



March 9, 2023

**TO:** Councilmember Scott Benson

**THRU:** Council President Mary Sheffield

**FROM:** Beau Taylor, Executive Director  
Public Lighting Authority

**RE: PLA Response to FY 2023/2024 Budget Hearing Questions**

The Public Lighting Authority submits the following response to Councilmember Benson's FY 2023/2024 Budget Questions:

**1. Please provide the PLA maintenance plan for the lighting system.**

The attached 2022 Long-Term Plan will be updated in Summer of 2023.

**2. Identify plans and costs to incorporate resiliency into the PLA system.**

Resiliency can be incorporated into the streetlighting system in a number of ways, ranging from bringing assets to a State of Good Repair to full burial of power feed wires underground. PLA's plan funds a state of good repair, starting with the system's legacy wood poles which may be 40-60+ years of age. Legacy pole replacement will increase durability of poles and spans, and PLA has been actively grant-seeking enhancement funding, in close contact with the Mayor's Office. Grant-seeking includes for underground burial of wires which would further increase resiliency by protecting against wind and elements, but would cost an estimated \$1 million per mile.

# PLA Long-Term Capital Reinvestment Plan: Keeping the Streetlights On August 2022

## Rationale: Context for a Capital Reinvestment Plan (Slides 3-12)

- Interlocal Agreement between City of Detroit and the PLA
- Administrative, O & M, Extraordinary Maintenance and Reinvestment programs and operations

## Managed System Area Assets (Slides 13-21)

- The Lighting Plan Assets Profile and Costs per units
- Condition Ratings Process

## 25-Year Reinvestment Schedules and projects (Slides 22-34)

- Sources of Funding: recurring, if-come grants
- Uses of Funding: projects and requirements
- Long-term Cash Flow Projection, assumptions, and scenarios

## Execution (Slides 35-40)

- Structure of Capital Reinvestment Reserve
- Policy Framework: Expansion, Modernization, Fiscal and Accounting
- Concepts and Sources



# **Why a Capital Plan?**

## **Interlocal Agreement between City of Detroit and PLA**



# Why A Capital Plan?

## WHAT CITY OFFICIALS WANT:

“What are you spending our money on?”  
“How well is the Interlocal Agreement met?”

## WHAT RESIDENTS WANT:

“Are you going to keep my street lit?”  
“Can I get more lights on my block?”

**Plan  
answers  
questions**

## WHAT THE ASSETS, AND THE TEAM THAT MAINTAINS THEM, NEED:

“What tasks are needed to keep the lights on?”  
“Will there be enough money to keep lights  
on?”

## WHAT DETROIT NEEDS:

“How do we make neighborhoods look more  
aesthetically pleasing?”  
“Can we help keep neighborhood residents  
safe?”

**A Capital Plan sets a long-term path by assessing  
current conditions and identifying required resources.**

# PLA Interlocal Agreements with the City

**Operating Budget:** admin, effort to keep lights on

- Administrative Costs
- Operations and Maintenance Costs

**Extraordinary Maintenance:** not lighting issues

- Knockdowns
- Tree trimming/"Vegetation"
- 5G or Development support
- DPW or DWSD support

**Reinvestment to extend system life**

- Asset Replacement

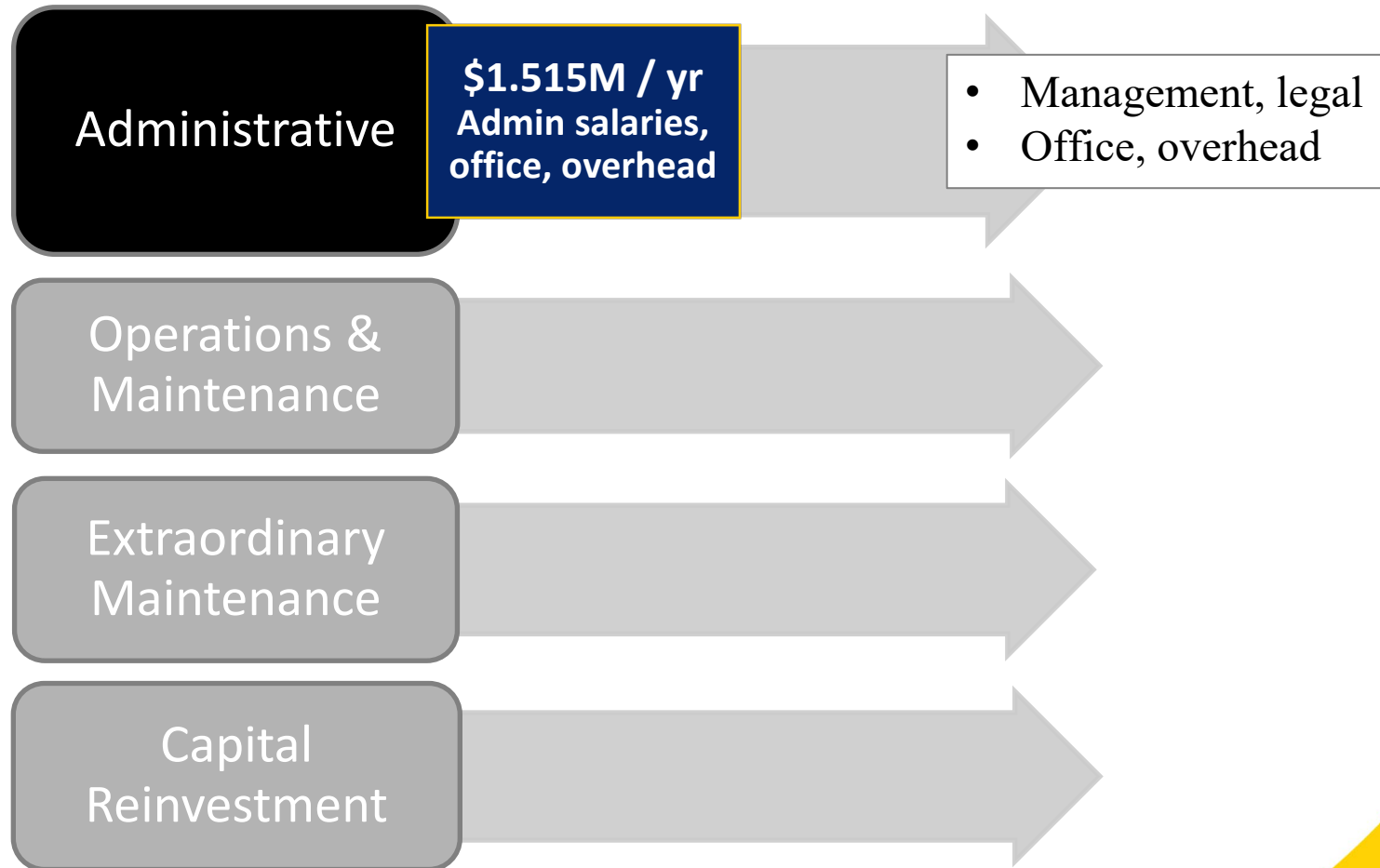
**Section 4.1 Operation and Management Fees and Costs.** The City shall pay the Authority the following amounts for the Services, provided that in no event, shall the City be obligated to pay more in any given year than \$8,024,000 (the "Annual Cap Amount"), excluding any payments for Extraordinary Maintenance:

- Operations and Maintenance Costs:** \$9.62 per month per Overhead-Fed Streetlight, and \$17.66 per month per Underground-Fed Streetlight.
- Extraordinary Maintenance Costs:** The actual costs of any Extraordinary Maintenance performed during the second previous quarterly period, such that the City will pay the Extraordinary Maintenance costs performed for the period of January through March of any year on the Quarterly Statement for the July through September quarter of that year.
- Administrative Costs:** One Hundred and Twenty-Six Thousand and Two-Hundred and Fifty Dollars (\$126,250) per month for the operation of the Authority.

The amounts to be paid under this Section 4.1 shall increase annually by the lesser of (i) three percent (3%) or (ii) the percentage increase in the CPI over the prior year.

**\*Also: "Construction & Finance" and "Trust" Agreements**  
**\*Articles of Incorporation filed under P.A. 392 (+ tie-barred revenue Acts)**

# Interlocal Agreement: Administrative Costs



# Interlocal Agreement: Operations and Maintenance

Administrative

- Contractors, materials other than for extraordinary or reinvestment
- Operations Director, Inventory Manager, GIS, Facilitators, Surveyors, Community Relations
- Routine, unplanned “Emergent work”

Operations & Maintenance

**Net \$8.5M / yr  
Routine only  
Below Cap\***

**Section 3.5 Maintenance.**

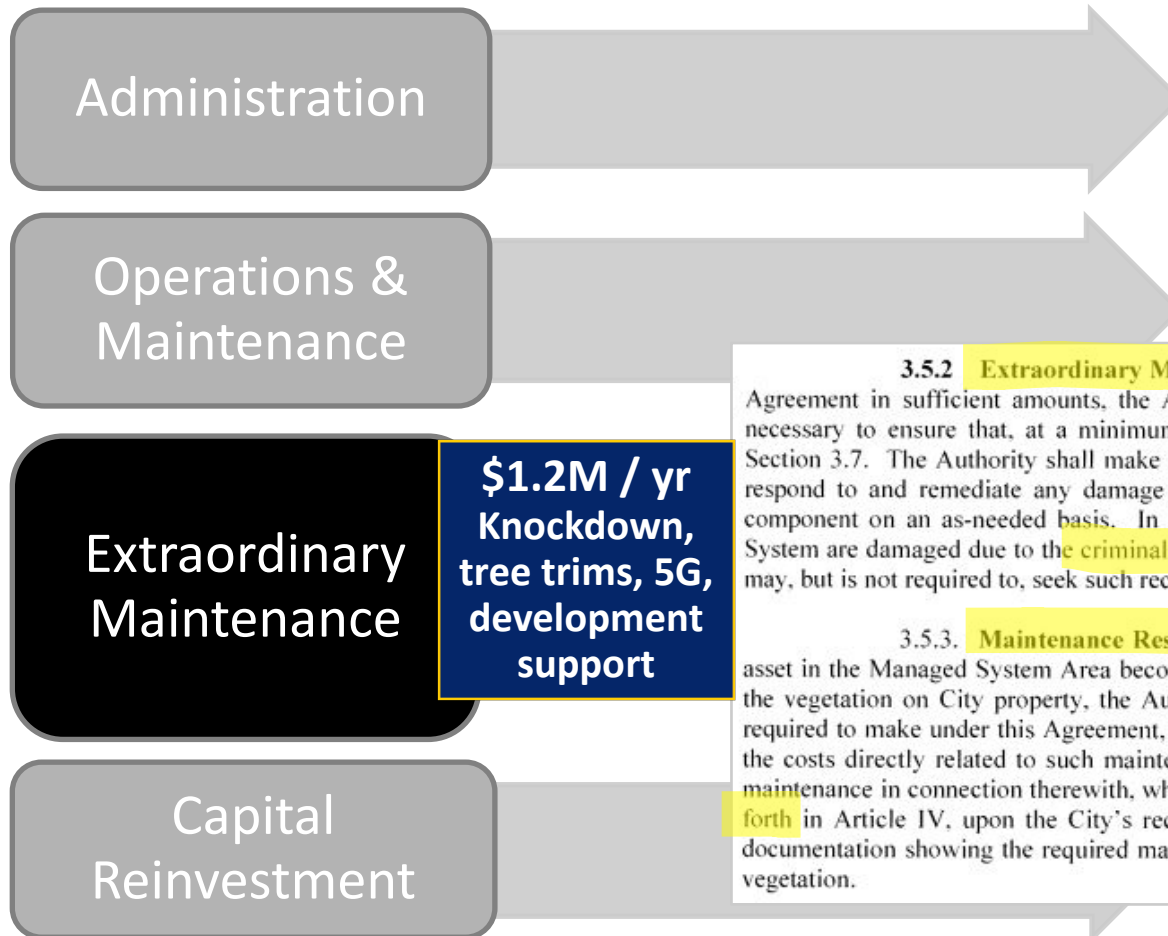
**3.5.1 Routine Maintenance.** The Authority shall conduct routine maintenance on an on-going basis according to Industry Practices to ensure that, at a minimum, the System provides the service levels described in Section 3.7. The Authority shall plan and budget for equipment replacement and upgrades based on the expected useful life of System equipment and components based on manufacturer recommendations.

Extraordinary Maintenance

Capital Reinvestment

Fiscal Year	Annual Mtc Allowed Before CPI	CPI Adjustment % *	Annual Mtc Adjusted	Annual Admin Allowed	Annual Cap (current light count)
2015	\$8,024,000	0.80%	\$8,088,192	\$1,515,000	\$9,603,192
2016	\$8,088,192	0.70%	\$8,144,809	\$1,515,000	\$9,659,809
2017	\$8,144,809	2.10%	\$8,315,850	\$1,515,000	\$9,830,850
2018	\$8,315,850	2.10%	\$8,490,483	\$1,515,000	\$10,005,483
2019	\$8,490,483	1.90%	\$8,651,802	\$1,515,000	\$10,166,802
2020	\$8,651,802	2.30%	\$8,850,794	\$1,515,000	\$10,365,794
2021	\$8,850,794	1.40%	\$8,974,705	\$1,515,000	\$10,489,705
2022	\$8,974,705	3.00%	\$9,243,946	\$1,515,000	\$10,758,946
	*lower of prior 12 mths or 3%				

# Interlocal Agreement: Extraordinary Maintenance

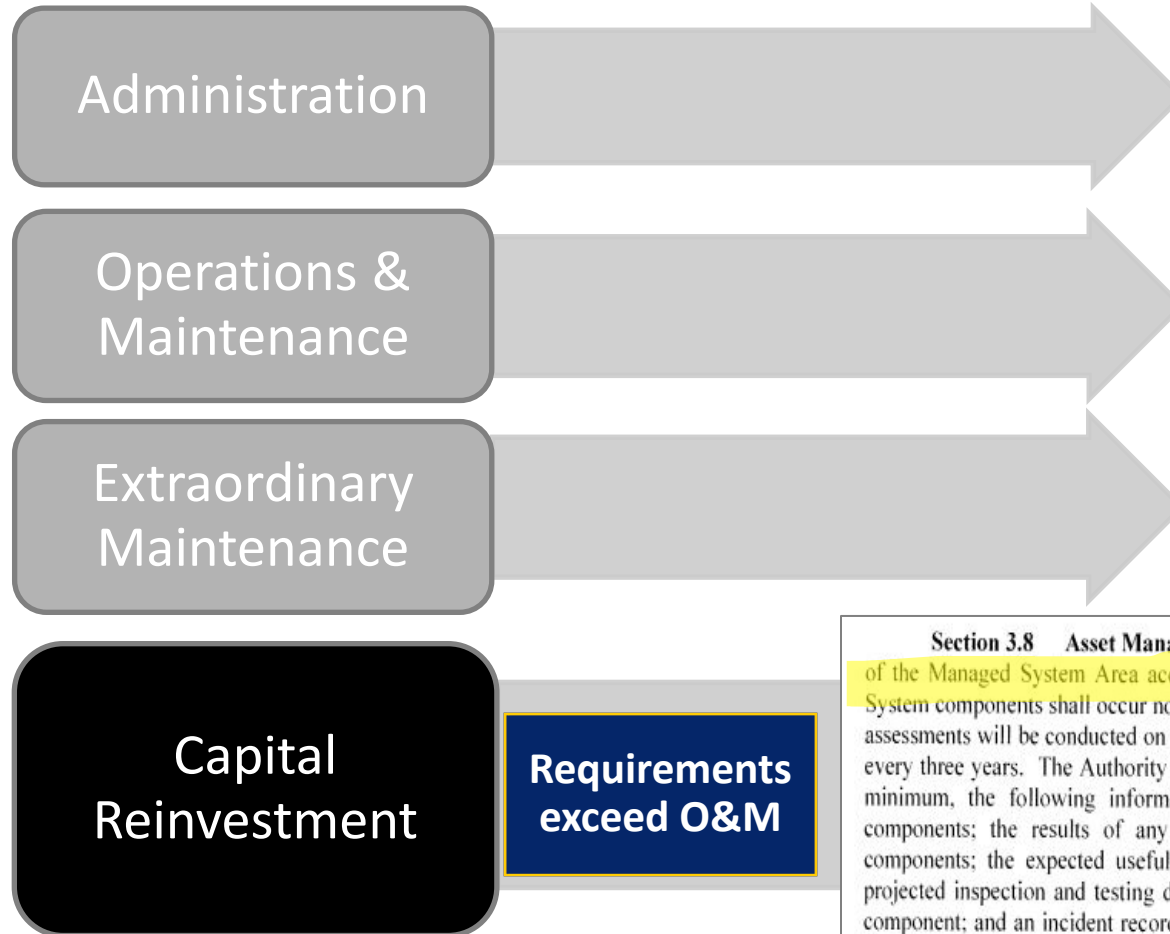


**3.5.2 Extraordinary Maintenance.** Subject to the payment of funds under this Agreement in sufficient amounts, the Authority shall perform Extraordinary Maintenance— as necessary to ensure that, at a minimum, the System provides the service levels described in Section 3.7. The Authority shall make such personnel and equipment available as necessary to respond to and remediate any damage to or failure of the System or any individual System component on an as-needed basis. In the event any portion or individual components of the System are damaged due to the criminal, intentional, or negligent acts of a third party, Authority may, but is not required to, seek such recovery in its own name from such responsible parties.

**3.5.3. Maintenance Resulting from Vegetation.** In the event that any System asset in the Managed System Area becomes non-functional due to the City's failure to maintain the vegetation on City property, the Authority shall remain obligated to make the repairs it is required to make under this Agreement, provided that the City shall reimburse the Authority for the costs directly related to such maintenance, including the costs of any necessary vegetation maintenance in connection therewith, which payment shall be in addition to the fees and costs set forth in Article IV, upon the City's receipt of invoices therefor and commercially reasonable documentation showing the required maintenance was due to the City's failure to maintain such vegetation.

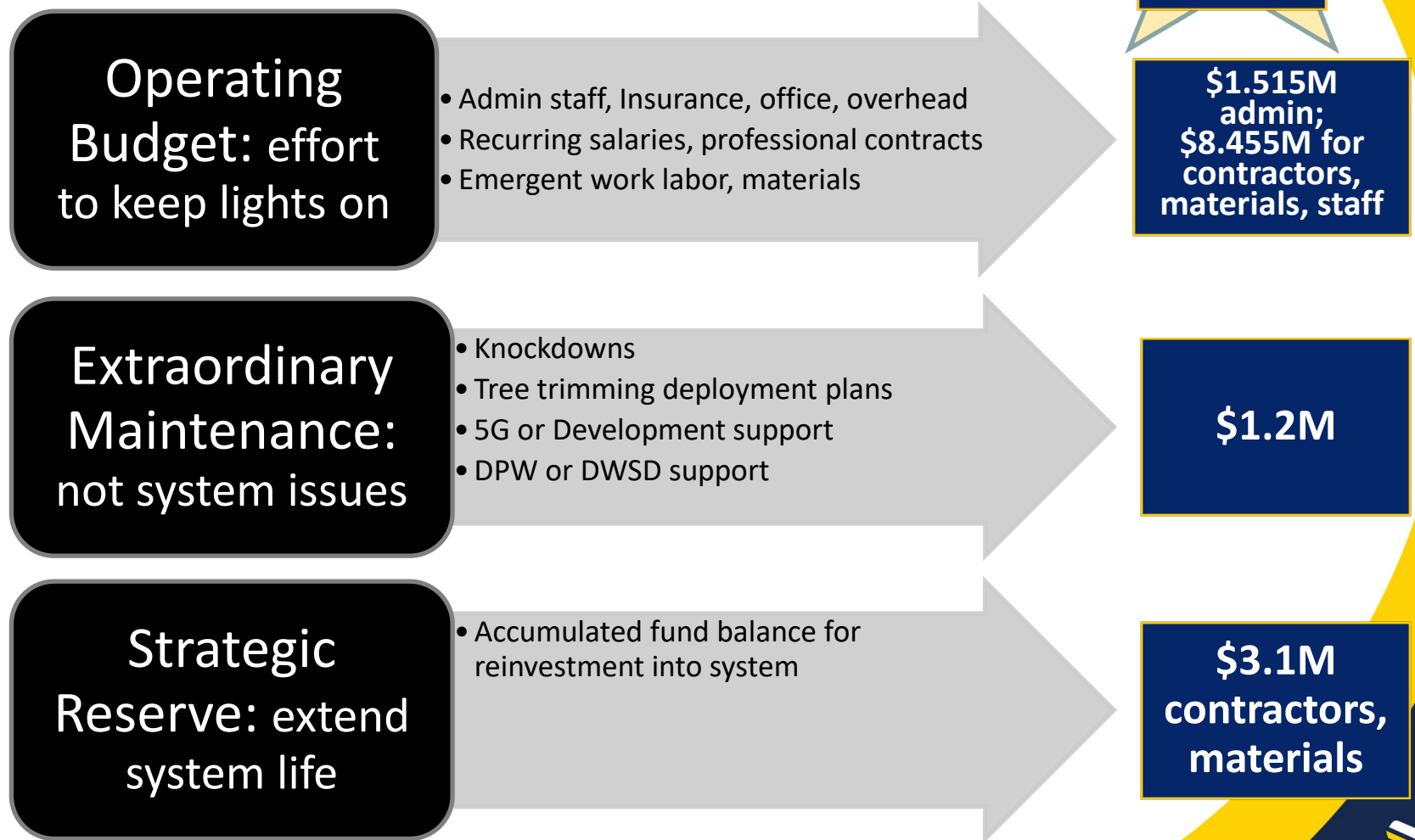


# Interlocal Agreement: Extraordinary Maintenance



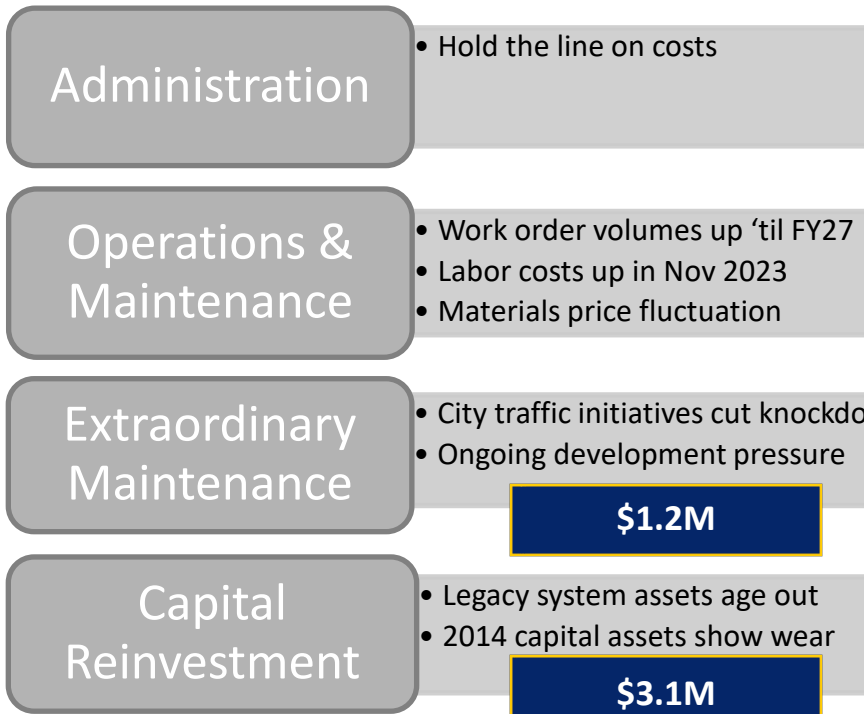
**Section 3.8 Asset Management.** The Authority shall operate and maintain the assets of the Managed System Area according to Industry Practices. Inspections and testing of the System components shall occur no less than once every six years. Structural inspections and risk assessments will be conducted on a rotating basis of distinct geographical portions of the System every three years. The Authority shall maintain an asset management database that includes, at minimum, the following information: the location and installation dates of all poles and components; the results of any inspections, testing, and risk assessments of the System components; the expected useful life of each of the components of an individual pole; the projected inspection and testing date of each component; the type and technical detail of each component; and an incident record of each occurrence that requires Extraordinary Maintenance, the type and costs of repairs performed, and any third parties that may be liable.

# PLA Budget for FY2023



# Operations & Maintenance Cost Trends vs Budget

**\$14.27M  
FY23 Budget**

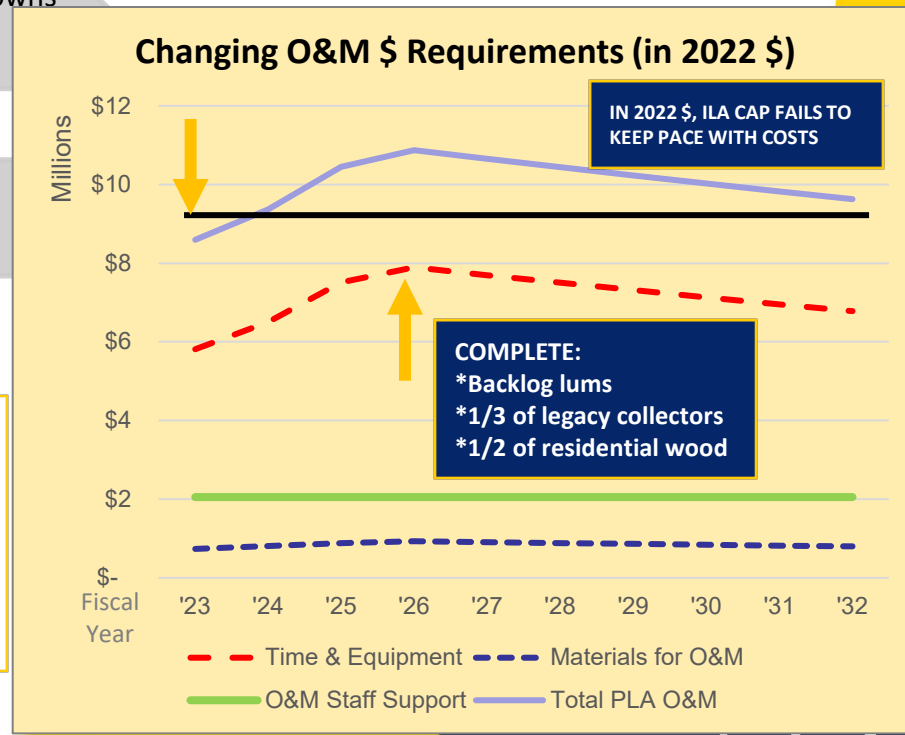


**\$1.515M admin;  
\$8.455M for  
contractors,  
materials, staff**

**\$1.2M**

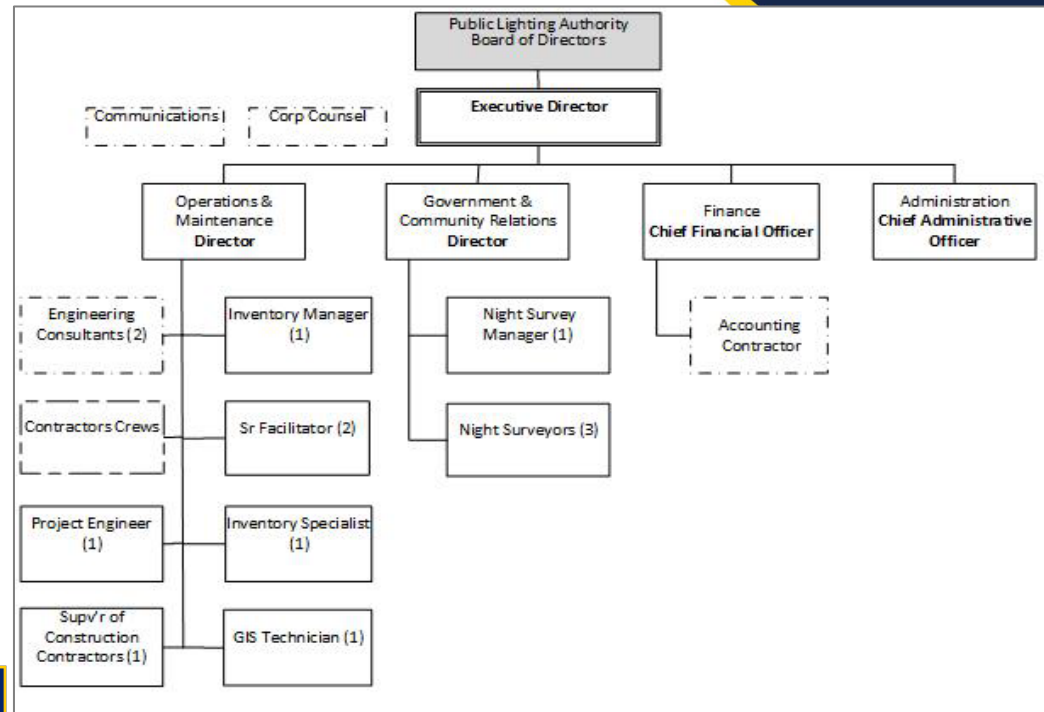
**\$3.1M  
requirements  
exceed O&M**

**Assumes:**  
 1. O&M costs rise as legacy assets age out  
 2. After FY26, materials usage less due to initial Collectors and Wood Pole pushes  
 3. Crew T&E up 10% in new contract FY25  
 4. Continued knockdowns, tree trimming, 5G, development support



# Operating Environment

Organization of the PLA, FY2023:  
 staff (solid line)  
 contractors (broken line)



Services delivered by the PLA:



## Partner Relationships

- City of Detroit component unit: City owns assets, PLA works within City initiatives and notices City on Improvements
- City of Detroit Public Lighting Department oversees funding
- DTE supplies electricity and alley lighting
- Contractors invest in the City's economy as well as service the system assets
- Telecommunications providers attach to City owned assets
- Constituents and community organizations expect quality lighting



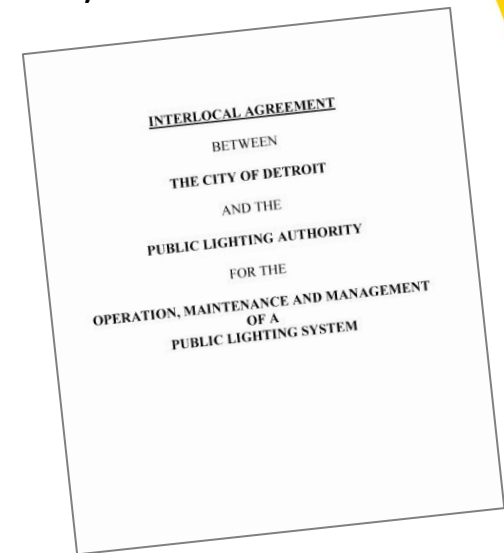
# Base Characteristics of Streetlighting System in the Managed Service Area



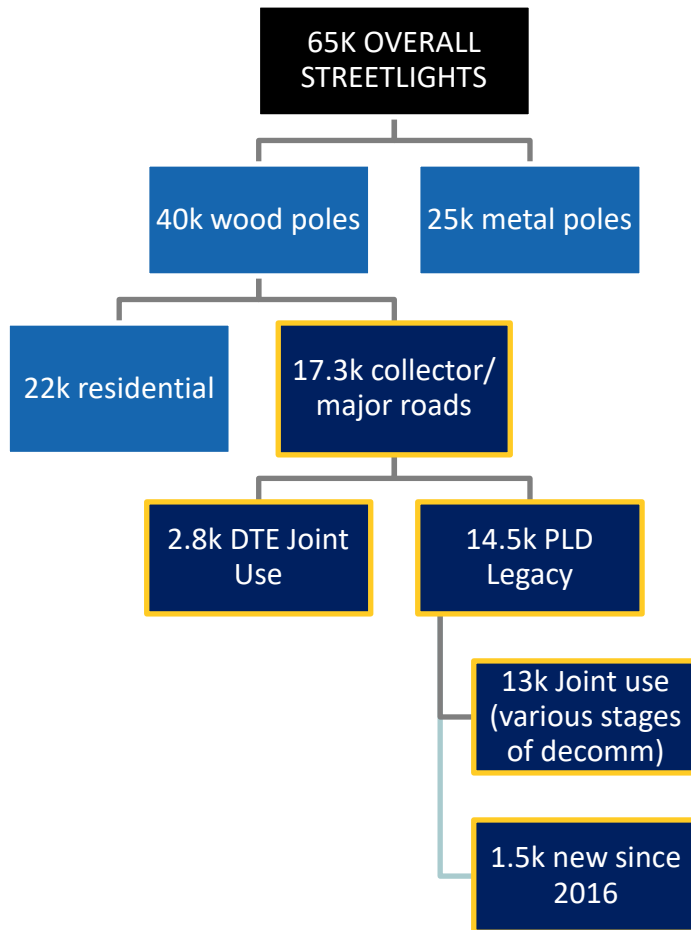
# The Lighting Plan in the Interlocal Agreement

*“THE LIGHTING PLAN”* criteria officially adopted 2013, to be periodically revisited:

- Number of lights: approx. 64,500 (current)
- Location of lights and other criteria:
  - one light for intersections/dead ends
  - one mid-block for >300 ft residential
  - two mid-block for >700 ft residential
  - thoroughfares as per photometrics
  - non-conforming lights phased out at end of life
- Design:
  - 85% wired Overhead
  - 15% wired Underground
  - Series circuits previously fed by PLD power to be reconstructed for DTE power feed
- Materials:
  - LEDs of 150W equivalent (residential), 250W (collector), 400W (thoroughfares)
  - Poles material per legacy (wood, metal, decorative)



# Managed System Area Characteristics: Asset Profile



## 2014-2016 Capital Construction involved considerable reuse of existing assets:

- 14,500 PLD poles, some wood and some decoratives
- Unspecified # of steel poles on collector streets

## “Joint Use” pole scenarios in any combination:

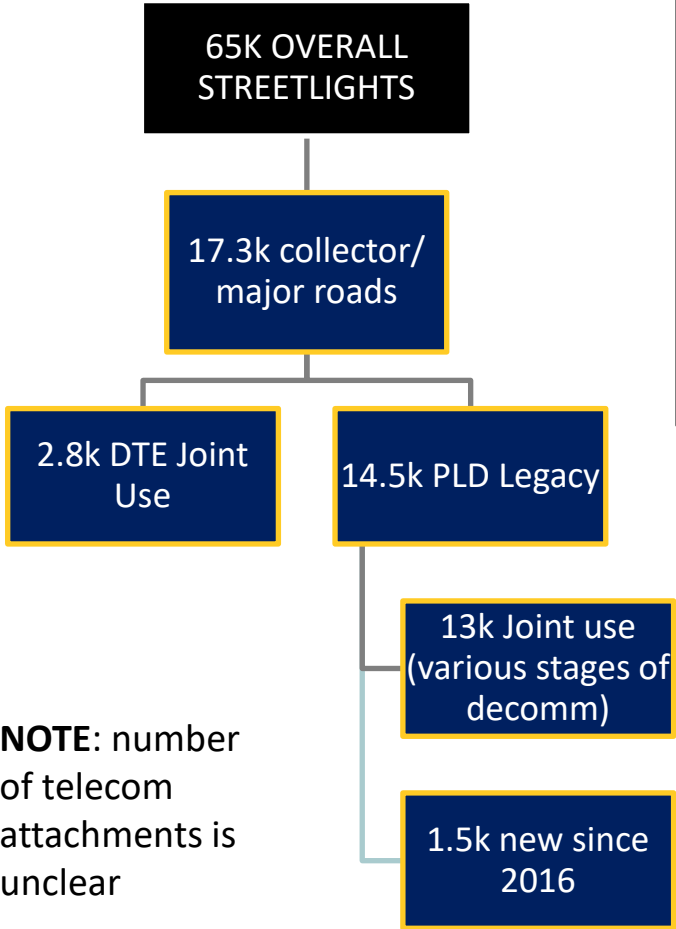
- With PLD – Fixtures hosted during PLD decommissioning
- With Telecomm – PLA works with telecoms for stealth poles
- With DTE – DTE owns/hosts PLA arms and fixtures

## “Managed System Area” assets owned by City:

“luminaires, lamps, photocells, brackets, conductors, lights, poles, foundations, ballasts, circuits, transformers, conduits, underground equipment not part of the distribution system, and other equipment and appurtenances, including easements/other interests in real property, from point of connection to the electric distribution system and continuing to the luminaire, necessary for operation of streetlights.”

*(Interlocal agreement)*

# Base System Characteristics: Joint Use Legacies



**NOTE:** number of telecom attachments is unclear

Complications, largely in collector streets, include:

- PLD poles: remaining arc wire and power distribution frames, or top-cutted old wood poles
- Telecommunications providers' unapproved, sometimes incompatible pole attachments; labor intensive approval process and complex restoration
- DTE poles hosting PLA fixtures: look, placement and condition of poles controlled by DTE

Some metal decoratives and steel poles also reused

Joint Use Scenarios Found in Collectors Project Poles Survey	
	% of all Poles
PLA/DTE/PLD/Telecom	7.3%
DTE/PLA	1.5%
DTE/PLD/PLA	0.2%
No Joint Use but some legacy	43.2%
PLD/PLA	30.8%
Telecom Only	17.0%





# Public Lighting Authority Streetlighting System

Four different power feeds in use throughout the system, per Lighting Plan:

## Collectors and Thorofares

### UNDERGROUND-FED

Largely in the downtown, and on thorofares and decoratives

### OVERHEAD CIRCUIT-BASED

Largely on collectors

## Residential Areas

### CIRCUITS IN DESIGNATED NEIGHBORHOODS

Each light connected to DTE feeds

### SINGLE FEED

Each residential light directly fed from lines behind house



# Base System Standards

Asset category	Standard	Comment	Lifecycle
<b>Poles</b>			
<b>Metal</b>	40 ft aluminum 30 ft	Largely underground-fed	30-50 years
<b>Wood</b>	35 ft 40 ft	Depends on size of street	30 years
<b>Decorative</b>	Neighborhood needs	Work with communities	30-50 years
<b>Arms</b>			
<b>Metal or Wood pole (not decorative)</b>	6 ft 12 ft	12 ft if pole is setback OR poles on one side of street	15-30 years
<b>Lums</b>			
<b>Residential</b>	GE171, 150 watt*	Some grandfathering	10-12 years
<b>Collector</b>	GE122, 250 watt*	Some geography restrictions	10-12 years
<b>Thorofare</b>	GE214, 400 watt*		10-12 years
<b>Wiring &amp; Spans</b>			
<b>Residential</b>	300 ft wire length	per The Lighting Plan	30 years
<b>Handholes</b>	On sidewalks: 2 ft <sup>2</sup>		30-50 yrs
<b>Foundations &amp; Attachments</b>			
<b>Attachments</b>	Per structural integrity of pole and spec review		Life of pole
<b>Main Thorofares</b>	Breakaway	Grandfathering in place	Life of pole
<b>Legacy steel</b>	Fasteners		Life of pole
<b>All other</b>	Concrete		Life of pole
<b>Lighting Control &amp; Feeds</b>			
<b>Collectors</b>	Lighting Control 73		30 years
<b>Residential</b>	Tie-in to Secondary	geography restrictions: mini-circuits from photocell	30 years or lum life
<b>Downtown</b>	Cabinets		

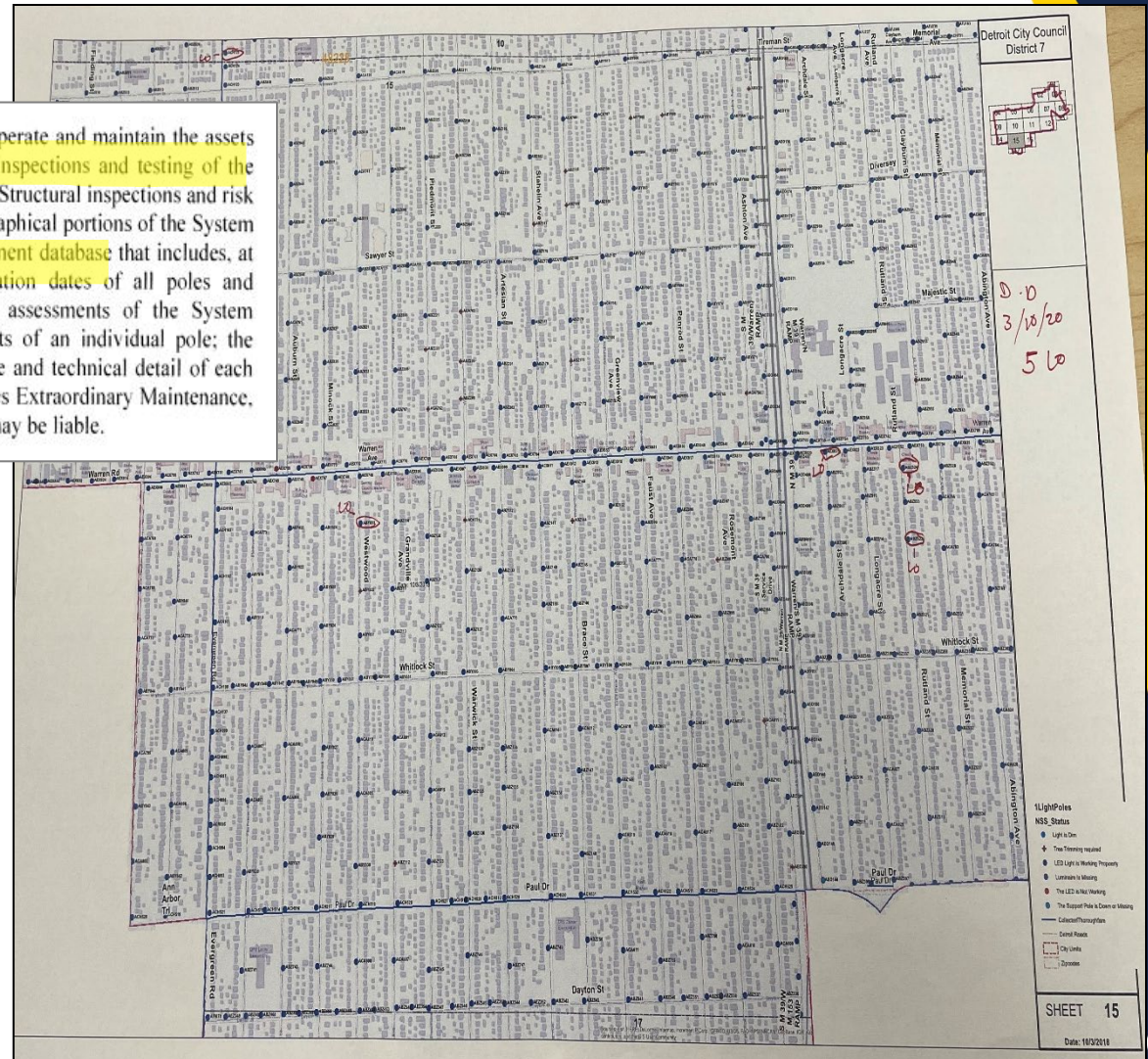
\* LEDs; Watt equivalents to High Pressure Sodium



# Condition Ratings Process for Every Asset

**Section 3.8 Asset Management.** The Authority shall operate and maintain the assets of the Managed System Area according to Industry Practices. Inspections and testing of the System components shall occur no less than once every six years. Structural inspections and risk assessments will be conducted on a rotating basis of distinct geographical portions of the System every three years. The Authority shall maintain an asset management database that includes, at minimum, the following information: the location and installation dates of all poles and components; the results of any inspections, testing, and risk assessments of the System components; the expected useful life of each of the components of an individual pole; the projected inspection and testing date of each component; the type and technical detail of each component; and an incident record of each occurrence that requires Extraordinary Maintenance, the type and costs of repairs performed, and any third parties that may be liable.

- Night Surveyors canvas every block of the city (right), record findings, and enter in Arc GIS
- Facilitators inspect every pole to plan replacement projects
- Facilitators verify completed contractor work
- Constituents make service requests thru various channels; PLA rep attends public meetings



# Work Order Unit Cost Detail

UNIT COSTS ASSUMED	FY22	Reflects
Residential Wood Pole Swapouts	\$1800 / pole	Poles, most arms, lums and ½ of spans replaced
Collector Street Standardization	\$100,000 / mile	Pole, arm, lum or span replacements or adjustments, per field survey
Lum Swapouts	\$365 / lum	2-man crew swaps 100 lums per week
Conversion to Underground feed	\$500,000 / mile	Direct boring, conduit, handholes, existing circuitry
<b>Source:</b> average actual time and expense incurred for contractor work from May 2021 to April 2022		



# Plan Principles and Strategies

## **PRINCIPLES:**

1. Maintain Rightsized Base of Assets – Mapped to block size and usage
2. Standardize Components – Reduce variations of Makes/Models  
Overhead-fed vs Underground-fed streetlights
3. Guidance by the Interlocal Agreement
4. Long-Term Budgeting – Adoption of projections of system lifecycle requirements
5. Asset Stewardship – Keeping fixtures only for expected useful life, and minimizing attachments to them, to lower outages and operating costs

## **PERFORMANCE METRICS CATEGORIES TRACKED:**

- Project Management
- Operations & Maintenance
- Financial
- Community Affairs



# **Long-Term Plan, Sources and Uses: Reinvestment Cash Flow Requirements, Schedules, and Project Details**

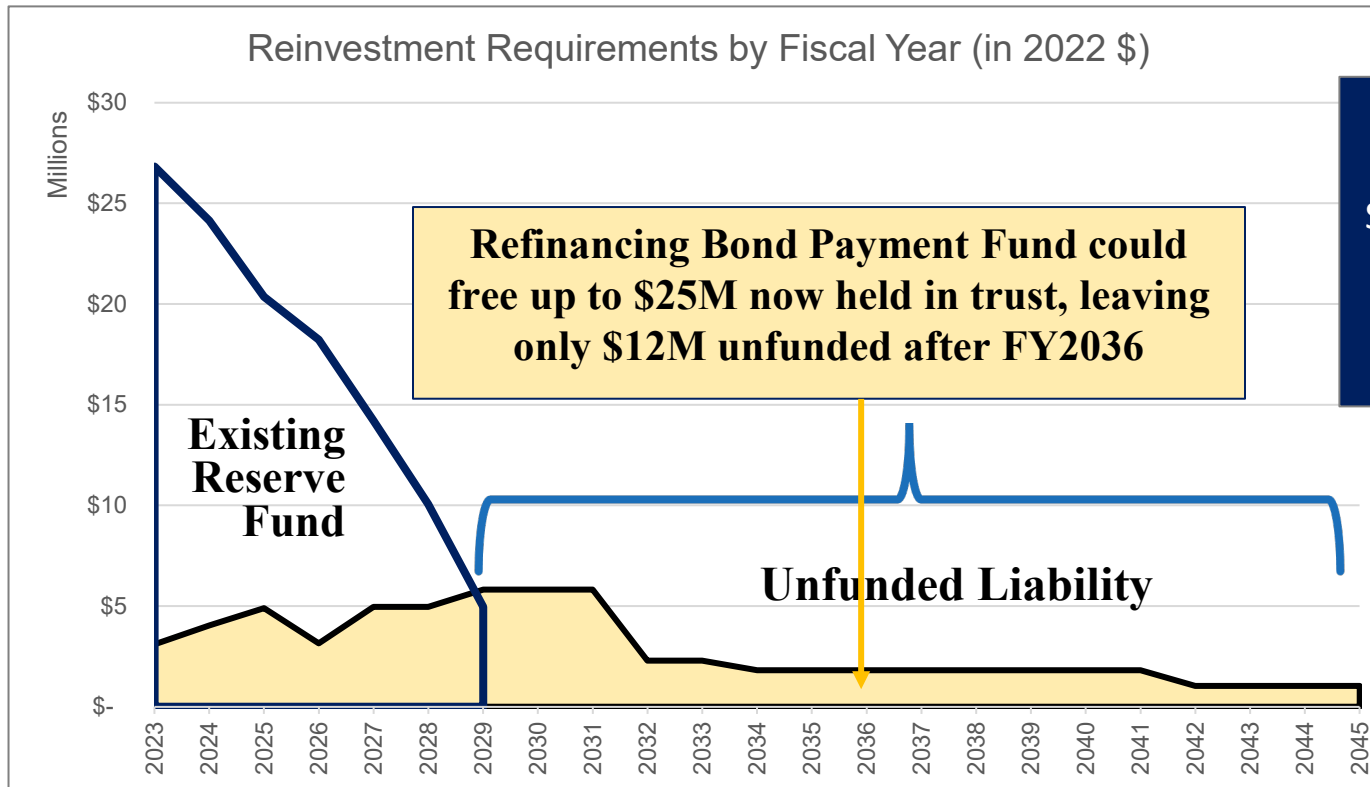


# Cash Flow Projections without Refinancing

Existing reserve depletes in FY29, after sizeable catch-up on legacy fixes

Refinancing \$25M in trust would meet reinvestment needs until FY36.

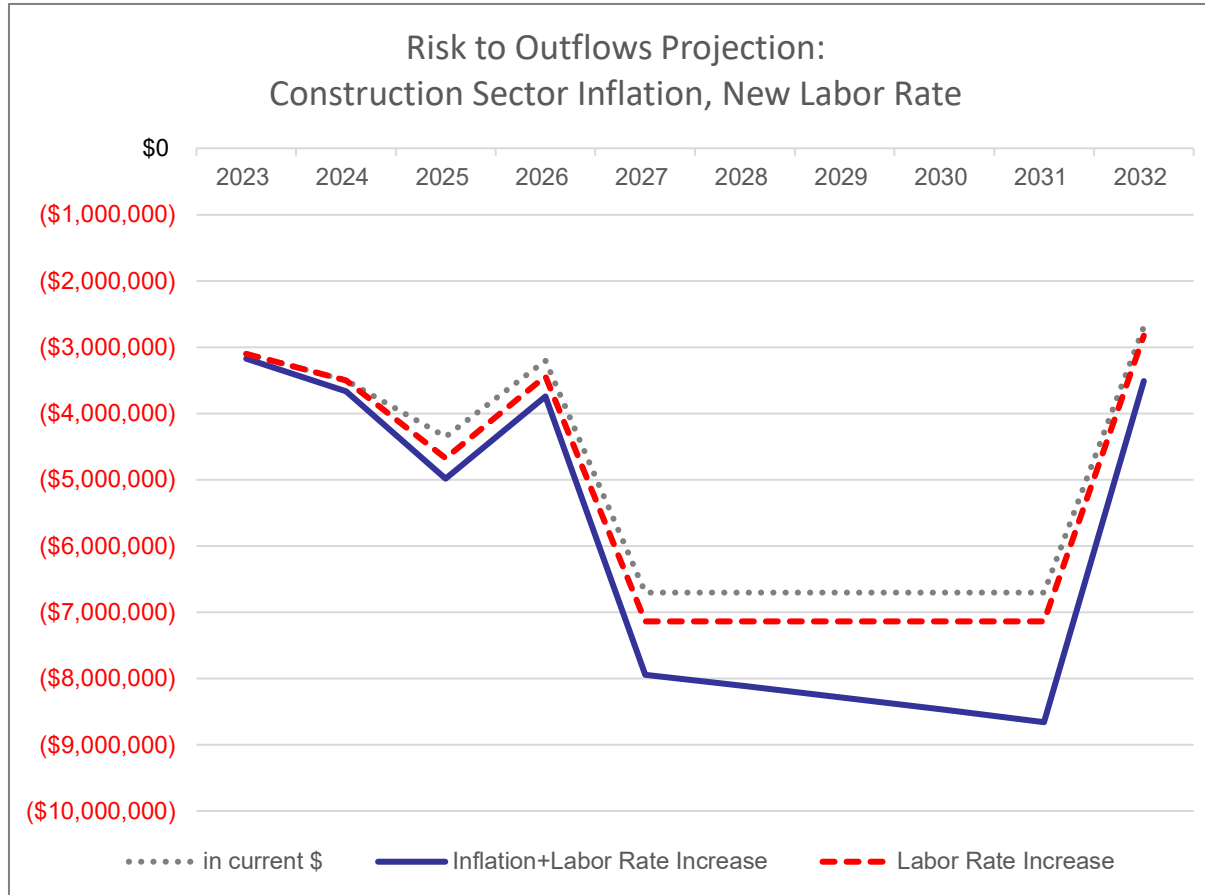
Post-fy2045, metal poles have to be considered, along with significant wood pole replacement.



**DOES NOT INCLUDE \$1.5-\$2M /year min. for increased labor rate and inflation.**

**NOTES:** (1) Financial projections in current \$ assume investment income keeps pace with inflation  
 (2) Annualized depreciation of original \$181.4M capitalized construction suggests \$6.05M/yr needed; ad hoc reinvestment is occurring in the O&M budget.

# Risk to Projections: Inflation, Labor Rate



\*\$1.5-\$2M annual impact of new contractual labor costs plus modest annual inflation of 2.3%.

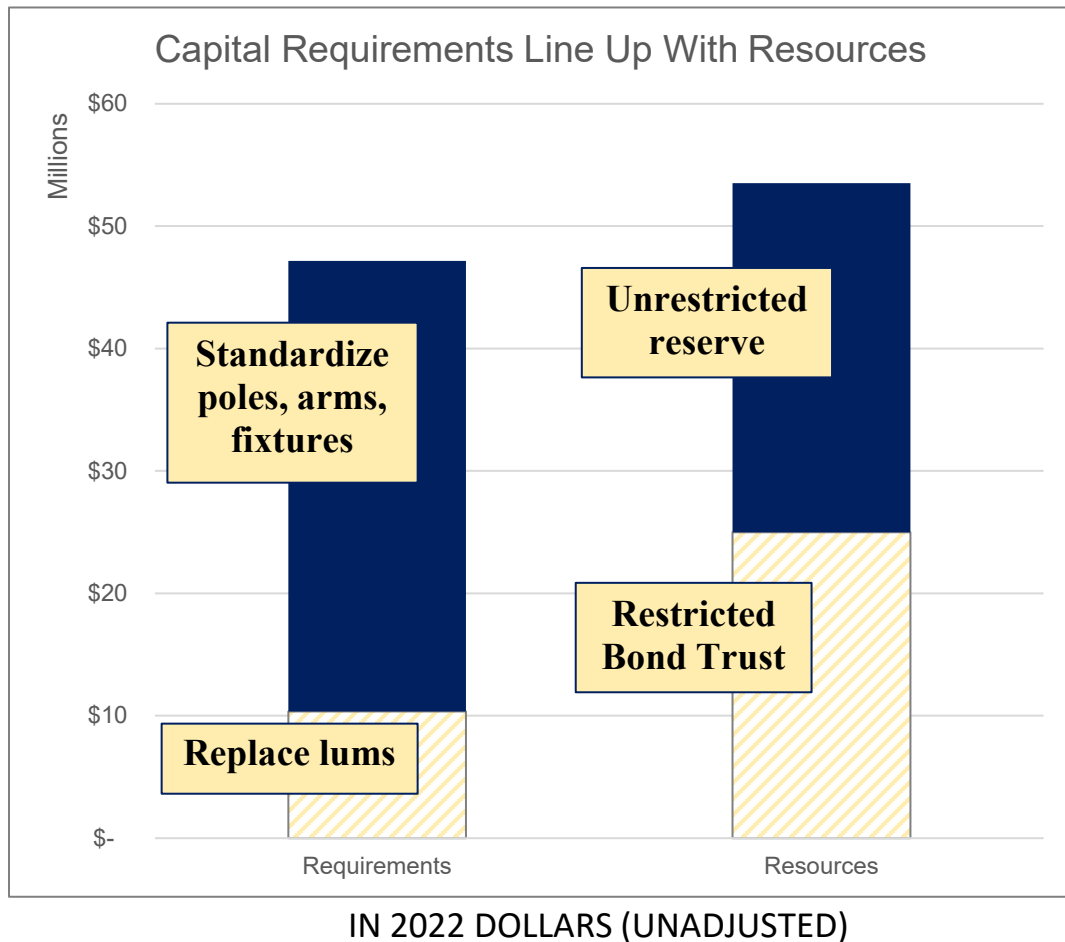
\*Labor costs go up 10% due to no increase for 4 years

\*Note that current Producer Price Index in construction sector inflation is 21.6%

Consumer Price Index (BLS)	avg	2.25%-2.33%
Producer Price Index-Construction (BLS)	2022	21.6%



# PLA Long-Term Capital Plan Overview



- PLA Capital Plan assessed and projected \$47M of needed fixes for the system in next 10 years
- Sum of **“Restricted”** Bond Payment Fund and PLA **Reserve** = \$53M
- PLA banked funds from its annual cap for this capital reinvestment, which will cover into fy29

## PROJECT NOTES:

- \$ are unadjusted for inflation or labor rate hikes – both significant variables
- O&M operating costs cover one-off asset replacement (Lum failure; pole knockdown)
- Some Lum replacement will occur during pole standardization

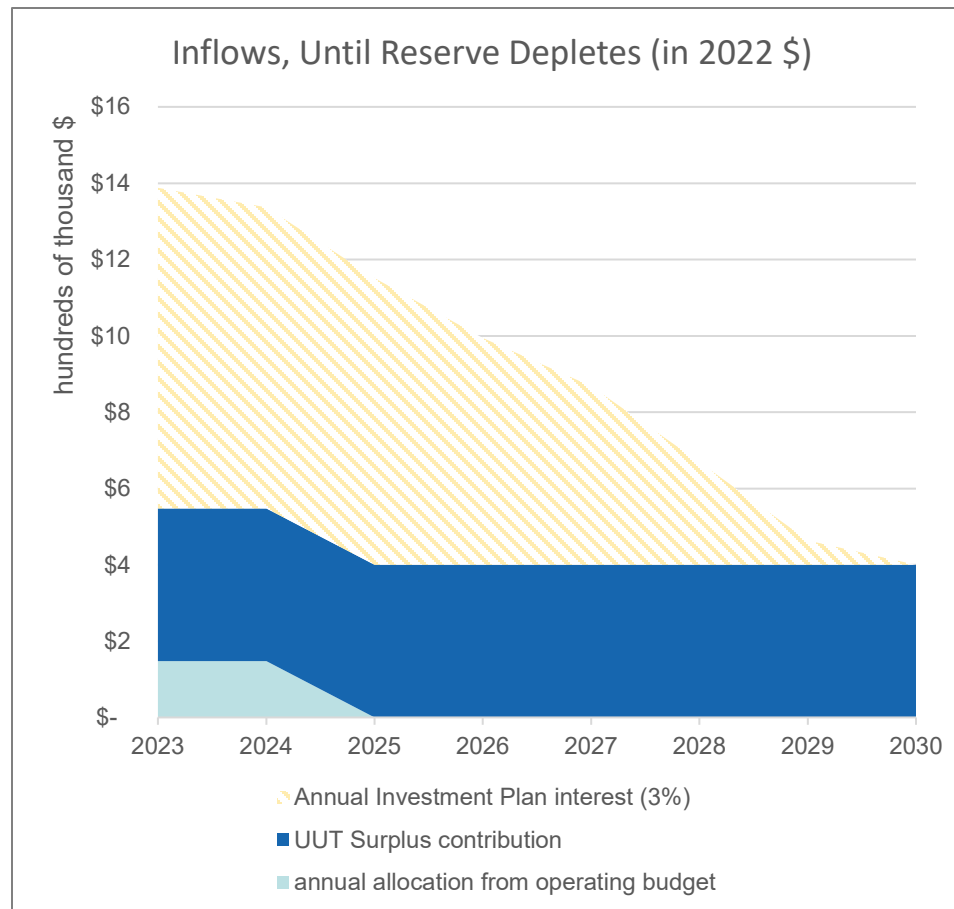
# Sources of Funding: All Revenues

FUNDING SOURCES	FY23	Projections or Commentary
Interlocal Agreement Annual O&M Cap	\$8.85M (adj for inflation)	Limited reinvestment: Covers emergent lum and pole knockdown replacements
Interlocal Agreement Annual Extraordinary Maintenance, Vegetation	Actual costs	Not available for Capital Reinvestment
City of Detroit Utility Users Tax	\$12.5M	\$12.1M committed to debt service on the Capitalized Construction bonds; \$0.4M contribution to Capital Reinvestment Reserve
Reserve	\$28.5M	Drawdown of \$2.9M for improvements starting in FY23
Interest Income (net of fees)	\$300,000	Investment Plan to maximize the yield for the Capital Reinvestment Reserve; changes in value of investment assets to be realized in yearly reconciliations
Grants or Earmarks	TBD	7 applications made: expect award decisions this Fall; exploring other cost recoveries
3 <sup>rd</sup> Party Recoveries for Knockdowns	\$15,000	Limited reinvestment: augment O&M work



# Sources of Funding: Inflows Until Reserve Depletes

Inflows: Contribution from operating budget quickly is consumed by rising O & M costs  
Annual Investment Plan rate of return applies to beginning balance of reserve



# Uses of Funding: Reinvestment Project Categories

PLA's Long-term Capital Reinvestment Plan will set a long-term course focused on the basics to reliably, effectively light the City.

## **Wholesale Replacement:**

Old wood poles, Cooper lums  
Nonstandard features  
Replacement of poles tied to  
deactivated PLD spans  
Normal replacement

## **Limited Modernization:**

City Streetscape Support  
Underground burial  
(Woodward completion)  
Lighting technology R & D

## **Regular Reinvestment:**

Metal pole refurbishment  
Attachment standards  
Preventive maintenance

## **No Expansion:**

No change in system  
footprint is planned

NOTE: No projects for decoratives



# Uses of Funding: Current Project Assumptions

## Universal Assumptions:

- No after-hours premiums to be paid for any capital project work
- Estimated from actual Cityworks work order costs
- No assumptions about Decoratives reinvestment is included
- Supply chain / inflation: variable and fixed increment scenarios applied
- More support poles than known, more feeds issues; reengineering handled in-house, except for grant projects
- Annual Investment Plan to yield interest earnings of 3% per YEAR

## Residential Wood Poles

- 50% of the spans of replaced poles will be moved/replaced; No feed change; no traffic control required
- No direct cost for engineering hours (in-house)

## Collector Street Standardization

- Engineering work on spans, feeds, lighting controllers (in-house), 1/3 of spans to be moved/replaced
- Sidewalk work for 25% of poles in ¾ of Collector streets; Traffic control costs needed for ½ of the locations
- Big cost unknowns: materials cost hikes; handling of Joint Use costs; unit price savings for bundled work

## Lum swapout

- In 60 miles of Collectors standardization, we'll replace 2200 Coopers leaving 3800 in next two years
- Lums installed in 2016 to need replacement somewhere btwn 2027-2031, and every 10 years thereafter

## Woodward underground

- Materials costs in FY22 in O&M accounts; direct boring and contractor costs in FY24

## Streetscape Modernization

- Advisory role; no direct costs to the PLA

## Metal Pole Refurbishment

- Inspections to trigger refurbishment or replacement on one-off or case-by-case basis, from O&M



# Timeline of Improvements in Next Decade

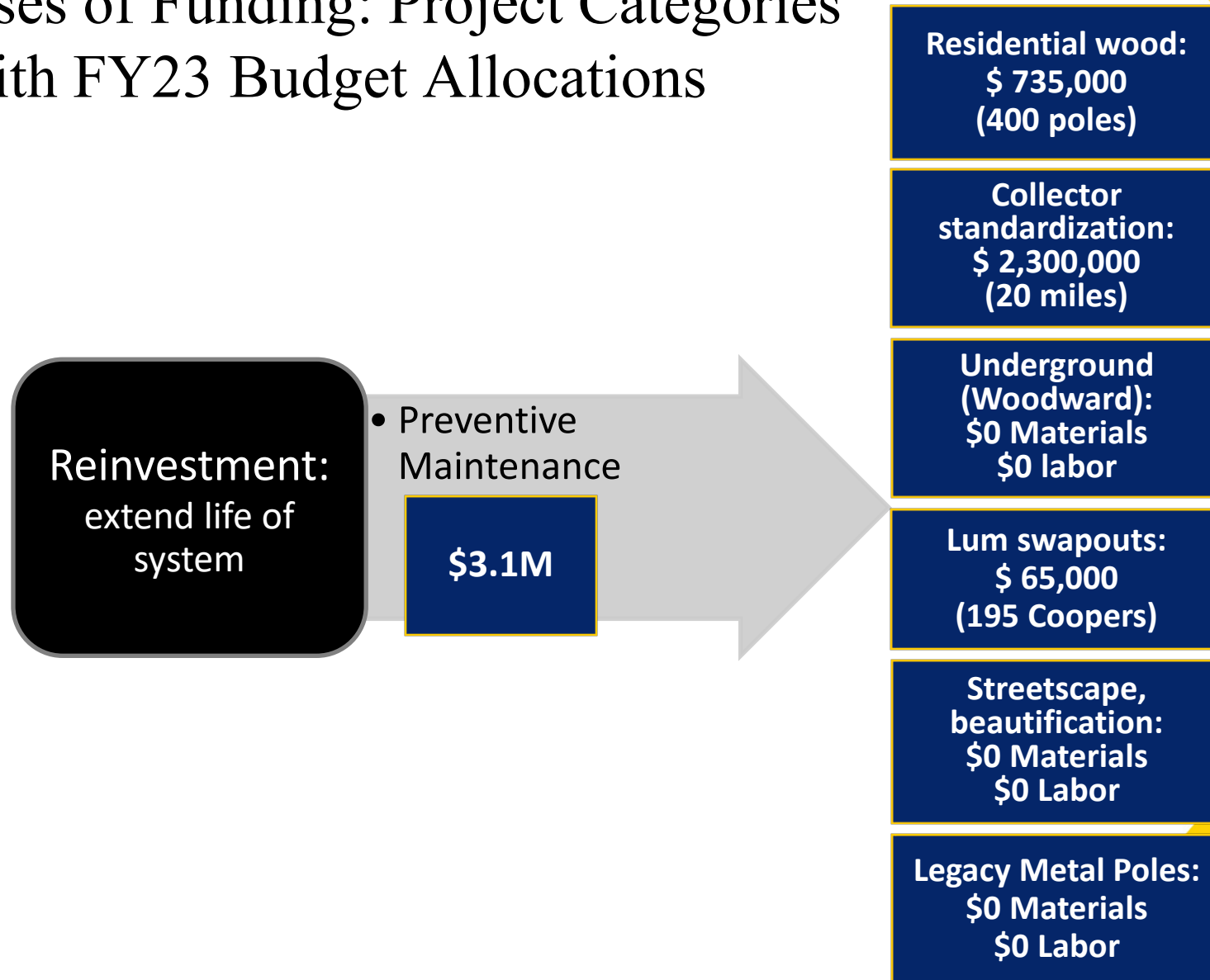
Project	FY23	FY24-25	FY26-27	FY28-31
Lum swapouts	Isolated problem areas (200)	Finish Coopers (3600)	Begin 2nd generation (5400)	Complete 1 <sup>st</sup> lums (21,600)
Residential wood pole replacement	Isolated problem areas (400)	Per area surveys (1400)	Per area surveys (2000)	7000
Collector Standardization project miles	20	40	Other smaller spots completed (20)	10
Legacy PLD system decommissioning	no action by PLA			
Metal or decorative refurbish or replace	Ongoing inspection			
Engineering and Design done in-house	Except for grants			

## ASSUMPTIONS to FY2031 (net of “If-Comes”):

1. “Gap Projects” of pole installs for missed areas, post 2016, are not replaced in plan period
2. 2200 Cooper lum swaps will occur thru Collector Street Standardization (700+ in 20 surveyed miles), leaving 3800 needed by FY25; 27,000 normal lum swaps start in calendar 2027.
3. Woodward underground and DPW streetscape modernizations occur
4. Random issues with decorative lums, and all pole knockdowns, accomplished thru O&M budget
5. Significant dent in PLD pole issues completed through Wood Pole and Standardization projects



# Uses of Funding: Project Categories with FY23 Budget Allocations



# Uses of Funding: Discussion About Alternatives

- (A) Completing collector street standardization at contractor capacity leaves us behind on lum swapouts
- (B) Completing 3800 needed lum swapouts would allow <10 Collector miles in FY23
- (C) We need \$4.1M to do both

CAPITAL REINVESTMENT PROJECTS	TOTAL # IN PROJECT (LONG-TERM)	FY23 BUDGET	FY23 NEED	EARMARKS SCENARIO (4)
SCENARIO (A) COLLECTORS:				
LUM SWAPOUTS (1)	6,000 Cooper 27,000 other	\$65,000 (190)	\$1.2M (3800)	n/a
COLLECTOR STANDARDIZATION (2)	4,500+ poles / 90 miles	\$2.3M (1000 poles / 20+ miles)	\$4.2M (1300+ poles / 45 miles)	\$2.8M (843 poles / 22.5 miles)
RESIDENTIAL WOOD POLE REPLACEMENT (3)	17,000	\$735,000 (400 poles)	\$1.8M (1000 poles)	n/a
<b>TOTAL FY23 BUDGET:</b>		<b>\$3.1M</b>	<b>\$7.2M</b>	

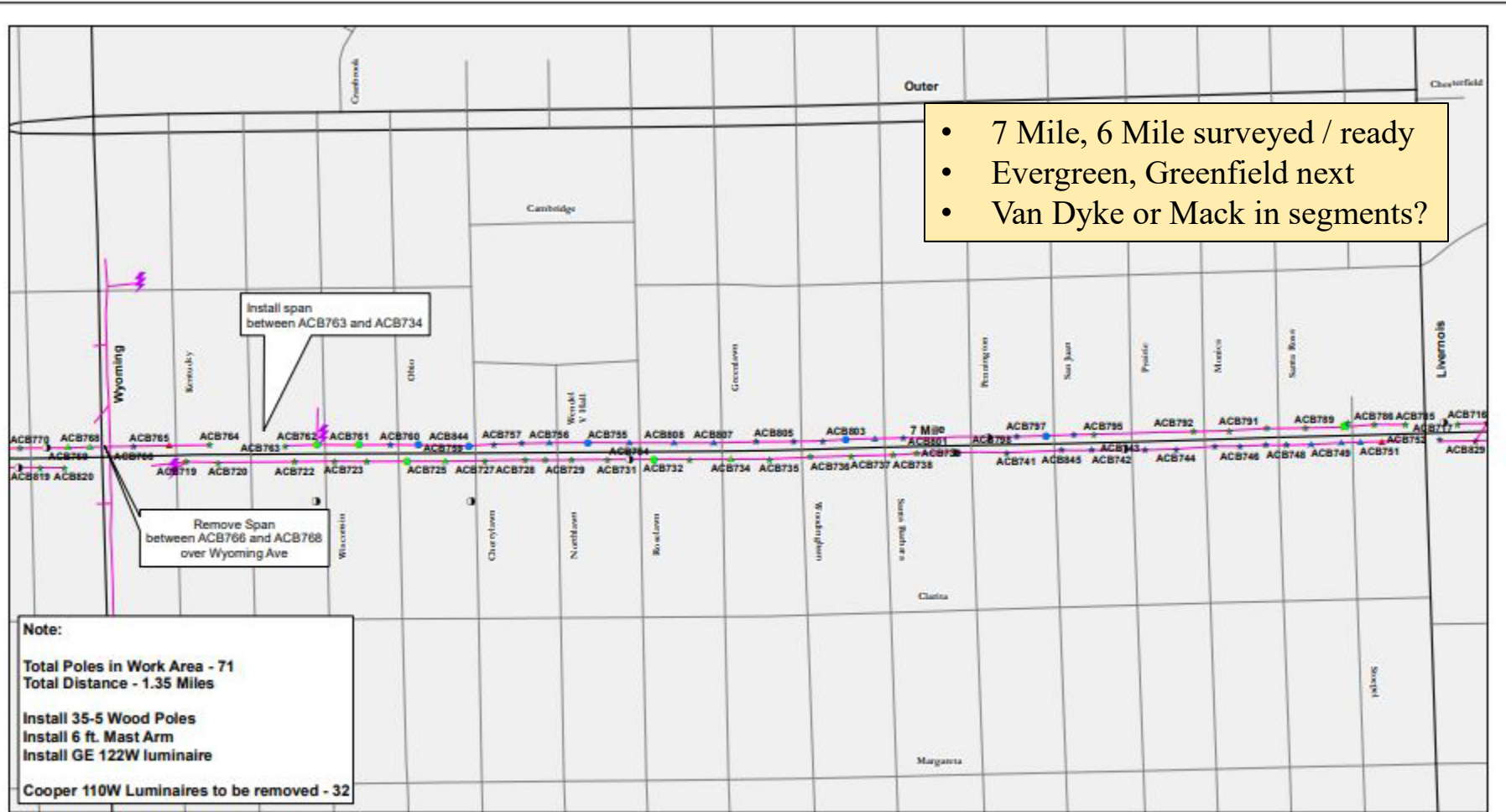
1. 2200 Cooper swaps will occur in 60 miles of Collector standardization, but other corridors have Coopers
2. Prioritized to align with timing of City streetscape and commercial cleanup activities
3. 17,000 legacy wood poles means >400 poles will be failing; 1000-2000/yr is the least we should do
4. Earmark requests included underground conversions, which add costs: 7 asks include 6 Mile/McNichols; Moross/7 Mile; Mack; Mound; Conant





# Uses of Funding: Collector Standardization Plan

Manageable size segment adjacent to Livernois streetscape site illustrates project approach



- 7 Mile, 6 Mile surveyed / ready
- Evergreen, Greenfield next
- Van Dyke or Mack in segments?

1 in = 500 feet



# Uses of Funding: Projects with no FY23 Budget

FY23 BUDGET – \$ allocated to City priorities, still offering progress toward all goals

CAPITAL REINVESTMENT PROJECTS	TOTAL # of STREETLIGHTS IN PROJECT	FY23 BUDGET	EFFORT PLANNED in OUT-YEARS
WOODWARD UNDERGRND	1.2 miles	\$0	\$400,000 for last segment of whole street (112 / 22 blocks)
STREETSCAPES	3-10 areas	\$0	Advisory: currently Dexter, downtown, Roosevelt Park
		<b>\$3.1M</b>	



# Uses of Funding: Issue of Joint Use Liabilities

Grant or Earmark Awards would address unfunded liabilities across project categories.  
7 applications made to date, exploring DOE grants.  
The liabilities are largely found on collector streets.

PLD poles: >20% of all

Telecomm poles: <20% of all

DTE poles: 10% of all

Joint Use Scenarios Found in Collectors Project Poles Survey	
	% of all Poles
PLA/DTE/PLD/Telecom	7.3%
DTE/PLA	1.5%
DTE/PLD/PLA	0.2%
No Joint Use but some legacy	43.2%
PLD/PLA	30.8%
Telecom Only	17.0%

A PLD ELEMENT = arc wire and top cuts for PLD reimbursement

A TELECOM ELEMENT = telecom companies' asset impacts and shares of work

BOTH OFFSETS ARE NET OF DTE reflecting agreement related to DTE-owned poles



# **Methods and Concepts for Execution: Structure of Reserve, Related Policies, Concepts**



# Long-Term Cash Flow Projections under Reserve

PLA will formalize the existing reserve for capital reinvestment purposes, as follows:

- Beginning balance as of July 1, 2022 is current account balance (held in Fifth Third Bank)
- Annual budget for reinvestment to be determined by schedule of requirements, updated annually and guided by lifecycles, with technology changes regularly considered
- Excess \$ in early years to be saved for later in lifecycle where requirements are significant
- An Annual Investment Plan will engage a local financial institution to responsibly maximize a rate of return on the funds
  - Investment policy proscribing instruments that lessen Risk and exposure
  - Bank Advice re: instruments, Annual drawdowns, etc
- Sound project management and tracking



# Expansion and Modernization Policies

- Per The Lighting Plan and Interlocal Agreement, not planning to expand the footprint
- For decorative pole requests or system modifications for development, the customer will pay any differentials between the decorative poles and The Lighting Plan characteristics
- Burying wires will occur on an opportunity basis, according to existing infrastructure for underground feeds as well as to maximize existing underground footprints



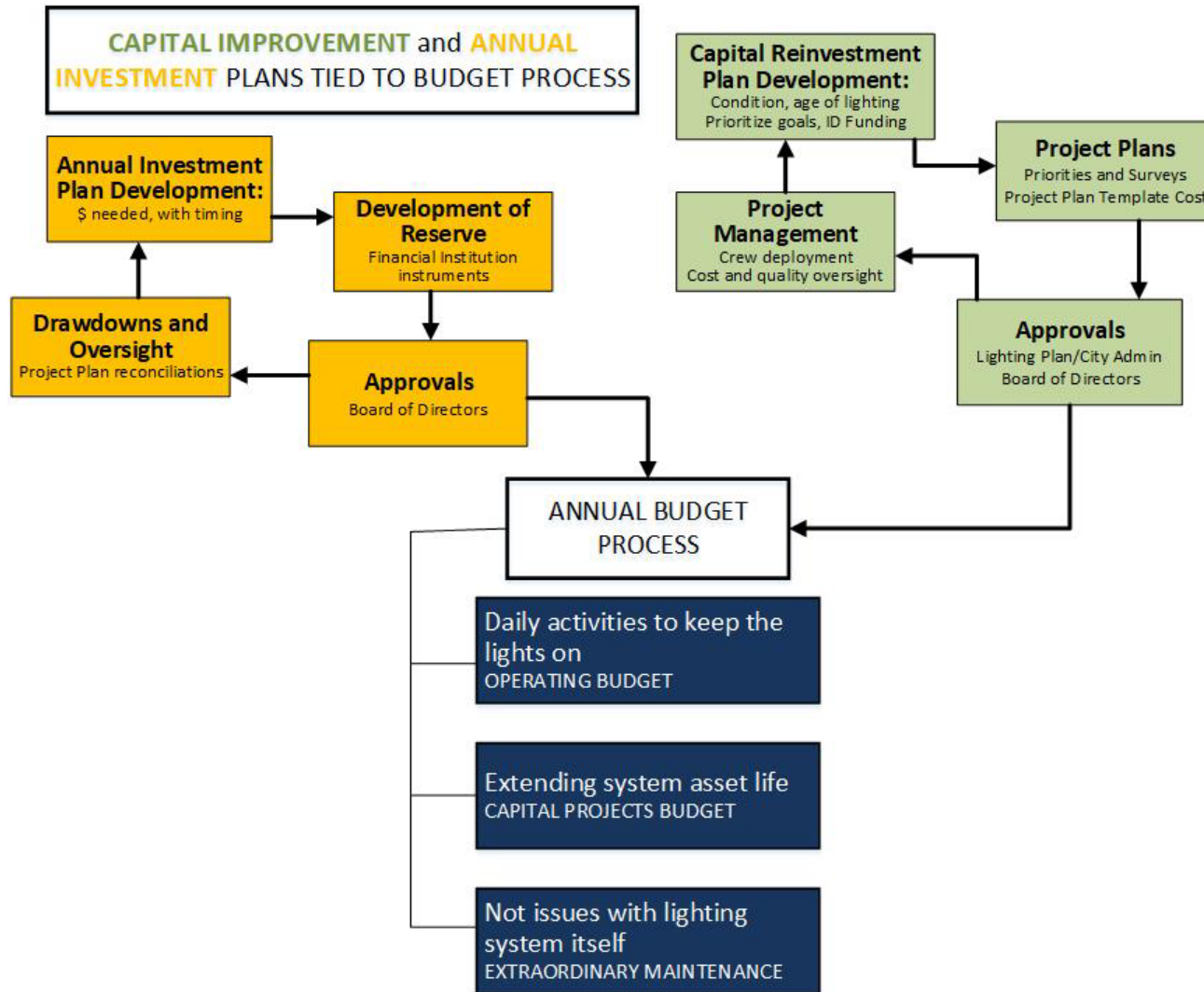
# Supporting Finance and Accounting Processes

Capital reinvestment will be integrated through:

- Annual Budget Process
- Long-Term Capital Plan updated annually under CRO and vetted by an independent expert adviser
- Annual Investment Plan
- Reconciliations every year:
  - Project plan templates
  - Financial instrument performance
- Reserve segregated from debt service and daily operations



# Supporting Finance and Accounting Processes





# Terms and Sources

*“THE LIGHTING PLAN”* – adopted June 2014, to be periodically revisited:  
*INTERLOCAL AGREEMENT*

concepts

- Emergent Work = routine unplanned daily service needs
- Legacy Poles = existing streetlight assets installed before the 2014-2016 capital construction
- Luminaires = light fixtures or lamps
- Photometrics = study of the distribution and quality of light cast by streetlighting
- Secondary feeds = direct attachment to DTE power poles

