GRAND RIVER STATION

Structural Assessment

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ISG
Architecture
Engineering
Environmental
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ISGInc.com

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PROCESS OVERVIEW

Subject Properties: Grand River Station

The City of La Crosse considers maintenance, repairs, and replacement to the Grand River Station in La Crosse, Wisconsin. ISG is pleased to have assisted at this critical point by providing a detailed and forward-looking structural assessment that properly quantifies, prioritizes, and empowers future decisions. By aligning with Grand River Station's needs and goals, the intent of this assessment report is to serve as an integral tool for decision-making and roadmap for success.

PURPOSE STATEMENT

The purpose of the assessment is to provide an overview of the current general physical condition of the exterior structural building and identify recommendations for repairs, replacements, and next steps, which may include the following:

- Planning for facility maintenance and improvements
- Informing stakeholders of facility needs
- Prioritizing long- and short-term projects
- Identifying opportunities to enhance user experience and aesthetics

SCOPE OF EVALUATION

One location was assessed and included only structural conditions. The scope of this report includes document reviews, research, and interviews to augment the walk-through survey, assisting in the structural assessment, including the following:

- Completion of a site visit walk-through survey to observe partial structural systems
- Review and documentation of existing site and building systems
- Photo documentation of existing conditions
- Preparation of estimated opinion of probable costs for necessary repairs to remedy deficiencies

The structural assessment report user should only rely on this document for the point in time at which ISG observations and research were conducted. This report includes information pertaining to the current condition of the overall property.

As part of the assessment process, ISG notes general structural system observations, equipment, and items that are in good condition. Those items can be maintained with routine maintenance, minor repairs, utilizing normal operating and maintenance budgets. ISG provides the recommendation to perform regular maintenance for these items, and therefore, includes no associated costs in the opinion of probable costs as part of the report.

No testing, exploratory probing, dismantling or operating of equipment, or in-depth studies were performed as part of this report. This assessment did not include engineering calculations to determine the adequacy of the property's original design or existing systems. Although walk-through observations were performed, not all items were observed. There may be defects in the property, in areas that were not observed or readily accessible, may not have been visible, or were not disclosed by the client or property management personnel.

PERFORM REGULAR MAINTENANCE

ISG recommends that the City of La Crosse develop and implement a plan for performing regular maintenance for all applicable items identified in this report to extend the life of the building and its components. These costs are outside of the scope of work for this assessment.

RECOMMENDATION CATEGORIES

The following assessment considers information gathered from field observations, reviews of existing plans, and information provided by facility staff and personnel. The assessment performed on-site was limited to non-destructive visual reviews of existing systems. Available information and plans were provided to ISG by the City of La Crosse for review. The following categories were reviewed within the scope of this assessment:

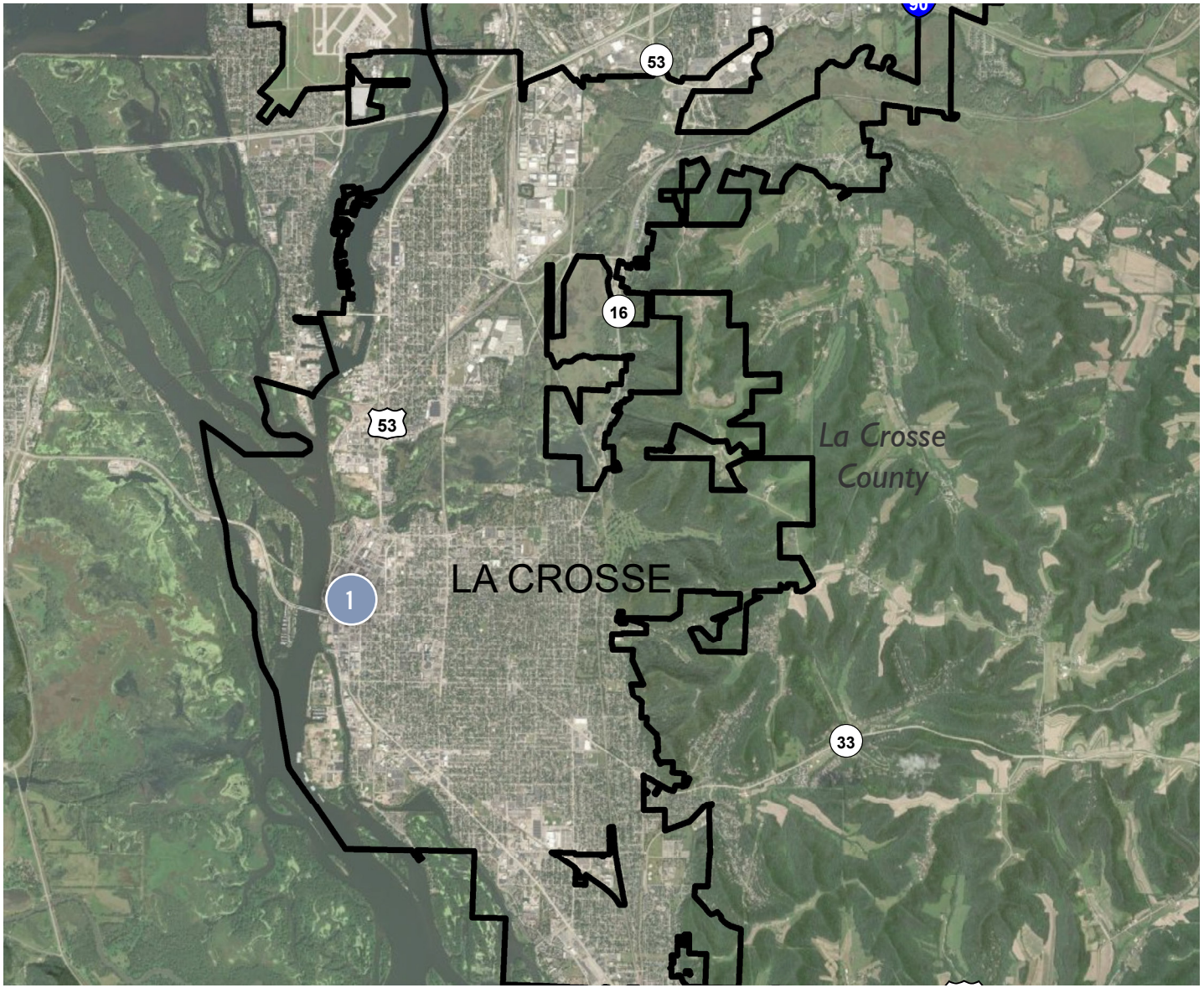
Structural System Exterior Building
Review of the building's exterior shell, including an assessment of the structure, foundation, exterior walls. Review of structural integrity of the building with analysis of columns, walls, and roof.

PRIORITY SUMMARY

Based on the items evaluated, any issues or deficiencies documented have been assigned a priority level based on the chart below and an estimate for costs is provided. Costs for any recommendations that are beyond the scope of the assessment are not included.

	Priority	Time Frame	Item
1	Immediate	0-2 Years	Accessibility Issue Aesthetics Deterioration Item Estimated Useful Life Health Issue Remaining Useful Life Life Safety
2	Short-Term	3-5 Years	
3	Long-Term	6-10 Years	

SITE OVERVIEW



FACILITY

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Grand River Station

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INTRODUCTION

Located in downtown La Crosse, Grand River Station is a six-story post-tensioned concrete structure with a brick exterior facade. The structure includes a commercial lower-level, an elevated parking structure, and the top three stories are residential housing. Built in 2010, the building features a green roof, which includes a rooftop park with grassed areas, paver areas for gatherings with seating, landscaping, and trees.

SUMMARY OF FINDINGS

It is apparent upon visual inspection that the current condition of the Grand River Station structure is satisfactory. All structural systems observed appear to be in good condition, however, the City of La Crosse should begin a regular maintenance program to preserve the integrity of all associated systems. Any items noted in this report that address immediate repair or further investigation should be performed in a timely manner in order to preserve the good condition of the structure. In addition to the structural assessment, various cracking was observed in the sidewalk around the foundation base. This is determined to not be a structural-related issue at this time and is instead purely aesthetic in nature.

To expand upon the limited areas of the building that were observed in person, ISG conducted a drone fly through for additional vantage point observations. From these photos, ISG was able to identify several other locations that are in need of maintenance as listed on the following pages.

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Grand River Station

STRUCTURAL CONDITIONS

The following structural conditions were reviewed as part of the assessment.

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Grounds + Turf	Pavers	Fair	1	Various pavers have sunk due to lack of compaction below.	Remove pavers and add compacted sand.	$3,400
Exterior Walls	Exterior Wall Base Joint	Fair	1	Caulk joint around the base of building is degraded, cracked, and shrinking from masonry.	Replace damaged caulk joints.	$8,400
Exterior Walls	Various Locations	Fair	1	Multiple locations on exterior brick façade are water damaged and missing mortar.	Repoint mortar and replace mortar joints.	$46,600
Exterior Walls	Exterior Brick Façade	Poor	1	The brick façade appears to be pulled away from south face of parking level.	Verify brick ties are sound. Repair joint as needed.	$2,700
Exterior Walls	Exterior Base Façade	Fair	2	Due to assumed winter salt and snow removal, the base of exterior walls are damaged.	Patch and seal walls as part of an annual maintenance plan.	$53,200
Interior Ceiling	Underside of Green Roof	Poor	1	There is efflorescence on the underside of the green roof as seen from a parking space.	Further investigate green roof assembly. Verify waterproofing and the total applied loading. While further investigation is needed, this task is outside the scope of work for this project. Therefore, no costs are associated with the recommendation.	–
Interior Ceiling	Parking Level Structure	Fair	1	Multiple locations of parking precast structure appeared to have exposed reinforcing.	Patch and repair all concrete beams and columns with exposed reinforcing.	$3,400
Interior Walls	Northeast Stairwell	Poor	1	A vertical expansion joint appears to be filled with non-compressible material.	Clean joint and revise to backer rod and sealant.	$2,700
Interior Floors	Parking Level Floor	Poor	1	Multiple locations appear to have surface wear and exposed reinforcing.	Clean and apply sealant to parking surface as part of an annual maintenance plan.	$300,000

Pavers

Topside of green roof

Caulk joint at building base

Caulk joint at building base

Exterior brick facade

Exterior facade baser

Underside of green roof

Parking level structure

Northeast stairwell vertical expansion joint

Parking level floor

Appendix

Glossary

Glossary

Word Acronym	Definition/Acronym
A/C	Air conditioning.
ADA	Americans with Disabilities Act.
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers. ASHRAE standards establish consensus for test methods and performance criteria. These include voluntary consensus standards for Method of Measurement or Test, Standard Design, and Standard Practice. Consensus standards define minimum values or acceptable performance. ASHRAE is accredited by the American National Standards Institute (ANSI) and follows ANSI's requirements for due process and standards development.
BUR	Built up roof.
Casework	Casework is storage, shelving, and cabinetry, that can be purchase ready-made.
CIPC	Cast-in-place concrete.
CMU	Concrete masonry units.
Domestic Cold Water	Drinking water.
Egress	An exit out of a space, building, or parking lot.
EPDM	Ethylene propylene diene terpolymer rubber (EPDM).
Exposed (isolation) joints, Isolation joint	Allows movement to occur between a concrete slab and adjoining columns and walls of a building. Isolation joints are provided to separate new concrete from existing or adjacent construction, which might expand and contract differently or experience different soil settlement or other movement.
Façade	Exterior surface of a structure.

Word Acronym	Definition/Acronym
Fluorescent	Traditional lighting that often is in a tube. Known to be less efficient than LED.
Gypsum Board	A type of sheathing used for interior walls and ceilings, also known as sheetrock or drywall.
Hazardous Materials	Any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.
HVAC	Heating, ventilation, and air conditioning.
Ingress	Entrance into a space, building, or parking lot.
LED	Light-emitting diode- light bulb type that uses less energy and has a longer lifespan than incandescent lighting.
Life Safety	Construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire. Life Safety Code and NFPA 101 are registered trademarks of NFPA. All or part of the NFPA's Life Safety Code are adopted as local regulations throughout the country.
MEP	Mechanical, electrical, and plumbing.
Millwork	Custom made cabinets, shelving, and storage.
Panic bar	The operational bar or paddle that when pushed against, opens a latching mechanism on an assembly referred to as panic hardware.
Parcel	A portion or area of land.
Sheet Flow	Flow that occurs overland in places where there are no defined channels, the flood water spreads out over a large area at a uniform depth. This also referred to as overland flow.
Site Grading	Site grade is the slope and elevation of the soil around a building.

Word Acronym	Definition/Acronym
Topography	The detailed mapping or charting of the features of a land area.
Truncated domes	Truncated domes are tactile paving or a set of raised bumps on a pathway (sidewalk) or platform. Truncated domes alert visually impaired individuals of surface changes and other potential hazards.
Utilities	Services typically piped or wired onto the site from a city source. For example, electricity, gas, water, cable, and telephone services are considered utilities.
VCT	Vinyl composition tile- typically used on floors.

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