

EXECUTIVE SUMMARY >>

Winton Woods City Schools is a culturally inclusive, minority-majority school district serving approximately 4,000 students across three communities in southwest Ohio. Tensions from a prior district merger had left the district with struggling students and lack of community support.

Looking to improve educational equity and outcomes, Winton Woods began to transform its pedagogical approach to project-based learning (PBL). However, deteriorating, 1960's-era building conditions made implementing a PBL curriculum less than ideal. A deep stakeholder engagement process, that occurred over four years and engaged over 1,000 stakeholders in over 150 meetings, deliberately and authentically engaged all voices and perspectives in order to come up with the best solution for the students, the teachers, the district and the community: consolidating six buildings into two campuses.

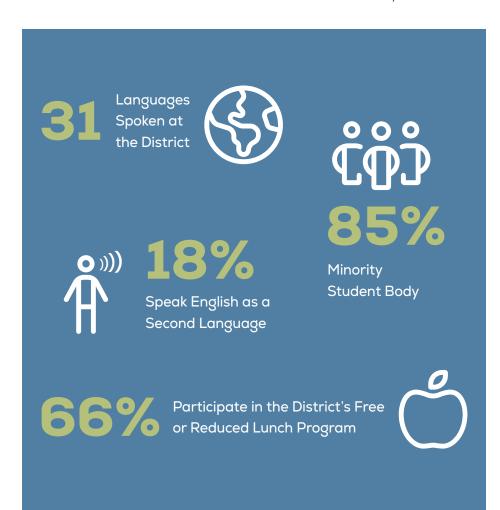
With student voice being a cornerstone of the PBL approach, students became a critical part of the design process; involving them early and often capitalized on their experiences and challenges. These students worked with community stakeholders to help them understand what their learning looked like and how rethinking traditional paradigms would enhance that learning in the future. Their passion uncovered four unique themes and drove innovative ideas such as distributed dining and teacher co-work spaces. Through this engagement, the projects deliver an innovative design that supports a student centric culture and uniquely meets the needs of the curriculum and community.

In partnership with the New Tech Network, the district moved to project-based learning (PBL) at all grade levels, becoming the first school district in the country to embrace PBL from first through twelfth grade. While the two beautiful, modern and collaborative campuses are cutting-edge in their own right, they represent more than just a new home for the Winton Woods Warriors. They bring the district's pedagogical approach to life in a whole new way. They also represent a resurgence of community pride in a school district subjected for too long to old wounds and disenfranchisement.



A DIVERSE DISTRICT SEEKING EQUITY AND INCLUSION

Winton Woods City School District (WWCSD) is an open enrollment school district in southwest Ohio that serves approximately 4,000 students and their families. The inner suburban ring district of Cincinnati was created 30 years ago when two shrinking districts combined: one smaller district made from two predominantly white communities (the Village of Greenhills and Springfield Township) and a larger district (Forest Park) that had become predominantly black. At the time, not everyone was happy with the decision, and these tensions, while fading in recent years, remain with some community members. As one of the largest, minority majority suburban districts in Ohio, Winton Woods celebrates its cultural diversity.



THE FORGOTTEN MIDDLE

During the initial stages of the master planning process, it became apparent that a significant number of students in the upper-grade levels felt lost within the educational system. While high achieving students had access to a well-designed curriculum and supportive families and low achieving students had resources to assist them, the needs of the majority of students in the middle were not adequately addressed.

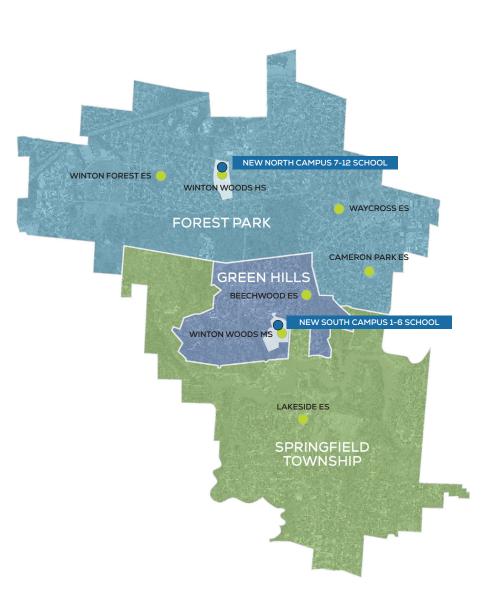
The district piloted a new approach at the high school to address this and other needs. Starting with an opt-in cohort of approximately 100 9th-grade students, the Academy of Global Studies, a project-based learning initiative, was born in trailers attached to the high school. At the end of the first year, student data from this cohort showed better attendance, lower disciplinary issues and most importantly, every students' value added growth measure had exceeded their projection. Each year another 9th grade class was added to the Academy until it reached a total enrollment of 350 students, approximately one-fourth of the high school student population. Recognizing that this success had created another educational inequity, the district expanded the program to the entire high school student body.

Neighborhood elementary schools had also created a feeling of inequity. Elementaries in the predominantly white communities were viewed as better. To save on operational costs, the district, went from five neighborhood elementary schools that fed a 7-8 middle school and the 9-12 high school to district-wide grade-level buildings (PK-2, 3-4, 5-6, 7-8 and 9-12). This change removed the identified inequity, but with students switching schools every couple of years the constant movement and lack of stability not only impacted fragile students but also parental engagement and involvement.





A DISTRICT FRACTURED RACIALLY, SOCIOECONOMICALLY AND GEOGRAPHICALLY



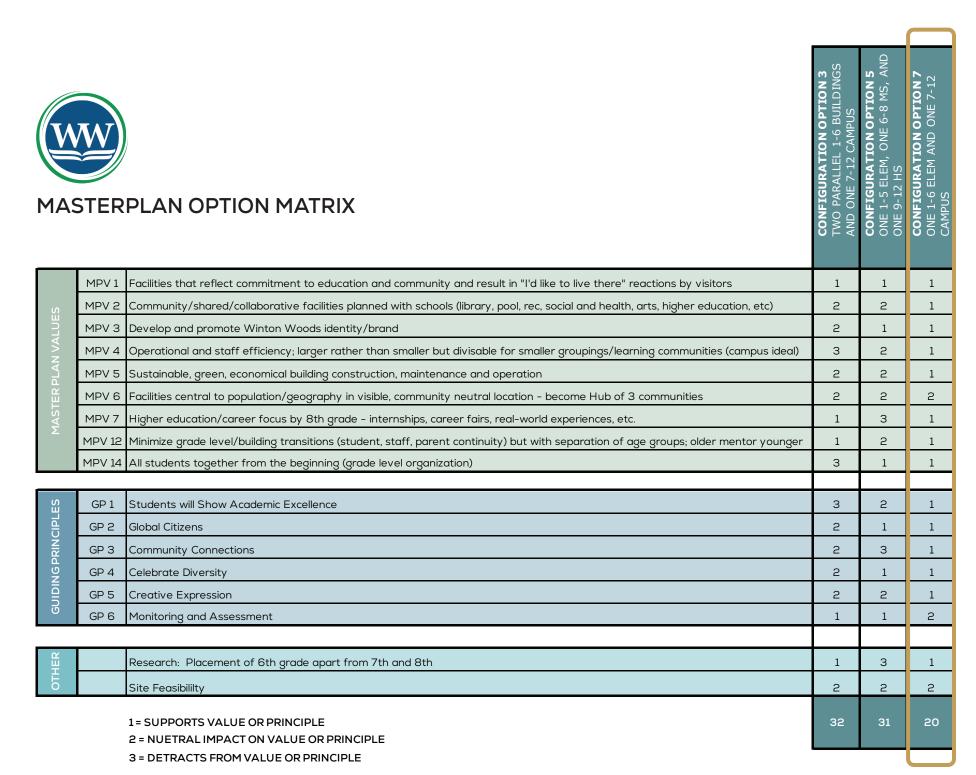
PROGRAM PLANNING

In 2012, the district became eligible to receive partial state funding through the Ohio School Facilities Commission for their building needs and began engaging stakeholders in finding a solution to their facility issues. With an overall lack of consistent, financial support from the community since the district merger, the 1960s-era buildings were deteriorating. Leaking roofs, cracking tiles and such conditions made the students feel like second-class citizens and impacted teacher recruitment and community pride. Through an extensive series of engagement exercises, from stakeholder focus groups to smaller representative stakeholder groups, such as the Community Advisory Team, the process developed guiding principles and master plan values to evaluate a variety of solutions on their educational, operational and community impact.

Using stakeholder feedback, the options were narrowed from eight to three to the preferred solution: one 1-6 grade elementary and one 7-12 grade campus.

COMMUNITY VALUE

The process communicated the value of a student-centered learning environment to the wider community and the educational opportunities afforded by equitable solutions. With the baggage from the prior district merger, the new facilities sought to be a unifying/healing core of the WW community – to be stronger together. Two community-wide schools provide the opportunity to build relationships between the three communities as well as build a long-term community within each school. The program, the largest construction project ever in the community, built excitement throughout the community-at-large about the value of education.



OVER 1,000 STAKEHOLDERS INVOLVED; OVER 150 MEETINGS

Current Students Student voice is a cornerstone of the PBL approach. In order to design a facility that put learners first, it was imperative to gather student insights and capitalize on their learning experiences and challenges. Our process tapped into a range of students from across the district and representing 5th-12th grade levels. Overall this group wanted more daylight, increased safety, happier colors, more space for hands-on work and more space flexibility. They also identified the need for teachers to collaborate.

Teachers/Faculty These stakeholders desired world-class facilities that offered a caring, welcoming and equitable environment and supported student, family and educator relationships. Space and technology flexibility were high on their list of priorities as well as an environment that supports their needs as professionals.

Parents These stakeholders wanted fewer transitions and facilities that reflected the district's commitment to education. They wanted a solution that would unite the three communities and make the entire area a more desirable place to live.

Recent Graduates This group was engaged to understand how prepared they felt for college or careers and what would have helped them be more successful. They discussed the importance of having real-world settings that supported social interaction and hands-on learning and offered an atmosphere that showcased school pride and student achievement.

Community Members The community wanted facilities that support what makes the district special (Fine Arts, Athletics, PBL) while improving educational outcomes by addressing student-to-teacher relationships, student-to-student relationships and parental support. They also wanted facilities that were efficient and effective to operate.

The Ohio Facility Construction Commission The OFCC manages Ohio K12 school facility programs that receive state funding and so were a key stakeholder. The OFCC sets uniform design standards, procedures and documents with the goals of: Building quality facilities that are well planned, on time and on budget; Embracing innovation; and Cultivating partnerships for success.





Plenty of school sites with enough room on two of them to build new schools while keeping the existing schools operational.

ASSETS »

Having already implemented a project-based learning (PBL) curriculum at the high school, the district understood that the current spaces in the deteriorating, 60-year-old school didn't fully support the PBL curriculum. They knew what they wanted in the new buildings.

HALLENGES

Inequality throughout the district due to infrastructure and curriculum offered.

Existing facilities not designed to support their pedagogical vision and goals of implementing district-wide project-based learning.

Crumbling infrastructure.

VISIONING >>

EDUCATIONAL VISION AND GOALS

To clarify what learning in the WWCSD should look like in the future and articulate how new facilities should support that transformation, a representative group of 30 stakeholders assembled. These members worked through a series of prompts individually, in small groups, and as a collective group. Reviewing the district's current situation with the district's educational goals and the New Tech Network Pillars, the team identified five areas that required the greatest degree of transformation:

Academic Excellence

Insure that learners achieve their highest potential by developing a culture of cooperation, communication and collaboration between learners, their families, and their learning leaders.

Community Connections

Reinforce the link between schools and community by creating spaces and opportunities that celebrate and enrich both.

Monitoring, Assessment & Accountability

Develop systems and spaces that support teacher planning and collaboration in support of a high fidelity PBL experience.

Teaching that Engages

Develop a student-centric culture where learning opportunities are tuned to fit the learning style and interests of the individual learner.

Outcomes that Matter

Cultivate fun learning opportunities that are grounded in real-world challenges and relevant to the community.

Two stakeholder groups were then engaged: a 24-member 5th-12th grade student team and a 150-member community team. The transformation areas were used to focus the teams' conversations in order to develop a range of School Design Criteria. Students broke into table groups to design schools that respond to the needs of students learning in a Project Based Learning and New Tech Network methodology. Some recurring features were multiple dining areas, space for teacher collaboration, learning stairs, courtyards and outdoor learning opportunities. After working separately, the students presented their designs to the community team.

The design criteria, in conjunction with the building designs produced by the Student Teams, uncovered a series of overarching Themes. These themes led the design of the schools.

DESIGN THEMES



EAT + LEARN schools that put food where the students are, maximizing learning time, minimizing travel time and using square footage to support education in lieu of just lunchtime



SHOW + TELL schools that support the creation, presentation and curation of student work by offering a variety of venues at various scales to support this learning initiative

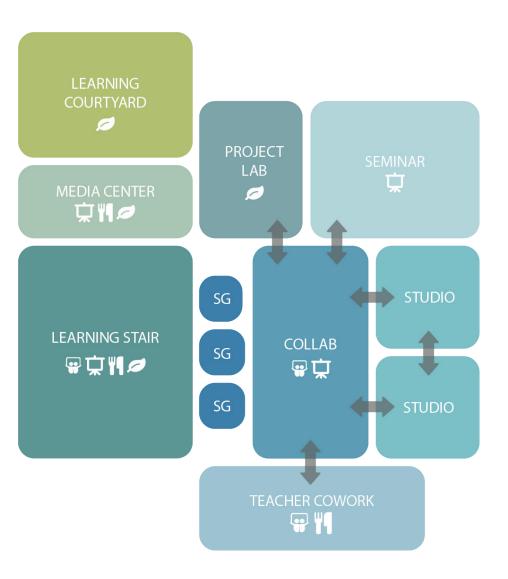


INSIDE + OUTSIDE schools that blur the line between the two to add freshness and interest to content by providing broader opportunities to explore materials outdoors



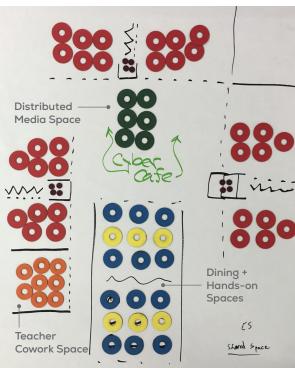
COMMUNITY + CULTURE schools that celebrate the unique culture and community that is Winton Woods by connecting the students to each other and the schools to the community

FUNCTIONAL DIAGRAM











SPACE GAME >>

To help learners feel more comfortable in these larger buildings, each school was subdivided into 12 small learning communities (SLCs) with populations of roughly 150 students each.

To determine the best manner in which to organize each SLC, the Design Steering Team (DST) was led through a proprietary space planning game. Each group was given an assortment of colored discs whose color and quantity correlated with the various types of spaces (direct instruction, hands-on learning, media, facilitator, and gathering) and the typical gross areas assigned to each. Groups were then charged with arranging their discs in a manner that best supported project-based learning.

With those studies in hand, the design team developed a spectrum of planning diagrams for the DST to review and respond to. This process led to the creation of the building blocks of the small learning communities.

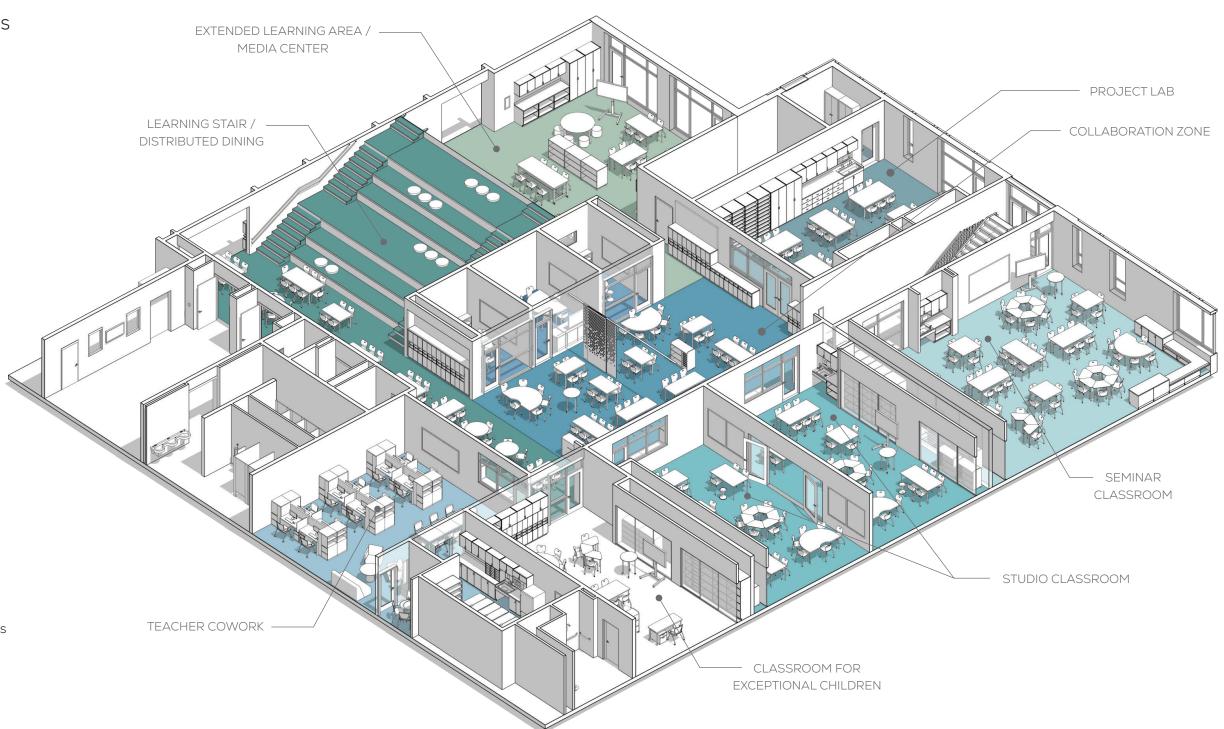


SMALL LEARNING COMMUNITIES

Each Small Learning Community (SLC) is comprised of high-fidelity building blocks, offering dedicated space for traditional, collaborative, interdisciplinary, presentation and hands-on learning. A variety of learning spaces wrap around a central collaboration zone, delivering spaces that do each of these things really well instead of the classroom doing it all. There are no assigned rooms; rather teachers check them out based on instruction needs.

A learning stair anchors four Small Learning Communities (two upstairs, two downstairs). Used daily as breakout learning space and also for lunchtime, the learning stair supports presentations for an entire Student Learning Community as well as small performances during community events.

Integrating eating spaces with learning spaces was a popular idea with the student stakeholders. Distributed dining takes advantage of all of the square footage typically assigned to a cafeteria to support learning more directly and easily. This blending encourages a culture that celebrates learning. Putting the food where the kids are minimizes travel time to lunch and gives students a choice of where to sit each day.

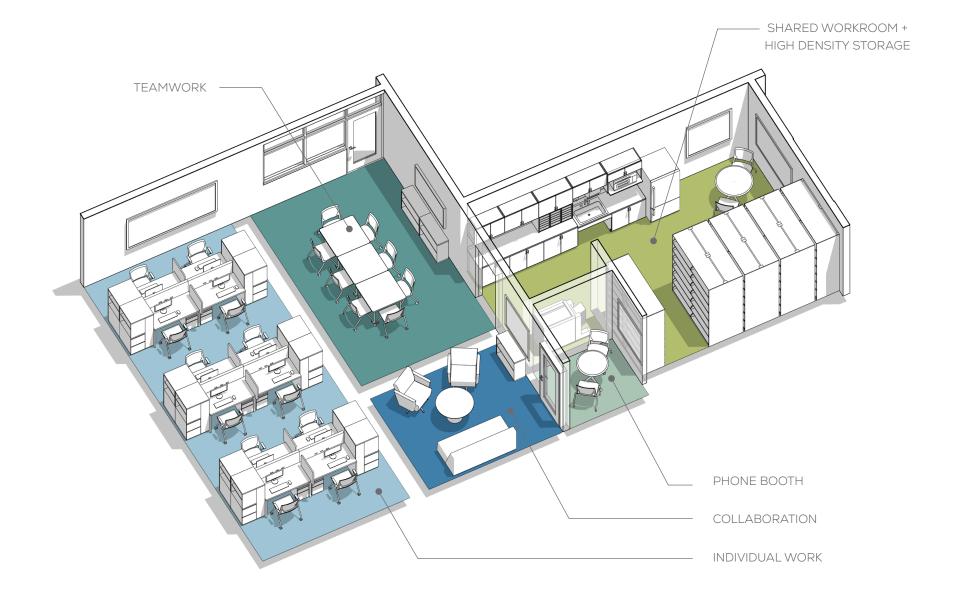


SMALL LEARNING COMMUNITIES >> TEACHER CO-WORKING SPACE

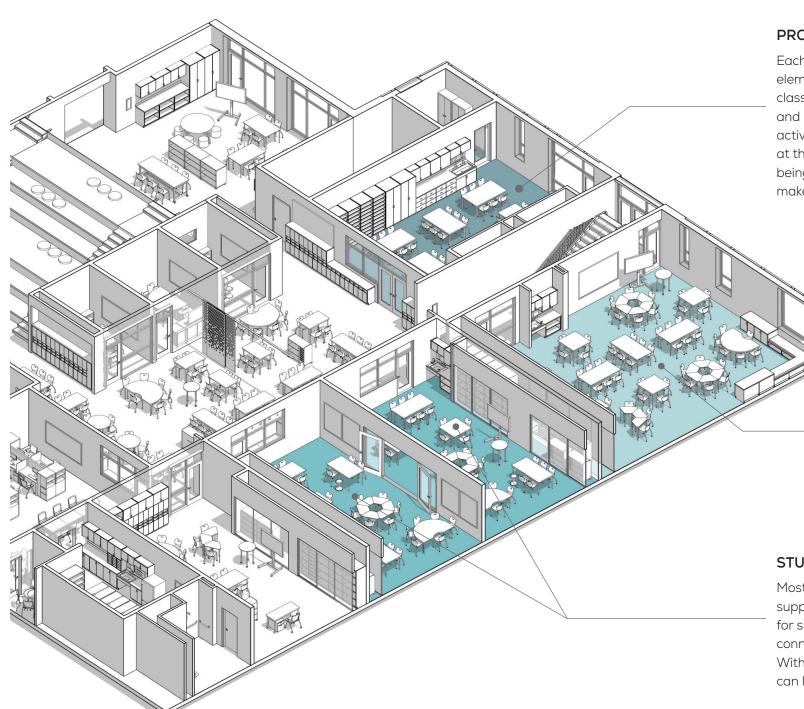




One epiphany occurred during a student Educational Visioning session, when a group pointed out that PBL requires they do a lot of collaboration, but they never see their teachers model collaboration. This revelation served as the impetus for the teacher co-work space. This space gives teachers home base stations for more heads-down activities; collaboration areas to facilitate planning for team teaching and interdisciplinary projects; a shared workroom that features high-density teacher storage (eliminating the need for teacher-specific storage in a classroom); and a phone booth that doubles as a mother's room. Combined, these spaces work to foster a more collegial and collaborative atmosphere among the teachers.



SMALL LEARNING COMMUNITIES >> CLASSROOMS



PROJECT LAB

Each SLC is equipped with its own dedicated project lab. In the elementary setting, this room offers the flexibility to serve as an art class in the morning and STEM lab in the afternoon. At the middle and high school these spaces support both lecture and lab science activities thanks to the flexible furnishings that can be "docked" at the fixed utility pedestals (blue, green, and orange). When not being used for science, these labs may be used to build rockets, make art, and learn new technologies.





SEMINAR CLASSROOM

Designed to support interdisciplinary learning, this space is large enough to accommodate two classes. The seminar classroom supports everything from large group direct instruction to guided small group collaboration.



STUDIO CLASSROOM

Most closely related to a traditional classroom, these spaces support whole-class direct instruction yet are nimble enough for small group instruction and collaboration. Two studios are connected by large double doors that encourage team teaching. With a strong visual connection to the collaborative zone, students can leave the studio and easily be monitored by their teacher.

















EDUCATIONAL ENVIRONMENT DESIGN >>

SUPPORTS THE CURRICULUM

Inherent in the district's PBL curriculum is a set of steps:
a driving question; knows and need-to-knows; project
authenticity; public presentation(s); and student agency. The
schools' environment supports these steps through dedicated
spaces that champion collaboration, project work, student
movement, active engagement and technology use in all its
forms both accelerates and deepens instructional impact.





VARIETY OF LEARNING + TEACHING STYLES

Easy access to the various environments in the Small Learning Communities as well as outdoor spaces supports a variety of learning and teaching styles and drives 21st Century learning outcomes of collaboration communication, critical thinking and creativity.





ADAPTABLE AND FLEXIBLE

All teachers/students have access to a spectrum of spaces that support PBL. The versatility of the spaces as well as movable furnishings make the environments adaptable and flexible.





ACHIEVING COMMUNITY GOALS

Focus groups with stakeholders from each of the three communities identified various goals. Highlights include efficient facilities, collaboration, supporting what the district does well (Fine Arts and Sports) while providing progressive spaces that would improve educational outcomes, and supporting community engagement/involvement.

The design sought to provide a unifying element that ties the communities together. Both schools present a similar design with blue and green representing the colors of the previous two districts.



CHALLENGES >>

The prescriptive state of Ohio design manual does not anticipate the adaptability and atypical space allocation required by project-based learning.

Budget constraints. \$205/SF is an aggressive budget for ambitious projects and 47% less per SF than the average of \$386/SF of last year's MacConnell award finalists.



CONTINUITY OF SPACE TYPOLOGY

It was important to the district's Design Steering Team (DST) that both campuses be built with the same kit of parts. Each school is designed with the same SLC building blocks, offering a continuity of space typology. While a 2nd grade SLC is outfitted and tuned to meet the specific needs of elementary learners, it has the same breadth of spatial offering as a high school SLC – from teacher co-work to project lab, to collaboration zone. In addition to easing the transition from one building to the other (6th to 7th grade), it minimizes the time students spend acclimating to the environment. Having spent their elementary career in an SLC allows them to hit the ground running when they get to the 7-12 campus. This promises to offer not only emotional benefits, but teaching and learning benefits as well. As students age through the program, having the support of similar facility components enables students to focus at a higher level.



INTERNAL VS. EXTERNAL CAMPUS ORGANIZATION

The South Campus is located in a greenbelt community on a heavily wooded site. At this school, students spend most of their day within their SLC. Because they are not traversing the school, it allowed the building to be wrapped around a central learning courtyard. This courtyard brings daylight into the school interior and supports presentations, outdoor learning (access from several spaces), collaboration, and performances thanks to the exterior proscenium on the back of the main stage.

At the North Campus (especially on the eastern/high school side) there is significant student movement across all of the SLCs. This necessitated that they have a very close relationship to each other to minimize travel time. In turn, this creates a more outwardly and community focused plan. Located on a highly traveled thoroughfare, the building integrates with athletics to the south, businesses to the north, civic buildings to the east (city, fire, police and community), and residential area to the west, encouraging learners to contemplate issues in their community, and welcoming the community in to reinforce and celebrate the learning.



PHYSICAL ENVIRONMENT DESIGN

PHYSICAL ATTRIBUTES OF THE ENVIRONMENT

Consistent spaces in both schools (seminar rooms, collaboration space, shared dining and learning space, teacher co-working space and multifunction lab spaces that can be used for science, art and as a makerspace) deliver on the four themes and create the perfect environment to deliver on the project-based learning curriculum of the New Tech Network. Throughout the schools there are no assigned rooms; rather teachers check them out based on instruction needs. The large elementary school is broken down into three smaller learning communities: the Woods, the Lake and the Hills. The centralized plan minimizes student travel time, ensuring the most possible time is spent on learning. The new 7-12 school offers separate entries for 7-8 grades and 9-12 grades with distributed administration, a fine arts suite, 850-seat auditorium, and a 1500-seat arena with collegiate-sized court.

FITTING WITHIN THE LARGER CONTEXT OF THE COMMUNITY

The new buildings rally the community around teaching and learning and have become a place where people want to be. Several events that used to be held off campus in rented establishments now occur in the school buildings including the district-wide Night of Freedom event and the high school prom.

HOW THE PROJECT INSPIRES AND MOTIVATES

Having new state-of the-art educational spaces makes kids feel valued. Views and access to the outside and plenty of daylight throughout both buildings delivers a positive learning environment. Smaller, more intimate seating options at lunchtime gives students the decision of where to sit at lunch. No one is overwhelmed or intimidated by long dining tables crammed into one large uninviting space.

With separate office space and the ability to choose where they want to teach, teachers are treated like the professionals they are. The very intentional choice to create co-work space that meets all of the non-instructional teacher needs enables each SLC to be equipped with an assortment of high-fidelity learning environments that are shared by the teachers and students. Teachers are able to cooperatively share these varied learning environments depending on which best supports the curriculum needs of any given day.

UNINTENDED RESULTS AND ACHIEVEMENTS

The distributed dining spaces were helpful with providing space for social distancing during the pandemic - both at lunch and for learning. It was easy for classes to take advantage of the space due to its proximity to the SLCs as well as the flexibility of the design.

CHANGE MANAGEMENT; TEACHING TEACHERS

With such new environments, it was important that the teachers were ready to take full advantage of their new schools on day one. Using virtual reality as well as renderings, this process helped teachers and administrators fully understand what the new spaces will be and, working as a team, discover how best to take advantage of them. Some of prompts from the two sessions included:

- What can we do in the new school that the old building would not permit?
- How might subjects/disciplines better work together in this new environment?
- What are the challenges and opportunities of the co-work spaces?

The process challenged the group to think about how behaviors might change—what can they keep doing, start doing and stop doing—in order to move learning forward.







SUSTAINABILITY + WELLNESS >>

SUSTAINABILITY, WELLNESS, AND EQUITY

It is well recognized that sustainability issues have inequitable impacts on more vulnerable and less socioeconomically privileged communities. With 66% of Winton Woods' student population being eligible for the free and reduced lunch program, the students in this district are especially vulnerable to socio-economic inequality and the exacerbated impacts of climate change, poor air quality, and lack of access to nutrition and wellness resources this status can bring. From the beginning, these LEED Gold Certified projects approached sustainability and wellness goals as crucial components of equity for the Winton Woods community. In addition to strategies that protect human health and the environment within the building designs that directly benefit students and staff, these projects have sought to be a resource for the Winton Woods community at large. For example, at the South Campus, a space was designed near the main entry to be staffed and operated by a community healthcare provider to provide greater access to the community at large.

ENERGY EFFICIENCY ON A BUDGET

With a budget of only \$205/SF, and a goal to minimize carbon emissions and annual operating costs, the design relies more on basic, common sense strategies to decrease energy use rather than on cutting edge technology:

- Compact design minimizes exterior skin while still allowing for daylight throughout the building
- Sealed tight allow equipment to be downsized
- A tight building envelope that minimizes air infiltration allowed mechanical equipment to be downsized and conserves energy over time
- Site EUI of 25.6 for the K-6 and 22.2 for the 7-12, a 66% and 70% reduction form the 2030 challenge baseline of 75.00

INSIDE AND OUTSIDE

One of the four themes that came out of the visioning process was Inside & Outside. While this theme is about teaching pedagogy and flexibility, it is also about the human need to feel connected to nature. Care was taken during design to ensure that each SLC had visual and physical access to outdoor spaces for learning, recreation and enjoyment.



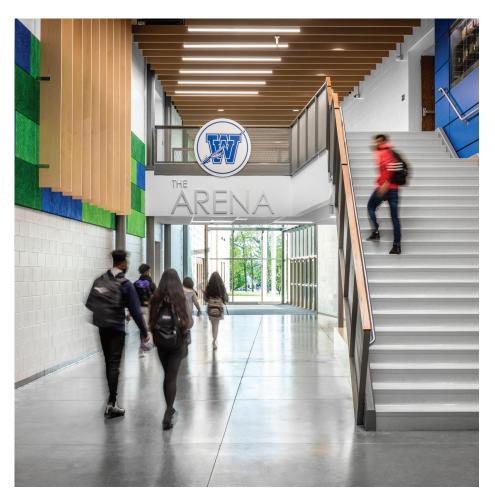




SUSTAINABILITY + WELLNESS >>

HEALTHY AND EFFICIENT MATERIALS AND SYSTEMS

What's more sustainable than using an environmentally conscious material? Not using a material at all. Once again, the tight budget on these projects challenged the design team at every step to consider not just what materials to use but also how to, in some cases, avoid material usage at all. Throughout the projects a variety of material efficiency strategies were used such as sealed concrete, exposed building structure, and simple exterior cladding materials that rely on repetitive use of a small palette of materials. When finish materials such as carpet and wood have been used to mitigate acoustical concerns or bring needed warmth into a space, these materials were selected to avoid indoor air contaminant concerns through use of low VOC materials, natural and organic materials, and ease of cleanability.



NUTRITION AND EXERCISE

Another one of the four themes from the visioning process is Eat & Learn. This theme uncovers the importance of food as part of daily life, and the design of these schools, which allows for eating within the individual learning communities, enables integration of nutrition into the curriculum.













