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5/14/99

# UTILITY NOTES AND TYPICAL DETAILS (CONTINUED)

WETHERILL ENGINEERING
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 51215.01AA | UC-3B |
| DESIGNED BY: SLK | |
| DRAWN BY: SLK | |
| CHECKED BY: RKM | |
| APPROVED BY: RKM | |
| REVISED: | |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION | |
| UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151 | UTILITY CONSTRUCTION PLANS ONLY |

NORTH CAROLINA PROFESSIONAL SEAL 018981 ENGINEER R. KEITH MURPHY
6/23/2021

NELSON ROAD
(SR 1642)

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

| Public Works - Operations Division STANDARD PROCEDURE Sewer By-Pass Pumping | Standard Procedure No. OPS 047 |
|---|---|
| | Effective: February, 2016 |
| | Supersedes: N/A |
| | Prepared by: Paul Campbell<br>Title: Collections System Operator |
| | Approved: Jim Hallowes<br>Title: Operations Division Manager |

**PURPOSE:**
Sewer By-Pass pumping will serve as a means of removing sewer from manholes and/or main lines so either main line replacement, line point repairs or manhole rehabilitation can take place. These guide lines are in place for Contractors and Town Personnel to follow so Environmental Hazards can be either minimized or eliminated.

**PROCEDURE:**
- By-pass pumping configuration will consist of having (2) pumps on site at all times.
  - These pumps should be sized properly to handle normal and extreme flow conditions.
  - The primary pump will be required to be sound attenuated and the secondary pump can be an open frame pump, but has to be of equal capacity.
  - One Y Manifold with (2) check valves, one connected to each pump should be in place in case of any pump failure or malfunction with the loss of prime.
- Suction manhole and discharge manholes should be identified and plugged.
- When installing plugs, confined space procedures should be followed using the proper entry equipment if the plug cannot be set from outside the manhole.
- All plugged manholes and piping will need to be monitored immediatedly after pump start up and every hour to make sure no leakage occurs during the by-pass operation.
- For extended by-pass pumping where over night pumping is necessary
  - Either staffing or floats may be used but must be monitored by either visual inspections (Hourly) or set up with a dialer system with contact information given to the Collections System Operator.
- Depending on the location of the by-pass, traffic control may need to be in place and should be approved in advance of the pumping operations.
  - Public Works and Public Information Office (PIO) should be notified of any traffic disruptions or detours.
- Location of discharge pipe should be identified getting permission from residents if pipe is staged on private property outside of the right-of-way.
- Pipe road crossings should be in place to minimize any traffic disruptions.
- Before any by-pass pumping can take place, the Contractor is responsible for submitting a by-pass plan for approval.
- Once the plan has been approved and the Contractor has set up the by-pass operations, a Town Representative from Public Works/Utilities must inspect and approve the existing layout and all pumping equipment. A bypass checklist must be completed by both the Contractor and TOC Personnel before the startup of any pumping operations. The Checklist will remain onsite in an Inspection box and updated daily until the completion of the bypass at which time the bypass pumping check list will be closed out. If Projects require multiple days and possibly nights for by-pass pumping, plug removal and reinstallation will need to be inspected and signed off by both the Contractor and TOC staff on a per-case basics at which time normal flow an/or by-pass pumping can commence.
- Once the by-pass pumping has been completed, it is the responsibility of the Contractor to dewater all sewer from all pipes and pumps that were used in the pumping operations.
- The equipment being dewatered can be done using either creek water or potable water. Any pipe broken loose before being dewatered, is an active spill and will need to be cleaned up using the Town's SOP's for Sewer Spills (OPS 006 – SSO Cleanup Procedures).
- In the event of any Emergency and a Spill occurs, the Contractor is responsible for notifiying the Town immediately. The Town of Cary will at such time notify the appropriate State or County authorities if necessary and make a determination as to who will perform the cleanup of the spill.The Contractor will be held responsible for all cost associated with the cleanup. These cleanup standard procedures will be followed to the satisfaction of the County, State and the Town of Cary.

➢ **Contact Information:**
- Paul Campbell – Collections System Operator……919-319-4544
- Tom Lubcker – Wastewater Collections Field Supervisor……..919-319-4558

**TOWN OF CARY**
**WASTEWATER BYPASS PUMPING CHECKLIST**

**CONTRACTOR NAME:** _____
**CONTRACTOR 24 HR EMERGENCY CONTACT NAME:** _____, **PHONE#:**_____
**TOWN OF CARY EMERGENCY CONTACT #:** _____, **TOC STAFF INITIAL:** _____
**BYPASS PUMP SETUP AND INSPECTION: DATE:** _____

**BYPASS PLAN IN PLACE: YES / NO**
**TELEPHONE DIALER INSTALLED & PROGRAMMED: YES / NO**
**TOWN EMERGECY CONTACT INCLUDED IN DIALER CALL OUT LIST: YES / NO**
In accordance with the Town of Cary Sewer Bypass Pumping Standard Procedure, the Contractor shall provide the Town a bypass pumping plan and coordinate an initial inspection of the pump and piping setup prior to initiating a bypass pumping operation. The contractor shall provide the Town a minimum of one hour notice before bypass pumping is desired. Staff from the Town of Cary Public Works or Utilities Department will meet with a representative of the contractor onsite to witness the installation of any sewer line plugs, pump startup, and pump discharge prior to initiating the bypass pumping operation. The contractor shall also provide a one hour notice to the Public Works or Utilities Department when a bypass pumping operation intends to stop, for an inspection of the piping, plug removal, and to ensure proper flow of the sewer system. Once all pumping is complete, verification by TOC staff insuring that all raw sewage has been removed from the piping, by any means deemed acceptable by the Town at which point al pipe can be dismantled and removed. **This checklist shall remain onsite at all times while bypass pumping equipment is setup.**

| BYPASS / DEWATERING | | |