



THE CITY OF

# PITTSBURGH BRIDGE

# REPORT 2024

In the aftermath of the unexpected collapse of the Fern Hollow bridge in January 2022, Mayor Gainey assembled a team of experts and charged them with producing a comprehensive understanding of the state of our bridges, a list of immediate actions needed to address the most serious deficiencies, and a plan for ensuring every bridge is in a state of good repair. This team of City employees hired and oversaw the work of WSP, who brought together five engineering firms with extensive experience in infrastructure inspection, construction and maintenance as well as comprehensive asset management. The consultant team reviewed all of the bridge reports, did on site inspections, reviewed photos, had access to advanced drone technologies and former City of Pittsburgh engineers whose institutional knowledge proved invaluable.

## PGH Owns 146 Bridges

99  47 

The Federal Highway Administration designates bridges as *Poor*, *Fair*, or *Good*. If a bridge is rated as *Poor* it means that one of those components has been rated a four or lower on a nine-point scale. The standard response to a *Poor* rating is to address the deficiency and increase the frequency of inspections to ensure proper measures are taken to abate further decay and ensure safety. Responses can include maintenance, repair, restricting traffic or closing the bridge to the public. In 2023 the City was more proactive about implementing emergency maintenance and closing bridges with unsafe conditions.

### Poor Condition Bridges

PGH	35	24%
PA	3,198	14%
US	42,391	6.8%

The consultant WSP released a September 2023 report with a rehabilitation or replacement ranking for each of our bridges, recommending we address the top 9 projects by 2027. The City has ongoing projects for the top 16 WSP Priorities, as well as #20 and #21. In December 2023, the Consultants provided the City with two additional reports with recommendations to help expedite our delivery of these projects. A full review of WSP's top priorities and the City's projects is included in **Appendix A**.

### Bridges Closed for Safety

	Replaced in
Charles Anderson Bridge	2024
Panther Hollow Overpass	2024
North Avenue Bridge	2025

The consultants released a March 2023 report that identified 77 bridges with *Critical*, *High Priority*, or *Priority* maintenance needs. With their help, today the City has addressed all *Critical* tasks and most of the *High Priority* tasks have also been resolved or will be resolved as part of a larger rehabilitation project. In 2024 the City continues to clear out its backlog of *Priority* tasks, some of which threaten to become *High Priority* within the next 5 years. Mayor Gainey has increased the capacity of DOMI's Structure Division and created a new five person Bridge Maintenance Division in 2024 . A full review of our Maintenance Needs is included in **Appendix B**.

### Bridge Projects by 2027

Recommend	9
Planned or ongoing	18

Despite these milestones, the City still falls short of the routine maintenance plan recommended by the consultants. Pittsburgh must address its funding challenges before it can fulfill its aspirations of performing maintenance on a routine schedule to make sure that *Good* bridges stay good. The City will continue to work with its regional, State, and Federal partners to identify new funding sources and unlock capacity to fully transition to the proactive approach outlined by the consultants.

### Maintenance Tasks

Priority	Time frame
CRITICAL	Within 7 days
HIGH PRIORITY	Within 6 months
PRIORITY	By next inspection

### All Critical & High Priority tasks completed in 2023.

## 5 New Maintenance Staff in 2024 Budget

### Consultant Reports

Report to Mayor	DEC 22
Immediate Repair Needs	MAR 23
Review of TIP & Repair Plan	MAY 23
Routine Maintenance Plan	AUG 23
Rehab & Replacement Plan	SEPT 23
Staffing Report	DEC 23
Process Improvements	JAN 24



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## APPENDIX A. City Rehab/Replacement Capacity

In addition to funding for bridge projects, a critical bottleneck in the City’s rehabilitation and replacement schedule is our capacity to procure and negotiate contractors for them. The consultants recommended several internal process improvements between DOMI, OMB, Council, and PennDOT that will expedite the legislation and agreements involved. The consultants also provided us with procurement best practices to ensure our contracts are flexible enough to avoid time-intensive amendments or re-negotiations. The City is committed to implementing these recommendations in 2024 and increasing its capacity to expeditiously complete bridge projects .

Bridge Project	Priority	Status
Charles Anderson Bridge	1	Final design & legal agreements wrapping up. <b>Construction starting in 2024.</b>
Panther Hollow Overpass	2	Closed for safety in 2023. <b>Construction starting in 2024.</b>
Davis Ave Bridge	3	Replacement pedestrian bridge. <b>Construction starting in Spring 2024.</b>
Swinburne Bridge	4	Preliminary engineering is ongoing. <b>Construction starting after Charles A. concludes.</b>
28th St Bridge	5	Preliminary engineering is ongoing. Design ready in 2024.
Woodruff St Parking Lot Bridge	6	DOMI & PENNDOT selecting design consultant.
Swindell Bridge	7	Preliminary engineering has started. <b>Construction tentatively starting in 2027.</b>
West Carson Street	8	Design consultant selected. Engineering contract negotiations ongoing.
Bloomfield Bridge	9	Minor repairs in 2023. <b>Construction on comprehensive preservation planned for 2026.</b>
California Ave Bridge	10	Design consultant selected fall 2022. Engineering contract negotiations ongoing.
Larimer Ave	11	Contracting is finished, design kick off in February 2024.
Herron Ave	12	Design Consultant selected in fall 2022. Engineering contract negotiations for this cluster of bridges is ongoing.
Elizabeth St	13	
Corley St	14	
Maple Ave	15	Design Consultant selected in fall 2022. Engineering contract negotiations for this cluster of bridges is ongoing.
Calera St No. 1	16	
South Negley Ave	20	Coordination with Norfolk & Southern is slow. Preliminary Engineering is ongoing.
North Ave/Brighton Rd	21	Bridge closed to vehicles. Norfolk & Southern replacing. <b>Construction slated for 2025.</b>

*The Progress of all DOMI projects can be tracked at [pittsburghpa.gov/domi/map-hub](https://pittsburghpa.gov/domi/map-hub).*

## APPENDIX B. City Maintenance & Funding Status

The City has gradually increased its maintenance funding in the past two years but it’s far from the ideal maintenance schedule outlined by the consultants. While our new in-house maintenance capacity should lower these estimates somewhat, new sources of funding are required to keep our bridges in good repair and extend their life cycles. Proper maintenance will reduce pressure on our replacement schedule and ultimately save the citizens of Pittsburgh money.

The consultants released a report in late 2023 that recommended 16 funding sources the City could use for bridge projects, although few of these are available for maintenance. A more thorough review of our application process and the available opportunities is required, as well as continued cooperation with our regional partners to secure funding dollars.

Routine Maintenance Recommendations			
Maintenance Activity	Estimated Annual Cost		
Cleaning & Washing	\$2,610,000.00		
Deck Joint Repair/Replacement	\$1,000,000.00		
Bridge Painting	\$1,200,000.00		
Structural Repairs	\$750,000.00		
Bearing Maintenance/Rehab	\$1,610,000.00		
Crack Sealing and Patching	\$1,220,000.00		
Deck Overlay	\$1,140,000.00		
Repair of Scour/Undermining	\$200,000.00		
Paving Culvert Bottoms	\$20,000.00		
<b>Total Annual Costs:</b>	<b>\$9,750,000.00</b>		
Current Maintenance Funding			
<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
\$ .39 Million	\$ .75 Million	\$ .95 Million	\$ 1.05 Million