



## **FUNDAMENTAL PRIORITIES**

Progressive AE's study effort is based on the Board's direction, as informed by community input and embodied in the following priorities:

- Provide power that is safe, reliable, and affordable.
- Maintain local control and ownership of the municipal utility.
- Evaluate and pursue an element of local electric generation in the diversified power supply portfolio only if it provides a positive economic value.
- Expand BLP's renewable energy portfolio with an emphasis on economical local options.
- Evaluate and incorporate emerging energy technologies as they become economically feasible.
- Minimize both the capital costs and annual operating costs of snow melt if possible and justifiable from the electric utility perspective.

# **EXECUTIVE SUMMARY**

The Grand Haven Board of Light and Power (BLP) made a strategic choice in 2018 to close and dismantle the J.B. Sims Generating Station (Sims). Continuing to use this coal fired baseload plant was not cost effective – BLP can provide less expensive power to its customer-owners by other means.

Initially, a gas fired peaking plant of 36 mW capacity and other buildings and facilities were considered as a follow-on to Sims to supplement and complement a diversified portfolio of power projects and purchases from outside Grand Haven. Studied in depth by engineering firm Burns and McDonnell, this project including demolition, remediation, system upgrades, and new facilities was estimated to cost \$100M and was judged to be not economically feasible. Instead, the Burns and McDonnell Project Development Report recommended transitioning to a diversified power portfolio and considering a smaller local generating facility.

Diversifying its power portfolio will change the BLP's needs for facilities. A large central plant is no longer in our future but expanded distribution and control capabilities will be necessary.

Progressive AE was engaged to clarify facilities and space needs for the Grand Haven Board of Light and Power after the closure and demolition of the J.B. Sims Generating Station. This report presents Progressive AE's methodology and findings.

# BLP FACILITIES STUDY RECOMMENDATIONS

Progressive AE has completed a facilities and site study to assist the Grand Haven Board of Light and Power to plan for facilities requirements in the aftermath of the closure and demolition of the J.B. Sims Generating Station. Findings and recommendations of this study are:

- The Board of Light and Power should continue occupancy and use of the north-western portion of the JB Sims Generating Station site
- The Board of Light and Power should construct a new Systems Operation and Technology Center.
- The Board of Light and Power should construct a new Combined Heat and Power Plant..

## WHAT IS HARBOR ISLAND?

Harbor Island has experienced a long history of utilitarian use and environmental pollution. A river delta island disconnected but nearby to the downtown, this low-value property met multiple community needs for a century as trash disposal, coal distribution, and most recently power generation operations.

Viewed from today's perspective these uses may appear unfortunate, but the choices made met the needs of the community at the time.

The closure of the J.B. Sims Generating Station offers a unique opportunity to bring the island property to its highest and best use value to the community through more sustainable land use.

Recognizing the challenges and responsibilities involved, the GHBLP has developed a plan for beneficial re-use of the J.B. Sims site, maintaining about 50% of the existing Sims site for continued electric utility use and restoring the remaining half for public use.



## HIGHEST & BEST USE

There are many publicly stated opinions regarding aspirations for the Sims site. The BLP and Progressive AE agreed that a framework was needed to clarify the potential impacts of redevelopment of the Sims site. Progressive AE studied these questions as described below.

Progressive AE identified four (4) potential scenarios for the re-use of the Sims site. These scenarios were evaluated in the light of the stakeholder considerations identified in the previous section. The four scenarios are expanded with further detail on the considerations of each stakeholder group in the attached chart.

- Sims site reverts to City control, BLP operations on-site are limited to Substation, distribution, and transmission easements and rights-of-way.
- Sims site is re-purposed for private development, BLP operations are relocated elsewhere including Substation, transmission, and distribution.
- BLP remains and re-develops the Sims site constructing a new Systems Operations and Technology Center.
- BLP remains, re-develops the Sims site, and constructs both a Systems Operation and Technology Center and 12.5 megawatt Combined Heat and Power (CHP) plant.

When each scenario is evaluated for the considerations of each stakeholder group it becomes clear that there are significant risks in some scenarios. The greatest risks are associated with scenarios where the BLP does not maintain a presence on and responsibility for the Sims site.

# STAKEHOLDER RELATIONSHIPS

The BLP is deeply integrated into the Grand Haven Community. As a municipal utility it is positioned to pro-actively pursue the common good and bring value to its customer-owners.

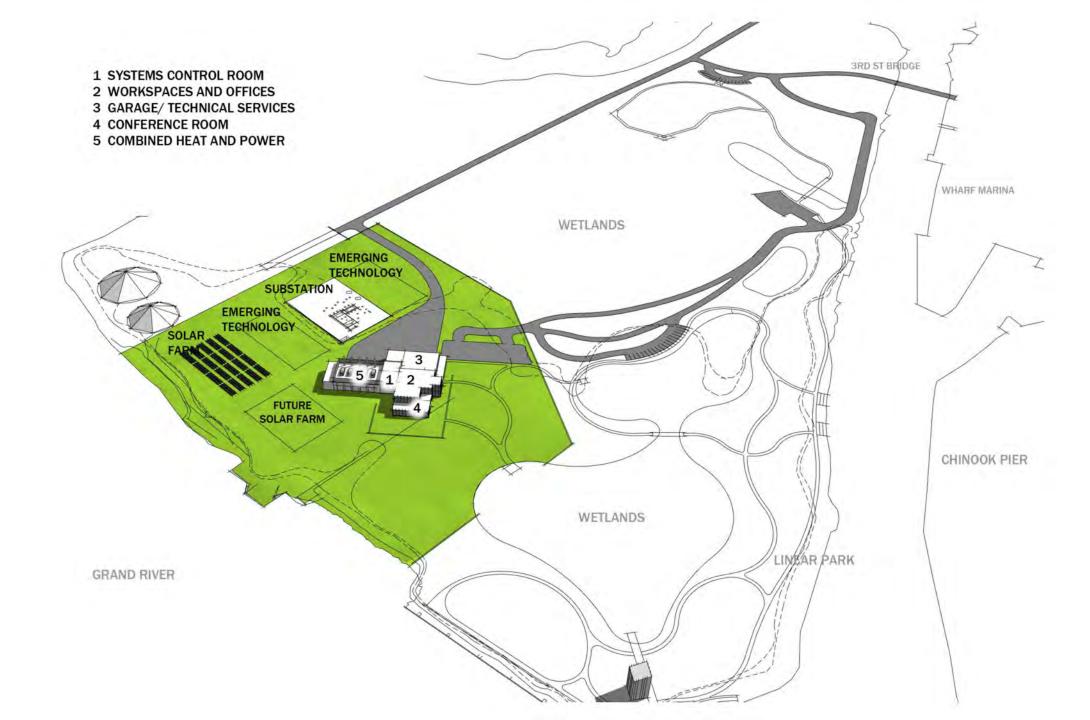
Progressive AE identified stakeholder groups in the community based upon the roles that they play. The stakeholders considered are the:

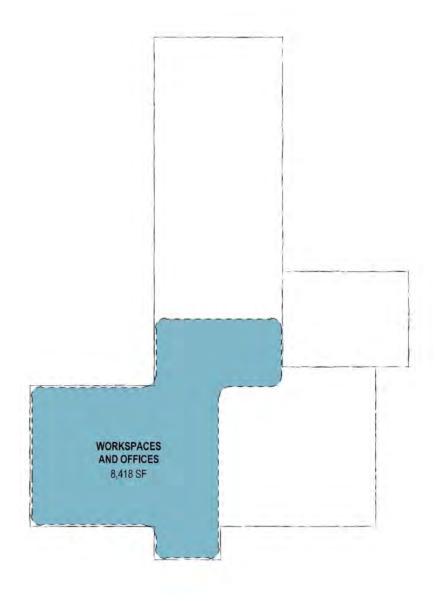
- City of Grand Haven
- Board of Light and Power
- Utility customers and owners
- Utility employees
- and the community at large

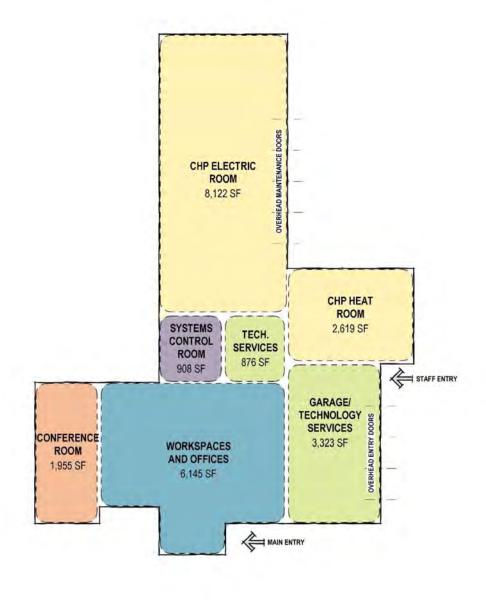
The BLP tasked Progressive AE to identify the best possible outcome for the Sims site while remaining its legal responsibilities and obligations as a municipal utility. The board is charged in the City Charter to use "best practices" for utility operations. Goodwill considerations are very important, and the BLP is in a unique position to make its operations beneficial across the board for stakeholders.

















Arial View of Sims Site Concept



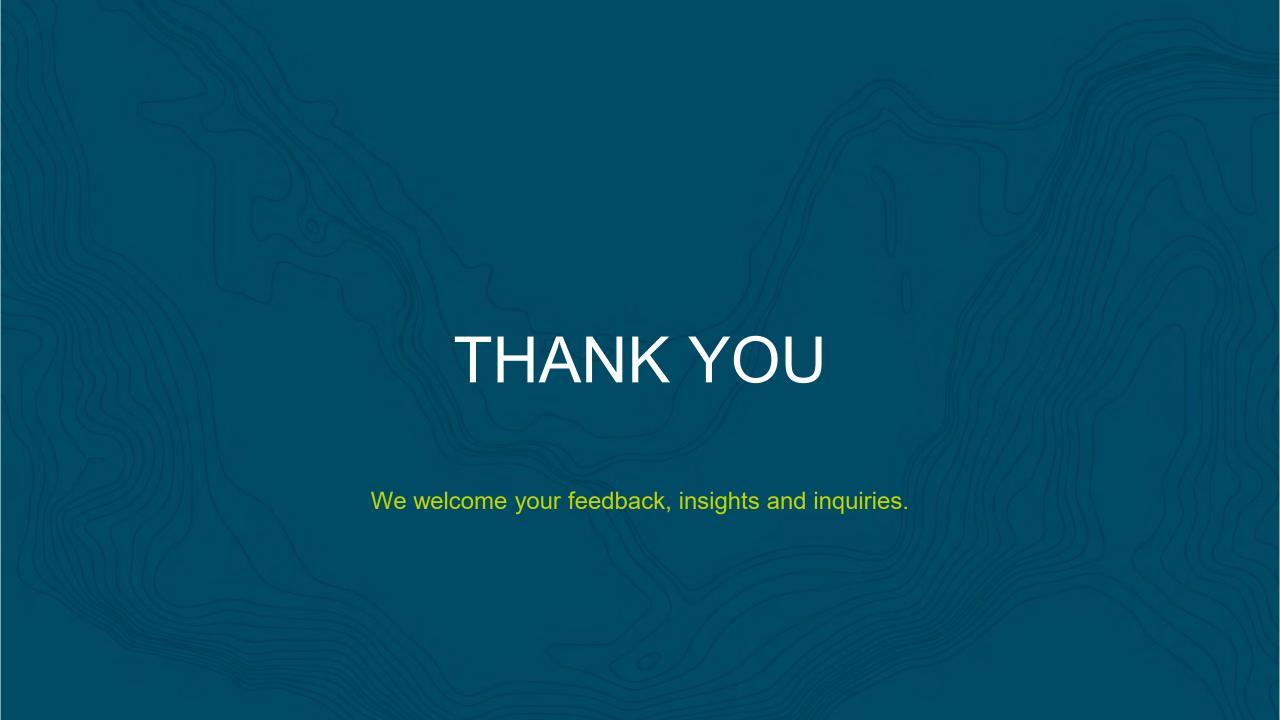
View of Sims Plant Concept from Grand River

#### **GHBLP Sims Site Bond Program Elements**

TOTAL PROJECT

APPROVED COMPONENTS	
	Cost Estimate
JB Sims Plant Demolition	\$5,200,000.00
Snowmelt Equipment Installation	\$1,000,000.00
Coal Ash Remediation Phase I	\$3,000,000.00
Substation Improvements	\$4,000,000.00
AMI	\$2,000,000.00
	\$15,200,000.00
PROJECT COMPONENTS IN CONSIDERATION	
Coal Yard Remediation	\$1,700,000.00
Coal Yard Wetands Restoration	\$800,000.00
Coal Yard Remediation Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation	\$800,000.00 \$2,500,000.00
Coal Yard Wetands Restoration	\$800,000.00 \$2,500,000.00
Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation	\$800,000.00 \$2,500,000.00 \$5,000,000.00 \$7,400,000.00
Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation  Systems Operations and Technology Facility Building Site Development	\$800,000.00 \$2,500,000.00 \$5,000,000.00 \$7,400,000.00 \$1,200,000.00
Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation  Systems Operations and Technology Facility Building	\$800,000.00 \$2,500,000.00 \$5,000,000.00 \$7,400,000.00 \$1,200,000.00 \$800,000.00
Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation  Systems Operations and Technology Facility Building Site Development	\$800,000.00 \$2,500,000.00 \$5,000,000.00 \$7,400,000.00 \$1,200,000.00 \$800,000.00
Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation  Systems Operations and Technology Facility Building Site Development	\$800,000.00 \$2,500,000.00 \$5,000,000.00 \$7,400,000.00 \$1,200,000.00 \$800,000.00
Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation  Systems Operations and Technology Facility Building Site Development Site Utilities	\$800,000.00 \$2,500,000.00 \$5,000,000.00 \$7,400,000.00 \$1,200,000.00 \$800,000.00 \$9,400,000.00
Coal Yard Wetands Restoration Phase II/III Potential Ash Remediation  Systems Operations and Technology Facility Building Site Development Site Utilities  Combined Heat and Power	\$800,000.00 \$2,500,000.00 \$5,000,000.00 \$7,400,000.00 \$1,200,000.00 \$800,000.00 \$9,400,000.00

\$46,600,000.00



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