



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

April 5, 2013

Scott Sovers
City of Cedar Rapids
1201 6th St. SW
Cedar Rapids, IA 52404

RE: 15th Avenue SW (North of) Between 4th Street
and 6th Street, Sanitary Sewer Replacement
DNR Project No. S2013-0204

Subject: Variance Request from 567 IAC 64.2(9) and Design Standards Sections 12.4 and 12.6

Dear Mr. Sovers:

After careful and thorough consideration, the Department has approved your March 18, 2013 request for a variance from Iowa Administrative Code Subrule 64.2(9) and Sections 12.4 and 12.6 of the Iowa Wastewater Facilities Design Standards; Section 12.4 describes allowable sanitary sewer pipe materials, and Section 12.6 describes the requirements for the installation of gravity sewers by means of open-cut construction.

Based on the documentation presented by your Engineer, it is the determination of this Department that satisfactory justification has been presented to warrant the granting of a variance for the installation of approximately 213 linear feet of 8-inch HDPE gravity sewer by means of pipe bursting. The requested variance is deemed to be reasonable and necessary pursuant to the Iowa Code section 455B.181.

The facts presented for the project present unique circumstances and the variance is therefore justified to provide the narrowest exception possible to the provisions of the rule in accordance with Rule 561 IAC 10.5. Since the project planning and construction may last more than one year, the variance is considered to be of a permanent nature. The validity of this variance approval shall last for a period of one year from the date of the construction permit in accordance with Rule 561 IAC 10.5.

This decision is based on our review of justification presented to support the request. Our concurrence with the request is based on the Department's finding that the resulting project will provide substantially equivalent effectiveness as would be provided by technical compliance with the design standard on this issue.

Please feel free to call Jeremy Enano at 515-242-5521 or email him at jeremy.enano@dnr.iowa.gov if you have any further questions.

Sincerely,



Shelli Grapp
Water Quality Bureau Chief

Cc: Patrick Schwickerath, Snyder & Associates
DNR FO #1
DNR Sewage File 6-57-15-0-01
DNR Legal Services

VARIANCE REQUEST Iowa Department of Natural Resources			
1.	Date:	April 5, 2013	14. Decision <i>App'd</i> Date: <i>4/8/13</i>
2.	Reviewer/Engr.:	Jeremy Enano	
3.	Date Received:	April 5, 2013	
4.	Facility Name:	City of Cedar Rapids STP	
5.	Facility Number:	6-57-15-0-01	
6.	County Number:	57 (Linn)	15. Appealed Date:
7.	Program Area:	CP (Wastewater)	
8.	Facility Type:	C01 (Collection/Transport)	
9.	Subject Area:	393 - Pipe Reaming/Bursting - Materials & Joints 394 - Pipe Reaming/Bursting - Installation	
10.	Rule Reference:	567-64.2(9) a	
11.	Design Std. Ref.:	12.4 (Materials) & 12.6 (Details of Construction)	
12.	Consulting Engr.:	Snyder & Associates	
13.	Variance Rule:	567-64.2(9) c	
16. <u>Description of Variance Request:</u> <p>The City of Cedar Rapids is requesting variance from Sections 12.4 and 12.6 of the Iowa Wastewater Facilities Design Standards. Section 12.4 describes allowable sanitary sewer pipe materials. Section 12.6 describes the requirements for the installation of sewers by means of open-cut construction. The City's intent is to replace a 6-inch VCP sewer with an 8-inch HDPE pipe installed by means of pipe bursting. The proposed sewer material and installation method is not covered in the Iowa Wastewater Facilities Design Standards.</p>			
17. <u>Applicant's/Consulting Engineer's Justification:</u> <p>The City's intent is to replace approximately 213 linear feet of 6-inch VCP sewer with 8-inch HDPE installed by means of pipe-bursting.</p> <p>The 6-inch sewer is located in close proximity to a new Public Works Facility that is under construction. Currently, there is a large stockpile of excavated material over the 6-inch.</p> <p>Replacement of the sewer is scheduled to occur prior to completion of the Public Work project. Installation of the new sewer by pipe bursting may be less expensive than open-cut construction as the stockpiled material located over sewer would not need to be temporarily relocated during placement of the sewer, and moved back after installation was complete.</p> <p>The trenchless installation method may be less disruptive to construction activities undertaken as part of the Public Works project.</p> <p>The use of HDPE is common for the proposed pipe bursting installation method [specifics about proposed pipe are in project specifications]</p>			
18. <u>Department's Justification:</u> <p>Recommend variance approval:</p> <p>Recommend variance approval for the installation of approximately 213 linear feet of 8-inch HDPE pipe by means of pipe bursting.</p> <ul style="list-style-type: none"> - Slope: The sewer will be installed at the existing grade (approximately 0.94%); the existing grade is steeper than the minimum slope required for an 8-inch. - The procedure has been previously approved by the Iowa DNR. 			

19. Precedents Used:

- City of Lowden, 10/2/12
- City of Grimes, 3/10/10
- City of North Liberty, 5/2/05

20. Staff Reviewer:

[Signature] *[Signature]*

Date: 4/5/13

21. Supervisor:

Satya Chennupati

Date: 4/5/13

22. Authorized by:

Shelli Grapp

Date: 4-8-13

VARIANCE REQUEST

1. City of Cedar Rapids
1201 6th St. SW
Cedar Rapids, IA 5244
Project Representative: Mr. Scott Sovers, P.E., Project Engineer, 319.286.5547
2. Iowa Wastewater Facilities Design Standards, Chapter 12, Iowa Standards for Sewer Systems, Sections 12.4 & 12.6. Materials & Details of Construction respectively. These sections of the Design Standards detail the allowable sanitary sewer material and excavation, bedding, installation and backfill for sanitary sewers.
3. In lieu of the Materials called for in Section 4 of Chapter 12 of the Iowa Wastewater Facilities Design Standards "HDPE (high-density polyethylene) Pipe" shall be utilized where specified in the plans for the 15th Ave. SW (North of) Between 4th Street and 6th Street, Sanitary Sewer Replacement project.

In lieu of the Details of Construction called for in Section 6 of Chapter 12 of the Iowa Wastewater Facilities Design Standards "Pipe Bursting" shall be utilized where specified in the plans for the 15th Ave. SW (North of) Between 4th Street and 6th Street, Sanitary Sewer Replacement project.
4. Proposed sewer SW-2-328 was damaged during the Flood of 2008. The sewer is planned to be replaced as part of a flood restoration project funded by FEMA. Sanitary Sewer SW-2-328 is in close proximity to the new Public Works Facility that is under construction. To minimize costs for replacing the sewer this construction is scheduled to take place prior to paving the new Public Works Parking Lot. The project documents include a bid alternate to install 8" HDPE sanitary sewer (pipe SW-2-328) via pipe bursting. The bid alternate utilizing pipe bursting and HDPE pipe would be utilized in lieu of open cut installation of AWWA C900 pipe if it is the lowest cost alternative. HDPE is the pipe material commonly used for pipe bursting sewer installations. The primary reason that pipe bursting and HDPE pipe would be the lowest cost alternative is that there is currently a large stockpile of excavated construction material overtop of the existing sewer.
5. The City of Cedar Rapids has had numerous DNR construction permits issued over the last five years. A detailed list of these permits is currently unavailable.
6. The City of Cedar Rapids has installed other HDPE sanitary sewer within the City limits via pipe bursting previously.
7. At this time we are unaware of other public agency or political subdivisions of the state or federal government that also regulate the activity in questions, or might be affected by the granting of the variance being requested.


8. At this time we are unaware of any person or entity that would be adversely affected by the granting of the petition.
9. The following individuals have knowledge of relevant facts concerning the variance being requested:
- Mr. Scott Sovers, P.E., Project Engineer, Public Works Dept., City of Cedar Rapids, IA, 1201 6th St. SW, Cedar Rapids, IA 52404, Office: 319.286.5547
 - Mr. Patrick Schwickerath, P.E., Project Engineer, Snyder & Associates, 5005 Bowling St. SW, Suite A, Cedar Rapids, IA 52404, Office: 319.362.9394
10. The following individuals from the City of Cedar Rapids and Snyder & Associates have approved this variance request:



Scott Sovers

3/15/13

Date

	<p>I hereby certify that this Engineering Document was prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Iowa.</p> <p><u>Patrick D. Schwickerath</u> <u>03/15/13</u> Patrick D. Schwickerath, P.E. Date</p> <p>License Number 18652</p> <p>My License Renewal Date is December 31, 2013</p> <p>Pages or sheets covered by this seal: <u>1-2</u></p> <p>_____ _____ _____</p>
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Notification: We are not aware of any additional persons that need to be notified of this variance request. This paragraph is to serve as our written statement to the Department attesting that no additional notice is required.