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March 30, 2025

Tom Glosup CRW Associates 3878 County Road 4772 Sulphur Springs, TX 75482



Re:

Hopkins County Law Enforcement Center – HVAC Forensic Investigation

Tom:

Per your request, I am including this proposal for our proposed services for the investigative phase, as well as a proposed timeline.

## Forensic Review of the HVAC Systems

- Review of existing plans and specifications issued for construction, as well as all addenda, and ASI's and Bulletins.
- 2. Review of the LG VRF submittals for the project.
- 3. Review of the balance of the HVAC submittals.
- 4. Review any and all existing HOBO data logger outputs for space temperature and relative humidity readings.
- 5. Review the original design in regard to building pressurization (negative or positive design pressures).
- Review the original design in regard to air handling unit leaving air temperature control, dehumidification capabilities.
- 7. Review the installation and operating instructions for the specified and installed HVAC systems.
- 8. Go to the site to check various equipment and space temperatures. Also, review the ceiling areas and outdoors for potential new equipment that would need to be added to resolve space comfort issues. Also, we would like to install HOBO's to record temperature/Rh conditions.
- 9. Review all related RFI's.
- 10. Review existing design and installation in regard to humidity control.
- 11. Review design and installed cooling coil leaving air temperatures (which will indicate capabilities to control indoor-dew points and corresponding relative humidities).
- 12. Review design cooling coil scheduled entering air conditions.
- 13. Review the smoke control design, commissioning documents, test and balance documents, and documents from the Texas Commission on Jail Standards. Included in this review will be the leakage rates of isolation volume dampers for the smoke control system.
- 14. Prepare a report of the findings noting any errors or omissions in the design documents, and/or installation. The report will also include various options to address space conditioning issues and discuss advantages and disadvantages of each option. Also, propose temporary cooling options to increase space comfort before the permanent repair is implemented.
- 15. Meet with the owner to discuss preliminary findings and recommendations and determine which options will be selected for the next phase design services.

## Proposed Compensation for the Forensic Investigation

The original solicitation stated the forensic review will be rendered on a time and material basis and billed on a monthly basis, including travel time. Our estimated hours and associated fee are listed below based upon the scope of services listed above:

			Estimated Hours		
Scop	ope Item		Engineer	Clerical	
1.	Review of existing plans and specifications issued for construction, as well as all addenda, and ASI's and Bulletins. (Was the VRF system design heat recovery or heat pump?)	4 hrs.	30 hrs.	0 hrs.	
2.	Review of the VRF submittals for the Sheriff's Office.	2 hrs.	6 hrs.	0 hrs.	
3.	Review of the non-VRF HVAC equipment submittals.	1 hr.	6 hrs.	0 hrs.	
;	Review any and all existing HOBO data logger outputs for space temperature and relative humidity readings, if available. Also, retrieve ambient weather data for comparison.	2 hrs.	8 hrs.	0 hrs.	
	Review the original design in regard to building pressurization (negative or positive design pressures).	8 hrs.	16 hrs.	0 hrs.	
	Review the original design in regard to RTU leaving air temperature control, dehumidification capabilities.	2 hrs.	8 hrs.	0 hrs.	
	Review the installation and operating instructions for the specified and installed HVAC systems.	1 hr.	6 hrs.	0 hrs.	
	Go to the site to check various equipment and space temperatures. Also, review the grade level areas for potential new equipment that would need to be added to resolve space comfort issues. Also, we would like to install HOBO's to record temperature/Rh conditions. Prep, travel, confer, review.	16 hrs.	32 hrs.	0 hrs.	
9.	Review all related RFI's.	6 hrs.	24 hrs.	0 hrs.	
10.	Review existing design and installation in regard to humidity control.	2 hrs.	12 hrs.	0 hrs.	
	Review design and installed cooling coil leaving air temperatures (which will indicate capabilities to control indoor dew points and corresponding relative humidities).	1 hr.	6 hrs.	0 hrs.	
12.	Review design cooling coil scheduled entering air	1 hr.	6 hrs.	0 hrs.	

conditions, which if correct, can affect the cooling capacity and dehumidification capabilities of the rooftop units.			
13. Review the smoke control design, commissioning documents, test and balance documents, and related test results from the Texas Commission on Jail Standards. Included in this review will be the leakage rates of isolation volume dampers for the smoke control system.	3 hrs.	24 hrs.	0 hrs.
14. Prepare a report of the findings noting any errors or omissions in the design documents, and/or installation. The report will also include various options to address space conditioning issues and discuss advantages and disadvantages of each option.	24 hrs.	40 hrs.	24 hrs.
15. Review of existing plans and specifications issued for construction, as well as all addenda, and ASI's and Bulletins. (Was the VRF system design heat recovery or heat pump?)	2 hrs.	10 hrs.	0 hrs.
Total Hours:	75 hrs.	234 hrs.	24 hrs.

Fee: 75 hrs. x \$400 + 234 hrs. x \$225 + 24 hrs. x \$100 = \$85,050 (my guess is the cost should be less than \$80,000)

If you are in agreement with the above, please sign below and return a copy for our files. If you have any questions, please call me at your convenience.

Sincerely,

HMG & Associates,

William E. Harris Jr., P.E

resident

WEH/ala

cc: Marc Hobbs

David Colmenero Thomas Irwin

xc: G:\BUS-DEV 2025

Date: 4-8-25