

Moafak Kata [LCFM]

Zuzanna Koltowska [ARCH]

Deborah Duan [SE]

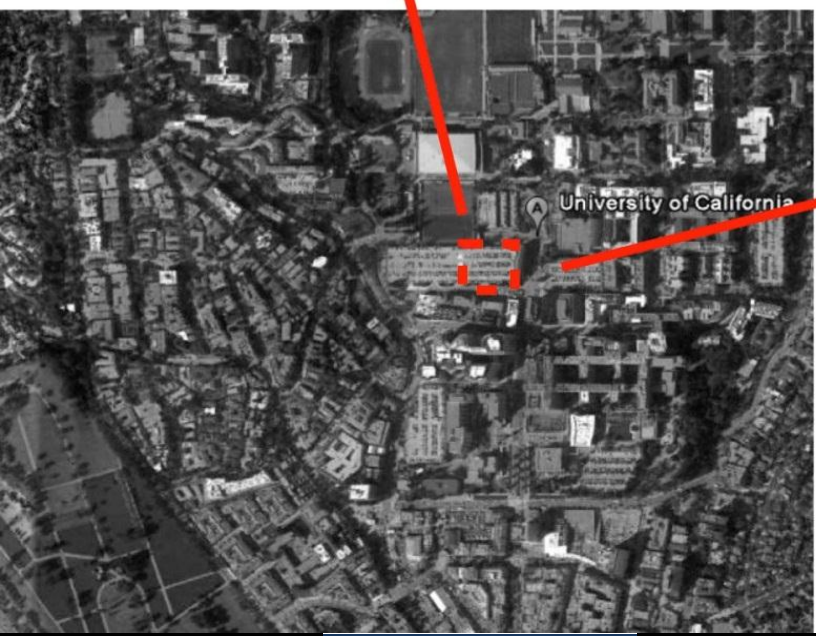
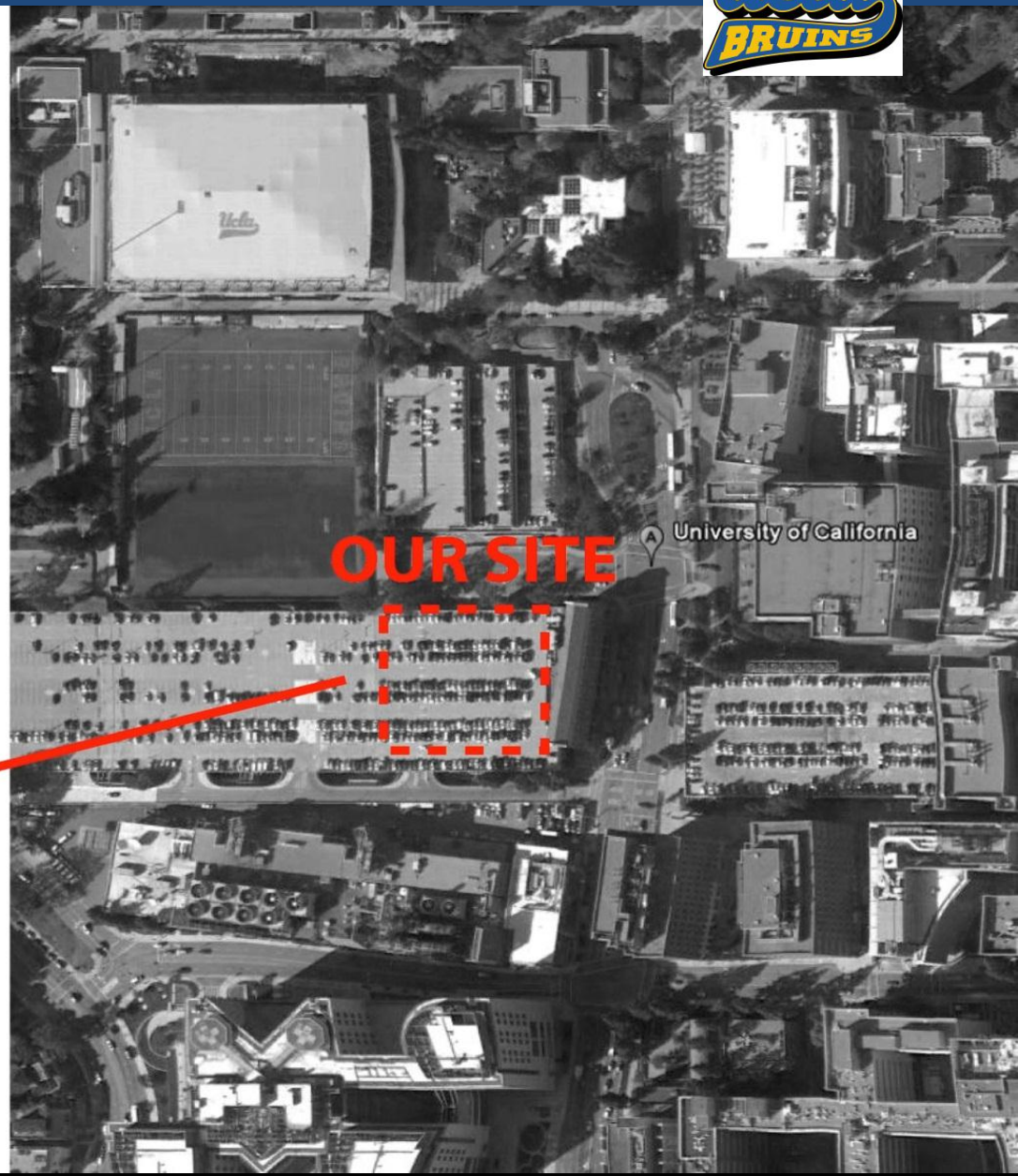
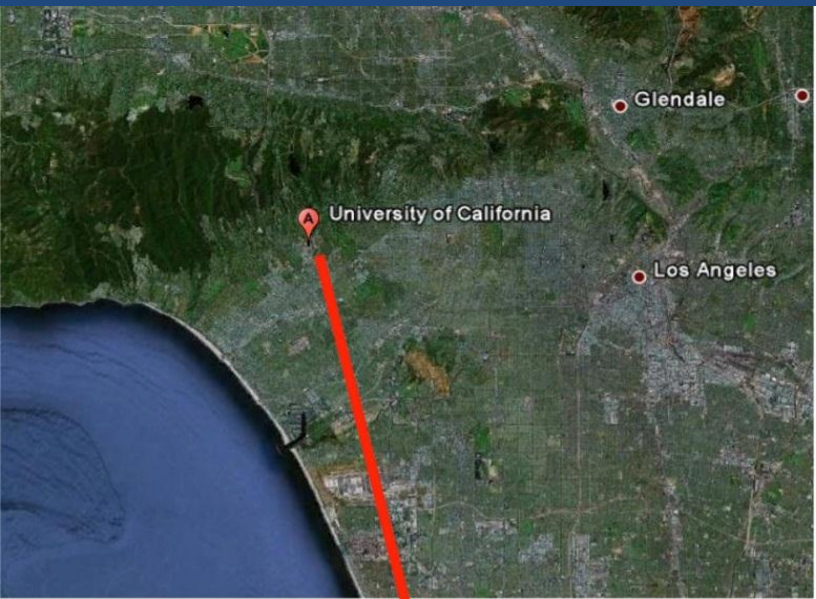
Andrew Long [CM]

Jefferson Hang [SE]



OWNERS: Joanna Huey & Dimitra Ioannidou

SITE LOCATION



CENTRAL TEAM

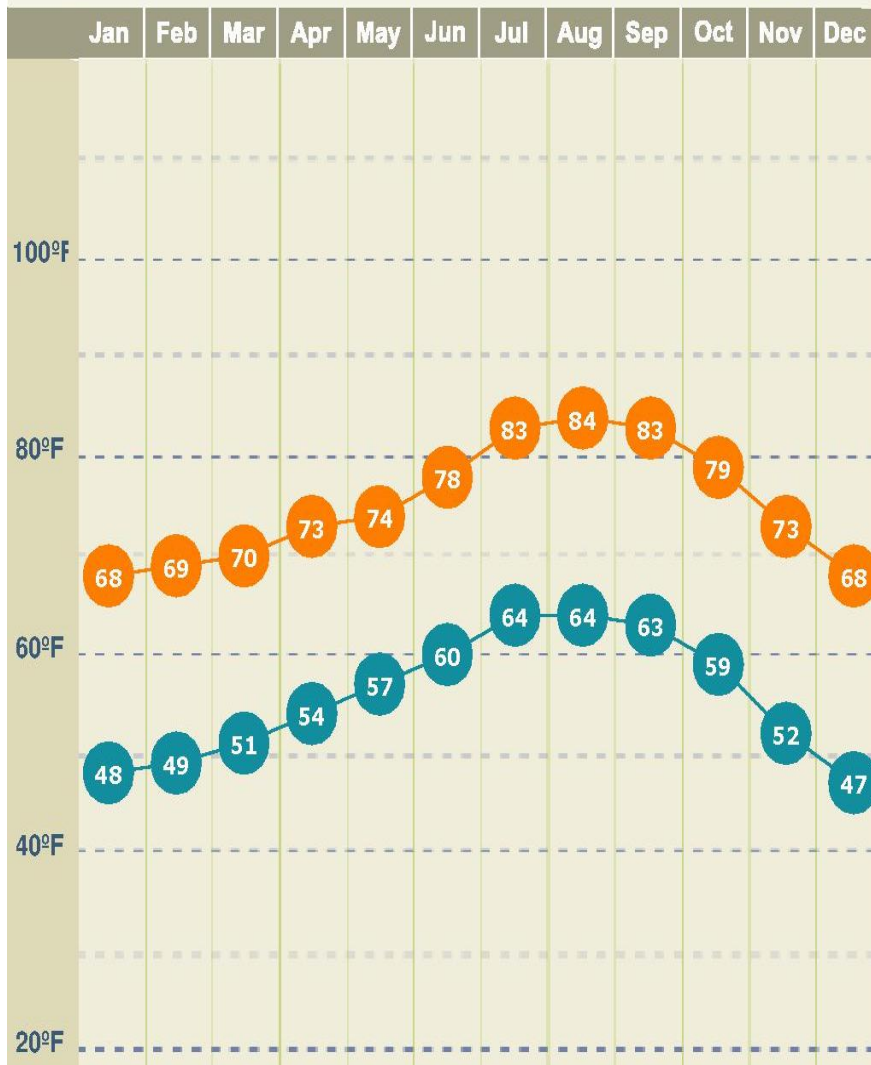
ARCH

SE

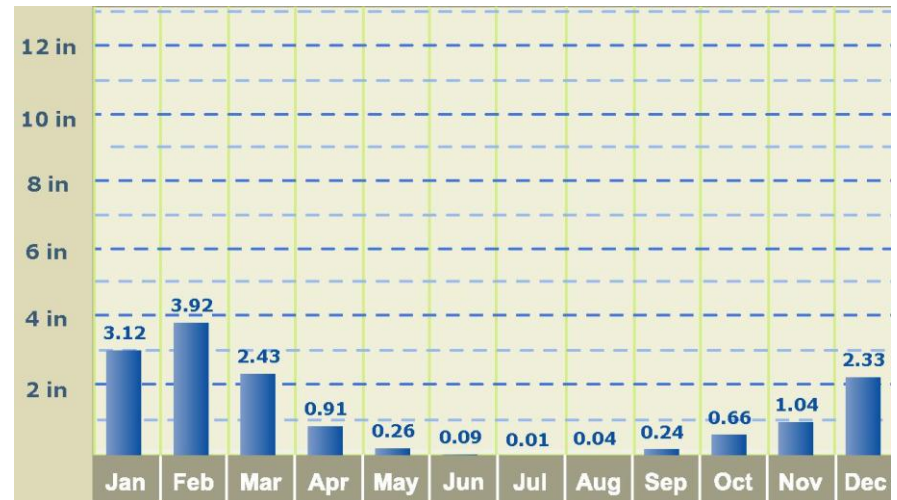
CM

MEP

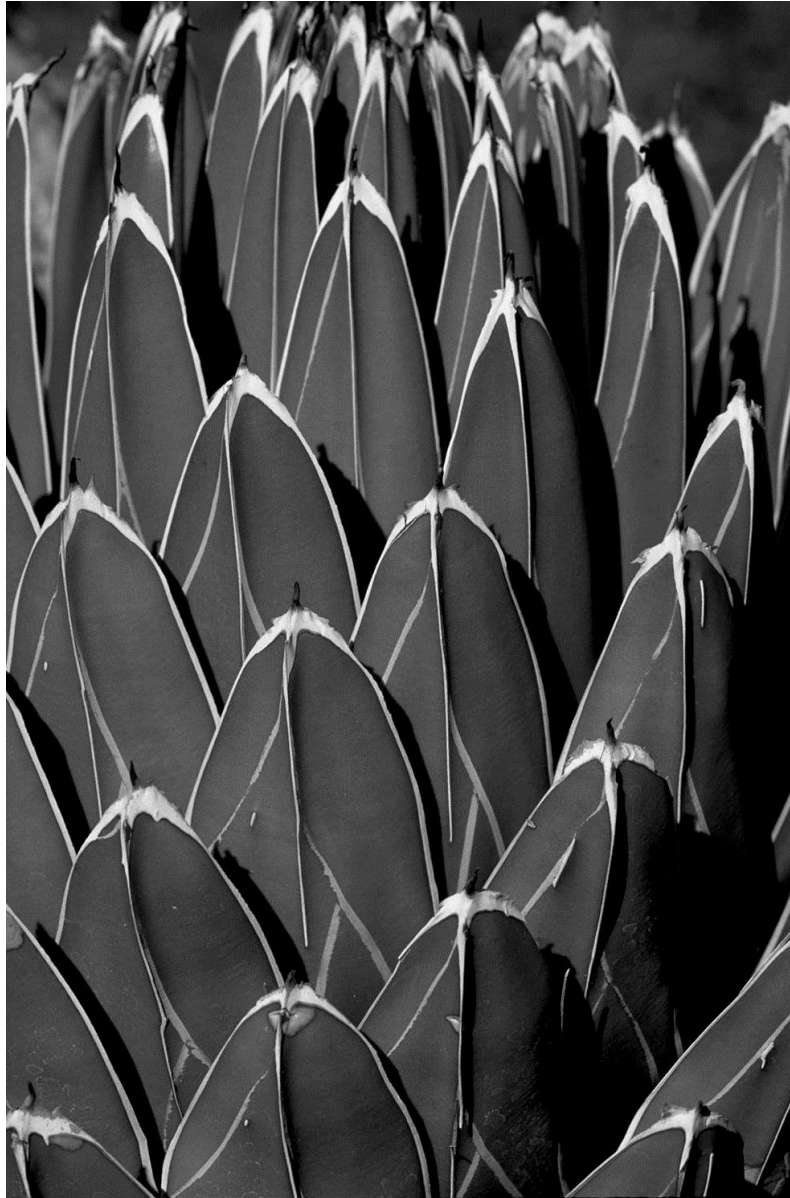
LCFM



Good Construction Weather
Low Threat of Weather Delay
Water Management
Required



BIG IDEA - CACTUS



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

SYMMETRY



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

MODULARITY



CENTRAL TEAM

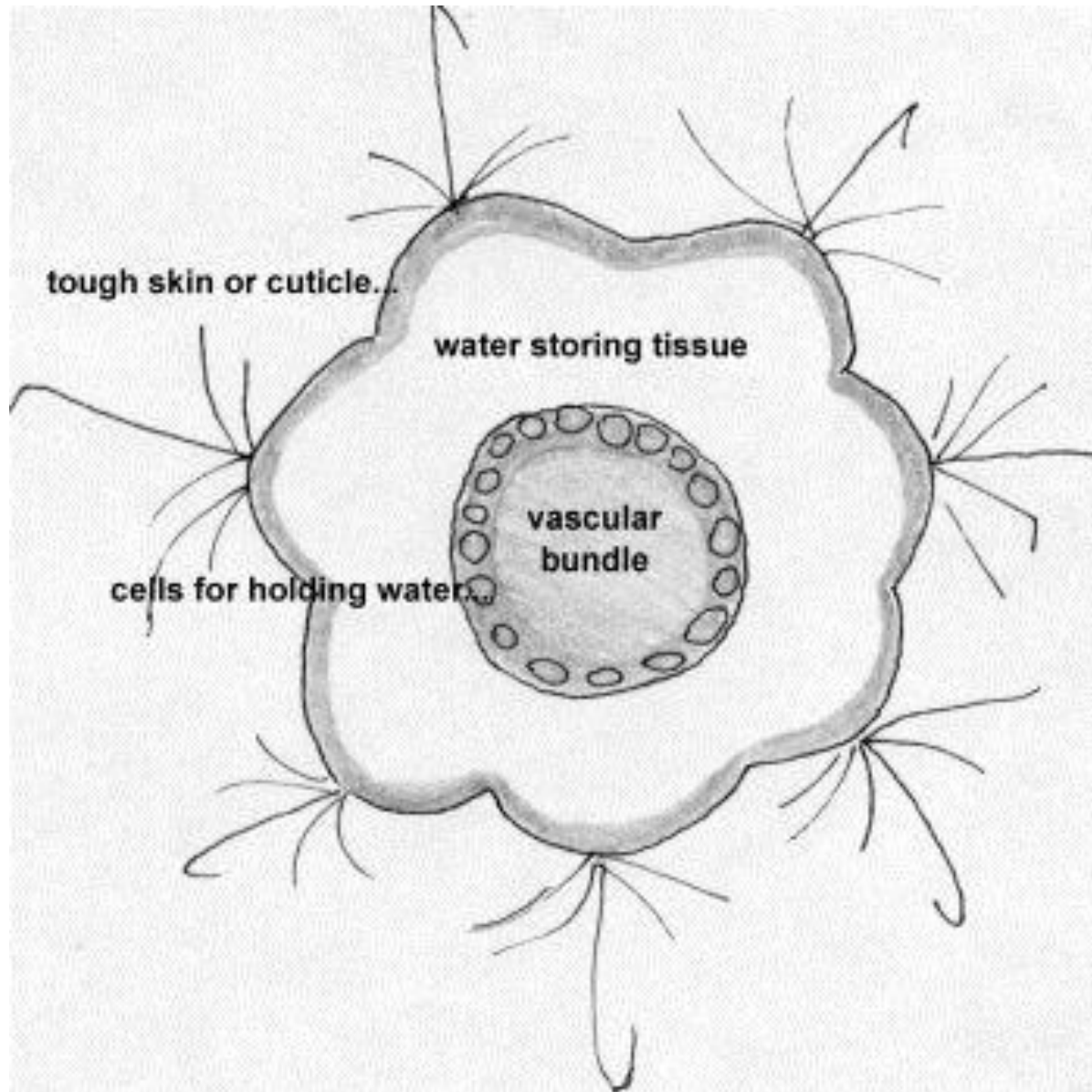
ARCH

SE

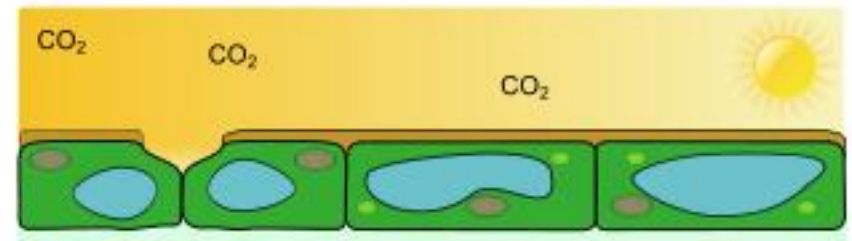
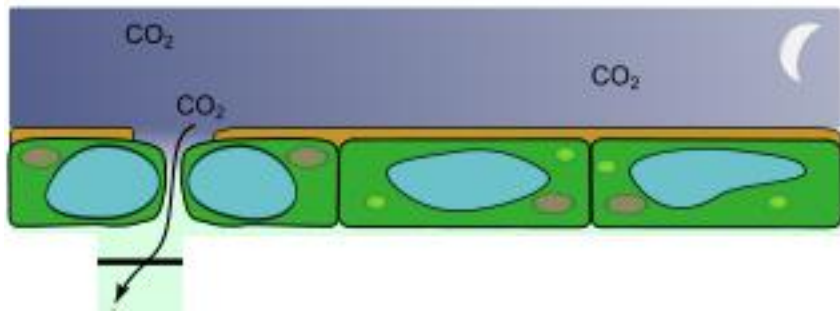
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MEP

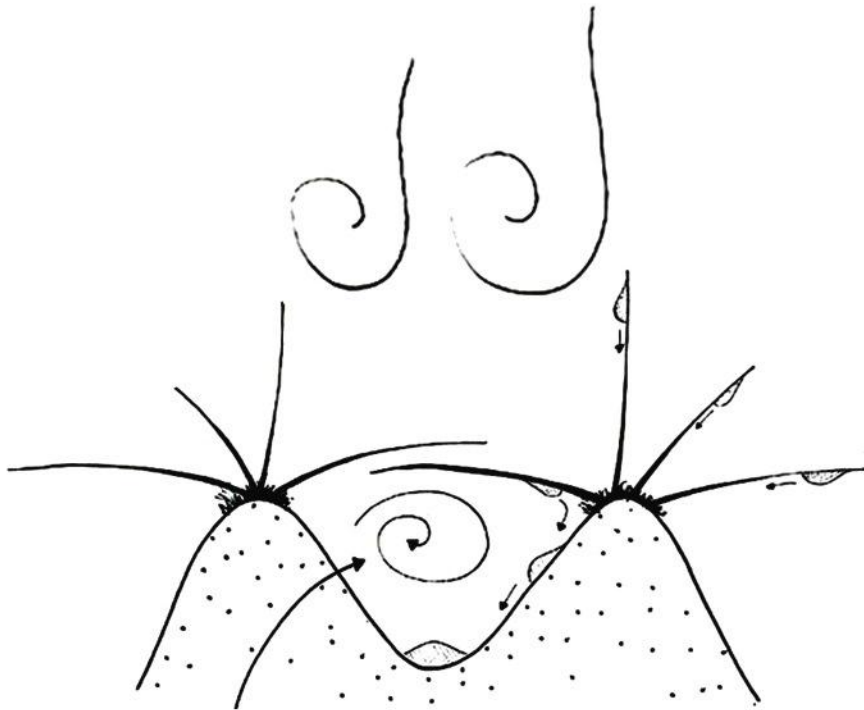
LCFM



TEMPERATURE CONTROL



MICROCLIMATE



WATER CONSERVATION



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

SITE SURROUNDING



LEGEND:

-  COMMUNICATION
-  ENGINEERING
-  SPORT FACILITIES
-  MEDICINE COLLEGE
-  OLD BUILDINGS
-  GREEN PLACES



UCLA – 1. ROYCE HALL



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

UCLA – 2. WESTWOOD BLVD. & STRATHMORE AVE



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

UCLA – 3. CALIFORNIA NANOSYSTEMS INSTITUTE



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

UCLA – 4. ENGINEERING V BUILDING



CENTRAL TEAM

ARCH

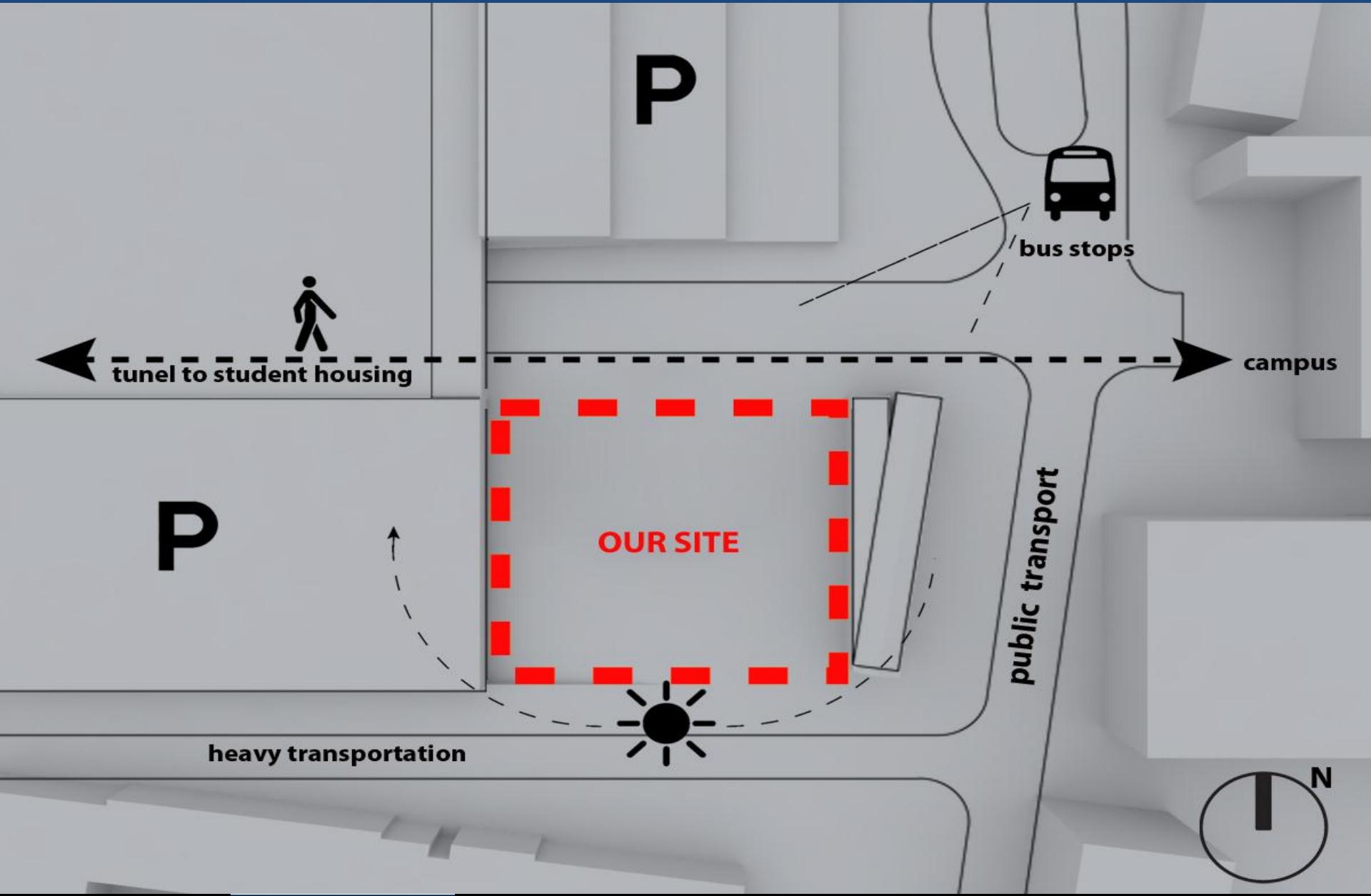
SE

CM

MEP

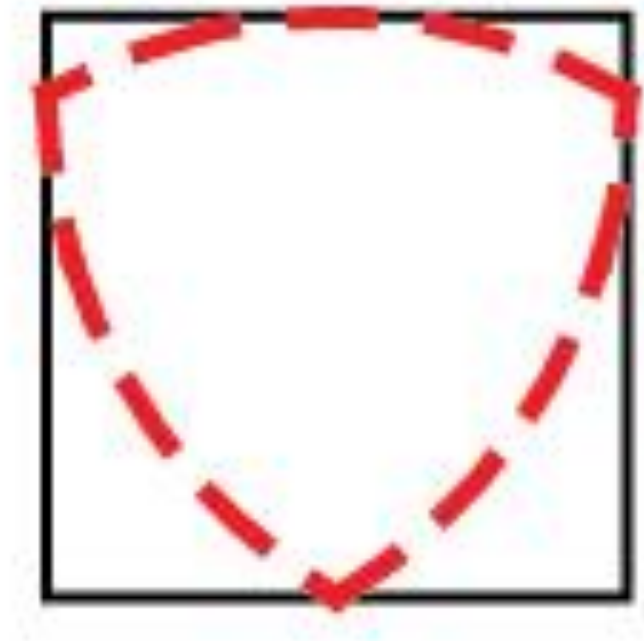
LCFM

SITE CONDITIONS

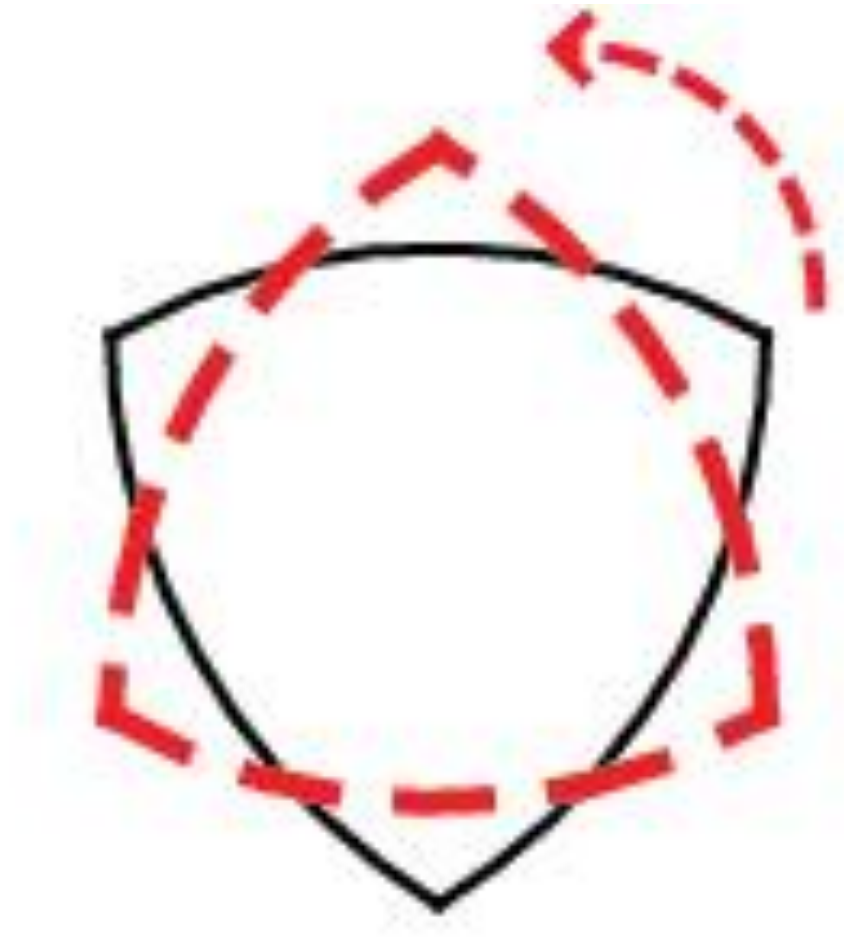




SUN OPTIMIZATION



FOOTPRINT EXTENSION



CENTRAL TEAM

ARCH

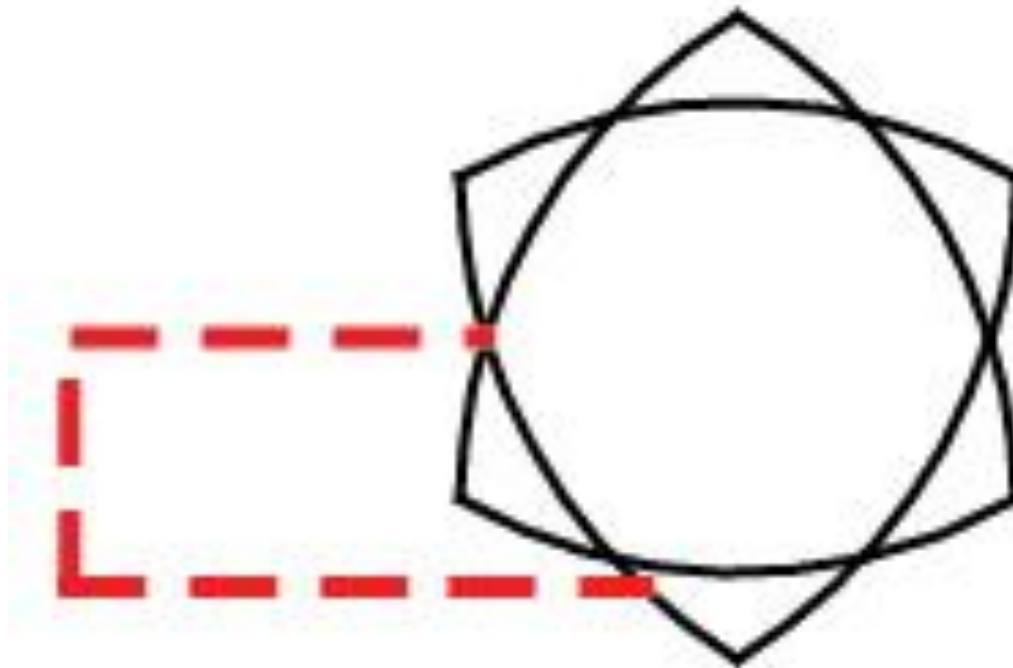
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CM

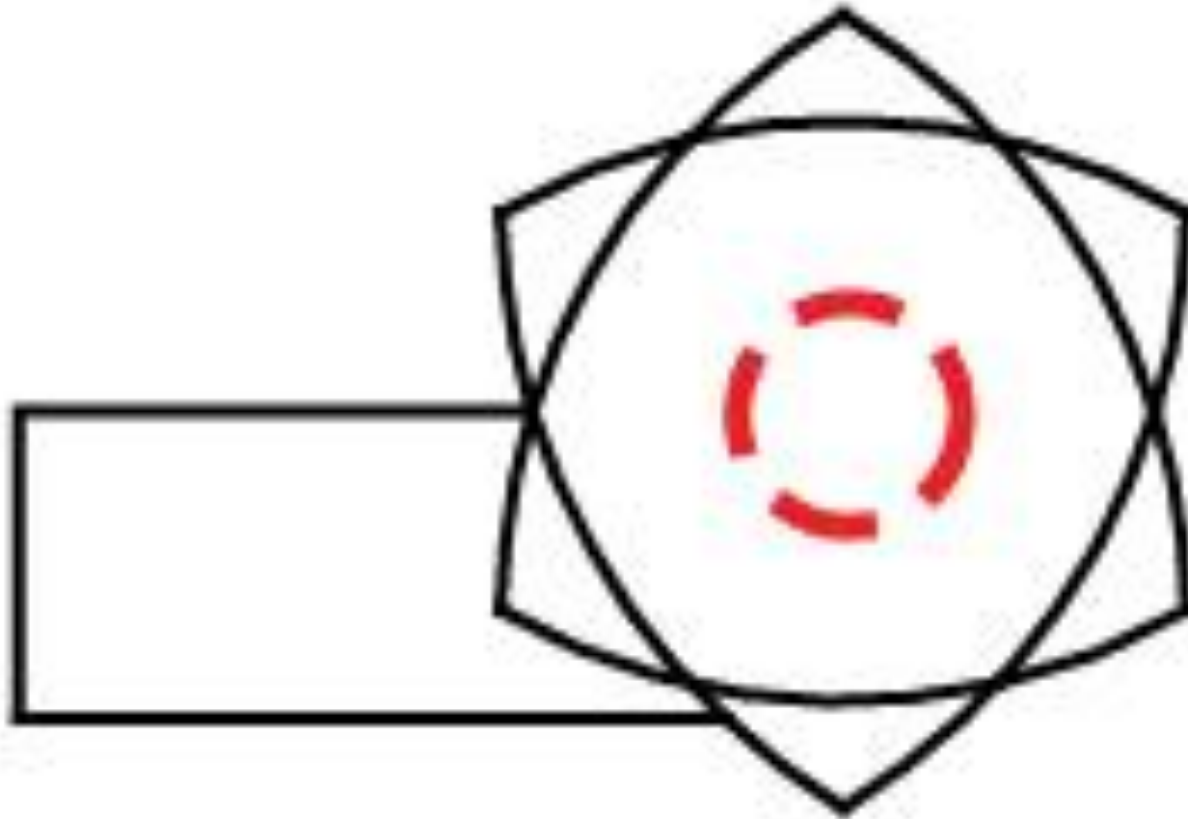
MEP

LCFM

AUDITORIUM EXTENSION



CENTRAL CORE



CENTRAL TEAM

ARCH

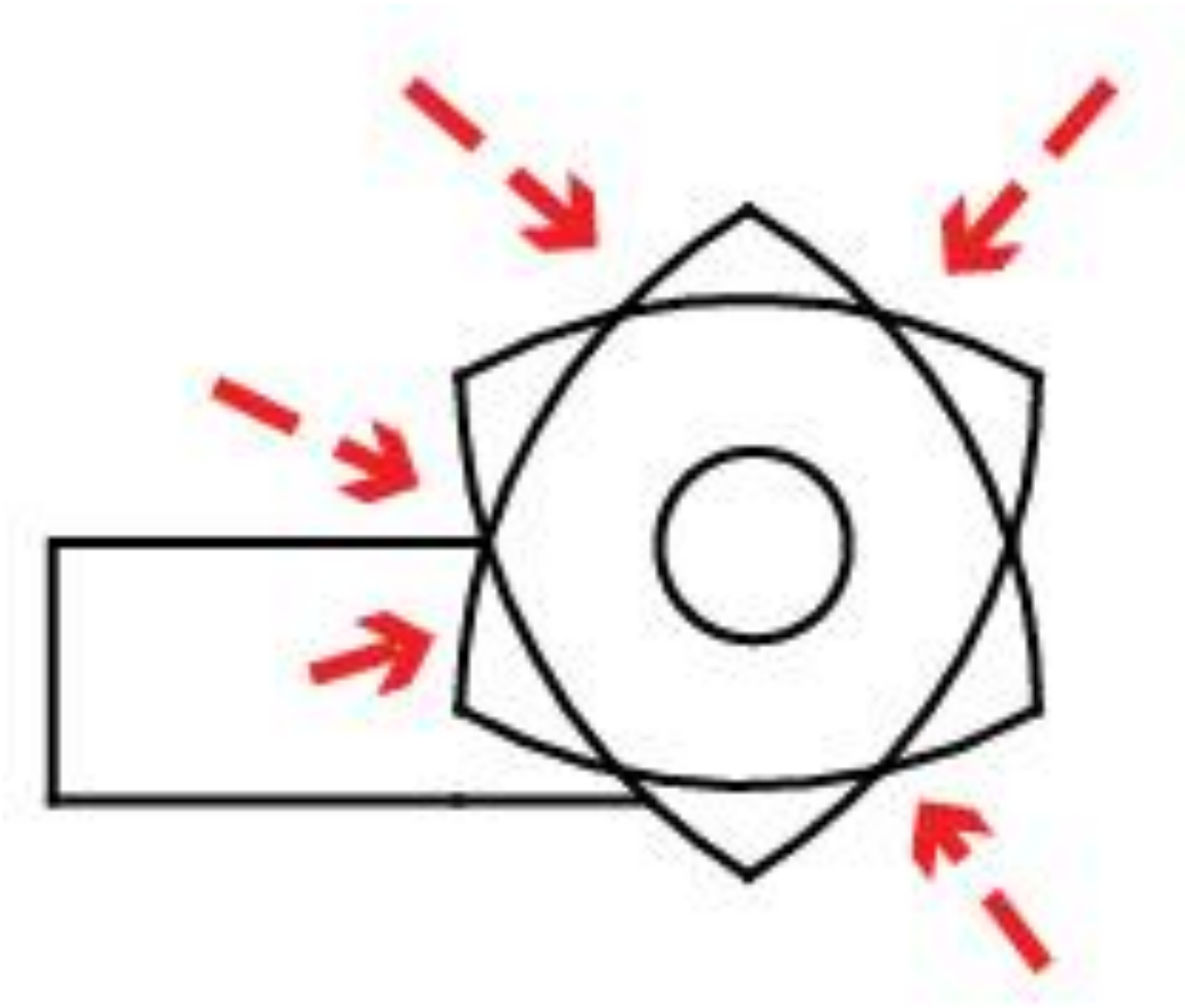
SE

CM

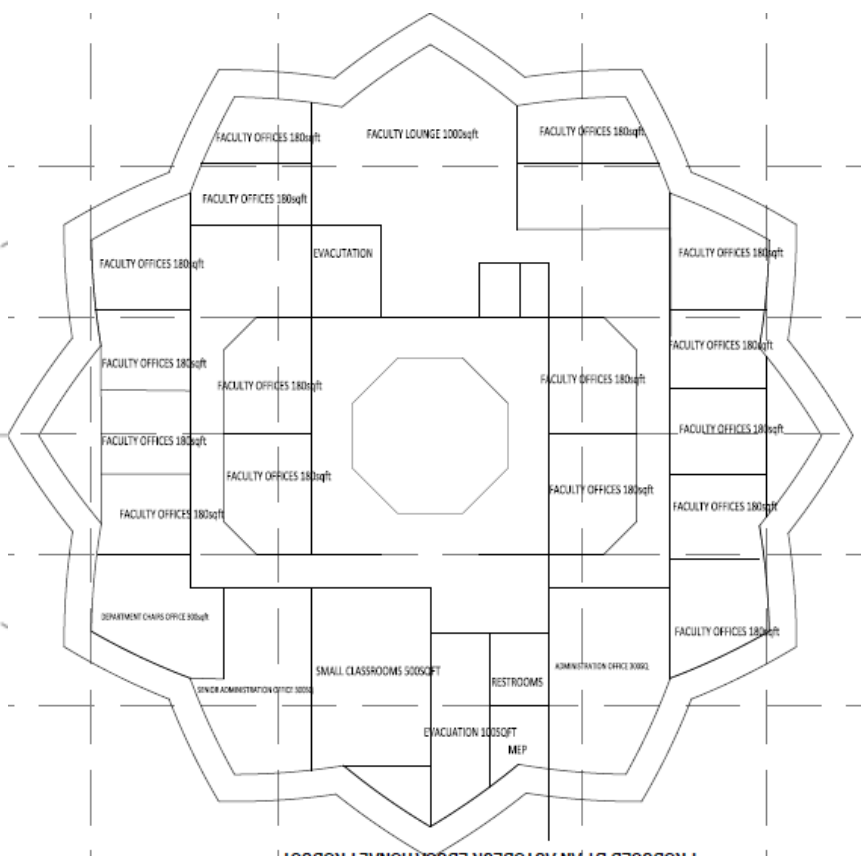
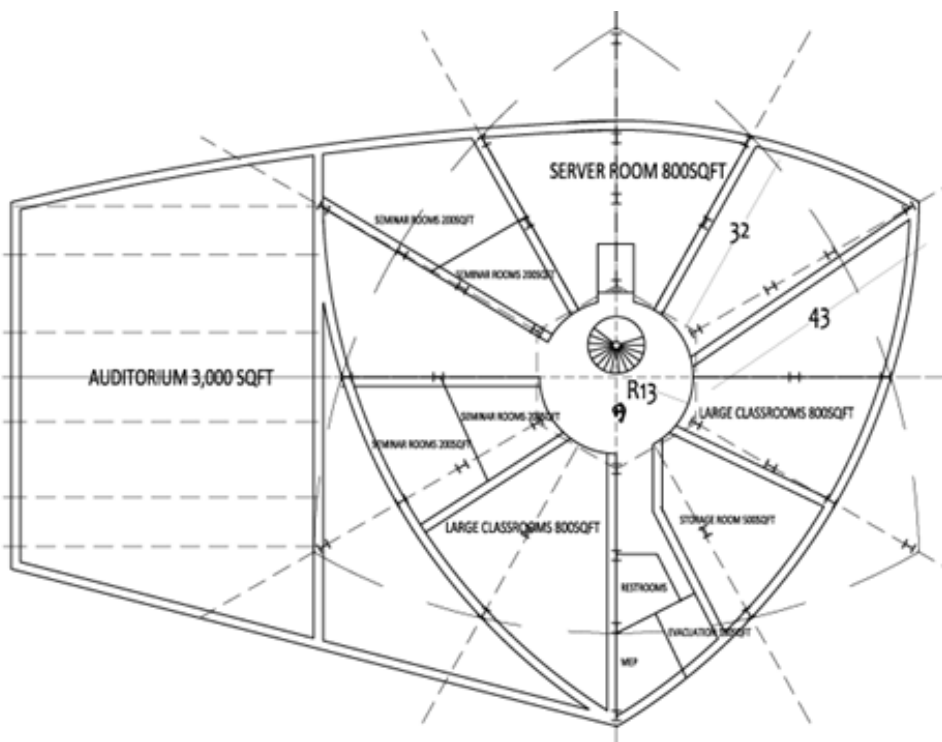
MEP

LCFM

ENTRANCES AS CONNECTION TO OUTSIDE



PREVIOUS OPTIONS



CENTRAL TEAM

ARCH

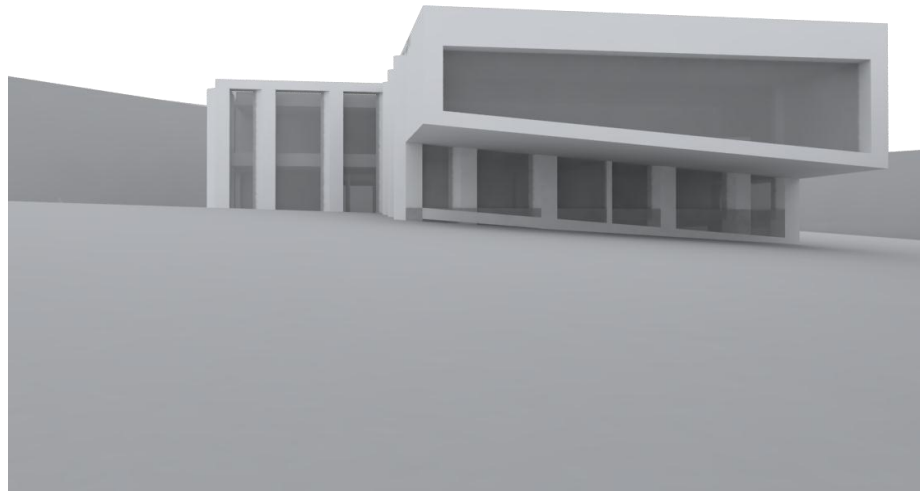
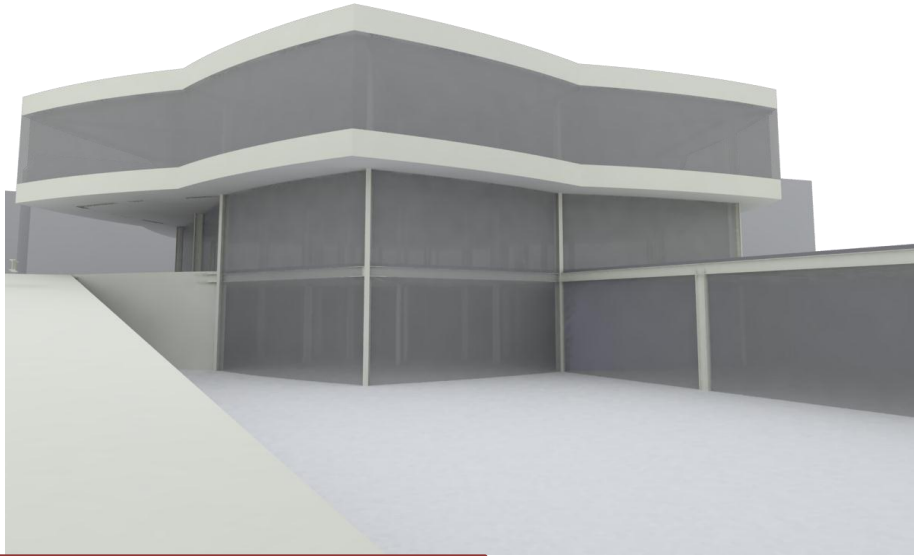
SE

CM

MEP

LCFM

DECISION MATRIX



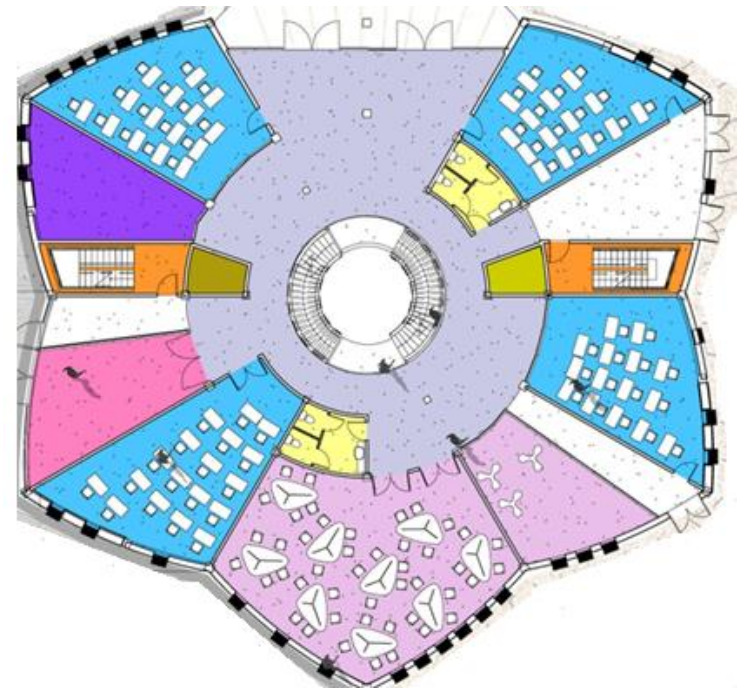
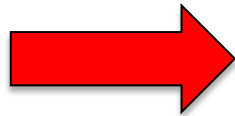
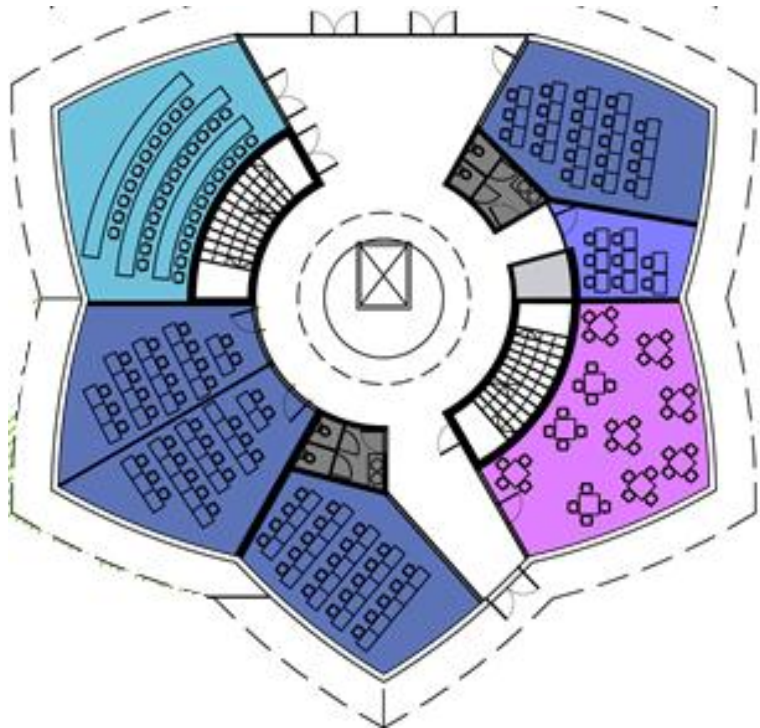
Concrete
85,67%

Steel
85,03%

Concrete
85,08%

Steel
85,33%

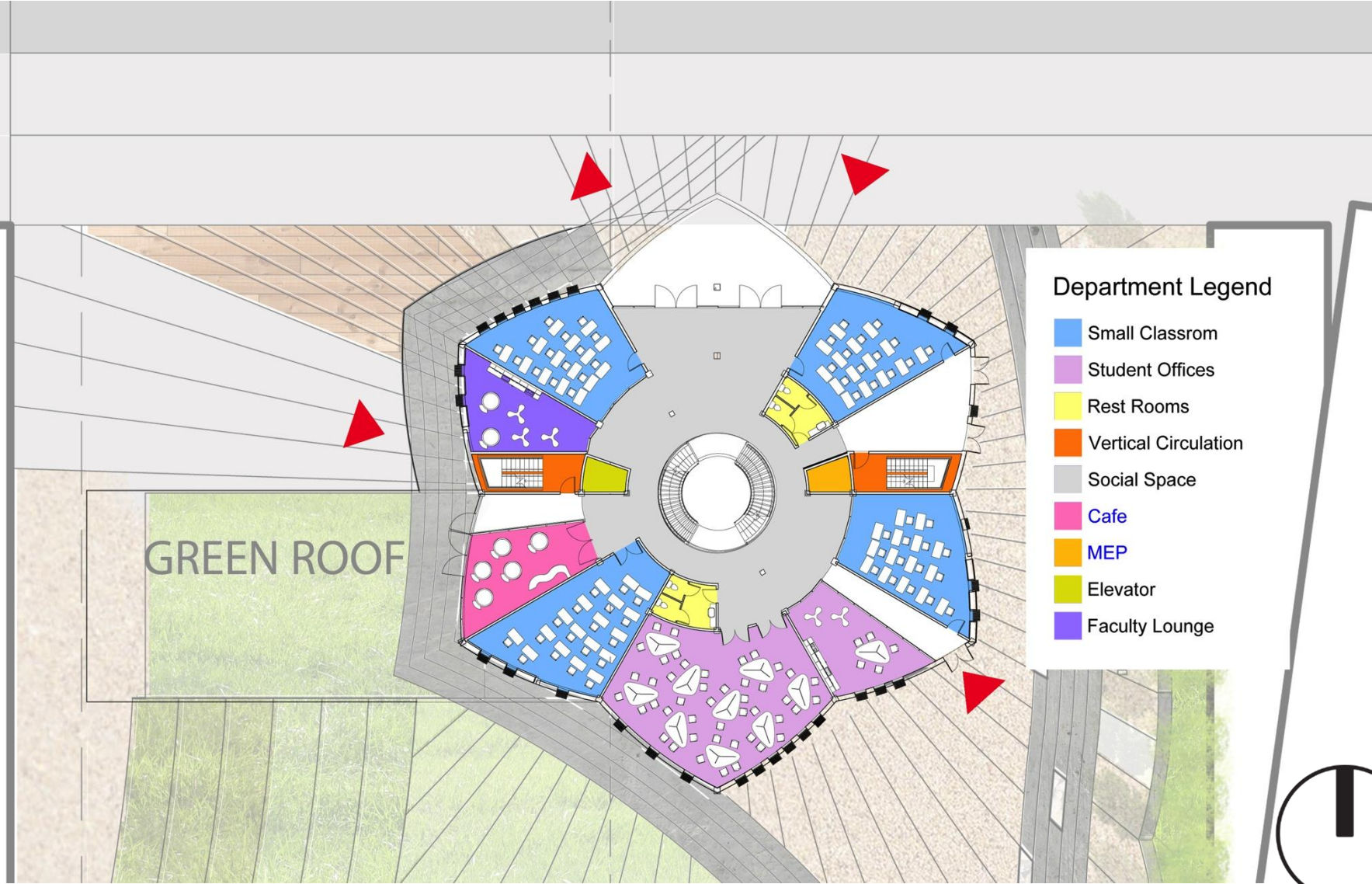
MAJOR CHANGES



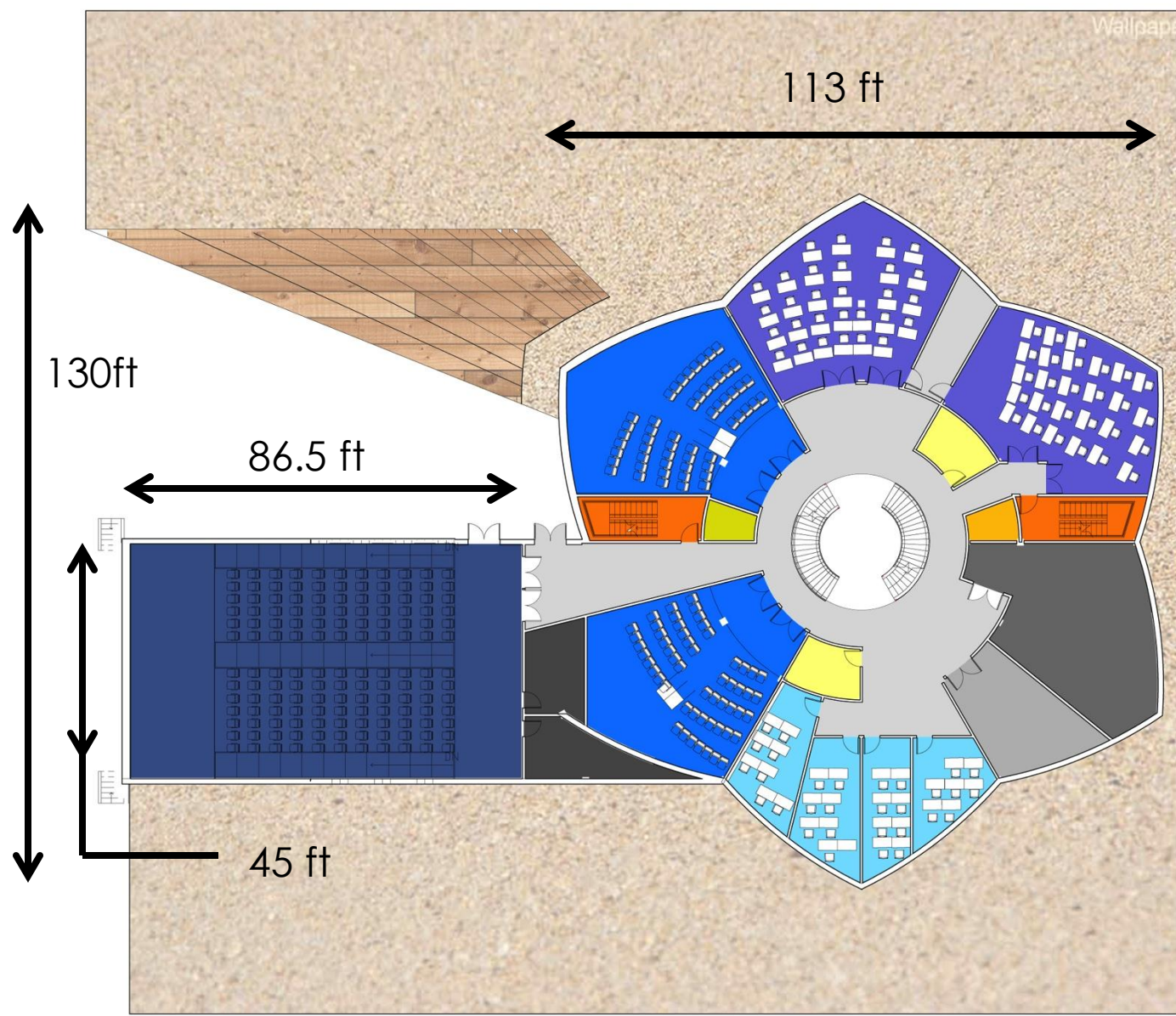
EXPANDED FOOTPRINT

STAIR ORIENTATION

1st FLOOR PLAN



BASEMENT FLOOR PLAN

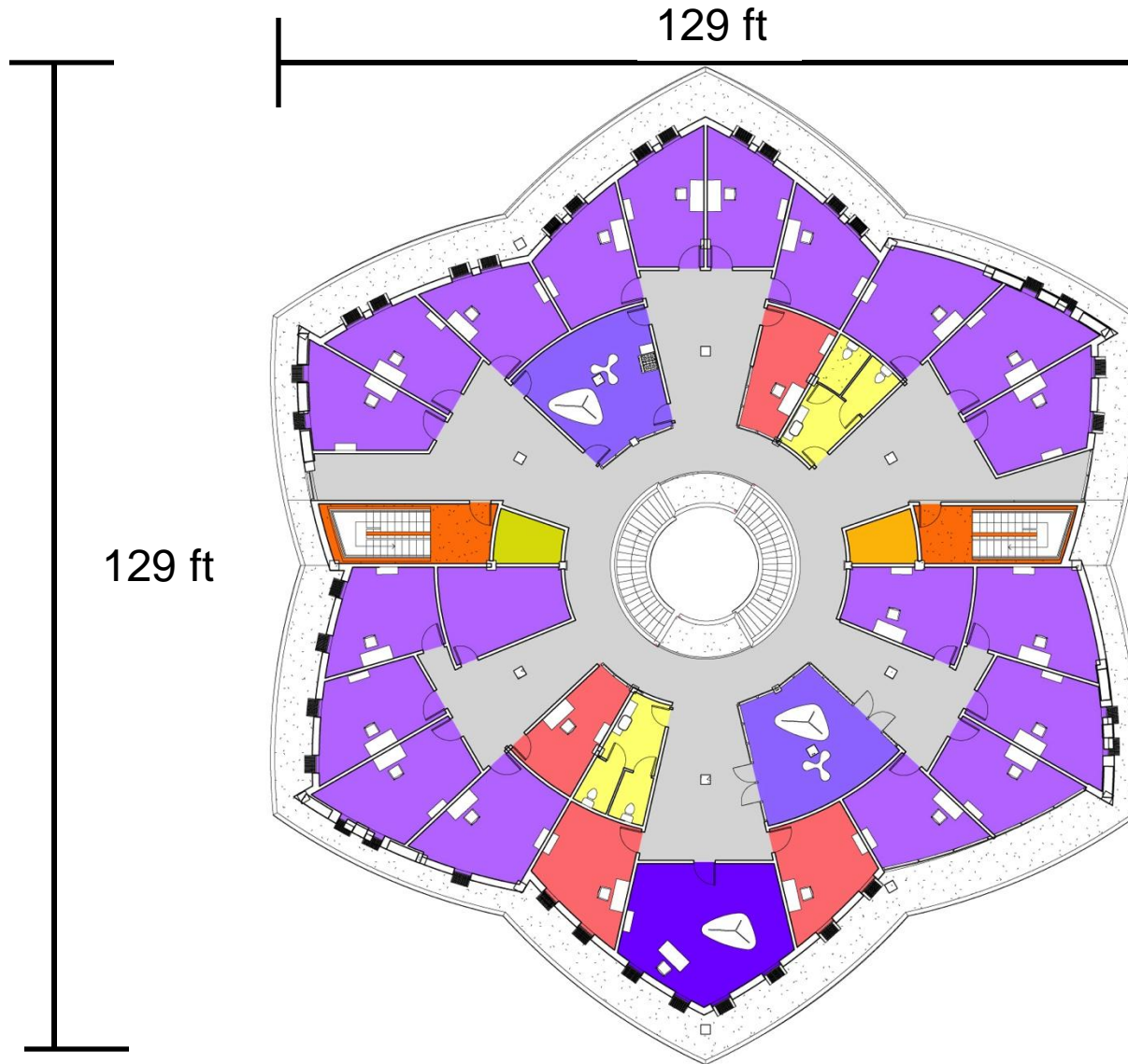


Department Legend

- Large Classrooms
- Seminar Room
- Rest Rooms
- Vertical Circulation
- Instructional Labs
- Storage
- Mechanical Room
- Server Room
- MEP
- Elevator
- Technical Space
- Auditorium
- Social Space



2nd FLOOR PLAN



Room Legend

- Administration
- Faculty Office
- Rest Rooms
- Vertical Circulation
- Social Space
- MEP
- Elevator
- Faculty Lounge
- Dean's Office



CENTRAL TEAM

ARCH

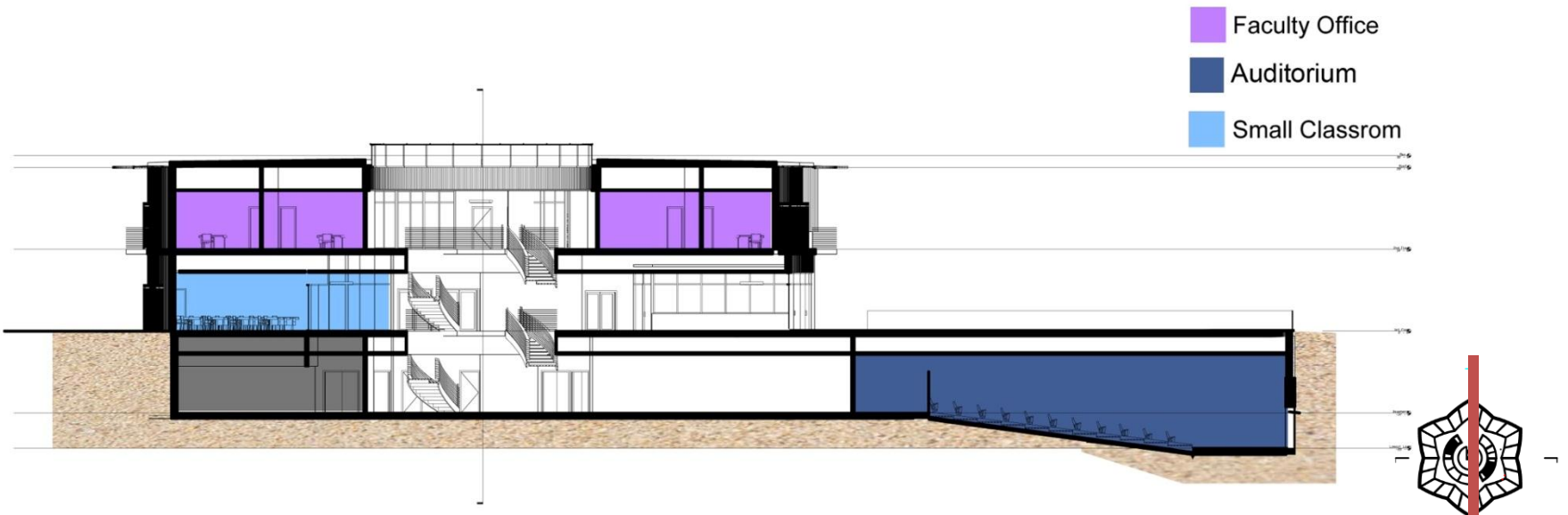
SE

CM

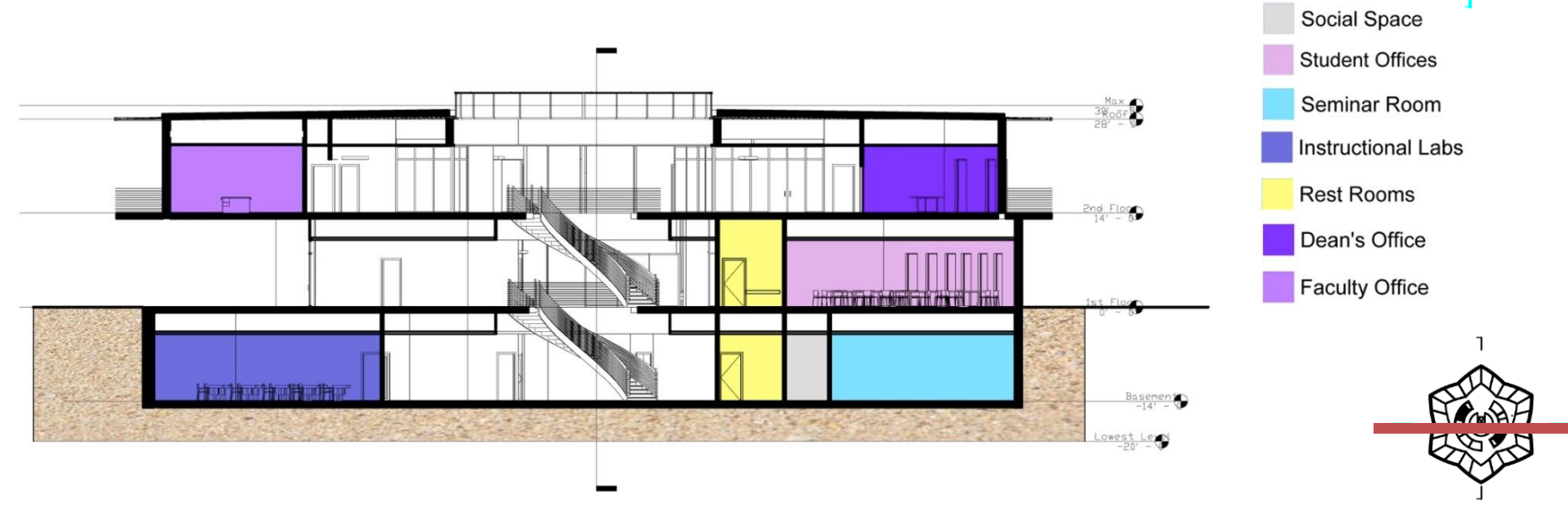
MEP

LCFM

SECTION VIEWS



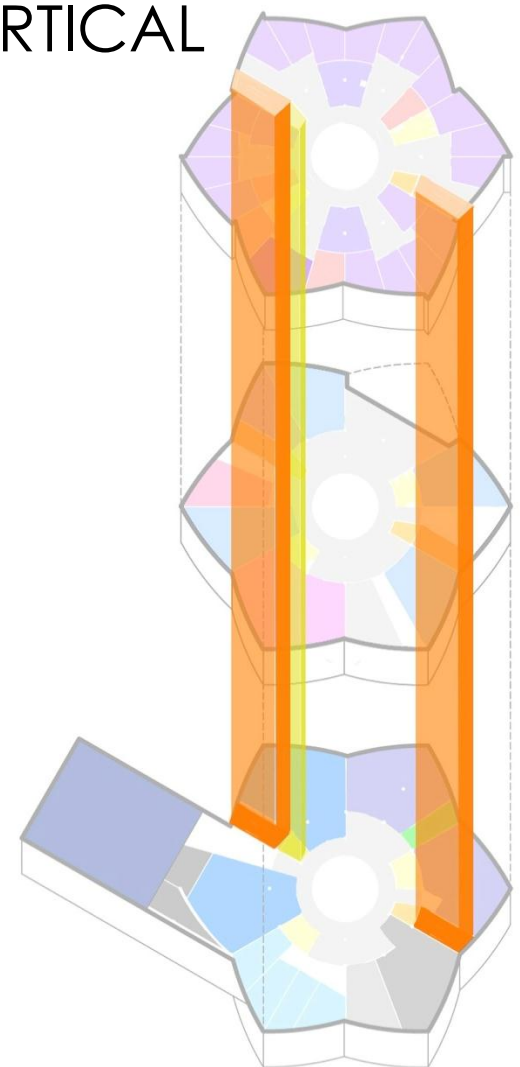
- Faculty Office
- Auditorium
- Small Classrom



- Social Space
- Student Offices
- Seminar Room
- Instructional Labs
- Rest Rooms
- Dean's Office
- Faculty Office

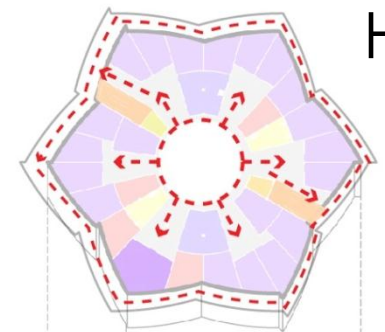
CIRCULATION

VERTICAL

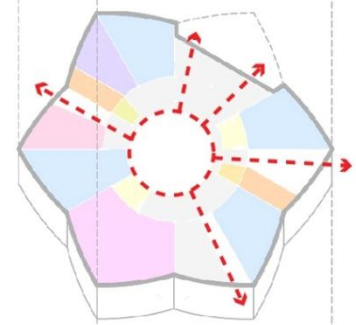


HORIZONTAL

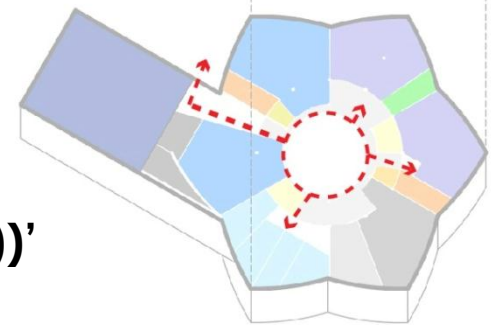
14'



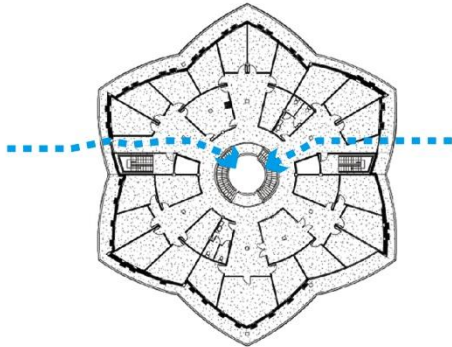
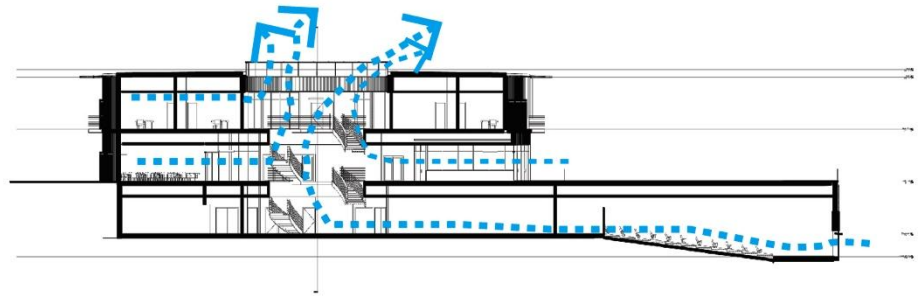
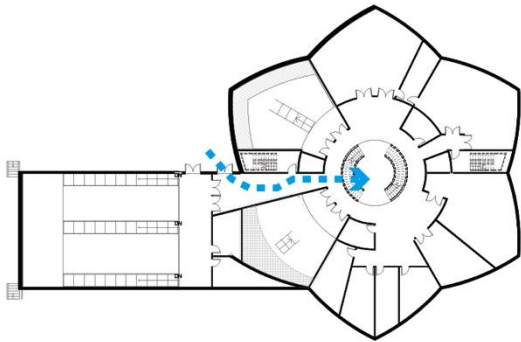
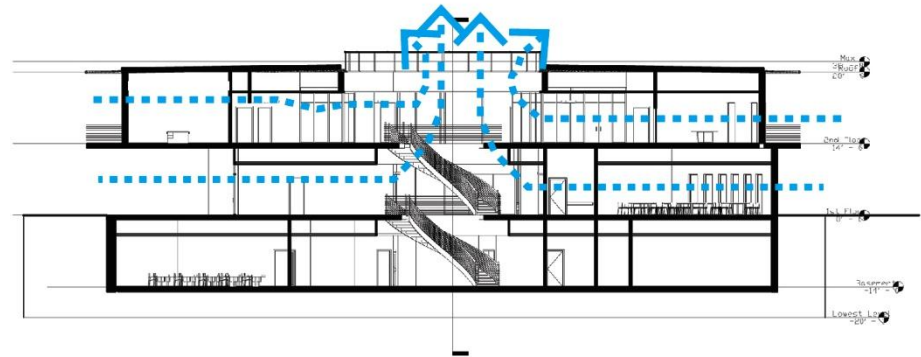
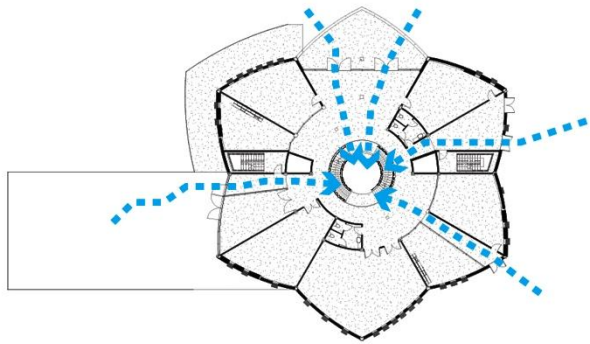
0'



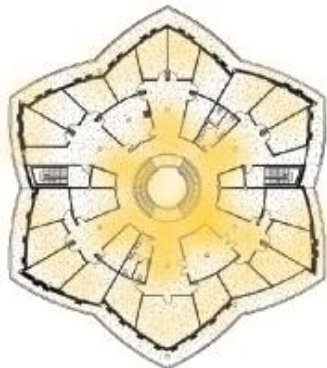
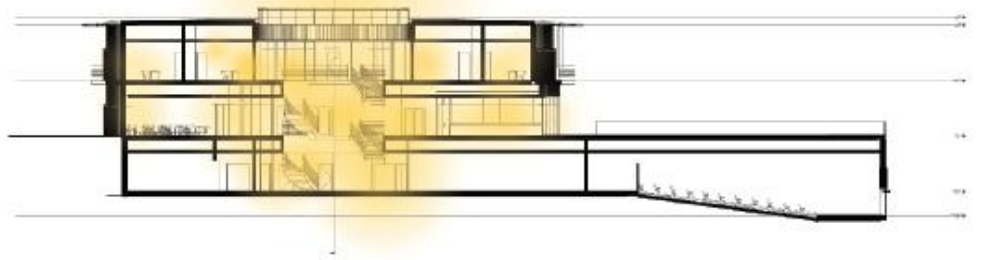
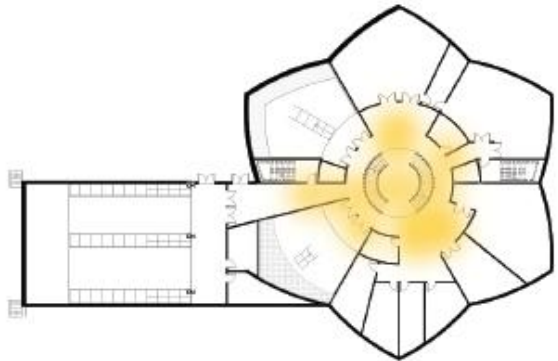
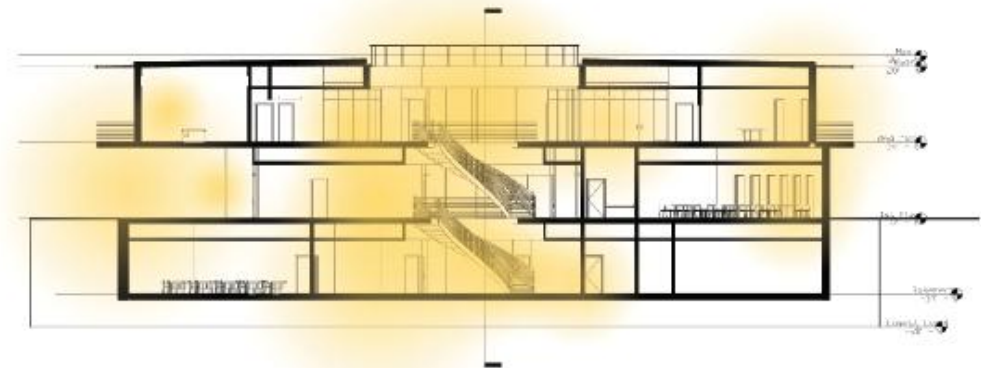
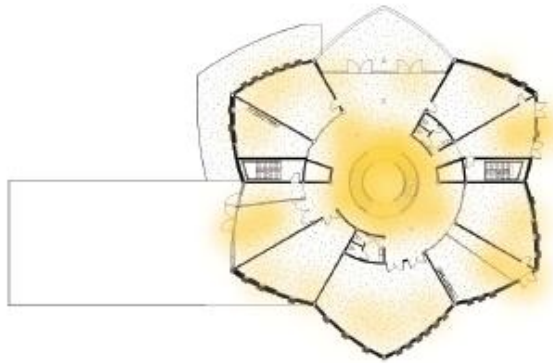
(-14)' - (-20)'



NATURAL VENTILATION



SUN ANALYSIS



CENTRAL TEAM

ARCH

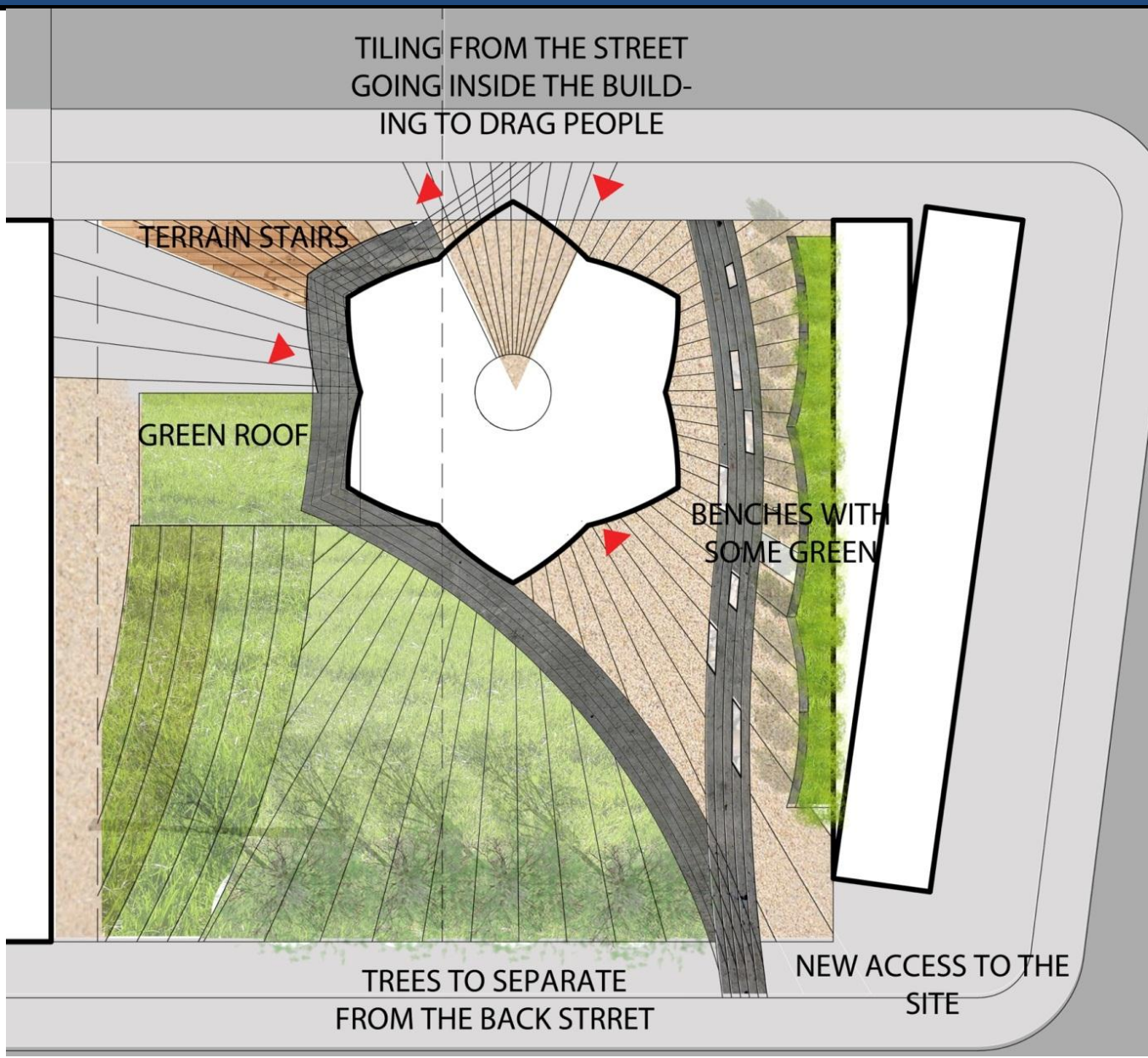
SE

CM

MEP

LCFM

LANDSCAPING



VIEW FROM THE TUNNEL



CENTRAL TEAM

ARCH

SE

CM

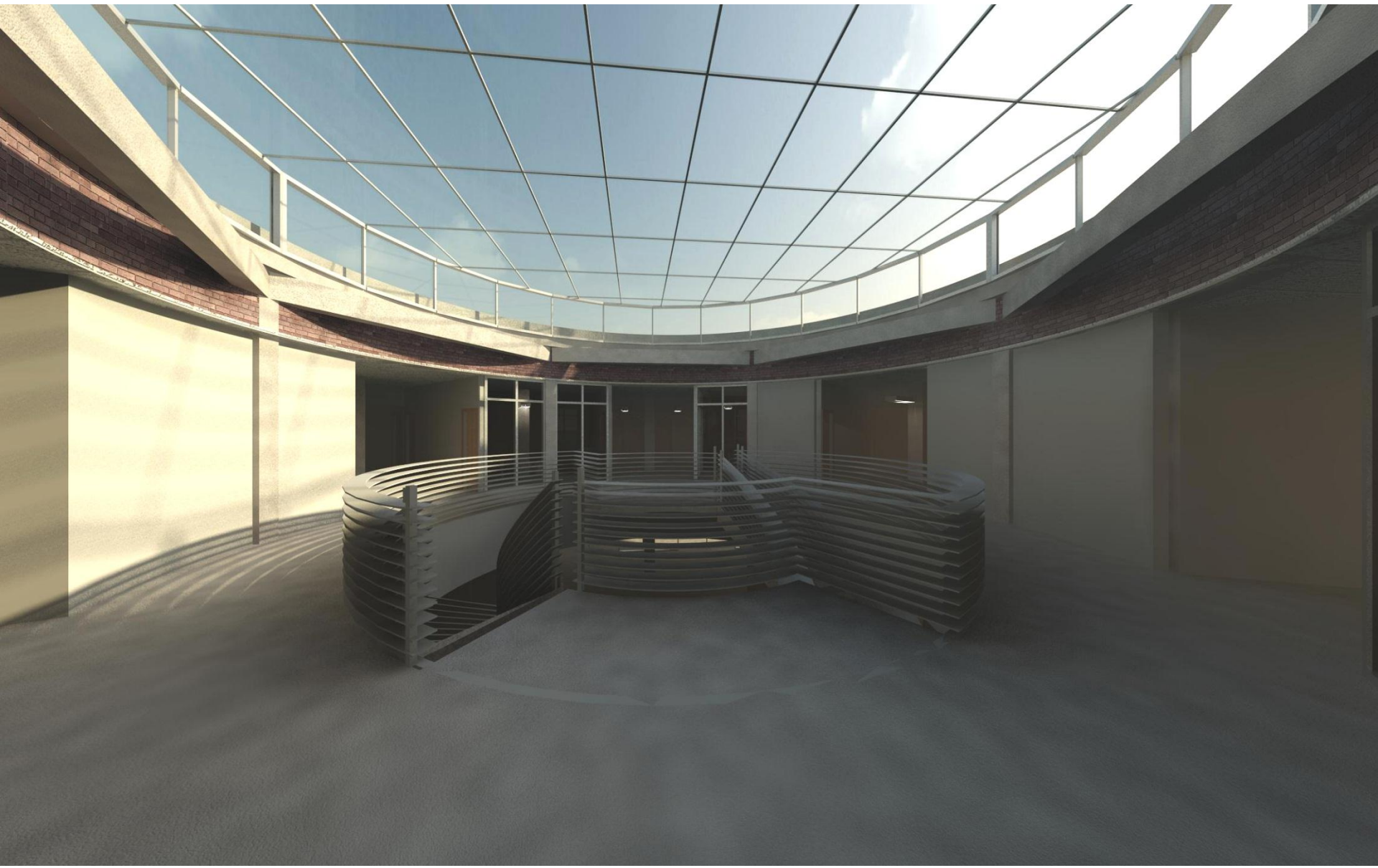
MEP

LCFM

VIEW OF AN ENTERANCE



VIEW OF ATRIUM 2ND FLOOR



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

VIEW FROM THE BUS STOP



CENTRAL TEAM

ARCH

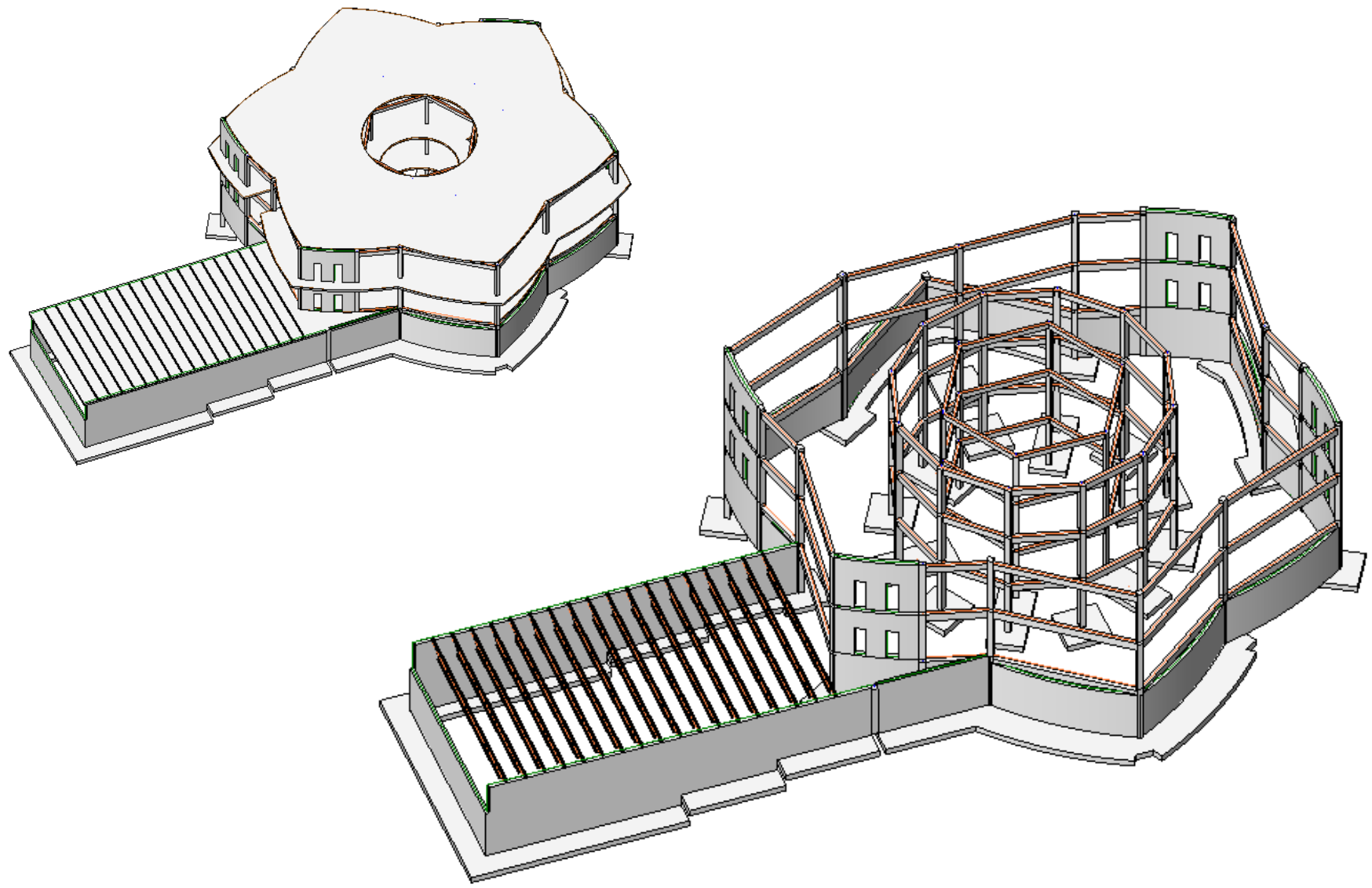
SE

CM

MEP

LCFM

3D STRUCTURAL MODEL



CENTRAL TEAM

ARCH

SE

CM

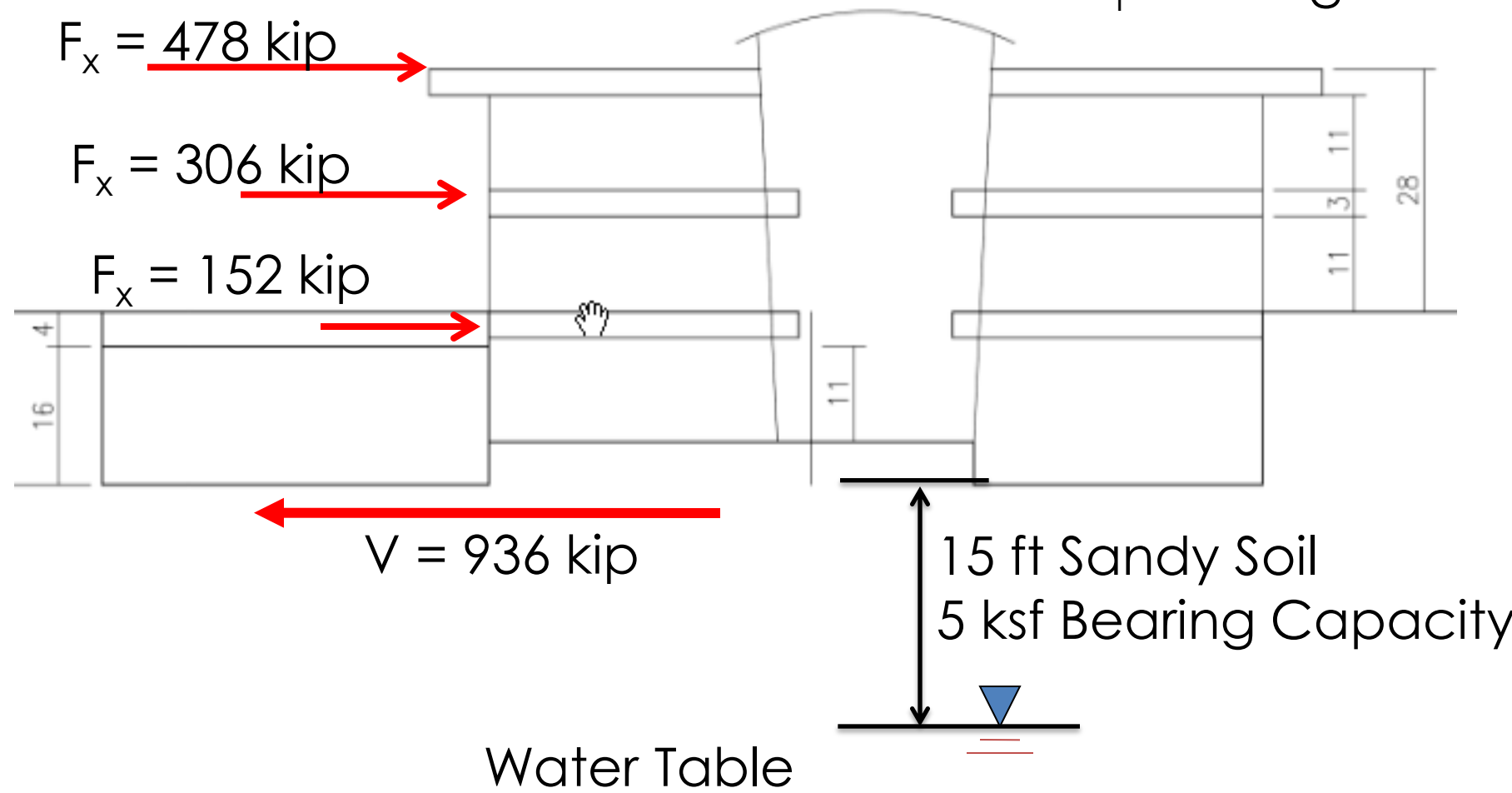
MEP

LCFM

LATERAL LOADS

Risk Category III
Seismic Design Category D

$S_s = 2.256 g$
 $S_1 = 0.823 g$

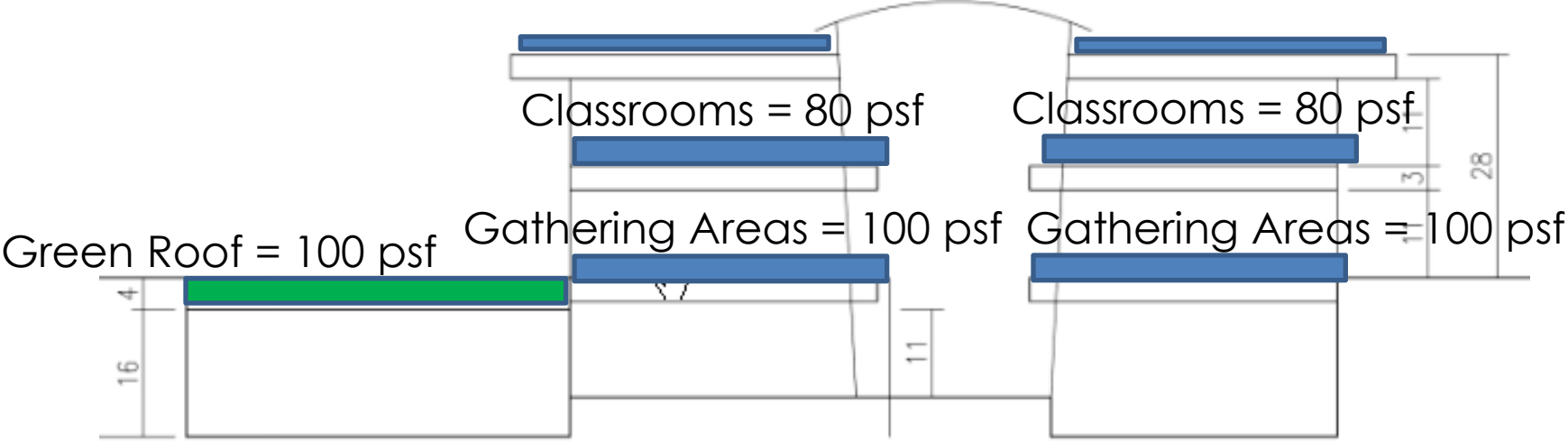


GRAVITY LOADS

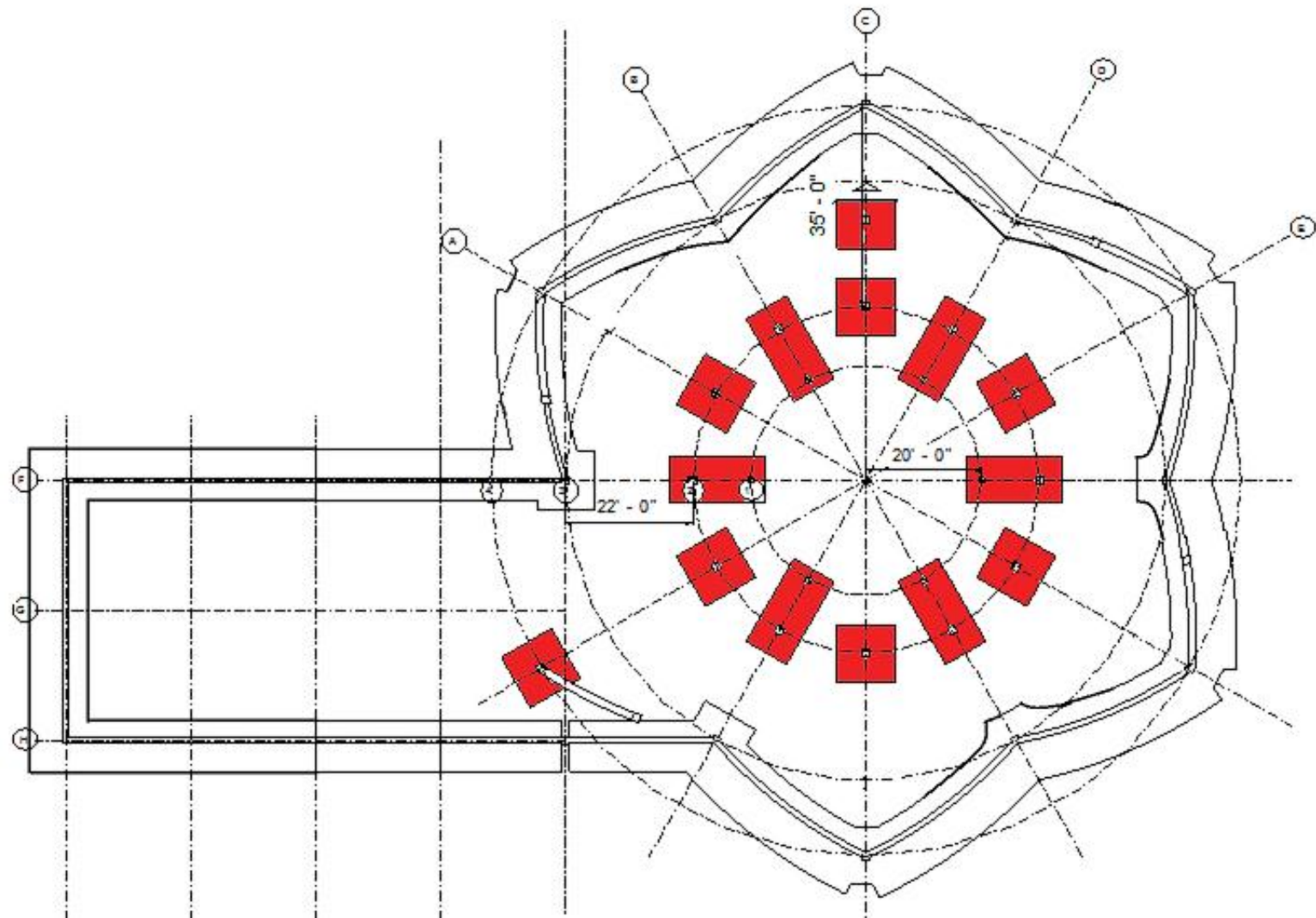
DEAD LOADS	PSF
Floor Covering	1
Partitions/Walls	15
Ceiling	5
Mechanical	3
Self-Weight	125
TOTAL	149

LIVE LOADS

Reflective Roof (20 psf) with solar panels (3psf) = 23psf



FOUNDATION – PLAN VIEW



CENTRAL TEAM

ARCH

SE

CM

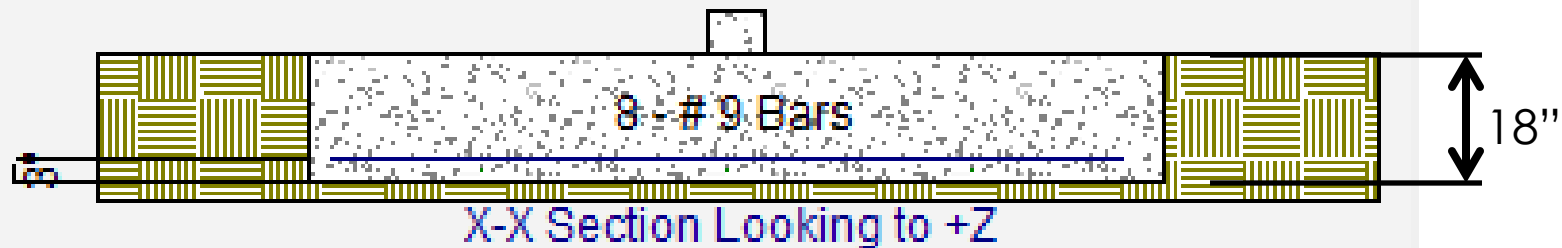
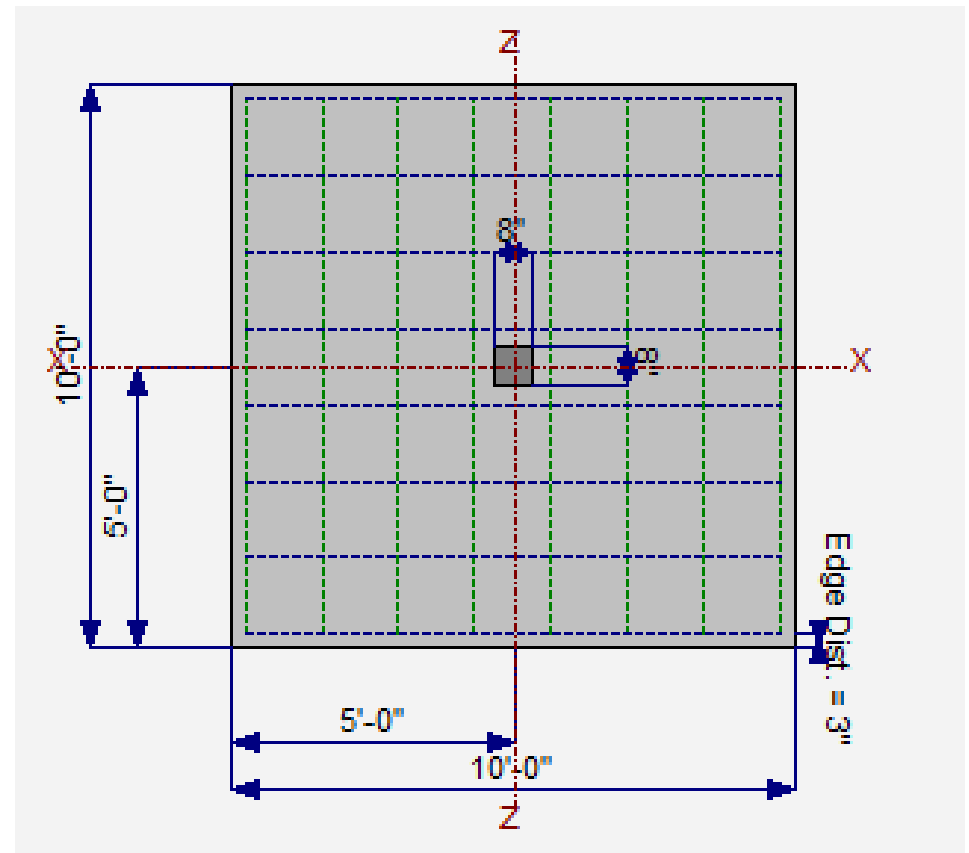
MEP

LCFM

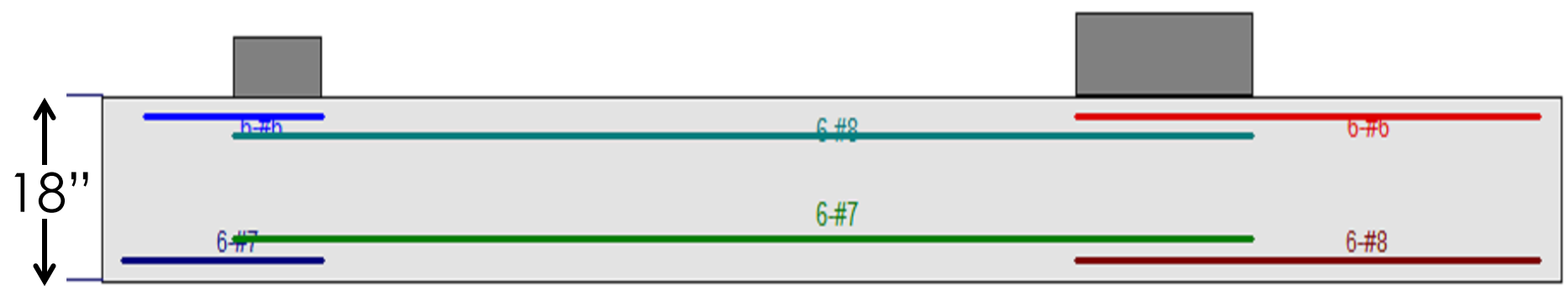
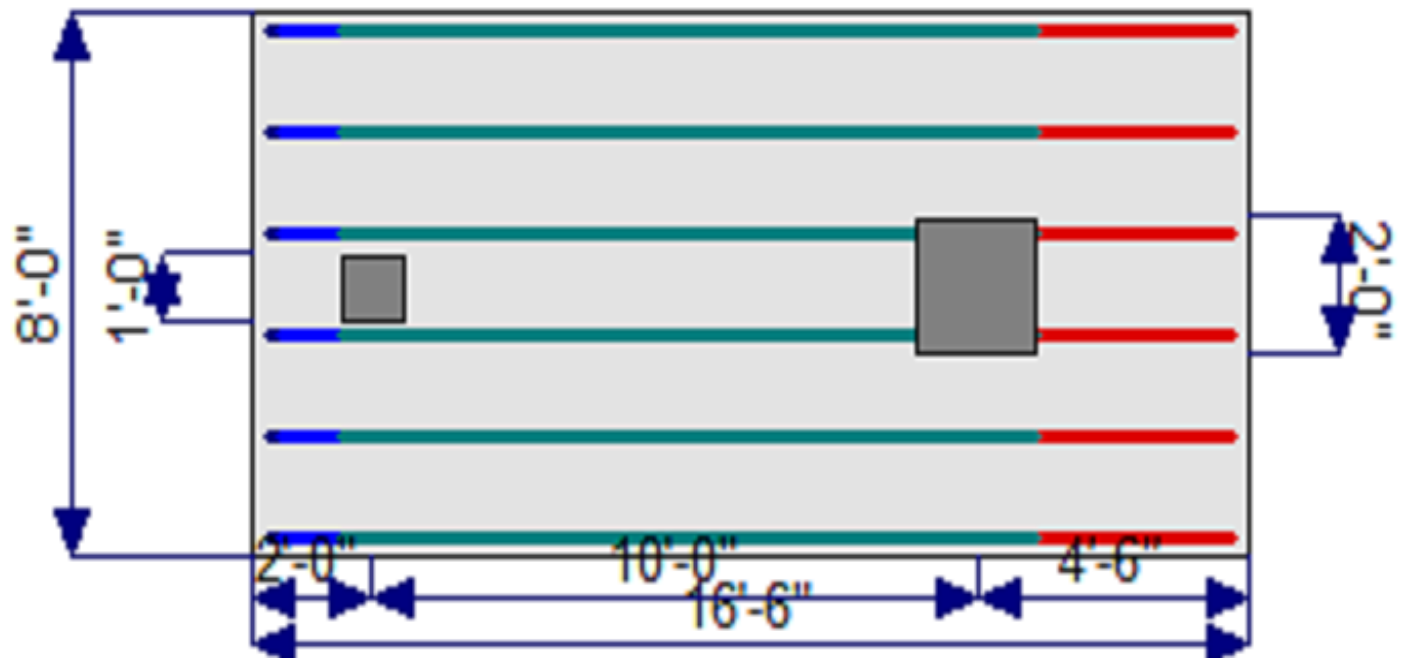
SQUARE SPREAD FOOTING

Dimensions: 10'x10'

8 #9 bars both directions



COMBINED FOOTING



FOUNDATION CONSTRUCTION



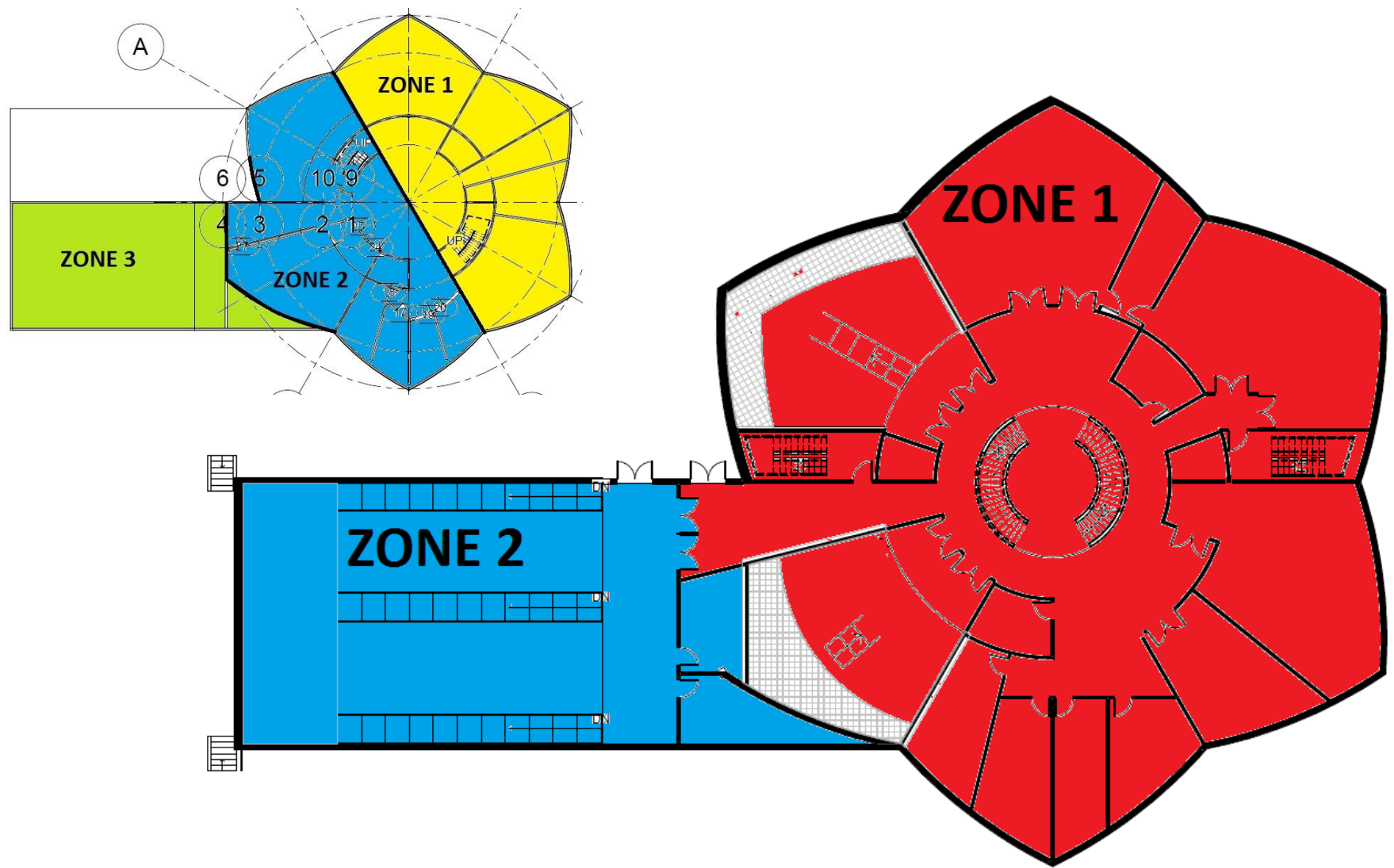
John Deere 330 LC
2.3 cu. Ft. Bucket
26.5' Max Dig Depth



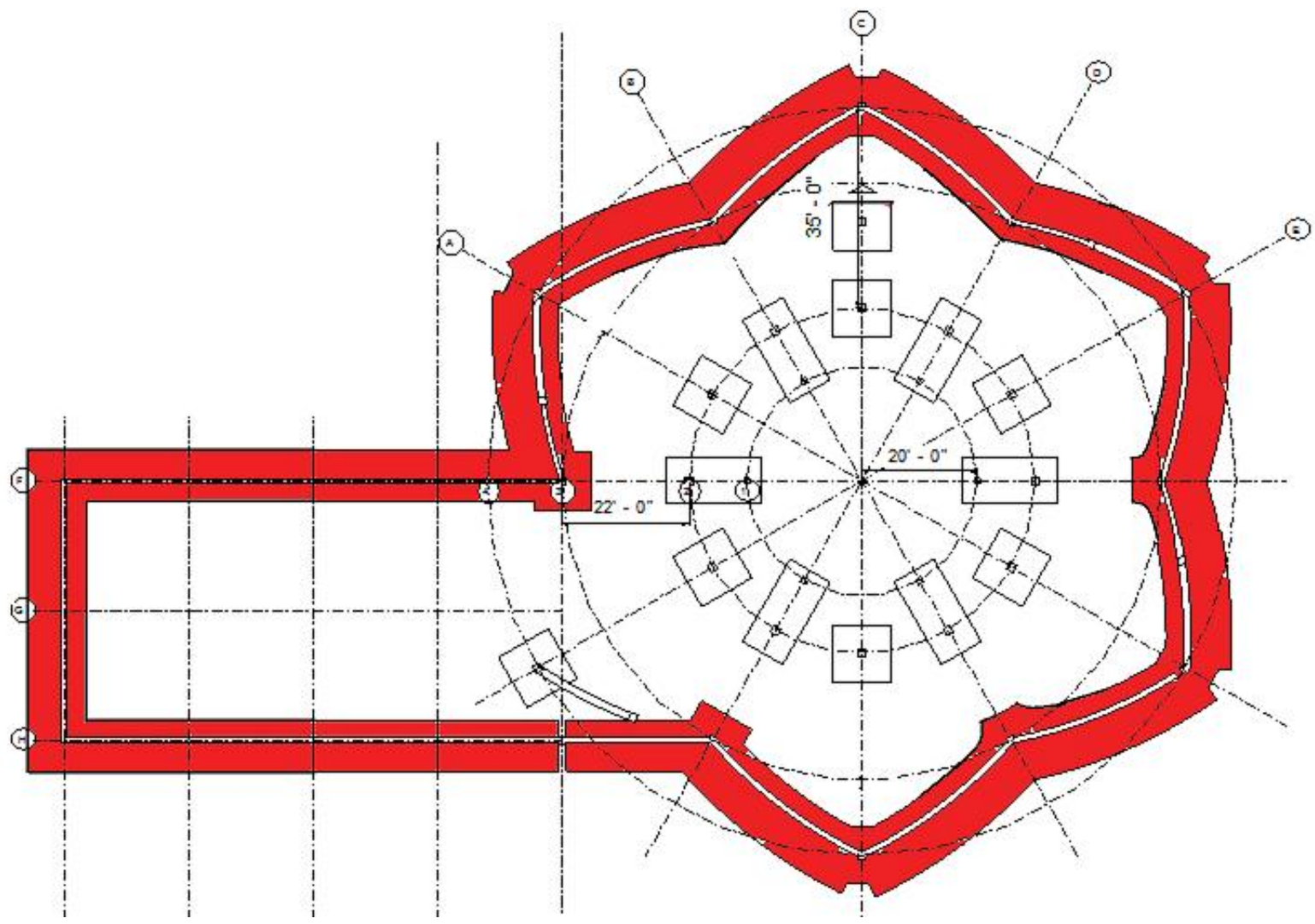
Lull 1044C-54
38' Reach, 54' Lift
10,000 lb Capacity



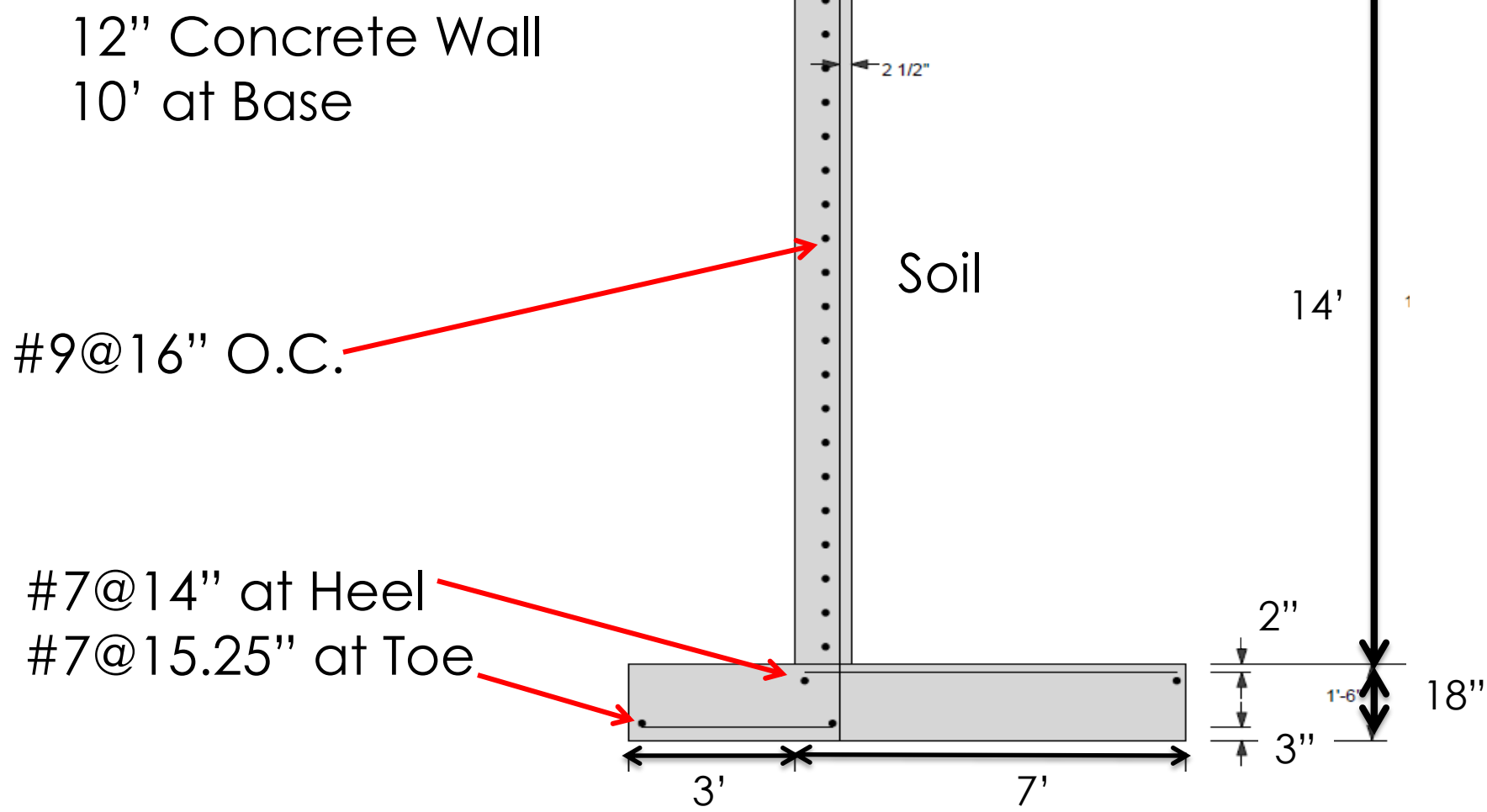
FOUNDATION CONSTRUCTION PHASING



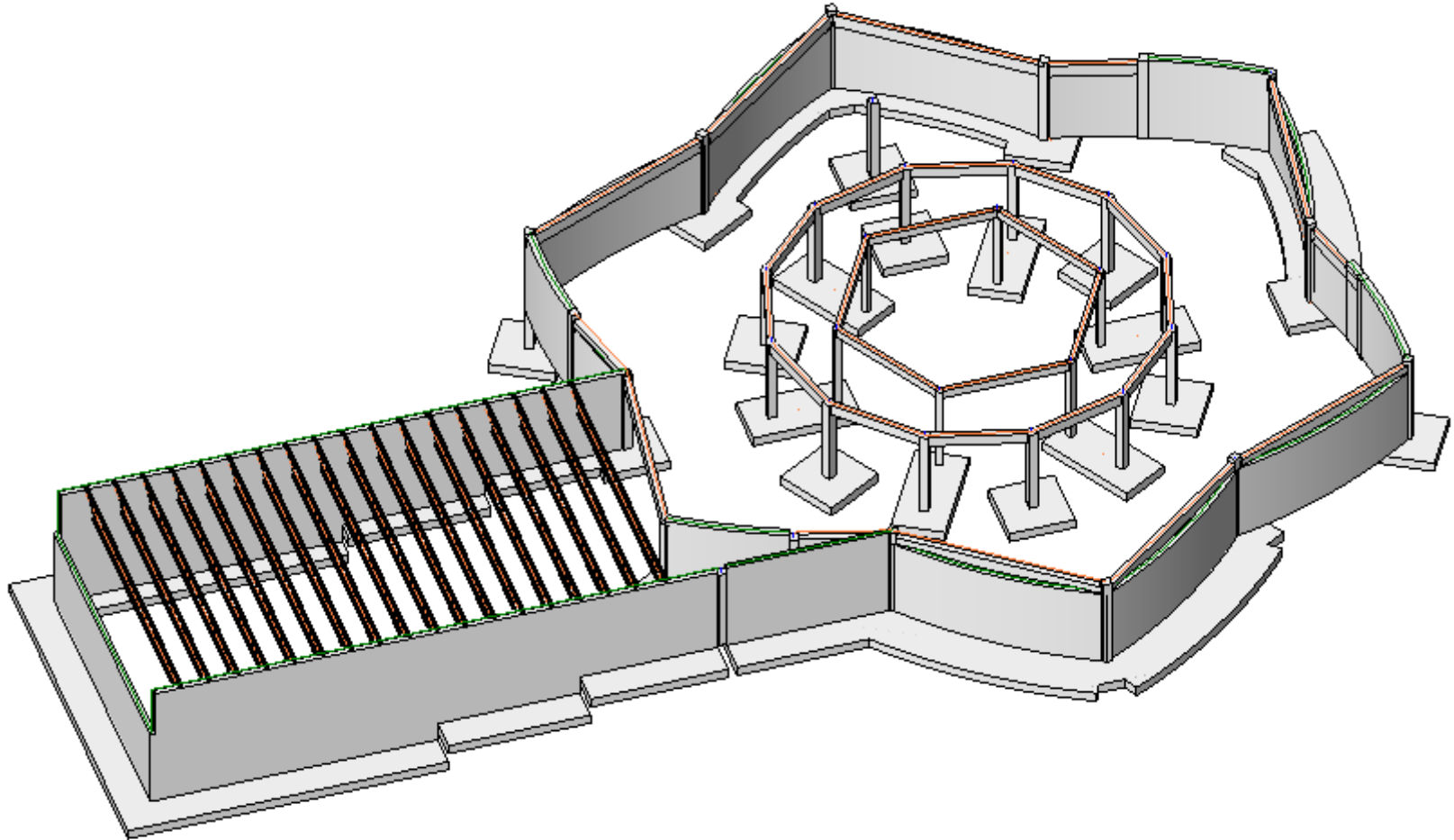
RETAINING WALLS – PLAN VIEW



RETAINING WALLS – TYPICAL



BASEMENT – 3D VIEW



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

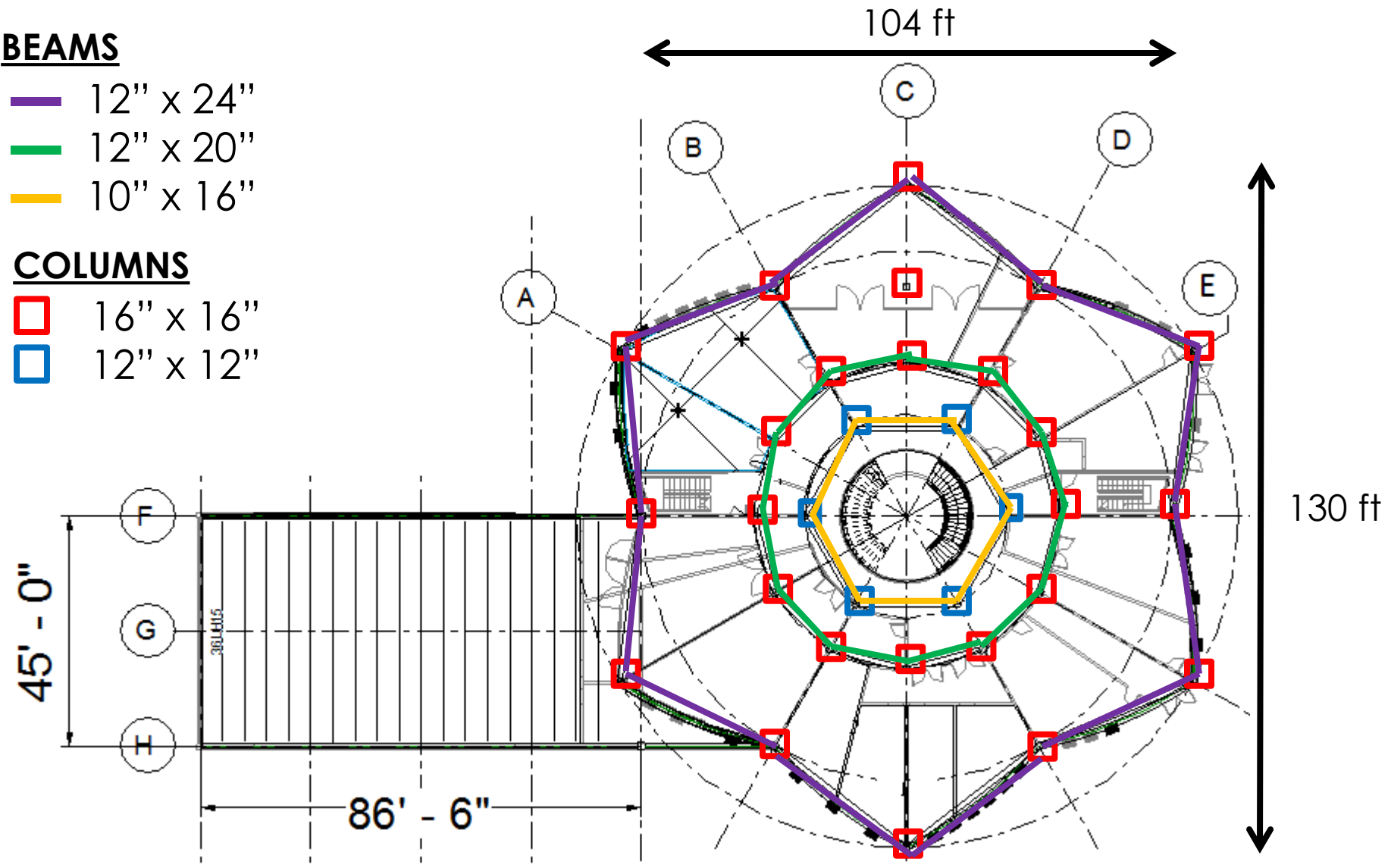
BASEMENT – PLAN VIEW

BEAMS

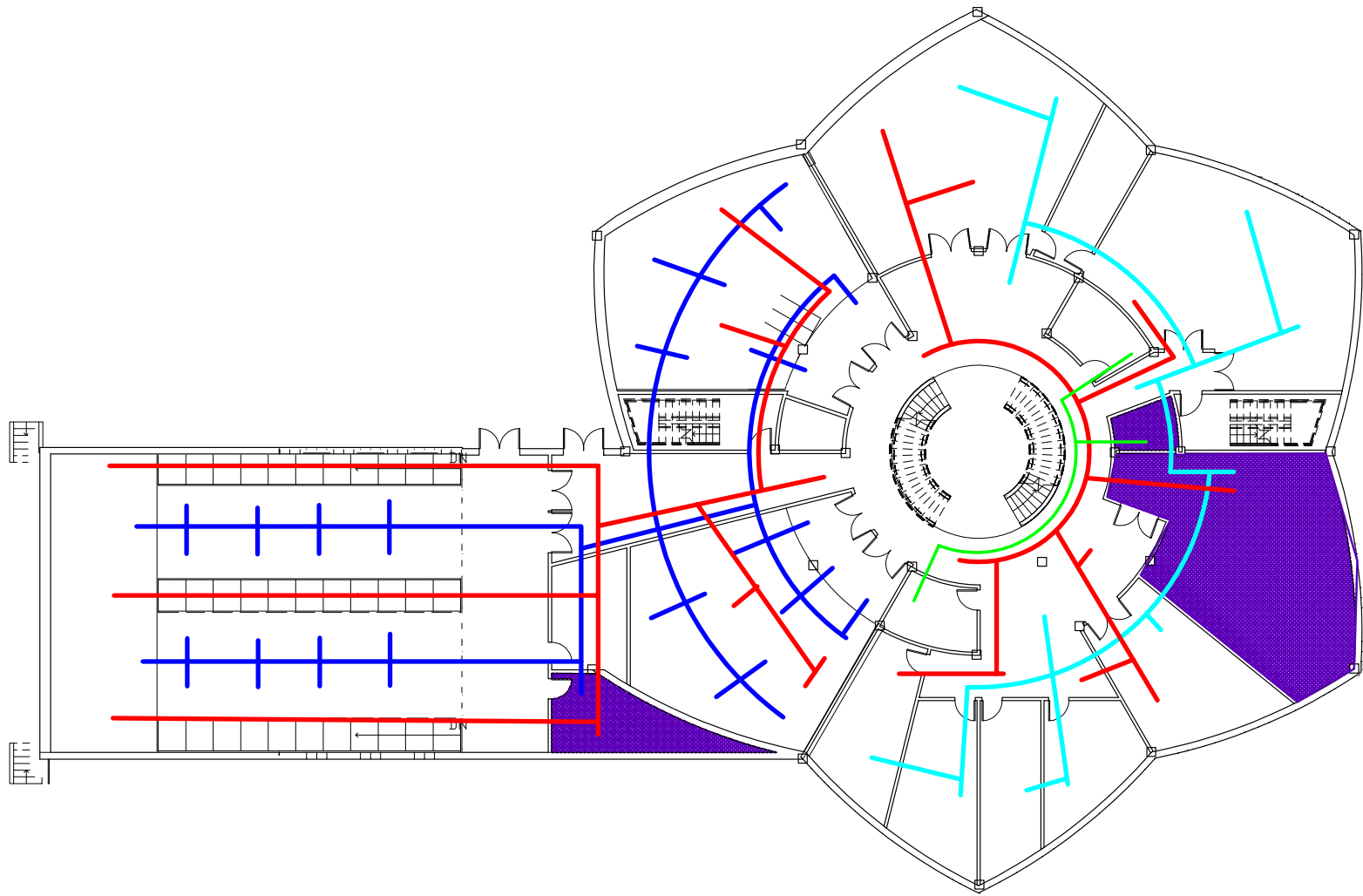
- 12" x 24"
- 12" x 20"
- 10" x 16"

COLUMNS

- 16" x 16"
- 12" x 12"



HVAC BASEMENT



CENTRAL TEAM

ARCH

SE

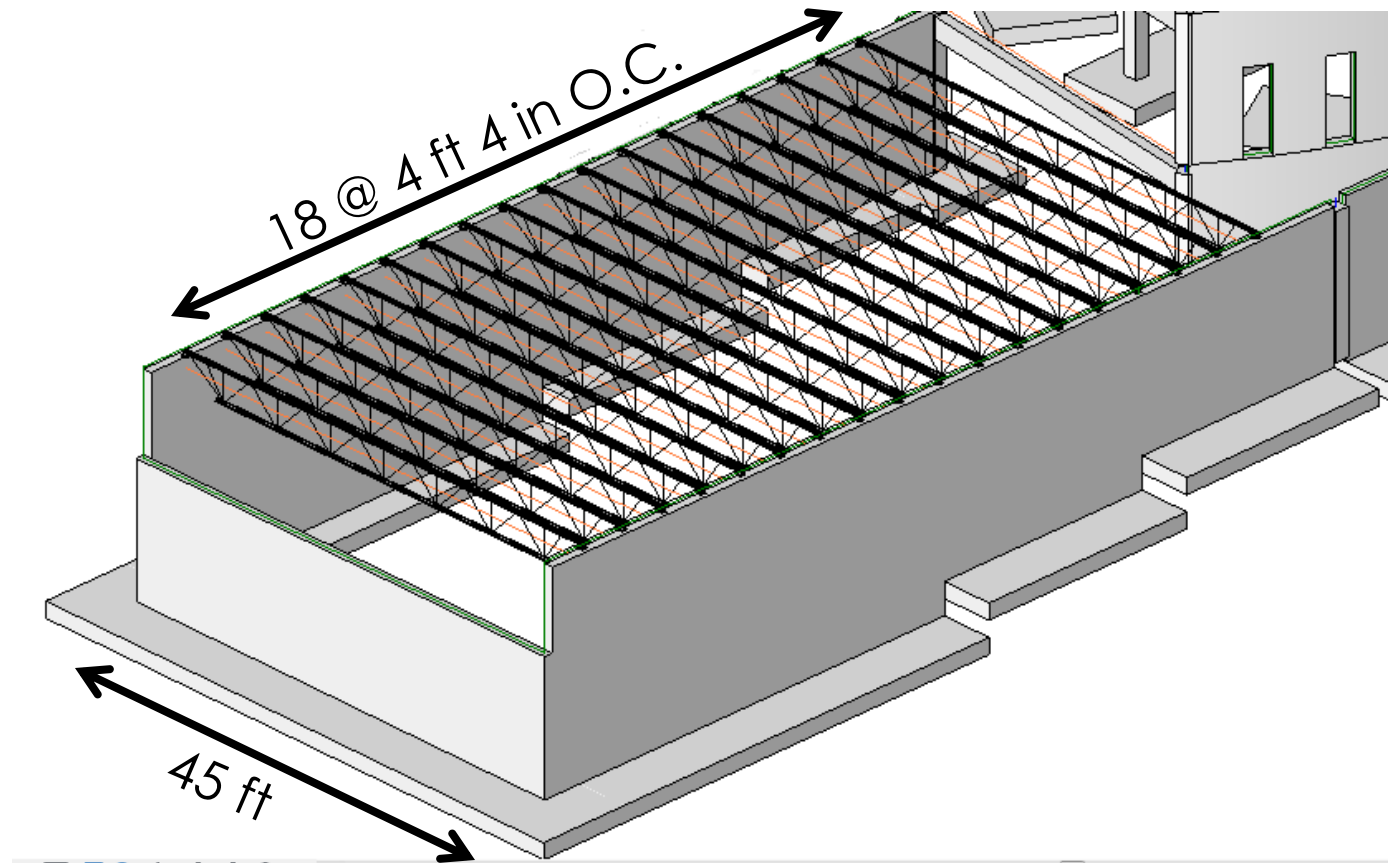
CM

MEP

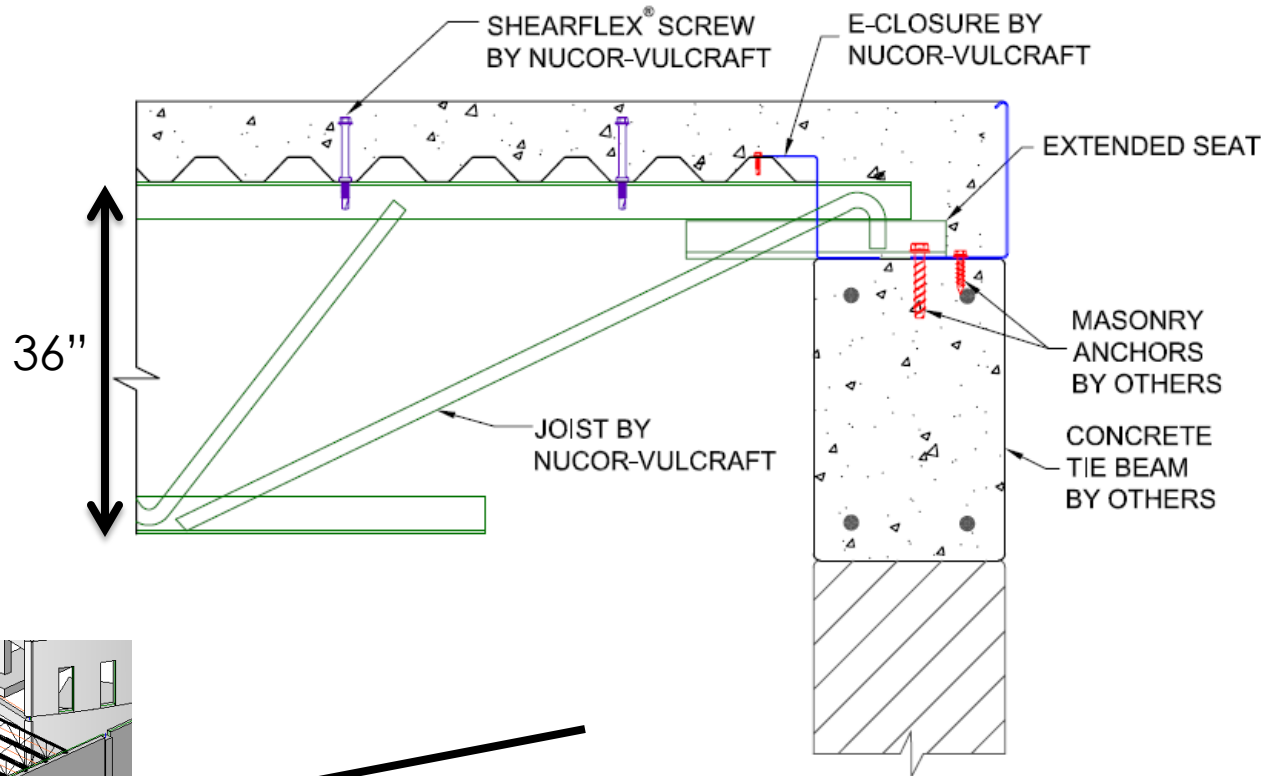
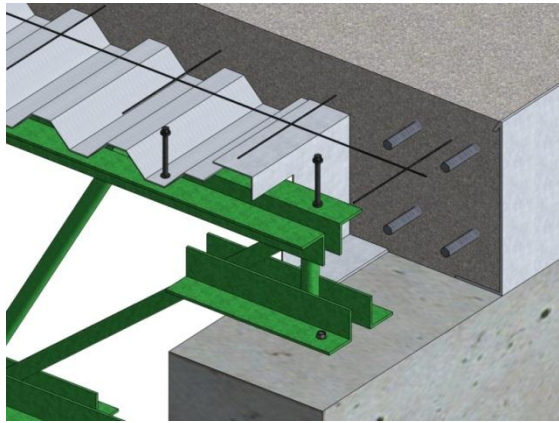
LCFM

AUDITORIUM PLAN

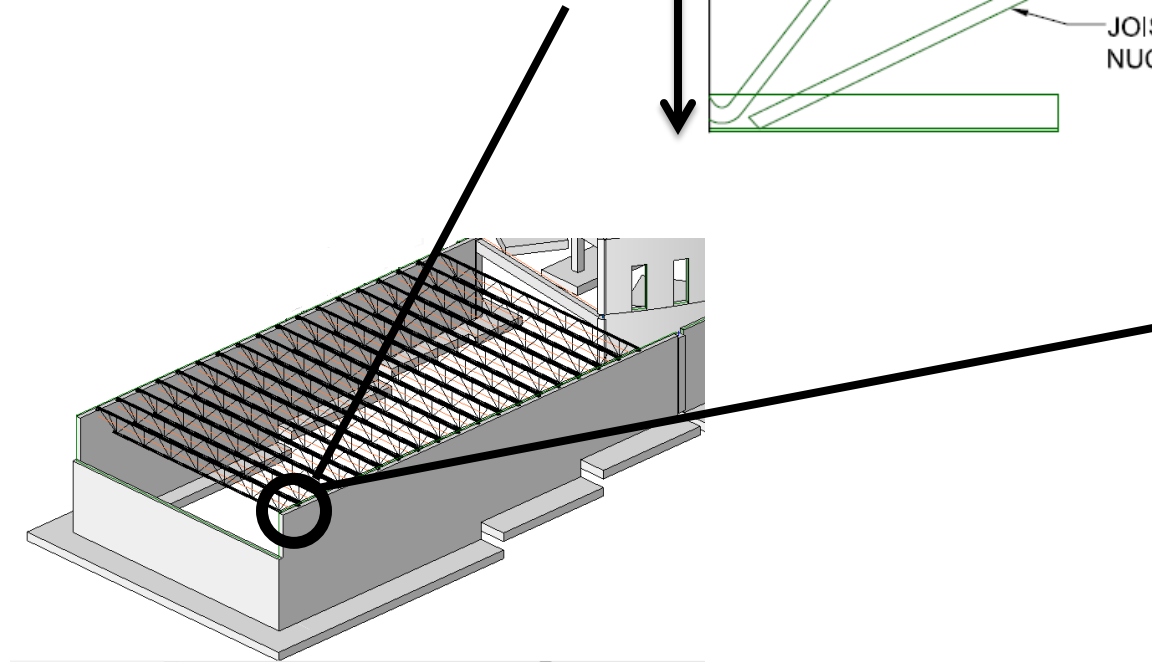
VULCRAFT STEEL JOISTS



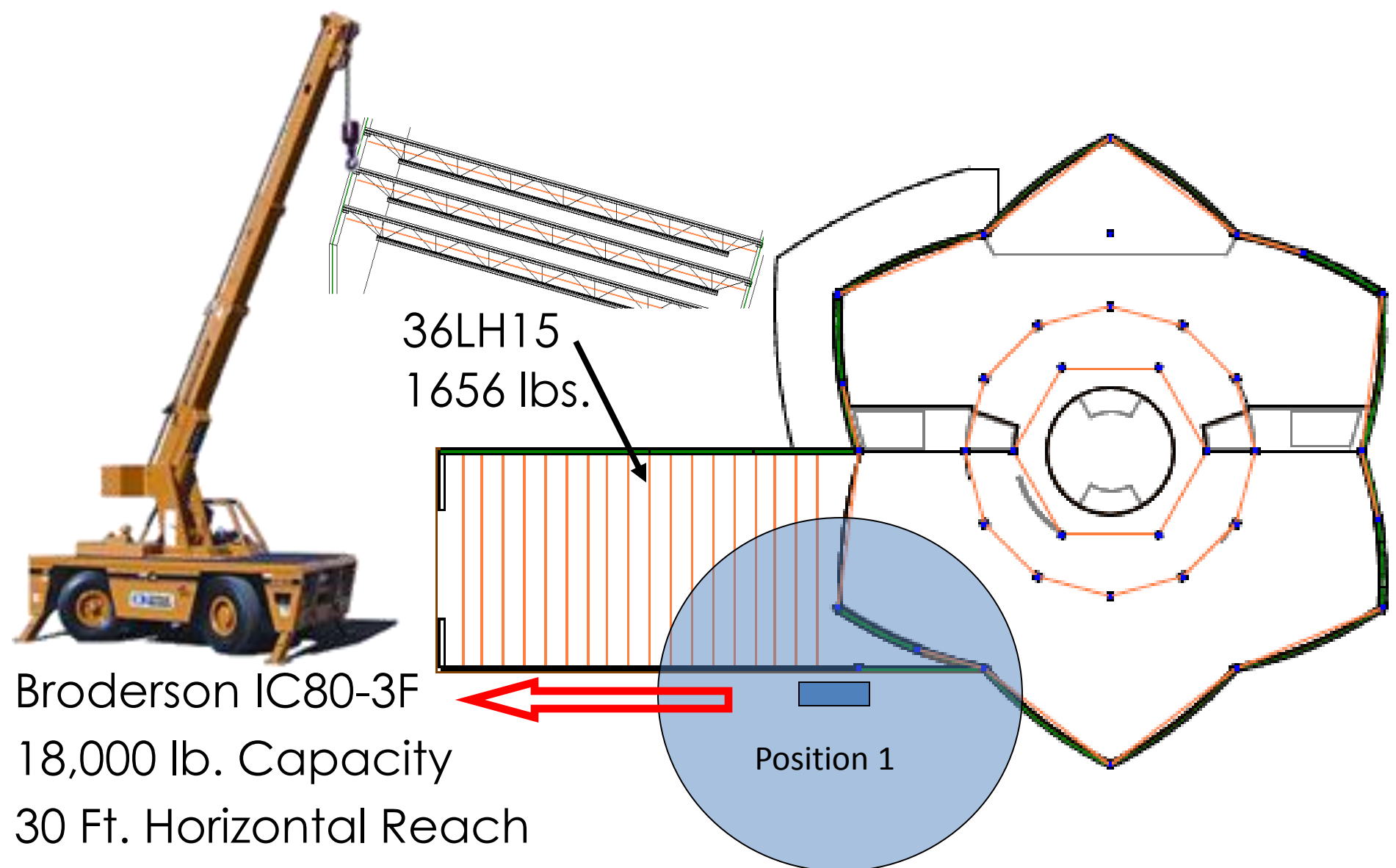
AUDITORIUM JOIST CONNECTIONS



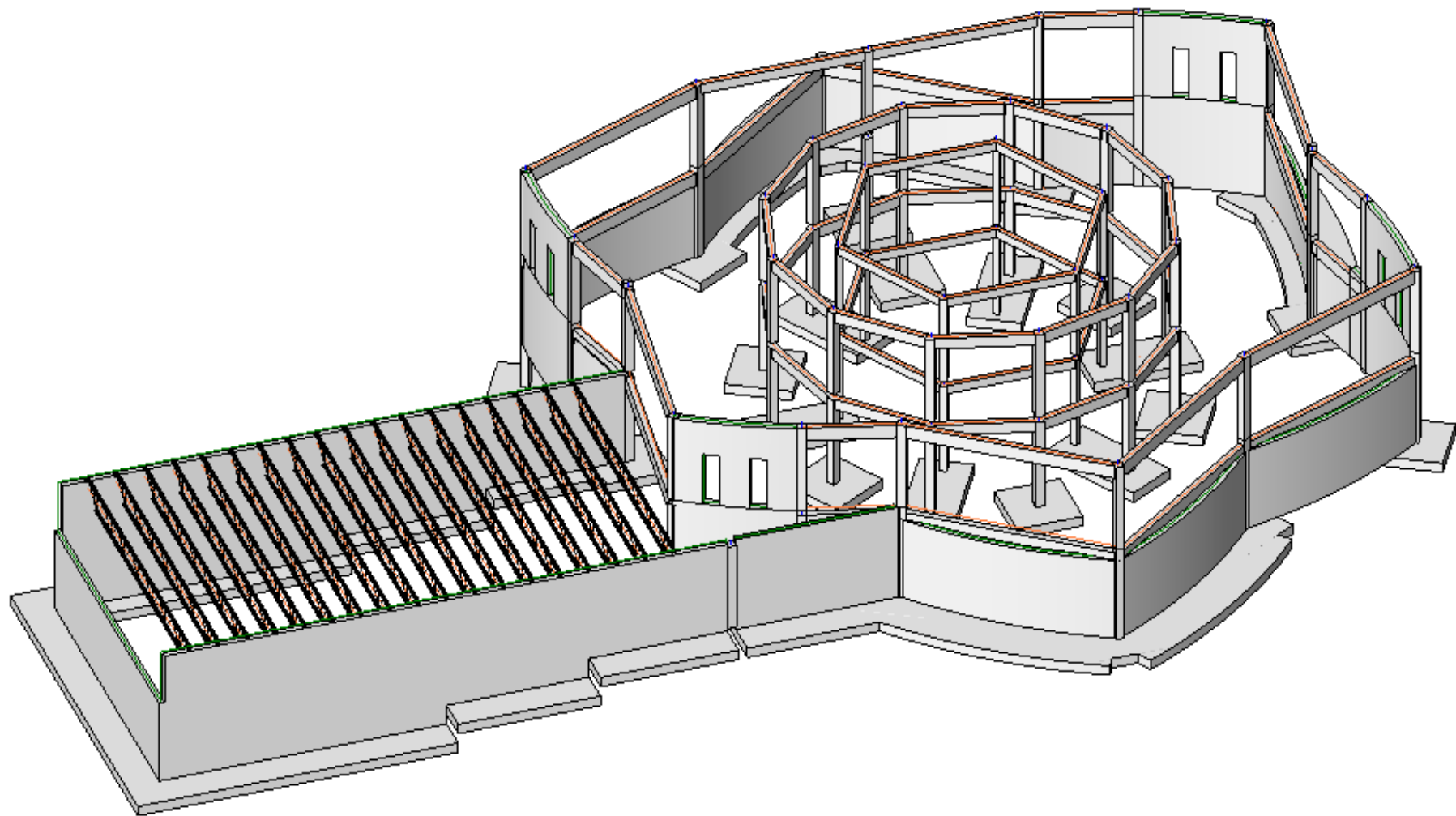
PICTURES COURTESY OF VULCRAFT



STEEL JOIST ERECTION



1st FLOOR – 3D VIEW



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

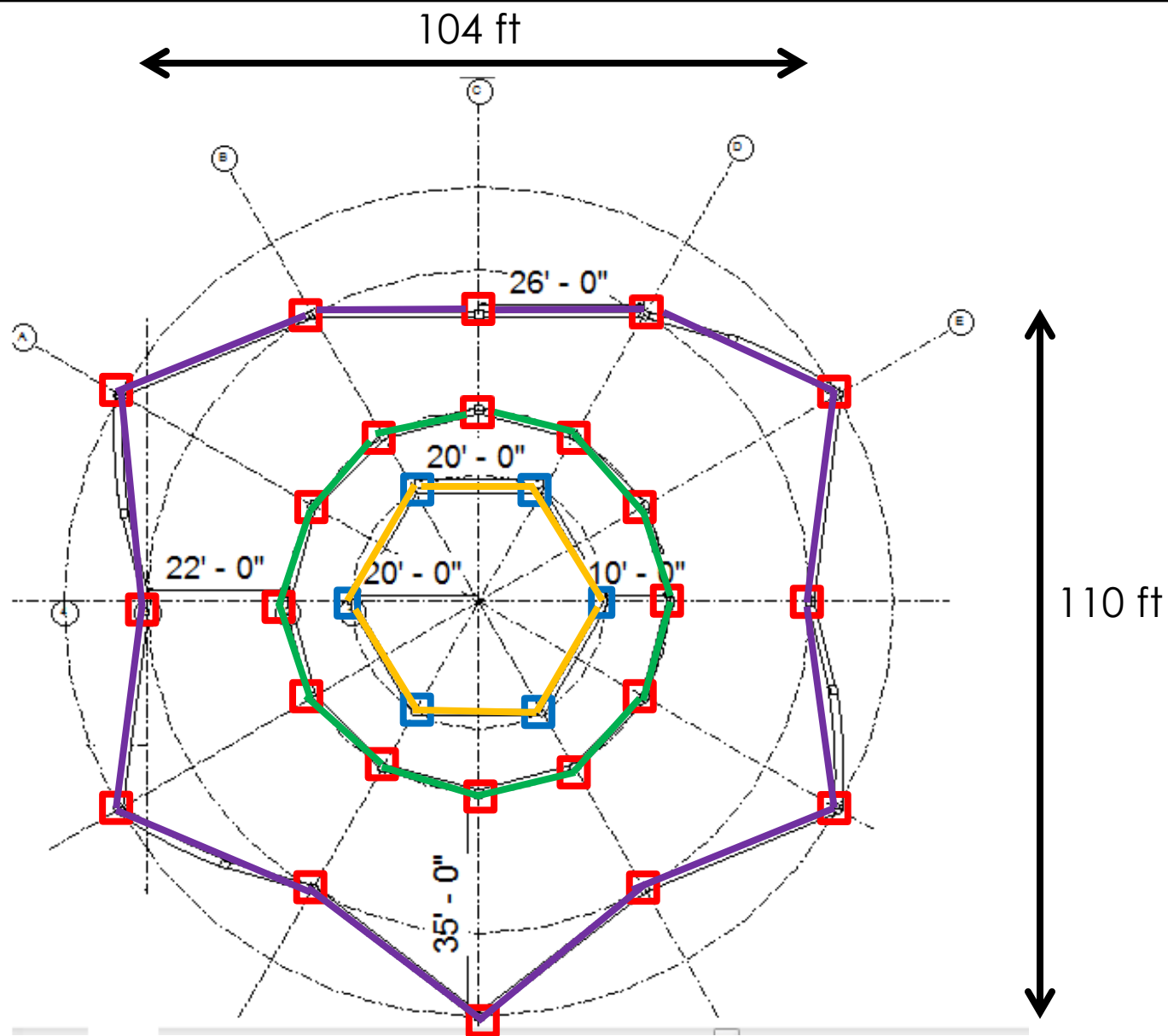
1st FLOOR – PLAN VIEW

BEAMS

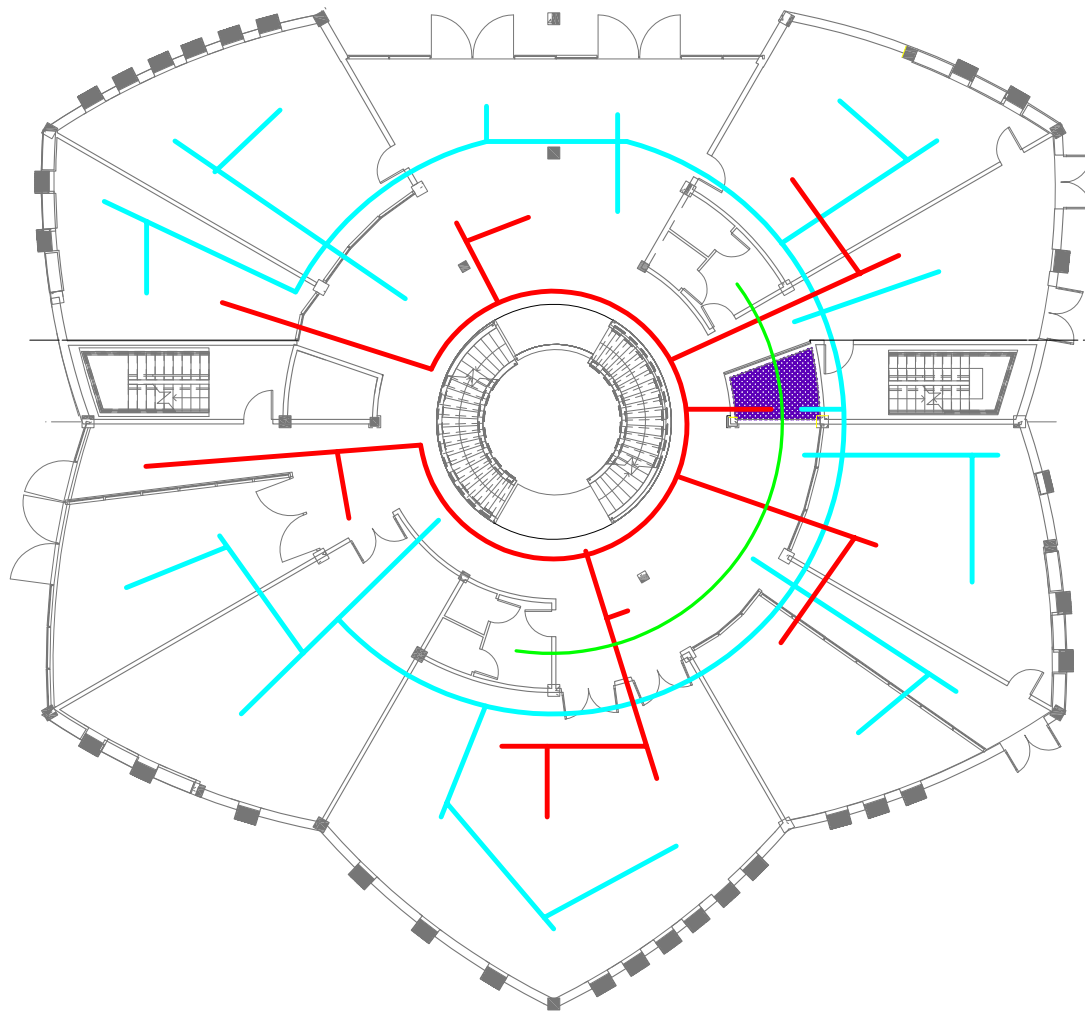
- 12" x 24"
- 12" x 20"
- 10" x 16"

COLUMNS

- 16" x 16"
- 12" x 12"



HVAC 1st FLOOR



CENTRAL TEAM

ARCH

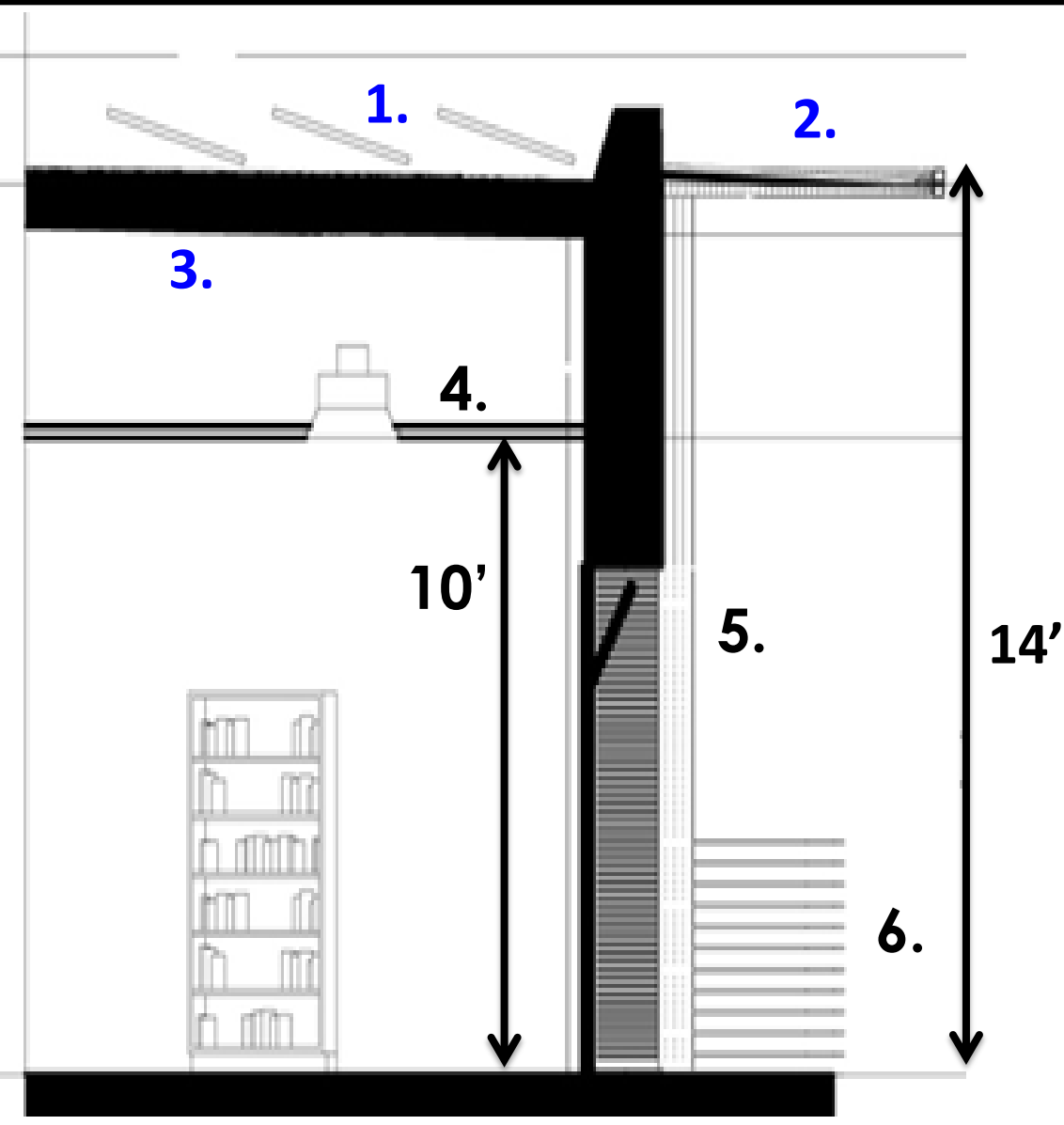
SE

CM

MEP

LCFM

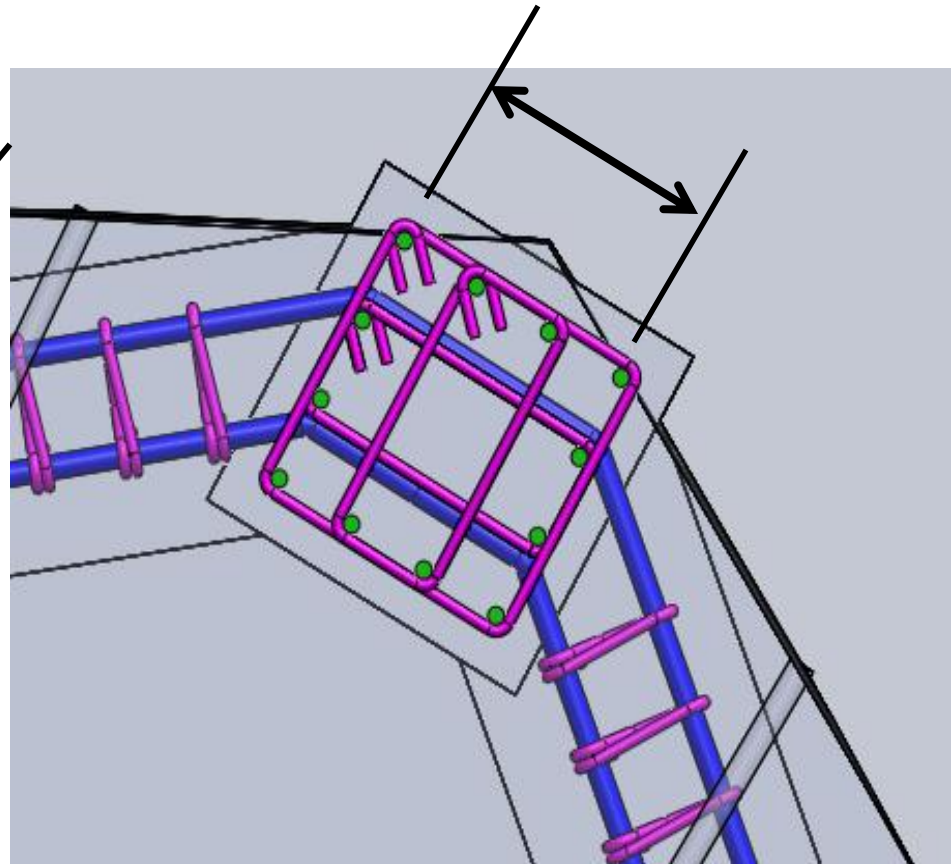
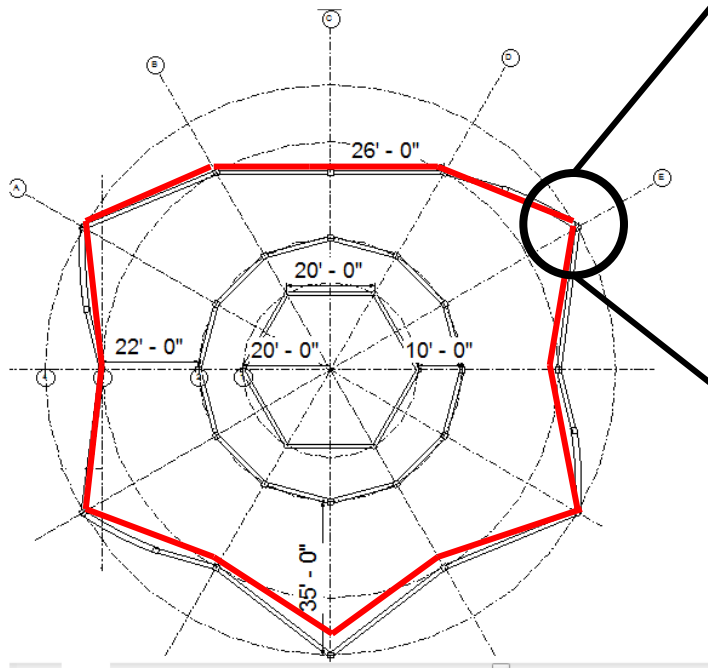
TYPICAL FLOOR SANDWICH



- 1. Solar Panels
- 2. Reflective Roof
- 3. 10" Concrete Slab
- 4. Mechanical Duct
- 5. Actuated Windows
- 6. Balcony

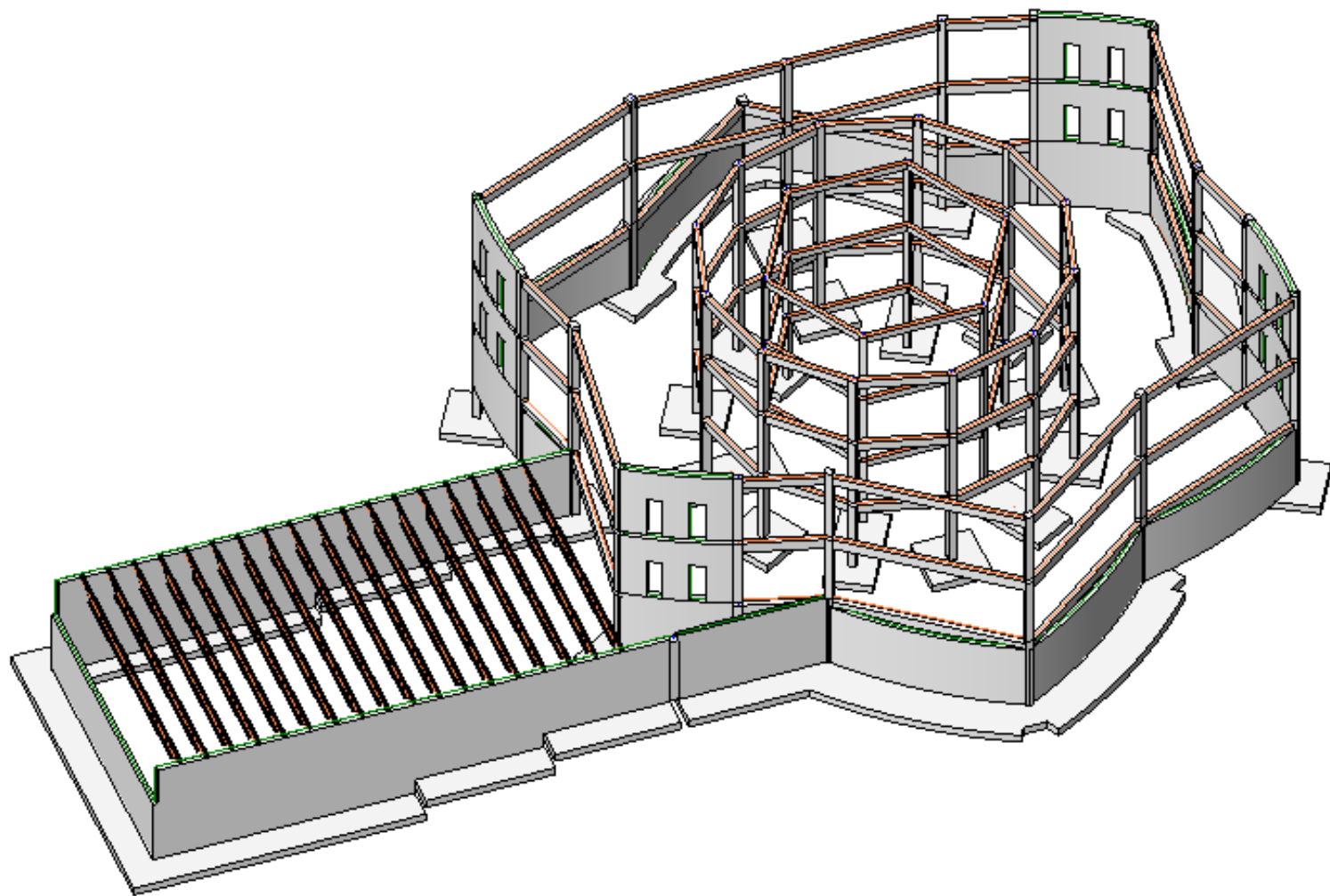
BEAM-COLUMN CONNECTIONS

- #11 Rebars
- #4 Stirrups
- #6 Rebars



Exterior Beam Column Connection

2nd FLOOR – 3D VIEW



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

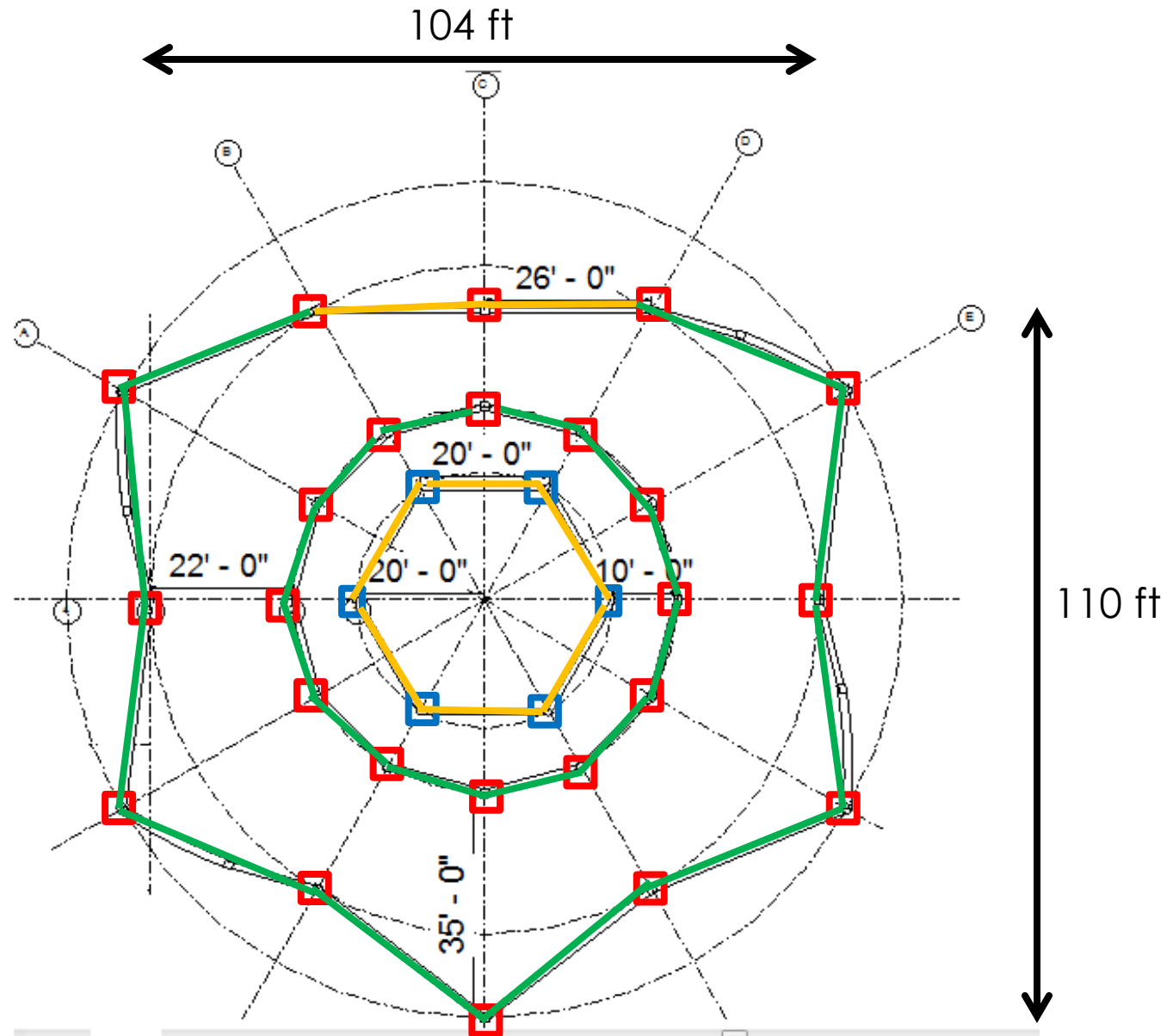
2nd FLOOR – PLAN VIEW

BEAMS

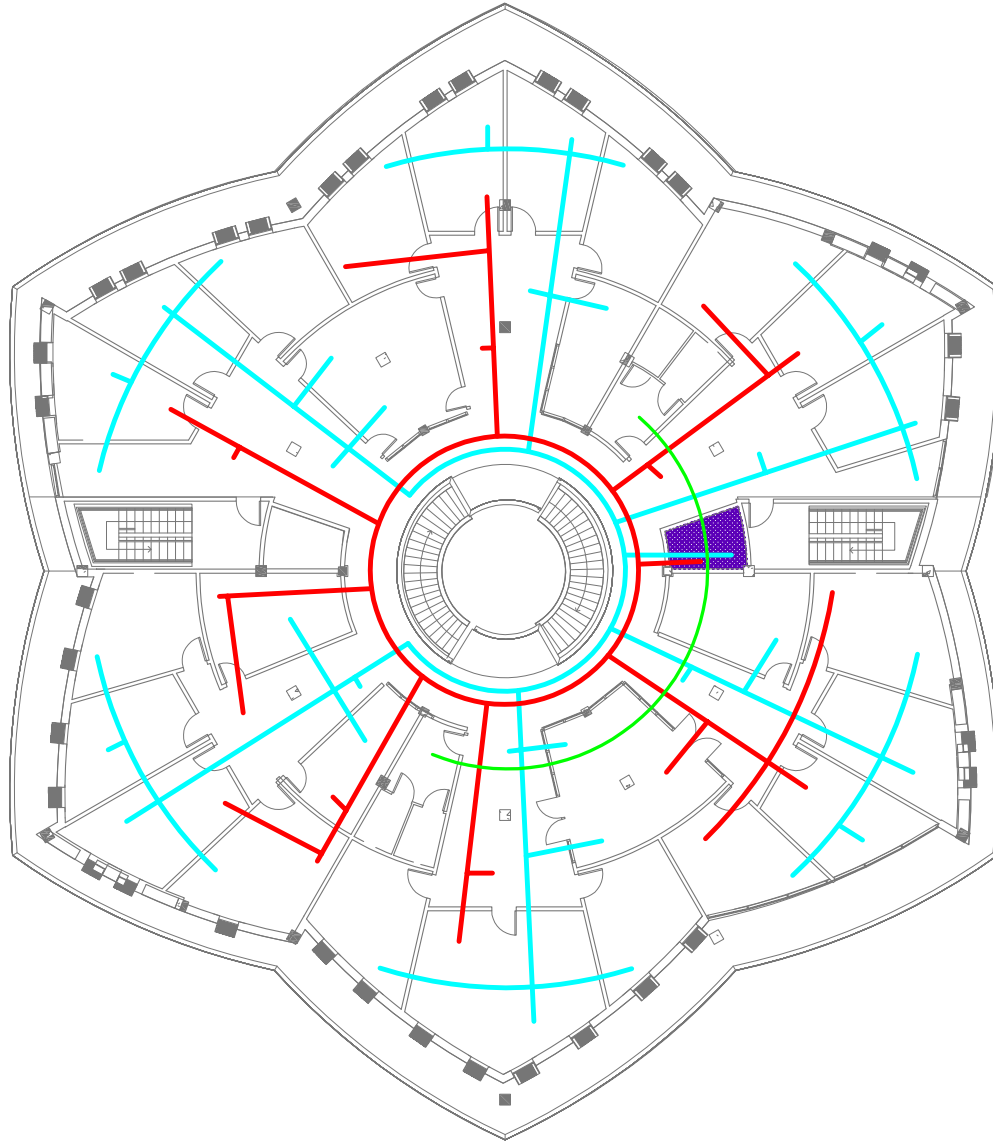
- 12" x 20"
- 10" x 16"

COLUMNS

- 16" x 16"
- 12" x 12"



HVAC 2nd FLOOR



CENTRAL TEAM

ARCH

SE

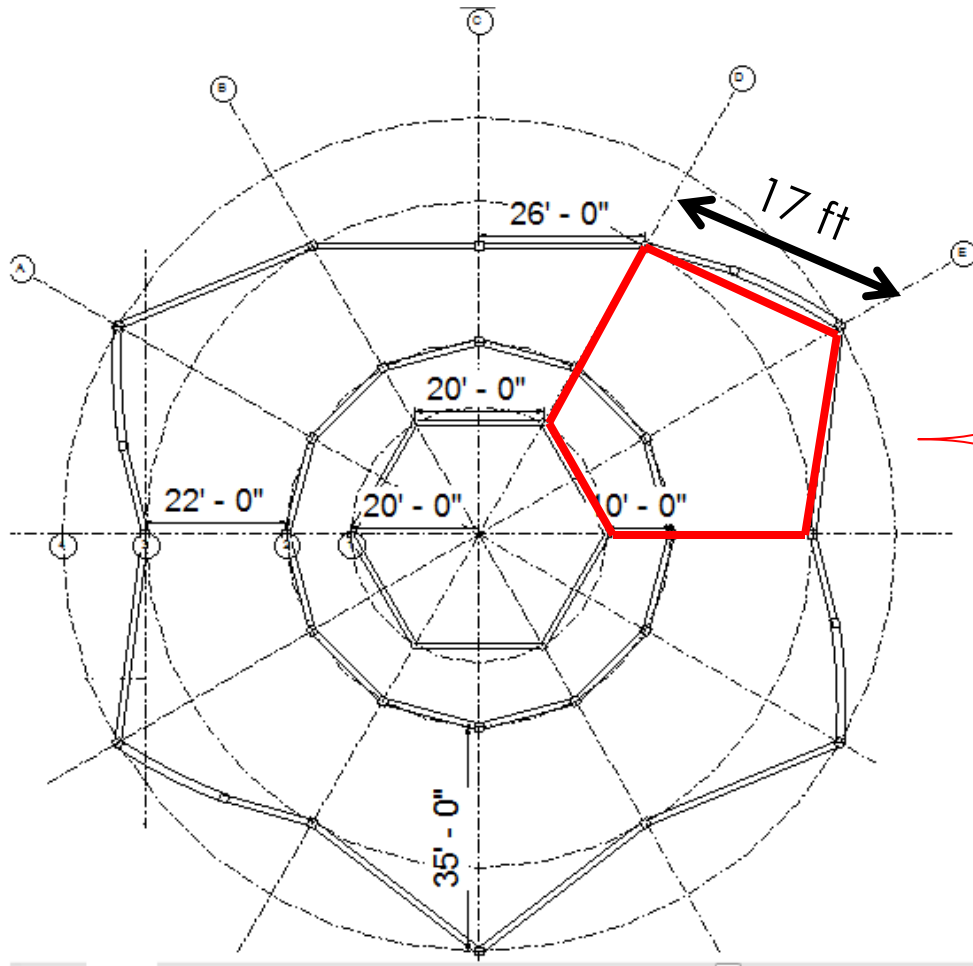
CM

MEP

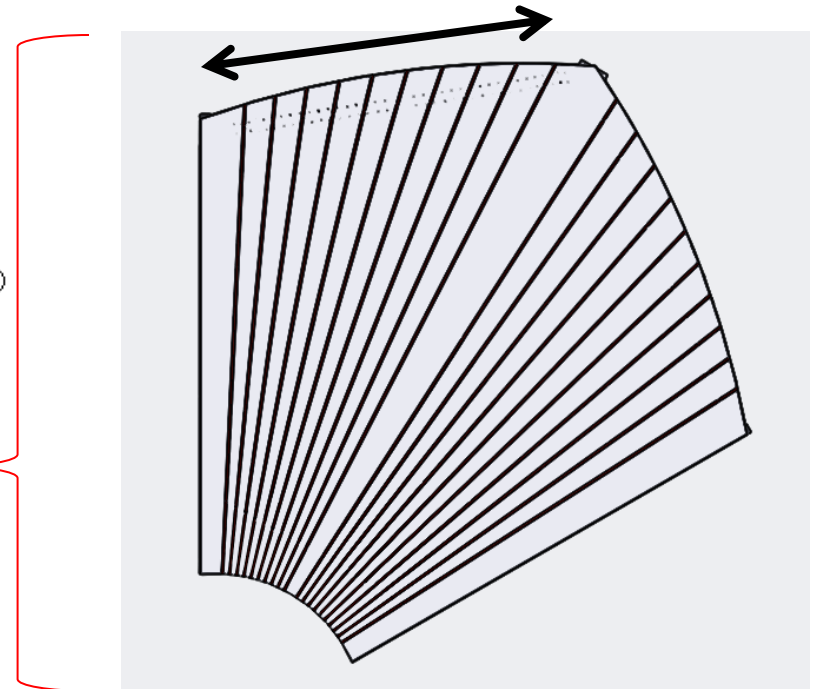
LCFM

POST TENSIONED SLABS

Slab Thickness: 10"



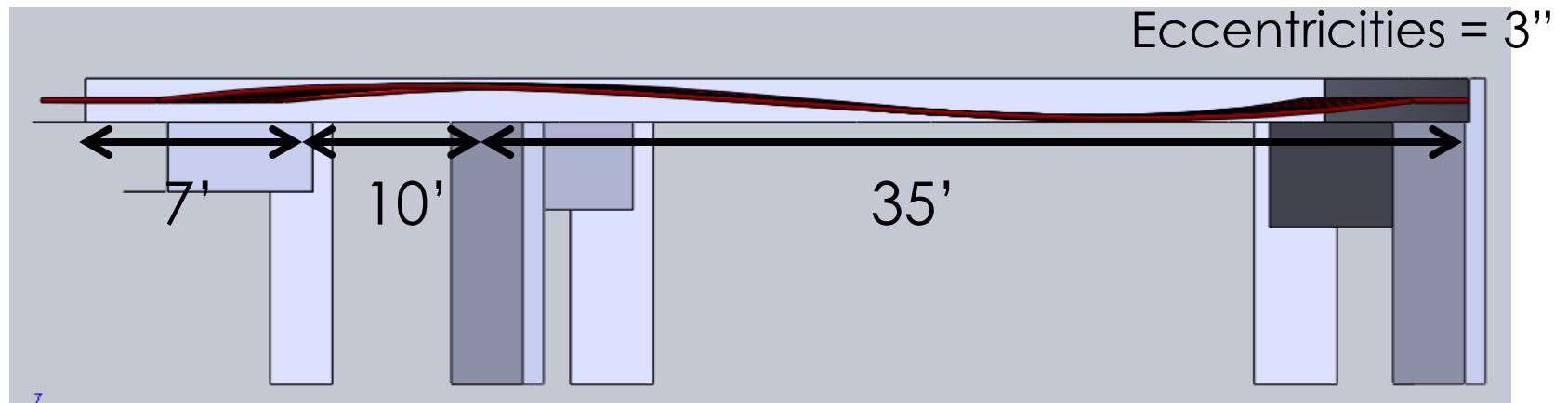
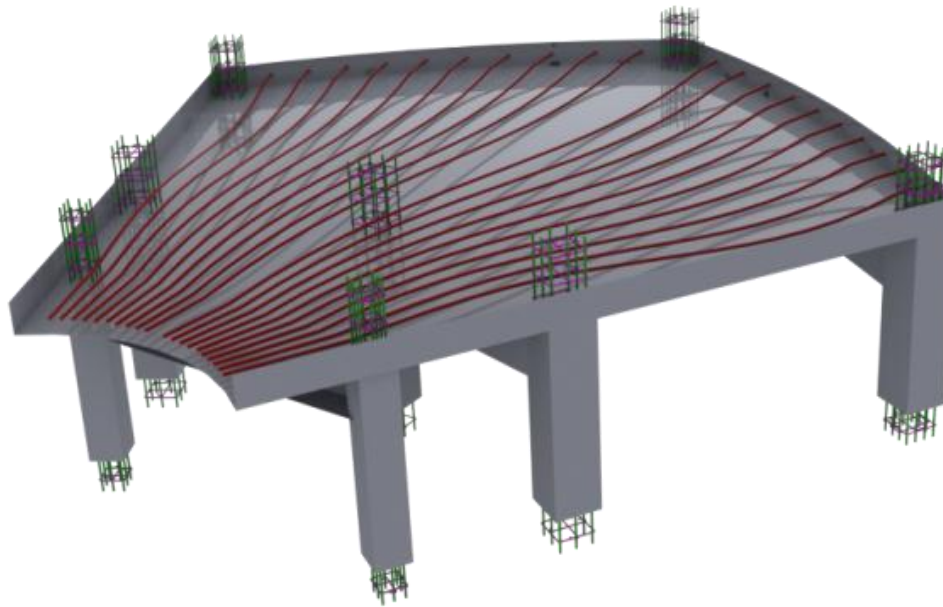
10 tendons spaced evenly



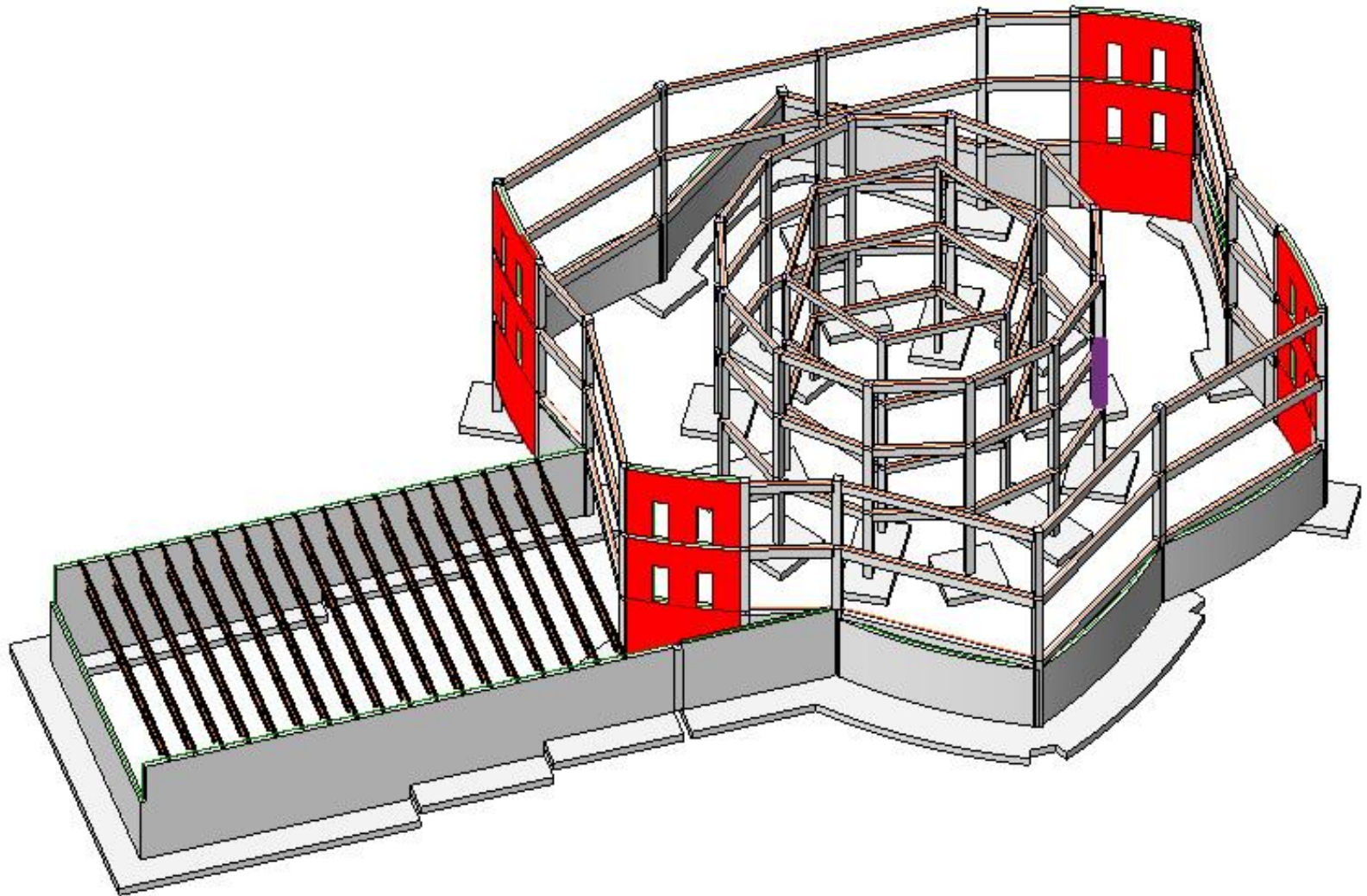
Tendons

0.5" Diameter – 7 Wire Strand
270 ksi Strength

POST TENSIONED SLABS



LATERAL SYSTEM – 3D VIEW



CENTRAL TEAM

ARCH

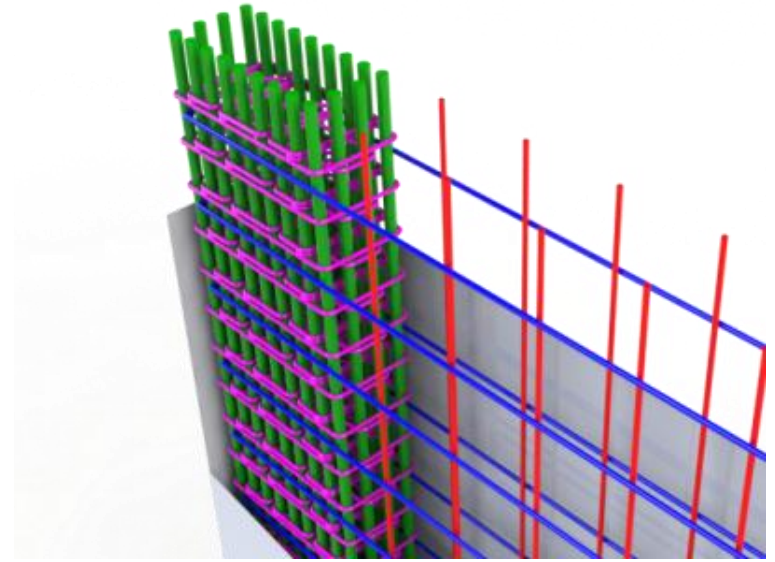
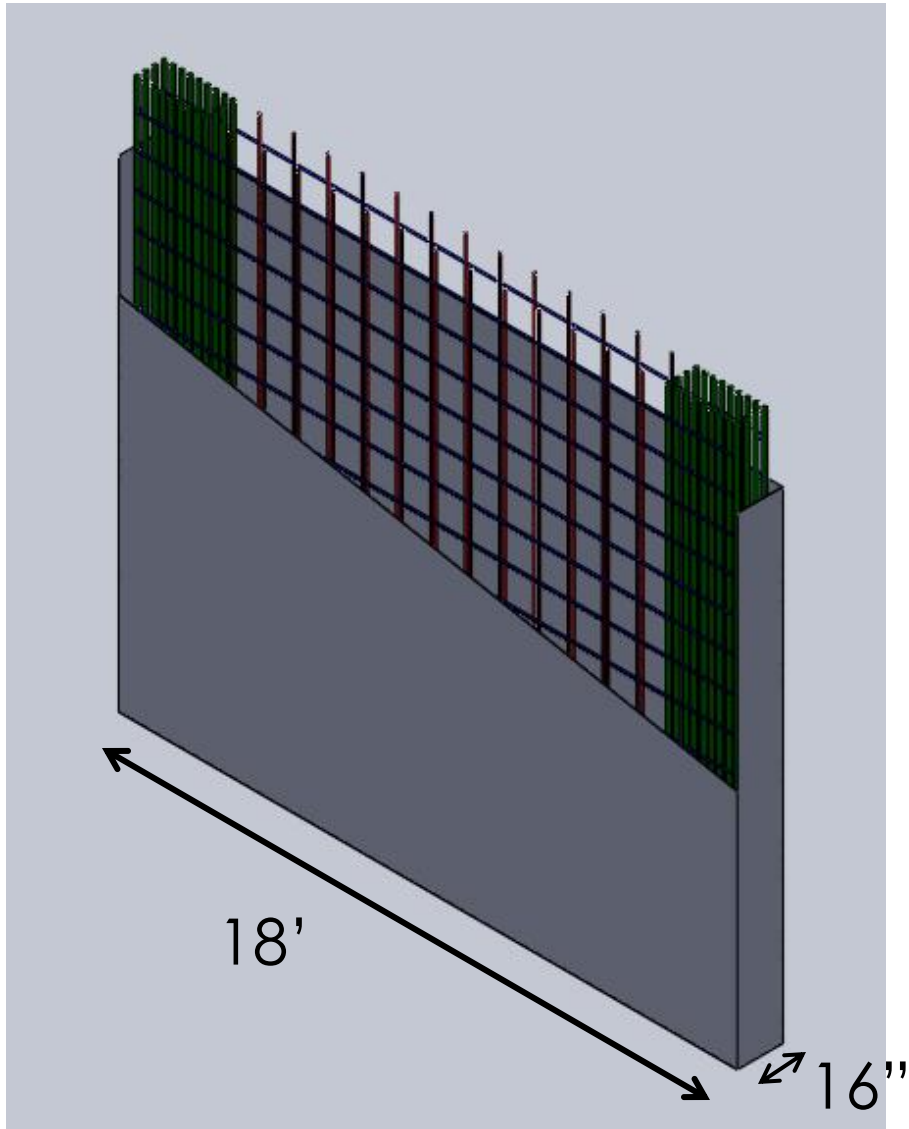
SE

CM

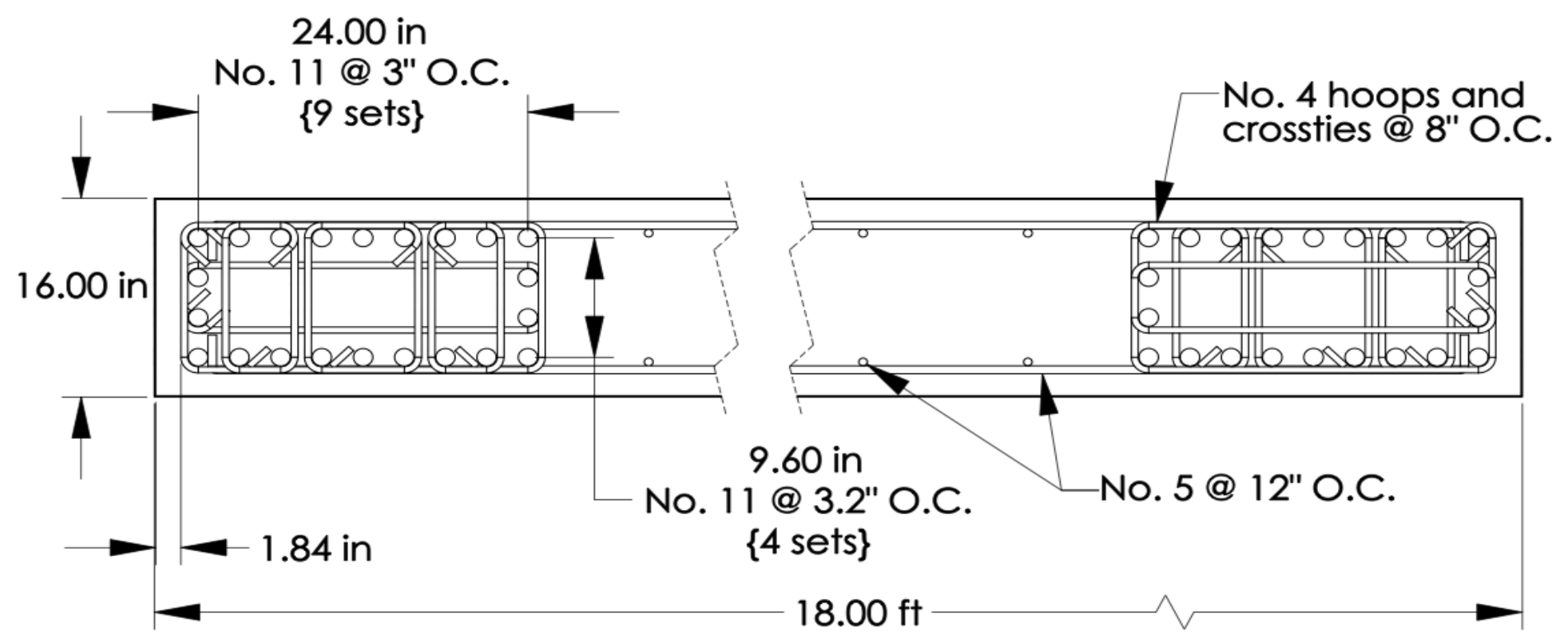
MEP

LCFM

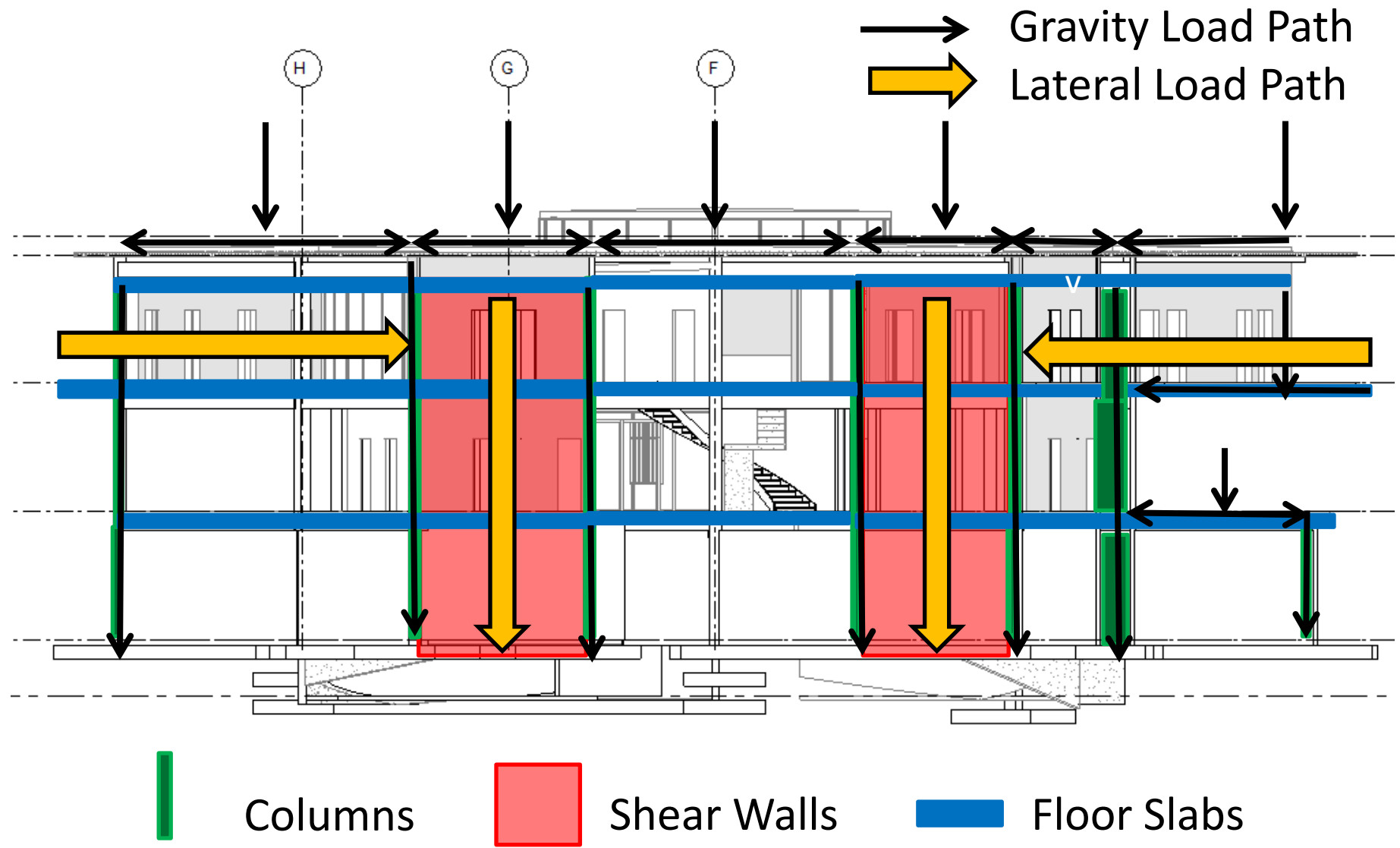
SHEAR WALL DETAILS – ISOMETRIC VIEW

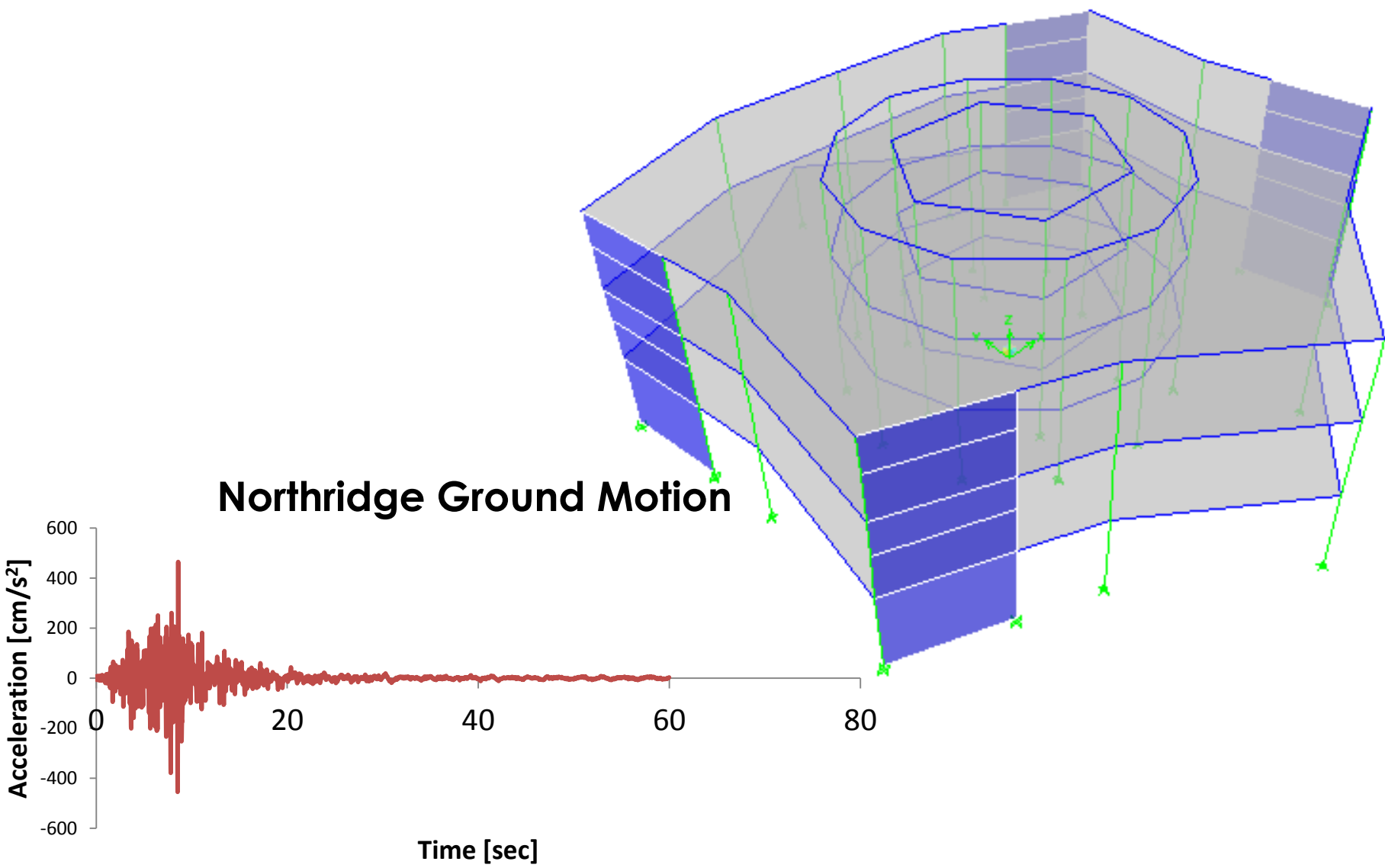


SHEAR WALL DETAILS – PLAN VIEW



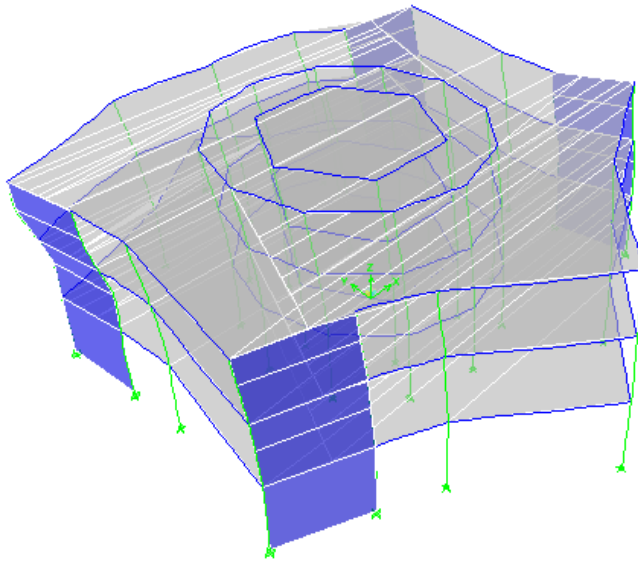
LOAD PATH



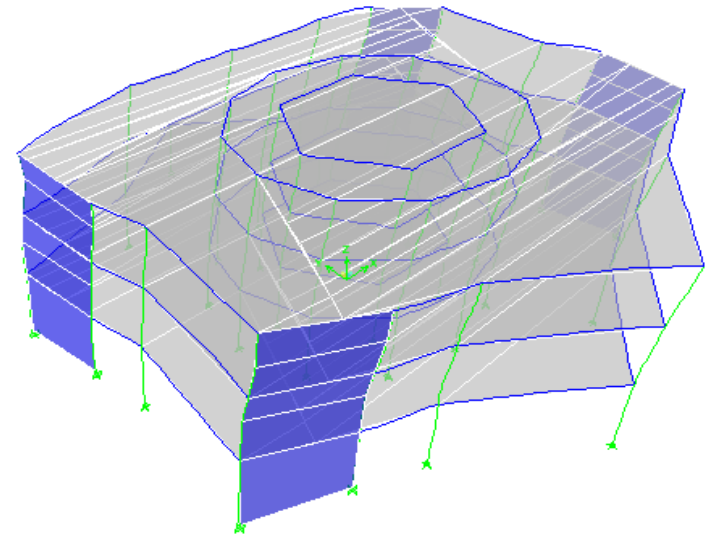


DEFLECTION RESULTS

DEFLECTED SHAPE – EW DIRECTION



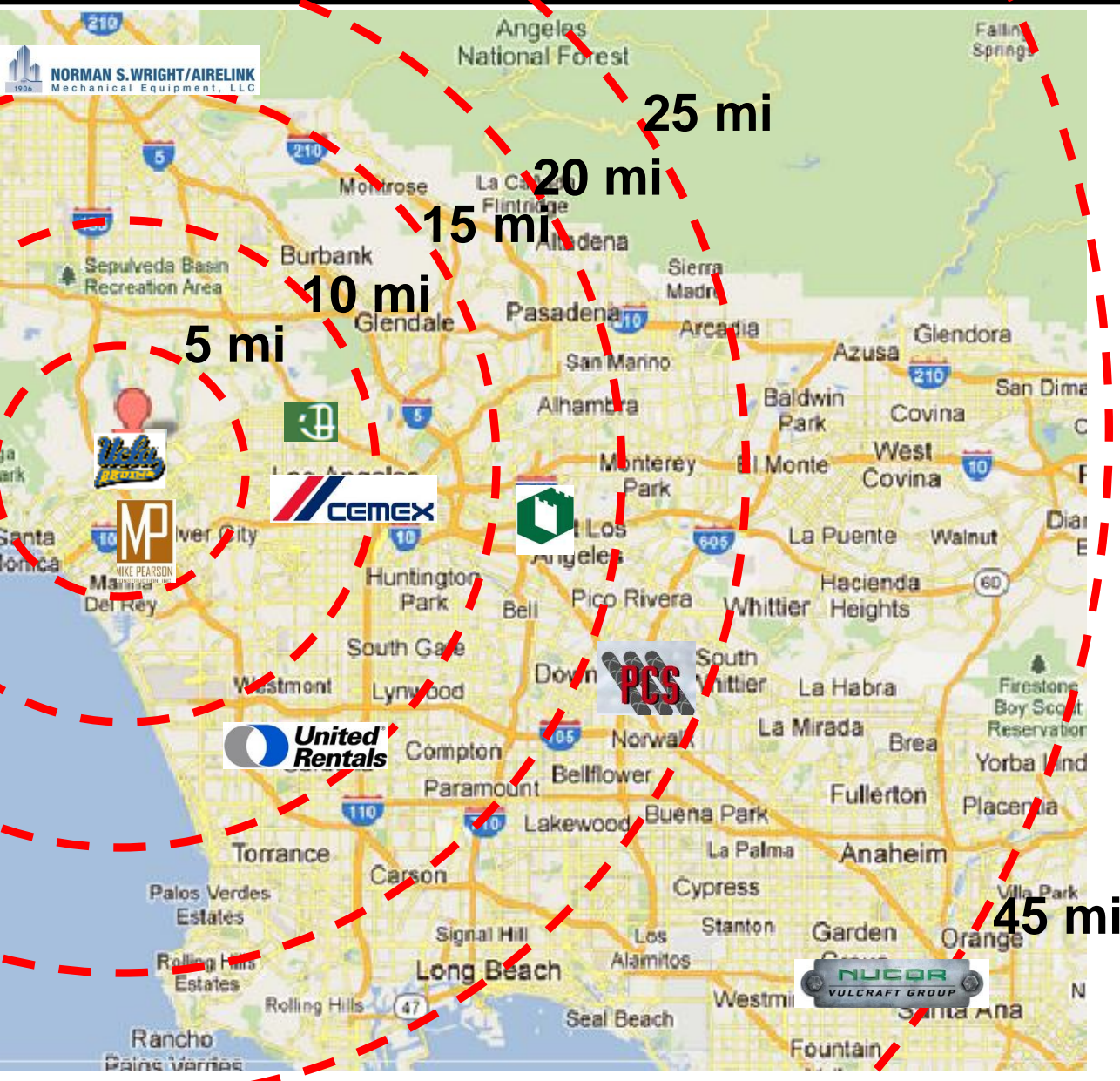
DEFLECTED SHAPE – NS DIRECTION



$$T_n = 0.4453 \text{ sec}$$

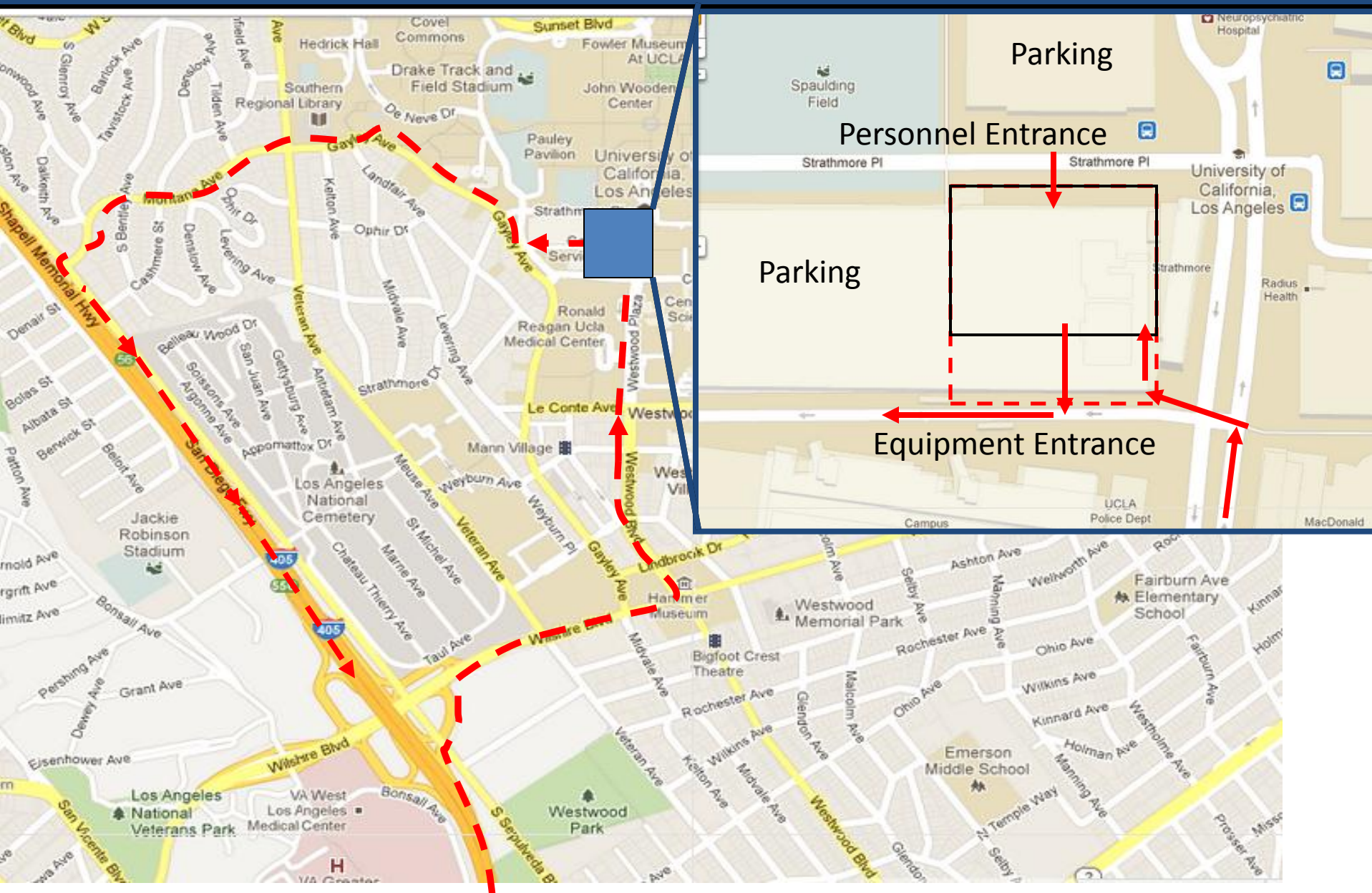
Floor	Δ [in] EW	IDR [%] EW	Δ [in] NS	IDR [%] NS
1 st	0.80	0.50	0.73	0.46
2 nd	2.07	0.90	1.92	0.84
3 rd	3.47	0.93	3.20	0.84

LOCAL RESOURCES



- CONCRETE/MASONRY
- INTERIOR
- CONCRETE SUPPLIER
- EQUIPMENT
- MECHANICAL
- GLAZING
- PREFAB REBAR
- STEEL JOISTS

SITE ACCESS



CENTRAL TEAM

ARCH

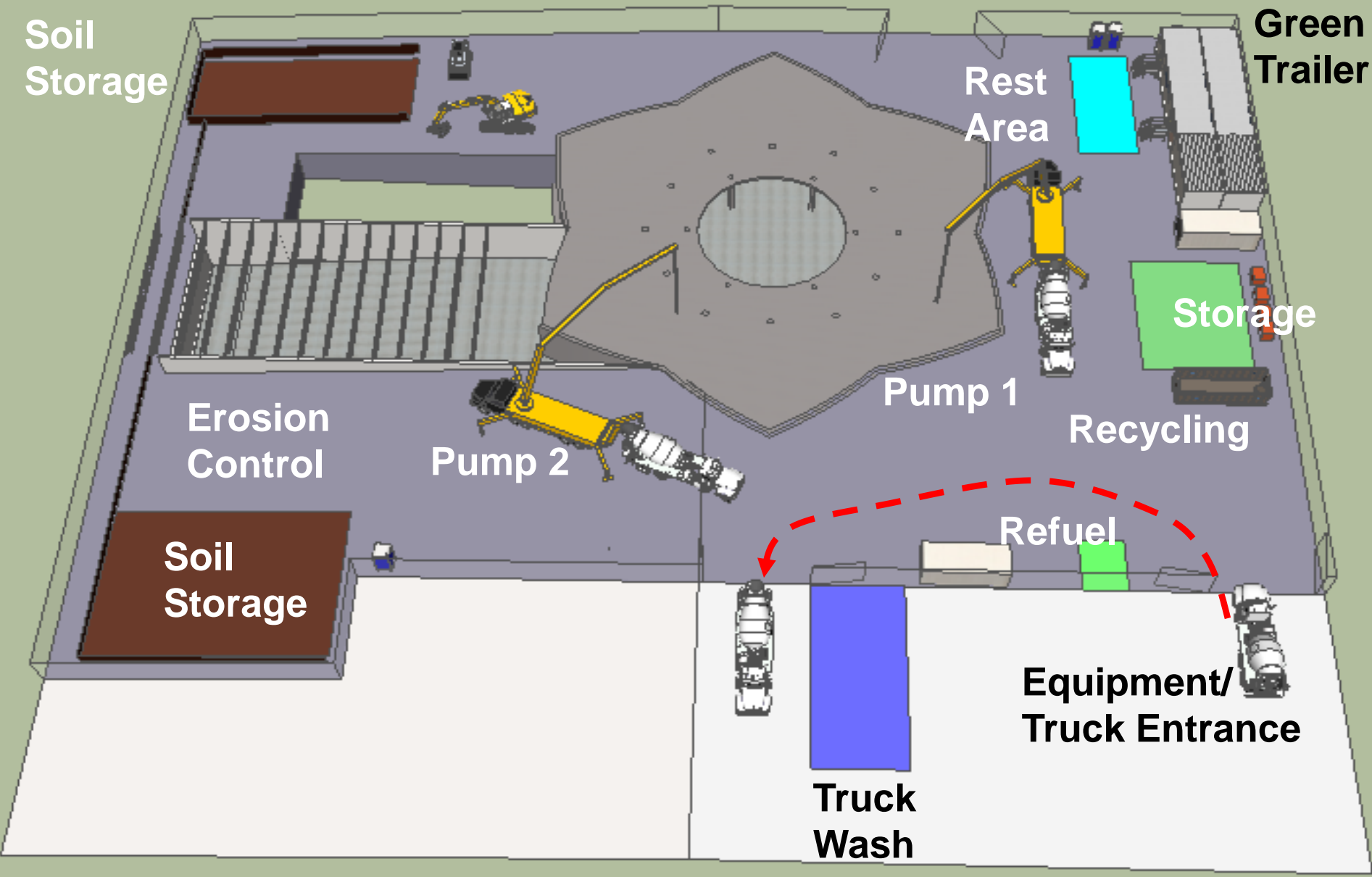
SE

CM

MEP

LCFM

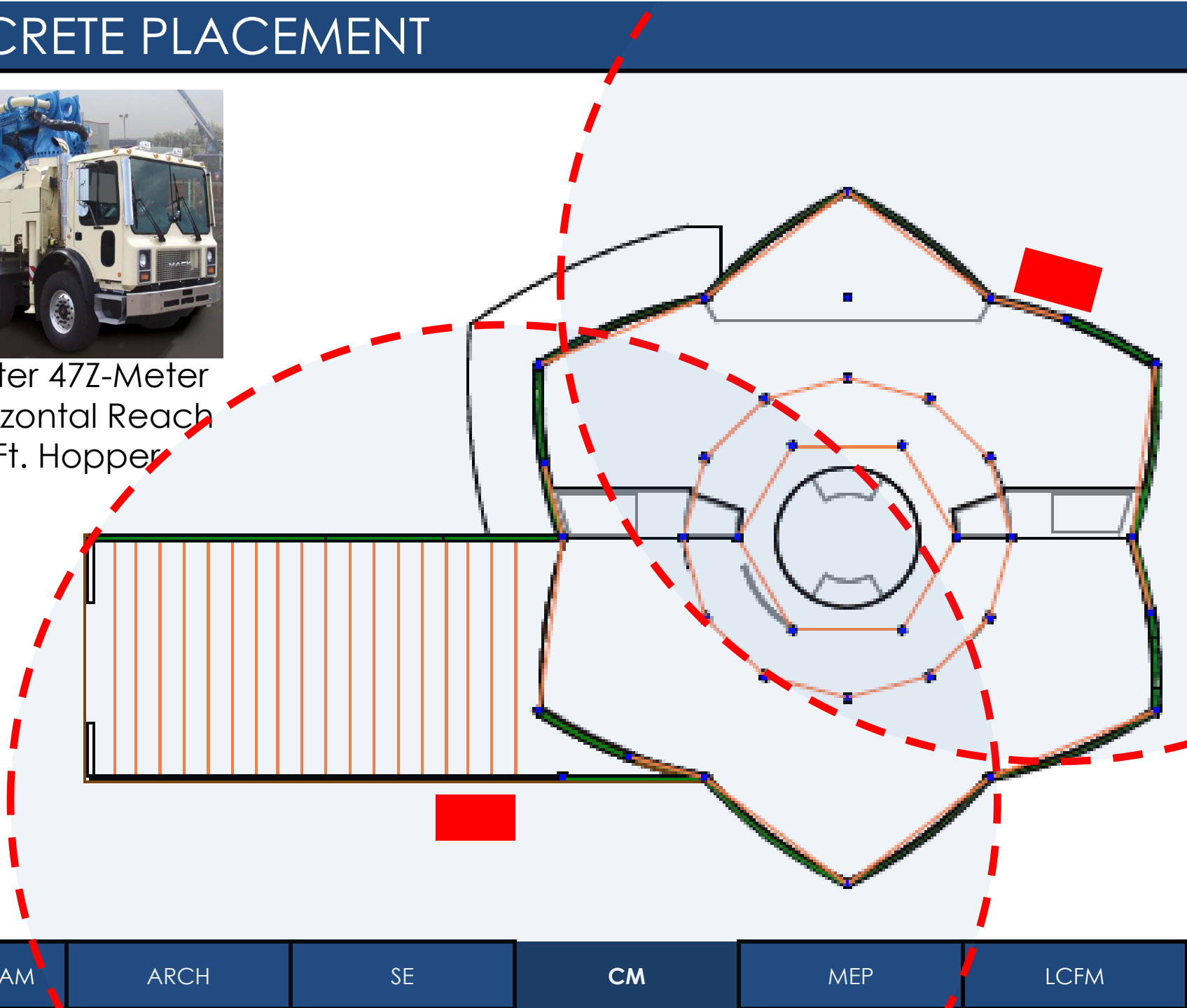
SITE LOGISTICS



CONCRETE PLACEMENT



Putzmeister 47Z-Meter
128' Horizontal Reach
19.4 cu. Ft. Hopper



CENTRAL TEAM

ARCH

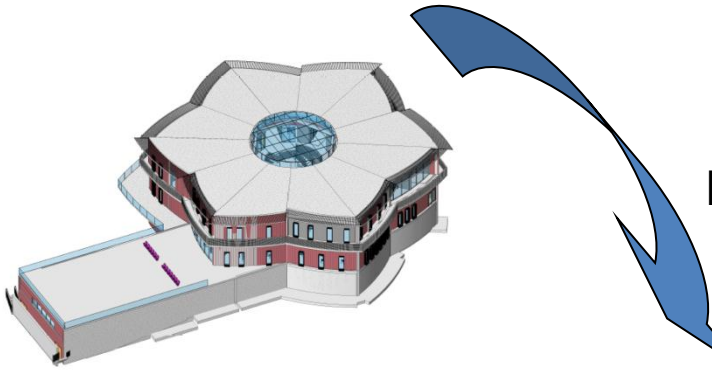
SE

CM

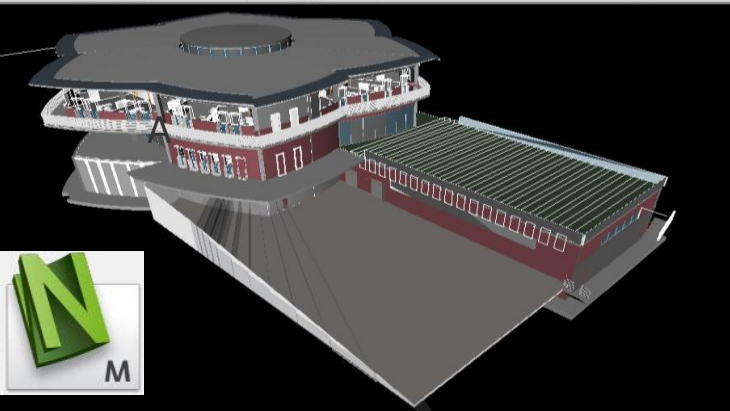
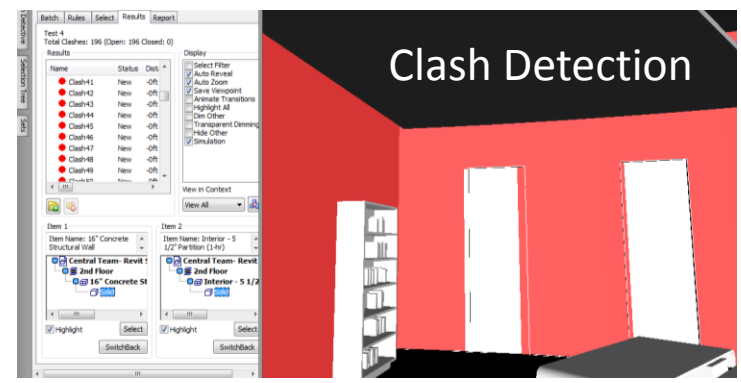
MEP

LCFM

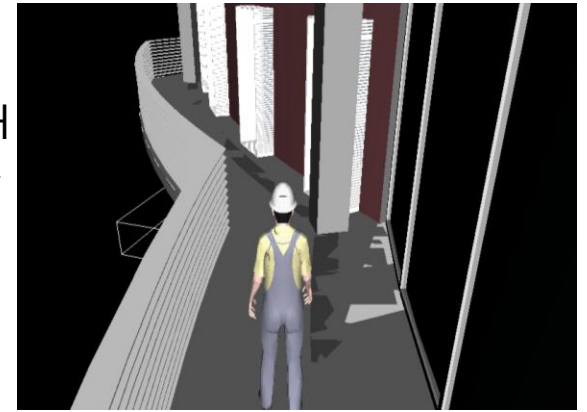
BIM INTEGRATION



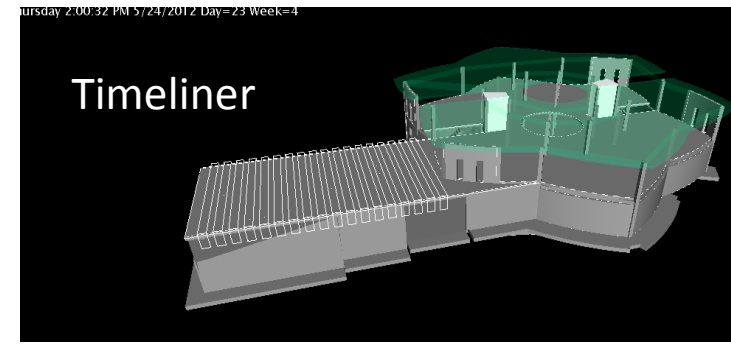
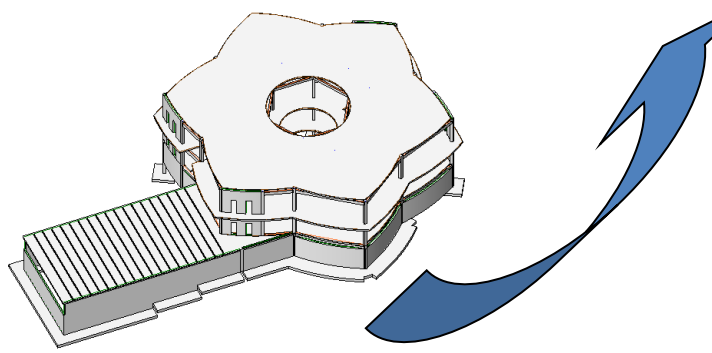
INTEGRATION



WALK THROUGH



SIMULATION





Living Environments Laboratory

VIRTUAL REALITY: THE CAVE



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

VIRTUAL REALITY: THE CAVE



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

VIRTUAL REALITY: THE CAVE



CENTRAL TEAM

ARCH

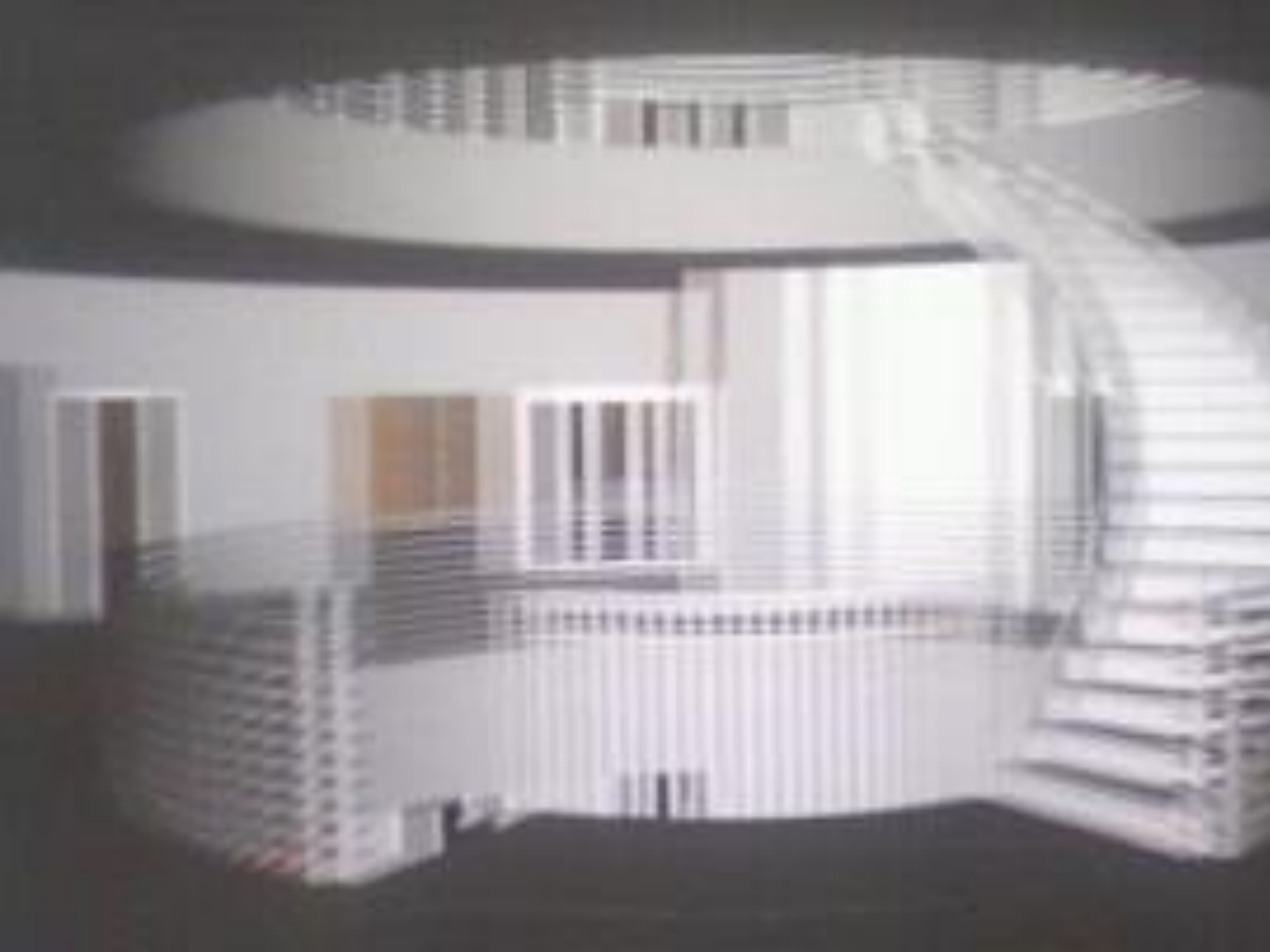
SE

CM

MEP

LCFM





4D/5D MODELING



Autodesk Quantity Takeoff

The screenshot displays the Autodesk Quantity Takeoff interface. On the left is a hierarchical tree view (WBS) listing building components such as Substructure, Shell, Superstructure, Roof, Exterior Walls, Doors, and Interiors. The main area shows a 3D model of a building with various components highlighted in different colors (purple, green, orange, grey). Below the model is a detailed takeoff table.

Description	Quantity	Material Cost		Labor Cost		Total Cost	Time	
		Unit cost	Total	Unit cost	Total		Unit Labor Hours	Total
Construction			0.00		0.00			
sd Partition	812.167	ft ²	0.00		0.00			
or - 5 1/2" Partition (1-hr)	1,697.289	ft	0.00		0.00			
or - 6 1/8" Partition (1-hr)	755.001	ft	0.00		0.00			
- 1/2" GWB on Mtl. Stud	696.811	ft ²	0.00		0.00			
Doors			0.00		0.00			
Finishes			0.00		0.00			
Finishes			0.00		0.00			

CENTRAL TEAM

ARCH

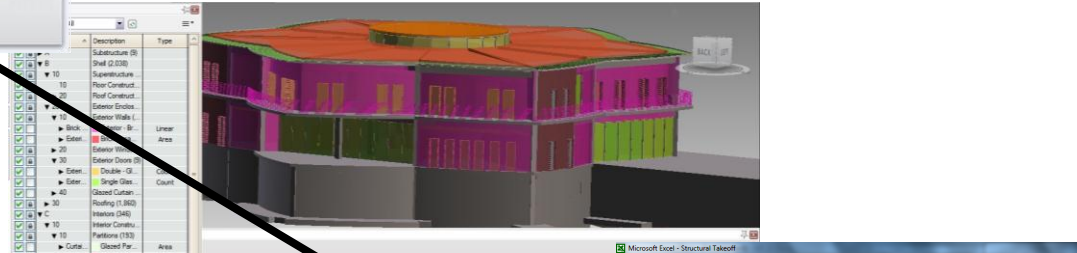
SE

CM

MEP

LCFM

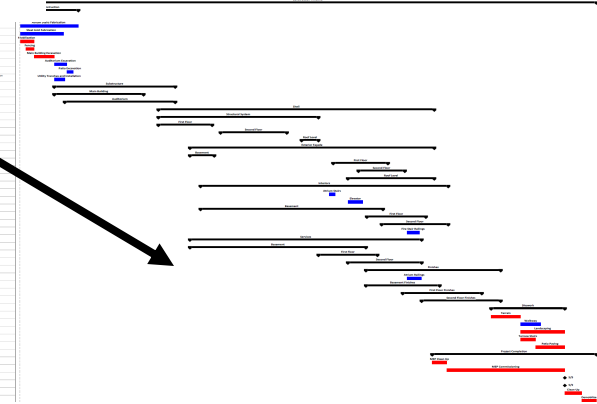
4D: SCHEDULE



Description	Quantity	Material Cost	Labor Cost	Total Cost	Time
Construction					
Partition	812.167' 8"	0.00	0.00	0.00	
>= 5 1/2" Partition (1hr)	1,697.239' ft	0.00	0.00	0.00	
>= 4 1/8" Partition (1hr)	786.821' ft	0.00	0.00	0.00	
1/2" GWS on Mt. Stud	696.811' 8"	0.00	0.00	0.00	
Joist		0.00	0.00	0.00	
Trusses		0.00	0.00	0.00	
Trusses		0.00	0.00	0.00	



WBS	Quantity	Material Cost	Labor Cost	Total Cost	Time	Parameter
	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Labor Hours	Total
A				\$203,979.39		
A.10				16,234.04		
A.10.10				15,234.04		
A.10.10.10				4,377.63		
A.10.10.10.1	171.117' ft	25.00	4,377.63	4,402.63		
A.10.10.10.1.1	14' x 20' x 10'	33.846	25.00	58.846		
A.10.10.10.1.2	34.074' ft	25.00	531.82	556.82		
A.10.10.10.1.3	35.561' ft	25.00	689.02	714.02		
A.10.10.10.1.4	33.788' ft	25.00	644.71	669.71		
A.10.10.10.1.5	33.846' ft	25.00	644.20	669.20		
A.10.10.20				6,072.84		
A.10.10.20.0				1,453.63		
A.10.10.20.0.1	42.833' ft	0.00	1,453.63	1,453.63		
A.10.10.20.0.2	42.833' ft	0.00	1,453.63	1,453.63		
A.10.10.20.0.3	42.833' ft	0.00	1,453.63	1,453.63		
A.10.10.20.0.4	20.958' ft	0.00	523.93	523.93		
A.10.10.20.0.5	22.211' ft	0.00	555.27	555.27		
A.10.10.20.0.6	24.994' ft	0.00	624.94	624.94		
A.10.10.20.0.7	21.625' ft	0.00	545.63	545.63		
A.10.10.20.0.8	19.000' ft	738.00	14,664.00	15,402.00	1.05	27.65 hr
A.10.10.20.0.9	1.000' ft	738.00	738.00	1,476.00	3.00	10.00 hr
A.10.10.30				1,206.00		
A.10.10.30.0				1,206.00		
A.10.10.30.0.1	1.000' ft	738.00	738.00	1,476.00	3.00	10.00 hr



CENTRAL TEAM

ARCH

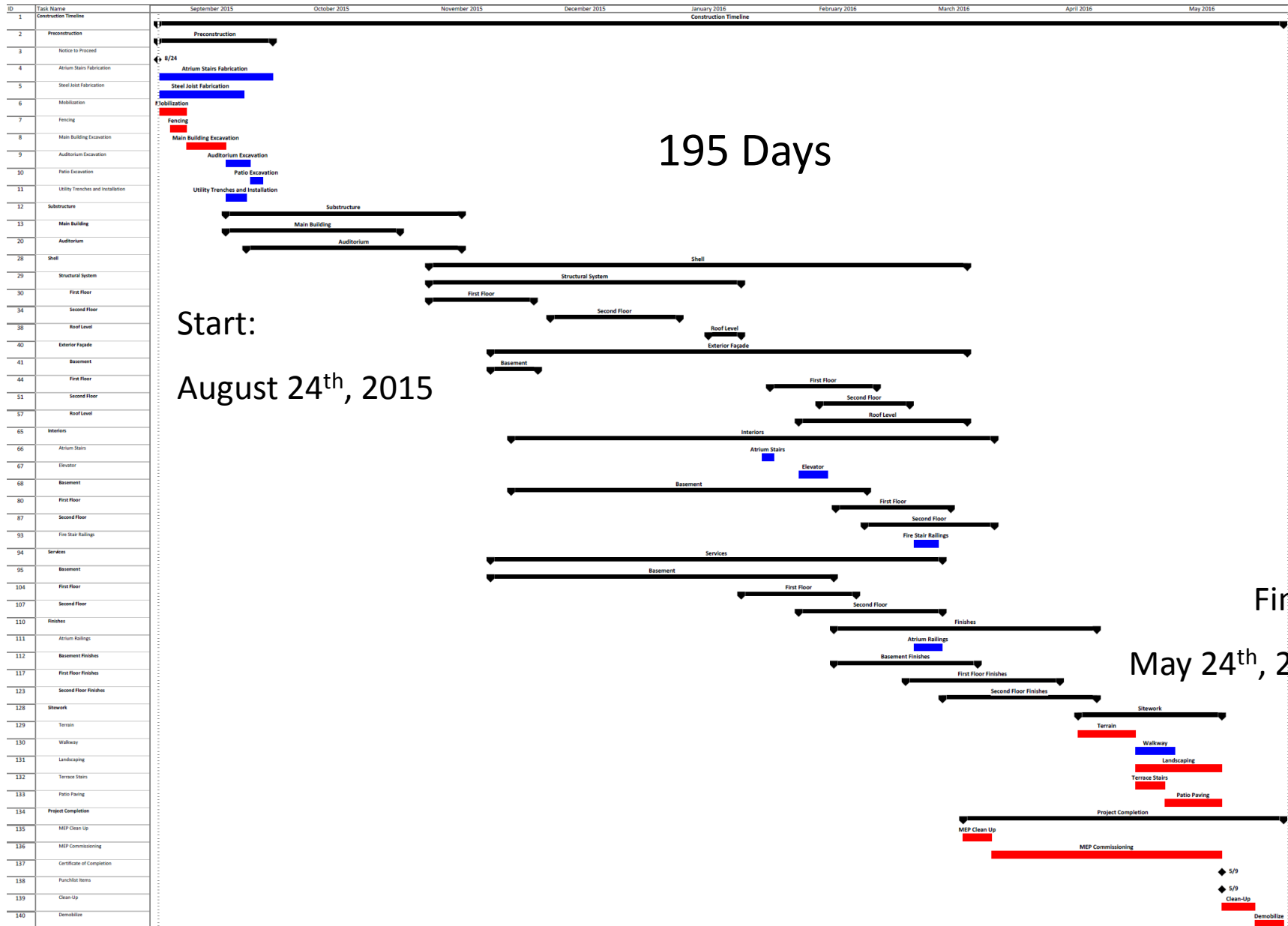
SE

CM

MEP

LCFM

CONSTRUCTION SCHEDULE



CENTRAL TEAM

ARCH

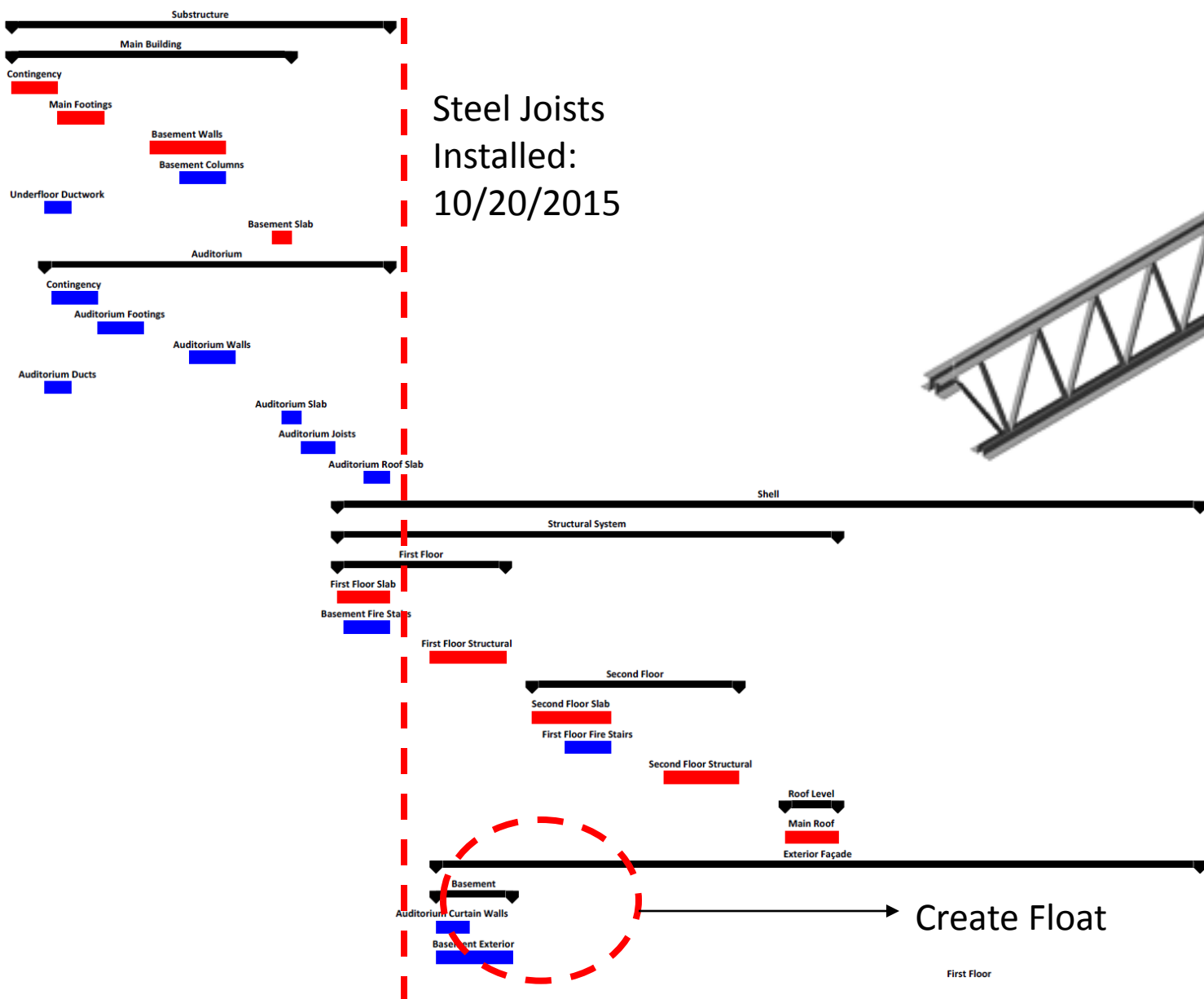
SE

CM

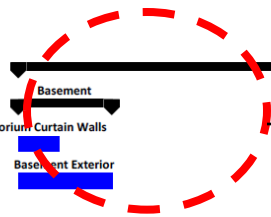
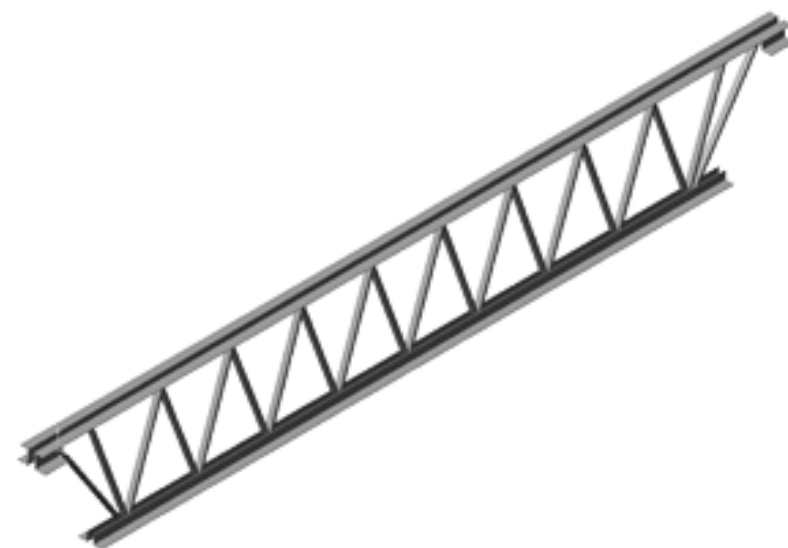
MEP

LCFM

SCHEDULING MILESTONES

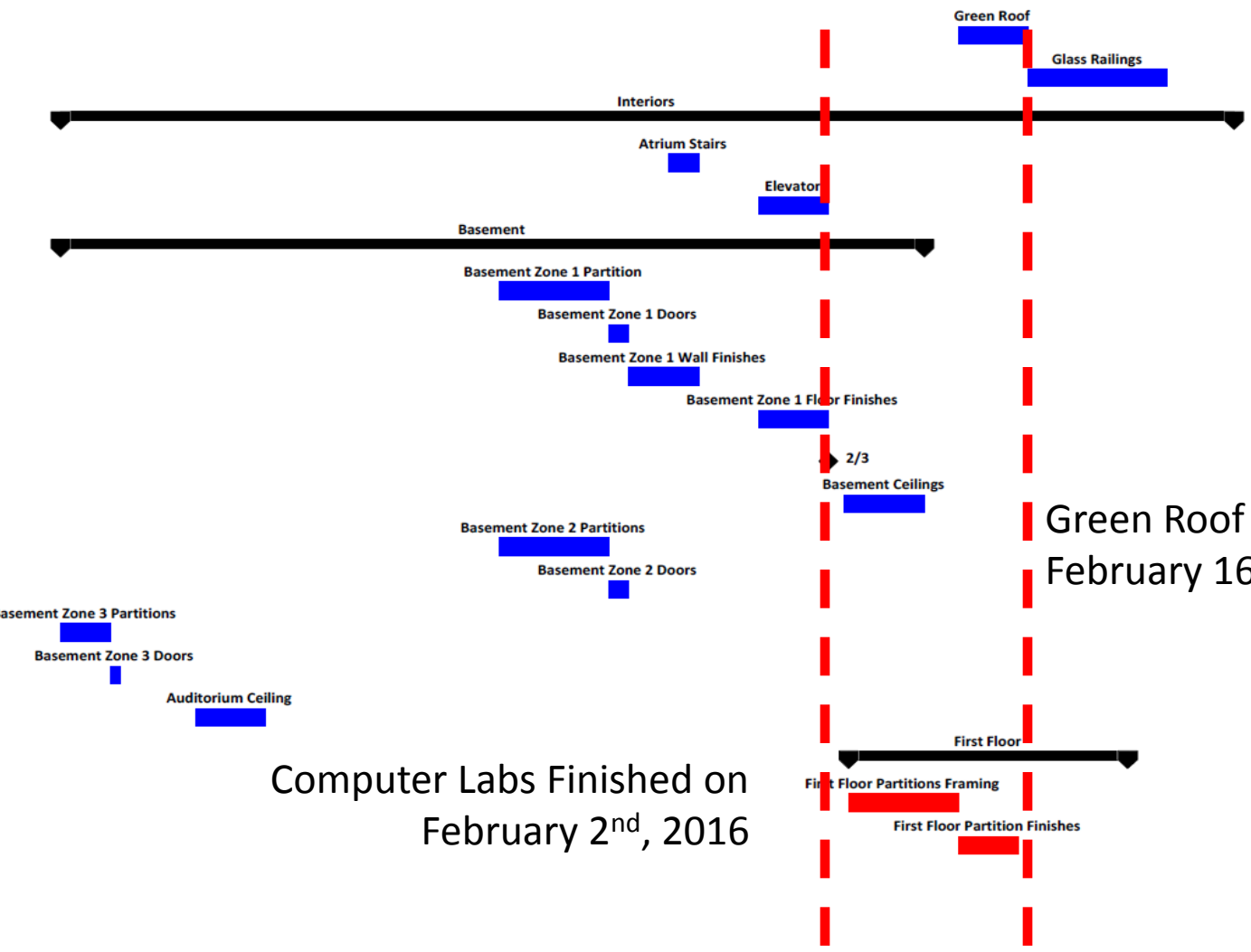


Steel Joists
Installed:
10/20/2015



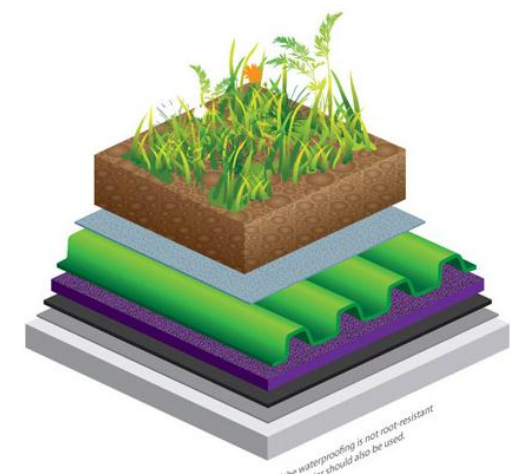
Create Float

SCHEDULING MILESTONES



Computer Labs Finished on February 2nd, 2016

Green Roof Installed on February 16th, 2016



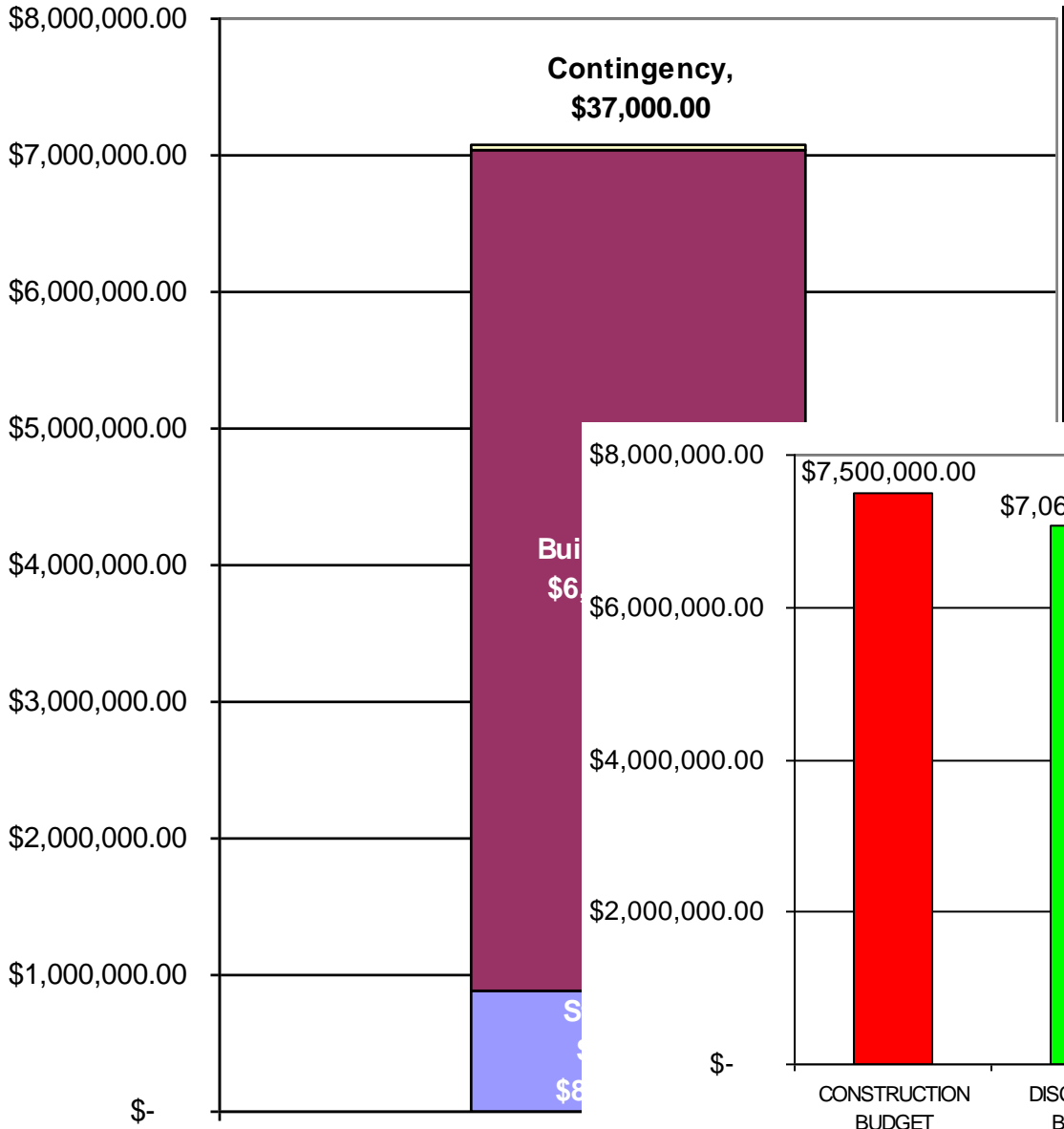
5D: COST ESTIMATING



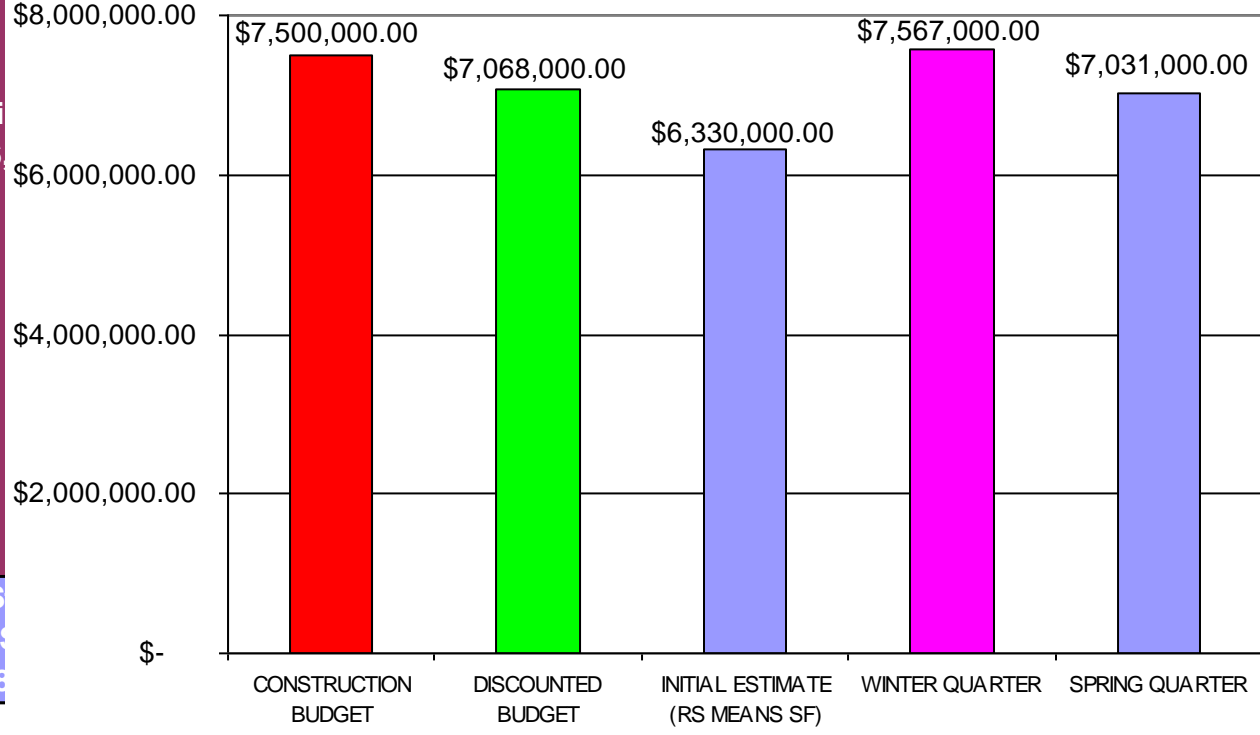
WBS	Quantity 1	Material Cost	Unit Cost	Total	Unit Cost	Total	Time	Total
Construction		0.00		0.00		0.00		0.00
Substructure (B)		812,167	R ²	0.00		0.00		0.00
Shell (2.0B)		1,697,289	ft	0.00		0.00		0.00
Superstructure		755,001	ft	0.00		0.00		0.00
Floor Construct		696,811	R ²	0.00		0.00		0.00
Roof Construct		0.00		0.00		0.00		0.00
Exterior Encls.		0.00		0.00		0.00		0.00
Exterior Walls (C)		0.00		0.00		0.00		0.00
Exterior Wds		0.00		0.00		0.00		0.00
Exterior Doors (B)		0.00		0.00		0.00		0.00
Double - Gl		0.00		0.00		0.00		0.00
Single Glass		0.00		0.00		0.00		0.00
Roofing (1,860)		0.00		0.00		0.00		0.00
Interior (D&E)		0.00		0.00		0.00		0.00
Interior Contrib		0.00		0.00		0.00		0.00
Interior (F)		0.00		0.00		0.00		0.00
Interior - 6		0.00		0.00		0.00		0.00
Soft		0.00		0.00		0.00		0.00
Soft - 1/2		0.00		0.00		0.00		0.00
Fin D.		0.00		0.00		0.00		0.00
Single Flu.		0.00		0.00		0.00		0.00
Double Flu.		0.00		0.00		0.00		0.00
Single Flu.		0.00		0.00		0.00		0.00
Double Flu.		0.00		0.00		0.00		0.00
Fin D.		0.00		0.00		0.00		0.00
Single Flu.		0.00		0.00		0.00		0.00
Double Flu.		0.00		0.00		0.00		0.00



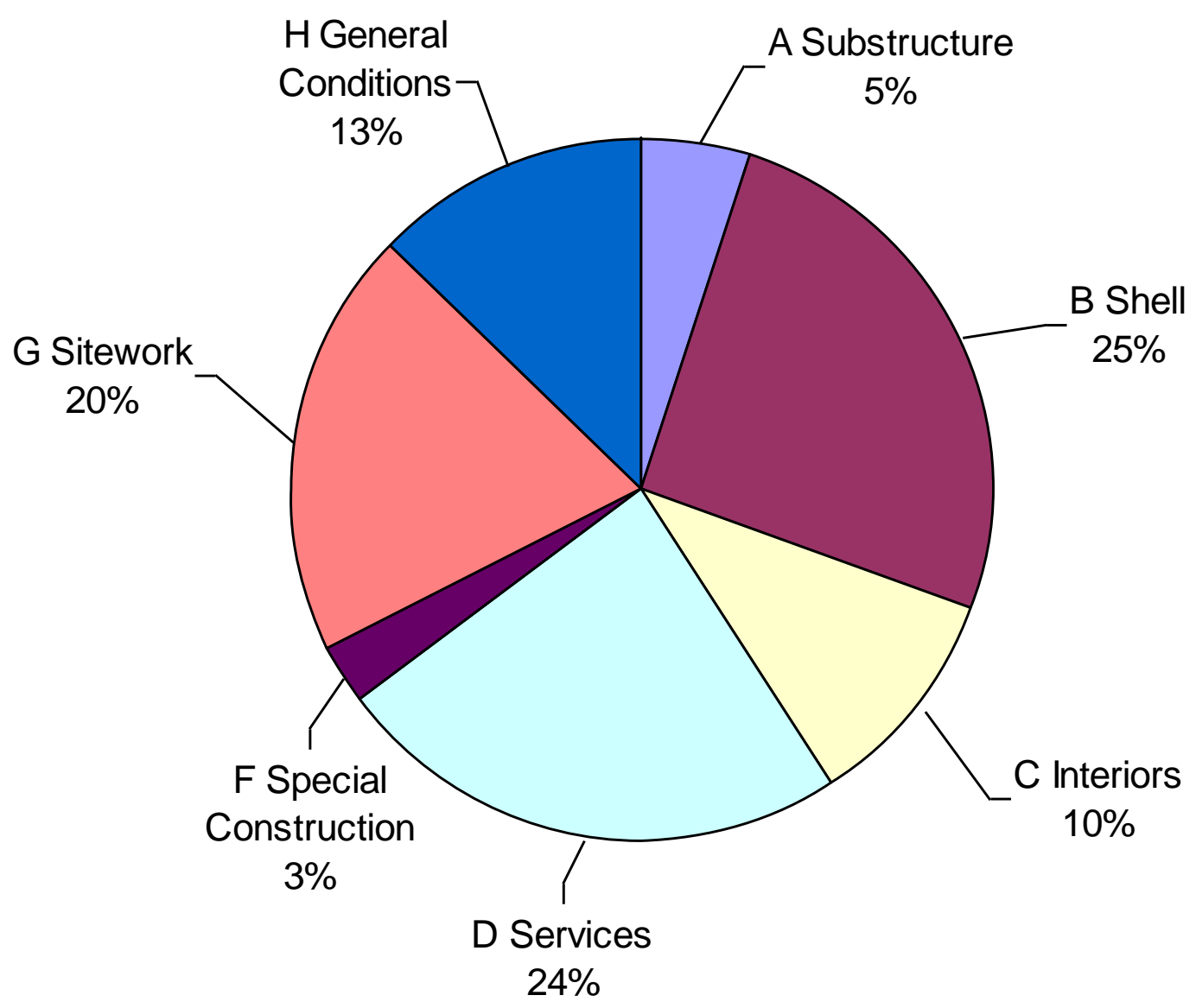
CONSTRUCTION BUDGET



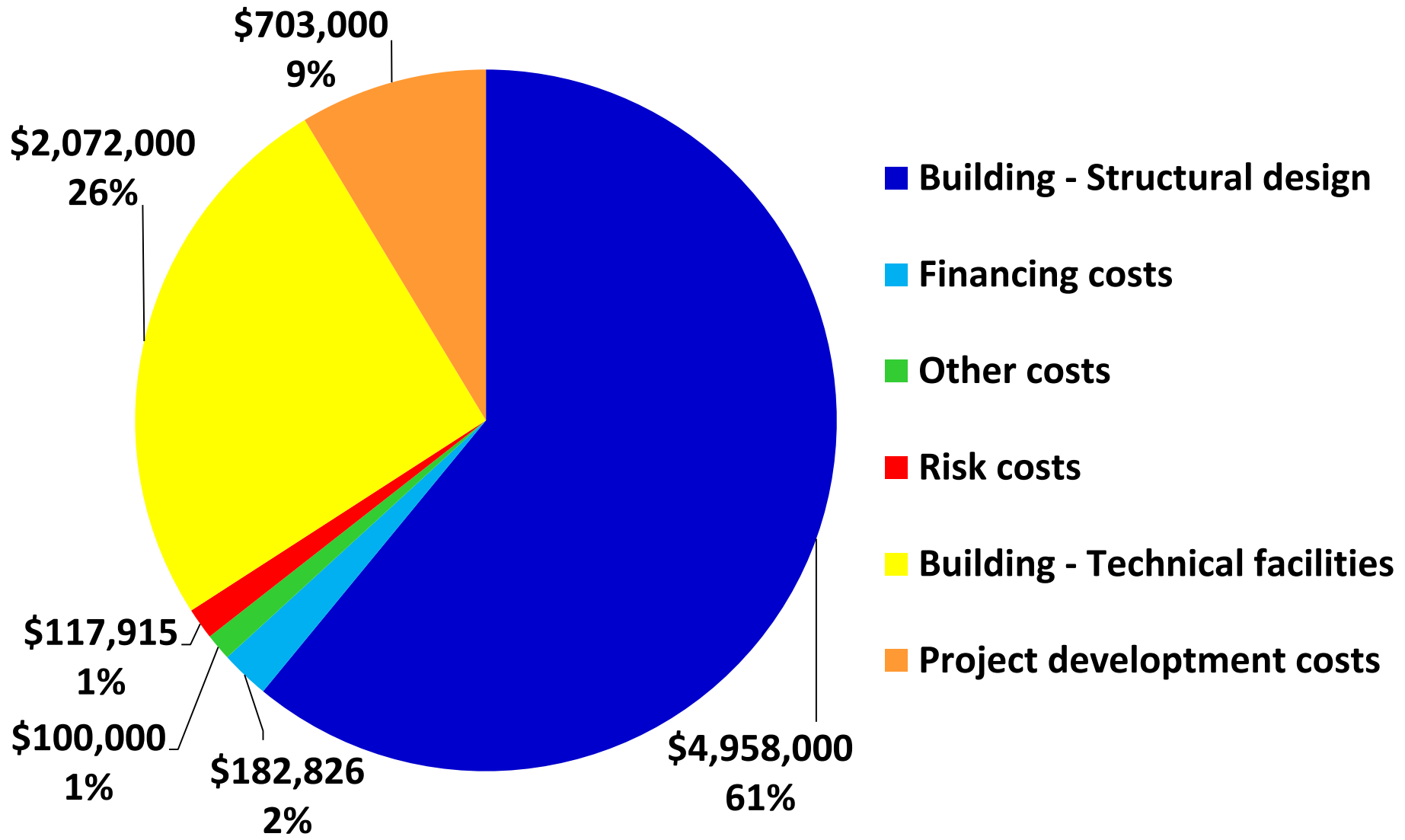
Budget:
 \$7.5M = \$7.07M (2012)
 (2% Inflation)



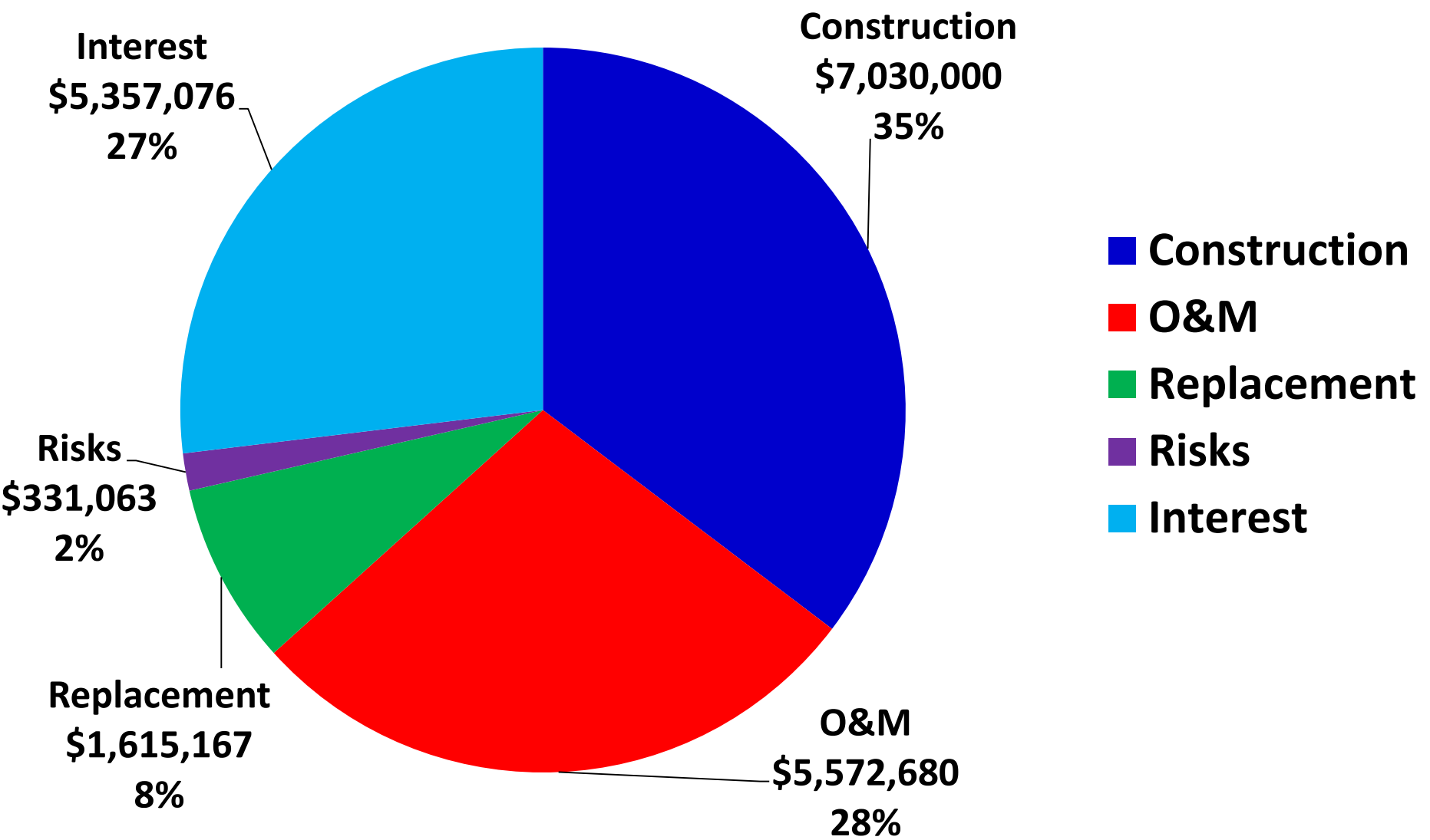
COST BREAKDOWN



DEVELOPMENT COSTS



COSTS OVERVIEW

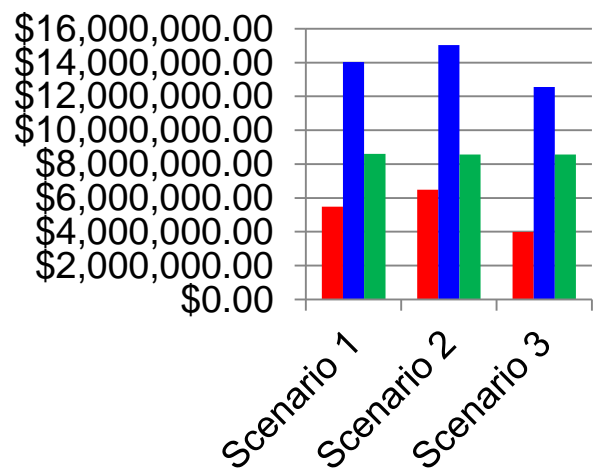


PROJECT PROFITABILITY

		<u>NOI yield all cash</u>	<u>Multiple all cash</u>
NOI	1. full business year	11.20%	8.93

Sensitivity of 1. year: Yield of cash value			Net Rent				
			728,418	819,470	910,522	1,001,575	1,092,627
Total investment	ROCE	11.20%	80%	90%	100%	110%	120%
	6,505,644	+ 80.00%	11.20%	9.95%	8.96%	8.14%	7.46%
	7,318,850	90%	12.60%	11.20%	10.08%	9.16%	8.40%
	8,132,055	100%	14.00%	12.44%	11.20%	10.18%	9.33%
	8,945,261	110%	15.40%	13.68%	12.32%	11.20%	10.26%
	9,758,466	+ 120.00%	16.80%	14.93%	13.44%	12.21%	11.20%

2 Loans system



- Interest
- Annuity
- Cash value of Ann.

2 Loans

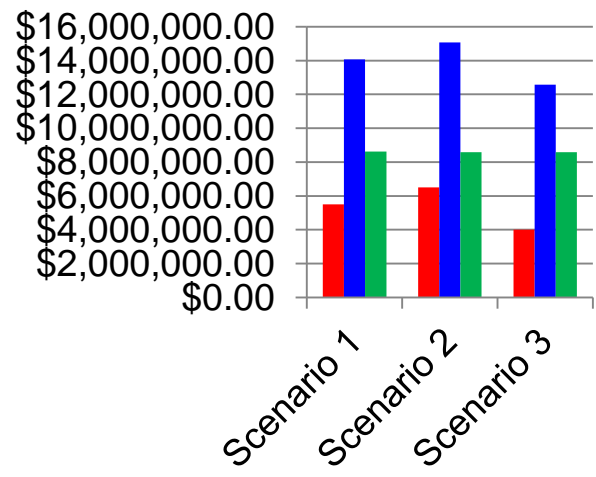
1st loan for construction phase

- SWAP: 2.08%

2nd loan for operation phase

- SWAP: 3.50%

1 Loan system



- Interest
- Annuity
- Cash value of Ann.

1 Loan

Conditions for construction phase

- SWAP 3.45%

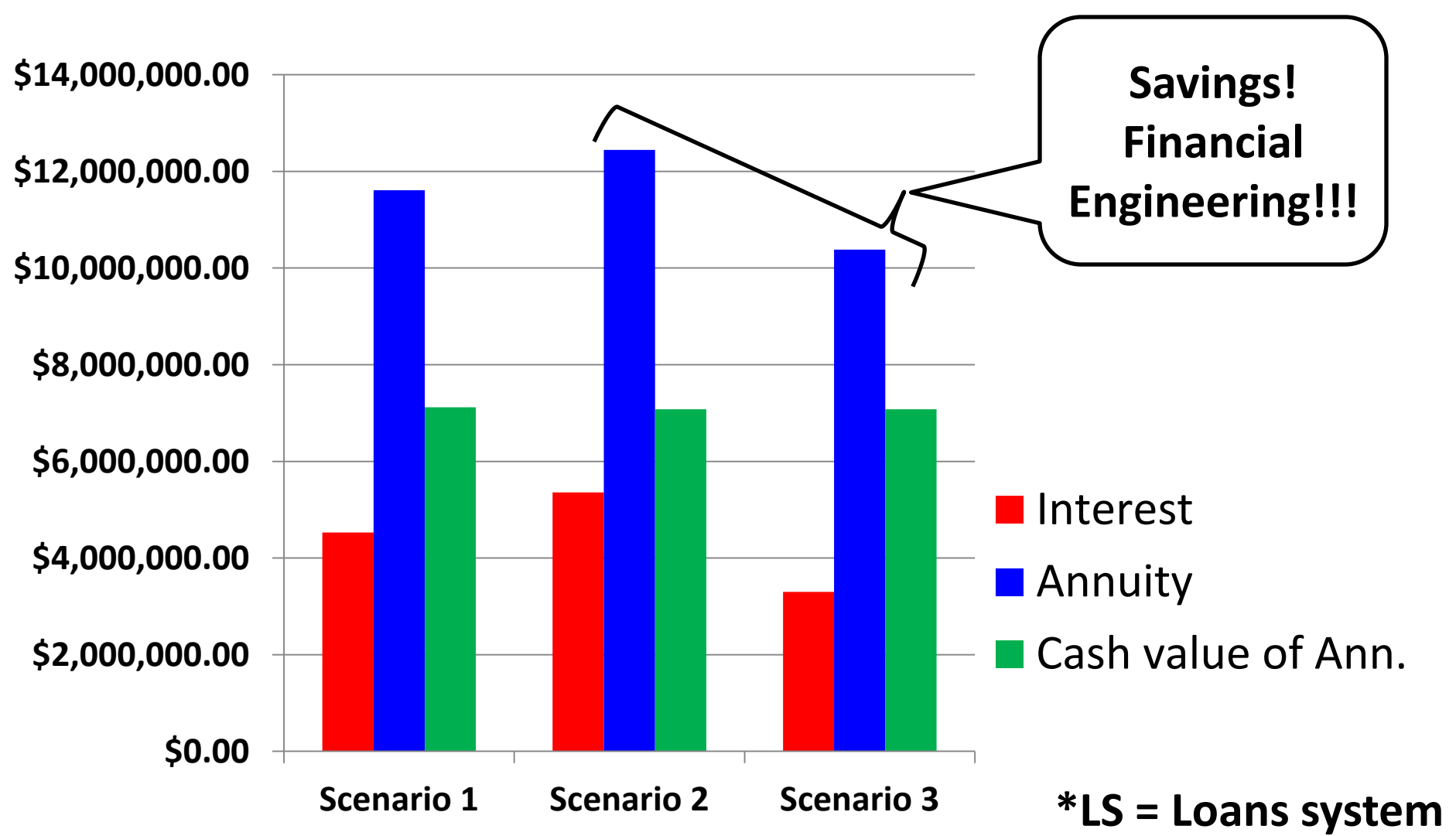
Conditions for operation phase

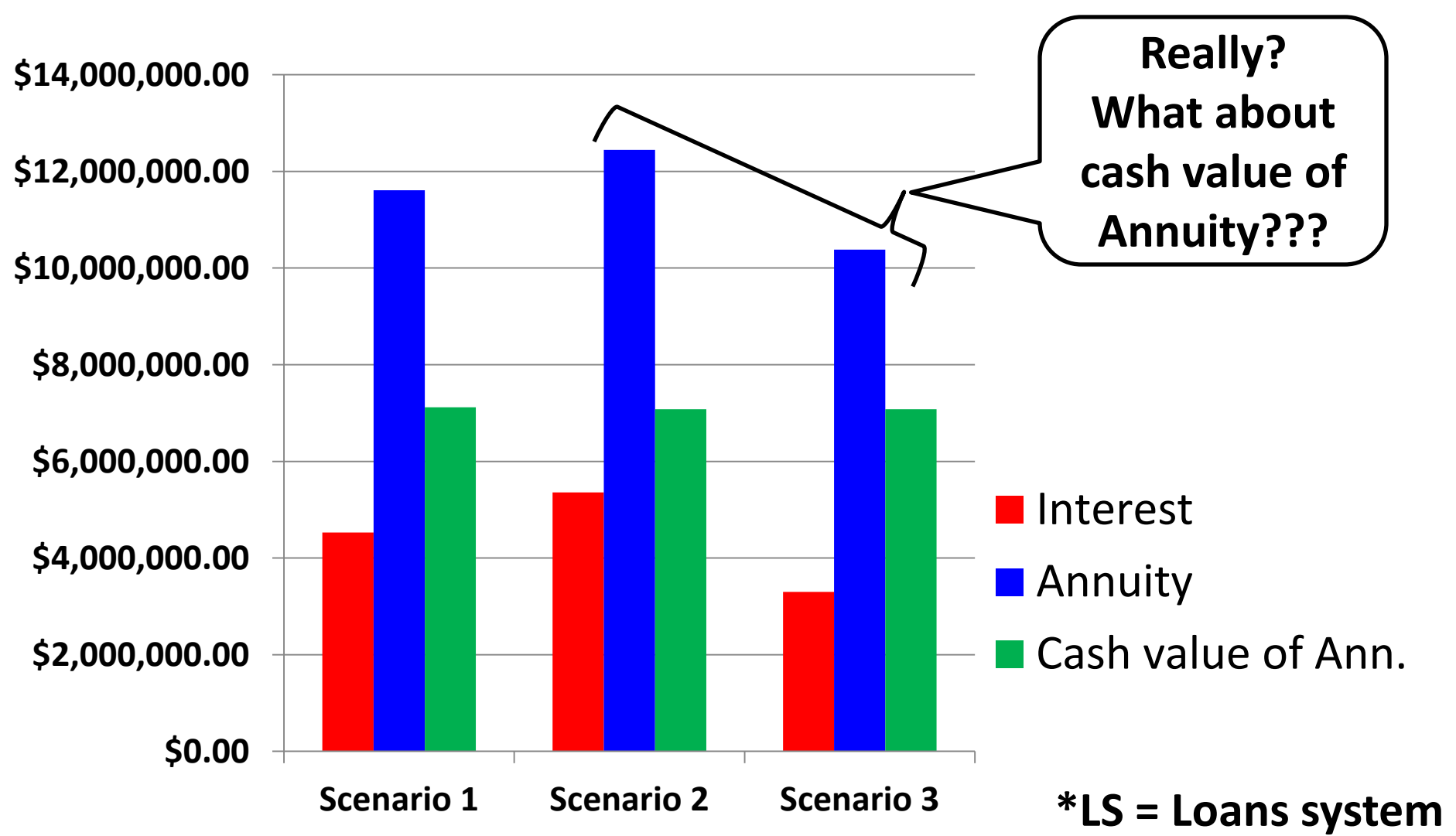
- SWAP 3.45%

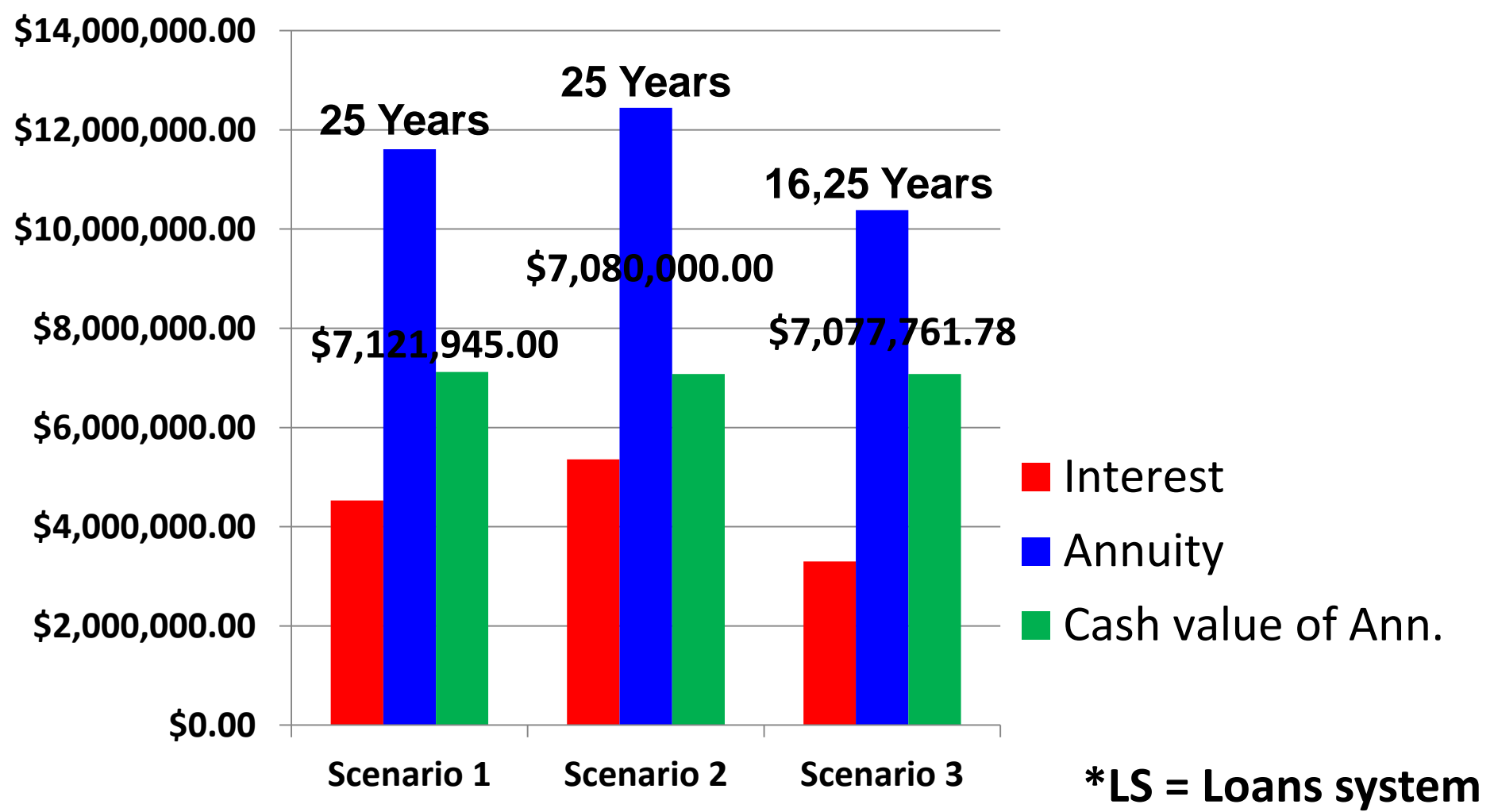
	2 LS	1 LS
Interest	\$5,357,076	\$5,363,961
Amortization	\$7,085,514	\$7,113,777
Annuity	\$12,442,589	\$12,477,738
Cash value of Annuity	\$7,080,000	\$7,100,000
DSCR	\$14,308,978	\$14,349,399
2 Loan System	\$12,442,589	

***LS = Loans system**

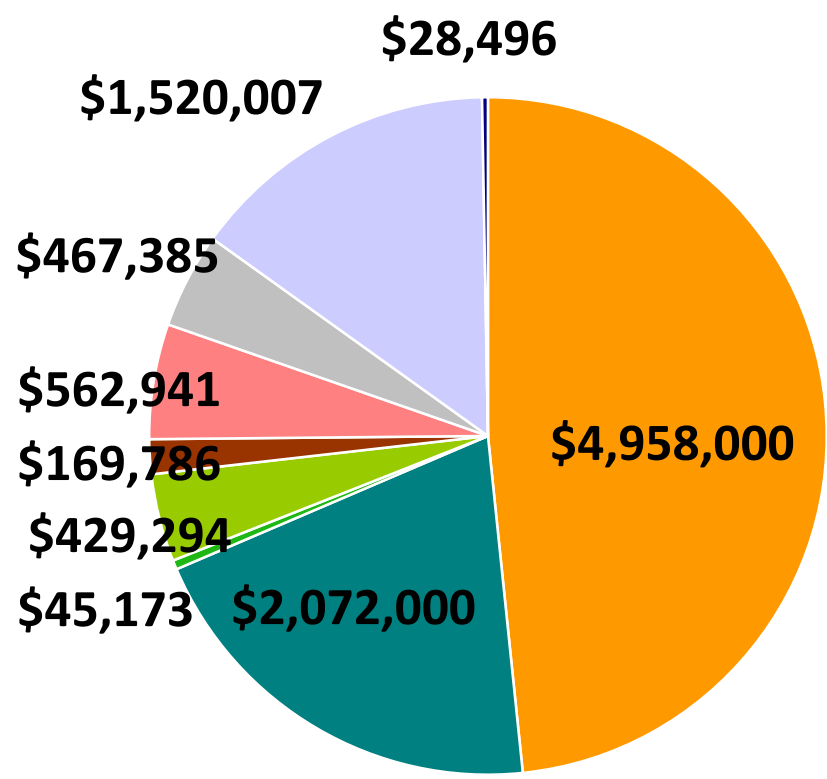
FINANCIAL ENGINEERING – 2 LS







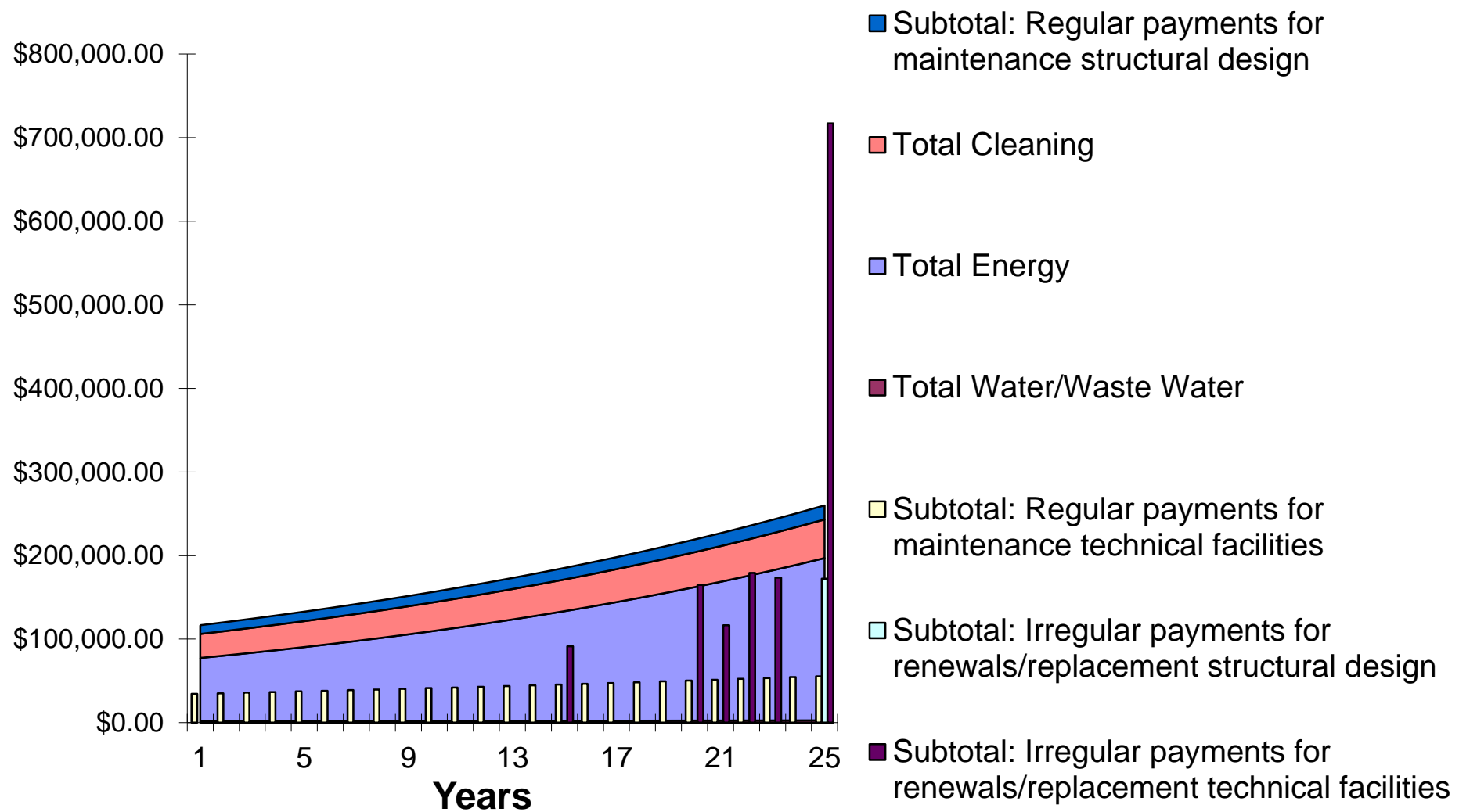
CASH VALUE OF LIFE CYCLE COSTS



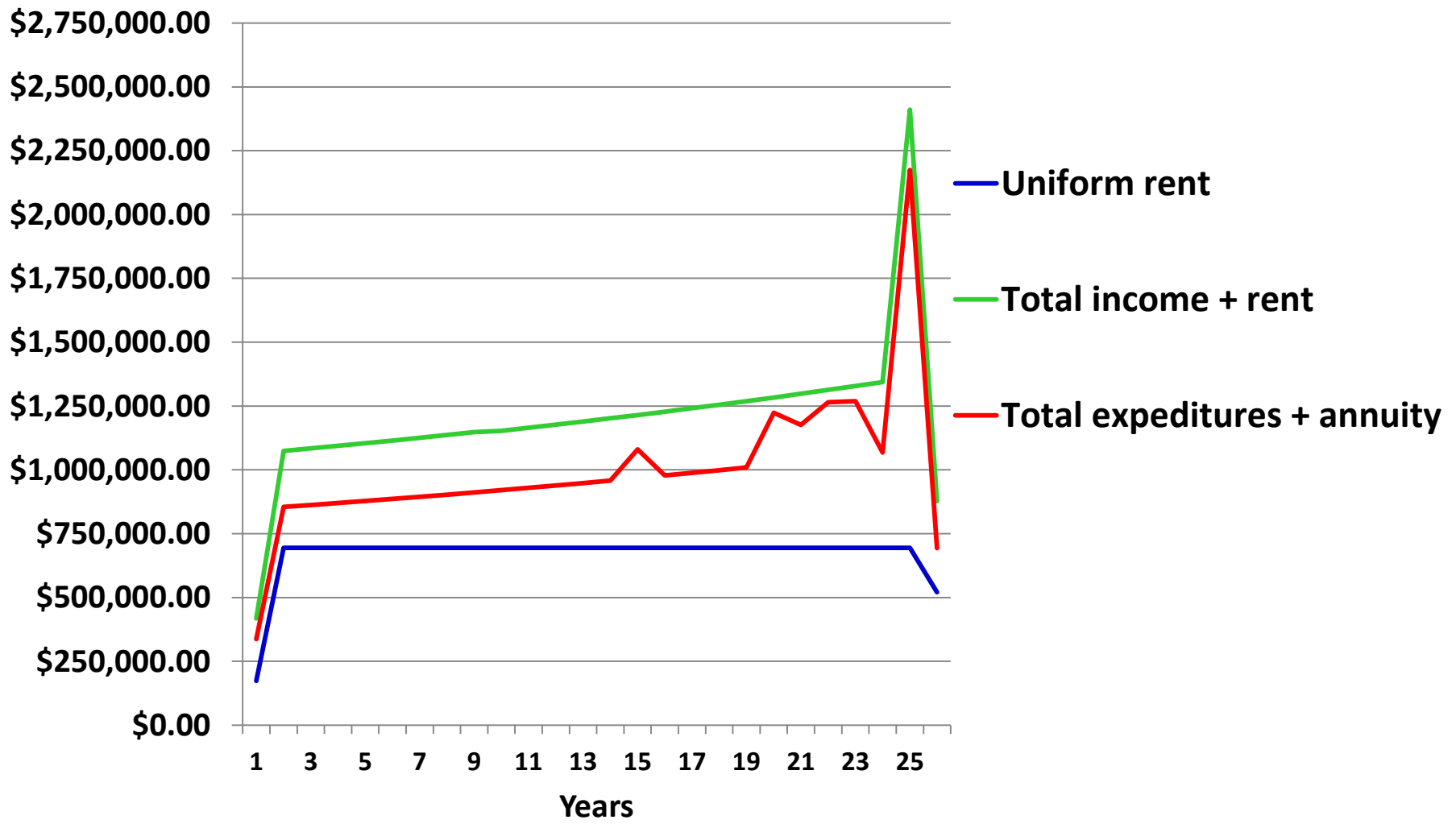
- Construction costs structural design
- Construction costs technical facilities
- Irregular payments structural design
- Irregular payments technical facilities
- Regular maintenance structural design
- Regular maintenance technical facilities
- Cleaning off 25 years
- Energy off 25 years
- Water/waste water off 25 years

Cash value of LCC	\$10,253,083
LCC/m²	\$2,873
LCC/ft²	\$267
Scores for criterion LCC	96

LIFE CYCLE COSTS



LIFE CYCLE RENT

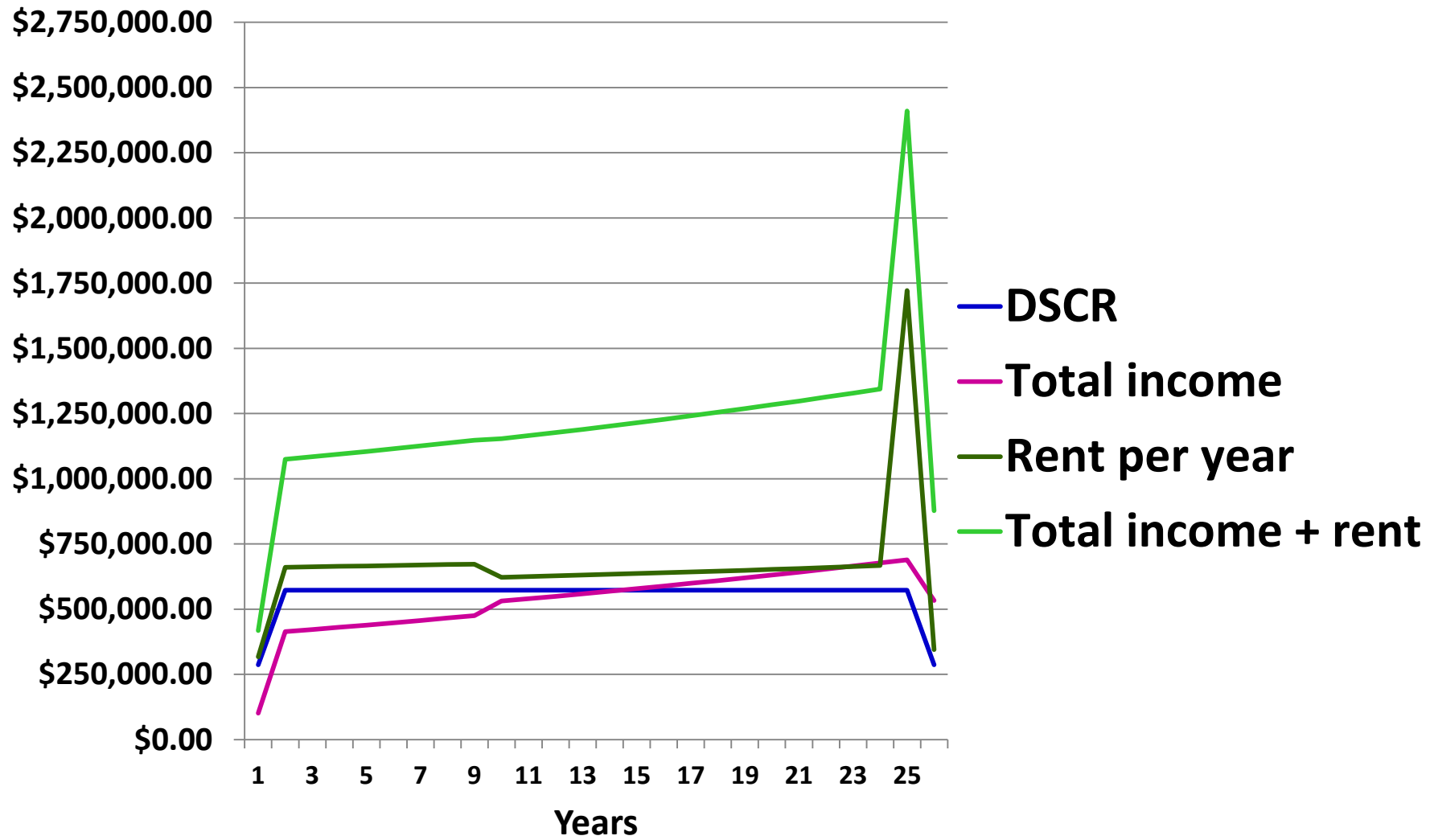


LIFE CYCLE RENT

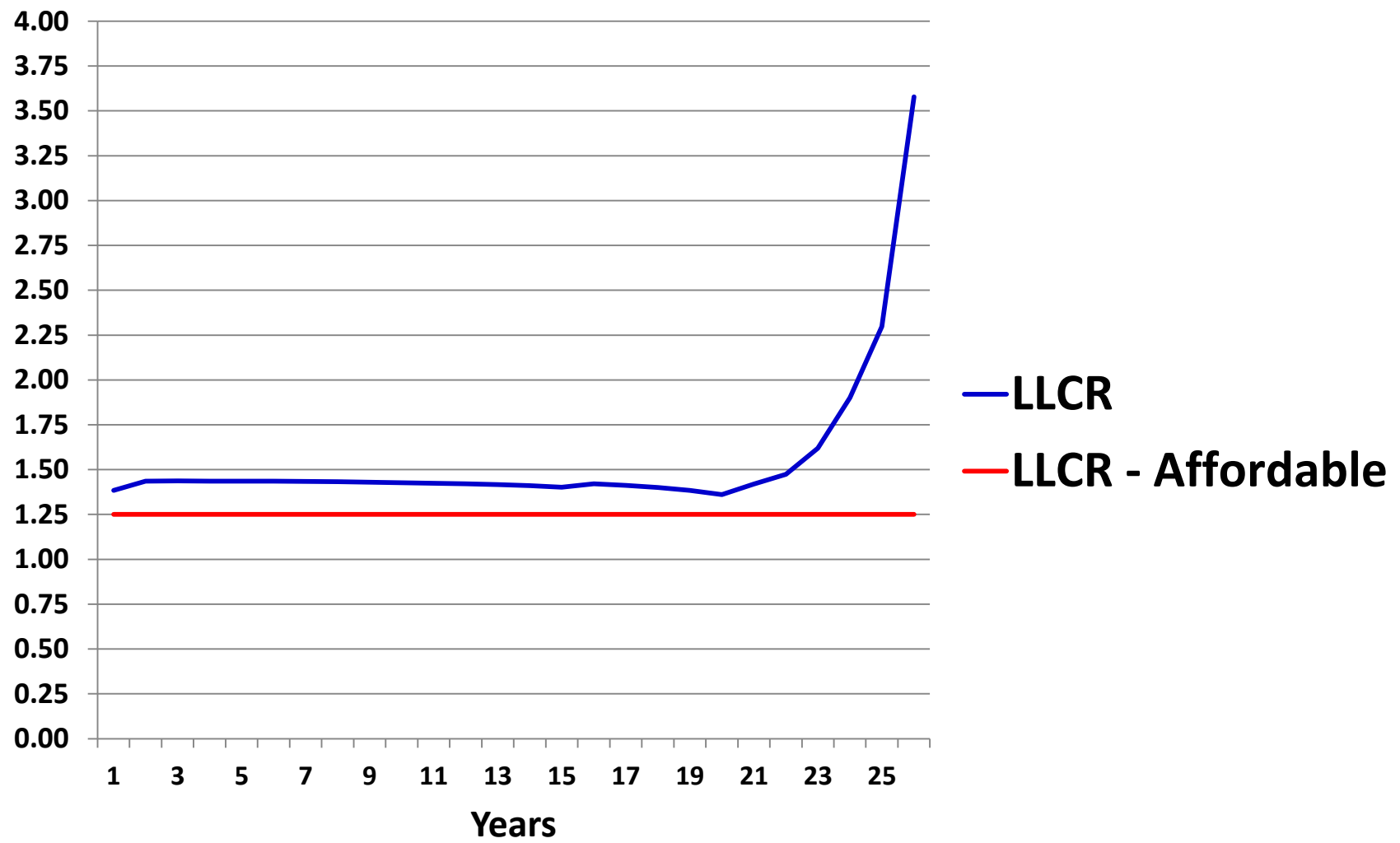
Total rent over LC	\$17,364,048
Total rent over LC/year	\$694,562
Total rent over LC/month	\$57,880
Total rent over LC/day	\$1,929
Total rent over LC/hour	\$80

	2016	2017	2041
Uniform rent	\$173,640	\$694,562	\$520,921
Total income + rent	\$418,108	\$1,074,284	\$877,601
Total expenditures + annuity	\$337,552	\$854,790	\$693,414

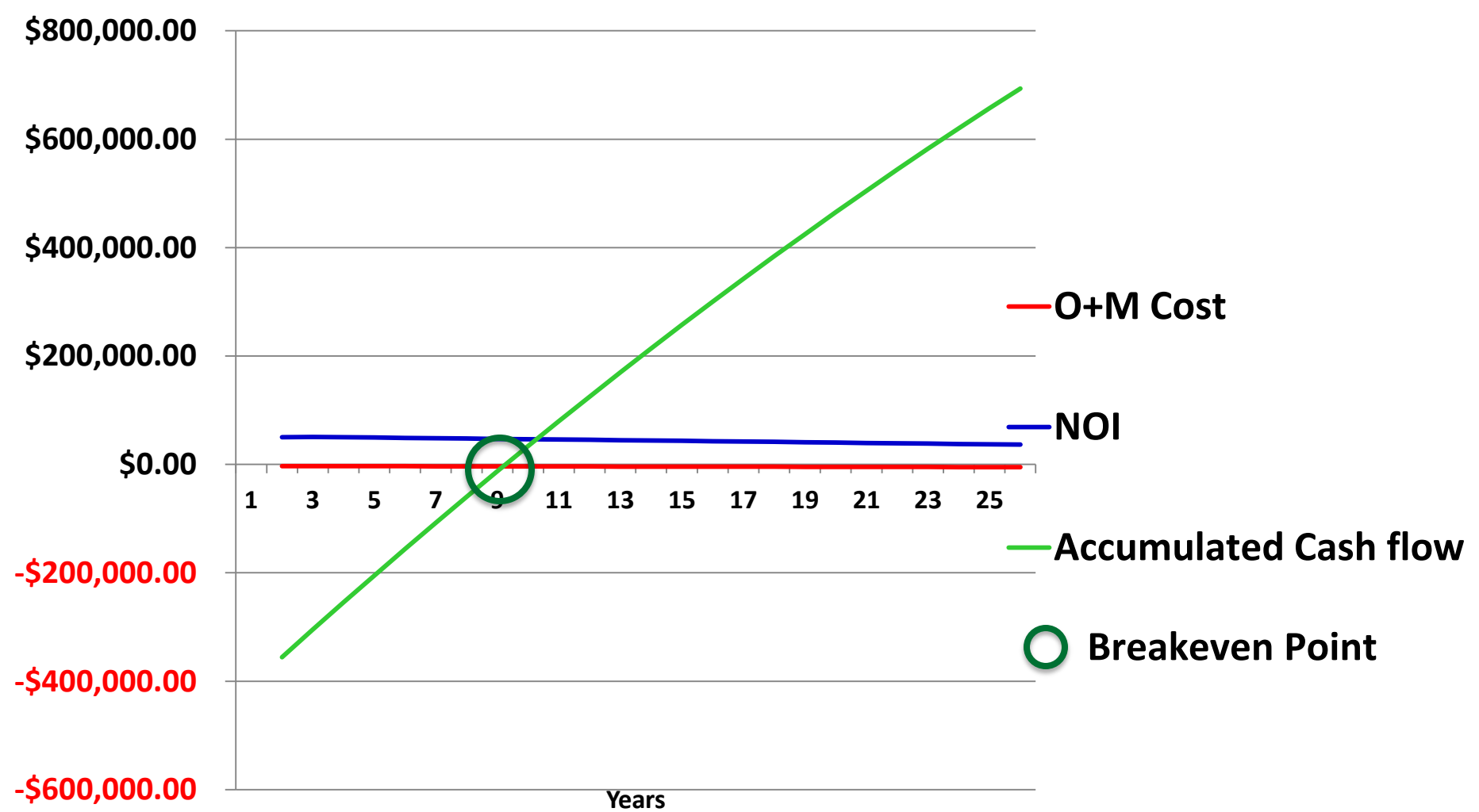
DEPTH SERVICE COVER RATIO (DSCR)



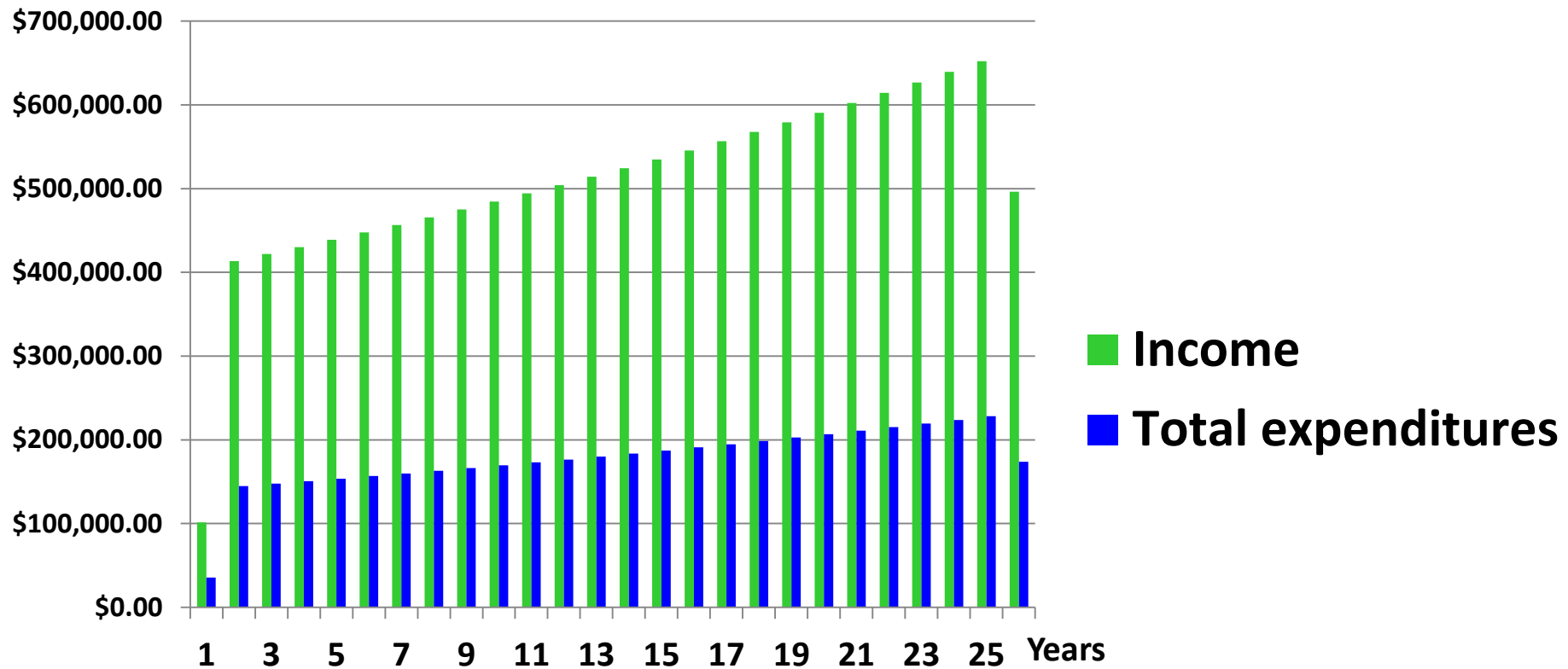
LONG LIFE COVER RATIO (LLCR)



INCOME – PHOTOVOLTAIC SYSTEM

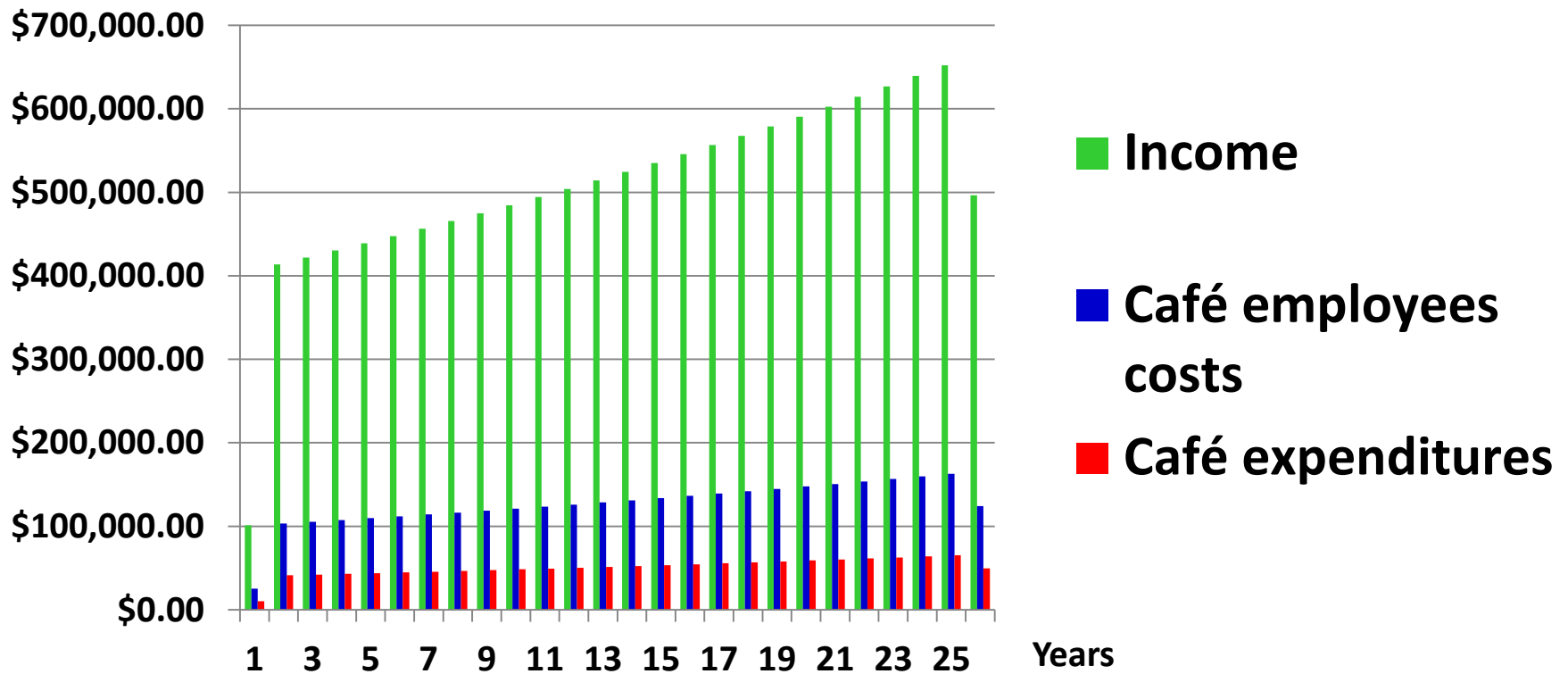


INCOME – CAFÉ



Total Income	\$13,178,545.13
Total cash value of income	\$10,134,379.00
Total expenditures	\$4,612,490.80
Total cash value of expenditures	\$3,547,032.65

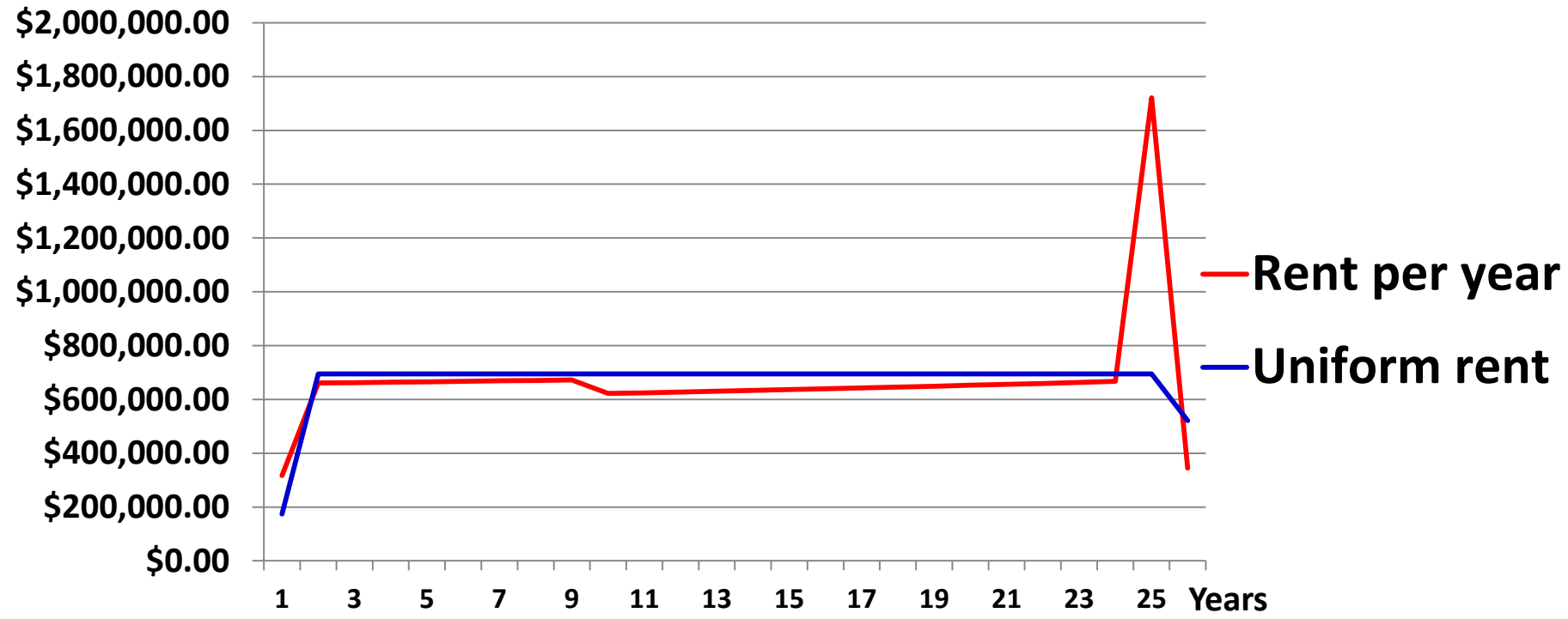
INCOME – CAFÉ



Café employee	25,00%
Café expenditures	10,00%

Café size	500,00 ft ²
Income/ft²/day	\$2.25
Income/day	\$1,126.21
Income/month	\$33,786.23

INCOME – RENT



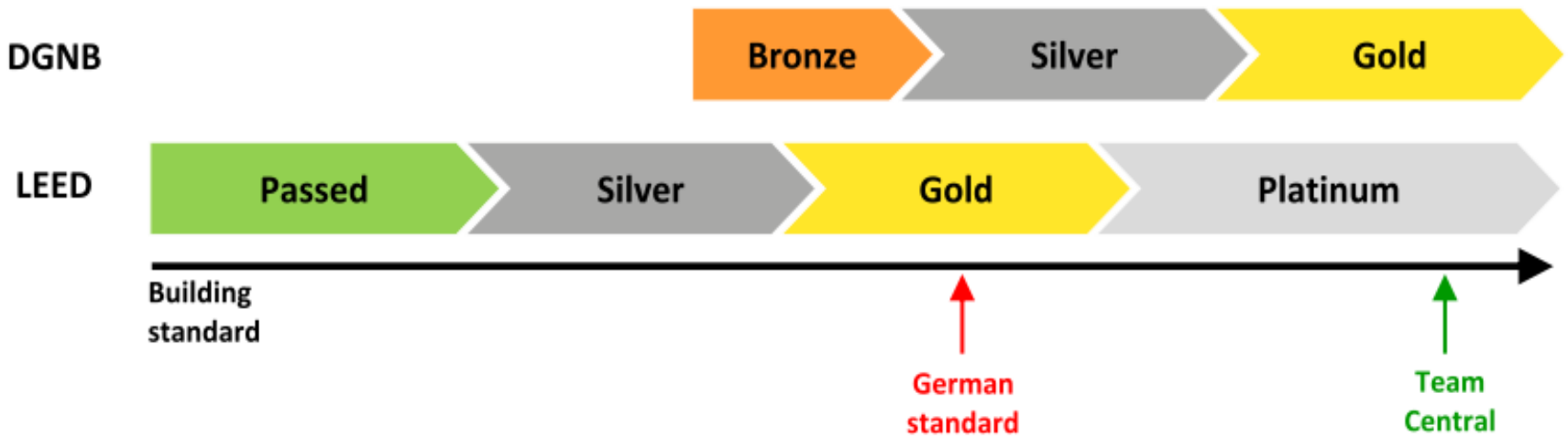
Year	2016	2017	2018
Uniform rent	\$173,640	\$694,562	\$520,921

Total rent over LC	\$17,364,048
Total rent over LC/year	\$694,562
Total rent over LC/month	\$57,880
Total rent over LC/day	\$1,929
Total rent over LC/hour	\$80

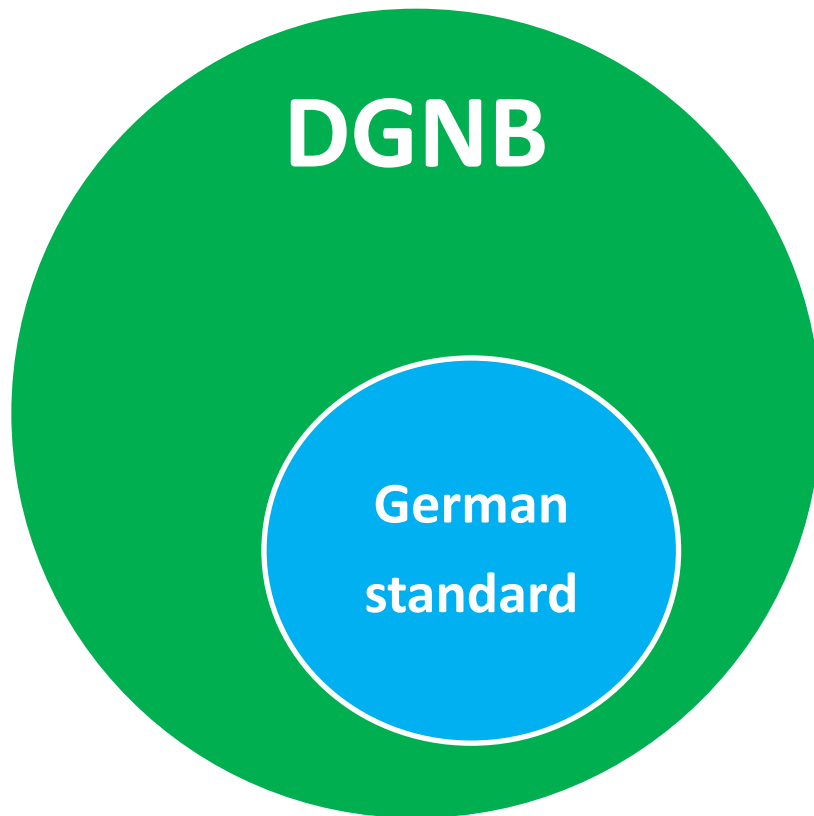
Winter Quarter



Spring Quarter



Why DGNB?


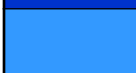
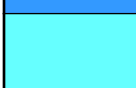



German
standard is one
of the DGNB
requirements!!!



Life Cycle Costs

Economic Criteria		DGNB	LEED
16	Life Cycle Costs	High Requirements	Low Requirements
17	Performance (Space efficiency, Feasibility of Conversion)	High Requirements	Does Not Contain

-  High Requirements
-  Medium Requirements
-  Low Requirements
-  Does Not Contain

SUSTAINABILITY CERTIFICATION

DGNB

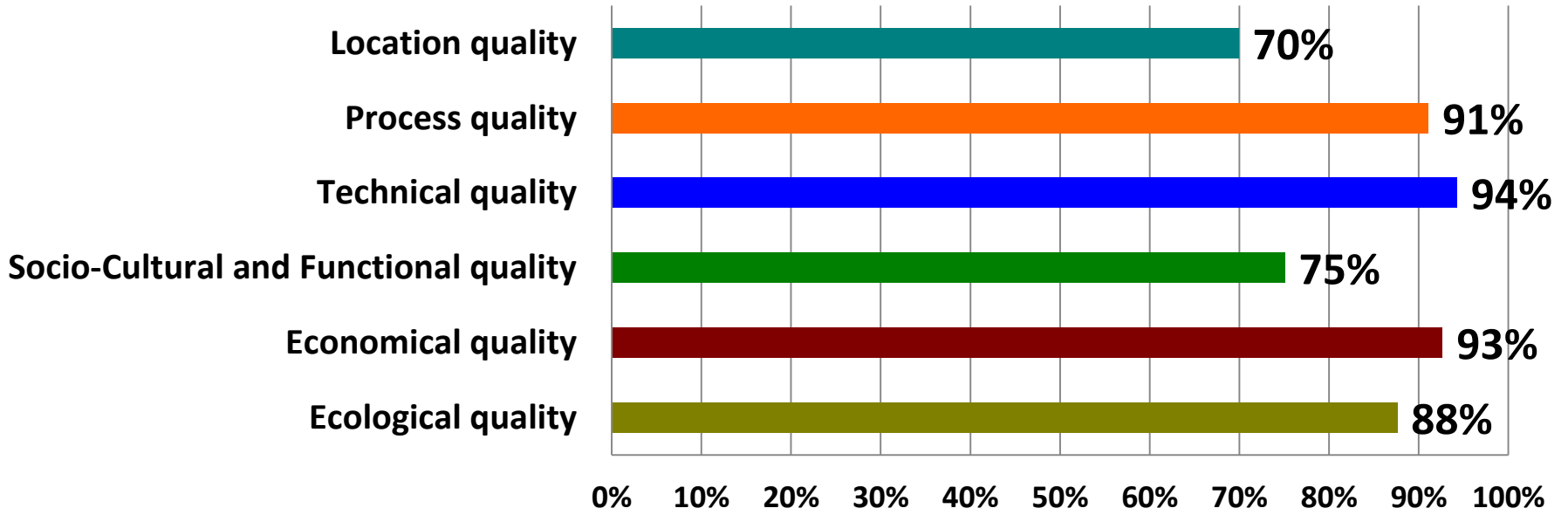
Team Central Achieved
GOLD

LEED

Team Central Achieved
Platinum in USA

Total Degree of Performance	87,8%
Topics	Degree of performance
Ecological quality	88%
Economical quality	93%
Socio-Cultural and Functional quality	75%
Technical quality	94%
Process quality	91%
Location quality	70%

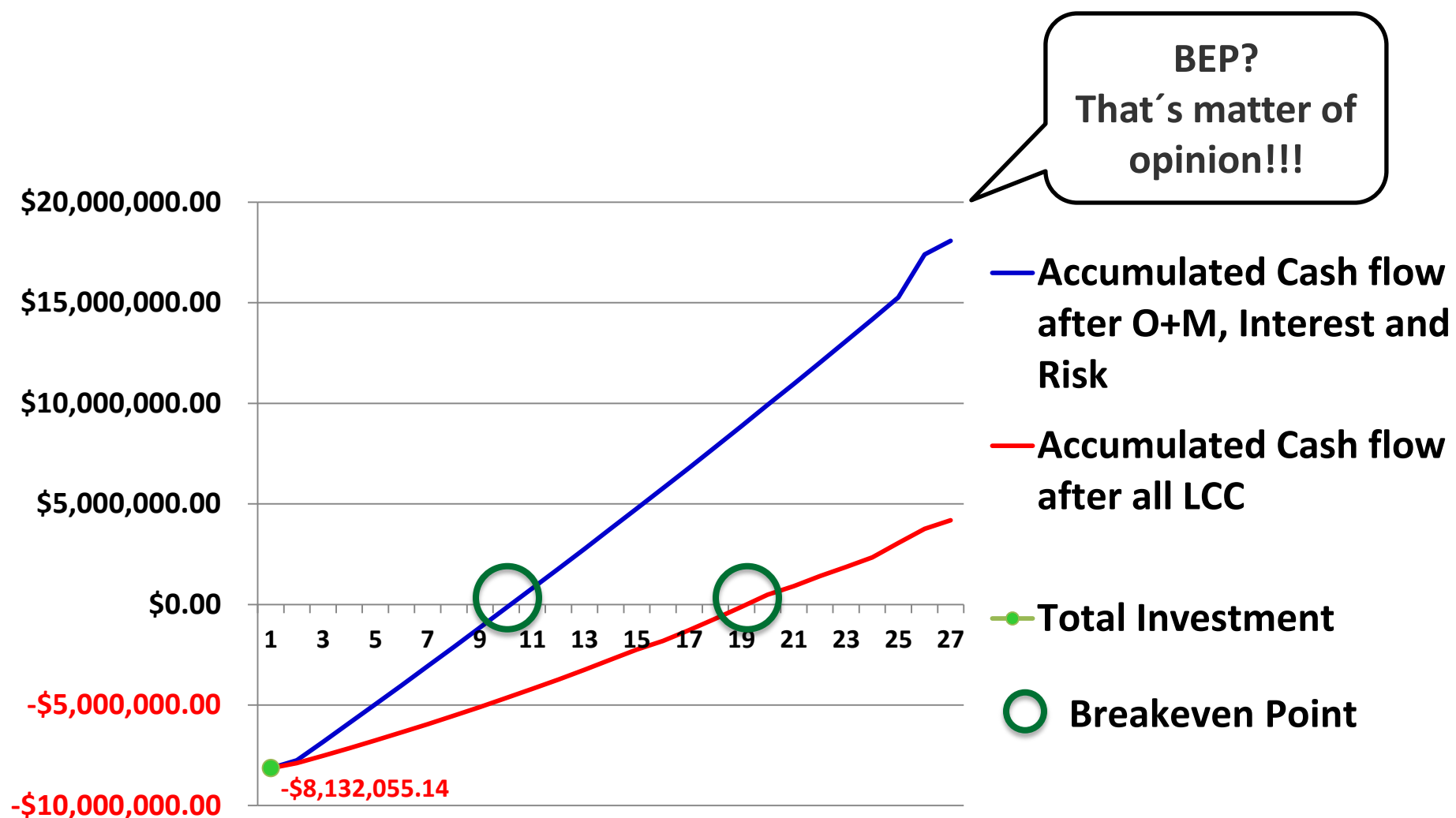
DGNB - Degree of Performance



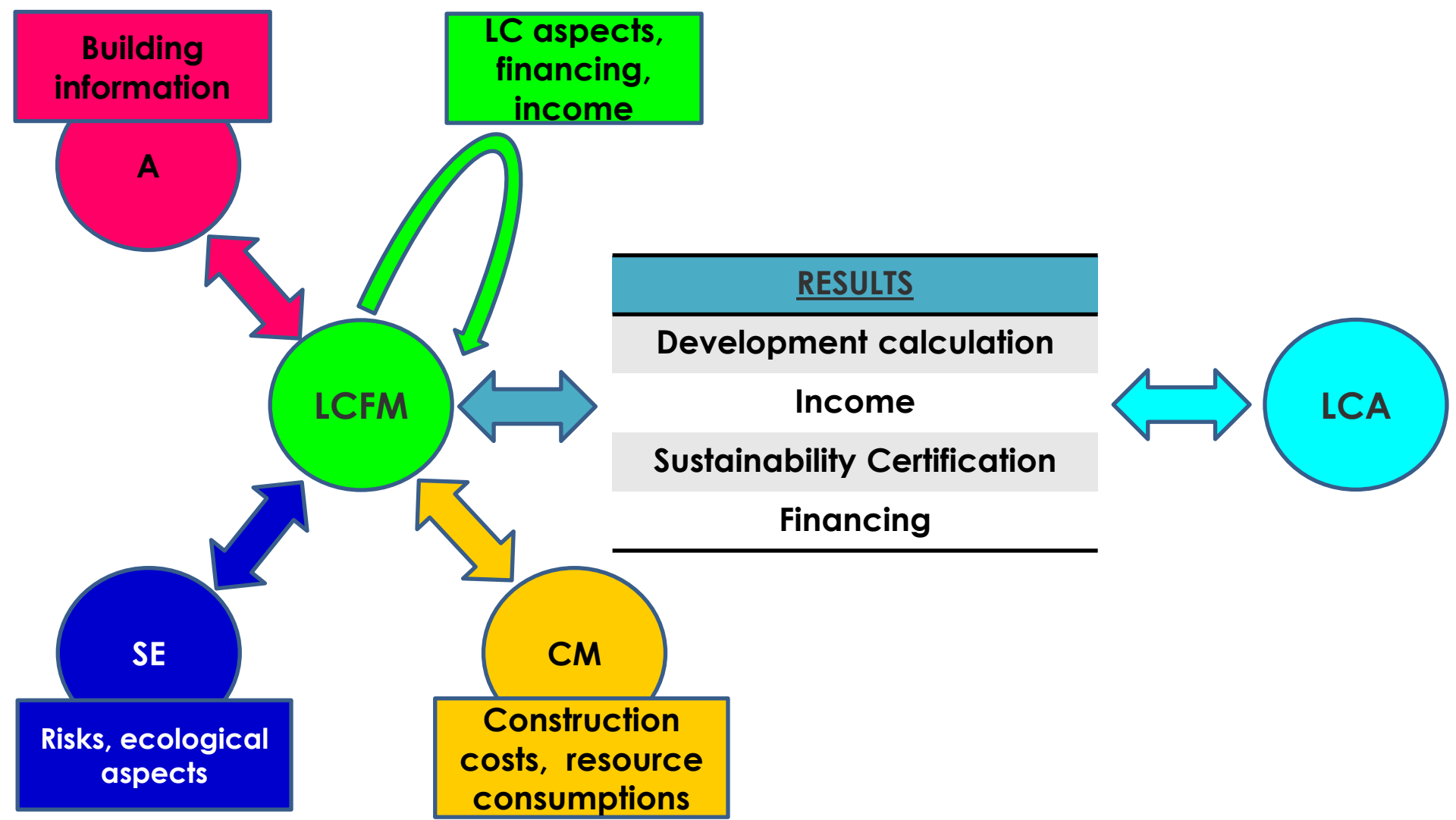


- **Energy Efficiency**
- **Water Efficiency**
- **Elevator**
- **Photovoltaic System**
- **Café**

BREAK-EVEN-POINT (BEP)

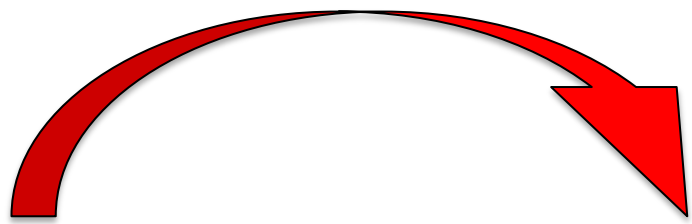
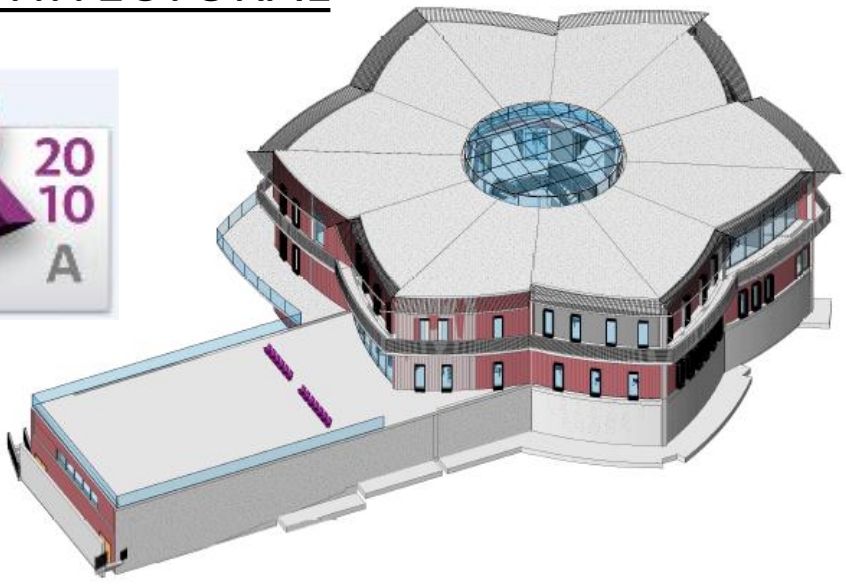
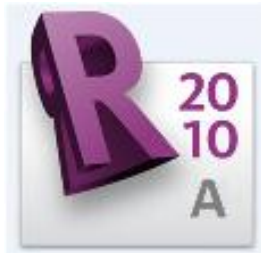


LIFE CYCLE ANALYSIS (LCA) PROCESS

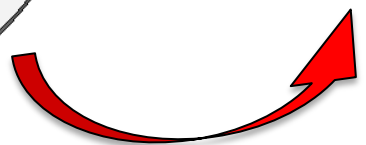
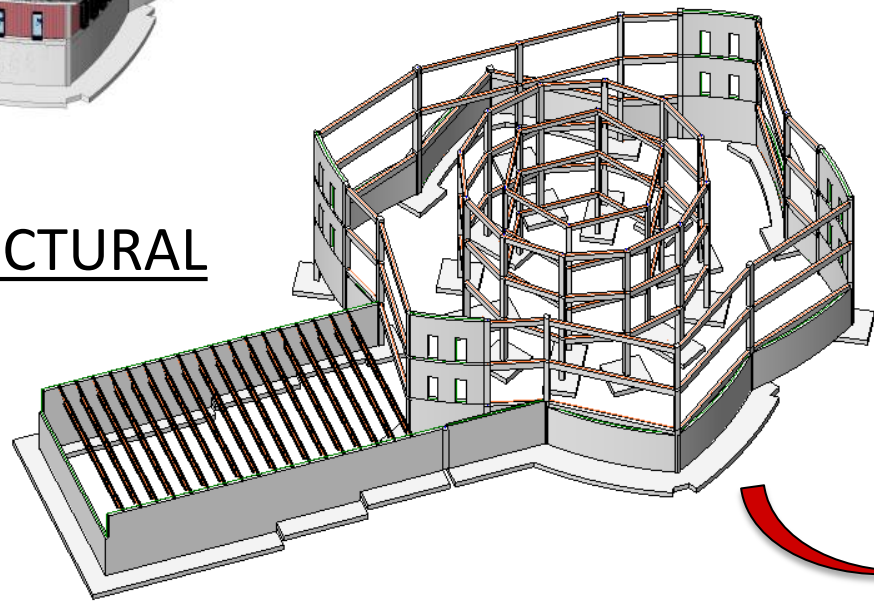


BIM COLLABORATION

ARCHITECTURAL



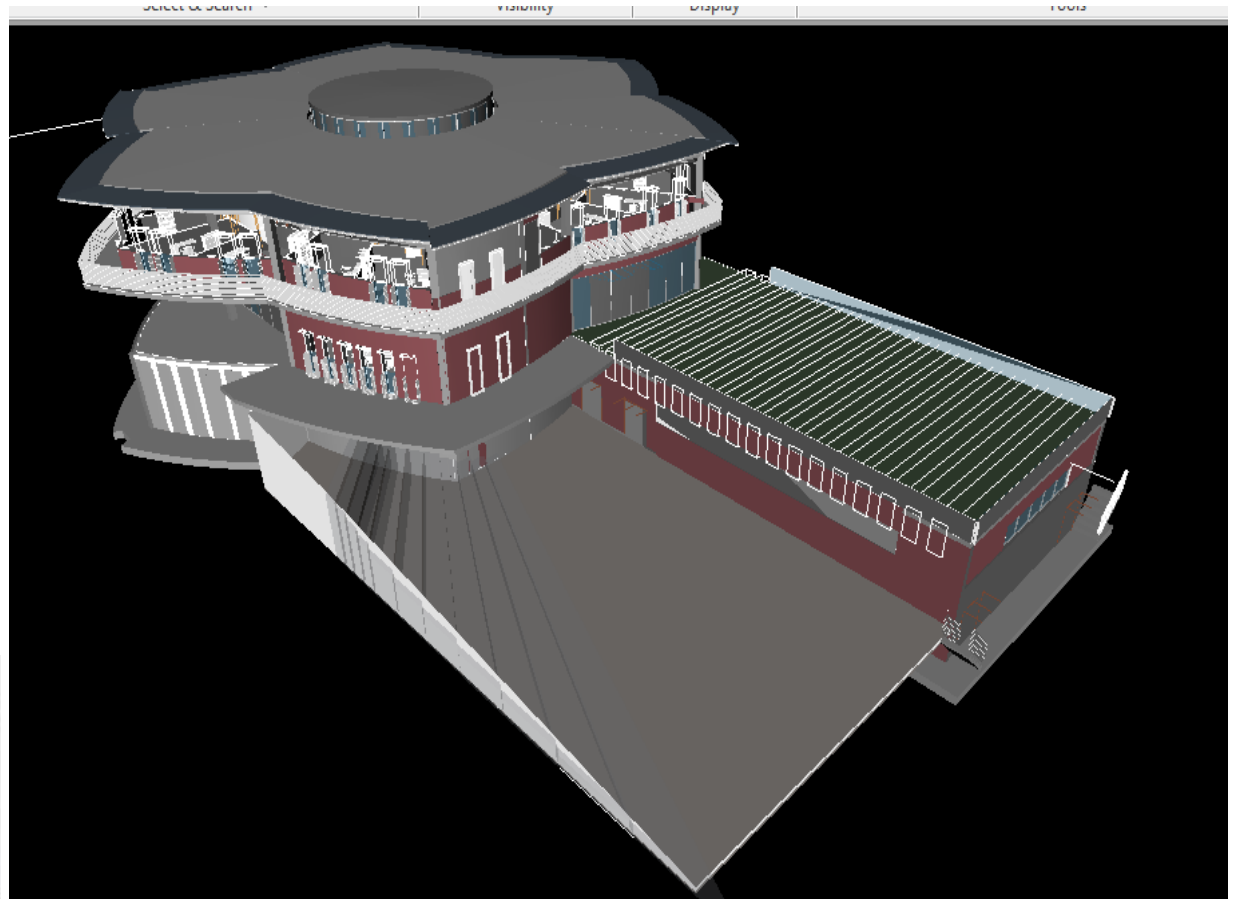
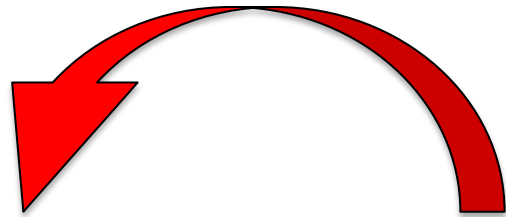
STRUCTURAL





(Central File)

CONSTRUCTION MANAGER



CENTRAL TEAM

ARCH

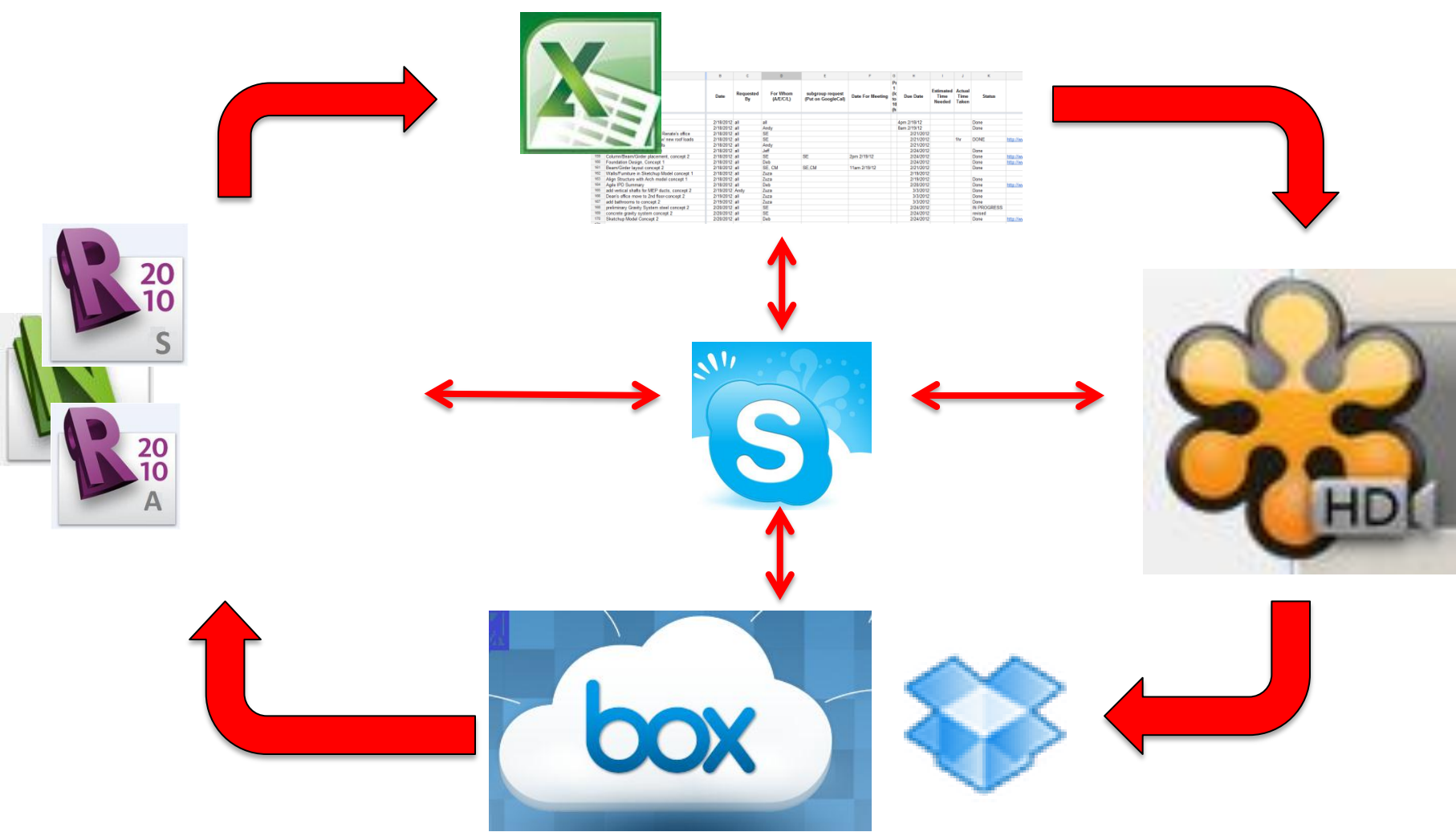
SE

CM

MEP

LCFM

TEAM COLLABORATION



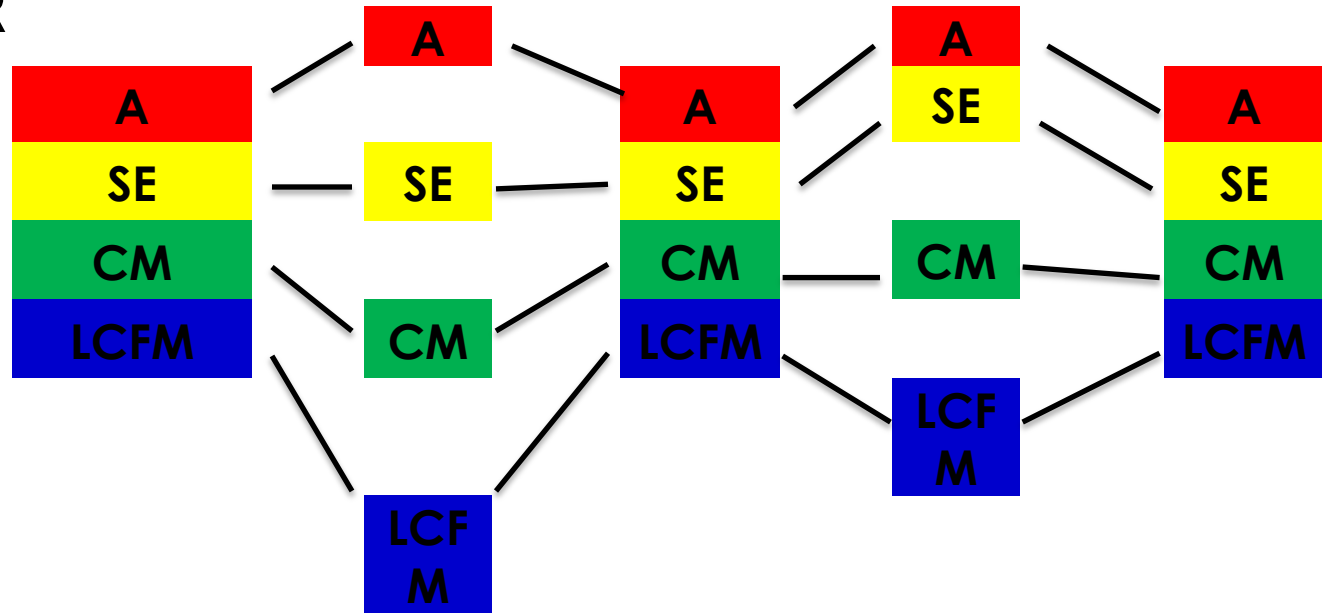
Date	Requested By	For Whom (M/D/C)	Subjecting request (prior on GoogleCal)	Date For Meeting	Due Date	Estimated Time Needed	Actual Time Taken	Status
2/18/2012	at	at			4pm 2/18/12			Done
2/18/2012	Andy				Mon 2/19/12			Done
2/18/2012	SE				2/1/2012			Done
2/18/2012	at	Andy			2/2/2012	1hr	20M	Done
2/18/2012	at	at			2/1/2012			Done
2/18/2012	SE	SE		2pm 2/18/12	2/24/2012			Done
2/18/2012	at	SE			2/24/2012			Done
2/18/2012	at	SE, CM	SE, CM	11am 2/18/12	2/21/2012			Done
2/18/2012	at	SE			2/18/2012			Done
2/18/2012	at	Dana			2/18/2012			Done
2/18/2012	at	Andy			2/18/2012			Done
2/18/2012	at	Zack			2/20/2012			Done
2/18/2012	at	Zack			2/20/2012			Done
2/18/2012	at	SE			2/24/2012			In PROGRESS
2/18/2012	at	SE			2/24/2012			met
2/18/2012	at	Dan			2/24/2012			Done



TYPICAL WEEKLY MEETINGS

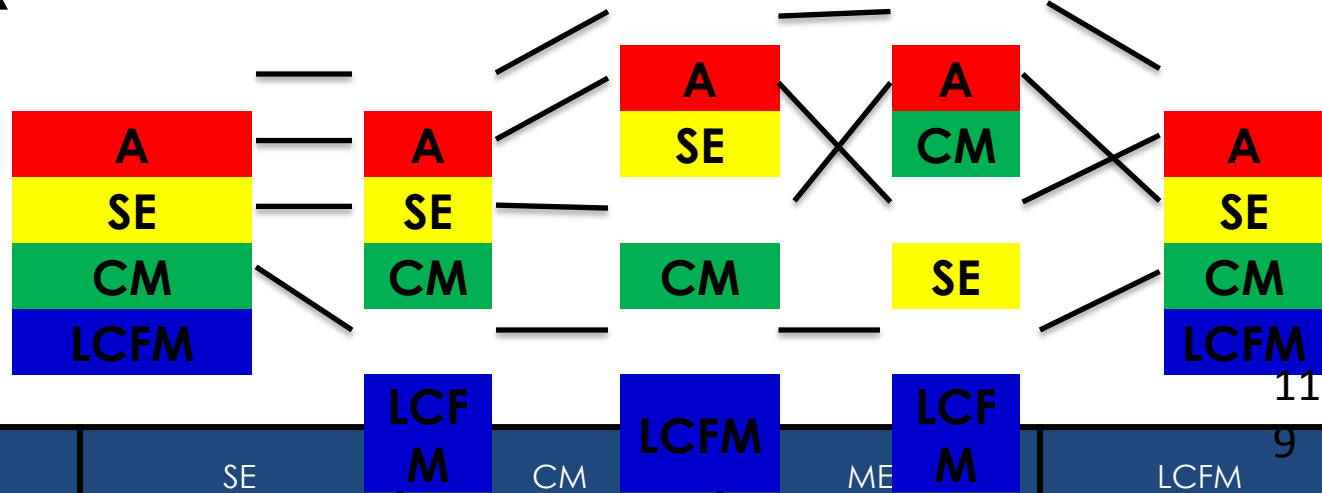
WINTER QUARTER

RIGID



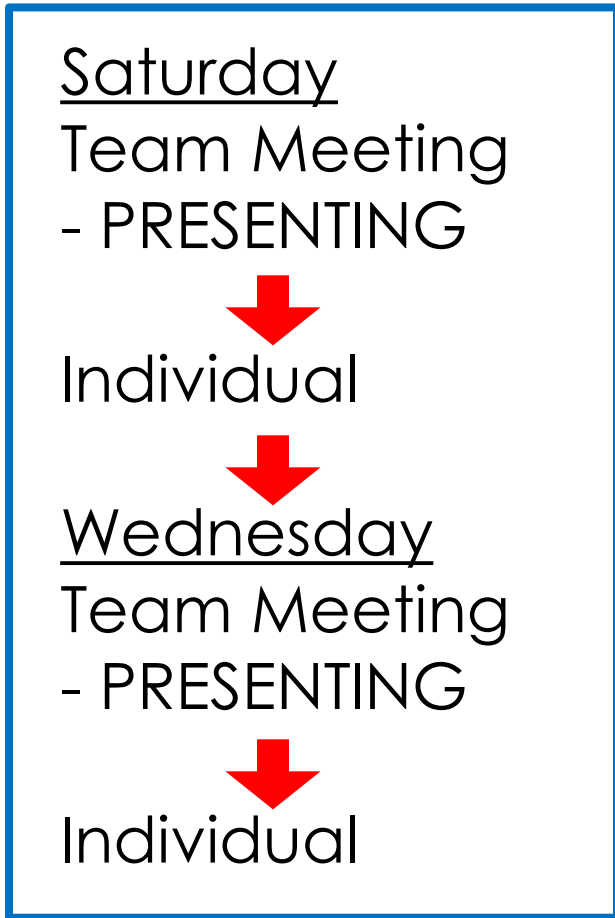
SPRING QUARTER

FLEXIBLE

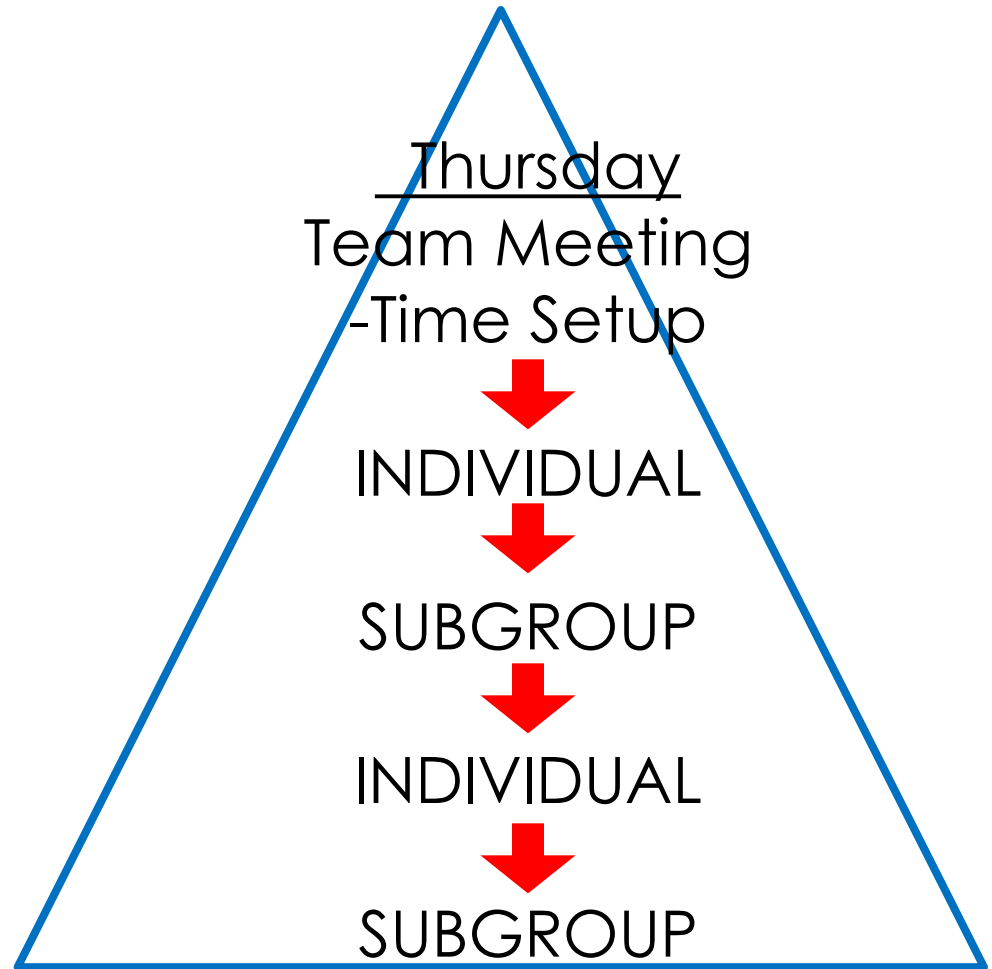


TYPICAL WEEKLY TIME CYCLES

Fall Quarter

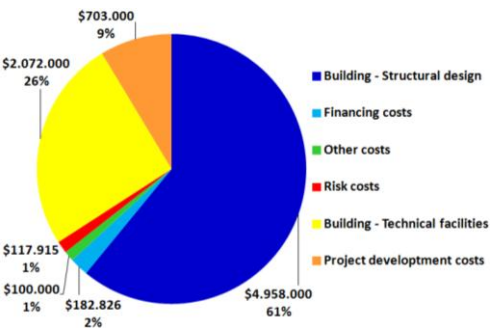
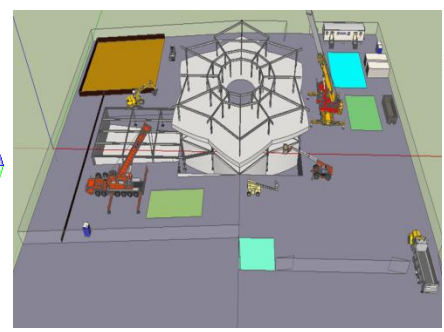
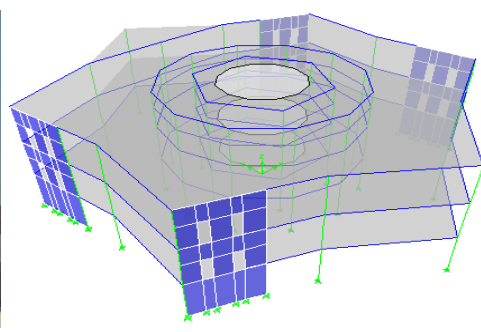


Spring Quarter

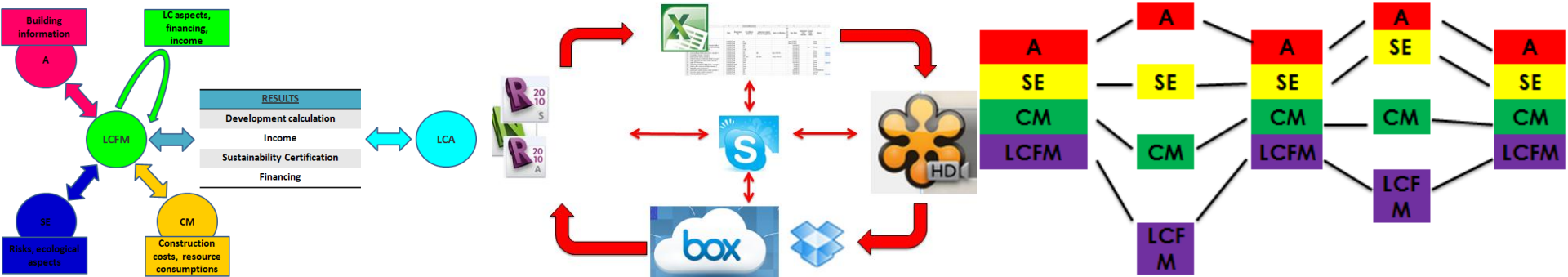


PRODUCT-ORGANIZATION-PROCESS

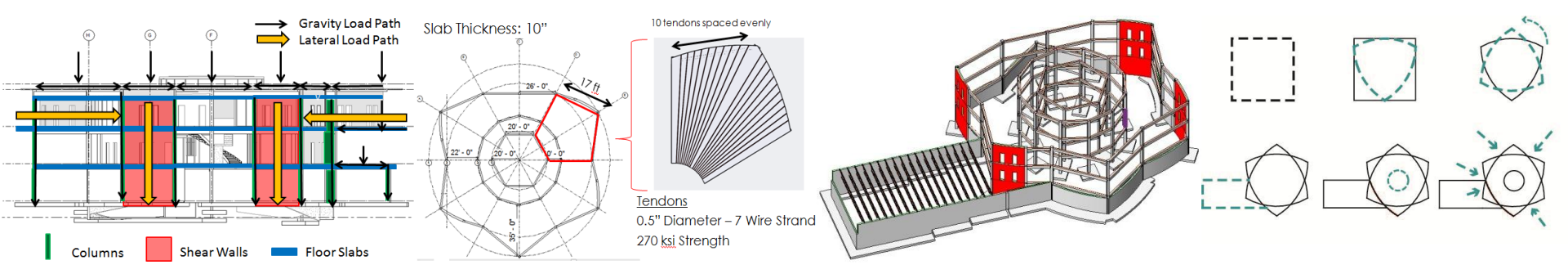
Product



Organization



Process

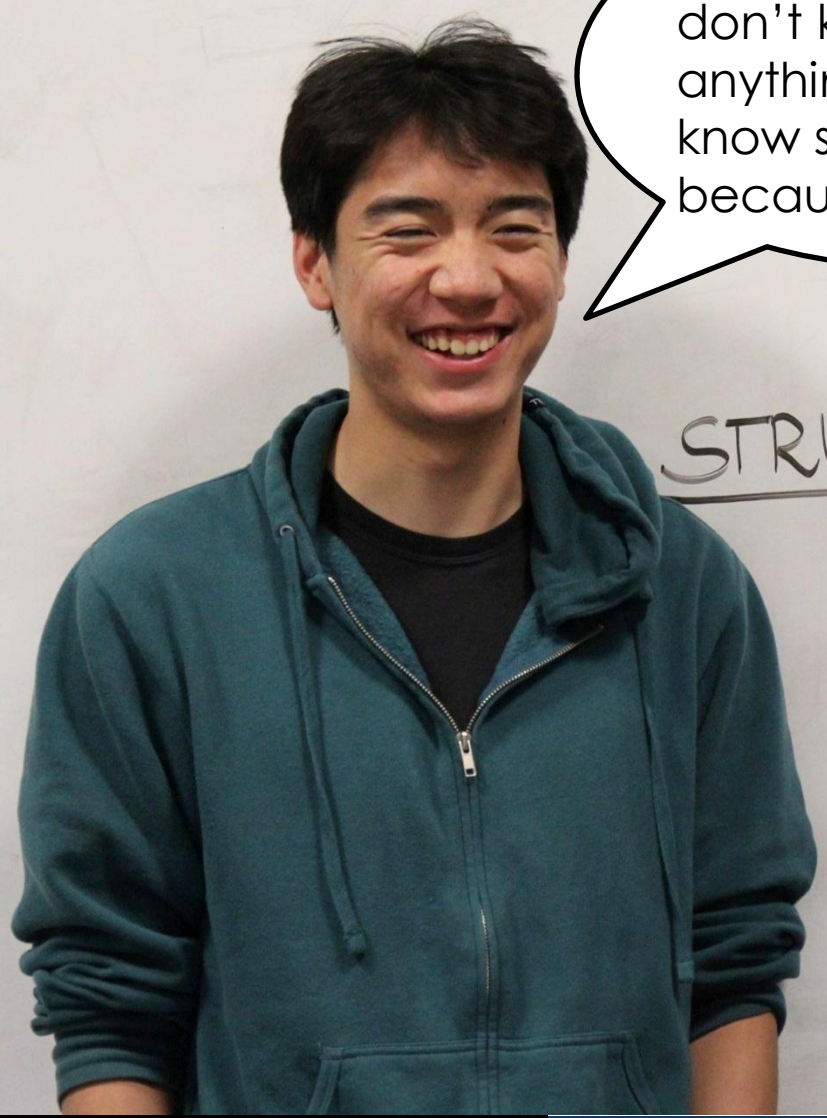


ARCHITECT

Ever tried. Ever failed.
No matter, try again,
fail again, fail better.



LESSONS LEARNED



I learned that I really don't know anything...but hopefully I know something because of this class.

Set deadlines.
Meet deadlines.

STRUCTURAL



CONSTRUCTION
MANAGER

Europeans love
emojicons!



LESSONS LEARNED

LCFM

NO NO NO!!!
HAVE FUN AND
WIN!!!



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

TODD HOFFMASTER

JUSTIN SCHWAIGER

THANK YOU

JULIAN NAHAN

ERIK KNEER

FRANK KIESEWETTER

NICK ARENSON

ROSS TREDINNICK

AXEL SEIFERT

JOANNA HUEY

HENNING ROEDEL

MICHAEL OLIVA

GREGORY LUTH

MATTHIAS EHRLICH

JOHN NELSON

RENATE FRUCHTER

FOREST PETERSON

HENRY TOORYANI

DEREK OUYANG

KYLE ADAMS

RIAM FIROUZ

COLE ROBERTS

DIMITRA IOANNIDOU

BJOERN WUENDSCH

MICHAEL SEAMAN

JOSE PINCHEIRA

GLENN KATZ

CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM

THANK YOU!



CENTRAL TEAM

ARCH

SE

CM

MEP

LCFM