### Valued Owner's Representation

ACEC MN Building Engineering & Construction Conference October 18, 2016





CONSULTING, INC

TAX, LLC

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# Agenda

- Who's talking
  - Quick Speaker bios
  - Professional background
- The world of owner's reps
- Common owner's *mis*-representation
- The project lifecycle
  - Planning, development, & funding
  - Implementation & procurement
  - Operate & maintain
- The value of a *team* of experts
- Value from 4 corners (planning, funding, procurement, execution)
- Q&A (or as we go)

### Who We Are

- Mike Piper, Partner, ICS Consulting, Inc. and CEO, ICS Tax, LLC
  - 13 Years experience in energy services, construction, and project finance
- Scott Johnson, Principal, ICS Consulting, Inc.
  - 25 Years experience in construction industry
  - Co-founder of ICS Consulting, Inc.

### Who We Are

- ICS Consulting, Inc.
  - We provide customized planning and project-related consulting, management and owner representation services – integrating the intricate processes of planning, funding, design, construction and ongoing facility operations
  - Founded 2006
  - Staff of 40+ comprised of engineers, architects, energy engineers, finance, accounting, and professional project management

#### **Owner's Representation**

- *Typically* 3rd party retained to oversee project planning, development, construction, and closeout process
- Ensures owner's interests are protected
- More common on public and non-profit projects
- Growth trend parallels overall construction market
  - Need for more efficiency due to saturation of projects
  - Hiring market unstable for owners and project team members
    - Experience
    - Capacity

#### Owner's Representation: Common Mis-Understanding

- Owner's rep doesn't need to be involved the preconstruction and construction process
- Owner's rep serves as the general contractor / revenues construction contracts
- Owner's rep is there to ensure other parties "make no money" – yes, we've actually heard this

#### So What is **VALUED** Owner's Representation?

- 3rd Party ensures owner's interests are protected
- Collaboration ensures successful project outcome for ALL parties
- Begins in the needs assessment and planning phase
- Defines parameters and expectations clearly so everyone knows what they are getting into
- Bringing additional cost efficiency to a project
- Knowing requirements and regulations
- Continues into closeout/occupancy to ensure ongoing operation is sustainable

#### **OPERATE + MAINTAIN**

Efficient plans and processes must be developed and implemented to ensure that the life of the facility and its systems is maximized, and so that the facility enhances use by occupants. Obtaining, maintaining, and managing facilities-related information can be a time-intensive task.



#### FUND

Facility-related needs can be addressed and financed in many ways. Careful evaluation of all potential funding mechanisms and strategies prior to implementing solutions is critical to ensuring efficient use of financial resources.



#### PLAN

Efficient management of facilities requires looking at both short-term and long-term needs. Developing and maintaining a detailed facilities plan that is both comprehensive and dynamic is the most effective strategy to achieve this task.

#### NEED

Both planned and unplanned issues and needs are common elements that arise in day-today facility operations. The key is to transition strategies to address these needs from reactive to proactive in an effort to reduce costs and minimize potential disruptions for occupants.

#### ASSESS

One of the most critical keys to addressing facility issues is to accurately and efficiently assess needs, and to develop and evaluate all potential alternatives prior to implementing a solution.

### A Multi-Disciplined Approach



# Planning & Development Phase

- Identify Needs
  - Physical deferred maintenance, equipment replacement, etc.
  - Programmatic is the space suitable for current use
  - Financial cost of operation becoming prohibitive
  - Facility Condition Index
  - Assess & Plan
    - Evaluate alternative solutions
    - Establish timelines and budgets
    - Stakeholder input



## Planning & Development Phase

- Find the right team
  - Know current workload
  - Specialties and "good fit" for the project
  - Personalities and company approaches
- Design and constructability review
  - Cost estimating at each stage of design
  - Lifecycle and operational cost analyses
  - Systems, components, materials
    - Good fit? Availability? Pricing? New Technology?

011	Chilled water system	indicate flow switch these need to be sh	ence of operations do not es for air cooled chillers, nown on drawings, quence of operations.	8	- 1
012	Chilled water system	cooled chillers. Thi flow verification of c	ure gauge not shown on air is is important to have for chiller bundle during start up, future trouble shooting of n.		
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D	Date:		Aug. 19, 2015	1CS	CONSULTING, IN
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D'	Date: Project: Project No.:		Aug. 19, 2015 Rushford Peterson Schools 5084	 ICS	CONSULTING, IN
	Date: Project: Project No.:		Aug. 19, 2015 Rushford Peterson Schools 5084 Dana Fontaine	 ICS	CONSULTING, IN
D'	Date: Project: Project No.: Reviewed by		Aug. 19, 2015 Rushford Peterson Schools 5084 Dana Fontaine Patrick Schaefer	 1CS	CONSULTING, IN

ltem No.	Dwg./ Spec. Comment		Response	
001	All HVAC Drawings	Drawings indicate grilles to be balanced at face grille, recommend providing separate manual volume damper.		
002	All plumbing	No overall domestic water riser diagrams hown, only typical.		
003	All plumbing	o overall sanitary and vent riser diagram nown, only typical.		
004	All	Recommend showing CBV valve at start of recirculation loop and note GPM to set at for balancer in liqu of downstream. This should		

11/2/16

## Funding Analysis Phase Objectives

- Increase overall value of project
  - Reduce cost while maintaining quality
  - Increase efficiency of long-term operation
- Maximize alternative funding (cost offsets)
- Minimize capitalized expense
- Identify and establish financial objectives
  - Return on Investment (ROI), Simple
    Payback Period (SPP), Average Rate of
    Return (ARR), Hurdle rate, etc.
- Project financing options

Project:					RO NPV SPI	\$3,124,795	]					
Cash Flow In			\$1,800,00	00		0	umulativ	o Cach I	Flow			
Project Cost:		8,608		20			unuau	e casii i	IOW			
Others Project Cost:		,500	\$1,600,00	00								in the second
Utility Rebate:		000,000									_	
Reinvestment Project Costs:		\$0	\$1,400,00	00								_
Net Project Cost:		3,108								_		
Additional Costs:		\$0	\$1,200.0	m —								
Total Net Project Cost:	\$40	3,108	31,250,00					1200				
Tax Add'I Cash Year 1:	\$1,03	71,396	1 1000000				_					
Annual Utility Savings:	\$73	5,000	\$1,000,00	00								
Annual Maint, & Repair Savings:		\$0				_						
Annualized Cost Avoidance:		\$0	\$800,00	00					_			_
Financing Term (years):		1	\$600,00		_			_	-			
Net Interest Rate:	0.4	00%										
Payments Per Year:	1	t	\$400.00					_				100
M&V Set Up Cost:		50										
Annual M&V Cost:		\$0	\$200,00									
M&V Start / End Year:	0	0	]	~								
Utility Savings Escalation :	4	2%	1 .	50								
Year "0" Utility Savings		.0%	1 1	0	1	2	3 4	5	6	7 8	9	10
O&M Savings Escalation:	3.	2%	1				a Cumu	lative Cash Flow	e			
YEAR	0	1	2	3	4	- 5	6	7	8	.9	10	TOTAL
CASH OUTFLOW (ESTIMATED PAYM	IENTS				12 march 1	1000						
Estimated Principal:	\$0	-\$403,108	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$403,108
Estimated Interest:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Estimated Payment:	\$0	-\$403,108	50	\$0	50	\$0	\$0	\$0	50	\$0	50	-\$403,108
Accumulated Payments:	50	-\$403,108	50	\$0	50	\$0	\$0	\$0	50	\$0	\$0	-\$403,100
CASH INFLOW (ESTIMATED SAVING												
Total Utility Savings:	\$24,750	\$75,000	\$78,150	\$81,432	\$84,852	\$88,416	\$92,130	\$95,999	\$100,031	\$104,232	\$108,610	\$933,604
Total Maint, & Repair Savings:	50 50	\$0 \$0	\$0 \$0	\$0 \$0	50 50	\$0 \$0	50 50	\$0 \$0	\$0 \$0	\$0 \$0	50 50	50 50
Total Annualized Cap Cost Avoid: After Tax NPV:	50	\$1.071.396	\$0 \$23.811	\$7,486	-\$2,565	-\$3,733	-\$3.420	\$10,364	-\$17,487	\$17,303	-\$15,919	\$1,031,90
Total Annual Savings:	\$24,750	\$1,146.396	\$101,961	\$88,919	\$82,268	\$84,683	\$88,709	\$85.635	\$82.544	\$86.929	\$92.691	\$1,965.50
Accumulated Savings:	\$24,750	\$1,171,146		\$1,362,026		\$1,528,997					\$1,965,506	XX
NET CASH FLOW												
Annual Cash Flow:	\$24,750	\$743,288	\$101,961	\$88,919	\$82,288	\$84,683	\$88,709	\$85,635	\$82,544	\$86,929	\$92,691	\$1,562,39
Cumulative Cash Flow:	\$24,750	\$768,018	\$869,999	819.8292			\$1,214,598					XX

### Funding Analysis Phase – Useful Ideas

	<b>V Xcel</b> Energy*
	ics consulting, inc
r <b>st</b> ren	Certificate of Compliance Energy Efficient Commercial Building Tax Deduction Section 1790. Internal Revenue Code
481 fici 1 g yc C u mi C ke i C ssal P guire	Bu erti leen erti tree tree 145 1st Avenue North hon Perham, MN 56573
ene to	IRC §179D ENERGY EFFICIENT COMMERCIAL BUILDING DEDUCTION – CERTIFICATION PACKAGE
	for the
	Tuffy's Pet Food Processing Plant (2015 Addition)
-	Tax Year Ending December 31, 2015
	Prepared by: ICS Consulting, Inc. 3890 Pheasant Ridge Drive NE, Suite 180 Blaine, MN 55449 P: 763-354-2670
_	ICS CONSULTING, INC

- Utility Rebates
  - Custom vs. prescriptive rebate programs
  - Alternative rebate recipients
  - Collaboration with utility providers
- Tax Incentives
  - Energy efficient commercial building deduction (§179D EPACT)
  - Cost segregation
  - Construction contract structure
  - Accelerated and bonus depreciation
  - Renewable energy incentives
  - R&D Tax Credit
- Leveraged Savings
  - Redirect energy and operational savings to project cost
  - Guaranteed savings arrangements
- Outsourced Equipment Ownership
  - LAAS
  - Solar Models

### A Multi-Disciplined Approach



### Implementation Considerations

#### • Ensuring Quality Bidding

- Pre-bid conferences
- Review of existing building and site conditions
- Market timing
- Value analysis
- Maintain network of good contractors
- Procurement Structure
  - Competitive bid off plans/specs
  - Design build/design assist
  - Cooperative purchasing
  - Leveraged savings contracts

#### Quality Control

- Comprehensive front-end specifications
- Project manuals or Owner's Project Requirements (OPR)
- Establish change order procedure

#### Primary Project Development Contract for Facility Projects Attachment A: OWNER's Project Requirements

Building Owner: Tomah School District Date: August 26, 2015

The intert of this document is to establish parameters under which the selected service provider, Market & Johnson (CONTRACTOR) that abates for the project development and project constructions process. The document consists of requirements set forth by the building(s) OWNER as well as general obligations to be met by the CONTRACTOR. The OWNER has the right to modify this document at any time. By executing this document and incorporating it as an appropriate Exhibit or Adactment to letting project development phase or construction phase contracts. CONTRACTOR wedenstands that the requirements set forth below are hereby recognized as minimum standards for the proposed project and that the OWNER reserves the right to enforce any or all of the requirements.

#### 1. General Requirements / Information

- a. The OVWER has related ICS Consulting, Inc. (ICS) as owner's representative for the development and delivery of this project. A communications, information requests, payment requests, document reviews, etc. shall be made via the designated ICS representative. The designated representative from ICS for this project is Jeff Hiden, Program Manager, 605:381-5978.
- b. All contract documents, shop drawings submittals, close out documents and As-built drawings will be completed in electronic format through the use of the Contractor's portal. If one is not available the contract will be allowed to utilize Procere as provided by the owners representative
- Administrative Requirements See Exhibit 1
  Project Schedule Requirements See Exhibit 2
- d. Project Schedule Requirements See Exhibit 2
  e. Closecut Procedures Requirements See Exhibit 3

#### 2. Scope of Work

- <u>Priority Scope</u> of work and minimum requirements for the project development process includes:
  - Roof Replacement at Camp Douglas Elementary Replace sections 1 & 2
    - Replace sections 1 & 2
      EPDM Single-ply membrane with River Washed Stone Ballast
    - Polyisocyanurate Insulation
    - R-value of 30 or higher
      20 year warranty with 30 year
    - 20 year warranty with 30 year option CONTRACTOR to provide design documents for review and comment by OWNER at SD,
  - DD, and CD design phases for approval prior to ensuing phases Partial Roof Replacement at Tomah High School
    - Replacement at Tomah High School
      Replace sections 9, 30 and potential other problem areas.
    - Replace sections 9, 30 and potential other problem areas.
      EPDM Single-ply membrane with River Washed Stone Ballast
    - Polyisocyanurate Insulation
      Bushue of 30 or higher
    - R-value of 30 or higher
      20 year warranty with 30 year option
    - 20 year warranty with 30 year option
      CONTRACTOR to provide design documents for review and comment by OWNER at SD,
    - DD, and CD design phases for approval prior to ensuing phases we Reof Ton Linits at Tomath Middle School
  - Replace Five Roof Top Units at Tomah Middle School Incorporate load calculations to pre-
    - Incorporate load calculations to properly size the equipment
      Replace the units with variable air volume with modulated cooling and heating
    - Install additional VAVs so that each classroom/area has its own VAV to condition the space space.
    - correctly
      Each additional VAV will have a hot water reheat coil for future use
    - Include removal of existing roof top unit and installation of new along with all piping, ducting and any other ancillary environment

### Implementation Considerations

- Right-sized project oversight
  - Not a "one size fits all" approach
  - Established schedule
  - Construction meeting coordination
  - Meeting minutes document, document, document
- Closeout procedures
  - Punchlist item management
  - Warranty walk throughs
  - 100% Commissioning
  - Monitoring-based Commissioning

Picture No.: Date: Time: .ocation:	03 Wednesday, September 21, 2016 10:00am Various	
Observation:	Example of unprotected plumbing/piping.	
Recommend:		
	Observation Report	res
	Project: Rushford-Peterson S New Early Childhood	I, K-12 School
	1000 Pine Meadow I Rushford, MN 55971	
licture No.: late:	Contractor: Wieser Brothers, Inc.	
Time: location:	Contact: Brian Pinnow	Time: 10:00am
Observation:	Observer: Dana A. Fontaine	Weather: 70°F / Calm / Cloudy
Recommend:	NOTE: This list is not to be constitued as a	complete tabulation of all items that are required for the project completion and does not relieve
icture No.: late: line: ocation: Dbservation: tecommend;	Observations:        Picture No.:      01        Date:      Wednesday, Septe        Time:      10:00am        Location:      Various        Observation:      Example of unprote plumbing/piping.        Recomment:      Protect all from concordebris as to avoid f when building is in	sted struction dirt and thus problems
Convolting, Inc. +	Picture No.:      02        Date:      Wednesday, Septe        Time:      10:00am        Location:      Various        Observation:      Example of protect controls/actuators.        Recommend:      General observation	ed ductwork and

#### A Multi-Disciplined Approach

Planning

ment

ling

Architectural Engineering Commissioning Project Management Construction Supervision Energy Engineering Finance & Tax Accounting PM Portal





Strategic Planning to identify and prioritize objectives Innovative Funding to eliminate budget impact Smart Procurement to minimize risk and maximize control

### Tax + Technical Services Bundled Services



### Conclusion

- Owner's Representation is more than just project management
- A variety of services all geared towards owner's advocacy
- Success for owner and owner's rep means a successful, collaborative, quality project for ALL parties
- Questions??