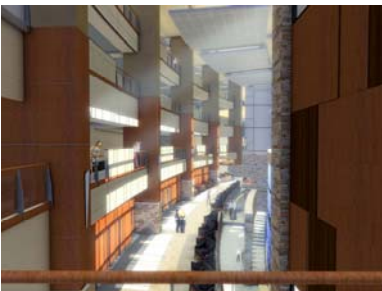


CAPITAL HEALTH SYSTEM

Replacement Hospital Hopewell Township, NJ



Array Healthcare Facilities Solutions in association with HKS, Inc. has been commissioned to design a new state-of-the-art 320-bed Replacement Hospital for Capital Health System. The design team has been tasked with developing a facility that patients and staff respond to with "Wow, I can't believe this is a hospital!" To achieve this goal, the new facility will feature a Concierge Pavilion, a Diagnostic Treatment and Support Building and a Patient Tower all connected by atriums with healing gardens. Future Medical Office Buildings have been master planned as well.



Patient safety, family-focused care and operational efficiency are the focal points for the design. The design team has segregated inpatient and outpatient flow to support an exceptional patient experience.

Project Information

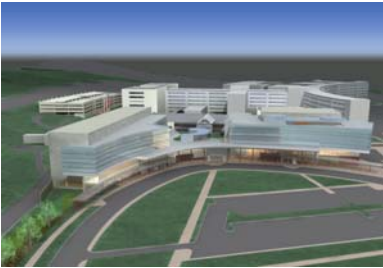
- 575,000 SF replacement hospital on greenfield site
- 6-story patient tower featuring 320 single-occupant patient care rooms
 - 4 Med/Surg floors
 - 20-bed PICU
 - 24-bed MICU / Universal Room Unit
 - 12-bed SICU
 - 30-bed NICU
- Features 36,000 SF Emergency Department with dedicated Pediatric Care Emergency Unit
- 20,000 SF Diagnostic Treatment and Patient Support Building
- 80,000 SF Cancer Treatment Center adjacent to new hospital
- In association with HKS, Inc. (Image credits 1-2)



Fast Facts

- Construction cost: \$300,000,000
- Design Start: September 2005
- Construction Completion: September 2009





The Penn State Milton S. Hershey Medical Center serves not only as the primary hospital for the Hershey community, but also as the medical school for Pennsylvania State University. As a teaching facility, the Center wanted the opportunity to bring cutting edge cancer research directly to their patient's bedside. The new Cancer Center integrates two research floors with patient treatment areas and physician's offices. This project was planned and designed by the Payette/Array joint venture.

Project Information

- 120,000 SF new construction on five floors with multiple bridge connections to main hospital and children's hospital
- Three linear accelerators and 40-position Infusion Unit
- Services include brachytherapy, diagnostics, radiation oncology and medical oncology
- Researchers laboratories are located on the same floors as the physician offices to encourage the exchange of information between the researchers and the physicians
- Oncology physician offices are collocated into the new Institute for enhanced patient access
- Cancer Institute is connected to main Hospital as well as adjacent pediatric Hospital on multiple floors
- A healing garden was created to assist both the patients and the families during treatments
- Amenities include a resource library, gift boutique, and educational classrooms.
- 1,300-car structured parking garage

Fast Facts

- Total Construction cost: \$110,000,000
- Design Start: January 2006
- Construction Completion: June 2009



University Hospitals engaged Array to provide system-wide master planning services to assist with capital prioritization for facility improvements and projects that became known as "Vision 2010."

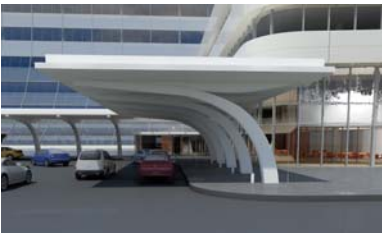
Array, in association with HKS, Inc., has been commissioned to design a key component of the Vision 2010 strategy, a state-of-the-art suburban facility. Cleveland's eastern suburbs have experienced one of the largest population surges in the nation. To accommodate this growth within a now underserved area, Ahuja Medical Center will feature a 144-bed state-of-the-art hospital designed to accommodate future bed towers (scalable to 600) and an ambulatory surgery center. Ambulatory care is expected to feature extensive outpatient services ranging from high-tech minimally invasive surgery and endoscopic procedures to leading-edge diagnostics and genetic counseling. Physician offices and community outreach and education capabilities will also be included.

Project Information

- 144-bed greenfield site hospital
 - Hospital Fit Up 306,241 SF
 - Central Plant 20,290 SF
 - MOB 56,545 SF
- Focus on patient amenities
- Designed to accommodate future expansion
- Ambulatory surgery center
- Physician offices
- Community outreach and education capabilities
- Emphasis on sustainable design and building practices as well as infusion of innovative patient care models.
- HKS, Inc. is the architect of record (exterior image courtesy); Array is providing programming, corporate architect, and interior design services.

Fast Facts

- Construction cost: \$250,000,000
- Design Start: November 2006
- Construction Completion: 2010



The National Cancer Institute (NCI) has designated the Ireland Cancer Center at University Hospitals as a Comprehensive Cancer Center.

In March 2005, UH began the process of completing a system-wide Facilities Master Plan and engaged Array to provide Master Planning services. This Facilities Master Planning Process addressed demand for care over time, with the intent of providing information and documentation to assist UH in balancing projected utilization and space requirements with its goals and objectives.

One of the initial and most crucial projects identified from the Facilities Master Plan was the need for a new, centralized relocation of the various existing Ireland Cancer Center components. We are currently working closely with staff and physicians to finalize a program of needs and test fit analysis for the new facility. To ensure consistency with parallel planning initiatives on the UH site, and to facilitate a smooth transition into design, Array has been included on the design team so that the planning input and image decisions made will be integrated into the design.

Project Information

- 278,000 SF new construction; 150 beds
- Services include: Non-transplant and Transplant Medicine, Oncology Surgery, Infusion, Radiation Oncology, Adult Clinical Exam, Pre-Admission Testing, Aphaeresis and Stem Cell Collection Therapy, Imaging, Breast Care, and a Clinical Research Center
- Amenities include retail stores, pharmacy, and patient nutrition counseling center
- 3 Linear Accelerators, 1 Cyber Knife, 1 Gamma Knife, 1 Tomo Therapy Suite, 2 Simulators, 40 Infusion Bays
- Cannon Design is the architect of record (image credit); Array is providing programming, corporate architecture, and interior design services to this project.

Fast Facts

- Total Construction cost: \$129,000,000
- Design Start: October 2005
- Construction Completion: TBD

SACRED HEART HOSPITAL ON THE EMERALD COAST

New Hospital
Destin, FL



Sacred Heart Health System wanted to increase their market share by offering services to the seaside community of Destin, FL. The area is rapidly becoming one of Florida's most desirable retirement communities and was in need of inpatient beds to meet the demands of the largely elderly community. The site was planned to be easily expandable to meet increasing demand over the next five years.



The patient rooms were designed to be universally adaptable to meet changing levels of acuity without moving the patient. Additionally, patient room and nursing station configurations support rapid physical transformation to dedicated higher levels of acuity with minimal disruption during expansion construction.

Array's Interior Designers worked with the Architect-of-Record, Gresham Smith & Partners to realize the hospital's design intent to provide an environment conducive to the healing process through patient empowerment, comfort, family involvement and a connection to nature.

Project Information

- 105,000 SF new construction
- 50-bed hospital; expandable to 200 beds; currently being expanded to include a Birthing Center
- Each room is equipped with individual controls of lighting, television, music and phone
- Families amenities include internet access, laundry facilities, daybeds in each patient room, and kitchen
- Plentiful access to natural light through the use of large picture windows and healing gardens
- Outpatient services, including medical imaging, physical therapy, outpatient surgery, a diagnostic center, visitor waiting and dining areas are easily accessible along the exterior of the hospital



Fast Facts

- Construction Cost: \$19,800,000
- Design Start: October 2001
- Construction Completion: January 2003



SACRED HEART HOSPITAL ON THE EMERALD COAST

Birthing Center
Destin, FL



Sacred Heart Health System wanted to increase their market share by offering services to the seaside community of Destin, FL. The area is rapidly becoming one of Florida's most desirable retirement communities and was in need of inpatient beds to meet the demands of the largely elderly community. The hospital, completed in 2003, was planned to be easily expandable to meet increasing demand over the next five years.



One of the first major expansions to the hospital was the birthing center, a 50,000 SF addition for full LDR services. Sacred Heart selected the original hospital's joint venture of Gresham Smith & Partners for architecture and Array for interior design as the team to develop the new birthing center addition to the hospital. The new addition introduces an enhanced service line to the hospital in order to keep pace with a growing population. The addition also expands Sacred Heart's size by nearly 50%. The expansive lobby provides a grand and welcoming entrance to the new birthing center, as well as provides access to the main hospital. The upper floor features a full-service birthing center, complete with family amenities, children's play room, resource center, and quiet room.

Project Information

- 50,000 SF
- 4 LDR beds
- 6 Postpartum beds
- 2 Cesarean section rooms
- 8-Bassinet well baby nursery
- Each room is equipped with individual controls of lighting, television, music and phone
- Families amenities include internet access, laundry facilities, daybeds in each patient room, and kitchen
- Plentiful access to natural light through the use of large picture windows and healing gardens



Fast Facts

- Design Start: December 2005
- Construction Completion: August 2007

NORTH SHORE LONG ISLAND JEWISH HEALTH SYSTEM

Zucker-Hillside Replacement Psychiatric Hospital Glenn Oaks, NY



Zucker-Hillside Hospital is a 223-bed psychiatric facility known for its pioneering work in diagnosis, treatment and research of mental illness. The National Institute of Mental Health established a Clinical Research Center for the Study of Schizophrenia at the hospital, making it only one of four such facilities nationwide.

Array Healthcare Facilities Solutions was retained to work with the clinical and administrative leadership of Zucker Hillside to incorporate best practice medicine into best practice design of a replacement facility for 108 beds of the 223-bed complement. The original patient clusters of 20–24-bed units were compressed into six 18-bed units (2-adult, 1-pediatric, 3-geropsychiatric). Rooms are all designed to flex from private to semi-private, with typical 18-bed configuration comprised of four private and seven semi-private rooms. The facility is also designed with an innovative three-corridor system, physically separating patients, staff, and visitors into three distinct circulation series.

Specifically, the new facility will be designed to maximize the benefits of the campus environment, the linkages to academic behavioral advances, advances in behavioral health facility design (e.g., patient safety, staff safety, electronic medical records), integration with the full continuum of outpatient and community-based services, and the latest findings in evidence-based design and best-practice medicine.

Project Information

- 141,000 SF
- Bedside registration of patients, as appropriate
- Spacious family areas, including coffee kiosk for off-unit family visits
- Adolescent unit with indoor and outdoor recreation space, classrooms, quiet areas, activity area, and private/semiprivate rooms.
- Geropsychiatry units with walking tracks and fall precaution design
- Fully wireless and reliant upon electronic medical records
- In association with Polshek Partnership

Fast Facts

- Construction cost: \$89,000,000
- Design Start: February 2007
- Construction Completion: September 2009

DELAWARE PSYCHIATRIC CENTER Replacement Behavioral Health Hospital Wilmington, DE



The Delaware Psychiatric Center's (DPC) 135-acre Holloway Campus could no longer provide their desired high level of care by utilizing the newest techniques in behavioral health in their aging and outdated facility. The patient rooms were too small, treatment areas could not accommodate the new equipment, and families had no quality space in which to interact with their loved ones. Modern understanding of the challenges that face the inpatient psychiatric population required the DPC to undertake a comprehensive facility master planning effort.

Array completed the comprehensive facility master plan and is now working with the DPC to design and build their new hospital. Our master plan identified the need for a new 205-bed facility that would provide "pods" for each population type as well as a central spine or "mall" that would provide treatment areas for the entire community. The new Hospital will be LEED certified which creates a lesser impact on the surrounding environment and creates a healthier living space for both the patients and staff.

Project Information

- 250,000 GSF new construction
- 205 inpatient beds in five "pods" which are segregated for safety and to meet each specific community's needs
- Pods include geriatric, long term acute, chronic, serious behavioral, and adult transitional
- Treatment "mall" allows for the populations to leave their "households" and experience other patients in a safe and secure environment
- Woodland views and protected outdoor areas for patients
- LEED design features include state-of-the-art stormwater management techniques, the use of recycled building materials during construction, utilizing energy efficient building systems, and purchasing over 20% of the building materials from local manufacturers.

Fast Facts

- Construction cost: \$65,000,000
- Design Start: April 2004
- Construction Completion: April 2009





Universal Health Services, Inc. (UHS) retained Array to provide architectural services for a new 180-bed treatment center for adolescent sex offenders in Embreeville, Pennsylvania, incorporating the potential to expand this building up to 220 beds in the future. The intent of the project is to develop the approximately 15 acre site adjacent to the existing Pennsylvania Clinical School for the new campus. The building will blend with the surrounding architecture and have the appearance of a residence. The building will house approximately 180 residents in units of 36 with pods of 12 rooms each. There will be adequate support space for the residential program including a full court indoor gym, activity rooms which will double as dining rooms, visitor areas, administrative space, quiet activity rooms, and central patient laundry and kitchen facilities. The program will include an educational component with the appropriate number of classroom and activity rooms for the current facility and future expansions.

The design of the new school and residential facilities has been extremely challenging and has needed to be sensitive to the unique and sometimes conflicting needs of this population. With issues ranging from significant behavioral and medical concerns to the need for forensic-type security, the building has been designed to respect the pod model of group segregation while maximizing the opportunity for efficiency in a treatment mall type of environment. Since the residents have an average length of stay ranging from 12 to 18 months, provision has been made for such routine living requirements as personal maintenance (e.g., hair salon/barber shop, computer room, sundries), family visitation space, parole officer meeting space, and large recreational areas, with access at scheduled times by the various residential pod groups. Residential room design needed to be modest and therapeutic, including psychiatrically-safe ceilings, windows, hardware and common yet private bathroom provisions. Private bedrooms will reduce altercations/fights among residents, but will need to be designed for easy maintenance by both the residents and housekeeping staff. While the clinical and educational staff know much about the needs of this population, the design will need to reflect opportunities for therapeutic innovations and efficiencies that support the residents' treatment and preparation for return to home communities, e.g., vocational training.

Project Information

- 180-bed adolescent behavioral health hospital
- Future expansion capabilities up to 220-beds
- Psychologically-safe universal room design improve efficiencies while maintaining individuality of resident population

ST. JOSEPH REGIONAL MEDICAL CENTER

Center for Women and Infants

Milwaukee, WI



Originally awarded to another firm, Array inherited this project because the previous design was unsatisfactory and significantly over budget. Array's solution for this complex service provided a new addition and renovation project that enhanced all program components and halved the construction cost.

Today, the newly constructed Center for Women and Infants (CWI) at St. Joseph Regional Medical Center supports the largest perinatal center in Wisconsin. It is also home to the International Institute for the Treatment of Twin-to-Twin Transfusion Syndrome, which performs in-utero life saving surgery; the only fetal treatment center in the world specifically designed and dedicated to this disorder.



Project Information

- 121,000 SF new construction; 86,000 SF renovation
- 54-position Neonatal Intensive Care Unit (NICU) which serves 700 infants each year
- 44-bed Post-partum Unit
- 20-bed Antepartum Unit
- 15 – Labor, Delivery, and Recovery Suites
- Three dedicated OR Suites
- Patient amenities include a café, a women's resource center with massage rooms, a spiritual center including a chapel, and multipurpose area with conference/classroom/group rooms



Fast Facts

- Construction cost: \$81,000,000
- Design Start: November 2000
- Construction Completion: December 2003



JOHNS HOPKINS HEALTH SYSTEM

Ambulatory Care Center White Marsh, MD



Array was selected by Johns Hopkins Health System to design an ambulatory care center that would consolidate specialized services provided by Johns Hopkins physicians into a full-service ambulatory environment. The new facility was designed to take its visual cues from the vocabulary that defines its renowned main campus in Baltimore, Maryland.

Project Information

- 92,000 SF new construction
- Comprehensive imaging center includes MRI and CT units
- A clinical reference laboratory allows for physicians to bring state-of-the-art research to their patients
- A full service optical shop is located adjacent to the ophthalmology suite
- The cardiology suite features physician offices and diagnostic services
- A pediatric medicine suite was designed to be welcoming and accessible for children



Fast Facts

- Construction cost: \$8,900,000
- Design Start: December 2002
- Construction Completion: April 2004



ST. JOSEPH REGIONAL MEDICAL CENTER

St. Joseph Outpatient Center Wauwatosa, WI



Covenant Healthcare System's aging ambulatory care center was unable to meet the growing demand for state-of-the-art ambulatory care services. The current facility was unable to expand and could not accommodate new equipment. Array and Covenant worked together to plan and design a new ambulatory care center that would provide maximum flexibility while creating an easily navigated and welcoming facility. The project design is anchored by an entrance atrium that identifies the facility. Separate and distinct entrances are also provided for the Urgent Care Center as well as the Medical Practice Suite.

This project was awarded 2003 Healthcare Project of the Year by Midwest Construction Magazine, the Civic Appreciation Award by Milwaukee's West Suburban Chamber of Commerce, and the 2003 Silver Interior Design Award in the Healthcare Category with the American Society of Interior Designers (ASID).

Project Information

- 250,000 SF new construction
- Attached 1,200-car structured parking garage
- Services at the new Center include:
 - Physician Offices
 - Imaging Center
 - Urgent Care Center with 18-bays
 - Rehabilitation Center
 - Pharmacy
 - Women's Health Suite
 - Same Day Surgery
 - Pain Center
 - Wound Care Center
 - Diabetes Education and Support Center

Fast Facts

- Construction cost: \$40,000,000
- Design Start: June 2002
- Construction Completion: May 2003

ST. ELIZABETH MEDICAL CENTER

Ambulatory Care Center Covington, KY



This new, three-story full-service Ambulatory Care Center and Emergency Department, anticipated to be completed in January 2009, will provide many necessary services to this growing area of northern Kentucky. The collaboration of the Health System and a local physician-practice provider has a vision of creating a 'Gateway for Health' all-inclusive facility to provide an array of outpatient healthcare services.

This new 'front door' for the City of Covington will provide Emergency Services, primary and speciality physician services, and imaging & diagnostic services, as well as many other outpatient services. St. Elizabeth's currently hard-to-reach Emergency Department, also in Covington, will be replaced by this accessible location on Interstate 75.

Project Information

- 120,000 SF new construction
- 10,500 SF Emergency Department
- Services to include:
 - Imaging
 - Cardiac Diagnostics, including: EKG, ECHO, stress testing
 - Women's Services Diagnostics
 - Physical Rehabilitation
 - Dialysis
 - Wound Care

Fast Facts

- Construction cost: \$35,500,000
- Design Start: January 2007
- Construction Completion: January 2009