




CITY of NOVI CITY COUNCIL

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**Agenda Item 8
June 18, 2007**

SUBJECT: Consideration of a request from applicant for Chase Bank for a variance from Section 11-68(c)(2) of the Design and Construction Standards for standard water main pipe materials to allow the use of HDPE pipe to facilitate a directional bore. The applicant is proposing a 3,930 square-foot bank on the northeast corner of Beck Road and Grand River Avenue.

SUBMITTING DEPARTMENT: Engineering Department 

CITY MANAGER APPROVAL 

EXPENDITURE REQUIRED	N/A
AMOUNT BUDGETED	N/A
APPROPRIATION REQUIRED	N/A
LINE ITEM NUMBER	N/A

BACKGROUND INFORMATION:

Tom Moffatt, applicant for Chase Bank, is requesting a variance associated with a proposed bank to be located on the northeast corner of Beck and Grand River. The contractor for Chase Bank has attempted to extend water main to the site by boring beneath Beck Road using the typical jack and bore method. The contractor attempted to bore at three locations and each time hit refusal. The applicant assumes that rock material that cannot be bored was encountered each time. Therefore, the applicant is proposing to install the water main using a directional drilling machine, which may be able to avoid the obstruction. This method requires the use of a flexible pipe, such as high density polyethylene (HDPE) as proposed in this case, as opposed to rigid ductile iron which is the City standard water main pipe material. Because HDPE is flexible, it will glance off of hard material and seek the path of least resistance through softer soils.

HDPE has been used in Novi where flexible pipe was required. The City used HDPE for the 24-inch water main crossing under I-96 a few years ago. Maintenance of HDPE can pose some challenges, but they do not outweigh the overall benefit of being able to extend water main in areas where it would otherwise be impossible.

The Engineering Department recommends approval of the alternate pipe material given the specific circumstances this applicant has encountered during construction (see Engineering Department variance response form). The Department of Public Works recommends approval of the variance with a few conditions related to construction (see Tim Sikma variance response form). The City Attorney refers to the Engineering, DPW, and Planning departments for review of the request, and proposes to require the property owner to provide the City with an additional or different Maintenance and Guarantee Bond, given the variation in type of pipe and means of installation (see Beth Kudla memorandum dated June 8, 2007). The Fire Department, Building Division, Planning Division and the Landscape Architect have all indicated no objections to the use of the alternate pipe material.

RECOMMENDED ACTION: Consideration of a request from applicant for Chase Bank for a variance from Section 11-68(c)(2) of the Design and Construction Standards for standard water main pipe materials to allow the use of HDPE pipe to facilitate a directional bore. The applicant is proposing a 3,930 square-foot bank on the northeast corner of Beck Road and Grand River Avenue.

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Capello				
Council Member Gatt				
Council Member Margolis				

	1	2	Y	N
Council Member Mutch				
Council Member Nagy				
Council Member Paul				



Request for Variance Design and Construction Standards

Applicant Information

Name: CHASE - Tom Moffatt
Address: 111 E. COURT ST, 2ND FLOOR
FLINT, MI 48502
Phone No: 810-237-3965

Engineer Information

Name: WILCOX ENGINEERING
Address: 37987 INTERCHANGE DR
FARMINGTON HILLS, MI
Phone No: 248-478-3690

Applicant Status (please check one):

- Property Owner Developer Developer / Owner Representative
 Other _____

Project Name CHASE
Project Address/Location 47350 GRAND RIVER AVE.

Variance Request DIRECTIONAL BORE WATER LINE UNDER BECK RD.
Justification (attach additional pages if necessary) _____

CONTRACTOR INDICATES BORE + JACK HAS MET REFUSAL (BOULDERS)
3 TIMES, AND WOULD LIKE TO PROPOSE HDPE PIPE TO
FACILITATE A DIRECTIONAL BORE.

INTERNAL USE

Date Submitted: 5/31/07

Code Section from which variance is sought: SEC. 11-68(c)(2)(a.) OF THE DCS.

Submittal Checklist: Twelve (~~12~~²) sets of plans (folded and to scale)

One (1) copy of plan on 8.5 x 11 size paper

\$100 Filing Fee



CITY OF NOVI
Engineering Department

MEMORANDUM

To: John Hines, Building
 Barbara McBeth, Planning
 David Beschke, Landscape Architect
 Beth Kudla, Attorney
 Frank Smith, Fire Department
 Benny McCusker, DPW

From: Benjamin Croy, Engineering

Date: June 4, 2007

Re: Variance from Design & Construction Standards
 Chase Bank (Beck/Grand River)

Attached is a request for a Variance from the Design and Construction Standards. Please review for a future City Council Agenda. In accordance with Section 11-10 of the Ordinance, the following three conditions **must be met** for a variance to be granted by Council:

- 1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant;
- 2) The alternative proposed by the applicant would be adequate for the intended use and would not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and,
- 3) The granting of the variance would not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.

Following review of the variance, check the appropriate box below and provide your signature. If you have no basis for recommending either approval or denial, please check the "No Exceptions Taken" box. If you are recommending approval or denial of the request, **please also complete the matrix on the reverse of this form.** Please return to my attention by **June 8th.**

ROUTING

Delivered To	Returned On	RECOMMENDED ACTION			Signature
		Approval*	Denial*	No Exceptions Taken	
Ben Croy (Engineering)					
John Hines (Building)					
Barb McBeth (Planning)					
David Beschke (Landscape Arch)					
Beth Kudla (City Attorney)					
Frank Smith (Fire Department)					
Benny McCusker (DPW)	6/11/07	√			<i>William McCusker</i> <i>la</i>

If recommending approval or denial, please complete the following:

1. Would a literal application of the substantive requirement of the ordinance result in an exceptional, practical difficulty to the application? Yes No

Explain:

2. Would the alternative proposed by the applicant be adequate for the intended use and not deviate from the performance that would be obtained by strict enforcement of the standards? Yes No

Explain: Provide for two tracing wires to be installed and brought to the surface.

Verify joint HPE and ductile connection with water and sewer department prior to installation.
Install manholes on each side of road at connection point.

3. Would granting the variance not be detrimental to public health, safety, or welfare, and not injurious to adjoining or neighboring property? Yes No

Explain:



CITY OF NOVI
Engineering Department

MEMORANDUM

To: John Hines, Building
 Barbara McBeth, Planning
 David Beschke, Landscape Architect
 Beth Kudla, Attorney
 Frank Smith, Fire Department
 Benny McCusker, DPW

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Following review of the variance, check the appropriate box below and provide your signature. If you have no basis for recommending either approval or denial, please check the "No Exceptions Taken" box. If you are recommending approval or denial of the request, **please also complete the matrix on the reverse of this form.** Please return to my attention by **June 8th.**

ROUTING

Delivered To	Returned On	RECOMMENDED ACTION			Signature
		Approval*	Denial*	No Exceptions Taken	
Ben Croy (Engineering)	6/8/07	X			
John Hines (Building)					
Barb McBeth (Planning)					
David Beschke (Landscape Arch)					
Beth Kudla (City Attorney)					
Frank Smith (Fire Department)					
Benny McCusker (DPW)					

* SEE REVERSE

If recommending approval or denial, please complete the following:

1. Would a literal application of the substantive requirement of the ordinance result in an exceptional, practical difficulty to the application? Yes No

Explain:

Given the specific circumstances this site has encountered, the alternate installation method is warranted, and therefore an exception to the standard pipe material can be permitted.

2. Would the alternative proposed by the applicant be adequate for the intended use and not deviate from the performance that would be obtained by strict enforcement of the standards? Yes No

Explain:

This method and material has been used in the industry when warranted.

3. Would granting the variance not be detrimental to public health, safety, or welfare, and not injurious to adjoining or neighboring property? Yes No

Explain:

There would be no effect if installed properly.

June 8, 2007

30903 Northwestern Highway
P.O. Box 3040
Farmington Hills, MI 48333-
3040
Tel: 248-851-9500
Fax: 248-851-2158
www.secrestwardle.com

Elizabeth M. Kudla
Direct: 248-539-2846
bkudla@secrestwardle.com

Benjamin Croy, Civil Engineer
CITY OF NOVI
45175 West Ten Mile Road
Novi, Michigan 48375-3024

**Re: Chase Bank (Beck/Grand River)
Request for Variance from Design and Construction Standards
Our File No. 55142.NOV**

Dear Mr. Croy:

Our office has reviewed the proposed request for variance from the City's Design and Construction Standards Section 11-68(c)(2)(a) to permit the use of HDPE Pipe to facilitate a directional bore of the water main because the contractor has hit boulders in the proposed path of the water main installation.

Section 11-68 (c)(2)(a) requires:

(2) Materials.

- a. Minimum pressure. All water mains shall meet or exceed the specifications required in this article, except for concrete water mains which shall be designed for one hundred fifty (150) pounds per square inch minimum pressure. Concrete water mains shall be designed for one hundred seventy-five (175) pounds per square inch minimum working pressure. The following materials are approved for use in water mains:
 1. Concrete conforming to AWWA C301, lined cylinder type;
 2. Ductile iron conforming to ANSI A21.51 (AWWA C151), Class 54 or better.

Section 11-10 of the Ordinance Code permits the City Council to grant a variance from the Design and Construction Standards with respect to proposed public improvements, when the property owner shows all of the following:

- (1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant;
- (2) The alternative proposed by the applicant shall be adequate for the intended use and shall not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and
- (3) The granting of the variance will not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.

Applicant argues that the type of pipe required by the design and construction standards is not appropriate for the installation given the subsurface conditions that are prohibiting a "bore & jack" installation process. Applicant asserts that this request meets the requirements for an exception and/or a variance under the ordinance. In the event that City Council finds that the standards for a variance or exception have been met, our office sees no legal impediment to granting the variance or exception, subject to the condition that the Engineering Department, the DPW, and the Planning Department, have also reviewed and approved the proposed plan. City Council may consider whether it is appropriate to require the property owner provide the City with an additional or different Maintenance and Guarantee Bond given the type of pipe used and the means of installation.

If you have any questions regarding the above, please call me.

Very truly yours,

Elizabeth M. Kudla

EMK

cc: Maryanne Cornelius, City Clerk
Barb McBeth, Deputy Community Development Director
Benny McCusker, DPW Director
John Hines, Building Official
Frank Smith, Fire Department
David Beschke, Landscape Architect

Benjamin Croy, Civil Engineer
June 8, 2007
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Thomas R. Schultz, Esquire

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