

Design Services for Bandemer-Barton Trail Connection Project Bergmann, OHM Advisors, and Soil & Material Engineers

June 2nd, 2021

1.0 Work Plan

This proposal and workplan is broken up (for convenience) in to four parts. It is anticipated, however, that the project would be designed, advertised, and constructed as one project:

- 1) A proposed underpass under the Michigan Line RR including trail from the easterly Huron River pedestrian bridge, through the underpass, and to the trail tie-in to the park road in Bandemer Park.
- 2) A proposed trail within the Barton Nature Area including connection to the existing trail west of the westerly pedestrian bridge over the Huron River.
- 3) Canoe livery circulation improvements from Huron River Drive to the boat launch just west of the westerly pedestrian bridge over the Huron River.
- 4) Parking lot ADA accommodation improvements near Huron River Drive just south of the easterly pedestrian bridge over the Huron River.

The design will be based on the approved study completed by the Bergmann-OHM-SME team in 2020. Below a summary of the design effort anticipated and any notable exclusions to the design services included in the hours/costs presented.

1.1 DESCRIPTION OF WORK

These design services will include the effort required to design, coordinate, and ultimately bid construction of the project as described in the four parts above. Construction inspection/engineering services will be procured separately from this contract as will the Design Agreement (and associated costs) required by Amtrak to review the project. Below is a summary of the work tasks anticipated for the successful completion of the design of this project.

1.2 DESIGN SURVEY

- Complete necessary survey for the work as described including topographic survey of the area within the Michigan Line RR R/W and the natural area between the proposed underpass and the easterly pedestrian structure over the Huron River.
- Complete survey required for ADA improvements at Huron River Drive parking area and the circulation improvements at the canoe livery.

1.3 PREPARE BASE PLANS

- Develop base plans and establish the proposed trail alignment (Option 2 from the feasibility study).
- Plans sheets will be prepared for the proposed work.
- It is assumed that no work will be required for alternate trail alignments or feeder trails.
- It is assumed that one of the canoe livery concepts will be advanced as directed by the County/City and no further study is required.
- It is assumed that no improvements or permitting will be required with the hydro dam other than the work for establishing and restoring the access road to the temporary RR crossing.

1.4 UTILITY NOTIFICATION

- Obtain a list of known utilities within the area from the County and City and solicit existing plans and known utilities within the area.

1.5 PERFORM GEOTECH INVESTIGATION

- Provide exploration and recommendations associated with the planned work. Additional breakout of the Geotech scope of work is included from SME's proposal.

1.6 AESTHETIC IMPROVEMENTS AND DESIGN

- Work with the County and City on up to 2 workshops for outlining desired aesthetic outcomes.
- Develop aesthetic details and appurtenances for the new underpass including color schemes, railing treatments, benches, trash receptacles, and landscaping.
- Develop renderings of the planned improvements to the new underpass. One model will be developed with finished renderings/stills of up to 4 slides.

1.7 TASK 3390/3500/3540/3830: MAINTAINING TRAFFIC

- Develop MOT details for construction of the new trail. It is anticipated that minimal effort is required along Huron River Drive and for existing trail users given the work planned.

1.8 TASK 3570: PREPARE PRELIMINARY STRUCTURE PLANS

- Establish limits of the underpass within the RR R/W (determine limits based on current vs. future RR needs).
- Develop preliminary plans for the new underpass (assumed to be a 4-sided precast box structure). Detailed design would be the responsibility of the Contractor in accordance with typical practice in Michigan, however, underpass layout, preliminary sizing and clearance, subgrade recommendations, and headwall/wingwall layout will be provided.
- Develop temporary earth retention structures required for constructability of the new underpass under a limited track outage and to coordinate work with known fiber optic carriers within the railroad R/W.
- Additional hours/costs may be required if a different structure (i.e. trestle/bridge) or staging method (i.e. temporary run-arounds, jump spans, etc.) is required.
- Plans sheets, specifications, and construction estimate will be prepared for the proposed work.
- It is assumed that no work to the existing Huron River pedestrian crossings is required for this project.
- It is assumed that the trail approaching the underpass from both directions will not require retaining walls but that trail "switchbacks" can be provided to meet ADA requirements with grading and appropriate fencing. Pre-engineered/fabricated block walls may be required and can be provided at no additional design cost.
- Complete the program application.

1.9 TASK 3580: PREPARE PRELIMINARY TRAIL PLANS

- Develop preliminary plans for the approved trail alignment.
- Plans sheets, specifications, and construction estimate will be prepared for the proposed work.
- It is assumed that no work will be required for alternate trail alignments or feeder trails.
- It is assumed that no retaining walls will be required along the trail alignment other than those noted elsewhere and miscellaneous block walls not required additional Geotech or design effort.
- Complete the program application.

1.10 TASK 3590: REVIEW PRELIMINARY PLANS (HOLD PLAN REVIEW MEETING)

- Review comments received prior to the meeting and prepare to discuss the comments at the meeting.
- Attend the Preliminary Plan Review Meeting at the Brighton TSC with Senior Design Staff and Project Manager.
- Assume one meeting as part of the MDOT LAP program.
- Meeting minutes will be prepared and distributed to all attendees.

1.11 TASK 3610: COMPILE UTILITY INFORMATION

- Identify/quantify limits of utility conflicts.
- Show known utilities on plan sheets developed for details as needed.

1.12 TASK 3660: RESOLVE UTILITY ISSUES

- Attend one utility meeting for resolution of utility conflicts with the proposed work.
- Attend follow up meetings with individual utility owners for finalizing their relocation plan(s). Assumed 5 meetings.
- Provide conflict resolution as necessary for any utility conflicts with the proposed bridge work.

1.13 COORDINATE RR INVOLVEMENT FOR NEW UNDERPASS

- Prepare separate submittals for RR review to obtain input and comment. Maintain comment resolution matrix provided by Amtrak.
- Meet with the MDOT Office of Rail staff as needed. Assumed 4 in-person meetings and 4 virtual meetings.
- Meet with Amtrak staff (assume two meetings, one at preliminary plan review and one at final plan review).
- Address rail comments and develop associated rail related plan notes and specifications.
- Assist the City/County with Amtrak agreements and ultimate approval of the RR.

1.14 COORDINATE RR INVOLVEMENT FOR A TEMPORARY AT-GRADE CROSSING

- Coordinate with MDOT Office of Rail and Amtrak for a temporary at-grade crossing near the hydro power plant.
- Coordinate effort with City's watermain project if on the same timeline.
- It is assumed that no railroad signal work will be required as part of this effort but could be completed with assistance of a partner firm for additional cost if required. The RR may also require this design and construction be done with Amtrak forces through a force account if needed.

1.15 OBTAIN ENVIRONMENTAL CLEARANCE/PERMITS

- It assumed that MDOT's LAP environmental process will be followed. We do not anticipate major impacts to the environment as part of this project.
- NEPA clearance will be provided through completion of MDOT LAP's standard application.
- Most clearance can be obtained through use of inventory databases (desktop analysis).
- Two site visits are assumed for confirming desktop finding if needed.
- Wetland delineations not previously completed will be performed and picked up by survey.
- It is assumed that archaeological clearance will include sending letters to known entities. If additional investigation is required, a partner firm will need to be hired on at an additional cost.
- EGLE permit will be obtained for the anticipated impacts including work within the floodplain and wetlands.

- No survey or analysis of the Huron River is anticipated as part of this work.
- An allowance for some soil sampling for contaminated has been included for the area between the railroad and the easterly pedestrian bridge. Additional costs may be required through further exploration.

1.16 TASK 3840: DEVELOP TRAIL FINAL PLANS AND SPECIFICATIONS

- Final trail plans and address all Preliminary Plan review comments.
- Develop CPM schedule for the project.
- Develop final trail plans (99% complete) including specifications, quantities, and cost estimate.

1.17 TASK 3850: DEVELOP STRUCTURE FINAL PLANS AND SPECIFICATIONS

- Final underpass plans and address all Preliminary Plan review comments.
- Finalize all design calculations.
- Develop CPM schedule for the project, if needed, including a short track outage coordinated with the RR.
- Develop final underpass plans (99% complete) including specifications, quantities, and cost estimate.

1.18 TASK 3885: FINALIZE PLANS

- Address final plan comments and compile final plan submittal.
- Compile Final RID, including:
 - Existing plan documents
 - Geotechnical reports
- Prepare and submit final deliverables, including:
 - DGN's
 - Calc books including quantity calculations

1.19 TASK 7010: PUBLIC MEETING

- Support County and City staff with board materials and presentation development.
- Attend one public meeting.
- Assist in any Public Relations efforts as needed by the City/County.

1.20 TASK 5010: DESIGN ASSISTANCE DURING CONSTRUCTION

- While construction inspection/engineering will be handled through a separate project, hours have been included to assist in answering questions during construction.
- Review shop drawings for approval.

1.21 TASK 6040: REPORTING AND RECORD KEEPING

- Hours have been included for overall management of the project including schedule meeting and providing meeting minutes, phone calls and coordination, invoicing, maintaining design schedule, etc.
- These hours also include regular progress/update calls and meeting with the County (and City) as required to progress the project through design.

2.0 Schedule

- A final schedule will be developed in coordination with the County and City. Construction is anticipated in 2023 or 2024.



3.0 Items Needed from the County/City

- Nothing is required at this time.

4.0 Staffing

4.1 DESIGN RESPONSIBILITIES

Bergmann is the prime consultant responsible for design of the underpass as well as the trail from 50-feet west of the RR R/W to the Bandemer park roadway. Bergmann will also coordinate the temporary at-grade crossing near the hydro powerplant for constructability of the trail within the Barton Nature Area. OHM will design the trail, canoe livery, and parking lot improvements described. SME will provide geotechnical investigation and recommendations.

Key staff for the consultant team will remain consistent with the original study services previously completed.

5.0 Location of the Project Work

Bergmann will staff this project from their Lansing, Southfield, and Grand Rapids, MI offices

OHM will staff this project from there Livonia and Ann Arbor offices.

SME will staff this project from their Plymouth office.

6.0 Authorized Negotiators

The following individuals are authorized to negotiate for Bergmann on this contract:

- Jeremy A. Hedden, PE (517-827-8684)
- Richard W. Chelotti, PE (517-648-2607)

The following individual(s) are authorized to negotiate for OHM on this contract:

- Matt Parks, PE

The following individual(s) are authorized to negotiate for SME on this contract:

- Scott Roosa, PE

7.0 Other Interests

Bergmann and its sub-vendors (OHM and SME) have no previous or current interest or involvement in any part of this project that might be associated with any other public entity or private corporation. This team assisted the County/City with the development of the feasibility study.

8.0 Communications

All external communications will be limited to Peter Sanderson with Washtenaw County Parks and Jeremy Hedden (overall Project Manager for Bergmann) unless specific approval is obtained by Washtenaw County Parks, otherwise.

Internal communications should be handled through email, phone and in-person discussions which are then summarized and copied to Jeremy Hedden.

9.0 Deliverables

The Bergmann Bridge Project Manager (Jeremy Hedden) will be stamping Bergmann's documents for this project. Subvendors OHM and SME will be stamping deliverables associated with the work assigned to them.

10.0 CADD

All work will be performed in Microstation Connect workspace. Level management, border and plot tools will be consistent with MDOT standards and standard practice in the Bergmann Lansing office. See Lead CAD Designer, Scott Rumsey for additional information.

CAD layout of plans will be established and coordinated among Bergmann and its subconsultants throughout the coordination meetings.

11.0 Documentation and Filing

All electronic and hard copy files shall reside in the Bergmann Lansing, MI office. All archiving procedures are to be incorporated as per Bergmann standards.

This project will utilize Newforma email and FTP filing.

12.0 Safety Plan

This project will require visits in the field. All Bergmann and Michigan OSHA safety policy guidelines shall be followed when traveling to, and while being at the site. Use of appropriate personal protective equipment (PPE) and the appropriate training is required at all times while at the project site. All sub vendors providing services in the field are required to follow State and Federal guidelines (i.e. MIOSHA) at a minimum and shall enforce their own specific safety guidelines for worker safety. For this project, it is expected that Bergmann, along with all of their sub-vendors (OHM and SME) will have field work activities. All sub-vendors providing services in the field will be required to follow State and Federal guidelines at a minimum and will enforce their own specific safety guidelines for worker safety.

13.0 Quality Plan

This project will be completed in accordance with standard MDOT guidelines. Design calculations, structural models, and quantity calculations will be reviewed internally using their standard processes.

Each submission of drawings, specifications, and estimate will be prepared and completed at least 1-week in advance of the scheduled turn-in to the County so that a thorough review can be completed. Reviews will be conducted/led by Mario Quagaliata (QA/QC Manager). The reviews will be performed in BlueBeam ReVu Sessions and an internal review meeting will be held prior to submittal to the County/City. All disciplines will be invited to the ReVu session. Due to the large number of bridges and different design packages, review sessions will be staggered to allow ample time for review. Bridges within each group may change based on actual progress. The logic in grouping these structures is to:

14.0 Invoicing

This project will be invoiced on a monthly basis and will be completed by the Project Manager, Jeremy Hedden. The project manager will contact the sub vendors (OHM and SME) to inform them of Bergmann's invoicing procedures and submittal time lines to the County/City.

SUMMARY OF TOTAL PROJECT COSTS BY JOB NUMBER

All Prime and Subconsultant Costs for ALL JOB NUMBERS (including phases). For amendment or revision, complete this form showing all job numbers for all services provided. Report Tier 2 Subconsultant costs with Tier 1 Subconsultants. For use with all Priced Proposals. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN Tunnel & Bandemer Trail Barton Trail Canoe Launch Parking Lot at HRD	CONTRACT / AUTHORIZATION NUMBER:
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PRIME CONSULTANT NAME: Bergmann	DBE Goal:	PROJECT DESCRIPTION: Bandemer Barton Trail & Tunnel
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Consultant	Firm Role:	Contracted to:	Payment Method:	Job Number nel & Bandemer T	Job Number Barton Trail	Job Number Canoe Launch	Job Number Parking Lot at HRD	Job Number	Job Number	DBE (Y/N)	Total	% of Contract
HOURS				1,843	483	123	75	-	-		2,524	
Bergmann	P	MDOT	LDHRLY	1,671	106	5	2	-	-		1,784	
OHM Advisors	T1	BA	LDHRLY	172	377	118	73	-	-		740	
LABOR				\$ 300,314.00	\$ 67,570.00	\$ 16,281.00	\$ 9,819.00	\$ -	\$ -		\$ 393,984.00	
Bergmann	P	MDOT	LDHRLY	\$ 278,260.00	\$ 19,180.00	\$ 1,150.00	\$ 460.00	\$ -	\$ -		\$ 299,050.00	
OHM Advisors	T1	BA	LDHRLY	\$ 22,054.00	\$ 48,390.00	\$ 15,131.00	\$ 9,359.00	\$ -	\$ -		\$ 94,934.00	
OTHER DIRECT EXPENSES				\$ 6,100.00	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 6,100.00	
Bergmann	P	MDOT	LDHRLY	\$ 6,100.00	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 6,100.00	
LSUM / MILE / UNIT COSTS				\$ 28,100.00	\$ 11,900.00	\$ 3,700.00	\$ -	\$ -	\$ -		\$ 43,700.00	
Soil and Materials Engineering, Inc.	T1	BA	UNIT	\$ 28,100.00	\$ 11,900.00	\$ 3,700.00	\$ -	\$ -	\$ -		\$ 43,700.00	

Consultant Totals	Firm Role:	Contracted to:	Payment Method:	Job Number nel & Bandemer T	Job Number Barton Trail	Job Number Canoe Launch	Job Number Parking Lot at HRD	Job Number	Job Number	DBE (Y/N)	Total	% of Contract
Bergmann	P	MDOT	LDHRLY	\$ 284,360.00	\$ 19,180.00	\$ 1,150.00	\$ 460.00	\$ -	\$ -	N	\$ 305,150.00	68.8%
OHM Advisors	T1	BA	LDHRLY	\$ 22,054.00	\$ 48,390.00	\$ 15,131.00	\$ 9,359.00	\$ -	\$ -	N	\$ 94,934.00	21.4%
Soil and Materials Engineering, Inc.	T1	BA	UNIT	\$ 28,100.00	\$ 11,900.00	\$ 3,700.00	\$ -	\$ -	\$ -	N	\$ 43,700.00	9.8%

Firm Role Key: P = Prime Firm, T1 = Tier 1 Sub, T2 = Tier 2 Sub

TOTAL COSTS				\$ 334,514.00	\$ 79,470.00	\$ 19,981.00	\$ 9,819.00	\$ -	\$ -		\$ 443,784.00	100.0%
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DERIVATION OF PRIME CONSULTANT COSTS

Summary of all Prime Costs for ALL JOB NUMBERS (including phases) for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN Tunnel & Bandemer Trail Barton Trail Canoe Launch Parking Lot at HRD		CONTRACT / AUTHORIZATION #:	FIRM ROLE: Prime Firm
PRIME CONSULTANT NAME: Bergmann		PROJECT DESCRIPTION: Bandemer Barton Trail & Tunnel	

PRIME LABOR:

CLASSIFICATION	CODE	HOURS	x	RATE/HR	=	LABOR COST
Project Manager	PM	321	x	\$ 230.00	=	\$ 73,830.00
Senior Engineer	SE	382	x	\$ 180.00	=	\$ 68,760.00
Engineer	E	782	x	\$ 130.00	=	\$ 101,660.00
Landscape Architect	LA	232	x	\$ 190.00	=	\$ 44,080.00
Environmental	EV	67	x	\$ 160.00	=	\$ 10,720.00
		Total Hours:	1784			Total Labor \$ 299,050.00

PRIME OTHER DIRECT EXPENSES: (List each item once at Actual Cost - NO MARKUP.)

Items	Quantity	@	Unit Price	Unit	=	Item Price
Permit to Enter/Insurance	1.00	@	\$ 5,000.000	Ea	=	\$ 5,000.00
Safety Training	10.00	@	\$ 50.000	Ea	=	\$ 500.00
Natural Features Inv	1.00	@	\$ 600.000	Ea	=	\$ 600.00
					Total Other Direct Expenses \$	6,100.00

TOTAL PRIME FIRM COSTS \$ 305,150.00

Firm Role: Prime Firm

Note: Payment Method = LDHRLY

DERIVATION OF SUBCONSULTANT COSTS

Summary of all Sub Costs for ALL JOB NUMBERS (including phases) for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN Tunnel & Bandemer Trail Barton Trail Canoe Launch Parking Lot at HRD	CONTRACT / AUTHORIZATION #:	FIRM ROLE: <p style="text-align: center;">Tier 1 Sub</p>
SUBCONSULTANT NAME: <p style="text-align: center;">OHM Advisors</p>	PROJECT DESCRIPTION: <p style="text-align: center;">Bandemer Barton Trail & Tunnel</p>	

SUB LABOR:								
<i>CLASSIFICATION</i>	<i>CODE</i>	<i>HOURS</i>	<i>x</i>	<i>RATE/HR</i>	<i>=</i>	<i>LABOR COST</i>		
Principal	PIC	39	x	\$ 186.00	=	\$	7,254.00	
Lead Engineer	Eng	245	x	\$ 140.00	=	\$	34,300.00	
Cad Tech	CT	172	x	\$ 115.00	=	\$	19,780.00	
Environmental	Env	61	x	\$ 150.00	=	\$	9,150.00	
Admin/Survey	Adm	180	x	\$ 100.00	=	\$	18,000.00	
Structure Engineer	SE	43	x	\$ 150.00	=	\$	6,450.00	
		Total Hours:	740				Total Labor	\$ 94,934.00

TOTAL SUBCONSULTANT COSTS \$ 94,934.00

Firm Role: Tier 1 Sub to BA

Note: Payment Method = LDHRLY

DERIVATION OF SUBCONSULTANT COSTS

Summary of all Sub Costs for ALL JOB NUMBERS (including phases) for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN Tunnel & Bandemer Trail Barton Trail Canoe Launch Parking Lot at HRD	CONTRACT / AUTHORIZATION #:	FIRM ROLE: <p style="text-align: center;">Tier 1 Sub</p>
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SUBCONSULTANT NAME: <p style="text-align: center;">Soil and Materials Engineering, Inc.</p>	PROJECT DESCRIPTION: <p style="text-align: center;">Bandemer Barton Trail & Tunnel</p>
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SUB LSUM / MILE / UNIT COSTS:							
<u>Items</u>	<u>Quantity</u>	<u>@</u>	<u>Bid Price</u>	<u>Unit</u>			<u>Item Price</u>
Railroad Crossing	1.00	@	\$ 16,000.000	Ea	=	\$	16,000.00
Railroad Crossing to South River X-ing	1.00	@	\$ 12,100.000	Ea	=	\$	12,100.00
Trail Through Barton Nature Area	1.00	@	\$ 11,900.000	Ea	=	\$	11,900.00
Canoe Livery	1.00	@	\$ 3,700.000	Ea	=	\$	3,700.00
Total Unit Costs \$							43,700.00

TOTAL SUBCONSULTANT COSTS \$							43,700.00
<i>Firm Role: Tier 1 Sub to BA</i>							
<i>Note: Payment Method = UNIT</i>							

PROPOSED PERSON HOURS BY PPMS TASK

Summary of all Prime or Subconsultant Hours for **ALL JOB NUMBERS** (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Submit only one form per consultant. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN Tunnel & Bandemer Trail Barton Trail Canoe Launch Parking Lot at HRD							CONTRACT / AUTHORIZATION #:	FIRM ROLE: Prime Firm		
CONSULTANT NAME: Bergmann							PROJECT DESCRIPTION: Bandemer Barton Trail & Tunnel			

SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S PER PPMS TASK AND CLASSIFICATION

PPMS Task Code	Task Description	Project Manager	Senior Engineer	Engineer	Landscape Architect	Environmental				HOURS FOR TASK
3330	Perform Design Survey	2	2							4
3360	Prepare Base Plans		14	40	8					62
311M	Utility Notification	2	4	4						10
3380	Review Base Plans	4	4							8
3390	Develop the Maintaining Traffic Concepts		2	8						10
3510	Perform Roadway Geotech Investigation	2	2							4
3522	Conduct Drainage Study, Design and BMP's	2	2							4
3530	Geotechnical Foundation Engineering Report		4	8						12
3535	Conduct Str. Review for Arch. & Aesthetic Imp.				180					180
3540	Develop the Maintaining Traffic Plan		2	4						6
3570	Prepare Prelim Structure Plans		60	186						246
3580	Develop Preliminary Plans		26	112						138
3590	Review Preliminary Plans (Hold Plan Review Mtg)	4	8							12
3610	Compile Utility Information	4	12	40						56
3650	Coordinate RR Involvement for Grade Separations	60	70	44						174
3655	Coordinate RR Involvement for At-Grade Crossings	24	24	40						88
361M	Utility Meeting	44	44							88
3730	Obtain Environmental Permit		2	42		43				87
3830	Complete the Maintaining Traffic Plan		2							2
3840	Develop Final Plans and Specifications		8	38	12	4				62
3850	Develop Structure Final Plans and Specs		22	92						114
3885	Finalize Plans		4	16	4	4				28
5010	Design Assistance During Construction	4	40	80	4	4				132
6040	Reporting and Record Keeping	121								121
5021	Public Relations	40								40
7000	Program Application		16	24						40
7010	Public Meeting	8	8	4	24	12				56

SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S

Classification:	Project Manager	Senior Engineer	Engineer	Landscape Architect	Environmental				HOURS FOR FIRM
Total Hours:	321	382	782	232	67				1784

PROPOSED PERSON HOURS BY PPMS TASK

Summary of all Prime or Subconsultant Hours for **ALL JOB NUMBERS** (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Submit only one form per consultant. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN Tunnel & Bandemer Trail Barton Trail Canoe Launch Parking Lot at HRD										CONTRACT / AUTHORIZATION #:		FIRM ROLE: Tier 1 Sub	
CONSULTANT NAME: OHM Advisors										PROJECT DESCRIPTION: Bandemer Barton Trail & Tunnel			
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S PER PPMS TASK AND CLASSIFICATION										TOTALS ALL JOB NUMBERS			
PPMS Task Code	Task Description	Principal	Lead Engineer	Cad Tech	Environmental	Admin/Survey	Structure Engineer			HOURS FOR TASK	LABOR FOR TASK <i>(w/Equalize)</i>	OVERHEAD FOR TASK	LAB+OH FOR TASK
3330	Perform Design Survey					180				180	\$ 18,000.00	\$ -	\$ 18,000.00
3360	Prepare Base Plans	3	41	42			10			96	\$ 12,628.00	\$ -	\$ 12,628.00
3380	Review Base Plans		8							8	\$ 1,120.00	\$ -	\$ 1,120.00
3510	Perform Roadway Geotech Investigation		3							3	\$ 420.00	\$ -	\$ 420.00
3522	Conduct Drainage Study, Design and BMP's		8							8	\$ 1,120.00	\$ -	\$ 1,120.00
3530	Geotechnical Foundation Engineering Report		2							2	\$ 280.00	\$ -	\$ 280.00
3570	Prepare Prelim Structure Plans			16						16	\$ 1,840.00	\$ -	\$ 1,840.00
3580	Develop Preliminary Plans	4	76	36			22			138	\$ 18,824.00	\$ -	\$ 18,824.00
3590	Review Preliminary Plans (Hold Plan Review Mtg)	4	6							10	\$ 1,584.00	\$ -	\$ 1,584.00
361M	Utility Meeting		2							2	\$ 280.00	\$ -	\$ 280.00
3730	Obtain Environmental Permit		4		61					65	\$ 9,710.00	\$ -	\$ 9,710.00
3840	Develop Final Plans and Specifications	3	64	53			11			131	\$ 17,263.00	\$ -	\$ 17,263.00
3885	Finalize Plans		29	25						54	\$ 6,935.00	\$ -	\$ 6,935.00
6040	Reporting and Record Keeping	21								21	\$ 3,906.00	\$ -	\$ 3,906.00
7000	Program Application		2							2	\$ 280.00	\$ -	\$ 280.00
7010	Public Meeting	4								4	\$ 744.00	\$ -	\$ 744.00
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S										TOTALS			
	Classification:	Principal	Lead Engineer	Cad Tech	Environmental	Admin/Survey	Structure Engineer			HOURS FOR FIRM	LABOR FOR TASK <i>(w/Equalize)</i>	OVERHEAD FOR FIRM	LAB+OH FOR FIRM
	Total Hours:	39	245	172	61	180	43			740	\$ 94,934.00	\$ -	\$ 94,934.00