

WORK ORDER No. 5 FOR PROFESSIONAL SERVICES

TO: A&P Consulting Transportation Engineers, Corp.
10305 NW 41st Street, Suite 115
Doral, FL 33178
Phone (305) 592-7283
Fax (305) 593-1594

DATE: January 24, 2014

PROJECT DESCRIPTION:

The City of Doral authorizes the firm A&P Consulting Transportation Engineers, Corp. to provide engineering services for Milling, Resurfacing, and Overlay Exhibits as part of the City of Doral's Pavement Maintenance Program as of the date of this Work Order. The work should be performed in accordance with the terms and conditions of the City of Doral Engineering and Architectural Services Contract Master Agreement dated November 7, 2011.

The scope of the project will be as described in the Proposal dated January 23, 2014. The schedule requires the work be performed within thirty calendar days after issuance of the notice to proceed.

The performance of services associated with this Work Order will be compensated on a time and material basis with a not to exceed amount of \$14,674.82.

You are required by the contract documents to execute this Work Order and begin work within ten (10) days from the date of this Work Order, or as directed otherwise.

If you fail to execute said Work Order and begin work within ten (10) days the City of Doral will be entitled to disqualify the Proposal, and revoke the award.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and date first above written, in three (3) counterparts, each of which shall, without proof or accounting for the other counterpart be deemed an original Contract.

CONSULTANT: APCTE

BY: Carlos M. Gil-Mera
NAME: CARLOS M. GIL-MERA
TITLE: PRINCIPAL

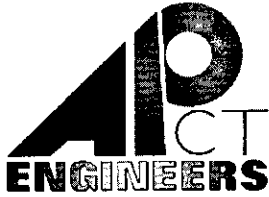
WITNESSES:
1. [Signature]
2. [Signature]



OWNER: City of Doral
BY: Joe Carollo
NAME: Joe Carollo
TITLE: City Manager

AUTHENTICATION:
BY: Barbara Herrera
NAME: Barbara Herrera
TITLE: City Clerk

APPROVED AS TO FORM:
BY: [Signature]
NAME: John Herin
TITLE: City Attorney



A&P Consulting Transportation Engineers

10305 N.W. 41st Street, Suite 115
Miami, Florida 33178
Phone: (305) 592-7283
Fax: (305) 593-1594

January 23, 2014

Mr. Jorge A. Gomez, PE
Chief of Engineering
City of Doral
8401 NW 53rd Terrace, 2nd Floor
Doral, FL 33166

Ref. 2014 Resurfacing Exhibits Development

Mr. Gomez,

APCTE is pleased to submit the following proposal for development of resurfacing exhibits for the following streets:

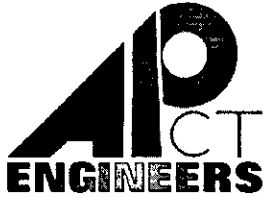
- NW 109 Avenue – From NW 41 Street to 272' North of NW 41 Street
- NW 109 Avenue – From 200' South of NW 43 Lane to NW 50 Street
- NW 109 Avenue – NW 82 Street to NW 86 Street
- NW 13 Terrace – NW 89 Court to Dead End
- NW 17 Street – NW 82 Avenue to 783' West of NW 82 Avenue
- NW 18 Terrace – NW 87 Avenue to NW 89 Place
- NW 21 Street – NW 102 Place to NW 107 Avenue
- NW 21 Terrace – NW 86 Avenue to NW 87 Avenue
- NW 23 Street – NW 84 Avenue to NW 86 Avenue
- NW 26 Street – NW 87 Court to NW 89 Court

Scope of work:

APCTE will provide engineering construction documents services for the design of the milling and resurfacing/overlay of the above referenced streets segments. The scope of work is as follows:

- Prepare exhibit plans on aerial background to scale (graphic scale) 11x17, with north arrow, notes, showing limits of milling and resurfacing, width of pavement, pavement signs and markings.
- Visit sites to verify existing conditions from aerial map.
- Provide notifications to respective utilities of proposed work.
- Submit exhibit plans to City for review along with list of quantities (a cost estimate is not required).
- Should signs and pavement markings require modifications to improve a traffic condition as determined by the engineer, then the City will submit exhibits to MDC for approval.
- Consultant to address any review comments from MDC resulting from improvement modifications of existing pavement marking drawings.
- Pavement cores will be used to confirm if recommendations from Resurfacing Master Plan is the most appropriate treatment.
- Nominate on segment for reworked asphalt as a bid option.

This proposal includes geotechnical services that be provided by our sub-consultant HRS Engineering Services (See attached separate scope of work).



A&P Consulting Transportation Engineers

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Schedule of payment:

Engineering Construction Plan Set (Exhibits)	\$11,139.25
Geotechnical.....	\$ 3,535.57
Total Fee.....	\$14,674.82

If the foregoing is to your understanding and approval, kindly sign and return one copy of proposal for our files.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eithel M. Sierra'.

A&P Consulting Transportation Engineers
Eithel M. Sierra, PE – Senior Project Manager

Accepted: City of Doral
Jorge A. Gomez, PE

**ESTIMATE OF WORK EFFORT FOR
2014 RESURFACING EXHIBITS
CITY OF DORAL PUBLIC WORKS DEPARTMENT**



CLASSIFICATION:	W O R K %	MANHOURS							TOTAL WORK EFFORT	AVERAGE HOURLY RATE	ESIMATED COST
		ROADWAY PLANS									
CHIEF ENGINEER	5	5							5	\$66.82	\$334.10
PROJECT MANAGER	20	18							18	\$55.75	\$1,003.50
PROJECT ENGINEER	20	18							18	\$47.05	\$846.90
ENGINEER	20	18							18	\$30.79	\$554.22
ENGINEER TECHNICIAN	30	28							28	\$26.77	\$749.56
CLERICAL	5	5							5	\$20.60	\$103.00
TOTALS	100	92							92	\$39.04	\$3,591.28

TASK TOTALS FROM TASK LIST SHEETS

DATE OF ESTIMATE: 1/23/14

If revised estimate, give reasons for revisions

ESTIMATOR & TITLE:
Eithel M. Sierra, P.E. - Project Manager

Notes

- (1) Total Overhead (General) = % * Unloaded Salary
- (2) Operating Margin = % * Unloaded Salary
- (3) Facilities Capital Cost of Money (FCC) = % * Unloaded Salary
- (4) Direct Reimbursables (Out-of-Pocket) = % of Unloaded Salary

TOTAL CONTRACT FEE COMPUTATIONS

(a) Total Unloaded Salary	-----	\$3,591.28
(b) 177.76 % Total Overhead ⁽¹⁾	-----	\$6,383.86
(c) 27.0 % Operating Margin ⁽²⁾	-----	\$969.65
(d) 0.045 % FCCM ⁽³⁾	-----	\$1.62
(e) 5.37 % Direct Expenses ⁽⁴⁾	-----	\$192.85

TOTAL CONTRACT AMOUNT (LUMP SUM)	-----	\$11,139.25
Subconsultants: HRS Engineering Services (Geotech)	-----	\$3,535.57

PROJECT GRAND TOTAL **\$14,674.82**



**ESTIMATE OF WORK EFFORT FOR
2014 RESURFACING EXHIBITS
CITY OF DORAL PUBLIC WORKS DEPARTMENT**

CONSULTANT NAME: A&P Consulting Transportation Engineers, Corp. DATE: 1/23/2014

ACTIVITY DESCRIPTION	SUB-ACTIVITY	STAFF HOURS		CADD* HOURS		REMARKS
		FROM	TO	FROM	TO	
A. ROADWAY PLANS	1. Design Analysis	11				
	2. Construction Plans	81				
	3.					
	4.					
	5.					
	6.					
	7.					
	8.					
	9.					
	10.					
	11.					
TOTAL		92				
STAFF DISTRIBUTION		(%)	REMARKS			
CHIEF ENGINEER	5					
PROJECT MANAGER	20					
PROJECT ENGINEER	20					
ENGINEER	20					
ENGINEER TECHNICIAN	30					
CLERICAL	5					
TOTAL	100					

2014 RESURFACING EXHIBITS

SUBACTIVITY: 1. (Design Analysis)

SUBACTIVITY	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Kick-off Meeting	L.S.						
2. Collect and Review Available Data	L.S.	6	1		6		Includes revisiting all 10 locations.
3. Field Review & Service Location	L.S.						
4. Prepare Technical Special Provisions	L.S.						
5. Prepare Construction Cost Estimate	L.S.						
6. Traffic Control Analysis	L.S.						
7. Design Coordination Meetings	L.S.	1	4		4		2 people x 2 hours x 1 meetings = 4 hrs
8. Public Involvement	L.S.						
SUBACTIVITY SUBTOTAL					10		
12. Quality Assurance / Quality Control	5%				1		
SUBACTIVITY TOTAL					11		

2014 RESURFACING EXHIBITS

SUBACTIVITY: 2. (Construction Plans)

SUBACTIVITY	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1 Key Sheet	Sheet	1	4	1	4		Master Key sheet showing all segments
2 Summary of Quantities	Sheet	1	4	1	4		
3 General Notes	Sheet	1	4	1	4		
4 General and Survey Control Plans	Sheet						
5. Typical Sections	Sheet						None is required
6 Proposed Plan Sheets	Sheet	13	5	13	65		Includes 13 sheets exhibits plans on aerial background to scale (graphic scale) 11x17.
7 Cross Sections	Sheets						
8 General Details	Sheet						
9 Traffic Control Plan	Sheet						
SUBACTIVITY SUBTOTAL					77		
10 Quality Assurance / Quality Control	5%				4		
SUBACTIVITY TOTAL				16	81		

PRICE PROPOSAL FOR GEOTECHNICAL SERVICES - PAVEMENT CORES
PERFORM 10 PAVEMENT CORES, ONE PER SELECTED STREET - CITY OF DORAL, FLORIDA
MIAMI-DADE COUNTY, FLORIDA
HRES PROJECT No.: HR14-968R
JANUARY 14, 2014

We propose the following field exploration:

1. 10 pavement cores at selected city streets. HRES will obtain the pavement core only. No measurement of base and subbase were requested. The working area will be temporary close for a short period of time (about 0.5 hour). Barricades and flagmen are required.

The work requires permit from the City of Doral.

Schedule.

- After notice to proceed, the project requires 1 day for pavement core layout and underground utilities. 1 day for field exploration performance, and 1 week for report preparation. A total of 7 days.

	UNITS	# OF UNITS	UNIT RATE	TOTAL \$
=====				
1 & 2. FIELD INVESTIGATION				
1. TRAFFIC CONTROL				
1.1) Cones, Flags, Arrow Boards, Barricades etc.	day	1.0	\$210.00	\$210.00
1.2) MOT Setup by Senior Engineering Technician for roadway temporary closure (Flagman): 9 hours	hour	9.0	\$74.89	\$674.01
Sub-Total				\$884.01
2. FIELD EXPLORATION: PAVEMENT CORES				
2.1) Pavement cores	feet	10.0	\$90.00	\$900.00
2.2) Support truck Mobilization	each	1.0	\$150.00	\$150.00
Sub-Total				\$1,050.00
TOTAL FOR FIELD INVESTIGATION				\$1,934.01
3. ENGINEERING AND TECHNICAL SERVICES				
3.1) Senior Engineer	hour	1	\$164.44	\$164.44
3.2) Engineer Intern	hour	10	\$83.80	\$838.00
3.3) Senior Engineering Technician (Utility Clearance, Drilling Permit)	hour	8	\$74.89	\$599.12
		19.0		
TOTAL ENGINEERING SERVICES				\$1,601.56
TOTAL GEOTECHNICAL FEES				\$3,535.57

Project Activity 30: Geotechnical

Fst mald Hernando R. Ramos, PE

NW 109th Avenue, NW 13, 18, 21 Terrace, NW 17, 21, 23, 26 Streets - Pavement Cores at 10 Streets - City of Doral, FL
HRES Project No. HR13-936R

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
Roadway						
30.1	Document Collection and Review.	LS	1	0	0	Engineer Intern
30.2	Develop Detailed Boring Location Plan	LS	1	1	1	Engineer Intern
30.3	Stake Borings/Utility Clearance	Boring	4	1	4	Proposing 10 pavement cores at locations selected by APCTE. A total of 10 locations. Senior Engineering Technician
30.4	Coordinate and Develop MOT Plans for Field Investigation	EA	1	0	0	None expected
30.5	Drilling Access Permits	Location	4	1	4	Senior Engineering Technician. The work requires a permit from City of Doral
30.6	Property Clearances	EA	4	0	0	None expected
30.7	Groundwater Monitoring	EA	1	0	0	None expected
30.8	LBR/Resilient Modulus Sampling	EA	4	0	0	None expected
30.9	Coordination of Field Work	100 lf of boring	1	1	1	Drilling a total of 10 pavement cores. Estimating 1 hour. Engineer Intern
30.10	Soil and Rock Classification - Roadway	100 lf of boring	1	0	0	None expected
30.11	Design LBR	LS	1	0	0	None expected
30.12	Laboratory Data	100 lf of boring	1	0	0	None expected
30.13	Seasonal High Water Table	Boring	1	0	0	None expected
30.14	Parameters for Water Retention Areas	EA	1	0	0	None expected
30.15	Delineate Limits of Unsuitable Material	Cross-section	1	0	0	None expected
30.16	Electronic Files for Cross-Sections	100 lf of boring	1	0	0	None expected
30.17	Slope stability analysis	Embankment Boring	1	0	0	None expected
30.18	Stormwater Volume Recovery and/or Background Seepage Analysis	EA	1	0	0	None expected
30.19	Geotechnical Recommendations	LS	0	0	0	None expected
30.20	Pavement Condition Survey and Pavement Evaluation Report	LS	8	1	8	Engineer Intern
30.21	Preliminary Report	LS	0	0	0	None expected
30.22	Final Report: Roadway Soil Survey Report	FA	0	0	0	None expected
30.23	Auger Boring Drafting	100 lf boring	1	0	0	None expected
30.24	SPT Boring Drafting	100 lf boring	1	0	0	None expected
Roadway Geotechnical Subtotal					18	

Project Activity 30: Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
Structures						
30.25	Develop Detailed Boring Location Plan	LS	0		0	None expected
30.26	Stake Borings/Utility Clearance	Boring			0	None expected
30.27	Coordinate and Develop MOT Plans for Field Investigation	EA			0	None expected
30.28	Drilling Access Permits	Location			0	None expected
30.29	Property Clearances	FA			0	None expected
30.30	Collection of Corrosion Samples	EA			0	None expected
30.31	Coordination of Field Work	100 lf of boring			0	None expected
30.32	Soil and Rock Classification - Structures	100 lf of boring			0	None expected
30.33	Tabulation of Laboratory Data	100 lf of boring			0	None expected
30.34	Estimate Design Groundwater Level for Structures	EA			0	None expected
30.35	Selection of Foundation Alternatives (BDR)	Bridge boring			0	None expected
30.36	Detailed Analysis of Selected Foundation Alternate(s)	Bridge boring			0	None expected
30.37	Bridge Construction and Testing Recommendations	Bridge boring			0	None expected
30.38	Lateral Load Analysis	Wall boring			0	None expected
30.39	Walls	Wall Boring			0	None expected
30.40	Sheetpile wall Analysis: Provide soil/rock parameters for a preliminary analysis	Wall Boring			0	None expected
30.41	Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations	Boring			0	None expected
30.42	Box Culvert Analysis	EA			0	None expected
30.43	Preliminary Report - Sound Walls	FA			0	None expected
30.44	Final Report - Sound Walls	EA			0	None expected
30.45	Final Reports - Signs, Signals, Box Culvert, Walls and High Mast Lights	FA			0	None expected
30.46	SPT Boring Drafting	100 lf of boring			0	None expected
30.47	Other Geotechnical	LS	0		0	None expected
Structural Geotechnical Subtotal					0	
Geotechnical Technical Subtotal					18	

Project Activity 30: Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
30.48	Technical Special Provisions	EA		1	0	
30.49	Field Reviews	LS	0	1	0	
30.50	Technical Meetings	LS	0	0	0	
30.51	Quality Assurance/Quality Control	LS	%	-	1	
30.52	Supervision	LS	%	-	0	
Geotechnical Nontechnical Subtotal:					1	
30.53	Coordination	LS	%	-	0	
30.54	Optional Preliminary Contamination Assessment	LS	0		0	
30. Geotechnical Total					19	

Technical Meetings

Kickoff Meeting with FDOT	EA		0
Boring Layout Approval	EA		0
Attend in BDR Review Meeting	EA		0
30-60-90% Submittal Review	EA		0
Other Meetings	EA		0
Subtotal Technical Meetings			0
Progress Meetings	EA		0
Phase Review Meetings	FA		0
Total Meetings			0

Comes to 30.49

SUMMARY OF STAFF HOUR ESTIMATE	HOURS
Senior Engineer	1
Engineer Intern	10
Senior Engineering Technician	8

HRES Hours 19