



MONETIZED HEALTH & PROSPERITY ANALYSIS

MHPA

Monetized Health & Prosperity Analysis

Choose, create, and maintain real estate assets that maximize environmental, social, and financial value.



MHPA

Monetized Health & Prosperity Analysis

Direct unfiltered access to powerful solutions used to evaluate, create, and assure performance of healthy, efficient, and prosperous places for everyone to live, learn, work, and play.



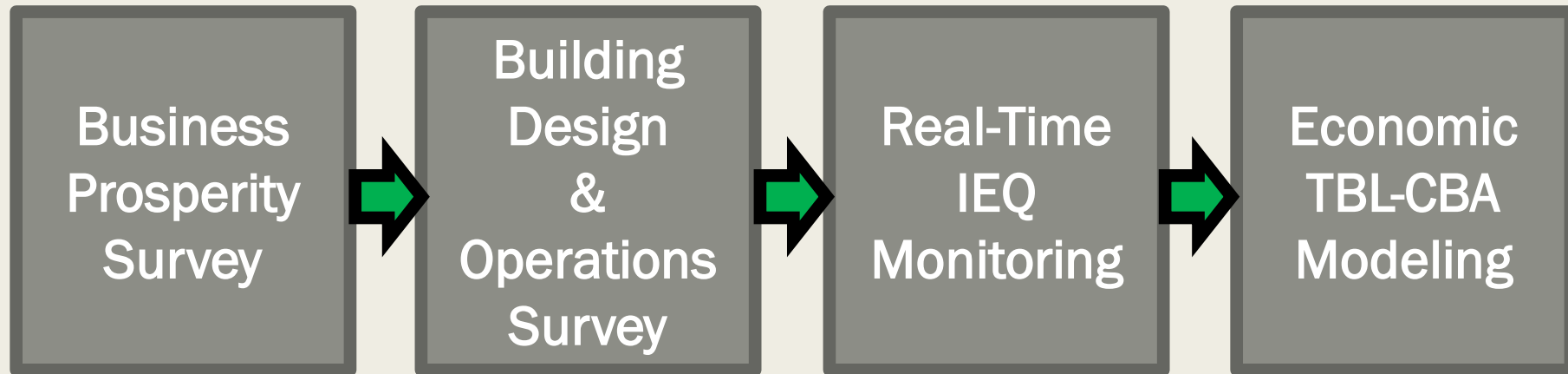
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Monetized Health & Prosperity Analysis

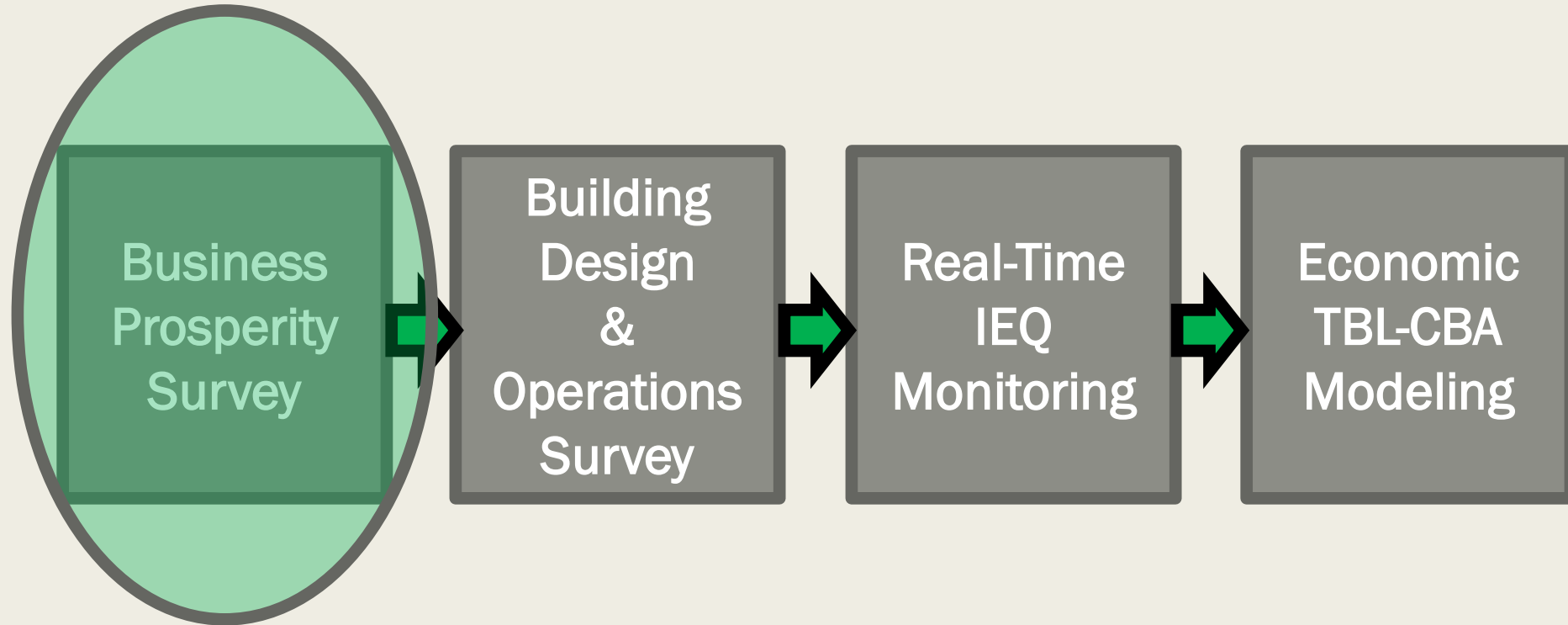
Traditional used by developers, major architecture firms, property owners, and city planners these solutions have been adapted and customized for Investors needing to validate and monetize Environmental, Social, Governance (ESG) value.



MHPA Process



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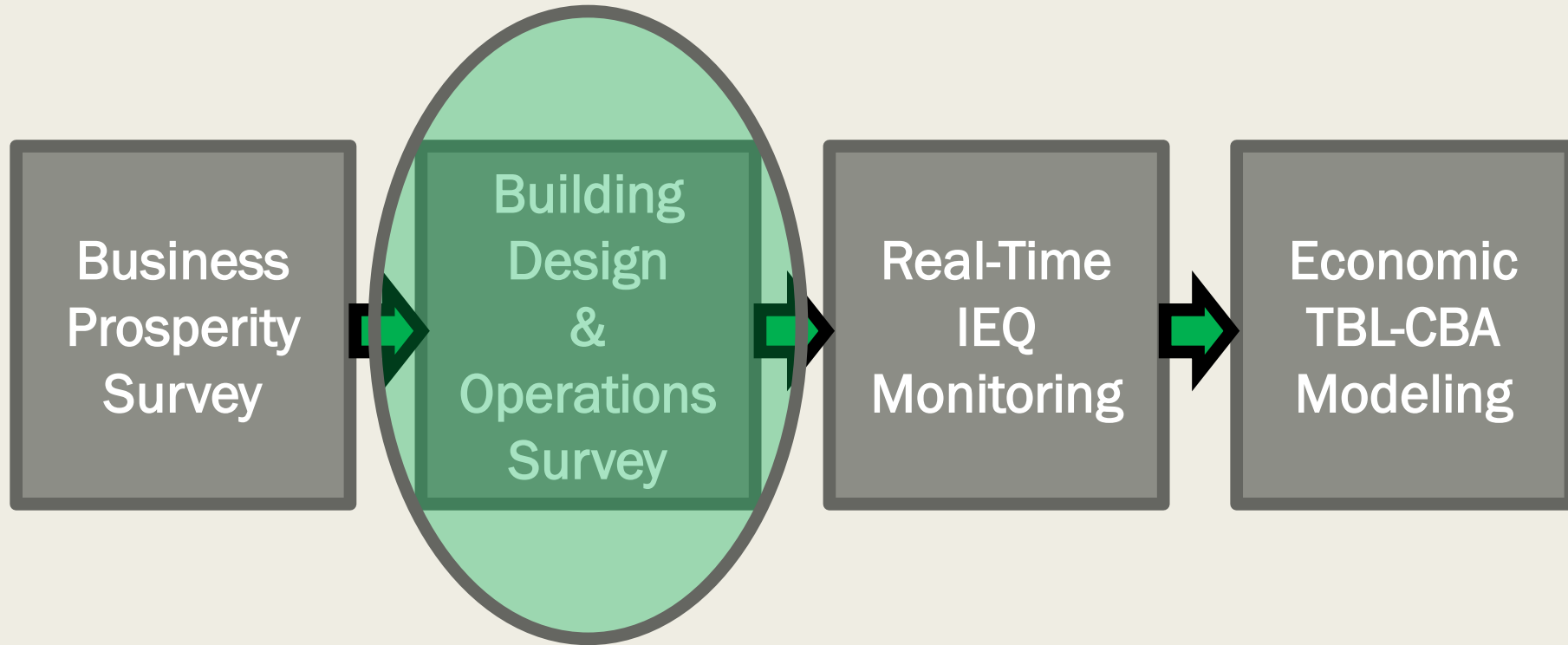
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Business Prosperity Survey

- Captures major social, environmental, and financial business drivers.
- Informs design & operational information to collect during Building Design & Operations Survey.
- Exposes the opportunity for continuous ESG improvement.



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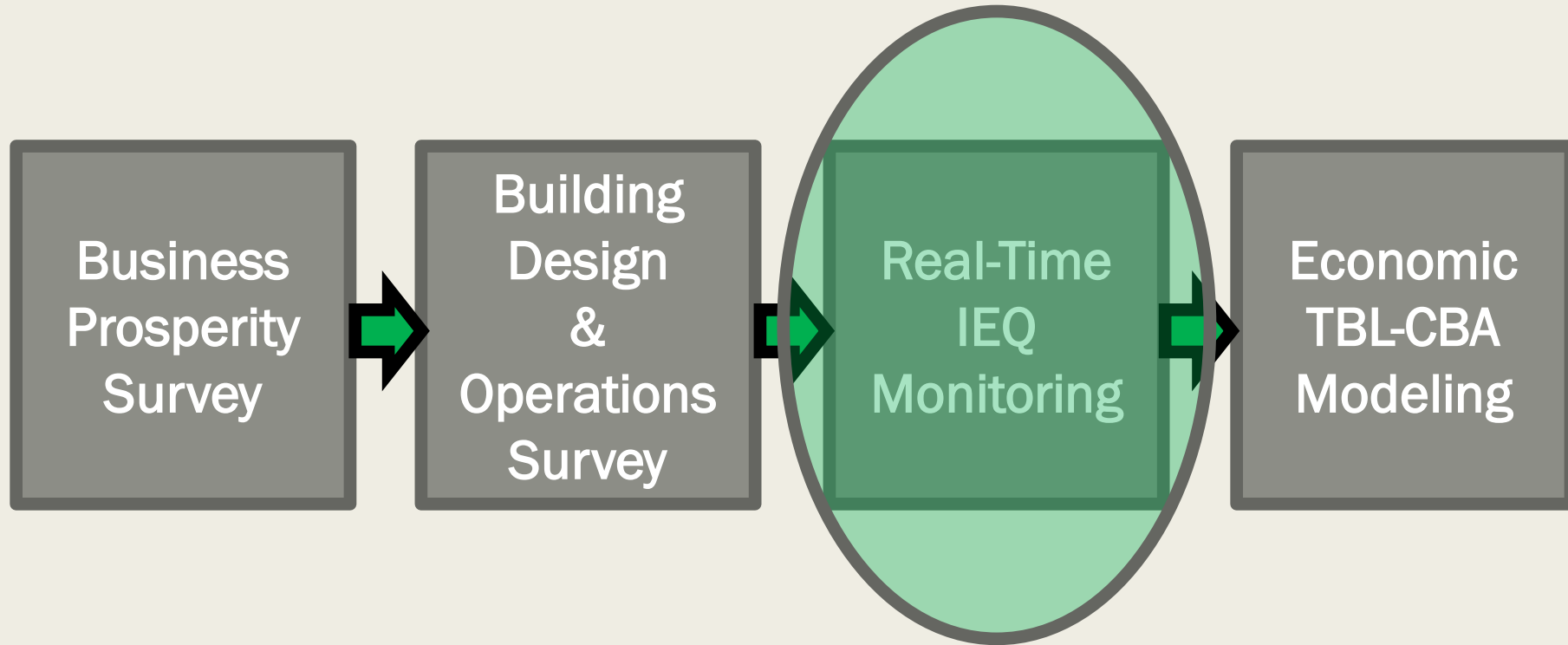
MHPA Process

Building Design & Operations Survey

- Uncovers design and operational limitations and opportunities.
- Digs deep into commitment to ESG, health, and prosperity goals.
- Identifies core competencies and gaps in building management team's capability to meet commitments.
- Collects data that populates TBL-CBA modeling.



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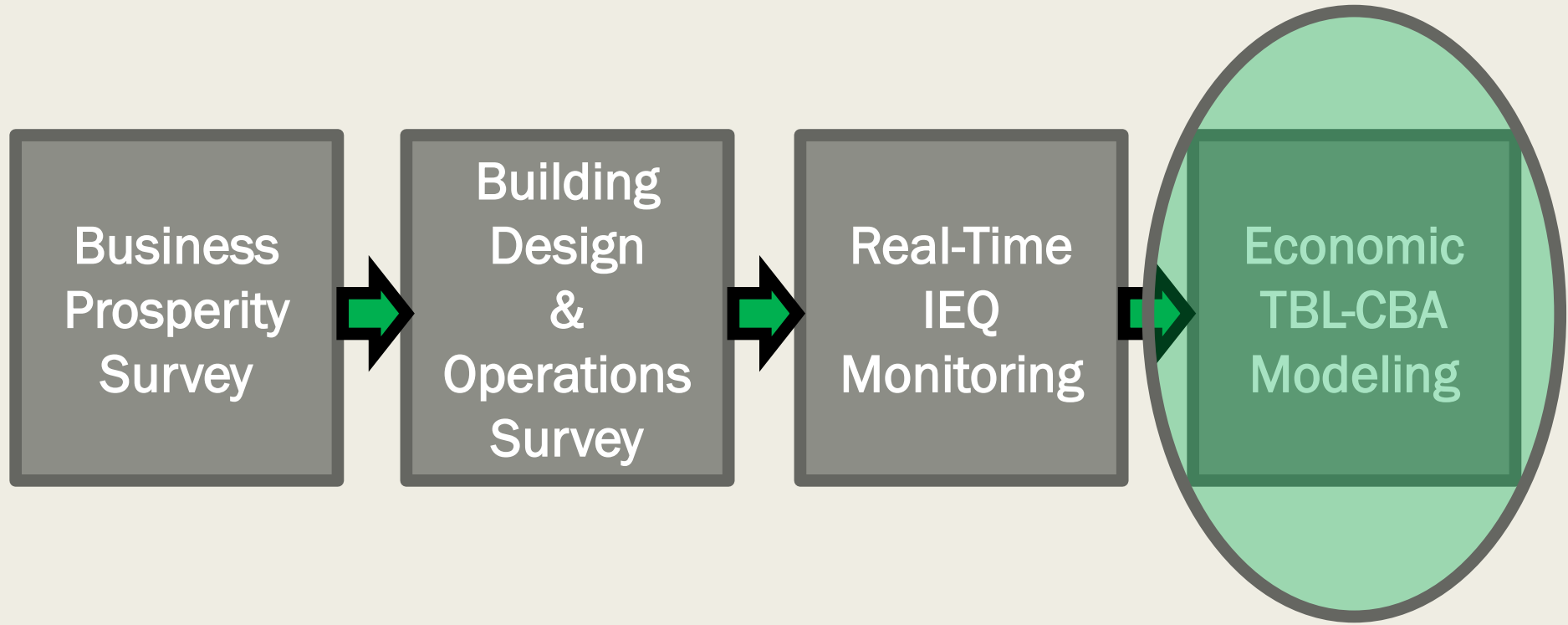
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Real-Time Indoor Environmental Quality Monitoring

- Provides continuous, real-time, independent, unfiltered proof of the building's ability to maintain a healthy and productive environment for the tenant business and their employees.



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Triple Bottom Line Cost Benefit Analysis Modeling

Energy Usage



Benchmarking, Renewables, Carbon offsets or RECs

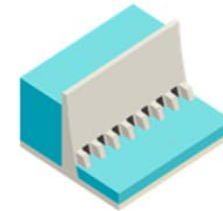
Indoor Environmental Quality



Thermal Comfort, HVAC & Lighting Controllability, Ventilation, Filtration, Air Flow, Lighting Levels, Sound

Water

Potable water, greywater/blackwater reuse, rainwater harvesting



Life-Cycle Costing Analysis

Third-Party Certifications, Real-Time Unfiltered Indoor Environmental Quality Accountability



MHPA Process

Triple Bottom Line Cost Benefit Analysis Modeling

Building Materials



Embodied Carbon, Ozone Depletion,
Eutrophication, Life Cycle Assessment,
Off-Gassing

Roof Cover



Biodiversity, Pollination, Carbon
Sequestration, Energy and Water
stewardship, Heat Island, Recreation

Envelope Contributions

Daylighting & Views

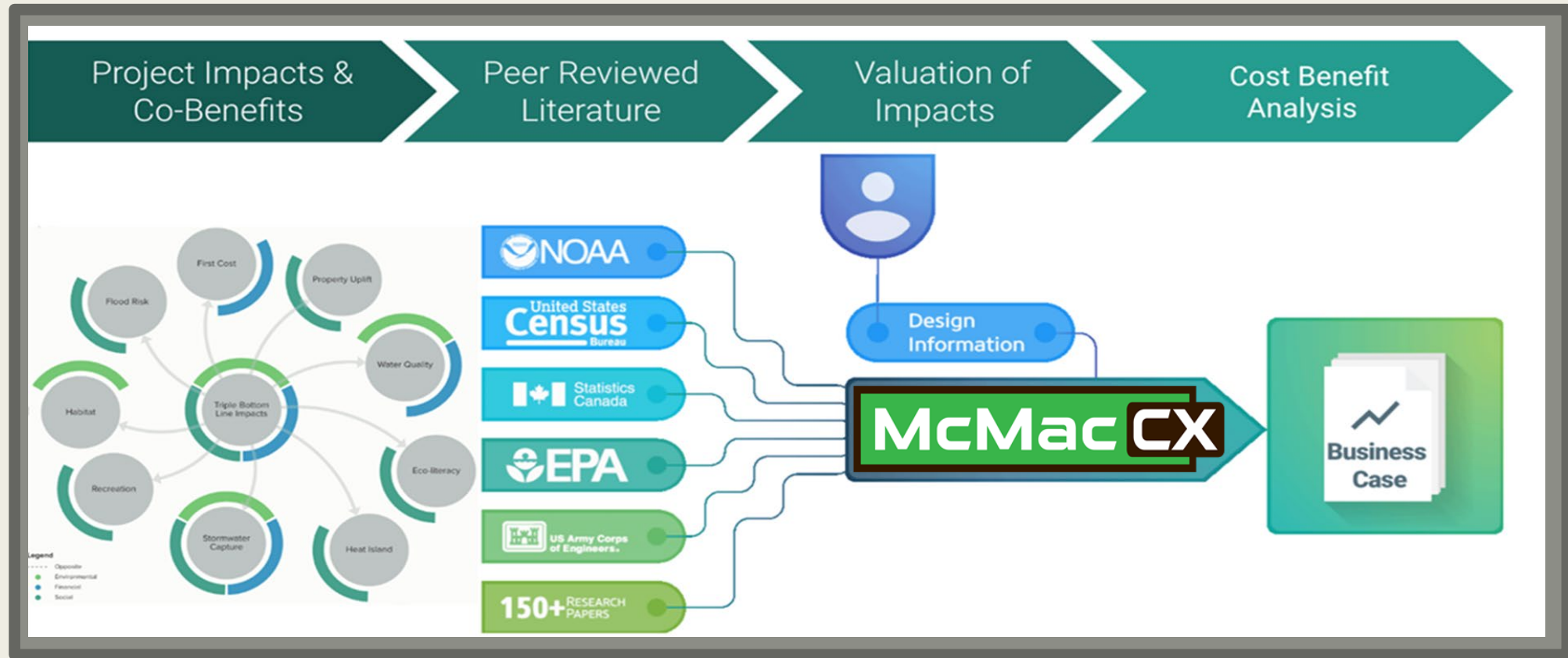


Open Space

Recreational/Community Amenities
Heat Island Impact, Native Species,
Water Infiltration, Carbon
Sequestration, Pollution Abatement,
Biodiversity, Pollination



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Triple Bottom Line Cost Benefit Analysis Modeling

Financial

Upfront capital costs
Tax credits/incentives
Operational
Transparency &
Accountability
Utility Costs
Replacement costs

Social

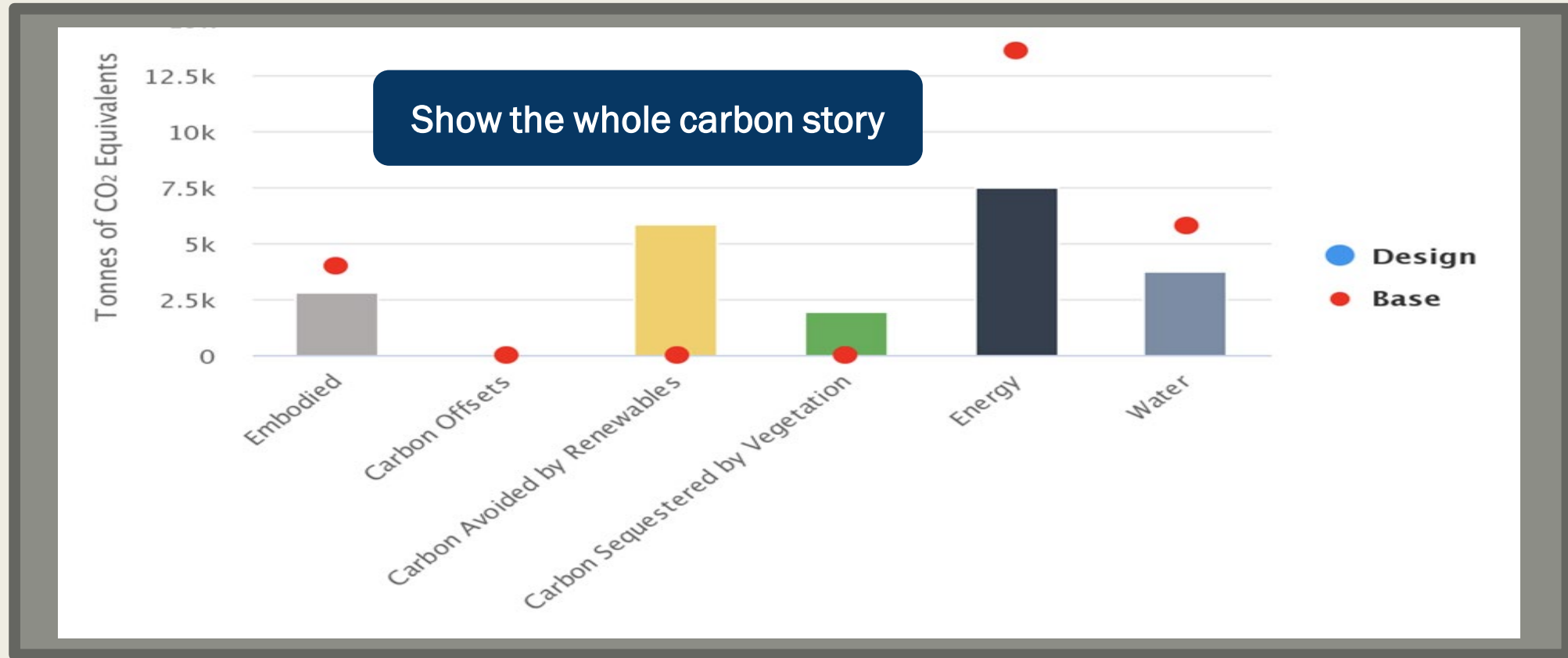
Productivity
Healthcare Costs
Absenteeism
Retention
Occupant Reentry
Confidence

Environmental

Operational Carbon
Air & Water Pollution
Embodied Carbon
Carbon Sequestration
Biodiversity



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Heating, Ventilation & Air Con...

Heating, Ventilation, and Air Conditioning (HVAC)

Thermal Comfort

Moving closer to the optimal thermal comfort of a school building helps make students and employees more productive and employees healthier. By addressing this aspect of the occupants' indoor environment, the project's triple bottom line is affected.

Productivity:

Employees

- Using the relationship between temperature and productivity from [Seonänen et al \(2006\)](#), Autocase quantifies the change in productivity driven by each degree of temperature change
- As temperature converges toward 22°C, occupants become more productive.
- Using either building-specific average wage or the default local average industry wage (county level in the US, provincial in Canada), employee productivity increases are monetized by valuing the increase in productive work hours.

Students

- Using the relationship between temperature and productivity from [Seonänen et al \(2006\)](#) Autocase quantifies the change in productivity driven by each degree of temperature

Provided below are the triple bottom line cost benefit analysis (TBL-CBA) results of your designs, evaluated over the life of the project. TBL-CBA is a systematic evidence-based economic business case approach to quantify and attribute monetary values to the direct financial impacts, as well as broader social and environmental impacts. The results are broken out by investment category (for example, HVAC related costs and benefits), impact (for example, upfront capital costs or improved productivity) as well as by stakeholder (for example, owner vs. tenant).

The current dollar year for this project is 2020. You can change this value in the [general inputs](#).

Your project is using the Autocase dataset version 2019-12. Consider updating your dataset to the latest version, 2020-01, in the [general inputs](#).

Only show bookmarked designs

TOTAL TBL NPV MORE DETAILS STAKEHOLDERS

By Benefit/Cost Type

Design	Environmental	Financial	Social	TBL-NPV
Design 2 w/ Green Roof	\$15,942,790	\$2,629,300	\$5,357,400	\$23,929,490
Design 1	\$16,039,400	\$2,629,300	\$4,622,900	\$23,291,600












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Benefit/Cost	Stakeholder	Benefit/Cost Type	Lifetime NPV
👤 Social Value Air Pollution	Community	Environmental	\$12,649,350
👤 O&M	Owner	Financial	\$4,952,000
👤 Carbon Emissions	Community	Environmental	\$3,115,800
☁️ Community Recreation	Community	Social	\$2,969,000
🚚 Health - Heat Island	Community	Social	\$1,398,800
💰 Financial Savings from Electricity	Owner	Financial	\$1,376,000
☁️ Occupant Recreation	Occupant	Social	\$989,600
💰 Financial Savings from Water	Owner	Financial	\$608,200
💰 Financial Savings from	Owner	Financial	\$351,700












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Post MHPA

Ongoing Health & Prosperity Support:

- Tenant buildout team compliance with health & business goals,
- Design and construction document review,
- Value engineering health & prosperity impact analysis,
- End-of-project HVAC, lighting, and operational carbon performance outcome verification,
- Ongoing real-time, unfiltered IEQ and operational carbon verification monetized to business health & prosperity impacts,
- Environmental, Social, Governance due diligence documentation.



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Schedule an appointment to learn more:

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