

Lexington-Fayette Urban County Government DEPARTMENT OF ENVIRONMENTAL QUALITY

Jim Gray Mayor Cheryl Taylor Commissioner

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To: Hillard Newman, P.E., Engineering Section Manager, Division of Engineering

Wallace Rice, Engineering Technician Principal, Division of Engineering Ron St.Clair, Engineering Bonds Officer, Division of Engineering

From: Chris Begley, Engineering Technician Senior, WWC&CS, Division of Water Quality

Cc: Rodney Chervus, P.E., WWC&CS Manager, Division of Water Quality

Date: June 28, 2011

April 28, 2014 February 11, 2016

REVIEW DATE: MARCH 17, 2021

RE: New Development 3 Year Re-Inspect

Subdivision: Bluegrass Aspendale Infrastructure Unit/Phase: Phase 3, Sections 4A, 4B, 4C, 4D, 5

The Division of Water Quality (DWQ) has completed review of the submittals for the project referenced above. We are providing the following list of items, for sanitary sewer systems only, to be completed or corrected prior to Final Inspection. We request that you include these with comments from the Division of Engineering.

Material Reviewed: CCTV performed by LFUCG

Manhole F-1 (TB3 892A)

200 East Main Street

- * The top step in the manhole is too high.
 - ♦ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ

Line Segment P-1 to Ex MH (TB3_872 to TB3_394)

- * At 3.2 ft downstream of Manhole P-1 (TB3_872) there is a material change. Removed per C. Prater.
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- At 11.1 ft. downstream of Manhole P-1 (TB3_872) there is a circumferential fracture. Removed per C. Prater
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWO
- At 16.3 ft downstream of Manhole P-1(TB3_872) there is a complete pipe main failure. Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- At 54.6 ft upstream of Ex Manhole (TB3_394) there is a circumferential fracture. Removed per C. Prater
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

- At 69.4 ft upstream of Ex Manhole (TB3_394) there is a circumferential fracture. Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- At 88.0 ft upstream of Ex Manhole (TB3_394) there is a complete pipe main failure. Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole Existing (TB3_394)

- * The manhole is brick and needs to be replaced with a new manhole.
 - ♦ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ Removed per C. Prater

Line Segment Ex Drop Manhole_P-1 (TB3_399-TB3_872)

- Material changes at 2.0 ft, 42.8 ft, 46.8 ft, 51.0 ft, 95.7 ft, 97.2 ft, 98.3 ft, 99.9 ft, 155.7 ft and 178.9 ft downstream from Ex Drop Manhole (TB3_399). Removed per C. Prater
 - ◆ Correct the deficiency, re test the Line Segment, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- * Roots appear at 18.7 ft, 24.9 ft, 28.0, 52.0 and 55.0 ft downstream from Ex Drop Manhole (TB3_399). Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- ❖ At 46.8 ft downstream from Ex Drop Manhole (TB3_399) a lateral to the right is 50% blocked and needs cleaning. Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- ❖ At 57.6 ft downstream from Ex Drop Manhole (FB3_399) there is a circumferential fracture.

 Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- At 58.6 ft downstream from Ex Drop Manhole (TB3_399) a lateral is 100% blocked and needs cleaning. Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- ♣ Beginning at ~58.6' downstream of from Ex Drop Manhole (TB3_399) and extending to ~64' there appears to be a pipe sag Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- ❖ At 58.6 ft downstream from Ex Drop Manhole (TB3_399) a lateral is 100% blocked and needs cleaning. Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- ❖ At 166.2 ft downstream from Ex Drop Manhole (TB3_399) a lateral is 100% blocked and needs cleaning. Removed per C. Prater
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole A-2 (TB3_891)

- ❖ The top step in the manhole is too high.
 - Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ
- The casting needs to be resealed.

♦ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ

Manhole A-1 (TB3_890)

- 6" lateral inside manhole has dropped and needs repaired and sealed.
- Remove top step
 - ♦ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Line Segment A-3 to A-2 (TB3_892 to TB3_891) LINE IS CLEAN, NO FURTHER WORK NEEDED

- ❖ Pipe main is 10% blocked at ~9 ft and needs cleaning.
 - ◆ Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole A-2 (TB3_891)

- The top step in the manhole is too high.
 - ◆ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ
- * The manhole casting needs resealed.
 - ♦ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ

Manhole A-2 to A-1 (TB3_891 to TB3_890) LINE IS CLEAN, NO FURTHER WORK NEEDED

- * This main line needs cleaned due to debris
 - ◆ Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole A-2A (TB3_891A)

- This Manhole is full of debris.
 - ◆ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Line Segment A-2 to A-2A (TB3_891 to TB3_891A) LINE IS CLEAN, NO FURTHER WORK NEEDED

- The pipe main has debris blocking it at 41 ft and needs cleaning.
 - Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Line Segment Ex Drop Manhole to A-1 (TB3_399-TB3_890) LINE IS CLEAN, NO FURTHER WORK NEEDED

- * At 9.6 ft upstream from Ex Drop Manhole (FB3_399) a lateral to the left is 100% blocked and needs cleaning.
 - ◆ Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ
- **♦** This whole line segment is full of FOGs and needs jetted (cleaned).
 - ♦ Correct the deficiency, re test the Line Segment, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole P-2 (TB3_873)

- This Manhole is full of debris.
 - Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Manhole P-2 to P-1(TB3_873 to TB3_872) LINE CLEAR, MULTIPLE SAGS

* This main line needs cleaned due to debris (possible sags)

 Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole P-1 (TB3_872)

- The top step in the manhole is too high.
- ◆ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ Manhole R-2 (TB3_875)
 - The top step in the manhole is too high.
 - ♦ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Manhole R-3 (TB3_876)

- ❖ The top step in the manhole is too high.
 - ♦ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Manhole R-4 (TB3_877)

- The Casting is 12" below finished grade.
 - Correct the Deficiency, re-vacuum test the Manhole, submit Test Result Sheets and Field Verification to my attention at DWQ

Line Segment R-3 to R-2 (TB3_876 to TB3_875)

- ♣ Beginning at ~96' downstream of Manhole R-3 (TB3_876) and extending to ~106' there appears to be a pipe sag-(Corrected 2/11/2016)
 - Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- The lateral at 39.6 ft downstream of Manhole R-3 (TB3_876) appears to have a sag at its connection to the main (Corrected 2/11/2016)
 - ◆ Correct the deficiency, re test the Line Segment, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- ★ The lateral at 95.1 ft downstream of Manhole R-3 (TB3_876) appears to have a FOGs and needs to be cleaned (Corrected 2/11/2016)
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)

Line Segment R-4 to R-5 (TB3_877 to TB3_878)

- Remove top step
- * This whole line segment is full of debris and needs jetted (cleaned).
 - ◆ Clean the line, re-CCTV and submit the results to my attention at DWQ (Corrected 2/11/2016)

Line Segment P-2 to P-3 (TB3_873 to TB3_880)

- * This whole line segment is full of debris and needs jetted (cleaned).
 - ◆ Clean the line, re-CCTV and submit the results to my attention at DWQ (Corrected 2/11/2016)

Manhole P 2 (TB3_873)

- * This Manhole is full of debris
 - ◆ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Manhole P-3 (TB3_880)

The casting is off center

- ◆ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ
- The top step in the manhole is too high.
 - ♦ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ
- * This Manhole is Buried
 - ◆ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ

Manhole P-7 (TB3_887A)

- The casting is off center
 - ◆ Correct the deficiency, re-vacuum test the Manhole and submit Test Results and Field Verification to my attention at DWQ
- The top step in the manhole is too high.
 - ♦ Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Line Segment P-4 to T-1 (TB3_881 to TB3_882)

- At ~24.4' upstream of Manhole P-4 (TB3_881) the tap located at 561 E Fourth is full of debris and needs cleaning (Corrected 2/11/2016)
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- ★ At ~239.4' upstream of Manhole P-4 (TB3_881) the tap located at 432 Shropshire has dropped on builder's side of easement (Corrected 2/11/2016)
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)

Line Segment P-6 to V-1 (TB3_887 to TB3_888) LINE IS CLEAR / SAGS STILL EXIST

- ★ At ~85.1' upstream of Manhole P-6 (TB3_887) the tap located at 408 Race is full of debris and needs cleaning (Corrected 2/11/2016)
 - ♦ <u>Correct</u> the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- ★ At ~145.1' upstream of Manhole P-6 (TB3_887) the tap located at 416 Race is full of debris and needs cleaning (Corrected 2/11/2016)
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- ❖ Beginning at ~267.5' upstream of Manhole P-6 (TB3_887) and extending to ~345' there appears to be a pipe sag
 - Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Line Segment T-1 to T-2 (TB3_882 to TB3_883)

- * This whole line segment is full of debris and needs jetted (cleaned).
 - ♦ Clean the line, re-CCTV and submit the results to my attention at DWQ (Corrected 2/11/2016)
- ❖ At ~210.2' upstream of Manhole T-1 (TB3_882) the tap located at 465 Julia has debris and needs cleaning (Corrected 2/11/2016)
 - ◆ <u>Correct</u> the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- At ~266.9' upstream of Manhole T-1 (TB3_882) the tap located at 473 Julia is full of debris and needs eleaning (Corrected 2/11/2016)
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)

Manhole P-6 (TB3_887)

- ♦ The steps are not in correct alignment, as required by LFUCG Standard Drawings:
 - No. 103, Manhole, Frames, Covers and Steps, which states, "Manhole Steps Shall
 Be Installed in a Vertical Line and Shall Comply with OSHA Standards in All
 Respects"; and (Corrected 2/11/2016)
 - No. 211, Typical Standard Precast Concrete Manhole, which states, "Manhole Steps Shall be Aligned with Straight Side of Concentric Cone Section, and Aligned Over the Outlet Pipe". (Corrected 2/11/2016)
 - Correct the Deficiency, re-vacuum test the Manhole, submit pictures, Field Verification and Test
 Result Sheets of the repairs to my attention at DWQ (Corrected 2/11/2016)

Line Segment V-1 to V-2 (TB3_888 to TB3_889)

- ♣ At ~99.8' upstream of Manhole V-1 (TB3_888) the tap located at 449 Shropshire has dropped on builder's side of easement (Corrected 2/11/2016)
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- At ~159.8' upstream of Manhole V-1 (TB3_888) the tap located at 457 Shropshire has dropped on builder's side of easement (Corrected 2/11/2016)
 - ◆ <u>Correct</u> the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- ★ At ~228.7' upstream of Manhole V 1 (TB3_888) the pipe is deformed at 10 o'clock (Corrected 2/11/2016)
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)
- ♣ At ~340.7' upstream of Manhole V-1 (TB3_888) the line has debris and needs to be cleaned
 - ♦ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2/11/2016)

Manhole V-1to V-2 (TB3_889 to TB3_888) LINE IS CLEAR / NO FURTHER WORK NEEDED

- This line needs cleaned
- The flow channel is full of debris and needs cleaning
 - Correct the deficiency, submit Test Results and Field Verification to my attention at DWQ

Manhole T-3 (TB3_884)

- The flow channel is full of debris and needs cleaning
- Remove the top step
 - Correct the deficiency, and submit Test Results and Field Verification to my attention at DWQ

Manhole U-1 (TB3_885)

- * The Casting is 3" below finished grade.
 - Correct the Deficiency, re-vacuum test the Manhole, submit Test Result Sheets and Field Verification to my attention at DWQ
- Remove top step
 - Correct the deficiency, and submit Field Verification to my attention at DWQ