

INDIVIDUAL PROJECT SERVICES AGREEMENT 014

**Between
Orchard, Hiltz & McCliment, Inc.
and
City of Rochester Hills**

Dated _____

**For
PROFESSIONAL SERVICES**

Project: Auburn Road Reconstruction and Streetscape Improvements, Culbertson Ave. to Dequindre Road

This is an Individual Project Services Agreement to the Professional Engineering Services Agreement dated Dec. 5, 2017 between the City of Rochester Hills (CITY) and Orchard, Hiltz & McCliment, Inc. (CONSULTANT).

ATTACHMENT A - SCOPE OF SERVICES

CONSULTANT will perform the design services as described in Attachment A.

ATTACHMENT B - PERIOD OF SERVICE

Services shall be provided in a timely manner and completed as early as August, 2018 City bid letting or as late as a March, 2019 City bid letting. This bid date may vary depending on the acquisition of ROW and utility relocation time lines. See Exhibit 2.

ATTACHMENT C - COMPENSATION AND PAYMENT

CONSULTANT shall be compensated for services described above on an hourly not to exceed cost of \$443,124.86. See Exhibit 1.

This document shall not be amended, altered or changed, except by written authorization executed by both parties.

CITY OF ROCHESTER HILLS

BY: _____
Bryan K. Barnett, Mayor

In the presence of

ORCHARD, HILTZ & MCCLIMENT, INC.

BY: _____
Rhett Gronevelt, PE
Principal

In the presence of



A. General

The CONSULTANT will provide design services for the following improvements within the Auburn Road corridor:

- Develop design plans to reconstruct and widen Auburn Road to 2 to 3 travel lanes from Culbertson Ave. to Dequindre Road. Coordinate with RCOC as to whether the easterly block from Hessel Ave. to Dequindre Road will be part of the RCOC Dequindre Project or part of the City’s Auburn Project. It is assumed for this proposal that the easterly block of the project will stay part of the RCOC project.
- Develop design plans to add on street parking on both the EB and WB sides of the road at locations as shown in the Auburn Early Preliminary Study Report.
- Develop design plans to reconstruct portions of the north and south side streets to the Brooklands residential areas as shown in the Auburn Early Preliminary Study Report. The extent as to how much the pavement will be replaced varies depending if on street parking will be added or if alley improvements are planned.
- Develop design plans to reconstruct five sections (blocks) of alley ways as shown in the Auburn Early Preliminary Study Report. These alleys’ shall be a maximum of 20’ wide.
- Design for behind the road sidewalk on both sides of the road over the entire limits of the project. Laterally, the sidewalk will extend from the back of curb to the building facades or to a point where the sidewalk can be neatly ended and transitioned to the existing ground at the ROW line or behind the ROW line.
- Develop project streetscape design plans that will add planting areas, decorative brick, and streetscape amenities as the City budget allows. Features may consist of seating areas, cell phone charging areas, bike racks, and entrance features.
- Coordinate with RCOC on the design and construction of Dequindre Road at Auburn Road. Included in the coordination is the limits of the RCOC project and the construction sequence of the RCOC project and how it relates to the City’s Auburn Road project.
- Design for the removal of the existing traffic signal at Culbertson and for the design of three single lane urban compact roundabouts within the project limits.
- Design the relocation of City fire hydrants to better locate the hydrants within the new road geometrics, include add more as required to increase fire protection.
- Develop a grading permit documents for up to 35 parcels.
- Develop permanent easement documents for up to 12 parcels.
- Develop funding applications for the Transportation Alternative Project (TAP Grant), Safety Grant, and Oakland County FAC Federal Aid Application.

B. Design Phase Service

1. Start-up & Base Plans

- a. Attend pre-design meeting (optional) with the CITY to finalize project approach, how to communicate between team members, agree on standard documents and details to be used, schedule review meetings and finalize schedule. Prepare summary of action items and distribute after the meeting.
 - b. Provide topographic survey. The anticipated survey scope is as follows:
 - i. Provide full topographic survey and structure inventories for all public structures within the ROW and on private property if impacted by construction from Culbertson Ave. to Dequindre Road. Additional side street structure inventories shall be obtained for all side streets within the project limit from Auburn Road to The CITY will provide CONSULTANT with pipe direction, size, and depth information from GIS prior to performing this work. CONSULTANT will verify the GIS information is correct and provide feedback to the CITY for updating the GIS if necessary.
 - ii. Provide road topo cross sections every 500’ between Culbertson Ave. to Dequindre Road. Topo will be taken from face of building to face of building, beyond the ROW line.
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Attachment A - Scope of Services Auburn Road from Culbertson Ave. to Dequindre Road

- iii. Provide full topographic survey of the five alley way segments to be improved. Topo shall be taken from the fence line on the residential side into the parking lots as require to blend the alley improvements into the private lots.
 - c. Prepare base plan sheets (showing proposed geometrics) that will be used to develop the construction plans. The planned limits are tentatively planned for the west of Culbertson Ave. to the east side of Hessel. Ave.
 - d. The geometric lay will follow the concept design from the EPE Study. Minor geometric modifications are anticipated once the topographic survey is obtained.
 - e. Vertical Alignment: A vertical alignment will be prepared that will balance the need to lower the road in some locations due to the current adjacent property's low door sill elevations, and trying not to remove cover over the existing water main that can lead to freeze issue. Proper longitudinal slopes will be incorporated into the roadway to ensure flow in the new curb line.
 - f. Plot known utilities on the topographic survey within the project limits. Since utility information was obtained in the EPE Study phase, the next contact with the existing utility companies will be made once impacts to the existing private facilities are known.
 - g. Identify location where proposed right-of-way/easements will be required. This may include permanent highway easements, sidewalk easements, utility easements, or temporary grading permits.
 - h. Study the existing and proposed drainage areas within the section of road from Culbertson Ave. and Dequindre Road. Present recommendations to the City, and the Oakland County Water Resources Commission (owner of the proposed outlet pipe) for handling storm water.
 - i. Prepare a revised preliminary engineer's opinion of probable construction cost.
 - j. Submit base design plans and estimate to the CITY for review.
 - k. Organize and lead a review meeting with the CITY.
3. Preliminary Plan Stage
- a. Design
 - i. Prepare detailed construction plans for the widening of Auburn Road between Culbertson and Dequindre. It is anticipated that Removal, Construction, and triple profiles will be required. The proposed 2-3 lane section will contain 11' thru lane widths, 9' parking lane widths, a 12' raised median, and three planned roundabouts. MDOT F curb and gutter shall be utilized throughout the corridor.
 - ii. Prepare detailed construction plans for the reconstruction of the side streets to the Brooklands residential areas up to the first block from Auburn Road, and the five noted alley ways. It is anticipated that Removal and Construction will be provided between this stretch of roadway. Curb and gutter is anticipated on the side streets, and alleys are anticipated to have an inverted crown without curb to control drainage and reduce construction costs.
 - iii. Prepare detailed design plans for the streetscape portion of the project which will include plans for plantings and street scape amenities. Special provisions shall be created for this specialty work in MDOT format.
 - iv. Prepare pavement marking plans for the full stretch of roadway. Work shall be performed in accordance with the MMUTCD requirements. Attention to special signing and markings will be investigated.
 - v. Develop maintenance of traffic plans and coordinate the project with the CITY, RCOC, Ruether Middle School and fire and police. The maintenance of traffic plan will include one lane of traffic in the EB direction during the duration of the project.
 - vi. Prepare a preliminary plan engineer's opinion of probable construction cost for early review by CITY and at the preliminary plan submittal stage. Cost will be split out by varies items of work corresponding to the city's funding sources.
 - vii. Coordinate and attend the preliminary plan review meeting with the CITY.



Attachment A - Scope of Services
Auburn Road from Culbertson Ave. to Dequindre Road

- viii. Participate in one public meeting with the CITY. Format to be determined. CONSULTANT will provide exhibits for this meeting for the public to review.
- ix. Anticipated Project Plan Sheets along with the number of sheets anticipated include:

- Title Sheet (1)
- Typical Section Sheet (5)
- Miscellaneous Detail Sheet (3)
- Note Sheet (1)
- Legend Sheet (1)
- Alignment Sheet (1)
- Removal Sheets (5)
- Construction Sheets (5)
- Profile Sheets (10)
- Soil Erosion Sheets (5)
- Detailed Grading Sheets (5)
- Landscape Design Plans and Details (15)
- MOT/Stage Construction Sheets (10)
- Pavement Marking and Signing Details (5)
- City Standards Sanitary and Water Main Details (4)
- MDOT Special Details (10)

Estimated Plan Sheet Total – 86 sheets

- b. Drainage
 - i. Design a mainline storm sewer system between Culbertson and Dequindre. It is anticipated the new storm sewer system will be located north of the northerly curb line and will include one tie into the County's Ireland Drain. A storm water treatment chamber will be provided prior to outletting into this County Drain.
- c. Utility Coordination
 - i. Follow up with the utilities contacted during the EPE Study phase. Provide preliminary plans to utilities as they are developed and meeting with those utilities perceived to be impacted by construction. Coordinate with utilities will continue though out the design phase or until the utilities have been relocated. If relocation has not occurred prior to bidding, prepare a hand off status document to the CITY outlining status and next steps.
 - ii. Coordinate the placement of street lighting (by DTE) at the proposed roundabouts, and pedestrian lighting along the corridor.
- d. Right-of-Way
 - i. Prepare right-of-way or easement acquisition drawings following the format of the CITY'S right-of-way acquisition process. The exact number of parcels is unknown. Twelve (12) are included for this proposal.
 - ii. Prepare grading permit documents following the format of the CITY'S grading permit acquisition process. The exact number of parcels is unknown. Thirty-five (35) are included for this proposal.
 - iii. Twelve title work requests are included as a pass through cost for the development of right-of-way acquisition drawings.
 - iv. Stake the existing and proposed right-of-way once for all properties where right-of-way is being obtained.
- e. Permitting
 - i. Submit permit applications to RCOC and Oakland County Drain Office for construction signing and work to tie into the Ireland Drain.



Attachment A - Scope of Services Auburn Road from Culbertson Ave. to Dequindre Road

- ii. Attend two coordination and plan review meetings with the CITY, and RCOC.
- f. Project Specifications
 - Prepare a City, local style, bid book contract documents and specifications. It is desired to bid the entire project as one project. If however the City is ready to bid out the early work (ROW Mitigation) and the road work is not ready, OHM will split the project into two bid-able design packages, one for the alleys and side streets, and one for Auburn Road.
- 4. Final Plans & Bidding
 - a. Final submittal will include the following to the CITY:
 - i. Three sets (11" x 17") of reproducible plans
 - ii. Electronic plans in pdf and AutoCAD format
 - iii. Project Bid Book (with 8 1/2" x 11" Special Provisions)
 - iv. Engineer's Opinion of Probable Construction Cost
 - v. Field notes and copies of quantity calculations, if required
 - b. Answer questions during the bidding process as required by the CITY.
 - c. Review bids and discuss the low bid contractor and bid results with CITY.

C. Additional Services (Not Included)

1. Traffic signal design at Auburn Road and Dequindre Road will be handled under the RCOC's Dequindre Road project. Any stage construction modifications to this traffic signal have not been included in this proposal. It is noted that the potential maintaining traffic may require the shifting of traffic signal heads at this intersection. If the project scheduled for either the Dequindre Road project or the City's Auburn Road projects slips to 2020 and the two roads are not constructed in the same construction season, this work may be required to be added to this contract.
2. It is not anticipated an MDOT permit will be required as it is assumed the city will take ownership of the road for this section of roadway.
3. Design of public utility relocations (ie. water main of sanitary sewer replacement) between Culbertson Ave. and Dequindre Road.
4. Acquisition of grading permits or additional right-of way. This will be handled by the City's ROW consultant.
5. For this proposal, it has been assumed that federal funding will not be part of this project. If the Oakland County FAC application is awarded federal funding, the project would be required to be bid by MDOT, thus resulting in a possible delay of the project, and requiring the preparation of a SHPO application to investigate historic properties within the project limits.
6. No effort has been included for the evaluation of in-line sewer storage at a proposed outlet to the Ireland Drain.
7. No effort has been included to incorporate porous pavers in the parking lanes.
8. No effort has been included to add HAWK pedestrian traffic signals.

D. City Responsibilities

1. Provide existing water, storm and sanitary sewer record plans.
2. Coordination with police, fire and schools.
3. Coordinate and lead public information component.
4. Attend any coordination meetings with Oakland County Drain Office and RCOC.
5. Attend all utility coordination meetings and furnish necessary authorizations for design by private utilities if required, including proposed street lighting by DTE.
6. Provide known problem drainage and pavement maintenance areas for the side streets from DPS records.
7. Pay all permit and review fees.
8. Acquisition of right-of-way and easements.



E. Design Criteria and Standards

1. The plans will be developed utilizing separate removal and construction sheets and will be at a scale of 1" = 30' horizontal.
2. Posted Speed: 25 mph
3. Design Speed: 30 mph
4. Road Classification: All Weather
5. General Design Standards: MDOT 4R Design Standards, and Michigan Manual of Uniform Traffic Control Devices Standards, Road Commission for Oakland County Standards, and City of Rochester Hills Standards.
6. Specifications: MDOT: "2012 Standard Specifications for Construction", including the current "MDOT Standard Plans for Roads and Bridges", supplemented by locally authored Special Provisions will be utilized.
7. Water Main Standards: City of Rochester Hills, Michigan Department of Environmental Quality, Drainage:
8. Follow MDOT drainage standards as applicable unless modified by the CITY.



PROJECT SCHEDULE

CITY OF ROCHESTER HILLS

AUBURN ROAD PRELIMIARY ENGINEERING SERVICES

See Exhibit 2 for detailed Project Schedule. Consultant project services will commence upon the authorization and tentatively extend up through March, 2019. The design schedule may vary depending on the ability to obtain easements and for utility relocations.



PAYMENTS TO CONSULTANT

CITY OF ROCHESTER HILLS

AUBURN ROAD PRELIMIARY ENGINEERING SERVICES

Construction Engineering Services

The CITY agrees to pay the CONSULTANT on an hourly basis, billed monthly, a not-to-exceed amount of four hundred forty-three thousand one hundred twenty-four dollars and eighty-six cents (\$443,124.86). See Derivation of cost in Exhibit 1.

Exhibit 1 - DERIVATION OF COST PROPOSAL**PROJECT DESCRIPTION:****Auburn Road Reconstruction - Culbertson Ave. to Dequindre Road****CONSULTANT:****DATE:** 11/20/2017**Orchard, Hiltz & McCliment, Inc.**

<u>Classification</u>	<u>Person Hours</u>	x	<u>2018 Hourly Rate</u>	=	<u>Labor Cost</u>
Principal	50		202.48		\$10,123.78
Sr. Associate	15		191.23		\$2,868.40
Associate	225		179.98		\$40,495.10
Professional Engineer IV	60		174.35		\$10,461.24
Professional Engineer III	100		151.86		\$15,185.66
Professional Engineer II	700		140.61		\$98,425.60
Graduate Engineer II	600		121.49		\$72,891.19
Graduate Architect II/Landscape Architect II	500		98.99		\$49,494.02
Graduate Architect III/Landscape Architect III	400		121.49		\$48,594.12
Technician IV	400		123.74		\$49,494.02
Technician II	200		97.86		\$19,572.63
Professional Surveyor II	30		140.61		\$4,218.24
Surveyor III	88		109.11		\$9,601.84
Surveyor II	80		101.24		\$8,099.02
	Total Hours		3,448		Subtotal Labor
					\$439,524.86
<u>Subconsultants</u>					\$0.00
<u>Direct Costs</u>					
12 Title Work Searches @ \$300/each					\$3,600.00
					\$3,600.00
			Project Total	\$	443,124.86

Auburn Road Design Schedule
City Bid Project
11-20-17

EXHIBIT 2

ID	Task Name	Duration	Start	Finish	2018																							
					Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep										
1	TENTATIVE AUBURN ROAD PROJECT SCHEDULE	538 days	Mon 8/7/17	Fri 9/13/19	[Gantt Bar]																							
2	Preliminary Engineering Design (PE)	274 days	Mon 8/7/17	Tue 9/4/18	[Gantt Bar]																							
3	Approved By City Council	0 days	Mon 12/4/17	Mon 12/4/17	12/4																							
4	Topographic Survey	20 days	Mon 12/4/17	Wed 1/3/18																								
5	Survey Cleanup	10 days	Thu 1/4/18	Wed 1/17/18																								
6	Federal Aid Application Submittal	1 day	Mon 8/7/17	Mon 8/7/17																								
7	Begin Detailed Design	1 day	Thu 1/18/18	Thu 1/18/18																								
8	TAP Grant Application Submittal	1 day	Wed 3/7/18	Wed 3/7/18																								
9	TAP Grant Notice of Award	0 days	Thu 6/28/18	Thu 6/28/18													6/28											
10	Base Plan Level Plan Design	10 days	Fri 1/19/18	Thu 2/1/18																								
11	QAQC Base Plans and Revisions	6 days	Fri 2/2/18	Fri 2/9/18																								
12	Submit Base Plans to City	1 day	Mon 2/12/18	Mon 2/12/18																								
13	Meeting with City to Review Base Plans	1 day	Tue 2/20/18	Tue 2/20/18																								
14	Meeting with Business Owners	1 day	Wed 3/7/18	Wed 3/7/18																								
15	Preliminary Plan Development	55 days	Wed 2/21/18	Tue 5/8/18																								
16	Utility Coordination Meeting	1 day	Wed 3/21/18	Wed 3/21/18																								
17	QAQC Preliminary Plans and Revisions	6 days	Wed 5/9/18	Wed 5/16/18																								
18	Preliminary Plan Meeting with City	1 day	Thu 5/24/18	Thu 5/24/18																								
19	City Council Update	1 day	Mon 6/11/18	Mon 6/11/18																								
20	Finalize ROW Documents (Temp or Perm.)	10 days	Fri 5/25/18	Fri 6/8/18																								
21	City Acquires ROW (Temp or Perm.)	60 days	Mon 6/11/18	Tue 9/4/18																								
22	Submit Project Permits (RCOC, MDOT)	1 day	Mon 6/4/18	Mon 6/4/18																								
23	Permit Approval	45 days	Tue 6/5/18	Tue 8/7/18																								
24	Utility Coordination Meeting	1 day	Thu 6/7/18	Thu 6/7/18																								
25	Final Draft Plans Complete	40 days	Fri 5/25/18	Mon 7/23/18																								
26	City Final Review (As Necessary?)	5 days	Tue 7/24/18	Mon 7/30/18																								

