

February 8, 2024

Mr. Jason R. Anderson, PE Director of Public Works/City Engineer City of Marshall 344 West Main Street Marshall, MN 56258

Re: Proposal for Professional Architectural and Engineering Services

Snow Removal Equipment (SRE) Facility
Southwest Minnesota Regional Airport (MML)

Dear Mr. Anderson:

Pursuant to our Professional Services Agreement dated March 10, 2020, TKDA is hereby authorized to proceed with the Professional Architectural and Engineering Services in connection with Construction Phase of the **Snow Removal Equipment (SRE) Facility Project** at **the Southwest Minnesota Regional Airport (MML)** hereinafter called the Project. Hereinafter, **City of Marshall** is referred to as the OWNER.

I. PROJECT DESCRIPTION

The OWNER has a need for additional storage for its airport snow removal equipment and proposes to construct an SRE Facility at Southwest Minnesota Regional Airport. The facility includes a 7,400 SF pre-engineered metal building with three (3) vehicle bays and administrative area including office space, breakroom, restrooms, mechanical room and a mezzanine. Project also includes site improvements including asphalt pavement access road, concrete apron pavement, storm sewer, watermain, sanitary sewer, and related mechanical, electrical, and technology work.

The Project will be funded through Federal (FAA), State (MnDOT Aeronautics) and Local funding sources. This Project was previously designed, and construction documents and specifications were issued for bidding on January 23, 2024.

Professional Services to be provided by TKDA for this phase of the Project include the following major items of work:

- Part C Construction Phase Services
- Part D Closeout Phase Services

Part A and Part B services for Project Formulation, Design and Bidding were provided under a separate Authorization.

II. SERVICES TO BE PROVIDED BY TKDA

Based on TKDA's understanding of the Project, we propose to provide the following Architectural, and Civil, Electrical, Mechanical, and Structural Engineering services:

C. PART C – CONTSTRUCTION PHASE SERVICES (15 Months)

During construction, our team will be an active resource for the OWNER to ensure the SRE Facility is constructed as designed. This begins at the pre-construction meeting, to establish a clear communication path with the Contractor and Subcontractors to ensure they are aware of contract requirements and project expectations. During the day-to-day of construction phase, we will review and approve submittals, perform survey verification, conduct material testing, coordinate with the OWNER and Contractor, answer Requests for Information (RFI), perform periodic construction observation, and provide inspection reports. We will review Contractor requests for payment and provide final punch-list inspection and close-out documentation.

Assist the OWNER in the execution of Construction Contract Documents.

- 2. Conduct the Preconstruction Conference (one trip by the Project Manager, Civil Engineer, and Architect)
- 3. Consult with and advise the OWNER during construction and act as the OWNER'S representative as provided in the Contract Documents. (Construction consultation will be provided by the Project Manager, Senior Architect, Electrical Engineer, and Mechanical Engineer for up to 64 weeks of construction)
- 4. Interpret plans and specifications during construction.
- 5. Review and respond to Contractor Requests for Information (RFI). (Estimate based on response of up to 20 RFI's at 4 hours required per response.)
- 6. Review required submittals, shop drawings and product data to determine compliance with the design requirements. (Estimate based on response of up to 90 submittals at 2 hours per response.)
- 7. Prepare and provide Proposal Requests (PR) and Change Orders (CO) to Contractor for changes to the contract documents that may be necessary.
- 8. Conduct construction progress meetings (Meetings to be attended by Project Manager. Estimate based on 64 weeks of construction with half the meetings on site and half virtual).
- 9. Make site visits (up to 8 trips by the Civil Engineer, 18 trips by the Senior Architect, 1 trip by the Structural Engineer, 3 trips by the Mechanical Engineer, and 2 trips by the Electrical Engineer) to the construction site to observe the progress and quality of the executed work of the contractor and determine, in general, if such work is proceeding in accordance with the Contract Documents.
- 10. Perform Construction Verification Surveys (up to 8 trips by the surveyor) to ensure compliance with Plans.
- 11. Coordinate with contracted Construction Testing Company to schedule and complete material testing and special inspections in accordance with technical specifications.
- 12. Architectural Supplemental Information (ASI) Creation & Review
- 13. Foundation Design Confirmation and Final Design Coordination with Pre-Engineered Metal Building contractor
- 14. Review payrolls of prime contractor, all subcontractors, and advise contractor of deficiencies. (Estimate based on 64 weeks of payrolls.)
- 15. Review requests for partial payments and prepare applications for payments (Estimate based on preparation of up to 15 monthly payments.)
- 16. Provide administrative assistance relative to state and federal airport funding. Administrative assistance includes, but is not limited to, preparation and submittal of Sponsors Quarterly Performance Reports to the FAA, and assistance with submittal of credit applications to MnDOT Aeronautics.
- 17. Final Inspection (1 trip by Senior Architect, Electrical Engineer, Structural Engineer, and Mechanical Engineer.)

D. PART D - CLOSEOUT PHASE SERVICES

- 1. Conduct As-Built Survey (1 trip by Surveyor)
- 2. Prepare the Project record drawings and submit to OWNER.
- 3. Review O&M Manuals
- 4. Review Warranties
- 5. Conduct 10-month Warranty Inspection (1 trip by Senior Architect)
- 6. Prepare FAA Grant Closeout Report and submit to MnDOT and the FAA for approval. Assume two (2) grants for AIP and one (1) for AIG-BIL funding.



City of Marshall | Southwest Minnesota Regional Airport (MML) Proposal for Professional Architectural and Engineering Services SRE Facility – Construction Phase February 8, 2024 Page 3

III. ADDITIONAL SERVICES

If authorized in writing by the OWNER, we will furnish or obtain from others Additional Services of the types listed below which are not considered as basic services under this Proposal. Additional Services shall be billable on an Hourly Time and Materials basis and such billings shall be over and above any maximum amounts set forth in this Proposal.

- A. Registered land or right-of-way surveys, legal descriptions, or related services
- B. Preparation of DBE Program (beyond Contract-specific goals)
- C. Environmental Assessments other than CATEX.
- D. Professional Land Surveyor Services, other than those listed in SECTION II.
- E. Additional Site visits to Marshall, other than those required for services listed in SECTION II.

IV. OWNER RESPONSIBILITIES

These responsibilities shall be as set forth in Article 9 of the Professional Services Agreement and as further described or clarified hereinbelow:

- A. Designate one individual to act as a representative with respect to the work to be performed, and such person shall have complete authority to transmit instructions, receive information, interpret and define policies, and make decisions with respect to critical elements pertinent to the Project. This individual shall be identified in the signature block area of this Proposal.
- B. Provide TKDA with access to the site as required to perform services listed in SECTION II.
- C. Provide reviews of materials furnished by TKDA in a reasonable and prompt manner so the Project schedule can be maintained.

V. PERIOD OF SERVICE

We would expect to start our services promptly upon receipt of your written acceptance of this Proposal and will complete Section II Services in conjunction with the construction schedule. For purposes of this Proposal, we assume Construction Phases Services will be completed by November 1, 2025.

VI. COMPENSATION

Compensation to TKDA for services provided as described in SECTION II of this Proposal shall be on an Hourly Time basis in an amount not to exceed \$280,200, as summarized below. Our detailed Project Fee Estimate is attached.

Total Not to Exceed Amount	\$280,200,00
Section II.D: Closeout Phase	\$13,800.00
Section II.C: Construction Phase	\$266,400.00

Payment shall be made in accordance with Article 4 of our Agreement.

The level of effort required to accomplish SECTION II services can be affected by factors which are beyond our control. Therefore, if it appears at any time charges for services rendered under SECTION II will exceed the above, we agree we will not perform services or incur costs which will result in billings in excess of such amount until we have been advised by you additional funds are available and our work can proceed.

VII. CONTRACTUAL INTENT

We thank you for the opportunity to submit this Proposal. We agree this letter will constitute an authorization under our Professional Services Agreement upon signature by an authorized official of the City of Marshall and the return of a signed original to us. This Proposal will be open for acceptance for **60** days, unless the provisions herein are



City of Marshall | Southwest Minnesota Regional Airport (MML) Proposal for Professional Architectural and Engineering Services SRE Facility – Construction Phase February 8, 2024 Page 4

changed by us in writing prior to that time. Please feel free to contact Dan Sherer directly at 651.219.2224 or daniel.sherer@tkda.com if you have any questions.

Sincerely,

Daniel A. Sherer, PE Project Manager John W. Ahern, PE Vice President–Aviation

Attachments: Project Fee Estimate

2024 Rate Sheet AET Proposal

Α	С	CE	ΞP	TED) F	OR	CITY	' OF	MARSHALL	_
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By:			
Signature	Printed Name/Title	Date	
OWNER DESIGNATED REPR	RESENTATIVE:		
Name/Title	Phone	Email	

DAS:JWA:dad



Project Fee Estimate

													JI FEE E	
	ent:	City of Marshall										Date:		2/8/2024
Project: Snow Removal Equipment (SRE) Facility								Ву:		DAS				
			Estimated Person Hours Required											
Task	Task Description sk		Project Manager	Civil Engineer	Senior Architect	Architect	Electrical Engineer	Structural Engineer	Mechanical Engineer	Mechanical Technician	Surveyor	Admin	Total Hours	Total Dollars
		Billing Rate/Hr x Multiplier	\$ 218	\$ 119	\$ 178	\$ 106	\$ 236	\$ 131	_	\$ 156	\$ 92	\$ 105		
С	CONSTRUC		Ψ 210	Ψ 113	\$ 170	ψ 100	Ψ 230	ψ 101	ψ 103	ψ 100	ψ J2	ψ 100		
				l		1	1	1	1	l	1	1	4	ф 070
1		ontract Documents	4										4	\$ 872
2		-Construction Conference	8	8	8								24	\$ 4,120
3		Consultation (64 weeks)	32	32	32		32	4	20	12			164	\$ 30,208
4		ec Interpretation (64 weeks)		32	12	22	32	4	36	12			150	\$ 25,028
5	RFI Administ	ration (20 RFIs)	12	15	12	22		5	10	4			80	\$ 12,038
6	Contractor Si	ubmittal Reviews (90 submittals)	20	18	10	70	20	16	20	6			180	\$ 27,234
7	Proposal Red	quests / Change Orders (8 assumed)	8	6	12	22	16	8	6	2			80	\$ 13,196
8	Progress Me	etings (32 meetings)	144		8								152	\$ 32,816
9	Construction	Observation (32 site visits)		96	136		20	10	44	12			318	\$ 51,850
10	Construction	Verification Surveys & Testing Coordination									96		96	\$ 8,832
11	Coordinate M	Material Testing & Special Inspections	8	5									13	\$ 2,339
12	ASI Creation	& Review			4	8							12	\$ 1,560
13	Foundation D	Design Confirmation						10					10	\$ 1,310
14		ayroll Reviews	15									64	79	\$ 9,990
15		artial Payments	15									01	15	\$ 3,270
16		•	8										8	\$ 1,744
17		ninistration Assistance	0		12		10	10		10			42	\$ 7,366
17	Final Inspect		0=4	242					400					φ <i>1</i> ,300
	SUBTOTAL I		274	212	246	144	130	67	136	58	96	64	1,427	A 000 770
	SUBTOTAL (COST	\$ 59,732	\$ 25,228	\$ 43,788	\$ 15,264	\$ 30,680	\$ 8,777	\$ 25,704	\$ 9,048	\$ 8,832	\$ 6,720		\$ 233,773
	enses:													
	ravel & Subsist													\$ 17,400
M	iscellaneous (I	MI)												\$ -
R	eproduction &	Reprographics (RR)												\$ 400
S	ubconsultant -	Construction Testing (American Engineering T	Testing)											\$ 13,550
S	ubconsultant N	flark-up											10%	\$ 1,355
S	ubtotal Expens	es												\$ 32,705
Sub	total													\$ 266,478
RO	JNDED													\$ 266,400
D	CLOSEOUT	PHASE												
1	As-Built Surv	ev									12		12	\$ 1,104
2	Record Draw	•		8		24	4	4		4			44	\$ 5,588
3	Review O&M	*		Ť	2		2	·	2				6	\$ 1,206
4	Review Warr				2		1		2					\$ 970
5	Warranty Ins				8									\$ 1,424
6		loseout (2 Grants)	8	4	0							8	20	\$ 3,060
0		,		12	10	24	7	4	4	4	10			Ψ 0,000
	SUBTOTAL I		8		12	\$ 2,544	7	4	4	4	12	8	95	r 40.050
_	SUBTOTAL (0051	\$ 1,744	\$ 1,428	\$ 2,136	\$ 2,544	\$ 1,652	\$ 524	\$ 756	\$ 624	\$ 1,104	\$ 840		\$ 13,352
	enses:													
	ravel & Subsist													\$ 400
	iscellaneous (I	· · · · · · · · · · · · · · · · · · ·												\$ -
R	eproduction &	Reprographics (RR)												\$ -
	ubconsultant													\$ -
S	ubconsultant N	Mark-up											10%	\$ -
S	ubtotal Expens	es												\$ 400
Sub	total													\$ 13,752
RO	UNDED													\$ 13,800
701	FAL													¢ 000.000
TO1														\$ 280,230
TOT	TAL (ROUNDE	±D)												\$ 280,200



2024 SCHEDULE OF ACTUAL HOURLY BILLING RATES

Classification	Ra	inge of Dir	rect Hour	ly Bi	lling Rat	tes*
Senior Management (CEO, Vice President)	\$	67.00	to	\$	100.00	
Senior Registered Engineer, Architect, Landscape Architect, Senior Scientist, Senior GIS Analyst or Senior Planner	\$	37.00	to	\$	100.00	
Engineering, Architectural, Planning, or GIS Specialist II	\$	33.00	to	\$	95.00	
Engineering, Architectural, Planning, or GIS Specialist I	\$	29.00	to	\$	58.00	
Registered Engineer, Architect, Landscape Architect, Planner, GIS Analyst, Professional Land Surveyor, Scientist, or Certified Interior Designer	\$	23.00	to	\$	71.00	
Graduate Engineer, Planner, Interior Designer, Scientist, GIS Analyst, or Land Surveyor	\$	23.00	to	\$	50.00	
Architectural Designer or Landscape Architectural Designer	\$	23.00	to	\$	42.00	
Technician III	\$	30.00	to	\$	44.00	**
Technician II	\$	21.00	to	\$	40.00	**
Technician I	\$	15.00	to	\$	34.00	**

^{*} Rates effective until December 31, 2024.

In addition to hourly charges, TKDA shall be reimbursed for direct expenses actually incurred. Unless otherwise approved by the Client, direct expenses for travel and subsistence will be billed at or up to applicable IRS and US GSA published rates. TKDA shall be reimbursed for subconsultant fees at the amount billed TKDA plus 10%.

Notes:

- 1. Overhead Costs shall be calculated as the Direct Hourly Rate times TKDA's Overhead Multiplier Rate of <u>165.2%</u>. This is slightly lower than our MnDOT audited rate.
- 2. For Hourly Rate Authorizations, Direct Rates will be subject to an Hourly Rate Multiplier of <u>3.05</u>, which includes Overhead Costs and Fee (Profit).
- 3. For Hourly Cost Reimbursement Plus Fixed Fee Authorizations, the Fixed Fee shall be <u>15%</u> of the Direct Salary Costs and Overhead Costs amount initially approved under the Authorization.

^{**} For hours worked over 40 hours per week individuals are billed at one and one-half times the above rates.

Mr. Daniel Sherer, PE TKDA 444 Cedar Street, Suite 1500 Saint Paul, MN 55101 daniel.sherer@tkda.com



RE: Proposal for Construction Testing Services

Southwest Minnesota Regional Airport SRE Facility

Marshall, Minnesota AET #P-0030731

Dear Mr. Sherer:

Thank you for the opportunity to respond to your request for a proposal to perform engineering observations and testing services on the referenced project. American Engineering Testing, Inc., (AET) is pleased to provide this letter which presents our anticipated scope of services, our unit rates, and an estimated total cost to perform these services.

Geotechnical Information

A geotechnical exploration program and analysis was performed for this project by AET. The results were presented in our Report of Geotechnical Exploration and Review, dated January 24, 2023, (AET #P-0011694). It was recommended in the report that the proposed building be supported by spread footings foundations. Reference should be made to the report and letter for more detailed information and recommendations.

Project Information

We understand the proposed construction will be a new snow removal equipment (SRE) facility at the Southwest Minnesota Regional Airport in Marshall, Minnesota.

Scope of Services

Based on discussions with you, and our review of the available plans and specifications, our anticipated scope of services is outlined below.

Excavation Observations and Testing

During excavation of the building, a Geotechnical Engineer or Engineering Assistant from our firm will make periodic visits to the site to perform the following services:

- Observe the soils exposed in the bottoms of the excavations.
- Perform shallow hand auger borings and hand cone penetrometer probes in the excavations.
- Evaluate the suitability of the soils to support structural loads and pavements.
- Document the elevations at the bottoms of the excavations.
- Document that adequate oversizing of the excavations is provided to support lateral loads from the footings.

During placement of fill in the building excavations, pavement areas, and the utility excavations, an Engineering Technician will visit the site on an intermittent basis to test the fill. The Engineering Technician will perform the following services:

- Compaction tests to evaluate the fill density using the sand cone or the nuclear density method.
- Standard Proctor tests for every different type of fill used.
- Sieve analysis tests of sand fill and Class 5 aggregate base.

A final report will be issued presenting the results of our excavation observations. Periodic reports will also be issued presenting the results of our soil compaction testing.

Proposal for Construction Materials Testing **SRE Facility**, Marshall, Minnesota February 6, 2024 AET Report No. P-0030731



Reinforcing Steel Observations

Personnel from AET will observe the reinforcing steel placed in cast-in-place concrete structural elements for the building on a periodic basis, when requested by the Contractor. These observations will be performed by an Engineering Technician II. Our services will include the following:

- Review the most recent plans and specifications available at the jobsite.
- · Observe that the correct number, size, alignment, and spacing of the bars is provided.
- Observe that the reinforcing steel bars are provided with proper cover from the formwork, ground surface, and future concrete elements.
- Observe that the bars are free of dirt, rust, scale, ice, or other deleterious materials that will reduce adhesion to the concrete.

Any discrepancies or deficiencies that are observed will be brought to the attention of the Contractor and/or their subcontractor.

Daily field reports of our observations will be available to the Contractor. The results of our observations will be provided in a formal report at the completion of our services.

AET does not perform surveying services, therefore, our observations of the reinforcing steel and PT tendons will be based on the positioning of the formwork by the Contractor. We will not be responsible for the exact locations of the formwork or the structural bolts or embedded items.

Concrete Testing

Personnel from AET will perform testing of concrete on an intermittent basis, when requested by the Contractor. These services will be performed by ACI certified Engineering Technicians. On site visits when reinforcing steel is observed, we plan to have the same Engineering Technician also perform testing of the concrete. Our services will include the following:

- Document that the correct mix is delivered to the site by reviewing the delivery slips.
- Test the slump of the concrete.
- Test the air content of the concrete.
- Measure the temperature of the concrete.
- Compare the test results to the requirements of the project specifications.

Any discrepancies from the project specifications will be brought to the attention of the Contractor and/or their subcontractor. Daily field reports of our observations and testing will be available to the Contractor. The results of our observations will be provided in formal reports that are issued periodically.

During placement of the concrete, our Engineering Technicians will also cast test cylinders for compressive strength testing. Project specifications require that one set of cylinders be cast for every 50 cubic yards of each type of concrete placed each day. Each set will consist of four cylinders; one of which will be tested after 7 days and two which will be tested after 28 days. The fourth cylinder will be held in reserve for future testing, if required. AET will also pick up the cylinders from the site and return them to our laboratory for testing. The results of our compressive strength testing will be presented as they become available.

Structural Steel

During erection of the structural steel frame, steel joists, and metal decking, AET will provide an ASNT certified Level II NDT Technician to perform periodic observations of the welded and bolted connections. These services will include the following:

Proposal for Construction Materials Testing SRE Facility, Marshall, Minnesota February 6, 2024
AET Report No. P-0030731



- Observe bolted connections for compliance with Section 9a of the "Specification for Structural Joints using ASTM: A325 or ASTM: A490 Bolts" approved by the Research Council on Structural Connections.
- Observe welded connections for compliance with the requirements of Section 6 (steel frame) of the AWS "Structural Welding Code" D1.1 - 2010. Fillet welds will be visually observed for suitability. Full or partial penetration welds will be tested by ultrasonic or magnetic particle methods. Any nondestructive tests will be performed by ASNT Level II certified technicians.
- Observe roof deck welds and lap screw placement of the sheet steel roof decking for general compliance with the requirements of AWS D1.3 2008.
- Observe and test the shear studs welds for suitability and quality. In addition, some of the studs
 will be tested by bending them to an angle of about 15 degrees from vertical by striking them with
 a hammer.

Any deficiencies or deviations which are observed will be reported to personnel from the Contractor and/or their subcontractor. The results of our observations will be presented in a written report at the completion of the work.

Estimated Fees

Our services will be provided on a unit cost basis according to the unit rates provided in the attached Fee Schedule tabulation. Our monthly invoices will be determined by multiplying the number of personnel hours or tests by their respective unit rates. We have also estimated a total cost which we anticipate will be required to complete the previously described observations and testing services, are based on our past experience with similar projects. Our estimated total cost will be \$13,550.00. We refer you to the attached Fee Schedule tabulation for an itemization of how we arrived at this estimated cost.

We caution that this is only an estimated cost. Often, variations in the overall cost of the services occur due to reasons beyond our control, such as weather delays, changes in the contractor's schedule, unforeseen conditions or retesting of services. These variations will affect the actual invoice totals, either increasing or decreasing our total costs for the project from those estimated in this proposal. If more time or tests are required, additional fees may be needed to complete the project testing services. If less time or tests are needed, a cost savings will be realized. We will not, however, exceed the estimated total cost for the project without first obtaining your authorization.

Terms and Conditions

our Revised Subcontract Agreement dated January 2, 2006.

All AET Services are provided subject to the Terms and Conditions set forth in the enclosed Master Service Agreement, which, upon acceptance of this proposal, are binding upon you as the Client requesting Services, and your successors, assignees, joint venturers and third-party beneficiaries. Please be advised that additional insured status is granted upon acceptance of the proposal.

<u>Acceptance</u>

AET requests written acceptance of this proposal in the Proposal Acceptance box below, but the following actions shall constitute your acceptance of this proposal together with the Terms and Conditions and Amendments: 1) issuing an authorizing purchase order for any of the Services described above, 2) authorizing AET's presence on site or 3) written or electronic notification for AET to proceed with any of the Services described in this proposal. Please indicate your acceptance of this proposal by signing below and returning a copy to us. When you accept this proposal, you represent that you are authorized to accept on behalf of the Client.

Proposal for Construction Materials Testing SRE Facility, Marshall, Minnesota February 6, 2024
AET Report No. P-0030731



General Remarks

If you have any questions regarding this proposal, or if we can be of further assistance, please call me at (507) 532-0771.

Sincerely,

Tom James

Manager - Marshall

Phone: (507) 532-0771 Fax: (651) 659-1379 tjames@teamAET.com

Attachments:

Fee Schedule Tabulation Master Service Agreement

SIGNATURE: PRINTED NAME: COMPANY: ADDRESS: PHONE NUMBER AND EMAIL: DATE: INVOICING INFORMATION (Provide Company AP Department Information, if present.) AP CONTACT NAME: BILLING/MAILING ADDRESS: AP PHONE NUMBER AND INVOICE EMAIL: P.O. NO./ PROJECT NO.:

ACCEPTANCE AND AUTHORIZATION: AET Proposal No. P-0030731

PROJECT TESTING SERVICES FEE SCHEDULE SW MN REGIONAL AIRPORT SRE FACILITY 1650 WEST COLLEGE DRIVE MARSHALL, MN 56258 AET PROPOSAL No. P-0030731



SERVICE DESCRIPTION	PROJECT BUDGET ESTIMATED UNIT BUDGET					
	UNITS	RATE	AMOUNT			
Compaction Testing						
Soil Density Testing - Technician II for soil compaction testing and reporting.	12 Hour	\$105.00 Section Subtotal:	\$1,260.00 \$1,260.00			
Subgrade/Base Proof Roll Observations & To	esting					
Proof Roll Observations - Technician II for observations, consultation and reporting.	6 Hour	\$105.00	\$630.00			
		Section Subtotal:	\$630.00			
Reinforcing Steel Observations & Concrete T	esting					
Concrete Testing						
Reinforcing Steel & Concrete Testing - Technician II for observations of reinforcing steel and testing of concrete. (slump, air content, and temperature)	40 Hour	\$105.00	\$4,200.00			
Concrete Cylinder Pickup - Technician II for driving to and from the site to pick up cast	40 11001	ψ100.00	ψ+,200.00			
concrete cylinders.	4 Hour	\$105.00	\$420.00			
ASTM C39 Concrete Compressive Strength - Curing, handling and testing of 4" x 8" or 6" x 12" concrete test cylinders (includes handling of non-tested cylinders).	40 Test	\$37.00	\$1,480.00			
ASTM C78 Concrete Flexural Strength (third point loading)	6 Test	\$80.00	\$480.00			
	1	Section Subtotal:	\$6,580.00			
Non-Destructive Testing (NDT) Observation	ons					
Structural Steel Observations - Technician II for observations of field welded and bolted	6 Hour	\$105.00	\$630.00			
connections, consultation and report preparation.		Section Subtotal:	\$630.00			
Bituminous Observations & Testing						
Bituminous Density Testing - Technician II for nuclear density testing of bituminous without						
roll pattern observation. ASTM D2726 Density of Bituminous - In Place thickness and density tests of bituminous core	8 Hour	\$105.00	\$840.00			
samples.	8 CORE	\$56.00	\$448.00			
odinipioo.		Section Subtotal:	\$1,288.00			
Laboratory Work						
ASTM C136 Sieve Analysis of Aggregate (Coarse and Fine)	3 Test	\$137.00	\$411.00			
ASTM D698 Standard Proctor ASTM D1557 Modified Proctor	4 Test 2 Test	\$184.00 \$189.00	\$736.00 \$378.00			
Preparation for Clay Proctor Sample	1 Hour	\$95.00	\$95.00			
ASTM D4318 Atterberg Limits, Liquid Limit or Plastic Limit, Individual	1 Test	\$132.00	\$132.00			
ASTM D2216 Water Content of Soil and Rock by Mass	2 Each	\$15.00	\$30.00			
•		Section Subtotal:	\$1,782.00			
Project Management & Coordination						
Project Management - Engineering Assistant/Project Manager for coordination of AET						
personnel and activities, attending meetings (if requested), consultation and report preparation.	6 Hour	\$145.00	\$870.00			
Project Administrator for report preparation, review, invoicing.	6 Hour	\$85.00	\$510.00			
	;	Section Subtotal:	\$1,380.00			
	ESTIMATE	BUDGET	\$13,550.00			