

Peru
State
College

LEO A DALY

INDOOR
RECREATION
COMPLEX

PERU STATE

DESIGN DEVELOPMENT REPORT

PERU STATE COLLEGE
PERU, NEBRASKA

January 12, 2023

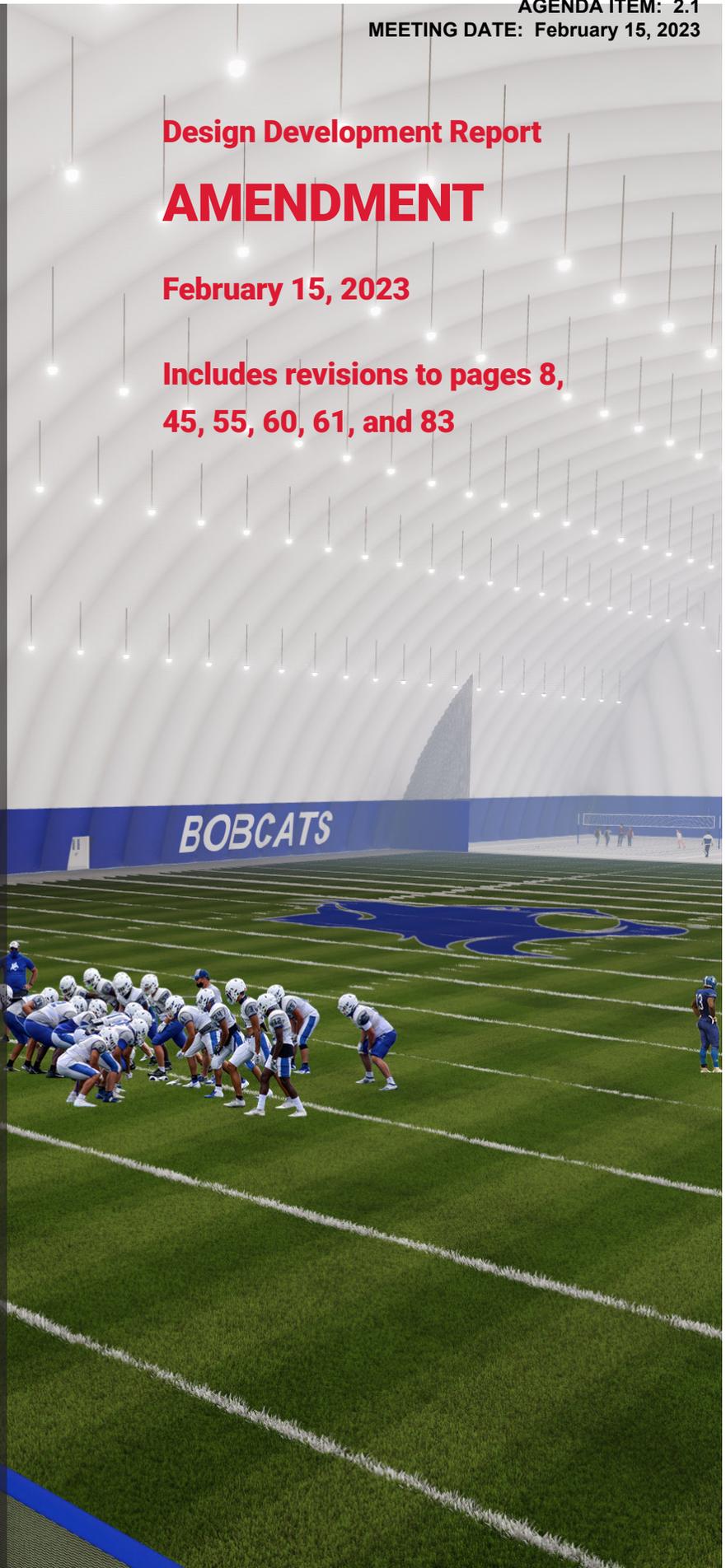
AES ADVANCED
ENGINEERING
SYSTEMS

CONFLUENCE

Design Development Report
AMENDMENT

February 15, 2023

Includes revisions to pages 8,
45, 55, 60, 61, and 83



Revised 2-15-2023

II. PROJECT DESCRIPTION

Planning Process

In August 2021, the Board of Trustees of the Nebraska State College System (NSCS), doing business as Peru State College (College), engaged Leo A Daly and their consultants (Consultant) to provide architectural and engineering planning services to develop a Program Statement for the Peru State College Indoor Recreational Complex, followed by the design of resulting new or renovated facilities. The goal of the Program Statement was to define the functions, size and estimated cost of the proposed facilities; determine the optimal location for any new construction; and identify the functions and size of additional facilities which might be undertaken as separate projects by the College during the next ten years.

Project Summary

The project resulting from the Program Statement phase includes expanding the existing Baseball and Softball Complex to include indoor practice and support facilities, and construction of a new indoor recreation facility serving multiple activities and team types to supplement the existing AWAC which is beyond capacity.

The expanded Baseball and Softball Complex will include construction of a Baseball and Softball

support facility, of about 7,250 square feet, to house lockers, offices, treatment and training, equipment storage, concessions and spectator restrooms along with building operations support areas. Because the softball field and baseball field spectator areas are remote from each other, spectator amenities associated with the softball field will be housed in a satellite facility of approximately 1,090 square feet. A third structure, of about 6,670 square feet, is proposed to house a flexible multipurpose practice area, including space for batting and pitching practice.

The proposed indoor recreation complex will be a multipurpose space accommodating the following uses: 160 ft x 210 ft (70 yd) practice field (football, lacrosse, soccer), golf simulators and hitting bays, multipurpose courts (tennis, basketball, volleyball), weight training, a small training room, storage, spectator amenities including concessions and restrooms, and building operations support. These functions will be housed in a 73,070 square foot practice facility and attached 5,690 square foot support facility.

For both proposed Complexes, the support facilities are planned as pre-engineered metal building structures with metal panel cladding similar to metal panel cladding featured on existing athletic facilities.



Image: Softball Field at Peru State College

LEO A DALY

Revised 2-15-2023
Design

Multi-Sport Complex Room Summary

Program Code	Space/Department	Room Use Code #	Program Statement NSF	Development NSF
2.0	Indoor Recreation Complex			
2.1	Public Areas			
2.1.1	Lobby	W10	200	199
2.1.2	Vestibule	W11	0	78
2.1.3	Public Corridor	W06	0	1688
		Subtotal	200	1965
2.2	Administration			
2.2.1	Offices	310	0	223
2.2.2	Closet	315	0	19
		Subtotal	0	242
2.3	Indoor Recreation*			
2.3.1	Multipurpose Practice Field	520	68,077	47,000
2.3.2	Multipurpose Courts	520	16,723	16,741
2.3.2	Vehicle Air Lock	615	513	522
2.3.3	Personnel Air Lock	615	0	120
		Subtotal	85,313	64,383
2.4	Performance / Training			
2.4.1	Weight Room	520	1,590	7,111
2.4.2	Golf	520	0	1,053
		Subtotal	1,590	8,164
2.5	Sports Medicine			
2.5.1	Training Room Work Area	615	0	150
		Subtotal	0	150
2.7	Equipment			
2.7.1	Sport Storage	615	207	219
		Subtotal	207	219
2.8	Spectator Facilities			
2.8.1	Concessions / Cooking / Nutrition	615	154	155
2.8.2	Pantry / Dishwash	615	90	88
2.8.3	Women's Public Restroom	X03	572	557
2.8.4	Men's Public Restroom	X03	300	305
2.8.5	Family Restroom & Shower	X03	148	146
2.8.6	Day Lockers	615	75	75
		Subtotal	1,339	1,326
2.9	Operations Support			
2.9.1	Mechanical / Plumbing	Y04	251	251
2.9.2	Electrical / Telecommunications/ Data	Y04	166	416
2.9.3	Custodial	X02	109	117
		Subtotal	526	784
	Indoor Recreation Complex	Total Net Area	89,175	77,233
		Total Gross Area	90,300	79,020

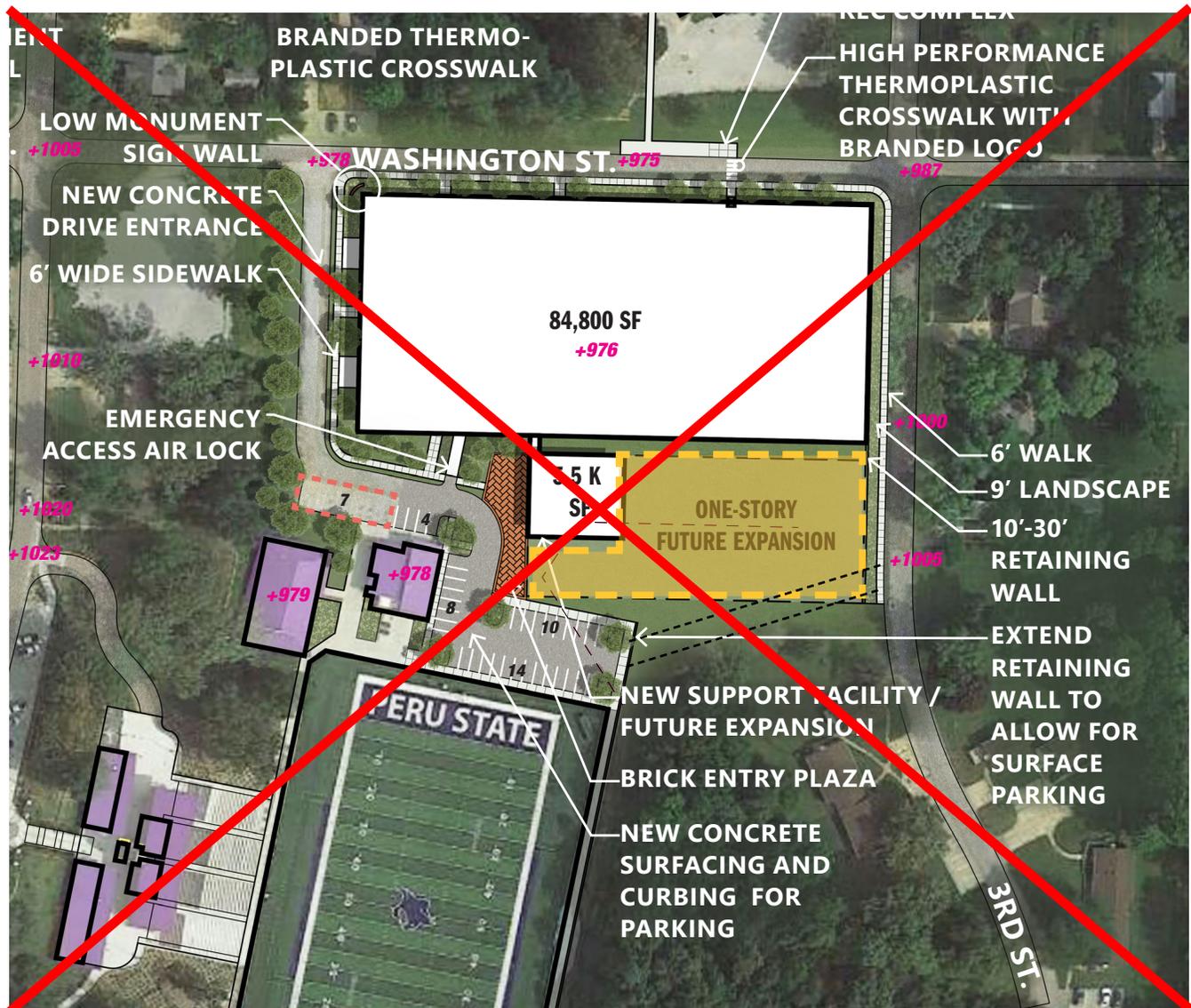
* The Indoor Recreation Facility included an indoor 200-meter, 6-lane track at the Program Statement phase. However, the Peru State College Design Team chose to eliminate the indoor track at the Design Development phase. This allows for a more economical air-supported structure and a larger turf practice area for football. The larger practice field will also better support the potential addition of soccer and lacrosse in the future, as well as supporting other student activities.

** Besides rotating the Air-Supported Dome 90 degrees, it has also been shortened by 10 yards to allow for the access road to 3rd Street. This reduces the size of the Dome and the total Net and Gross Square Feet of the project.

Future Expansion: Indoor Recreation Complex, Site 2

The Indoor Recreation Complex Support Facility is located to allow for a future expansion to the **north** and **west**. Current code restrictions associated with the proposed complex dictate that such an expansion will be limited to a single story. If a multi-story facility is desired it will need to be treated as a separate building and will require physical separation from the existing facilities, fire separation walls or both. **The proposed driveway to Third Street may need to be rerouted to accommodate the full area of expansion indicated.**

Please refer to page 83 for revised Site 2 site plan.



Revised 2-15-2023

I. COST ESTIMATE CRITERIA

Standards and Sources Used to Develop the Probable Cost

The following resources were utilized to establish a cost estimate based on the design development phase of the design process:

- Review and compare historical data on similar type projects
- Completed takeoff of all scopes from the current design documents
- Insert quantities for scope of work that is not complete on the documents but will be needed to complete the project
- Completed a detailed cost estimate based upon bid results, takeoff, and assumptions
- Solicited bids for the air supported domes and pre-engineered buildings
- Solicited budgets for major scopes of work from local and regional subcontractors for comparison
- Solicited subcontractor and material vendor Input on current market conditions and anticipated future price increases

After the schematic design budget estimate was completed, the Construction Manager continued to work with the Project Team to breakdown the cost estimate by site areas and buildings. They estimated several alternates and identified many cost reduction items. Working with the Project Team to prioritize portions of the project, the scope of work was separated into a Phase A and Phase B to work with the available budget, yet plan ahead for when additional fund raising will be completed. The phasing of the work was incorporated into the design development documents.

The Construction Manager maintains up to date cost information allowing unit prices to be built up with a separate review on labor, material, and equipment. The Construction Manager’s general conditions cost and fees were provided as part of the CM selection process. The escalation factor was included to cover

anticipated future price increases until the final design documents are completed and the project can be fully bid out to subcontractor’s and suppliers.

Year and Month on Which Estimates Are Made and Inflation Factors Used

Probable costs provided assume establishment of the Construction Manager’s GMP occurs Spring 2023. A 5% escalation factor was used.

Gross and Net Square Foot Analysis

Site Gross Square Feet

Site Work, Site 1 - Baseball/Softball:	121,940 GSF
Site Work, Site 2 - Indoor Rec Complex:	209,470 GSF

Building Gross Square Feet

Baseball/Softball Dome	6,670 GSF
Baseball/Softball Support Facility (including Softball Spectator Amenities Building)	8,340 GSF
Indoor Recreation Dome	79,020 GSF
Indoor Recreation Support Facility	5,690 GSF

Total Building Gross Square Feet 93,770 GSF

Building Net Area Square Feet

Baseball/Softball Dome	6,598 NASF
Baseball/Softball Support Facility (including Softball Spectator Amenities Building)	6,884 NASF
Indoor Recreation Dome	71,494 NASF
Indoor Recreation Support Facility	5,513 NASF

Total Net Square Feet 90,489 NASF

Construction Cost per GSF = \$183.80

Total Project Cost per GSF = \$190.44

II. TOTAL PROJECT COST - COMPARE TO PROGRAM STATEMENT

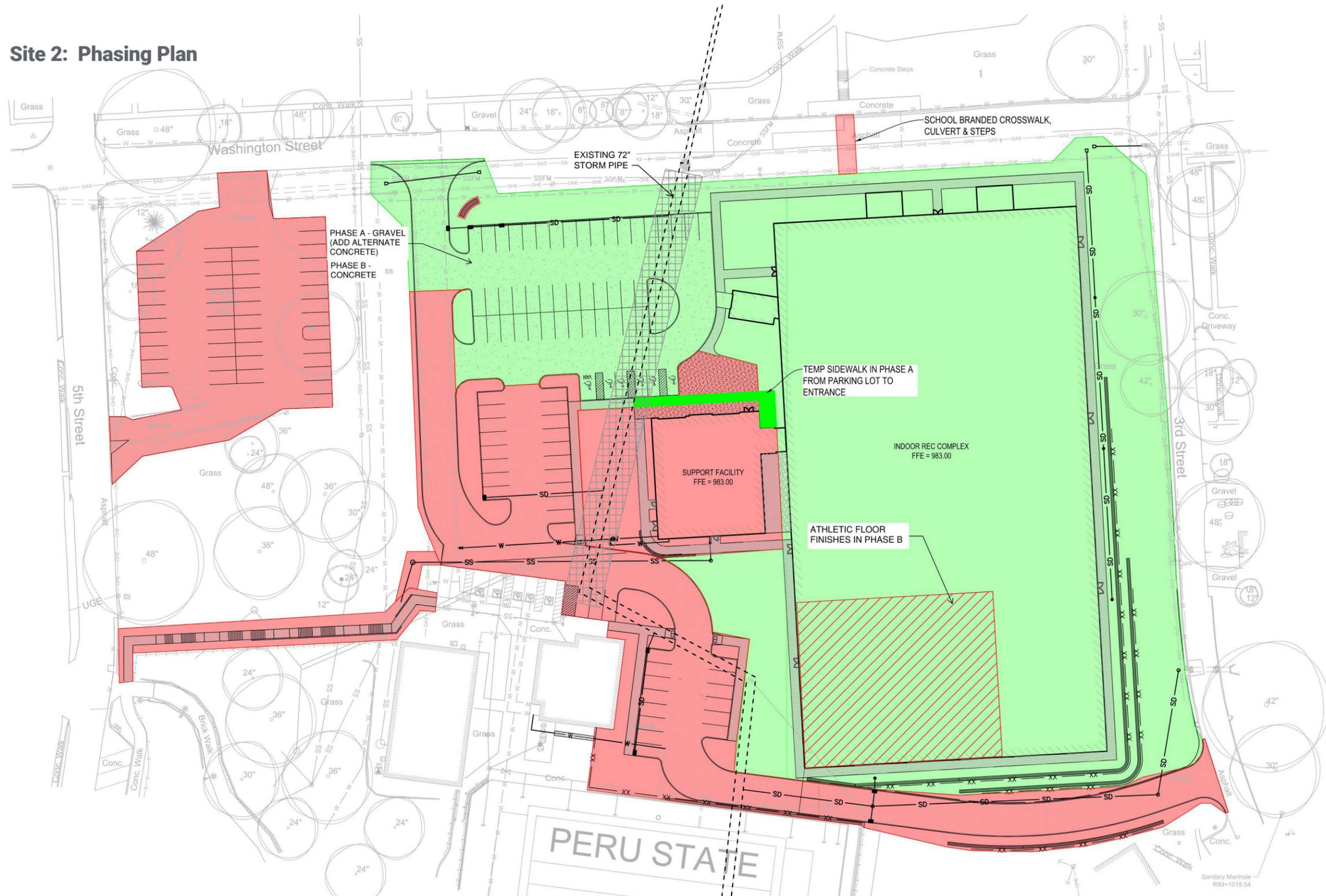
	<u>PROGRAM STATEMENT</u>	<u>DES. DEVELOPMENT PHASE A</u>	<u>DES. DEVELOPMENT PHASE B</u>	<u>DES. DEVELOPMENT TOTAL</u>	<u>CHANGE FROM PROG. STATE.</u>
A. Design & Construction					
Administration Fees	\$874,697	\$787,227	\$208,023	\$995,250*	\$120,553
B. Construction Costs	\$12,032,627	\$10,835,011	\$6,398,013	\$17,233,024	\$5,200,397
C. Moveable Equipment	\$187,435	\$116,210	\$78,419	\$194,629	\$7,194
D. Special & Technical Equip.	\$312,392	\$193,682	\$130,592	\$324,274	\$11,882
E. Land Acquisition	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F. Artwork	\$65,000	\$65,000	\$0.00	\$65,000	\$0.00
G. Other Costs	\$212,426	\$131,700	\$80,722	\$212,422	(\$4)
- Testing / Surveys					
- Special Inspections					
- CMR Pre-construction Fee					
- Plan Review					
H. Project Contingency (5%)	\$962,868	\$539,012	\$330,890	\$870,600	(\$92,268)
Total Opinion of Probable Cost:	\$14,647,445	\$12,668,540**	\$7,226,659	\$19,895,199**	\$5,247,754

NOTE:

* Design & construction fee split for project phases is an estimate.

** Rotating the Air-Supported Dome 90 degrees and locating it closer to 3rd Street to avoid building structures over the existing 72" storm sewer can be accomplished for an estimated additional net cost of \$100,000. The largest portions of this cost are due to additional site grading and retaining walls. The estimated cost for the additional paved drives and parking spaces gained by rotating the Dome is approximately \$150,000. It is anticipated that these additional costs will be managed by assigning some of the contingency budget at the GMP stage to these two scopes, and by reducing costs in other areas. This may include rock or gravel drives and parking in lieu of paved surfaces.

Site 2: Phasing Plan



- PHASING LEGEND**
- PHASE "A" (GREEN)
 - PHASE "B" (RED)
- LEGEND**
- 6" CONCRETE PAVEMENT
 - 4" CONCRETE SIDEWALK
 - 4" LAYER OF ROCK (1.5" - 2" DIA. CRUSHED LIMESTON)
 - PLAZA AREA