SUBJECT: Approval to award an amendment to the engineering services agreement to Orchard, Hiltz & McCliment for additional design engineering services related to the Brookfarm Park Streambank Stabilization Project in the amount of $9,784 for the design of a pathway connecting Ripple Creek with Village Oaks Elementary and additional grading in the park.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division

CITY MANAGER APPROVAL: 

<table>
<thead>
<tr>
<th>EXPENDITURE REQUIRED</th>
<th>AMOUNT BUDGETED</th>
<th>ADDITIONAL AMOUNT REQUIRED</th>
<th>LINE ITEM NUMBER</th>
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<td>$1,671 (NC 2)</td>
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<td>$9,784 TOTAL</td>
<td>$0 TOTAL</td>
<td>$2,934 TOTAL to be included in future Budget Amendment</td>
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BACKGROUND INFORMATION:

A design engineering contract was awarded to Orchard, Hiltz & McCliment in July 2011 for the design of this project which includes the following improvements in and adjacent to Brookfarm Park:

- Streambank stabilization at multiple locations along Ingersoll Creek
- Stabilization at the confluence of Ingersoll Creek and Bishop Creek
- Hydrologic/Hydraulic evaluation of existing and proposed conditions
- Rehabilitation of footings for the existing pedestrian bridge crossing Ingersoll Creek

During the design phase of the project, staff identified an opportunity to include a pathway segment identified as a high priority neighborhood connector in the Non-Motorized Master Plan (segment NC 2) as part of this project. This path segment would extend from the south end of Ripple Creek Road to the existing foot bridge over Ingersoll Creek and connect to the existing path on Village Oaks Elementary School property. This 8-foot wide path would be located along the western edge of the maintained portion of the park, and would provide a valuable pedestrian connection between the school and the residential neighborhoods to the north. The estimated construction cost for segment NC 2 is $38,700.
Following discussions with the Parks, Recreation and Cultural Services (PRCS) and Community Development Departments, another pathway was identified as a potential improvement to the park. This path would run along the top of the streambank (new top of bank following the streambank improvements) to provide better access adjacent to Ingersol Creek. The estimate construction cost for the pathway segment within the park is $24,000. The attached sketch shows the two proposed pathways within the park.

The streambank stabilization project design includes the removal of some of the bank’s soil to create a benched streambank as a measure to better stabilize the eroded streambank, as shown in the attached sketch. This method of streambank stabilization results in a large quantity of excess soil. PRCS has requested that the excess soil that would have been hauled off-site be placed within the park and graded to help eliminate some low areas that are causing ponding within Brookfarm Park. The cost to prepare a grading plan that uses the excess soil within the park is less than the cost to haul and dispose of the soil, therefore staff recommends regrading the park.

The attached scope and estimate from Orchard, Hiltz & McCliment has been provided for the design of the pathways within the park (NC-2 and along the stream) and development of a grading plan for the park to decrease the amount of excess soils to be hauled off the site.

**RECOMMENDED ACTION:** Approval to award an amendment to the engineering services agreement to Orchard, Hiltz & McCliment for additional design engineering services related to the Brookfarm Park Streambank Stabilization Project in the amount of $9,784 for the design of a pathway connecting Ripple Creek with Village Oaks Elementary and additional grading in the park.

| Mayor Gatt | 1 | 2 | Y | N |
| Mayor Pro Tem Staudt | |
| Council Member Casey | |
| Council Member Fischer | |

| Council Member Margolis | 1 | 2 | Y | N |
| Council Member Mutch | |
| Council Member Wrobel | |
Authorization for Additional Services #1

Project: Engineering Services for  
BROOKFARM PARK STREAMBANK STABILIZATION SERVICES  
Design, Contract Administration and Construction Observation Services  

Date: 1-26-2012

Description of Additional Services
To date, the following extra work items that have come up:
1. Pre-Application Permit fees - This item includes $100 in pre-application meeting fees with the MDEQ.
2. MDEQ Joint Permit fees – This item includes $500 in joint permit fees for the Brookfarm Park site.
3. Additional sidewalk work for the Brookfarm Park site – Based on an estimated sidewalk area of 5,100 sq.ft. (1,020 feet in length) with a unit cost of $4.50/sq.ft., the estimated construction cost is $22,950. Using the City’s fee curve, this equates to $2,983.50 in additional engineering fees.
4. Additional survey and grading design for soccer field spoils leveling – Our effort to complete a spoils leveling plan to meet the soccer field needs $6,200. This effort includes:
   - Survey of the soccer field located in the Brookfarm Park ($1,500)
   - Base plan preparation of Brookfarm Park site ($1,000)
   - Grading plan preparation of soccer field site ($2,500)
   - Contract quantities & specifications for additional soccer field work ($500)
   - Hydraulic modeling to verify impacts of spoils leveling in floodplain, if needed ($700)
This cost assumes the following:
- There will be no under drain or storm sewer required to drain the site, and that drainage can be achieved by surface drainage through swales toward the outlet.
- Revisions of plans will be provided based on a City review of 50% and 100% plans. Six (6) hours of engineering time has been allocated to make plan revision based on the comments.
- The additional hydraulic modeling will only be required if the spoils are leveled within the existing floodplain.
- The proposed design is effectively a "base model" soccer field design and does not include additional park features such as sprinkler systems, park benches, striping plans, or soccer goal installations. If these features are to be incorporated into the design, additional effort will be required.

Original scope of work:
[Provide itemized list of tasks related to scope change, and provide cost associated with each task]

- See attached scope of work

Amount authorized for original scope: $19,600.00
Proposed scope of work:
[Provide itemized list of tasks related to scope change, and provide cost associated with each task]

- Permit fees - This item includes $100 in pre-application meeting fees with the MDEQ.
- MDEQ Joint Permit Fees – This item includes $500 in permit fees for the MDEQ Joint Permit.
- Additional sidewalk work for the Brookfarm Park site – Using the City’s fee curve, this equates to $2,983.50 in additional engineering fees.
- Additional survey and grading design for soccer field spoils leveling – Our effort to complete a spoils leveling plan to meet the soccer field needs $6,200.

Proposed budget amount for new scope: $29,383.50

Based on the revised scope of services, we request authorization for an increase of $9,783.50 to the amount authorized under the previous scope of services.

Approved By
Orchard, Hiltz & McCliment, Inc.

__________________________
[Signature]

Timothy Kuhns, Project Manager

CITY OF NOVI

__________________________
[Name, Title]  

__________________________
[Date]