



Total Project Cost	\$ 6,165,730
Approval Level:	Full BOR

### SCHEMATIC DESIGN APPROVAL REQUEST

TO: Pat Gamble  
President

THROUGH: Kit Duke  
Chief Facilities Officer

THROUGH: Tom Case  
Chancellor

THROUGH: William Spindle  
Vice Chancellor, Administrative Services

THROUGH: Chris Turletes  
Associate Vice Chancellor, Facilities and Campus Services

THROUGH: John Faunce  
Director, Facilities Planning and Construction

FROM: John Hanson  
Sr. Project Manager

DATE: January 16, 2014

SUBJECT: Project Type: NC  
Project Name: UAA Health Campus Pedestrian Bridge  
Project No.: 13-0050

Cc:



## **Program Resource Planning Process Status Report**

### **Non-Academic Project Health Campus Pedestrian Bridge**

#### **Schematic Design Approval**

This project is a subproject of the Health Sciences Building (HSB) phase one project. The HSB was in construction prior to acceptance of the Program Resource Planning process by the Regents. Upon completion of construction of the HSB, the Board approved three projects utilizing the remaining project funds. This project was a component of the work associated with the Health Sciences District and the HSB phase one project.

At the February 18, 2009 Board meeting, the UAA Campus Master Plan amendment was approved which outlined the future development of the Health Sciences District to include a Pedestrian Bridge to connect buildings to the existing campus.

#### **Health Campus Pedestrian Bridge**

##### **Milestone #0**

Mission Area Analysis: (incorporated in CMP amendment) Date: N/A

Statement of Need: (incorporated in CMP amendment) Date: N/A

##### **Milestone #1**

SAC Review: Date: N/A

##### **Milestone #2**

Preliminary Administrative Approval: Date: 02/22/13

##### **Milestone #3**

Statement of Requirements: Date: N/A

##### **Milestone#4**

Business and Financing Plan: Date: N/A

Operating Budget Request: Date: \_\_\_\_\_

Capital Budget Request: Date: N/A

Legislative Funding: (funded through Health Science Building appropriation) Date: FY09

Board Approval: (to expend remaining HSB funding) Date: 12/06/13

##### **Milestone #5**

Formal Project Approval: Date: 04/11/13

**Schematic Design Approval: (Current Action Requested)** **Date: 2/21/14**

##### **Milestone #6**

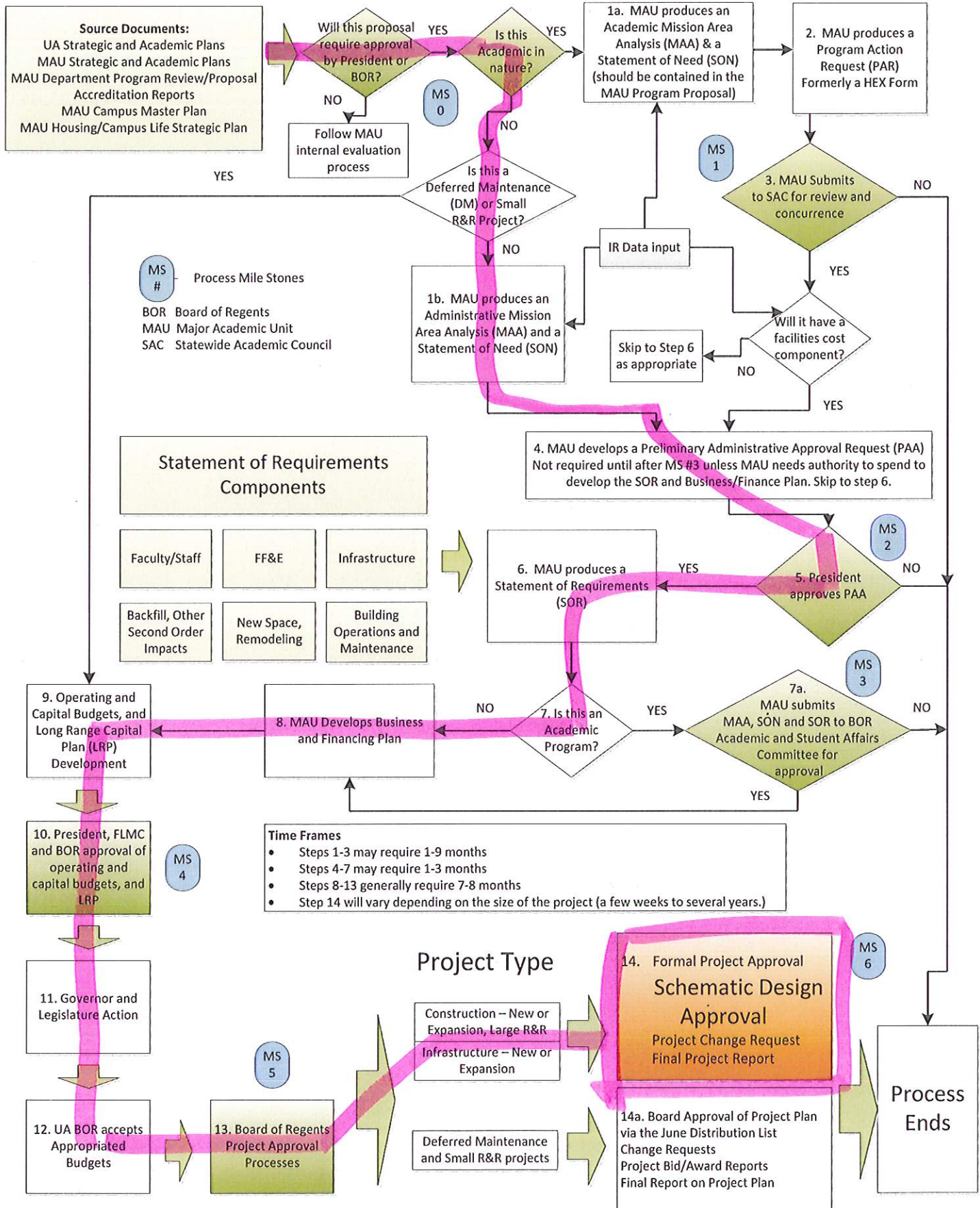
Construction Started: Date: \_\_\_\_\_

Construction Completed: Date: \_\_\_\_\_

Beneficial Occupancy: Date: \_\_\_\_\_

# University of Alaska Program Resource Planning Academic, Budget and Project Planning Process

Rev. 9-8-11





UNIVERSITY OF ALASKA  
ANCHORAGE

## ***SCHEMATIC DESIGN APPROVAL***

**Name of Project:** UAA Health Campus Pedestrian Bridge  
**Project Type:** New Construction  
**Location of Project:** UAA Main Campus, Health Sciences Building (AS156), Anchorage, AK  
**Project Number:** 13-0050  
**Date of Request:** January 17, 2014

<b>Total Project Cost:</b>	<b>\$ 6,165,730</b>	<b>(Increase of \$1,815,730 since FPA)</b>
<b>Approval Required:</b>	<b>Full Board</b>	
<b>Prior Approvals:</b>	<b>Preliminary Administrative Approval</b>	<b>February 22, 2013</b>
	<b>Formal Project Approval</b>	<b>April 12, 2013</b>

A Schematic Design Approval (SDA) is required for all Capital Projects with a Total Project Cost in excess of \$250,000.

SDA represents approval of the location of the facility, its relationship to other facilities, the functional relationship of interior areas, the basic design including construction materials, mechanical, electrical, technology infrastructure and telecommunications systems, and any other changes to the project since formal project approval. Unless otherwise designated by the approval authority or a material change in the project is subsequently identified, SDA also represents approval of the proposed cost of the next phases of the project and authorization to complete the design development process, to bid and award a contract within the approved budget, and to proceed to completion of project construction. Provided however, if a material change in the project is subsequently identified, such change will be subject to the approval process.

### Action Requested

**The Facilities and Land Management Committee Recommends that the Board of Regents approves the Schematic Design Approval request for the University of Alaska Anchorage Health Campus Pedestrian Bridge, as presented in compliance with the campus master plan, and authorizes the university administration to complete construction bid documents to bid and award a contract within the approved budget, and to proceed to completion of project construction not to exceed a Total Project Cost of \$6,165,730. This motion is effective February 20, 2014.**

### Project Abstract

This project involves the construction of an enclosed and conditioned pedestrian bridge spanning Providence Drive and connecting the new Engineering & Industry Building (EIB) and the Health Sciences Building (HSB). The Health Campus Pedestrian Bridge will link the Main Campus to the Health Sciences Zone, enhancing academic collaboration and providing safe and secure circulation over Providence Drive. This represents the University's first crossing of Providence Drive with a dedicated and protected pedestrian circulation spine. The bridge will be highly visible to users of Providence Drive including students, staff, and visitors of the UAA, APU, API, and Providence Hospital campuses, and to surrounding community members alike.

The location of the bridge provides a rare opportunity to fulfill many of the broad visionary principles outlined in the 2013 UAA Campus Master Plan. Spanning the most heavily traveled arterial through campus, the Pedestrian Bridge can serve as gateway and entrance to the University and the larger UMED



District. Possibly the most visible development to-date at UAA, the bridge is an opportunity to enhance the UAA brand, embrace and expand the connection to neighboring community partners, develop and promote a pedestrian-friendly campus in accordance with the master plan and provide a safer crossing of Providence Drive.

### **Background**

In an effort to promote a collaborative and interdisciplinary approach to health science education at the University of Alaska Anchorage, the health sciences programs within the College of Health and Social Welfare, the College of Arts and Sciences, and the Community and Technical College were planned to be housed in the new Health Sciences Building (HSB), which was completed in April 2011.

As part of this planning effort, the consultant was tasked to master plan the long term development of the Health Sciences Zone on the south side of Providence Drive. The master plan included the programming and conceptual design for phase 2 of the HSB, an associated parking structure and a pedestrian bridge across Providence Drive. The master plan for the Health Sciences Zone was adopted in June 2009.

The Health Sciences Zone is located at the center of campus, adjacent to Providence Medical Center and bounded by Providence Drive to the north, Providence Medical Center Access Drive to the east, and Piper Street to the south and west. The master plan creates a rectilinear quadrangle, spanning across Providence Drive, which will be further defined by new science, and engineering buildings and connected by pedestrian crossings.

To meet the goals of the master plan to connect the Health Science Zone with the core, the University included the construction of a pedestrian bridge as a part of the capital budget request for the second Health Sciences Building. However, with the successful completion of the first Health Sciences Building project, on time and under budget, sufficient funds remained to design and construct the pedestrian bridge. The Board of Regents approved the use of the balance of HSB funds for this project on December 7, 2012.

### **Programmatic Need**

The completion of the project will enhance ongoing collaborative work between the College of Health and the College of Engineering and create future opportunities. It will also reduce vehicular traffic between the Engineering and Industry Building (EIB) and HSB by creating a safe route for pedestrians crossing Providence Drive allowing the public to utilize parking lots on either side to reach the UAA health campus.

**Mission Area Analysis:** This project is in keeping with the UAA Strategic Plan goals for student success, education quality, faculty and staff strength, and responsiveness to state needs, technology and facility development.

The UAA Strategic Plan 2017 includes the following priorities for the UAA campus.

Priority D. Strengthen the UAA Community. To make the best of the opportunities and challenges that lie ahead, we must focus our attention on building and strengthening the UAA community as a whole. builds an institution distinguished as a diverse, engaged community of students, staff, faculty, alumni, and schools, colleges, and campuses, we will:

D. 8 - Construct and maintain plant and equipment to provide a dynamic, state of the art environment for high quality teaching, research, engagement and creative expression.

### **Project Scope**

This project constructs an enclosed and conditioned pedestrian bridge spanning Providence Drive and connecting the EIB and the HSB. The bridge is situated approximately 335 feet west of Spirit Drive and 475 feet east of Seawolf Drive/Piper Street. Spanning approximately 224 feet, the bridge connects the second level of HSB with the third level of EIB. The bottom of the bridge structure ranges 24 to 26 feet above the Providence Drive roadway.

See attached design narrative for specific information regarding vision/objectives, site description, project data, use and occupancy data, building code information, design concepts, materials, arch form and associated design information.

### **Project Impacts**

The pedestrian bridge will be phased to coincide with the construction of the EIB and will be completed the fall of 2015, when EIB occupancy occurs.

The project will require the relocation of street lamps in the Municipality of Anchorage (MOA) right of way. Landscaping in the right of way will be moderately impacted with one larger spruce tree in the median requiring removal as well as several large trees on the north side of Providence Drive.

The material staging area for the pedestrian bridge will be located northwest of HSB. The landscaped area will be restored to its condition prior to project construction.

The project will require a full road closure of Providence Drive for a minimum of a two-week period for the erection of the structural steel and installation of the deck. To help minimize impact to the University and UMED district members, the closure will be scheduled for the 2014 Christmas holiday break. East and west bound traffic will be routed via Piper Street and Spirit Way. Other traffic flow patterns will be investigated.

### **Variances**

**Project Delivery Method:** The project delivery method identified in the Formal Project Approval was design-bid-build. UAA Facilities Planning and Construction submitted a single source/sole source request to the chief procurement officer to use NCI for pre- construction services/construction services for the project for review and consideration. On November 14, 2013, the request was approved. See Attachment.

**Project Cost:** The FPA budget (Total Project Cost) was \$4,350,000. The FPA budget was based upon utilizing the balance of funds from the successful completion of the HSB. At the completion of the HSB, the full scope and associated costs for the bridge were not known. During concept planning/design development, using NCI for constructability reviews and the cost estimating process, the total project budget was determined to be \$6,165,730.

### **Total Project Cost and Funding Sources**

<b>Funding Title</b>	<b>Fund Account</b>	<b>FPA Amount</b>	<b>SDA Amount</b>
FY 09 Capital Funding (HSB Phase 1)	564290-17064	\$4,350,000	\$4,350,000
FY09 Health Campus Parking (remaining balance)	564290-17064		\$622,954
Parking Services*	TBD		\$500,000
UAA Recharge (Planning/Concept Development)	174004-17059		\$250,000
Statewide Loan	TBD		\$442,776
<b>Total Funding Available</b>		<b>\$4,350,000</b>	<b>\$ 6,165,730</b>

\*Includes amount to be back-charged to UAA Parking Services

## **Annual Program and Facility Cost Projections**

### Facilities Costs:

Maintenance & Repair	\$ 92,486
Operations	\$ 17,500
<b>Annual O&amp;M Cost</b>	<b>\$ 109,636</b>

<u>Annual Renewal and Replacement</u>	<u>\$90,700</u>
<b>Total Annual Cost Projections</b>	<b>\$200,336</b>

## **Project Schedule**

### DESIGN

Project Initiation	December, 2012
Preliminary Administrative Approval	February 2013
Conceptual Design	April 2013
Formal Project Approval	April 2013
Schematic Design	June - August 2013
Schematic Design Approval	February 2014
Construction Documents	March - May 2014

### BID & AWARD

Advertise and Bid	May - July 2014
Construction Contract Award	August 2015

### CONSTRUCTION

Start of Construction	August 2014
Construction Complete	June 2015
Date of Beneficial Occupancy	July 2015
Warranty Period	1 Year

## **Project Delivery Method**

Construction Manager At Risk (CMAR)

## **Supporting Documents**

One-page Budget  
Design Narrative Document  
Single Source Procurement Request  
Drawings(4)  
Site Plan  
Exterior Elevations  
Floor Plans  
Renderings

## **Affirmation**

This project complies with Regents Policy, the campus master plan, and the Project Agreement.

## **Approvals**

The level of approval required for SDA shall be based upon the estimated TPC as follows:

- **TPC > \$4.0 million will require approval by the board based on the recommendations of the Facilities and Land Management Committee (FLMC).**
- TPC > \$2.0 million but not more than \$4.0 million will require approval by the FLMC.
- TPC > \$1.0 million but not more than \$2.0 million will require approval by the Chair of the FLMC.
- TPC ≤ \$1.0 million will require approval by the AVP of Facilities and Land Management.

<b>UNIVERSITY OF ALASKA</b>		
Project Name: UAA Health Campus Pedestrian Bridge		
MAU: UAA		
Building:	Date:	1/1/2014
Campus: UAA Main Campus	Prepared by:	J.L. Hanson
Project #: 13-0050	Acct #: 569290-17064	
Total GSF Affected by Project:	3,680	3,680
<b>PROJECT BUDGET</b>	<b>FPA Budget</b>	<b>SDA Budget</b>
<b>A. Professional Services</b>		
Advance Planning, Program Development	\$ 50,000	\$ 50,000
Consultant: Design Services	\$ 390,000	\$ 475,130
Consultant: Construction Phase Services	\$ 140,000	\$ 226,000
Consul: Extra Services (List:Presentations, renderings, meetings)	\$ 50,000	\$ 67,000
Site Survey	\$ 25,000	\$ 25,000
Soils Testing & Engineering		
Special Inspections	\$ 100,000	\$ 100,000
Plan Review Fees / Permits	\$ 70,000	\$ 50,000
Other		
Professional Services Subtotal	<b>\$ 825,000</b>	<b>\$ 993,130</b>
<b>B. Construction</b>		
General Construction Contract(s)	\$ 2,769,000	\$ 4,400,000
Other Contractors (List:_____)	\$ -	\$ -
Construction Contingency	\$ 276,900	\$ 440,000
Construction Subtotal	<b>\$ 3,045,900</b>	<b>\$ 4,840,000</b>
<i>Construction Cost per GSF</i>	\$ 828	\$ 1,315
<b>C. Building Completion Activity</b>		
Equipment		
Fixtures		
Furnishings		
Signage not in construction contract	\$ 97,000	
Move-Out Costs	\$ 25,000	
Move-In Costs	\$ 25,000	
Art	\$ 43,500	\$ 44,000
Other (Interim Space Needs or Temp Reloc. Costs)		
OIT Support	\$ 20,000	\$ 20,000
Maintenance Operation Support	\$ 20,000	\$ 20,000
Building Completion Activity Subtotal	<b>\$ 230,500</b>	<b>\$ 84,000</b>
<b>D. Owner Activities &amp; Administrative Costs</b>		
Project Plng, Staff Support		
Project Management	\$ 243,600	\$ 243,600
Misc. Expenses: Advertising, Printing, Supplies, Etc.	\$ 5,000	\$ 5,000
Owner Activities & Administrative Costs Subtotal	<b>\$ 248,600</b>	<b>\$ 248,600</b>
<b>E. Total Project Cost</b>	<b>\$ 4,350,000</b>	<b>\$ 6,165,730</b>
<i>Total Project Cost per GSF</i>	\$ 1,182	\$ 1,675
<b>F. Total Appropriation(s)</b>	<b>\$4,350,000</b>	<b>\$6,121,730</b>



## DESIGN NARRATIVE

### Vision & Objectives

This project involves the construction of an enclosed and conditioned pedestrian bridge spanning Providence Drive and connecting the new Engineering & Industry Building (EIB) and the Health Sciences Building (HSB). The *Health Campus Pedestrian Bridge* will link the Main Campus and Health Sciences Campus Precinct, enhancing academic collaboration and providing safe and secure circulation over Providence Drive. This represents the University's first crossing of Providence Drive with a dedicated and protected pedestrian circulation spine. The bridge will be highly visible to users of Providence Drive including students, staff, and visitors of the UAA, APU, API, and Providence Hospital campuses, and to surrounding community members alike.

The location of the bridge provides a rare opportunity to fulfill many of the broad visionary principles outlined in the 2013 UAA Campus Master Plan. Spanning the most heavily traveled arterial through campus, the Pedestrian Bridge can serve as gateway and entrance to the University and to the larger U-Med District. Possibly the most visible development to-date at UAA, the bridge is an opportunity to enhance the UAA brand, embrace and expand the connection to neighboring community partners, and to develop and promote a pedestrian-friendly campus in accordance with the Master Plan.

Based on the outcome of meetings and planning coordination with the University, local building authorities and the design team, the following objectives are established for the project:

- Apply the guiding principles and vision established in the *2013 UAA Campus Master Plan*.
- The bridge must *functionally connect campus infrastructure* on the north and south sides of Providence Drive, linking the Health and Engineering Zones of the campus, and creating a non-motorized pathway for safe and convenient circulation for faculty and students.
- The bridge must *include a data/communications pathway* between the north and south sides of campus. Integrate a set of comm ducts into the bridge design.
- Ensure full *ADA-accessible circulation and accommodation*.
- *Be a good neighbor* in the U-Med District. Maintain view corridors and minimize impact to the natural landscape in accordance with the objectives of the Master Plan.
- *Consider impact to traffic* on Providence Drive during and after construction and impact to existing Municipal infrastructure in the right-of-way. Avoid text-driven signage that will compete with and/or distract from roadway signage and driver safety.

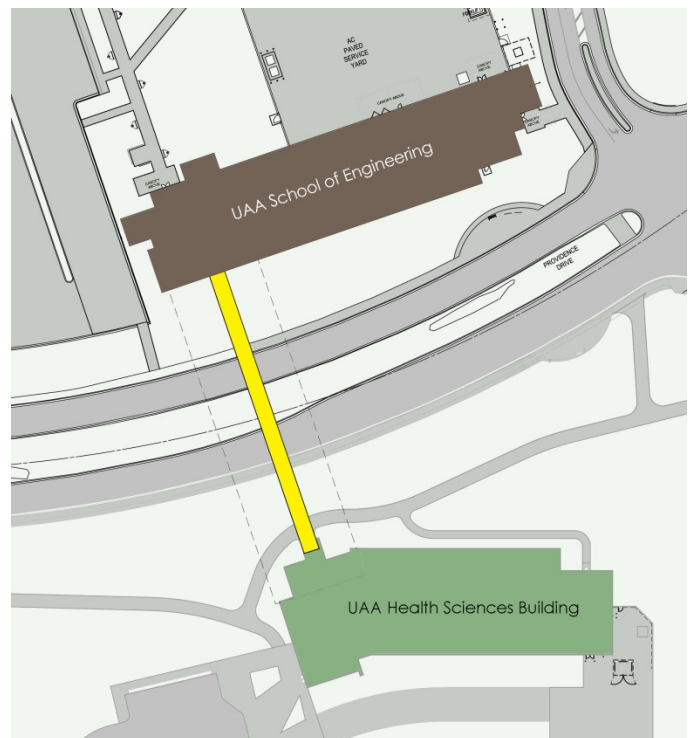
- *Comply with building codes* and the applicable MOA Title 21 design standards. Voluntarily adhere to Title 21 Conditional Use Standards for Skywalks to the greatest extent practical.
- *Aesthetically relate* to the HSB and EIB designs and borrow from compatible material palettes.
- *Strike a balance* among long term maintenance requirements, operating cost and first cost.
- Integrate UAA identity and branding into the architecture and exterior composition.

## Site

The proposed pedestrian bridge will span Providence Drive between Seawolf Drive / Piper Street and Spirit Drive, connecting the UAA Health Sciences Building (Tract B, Providence-Chester Creek Subdivision) to the south with the UAA Engineering & Industry Building (Tract 1, UAA Subdivision, Plat No. 89-94) to the north.

The bridge is situated approximately 335 feet from the Spirit Drive intersection and 475 feet from the Seawolf Drive / Piper Street intersection, and will likely require the relocation of two street lamps in the MOA right-of-way – one in the center median and one on the north side of Providence Drive. Landscaping in the right-of-way will be moderately impacted with one larger spruce tree in the median requiring removal as well as several large trees on the north side of Providence Drive.

Spanning approximately 224 feet, the bridge connects the second level of the HSB with the third level of the EIB. The bottom of the bridge structure ranges from approximately 24 feet to 26 feet above the roadway surface below, and approximately 21 feet above the top of the median. The orientation of the span is approximately 18 degrees off of true north-south in the counter clockwise direction.



## Code Analysis

### APPLICABLE CODES AND STANDARDS

2009 International Building Code (IBC) with MOA amendments

2009 International Fire Code (IFC)  
2009 International Plumbing Code (UPC)  
2009 International Mechanical Code (IMC)  
2003 ANSI A117.1-2003, "Accessible and Usable Buildings and Facilities"  
American Association of State Highway and Transportation Officials – Design Standards –  
Interstate System, 5<sup>th</sup> Edition. (AASHTO)

(See Civil, Structural, Mechanical and Electrical for additional references)

#### PROJECT DATA & ASSUMPTIONS

Zoning: Public Lands & Institutions, Accessory Use (MOA 21.40.020C.2)  
Actual Bridge Span = 224 feet  
Actual Building Area= 3500+/- gross square feet  
Actual Building Height (to bottom) = 22 feet clear minimum above vehicle right of way.  
Actual Building Height (to top of arch) = 60'-6"  
Automatic fire sprinkler system is provided throughout the facility.  
Two primary exit doorways provided – exit to public way via adjoining buildings.  
IBC Construction Type IIB

#### USE AND OCCUPANCY CLASSIFICATION

Special Construction: IBC Section 3104: Pedestrian Walkways and Tunnels  
Connected buildings are both Group B occupancies.

#### HAZARDOUS MATERIALS

No hazardous materials stored or used in this structure.

#### BUILDING HEIGHT & AREA LIMITATIONS (IBC Chapter 5)

Minimum Clear Height over vehicle right of way = 17'-0" (AASHTO)  
Minimum Clear Height over public right of way = 15'-0" (IBC 3202.3.4)  
Base Allowable Height = 55 feet (IBC Table 503)  
Height increase due to sprinklers = 20 feet (IBC 504.2)  
Maximum Allowable Height = 75 feet  
Roof Structures such as towers and spires shall be unlimited height if non-combustible materials (IBC 504.3).

Base Allowable Area = 23,000 SF (IBC Table 503)  
Area increase due to sprinklers = 200 percent = 46,000 SF (IBC 506.3)  
Maximum Allowable Area = 69,000 SF.

### TYPE OF CONSTRUCTION

Type IIB – Non-combustible structure, walls, partitions, floor and roof assemblies (IBC Chapter 6, IBC 3104.3)

Fire-retardant treated wood permitted in roof construction (IBC 3104.3, Exception 2)

Fire Resistance Ratings Requirements (IBC Table 601)

Structural Frame = 0

Bearing Walls = 0

Nonbearing partitions = 0

Floor construction = 0

Roof construction = 0

Rated separations between Walkway and interior of buildings = 0 if all of the following conditions are met (IBC 3104.5, Exception 1):

- ✓ Distance between buildings exceeds 10 feet
- ✓ Walkway is fully sprinklered
- ✓ Separation walls are capable of resisting passage of smoke (UL 1784)
- ✓ Glass separations are fully sprinklered
- ✓ Glass separations are fully gasketed and will deflect without breakage
- ✓ No obstructions between glass and sprinkler heads

### EGRESS

Minimum unobstructed width = 36 inches (IBC 3104.8)

Maximum total width = 30 feet (IBC 3104.8)

Maximum length of exit access travel = 250 feet (IBC 3104.9, Exception 1)

### SAFEGUARDS DURING CONSTRUCTION

Protection of pedestrians and temporary use of the Right of Way shall be in accordance with IBC 3306 and 3308, and in accordance with all Muni requirements.

## **Design Concepts**


Design concepts incorporated into the pedestrian bridge design solution include the following:

- Programmatically, the new bridge will provide pedestrian circulation between buildings as well as low-concentration lounge seating for social interaction and study.

- The bridge will be structurally independent of the two buildings it connects. 10" – 12" seismic joints will separate the bridge structure from the adjacent buildings.
- The structural deck of the second floor of the HSB will be extended to the edge of the exterior tiled wall in order to simplify the interface with the bridge and the seismic joint.
- The bridge will be fully sprinklered.
- Sides of the bridge will be composed of floor-to-ceiling glazing to comply with the intent of MOA Chapter 21.50. Glazing will have a minimum of 70% visible light transmittance.
- Exterior cladding colors and the roof assembly will relate to the HSB and EIB buildings.
- Provisions for power outlets along the perimeter of the bridge will be made to coordinate with interior lounge seating arrangements.
- Automatic sliding entrance doors with emergency egress capability will be provided at both ends of the bridge.

## Materials

Material palette and composition for the Health Campus Pedestrian Bridge borrows from the adjoining HSB and EIB buildings. The exterior walls of the pedestrian "tube" will be designed as non-load bearing curtain wall assemblies with component arrangement identical to the two buildings:

- 
- 5/8" Type X gypsum wallboard
  - Vapor retarder
  - 6" metal studs @ 16" O.C.
  - 5/8" glass-mat gypsum substrate
  - 4" Insulated Metal Panels

Between floor and ceiling assemblies, a high performance thermally-broken aluminum-framed glazed curtain wall system with 1" insulated fixed glazing units will be used.

A Class-A, low slope roof assembly will match that of the EIB and HSB with tapered insulation directing storm water to three roof drain locations over the length of the bridge. Roof drains will be serviced via a single 36x48 insulated roof access hatch located at the south end of the bridge. The roof drains are to be connected to the existing Health Sciences Building storm drain system. The Health Sciences Building

storm drain system uses a combination of oversized underground pipes and a detention basin to meter stormwater off the site. The existing system is under capacity and the addition of the runoff from the pedestrian bridge roof drain will not exceed the total capacity of the system.

Bridge roof assembly components include:

- Metal Deck
- Glass-mat gypsum sheathing
- Vapor retarder
- 8" flat rigid insulation
- Tapered rigid insulation – ¼" per foot minimum slope
- Cover board
- White EPDM fully-adhered membrane roofing

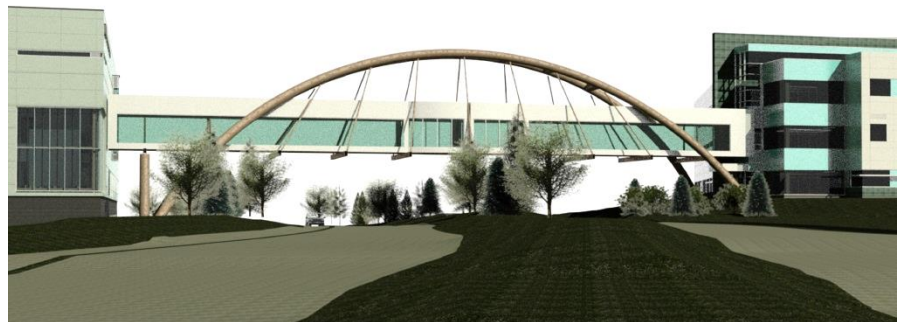
The underside of the bridge will consist of 4" insulated metal-skinned panels installed directly to framing. Lighting will be installed in the underside over roadways and pedestrian sidewalks if required by code.

Interior materials include modular carpet tile flooring throughout, painted steel columns and braces, painted gypsum board soffits above the glazed curtain wall system, and 2x2 acoustical tile ceilings with accent areas of linear wood.

## Arch Form

The classic arch form is a pure expression of structure, and in this case the *Arch* not only signifies the collaborative bridge between UAA's health and engineering programs, but will serve as literal and metaphorical gateway to the UAA campus and to the larger U-Med District.

The Arch structure free spans the Providence Drive right-of-way, eliminating the need for central supports in the median and, thus, eliminates the need for special vehicle impact protection and issues surrounding permanent use of the right-of-way.

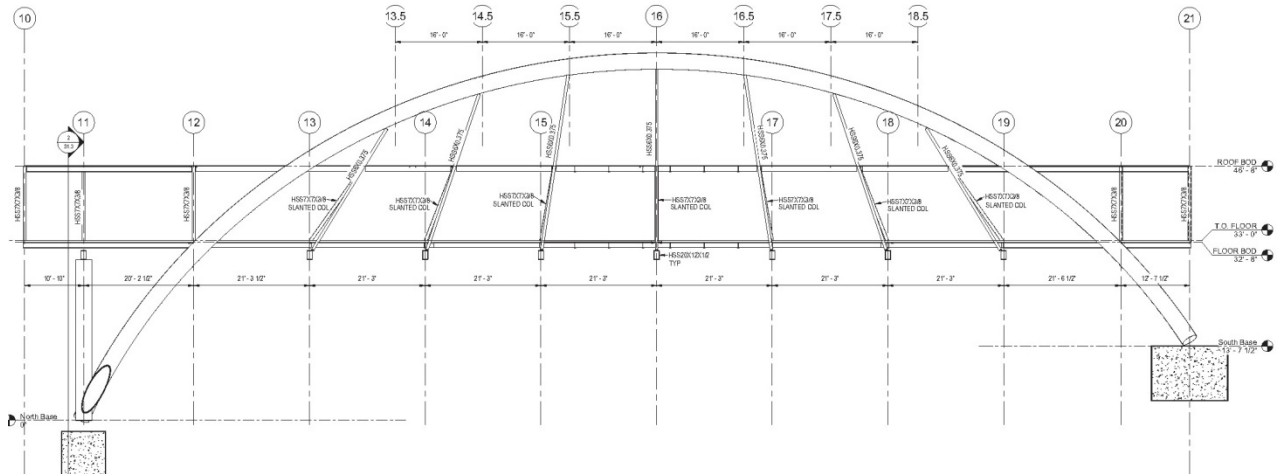


## SUPERSTRUCTURE

The bridge will be supported externally by two large-diameter clear-span pipe arches, bowed inward at the centers of their spans. Intermittent tube steel posts will hang from the tubes, attaching to under-slung support beams on which the pedestrian tunnel enclosure will bear. In this manner, the superstructure steel will be independent from the interior steel, minimizing weathering and thermal



bridging issues.



## ENCLOSURE

With similar metal panel and glass finishes, the pedestrian circulation “tube” or tunnel suspended within the double-arch structure creates a unified image between Health and Engineering Zones, while the exposed steel pipe arches provide unique visual character.

Since the pedestrian tunnel is fully supported by the arch superstructure, no vertical trusses are needed for the spans. This allows the side walls to be more open since there are fewer structural members required. Columns will be placed as far apart as possible to allow for the support of the roof system. Both the roof and floor will have two stringer-style continuous wide flange beams with wide flange cross beams spaced close enough together to support the metal decks. Roof decks will be simply metal deck, while the floors will be 4" composite slabs on metal deck. Lateral loads within the floor and roof decks will be distributed to the supports by a combination of diaphragms and diagonal bracing.

## SUBSTRUCTURE/FOUNDATION

The arches will bear on large concrete mass blocks and grade beams, which will be sized to accommodate the axial loads from the arches as well as overturning forces generated from wind and seismic loads.

## THERMAL/SEISMIC RESTRAINT

The arches will be pinned at each base and will accommodate thermal stresses internally. These stresses will be large due to the long spans.

The enclosure will be attached to the arches directly at two points at about the quarter points of their spans, and indirectly through the supports. The attachments will not allow for thermal movement, so consideration will be taken for this in the design of these connections.

Seismic restraint will be at the quarter points as discussed above. Both longitudinal and transverse motions will be resolved by the direct attachment of the enclosure to the arches. Seismic joints at the ends will allow for independent movement between the buildings and the bridge.

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**Facilities Planning  
& Construction**  
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November 11, 2013

To: Michael Grahek, CPM  
Chief Procurement Officer  
UA Statewide System Procurement Office

*approved 11/14/13  
Michael Grahek*

Thru: Mary Beth Overturf  
Director, Procurement Services  
UAA

*[Signature]* 11/14/13

Thru: Chris Turlantes  
Associate Vice Chancellor, Facilities & Campus Services  
UAA

From: John R. Faunce, P. E.  
Director, Facilities Planning & Construction  
UAA

**Subject: Single Source/Sole Source Procurement Request for Pre-Construction/Construction Services for UAA Health Campus Pedestrian Bridge.**

Request your consideration and approval of our single source/sole source request for Neeser Construction, Incorporated (NCI) to provide pre-construction/construction services using the construction manager at risk (CMAR) delivery method for the planning, design and construction of the UAA Health Campus pedestrian bridge.

This project will provide a pedestrian bridge connecting to the new Engineering Building and crossing Providence Ave to connect to the Health Science Building. There are two major reasons why it would be advantageous to the University of Alaska to use NCI as the construction manager at risk for the planning, design and construction of the Health Campus pedestrian bridge.

First, is that NCI currently has the CMAR contract for constructing the new Engineering Building and renovating the existing Engineering Building and will be able to provide critical constructability input to the design team as the design for the new bridge is completed. With one contractor, both projects can be phased/ scheduled to coincide with the same completion date; structural design and steel fabrication/delivery/erection for the pedestrian bridge can be scheduled to coincide with construction of the new School of Engineering and Industry Building, reducing the potential for rework and additional construction costs.

Additionally, with NCI is currently constructing the new School of Engineering and Industry Building and renovation of the existing Engineering Building. NCI will be on site until late 2016. The new pedestrian bridge is designed to be structurally, mechanically, and electrically connected to the new Engineering Building, and is planned for construction simultaneously with the completion of that project. With NCI's availability on site, contractor mobilization costs and other general condition costs for construction of the pedestrian bridge will be reduced, and the critical coordination between the building contractor and the bridge contractor will be virtually seamless. A single contractor can more effectively manage both projects to be completed at the same time eliminating potential schedule delays due to project coordination/contractor disruption issues between multiple contractors. Also, with their experience on campus, NCI understands traffic control issues in the area; they know how to coordinate traffic control needs with the University, local U-Med District members, local residents and the Municipality of Anchorage.

The proposed design and construction schedule for the Health Campus pedestrian bridge is as follows:

**Design:**

Concept Planning/ Design:	November 2013
Schematic Design:	May 2014
Construction Documents:	August 2014

**Bid and Award:**

Negotiate Change Order to Neeser's CMAR Construction Contract Award:	September 2014
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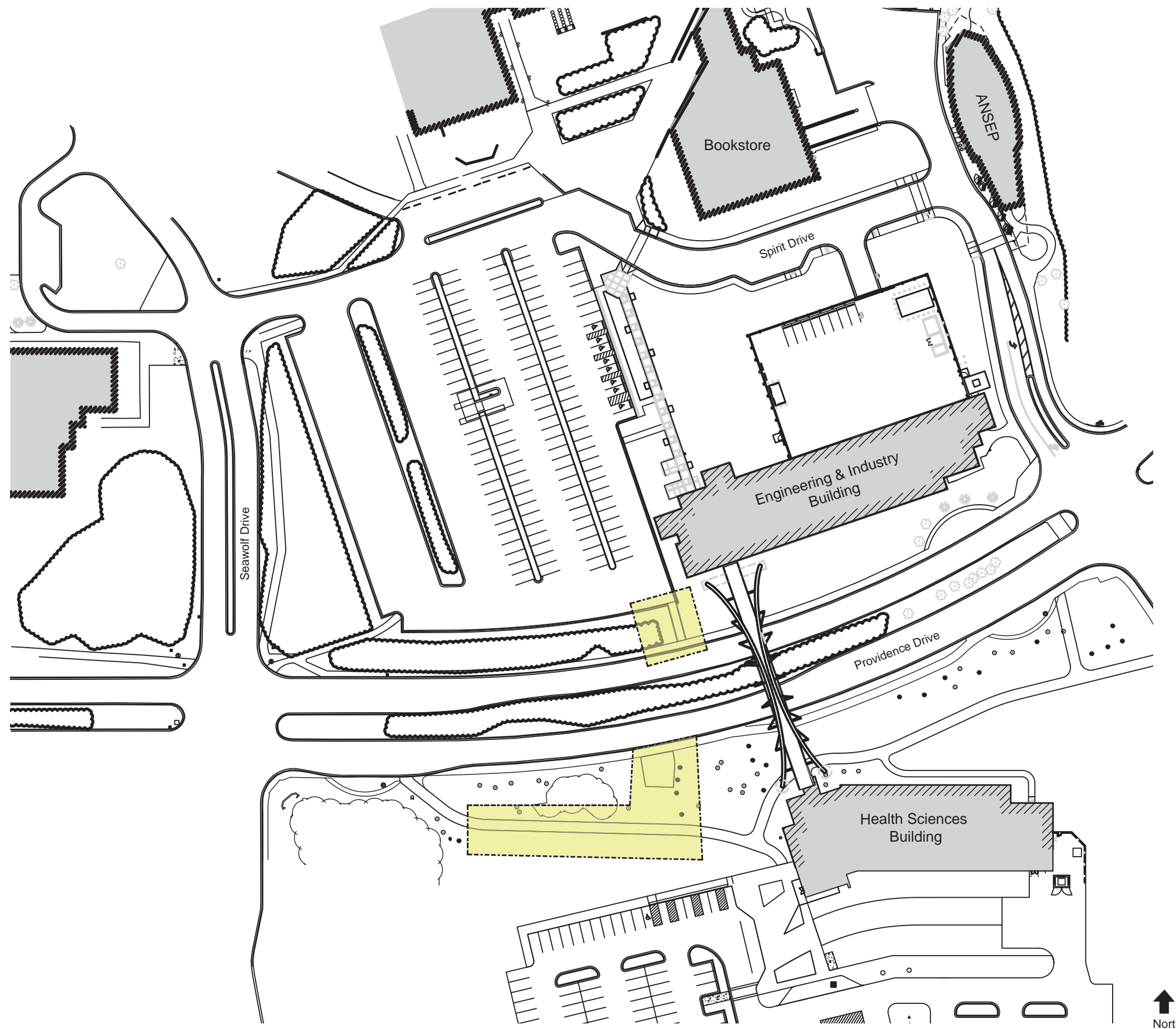
**Construction:**

Start of Construction:	March 2015
Construction Completion:	July 2015
Date of Beneficial Occupancy:	August 2015
Warranty Period:	1 Year

**Estimated Construction Cost: \$2,769,000**

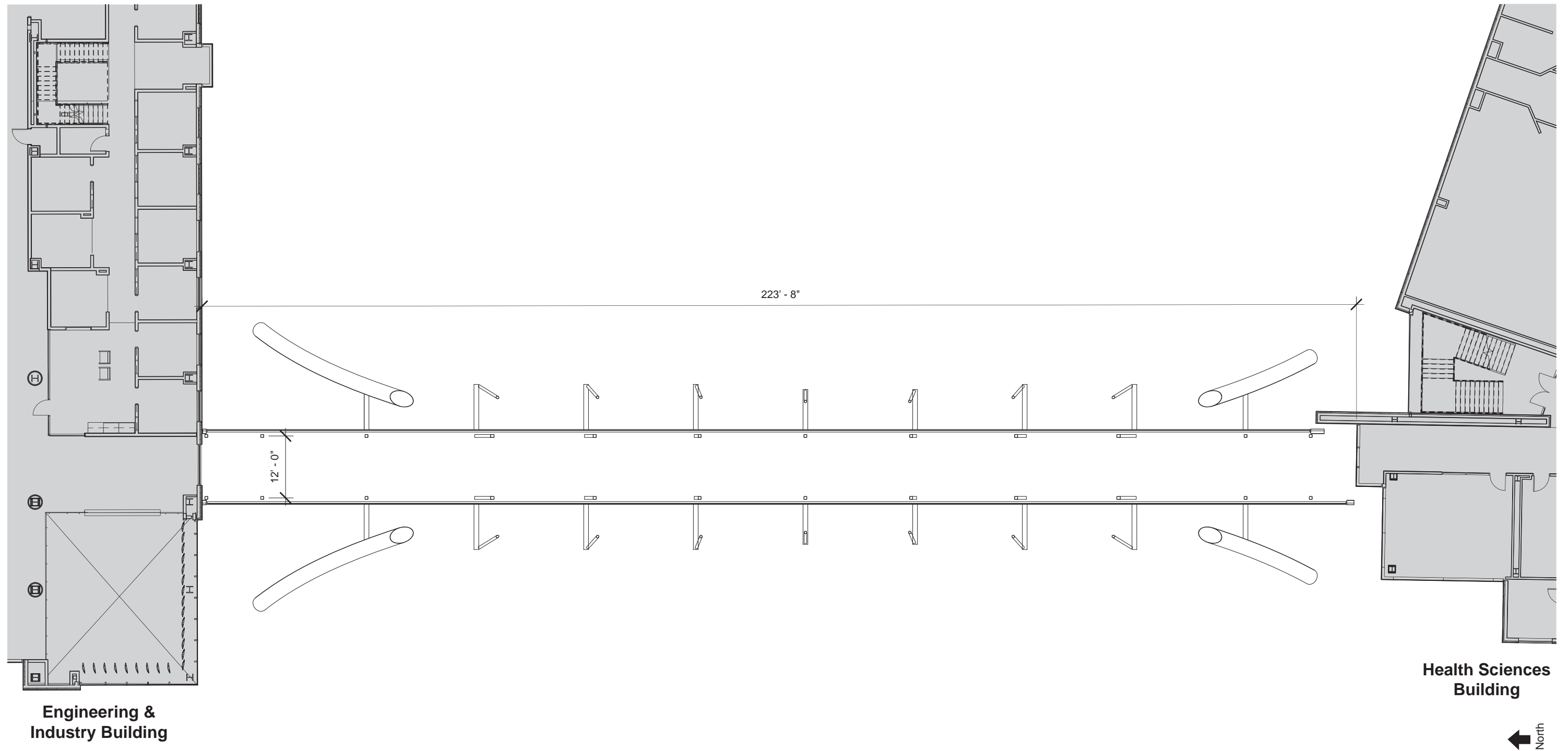
In summary, it is clearly advantageous for UAA to use NCI as the contractor for the Health Campus pedestrian bridge project. By using a single contractor potential contractor disruptions can be eliminated; both projects can be phased/scheduled to coincide with the same completion date; work can be phased to erect pedestrian bridge structural steel during construction of the engineering building; traffic control during construction is more easily accomplished; project management is simplified (for both the contractor and UAA); and mobilization costs and other general condition costs for construction of the pedestrian bridge will be reduced. The bottom line.....cost savings and a much more efficient project.

Your consideration of this request is appreciated. If you have any questions, please contact me at your earliest convenience.



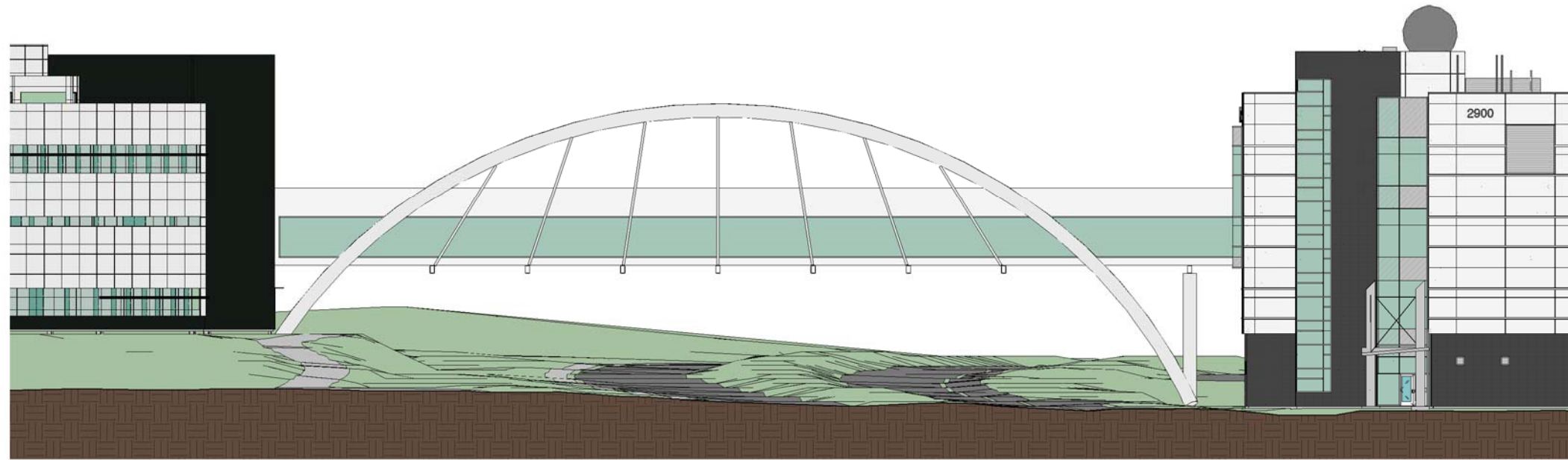
Potential construction staging  
area for HC Pedestrian Bridge







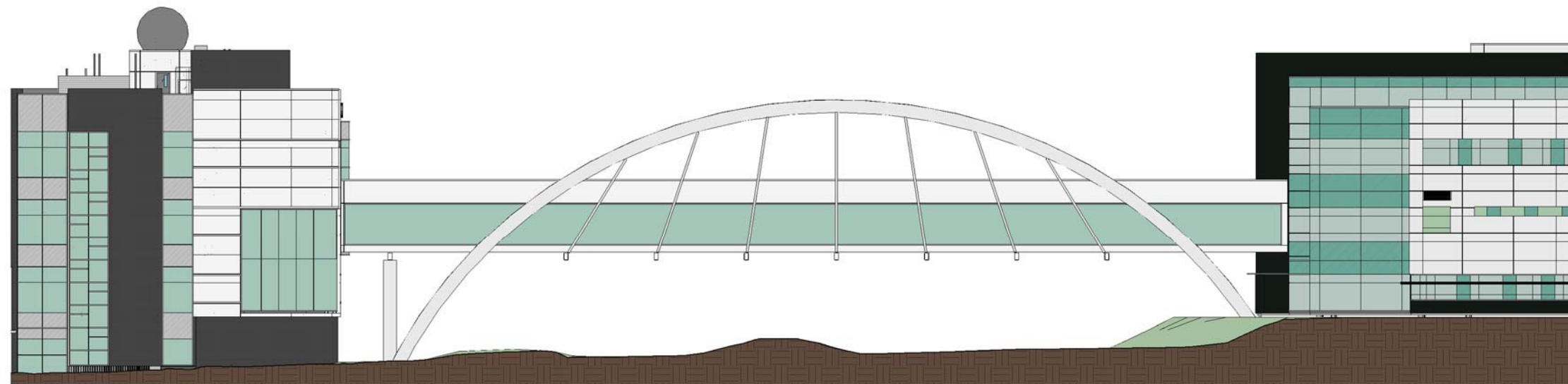
Health Sciences  
Building



Engineering &  
Industry Building

② EAST ELEVATION  
1/16" = 1'-0"

Engineering &  
Industry Building



Health Sciences  
Building

① WEST ELEVATION  
1/16" = 1'-0"



Health Campus Pedestrian Bridge



