FILE NO. 20-205

LOCAL AGENCY		CONSULTANT	
Municipality: City of Peoria	**Preliminary Engineering Services Agreement For Motor Fuel Tax Funds**	Name: TERRA Engineering, Ltd	
Township:		Address: 401 Main Street, Suite 1130	
County: Peoria County	**Supplement No. 2**	City: Peoria	
Section: 16-00368-00-EG		State: Illinois	

THIS AGREEMENT is made and entered into this _____ day of _____, 2020 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name Western Avenue

Route FAP 671/FAU 6594 (IL 8) Length 0.91 Mi. 4800.00 FT (Structure _____)

Termini The intersection Howatt Avenue on the north end to the intersection of Adams Street on the south end.

Description:
Reconstruction of Western Avenue including a road-diet from existing 4-lanes to a 3-lane cross section including bike accomodations, green infrastructure and improved pedestrian accommodations all within the existing 66-feet wide right-of-way.

Agreement Provisions

The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
   - a. ☐ Make such detailed surveys as are necessary for the preparation of detailed roadway plans
   - b. ☐ Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
   - c. ☐ Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
   - d. ☐ Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
   - e. ☐ Prepare Army Corps of Engineers Permit, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
   - f. ☐ Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
   - g. ☐ Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with five (5) copies of the plans, special provisions, proposals and estimates. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at his actual cost for reproduction.
   - h. ☐ Furnish the LA with survey and drafts in quadruplicate of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.

Note: Four copies to be submitted to the Regional Engineer

i. ☐ Assist the LA in the tabulation and interpretation of the contractors' proposals

j. ☐ Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.

k. ☐ Prepare the Project Development Report when required by the DEPARTMENT.

l. ☒ See Attachment A.

(2) That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.

(3) To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.

(4) In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that he will perform such work without expense to the LA, even though final payment has been received by him. He shall give immediate attention to these changes so there will be a minimum delay to the Contractor.

(5) That basic survey notes and sketches, charts, computations and other data prepared or obtained by the Engineer pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.

(6) That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by him and will show his professional seal where such is required by law.

The LA Agrees,

1. To pay the ENGINEER as compensation for all services performed **on a time and expense basis. The compensation for this supplement is $318,145.65 for a new upper limit of compensation for services that shall not exceed $1,536,952.56 without authorization from the LA. The attached Cost Estimate of Consultant Services (Attachment B) provides an estimate of the additional work tasks and the fee calculation based on the attached Scope of Services (Attachment A) revised 7/1//2020. This estimate of work and effort is the basis of the upper limit of compensation.**

~~a. ☐ A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.~~

~~b. ☐ A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:~~

~~Schedule for Percentages Based on Awarded Contract Cost~~

~~Awarded Cost~~	~~Percentage Fees~~
~~Under $50,000~~	_____ ~~(see note)~~
	_____ ~~%~~
	_____ ~~%~~
	_____ ~~%~~
	_____ ~~%~~
	_____ ~~%~~

~~Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.~~

2. ~~To pay for services stipulated in paragraphs 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k of the ENGINEER AGREES at actual cost of performing such work plus 2.80 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at his actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided under the paragraph 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus a five (5) percent service charge.~~

   ~~"Cost to Engineer" to be verified by furnishing the LA and the DEPARTMENT copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.~~

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after **receipt of monthly invoices from the ENGINEER. Such invoices shall be for partially completed work less all previous partial payments paid to the ENGINEER.**

   ~~a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by paragraphs 1a through 1g under THE ENGINEER AGREES - to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.~~

   ~~b. Upon award of the contract for the improvement by the LA and its approval by the DEPARTMENT, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.~~

   ~~By Mutual agreement, partial payments, not to exceed 90 percent of the amount earned, may be made from time to time as the work progresses.~~

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in paragraphs 1a, through 1h and prior to the completion of such services, the LA shall reimburse the ENGINEER for his actual costs incurred plus a **2.80 multiplier** up to the time he is notified in writing of such abandonment. ~~- "actual cost" being defined as in paragraph 2 of THE LA AGREES~~.

5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of THE ENGINEER AGREEs, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus a **2.80 multiplier** to cover profit, overhead and readiness to serve ~~- "actual cost" being defined as in paragraph 2 of THE LA AGREES.~~ It is understood that "changes" used in this paragraph shall in no way relieve the ENGINEER of his responsibility to prepare a complete and adequate set of plans and specifications.

It is Mutually Agreed,

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.

2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at his last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with Section 4 of THE LA AGREES.

~~3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.~~

3. That the ENGINEER warrants that he/she has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that he/she has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in quadruplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

City of Peoria of the
(Municipality/Township/County)

ATTEST:

By Beth Ball

City Clerk

(Seal)

State of Illinois, acting by and through its

By

Title

Executed by the ENGINEER:

TERRA Engineering, Ltd

401 Main Street, Suite 1560

Peoria, IL 61602

ATTEST:

By

Title Vice President

By

Title Associate Vice President

Approved

Date

Department of Transportation

Regional Engineer

WO #17-05 -Supplement #2
Attachment A – Scope of Services – *Revised 7/1/2020*
Western Avenue, from Adams Street to W. Howett Street

Project Description **(Revisions in Bold)**

The City of Peoria desires to reconstruct Western Avenue, from Adams Street to W. Howett Street. Local and/or state MFT funds will be used for design and construction, and the target letting date is ~~Summer or Fall 2018~~ **Spring 2021**.

The proposed improvements will include converting an existing four-lane roadway section to a three-lane section, with bicycle accommodations, and improved pedestrian accommodations, a green stormwater management system, street and pedestrian lighting and street trees, all within the existing 66-feet wide right-of-way. Lane transitions using pavement markings may occur north of W Lincoln Avenue to allow for bicycle connection to W Howett Street (IL 116).

In 2016, the City engaged TERRA Engineering to perform initial Phase I Engineering Services including development and approval of cross section and corridor concepts based on results of a traffic impact study performed using current traffic data. This phase involved extensive stakeholder and public involvement processes, including team meetings, public meetings, and online and paper surveys. A concept has been chosen and will include the following elements:

- New curb and gutter constructed along both sides of the street
- New ADA compliant sidewalk on both sides of the street and ADA compliant ramps at all intersections
- ADA compliant residential and commercial entrances
- New Hot Mix Asphalt (HMA) pavement ~~overlay~~ constructed on a suitable pavement base **or PCC Concrete Pavement on a suitable pavement base**
- Ornamental lighting **with accommodations for future cameras for use by emergency services**
- Street trees
- Storm drainage improvements
    - Frames, grates and lids of storm drainage inlets and manholes shall be replaced with new items.
    - New drainage structures and connecting storm sewer pipes shall be included where localized flooding problems have been identified and/or where existing drainage items are in poor condition.
    - Green Infrastructure Best Management Practices (BMPs) within the ROW to reduce storm water runoff volumes entering the city's combined sewer system, including bioswales and permeable pavement.
- Intersection improvements at the following signalized intersections:
    - Western, SW Adams and Spruce Streets
    - Western and SW Jefferson Street
    - Western and W Starr Street
    - Western and W Garden Street

WO #17-05 -Supplement #2
Attachment A – Scope of Services – *Revised 7/1/2020*
Western Avenue, from Adams Street to W. Howett Street

- Western and W Lincoln Avenue
- ~~Possibly:~~ Western and W Howett Street - ~~(striping only – for bicycle and driving lane transitions)~~

Intersection improvements will include **overlay/reconstruction, signal upgrades**, improved geometrics and ADA compliant cross walks and ramps **and associated ROW.**

Signal improvements will include new mast arms and signal heads, pedestrian signals and push buttons for ADA compliance, and new video detection. Signal upgrades may not be required at Lincoln. **Other improvements may include, at the City's request, new controller cabinets & signal controllers, uninterruptable power supplies, and interconnection between all signals within the project limits.**

The Traffic Impact Study shows that only the Western and Lincoln intersection currently meets signal warrants. **Signals to be removed at Starr St and replaced with RFFB and removed at Garden St.** ~~though a decision has not yet been made as to which intersections will remain signalized.~~

Design Standards

TERRA will follow IDOT policy and procedures, as described in Part II of the Bureau of Local Roads and Streets (BLRS) Manual for Motor Fuel Tax (MFT) and State-Funded projects. Design will be in accordance with Part IV of the BLRS Manual, Project Design.

Deliverables

- Fly Thru Project Presentation
  - Develop stills and project fly thru based on the approved Corridor Plan
  - Deliver an animation file based on the Corridor Plan
  - Provide data files and documents used in the production of the animation
- Phase I – Project Development
  - MFT Certification / Project Status (BLR 10100)
  - Approval of Design Variances (BLR 22120)
  - Revised Traffic Impact Study
  - Intersection Design Studies for all signalized intersections listed above
- Phase II – Plan Development
  - Construction Plans
  - Project Special Provisions
  - Opinion of Construction Cost

WO #17-05 -Supplement #2
Attachment A – Scope of Services – *Revised 7/1/2020*
Western Avenue, from Adams Street to W. Howett Street

Work Order #17-05

Phase I - Project Development

Some Phase I services were provided under a separate work order, including traffic analysis, topographic survey, environmental clearances, public engagement, cross section selection and a conceptual corridor study. The following Phase I Engineering tasks will be completed under this work order:

- Survey, Field Investigations and Data Gathering
  - Survey
    - Pickup additional topographic features along the project corridor as needed to complete design recommendations (in particular, retaining walls, steps and the addition of Howett Street, if needed for an IDS)
    - ***Provide additional project surveying as requested by the City of Peoria that will facilitate the locating of the right of way and establishing the right of way specifically at existing power pole locations.***
    - ***Provide additional survey for expanded Right-of-Way takes at 4 additional properties, two for building removal and two for IDOT.***
  - Geotechnical Services
    - Obtain pavement cores, one every 500 feet alternating lanes
    - Obtain percolation tests and soil reports
- Environmental
  - Prepare a PESA (Preliminary Environmental Survey Assessment) for Western Avenue. The PESA for the IL 116 (Lincoln Avenue) has already been completed by IDOT.
  - Respond to the PESA (IL 116) and coordinate the PSI.
  - Perform a PSI (Preliminary Site Investigation) as needed based on the results of the PESA for Western Avenue.
  - Prepare an MFT Certification / Project Status (BLR 10100)
- Project Studies
  - ***Project Development Report (PDR)***
    - ***Attend BI-Monthly meeting(s), prepare forms and submit preliminary and final PDR documents for design approval.***
  - Traffic Impact Study
    - Count existing traffic at Howett Street

      Update the Traffic Impact Study to reflect recommendations for a three-lane section;

recommendations for signalized intersections as determined by the City; and to add the Howett Street / Western Ave intersection.

- Analysis of the Howett / Western Avenue intersection will be used to investigate the feasibility of transitioning from five lanes to three (or four) ahead of Lincoln Avenue so that bicycle accommodations can extend to the bicycle lane on Howett Street.

- Update Corridor Plan
  - If the revised traffic impact study shows that lanes can be dropped through the Howett / Western intersection, revise corridor plan to reflect lane drops and additional bicycle accommodations to Howett Street.
- Intersection Design Studies – one for each intersection for updated Corridor Plan as listed above
  - Develop horizontal alignment for the intersection
  - Analyze signal warrants
  - Determine existing and proposed design vehicles
  - Develop proposed geometrics
  - Complete IDS's for City/IDOT review and approval
  - ***Revised IDS's to accommodate change in Typical Section by eliminating cycle track and bioswale and adding bike lanes to NB and SB lanes***
- Drainage Studies
  - Identify existing drainage patterns and storm sewer system
  - Assess need to repair, reconstruct portions of, or supplement existing drainage system. Coordinate with City and GPSD.
  - Develop preliminary drainage system design including green infrastructure (GI) practices and storm sewer modifications.
  - Coordinate with City's CSO Consultant, who will analyze and determine the required storage volumes for GI practices. Modify preliminary drainage system and modify plans accordingly.
  - ***Update Drainage study to accommodate change in Typical Section by eliminating cycle track and bioswale and adding bike lanes to NB and SB lanes***
- ***Safety***
  - ***Prepare and submit application for HSIP funding***

- Preliminary Design
  - Existing Conditions:
    - Prepare property boundary mapping
    - Prepare existing typical sections

WO #17-05 -Supplement #2
Attachment A – Scope of Services – *Revised 7/1/2020*
Western Avenue, from Adams Street to W. Howett Street

- Proposed Improvements:
  - Prepare typical sections – **Revise for new typical section**
  - Develop horizontal alignments
  - Develop vertical profile – **Revise to accommodate new typical section**
  - Prepare plan and profile sheets - **Revise to accommodate new typical section**
  - Identify utility conflicts and required relocations
  - Identify required design variances; prepare justification and submit IDOT
  - Develop street lighting options for residential and commercial areas – **Revise for redesign of light poles**
  - Determine ROW needs including temporary construction easements – **Revise to accommodate various changes in design**
  - ***Update overall Preliminary Design to accommodate change in Typical Section by eliminating cycle track and bioswale and adding bike lanes to NB and SB lanes***

- Public Involvement
  - Coordinate and facilitate up to two additional public meetings.
  - Develop exhibits and handouts
  - Develop power point presentation
  - Develop mechanism for comments and feedback
  - Assist with development of news releases and/or flyers, and assist with advertising the meetings
  - Collect and analyze public feedback, review with City and incorporate changes
- Coordination & Project Management
  - Coordinate with various City departments to develop preliminary design that collectively meets the needs of a variety of perspectives. Attend weekly coordination meeting through Phase I Design.
  - Coordinate with utility companies – **additional requirements for GPSD and IAWC**
  - **Coordinate with City's CSO consultant**
  - Coordinate with IDOT
  - Coordinate with utility companies
  - Review project deliverables for compliance – **two sets of deliverables**
  - Prepare monthly invoices
  - **Attend 1 prefinal plan review meeting with the City and the City's Phase III consultant**

WO #17-05 -Supplement #2
Attachment A – Scope of Services – *Revised 7/1/2020*
Western Avenue, from Adams Street to W. Howett Street

Phase II Engineering Services:

- Right of Way Exhibits
  - Prepare Plats **for 113 Temporary Easement plats and 12 Right-of-Way plats** ~~62 Temporary Easements and Plats and Legals 68 Permanent Easements~~ for residential and commercial properties.
  - Prepare Strip Map identifying construction easements. – **Revise for changes in Right-of-Way**
  - Collect Last Deed of Record for Easements and Title commitments for **Right-of-Way Plats** and Permanent Easement. ~~Permanent Easements~~ Provide research **and prepare Waiver forms** for the City's use in preparing ~~130~~ **118 appraisal waivers by combining several parcel numbers into one waiver on several occasions.**
  - Provide negotiation services for estimate **125** ~~130~~ parcels.
  - **Prepare 7 Non-Complex Appraisals and Reviews**
  - **Prepare 2 Relocation Packages**
- Design
  - Roadway Geometrics
  - ***Pavement Design – Prepare design for alternate bid and submit cost analysis for approval and update to new IDOT policies***
  - Retaining Walls & Steps
    - **Design T-Type walls at Adams, Two Soldier Pile walls and segmental block walls at Jefferson and** three soldier pile walls with several segmental block walls on the west side of Western near Jefferson **along Western including steps and several segmental block walls with special load railings. A portion of the walls at Jefferson and West side of Western were latter removed and remaining walls redesigned.**
  - Fence relocations – **Chain link, wrought iron and privacy**
  - PROWAG / ADA Details – **with special stairway designs at two locations including prefabricated aluminum ramp system.**
  - **Property access stairways**
  - Drainage / Sewer Design – **redesign sewer and drainage to permeable system beneath two bike lanes.**
  - Utility Adjustments - **setup contract with IAWC and coordinate GPSD sewers**
  - Traffic Signals – **add interconnect from Adams to Howett for accommodation of future cameras for emergency response.**
  - Lighting – **redesign lighting system to accommodate new pole/luminaire style.**

WO #17-05 -Supplement #2
Attachment A – Scope of Services – *Revised 7/1/2020*
Western Avenue, from Adams Street to W. Howett Street

- MOT – **redesign MOT to accommodate change in letting date and shorten Stage 1 timeframe.**

- Construction Plans
  Prepare the following Plan Sheets in accordance with Bureau of Design and Environment Manual. Provide Quality Control and Assurance. Submit to IDOT and City of Peoria for review, and revise to address review comments. **All sheets adjusted as required by above scope changes.**
  - Cover Sheet
  - General Notes / Index / Legend
  - Summary of Quantities
  - Typical Sections
  - Schedule of Quantities
  - Alignment, Ties & Benchmarks
  - Removal Plans
  - Plan & Profile Sheets
  - Drainage Plans & Utilities
  - Signage and Pavement Markings
  - Traffic Control Plans (Maintenance of Traffic)
  - Erosion and Sediment Control Plans
  - Landscaping Plans
  - Lighting Plans
  - Intersection Details
  - Traffic Signal Plans
  - Miscellaneous Details
  - Cross Sections – **Take 3D plans and add cuts/fills by end area method to all sheets per IDOT.**

- Project Specifications, Estimates and Permits
- Prepare Project Specifications in accordance with IDOT specifications and include the following: **(All specifications adjusted as required by above scope changes.)**
  - Supplemental Specifications
  - Recurring Special Provisions
  - BDE and BLRS Special Provisions
  - Contract Special Provisions
  - Project Specific Special Provisions
  - Highway Standards
- Prepare Quantities and Estimates which will include the following: **(All Quantities and Estimates adjusted as required by above scope changes.)**
  - Quantities
  - Estimate of Cost
  - Prepare and submit the SWPPP to the IEPA
- Project Management & Coordination **(Adjusted as percentage of overall cost)**

WO #17-05 -Supplement #2
Attachment A – Scope of Services – *Revised 7/1/2020*
Western Avenue, from Adams Street to W. Howett Street

- Coordination with City
- Coordination with IDOT
- Coordination with utility companies
- Prepare a Quality Assurance Plan (**Adjusted as percentage of overall cost)**
- Review project deliverables for compliance
- Prepare monthly invoices

- **PHASE III Coordination**
  - **Attend Pre-Construction Meeting**
  - **Respond to RFI's**
  - **Review Shop Drawings**

FILE NO. 20-205

Illinois Department of Transportation

Payroll Escalation Table
Fixed Raises
DLM 2.80

FIRM NAME	TERRA Engineering, LTD	**DATE**	07/13/20
PRIME/SUPPLEMENT	Supplement #2	**PTB NO.**	N/A

CONTRACT TERM	12	MONTHS	**OVERHEAD RATE**		160.60%
START DATE	1/1/2019		**COMPLEXITY FACTOR**		0
RAISE DATE	1/1/2020		**% OF RAISE**		3.00%

ESCALATION PER YEAR

1/1/2019 - 1/1/2020				
12				
12				

= 100.00%
= 1.0000

The total escalation for this project would be: 0.00%

Illinois Department of Transportation

Payroll Rates

FIRM NAME TERRA Engineering, LTD **DATE** 07/13/20
PRIME/SUPPLEMENT Supplement #2
PTB NO. N/A

ESCALATION FACTOR 0.00%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Principal / Dept Head	$77.25	$77.25
Sr Project Manager	$66.56	$66.56
Project Manager	$59.17	$59.17
Sr Project Engineer	$45.32	$45.32
Project Engineer	$46.76	$46.76
Surveyor	$40.80	$40.80
Sr Structural Engineer	$63.24	$63.24
Technician	$23.54	$23.54
Administrative Assistant	$22.28	$22.28
Sr Project Manager - 21	$68.56	$68.56
Sr Project Engineer - 21	$46.68	$46.68
Sr Structural Engineer - 21	$65.14	$65.14
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00

FILE NO. 20-205

Illinois Department of Transportation

Cost Estimate of Consultant Services
(Direct Labor Multiple)

Firm	TERRA Engineering, LTD	Date	07/13/20
Route		Overhead Rate	160.60%
Section			
County		Complexity Factor	0
Job No.			
PTB & Item	N/A		

ITEM	MANHOURS (A)	PAYROLL (B)	(2.80+R) TIMES PAYROLL (C)	DIRECT COSTS (D)	SERVICES BY OTHERS (E)	DBE TOTAL (C+D+E)	TOTAL (C+D+E)	% OF GRAND TOTAL
Survey, Field Invest & Data Gather	42	1,919.47	5,374.52				5,374.52	1.69%
Project Studies	786	39,688.00	111,126.40				111,126.40	34.93%
Design	443	25,048.72	70,136.42				70,136.42	22.05%
Roadway Plans	703	32,514.72	91,041.22				91,041.22	28.62%
PHASE III Coordination - RFI's	130	6,730.24	18,844.67				18,844.67	5.92%
Covid19	27	1,680.51	4,705.43				4,705.43	1.48%
Lighting	0	0.00	0.00		12,015.00		12,015.00	3.78%
Appraisals	0	0.00	0.00		0.00		0.00	0.00%
Negotiations	0	0.00	0.00		4,902.00		4,902.00	1.54%
TOTALS	2131	107,581.66	301,228.65	0.00	16,917.00	0.00	318,145.65	100.00%

BDE 3606 Template (Rev. 10/31/16)

FILE NO. 20-205

Illinois Department of Transportation

Average Hourly Project Rates

Route
Section
County
Job No.
PTB/Item N/A

Consultant TERRA Engineering, LTD

Date 07/13/20

Sheet 1 OF 2

Payroll Classification	Avg Hourly Rates	Total Project Rates			Survey, Field Invest & Data Gat			Project Studies			Design			Roadway Plans			PHASE III Coordination - RFI's		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal / Dept Head	$77.25	29	1.36%	1.05				6	0.76%	0.59	20	4.51%	3.49						
Sr Project Manager	$66.56	213	10.00%	6.65	3	7.14%	4.75	25	3.18%	2.12	155	34.99%	23.29	13	1.85%	1.23			
Project Manager	$59.17	333	15.63%	9.25	7	16.67%	9.86	230	29.26%	17.31	76	17.16%	10.15	20	2.84%	1.68			
Sr Project Engineer	$45.32	722	33.88%	15.35				415	52.80%	23.93	128	28.89%	13.09	172	24.47%	11.09			
Project Engineer	$46.76	299	14.03%	6.56				110	13.99%	6.54	15	3.39%	1.58	174	24.75%	11.57			
Surveyor	$40.80	58	2.72%	1.11	32	76.19%	31.09				26	5.87%	2.39						
Sr Structural Engineer	$63.24	189	8.87%	5.61							15	3.39%	2.14	174	24.75%	15.65			
Technician	$23.54	150	7.04%	1.66										150	21.34%	5.02			
Administrative Assistant	$22.28	8	0.38%	0.08							8	1.81%	0.40						
Sr Project Manager - 21	$68.56	10	0.47%	0.32													10	7.69%	5.27
Sr Project Engineer - 21	$46.68	96	4.50%	2.10													96	73.85%	34.47
Sr Structural Engineer - 21	$65.14	24	1.13%	0.73													24	18.46%	12.03
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		2131	100%	$50.48	42	100%	$45.70	786	100%	$50.49	443	100%	$56.54	703	100%	$46.25	130	100%	$51.77

FILE NO. 20-205

Illinois Department of Transportation

Average Hourly Project Rates

Route
Section
County
Job No.
PTB/Item N/A

Consultant TERRA Engineering, LTD

Date 07/13/20

Sheet 2 OF 2

Payroll Classification	Avg Hourly Rates	Covid19			Lighting			Appraisals			Negotiations								
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal / Dept Head	$77.25	3	11.11%	8.58															
Sr Project Manager	$66.56	17	62.96%	41.91															
Project Manager	$59.17																		
Sr Project Engineer	$45.32	7	25.93%	11.75															
Project Engineer	$46.76																		
Surveyor	$40.80																		
Sr Structural Engineer	$63.24																		
Technician	$23.54																		
Administrative Assistant	$22.28																		
Sr Project Manager - 21	$68.56																		
Sr Project Engineer - 21	$46.68																		
Sr Structural Engineer - 21	$65.14																		
TOTALS		27	100%	$62.24	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00