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March 18, 2020

Mr. Khurshid Hoda, CPP  
Village of Orland Park  
14700 Ravinia Avenue  
Orland Park, Illinois 60462

Attn: Sean Marquez

Subject: **Wolf Road: 143<sup>rd</sup> Street to 167<sup>th</sup> Street**  
**Section No. 05-0062-00-FP**  
**Project No. M-8003(474)**  
**Job No. P-91-124-05**  
**Supplement 3**

Dear Khurshid:

We are pleased to submit the Supplement 3 scope, manhours and fee estimate for the Wolf Road Project. The tasks included within the Supplement 3 Scope of Work provide for completing the necessary Phase I studies and documentation for the Wolf Road widening project from 143rd Street to 167th Street in Orland Park.

In the event that IDOT or the FHWA implement design policy changes after the work included in this supplement has been completed or there are significant changes to the proposed improvements based on design review and coordination with IDOT and the FHWA which are necessary to deliver an approved Phase I document, AECOM will make the Village aware of these required changes to the scope of work and the additional work required. We understand that there will be no increase in our fees without a valid and approved scope change, and that these changes must be pre-approved by the Village of Orland Park.

Should you have any questions or need any additional information at this time, please contact me at 312-373-6567.

Sincerely,

Michael J. Eichten, P.E.

**DRAFT SUPPLEMENT NO. 3**  
**SCOPE OF WORK**  
**Wolf Road from 143rd Street to 167th Street Widening Project**  
March 18, 2020

**Scope of Work:**

Tasks included within this Scope of Work provide for completing the necessary Phase I studies and documentation for the Wolf Road widening project from 143rd Street to 167th Street in Orland Park. The tasks to complete the project are detailed in the following work elements:

- I. Roadway Geometry & Intersection Design Studies
- II. Noise Study and Report
- III. Location Drainage Study
- IV. Structural Studies
- V. Project Development Report (PDR) Update
- VI. Administration
- VII. QA/QC

**I. Roadway Geometry & Intersection Design Studies**

**a. Wolf Road and 143<sup>rd</sup> Street Intersection Realignment:**

In coordination with the 143<sup>rd</sup> Street Project (per CBBEL e-mail received on November 7, 2018), the intersection of 143<sup>rd</sup> Street at Wolf Road will need to be revised to implement an alignment shift of Wolf Road about 10' to the west to minimize impacts to a potentially NHRP property (Yunker School House) at the NE corner of the 143<sup>rd</sup> Street at Wolf Road intersection. CBBEL and Orland Park met with IDOT in October 2018, and they concurred with the alignment shift at the intersection. The Village Plan Commission reviewed the proposed design and is also interested in minimizing impacts to the PNHRP property. The proposed roadway geometry along Wolf Road will be revised and potential impacts to drainage and utilities will be evaluated.

The proposed ultimate roadway improvements included in the 143<sup>rd</sup> Street Project begin at approximately Sta. 254+32 to the north. The interim improvements as part of the 143<sup>rd</sup> Street Project include the transition back to the existing two-lane rural roadway section approximately 800' to the south. The proposed scope of work as part of Supplement 3 for Wolf Road includes revising the horizontal alignment and roadway geometry along Wolf Road to match into the revised alignment shift to the north, update the proposed profile based on the horizontal shift, revise the roadway cross sections, update the proposed roadway drainage and evaluate the impacts on utilities, side slope grading adjacent to the wetland on the west, the proposed retaining wall along the east and the required temporary construction easements and proposed right-of-way.

**b. CMAP 2050 Traffic Projections & Sensitivity Analysis**

Based on our recent coordination with IDOT District One for the project, the CMAP 2050 traffic projections will need to be obtained for the project.

A Sensitivity Analysis will be conducted to determine whether the previous Draft Phase I Study conclusions are still valid. AECOM will evaluate the geometrics previously developed to determine if there would be any revisions to the roadway geometry due to the updated 2050 traffic projections. Should the 2050 traffic data indicate substantial changes, the roadway geometry may need to be upgraded.

The intent is to analyze the roadway geometry with the 2050 traffic projections to confirm that the IDS's and overall project geometry still satisfy the projection warrants. Substantial increases in the traffic numbers may warrant geometric revisions.

**c. Geometric Revisions at Potential Retaining Wall Locations:**

The design team will re-evaluate the proposed roadway improvements to determine if the construction of a new retaining wall is the most appropriate solution for the given location or if re-grading and the acquisition of additional right-of-way (ROW) or temporary easements (TE) would be the better alternative. In general, retaining walls increase initial construction costs but also require routine inspections and maintenance throughout their lives. Where feasible, the best course of action is to eliminate or reduce the construction of retaining walls. The evaluation will include potential modifications to the mainline roadway and cross street profiles, refinement of the roadway cross sections including revisions to the parkway and side slope grading, and impacts on existing landscaping, driveways, utilities, TE's and ROW. The potential retaining wall locations to be evaluated include:

1. Sta. 96+00 to Sta. 100+50 at the SW corner of Wolf and 167<sup>th</sup> Street at Marley Creek:
2. Sta. 101+75 to Sta. 103+50 at the NE corner of Wolf and 167<sup>th</sup> Street at Marley Creek:
3. Sta. 167+50 to Sta. 169+50 RT:
4. Sta. 168+00 to Sta. 171+00 LT:
5. Sta. 170+00 to Sta. 174+50 RT:
6. Sta. 171+00 to Sta. 174+00 LT South of 156<sup>th</sup> Street:
7. Sta. 176+00 to Sta. 180+20 RT:
8. Sta. 176+00 to Sta. 180+20 LT:
9. Sta. 188+00 to Sta. 191+00 RT South of 153<sup>rd</sup> Street:
10. Sta. 244+00 to Sta. 248+00 RT:
11. Sta. 255+20 to Sta. 256+70 LT:

**d. Laurels of Spring Creek Development:**

In April 2017, the Village of Orland Park provided preliminary plans for the new Laurels of Spring Creek development. The roadway geometry and drainage improvements along Wolf Road will be evaluated and updated to accommodate the future construction of the Laurels of Spring Creek development.

**e. ADA/PROWAG Policy Update:**

On August 22, 2016, IDOT issued the Memorandum for ADA/PROWAG Alterations on State Highways. As a part of the geometrics review process, PROWAG compliance will need to be evaluated. Under the new IDOT policy, there are approximately 37 ramp locations within the project limits which will need to be evaluated. Based on the requirements of the IDOT District One Geometrics Section Unit, additional plans and details will be prepared and include the following:

- 1:20 scale plans of each sidewalk/bike ramp (IDS sheet (as applicable), & detail sheet for each individual ramp). The details and plans shall include:

- Horizontal Geometry with all pertaining data
  - Provide elevations, stations and offsets (where possible provide coordinates)
- Labels that show all slopes/elevations such as:
  - cross slopes
  - running slopes
  - landing slopes
  - ramps slopes
- Labels at all radii
- Labels that indicate traffic signal’s size and location
- Labels that indicate potential utility conflicts and obstacles

The ADA ramp details will be prepared for the following intersection locations:

<b>ADA PROWAG Analysis</b>	
<b><u>Wolf Road Locations</u></b>	<b><u>ADA Ramps</u></b>
167th	4
Hancock	2
Corso	2
Karen	2
158th	1
157th	2
Equestrian Trail	2
156th	2
155th/Fawn Creek	4
153rd	4
Spring Creek	2
151st	2
Royal Oaks	2
Alexis	2
Lee & 167th	4
Total	37

## **II. Noise Study and Report**

AECOM provided a Traffic Noise Study in 2010 (included as part of Supplement 1). This Study identified locations where there would be traffic noise impacts along the Wolf Road corridor, potential locations where noise walls may be located, and a cost-effective evaluation of which walls may be constructed under that current policy. This study utilized existing 2006 traffic data and design year 2030 traffic projections, which are now obsolete.

In 2011, IDOT and FHWA issued an updated traffic noise policy and guidance and a new Highway Traffic Noise and Assessment Manual. AECOM analyzed and evaluated the results of the previous traffic noise study with the new policy and guidance (included as part of Supplement 2). However, pending newly updated CMAP generated traffic figures and further pending updates to traffic noise policy and guidance, a new report was not generated.

In 2017, IDOT issued an updated traffic noise policy and guidance and a new Highway Traffic Noise and Assessment Manual. This Manual provides updated guidance on study methods and procedures, and on reasonableness and cost-effective evaluation of noise walls. AECOM will provide a new Traffic Noise Study following this latest Manual utilizing the FHWA TNM Version 2.5, and design year 2040 traffic projections (revised projections received in October 2015). A sensitivity analysis will be prepared evaluating the potential impacts of the 2050 traffic projections to be obtained from CMAP. This Noise Study will identify locations where there would be traffic noise impacts along the Wolf Road corridor, potential locations where noise walls may be located, and a conceptual level cost-effective evaluation of which walls may be constructed.

**Supplement Scope for the Revised Traffic Noise Study to include:**

1. The Traffic Noise Study will follow the IDOT 2017 Highway Traffic Noise and Assessment Manual.
2. Model validation (assuming up to 6 field sites located in mid-blocks along Wolf Road).
3. Existing condition model
4. Build condition model
5. Traffic volume, speed and mix data to be collected concurrently.
6. Under both existing and design build conditions, balanced peak noise hour traffic volume flow diagrams including those from main cross streets, design or posted speeds, traffic mix (auto and medium and heavy truck percentages) will be developed.
7. Modeling utilizing the updated 2040 projected traffic volumes and any updated roadway geometry. A sensitivity analysis will be prepared evaluating the potential impacts of the 2050 traffic projections to be obtained from CMAP on the noise analysis.
8. General barrier abatement (noise wall) modeling
9. Prepare new Traffic Noise Study Report

**Assumptions:**

1. The Study will utilize the FHWA Traffic Noise Model 2.5 in 2020; however, Version 3.0 may be required if the Study is produced or extends beyond 2020.
2. Noise wall or barrier design will not be included.
3. Neighborhood mailings and surveys to determine whether a noise wall is desired or type that is desired is not included. Also, the barrier optimization analysis for the purpose of barrier design will not be included. These are items will be completed during the Phase II Design due to the fact they are final design issues, as well as future residential opinions as opposed to current residents. As noted in the draft PDR, a final decision of the installation of the abatement measure(s) will be made upon completion of the project's final design and the public involvement process.

### **III. Location Drainage Study**

Wolf Road was initially designed to include a curb and gutter section with a closed drainage system. Per coordination with the Village of Orland Park, Supplement 1 included a change in the roadway design to rural open shoulder sections with stormwater conveyed by roadside ditches. After IDOT rejected the open drainage system concept, a second supplement was later approved to convert Wolf Road back to an urban roadway section with outside curb and gutters and a closed drainage system. The original scope of work and the 2 later approved supplements did not include developing a hydraulic report for the Marley Creek and Spring Creek waterway crossings. The Location Drainage Study (LDS) currently proposes extending the culverts at these crossings.

The following is the scope of work required to complete the Wolf Road LDS:

#### **a. Hydraulic Report - Marley Creek (2 crossings of Wolf Road):**

Marley Creek crosses Wolf Road at 2 separate locations within the project improvement limits. The following is a description of the tasks required to complete this hydraulic report:

1. Field Review
2. Survey Note Conversions (only required for 1 crossing, since data is already available for the 167<sup>th</sup> Street crossing location).
3. Waterway Information Tables (WWIT's for 2 crossings)
4. Hydraulic Report Data Sheets (2 crossings)
5. Hydrologic Model – Discharge data will be obtained from the Streamstats model created by V3 Companies.
6. Hydraulic Model – Revise existing HEC-RAS model prepared by V3 Companies to include surveyed cross sections and cross culvert under Wolf Road (south of 167<sup>th</sup> Street). The existing model already includes this information for the existing cross culvert under Wolf Road/167<sup>th</sup> Street. A proposed conditions model will be prepared to upsize cross culverts to meet IDOT freeboard criteria.
7. Compensatory Storage Calculations for 2 crossings
8. Narrative & Exhibits
9. Report Assembly for draft and final submittals

#### **b. Hydraulic Report - Spring Creek:**

The following is a description of the tasks required to complete this hydraulic report:

1. Field Review
2. Survey Note Conversions
3. Waterway Information Tables (WWIT's)
4. Hydraulic Report Data Sheets
5. Hydrologic Model – Discharge data to be obtained from MWRD model modified by CBBEL for steady flow conditions.
6. Hydraulic Model – Modify CBBEL's MWRD HEC-RAS model to include new surveyed cross sections and the existing culvert at the Wolf Road crossing. A proposed model will be prepared to potentially upsize the culvert crossing to meet IDOT freeboard criteria.
7. Compensatory Storage Calculations
8. Narrative & Exhibits
9. Report Assembly for draft and final submittals

**c. Stream Survey (2 waterway crossings):**

A stream survey will be required to include the following information for the Marley Creek and Spring Creek crossings of Wolf Road:

1. Channel stream survey from 1,000 ft D/S to 1,000 ft U/S of the crossings. Since V3 Companies already surveyed the channel cross sections for the Marley Creek crossing of Wolf Road / 167<sup>th</sup> Street, the stream survey will only be performed for the Marley Creek crossing of Wolf Road approximately 1,400 ft south of 167<sup>th</sup> Street. Cross sections will be taken between 1,000 ft U/S and 1,000 D/S of this crossing.
2. Survey of existing culvert and roadway overtopping.
3. Obtain normal water level at time of survey, photos of channel and crossing and type of surface to determine “n” values.
4. Obtain bottom of streambed elevations at 100 ft increments within the 2,000 ft stream survey limits.

**d. Revise Draft LDS per IDOT Comments:**

This work includes updating the LDS narrative and exhibits to address the following IDOT comments:

1. Evaluate existing flooding concerns and note how they will be resolved under proposed conditions.
2. Update the storm sewer design for the 10-year event instead of the 50-year design and check for 100-year.
3. Ensure that proposed pipes are not submerged at various outlets.
4. Provide additional exhibits for offsite area draining to ROW.
5. Provide hydraulic analysis for Culvert at Outlet 14.
6. Revise PDP sheets per IDOT comments.

**e. Revise LDS to Include Potential New ESR Limits:**

If the proposed ROW is extended to the ESR limits, the storm sewer and storm water detention calculations will likely change from storm sewer to ditch conveyance / detention. Compensatory storage will also be recomputed to allow for ditch storage. The existing PDP sheets and profiles would also need to be updated.

**f. Coordination with IDOT Hydraulics & Village of Orland Park:**

Several meetings will be required with Village of Orland Park and IDOT Hydraulics to resolve the comments.

**IV. Structural Studies**

**a. Culvert Inspection and Culvert Condition Memorandum**

The proposed scope of work includes the inspection and preparation of a Culvert Condition Memorandum for two waterway crossings along Wolf Road including the existing culvert at Marley Creek crossing Wolf Road approximately 1200’ south of the intersection of 167<sup>th</sup> Street and one existing culvert crossing at Spring Creek. The existing culvert at Marley Creek crossing Wolf Road approximately 100’ north of the

intersection of 167<sup>th</sup> Street was previously inspected by V3 and a Culvert Condition Memorandum has been prepared. The findings of the inspection and memorandum prepared by V3 will be included in the recommendations of the Project Development Report.

**b. Retaining Wall Type, Size & Location Plans**

The preliminary proposed roadway geometry, profiles and cross sections have identified potential retaining wall locations which may be required to minimize impacts to adjacent properties, homes, wetlands and right-of-way. The IDOT Bureau of Local Roads & Streets Manual Section 36-2.06 Retaining Walls section states that retaining walls that are a minimum of 10' as measured from the top of wall to the bottom of the footing or cast-in-place fascia will require a TS&L in conjunction with obtaining geotechnical borings and the preparation of a Structure Geotechnical Report. The proposed scope of work includes the preparation of the retaining wall Type, Size and Location (TS&L) plans, structure number request from the District, Structure Report, Plan Development Outline (PDO) and Structure Geotechnical Report for the following structures. The potential retaining wall locations include:

1. Sta. 251+75 to Sta. 255+00 RT:
  - Cut wall located along the east side of Wolf Road adjacent to existing houses with an estimated length of 325' and a height of approximately 10'.

**c. Geotechnical Investigation**

Structural borings will be taken at the one retaining wall location requiring Type, Size and Location (TS&L) plans. See attached scope of services from Wang Engineering which includes 4 structure borings each to a depth of 30 feet and two Geoprobe borings.

**V. Project Development Report (PDR) Update**

Updates to the Project Development Report text, exhibits and appendices will be required to incorporate the following:

1. Geometric roadway updates
2. ADA/PROWAG Compliance
3. Location Drainage Study updates
4. Noise Analysis Report updates
5. Crash Analysis: Updated for most current 5-Year Period; the PDR was updated in 2015 to cover crashes for the 5-Year Period 2010 to 2014 (included in Supplement 2)
6. Culverts
7. Retaining Walls
8. Coordination

**VI. Administration**

Miscellaneous administration including invoicing, meetings, correspondence, etc.

**VII. QA/QC**

Perform QA/QC reviews of the project.



**Direct Costs Summary**

Mileage for Site Visits, Inspections and Meetings:	\$100
Noise Meter Rental:	\$750
Printing of Reports and Delivery:	\$150
<b>Total:</b>	<b>\$1,000</b>

## DRAFT MANHOURS BY TASK DETAIL

PROJECT: Wolf Road from 143rd Street to 167th Street  
 Client: Orland Park  
 AECOM  
 March 18, 2020

<u>Task</u>	<u>Item</u>	<u>Manhours</u>
Task I	<u>Roadway Geometry &amp; Intersection Design Studies</u>	
	a Wolf Road and 143rd Street Intersection Realignment	40
	b CMAP 2050 Traffic Projections & Sensitivity Analysis	60
	c Geometric Revisions at Potential Retaining Wall Locations:	160
	d Laurels of Spring Creek Development	6
	e ADA/PROWAG Policy Update (37 locations at 12 hours/location)	444
	Task I Subtotal	710
Task II	<u>Noise Study and Report</u>	
	a Obtain Field Data	48
	b Model validation (Assumes 6 sites located in mid-blocks along Wolf Road)	24
	c Existing condition model	80
	d Build condition model	64
	e General barrier abatement modeling	80
	f Report Assembly for draft and final submittals	80
	Task II Subtotal	376
Task III	<u>Location Drainage Study</u>	
	a Hydraulic Report - Marley Creek (2 crossings of Wolf Road):	
	1 Field Review	8
	2 Survey Note Conversions	8
	3 Waterway Information Tables (WWIT's for 2 Crossings)	10
	4 Hydraulic Report Data Sheets (2 Crossings)	8
	5 Hydrologic Model	0
	6 Hydraulic Model	40
	7 Compensatory Storage Calculations for 2 crossings	24
	8 Narrative & Exhibits	40
	9 Report Assembly for draft and final submittals	12
	Task IIIa Subtotal	150
	b Hydraulic Report - Spring Creek	
	1 Field Review	8
	2 Survey Note Conversions	8
	3 Waterway Information Tables (WWIT's)	6
	4 Hydraulic Report Data Sheets	4
	5 Hydrologic Model	2
	6 Hydraulic Model	40
	7 Compensatory Storage Calculations	16
	8 Narrative & Exhibits	40
	9 Report Assembly for draft and final submittals	12
	Task IIIb Subtotal	136
	c Stream Survey (2 waterway crossings)	32

## DRAFT MANHOURS BY TASK DETAIL

PROJECT: Wolf Road from 143rd Street to 167th Street  
 Client: Orland Park  
 AECOM  
 March 18, 2020

<u>Task</u>	<u>Item</u>	<u>Manhours</u>
	d Revise Draft LDS per IDOT Comments	
	1 Evaluate existing flooding concerns	16
	2 Update the storm sewer design	16
	3 Ensure that proposed pipes are not submerged at various outlets	8
	4 Provide additional exhibits for offsite area draining to ROW	16
	5 Provide hydraulic analysis for Culvert at Outlet 14	24
	6 Revise PDP sheets per IDOT comments	32
	Task III d Subtotal	112
	e Revise LDS to Include Potential New ESR Limits	80
	f Coordination with IDOT Hydraulics & Village of Orland Park	24
	Task III Subtotal	534
Task IV	<u>Structural Studies</u>	
	a Culvert Inspection and Culvert Condition Memorandum	
	1 Marley Creek Culvert	75
	2 Spring Creek Culvert	75
	Task IV a Subtotal	150
	b Retaining Wall Type, Size & Location Plans	
	1 Sta. 251+75 to Sta. 255+00 RT	240
	c Geotechnical Investigations	
	See attached scope and manhour proposal from Wang Engineering	
	Task IV Subtotal	390
Task V	<u>Project Development Report (PDR) Update</u>	
	a Update Crash Analysis	60
	b Update PDR Text	60
	c Update PDR Exhibits	80
	Task V Subtotal	200
Task VI	<u>Administration/Management</u>	
	10.1 AECOM Administration/Management	
	Project Administration	
	Assume 10 hours per months for 18 months	180
	Project Meetings	80
	Task VI Subtotal	260
Task VII	<u>QA/QC</u>	
	AECOM QA/QC	40
	Total Manhours	2,510

# COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment  
Prepared By: Consultant  
DATE 03/18/20

FIRM AECOM  
PTB-ITEM # 0  
PRIME/SUPPLEMENT Wolf Road

OVERHEAD RATE 133.02%  
COMPLEXITY FACTOR 0

DBE DROP BOX	ITEM	MANHOURS  (A)	PAYROLL  (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL  (B-G)	% OF GRAND TOTAL
	Roadway Studies	710	31,950	42,500		11,822		-	86,272	25.98%
	Noise Study	376	17,135	22,793		6,340		-	46,268	13.93%
	Location Drainage Study	534	23,191	30,849		8,581		-	62,621	18.86%
	Structural Studies	390	16,808	22,358		6,219		-	45,385	13.67%
	PDR Update	200	8,967	11,928		3,318		-	24,213	7.29%
	Administration	260	12,684	16,872		4,693		-	34,249	10.31%
	QA/QC	40	1,678	2,232		621		-	4,531	1.36%
	Direct Costs		-	-	1,000	-		-	1,000	0.30%
	Geotechnical - Wang		-	-		-	27,500	-	27,500	8.28%
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### AVERAGE HOURLY PROJECT RATES

**FIRM** AECOM  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** Wolf Road

**DATE** 03/18/20

**SHEET** 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Roadway Studies			Noise Study			Location Drainage Study			Structural Studies			PDR Update		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Director/Principal	70.00	0.0																	
Project Manager	68.59	20.0	0.80%	0.55															
Technical Specialist	70.00	0.0																	
Project - Engineer, Scientist	64.54	0.0																	
Senior - Engineer, Scientist,	62.69	406.0	16.18%	10.14	130	18.31%	11.48	80	21.28%	13.34	60	11.24%	7.04	40	10.26%	6.43	36	18.00%	11.28
Engineer, Scientist, Planner	41.95	1,220.0	48.61%	20.39	330	46.48%	19.50	156	41.49%	17.40	260	48.69%	20.42	170	43.59%	18.29	84	42.00%	17.62
Resident Engineer	66.44	0.0																	
Construction Engineer	47.67	0.0																	
Inspector, Field Office Engin	47.37	0.0																	
Surveyor	36.23	0.0																	
Engineering Technician, De	39.83	864.0	34.42%	13.71	250	35.21%	14.02	140	37.23%	14.83	214	40.07%	15.96	180	46.15%	18.38	80	40.00%	15.93
PM Support/Project Controls	41.63	0.0																	
Administrative Assistant	31.16	0.0																	
		0.0																	
		0.0																	
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<b>TOTALS</b>		2510.0	100%	\$44.79	710.0	100.00%	\$45.00	376.0	100%	\$45.57	534.0	100%	\$43.43	390.0	100%	\$43.10	200.0	100%	\$44.83

### AVERAGE HOURLY PROJECT RATES

**FIRM** AECOM  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** Wolf Road

**DATE** 03/18/20  
**SHEET** 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Administration			QA/QC			Direct Costs			Geotechnical - Wang								
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Director/Principal	70.00																		
Project Manager	68.59	20	7.69%	5.28															
Technical Specialist	70.00																		
Project - Engineer, Scientist	64.54																		
Senior - Engineer, Scientist	62.69	60	23.08%	14.47															
Engineer, Scientist, Planner	41.95	180	69.23%	29.04	40	100.00%	41.95												
Resident Engineer	66.44																		
Construction Engineer	47.67																		
Inspector, Field Office Engin	47.37																		
Surveyor	36.23																		
Engineering Technician, De	39.83																		
PM Support/Project Control	41.63																		
Administrative Assistant	31.16																		
<b>TOTALS</b>		260.0	100%	\$48.79	40.0	100%	\$41.95	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME AECOM  
 PRIME/SUPPLEMENT Wolf Road  
 Prepared By M. Eichten

DATE 03/18/20  
 PTB-ITEM# 0

CONTRACT TERM 12 MONTHS  
 START DATE 3/1/2020  
 RAISE DATE 1/1/2021  
 END DATE 2/28/2021

OVERHEAD RATE 133.02%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	3/1/2020	1/1/2021	10	83.33%
1	1/2/2021	3/1/2021	2	17.17%

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The total escalation = 0.50%

# PAYROLL RATES

FIRM NAME AECOM DATE 03/18/20  
 PRIME/SUPPLEMENT Wolf Road  
 PTB-ITEM # 0

ESCALATION FACTOR **0.50%**

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Project Director/Principal	\$70.00	\$70.35
Project Manager	\$68.25	\$68.59
Technical Specialist	\$69.20	\$69.55
Project - Engineer, Scientist, Planner, Architect	\$64.22	\$64.54
Senior - Engineer, Scientist, Planner, Architect	\$62.38	\$62.69
Engineer, Scientist, Planner, Architect	\$41.74	\$41.95
Resident Engineer	\$66.11	\$66.44
Construction Engineer	\$47.43	\$47.67
Inspector, Field Office Engineer	\$47.13	\$47.37
Surveyor	\$36.05	\$36.23
Engineering Technician, Designer, CADD	\$39.63	\$39.83
PM Support/Project Controls	\$41.42	\$41.63
Administrative Assistant	\$31.00	\$31.16

