MATANUSKA-SUSITNA BOROUGH ACTION MEMORANDUM **AM No. 20-019**

SUBJECT: Award of Proposal No. 20-077P, Design Central Mat-Su Emergency Services Training Complex Improvements to CRW Engineering Group, LLC, for the contract amount of $146,070.00.

AGENDA OF: March 17, 2020

ASSEMBLY ACTION:
Reconsideration filed: 4-7-20. Reconsideration passed: 4-21-20. Main motion passed with Assemblymember McKee opposed 4-21-20

MANAGER RECOMMENDATION: Present to the assembly for consideration.

APPROVED BY JOHN MOOSEY BOROUGH MANAGER: _____

Route To:	Department/Individual	Initials	Remarks
	Purchasing Officer		
	Capital Projects Director		
	Finance Director		
	Borough Attorney		
	Borough Clerk		

ATTACHMENT(S): Fiscal Note: Yes X No _____
Description of Services (11p)

SUMMARY STATEMENT: On December 5, 2019, the Matanuska-Susitna Borough Purchasing Division issued a solicitation requesting Proposals from qualified firms for A/E firms for the design services of various improvements within the Central Mat-Su Emergency Services Training Complex located at the intersection of Knik-Goose Bay Road and Vine Road see attached "Description of Services" for further detail.

In response to the advertisement, two proposals were received. A proposal evaluation team made up of Borough Project Management and Emergency Services staff evaluated the proposals and selected CRW Engineering Group, LLC as the most advantageous firm for the Borough.

The period of performance begins upon execution and ends on March 26, 2021.

The Capital Projects Department, Project Management Division will be administering the contract.

In accordance with MSB 3.08.170(B), Administration requests authority to modify the resulting contract completion date by 30 days for unforeseen circumstances.

RECOMMENDATION OF ADMINISTRATION: Award of **PROPOSAL NO. 20-077P, DESIGN CENTRAL MAT-SU EMERGENCY SERVICES TRAINING COMPLEX IMPROVEMENTS** to **CRW ENGINEERING GROUP, LLC.** for the contract amount of **ONE HUNDRED FORTY SIX THOUSAND SEVENTY AND 00/100 DOLLARS ($146,070.00).**

MATANUSKA-SUSITNA BOROUGH
FISCAL NOTE

Agenda Date: March 17, 2020

SUBJECT: Award of Proposal No. 20-077P, Design Central Mat-Su Emergency Services Training Complex Improvements to CRW Engineering Group, LLC., for the contract amount of $146,070.00.

ORIGINATOR: Purchasing

FISCAL ACTION (TO BE COMPLETED BY FINANCE)	FISCAL IMPACT (YES) NO
AMOUNT REQUESTED $146,070.00	FUNDING SOURCE FSA Capital Projects
FROM ACCOUNT # 405.000.000.4xx.xxx	PROJECT #45076-66000-66004
TO ACCOUNT :	PROJECT #
VERIFIED BY: Kristel Weiland	CERTIFIED BY:
DATE: 03-05-2020	DATE:

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Personnel Services						
Travel						
Contractual						
Supplies						
Equipment						
Land/Structures						
Grants, Claims						
Miscellaneous						
TOTAL OPERATING						
CAPITAL	146					
REVENUE						

FUNDING: (Thousands of Dollars)

General Fund						
State/Federal Funds						
Other	146					
TOTAL	146					

POSITIONS:

Full-Time						
Part-Time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

PREPARED BY: _____ PHONE: _____

DEPARTMENT: _____ DATE: _____

APPROVED BY: Cheyenne Heindl DATE: 3/5/2020

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CRW ENGINEERING GROUP, LLC

808 S Bailey Street, Suite 104 Palmer, Alaska 99645
office (907) 707-1352 | fax (907) 561-2273

www.crweng.com

February 14, 2020

Mr. Robert Scott, Construction Project Manager II
Mat-Su Borough Capital Projects
350 East Dahlia Ave.
Palmer, AK 99645

Subject: Central Mat-Su Emergency Services Training Complex Improvements
Design and Construction Administration

Dear Mr. Scott:

We are pleased to submit a fee proposal for providing engineering and professional services for the Central Mat-Su Emergency Services Training Complex (ESTC) Improvements project. Attached for your review is our fee estimate with a breakdown of specific tasks associated with this project.

The primary components of CRW's scope of work are summarized below and are based on recent conversations with you and the objectives and services identified in our proposal:

- Incorporate the pre-engineered, modular-type fire training building specified in the RFP as the basis of design.
- Design a retaining wall.
- Produce a site and grading plan for training pad.
- Extend fire protection water piping to the training area.
- Power extension to training pad and site lighting.
- Prepare design documents for construction.
- Provide bidding and construction administration services.

I. SCOPE OF WORK

Task 1 – Project Initiation

Site Visit - The civil engineer will walk the project site to become more familiar with the existing site conditions and identify any constrains that may affect the project design or construction. We will review the drawings of the Fire Station 6-2 project and compare them to what was recently constructed near the project area to identify any inconsistencies that would impact the ESTC project. We understand the Fire Station 6-2 project is complete and no further improvements are expected. The engineer will review the undisturbed forested area of the project site to identify any special features that may influence the design and identify specific areas for which the ground-based survey may collect detailed data.

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Task 2 – Topographical Survey

A ground-based survey is necessary to map topographical features, ground elevations, and other site information within the expected footprint of the project. The collected field data will be processed to prepare a basemap of the existing conditions for use in the site civil team's detailed design. Topographical data needed beyond the ground-based survey limits may be supplemented with MSB GIS and LiDAR data to show a larger area surrounding the project site. The complete basemap will include property boundaries, on-site driveways, adjacent roadways, forested areas, existing grade contouring at 2-foot intervals, and other pertinent information. This work includes the preparation of a survey control sheet that will be included in the Final Design Documents.

Task 3 – Design Phases (Includes Tasks 3A through 3C)

50% Design – This effort includes the necessary steps to analyze constraints and develop design documents including the following:

- Prepare basic architectural floor plans to present information needed for permitting and bidding purposes. The 'Hall Crawler' training building module per Fire Facilities, Inc. Steel Training Towers is the basis of the building design.
- Develop a detailed site and grading plan for the new pad that will support the training building module. All paved areas supporting vehicular traffic will be designed to support tire loading of the emergency vehicles apparatuses. The heaviest apparatus is expected to be 84,000 pounds.
- Evaluate and define the extension of the piped water system (training water) to the proposed pad. The piped water system extension will include two fire hydrants spaced at opposite sides of the pad. The connection point where the new piped system will begin is based on the Water or Utility Plans prepared for the recent Fire Station 6-2 project.
- Electrical design includes power extension to the new training pad for site lighting and lighting within the building. Two luminaires will be placed on opposite ends of the new training pads and interior lighting consists of burn resistant fixtures. Power outlets are also requested on the exterior and/or interior of the training building.
- The mechanical design will include a plumbing plan showing multiple floor drains and connective piping within the training building to collect and convey training water to a single outlet pipe. The civil design will continue the outlet pipe to a final discharge location away from the building pad.

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- Develop a structural foundation plan to support the training building module. The foundation design will be based on footprint and loading reactions generated by Fire Facilities, Inc. for the Hall Crawler building.
- Prepare a retaining wall design with the purpose of creating a split-level, walk-out basement configuration for the two-story training building. The retaining wall will allow the surrounding grade to be built-up to the 2nd floor for at-grade access by training personnel. The spacing between the training building and retaining wall will allow passage of personnel for training purposes. This task includes evaluation of up to three different types of retaining walls that will provide long term durability and accommodate water infiltration dispersed during training activities.
- Prepare and submit the Fire Marshall permit and resolve comments.
- Define requirements for excavating and grading the local borrow site. Requirements will include a detailed Mining, Erosion Control and Restoration Plan to be generated by the contractor.
- Attend review meeting with MSB/Fire Department personnel to discuss stakeholder comments.
- Prepare technical specifications using CSI format for the training building, electrical and mechanical designs. Site civil specifications will use Alaska Department of Transportation and Public Facilities 2015 with MSB standard modifications and project special provisions.

Pre-Final Design Documents – Refine the drawings and specifications and resolve stakeholder-generated comments.

Final Design Documents – Finalize design drawings and specifications for a bid-ready package.

Design Verifications/Review – Drawings and specifications prepared for this project will be reviewed in depth by CRW's quality assurance (QA) team to confirm the appropriate level of completeness, accuracy, and general discipline coordination before each formal submission to the MSB and Fire Department.

Construction Cost Estimates - A statement of probable construction costs (SPCC) will be provided to MSB for the 50%, Pre-Final, and Final submittals to verify the construction cost is within project funding limits. If needed, the project will remove improvements or implement

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additive alternates into the drawings to maximize the scope if the estimated construction cost is close to the construction budget.

Task 4 – Permitting and Bidding

Agency Permits - CRW will prepare and submit the application for approval to the following agency:

- *State Fire Marshall.* This permit is required for review of the project's life safety considerations related to the training building.
- Review fee will be paid directly by MSB.

Bidding Phase – CRW will support MSB during the bidding phase of the project. Bidding support tasks include:

- *Attend Pre-Bid Meeting*: Attend up to one meeting at the MSB office during the open advertisement period to discuss project.
- *Bidder Questions and Addenda*: CRW will respond to bidder questions for responses in addenda.

Task 5 – Construction Administration

Construction Services – Construction services are assumed to begin at the award of the construction contract. For the purposes of the fee proposal we have assumed a 4-month duration of active construction over two seasons (Fall 2020 and Spring 2021), from Contractor award to final acceptance of the Work. We will promptly respond to requests for assistance during construction, and proactively observe the work during construction. Construction support tasks include review of submittals, review and respond to field memos, site visits, final inspections, and development of record drawings.

We assume weekly site visits will be performed to observe construction progress and report on the findings. Meetings with the contractor will occur at the project site or at the CRW Palmer office, and be held once a week during intensive work conditions or every other week as the need for coordination reduces and project pace slows. On-site meetings will address current and expected project issues and coordinate on other project related matters as needed. Milestone site visits will also be made for pre-final and final inspections and warranty period inspection.

Record Drawings – CRW will prepare record drawings in electronic format once the contractor has provided red-lined drawings depicting all the changes made during the course of construction.

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II. DELIVERABLES

Deliverables for the project will include:

- *Task 1 – Project Initiation:*
  - None.
- *Task 2 – Topographical Survey:*
  - None.
- *Task 3 – Design Phases:*

  50% Design, Pre-Final, and Final Design Phases
  - Drawings: One electronic PDF copy and three bound 11x17 hardcopies.
  - Specifications: One electronic PDF copy and three bound hardcopies.
  - Construction Cost estimate (50%, Pre-Final and Final design phases): One electronic PDF copy and one hardcopy.
- *Task 4 – Permitting and Bidding:*
  - *Permitting:*
    - Copy of application submitted to the State of Alaska Fire Marshall in PDF format.
    - Email correspondence with permitting agency in PDF format.
  - Bidding Phase: Response to questions and addenda in PDF format.
- *Task 5 – Construction Administration:*
  - Construction Services: Response to contractor questions, submittals, Field Memos, and other supporting construction documentation in PDF format. Field reports in PDF format generated after site observations to document construction progress.
  - Record Drawings: PDF format and AutoCad drawings in 2016 format.

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III. SCHEDULE

We understand the March 17, 2020 MSB Assembly meeting will review and approve funding for the design and construction of the ESTC project. Upon successful approval by the MSB Assembly, written Notice to Proceed (NTP) will be issued to CRW on March 19, 2020. The dates identified in the schedule below are in relation to the NTP date, and would shift according to the actual date that the NTP is given. The overall project schedule will strive for submitting final design documents by July 20, 2020 with advertisement for construction late summer of 2020.

- NTP: March 19, 2020.
- Topographical Survey: 11 days after receipt of NTP, March 30, 2020.
- 50% Design Submittal: 64 days after NTP, May 22, 2020.
- MSB Review Period: 14 days after submission of design documents, June 5, 2020.
- Pre-Final Submittal: 21 days after 50% documents review meeting or receipt of written MSB comments, June 26, 2020.
- Fire Marshall Permit Submittal: 3 days after submission of design documents, June 29, 2020.
- MSB Review Period: 7 days after submission of design documents, July 3, 2020.
- Final Submittal (Construction Documents): 17 days after Pre-Final documents review meeting or receipt of written MSB comments, July 20, 2020.

IV. FEE AND TERMS

Other assumptions that form the basis of our proposal are indicated on the attached fee estimate spreadsheet.

Our estimated fee is **$146,070** for the design, permitting, and construction administration phases of work. The Basic Services work would be performed on a lump sum price basis in accordance with a contract made between MSB and CRW.

If you have any questions, please feel to contact me by phone or email.

Best Regards,
CRW Engineering Group, LLC

Micah Schoming

Micah Schoming, PE
Project Manager

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Central Mat-Su Emergency Services Training Complex
Professional Fee Proposal

CRW Engineering Group, LLC February 2020	CRW Engineering Group									Subconsultants				
	Principal	Senior Engineer	Registered Engineer	Engineer EIT	Senior Designer	Senior Surveyor	Admin Assistant	Subtotal	Expenses	Burkhart Croft Arch.	HMS Cost Estimator	Tactical Design North	Task Total	Comments
Task & Subtask Description	$210	$190	$160	$145	$145	$190	$85		$	(fee x 1.1)	(fee x 1.1)	(fee x 1.1)		
Task 1 - Project Initiation														
Project Start-up	3	4					6	$1,900		$600				
Kickoff Meeting and Site Visit		8						$1,520		$600				
Sub Total Task 1:	**3**	**12**	**0**	**0**	**0**	**0**	**6**	**$3,420**	**$0**	**$1,200**	**$0**	**$0**	**$4,620**	
Task 2 - Topographical Survey														
Field Work														
Site Survey						36		$6,840	$450					private locates not included
Office Work														
Research Plats and Review Existing Documents	1					6		$1,350						
Data Reduction						9		$1,710						
Create Basemap					4	4		$1,340						For designer
Prepare Survey Control Sheet	1				4	6		$1,930						For construction Documents
Sub Total Task 2:	**2**	**0**	**0**	**0**	**8**	**61**	**0**	**$13,170**	**$450**	**$0**	**$0**	**$0**	**$13,620**	

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CRW Engineering Group, LLC February 2020	CRW Engineering Group									Subconsultants				
	Principal	Senior Engineer	Registered Engineer	Engineer EIT	Senior Designer	Senior Surveyor	Admin Assistant	Subtotal	Expenses	Burkhart Croft Arch.	HMS Cost Estimator	Tactical Design North	Task Total	Comments
Task & Subtask Description	$210	$190	$160	$145	$145	$190	$85		$	(fee x 1.1)	(fee x 1.1)	(fee x 1.1)		
Task 3A - 50% Design														
Design and Discovery														
All Disciplines														required - but not billed
Site Civil Documents														
Notes, Legend and Abbreviations Sheet		1		3				$625						
Existing Conditions Plan		2		2				$670						
Site Plan		4		12				$2,500						
Grading Plan		6		20				$4,040						
Pad Connection Plan and Profile		3		8				$1,730						connect pad to existing site
Water Plan and Profile Sheets		6		12				$2,880						extension of water to pad
Site and Building Sections Sheet		4		10				$2,210						
Civil Details Sheet		5		8				$2,110						
Technical Specifications		4		3				$1,195						
Structural Documents														
Notes, Legend and Abbreviations Sheet		2		2				$670						
Foundation Plan and Detail		4		12				$2,500						
Technical Specifications		4		4				$1,340						
Retaining Wall		16		16				$5,360						Geotech support needed
Mechanical Documents														
Notes, Legend and Abbreviations Sheet		2		2				$670						
Plumbing Plan		4		8				$1,920						
								$310						
Electrical Documents														
Notes, Legend and Abbreviations Sheet		1		3				$625						
Site Plan		2		6				$1,250						
Lighting and Power Plan - 1		4		6				$1,630						
Technical Specifications		2		4				$960						
Architectural Documents														
sheet prep, Code Analysis, Plan Development										$5,200				
Cost Estimate														
Develop Construction Cost Estimate		8						$1,520	$450					hard copies to MSB
Coordination and Project Support														
Coordination with Team Members		16						$3,040						accounts for all disciplines
Project Management		4						$760						
Meeting with User Group and MSB		10						$1,900						accounts for all disciplines
QC/QA and Peer Review	2							$420						
Sub Total Task 3A:	**2**	**140**	**0**	**193**	**0**	**0**	**0**	**$42,835**	**$450**	**$5,200**	**$0**	**$0**	**$48,485**	

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Central Mat-Su Emergency Services Training Complex
Professional Fee Proposal

CRW Engineering Group, LLC February 2020	CRW Engineering Group									Subconsultants				
	Principal	Senior Engineer	Registered Engineer	Engineer EIT	Senior Designer	Senior Surveyor	Admin Assistant	Subtotal	Expenses	Burkhart Croft Arch.	HMS Cost Estimator	Tactical Design North	Task Total	Comments
Task & Subtask Description	$210	$190	$160	$145	$145	$190	$85		$	(fee x 1.1)	(fee x 1.1)	(fee x 1.1)		
Task 3B - Pre-Final Documents														
Site Civil Documents									$50					
Refine drawings		16		30				$7,390						
Technical Specifications		4		3				$1,195						
Structural Documents														
Refine drawings		8		10				$2,970						
Technical Specifications		2		2				$670						
Mechanical Documents														
Refine drawings		2		2				$670						
Technical Specifications		1		2				$480						
Electrical Documents														
Refine drawings		6		10				$2,590						
Technical Specifications		2		2				$670						
Architectural Documents														
Refine drawings, Design Narrative and Specifications										$3,200				
Cost Estimate														
Develop Construction Cost Estimate		10						$1,900						none this phase
Coordination and Project Support														
Coordination with Team Members		20						$3,800						accounts for all disciplines
Project Management		4						$760						
Meeting with User Group and MSB		8						$1,520						accounts for all disciplines
QC/QA	2							$420						
Sub Total Task 3B:	**2**	**83**	**0**	**61**	**0**	**0**	**0**	**$25,035**	**$50**	**$3,200**	**$0**	**$0**	**$28,285**	

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Central Mat-Su Emergency Services Training Complex
Professional Fee Proposal

CRW Engineering Group, LLC February 2020	CRW Engineering Group									Subconsultants				
	Principal	Senior Engineer	Registered Engineer	Engineer EIT	Senior Designer	Senior Surveyor	Admin Assistant	Subtotal	Expenses	Burkhart Croft Arch.	HMS Cost Estimator	Tactical Design North	Task Total	Comments
Task & Subtask Description	$210	$190	$160	$145	$145	$190	$85		$	(fee x 1.1)	(fee x 1.1)	(fee x 1.1)		
Task 3C - Final Documents														
Site Civil Documents														
Refine drawings		8		12				$3,260						
Technical Specifications		2		2				$670						
Structural Documents														
Refine drawings		2		2				$670						
Technical Specifications		2		1				$525						
Mechanical Documents														
Refine drawings		2		2				$670						
Technical Specifications		2		1				$525						
Electrical Documents														
Refine drawings		2		6				$1,250						
Technical Specifications		2		2				$670						
Architectural Documents														
Refine drawings, Design Narrative and Specifications										$2,600				
Cost Estimate														
Develop Construction Cost Estimate		8						$1,520						
Coordination and Project Support														
Coordination with Team Members		10						$1,900						
Project Management		2						$380						
Sub Total Task 3C:	**0**	**42**	**0**	**28**	**0**	**0**	**0**	**$12,040**	**$0**	**$2,600**	**$0**	**$0**	**$14,640**	

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Central Mat-Su Emergency Services Training Complex
Professional Fee Proposal

CRW Engineering Group, LLC February 2020	CRW Engineering Group									Subconsultants				
	Principal	Senior Engineer	Registered Engineer	Engineer EIT	Senior Designer	Senior Surveyor	Admin Assistant	Subtotal	Expenses	Burkhart Croft Arch.	HMS Cost Estimator	Tactical Design North	Task Total	Comments
Task & Subtask Description	$210	$190	$160	$145	$145	$190	$85		$	(fee x 1.1)	(fee x 1.1)	(fee x 1.1)		
Task 4 - Permitting and Bidding Services														
Permitting Services														
Fire Marshall Permit										$1,200				fee paid for by MSB
Bidding Services														
Attend Prebid Meeting		4						$760		$500				
Answer Contractor Questions and Clarifications		6						$2,070		$400				
Prepare Addenda		6						$1,450		$400				
Total Task 4:	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**$4,280**	**$0**	**$2,500**	**$0**	**$0**	**$6,780**	
Task 5 - Construction Administration														
Construction Services									$200	$3,300				
Attend Construction Meetings		20						$3,800						number of trips and months of acti
Coordination w/Contractor		8						$1,520						
Reviews		4		6				$1,630						
Periodic On-Site Inspections Services		24		12				$6,300						
Respond to RFI's and ASI's		12		12				$4,020						
Prefinal Inspection		12						$2,280						assume two engineers
Final Inspection		12						$2,280						assume two engineers
Record Drawings														
Prepare Record Drawings		6		16				$3,460		$850				
Total Task 5:	**0**	**68**	**0**	**30**	**0**	**0**	**0**	**$25,290**	**$200**	**$4,150**	**$0**	**$0**	**$29,640**	
Tasks 1 to 3 - Basic Services (Lump Sum)								**$96,500**	**$950**	**$12,200**	**$0**	**$0**	**$109,650**	
Task 4 and 5 - Bidding and Construction Services (Lump Sum)								**$29,570**	**$200**	**$6,650**	**$0**	**$0**	**$36,420**	
Total All Services	**9**	**361**	**0**	**312**	**8**	**61**	**6**	**$126,070**	**$1,150**	**$18,850**	**$0**	**$0**	**$146,070**	

ASSUMPTIONS

1. *A Storm Water Pollution Prevention Plan will be prepared by the Contractor.*
2. *Landscaping Services not required*
3. *Head bolt heaters and electrical power supply outside the building not included*
4. *A Horizontal Control drawing not included, the CAD will be provided to the construction surveyor for their field use*
5. *CA services fee reflects time for 5 months of active construction work, and over two seasons.*
6. *Geotechnical services not included, however can be added to scope if MSB requests this service*
7. *Coordination with US Fish and Wildlife Services and similar permitting agencies not included, however can be added to scope if MSB requests this service*
8. *CRW may assist the MSB at the end of Warranty Period to conduct one walk-through at the project site to review installed system components and provide applicable recommendations or comments*
9. *Onsite daily construction inspection and observation provided by others*
10. *A storm drainage analysis not required or included*
11. *State Fire Marshall permit paid for by MSB*
12. *Ramp/walkway connecting the training building module to the adjacent finished grade included with the design prepared by the building vendor.*

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