

Kinder High School for the Performing and Visual Arts

MISSION IMPOSSIBLE?

A 5 Story High School in the Heart of Downtown Houston to Support the Visual and Performing Arts



PRESENTED BY





Daniel W. Bankhead, AIA, NOMA General Manager of Facilities Design

Dan Bankhead oversees the management, design, and construction documentation of architects, engineers, and other consultants for Houston ISD's \$2.1 billion 2012 Bond Program. He is also an adjunct professor in architecture and construction science. Dan has directed a wide variety of local, national, and even international projects. In 2009, he became the first African-American president of a Texas (Houston) AIA chapter. He received his Bachelor of Arts and Bachelor of Architecture degrees from Rice University.



Jorge Huerta Deputy Program Director

Jorge Huerta has over 18 years of experience as a Project Manager in both public and private sector. Jorge has collaborated in a multitude of projects facilitating contract management and program administration services while establishing budgets, schedules, procedures and policies for a multi-project building program. Jorge has provided predesign and preconstruction services for projects that require early program consultation, contract procurement, designer selection guidance, relocation management, program budgets, infrastructure management, post-occupancy functional review and more.



Learning Objectives

Construction Methods: intensive planning and coordination effort that took place in order to keep this school on track to completion.

Building Design: Unique building features and the challenges associated with turning design concepts to reality.

Site Design: Working with limited land in a high-traffic, downtown area.

Acoustics: Design and construction of specialty state-of-the-art acoustic environments for performing and visual arts.





MISSION IMPOSSIBLE?

We're familiar with the challenges of building a new high school.

Well, try building one in Downtown Houston on a land-locked site with a rail line on each side, underground parking, and cooling and heating provided by a third party among other things.

It seemed impossible – no one ever anticipated it would be this successful with an early finish and under 5 warranty items.

The team will discuss challenges and how they were overcome. It's a performance worth seeing.

HSPVA's Legacy

HSPVA was born in 1971, it's first home was 3517 Austin St. in Midtown Houston.

In 1982, the school moved to 4001 Stanford Street in the Montrose neighborhood of Houston.

In January of 2019, HSPVA moved to it's new home in the heart of downtown Houston at 790 Austin St.

The new, state-of-the-art Kinder HSPVA comes in at 168,000 square feet and takes up an entire 1.32-acre block downtown.

<u><u></u></u>	1300 CAPITOL AVENUE
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CARO	Apx. 250'
	Apx. 250'
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	NEW SITE For HSPVA

790 Austin Street's Legacy

HISD purchased the current site at 790 Austin St. back in the 1850s

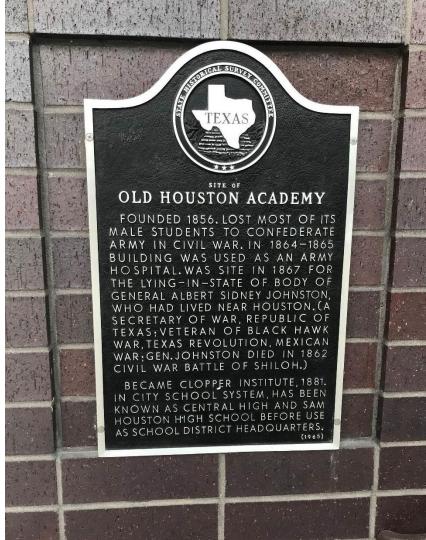
Founded in 1856, the then "Houston Academy" served as a coeducational and nondenominational school. It was a two-story brick building that accommodated 400 students.

Sam Houston gave a speech at the school in December 1860 when it had 160 pupils.

During the Civil War, the academy was closed and converted into a military hospital.

The school was remodeled and renamed the Clopper Institute in 1881.

Since 1894, it has served as two public high schools – Central High School and Sam Houston High School.





790 Austin Street's Legacy

In 1894, ground was broken on Central High School – described as one of the finest high schools in this part of the country.

After burning down in 1919, the school was rebuilt and renamed Sam Houston High School.

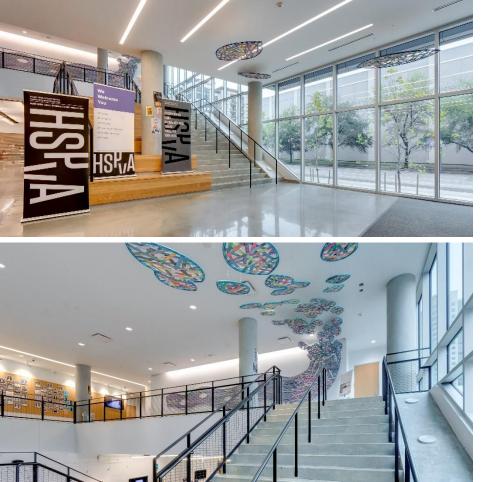
Lyndon Johnson taught public speaking there in 1930.

By the 1950's, Sam Houston High School was relocated and 790 Austin St. became HISD headquarters.

By the early 1970's, the school district moved out and the old school building was demolished.

It served as a parking lot until 2014 when ground was broken for the new High School for the Performing and Visual Arts, returning the site to its former glory.





A Living Canvas

5 stories comprising 168,000 SF of space dedicated to serving 750 students specializing in the arts disciplines

Dramatic front entry with double-high glass windows and wide stairwell

800-seat main theatre with a balcony, catwalk, and fly loft

150-seat recital hall

200-seat secondary theatre

190-seat black box theatre

Modern outdoor areas with sweeping downtown views

Two levels of underground parking

Metrorail lines on either side of the building



Visual and Performing Arts

Accommodates 750 students with room to grow

Specialized arts disciplines

Instrumental Music Vocal Music

Dance Writing Visual Arts

Theatre

Full, rigorous course of academic offerings to compliment the exceptional fine arts curriculum

Neighborhoods Within a Community

One of this project's chief goals was to the retain the school's connected culture.

This challenge was addressed through creative design – the academic and specialty spaces are interspersed throughout. Located near wings of traditional classrooms, each artistic specialty now has a designated "neighborhood" that is customfitted accordingly.

All departments also share several two-level common areas as well as access on all five levels to the main theater which serves as the core of the community.



Navy Recruiting

Houston MEPS

A Tribute Portfolio

Treebeards

Spiritualit

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FDC Houston

790 Austin Street

SP+ Parking

Fathers 4 Equal Rights

Embedded in Downtown

Working with a city block posed a challenge in both the design and construction of HSPVA.

The site is bordered by Austin St, Capitol St, Caroline, and Rusk St. All streets are one way and circle the building in a counter-clockwise fashion – presenting a challenge when choosing an entrance to the building as well as how pickup/drop-off might work.

Presenting an additional challenge, Capitol St. and Rusk St. have METRORail lines running along them.



Downtown Infrastructure with a Landlocked Site

Metrorail on 2 Sides (Capitol and Rusk Ave)

Access to Site

Vehicular and Pedestrian Traffic – 2 Lane Closures for Duration of Project (Austin & Caroline)

Parking for Employees and Contractors

Equipment and Material Deliveries – Utilized Just-In-Time

Material Staging and Laydown Areas

Metro Power Distribution

Public Works

Gas Lines, Fiber Optic Lines

GPR Imaging

Outsourced Heating & Cooling

Another challenge presented by HSPVA was providing heating and cooling to the building.

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Fortunately, Enwave Houston (the company that provides chilled water to air condition 24 buildings including Minute Maid Park) happened to be located directly across the street, so we didn't have to look very far.





The Construction

Excavation

About 30° Below Grade to Bottom of Footings

Shoring up the Sides with Structural Whalers and Kickers Inside the Excavation

 H-piles with timer shoring, and drilled tie-backs with grout fill and post tensioning

5 Story Fully Grouted CMU Wall

- Locks sound inside performing space, keep unwanted noise out
- Challenges for in-wall rough-in

Enhanced Building Systems Coordination

 Complex theatrical systems with lighting and audio visual

Shared Cooling & Power with Downtown Grid







Super Bowl LI

Significant Increase in Pedestrian Activity

200K people descended on downtown Houston

Street Closures

 Downtown district required that lane closures be turned into temp sidewalks for the week of Super Bowl

Deliveries Impacted

Schedule Impacted

Enhanced Safety and Security Around Site

Hurricane Harvey Hits Houston

On August 25, 2017 - right in the midst of HSPVA's construction -Hurricane Harvey hits Houston as a Category 4.

This natural disaster resulted in approximately 336,000 people being left without electricity and tens of thousands in need of rescue.

Hurricane Harvey

Access to Site Impacted

- Streets under water
- Jobsite was completely shut down for a full week, except for emergency water pumping crew

Loss of Power

 Basement sump pumps failed when power went out, basement took on about 8" of water before gas was powered back up

Storm Damage

- Building was not dried in when the storm hit
- Most significant damage/cost was to the roof was about 80% complete and temp terminations failed, causing most of the roof insulation to get saturated with rain water.

Labor shortages

- Largest labor impact was to the drywall/framing trade
- Demand for residential repair drove labor prices up















Communal dining and gathering areas flow together to create a collaborative feel

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An onsite full gym is available for students use

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PROMAXIMA





Communal areas are peppered throughout the building

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Come see. Felal

nothing but!



Integration of levels maintains culture and energy of previous HSPVA

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Visual Arts

Serves about 150 students

Course offerings include: Advertising Design Animation Art Awareness Art Criticism/Critical Thinking Art History Ceramics Conceptual Concerns Drawing Foundations of Design General Sculpture

Metal Sculpture Mixed Media New Experiences Painting Photography Photoshop Printmaking Video Woodshop







Studio spaces are outfitted with cutting edge machinery

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Dance

Serves about 100 students

Course offerings include: Ballet Modern Dance Jazz Musical Theatre Tap Dance Dance Photography Dance Survey Dance History Repertory Composition

Partitions and retractable seating make the most of space

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Windows overlooking dance studios allow other students or visitors to look in on practices

Acoustic Challenges

With so many different activities taking place in terms of sound and acoustics, a major design and construction challenge was ensuring that each artistic department didn't cause a disturbance to their neighbors.

This was tackled by cleverly customizing each space to it's specific role. For example, the sprung flooring in each dance studio responds independently so that movement doesn't affect adjacent spaces.

Sophisticated costume areas for dance and theatre performances

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Instrumental & Vocal Music

Serves about 330 students

Course offerings include:

Classical Voice Orchestral Music Concert Band Music Jazz Mariachi Popular Music Music Theory Composition Improvisation

Music History Form and Analysis Vocal Production Sight-Singing Ear Training Instrumental Technique Chamber Music Handbells Class Piano











The campus features 16 state-of-the-art soundproof practice rooms





Creative Writing

Serves about 100 students

Course offerings include: Short Story Writing Poetry Dramatic Writing Acting Digital Storytelling Publishing Editing Creative writing communal areas for reading & sharing work

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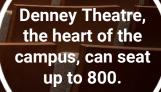
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Theatre

Serves about 135 students

Course offerings include: Acting Voice and Movement Design Theatre History Musical Theatre Dramaturgy Play-Writing Directing Stage Management



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Denney Theatre features an impressive catwalk





SPECIAL THANKS

It took an excellent team to make HSPVA such a great

success

Derrick Sanders Officer of Construction Services Andreas Peeples General Manager of Construction Services Daniel Bankhead General Manager of Facilities Design Meredith Smith Senior Manager of Construction Services Lemont Williams **Construction Services Representative** Christine Manrique Document Control Administrator Tonya Savoie Senior Manager of Quality Assurance James Moore Senior Manager of Capital Project Accounting Deepali Kansal Team Lead of Capital Project Accounting

HISD

Rice & Gardner Consultants

James Rice President, Project Director Jorge Huerta Project Assistant Director Humberto Bautista Senior Project Manager Amanda Andrus Project Controls

Professional Contracted Vendors

Construction Manager at Risk - McCarthy Buildings Companies, Inc. Architect - M. Arthur Gensler Jr. and Associates, Inc. Associate Architect - Harrison Kornburg Architects Civil Engineer - Ward, Getz & Associates, Inc. Structural Engineer - En Sight MEP Engineer - Shah Smith and Associates Acoustical and AV Consultant - Jaffe Holden Theater Consultant - Wrightson, Johnson, Haddon & Williams, Inc. Landscape Architect - Asakura Robinson Company Foodservice Consulting - Worrell Design Group Surveying Consultant - Kuo & Associates Geotechnical Consultants - Geotest Engineering, Inc. Geotechnical Consultants - Terracon Consultants, Inc. Environmental Site Assessment Consultant - Raba Kistner Commissioning Consultant - Page Southerland Page, Inc. Traffic Engineering Consultant - Gunda Corporation Materials Testing Consultant - Ninyo & Moore, Geotechnical and **Environmental Consultants**

Roofing Inspector and Consultant - Raba Kistner Environmental HVAC Testing and Air Balancing Consultant - Online-Air Balancing Co. Technology Supply and Consultant - Netsync Network Solutions, Inc. Technology Supply and Consultant - MCA Communications, Inc.

