

**RESOLUTION No. 23-73**

**A RESOLUTION OF THE MAYOR AND THE CITY COUNCIL OF THE CITY OF DORAL, FLORIDA, APPROVING THE FIRST AMENDMENT TO WORK ORDER No. 1 WITH KIMLEY-HORN AND ASSOCIATES, INC. AND TO INCREASE THE AVAILABLE FUNDS FOR PROFESSIONAL SERVICES TO COVER THE COST FOR ADDITIONAL DESIGN AND PERMITTING SERVICES ASSOCIATED WITH THE ROADWAY IMPROVEMENTS ALONG NW 102 AVENUE, NW 66 STREET, AND NW 99 AVENUE IN AN AMOUNT NOT TO EXCEED \$10,736.00; AUTHORIZING THE CITY MANAGER TO EXECUTE THE WORK ORDER AMENDMENT AND EXPEND BUDGETED FUNDS ON BEHALF OF THE CITY; PROVIDING FOR IMPLEMENTATION; AND PROVIDING FOR AN EFFECTIVE DATE**

**WHEREAS**, on April 14, 2021, the Public Works Department (“PWD”) executed Work Order No. 1 with the firm Kimley-Horn and Associates, Inc. to provide the provision of design and permitting services for the roadway improvements along NW 66<sup>th</sup> Street from NW 97<sup>th</sup> Avenue to NW 102<sup>nd</sup> Avenue, along NW 102<sup>nd</sup> Avenue from NW 64<sup>th</sup> Way to NW 66<sup>th</sup> Street, and along NW 99<sup>th</sup> Avenue from NW 64<sup>th</sup> Way to NW 66<sup>th</sup> Street; and

**WHEREAS**, the Work Order was approved via Resolution No. 21-100 and executed on a time and material basis in a not to exceed amount of \$232,083.00; and

**WHEREAS**, Kimley-Horn and Associates, Inc. is a prequalified provider of professional engineering services selected in accordance with Consultant Competitive Negotiation Act (CCNA) requirements and approved by the City Council in December 2020 via Resolution 20-24; and

**WHEREAS**, during the permitting phase with Miami-Dade County (“MDC”) additional requests were made that require additional professional services hours and a work order amendment; and

**WHEREAS**, in order to cover the additional efforts that resulted from the permitting phase with MDC, the PWD requested a proposal and negotiated with Kimley-Horn and Associates, Inc. the attached supplemental proposal on a time and material basis with a not to exceed amount of \$10,736.00, which will bring the total compensation for Work Order No. 1 and the aforementioned supplemental services to a new total amount of \$242,819.00; and

**WHEREAS**, the PWD respectfully requests that the Mayor and the City Councilmembers authorize the City Manager to execute the first amendment to Work Order No. 1 enclosed as part of this Resolution as Exhibit "A" for Kimley-Horn and Associates, Inc. to provide additional hours for design professional services associated with the roadway improvements along NW 66th Street / NW 102nd Avenue / NW 99th Avenue; and

**WHEREAS**, funding for this request is available in the Public Works Department Transportation Fund, "Construction in Progress" Account, Account Num. 101.80005.500650

**NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND THE CITY COUNCIL OF THE CITY OF DORAL AS FOLLOWS:**

**Section 1. Recitals.** The above recitals are confirmed, adopted, and incorporated herein and made part hereof by this reference.

**Section 2. Approval.** The Amendment to Work Order No. 1 between the City of Doral and Kimley-Horn and Associates, Inc. for additional professional service hours associated with the design of the roadway improvements along NW 66<sup>th</sup> Street / NW 102<sup>nd</sup> Avenue / NW 99<sup>th</sup> Avenue, in an amount not to exceed \$10,736.00 for a revised

total work order not to exceed amount of \$242,819.00, attached hereto as Exhibit "A", is hereby approved.

**Section 3. Authorization.** The City Manager is authorized to execute the work order amendment and expend budgeted funds on the behalf of the City.

**Section 4. Implementation.** The City Manager and the City Attorney are hereby authorized to take such further action as may be necessary to implement the purpose and provisions of this Resolution.

**Section 5. Effective Date.** This Resolution shall become effective immediately upon its adoption.

The foregoing Resolution was offered by Councilmember Puig-Corve who moved its adoption. The motion was seconded by Vice Mayor Pineyro and upon being put to a vote, the vote was as follows:

Mayor Christi Fraga	Yes
Vice Mayor Rafael Pineyro	Yes
Councilwoman Digna Cabral	Yes
Councilwoman Maureen Porras	Yes
Councilman Oscar Puig-Corve	Yes

PASSED AND ADOPTED this 10 day of May, 2023.

  
\_\_\_\_\_  
CHRISTI FRAGA, MAYOR

ATTEST:

  
\_\_\_\_\_  
CONNIE DIAZ, MMC  
CITY CLERK

APPROVED AS TO FORM AND LEGAL SUFFICIENCY  
FOR THE USE AND RELIANCE OF THE CITY OF DORAL ONLY:

  
\_\_\_\_\_  
VALERIE VICENTE, ESQ. for  
NABORS, GIBLIN & NICKERSON, P.A.  
CITY ATTORNEY

# EXHIBIT “A”

Darlin Perez, P.E.  
Chief of Engineering  
City of Doral  
8401 NW 53<sup>rd</sup> Terrace – Suite 200  
Doral, FL 33166

***RE: Supplemental Professional Engineering Consulting Services for  
NW 66<sup>th</sup> Street from NW 102<sup>nd</sup> Avenue to NW 99<sup>th</sup> Avenue  
City of Doral, Miami-Dade County, Florida***

Dear Ms. Perez:

Kimley-Horn and Associates, Inc. ("Kimley-Horn" or "Consultant") is pleased to submit this letter agreement ("Agreement") to the City of Doral ("Client") to amend the agreement to provide professional engineering consulting services for the above referenced project. All work under this scope will be in accordance with the terms and conditions of Professional Services Agreement (General Engineering/Architecture Services RFQ 2020-22), between the City of Doral and Kimley-Horn. Our project understanding, scope of services, schedule, and fees follow:

## PROJECT UNDERSTANDING

This amendment covers three (3) specific areas of additional work not included in the original scope for this project:

1. A change in typical section and harmonization widths caused a need to develop cut and fill mitigation alternatives to present to the client and Miami-Dade County (MDC) Regulatory and Economic Resources (RER).
2. An initial project completion date assumption is triggering additional coordination and an extension of project limits given proposed work by a private development along NW 66<sup>th</sup> St.
3. At a pre-application meeting with Miami-Dade County RER, the need for groundwater contamination samples to be performed and reviewed by RER in conjunction with other permit applications.

## SCOPE OF SERVICES

**(ORIGINAL) TASK 01 – GEOTECHNICAL SERVICES (COMPLETED – no changes)**

**(ORIGINAL) TASK 02 – TOPOGRAPHIC SERVICES (COMPLETED - no changes)**

**(ORIGINAL) TASK 03 – ROADWAY CONSTRUCTION DOCUMENTS (ONGOING – changes below)**

**Task 03 A: Preliminary Typical Section (COMPLETED – no changes)**

**Task 03 B: Construction Documents for Approved Typical Section (ONGOING)**

**Task 03 B is being amended to include the following sub items:**

**(ADD to "Permitting" section)**

An additional permit will be required for the proposed roadway improvements from the following agencies:

1. RER Water Control – Cut and Fill permit

Kimley-Horn will conduct a meeting with RER to present cut and fill alternatives developed by the Consultant. During this meeting, the conceptual alternatives will be reviewed as well as the technical approach. Meeting minutes will be prepared and submitted to the Client.

Kimley-Horn will prepare and submit a package with Cut and Fill calculations and Plans to RER for review. Final response to comments (up to two [2] sets of review comments by RER) will be prepared within the Final construction documents.

All permit fees, plan review fees and impact fees will be paid directly by the Client.

#### **(NEW SECTION) Coordination with Royal Palm Doral Private Development**

The original scope assumed this project to reach 100% prior to additional roads being designed/built in conjunction with ongoing private development east of the project limits (Royal Palm). Based on coordination, a change in project limits was deemed necessary as the developer is only restriping the eastbound lanes on NW 66<sup>th</sup> St between NW 99<sup>th</sup> Ave and NW 97<sup>th</sup> Ave, thus in order to match the typical section to the west of NW 97<sup>th</sup> Ave, this project will include the milling and resurfacing and restriping of the westbound through lane and bike lane along NW 66<sup>th</sup> ST (approximately 1300 linear feet). Design coordination (approximately 30hrs) and five (5) meetings are also included in this task.

#### **TASK 04 - ENVIRONMENTAL PERMITTING (ONGOING – see changes)**

##### **Sub-Task 1 - Wetland Delineation (COMPLETED – no changes)**

##### **Sub-Task 2 - Florida Bonneted Bat Limited Roost Survey (ONGOING – no changes)**

##### **Sub-Task 3 - Miami-Dade County & SFWMD Permitting (ONGOING – changes below)**

##### **(NEW SECTION) Sub-Task 4 – Groundwater Sampling Plan**

Kimley-Horn reviewed groundwater sampling data from adjacent and nearby contaminated sites along the NW 66th Street corridor. Results of this review identified contaminants of concern to consist of iron and aluminum in groundwater at concentrations exceeding their respective groundwater cleanup target levels (GCTLs). As part of obtaining Miami-Dade County RER Environmental Resources Management (ERM) approval, a sampling plan was prepared and sent to DERM for approval. The sampling plan provided locations for soil and groundwater sampling to address local contamination concerns in the area. Upon MDC RER ERM review, a phone call was conducted to negotiate the sampling plan approval. On February 26, MDC RER ERM responded with a conditional approval of the sampling plan. This proposal was prepared to satisfy those conditions.

Kimley-Horn will subcontract a licensed well driller to install two (2) soil borings along the NW 66th Street corridor (See Attachment A for Subconsultant's proposal), from NW 102nd Ave. to NW 99th Ave (see attached Proposed Sample Location Map and Plan Sheets #14 & #15). The borings will be installed using a GeoProbe® equipped with direct push technology (DPT) to the depth of groundwater, anticipated within 4 feet of surface. Soil samples will be collected for observations, logged on a soil boring log, and placed in laboratory supplied containers and shipped under chain-of-custody protocol to a laboratory accredited under the National Environmental Laboratory Accreditation Program (NELAP). Soil samples will be submitted from the following depth intervals:

land surface to 0.5 ft., 0.5 ft to 2 ft. and 2 ft. to 4 ft., or to the water table, whichever is encountered first.

All soil samples will be analyzed for the following parameters:

- Arsenic by EPA Method 6010
- Petroleum Aromatic Hydrocarbons (PAHs) by EPA Method 8270

Additionally, the soil borings will then be converted to temporary well locations. The temporary wells will be installed to a depth of 12 ft. and consist of 10 ft. of 1-inch diameter, 0.010-inch slotted PVC and solid riser to 2-3 ft. above land surface. The boring annulus will be backfilled with clean 20/30 sand to above the screened portion of the well and developed until relatively free of sediment. When relatively free of sediment (<20 NTUs), the wells will be purged according to FDEP SOPs (FS2200) and sampled. Each well will be analyzed for the following parameters:

- Iron and aluminum by EPA Method 6010

Upon receipt of the laboratory analytical results, Kimley-Horn will prepare a Limited Assessment Report to details sampling activities, tabulate analytical results, and prepare figures to show sampling locations and results. The report will be prepared for DERM review and approval by a licensed Professional Geologist in the State of Florida.

Field work is estimated to take one day in the field and a report will be prepared within 3 weeks from receiving laboratory results.

All permit fees, plan review fees and impact fees will be paid directly by the Client.

#### **TASK 05 – TREE PERMIT / MITIGATION (NOT STARTED)**

#### **TASK 06 – SUBSURFACE UTILITY EXPLORATION SERVICES (NOT STARTED)**

15 test holes budget for, only 2 may be used. Unused funds being reallocated, see fee table.

#### **TASK 07 – THE CLIENT'S ADDITIONAL SERVICES**

Upon your authorization, we will provide any additional services that may be required beyond those described in **Tasks 01 through 06**. These services may include but are not limited to such items as the following:

- Phase I and Phase II Environmental Site Assessment
- Utility Subsurface Engineering (SUE), to locate existing utilities at potential conflicts locations.
- Utility Relocation/ Design and plans.
- Resident Project Representative/CEI Services
- Bidding assistance
- Construction Phase Services
- Post Design Services (meetings, shop drawing reviews, contract clarifications, site observations, substantial completion review)
- Review of pay applications
- MOT plans other than described in Task 03
- Evaluation of contractor's sub-divisions or Value Engineering Proposals
- Meetings, presentations or coordination in addition to those described in Task 01 through Task 06 above
- Redesign required as a result of major change from scope of services described above
- Sketches and legal descriptions, if more than one dedication is needed
- Permit expediting
- Any work related to grants of easement or right of way acquisition
- Signalization



- 4-Way Stop Warrant Traffic Analysis and permitting with MDC
- Specific listed species surveys, permitting, and/or relocation of endangered species
- Services not specifically included within "Scope of Services"

### SCHEDULE

We will provide the above-described services outlined in an expeditious and orderly manner to meet the schedule mutually agreed to by the Client and Kimley-Horn and Associates, Inc. for the various elements of the project.

Due to the everchanging circumstances surrounding the COVID-19 Virus, situations may arise during the performance of this Agreement that affect availability of resources and staff of Kimley-Horn, the client, other consultants, and public agencies. There could be changes in anticipated delivery times, jurisdictional approvals, and project costs. Kimley-Horn will exercise reasonable efforts to overcome the challenges presented by current circumstances, but Kimley-Horn will not be liable to Client for any delays, expenses, losses, or damages of any kind arising out of the impact of the COVID-19 Virus.

### FEE AND BILLING

Kimley-Horn will accomplish the services outlined in Tasks 01 through 06 on a time material basis with estimated labor fees shown below. Labor fee will be billed hourly on monthly basis, based on the standard hourly rate agreed between Kimley-Horn and the Client. Direct expenses, if required, will be billed at 1.15 of the cost. Expenses are in addition to the labor amount. Billing will be due and payable within twenty-five (25) days of receipt of invoice.

Task 07 will require a separate client signature for approval prior to beginning work. Fees and expenses will be invoiced monthly based upon actual services performed and expenses incurred as of the invoice date. Billing will be due and payable within twenty-five (25) days of receipt of invoice.

<u>Task</u>	<u>Description</u>	<u>Original Labor Fee</u>	<u>Additional Scope Fee</u>	<u>Total New Labor Fee</u>
01	Geotechnical Services	\$15,692.00	\$0.00	\$15,692.00
02	Topographic Services	\$20,401.00	\$0.00	\$20,401.00
03	Roadway Construction Documents	\$143,280.00	\$18,919.00	\$162,199.00
04	Environmental Permitting	\$22,500.00	\$10,517.00	\$33,017.00
	Subconsultant - Drilling Services	\$0.00	\$1,300.00	\$1,300.00
05	Tree Permit/Mitigation	\$7,000.00	\$0.00	\$7,000.00
06	Subsurface Utility Explorations	\$23,210.00	(\$20,000.00)	\$3,210.00
	<u>Total</u>	\$232,083.00	\$10,736.00	\$242,819.00

**Total Additional Services Labor ..... \$10,736.00**

### Estimated Expenses

04a Task 04 Expenses Estimation ..... \$2,000.00

### Hourly Fees

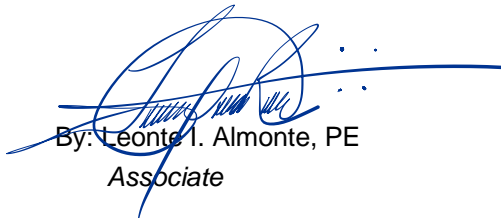
07 Additional Services ..... Hourly as Required

In addition to the matters set forth herein, our Agreement shall include and be subject to, and only to, the terms and conditions of the Professional Services Agreement (General Engineering/Architecture Services RFQ 2020-22), between the City of Doral and Kimley-Horn, which is hereby incorporated by reference. If you concur in all the foregoing and wish to direct us to proceed with the services, please have authorized persons execute both copies of this Agreement in the spaces provided below, retain one copy and return the other to us. Fees and times stated in this Agreement are valid for sixty (60) days after the date of this letter.

With Kimley-Horn, you should expect more and will experience better. We appreciate the opportunity to provide these services to you. Please don't hesitate to contact Gabriela Ramirez or me at (305) 673-2025 if you have any questions.

Very truly yours,

**KIMLEY-HORN AND ASSOCIATES, INC.**



By: Leonte I. Almonte, PE  
Associate



Gabriela P. Ramirez, P.E.  
Project Manager

APPENDIX "A"  
Subconsultants' Fee Proposals

INDIVIDUAL PROJECT ORDER NUMBER WOM 238

This Individual Project Order describes a specific agreement between Kimley-Horn and Associates, Inc. (the Consultant) and Wombat Environmental, LLC (the Associate Consultant) pursuant to the Master Agreement for Continuing Professional Services dated December 5, 2006, the terms of which are incorporated by reference.

Identification of Project and Consultant's Client:

NW 66<sup>th</sup> Street Project  
NW 66<sup>th</sup> St. & 102<sup>nd</sup> Ave.  
Doral, Florida  
Project No. 043515013

Scope of Associate Consultant's Services:

Wombat will call in utility locates prior to drilling. Wombat will provide up to one (1) day of drilling services to install two (2) soil borings to groundwater depth (groundwater is anticipated at 4-5 feet below ground surface) and two (2) temporary groundwater monitoring wells. Total depth for the wells is anticipated at 12 feet below ground surface. Each well will consist of 10 feet of 0.010-inch slotted screen and solid riser to approximately 3 ft. above land surface. The boring annulus will be backfilled with clean 20/30 sand to the surface. Upon completion of sampling activities, the wells will be removed and the land restored to similar conditions.

Schedule to be met by Associate Consultant:

TBD

Associate Consultant's Compensation:

Lump sum of \$1,300.00, per email quote dated 3/9/2023

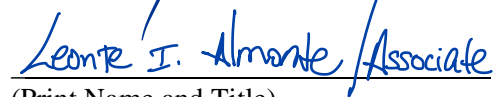
WOMBAT ENVIRONMENTAL, LLC

KIMLEY-HORN AND ASSOCIATES, INC.

By: \_\_\_\_\_  
(signature)

\_\_\_\_\_  
(Print Name and Title)

By:  \_\_\_\_\_  
(signature)

  
(Print Name and Title)

**FEE QUOTATION PROPOSAL FOR NW 66TH STREET  
FROM NW 97TH AVENUE TO NW 102ND AVENUE**

**Consultant's Name:** Kimley-Horn and Associates, Inc.  
**Project Number:**  
**Project Length:** 0.50 Miles

**Prepared by:** Gabriela Ramirez, PE  
**Date:** 3/23/2023

**STAFF HOURS**

	Activity	Principal Engineer	Project Manager	Sr. Engineer	Project Engineer	Engineering Technician	CADD Tech.	Staff Hours by Activity	Salary Cost for Activity
1	Roadway Plans	6	16	10	4	2	0	38	\$6,902.00
2	Pavement Marking & Signing Plans	2	6	6	10	4	2	30	\$4,530.00
3	Signalization Plans and School Flashers	0	0	0	0	0	0	0	\$0.00
4	Roadway Lighting Plans	0	0	0	0	0	0	0	\$0.00
3	Drainage Design, Report & Permit Applications	4	10	14	12	5	2	48	\$7,487.00
6	Post-Design Services	0	0	0	0	0	0	0	\$0.00
4	Groundwater Sampling	15	2	30	13	0	0	60	\$10,517.00
8	Public Involvement	0	0	0	0	0	0	0	\$0.00
	<b>TOTAL HOURS</b>	27	34	60	39	11	4	176	\$29,436.00
	<b>Rates</b>	\$210.00	\$200.00	\$172.00	\$139.00	\$83.00	\$78.00		
	<b>Totals S-H and Cost</b>	<b>\$5,670.00</b>	<b>\$6,800.00</b>	<b>\$10,320.00</b>	<b>\$5,421.00</b>	<b>\$913.00</b>	<b>\$312.00</b>	<b>\$29,436.00</b>	<b>\$167.25</b>

**TOTAL CONTRACT COST COMPUTATIONS**

Total Activity Salary Costs \$29,436.00  
(a) Overhead Additives  
(a1) Combined O-H percent  
(a2) Combined O-H Cost \$0.00  
Subtotal (Salary + Overhead) \$29,436.00

(b) Operating Margin Percent \$0  
(b1) Operating Margin Cost - Fixed Fee \$0  
Subtotal (Salary Related Cost) **\$29,436.00**

Expenses & Optional Services  
(a) Printing & Reproduction \$ -  
(b) Public Involvement (5%) \$ -  
Phase I Env. Assessment (Optional) \$0.00  
Tree Permitting/Mitigation (Optional) \$0.00  
Wetlands Permitting (Optional) \$0.00

**TOTAL KHA** **\$29,436.00**

PROJ. NO.: \_\_\_\_\_ F.A.P. \_\_\_\_\_ DESCRIPTION: Roadway Improvements

LENGTH IN MILES : 0.53 FEET : 2650 LANES: \_\_\_\_\_ DIV'D: \_\_\_\_\_ URBAN: X

ITEM	SCALE	BASIS OF ESTIMATE	NO. OF UNITS	NO. OF SHEETS	M - H UNITS	TOTAL M-H	COMMENTS
<b>ROADWAY PLANS</b>							
Key Map		SHT	0	1	0	0	
Typical Section		EA	1	1	0	0	
Summary of Quantities		SHT	0	1	0	0	
General Notes		SHT	0	1	0	0	
Plan Sheets for M & R	1"=20'	HRS	0	0	0	0	N/A
Plan Sheets New Construction	1"=20'	SHT	0			0	
Profile Sheets for M & R	1"=20'	SHT	2	2	0	0	Additional 2 sheets for NW 66th St to NW 97th Ave
Profile Sheets New Cons	10 1"=20'	SHT	0	0	0	0	
Intersection Details - Plateau		SHT	0	0	40	0	
Intersection Profiles - Plateau		EA	0	0	0	0	
Intersection Profiles - Side Streets		EA	0	1	10	0	
SWPP Plan		SHT	0	1	12	0	
Misc. Construction Details		SHT	0	1	8	0	
Maint. of Traffic		SHT	0	2	10	0	
Cross-Sections	1"=10'	EA	0	10	4	0	
Computation book		LS	0		0	0	
Opinion of Probable Cost		EA	0		4	0	
Pavement Design		LS	0		20	0	
Geometry Plan		LS	0		12	0	
FDOT Coordination		EA	0		0	0	
Utility Coordination		LS	0		30	0	
Railroad Permit and Coordination		LS	0		0	0	
Special Provisions, Technical Specs		HRS	0		12	0	
Value Engineering/Coord		LS	0		18	0	
Meetings and Reviews		HRS	3		6	18	3 meetings with Royal Palm developer - 2 people
Coordination		HRS	0		20	20	
Geotechnical Coordination		LS	0		6	0	
Surveying Data Processing		HRS	0		8	0	
Field Reviews		EA	0		12	0	
<b>ROADWAY PLANS TOTALS</b>				21		<b>38</b>	

Prepared By: Gabriela Ramirez, PE

Date: March 23, 2023

<b>COUNTY PROJ. NO.:</b>	<b>0</b>	<b>F.A.P.</b>	<b>DESCRIPTION:</b>	<b>Roadway Improvements</b>
--------------------------	----------	---------------	---------------------	-----------------------------

LENGTH IN MILES : 0.53 FEET : 2650 LANES:            DIV'D:            URBAN:           X          

ITEM	SCALE	BASIS OF ESTIMATE	NO. OF UNITS	NO. OF SHEETS	M - H UNITS	TOTAL M-H	COMMENTS
<b>GROUND SIGNING &amp; MARKING</b>							
Key Map							
Summary of Quantities		SHT	0	0	12	0	
Plan Sheets	1"=20'	SHT	2	2	15	30	Additional 2 sheet for NW 66th St to NW 97th Ave
Opinion of Probable Cost		HRS	0		0	0	
Field Review		EA	0		0	0	
MDC Traffic Plans Approval		LS	0	0	0	0	0
10							
<b>SIGNING &amp; MARKING TOTALS</b>				2		<b>30</b>	

Prepared By: Gabriela Ramirez, PEDate: March 23, 2023

COUNTY PROJ. NO.: 0 F.A.P.  DESCRIPTION: Roadway Improvements

LENGTH IN MILES : 0.53 FEET : 2650 LANES:  DIV'D: No URBAN: X

ITEM	SCALE	BASIS OF ESTIMATE	NO. OF UNITS	NO. OF SHEETS	M - H UNITS	TOTAL M-H	COMMENTS
<b>DRAINAGE PLANS</b>							
Drainage Map	1"=200'	SHT	0	0	0	0	
Drainage Structures		EA	0	0	0	0	
Drainage Structures - M & R**		EA	0	0			
Summary of Drainage Structure		SHT	1		0		N/A
Meetings / Review / Quality Control		LS	1		8	8	Meeting with RER and City to present Cut and Fill Alternatives
Drainage Details		EA	0	0	0	0	
Field Review		EA	0		0		
Wetlands Assessment		LS	0		20	0	
Design of French Drain		LS	0		20	0	
Drainage Design (Including Report)		LS	0		30	0	
Permitting (Drainage System)		LS	1		40	40	Cut and Fill Alternatives and cost related to each alternative
Environmental Assesment		LS	0		0	0	
Opinion of Probable Cost		EA	0		0	0	
<b>DRAINAGE PLANS TOTALS</b>				0		48	

Prepared By: Gabriela Ramirez, PE Date: March 23, 2023



COUNTY PROJ. NO.: 0 F.A.P. DESCRIPTION: Roadway Improvements

LENGTH IN MILES : 0.5 FEET : 2650 LANES: DIV'D: No URBAN: X

ITEM	SCALE	BASIS OF ESTIMATE	NO. OF UNITS	NO. OF SHEETS	M - H UNITS	TOTAL M-H	COMMENTS
Groundwater Sampling							
KHA Items:							
Review existing groundwater sampling data		LS	1		4	4	
Sampling Plan for DERM review		LS	1		4	4	
Field work		LS	2		8	16	one day - 2 people
Review laboratory results		LS	1		4	4	
Report preparation		LS	1		16	16	
Meetings		LS	2		8	16	2 meetings with DERM
10							
TOTAL				0		60	

Prepared By: Gabriela Ramirez, PE Date: March 23, 2023

### PH II Expense estimate

ITEM	UNIT	COST PER UNIT	TASK 2 - Sampling	
			NUMBER OF UNITS	COST
<b>Expenses</b>				
CAR RENTAL/GAS	lump sum	\$ 200.00	1	\$ 200.00
AIRFARE	lump sum	\$ 815.00		\$ -
Sample Supplies	lump sum	\$ 300.00	1	\$ 300.00
shipping	lump sum	\$ 150.00		\$ -
Perdiem (per person)	day	\$ 150.00	1	\$ 150.00
<b>Driller</b>				
Well Materials	each	\$ 150.00	2.00	\$ 300.00
LFG Monitor	week	\$ 300.00		\$ -
Well Permits	each	\$ 150.00	1	\$ 150.00
Drums	each	\$ 50.00		\$ -
<b>Laboratory (GW/SW)</b>				
Arsenic	sample	\$ 16.00	8	\$ 128.00
PAHs	sample	\$ 75.00	8	\$ 600.00
	sample			\$ -
iron	sample	\$ 16.00	4	\$ 64.00
Aluminum	sample	\$ 16.00	4	\$ 64.00
	sample			\$ -
	sample			\$ -
disposal	sample	\$ 3.00	3	\$ 9.00
EIF	sample	\$ 25.00	1	\$ 25.00
				\$ -
				\$ -
<b>Task Total</b>				<b>\$1,990.00</b>
<b>Grand Total</b>				