

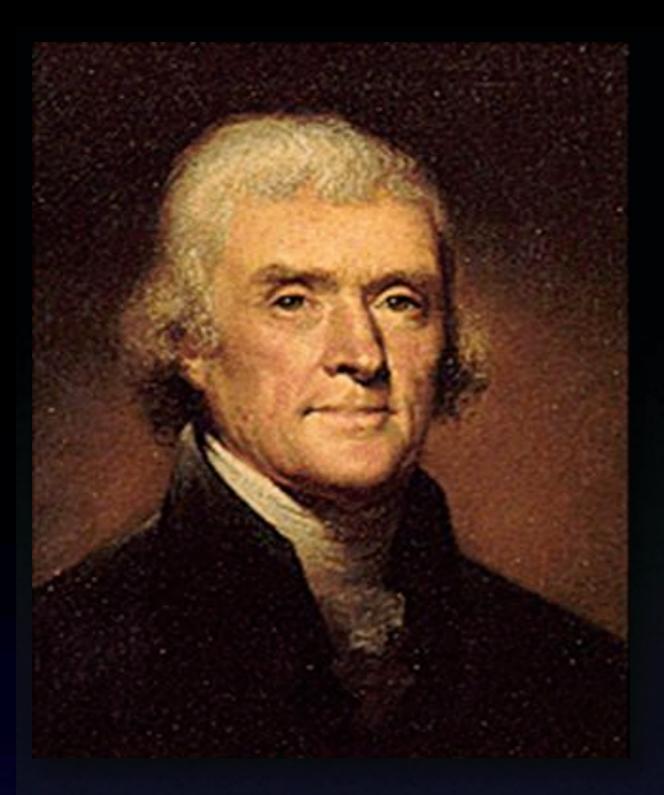
Cradle to Cradle BIM

little bim today
BIG BIM tomorrow

1. Owner issues addressed by bim
2. Why pre-design bim is so important
3. What Owners get from bim in real projects
4. Design & construct bim data to O&M
5. Steps for Owners approaching bim

“It is a capital
mistake to theorize
before one has data.”

Sherlock Holmes



"It is better
to correct error
while new and
before it becomes
inveterate by
habit and custom."

Thomas Jefferson
Report to Congress, 1777



Certainty,
Certainty
& more
certainty

1. Owner issues addressed by bim

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Politics





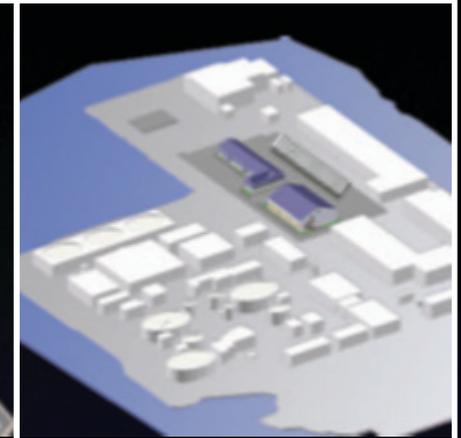
They provided enough detail and data in the validation that we can now decide the best allocation of the money available.

Terry McGean, PE, City Engineer

“We got down to the details early. The early decisions resulted in significant time and money savings.”

Hal Adkins, Director of Public Works

Levels of Detail



Type 1
Repository

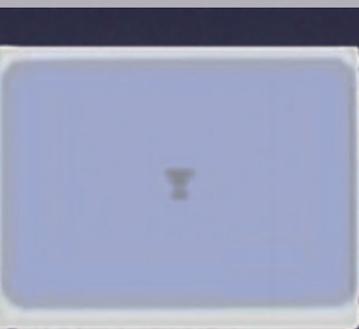
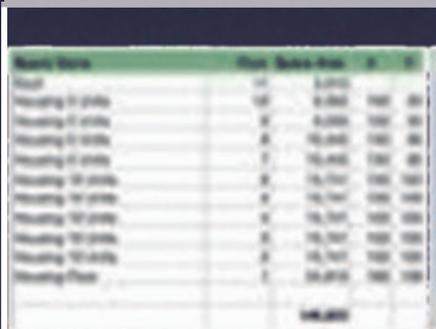
Type 2
Concept

Type 3
Design
Prototype

Type 4
Construction
Prototype

Type 5
Construct

Type 6
Manage &
Operate



LOD 1
Data + GIS

LOD 2
3D Shell

LOD 3
Shell +

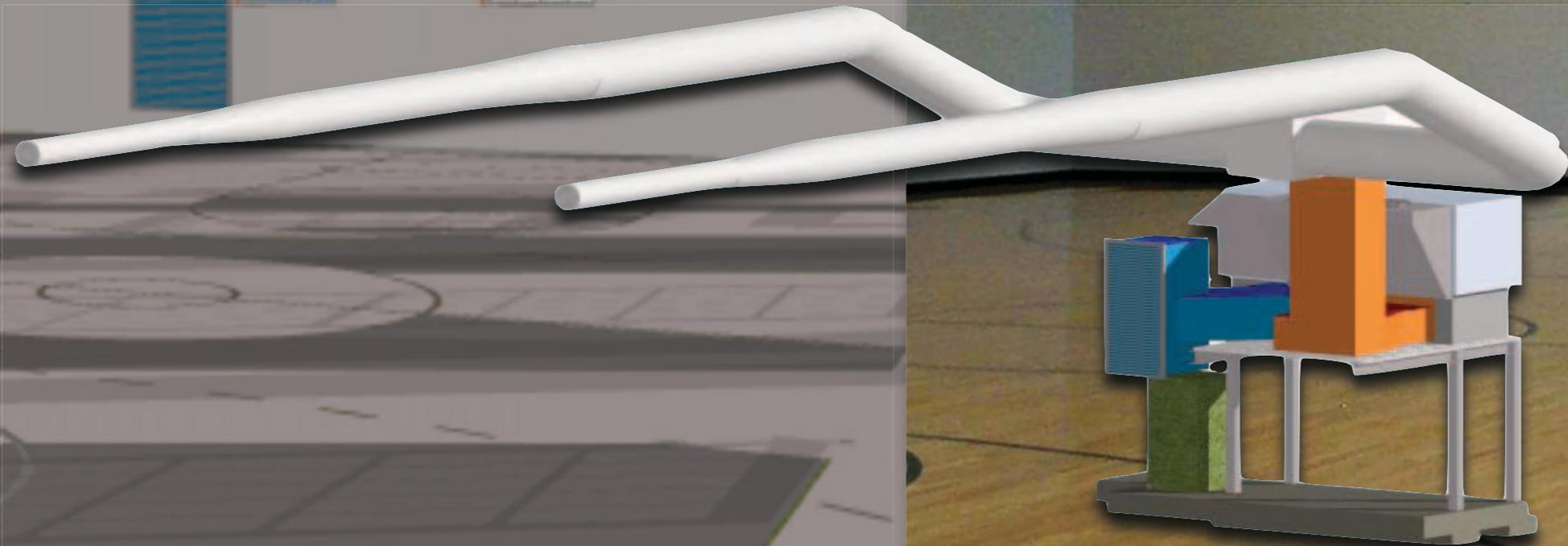
LOD 4
Layer in
Data

LOD 5
Visualize
& Analyze

LOD 6
Maintain &
Update

ADVANCED IMAGERY + DETAILS = CERTAINTY

TRY IDEAS IN THE MODEL... NOT IN CONCRETE.



1. Owner issues addressed by bim

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5. Steps for Owners approaching bim

Critical - envision the project properly

Align concept, scope, and budget

Define success at the beginning

Validation

Align concept,
scope and budget

Needs Analysis +

Program Analysis +

Concept Prototype +

Cost Model +

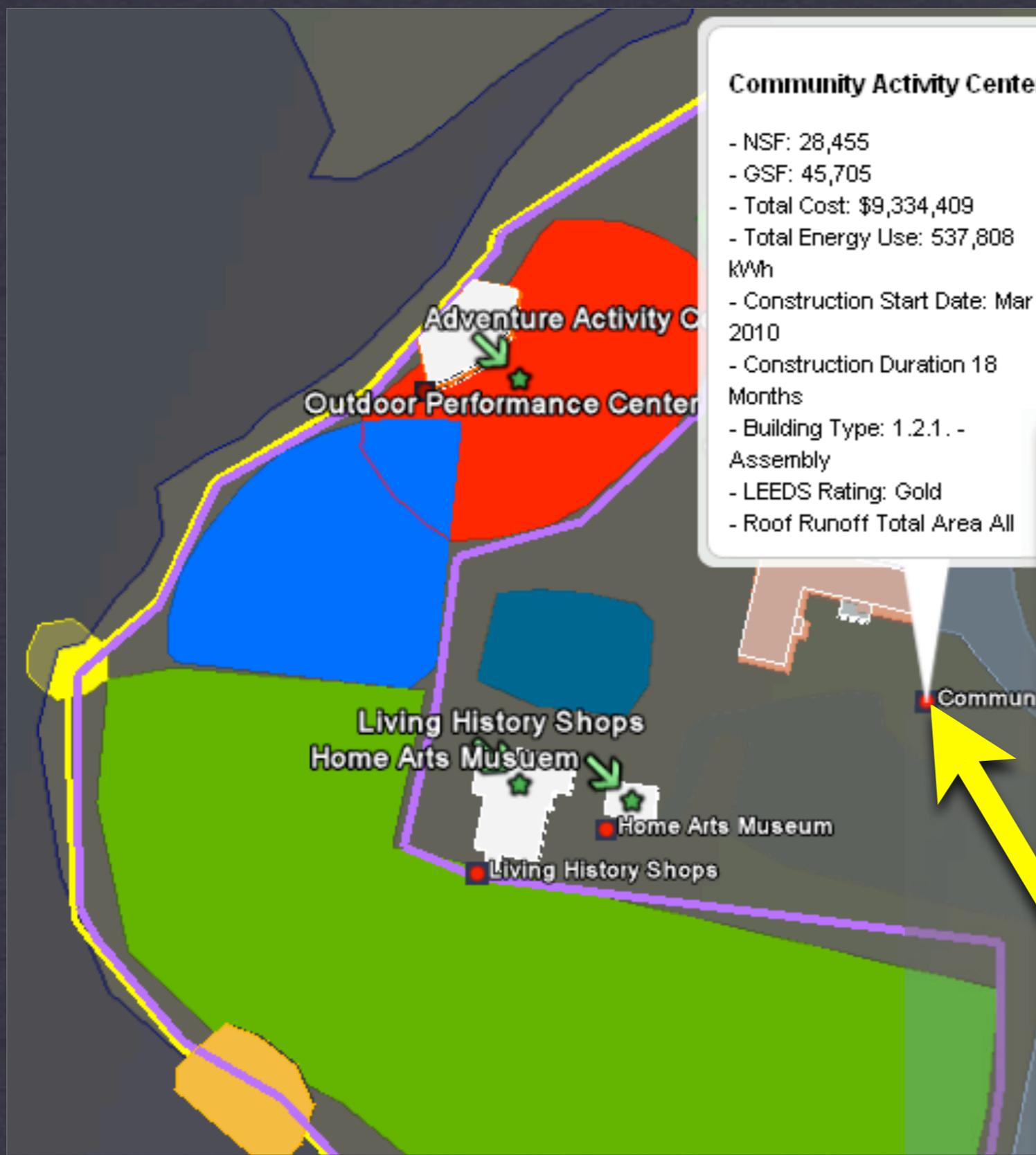
Design Criteria +

Comparables +

Pro forma +

Validate Plan +

Validated
Concept



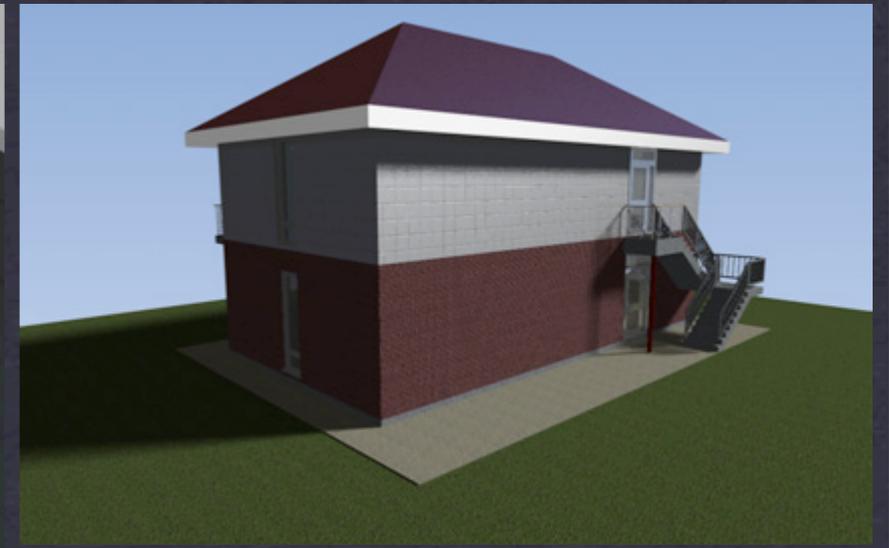
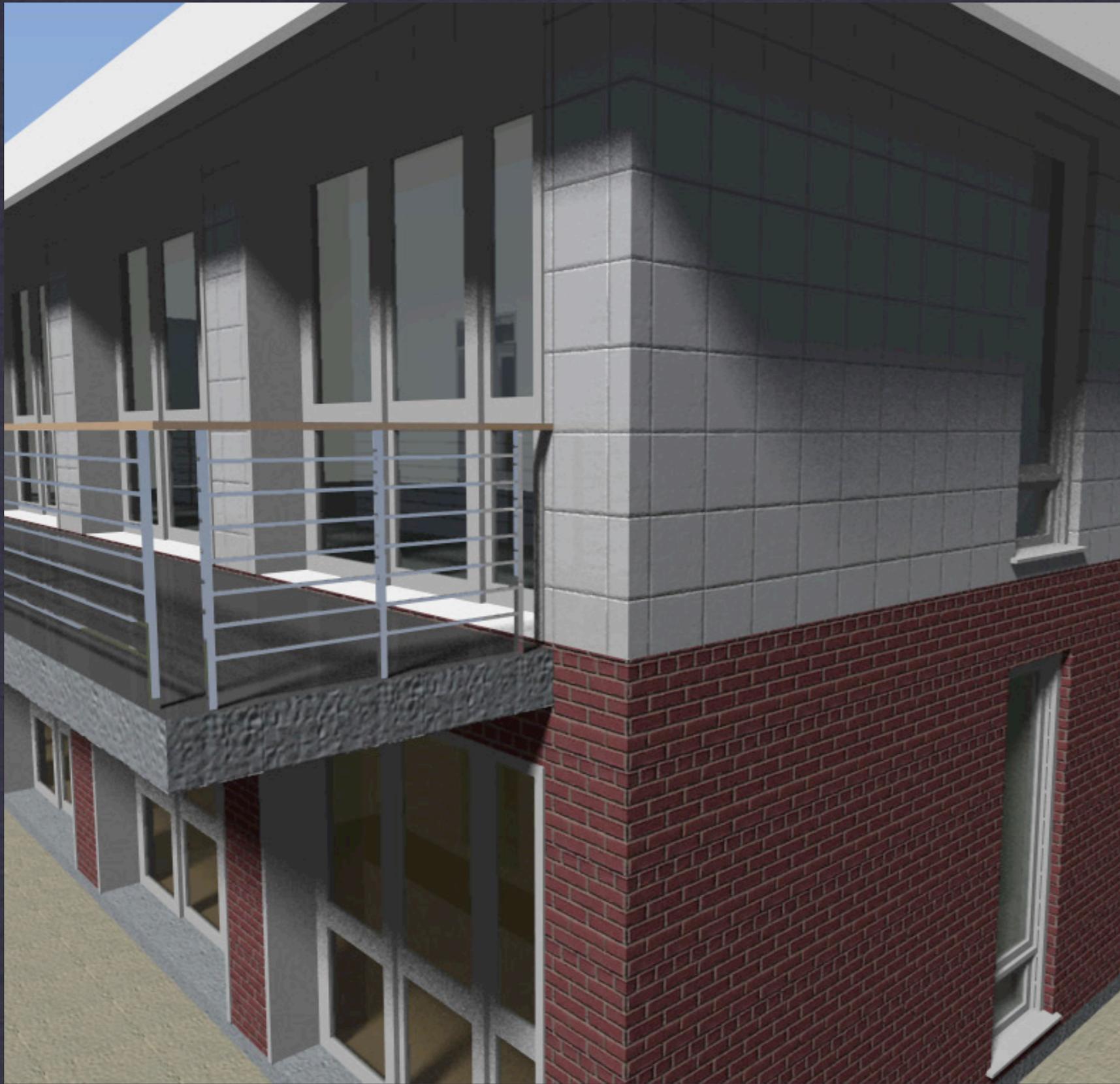
Community Activity Center

- NSF: 28,455
- GSF: 45,705
- Total Cost: \$9,334,409
- Total Energy Use: 537,808 kWh
- Construction Start Date: Mar 2010
- Construction Duration 18 Months
- Building Type: 1.2.1. - Assembly
- LEEDS Rating: Gold
- Roof Runoff Total Area All

Scheme Cost				
Project Name:	Friends of Onancock School			
Scheme Name:	Promotional Concept			
SITE WORK	Total Sitework			\$1,212,835
BUILDING CONSTRUCTION COST				
	Home Arts Museum	Total	918 GSF	\$197,090
		New Construction	0 GSF	
		Renovation	918 GSF	
		Existing (Unmodified)	0 GSF	
	Living History Shops	Total	3,718 GSF	\$582,716
		New Construction	0 GSF	
		Renovation	3,718 GSF	
		Existing (Unmodified)	0 GSF	
	Outdoor Performance Venue	Total	2,838 GSF	\$312,578
		New Construction	2,838 GSF	
		Renovation	0 GSF	
		Existing (Unmodified)	0 GSF	
	Community Activity Center	Total	45,705 GSF	\$9,334,409
		New Construction	0 GSF	
		Renovation	45,705 GSF	
		Existing (Unmodified)	0 GSF	
TOTAL COST SITE/SCHEME				\$11,639,629

DECISION MAKING FACTS

INFORMATION + UNDERSTANDING = GOOD DECISIONS



WINDOW SCHEDULE				DETAILS	
ELEVATION	DIMENSIONS	MAT.	HEAD	JAMB	
	2'-6" X 7'-10"	WOOD	1/A8.1	2/A8.1	
	2'-6" X 8'-0"	WOOD	1/A8.1	2/A8.1	
	2'-6" X 7'-8"	WOOD	1/A8.1	2/A8.1	
	2'-6" X 7'-10"	WOOD	1/A8.1	2/A8.1	

WHAT DO OWNERS GET FROM BIM?

FACT BASED DECISION MAKING

Precast Slab 11

to Current Story

to Project Zero

Home Story: Current (2. 2nd FLOOR)

Parameters

Slab section type: Hollow core
 Slab type: type "B"
 Material: 51 (03 | Concrete Light)
 Topping Thickness: 2"

Parameters for Listing

- Cost: 280.00
- Manufacturer: Stresscon
- Note/Remarks: Do not use on balconies
- Location: All unit interiors
- Accessories: Tie bars
- Group Type: Floor structure
- Inventory Number: 1123ace
- Serial Number: na
- Production Year: 1978
- Object Weight: 4500.00
- Object Weight Unit: lb
- User Defined 1: Spot patched 1985
- User Defined 2: Replaced topping 1997
- User Defined 3: Monitor condition
- User Defined 4:
- User Defined 5:

Properties

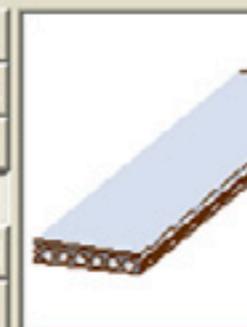
- Density (kg/m3): 1500.00
- Length: 20'
- Density (lb/cu ft): 93.64
- Area of Section (sq ft): 0.00
- Volume (cu y): 0.00

20'

4'

8"

270.00°



Wall-01			
_2x Steel Framing	3.25"		99.86
04 Block Concrete	15.25"		471.73
04 Brick Face	7.25"		226.78
07 Insulation Rigid	4.00"		124.54
09 Gypsum Board	1.00"		30.68
Air Space	2.00"		62.39
Wall-02			
_2x Steel Framing	3.25"		49.82
04 Block Concrete	15.25"		240.19
04 Brick Face	7.25"		118.44
07 Insulation Rigid	4.00"		64.70
09 Gypsum Board	1.00"		15.25
Air Space	2.00"		32.61
Wall-03			
% 25	16.38"		87.46
_2x Steel Framing	3.25"		37.08
04 Block Concrete	15.25"		471.73



CAPTURE INFORMATION AT THE BEGINNING

USE YOUR \$ EFFICIENTLY FOR LIFE

Yes	▼	Credit 5.1	Productivity Impacts Indoor Chemical & Pollutant Source Control - Reduce Particulates in Air System	1
Yes	▼	Credit 5.2	Indoor Chemical & Pollutant Source Control - Isolation of High Volume Copy/Print/Fax Room	1
Yes	▼	Credit 6.1	Controllability of Systems - Lighting	1
Yes	▼	Credit 6.2	Controllability of Systems - Temperature & Ventilation	1
Yes	▼	Credit 7.1	Thermal Comfort - Compliance	1
Yes	▼	Credit 7.2	Thermal Comfort - Permanent Monitoring System	1
Yes	▼	Credit 8.1	Daylight & Views - Daylight for 50% of Spaces	1
Possible	▼	Credit 8.2	Daylight & Views - Daylight for 75% of Spaces	1
Yes	▼	Credit 8.3	Daylight & Views - Views for 45% of Spaces	1
Possible	▼	Credit 8.4	Daylight & Views - Views for 90% of Spaces	1
Yes	▼	Credit 9	Contemporary IAQ Practice	1
Yes	▼	Credit 10.1	Green Cleaning - Entryway Systems	1
Yes	▼	Credit 10.2	Green Cleaning - Isolation of Janitorial Closets	1
Yes	▼	Credit 10.3	Green Cleaning - Low Environmental Impact Cleaning Policy	1
Yes	▼	Credit 10.4	Green Cleaning - Low Environmental Impact Pest Management Policy	1
Yes	▼	Credit 10.5	Green Cleaning - Low Environmental Impact Pest Management Policy	1
Yes	▼	Credit 10.6	Green Cleaning - Low Environmental Impact Cleaning Equipment Policy	1

Innovation and Design Process (Credits: 5 / Possible : 0 / No: 0)			5 Points	
Yes	▼	Credit 1.1	Historic Reclamation	1
Yes	▼	Credit 1.2	Chesapeake Bay Water Quality Improvement	1
Yes	▼	Credit 1.3	Crime Prevention Through Environmental Design	1
Yes	▼	Credit 1.4	Integrated Project Delivery Processes	1
Yes	▼	Credit 2	LEED Accredited Professional	1

Project Totals (Credits: 61 / Possible : 16 / No: 5) 85 Points
LEED Gold: 61 Points



PLAN & PROVE IT'S REALLY HAPPENING

IS SUSTAINABILITY REAL IF YOU DO NOT ACHIEVE THE PLANNED OUTCOMES?

All Messages

Expanded view | [List view](#)

[+ Post a new message](#)

MONDAY, 15 OCTOBER

Condition Index

Priorities for repairs and replacement are made based upon assessed condition index. Condition Index is based on a scale of 1 to 100, with 100 representing a new, defect-free asset or component.

——Scale——Rating——Recommendation——

- 86-100—Excellant—Routine maintenance
- 71-85—Very Good—Minor repairs needed
- 56-70—Good——Moderate repairs needed
- 41-55—Fair——Major repairs needed
- 26-40—Poor——Replacement probable
- 11-25—Very Poor—Repacement needed
- 1-10—Failed——Replacement critical

Posted by Finith Jernigan in [Construction](#) | [Edit](#) | [Post the first comment](#)

What should I post here?

Messages is the place for such things as physical layouts, dimensions, sizes, addresses, billing addresses, owners and tax ID numbers.

Posted by Finith Jernigan in [Miscellaneous](#) | [Edit](#) | [Post the first comment](#)

SUNDAY, 14 OCTOBER

Maintenance planning

Over the years, the association has found itself having to recreate drawings and literally 'reinvent the wheel' for

Categories [Edit](#)

- All Messages
- [Construction](#)
- [Design](#)
- [Facilities Management](#)
- [Files](#)
- [Miscellaneous](#)
- [Planning](#)
- [Repairs-General](#)
- [Repairs-Urgent](#)

CONSISTENT RATINGS

MAKE PROCESS LESS SUBJECTIVE

[Edit this page](#)

[Export](#)

[Flag this version](#)

Facility condition reports

Those that live with a building see problems well before anyone else. Use this forum to send the repair team notes of issues that you run across as you live in Sea Colony. Please be sure to give us enough information so that we can find the problem or talk to you to start the process of getting it resolved.

"Escrow Analysis"

sea colony trial powered by [ZOHIO Sheet](#)

[Save As Excel](#)

	A	B	C	D	E	F	G	H	I
1									
2	Asset	Location	Orig date	Last repair	Est life	Est repair date	Est cost	Escrow current	Escrow annual
3									
4	balconies	unit 1005	10/05/2005	10/07/06	15	06/15/10	3000	1000	1000
5		unit 4007	10/05/2005	10/07/06	15	06/15/10	2500	1000	750
6									
7		unit 2400	10/05/2005	10/07/06	15	06/15/10	4000	1000	1500
8		unit 3400	10/05/2005	10/07/06	15	06/15/10	10000	4500	2500
9									
10									
11									
12	condensing	unit 1005	10/05/2005	10/07/06	15	06/15/10	3000	1000	1000
13		unit 4007	10/05/2005	10/07/06	15	06/15/10	2500	1000	750
14									
15		unit 2400	10/05/2005	10/07/06	15	06/15/10	4000	1000	1500
16		unit 3400	10/05/2005	10/07/06	15	06/15/10	10000	4500	2500
17									
18							39000	15000	11500
19									

Versions

You're viewing the latest

- 10 · < 1 min ago Finith Jer
- 9 · 1 min Finith Jer
- 8 · 1 min Finith Jer
- 7 · 2 mins ago Finith Jer
- 6 · 2 mins ago Finith Jer
- 5 · Yesterday Finith Jer
- 4 · Yesterday Finith Jer
- 3 · 14 Oct 07 Finith Jer

[Show older versions \(2\)](#)

Check two and [Compare](#)

Or [quick compare](#) the current and previous versions

SUSTAIN YOUR ASSETS

DEVELOP PLANS COLLABORATIVELY

MUST build models
accurately

Avoided or missed
questions =

PROBLEMS LATER

Clarity and simplicity

“Our supporters believe in design-build, but are concerned that things will fall-through-the-cracks.

The process allows us to manage both. And, we get more than we ever expected.”

Bill Gordy, City Project Manager

1. Owner issues addressed by bim
2. Why pre-design bim is so important
- 3. What Owners get from bim in real projects**
4. Design & construct bim data to O&M
5. Steps for Owners approaching bim



ENFORCER



SALISBURY
FIRE DEPT.



30,000 SF &
\$4.5 million
before validation



Bid & Construction Salisbury Fire Department

- Overview**
- Messages
- To-Do
- Milestones
- Writeboards
- Chat
- Time
- Files

- People & Permissions
- Search

Project overview & activity

[New message](#) | [New to-do list](#) | [New milestone](#) | [New file](#)

THURSDAY, 13 MARCH 2008

File [SFD Walk-Thru Inspection.pdf](#) Uploaded by Frank B.

Message [3/11/08 Walk Thru](#) Posted by Frank B.

FRIDAY, 29 FEBRUARY 2008

Comment [Re: Emergency Gas Shut-Off](#) Posted by Mark S.

MONDAY, 25 FEBRUARY 2008

Message [Emergency Gas Shut-Off](#) Posted by Frank B.

THURSDAY, 7 FEBRUARY 2008

File [Logo 002.jpg](#) Uploaded by Don W.

File [Ending january 23 012.jpg](#) Uploaded by Don W.

File [Ending january 23 030.jpg](#) Uploaded by Don W.

File [Ending january 23 018.jpg](#) Uploaded by Don W.

File [Ending january 23 016.jpg](#) Uploaded by Don W.

File [Ending january 11 005.jpg](#) Uploaded by Don W.

Message [Progress Photos](#) Posted by Don W.

THURSDAY, 31 JANUARY 2008

File [SFD Cert of Occupancy.pdf](#) Uploaded by Frank B.

DesignAtlantic



This project's RSS feed

[Subscribe to your project RSS feed](#) and be notified when someone posts a message, comment or file, or adds or completes a to-do item or milestone in this project. [What's RSS?](#)

People on this project

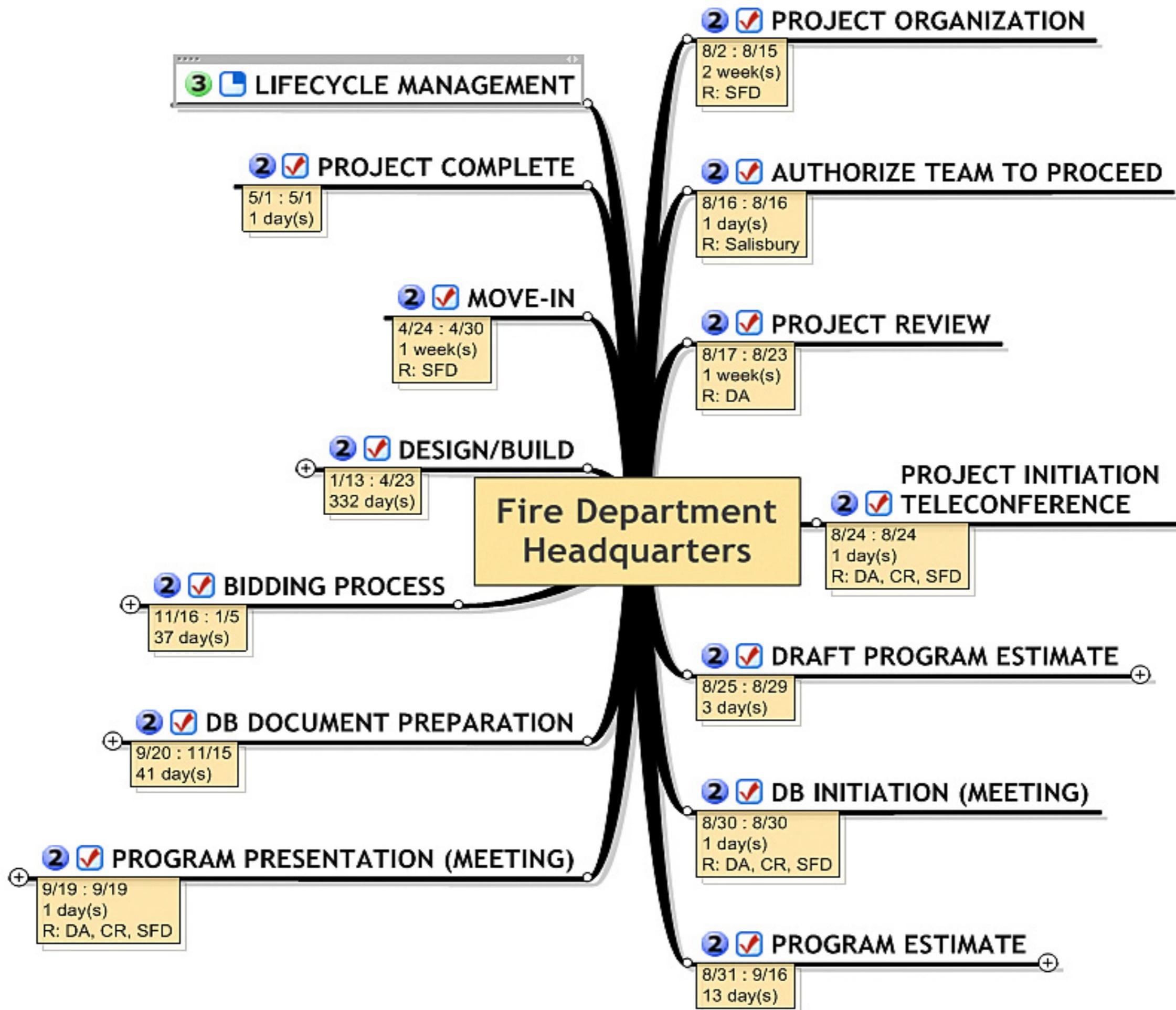
Design Atlantic Ltd

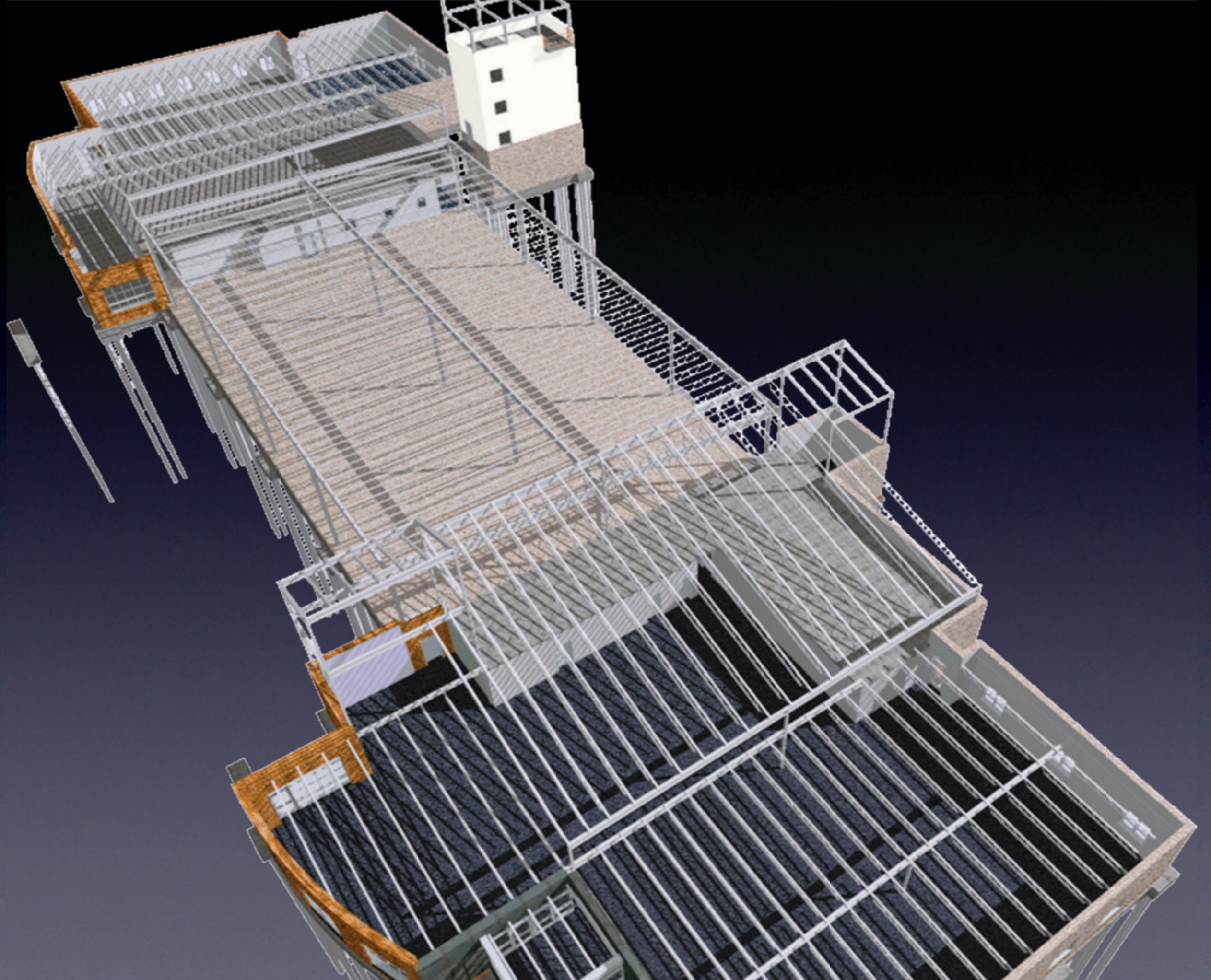
Frank Brady
Latest activity 9 days ago

Capitol Exhibit Services Inc

Ray Burch
Hasn't logged in recently

Dean Levy
Hasn't logged in recently





41,655 SF &
\$9.2 million
after validation





**Improve ability to
react to opportunities**

General Information

Project Title: Salisbury Fire Headquarters
Run Title: run1
Building Type: FireStation
Floor Area: 36,254 ft²

Estimated Energy & Cost Summary

Annual Energy Cost	\$65,333
Lifecycle* Cost	\$889,838
Annual CO ₂ Emissions	
Electric†	290.8 tons
Onsite Fuel	48.6 tons
H3 Hummer Equivalent	30.9 Hummers
Annual Energy	
Electric	505,511 kWh
Fuel	8,383 Therms
Annual Peak Electric Demand	143.5 kW
Lifecycle* Energy	
Electric	15,165,339 kWh
Fuel	251,475 Therms

* 30 -year life and 6.1 % discount rate for costs. † Does not include electric transmission losses.

Energy End-Use Charts

Click on chart for more or less detail.

Annual Electric End Use



Annual Fuel End Use

Location Information

Building: Salisbury, MD 21801
Electric Cost: \$0.108/kWh
Fuel Cost: \$1.281/Therm
Weather: GBS_04R20_250110

Carbon Neutral Potential¹ (CO₂ Emissions)

Base Run:	339.5 tons
Onsite Renewable Potential:	-152.0 tons
Natural Ventilation Potential:	-11.8 tons
Onsite Fuel Offset/Biofuel Use:	-48.6 tons

Net CO₂ Emissions: 127.0 tons

1. Carbon neutrality is defined here as; reducing grid electric use from the base run by a percentage equal to the portion from fossil fueled power plants, defined below, and on site fossil fuel use is offset or eliminated.

Electric Power Plant Sources²

Fossil:	60%
Nuclear:	37%
Hydroelectric:	2%
Renewable:	1%
Other:	0%

2. Based on US EPA EGRID 2006 Data (2004 Plant Level Data).

Water Usage and Cost³

Total:	561,414 Gal/yr	\$2,020/yr
Indoor:	535,314 Gal/yr	\$1,981/yr
Outdoor:	26,100 Gal/yr	\$39/yr

3. Based on AWWA Research Foundation 2000 Residential / Commercial and Institutional End Uses of Water.

Photovoltaic Potential⁴

Annual Energy Savings:	263,366 kWh
Total Installed Panel Cost:	\$2,135,122

Nominal Rated



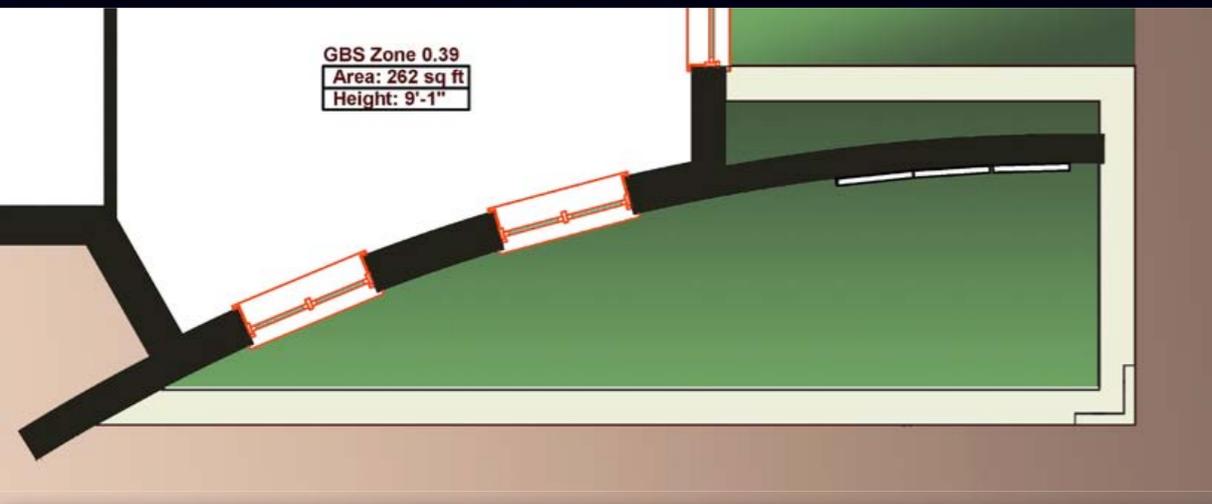


FIRE DEPARTMENT - A HISTORY OF SERVICE

S.P.D.
1879

EXIT

2



3





\$752,000

...under budget

...on schedule

...no claims

Salisbury Fire Department	Budget	Contracted	Balance	Analysis
Construction	\$7,974,858	\$7,929,500		99.43%
FF&E	\$537,609	\$424,080		
Legal Fees	\$6,390	\$6,390		
Management Support	\$332,000	\$431,680		(66.44%)
Land Acquisition	\$311,350	\$311,350		
Budgeted work	\$9,162,207	\$9,103,000	\$59,207	Savings
Contingency budget	\$692,793		\$692,793	Unspent
After budgeted work			\$752,000	7.63%
Construction Extras		(\$112,045)		
Off Site Extras		(\$209,675)		
Additional FF&E		(\$129,252)		
Balance Remaining			\$301,028	3.05%

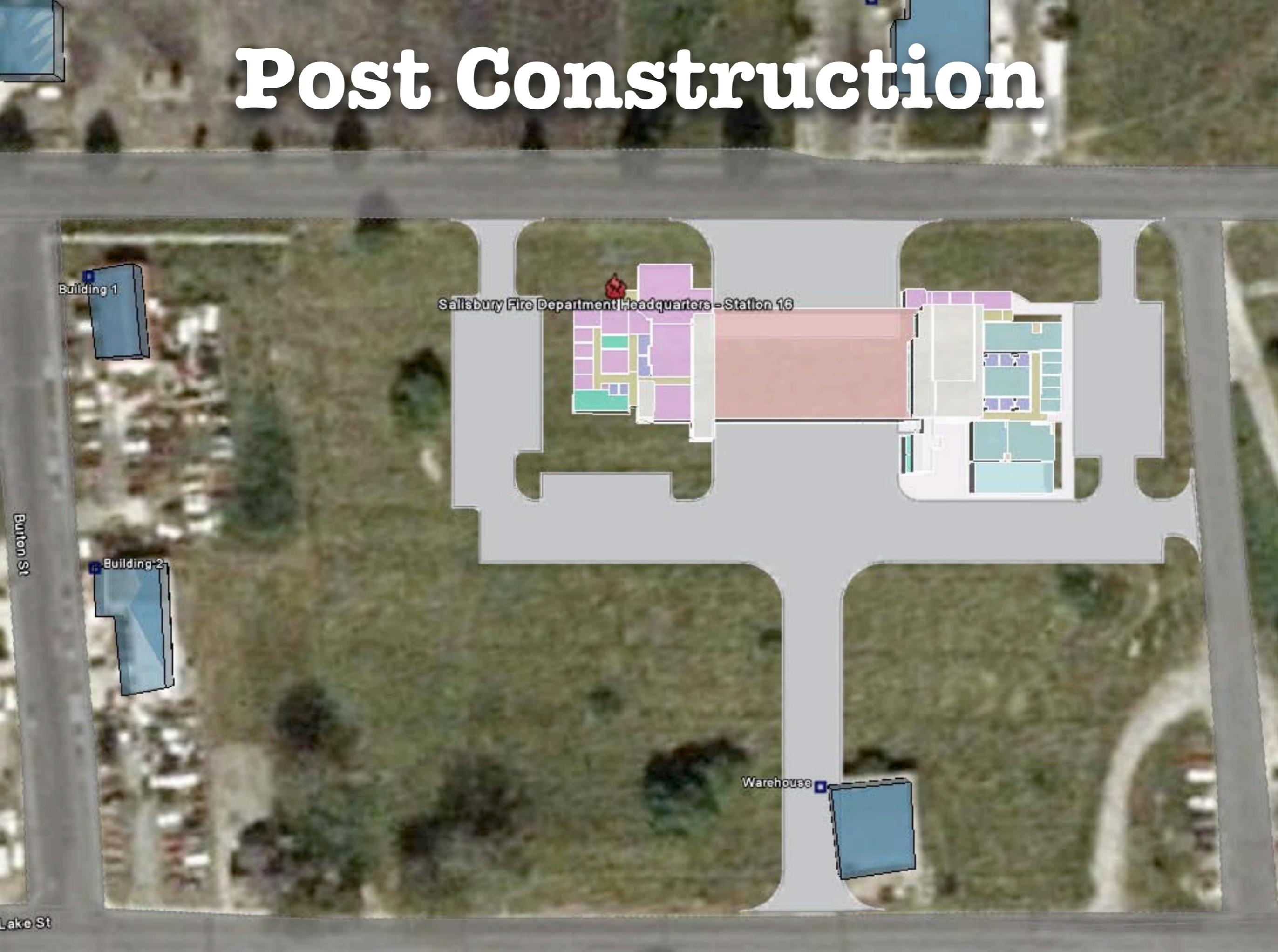
A photograph of firefighters at a scene. One firefighter is on a blue lift bucket, reaching towards a large fire. Another firefighter is visible in the background. The fire is bright orange and yellow, filling the upper right portion of the image. The scene is dimly lit, with the fire providing the primary light source.

“Our last \$1 million project was a heck of a lot more effort than this \$9 million project.

**It was a lot of work before...
...this was a lot easier.”**

William Gordy, Deputy Fire Chief

Post Construction



Building 1

Salisbury Fire Department Headquarters - Station 16

Building 2

Warehouse

Burton St

Lake St

Places Add Content

- NYC
- Design Atlantic
- DAL Projects
 - 911 Booth Street
 - London Live Site
 - SFD
 - Station 16+Headquarters
 - Salisbury Fire Department
 - NSF: 38,452
 - OSF: 41,140
 - 1st FLOOR
 - Mezanine Floor
 - SFD Paving
 - Context
 - Backup
 - Coverage
 - 3+ Engine coverage
 - Multi Engine coverage
 - Multi Engine coverage
 - Multi Engine coverage
 - Ladder truck coverage
 - Ladder truck coverage
 - Ladder truck coverage
 - Ladder truck coverage
 - Fire Companies
 - dover to Seaview Resort
 - [Printable view](#)
 - Bryant Bunting Bldg Site
 - OPines Town Center
 - Ocean Pines
 - Community Center
 - Cedar Island Marsh render...
 - Cedar Island Marsh
 - Miscellaneous
 - Opencock



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 - Cedar Island Marsh render...
 - Cedar Island Marsh
- Miscellaneous
- Opencock

Layers



Salisbury Fire Department Headquarters - Station 16

- NSF: 38,452
- GSF: 41,140
- Total Cost: \$8,551,716
- Total Energy Use: 726,747 kWh
- Site Area: 6.98 Acres

Directions: [To here](#) - [From here](#)

Salisbury Fire Department Headquarters - Station 16

- NYC
- Design Atlantic
- DAL Projects
 - 911 Booth Street
 - London Live Site
 - SFD
 - Station 16+Headquarters
 - Salisbury Fire Department
 - NSF: 38,452
 - GSF: 41,140
 - 1st FLOOR
 - 1st FLOOR (Floor Slab)
 - GSA Space Areas
 - GSA Design Gross
 - Spaces
 - Day Room
 - Generic Space Info
 - Space Number: 0
 - Kitchen/Dining
 - Generic Space Info
 - Space Number: 0
 - Storage
 - Generic Space Info
 - Space Number: 0
 - Storage
 - Generic Space Info
 - Space Number: 0
 - Corridor
 - Generic Space Info
 - Space Number: 0
 - Storage
 - Generic Space Info
 - Space Number: 0
 - Women
 - Generic Space Info
 - Space Number: 0
 - Men
 - Generic Space Info



1st FLOOR (Floor Slab)

GSA Space Areas
 - GSA Design Gross Area: 35,388 SF

Salisbury Fire Department Headquarters - Station 16

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 - Generic Space Info
 - Space Number: 0
 - Storage
 - Generic Space Info
 - Space Number: 0
 - Women
 - Generic Space Info
 - Space Number: 0
 - Men
 - Generic Space Info



Day Room

Generic Space Info

- Space Number: 0
- Space Area: 674 SF
- Capacity: 0
- Occupancy: 0
- Space Height: 14.00000
- Space Elevation: 0.00000

Metric Space Info

- MD: 0.00
- SU: 0.00
- FC: 0.00

USCG Space Info

- Space Code:
- USCG Land Opfac:
- USCG Site Number:
- USCG Group Opfac:

GSA Space Areas

- GSA Net Area: 674 SF

GSA STAR Space Categories

- GSA STAR Space Type:
- GSA STAR Space Category: 00
- ANSIBOMA Space Category:

GSA STAR Space Zones

- Security Zone:
- Preservation Zone:
- Privacy Zone:
- Project Specific Zone:

GSA Space Occupants

- Occupant Organisation Code:
- Occupant Organisation Abbreviation:
- Occupant Organisation Name:
- Occupant Sub-Organizational Code:
- Occupant Billing ID:

- [Toilet](#)
Generic Space Info
- Space Number: 0
- [Janitor](#)
Generic Space Info
- Space Number: 0
- [Alarm/EMS Report](#)
Generic Space Info
- Space Number: 0
- [Training Storage](#)
Generic Space Info
- Space Number: 0
- [Heritage Center](#)
Generic Space Info
- Space Number: 0
- [Quartermaster](#)
Generic Space Info
- Space Number: 0
- [Apparatus Bays](#)
Generic Space Info
- Space Number: 0
- [Chief](#)
Generic Space Info
- Space Number: 0
- [Reception](#)
Generic Space Info
- Space Number: 0
- [Deputy Chief](#)
Generic Space Info
- Space Number: 0
- [Deputy Chief](#)
Generic Space Info
- Space Number: 0
- [Assistant Chiefs](#)
Generic Space Info
- Space Number: 0
- [Assistant Chiefs](#)
Generic Space Info
- Space Number: 0



Heritage Center

Generic Space Info
 - Space Number: 0
 - Space Area: 1,893 SF
 - Capacity: 0
 - Occupancy: 0
 - Space Height: 14.00000
 - Space Elevation: 0.00000

Metric Space Info
 - MDI: 0.00
 - SLI: 0.00
 - FCI: 0.00

USCG Space Info
 - Space Code:
 - USCG Land Opfac:
 - USCG Site Number:
 - USCG Group Opfac:

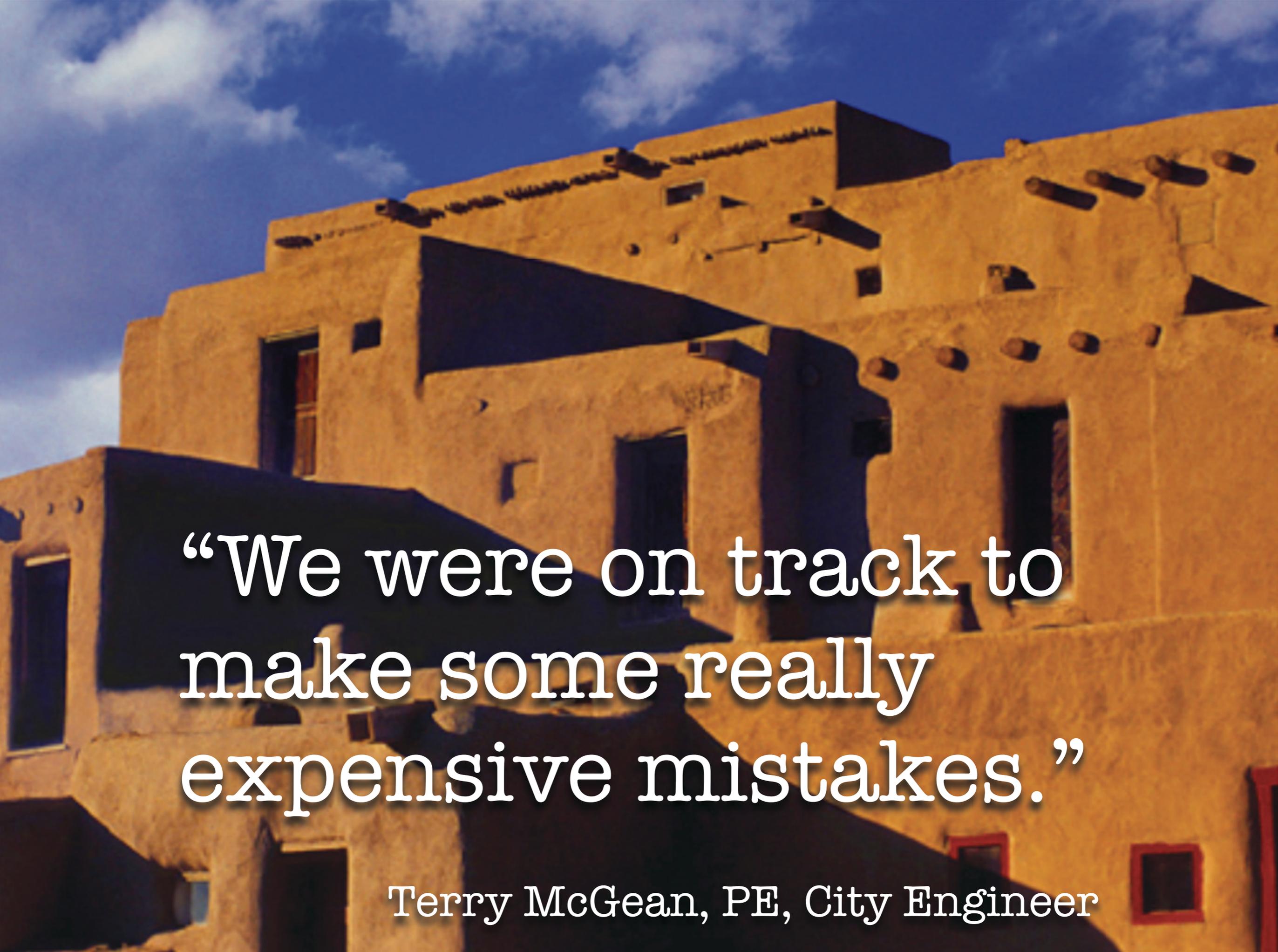
GSA Space Areas
 - GSA Net Area: 1,893 SF

GSA STAR Space Categories
 - GSA STAR Space Type:
 - GSA STAR Space Category: 00
 - ANSIBOMA Space Category:

GSA STAR Space Zones
 - Security Zone:
 - Preservation Zone:
 - Privacy Zone:
 - Project Specific Zone:

GSA Space Occupants
 - Occupant Organisation Code:
 - Occupant Organisation Abbreviation:
 - Occupant Organisation Name:
 - Occupant Sub-Organizational Code:
 - Occupant Billing ID:

1. Owner issues addressed by bim
2. Why pre-design bim is so important
3. What Owners get from bim in real projects
- 4. Design & construct bim data to O&M**
5. Steps for Owners approaching bim



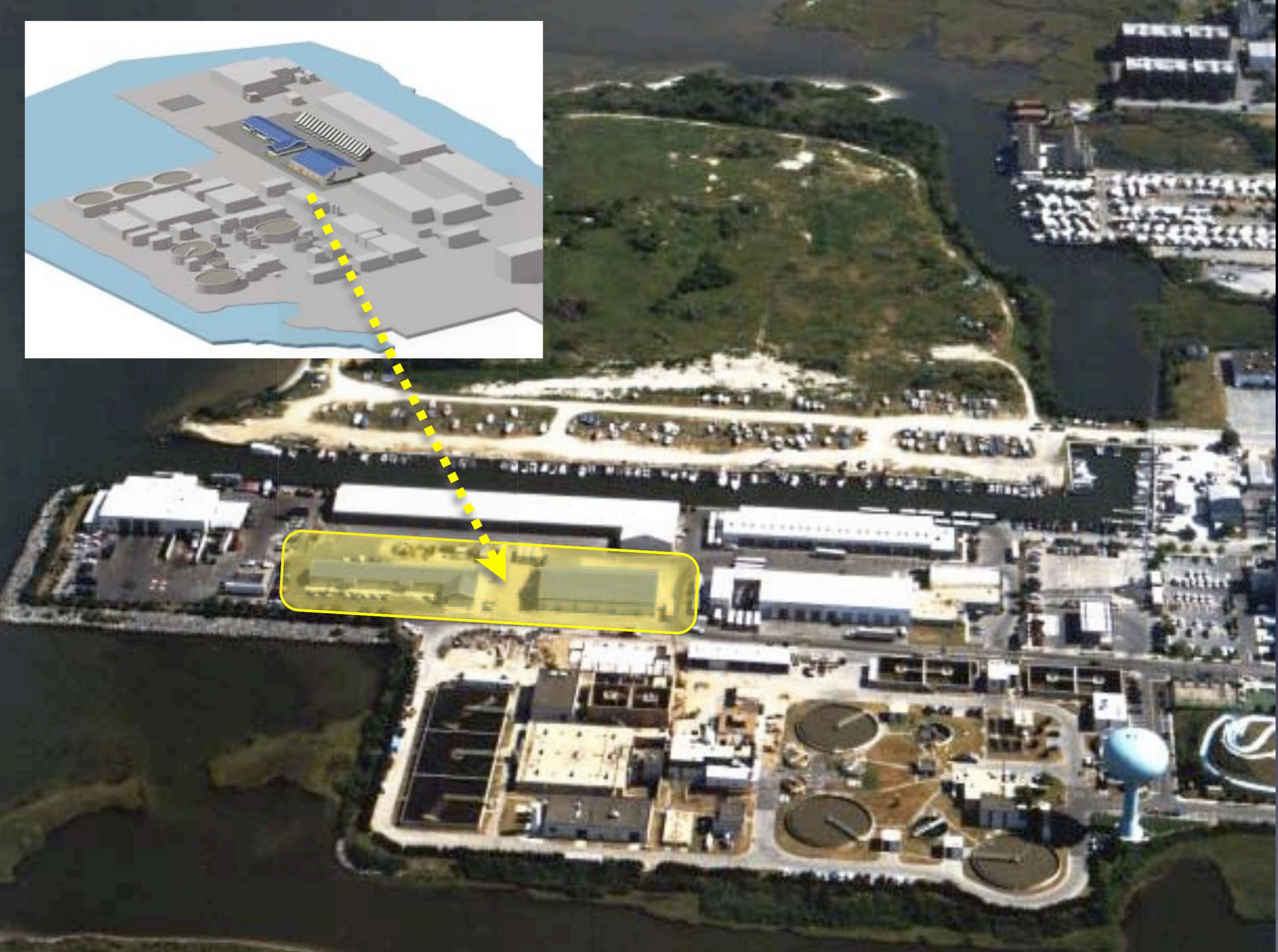
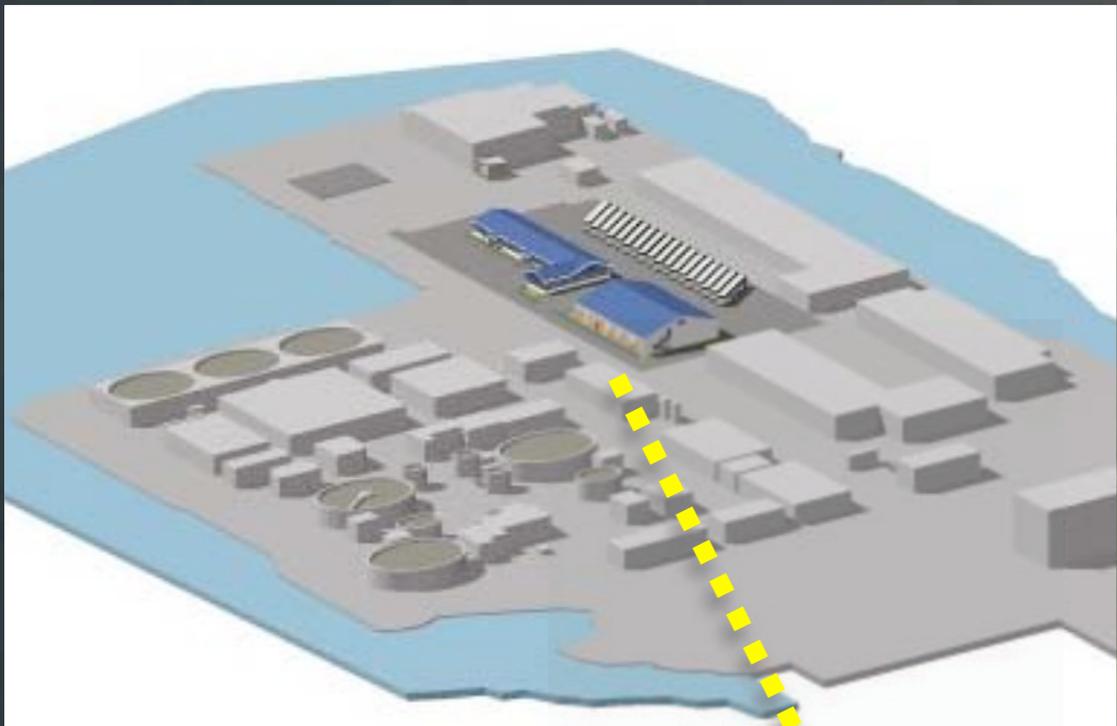
“We were on track to make some really expensive mistakes.”

Terry McGean, PE, City Engineer

Facilities are business
ASSETS

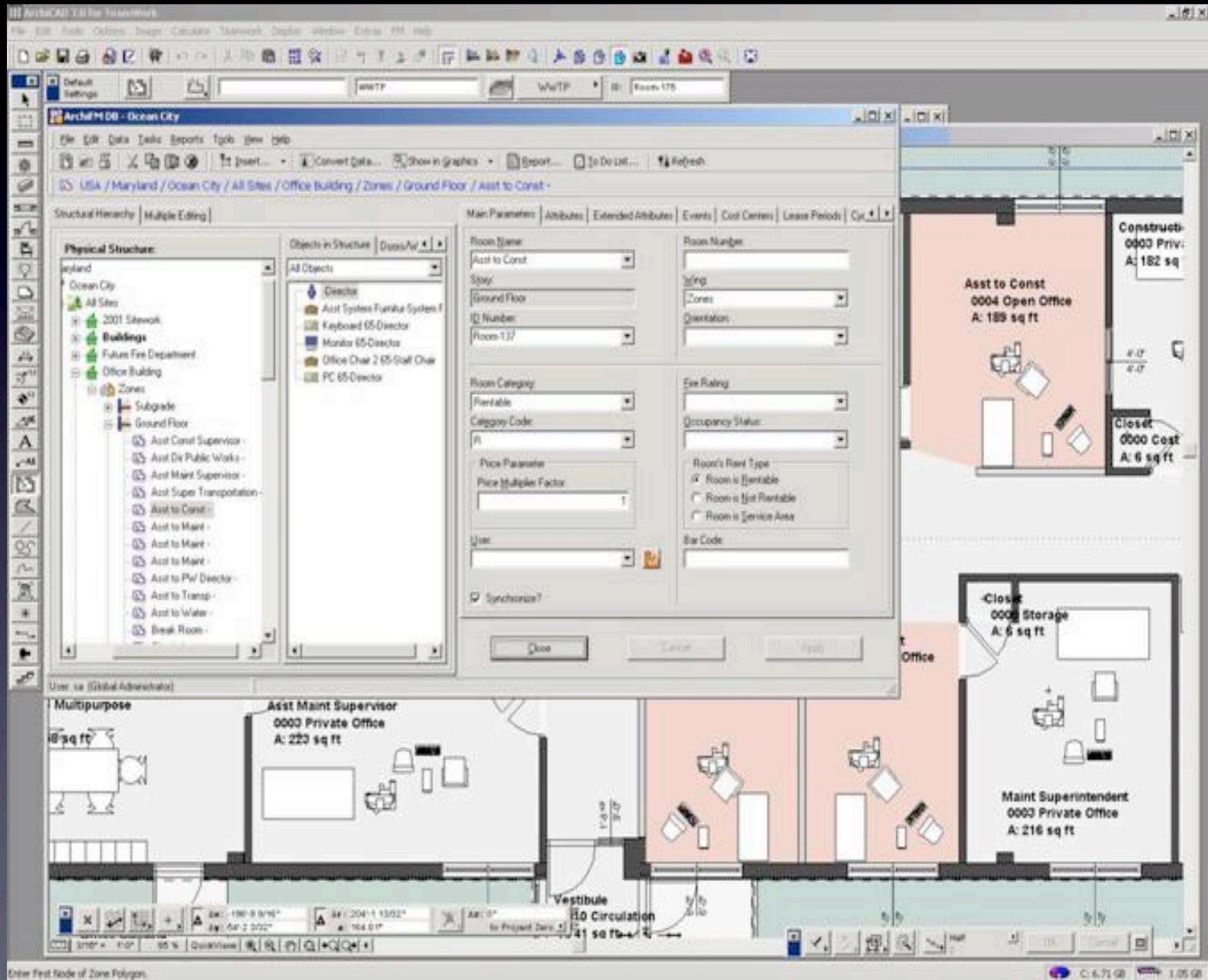
Link facilities to mission

Just-in-time decisions



Manage Space, People, Furniture and Equipment

- Space Management
- Tenant Management
- Breakdown Maintenance including Cyclic activity
- Inventory Management
- Key/Access Management
- WebServer
- Maintenance HelpDesk
- Preventative Maintenance
- Resource Planning



Tenant Management

Manage

- Tenants and Contracts

Track

- Rented Areas
- Utility Charges
- Operating and cyclic expenses
- Invoices

The screenshot displays the 'Tenant Management' application window. On the left, a tree view lists various tenants, with 'ESGC Lease Contract - 4/1/2003' selected. The right side of the window is divided into several sections for configuring the selected contract:

- Operating Expenses | Utility Charges | Invoices | Cyclic Expenses** (Navigation tabs)
- Main Parameters | Rent | Rented Rooms** (Sub-sections)
- Determine Rent per Area Unit**:
 - Base Rent: 15 USD/sqft
 - Discount: 5 %
 - Suggested Rent per Unit: 0.00 USD/sqft /month
 - Calculated Rent per Unit: 14.25 USD/sqft/month
- Determine Rented Area**:
 - Room Area: 15657 sqft
 - Discount: %
- Rent Adjustment**:
 - Factor 1: [] []
 - Factor 2: [] []
- Result**:
 - Building 'Office Building'
 - Total Rent: 223,112.25 USD

Buttons at the bottom include 'New Tenant', 'Delete Contract', 'New Contract', 'OK', 'Cancel', and 'Apply'.

WebServer - Web site access to database and graphics for online collaboration

The screenshot displays the ArchiFM WebServer interface within a Microsoft Internet Explorer browser window. The browser's address bar shows the URL `http://192.168.2.45/ArchiFM%20WebServer/`. The main content area is titled "ArchiFM DB" and shows a navigation path: "USA : Maryland : Ocean City : All Sites : Office Building : Zones : Ground Floor : Asst to Const".

The interface is divided into several sections:

- Left Panel:** A vertical menu with options: Edit Data, Tasks, Reports, User Info, About, Logout, Help, and Graphisoft.
- Central Panel:** Displays a floor plan graphic. A green rectangular area is highlighted at the top of the plan. Below it, a room is labeled "Asst Const Supervisor 0003 Private Office A: 201 sq ft". To the left, a smaller area is labeled "Storage A: 7 sq ft".
- Right Panel:** A form for entering room details under the "Main Parameters" tab. The fields include:
 - Room Name: Asst to Const
 - Story: Ground Floor
 - ID Number: Room-137
 - Room Category: Rentable
 - Category Code: R
 - Price Parameter: Price Multiplier Factor: 1
 - User: (empty)
 - Room Number: (empty)
 - Wing: Zones
 - Orientation: (empty)
 - Fire Rating: (empty)
 - Occupancy Status: (empty)
 - Position Type: Room is Rentable, Room is Not Rentable, Room is Service Area
 - Bar Code: (empty)

At the bottom of the right panel, there are buttons for "Delete", "Undo", and "Apply". The status bar at the bottom of the browser window shows "User: sa [Global Administrator]" and "Done".

HelpDesk - Web site access to submit maintenance events and track issues

ArchiFM HelpDesk Maintenance

New Request
Break-down

List Requests
My Submissions

Search Requests
By Request Number
By Date

Information
My Settings
How to use
About HelpDesk

Log Out

Ocean City
Global Administrator

List Breakdowns

<< Previous Next >> 1 1/1

Request Number	Workorder Number	Status	Reported by	Phone	E-mail	Message	Location
1111	2003/000000021	Started	Foley, Kevin (P-002)	x227	kfoley@xd.com	lock is broken	102 - Corridor
1105		Approved	Foley, Kevin (P-002)	x227	kfol@fdsg.com	Lock Broken	139A - Closet
1103	2003/000000019	Closed	Foley, Kevin (P-002)	x227	kfoley@gsus.com	My lock is broken	116 - Office
1101		Registered	Foley, Kevin (P-002)	x345	kfoley@drawbase.com	My lock is broken	117A - Workstation
1092	2003/000000018	Started	Foley, Kevin (P-002)	x228	kfoley@drawbase.com	Lock is broken	150D - Office
1075	2003/000000013	Started	Foley, Kevin (P-002)	(617) 456-9876	kfoley@drawbase.com	Trash in parking lot - near du...	Building 4
1028	2003/000000008	Closed	Foley, Kevin (P-002)	617 485-4227	kfoley@drawbase.com	Light out	150K - Workstation

Done Local intranet

Breakdown Maintenance - Record maintenance events and review logged issues

ArchM Maintenance - Ocean City

File Edit View Help

General
Core Data
Stock Control
Maintenance Data
Planning

Breakdown Maintenance
Maintenance Plan
Resource Planning
People Resources
ToDo List

Work Orders
Workflow Analysis

Ready

Breakdown Maintenance

<All Clients> 2003 March 1 Month Set by Month

New Request Edit Request Edit Event Reject Event

Events

Drag a column header here to group by that column

Request	Work Order Number	Status	Reporter Person Na.	Reporter Phone	Reporter E-mail	Reporter message	Location	Location by Text	Equipment
1111	2003/000000021	Scheduled	Foley, Kevin (P-002)	x227	kfoley@tda.com	lock is broken	102 - Corridor on the 1st floor	01161 - 132 - C	
1105		Approved	Foley, Kevin (P-002)	x227	kfoley@tda.com	Lock Broken	139A - Clo out front	01157 - Buildin	
1103	2003/000000019	Closed	Foley, Kevin (P-002)	x227	kfoley@tda.com	My lock is broken	116 - Office next to the elevator	01188 - 116 - C	
1101		Registered	Foley, Kevin (P-002)	x345	kfoley@tda.com	My lock is	117A - wBy the elevator		
1100		Requested	Ing, Cindy (P-003)	(617) 456-0087	honesi@dot.gov	PC is broken	130 - Office	01330 - Moratc	
1092	2003/000000018	Started	Foley, Kevin (P-002)	x228	kfoley@tda.com	Lock is broken	1500 - Off	01192 - 1500 -	

Maintenance Event

Save and Close Cancel Add Edit Remove

Main Parameters | Tasks | People | Materials/Tools | Documents | Schedule | Cost Allocation | Costs | Prices | Summary | Reporter | Description | Approval | Forwarded

Code: SEC-01 Status: Scheduled

Name: Fix a broken lock

Work Code: WC-005 - Repair

Maintenance Type: BreakDown Priority:

Company: <<Internal Maintenance Department>>

Work Leader Craft: Locksmith

Work Leader Name: Larson, Susan

Client: 0001 - Department of Transportation

Equipment: 01161 - 132 - Circulation

Work Order Number: 2003/000000021

Generator:

Modified

Preventive Maintenance - Review maintenance events on equipment/space by time and status

ArchiFM Maintenance - Ocean City

File Edit View Help

2003 February 6 Months Set by Month Daily Weekly Monthly Calendar View

Maintenance Plan

Maintenance Unit Map

- 01157 - Building 4
 - 01158 - ZONES
 - 01159 - First Floor
 - 01160 - 117 - Circulation
 - 01161 - 132 - Circulation
 - 01162 - 140C - Circulation
 - 01163 - 150 - Circulation
 - 01164 - 138A - Closet
 - 01165 - 139A - Closet
 - 01166 - 140A - Closet
 - 01167 - 140E - Closet
 - 01168 - 198B - Closet
 - 01169 - 198B - Closet

	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
01159 - First Floor				0,1,0				
01160 - 117 - Circulation				0,1,0		0,1,0		
01161 - 132 - Circulation					1,0,0			
01162 - 140C - Circulation								
01163 - 150 - Circulation								
01164 - 138A - Closet								
01165 - 139A - Closet								
01166 - 140A - Closet								
01167 - 140E - Closet								
01168 - 198B - Closet								
01169 - 198B - Closet								

Events of "01159 - First Floor"

Drag a column header here to group by that column:

Re...	Code	Name	Type	Work Order N...	Start Date	End Date	Status	Approved by
1082	J-004	Inspect Fire Extinguisher	Regulatory	2003/000000016	2/28/2003	2/28/2003	Started	sa
1083	J-004	Inspect Fire Extinguisher	Regulatory		5/29/2003	5/29/2003	Requested	
1095	J-005	Shampoo Carpet	Additional Services	2003/000000020	3/8/2003	3/8/2003	Started	sa
1096	J-005	Shampoo Carpet	Additional Services		6/7/2003	6/7/2003	Approved	sa

Work Orders

Workflow Analysis

Ready

Maintenance Reports

ArchifM Maintenance - Ocean City

File Edit View Help

Print Work Order .

C001 - Department of Transportation 2003 March 1 Month Set by Month

Work Order Printing Wizard

Drag a column header here to group by that column

Work Order Nu...	Start Date	End Date	Numb...	Numb...	Registered At	Administrator	Invoiceab...	Status	Team Leader
2003/000000004	3/1/2003	3/1/2003	2	0	2/17/2003 3:28:05 PM		<input type="checkbox"/>	Started	Larson, Steve
2003/000000018	3/4/2003	3/4/2003	5	0	3/4/2003 10:05:29 AM		<input type="checkbox"/>	Started	Larson, Susan
2003/000000019	3/6/2003	3/6/2003	1	0	3/5/2003 2:56:57 PM		<input type="checkbox"/>	Closed	
2003/000000020	3/8/2003	3/8/2003	1	0	3/5/2003 3:54:22 PM		<input type="checkbox"/>	Started	Sanchez, Pablo
2003/000000021	3/7/2003	3/7/2003	1	0	3/6/2003 10:36:48 AM		<input type="checkbox"/>	Started	Larson, Susan

C:\ArchifM 7.0 Maintenance\Reports\1Workorders.rpt

1 of 2 100% Total 100% 1 of 1

View

Drag a column

Re... Cc

1012 J-C

ArchifM 8 Maintenance

WORK ORDER

GRAPHISOFT.

Work Order Number: 2003/000000004

Event (1012): J-002 - Service Air Conditioner

There is no contract specified for this work order.

Filled by the customer:

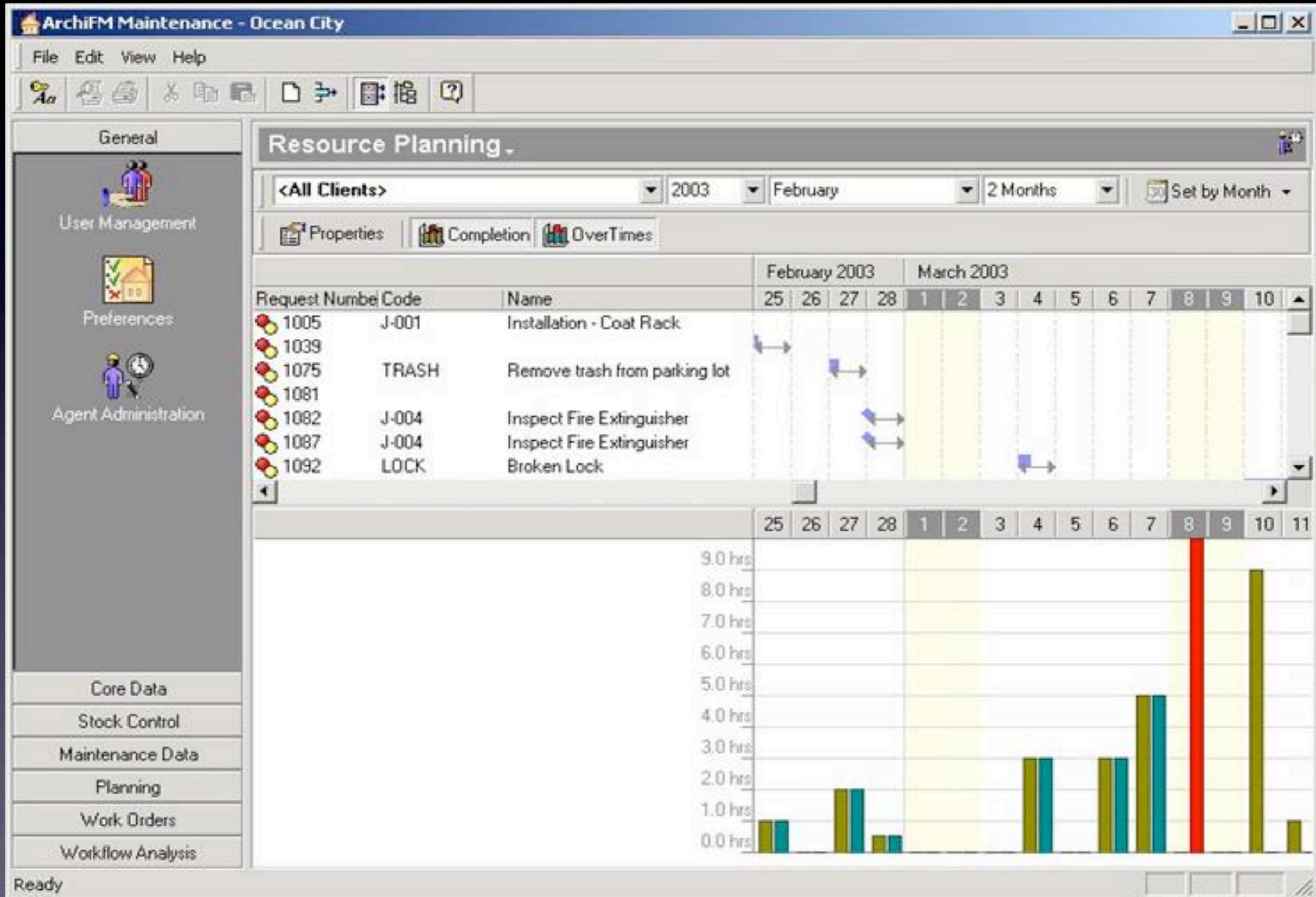
Reporter's name:	Administrator's name:
Reported at: 2/17/2003 3:25 PM	Recognition time:
Reporter's phone:	Request number: 2005
Supplier's name: SUP03 - Trane	
Location of activity:	
Location in other terms:	
Description of work:	
J-002 - Service Air Conditioner	
T-002 - HVAC - Replace Refrigerant	

Ordered by: Larson, Steve Priority: Medium Priority

Workflow Analysis

Ready

Resource Planning - Review events to forecast and develop long range resource plans



Reports - Integrated Crystal Reports

Warranty Report
as of 04/04/2003

Depreciation Report
as of 04/08/2003

Rented Areas on 04/04/2003
Filtered List Building 'Office Building', Story 'Ground Floor'

Lease Report
as of 04/03/2003

To Do List
as of 04/08/2003

Space Calculation Report

BOMA Space Report
as of 04/08/2003

Tenant	Tenant Area Sq.Ft.	Pro-Rated Tenant Common Sq.Ft.	Total Tenant Sq.Ft.	Pro-Rated Building Common Sq.Ft.	Total Rented Sq.Ft.	Annual Rent (\$/Sq.Ft.)	Monthly Rent (USD)
Shop Building - Ground Floor							
Department of Consular Affairs	1,609	77	1,686	513	2,199	74,759	6,230
Department of International Trade	2,778	132	2,910	886	3,796	129,079	10,757
Department of Public Works	3,102	148	3,250	990	4,240	144,148	12,012
Department of Tourism	1,037	49	1,087	331	1,418	48,197	4,016
Department of Transportation	435	21	456	139	595	20,227	1,686

Data in BIM

- Planning scenarios
- Site information/legal data
- Architectural program
- Space functions
- Area calculations
- Volume calculations
- Engineering calculations
- Specifications
- Contract documents
- Project management data
- Litigation documentation
- Shop drawings
- Procurement documents
- Progress photographs
- Systems data
- Warranty data
- Disaster Recovery Plans
- Invoices
- Purchase requests
- Cost Estimates
- Organizational data
- Personnel lists
- Seating plans
- Handicap designation
- Network diagrams
- Hazardous materials
- O&M manuals/records
- Inspection records
- 2D/3D views
- Simulations
- Continuation of ops plans
- Contingency plans
- Furniture inventory
- + + +

1. Owner issues addressed by bim
2. Why pre-design bim is so important
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- 5. Steps for Owners approaching bim**

An aerial view of the Earth from space, showing the curvature of the planet and the atmosphere. The landmasses are covered with a dense network of yellow lines, representing a global network or infrastructure. The oceans are a deep blue color. The text is overlaid in the center of the image.

**Done correctly,
integrated processes
change how everyone
looks at our world**

What to do?

A nighttime photograph of an industrial facility, possibly a refinery or power plant, with numerous lights and structures. The lights are reflected in a body of water in the foreground, creating a shimmering effect. The sky is dark, and the overall scene is illuminated by the artificial lights of the facility.

1. Take off your blinders...

Where are you now?

2. Plan strategically...

Where do you want to be?

3. Create tactics to close the gap



Use BIG BIM little bim
to guide your way

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<http://www.4sitesystems.com>

finith@designatlantic.com

410.548.9245 office
410.430.9415 mobile



BIM Education
CO-OP



A photograph of a Zen garden featuring raked sand with concentric circular patterns and several dark, smooth stones. The text "Questions?" is overlaid in the center.

Questions?