



# Preliminary Assessment

City of Ramsey, MN – Council Work session - April 24, 2018

# Preliminary Assessment: Goals

- **CONFIRM** our understanding of the City's strategic objectives and direction
- **UNDERSTAND** the City's opportunities for improving their built environment
- **INITIATE** a Guaranteed-Based Solution that meets the City's vision and goals



## City of Ramsey Facilities

Can we solve existing issues and gain an additional 20/30/40% + efficiency?



## UMN Resilient Cities Alignment

The University of Minnesota's Resilient Communities Project (RCP) is pleased to announce that the City of Ramsey has been selected as its partner community for the 2017 – 2018 academic year. Starting in September 2017, Ramsey and the University will begin collaborating on 20 multidisciplinary projects that advance community priorities from Ramsey's Strategic Plan focused on a stable tax base, a connected community, smart citizen-focused government, and an efficient organization

# A Comprehensive Approach to Reaching Your Goals



## Key Challenges



Energy and operational inefficiencies



Aging building systems



Technology upgrades



Light pollution

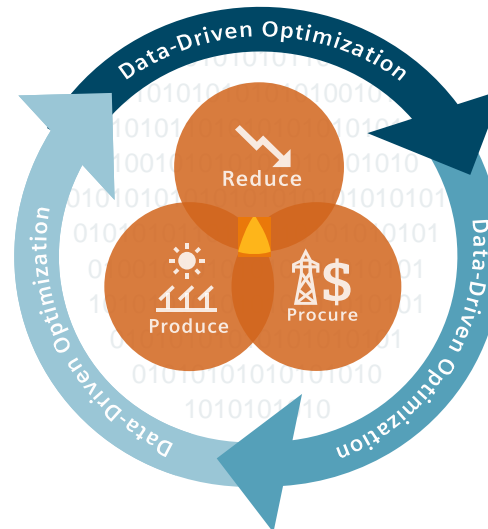


Fiscal responsibility



Optimize facilities for future

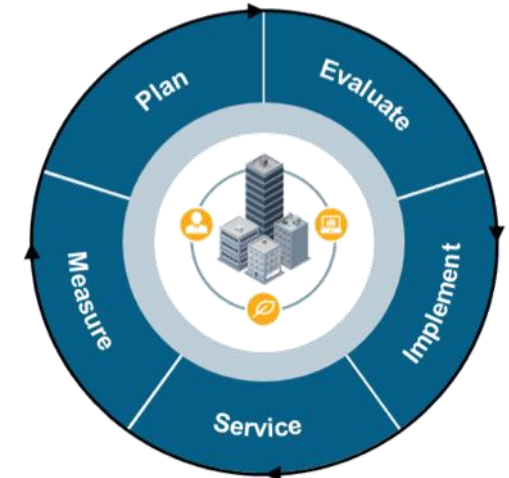
## Develop & Implement the Solution



### Total Energy Management

A complete suite of services and technologies designed to cohesively manage energy and increase business performance

## Ensure your Continuous Success



- Lifecycle approach
- Advanced IoT technology
- Innovative financial solutions
- Global reach and local touch

# A Comprehensive Approach to Reaching Your Goals

Why are we here?



**Address City's  
Key Challenges**

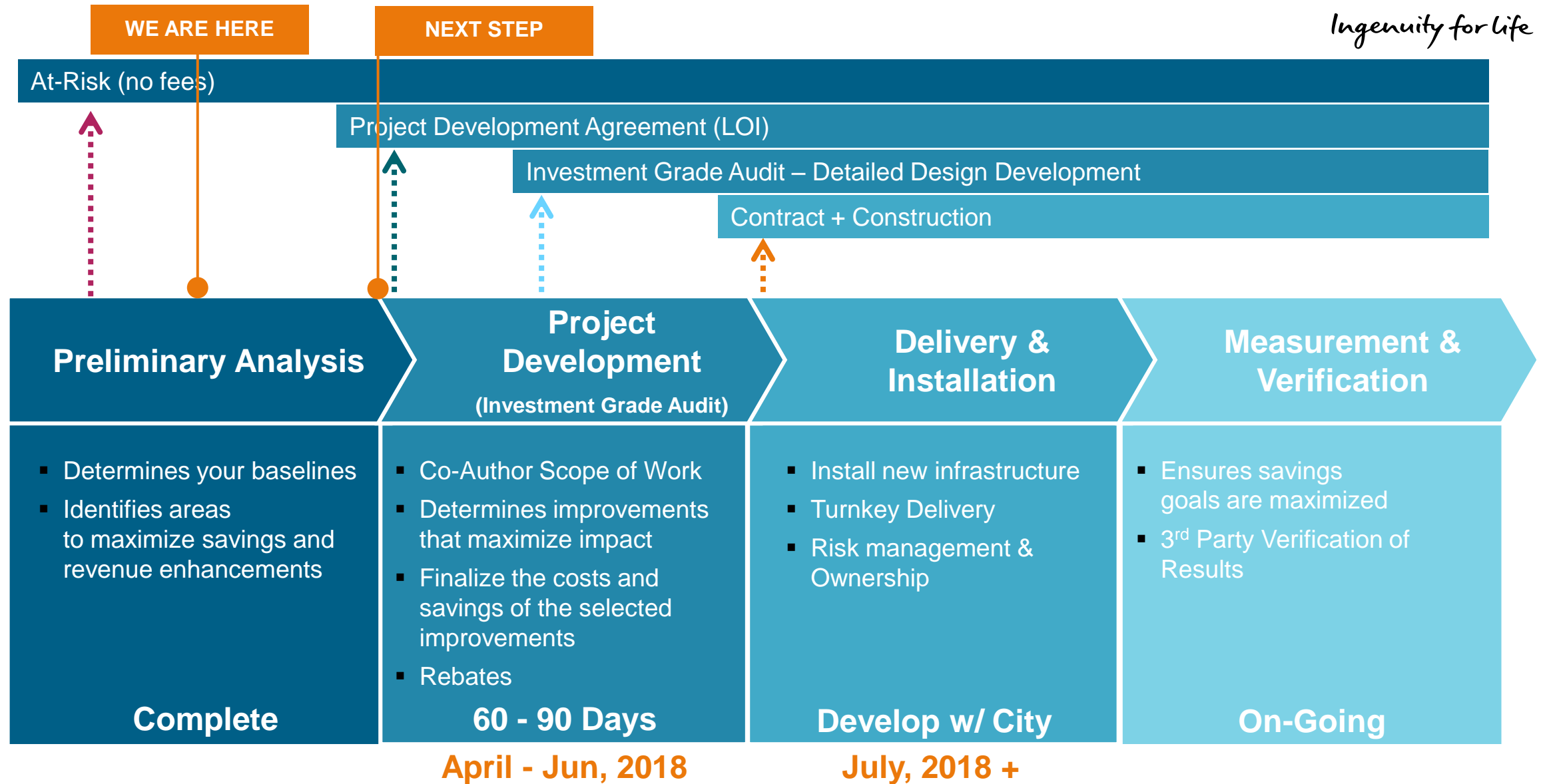
**Immediate & Long Term  
Economic Benefit**

**Process + Partnership**

- Remedy immediate facility needs
- Improved function
- Improved staff and citizen service
- Reduce utility costs, immediately
- Reduce long-term operations and maintenance costs
- Proactive vs. reactive plan (cost of doing nothing )
- Potential CIP offset (\$126 Million 2017 – 2026)
- Low risk process - guaranteed cost, schedule, savings, results
- Economic development
- Long term partnership

**Achieve more, for less, now**

# Simple Process





**SIEMENS**

*Ingenuity for life*



**Recommended Solutions**

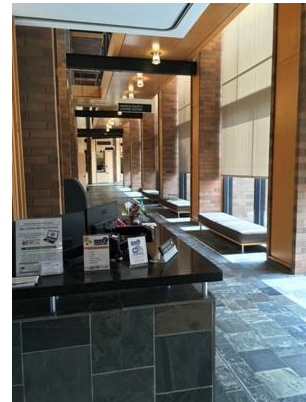
**Address City's Key Challenges**

# A Comprehensive Approach to Reaching Your Goals

## Recommended Scope of Work

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- Lighting Upgrades
- Retro Commissioning
- Envelope Improvements
- HVAC Improvements
- Energy Management System
- Onsite Generation – Solar PV



# A Comprehensive Approach to Reaching Your Goals

## Municipal Ramp Recommendations

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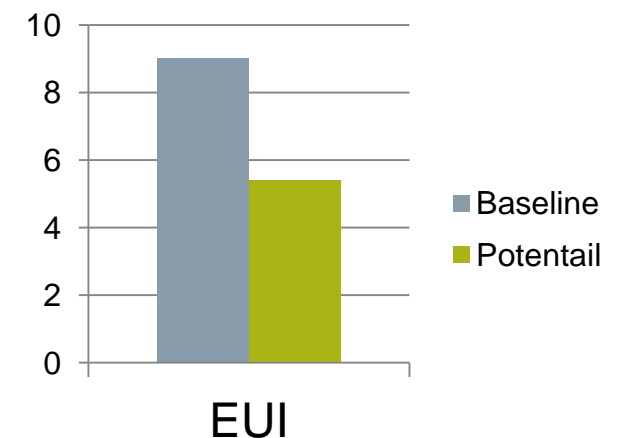
### Description & Assumptions

- Lighting upgrade to LED
- EMS
- Security
- Lighting studies – address light pollution, controls, sensors, occupancy, traffic, etc.



### BENEFITS

- Gain 40% efficiencies
- Upgrade lighting system – longer life cycle, improved durability & vision
- Reduce light pollution outside; improve light quality inside
- Optimize control & remote notification
- Integrate with security needs
- Comply with building code
- Improve staff and community service
- Standardize lighting solution



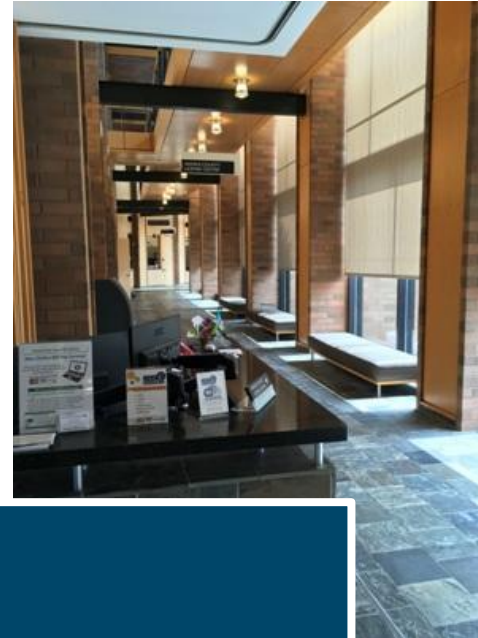
# A Comprehensive Approach to Reaching Your Goals

## Municipal Center Recommendations



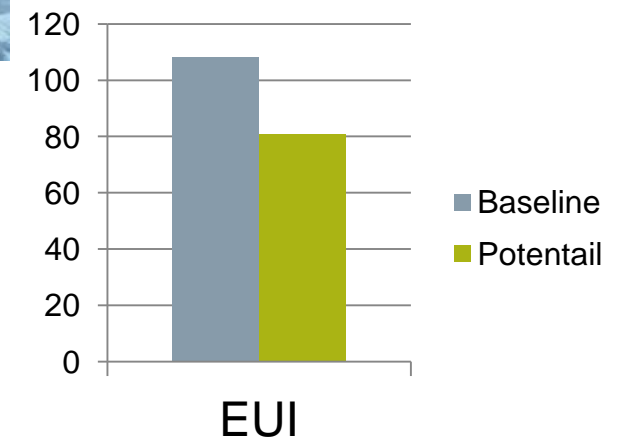
### Description & Assumptions

- Lighting
- Retro Commissioning
- Automate Blinds
- Synchronous belts
- Duct Sealing
- Power Factor Correction
- Low Flow Faucets



### BENEFITS

- Gain 25% efficiencies
- Upgrade lighting system – longer life cycle, improved durability
- Standardize lighting solution City-wide
- Maximize comfort and control
- Optimize system operation
- Simplify maintenance needs
- Reduced utility expenditures



# A Comprehensive Approach to Reaching Your Goals

## Fire Station #1 Recommendations

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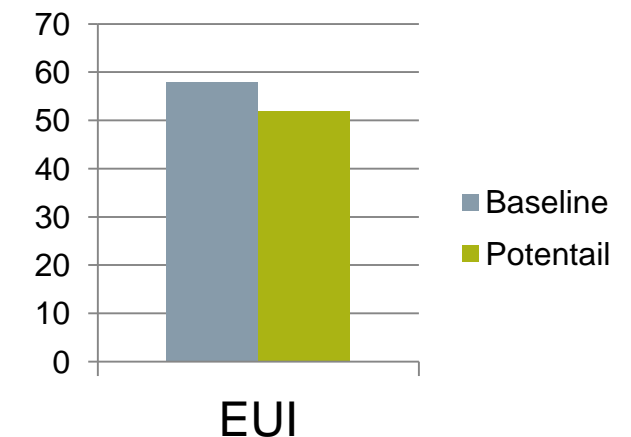
### Description & Assumptions

- Lighting
- Retro Commissioning
- Synchronize controls, scheduling
- Duct Sealing
- Low Flow Fixtures
- Water Heater Replacement



### BENEFITS

- Gain 10% efficiencies
- Upgrade lighting system – longer life cycle, improved durability
- Standardize lighting solution City-wide
- Optimize system operation
- Improve system efficiency



The background of the image is a photograph of a modern, multi-story office building with large glass windows and brick accents. The sky is blue with scattered white clouds. In the foreground, there are some trees and a parking lot with several cars. The Siemens logo and tagline are overlaid on the top right of the image.

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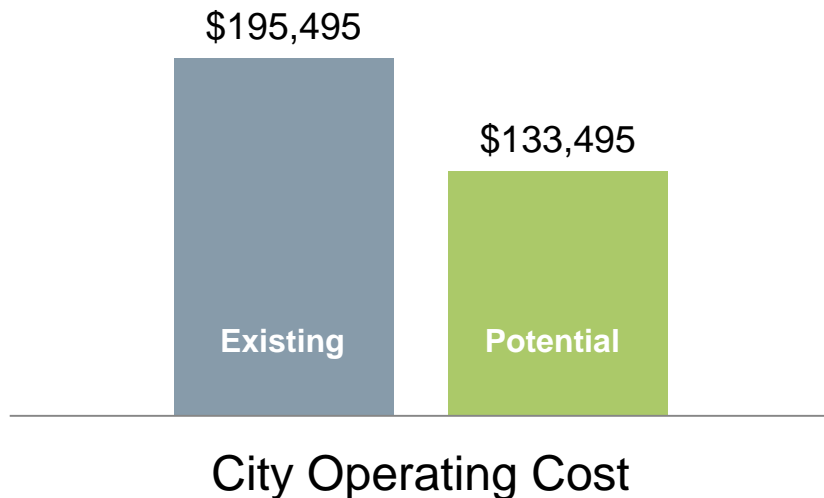
**Why Choose Comprehensive  
Immediate and Long Term Economic Benefit**

# A Comprehensive Approach to Reaching Your Goals

Why are we here?



Annual Utility Spend  
Existing Baseline vs. Potential Optimized



## Infrastructure Investment:

- \$ 755,000 - \$925,000 (est.)

## Reduction to City Budget (estimates)

- Reduce City's operating costs by : **\$ 51,000 - \$62,000 / yr**
  - **\$1.86 Million** over life of equipment
  - Reduce City's operating costs by **32%**
- Reduce immediate and long-term operations & maintenance costs
- No change orders savings
  - (+10-20% /per self-implement project): **\$168,000**
- Mobilization savings:
  - (~\$10,000/ self-implement project): **\$30,000**

# Evaluate Potential Project Scenarios



**Project Cost** **\$755,000 - \$925,000 (est.)**

**Energy & Operational Savings** **\$51,000 - \$62,000 (est.)**

EVALUATE SCENARIOS	#1 Conservative	#2 Modest
Est. Project Cost	\$840,000	\$840,000 <u>(\$340,000)</u> 500,000
Est. Savings/ YR (Energy and Op)	\$55,600	55,600
Est. Simple Payback	14-15 Yrs	8-9 Yrs
<i>ASSUMPTIONS: City capital contribution and/or increased revenue and/or capital cost avoidance and/or rebates/ grants, etc.</i>		\$0 <span style="float: right;">\$300,000</span>

The background of the slide is a photograph of a modern, multi-story office building with large glass windows and brick accents. The sky is blue with scattered white clouds. In the top right corner, the Siemens logo and tagline are displayed in a white box. The main title and subtitle are overlaid on a teal banner at the bottom of the image.

**SIEMENS**

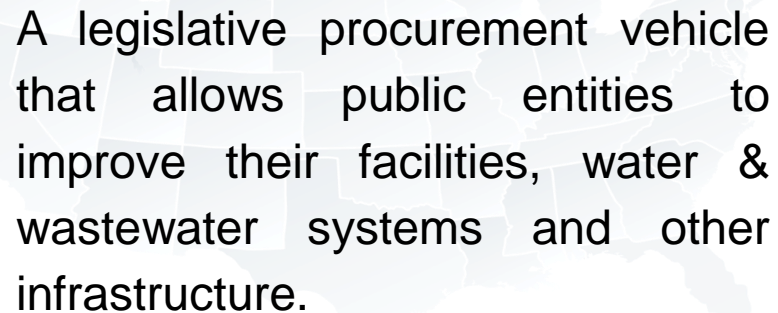
*Ingenuity for life*

# Process + Partnership

## Why Performance Based Design Build

# Legislative Procurement Vehicle

## Guaranteed Design Build Process

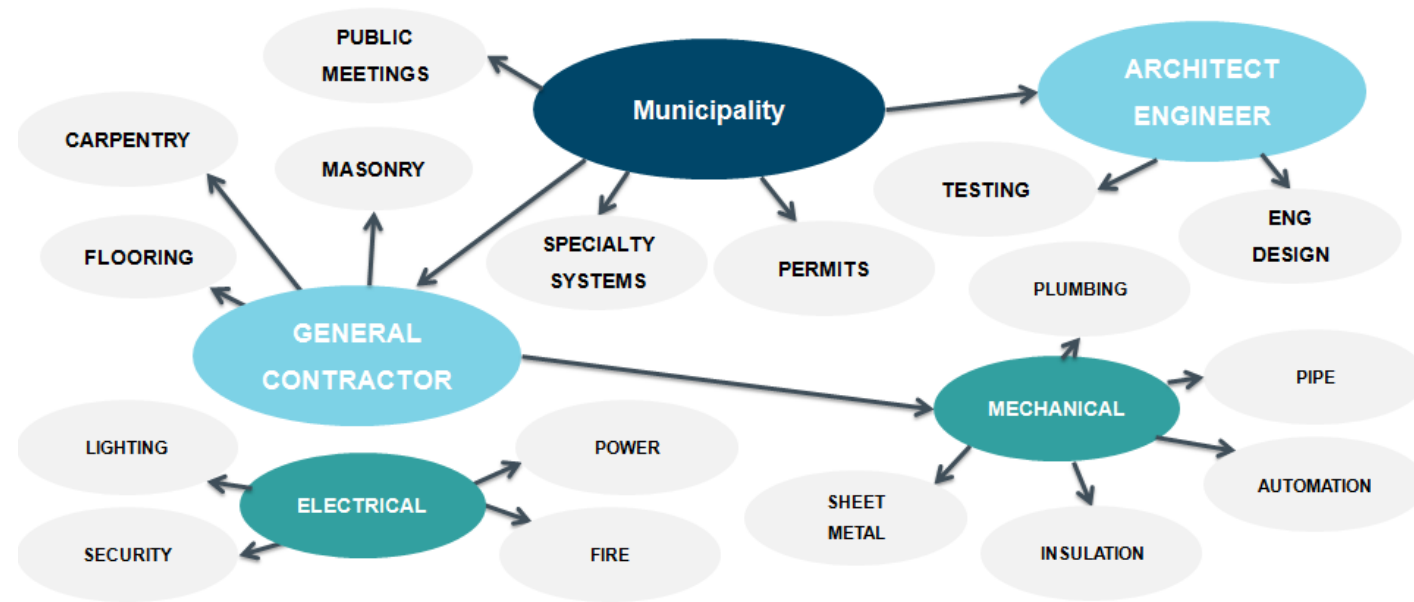
A light gray, semi-transparent map of the United States is positioned in the background behind the text.

A legislative procurement vehicle that allows public entities to improve their facilities, water & wastewater systems and other infrastructure.

**Minnesota Statutes: 471.345**

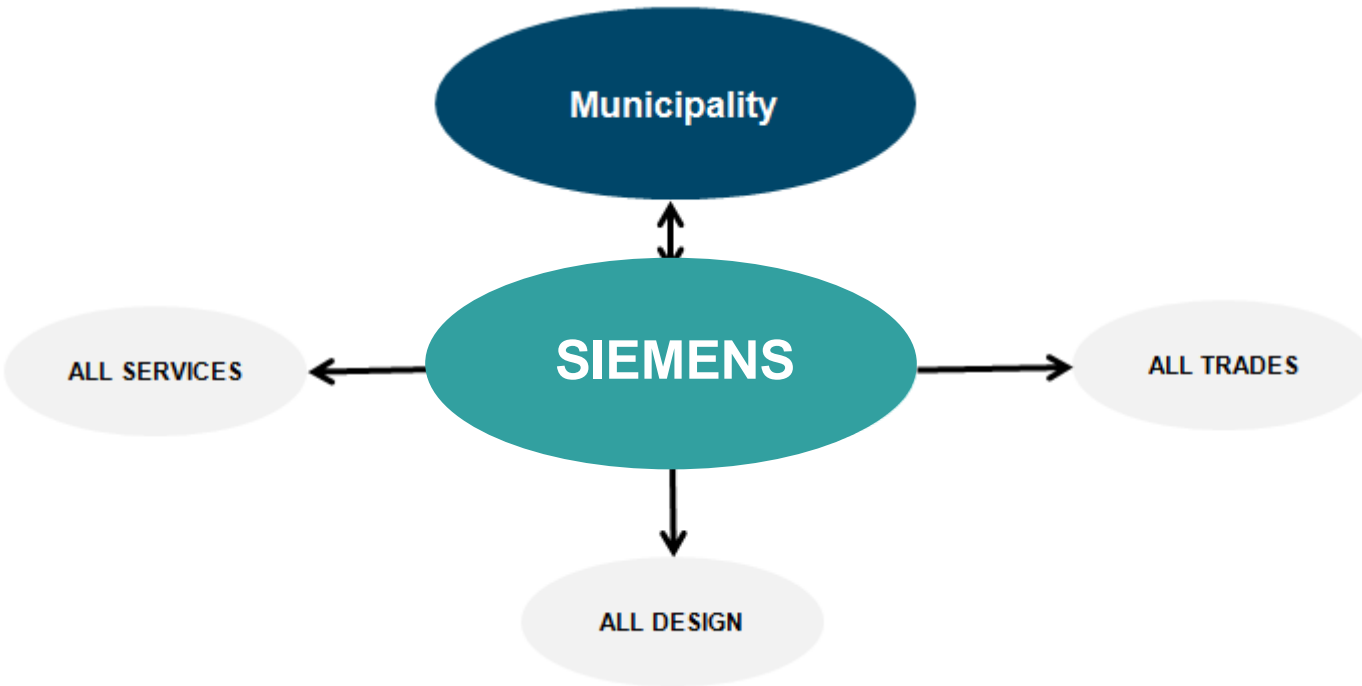
- **Design Build procurement process**
- **Guaranteed results - savings, revenue, functionality**
- **Escalated implementation schedule**
- **Trusted partner – long term**
- **One responsible party - Single contact; single point of accountability**
- **Turnkey solution / No change orders**
- **Local subcontractors**
- **Potential for little upfront capital investment**
- **Option for savings & revenue to help fund project**

# Managing Risk – Typical Complex Project Organization



- Requires a **LARGE** amount of city staff time
- Contractors respond to spec as low as possible, then actively look for change orders
- “Finger pointing” between parties, leading to an adversarial project environment
- Higher risk for Municipality
- Lack of ultimate accountability

# Managing Risk - Siemens Streamlined Project Organization



- Turn-Key, Single-Source Model of Accountability
- Collaborative effort between Qualified Provider Team & Local Government
- **RESULT:** Firm Fixed Cost w/ **NO CHANGE ORDERS**

## How Change Orders Impact Projects:

### Average Change Order Amount:

In-house management:

- **10.9%**

### Average Total Project Change:

Original project duration:

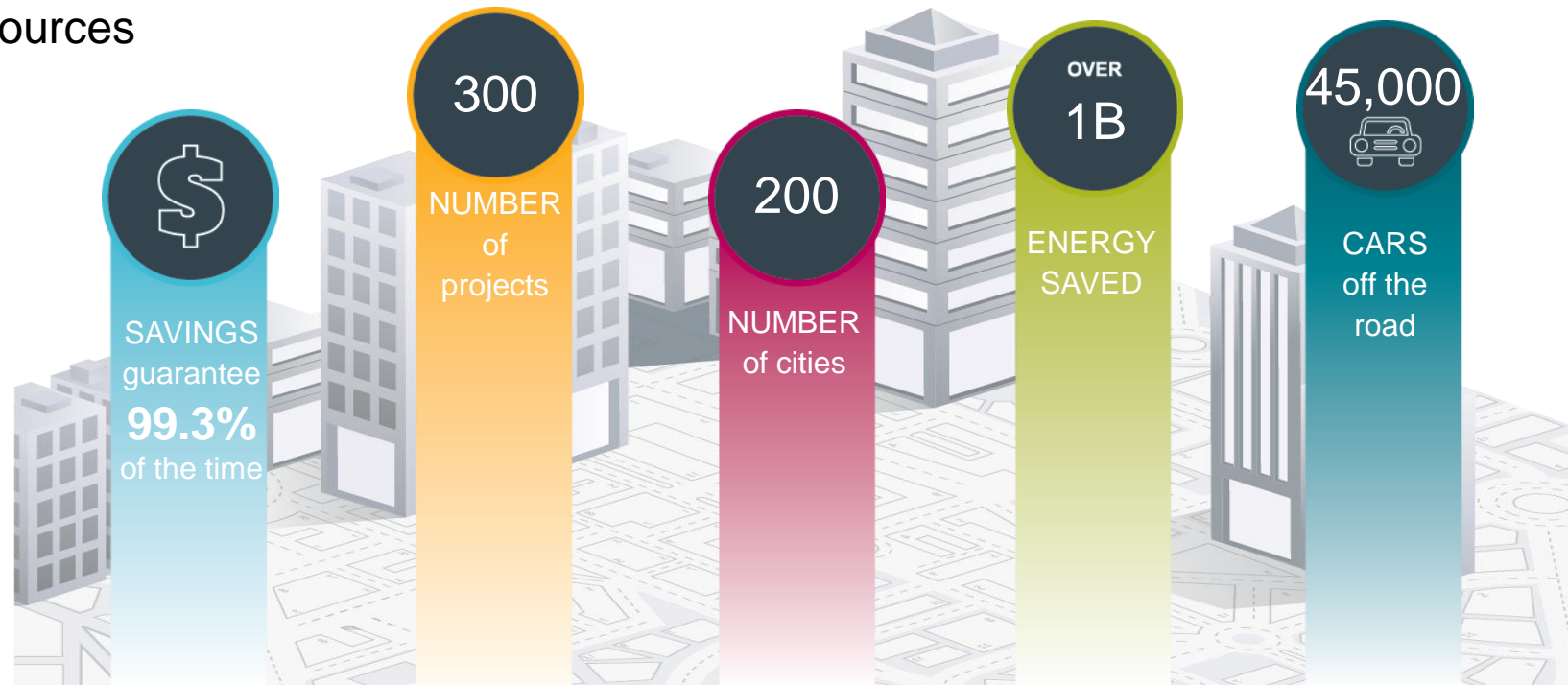
- **+10% - 20%**

# Siemens as a Long-Term Strategic Partner



A global innovator and industry leader with the local presence and know-how to positively impact the economy and environment through:

- Local Presence with Global Resources
- Innovation
- Economic Development
- Workforce Development
- STEM Education
- Sustainability and Resilience
- Supplier Diversity
- Creative Financing



## Next Steps: Project Development Phase Letter of Intent



Address City's  
Key Challenges

Immediate & Long Term  
Economic Benefit

Process + Partnership

**No upfront cost to proceed**

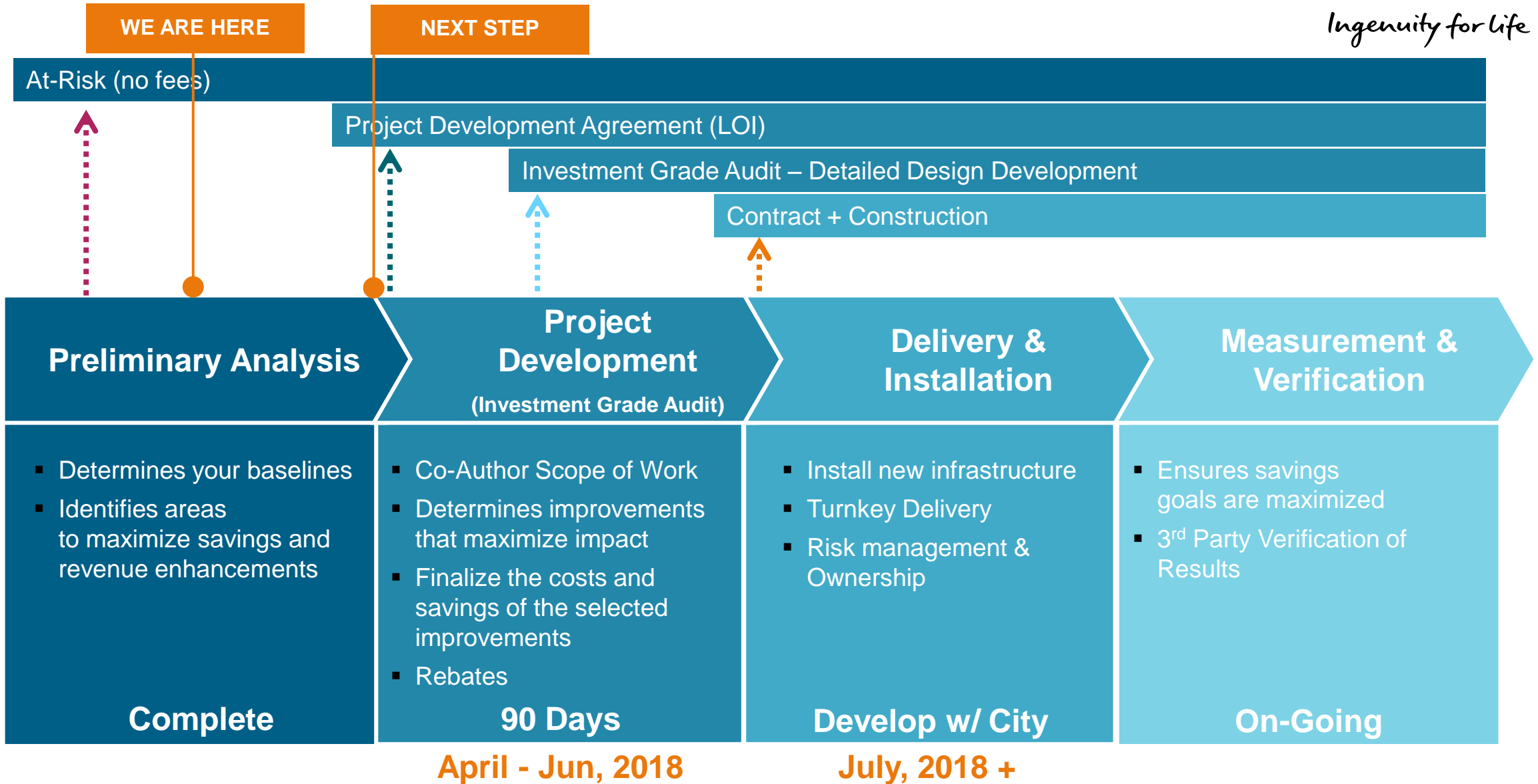
**Design the plan to achieve your goals**

**Project development outcomes:**

- Rebates and additional funding sources
- Conduct stakeholder workshops:
  - IPEX, design review, scope of work scenario evaluation, financial review, community communications plan, M& V, etc.
- Scope of Work selection
- Guaranteed do not exceed price
- Guaranteed savings and results
- Financial review & cash flow
- Local contractor engagement based on best value to the City
- Implementation/ construction schedule

**Achieve more, for less, now**

# Simple Process



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