



## Legislation Text

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File #: 16-1095, Version: 1

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Resolution to Accept a Hazard Mitigation Assistance Grant and Appropriate Funds from FEMA for a Project to Create an Opening in the Railroad Berm to Reduce the Floodplain of Allen Creek (\$3,085,550.00) **(8 Votes Required)**

Attached for your review and action is a resolution to approve a grant agreement between the City of Ann Arbor and the Federal Emergency Management Agency (FEMA) to accept a Hazard Mitigation Grant for 75% of the flood mitigation portion of a project to design and construct railroad berm openings at the outlet of Allen Creek.

### Stormwater Background

In 2007, City Council approved a Flood Mitigation Plan:

[http://www.a2gov.org/departments/systems-planning/planning-areas/water-resources/floodplains/Documents/FloodplanMitigationPlan\\_Mar07.pdf](http://www.a2gov.org/departments/systems-planning/planning-areas/water-resources/floodplains/Documents/FloodplanMitigationPlan_Mar07.pdf)

One of the recommendations of the Flood Mitigation Plan was to study the Allen Creek railroad berm:

*Mitigation Objective Project 51: Railroad Berm Fill Removal Examine ways to remove the berm located between Depot St. and the Huron River, as well as other portions of the railroad berm in the Allen Creek corridor, to allow floodwater to travel to the river without a major barrier impeding the flow, acting like a dam. Examine the costs of creating a terraced rail system. Compare costs estimates to complete project with the estimated costs of removal/relocating structures that may be outside of the floodplain if the berm is removed.*

The railroad berm is oriented perpendicular to the overland drainage flow pattern of Allen Creek and causes the floodplain depth in this area of the City to be as deep as 10 feet. Upstream of the influence of this berm, flood depths are more typically in the 3 to 5 foot range.

In December of 2013, the City and its consultant, OHM-Advisors, completed a Feasibility Study to determine if it was possible to create openings in the railroad berm to accommodate passage of floodwaters and to allow pedestrians to cross safely under the railroad to get to the park facilities to the north. The study determined that such dual openings are feasible and a preferred concept was selected. The complete feasibility study is attached and also available at <http://www.a2gov.org/departments/systems-planning/planning-areas/water-resources/Pages/Data-and-Information.aspx>. The Feasibility Study indicated that it is possible to lower the floodplain elevation in the area by as much as 6.5 feet as well as to accommodate non-motorized access under the railroad. One of the options, that includes pedestrian access, was determined to be acceptable to Michigan Department of Transportation (MDOT - owner of the railroad), and was selected as the preferred option.

The study also compared the project cost to the decreased cost associated with the lowered risk to the structures currently in the floodplain. There are numerous structures within the influence of the railroad berm located near the mouth of Allen Creek. By lowering the floodplain elevation by 6.5 feet,

31 structures would have reduced flood risk and some would no longer be within the floodplain. Substantial reductions in flood insurance rates could be realized by the affected properties.

In 2012, the City of Ann Arbor completed a Hazard Mitigation Plan that references the 2007 Flood Mitigation Plan. The FEMA approved City of Ann Arbor 2012 Hazard Mitigation Plan makes the City eligible for Hazard Mitigation Grants.

In the spring of 2016, City Staff was invited by the Michigan State Police-Emergency Management Division (MSP-EM) to apply for a phased FEMA Hazard Mitigation Grant for 75% of the flood mitigation portion of the project cost to design and construct the railroad berm openings.

On June 27, 2016 the MSP-EM provided City Staff with a FEMA Hazard Mitigation Assistance Grant agreement for the first phase of a two phase project to create openings in the railroad berm. Phase one will consist of the engineering design, development of construction plans, and preparation of the phase two hazard mitigation grant application. Phase two will consist of construction of the project. The phase two FEMA grant funding is conditional on an approvable phase two grant application.

Matching funds for this FEMA Hazard Mitigation Grant have been established in the approved City of Ann Arbor Capital Improvement Plan (split between design FY 2017 and construction FY 2018) Stormwater Utility Capital Budget. The FEMA grant will cover 75% of the stormwater portion of this mitigation project. The grant federal and non-federal contribution is shown below:

**Total FEMA (federal) contribution: \$2,314,163.00**

**Total City (non-federal) contribution: \$771,387.00**

**Total estimated cost of this mitigation project: \$3,085,550.00**

#### Non-motorized Transportation Background

The North Main-Huron River Corridor Vision Task Force made the following recommendation in its September 2013 "Vision for the Future" Report:

*So long as it is deemed financially feasible by the Allen Creek Railroad Berm Feasibility Study: The under-rail pedestrian passage to allow pedestrian access through the berm should be built north of Depot Street between 4th Avenue and N. Main Street in conjunction with the City's flood mitigation efforts. As such, the project will also include a non-motorized/pedestrian tunnel that could be part of a future Allen Creek Greenway.*

This improvement is also recommended in the Non-motorized Transportation Plan and there is a general desire within the community to provide a shared-use non-motorized path through the railroad berm from the Main St/Depot St. area to the Huron River/DTE site area.

The cost of the non-motorized/pedestrian tunnel is not included in the FEMA grant. The current total project estimate is estimated at \$4,305,000. Approximately \$1,219,450.00 of the project cost is related to the non-motorized/ pedestrian access. Funding for the non-motorized/pedestrian portion of phase one has been programmed in the Alternative Transportation Fund Capital budget (0061). Funding for phase two of the non-motorized/pedestrian portion has several potential funding sources, including a potential Transportation Alternatives Program (TAP) grant through the Southeast Michigan Council of Governments (SEMCOG) and MDOT, but will have to be determined prior to the Phase 2 FEMA Grant application.

Project cost breakdown by phase:

**Phase 1 - Engineering Design**

FEMA Grant	\$293,899.00
Stormwater Fund	\$ 97,966.00
Transportation Funds	\$156,135.00
Phase 1 - Subtotal	\$548,000.00

**Phase 2 - Construction**

FEMA Grant	\$2,020,264.00
Stormwater Fund	\$ 673,421.00
Transportation Funds	\$1,063,315.00
Phase 2 - Subtotal	\$3,757,000.00

<b>Total</b>	<b>\$4,305,000.00</b>
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Grant funds will be available for the life of the project regardless of fiscal year. The City's Stormwater and Floodplain Management Program Coordinator will handle grant management.

Phase one is estimated to take one year to complete. Phase 2 is estimated to take one year to complete, with construction occurring in summer of 2018.

**Budget Impact**

The proposed work completed through this grant will implement a recommendation of the 2007 Flood Mitigation Plan, which recommends opening the railroad berm to allow floodwater to travel to the river. Funding for this project is available in the approved FY17 and the proposed FY18 Public Services Stormwater Capital Budget.

**Sustainability Framework**

The proposed work completed under this project furthers the Sustainable Systems and Safe Community goals of the City's Sustainability Framework.

Prepared By: Jerry Hancock, Stormwater and Floodplain Programs Coordinator

Reviewed By: Craig Hupy, Public Services Area Administrator

Approved By: Howard S. Lazarus, City Administrator

Whereas, The railroad berm near the mouth of Allen Creek is oriented perpendicular to the flow of flood water and causes the floodplain depth to be as deep as 10 feet. Upstream of the influence of this berm, flood depths are more typically in the 3 to 5 foot range;

Whereas, Opening the railroad berm to reduce flood depth is a recommendation of the City of Ann Arbor 2007 Flood Mitigation Plan (project #51) and the City of Ann Arbor 2012 Hazard Mitigation Plan;

Whereas, There is also an improvement recommended in the Non-motorized Transportation Plan and general desire within the community to provide a shared-use non-motorized path through the railroad berm from the Main St/Depot St. area to the Huron River/DTE site area;

Whereas, In December 2012, the city hired OHM-Advisors to study the feasibility of opening up the railroad berm near the mouth of Allen Creek and compare the project cost to the decreased cost associated with the lowered risk to the structures currently in the floodplain and analyzed the feasibility of including pedestrian access within the berm opening project;

Whereas, The feasibility study determined that it is feasible to open the railroad berm;

Whereas, If the berm was opened up, the floodplain would drop by 6.5 feet and 31 structures would have reduced flood depth and risk;

Whereas, Several structures would no longer be within the floodplain and substantial reductions in flood insurance rates could be realized by the affected properties;

Whereas; The preferred recommendation from the feasibility study proposes a large culvert to pass flood water and another for pedestrian passage at a cost of \$4,305,000.00;

Whereas, FEMA determined that only the flood mitigation aspect of the project could be funded through the hazard mitigation grant program;

Whereas, The cost attributable to flood mitigation is \$3,085,550.00 and the cost attributable to pedestrian access is \$1,219,450.00;

Whereas, The North Main-Huron River Corridor Vision Task Force recommended an under-rail pedestrian passage to allow pedestrian access through the berm be built north of Depot Street between 4th Avenue and N. Main Street in conjunction with the City's flood mitigation efforts;

Whereas, SEMCOG and MDOT administer the federally funded Transportation Alternatives Program (TAP) which provides resources to install non-motorized improvements such as the shared-use connection and the tunnel contained in the feasibility study preferred alternative;

Whereas, \$156,135.00 of funding for the non-motorized/pedestrian portion of phase one has been approved in the Alternative Transportation Fund (0061) capital budget. Funding for phase two of the non-motorized/pedestrian portion has several potential funding sources, including a potential Transportation Alternatives Program (TAP) grant, but will have to be determined prior to submission

of the Phase 2 FEMA Grant application;

Whereas, In Spring 2016, the City was invited to submit a Hazard Mitigation Grant application to FEMA;

Whereas, The City was notified by letter dated June 27, 2016 that FEMA awarded the City of Ann Arbor a \$2,314,163.00 grant which represents 75% of the flood mitigation portion of project cost;

Whereas, Funds for the City's \$771,387.00 match have been programmed in the City of Ann Arbor Capital Improvement Plan and (split between design FY 2017 and construction FY 2018) Stormwater Utility Capital Budget, if so approved by Council; and

Whereas, The Stormwater and Floodplain Program Coordinator will handle grant management;

RESOLVED, That the City accept and appropriate the Federal Emergency Management Agency grant of \$2,314,163.00 and appropriate the City's matching funds of \$97,966.00 for phase one from the approved Stormwater Capital Budget and \$156,135.00 from the approved Alternative Transportation Capital Budget to the Major Grant Fund (Fund 00MG);

RESOLVED, That if successful in the phase two application process, matching funds of \$673,421.00 be appropriated from the FY18 Stormwater Capital Budget, if so approved by council, to the Major Grant Fund (Fund 00MG);

RESOLVED, That City Council authorize City Staff to submit the Phase 2 Hazard Mitigation Grant application to FEMA, and accept the grant for construction of this project;

RESOLVED, That City Council authorize City Staff to submit a Transportation Alternatives Program (TAP) grant application to SEMCOG and MDO T for the non-motorized/pedestrian improvements, such as the shared-use connection and tunnel portion of this project; and

RESOLVED, That City Council authorize the Mayor, City Clerk and City Administrator to execute all documents necessary to complete the Grant requirements for both the design and construction phases of this project, after approval as to form by the City Attorney.