



Monthly Stakeholder Update Utilities Master Plan

STATUS

Phase 1: Field Investigations

- Thermal Generation, Electrical Distribution, Domestic Hot Water, and Telecom OSP Field Investigations are complete
- Potable, Stormwater, Sanitary, and Thermal Distribution are ongoing

Phase 2: Existing Conditions Assessment

- Telecom OSP and Electrical Distribution Existing Conditions Workshops have occurred
- Thermal Generation & Distribution and the Civil Existing Conditions Workshops are upcoming

Phase 3: Analysis and Projections

- The 2047 Master Plan and CAC Workshop was held on 5/2/23. The workshop was scheduled early in the UMP process to facilitate Master Plan, CAC, and UMP integration

1 Status

2 Current Tasks

3 Upcoming Tasks

4 NI&S/VTES Update

5 Action Items

PROGRESS DASHBOARD

Phase 1: Kickoff and Data Gathering

UMP Progress Dashboard	Kick Off	System/Ops Data		Field Investigation		Existing Conditions Report	
Thermal Generation	100%	95%	22	100%	104	0%	1
Steam and Condensate Return	100%	67%	3	67%	269	0%	1
Chilled Water Distribution	100%	67%	3	64%	250	0%	1
Domestic Hot Water	100%	100%	1	100%	28	0%	1
Electrical Distribution	100%	90%	10	100%	379	0%	1
Telecom OSP	100%	67%	3	100%	250	0%	1
Potable Water Distribution	100%	75%	4	0%	100	0%	1
Sanitary Sewer	100%	67%	3	90%	224	0%	1
Stormwater	100%	67%	3	60%	451	0%	1

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CURRENT TASKS

- Developing the Cellular/WiFi additional scope
- OUP providing existing and future building's usage and GSF data by 6/30/23 for use in the Phase 3 load projections
- Ongoing Field Investigations
- Developing a sanitary sewer flow monitoring program
- Gathering utility work order history
- Ongoing Existing Conditions review



- 1 Status
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UPCOMING TASKS

- Thermal Generation & Distribution Existing Conditions Presentation 7/21/2023 1:30-2:30 on Teams
- Existing Conditions Reports for utilities with review meetings to be scheduled
- Develop a Asset Management framework with the UMP



Developing a Root Cause Analysis Strategy within the UMP



Standard of Service

Coordination

Coordinated response across departments when unscheduled downtime events occur

Capture

Capture the technical and geospatial data associated with the unscheduled downtime event for root cause analysis

Continuous Action

Continuously monitor unscheduled downtime events to identify trends and develop actions to improve utility performance

VTES West Campus/Duck Pond Switch Circuit 3A cable failure on 2/7/2023



Coordination

- VTES, Infrastructure, and electrical component supplier/manufacturer coordination

Capture

- Survey the cable failure location for GIS integration
- Prysmian cable failure report outlining manufacturing defect mode of failure
- Work order review to identify other potential locations where the cable reel was used
- Field crews will verify in the manholes and take inventory
- 2019 Slusher Hall cable failure may have been from same cable reel

Continuous Action

- Determine the scope of risk exposure and develop a plan of action
- Develop an asset management process to track cable installation
- Create a database for equipment failures

Owens Chilled Water Loop failure on 5/9/23

Coordination

- DSA Facilities & Operations and CPIF Infrastructure coordinated minor redesign and replacement
- Utilities team providing onsite technical support
- Engineering Services providing Design Standards, surveying, and GIS support

Capture

- Document CHW lines condition, manufactured specifications, and service life
- Review CHW work order history for similar failures
- Note the location of the CHW lines below areas that receive chemical snow/ice removal

Continuous Action

- Evaluate alternative CHW line materials
- Monitor CHW lines under areas where chemical snow/ice removal occurs for excessive corrosion

Power House Electrical Trip on 5/17/23



Coordination

- Power House, VTES, Energy Management, Safety, and Engineering Services coordination of after action review

Capture

- Lost load side of “A” buss feed for water treatment area and switched to “B” buss feed.
- Age and condition of main switchgear, breakers, motors, etc.
- Evaluate dust protection for switchgear, motors, and other critical components

Continuous Action

- Update the electrical one line diagram for the plant
- Coordination study to ensure proper system protection
- Set plant operation parameters on ODW for alerts and warnings

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ACTION ITEMS

- Schedule a Cellular/WiFi meeting to finalize the additional scope proposal
- Schedule Existing Conditions workshop for the Civil utilities
- UMP Monthly Stakeholder meeting on 7/25/2023
- Schedule 30% Review Meetings to review Existing Conditions Reports in August

