



BOROUGH OF RUMSON

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Memorandum

Date: January 22, 2019

To: Thomas S. Rogers, R.M.C., Municipal Clerk/ Administrator

Cc: Mayor & Council
Tamila Bumback, Deputy Clerk (via email)

Re: **2018 Year End Engineering Report**

Please find a brief summary of engineering projects addressed during the 2018 calendar year:

Infrastructure Improvements

2017 Curb and Sidewalk Program – East River Road & Ridge Road:

This project consisted of the installation of new curbs and sidewalks on East River Road from Black Point Road to Ridge Road and on Ridge Road from Avenue of Two Rivers to Bingham Avenue. With the completion of this phase of the project, a fully compliant ADA accessible route exists between the Oceanic Library and Rumson Fair Haven Regional High School, Dean Porter, and Forrestdale Schools. The completion of our project allowed Monmouth County's resurfacing of East River Road and Ridge Road to occur within the 2017 construction season. This portion of the project has been completed within anticipated timeframes and budget. Utilizing cost savings from this project, concrete curbing and sidewalk improvements were completed on Carton Street, Parmly Street, Bay Street, and Lakeside Avenue. This construction contract was closed-out in Spring 2018.

2018 Road Improvement Program – Phase 1

This project consisted of the milling and resurfacing of the following Borough streets; Hartshorne Lane, Carton Street, Parmly Street, Lakeside Avenue, Oak Lane, Oakwood Lane, Bay Street, and Black Point Road. A portion of the construction costs for Hartshorne Lane are offset with a \$185,000 grant from the NJDOT Office of Local Aid. Fiore Paving was the lowest most responsive bidder with a total bid amount of \$489,907.18. All work within the original contract has been completed on time and under budget. We anticipate utilizing some of the cost savings to complete much needed pavement repairs on various street as weather conditions permit in early 2019.

2018 Road Improvement Program – Phase 2

This project consists of the installation of new concrete curbs, sidewalks, driveway aprons, and ADA accessible curb ramps on Highland Avenue, Rosalie Avenue, Island Road, and Riverview Avenue. A contract was award to S. Batata Construction in the amount of \$591,867.50. All concrete improvements and related restoration work was completed in mid-November. This included additional curb and sidewalk installation along the east side of Avenue of Two Rivers and curb and drainage repairs on Club Way (paving is scheduled for Spring 2019). The paving on Highland Avenue, Rosalie Avenue, Riverview Drive, and Island Road was completed in mid-December through a cooperative effort with NJNG and NJAW as part of their infrastructure upgrade programs. This contract remains open as we anticipate some minor restoration and sprinkler system repairs will be necessary in the Spring 2019.

2018 Road Improvement Program – Phase 3

The streets in phase 3 are Lafayette Street, Narumsunk Street, Church Street (portions), and Hunt Street. The work will consist of the installation of new curbs, sidewalks, driveway aprons, and ADA accessible curb ramps. We are evaluating the ability to expand the existing angled on-street parking along Victory Park. We are also looking at traffic



circulation on Lafayette Street (north of W. River Road) and Hunt Street for possible one-way orientation. Survey and Engineering design efforts are underway an anticipated construction schedule of Summer 2019.

2018 Road Improvement Program – Phase 4

The streets in phase 4 are Kemp Avenue, Laurel Lane, Elm Lane, and Auldwood Lane. The work will consist of the installation of new curbs, driveway aprons (as needed), and drainage on Kemp Avenue. Survey and Engineering design efforts are underway with an anticipated construction schedule of Fall 2019 or Spring 2020.

Sanitary Sewer Extraneous Flow Investigation & Elimination:

Over the past few years, we have been plagued with very wet weather and have experienced sanitary sewer flows in excess of double those typically observed under normal conditions. This excess flow from groundwater infiltration and illegal sump pump connections has caused pump stations south of Rumson Road to pump nearly continuously for months. While this creates higher operating costs (manpower, electric, maintenance, pump wear/tear/fatigue, etc.) it also resulted in manholes surcharging along Rumson Road. To better understand the cause of the surcharging manholes and develop a base line of pipe condition, we cleaned and televisely inspected the sanitary sewer pipes in two phases. The initial phase completed in July 2017 consisted of Rumson Road (Fair Haven Road to Conover Lane), Conover Lane, the easement between Conover Lane and Buena Vista Avenue, the easement at the end of Elm Lane and Laurel Lane, and Buttonwood Lane East. The pipes were overall in good structural condition with leaking joints to varying severities throughout the inspected areas. While the Contractor was available, we had 31 of the most significant leaking pipe joints internally grouted.

We initiated phase 2 of the sanitary sewer pipe investigation in June and July of 2018. The sanitary sewer pipes on the following streets were cleaned and televisely inspected: Riverside Drive, Wardell Avenue, Ivins Place, Brookside Drive, Woods End Road, Post Road, Buttonwood Lane, Water Way, Rivers Edge Drive, Harbor Drive, Club Way, Fair Haven Road, Sycamore Lane, Kemp Avenue, Laurel Lane, Elm Lane, and Rumson Road. With the two investigative phases complete, we have televisely inspected and cleaned all the sewer pipes tributary to the Buena Vista Avenue Pump Station, approximately 43,000 linear feet! I have enlisted the expert assistance of CME Associates to evaluate the pipe network and provide recommendations for immediate repairs (if needed) and guidance on developing long-term infrastructure improvement programs to reduce extraneous inflow.

In July 2017, Councilman Conklin, Tom Rogers, and I met with New Jersey Environmental Infrastructure Trust (NJEIT) and New Jersey Department of Environmental Protection (NJDEP) to present our concept project for the rehabilitation of nearly 20 miles of gravity sanitary sewer pipe south of Rumson Road. They are a very willing partner due to the problems experienced by the Borough and the significant environmental impact a catastrophic failure would present. We will continue to advance this initiative and pursue available funding sources.

Conover Lane Sewer Pipe Repairs:

During the Phase 1 sewer investigation, we discovered a significant pipe settlement in a segment of pipe on Conover Lane creating a 75% loss in flow capacity. This attributed to some of the upstream problems experienced periodically on Rumson Road. A temporary bypass pump was utilized to improve flow conditions on Conover Lane until conditions permitted the replacement of the misaligned pipe segment. On July 10, 2018, 40' of misaligned sanitary sewer pipe was replaced and put back in service by the end of the day. The repairs proved successful, however the bypass pump was necessary in December 2018 to provide additional conveyance capacity after unusually wet weather in November and December.

Piping Rock Park Improvements:

In 2014 & 2015, the Borough was awarded grants from Monmouth County Parks and Recreation for improvements to Piping Rock Park totaling \$387,000. As with many Borough projects, the improvements at Piping Rock Park have evolved since their inception in 2014. This evolution is typical considering the process of taking a project from concept plan to engineered plans with incorporating much of the feedback received from the community. A 180' x 330' multi-purpose natural grass playing field to accommodate soccer, field hockey, lacrosse, and practice football will be constructed on the western side of the Park. The existing baseball/softball field will be rotated 45° and relocated approximately 60' to the west. This reconfiguration will accommodate a 46/60 baseball/softball field with a 250' outfield. This is similar to the current size, which accommodates all user groups except the "Pony" League, which currently plays at Riverside Park. This plan change allows the existing tennis courts to remain. The existing 911 Memorial near E. River Road will remain in its current location. The KDM 911 Memorial will be relocated to align with the new baseball/softball field and will be prominently featured as you



enter Piping Rock Park from Carton Street. Walking paths will traverse the park connecting the East River Road, Carton Street and Forrest Avenue entrances. All the facilities, including walking paths, will meet current American with Disabilities Act (ADA) standards. A new playground will be installed on the west side of the tennis courts, just north of the current playground. The existing hedges on East River Road and vegetative buffer and fences between the Ridge Road properties are being preserved. The East River Road parking lot will be expanded to provide additional parking with ADA compliant parking facilities. The Carton Street parking lot will be reconfigured to accommodate the new field layout. Traffic circulation will be changed to one-way to make for an overall safer environment.

A contract for construction was awarded to Precise Construction in mid-August. We broke ground on the park improvements shortly after Labor Day. Earthwork, drainage, irrigation utilities, electric, retaining walls, sidewalks, curbs, fences, playgrounds, parking lots and lastly sod were all substantially completed by mid-December. There is some minor re-work which needs to occur behind home plate and behind third base to improve drainage in those areas. Park benches and a picnic table remain to be installed near the playground. Park benches at the 911 Memorial will be replaced and the pavers will be power-washed and a sealant applied. These last elements and final landscaping will be completed as weather and site conditions permit in Spring 2019. The park remains closed to the public for safety and liability precautions until all work is completed.

Grants

The following is a list of grant opportunities we are tracking:

NJDOT Local Aid FY2017 – The Borough was been awarded \$185,000 towards the resurfacing of Hartshorne Lane from Avenue of Two Rivers to Ward Avenue. This work completes the roadway restoration efforts initiated by the New Jersey Natural Gas Company as part of their NJRISE infrastructure program. The paving was completed by Fiore Paving as part of the 2018 Road Program in mid-October 2018.

NJDOT Local Aid FY2018 – This grant application continues the success of our Curb and Sidewalk Improvement Program on East River Road. The proposed project limits are from Black Point Road to Bingham Avenue. The NJDOT Office of Local Aid has awarded the Borough \$534,079.00 for this phase of the project.

NJDOT Local Aid FY2019 – To continue our past successes, we submitted a grant application for W. River Road Curb and Sidewalk Improvements – Phase 3, extending from Bingham Avenue to Third Street. We are waiting on the award announcement.

Other Engineering Efforts

NJAW & NJNG Infrastructure Hardening with new Shrewsbury River Crossings:

Both utilities successfully directionally drilled new transmission pipelines under the Shrewsbury River to Sea Bright through Old Rumson Road right-of-way. The new transmission lines have been in service since early 2017. As part of the environmental permit with NJDEP, a diversion of Green Acres encumbered parkland (pocket park at the end of Old Rumson Road) will need to be completed. The process is being undertaken by both utility companies and the Borough in 2019.

NJNG Main Upgrades:

Throughout the Borough, NJNG has upgraded their natural gas mains to improve service reliability to its customers. As part of their efforts, they resurfaced (either in full or part) 30 Borough streets totaling nearly 8 miles. With the recent paving completed in December, NJNG has addressed all restoration requirements as part of their infrastructure improvement program.

NJAW Main Upgrades:

NJAW has completed main renewals on Highland Avenue, Rosalie Avenue, Riverview Avenue, Island Road, Black Point Road, Cedar Avenue, and Holly Street. Pavement restoration has been also been completed on the impacted streets.

NJFRAMES (NJ Fostering Regional Adaptation through Municipal Economic Scenarios):

NOAA awarded a grant to NJDEP for nearly \$900k to develop a regional plan to address the impacts of coastal hazards within the communities comprising the Two River Council of Mayors. The group will be seeking local hazard



information and recommendations from municipalities for incorporation into the project. We continue to participate in the planning stages of this program.

Deane Porter Pond Dredging:

Through a shared-service initiative with the Rumson Board of Education and Monmouth University, we are advancing professional engineering and environmental permitting efforts associated with the dredging of the drainage pond adjacent to Deane Porter School. Monmouth University has conducted a bathymetric survey to identify dredge material for removal. Najarian Associates has been retained to prepare the site survey, dredge plan, and environmental permits. NJDEP Permit applications were submitted with pond dredging anticipated in Summer 2019.

Monmouth University Marine and Environmental Field Station:

Monmouth University and the Borough of Rumson have advanced initiatives to construct a Monmouth University Marine and Environmental Field Station within the Borough. It was determined, the Municipal Boat Launch would be an optimal location providing students, faculty, and staff quick access to the Navesink River, Shrewsbury River, Sandy Hook Bay, and Atlantic Ocean. The program has expanded to include the Rumson Borough Schools and provide the students opportunities to engage with Monmouth University Faculty and students in environmental and ecological sciences. The project team has met with the NJDEP to review the concept plans in an effort to streamline the environmental permitting process. As part of the Field Station construction, public access, storm/flood resiliency, and functional improvements will also be completed to the Boat Launch and surrounding area. The architectural team of STV (Chincoteague Bay Field Station) has initiated program and space planning efforts with the Monmouth Faculty and Staff. Design efforts will continue through 2019 with Borough participation at various intervals.

Geographic Information System (GIS):

The Borough GIS is utilized daily by myself and the Building Department. As our familiarity with the program grows, we find new ways to implement the resources for mapping, tracking trends, and sharing information.

Grading Plan Reviews & Final Inspection of Residential Properties:

Since January 2018, I have reviewed 65 grading plans (some two or three times) for compliance with the applicable Borough Ordinances. I have also conducted 30 final inspections (and countless progress inspections) along with the recommendations that certificates of occupancy be issued for the completed developments. Based on my records, there are currently 95 active residential construction sites (where grading plan/engineering approval was required) within the Borough of Rumson.

Monmouth County Sponsored Projects

Sea Bright – Rumson Bridge Replacement (S-32) – The project is currently in the Final Engineering phase of the Federal process and the County is advancing community involvement discussions, agency consultations, environmental documentation, design level mapping, and design services concurrently. An updated project schedule is not currently available, however during our last meeting, the County anticipated construction could start by Winter 2020 and continue until Spring 2023.

Oceanic Bridge Replacement (S-31) – The County has begun the Local Concept Development Study stage of the Federal process. An updated project schedule is currently not available, however the County has committed to not starting construction on the Oceanic Bridge until the Sea Bright - Rumson Bridge construction is complete.