Helping People Communicate!

Revised December 20, 2016

Mr. Paul Kurtz
City of Deer Park
710 East San Augustine
Deer Park, TX 77536

RE: Design/Build Agreement for Council Chambers

Dear Mr. Kurtz:

Ford Audio-Video Systems, LLC (Ford AV) respectfully submits for your consideration the attached design/build agreement, which is for the design and implementation of the AV systems.

This proposal contains confidential pricing, design, and installation information that is proprietary to Ford AV and utilizes Ford Audio-Video Systems, LLC's BuyBoard Contract **#482-15**. It is provided for your private use, and is not to be disclosed, in part or in whole, without the express, written authorization of Ford AV. Please let us know if any questions arise. We look forward to serving you.

Respectfully,

FORD AUDIO-VIDEO SYSTEMS, LLC

Doug Hill
Senior Account Manager

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Web: www.fordav.com

FORD AUDIO-VIDEO SYSTEMS, LLC

Mitch Warren, P.E.
Division Manager

# SCOPE OF WORK AND AGREEMENT

## DESIGN BUILD

## For

## CITY OF DEER PARK

| | |
|---|---|
| CUSTOMER: | City of Deer Park |
| PROJECT NAME: | Council Chambers Design-Build |
| PROJECT ADDRESS: | 710 E. San Augustine |
| CITY, STATE, ZIP: | Deer Park, TX 77536 |
| CONTACT: | Mr. Paul Kurtz |
| CONTACT PHONE: | 281-478-2038 |
| CONTACT EMAIL: | pkurtz@deerparktx.org |

The customer is entering into a design and implementation agreement with Ford AV for the listed rooms and disciplines identified:

**Design Disciplines:**

| Room ID | Audio | Acoustics | Video Presentation | Video Distribution | Control Systems | Lighting Control & Dimming |
|---|---|---|---|---|---|---|
| Council Chambers | x | | x | | x | |
| Executive Conference Room x 1 | x | | x | | x | |
| Conference Room Type A x 2 | x | | x | | x | |
| Conference Room Type B x 2 | x | | x | | x | |
| Offices x 12 | | | | x | | |
| Lobby Spaces x 3 | | | | x | | |
| Open areas | | x | | | | |

The services offered by Ford AV are flexible and based on the needs of the customer. The scope and specific deliverables provided are listed under each discipline below.

## DESIGN

The design portion of the project is typically divided into seven (7) phases, similar to how an architect works; (This actual project may or may not use each of the phases listed but each process listed will occur.) programming or discovery, schematic design, design development, construction documents, construction administration, commissioning and testing, and training. In many projects, theses phases are combined or run into the next phase. A short description of each phase is listed to define the complete design build process.

1. Programming and discovery is where the needs of the customer are defined, in writing, and the initial plans are laid for the entire project.

2. In Schematic Design the preliminary AV infrastructure is defined, based on the customer's needs, and the implementation budget is determined. Ford AV shall prepare documents, based on the architect's drawings, indicating locations, power requirements, HVAC requirements and structural requirements.

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3. Design Development is where the AV infrastructure is coordinated into the architect's and project consultant's designs. This is where the final determinations are made on locations. Ford AV will present an implementation agreement with final budget requirements for the customer's execution. (Note: The customer has final determination on the design and budget amounts. Ford AV will not proceed to contract documents without the customer's written approval.)

4. Contract Documents is where the final design is placed in drawing form for implementation by Ford AV. The coordinated design development drawings are used and system elements are detailed. Installation technicians are scheduled to deploy the design.

5. Construction Administration is the actual implementation phase of the project. The Ford AV project manager releases all the parts, wire and miscellaneous materials so that they can be purchased. The assembly department is released to assemble the parts for the job based on the approved design. A job superintendent and installation technicians are sent to the customer's location to deploy the design.

6. Commissioning and testing is the phase where the Ford AV project engineer is sent to the project location and to verify the correct and proper deployment of the design. The engineer will turn everything on, program devices that require programming, equalize and set up audio systems and color balance and verify operation of video and lighting systems.

7. In the Training phase, the customer is given a complete demonstration of the systems and is given instruction on how to operate and maintain the system(s). Owner's manuals and operation manuals are turned over along with the necessary training material.

During the design phase, if additional work is required that is not covered by this agreement; the costs will be invoiced to the customer and will include hourly labor, materials and expenses. Hourly rates are $120.00 for engineers and $45.00 for drafting. Expenses include actual travel, lodging, food, phone, postage, copies and reproduction of drawings.

Ford AV will meet throughout the design phase with the customer, architect and other project consultants, to ensure the correct and proper deployment of the systems identified in this agreement.

Each discipline listed, audio, acoustics, video presentation, video distribution, control systems and lighting, control and dimming, involve specific elements that will need to be coordinated with the architect and the architect's consultants. The following outlines the specific services for each discipline of work.

1. Audio Systems

   a. Maximum sound levels will be determined.

   b. Acceptable variation of sound levels throughout the seating areas will be determined.

   c. Overall tonal quality will be established.

   d. Criteria for the intelligibility of speech will be determined.

   e. Coordination and infrastructure design documents will be developed identifying specific locations, conduit requirements, power requirements, structural loads and mechanical and cooling requirements.

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f. The conduit design and AC power requirements will be provided to the architect and is to be included by the project electrical engineer in the electrical specifications that are provided to the project electrical contractor. The project electrical engineer is responsible for the electrical design and ensuring the system meets all electrical and building codes. The electrical contractor is responsible for installation of all conduit and AC electrical systems shown on electrical drawings and drawings provided by Ford AV.

g. The project electrical contractor is responsible for the provision and installation of a complete electrical system including all AC power, conduit, and wiring to power and support the sound and audio systems in accordance with the project electrical specification and drawings and the drawings provided by Ford AV. The cost of the materials and installation provided by the electrical contractor is not included in this Design/Build agreement and is to be included in the electrical contractor's contract with the customer.

h. When the final budget and design is agreed upon, Ford AV shall produce the contract documents for use by assembly and the installation technicians for the deployment of the audio systems.

2. Acoustics

a. Determination of the reverb time design goal.

b. Evaluation of room acoustics for:

1) Natural room acoustics with sound energy emanating from natural sound sources: i.e. piano, choir, band, etc.

2) Room acoustics based on the predominant sound energy emanating from a sound system through the use of microphones.

c. Evaluation and recommendations for room geometry as related to echoes and diffusion of sound.

d. Recommendations for acceptable noise levels to be permitted by the project mechanical engineer from noise sources such as air handlers, pumps, transformers, HVAC systems, etc. The recommendation shall be provided as a Noise Criteria (NC) rating for use by the project mechanical engineer in designing the mechanical systems.

e. Recommendations for integration of audio system components into architectural design.

f. Recommendations for allocation of space and positioning of sound equipment, sound consoles, sound rooms, etc.

g. Recommendations for sight lines required for operation.

h. Recommendations for the design of balconies, the use of glass, and the acoustical connection of adjoining spaces.

i. Recommendations for the control of sound transmission through barriers (walls) separating adjoining areas. The recommendation shall be provided as a Standard Transmission Class (STC) rating to the project architect for use in the design of the project.

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j. When the final budget and design is agreed upon, Ford AV shall produce the contract documents for surface material selection for walls, floors and ceilings based on acoustical design goals.

3. Video Presentation Systems

a. Determination of the design goals for the system based upon the use of video presentation.

b. Recommendations for complexity of the system.

1) Flat panel displays or projector and screen
2) Size of display or screen
3) Presentation Sources
4) Control elements and complexity
5) Video-teleconferencing

c. Evaluation and recommendations for room geometry as related to angles for lighting, and site lines.

d. Recommendations for integration of video presentation system components into architectural design. Recommendations for allocation of space and positioning of control consoles, control rooms, etc.

e. Coordination and infrastructure design documents will be developed identifying specific locations, conduit requirements, power requirements, structural loads and mechanical and cooling requirements.

f. The AC power requirements will be provided to the architect and is to be included by the project electrical engineer in the electrical specifications that are provided to the project electrical contractor. The project electrical engineer is responsible for the electrical design and ensuring the system meets all electrical and building codes.

g. The project electrical contractor is responsible for the provision and installation of a complete electrical system including all AC power, conduit, and wiring to power and support the video systems in accordance with the project electrical specification and drawings and the drawings provided by Ford AV. The cost of the materials and installation provided by the electrical contractor is not included in this Design/Build agreement and is to be included in the electrical contractor's contract with the customer.

h. When the final budget and design is agreed upon, Ford AV shall produce the contract documents for use by assembly and the installation technicians for the deployment of the video presentation systems.

4. Video Distribution Systems

a. Determination of the design goals for the video distribution system based upon the customers' requirements and the content to be distributed.

b. Recommendations for complexity of the system.

1) Location of the displays

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2) Size of displays
3) Content and sources
4) Control elements and complexity

c. Evaluation and recommendations for deployment locations based on the customer's needs.

d. Recommendations for integration of video distribution system components into architectural design. Recommendations for allocation of space for source players and servers, control rooms, etc.

e. Coordination and infrastructure design documents will be developed identifying specific locations, conduit requirements, power requirements, structural loads and mechanical and cooling requirements.

f. The AC power requirements will be provided to the architect and is to be included by the project electrical engineer in the electrical specifications that are provided to the project electrical contractor. The project electrical engineer is responsible for the electrical design and ensuring the system meets all electrical and building codes.

g. The project electrical contractor is responsible for the provision and installation of a complete electrical system including all AC power, conduit, and wiring to power and support the video systems in accordance with the project electrical specification and drawings and the drawings provided by Ford AV. The cost of the materials and installation provided by the electrical contractor is not included in this Design/Build agreement and is to be included in the electrical contractor's contract with the customer.

h. When the final budget and design is agreed upon, Ford AV shall produce the contract documents for use by assembly and the installation technicians for the deployment of the video distribution systems.

5. Control Systems

a. Determination of the design goals for the system based upon what the customer needs to control.

b. Recommendations for complexity of the system.

1) Elements to be controlled
2) Location of control system interfaces

c. Recommendations for integration of control system components into the architectural design.

d. Coordination and infrastructure design documents will be developed identifying specific locations, conduit requirements, power requirements, structural loads and mechanical and cooling requirements.

e. The AC power requirements will be provided to the architect and is to be included by the project electrical engineer in the electrical specifications that are provided to the project electrical contractor. The project electrical engineer is responsible for the electrical design and ensuring the system meets all electrical and building codes.

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f. The project electrical contractor is responsible for the provision and installation of a complete electrical system including all AC power, conduit, and wiring to power and support the video systems in accordance with the project electrical specification and drawings and the drawings provided by Ford AV. The cost of the materials and installation provided by the electrical contractor is not included in this Design/Build agreement and is to be included in the electrical contractor contract with the customer.

g. When the final budget and design is agreed upon, Ford AV shall produce the contract documents for use by assembly and the installation technicians for the deployment of the control systems.

6. Lighting, Dimming and Control

a. Determination of the following:

1) Desired lighting levels and areas to be lighted
2) Number of areas or zones to be lighted
3) Number of lighting dimmers and assignment to lighting zones
4) Locations of lighting control panels

b. The design of architectural lighting is not included in this agreement and is the responsibility of the architect and electrical engineer. However, the dimming and control of the architectural lighting is covered under this agreement.

c. Recommendations for surface material selection for walls, floors and ceilings based on reflectance of light (primarily used for television).

d. Evaluation and recommendations for room geometry as related to angles for lighting and placement of lighting fixtures.

e. Coordination and infrastructure design documents will be developed identifying specific locations, conduit requirements, power requirements, structural loads and mechanical and cooling requirements.

f. The AC power requirements will be provided to the architect and is to be included by the project electrical engineer in the electrical specifications that are provided to the project electrical contractor. The project electrical engineer is responsible for the electrical design and ensuring the system meets all electrical and building codes.

g. The project electrical contractor is responsible for the installation of a complete lighting system including the installation of equipment provided by Ford AV and the provision and installation of AC power, conduit, and wiring of dimmers, fixtures, and control panels in accordance with the project electrical specifications and drawings and drawings provided by Ford AV. The cost of the materials and installation provided by the electrical contractor is not included in this Design/Build agreement and is to be included in the electrical contractor contract with the customer.

h. When the final budget and design is agreed upon, Ford AV shall produce the contract documents for use by the installation technicians for the deployment of the lighting, dimming and control systems.

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## BUILD/IMPEMENTATION

At the conclusion of the design development phase of the project, Ford AV shall present an implementation contract and pricing document to the Customer for execution. After all agreed modifications are made, and upon approval of the Customer, Ford AV and the Customer will sign the implementation portion of the contract. The balance of the work, including the purchasing and installation of the equipment, will be performed under the installation agreement. Ford AV will provide the construction administration, commissioning and testing, and training under this phase of the project.

The Ford AV design documentation is not intended for public bidding or distribution to other AV contractors.

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# AGREEMENT FOR DESIGN/BUILD SERVICES

**Between**

**CITY OF DEER PARK**

**And**

**FORD AUDIO-VIDEO SYSTEMS, LLC**

The price for the design portion of this agreement is: **$ 9,845.00**

This design price is based upon an estimated build budget of $285,000. This budget is flexible and final determination is to be made by the Customer prior to entering the implementation portion of the work. The Customer will be required to give written notice to proceed to the implementation, Contract Documents, phase of this agreement.

1. Terms

   a. All invoices are due upon receipt.
   b. A down payment is due upon the signing of this agreement.
      The down payment is: **$ 4,922.50**
   c. Work and expenses will be invoiced on a monthly basis as work progresses.
   d. The above work is based upon completion of the design and specifications within six (6) months. In the event that the Customer extends the time beyond six (6) months Ford AV and the customer shall negotiate an additional fee for the extended time frame.

   **NOTE:** By signing this agreement, the Customer agrees, and is entering into a contractual arrangement that stipulates, Ford AV will be the installing integrator for this project.

| Submitted By: | Accepted By: |
|---|---|
| FORD AUDIO-VIDEO SYSTEMS, LLC | CITY OF DEER PARK |
| Doug Hill<br>Senior Account Manager | Authorized Signature |
| Mitch Warren, P.E.<br>Division Manager | Printed Name |
| Date | Date |

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