Building for the Future

A Review

Seneca Valley School District (SVSD) is proud to be a well-established and award-winning public school in Butler County, PA. The district spans 100 square miles and includes some of the fastest-growing communities in the state, including Cranberry, Forward, Jackson and Lancaster townships, as well as Callery, Evans City, Harmony, Seven Fields and Zelienople boroughs.

SVSD is extremely proud of the nearly 7,400 students and 880 staff members in the district and the excellent work they accomplish each and every day.

The district is comprised of four elementary schools (grades K-4): Connoquenessing Valley Elementary, Ehrman Crest Elementary, Haine Elementary, Rowan Elementary and two middle schools (grades 5-6): Ehrman Crest Middle School and Haine Middle School. Our secondary campus, located on 120 lush acres welcomes students in grades 7 through 12 and includes Ryan Gloyer Middle School (grades 7-8), Seneca Valley Intermediate High School (grades 9-10), and Seneca Valley High School (grades 11-12.) Also located on the beautiful grounds of the secondary campus is a new Aquatic Center, which was completed in February 2021. The SV Aquatic Center rivels collegiate-level centers and is one of the best facilities of its type in the region. It features eight swim lanes and a sizable pool deck that meets the specifications to host WPIAL and PIAA swimming and diving competitions.

Additional unique attributes of the District include:

- On-site before and after school childcare
- Evening activity bus transportation
- Adult education programs
- Student and Staff Diversity Committees

The Why

Seneca Valley School District is submitting for consideration “Building for the Future,” with nods to the recent completion of a dynamic and innovative K-6 facility **(named a TIME 2022 “Best Invention”)**, a unique cyber drop-in center **(the only one of its kind in Western Pa.)** and the ongoing planning for a

completely reimagined 9-10 intermediate high school. And we are doing so because we believe our successful efforts to date demonstrate why physical learning environments play a key role in educational outcomes, both **socially/emotionally as well as cognitively**.

The term "Lighthouse" we felt was fortuitous as we view education as a large ship that we are determined to turn toward a more future-driven, student-centered and equity-focused path. We all know the challenges and time involved with turning a large ship, but having a light shined upon our efforts will allow for more hands on the wheel so we can continue confidently in the direction of meeting the needs of the whole learner.

Ehrman Crest Elementary/Middle School:

Building information, Timeline:

- April-October 2015 — Stantec Architecture and Engineering conducts a district-wide feasibility study to assist with the short-term and long-range strategic planning decisions. The study was broken down into five phases: definition of goals, collection of data, analysis of findings, development of options and testing of concepts.

In November 2015, Collaborative for Evaluation and Assessment Capacity (CEAC) at the University of Pittsburgh's School of Education designed a survey to administer and analyze data from a large population of constituents. A survey was drafted to assess student, teacher, and parent perceptions of the quality and importance of various athletics, arts, and academic facilities within the school district. Further, the school district administration wanted to be sure in future building designs that learning spaces should support active learning; that instruction and pedagogy should drive the classroom space, not the space driving the instruction. Thus, the survey was also designed to assess stakeholders' satisfaction with the district's instruction in 21st Century Skills and achievement of its mission statement. The community survey, in part, indicated the lowest reported scores from community members were of the Evans City Elementary School building, Evans City Elementary School classrooms, and Evans City Elementary cafeteria (1.0), followed by Seneca Valley Intermediate High School classrooms (1.9), and the Evans City Elementary library (2.0).

At the conclusion of the 2014-2015 feasibility study and public survey, the District decided to hire an architectural firm to address the Evans City Elementary School/Middle School facilities.

- March 2016 — Utilizing study data and stakeholder feedback, District Administration and Board developed the pros and cons of either renovating Evans City Elem/MS or building new on Ehrman Road in Cranberry Township.
- October 2017 — Planning for an innovative program
- August 2018 — Reviewing building size comparisons
- September 2018 — Presentation and public comment at School Board meeting on potential plans for building location

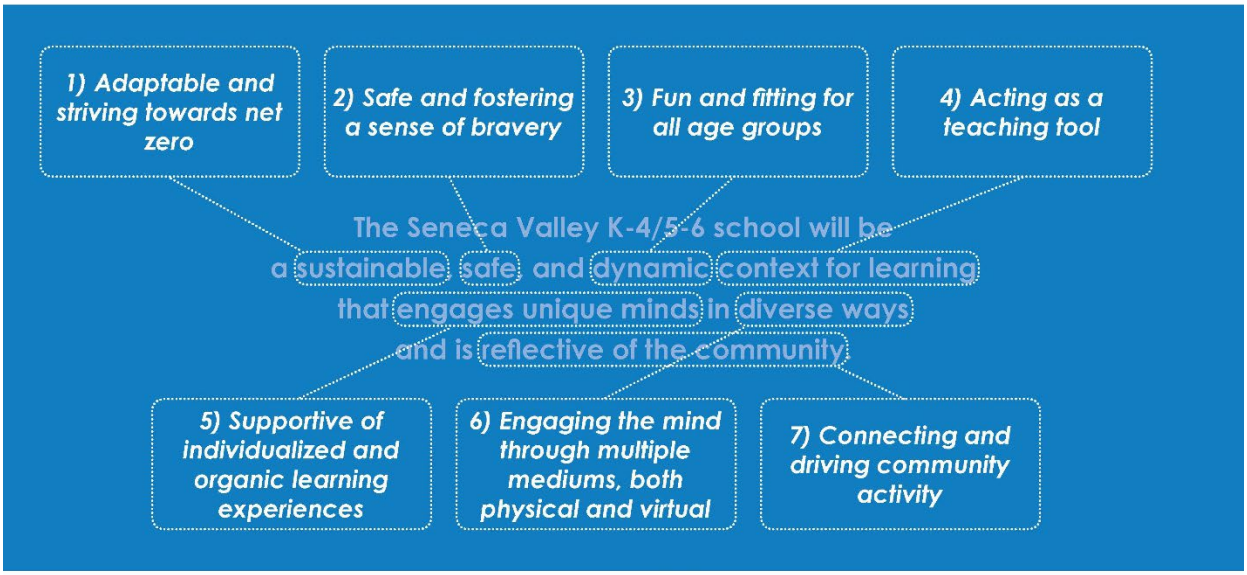
On Sept. 10, 2018, after years of researching and touring existing facilities, studying and reviewing data, comparing details, and listening to input, Seneca Valley School Board members approved moving forward with building a new K-6 facility on Ehrman Road in Cranberry Township. The site will also serve as a venue for stakeholder activities in the daytime and evening hours throughout the year, including concerts, assemblies, open houses, book fairs, dances, meetings, sporting events, community groups and more.

- October 2018 — Redistricting preliminary planning - these efforts allow for socio-economic equity across all District buildings as evidenced by current attendance zones.
- October 2018 — Focus group stakeholder meetings with staff, students, parents, board members, community/business leaders and taxpayers begin, meeting regularly during the design phase of the new K-6 facility.

- December 2018 — Continued coordination with Cranberry Township, as the building will be constructed in this community, with a focus on future partnerships and community alignment.

In January 2019, the District created the Architecture, Construction and Engineering (ACE) student externship, a unique opportunity offered to all students, grades 10-12, with an interest in architecture, construction and engineering. After several application rounds, 18 students were chosen, and they spent the next year shadowing the architectural firm and professional engineers hired to design the new K-6 school. As part of the externship, students participated in a number of internal meetings alongside the design team, academic advisory committee, steering committee and administration. They went out into the field where they visited the professional firms involved. “This wonderful opportunity served as a career engagement opportunity for resume building and learning experience and afforded students an early perspective on the industry to determine future interest,” said Dr. Tracy Vitale, Superintendent of Schools.

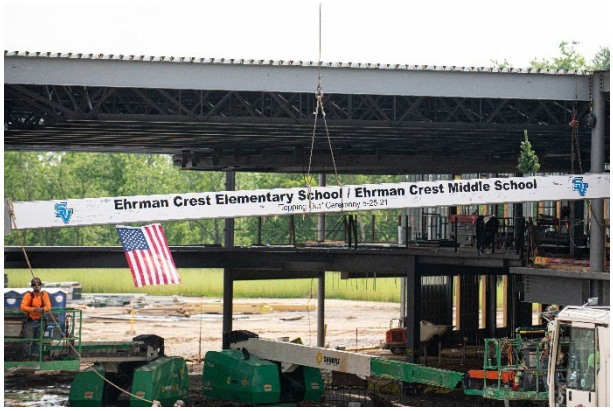
- January 2019 Architectural meeting to develop “Design Drivers”



- February 2019 Environmental systems – geothermal and solar
- March 2019 Board presentation from architects with preliminary design plans
- September 2020 Break ground on Ehrman Crest
- October 2020 Technology systems are piloted at Connoquenessing Valley Elementary for systems in new building
- Feb-April 2021 A student/staff naming contest was held and the winners were a kindergarten class. The name: Ehrman

Crest Elementary/Middle School, allowed us to keep the Evans City Elementary/Middle School acronym of ECE/ECMS.

In May 2021, a Topping Out Ceremony takes place on-site. This ceremony is a builders' rite that takes place when the final steel beam is placed atop the structure. Painted white, we asked everyone to sign the beam before it's lifted into place. We also unveiled the first official sign with the recently appointed school name of Ehrman Crest on it.



- 2020-22 Construction during pandemic without a delay

In August 2022, Ehrman Crest Elementary/Middle School held its Grand Opening/Ribbon Cutting Ceremony with nearly 1,000 people in attendance. Ehrman Crest is the result of a successful building project that united the Seneca Valley School District and the Children's Museum of Pittsburgh in a planned effort to advance bold new opportunities for school design. Ehrman Crest models exciting new ideas around how corridors and walls are used; how the building and surrounding natural environment can be teaching tools; how adaptability allows for constant curation of physical learning spaces; and how space can take students on learning journeys. All these new measures are introduced at no added project costs — providing creative environments without budget challenges. Ultimately, you will find the building's learning spaces are compelling, relevant and engaging for students, especially when teachers and students are empowered to curate their own experiences and learning spaces.

Early Thursday morning, Nov. 10, 2022, TIME released its list of the best inventions of 2022, and Seneca Valley was proud to announce that Ehrman Crest Elementary/Middle School made the list!

As stated by TIME, "Ehrman Crest models the future of educational institutions." According to their website, TIME editors highlighted the most impactful new products and ideas from around the world. They evaluated each contender on a number of key factors, including originality, efficacy, ambition and impact. In their review of the building, TIME noted Ehrman Crest's harmonic walls that educate about sound, fractions, and energy; graphic walls with animals and numbers; and magnetic walls that let kids study local ecology. Ehrman Crest is the only educational institution chosen for any category and one of just six best inventions to be featured in the design category.

"I am incredibly proud of this designation. We approached the design of Ehrman Crest with the intent to create a space that, in and of itself, was an interactive teaching tool," said Dr. Tracy Vitale, Superintendent of Schools. "There are learning opportunities everywhere you look; in our flooring choices, on our walls, in our windows panes, even the canopy covering the outside entrance. We believe this announcement reinforces our efforts and we are pleased that we can serve as a model facility for other K-12 schools across the country and even the world. It's an exciting time to be a part of Seneca Valley."

Click here to see the article: Ehrman Crest Elementary/Middle School: The 200 Best Inventions of 2022 | TIME

Social/Emotional building and programming highlights include (see video clips as linked):

a. Mindfulness rooms for social/emotional breaks, quiet time or rest.
b. Movement studio for celebrations, small group assemblies and special needs student use with modesty curtains for privacy.
c. Audio devices for each teacher to allow teachers' voices to project; on a lanyard, it also has a call button to alert the office if assistance is needed.
d. Small Group Rooms – these rooms allow for supplemental or tutoring support in individual or small-group settings. Additionally, small group rooms are utilized for Seneca Valley's Short Term Enhanced Program (STEP), which provides students who may be experiencing emotional or behavioral difficulties with a smaller classroom setting supported by specially trained staff.
    - STEP Classroom Guide

e. Sensory Walls
f. Sensory Small Group Rooms
g. Reading Intervention Room
h. Collaboration Spaces include comfortable seating, movable furniture, and an open floor plan. These features make it easy for students to gather in groups, work together, and

engage in conversations. These open collaboration spaces are designed to foster collaboration and socialization among students by providing a conducive environment, access to resources, and opportunities for group work and events. These spaces create a sense of community and encourage students to connect with their peers, enhancing their overall educational experience. This relaxed environment can make students feel more comfortable, reducing social barriers and making it easier for them to initiate conversations and interactions with others.

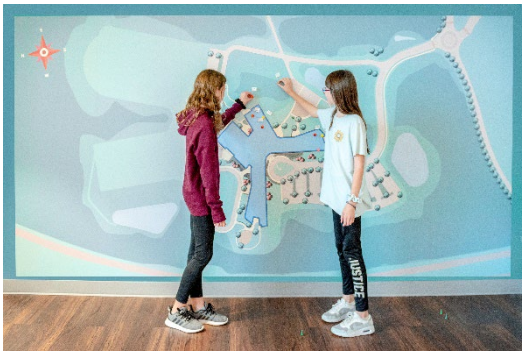
i. Playground features student chosen equipment that allows for play, collaboration and physical exercise.

j. PBIS Programming in all K-6 buildings with ECMS recently recognized for implementing School-wide Positive Behavior Interventions and Supports (SWPBIS) with Fidelity during the 2022-2023 school year as presented by the Pennsylvania Positive Behavior Support (PAPBS) Network.

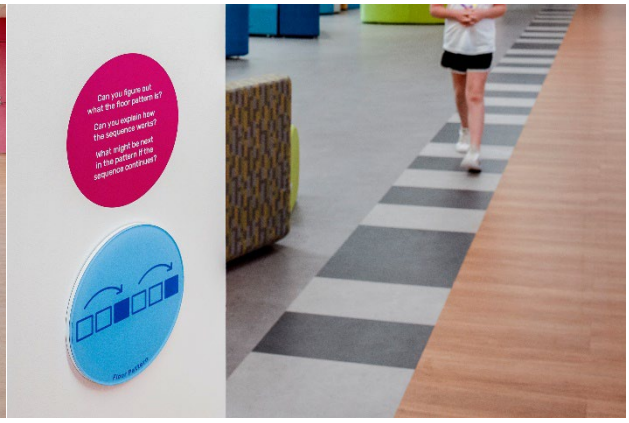
k. School-Based Mental Health

Cognitive building and programming highlights include (see video clips as linked) - Collaboration with the Children's Museum was vital in this effort. Children's museums are generational and community learning resources that capitalize on the tactile and communal benefits of learning. Although technology is used to support learning, the main focus of the learning community is a blend of both digital and analog spaces that define each grade's common area. The common areas create a more welcoming and engaging atmosphere, providing extensive opportunities for students and teachers to become curators of their learning environment and experience. One example: while school corridors are often ignored as teaching tools, we incorporated museum elements such as pegboards to allow both process and product to be displayed. Peg boards require students to mentally and physically engage in learning activities and support such activities as scatter plotting, pattern forming and recognition, and deductive reasoning. Here are some additional elements that were incorporated into the space:

a. Large-scale magnetic wall maps are used also as a platform for documenting data such as ecological survey of the surrounding site, while simultaneously connecting specific, local actions and activities to more global consequences.



b. A wall mounted energy use dashboard with student accessible apps teach about energy performance and monitoring.
c. Floor graphics and patterns educate students about measurement, distance, scale, and proportion.



d. A main canopy lighting constellation "time capsule" provides educational opportunities while also documenting the night sky when school opens in August 2022.
e. A transparent layered wall helps explain building construction assemblies.
f. Mechanical pump and fan rooms with illuminated side light displays and interpretive graphics teach condensation, evaporation, conduction and convection.

g. Green space and nature trails
h. Solar panels
i. Sundial
j. Geothermal Room
k. Hydroponics Lab
l. Creativity, Innovation and Research Center (CIRC) – a multi-media center for creating, inventing and making. It's also a place for circulating materials, fabricating designs and making multi-media projects.
m. PLC (K-12) - District and content area goals aligned to curricular topics are further discussed and studied within Professional Learning Communities (PLC). A Professional Learning Community exists for each grade level and content area. The district's primary focus of weekly PLC meetings is to ensure consistent implementation of a standards aligned curricular framework across all classrooms for all students. In addition, the framework of the PLC also demonstrates a commitment to the utilization of effective instructional practices to meet the needs of all students. PLC meetings focus on student learning through collaborative and collective efforts that cultivate a culture of shared ownership. The PLC meetings focus on evidence of student learning extending beyond a single classroom and encompassing all students enrolled in a specific grade level/course. Within the structure of the PLC, all points of view are actively solicited, heard, and considered by the group. Ultimately, the will of the group is evident, even to those who might oppose it. Most importantly, the four critical questions of a PLC (DuFour) ensure the focus remains on improving student learning outcomes.
n. Multi-Tiered Systems of Support (MTSS), K-8 - Seneca Valley is committed to supplementing our academic and support programs by providing additional support to students who may be struggling with various early literacy, math, or social/emotional skills. The Multi-Tiered System of Support (MTSS) framework is used to make sure every child in school receives the appropriate level of instruction and support that leads to proficiency in grade level learning goals. Administrators and teachers use valid and reliable assessments aligned to instruction and teacher input to help them choose the programming, materials, and instruction to best meet students' needs. The interventionists supplement and support the instruction all students receive in the general education classroom. In addition, the interventionists work closely with classroom teachers to enhance student learning. Please refer to the MTSS Handbook and District website for more information. Federal Programs & Assessments / MTSS (K-4) (svsd.net)
o. RTI for SLD (K-6) - This is a designation that is rare. Very few school districts in PA have this designation for ALL K-6 students.
    - RTI Approval Letter

p. Report of Student Progress (RoSP), K-6 - To ensure student growth and achievement is routinely monitored and communicated based on a growth model continuum, the district has modified the approach to reporting student progress at the elementary level. Essential standards, proficiency scales, common formative and summative assessments and data informed decision-making are integral components of the reporting system. Evidence of student learning is analyzed to determine how students are progressing (beginning, progressing, meeting, exceeding) and what level and type of intervention or extension is needed for individual students. Please refer to Elementary Report Card FAQ and District website for more information:
    - Elementary Report of Student Progress / Overview (svsd.net)
    - RoSP Handbook
    - RoSP Federal Programs Presentation
    - Common Proficiency Scales

As learning assumes different forms, so too should school design responses. This design represents a transformational moment where we're rediscovering the importance of tactile and relevance-based learning. This learning is often "fluid" and individually unique to each student. Recognizing this, Seneca Valley's new K-6 school breaks the mold for the better, providing just-in-time access to the nature around the school, and a more open-ended culture of learning within.

SVAOC Drop-In Center:

Seneca Valley Academy of Choice (SVAOC) has been providing full-time and hybrid cyber opportunities for students for over 15 years. This program has grown and expanded to now provide various forms of online education to over 2,000 Seneca Valley students in grades K-12. Overall, the SVAOC allows for continued growth, customization, flexible scheduling and opportunities to champion initiatives to help transform the future of education.

The SVAOC prepares students for life in the 21st century. It provides them with opportunities they may not have previously had through their public education experience. Seneca Valley is proud to meet the needs and wants of students and their parents in the same quality academic environment to which stakeholders have become accustomed.

SVAOC students can take traditional courses within their regular day, on a hybrid schedule or on a full-time schedule at school or at their home. These students can also utilize SVAOC courses for credit recovery, acceleration, enrichment, remediation and more.

Different from other cyber charter programs, the SVAOC offers phenomenal advantages, including:

- 175+ courses available for grades K-12
- Over 60 public school partners for course offerings
- Small group grade-level instruction
- Participation in Seneca Valley clubs and activities
- Electives in performing arts including chorus, gymnastics, band, dance, strings and more
- One-on-one support
- Access to an individualized learning path designed to meet students at their learning level
- A brand-new drop-in center
- Eligibility to receive a Seneca Valley Senior High School diploma and participate in graduation ceremonies with all graduating students

The SVAOC also offers a Partnering Schools Outreach Program for Technology (OPT). Through this collaborative program, we are able to assist over 60 other Pennsylvania public school districts in managing their students' cyber education to create a more flexible schedule, explore career options, and earn credits toward graduation. All of this can be done while saving their district money, resources and valuable time. Students through OPT have the same cyber opportunities available to them as Seneca Valley students, including full-time, part-time or hybrid cyber schedules.

In May 2023, SVAOC cut the ribbon on a new Cyber Drop-in Center, which signals an exciting next step in cyber education. It is in the heart of our community and easily accessible for students. Our well-established SVAOC cyber staff offers on-site, personalized learning opportunities in STEM, tutoring, intervention, enrichment activities, physical education classes and other programs.

Social/Emotional building and programming highlights include:

- **Mindfulness Room**
- **Collaborative Learning**: The drop-in center promotes collaborative learning by providing a space for students to work together on projects, share ideas, and engage in peer-to-peer learning. Collaboration can enhance problem-solving skills and foster a sense of community among students.
- **Attendance and Engagement**: The drop-in center helps monitor student attendance and engagement, ensuring that students are actively participating in our program. It allows educators to track progress, identify potential issues, and provide timely interventions when needed.

- **Social Interaction**: Online learning can sometimes be isolating, and students may miss out on the social interaction that traditional schools offer. A drop-in center can provide a social outlet where students can meet their peers, build friendships, and engage in extracurricular activities or clubs related to cybersecurity and technology.
- **Accessibility and Inclusivity**: The drop-in center provides a physical space where all students can access resources, support, and technology, regardless of their home environment. This ensures that students who may not have access to the necessary technology or a conducive learning environment at home can still participate in the cyber program. In addition, SVAOC provides wireless access to vulnerable populations that may not have such access at home.

Cognitive building and programming highlights include:

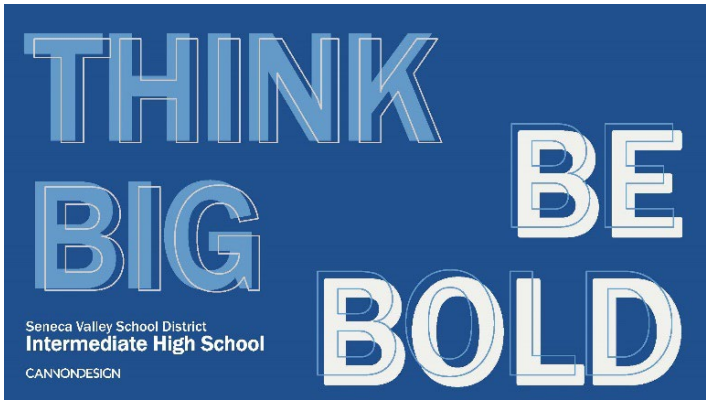
- **Cyber Interactive Classroom:** Virtual Reality (VR) technology facilitates collaborative learning experiences for all students. Students not physically present can interact with their peers and teachers in a virtual environment to foster teamwork, problem-solving and communication skills.
- **Gamer Zone**
- **Demonstration Kitchen**
- **Hydroponics Lab**
- **STEM Lab**
- **Science Lab**

- **Tech Assistance**: The drop-in center serves as a place where students can seek technical assistance and troubleshoot issues with their devices or software. This is invaluable in ensuring that technical challenges do not hinder the learning progress.
- **Structured Environment**: Some students thrive in a structured learning environment. The SVAOC drop-in center offers this structure, with designated study areas, schedules, and routines that mimic a traditional school setting. This helps students stay organized and focused on their studies.

- **Support and Tutoring**: Many students may struggle with certain aspects of cyber education, and having a drop-in center allows them to receive in-person support and tutoring. Trained staff or peers assist students with their coursework, answer questions, and provide guidance, enhancing their learning experience.
- **Resource Access**: The drop-in center acts as a hub for educational resources, including textbooks, reference materials and specialized software, supplies and tools that students may not have access to at home. This ensures that students have all the necessary resources to succeed in their cyber program.
- **Flexibility**: While some students benefit from a structured environment, others prefer a more flexible learning approach. The drop-in center caters to both preferences, allowing students to choose when and how they want to use the resources and support available.

In summary, the drop-in center complements the K-12 cyber program by providing a physical space for students to access resources, receive support and engage in a collaborative and social learning environment. It enhances the overall educational experience and helps ensure that all students, regardless of their circumstances, have equal opportunities to succeed in the cyber program and at Seneca Valley.

New Seneca Valley IHS, Grades 9-10



The Seneca Valley Intermediate High School (IHS) was completed in the 1964-65 school year with additions (and minimal renovations) in 1991, 1996 and 2003, mostly due to enrollment growth. It is also the first building constructed after the District became an established school district in 1965. The building is currently organized generally in departments. Over the years, organic growth has led to departmental fragmentation, which hinders collaboration. Further, specific departments like technology education, science and art are in different areas of the building which further hinders cross discipline collaboration, and classrooms are not designed for teamwork or connected to adjacent classrooms.

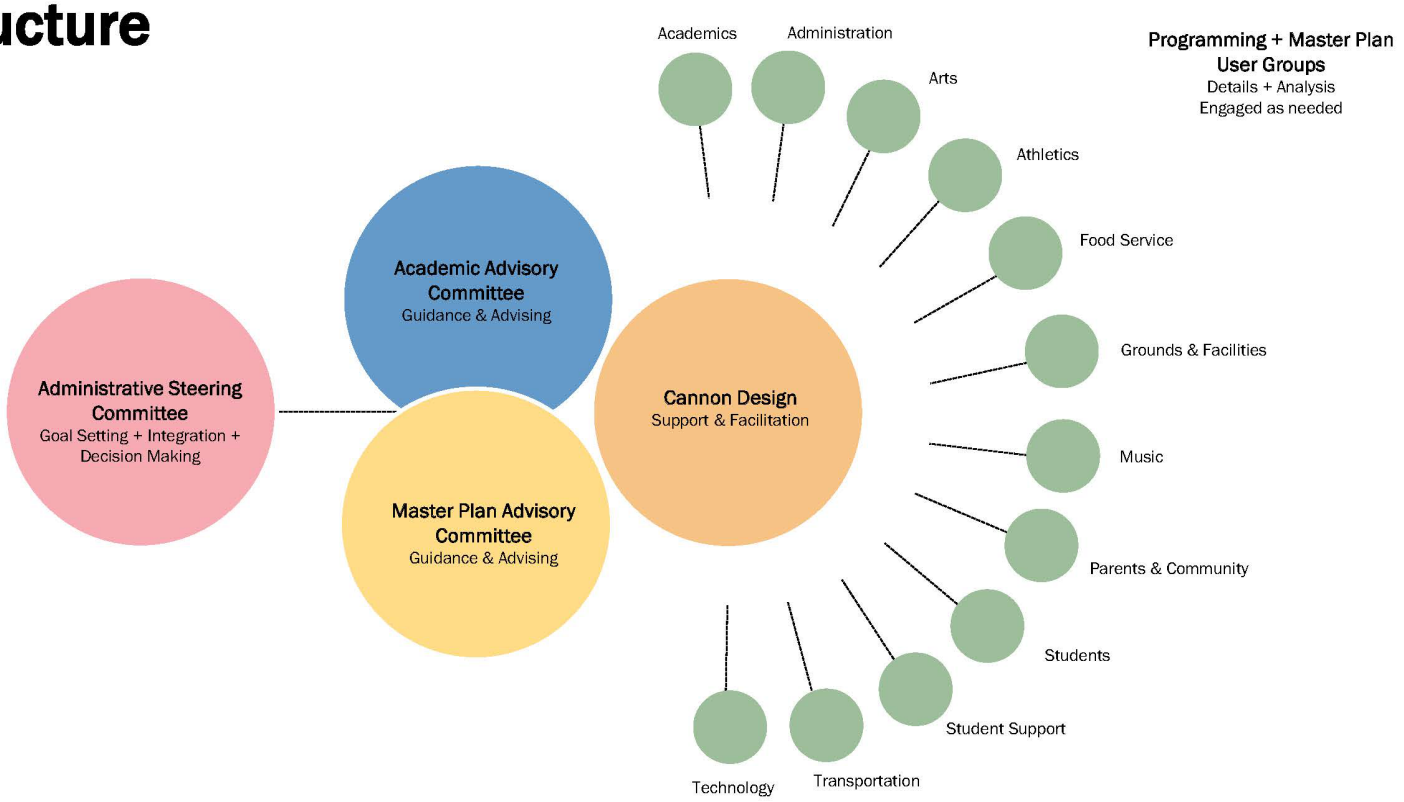
Naturally, we are excited to utilize the model and results developed with the design and construction of Ehrman Crest Elementary/Middle School. Doing so presents us with numerous opportunities to develop new and strengthen existing partnerships with regional, national and worldwide industry, technology, businesses, and institutes of higher education. The future IHS facilities can include spaces designed with workforce development and industry collaboration in mind. Future-driven goals and objectives for the new school include:

- Building as a bedrock of truth (e.g., sundial at Ehrman Crest)
- Building designed to support relationships (student/adult)
- Building designed for community alignment and external engagement

Additionally, it was noted the secondary (7-12) campus in Jackson Township lacks a central core. Through the master planning and design process, the design team will explore different approaches to placemaking and ways to create a core on campus.

The proposed schedule/timeline (see graphic below) of engagement includes five in-person workshops and six virtual meetings with an Academic Advisory committee. The schedule includes three in-person workshops and four virtual meetings with the Master Plan Advisory committee. The Administrative Steering committee will be engaged at each major meeting and workshop. Workshops and virtual meetings will alternate and occur approximately every three weeks. Master Planning and Programming engagements will occur in tandem (for example, meetings for both streams of work may occur in one workshop). Workshops and meetings begin in September 2023 and end in April 2024.

Structure



The IHS Project will once again include a partnership with the Children's Museum to ensure we are maximizing opportunities to create a building that is also a learning tool. In addition, like museums, we believe the IHS can benefit from providing diverse spaces for different types of learning, such as classrooms, libraries, outdoor areas, and collaboration zones. Schools can foster critical thinking skills by incorporating inquiry-based learning and encouraging students to ask questions and explore deeper concepts; key components utilized in museums.

Lastly, as we enter the beginning stages of the IHS Project, the District decided to launch the Seneca Valley Architecture, Construction and Engineering (ACE) student externship once again. The group will job shadow with the architectural firm and

professional engineers while providing us valuable feedback as secondary students. We expect the students chosen to participate will attend and provide input at several meetings, both in the daytime and evening, at Seneca Valley and CannonDesign in Pittsburgh. This wonderful opportunity will serve as a career engagement opportunity for resume building and learning experience and afford students an early perspective on the industry to determine future and/or continued interest.

Seneca Valley remains committed to seeking authentic learning opportunities within and beyond the walls of the schools that enhance problem-solving and critical thinking. With advancements in technology, the district will adopt more personalized learning approaches that include tailored learning goals based on individual needs and interests. We will continue to emphasize STEM education and incorporate hands-on projects, coding, robotics, and other activities that develop students' critical thinking, problem-solving, and digital literacy skills.

We also recognize the importance of skills like communication, collaboration, creativity, and flexibility. We believe these learning spaces allow us to give increased attention to interpersonal skills and interdisciplinary approaches to develop authentic and meaningful learning opportunities to equip students for the future.

"Proud of the Past, Committed to the Future."

Photo Credits: Bill Paterson/Seneca Valley

Laura Peters/CannonDesign

Click here for additional resources.