

TRANSMITTAL / MEMO

Project: Berkeley High School
Community Theatre and Little Theatre
Modernization, Phase 2

Date: November 10, 2023

To: Keith Wainschel
CAW Architects

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Re: Production Systems Budgets - 100% SD Draft

Via: e-mail
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of pgs. 6
including cover:

Below are listed the budget recommendations for production systems within the performing arts educational facilities at the Berkeley High School – Community Theatre (BCT) and Little Theatre (FSLT) Modernization. Please use these figures in the total project estimate.

It is important to note that not all sections represent a complete and installed cost. The Cost Estimator who is responsible for electrical costs will need to include production systems infrastructure and installation that normally falls under Division 26 – Electrical. Those needs are outlined below and in our “Production Engineering Report”.

The recommendations below are listed in Q4-2023 dollars and do not include General Contractors mark-up and general conditions or overall contingencies.

BASE SYSTEMS

1. BCT

Production Rigging – Section 11 61 33 **\$170,000**

Budget includes furnishment and installation of rigging equipment as listed below:

- Tension wire grid walking surface for mid-audience catwalk: Approximately 540sf of woven wire walking surface and steel frames of custom trapezoidal shapes, (15) 6’x6’ panels, installed following curvature of the existing ceiling, or stepped.

Related Exclusions: Structural accommodations as needed for support of tension wire grid panel frames including diagonal bracing.

Orchestra Lift – Section 11 61 53 **\$440,000.00**

Budget includes electro-mechanical non-production orchestra lift (Serapid or Gala) lifting column equipment replacement/retrofit, allowance includes (6) new lifting columns, guide track, new sensors and safety switches, door interlocks, structural reinforcement of existing lift floor framing or steel floor framing frame replacement, installed.

Related Exclusions: Structural accommodations for slab and guide chase, Electrical service and connections for power per engineering report, and control/safety systems, slap, access and lifting column excavation, if required, stage flooring and surrounding safety carpentry.

Production Lighting Control –Section 11 61 83 **\$35,000**

Budget includes allowance for replacement of power distribution receptacles at the existing catwalk, new power distribution receptacles at the new mid-house catwalk, adding/integrating DMX distribution receptacles to the catwalk locations, new control booth, and existing side booth and follow spot locations, integration and programming into existing systems, Equipment only.

Related Exclusions: Electrical work including constant power receptacles, distribution and control wire, conduit, and complete installation. See electrical report for further information.

Fixed Theatre Seating – Section 12 61 00 – **\$450/Seat**

Budget includes at the orchestra level removal, refurbishment and storage for the duration of construction, delivery and re-installation of approximately 3400 fixed, upholstered theatre chairs, installed in the orchestra and balcony with necessary adjustments for re-configured seating areas around control booth and new wheelchair locations. New integral aisle lighting at every aisle end. No tablet arms or cupholders.

Related Exclusions: Electrical work including additional distribution wiring to added aisle lights at every row, surrounding patch and finish work to architectural finishes, required adjustments to adjacent railings, etc.

AV Systems system– Section 27 41 16 **\$1,300,000**

Comprehensive system to include fixed HD video projection with installed motorized screen, digital audio mixing console and stageboxes, sound reinforcement system with left/right line arrays, subwoofer arrays, and fill loudspeakers providing full house coverage for live music and speech, wireless mics, touchpanel control system, analog production intercom, audio/video monitoring to all technical areas, computer-based multi-track sound effects playback, production video/AV streaming with cameras, FM assistive listening. Includes wire, pull and system integration and installation.

Related Exclusions: Electrical work including all line voltage connections (complete) and providing and installing all low-voltage conduit and backboxes required by the AV system, as well as specialty electrical systems noted in the engineering report.

2. FSLT

Production Rigging – Section 11 61 33

\$475,000

Budget includes furnishment and installation of rigging equipment as listed below:

- (14) fixed 1-1/2" (1.9"o.d.) schedule 40 pipe battens (over stage)
- (4) motorized lighting package hoists battens (over stage)
- (1) Motorized general purpose batten (cyclorama)
- (1) Motorized custom lighting hoist batten/truss (front of house), faceted to align with ceiling.
- 4'-0" by 4'-0"

Related Exclusions: Demolition of existing rigging systems including hazardous material abatement is applicable, Structural accommodations as needed for rigging system, Electrical accommodations including motorized fire curtain, motorized rigging, and motorized fire/smoke roof vents equal to 5% of stage area. Also, FF&E Draperies

Production Lighting Control –Section 11 61 83

\$225,000

Budget includes replacement of production power and data receptacle boxes at lighting positions on stage and in the audience chamber, addition of data distribution to all lighting positions, installation of (96 ckt) relay panels, architectural control processor, network equipment, packs, DMX controlled panel for architectural lighting (48 ckt), and architectural control buttons stations. Equipment only.

Related Exclusions: Electrical work including constant power receptacles, distribution and control wire, conduit, and complete installation. See electrical report for further information.

Fixed Theatre Seating – Section 12 61 00 –

\$550/Seat at Orchestra Level

Budget allowance includes all new seats, existing seats cannot be refurbished. at the orchestra level removal, refurbishment, and re-installation of upholstered theatre chairs, installed. No tablet arms or cupholders.

Additive Alternate – Tablet Arms: At the baseline 245 seat orchestra level we can accommodate tablets at seats in 3 different row depth configurations.

- ~ 3'-3" rows with small tablets and very limited to no passing space. +/- 40 seat loss from the baseline and +/- 200-210 tableted seats. + **\$100/seat**
- ~ 3'-6" rows with standard tablets and limited passing space. +/- 55 seat loss from the baseline and +/- 190 tableted seats. + **\$125/seat**
- ~ 3'-9" rows with Larger, "full" or "Laptop tablets and sufficient passing space. +/- 75 seat loss from the baseline and +/- 175 tableted seats. + **\$150/seat**

AV Systems system– Section 27 41 16

\$300,000

Comprehensive system to include fixed HD video projection with installed motorized screen, digital audio mixing console and stageboxes, wireless mics, owner-furnished contractor-installed sound reinforcement system, addition of (4) side fill loudspeakers, owner-furnished contractor-installed scenic projector, touchpanel control system, production intercom, audio/video monitoring to all technical areas, computer-based multi-track sound effects playback, production video/AV streaming with cameras, FM assistive listening. Includes wire, pull and system integration and installation.

Related Exclusions: Electrical work including all line voltage connections (complete) and providing and installing all low-voltage conduit and backboxes required by the AV system, as well as specialty electrical systems noted in the engineering report.

FF&E SYSTEMS

Note: Information below is provided for recommendation and to help provide budgetary allowances. All FF&E equipment may be procured either within base contract or owner provided post contract. TBD.

** To be confirmed with District’s theatre technical director, much of the FF&E equipment has already been purchased, music equipment to be confirmed.*

3. BCT FF&E

*** Rigging and Stage Draperies - None**

*** Production Lighting Fixtures - None**

Production AV Systems \$60,000

Allowance for portable AV equipment, such as wireless mic package, wired mics, wired intercom headsets/packs, video monitors, stands, loudspeakers, cables, adapters, etc.

Note: AV FF&E package shall supplement owner-provided portable equipment inventory. AV FF&E package is not comprehensive.

*** Music/Dance Equipment None or already purchased in Phase 1**

4. FSLT FF&E

*** Stage Draperies - \$60,000**

Allowances for Main curtain (and valance), 2x stage Travelers, 4 pairs of legs, Scrim and Cyclorama.

*** Production Lighting Fixtures - None – provided in BCT packages already purchased.**

Production AV Systems \$75,000

Allowance for portable AV equipment, such as wireless mic package, wired mics, wired intercom headsets/packs, video monitors, stands, loudspeakers, cables, adapters, etc.

Note: AV FF&E package shall supplement owner-provided portable equipment inventory. AV FF&E package is not comprehensive.

*** Music/Dance Equipment**

Allowance for music and dance equipment for dedicated use at the little theatre stage. Some items are duplicated from classroom items and would need storage.

- Orchestra Shell enclosure – (9) Wenger “Legacy” Style, towers **\$100,000**
- Music chairs and Stands (includes carts) **\$100-\$200 ea.**
- Choir and Band risers **\$60,000**
- Piano **\$20,000 - \$50,000**
- Portable vinyl dance floor surface and cart **\$30,000**

5. Miscellaneous Aspects To Be Included In Other Sections

Electrical & Mechanical Accommodations

FSLT - Company switches: (1) 200A lighting, (1) 100A specialty AV
Conduit and other power as indicated in the engineering report.
(24) L6-20 receptacles for supplemental hoist power in FSLT
Power for hoists over FSLT stage and audience

AV Low-Voltage Conduit System (by Division 26):

The low-voltage portion of the AV system will comprise a significant amount of EMT conduit. The AV system is divided into five signal groups, which EACH requires its own conduit raceway:

- A: Mic Level
- B: Line Level
- C: Video & Communications Level
- D: Loudspeaker Level
- E: Empty

As becomes clear, the amount of conduit becomes a significant cost factor, and should be accounted for accordingly. General guidelines:

BCT:

Stage to Booth: 3 home runs, each ~250' length x 5 conduits, 1.5" typical
On stage panels: Refer to Phase 1 for existing stage panels, conduit, and JB
Catwalk / Grid panels: 4 panels, each with ~200' length x 5 conduits, 1.5" typical to JB
Misc Panels: 10 panels, each with ~200' length x 1 conduits, 1.5" typical to JB

FSLT:

Stage to Booth: 3 home runs, each ~150' length x 5 conduits, 1.5" typical
On stage panels: 8 panels, each with ~100' length x 5 conduits, 1.5" typical to JB
Catwalk / Grid panels: 4 panels, each with ~100' length x 5 conduits, 1.5" typical to JB
Misc Panels: 10 panels, each with ~100' length x 1 conduits, 1.5" typical to JB

PL Low-Voltage Conduit System (by Division 26):

The low-voltage portion of the Production lighting (PL) system will comprise a moderate amount of EMT conduit.

As becomes clear, the amount of conduit becomes a significant cost factor, and should be accounted for accordingly. General guidelines:

BCT:

Dimmer/control racks (in basement) to Booth: 2 conduits, 1" typical
Booth to follow spot: 2 conduits, 1" typical.
Catwalk panels: 4 panels, each with 2 conduits, 1" typical to basement control racks
Architectural button stations: 10 panels, each with 1 conduit, 1" to control racks

FSLT:

Booth to dimmer room: 2 conduits, 1" typical
On stage panels: 10 panels, each with 2 conduits, 1" typical dimmer room
Catwalk / Grid panels: 6 panels, 2 conduits, 1" typical to dimmer room
Misc Panels: 4 panels, each with 2 conduits, 1" typical to dimmer room
Architectural button stations: 10 panels, each with 1 conduit, 1" typical to dimmer room

Structural:

BCT Tension Grid support- Allowance for “T-shape” tension grid frame hanger plates and hangers, and diagonal bracing on 6’ centers over the mid-audience opening. backing and bracing of rigging system in FSLT.

BCT – Chain hoist hang points- Allowance for structural steel beams and bracing to support (10) 2000# hang points for permanent and temporary speakers locations of the stage apron/orchestra pit area.

BCT Orchestra Pit- Potential strengthening of floor slab to accommodate new lifting equipment.

FSLT Pipe Grid & Fixed Battens– Allowance for backing and bracing of rigging system.

FSLT side Lighting Pipe– Allowance for pipe, backing and bracing of side light pipe @ 25#/lf..

Millwork: Allowance for cabinets and misc.

Dressing Rooms - counters, mirrors, shelves, laundry
Control booth and AV mix counters

Miscellaneous metals:

Guardrails around new tension grids in BCT mid-house catwalk and technical levels at FSLT.
– 7’-0” adjustable lighting 1-1/2” sch. 40 pipes, 2/panel at tension grid.
FSLT side lighting pipes – approx. 50lf of new, 1-1/2” sch. 40 pipe hangers at apron side walls.
New wire mesh or pipe rail guards at (e) BCT catwalk
Alteration of BCT rails at (e) PA balcony once (e) speakers are removed.

Specialty Windows:

Follow spot booth window –water white high transparency glass by PPG to enlarge and add to existing openings.
Control booth fixed (non-operable) windows – tilt angle by acoustician.
Projector portal

Specialty Floors:

FSLT Stage – “resilient” floor assembly of:
1/4” double tempered, painted Masonite hardboard screwed over
2 layers 3/4” A/C plywood over
2x4 treated sleepers at 16” o.c. over
4” square x 3/4” thick Mason Industries “Super W” resilient pads and shims over
Concrete 4.5” depth required

END OF REPORT