

Oklahoma Children's Heart Center, Pre-Design

RFQ Package

Executive Summary



Introduction: OCH Heart Center Pre-Design

Project Mission:

The Comprehensive Heart Center at Oklahoma Children's Hospital (OCH) aims to create the state's only complete pediatric heart center, consolidating all major cardiac services into a single, dedicated facility. This project will serve as the epicenter for advanced pediatric cardiovascular care, bringing together inpatient units, operating rooms, diagnostics, imaging, and ambulatory services. The project reflects a long-term vision to uphold OCH as the destination of choice for families in Oklahoma and beyond, offering state-of-the-art clinical care in a healing, inclusive, and patient- and family-centered environment.

The Comprehensive Heart Center will support programmatic growth in areas such as pediatric heart transplantation, adult congenital heart disease, and cardiac rehab. It is envisioned as a resilient, scalable facility capable of adapting to evolving healthcare demands, while elevating the hospital's reputation in academic medicine, recruitment, and research.

Background:

With the objective of establishing a comprehensive pediatric heart hospital to properly house the state's only pediatric cardiothoracic heart program, OU Health (OUH) has collaborated closely with state legislators and local design partners to advance this initiative. In February 2019, Miles Architecture was engaged to develop a high-level program for the proposed Heart Center. This was followed in mid-2023 by an initial study of massing and stacking options based on that program. In April 2024, Miles Architecture provided projected timelines and design fee estimates by fiscal year. These foundational efforts laid the groundwork for the current phase of work: a more detailed assessment of needs, project scope, and a Rough Order of Magnitude (ROM) cost estimate to bring the Comprehensive Heart Center to fruition.

Project Guiding Principles:

At the onset of this engagement, specific guiding principles were identified by OUH to guide the Core Team and project team. These guiding principles remained top of mind throughout the project and acted as the guide-posts for decision making.

1. Focus on the priority to continue advancement of Oklahoma Children's Hospital as the premier pediatric heart program and destination of choice for pediatric care in the state of Oklahoma and beyond.
2. Create an operationally efficient and supportive environment for all physicians, staff, and learners.
3. Plan spaces that meet contemporary needs and amenities, elevate the patient and family experience, and promote inclusivity and improved access to care.
4. Establish a plan for resilient infrastructure and facilities to provide capacity for and support of long-term expansion needs.

Pre-Design – Areas of Department Focus

Inpatient Beds	<ul style="list-style-type: none">• Med/Surg• PICU• Intermediate Care• Observation• NICU• Women’s OB L&D/PP
Surgical Services	<ul style="list-style-type: none">• Inpatient• Ambulatory (On Campus Within Hospital)• Sterile Processing
Interventional Cardiology	<ul style="list-style-type: none">• Cath / EP Labs
Diagnostic Cardiology	<ul style="list-style-type: none">• EKG• Echo• Stress
Imaging	<ul style="list-style-type: none">• All modalities• Interventional Radiology (new)
Ambulatory Clinics	(On-campus Pediatric Cardiology & Cardiovascular) <ul style="list-style-type: none">• Pediatric Cardiothoracic Surgery Clinic Suite 2F• Pediatric Cardiology Clinic Suite 2F
Therapy Services	<ul style="list-style-type: none">• Cardiac Rehab

Parking (Not included in RFQ):
The success of the OCH Heart Center will depend in part on the availability of sufficient parking to support patients, staff, and visitors. While the expansion of parking facilities is outside the scope of this project, it is critical that a separate, coordinated plan be developed and implemented to align with the Heart Center’s completion, ensuring the hospital can operate at its full anticipated capacity.

Final Facility Recommendation: Key Decisions

The following key operational and facility decisions were utilized to shape and finalize the recommended options:

Shift Mark Everett Drive:

The recommendation includes the necessity to shift Mark Everett Drive to the east, allowing for a wider footprint on the 1st and 2nd floor for optimal ambulatory and public space. Note this study identifies the need to extend the upper surgery and inpatient floors over the shifted Mark Everett Drive, also to achieve optimal width for nursing and clinical efficiencies.

Dedicated Heart Center Entrance at South:

To provide a comprehensive experience for cardiac care, the Heart Center will feature a dedicated entrance for heart patients. This entrance will be located at the south of the building, adjacent to the roundabout and marked by the “Seed Sower” sculpture, at the intersection of Mark Everett Drive and Stanton Young Drive. (See *Diagram 1.*)

Dedicated Patient Access Services:

Upon arrival and entry into the Heart Center, Patient Access Services will be located near the lobby to provide dedicated registration, financial services, and other guidance to heart patients and families.

Ambulatory Clinics and Cardio Diagnostics:

Clinics and Cardio Diagnostics should be collocated on the same floor (as they are today in the Ambulatory building). Clinic exam rooms could accommodate exam and Echo capabilities to provide flexibility of utilization. 1st Floor could accommodate the Fetal Clinic and does not need to be collocated with Cardio Diagnostic. (See *Diagram 2a and 2b.*)

Heart Center Inpatient:

The Heart Center will only provide dedicated-cardiac inpatient beds. (Note: this assumes non-heart inpatient incremental needs are solved elsewhere.) The Heart Center Inpatient floors will aim to standardize on symmetrical 16-bed units with a centralized connection point for family amenities or shared clinical support. (See *Diagram 3.*)

Dedicated Surgical services & Imaging in Heart Center:

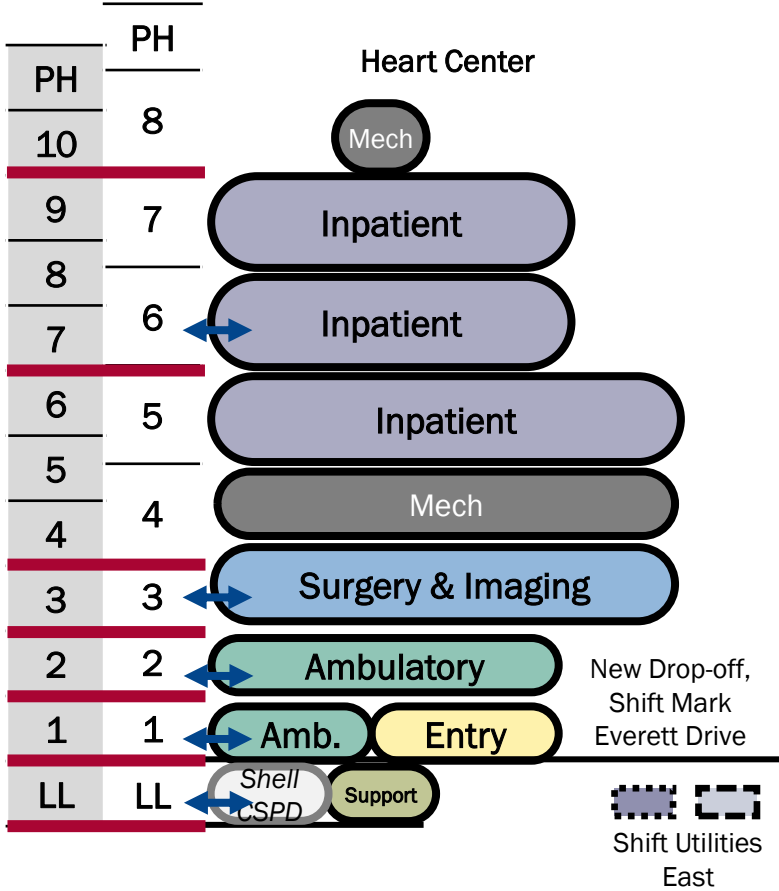
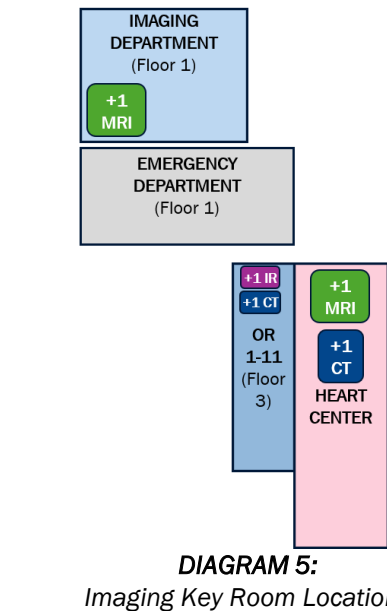
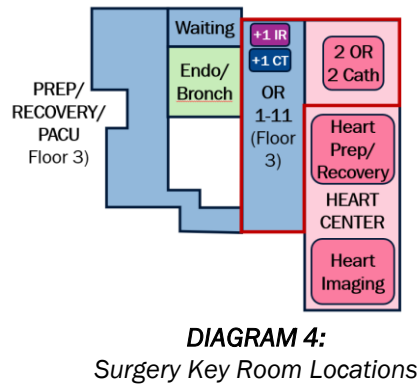
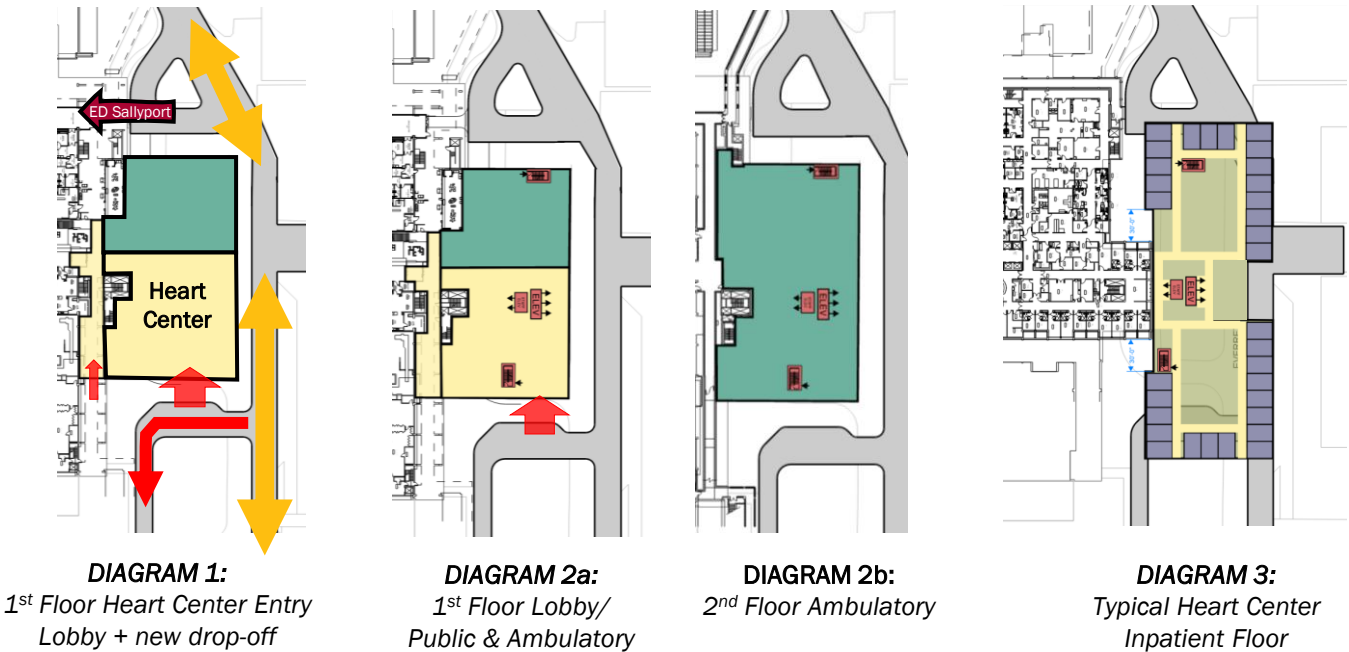
The Heart Center will have a dedicated waiting/ registration and prep/ recovery/ PACU, with the Heart ORs and Hybrid Cath Labs also located within the Heart Center. Connection will be provided behind the redline to allow surgeons and clinical staff to access both the Heart and Non-Heart ORs. (See *Diagram 4.*)

A Cardiac CT and Cardiac MRI will be located on the same floor as surgery, allowing for shared recovery space between imaging and surgery. (See *Diagram 5.*) The IR and procedural CT (serving both Heart and Non-Heart) will be located within the existing surgery suite. The additional Non-Heart MRI will be in the existing imaging department.

Floor-to-Floor Heights & OCH Main to Heart Center Connection:

Floor-to-floor height will match existing building up to Level 3, with connecting points between buildings at these floors. The recommendation studies the option to have a shorter mechanical floor at Level 4, maximizing the height of the Surgery and Imaging floor in the Heart Center. Upper Inpatient floors are to be 18’-0” floor-to-floor height, aligning only on Heart Center Level 6 and OCH Main Level 7, allowing for one expanded NICU. (See *Diagram 6.*)

Note: The recommendations study options for bisecting OCH Main and Heart Center on level 2 with the PATH Skywalk (as it is positioned today), or circumnavigating the Heart Center, to allow unrestricted access between OCH Main and Heart Center. Further study is needed.



Adjusted 2035 Program Needs for Alternate Options

An identified goal budget of \$295 million, includes a potential \$250 million ask of the State of Oklahoma and \$45 million from OU Health including Foundation/Philanthropy. The team worked to identify what costs identified during this study were either driven by the Heart Center specifically versus what is driven by any expansion or growth of non-heart departments. To achieve the identified budget, the 2035 program needs were adjusted to maintain a **comprehensive heart center** for the State of Oklahoma, with priorities driven by the extensive data analysis conducted as part of the Phase 1 study.

The updated assumptions for program need identified the following:

- ✓ Need for more than 32 CICU beds initially
- ✓ 12 NICU
- ✓ 16 Med/Surg
- ✓ Do not include shell space for Offices & Research

Items identified as costs associated with the project, but are not driven solely by the Heart Center are as follows:

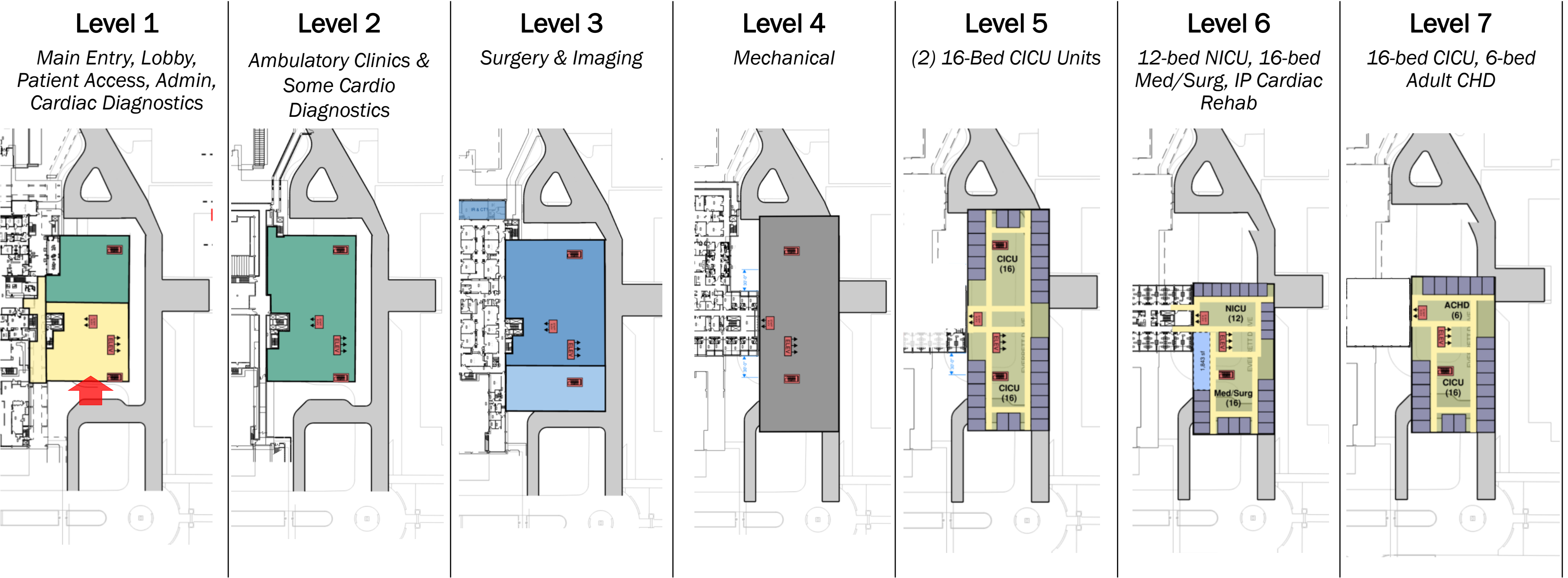
- ✓ Campus Infrastructure = \$13.8M... *extends steam and chilled water lines and adds new generator. This is required for any expansion at OCH.*
- ✓ Renovation for IR & Procedural CT = \$4.8M... *these modalities are for OCH overall and is a renovation that would occur after the Heart Center opens.*
- ✓ Sterile Processing Fit-out = \$3.4M... *needed to correct undersized space today, plus growth of OCH Main surgery*
- ✓ OCH Executive Offices Relocation = \$2.7M... *current executive offices on levels 2 and 3 need to be relocated to allow east expansion, new location is TBD.*
- ✓ Major Medical Equipment (MRI, CT) = \$4.0M... *further investigation if these can be funded by the Siemens agreement.*
- ✓ Additional Shell Floor = \$19.7M... *This building is unlikely to be expanded further in the future, and the project team recommends to maximize the expansion for future growth; cost includes shell space.*

2035 Program Needs

	Heart Center Key Rooms
Inpatient	90 beds Heart <ul style="list-style-type: none">• 48 CICU• 12 NICU• 16 Med/Surg• 6 Adult CHD
IP Cardiac Rehab	Cardiac Rehab
Surgical Services	4 Rooms Total <ul style="list-style-type: none">• 2 Heart ORs• 1 Cath/EP/Hybrid OR• 1 Cath/EP
Imaging	4 Modalities Total <ul style="list-style-type: none">• 1 MRI (Heart)• 1 CT (Heart)• 1 CT Procedural (renovation in OCH Main)• 1 IR (renovation in OCH Main)
Ambulatory (Clinics & Cardio Diagnostics)	30 Total Exam Rooms 11 Total Cardio Diagnostics 9 Echo 1 EKG 1 Exercise
Lobby, Patient Access, Admin.	Entry & lobby, Info/Security Desk, Registration/Admitting/ Financial Counseling, Coffee/snack shop, Admin offices, Volunteer space
Support & Ancillary	EVS, Linen, Supply Chain/Materials, Sterile Processing
Offices & Research	Not included unless separate funding is available

Heart Center Recommendation: Floor Diagrams

Note: See detail diagrams for lower-level support expansion. Further study is needed to identify if and how current support space can be expanded in place.



Level 1 & 2 pulled back to accommodate Drop-off & Entry

DOES NOT cantilever 3rd Floor over Mark Everett,
DOES cantilever 4th & above over Mark Everett

Visioning



OPPORTUNITIES

- Nationally Recognized, Top-Ranking Hospital
- Premier Pediatric Heart Program in Oklahoma
- Top-Ranked Specialties

CHALLENGES

- Facility Infrastructure
- Financial & System Resources
- Recruitment & People Strategy
- Community Access

GOALS

- Facilities that Match Talent of Team
- Improved Patient & Staff Experience
- Operations and Facilities Improvements

PRIORITIES

- **“THE” Heart Center for Oklahoma Children**
- **Resilient Facilities, Poised for Growth**
- **Maximize Patient, Family, & Staff Experience**

Core Team Visioning – Opportunities Identified

Themes Identified:	Comments Shared:
Nationally Recognized, Top-Ranking Hospital	<ul style="list-style-type: none">• (5x) Nationally Ranked Hospital in multiple specialties and be a full-service children’s hospital for all children ★<ul style="list-style-type: none">• All eleven (11) specialties ranked in US News & World Report• 5+ Programs ranked in US News & World Report• (3x) Nationally recognized comprehensive Children’s Hospital ★<ul style="list-style-type: none">• Be a Top 10 Children’s Hospital• THE Children’s Hospital, not just in Oklahoma
Premier Pediatric Heart Program in Oklahoma	<ul style="list-style-type: none">• (5x) Regional Heart Center of Excellence ★<ul style="list-style-type: none">• Heart Center for the state• To be in Top 25 Heart Centers in the US• Top 20 Heart Program• To be “The” pediatric referral center in South Central US• Identified as “The” Children’s Hospital for Oklahoma• IBD Center of Excellence
Top-Ranked Specialties	<ul style="list-style-type: none">• Offer higher specialized care• Specialized support service, disease specific• Increasing the number of ranked programs

Core Team Visioning – Challenges Identified

Themes Identified:	Comments Shared:
Financial & System Resources	<ul style="list-style-type: none"> • Philanthropy • Capital Budget • Prioritization of System Resources • Financial Resources
Recruitment & People Strategy	<ul style="list-style-type: none"> • (4x) Recruitment strategy, challenges, support, getting talent from outside of OK ★ • Update culture and practices in the College of Medicine • People resources • Increase visibility nationally for hospital
Community Access	<ul style="list-style-type: none"> • (2x) Lack of community awareness & philanthropic support ★ <ul style="list-style-type: none"> • State does not know about OCH • Marketing Gaps • Travel distance to OCH from rural areas • Support that OCH is unique in our place in the state
Facility Infrastructure	<ul style="list-style-type: none"> • (4x) Wayfinding, Site Constraints & Parking Access ★ • (2x) Dated facilities ★ • Seamlessly integrating an expansion to existing hospital • Bed Space • Building Infrastructure • Available real estate to expand and renovate

Core Team Visioning – Goals Identified

Themes Identified:	Comments Shared:
Premier Destination for Pediatric Care	<ul style="list-style-type: none"> • (4x) National Recognition ★ <ul style="list-style-type: none"> • Top 20 Heart Program • Become a “Who’s Who” hospital within Children’s Hospital Association • (2x) “The” Heart Center for the state ★ • Being the hospital critically ill patients want to go to • Build lifelong community & state partners • Maintaining and enhancing OCH brand
Improved Patient & Staff Experience	<ul style="list-style-type: none"> • Staff: <ul style="list-style-type: none"> • (4x) Recruit highly-ranked providers, subspecialists and support staff ★ • (2x) Achieve high-ranking employee engagement scores ★ • Reduce turnover with staff • Fill all positions • Specialized multi-disciplinary teams • Continue to improve quality across Children’s • Patient: <ul style="list-style-type: none"> • (2x) Top 10% in patient experience ★ • No wait times for clinics • Reduction in patient harm events • Decrease sedation needs
Operations & Facilities Improvements	<ul style="list-style-type: none"> • (2x) Build expanded facilities ★ • Master Plan to support Heart Program growth & Children’s as a whole • Add programs • Decisions driven by data

Costs & Timeline

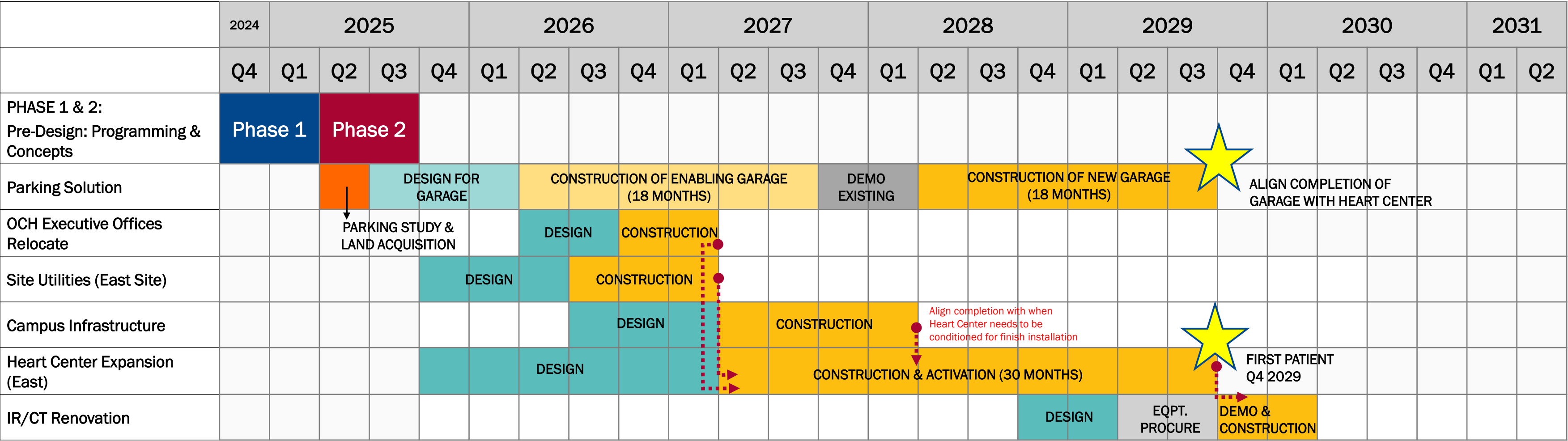


Probable Rough Order of Magnitude (ROM)

PROGRAM DESCRIPTION		ROM PROJECT BUDGETS
HEART CENTER		
Total Project cost	Shell & Core	\$295M
		*Reference tighter ranges that fall within the above in Final Recommendation, based on how much of building is fit-out vs shelled upon completion
Enabling (Not included in Heart Center Project Cost)		
OCH Executive Offices	Current executive offices on Level 2 & 3 need to relocate to allow east expansion, new location TBD	\$2.7M
		Assumes a full gut/renovation of new location; cost could be less if existing conditions/furniture remains and reused
Other Costs not included in Heart Center		
Campus Infrastructure	Extend steam & chilled water lines, new generator plant (required for any expansion at OCH and not specific to Heart Center)	\$13.8M
2 nd Floor PATH Skywalk Reroute	Further study to determine path reroute to maintain desired access between Heart Center and OCH Main	TBD – requires further study
OCH Projects (Non-Heart)		
Renovation for IR & Procedural CT	These modalities are for OCH overall (serves OCH, not dedicated to the Heart Center expansion, renovation will occur after Heart Center expansion)	\$4.8M
NICU Relocation from Adult	Relocate 15 NICU beds from OUMC to OCH (not related to Heart Center project)	\$10.3M
Sterile Processing Fit-Out	Needed to correct undersized space today, plus growth of OCH Main surgery (+2 Main/General OR’s + 1 Trauma/Transplant OR)	\$3.4M
Additional Shell Floor	This building is unlikely to be expanded further in the future, recommend to maximize the expansion for future growth; cost includes shell space	\$19.7M
Non-Heart Inpatient Beds	(+4) NICU, (+8) PICU, (+5) Med/Surg beds	Assume limited investment to re-purpose current beds
Non-Heart Imaging	(+1) MRI	TBD
Non-Heart Support	Support Renovation / Expansion	TBD
Overall Parking Solution	OUHSC campus including OCH needs a long-term parking solutions for replenishment and growth	TBD

East Site: Overall Timeframe for Implementation with Parking Solution Impact

This high-level schedule overview assumes that each phase continues following the prior phase, without any pause for approvals. If time is needed for approvals between phases, this will extend the overall schedule.



PRE-DESIGN: PHASE 1

1. Introduction & Project Vision

2. Site & Infrastructure Investigation

3. High-Level Parking Analysis

4. Preliminary Planning

5. Identify Critical Issues & Opportunities

6. Design Concepts

7. Conceptual Cost Estimate

PRE-DESIGN: PHASE 2

1. Programming (Detailed)

2. Geotechnical Investigation (By OU Health)

3. Conceptual Site Design

4. Conceptual Building Layout

5. Conceptual Building Design

6. Target Cost Models & Timeline

DESIGN:

1. Schematic Design

2. Design Development

3. Construction Documents

CONSTRUCTION:

1. Varying durations per project