“Collaborating to meet the needs of each child.”

Vision Statement,
P.K. Yonge Developmental Research School
This is a story about bringing a school vision statement into physical reality, and the impact of the word “Collaboration” in all aspects of the process.

P.K. Yonge Developmental Research School's vision “Collaborating to meet the needs of each child” is the driving force of the school and is integral to all school programs. P.K. Yonge is a K-12 school fully committed to the development of every student by offering an extensive variety of opportunities that develop the Whole Child on an individual level. By offering authentic learning opportunities not just academically, but also in athletics and the arts, the school seeks to grow each young mind and body to its fullest capacity.

In a unique public school district of one, P.K. Yonge is also a department of the College of Education of the University of Florida. As its name implies, P.K. Yonge Developmental Research School is a laboratory school and is a leader in school-embedded educational research in the state of Florida. Through the school’s collaboration with the University of Florida, multiple resources are available from the School of Education as well as other University offices to support the school’s vision. Students are drawn in a lottery, and the student body is carefully comprised so it represents the average Florida public school demographic, as rigorous testing provides data to compare outcomes with other schools.

As a result of a Master Planning initiative in 2007, P.K. Yonge's elementary school was designated for a new building, the first in response to the Master Plan. This school project is a success because of collaboration between several design firms. All contributed to the success of the project in various phases. Both the Master Planning Phase, and the Elementary School Planning and Design Phase were led by members of cefpi, and graduates of their training programs.

Project Stats for Elementary School:
K-5 School Built for 350 Students, 36,000 Square Foot Total, Cost: $7.6 million
Background
In as much as P.K. Yonge's students emulate the demographics of typical Florida school districts, the opportunity to enhance its position as a community partner in order to meet the needs of its students, their families and the nearby community was a logical step. Just as schools across the nation have recognized the value of being a center of community, the P.K. Young school community recognized the potential that it could also be an impetus in the efforts to redevelop East Gainesville, the community it borders.

The P.K. Yonge Developmental Research School campus sits as an oasis in the center of rapid redevelopment as the surrounding neighborhoods transition from single family residential to high density residential and mixed use development. In the next few years, the surrounding population will increase more than ten-fold. As part of the College Park/University Heights Community Redevelopment District in the City of Gainesville, there is a significant effort to address storm water deficiencies, improve public infrastructure, and discourage criminal activity in the neighborhoods surrounding the school. The redevelopment vision for this District and the East Gainesville area is a pedestrian-oriented, vibrant, urban community.

In 2007, the school community embarked upon a facilities renewal project that would re-create their physical environment to carry them forward for the next seventy-five years. As a public school district, PKY is subject to the highly regulated program and space requirements of the Florida Department of Education. Funding for its facilities is through multi-year legislative appropriations. When the Legislature appropriated the first installment of dollars for the re-build of the campus, PKY sought the collaboration of multiple agencies, hundreds of stakeholders, and several design firms.

These efforts coalesced in the creation of campus master plan at the end of that year, and the opening of the new elementary school in 2012.
Campus Master Planning and Collaboration with the Gainesville Community

The initial phase of the P.K. Yonge project was master planning and condition assessment. These efforts established a baseline of existing conditions and created a roadmap for future improvements that aligned with community priorities.

The Florida Department of Education requires extensive condition assessments and documentation to gain approval for the demolition of buildings. After long evaluation and analysis using the “Castaldi Formula for School Modernization” it was determined that due to age and condition, all the original campus buildings would be removed but that six buildings constructed after 1996 would remain.

(Upper Left) Concurrently, an extensive engagement process with a broad cast of community members and agencies was commenced. The end result of this process was to establish a master plan that reflects the stakeholders’ priorities for future build-out of the site. Site circulation, location of building footprints, preservation of monuments and geographic assets, and a general organizational nomenclature was established.

(Lower Left) A key organizing element for the P.K. Yonge site that became apparent during the engagement process was that of Tumblin’ Creek. Not only is the creek a beautiful asset to preserve and part of the ecosystem, the creek is considered a “rite of passage.” When a student progresses from the elementary level to the middle/high school level they cross the creek. It became very clear during the charrette process that this tradition was extremely important to the school community. The resulting Master Plan uses the creek as a “Heart of School” and orients the buildings in accord.
P.K. Yonge Developmental Research School Campus Master Plan

1. Hard Court
2. Covered Play
3. Art/Music
4. Elementary School
5. Amphitheater
6. Performing Arts
7. High/Middle School
8. Cafeteria/Media Center
9. Building Services/Chiller
10. Art/Science
11. Gymnasium
12. Administration/Prof. Develop.
13. Lobby
14. Locker Rooms
15. Multipurpose
16. Community Outreach

Staff Parking (119)
Student Parking (97)
Drop Off
Play Field
Playground
Bike Path
Service Road
Drop Off (86)
Jogging Trail/Fitness
Staff & Visitor Parking (86)
Coastal Engineering
Football Field & Track
Baseball
Soccer & Lacross Field
Bridges
Retention Ponds
UF Boundary Line
Playground
Coastal Engineering

COLLABORATION & Discovery
Elementary School Before

Teachers were working hard to practice 21st Century Learning, but their spaces created multiple obstacles. While adjacent to outdoor learning areas, access was difficult. Small classrooms didn’t allow for collaboration between teachers, and technology was concentrated into stations set aside rather than integrated throughout the building.
Elementary School Visioning Workshops
The goal of this first meeting with the community was to inspire stakeholders to think beyond their current frame of reference and to help them better understand their future needs, and to inform them by sharing best practice of education and facilities from around the world. Involving the community by allowing them to articulate their opinions and concerns regarding the new campus design through the Visions exercise, was an important start to the process.

The initial presentation, “From Knowledge to Wisdom,” was designed to get the group thinking about 21st Century Learning goals, and to provide a common vocabulary between school designers and their client community so they can collaborate. As the graphic to the right shows, 21st Century Education is not just about developing students’ intellectual capacity, but its main priority is to assist them to become caring, loving, ethical, social, knowledgeable, skillful, healthy, creative, responsible citizens of their community and the world. These concepts resonated well with the P.K. Yonge community, as they reflected their own Mission and Vision Statements.

School Mission Statement: P.K. Yonge, a unit in the College of Education of the University of Florida, was established in 1934 to be a center of educational innovation for students, K-12. The primary role of the school is to develop, evaluate, and disseminate exemplary programs of education. As described in the Sidney Martin Developmental Research School Act, the mission of a Developmental Research School is to serve as a vehicle for research, demonstration, and evaluation regarding teaching and learning while utilizing the resources available on a state university campus.
Visioning Statements

Following the Knowledge to Wisdom presentation, the design team involved the PKY community by asking them to post their Vision for P.K. Yonge in the lobby of the auditorium. Some of the more interesting ideas were discussed and then participants were given the opportunity to vote with green stickers on top three ideas that they agreed with most.

These statements were collected and analyzed; they formed a base to kick-start the planning process.

A Sampling of Vision Statements:

- Something that children can own i.e. a piece of garden, personalized student space for individual
- Green, environmentally friendly design for school and in café in terms of healthy food
- Full access to technology
- Outdoor classrooms
- Team teaching
- Collaborative work spaces
- Partner with UF for resource efficient communities that goes beyond LEED standards
- Areas for “chill out” spaces with couches, beanbags for reading and class/small group discussion
- Lots of natural light
PKY Teachers and 20 Modalities of Learning
These define how educational environments should be designed so that a multitude of these modalities are supported by educational space design, and easily used by students and teachers. The P.K. Yonge community decided which modalities were not easily supported by their current school.

1. Independent Study
2. Peer Tutoring
3. Team Collaboration
4. One-on-One learning with a teacher
5. Lecture Format - Teacher directed
6. Project-based learning
7. Technology with mobile computers
8. Distance Learning
9. Internet Based Research
10. Student Presentation
11. Performance Based Learning
12. Seminar Instruction
13. Inter-disciplinary Learning
14. Naturalist Learning
15. Social-Emotional-Spiritual Learning
16. Art Based Learning
17. Storytelling
18. Design Based Learning
19. Team Teaching & Learning
20. Play Based Learning
A Summary of Findings Resulting from the Visioning Workshops for the Elementary School:

A Small Learning Community with a strong focus on Personalization, Social/Emotional Learning, Collaborative Learning, and Physical Fitness.

Students learn via Project Based Learning which requires the proper tools (such as Laptops and Wireless Technology). In order for PBL to work, Relevant Staff Development is required and the teachers will need to employ Team Teaching.

In addition, the school needs to explore new and exciting ways to involve parents in the learning process.

Survey Results:
Based upon these results, it is apparent that the Elementary School values personalized Learning Communities that allow for collaboration amongst the students. In a LC, students can identify clearly with their smaller community and feel a sense of belonging, common purpose and loyalty to the smaller unit. This also allows the children to develop good social skills that they can use in life is to practice these skills while in school. Student-centered schools, by virtue of giving more opportunities for students to work in collaborative settings, provide better life preparation.

In addition, staff development, team teaching and parent involvement all lead to stronger communities.
1. Center for Learning and Innovation: Reflect PKY’s research and outreach mission as a model lab school. Dedicated and shared spaces within the school should be provided for University of Florida partners and for visiting teachers from across the state so that they feel welcome and able to conduct their work. The design may also include an experimental learning environment that is used to teach visiting teachers how to transform their learning environments, with flexible walls and furniture and fixtures.

The design of this experimental “Lab within a Lab,” should also reveal that small updates to outdated learning environments can be made on modest budgets to elevate the school to the 21st century. In addition, technology will need to aid in connecting PKY with University of Florida’s College of Education and other public K-12 schools across the state, by providing streaming video access into the PKY learning studios for observation purposes.

2. Future Relevance: Seamless integration of technology for today and in the future; Designed to be adaptable for the future and paradigm shifts. The design of the LCs should allow for future technology advances to be integrated and installed. In addition, by employing as many learning modalities into each space the design will maintain future relevance.

3. Globalization: Students need to learn how to work and live in a real world environment; we must prepare students for the dynamic global economy in which we operate in today. The design will reflect PKY’s commitment to connect to the outside world on all levels: locally, nationally, and internationally.

4. Sustainable Community: Take advantage of the natural resources on campus; integrate ESD into the curriculum; environmentally sensitive not only with building design but with day-to-day activities. The design will of course strive for LEED certification, but will also become a living textbook in which activities and practices are integrated into each small Learning Community.
Whole Child: Promoting life-long health and fitness; Healthy food choices and healthy eating environments; Social and emotional well-being; Access to green spaces and natural ventilation. Daylighting and indoor air quality is essential for healthy learning environments, as well as ergonomic furniture that is adaptable to growing and active bodies. The design will provide indoor-outdoor connections and vistas. Outdoor learning spaces will be provided so that students and teachers can enjoy the outdoors during the regular school day. Healthy outdoor fitness, such as walking and jogging trails, will circumnavigate the campus.

Building Scale that is Developmentally Responsive: Young children are naturally attracted to cozy spaces, while middle years students crave adventure, and senior students are focused on entry into the adult world. From the interior cabinet heights to the entry elements and gateways in the landscape, each element is to be scaled to reflect developmental needs.

Small Learning Communities: Each learning community has an identity unto itself, providing learners with a strong sense of place and belonging. Kindergarten - 1st grade, 2nd - 3rd, 4th - 5th, Middle School (3 LCs with multiage groupings), and High School (4 LCs with multi-age groupings) will each have unique design features, and both the interior and exterior will reflect this. Differences may be subtle, and include variations in color, roof material, height and scale, or differences may be dramatic, such as a tower form or additional story height. For the Middle and High School LCs, it may be appropriate to design each with as academies, such as The Art Academy, The Science Academy, The Sociology Academy.

Partnership with the UF and Gainesville Community (two-way street): PKY strives to be open to the community, whether it is by a new Community Resource building or by sharing spaces. Ultimately, PKY should reflect its mission to be an outreach school by helping to improve the community surrounding them, by offering adult education classes and seminars and by volunteer efforts by both students and staff. Architecturally this can be reinforced by integrating the Gainesville community ethos and history into the campus design and with a signature element. The partnership with University of Florida should also be reinforced through the design, but at the same time PKY needs to maintain its own unique identity.
Diagram of the New Elementary School

Showing how the school will relate to the site. Connections are shown, including a bridge to the Middle and High Schools, steps to the drop-off area, and connection to the gardens and outdoor learning areas north of the building.

The creek is now established as the “Heart” of P.K. Yonge school, and is integrated into the curriculum as well.
Massing studies of the Elementary School building illustrating the overall concept and layout where done in the early stages of the design to help determine the shape and form of the architecture and how it will respond to the creek, the topography, and the program.

Massing Study

These studies of the Elementary School building illustrate the concept and layout in the early stage of the design. Three (2 grade level) Learning Communities share central common spaces and a DaVinci Studio for STEAM: Science, Technology, Engineering, Arts and Math.

Having two grade levels share a learning space is one of the unique concepts of the new school. Collaboration between students and teachers is made simple when the spaces are shared. The central commons allows all grade levels to intermingle.
LEED and Sustainable Concepts:

Passive heating and cooling, natural light and operable windows save energy.

Recycled materials used for the decks, canopies, and a rainwater collection system.
**Sketch of Elementary School**

The red circle shows the shared central common areas. The entire school “embraces” the main campus feature, Tumblin’ Creek. Connection with the outdoors is made through ample access, the use of glass, and structures like steps and overlooks.

The terrace just outside is used for parent gatherings and outdoor learning.
**Concept Sketch**

A view of the creek and “Discovery Platform” to the right, which allows students safe access to closely observe the small ecosystem there.

To the left, a large terrace connects the elementary Learning Communities.
View of the south side outdoor deck along the creek.
View of the Main Entrance on the Ground Floor of the Elementary School building.

The stairs lead up to the Grades 4th-5th SLC and the balcony above.
On the ground level of the school, there are two small learning communities (SLCs): Kindergarten & 1st grade (east wing) and Grades 2nd & 3rd (west wing). The Main Entrance is located in the middle of the building, connecting the two SLCs with a Cafe Commons area. The entrance is welcoming and open with views of the outdoor deck space and creek to the south. Part of the area is open to the floor above allowing natural daylight to diffuse throughout the space by means of an insulated, light filtering skylight above. A wide, open staircase leads to the Grades 4th & 5th SLC above. The cafe commons opens up onto the south outdoor deck for additional seating when weather permits. The large deck overlooks the creek and special platforms provide opportunities for learning by the creek's edge.
On the second level of the school is the Grades 4th-5th SLC with their own dedicated DaVinci Studio and outdoor learning deck. The space is filled with daylight by the skylights above, allowing for minimal use of artificial lamps and lights. This second level may feel like a tree house amongst the dense canopy that surrounds and will have great views of the creek and the deck below. A portion of the Cafe Commons is open to the Main Commons below which reinforces the connection between the ground and 2nd levels so that the 4th-5th SLC does not become isolated. There is a warming kitchen on this second level for snacks and small meals, however lunch will be served on the ground level.
The final phase of the creation of the new elementary school was the construction of the facility. The design-build delivery method was chosen, as the schematic design was accomplished in the previous phase. What remained for the design-build team was to put the concepts into bricks and mortar.

The development of the construction documents included a LEED Charrette, code compliance and alignment with Florida State Requirements for Educational Facilities (SREF), UF Construction Standards, and the selection of materials and systems. The “vernacular” of the buildings that were to remain on the campus dictated the exterior forms that would be incorporated. The two largest challenges for the Design-Build team were creek side access to the limited construction area in the middle of an occupied school, and the alignment of innovative non-traditional teaching and learning spaces with Florida’s prescriptive Space and Occupancy tables.

The careful selection of Florida “design codes” for the spaces led to creation of a model that will encourage architects in the state to emulate the use of collaborative spaces as they design future learning environments.
Preserving the Oak
A custom-designed curve on the school plaza wraps around a mature oak tree in order to preserve it. Since tree preservation and protection is a high priority at the University of Florida, existing trees were saved and incorporated into the design whenever possible. Planning, design, and construction of the school building strictly complied with the University Tree Protection Policy and was reviewed by the UF Lakes, Vegetation and Landscaping Committee. Tree protection measures were incorporated as outlined in the UF Design & Construction Standards and reviewed / approved by Physical Plant Division (PPD) Grounds.
Sketch Showing Sustainable Design Elements
Extensive use of natural lighting through clerestory windows, outdoor shaded overhangs and tree preservation.
COLLABORATION & 21st Century Learning
This innovative new elementary school is the embodiment of the guidelines set forth by the school community, and defined through the collaborative effort of students, teachers, administrators, the University and the East Gainsville community. The next several pages demonstrate how the building and its environs support these principles, and a 21st century curriculum.
Reflect PKY’s research and outreach mission as a model lab school. Dedicated and shared spaces within the school should be provided for University of Florida partners and for visiting teachers from across the state so that they feel welcome and able to conduct their work. The design may also include an experimental learning environment that is used to teach visiting teachers how to transform their learning environments, with flexible walls and furniture and fixtures.

Teacher Collaborative Workroom
Transparency throughout the learning spaces makes observation easy and open. Teachers share a workspace in this learning community; rather than one teacher, one classroom, teachers collaborate and share a larger group of students in a variety of flexible learning spaces.
Future Relevance: Seamless integration of technology for today and in the future; Designed to be adaptable for the future and paradigm shifts. The design of the SLCs should allow for future technology advances to be integrated and installed. In addition, by employing as many learning modalities into each space the design will maintain future relevance.

Learning Commons with Wireless Networking
Larger spaces can be re-configured more easily than smaller ones, and can support more learning modalities. Here, two tables are pushed together to create a small group learning center with a teacher serving as mentor rather than the disseminator of information.
Globalization: Students need to learn how to work and live in a real world environment; preparing students for the dynamic global economy in which we operate in today. The design will reflect PKY’s commitment to connect to the outside world on all levels: locally, nationally, and internationally.
4. **Sustainable Community:** Take advantage of the natural resources on campus; integrate ESD into the curriculum; environmentally sensitive not only with building design but with day-to-day activities. The design will of course strive for LEED certification, but will also become a living textbook in which activities and practices are integrated into each Small Learning Community.

**Indoor/Outdoor Connection**
Learning Terraces flow directly from the Learning Communities, and connect them with the Tumblin’ Creek nature area. Wifi enables laptop and tablet usage even outside for ecological projects related to the creek. P.K. Yonge elementary school achieved LEED Gold certification.
Whole Child: Promoting life-long health and fitness; Healthy food choices and healthy eating environments; Social and emotional well-being; Access to green spaces and natural ventilation. Daylighting and indoor air quality is essential for healthy learning environments, as well as ergonomic furniture that is adaptable to growing and active bodies. The design will provide indoor-outdoor connections and vistas. Outdoor learning spaces will be provided so that students and teachers can enjoy the outdoors during the regular school day.

Outdoor Play, Health and Emotional Well-being
The school is designed for easy access to outdoor play areas and walkways surround the school. The school has abundant day-lighting, operable widows and site-lines to the natural landscape that surrounds it.
Building Scale that is Developmentally Responsive: Young children are naturally attracted to cozy spaces, while middle years students crave adventure, and senior students are focused on entry into the adult world. From the interior cabinet heights to the entry elements and gateways in the landscape, each element is to be scaled to reflect developmental needs.

The Importance of Furnishings that Support Learning
Younger children learn better when they have a choice about where they can sit, when they can move their own furniture, when the furniture is to their scale, and when they can wiggle around a little.
Small Learning Communities: Each small learning community has an identity unto itself, providing learners with a strong sense of place and belonging. Kindergarten - 1st grade, 2nd - 3rd, 4th - 5th, Middle School (3 SLCs with multi-age groupings), and High School (4 SLCs with multi-age groupings) will each have unique design features, and both the interior and exterior will reflect this. Differences may be subtle, and include variations in color, roof material, height and scale, or differences may be dramatic, such as a tower form or additional story height.

The Learning Community Model
The Learning Community Model is based on Dunbar’s number; 150 is a suggested cognitive limit to the number of people with whom one can maintain stable social relationships. Subtle colors designate the Learning Communities at the P.K. Yonge elementary school.
Partnership with the UF and Gainesville Community (two-way street): PKY strives to be open to the community, whether it is by a new Community Resource building or by sharing spaces. Ultimately, PKY should reflect its mission to be an outreach school by helping to improve the community surrounding them, by offering adult education classes and seminars and by volunteer efforts by both students and staff. Architecturally this can be reinforced by integrating the Gainesville community ethos and history into the campus design and with a signature element. The partnership with University of Florida should also be reinforced through the design, but at the same time PKY needs to maintain its own unique identity.

Trees as Local Signature
The University of Florida has very strict building standards in regards to tree preservation and integration. The P.K. Yonge campus, with its mature trees, was ideal for incorporating this local ethos attribute. The Master Plan includes a community/conference space on the campus perimeter.
Planning for 21st Century Learning
The following pages demonstrate the way the P.K. Yonge elementary building acts as a planning “primer” for 21st Century Learning and Best Practices for the University of Florida, Gainesville Community, the State of Florida and the world. Many schools are slowly evolving their teaching and learning towards more innovation, but few have truly embraced these 21st Century ideals completely like P.K. Yonge has.
Planning for 21st Century Learning: The Learning Commons

The heart of any Learning Community is the Learning Commons. For the oldest students at PKY, this soothing, light-filled space offers a wide variety of seating and table choices, outlets to charge laptops and tablets, and transparency for a connected feeling.
Planning for 21st Century Learning: Team Teaching

Rather than being isolated in one classroom, teachers in this P.K. Yonge Learning Community share their group of students. They can collaborate by all teaching the same thing at different levels, or by dividing the group and doing different projects at the same time.
Planning for 21st Century Learning: Learning Happens Everywhere

No longer limited by designated classrooms, even the interior windows provide a place to learn. Creating life-long learners means teaching students how to think on their own, rather than how to memorize facts. Breaking learning out of the classroom and into all facets of life is the major goal of the Learning Community model.
Planning for 21st Century Learning: Project-based Learning

STEM: Science, Technology, Engineering and Math is now becoming STEAM, adding arts to the mix. The dedicated labs of the 20th Century don’t support integrated and inquiry-based learning that calls more than one discipline into play. Sink and storage areas throughout the school can be used for science experiments or art, a flexible arrangement that is more sustainable.
Traditional classrooms with heavy furnishings are not flexible enough to accommodate circles without feeling cramped. Here, tables can quickly be pushed to the side to create enough space for a group to feel comfortable. Note the operable window for fresh air and natural light.
Planning for 21st Century Learning: Small Group Study

Readers are not always at the same level at the same age; the Learning Community space can accommodate many small groups, even combining grade levels, and give more personalized instruction.
By grouping multiple grades together in one community, peer tutoring becomes a naturally occurring modality. Both “tutor” and “student” benefit from the arrangement. This modality requires many quiet corners in which to work.
Planning for 21st Century Learning: Individualized Learning
Some students prefer more time learning alone - some are energized collaborating in a small group. Some people learn better using the printed word, and some prefer listening instead. Catering learning to each student’s innate qualities is the primary goal at P.K. Yonge, and the new elementary school and program supports this by providing ample space for many preferences.
Planning for 21st Century Learning: “Cave” Spaces

Traditional classrooms offer few quiet places to work alone or with one or two others. The Learning Community contains many such spaces; transparency allows community adults to passively monitor them.
Planning for 21st Century Learning: The Learning Terrace

P.K. Yonge's elementary building focuses on Tumblin' Creek, and the Learning Terrace creates a segue to that natural space. Fresh air and sunlight increase learning capacity, and the relatively mild climate in Gainsville allows PKY students many opportunities to study outdoors.
Planning for 21st Century Learning: On-line Learning and Wireless Connection

Expanding educational opportunities to include the University and the web echoes the world of work and play beyond school. Mirroring the real world despite the challenges of fast-paced changes in technology is the hallmark of 21st Century learning.
Planning for 21st Century Learning: Varied Spaces
Smaller break-out areas for independent study, research and student collaboration are visible from learning studios.
While projects and inquiry are the fore-front of learning in the 21st Century, literacy and numeracy are still the strong base from which they emerge. Teachers become advisors and directors of learning, and nooks and small conference rooms must be built into any Learning Community to accommodate this shift. This enables more special education integration, because tutoring is used by all, with no stigma attached.
“You have to be able to collaborate. You have to be able to adapt. You have to be able to use technology!”

- Ashley Pennypacker, M. Ed. Curriculum Coordinator, P.K. Yonge

“You have to figure out innovative ways of teaching and learning, then help spread that mission to other schools.”

- Marisa Ramirez Stukey, Phd. Curriculum Coordinator, P.K. Yonge

“The joy of learning is as indispensable in study as breathing is to running.”

- Simone Weil