

2015 Exhibition of School Planning and Architecture

Ramstad Middle School

Category: New Construction

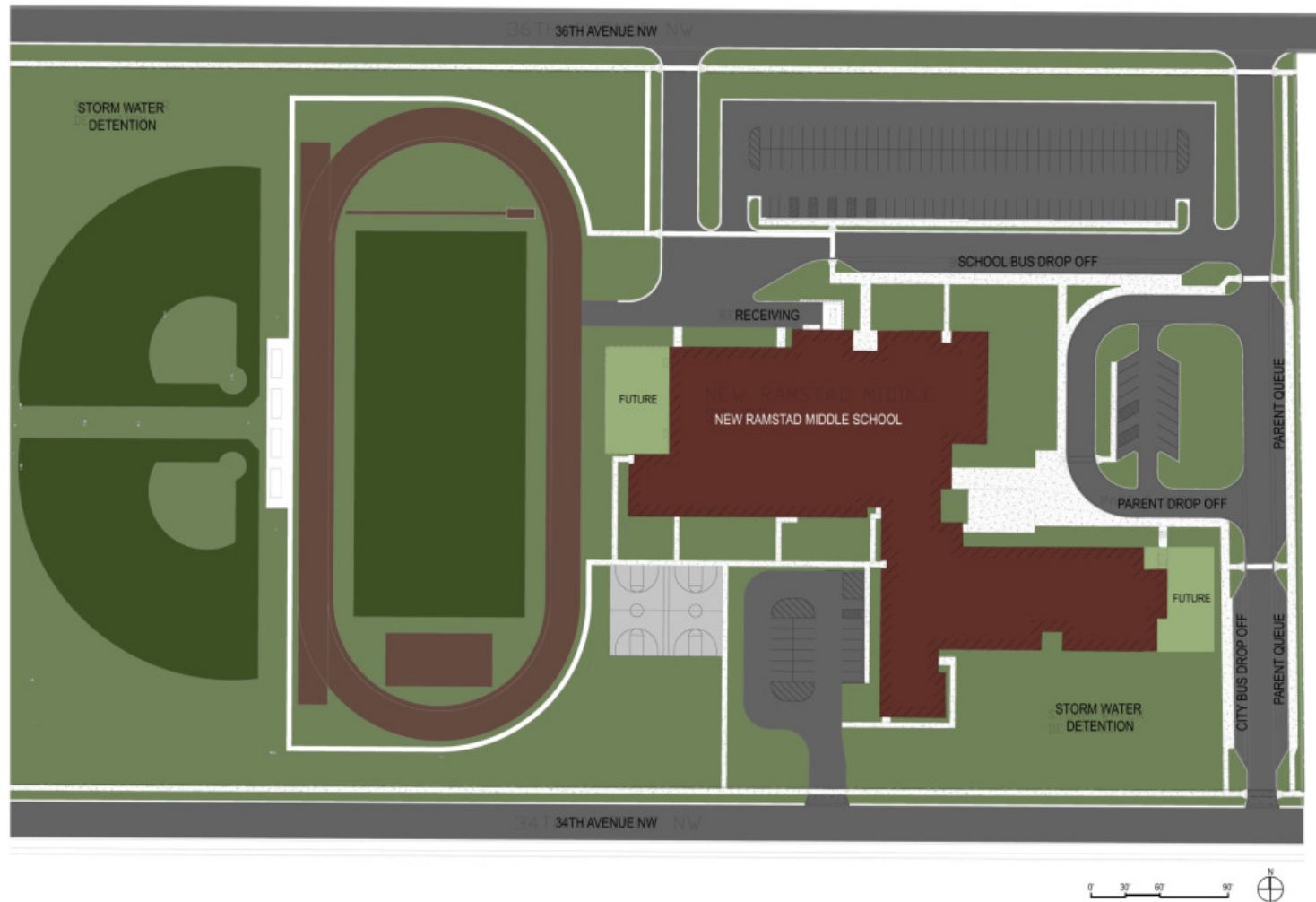
Minot Public Schools

Minot, ND

Ramstad Middle School



Ramstad Middle School



Ramstad Middle School Cafetorium, Pool

Community Environment:

The two-section, grade 6-8 middle school program accommodates 700 students. Grade-specific Core academic classrooms are grouped and located on three levels with shared functions such as athletics, music/performance, technology and food service on the group ground level.

A recessed cafetorium space with a raised stage in the transition area between the academic wing, music and ensemble spaces and athletic areas provides a multi-use, flexible, student-oriented work, play, eat and performance zone. A custom stainless steel lean-rail along the recessed edge of the lowered portion of the cafetorium is designed to accommodate laptop and tablet devices complete with power and Wi-Fi connectivity. The two-story high space has clerestory daylighting up high on two sides; the second floor media center overlooks this dynamic, light-filled active space, separated by insulated, clear glass for acoustic control.



Ramstad Middle School Gym, Weight Room

Community Environment: *Continued*

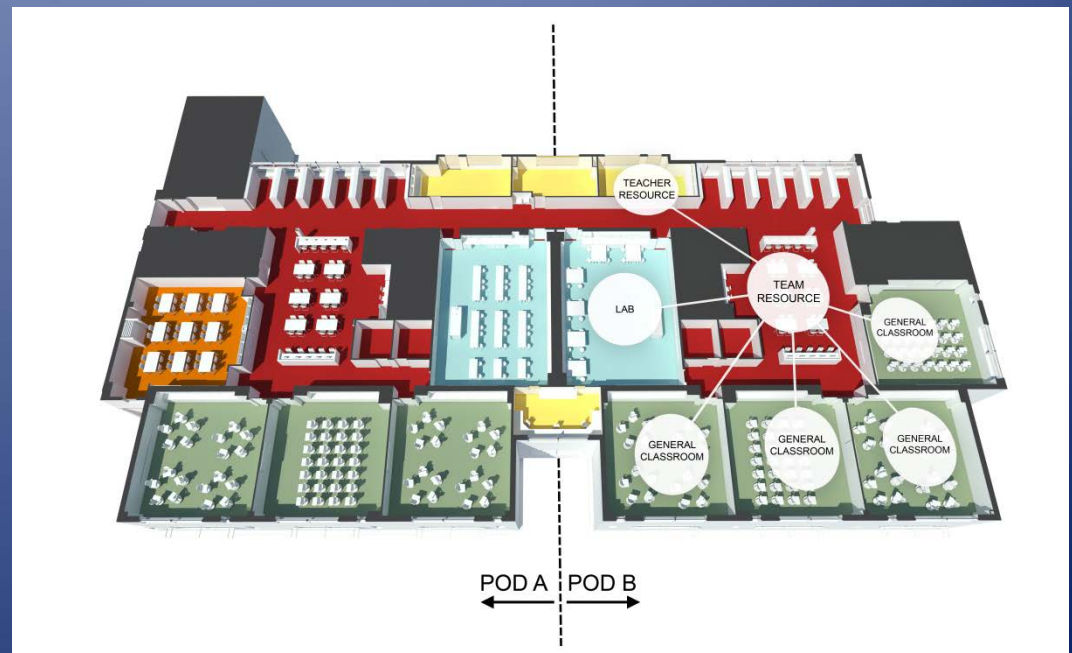
A competition 4-lane swimming pool provides for district school swim lessons as well as middle school meets. A well-equipped weight training and fitness room compliment the double gymnasium with 800 bleacher seats.



Ramstad Middle School Team Resource Area, Plan

Learning Environment:

Ramstad was designed with one academic floor assigned to each grade level and shared functions such as athletics, music/performance, technology and food service located on the ground level. Science labs with shared preparation rooms for the core of each grade level's floor. Team resource workshops, testing and small group work spaces encircle the science labs which are themselves ringed by classroom spaces. This configuration allows for hands-on learning lab work, group presentations, testing rooms and other dynamic collaboration zones for staff and students to come together.



Ramstad Middle School Instrumental Music Room, Team Commons

Learning Environment: *Continued*

Shared facilities are located on the first and second floors. The Music and Art wing provides classroom and rehearsal space for band, orchestra, and choir, located adjacent to the stage area of the school's commons. Athletic facilities and the school's Administrative Offices are also located on the first floor. The Media Center, located on the second floor, provides a mix of open and enclosed spaces of varying sizes to support small- and larger-group work while maintaining a quiet area for readers. A mix of soft and hard furniture invites more self-directed learning by students.



Ramstad Middle School

Main Entry

Physical Environment

The school district asked for a building that was contemporary with clean, simple lines using minimal, durable materials. The northerly, previously undeveloped farm land has a decidedly open, prairie feel; a basic architectural language and use of minimal color on the exterior was desirable. The design team focused on neutral soft and cool grays highlighted by pristine white metal panels punctuated by blue/gray tinted high performance glass. Undulating horizontal and dimensional patterns were used in some of the architectural precast panels to suggest the horizontality of the windswept natural plains that the building now engages. A rich, red/brown Norman-scaled brick cladding was also used as a material that has been and will continue to be a favorite of Minot residents. Blues, grays, and whites mimic natural sky colors and appear in the building's envelope materials to complement and/or set-off the earthy colors and textures used elsewhere.



Ramstad Middle School Performance Entry at Music Wing

Physical Environment – *Continued*

Window patterning at the walls enclosing music spaces purposefully represents a rhythmic pattern representative of music measures. Team planning spaces fronting on the entrance courtyard are cantilevered on three floors off-setting a red brick surround providing textural, color and massing relief to the planar curtainwall adjacent and emphasizes those important functional spaces on each level. Visible through the glass curtainwall, one will be able to see the use of school colors on the interior of the building, highlighted by vivid red wall planes and student lockers. The interior color palette and dimensional material applications retain the simple, clean lines of the exterior, but simultaneously introduces splashes of reds, blacks, grays and greens along with light, natural maple wood colors to create areas of both calm and excitement as delineated by location and function.



Ramstad Middle School Flood Damage

Planning Process:

The most devastating and destructive flood to ever occur in North Dakota destroyed the Erik Ramstad Middle School on June 22, 2011 along with severe damage to many other schools, numerous businesses, and thousands of residences.

Anderson, Wade and Whitty Architects, (AWW) Minot; Healy Bender Architects, Illinois; Kraus-Anderson Construction Management, (KA)

Minneapolis and civil, MEP, structural and technology consultants provided an initial program and schematic design package to the District in January 2012 to fulfill early District and FEMA analysis of “repair vs. replace”. FEMA established a replacement value to build a new school of a similar size and of similar materials as the old building. The District worked to grow the new building program to provide a facility that would be compatible with the District's needs to accommodate projected enrollment growth to 900 (700 earlier) kids and educational improvements. The added costs to construct a more program-rich and space-comprehensive building to meet future needs was challenging, but was essential to progressive planning and methods were established to determine the added costs to be borne by the District above and beyond the federal funds.



Image Source:

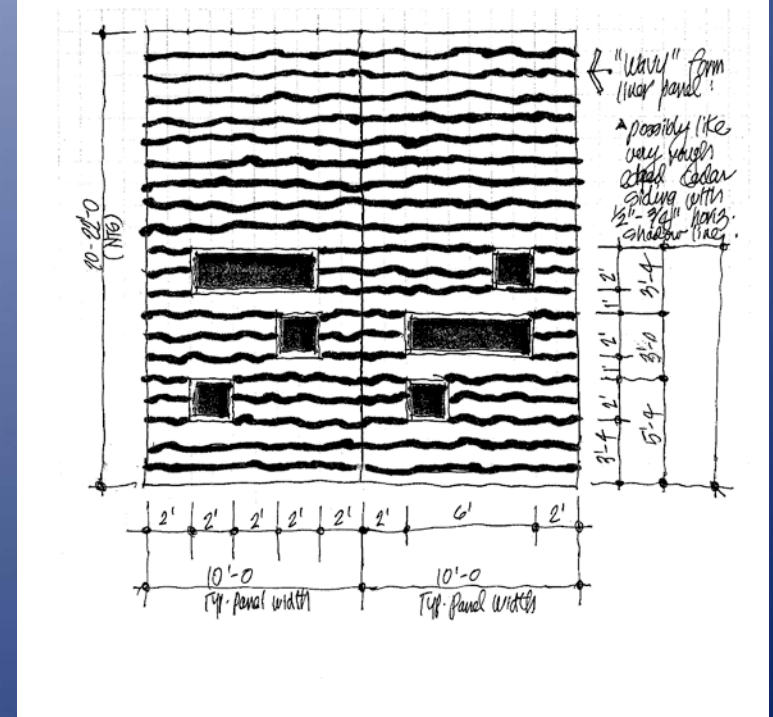
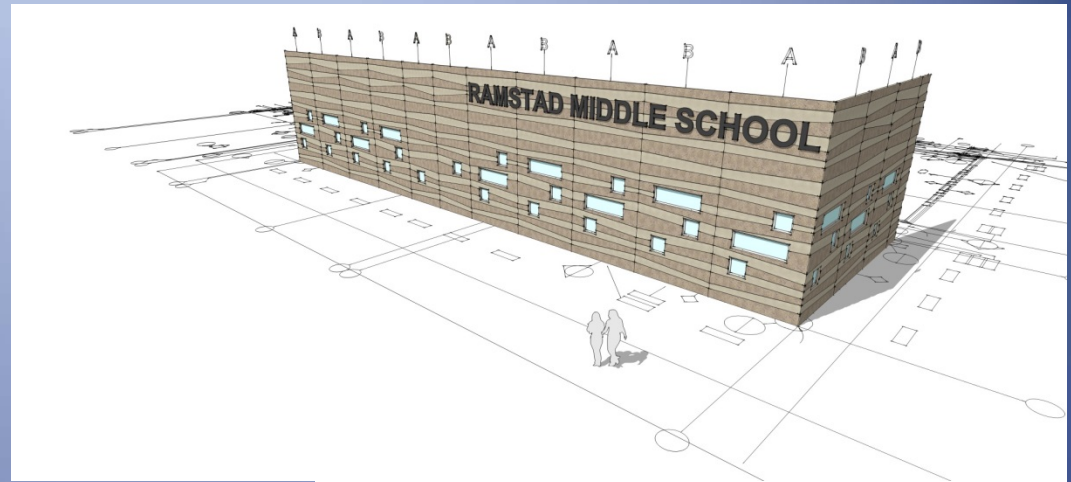
<http://www.nbcnews.com/id/43582979/ns/weather/t/where-send-kids-after-flood-trashes-schools/#.VYsbZxHbKUK>

Ramstad Middle School

Window Penetration and Façade Studies

Planning Process: *Continued*

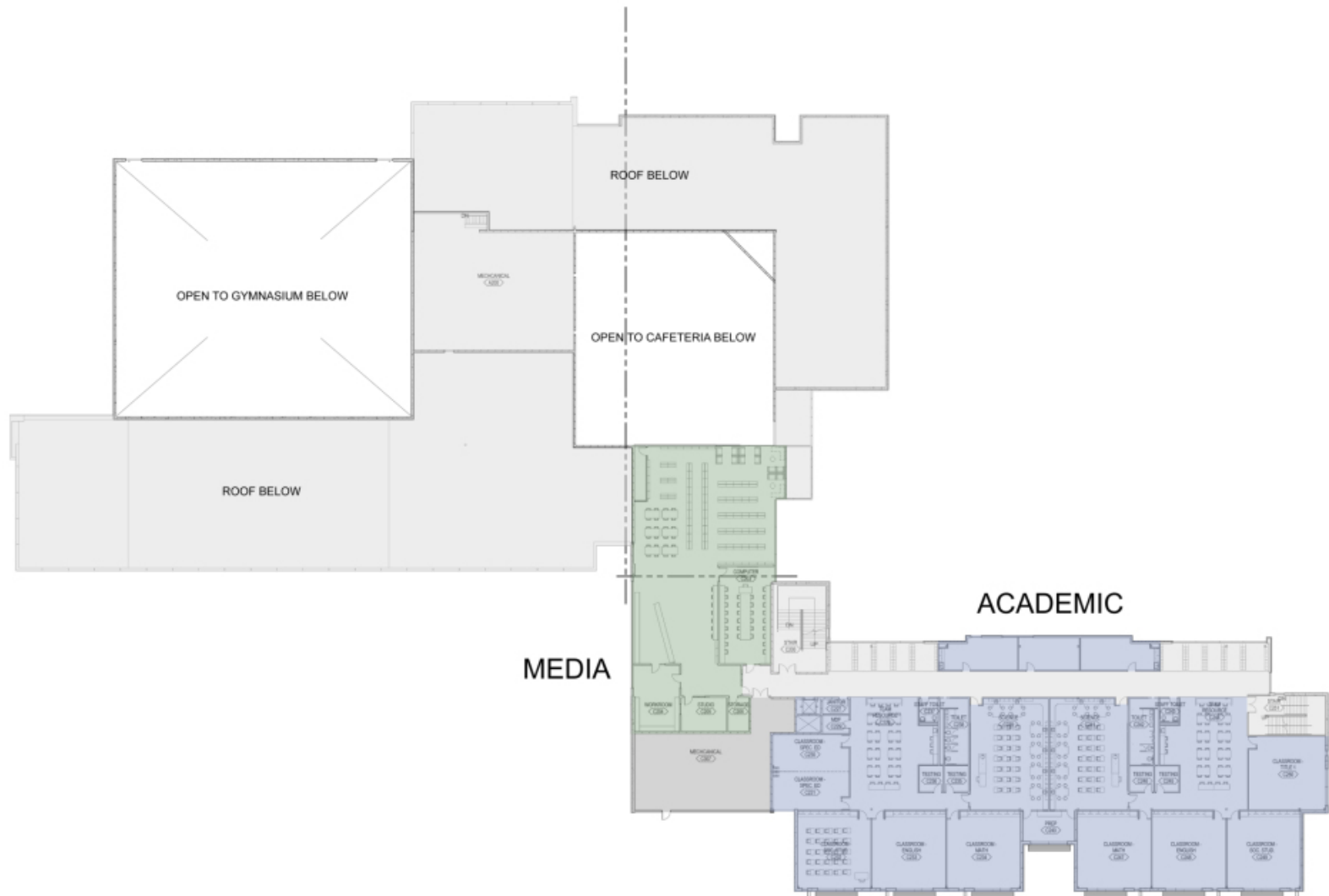
At the start of the Design Development phase, major envelope changes were made to better meet budget and constructibility concerns as well as improved aesthetics. Decorative, architectural precast concrete panels and insulated metal panel systems replaced brick cavity wall systems and uninsulated metal panels. Improved curtainwall and storefront glass and glazing systems were specified. Composite concrete floor systems replaced steel joists and metal deck for less cost and more flexibility of mechanical and electrical systems to run below and continue through the floors of the building. Daylighting and solar access and screening was studied and major envelope revisions were made to the schematic design to incorporate the preferred concepts. Formal LEED certification was not pursued, but pre-certification estimates of items to be incorporated suggests that certification would be met if pursued. Energy modeling by the mechanical consultants suggested improved building envelope R-values resulting in the district directing that both walls and roofs be enhanced with more insulation to aide desirable high-performance design standards including less energy use and resultant cost savings.



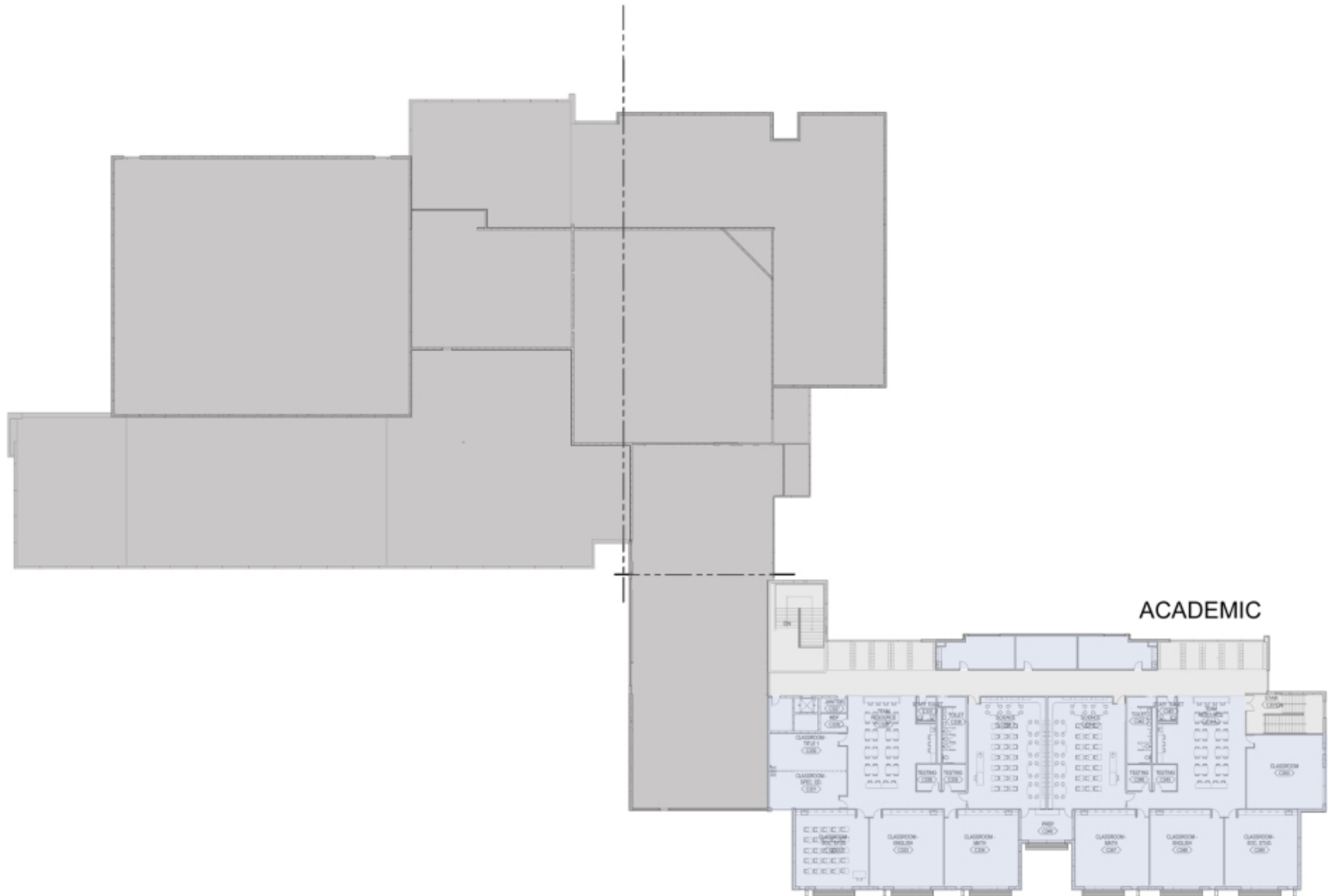
First Floor Plan



Second Floor Plan



Third Floor plan



Exhibition of School Planning and Architecture

Project Data

Submitting Firm :	DLR Group
Project Role	Design Architect
Project Contact	Chris Gibbs
Title	Principal in Charge
Address	520 Nicollet Avenue, Suite 200
City, State or Province, Country	Minneapolis, MN 55402
Phone	612/977-3500

Joint Partner Firm:	Anderson Wade & Whitty PC
Project Role	Architect of Record
Project Contact	Wayne Whitty
Title	Owner
Address	720 Western Avenue
City, State or Province, Country	Minot, ND 58701
Phone	701/852-4850

Other Firm:	Healy, Bender & Associates, Inc.
Project Role	Schematic Design and Planning
Project Contact	
Title	
Address	4040 Helene Avenue
City, State or Province, Country	Naperville, IL 60564
Phone	630/904-4300

Construction Firm:	Kraus-Anderson Companies
Project Role	Construction Manager
Project Contact	John Heunink
Title	Vice President
Address	8625 Rendova Street NE
City, State or Province, Country	Circle Pines, MN 55014
Phone	612/332-7281

Exhibition of School Planning and Architecture

Project Details

Project Name	Ramstad Middle School
City	Minot
State	North Dakota
District Name	Minot Public Schools
Supt/President	Mark Vollmer
Occupancy Date	December 1, 2013
Grades Housed	6, 7, 8
Capacity(Students)	720
Site Size (acres)	18.91 acres
Gross Area (sq. ft.)	127,000
Per Occupant(pupil)	176.28
gross/net please indicate	Gross
Design and Build?	Yes
If yes, Total Cost:	\$28,183,091
Includes:	Site Construction, Building Construction
If no,	
Site Development:	
Building Construction:	
Fixed Equipment:	
Other:	
Total:	

Supplemental Images



Ramstad Middle School Commons Circulation

Open circulation of students flows through the central Commons past the highly visible Administrative Office suite.

Supplemental Images



Ramstad Middle School Break-Out Workroom

Soft furniture in the Media Center's quiet area invites quiet and comfortable reading.