

FTE Calculation Methods and Tools

North Carolina State University

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University Housekeeping Facility Planner

Full Time Employee (FTE)

What is the purpose for measuring FTE data and how do we use it?

How is the data is measured, timed and calculated?



What is the purpose for measuring FTE data?

Properly Staff Buildings

Employee and Staffing Validation

Labor Cleaning Cost Analysis

Cleaning Frequency Modifications

Cleaning Techniques and Procedures

Time Management



How is the data is measured, timed and calculated?

Type of Cleaning Space:

Is it an Office, Conference, Class Room or other?

Different Space Use Types Requires Different Cleaning Techniques

Converting Architectural Space to Housekeeping (HK) Spaces

Size of Each Space:

Size Does Matter when estimating cleaning times

Cleaning Time Studies:

Each HK Space Use type needs to be measured

Cleaning Time Studies are performed in all zones

All Times measurements must be documented

Name of Timer, Cleaner, Date, Time, Bldg, Space ID, SF and Cleaning Times

Basic Calculations:

Let's say for an example:

Rest Room at 1000 SF

Takes 2 hours to Detail 1 x Week (= 120 Mins)

Takes 1 Hour to Routine 4 x Week (= 240 Mins)

120 Mins + 240 Mins = 360 Mins per Week

72 Avg. Daily Mins / 420 Daily Work Time Mins *
= 0.17142869 Raw FTEs

Which means that Raw FTE x 40 = 6.86 hours per week used in this space

* Daily Work Time Mins

Housekeeping Daily Work time = 420 (480 – 60 mins)

Two 15 Min breaks = 30 Mins

Plus 30 Mins for meetings, travel and setup & tear down time

There is an additional FTE Allowance that divides the total average vacation time (181) by the combined annual work hours per employee 2,088) which is multiplied by the Raw FTE which will equal the total FTE (8.669%).

Assembling the data for FTE calculations

Architectural Room Descriptions with Square Feet:

Having a resource to pull the room types and areas is essential

Must have the ability to export the building reports and paste in Excel

Delineate Housekeeping space uses from Architectural descriptions

Example: Convert "Analytical Provost Office" to "Office"

After converting to the HK space uses, group them accordingly

Add all of the square feet of each group

Continuing with the Rest Room data from the previous slide.

$0.17142869 \text{ Raw FTEs} \times \text{FTE Allowance fraction } 8.66\% (.0866) = \text{FTE Allowance } 0.0148604$

$0.17142869 \text{ Raw FTEs} + 0.0148604 \text{ FTE Allowance} = .1862890 \text{ Total FTE}$

$.1862890 \text{ Total FTE} / 1000 \text{ SF} = .0001863 \text{ FTEs per Square Foot}$

What is the total FTE of 2000 SF of Rest Rooms space in the surveyed building?

$.0001863 \text{ FTEs per Square Foot} \times 2000 = \mathbf{.3726 \text{ Total FTEs}}$

Advantages of using FTE per square feet

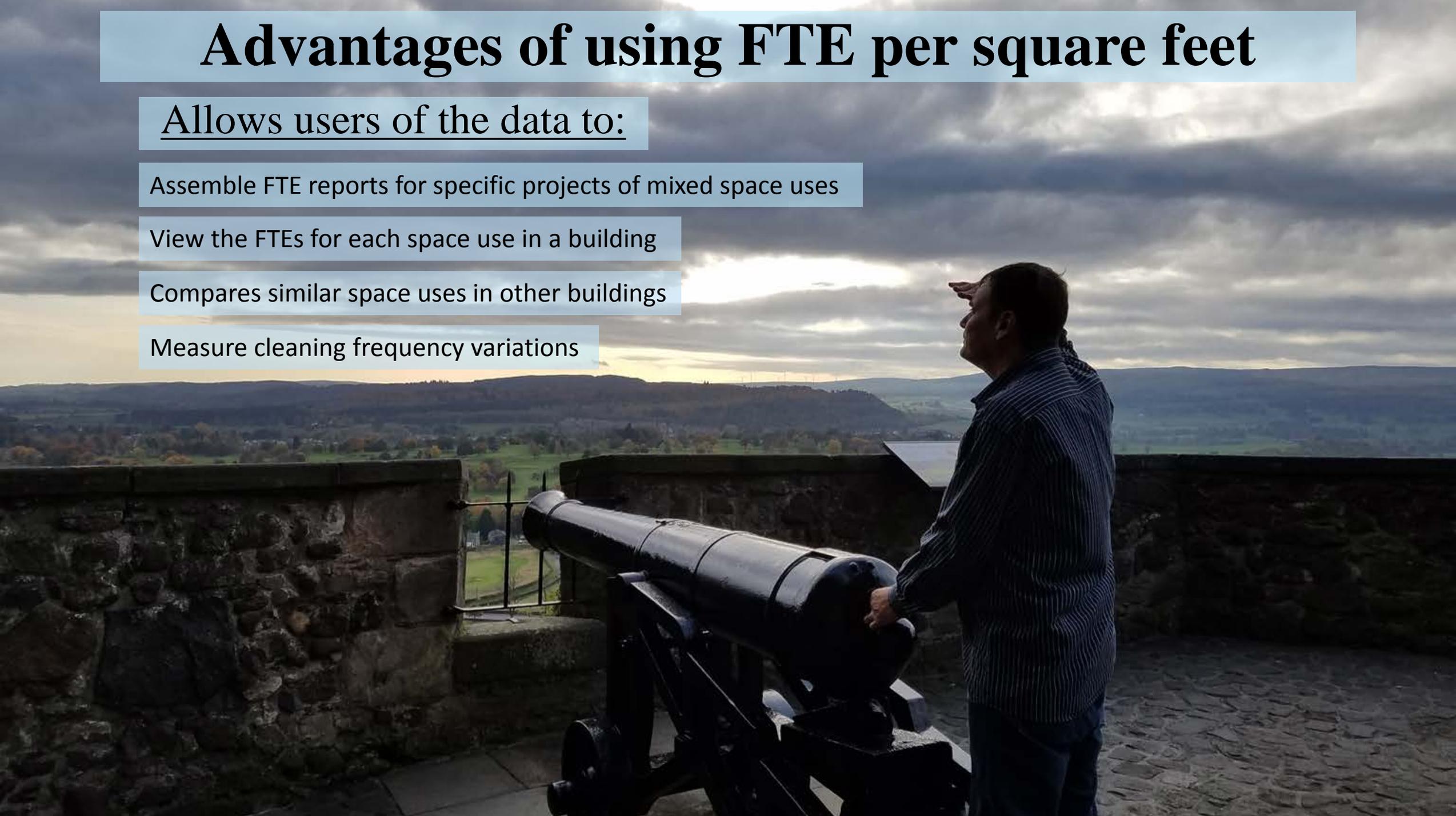
Allows users of the data to:

Assemble FTE reports for specific projects of mixed space uses

View the FTEs for each space use in a building

Compares similar space uses in other buildings

Measure cleaning frequency variations



How Cleaning Frequency Effects the FTE Total

Using the Rest Room Example lets change the frequency to One Detail Day and One Routine Day and Compare with the One Detail / Four Routines

Takes 2 hours to Detail 1 x Week (= 120 Mins)
Takes 1 Hour to Routine 1 x Week (= 60 Mins)

Detail 120 Mins + Routine 60 Mins = 180 Mins per Week

36 Avg. Daily Mins / 420 Daily Work Time Mins
= .0857143 Raw FTEs

.0857143 Raw FTEs x .0866 FTE Allowance Fraction
= .0931445 Total FTE

.0931445 Total FTE / 1000 Square Feet
= .0000931 FTEs per Square Foot

Takes 2 hours to Detail 1 x Week (= 120 Mins)
Takes 1 Hour to Routine 4 x Week (= 240 Mins)

120 Mins + 240 Mins = 360 Mins per Week

72 Avg. Daily Mins / 420 Daily Work Time Mins
= 0.17142869 Raw FTEs

0.17142869 Raw FTEs x FTE Allowance fraction 8.66% (.0866)
= FTE Allowance 0.0148604

.1862890 Total FTE / 1000 SF
= .0001863 FTEs per Square Foot

This can be very time consuming assembling different spreadsheets of the same buildings just modify the cleaning frequencies

Organize the Building Data First

There should be a list of measured building spaces with room descriptions

Find it or Create it!

If you need to create go to the Blue Print Archives and start logging it onto spreadsheets

If you are logging onto an Architectural website the data base may look similar to this page.

Notice how detailed Use Descriptions contain too much information.

Bldg#	Bldg Name	Floor	Room #	Use Code	Use Description	OUC Code	OUC Name	Area
							Total	6,459
008	Peele Hall	02	200	YYY	Vestibule	999999	Building Support - Unassigned (OUA)	72
008	Peele Hall	02	202	310	Admissions	20101	Admissions	129
008	Peele Hall	02	202A	310	Office Asst. Director	20101	Admissions	123
008	Peele Hall	02	202B	310	Office Asst. Director	20101	Admissions	122
008	Peele Hall	02	202C	310	Admissions Receptionist	20101	Admissions	142
008	Peele Hall	02	203	310	Admissions Receptionist	20101	Admissions	292
008	Peele Hall	02	203A	350	Director Conference	20101	Admissions	153
008	Peele Hall	02	203B	310	Office Director	20101	Admissions	174
008	Peele Hall	02	203C	310	Office Admin Assistant	20101	Admissions	90
008	Peele Hall	02	203D	315	Interview	20101	Admissions	108
008	Peele Hall	02	203E	310	Office Assoc. Director	20101	Admissions	108
008	Peele Hall	02	203F	310	Office Sr. Assoc. Director	20101	Admissions	148
008	Peele Hall	02	203G	310	Office Sr. Assoc. Director	20101	Admissions	125
008	Peele Hall	02	203H	315	Storage	20101	Admissions	66
008	Peele Hall	02	204	WWW		999999	Building Support - Unassigned (OUA)	176
008	Peele Hall	02	206	315	Prep	012101	Park Scholars	215

This type of data layout is helpful but complicates housekeeping space delineation and separation of space uses.

Ideally separate Housekeeping Space Use labels with their own columns would be ideal.

How NCSU Housekeeping Created their Database

Fortunately we did have an Architectural database!

The First part was translating the Office of University Architects (OUA) Room Descriptions to Housekeeping Space Uses.

I created a list of Housekeeping Space Uses with 3 character acronyms codes.

Then created drop down cells to align each OUA Room Description with the appropriate Housekeeping Space Use

Return to Translator			Drop Downs	
FMI	S-ROOM USE CODES LIST		Add Housekeeping Space Use list	
Room Use Code	Description		Select matches from dropdown list	HK Codes
			Housekeeping Space Uses	HK Codes
	Unassigned	0		0
000	Unclassified Facilities	000		0
010	Elevator	010	Elevator	ELV
011	Men's Toilet Equipped for Mobility Impaired	011	Restroom Toilet	RMT
012	Women's Toilet Equipped for Mobility Impaired	012	Restroom Toilet	RMT
013	Unisex Toilet Equipped for Mobility Impaired	013	Restroom Toilet	RMT
050	Inactive Area	050	No Service	XOX
060	Alteration or Conversion Area	060	No Service	XOX
070	Unfinished Area	070	No Service	XOX
110	Classroom	110	Classroom	CLS
110D	Distance Ed Classroom	110D	Classroom	CLS
115	Classroom Service	115	Classroom	CLS
115D	Distance Ed. Classroom Support	115D	Classroom	CLS
210	Class Laboratory	210	Laboratory Class	LBC
215	Class Laboratory Service	215	Laboratory Class	LBC
220	Open Laboratory	220	Laboratory Open	LBO
225	Open Laboratory Service	225	Laboratory Open	LBO
250	Research/Nonclass Laboratory	250	Laboratory Research/Nonclass	LRN
255	Research/Nonclass Laboratory Service	255	Laboratory Research/Nonclass	LRN
300	Office Facilities	300	Office	OF1
310	Office	310	Office	OF1
315	Office Service	315	Copy / Print	CPY
350	Conference Room	350	Conference Room	CNF
355	Conference Room Service	355	Conference Room	CNF
410	Study Room	410	Study Room	SDR
420	Stack	420	Stacks Library	STK

How NCSU Housekeeping Created their Database

The next part of the process setting up the Housekeeping Space Use to trigger off of the OUA Room Description Codes which was only about 60% successful

I would organize the OUA data from their server using their room descriptions and paste the Gross Square Feet (GSF) data into my spreadsheet.

Any Housekeeping Space Uses that were incorrectly triggered in the assigned column had to be adjusted in the Space Use Corrections column

SORT TAB				Gross SF	Cleanable SF	Home	SORT TAB		
Owen Residence Hall						Return to 1			
"Ctrl + s" to Sort HK Space Uses then click "Ok" in pop up window			"Ctrl + x" to UN- Sort HK Space Uses			Spaces listed below are translated from the FMI Space Use Descriptions to Housekeeping Terms	FMI HK Space Use Code	Cleaned?	Any changes made in this column are temporary. All permanent changes must be made on the original tab ("Return to #")
Bldg #	Bldg Name	Room #	FMI Space Use Description	Gross SF	Cleanable SF	Housekeeping Space Uses		1	Space Use Corrections
092	Owen Residence Hall	16	Corridor	1362	1362	Corridor	CRR	1	0
092	Owen Residence Hall	17	Mechanical Pump	85	0	No Service	XOX	0	0
092	Owen Residence Hall	18	Transformer	127	0	No Service	XOX	0	0
092	Owen Residence Hall	20	Vestibule	210	210	Corridor	CRR	1	0
092	Owen Residence Hall	24	Storage-Custodial	10	0	No Service	XOX	0	0
092	Owen Residence Hall	25	Corridor	316	316	Corridor	CRR	1	0
092	Owen Residence Hall	26	Stairs	120	120	Stairs	STR	1	0
092	Owen Residence Hall	28	Laundry	207	207	Laundry	LDN	1	0
092	Owen Residence Hall	29	Toilet-Women	55	55	Rest Room Public	RPB	1	0
092	Owen Residence Hall	30	Mechanical	232	0	No Service	XOX	0	0
092	Owen Residence Hall	31	Telecom	152	0	No Service	XOX	0	0
092	Owen Residence Hall	32	Custodial	10	0	No Service	XOX	0	0
092	Owen Residence Hall	33	Office-Hskpg Zone Mgr	207	0	No Service	XOX	0	0
092	Owen Residence Hall	34	Sleep/Study	223	223	Sleep/Study No Bathroom	HB3	1	0
092	Owen Residence Hall	35	Sleep/Study	207	207	Sleep/Study No Bathroom	HB3	1	0
092	Owen Residence Hall	36	Storage-Fyc	209	209	Storage	SOR	1	0
092	Owen Residence Hall	37	Sleep/Study	218	218	Sleep/Study No Bathroom	HB3	1	0
092	Owen Residence Hall	38	Storage-Fyc	213	213	Storage	SOR	1	0
092	Owen Residence Hall	39	Sleep/Study	217	217	Sleep/Study No Bathroom	HB3	1	0
092	Owen Residence Hall	40	Toilet/Bath	473	473	Toilet/Shower	TSW	1	0
092	Owen Residence Hall	41	Sleep/Study	208	208	Sleep/Study No Bathroom	HB3	1	0
092	Owen Residence Hall	43	Sleep/Study	209	209	Sleep/Study No Bathroom	HB3	1	0

The Cleanable SF column's data was fortified by the Housekeeping Space Use determination where the CSF was multiplied by 1 and Non CSF was multiplied by 0.

Notice the number of corrections that had to be made in order to create a useful Housekeeping Space Use list.

Building 7							Gross SF	Cleanable SF	Home Directory					
222G	Gray Hall-Wolf Village Apartments Bldg G						53,233	45,766	Housekeeping Space Use Terms		Edit 1/0			
Go to FM Interact under + "Housekeeping" + "Reports" + "30.02 Housekeeping Basic Detail" select Building export in Excel open file then <u>copy and paste the first 6 columns of building data</u> in the appropriate columns below.							Spaces listed below are translated from the FMI Space Use Codes to Housekeeping Terms		Preliminary HK Space Use Code	Cleaned?	Is the HK Space Use Term Correct?	If the Housekeeping Space Use Terms on the left Do Not represent the space accurately please correct with dropdown menu cells below.	FINAL Housekeeping Space Use Term	Final HK Space Use Code
Bldg #	Bldg Name	Room #	FMI Space Use Description	FMI Room Use Code	Gross Area	Cleanable SF	Housekeeping Space Uses		1	TRUE?	Space Use Correction	HK Space Use Term		
222G	Gray Hall-Wolf Village Apartments Bldg G	103	Seminar/Meeting Room	680	682	682	Conference Room	CNF	1	TRUE		Conference Room	CNF	
222G	Gray Hall-Wolf Village Apartments Bldg G	103A	Kitchen	630	181	181	0	0	1	FALSE	Apartment Kitchen	Apartment Kitchen	HA5	
222G	Gray Hall-Wolf Village Apartments Bldg G	104	Elevator Equipment	YYY	56	0	No Service	XOX	0	TRUE		No Service	XOX	
222G	Gray Hall-Wolf Village Apartments Bldg G	106	Custodial	XXX	45	0	Building Service Area	BSA	0	TRUE		Building Service Area	BSA	
222G	Gray Hall-Wolf Village Apartments Bldg G	108	Lobby	WWW	61	61	0	0	1	FALSE	Lobby	Lobby	LOB	
222G	Gray Hall-Wolf Village Apartments Bldg G	109	Telecommunications	710	102	0	No Service	XOX	0	TRUE		No Service	XOX	
222G	Gray Hall-Wolf Village Apartments Bldg G	110A	Office	310	103	103	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	110B	Office	310	113	113	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	110C	Office	310	103	103	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	110D	Office	310	103	103	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	111A	Mail Room	315	240	240	Copy / Print	CPY	1	TRUE		Copy / Print	CPY	
222G	Gray Hall-Wolf Village Apartments Bldg G	111B	Office	310	357	357	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	111C	Office	310	118	118	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	111D	Office	310	124	124	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	111E	Office	310	148	148	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	111F	Office	310	136	136	Office	OF1	1	TRUE		Office	OF1	
222G	Gray Hall-Wolf Village Apartments Bldg G	112	Living Room	955	311	311	0	0	1	FALSE	Apartment Living Room	Apartment Living Room	HA6	
222G	Gray Hall-Wolf Village Apartments Bldg G	112B	Toilet	955	57	57	0	0	1	FALSE	Apartment Bathroom	Apartment Bathroom	HA2	
222G	Gray Hall-Wolf Village Apartments Bldg G	112C	Bedroom	950	97	97	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	
222G	Gray Hall-Wolf Village Apartments Bldg G	112D	Bedroom	950	95	95	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	
222G	Gray Hall-Wolf Village Apartments Bldg G	112E	Bedroom	950	95	95	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	
222G	Gray Hall-Wolf Village Apartments Bldg G	112F	Bedroom	950	97	97	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	
222G	Gray Hall-Wolf Village Apartments Bldg G	112G	Toilet	955	71	71	0	0	1	FALSE	Apartment Bathroom	Apartment Bathroom	HA2	
222G	Gray Hall-Wolf Village Apartments Bldg G	112H	Kitchen	955	76	76	0	0	1	FALSE	Apartment Kitchen	Apartment Kitchen	HA5	
222G	Gray Hall-Wolf Village Apartments Bldg G	112J	Mechanical	YYY	28	0	No Service	XOX	0	TRUE		No Service	XOX	
222G	Gray Hall-Wolf Village Apartments Bldg G	113	Living Room	955	309	309	0	0	1	FALSE	Apartment Living Room	Apartment Living Room	HA6	
222G	Gray Hall-Wolf Village Apartments Bldg G	113B	Kitchen	955	76	76	0	0	1	FALSE	Apartment Kitchen	Apartment Kitchen	HA5	
222G	Gray Hall-Wolf Village Apartments Bldg G	113C	Toilet	955	71	71	0	0	1	FALSE	Apartment Bathroom	Apartment Bathroom	HA2	
222G	Gray Hall-Wolf Village Apartments Bldg G	113D	Bedroom	950	97	97	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	
222G	Gray Hall-Wolf Village Apartments Bldg G	113E	Bedroom	950	95	95	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	
222G	Gray Hall-Wolf Village Apartments Bldg G	113F	Bedroom	950	95	95	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	
222G	Gray Hall-Wolf Village Apartments Bldg G	113G	Bedroom	950	97	97	Apartment Resident	HA7	1	FALSE	Apartment Bedroom	Apartment Bedroom	HA3	

The Creation of a HK Space Use Application on OUA's Facility Management Interact (FMI) System

The Need: Delineating individual room description types from FMI was too time consuming and always required back tracking to fix errors in the data. Cleanable Square Feet (CSF) data had to be imported into the tools to calculate values.

The Design: OUA already had a method to delineate their room descriptions on FMI which enabled the user to export and sort data according to the particular needs of the inquiry. Housekeeping developed it's own space use types with the associate HK codes. The space use would be divided in a similar manor to create their unique departmental queries.

The Implementation: Since FMI did not have a HK module one had to be developed from scratch. We worked together with a FMI client consultant to develop a few prototypes and ran several scenarios through the BETA development modules. Review the primary components of the data and how it should be displayed on the reports. HK determined that the best course of action was to utilize our the predetermined data columns used in previous models.

More FMI Housekeeping Module Reports

The OUA Comparison Report allows HK to view both the OUA room description and the HK Space Use side by side

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Housekeeping to OUA Comparison Report

Print Date 12/20/2016

Bldg #	Bldg Name	Room #	Use Description	Room Use Code	HK Use Code	HK Use Description	Gross Area	Cleanable Area	Last Data Update
Totals: 60,074							60,074	58,803	
092	Owen Residence Hall	100	Stairs	WWW	STR	Stairs	112	112	4/02/2015
092	Owen Residence Hall	102	Stairs	WWW	STR	Stairs	111	111	4/02/2015
092	Owen Residence Hall	103	Stairs	WWW	STR	Stairs	127	127	2/18/2014
092	Owen Residence Hall	100	Corridor	WWW	CRR	Corridor	2,712	2,712	4/06/2015
092	Owen Residence Hall	101	Office-Ra		310	Office	200	200	4/06/2015
092	Owen Residence Hall	102	Admissions Show Room		550	Admissions Show Room	199	199	4/02/2015

This view allows HK to see the total GSF and CSF of any zones

Zone	Bldg #	Bldg Name	Number of Spaces	HK Space Use	Cleanable SF	Gross SF
Grand Totals:			37,937		8,463,296	9,920,208
<input type="checkbox"/> A1		Zone Totals:	2,197		460,242	530,718
<input type="checkbox"/> A2		Zone Totals:	1,593		463,007	508,634
<input type="checkbox"/> A3N		Zone Totals:	666		411,101	437,973
<input type="checkbox"/> A4D		Zone Totals:	1,296		311,325	387,226
<input type="checkbox"/> A4N		Zone Totals:	1,344		441,353	505,934
<input type="checkbox"/> A5		Zone Totals:	2,250		525,090	604,647
<input type="checkbox"/> A6		Zone Totals:	1,904		460,205	537,662
<input type="checkbox"/> A7		Zone Totals:	1,690		355,366	398,916
<input type="checkbox"/> A8		Zone Totals:	1,369		312,875	388,819

Select one of the zones in the report above and see the GSF and CSF of any of the buildings in a zone

Zone	Bldg #	Bldg Name	Number of Spaces	HK Space Use	Cleanable SF	Gross SF
Grand Totals:			37,937		8,463,296	9,920,208
<input type="checkbox"/> A1		Zone Totals:	2,197		460,242	530,718
	002	Memorial Belltower	1		0	146
	003	Holladay Hall	147		23,011	23,971
	004	Winslow Hall	61		9,216	10,739
	006	Primrose Hall	27		2,880	3,041
	008	Peele Hall	112		18,296	19,619
	017	Information Center	1		38	38
	001	...	516		122,745	122,507

FMI Changing Building Zone Designations

	Edit	Bldg #	Bldg Name	Zone
<input checked="" type="checkbox"/>	Edit	036	1911 Bldg	NIN
<input type="checkbox"/>	Edit	920	20 Enterprise St.	ENT
<input type="checkbox"/>	Edit	020A	2100 Hillsborough Street (Demolished)	HS1
<input type="checkbox"/>	Edit	907	219 Oberlin Road	OBR
<input type="checkbox"/>	Edit	280A	2319 1/2 Champion Court	CH1

Items 1 to 50 of 1507 Page: 1 of 31 Go Page size: 50

Housekeeping Building information Floors Documents History

Housekeeping Zone: A4N

The Housekeeping FMI administrator can select any building and change the zone designation.

When building zone numbers are changed it has an immediate effect on the total GSF and CSF of the 2 zones that were affected

Housekeeping - Zone Summary Report
Print Date 01/10/2017

Zone	Bldg #	Bldg Name	Number of Spaces	HK Space Use	Cleanable SF	Gross SF
		Grand Totals:	37,827		8,466,041	9,866,344
<input type="checkbox"/> A1		Zone Totals:	2,196		460,262	530,731
<input type="checkbox"/> A2		Zone Totals:	1,593		463,007	508,634
<input type="checkbox"/> A3N		Zone Totals:	666		411,101	437,973
<input type="checkbox"/> A4D		Zone Totals:	1,296		311,325	387,226
<input type="checkbox"/> A4N		Zone Totals:	1,344		441,353	505,934
<input type="checkbox"/> A5		Zone Totals:	2,250		525,090	604,647
<input type="checkbox"/> A6		Zone Totals:	1,904		460,205	537,662
<input type="checkbox"/> A7		Zone Totals:	1,690		355,366	398,916

This will also have an impact on the FTE totals of the zone once the system is automated

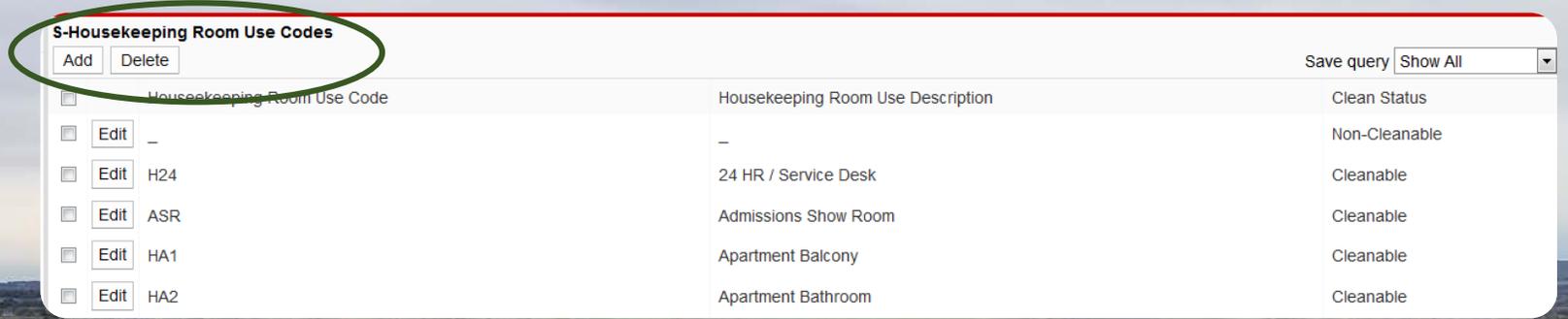
We're not there yet!

HK Space Use Codes Edit

The ability to add, remove or edit HK space use codes is a valuable feature

Add or Delete buttons for HK space uses

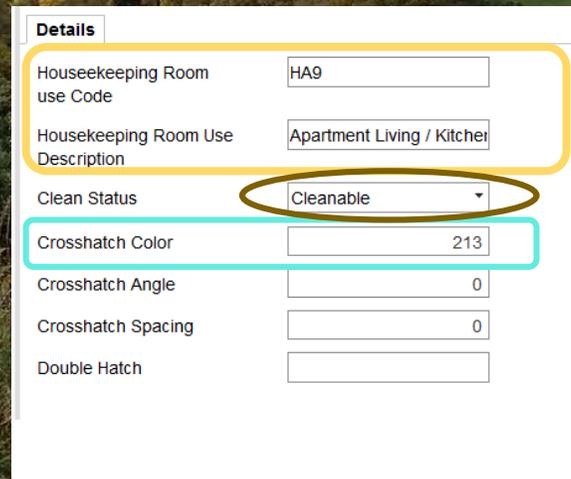
We can create additional space use types for receipt accounts, special contractual projects or add space uses that may be needed on future projects.



S-Housekeeping Room Use Codes			Save query	Show All
<input type="checkbox"/>	Housekeeping Room Use Code	Housekeeping Room Use Description	Clean Status	
<input type="checkbox"/>	<input type="button" value="Edit"/> -	-	Non-Cleanable	
<input type="checkbox"/>	<input type="button" value="Edit"/> H24	24 HR / Service Desk	Cleanable	
<input type="checkbox"/>	<input type="button" value="Edit"/> ASR	Admissions Show Room	Cleanable	
<input type="checkbox"/>	<input type="button" value="Edit"/> HA1	Apartment Balcony	Cleanable	
<input type="checkbox"/>	<input type="button" value="Edit"/> HA2	Apartment Bathroom	Cleanable	

When Editing or Creating a HK Space Use we can call it whatever we want, however the space use code can only be 3 characters.

Cleanable or Non Cleanable select window



Details	
Housekeeping Room use Code	<input type="text" value="HA9"/>
Housekeeping Room Use Description	<input type="text" value="Apartment Living / Kitchen"/>
Clean Status	<input type="button" value="Cleanable"/>
Crosshatch Color	<input type="text" value="213"/>
Crosshatch Angle	<input type="text" value="0"/>
Crosshatch Spacing	<input type="text" value="0"/>
Double Hatch	<input type="text"/>

The Crosshatch color is from the Auto CAD color wheel and will display the selected number that represents the space use type on the floor plan.

Comparing OUA and Housekeeping Floorplan Color Scheme Legends on FMI

OUA descriptions are labeled differently and common spaces like corridors, restrooms and stairs are omitted from the Assignable Total SF.



Room Use Code	Room Use Desc	Assignable SF
010	Elevator	0
011	Men's Toilet Equipped for Mobility Impaired	0
012	Women's Toilet Equipped for Mobility Impaired	0
310	Office	2,500
315	Office Service	850
350	Conference Room	638
410	Study Room	501
WWW	Circulation Area	0
XXX	Building Service Area	0
YYY	Mechanical Area	0
Total		4,489

This is a breakdown of the Housekeeping Space Use Types in FMI floor plan layering system.

The legend here breaks down the space uses displayed on the floor plan

HK Room Use Code	HK Room Use Description	Area
CNF	Conference Room	639
CPY	Copy / Print	166
CRR	Corridor	1,059
ELV	Elevator	52
HKC	Housekeeping Closet	30
KIT	Kitchen	215
NTV	Interview/Observation Room	108
OF1	Office	1,811
ORW	Office Workstations	421
RLW	Reception Lounge/Waiting	270
RMT	Restroom Toilet	332
SDR	Study Room	501
SOR	Storage	129
STR	Stairs	352
VST	Vestibule	147
WKR	Work Room	233
Total		6,465



Cleanable Spaces on the Floor Plan

Once Housekeeping has Identified all the Spaces that are Cleaned

The Spaces are easily visible on the floor plan and totaled on the legend.



Clean Status	Area
Cleanable	6,429
Non-Cleanable	30
Total	6,459

Modification of a space use on the floor plan

When a space is selected on the floor plan, several topics about the space appear.

Housekeeping Information [Edit](#)

Bldg	008
Room #	202C Zoom to room
Area	141.63
Housekeeping Room Use Code	OF1
Housekeeping Room Use Description	Office
Clean Status	Cleanable

OUA Information

OUC	320101
OUC Code Name	Admissions
OUA Room Use Code	310
OUA Room Use Code Description	Office
Usage Description	Admissions Receptionist
Last Updated Date	8/15/2013
Last Updated User	WOLFTECH\arthomp6

Occupants

Employee	Unity ID	Primary FTE	Primary OUC
Griffin, Thomas	THGRIF01	1.000000	320101

Building

Bldg #	008
Bldg Name	Peele Hall
Bldg Abbreviation	PH
Floor	02

Housekeeping Information Includes HK Space Use Code, Description and Clean Status.

Edit space by clicking "Edit" link which opens window >>

Room Info

Bldg	008 Peele Hall	Select	Clear
Room #	202C		
Area	141.63		
Housekeeping Room Use Code	OF1 Office	Select	Clear

Under "Occupant" is a link to contact the user of the space

Select to update HK Space Use here

Delineating Space Use Types to Matrix Terms

There are about 130 Housekeeping Space Uses available.

Creating a matrix spreadsheet and graphs with 130 columns is insane!

So we combine HK space uses which have similar cleaning needs

Toilet Rooms and Rest Rooms

Corridors and Circulation

Conference Rooms and Meeting Rooms

By combining similar space uses we derive at what we call the “Cleaning Matrix Term”

The “Cleaning Matrix Term” combines spaces that have the same cleaning techniques and frequencies

The goal is to create **25 Daily Matrix Terms** (or less) and **14 Non-Daily Matrix Terms** (or less) A40 is “Unknown” and is used to sort remaining space use types.

Condensing Housekeeping Space Uses to Cleaning Matrix Terms

Try to visualize a spreadsheet with 130 columns of separate individual space uses

Right you can not see it because there is no way it will fit on one screen or print

This is why we need to condense the 130 + Housekeeping space uses down to a more manageable number of 40.

25 Daily Cleaning Tasks

14 Non Daily Cleaning Tasks

1 Unknown A40 (default)

The Matrix Terms will change depending on the type of Buildings or Survey the user wants to perform.

Top 40 Time Studies	
#	Housekeeping Space Use Term
A01	Stairwells
A02	24 HR / Service Desk
A03	Balcony
A04	Break Room
A05	Breezeway
A06	Circulation
A07	Classroom
A08	Computer Rooms
A09	Conference Room
A10	Elevator
A11	Entrance
A12	Stairwells Exterior
A13	Kitchen
A14	Laundry
A15	Lounge
A16	0
A17	Rest Room Public
A18	Restroom Suite
A19	Restrooms Gang
A20	Fitness Room
A21	Multipurpose Room
A22	0
A23	0
A24	0
A25	0
A26	Apartment Bathroom

A26	Apartment Bathroom
A27	Apartment Bedroom
A28	Apartment Kitchen
A29	Apartment Living Room
A30	Guest Bathroom
A31	Guest Bedroom
A32	Apartment Resident
A33	Resident Apartment Bedroom
A34	Apartment Studio
A35	Office
A36	0
A37	0
A38	0
A39	0
A40	Unknown

Associating Housekeeping Space Uses with the Cleaning Matrix Terms

All of the Cleaning Tasks (AKA: Cleaning Matrix Terms) appear in the right column →

Cleaning Matrix Term

This column has dropdown cells of all of the cleaning matrix terms

Housekeeping Space Uses must be matched with a matrix term

25 Daily Cleaning Tasks

14 Non Daily Cleaning Tasks

HK Space Use Codes	Housekeeping Space Uses	Time Study Space Use Terms
CST	Closet	Apartment Living Room
CCL	Computer Class Lab	Computer Class Lab
CPL	Computer Lab	Computer Class Lab
CPR	Computer Rooms	Computer Rooms
CPW	Computer Workstation	Computer Rooms
CNS	Concessions	Conference Room
CNF	Conference Room	Conference Room
CTR	Control Room	Unknown
CPY	Copy / Print	Circulation
CRR	Corridor	Circulation
DNR	Dining Room	Unknown
ELV	Elevator	Elevator
ETR	Entrance	Circulation
EXM	Exam/Treatment Room	Unknown
EXB	Exhibition	Unknown
XDS	Exterior Door Space	Breezeway
EXS	Exterior Stairs	Stairwells Exterior
VID	Film Edit/Archive	Unknown
FIT	Fitness Room	Fitness Room
FOD	Food Facility	Unknown
GAL	Gallery	Unknown
HGA	Guest Apartment	Guest Bedroom
HG1	Guest Bathroom	Guest Bathroom
HG2	Guest Bedroom	Guest Bedroom
INF	Information Desk	24 HR / Service Desk
NTV	Interview/Observation Room	Unknown
KIT	Kitchen	Kitchen
LBC	Laboratory Class	Computer Class Lab
LDC	Laboratory Diagnostic Service	Computer Class Lab

Link to Scenario Tool | HK Space Use Terms 2 | Consolidate Space Use Terms | FM/Room Use Co

Housekeeping FMI building data is pasted into FTE calculator

Building 1		Home Directory		Gross SF	Cleanable SF	HK Space Uses		
062	Williams Hall	Housekeeping Space Use Terms		114,487	106,598			
Bldg #	Bldg Name	Room #	HK Code	Housekeeping Space Uses	Gross Area	Cleanable SF	Last Update	Comments
062	Williams Hall	1100	STR	Stairs	152	152	04/13/15	
062	Williams Hall	1101	XOX	No Service	5	0	09/27/13	
062	Williams Hall	1102	SOR	Storage	26	26	10/04/16	
062	Williams Hall	1103	CRR	Corridor	1130	1130	09/27/13	
062	Williams Hall	1104	LDC	Laboratory Diagnostic Service	342	342	10/04/16	
062	Williams Hall	1104A	LDC	Laboratory Diagnostic Service	92	92	10/04/16	
062	Williams Hall	1104B	OF1	Office	92	92	10/04/16	
062	Williams Hall	1105	OF1	Office	317	317	10/04/16	
062	Williams Hall	1105A	OF1	Office	92	92	10/04/16	
062	Williams Hall	1105B	OF1	Office	92	92	10/04/16	
062	Williams Hall	1106	SOR	Storage	25	25	10/04/16	
062	Williams Hall	1107	SOR	Storage	25	25	10/04/16	
062	Williams Hall	1108	LRN	Laboratory Research/Nonclass	146	146	10/04/16	
062	Williams Hall	1109	SOR	Storage	146	146	10/04/16	
062	Williams Hall	1110	SOR	Storage	25	25	10/04/16	
062	Williams Hall	1111	SOR	Storage	25	25	10/04/16	
062	Williams Hall	1112	LRN	Laboratory Research/Nonclass	338	338	10/04/16	
062	Williams Hall	1114	LRN	Laboratory Research/Nonclass	338	338	10/04/16	
062	Williams Hall	1115	SOR	Storage	24	24	10/04/16	
062	Williams Hall	1116	SOR	Storage	24	24	10/04/16	
062	Williams Hall	1118	WKR	Work Room	334	334	10/04/16	
062	Williams Hall	1119	CPY	Copy / Print	338	338	10/04/16	
062	Williams Hall	1119B	OF1	Office	92	92	10/04/16	
062	Williams Hall	1119C	OF1	Office	92	92	10/04/16	
062	Williams Hall	1121	ELV	Elevator	56	56	04/13/15	
062	Williams Hall	1122	SOR	Storage	25	25	10/04/16	
062	Williams Hall	1123	LRN	Laboratory Research/Nonclass	146	146	10/04/16	
062	Williams Hall	1124	RPB	Rest Room Public	114	114	04/14/16	
062	Williams Hall	1125	SOR	Storage	18	18	10/04/16	
062	Williams Hall	1126	LRN	Laboratory Research/Nonclass	339	339	10/04/16	
062	Williams Hall	1127	SOR	Storage	18	18	10/04/16	
062	Williams Hall	1128	SOR	Storage	87	87	10/04/16	
062	Williams Hall	1130	OF1	Office	86	86	10/04/16	
062	Williams Hall	1130A	OF1	Office	88	88	10/04/16	
062	Williams Hall	1130B	SOR	Storage	17	17	10/04/16	
062	Williams Hall	1132	LRN	Laboratory Research/Nonclass	342	342	10/04/16	
062	Williams Hall	1133	XOX	No Service	15	0	04/13/15	

Building Name, Number CSF and GSF will appear on the Building Directory Page

HOME / Building Directory								
			Gross SF	Cleanable SF	Bldg FTEs	Increase		
0			114,487	106,598	0.000	0.000	Reduction	
Import			0		0	0.000		
Buildings	Bldg#	Building Name	Gross SF	Cleanable SF	Base FTE	Scenario FTE	FTE Difference	Divided
1	062	Williams Hall	114,487	106,598	0.000	0.000	0.000	FTE 1
2	0	0	0	0	0.000	0.000	0.000	FTE 2

The Frequency Console

Provides instant FTE results when adjusting frequencies

Select the building in the survey

And the FTE number will be adjusted

The FTE Total on the top of each scenario displays the FTE count for all the buildings in the survey

FTE Building Comparison		Master					Adjusted Master										
Bldg	Select Building Name Here	Bldg #	Master Select Below	Survey FTE Total	Selected Building FTE Total	Name	Bldg	Survey FTEs	FTEs	Master Select Below	Survey FTE Total	Selected Building FTE Total	Name				
15	CVM Main Building	301	MASTER is the Original Starting Point	20.269	13.929					Adjusted Master Not in Use	20.269	13.929					
		Housekeeping Space Use Terms		FTEs per SF	Routine	Detail	Frequency	FTEs	FTEs	Housekeeping Space Use Terms		FTEs per SF	Routine	Detail	Frequency	FTEs	FTEs
Non-Daily Cleaning Times Setup		A05	Conference Room	0.0001265	4	1	Weekly	0.663	1.474	A05	Conference Room	0.0001265	4	1	Weekly	0.663	1.474
Scenario Compare and edit		A06	Elevator	0.0002967	4	1	Weekly	0.252	0.443	A06	Elevator	0.0002967	4	1	Weekly	0.252	0.443
Master to Scenario Building Data		A07	Entrance	0.0002752	4	1	Weekly	0.027	0.661	A07	Entrance	0.0002752	4	1	Weekly	0.027	0.661
Master to Scenario Chart		A08	Fitness Room	0.0000802	4	1	Weekly	0.056	0.056	A08	Fitness Room	0.0000802	4	1	Weekly	0.056	0.056
Scenario to Scenario Building Data		A09	Lobby	0.0000893	4	1	Weekly	0.259	0.454	A09	Lobby	0.0000893	4	1	Weekly	0.259	0.454
Scenario to Scenario Compare Chart		A10	Lockers	0.0004141	4	1	Weekly	0.584	0.610	A10	Lockers	0.0004141	4	1	Weekly	0.584	0.610
Bldg to Bldg FTE Comparison Chart		A11	Lounge	0.0000674	4	1	Weekly	0.168	0.363	A11	Lounge	0.0000674	4	1	Weekly	0.168	0.363
Bldg to Bldg SF Comparison Chart		A12	Reception Lounge/Waiting	0.0001766	4	1	Weekly	0.549	0.577	A12	Reception Lounge/Waiting	0.0001766	4	1	Weekly	0.549	0.577
		A13	Rest Room	0.0002592	4	1	Weekly	0.956	2.473	A13	Rest Room	0.0002592	4	1	Weekly	0.956	2.473
		A14	Study Room	0.0004368	4	1	Weekly	3.945	3.945	A14	Study Room	0.0004368	4	1	Weekly	3.945	3.945
		A15	Vending	0.0001733	4	1	Weekly	0.000	0.052	A15	Vending	0.0001733	4	1	Weekly	0.000	0.052
Select which Master or Adjusted Master to use as a base in the Scenarios		A16	Office Grad	0.0000408	4	1	Weekly	0.006	0.390	A16	Office Grad	0.0000408	4	1	Weekly	0.006	0.390
Select Here		A17	17	0.0000000	4	1	Weekly	0.000	0.000	A17	17	0.0000000	4	1	Weekly	0.000	0.000
Master		A18	18	0.0000000	4	1	Weekly	0.000	0.000	A18	18	0.0000000	4	1	Weekly	0.000	0.000
Return to Master to Scenario Chart		A19	19	0.0000000	4	1	Weekly	0.000	0.000	A19	19	0.0000000	4	1	Weekly	0.000	0.000
		A20	20	0.0000000	4	1	Weekly	0.000	0.000	A20	20	0.0000000	4	1	Weekly	0.000	0.000
MASTER to Scenario Data		A21	21	0.0000000	4	1	Weekly	0.000	0.000	A21	21	0.0000000	4	1	Weekly	0.000	0.000
Scenario to Scenario Compare		A22	22	0.0000000	4	1	Weekly	0.000	0.000	A22	22	0.0000000	4	1	Weekly	0.000	0.000
		A23	23	0.0000000	4	1	Weekly	0.000	0.000	A23	23	0.0000000	4	1	Weekly	0.000	0.000
		A24	24	0.0000000	4	1	Weekly	0.000	0.000	A24	24	0.0000000	4	1	Weekly	0.000	0.000
		A25	25	0.0000000	4	1	Weekly	0.000	0.000	A25	25	0.0000000	4	1	Weekly	0.000	0.000
		A26	Offices	0.0000190	N/A	N/A	Monthly	0.517	0.973	A26	Offices	0.0000190	N/A	N/A	Monthly	0.517	0.973
		A27	Apartment Resident	0.0000098	N/A	N/A	Monthly	0.000	0.000	A27	Apartment Resident	0.0000098	N/A	N/A	Monthly	0.000	0.000
		A28	Autoclave	0.0000097	N/A	N/A	Monthly	0.006	0.017	A28	Autoclave	0.0000097	N/A	N/A	Monthly	0.006	0.017
		A29	Breezeway	0.0000000	N/A	N/A	Monthly	0.000	0.000	A29	Breezeway	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A30	Exterior Door Space	0.0000024	N/A	N/A	Monthly	0.019	0.051	A30	Exterior Door Space	0.0000024	N/A	N/A	Monthly	0.019	0.051
		A31	Exterior Stairs	0.0000000	N/A	N/A	Monthly	0.000	0.000	A31	Exterior Stairs	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A32	Laboratory Research/Nonclass	0.0000190	N/A	N/A	Monthly	0.000	0.000	A32	Laboratory Research/Nonclass	0.0000190	N/A	N/A	Monthly	0.000	0.000
		A33	Office Workstations	0.0000000	N/A	N/A	Monthly	0.000	0.000	A33	Office Workstations	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A34	Shop	0.0000000	N/A	N/A	Monthly	0.000	0.000	A34	Shop	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A35	Stairs	0.0000113	N/A	N/A	Monthly	0.046	0.080	A35	Stairs	0.0000113	N/A	N/A	Monthly	0.046	0.080
		A36	36	0.0000000	N/A	N/A	Monthly	0.000	0.000	A36	36	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A37	37	0.0000000	N/A	N/A	Monthly	0.000	0.000	A37	37	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A38	38	0.0000000	N/A	N/A	Monthly	0.000	0.000	A38	38	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A39	No Service	0.0000000	N/A	N/A	Monthly	0.000	0.000	A39	No Service	0.0000000	N/A	N/A	Monthly	0.000	0.000
		A40	Unknown	0.0000000	N/A	N/A	Monthly	0.000	0.000	A40	Unknown	0.0000000	N/A	N/A	Monthly	0.000	0.000

Frequency Console Part 2

For the selected building

And

For the entire survey

Scenario A										Scenario B															
HOME										HOME															
SCENARIO A										SCENARIO B															
Housekeeping Space Use Terms		FTEs per SF	Routine	Detail	Frequency	BLDG FTEs	Survey FTEs	Selected Building CVM Main Building		Housekeeping Space Use Terms		FTEs per SF	Routine	Detail	Frequency	BLDG FTEs	Survey FTEs	Selected Building CVM Main Building							
								Survey FTE Total	Building FTE Total									Survey FTE Total	Building FTE Total						
A01	Auditorium	0.000421	4	1	Weekly	0.000	0.000	A01	Auditorium	0.000421	4	1	Weekly	0.000	0.000	0.000	0.000	A01	Auditorium	0.000421	4	1	Weekly	0.000	0.000
A02	Break Room	0.0001571	4	1	Weekly	0.754	0.946	A02	Break Room	0.0001571	4	1	Weekly	0.754	0.946	0.754	0.946	A02	Break Room	0.0001571	4	1	Weekly	0.754	0.946
A03	Circulation	0.0000446	4	1	Weekly	2.571	3.887	A03	Circulation	0.0000446	4	1	Weekly	2.571	3.887	2.571	3.887	A03	Circulation	0.0000446	4	1	Weekly	2.571	3.887
A04	Classroom	0.0001504	4	1	Weekly	2.551	2.816	A04	Classroom	0.0001504	4	1	Weekly	2.551	2.816	2.551	2.816	A04	Classroom	0.0001504	4	1	Weekly	2.551	2.816
A05	Conference Room	0.0001265	4	1	Weekly	0.663	1.474	A05	Conference Room	0.0001265	4	1	Weekly	0.663	1.474	0.663	1.474	A05	Conference Room	0.0001265	4	1	Weekly	0.663	1.474
A06	Elevator	0.0002967	4	1	Weekly	0.252	0.443	A06	Elevator	0.0002967	4	1	Weekly	0.252	0.443	0.252	0.443	A06	Elevator	0.0002967	4	1	Weekly	0.252	0.443
A07	Entrance	0.0002752	4	1	Weekly	0.027	0.661	A07	Entrance	0.0002752	4	1	Weekly	0.027	0.661	0.027	0.661	A07	Entrance	0.0002752	4	1	Weekly	0.027	0.661
A08	Fitness Room	0.0000802	4	1	Weekly	0.056	0.056	A08	Fitness Room	0.0000802	4	1	Weekly	0.056	0.056	0.056	0.056	A08	Fitness Room	0.0000802	4	1	Weekly	0.056	0.056
A09	Lobby	0.0000893	4	1	Weekly	0.259	0.454	A09	Lobby	0.0000893	4	1	Weekly	0.259	0.454	0.259	0.454	A09	Lobby	0.0000893	4	1	Weekly	0.259	0.454
A10	Lockers	0.0004141	4	1	Weekly	0.584	0.610	A10	Lockers	0.0004141	4	1	Weekly	0.584	0.610	0.584	0.610	A10	Lockers	0.0004141	4	1	Weekly	0.584	0.610
A11	Lounge	0.0000674	4	1	Weekly	0.168	0.363	A11	Lounge	0.0000674	4	1	Weekly	0.168	0.363	0.168	0.363	A11	Lounge	0.0000674	4	1	Weekly	0.168	0.363
A12	Reception Lounge/Waiting	0.0001766	4	1	Weekly	0.549	0.577	A12	Reception Lounge/Waiting	0.0001766	4	1	Weekly	0.549	0.577	0.549	0.577	A12	Reception Lounge/Waiting	0.0001766	4	1	Weekly	0.549	0.577
A13	Rest Room	0.0002592	4	1	Weekly	0.956	2.473	A13	Rest Room	0.0002592	4	1	Weekly	0.956	2.473	0.956	2.473	A13	Rest Room	0.0002592	4	1	Weekly	0.956	2.473
A14	Study Room	0.0004368	4	1	Weekly	3.945	3.945	A14	Study Room	0.0004368	4	1	Weekly	3.945	3.945	3.945	3.945	A14	Study Room	0.0004368	4	1	Weekly	3.945	3.945
A15	Vending	0.0001733	4	1	Weekly	0.000	0.052	A15	Vending	0.0001733	4	1	Weekly	0.000	0.052	0.000	0.052	A15	Vending	0.0001733	4	1	Weekly	0.000	0.052
A16	Office Grad	0.0000408	4	1	Weekly	0.006	0.390	A16	Office Grad	0.0000408	0	1	Weekly	0.006	0.390	0.006	0.390	A16	Office Grad	0.0000408	0	1	Weekly	0.006	0.390
A17	17	0.0000000	4	1	Weekly	0.000	0.000	A17	17	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A17	17	0.0000000	4	1	Weekly	0.000	0.000
A18	18	0.0000000	4	1	Weekly	0.000	0.000	A18	18	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A18	18	0.0000000	4	1	Weekly	0.000	0.000
A19	19	0.0000000	4	1	Weekly	0.000	0.000	A19	19	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A19	19	0.0000000	4	1	Weekly	0.000	0.000
A20	20	0.0000000	4	1	Weekly	0.000	0.000	A20	20	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A20	20	0.0000000	4	1	Weekly	0.000	0.000
A21	21	0.0000000	4	1	Weekly	0.000	0.000	A21	21	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A21	21	0.0000000	4	1	Weekly	0.000	0.000
A22	22	0.0000000	4	1	Weekly	0.000	0.000	A22	22	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A22	22	0.0000000	4	1	Weekly	0.000	0.000
A23	23	0.0000000	4	1	Weekly	0.000	0.000	A23	23	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A23	23	0.0000000	4	1	Weekly	0.000	0.000
A24	24	0.0000000	4	1	Weekly	0.000	0.000	A24	24	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A24	24	0.0000000	4	1	Weekly	0.000	0.000
A25	25	0.0000000	4	1	Weekly	0.000	0.000	A25	25	0.0000000	4	1	Weekly	0.000	0.000	0.000	0.000	A25	25	0.0000000	4	1	Weekly	0.000	0.000
A26	Offices	0.0000190	N/A	N/A	Monthly	0.517	0.973	A26	Offices	0.0000190	N/A	N/A	Monthly	0.517	0.973	0.517	0.973	A26	Offices	0.0000190	N/A	N/A	Monthly	0.517	0.973
A27	Apartment Resident	0.0000098	N/A	N/A	Monthly	0.000	0.000	A27	Apartment Resident	0.0000016	N/A	N/A	2 Times a Year	0.000	0.000	0.000	0.000	A27	Apartment Resident	0.0000016	N/A	N/A	2 Times a Year	0.000	0.000
A28	Autoclave	0.0000097	N/A	N/A	Monthly	0.006	0.017	A28	Autoclave	0.0000097	N/A	N/A	Monthly	0.006	0.017	0.006	0.017	A28	Autoclave	0.0000097	N/A	N/A	Monthly	0.006	0.017
A29	Breezeway	0.0000000	N/A	N/A	Monthly	0.000	0.000	A29	Breezeway	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A29	Breezeway	0.0000000	N/A	N/A	Monthly	0.000	0.000
A30	Exterior Door Space	0.0000024	N/A	N/A	Monthly	0.019	0.051	A30	Exterior Door Space	0.0000024	N/A	N/A	Monthly	0.019	0.051	0.019	0.051	A30	Exterior Door Space	0.0000024	N/A	N/A	Monthly	0.019	0.051
A31	Exterior Stairs	0.0000000	N/A	N/A	Monthly	0.000	0.000	A31	Exterior Stairs	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A31	Exterior Stairs	0.0000000	N/A	N/A	Monthly	0.000	0.000
A32	Laboratory Research/Nonclass	0.0000190	N/A	N/A	Monthly	0.000	0.000	A32	Laboratory Research/Nonclass	0.0000190	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A32	Laboratory Research/Nonclass	0.0000190	N/A	N/A	Monthly	0.000	0.000
A33	Office Workstations	0.0000000	N/A	N/A	Monthly	0.000	0.000	A33	Office Workstations	0.0000000	N/A	N/A	Weekly	0.000	0.000	0.000	0.000	A33	Office Workstations	0.0000000	N/A	N/A	Weekly	0.000	0.000
A34	Shop	0.0000000	N/A	N/A	Monthly	0.000	0.000	A34	Shop	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A34	Shop	0.0000000	N/A	N/A	Monthly	0.000	0.000
A35	Stairs	0.0000113	N/A	N/A	Monthly	0.046	0.080	A35	Stairs	0.0000225	N/A	N/A	2 Times a Month	0.092	0.161	0.092	0.161	A35	Stairs	0.0000225	N/A	N/A	2 Times a Month	0.092	0.161
A36	36	0.0000000	N/A	N/A	Monthly	0.000	0.000	A36	36	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A36	36	0.0000000	N/A	N/A	Monthly	0.000	0.000
A37	37	0.0000000	N/A	N/A	Monthly	0.000	0.000	A37	37	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A37	37	0.0000000	N/A	N/A	Monthly	0.000	0.000
A38	38	0.0000000	N/A	N/A	Monthly	0.000	0.000	A38	38	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A38	38	0.0000000	N/A	N/A	Monthly	0.000	0.000
A39	No Service	0.0000000	N/A	N/A	Monthly	0.000	0.000	A39	No Service	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A39	No Service	0.0000000	N/A	N/A	Monthly	0.000	0.000
A40	Unknown	0.0000000	N/A	N/A	Monthly	0.000	0.000	A40	Unknown	0.0000000	N/A	N/A	Monthly	0.000	0.000	0.000	0.000	A40	Unknown	0.0000000	N/A	N/A	Monthly	0.000	0.000
						13.929 20.269								13.975 20.350											

Linked data is illustrated on charts for analysis and or presentations

Cleaning Matrix Terms

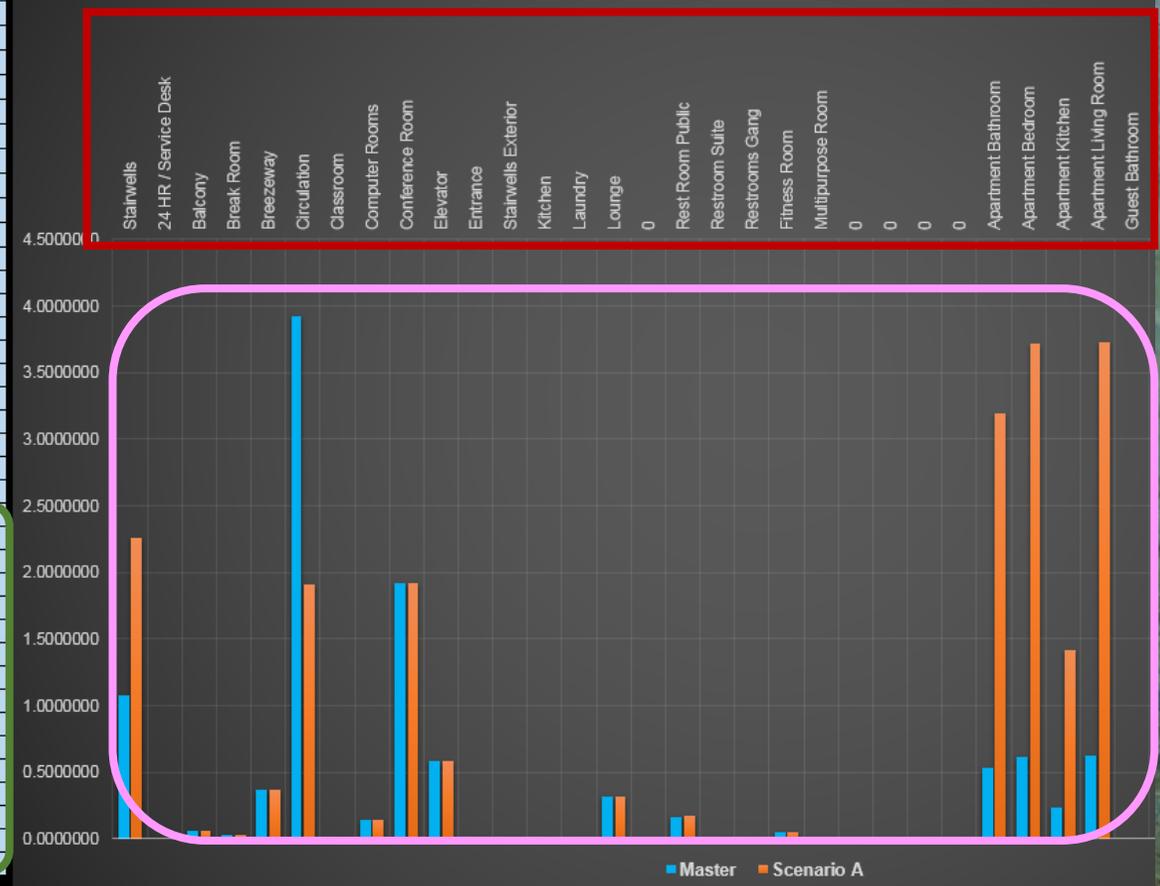
FTEs per SF

Frequencies

		Master	Routine	Detail	Scenario A	Routine	Detail
A01	Stairwells	1.0738760	1	1	2.259771	4	1
A02	24 HR / Service Desk	0.0000000	4	1	0.0000000	2	2
A03	Balcony	0.0562135	4	1	0.0562135	4	1
A04	Break Room	0.0336109	4	1	0.0336109	4	1
A05	Breezeway	0.3652721	4	1	0.3652721	4	1
A06	Circulation	3.9239807	4	1	1.9066584	1	1
A07	Classroom	0.0000000	4	1	0.0000000	4	1
A08	Computer Rooms	0.1385667	4	1	0.1385667	4	1
A09	Conference Room	1.9250857	4	1	1.9250857	4	1
A10	Elevator	0.5828905	4	1	0.5828905	4	1
A11	Entrance	0.0000000	4	1	0.0000000	4	1
A12	Stairwells Exterior	0.0000000	4	1	0.0000000	4	1
A13	Kitchen	0.0000000	4	1	0.0000000	4	1
A14	Laundry	0.0000000	4	1	0.0000000	4	1
A15	Lounge	0.3199529	4	1	0.3199529	4	1
A16	O	0.0000000	0	0	0.0000000	4	1
A17	Rest Room Public	0.1605053	3	2	0.1748644	4	1
A18	Restroom Suite	0.0000000	3	2	0.0000000	3	2
A19	Restrooms Gang	0.0000000	3	2	0.0000000	3	2
A20	Fitness Room	0.0474720	4	1	0.0474720	4	1
A21	Multipurpose Room	0.0000000	4	1	0.0000000	4	1
A22	O	0.0000000	4	1	0.0000000	4	1
A23	O	0.0000000	4	1	0.0000000	4	1
A24	O	0.0000000	4	1	0.0000000	4	1
A25	O	0.0000000	4	1	0.0000000	4	1
A26	Apartment Bathroom	0.5323129	N A	2 Times a Year	3.1938771	N A	Monthly
A27	Apartment Bedroom	0.6200287	N A	2 Times a Year	3.7201719	N A	Monthly
A28	Apartment Kitchen	0.2355805	N A	2 Times a Year	1.4134831	N A	Monthly
A29	Apartment Living Room	0.6217918	N A	2 Times a Year	3.7307507	N A	Monthly
A30	Guest Bathroom	0.0000000	N A	As Needed	0.0000000	N A	Monthly
A31	Guest Bedroom	0.0000000	N A	As Needed	0.0000000	N A	Monthly
A32	Apartment Resident	0.0000000	N A	Annually	0.0000000	N A	Monthly
A33	Resident Apartment Bedroom	0.0000000	N A	Annually	0.0000000	N A	Monthly
A34	Apartment Studio	0.0004642	N A	2 Times a Year	0.0027849	N A	Monthly
A35	Office	0.0298876	N A	Monthly	0.0298876	N A	Monthly
A36	O	0.0000000	N A	Monthly	0.0000000	N A	Monthly
A37	O	0.0000000	N A	Monthly	0.0000000	N A	Monthly
A38	O	0.0000000	N A	Monthly	0.0000000	N A	Monthly
A39	O	0.0000000	N A	Monthly	0.0000000	N A	Monthly
A40	Unknown	0.0000000	N A	Monthly	0.0000000	N A	Monthly

Master to Scenario Comparison Chart

Master to Scenario Comparison Chart



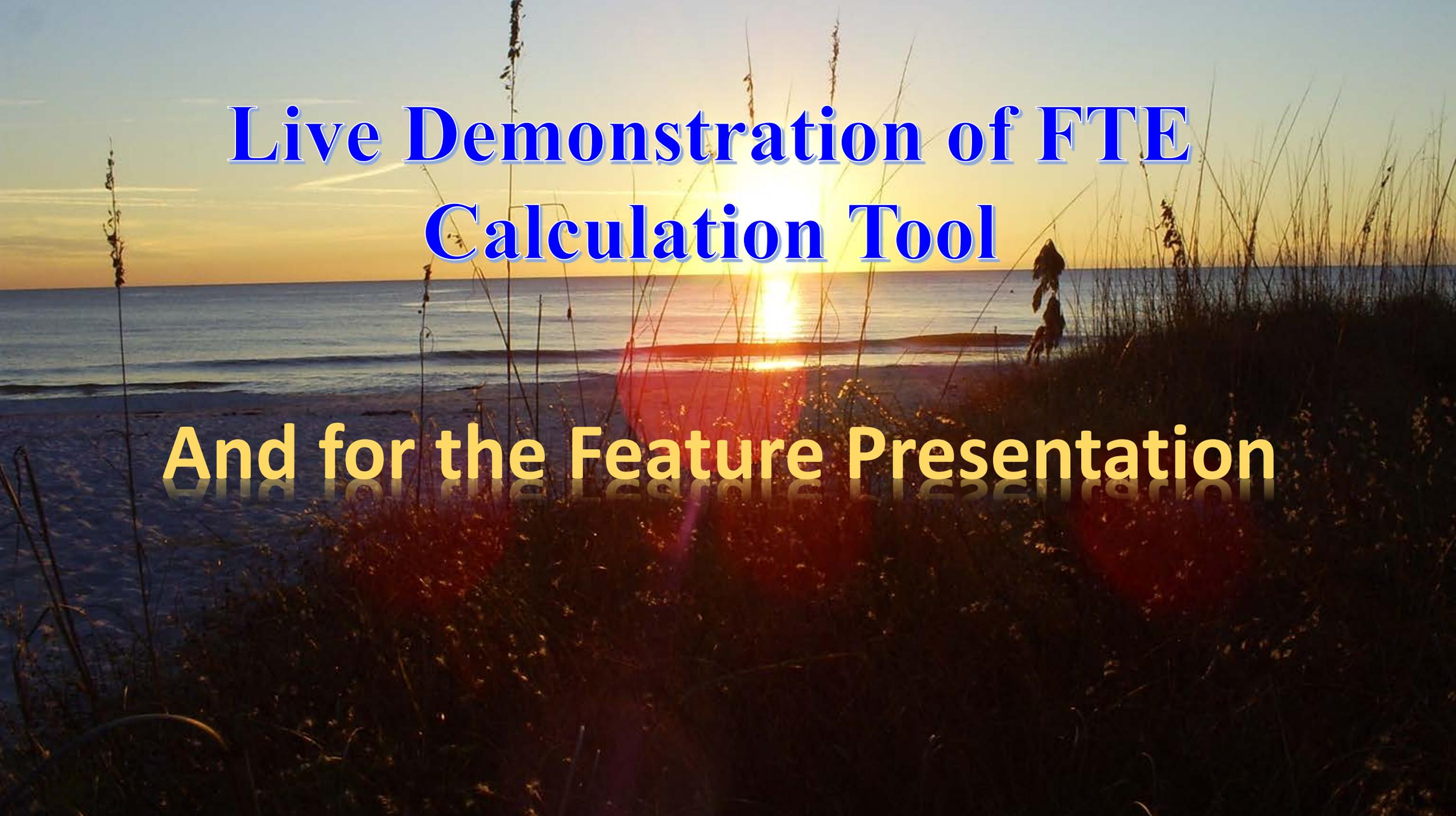
FTE Study Results

Each Building has a FTE Total for the Selected Scenario and the Master

The FTE Study totals for the surveyed buildings

The difference between the 2 scenario totals

Building Home Directory								
H5 Buildings Demonstration			Gross SF	Cleanable SF	Bldg FTEs	Edit Scenario	Increase	
			563,915	474,097	10.667	19.901	Reduction	
					Master	Scenario A	-9.234	
Bldg #s	Building Name	Bldg#	Gross SF	Cleanable SF	Bldg FTEs	Scenario FTE	FTE Difference	Charts
1	Arctic Hall-Wolf Village Apartments Bldg A	222A	60,007	47,162	0.874	2.005	-1.131	Bldg 1
2	Baffin Hall-Wolf Village Apartments Bldg B	222B	58,778	49,411	1.033	2.063	-1.030	Bldg 2
3	Caspian Hall-Wolf Village Apartments Bldg C	222C	52,665	43,930	1.000	1.875	-0.874	Bldg 3
4	Red Hall-Wolf Village Apartments Bldg D	222D	53,686	44,358	1.142	1.922	-0.780	Bldg 4
5	Timber Hall-Wolf Village Apartments Bldg E	222E	58,917	49,514	1.038	2.051	-1.013	Bldg 5
6	Mackenzie Hall-Wolf Village Apartments Bldg F	222F	58,888	49,538	1.040	2.047	-1.007	Bldg 6
7	Gray Hall-Wolf Village Apartments Bldg G	222G	53,233	45,766	1.162	1.944	-0.782	Bldg 7
8	Hudson Hall-Wolf Village Apartments Bldg H	222H	53,841	46,014	0.943	1.880	-0.936	Bldg 8
9	Hudson Hall-Wolf Village Apartments Bldg H	222H	53,841	46,014	0.949	1.882	-0.934	Bldg 9
10	Gray Hall-Wolf Village Apartments Bldg G	222G	53,233	45,766	1.162	1.944	-0.782	Bldg 10
11	0	0	0	0	0.000	0.000	0.000	Bldg 11
12	Gray Hall-Wolf Village Apartments Bldg G	222G	6,827	6,624	0.324	0.288	0.035	Bldg 12
13	0	0	0	0	0.000	0.000	0.000	Bldg 13

A sunset over a beach with tall grass in the foreground and a person sitting on the sand.

Live Demonstration of FTE Calculation Tool

And for the Feature Presentation