

REQUEST FOR COUNCIL ACTION

Date: February 8, 2016
Item No.: 12.a

Department Approval



City Manager Approval



Item Description: Approve Request For a Noise Variance for the 2016 CIPP Project

BACKGROUND

The City of Roseville Engineering Department is seeking a variance from the City of Roseville's noise ordinance for the 2016 CIPP Lining Project. Staff is requesting this ahead of a contractors request as there are no other options other than night work and staff wants to allow the contractor to proceed as soon as possible ahead of the paving contract that will occur on these streets this summer.

The two areas that staff foresee needing to do work at night are Sherren/Milton Street and Oakcrest Avenue (Attachment A). Sherren/Milton Street is a residential area. The sanitary sewer main that is scheduled to be lined is a 24" Reinforced concrete pipe. Because of the size of the pipe the installation and curing process is much longer than that of smaller and more commonly sized 8" sanitary sewer pipe. The variance will be needed simply because this installation and curing process will take longer than working hours are as defined in the ordinance. Staff will coordinate with the contractor so that the work can either start very early in the morning and end at night or start in the morning and end late at night. The exact timing will not be known until the project is awarded and a contractor is on board.

The second area is on Oakcrest Ave which is in a large commercial area. The sanitary sewer main that is scheduled to be lined is a 10" clay tile pipe. While the installation and curing process for a 10" pipe can be done within a normal working day, staff has learned that contractors typically prefer to line sanitary sewer pipes overnight in large commercial areas. Lining overnight has a number of benefits. First, there is less traffic on the road and so the contractor has less disruptions and interference to deal with. This typically makes the lining goes faster. Second, at night the amount of flow in sanitary sewer mainlines decreases dramatically because the lack of use. This allows an easier bypass set up and puts less strain on the contractor's equipment.

While lining operations are going on at night there will be a constant sound of the boilers running. While this won't be an issue on Oakcrest Ave in the commercial area, it will affect residents along Sherren/Milton Street.

DISCUSSION

City Staff has looked at other alternatives to avoid a variance especially in residential areas but the alternatives have greater impact.

The first alternative is to not complete the sewer lining on this pipe. This option is not feasible as

the pipe is in poor condition and needs to be lined or replaced. Delaying the sewer lining will only risk pipe failure and lining would still need to be done at a later date.

Another alternative is to conventionally dig the pipe. This could be done during normal working hours without a variance. Although no work would be done at night the construction impacts would be very high. The entire street would need to be dug up for likely 6-8 weeks to replace the sanitary sewer pipe and rebuild the road. Access to residents would be much more difficult. Noise and dust from the excavation would be over a much longer period. The cost to do this would likely be 4-5 times what lining the sanitary sewer pipe and mill and overlaying the road would be.

The attached CIPP Construction Information (Attachment B) explains the CIPP process and shows some of the equipment that would be generating some of the noise during these hours. Most of the noise generated after working hours would be from boilers needed to cure the sanitary liner.

Staff would suggest Council consider a noise variance with the following conditions;

- The City and the Contractor notify residents, within 500 feet of the work, of the exact days of work one week prior to beginning the work.
- The contractor limit the overnight work to a two week period for each neighborhood (Oakcrest and Sherren/Milton)
- The contractor must complete any work that can be done without overnight work, such as pipe cleaning or pipe televising, during regular working hours.

Staff will work very closely with the contractor to keep residents updated and work to limit any noise that is made to minimal levels. This sort of work has been done in numerous other cities in similar neighborhoods so contractors are generally aware of these sorts of issues.

As the sanitary sewer system ages and the City of Roseville continues to line sanitary sewer pipe these sorts of requests will continue when large diameter pipes (>18") are being line. A similar request will be coming later this summer for work to be done by Met Council Environmental Services when the line pipe very large diameter pipe (42"-48") near Valley Park and Upper Villa Park.

FINANCIAL IMPLICATIONS

None identified.

STAFF RECOMMENDATION

Consider a variance to extend the working hours for this project.

REQUESTED COUNCIL ACTION

Approve request to extend working hours 2016 CIPP Lining Project.

Prepared by: Jesse Freihammer, Asst. Public Works Director/City Engineer

Attachment A: Public Hearing Notice Letter and Maps
Attachment B: CIPP Construction Information



January 15, 2016

RE: 2016 CIPP Lining Project Variance Hearing

Dear Resident:

The City of Roseville is planning on doing a Sanitary Sewer Main Lining project this summer in your area (See map on back). This project will consist of relining the sanitary sewer mains using a trenchless technology to reline the existing pipe. This construction method allows the City to replace the sewer mains without having to dig them up. Because of the scope of the work some periods of overnight work may be required to complete the project. Any work or noise associated with the overnight work will be a steady hum from the boilers and an occasional truck backing up. By Ordinance, no work can be done between 10 PM and 7 AM without a variance.

This letter is to inform you that a variance is being requested by staff for this project. A hearing for this variance will be at the Roseville City Council meeting on Monday, February 8, at 6 PM at the Roseville City Hall and will be located on the main level in the Council Chambers.

City staff will be presenting the variance request to the City Council and also answering any questions the Council or residents may have. Additional information about the City's Sanitary Sewer Main Lining projects can be found at: <http://www.cityofroseville.com/827/Sanitary-Sewer-Main-Lining>.

All residents within 500 feet of the project area are receiving this meeting invitation. If you are not able to attend the meeting and would like to offer input and/or receive information about what was presented, please contact me via email or phone. I can be reached at:

Email: Jesse.Freihammer@cityofroseville.com

Phone: 651-792-7042

If you have any questions before the meeting please feel free to email or call me directly.

Sincerely,

Jesse Freihammer
City Engineer/Asst. Public Works Director



 - City Sanitary Sewer Main where Overnight work may be required



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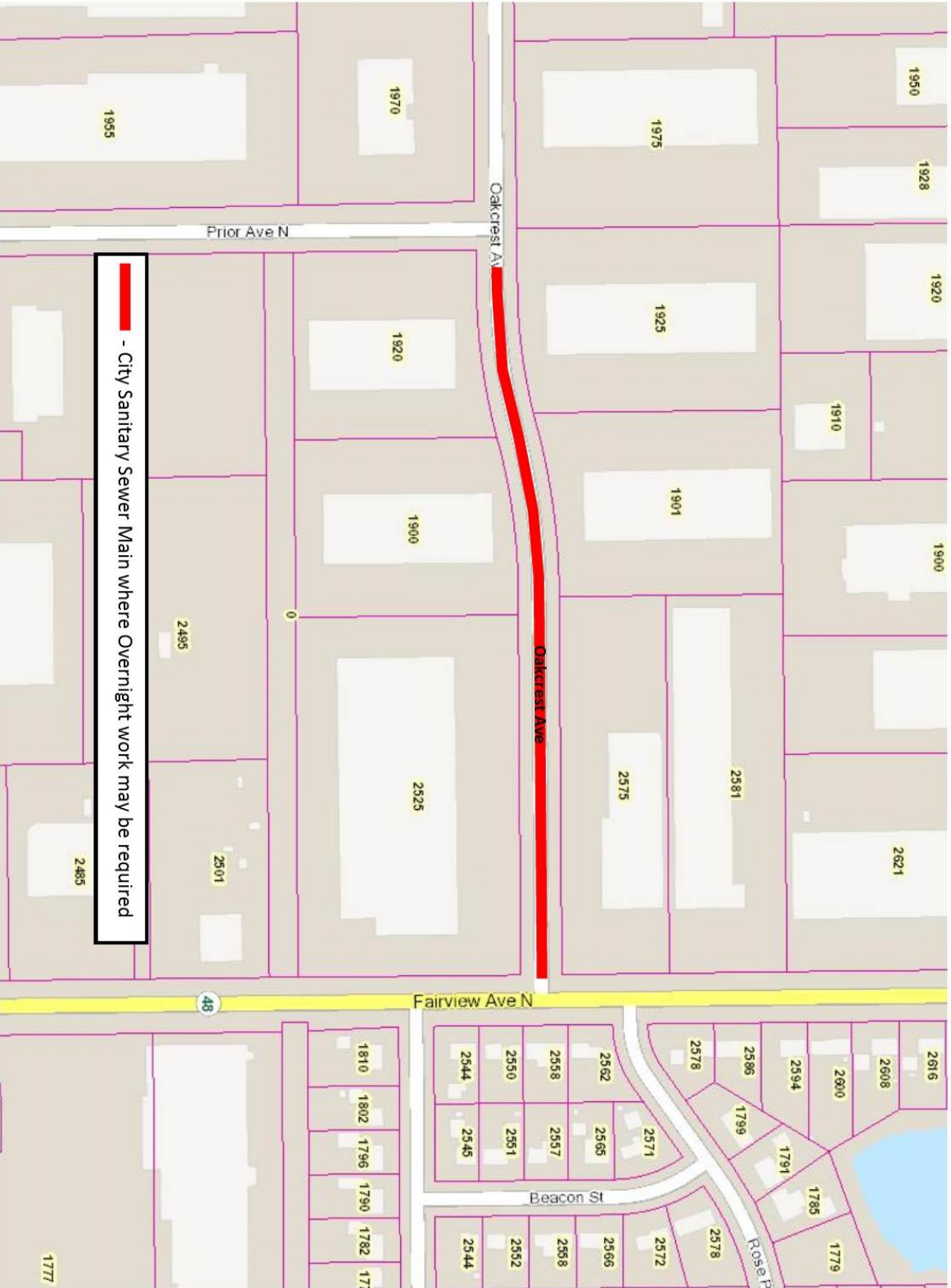
Email: Jesse.Freihammer@cityofroseville.com

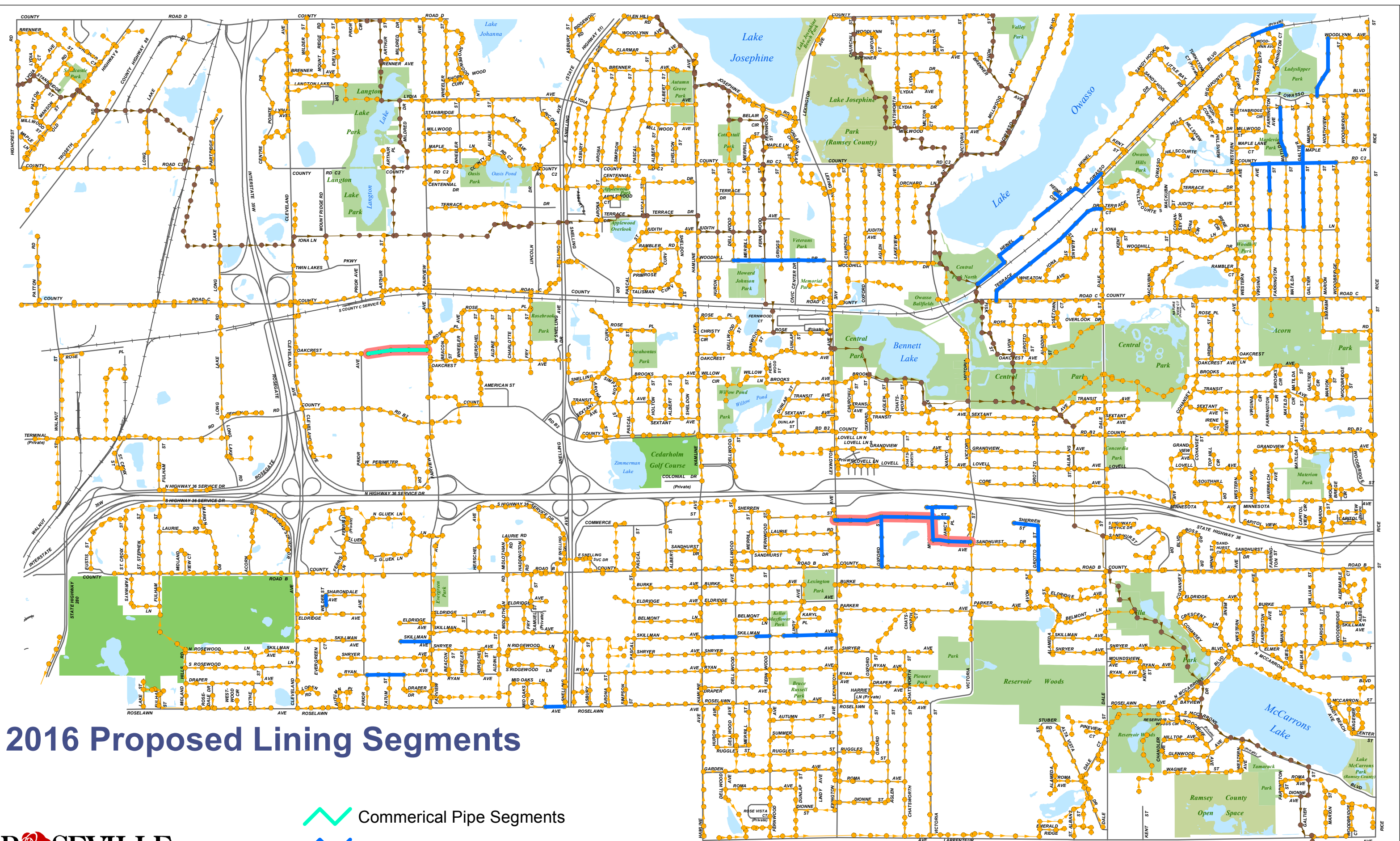
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City Engineer/Asst. Public Works Director





2016 Proposed Lining Segments

-  Commercial Pipe Segments
-  Residential Pipe Segments
-  Areas where night work may be needed

CIPP Construction Information

CIPP lining consists of a number of steps throughout the lining process. First, the sewer main needs to clear so the crews can clean and install the liner. This is done by bypass pumping around the lines. Crews put plugs in the lines and hook up large pumps to pump the flows up and around the sewer main that is to be lined. Below are two examples of what typical bypass pumps look like:



These pumps pump the flow through large black pipes and then dump the flows in a downstream manhole.



These pipes are often laid along the center of the road or along the gutter line. Ideally they are placed along the center so that residents can still access their driveways without having to drive over the pipes. Often-times some sort of ramp can be used or made if vehicles need to get over the pipe. Sometimes also the road needs to be cut and the pipe needs to be buried.

Once the bypass is set up the crews will begin to clean the line. To do this they bring in a large jet/vac truck (like the one below) to clean them.



When the lines have been cleaned the crews insert a camera into the sewer main. They televise the line in order to ensure that it is fully cleaned, to record where the service laterals are, and to verify that there are no obstructions that will interfere with the CIPP lining process.

Once they are ready to line they bring in trucks or trailers with the lining equipment on board. CIPP liners are basically felt bags filled with a resin added. Once the bags are filled with the resin they are ready to be installed. The liner is inverted down the manhole and through the line all the way to the end. Then the liner is filled with steam or boiling water. The steam or water is continuously heated over a determined period of time in order to get the resin to cure and get the final desired product. Below are a couple examples of what these trucks look like.



Most of the preparation work for CIPP lining can be done during a normal work day. Sometimes when the liner size is larger the resin requires more time to cure. During this cure time the machines that are running is the bypass pump and the boilers. Once the line is cured the pipe is cut and the services are reinstated.

For more information on the process there are a number of CIPP Lining videos online. Below are a few that explain the process:

https://www.youtube.com/watch?v=a8mIR_CfLjk&feature=youtu.be

<https://www.youtube.com/watch?v=Xie1Eb-16Lo>