broken cast iron valve box located in the north entrance that is on the new 8" valve.

Informational

6 Brice Lawson 05/17/2017 10:19 AM

She Digs It replaced the valve box located just south of the vault in the north drive entrance. They installed the valve box on the 6" gate valve where the 6" line connects to the 8" mater main.

PW-Storm - Sewer
Construction Inspection

Brice Lawson

Partial

Wednesday,
May 17, 2017

Informational

1 Brice Lawson 11/03/2016 3:58 PM

She Digs It began removeing the wall on the existing CI-8479 in preperation to the connection to this CI.

Informational

2 Brice Lawson 11/07/2016 3:09 PM

She Digs It installed CI 10A and poured the invert and collar around the 38"by 60" concrete eliptical pipe.

CI 10A was butted up next to the existing CI 8479 and the joint between the two has been partially grouted. Four rebar pins were drilled into the base of the existing CI and poured in the invert of CI 10A.

Gene Williams and I discussed this connection to the existing CI today.

Informational

3 Brice Lawson 11/28/2016 10:56 AM

The exterior pipe collars have been installed at the HDPE storm pipe connections for MH 30C and GI 30D.

Resolved

4 Brice Lawson 11/29/2016 2:24 PM

The interior collars and the inverts were installed in GI 30E, GI 30D and MH30C.

The invert in MH 30C needs to be smoothed.

Brice Lawson 05/17/2017 10:34 AM

Resolved-Invert has been smoothed

Resolved

5 Brice Lawson 11/30/2016 2:36 PM

The oufall structure 10C has been installed and the 48" HDPE pipe has been connected to it. The collar and invert have been installed.

The collar on the inside of the structure needs to be filled in.

Brice Lawson 05/17/2017 10:35 AM

Resolved

Informational

6 Brice Lawson 12/02/2016 7:05 AM

On 12/1/16 MH-40B base was installed and the remaining 12" HDPE pipe towards the pond.

CI 30B base was installed. The remaining 30" HDPE pipe towards the pond was installed and connected to CI 30B. The remaining 30" HDPE pipe was installed towards MH 30C.

Corrective Action Required

7 Brice Lawson 12/02/2016 3:45 PM

She Digs It poured the interior pipe collars on CI 30B. They installed CI 31A and connected the 18" HDPE pipe from CI31A to CI30B.

They installed the invert, interior and exterior collars on MH40B

The lid for MH 30C has been installed but needs to be seated down on the base section.

Informational

8 Brice Lawson 12/12/2016 3:52 PM

The base for GI 40C was installed and the remainder of the 12" HDPE storm pipe was installed between GI 40C and MH 40B

Informational

9 Brice Lawson 12/30/2016 3:33 PM

She Digs It installed the 4" underdrain into the southeast side of GI 30D and sealed the hole that was made in the manhole.

They installed the top section and lid with grate on GI 40C.

Informational

10 Brice Lawson 01/12/2017 4:10 PM

She Digs It installed the remainder of the 36" HDPE storm pipe between 20A and 20B which was about 20'. The base for MH-20B has been installed.

Informational

11 Brice Lawson 01/13/2017 3:44 PM

She Digs It installed the cone section on MH 20B. They installed 20' of the 30" HDPE pipe towards CGI 20C. They installed collars on the connections of the 36" and 30" HDPE pipes at MH 20B and the invert in the MH 20B

Informational

12 Brice Lawson 01/17/2017 3:46 PM

She Digs It installed FES 50A and connected 20' of 42" HDPE storm pipe.

Informational

13 Brice Lawson 01/18/2017 2:51 PM

She Digs It installed the remainder of the 42" HDPE storm pipe between CI 50B and FES 50A. They installed CI 50B and installed approx 35' of 42" HDPE from CI 50B towards FI 50C. They are using 3/4" rock for bedding. They installed the interior and exterior collars and invert in CI50B.

Informational

14 Brice Lawson 01/19/2017 4:53 PM

She Digs It installed the remainder of the 42" HDPE storm pipe between CI 50B and FI 50C. They installed the invert and collars for FI 50C.

Informational

15 Brice Lawson 01/26/2017 11:37 AM

On 1/24/17 She Digs It installed JB 10B, installed the remainder of the 38" by 60" elliptical RCP pipe and connected this pipe to JB 10B. They installed the remainder of the 48" HDPE pipe between 10C and JB 10B and connected it to JB 10B. The collars were installed and the invert was poured.

Informational

16 Brice Lawson 01/26/2017 11:43 AM

On 1/25/17 She Digs It installed the installed the 18" culvert at the southwest corner of the site. They installed the dual 24" HDPE mitered pipes at the northwest corner of the site.

The space between the dual mitered pipes was not filled with flowable fill to the spring line as shown on the plans. Casey Williams is aware of this and plans to have the Design Engineer address this issue.

Informational

17 Brice Lawson 01/26/2017 11:52 AM

She Digs It installed CGI 20C, installed and connected the remainder of the 30" HDPE pipe between CGI 20C and MH 20B. They installed CGI 20D and installed the 30" HDPE from CGI 20D to CGI 20C. The collars were installed on the pipes at CGI 20C. The invert was installed in CGI 20C. An opening was in the north wall of CGI 20D to accept the roof drain.

Informational

18 Brice Lawson 01/27/2017 3:58 PM

She Digs It installed GI 21A and the 85' of 24" HDPE pipe from GI 21A to CGI 20D. They installed approx. 100' of 24" HDPE from CGI 20D towards CGI 20E.

Informational

19 Brice Lawson 01/31/2017 7:16 AM

Resolved
20 She Digs It installed the invert and collar in GI 21A and the collars and invert in CGI 20D.
Brice Lawson 02/01/2017 3:08 PM

The 18" culvert at the southwest corner of the site is proposed to be 25' in length. It has been installed and it measures approx. 20' in length.

-Make the proper adjustments to install this culvert according to the approved plan.-

Brice Lawson 05/17/2017 10:36 AM
Resolved

The dual 24" mitered pipes have been installed at the northwest corner of the site without the space between them filled to the spring line with flowable fill as shown on the plan.

-Make the proper adjustments to these pipes to construct according to the approved plan.

Brice Lawson 05/17/2017 10:36 AM
The contractor installed these dual pipes without the flowable fill between them. I spoke to Gene Williams about this flowable fill not being installed and he is allowing it to not be installed.

Partial Correction

21 Brice Lawson 02/10/2017 7:18 AM

At Casey's request here is a list of items that need to be completed thus far pertaining to the storm sewer construction:

The dual pipes that were installed in the northwest corner were proposed to have flowable fill installed between them up to the spring line. The pipes were installed without flowable fill. This change has been approved by HDR and Gene Williams.

- The 20' of the 18" culvert in the southwest corner has been installed. The plans show this to be 25' long. Properly install the remaining 5'

Brice Lawson 05/17/2017 10:39 AM
Resolved

- Complete the installation of the roof drains from 40B, 20D and 20E

Brice Lawson 05/17/2017 10:40 AM
Resolved

- Complete the installation of the 4" under drains at the three remaining areas and the area that was removed while installing the 4" sewer pipe going to the oil interceptor

Brice Lawson 05/17/2017 10:40 AM
Resolved

Brice Lawson 02/10/2017 4:14 PM

Approx. 8' of the 4" underdrain has been repaired where the trench was dug for the sewer pipe going to the oil interceptor. This repair is located between MH-30C and GI-30D.

CI-10A:

- Seal the gap between the structure walls
- Seal the gap between the concrete lids
- Install the approved City of LS cover
- Complete the seal for the concrete lid to structure joint

Resolved

JB-10B:

- Add Steps

Outfall Structure-10C:

- Add steps
- Seal the concrete lid to the structure
- Install the 3rd weir opening

Outlet-20A:

- Make proper repairs to the first pipe joint from the pond as this joint is separated

MH-20B:

- Add steps 16" O/C as needed
- Remove debris

Resolved

CGI-20C:

- No inspection this structure is covered with fabric

Resolved

CGI-20D:

- Install the roof drains from here to the building
- Grout the interior collar
- Seal the concrete lid to the structure
- Remove debris
- Install the grate per the plan

CGI-20E:

- Has not been installed

Resolved

CI-30B:

- Move steps
- Replace the concrete lid so that the opening is over the relocated steps
- Install the approved City of LS cover
- Remove the 4" knockouts
- Seal the concrete lid to the structure

MH-30C:

- Properly seat/seal the concrete lid to the structure
- The concert lid does not match the thickness shown on the plans. Rebuild the lid to the proper thickness
- Properly install the casting and lid
- Grout the lift holes

GI-30D:

- Grout the lift holes
 - Properly install the frame, grate and adj. ring
 - Grout around the north interior collar and 4" under drain pipe
 - The concrete lid is not 8" thick. Replace the lid with one that is built per the plan and properly seal
- Resolved

GI-30E:

- Install the frame and grate
 - Seal the concrete lid to the structure
 - Grout the lift holes
 - The concert lid is not 8" thick. Replace this lid with one that is built per the plan and properly seal
- Resolved

CI-31A:

- Seal the concrete lid to the structure
- Remove the 4" knockouts
- Install the approved City of LS cover
- Grout the interior collar

MH-40B:

- Install the approved City of LS cover
 - Install the frame
 - Remove debris
 - Grout the collars
 - Verify that the elevation of the lid is correct
- Resolved

GI-40C:

- Remove the debris

FI-50C:

- Install the approved City of LS cover
- Remove the 4" knockouts
- Seal the concrete lid to the structure

Install line 60 with the flowable fill

Resolved

Informational

22 Brice Lawson 02/16/2017 12:02 PM

She Digs It installed CGI structure 20E and the remainder of the 24" HDPE pipe between 20E and 20D. This was approx. 115' of 24" HDPE.

They installed the 6" HDPE roof drain from structure 20D to the connection at the building.

They installed 8" HDPE roof drain from 20D to the connection at the building.

Informational

23 Brice Lawson 02/28/2017 3:23 PM

On 2/24/17 She Digs It installed approx. 155' of the 4" underdrain on the south side of CI 30B and connected it to CI 30B.

Informational

24 Brice Lawson 03/01/2017 3:33 PM

She Digs It installed approx. 220' of the 4" underdrain with filter fabric along the north parking lot curb perimeter from where they left off to CI 31A.

Informational

25 Brice Lawson 03/10/2017 11:10 AM

On 3/9/17 She Digs It installed the remainder of the 4" underdrain between CGI 20D and CGI 20E and connected it to CGI 20E. They connected this to 20E because of a grade brake in the finish grade that is east of this structure. Casey Williams is aware of this.

They installed approx. 99' of the 4" underdrain west of CGI 20E and connected it to CGI 20E.

Corrective Action Required

26 It appears that the joints in CGI-20C, CGI-20D and CGI-20E have been sealed with grout.

CGI-20D - Tighten the interior bolts on the curb frame.

PW-Driveway Inspection

Brice Lawson

Partial

Wednesday,
May 17, 2017

Informational

1 Brice Lawson 04/11/2017 3:26 PM

Epic Concrete has formed the south driveway approach. They have installed grade stakes and it appears that they will be able to install 6" of concrete. The contractor and myself checked the grade stakes where the sidewalk will go through the driveway. These stakes were set to have approx. 1.5% cross slope for the sidewalk.

Informational

2 Brice Lawson 04/10/2017 1:55 PM

Casey Williams requested an inspection of the base rock for the south driveway approach. The type 5 base rock appeared to be well compacted and stable. I dug holes 4 different areas of the approach to check the thickness of the type 5 rock. It appeared that there was at least an 8" thickness of the type 5 base rock.

The east concrete storm pipe that is under the driveway approach will not have the 8" of type 5 over it. This was approved by Gene Williams. This driveway approach pavement is designed to be 6" thick. I checked with Gene Williams about this pavement thickness being 6" instead of our standard 8" and he said it would be fine.

Corrective Action Required

3 Brice Lawson 04/12/2017 9:30 AM

Epic Concrete has installed the south concrete driveway approach. The curb and driveway approach have been installed monolithically. It appears to be to the dimensions shown on the plans. They used KCMMB 4K concrete mix and sprayed the approach with white curing compound.

The cross slope is over 2% at the north ADA sidewalk ramp opening. Make necessary adjustments to fix the cross slope issue.

Brice Lawson 05/17/2017 10:26 AM

A repair has been made to repair the cross slope issue, but the cross slope is over 2%. Make necessary repairs.

Informational

4 Brice Lawson 04/24/2017 2:35 PM

Epic Concrete has the north driveway approach formed. This will be poured monolithically. 5/8" dowels have been installed at the existing curbs. It appears the rock base has been compacted and is stable. It appears that they will be able to install at least 7" of concrete. Approx. 18" of the existing road was removed across the front of the approach due to loose/broken existing pavement. This pavement was removed to a depth of what appeared to be solid base asphalt. This area will be brought up to grade with 4000 psi KCMMB concrete.

Corrective Action Required

5 Brice Lawson 05/01/2017 1:52 PM

Epic Concrete has installed the north driveway approach using 4K concrete mix. Repair the areas of the flow line that are not draining properly. Repair the area around the new sanitary manhole lid. Repair the areas in the driveway approach where the sidewalk cross slope exceeds the maximum 2% cross slope.

Brice Lawson 05/15/2017 1:52 PM

Epic Concrete removed an area of the approach that is approx. 6' by 16' located where the sidewalk runs through this driveway. They used a limestone concrete mix instead of the required KCMMB mix. They removed this 6' by 16' patch and poured it again using 5000 psi KCMMB concrete mix. They tied this patch to the existing approach with 5/8" epoxy coated dowels on 2' centers.

PW-Backflow Preventer and Vault

Brice Lawson

Partial

Wednesday,
May 17, 2017

Informational

1 Brice Lawson 04/17/2017 2:12 PM

She Digs It submiited the backflow preventer test data sheet for the 6" backflow preventer.

Corrective Action Required

2 Brice Lawson 05/17/2017 10:23 AM

It appears that the backflow preventer and vault have been properly installed.

The second valve on the backflow preventer is not open yet as the building is not ready for it to be turned on. Open this valve when necessary.

Comments:
