



STAFF REPORT

Report To: Board of Supervisors

Meeting Date: March 17, 2022

Staff Contact: Darren Schulz, Public Works Director

Agenda Title: For Possible Action: Discussion and possible action regarding an update on the City's Asset Management Program and direction on the future of the Program. (Tyler Jesse, TJesse@carson.org; Robert Nellis, RNellis@carson.org; Randall Rice, RRice@carson.org)

Staff Summary: Staff will provide a brief update to the Board of Supervisors regarding the progress of the City's Asset Management Program. Discussion topics include: updates on Geographic Information Systems ("GIS") services including mobile data collection, apps, dashboards and data conversion; how Carson City is leveraging its Enterprise Asset Management system ("EAM"); how the City's Facility Condition Assessment data is being leveraged; and the current status of Carson City's first-generation Strategic Asset Management Plan ("SAMP") and direction on the future of the program.

Agenda Action: Formal Action / Motion

Time Requested: 20 minutes

Proposed Motion

Depends on discussion.

Board's Strategic Goal

Sustainable Infrastructure

Previous Action

On July 1, 2021, the Board of Supervisors approved: (1) Contract No. 21300038 for On-Call GIS Services with Atkins North America, Inc., for a not-to-exceed amount of \$120,000 through June 30, 2022; and (2) Contract No. 21300034 for On-Call GIS Services, with Michael Baker International for a not-to-exceed amount of \$130,000 through June 30, 2022.

On September 17, 2020, the Board of Supervisors approved purchase No. 20300163 for Asset Management On-Premise Software Licensing and Integration Services with LLumin, Inc. ("LLumin") for a one-time lump sum total amount not to exceed \$104,500, plus an annual amount of \$29,088 beginning on August 1, 2021 for support fees.

Background/Issues & Analysis

Staff will present information to the Board of Supervisors regarding the progress of the City's Asset Management Program, specific goals and objectives, and future plans. The presentation will include updates on Carson City's EAM solution, LLumin's READYAsset software and implementation of that software.

Staff will also provide updates on the on-call consultant GIS services, which have provided support critical to the success of the Asset Management Program and related GIS improvements, including application development, database management and system administration support.

Staff will summarize the development of the first-generation SAMP, which will become the City's guiding asset management document by defining the means and methods for managing City assets based on the City's objectives. The documents will describe the long-term approach to management of the City's physical assets, define the approach for developing asset management plans and outline the role that users and City departments play in developing and supporting the achievement of asset management objectives.

Finally, staff's goal is to ensure that the City's Asset Management Program is consistent with best practices for asset management. To that end, staff is exploring ISO 55000 certification for the City, which is the gold standard for entity asset management practices. In addition, the City has engaged a consultant that is an ISO 55000 Certified Lead Auditor, and the City's Asset Manager has begun pursuing that same certification. Staff will discuss the importance of this objective and how staff has leveraged quality consultants to help achieve this goal.

Applicable Statute, Code, Policy, Rule or Regulation

Carson City Charter § 2.140

Financial Information

Is there a fiscal impact? No

If yes, account name/number: N/A

Is it currently budgeted? No

Explanation of Fiscal Impact: N/A

Alternatives

Depends on discussion.

Attachments:

[2022 AM BOS Orientation Final Draft.pdf](#)

Board Action Taken:

Motion: _____	1) _____	Aye/Nay
	2) _____	_____

(Vote Recorded By)



Asset Management Update

Saving Money Maximizing Useful Life Minimizing Risk Provide High Quality Infrastructure





Overview

Outline:

- Brief refresher on Asset Management, objectives and future plans
- Updates with GIS improvements and related developments
- Development of first-generation SAMP
- Define ISO 55000 and discuss importance of this standard in Asset Management

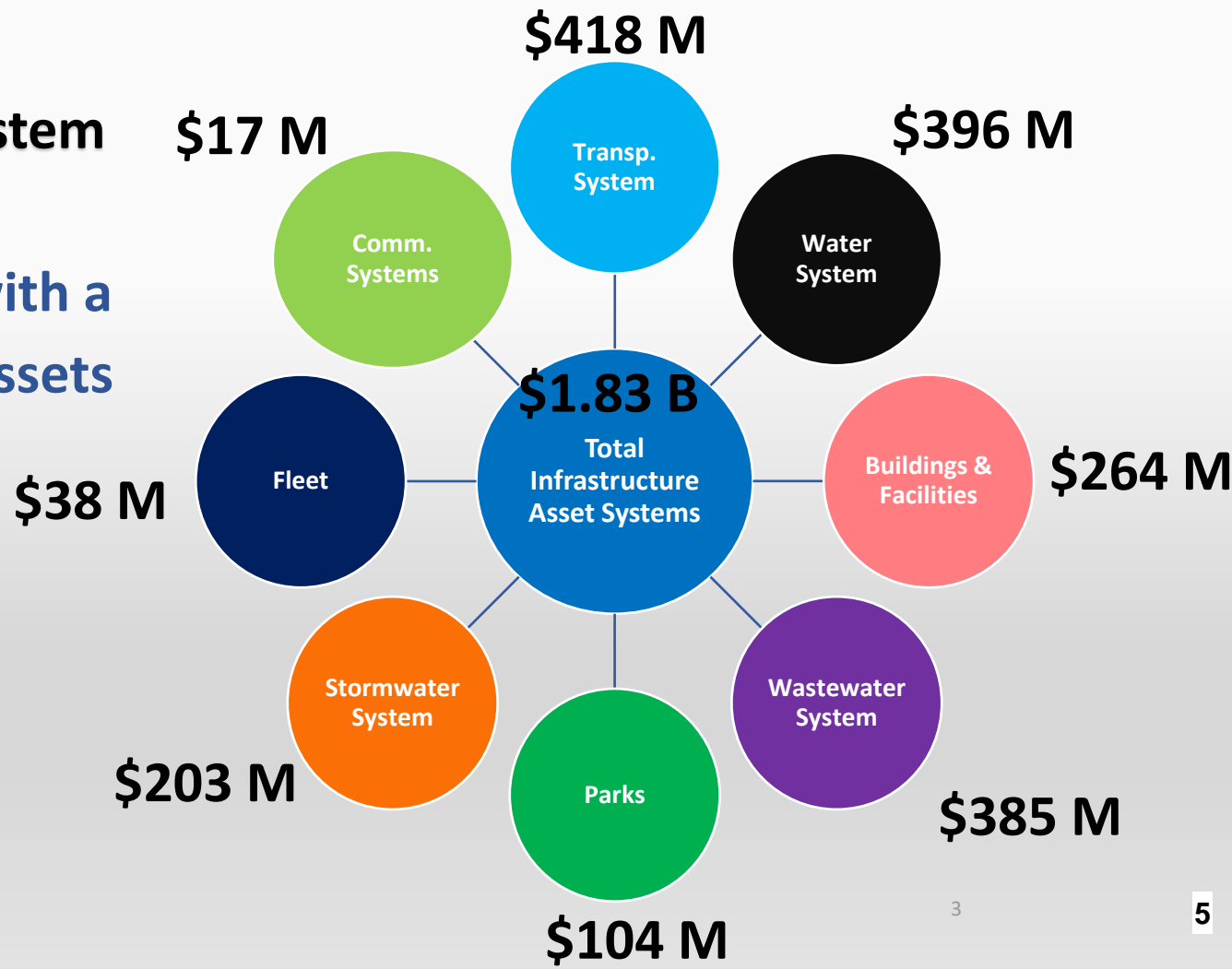




Asset Management Refresher

Carson City Asset System

- Consolidated Municipality with a broad mix of assets





Asset Management Refresher

What is Asset Management?

- **ISO 55000 Definition:** Ensuring that the assets deliver maximum value. This means making sure that an asset:
 - Delivers its functional requirements in line with the business objectives and
 - Does so in the most economical, safe, sustainable and reliable manner.

Goals of Asset Management



Minimize risk and maximize the effective useful life of City assets



Optimize customer service



Improve succession planning and the transfer of institutional knowledge



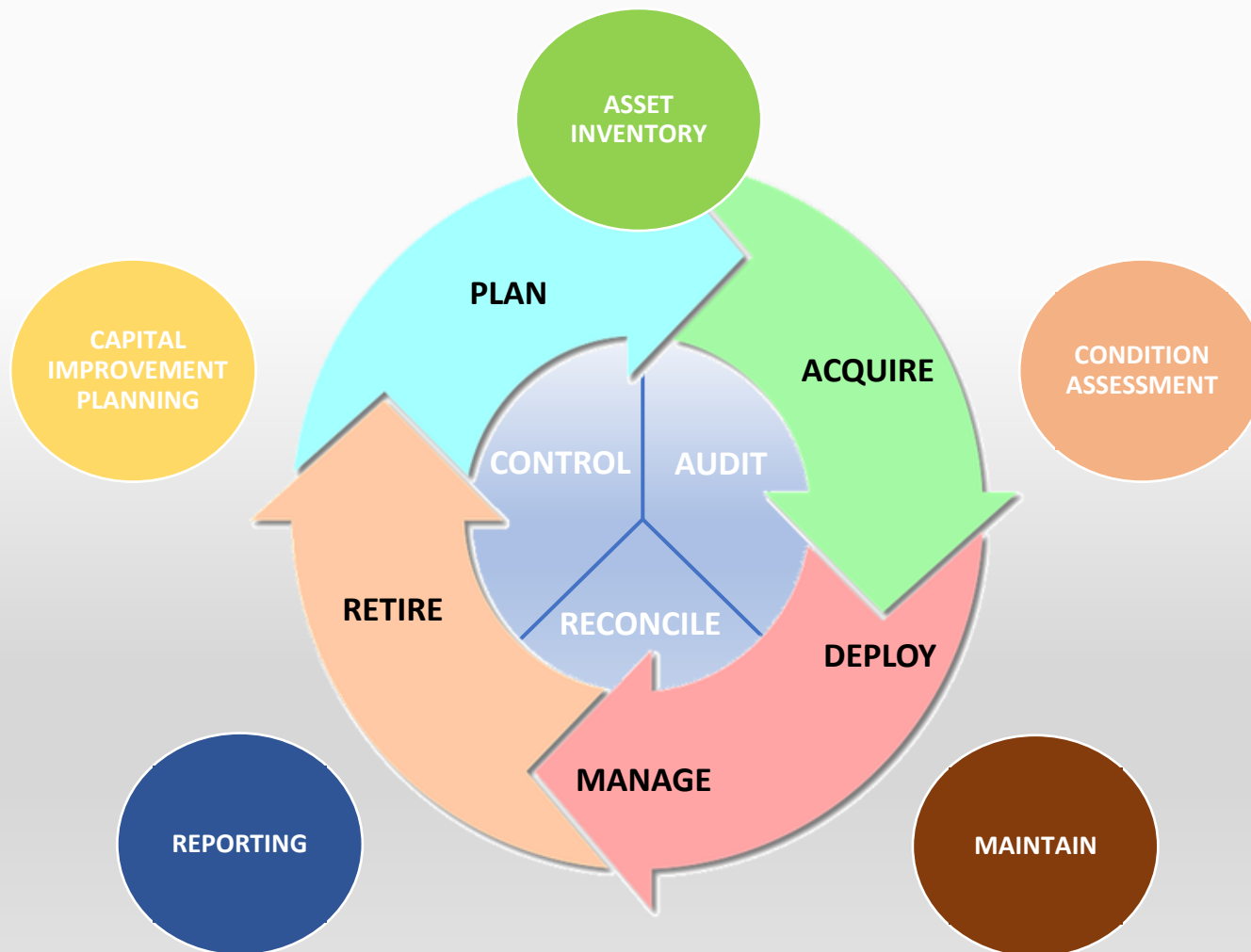
Develop a proactive maintenance and planning strategy



Promote data driven decisions and increase transparency



Asset Management Refresher





Major themes and objectives

Data Driven Decisions:

- Facility Condition Assessment (FCA)
 - Has been entered into ReadyASSET
- EAM Procurement
- Asset Inventory
- Data Collection and Condition Assessment
- Reporting



FCA Update



- ❖ **20/21 FCA Report identified significant deferred maint. Backlog (\$16.9M Immediate Need / \$59M next 10-years)**
- ❖ **Significant BOS actions:**
 - **\$7.2 M in Facilities CIP Approved in FY22 Budget**
 - **Approved Facilities Maintenance FTE in FY22 Budget**
 - **Allows for more in-house maintenance**
 - **Nearly 120 projects completed or in-progress in FY22**
 - **\$2M in ARPA funds allocated for HVAC needs**
 - **\$8.68M in Facilities CIP proposed in FY 23**
 - **Exploring opportunities to consolidate buildings and perform space optimization needs city wide**



Current Objectives



Enterprise Asset Management System

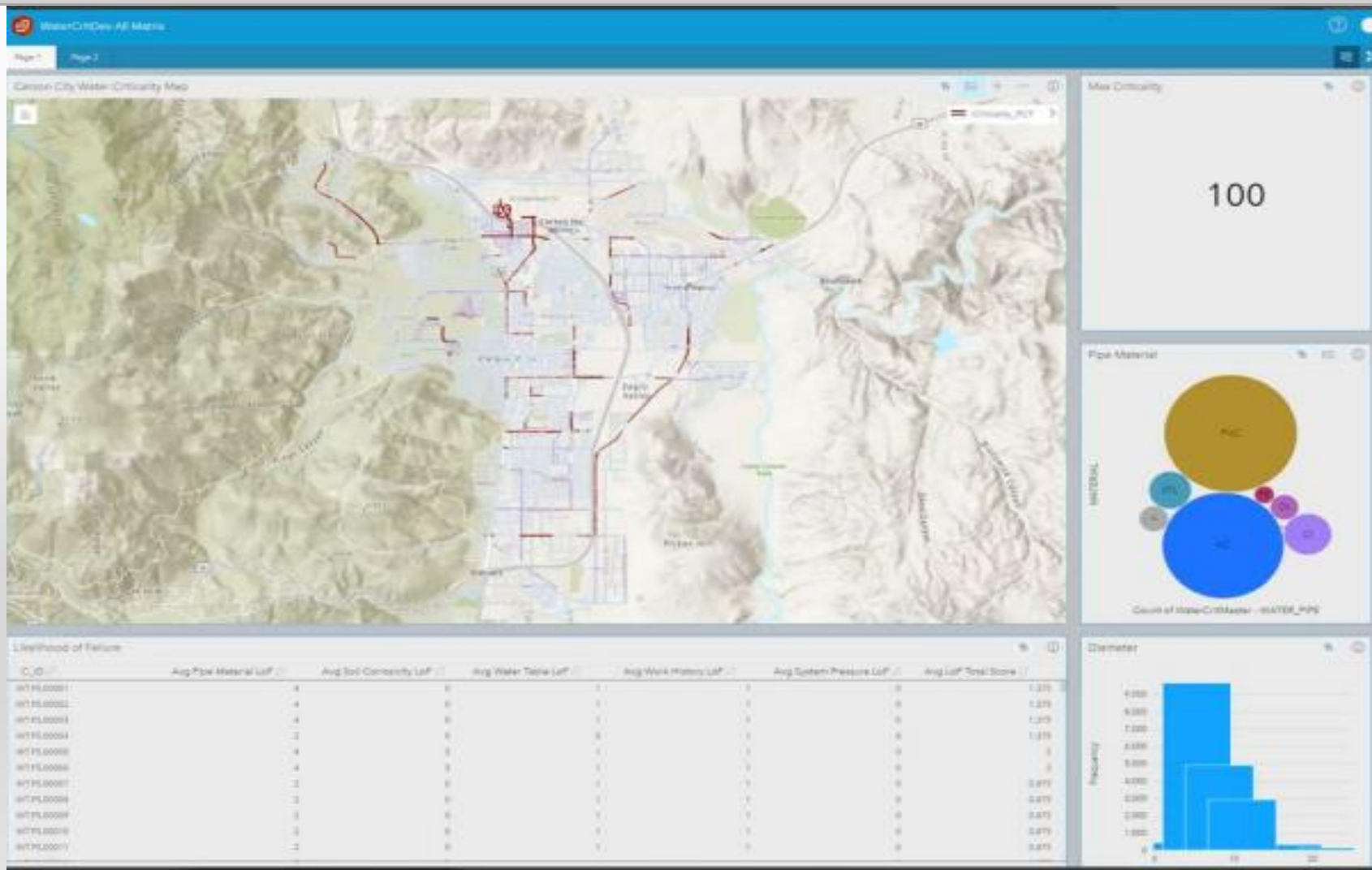
Llumin ReadyAsset

- Bar Coding
 - Inventory and Asset
- Fuel QAQC and Policy
- SCADA Integration
- GIS Normalization
- Custom Configuration



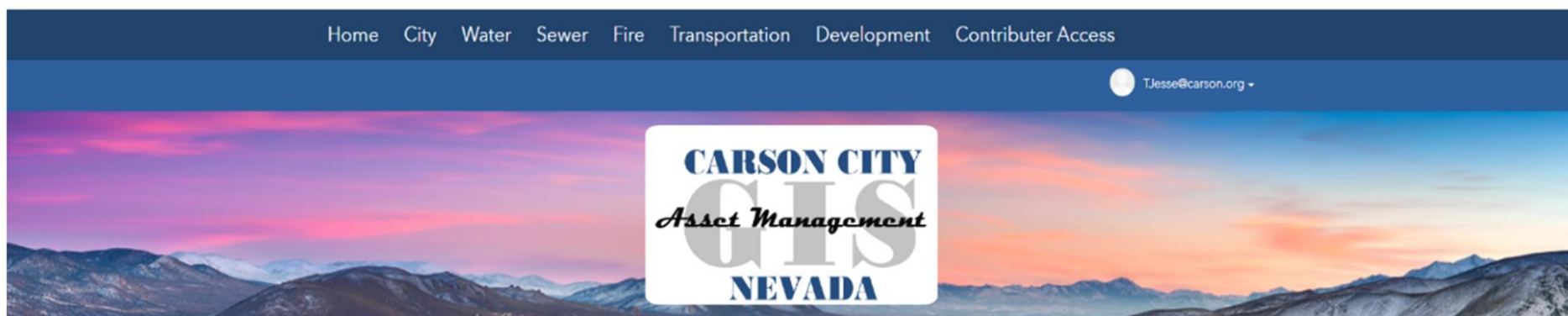


GIS Asset Management





GIS Architecture Upgrade



The Carson City GIS Portal is your destination for the city's geospatial data. This platform allows city staff to explore web applications, data, maps, and to engage with others to solve important issues. The GIS Portal can be accessed on standard web browsers, smart phones, and tablets. Providing access to the Portal from anywhere, at any time.

Explore Content



CITY



WATER



SEWER



FIRE



DEVELOPMENT



TRANSPORTATION



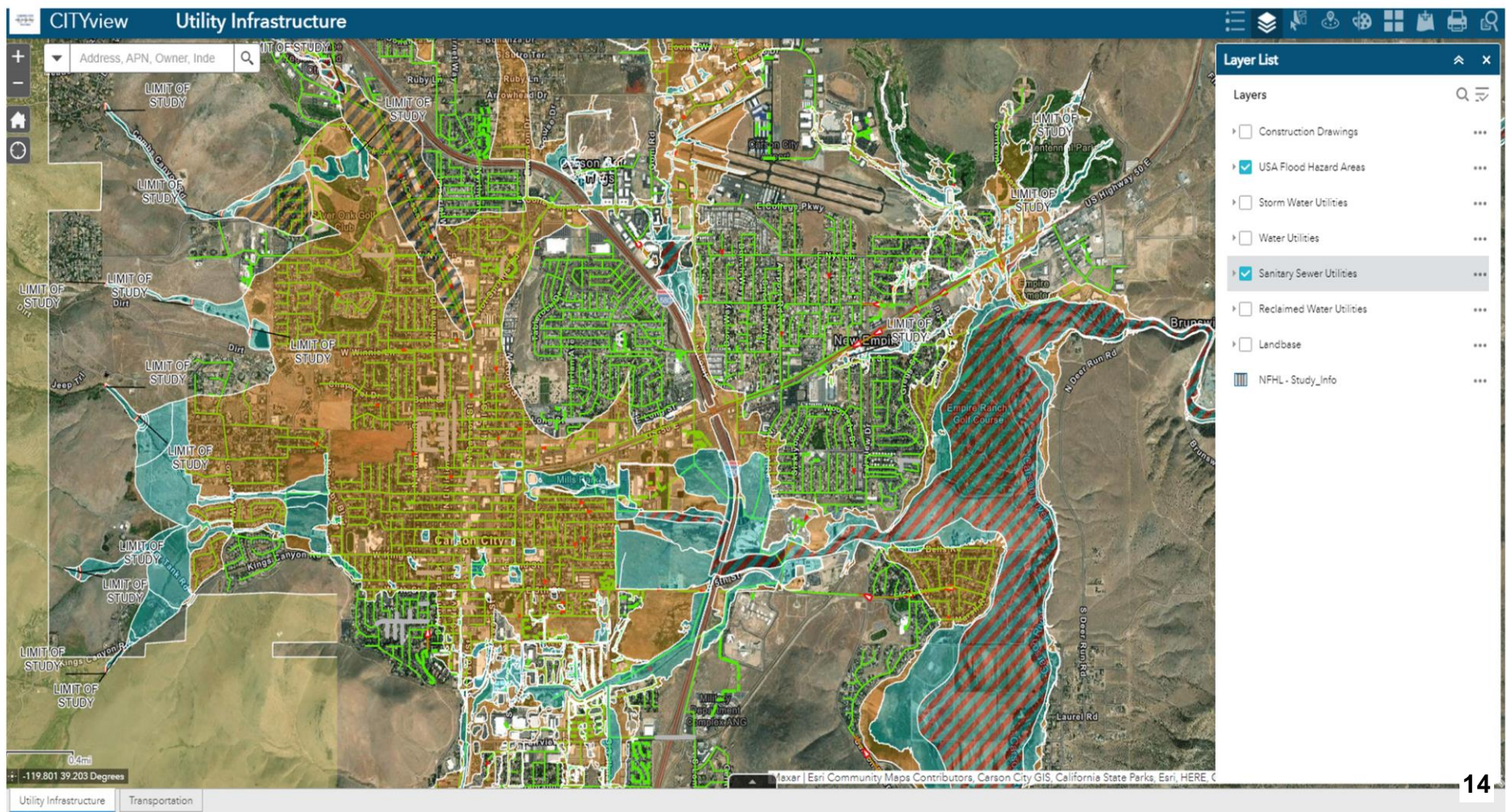
Some apps require access to be granted to specific users. If you encounter an access denied message but have legitimate business reason for accessing an application, please email the GIS Administrator to request access.

Contact Information

✉ gis@carson.com



GIS CityView App





GIS Lead and Copper

Unverified or Unknown Service Lines ☐

Lead Categories ☐

Utility lead category is
Lead

Customer lead category is
Lead

Replacement Status ☐

Replacement status is
Needs Replacement

Find address or place

Legend

Utility Side | Customer Side

- Lead | Lead
- Lead | Galvanized Requiring Replacement
- Lead | Non-Lead
- Lead | Unknown
- Galvanized Requiring Replacement | Lead
- Galvanized Requiring Replacement | Galvanized Requiring Replacement
- Galvanized Requiring Replacement | Non-Lead
- Galvanized Requiring Replacement | Unknown
- Non-Lead | Lead
- Non-Lead | Galvanized Requiring Replacement
- Non-Lead | Non-Lead
- Non-Lead | Unknown
- Unknown | Lead
- Unknown | Galvanized Requiring Replacement
- Unknown | Non-Lead
- Unknown | Unknown
- Other

Lead Verification Dashboard

Verified Lead in Service Line

6 Verified Properties

Property List
128096
110991
106563
108023

Potential Lead in Service Line

401 Potential Properties

Property List
PID - 0818115020
PID - 0818327015
PID - 0723209006
PID - 0818324013

Potential Lead Properties 0713304019

Parcel ID: 0713304019
Owner: Shantower, Jonathan B
Address: 9 N West St
City: Napaerville
State: IL
Zip: 60540
Year Built: 1,941.00
Cost: 1,339

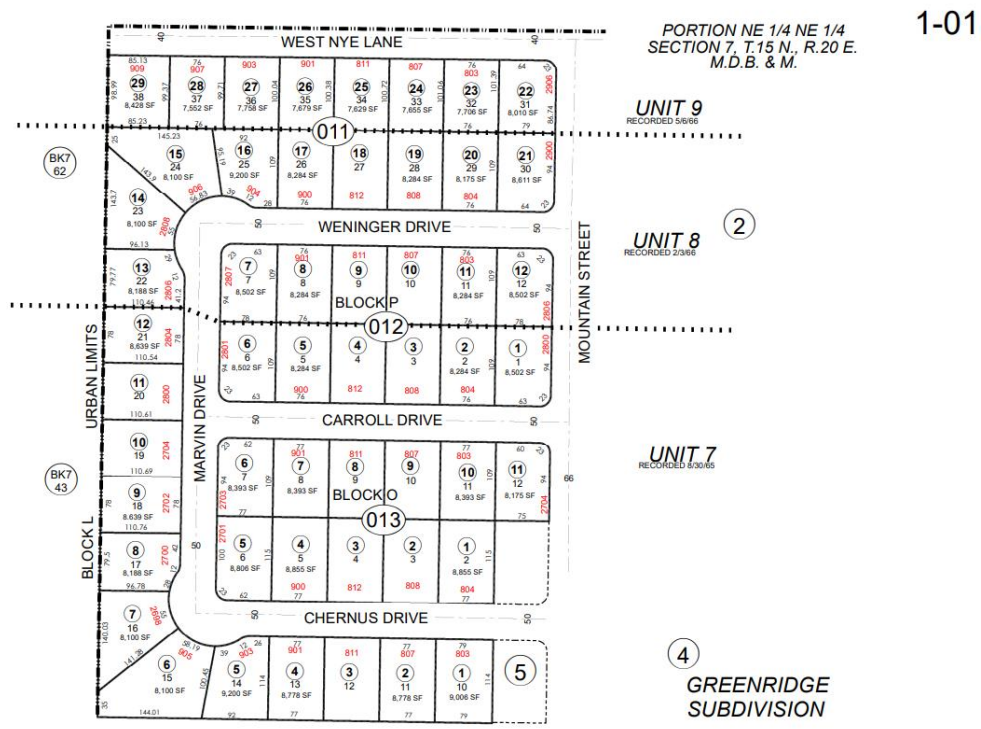
Lead Service Line Report

Map view showing service lines and property boundaries.

Mobile app view showing service lines and property boundaries.



GIS Assessor Migration



CORRECTED PAGE INFORMATION

CARSON CITY, NEVADA
THIS MAP IS PREPARED FOR THE USE OF THE CARSON CITY
ASSESSOR FOR ASSESSMENT AND ILLUSTRATIVE PURPOSES
ONLY IT DOES NOT REPRESENT A SURVEY. NO LIABILITY
IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE
DATA DELINEATED HEREON. YOU CAN VIEW AND PRINT OUR
MAPS AT NO CHARGE FROM OUR WEBSITE AT
WWW.CARSON.ORG/HOME

SCALE: 1"= 150'

NOTE
SOME PARCELS DELINEATED HEREON MAY NOT
BE PRESENTED IN TRUE SIZE, SHAPE, OR LOCATION
DUE TO DISCREPANCIES BETWEEN LOT LINES.

Revised: 01/25/2022



- Redistricting
- CATSMP
- William Street Corridor
- Covid Dashboard



Asset Management Progression

Strategic Asset Management

1



HOW THE ORGANIZATION

2



MANAGES THESE THINGS

3

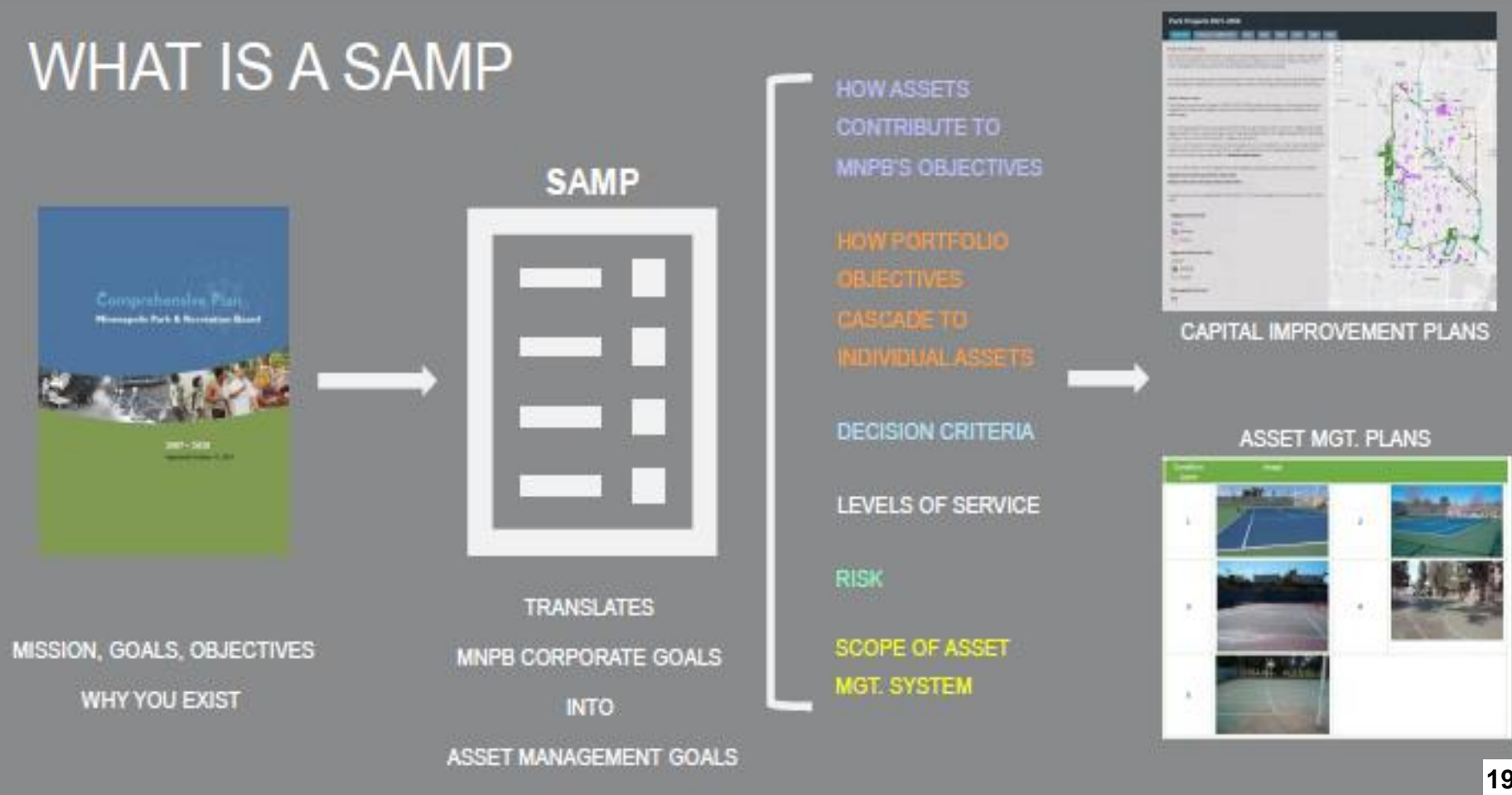


TO CREATE VALUE



Strategic Asset Management (SAMP)

WHAT IS A SAMP

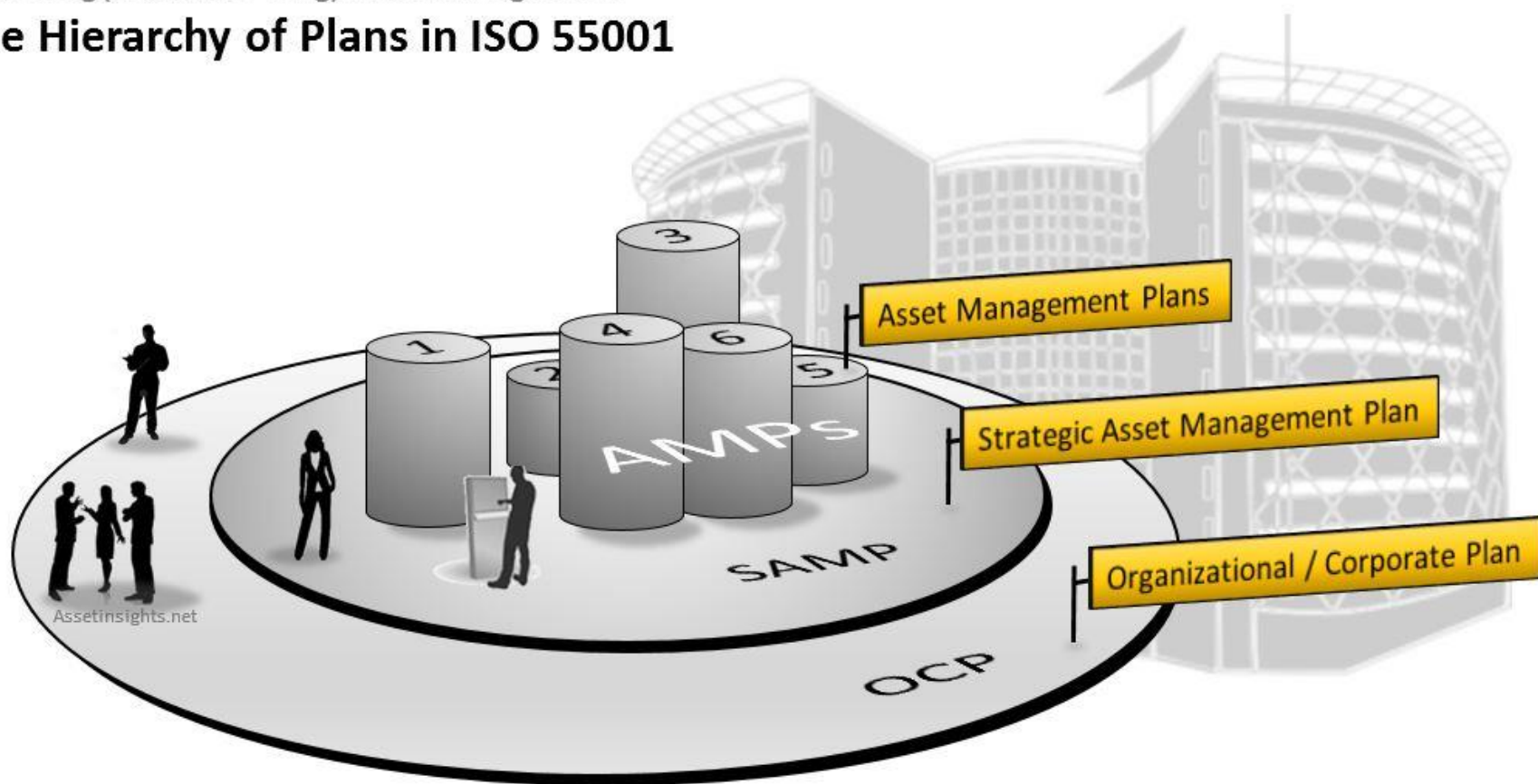




SAMP Next Steps

Visualizing (and Vision-izing) Asset Management

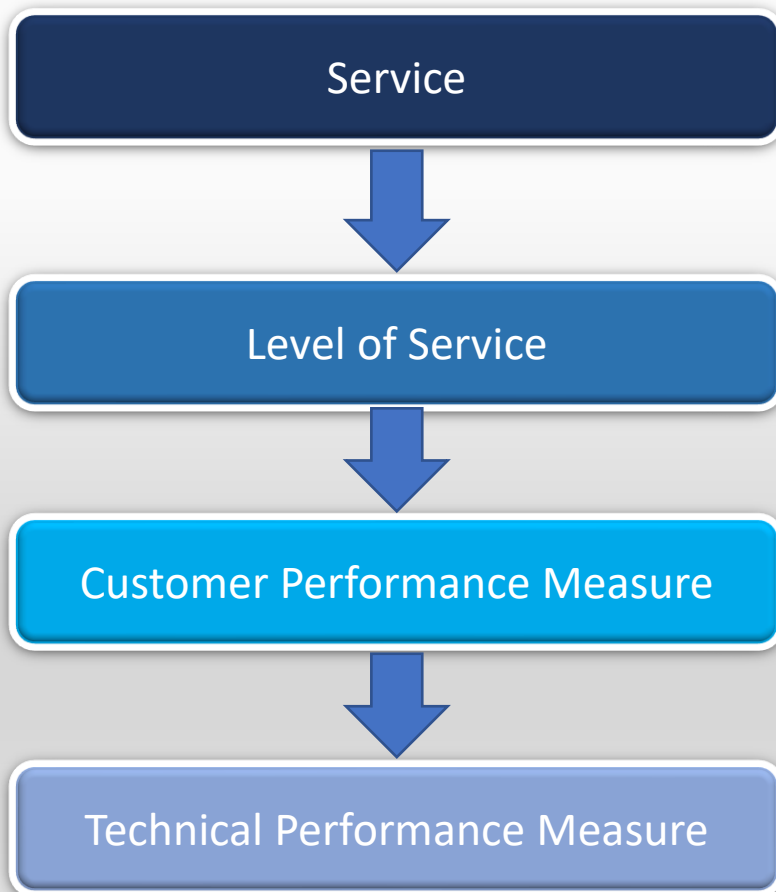
The Hierarchy of Plans in ISO 55001



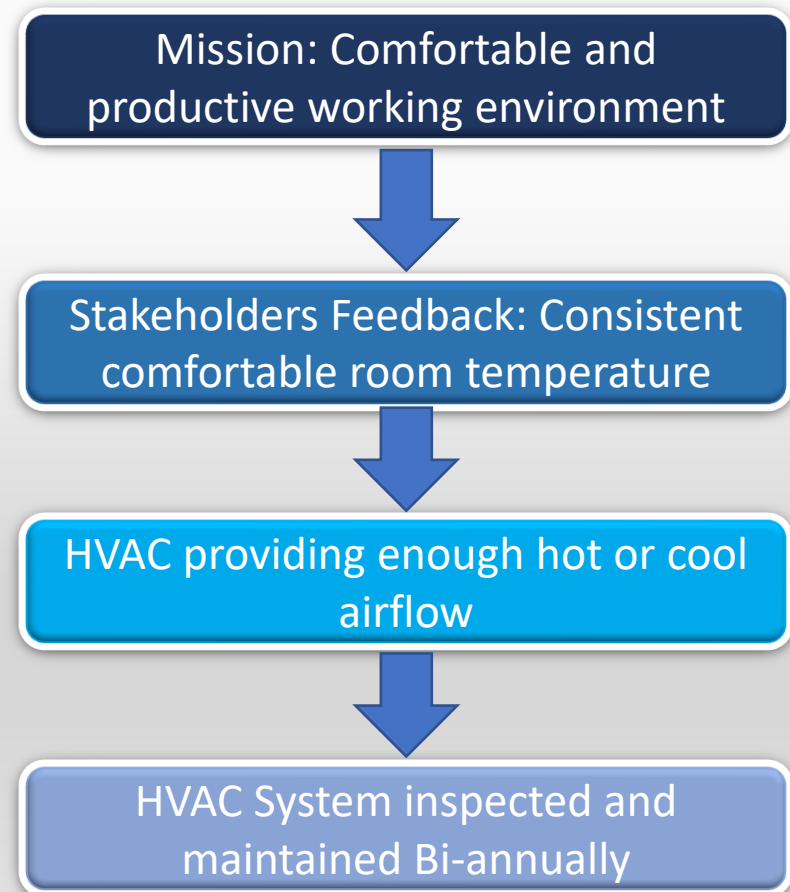


SAMP and AMPs in Action

SAMP



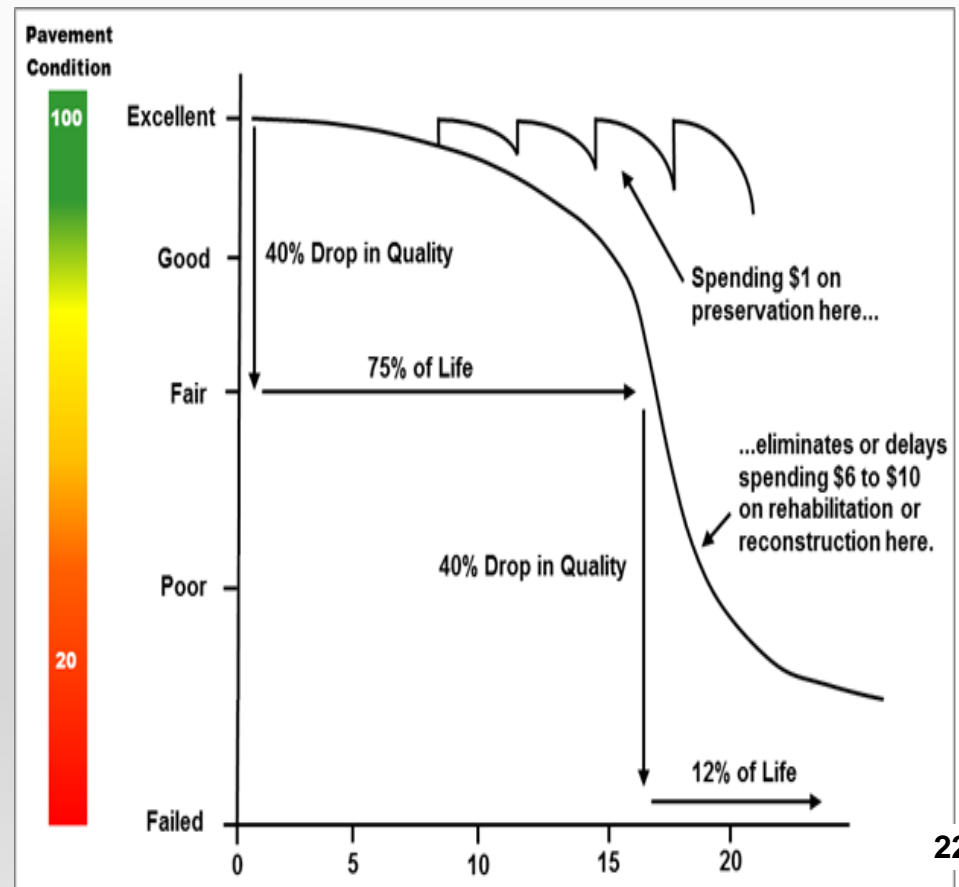
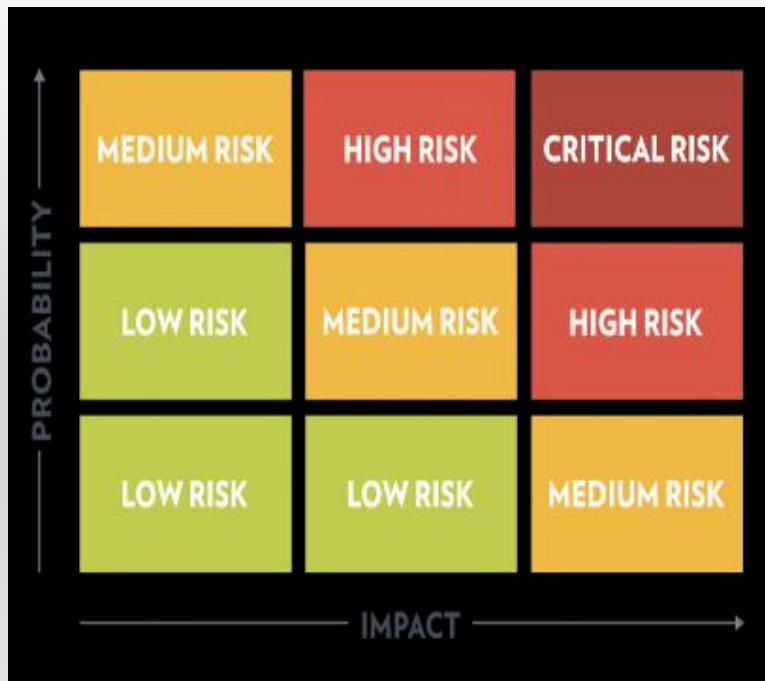
AMP (Facilities-HVAC System Example)





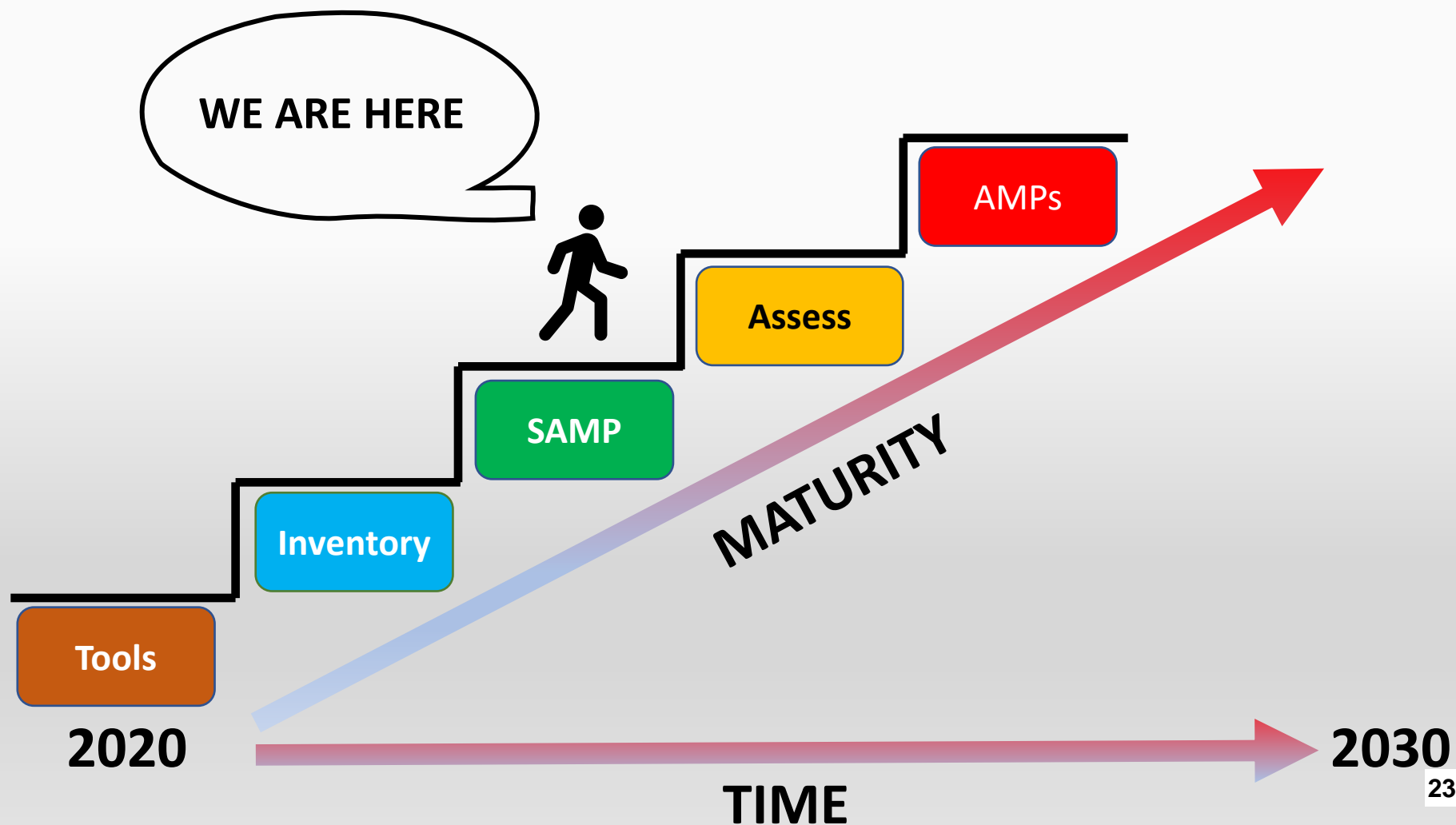
Next Steps at Large

- Acquire and Implement CIP Forecasting Software
- Update GIS Strategic Plan
- Parks Asset Inventory





Asset Management Roadmap





Questions?

Carson City Asset Management / GIS Team:

- **Tyler Jesse, Asset Manager**
- **Robert Nellis, Real Property Manager**
- **Randy Rice, City Engineer**