

Audio Visual Bid Document

Project Title:

Audiovisual (AV) Systems Bid Specification

Project Number:

[Insert Project Number]

Prepared For:

Catawba Tribe
538 Kings Mountain Blvd, Kings Mountain, NC 28086
James Marinelli

Issued By:

Catawba Two Kings Casino
538 Kings Mountain Blvd. Kings Mountain, NC 28086
Jack Shores

Date Issued:

July 14, 2025

Key Dates:

- Deadline for RFI (Request for Information) Submission: July 21, 2025
- Deadline for RFP (Request for Proposal) Submission: August 8, 2025

Bid Confirmation Request:

All invited contractors are requested to confirm, in writing, their intention to submit a bid for this project by July 21, 2025. Please send your confirmation to Jshores@Twokingscasino.com

GENERAL**1.1 RELATED DOCUMENTS**

- A. Provide complete and operational Audiovisual (AV) systems as described in this document and as shown on associated drawings. Accessories and miscellaneous items to ensure complete and operational installation are the responsibility of the AVC to provide. All systems will be bid as complete and fully operational.
- B. The following definitions shall apply herein.
 - 1. The term **Owner or Client: Catawba Nation**
 - 2. The term **Owners Representative**: Square One Contact will be provided
 - 3. The term **O.F.E or Owner Furnished Equipment**
 - 4. The term Architect: **SOSH NY**
 - 5. The term **Construction Manager or "CM" - Yates Construction**
 - 6. The term **Electrical Contractor or "EC"- Edwards Electric**
 - 7. The term **AV Contractor or "AVC"**: The successful bidder responsible for the complete installation of the audio-visual systems, rigging and control systems specified herein.
 - 8. The term **N.I.C. or Not In Contract**: refers to certain equipment and materials provided and installed by others.
- C. Certain requirements common to all the mechanical and electrical trades (Fire Suppression, Plumbing, HVAC, Electrical, and Tele/Data) are specified in Division 20. These requirements are applicable to the work of this Division and are hereby incorporated by reference.

The Audiovisual Contractor will furnish all labor, materials, material storage, equipment, and transportation necessary to complete the installation, assembly, configuration, and testing of the audio, video, and control systems as shown on the AV drawings and detailed in this specification. The AVC is responsible for delivering a complete and fully operational system, including any components, assemblies, and associated work required—whether noted or implied. All equipment shall be fully installed, interconnected, and commissioned to ensure proper and reliable system performance.

- D. The AV Contractor("AVC") shall coordinate with the General Contractor (GC) and Electrical Contractor (EC) regarding all conduit requirements, including but not limited to junction boxes and pull-wires. In instances where such infrastructure is not provided under the EC's scope of work, the General Contractor shall be responsible for furnishing and installing all necessary conduit and/or cable routing to support the audio-visual system installation.
- E. The AVC shall be responsible for ensuring that it is fully aware of the requirements of the contract documents as well as the location and condition of the work site,
- G. The AVC is responsible for thoroughly reviewing and understanding all local conditions and the complete set of contract documents prior to submitting a bid. Any requests for additional time or compensation resulting from the AVC's failure to do so will be considered invalid and shall not be

1.2 BIDDER RESPONSE

- A. Bidder responses to this RFP must match the format and completeness as defined in this document.
- B. The service provider must provide one (1) digital copy of the bid proposal containing all elements listed below in the order they are detailed.
- C. Company Information, Marketing Literature, Qualifications, and address of company location managing this project
- D. List of recent similar installations and ongoing maintenance projects as requested in section 1.9
- E. Organization Chart for your Project Team
- F. List of Subcontractors – If any
 - 1. Identify subcontractor name, address, purpose of subcontractor and percent of total fee
 - 2. Identify any prior experience working with subcontractor within the last 24 months
- G. Unit pricing sheets
 - 1. Unit pricing sheets are to be returned in both PDF and native excel format
 - 2. Provide a total warranty cost of ownership for years 1, 2 and 3.
 - 3. No alternates or substitutions will be accepted
- H. Provide a description of the system warrantee, and proactive maintenance and service contract included in the response. Provide details of monitoring system to be utilized.
 - 1. Statement on ability to meet the published schedule and the impact of current lead times on availability of materials and risk to the project schedule.
 - 2. Confirm that the price quoted is firm regardless of its impact to manufacturer's supply chain or ability to supply the quoted product.
- I. Certificate of Insurance

1.3 WORK INCLUDED

- A. Provide complete and operational Audiovisual (AV) systems as described in this document and as shown on associated drawings. Systems are to include accessories and miscellaneous items to ensure a complete and operational installation.
- B. Provide the speaker cabling as detailed on the drawing set, proper mounting, **electrical termination, wiring within devices, junction boxes, device locations, associated equipment, hardware, firmware, and software.**
- C. Provide materials in quantities sufficient for a complete installation(s) as indicated in drawings and in this specification, whether or not all such components are contained in the drawings and specifications.
- D. The AVC acknowledges receipt and review of the design documents, RFP, Schedule and all contract materials, and confirms that they are sufficient to prepare a bid and perform the required work within the specified timeframe and at the price accepted by the Owner and Architect. The AVC further agrees to complete all work—express or implied—necessary to deliver a fully operational system in compliance with all applicable laws, codes, and regulations.

- E. The Audiovisual systems consist of furnishing and installing the audiovisual equipment, infrastructure necessary to support the Audiovisual equipment, connectivity, software, programming, accessories, and related items required to ensure complete, and operational systems as described and as indicated in the drawings including:
1. AV cable pulls as described, indicated on the drawings, or as otherwise required. These cables shall be installed within an infrastructure of electrical conduits, boxes, walls, floors, and ceiling, or as indicated, and/or required.
 2. Furnish and install LED videowalls, video displays and/or projectors, wall mounts, ceiling mounts, brackets, trim, accessories, and supports.
 3. Furnish and install speakers, rough-in-pans and back boxes in hard plaster and gypsum board ceiling locations, tile-bridge hardware in hung tile ceilings, and provide and install any other special permanently installed audiovisual items that require access to the building's infrastructure during the open-wall and open-ceiling phase(s) of the construction
 4. Provide Audiovisual equipment, control systems, custom plates, plates, projectors, speakers, touch control panels, custom machined and engraved plates, cameras, microphones, audio sources, video sources, switchers, scalers, interfaces, displays, power supplies, amplifiers, connectors, adapters, and related systems as shown on associated drawings. Systems shall include patch cables, in-rack jumpers, user interface cables, accessories and miscellaneous items to ensure a complete and operational turnkey installation.
 5. Provide programming of equipment/systems, design and layout of touch-panel templates, programming of touch-panels, controls, software installation, connectivity to LAN where necessary.
 6. Terminate cables as required per manufacturer's specifications to interface to all system devices.
 7. Provide touch control panel icon button and graphics templates showing arrangements and functions to conform to owner's standards, for owner review, prior to full control system programming. Make changes to touch panel layout, functionality, and icons, as coordinated with and described by the owner.
 8. The work of this section is work-for-hire. The software, licenses, programming, code, templates, notes, uncompiled source code, DSP files, and other work products are the property of the Owner and are to be delivered to the Owner as part of the project close-out submittals.
 9. The delivery, unloading, setting in place, fastening to walls, floors, ceilings, counters, or other structures where required.
 10. Provide speaker cable as per A/V drawings or as required to deliver a fully functional system.
 11. Final terminations, dressing, and testing of all A/V cabling inclusive of cables pulled by others.
 12. Interconnecting wiring of the system components and equipment alignment and adjustment.
 13. All equipment as shown in the drawings, BOM, and herein.
 14. All interconnection cable, connectors, terminal strips, wireway, flexible conduit, raceways, etc. to facilitate the A/V systems as detailed in the drawings and herein.
 15. Coordinate sizes with wall and floor box manufacturers and provide all custom connector panels required as detailed in the drawings and herein.
 16. All other work whether expressly specified herein, and on the drawings to provide

complete operational turnkey systems.

1.4 CONFLICTS

- A. Where there is a conflict between drawings or between drawings and documents, the AV Contractor shall conform to the guidelines below. The AV Contractor shall consider all the information in combination and not consider one element alone to meet a minimum requirement. The guidelines are as follows:
1. Floor and Ceiling plans indicate device locations.
 2. The AV specifications delineate minimum performance requirements, methodologies, and the design intent.
 3. The BOM provides a specific list of MAJOR equipment to be supplied.
 4. Where there is a conflict in number of devices specified, the greater of the quantities shall govern.
 5. Where there is a conflict in the specified type of device, the device that meets the functionality requirements or device with greater cost shall govern.
- B. These specifications and the drawings do not necessarily indicate every single component part of each system. It is the responsibility of the AV Contractor to engineer each system and its interconnection to provide, furnish, and install completely operational turnkey systems. No error or omission herein or on any related Construction Documents shall relieve the AV Contractor from this responsibility to provide a turnkey system.

1.5 SCOPE OF WORK

- A. This specification covers the procurement, installation and maintenance of the Audio Visual, and Control Systems for the Two Kings Casino & Hotel Project located at 538 Kings Mountain Blvd, Kings Mountain, NC. 28086.
- B. The intent of these specifications and the related materials is to convey a clear "Design Intent" by which the successful bidding Contractor will provide the Owner with a complete and operational audiovisual system, as specified herein. It is the intent of this section to define the products, methods and scopes of services required to provide a complete, professionally installed and performance tested Audiovisual system.
- C. The project requirements are described in detail in the sections that follow. The accompanying Bill of Materials in conjunction with project drawings is an integral part of the project specifications and shall be reviewed in detail. Equipment types and quantities shall be obtained from both the project specifications and systems design drawings. Items not expressly included in the contract documents, but which are reasonably inferable, as being necessary to produce the intended results, shall be deemed included in your Bid.
- D. The bidder shall rigorously examine the contract documents and the job site conditions to obtain first-hand knowledge of existing conditions. Additional payments shall not be considered by the Owner, for conditions which can be determined by examining documents and/or the job site and will not be relieved of any obligations with respect to bid.

- E. The project scope includes a dedicated Video over IP distribution system that resides on the Owner Furnished Casino network. Dual redundant IPTV distribution systems will be located in both MDFs at each end of the building in owner furnished equipment rack. Twelve (12) Everpass set top boxes will be owner furnished and need to be encoded into the IPTV distribution system. CATV will be provided by Spectrum over IP and encoded into the IP distribution system stream. Selection of TV channels and routes to any casino display shall utilize SAVI remote control system. External sources for Marketing & Promos and Menu Boards will be encoded into 32 video over IP encoders and be available as a source to be routed. Dedicated iPads will be installed at each bar to allow for source/TV or volume control of their respective area. Remote Master iPads shall be programmed as a Tech Panel to allow control of all areas for both volume zone control and selection of any video source to any display.
- F. The audio system is designed on the QSC DSP & Network audio distribution and resides on the Owner Furnished Casino network. Redundant DSPs shall be located in the Owner Furnished AV Racks in each MDF. Network amplifiers will be placed throughout the building in an IDF specified on the drawings for control of that audio zone in the Owner Furnished Network racks. Zone volume control and source selection shall utilize SAVI remote control systems. Paging will be available via the Q-SYS Softphone. Wireless microphone systems shall be installed in the Intro Casino and the Main Casino floor as indicated on the AV RCP plans. Dedicated iPads will be located at each Promotions Desk to allow for announcements to any zone as selected by the SAVI remote control system. Ambient noise sensing microphones shall be installed in the Intro and Main Gaming Floor ceilings to allow for automatic audio level adjustment based on the current occupancy.
- G. When guests arrive, DVLED videowalls serve as the digital front door—a bold, immersive introduction that combines entertainment, branding, and sensory appeal. There are seven dedicated areas, Porte-Cochere, Casino Lobby, Hotel Lobby, Intro Center Bar, Main Casino Center Bar and the Sports Bar. All DVLED displays shall be either 1.2mm or 1.5mm as shown in the AV floor plans. The processing of all videowalls shall be the Novastar H Series Splicer(s). Control of all videowalls shall be by the dedicated iPads or the remote Master iPads. Control shall consist of videowall layouts and source selection.
- H. As part of the specifications for the new casino design project, please be advised that all display units must be commercial signage displays equipped with a minimum of webOS version 6.0 or higher. This requirement is essential to ensure compatibility with our content management systems and futureproofing for ongoing operations and compatibility with the SAVI control system. Please note that all displays installed in guest rooms must be commercial-grade hospitality displays. These displays must support features standard to the hospitality industry, such as remote management, customizable welcome screens, anti-theft settings, and compatibility with hotel content distribution systems.
- I. As part of the specifications for the new casino design project, KDS Displays—short for Kitchen Display System—shall be installed in restaurants and food service operations to streamline kitchen workflow and order management. Exact locations for both the KDS displays and Menu Boards need to be coordinated by the architect and kitchen staff.
- J. The Owner will furnish all required AV racks for the project. The Selected AV Contractor shall be responsible for onsite mounting and installation of all AV equipment into Owner-supplied racks. All power, signal, and control cable routing, management, labeling, and termination within each rack shall take place **onsite** unless otherwise approved by the Owner and Consultant.
- K. The Owner will furnish Cisco video conferencing systems for use in designated meeting and collaboration spaces. The AV Contractor shall receive, securely store (if required), and install the following Cisco components:
 - Cisco Room Kit Pro codec and associated peripherals
 - Cisco Table Navigator touch controllers

- Cisco Ceiling Mic Pro microphone arrays
 - Cisco Wall-Mounted Navigator for scheduling and room control
- L. The contractor's proposal is to be based on a Lump Sum price, inclusive of all items required to meet the design intent. The design intent is specifically defined with Section 3.
- M. The contractor's lump sum price shall include all equipment, miscellaneous material, cabling, hardware, shipping, in-shop labor, engineering, project management, installation, programming and related technical services as described herein.

1.6 SCOPE OF WORK SPECIFICATIONS

The following provides generic descriptions for each of the covered AV Systems. All features identified within these descriptions define the minimal functional requirements to be provided in full by the AV Contractor.

The AV contractor shall provide all equipment, miscellaneous material, cabling, hardware, installation, programming and related technical services as described herein.

A. AV System: Casino Lobby

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Casino Lobby.

- Provide and install two (2) 8' W x 8' H 1.2mm LED displays for displaying marketing & native artwork content.
- These displays shall be wall mounted on a Peerless DVLED mounting system.
- LED display processing shall be from a Novastar H Series splicer located in IDF-PG located on the P2 parking floor. Conduit shall pass from IDF-PG to behind each LED display.
- Provide and install one (1) 65" display on a flat wall mount in the Casino Valet.
- Provide and install ten (10) ceiling mounted speakers as depicted in the RCP.
- All equipment to support the Casino Lobby will be housed in IDF-PG in the Owner Furnished Network equipment rack.
- Control of volume & source selection for the Casino Lobby & Casino Valet will be available via the iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

B. AV System Type 2: Hotel Lobby**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel Lobby.

- Provide and install one (1) 10.9' W x 11' H 1.2mm LED display located on the stair tower outside wall.
- The display shall be wall mounted on a Peerless DVLED mounting system.
- LED display processing shall be from a Novastar H Series splicer located in IDF-6 located in the corner of the Hotel Lobby.
- Provide and install four (4) 75" displays on a flat wall mount.
- Provide and install nine (9) ceiling mounted speakers as depicted in the RCP.
- All equipment to support the Hotel Lobby will be housed in IDF-6 in the Owner Furnished Network equipment rack.
- Control of volume & source selection for the Hotel Lobby, VIP Check-in, & the Elevator Lobby will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

C. AV System: Porte-Cochere Grand Display**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Porte-Cochere.

- Provide and install one (1) 97.64' W x 15.75' H 10mm LED display
- The display shall be stand mounted on a Peerless DVLED mounting system.
- LED display processing shall be from a Novastar H Series splicer located in IDF-GF.
- LED display processing should allow for up to four (4) inputs to be displayed on the Grand Display.
- Provide and install thirty-six (36) ceiling mounted 8" speakers.
- All equipment to support the Porte-Cochere grand display & audio will be housed in IDF-GF in the Owner Furnished Network equipment rack.
- Control of volume & source selection for the Porte-Cochere sound system & grand display will be available via the portable iPads part of the SAVI control system.

- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

D. AV System: Intro Casino Floor

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed on the Introduction Casino Floor.

- Provide and install twenty-eight (28) 65" displays on seven (7) Owner Furnished custom diamond mount TV brackets in the Pit Stands.
- Provide and install sixteen (16) 75" displays on a flat wall mount around the perimeter of the Intro Casino for view of marketing or TV content.
- Provide and install five (5) 37" displays on a flat wall mount above the Casino Cage.
- Provide and install two (2) 75" displays on a flat wall mount behind the Casino Cage counter.
- Provide and install one (1) 75" displays on a flat wall at the temporary entrance.
- Provide and install one hundred & three (103) ceiling mounted 8" speakers divided into 20 separate zones serviced by IDF-GA & IDF-GB as depicted in the RCP.
- Provide and install two (2) outdoor wall mounted speakers into a separate zone serviced by IDF-GA as depicted in the RCP.
- Provide and install a wireless antenna distribution system as depicted in the AV drawings.
- Provide and install eight (8) Audix ceiling mounted microphones for measuring the ambient noise volume within the Intro Casino floor & High Limit Room. These mics shall tie back to the DSP and automatically raise or lower the volume on the Intro Casino floor based on the current occupancy.
- Two of the four QSC network amplifiers shall be housed in IDF-GA in the Owner Furnished Network equipment rack. The wireless antenna distribution system along with the two remaining QSC network amplifiers will be installed in the Owner Furnished Network equipment rack in IDF-GB that supports the Intro Casino Center Bar.
- Control of volume & source selection for the Intro Casino sound system & displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

E. AV System: Intro Casino Promotions Desk

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Intro Casino Promotions Desk.

- Provide and install one (1) 136" All-In-One LED display on a flat wall mount bracket.
- Provide and install one (1) Apple iPad on a wall mount bracket for control.
- The wall mounted iPad shall provide the ability to make announcements to zones selected as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

F. AV System: Intro Casino High Limit Room

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Introduction Casino High Limit Room.

- Provide and install four (4) 75" displays on a flat wall mount bracket.
- Provide and install eight (8) ceiling mounted 8" speakers.
- Provide and install one (1) Audix ceiling mounted microphones for measuring the ambient noise volume within the Intro Casino floor. These mics shall tie back to the DSP and automatically raise or lower the volume on the Intro Casino High Limit Room based on the current occupancy.
- Control of volume & source selection for the Intro Casino High Limit Room sound system & displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

G. AV System: Intro Casino Floor Center Bar

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Introduction Casino Center Bar.

- Provide and install one (1) 40' W x 7' H 1.5mm LED display.
- The display shall be mounted on a Peerless DVLED mounting system.
- LED display processing shall be from a Novastar H Series splicer located in IDF-GB and be capable of displaying up to twelve (12) video sources.
- Provide and install two (2) 65" display on a flat portrait wall mount brackets for menu & order status boards at the Introductory Restaurant.
- Provide and install four (4) 49" KDS displays on a ceiling mount bracket in the Introductory Restaurant. Location TBD by architect and kitchen staff.
- Provide and install six (6) K-Array flexible speaker arrays underneath the main LED screen.
- Provide and install two (2) ceiling mounted subwoofer speakers.
- Provide and install one (1) Apple iPad on a wall mount bracket for control.
- The iPad shall provide audio zone level control for the Center Bar and Introductory Restaurant as well as videowall preset recall, source selection, and TV channel turning.
- Provide and install two (2) QSC network amplifiers in the AV rack for distributed audio for the Center Bar and lower audio zones depicted in the RCP.
- All equipment to support the Center Bar will be installed in the Owner Furnished Network equipment rack in IDF-GB.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

H. AV System: Intro Casino Smokers Patio

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Introduction Casino Smokers Patio.

- Provide and install four (4) wall mounted speakers.
- Control of volume for the Smokers Patio sound system will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

I. AV System Type 9: Intro Casino Elevator Lobbies

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Introduction Casino Elevator Lobbies.

- Provide and install two (2) 75" displays on a flat wall mount bracket.
- Provide and install eight (8) ceiling mounted 8" speakers as depicted in the RCP.
- Control of volume for all Casino Elevators shall be logically tied through the DSP and controlled via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

J. AV System: Intro Casino Bathrooms**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Introduction Casino Bathrooms.

- Provide and install eight (8) ceiling mounted 6" speakers as depicted in the RCP.
- Control of volume for all Casino Bathrooms shall be logically tied through the DSP and controlled via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

K. AV System: Intro Casino BOH**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Introduction Casino BOH Area.

- Provide and install three (3) 65" displays on a flat wall mount bracket in the Intro Casino EDR.
- Provide and install one (1) 65" displays on a flat wall mount bracket in the employee entrance (Area B).
- Provide and install one (1) 55" displays on a flat wall mount bracket the BOH Directors Office (Area B).
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Provide the Directors Office display a web accessible GUI for changing TV channels on their display.
- Provide and install four (4) ceiling mounted 6" speakers in the EDR.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

L. AV System: Garage Levels**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in Garage Levels 1 -3. Garage Levels 1 & 3 are fed from IDF locations on Garage Level 2.

- Provide and install eighteen (18) 75" displays on a flat portrait wall mount bracket in Casino Elevator #1, #2, #3, BOH Elevator #1, Employee Elevator #2, and the entrance into the Hotel Floor on each of the 3 parking floors.
- Provide and install fifteen (15) ceiling mounted 6" speakers in each elevator listed above on each of the 3 parking floors.
- Provide and install twenty-seven (27) wall mounted speakers. Casino Elevator #1, #2, #3 shall have 3 speakers mounted on each to direct the audio through the parking lot.
- Speakers & displays located on P1 & P3 levels shall be fed from 4 - IDF's located on level P2.
- Conduit shall be provided as a pathway from each IDF to the elevators they service by the EC and is not in the AV scope.
- Control of volume for all Casino Elevators shall be logically tied through the DSP and controlled via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

M. AV System Type 14: BOH Floor EDR**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH Floor EDR.

- Provide and install eight (8) 65" displays on a flat wall mount bracket.
- Provide and install four (4) 49" KDS displays on a ceiling mount in the Production Kitchen. Location to be determined by the architectural & kitchen team.
- Provide and install nineteen (19) ceiling mounted 6" speakers.
- Control of volume & source selection for the Intro BOH EDR sound system & displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

N. AV System Type 15: BOH Training Room #1

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH Training Room #1.

- Provide and install one (1) 98" display in a recessed back box with a swing arm mount.
- Install one (1) O.F.E. Cisco Room Kit Pro video conferencing system.
- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install four (4) O.F.E. Cisco Ceiling Mic Pro.
- Provide and install four (4) ceiling mounted 8" speakers.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

O. AV System: BOH Divisible Training Room 2a & 2b

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH Divisible Training Rooms 2a & 2b.

- Provide and install four (4) 98" display in a recessed back box with a swing arm mount.
- Install two (2) O.F.E. Cisco Room Kit Pro video conferencing system.
- Install two (2) O.F.E. Cisco table mounted Navigator.
- Install three (3) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install eight (8) O.F.E. Cisco Ceiling Mic Pro.
- Provide and install two (2) 4K screen cast wireless adapters for local presentation.

- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

P. AV System Type 17: BOH Table & Slots Training Room

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH Table & Slots Training Room.

- Provide and install one (1) 98" display in a recessed back box with a swing arm mount.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Provide and install eight (4) ceiling mounted 8" speakers.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

Q. AV System: BOH 8 Person Conference Room

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH 8 Person Conference Rooms.

- Provide and install one (1) 75" display on a flat wall mount.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Install one (1) O.F.E. Cisco Room Kit Pro video conferencing system.
- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.

- Install one (1) O.F.E. Cisco Ceiling Mic Pro.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

R. AV System: BOH 10 Person Conference Rooms (x2)

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH 10 Person Conference Rooms.

- Provide and install one (1) 75" display on a flat wall mount.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Install one (1) O.F.E. Cisco Room Kit Pro video conferencing system.
- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install one (1) O.F.E. Cisco Ceiling Mic Pro.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

S. AV System: BOH 12 Person Conference Rooms (x2)

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH 12 Person Conference Rooms.

- Provide and install one (1) 86" display on a flat wall mount.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Install one (1) O.F.E. Cisco Room Kit Pro video conferencing system.
- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install one (1) O.F.E. Cisco Ceiling Mic Pro.

- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

T. AV System: BOH Staff Conference Room

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH 10 Person Conference Rooms.

- Provide and install one (1) 86" display on a flat wall mount.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Install one (1) O.F.E. Cisco Room Kit Pro video conferencing system.
- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install one (1) O.F.E. Cisco Ceiling Mic Pro.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

U. AV System: BOH Executive Conference Room

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the BOH 10 Person Conference Rooms.

- Provide and install two (2) 86" displays on a flat wall mount.
- Provide and install one (1) 98" display on a motorized hidden ceiling mount.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Install one (1) O.F.E. Cisco Codec Pro video conferencing system.

- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install three (3) O.F.E. Cisco Ceiling Mic Pro.
- Install one (1) O.F.E. Cisco 4K PTZ camera underneath the front display.
- Provide and install eight (8) ceiling mounted 8" speakers.
- Provide and install four (4) HDMI over CATX extenders.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

V. AV System: VP & Director Offices

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the VP & Director Offices.

- Provide and install nine (9) 55" displays on a flat wall mount bracket.
- Provide and install three (3) 65" displays on a flat wall mount bracket.
- Provide and install twelve (12) 4K screen cast wireless adapter for local presentation.
- Provide the Directors Office display a web accessible GUI for changing TV channels on their display.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

W. AV System: Main Casino Floor**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed on the Main Casino Gaming Floor.

- Provide and install one hundred (100) 65" displays on twenty-five (25) OWNER FURNISHED custom diamond mount TV brackets in the Pit Stands.
- Provide and install twelve (12) 75" marketing displays on a flat wall mount.
- Provide and install two (2) 98" displays on a flat wall mount at the electronic table gaming area.
- Provide and install one hundred & sixty-two (162) ceiling mounted 8" speakers.
- Provide and install twenty-five (25) pendant mounted speakers in the open ceiling areas.
- Provide and install a 2-Zone wireless antenna distribution system as depicted in the AV drawings.
- Provide and install twelve (12) Audix ceiling mounted microphones for measuring the ambient noise volume within the Main Casino floor. These mics shall tie back to the DSP and automatically raise or lower the volume on the Main Casino floor based on the current occupancy.
- 28 Main Casino Floor audio zones shall be divided between twelve (12) QSC network amplifiers.
- 8 of the 12 QSC network amplifiers will be housed in the closest IDF in an Owner Furnished Network equipment rack.
- The two wireless antenna distribution systems for Section A & Section C along with the remaining QSC network amplifiers will be installed in an Owner Furnished Network equipment rack in IDF-CB that supports the Main Casino Center Bar and IDF-CG that supports the Sports Bar.
- Control of volume & source selection for the Main Casino floor sound system & displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

X. AV System: Main Casino Floor Center Bar**1. AV System Functional Details**

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino Center Bar.

- Provide and install one (1) 28' W x 16' H 1.5mm Main Center Screen LED display.
- The display shall be mounted on a Peerless DVLED mounting system.
- Provide and install two (2) 5.5' W x 12' H 1.5mm Left & Right LED displays.
- The display shall be mounted on a Peerless DVLED mounting system.
- LED display processing shall be from a Novastar H Series splicer located in IDF-CB and be capable of displaying up to 12 video sources.
- Provide and install two (2) 55" displays on a flat wall mount in the green rooms behind the stage.
- Provide and install two (2) Apple iPad on a wall mount bracket in the green rooms behind the stage for control of the displays source & volume.
- Provide and install ten (10) RCF HL6 speaker arrays flown from the truss.
- Provide and install one (1) RCF subwoofer speaker under the stage.
- Provide and install one (1) Apple iPad on a table mount bracket for control at the bar.
- Provide and install one (1) Apple iPad on a table mount bracket for control at the DJ Booth.
- Provide & install one (1) Chauvet lighting package & controller. The lighting controller shall live in the DJ Booth.
- Provide & install two (2) 12" x 12" x 10' box truss to support the Chauvet lighting package.
- Provide & install one (1) Pioneer DDJ-Rev7 DJ Controller for the DJ Booth.
- Provide & install one (1) self-powered monitor for the DJ Booth.
- Provide & install one (1) HDMI over CAT extender in each of the two (2) DJ Booths to connect to the Novastar processor located in IDF-CB.
- Provide & install one (1) XLR Input & Output over Dante in each of the two (2) DJ Booths to connect to the DSP.
- Provide & install three (3) recessed stage boxes for power & balanced XLR audio in & out.
- Provide & install two (2) XLR wall plates behind the stage as a passthrough to/from the stage boxes.
- Provide & install four (4) powered stage monitors.
- Provide & install one (1) Yamaha mixing console to be connected to the XLR plates.
- Control of volume, source selection, and videowall presets for the Main Casino Center Bar sound system & displays will be available via the dedicated iPads installed at the bar & DJ Booth which are part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

Y. AV System Type 27: Main Casino Promotions Desk 1 & 2

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino Promotions Desk 1 & 2.

- Provide and install two (2) 136" All-In-One LED display on a flat wall mount bracket.
- Provide and install two (2) Apple iPad on a wall mount bracket for control.
- The wall mounted iPads shall provide the ability to make announcements to zones selected as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

Z. AV System: Main Casino High Limit Slots

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino High Limit Slot Room.

- Provide and install four (4) 75" displays on a flat wall mount bracket.
- Provide and install twelve (12) ceiling mounted 8" speakers.
- Provide and install one (1) Audix ceiling mounted microphones for measuring the ambient noise volume within the Main Casino High Limit Slot room. These mics shall tie back to the DSP and automatically raise or lower the volume on the Main Casino floor based on the current occupancy.
- Control of volume & source selection for the Main Casino High Limit Slots Room sound system & displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

AA. AV System: Main Casino High Limit Table Games

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino High Limit Table Games Room.

- Provide and install six (6) 75" displays on a flat wall mount bracket.
- Provide and install nine (9) ceiling mounted 8" speakers.
- Provide and install one (1) Audix ceiling mounted microphones for measuring the ambient noise volume within the Main Casino High Table Game room. These mics shall tie back to the DSP and automatically raise or lower the volume on the Main Casino floor based on the current occupancy.
- Control of volume & source selection for the Main Casino High Limit Table Games Room sound system & displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

BB. AV System: Main Casino Players' Lounge

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino Players' Lounge.

- Provide and install three (3) 75" displays on a flat wall mount bracket.
- Provide and install two (2) 65" displays on a flat wall mount bracket in the bar millwork.
- Provide and install six (6) ceiling mounted 8" speakers.
- Provide and install one (1) Apple iPad on a wall mount bracket for control.

- Control of volume & source selection for the Main Casino High Players Lounge sound system & displays will be available via the dedicated iPad as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

CC. AV System: Main Casino Bar #1

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in Main Casino Bar #1.

- Provide and install four (4) 75" displays on a flat wall mount bracket in the bar millwork.
- Provide and install one (1) Apple iPad on a wall mount bracket for control.
- Control of source selection for the Main Casino Bar #1 displays will be available via the dedicated iPad as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

DD. AV System: Main Casino Bar #2

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in Main Casino Bar #2.

- Provide and install two (2) 65" displays on a flat wall mount bracket in the bar millwork.
- Provide and install one (1) Apple iPad on a wall mount bracket for control.

- Control of source selection for the Main Casino Bar #2 displays will be available via the dedicated iPad as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

EE. AV System: Main Casino Floor Sports Bar

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino Sports Bar.

- Provide and install one (1) 45' W x 16' H 1.5mm LED display.
- The display shall be mounted on a Peerless ceiling mounted DVLED mounting system.
- Provide and install two (2) 16' W x 16' H 1.5mm LED display.
- The display shall be mounted on a Peerless ceiling mounted DVLED mounting system.
- LED display processing shall be from a Novastar H Series splicer located in IDF-CF and be capable of displaying up to 24 video sources.
- Provide and install twenty-four (24) LG WebOS boxes for use with SAVI to route sports & marketing programs to the videowall processor.
- Provide and install seven (7) 75" displays on a flat wall mount underneath the center LED display.
- Provide and install nine (9) 65" displays on a flat wall mount above the betting kiosks.
- Provide and install one (1) 98" display on a flat wall mount behind the wager desk.
- Provide and install four (4) 49" KDS displays on a ceiling mount in the Production Kitchen. Location to be determined by the architectural & kitchen team.
- Provide and install ten (10) RCF HL6 speaker arrays flown from the truss.
- Provide and install one (1) RCF subwoofer speaker flown from the truss.
- Provide and install one (1) Apple iPad on a wall mount bracket for control.
- Control of volume control and source selection for the Sports Bar displays will be available via the dedicated iPad as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

FF. AV System: Main Casino Cage

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino Promotions Cage.

- Provide and install two (2) 98" displays on a flat wall mount bracket.
- Provide and install eight (8) 37" displays on a flat wall mount.
- Control of source selection for the Main Casino Cage display will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

GG. AV System : Main Casino Elevator Lobbies

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino Elevator Lobbies.

- Provide and install three (3) 75" displays on a flat wall mount bracket.
- Provide and install six (6) ceiling mounted 8" speakers.
- Control of volume for all Casino Elevators shall be logically tied through the DSP and controlled via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

HH. AV System: Main Casino Bathrooms

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Main Casino Bathrooms.

- Provide and install twelve (12) ceiling mounted 6" speakers.
- Control of volume for all Casino Bathrooms shall be logically tied through the DSP and controlled via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

II. AV System: Steakhouse Restaurant

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Steakhouse Restaurant.

- Provide and install two (2) 65" displays on a flat wall mount bracket within the millwork of the Steakhouse Bar.
- Provide and install one (1) 65" display on a flat portrait wall mount bracket outside the restaurant as a menu board.
- Provide and install one (1) 55" display on a flat portrait wall mount bracket at the entrance to the Mezzanine steps for events.
- Provide and install two (2) 75" displays on a recessed wall mount on the Mezzanine level.
- Provide and install one (1) 75" displays on a recessed wall mount in the Private Dining Room.
- Provide and install four (4) 49" KDS displays on a ceiling mount in the Steakhouse Kitchen. Location to be determined by the architectural & kitchen team.

- Provide and install one (1) Apple iPad on a wall mount bracket for control in the Private Dining Room.
- Provide and install one (1) Apple iPad on a wall mount bracket for control at the Steakhouse Bar.
- Control of volume and source selection for the Steakhouse sound system will be available via the dedicated iPad at the Steakhouse Bar as part of the SAVI control system.
- Control of volume and source selection for the Steakhouse Private Dining Room sound system will be available via the dedicated iPad in the Private Dining Room as part of the SAVI control system.
- Provide and install three (3) 4K screen cast wireless adapter for local presentation.
- Provide and install nineteen (19) ceiling mounted 8" speakers.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

JJ. AV System: Italian Restaurant

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Italian Restaurant.

- Provide and install one (1) 65" display on a flat portrait wall mount bracket outside the restaurant as a menu board.
- Provide and install four (4) 49" KDS displays on a ceiling mount in the Italian Restaurant Kitchen. Location to be determined by the architectural & kitchen team.
- Provide and install one (1) Apple iPad on a wall mount bracket for control at the Italian Bar.
- Provide and install thirty-two (32) ceiling mounted 8" speakers.
- Control of volume and source selection for the Italian Restaurant sound system will be available via the dedicated iPad at the Italian Bar as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.

- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

KK. AV System: Marketplace Restaurant

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Marketplace Restaurant.

- Provide and install four (4) 65" displays on a flat wall mount bracket for display of TV or Marketing content.
- Provide and install one (1) 49" KDS display on a ceiling mount and two (2) 65" display Menu Boards at the Taco station. Location to be determined by the architectural & kitchen team.
- Provide and install one (1) 49" displays on a ceiling mount and two (2) 65" display Menu Boards at the Chicken station. Location to be determined by the architectural & kitchen team.
- Provide and install one (1) 49" displays on a ceiling mount and two (2) 65" display Menu Boards at the BBQ station. Location to be determined by the architectural & kitchen team.
- Provide and install one (1) 49" displays on a ceiling mount and two (2) 65" display Menu Boards at the Grill station. Location to be determined by the architectural & kitchen team.
- Provide and install one (1) 49" KDS display on a ceiling mount and two (2) 65" display Menu Boards at the Asian Street Market. Location to be determined by the architectural & kitchen team.
- Provide and install two (2) 65" display Menu Boards in the Sweet Shop. Location to be determined by the architectural & kitchen team.
- Provide and install thirteen (13) ceiling mounted 8" speakers.
- Provide and install five (5) ceiling mounted pendant speakers.
- Control of volume and source selection for the Marketplace sound system and displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

LL. AV System: Café

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Cafe Restaurant.

- Provide and install five (5) 65" displays on a flat wall mount bracket.

- Provide and install one (1) 65" display on a flat portrait wall mount bracket outside the Cafe as a menu board.
- Provide and install two (2) 65" displays on a flat wall mount bracket within the millwork of the Cafe Bar.
- Provide and install four (4) 49" KDS displays on a ceiling mount and one (1) 65" display Menu Board. Location to be determined by the architectural & kitchen team.
- Provide and install one (1) Apple iPad on a wall mount bracket for control at the Cafe Bar.
- Provide and install nine (9) ceiling mounted 8" speakers.
- Provide and install seven (7) ceiling mounted pendant speakers.
- Control of volume and source selection for the Cafe sound system and displays will be available via the dedicated iPad at the Cafe Bar as part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

MM. AV System: Outdoor Patio

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Outdoor Patio.

- Provide and install six (6) 85" full sun outdoor QLED displays on a flat wall mount bracket.
- Provide and install forty-eight (48) outdoor speakers divided into 4 separate zones.
- Provide and install six (6) AV connection plates on the exterior wall for future events.
- Provide and install four (4) 4K screen cast wireless adapter for local presentation.
- Provide and install four (4) LG WebOS boxes that will be located in the bathrooms behind each display in an overheard recessed electrical enclosure by E.C.
- Control of volume and source selection for the Outdoor Patio sound system and displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.

- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

NN. AV System: Hotel Sky Lounge

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel Sky Lounge.

- Provide and install two (2) 86" displays on a flat wall mount bracket.
- Provide and install twelve (12) ceiling mounted 8" speakers.
- Control of volume and source selection for the Hotel Sky Lounge sound system and displays will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

OO. AV System: Hotel Retail Store

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel Retail Store.

- Provide and install four (4) ceiling mounted 8" speakers.
- Control of volume for the Hotel Retail Store sound system will be available via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.

- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

PP. AV System Type 44: Hotel Elevator Lobbies

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel Elevator Lobbies.

- Provide and install twenty-four (24) ceiling mounted 8" speakers (1 per floor).
- Control of volume for all Hotel Elevators shall be logically tied through the DSP and controlled via the portable iPads part of the SAVI control system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

QQ. AV System Type 45: Hotel Guest Rooms Floors 1 - 24

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel Guest Rooms.

- Provide and install three hundred & eighty (380) 65" Hospitality displays on a flat wall mount bracket.
- Provide and install six (6) 75" Hospitality displays on a flat wall mount bracket with sound bars as shown on the 23rd & 24th floor plans.
- Provide and install eleven (11) Crestron TSW-770 Touchpanels on a wall mount bracket for control of audio, lights & shades and integration with the O.F.E. building management system as shown on the 23rd & 24th floor plans. .
- Channel selection for the Hotel Guest rooms via the handheld remote.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.

- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

RR. AV System: Hotel Meeting Rooms (x2)

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the two Hotel Meeting Rooms.

- Provide and install one (1) 75" display on a flat wall mount.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Install one (1) O.F.E. Cisco Room Kit PEQ video conferencing system.
- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install one (1) O.F.E. Cisco Ceiling Mic Pro.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

SS. AV System: Hotel Fitness Room

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel Fitness Room.

- Provide and install two (2) 65" display on a ceiling mount.
- Provide and install one (1) 65" display on a flat wall mount.
-
- Provide and install seven (7) ceiling mounted speakers.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.

- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

TT. AV System: Hotel Penthouse Lounge

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel Penthouse Lounge.

- Provide and install one (1) 75" displays on a flat wall mount behind the bar.
- Provide and install one (1) 110" display on a flat wall mount.
- Provide and install one (1) soundbar under the main 110" room display with wireless subwoofer.
- Provide and install one (1) 98" display on a motorized hidden ceiling mount.
- Provide and install a 4K screen cast wireless adapter for local presentation.
- Provide and install ten (10) ceiling mounted speakers.
- Provide and install two (2) HDMI over CATX extenders.
- Install one (1) O.F.E. Cisco Room Kit Pro video conferencing system.
- Install one (1) O.F.E. Cisco table mounted Navigator.
- Install one (1) O.F.E. Cisco wall mounted Navigator outside the room for scheduling.
- Install one (1) O.F.E. Cisco Ceiling Mic Pro.
- Provide and install one (1) Crestron TSW-1070 on a wall mount bracket for control of audio and source selection as well as environmental room setup for zone selection and video conferencing mode. Programming of the Crestron panel will need to interface with the SAVI video distribution system for selection and control off all video sources.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

UU. AV System: Hotel 23rd & 24th Floors Corner Suite S2

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel S2 Corner Suites.

- Provide and install one (1) 86" Hospitality displays on a flat wall mount bracket.
- Provide and install two (2) 65" Hospitality displays on a flat wall mount bracket.

- Provide and install one (1) soundbar under the main 86" room display with wireless subwoofer.
- Provide and install one (1) wall mounted Bluetooth to Dante interface.
- Provide and install one (1) wall mounted HDMI interface.
- Provide and install seven (7) ceiling mounted speakers.
- Provide and install three (3) ceiling mounted subwoofer speakers.
- Provide and install one (1) Dante enabled 4 channel audio amplifier.
- Provide and install three (3) Crestron TSW-770 Touchpanels on a wall mount bracket for control of audio, lights & shades and integration with the O.F.E. building management system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

VV. AV System: Hotel 23rd & 24th Floors Corner Suite S5

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Hotel S5 Corner Suites.

- Provide and install one (1) 75" Hospitality displays on a flat wall mount bracket.
- Provide and install two (2) 65" Hospitality displays on a flat wall mount bracket.
- Provide and install one (1) soundbar under the main 75" room display with wireless subwoofer.
- Provide and install one (1) wall mounted Bluetooth to Dante interface.
- Provide and install one (1) wall mounted HDMI interface.
- Provide and install five (5) ceiling mounted speakers.
- Provide and install two (2) ceiling mounted subwoofer speakers.
- Provide and install one (1) Dante enabled 4 channel audio amplifier.
- Provide and install three (3) Crestron TSW-770 Touchpanels on a wall mount bracket for control of audio, lights & shades and integration with the O.F.E. building management system.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

WW. AV System Type 51: Casino Stair Tower Projection

1. AV System Functional Details

This section of the specification defines the functional details of the audiovisual system to be furnished and installed in the Casino Stair Tower Projection.

- Provide and install eight (8) outdoor video mapping projectors on 4 sets of poles to project images on each of the 4 stair towers.
- Each pole will consist of dual projectors aligned to increase the brightness and the size of the projected image.
- Provide all hardware, cabling, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings.

2. AV Interconnection Details

- Provide all hardware, cabling, interconnection cables, connectors, faceplates, interfaces, terminators, adapters, etc. required to ensure installation of a fully functional audiovisual system as depicted in the attached AV System drawings and these specifications.
- The conduit and power systems are detailed in the Electrical and Architectural drawings, and are N.I.C.

1.7 EQUIPMENT LIST

- A. Refer to the attached BOM for a complete list of equipment, quantity, models and manufacturer as indicated are mandatory no substitutions accepted.

1.8 SUBMITTALS

A. SHOP DRAWINGS:

1. Provide room layout drawings showing the devices, connections, cabling, and related information. Identify each device.
2. Provide functional wiring diagrams for all audiovisual signals including Audio, Video, Control, and Power & AV LAN wiring.
3. Provide room cabling or cable riser diagrams for each system.
4. All panel and plates, including all details relevant to terminology, engraving, finish & color.

5. Provide proposed Audiovisual equipment cabinet/rack elevations.

B. INSTALLATION PROGRESS

1. Provide weekly Work Progress schedules keyed to personnel, vendors, and tasks as specified herein and provide updates as requested by the CM, Architect, or Owner.

C. DELIVERY DOCUMENTATION

1. The AVC shall prepare and supply the Owner with a minimum of (2) identical copies of owner's manuals. Manuals shall be provided in electronic formats. Before distribution of manuals, one copy shall be submitted to the Architect for approval. Each manual is to contain the following: System operation and Maintenance Manual. The AV Contractor shall produce this manual specifically for the systems detailed in this bid. The "Operation" section shall describe, in detail, all typical procedures necessary to activate each system.
2. In addition to the more detailed System Operation and Maintenance Manual prepare a more simplified "Quick Start" or "Executive Summary" version that shall consist of no more than one sheet describing the most basic functions. Laminated copies of this instruction sheet shall be located for easy access by the user.
3. System one-line drawing including all labeling and changes ("as built drawings").
4. AVCs service phone number in a conspicuous place.
5. All DSP and Control System programming source code (un-compiled) and compiled versions.
6. A list of software versions, hardware versions, IP addresses, MAC Address, ID addresses, passwords, and part, product, and serial numbers.
7. Backup and restoration procedures.
8. Any required software, firmware, and data files for operation, maintenance, restoration, and backup.

D. TRAINING

1. Provide eight hours of demonstration and orientation by a training professional, or other qualified approved personnel, for each of the installed systems. Coordinate with the designated representative of the owner, and complete training the week prior to occupancy, or as scheduled with the owner.
2. Hands on training for the following to be recorded:
 - For daily users (floor staff, bar managers, pit bosses, etc.)
 - Interface usage (touch panels, remote controls, software apps)
 - Source switching, volume control, lighting scenes.
 - How to use and program AV control interfaces (e.g., Crestron, Q-SYS)
 - Scene selection and presets
 - Emergency overrides or paging procedures
 - Basic troubleshooting steps (no audio, video not displaying, etc.)
 - Identifying and resolving common user errors
 - How to reboot/reset specific components (switchers, DSPs, etc.)
 - Adjusting audio levels, zones, and EQ settings
 - Training on platforms like QSC, MediaTune, or similar
 - Training for in-house entertainment staff or third-party partners

- Stage audio, lighting integration, video playback systems
 - How to update and schedule signage content
 - Training on the CMS (content management system) used.
3. Coordinate with the designated representative of the owner, and complete training the week prior to occupancy, or as scheduled with the owner.
 4. Provide four hours of training on the content of operating manuals, user guides, and As Built Documentation for the systems, record documentation for each system. Training for all systems will be provided at the project site and coordinated with the owner.
 5. Training is to be filmed, and electronic copies are to be turned over to the owner.

1.9 QUALITY ASSURANCE

A. CONTRACTOR QUALIFICATIONS

1. Minimum Qualifications of AV Contractor (AVC):

The AV Contractor (AVC) must meet all the minimum requirements outlined in this document. Additionally, the AVC shall have successfully completed at least three (3) audiovisual projects within the past five (5) years that are comparable in scope, complexity, and quality to this project. Provide name of project, value of project and contact with email and phone number. These projects must include experience in programming, fabrication, assembly, and installation of audiovisual presentation, conferencing, and remote-control systems. The AVC must demonstrate proficiency in coordination, engineering, testing, certification, supervision, training, and documentation as required for this project. Documentation supporting these qualifications shall be submitted with the bid. Each referenced system must have been in continuous, successful operation for at least one (1) year following final acceptance by the respective project Owner.

2. Technician Qualifications and Manufacturer Certifications:

All audiovisual technicians assigned to this project must be fully trained, qualified, and certified by the original equipment manufacturers (OEMs) of the systems to be installed. The Contractor shall submit formal, written proof of current OEM certifications for all installers prior to beginning work on the system.

3. Industry Certifications and Personnel Requirements:

Technicians responsible for the engineering, installation, operation, and testing of the audiovisual systems must possess relevant industry experience and credentials. At a minimum, one (1) individual holding a valid CTS-D (Certified Technology Specialist – Design) certification and one (1) individual holding a valid CTS-I (Certified Technology Specialist – Installation) certification must be assigned to this project. The Contractor shall provide formal, written documentation of these certifications as part of the bid submittal, and before any work commences.

B. QUALITY OF MATERIALS AND EQUIPMENT

1. All materials and equipment supplied by the AV Contractor shall be new and shall meet or exceed the latest published specifications of the manufacturer in all respects.
2. The AV Contractor shall supply, at a minimum, the latest model, available at the time of bidding, of each piece of equipment.

1.10 DELIVERY AND STORAGE

- A. Storage at the site is the responsibility of AVC. AVC must coordinate with the GC for the location of containers and offices required for the project. Cost will be included in AVC proposal.
- B. Timely delivery and installation of material required for the Work of this Section is the responsibility of the AV Contractor. The AVC shall be held responsible for all delays associated with both the specified materials, and for the timely submittal of submittal items, drawings, and other information in order to expedite the Work and to avoid delays.
- C. Costs of all shipping to the site, and of all storage requirements shall be the responsibility of the AV Contractor. It shall be the responsibility of the AVC to make appropriate arrangements, and to coordinate with authorized personnel at the site, for proper acceptance.
- D. During the installation, and up to the date of final acceptance, the AV Contractor shall be under obligation to protect his finished and unfinished work against damage and loss. In the event of such damage or loss, he shall replace or repair such work at no cost to the Owner.

1.11 CLEANUP AND REPAIR

Upon completion of all daily work, the AVC shall remove any and all refuse and rubbish from and about the Owners premises and shall leave all areas and equipment clean and in a fully operational state. The AVC shall be responsible for the repair of any damage caused to the premises by installation activities, at no cost or hardship to the Owner.

1.12 COORDINATION

- A. General Coordination Requirements
 1. The Audiovisual Contractor (AVC) shall coordinate all work with the General Contractor (GC), other subcontractors, and the Owner to ensure seamless integration of all audiovisual systems with the overall construction effort.
 2. The AVC shall proactively communicate any conflicts, deviations, or coordination issues to the GC for resolution prior to the execution of work.
- B. Project Management and Job Site Supervision
 1. The AVC shall assign a dedicated Project Manager capable of making all decisions on site for AVC:
 2. A qualified on-site Project Superintendent shall be provided by the AVC to supervise daily activities of audiovisual personnel and subcontractors for
 3. The General Contractor shall serve as the primary point of contact for all coordination and communication. All correspondence related to scheduling, access, or construction activity shall be

routed through the General Contractor.

C. Site Conditions and Access

1. All work shall be performed during normal site working hours unless otherwise authorized. The AVC shall coordinate activities to avoid disruption to traffic patterns, adjacent trades, or the operations of existing tenants.
2. Planned outages shall be requested at least forty-eight (48) hours in advance, in writing, through the General Contractor. Timing of such outages shall be coordinated and approved by the Owner, Building Engineer, GC, and all impacted trades.
3. The AVC shall confirm site conditions relevant to its scope of work, including but not limited to:
 - Floor finishes, including carpet and other coverings.
 - Power and conduit infrastructure per project drawings and specifications.
 - A/V-related data, voice, IP, and analog cabling.
 - Owner-furnished or GC-installed A/V device rough-ins and supports.
 - All A/V-related furniture and cabinetry (e.g., lecterns, conference tables, millwork).

D. Project Timeline

1. The AVC is responsible for adhering to the overall project schedule and shall not delay work due to trade disputes or other controllable factors.
2. The AVC shall take all necessary precautions to protect its work and materials from damage
3. All work shall comply with applicable Owner, municipal, state, federal, and international codes, including building and fire safety requirements.

E. System-Wide Integration

Coordinate all audiovisual system installations with the Owner's existing infrastructure, property-wide systems, and adjacent trades to ensure continuity of operations. Coordination with IT or network teams for IP addressing and network connectivity.

F. Architectural Finish Coordination

Coordinate and confirm final finishes, colors, and aesthetics for plates, panels, grilles, and enclosures with the Architect, Interior Designer, and Owner. Provide physical samples upon request.

G. Contractor Cooperation

Maintain continuous cooperation and communication with all other contractors to avoid interference, work stoppages, or inefficiencies on the project site.

H. Construction Communication

Maintain regular communications with the CM and designated personnel. Attend all required construction meetings and provide system status updates as requested.

I. System Switchover Coordination

Coordinate system cutovers, commissioning phases, and operational handovers directly with the Owner's designated operations personnel, ensuring minimal impact on business operations.

- J. Field Verification
Conduct comprehensive field surveys to verify existing site conditions, including cable routing, infrastructure status, and as-built documentation accuracy. Update labeling and documentation is necessary to maintain system integrity.

1.13 PROJECT MEETINGS

- A. Participation Requirements
The Audiovisual Contractor (AVC) shall ensure a qualified project Manager attends all weekly Owner, Architect, and Construction Manager (CM) meetings as requested, and shall provide timely updates, coordination status, and required documentation to all project stakeholders.

1.14 REPORTING

- A. The Contractor shall maintain a detailed progress report, available upon request from the Architect, General Contractor, or Owner. Reports shall include:
1. Timeline for installation activities.
 2. Percentage completion for each task.
 3. Clear delineation of each week's starting date.
 4. Activity dependencies (predecessors/successors).
 5. Identification of the critical path.
 6. Status of pending or incomplete work.
 7. Forecasted dates for equipment/material delivery.
 8. Requests for subcontractor site access.
 9. Log of incidents, accidents, or emergencies.
 10. Record of material losses, theft, or property damage.

1.15 WARRANTY

- A. System Warranty
The Contractor shall provide a comprehensive system warranty for a minimum duration of twelve (12) months from the date of final acceptance by the Owner. This warranty shall cover all labor, parts, equipment, programming, and services necessary to maintain full operational status of the audiovisual systems, at no additional cost to the Owner. All manufacturer warranties shall be placed in the Owner's name and shall start on the same date as acceptance. AVC to provide remote monitoring of all AV systems to provide proactive responses to the owner of any equipment that is down or offline during the period of the warranty.
- B. Preventative Maintenance Services
1. The Contractor shall perform two (2) Preventative Maintenance Visits (PMVs) during the warranty period.
 2. Each visit shall include:
 - Performance testing of all audio, video, and control system functions.

- Updates to control system software as needed.
- 3. An editable copy of the source code shall be submitted after each PMV.
- 4. A full PMV report shall be provided to the Owner after each visit, detailing all work performed.
- C. Technical Support Services

The Contractor shall maintain a 24/7 technical support line, staffed by a technician with direct knowledge of the installed systems. Response calls shall be initiated within thirty (30) minutes of initial contact and or notification of system problem from Remote Monitoring System.
- D. Emergency On-Site Response

The Contractor shall provide on-site technician dispatch within twenty-four (24) hours of notification for any system failure occurring during the warranty period, including weekends and holidays.
- E. Programming Updates

The Contractor shall provide a minimum of two (2) Control System software updates during the warranty term. Updates may include, but are not limited to:

 - 1. Addition or removal of control feature sets.
 - 2. Modifications to touchscreen interfaces.
 - 3. Adjustment of automated task workflows.
- F. Equipment Replacement and Loaners

In cases where installed equipment cannot be repaired in the field, the Contractor shall supply fully compatible loaner equipment to maintain system functionality during the repair period. Loaners shall be provided at no cost to the Owner.
- G. Prior to the AV Contractor calling for official system commissioning and handover, all systems shall be fully pre-commissioned and verified. This process shall involve completing all tests that are planned to be performed during the official commissioning to head off any major issues during the official commissioning process. Test reports shall be provided to the Architect a minimum of 10 days before arrival on site for commissioning.

1.16 COMMISSIONING

- A. The primary purpose of the official Commission process is to provide the Architect and Owner the opportunity to fully test and inspect the installation practices and functionality of all systems. The AV Contractor is to demonstrate to the Architect in each room the operational functionality of the following:
 - 1. Video projection systems inclusive of all projectors and mounts
 - 2. Video processing and routing systems
 - 3. Video teleconferencing systems
 - 4. AV connection panels
 - 5. Audio reinforcement systems inclusive of audio playback, routing, and control

6. Integrated control system inclusive of programming and touch panel interfaces
7. System drawings with markups to be present and provided.
8. All test and verification reports are to be present for testing.

B. TESTS AND ADJUSTMENTS

1. Prior to Acceptance Tests being scheduled, the AVC shall perform its own system checkout. He shall furnish all required test equipment and shall perform all the work necessary to determine and/or modify the performance of the system to meet the requirements of this specification. This work shall include the following:
 - Maintain documentation of all performance tests for reference by the Architect during the System Acceptance Tests.
 - Test all audio, video, and control systems for compliance with the Performance Standards.
 - Adjust, balance, and align all equipment for optimum quality and to meet the manufacturer's published specifications. Establish and mark normal settings for all level controls and record these settings in the "System Operation and Maintenance Manual".
2. Provide all required test equipment specified herein (or equal) to successfully complete the tests and adjustments. Kits, home-built, and other non-professional test equipment shall not be acceptable.
 - **Video Signal Generator (4K/8K compatible)**
 - To send test patterns (color bars, grayscale, motion, etc.) via HDMI, DisplayPort, or SDI.
 - Example: Murideo SIX-G, Quantum Data 780D.
 - **Colorimeter / Spectroradiometer**
 - For color calibration, luminance measurements, and gamma verification.
 - Example: Klein K10-A, X-Rite i1Pro3.
 - **Luminance Meter**
 - Spot or imaging type for brightness level verification.
 - Example: Konica Minolta LS-150.
 - **Multiformat HDMI/SDI Analyzer**
 - To check resolution, HDCP compliance, and signal integrity.
 - Example: Astro VA-1845, Murideo Fox & Hound Kit.
 - **Sound Level Meter (Class 1 or Class 2)**
 - For measuring SPL, background noise, and zoning compliance.
 - **Network Protocol Analyzer / Packet Sniffer**
 - To analyze Dante, AVB, or AES67 audio traffic and identify latency or packet loss.
 - **Tone Generator and Audio Probe (Balanced and Unbalanced)**
 - For signal path testing and speaker verification.
 - **Impedance Meter / Speaker Tester**
 - To verify speaker, load and wiring integrity.
 - **POE Tester / Cable Verifier**
 - For checking PoE availability on audio endpoints and network cable

integrity.

3. Perform the following inspections and adjustments, and submit to the Architect the written results of each inspection for inclusion in the permanent records of the audio and video system:

- AUDIO

1. Test audio signal routing, latency, synchronization, and SPL levels across all zones.
2. Measure the absolute polarity of all devices, including all loudspeakers in the signal path, correct and record any reversals.
3. Adjust the gain of all devices in the signal path for optimum signal-to-noise ratio and maximum crest factor.
4. Measure and record the overall hum and noise level at each power amplifier output. Level shall be at least 75 dB below rated power output of amplifier over a bandwidth of 40-16,000 Hz.
5. Adjust gain of system as for hum and noise level tests above.
6. Apply 1,000 Hz. Sine-wave signals to each microphone and line-level input at level required to produce measured full amplifier output.
7. THD shall measure less than 1.0%.
8. Set up system for each specified mode of operation.
9. Feed full/wide-dynamic range music to the system. Adjust the system for frequent peaks at its specified maximum sound pressure level.
10. Listen carefully for noise, rattle, or other sounds, and objectionable distortion.
11. Correct all causes of such defects. If cause is outside system, promptly notify the Construction Manager, and the Architect, indicating cause and suggested corrective procedures.
12. Measure and record the acoustic distribution of the loudspeakers of this system at locations as designated by the Architect, one (1) in every zone. Record the location of all positions where any 1/3 octave band, deviates more than +/-3 dB from 500 Hz to 4 kHz, weighted by -5 at 800 Hz re:2500 Hz.

- VIDEO

1. Confirm correct content display, scheduling, connectivity, and image quality.
2. Test individual display input response and EDID compatibility.
3. Confirm network-based control and content distribution.
4. Check that the image is correctly displayed at all system outputs including the monitor(s) and/or by the video projector.

- LED VIDEOWALLS

1. Verify brightness, color uniformity, resolution, signal integrity, and synchronization.
2. Use vendor-specific software/tools for testing tile alignment, synchronization, and firmware versions.
3. As part of the system acceptance process, the AV contractor shall be responsible for verifying that all pixels on each LED display are fully functional and free of defects. This verification must be conducted using manufacturer-recommended test patterns, including full white, red, green, blue, and black screens, to identify any dead, stuck, or discolored pixels. The contractor must document the results of this inspection and confirm in writing that no pixel anomalies are present or, if present, fall within the allowable limits as defined by the manufacturer's specifications. Any discrepancies must be resolved prior to system handover, and the client must be notified of the resolution in the final acceptance report.

C. SYSTEM ACCEPTANCE TESTS

1. System Acceptance Tests shall not be performed until the Contractor's System Checkout has been completed. The System Acceptance Tests shall be supervised by the Architect, Owner Representative and Construction Manager and shall consist of the following:
 - A physical inventory shall be taken of all equipment on site and shall be compared to equipment lists in the specification section documents.
 - The Contractor shall demonstrate the operation of all system equipment.
 - Both subjective and objective tests shall be required by the Architect, Owner's Representative to determine compliance with the specifications. The AVC shall be responsible for providing test equipment for these tests.
 - All final, "as-built" drawings, run sheets, manuals, and other required documents, otherwise known as "Close Out Documents" as detailed herein, shall be on hand. Two complete sets of these documents shall be delivered to the Owner at this time. (One complete set shall have been delivered to the Architect and General Contractor prior to the scheduling of Acceptance Tests).
 - In the event further adjustment is required, or defective equipment must be repaired or replaced, tests may be suspended or continued at the option of the Architect and/or Owner.

EXECUTION

2.0 GENERAL REQUIREMENTS

A. Scope of Work Completion

The Contractor shall furnish, install, program, commission, and fully integrate all specified audiovisual systems and components. Any required equipment, accessories, software, cabling, or hardware necessary for full system operation not explicitly detailed in the Drawings or Specifications shall be provided as part of the Work at no additional cost.

B. Manufacturer's Performance Standards

All equipment shall perform in full accordance with the latest published manufacturer specifications and shall maintain all required certifications and compliance marks at the time of commissioning.

2.1 EQUIPMENT LAYOUT AND PLACEMENT

A. Compliance with Design Documents

Equipment layout, orientation, and final locations shall strictly adhere to the Contract Drawings, including A/V, Architectural, Interior Design (ID), and Electrical plans.

B. Conflict Resolution

Any discrepancies or conflicts between documents shall be immediately reported to the Architect for resolution prior to installation.

2.2 PROJECT MEETINGS

A. Participation Requirements

The Audiovisual Contractor (AVC) shall ensure a qualified project Manager attends all weekly Owner, Architect, and Construction Manager (CM) meetings as requested, and shall provide timely updates, coordination status, and required documentation to all project stakeholders.

2.3 FABRICATION AND INSTALLATION

A. General Installation Practices

1. Install all systems in accordance with Contract Documents, project specifications, applicable codes, and industry best practices.
2. Any deviations from Contract Documents shall be submitted to the Architect for review and shall not proceed without written approval.
3. Implement all necessary measures to protect systems against electromagnetic interference (EMI), electrostatic discharge (ESD), inadequate ventilation, and other performance risks.

B. Electrical Installation

1. The AV Contractor shall coordinate closely with the Electrical Contractor to verify that all necessary power requirements for the AV system are met, including appropriate voltage, amperage, and dedicated circuits where required. This coordination shall also include confirming the proper placement of power outlets, conduit paths, and junction boxes to ensure compatibility with AV equipment locations and mounting requirements. It is the responsibility of the AV Contractor to provide the Electrical Contractor with detailed power specifications and placement drawings during the submittal phase and to verify compliance during installation.
2. Electrical installations shall conform to all applicable codes and standards and be suitable for regular inspection, maintenance, and testing.
3. Ensure proper isolation, grounding, and bonding of all equipment.
4. Protect all circuits against overload, short circuit, and inrush currents with appropriately rated devices.

5. Utilize diversity factors in load calculations where appropriate, based on actual operating conditions.

C. Equipment Rack Standards

1. All electronic equipment shall be securely mounted in O.F.E. supplied industry-standard equipment racks.
2. Racks shall be populated and wired onsite.
3. Label all controls, connections, and panels using engraved Lamacoid labels with a minimum character height of 3/16", filled with white enamel.
4. Maintain physical separation between line voltage, low voltage, and signal wiring within racks.
5. All blanking panels for all unused rack spaces are O.F.E.
6. Ensure racks are mechanically and electrically bonded to adjacent racks (if applicable) but isolated from non-A/V systems.
7. Provide protective plastic covers containing rack schematics, wiring diagrams, and run sheets at each rack.
8. All power distribution within equipment racks are O.F.E.

2.4 INSURANCE

At time of Bid, the AV Contractor shall procure and maintain, during the life of the contract, such comprehensive liability and property damage insurance as shall protect him and the Owner from claims from any and all claims which may arise from the operations under this contract. Obtain specific insurance requirements from the Owner.

A. Insurance and Liability

The Contractor shall procure and maintain during the life of this contract and require its contractors and subcontractors to procure and maintain insurance to adequately protect Contractor and OWNER, ARCITECH, GENERAL CONTRACTOR from claims for bodily and personal injury, including death, and damage to property which may arise or result from work or operations of the contractor. The Contractor shall not commence work until he has obtained all the insurance required and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved. The type, form and minimum amount of coverage of this insurance is as follows:

- B. Workers' Compensation and Employers' Liability Insurance, as required by applicable state law. Employers' liability insurance will be written with the following minimum limits:
- C. Bodily Injury by Accident - \$1,000,000 Each Accident Bodily Injury by Disease - \$1,000,000 Each Employee Bodily Injury by Disease - \$1,000,000 Policy Limit
- D. Commercial Automobile Liability Insurance (if Contractor is bringing vehicles on campus) covering owned, hired and/or non-owned vehicles with the following minimum policy limits
- E. \$1,000,000 Each Accident - Bodily Injury and Property Damage

- F. Commercial General Liability including contractual liability with the following minimum policy limits:
 - a. \$2,000,000 Each Occurrence – Bodily Injury and Property Damage
 - b. \$5,000,000 Products/Completed Operations
 - c. \$1,000,000 Personal & Advertising Injury
 - d. \$5,000,000 General Aggregate
 - e. \$5,000,000 Products-Completed Operations Aggregate
 - f. \$2,000,000 Cyber Liability Aggregate: (Mandatory)
 - g. \$5,000 Medical Expense:
- G. The Commercial Automobile and General Liability policies shall name Owner as additional insured (using ISO Forms CG 20 10 and CG 2037 or their equivalent) providing coverage on a primary and noncontributory basis and Waiver of Subrogation.
- H. All of the above-listed insurances shall be written by financially sound and responsible insurance companies having a Best Policy Rating of not less than A- and a Best Financial Size Rating of not less than XII, such ratings being those most recently published by A.M. Best Company as of the date of this agreement.
- I. Certificates: Certificates evidencing the foregoing insurance coverage shall be filed with the Owner and shall be subject to approval by the Owner for accuracies of protection. All policies shall be open to inspection by the Owner. If the Contractor or any of his subcontractors fail to effect or maintain insurance as required, the Owner may insure his own interest and charge the cost thereof to the Contractor. Said policies and certificates shall certify, among other things, that the insurance will not be canceled or lapsed during the progress of the work covered by these Specifications without first giving the Owner thirty (30) days prior notice in writing.
- J. It is expressly understood that the Contractor and all subcontractors herein are independent contractors, and that the employees of the Contractor and subcontractors shall in no way be construed to be employees of the Owner.
- K. It is understood that the Contractor shall not be liable for any loss, damage or delay due to any cause beyond their reasonable control including but not limited to acts of government, strikes, lockouts, fire explosion, theft, floods, civil commotion, war, malicious mischief or act of God. However, the Contractor shall assume any and all liability (including reasonable attorney's fees) for negligent acts or omissions by their employees or subcontractors.
- L. The Owner reserves the right, prior to acceptance of the Contractor's Proposal, to require greater limits based on the nature of the operations being performed by the Contractor.

END OF SECTION