

COMPREHENSIVE HIGH SCHOOL #4

DESIGN DEVELOPMENT PRESENTATION. JANUARY 21, 2014







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COMPREHENSIVE HIGH SCHOOL #4 design development presentation

DESIGN COMMITTEE



COMMUNICATION

Sharing thoughts, questions, ideas and solutions

COLLABORATION

Working together to reach a goal – putting talent, expertise, and smarts to work

CREATIVITY

Trying new approaches to get things done equals innovation and invention

CRITICAL THINKING

Looking at problems in a new way linking learning across subjects and disciplines

COMPREHENSIVE HIGH SCHOOL #4 DESIGN DEVELOPMENT PRESENTATION

DESIGN CONCEPTS GOALS

'Academic House' Concept Open and Transparent Collaborative Spaces Large Windows into Learning Spaces Indoor/Outdoor Space with Flexible Walls Robust Wireless Access and Generous Technology Integration Architectural Connections Among Primary Building Components Mobile Furniture and Book Stacks Student/Teacher Conference Spaces Prominent Library/Lecture Hall Location with Public Access Strategic Incorporation of Natural Light Adaptable/Flexible Classroom Spaces Access control Large Classrooms Art Displays in Corridors Departmental Storage Rooms First-class Athletic Practice Facilities Multiple Points of Sale in Cafeteria to Accommodate Large Groups **Common Hallway Printers** Work Environment Functionality Work Partnerships - Spaces Accessible to Public Modular Meeting Areas - Maker/Creation Spaces Unique Furnishings Classroom Digital Signage for Teacher Messages **RFID** or Tapping Technology Secure Marketplace Incorporation **Timeless Design Durable Finishes**

SITE ORGANIZATION FEATURES

Student Parking Adjacent to Fine Arts and Athletics Separate Parent, Student, and Bus Traffic Prominent Main Entrance Limited and Secure Public Access Convenient Parking

FUTURE 9TH GRADE FEATURES

Direct Connection Between Comprehensive HS and 9th GC Shared Support Spaces: Library, Fine Arts, Kitchen, Athletics

COMMUNITY-USE FEATURES

Prominent Entrances Sound Control to Allow Multiple Activities At One Time Controlled Access Community-use Facilities

ADMINISTRATION FEATURE

General Administration and Counseling Areas Decentralized Vice Principal and Counseling

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GOALS / DESIGN FEATURES



SAFETY FEATURES

Lockdown and Weather-safe Indoor/Outdoor Camera Surveillance Secure Vestibule Card Access RFD Door Monitors

Strategic Stair Landing Placement

OUTDOOR LEARNING ENVIRONMENT FEATURES

Low-maintenance/Low Water Use Amphitheater As a Learning Tool and Performance Space Context-sensitive

TEACHER-BASED FEATURES

Maker/Creation Spaces Throughout School Teacher Commons in Each Academic House

LIBRARY FEATURES

After-hours Access for Testing and Virtual Coursework Access to Information - Print and Electronic Ample Charging Stations Restrooms and External Access Ample E-Book Access General Access Space for Computers and Virtual instruction Extend Library Borders

AFTER-HOURS ACCESS FEATURES

Lecture Hall, Athletics, Library, Fine Arts, Art Galleries, Food Service

OUT-OF-DISTRICT/CATE FEATURES

Partnerships for Shared Space/Instruction with Universities Publicize Student Performance and Achievement Business Partnerships to Create Jobs for Graduating Students (Fed Ex, Cosmetology, Trades, Coffee Bar)

CONTEXT-SENSITIVE FEATURES

Fits In With Neighborhood/Community Cost effective Forward-thinking Curriculum and Architectural Aesthetic Cutting-edge, Yet Equitable

STUDENT OWNERSHIP FEATURES

Banners, Student Display, Student-centric Collaboration Student Store

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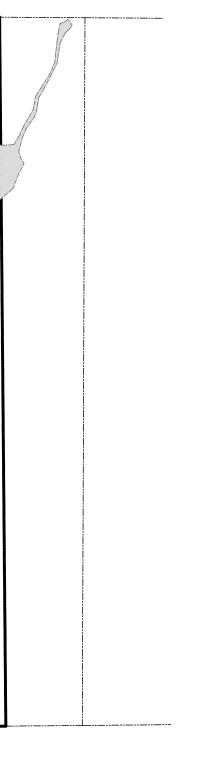
GOALS / DESIGN FEATURES

- **01** Rainwater Collection System
- 02 Condensate Water Collection System
- **03** Bioswales
- 04 Ground Source Heat Pump HVAC (Geothermal)
- 05 Ground Source Heat Pump Water Heating
- **06** Infrastructure for Future Solar Photovoltaics
- 07 Building Orientation and Fenestration
- 08 Additional Wall/Roof Insulation
- **09** Continuous Insulation on All Walls
- 10 Cool Roofs
- 11 Double-pane Insulated Glazing with Low-E Coating
- **12** Daylighting in Classroom Spaces
- **13** High-efficiency Lighting LED Fixtures
- 14 Regional Materials: Brick (Denton Acme Plant), CMU, Steel, Gypsum
- 15 Recycled Materials: Steel, Concrete, Ceiling Tile
- 16 Low VOC Materials: Paint, Sealant, Carpet
- 17 Indoor Air Quality
- 18 Construction Indoor Air Quality
- **19** Low-flow Plumbing Fixtures
- 20 Native Plants and Drought-tolerant Landscaping
- **21** Recycle Construction Material to Reduce Waste
- 22 Campus Recycling Program
- 23 Food Service: Equipment Implementing Condensate and/or Steam Reclamation 49 Tighter Thermal Design to Increase Occupant Comfort
- 24 Food Service: On-demand Defrost for Remote Refrigeration Systems
- 25 Food Service: Faster Cooking Equipment
- **26** Durable, Low-maintenance Finishes: Polished Concrete

- 27 Low-emitting, Fuel-efficient Vehicle Preferred Parking
- **28** Commuter Bicycle Storage and Changing Rooms
- 29 Rain Garden
- **30** Joint-use Facility
- **31** Light Pollution Reduction
- 32 School As A Teaching Tool
- 33 Energy Efficiency Optimization
- 34 Refrigerant Management
- **35** Lighting Occupancy Sensors
- 36 Variable Speed Exhaust for Kitchen Hoods
- **37** Carbon Dioxide Sensors for Demand Controlled Ventilation
- 38 EMS Control of All Exterior Lighting
- **39** EMS Control of Re-circulation Pumps on Domestic HW Systems
- **40** Contactors for EWCs to Shut Off After Hours
- **41** Vending Machine Energy Savers
- **42** Energy Star Appliances
- **43** Mold Prevention Materials
- 44 Water Well for Irrigation
- 45 Low-impact Storm Water Design
- 46 LEED Professional on Project Team
- 47 Heat Island Effect White Concrete
- 48 Investigate Green Power Availability
- 50 Construction Activity Pollution Prevention
- **51** Refined Acoustics in Learning Spaces
- 52 Environmental Tobacco Smoke Control

FEATURES SUSTAINABLE





PROPERTY PLAN



SITE PLAN





LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation FLOOR PLAN - LEVEL 01



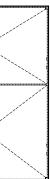




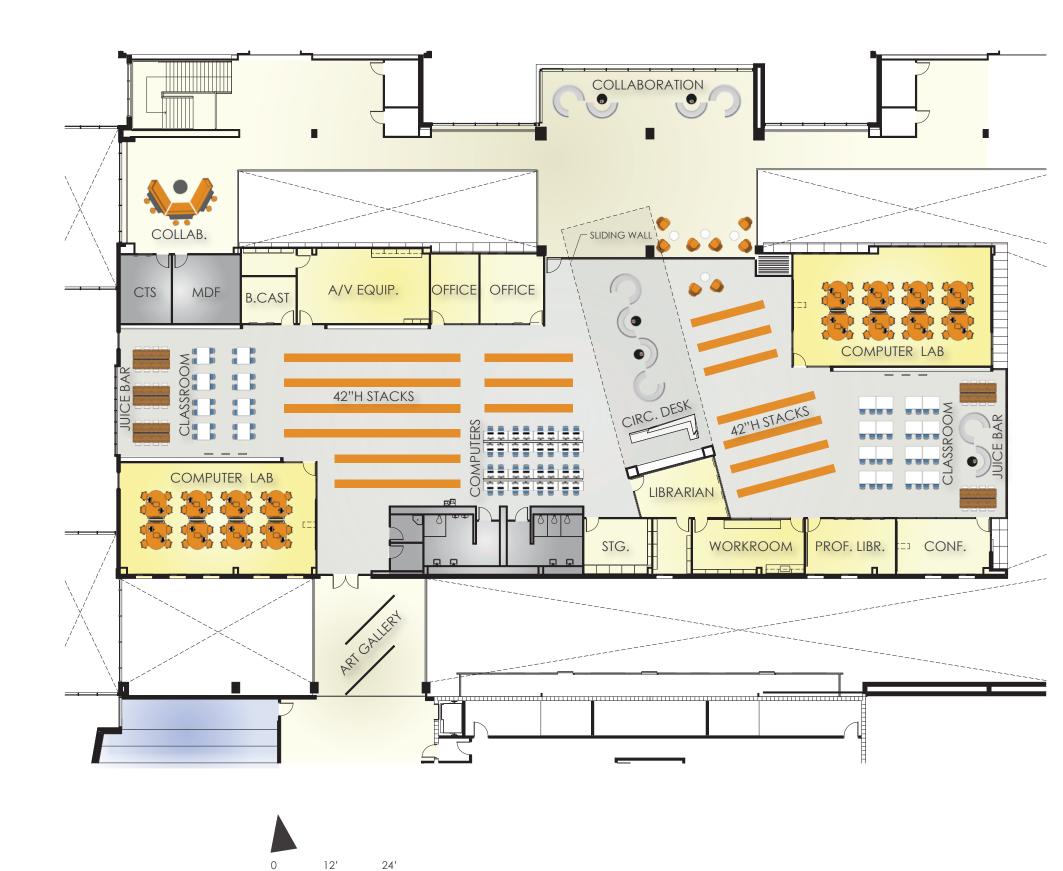
LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation

FLOOR PLAN - LEVEL 02



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LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation

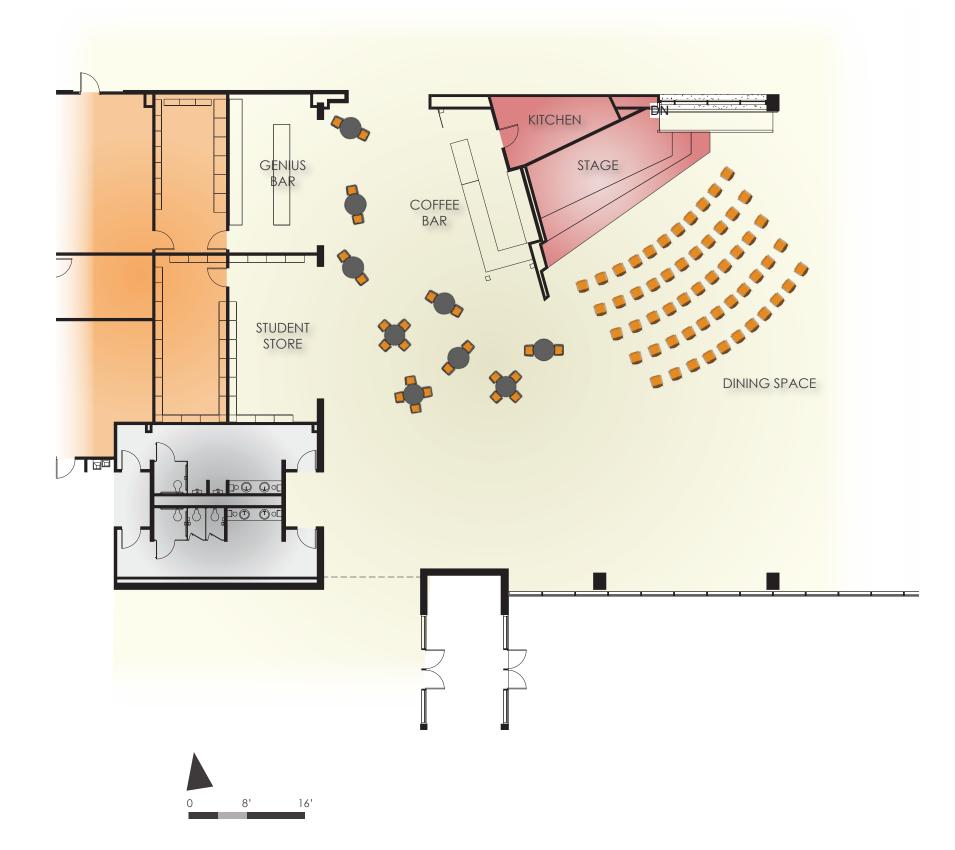
LIBRARY PLAN ENLARGED





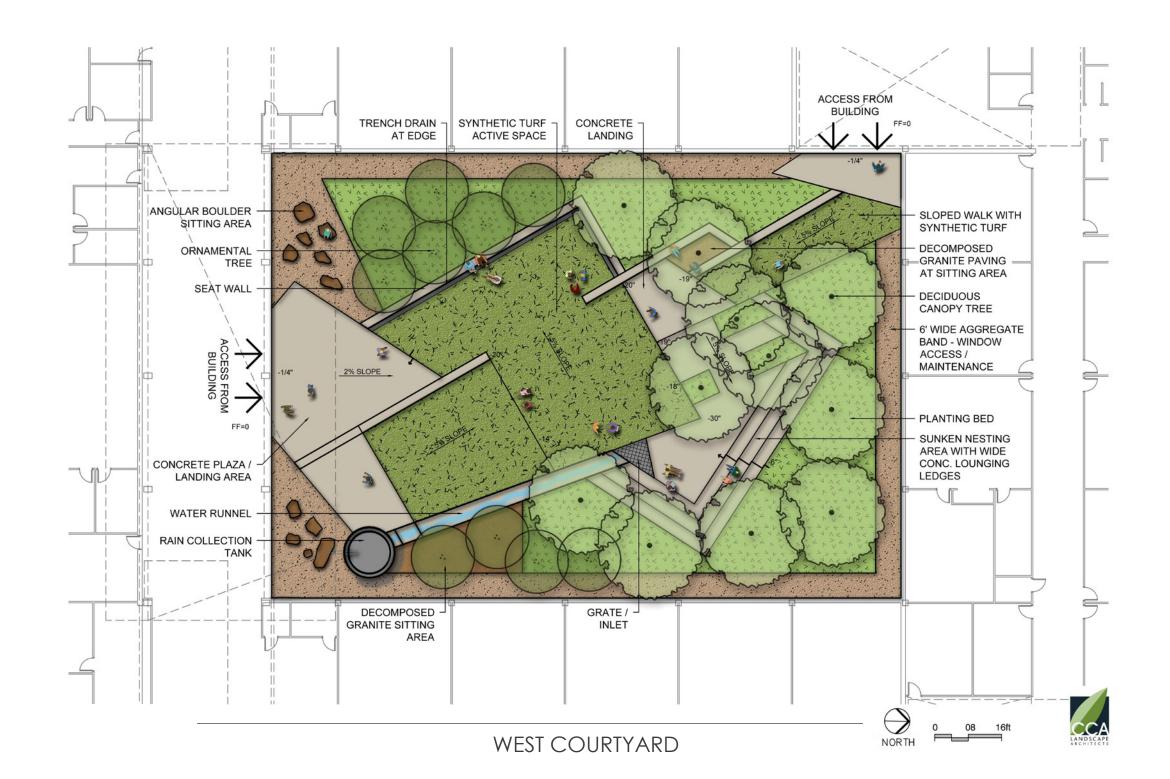
LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation COLLABORATION PLAN ENLARGED



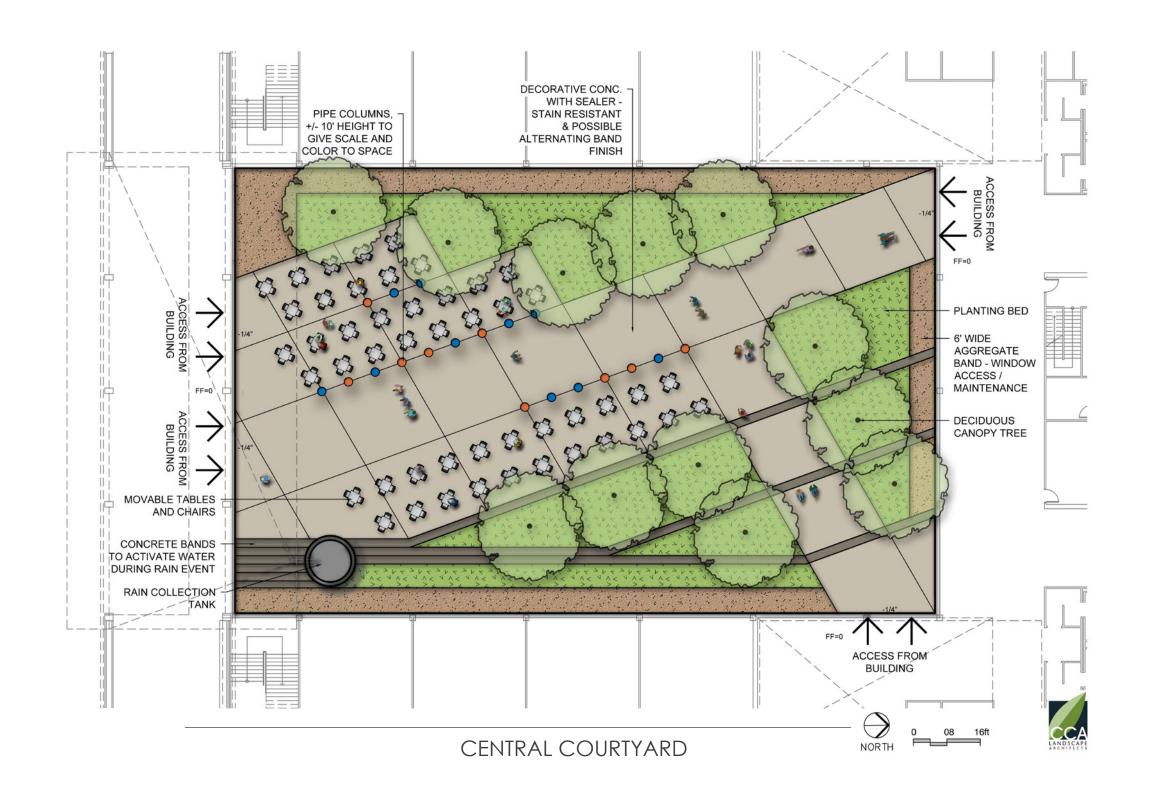
LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation BAR **COFFEE/GENIUS** PLAN ENLARGED







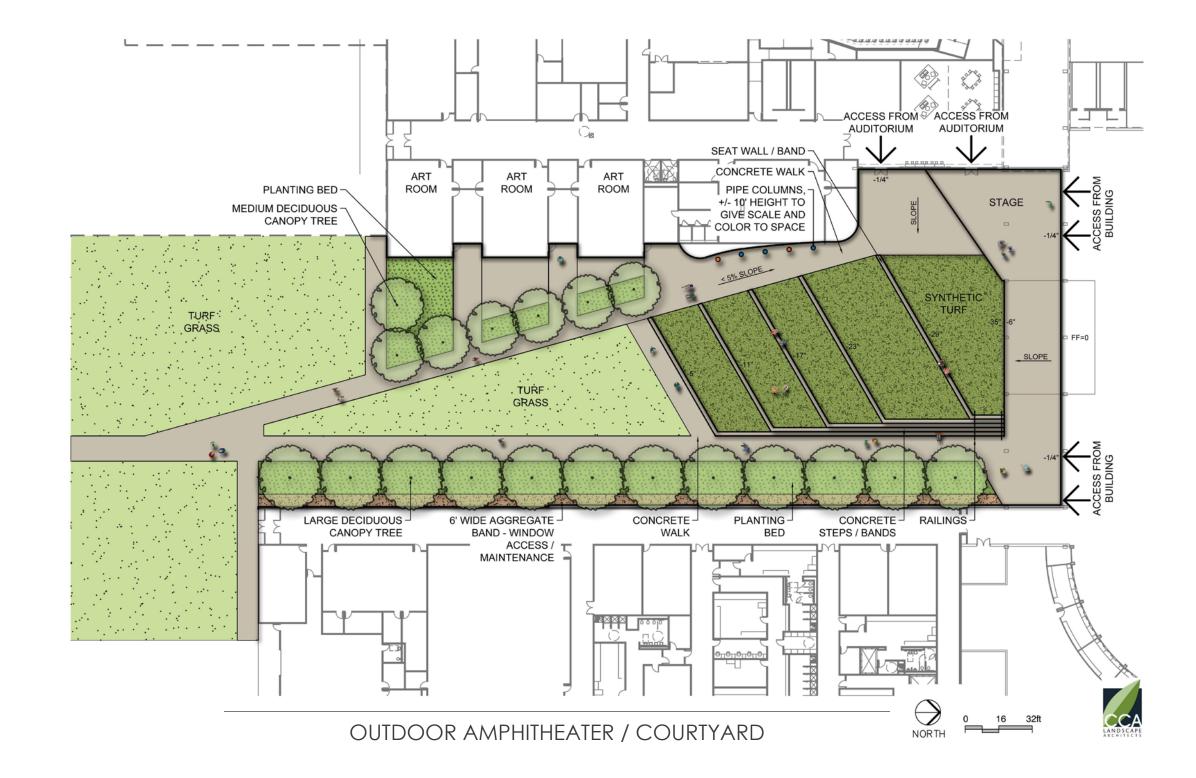












COURTYARDS





AERIAL PERSPECTIVE





MAIN ENTRANCE





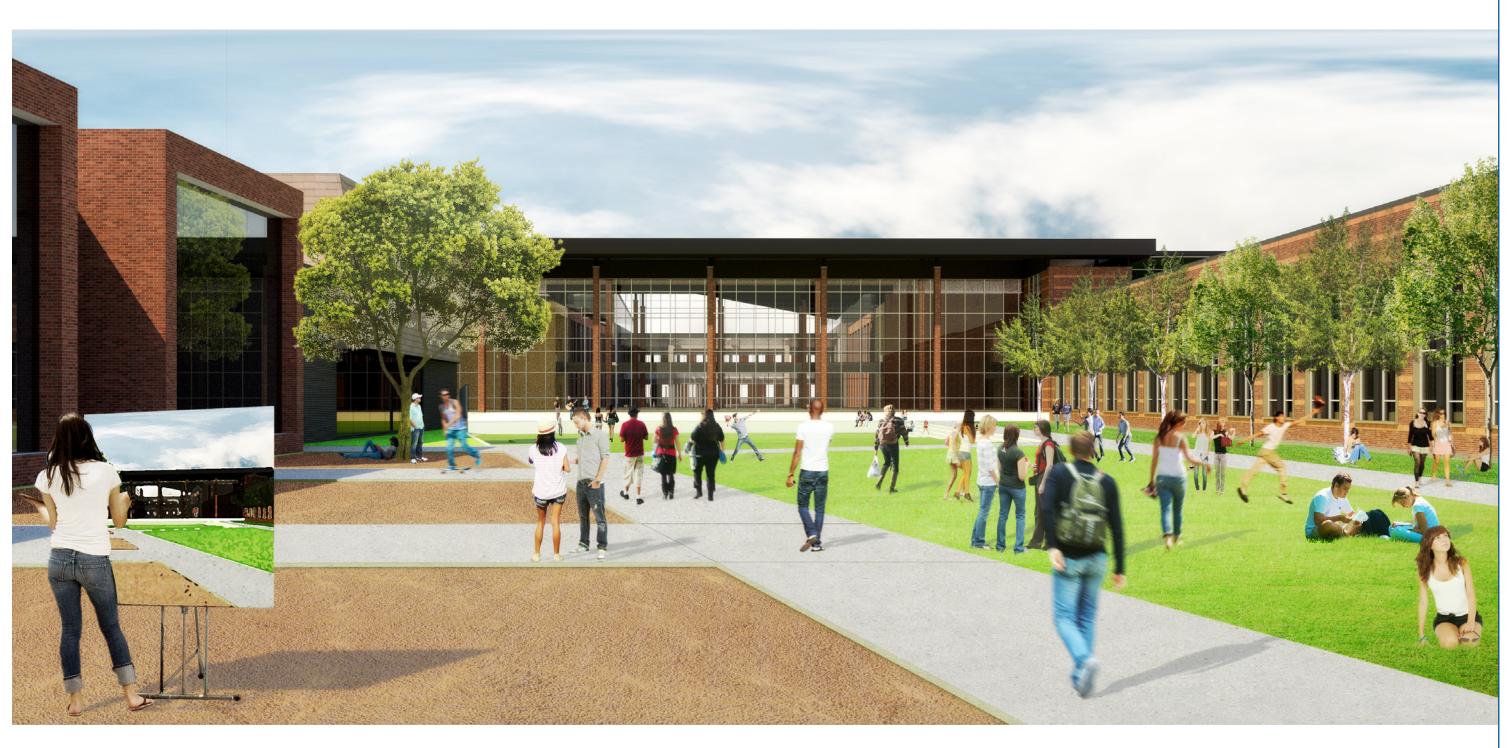
WEST COURTYARD





ACADEMIC HOUSES





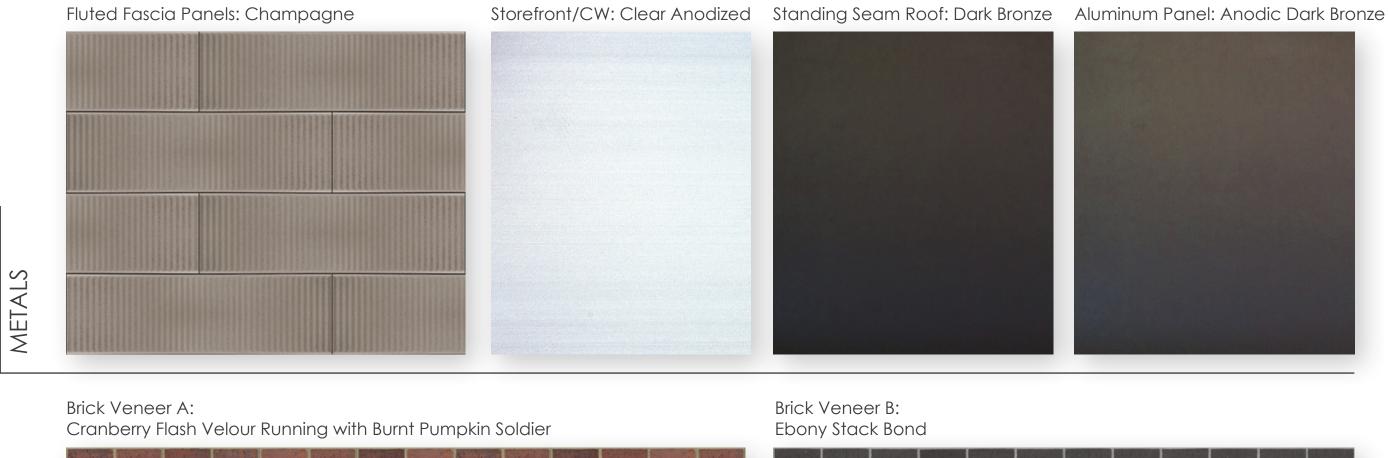
OUTDOOR AMPHITHEATER



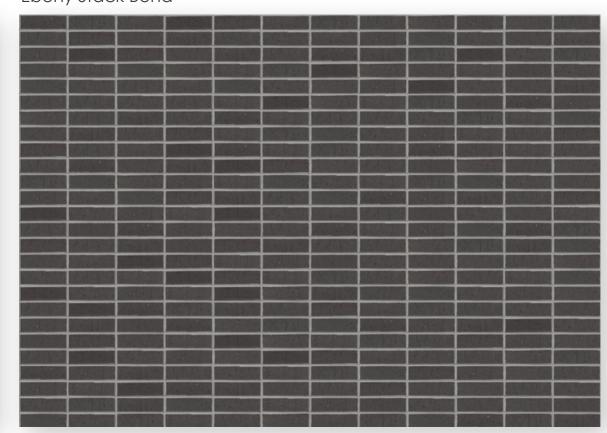








MASONRY



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EXTERIOR FINISHES



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