City of Norman, OK

Municipal Building
Council Chambers
201 West Gray
Norman, OK 73069

Master

File Number: K-1516-71

File ID:	K-1516-71	**Type:**	Contract	**Status:**	Consent Item
Version:	1	**Reference:**	Item No. 14	**In Control:**	City Council
Department:	Public Works Department	**Cost:**	$246,752.00	**File Created:**	11/03/2015
File Name:	Contract with Freese and Nichols for the Design of Multiple May 2015 Storm Permanent Repair Projects			**Final Action:**	

Title: CONTRACT K-1516-71: A CONTRACT BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND FREESE AND NICHOLS IN THE AMOUNT OF $246,752 FOR THE DESIGN OF MULTIPLE MAY 2015 STORM PERMANENT REPAIR PROJECTS AND BUDGET APPROPRIATION FROM THE EMERGENCY RESERVE FUND.

Notes: ACTION NEEDED: Motion to approve or reject Contract K-1516-71 with Freese and Nichols i nthe amount of $246,752; and, if approved, authorize the execution thereof and appropriate $246,752 from the Emergency Reserve Fund (010-1001-411.40-97) to Professional Services/Consultant-Other (010-5010-429.40-09).

ACTION TAKEN:_____

Agenda Date: 11/24/2015

Agenda Number: 14

Attachments: K-1516-71, Engineering Design Costs and Estimates, May Rainfall Graph, Damages Map, Projects being designed, Sites being Evaluated, Purchase Requisition

Project Manager: Tim Miles, Capital Projects Manager

Entered by: rachel.warila@normanok.gov

Effective Date:

History of Legislative File

Ver-sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:

Text of Legislative File K-1516-71

body

BACKGROUND: From the time period of May 5th to May 24th, 2015, the City of Norman experienced an EF-1 tornado and multiple flash flooding events. The attached graph, prepared by The National Weather Center, illustrates a historic level of flooding and rainfall in Norman in May 2015. Over 23 inches of rain fell in Norman in May of 2015, or nearly 10 more inches of rain than the previous May, 1957 rainfall record in Norman of 13.43 inches.

According to the National Weather Center, at least five of those rainfall events in May 2015 involved flash flood conditions. Flash floods can be very damaging to the City's infrastructure, particularly roads, bridges and storm

water systems. With each flooding event in May 2015, the City encountered more infrastructure damage and road closures. At one point in May, 35 of Norman's roads were closed to traffic due to damage or high water. Most of these roadways are located in rural east Norman. The Public Works Department has continually tracked an inventory of damaged roads and bridges. To date, 66 damage locations from the May 2015 storms have been identified as shown on the attached map. By July 31, City staff in collaboration with Cleveland County crews had completed temporary repairs to open 14 public roads and only one public road remained closed to traffic. The total cost to repair the City's infrastructure is currently estimated to be up to $3 million dollars. The City's cost for recovery from the tornado and hail storms was an additional $665,000.

City staff has worked closely throughout May 2015 with officials from Oklahoma Emergency Management (OEM) and the Federal Emergency Management Agency (FEMA) regarding storm damage assessments and the potential for state and federal disaster relief financing. Mayor Cindy Rosenthal declared a local disaster by resolution on May 19, 2015. Governor Mary Fallin declared a state disaster by resolution on May 26, 2015. President Obama established a Presidential Disaster Declaration for Cleveland County on May 26, 2015 for the period of May 5-24, 2015, making the City eligible for up to 87.5% reimbursement (75%-federal; 12.5% state) for debris removal from the May 6, 2015 tornado and infrastructure repairs caused by the May 5-24, 2015 floods.

The City currently has a robust street maintenance program including funding from the General Fund, Capital Fund and the 2010 Street Maintenance Bond Program Fund. City staff from the Public Works Department/Street Division administers all of those urban and rural road improvement programs annually. The City's paving crew performs many miles of asphalt paving of rural roads each year, particularly in rural east Norman. City crews collaborate closely each year with Cleveland County crews to maximize resources. The City also recently received two grants for a total amount of $17 million from the Community Development Block Grant (CDBG) Disaster Relief funds administered through the Oklahoma Department of Commerce for road repairs in east Norman due to damage from the 2012 wildfires and the 2013 tornado in that area of Norman. For those reasons, city staff does not have the additional capacity to manage the temporary and permanent repairs to 66 roads, bridges and other infrastructure in Norman in compliance with FEMA disaster relief guidelines. Therefore, city staff solicited interest from national-caliber firms who specialize in Disaster Recovery Management Services and the FEMA Public Assistance (PA) Program.

On June 9, 2015, Council approved Contract K-1415-141 with Tetra Tech, Inc. in the amount not to exceed $500,000, for the Disaster Recovery Management Services related to infrastructure damages sustained in Norman from the May 5-24, 2015 weather events. Due to Federal requirements, Tetra Tech is not eligible to also prepare engineering plans for the permanent repairs necessary to further the City's disaster recovery.

DISCUSSION: The City Public Works Department with some assistance from Cleveland County has been completing temporary and permanent repairs for the majority of the previously mentioned 66 damage sites. Approximately eight to ten permanent repair projects have been identified that will require engineering design for various improvements depending on location, including reinforced concrete boxes (RCB); pre-engineered bridges; block channel lining repair; and sheet pile retaining walls. The scope of these major projects will require procurement of contractors through the competitive bid process. This process requires complete construction plans for each project. Currently five projects are ready to move forward with design including:

- Site #7: Rock Creek Road (East) - 156th Avenue NE to 168th Avenue NE - Prepare culvert plans to replace the existing crossing with a 2-10'x5' RCB or equivalent pre-engineered span bridge. Prepare plans to adjust roadway profile as necessary.

- Site #9: Post Oak Road, 108th Avenue E to 120th Avenue E - Prepare plans to replace the existing crossing with a 2-14'x10' RCB or equivalent pre-engineered span bridge.

- Site #11: Rock Creek Road,168th Avenue NE to 180th Avenue NE - Prepare plans to replace the existing culvert with a 3-8'x6' RCB or equivalent pre-engineered span bridge.

- Site #17: 1129 Whispering Pines Drive; Imhoff Channel Liner Repair - Prepare plans for the

replacement of channel lining starting south of 1129 Whispering Pines and extending to the terminus of the existing lining.

- Site #28: 72nd Avenue NE south of Tecumseh Road - Prepare sheet pile retaining wall plans for the WPA bridge on three of the wings.

A map of these five locations is attached.

Hydrology and hydraulic studies are currently being completed by Tetra Tech on the remaining major damage locations, which will determine the scope of these additional locations. Staff currently estimates between all or some of the following sites will require complete engineering design:

- Site #1: Franklin Road at Little River Bridge - Sheet pile retaining wall design and/or erosion protection.

- Site #3: Franklin Road, 36th Avenue NE to 48th Avenue NE - Existing culvert may require an RCB upgrade.

- Site #4: 120th Avenue NE, Indian Hills Road to Franklin Road - Existing culvert may require an RCB upgrade.

- Site #13: 108th Avenue NE, Indian Hills Road to Bethel/Stella Road - Existing culvert may require an RCB upgrade.

- Site #16: 72nd Avenue East, Robinson Street to Alameda Street - Existing culvert may require an RCB upgrade.

A map of these five locations is attached.

On August 28, 2015, the Engineering Division of the Public Works Department distributed Request for Qualifications (RFQ) No. 1516-17 to solicit design services for multiple roadway/storm water reconstruction projects associated with the May 2015 Storm Rebuilding Program.

Seventeen (17) proposals were received for these services on September 11, 2015. A Selection Committee was formed consisting of John Clink, Capital Projects Manager; Tim Miles, Capital Projects Engineer; Greg Hall, Street Supervisor; and two (2) private citizens including Charlie Bright, University of Oklahoma Department of Architecture and Engineering Services; and Don Carter, University of Oklahoma Associate Director of Facilities Management. All proposals were reviewed and ranked independently by each committee member on a point system as defined in the RFP. The top four (4) candidates were interviewed and the firm chosen for these recovery projects is Freese and Nichols of Oklahoma City, Oklahoma.

Staff has negotiated the scope and fee with Freese and Nichols for the engineering design services of the five above mentioned projects for the not-to-exceed amount of $246,752 (see table), which includes $5,000 in potential supplemental survey needs. When the remaining evaluations of the five additional sites are completed, a supplemental agreement is anticipated under this agreement to add any remaining projects that require engineering design.

The engineering design services contract is written in a “Cost Not to Exceed” format in the amount of $246,752 or 15.6% percent of the total estimated project cost of $750,000. This fee is higher than the typical 6-12% range we see on most City transportation projects, but is within the 8% to 18% range that can be expected on smaller, more complex projects. Factors that affect the percent of construction cost for this contract include:

- Reinforced concrete box/channel design, details, and quantities are time-consuming tasks compared to many other transportation project tasks. Since these projects consist of a very short segment of roadway, the roadway details and storm water design components substantially increase the percent of construction cost on these projects compared to longer street projects.

- Traffic control and mobilization for surveying, environmental, and geotechnical evaluations are relatively high percentages of these additional costs given the small size of each project.

- Federal funding reimbursement requires some additional accounting, project documentation, and environmental requirements beyond the normal City project, which again increases the fee.

Approximately 87.5% of this total engineering cost or $215,908 is anticipated to be reimbursable through FEMA, Federal Highway Administration (FHWA), and state disaster relief programs. If this contract is approved, remaining steps and schedules for this important group of projects are as follows:

Notice to Proceed- November 25, 2015
Topographic Surveys- December 28, 2015
Design Study- January 11, 2016
Preliminary Plans- 60 calendar days after receipt of comments on Design Study
Final Plans- 45 calendar days after receipt of comments on Preliminary Plans

Further evaluation will be necessary to determine whether some projects can be accelerated from the above schedule and bid separately or should be kept together to achieve the best possible bids. Staff anticipates that these five projects will be under construction by July 2016 and substantially complete by December 2016.

RECOMMENDATION NO. 1: Staff recommends that Contract K-1516-71 with Freese and Nichols, in the amount of $246,752 be approved.

RECOMMENDATION NO. 2: Staff further recommends a transfer of $246,752 from the General Fund Emergency Reserve (account 010-1001-411.40-97) to the project numbers and accounts of the Storm Damage Repair/Capital Projects/Design (account 050-9387-419.62-01) as follows:

Site #7: $63,131 into Project SR0100
Site #9: $66,586 into Project SR0101
Site #11: $43,996 into Project SR0102
Site #17: $52,173 into Project SR0103
Site #28: $20,866 into Project SR0104