# Engineering/Design Proposal – LEC DX Cooling

# **Project Description**

This proposal is for the scope associated with the added FIMs that includes work at the Law Enforcement Center kitchen. McKinstry Engineering will provide engineering and permit drawings for the project.

The project scope requires the addition of DX coiling in the three (3) existing air handling units. The existing air evaporative air washers will be demolished from the units and new DX cooling coils will be added to the units. New DX condensing units will be engineered to meet current cooling requirements of the units and will be located on the roof. New refrigerant piping will be routed between new coils and condensing units.

No design work associated with existing ductwork distribution will be included in this scope. Reconfiguration of the existing air handling units is not included in this scope.

Structural support evaluation will be included in the scope.

No new electrical services design will be included in this scope. It is assumed that existing power to the building will be sufficient to accommodate the load of new HVAC equipment. New electrical power feeds will be routed to the DX condensing units from existing power panels at the building.

## **Design and Engineering Services**

See below for a detail description of the scope of work for each phase of the project and the related activities to achieve project objectives.

Scope includes all mechanical, electrical, and structural engineering tasks.

- Architectural modifications that may be required is excluded from the fee below.

## **CONSTRUCTION DOCUMENTS PHASE**

- Finalize a Basis of Design incorporating Owner's objectives, design criteria, and current design intent.
- Finalize calculations to support all systems being upgraded.
- Prepare a 100% Construction Documents / Permit drawing package for Owner Review and approval.
- Prepare code compliance documentation required for permit submission.

## **CONSTRUCTION ADMINISTRATION PHASE**

- Respond to AHJ permit corrections and update design drawings as needed.
- Review of equipment submittals and shop drawings to ensure installation complies with project goals.
- Respond to RFIs in a timely fashion and support construction team with solutions for unforeseen existing conditions.
- Perform [1] site walks to observe and verify the installation meets Owner and code requirements:
- Punchlist Report at ~90-100% progress
- Work with Commissioning and Performance Verification team to deliver a smooth transition.
- Update design drawings for record based on consolidated "redline" markups provided by Construction team.
- The design team will target the following turnaround times to support the construction schedule and be responsive to the critical path.
  - Submittals: 5 business days for < 20 pages, 10 business days for > 20 pages



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- RFIs: 5 business days to review, 1 business day to reject
- Site Observation Reports / Punchlists: 3 business days
- Record Drawings: 10 business days from receipt of all redline markups

## **Project Schedule**

The following table summarizes the assumed schedule and deliverables for the scope of work described herein.

PHASE	DURATION
<b>Construction Documents / Permit</b>	5 weeks
<b>Construction Administration</b>	3 months

Note that a schedule delay may trigger changes to fees or durations.

## **Project Fees**

Based on the scope of work described below, we propose the following lump sum fees to be assigned to Department 110 Engineering and Design:

PHASE	FEE
Construction Documents / Permit	\$ 23,800
Construction Administration	\$ 3,000
Total	\$ 26,800

## General Assumptions, Limitations, and Exclusions

## **AVAILABLE INFORMATION**

- This proposal is based on the availability of the following additional documentation upon NTP:
  - Digital copies (pdfs) of existing building drawings (all disciplines)
  - Design Standards or Owner's Project Requirements

## SITE ACCESS AND VERIFICATION

- We will rely on the Owner or their representative to grant necessary site access to verify existing conditions.
- We reserve the right to rely on the accuracy and completeness of all information supplied by the Owner without verification of the information contained therein.

#### **DRAWINGS AND BIM**

- Drawing packages will be completed using McKinstry standards will be used in the preparation of all project drawings.
- We assume one construction document package will be issued for construction and permitting

#### LIFE SAFETY

• The design of or consulting on life safety systems (e.g., Fire Alarm, Sprinkler, Smoke Control) is not included in this scope of work. These services can be provided for an additional fee if desired.



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#### ACOUSTICS

• We will employ industry best-practices regarding acoustics, but no acoustic calculations will be performed. The owner or architect may retain an acoustical consultant if specific noise levels or acoustic criteria need to be achieved.

#### SITE PLUMBING AND CIVIL DESIGN

• The plumbing design includes system within the building footprint and connections to utilities within 5' of the building footprint. We assume site plumbing and civil design will be performed by others.

#### **SCOPE OR SCHEDULE CHANGES**

- Work resulting from significant changes in project requirements after acceptance of this preliminary design proposal is not included in our base scope.
- We have based our proposal on the schedule included above. Prolonged support services for construction administration if initial construction time schedule is exceeded by more than 25% would result in a request of additional funding.
- We have assumed a linear approach to the overall design. Re-work due out of sequence decision making or reasons that are not the fault of our team is not included in our base scope.

## **ADDITIONAL SERVICES**

• Services other than those listed under the basic Scope of Services above would be individually contracted as Additional Services, in advance and in writing.

## Closing

McKinstry's Engineering and Design team offers decades of experience designing and building high-performance buildings and decarbonizing MEP systems. We provide right-sized analysis of project feasibility and cost to guide investment decisions, and support project development that will help you create optimal value for each project.

We are excited about this opportunity to apply our skills to this project, and we share your commitment to making our buildings and communities better. We look forward to your feedback and to our next conversation.

Please feel free to contact me with questions at (303) 285-8583. We are available at your convenience to discuss this proposal in detail.

Regards,

Accepted By,

Clay Herrin Engineering Manager

Signature

Date

