

**To:** Members of Dublin City Council  
**From:** Dana L. McDaniel, City Manager   
**Date:** September 8, 2016

**Initiated By:** Paul A. Hammersmith, PE, Director of Engineering/City Engineer  
 Jean-Ellen M. Willis, PE, Engineering Manager – Transportation

**Re:** Resolution 50-16 - Authorizing the City Manager to Enter into a Cooperative Contribution Agreement with the City of Columbus for Arterial Street Rehabilitation – Sawmill Corridor

## Summary

As described in the 2016 – 2020 Capital Improvements Program, the intersection of Sawmill Road and Snouffer Road is being evaluated. Dublin requested proposals and interviews from consulting firms, and selected CH2M to lead the study at the end of 2015. In the early stages, Columbus was engaged, as portions of this intersection are within the City of Columbus, and a partnership was formed that resulted in a comprehensive corridor study for Sawmill Road.

Columbus requested to expand the study limits along Sawmill Road to include the intersections from SR 161 to Hard Road. The resultant work combines Dublin's initial study with the Columbus Sawmill Road Third Southbound Lane Study, from I-270 to Hard Road, and expands the limits south to SR 161, as shown in Figure 1.

The expanded study will include determining conceptual intersection layouts that will meet Level of Service criteria for the Sawmill Road and SR 161; Sawmill Road and Banker Drive; Sawmill Road and Village Parkway/Federated Boulevard intersections. Previous study results will be incorporated for the Sawmill Road and Billingsley Road; Sawmill Road and Bright Road/Sawbury Boulevard; and Caine Road and Snouffer Road intersections. The study will investigate a corridor concept that expands the newly constructed third northbound lane (from I-270 to Hard Road) to a third through lane in each direction, including through the I-270/Sawmill Road interchange and south to SR 161. Having all of these elements in one cohesive study for the entire corridor is beneficial for both agencies.

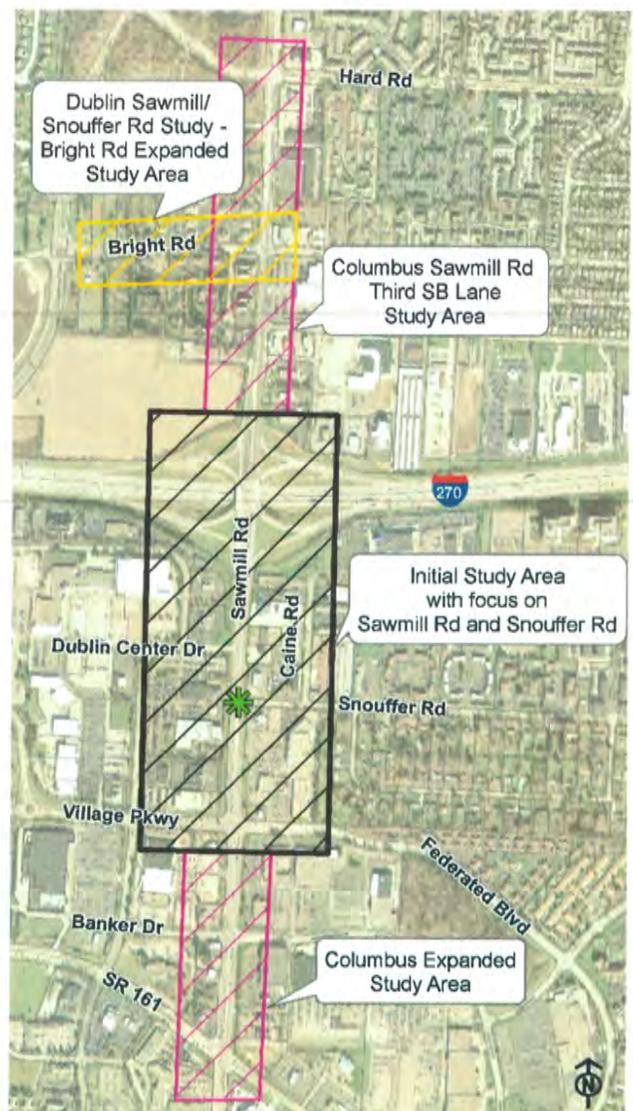


Figure 1. Study Area

There is money programmed for design in the 2016-2020 CIP for the Sawmill Road Third Southbound Lane study, in the event a design project resulted from the Columbus work. Based on those study results, however, Columbus has not determined what their final solution is for this corridor to date. Columbus has, instead, asked to partner with Dublin to examine the corridor for a more holistic approach, understanding these intersections operate as a system. Dublin has allocated \$107,652 of the currently programmed money to expand the study even further to analyze Bright Road, its intersection with Sawmill Road, and lead a public involvement process.

The added study scope was finalized in June 2016. Traffic counts have been conducted. A public meeting regarding study progress for the Bright Road Area will be held later this year. The study is scheduled for completion in late spring of 2017. Coordination will occur with the Bright Road Area Plan update.

The attached agreement outlines the responsibilities of Dublin and Columbus for study. Columbus is advancing \$98,350 in basic services, and contributing up to a maximum of \$150,000. Table 1 below details the studies, costs and work to be completed for each.

*Table 1. Study Details*

Agency	Study Name	Cost	Description
Dublin	Sawmill Road and Snouffer Road	\$147,470	Sawmill Road and Snouffer Road intersection conceptual alternatives development
Columbus	Sawmill Corridor (Arterial Street Rehabilitation)	\$98,350 Basic Services +\$40,135 If Authorized +\$11,335 Contingency	Conceptual intersection layouts, and study of Sawmill Road third through lane
Dublin	Bright Road and Sawmill Road	\$107,652 (includes \$69,388 for public involvement)	Develop unconventional intersection solutions for Sawmill Road and Bright Road and public involvement
<b>Dublin Total</b>		\$255,122	
Columbus Total		\$98,350 - \$150,000	
<b>Grand Total</b>		\$353,472 - \$405,122	

### **Recommendation**

Staff recommends approval of Resolution 50-16, authorizing the City Manager to enter a Cooperative Contribution Agreement with the City of Columbus for Arterial Street Rehabilitation – Sawmill Corridor.

# RECORD OF RESOLUTIONS

Resolution No. 50-16

Passed \_\_\_\_\_

## A RESOLUTION ALLOWING THE CITY MANAGER TO ENTER INTO A COOPERATIVE CONTRIBUTION AGREEMENT WITH THE CITY OF COLUMBUS FOR ARTERIAL STREET REHABILITATION – SAWMILL CORRIDOR

**WHEREAS**, Dublin has initiated a study to investigate intersection improvement alternatives for the Sawmill Road/Snouffer Road intersection; and

**WHEREAS**, Columbus has requested that Dublin expand the limits of the Sawmill Road/Snouffer Road Intersection Alternatives Analysis study, by combining a prior Columbus study of Sawmill Road from I-270 to Hard Road, with Dublin's initial Sawmill Road/Snouffer Road Intersection Alternatives Analysis study, and extending to the south to SR 161 (the Project); and

**WHEREAS**, the expanded study will include determining conceptual intersection layouts that will meet Columbus Level of Service criteria for the Sawmill Road/SR 161, Sawmill Road/Banker Drive, Sawmill Road/Federated Boulevard, and incorporate previous study results for the Sawmill Road/Billingsley Road, Sawmill Road/Bright Road/Sawbury Boulevard, and Caine Road/Snouffer Road intersections in the study area, and investigate a corridor concept that includes a third through lane in each direction, including through the I-270/Sawmill Road interchange; and

**WHEREAS**, Dublin agrees to accept a deposit of funds from Columbus in the amount of \$98,350.00 for the base services, up to \$40,135.00 for "If Authorized Services," and an additional \$11,335.00 for "Contingency services," for a total study cost not to exceed \$150,000 for the Columbus portion of the project; and

**WHEREAS**, Dublin and Columbus recognize the benefit that these public improvements will have on their citizens and that it is in the best interests of Dublin and Columbus to enter into a Contribution Agreement.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Dublin, \_\_\_\_\_ of its elected members concurring, that:

Section 1. The City Manager is hereby authorized to enter into an Contribution Agreement with Columbus to expand the limits of the Sawmill Road/Snouffer Road Intersection Alternatives Analysis from SR 161 to Hard Road, in substantially the same form as attached, with changes not inconsistent with this Resolution and not substantially adverse to this City and which shall be approved by the City Manager and Director of Finance. The approval of changes thereto by those officials, and their character as not being substantially adverse to the City, shall be evidenced conclusively by their execution thereof.

Section 2. This Council hereby authorizes and directs the City Manager, the Clerk of Council, the Director of Law, the Director of Finance, or other appropriate officers of the City to prepare and sign all agreements and instruments and to take any other actions as may be appropriate to implement this Resolution. This Council further authorizes the City Manager and the Director of Finance, for and in the name of the City, to execute any amendments to the Contribution Agreement, which amendments are not inconsistent with this Resolution and not substantially adverse to this City.

Section 3. This Resolution shall take effect upon adoption in accordance with Section 4.04(a) of the Revised Charter.

Passed this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Mayor - Presiding Officer

ATTEST:

\_\_\_\_\_  
Clerk of Council

**CAPITAL IMPROVEMENTS PROJECT  
CONTRIBUTION AGREEMENT  
BETWEEN  
CITY OF COLUMBUS, OHIO  
AND  
CITY OF DUBLIN, OHIO  
FOR  
ARTERIAL STREET REHABILITATION – SAWMILL CORRIDOR  
CAPITAL IMPROVEMENT PROJECT 530103-100047**

This Contribution Agreement (the “AGREEMENT”), made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016 (the “Effective Date”), by and between the City of Columbus, Ohio acting through its Director of Public Service, hereinafter designated as COLUMBUS, pursuant to and under the authority of Ordinance No. 1639-2016, passed by the City Council of the City of Columbus on the 11th day of July 2016, and the City of Dublin, an Ohio municipal corporation, with its offices at 5200 Emerald Parkway, Dublin, Ohio 43017, hereafter designated DUBLIN, collectively referred to as the “Parties”; and

**WHEREAS**, DUBLIN recently initiated a traffic analysis of the Sawmill Road corridor, including the Sawmill Road at Snouffer Road intersection, in relation to its Bridge Street District Vision Plan; and

**WHEREAS**, COLUMBUS has requested that DUBLIN expand the limits of its traffic analysis to provide a holistic study, as detailed in Exhibit A, of the Sawmill Road corridor from W. Dublin-Granville Road to Hard Road combining a prior study by COLUMBUS of Sawmill Road from I-270 to Hard Road with DUBLIN’s original study area and extending south to W. Dublin-Granville Road to adjoin a separate study of the W. Dublin-Granville Road corridor (the “Project”); and

**WHEREAS**, COLUMBUS recognizes the benefit that that effort will have on its citizens and understands that it is in the best interests of COLUMBUS and DUBLIN to enter into a Contribution Agreement for that purpose; and

**WHEREAS**, Ordinance 1639-2016 authorized COLUMBUS to enter into agreements with DUBLIN whereby COLUMBUS agrees to contribute funds toward the traffic analysis being performed by DUBLIN;

**NOW THEREFORE**, for and in consideration of the mutual covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby covenant and agree, as follows:

**1. DEFINITIONS:**

- A. “Contract Documents” shall mean this Agreement, including any attachments/exhibits thereto.
- B. “Contribution” is defined as the total consideration paid to DUBLIN for COLUMBUS’ share of the Work to be performed by DUBLIN pursuant to Section 2 herein.
- C. “Maximum Cost” shall not exceed \$150,000.00 payable to DUBLIN by COLUMBUS, unless and until additional amounts are appropriated by City Council and certified available by the City Auditor, and an appropriate modification of this Agreement is entered into by the Parties.

D. “Work” means the completion of a traffic study.

2. **TERM:** This Agreement shall commence on the date of execution by COLUMBUS and shall terminate after the Work has been accepted by DUBLIN and COLUMBUS and all final accounting has been completed and payment or refund received.
3. **GENERAL CONSIDERATIONS:** In consideration of the promises of COLUMBUS set forth herein, DUBLIN agrees to perform, or cause to be performed, a traffic analysis encompassing the Sawmill Road corridor from West Dublin-Granville Road to Hard Road.
4. **CONTRIBUTION:** COLUMBUS shall contribute up to **\$150,000.00** to DUBLIN toward costs associated with the completion of the traffic analysis as delineated in the Cost Proposal prepared by CH2M dated May 16, 2016, attached hereto as **Exhibit A**, and as authorized by the Ordinance referenced in paragraph 1 of this Agreement, unless and until additional appropriations are approved by City Council and certified by the City Auditor, and an appropriate modification of this Agreement is entered into by the Parties. COLUMBUS’ Contribution includes: Basic Services in the amount of \$98,350.00; If Authorized Services in the amount of \$40,135.00; and Contingency in the amount of \$11,335.00, as detailed in **Exhibit A**.

COLUMBUS shall disburse payment to DUBLIN for Basic Services in the amount of \$98,350.00 within 30 days following the execution of this Agreement by the Parties. Payment shall be made out to and delivered to:

City of Dublin  
Engineering  
5800 Shier Rings Road  
Dublin, Ohio 43016  
Attn: Jean-Ellen Willis

COLUMBUS further agrees to disburse payments to DUBLIN for If Authorized Services and Contingency within 30 days following the authorization of said services as warranted to facilitate the completion of the Project.

The monies DUBLIN receives from COLUMBUS shall be allocated to those items specifically delineated within Exhibit A. DUBLIN shall not render payment to CH2M, the Consultant contracted by DUBLIN to perform the Work, without first providing COLUMBUS with a copy of the Consultant’s invoice for review and concurrence.

5. **FINAL ACCOUNTING:** Upon completion of the Work, DUBLIN shall perform a final accounting to determine the final cost of the Work. Should the actual Cost of the Work amount to less than COLUMBUS’ Contribution thereto, DUBLIN shall provide a refund to COLUMBUS within 90 days of the project being deemed complete by DUBLIN.
6. **LEGAL JURISDICTION:** All claims, counterclaims, disputes and other matters in question between COLUMBUS, its agents and employees, and DUBLIN, its contractors, subcontractors and agents arising out of or relating to this Agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio.

7. **ENTIRE AGREEMENT:** This Agreement shall constitute the entire agreement between the parties and shall supersede all prior agreements, proposals, representations, negotiations and letters of intent, whether written or oral, pertaining to the Work.
8. **ADDITIONAL DOCUMENTATION:** The following document exhibits to be hereby incorporated into and made part of the Contract as though specifically rewritten herein:
  - 8.1 Exhibit A: Cost proposal by CH2M, dated May 16, 2016

*[Remainder of page intentionally left blank]*

**IN WITNESS WHEREOF**, the parties have caused this Agreement to be executed by their duly authorized officers on the dates appearing below.

**CITY OF COLUMBUS**

**CITY OF DUBLIN**

By: \_\_\_\_\_  
Jennifer Gallagher, Director  
Department of Public Service

By: \_\_\_\_\_  
Dana McDaniel  
City Manager

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**APPROVED AS TO FORM AND  
CORRECTNESS:**

**APPROVED AS TO FORM AND  
CORRECTNESS:**

\_\_\_\_\_  
Richard C. Pfeiffer, Jr.  
Columbus City Attorney

\_\_\_\_\_  
Stephen J. Smith  
Law Director

**EXHIBIT A**  
**COST PROPOSAL BY CH2M, DATED MAY 16, 2016**



CH2M  
1103 Schrock Road  
Suite 400  
Columbus, OH 43229  
O +614 888 3100  
F +614 888 0043  
www.ch2m.com

May 16, 2016

Jean-Ellen Willis, PE  
Engineering Manager - Transportation  
City of Dublin, Ohio  
5800 Shier Rings Road  
Dublin, OH 43016

**Subject: Revised Sawmill Road & Snouffer Road Intersection Analysis - Modification**

Dear Jeannie,

Attached please find the revised cost proposal for the modification for the Sawmill Road/Snouffer Road Intersection Study. The scope has been revised per coordination and direction from the City of Columbus. This proposal is for the expanded study area from Hard Road to SR 161. The expanded study area includes studying the existing 5 lane section and a 7 lane section along Sawmill Road.

Thank you for the opportunity to submit this modification proposal. If you have any questions, or require additional information, please call Shawn Thompson at 614-825-6757.

Sincerely,

**CH2M HILL Engineers, Inc.**

Andrew Wolpert, PE  
Project Manager

Shawn Thompson, PE, CQE  
Vice President

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APPENDIX A – SUBCONSULTANT PROPOSAL

## **Modification to Original Scope of Services: City of Columbus requested additions to Sawmill/Snouffer Traffic Study**

### **Task 1.1 – Sawmill existing corridor review/data collection/traffic counts**

- Perform manual turning movement counts from 11:00AM to 2:00PM on a Saturday for the following intersections:
  - Sawmill Road at W. Dublin-Granville Road
  - Sawmill Road at Banker Drive/Sawmill Place Boulevard
  - Sawmill Road at Village Parkway/Federated Boulevard
  - Sawmill Road at Snouffer Road
  - Caine Road at Snouffer Road
  
- Perform manual turning movement counts for the same weekday hour intervals as collected for the other intersections for the following intersections:
  - Sawmill Road at W. Dublin-Granville Road
  - Sawmill Road at Banker Drive/Sawmill Place Boulevard
  - Caine Road at Snouffer Road
  
- Collect tube traffic counts for the following right-in/right-out (RIRO) or right-in (RI) driveways on Sawmill Road:
  - the RIRO driveway on the east side between W. Dublin-Granville Road and Banker Drive/Sawmill Place Boulevard
  - the RI driveway on the east side between Banker Drive/Sawmill Place Blvd. and Federated Blvd.
  - both RIRO driveways on the east side between Federated Blvd. and Snouffer Rd.
  - the three RIRO driveways along the east side between Snouffer Rd. and the I-270 interchange

Subsequent to identification of these intersections/drives for data/count collection, ODOT has indicated that the RIRO drive (New Market Center Way) located on the east side of Sawmill Road between I-270 and Billingsley shall also be included in the expanded analysis. This task includes counting this intersection for the same Weekday and Saturday peak time periods as the other intersections/drives noted in Task 1.1. See attached email dated 03/16/2016 regarding confirmation and clarification of limits of certified traffic.

### **Task 1.2 – City of Columbus traffic/utility coordination**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.

### **Task 1.3 – Setup GIS mapping and ROW**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.

### **Task 1.4a – Coordination/Review ODOT Developed Certified Traffic**

- Extend study area for this task to include the additional intersections/driveways counted in the addition to Task 1.1.

This task includes time for preparation of certified traffic requests for the extension of the study area to include the additional intersections/driveways and an additional weekday base condition traffic assignment. Per direction of the City of Columbus, an additional corridor concept will be evaluated that considers a complete third through lane in each direction of Sawmill Road between W. Dublin-Granville Rd. and Hard Rd, including through the interchange. See attached email dated 03/22/2016 from the City of Columbus. This additional alternative will be included with the existing/no-build submittal for certified traffic. The request for existing/no-build conditions 2020 and 2040 traffic volumes will be expanded to include the request for this second baseline alternative. The request will be made for opening day and design year traffic volumes and include AADT, truck %, and hourly volumes for the AM and PM peak hour periods. Per discussion with ODOT (G. Harrington) certified traffic developed for the Sawmill 'Abbreviated' Feasibility Study (AECOM) will be used for the no-build traffic for the section of Sawmill Road from Hard Road to and including the I-270 Interchange. The remaining certified traffic (no-build and build alternatives) will be developed as described in Task 3.0.

While development of traffic volumes and analysis of a Saturday peak period is included in later tasks under this modification, it is assumed that a request for ODOT to approve certified traffic for Saturday peak period volumes will not be required.

Note that this task includes coordination and submittal of the request(s) for certified traffic and/or certified traffic approval. Development of certified traffic for the expanded study area and analysis scenarios is included under Task 3.0.

#### **Task 1.4b – Preliminary intersection layouts**

- Extend study area for this task to include the additional intersections/driveways counted in the addition to Task 1.1.
- The City of Columbus standard Level of Service (LOS) criteria is to obtain an LOS D for each total intersection with no individual movement less than LOS E in the design year; however, it may be necessary to develop project-specific goals for use in evaluating the alternatives. To determine this:
  - Using Synchro software, determine the AM and PM LOS in the design year for the existing geometry.
  - Using Synchro software, develop a conceptual layout for a geometry meeting the City of Columbus standard LOS criteria.
  - Based on the above Synchro, determine if feasible alternatives can be generated using LOS standard criteria or if project-specific LOS criteria is needed. If the latter, recommend an LOS goal for the alternatives. Upon approval of the criteria to be used, proceed to alternative layout.
- Investigate another corridor concept that includes a third through lane in each direction of Sawmill Road between W. Dublin-Granville Rd. and Hard Rd (including through the interchange).

As discussed with the City of Columbus, the following intersections will be studied along the corridor, in addition to the Sawmill/Snouffer intersection:

1. Sawmill/SR 161
2. Sawmill/Banker
3. Sawmill/Federated
4. Sawmill/Billingsley

5. Sawmill/Sawbury
6. Caine/Snouffer

Additionally the following right-in/right-out (RIRO) drives on Sawmill Road will be studied:

1. Three RIRO driveways north of Snouffer Rd, along the east side

Three (3) operational conditions will be evaluated, for both the existing configuration and proposed corridor concept (with compete third through lane in both directions) from Hard Road to SR 161 in order to establish the project specific LOS goals as follows:

- a. No-Build
- b. Alternative that meets LOS requirements per the City of Columbus (increased lanes for existing conditions)
- c. Alternative intersection that meets project specific LOS criteria

Time to conduct/prepare LOS analysis as described above is covered in Task 1.4c below.

#### **Task 1.4c – Additional HCS and Synchro Analysis (Addition to Task 1.4c, HCS and VISSIM Analysis)**

- Extend study area for this task to include the additional intersections/driveways counted in the addition to Task 1.1.
- Incorporate, with any adjustments suggested by the CH2M team, the AECOM study recommended alternative into at least one of the three proposed alternatives.
- For the preferred alternative, provide turn lane length calculations for all dedicated turn lanes utilizing ODOT methodology.

**Note this task in the original contract is for the HCS and VISSIM traffic analysis. Synchro was not included in the base contract.**

This task will include the incorporation of the AECOM study recommended alternative, specifically for the connector road proposed between Billingsley Road and Sawbury Boulevard, will be incorporated into at least one of the three alternatives that will be evaluated under the current scope of services. The current proposal allows for analysis of up to three alternatives at the Snouffer Road Intersection. It is understood that there has been no alternative recommended for Sawmill Road per the AECOM study and the preferred alternative referred to herein to be incorporated is the preferred connector road alternative. The AECOM study recommended connector road alternative will be incorporated into the selected preferred alternative for analysis.

#### HCS Analysis

This task addresses additional HCS analysis for intersections as required by ODOT for the IMS process. Specifically, HCS analysis will be required to be added to the IMS for the Sawmill Road intersection at New Market Center Way intersection.

Given that Synchro will now be used for the primary intersection analysis, CH2M has included no time for additional analysis via HCS in this modification. A single additional intersection can be accommodated under the current budget. We are assuming that HCS will be required only to meet ODOT requirements for the IMS and will only be performed for the selected/preferred alternative and will be accommodated under the amount originally budgeted for HCS in the base contract.

### Turn Lane Storage Calculations

This task also includes analysis of turn lane storage calculations for the preferred alternative for the study area intersections and drives. Specifically turn lane storage analysis for all dedicated turn lanes will be performed for the following intersections/drives:

- Sawmill Road at W. Dublin-Granville Road
- Sawmill Road at Banker Drive/Sawmill Place Boulevard
- Sawmill Road at Village Parkway/Federated Boulevard
- Sawmill Road at Snouffer Road
- Caine Road at Snouffer Road
- Sawmill Road at Dublin Center Drive
- I-270/Sawmill Road (ramps)
- Sawmill Road at New Market Center Way
- Sawmill Road at Billingsley
- Sawmill Road at Sawbury Boulevard
- Sawmill Road at Hard Road
- The RIRO driveway on the east side between W. Dublin-Granville Road and Banker Drive/Sawmill Place Boulevard
- The RI driveway on the east side between Banker Drive/Sawmill Place Blvd. and Federated Blvd.
- Both RIRO driveways on the east side between Federated Blvd. and Snouffer Rd.
- the three RIRO driveways along the east side between Snouffer Rd. and the I-270 interchange

### Synchro

This task includes development of Synchro analysis to analyze two corridor configurations (Corridor Concept 1: no-build; Corridor Concept 2: requested alternative that includes three full through lanes from Hard Road to SR 161 in both directions) per the LOS analysis/evaluation process as described above under 1.4b. It is understood that this process will be used to set the design condition for the study area intersections with the exception of Snouffer Road. Synchro analysis will also be prepared for up to three additional Snouffer Road Intersection Alternatives under the two corridor conditions using the same LOS analysis/evaluation process as described under 1.4b. Once a preferred design alternative has been selected for the corridor and the Snouffer Road intersection, the alternative will be tested via Synchro under Saturday traffic volumes. See task 3.0 for details on development of certified and Saturday traffic volumes. (Note: VISSIM analysis under original base contract and as expanded per 1.4.c.1, and for Saturday, if authorized, will be performed for only one corridor lane configuration as determined to be the preferred via Synchro analysis.)

### **Task 1.4d – Environmental data review**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.

### **Task 1.5 – Planning level cost estimates**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.

This task will include preparing cost estimates for the additional intersections per Task 1.4b. CH2M assumes two cost estimates will be prepared at each intersection (one for 5-lane and one for 7-lane).

### **Task 1.6a – 30% Draft Report**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.

### **Task 1.6b – 90% Draft Report**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.

### **Task 1.6c – Final Report**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.
- Include with the final report submittal all final Synchro files.

### **Task 1.7 – Project Management**

- Extend study area for this task south to and including the Sawmill Road at W. Dublin-Granville Road intersection and east to and including the Caine Road at Snouffer Road intersection.
- Conduct a meeting with the City of Columbus and City of Dublin to review the preliminary alternative layouts generated by Task 1.4b to determine the alternatives to be carried to the Task 1.4c.
- Conduct a meeting with the City of Columbus and City of Dublin to review the results of Tasks 1.4c, 1.4d, and 1.5 prior to proceeding to Task 1.6a.

## **“If Authorized” Tasks**

### **Task 1.4c VISSIM Analysis**

- Extend study area for this task to include the additional intersections/driveways counted in the addition to Task 1.1.

This task includes additional VISSIM analysis to analyze the expanded area and Snouffer Road Intersection concepts under one corridor scenario. Specifically into separate “if authorized” sub tasks are proposed:

**Task 1.4.c.1 if authorized - VISSIM Analysis- Expanded Study Area for One Corridor Option (Hard to SR 161)**

This task expands the VISSIM study area to the limits proposed by the City of Columbus, north to Hard Road and south to W. Dublin-Granville Road, and adds to the study area the additional intersections/drives as described in this modification under Task 1.1

**Task 1.4.c.2 if authorized - VISSIM Analysis – Saturday Traffic (No Build and one corridor alternative)**

This task includes VISSIM analysis for the recommended alternative under the Saturday peak period traffic volumes as described/developed under Task 3.0 in this modification.

Note these tasks assume the determination of the number of through lanes on Sawmill Road will be determined using Synchro, and applied to the expanded VISSIM model. The VISSIM model will then be used to test the Snouffer Road intersection alternatives as described in the original base contract proposal scope, for the expanded study area.

**Task 2.0 – Analysis of Sawmill/Banker Road intersection**

- Included above.

**Task 3.0 – CH2M development of Certified Traffic**

- Extend study area for this task to include the additional intersections/driveways counted in the addition to Task 1.1.

This task includes the expansion of the certified traffic development to include the additional intersections/driveways counted in addition to Task 1.1.

This task also includes the development of traffic volumes for Saturday peak period for the additional intersections/driveways counted in addition to Task 1.1. Since model data will not be available for Saturday conditions, a growth rate based on available historical count data from the study area and immediate vicinity will be applied to project Saturday counts to future opening day and design year Saturday traffic volumes.

**Task 4.0 – Interchange Modification Study (IMS)**

- No change requested.

Per discussions with ODOT, additional HCS analysis will be required to meet IMS requirements under the proposed revised corridor study area. Specifically, in addition to the previously noted HCS analysis locations, the intersection of New Market Center Way with Sawmill Road will need to be added to the IMS study area. This task includes incorporation of the intersection analysis into the IMS and more detailed discussion of alternatives considered and dismissed. No additional effort is required for this task.

**ENGINEERING AND TECHNICAL SERVICE COST PRICE PROPOSAL  
AND LABOR RATES FOR  
Sawmill/Snouffer Intersection Study**

CONSULTANT: CH2M HILL

Proposal Date: 03/21/16  
Revised Date: 05/11/16

PROJECT DESCRIPTION: Sawmill/Snouffer Intersection Study

Overhead Percentage = 104.50%  
Net Fee Percentage = 12.00%  
Cost of Money = 0.55%

Task Description	Hourly Rate	Total Hours	Labor Costs	Overhead Costs	Cost of Money	Direct Costs	Subcon Costs	Net Fee	Total Cost	
<b>Task # Task Description</b>										
1.0 Project Description										
1.1 Sawmill existing corridor review/data collection/traffic counts	\$40.20	34	\$1,367	\$1,428	\$7	\$0	\$7,350	\$336	\$10,489	
1.2 City of Columbus traffic/utility coordination	\$59.62	8	\$477	\$498	\$3	\$0	\$0	\$117	\$1,095	
1.3 Setup GIS mapping and ROW	\$43.33	4	\$173	\$181	\$1	\$0	\$0	\$43	\$398	
1.4a Coordination/Review ODOT Developed Certified Traffic	\$43.29	12	\$519	\$543	\$3	\$0	\$0	\$128	\$1,193	
1.4b Preliminary intersection layouts	\$44.32	128	\$5,673	\$5,929	\$31	\$0	\$0	\$1,396	\$13,029	
1.4c Additional HCS and Synchro Analysis (Addition to Task 1.4c, HCS and VISSIM Analysis)	\$40.53	444	\$17,996	\$18,806	\$98	\$58	\$0	\$4,428	\$41,386	
1.4d Environmental data review	\$52.83	24	\$1,268	\$1,325	\$7	\$0	\$0	\$312	\$2,912	
1.5 Planning level cost estimates	\$37.27	80	\$2,982	\$3,116	\$16	\$0	\$0	\$734	\$6,848	
1.6a 30% draft report	\$47.37	48	\$2,274	\$2,376	\$12	\$100	\$0	\$559	\$5,322	
1.6b 90% draft report	\$47.37	32	\$1,516	\$1,584	\$8	\$100	\$0	\$373	\$3,581	
1.6c Final report	\$44.92	20	\$898	\$939	\$5	\$100	\$0	\$221	\$2,163	
1.7 Project Management	\$47.77	88	\$4,204	\$4,393	\$23	\$460	\$0	\$1,034	\$10,114	
<b>Total</b>	<b>\$42.68</b>	<b>922</b>	<b>\$39,348</b>	<b>\$41,118</b>	<b>\$215</b>	<b>\$818</b>	<b>\$7,350</b>	<b>\$9,682</b>	<b>\$98,530</b>	
<b>If Authorized Tasks</b>										
1.4.c.1 VISSIM Analysis - Expanded study area for one corridor alternative (Hard to SR 161)	\$34.65	140	\$4,851	\$5,069	\$26	\$0	\$0	\$1,194	\$11,140	
1.4.c.2 VISSIM Analysis - Saturday traffic (No-build and one corridor alternative)	\$38.89	184	\$7,156	\$7,478	\$39	\$52	\$0	\$1,761	\$16,486	
3.0 CH2M development of Certified Traffic	\$36.31	150	\$5,447	\$5,692	\$30	\$0	\$0	\$1,340	\$12,509	
4.0 Interchange Modification Study	#DIV/0!	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Subtotal "If Authorized" tasks</b>	<b>\$36.82</b>	<b>474</b>	<b>\$17,454</b>	<b>\$18,239</b>	<b>\$95</b>	<b>\$52</b>	<b>\$0</b>	<b>\$4,295</b>	<b>\$40,135</b>	
<b>Total of All Tasks</b>	<b>0</b>	<b>\$40.69</b>	<b>1,396</b>	<b>\$56,802</b>	<b>\$59,358</b>	<b>\$310</b>	<b>\$870</b>	<b>\$7,350</b>	<b>\$13,976</b>	<b>\$138,665</b>

(AVG.)

**DETAILED BREAKDOWN OF PROPOSED TOTAL HOURS, PERSONNEL CATEGORIES,  
AND LABOR RATES FOR  
Sawmill/Snouffer Intersection Study**

Proposal Date: 03/21/16  
Revised Date: 05/11/16

CONSULTANT: CH2M HILL

PROJECT DESCRIPTION: Sawmill/Snouffer Intersection Study

**Raw Hourly Rates**

EN-7	\$85.70	EN-3	\$41.94	T-4	\$34.38
EN-6	\$71.82	EN-2	\$35.12	T-3	\$27.96
EN-5	\$59.62	EN-1	\$31.15	T-2	\$24.28
EN-4	\$49.65	T-5	\$43.33	T-1	\$21.01
				Office	\$28.40

		Overall													Total Hours	Labor Costs
Task Description		EN-7	EN-6	EN-5	EN-4	EN-3	EN-2	EN-1	T-5	T-4	T-3	T-2	T-1	Office		
<b>Task #</b>	<b>Task Description</b>															
1.0	Project Description															
1.1	Sawmill existing corridor review/data collection/traffic counts	0	6	0	0	0	16	12	0	0	0	0	0	0	34	\$1,367
1.2	City of Columbus traffic/utility coordination	0	0	8	0	0	0	0	0	0	0	0	0	0	8	\$477
1.3	Setup GIS mapping and ROW	0	0	0	0	0	0	0	4	0	0	0	0	0	4	\$173
1.4a	Coordination/Review ODOT Developed Certified Traffic	0	0	4	0	0	8	0	0	0	0	0	0	0	12	\$519
1.4b	Preliminary intersection layouts	0	0	32	0	0	48	0	48	0	0	0	0	0	128	\$5,673
1.4c	Additional HCS and Synchro Analysis (Addition to Task 1.4c, HCS and VISSIM Analysis)	0	0	124	0	0	160	160	0	0	0	0	0	0	444	\$17,996
1.4d	Environmental data review	0	8	0	0	0	0	0	16	0	0	0	0	0	24	\$1,268
1.5	Planning level cost estimates	0	0	8	0	0	40	0	0	32	0	0	0	0	80	\$2,982
1.6a	30% draft report	0	0	24	0	0	24	0	0	0	0	0	0	0	48	\$2,274
1.6b	90% draft report	0	0	16	0	0	16	0	0	0	0	0	0	0	32	\$1,516
1.6c	Final report	0	0	8	0	0	12	0	0	0	0	0	0	0	20	\$898
1.7	Project Management	0	8	32	0	0	0	0	24	0	0	0	0	24	88	\$4,204
	<b>Total</b>	<b>0</b>	<b>22</b>	<b>256</b>	<b>0</b>	<b>0</b>	<b>324</b>	<b>172</b>	<b>92</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>922</b>	<b>\$39,348</b>
	<b>If Authorized Tasks</b>															
1.4.c.1	VISSIM Analysis - Expanded study area for one corridor alternative (Hard to SR 161)	0	0	8	0	0	66	66	0	0	0	0	0	0	140	\$4,851
1.4.c.2	VISSIM Analysis - Saturday traffic (No-build and one corridor alternative)	0	0	40	0	0	72	72	0	0	0	0	0	0	184	\$7,156
3.0	CH2M development of Certified Traffic	0	0	18	0	0	66	66	0	0	0	0	0	0	150	\$5,447
4.0	Interchange Modification Study	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0
	<b>Subtotal "If Authorized" tasks</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>204</b>	<b>204</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>474</b>	<b>\$17,454</b>
	<b>Total of All Tasks</b>	<b>0</b>	<b>22</b>	<b>322</b>	<b>0</b>	<b>0</b>	<b>528</b>	<b>376</b>	<b>92</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>1396</b>	<b>\$56,802</b>

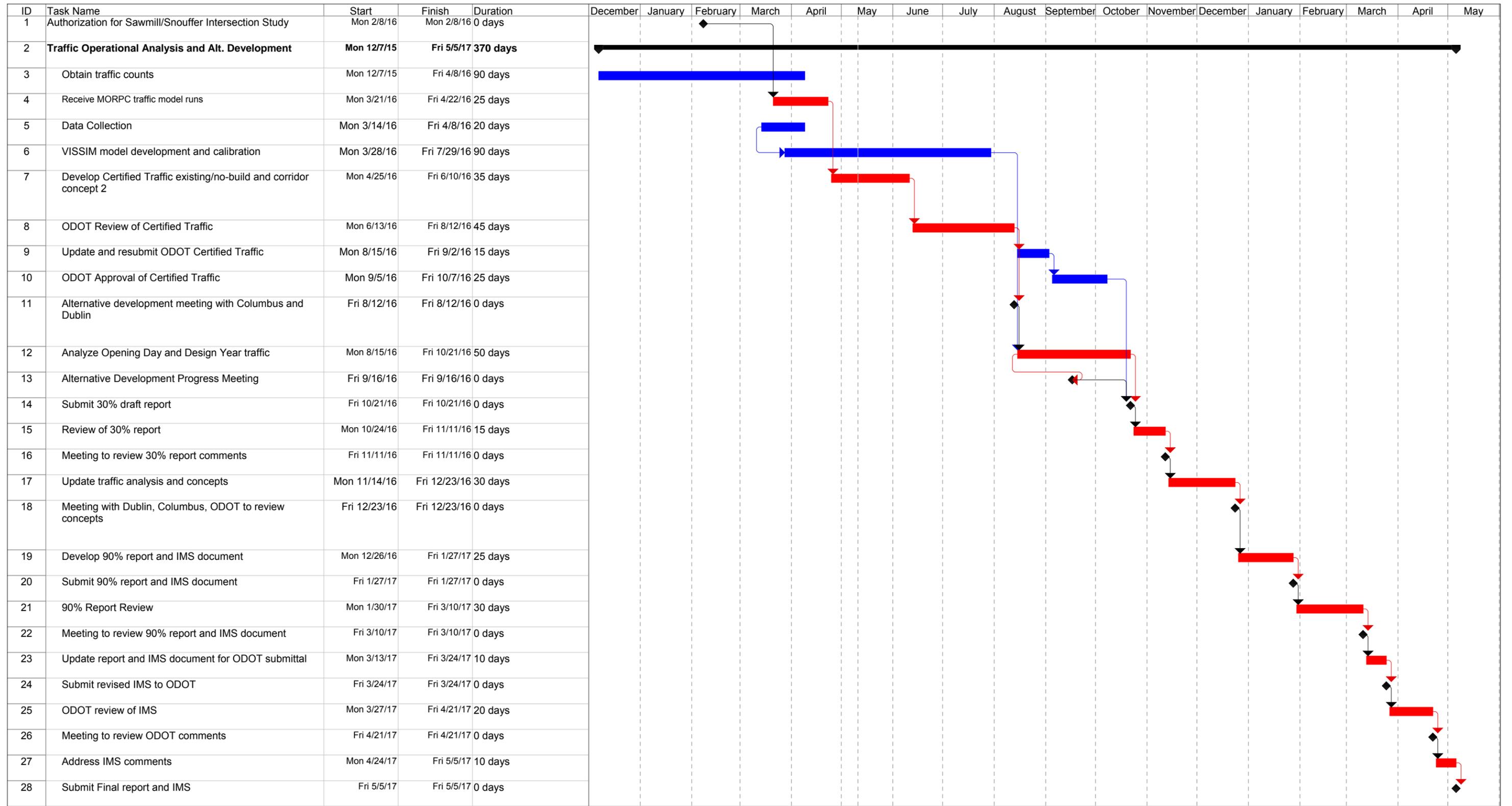
**SUMMARY OF DIRECT COSTS**

**Sawmill/Snouffer Intersection Study**

Proposal Date: 03/21/16  
Revised Date: 05/11/16

**PROJECT DESCRIPTION: Sawmill/Snouffer Intersection Study**

Task Description		Mileage (\$0.575/mi.)	Copies / Reproduction	Postage	Misc.	Total Direct Costs
<b>Task Description</b>						
1.0	Project Description					
1.1	Sawmill existing corridor review/data collection/traffic counts	\$0	\$0	\$0	\$0	\$0
1.2	City of Columbus traffic/utility coordination	\$0	\$0	\$0	\$0	\$0
1.3	Setup GIS mapping and ROW	\$0	\$0	\$0	\$0	\$0
1.4a	Coordination/Review ODOT Developed Certified Traffic	\$0	\$0	\$0	\$0	\$0
1.4b	Preliminary intersection layouts	\$0	\$0	\$0	\$0	\$0
1.4c	Additional HCS and Synchro Analysis (Addition to Task 1.4c, HCS and VISSIM Analysis)	\$58	\$0	\$0	\$0	\$58
1.4d	Environmental data review	\$0	\$0	\$0	\$0	\$0
1.5	Planning level cost estimates	\$0	\$0	\$0	\$0	\$0
1.6a	30% draft report	\$0	\$100	\$0	\$0	\$100
1.6b	90% draft report	\$0	\$100	\$0	\$0	\$100
1.6c	Final report	\$0	\$100	\$0	\$0	\$100
1.7	Project Management	\$460	\$0	\$0	\$0	\$460
<b>Total</b>		<b>\$518</b>	<b>\$300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$818</b>
1.4.c.1	ViSSIM Analysis - Expanded study area for one corridor alternative (Hard to SR 161)	\$0	\$0	\$0	\$0	\$0
1.4.c.2	VISSIM Analysis - Saturday traffic (No-build and one corridor alternative)	\$52	\$0	\$0	\$0	\$52
3.0	CH2M development of Certified Traffic	\$0	\$0	\$0	\$0	\$0
4.0	Interchange Modification Study	\$0	\$0	\$0	\$0	\$0
<b>Subtotal "If Authorized" tasks</b>		<b>\$52</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$52</b>
<b>Total of All Tasks</b>						
		<b>\$570</b>	<b>\$300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$870</b>



**Appendix A**  
**Subconsultant Proposal**



# SMART SERVICES, INC.

Surveying • Environmental • Traffic • CA/CM

An Ohio EDGE Certified Firm



March 1, 2016

Mr. Andrew Wolpert, P.E.  
CH2M HILL  
1103 Schrock Road, Suite 400  
Columbus, OH 43229

**Re: Sawmill Road & Snouffer Road Intersection Analysis (Traffic Counts II)**  
Columbus, Ohio

Smart Services, Inc. is pleased to present this proposal to conduct traffic count services for the project referenced above. This proposal describes our understanding of the project, outlines our approach and presents our fee for the services.

## PROJECT UNDERSTANDING

### Weekday-Saturday Signalized Intersections

Turning movement counts are needed for eleven (11) hours which are 6-9 am, 11 am-1 pm, and 4-7 pm on a typical weekday (Tuesday, Wednesday, or Thursday) and 3 hours from 11 am-2 pm on a Saturday at three intersections. Classification of vehicles (Cars and Trucks) will be performed and pedestrians will be counted. The turning movement counts are needed at the following locations:

- Sawmill Road at W. Dublin-Granville Road
- Sawmill Road at Banker Drive/Sawmill Place Boulevard
- Caine Road at Snouffer Road

### Saturday Signalized Intersections

Turning movement counts are needed for three (3) hours (preliminary hours are 11 am-2 pm) on a Saturday at two intersections. Classification of vehicles (Cars and Trucks) will be performed and pedestrians will be counted. The turning movement counts are needed at the following locations:

- Sawmill Road at Village Parkway/Federated Boulevard
- Sawmill Road at Snouffer Road

### Weekday-Saturday Unsignalized Intersections

Inbound and outbound volume is needed for eleven (11) hours which are 6-9 am, 11 am-1 pm, and 4-7 pm on a typical weekday (Tuesday, Wednesday, or Thursday) and three (3) hours from 11 am-2 pm on a Saturday at 7 locations. The volume will not include classification of vehicles or pedestrians. The volume is needed at the following locations:

- Right-in/right-out (RIRO) driveway on the east side of Sawmill Rd. between W. Dublin-Granville Rd. and Banker Dr./Sawmill Place Blvd.
- Right-in (RI) driveway on the east side of Sawmill Rd. between Banker Drive/Sawmill Place Blvd. and Federated Blvd.

- North RIRO driveway on the east side of Sawmill Rd. between Federated Blvd. and Snouffer Rd.
- South RIRO driveway on the east side of Sawmill Rd. between Federated Blvd. and Snouffer Rd.
- North RIRO driveway on the east side of Sawmill Rd. between Snouffer Rd. & I-270
- Middle RIRO driveway on the east side of Sawmill Rd. between Snouffer Rd. & I-270
- South RIRO driveway on the east side of Sawmill Rd. between Snouffer Rd. & I-270

## SCOPE OF SERVICES

Smart Services will perform the counts described above. Because of the number of counts, all of the counts cannot be performed at the same time. We will attempt to collect the Saturday data in two Saturdays but depending on the schedule for the project it could take as many as three Saturdays which may allow us to get started sooner. We will also need to be advised of Saturdays that may not be considered typical around spring break.

The official deliverable for each location will be a PDF file of the reports formatted from the count software. Excel files will be provided which will have the volumes but may not be formatted consistent with the PDF files. No manipulation of the data or analysis will be performed. It could take one to two weeks after the data is collected for the data to be available.

### Exclusions

It is assumed that no permits or authorizations are required in order for us to perform traffic counts within the road right-of-way. If permits or specialized requirements are mandated, our proposal will need to be revised.

## FEE

Our fee to complete the base scope of services described above will be a lump sum of \$7350. You will be invoiced monthly based on the progress of the work. Vandalism, equipment failures and other factors beyond our control impact our ability to meet a schedule.

We look forward to working with you on this project. If you have any questions, please let us know.

Sincerely,  
**SMART SERVICES, INC.**



Todd J. Stanhope, PE, PTOE  
Director of Traffic Engineering

Submitted: One electronic copy (PDF format) via e-mail  
Enclosure: Contract with Terms & Conditions

