

# IndyGo

## *2019-2027 Capital Plan*



**Adopted by the IPTC Board**

*August 28, 2019*

*Amended:*

*December 3, 2020*

*October 28, 2021*

*October 27, 2022*

**IndyGo**<sup>SM</sup>

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# INTRODUCTION & OVERVIEW

In November 2016, nearly 60 percent of Marion County voters cast ballots in favor of adopting a 0.25 percent income tax dedicated to fund transit improvements. This transit levy was subsequently enacted by the Indianapolis-Marion County City-County Council in February 2017. The resources derived from this tax have and will continue to support IndyGo's on-going capital investment program, including the numerous capital investments that need to be made to implement IndyGo's long-range Transit Plan for Indianapolis-Marion County. The Transit Plan remains a component of the Central Indiana Regional Transit Plan developed by the Indianapolis Metropolitan Planning Organization (IMPO), Indianapolis Public Transportation Corporation (dba IndyGo), and the Central Indiana Regional Transportation Authority (CIRTA).

The Transit Plan calls for IndyGo to **expand the frequency and hours of service for its fixed-route local network, construct and operate three new bus rapid transit lines, and change the orientation of its network from a hub-and-spoke network to a connected grid network**. The strategic framework for these changes was developed as part of IndyGo's *IndyGo Forward* Comprehensive Operational Analysis, which was to be fully implemented by 2022.

*This Capital Plan serves as a roadmap to implementing the Transit Plan, which is part of IndyGo's larger capital investment program. It provides a forecast of planned local revenue and expenditures based on currently available information. IndyGo maintains this plan by revisiting its assumptions and projections as capital projects are implemented, recognizing when revenue is realized, and/or inserting additional information as it becomes available.*

The IndyGo Capital Plan was developed to ensure that the agency's capital investments support the implementation of the Transit Plan, and more. It was initially presented to and adopted by the IPTC Board of Directors on December 7, 2017. At that time, it became a "living document." It has been updated every year since and follows the adoption of the IndyGo's 5-year Capital Budget Summary. Prepared annually, this plan is a companion document to the 5-year Capital Budget Summary. This plan serves as a guidance document, while the 5-year Capital Budget Summary governs how much the agency is prepared to spend on capital expenses in any given year.

## How to Use This Plan

To effectively operate the increased local service and three bus rapid transit corridors, and to provide for a highly functioning transit system overall, several capital investments are necessary. These investments are separated into the following categories:

- **Fleet:** The addition and replacement of IndyGo vehicles and equipment to increase the reliability and operational efficiency of IndyGo's fleet and equipment to service and maintain the fleet.
- **Bus Rapid Transit and other On-Street Infrastructure:** On-street infrastructure investments associated with bus rapid transit, fixed-route bus stops, and shelters.
- **Facilities:** Expansion, renovation, construction, repair, and maintenance of IndyGo facilities to house IndyGo employees across divisions to support the efficient execution of their job responsibilities.
- **Information Technology:** The addition or replacement information technology systems and other business platforms to promote a modern, high-functioning workplace.

- **Safety & Security:** Safety/security equipment and enhancements.
- **Finance:** The modernization and upkeep of IndyGo's fare collection system.

During the 2018 annual operational budgeting process, a decision was reached to update IndyGo's five-year capital plan budget on a rolling basis. As such, version 1.0 of this document—IndyGo's 2019-2026 Capital Plan—reflected a new five-year capital budget that incorporated the latest project costs and local revenue estimates and extended the planning horizon into 2026 to account for the delay in the planning, design, and construction of the Blue Line Bus Rapid Transit project, specifically.

Each version of this plan summarizes and organizes the figures that, together, make up the entirety of IndyGo's capital investment program. Included are detailed descriptions of IndyGo's funding sources, which are then matched with the agency's capital project needs. ***This document is a guidance document and is intended to serve as a benchmark for projecting, prioritizing, and programming capital expenditures from year to year. The following pages describe the capital investments needed to: support the expansion of the frequency and hours of service of IndyGo's fixed-route local network; construct and operate three new bus rapid transit line; change the orientation of IndyGo's transit network from a hub-and-spoke network to a connected grid network, and more.*** This document is also used to support requests for additional funding from local, state, or federal agencies. This plan is organized into the following sections:

- The **Annual Summaries** section provides a comprehensive overview of the entire capital investment program, as well as a summary-level annual breakdown of anticipated local revenue and expenditures.
- The **Funding Sources** section provides information on the sources of funding expected to be programmed toward capital expenditures through fiscal year 2026 and into fiscal year 2027.
- The **Capital Expenditures** section provides an explanation of the total expenditure, an anticipated cost for each expenditure, and the anticipated funding source(s) for each capital investment project.
- **Annual Itemized Expenditure Tables** section provides an itemized list of actual expenditures for each quarter, using the investment categories described above.

## Recap Summary

Version 1.0 of this plan illustrated a need for \$552,215,682 in total capital expenditures between 2019 and 2025. In 2020, it was determined that a total of \$599,816,899 would be needed to accomplish the same goals. This increase of \$47.6 million (eight percent) over the initial budget was due in large part to a change, or correction, in one of the methodologies used to capture the total outlay - not just the debt service payment - for future rolling stock purchases. Beginning in 2021, IndyGo pivoted to acquiring new fixed-route buses through bond issuances, as opposed to leasing agreements. The increase also accounted for the need to purchase more buses than had originally been programmed.

Total capital expenditures for 2019 through 2021 were \$113,612,859. As of August 31, 2022, IndyGo has expended less than 24 percent (\$26,136,166) of its \$111,705,850 budget for the year. As of this update, total capital expenditures incurred between 2019 and 2027 is estimated to be \$722,376,804 (up from the \$520,557,077 estimated total from 2021). The increase between 2021 and today is due in large part to the additional facility procurements and a greater expenditure need for 40' and battery electric 60' articulated coaches, facility needs, and delays in construction of the bus rapid transit system, among other things. The agency's capital needs are described in greater detail on the following pages.

## Revision History

Table 1, Version Control Table, will be updated with any changes to this document and better enable IndyGo to track versions of this document over time. The numbering conventions associated with the version control table will be as follows:

- Whole numbers will reflect the incorporation of substantial changes made to the sources and/or uses of capital funds and/or with updates following the adoption of IndyGo's annual budget.
- Incremental updates (tracked by decimal numbers) will reflect minor changes made between these more substantial changes.
- Entries for minor changes may be removed from the version control table upon the adoption of a new major changes.
- The Date of Revision is the date that this document was revised
- The Date of Budget refers to the date that the IndyGo Board of Directors adopted the Capital Plan Budget Summary, upon which the revisions to this document are based.

**Table 1. Version Control Table**

Version	Purpose of Change	Date of Revision	Date of Budget Adoption	Author
1.0	Adopted by the IPTC Board	08/28/2019	08/28/2019	John Marron
2.0	Adopted by the IPTC Board	12/03/2020	08/20/2020	Brooke Thomas
3.0	Adopted by the IPTC Board	10/28/2021	08/28/2021	Brooke Thomas
4.0	Adopted by the IPTC Board	10/27/2022	08/24/2022	Brooke Thomas

## Summary of Recent Changes

Below is a summary of the substantive changes that were made between versions 3.0 and 4.0.

- Both the total capital investment project budget and timeline have been updated/adjusted to respond to internal investment decisions and external factors that have caused one or more assumptions to change since the fall of 2021 when the capital plan was last updated.
- The summary pages for each year have been updated to describe what has been accomplished since the October 2021 update, and to set priorities for the next four years. These pages highlight instances where projects that were programmed for a given year have been placed on hold or postponed.
- The description of each funding source was reviewed for accuracy and, where necessary, updated to reflect the current status.
- The description of each capital project has been updated to reflect the current status.
- New projects have been added to the Capital Plan and include both projects that are programmed into IndyGo's fiscally constrained capital budget for 2022 through 2027, and projects for which there currently isn't an identified funding source(s).

# ANNUAL SUMMARIES

IndyGo's Capital Plan serves as the agency's roadmap for major investment in transit and transit-supporting infrastructure. These investments include: expenditures associated with fleet expansion and replacement; investments in bus rapid transit; enhancements to other on-street infrastructure; renovation, construction, and maintenance of all IndyGo facilities; technological upgrades and enhancements; fare modernization; and safety and security upgrades and enhancements. The intent is to ***coordinate these expenditures with expected sources of funding for the purposes of timing these investments in such a way as to maintain adequate and acceptable cash flow for the agency.***

To that end, each Annual Summary Table that follows illustrates the planned expenditures and expected funding sources for the year. The annual summaries are intended to serve as a resource for the development of more detailed capital budgets for each outyear.

As in years past, anticipated expenditures have been developed through a process jointly coordinated by IndyGo's finance and capital projects divisions and reflects the input of divisions and departments throughout IndyGo. Individual expenditures and anticipated funding sources are described in greater detail in subsequent sections of this document.

***The timing of individual expenditures reflects a planning effort that sought to examine the interrelationship of planned projects and IndyGo's operational needs, as suggested by each division and matching those needs with anticipated funding.*** As such, the following tables reflect a prioritization of budgeted and planned capital expenditures across the entire agency. IndyGo continues to monitor sources of anticipated local revenue and the need for the expenditures, adjusting this plan as needed.



**Table 2. Annual Summary Table, 2020 – 2027 (2019 Estimate)**

Capital Project	2020		2021		2022		2023	2024	2025	2026	2027	Total (2019-2027 as of 8/31/2022)
	Final Budget	Actual as of 12/31/2020	Final Budget	Actual as of 12/31/2021	Final Budget	Actual as of 8/31/2022/2 022						
<b>Expenditures</b>	\$97,709,667	\$30,342,369	\$83,251,679	\$36,720,054	\$111,705,850	\$26,136,166	\$122,652,792	\$139,840,810	\$146,177,214	\$135,606,963	\$38,350,000	\$722,376,804
BRT & On-Street Infrastructure	\$70,196,000	\$9,332,550	\$52,033,998	\$7,046,488	\$70,937,450	\$17,205,364	\$61,152,792	\$64,726,394	\$122,153,400	\$115,900,000	\$38,050,000	\$470,096,389
Facilities	\$8,785,000	\$2,600,143	\$3,985,000	\$7,309,187	\$22,834,250	\$6,607,874	\$30,220,000	\$30,622,369	\$5,875,000	\$0	\$0	\$86,189,244
Finance <sup>1</sup>	\$225,000	\$846,641	\$392,375	\$637,219	\$382,500	\$666,338	397,800	\$405,756	\$0	\$0	\$0	\$2,984,474
Fleet	\$13,451,667	\$16,809,146	\$24,645,306	\$18,570,648	\$15,997,000	\$445,242	\$27,852,200	\$43,686,291	\$18,148,814	\$19,706,963	\$300,000	\$153,587,490
IT	\$2,489,000	\$359,417	\$1,975,000	\$1,064,279	\$1,527,000	\$1,211,348	\$3,000,000	\$400,000	\$0	\$0	\$0	\$6,774,323
Safety & Security	\$2,563,000	\$394,472	\$220,000	\$2,092,233	\$27,650	\$0	\$30,000	\$0	\$0	\$0	\$0	\$2,720,359
<b>Funding Sources</b>	\$97,709,666	\$30,342,369	\$83,251,679	\$36,720,054	\$111,705,850	\$26,136,166	\$122,652,792	\$139,840,810	\$146,177,214	\$135,606,963	\$38,350,000	\$722,376,804
Grants	\$56,007,828	\$10,581,867	\$34,914,427	\$16,688,574	\$45,433,986	\$9,781,830	\$41,273,080	\$12,517,021	\$1,240,000	\$1,240,000	\$0	\$124,494,634
Local (cash)	\$26,715,453	\$15,934,787	\$18,719,545	\$17,025,185	\$36,484,824	\$9,529,983	\$30,612,512	\$73,629,220	\$139,077,214	\$134,366,963	\$38,350,000	\$470,673,995
Bonds (debt)	\$13,786,385	\$3,825,715	\$29,430,090	\$3,006,295	\$29,787,040	6,824,354	\$50,767,200	\$53,694,569	\$5,860,000	\$0	\$0	\$127,208,175
Other	\$1,200,000	\$0	\$187,617	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$722,376,804
<b>Expected Surplus</b>	<b>(\$0)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Table 2.1, Annual Summary Table, 2019 on the following page compares 2019 expenditures for Q3 and Q4 with what had been budgeted for 2019 in 2019.

<sup>1</sup> Formerly Public Affairs.

Table 2.1 Annual Summary Table, 2019

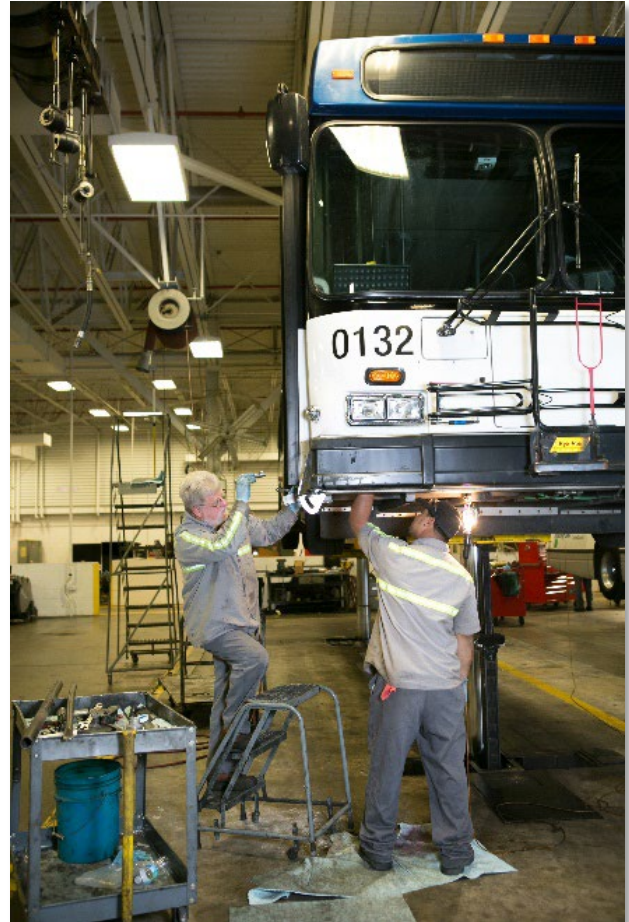
Capital Project	Q3/Q4 2019		Difference	
	Final Budget	Actual as of 12/31/2019	\$ (Budget-Actual)	% Change (over / under budget)
<b>Expenditures</b>	<b>\$48,880,682</b>	<b>\$46,550,436</b>	<b>\$2,330,246</b>	<b>5%</b>
Bus Rolling Stock	\$8,806,000	\$8,068,186	\$737,814	8%
On-Street Inf. & BRT	\$29,036,682	\$34,529,401	(\$5,492,719)	19%
Facilities & Equipment	\$5,440,000	\$2,954,671	\$2,485,329	467%
Information Technology	\$4,533,000	\$739,279	\$3,793,721	84%
Public Affairs	\$170,000	\$55,245	\$145,755	86%
Safety & Security	\$895,000	\$203,654	\$691,346	77%
<b>Funding Sources</b>	<b>\$48,880,681</b>	<b>\$46,550,436</b>	<b>\$2,330,245</b>	<b>5%</b>
Grants	\$26,213,846	\$31,172,262	(\$4,958,416)	19%
Local (cash)	\$18,887,532	\$12,148,131	\$6,739,401	36%
Bonds (debt)	\$3,779,303	\$3,230,042	\$549,261	15%
Other	\$0	\$0	\$0	-
<b>Expected Capital Surplus</b>	<b>(\$1)</b>	<b>\$0</b>	<b>(\$1)</b>	<b>-</b>

## 3Q/4Q 2019 CAPITAL PROJECTS: \$48.9 MILLION

### Anticipated

The second half of 2019 resulted in the advancement of the first of the substantial capital projects related to the implementation of the Transit Plan, including the construction of the Red Line bus rapid transit corridor. Most of the planned expenditures for the remainder of that year were associated with on-street infrastructure and bus rapid transit projects. Final payments towards the completion of the Red Line construction comprise the largest share of these investments. In 2019, a total of \$29.0 million was allocated to on-street infrastructure improvements and bus rapid transit projects.

IndyGo had anticipated investing an additional \$8.8 million in fleet and related projects, \$5.4 million to be invested in facilities projects, and \$4.5 million in information technology projects. It was further anticipated that Safety and Security and Public Affairs expenditures, when combined, would be just over \$1 million (see Table 3), that the majority (54 percent) of programmed expenditures were to have been funded through grants received through the Federal Transit Administration (FTA) and complemented by IndyGo's local revenue (cash). IndyGo had also expected to spend resources from the \$26 million bond approved in 2018.



### Final

By the end of 2019, a total of \$34.5 million was spent constructing on-street infrastructure improvements and bus rapid transit projects. An additional \$8.1 million went towards fleet replacement projects, approximately \$3 million for facilities projects, and just under \$740,000 in information technology projects. This brought total expenditures for Q3/Q4 2019 to \$46.6 million, which was \$2.3 million under budget for the year. By December 31, 2019, 67 percent of programmed expenditures were funded through grants received through the FTA, with the remaining \$15.4 million split between cash (\$12.2 million, 26 percent) and bonds (\$3.2 million, seven percent).

**Table 3. 3Q/4Q 2019 Capital Projects**

Funding Sources	Q3		Q4		Q3/Q4 Total	
	Final Budget	Actual	Final Budget	Actual	Final Budget	Actual
Grants	\$17,745,940	\$23,107,179	\$8,467,907	\$8,065,083	\$26,213,846	\$31,172,262
Local (cash)	\$13,594,671	\$7,478,977	\$5,292,861	\$4,669,154	\$18,887,532	\$12,148,131
Bonds (debt)	\$1,195,071	\$1,457,599	\$2,584,232	\$1,772,443	\$3,779,303	\$3,230,042
Other	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Funding Sources</b>	<b>\$32,535,682</b>	<b>\$32,043,756</b>	<b>\$16,345,000</b>	<b>\$14,506,680</b>	<b>\$48,880,681</b>	<b>\$46,550,436</b>
Expenditures	Q3		Q4		Q3/Q4 Total	
	Final Budget	Actual	Final Budget	Actual	Final Budget	Actual
Bus Rolling Stock	\$8,806,000	\$7,980,320	\$0	\$87,866	\$8,806,000	\$8,068,186
On-Street Infrastructure & BRT	\$17,561,682	\$23,263,254	\$11,475,000	\$11,266,147	\$29,036,682	\$34,529,401
Facilities and Equipment	\$3,075,000	\$360,260	\$2,365,000	\$2,594,411	\$5,440,000	\$2,954,671
Information Technology	\$2,473,000	\$374,338	\$2,060,000	\$364,941	\$4,533,000	\$739,279
Public Affairs	\$170,000	\$55,245	\$0	\$0	\$170,000	\$55,245
Safety, Security, and Training	\$450,000	\$10,339	\$445,000	\$193,315	\$895,000	\$203,654
<b>Total Expenditures</b>	<b>\$32,535,682</b>	<b>\$32,043,756</b>	<b>\$16,345,000</b>	<b>\$14,506,680</b>	<b>\$48,880,682</b>	<b>\$46,550,436<sup>2</sup></b>

<sup>2</sup> While the total amount for expenditures came in close to what was initially budgeted for Q3 & Q4 of 2019, only the fleet project expenses aligned with what had been budgeted. This is largely due to budget rollovers from 2019 to 2020. For example, \$1.2 million was rolled from 2019 into 2020 to complete the vehicle wash and paint booth project in 2020, rather than in 2019 as planned.

## 2020 CAPITAL PROJECTS: \$97.7 MILLION

### Anticipated

Substantial renovations and enhancements to IndyGo's facilities have been underway since 2019. In 2019, the largest facilities project programmed for 2020 was the construction of a training and contingency facility, followed by maintenance area renovations at IndyGo's main facility. Facility investments were (and still are) needed to account for the increase in both IndyGo's staff and fleet sizes; both of which are necessary to deliver the Transit Plan. In 2019, IndyGo had also programmed \$2.6 million for safety and security upgrades, and \$2.5 million for information technology/finance. Fifty-seven percent of programmed expenditures were to have been paid for with grant dollars.

Facility investments became even more important in the first quarter of 2020 when IndyGo mobilized to respond to the COVID-19 pandemic. Bids for the training and contingency facility came in over budget by more than \$2 million dollars; therefore, the project was subsequently put on hold. Maintenance area renovation projects were broken out into several smaller projects; many of which were completed that same year. Available capital funding can account for many of these new projects, but not all of them.

By January 2020, IndyGo had acquired 31 60' electric buses to operate within its Red Line and Purple Line BRT network. Due to lower-than-expected battery range on the newly acquired electric buses and delays in mitigating these impacts caused these buses to be completely allocated to the Red Line. IndyGo has worked to update the agency's fleet needs to reflect this unknown, among others. After reviewing the planned operational profile for both remaining rapid transit lines during 2020 budget preparations, IndyGo anticipated needing to purchase more 60' battery electric vehicles to operate service than had originally been estimated. In 2020, it was also assumed that IndyGo would need an additional 20 and 30 battery electric buses beyond what had originally been estimated to operate the for both the Purple Line and Blue Line bus rapid transit lines. By updating these projections, IndyGo now has several different options to choose from when it comes to fleet replacement (all rolling stock). For example, in the future, IndyGo could reallocate some of its programmed capital expenditures to swap out the replacement of 40' buses in its fixed-route fleet to purchase additional 60' buses.

In all, 71.8 percent (\$70.2 million) of 2020 capital expenditures were targeted for on-street infrastructure and bus rapid transit projects, while less than 10 percent (\$8.8 million) was thought to be needed to address facility needs that same year (refer to the table on the following page).



## Final

The Purple Line design activities continued through the end of 2020, and the Blue Line design was put on hold temporarily. Actual expenditures for building on-street infrastructure and bus rapid transit projects in 2020 totaled \$9.3 million, which ended up being just 30 percent of total planned expenditures for the year. Another 9.3 percent (\$1.74 million) had been spent to address facility needs. This included the unplanned purchase of the property located at 6410 N College Avenue. This property acquisition, which IndyGo needed to construct a permanent end of the line charging location for the Red Line bus rapid transit route, caused many of the planned facility projects for 1501 W Washington Street location to be put on hold.

Actual expenditures for facilities in 2020 was \$2,600,143, which was under budget by more than \$6.2 million. This is due in large part to the decision to not pursue full buildout of the training/contingency facility that would have been located at the former Carrier Bryant site, electing to not move forward with the solar array expansion, and electing to not move forward with the CTC lounge and office renovation projects as planned. Actual expenditures for safety and security upgrades and information technology/finance in 2020 was \$394,472 and \$1,206,058, respectively. Grant funds covered just \$278,663 of these expenses. All other expenses were paid for with local revenue (cash). Actual expenditures for maintenance area renovations and the training and contingency facility in 2020 were \$33,628 and \$74,266, respectively. Design activities for the Blue Line bus rapid transit route were temporarily placed on hold.

**Table 4: 2020 Capital Projects**

2020 Capital Projects			Difference	
Capital Project	Final Budget	Actual as of 12/31/2020	\$ (Budget-Actual)	% Change (over / under budget)
<b>Expenditures</b>	<b>\$97,709,667</b>	<b>\$30,342,369</b>	<b>\$67,367,298</b>	<b>69%</b>
BRT & On-Street Infrastructure	\$70,196,000	\$9,332,550	\$60,863,450	87%
Facilities	\$8,785,000	\$2,600,143	\$6,184,857	70%
Finance <sup>3</sup>	\$225,000	\$846,641	(\$621,641)	276%
Fleet	\$13,451,667	\$16,809,146	(\$3,357,479)	23%
Information Technology	\$2,489,000	\$359,417	\$2,129,583	86%
Safety & Security	\$2,563,000	\$394,472	\$2,168,528	85%
<b>Funding Sources</b>	<b>\$97,709,666</b>	<b>\$30,342,369</b>	<b>\$67,367,297</b>	<b>69%</b>
Grants	\$56,007,828	\$10,581,867	\$45,425,961	81%
Local (cash)	\$26,715,453	\$15,934,787	\$10,780,666	40%
Bonds (debt)	\$13,786,385	\$3,825,715	\$9,960,670	72%
Other	\$1,200,000	\$0	\$1,200,000	100%
<b>Expected Capital Surplus</b>	<b>(\$1)</b>	<b>\$0</b>	<b>\$0</b>	<b>-</b>

<sup>3</sup> Formerly Public Affairs.

## 2021 CAPITAL PROJECTS: \$83.2 MILLION

### Anticipated

In 2019 and 2020, IndyGo had expected to continue its robust investment in the bus rapid transit network and on-street infrastructure into 2021. The 30<sup>th</sup> Street conversion to a two-way street between Meridian Street and Capitol Avenue, which will better enable transfers between Route 30 and the Red Line, was also expected to get underway in 2021.



In 2019, investments in on-street infrastructure and bus rapid transit represented 87 percent (\$62.8 million) of the \$72.2 million in planned capital expenditures. In 2020, IndyGo increased the 2021 budget amount by \$11.1 million, bringing the total for the year to more than \$83.3 million. This increase was a direct result of a correction in the methodology used to capture the total outlay - not just the debt service payment - for future fleet purchases (see Fixed Route Bus Replacement on the following pages), and the need to purchase more buses than had originally been programmed. This correlates to

investments in on-street infrastructure and bus rapid transit representing approximately 63 percent (\$52 million) of the \$83.3 million in planned capital expenditures for the year.

IndyGo had further anticipated investments in its fixed route fleet, paratransit fleet, BRT bus docking technology, and heavy maintenance equipment in 2021. It was anticipated that investments in fleet and the facility located at 1501 W Washington Street would represent an additional \$5.3 million and \$3.7 million in planned expenditures, respectively. Grant resources were expected to fund 53.7 percent of planned expenditures, with the balance coming mostly from IndyGo local revenue and bonds. The conversion of 30<sup>th</sup> Street, facilities planning and construction, and investments in the fixed route fleet were expected to continue as planned. However, in 2020, facility projects that had initially been programmed in 2021 for the agency's main facility located at 1501 W Washington Street were indefinitely put on hold while the agency determined how best to meet its facility needs.

In 2020, IndyGo also agreed to contribute \$2.2 million of total capital expenditures for 2021 to the City of Indianapolis, Department of Public Works, for the construction of the 30<sup>th</sup> Street conversion project (ST-17-052). The BRT bus docking technology project was removed, and investments in the fixed route fleet, paratransit fleet, and maintenance heavy equipment were expected to total \$24.2 million. Grant resources were expected to fund 42 percent of planned expenditures, with the balance coming mostly from IndyGo local revenue and bonds. Included in the \$83.3 million capital budget adopted for 2021 was the purchase of 27 hybrid buses in Q4 2021. These buses were (and still are) needed to replace buses that are outside of their useful life and to provide additional service delivery to the community. Design activities to extend the Red Line north and south to the county lines were postponed until 2022, at the earliest.

## Final

The 2021 state legislative session, when combined with the real-world impacts of the on-going pandemic, caused construction of the Purple Line to be delayed to the first quarter of 2022. However, in 2021, IndyGo was able to resume design activities for the Blue Line bus rapid transit route. Design for the 30th Street conversion project is currently underway; however, construction isn't expected to begin until 2023. It was determined by IndyGo staff that, by delaying this work by a year, the agency could focus 2022 resources on the advancement of capital projects that are of a time sensitive nature. Design for the Red Line extensions remained on hold.

By December 31, 2021, IndyGo had invested \$7 million in BRT and other on-street infrastructure improvements, which is approximately 20 percent of the total expenditures for the year. Totalling more than \$17.5 million, IndyGo received all 25 hybrid electric buses purchased in 2020. The agency had spent \$628,546 on paratransit vehicles, and another \$93,322 for heavy maintenance equipment, ending the year with total expenditures for fleet needs at \$18.6 million, which is \$6 million under budget. By the end of 2021, IndyGo was more than \$1.9 million over its estimated \$220,000 budget for Safety & Security. This is due in large part to vehicle CCTV replacement. The agency ended the year more than \$3.3 million overbudget on facilities. This is due in large part to the demonstrated need to acquire, design, renovate, and construct facilities that had not been identified before 2020.

Overall, IndyGo ended the year 2021 more than \$46.5 million under budget. IndyGo spent less than half of what it had budgeted to with respect to grant dollars. This is primarily due to the delay in the construction of the Purple Line rapid transit corridor project.

**Table 5. 2021 Capital Projects**

2021 Capital Projects			Difference	
Capital Project	Final Budget	Actual as of 12/31/2021	\$ (Budget-Actual)	% Change (over / under budget)
<b>Expenditures</b>	<b>\$83,251,679</b>	<b>\$36,720,054</b>	<b>\$46,531,625</b>	<b>56%</b>
BRT & On-Street Infrastructure	\$52,033,998	\$7,046,488	\$44,987,510	86%
Facilities	\$3,985,000	\$7,309,187	(\$3,324,187)	83%
Finance <sup>4</sup>	\$392,375	\$637,219	(\$244,844)	25%
Fleet	\$24,645,306	\$18,570,648	\$6,074,658	25%
Information Technology	\$1,975,000	\$1,064,279	\$910,721	46%
Safety & Security	\$220,000	\$2,092,233	(\$1,872,233)	851%
<b>Funding Sources</b>	<b>\$83,251,679</b>	<b>\$36,720,054</b>	<b>\$46,531,625</b>	<b>56%</b>
Grants	\$34,965,705	\$16,688,574	\$18,277,131	52%
Local (cash)	\$19,147,886	\$17,025,185	\$2,122,701	11%
Bonds (debt)	\$29,138,089	\$3,006,295	\$26,131,794	90%
Other	\$0	\$0	\$0	-
<b>Capital Surplus</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>-</b>

<sup>4</sup> Formerly Public Affairs.



## 2022 CAPITAL PROJECTS: \$111.7 MILLION

### Then

In 2019, a total of \$89.0 million in 2022 expenditures was thought to be needed to advance the construction of on-street infrastructure and bus rapid transit facilities in 2022, which would have been 93.0 percent of IndyGo's total planned capital expenditures for the year (\$95.6 million). Most of these expenses (\$85.9 million or 97 percent) were to have gone towards advancing the Purple Line and Blue Line bus rapid transit routes. The remaining expenditures allocated in 2019 for the year 2022 were for on-going fleet replacement (\$4.8 million) and to retrofit the downtown transit center to accommodate level boarding. A substantial portion of programmed expenditures for 2022 were expected to be grant-funded (65.7 percent), with the balance from the IndyGo capital fund and bonds.

In 2020, IndyGo increased total expenditures for the year 2022 from \$95.6 million to \$109.9 million, again due primarily to a correction in the methodology used to capture the total outlay - not just the debt service payment - for future fleet purchases, and the need to purchase more buses than had originally been programmed. It was anticipated that a total of \$97.3 million in expenditures, or 89 percent of IndyGo's total planned capital expenditures for 2022, would be needed to advance the construction of on-street infrastructure and bus rapid transit facilities (see Table 6). At that time, \$94.2 million (86 percent) of the revised 2022 budget was allocated to advancing the Purple and Blue Lines. An additional \$12.1 million (11 percent) was allocated to fixed route and paratransit fleet replacement. The \$1.7 million needed to retrofit the downtown transit center to accommodate level boarding was delayed until 2023.

In 2021, it was anticipated that IndyGo would need a total of \$111,707,850 for capital expenditures. At the same time, the 2022 budget for facilities was increased from \$0 to \$22.8 million. This is due in large part to the design and construction work taking place at IndyGo's new East Campus location. The budget for information technology and finance was increased from \$0 to \$1.5 million, and \$382,500, respectively. This was due in large part to the replacement of vehicle on-board, closed-circuit television (CCTV) equipment. An additional \$3,612,581 was added to the \$12.4 million budgeted for 2022 to expand and maintain IndyGo's fleet. This was due to the need to add additional support vehicle, paratransit, and fixed-route vehicles. The amount of money budgeted for BRT and other on-street infrastructure was reduced by \$26.4 million; \$97.3 million to \$70.9 million. This was due in large part to the shift in the future timeline of the Purple and Blue Line BRT projects as both investments continued to get pushed out. In 2021, the 2022 budget for safety and security was reduced by \$202,350 to a total of \$27,650. This was due in large part to the reclassification of the vehicle CCTV replacement project as a safety and security investment to an information technology investment.

## Now

As of this update, IndyGo had only spent \$26,136,166 of the \$111.7 million total for fiscal year 2022. This is primarily due to delays in the construction of IndyGo’s bus rapid transit system and on-street infrastructure, the expansion of the agency’s fleet, and the facilities needed to support the entire IndyGo system. Design and renovation work for IndyGo’s new East Campus location was still ongoing.



As of this update, the amount of money budgeted for BRT and other on-street infrastructure decreased from \$97.3 million to \$70.9 million. This is due in large part to the shift in the future timeline of the Purple and Blue Line BRT projects as both investments have been extended. Part of the \$70.9 million budgeted was used to cover unexpected Red Line pavement repair costs. The budget for safety and security was reduced by \$202,350 to \$27,650. This is due in large part to the reclassification of the vehicle CCTV replacement project as a safety and security investment to an information technology investment. As of this update, IndyGo continues to invest in the Far Eastside of Indianapolis. Funding for the new East Campus will be paid for, in part, by the \$3 million 5307 funding award IndyGo received for the renovation of Building “B.”

**Table 6. 2022 Capital Projects**

Funding Sources	Actuals					Budget (as of 08/31/2021)
	Q1	Q2	Q3	Q4	Total (as of 08/31/2022)	
Grants	\$643,365	\$6,221,851	\$2,916,614		\$9,781,830	\$45,433,986
Local (cash)	\$949,787	\$6,837,586	\$1,742,609		\$9,529,983	\$36,484,824
Bonds (debt)	\$1,785,885	\$3,265,481	\$1,772,988		\$6,824,354	\$29,787,040
Other	\$0	\$0	\$0		\$0	\$0
<b>Total Funding Amount</b>	<b>\$3,379,037</b>	<b>\$16,324,918</b>	<b>\$6,432,211</b>		<b>\$26,136,166</b>	<b>\$111,705,850</b>
Expenditures	Actuals					Budget (as of 08/31/2021)
	Q1	Q2	Q3	Q4	Total (as of 08/31/2022)	
Fleet	\$445,242	\$0	\$0		\$445,242	\$15,997,000
BRT & Other On-Street Infrastructure	\$628,564	\$12,690,587	\$1,047,549		\$14,366,700	\$70,937,450
Facilities	\$1,850,990	\$2,447,833	\$817,121		\$5,115,944	\$22,834,250
Information Technology	\$279,136	\$762,865	\$169,347		\$1,211,348	\$1,527,000
Finance	\$175,105	\$423,633	\$0		\$598,738	\$382,500
Safety & Security	\$0	\$0	\$0		\$0	\$27,650
<b>Total Expenditures</b>	<b>\$3,379,037</b>	<b>\$16,324,918</b>	<b>\$2,034,017</b>		<b>\$21,737,972</b>	<b>\$111,705,850</b>

## 2023 CAPITAL PROJECTS: \$122.7 MILLION

### Then

In 2019, IndyGo had anticipated paying for all final expenditures associated with the Purple Line project in 2023. In 2019, it was assumed that these on-street infrastructure and bus rapid transit projects would represent more than 96 percent (\$114.7 million) of total programmed expenditures for 2023 (\$120.1 million). In 2020, it was assumed that on-street infrastructure and bus rapid transit projects would represent just 88 percent (\$101.6 million) of total programmed expenditures for 2023 (\$114.9 million).

Between 2019 and 2020, total planned capital expenditures for 2023 decreased from \$120.1 million to \$114.9 million. This was due in large part to a delay in the start of the planned Red Line extensions. By 2020, IndyGo no longer anticipated that 51.5 percent of capital expenditures would be funded through grants. Instead, it was thought that approximately 40 percent of capital expenditures would be funded by grants, the balance still being paid by a mix of bonds (19 percent), cash (26 percent), and other local sources (14 percent).



By 2021, the year 2023 was no longer the year with the largest sum of anticipated expenditures. At that time, it was thought that 2025 would be the year that IndyGo would incur the most capital expenditures. Much of this was due to delays in the design and construction of the Purple Line and Blue Line bus rapid transit projects.

In 2021, total planned capital expenditures for 2023 were increased from \$114.9 million to \$122.6 million, which was \$3.6 million less than the original \$120.1 million budgeted in 2019. This, again, is due in large part to the delay in the start of the planned Red Line extensions (See BRT: Red Line Rapid Transit, Phases II & III, on the following pages). In 2021, it was anticipated that IndyGo would need to spend significantly more on its fleet in 2023 than the agency had anticipated in 2020. Despite needing to continue to invest in facilities, information technology, and finance at a level that had not been anticipated in 2019, and the need to include an additional \$1.7 million in on-street infrastructure and BRT capital expenditures in 2023 to account for such things as a park-n-ride envisioned for the South Madison Street Park-n-Ride, the 2023 budget for BRT and other on-street infrastructure was reduced from \$101.6 million to \$61.1 million. This is due in large part to an increase in total expenditures resulting from the delay of the Purple Line project to 2024. It was anticipated that the final design and construction of IndyGo's new East Campus location, specifically the renovation of Buildings "A" and "B," would be completed by the end of the year 2022. It was also anticipated that, in 2023, just 46 percent of capital expenditures will be paid for with grant dollars. 34 percent was to come from cash and the remaining 20 percent from bonds. By 2021, 2023's budget no longer included other sources of funding. These would have been tax increment finance dollars for the construction of the Blue Line had it moved forward in 2023.

## Now

As of this update, the year 2025 still represents the year with the largest sum of anticipated expenditures. This is due in large part to delays in the construction of the Purple Line and Blue Line bus rapid transit projects. Final expenditures for the construction of the Purple Line bus rapid transit project are now expected to carry over into 2024. As of this update, design for the Blue Line is on hold due to higher-than-expected construction cost estimates. IndyGo staff are working with engineering consultants and agency partners to determine a path forward for the Blue Line, including exploring additional funding opportunities and/or modifying the project to reduce costs. It is expected that staff will recommend a solution for how to proceed first to the IPTC Board of Directors before years' end, and then to the public and the Federal Transit Administration after the start of the New Year.

As of this update, total planned capital expenditures for 2023 have increased again, this time from \$116.5 million to \$122.7 million. This is \$2.6 million more than the original \$120.1 million budget first established in 2019 and is due in large part to IndyGo's investment in its real estate portfolio to meet the agency's facility needs. It is anticipated that, in 2023, IndyGo will spend less on expanding the fleet. In 2019, it was anticipated that IndyGo would incur \$31.9 million in fleet costs in 2023. As of this update, it is anticipated that IndyGo will incur \$27.8 million in fleet costs for the year 2023. This is \$4 million less than was originally anticipated and can be attributed to the fact that the need for more buses has stalled.



As of this update, the retrofit of the Julia M. Carson Transit Center to include in-ground charging in advance of the Purple Line bus rapid transit route is anticipated to cost \$425,000; all of which is anticipated to be incurred in 2023. Otherwise, the 2023 budget for BRT and other on-street infrastructure has been reduced again from \$74.6 million to \$61.2 million. This is due in large part to further delays in implementing the Blue Line bus rapid transit corridor project. It is further anticipated that, in 2023, \$0 will be spent on the design of Blue Line bus rapid transit project but that IndyGo will begin incurring costs again in 2024. IndyGo's \$2.2 million and \$4.6 million financial contribution to DPW's conversion of 30th Street and Michigan Street to two-way streets, respectively, have been pushed to 2024. This is okay, in part, because of the delay in the implementation of IndyGo's local route improvements, which is what is driving the need for these changes.

As of this update, capital investments for the new East Campus will continue into 2023 and paid for in-part by the \$33 million 5339 Low/No Bus and Bus Facilities funding award for the garage. This grant was awarded in August of 2022. It is now anticipated that 33 percent of 2023 capital expenditures will be paid for with grant dollars. 25 percent will come from cash and the remaining from bonds.

**Table 7. 2023 Capital Projects**

Funding Sources	Actuals					Rev. Budget (as of 08/31/2022)
	Q1	Q2	Q3	Q4	Total	
Grants						\$41,273,080
Local (cash)						\$30,612,512
Bonds (debt)						\$50,767,200
Other						\$0
<b>Total Funding Amount</b>						<b>\$122,652,792</b>
Expenditures	Actuals					Rev. Budget (as of 08/31/2022)
	Q1	Q2	Q3	Q4	Total	
Fleet						27,852,200
BRT & Other On-Street Infrastructure						61,152,792
Facilities						30,220,000
Information Technology						3,000,000
Finance						397,800
Safety & Security						\$30,000
<b>Total Expenditures</b>						<b>\$122,652,792</b>

## 2024 CAPITAL PROJECTS: \$139.8 MILLION

### Then

In 2019, IndyGo had anticipated advancing the Blue Line and Red Line extension bus rapid transit projects through 2024 (and into the first part of 2025). In 2019, the majority of 2024 expenditures (\$71 million or 77 percent) were targeted towards the construction of the Blue Line. In 2019, IndyGo had also anticipated purchasing eleven 60,' all electric vehicles, at a cost of nearly \$1 million each. 55 percent of the expenditures in 2024 were to be grant reimbursable.

Due to a delay in the start of the Red Line extensions projects, total planned capital expenditures between 2019 and 2020 increased by more than \$20 million. This was due to pushing out the start of the Red Line extensions project. In early 2020, IndyGo anticipated needing to receive delivery of 36 sixty-foot buses for the Blue Line BRT line by 2024, which, at the time, was six more buses than the agency's 2019 estimate. In 2019, the agency also anticipated needing to replace eleven forty-foot buses in 2024. This number remained the same between 2019 and 2020.

By 2021, total capital expenditures for 2024 was anticipated to be \$122,874,909, which was \$9.7 million more than the \$113.2 million revised budget estimated from 2020. This was thought to be due in large part to growing fleet needs (\$17.6 million in 2024), and the construction of both the Purple Line (\$10 million in 2024) and the Blue Line (\$86.85 million in 2024) bus rapid transit corridors. It was further anticipated that IndyGo would move forward with the completion of the Rural Street Bridge Underpass project in 2024 (\$4.9 million in 2024 for a total of \$6.61 million).

### Now

As of this update, total capital expenditures for 2024 is anticipated to be \$139,840,810, which is a \$17 million change from the \$122.9 million estimate from 2019. This additional increase is due in large part to fleet needs (\$43.7 million in 2024) and the advancement of the construction of the Purple Line rapid transit project (\$15.6 million in 2024) and the design of the Blue Line bus rapid transit project (\$25.6 million in 2024). As of this update, it is anticipated that IndyGo will move forward with the Rural Street Underpass project in 2024 (\$3.8 million), which has a revised total project costs of \$6.6 million. It is further anticipated that the design of the East Campus Fleet Storage, Maintenance Terminal and Operations Center will start in 2024 (\$27.6 million). As of this update, the total cost of that project is estimated to be \$52.6 million.

As of this update, nine percent (\$12.5 million) of IndyGo's 2024 funding is expected to come from in grant dollars. 38 percent (\$53.7 million) will come from bonds. The remaining \$73.6 million will be paid for using local dollars.



**Table 8. 2024 Capital Projects**

Funding Sources	Actuals					Rev. Budget (as of 08/31/2022)
	Q1	Q2	Q3	Q4	Total	
Grants						\$12,517,021 <sup>5</sup>
Local (cash)						\$73,629,220
Bonds (debt)						\$53,694,569
Other						\$0
<b>Total Funding Amount</b>						<b>\$139,840,810</b>
Expenditures	Actuals					Rev. Budget (as of 08/31/2022)
	Q1	Q2	Q3	Q4	Total	
Fleet						\$43,686,291
BRT & Other On-Street Infrastructure						\$64,726,394
Facilities						\$30,622,369
Information Technology						\$400,000
Finance						\$405,756
Safety & Security						\$0
<b>Total Expenditures</b>						<b>\$139,840,810</b>

<sup>5</sup> \$12,517,021 is all that is currently reflected in the capital budget; however, staff anticipates as much as \$23,486,246 in grant funding for capital projects in fiscal year 2024.

## 2025 CAPITAL PROJECTS: \$146.2 MILLION

### Then

In 2019, it was anticipated that IndyGo would realize the Marion County Transit Plan by completing all major capital investment projects by the first half of 2025. However, due to the delays related to the design and construction of the Blue Line bus rapid transit route, total capital expenditures for 2025 is now at \$31.9 million an increase of \$7.2 million from 2019.



In 2021, it was estimated that IndyGo would need more

than \$189.5 million in 2025 to advance BRT and other on-street infrastructure improvements, and more than \$18 million to meet the agency's fleet needs for the year. BRT and other on-street infrastructure expenditures, it was anticipated, would primarily be for the advancement of the Blue Line bus rapid transit project (\$86.9 million). The remainder of the investments to be made in 2024 were targeted towards Transit Stop Amenities (\$2.1 million). In 2021, investments in IndyGo's fleet were expected to require more than \$16.3 million for fixed-route bus replacement and expansion, \$1.55 million for paratransit bus replacement, and \$300,000 for support vehicle replacement.

### Now

As of this update, total expenditures for 2025 is expected to be \$146.2 million, which is a difference of 38.5 million from what was estimated in 2019 (\$107.7 million). This is due in large part, again, to the delays in implementing the bus rapid transit system. It is anticipated that IndyGo will require more than \$122.2 million to advance BRT and other on-street infrastructure improvements, much of which is allocated to the Blue Line bus rapid transit project, plus more than \$18.1 million to meet the agency's fleet needs. Again, BRT and other on-street infrastructure expenditures will be primarily for the Blue Line BRT bus rapid transit project (\$112.6 million in 2025). The remainder of the estimated \$146.2 million 2025 capital budget is expected to go towards Transit Stop Amenities (\$2.4 million in 2025), fixed-route bus replacement and expansion (\$16.3 million in 2025), paratransit bus replacement (\$1.6 million in 2025), and support vehicle replacement costs (\$300,000 in 2025).

As of this update, less than one percent (\$1.2 million) of IndyGo's 2025 funding is expected to come from in grant dollars. Four percent (\$5.9 million) will come from bonds. In 2025, local revenue will need to cover most of IndyGo's expenditures.



**Table 9. 2025 Capital Projects**

Funding Sources	Actuals					Rev. Budget (as of 08/31/2022)
	Q1	Q2	Q3	Q4	Total	
Grants						\$1,240,000
Local (cash)						\$139,077,214
Bonds (debt)						\$5,860,000
Other						\$0
<b>Total Funding Amount</b>						<b>\$146,177,214</b>
Expenditures	Actuals					Rev. Budget (as of 08/31/2022)
	Q1	Q2	Q3	Q4	Total	
Fleet						\$18,148,814
BRT & Other On-Street Infrastructure						\$122,153,400
Facilities						\$5,875,000
Information Technology						\$0
Finance						\$0
Safety & Security						\$0
<b>Total Expenditures</b>						<b>\$146,177,214</b>

## 2026/2027 CAPITAL PROJECTS: \$135.6 MILLION

### Then

In 2021, the planning horizon for this plan was extended from 2025 to 2026/2027. Planned capital expenses for 2026 were estimated to be \$61,787,963. Like 2025, this is due in large part to the need to continue investments in BRT and other on-street infrastructure improvements (\$115.9 million in 2026) and the agency's fleet (\$19.7 million). In 2021, it was anticipated that BRT and other on-street infrastructure investments would be limited to the Blue Line bus rapid transit corridor (\$39.0 million in 2026), and Transit Stop Amenities (\$1.0 million in 2026). Investments in IndyGo's fleet will include \$17.9 million for fixed-route bus replacement and expansion, \$1.55 million for paratransit bus replacement, and \$250,000 for support vehicle replacement. BRT: Red Line Rapid Transit (Phases II & III)

### Now

As of this update, the planning horizon for this plan is still 2026/2027. Planned capital expenses for 2026 are anticipated to be \$104,817,063, which is a difference of \$43.8 million compared to the 2026 budget estimate from 2019 (\$61.8 million). Again, this is due in large part to the number of capital projects that have been delayed year after year. As of this update, it is anticipated that BRT and other on-street infrastructure improvements (\$81.8 million in 2026) and fleet expansion (\$19.7 million in 2026) will make up a large part of the 2026 capital budget. By 2026 it is anticipated that BRT and other on-street infrastructure investments will be limited to the construction of the Blue Line bus rapid transit corridor (\$81.8 million in 2026), and transit stop amenities (\$1.6 million). Investments in IndyGo's fleet is anticipated to require \$17.9 million for fixed-routes bus replacement and expansion, \$1.6 million for paratransit bus replacement, and just \$250,000 for support vehicle replacement. By 2027, the only major expenses anticipated by the agency are for transit stop amenities (\$1.6 million in 2027), and support vehicle replacement (\$300,000 in 2027).

As of this update, most of IndyGo's expenses will be covered by local revenue.

**Table 10. 2026/2027 Capital Projects**

Funding Sources	Actuals					Rev. Budget
	Q1	Q2	Q3	Q4	Total	(as of 08/31/2022)
Grants						\$1,240,000
Local (cash)						\$134,366,963
Bonds (debt)						\$0
Other						\$0
<b>Total Funding Amount</b>						<b>\$135,606,963</b>
Expenditures	Actuals					Rev. Budget
	Q1	Q2	Q3	Q4	Total	(as of 08/31/2022)
Fleet						\$19,706,963
BRT & Other On-Street Infrastructure						\$115,900,000
Facilities						\$0
Information Technology						\$0
Finance						\$0
Safety & Security						\$0
<b>Total Expenditures</b>						<b>\$135,606,963</b>

## FUNDING SOURCES

IndyGo’s capital investment projects are funded primarily by competitive and non-competitive (i.e. formula-based) grants, bonds, and local revenue (cash). Non-farebox revenue funds such as Section 5307 Urbanized Area Funding are provided to IndyGo based on federal formulas, as established by Congress in federal surface transportation bills and confirmed through annual appropriations. Conversely, the Section 5309 program is a competitive program designed to fund major capital projects. To be awarded a Section 5309 grant, an eligible applicant must submit a successful application and meet several project development milestones before accessing the eligible funds.

For fiscal years 2022 through 2026, IndyGo will see increases to some federal funding sources. Described further on the following pages, these increases are the result of the passage of the Bipartisan Infrastructure Law (BIL), a historic investment in the United States transportation systems. The BIL was approved in 2021, introducing new discretionary programs offered by federal agencies, while increasing the amount of money offered for existing ones.

In addition to these sources of federal funds, IndyGo has received financial support from the City of Indianapolis’ Department of Public Works (DPW) and the Metropolitan Development Commission (MDC). For example, the MDC contributed funding from the Consolidated Downtown tax increment finance district towards the completion of the Red Line BRT corridor project.

Each of IndyGo’s funding sources are described in greater detail throughout this section. The following table outlines the relationship between grant numbers and their original funding sources. These grant numbers are used throughout the Capital Expenditures section of this document; thus, pairing each capital project with specific funding sources. Use this table to cross reference the sources and uses tables with the table below to identify the original funding source.

**Table 11. IndyGo Grant Number by Funding Source**

5307 Formula	5309 Small Starts	5339 Formula	5339 Competitive	5310 Formula	CMAQ / STBG (TA, NEPA, IT)	STBG
IN-2016-024-11.42.06 (Acquire Shop Equipment)	Small Starts (Red)	FY 2020	Solar Array Low No	FY 2021	IN-2016-016-11.42.08 (Software)	IN95X046-11.42.08 (Hardware)
IN-2017-018-11.42.06 (Acquire Shop Equipment)	Small Starts (Purple)	FY 2021	FY 2022 Low/NO	FY 2022	IN-2016-016-11.71.03 (Project Management)	IN95X046-11.42.08 (Project Mgmt. – Disaster Recovery)
IN-2019-001-11.12.15 (Facility)	Small Starts (Blue)	FY 2022		FY 2023	2020 CMAQ – TSP	2020 STP – Fleet Replacement
IN-2021-023-11.44.03 (Facility)	ARP CIG Purple Line	FY 2023		FY 2024	2023 STP/CMAQ (Red Line Ext.)	2021 STP – Fleet Replacement
IN-2021-023-11.42.20 (Training Simulators)		FY 2024		FY 2025	2024 STP/CMAQ (Bus Replacement)	
IN-2021-046-Purple Line		FY 2025		FY 2026		
5307 Security Set Asides		FY 2026		FY 2026		
5307 Safe Set Asides		FY 2027		FY 2027		

## GRANTS

### FTA Urbanized Area Formula Grants (Section 5307/Section 5340)

In the State of Indiana, the Indiana Department of Transportation (INDOT) is the designated recipient for Section 5307 for small, urbanized areas whose population is between 50,000 and 199,999. FTA Section 5307 resources are non-competitive federal funds allocated to transit providers in urbanized areas throughout the United States, which is defined as a U.S. Census-designated area with a population of 50,000 or more as determined by the U.S. Department of Commerce, Bureau of the Census. This program makes Federal resources available to urbanized areas for transit capital and operating assistance, and for transportation-related planning activities within an urbanized area. Section 5307 funding is apportioned based on a legislative formula. For areas with a population of more than 200,000, the formula is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue miles, fixed guideway route miles, and population and population density.

FTA Section 5340, Growing States/High Density Section funding is combined with Section 5307 funding when distributed to designated recipients. Section 5340 is formula funding. In FY2020, the Growing States funding level for the nation was approximately \$300 million. The formula is apportioned based on the growth of the state where the transit agency is located and then the urbanized area's share of the state's urbanized areas. For the purposes of this plan, Section 5340 is combined with Section 5307 and not discussed or identified separately.

For larger transit agencies – those that operate more than 100 buses – Section 5307 funds are to be used for capital improvements only because operating expenses are not eligible for reimbursement. IndyGo operates approximately 200 buses in peak service, and thus is prohibited from using Section 5307 funds for operating expenses. Another limitation of this program, the Federal share cannot exceed 80 percent of the net project cost, which means that recipients must come up with a minimum of 20 percent of the total project cost locally. Funds allocated under this program are made available in the year they are appropriated and remain available for five years thereafter.

In 2020, it was anticipated that \$26.2 million in 5307 program dollars would be available to IndyGo to support capital projects between 2021 and 2025. This amount did not include 5307 formula funds required to be used for security purposes (i.e. Security Set Asides). IndyGo is required to set aside one percent of the total appropriation to support transit security projects.

Like other jurisdictional boundaries, the urbanized area boundary is a function of changes in population and will often change over time. In 2017, as part of the Coordinated Public Transit and Human Services Plan for Central Indiana, an audit of trips in the Indianapolis urbanized area and Section 5311 provider trips revealed a mismatch between the trips and the funding used. The plan revealed just how much the (designated) urbanized area for the Central Indiana Region has grown and how, as a result, a significant percentage of rural providers in the region complete trips that begin and end in the urbanized area. INDOT has since determined that these trips should be categorized as urban trips and that they be funded by 5307 formula funding as opposed to 5311 formula funding. Beginning in 2022, Section 5311 sub-recipients (i.e. suburban transit providers) operating in the surrounding counties will see either a complete elimination of Section 5311 funding or a reduction in their 5311 funding amount. At the same time, they will become eligible to receive a portion of Central Indiana's Section 5307 funding; a source of funding that, up to this point, has only been split between IndyGo and the Central Indiana Regional Transportation Authority (CIRTA). **This shift in how federal 5307 program dollars are allocated throughout the**

**Central Indiana Region will have a direct impact on IndyGo’s revenue stream.** As Marion County’s leading transit agency, IndyGo experienced a loss in its share of Section 5307 funding for FY2021, as suburban transit providers were included in the funding distribution for the first year. A potential reduction in 5307 funding for IndyGo has been included within the planning assumptions made to update this plan. The BIL provides for the increase of funding for fiscal years 2022 through 2026.

As of this update, IndyGo expects to receive a total of \$52.4 million in 5307 grant funding to put towards capital projects, whereas at the end of 2021, the total was less than \$21.8 million. IndyGo also anticipates expending approximately \$2.8 million to \$7.9 million annually from FY2021 to FY2026 on capital projects using Section 5307 funding. These amounts are reflective of the increases from the BIL.

**Table 12: Actual & Anticipated 5307 Formula Funds for Capital Projects**

Total	\$52,398,528
FY 2019 (actual)	\$3,728,359
FY 2020 (actual)	\$4,424,169
FY 2021 (actual)	\$2,840,771
FY 2022 (actual)	\$5,506,027
FY 2023	\$6,229,012
FY 2024	\$6,780,705
FY 2025	\$7,348,950
FY 2026	\$7,934,241
FY 2027	\$7,606,294

### **FTA Bus & Bus Facilities Infrastructure Investment Program (Section 5339)**

This FTA grant program makes federal resources available to replace, rehabilitate, and purchase buses and related equipment. It can also be used to construct bus-related facilities. Eligible expenses include capital projects that incorporate technological changes, and innovations that reduce fleet emissions. Funding from this program is provided both through formula allocations and competitive grants. Capital projects funded through the FTA 5339 program generally require at least a 20 percent local match of the net capital project cost.

IndyGo has and will continue to submit applications to secure competitive grant dollars through this program every year and for the life of this or any subsequent capital investment plan. If, and when, IndyGo is successful in securing Section 5339 grant dollars, the agency will adjust the amount cash, bonds, or other funding dedicated to the completion of one or more of the capital projects described herein.

In 2020, it was anticipated that between 2021 and 2025 \$10.9 million in Section 5339 formula funds would be made available to IndyGo to use on capital projects. Currently, IndyGo is the only recipient for Section 5339 funding in Central Indiana. For FY2022 formula funds and beyond, a portion of Section 5339 will become an application-based competitive program for public transit providers in Central Indiana. This plan assumes a reduction of Section 5339 formula funding to IndyGo for the foreseeable future.

In March 2022, IndyGo was awarded funding for Super Stops 2.0 (\$2.3 million, FY2021) and in August 2022, IndyGo was awarded funding for the proposed Fleet Storage, Maintenance Terminal, and Operations Center (\$33 million, FY 2022). Like the 5307/5340 funding, IndyGo expects to receive more 5339 formula funding in 2023 as a direct result of the BIL. It is also anticipated that fewer 5339 dollars will be needed in FY2023 due to the fact that 2022 requests for funding from IndyGo’s subrecipients is lower than was expected in 2021, but not as low due to the fact that the funding increases offered by the BIL begins in FY2022.

**Table 13: Actual & Anticipated 5339 Funds for Capital Projects**

Total	\$ 10,812,248
FY 2020 (actual)	\$1,873,256
FY 2021 (actual)	\$1,132,950
FY 2022 (actual)	\$1,712,761
FY 2023	\$1,164,144
FY 2024	\$1,217,068
FY 2025	\$1,271,580
FY 2026	\$1,327,728
FY 2027	\$1,112,761

**FTA Enhanced Mobility for Seniors and Individuals with Disabilities (Section 5310)**

This program provides formula funding for the purpose of assisting private nonprofit groups in meeting the transportation needs of older adults and persons with disabilities, only. IndyGo is the designated recipient for Section 5310 funding for the Indianapolis urbanized area. IndyGo is responsible for administering 5310 funding to eligible sub-recipients for eligible activities within the urbanized area. Unlike Section 5307 formula funds which are administered by the Indiana Department of Transportation, IndyGo receives Section 5310 formula funds directly from the federal government. Each year, IndyGo administers its own competitive grant process by issuing a call for projects and granting awards to eligible sub-recipients. At present, IndyGo only offers funds for capital expenses. Any expenses associated with this program for capital expenditures requires at least a 20 percent local match, which the sub-recipients are expected to contribute in full.

Section 5310 funding can be used to purchase buses and vans, wheelchair lifts, ramps, securement devices, transit-related information technology, mobility management programs, acquisition of contracted transportation services, such as IndyGo's paratransit operations, and other such expenditures. These funds can also be used to pay for operating expenses. In 2020, IndyGo had expected a total of \$4,933,097 to be available for capital projects from FY2019-2025.

As of this update, IndyGo has received \$3.4 million in Section 5310 funding from FY 2019-2022 and anticipates approximately that an additional \$4.6 million in Section 5310 funding will be available from FY2023 to FY2026 (see Table 14. Actual & Anticipated 5310 Formula Funds for Capital). Over the life of this plan, IndyGo is expected to receive \$7.9 million in 5310 formula funds to support the many capital investment projects described herein. This is an increase of \$2 million compared to what IndyGo had estimated in 2021 (\$5.9 million).

**Table 14. Actual & Anticipated 5310 Formula Funds for Capital**

Total	\$7,926,552
FY 2019 (actual)	\$625,276
FY 2020 (actual)	\$890,878
FY 2021 (actual)	\$871,349
FY 2022 (actual)	\$980,896
FY 2023	\$937,168
FY 2024	\$969,783
FY 2025	\$1,003,377
FY 2026	\$1,037,978
FY 2027	\$609,847

As of this update, IndyGo staff believe there will be approximately \$500,000 to \$550,000 per year (between the Section 5339 and 5310 programs) that will be set aside for the subrecipients. This is an increase compared to the \$400,000 per year estimate from 2021. The actual amount will depend on subrecipient needs and applications.

### **FTA Major Capital Investment Grants Program: Small Starts Funding (Section 5309)**

The FTA Major Capital Investment Grant program (Section 5309) is the primary federal funding source associated with major capital investment projects, providing capital assistance for three primary activities:

1. New fixed guideway systems or extensions to existing fixed guideway systems (New Starts and Small Starts programs);
2. New and replacement buses and facilities (Bus and Bus Related Facilities program); and
3. Modernization of existing rail systems (Fixed Guideway Modernization program).

Transit agencies seeking Small Starts funding for a capital investment project must first apply to enter the program. Once accepted, the transit agency must then go through a phased project development approval process before seeking a fully executed grant agreement with the FTA. Depending upon the level of competitiveness of a given project, the federal support for the project can be between 50 percent and 80 percent, with the required local match derived from some other source(s) of funding.

The Small Starts program provides funds to capital projects that either (a) meet the definition of a fixed guideway for at least 50 percent of the project length in the peak period or (b) are corridor-based bus projects with 10-minute peak/15-minute off-peak headways or better while operating at least 14 hours per weekday. The Federal assistance provided under Section 5309 must be less than \$150 million (up from \$100 million in 2021) and the project must have a total capital cost of less than \$400 million (up from \$300 million in 2021), both in year of expenditure dollars<sup>6</sup>. IndyGo's Red and Purple BRT projects qualify for Small Starts funding. As of this update, while it is not yet clear if and how the Blue Line bus rapid transit project will be defined, IndyGo intends to bring the Blue Line BRT project costs in line with these newly defined thresholds.

The Red Line BRT project successfully secured 80 percent participation from the Small Starts Program. Per the Small Starts Grant Agreement executed in May 2018, IndyGo was the recipient of a total of \$74,989,685 to support the Red Line BRT project. While not tied to FTA's Section 5309 funding program and not subject to a local match requirement, in June 2021 it was announced that IndyGo would receive a \$12 million allocation of American Rescue Plan funding for the Purple Line BRT project. Then, in August 2021, it was announced that IndyGo would receive another \$81 million – this time in CIG Small Starts program support – to advance the Purple Line BRT project.

IndyGo still anticipates applying for and receiving 5309 Small Starts grant funding for the Blue Line BRT project as IndyGo has already been accepted into Project Development. In 2020, IndyGo's 5-yr Capital Plan budget assumed a 50 percent award by the federal government in 2020. As of this update, IndyGo's 5-yr Capital Plan budget assumes 50 percent in 2024. Should Section 5309 funding become unavailable for the Blue Line BRT project, IndyGo would

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<sup>6</sup> FTA increased the maximum local match and maximum project budget thresholds in 2022.

consider reducing the costs of this project through scope changes and value engineering. IndyGo could also seek to expand its capital bond to offset any reductions relative to the expectations established within the development of the Transit Plan. Should IndyGo be successful in executing a full grant agreement for the Blue Line, Indianapolis-Marion County could be the recipient of more than \$357.7 million in Small Starts funding towards the development of the agency's new fixed guideway system.

**Table 15: Actual & Anticipated 5309 Small Starts Funds**

Total	\$305,970,000 or more
Red Line (Phase 1)	\$74,990,000
Purple Line	\$80,980,000
Blue Line	Up to \$150,000,000

### **Congestion Mitigation and Air Quality (CMAQ) and Surface Transportation Block Grant (STBG)**

Over the years, IndyGo has requested and successfully been awarded CMAQ and STBG funding from the IMPO. IndyGo has received and exhausted CMAQ funding for the following activities: Purple Line outreach, preliminary engineering, and NEPA activities. In 2019, IndyGo programmed \$1,353,280 from a CMAQ award to install transit signal priority infrastructure, beginning with the BRT routes, at key intersections to increase service reliability. These funds are still available for use in 2021.

The CMAQ program provides a flexible funding source for transportation projects that improve air quality and reduce congestion. Typical uses of these funds include infrastructure, vehicles for new transit service, and replacement vehicles. In the Indianapolis urbanized area, these funds are administered by the Indianapolis MPO (IMPO).

Surface Transportation Block Grant (STBG) funding is also administered by the IMPO. These federal funds are passed from the Federal Highway Administration (FHWA) to the Indiana Department of Transportation (INDOT) and INDOT reimburses local transit agencies whose projects are awarded funding by the IMPO. These resources may be used for road, bikeway, pedestrian, or transit projects, as determined, and prioritized by the IMPO Transportation Policy Committee. Typical transit projects funded through STBG often include the purchase of vehicles, construction of fixed-guideway systems, and other transit-related investments. In 2020, INDOT and IMPO agreed to exchange federal funds allocated to the IMPO for state funds. The federal exchange will occur for future projects (FY2024/FY2025) and allowing local public agencies using these funds flexibility for their project timeline and design.

For the years 2020-2023, seven percent of the region's Transportation Improvement Plan is programmed for transit-related activities. In 2020, IndyGo had anticipated STBG awards of \$5,650,000 and \$4,867,537 for fleet replacement in 2020 and 2021, respectively. STBG funding for 2023 and 2024 was projected to be \$4,595,827 and \$9,744,839, respectively; wherein the elevated 2024 amount was intended to represent an IMPO investment in the IndyGo's 2024 fleet replacement. The projected amount for 2025 was at that time unknown. The amount available in the IMPO FY2025 call for projects is lower than the normal allocation due to the IMPO "swapping" funds with the state and settling balances with INDOT. Due to the impacts of the COVID-19 pandemic, IMPO released a joint call for projects for FY 2024 and FY2025 in 2021, and IndyGo was approved for additional funding for electric vehicles. IndyGo staff will apply to the IMPO FY2026 call for projects before the end of 2022. This request will likely be for funding to purchase Blue Line bus rapid transit vehicles, provided a final decision can be made about the vehicle



propulsion technology. As of this update, and just based on the information available at this time, IndyGo may be better served in the long run to opt for hybrid buses, as opposed to battery electric buses, when purchasing buses for the Blue Line bus rapid transit project.

Additionally, a combined \$4,595,827 in STBG and CMAQ for the Red Line Rapid Transit extensions to the Marion County lines was awarded to IndyGo by the IMPO in 2018. The first grant was for vehicle purchases through a CMAQ grant. The grant amount was approximately \$3 million. The next grant was for road widening, repair, and signal upgrades through the STBG worth approximately \$1.3 million. These dollars were to have been spent in SFY 2022, as reflected in the region's Transportation Improvement Plan. Due to recent and anticipated impacts resulting from the COVID pandemic, and the relative lack of a funding commitment from the counties that would receive the extensions (Hamilton and Johnson Counties), IndyGo is not able to advance the Red Line extensions within the timeframe required by these grants. In 2020, IndyGo staff amended the Red Line Extensions grant request, returning the STBG portion and maintaining the request for the CMAQ funding for the purchase of 60' electric vehicles. At their August 2020 IMPO Transportation Policy Committee meeting the amended request was approved. In 2021 IndyGo received \$8,988,738 CMAQ and STBG funding to purchase vehicles for the Blue Line, which is currently programmed for FY2024.

### **IMPO Green Line Grant**

Circa 2011, as part of the long-running study of the potential for bus rapid transit in various corridors throughout central Indiana, the IMPO was awarded a grant to examine the feasibility of an enhanced corridor between downtown Indianapolis and downtown Noblesville in Hamilton County via the Hoosier Heritage Port Authority's Nickel Plate Rail corridor. As these planning efforts matured, this corridor was denoted as the Green Line. Through preliminary planning and environmental work, it was determined that this corridor may have environmental and financial sustainability concerns that limited the feasibility of that corridor for bus rapid transit activities.

In 2017, conversations between the IMPO and IndyGo determined that a study of the northeast downtown corridor, which at that time served by several local routes that travel north and east from downtown, may benefit from enhanced infrastructure improvements and that a study of the same could fulfill the purpose and intent of the IMPO Green Line Grant. Circa 2017, the IMPO awarded IndyGo approximately \$700,000 in capital funding to pursue planning and preliminary design activities in these areas. This effort produced IndyGo's "Super Stops" projects. Most of the IMPO Green Line Grant resources were expended by the end of 2019 and totaled \$815,344.

## **INDYGO LOCAL REVENUE (CASH)**

IndyGo's local revenue, or cash, is derived from proceeds from property taxes in accordance with IC 36-9-4-48 and from the 0.25 percent transit income tax enacted in 2017. These funding sources are typically used to provide local match for federally funded capital projects and to pay for locally funded capital projects. Revenue from these taxes is held in the IndyGo Capital Cum Fund, which was established by the IPTC Board of Directors in 2004 and serves as a relatively liquid source of funding to support capital projects. At present, this tax is assessed on properties within Indianapolis and Beech Grove, but not within the other excluded cities and towns of Marion County. By the end of 2020, the capital plan called for a total of \$151.2 million to be drawn from these funds between 2020 and 2025 to advance the Transit Plan. As of this update, this capital plan requires a total of more than \$348 million to be drawn from these funds between 2020 and 2027. This is due in large part to showing the Blue Line as being funded locally, since, at the time of this update, there is not an executed grant or current bond issuance.

## INDYGO ANTICIPATED DEBT (BONDS)

Periodically, IndyGo must issue general obligation bonds for the purpose of providing local financial contributions to federally funded capital and equipment projects. The size and scope of IndyGo's current five-year capital program will require the issuance of bonds to provide resources to advance this capital plan and successfully implement the Transit Plan. Principal and interest payments for bonds issued to advance capital projects within this plan would be made from the proceeds of the newly adopted 0.25 percent local income tax that became effective in Marion County on October 1, 2017. Version 1.0 of this capital plan assumed a 2019 appropriation of \$58.4 million from the income tax. Actual appropriation for 2019 was \$56,858,347. The 2020 appropriation was \$58,369,430. The 2021 appropriation is expected to be greater than \$63 million, which is \$10 million more than what had been assumed for that year. This update assumes a 2022 appropriation of \$62,281,177 from the income tax. From year to year, the bonds would have a first lien position on the proceeds of the local option income tax.

In 2020, it was thought that IndyGo would issue \$94.4 million in total debt between 2021 and 2025, including the \$26 million bond issuance approved by the Indianapolis-Marion County City County Council (and additional financing costs) and the Indianapolis Bond Bank in August 2018, and a proposed \$65 million bond in 2022. As of this update, the capital plan requires \$46.9 million of the current debt issuance (series 2018A and 2021D bonds). Bonding for the Blue Line depends on the outcome of the work that is currently being done to address the increased costs. It is anticipated that, whatever is not grant funded would be paid for using local dollars or with a bond issuance. The exact dollar amount for each of these funding sources is to be determined. In projecting the finance costs associated with the future bond issuance, IndyGo has assumed interest rates that are based upon the Thompson Reuters Municipal Market Data (MMD) AAA Curve. This approach yields conservative estimates in that the projections use the MMD yield as a baseline and then add additional basis points to provide a level of cushion for market uncertainties and future fluctuations in the bond market.

Further, in projecting debt and debt service payments throughout the course of this plan and through IndyGo's 20-year financial projections, aggregate annual debt service payments are split between a portion covered through the FTA 5309 Small Starts program and the remainder, which IndyGo will source through its capital debt service fund. This inclusion of financing costs within Section 5309 project costs is a requirement of FTA; this plan reflects that requirement accordingly.

## OTHER SOURCES OF FUNDING

### City of Indianapolis General Fund

The City of Indianapolis, Department of Public Works (DPW) contributes local dollars towards IndyGo's bus rapid transit projects. IndyGo and DPW are party to an Interlocal Cooperation Agreement (ICA) that details the roles and responsibilities of the ongoing maintenance and operations of the bus rapid transit infrastructure on the Red Line Phase I project. The current agreement includes a total commitment of \$6 million (\$3 million for Red Line phases I, II, and III, \$1.5 million for Purple Line, and \$1.5 million for Blue Line bus rapid transit projects) from DPW to IndyGo for the completion of the three BRT lines. IndyGo and DPW are preparing an amendment to the ICA that will incorporate operations and maintenance cost-sharing requirements for the Purple Line. That amendment is expected to be executed before the end of 2021. A similar amendment will be prepared for the Blue Line prior to its construction.

### **Tax-Increment Financing**

The Metropolitan Development Commission (MDC) serves as the City's redevelopment commission (IC 36-7-15). Within a declared economic development area, the MDC has authority to create an allocation area to capture tax increment tax-increment financing (TIF). TIF revenues can be used to pay for capital project expenditures, such as public infrastructure projects, so long as they directly serve or benefit the correlating allocation area.

The MDC determined that Red Line Rapid Transit Project will directly benefit the Consolidated Redevelopment Allocation Area located in downtown Indianapolis and subsequently approved \$6 million in TIF revenue to support construction of the Red Line project. The MDC executed an agreement to appropriate these TIF resources to IndyGo in July 2018.

Similarly, the MDC had – at one time – determined that the benefits of improving the West Washington Street corridor, from Holt Road to High School Road, would substantially advance the City's goals in that area. These benefits included enhanced transit operations in that area; substantial improvements to the street, sidewalk, and stormwater infrastructure; and the supporting of reinvestment and revitalization within the vicinity of the Indianapolis International Airport. Further, it was believed that any investment made in the Blue Line through the TIF funds would ultimately lead to value capture, in which the initial investment sparks development that creates additional resources within the TIF. For those reasons, the MDC had agreed to allocate \$12.5 million from the Airport TIF to the Blue Line BRT project, upon execution of a Small Starts Grant Agreement with the FTA. As of this update, the agreement to use these funds for the Blue Line project has expired. This money is therefore no longer included in the Blue Line bus rapid transit project budget.

### **Joint Development: Indianapolis Neighborhood Housing Partnership**

In its 2019 Small Starts grant application for the Blue Line bus rapid transit project, IndyGo, in partnership with the Indianapolis Neighborhood Housing Partnership, included a request to explore a joint-development opportunity in coordination with its capital improvement grant project.

Joint development is a public/private partnership initiated by a transit agency where the development has some level of FTA investment that is physically and/or functionally related to the transit system. It is a type of value capture in that it can offset some of the costs of improving the transit system over time. Joint development can simultaneously reduce, leverage, and protect the public's investment in implementing and maintaining a fixed-guideway rapid transit system. A joint development project often is in the form of a compact, mixed-use development within a safe and easy walking distance of a transit stop. This type of development is often referred to as a transit-oriented development (TOD). TOD is both a real estate development term and a way to describe entire neighborhoods that take advantage of transit access and support increased transit usage. However, unlike other transit-oriented development projects, joint development engages the transit agency in contractual relationships with the private sector, which introduces business, financial, and operational factors that wouldn't exist otherwise.

The Indianapolis Neighborhood Housing Partnership (INHP) exists to increase affordable and sustainable housing opportunities for individuals and families and serve as a catalyst for the development and revitalization of neighborhoods in Marion County. To advance this mission, INHP is acquiring strategic properties near IndyGo's rapid or frequent transit corridors. To expand its capacity to engage in this work, INHP has created the Equitable Transit-Oriented Development (ETOD) fund in association with Cinnaire, a community development financial institution (CDFI). Cinnaire helps community development organizations, lending partners and socially motivated

investors accomplish goals in underserved communities. They are working to invest more than \$4.2 billion in community development dollars across nine states. This includes the development of more than 50,000 homes for people and families in need.

When fully capitalized, INHP's ETOD fund will provide up to \$15 million of acquisition capital to preserve and create more than 1,000 affordable housing units near transit stops, ensuring continued location-efficient housing options, while catalyzing neighborhood development and promoting access to opportunities for low- and moderate-income families. Between 2019 and 2020, ETOD moved from a theoretical concept to an implemented strategy. By the beginning of Q4 2020, INHP had accumulated more than \$14.25 million in capital including \$3 million of grant funds supporting \$11.25 million of senior debt from seven financial institutions. INHP continues to raise capital and expects to cap the fund at \$15 million in combined resources.

According to their 2021 Annual Report, INHP had secured 14 properties and sold one of those properties: the Excelsior, to the Near North Development Corporation. Additionally, eleven of the 12 ETOD properties have been "paired" with prospective development teams -- either through a letter of interest or a purchase agreement -- who are currently working through the entitlement, design, and capital funding processes.

Today, there are many properties that take advantage of locations on or near a BRT route, a frequent route, an intersection of a BRT route, or where two or more frequent routes intersect. The location of these ETOD properties span the (existing) Red Line, (soon to be under construction) Purple Line, (planned) Blue Line, and several routes on the frequent grid.

## CONTINGENCY PLANNING

Each of the larger projects included in this plan contain some contingency to address unanticipated issues and unexpected costs that may arise within the execution and implementation of individual projects. These contingencies are anywhere between five to 30 percent of anticipated project costs depending on the complexity and size of the scope of work. IndyGo has been conservative in its budgeting to ensure it has the adequate resources necessary to overcome unanticipated issues and deliver these projects as planned.

Should anticipated local revenue (cash) programmed to support individual projects not be realized throughout the course of this plan, IndyGo has considered strategies it would employ to ensure that it remains able to deliver the Transit Plan, as outlined to the public in advance of the 2016 general election. If funding were unavailable for a smaller project due to an unanticipated change in funding sources, the cost of the project may be addressed through unspent contingency on other projects, delayed, or otherwise re-evaluated. IndyGo continues to monitor actual expenditures relative to anticipated expenditures, as outlined in this plan and the previous capital plan, making revisions (to expenses and funding sources) as needed.

### Contingency Planning for Small Starts (BRT)

As part of its Small Starts application process for the Red Line BRT project and its capital planning efforts, IndyGo developed a 20-year financial model to evaluate long-term cash flow and support capital and operational planning through 2039. Through this 20-year financial model, a scenario examining the impact of no federal Small Starts participation in the construction of the Purple Line and Blue Line bus rapid transit corridors was considered. The ability to realize the Transit Plan took one step forward this year when, in August 2021, IndyGo executed its Small Starts grant agreement with the FTA for the construction of the Purple Line.

Should the Small Starts program be no longer available or should IndyGo be unable to access its funding for the Blue Line bus rapid transit project, IndyGo would redefine the project description to bring an enhanced Route 8 corridor project into alignment with the agency's given resources. Regardless, as of this update, IndyGo staff are preparing a recommendation for the IPTC Board of Directors that would redefine the Blue Line BRT project to operate rapid transit service between Cumberland Road and Tibbs Avenue. Every other bus would make a short turn at Tibbs Avenue, which would mean that every other bus would continue to a BRT station located at the intersection of Holt Road and W Washington Street and operate as express service along Holt Road to I-70 west to terminate at the Indianapolis International Airport. See also, Congestion Mitigation and Air Quality (CMAQ) and Surface Transportation Block Grant (STBG).

## CAPITAL EXPENDITURES

Implementation of IndyGo's capital investment program will include local service improvements, fleet replacement, construction and operation of bus rapid transit corridors, bus stop optimization and adjustments, information technology upgrades, improvements to supporting infrastructure, the expansion and enhancement of transit operations and maintenance facilities, among other things. The expenditures associated with these improvements fall into six categories, which continue to evolve with the implementation of this capital plan:

- **Fleet:** These expenses include planned replacement of local-fixed route vehicles, paratransit vehicles, and support vehicles for IndyGo's existing fleet, as well as equipment to maintain the fleet in good condition.
- **Bus Rapid Transit and other on-street infrastructure:** IndyGo's network redesign is based off of a network of three rapid-transit lines and the ability to switch to a grid-based local network with faster and more frequent service running longer hours each day. The capital expenses associated with bus rapid transit are substantial and represent a significant amount of capital investment, which must be sustained over a long period of time. In addition to implementing the bus rapid transit corridors, IndyGo is working with the city to complete one-way street conversions and other infrastructure projects, as well as the improvement of several local route stops, shelters, and sidewalks. Now more than four years old, the Red Line bus rapid transit corridor has begun to require capital investments beyond those achieved with the Small Starts grant funding.
- **Facilities:** As IndyGo increases its fleet and the size of its staff, it is updating, upgrading, renovating, and modernizing its facilities to accommodate this growth. Several projects are planned for IndyGo's long-standing administration and maintenance facility located at 1501 W. Washington St. Work continues at IndyGo's newly acquired properties throughout Indianapolis. IndyGo had initially pursued the redevelopment of a former industrial property to create a training and contingency facility. However, the purchase of the former Celadon property on Indianapolis' Far Eastside has afforded the agency with the opportunity to co-locate the training and contingency facility as part of its new headquarters for that location. IndyGo continues to invest in property acquisition and development opportunities as needs arise, such as the purchase of a former industrial property in the historic Haughville neighborhood on the near westside for IndyGo's new Mobility Solutions Center.
- **Information technology:** Like other transit agencies in large cities, IndyGo deploys several systems that improve its efficiency in monitoring and operating transit service. Many of these systems fall within the purview of information technology. IndyGo anticipates dedicating resources to upgrading existing systems, maintaining systems, and adopting new technologies as part of its capital investment program.
- **Finance:** Prior to 2020, IndyGo's public affairs team was responsible for internal and external communication, business development, enhancing the rider experience, promoting customer service, advancing several special projects, engaging with advertisers, and assisting in translating the community's needs into agency initiatives. These tasks rely on exceptional communication and reliable communication infrastructure. As such, the capital needs associated with IndyGo's public affairs division were meant to enhance the agency's ability to facilitate communication within the agency and between the agency and its riders and other partners. Organizational changes that took place in 2020 streamlined where certain capital projects live within the agency. Currently, fare modernization falls within the purview of the Finance Division with support from the Information Technology division.

- **Safety & Security:** IndyGo considers the safety and security of its employees, passengers, fleet, and facilities in all that it does. Safety and security measures are built into nearly every capital project regardless of size or scope; thus, safety and security expenditures are a sub-component of every project included in this plan. Additionally, IndyGo plans to secure specific safety, security, and training equipment, separate from other projects, over the course of the next several years.

The following pages describe each of IndyGo's planned capital expenditures through the year 2026/2027. Included are detailed tables of expenditures and funding sources by project. For projects that have incurred costs prior to the drafting of this plan, the total costs listed here include only the remaining costs (unless otherwise noted).

## **FLEET: REPLACEMENT, UPGRADES, AND MAINTENANCE**

### **Fixed Route Bus Replacement**

Vehicles beyond their useful life have reduced reliability, and they require additional maintenance and create more emissions than newer models. Over the past several years, IndyGo has made substantial strides in bringing its fleet under the FTA's useful life benchmark. Currently, IndyGo has over 200 vehicles in its operational fleet, some of them dating back to model year 2010. Of the estimated 211 vehicles on the road today, none of the vehicles have surpassed their useful life based on years in service. This won't occur until later this year, when the 2010 series meets its 12 years in service.

IndyGo remains committed to greening its fleet. Experience with its existing 60' BYD buses has been mixed, which has caused the agency to re-evaluate purchasing 40' battery electric buses to fulfill the needs of its local fixed-route service. In early 2020, the decision was made to order 27 hybrid Gillig buses. In 2021, IndyGo adjusted its order to 24 and, as of 2022, has received all 24 vehicles. Three of the 24 received include the advanced hybrid technology, the GenFlex, which can allow the diesel-hybrids to run nearly 50% of their run time in electric-mode using the advanced technology, including geofencing. Recognizing that hybrid buses provide a proven technology that is cleaner than the traditional diesel vehicle while offering the same (or better) operational benefits.

IndyGo continues to pursue competitive grant funds and creative other financing strategies to acquire the vehicles that are needed to implement the agency's network redesign, among other capital investments. As COVID-19 has delayed the continued implementation of the network redesign, IndyGo has continued to evaluate its local fixed-route vehicle purchases. IndyGo may seek to utilize early purchasing of bus rapid transit vehicles to provide service on existing routes until construction of the bus rapid transit amenities are complete.

IndyGo had anticipated a total expenditure of approximately \$639.7 million beginning in 2020 through 2025, with resources from grants and cash. As of this update, the Fixed Route Replacement Plan reflects the need to account for the total anticipated appropriations. These appropriations would be supported with best suited financing mechanism; lease financing or cash purchase depending on cash flow in any given year. The funding mechanism for fleet replacement in 2021 is accounted for under the annual debt service expenditure for 2021. IndyGo anticipates that, in the future, buses will be acquired through the lease financing funding mechanism under this plan. This strategy is revisited every year to ensure that IndyGo procures the fleet in a fiscally prudent manner promoting financial sustainability.

## **Paratransit Vehicle Replacement**

IndyGo Access, formally known as Open Door, offers complementary ADA paratransit services throughout Marion County; serving eligible individuals who are unable to utilize the fixed-route transit service. IndyGo Access operates an ADA-compliant fleet of mid-sized, body-on-chassis transit vehicles with wheelchair lifts.

Each of these vans and shuttles has a much more limited useful service life compared to IndyGo's larger, more robust fixed-route vehicles. To ensure that IndyGo's paratransit service remains safe and reliable, each year, IndyGo programs money to replace paratransit vehicles that have met or exceeded their useful service life. At around \$1.5 million per year (2022 – 2026), these costs will be paid for by grants and future IndyGo local revenue (cash).

IndyGo is currently looking at new ways to implement similar on-demand services throughout Marion County. This may include purchasing more paratransit-type accessible vehicles to augment a deviated fixed route and other pilot programs. This may include the partnering with Transportation Network Companies (TNCs), purchasing additional vehicles outside of those contracted under our paratransit services contract, paratransit fleet replacement, changes to the voucher program, and community-based microtransit pilot projects, among other things.

## **Other Rolling Stock & Equipment**

Support Vehicle Replacement - IndyGo transportation and maintenance teams require quick and reliable transportation to respond to incidents in the field involving buses, operators, or other infrastructure. These vehicles are used by transportation supervisors and staff who support the on the street operations. This includes responding to operator assistance calls, responding to accidents, and assisting with passenger control, among other things. Like IndyGo's fixed route and paratransit vehicles, non-revenue vehicles need to be replaced once they reach their useful life expectancy.

For FY 2021 through FY 2026, the operations division is looking to provide in-field operator relief where operators will drive to the designated relief points themselves, using non-revenue vehicles for this purpose. This change in relief processes is directly related to the implementation of the MCTP, providing more efficient "seat swaps" for operators in the field within the connected grid network. The funding for these types of purchases will need to be increased to support the full implementation of the Transit Plan and are likely contingent upon the same. IndyGo had initially programmed \$936,000 to be spent between 2019 and 2024 to replace support vehicles. By the end of 2022, IndyGo will have spent approximately \$514,250 to replace support vehicles, which is 47 percent of the total capital budget for the same period, to replace support vehicles. This is \$181,000 less than what the agency had expected to spend by the end of 2022 (\$621,000). It is anticipated that \$1.42 million will be needed for support vehicle replacement between 2022 through 2027, or approximately \$300,000 per year for the life of this plan.

Maintenance Heavy Equipment and Other Expenses - IndyGo's vehicle fleet often requires major repairs at its maintenance and operations facility to ensure that buses can quickly be returned to service. These repairs require heavy equipment that has a limited useful life. To enable IndyGo to continue to conduct these repairs at its maintenance facility, this equipment includes scissor lifts, cutter machines, bending machines, platform and portable lifts, a hydraulic press, a metal lathe, and other heavy equipment that must be purchased and/or replaced. In total, having incurred costs totaling \$317,658 between 2019 and 2022, IndyGo anticipates expenditures of up to \$900,000 between 2022 and 2024; investing approximately \$300,000 annually in the out years with funds sourced from grants and future local revenue.



BRT Bus Docking Technology - Lane Transit District in Eugene, Oregon piloted a magnetic guidance system to guide BRT vehicles into bus rapid transit stations for the purposes of achieving precision docking. IndyGo had explored the potential application of this technology within its BRT system for the purposes of providing a consistent and routinely accessible docking maneuver at BRT stations. It was thought that this system would ease the burden upon coach operators in executing these maneuvers and ensure reliability and access for those passengers using assistive mobility devices; eliminate the need to deploy bridge plates and ramps, reducing dwell time; and reduce or eliminate vehicle damage due to striking stations. The system would require modification of existing BRT vehicles and the deployment of magnetic pucks in the vicinity of station areas. Version 1.0 of this plan included \$5 million in programmed expenditures for this effort; the source was IndyGo local revenue (cash).

In their review of this technological application, IndyGo staff grew concerned with the lack of a commercially viable product in the marketplace, which would necessitate the need for IndyGo to pilot another new product likely without support for the life of the system. It is for these reasons, that the agency decided to remove this project from its capital program. In 2020, the funds that were programmed for bus docking technology were reallocated to the purchase and renovation of newly acquired facilities, and IndyGo staff continues to evaluate how best to aid operators in docking vehicles quickly and safely at both existing and future bus rapid transit stations.

Automatic Passenger Counters Upgrade – IndyGo vehicles, both bus rapid transit and local bus, are equipped with Automatic Passenger Counters (APCs) that are connected to a system that records boardings and alightings for each bus throughout the day. This system is currently the only way in which IndyGo can attribute boardings and alightings to individual stops throughout its system. Furthermore, with the implementation of the two-hour free transfer window and operation of the BRT system, the APC system will become increasingly critical in determining overall ridership. IndyGo’s ridership of record is currently derived from its fare payment system; however, the use of mobile app technology and two-hour free transfer windows means that some riders will make transfers without having to engage with the fare system a second time. As such, highly reliable APC counters is critical in accurately measuring and monitoring ridership. Not only is this upgrade needed for reporting and funding purposes but also for the future of the service we provide and where it is provided. Further, it directs where investments in bus stop and other infrastructure should be targeted.

IndyGo’s newer vehicles are equipped with enhanced, more reliable APC counters, while older vehicles use older hardware. These older units have proven to be much less reliable and present more variation between boardings and alightings compared to IndyGo’s newest APC counters. Further, the introduction of two types of hardware into a system in which a single measure of ridership is to be derived creates some data integrity challenges. For these reasons, IndyGo pursued an upgrade to its APC counters across its buses that have at least five years left among their useful life, and which have not already been equipped with upgraded APCs. In 2019, IndyGo had programmed \$220,000 from cash reserves to advance this project beginning in 2020.

IndyGo replaced APCs for all fixed-route vehicles purchased in FY2013 through FY2020. All fixed route vehicles purchased before FY2013 are due for lifecycle replacement in FY2021 & FY2022 and were therefore not included in the APC replacement project. The total investment is \$191,000. Going forward, all newly procured buses will come with fully compatible APCs already installed.

**Table 16. Fleet: Funding Sources and Uses (2019-2027)**

Funding Source	APC Upgrade	BRT Bus Docking Technology	Paratransit Bus Replacement	Fixed Route Bus Replacement	Support Vehicle Replacement	Maintenance Heavy Equipment	Total
2024 STP/CMAQ				\$9,744,839			\$9,744,839
2020 STP				\$5,650,000			\$5,650,000
2021 STP				\$4,867,537			\$4,867,537
IN-2020-027				\$1,726,984			\$1,726,984
IN-2017-018-11.12.01				\$756,234			\$756,234
IN-2017-018-11.12.04			\$434,528				\$434,528
IN-2019-001-11.12.04			\$950,564				\$950,564
FY2023 5310			\$937,168				\$937,168
FY2022 5310			\$ 980,896				\$980,896
FY2021 5310			\$871,349				\$871,349
IN-2021-004			\$1,553,066				\$1,553,066
IN-2021-004			\$662,187				\$662,187
IN-2016-024-11.12.01				\$553,589			\$553,589
FY2024 5310			\$969,783				\$969,783
FY2025 5310			\$1,003,337				\$1,003,337
FY2026 5310			\$1,037,978				\$1,037,978
FY 2027 5310			\$609,847				\$609,847
IN-2019-001-11.12.01				\$418,348			\$418,348
IN-2017-018-11.42.06						\$240,000	\$240,000
IN-2017-018-11.42.11					\$208,000		\$208,000
IN90X683-11.42.11					\$117,681		\$117,681
IN-2016-024-11.12.04			\$77,094				\$77,094
IN-2016-024-11.42.11					\$35,911		\$35,911
IN-2016-024-11.42.06						\$240,000	\$240,000
IN90X683-11.42.06						\$240,000	\$240,000
<b>Grant Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$10,087,797</b>	<b>\$23,717,531</b>	<b>\$361,592</b>	<b>\$720,000</b>	<b>\$34,886,920</b>
Cash	\$0	\$0	\$2,521,949	\$5,929,383	\$90,398	\$180,000	\$8,721,730
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$12,609,746</b>	<b>\$29,646,914</b>	<b>\$451,990</b>	<b>\$900,000</b>	<b>\$43,608,650</b>

## BUS RAPID TRANSIT & OTHER ON-STREET INFRASTRUCTURE

### BRT: Red Line Rapid Transit (Phase I)

Completed in September 2019, Phase I of the IndyGo Red Line BRT route is the first of three major bus rapid transit projects in Indianapolis. Designed to be completed in three phases, the entire project included all requirements for a bus rapid transit system —station infrastructure, dedicated running ways, transit-signal priority, level boarding, and off-board fare collection infrastructure—as well as improvements to streets, sidewalks, ramps, and drainage within the corridor. The project budget also included fully electric, 60-foot vehicles specifically designed to operate the service.



The existing Red Line is expected to operate 20 hours per day on weekdays with peak headways between 10 and 12 minutes. The Red Line provides service to approximately 120,000 jobs or nearly ¼ of the jobs in Marion County and 65,000 residents, according to the *Red Line Transit Impact Study*.

The first phase of the Red Line connects Broad Ripple Village to the University of Indianapolis, traveling through Downtown Indianapolis. Design began in 2015 and continued into 2017. A construction management contract was awarded

in 2016. The Red Line construction contracts were awarded in December 2017, and IndyGo’s Small Starts Grant Agreement with the FTA was executed in May 2018. Operations began on September 1, 2019. Total project cost came in on-budget at \$96,329,980. \$41,286,682 (43 percent) of which was expended between 2019 and 2025. The first \$55,043,298 (57 percent) was expended between 2015 and Q3 2019. IndyGo is still holding \$289,390 in retainage from the civil contractor responsible for Package A as final closeout is not yet complete. This \$289,390 is reflected in the 2023 capital budget and is part of the \$96 million total.

**Table 17. Red Line BRT (Phase I) Funding Sources and Uses**

<b>Total Cost</b>	<b>\$96,329,980</b>
<b>Total Remaining Cost (as of 7/01/2020)</b>	<b>\$289,390</b>
<b>Funding Sources (remaining)</b>	
Federal Small Starts (5309)	\$0
IndyGo Capital Cum Fund (Cash)	\$289,390
<b>Uses (remaining)</b>	
Professional Services & Administration	\$289,390
Vehicles	\$0
Construction	\$0

### **BRT: Purple Line Rapid Transit**

The Purple Line will be the second of IndyGo's three bus rapid transit lines to be constructed in support of the agency's network redesign. Its operational profile will mirror that of the Red Line (see BRT: Red Line Rapid Transit (Phase I)). The cost of the project includes those components required to operate the BRT as well as a substantial investment in streets, sidewalks, and drainage infrastructure.

The Purple Line, once operational, will be an upgrade to existing Route 39. The Route 39 is often one of the highest ridership routes and is often the highest ridership route.

From the Julia M. Carson Transit Center (CTC) to the Park Avenue Station, the Purple Line will operate along the same corridor as the existing Red Line, which will offer riders five-minute frequency for those traveling anywhere between downtown and 38<sup>th</sup> Street. At the 38<sup>th</sup> and Park station, the Purple Line will continue east along 38<sup>th</sup> Street to Post Road and will then extend northward on Post Road. The corridor's northern terminus will be in Lawrence Village, near the Ivy Tech – Lawrence Campus.

Part of FTA's Section 5309 project pipeline, the Purple Line was accepted into project development in 2017. In June 2020, the FTA announced that the Purple Line would receive Section 5309 funding. Design for the Purple Line began in 2017 and continued into 2021.

Construction of the Purple Line was originally projected to begin in late 2021, with revenue service beginning in late 2023. The grant execution and bid processes were suspended in early 2021 while controversial legislation wound its way through the state legislative session, which ended in April 2021. In June of 2021, it was announced that IndyGo would receive an additional allocation of \$12 million from the American Rescue Plan, specifically for the Purple Line.



On August 24, 2021, FTA announced the award of a Full Funding Grant Agreement (FFGA) for the project. As of this update, the Purple Line is under construction and is on track to finish Q4 of 2024. It is further anticipated that operations will begin in late 2024, but not later than Q1 2025. Part of the American Rescue Plan Act of 2021, and additional \$12,008,210 of CIG funding was awarded to IndyGo for the Purple Line bus rapid transit project.

**Table 18. Purple Line BRT Funding Sources and Uses**

<b>Total Cost</b>	<b>\$187,860,000</b>
<b>Total Remaining Cost, 2022-2026 (projected as of 8/15/2022)</b>	<b>\$115,390,350<sup>7</sup></b>
<b>Funding Sources (remaining)</b>	
Federal Small Starts (5309)	\$57,170,913
FY2020 & 2021 5307	\$9,504,019
FY2022 5307	\$2,999,986
FY2023 5307	\$3,396,677
FY2024 5307	\$1,800,521
FY2021 ARP 5309	\$12,008,210
Indianapolis DPW	\$0
Bonds	\$0
Bond Contingency	\$0
IndyGo Capital Cum Fund (Cash)	\$431,022,292
<b>Uses (remaining)</b>	
Professional Services & Administration	\$13,660,736
Vehicles	\$0
Construction	\$97,885,945
Financing Costs	\$2,259,903

### **BRT: Blue Line Rapid Transit**

While still envisioned as a fixed-guideway project that would mirror the final buildout of the Red Line and Purple Line bus rapid transit corridors, design of the Blue Line bus rapid transit corridor has been put on hold, temporarily, while the design and budget are reassessed. Updated estimates of probable construction cost were received in the summer of 2022 at a level that was much higher than expected, and well outside of IndyGo's current resources. IndyGo staff is working with its engineering consultants and agency partners to identify a path forward by exploring additional funding opportunities and potential modifications to the project definition and level of infrastructure investment. It is expected that recommendations from this scenario planning exercise will be brought before the IPTC Board of Directors for their consideration before the end of the year. IndyGo would then meet with the public

<sup>7</sup> The projected remaining costs total \$128,097,768 when factoring in financing costs, which are expenses related to debt service as opposed to capital costs.

and the FTA before making any final determination. The Blue Line is the last of the three bus rapid transit lines described in the question that was put on the ballot in 2016. For the purposes of this plan, on the following pages describe what staff is currently studying and what staff are prepared to recommend to the Board when they are asked to adopt the next long-range transit plan.



Image Credit: Indianapolis Neighborhood Housing Partnership

From an operations standpoint, it is anticipated that IndyGo will mirror the operational profile of the Route 8, pre-COVID. Prior to the pandemic (October 2019), the Route 8 offered 15-minute service frequency, seven days a week. During the week, service began at 4:30am and continued until 1:00am the following day. On Saturdays, service on the Route 8 began at 6:00am and continued until 1:00am the following day. On Sundays and Holidays, service began at 7:00am and ended at 10:00pm in the evening. To operate weekday service, the Route 8 required somewhere between 20 and 24 operators and 15 buses. This operational profile continues to serve as the benchmark for all Blue Line scenario planning, which remains largely focused on how feasible – or not – the infrastructure component is or will be.

As of this update, in addition to the original design, Blue Line scenario planning included the feasibility/desirability of offering rapid transit service between the Town of Cumberland (east) and Holt Road (west), only. Under this scenario, every other Blue Line bus would turn around at Tibbs Ave, and every other vehicle would continue as express service to the Indianapolis International Airport. Local service would be retained along W Washington Street between Holt Road (east) and Bridgeport Road (west).

<b>Route 8 (Oct 2019)</b>	<i>Daily Revenue Trips</i>	<i>Daily Revenue Miles</i>	<i>Deadhead Miles</i>	<i>Pull Miles</i>	<i>In Service Hours</i>	<i>Layover Hours</i>	<i>Deadhead Hours</i>	<i>Pull Hours</i>	<i>Total Revenue Hours</i>	<i>Total Hours</i>	<i>Buses</i>	<i>Driver Guesstimate</i>
<i>Weekday</i>	131	2593.364	7.936	221.712	161.18	29.18	0.22	8.48	190.36	199	15	20-24
<i>Saturday</i>	110	2243.848	6.3	207.736	141	22.65	0.22	7.78	163.65	172	12	17-22
<i>Sunday</i>	98	1897.901	0.82	179.68	119.22	19.33	0.03	6.95	138.55	146	12	15-19

From a construction standpoint, it is anticipated that IndyGo will improve the conditions along the W Washington Street corridor on some level, and that the existing Route 8 will be upgraded to an enhanced transit corridor (at a minimum), or a bus rapid transit corridor (at best). In any scenario, IndyGo is committed to upgrading pedestrian accessibility, stop amenities and service reliability; the last through features like off-board fare collection, transit signal priority, and dedicated lanes wherever possible.

Design activities for the Blue Line began in early 2018 at a time when the Red Line bus rapid transit corridor project was nearing final design and the Purple Line bus rapid transit project was at the 30 percent design stage. However, in 2019, the need to focus on finalizing the design of the Purple Line stalled the design of the Blue Line. At that time, the Red Line was in the construction phase and the Purple Line was progressing from the 30 percent to the 60 percent design stage.

In 2020, design for the Blue Line was delayed indefinitely while proposed legislation made its way through the 2020 Indiana State Legislature legislative session. The Blue Line project team progressed the design to the 30 percent design stage. At that time, the estimated cost for the Blue Line bus rapid transit corridor project was \$220 million, which was \$20 million more than previous estimates.

That legislation targeting IndyGo's Blue Line bus rapid transit project was ultimately defeated, but the design of the Blue Line was still on hold when, during the 2021 legislative session, another bill aimed at eliminating the Blue Line was proposed. This second bill would have significantly altered the alignment (and operations) of the Blue Line, at a considerable cost to the community. Design for the Blue Line remained on hold.

In July 2022, the project development phase reached the 60 percent design stage and the estimated project cost had increased to more than \$550 million. Key factors to the significant cost increase include projected future construction/materials costs, a result of the shifting timeline and further exacerbated by the COVID-19 pandemic; inflation; vehicle costs, which are now constrained by requirements of the National Defense Authorization Act; and the need for extensive and costly improvements to stormwater systems to meet local design criteria and standards. During the summer of 2022, the Blue Line project team worked to quantify and qualify of these changes. Since then, IndyGo has determined that it cannot bear the full cost of these cost increases.

If the Blue Line project remains eligible for some amount of federal funding, with an executed grant agreement, IndyGo would be able to submit some of these expenditures for reimbursement. The remaining project budget is currently unknown, as scenario planning and funding discussions with agency partners continues. The following table assumes that IndyGo, having submitted a federal Small Starts application in 2018 and invited into the program, will remain eligible to receive a federal grant award of up to \$100 million to match the local sources required for the project.

Table 19. Blue Line BRT Funding Sources and Uses

<b>Total Cost</b>	<b>\$220,000,000+</b>
<b>Total Remaining Cost (as of 7/01/2020)</b>	<b>\$213,861,000+</b>
<b>Funding Sources (remaining)</b>	
Federal Small Starts (5309)	\$100,000,000 max.
FY2020 5339	\$0
FY2021 5339	\$796,441
FY2022 5339	\$2,179,973
FY2023 5339	\$2,269,803
FY2024 5307	\$6,047,994
Airport TIF	\$0
Indianapolis DPW	\$1,200,000
Existing Bond	\$2,953,559
Future Bond (2022)	\$65,000,000
IndyGo Capital Cum Fund (Cash)	\$18,913,230
INHP / Joint Development Match	\$0
<b>Uses (remaining)</b>	
Professional Services & Administration	\$23,750,000
Vehicles <sup>8</sup>	<b>\$23.4M - \$66M</b>
Construction	\$152,811,000
Financing Costs	\$10,300,000

<sup>8</sup> This figure remains highly dependent on the number of buses needed to deliver the service, and the number of buses required is largely a function of the vehicle propulsion technology. Staff had recently estimated needing 40-55 buses (up from 30-36 estimate in 2020). This assumed a target of 50,000 miles/bus/year and approximately 2 million actual vehicle miles. Because IndyGo is prohibited from purchasing more buses from BYD, the agency is left with just one vendor from which to buy its bus rapid transit vehicles. At the time of this update, the estimated unit cost of 2025 YoE for one 60' battery electric bus from New Flyer bus is \$1.74M, or \$66.1 million for 38 buses (29 + 30%). The cost of the vehicles could be reduced by as much as \$42.7 million, provided that the agency is able to adopt a different, environmental-friendly vehicle propulsion technology. As of this update, it is estimated that IndyGo could offer the service with just 18 buses (15 + 20%) at \$1.3 million per bus, or \$23.4 million total.



**BRT: Red Line Rapid Transit (Phases II & III)**

The broader *Indy Connect* plan – the plan that informed the original Marion County Transit Plan – calls for the Red Line to extend north towards the City of Westfield and south towards the City of Greenwood. Within Marion County, the southern alignment of the route was originally planned to extend southward from the University of Indianapolis, along Shelby Street and Madison Avenue to the vicinity of Greenwood Park Mall. The northern segment of the route was originally expected to extend northward from the 66th Street terminus of the Red Line (Phase I) to College Avenue and 96th Street, although the exact alignment between those two end points wasn’t expected to be finalized until the final design phase.

Phases II and III of the Red Line have never advanced beyond the 30 percent design phase as they are entirely contingent upon local funding sources being developed within neighboring Hamilton and Johnson counties.

Preliminary design and environmental work associated with the Hamilton County and Johnson County extensions was conducted as part of the Red Line Phase I design phase. However, because efforts to expand Red Line BRT service into Westfield and Greenwood have never advanced beyond that point, advancement of these extensions inside Marion County is not likely to occur within the planning horizon of this capital plan.

Based on current budget assumptions and operational realities, IndyGo does not anticipate moving forward with Phase II and Phase III until such time that either of the adjoining townships in Hamilton and/or Johnson Counties successfully adopt a transit income tax. As of this update, a total of \$5.7 million (FY 2024 through FY 2026) of IndyGo’s local dollars continues to be held for this project(s).

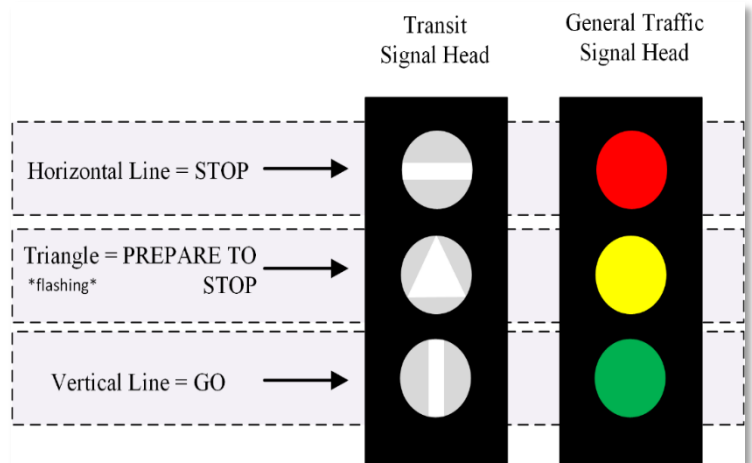


*Table 20. Red Line Extensions BRT Funding Sources and Uses*

Total Cost	\$5,700,000
<b>Funding Sources</b>	
FY2023 5307	\$0
FY2024 5339	\$0
2023 STP/CMAQ (Red Line Ext.)	\$0
DPW	\$0
IndyGo Capital Cum Fund (Cash)	\$5,700,000
<b>Uses</b>	
Professional Services & Administration	\$5,700,000
Vehicles	\$0
Construction	\$0

**BRT: Red Line Signal Modifications – APS, Transit Signal Heads, and Warning Signs**

Following the construction of the Red Line bus rapid transit corridor project it was discovered that there were programming and wiring challenges associated with the two section transit signal heads that were installed along the corridor. Since opening, there have been numerous incidents involving motorists and northbound Red Line buses traveling within the contra-flow lane along Capitol Avenue. To improve efficiencies and establish a new standard for the remaining bus rapid transit corridor projects, the decision was made to swap



out all transit signal heads along the Red Line. At the same time, the IndyGo Executive Team, in conjunction with the Mobility Advisory Committee (MAC), decided to also install audible pedestrian signals (APS) at signalized pedestrian crossings along the Red Line to assist riders while crossing the street and accessing the BRT platforms. Warning signage and markings will be installed at various intersections along the Capital Avenue corridor to better alert motorists to buses traveling northbound on what is otherwise a one-way street southbound.



As of this update, the design is being finalized and construction on this project is anticipated to be begin in Q4 2022 and will likely extend into 2023.

**BRT: Red Line Corridor Enhancements**

Now in its third year of operation, the Red Line bus rapid transit corridor has begun to show signs of wear and tear. Some segments of the Red Line bus rapid transit corridor have not held up as expected. In early 2022, IndyGo staff presented a plan to repair sections of pavement and bus pads that, if left alone, had the potential to become cost prohibit to repair in the future. Areas that, as time passed, would start to pose a safety risk and that would cause premature wear and tear of IndyGo’s fleet. The work to address these issues in a proactive manner began in the first quarter of 2022. The total budget for this project is \$5.6 million. As of this update, this work is expected to be completed before the end of 2023.

## Two-way Conversions

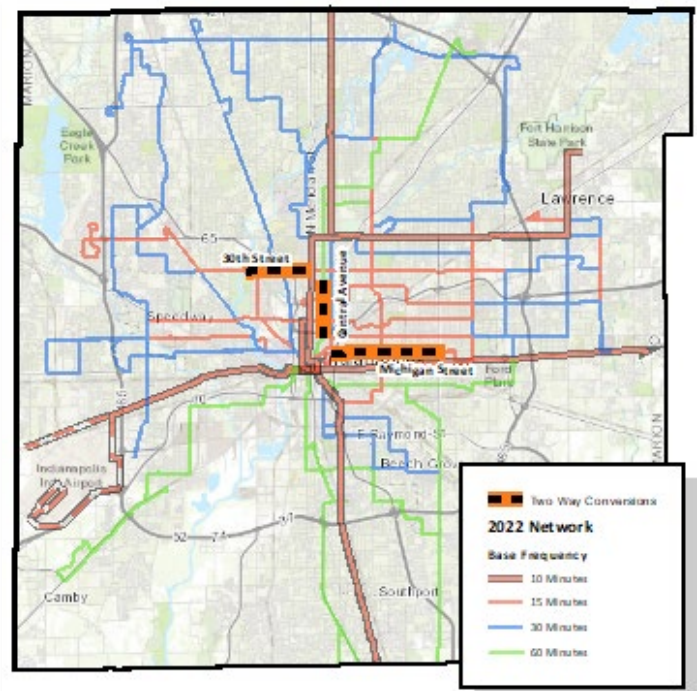
Local routes operating on one-way pairs reduce the usefulness of the transit service for riders. For bus service to be useful to the rider, the rider needs to be able to board a return bus in the same general location where they were first dropped off. One-way streets put distance between where someone gets off the bus and where they need to be to return to where they came from. Furthermore, those not familiar with the transit system and its operations may not easily discern that a given transit line on a map only goes in one direction.

Indianapolis' street pattern has several one-way pairs upon which IndyGo currently operates its transit service. These streets have and will continue to see increased transit service with the implementation of IndyGo's network redesign.

At the time when IndyGo hadn't yet begun to implement its new long-range transit plan, East Michigan Street (between College Avenue and Ellenberger Park), 30th Street (between Meridian Street and Capital Avenue), and Central Avenue were one-way streets recommended for 15-minute service. To make these routes more efficient and effective, it was proposed that these streets be converted from one-way streets to two-way streets, with transit service operating in both directions, on both streets.

The conversion of these roadways from one-way to two-way will require new traffic signals and pavement markings. Several of these streets must also be resurfaced. Sidewalks need to be upgraded and pedestrian crossings need to be upgraded or established. Owned and led by the Department of Public Works, IndyGo completed traffic studies to assess the potential impacts of converting Michigan Street and 30th Street, both of which received the concurrence of the department. IndyGo has also committed to contributing cash towards both the Michigan and 30th Street conversion projects. IndyGo will continue to work closely with the Department of Public Works to plan and implement these projects.

Construction on the Michigan Street conversion project (ST-26-054) has been delayed until after the North Split project is complete. The North Split is a major upgrade to the I-65 / I-70 interchange on the northeast side of downtown Indianapolis. Therefore, the soonest the construction of the Michigan Street conversion could begin is early 2023. Construction on the 30th Street conversion is also expected to begin in early 2023. The budget amounts listed in the following table are IndyGo's financial contributions for these projects and are anticipated to come out of IndyGo's 2024 capital budget.



**Table 21. Two-Way Conversions: Funding Sources and Uses**

	Michigan Street	30 <sup>th</sup> Street	Total
<b>Remaining Cost</b>	<b>\$4,253,680</b>	<b>\$2,171,889</b>	<b>\$6,425,569</b>
IndyGo Capital Cum Fund (Cash)	\$4,253,680	\$2,171,889	\$6,425,569
Construction	\$4,253,680	\$2,171,889	\$6,425,569

In 2021, the Department of Public Works announced that they would be converting College Ave from one-way to two-way between Market St & Massachusetts Ave (ST-25-518). Construction is anticipated to begin in early 2023 and finish in late 2023. The scope of the project includes the modification of signalized intersections, installation of a bicycle track, and roadway resurfacing. The current budget for the project is estimated to be \$3.3 million and is at the sole direction and discretion of the Department of Public Works. IndyGo will not be a financial contributor of this project. It is mentioned herein as a reminder that, once completed, IndyGo's operations will be able to take advantage of this conversion, specifically.

### **Transit Stop Amenities: Shelters, Signs, & Sidewalks**

As part of the implementation of the Transit Plan, in accordance with IndyGo's service standards, many local routes will be restructured, and the placement of bus stops may be altered. Bus stops will need to be added, eliminated, or relocated, and locations of existing shelters and other amenities will be adjusted accordingly. IndyGo is also working to optimize the spacing of bus stops to improve system efficiency and service reliability. In early 2020, IndyGo completed an ADA inventory and found that, in January 2020, 16 percent of IndyGo's bus stops are ADA compliant, per ADA regulations. IndyGo staff completed a Bus Stop Improvement Prioritization Plan in May 2021, which now serves as the roadmap for ongoing bus stop improvement projects.

Planning for these efforts has been paid for using primarily IndyGo operating dollars and some grant funds began in 2018. Not all bus stops warrant the same level of amenities. Prioritization of the placement of local transit amenities, such as benches and shelters, is based on multiple variables, including transfer points, frequency of service, adjacent land uses and their density/intensity, and their propensity to generate trips. Throughout the life of this capital plan, IndyGo plans for the annual repair, replacement, and/or construction of additional transit stop amenities throughout its service area. As such, these improvements (design and construction) have funding attributed in each year of the plan, through 2026, with resources sourced from bonds, grants cash on hand. And while the planning horizon for this capital plan ends in 2026, it is anticipated that the annual investments in local bus stop improvements will continue for at least ten more year, maybe more. Areas where bus stops are being added or improved will also benefit from improvements to adjacent sidewalks, curbs, and ramps.

As a part of the on-going service planning, IndyGo staff will continually evaluate bus stop spacing as new bus stop improvement projects are planned and constructed. As the routing changes are implemented and new service corridors are constructed and put into service to fulfill the Marion County Transit Plan the majority of capital spending programmed in 2023 and 2024 will be for the design and construction of bus stops for these routes. As well as, required bus stop sign changes and supplementary signage needed to inform riders of upcoming route changes.

As of this update, IndyGo has over 295 bus stops in some stage of planning, design, or construction. This is in addition to the 222 bus stop improvements that were completed to bring IndyGo’s bus stops into compliance with the Americans with Disabilities act. As of this update, 22.4% of bus stops are now considered ADA compliant following recent bus stop improvements by IndyGo and agency partners (such as DPW and INDOT). The goal is to continue to design and improve bus stops, every year, to achieve as close to 100 percent compliance as possible. Both efforts follow IndyGo’s bus stop balancing project, which resulted in the removal of over 500 bus stops.

As of this update, it is anticipated that IndyGo will incur an additional \$6.625 million (through 2026) in bus stop improvement costs compared to what was estimated in 2021. This is due in large part to the need for new bus stops, and the rising costs of construction in today’s market. IndyGo has secured an additional \$1,070,000 in grant funding from FTA’s Areas of Persistent Poverty Program and the Department of Public Works’ Neighborhood Infrastructure grant program. These funds have been programmed in FY 2023 and in support of the design, engineering, and construction of ADA compliant stops in neighborhoods of high. Additionally, the Indianapolis Public Transportation Foundation applied for additional grant funding through IU Health, to offset the cost and accelerate the process of upgrading existing stops to be ADA compliant. If awarded, these funds will be added to the FY 2024 and FY 2025 capital budgets.

**Table 22. Transit Stop Amenities Funding Sources and Uses**

Total Cost Remaining									\$5,300,000
	2019	2020	2021	2022	2023	2024	2025	2026	Total
<b>Funding Sources (remaining)</b>									
Existing Bond	\$423,869	\$324,869	\$0	\$0	\$0	\$0	\$0	\$0	\$748,738
Grants					\$1,170,000				\$1,170,000
Capital Cum Fund	\$1,131	\$1,300,131	\$850,000	\$900,000	\$830,000	\$2,725,000	\$2,400,000	\$1,600,000	\$10,606,262
<b>Uses (remaining)</b>									
Professional Services & Admin	\$75,000	\$225,000	\$150,000	\$0	\$0	\$0			\$450,000
Construction	\$350,000	\$1,400,000	\$700,000	\$900,000	\$2,000,000	\$2,725,000	\$2,400,000	\$1,600,000	\$12,075,000

## S Madison Park-n-Ride

Established initially as IndyGo’s south charging facility for the Red Line bus rapid transit service, the property located at 8925 S Madison Street includes an existing building. A portion of the building will be used for an operator’s break area and relief area. Part of IndyGo’s property acquisition at this location includes a parcel(s) that wrap around the north and east sides of the parcel that contains the existing building. The mid- to long-term plan is to site and construct a park and ride facility. The park and ride facility is on hold until 2024, at which point design would begin. The initial estimate for this facility is around \$2 million.

## Super Stops 1.0: Delaware Street & Two-Way Conversion of Ft Wayne Ave

IndyGo’s network redesign includes multiple local routes coming from the north and east into downtown that overlap with other local routes before entering the Julia M. Carson Transit Center. To speed up and enhance local service through the downtown area, and to secure operational efficiencies where these routes overlap, IndyGo is

introducing a series of “Super-Stops” that will have many of the characteristics of bus rapid transit stations, except for level-boarding platforms.

Once constructed, these stops will be partially elevated to reduce the step-up height into buses, be longer than traditional bus stops (as there will be several frequent lines which access them, and it is possible that more than one bus may be at the stop at any time), include real-time information, and have sheltered waiting areas. These stops will also include security cameras and ticket vending machines for off-board fare collection.

This first application of super-stops, Super Stops 1.0 includes two Super-Stops on Delaware St; one at the northeast corner of New York Street & Delaware Street, and one on the northeast corner of North Street & Delaware Street. These Super Stops have been constructed and opened for service in the Fall of 2022. They serve Routes 2, 4, 5, 10, and 19. As part of this project, Fort Wayne Avenue was also converted from a one-way street to a two-way street between Pennsylvania and Alabama Streets. There is a bus and turn only (BAT) lane installed on Delaware Street between Washington Street and Fort Wayne Avenue.

Planning efforts for this project were partially funded through the Green Line planning grant<sup>9</sup> from the IMPO, with the remainder of planning resources and all construction resources to be funded through future revenue (cash).

As of this update, Super Stops 1.0 is complete! Owned and led by the Department of Public Works, IndyGo’s financial contribution of \$3.5 million towards the reconstruction of Delaware Street, two-way conversion of Fort Wayne Avenue, and construction of the two Super Stops on Delaware Street. A ribbon-cutting ceremony was held in early October 2022.

**Table 23. Super Stops 1.0**

<b>Total Cost Remaining for 2022 (as of 8/2021)</b>	<b>\$70,000</b>
<b>Funding Sources (remaining)</b>	
MPO Green Line Grant	\$0
IndyGo Capital Cum Fund (Cash)	\$70,000
<b>Uses (Remaining as of 7/1/19)</b>	
Professional Services & Admin	\$0
Construction	\$70,000

<sup>9</sup> In the original *Indy Connect* plan, the Green Line was envisioned as a bus rapid transit corridor serving northeast Marion County extending into Hamilton County. During planning for the Green Line, feasibility issues associated with the route and its financial sustainability were identified; it was determined not to proceed with bus rapid transit planning for that corridor. The area of downtown for which this project is planned is within the planning area for the Green Line and meets the purpose for the funding source associated with planning activities for that area.

### Super Stops 2.0: Alabama St, Ft Wayne Ave, Vermont St

Super Stops 2.0 was part of the network redesign that was expected to occur in 2020. At that time, Vermont Street was identified as a critical east-west connector for across town transit service. This location was selected for enhanced transit amenities, in part, to minimize potential conflicts with busier east-west streets, provide a direct connection to bus rapid transit stops for the Red Line and Purple Line bus rapid transit corridors, and shorten travel time for riders by providing a transfer location downtown outside of the Julia Carson Transit Center. Super Stops 2.0 includes six locations, two each on Alabama St, Ft Wayne Avenue, and Vermont Street. These stops will consist of 9" raised platforms (for near level boarding) that are long enough to accommodate two 40' buses at a time. They will have shelters, real time arrival screens, and ticket vending machines. There will also be railings along the backside to separate the platform from the sidewalk.

In 2020, IndyGo applied for a Bus and Bus Facilities Grant to fund the planned improvements for Super Stops funding. While it was determined by the FTA that this project was highly competitive, IndyGo's Super Stops project was not selected. Seeing an opportunity to contribute to a Department of Public Works project along the same Delaware Street corridor, IndyGo moved forward with Super Stops 1.0 using local dollars and re-applied for a Bus and Bus Facilities Grant to fund the remaining six Super Stops (Super Stops 2.0) in 2021. The agency was notified of a project award in March 2022.

As of this update, Vermont Street is still considered to be a critical east-west connector for across town transit service. Once completed, the Vermont Street Super Stops location will help minimize potential conflicts with busier east-west streets, provide a direct connection to bus rapid transit stops for the Red Line and Purple Line bus rapid transit corridors, and shorten travel time for riders by providing a transfer location downtown outside of the Julia Carson Transit Center. As of this update, planning and design for Super Stops 2.0 is substantially complete and the project has been advertised for bid. Construction is expected to begin in early 2023 and be completed by the end of 2023. Total project cost is expected to be \$2.6 million (FY 2023).

**Table 24. Super Stops 2.0**

Total Cost Remaining for 2023 (as of 8/2022)	\$2,617,322
<b>Funding Sources</b>	
IndyGo Capital Cum Fund (Cash)	\$270,664
Grants	\$2,346,658
<b>Uses</b>	
Professional Services & Admin	\$0
Construction	\$2,617,322

*Initially, Vermont Street between Indiana Avenue & Pennsylvania Street was expected to be resurfaced as a part of the Super Stops 2.0 project, provided there was funding to do so. But because street resurfacing is not considered to be an eligible expense per IndyGo's Bus and Bus Facilities grant agreement, the resurfacing of this segment is not included in the scope or work or project budget.*

## Mobility Hubs Infrastructure

Completed in 2018, *IndyMoves*, the City of Indianapolis' transportation integration plan, calls for the City and IndyGo to work collaboratively to establish a mobility hubs program asserting that "mobility hubs can include transit connections, high-quality pedestrian and bicycle access, safety and comfort amenities (such as lighting, weather protection, and restrooms), wayfinding and trip planning information, ride-hailing pick-up and drop-off space, dedicated car and bike share parking, bicycle storage, real-time travel information, payment kiosks and fare vending, electrical vehicle charging, commuter services, and placemaking and public realm activation."

Budgeted at \$640,000 and born out of an FTA Mobility on Demand On-Ramp grant project, the Mobility Hubs Infrastructure project line item adopted as part of version 1.0 of this Capital Plan was initially intended to facilitate the strategic, co-location of mass transit and first/last mile mobility solutions throughout Marion County and in support of the rapid and frequent transit network. Throughout 2019 and into 2020, IndyGo worked with the John H. Boner Neighborhood Center and Englewood Community Development Corporation to develop the concept for a mobility district within the Near East Side with the goal of better connecting residents to social and economic opportunities, via

public transit and other modes of shared use mobility. IndyGo and the Boner Center – in partnership with the Personal Mobility Network, an initiative of the Central Indiana Community Foundation – finalized the Mobility Hubs business plan outline at the end of March 2020. This business plan, submitted to the Shared Use Mobility Center, was the final deliverable required of the FTA Mobility on Demand On-Ramp grant award. Technical assistance provided by the Shared Use Mobility Center concluded on March 31, 2020, which drew this project phase to a close.

All planning, siting, design, and construction activities were put on hold, indefinitely, as of May 2020. This was due in large part to having so few shared use mobility options in Marion County, which was further cemented by the exodus of Blue Indy, Indy's former carshare service. Furthermore, it has since been determined that – with the level of investment needed to adequately support a robust mobility hubs infrastructure program -- IndyGo would build upon the experience gained as part of the FTA Mobility on On-Ramp grant project to prepare a Mobility Position Paper that can guide existing and future investments in shared use mobility projects or programs. This document has been created and will continue to be a living/breathing document that will guide the agency in future policy and decision-making, not only for the future of mobility hubs, but other mobility investments such as mobility pilots and demonstration projects.





**East Washington Mobility Hub**

In anticipation of the Blue Line bus rapid transit route and the need for end of line charging, as well as relief point for operators, and following an environmental review of the location, IndyGo acquired property at 11135 E Washington Street. As of this update, IndyGo is considering purchasing the parcel immediately east and adjacent to this parcel as well. Referred to by IndyGo leadership and staff as, the East Washington Mobility Hub, the estimated construction cost for this facility is likely to exceed \$5.1 million and will likely not get underway until FY 2024, at the earliest. The cost to design and construct this facility, is at least partially related to the future of the Blue Line bus rapid transit corridor project.

**Other On-Street Infrastructure**

Transit Signal Priority - Transit Signal Priority, or TSP, is a technology that permits transit vehicles to communicate with signals at intersections and give the transit vehicle priority over other traffic. These systems are designed to work with other systems providing "pre-emption" authority to emergency vehicles, in which the movement of emergency vehicles preempts all other traffic movements through an intersection, including buses.

IndyGo has and will continue to include TSP equipment in its BRT corridors; thus, contributing to the service reliability of the BRT system. Likewise, IndyGo will conduct analyses to assess the need for TSP systems elsewhere throughout its local service network to improve service reliability and secure operational efficiencies.

As part of FY 2020’s operating budget, IndyGo had anticipated allocating \$1.7 million from a Congestion Mitigation Air Quality grant award and local revenue to fund the installation of additional TSP equipment throughout the local bus network. Implementing TSP across IndyGo’s entire fleet of local buses and at certain intersections along key corridors throughout the city carried over into 2022 and will continue into 2023. This is due in large part to rising costs, and the need to spread the investment out across more years. As of this update, the total project cost has grown to more than \$1.8 million.

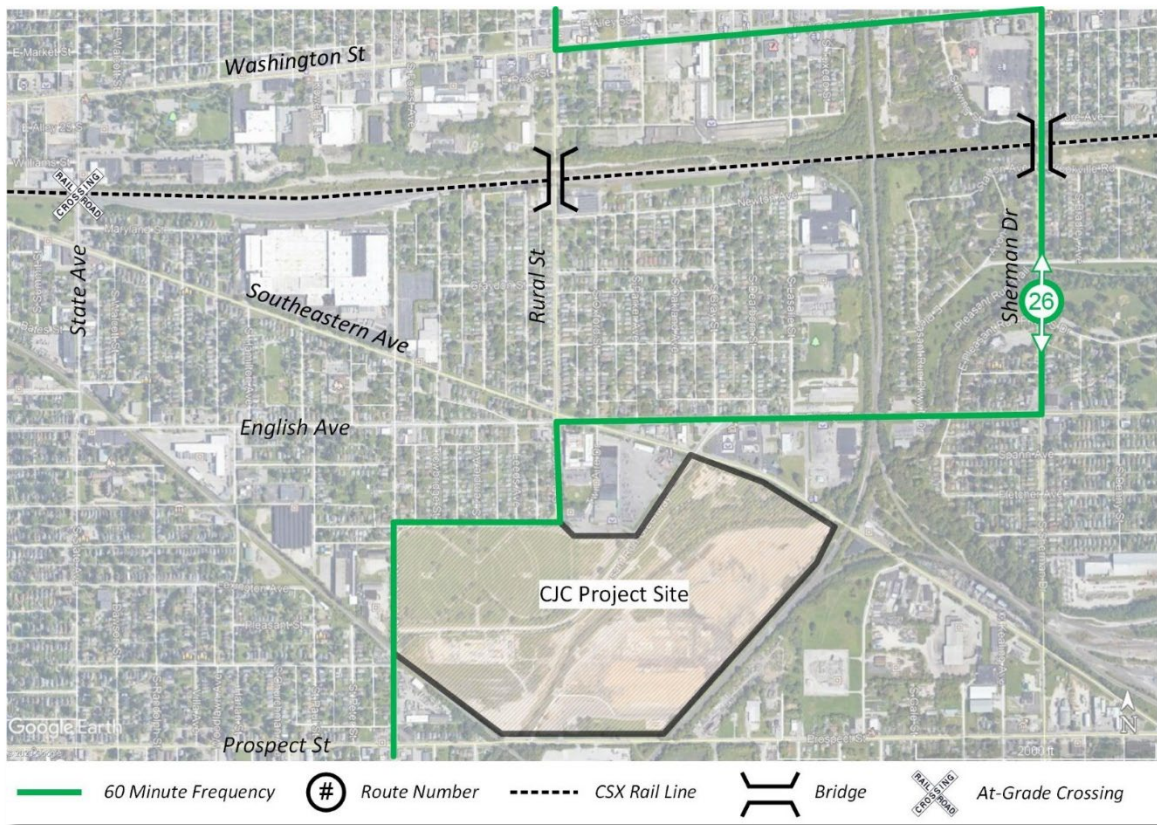
**Table 25. Transit Signal Priority Funding Sources and Uses**

<b>Total Cost</b>	<b>\$1,766,600</b>
<b>Funding Sources</b>	
2020 CMAQ – TSP	\$1,413,280
IndyGo Capital Cum Fund (Cash)	\$353,320
<b>Uses</b>	
Professional Services & Administration	\$200,000
Construction	\$1,566,600

Rural Street Under Pass – To fully implement changes to Route 26 and complete the agency’s network redesign, IndyGo needs to be able to eliminate the costly route deviation to Sherman Drive. Route 26 is a critical piece to establishing a north-south crosstown option on the eastside of Indianapolis. Residents and businesses along the Keystone Avenue/Rural Street corridor will be able to rely on a bus arriving every 15 minutes or better. Route 26 is

also the route that will provide direct, frequent access between the new Community Justice Complex and downtown. The deviation to Sherman Street is because many of IndyGo’s buses, specifically it’s newer series of buses, cannot pass below the CSX bridge crossing across Rural Street. Instead, Route 26 is scheduled to travel 1.6 miles east to the separated crossing at Sherman Drive. In addition to improving the rider experience by offering more direct service, the elimination of this route deviation will result in substantial cost savings with respect to IndyGo’s annual operating budget. For example, the deviation from Rural Street to Sherman Street costs IndyGo an additional \$700,000 (2021 dollars) per year to operate, which increases the number of buses by one.

In August 2020, IndyGo decided to revisit the design alternatives that existed prior to just deciding to grind the surface of the road down. It was determined that IndyGo would be better served to invest in a longer-term solution now. First, it was determined that the costs for the project will only go up with time. Second, IndyGo risks not being able to clear the Sherman Drive bridge in the future. And third, a deviation to State Avenue would be just as costly and it would introduce additional challenge because unlike the Rural Street and Sherman Drive crossing, the crossing at State Street is at-grade.



A feasibility study was conducted between October 2020 and July 2021 to try and determine the scope of this effort. It was determined that, if IndyGo were able to lower Rural Street by 18 inches, it could achieve a vertical clearance of 11.96 feet which would allow buses up to 11.25 feet to pass safely beneath the CSX bridge with 8 inches to spare. The study included an analysis that examined two ways to handle stormwater drainage. One option connected to a drainage system along Washington Street and the other connected to a drainage system along Graydon Street. As of this update, it is recommended that IndyGo avoid connecting to the Washington Street system to avoid having to the trunk sewer an additional seven feet, complicating the Maintenance of Traffic plan

for the construction of the Blue Line bus rapid transit project along the same corridor, and minimize risks to adjacent buildings along the same right-of-way, among other things.

Picking up where past design efforts left off, in March 2022, IndyGo’s project team began the preparation of 40 percent design drawings. As of this update, it is anticipated that these drawing will be completed before the end of the year. Final design for this project is anticipated to be complete by the third quarter of 2023. As of this update, the total cost is estimated to be \$6.6 million. Should the final design come in at or under budget, it is anticipated that IndyGo would bid the project before the end of 2024 and that construction would be completed in 2025. As of this update, this project would be funded without federal assistance.

**Table 26. Rural Street Underpass Funding Sources and Uses**

<b>Total Cost (remaining)</b>	<b>\$6,571,000</b>
<b>Funding Sources</b>	
IndyGo Capital Cum Fund (Cash)	\$6,571,000
Other	\$0
<b>Uses</b>	
Professional Services & Administration	\$300,000
Construction	\$6,271,000

**Table 27. BRT and other On-Street Infrastructure Funding Sources and Uses (Remaining)**

	Red Line Phase I	Purple Line	Blue Line	Red Line Extensions	Two-Way Conversions	Transit Amenities	Super Stops	Mobility Hubs	Rural Street Underpass	Transit Signal Priority	Total
Small Starts - Blue			\$100,000,000								\$100,000,000
Small Starts - Purple		\$57,170,913									\$57,170,913
Small Starts - Red	\$12,890,620										\$12,890,620
FY2024 5307		\$1,800,521	\$6,047,994								\$7,848,515
FY2023 5307		\$3,396,677									\$3,396,677
FY2022 5307		\$2,999,986									\$2,999,986
2023 STP/CMAQ											\$0
FY2020 & 2021 5307		\$9,504,019									\$9,504,019
FY2024 5339											\$0
FY2021 ARP CIG		\$12,000,000									\$12,000,000
FY2023 5339			\$2,269,803								\$2,269,803
FY2022 5339			\$2,179,973								\$2,179,973
FY2021 5339			\$2,035,432								\$2,035,432
FY2020 5339			\$1,961,009								\$1,961,009
2020 CMAQ - TSP										\$1,353,280	\$1,353,280
FY2022 5339(c)							\$2,346,658				\$2,346,658
Green Line Grant											\$0
FY2022 AoPP						\$670,000					\$670,000
FY2023 5307			\$0								\$0
FY2019 5339			\$0								\$0
<b>Grant Subtotal</b>	<b>\$12,890,620</b>	<b>\$86,872,116</b>	<b>\$114,494,211</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,353,280</b>	<b>\$218,626,885</b>
DPW		\$1,200,000	\$1,200,000	\$700,000							\$3,100,000
Airport TIF			\$12,500,000								\$12,500,000
Joint Development			\$2,000,000								\$2,000,000
<b>Other Subtotal</b>	<b>\$0</b>	<b>\$1,200,000</b>	<b>\$15,700,000</b>	<b>\$700,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$17,600,000</b>
Cash	\$3,222,655	\$38,842,944	\$19,084,189	\$38,300,000	\$6,500,000	\$3,781,262	\$586,664	\$0	\$0	\$336,720	\$110,654,434
Bonds		\$0	\$0			\$0					\$0
<b>Total</b>	<b>\$16,113,275</b>	<b>\$126,915,060</b>	<b>\$149,278,400</b>	<b>\$39,000,000</b>	<b>\$6,500,000</b>	<b>\$4,451,262</b>	<b>\$2,933,322</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,690,000</b>	<b>\$346,881,319</b>

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## FACILITIES

As part of its ongoing operations, IndyGo regularly engages in maintenance and rehabilitation projects to maintain its primary facility at 1501 W Washington Street. As of this update, this facility houses administration, operations, and maintenance staff, in addition to spaces for drivers. Beyond routine maintenance and rehabilitation projects, this facility has and will continue to require several upgrades to enable service increases associated with the implementation of IndyGo's capital investment program, which includes the Transit Plan.

In 2019, IndyGo acquired a portion of the former Carrier Bryant site to construct a training and contingency site. Collectively, these efforts were to have positioned IndyGo to remain effective and efficient in providing transit service and adequately house an increase in both its fleet and number of employees to successfully implement the Transit Plan. As of this update, this property is no longer owned by IndyGo.

The need for more space to accommodate the increase in the number of buses and operators needed to fully implement IndyGo's network redesign, changes to IndyGo's mobility solutions and customer care center, and the need to provide a post COVID-19 office environment, led IndyGo to pursue additional property acquisitions. Throughout 2021 and 2022, IndyGo was successful in acquiring two more properties and thus has taken on significant renovation and construction projects. In addition to increasing the amount of capital investment dollars needed to hire design services and contractors, this increase in the agency's building portfolio and overall footprint will increase on-going operations and maintenance costs as well.

In 2020, the total estimated cost for all facility projects in 2021 was \$4 million. Actual expenditures for facilities in 2021 was less than \$2.6 million. The 2022 approved budget for facilities is \$6.6 million. As of this update, IndyGo has only incurred costs totaling \$2.6 million. It is currently estimated that IndyGo will need to expend \$86.2 million in total (2019-2027) to adequately fulfill IndyGo's facility needs. This is \$49.5 million more than was anticipated in 2019 (\$36.7 million).

The following pages include descriptions of IndyGo's largest facility projects.

### East Campus

As the agency continues to grow and respond to the need to maintain a safe, post-COVID office environment, the space needed to safely accommodate staff and adequately house operations has shifted. IndyGo's new East Campus includes an adaptive reuse of two of the existing structures at 9503 E 33<sup>rd</sup> Street. Administrative Building "A" has been under renovation since 2021. Once completed, Building A will house most of IndyGo's administrative functions. The President/CEO, Executive meeting room, offices for most of the executive team and supporting staff will relocate from 1501 W Washington to Building A, which will also house the Indianapolis Public Transportation Foundation staff. Building A is being funded locally. As of this update, this relocation will take place in the Spring of 2023.

Administrative Building "B" has also been under renovation since 2021. First floor renovations include a new elevator, a board room/large meeting space, offices for IT department, and office space for Purple Line construction management team. Second floor renovations include the creation of a Learning & Development Center that includes two large training rooms, four simulator rooms with a control monitoring station, and a computer training room. Building B is being funded in part by a \$3 million Section 5307 grant award. To-date, IndyGo has incurred

\$1.7 million in expenses to renovate Building B. As of this update, IndyGo should be able to relocate to Building B in the Spring of 2023.

Formerly a dormitory, what is often referred to as Building “C” will need to be razed to make way for IndyGo’s proposed Fleet Storage, Maintenance Terminal, and Operations Center. The proposed development will include a redesign of the on-site drainage system, the construction of a two-story facility to house a bus garage with enough capacity to store 180 buses, as well as maintenance bays, the treasury department, and other spaces for support staff: all on the first floor. As it is currently envisioned, the second story would be dedicated office space for IndyGo’s Operations staff. Strategically located throughout the new building will be a cafeteria, small workout area, restrooms/locker rooms, and meeting room space. In August of 2022, IndyGo was awarded \$33 million in competitive funding through the FTA’s Bus and Bus Facilities program towards the design and construction of IndyGo’s proposed Fleet Storage, Maintenance Terminal, and Operations Center. As of this update, the total cost for this project is estimated to be \$52.5 million, spread across fiscal years 2023, 2024, and 2025.

Prior to advancing the design and construction of the proposed Fleet Storage, Maintenance Terminal, and Operations Center, IndyGo will be developing a campus master plan for the entire East Campus location. As of this update, this master planning effort is expected to be underway before the end of 2022. The master plan is being funded with local funding.

### **1501 W Washington Street Facility**

Garage Conversion - Recently upgraded to add electrical capacity and AC chargers for IndyGo’s 60’ electric buses, the chargers in the garage at 1501 W Washington Street would need to be converted from AC to DC to accommodate other 40’ or 60’ electric buses and ultimately gain increased utility usage and increased efficiency for vehicle charging and accommodate other vehicle manufacturers. The scope of this project was to be to install two types of universal DC chargers in the garage, provided that IndyGo’s Zero-emission Fleet Transition Plan recommends the purchase of more battery electric buses. In 2020, it was estimated that the total cost for this project would be \$2.74 million. However, a timeline for performing this work had not been established. As of this update, the total estimated cost is \$2.72 million; however, this project has been placed on hold until such time as the agency’s Zero-emission Transition Plan can be completed.

Maintenance Garage Area Renovations - Several renovations were planned for the maintenance area of 1501 W Washington Street. They were intended to accommodate additional vehicles, larger vehicles, and the increased number of mechanics that will be required to service the fleet. These efforts were to have been sequenced in such a way as to minimize disruption to operations and to ensure that the facility is able to accommodate the BRT vehicle fleet. The initial list of sub-projects associated with these renovations included converting pit bays to parallelogram lifts, relocating maintenance supervisor offices, relocating maintenance technician facilities (restrooms, offices, lockers, and computer lab), adapting to accommodate BRT buses, expanding the welding bay, constructing fall protection and catwalk, among other changes. These projects were expected to total \$3,400,000, with funding derived from grants and future local revenue (cash). They were to have been completed between 2019 and 2021. These projects were placed on hold with minor components of this project being completed in FY2022 and FY 2023 (approximately \$1.2 million in combined projects). In 2021, it is estimated that this project would start in 2024 and that the cost would increase to \$2.56 million. As of this update, these renovations have been put on hold, indefinitely.

Depot Charging Equipment Installation - As part of the Purple Line construction, IndyGo will be adding charging equipment and charging software to service the vehicles that will be dedicated to the Purple Line. The depot charging and supporting software is a programmed cost of \$1.7 million in FY 2023.

General Facility Upgrades - The facility at 1501 continues to need general maintenance capital projects and some specialized updating to meet the realities of providing transit in today's environment resulting FY 2023 budget allocations for these smaller projects. At the time of this update, this includes projects such as updating security doors, fencing, parking lot gate mechanisms, wayfinding signage, and HVAC VRF system replacement. Total cost for these projects is estimated to be \$985,000. As of this update, these projects are generally on hold.

## **Mobility Solutions & Customer Care Center**

Building Renovations & Fleet Terminal Improvements - IndyGo has historically relied on its contracted paratransit service provider to house IndyGo's fleet of paratransit vehicles in addition to its own operations and maintenance facility(ies) as part of its paratransit service contract. IN the past, these costs have been passed on directly to IndyGo in the form of a lease payment. In 2019, this arrangement was shown to increase IndyGo's costs to provide paratransit service and introduce risks in association with a service disruption in the event that the contractor became unable to meet its contractual obligations.

In 2020, after completing a site equity analysis, IndyGo identified a facility at 2425 W Michigan Street suitable for a centralized, Mobility Solutions and Customer Care Center. In 2021, IndyGo closed on the property and between 2021 and 2022 the existing building underwent a major renovation and now includes the following:

- An assessment center, with office space and an open area for physical assessment;
- A maintenance area with three bays and parts storage;
- A dispatch area with six stations;
- A service center with two transaction windows;
- A breakroom area with lockers and a quiet area;
- Additional offices;
- A meeting room; and
- Additional restrooms.

IndyGo needs to construct a surface parking lot, with canopies, as well as a wash bay before it can move the agency's paratransit fleet to this location. Prior to issuing a bid for this project; however, IndyGo needs to rezone the property to allow for a fleet terminal. IndyGo must also obtain several development standards variances to construct the remaining improvements as planned. This added administrative step has caused the start of these remaining improvements to be delayed from 2022 to 2023. As of this update, the total estimated cost for the remaining improvements (covered parking, vehicle wash, and solar array) is \$6.75 million.

Solar Array Expansion - As part of its transition from a diesel fleet to a green fleet, and to reduce costs associated with powering its fleet, IndyGo installed a one-megawatt hour (MWh) rooftop solar array at its primary administrative and operations facility in 2015. The existing rooftop solar array spans four acres and includes 4,300 panels, and cost \$2.5 million (in 2015 dollars) to install. The array is rated to generate one-megawatt per hour at its peak performance. These solar panels were originally installed with the intent of offsetting the charging infrastructure needs of the 21 electric buses in IndyGo's fleet at that time.



With the ongoing transition to a green fleet – one that includes battery electric vehicles, IndyGo will continue to consume more electricity. To offset some of the electrical demand (and increased costs) generated by the additional battery electric buses in the future, IndyGo had sought to expand its solar arrays atop the roof of the main facility located at 1501 W Washington Street. This effort was the focus of a competitive grant application to the FTA’s Low-No Emissions program in 2018. And IndyGo was successfully awarded \$980,000 from this program, or 70 percent of the total project cost.

IndyGo was in the process of planning and designing the solar array expansion, with the intent to install the array beginning in the Fall of 2020. However, a re-examination of the costs associated with the eventual replacement of a roof with (and without) a solar farm, led staff to reconsider installing the new solar arrays on the roof of the main facility. IndyGo has identified the solar placement at the new paratransit facility (Mobility Solutions & Customer Care Center) located at 2425 West Michigan on the new bus storage canopies. The initial budget of \$1,400,000 is programmed for this project considered a 70:30 split between a secured grant award and a \$420,000 local match paid for out of IndyGo’s capital fund. The project is expected to be completed in 2023, and largely contingent on the Fleet Terminal project timeline.

### **Julia M. Carson Transit Center**

Level boarding Modifications - When the Carson Transit Center was initially designed and constructed, level boarding platforms would have been largely incompatible with IndyGo's existing local bus fleet. The primary reasoning behind improving the Julia M. Carson Transit Center to include level boarding for the rapid transit bus bays was driven by the fact that when passengers can step on or off the bus onto a platform that is level with the floor height of the bus, the transit agency benefits from significantly shorter dwell times.

At the time, IndyGo was prepared to retrofit five bays of the transit center to serve the bus rapid transit vehicles to make level boarding work. Staff wanted to use the level boarding platforms at the CTC to ensure that the configuration and layout of the Carson Transit Center would adequately accommodate the Red Line, Purple Line and Blue Line bus rapid transit routes.

As recently as 2021, IndyGo had planned to spend a total of \$1.7 million in FY 2022 to complete this project, with funding derived from local revenue (cash). As of this update, staff is reevaluating this investment. It is anticipated that a final determination about whether to modify the Carson Transit Center to include level-boarding will be an outcome of a study that will be underway before year’s end. As of this update, IndyGo has budgeted \$9 million (\$4 million in 2023 and \$5 million in 2024) for a docking solution of some kind, at the CTC.

In-Ground Charging – Unlike the level-boarding modifications, in-ground charging at the Carson Transit Center is a key component to the success of the Purple Line bus rapid transit route as the Transit Center serves as the southern terminus of the route. As of this update, IndyGo has committed to designing in-ground charging units at two pay of the Carson Transit Center. The estimated total cost for this project is \$425,000, which is \$145,000 less than the initial budget of \$570,000. This project must be completed prior to the completion of the Purple Line bus rapid transit corridor becoming operational. Therefore, construction of the in-ground charging is expected to start in the fall/winter of 2023 and be completed by late summer 2024.

CTC Lounge and Office Area Renovations - To accommodate the growth in IndyGo staff at the Carson Transit Center, specifically, will require some additional modifications and renovations. Of the greatest importance, is the already

crowded operator lounge. Additionally, the office spaces on the first and second floors need to be adapted for other uses. In January 2020, IndyGo retrofitted and furnished the second-floor office space to potentially house the IndyGo call center. It was through this design work that IndyGo determined that an assessment would be needed to determine the best reuse of parts of the first floor. In 2022 and informed by the changes that IndyGo needed to make in response to the COVID-19 pandemic, it was further determined that the Carson Transit Center is lacking in terms of public restrooms. Initial cost estimates for these renovations totaled \$750,000 and would have been paid for out of local revenue dollars. As of this update, the total budget for this project is now just \$215,000. The decrease is due in large part to the desire to add more public restrooms without renovating the existing building. As of this update, this project is budgeted for 2023; however, it is likely to be delayed until at least 2024.

### **Illustrative Projects: Facilities**

*In addition to those projects for which future capital sources have been identified and programmed, IndyGo is aware of other projects that would be beneficial to the agency, its operations, and/or the experience of its riders should funds become available.*

*These projects are listed as “Illustrative Projects” in this capital plan. This language is modeled after projects in the IMPO’s Transportation Improvement Program meaning the project and its costs are noted, but costs are not included in the fiscally constrained plan.*

*Building Exterior Improvements & Masonry Repair* - This project is for repairs to the historical Duesenberg portion of IndyGo’s 1501 W Washington Street facility. Windows, tuckpointing repair and some masonry work is currently needed, which will require coordination with Indianapolis Historic Preservation Commission. In 2019, IndyGo’s five-year capital program would have paid for repairs to structural cracks and lintels in the masonry structure, concrete driveway replacement, and a reconfiguration of the loading dock. These improvements were originally scheduled to be completed between 2021 and 2022. These improvements were to have been funded through a combination of grants and IndyGo local revenue (cash). An assessment for the need was performed in 2018 as a part of the facility assessment that ultimately led to a major office renovation for the same facility. In 2020, the total cost of the improvements was anticipated to be \$1.4 million. Due to the increased in materials and labor costs, if this project were to move forward today, the total estimated project cost would be closer to \$1.95 million. In 2021, this project was put on hold. It remains on hold as of this update.

*Concrete Driveway and Loading Dock* - The existing driveway surrounding the IndyGo facility at 1501 W Washington Street —where buses enter and exit the facility—is aging and in need of replacement. The loading dock is also in need of preventative maintenance, repair, and renovation. These efforts could be phased in such a way that they are completed after several other projects to prevent deterioration associated with heavy construction traffic. The estimated cost for this project is \$1.1 million; however, this project has remained on hold since 2021.

*Sidewalk, Steps, and Ramps* - Among the other renovations and repairs needed for IndyGo’s W Washington Street headquarters are repairs to the steps, handicap ramps, and sidewalks around the main entrance of the facility are mostly original to the building. Over time, IndyGo has engaged in patching and minor repair work, but the infrastructure is reaching the point where a substantial repair is necessary as there are currently numerous cracks and unevenness in sidewalks, curbs are starting to deteriorate, and steps are starting to show wear.

In 2020, IndyGo had planned to invest \$200,000 in local revenue to support this project. However, this project was placed on hold, indefinitely, in 2020. As of this update, this project is still on hold. It is assumed that, with the increase in inflation and the cost of labor and materials, the initial \$200,000 budget estimate would be insufficient if this project were to move forward.

*Board Room & Lobby Improvements* - Formerly included as part of *Maintenance Area Renovations*, this sub-project would renovate the board room at 1501 W Washington Street headquarters with a goal of bringing the technology up to date, updating finishes, and replacing the furniture. Likewise, the lobby improvements would be made to make the area more welcoming. In addition to updating/repairing the flooring, the lobby restroom would be upgraded to become ADA accessible, and the security desk would be repaired. It was anticipated that this work would begin in Q2 of 2021 and take four to five months to complete. Last consulted in 2020, total cost is estimated to be \$580,000. This project is still on hold.

*Maintenance Garage Area Renovations* – Also, formerly part of *Maintenance Area Renovations*, this sub-project includes the locker rooms, Center Lounge, IT offices and exercise area, as well as all the remaining work in the garage. The garage portion includes new overhead screen doors (doors one, two, eight and nine), the build out of additional office spaces, relocation of the “fishbowl,” and restroom upgrades. Construction would likely take six months to complete. In 2020, it was estimated that the total cost for these improvements would be \$2,350,000. Due to the rising cost of labor and materials, the estimated project cost was increased to \$2,560,000 in 2021. This project is still on hold.

### **Completed Projects: Facilities**

*The following projects have been completed.*

*Facility Needs Assessment* - IndyGo has long considered the utility of owning its own paratransit facility. The training and contingency facility was considered, in part, to be adaptable to serve as a paratransit facility in addition to a training site. Further, as IndyGo’s fixed route operations expand in terms of the number of buses, span of service, and size of operator/maintenance staff, IndyGo has an opportunity to comprehensively evaluate its needs, opportunities, and challenges with respect to its facilities relative to its service(s).

In 2018, IndyGo completed a facility needs assessment. This study kicked off the office renovations, maintenance area renovations project, and vehicle wash/paint booth/door widening project. It also helped to identify how much space would be needed for a new paratransit facility (115,000 sf) and a new training facility and driving course (10,000sf + 3,600 sf), for example. One hundred thousand dollars, in cash, was set aside for 2020 to cover the mezzanine project identified by the 2018 facility needs assessment. And while the mezzanine project has yet to move forward, the COVID pandemic has resulted in a need to update the full facility needs assessment; a project that remains as an illustrative project at this time.

*Office Area Renovations (including furniture purchases)* - As the number of IndyGo employees grows, substantial renovations are necessary to house the staff and their job functions. In addition to adding office space, IndyGo must ensure adequate conference space for meetings and ancillary activities. Office renovations included creating a more open administrative area, with additional meeting rooms, offices, retrofitting the south lounge for operators, renovating the restrooms and adding a unisex restroom, renovating dispatch, reconfiguring office layout to accommodate Operations staff, reconfiguring and creating a secure area for HR and adding higher level security

measures with ballistic doors, and a South security desk. In 2020, IndyGo completed its last major renovation at its headquarters located at 1501 W Washington Street.

For this phase, office area renovation expenses were expected to total \$2,380,000 between Q3/Q4 2019 and Q1/Q2 2025. Completed in Q1 of 2020, total expenditures for this project (i.e. furniture and construction) were \$2,293,936. These funds were derived from future local revenue (cash). This project is complete.

*Bus Charging Infrastructure* - As IndyGo implements bus rapid transit service and shifts more of its fleet to electric-propulsion vehicles, it must install additional charging infrastructure throughout the maintenance and operations facility and increase the capacity of electrical service to its facility. The addition of this charging infrastructure will enable IndyGo to pursue its long-range bus replacement plan, which had initially called for introducing an average of eleven new fixed route electric-propulsion buses annually between 2021 and 2035, as well as 56 new 60' electric BRT vehicles between 2018 and 2022. IndyGo had initially projected that, by 2032, it would have a total of 195 buses in its fleet (56 BRT vehicles and 149 in local service); all of which were to be electric buses. This project, the installation of AC chargers for the 60' BYD buses, began in 2018 and was completed in 2020. Final construction costs for this project totaled \$2,588,574. See also *Garage Conversion* on the following pages.

*Wash Rack Replacement, Door Widening & Paint Booth* - Washing and maintaining buses requires additional infrastructure beyond what would typically be used in commercial car washes. Most obviously, these wash racks must be able to accommodate much larger vehicles than standard car washes. Further, the system needs to be designed in such a way to remove salt and grime that is accumulated through regular transit service. These services also need to be able to be performed without impacting the finish of the bus. IndyGo's previous wash rack was antiquated and in need of an upgrade to effectively service an expanded fleet. To attract bidders to the project, door widening, and paint booth projects were added to this project.

To keep the fleet in good condition, IndyGo needed to add a down-draft paint booth. These paint booths help manage airflow and control of paint spray by forcing air through the paint area and minimizing errant spray. Completed in August 2020, the new system allows IndyGo's maintenance team to operate more efficiently and service more buses, a necessity with the increase in service.

For this entire project, IndyGo had anticipated spending \$2,600,000 across 2019 and 2020, with resources derived from grants and local revenue. In total, these projects cost approximately \$2,336,000 and were paid for with grant dollars.

*Drivable Floor Scrubbers/Sweeper* - IndyGo uses a drivable floor scrubber/sweeper to maintain its facility to clean garage floors, bus bays at the transit center, and other concrete surfaces. This equipment is necessary to properly clean and sweep trash, oil, grease, and other fluids in these areas, as well as IndyGo parking lots. In turn, this regular maintenance extends the useful life of these facilities.

IndyGo's previous floor scrubber had reached the end of its useful life when it came to interior spaces. During the winter months, the previous scrubber could not keep up with the salt and debris that the buses brought into the facility. At the time that version 1.0 of this capital plan was adopted, IndyGo lacked the equipment necessary to service its exterior facilities; electing instead to contract with an outside vendor to perform this work.

This project supported the replacement of the internal floor scrubber, as well as the purchase of a scrubber/sweeper that could be used in outdoor operation. The programmed budget was \$250,000 and it was thought to be needed in 2019 to support these purchases. In 2019, IndyGo bought three Walk Behind Scrubbers for a total of just over \$19,700. In 2020, the agency bought two drivable scrubbers for a total of just under \$140,000. This project was completed in 2020 and ended up being locally funded. The grand total for this project was just over \$158,000 and came in approximately \$92,000 under budget.

### **Retired Projects: Facilities**

*These projects were, at one point, included as part of IndyGo's capital investment program but have – over time – been retired.*

Fall Protection & Catwalk - With the increase in both the number and the variety of vehicles housed at 1501 W Washington Street, fall protection is needed for the additional bays in the garage. The inclusion of a catwalk will further aid in the safety of the staff. In 2020, it was estimated that the total project cost would be \$540,000. However, it hasn't yet been determined when this project will be pursued. Although, any facility built-to-suite or renovated to accommodate IndyGo operations and maintenance would be constructed or renovated to include fall protection and catwalk where fall protection is needed. At the time of this update, this project has been retired.

Training and Contingency Facility Purchase & Renovation - IndyGo had planned to construct a new facility at the former Carrier Bryant industrial site in the Riverside neighborhood for training operations and to serve as IndyGo's contingency operations location. This facility, which grew from approximately 6,000 square foot to approximately 10,000 square feet throughout the design phase, is/was intended to house classrooms, training equipment, a full-size maintenance bay for maintenance training, and materials/equipment necessary to serve as a contingency site. The site, had it been developed as planned, would have also housed a large concrete lot and Commercial Driver's License (CDL) training course, complete with a mock BRT station. The training site was also designed to serve as a temporary emergency staging ground. Should such an event occur, the training classrooms would have served as office space for mission critical staff.

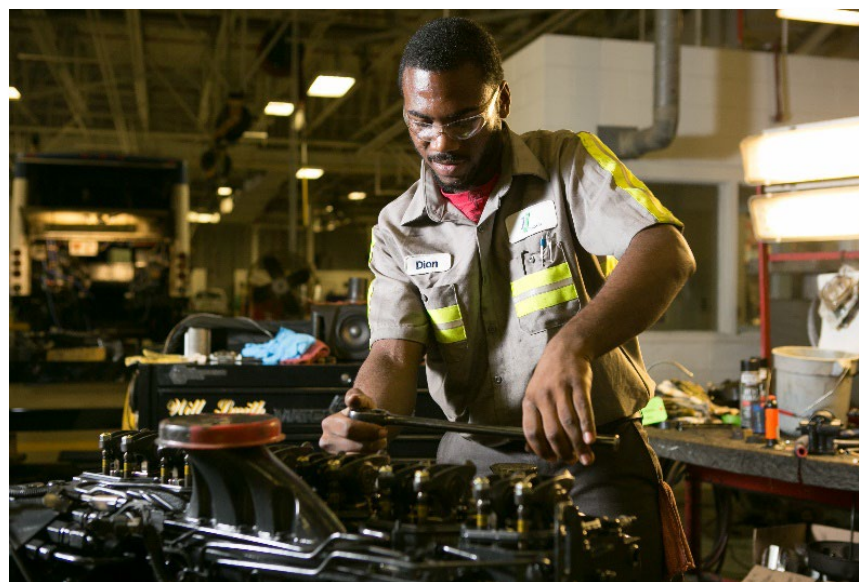
IndyGo had initially allocated \$4,900,000 across the 2019 and 2020 fiscal years to acquire, construct, and outfit the new facility. Funding for the project was to be derived from IndyGo's existing bond and local revenue (cash). Bids for this project were sought in January 2020 and each one came in more than \$2 million overbudget bringing the newly estimated cost to more than \$6.9 million. As of this update, IndyGo is working to identify a new use for the property.

Storage Barn Retrofit - On property, there is an existing storage barn located behind the South Parking lot. The barn currently houses some items for Facility Maintenance at 1501 W Washington Street; however, it could be retrofitted to store more items. The purpose of this project would be to clear the storage barn, retro fit the barn with additional shelving and installation of an HVAC unit for climate control. In doing so, items that are currently stored in the garage could be moved to the storage barn, thus freeing up much needed space in the garage. The anticipated start date for this work was Q2 2021 and was thought to need several months to complete. This project was removed all together in 2020 when it was decided that IndyGo would have to grow its operations through property acquisitions instead.

Additional Contingency Site Equipment: Dispatch & Generator – As noted above, IndyGo had pursued the (re)development of a contingency and training site. There are several expenditures that would have been necessary to accommodate this site for it to become a fully equipped operations center, including a generator and dispatch equipment. Such equipment would have expanded the usefulness and adaptability of the training and contingency facility and help to ensure continuity of operations should IndyGo’s primary facility become inoperable for a prolonged period of time.

**Table 28. Facilities Funding Sources and Uses (total project costs)**

	Office Area Renovate	CTC Level Boarding	CTC Office Renovate	Bus Charge	Facilities	Building Exterior	Maint. Area	Wash Rack / Paint Booth & Door Widen	Floor Scrubber	Sidewalk, Steps & Ramps	Solar Array	Facility Needs Assess.	Total
IN90X683-11.44.03								\$1,415,004					\$1,415,004
IN-2016-024-11.44.03													\$0
Solar Array Low No											\$980,000		\$980,000
IN-2019-001-11.12.15													\$0
IN90X668-11.44.03								\$1,600,365					\$1,600,365
IN-2019-001-11.12.15													\$0
IN-2019-001-11.42.20				\$91,269									\$91,269
IN-2019-001-11.44.03								\$13,663					\$13,633
<b>Grant Sub Total</b>				\$91,269				\$1,902,368			\$980,000		\$2,973,637
Cash	\$2,380,000	\$1,700,000	\$750,000	\$408,731	\$1,796,517	\$1,400,000	\$3,400,000	\$1,126,663	\$250,000	\$200,000	\$420,000	\$100,000	\$13,931,911
Bonds					\$3,103,483								\$3,103,483
<b>Total</b>	<b>\$2,380,000</b>	<b>\$1,700,000</b>	<b>\$750,000</b>	<b>\$500,000</b>	<b>\$4,900,000</b>	<b>\$1,400,000</b>	<b>\$3,400,000</b>	<b>\$3,029,031</b>	<b>\$250,000</b>	<b>\$200,000</b>	<b>\$1,400,000</b>	<b>\$100,000</b>	<b>\$20,009,031</b>



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## FINANCE

### Enterprise Resource Planning (ERP)

ERP is a business process by which core managerial functions of an organization or business are integrated into one single, comprehensive, and integrated system to manage agency's business. ERP systems enable the streamlining of information across an agency and may include functions such as accounting, budgeting, human resources, inventory, work order management, projects & grants management, procurement, and other functions. The main purpose of an ERP system is to increase organizational efficiency of an organization by managing and improving how organizational resources are utilized.

IndyGo's current ERP platform needs to be upgraded and migrated to a cloud-based solution to employ up-to-date technology which provides support for progressive business practices and provides greater flexibility in reporting. The existing platform will soon no longer be supported by Microsoft and as such was brought to the Board. In March 2021, the IPTC board approved engaging Crowe, LLP. to implement the migration and upgrade to Microsoft D365 for IndyGo. The process began in May 2021 and was launched in 2022 and additional integration work will continue through 2023. Total project cost was expected to be \$996,400; funded entirely with local revenue. This project is complete.

### Farebox Replacement Plan

Historically, IndyGo has relied on its fareboxes to count passenger trips. Efforts are underway to implement the new MyKey fare collection system and upgrade APCs, which – upon completion – would allow IndyGo to discontinue its use of the GTFS (i.e. farebox) system to estimate ridership. Per IndyGo's 2019 fare policy, the farebox system will remain in place, indefinitely, so long as the need to accept cash and print day passes and two-hour transfer tickets on the local buses remains unchanged. In the meantime, several existing fareboxes have reached the end of their useful life and IndyGo needs to maintain its replacement schedule. This typically results in the need to order and receive 25 fareboxes per year. As of this update, IndyGo has budgeted \$397,800 for FY 2023 and \$405,756 FY 2024 to implement this plan.

### Payment Integration Platform

As noted below, IndyGo is working with Flowbird to develop and implement a modernized fare payment system. While this system itself represents a significant upgrade to how the public pays for and experiences the transit system, the platform can serve to revolutionize the shared mobility system throughout IndyGo's service area through payment integration with other mobility providers. As part of a RFP process that resulted in the selection of Flowbird, IndyGo listed a system architecture that could provide for these integrations and the potential for enhanced partnership portals as part of its desired outcomes. Flowbird's system design includes such an architecture that can be adapted to expand into an integrated payment platform with limited technical upgrades.

In late 2020, it was announced that IndyGo would be the recipient of an Accelerating Innovative Mobility (AIM) grant from the Federal Transportation Administration. The purpose of this grant program is to facilitate new and innovative strategies for facilitating trips not just on public transit but also other non-automotive modes of transportation. Conceived under a 2019 Integrated Mobility Innovation (IMI) grant application, IndyGo's proposal under the AIM Challenge Grant to develop a "Mobility Concierge Program" is part technological solution and part customer care center solution. In short, it is a service that would be designed to facilitate trip planning, booking,

and payment across multiple modes and service providers in the Indianapolis area. Total project budget is \$500,000 (\$400,000 federal and \$100,000 local). This work is on-going.

### **Illustrative Projects: Finance**

*In addition to those projects for which future capital sources have been identified and programmed, IndyGo is aware of other projects that would be beneficial to the agency, its operations, and/or the experience of its riders should funds become available.*

*These projects are listed as “Illustrative Projects” in this capital plan. This language is modeled after projects in the MPO’s Transportation Improvement Program meaning the project is noted but costs are not included in the fiscally constrained plan.*

Fare Modernization – In 2017, IndyGo underwent an internal fare study to inform IndyGo's future fare system(s), fare policies, fare structures, and fare collection technologies. The ideal solution was identified to be a comprehensive system, able to operate seamlessly across IndyGo services—BRT, local fixed route, and paratransit—and be convenient and accessible to users.

Through a competitive procurement process, IndyGo selected Parkeon (d/b/a Flowbird) to help lead in its fare system modernization efforts. Once completed, IndyGo riders will have several ways in which riders can pay fares, including but not limited to paying through a smart device (such as a smart card) linked to an account, a mobile ticket, other forms of proof of payment, and cash. This system will support fare validation and fare enforcement activities on IndyGo's bus rapid transit system.

Having an initial completion date of 2019, work on this project began in the second half of 2018 and continued into 2021. IndyGo had expected to invest a total of \$4,268,678 in this project; \$3,373,937 of which were to be capital costs. IndyGo had further anticipated needing an additional \$1,338,000 in 2019 (also derived from IndyGo local revenue). Staff is currently developing new set of cost estimates for both capital and operating costs for future budget years.

## **INFORMATION TECHNOLOGY**

### **Wireless Vehicle Communication (Install)**

IndyGo requires enhanced mobile data communication capabilities, bandwidth, and speed to meet data transmission requirements for its transportation platforms. Prior to the completion of this project, IndyGo used the city's public data radio network which, at the time this project was initiated, was nearing the end of its useful life in terms of its functionality for IndyGo's purposes. This functionality is especially critical in supporting real-time data functionality for IndyGo dispatch, telematics, passenger information, and safety and security functions across platforms.

These systems need periodic upgrading to keep up with technological advances. Beyond that, upgrading these systems offers enhanced data collection capabilities, more accurate location and schedule data, and tracking performance metrics. These upgrades were also a prerequisite for other systems IndyGo is pursuing and are now used to provide wireless access for IndyGo passengers. These upgrades were completed in 2019. The budget for this project was \$820,000. These funds were to have been derived from IndyGo local revenue. Actual expenditures for this project totaled \$695,785.

### **ITS Upgrade (CAD/AVL)**

IndyGo is committed to identifying and deploying the industry standard (or better) with respect to technological tools that enable it to manage its operations and serve its customers. One tool advancing this commitment—and allowing for the collection, analysis, and dissemination of reliable data of its existing fleet of transit vehicles—is a Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system, which, as of 2020, includes the upgrade of Automatic Passenger Counters (APCs) on the majority of IndyGo’s fixed route fleet.

In late 2017/early 2018, IndyGo selected Avail Inc. to replace IndyGo’s previous CAD/AVL system with state-of-the-art Intelligent Transportation System (ITS) solutions that provide enhanced functionality for data collection, real-time information, web and mobile application capabilities, and the potential for integration with other services. Avail’s systems continue to be deployed across IndyGo service platforms—BRT, local fixed route, and paratransit services—and support vehicles.

This most recent ITS upgrade was completed in 2021. The original project budget was \$5.3 million; sourced from grants and local revenue. Completed in 2021, IndyGo spent \$4.9 million for this most recent upgrade. This included \$191,000 for the APCs upgrades in 2020. Not included in the final implementation was the ITS upgrade for IndyGo’s paratransit system.

IndyGo’s contract with Avail, Inc. expires in early 2023 with two (2) optional extension years. At the time of this update, staff anticipates exercising the extension option in 2023 as it develops new specifications and implantation strategy for its next upgrade. Staff had anticipated spending \$11.21 million in FY 2023 to upgrade or replace it’s CAD/AVL system, which would need to be completed before the end of the first quarter of 2024. As of this update, this project no longer has a budget.

### **Fare Validator Replacement**

IndyGo currently utilizes the Flowbird AXIO3 in both its BRT and Fixed Route vehicles. In Q4 2021 Flowbird released the next generation of its hardware technology with the AXIO4 fare validator. This next generation technology includes enhancements and integrations that will address key operational and connectivity issues. This includes integration with a built-in GPS, modem, and an Open Payment system, allowing for additional fare collection media. Additionally, Flowbird has announced that the AXIO3 is considered at its end-of-life, which may precede the need to replace IndyGo’s current AXIO3s. At present, IndyGo is conducting a pilot with 25 of the AXIO4 fare validators to ensure that the upgrades and enhancements will meet the needs of the Agency, and to assist with establishing a realistic full-fleet implementation cost estimate with Flowbird. As of this update, it is estimated that this project will cost \$700,000 and that it could be completed in 2023.

### **Distributed Antenna System**

Currently IndyGo experiences intermediate cellular and radio coverage in the garage area at its 1501 location, which has caused issues for fleet services, transportation, maintenance, CVT, and dispatch. These issues can and have delayed route timing when buses arrive and leave the garage. By replacing and upgrading the Distributed Antenna System (DAV), IndyGo believes this will provide facility-wide cohesive cellular and radio coverage, which will resolve the above issues. This is programed for a FY 2023 expense of \$355,000. The East Campus will be built with this system and is estimated to cost \$400,000 in FY 2024.

## Hastus Software Upgrade

GIRO, Inc. provides the HASTUS software solution for route scheduling and planning, customer comment tracking, and daily operational functions. Adapted for multiple platforms, HASTUS provides advanced operations optimization techniques and powerful data-management tools. IndyGo has used HASTUS since 2005, upgraded the system in 2015, and upgraded the system again in 2020.

The platform includes modules for Planning, Scheduling, Operator Bid, Self Service, Bid Web, Daily Operations, Employee Management, Customer Service, and web-based route planning information systems. The Daily Operations Module manages operator payroll and attendance as well as Operator Bidding and Employee Management. The Planning module provides all data from bus stops and shelters to route schedules and operator work shifts. The customer services module manages comments as well as trip planning via the website and other real-time platforms. IndyGo had programmed \$800,000 in the fall of 2021 for the upgrade, with resources drawn from a combination of grants and cash. The project “Go Live” date was March 17, 2022. This project is complete.

## Data Warehouse

As part of the implementation of the IndyGo 10-year *Strategic Plan*, adopted by the Board of Directors in February 2019, IndyGo is committed to establishing and sustaining a performance-driven organization. As part of this effort, IndyGo staff are working collaboratively to identify, define, and develop key performance indicators (KPI) for the agency and for individual departments and divisions. IndyGo currently has several systems that generate agency data that can be helpful in monitoring and assessing performance; however, these data sets are often housed across various systems that do not easily communicate with each other. The goal of this project, which also supports the strategic planning goal, is to implement a centralized data warehouse that would serve as a clearinghouse and aggregator of data from across agency systems. This system would serve as the back-office engine for any employee- and/or public-facing KPI dashboards and provide easier access to agency data. Total project budget for this project is \$64,000 paid for using IndyGo local revenues. And while IndyGo is in the process of moving all capable applications to the cloud, the need to store and manage data locally remains. This project will be revisited as needed.

**Table 29. IT Funding and Uses (total project costs)**

	ERP	Fare Collection	Wireless Vehicle Comms	ITS Upgrade (CAD/AVL)	Hastus Upgrade	Data Warehouse	Disaster Recovery BCP	Total
IN-2016-016-11.42.08				\$1,153,245				\$1,153,245
IN-2016-016-11.71.03				\$660,629				\$660,629
IN95X046-11.71.03)							\$651,741	\$651,741
IN95X046-11.42.08					\$251,267			\$251,267
IN-2017-018-11.42.20				\$32,000				\$32,000
IN-2020-019							\$1,232,500	\$1,232,500
<b>Grants Sub Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,845,874</b>	<b>\$251,267</b>	<b>\$0</b>	<b>\$1,884,241</b>	<b>\$3,981,382</b>
Cash	\$1,000,000	\$1,338,000	\$820,000	\$529,126	\$548,733	\$64,000	\$173,259	\$4,473,118
<b>Total</b>	<b>\$1,000,000</b>	<b>\$1,338,000</b>	<b>\$820,000</b>	<b>\$2,375,000</b>	<b>\$800,000</b>	<b>\$64,000</b>	<b>\$2,057,500</b>	<b>\$8,454,500</b>

## Illustrative Projects: Information Technology

*In addition to those projects for which future capital sources have been identified and programmed, IndyGo is aware of other projects that would be beneficial to the agency, its operations, and/or the experience of its riders should funds become available.*

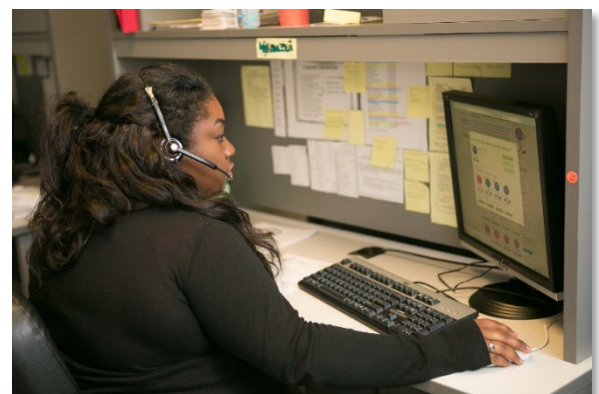
*These projects are listed as “Illustrative Projects” in this capital plan. This language is modeled after projects in the MPO’s Transportation Improvement Program meaning the project is noted but costs are not included in the fiscally constrained plan.*

Radio Replacement - Radio communication is critical to providing efficient service to the operators in the field and support the overall operation. Added in 2020, this project is needed to support the communication needs of the Transportation Department. The additional stations will allow the department to have more equipment available for staff use, and to deploy to coaches as back up. This procurement would be for 15 radios, 65 replacement radio batteries, and 100 replacement extended antennas for a total project cost of approximately \$79,000. As of this update, this project remains unfunded.

Secure Communications Network - IndyGo desires to enhance its communications network to make communications more secure. Such could be achieved through a dedicated, secure communications network that would utilize a microwave or small cell technology at our BRT stations. This service could further be adapted to operate across the entire IndyGo fleet. Through such a project, the planning and design phase would seek to identify and resolve logistical issues related to expansion and existing infrastructure. It is anticipated that this project could result in a substantial cost savings relative to our current operations with respect to communications.

This project is currently on hold until IndyGo can identify a funding source for this project (which may not occur until 2024). There are several logistical issues with the expansion, particularly with infrastructure (i.e. using our covered stations for communication relays and the licensing fees for that) and identifying alternatives. IndyGo staff will identify potential grant opportunities that could support the planning, design, and implementation of this rather complex project/system.

VOIP Solution - IndyGo transitioned itself to a cloud-based voice communications system (VoIP) in 2017. By comparison, this project seeks to establish a contract with a VoIP provider over a three-year term (with optional two years) to garner better pricing and support. Key components of the solution include enhanced administrative capabilities, interoperability with existing assets, enhanced mobile and desktop capability, distinguished admin portal security levels, call recording storage and archiving, unified messaging, enhanced conference calling and optional eFaxing.



In 2021, the costs associated with this project were able to be covered using 2021 operating expenses and ceased being a capital project.

## OTHER

Prior to 2021, IndyGo's public affairs team was responsible for internal and external communication, business development, enhancing the rider experience, promoting customer service, advancing several special projects, engaging with advertisers, and assisting in translating the community's needs into agency initiatives. These tasks rely on exceptional communication and reliable communication infrastructure.

As such, the capital needs associated with exceptional communication and reliable communication infrastructure are meant to enhance the agency's ability to facilitate communication within the agency and between the agency and its riders and other partners. Prior versions of this capital plan included programmed expenditures for an agency intranet, outfitting the IndyGo call center, and for development activities associated with an IndyGo mobile application all under the purview of the former Public Affairs Division. The Public Affairs Intranet has since become the purview of the IT division. The Call Center has since become the purview of the Operations Division. And, the Mobile App Development has since become the purview of the Finance Division.

Public Affairs Intranet - When first proposed, the Public Affairs intranet was intended to facilitate enhanced communications capabilities throughout the agency, providing for a critical channel of communication between employees. The Public Affairs team had engaged in planning efforts through 2020, administering a survey of IndyGo employees on communication preferences, to help shape the deployment of the intranet. At full build out, the intranet would have hosted a homepage with timely and important messaging, provide other means to facilitate communication, and host division/department/project- specific pages to facilitate agency collaboration.

Version 1.0 of this plan included a budget of \$75,000 in 2020 to implement this initiative. In 2020, this project was wrapped into, and advanced by, a larger information technology project: Disaster Recovery. By doing so, IndyGo was able to address several pressing needs, such as timely communications with staff during emergency response times.

Call Center - In 2019, IndyGo brought its call center in-house to better coordinate messaging and communication, realize operational efficiencies, and provide for greater oversight of customer service relationships. Bringing the call center back within the organization required the build-out of the infrastructure necessary to handle call volumes, route and resolve customer comments, and service customer accounts. This project included a Customer Relationship Manager software deployment, call center technical hardware (e.g., computers, monitors, headphones, etc.), furniture, and other items. IndyGo had programmed \$170,000 for this effort. This project was completed in 2020. Total capital expenditures for this project was zero. The \$150,479 spent to complete this project – hardware and software purchases – were paid for out of IndyGo's 2020 operating budget.

Mobile App Development (see also Mobility Concierge Program on previous pages) - Enhancing riders' experience by providing convenient and timely information is viewed as critical in attracting and retaining transit riders. Trip planning, real time arrival, and trip payments are currently held in separate mobile applications (a legacy of different providers providing the back-office infrastructure for each of these services). This project sought to consolidate trip planning, service alert communication, managing of fare media, and real time arrival into a single, IndyGo-branded mobile application. The mobile app, which was intended to serve as a one-stop, singular source of information for all IndyGo users, was put on hold in 2019 to allow IndyGo staff to focus these types of efforts on the successful rollout of the new MyKey fare collection system.

This project was reimagined as part of an FTA Accelerating Innovative Mobility (AIM) grant application to create a “mobility concierge program”.

## **SAFETY & SECURITY**

Safety and security measures are incorporated within projects listed throughout this capital plan; each activity adheres to and advances IndyGo's safety and security policies. In planning, designing, and constructing any capital project, IndyGo staff and consultants work with IndyGo's Safety, Security, and Training departments to ensure activities conform to IndyGo's safety and security protocols.

To that end, most safety and security capital expenditures within this plan are embedded within the various other projects and project budgets outlined throughout this document, as are training expenses. In addition to project-specific measures, IndyGo will also need to secure additional safety, security, and training equipment.

### **Vehicle Gate and Fencing**

IndyGo follows the policies, rules and suggestions from the federal agencies of the FTA and Transportation Security Agency (TSA) and provides reporting to those agencies on safety and security matters. Both federal agencies offer best practices to transit agencies across the county, such as how to improve securing assets and better protecting the Agencies' employees. One of those areas is Enhancing the Protection of Soft Targets/ Crowded Places. If IndyGo places new and updated vehicle gates that are harder to breach will assist with the increase of overall safety and security of the Agency. IndyGo is proposing to install a vertical pivot gate to secure that drive and keep unauthorized vehicles from entering the property.

This project is budgeted at \$30,000 in FY 2023, which will include the replacement of two swing gates with one vertical pivot gate, the motor, wiring, and long-range tag reader.

### **Main Facility CCTV**

IndyGo maintains closed-circuit television (CCTV) capabilities to ensure the safety of its employees and visitors and security of its facilities. As with any tech-based infrastructure, these systems need to be replaced from time to time as the systems meet the end of their useful life and/or technology or safety and security procedures evolve beyond the ability of the existing system. Most of the cameras on the outside of IndyGo's main facility located at 1501 W Washington Street no longer function as they should because of weathered lens covers and defective internal heaters. For these reasons, among others, IndyGo understands it must continue to invest in safety and security equipment, including the main facility CCTV system. IndyGo had anticipated spending a total of \$795,000 grants and local revenue dollars. Originally scheduled to be completed in 2019, this project continued into 2020. This project is complete.

### **Vehicle CCTV**

IndyGo maintains closed-circuit television capabilities on its fixed route buses and will include these components on future buses as well. These systems include cameras, DVRs, wireless download capabilities, GPS kits, wireless radios, cables, mounting equipment, a server, and needed software. Specific equipment and apparatuses may vary based upon the needs of IndyGo and the evolution of technology between today and when the equipment is replaced. As of this update, IndyGo has programmed a total of \$2,246,500 million over two years, with a \$1,255,000 spend programmed for FY 2022. As of June 2022, a total of \$858,689 has been expended on this project. IndyGo still anticipates that this project will be sourced from grants (approximately \$167,000 in remaining security set-

aside 5307 funds in 2022) and future local revenue. Additionally, staff believes that annual expenditures will be needed after project completion; however, additional investments funding sources have not been identified and remain unbudgeted at the time of this update.

### **Training Simulators**

Research suggests the use of a bus training simulator, in conjunction with both classroom and on-the-road training, improves transit driver safety. Simulators continue to build upon basic driving skills while helping to develop effective forward planning and good judgement under pressure. Studies from different Bus Operator Training Simulators have shown that accidents could be lowered by 35 to 60 percent. Some have also been shown to be able to improve on fuel economy and the overall efficiency of transit operations. Simulators can also allow operators to practice driving in different types of weather, traffic and emergency situations without putting the operator or equipment in harm's way. They can be used to recreate accidents that have happened and let the operator see what could have been done differently, enabling this training to occur with no risk to company property, workers, or the community.

IndyGo had budgeted a total of \$350,000 from local revenue, in 2020, to purchase one simulator. However, part of the 2020 purchase of the former Celadon Trucking Company to create IndyGo's new East Campus included the purchase of 4 (semi-truck) driving simulators. After some investigation, it was determined that these simulators could be converted to the TransitSim 7 Series Bus Driving Simulation Package for less than the cost of the purchase of one new simulator. Total cost for this project was \$240,000 (\$48,000 local and \$192,000 in federal grant dollars).

IndyGo has completed the upgrades and the units are currently at 9503 E 33<sup>rd</sup> St awaiting final installation in the second-floor training room. At the time of this update, this project is expected to be completed before the end of the year.

### **On-Board Data Recorder & Collision Avoidance System**

Through outreach with other transit agencies and industry events, IndyGo has recently become aware of a video-safety program that provides the agency with real-time operator analytics, focused on capturing and reducing risky driving behavior. The system can track, and record, data related to driving behavior to facilitate incident review, coaching, and future training. Through this application, the system can assist in reducing collisions, improve safety performance, help identify hazards, and reduce claims against the agency.

The system records data related to hard braking, speeding, distracted driving, and other risky behaviors. Further, the system tracks the frequency of incidents attributable to specific drivers, specific routes, specific intersections, and many other categories, which should help the agency identify and respond to recurring situations. The system is compatible with most bus camera streams and may integrate with many different platforms for information sharing. This system will advance agency goals and objectives related to FTA requirements for safety management system reporting and performance tracking. To advance this project, IndyGo programmed \$213,000 in 2020 from IndyGo local revenue. This project remains on hold.



## Illustrative Projects: Safety and Security

In addition to those projects for which future capital sources have been identified and programmed, IndyGo is aware of other projects that would be beneficial to the agency, its operations, and/or the experience of its riders should funds become available.

These projects are listed as “Illustrative Projects” in this capital plan. This language is modeled after projects in the MPO’s Transportation Improvement Program meaning the project is noted but costs are not included in the fiscally constrained plan.

Metal Detectors - As both the technology and the workplace environment continue to rapidly evolve, IndyGo diligently tracks methods that will increase the safety and security of IndyGo’s guests and employees. As IndyGo adds additional locations, it would like to place metal detectors at the main entrances of all facilities, since they are primary access points for both visitors and employees. Ideally, IndyGo will incorporate the next generation of metal detectors, which has the added technology of temperature scanning and notification while an individual walks through the unit. These safety and security additions will add one more tool for security to utilize that will lower the risk of contagions entering the facilities, as well as lowering the chance of a workplace event of violence.

The project would include the units, power hook-up, and training. It is anticipated that metal detectors will be installed in 2023 and has a budget of \$50,000. At the time of this update, a funding source(s) has not been identified, resulting in the project being placed indefinitely on hold.

**Table 30. Safety & Security Funding Sources and Uses (total project costs)**

	Main Facility CCTV	Training Simulators	Security Doors	On-Board Recorders	Vehicle CCTV <sup>10</sup>	Total
5307 Security Set Asides					\$167,380	\$167,380
IN95X046-11.42.09					\$600,649	\$600,649
IN-2019-001-11.32.07	\$135,902				\$118,373	\$254,275
IN-2017-018-11.32.07	\$51,984				\$17,943	\$69,927
IN-2016-024-11.32.07	\$125,191					\$125,191
IN90X683-11.42.09)	\$39,864					\$39,864
IN-2021-023 11.44.20		\$240,000				\$240,000
<b>Grant Subtotal</b>	<b>\$352,941</b>	<b>\$240,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$904,345</b>	<b>\$1,497,286</b>
Cash	\$124,286	\$60,000	\$400,000	\$213,000	\$1,055,655	\$1,852,941
<b>Total</b>	<b>\$477,227</b>	<b>\$300,000</b>	<b>\$400,000</b>	<b>\$213,000</b>	<b>\$1,960,000</b>	<b>\$3,350,260</b>

<sup>10</sup> As of this update, it is anticipated that IndyGo will need to spend a total of \$3.275 million for the Vehicle CCTV project. These expenditures will likely be spread out over three years, beginning in 2021. See also Vehicle CCTV on previous pages.

# 5-YR CAPITAL PLAN BUDGET SUMMARY

The following table is the 5-yr Capital Plan Budget Summary for 2022 through 2026 adopted by the Indianapolis Public Transportation Corporation Board of Directors in August 2022.

**Table 31. 2022 – 2026 5-Yr Capital Plan Budget Summary**

Indianapolis Public Transportation Corporation  
2023 Adopted Capital Improvement Program

	2023	2024	2025	2026	2027	5 Year CIP Total
<b>BRT and On-Street Infrastructure</b>	<b>61,152,792</b>	<b>64,726,394</b>	<b>122,153,400</b>	<b>85,110,100</b>	<b>1,600,000</b>	<b>334,742,686</b>
29th & 30th Streets Two-Way Conversion	0	2,171,889	0	0	0	2,171,889
Blue Line BRT	0	25,649,900	112,590,000	81,760,100	0	220,000,000
CTC - BRT Docking Solution	4,000,000	5,000,000	0	0	0	9,000,000
CTC - Purple Line Inductive Charging	425,000	0	0	0	0	425,000
East Washington Mobility Hub	0	3,160,000	1,980,000	0	0	5,140,000
New York & Michigan Streets Two-Way Conversion	0	4,253,680	0	0	0	4,253,680
Purple Line BRT	50,971,100	15,611,705	0	0	0	66,582,805
Red Line Phase I Closeout	289,390	0	0	0	0	289,390
Red Line Phases II & III	0	0	1,750,000	1,750,000	0	3,500,000
Rural Street Underpass Clearance	300,000	3,762,600	2,508,400	0	0	6,571,000
South Madison Park & Ride	0	1,175,000	925,000	0	0	2,100,000
Super Stops 2.0 Alabama, Ft. Wayne and Vermont Stations	2,617,322	0	0	0	0	2,617,322
Transit Signal Priority	549,980	1,216,620	0	0	0	1,766,600
Transit Stop Amenities	2,000,000	2,725,000	2,400,000	1,600,000	1,600,000	10,325,000
<b>Facilities</b>	<b>30,220,000</b>	<b>30,622,369</b>	<b>5,875,000</b>	<b>0</b>	<b>0</b>	<b>66,717,369</b>
1501 - HVAC VRF System Replacement	70,000	0	0	0	0	70,000
1501 - Maintenance Area Garage Renovations	0	2,560,000	0	0	0	2,560,000
1501 - Parking Lot Fence & Gate Replacement	500,000	0	0	0	0	500,000
1501 - Security Door Upgrades	200,000	0	0	0	0	200,000
Battery Electric Bus Charging Software Management System	75,000	0	0	0	0	75,000
CNC Mill	0	65,000	0	0	0	65,000
CTC - Lounge / Office Renovations	215,000	0	0	0	0	215,000
Depot Charging - Equipment Installation	1,620,000	0	0	0	0	1,620,000
East Campus - Facilities Equipment	0	200,000	0	0	0	200,000
East Campus - New Garage Construction	19,040,000	27,657,369	5,860,000	0	0	52,557,369
Facilities Fencing	460,000	125,000	0	0	0	585,000
Facilities Signage	50,000	15,000	15,000	0	0	80,000
Fuel Island Exhaust Reels	90,000	0	0	0	0	90,000
Fuel Piping & Pump System	400,000	0	0	0	0	400,000
Maintenance Heavy Equipment Replacement	300,000	0	0	0	0	300,000
Tire Bay Demolition	250,000	0	0	0	0	250,000
West Michigan Street - Assessment Center Facility Renovation	200,000	0	0	0	0	200,000
West Michigan Street - Exterior Improvements, Vehicle Wash, & Solar Array Installation	6,750,000	0	0	0	0	6,750,000
<b>Finance</b>	<b>397,800</b>	<b>405,756</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>803,556</b>
Farebox Maintenance / Replacement	397,800	405,756	0	0	0	803,556
<b>Fleet</b>	<b>27,852,200</b>	<b>43,686,291</b>	<b>18,148,814</b>	<b>19,706,963</b>	<b>300,000</b>	<b>109,694,268</b>
Fixed-Route Bus Replacement / Expansion, 40' Buses	0	15,824,091	16,298,814	17,906,963	0	50,029,868
Fixed-Route Bus Replacement, BYD Electric Buses for Purple Line	26,037,200	26,037,200	0	0	0	52,074,400
Paratransit Bus Replacement	1,500,000	1,550,000	1,550,000	1,550,000	0	6,150,000
Support Vehicle Replacement	315,000	275,000	300,000	250,000	300,000	1,440,000
<b>Information Technology</b>	<b>3,000,000</b>	<b>400,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,400,000</b>
BRT Station Signage Upgrade	1,705,000	0	0	0	0	1,705,000
Distributed Antenna System	355,000	400,000	0	0	0	755,000
Fare Validator Replacement	700,000	0	0	0	0	700,000
Mobility- or Software-as-a-Service	240,000	0	0	0	0	240,000
<b>Safety and Security</b>	<b>30,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30,000</b>
1501 - South Vehicle Gate	30,000	0	0	0	0	30,000
<b>Grand Total</b>	<b>122,652,792</b>	<b>139,840,810</b>	<b>146,177,214</b>	<b>104,817,063</b>	<b>1,900,000</b>	<b>515,387,879</b>