

# FACILITY CONDITION ASSESSMENT

**Board of Regents  
Facilities Committee  
September 8, 2011**



UNIVERSITY OF MINNESOTA

**Driven to Discover<sup>SM</sup>**

# Outstanding Organization

## University Goal

Outstanding Organization: Be responsible stewards of resources, focused on service, driven by performance, and known as the best among peers.

## University Strategy

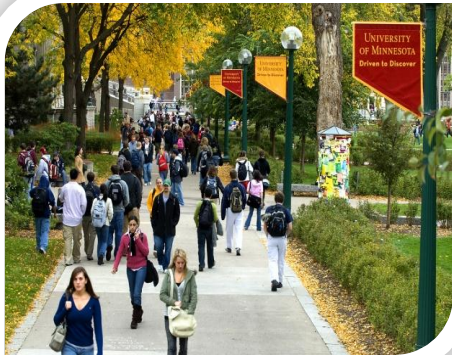
Be responsible stewards of resources

## Key Indicator

Facilities condition

## Measure

Facilities Condition Needs Index (FCNI)



# Facilities Condition Assessment (FCA)

- ***Vision:***

The enterprise source of the most accurate and up-to-date information regarding existing buildings (component and system condition, fire safety, environmental safety, historical characteristics, past improvements, budgeted/planned capital projects, etc.) used to ensure effective operation of facilities and guide capital projects.

- ***Operationally:***

- An independent, inspection based review of building conditions
- Report prioritizes needs for facilities renewal over next ten years
- Database provides a tool for accessing and utilizing information
- Information used to measure long term facilities condition against established metrics and peers



# FCA Data Use

## Capital Improvement Planning and Oversight Process

Stage 1 <b>Potential Projects</b>	Stage 2 <b>Preliminary Review &amp; Program Analysis</b>	Stage 3 <b>Six Year Capital Improvement Plan</b>	Stage 4 <b>Approval &amp; Implementation</b>
<b>Primary Drivers:</b> <ul style="list-style-type: none"> <li>• Programmatic Needs - Compacts</li> </ul>	<b>Major Criteria:</b> <ul style="list-style-type: none"> <li>• Strategic Positioning</li> <li>• Academic Priorities</li> </ul>		<ul style="list-style-type: none"> <li>• Individual projects over \$500K are approved in the Annual Capital Budget and require amendments.</li> <li>• Predesign and Schematic Design complete</li> <li>• Project fully funded</li> </ul>
<ul style="list-style-type: none"> <li>• Facility Conditions - Facility Condition Assessment (FCA)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Facility Conditions</b></li> </ul>		
	<ul style="list-style-type: none"> <li>• Financial Constraints</li> <li>• Project Logistics</li> <li>• Space &amp; Other Issues</li> </ul>	<p><b>Pre-design</b></p> <p>&amp;</p> <p><b>Schematic Design</b></p>	
Projects proposed by Chancellors, VP's Deans, Faculty, Depts. Business Units during Compact process.	Review, analysis & recommendation by Academic, Finance & Operations staff.	Approved & recommended to Board of Regents by the President.	Approved & recommended to Board of Regents by the President



# Background: System-wide Facilities

29

Million Gross  
Square Feet

5

Unique  
Campuses

17

Research &  
Outreach Centers  
or Field Stations



# Facilities Condition Assessment Updated 2011

(System-wide)

Campus	Total GSF <sup>1</sup>	Assessed GSF <sup>2</sup>	Estimated Replacement Value	Projected 10-Year Needs	10 Year Needs/Replacement Value = (FCNI)
Twin Cities	22,551,843	21,761,998	\$6,193,837,604	\$2,414,442,364	0.39 <sup>3</sup>
Duluth	3,262,754	2,225,405	\$616,170,638	\$188,071,562	0.31
Morris	960,399	919,942	\$229,124,849	\$89,574,283	0.39
Crookston	630,241	412,442	\$89,187,842	\$31,561,385	0.35
<b>Grand Totals</b>	<b>27,405,237</b>	<b>25,319,787</b>	<b>\$7,424,010,533</b>	<b>\$2,723,649,593</b>	<b>0.38</b>

<sup>1</sup> Excludes 1.9 Million GSF for Rochester Campus, Field Stations and Research & Outreach Centers. Does not include parking ramp decks.

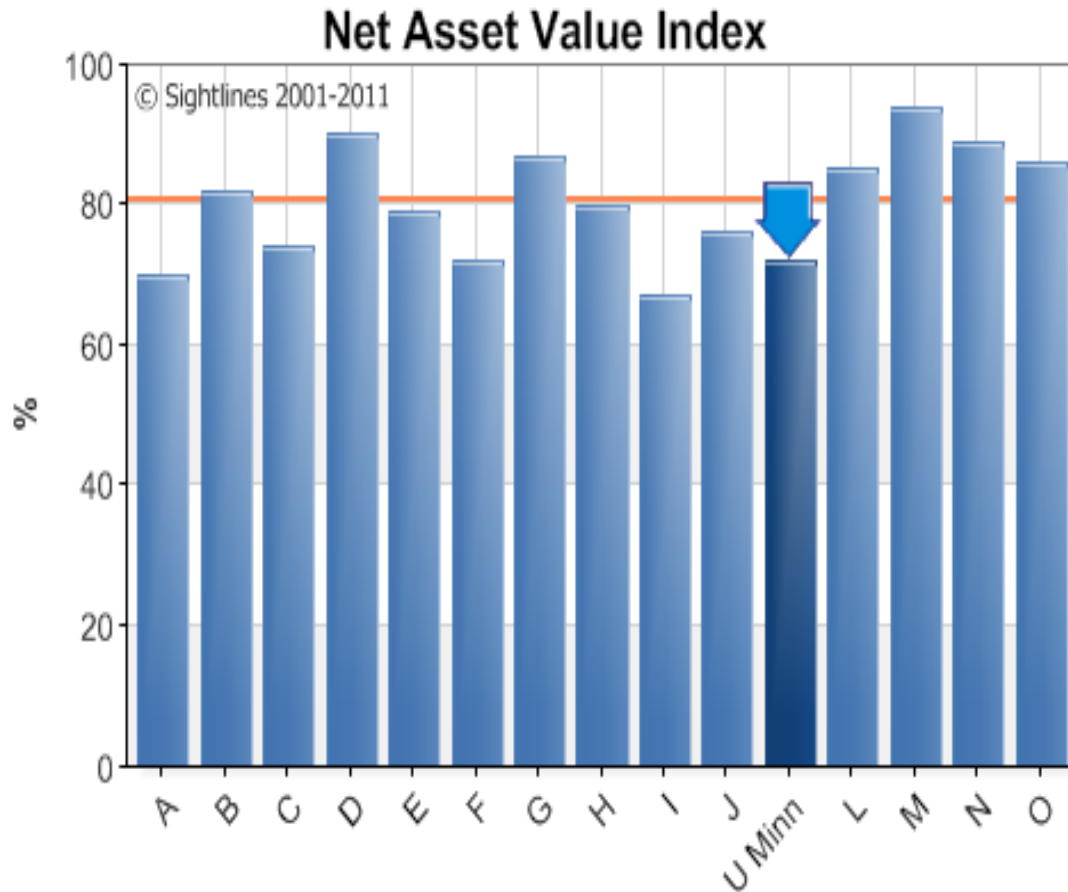
<sup>2</sup> Includes formally inspected space and new/remodeled space < 5 years old. Also includes GSF for parking ramp decks.

<sup>3</sup> Excludes newly constructed TCF Bank Stadium. With Stadium, Twin Cities FRC = \$6,489,527,204; FCNI = 0.37



# Comparison to Peers:

## % of Building value in Good Condition



Institution	Big 10
Cornell University	
Georgetown University	
Georgia Institute of Technology	
Massachusetts Institute of Technology	
New York University	
Northwestern University	
Princeton University	
Purdue University	Big 10
The Johns Hopkins University	
<b>The Ohio State University</b>	<b>Big 10</b>
<b>The Pennsylvania State University</b>	<b>Big 10</b>
<b>University of Illinois – Urbana Champaign</b>	<b>Big 10</b>
<b>University of Michigan – Ann Arbor</b>	<b>Big 10</b>
University of Missouri - Columbia	Big 12

Note: state-supported space only



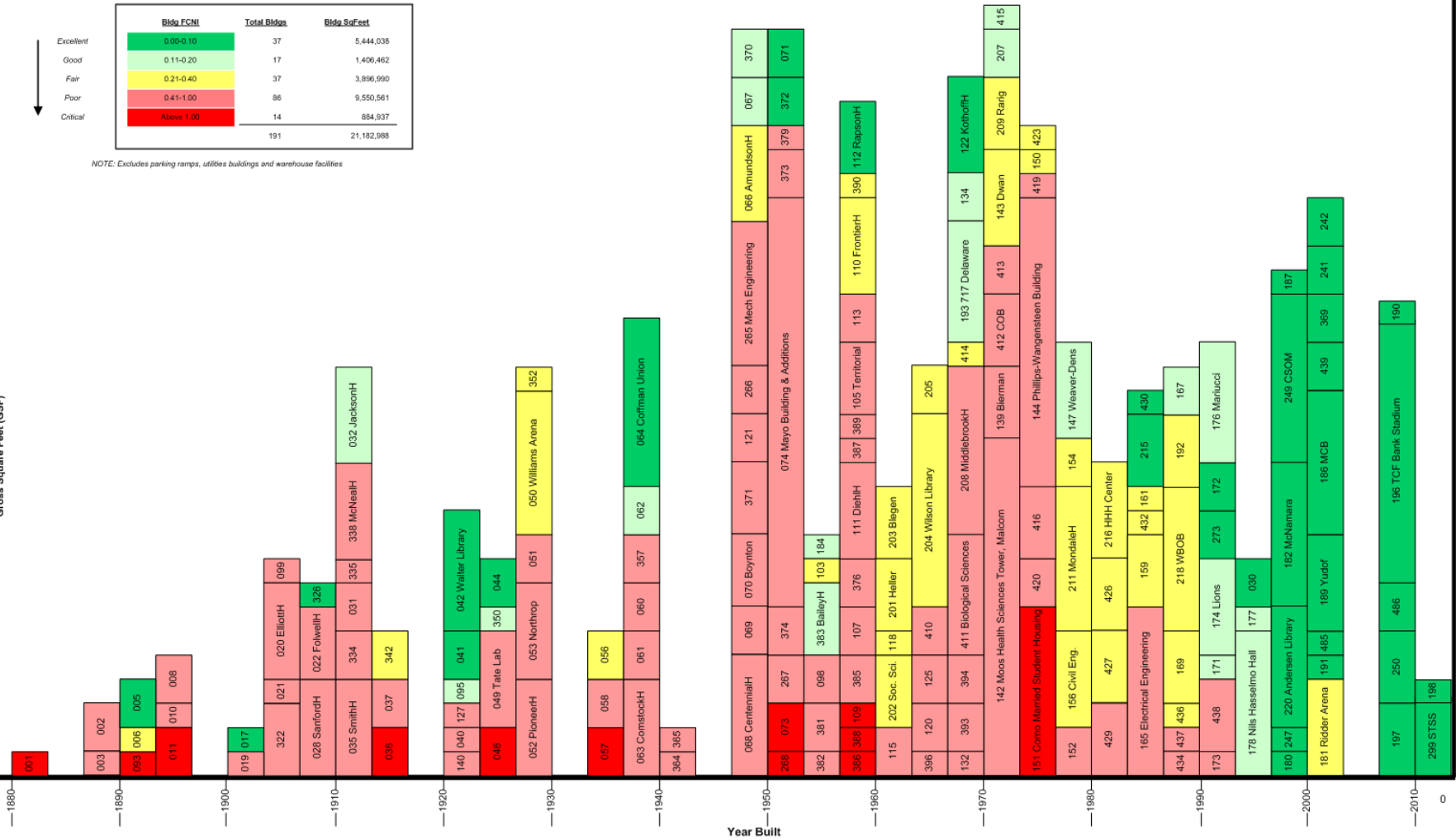
# Twin Cities GSF By Year Built and FCNI

50,000 GSF

	Bldg FCNI	Total Bldgs	Bldg SqFeet
Excellent	0.00-0.10	37	5,444,038
Good	0.11-0.20	17	1,406,462
Fair	0.21-0.40	37	3,896,990
Poor	0.41-1.00	86	9,550,561
Critical	Above 1.00	14	884,937
		191	21,182,988

NOTE: Excludes parking ramps, utilities buildings and warehouse facilities

Gross Square Feet (GSF)



Gross Square Ft (GSF)

1,500,000

1,000,000

500,000

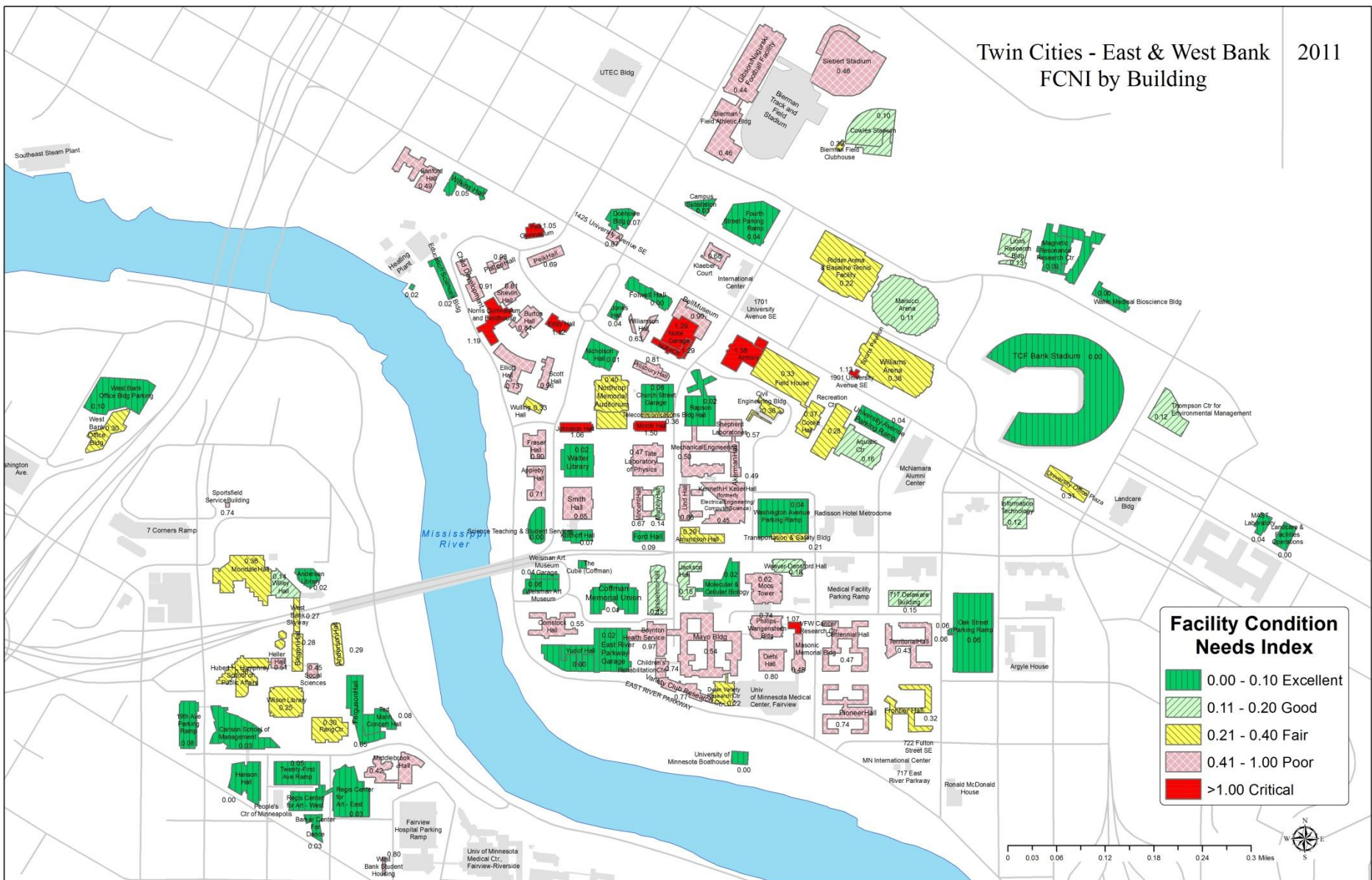
100,000

0





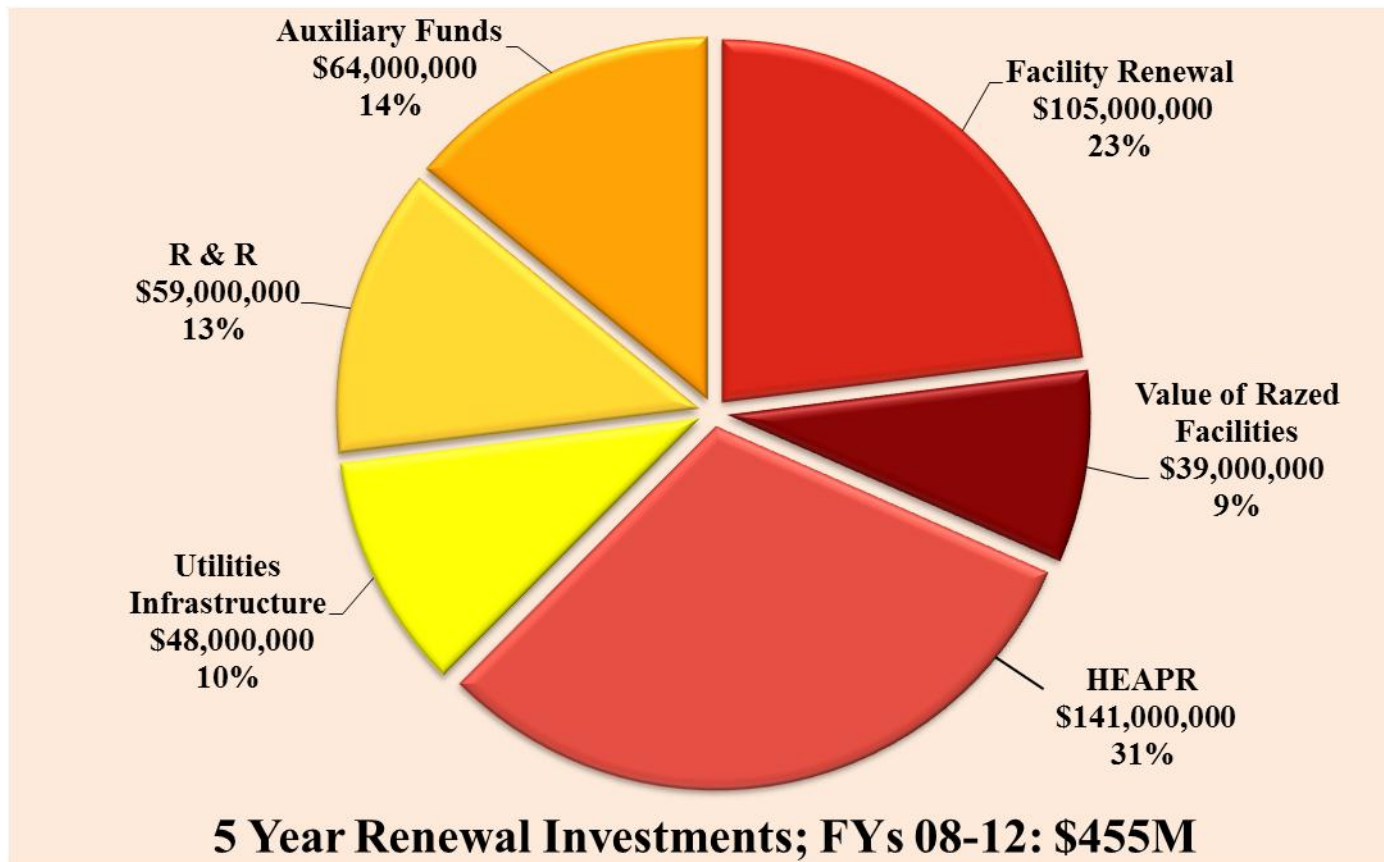
# Twin Cities - East & West Bank 2011 FCNI by Building



# Capital Need Exceeds Available Funding

(System-wide)

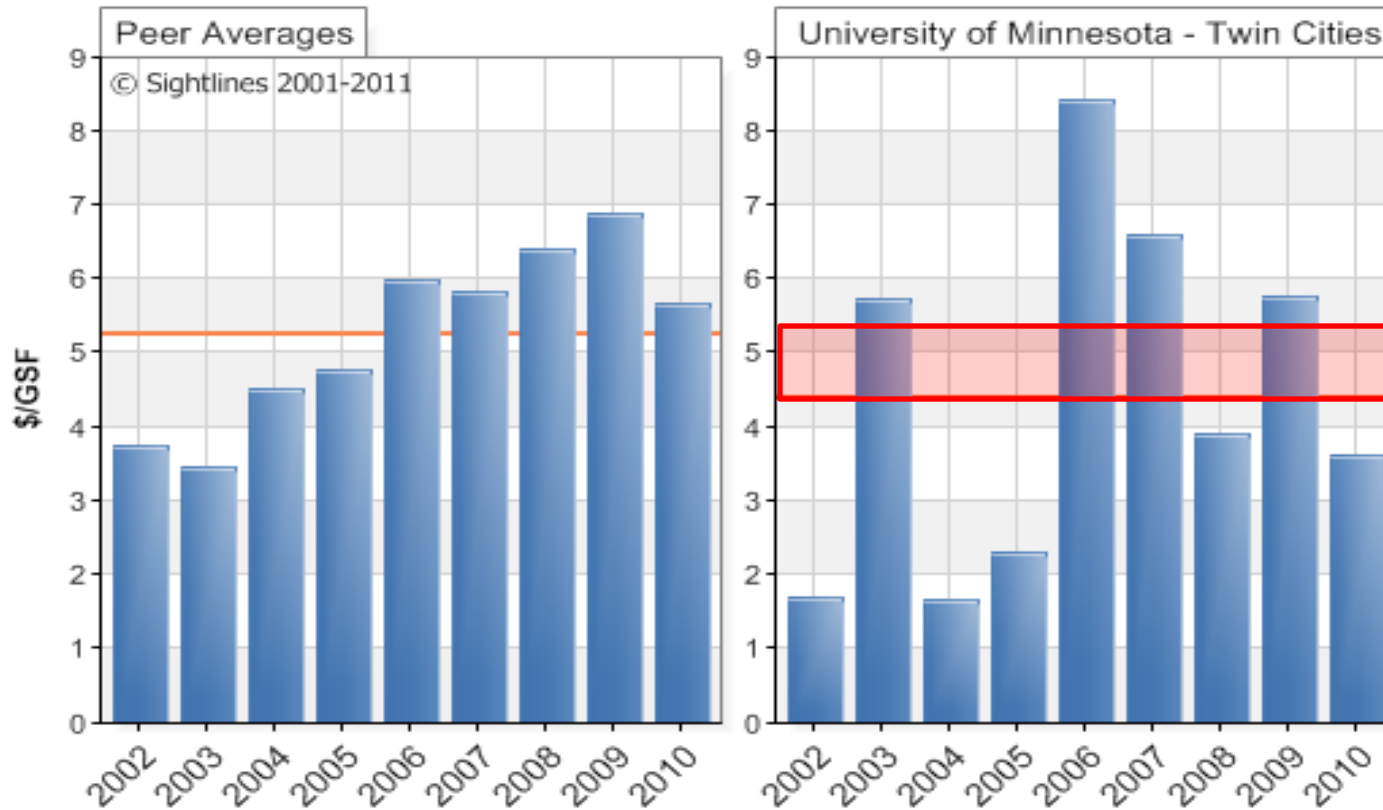
Required Capital to Maintain current FCNI Ratio: \$160 Million per year  
Actual Funding (average over the last 5 years): \$114 Million per year



# Total Project Spending vs. Peers

(Twin Cities)

## Total Project Spending \$/GSF

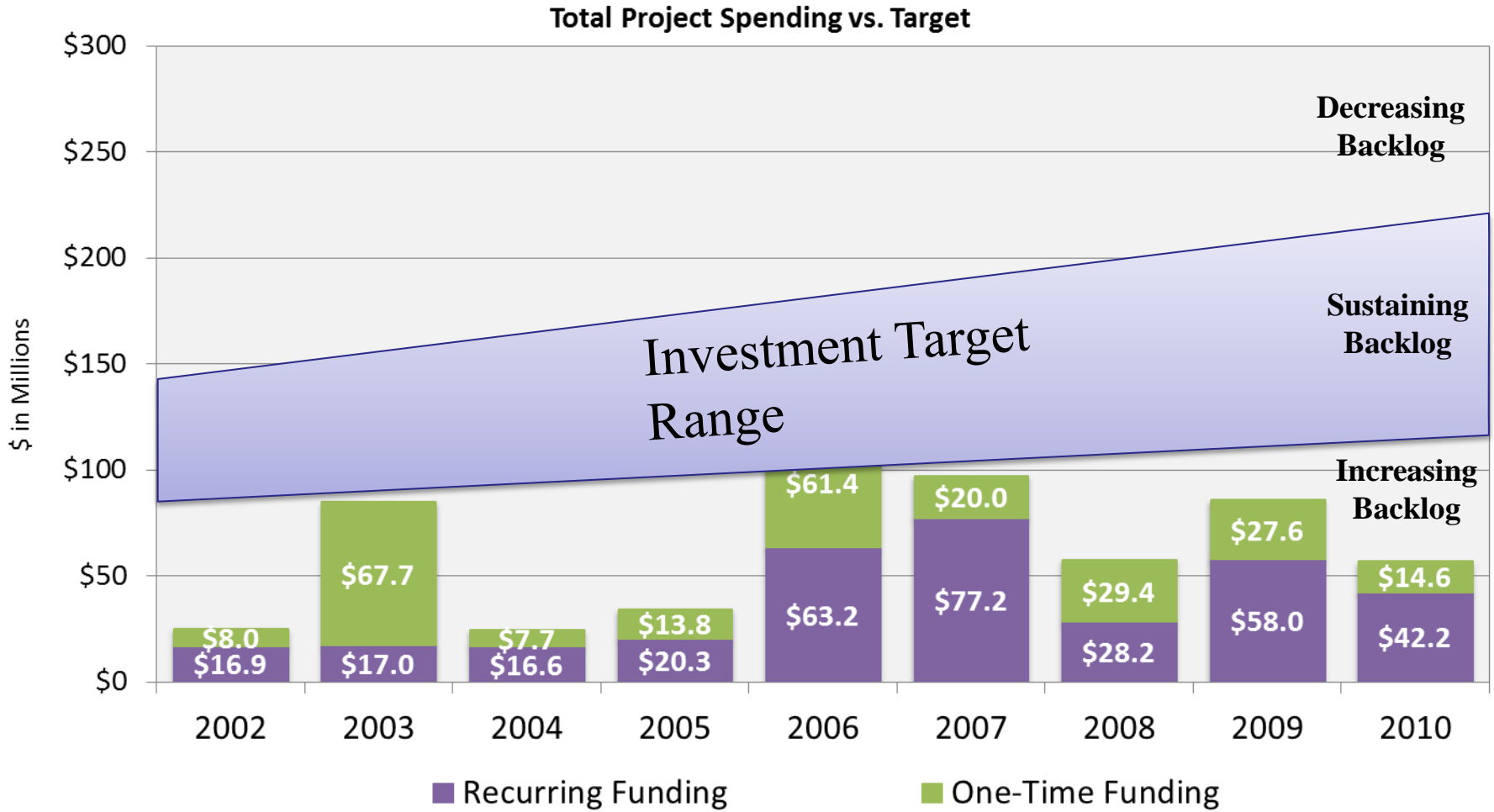


To fund at peer levels, UMN would need to invest an additional \$1.90/GSF or \$26M annually

\$56.8 M was spent from all sources in FY10



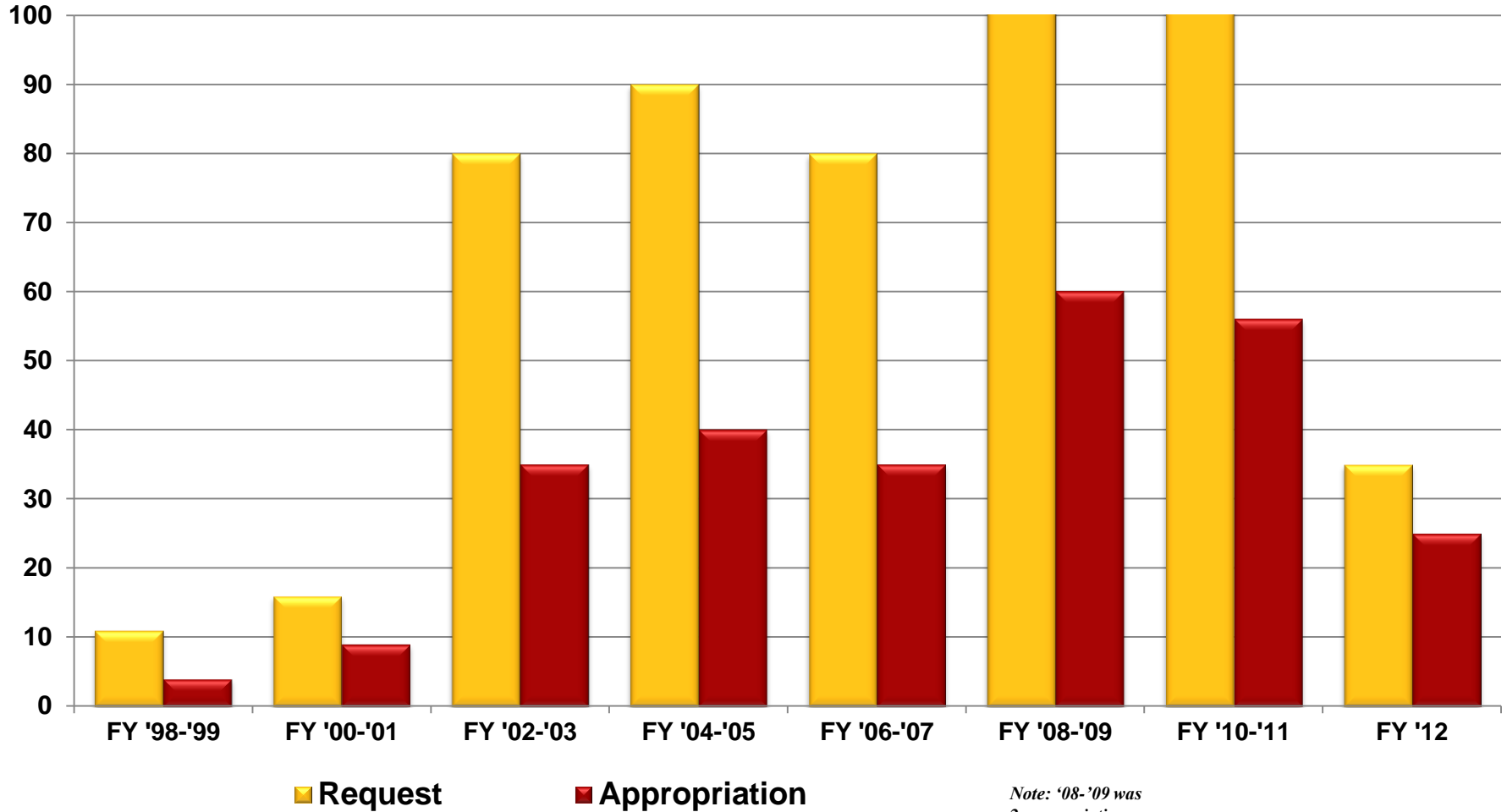
# Project Spending vs. Target



# HEAPR Appropriation History

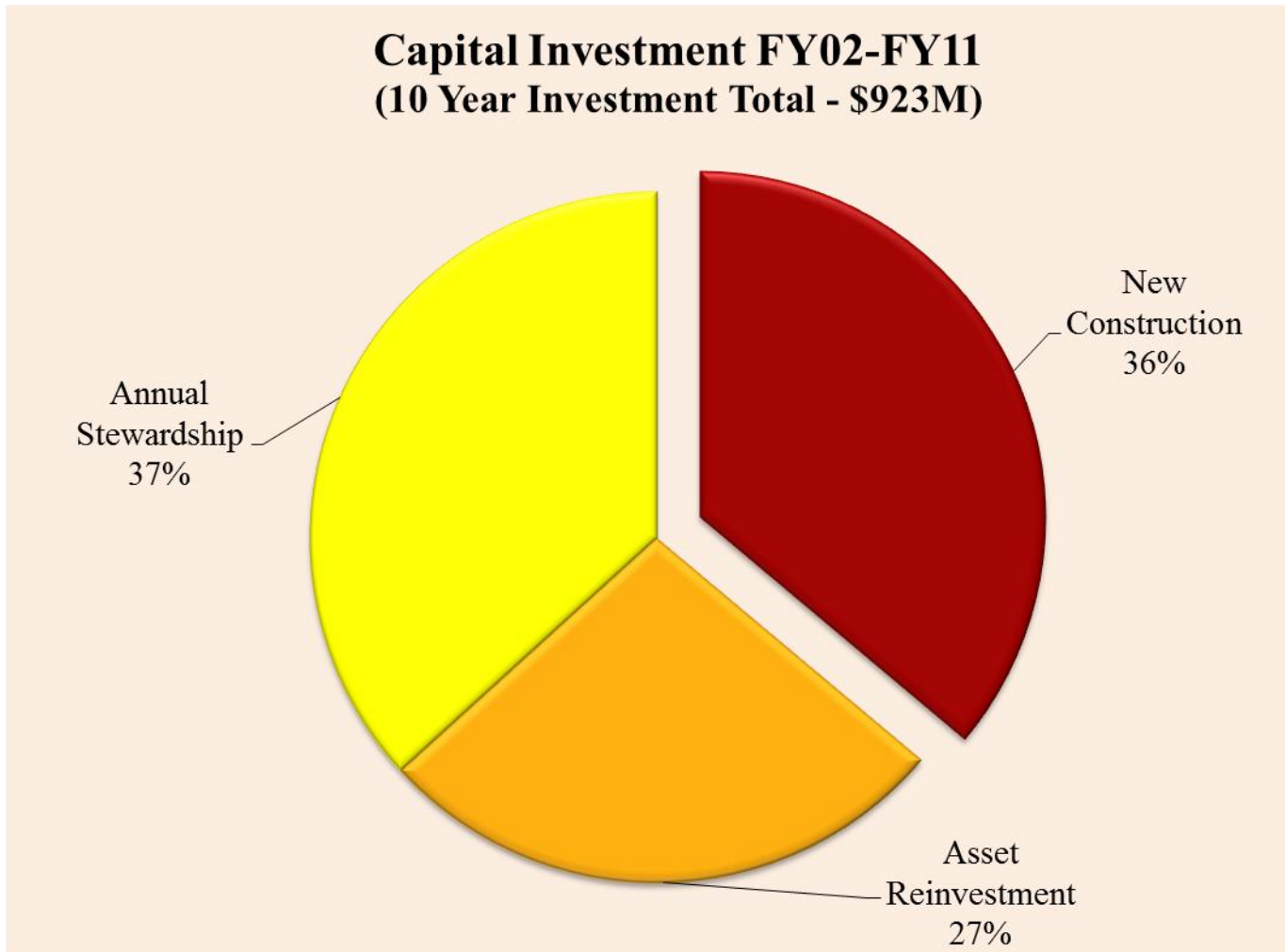
(System-wide)

\$ Millions



# Investment in Existing Space vs. New Space

(Twin Cities – State support space only)



# Facility Condition Strategies

- Utilize existing space
- Demolish or decommission targeted buildings
- Implement district utility strategies
- Maximize energy conservation
- Target individual system improvements
- Renovate existing spaces
- Build new facilities



# Project Selection Criteria

- Facilities condition
- Operational risk
- Program impact
- Historic status & master plan
- Opportunity to leverage other investments
- Regulatory & legal statues
- Operating cost including energy usage
- Building decommissioning evaluation





# Draft Model: FCA data by building purpose

## DRAFT MODEL: Segmentation of FCA Data by Building Purpose

Rating Class	Target FCNI	Title	Description	Building Groups*	Example Facilities
1	0.00-0.10	Max Stewardship	Reserved for select buildings that demand impeccable condition and unwavering service to serve occupying programs or represent the campus at its finest (e.g. flagship buildings)		STSS
2	0.11-0.20	Enhanced Stewardship	Buildings in this class merit above average investment to support excellent overall condition and reliable service to serve occupying programs	Classrooms Health / Chem / Bio Labs	MCB, Biomedical Discovery District, Kolthoff
3	0.21-0.40	General Stewardship	Buildings in this class merit routine investment to maintain respectable overall condition and reliable service to serve occupying programs	Office Student Life Athletics / Recreation Clinics Residential Arts / Natural Science Labs	Coffman, Wilson Library, Mayo
4	0.41-1.00	Maintain for Safety	Buildings in this class merit minimum investment to maintain basic health and safety. If/when FCNI of a building in this class exceeds 0.75, a review for divestment candidacy is appropriate	Support	Como Recycling, Farm and Ground Maint, Botany Field House
5	>1.00	Teardown / Decommission	Buildings automatically qualify for this classification if/when FCNI exceeds 0.75 AND building lacks additional traits consistent with higher levels of stewardship		Fraser, Wesbrook, Williamson, Norris

# Draft Model: FCA data by building purpose

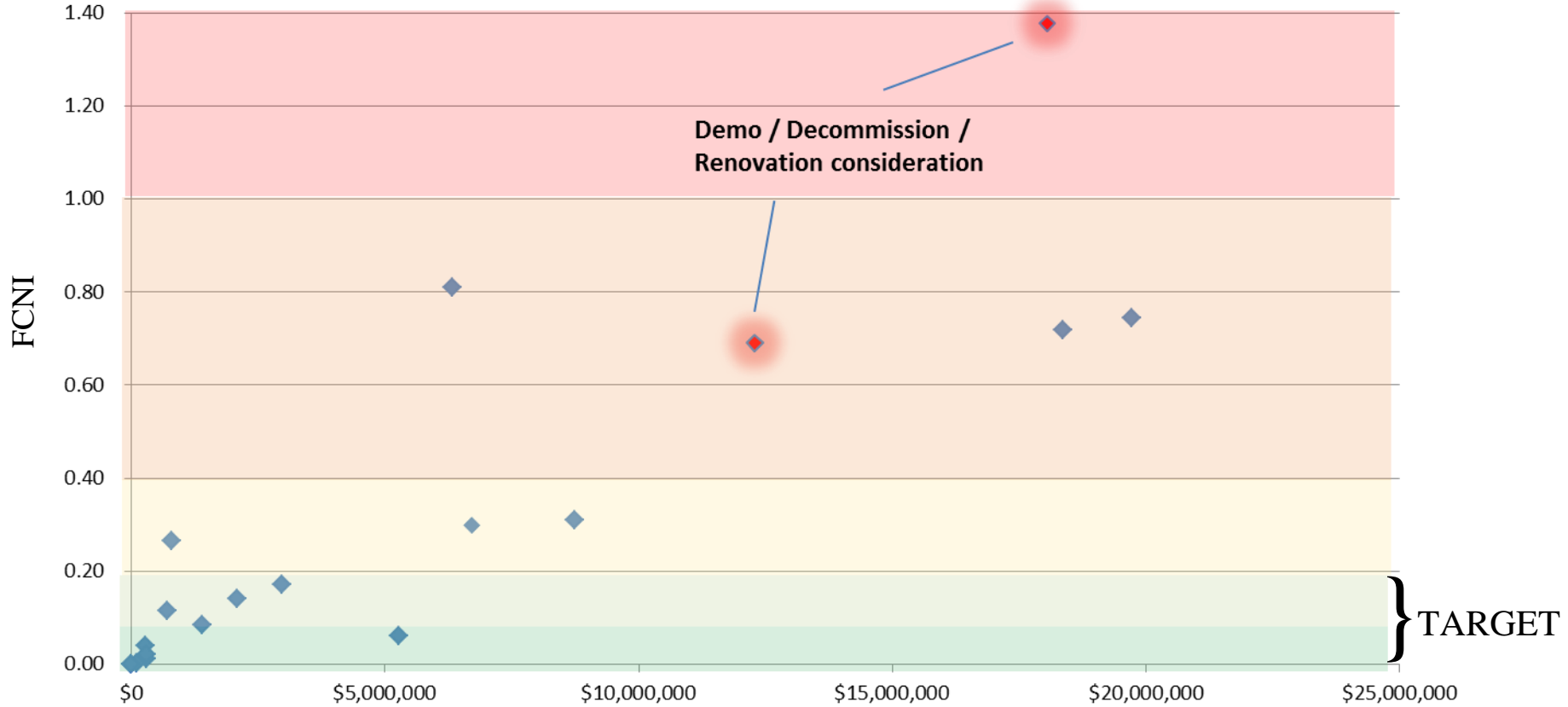
## DRAFT MODEL: Segmentation of FCA Data by Building Purpose

Building Group	Target Class	Target FCNI	Actual FCNI (avg)	Bldgs	GSF	% Comply	Compliance Investment
Classrooms	2 - Enhanced Stewardship	<= 0.20	0.31	20	1,642,912	60%	\$62,125,439
Health / Chem / Bio Labs	2 - Enhanced Stewardship	<= 0.20	0.49	48	4,845,679	33%	\$420,512,650
Arts Labs	3 - General Stewardship	<= 0.40	0.30	10	834,976	67%	\$11,138,720
Natural Science Labs	3 - General Stewardship	<= 0.40	0.49	20	1,779,762	30%	\$62,921,981
Office	3 - General Stewardship	<= 0.40	0.64	32	2,763,636	45%	\$109,658,608
Student Life	3 - General Stewardship	<= 0.40	0.35	16	1,951,296	60%	\$31,199,671
Support	4 - Maintain for Safety	<= 1.00	0.36	84	2,094,290	95%	\$1,259,924
Athletics / Recreation	3 - General Stewardship	<= 0.40	0.40	22	2,061,003	65%	\$16,675,936
Clinics	3 - General Stewardship	<= 0.40	0.50	11	2,116,757	42%	\$132,356,478
Residential	3 - General Stewardship	<= 0.40	0.48	15	2,461,532	40%	\$79,507,860
				278	22,551,843	54%	\$927,357,267



# Draft Model: FCA data by building purpose

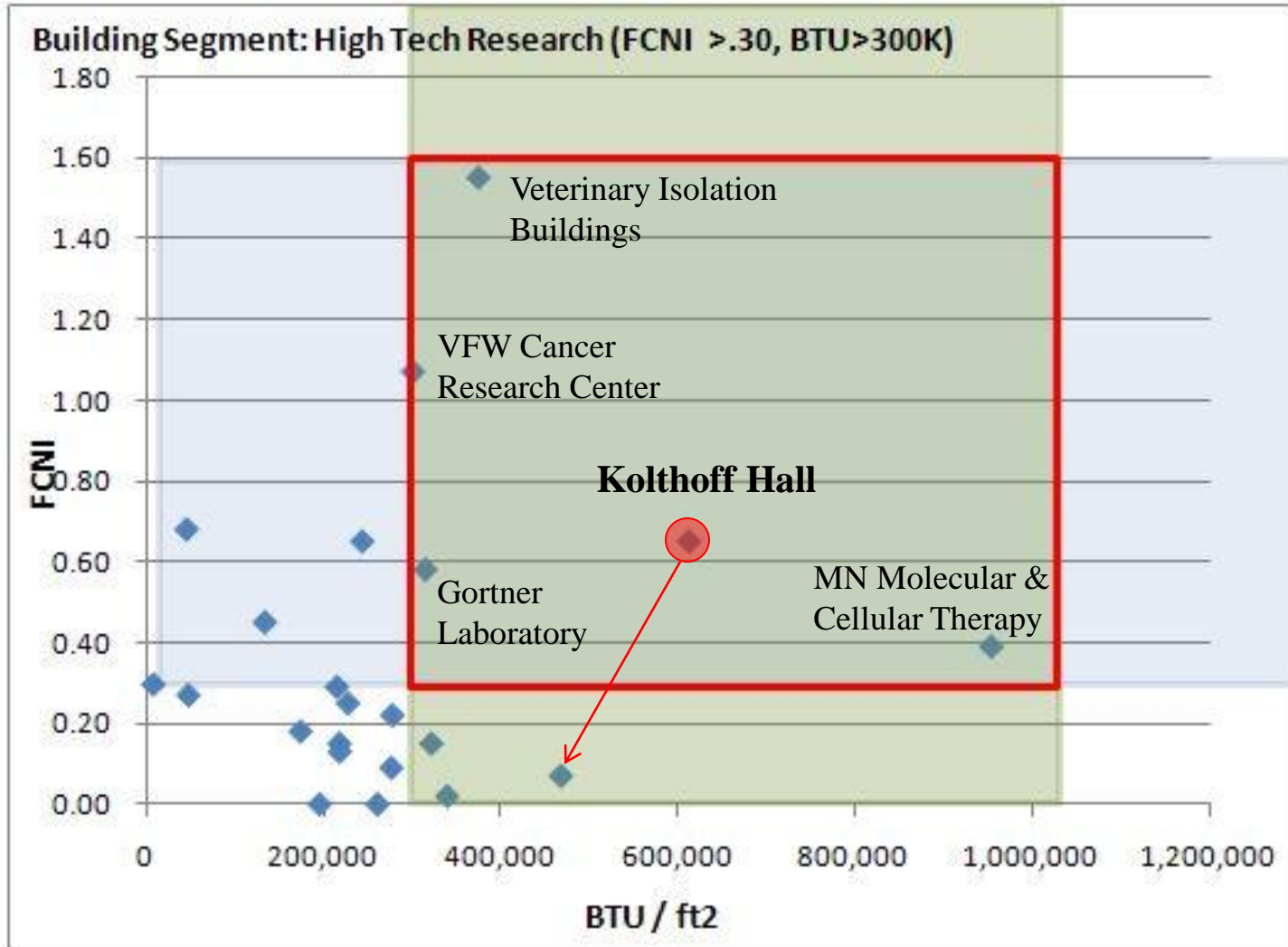
## Classrooms: Class 2 - Enhanced Stewardship



	Buildings	GSF	% Comply	Avg FCNI	Invest to Target
Current	20	1,642,688	60%	0.31	\$62,125,439
After Demo / Decom. / Reno	18	1,506,208	67%	0.22	\$35,746,762



# Building Condition vs Energy Efficiency



# How have we maintained the current FCNI ratio in spite of a funding gap?

## Adding new buildings

- Increases the average condition

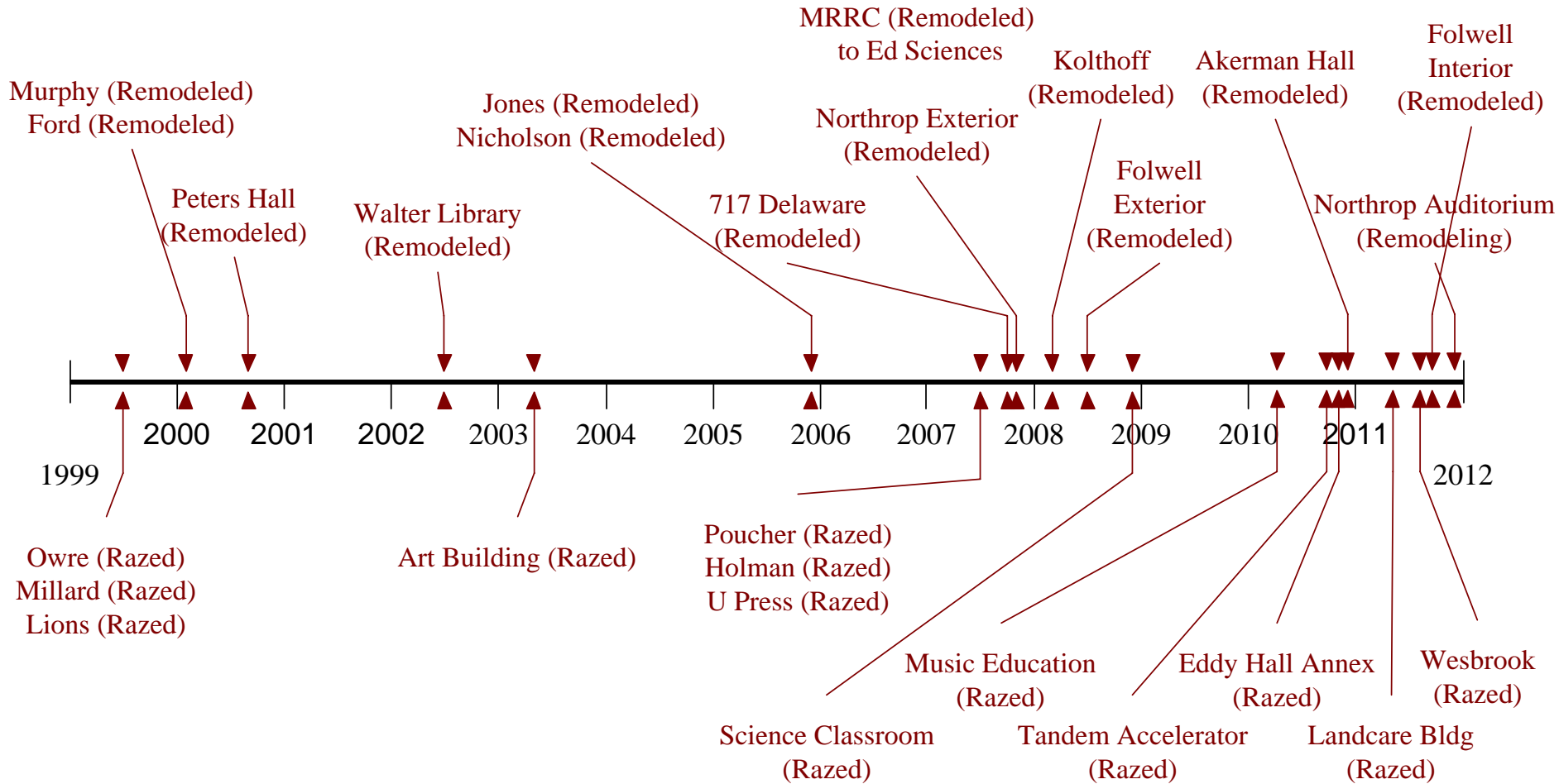
## Extending the useful life of buildings through good maintenance

- Pushes the projected needs further into the future

## Tearing down targeted buildings

- Reduces the total project need

# Projects Addressing Facility Needs (Twin Cities)



# Summary

- Facility needs presents a significant challenge
- Funding support is critical to maintain a safe, functional campus and maintain competitive position amongst peers
- Tools for triaging projects ensures responsible use of limited resources
- Optimal utilization of existing space is paramount to the success of our mission



# Questions?

