

Contract No. 42

Emergency Replacement of Sewer Interceptor in

Santa Land Park in the Town of Boonton

Boonton Town, Morris County

Project No. S340821-09

On July, 24 2016, a break occurred in a section of the Rockaway Valley Regional Sewerage Authority's (RVRSA) interceptor sewer in the Santa Land Park located off West Main Street and North Main Street in the Town of Boonton (Figure 2). RVRSA personnel found a sink hole, approximately 15 feet deep and 10 feet in diameter, exposing the portion. Of the collapsed 54-inch gravity interceptor that runs through Santa Land Park. The RVRSA immediately secured the site to ensure public safety. The RVRSA personnel set up and operated a temporary bypass pumping system from Manhole B-12 to B-11 to provide continued conveyance of sewerage flows and prevent discharges to adjacent lands and waterbodies. Repairs to the affected portion of the interceptor system were then completed. Based on the critical nature of the break and the need to quickly restore service of the interceptor system to prevent potential impacts to the environment and public health, emergency repair work was immediately conducted.

After the temporary bypass pumping system was successfully places into service, the RVRSA proceeded to evaluate the nature and extent of the damage to the interceptor system. Based on the evaluation, RVRSA was able to establish the full scope of the necessary repairs and correct the problem. The restoration of the pavement is outstanding.

Project repair work is listed below:

1. Secured the site to ensure public safety, including installation of temporary chain link fencing;
2. Installation of a bypass pumping system to pump sewage flow from Manhole B-12 (upstream of the sewer break) to Manhole B-11 (downstream of the sewer break), a distance of approximately 258 feet. A 5-foot wide by 18-inch deep trench was saw-cut across West Main Street to provide a pipe trench for the bypass piping and heavy-duty street plates to maintain traffic were installed;
3. Installation of a 60-inch pipe plug at Manhole B-12 and installation of a pipe plug in the 54-inch RCP at the pipe break to prevent backflow into the open trench;
4. Relocation of the Town of Boonton's 8-inch and 12-inch water mains to allow for repairs to the 54-inch interceptor. The water mains were relocated approximately 2 feet away from their original location;
5. Removal of underground electrical wiring for lighting at Santa Land Park as required to allow for access for repair of the collapsed interceptor;
6. Continuous on-site staffing by RVRSA personnel to provide monitoring of bypass pumping systems, fueling generators, and site security;

7. Excavation and removal of approximately 60 feet of damaged 54-inch reinforced concrete pipe (RCP);
8. Cleaning and videotaping of 54-inch RCP from the pipe break to the downstream Siphon Chamber (approximately 700 feet);
9. Jetting and removal of debris from the 54-inch RCP;
10. Laser profiling of the 54-inch RCP from the pipe break to the Siphon Chamber to provide more detailed information as to the condition of the pipe for evaluation of pipe repair options;
11. Installation of approximately 60 feet of new 54-inch RCP pipe to replace the collapsed pipe that was removed;
12. Rehabilitation of Manhole B-12;
13. Installation of odor containment and odor control system at Manhole B-11 and Drop Manhole B-12;
14. Extension of the bypass pumping system to the Siphon Chamber to allow for the lining work to be extended through Manhole B-11 to the Siphon Chamber;
15. CIPP lining of the 54-inch RCP from Manhole B-12 (nearest manhole upstream from the interceptor collapse) to the Siphon Chamber;
16. Replacement of pavement and sidewalks/walkways along West Main Street, which were removed for the installation of the bypass piping trench; and replacement of paved walkways in the Santa Land Park and Canal Side Park, which were damaged because of the heavy equipment required for the repair activities and installation of the final course of surface pavement; and
17. Miscellaneous site cleanup and restoration activities, grading/fertilizing/seeding, removal and disposal of debris, stone entrance construction, silt fencing and re-installation of underground electrical wiring for lighting at Santa Land Park.