



December 9, 2019
(Revised February 12, 2020)

Scott McClelland, EIT
Project Manager
City of Schertz, Engineering Department
10 Commercial Place
Schertz, Texas 78154

**RE: 2020 Drainage Maintenance Projects
Modification to Project Scope**

Dear Mr. McClelland:

Lockwood, Andrews & Newnam, Inc. (LAN) has received your request to complete the minor design revisions, bidding, and construction phase services for four of the remaining five projects not already constructed in the 2018 Drainage Maintenance Project documents. The current contract with the city of Schertz for the 2018 Drainage Maintenance Projects has a remaining balance of \$4,892.00 for “construction and close-out phase” services and an unused “supplemental services” budget of \$10,000.00 for a total of \$14,892.00.

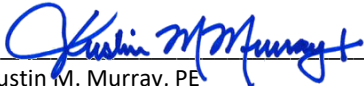
Attached as attachment ‘A’ is a scope of work which captures the work discussed during our November 22, 2019 meeting and the additional subsurface utility investigation discussed during our field meeting on January 30, 2020. An estimate of the level of effort required to complete the scope of work has been prepared and is attached as attachment ‘B’ to this letter. A summary of the lump sum costs are summarized by task below:

Survey Verification (Lump Sum)	\$3,280.00
Sub-surface Utility Investigation (Time & Materials)	\$10,200.00
Drawing Revisions & Bid Document Preparation (Lump Sum)	\$6,240.00
Bid Phase (Lump Sum)	\$2,300.00
Construction Phase (Lump Sum)	\$8,510.00
	Labor Total
	\$30,530.00
Other Direct Costs (Expenses)	\$934.00
	Grand Total
	\$31,464.00

Based on the remaining funds in the current contract, a supplemental increase in the contract amount of \$16,572.00 will be needed. Upon reviewing the attachments, provided they meet the city’s expectations, please notify LAN of your acceptance so that we may immediately begin the work. Performance of survey verification, drawing revisions and bid document preparation can be completed prior to obtaining the supplemental increase in contract amount by obtaining partial authorization from you.

Please contact our office if you have any questions or concerns.

Sincerely,


Justin M. Murray, PE
Project Manager

Scope of Work

Attachment 'A'

Project Description

Lockwood, Andrews & Newnam, Inc. (CONSULTANT) completed the design of the 2018 drainage maintenance project package on July 20, 2018. Due to budgetary limitations the city of Schertz (CITY) deferred construction of five of the projects to a later date. Two of the projects were constructed and final payment made in October 2019. The following scope of services is being proposed to utilize the remaining consultant fee budget to update drawings, package for bidding, complete bid documents, and conduct construction oversight.

Basic Services

Survey Verification (M&S Surveying)

1. CONSULTANT will retain M & S Surveying, Inc. (SUB-CONSULTANT) to provide surveying services;
2. SUB-CONSULTANT will complete verification of the control which was portrayed on the control sheets dated April 23, 2018;
3. SUB-CONSULTANT will obtain inverts at the upstream and downstream manholes of the sanitary sewer crossing of the proposed storm drainage system at the intersection of Dietz and Borgfield Roads;
4. SUB-CONSULTANT will provide updated drawings and CAD reference files for updated control and utility survey information.

Sub-Surface Utility Investigation (SoftDig)

1. SUB-CONSULTANT will complete surface Quality Level B for the area where Quality Level A will be collected;
 - a. SUB-CONSULTANT will designate, record and mark the approximate horizontal location (accurate within 12± in.) of existing utilities by geophysical prospecting techniques;
 - b. SUB-CONSULTANT will use its best professional expertise and geophysical prospecting techniques to designate subsurface utilities. SUB-CONSULTANT does not guarantee that utilities marked constitute all utilities within the project area;
 - c. SUB-CONSULTANT uses electromagnetic equipment and GPR, however, there exists the possibility that due to circumstances beyond the control of the designating technicians, utilities may be non-detectable or the horizontal location mark is not directly over the centerline of the utility;
 - i. The following factors may limit or exceed the capabilities, accuracy, and reliability of the geophysical equipment: composition of the utility structure (non-metallic), soil characteristics (mineral content, debris, rocks), salinity of ground water, depth of utility, surface covering, embedded structures (re-bar, wire mesh), confined spaces and external interference (power lines, guard rails, traffic, rail lines);
 - ii. Utility depths obtained by instrument readings (only if requested by client) are not guaranteed and are not to be used for design or basis for construction. Clients relying on instrument reading of depths do so at their own risk. True depth is only obtained by exposing the utility.

Scope of Work

Attachment 'A'

2. SUB-CONSULTANT will complete Quality Level A locates as indicated on the attached Exhibit 1;
3. SUB-CONSULTANT will provide routinely and normally carried cones and warning signs for Maintenance of Traffic. Traffic conditions, location of test holes in roadway and permit requirements may require other devices (T.M.A., arrow boards, etc.) and/or flaggers or police detail. Such costs will be invoiced as an expense;
4. SUB-CONSULTANT will coordinate with utility company inspectors as required by the resultant agreement and by law;
5. SUB-CONSULTANT will neatly cut and remove existing paving, with the cut area not exceeding 12 in. x 12 in. Excavate using the SUB-CONSULTANT's vacuum excavation system.
6. SUB-CONSULTANT will excavate test holes with care as to prevent damage to utilities, however, any damage resulting from the condition of the utility due to age, burial conditions, covering, etc. is not the responsibility of SUB-CONSULTANT.
7. SUB-CONSULTANT will backfill with excavated material and compact in 6 inch lifts.
8. SUB-CONSULTANT will furnish, install and color-code a permanent above-ground marker (e.g. P.K. nail, peg, steel pin, or hub) directly above the centerline of the structure, as well as "down the hole" color-coded plastic ribbon.
9. SUB-CONSULTANT will provide a bituminous cold patch of pavement within the limits of the original cut at the time of backfill. If the test hole is excavated in an area other than the roadway pavement, the area disturbed will be restored to the condition prior to excavation. Excluded from this provision would be any disturbance to sub soil and ground water conditions that may result in a "quick condition" or "bubbling" of water to the surface from hydrostatic pressure release resulting from excavation and through no fault of SUB-CONSULTANT. Also excluded is restoring pavement with hot mixed/hot laid bituminous pavement or keyholing operations.
10. SUB-CONSULTANT will provide the following test hole information:
 - a. Elevation of top and/or bottom of utility tied to vertical control provided, to within 0.01 ft. If control is not provided, control will be assumed.
 - b. Locate the test hole by swing ties to 3 physical objects.
 - c. Elevation of existing grade over utility at test hole to within 0.01 ft.
 - d. Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
 - e. Utility structure material compositions, and condition when possible.
 - f. Pavement thickness, generalized soil type and unusual conditions.
 - g. Should suspected hazardous material be encountered in the test hole, SUB-CONSULTANT crews will immediately contact the client representative and our office. We will also comply with DOT Hazardous Material Regulation Procedures.

Assumptions:

- Test holes shall be terminated if subsurface conditions (rock, boulders, ground water, soil conditions, soil cave in, trash/debris, or excessive depth) prevent advancement of excavation to expose the utility or to reach required depth.

Scope of Work

Attachment 'A'

Drawing Revisions and Bid Document Preparation (LAN)

1. CONSULTANT will assemble a drawing set for the four projects to be included in the bidding: Area 1—Colonies Ditch; Area 3—Castle Hills; Area 5—Osage Ditch; and, Area 6—Dietz Road;
2. CONSULTANT will contact utility service providers suspected to be in the area of the proposed projects to obtain updated utility maps;
3. CONSULTANT will utilize the updated utility maps to revise the drawings and provide plan view conflict resolution;
4. CONSULTANT will meet on-site with AT&T to kick-off the design of relocation of the multiple telephone crossings at Area 6—Dietz Road;
5. CONSULTANT will update the drawing details for the project to provide a bid alternative for concrete riprap at Area 1—Colonies Ditch;
6. CONSULTANT will utilize the Guadalupe County Parcel data to update the drawings for Area 3—Castle Hills to show property boundaries and label such as “apparent property line;”
7. CONSULTANT will show limits of drainage easement on Castle Hills Ditch and adjust limits of work to stay within easement;
8. CONSULTANT will modify Engineers Joint Contract Documents Committee (EJCDC) bid and contract documents, as revised by CITY, to complete bid specifications for the project;

Bid Phase (LAN)

1. CONSULTANT will attend a pre-bid meeting at CITY offices during bidding;
2. CONSULTANT will respond to requests for clarification made during bidding;
3. CONSULTANT will attend the bid opening, review bid responses, prepare a tabulation of the bids received, and a recommendation of award;

Construction Phase (LAN)

1. CONSULTANT will complete the Agreement between Owner and Contractor using the awarded bidders bid and contact information;
2. CONSULTANT will attend a pre-construction meeting at CITY offices;
3. CONSULTANT will conduct weekly site visits during construction to review general conformance with the project plans and specifications. The visits will be documented in field observation reports and submitted to CITY. For the purposes of this scope CONSULTANT has assumed a six month duration for construction;
4. CONSULTANT will review contractor pay applications and make a recommendation for payment to CITY;
5. CONSULTANT will attend a substantial completion walkthrough with CITY and prepare a list of punch list items that must be corrected prior to release of final payment;
6. CONSULTANT will conduct a final walkthrough with CITY and prepare a recommendation for acceptance letter to CITY.

Deliverables

- 100% Issued for Bid Set;
- 100% Issued for Construction Set;
- Bid Specifications

Scope of Work

Attachment 'A'

- Bid Tabulation & Recommendation for Award
- Field observation reports
- Substantial Completion Walkthrough Letter
- Recommendation of Acceptance

**ATTACHMENT B
CONSULTANT FEE ESTIMATE**

		Total Task Hours	Total Task Cost	Principal/QA/QC Manager	Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	Engineer In Training III	Engineer In Training II	Construction Field Representative	CADD Designer II	Administrative
LAN Project No. 120-12083-001 Project Name: 2020 Drainage Maintenance Projects				\$ 220.00	\$ 190.00	\$ 175.00	\$ 150.00	\$ 130.00	\$ 125.00	\$ 95.00	\$ 95.00	\$ 85.00	\$ 65.00
BASIC SERVICES													
Survey Verification													
	1. Sub-consultant management	2	\$ 380.00		2								
Drawing Revisions and Bid Document Preparation													
	1. Revise construction set	5	\$ 690.00		1				4				
	2. Contact utilities & request records	5	\$ 690.00		1				4				
	3. Update utilities shown in drawings	10	\$ 1,380.00		2				8				
	4. Meet on-site w/ AT&T @ Area 6	2	\$ 380.00		2								
	5. Revise rip-rap details to provide bid alt. for Area 1	6	\$ 880.00		2				4				
	7. Add easement limits & revise limits of work for Area 5	7	\$ 940.00		1				6				
	8. Modify EJCDC documents	12	\$ 1,280.00		4								8
Bid Phase													
	1. Attend pre-bid	2	\$ 380.00		2								
	2. Respond to requests for clarification	12	\$ 1,280.00		4								8
	3. Attend pre-bid, review & tabulate bids, & recommendation letter	6	\$ 640.00		2								4
Construction Phase													
	1. Attend pre-con at City	4	\$ 630.00		2				2				
	2. Conduct bi-weekly site visits (13)	21	\$ 3,145.00		8				13				
	3. Review submittals & RFIs	18	\$ 2,640.00		6				12				
	4. Review pay applications	6	\$ 1,140.00		6								
	5. Attend substantial completion walkthrough	4	\$ 510.00		2								2
	6. Attend final walkthrough & recommendation of acceptance letter	3	\$ 445.00		2								1
LABOR TOTAL		125	\$17,430.00	0	49	0	0	0	53	0	0	0	23
Expenses													
	8.5"x11" B&W Copy	\$0.08	/page	300	\$24.00								
	8.5"x11" Color Copy	\$0.12	/page		\$0.00								
	11"x17" B&W Copy	\$0.35	/page		\$0.00								
	11"x17" Color Copy	\$1.00	/page	250	\$250.00								
	Large Format B&W Printing	\$0.50	/sq. ft.		\$0.00								
	Large Format Color Printing	\$1.00	/sq. ft.		\$0.00								
	Mileage	\$0.55	/mile	1,200	\$660.00								
	Postage												
EXPENSE TOTAL						\$934.00							
Sub-Consultants													
	M & S Surveying, Inc.				\$ 2,900.00								
	SoftDig (Time & Materials)				\$ 10,200.00								
SUBCONSULTANTS TOTAL					\$ 13,100.00								
Total Fee:												\$31,464.00	

EXHIBIT 1

ABS: 221 SUR: 6 MALPAZ
3.2680 AC.
OWNER: CITY OF SCHERTZ

LOT: 25 BLK: 7
DOVE MEADOWS #2
OWNER: SANDS WARREN THOMAS JR
O. P. R. G. C. T.

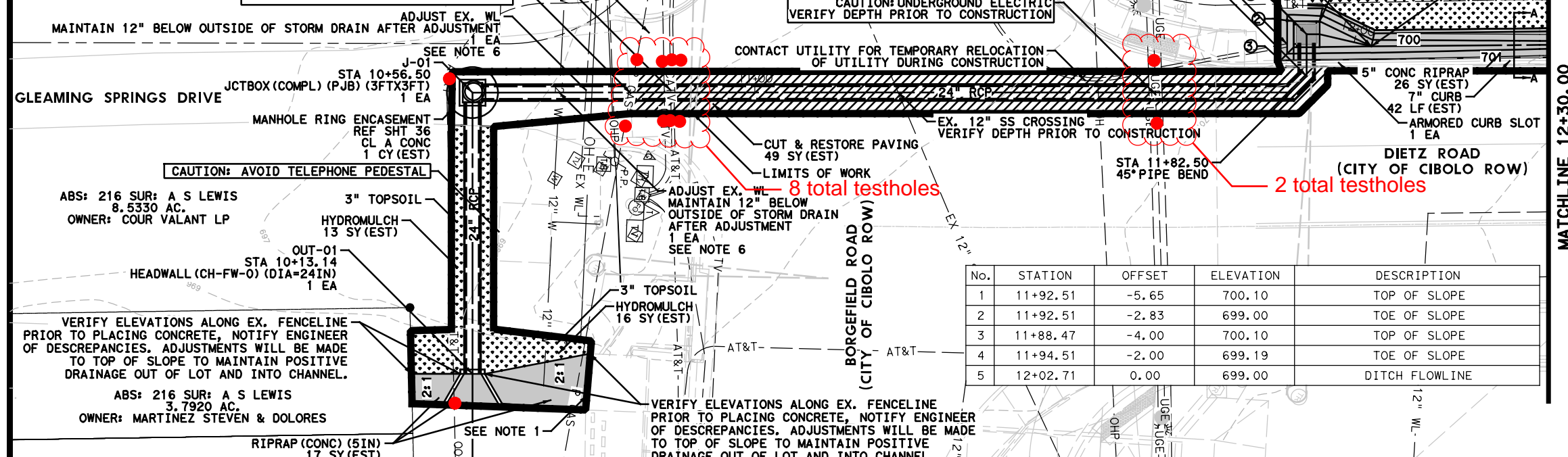
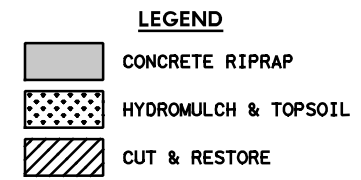
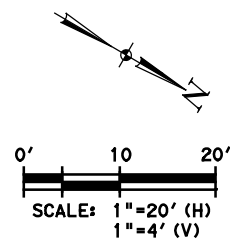
CONSTRUCTION WITHIN DRIVEWAY WILL BE COORDINATED WITH LANDOWNER. AT THE END OF EACH DAY, TRENCH WILL BE COVERED WITH STEEL PLATE OF A SUFFICIENT SIZE AND THICKNESS TO ALLOW VEHICULAR TRAFFIC.

CAUTION: UNDERGROUND CATV & TELE
VERIFY DEPTH PRIOR TO CONSTRUCTION

CAUTION: UNDERGROUND GAS
VERIFY DEPTH PRIOR TO CONSTRUCTION

CAUTION: UNDERGROUND CATV & TELE
VERIFY DEPTH PRIOR TO CONSTRUCTION

CAUTION: UNDERGROUND ELECTRIC
VERIFY DEPTH PRIOR TO CONSTRUCTION



No.	STATION	OFFSET	ELEVATION	DESCRIPTION
1	11+92.51	-5.65	700.10	TOP OF SLOPE
2	11+92.51	-2.83	699.00	TOE OF SLOPE
3	11+88.47	-4.00	700.10	TOP OF SLOPE
4	11+94.51	-2.00	699.19	TOE OF SLOPE
5	12+02.71	0.00	699.00	DITCH FLOWLINE

8 total testholes

2 total testholes

- NOTES:
- DOWEL NEW CONCRETE RIPRAP INTO EXISTING USING #6 DOWEL 12" O.C. EPOXY IN PLACE AND CREATE CONSTRUCTION JOINT;
 - EXISTING UTILITIES: UTILITIES SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR IS REQUIRED TO CONTACT STATEWIDE ONE CALL (811) AND CITY OF SCHERTZ UTILITIES FOR LOCATES 48-HOURS IN ADVANCE OF ANY EARTH DISTURBING ACTIVITY. CONTRACTOR IS REQUIRED TO VERIFY THE DEPTHS AND LOCATIONS PRIOR TO PERFORMING WORK AND NOTIFY ENGINEER OF ANY CONFLICTS;
 - ALL EROSION AND SEDIMENT CONTROL BMPs WILL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. MODIFICATION OF THE BMPs SHOWN MAY BE NECESSARY TO AVOID TRANSPORT OF EXCAVATED OR STOCKPILED MATERIALS FROM MIGRATING DOWNSTREAM. MODIFICATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SUBJECT TO ADDITIONAL PAY;
 - CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL WHICH COMPLIES WITH TMUTCD. COORDINATE TRAFFIC CONTROL WITH CITY OF CIBOLO, CITY OF SCHERTZ, AND SCUC ISD CENTRAL OFFICE PRIOR TO CONSTRUCTION.
 - CONTRACTOR TO DEVELOP AND SUBMIT TRAFFIC CONTROL PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER FOR CONSTRUCTION WITHIN INTERSECTION;
 - ADJUST EXISTING WATERLINE TO AVOID CONFLICT WITH STORM DRAIN. MAINTAIN 1-FOOT SEPARATION AT COMPLETION OF BOTH ALIGNMENTS. WORK INCLUDES ALL MATERIAL, LABOR, FITTINGS, DISINFECTION, AND TESTING REQUIRED. ALL WORK WILL CONFORM TO THE THE SPECIFICATION COVERING THE MATERIAL OR WORK PERFORMED. ALL WORK WILL BE PAID UNDER ITEM 02511.1 BY LUMP SUM.

**NOT TO BE USED FOR
CONSTRUCTION, BIDDING,
OR FINAL DESIGN OF
UTILITY RELOCATIONS**

2018-07-20

**Lockwood, Andrews
& Newnam, Inc.**
A LEO A DALY COMPANY
TYPE FIRM REGISTRATION NO. 2614

CITY OF SCHERTZ TEXAS
ENGINEERING AND PUBLIC WORKS

2018 DRAINAGE MAINTENANCE PROJECTS
**DIETZ ROAD (AREA 6)
BEGIN TO STA 12+30.00**

SHEET 1 OF 2

100 % IFR	PROJECT NO.: 120-12083-000	DATE: 07/20/2018
DRWN. BY: DA	DSGN. BY: DA	CHKD. BY: JM
		SHEET NO.: 21

\$DATE\$
\$TIME\$
\$FILE\$