Administrative Recommendation

City of Plymouth
201 S. Main
Plymouth, Michigan 48170-1637

www.plymouthmi.gov
Phone 734-453-1234
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To: Mayor & City Commission
From: Chris S. Porman, City Manager
CC: *s:*
Date: March 31, 2026
RE: Grant Application Resolution of Support

Background

The City Commission may be aware that the City Administration has been working with our Engineers to complete a grant application for funding from the State of Michigan to evaluate the cause of flooding and develop options to mitigate or reduce the effects of high water on critical infrastructure. The scope of work includes the creation of a hydraulic flood routing model along Tonquish Creek and developing potential solutions to flooding in downtown and residential areas. The model will be used to determine the capacity of the Tonquish Creek at both the open and closed sections of the waterway. Also, as part of this project the City Engineer will develop and evaluate options that mitigate or reduce the amount of flooding and determine their probable cost. If the city is successful in obtaining the grant, it will provide $350,000 in state money towards the engineering and will require a local match of $70,000, which 20% of the project total. It should be noted that this project would start as soon as July 2026 as this would be awarded during the State's current fiscal year.

In order for the City to submit the grant application it is necessary for the City Commission to adopt a Resolution establishing a request for funding for the project. We have attached the draft letter from the City's Engineer Shawn Keough with additional project details, a draft grant application, and a map of the Tonquish Creek drain for your reference.

Recommendation

The City Administration recommends that the City Commission adopt a Resolution to establish a request for funding for the evaluation of flooding along Tonquish Creek and develop potential solutions under the State High Water Infrastructure Grant Program.

We have attached the proposed Resolution for the City Commission to consider regarding this matter. Should you have any questions in advance of the meeting please feel free to contact me.

Wade Trim Associates, Inc.
25251 Northline Road • Taylor, MI 48180
734.947.9700 • www.wadetrim.com

March 31, 2026

City of Plymouth
201 South Main Street
Plymouth, MI 48170

Attention: Chris Porman, City Manager

Re: City of Plymouth High Water Flood Mitigation
Downtown Plymouth and North of Burroughs/Harding and Coolidge
Proposal for Engineering Services to Support High Water Infrastructure Grant Application

Dear Chris Porman:

For nearly 50 years, the City of Plymouth has experienced significant flooding in downtown Plymouth and adjacent residential areas during rain events that coincide with high water levels in the Tonquish Creek. The high waters that travel through the Tonquish Creek crest the banks of the creek just a few hundred yards from downtown Plymouth where the open portion of Tonquish Creek becomes enclosed through downtown Plymouth. Residential areas downstream of the enclosed portion of Tonquish Creek also experience localized flooding as the high waters overflow the banks of the Tonquish Creek near the residential area of Burroughs/Harding and Coolidge.

To evaluate potential solutions to the flooding, the City has asked Wade Trim for help to prepare a grant application to the State of Michigan's High Water Infrastructure Grant program. If successful, the grant would cover certain professional evaluation services and develop high water mitigation options to help mitigate or reduce the flooding in the affected areas of the City.

BACKGROUND

The City of Plymouth has had multiple flooding events along the Tonquish Creek over the last 50 years. The first flooding event during that period occurred in 1978 and caused extensive flooding and damage in the downtown area. The flooding in 1978 occurred as the result of a rainfall with a 100-year return frequency. The Tonquish Creek is under the jurisdiction of the Wayne County Drainage Board of the Tonquish Creek.

In 1979, at the request of the Drainage Board, Wade Trim prepared a hydraulic report which identified several deficiencies in the Tonquish Creek system and recommended an alternative to alleviate the identified deficiencies. At that time, the hydraulic report identified that the flood was likely caused by restricted capacity of the drain, which may have been the result of the following:

1. The enclosed portion of the drain is undersized.
2. Potential blockage of a portion of the enclosed section.
3. Downstream backwater conditions.

The 1979 report recommended alternatives, including the construction of an off-line detention area upstream of the downtown area and improvements to the channel capacity of the Tonquish Creek. Those improvements were not implemented.

After nearly 30 years passed, the second large event occurred in August 2007, causing localized flooding in an area north of Burroughs between Harding and Coolidge. Based on flood photos taken by affected residents, and follow-up survey data, the estimated flood elevation at that location was approximately 706.3, which is close to the 100-year flood elevation in this area of the City. A third notable event occurred in the summer of 2011, causing localized flooding again in the same area north of Burroughs between Harding and Coolidge. The most recent event caused significant damage to many businesses in the downtown business district and brought back memories of the 1978 event.

PROPOSED HIGH WATER MITIGATION – SCOPE OF SERVICES

We have prepared the following anticipated scope of services to complete the evaluation of the Tonquish Creek system and present options for mitigating the flooding in the downtown area and the residential area north of Burroughs between Harding and Coolidge.

TOPOGRAPHIC SURVEY

Over the past 30 years of working in the City, Wade Trim has collected a large amount of topographic information related to the Tonquish Creek and the many road crossings. We will need some time to compile this data and to make sure that it is still reflective of current conditions, but we are not starting this task from scratch. We will verify all roadway crossing elevations, including the upstream and downstream invert elevation at each crossing, the crown elevation of each culvert and the top of roadway elevation at each crossing. We will also collect typical cross-section data for each reach of open drain to make sure this is properly reflected in the model. This topographic survey also includes the collection of similar data upstream and downstream of the City to make sure that the FEMA Flood Insurance Study (FIS) Model reflects those current conditions properly.

VERIFY EXISTING CONDITIONS, WATERSHED CHARACTERISTICS, AND CHANNEL CHARACTERISTICS

We will obtain a working copy of the current FEMA FIS Model. We will walk the full length of the Tonquish Creek within the City boundary and in the areas upstream and downstream of the City to make sure that we understand characteristics such as the amount of vegetation along the banks, the typical shape (cross-sections) of the drain, as well as identify key outfalls that contribute flow to the Tonquish Creek.

VERIFY EXISTING CONDITIONS AT ROADWAY CROSSINGS

We will visit each roadway crossing to document the type of culvert, or structure carrying the flow under the City and County roadways within our study area. We will document the inlet and outlet configurations at each crossing to make sure that this information is properly reflected in the FEMA FIS Model.

VERIFY EXISTING CONDITIONS – DRAIN ENCLOSURE THROUGH DOWNTOWN

We will walk through the enclosed portion of the Tonquish Creek to make sure that it is free of debris and note any unusual findings. Please note that we have already obtained the record drawings for the enclosed portion of Tonquish Creek through the downtown. We will compare our topographic data collection to the record drawings. We do not suspect that much has changed since it was built, but we want to make sure it is properly reflected in the FEMA FIS Model.

MODEL DEVELOPMENT AND UPDATES

We will utilize the existing topographic information and newly collected topographic data, along with the observations gathered during the existing condition tasks described above to update the current FEMA FIS Model. We will appropriately review all model updates with the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

ALTERNATIVE MITIGATION OPTION ANALYSIS

We will use the updated model to develop various options that mitigate or reduce the amount of flooding in the affected areas. At this time, we envision that the alternative analysis will include a combination of options, including the following:

- Upstream storage
- Channel Improvements (i.e., cleaning, widening, etc.)
- Road crossing improvements (to improve the flow through the downstream culverts)
- Upsizing the enclosed drain
- Bypassing a portion of the flow

Please note that all the alternative analysis options will be evaluated in a manner that does not negatively affect the properties downstream.

COORDINATION WITH EGLE

Once the alternative analysis has been completed, the City will likely want to share the proposed options with EGLE and discuss the feasibility of each option to gain an idea of what may be permitted or not permitted. We will assist the City in scheduling a meeting with EGLE to present the options and receive feedback.

PREPARATION OF PRELIMINARY OPINIONS OF PROBABLE CONSTRUCTION COST

We will prepare a high level cost estimates for the various options that may mitigate or reduce the flooding. These cost estimates will be very preliminary in nature given that they will be based on concepts rather than full designs. While these estimates will be preliminary in nature, we feel it is important to understand the order of magnitude of cost so that the public is aware of what it might cost to mitigate or reduce the flooding problem.

PUBLIC MEETING AND INTERACTION WITH LOCAL BUSINESSES ALLOWANCE

Because the most recent flooding occurred approximately one year ago, we feel it is important to interact with the local businesses that were significantly affected by the flooding. We have also included time to participate in an open public meeting to discuss our findings and our recommendations.

PROJECT MANAGEMENT AND GRANT ADMINISTRATION ASSISTANCE

The grant period is anticipated to be a total of two years (24 months). We have included time to provide regular coordination of our scope of services, including communication with the City, as well as our monthly accounting and scheduling activities. We also anticipate that we may be asked to review/contribute to the quarterly grant reports that the City Administration will be required to prepare and submit.

PRELIMINARY FEE ESTIMATE – TONQUISH CREEK HIGH WATER FLOODING MITIGATION EVALUATION

We have prepared the following fee estimates for the City's consideration based on the description of the work described above.

Tonquish Creek High Water Mitigation Services Allowances	Estimated Fee
Topographic Surveying Allowance	$70,000
Verify Existing Conditions, Watershed Characteristics, and Channel Characteristics	$10,000
Verify Existing Conditions at Road Crossings	$10,000
Verify Existing Conditions – Drain Enclosure through Downtown	$10,000
Model Development and Updates	$50,000
Alternative Mitigation Option Analysis	$100,000
Coordination with EGLE to discuss Feasibility of Options	$15,000
Coordination with Wayne County and Drainage District Board	$5,000
Preparation of Preliminary Opinions of Probable Construction Cost (OPCC)	$25,000
Public Meeting and Interaction with Local Businesses Allowance	$10,000
Project Management and Grant Administration Assistance	$20,000
Wade Trim Engineering Services Subtotal	**$325,000**
Report Allowance and Documentation	$25,000
Tonquish Creek High Water Flooding Mitigation Evaluation Fee Estimate	**$350,000**

Please note that we have no time or scope to go through the official FEMA Letter of Map Revision (LOMR) process, or to make corrections (LOMC) if we should find that to be necessary. We have also not included any formal design or construction phase engineering fees or services as part of this proposal. If there is a mitigation option that the City decides to pursue following completion of the grant, we can prepare a separate proposal for the appropriate services once the next steps have been better defined. No permit applications are anticipated as part of this evaluation.

PRELIMINARY HIGH WATER INFRASTRUCTURE – TONQUISH CREEK EVALUATION PROJECT SCHEDULE

We have prepared the following preliminary project schedule to correspond to the requested grant schedule:

- Authorization to Proceed from City — Anticipated July 2026
- Topographic Survey Data Collection — Third Quarter 2026
- Existing Conditions Verification — Third and Fourth Quarter 2026
- Model Development/Update — Third Quarter 2026 and First Quarter 2027
- Alternatives Analysis — First Quarter through Third Quarter 2027
- Coordination/Review with EGLE — Fourth Quarter 2027
- Coordination/Review with Wayne County — Fourth Quarter 2027
- Preliminary Cost Estimates, Final Report — Fourth Quarter 2028
- Grant Closeout — Second Quarter 2028

Please note that some tasks may be completed quicker than others.

AUTHORIZATION REQUESTED

If the City is selected for a High Water Infrastructure Grant and successfully signs a grant agreement with EGLE, we would respectfully request that the City Commission authorize Wade Trim to formally begin work on the scope of services, as described above, for a Not to Exceed Fee of **$350,000**.

As always, our team's actual effort will be billed monthly in accordance with the actual hours worked and our current Rate Schedule. If extra work is required beyond the scope of this proposal, we will notify the City Manager and Assistant Director of Municipal Services immediately and provide an estimate for any additional work that may be required at that time.

We hope this letter is helpful to the City Administration and City Commission. If anyone has any questions in advance, please do not hesitate to call me on my cell at 313.363.1434. We continue to appreciate the opportunity to help the City improve their infrastructure and look forward to working closely with you during the design phase of this project. We wish the City good luck on its grant application!

Very truly yours,

Wade Trim Associates, Inc.

Shawn W. Keough, PE
Senior Vice President

SWK:jlb
BDXPLY
20260327_PORMAN_2026 HIGH WATER MITIGATION EVAL PROP LETTER.DOCX
Enclosure

cc: Adam Gerlach, Assistant Director of Municipal Services, City of Plymouth

EGLE

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Water Resources Division

State High Water Infrastructure Grant
2026 Special Request for Proposal

Name of Agency/Organization: City of Plymouth, Michigan

Eligible Applicant type: ☐ Regional Council of Government ■ Local Unit of Government

☐ Local unit of government in partnership with public or nonprofit organization

Address: 201 S. Main Street City: Plymouth ZIP: 48170

Applicant Contact Name:	Adam Gerlach
Title:	Assistant Director of Municipal Services
Phone Number:	(734) 453-7737
Email Address:	agerlach@plymouthmi.gov
Authorized Representative Name:	Chris Porman
Title:	City Manager
Phone Number:	(734) 453-1234
Email Address:	cporman@plymouthmi.gov
Project Title:	Downtown Plymouth High Water Mitigation
Project Start/End Dates:	
Project Location Including County:	City of Plymouth, Wayne County, Michigan
Latitude and Longitude Coordinates:	Lat: 42'22'11.79" N Long: 83'28'13.99" W
U.S. Congressional District	06
State Senate District	13
State House District	22
Great Lakes or Connecting Waterway	Tonquish Creek, Wayne County

Project Description

A. Project Overview

In one (1) to three (3) sentences, summarize the project purpose, key activities, and expected impact.

The City of Plymouth has experienced significant flooding in the center of its downtown and in a residential location (Burroughs and Harding) as a result of high water elevations along the Tonquish Creek. The project will evaluate the reasons for the flooding and develop potential nature based mitigation options to flooding and high water in downtown Plymouth and the residential area near Burroughs and Harding. The high water and flooding create a dangerous situation for pedestrians, vehicles that use the City public right of ways. The high water and flooding have caused extensive damage to businesses and property within the influence of the high waters of Tonquish Creek. In the residential area, several residences experience basement flooding and property damage.

B. Project Need

Provide a concise description of project scope and how the project addresses the impacts and vulnerabilities presented by severe weather events, with a focus on projects that address flooding, coastline erosion, urban heat, and stormwater management.

The project will involve the development and use of a hydrologic and hydraulic flood routing model along Tonquish Creek from upstream of the City of Plymouth to a point approximately 0.5 miles downstream of the City of Plymouth. The model will be used to determine the capacity of the Tonquish Creek at both open and closed sections of the waterway. Restrictions will be identified. Mitigation options will be evaluated to determine if downstream improvements could reduce the risk of flooding. Additional options to evaluate may include bypassing of flow along another route, and creating in-system storage to reduce the peak flow rates. Upstream evaluation options for reducing the runoff and potential storage during high water events will also be evaluated. Each option will be documented, with an opinion of probable construction cost and presented for public comments/potential implementation.

C. Project Details

Provide a clear description of the proposed project tasks, activities, outcomes, and work products. The description should provide additional detail beyond the Project Tasks and Schedule table (below) and describe the project's community support, work that this project builds on, and readiness for implementation.

Complete the table below, outlining the proposed project tasks and schedule. Projects may have a 12, 18, or 24 month timeframe.

D. Project Details

Tasks	Jul. – Sep. 2026	Oct. – Dec. 2026	Jan. – Mar. 2027	Apr. – Jun. 2027	Jul. – Sep. 2027	Oct – Dec 2027	Jan. – Mar. 2028	Apr. – Jun. 2028
1.								
2.								
3.								
4.								
5.								
6. Submit Quarterly Reports to the State Contact as prescribed by the Grant Agreement.	X	X	X	X	X	X	X	X

E. Organizational Capability

Briefly explain your organization's ability to manage the grant. List the staff who will work on the project, including their roles and relevant experience. Identify who will oversee contractual service providers or outside partners.

The City of Plymouth has administered multiple EGLE grants in the past, most recently including the Drinking Water Asset Management grant and the Storm Water, Asset Management, and Wastewater (SAW) grant. City staff and our consultants all have experience administering public grants. The City of Plymouth Department of Municipal Services will manage the reporting and administration, as well as provided quarterly reports, with contributions and oversight from the City Finance Department, City Engineering consultants and City Manager's office.

Project Budget

Download and use the Budget Form available on the Great Lakes Water Levels Web page: Michigan.gov/EGLE/about/organization/water-resources/submerged-lands/great-lakes-water-levels.

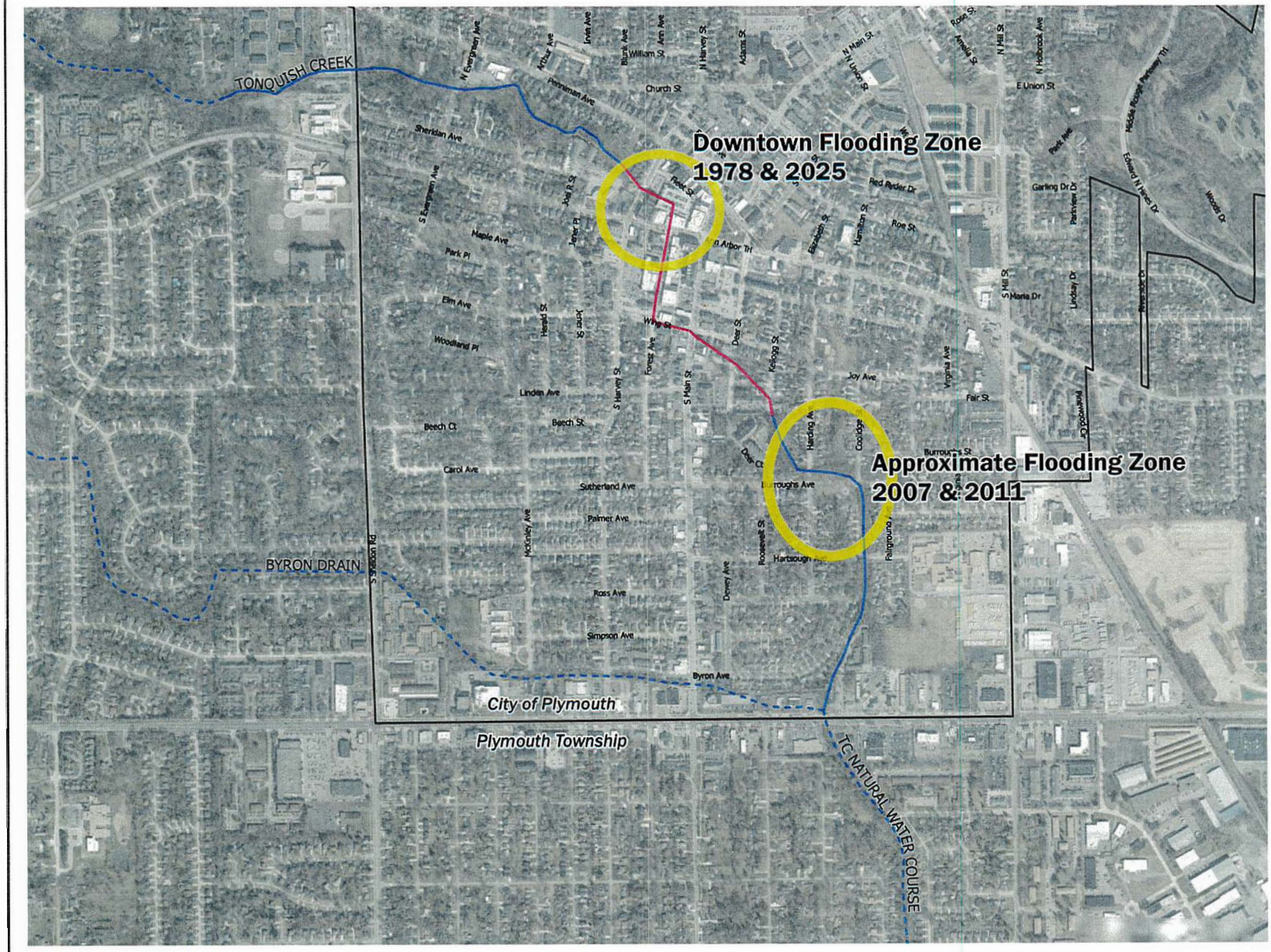
When completing the Budget Form, select one (1) of three (3) cost accounting approaches for project indirect costs. Indirect accounting options include:

1) The applicant's federally negotiated indirect rate, which must be accompanied by a Negotiated Indirect Cost Rate Agreement (NICRA);
2) A 15 percent (%) de minimis rate; or
3) Zero indirect expenses for projects that do not require any reimbursement of indirect costs.

Required Attachments

Please provide the following items as attachments with your application:

- Project location map for proposed project.
- Proof of Audit
    - Applicants must provide documentation of financial stability by providing proof of a financial audit within 24 months of the announcement of this grant funding opportunity. The audit date is based on the audit period and not the date of the audit or audit letter.
- Resolution or Letters of Support
    - A Resolution of Support is required for applications from local units of government or other partner organizations. A sample Resolution of Support is available on the Great Lakes Water Levels Web page: Michigan.gov/EGLE/about/organization/water-resources/submerged-lands/great-lakes-water-levels.
- Letters of Commitment
    - Provide any letters or commitments of support from partner organizations.



Tonquish Creek
City of Plymouth

Flood Locations

- Open Channel
- Closed Channel
- Natural Water Course
- Parcels
- Plymouth City Limits

0 1,000 Feet

March 2026

High Water Infrastructure Grant

Source: Wayne County, 2024.

WADE TRIM

RESOLUTION

The following Resolution was offered by Commissioner _____ and seconded by Commissioner _____.

WHEREAS, high water from Tonquish Creek has presented consistent issues in the downtown and residential areas in the City of Plymouth and;

WHEREAS, high water has at times impeded access to emergency and public services to downtown businesses and private residents, constituting a public hazard and;

WHEREAS, the Michigan Department of Environment, Great Lakes, and Energy is currently seeking grant applications as part of the Michigan High Water Infrastructure Grant program and;

WHEREAS, the City of Plymouth wishes to submit a High Water Infrastructure Grant application in support of activities to mitigate high water impacts in downtown Plymouth;

WHEREAS, the City is committing to a match in the amount of $70,000, which is 20% of the not to exceed amount of $350,000 in engineering fees;

NOW, THEREFORE, BE IT RESOLVED THAT the City Commission of the City of Plymouth does hereby support the Downtown Plymouth High Water Mitigation Infrastructure Grant Application,

BE IT FURTHER RESOLVED, that the Plymouth City Commission hereby authorizes City Department of Municipal Services Assistant Director as the applicant and City Manager as the authorized representative in the development and submission of a Michigan High Water Infrastructure program grant application.