

SHAPING FUTURES

Cerritos Community College Performing Arts Center



Tilden-Coil
CONSTRUCTORSTM
Building with Integrity Since 1938

"Tilden-Coil's many years of dedication to Cerritos Community College District is well documented and I have witnessed firsthand what they are capable of accomplishing. Our Performing Arts Center is one example of a job well done."

- Anthony Parker, Director, Physical Plant and Construction Services

Shaping Futures at Cerritos College

The Cerritos Community College Department of Theatre Arts opens its 2021-2022 season with Sonnets for an Old Century, by Jose Rivera: a series of monologues that “capture the subtle, often overlooked treasures of everyday life.” The game changer for this season is the opening of the new Performing Arts Center (PAC), recently completed by Tilden-Coil Constructors. Tilden-Coil Constructors has been serving Cerritos Community College District since 2010 as its Program and Construction Manager and delivered several successful campus projects to date.

Performing Arts Center

This 84,000 square-foot, \$80 million campus development funded by Measure G Bond, houses both the Theatre and Film and Music Departments. The two-story structure features an 88-foot fly tower, 400-seat proscenium theater with trap level and orchestra pit, 150-seat black box theater, 100-seat lecture hall, multi-level lobby, instructional labs, band room, recording studio, practice rooms, faculty offices, tech lab (lighting and rigging) and outdoor amphitheater. Tilden-Coil completed the project in two phases in order to allow the instructional offices and studio portions to be occupied for the Fall semester, sixty-five days ahead of the planned occupancy date.

Performing Arts Center Quick Facts

Architects: Pfeiffer Partner Architects, Inc.
Delivery: CM Multi-Prime
Building Size: 84,000 sf
Completion: December 2021
Scope: Fly tower, 400-seat theater with trap level and orchestra pit, black box theater, lecture hall, lobby, labs, band room, recording studio, offices, and outdoor amphitheater

This impactful campus addition supports the College’s mission to enhance arts on campus and serves as a resource for the neighboring communities. Designed by Pfeiffer Partners Architects, Inc., (now part of Perkins Eastman Architects, D.P.C.), the structure is pending certification as LEED Silver.

The design features unique finishes:

- the theater includes Geode ceiling panels imported from Germany;
- zinc panels, large-formed metal roof panels, form the fly tower roof;
- a multi-tone Alucobond metal panel provides a varying exterior finish color based on the changing shades of light throughout the day.

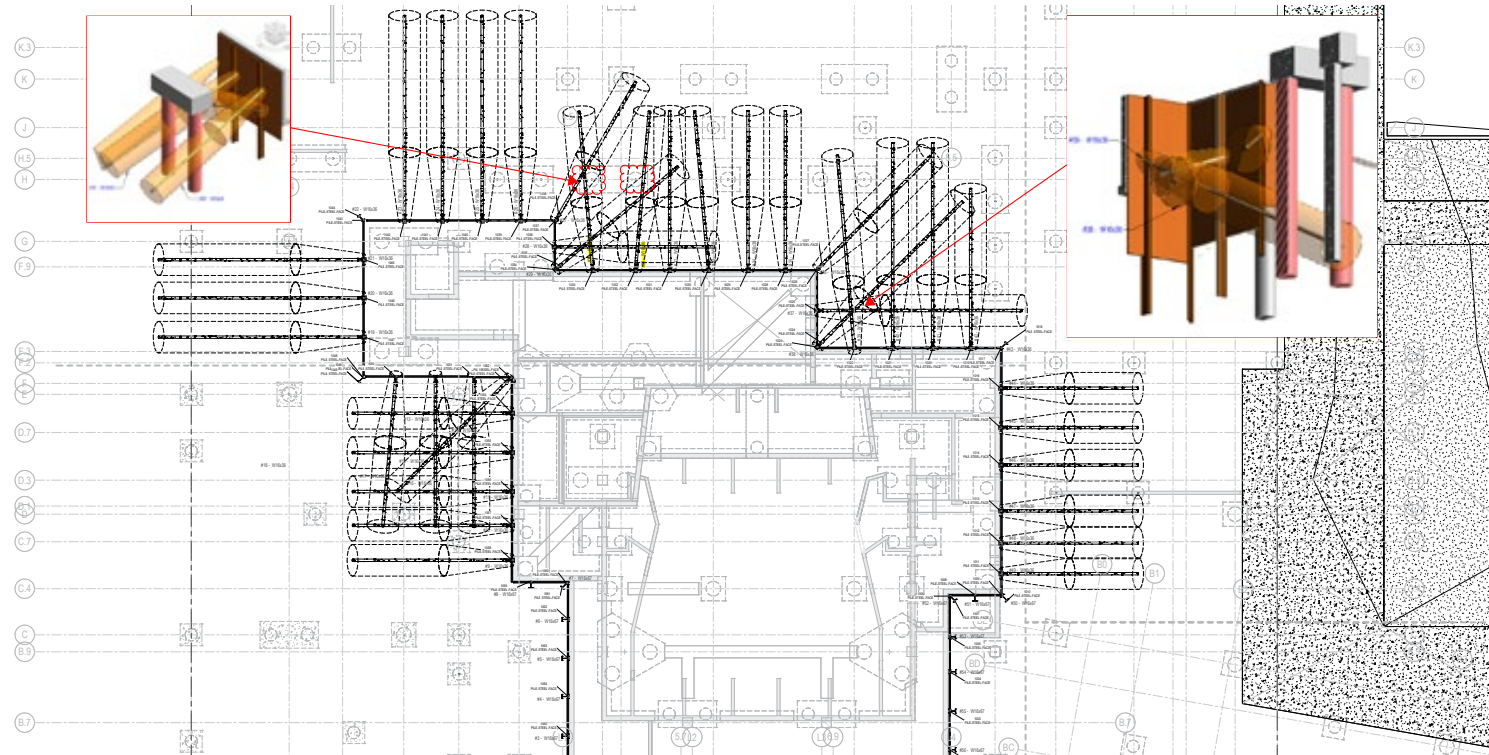
Savings achieved during preconstruction through value engineering solutions and vigilant construction cost management allowed the College to fund additional scope enhancements to the theatrical AV system, rigging system and custom balcony light fixtures. Tilden-Coil worked directly with the lighting manufacturer to design and mock-up a distinctive aerodynamic fixture for the balcony lighting.

During an early utility phase, the team located sixty years of existing underground utilities using ground penetrating radar and potholing. The aging infrastructure was removed, and new utility mains were installed around the building site in preparation for construction. Performing this phase early, in parallel with steel procurement, gained two weeks in the schedule. The team planned ahead, and it worked!

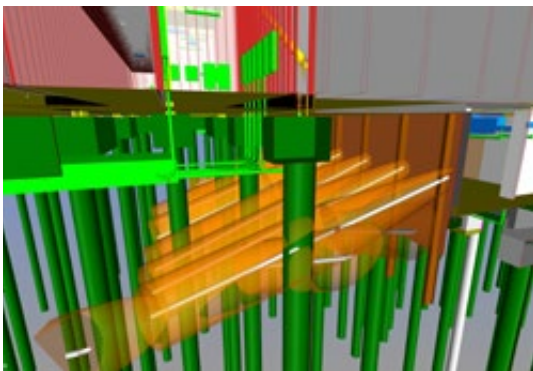
“Tilden-Coil Constructors is one of the best firms I have worked with over my career. I appreciate the team’s attention to detail and willingness to collaborate with consultants and trades to deliver on commitments and a successful project. I believe Tilden-Coil has the client’s best interest at heart which creates great results!”

- Phillip Templeton, Pfeiffer Partners Architects, Inc.

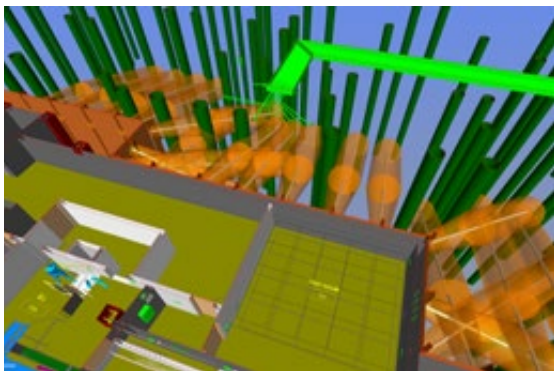




Shoring tie back shop drawing showing where adjustments need to be made to avoid clashes.



Close up of shoring wall tie backs clashing with building foundation piles



Plan view of underground utility models navigating through foundations and shoring tie backs

Building Information Modeling

Throughout preconstruction and construction, Tilden-Coil brought design-assist solutions. Utilizing their in-house BIM team, Tilden-Coil led weekly coordination meetings with the architect, engineers, and trade contractors to address design questions and solve coordination issues. This collaborative design approach brought valuable results to the structural steel design, fabrication and installation. In a supply-chain environment where steel prices were escalating quickly, the team advanced solutions for early procurement to avoid further escalation costs.

Highly detailed 3D models provided clarity to the team and enhanced coordination of the underground utility installation. Shoring was required to construct the many subterranean concrete walls of the theater. Installing that shoring, which included tiebacks, proved to be challenging. Tilden-Coil’s BIM team went the extra mile to incorporate shoring design, tiebacks, piles, and their zone of influence clearances, to ensure a viable path for underground utilities as they traversed the building footprint to the various electrical and mechanical rooms. As shown above, clash detection was used to adjust the location and boring angle of the tiebacks that would conflict with foundation piles and MEP underground utilities.

The foundation called for 217 piles, 85-90 feet deep and 30-36 inches in diameter. Tilden-Coil obtained a de-watering permit to investigate expected high levels of ground water shown in the soils report. The investigation provided data that yielded cost savings by eliminating the need for well systems and pumps and prevented schedule delays. Overall testing costs were reduced by utilizing advanced technology of test tubes within 10% of the piles to measure concrete density. Heavy winter rains during the drilling progress was yet another hurdle the team overcame. By utilizing up to three drill rigs at times, multiple shifts and completing 8-9 piles per day, the Tilden-Coil team recaptured 6 weeks in the schedule to complete the piles on time.

Employing pull planning to manage the schedule was key to overcoming potential construction delays and improving efficiency. Each critical trade foreman collaborated weekly to share their expertise in prioritizing and sequencing key activities, while holding each other accountable for durations and completion dates. The process allowed trades to identify opportunities to start and complete activities early, saving time on the critical path schedule.

Tilden-Coil Constructors is both proud and grateful to be serving Cerritos Community College to enhance student learning outcomes and shape student and community experiences in the arts. Enjoy the performance!

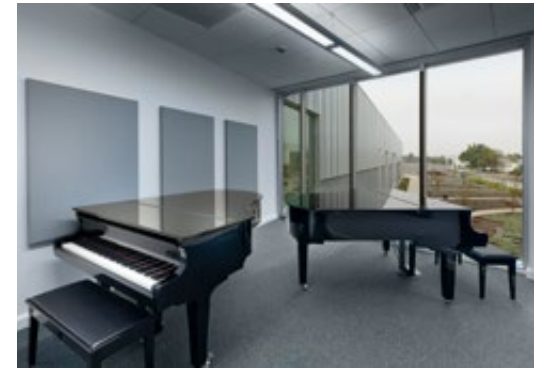




Partners

Great accomplishments require great partnerships! Tilden-Coil recognizes those exceptional prime contractors who played a major role in completing this project:

- A.J. Fistes Corp.
- Audio Visual Innovations, Inc.
- Best Contracting Services, Inc.
- Caston, Inc.
- Commercial Roofing Systems, Inc.
- Elljay Acoustics, Inc.
- Empyrean Plumbing, Inc.
- Floor Tech America, Inc.
- Geary Floors, Inc.
- Inland Building Construction Companies, Inc.
- Inland Pacific Tile, Inc.
- JPI Development Group, Inc.
- Johnson Controls Fire Protection LP
- K & Z Cabinet Co., Inc.
- Kretschmar & Smith, Inc.
- Liberty Climate Control, Inc.
- McGuire Contracting, Inc.
- Montgomery Hardware Co
- M-Tech Glass, Inc.
- PCC Network Solutions
- Pierre Landscape, Inc.
- RDM Electric Co, Inc.
- Sierra School Equipment Company
- So. California Grading, Inc.
- Suttles Plumbing & Mechanical Corp
- T & M Manufacturing, Inc.
- Top End Terrazzo
- Wenger Traffic Corporation



"It was great working with Tilden-Coil on Cerritos College's new performing arts facility. The Tilden-Coil team provided the guidance needed to explore the technical and creative options with project vendors and consultants. The team assisted our users in putting the finishing touches on the exceptional design by Pfeiffer Partners."

- Gary Pritchard, Dean, Fine Arts and Mass Communication





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