

2014 Exhibition of School Planning and Architecture

Manhattan High School West Campus Renovation & Expansion

Manhattan-Ogden USD 383

Manhattan, KS

Manhattan High School

West Campus Renovation & Expansion



Manhattan High School

West Campus Renovation & Expansion



Community Icon

Community Environment:

Located on a high point in Manhattan, at the visual terminus of the town's main street, MHS (division 6A) is the only high school serving the community. It suffered from nine disparate additions over its 50-year history. It lacked internal community, and lacked the luster deserving of the Manhattan community.



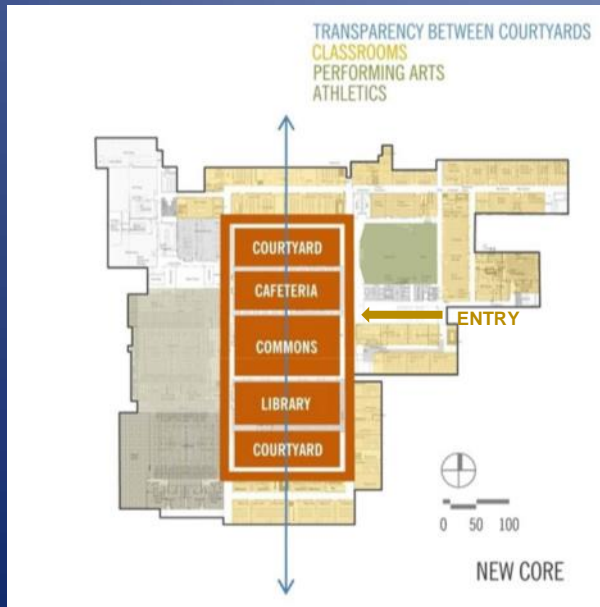
The rain screen weaves together old & new to create a cohesive campus.



New Community Core

Community Environment: *(Continued)*

Public functions were relocated to a central core (see 'process' & diagram below), with abundant transparency and reclaimed lumber on public program spaces to invigorate the "HEART OF THE SCHOOL".



Main Entry Atrium



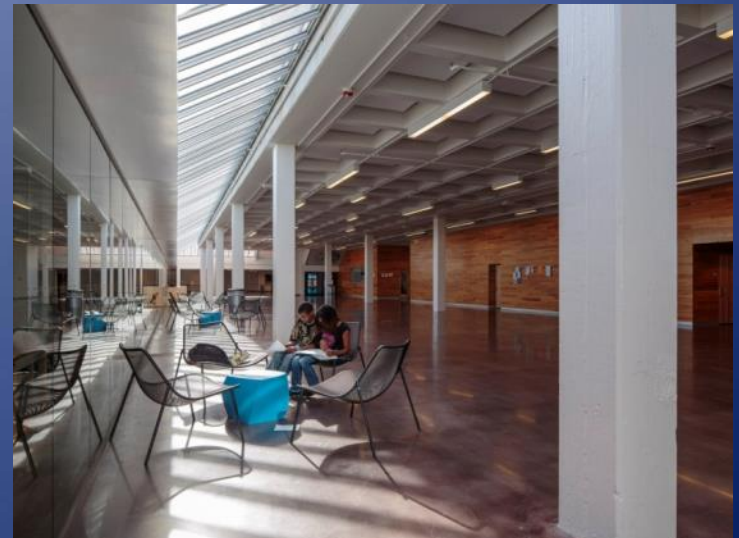
Student Commons

Learning Community

Learning Environment:

Creating a strong "Learning Community" was pivotal in the design brief. Strategies include centralization of common programs, transparency to showcase learning, and creation of ample breakout spaces which support blended learning, unstructured social learning, and self-directed learning.

Curricular disciplines are clustered to support the strong faculty communities that already existed. Yet, the "porous" connectivity between departments also supports cross-disciplinary opportunities when desired.



Restorative Spaces

Learning Environment: *(Continued)*

Great effort was placed on enhancing the qualitative features of the learning environment – making pleasant spaces that students WANT to be in! Natural daylight, views, and strong indoor/outdoor connections are proven contributors to attention restoration.



existing renovated classroom wing and courtyard



Every Space Multi-Functional

Physical Environment :

Repurposing existing corridors from rudimentary circulation to multi-functional learning spaces, the school benefits from significantly more learning space and learning variety. The Entry Atrium is a favored rehearsal space for Choral classes as well as student hang-out and meet-up space.



Flow & Interconnectivity

Physical Environment: *(Continued)*

By opening up the core areas of the existing campus, interconnectivity is enhanced among people, departments, and space – flow is significantly improved in this densely populated high school.



Before
(dining commons converted from classroom wing)

Mapping & Photo Surveys

Planning Process:

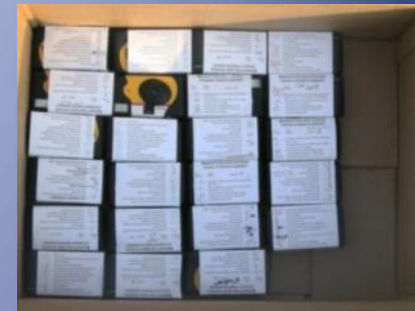
To understand how students and faculty perceived their school and used the existing campus, the design team involved them in a mapping exercise (“a day in the life”) and a photo survey. The results were aggregated and analyzed to understand predominant values and flow patterns.

Survey outcomes revealed some discrepancies in what the users were describing to the design team, versus their actual behaviors.

The research outcomes inspired a design solution that consolidated the disparate public functions and reinforced a central sense of community while preserving the existing courtyards (previously proposed for infill).



mapping diary: **student paths**



cameras with survey questions attached, ready for distribution

example outcome-photo survey

When asked: **“favorite place on campus”,**
“something you notice that others don’t”, &
“something you would show a new student”...



Pilot Classrooms

Planning Process: *(Continued)*

Having an existing school to work with and a CM on board from the outset, the team designed several pilot classrooms, testing furniture options, architectural design strategies, and lighting + AV systems. Instruction offered teachers insights on 21st century pedagogies. Feedback from the pilot spaces was integrated into the final classroom designs.

Working up to the pilot program, the design team assembled a “mini-furniture showroom” in their office and invited stakeholders to “kick the tires” and get involved in the final selection of furnishings.

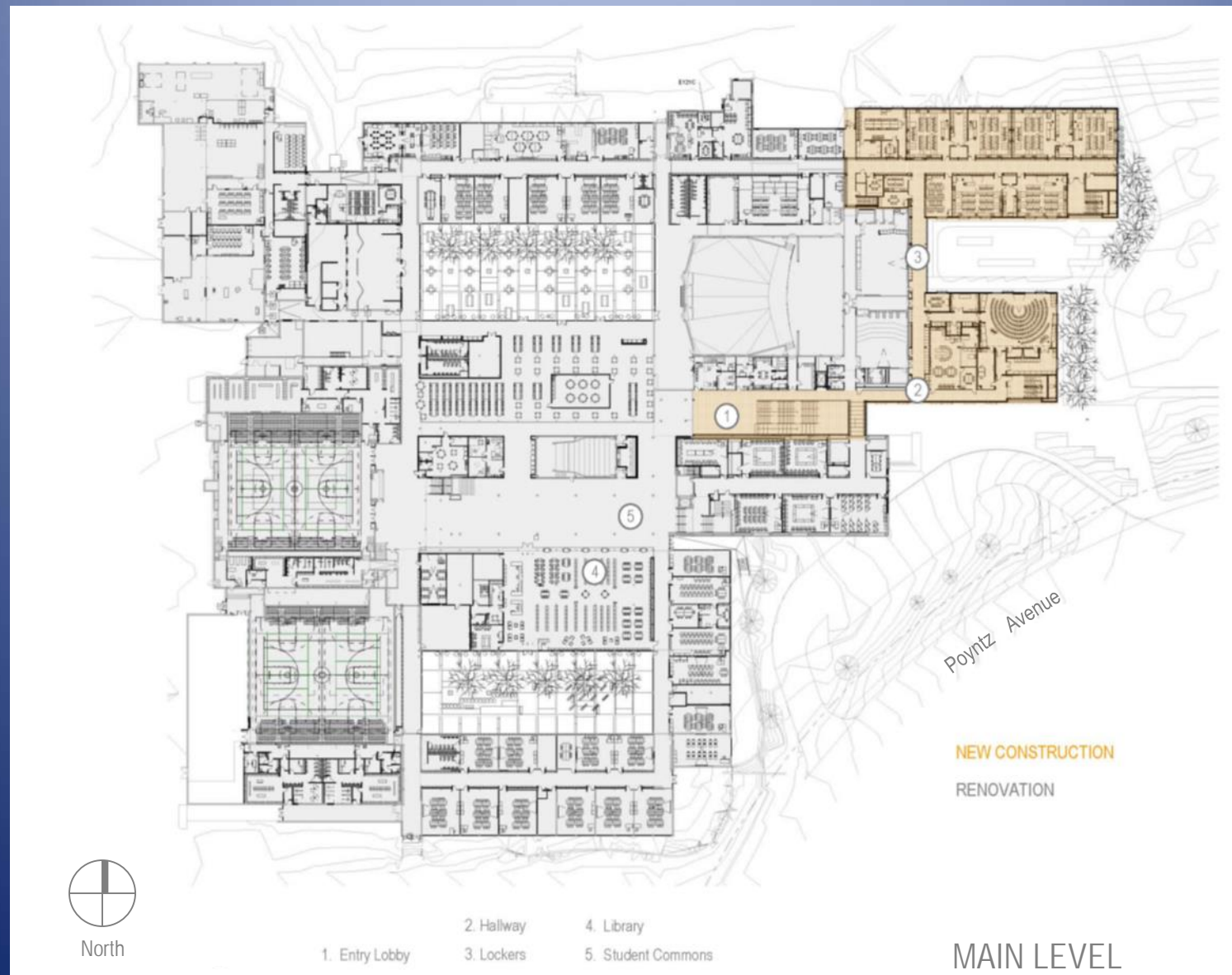
Ownership of the design process among the end-users was a resounding success.



board members get involved in the pilot classrooms



Floor Plan



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Project Data

Submitting Firm :	Gould Evans
Project Role	Architect
Project Contact	David Reid
Title	Principal
Address	4041 Mill Street
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Phone	816.701.5335

Joint Partner Firm:	N/A
Project Role	
Project Contact	
Title	
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Other Firm:	N/A
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

Construction Firm:	
Project Role	Adolfson & Peterson Construction
Project Contact	Doug Johnson
Title	Vice President
Address	797 Ventura Street
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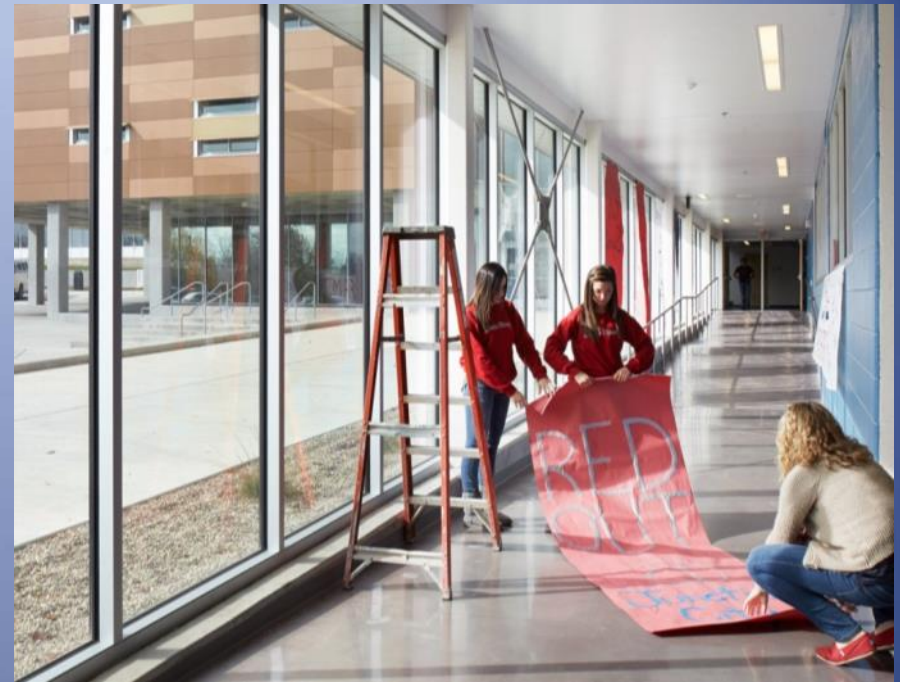
Project Details

Project Name	Manhattan High School West Campus Expansion & Renovation
City	Manhattan
State	Kansas
District Name	Manhattan-Ogden USD 383
Supt/President	Dr. Bob Shannon / Mr. Greg Hoyt
Occupancy Date	August 2012
Grades Housed	Grades 9-12
Capacity(Students)	1650 students
Site Size (acres)	25.77 acres
Gross Area (sq. ft.)	80,000 SF (addition) / 245,000 SF (renovation)
Per Occupant(pupil)	197 SF/Student
gross/net please indicate	68% Efficiency
Design and Build?	Construction Management at Risk
If yes, Total Cost:	\$37,150,700
Includes:	Building, Site, Fixed Equipment, and off-site Stadium Renovations
If no,	
Site Development:	
Building Construction:	
Fixed Equipment:	
Other:	
Total:	\$37,150,700

Supporting/Supplemental Files/Images

Sense of Identity & Autonomy:

The transformed environment of this large public high school offers a unique, fresh, and timeless identity for the students. Within the 325,000 SF campus, students can still find places of quiet retreat, places for smaller gatherings with friends, and a sense of autonomy.



Supporting/Supplemental Files/Images

Strategic Use of Site:

With an extremely limited site, hemmed in by a cemetery and a zoo, the campus had to make the most of what precious site it had to work with – not only via outdoor programmatic applications, but also maximizing views from inside.

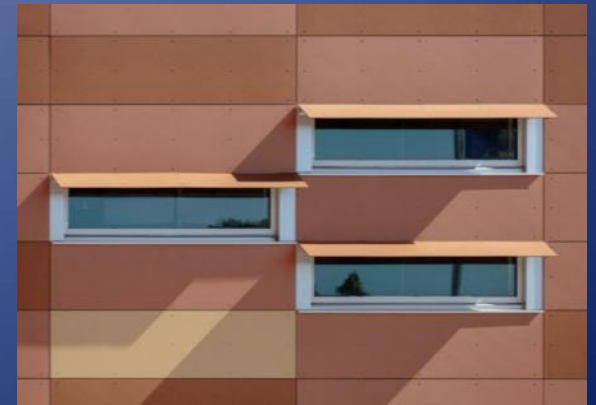
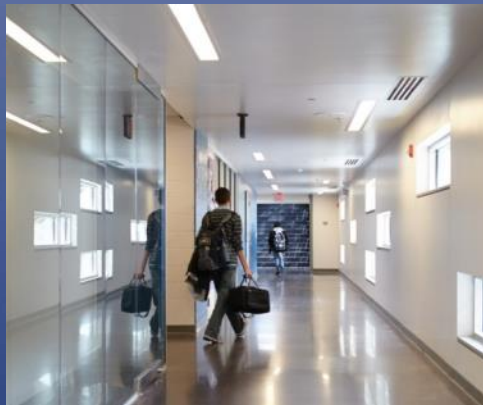


Supporting/Supplemental Files/Images

Minimization of Energy Loads:

The design of the window system is driven by the optimization of window:wall ratios from one exposure to another in order to minimize energy loads. Energy modeling was used early during the process to analyze internal and external loads over a typical 12-month cycle. Results were graphed and resulting recommended ratios were identified for each exposure.

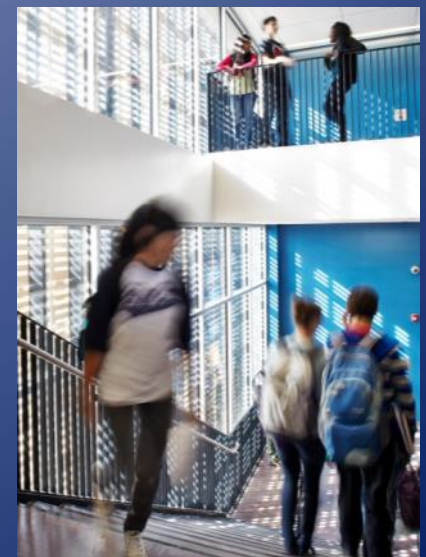
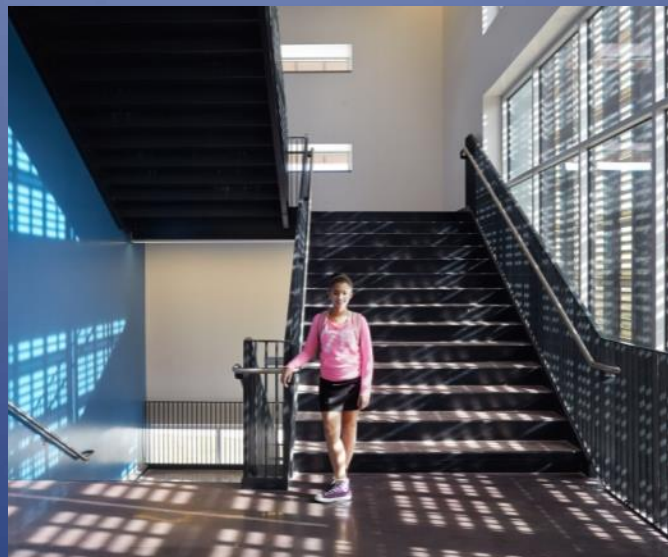
The modular window design allowed each interior space to place windows where they best supported interior functionality while aligning with the recommendations of the energy model for solar exposure.



Supporting/Supplemental Files/Images

Minimization of Energy Loads:

The input from the energy model was used to inform design alternatives for other areas of the façade as well. The stairs benefit from all natural day-lighting while avoiding excessive heat gain.



Supporting/Supplemental Files/Images

A Cohesive Community:

A transparent building base, clarified building flow, and gracious public site amenities contribute to strong student gathering opportunities and sense of community.

