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**PUBLIC WORKS ENGINEERING DIVISION**

## Inspection Summary

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Permit #: PRPWFC20173800, Public Works Infrastructure Permit - Commercial

Residences at Echelon

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:

<b>Inspection:</b>	<b>Inspector:</b>	<b>Outcome:</b>	<b>Date:</b>
DEI-Sanitary Sewer - Invert	Matt Munger	Failed	Thursday, April 19, 2018

Corrective Action Required

1 Matt Munger 04/19/2018 11:19 AM

I checked the following inverts for any defects or concerns: CI 7-8, CI 7-7; CI 12-1 has gravel in invert; CI 8-9 has gravel in invert; CI 8-10 had some dirt chunks in invert, CI 8-7; CI 10-1 debris, CI 8-8, CI 8-6, CI 8-5, and CI 8-4.

The inverts had a wide radius and what I could tell did not appear to be any sharp turns in the inverts. I did inform Brett (KAT) to clean out any debris and rocks in the inverts as well.

I checked CI 15-1 and noticed the box was full of water. I informed Brett of the issue and he stated he would go check it out.

DEI-Storm - Sewer Construction Inspection	Matt Munger	Partial	Thursday, April 19, 2018
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Informational

1 John DiMauro 02/09/2018 3:11 PM

Inspected approximately 60'ft of the storm line from curb inlet 7-3 to inlet 7-2. There appears to be sufficient rock bedding and coverage around the pipe. The pipe run appears to have fall from 7-3 to 7-2.

Informational

2 John DiMauro 02/09/2018 3:21 PM

Inspected approximately 60'ft of the storm line from curb inlet 7-3 to inlet 7-2. There

appears to be sufficient rock bedding and coverage around the pipe. The pipe run appears to have fall from 7-3 to 7-2.

Informational

3 Matt Munger 04/11/2018 10:02 AM

Spoke with TJ about the timeline of the project. He is estimating another 8 weeks for the storm sewer and possibly some of the water.

While on site KAT had installed the pipe from CI 8-7 and were working towards CI 8-8 (CI 8-8 was not set) they backfilled with an adequate amount of gravel on top of the pipe but I noticed there didn't appear to be 6" of gravel below the pipe at the end.

I asked the KAT workers how much gravel there was below the pipe, the worker paused and said 4". I spoke with Brett (foreman) and asked him and he stated 4" as well. I informed him that he will need to make sure there is at least 6" of gravel below the pipe. I informed them that the next trench I want to see 6" of bedding gravel down and to not install the pipe or gravel until I see it. I let Brett know if I see that they are not putting in enough gravel again they will have to redo the work that they've done

Informational

4 Matt Munger 04/11/2018 11:22 AM

When I had arrived KAT had CI 8-8 installed. It did appear there was an adequate amount of gravel below the box. KAT workers were using a laser to setup for CI 8-9. I looked over the pipe that they brought over to see if there were any defects in the pipe.

I had KAT verify they put in at least 6" of gravel for the base gravel starting from CI 8-8 to CI 8-9 since the last section it appeared there was not enough gravel below the pipe. I collected concrete tickets for the inverts and collars for the storm (4000).

Informational

5 Matt Munger 04/12/2018 8:54 AM

KAT had installed pipe from CI 8-9, CI 8-10 and to the Nyoplast drain 8-11. I observed an adequate amount of gravel on top and from what I could see an adequate amount of gravel below the pipe. KC Test Lab was present and testing between CI 8-7 and CI 8-8. I did observe KAT compacting in lifts between CI 8-7 to CI 8-8.

I inspected the Nyoplast drains 8-12, 8-13, and 8-14 for any defects or damage.

Informational

6 Matt Munger 04/12/2018 2:59 PM

KAT had installed 18" storm pipe from CI 8-8 to CI 10-1 then to CI 10-2. They were working on leveling the base gravel to set CI 10-2 in place. I observed an adequate of gravel on top of the pipe and what I could see at the end of the last stick of pipe before they started working on the base gravel for the storm box. The bell end of the pipe was installed in the correct direction (upstream) as well.

Corrective Action Required

7 Matt Munger 04/13/2018 8:43 AM

During my inspection I noticed that the sewer stub going to building #8 was running close

to CI 10-2, I spoke with Brett (Kat) and he stated they were going to move the pipe over to maintain the clearances that are needed (5ft).

KAT had installed the pipe from CI 10-2 and were in the process of setting CI 10-3. I did observe an adequate amount of gravel in place for the base gravel. They were using a laser to get the alignment/elevation correct.

I looked over the 18" storm pipe that was next to the trench and did not see any defects. The bell end of the pipe was going up stream towards CI 10-3.

The collars for CI 8-9, CI 8-10, CI 10-1 and CI 10-2 were set.

Informational

8 Matt Munger 04/16/2018 2:56 PM

KAT had poured the collars for curb inlets 11-1, 10-2,10-3,10-4, and 10-5.

KAT had the barrel sections on 11-2 and I could see they were using mastic between the sections to seal each. KC Test Lab was on site.

Informational

9 Matt Munger 04/17/2018 10:30 AM

KAT had installed storm pipe from 11-2 to 11-3, they had left a joint uncovered so I could see that the pipe was seated properly. I inspected the storm pipe that they had laying next to the trench that they were going to be installing between 11-3 and 11-4, I did not observe any defects or concerns. There was an adequate amount of gravel above and below the pipe.

Informational

10 Matt Munger 04/17/2018 2:46 PM

Collars were poured for MH 11-2 and CI 11-3. There was an adequate amount of gravel on top of the storm pipe from 11-2 to 11-3 and 11-3 to 11-4. They had not yet poured collars for 11-4.

KC Test Lab was on site testing the soil from 11-1 to 11-2. I observed KAT backfilling in approximately 12" lifts. They installed the cone section of MH 11-2 and observed them using a pre-formed joint sealant between the joints to seal the cone section to the barrel section. As I was walking along the trench I looked over the backfill material and did not see any large rocks or debris that shouldn't be used as trench backfill material.

I have also observed screens in place over the weep holes in the inlets. KAT has been installing silt fence around the inlets and has put gravel in place for ESC.

Corrective Action Required

11 Matt Munger 04/18/2018 10:51 AM

KAT had installed storm pipe from CI 10-4 to CI 10-5 and CI 10-6. There was an adequate amount of gravel on top and what I could see at the ends below the pipe.

When I arrived KAT was working on installing storm pipe from CI 10-1 to Nyoplast drain

16-1. There was an adequate amount of gravel above and below the pipe from 10-1 to 16-1. The bell end was set in upstream and I observed the workers using pipe lube. I inspected the storm pipe that was next to the trench for any defects or damage.

KAT had dug into the sanitary stub going to building #7. I spoke with Brett and asked him what his plan was to repair the stub. He stated they would cut in a pipe and use the correct fittings.

Informational

12 Matt Munger 04/18/2018 1:59 PM

KAT had installed storm pipe from 16-1 to 17-1, I did observe an adequate amount of gravel on top of the pipe. The sanitary sewer stub that was hit had not been repaired yet. KAT had started digging the trench for 16-2. Brett stated he was going to try and get it repaired today and that they were start on line 14 tomorrow.

Resolved

13 Matt Munger 04/19/2018 11:28 AM

Brett had repaired the sewer stub going into building #7. They used a section of SDR-26 pipe and knock on solid sleeve SDR-26 fittings. KAT was installing the grates for the nyoplast drains that were installed.

Comments:

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