City of Birmingham
A Walkable Community

MEMORANDUM

Engineering Dept.

DATE: **November 26, 2014**

TO: **Joseph A. Valentine, City Manager**

FROM: **Paul T. O'Meara, City Engineer**

SUBJECT: **Acacia Park Drain Sewer District Agreement**
Catalpa Drive Sewer Replacement – Pierce St. to Edgewood Ave.

In 1925, the Birmingham portion of the Acacia Park Drain was constructed under the direction of the predecessor to the Oakland Co. Water Resources Office (OCWRC). Its upstream end starts at the intersection of Catalpa Dr. and Grant St. From there, it flows westerly on Catalpa Dr. to Pierce St. It then turns south and flows on Pierce St. into Beverly Hills. The drain continues to get larger as it flows south and west, eventually terminating at the Rouge River, connecting to the Evergreen Interceptor at Evergreen Rd.

Since this pipe is owned and operated by the OCWRC, it is their duty to inspect and maintain it. Recently, we were notified that the section of pipe on Catalpa Dr. between Pierce St. and Edgewood Dr. is in very poor condition. The original pipe, which varies in size from 18 inch to 20 inch diameter, is about 700 ft. long. The pipe has several segments that are fractured and are likely to fail in the future due to the weight of the load placed on top of it. Further, the pipe is extra deep, varying in depth at 20 ft. at Pierce St. to 14 ft. at Edgewood Ave. Due to the depth of the sewer, the number of house connections, and the poor condition of the pipe, the best option for repair is to open cut and replace it. Such an excavation will result in complete removal and replacement of the concrete street, which is also nearing the end of its service life. The total estimated cost of the project, including sewer replacement, lateral repairs within the trench, and concrete street replacement, is estimated at about $525,000, including design, inspection, and contingency.

Starting in 1996, the Acacia Drain also includes the operation of the Retention Treatment Basin built at that time. Birmingham and Beverly Hills are charged a maintenance assessment to primarily cover the cost of operating the basin. However, the funds collected each year for this district is not sufficient to cover the cost of a large construction project such as this. The OCWRC staff offered to engineer and oversee the construction of the project, with all costs payable separate from the annual maintenance assessment, split as all costs in the district are typically split (29.79% Birmingham, 70.21% Beverly Hills). All OCWRC staff costs would also be added to the charges.

In 2005, and again in 2007, Birmingham and Beverly Hills successfully oversaw the design and construction of two large sewer capacity improvement projects in the Acacia Drainage District without involvement of the OCWRC. All costs were payable with the typical shares noted above. The 2005 project involved sewers primarily on Northlawn Blvd. and Birmingham Blvd., which Birmingham oversaw, while the 2007 project involved a large sewer on Bates St. (south of 14 Mile Rd.), which was overseen by Beverly Hills. Both projects were designed by Hubbell,

Roth, & Clark, Inc. Costs were reduced for both projects by not having the County staff involved.

After learning of the need to do this work, I discussed our options with the Director of Public Works for Beverly Hills. We are already currently preparing a project known as the 2015 Local Street Paving Program (Contract #2-15(P)), which involves other streets near Catalpa Dr. Since the sewer needing repair is in Birmingham, we have agreed in principal that it would be most cost efficient to have this added to our already budgeted project, with all funding being split as is typically done on Acacia Drainage District projects (Birmingham 29.79%, Beverly Hills 70.21%). To that end, Beier Howlett has prepared the attached agreement that has been reviewed by the Village's attorney, and will be scheduled for approval by the Village Board some time in December.

When a project of this sort is undertaken, it is in the City's best interest to replace the public water main and any sewer laterals to homes if they are over 50 years old. Any work involving the water main should be charged 100% to Birmingham, as it does not involve the drainage district. A portion of each sewer lateral would be replaced as a part of this deep sewer construction, although the majority would not. If they are over 50 years old, we would recommend that the laterals be replaced, payable as a special assessment to the adjacent homeowners. This cost, as well, would not be charged to Beverly Hills. As outlined in the agreement, it is estimated that the drainage district will be responsible for about $350,000, and the City of Birmingham will be responsible for $173,000, for a total project cost of $$523,000. Final estimated costs to Birmingham are as follows:

Sewer Fund (Acacia Drain)	590-536.001-985-6900	$109,000
Sewer Fund (Sewer Laterals)	590-536.001-981.0100	$ 10,000
Water Fund	591-537.004-981.0100	$158,000
TOTAL COST TO BIRMINGHAM		$277,000
TOTAL COST TO BEVERLY HILLS		$246,000

We are not suggesting that any costs be charged to the Local Road Fund, although the road system will benefit. All pavement replacement is a result of the need to replace this County sewer. Overall, this represents a good opportunity for Birmingham to replace two blocks of aging infrastructure at greatly reduced costs.

The Engineering Dept. recommends that the City Commission approve the attached agreement outlining the reconstruction of two blocks of the Catalpa Dr. section of the Acacia Drain, with costs to be apportioned as outlined, and to be constructed as a part of the 2015 Local Street Paving Program, Contract #2-15(P). Approval is contingent on approval also being obtained from the Beverly Hills Village Council.

SUGGESTED RESOLUTION:

To approve the agreement between the City and the Village of Beverly Hills to cover the costs of the replacement of the Catalpa Dr. segment of the Acacia Drain, to be built as a part of the 2015 Local Street Paving Program, Contract #2-15(P), with a total estimated cost of $523,000, and further to direct the Mayor and City Clerk to sign the agreement on behalf of the City,

contingent upon approval of the Beverly Hills Village Council. Further, approving the appropriation and budget amendments to the fiscal year 2014-2015 budget as follows:

Sewer Fund	
Revenues:	
Draw from Net Assets 590-000.000-400.0000	$119,000
Total Revenue Adjustments	$119,000
Expenses:	
Public Improvements - Acacia Drain 590-536.002-985.6900	$119,000
Total Expense Adjustments	$119,000
Water Fund	
Revenues:	
Draw from Net Assets 591-000.000-400.0000	$158,000
Total Revenue Adjustments	$158,000
Expenses:	
Public Improvements - Water Mains 591-537.004-981.0100	$158,000
Total Expense Adjustments	$158,000

COST PARTICIPATION AGREEMENT

CONSTRUCTION

Catalpa Street
Between Pierce Street and Edgewood Road

City of Birmingham/Village of Beverly Hills

2015 Local Road Paving Program
Contract No.: 2-15(P)

THIS AGREEMENT made and entered into this _____ day of _____2014, by and between the **CITY OF BIRMINGHAM** (hereinafter referred to as "BIRMINGHAM"), and the **VILLAGE OF BEVERLY HILLS** (hereinafter referred to as "BEVERLY HILLS"), provides as follows:

WHEREAS, the City of Birmingham and the Village of Beverly Hills, in cooperation with each other, have undertaken a project to fix defects that were identified in the 21" and 18" diameter Acacia Park sewers by the Oakland County Water Resource Office. The pipes are owned by the Acacia Park District, and the construction costs associated with the pipe improvements will be paid for by the City of Birmingham and the Village of Beverly Hills based upon a predetermined cost apportionment methodology. The apportionment is 29.79% for the City of Birmingham and 70.21% for the Village of Beverly Hills. The City of Birmingham is planning on replacing the water main and sewer laterals to the right-of-way line as well. The costs beyond what were needed to replace the combined sewer will be paid for (100%) by the City of Birmingham. The improvements are within the jurisdiction of the City of Birmingham, which improvements are, hereinafter referred to as the "Project"; and,

WHEREAS, the estimated cost of the Project is Five Hundred Twenty-three Thousand Dollars ($523,000.00), of which Three Hundred Fifty Thousand Dollars ($350,000.00) is expected to be the cost chargeable to the Acacia Drainage District,

NOW, THEREFORE, in consideration of the mutual covenants set forth herein and in conformity with all applicable laws, it is hereby agreed between BIRMINGHAM AND BEVERLY HILLS, as follows:

1. BIRMINGHAM shall forthwith undertake and complete the PROJECT, as above described, as part of its 2015 Local Road Paving Program; and shall perform or cause to be performed all preliminary engineering, construction engineering, and administration in reference thereto, which is identified in Exhibit 1.
2. The PROJECT shall include preliminary engineering, construction engineering, and total payments to the contractor.
3. The estimated chargeable PROJECT construction cost is approximately Three Hundred Fifty Thousand Dollars ($350,000). It is expected that the majority of the cost of this project will be paid to the general contractor that is awarded the job as the lowest responsible bidder, and secondly, to the design engineer, Hubbell, Roth, & Clark, as outlined in Exhibit 1. The City will use its own staff to oversee the inspection and administration of this project. Inspection costs are charged out at the rate of $60 per hour, and will be included in the above pre-determined apportionment costs. Administrative time spent by Engineering Dept. staff will not be charged separately, but will be considered paid through the Inspection hourly rate noted above.

4. The pipes to be replaced are owned by the Acacia Park District and the costs associated with the pipe improvements will be paid for by BIRMINGHAM or BEVERLY HILLS based upon the predetermined cost apportionment methodology. That apportionment is 29.79% for BIRMINGHAM and 70.21% for BEVERLY HILLS. BIRMINGHAM and BEVERLY HILLS agree to pay their portions of this PROJECT in accordance with that predetermined cost apportionment methodology. All costs attributable to improvements outside of those needed for the replacement of the Acacia Drain facility shall be 100% paid by the City of Birmingham,
5. BIRMINGHAM is planning on replacing the water main and sewer laterals to the right-of-way line as well. The cost for that part of the project, which are beyond that which is needed to replace the combined sewer, will be paid for by BIRMINGHAM. The total cost of the work outside of the Acacia Drain Improvements is estimated at a cost of One Hundred Seventy-Three Thousand Dollars ($173,000.00).
6. BIRMINGHAM and BEVERLY HILLS agree to pay any costs in excess of the estimated PROJECT construction cost up to Five Hundred Twenty-three Thousand Dollars ($523,000.00) in accordance with the above referenced predetermined cost apportionment methodology set forth in paragraph 4. The total access cost will be determined from the records of the PROJECT. The final adjustments and final obligations of the parties hereto will be made upon completion of the PROJECT or at the conclusion of any requested audit.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and date first written above.

In the Presence of:

CITY OF BIRMINGHAM, A Michigan Municipal Corporation

_____

By:_____

Its: Mayor_____

VILLAGE OF BEVERLY HILLS, A Michigan

By:_____

_____

Its: President_____

_____

EXHIBIT 1

HRC 100 YEARS
CONSULTING ENGINEERS SINCE 1915

PRINCIPALS
George E. Hubbell
Thomas E. Biehl
Walter H. Alix
Peter T. Roth
Keith D. McCormack
Nancy M. D. Faught
Daniel W. Mitchell
Jesse B. VanDeCreek
Roland N. Alix

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Kenneth A. Melchior
Randal L. Ford
William R. Davis
Dennis J. Benoit

ASSOCIATES
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Marvin A. Olane
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Thomas D. LaCross
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Donna M. Martin
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November 4, 2014

City of Birmingham
Department of Engineering
151 Martin Street, P.O. Box 3001
Birmingham, MI 48012-3001

Attn: Paul T. O'Meara, P.E., City Engineer

Re: Design Services for Catalpa Street Between Pierce St. and Edgewood Rd. HRC Job No. 20140766

Dear Mr. O'Meara:

We are providing this proposal as requested for the above referenced project. This proposal will outline the work items to be provided with their associated costs.

This project is being undertaken due to defects that were identified in the 21" and 18" diameter Acacia Park combined sewers by the Oakland County Water Resource Office. The pipes are owned by the Acacia Park District, and the construction costs associated with pipe improvements will be paid for by the City of Birmingham and the Village of Beverly Hills, based upon a predetermined cost apportionment methodology. The apportionment is roughly 30% for the City of Birmingham and 70% for the Village of Beverly Hills. The City of Birmingham is planning on replacing the road in total and the water main as well. Costs beyond what were needed to replace the combined sewer will be paid for by the City of Birmingham.

The design services we propose are as follows:

1. Conduct a field survey.
   a.) Filed locate property irons
   b.) Determine the existing ROW of Catalpa
   c.) Locate the street, driveways, sidewalks, etc.
   d.) Locate the fronts of the houses with their street addresses
   e.) Locate the utilities including water gate valves, combined sewers and catch basins, manholes and other utility structures when appropriate with inverts that will be used for avoiding utility conflicts.
   f.) Elevation profiles when for top of curb, gutter lines and road centerlines and intersection details for the use in designing the handicap ramps at each intersection.
   g.) Locate the soil boring
   h.) Locate the trees, bushes and other features needed

2. We have contacted Schleede and Hampton and Associates to take soil boring and it will cost $1,695. This was going to be added on to the geotechnical work they are doing separately for the City as part of the 2015 Local Road Program. They would add the soil boring information and the pavement design to the other report since the projects are all to be bid together.

3. Prepare construction plans for the project.

   a.) There will be 2 paving and utility plan and profile sheets that will show the existing and proposed roadway profile, sewer pipe replacement and water main replacement that will be drawn on a plan scale of 1"=20' and a vertical scale of 1"=5' in order to show the deeper sewer profile.
   b.) There will be 2 grading plan and profile sheets that will be the same plan sheet but the profile will be enlarged to a scale of 1" = 2' for detailing the road centerline and curb and gutter profiles.
   c.) There will be 1 other sheet that will detail the 3 intersection to show the handicap ramps and intersection grades.
   d.) We will submit the plans at 80% complete for you to review prior to finalizing the plans to incorporate any comments you may have.

4. Submit a final design drawing set with the cost estimate. HRC will determine quantities, and obtain water, sewer and any WRC permits as necessary.

The cost for our work is estimated to be $28,750.00 in accordance with our latest City agreement. The estimated cost will not be exceeded without prior authorization. We will be invoicing on a time basis and submitting invoices monthly as work progresses.

We have estimated this project's construction cost to be approximately $523,000, which includes a 15% contingency.

We are estimating that we will have preliminary plans completed plans by early January, 2015, with the expectation of final plans being issued February 1, 2015. Please contact me if you have any questions. We will wait for a notice to proceed.

Very truly yours,

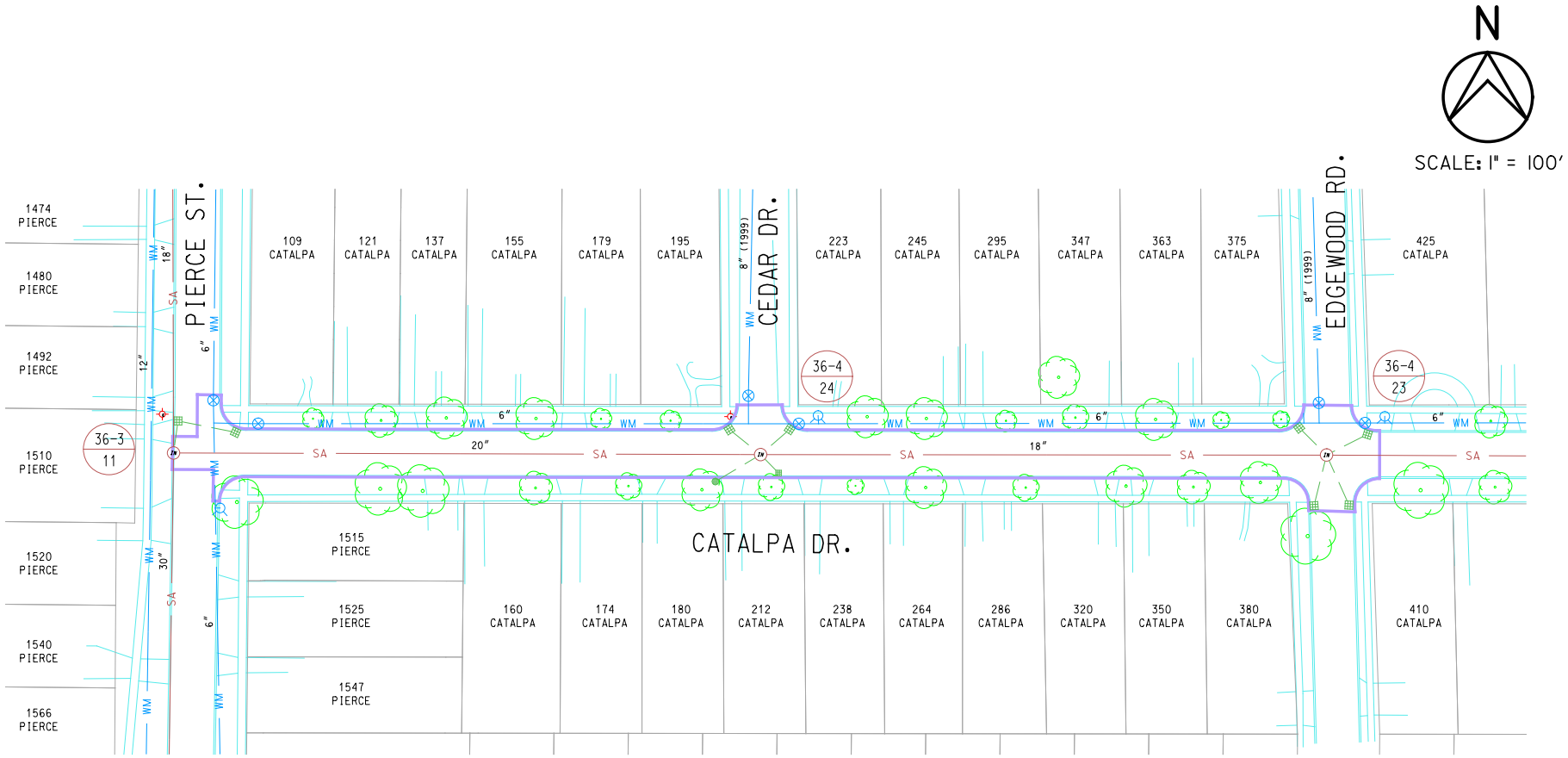
HUBBELL, ROTH & CLARK, INC.

Walter H. Alix

Walter H. Alix, P.E., P.S.
Vice President/Secretary

WHA/pw
Attachment

pc: HRC; File



CITY OF BIRMINGHAM

CATALPA DR. (PIERCE TO EDEWOOD)
PAVING SEWER STUDY

JOB NO.		FIGURE
20140766		1
DATE		
OCT 2014		

HRC 100 YEARS
CONSULTING ENGINEERS SINCE 1915

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CITY OF BIRMINGHAM

PRELIMINARY CONSTRUCTION COST ESTIMATE

CATALPA DRIVE SEWER REPLACEMENT
(PIERCE TO EDGEWOOD)

ITEM	DESCRIPTION	QUANTITY	UNITS		RATE	UNITS		COST
Combined Sewer (Acacia Park Drain - OCWRC)								
	21" Combined Sewer	360	FT	@	$ 150	per FT	$	54,000
	18" Combined Sewer	340	FT	@	$ 140	per FT	$	47,600
	4'-0" Dia. Manhole	2	EA	@	$3,000	per EA	$	6,000
	Sewer Service Connection	23	EA	@	$ 600	per EA	$	13,800
	Sewer Service, 6"	345	FT	@	$ 30	per FT	$	10,350
							$	131,750
Water Main								
	8" Water Main	780	FT	@	$ 90	per FT	$	70,200
	8" Gate Valve & Box	4	EA	@	$2,500	per EA	$	10,000
	Fire Hydrant Assembly, Complete	2	EA	@	$4,500	per EA	$	9,000
	Water Service Connection	23	EA	@	$ 350	per EA	$	8,050
							$	97,250
Paving & Restoration								
	Concrete Pavt, 7" Non-Reinf	2,700	SYD	@	$ 50	per SYD	$	135,000
	Conc. Curb & Gutter Repair	450	FT	@	$ 35	per FT	$	15,750
	4'-0" Dia. Catch Basin	4	EA	@	$2,500	per EA	$	10,000
	2'-0" Dia. Inlet	4	EA	@	$1,800	per EA	$	7,200
	10" Storm Sewer	230	FT	@	$ 50	per FT	$	11,500
	ADA Sidewalk Ramp	700	SFT	@	$ 15	per SFT	$	10,500
	Turf Restoration	220	SYD	@	$ 10	per SYD	$	2,200
							$	192,150
General Items								
	Traffic Maintenance & Control		LUMP SUM				$	10,000
	Water & Sewer Allowance		LUMP SUM				$	10,000
	Tree Protection	27	EA	@	$ 150	per EA	$	4,050
	Soil Erosion & Sedimentation Control		LUMP SUM				$	5,000
	Inspector Crew Days	30	DAYS	@	$ 360	per DAY	$	5,000
							$	34,050
	Estimated Construction Cost						*$*	*455,200*
	15% Contingency Cost						*$*	*68,300*
	PRELIMINARY ESTIMATED CONSTRUCTION COST						***$***	***523,000***