

# Applying Human-Centered Lens to Safety in Behavioral Health



**Scott Melby**  
**Chief Operations Officer**



**Becky Robinson**  
**Clinical Director**

# Agenda

- An Introduction to Human-Centered Safety<sup>®</sup> Approach to Behavioral Environments
- Challenges and History that Shaped the Minnesota Security Hospital Project
- How Owner, Designer, Contractor Coordinated and Phased Project to Maintain Operations and Security
- Highlight of the Outcomes including First-Year Data
- Lessons Learned



# Learning Objectives

- Describe a human-centered approach to behavioral/mental health environmental assessment
- Explain the relationship between a therapeutic and safe environment
- Identify environmental elements that can reduce patient stress and adversarial interactions
- Illustrate how phasing and coordination can allow a hospital to maintain operations while improving safety and security



“I will never pick  
another patient out of razor wire again.

They do not react the way you and I react.”



SPEED  
LIMIT  
**25**







SPEED  
LIMIT  
**25**

## ***A control strategy is not effective***

- It suggests authority
- It imposes restrictions
- They will assess on their own and decide for themselves
- They may **will** rebel





SPEED  
LIMIT  
**25**



# The environment shapes behaviors

- Fosters a self-regulated response
- Provides guidance or boundaries
- Grants patients the power to decide
- Establishes trust with staff





# Friend vs. Foe: What is the space communicating?





# Research Informed

“[U]nderstanding the relationship between stimulation and human responses is an important component of good design.”

-- D. Kopec, Environmental Psychology for Design

# Research Informed

What patients feel (NAMI focus group)

BRIGHT LIGHTING *WALK OF SHAME* *TIRED* **NOISY** **ISOLATED**  
**ALONE** **SCARED** **TRAPPED** STIGMA **MAD**  
UNDIGNIFIED *WHY ME?* TERRIFIED **UNINFORMED**  
**ANGRY** **CONFUSED** *DEPRESSED*  
ON DISPLAY **ANXIOUS** *ASHAMED* **FEAR**



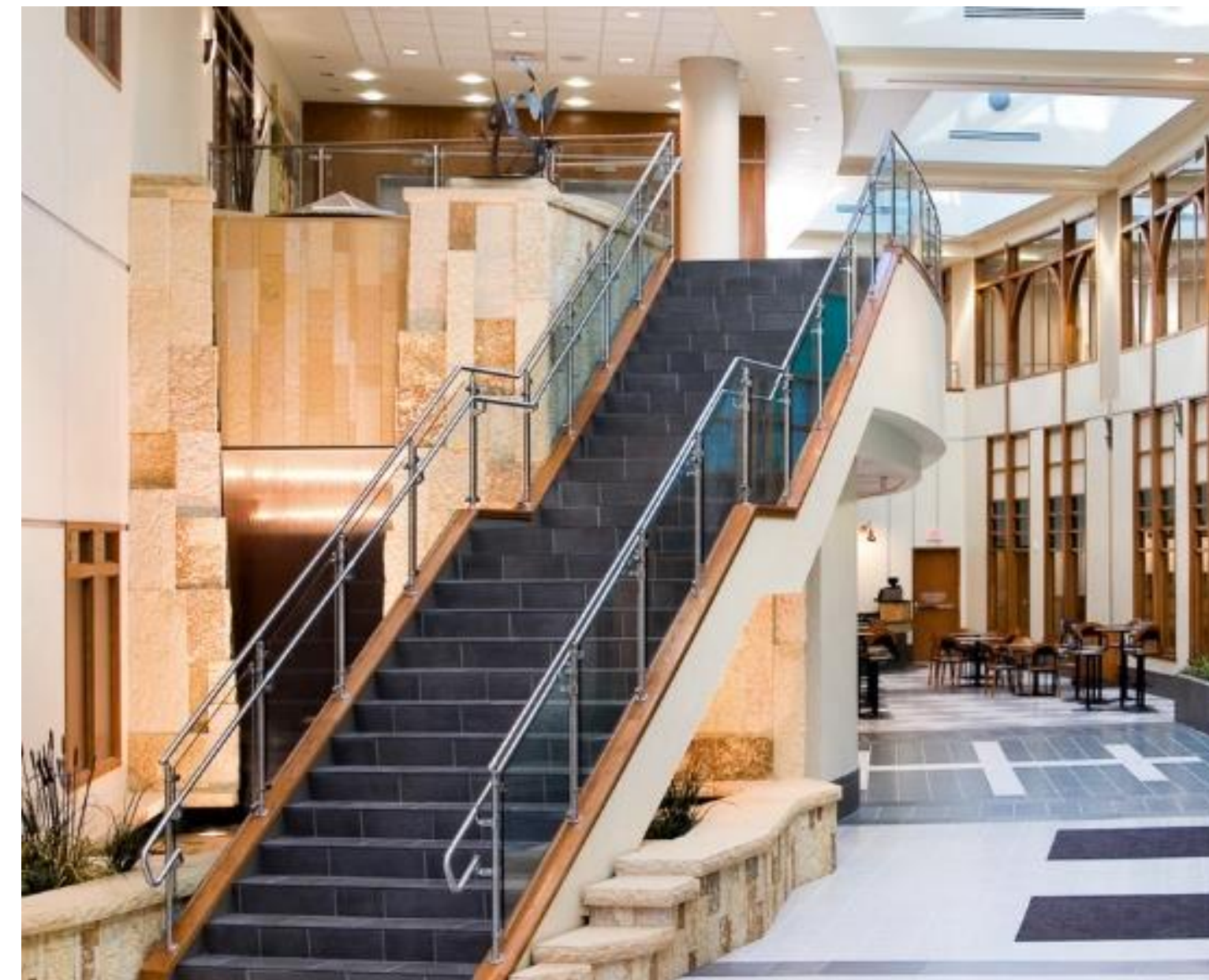
# Lessons Learned

## Traditional

Punitive  
Shaming  
**Confrontational**  
Scary  
Controlling  
Threatening  
Humiliating



## Human-Centered



Therapeutic  
Empathetic  
**Inviting**  
Liberating  
Safe  
Comforting  
Dignified



# Lessons Learned

## Traditional



### **Punitive**

Shaming

Confrontational

Scary

Controlling

Threatening

Humiliating

## Human-Centered



### **Therapeutic**

Empathetic

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Dignified



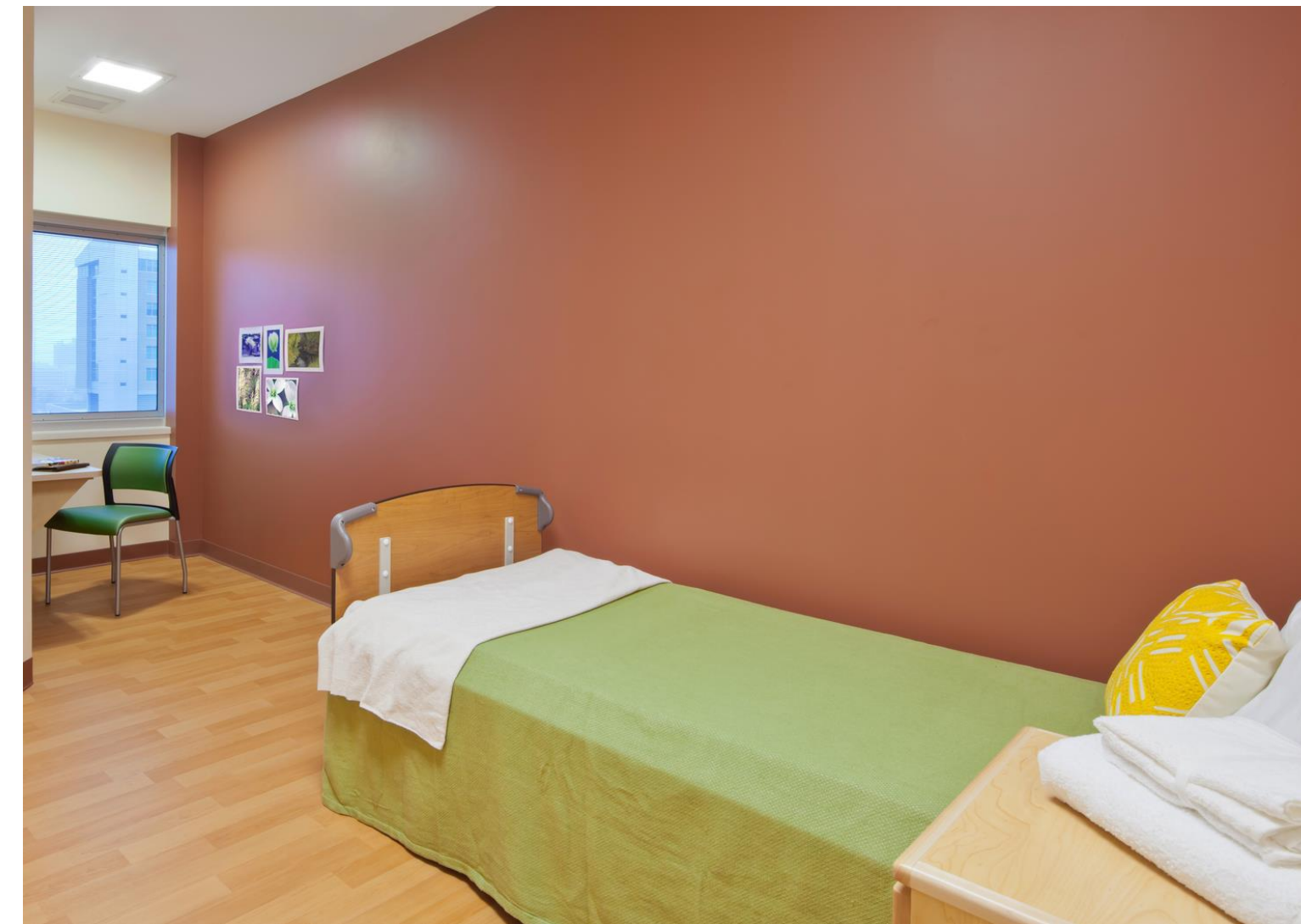
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## Traditional



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## Human-Centered



Therapeutic  
Empathetic  
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Dignified



**Tangible  
vs.  
Intangible  
Strategies  
for  
Safety  
and  
Anti-Ligature**





**Sightlines**



**Noise**

**Lighting**



**Materials**

# Creating an Environment for Care

“The conceptual model switches the treatment focus away from problem behaviors to adaptive behaviors.

The treatment is focused on teaching new coping skills rather than on containment of maladaptive behaviors.”

-- Hillebrand and Young,

“Instilling hope into forensic treatment: The antidote to despair and desperation,”  
Journal of the American Academy of Psychology and the Law







# Historic

- Opened in 1866 as Minnesota's first psychiatric hospital
- Currently Serves patients deemed by the courts to be mentally ill and dangerous
- Operated by the Department of Human Services
  - 370 patients served on any given day
  - 997 staff employed (on 9/27/19)















# Recent History

## Security hospital fined over workplace safety

Patient assaults on staff at center of OSHA probe

By Dan Linehan [dlinehan@mankatofreepress.com](mailto:dlinehan@mankatofreepress.com) Aug 15, 2014

MORE INFORMATION



[Security Hospital fined \\$63,000 for workplace safety violations](#)

Nine workplace violence incidents cited



ST. PETER — The Minnesota Security Hospital has not done enough to protect its employees from violent patients, according to federal workplace safety regulators.

The Occupational Safety and Health Administration levied a \$4,900 fine on the St. Peter hospital, which houses the mentally ill and dangerous.

STATE + LOCAL

## State is fined \$63K for safety violations at security hospital in St. Peter

By Chris Serres Star Tribune | DECEMBER 9, 2015 — 9:50PM



GLEN STUBBE - STAR TRIBUNE FILE

This file photo shows bedrooms in the men's admission and crisis wing of the Minnesota Security Hospital in St. Peter, Minn.

The Minnesota Department of Human Services was fined \$63,000 — the largest such penalty against a state agency in more than a decade — for failing to protect workers at the St. Peter psychiatric hospital from violent assaults by patients.

The citation by Minnesota OSHA identified nine incidents between early May and mid-July that exposed employees to risk of serious injury or death, underscoring the challenges the state faces in maintaining order in a



# Recent History

## Security Hospital staff picket, try to raise awareness about worker injuries

Sep 11, 2014



Minnesota Security Hospital workers held an informational picket Thursday near an entrance to the St. Peter facility. They were calling attention to the unsafe working conditions. Photo by John Cross

STATE + LOCAL

## Dayton seeks \$177M investment in state psychiatric facilities

Gov. Dayton seeks to target 'decades of neglect' at state-run psychiatric facilities.

By Chris Serres and J. Patrick Coolican Star Tribune | APRIL 6, 2016 — 9:16PM



GLEN STUBBE

Jackie Spanjers spoke Wednesday about dangerous conditions that she and other nurses have to work under at the Anoka-Metro Regional Treatment Center. Behind her Gov. Mark Dayton.

Seeking to fill chronic gaps in Minnesota's mental health system, Gov. Mark Dayton is proposing \$177.3 million to improve patient care and safety at state-run psychiatric facilities.

The proposal unveiled Wednesday would amount to the largest single-year appropriation for mental health in at least 20 years and is designed to correct years of underfunding. Inadequate staffing and a large influx of

OPINION EXCHANGE

## The Minnesota Security Hospital at St. Peter still needs work

Despite some progress over the past year on training and restraints, the state needs to do more to improve treatment of our mentally ill.

By Claire Wilson , Shannah Mulvihill , Sue Abderholden and Grace Tangjerd Schmitt |

AUGUST 2, 2015 — 9:16PM



GLEN STUBBE &#X2022; STAR TRIBUNE

The Minnesota Security Hospital in St. Peter is a treatment facility for people who have been committed by the court as mentally ill and dangerous.

A little over a year ago, the mental health community came together at a news conference to raise concerns about the quality of care and treatment being provided at the Minnesota Security Hospital (MSH) in St. Peter. Since then, changes have been made: Staff received training on how to avoid and safely use seclusion and restraints in an emergency; a family council has formed; additional staffing was funded, and plans are underway to remodel



# Goals for Project

- Create a safer living environment for patients;
- Create a safe, efficient work environment for staff;
- Create an effective therapeutic setting that helps reduce the average length of a patient's stay;
- Consolidate patients onto the upper campus
- Provide units that allow patients to access a continuum of care, and better sense their progress through treatment
- Maintain operations and improve safety during construction



# Design Strategies for Goals

Consolidate  
Security  
Hospital  
functions to  
more  
efficiently and  
effectively  
treatment  
patients.





# Design Strategies for Goals

Introduce  
color  
themes and  
soft lighting  
to warm and  
calm the  
atmosphere.





# Design Strategies for Goals

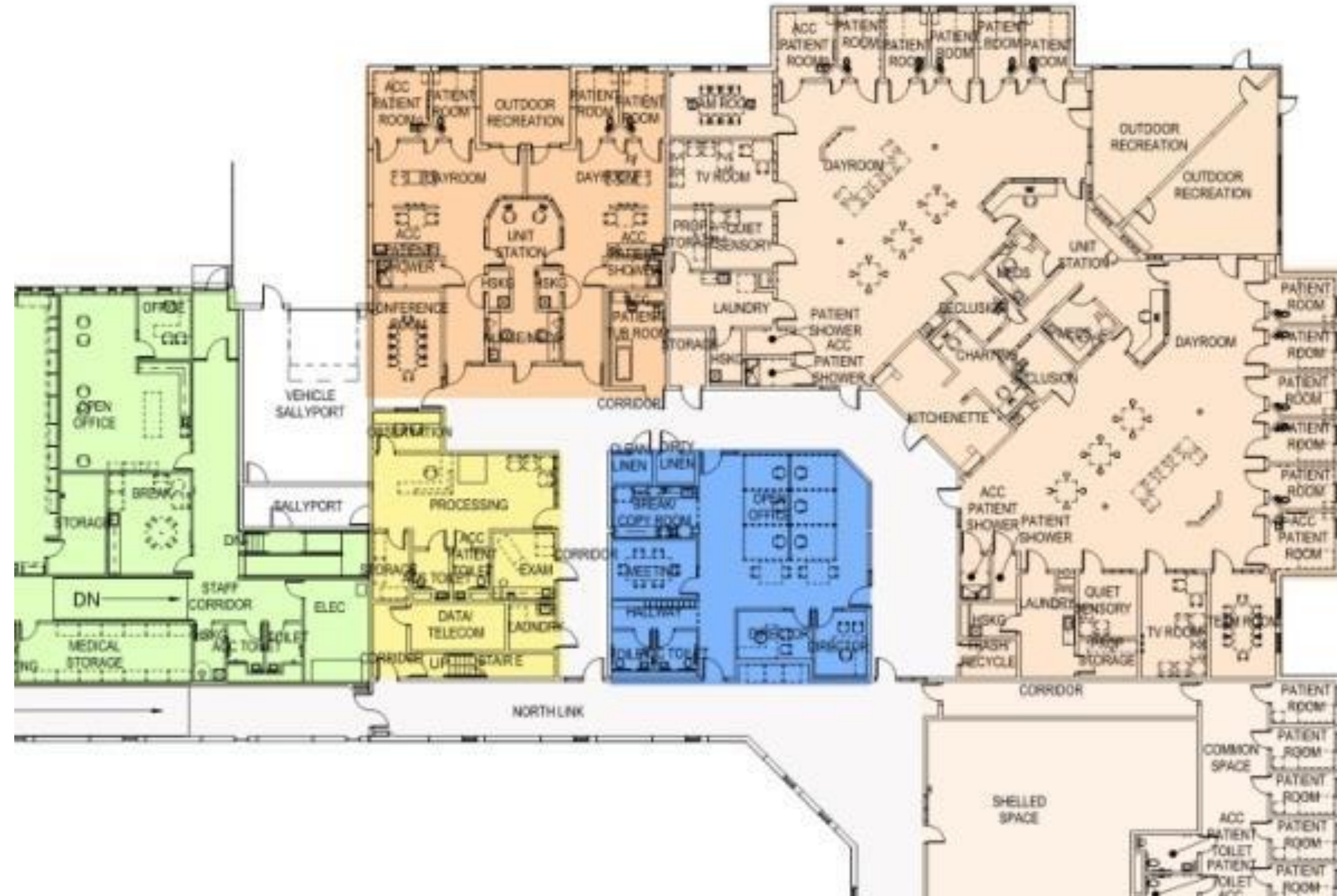
Leverage daylighting, including solar tubes, to flood spaces with calming natural light.





# Design Strategies for Goals

Variety of unit sizes to better stabilize population.





# Design Strategies for Goals

Design smaller housing units to reduce noise and improve the therapeutic atmosphere.





# Design Strategies for Goals

Improve  
sightline for  
all occupants  
with single-  
level living  
units for acute  
population





# Design Strategies for Goals

Locate TV room, group therapy rooms and common spaces near the nurse station to allow observation and intervention when needed.





# Design Strategies for Goals

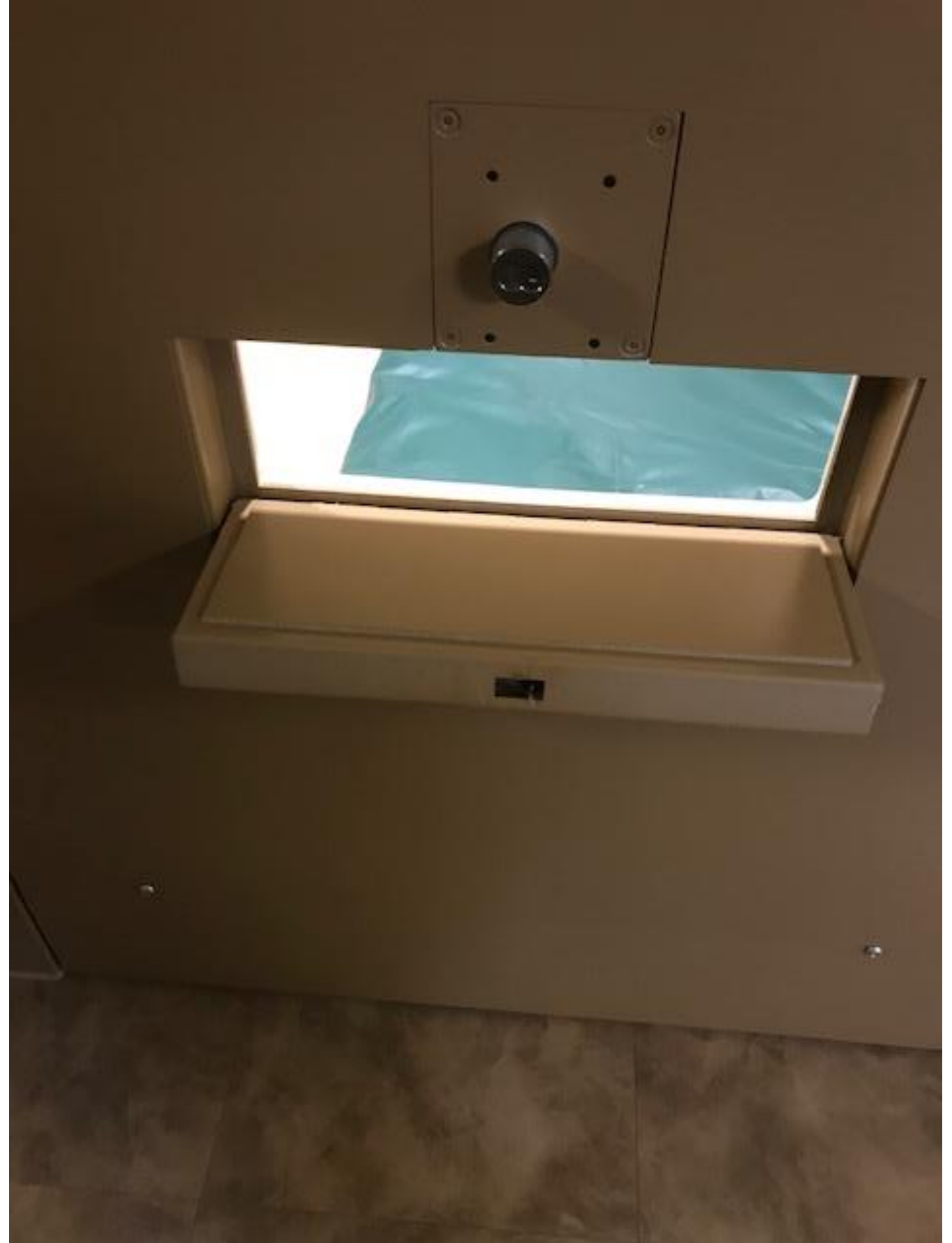
Leverage technology tools to complement operational and design strategies to protect patients and staff.

























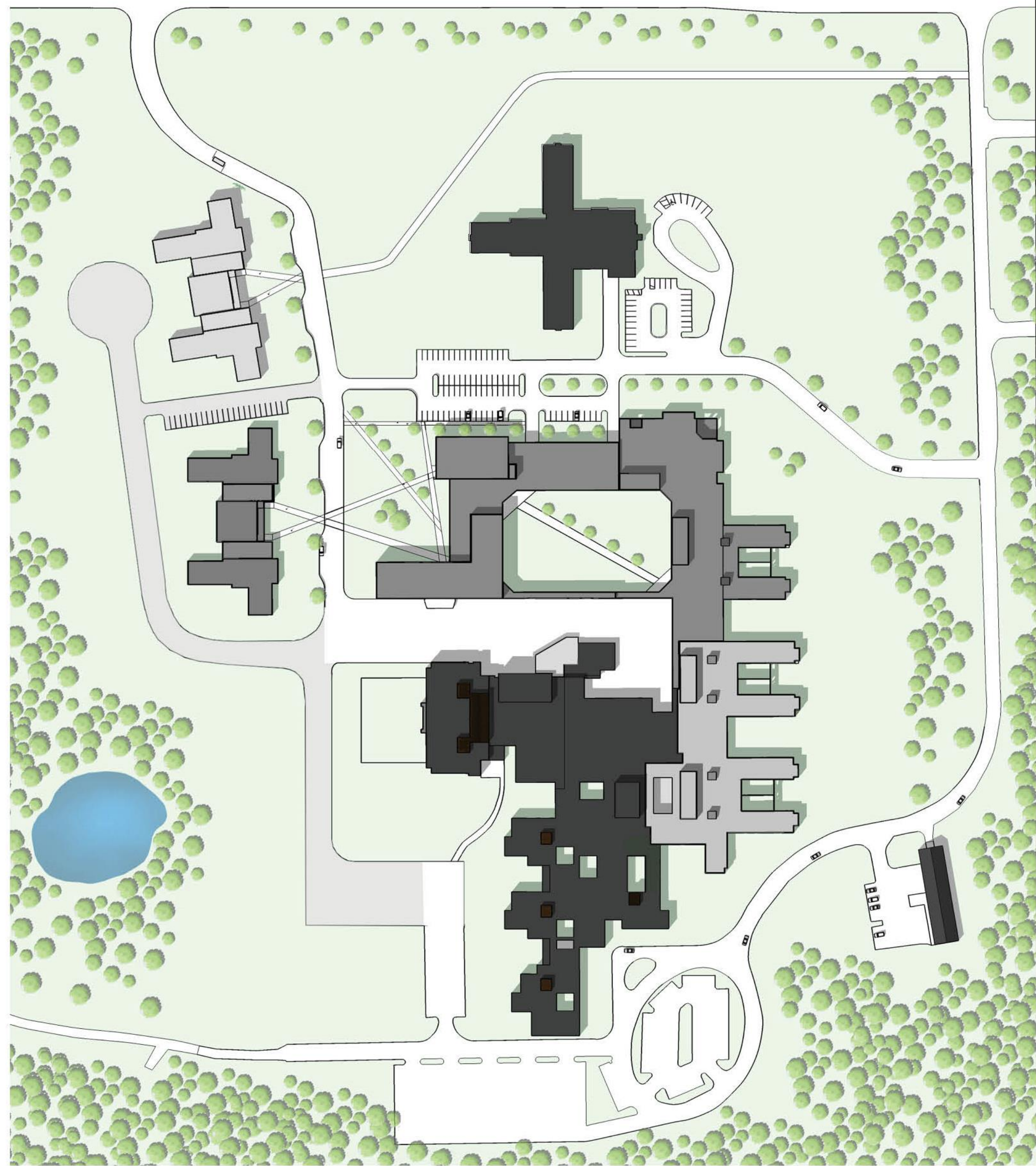






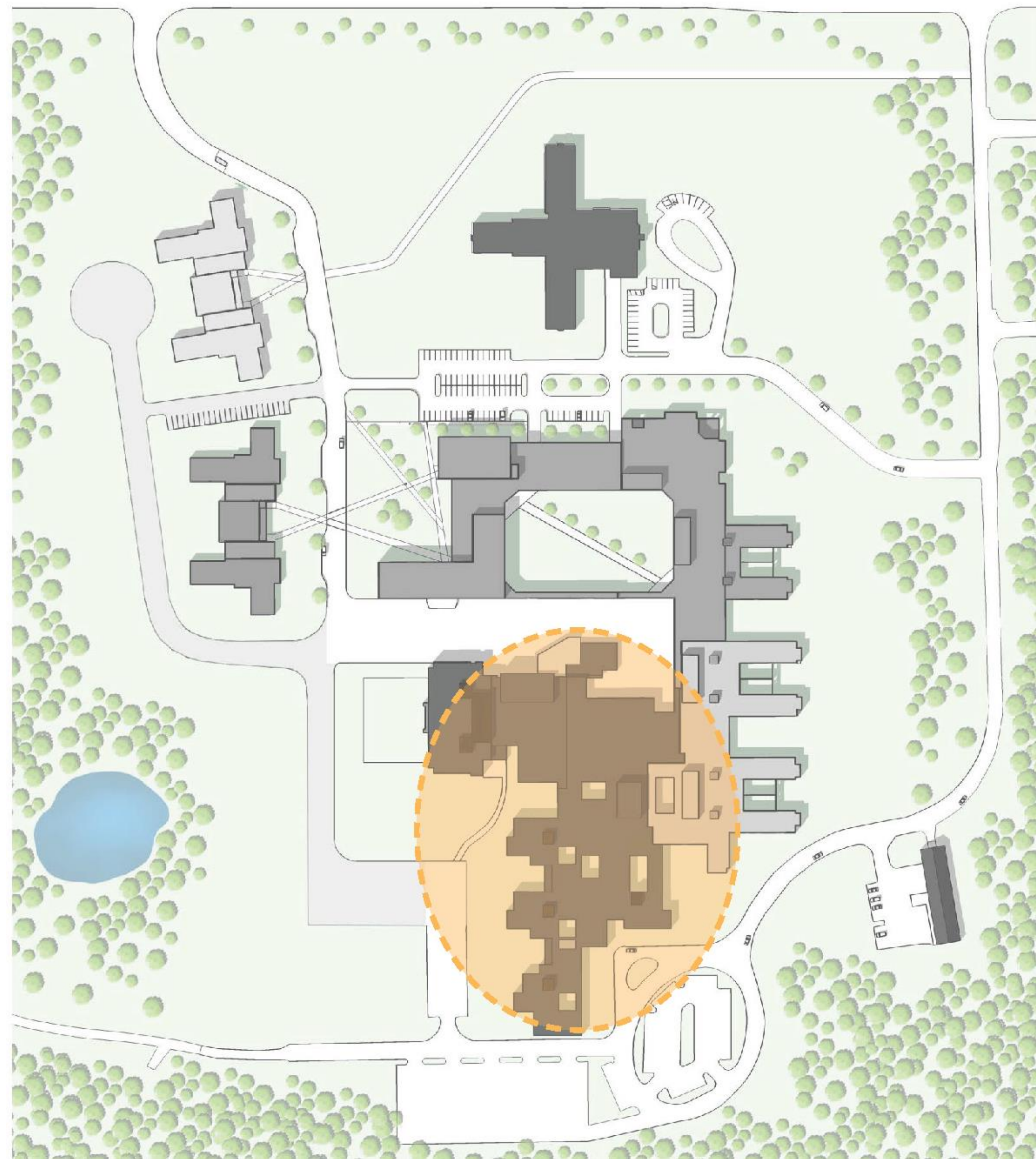


# Overall Site



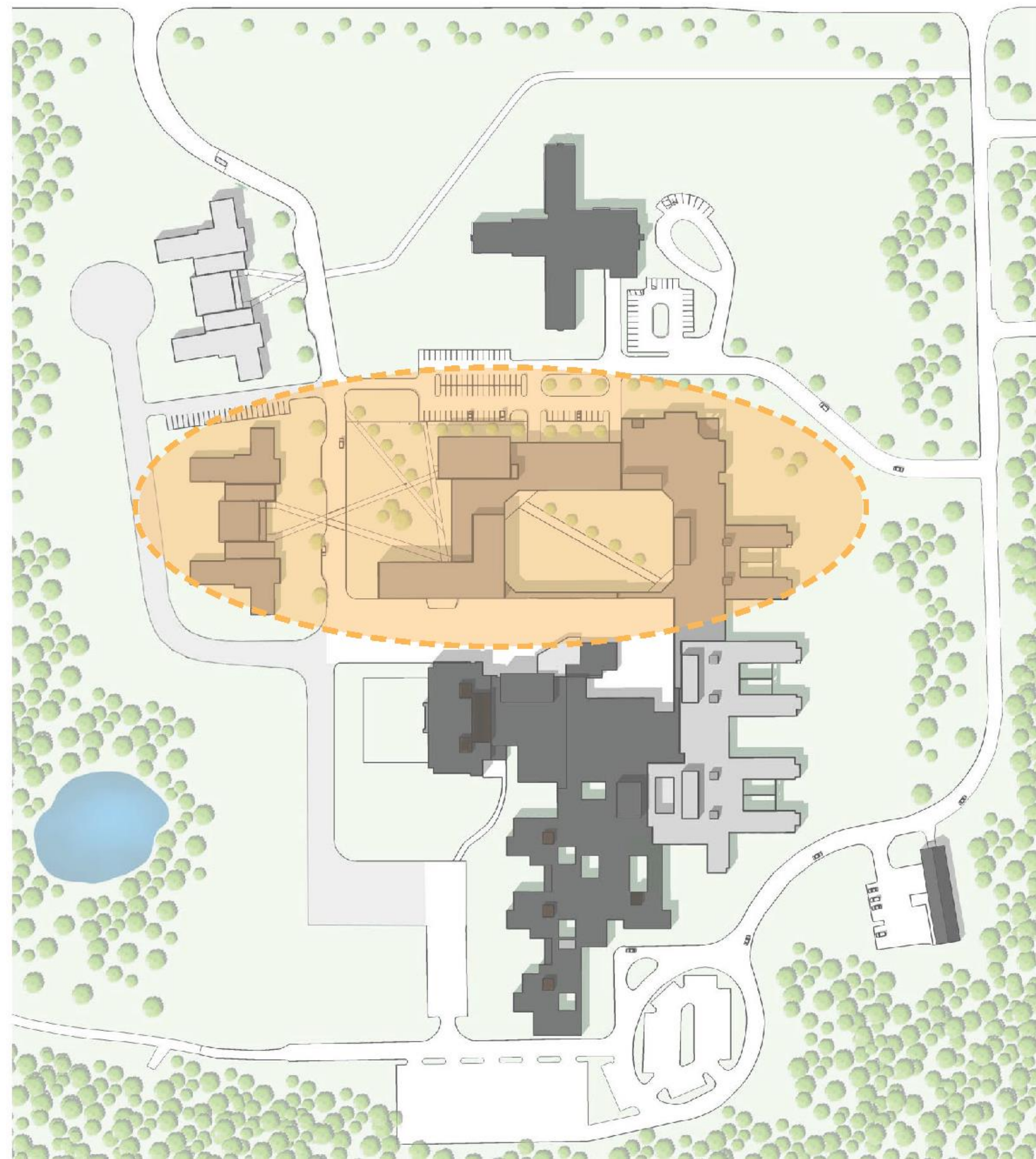


# Existing MSH



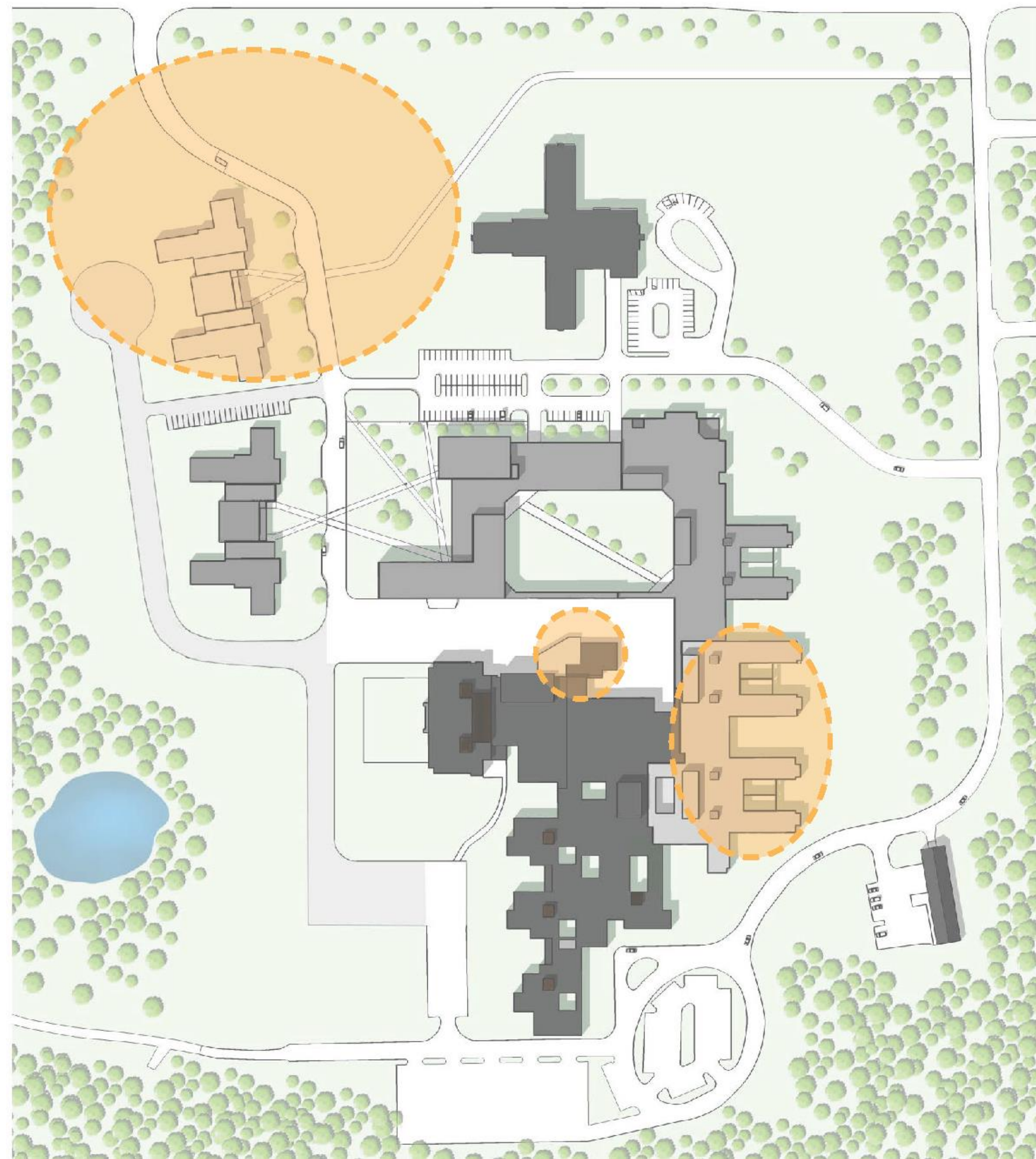


# Phase 1



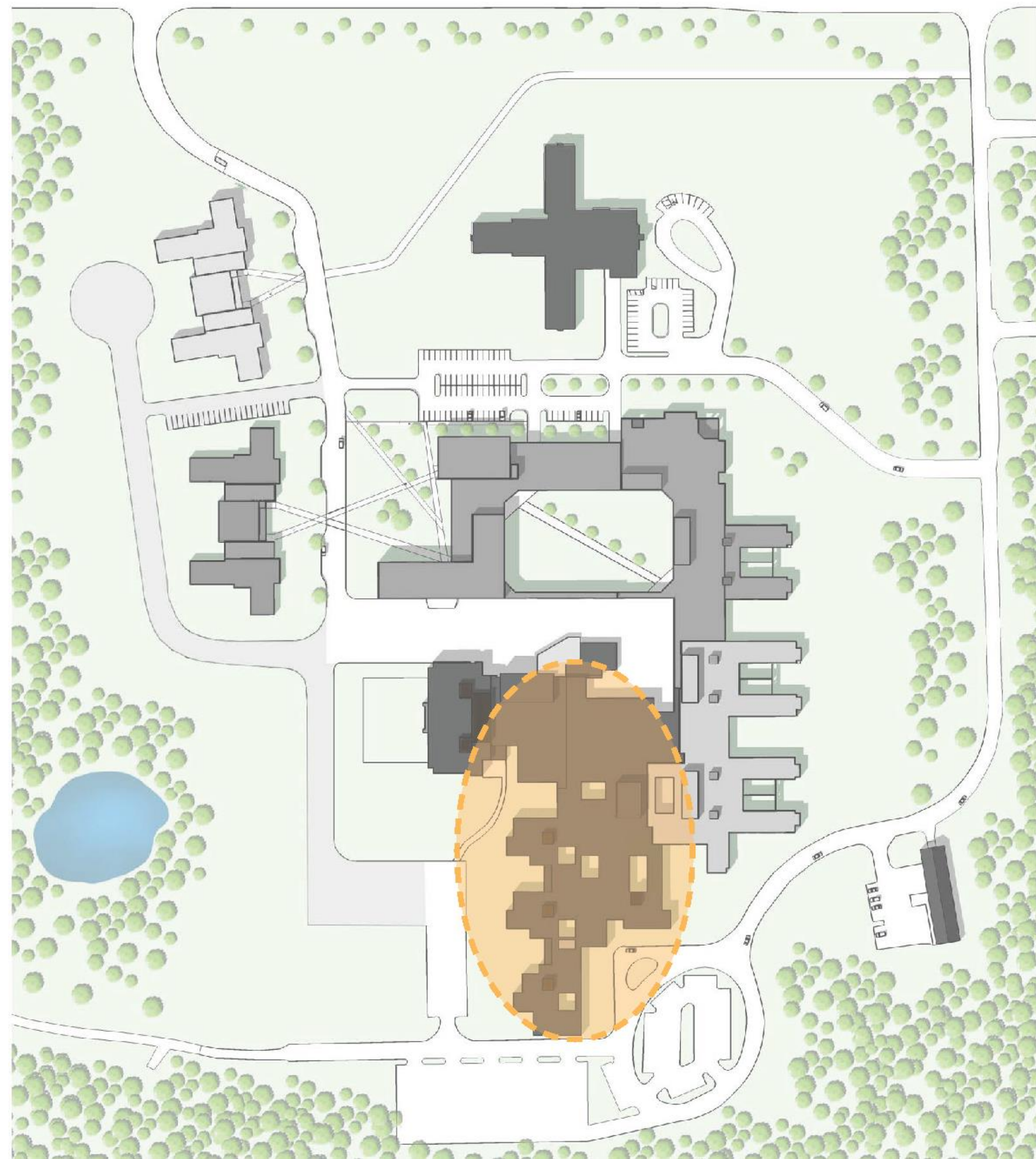


# Phase 2





# Phase 2





NEWS

# Demolition Begins at Minnesota Security Hospital

July 11th, 6:05 PM CDT by Lauren Andrego

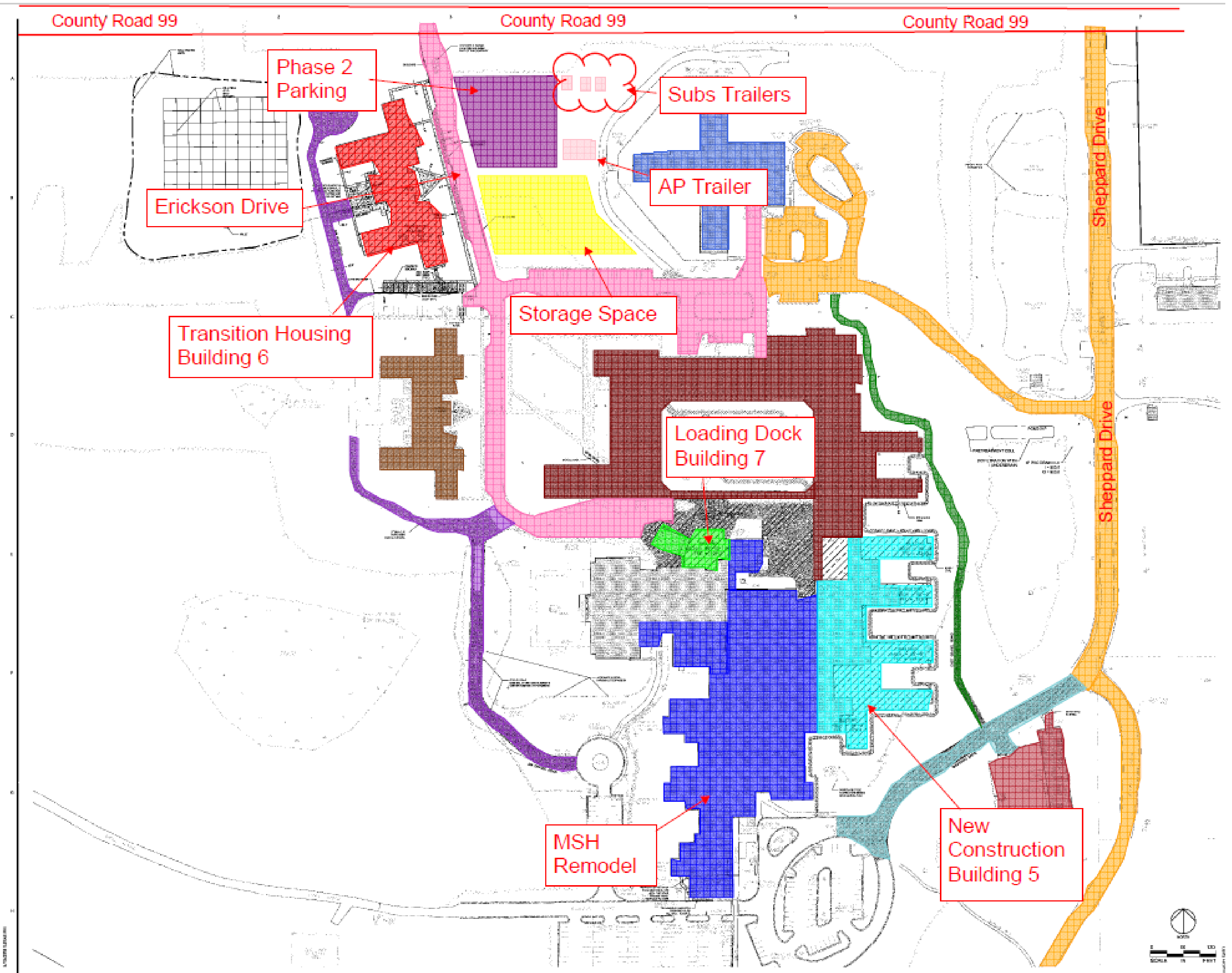
Updated: July 11th, 6:47 PM CDT



**ST. PETER, Minn.** -- The Minnesota Security Hospital in St. Peter recently started a \$70.2 million expansion and renovation, and demolition on the old living facilities began today.



# Site Security





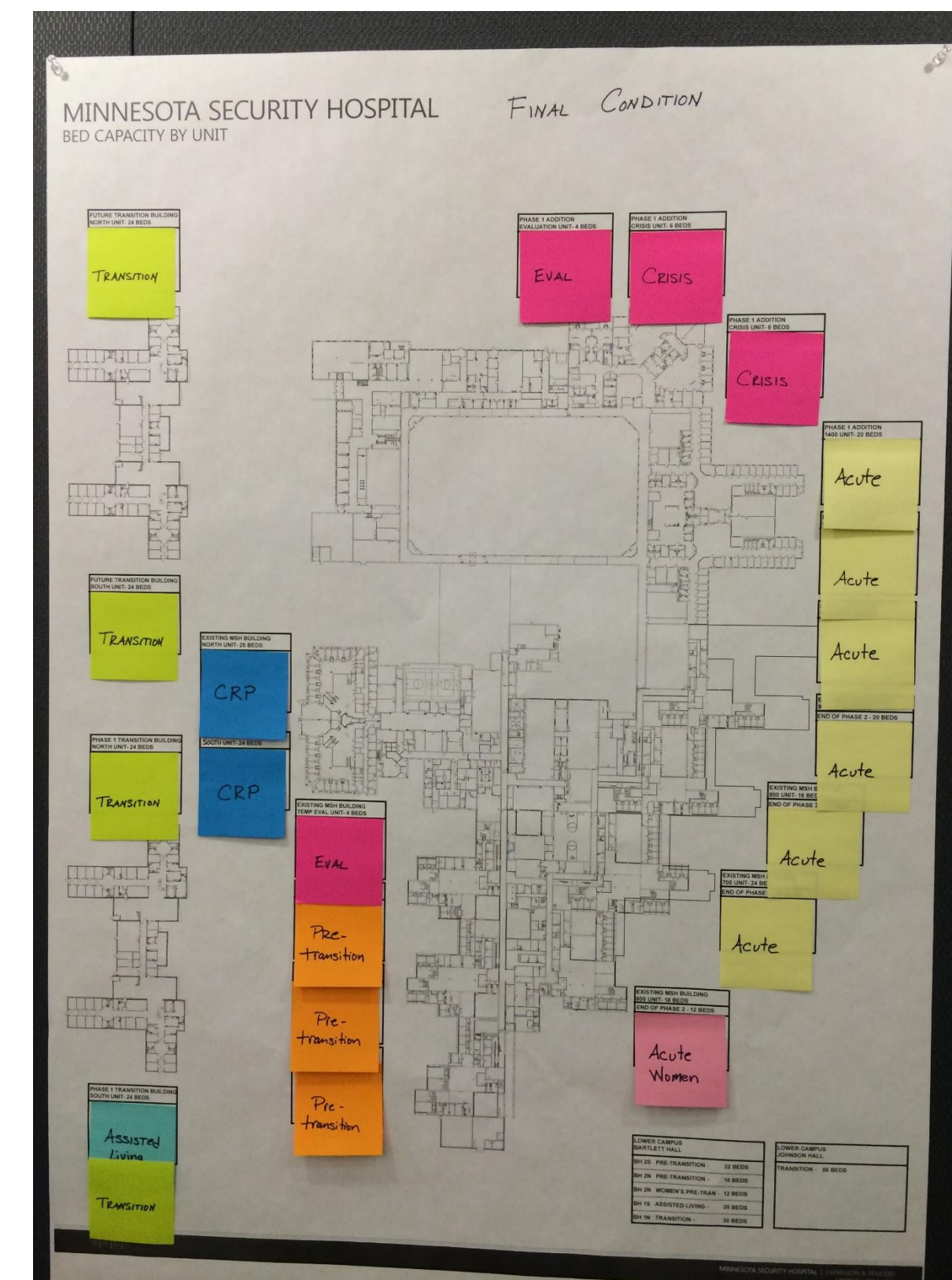
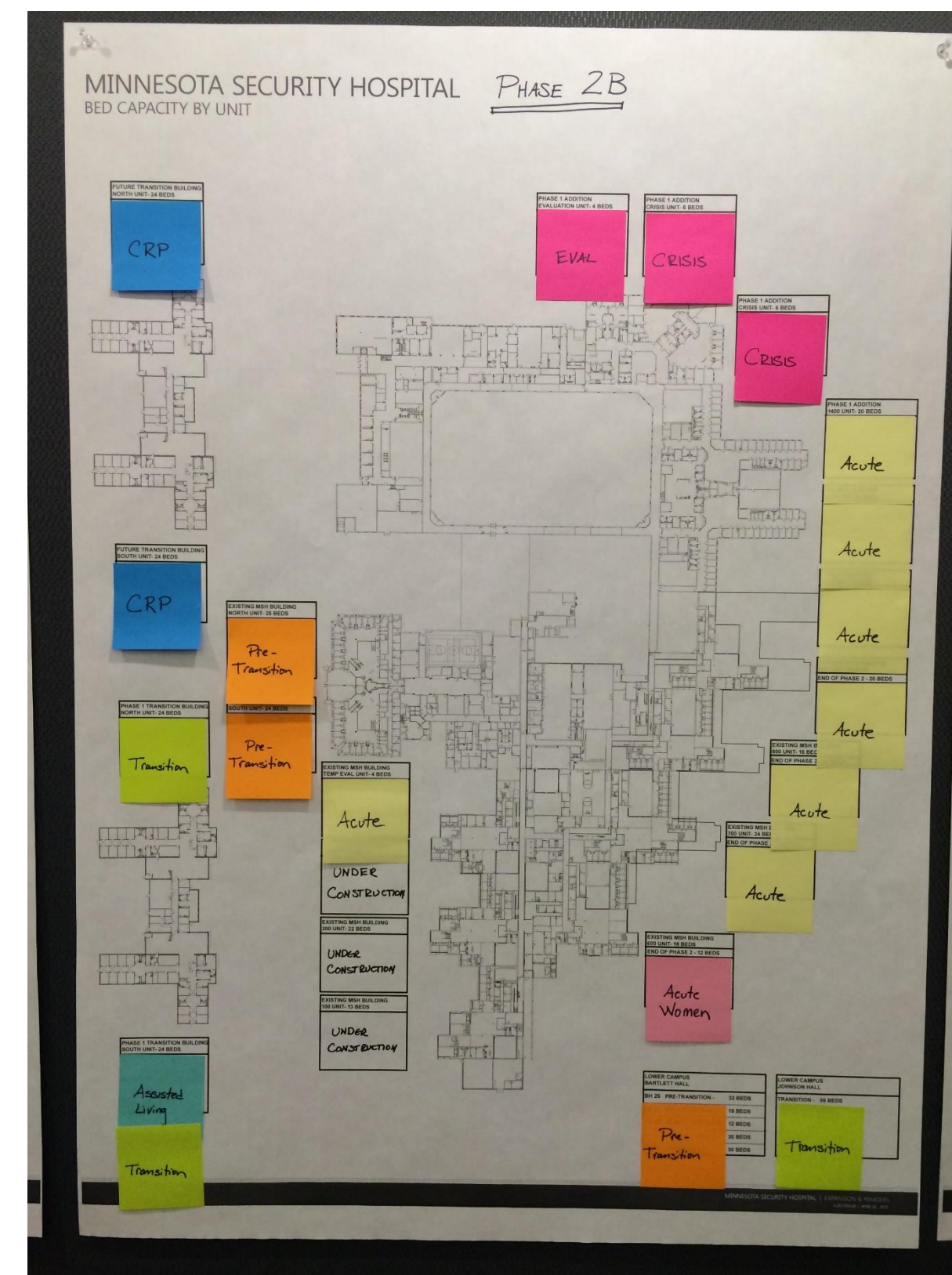
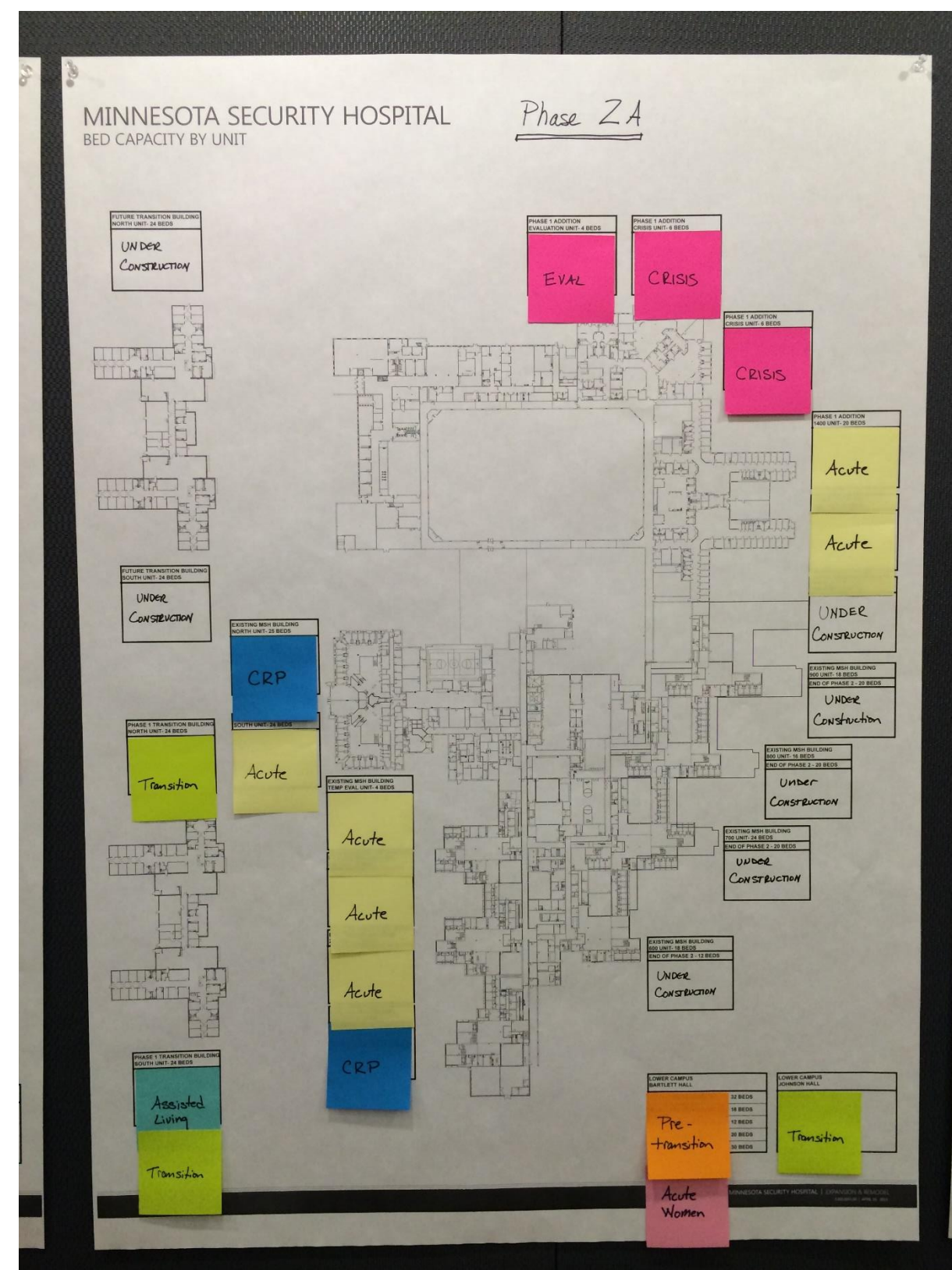
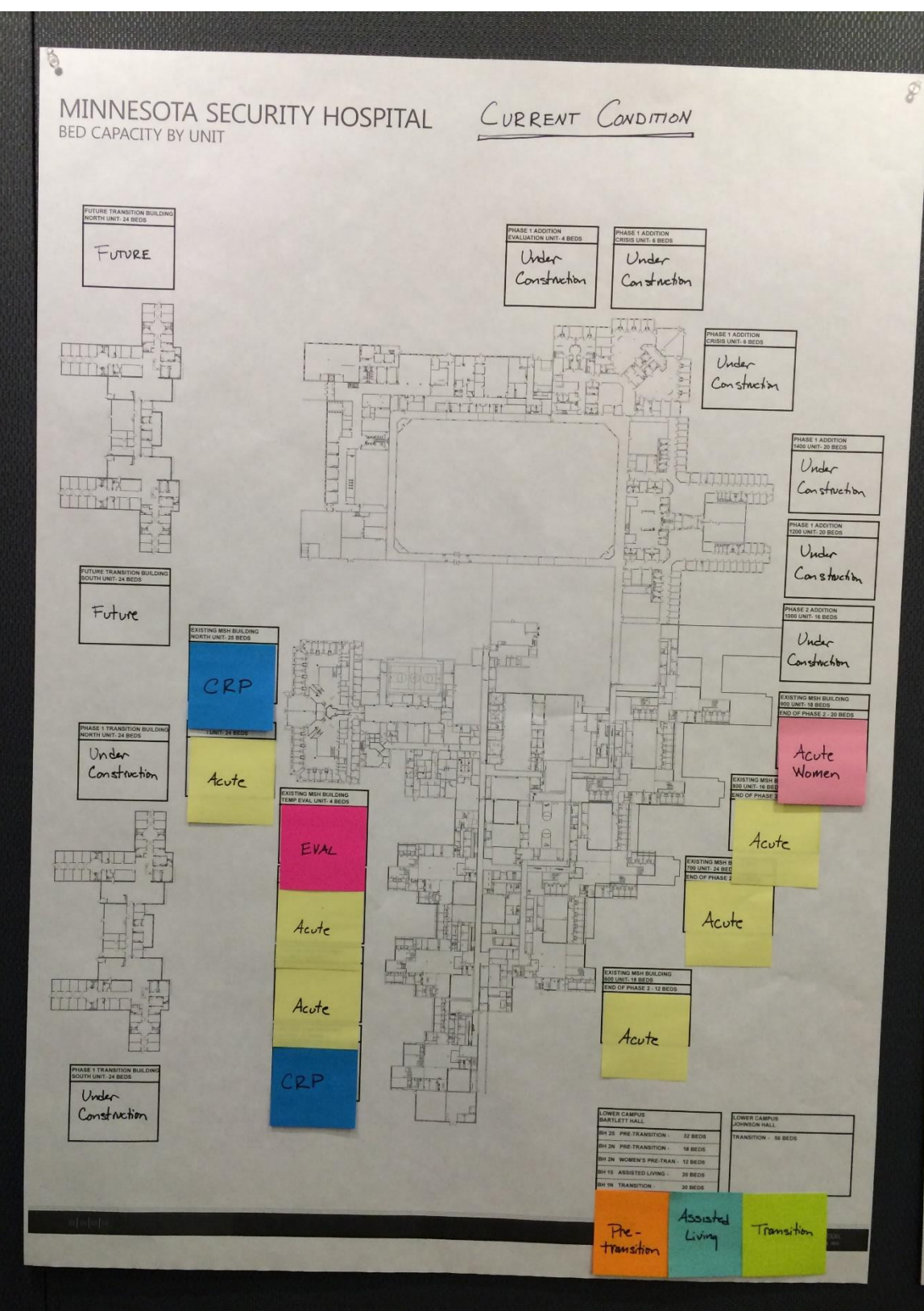
# Site Security

TOOL INVENTORY FOR CONTRACTORS (To be completed prior to entrance)					
Name:		Company:		Date:	
Class A Tools			Class B Tools		
Awl		Bench Grinder		Allen Wrenches (Hex)	Screwdriver (Phillips)
Bolt Cutter		Bench Grinder Wheel		Brazing Tip	Screwdriver Bits
Cable		Circular Saw		Brush	Socket (Ind. or Sets)
Chain (over 6")		Circular Saw Blade		Clamp "C"	Square
Chisel ("Cold")		Cut-Off Saw		Clamp (Welding)	Tap (Ind. or Sets)
Cutting Head (Torch)		Cut-Off Saw Blade		Chain (under 6")	Vise Grip
Compass		Hammer Drill		Caulking Gun	Wire Crimper
Divider		Hammer Drill Bits		Chisel (Wood)	Wire Stripper
Extension Cord		Hole Saw		Channel Lock	Wrench (Comb. End)
Extension Ladder		Hole Saw Bits		Diagonal Cutter	Wrench (Adjustable)
File		Portable Band Saw		Die (Ind. or Set)	Wrench (Impact)
Hack Saw Frame		Port. Band Saw Blade		Drill (Bench)	Wrench (Pipe)

Hack Saw Blade		Portable Grinder		Drill (Portable)	
Jack (Mech. Hydraulic)		Port. Grinder Wheel		Flaring Tool (Tubing)	
Knife (Pocket)		Sabre Saw		Hammer (Ball Pein)	
Knife (Carpet)		Sabre Saw Blade		Hammer (Chipping)	
Knife (Kitchen)		Reciprocating Saw		Hammer (Claw)	
Knife (Utility)		Recip. Saw Blade		Hammer (Masonry)	
Knife (Replace. Blade)		Winch (electric)		Grease Gun	
Ladder (6' or over)		Winch (manual)		Impact Driver	
Lock Out				Ladder (Under 6')	
Padlock				Maul	
Padlock Keys				Measuring Tape	
Porta-Power				Pliers (Slip Joint)	
Rope				Pliers (Needle Nose)	
Screwdriver (Torx)				Pliers (Lineman)	
Screwdriver (Security)				Propane Torch	
Scraper				Propane Tanks	
Scraper Repl. Blade				Pry Bar	
Scribe				Punch	
Sheet Metal Snip				Putty Knife	
Welding Cable				Rule (Measuring)	
Power Hammer: Special form to be filled in at entry/exit				Screwdriver (Slot)	



# Phasing Bed Counts





Unit (Old name)	Historical
	Bed Count
Hickory (North CRP)	25
Fraser (South)	24
Elm (Admissions)	4
Aspen (100)	13
Swing (100-200)	
Birch (200)	22
Swing (200-300)	
Cedar (300)	24
Ironwood (600)	18
Juniper (700)	24
Linden (800)	16
Maple (900)	18
Swing (900-1000)	
Oak (New New)	Const.
Pine (New New)	Const.
Swing (1100-1200)	
Redwood (New)	Const.
Spruce (New)	Const.
Tamarack (New)	Const.
Tamarack (New)	Const.
Willow (New)	Const.
Willow (New)	Const.
Forest (New 1/17)	Const.
Prairie (New)	Const.
BH2S	32
BH2N (Men & Women)	30
BH1S	19
BH1SS	1
BH1N	30
Johnson	56

Totals	356
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Phase 2A			
Average Daily Census CY2017	Difference	Budgeted Bed Count FY18	Licensed
26.7	1.7	25	25
23.7	-1.3	25	25
3.6	-0.4	4	4
15.1	1.1	14	14
18.8	-5.2	24	28
18.7	-1.3	20	28
Const.	Const.	Const.	Const.
Const.	Const.	Const.	Const.
Const.	Const.	Const.	Const.
Const.	Const.	Const.	Const.
Const.	Const.	Const.	Const.
Const.	Const.	Const.	Const.
Const.	Const.	Const.	Const.
23	3	20	20
21.4	1.4	20	20
12.9	-3.1	6	6
**	**	6	6
**	**	2	2
**	**	2	2
41.3	-4.7	46	48
Const.		Const.	Const.
31.7	-8.3	40	40
29.8	-2.2	32	36
16.1	-3.9	19	32
**		1	0
21.8	-8.2	30	32
Demo		Demo	Demo

304.6	-31.4	336	368
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Phase 2B	
Completed beds	Potential beds
25	25
25	25
4	4
Const.	Const.
Const.	Const.
Const.	Const.
15	15
8	10
22	22
19	19
3	3
17	17
14	14
3	3
17	17
20	20
6	6
6	6
2	2
2	2
48	48
48	48
40	40
36	36
32	32
	0
MSOP	MSOP
Demo	Demo

412	414
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Final	
Completed beds	Potential beds
25	25
25	25
4	4
13	13
7	7
20	20
7	7
20	20
15	15
8	10
22	22
19	19
3	3
17	17
14	14
3	3
17	17
20	20
6	6
6	6
2	2
2	2
48	48
48	48
MSOP	MSOP
MSOP	MSOP
MSOP	MSOP
MSOP	MSOP
MSOP	MSOP
Demo	Demo

371	373
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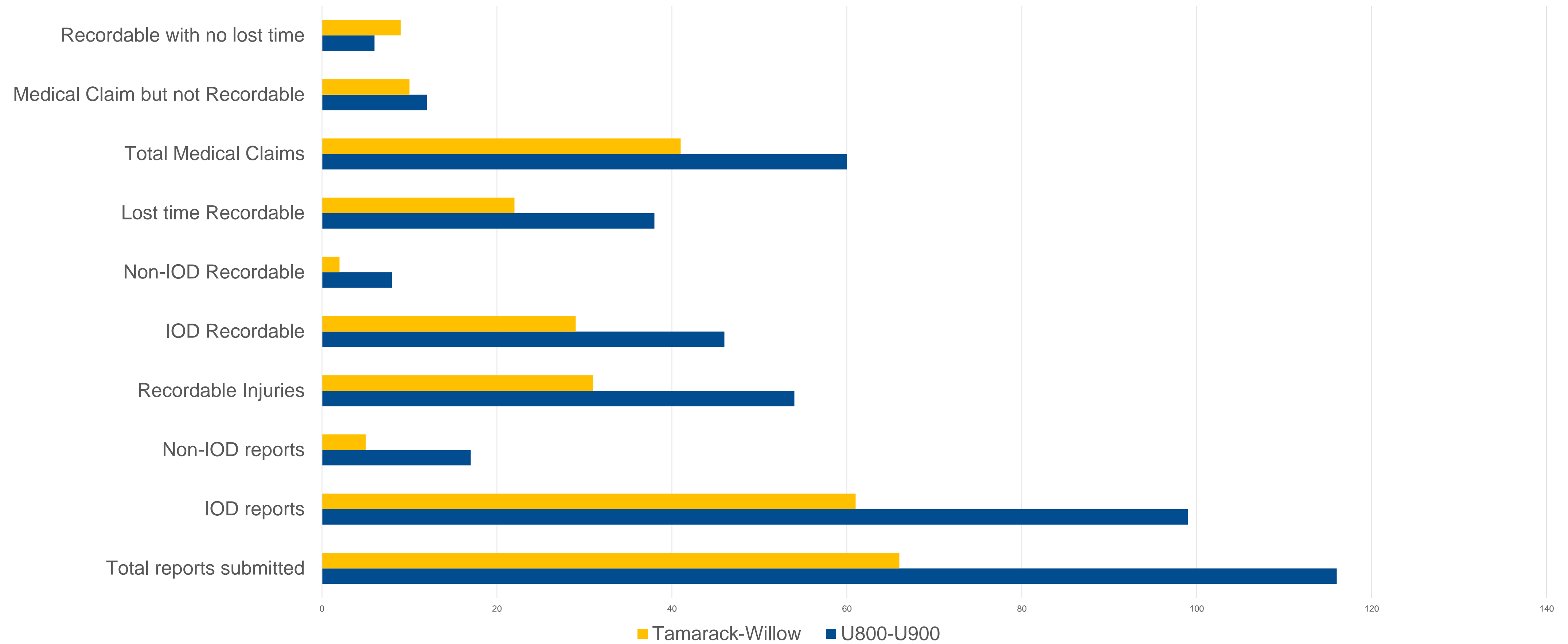






# Employee Injury Data

Tamarack/Willow May 2017 - October 2018  
U800/U900 December 2015 - May 2017





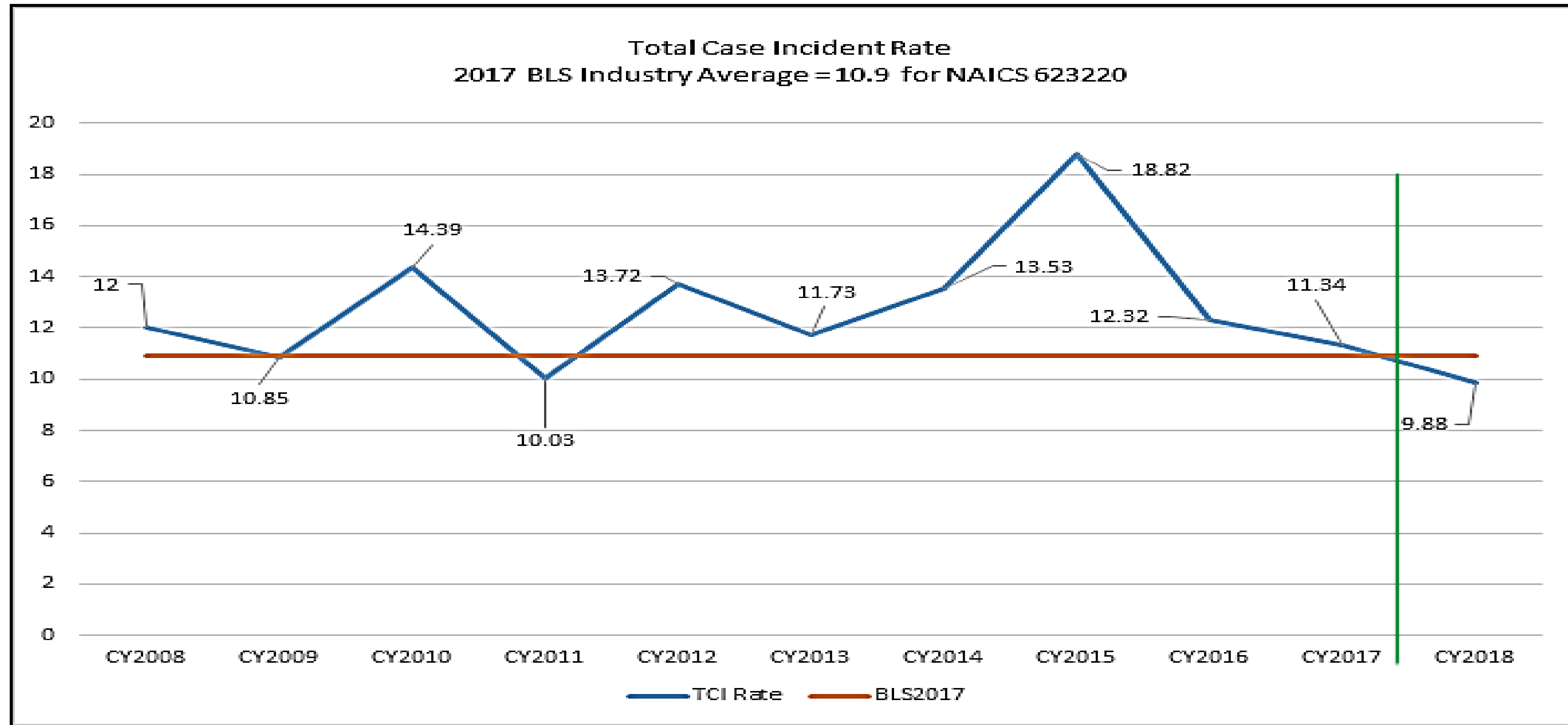
# Employee Injury Data

	U800-U900	Tamarack-Willow
Total reports submitted	116	66
IOD reports	99	61
Non-IOD reports	17	5
Recordable Injuries	54	31
IOD Recordable	46	29
Non-IOD Recordable	8	2
Lost time Recordable	38	22
Total Medical Claims	60	41
Medical Claim but not Recordable	12	10
Recordable with no lost time	6	9



# Staff Injury Data

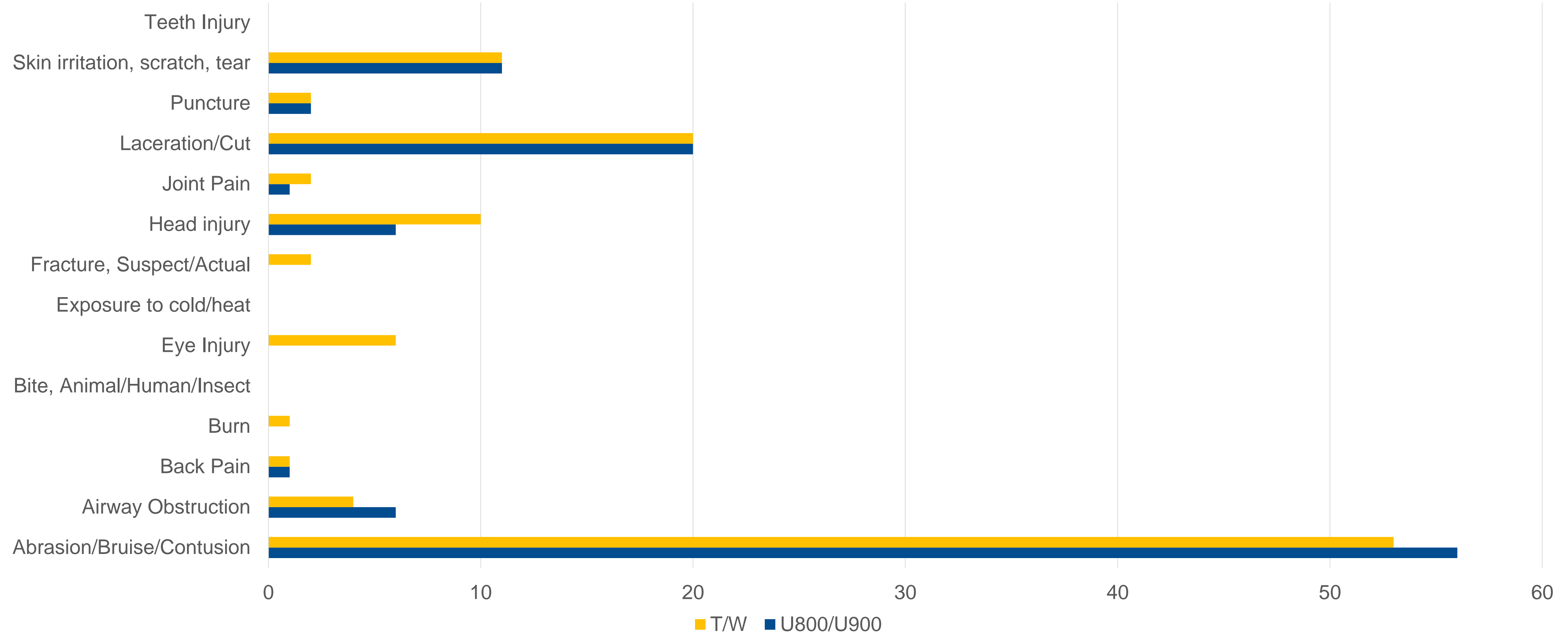
Total Case Incident Rate of Recordable injuries for the division





# Patient Injury Data

Nature of Patient Injury  
Tamarack/Willow May 2017 - October 2018  
U800/U900 December 2015 - May 2017





# Construction Joe



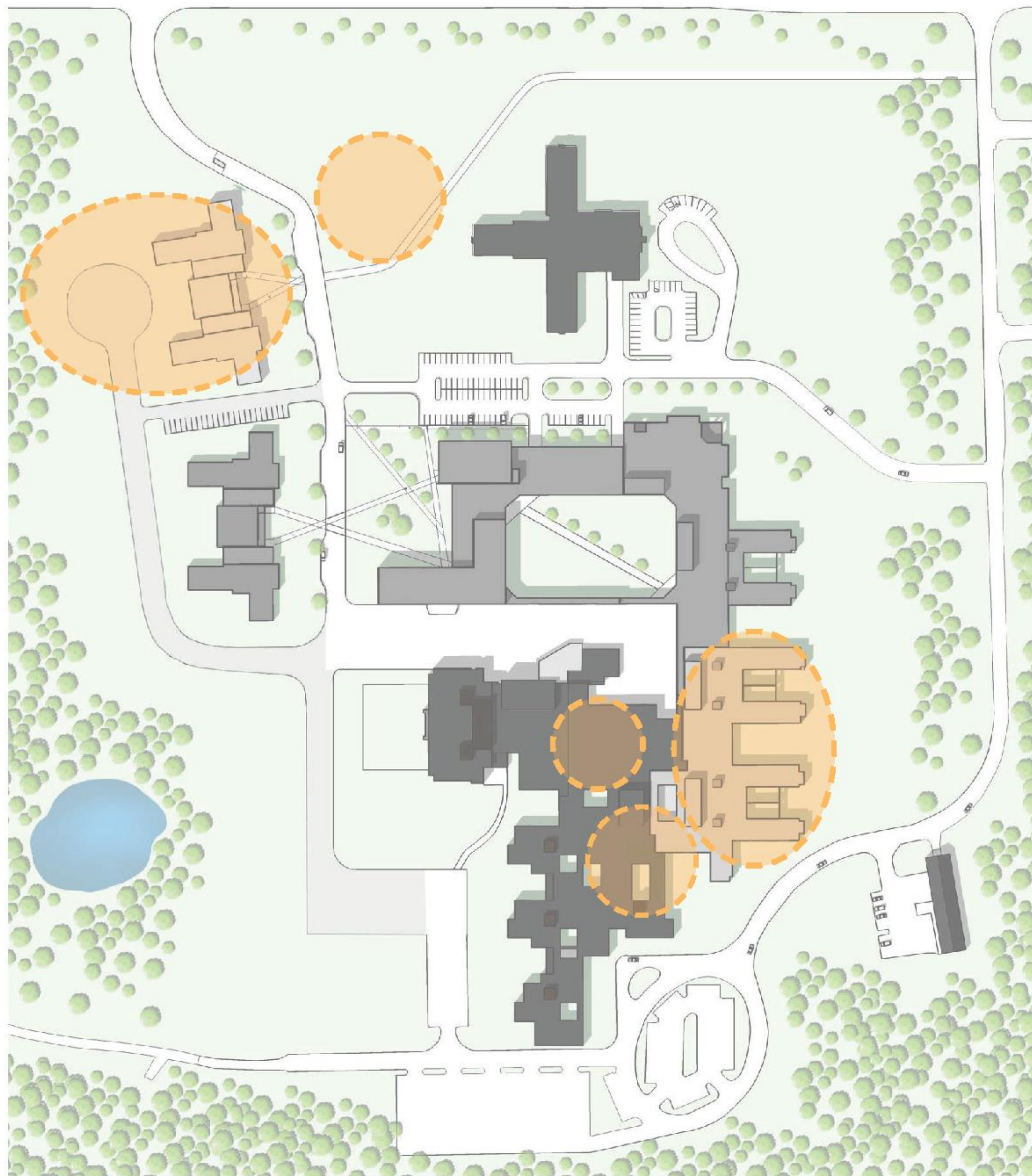
## Construction Joe wants you to know..... What's happening!

01/18/19

- **Area of former Units 600-700-800 & 900.** Precast concrete walls placement for all new units is now complete!! 1 panel has been left out intentionally to allow for equipment and material access. Crews have begun work on finish roofing, work on parapets and penthouses is ongoing. In building underground plumbing and electrical is nearing completion. Approximately 50% of concrete floor is complete, and interior block walls are beginning to be placed.
- **MSH Canteen, Woodshop, East Shop, ATS, Old Gym and Hub:** Installation of sprinkler piping has begun. No other progress @ this point as we await completion of design and bids for new HVAC equipment.
- **MSH 400 area, excluding Administrative Office spaces.** Temporary walls remain by the holding room and hallway near Hub entrance. Please remember during your day-to-day activity and movement that the MSH building center corridor (between Cedar Unit and the previous Unit 700) is the primary egress point. Demolition of this area continues.
- **We have received additional funding to replace all HVAC equipment** for all of the 1982 MSH building. While this is a huge benefit, this will delay completion of some areas. Access to these areas is strictly for **Maintenance and Construction Personnel ONLY**. Thank you for your patience.
- Security Services staff members will continue to monitor areas and respond to alarms.
- **Prairie View site, Transition Services Housing Unit #2:** Electrical and mechanical work, as well as painting and installation of ceramic tiles, is mostly complete. Floor mitigation continues in preparation for finish flooring.

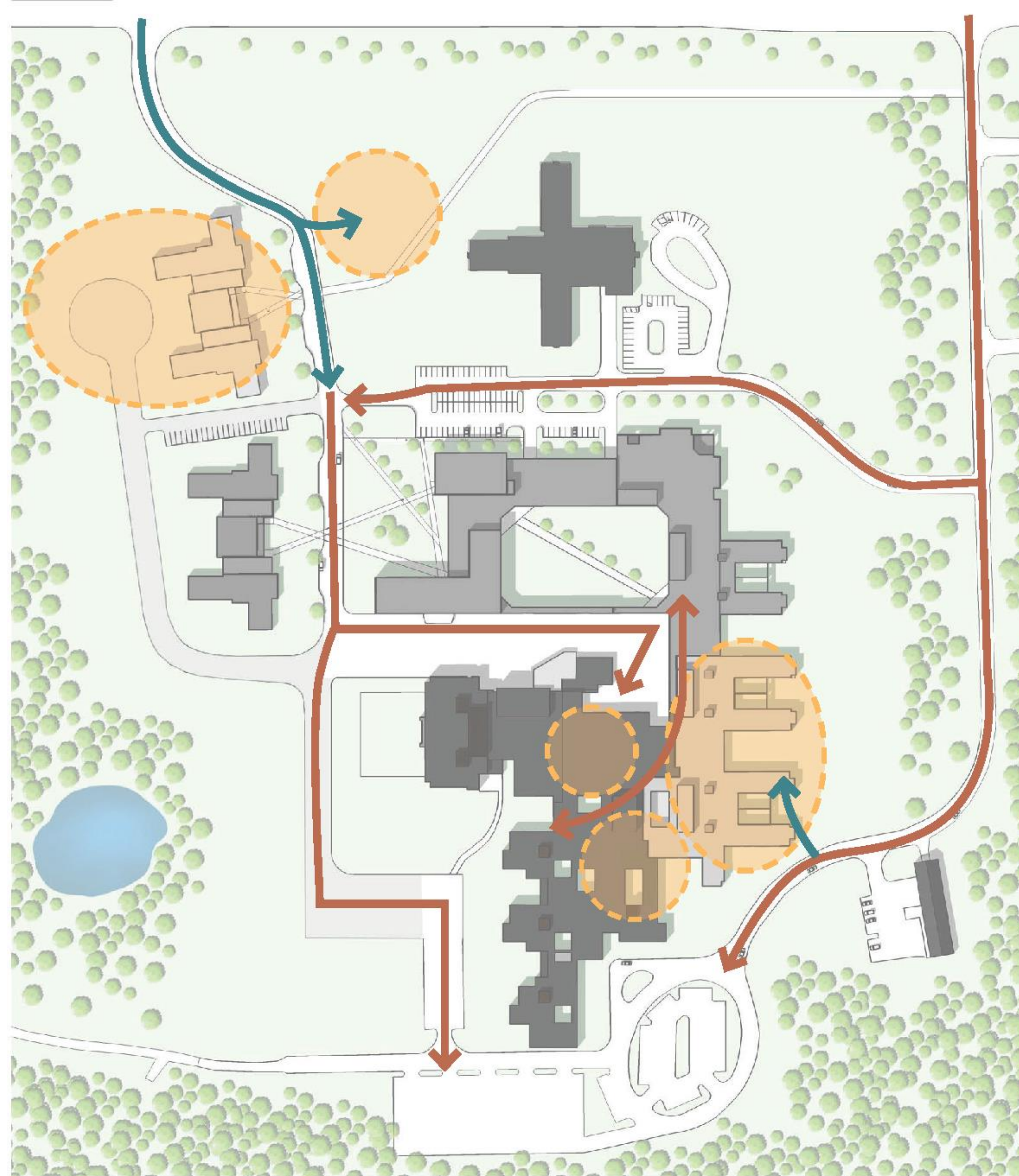


# Construction Communication





# Construction Communication





# Patient Move-in

	Current Condition		Construction Phase 2A		Construction Phase 2B		Final Condition		
	Designation	Bed Count	Designation	Bed Count	Designation	Bed Count	Designation	Bed Count	
North	CRP	25	CRP	25	CRP	25	CRP	25/25	North
South	General Treatment	24	CRP	13	CRP	13	CRP	13/25	12 OPEN BEDS South
Med Core	Admissions	4	Acute Unique (DK)	4	Acute Unique (DK)	4	Acute Unique (DK)	14	3 OPEN BEDS Med Core
300	General Treatment	24	General Treatment	24	Under Construction		Transition Readiness	27/27	300
200	General Treatment	22	General Treatment	22	Under Construction		Transition Readiness	23/27	4 OPEN BEDS 200
100	CRP	13	Women's Acute	12	Under Construction		Transition Readiness	12/13	1 OPEN BED 100
600	Acute - Special Needs	18	Under Construction		Women's Acute	12	Women's Acute	12/15	3 OPEN BEDS 600
700	Acute	24	Under Construction		Med Psych	20	Med Psych	20/22	2 OPEN BEDS 700
800	Acute	16	Under Construction		General Treatment	18	General Treatment	18/18	800
900	Women's Acute	18	Under Construction		General Treatment	18	General Treatment	18/18	900
Ph 2 Unit 1000			Under Construction		Speical Needs	14	Speical Needs	14/14	Ph 2 Unit 1000
Ph 1 Unit 1200	Under Construction		Acute	20	Acute	20	Acute	20/20	Ph 1 Unit 1200
Ph 1 Unit 1400	Under Construction		Acute	20	Acute	20	Acute	20/20	Ph 1 Unit 1400
Ph 1 Crisis unit 1600	Under Construction		Crisis - Acute	6	Crisis - Acute	6	Crisis - Acute	6/6	Ph 1 Crisis unit 1600
Ph 1 Crisis unit 1800	Under Construction		Crisis - Acute	6	Crisis - Acute	6	Crisis - Acute	6/6	Ph 1 Crisis unit 1800
Ph 1 Evaluation Unit 2000	Under Construction		Admissions - Acute	2	Admissions - Acute	2	Admissions - Acute	2/2	Ph 1 Evaluation Unit 2000
Ph 1 Evaluation Unit 2200	Under Construction		Admissions - Acute	2	Admissions - Acute	2	Admissions - Acute	2/2	Ph 1 Evaluation Unit 2200
Ph 1 Transition N	Under Construction		Transition	24	Transition	24	Transition	24/24	Ph 1 Transition N
Ph 1 Transition S	Under Construction		Transition	24	Transition	24	Transition	24/24	Ph 1 Transition S
Phase 3 Transition			Under Construction		Under Construction		Transition	38/48	10 OPEN BEDS Phase 3 Transition
BH2S	Transition Readiness	32	Transition Readiness	32	Transition Readiness	32	MSOP	0	BH2S
BH2N	Transition Readiness	18	Transition Readiness	18	Transition Readiness	18	MSOP	0	BH2N
BH2N	Women's Transition Readiness	12	Women's Transition Readiness	12	Women's Transition Readiness	12	MSOP	0	BH2N
BH1S	Med Psych	20	Med Psych	20	Vacant		MSOP	0	BH1S
BH1SS	Acute Unique (DK)	8	General Treatment	8	Vacant		MSOP	0	BH1SS



# Thank you!

Questions?