PROFESSIONAL SERVICES
SUPPLEMENTAL AGREEMENT # 5
FOR
PAVEMENT AND INFRASTRUCTURE MAINTENANCE

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This Supplemental Agreement No. 5 to a contract for Professional Services is made by and between the City of Pflugerville, Texas ("City") and Halff Associates, Inc. ("Consultant"). City and Consultant may be referred to herein singularly as "Party" or collectively as the "Parties."

WHEREAS, the City and Consultant executed an Agreement for Professional Services ("Agreement") on the 10 day of March, 2020 for a Task Order contract for Pavement and Infrastructure Maintenance program in the amount of $0.00 until December 31st, 2022; and

WHEREAS, the City and Consultant desire to enter into Task Order #1 for Professional Services for the Project in the amount of $197,256.00, on the 28th day of July, 2020 Agreement to add additional professional engineering services for the Heatherwilde subdivision road rehabilitation project ("Project") to the Agreement; and

WHEREAS, it has become necessary to amend the Agreement to modify the provisions for the Scope of Services, compensation; and

WHEREAS, it is necessary for the City to amend its agreements from time to time to comply with changes in state law relating to contracts of municipalities.

NOW, THEREFORE, premises considered, the City and the Consultant agree that said Agreement is amended as follows:

l.

Article III. Scope of Services and Exhibit A, shall be amended as set forth as requested by the City at the time of Project issuance.

Article III. Work Schedule and Exhibit B, shall be amended as set forth as requested by the City at the time of Project issuance.

Article IV. Compensation to Consultant and Exhibit C (Fee Schedule), shall be amended by increasing/decreasing by $197,256.00 the amount payable under the Agreement for a total of $197,256.00, as shown by the attached Exhibit C (Fee Schedule).

2.

Except as amended hereby as indicated above, the terms of the Agreement shall remain unchanged and in full force and effect.

EXECUTED and **AGREED** to as of the dates indicated below.

CITY OF PFLUGERVILLE	**CONSULTANT**
(Signature)	*(Signature)*
Printed Name: Sereniah Breland	Printed Name: Daniel Franz
Title: City Manager	Title: Public Works Director
Date:	Date: 7/14/2020

APPROVED AS TO FORM:

Charles E. Zech
City Attorney
DENTON NAVARRO ROCHA BERNAL & ZECH, P.C.

EXHIBIT "A"

PROPOSED SCOPE OF SERVICES
For
HEATHERWILDE SUBDIVISION
PAVEMENT REHABILITATION –
CITY OF PFLUGERVILLE, TEXAS

PROJECT DESCRIPTION

The proposed Scope of Services delineates the items that Halff Associates, Inc. (Engineer) will provide to the City of Pflugerville (City) for the project development of the Heatherwilde Subdivision Pavement Rehabilitation Project. The project includes pavement rehabilitation for the eleven roadways listed below totaling approximately 13,930 linear feet. Geotechnical investigation, pavement design, preliminary engineering analysis, and construction plans and specifications will be prepared for the City. The preliminary engineering analysis will determine which roadways will be included in the initial Phase of construction based on available City budget. Construction plans will be prepared for all roadways and split into separate Phased packages as necessary. Services will be performed for the following roadways:

Roadway	Limits	Length (LF)
Acanthus St	From Pfennig Ln to Laurelleaf Dr	1850
Black Willow St	From Acanthus St to Laurelleaf Dr	285
Blue Willow Ct	Full Limits	300
Gazania Dr	From Pfennig Ln to Black Locust Dr	2000
Hughmont Dr	From Pfennig Ln to Black Locust Dr	2050
Laurelleaf Dr	From Pfennig Ln to Black Locust Dr	1850
Mayapple St	From Hughmont Dr to Swenson Farms Blvd	900
Sweetwood Song Dr	From Heatherwilde Blvd to Ganzia Dr	960
Wild Orchard Dr	From Acanthus St to Laurelleaf Dr	335
N. Heatherwilde Blvd	From Pecan St to Pfennig Ln	3400

The services are separated into the following Tasks and described in more detail below:

Task 1: Project Management and Coordination

Task 2: Data Collection

Task 3: Preliminary Engineering

Task 4: Design Plans and Construction Documents

Task 5: Bid Phase Services

TASK 1: PROJECT MANAGEMENT & COORDINATION

1.1 Progress Meetings, Reports, and Monthly Invoicing

For the work performed, Engineer will prepare Monthly Progress Reports and advise the City as to the progress of the work. These Reports will include:

- Tasks completed during the reporting period.
- Tasks planned for upcoming periods.
- Issues encountered and recommended actions to address them.
- Overall Project status and development progress, including a tabulation of Tasks showing percentage complete, and supporting documentation
- Meetings with the City on the overall project

1.2 Coordination and administration of work products

- Coordination - Engineer shall designate one Texas Registered Professional Engineer as the Project Manager responsible for Project management, coordination, and communications
- Administration - Engineer will manage Project activities (including sub-consultants), direct the project team/staff, attend monthly meetings with City staff, handle deliverables, and keep records of project communications / files.

TASK 1 Deliverables:

- Monthly progress reports and meeting minutes

TASK 2: DATA COLLECTION

2.1 Geotechnical Investigation and Pavement Design

Geotechnical services to be performed by Raba Kistner Consultants Inc. (see attached scope).

2.2 Survey

Mobile LiDAR: Halff will utilize the Mobile LiDAR along the marked preferred routes. (See Exhibit ‘A’).

Conventional: Halff will blend conventional data as necessary to supplement LiDAR data in obscure areas.

Feature Extraction:

Feature extraction for the above two items will include (detailed list shown below in ‘Deliverables’): Focused from Back of Curb to Back of Curb with in all the marked preferred routes. (See Exhibit ‘A’). Pavement and Utilities that fall within above focus areas will items extracted. This will include call outs with rim elevations and pavement material labels.

Deliverables:

Survey files will be delivered in Microstation Geopak. Distances shall be ground distances, not grid distances, all deliverables will be submitted in surface with a provided scale factor, and in grid.

- Topographic Survey will include a DTM with minor contours at 1-foot intervals and major contours at 5-foot intervals and site planimetrics along the routes
- Probable expected features to be extracted are as follows:
  - Utilities- water meters, manholes, misc. valves etc within previously stated limits.
  - Pavement-Edge of Road (including pavement types), curb & gutter, crown
  - Drainage-Drainage features (top of rim for all sanitary and storm manholes within previously stated limits.

TASK 3: PRELIMINARY ENGINEERING

3.1 Preliminary Engineering

- Proposed typical roadway sections (local, arterial and turn lane)
- Preliminary project phasing and conceptual plan for traffic control
- Identify areas where full topographic survey is needed for next phase of project development
- Estimate of probable construction costs broken out per roadway (see project description)
- Field Reconnaissance: Engineer will field walk the streets to evaluate sidewalks, driveways and curb & gutter to determine need for removal and replacement based on sagging/ heaving/ cracking and identify locations where accessible curb ramps need to be added or replaced. OPCC's will be prepared to have specific items for each.

TASK 3 Deliverables:

- Engineer's estimate of probable construction costs
- Phased Construction determination

TASK 4: DESIGN PLANS AND CONSTRUCTION DOCUMENTS

Design shall be in accordance with Pflugerville Engineering Design Guidelines. The scope of the project will consist of pavement rehabilitation from existing back of curb to back of curb. Design of each road rehabilitation will be based off the geotechnical recommendation and is expected to include options of mill/overlay, edge mill, full depth repair and cement base re-stabilization. Formal design of new ADA ramps is not

included in this scope based on deliverable durations as defined by the City. ADA ramps requiring replacement will be identified in the plans for contractor bid. Field engineering and design will occur for each associated ramp during construction. Construction Phase services and field engineering effort will be provided to the City as a Supplement agreement upon successful contractor award.

4.1 Roadway Plans

- Typical sections: showing pavement widths based off existing curb line, pavement design, normal cross-slope, lane widths and right-of-way
- Roadway plan with horizontal alignment
- Limits of construction and pavement design
- Pavement markings and sign relocations (no separate signage & pavement markings plan)
- Denote any new ADA locations as determined by Task 3.
- Denote adjustments to valve covers and manhole lids (if needed)

4.2 Traffic Control Plans

- Provide detailed plan sheets, phasing and narrative for traffic control during construction
- Provide detour plans as needed
- Utilize TxDOT standards for lane closure to perform street rehabilitation.

TASK 4 Deliverables:

- One bid set/ bid package will be produced. Quantities will be separated per roadway in the bid form and OPCC
- 90% Construction Documents (11x17 plan sheets) and Cost Estimate
- Final Bid Set (11x17 plan sheets) and Cost Estimate
- 1 Project Manual for all roadways

TASK 5: BID PHASE SERVICES

5.1 Bid Phase

- Attend pre-bid meeting at City and answer bidder questions
- Provide assistance to the City in responding to questions from contractors and prepare contract addenda as necessary
- Attend bid opening at City
- Bid tabulation, evaluation, and award recommendation

TASK 5 Deliverables:

- Bid tabulation for all submitted contractor bids

- Engineer recommendation letter for Contractor award

ITEMS EXCLUDED FROM THE SCOPE OF SERVICES

1. Subsurface utility engineering
2. Survey or design of sidewalk, driveways or curb ramps
3. TDLR Project Registration and RAS review
4. Vertical alignments or profiles
5. Construction phase services
6. Public Involvement
7. Permitting
8. Environmental services
9. Analysis or design of drainage
10. Landscaping, irrigation, or hardscape (enhanced flatwork) facilities
11. Traffic counts, LOS analysis, signal timing plans
12. Design of public and franchised utility relocations
13. Preparing/submitting a Stormwater Pollution Prevention Plan (SWPPP)
14. Preparing property parcels for acquisition
15. Property acquisition or negotiations
16. Filing fees, permit fees
17. Coordination with individual property owners

Any additional services required beyond those specifically identified in this proposal are beyond the scope of services to be provided under this agreement. A scope and commensurate fee for any required additional services would be negotiated and provided under a separate supplemental agreement to this contract.

[Delivery by Email: dFranz@Halff.com]

RABA KISTNER

8100 Cameron Road, Suite B-150
Austin, TX 78754

P 512.339.1745
F 512.339.6174
TBPE Firm F-3257

WWW.RKCI.COM

Proposal No. PAA20-100-00
July 13, 2020

Mr. Dan Franz, P.E., CFM
Public Works Team Leader
Halff Associates, Inc.
9500 Amberglen Blvd., Bldg. F, Suite 125
Austin, Texas 78729

RE: Proposal for Geotechnical Engineering Study
Heatherwilde Subdivision Pavement Rehabilitation
Pflugerville, Texas

Dear Mr. Franz:

RABA KISTNER Consultants Inc. (RKCI) is pleased to submit this proposal for Geotechnical Engineering Services for the above referenced project. The broad objectives of our study will be to determine soil conditions at the site and to develop pavement design recommendations and construction guidelines for the reconstruction of selected pavements in the City of Pflugerville, Texas. Described in this proposal are:

- our understanding of pertinent project characteristics;
- our proposed scope for field and laboratory study;
- our proposed scope for engineering evaluation and reporting;
- our tentative project schedule; and
- our lump sum study cost.

Project Description

Under consideration in this study is the reconstruction of several streets within Heatherwilde Subdivision located within the City of Pflugerville. We understand specific segments of the proposed roadways will require a full depth reconstruction, while other segments will be considered for mill and overlay and/or in-place recycling. The existing asphalt paved roadways will be designed in accordance with the City of Pflugerville Engineering Design Manual and Construction Standards. Based on information provided by the Client, the following segment of roadways are being considered in the scope of services.

Phase	Proposed Roadway	Street Classification	Approximate Segment Length (lineal ft)	Project Boundaries
I	Acanthus Street	Local Residential (2-lanes)	1,900	Between Pfenning Ln to Laurelleaf Dr
	Black Willow Street		350	Between Acanthus St to Laurelleaf Dr
	Blue Willow Court		350	Entire Street
	Gazania Drive		2,100	Between Pfenning Ln to Black Locust St
	Hughmont Drive		1,900	Between Pfenning Ln to Black Locust St
	Laurelleaf Drive		1,900	Between Pfenning Ln to Black Locust St
	Mayapple Street		1,000	Between Hughmont Dr to Swenson Farm Blvd
	Sweetwood Song		1,000	Between Heatherwilde Blvd to Gazania Dr
II	Heatherwilde North	Minor Arterial (4-lanes)	3,500	Between W Pfenning Ln to W Pecan St

Field Study

Based on the site plans provided, RKCI recommends conducting the following subsurface exploration program:

Phase	Proposed Roadway	Number of Borings	Depth, ft	Total Depth, ft
I	Acanthus St	4	10	40
	Black Willow St	1	10	10
	Blue Willow Ct	1	10	10
	Gazania Dr	4	10	40
	Hughmont Dr	4	10	40
	Laurelleaf Dr	4	10	40
	Mayapple St	2	10	20
	Sweetwood Song	2	10	20
II	Heatherwilde North (4 lanes)	7	10	70
			TOTAL	290

Samples will be taken using conventional Shelby-tube and split-spoon sampling techniques. If limestone is encountered shallower than the above targeted completion depths borings will terminate at auger refusal into limestone. No boring shall terminate shallower than 5 ft. The borings will be located in the field utilizing a recreation grade hand-held GPS device. Our scope of service does not include surveying in the boring location. The boring will be backfilled utilizing auger cuttings generated during drilling activities and existing asphalt surfaces will be patched with similar covering.

In addition, to the above Dynamic Cone Penetrometer (DCP) testing will be performed below the bottom of the flexible base layer, along selected streets, to assist in determining the modulus of underlying subgrade for use in pavement design.

Samples collected will be retained in our laboratory for 30 days after submittal of the final geotechnical report.

Laboratory Testing

Upon completion of the subsurface exploration, a testing program will be designed to define the strength and classification characteristics of the subgrade soils. The laboratory testing program is anticipated to include moisture content tests, Atterberg Limits (plasticity) tests, grain size analyses, and lime series testing. However, the actual type and number of laboratory tests will be based on the subsurface conditions encountered in the borings. The laboratory testing will be performed in general accordance with applicable ASTM standards. To determine the strength characteristics of the subgrade soils a California Bearing Ratio Test (CBR) will be performed.

Engineering Reports

The results of the field and laboratory phases of the study will be reviewed by our staff of engineers and geologists. The results of our review, together with the supporting field and laboratory data, will be presented in three separate geotechnical engineering reports. The Geotechnical Engineering Reports will include the following information and recommendations, if applicable:

- A summary of the field and laboratory sampling and testing program;
- A boring location map, and boring logs;
- A review of general site conditions including descriptions of the site, the subsurface stratigraphy, groundwater conditions, and the presence and condition of fill materials, if encountered;
- Flexible pavement thickness recommendations, to include:
    - full-depth reconstruction in select areas;
    - mill and overlay, where applicable;
    - in-place recycling, where applicable.

The final report will be produced in a digital PDF and delivered via email.

Tentative Project Schedule

Based on our present workload and weather permitting, we anticipate that we could begin the field exploration phase of this study within 5 to 7 working days of receiving your written authorization, provided the site is accessible to our truck-mounted drill rig, all utilities have been located by utility locate subcontractors initiated via the One Call program, and City of Pflugerville permits have been issued. The field exploration for all phases previously described is expected to take approximately 5 to 7 business days to complete, assuming notice to proceed for all three phases are granted at one time. Laboratory testing phase is expected to take 7 to 10 business days to complete. Engineering analyses and preparation of the engineering reports is expected to take an additional three to four weeks to complete. We will be pleased to provide the design team with verbal design information as the data becomes available, once drilling has been completed.

Project Cost

The total lump sum cost for the scope of services outlined herein is as follows:

Base Scope of Geotechnical Services	**Estimate**
Geotechnical Report for Phase I - Heatherwilde Subdivision	$30,500.00
Geotechnical Report for Phase II - Heatherwilde North of Pecan Street	$13,500.00
TOTAL:	**$44,000.00**

Prior to issuing a final geotechnical report, a draft report will be issued for the City of Pflugerville's representatives review and comments.

Should unusual soil conditions be encountered in the field that indicates the desirability of significantly broadening the scope of the study, we will contact you to receive authorization before proceeding with any

additional work. Additional services will be billed on a unit basis in accordance with our standard fees as indicated on the attached Schedule of Fees for Professional Services.

If available, we request that the Client provide RKCI with a recent plat of the project site, a drawing illustrating existing and proposed construction locations, and preliminary site grading plans prior to the start of our field exploration services. Also, it is our understanding that the Client will provide access to all boring locations for a conventional, truck-mounted drilling rig and that the Client will provide underground utility clearance. RKCI will assist in locating underground utilities, provided the Client submits documentation of existing utility locations. RKCI will take all precautions to prevent damage to property; however, RKCI cannot be responsible for tire rutting, or damage of landscaping.

It should be noted that our study scope and project cost does not include professional time and travel expenses for participation in design team meetings. Furthermore, our estimate does not include professional time for plan review to determine whether the drawings comply with the intent of the geotechnical recommendations.

Acceptance

We appreciate the opportunity of submitting this contract and look forward to working with you in the development of this project.

RKCI considers the data and information contained in this proposal to be proprietary. This statement of qualifications and any information contained herein shall not be disclosed and shall not be duplicated or used in whole or in part of any purpose other than to evaluate this proposal.

Very truly yours,

RABA KISTNER CONSULTANTS, INC.

Yvonne G. Thomas

Yvonne Garcia Thomas, P.E.
Vice President

YGT: cjs

Attachments: I Standard Terms and Conditions
II Schedule of Fees

Copies Submitted: Above (1)

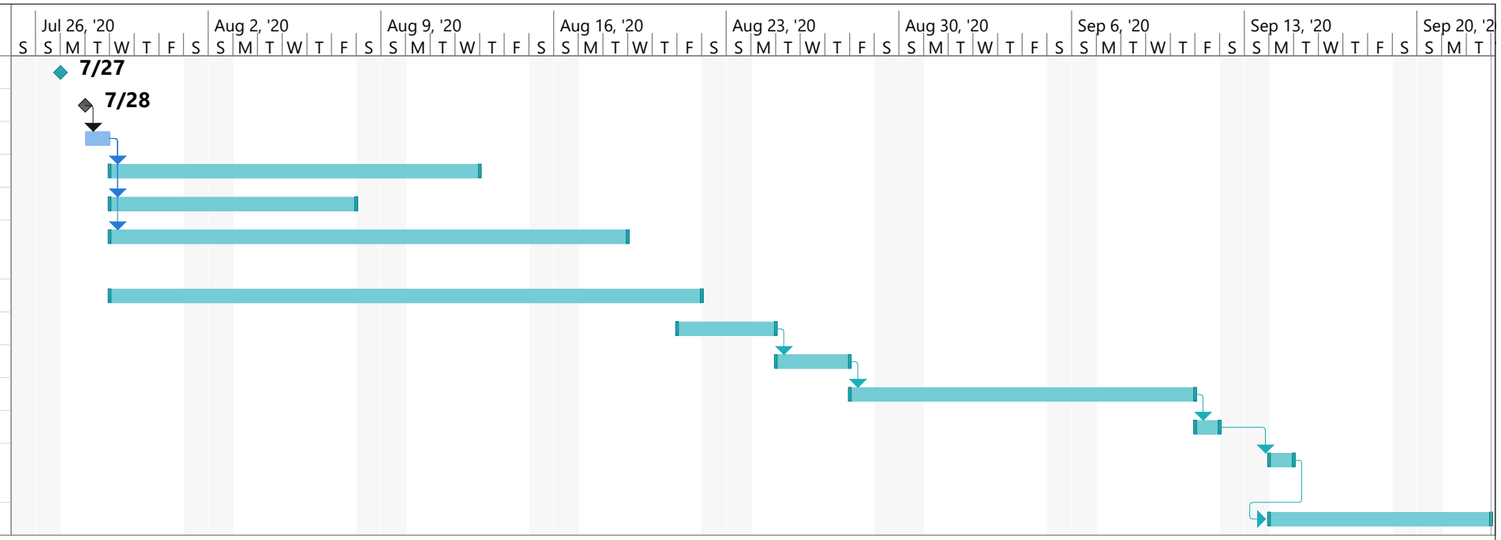
Accepted
By: _____
Signature

_____
Typed or Printed Name

_____
Title

EXHIBIT B

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		ROW Permit Approved	0 days	Mon 7/27/20	Mon 7/27/20	
2		Council Contract Appro	0 days	Tue 7/28/20	Tue 7/28/20	
3		NTP Issued	1 day	Tue 7/28/20	Tue 7/28/20	2
4		Geotech Engineering	11 days	Wed 7/29/20	Wed 8/12/20	3
5		Survey Data Collection	8 days	Wed 7/29/20	Fri 8/7/20	3
6		Prelim Engineering & Phasing Plan	15 days	Wed 7/29/20	Tue 8/18/20	3
7		Phase 1 Plan Deliverabe	18 days	Wed 7/29/20	Fri 8/21/20	
8		City Review	2 days	Fri 8/21/20	Mon 8/24/20	
9		Bid Documents Comple	3 days	Tue 8/25/20	Thu 8/27/20	8
10		Project Bidding	10 days	Fri 8/28/20	Thu 9/10/20	9
11		Open Bids	1 day?	Fri 9/11/20	Fri 9/11/20	10
12		Recommendation Letter to City	1 day	Mon 9/14/20	Mon 9/14/20	11
13		Council Award of Contr	7 days	Mon 9/14/20	Tue 9/22/20	12



Project: Prelim Schedule
Date: Mon 7/13/20

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

Addendum to Exhibit C

PROPOSED FEE SCHEDULE- FY2020 Road Rehab (Heatherwilde Subdivision)

PROJECT TASK	PROJECT MANAGER	CIVIL ENGINEER, PE	CIVIL ENGINEER, EIT	RPLS PROJECT MANAGER	SR SURVEY/ SUE TECH	SURVEY/ SUE CREW	SUE FIELD MANAGER	CADD TECHNICIAN	Mobil LiDAR	CLERICAL	SUB SERVICES	TOTAL
Task 1: Project Management and Coordination												
1.1 Progress Meetings, Reports, and Monthly Invoicing	6.0	8.0								4.0		$3,276.00
1.2 Coordination and Administration	4.0	2.0										$1,334.00
Subtotal												**$4,610.00**
Task 2: Data Collection												
2.1 Geotech (Raba Kistner, Inc.)											$ 44,000.00	$44,000.00
												$0.00
2.2 Survey				6.0	124.0	44.0		160.0	1.0			$45,770.00
												$0.00
												$0.00
Subtotal												**$89,770.00**
Task 3: Preliminary Engineering												
Typical Sections	1.0	8.0	16.0					8.0				$4,444.00
Traffic Control/ Phasing	1.0	8.0	16.0					8.0				$4,444.00
Cost Estimates	1.0	12.0	16.0									$4,464.00
Field Visits	1.0	2.0	2.0									$862.00
Subtotal												**$14,214.00**
Task 4: Design Plans and Construction Documents												
4.1 Roadway plans	4.0	112.0	120.0					240.0				$59,744.00
4.2Traffic Control Plans	1.0	20.0	40.0					64.0				$14,936.00
Details		2.0	8.0					6.0				$1,904.00
Quantity Tabulation	1.0		48.0									$5,900.00
Project Manual, Bid form, and Specifications	2.0	12.0										$2,812.00
Subtotal												**$85,296.00**
Task 5: Bid Phase Services												
Prebid, RFI, Bid tab and Recommendation	3.0	10.0	6.0									$3,366.00
Subtotal												**$3,366.00**
TOTAL Hours	**25.0**	**196.0**	**272.0**	**6.0**	**124.0**	**44.0**	**0.0**	**486.0**	**1.0**	**4.0**		
TOTAL PROJECT												**$197,256.00**
HOURLY RATES	$236	$195	$118	$165	$120	$175	$130	$95	$7,000	$75		

EXHIBIT A
HEATHERWILDE SUBDIVISION PAVEMENT REHABILITATION

N

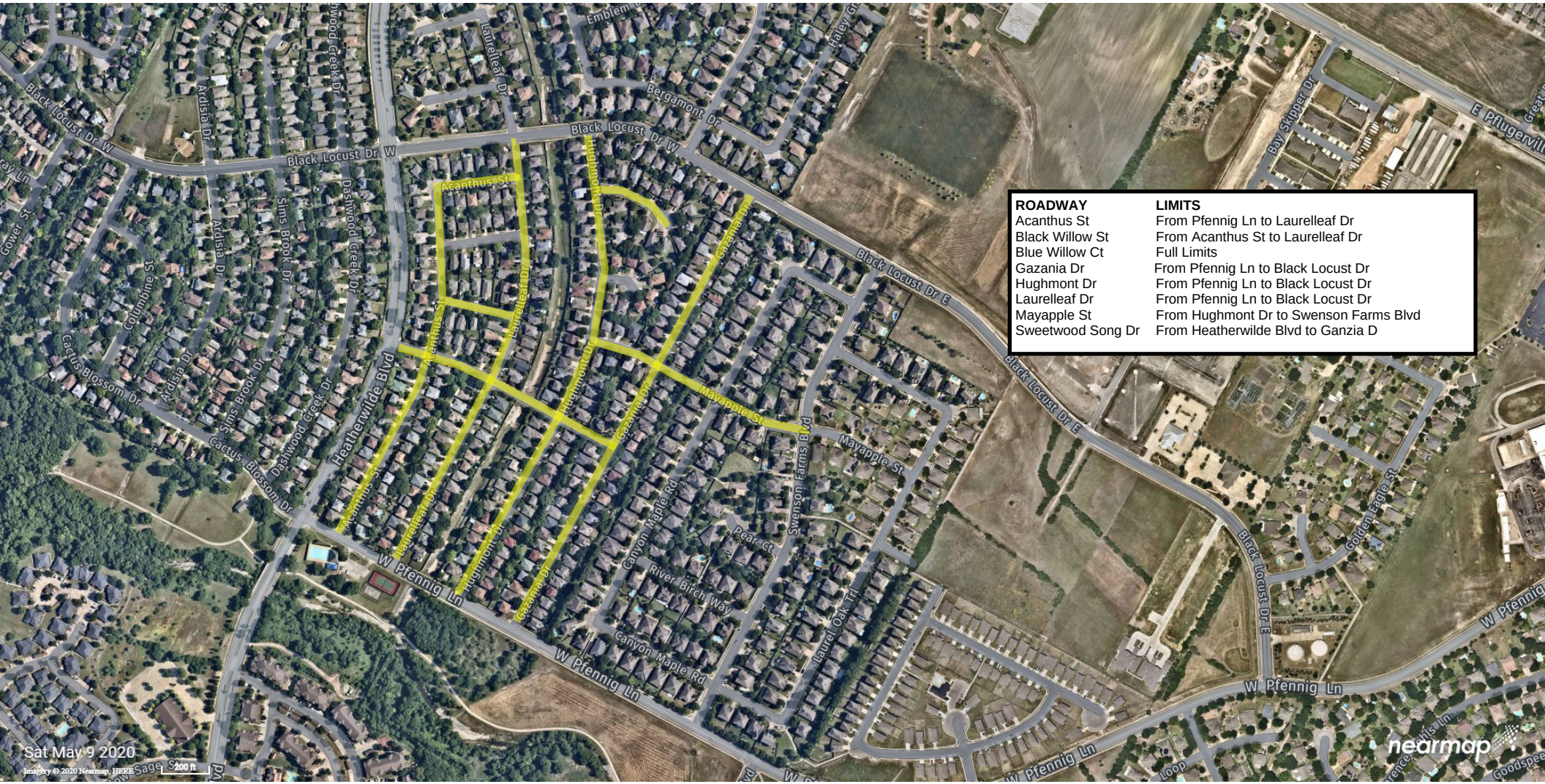


EXHIBIT A
HEATHERWILDE SUBDIVISION PAVEMENT REHABILITATION