



<http://content.asce.org/studentcompetition/index.html>



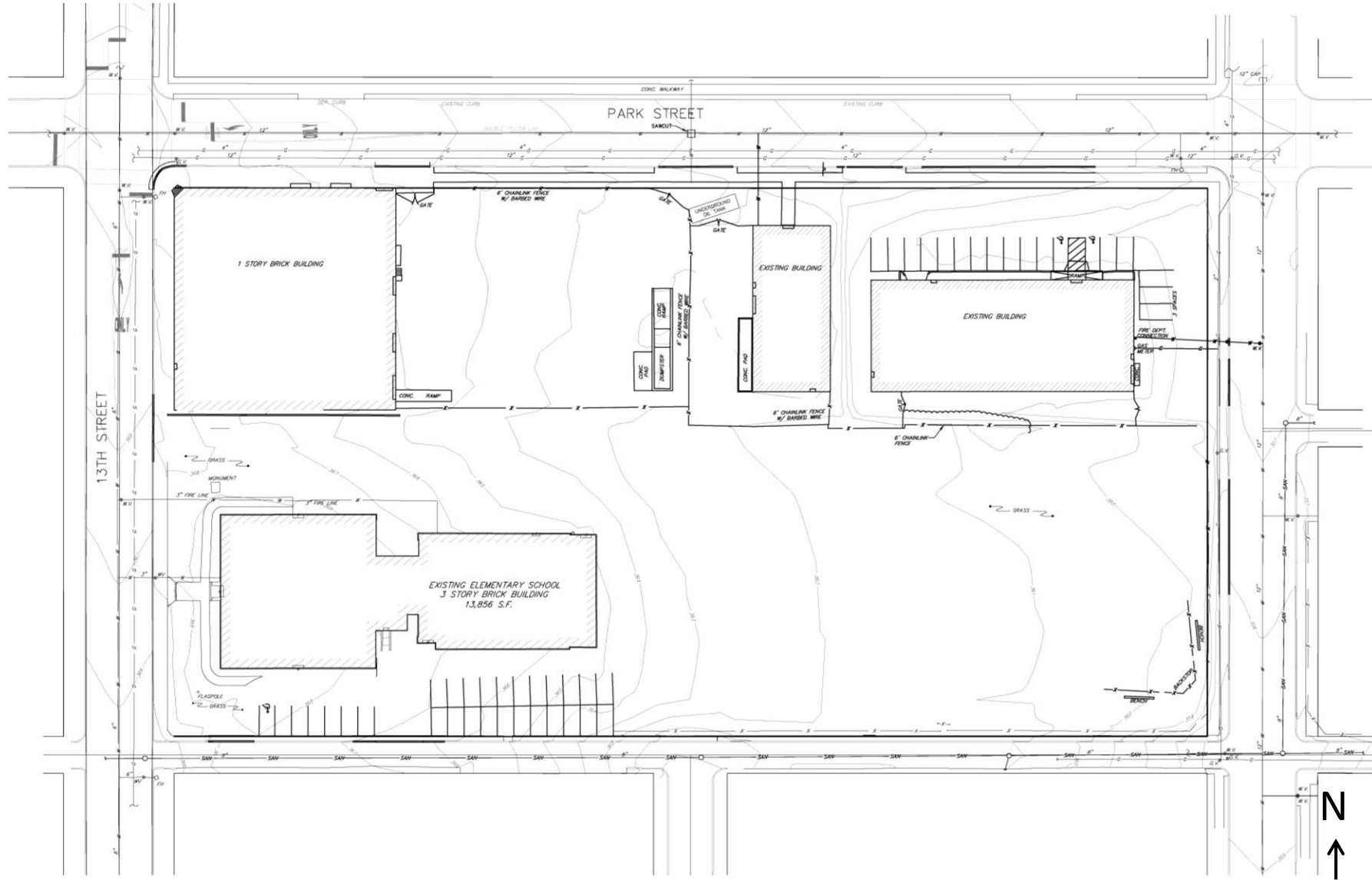
AEI Team 2013-02

3 April 2013



Brian LaChance | Mike Palmer | Rachel Barrow
Alex Byard | Melanie Fonner
Brad Frederick | Pat Allen

Competition Challenge



Reading School District

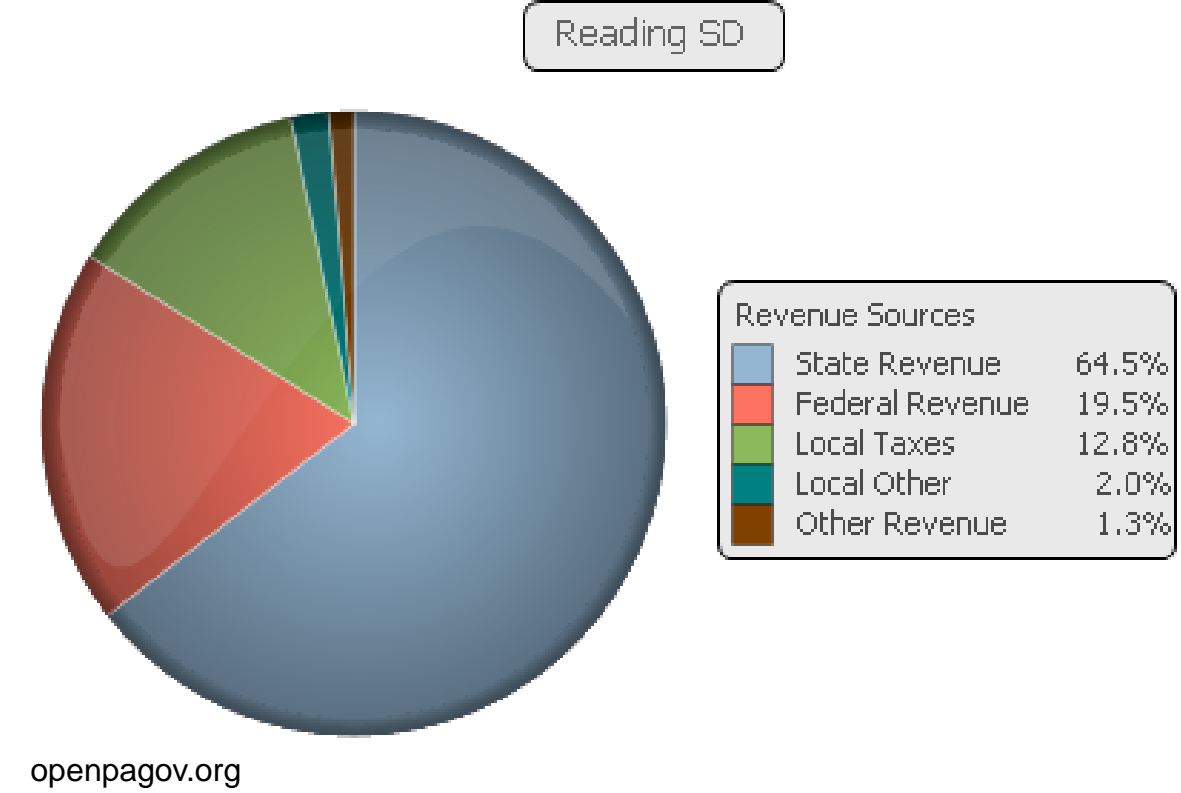


<https://www.google.com/imghp?hl=en&tab=wi>



PA Average- \$14,535
Reading- \$12,989

Education Revenue by Source: 2010-11



openpagov.org



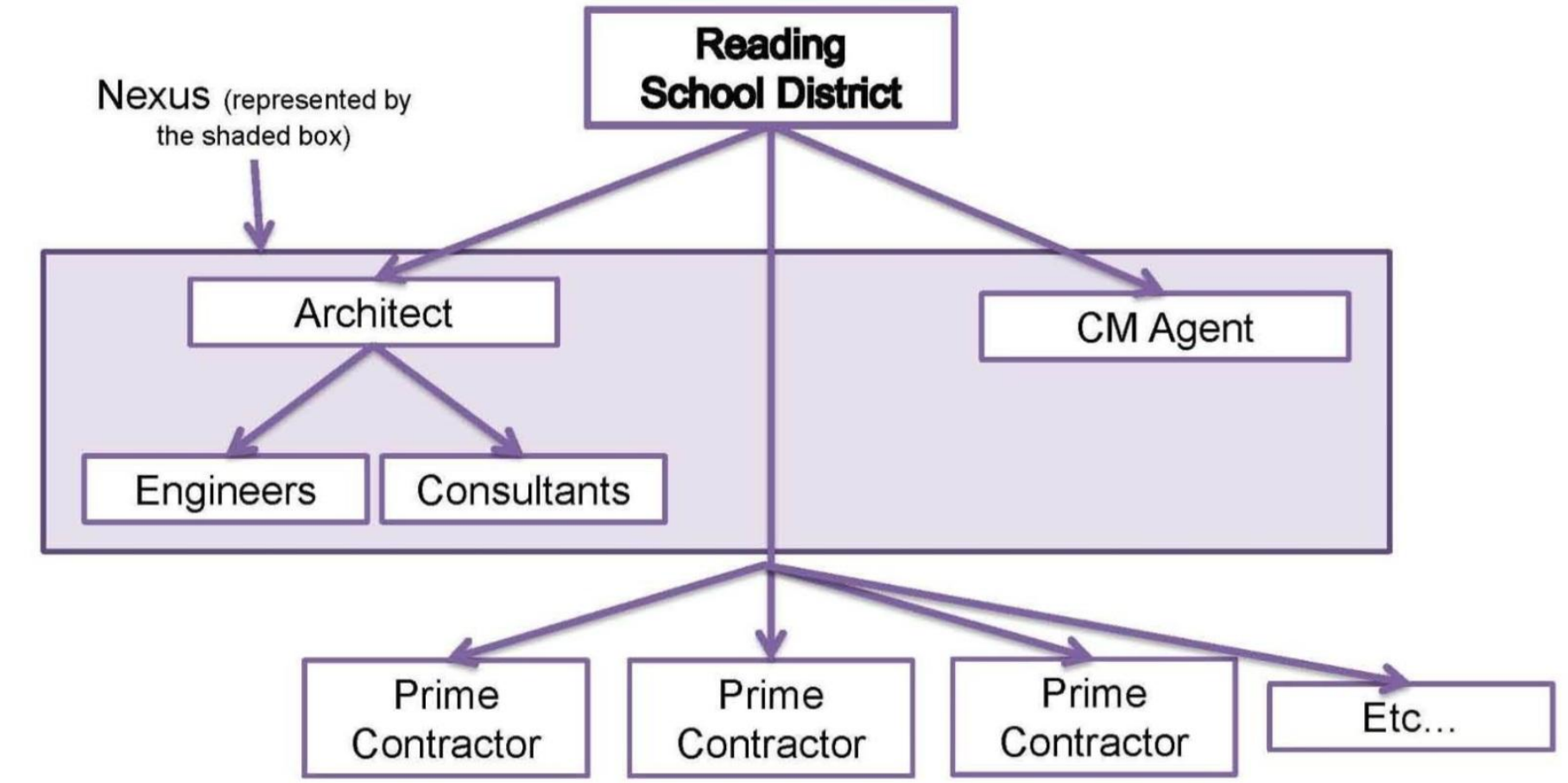
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Delivery Method

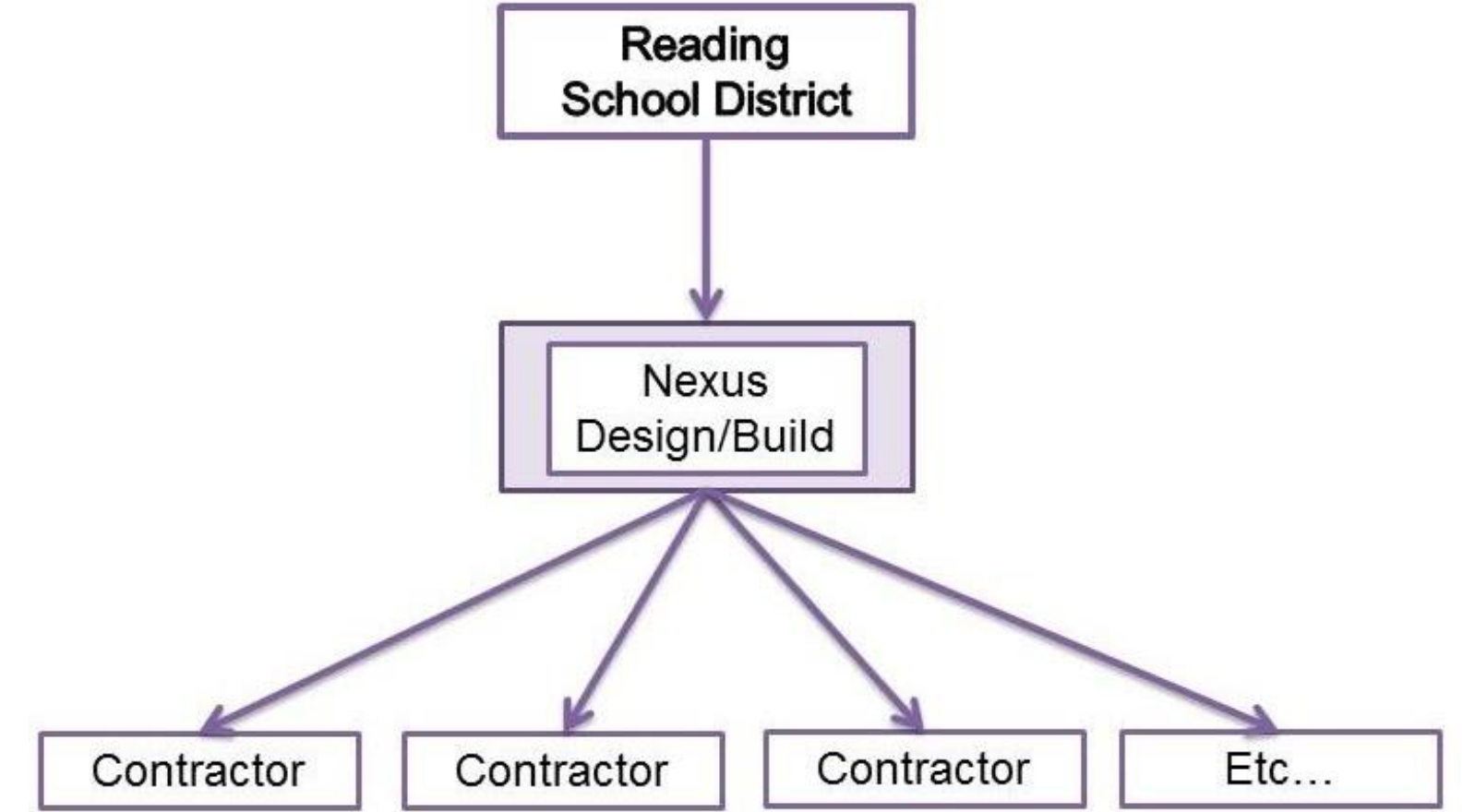


<https://www.google.com/imghp?hl=en&tab=wi>




CM Agent with Multiple Primes



Design/Build






Owner Core Values

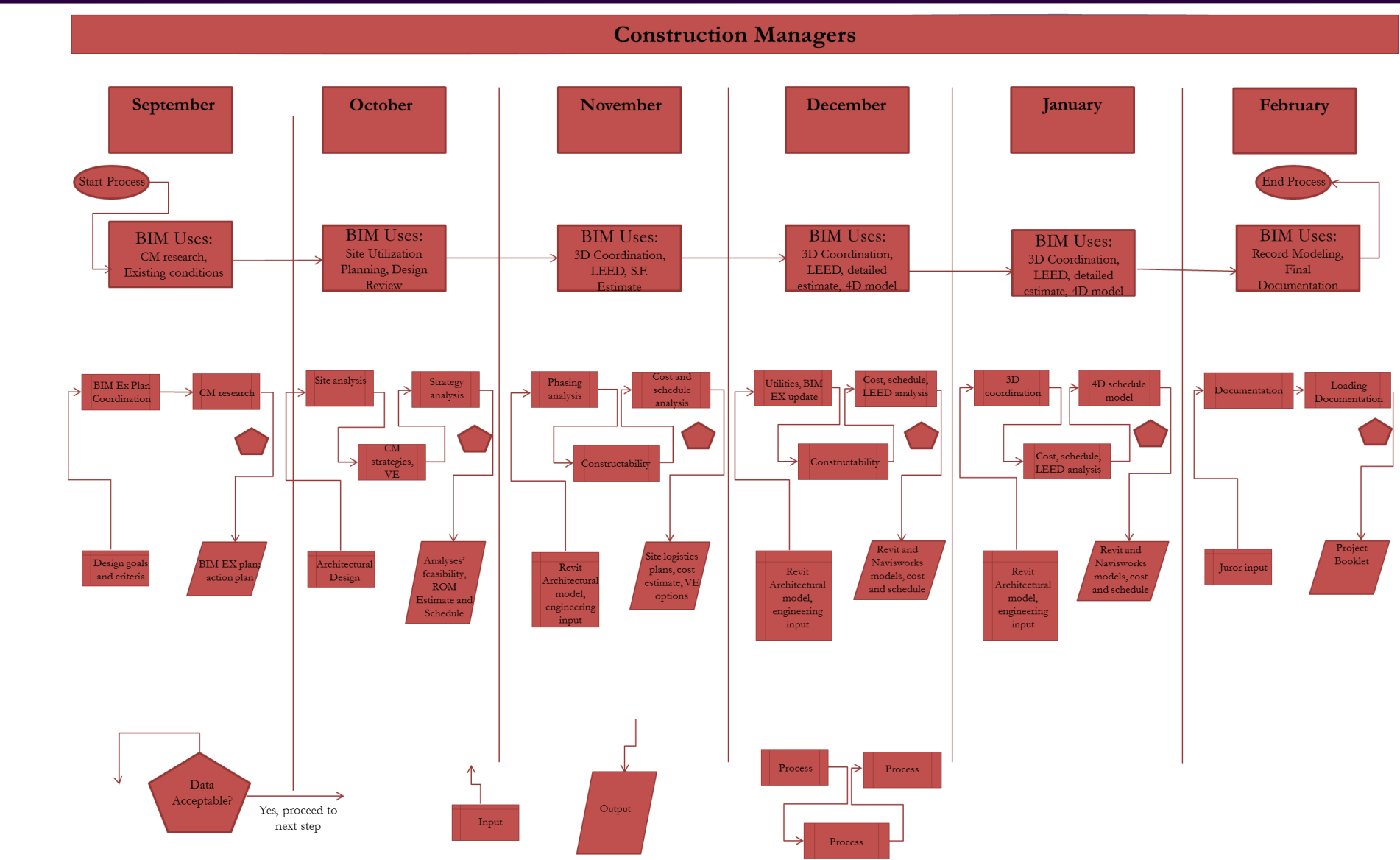
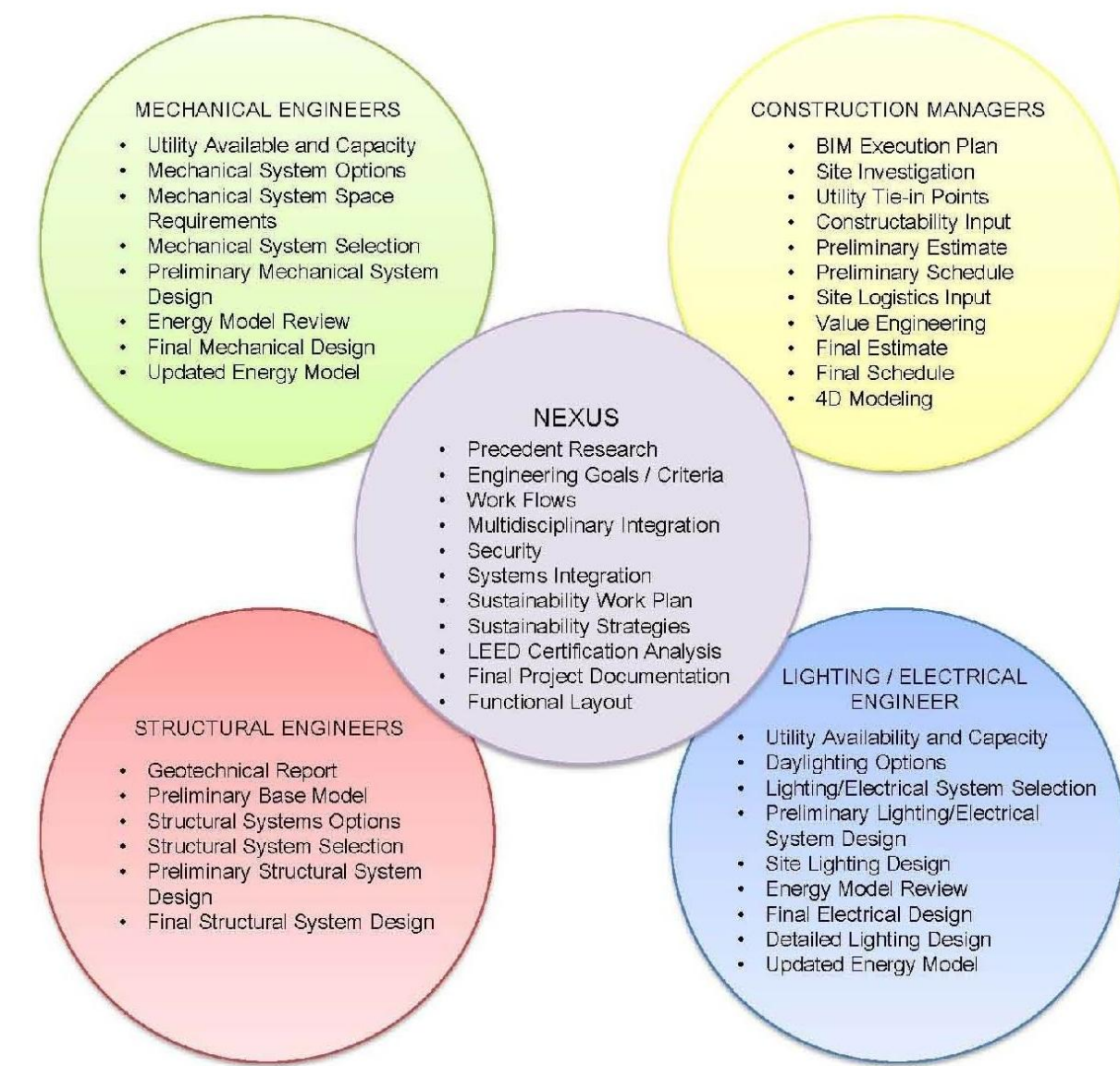
-  **Safety & Security**
-  **Lifecycle & Maintenance**
-  **Cost Effective**

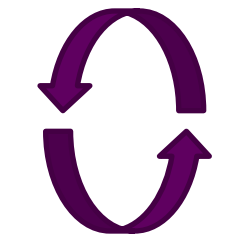
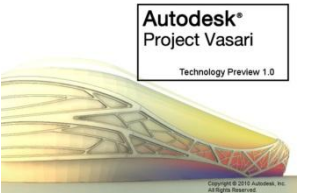
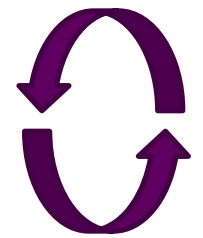
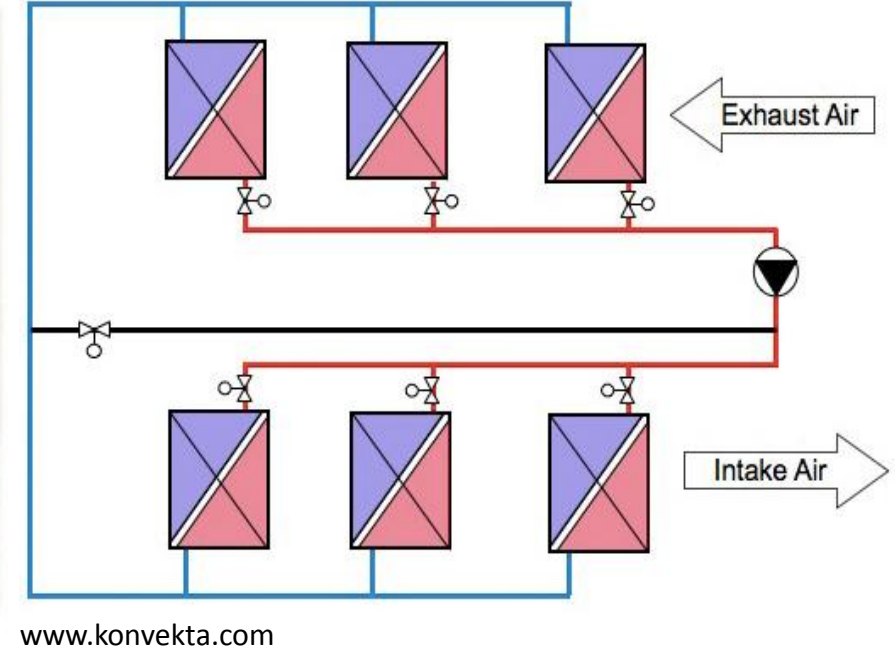
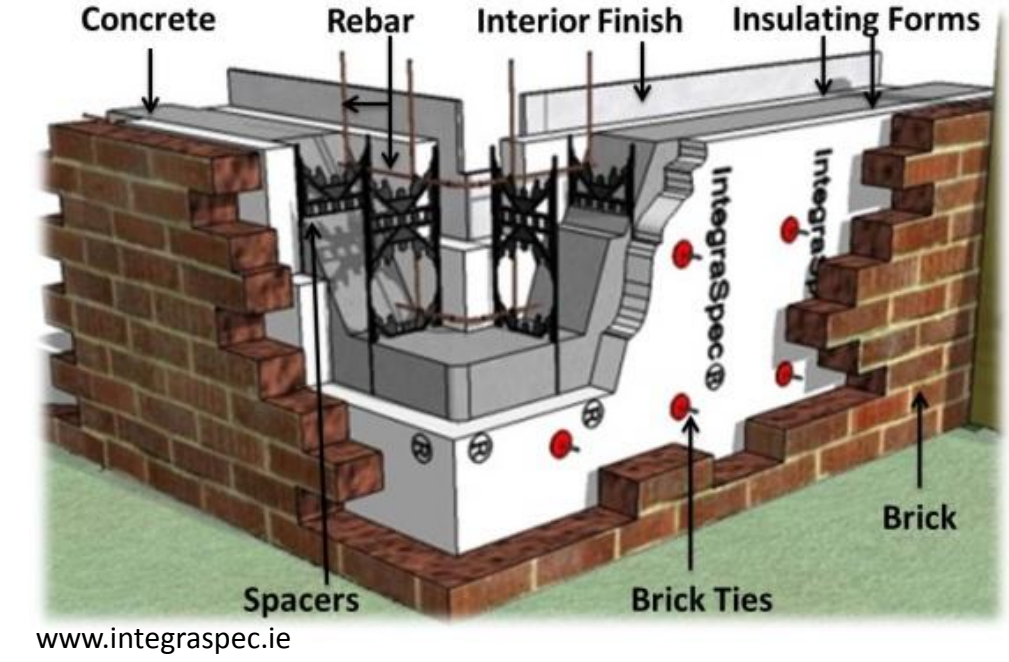
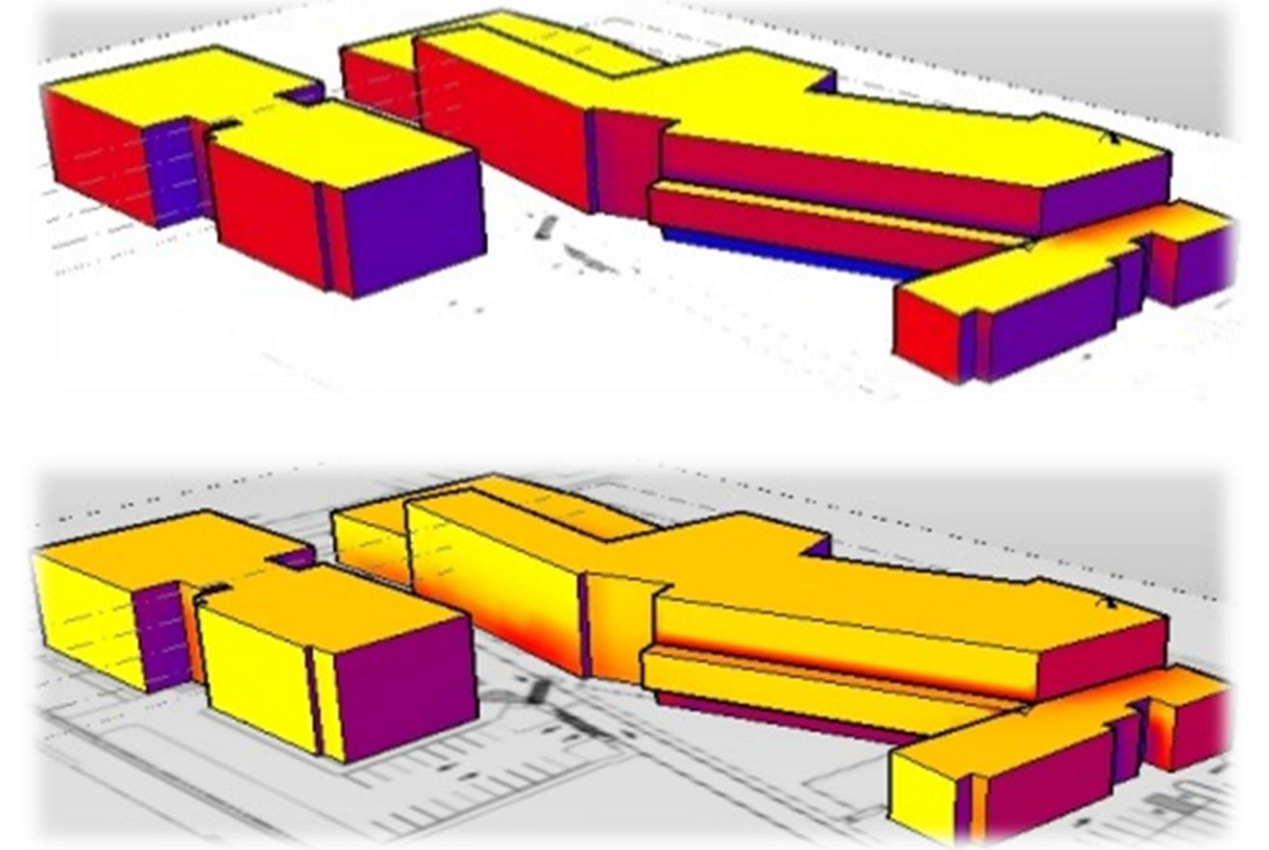
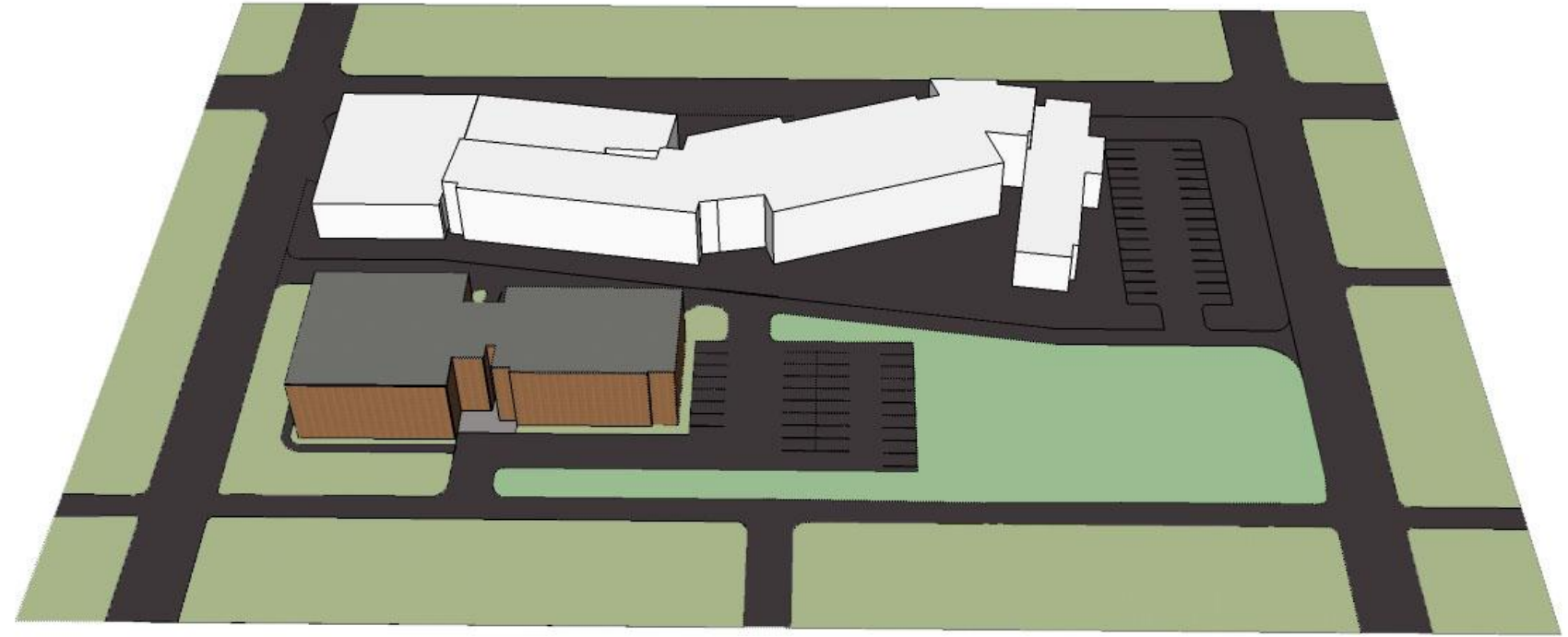


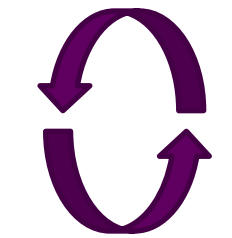
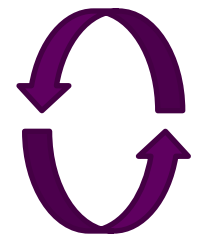
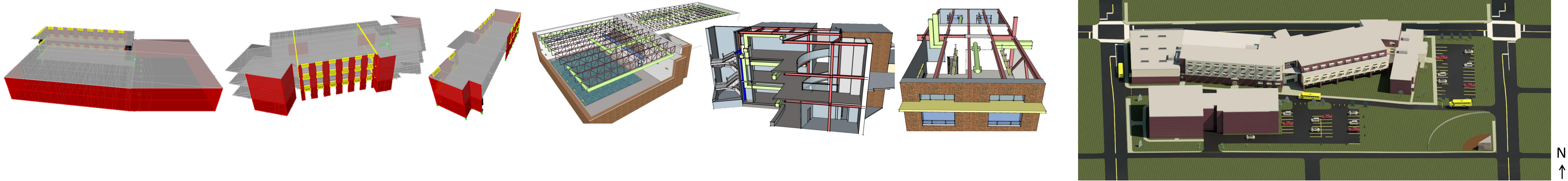
Nexus Goals

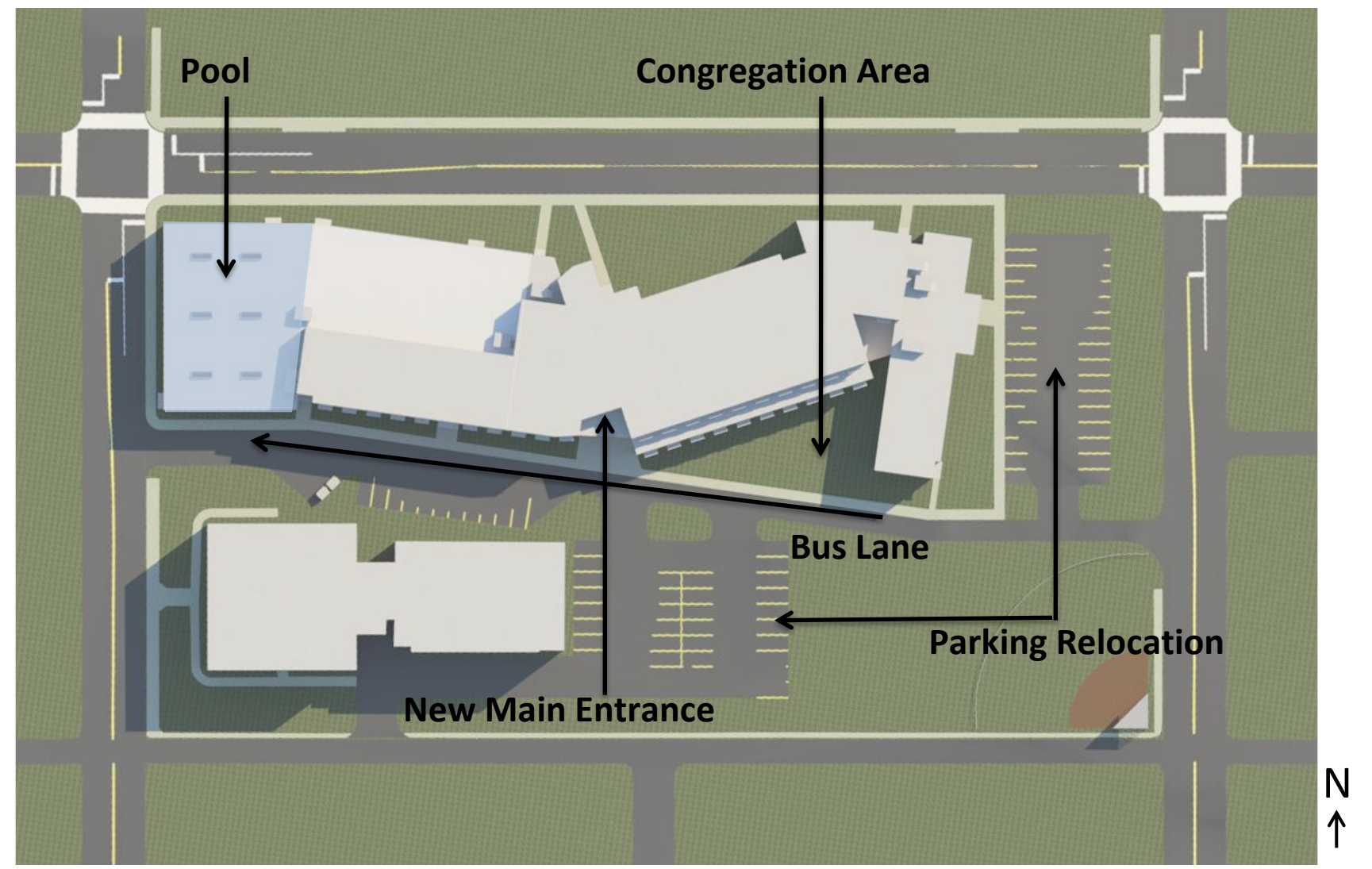
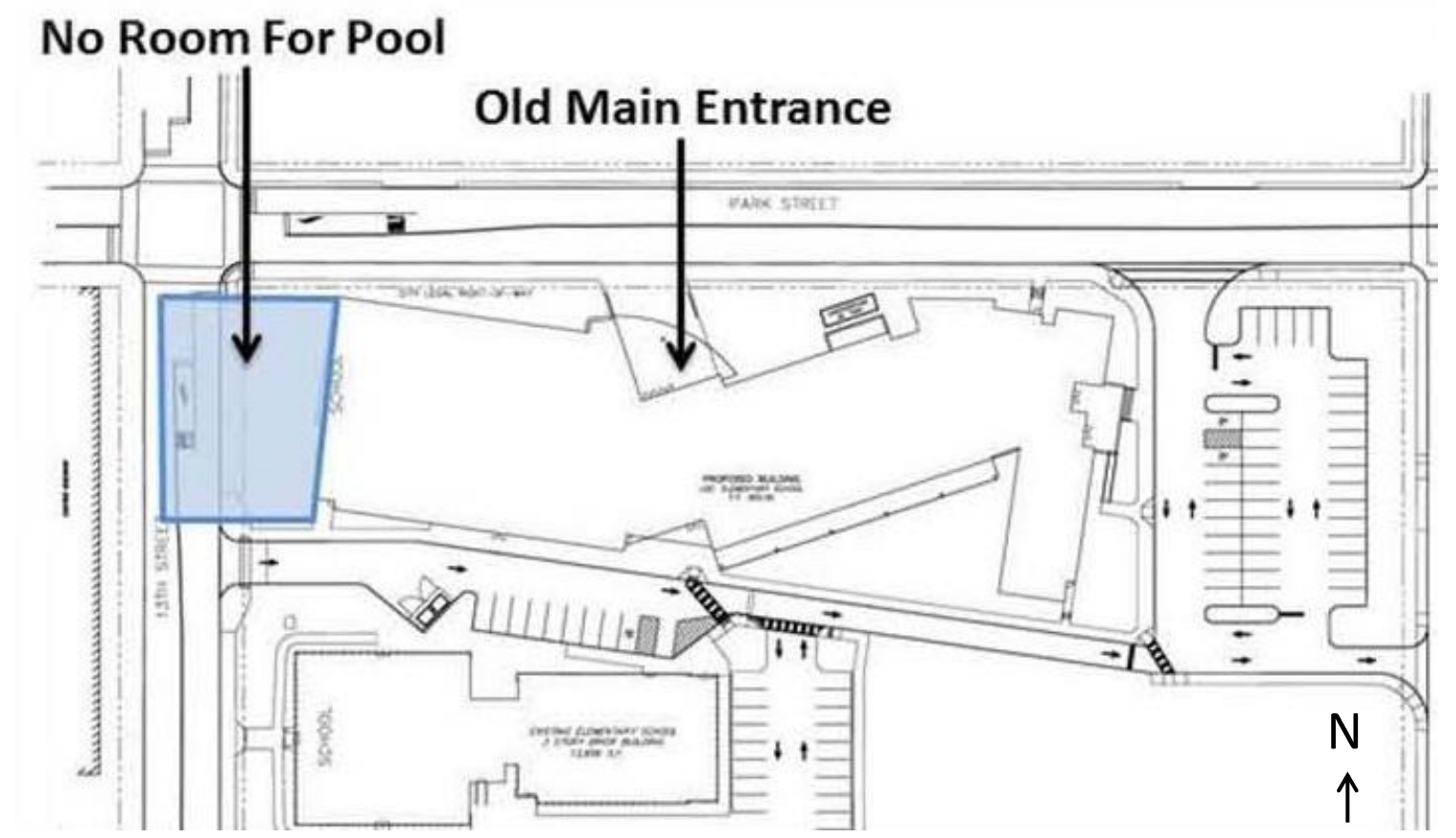
-  **Integration**
-  **Reduce, Reuse, Recover**
-  **Learning Tool**

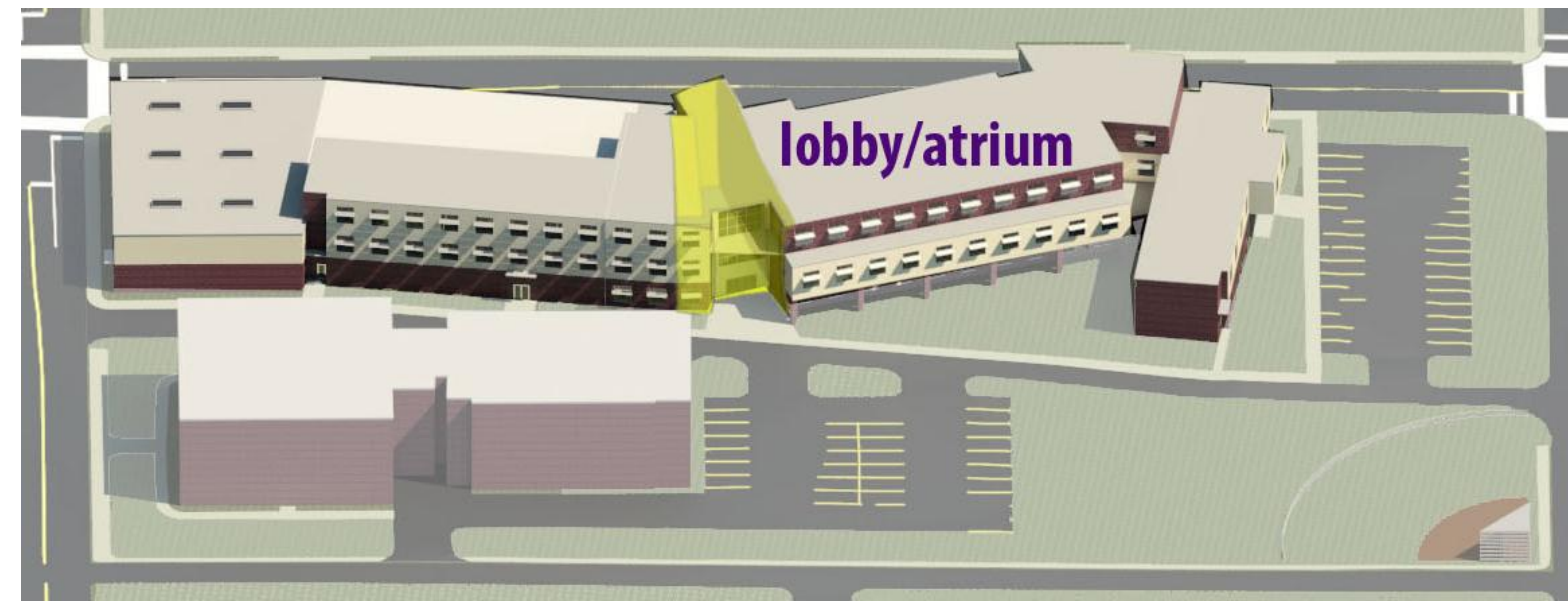
Structural Engineering							
Mechanical Engineering							
Lighting/Electrical Engineering							
Construction Management							
Integration							



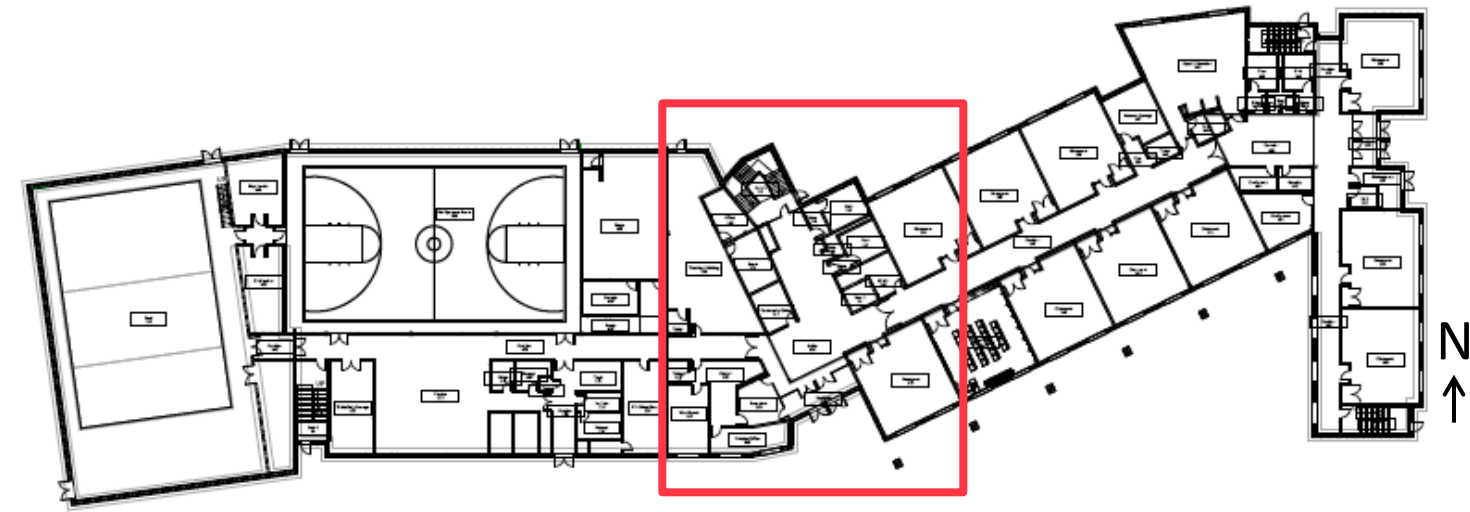
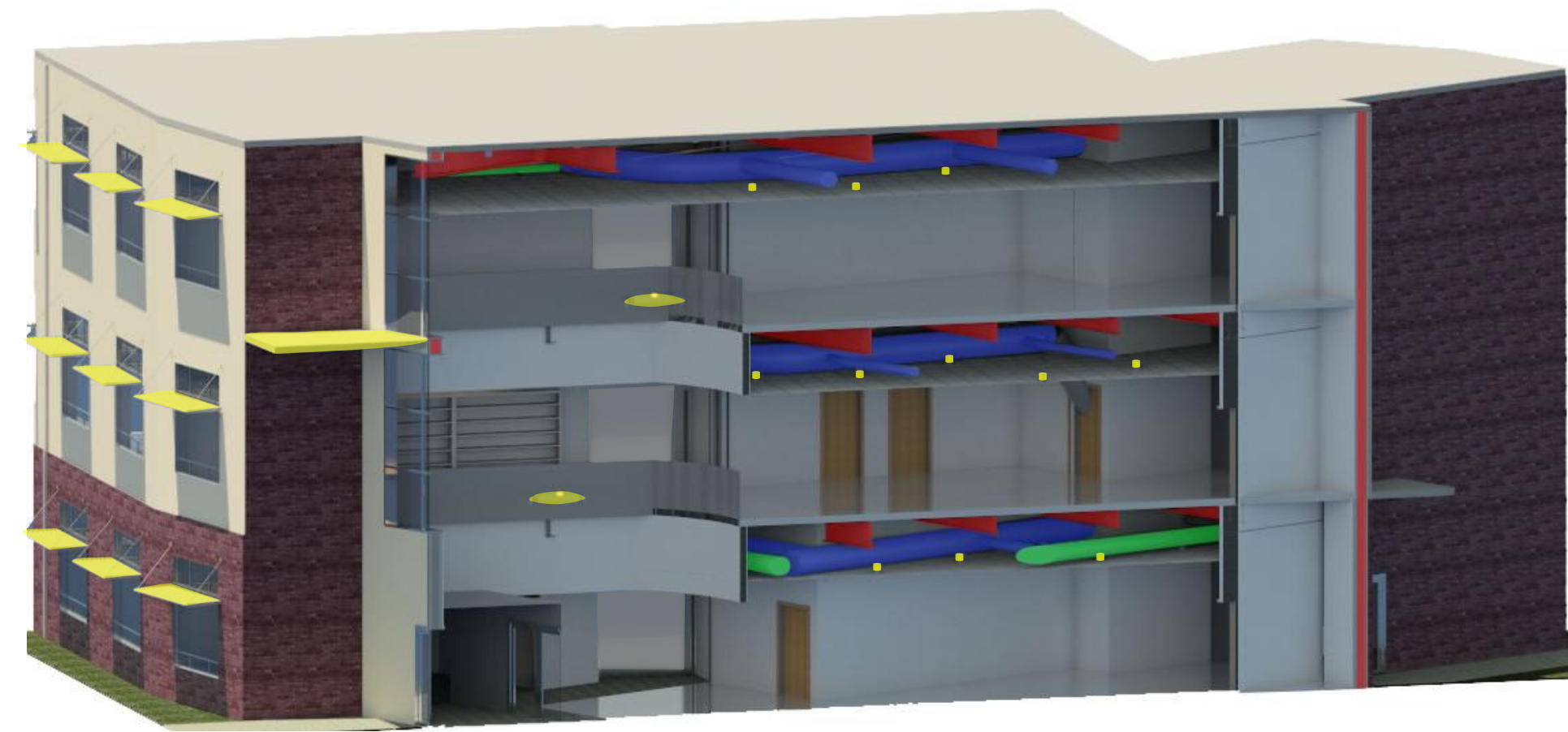






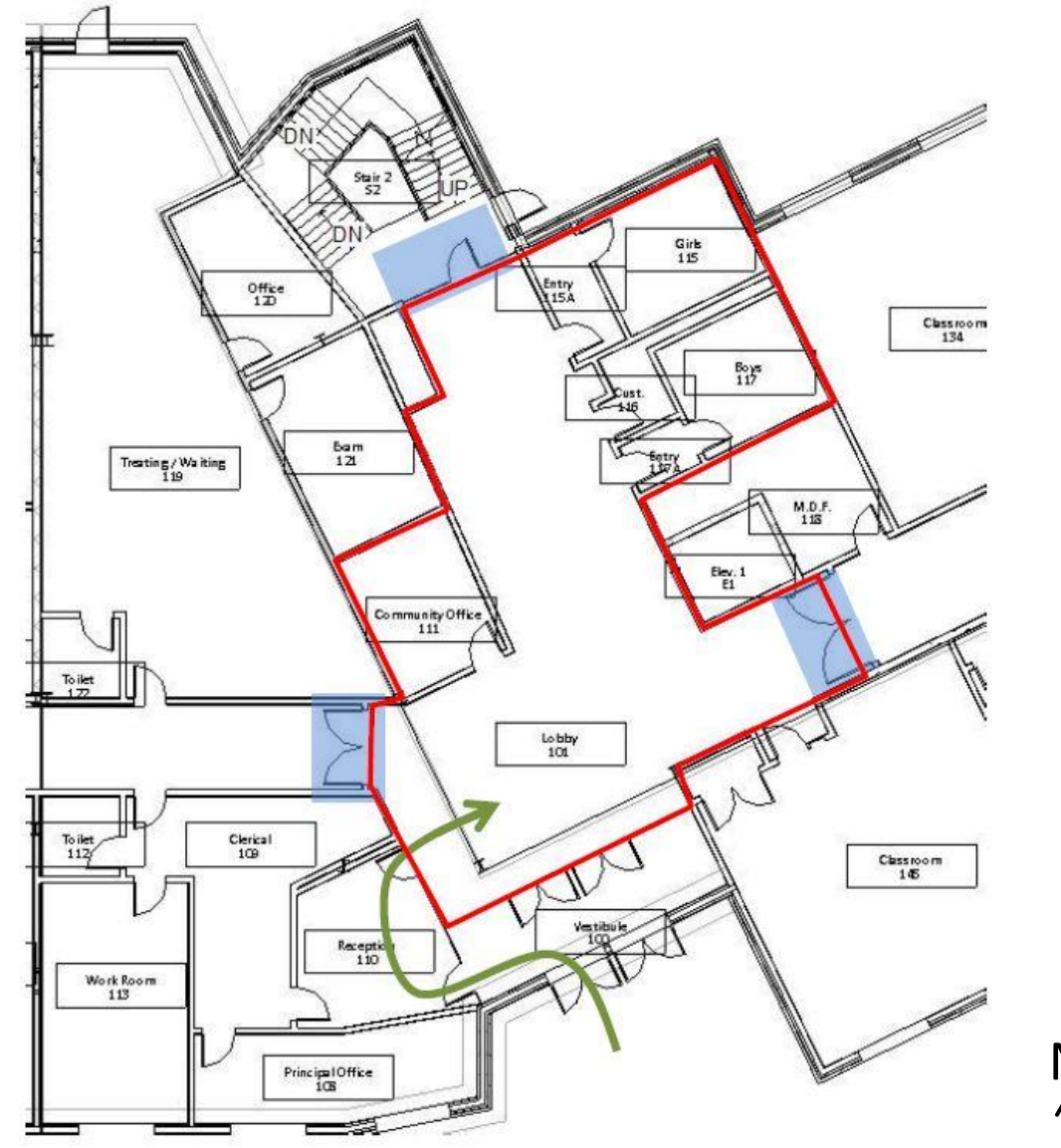


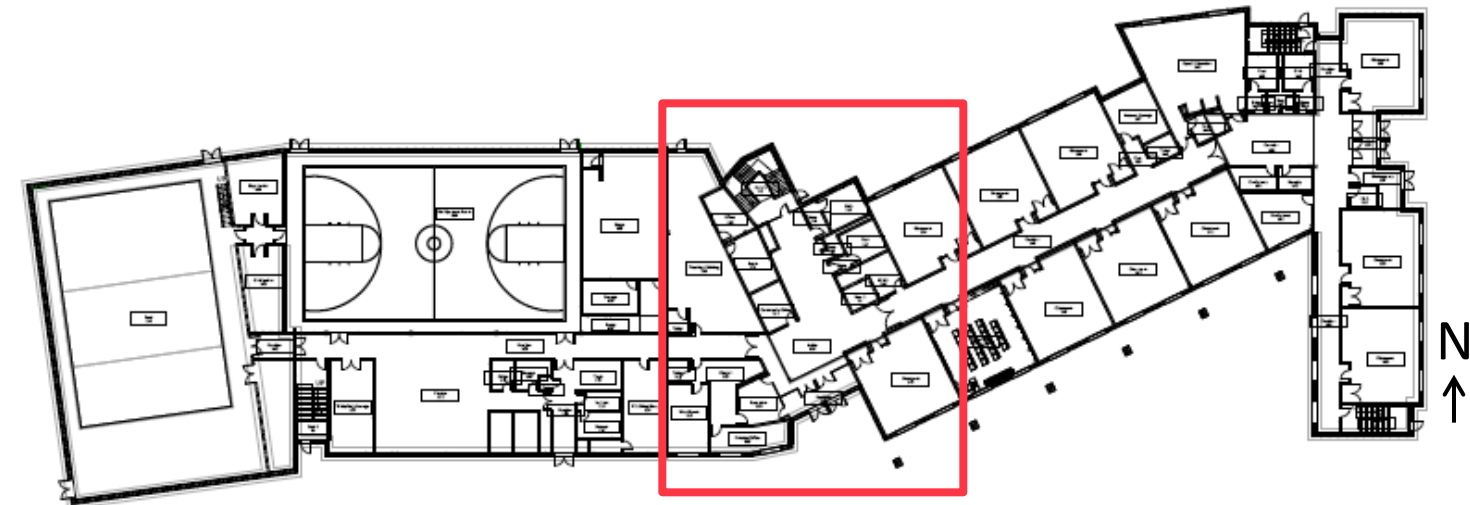
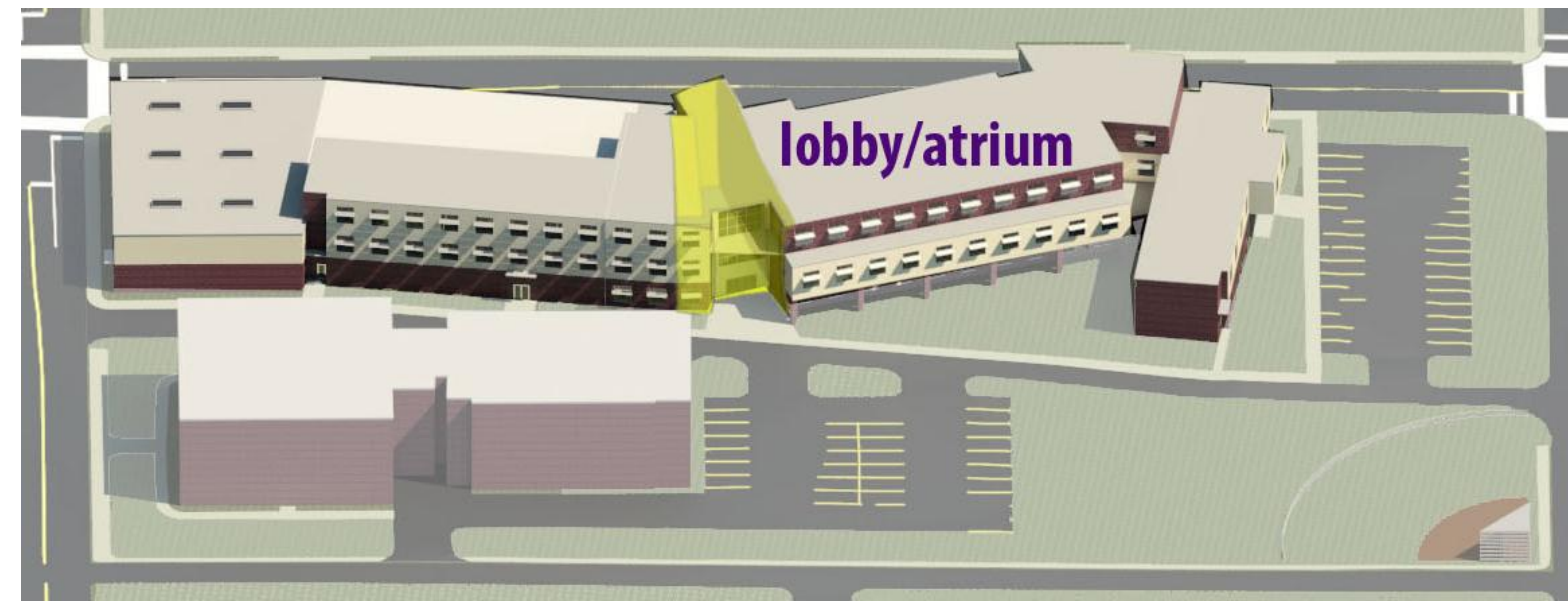
lobby/atrium



First Floor Plan

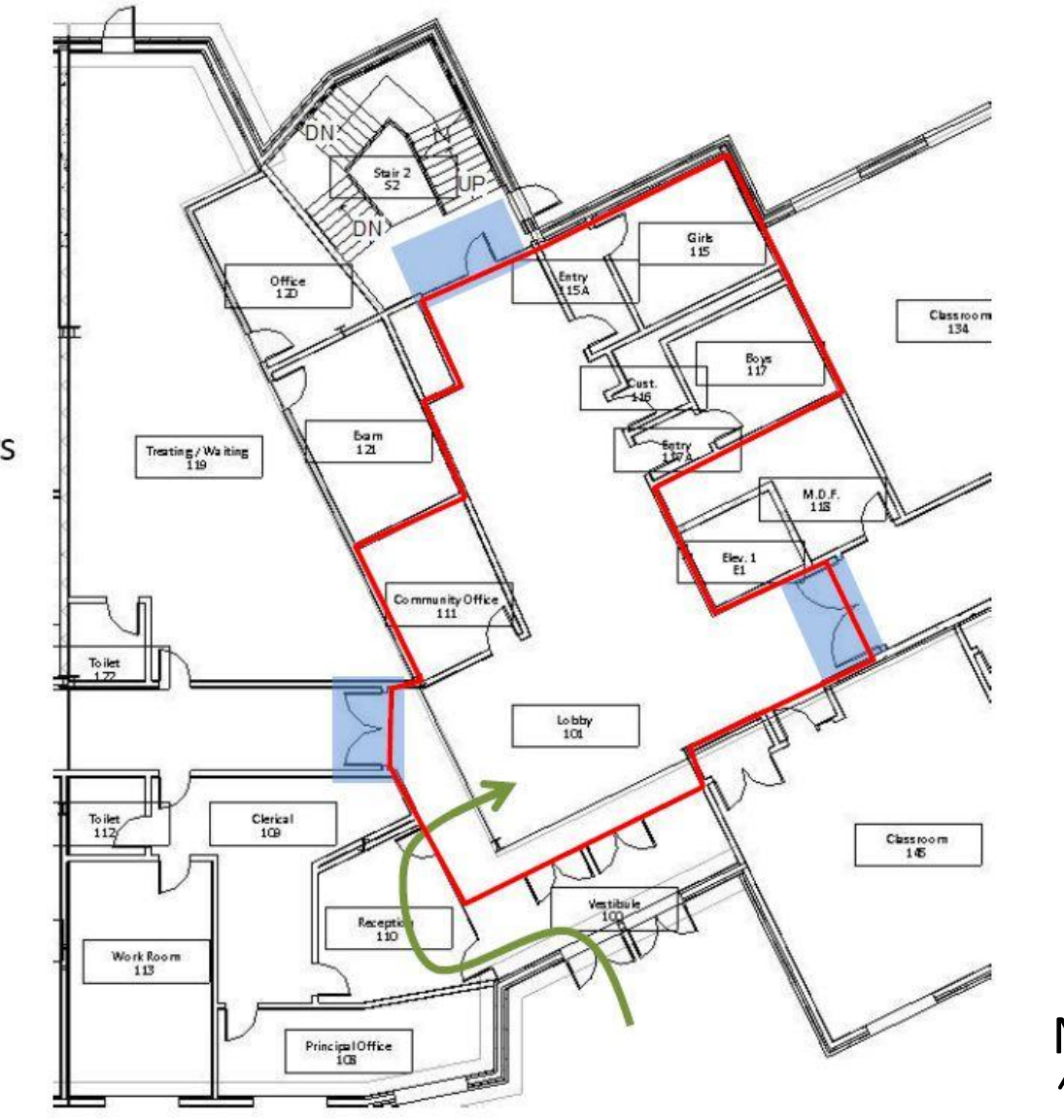
- ↑ Visitor Entry
- Security/Fire Doors
- Secure Perimeter



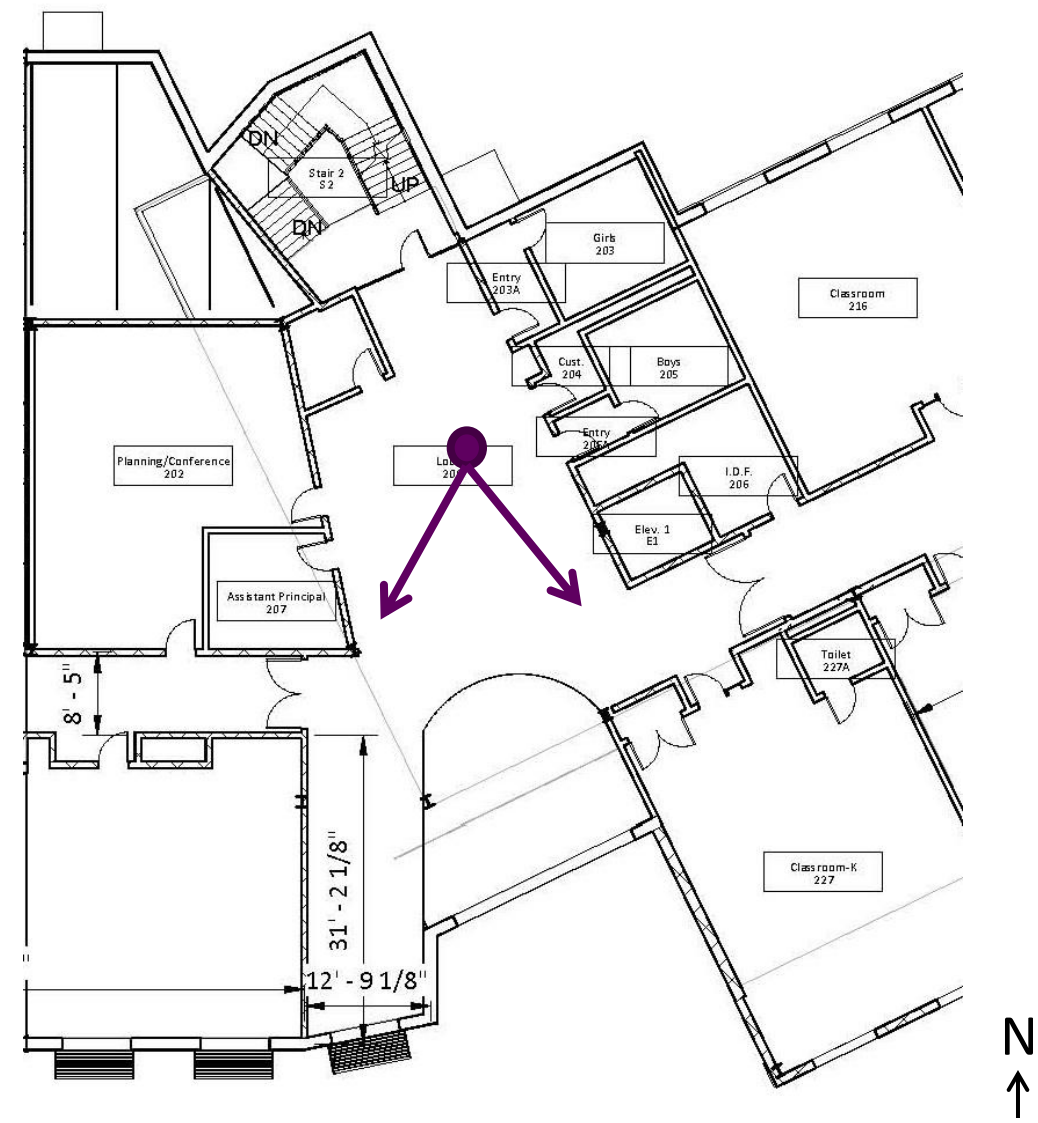
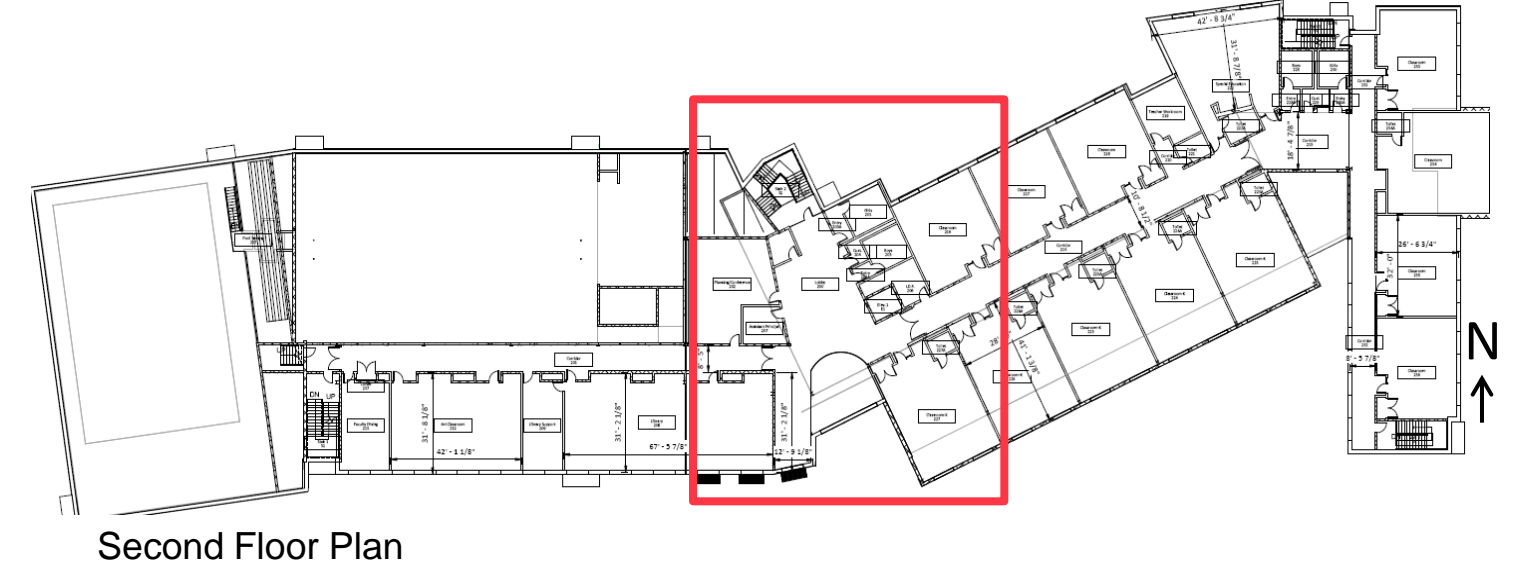
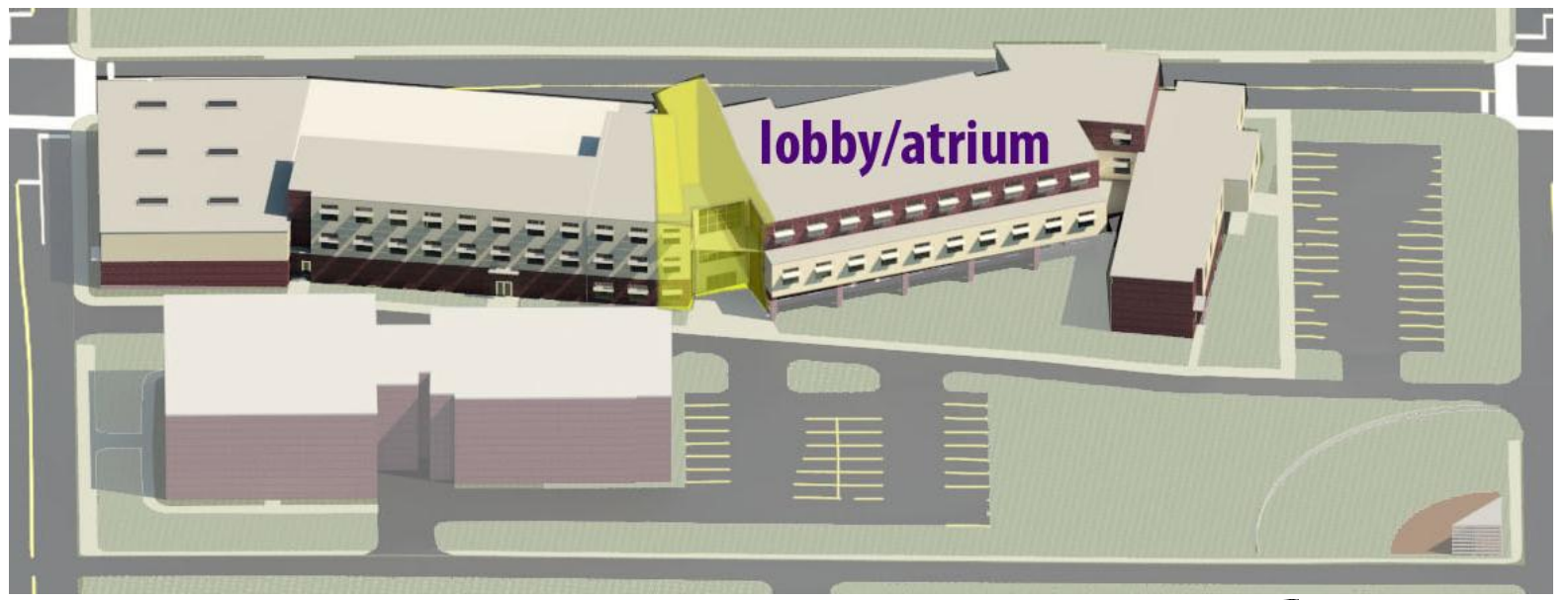


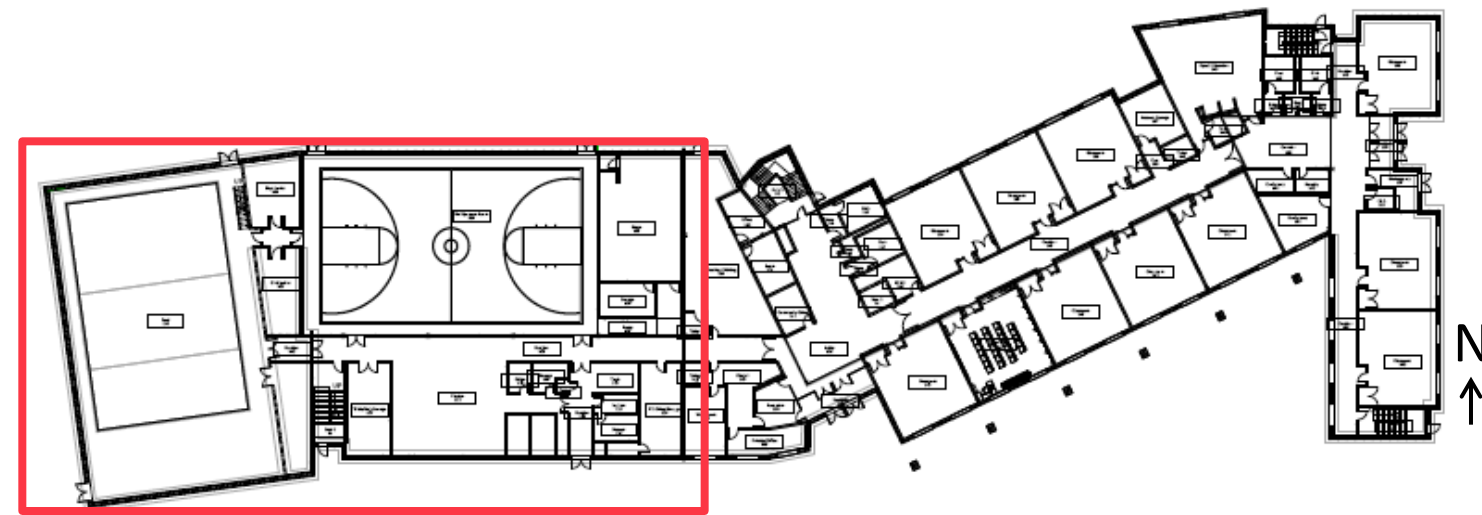
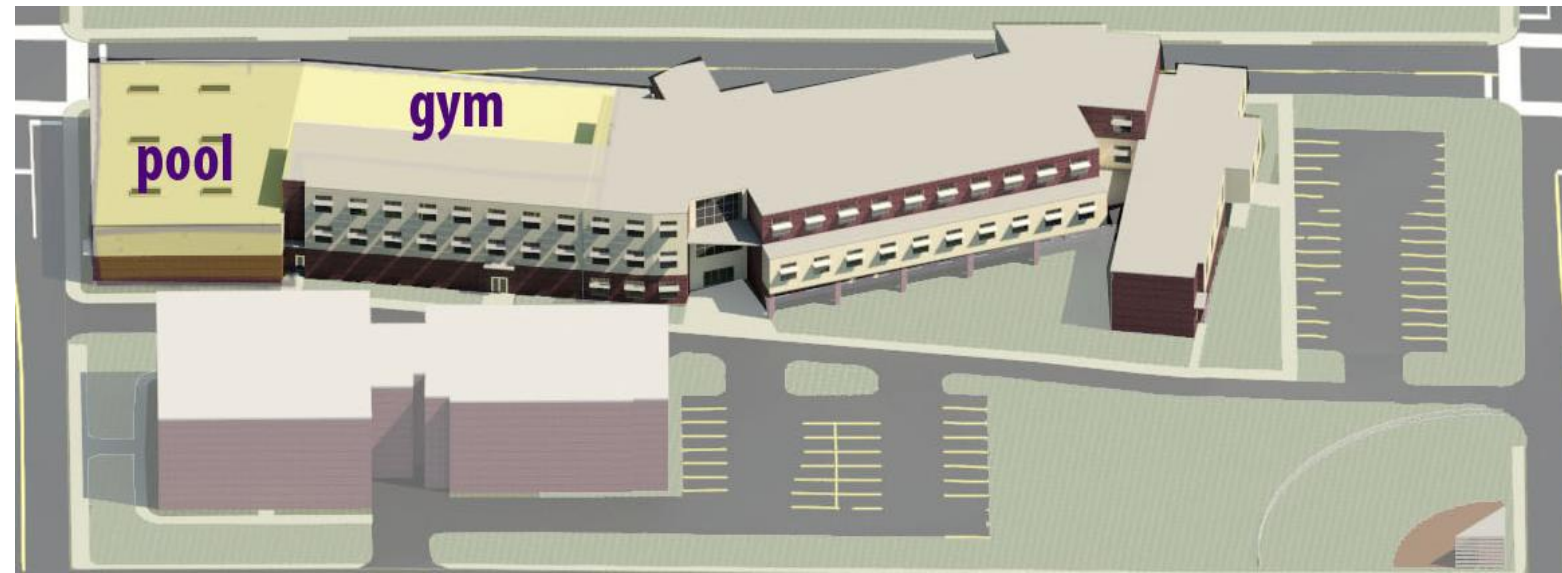
First Floor Plan

- ↑ Visitor Entry
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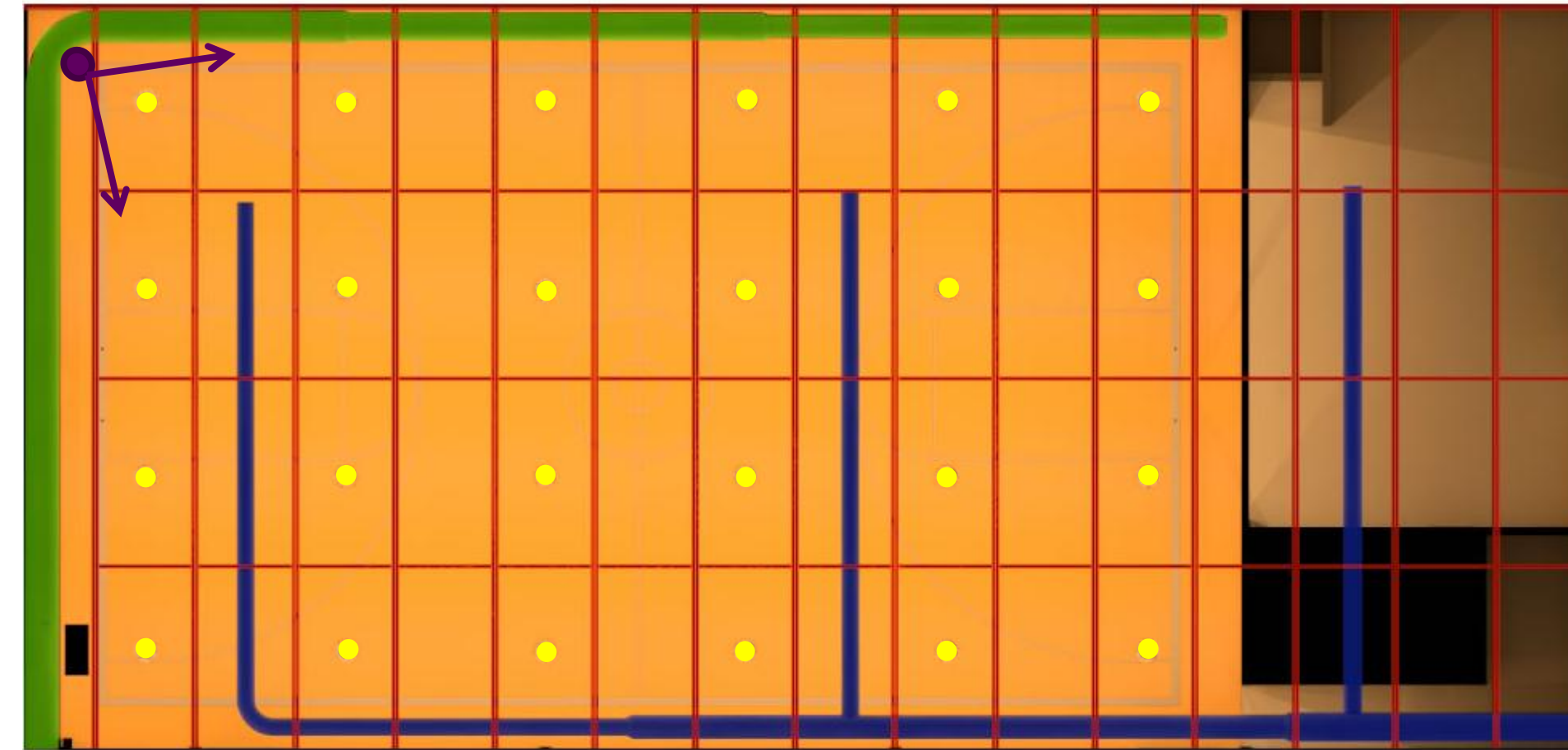


Second Floor Lobby



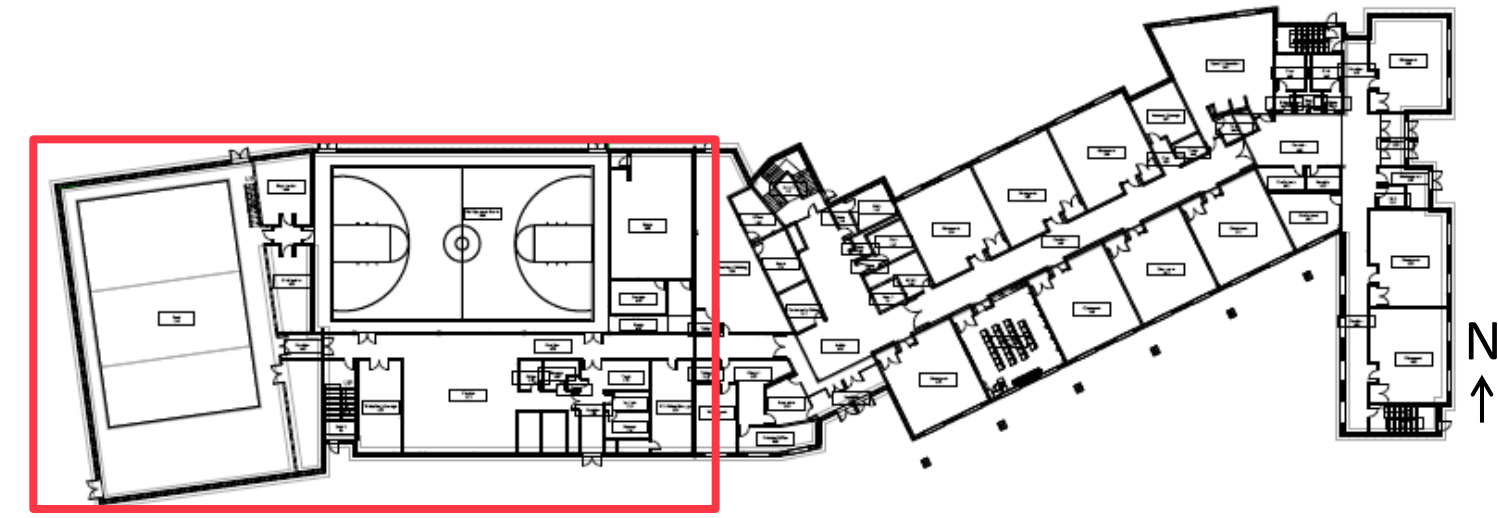
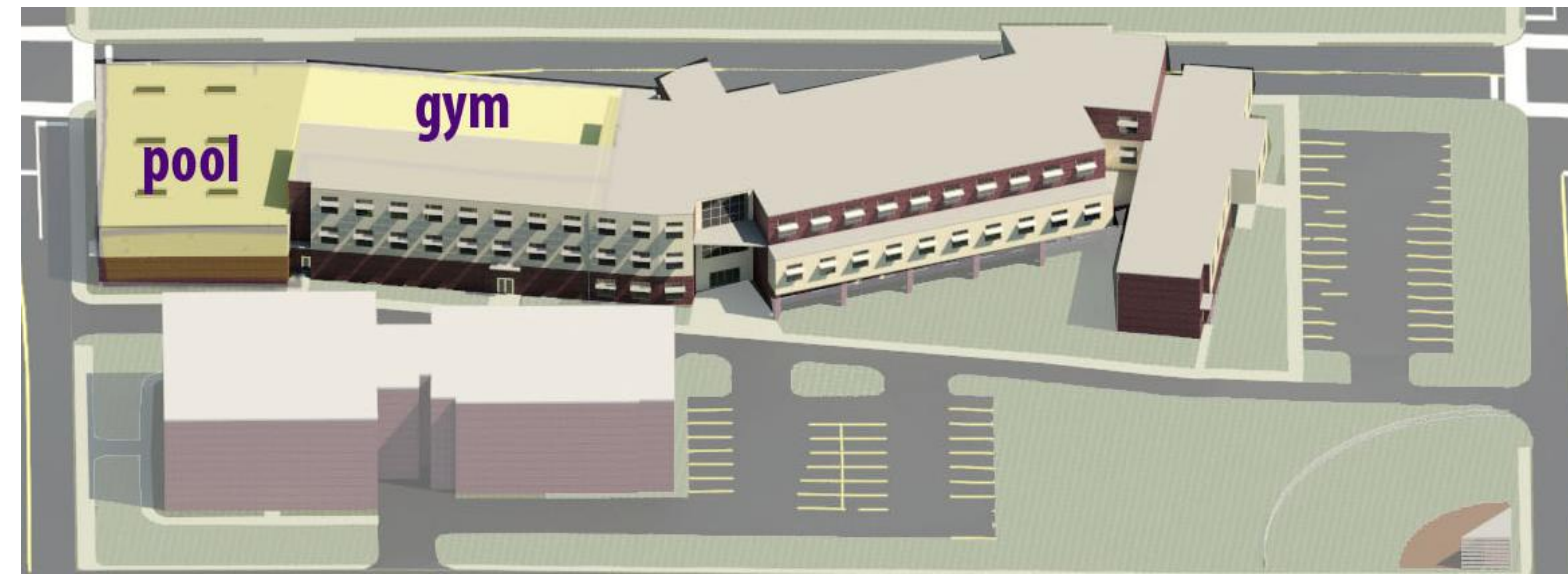


First Floor Plan

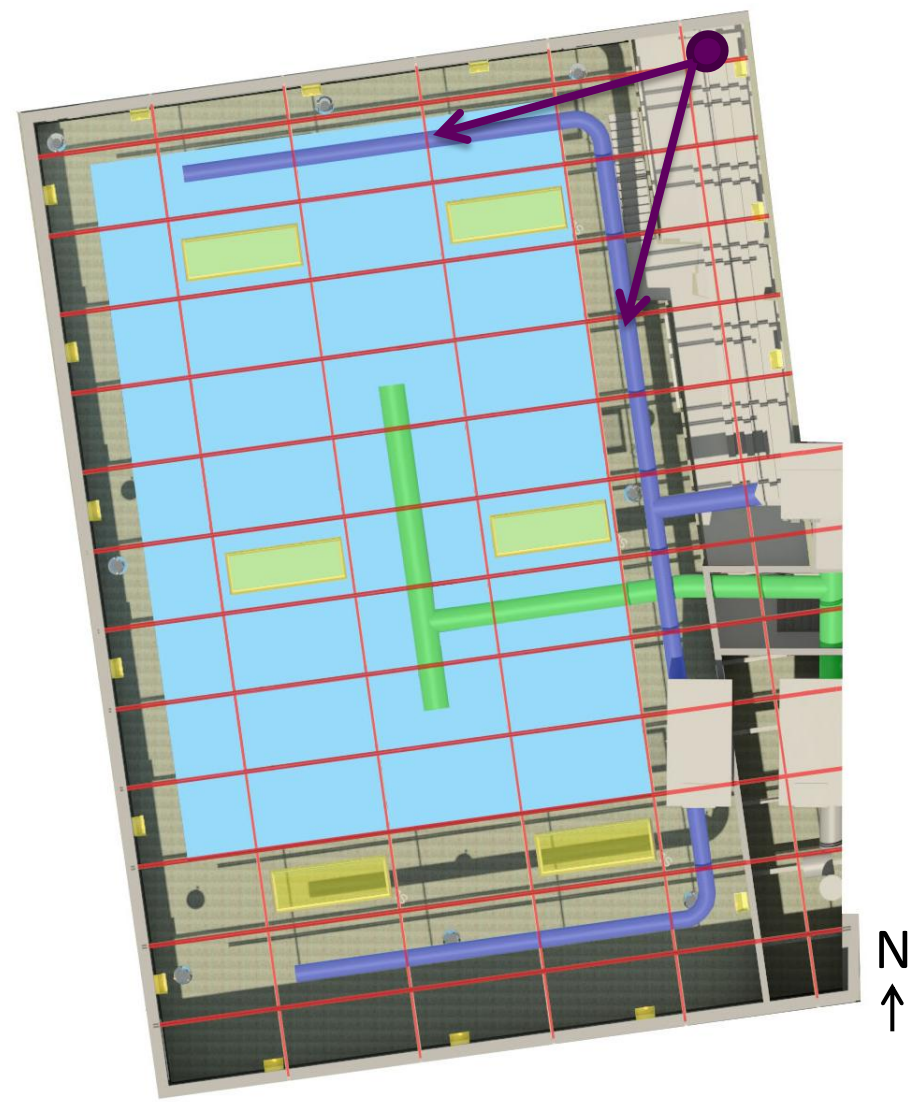


N ↑



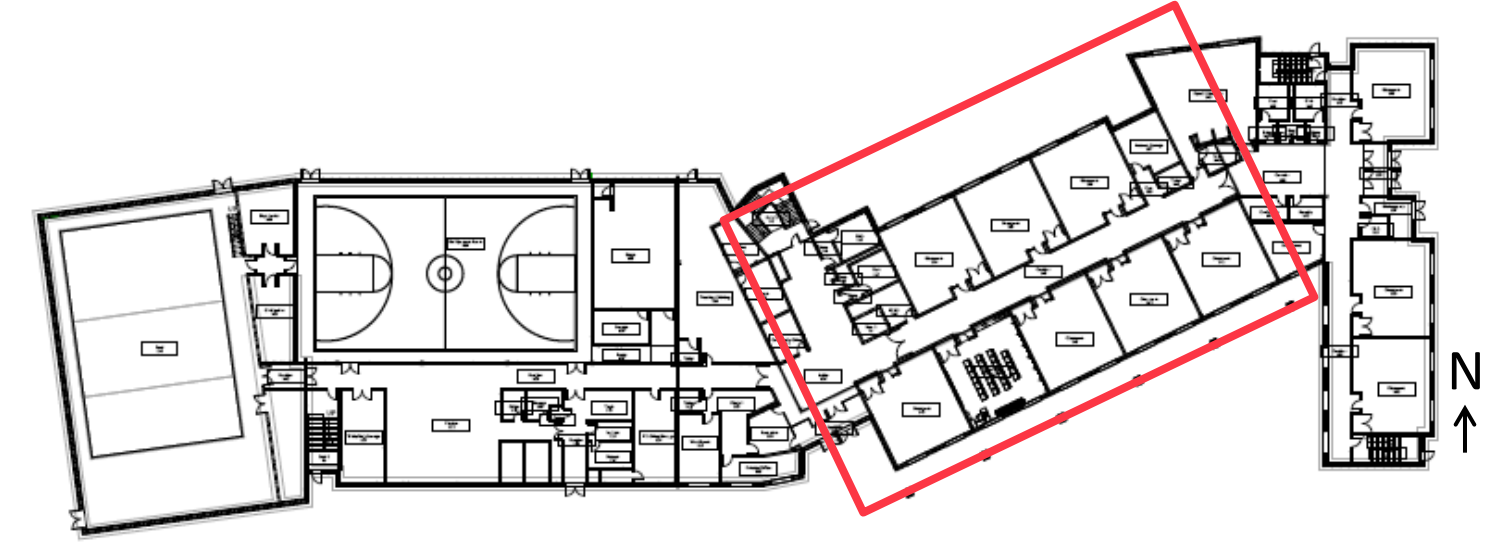
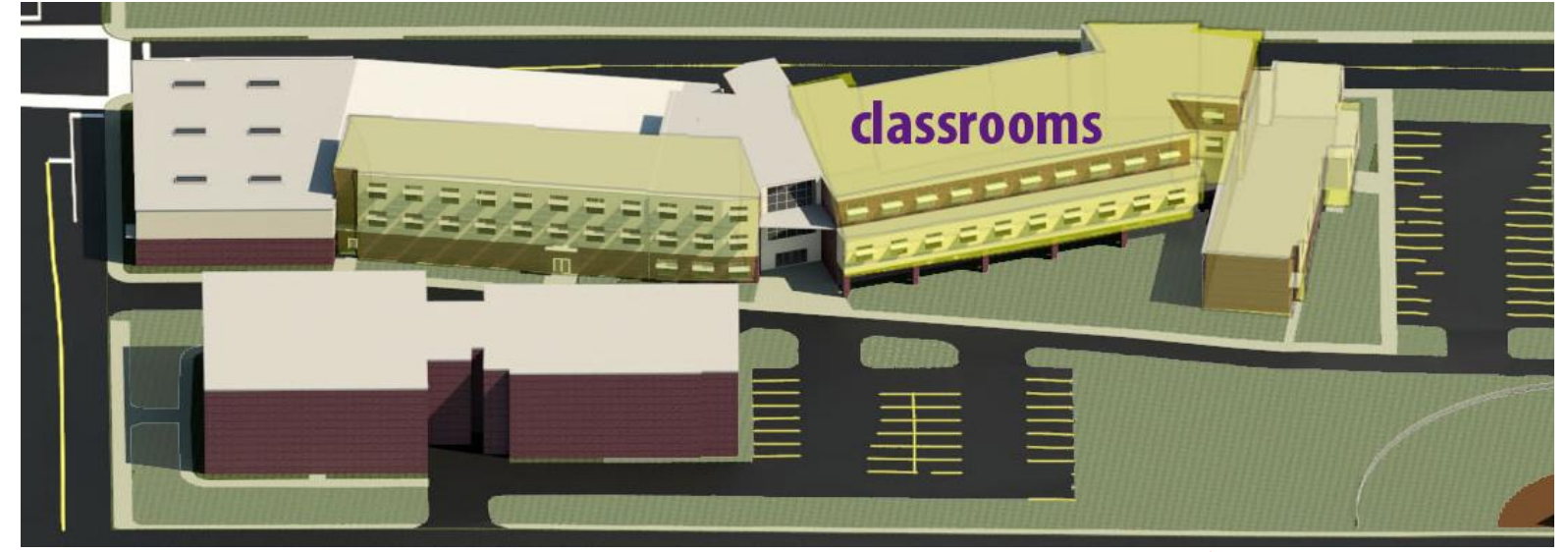


First Floor Plan

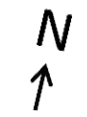
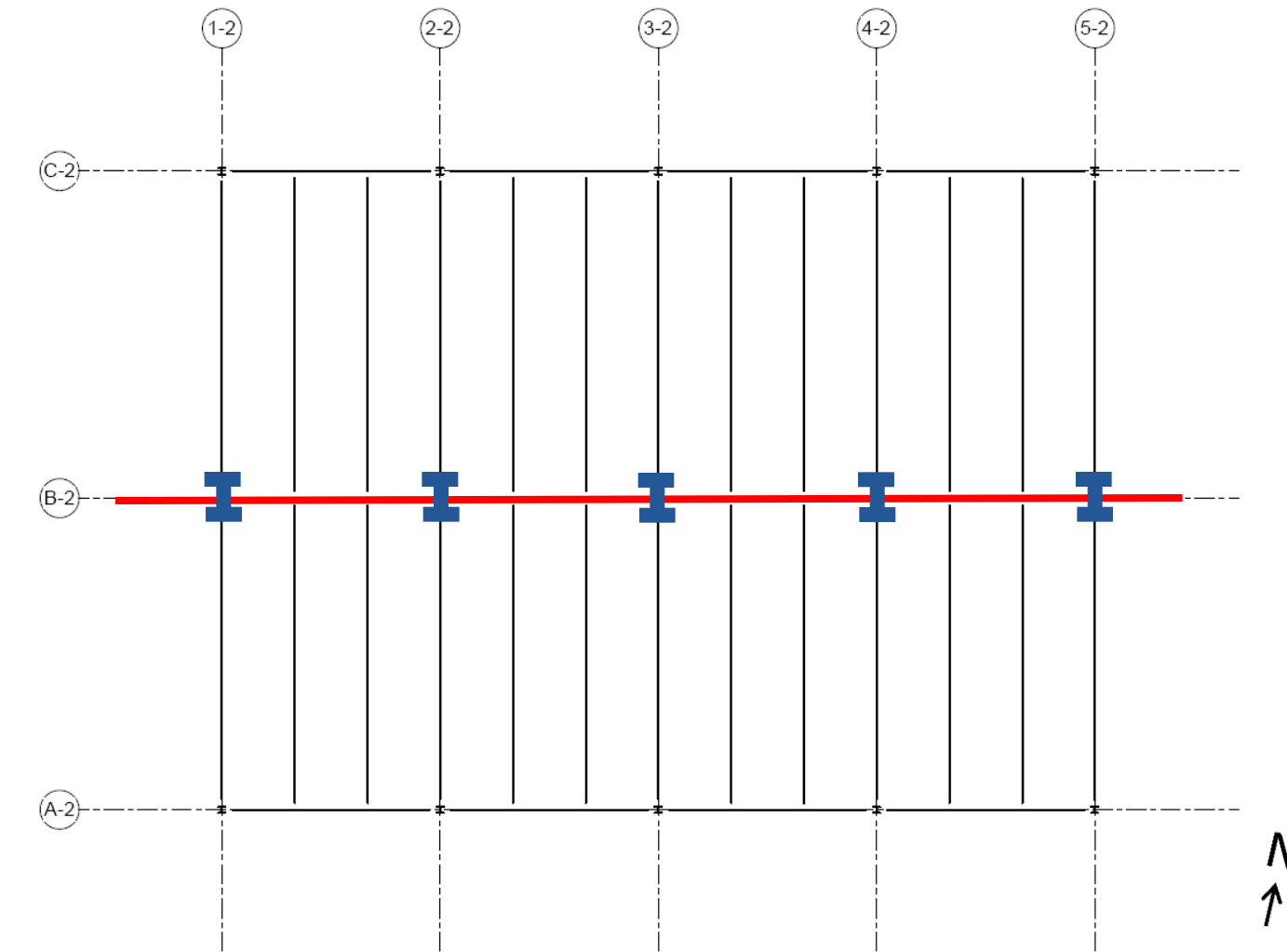
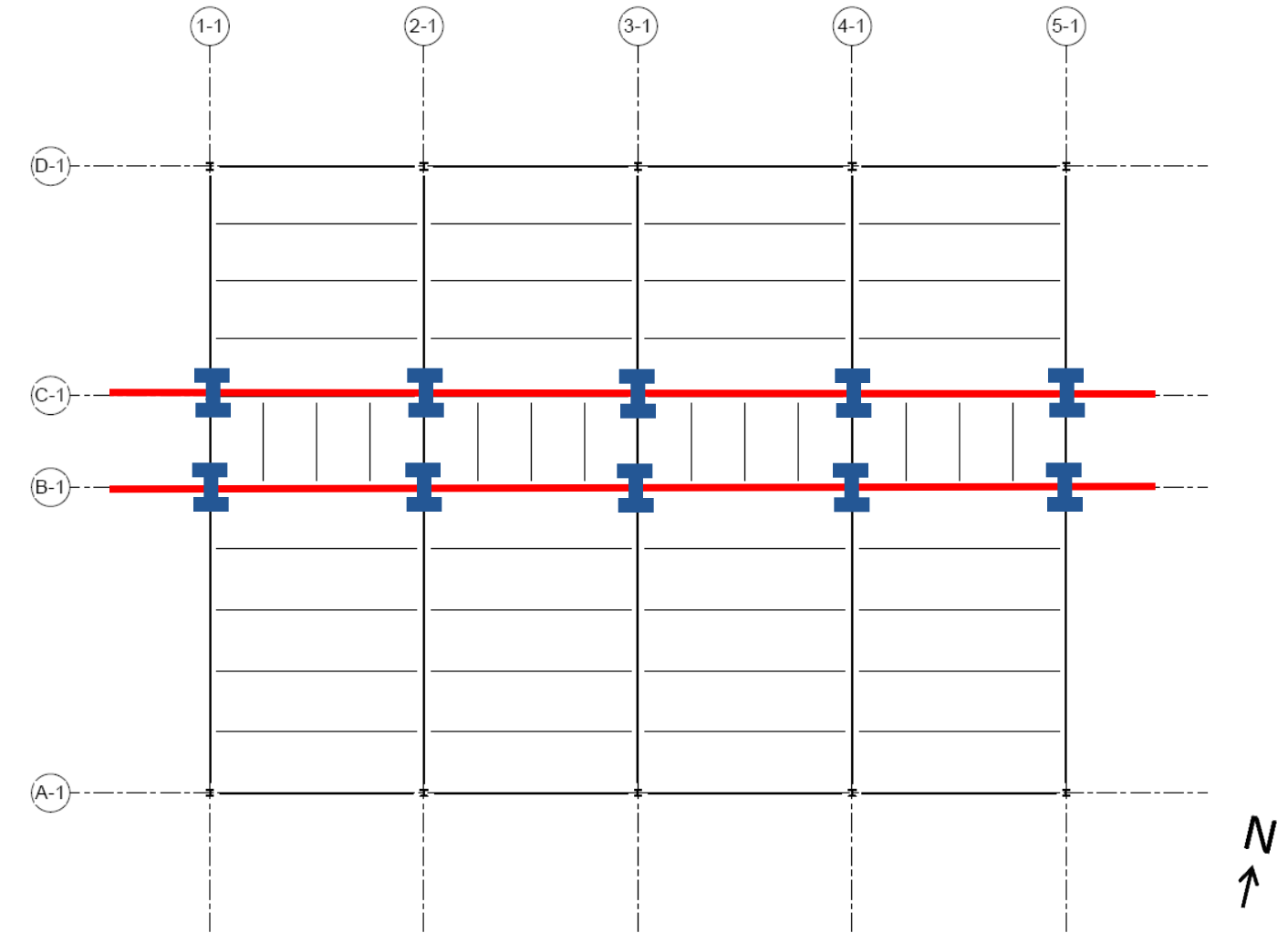


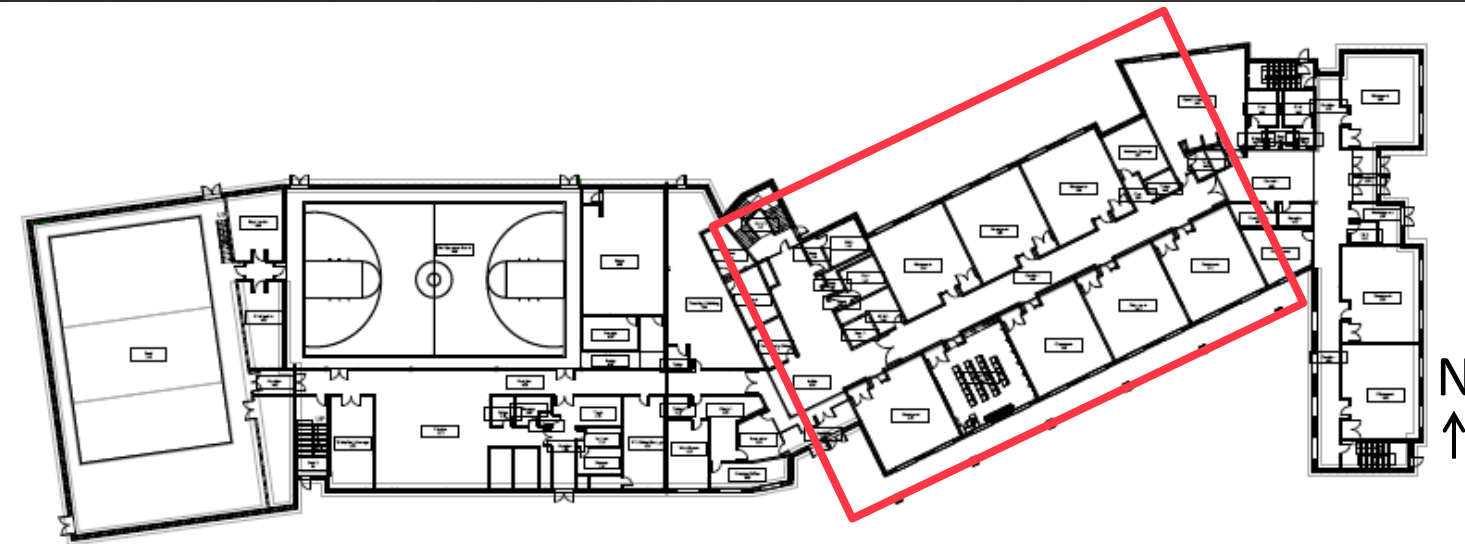
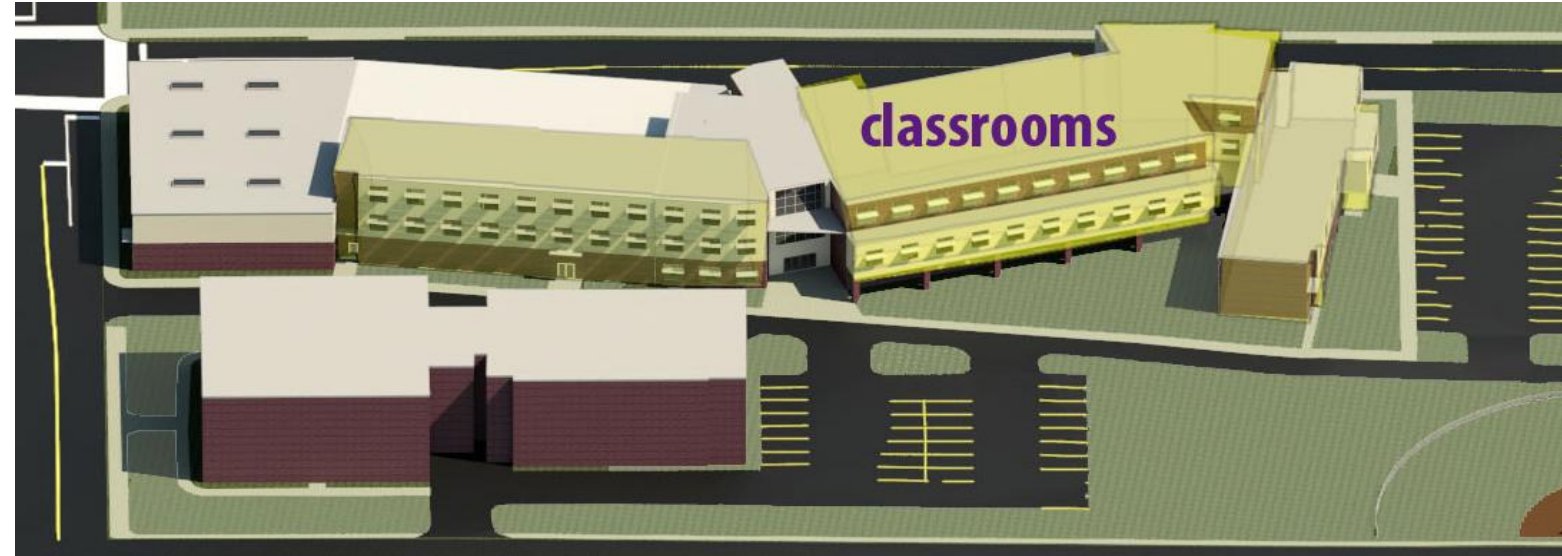
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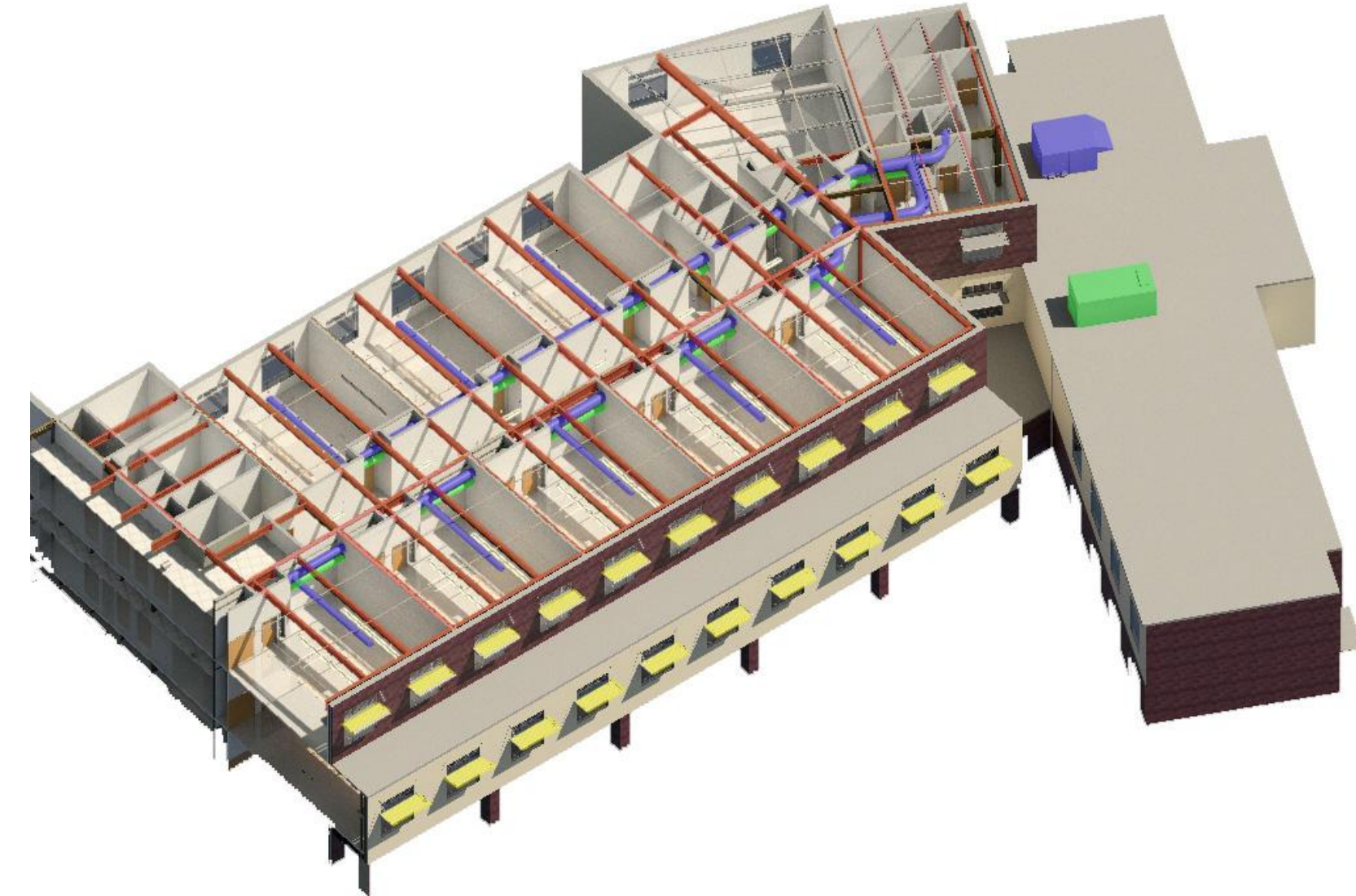
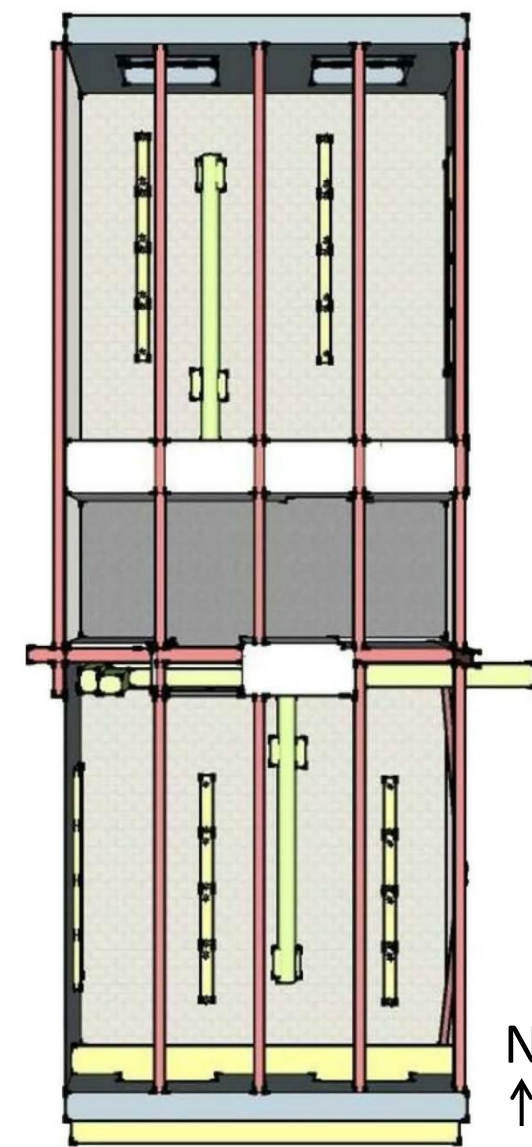


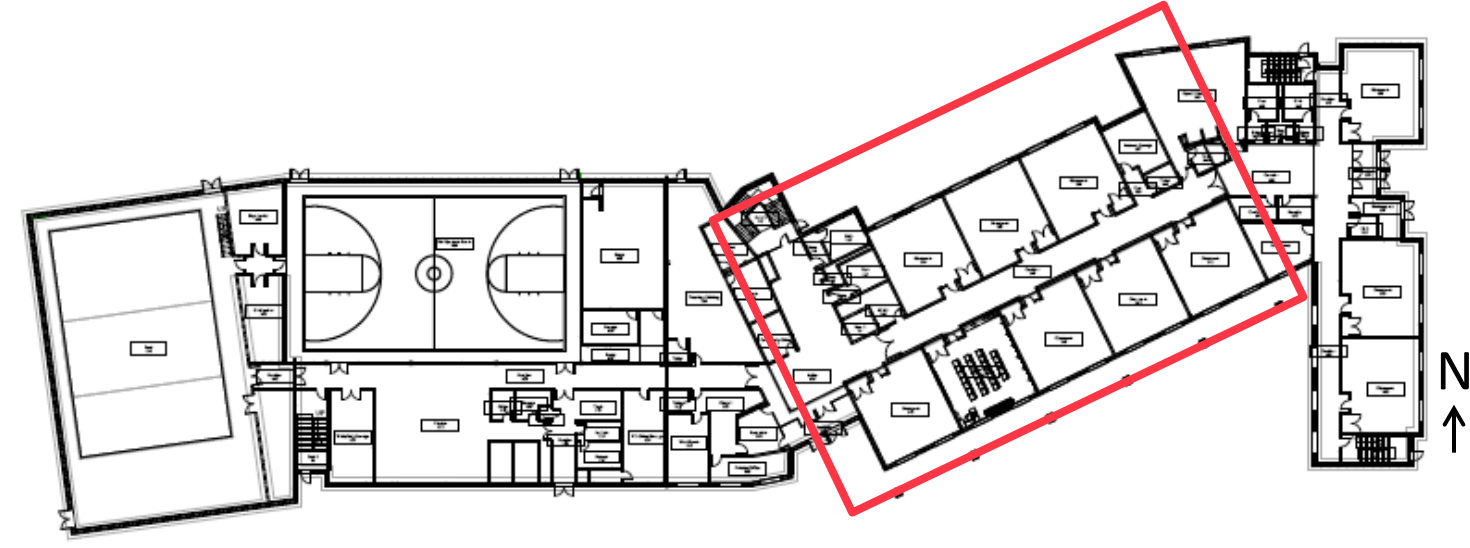
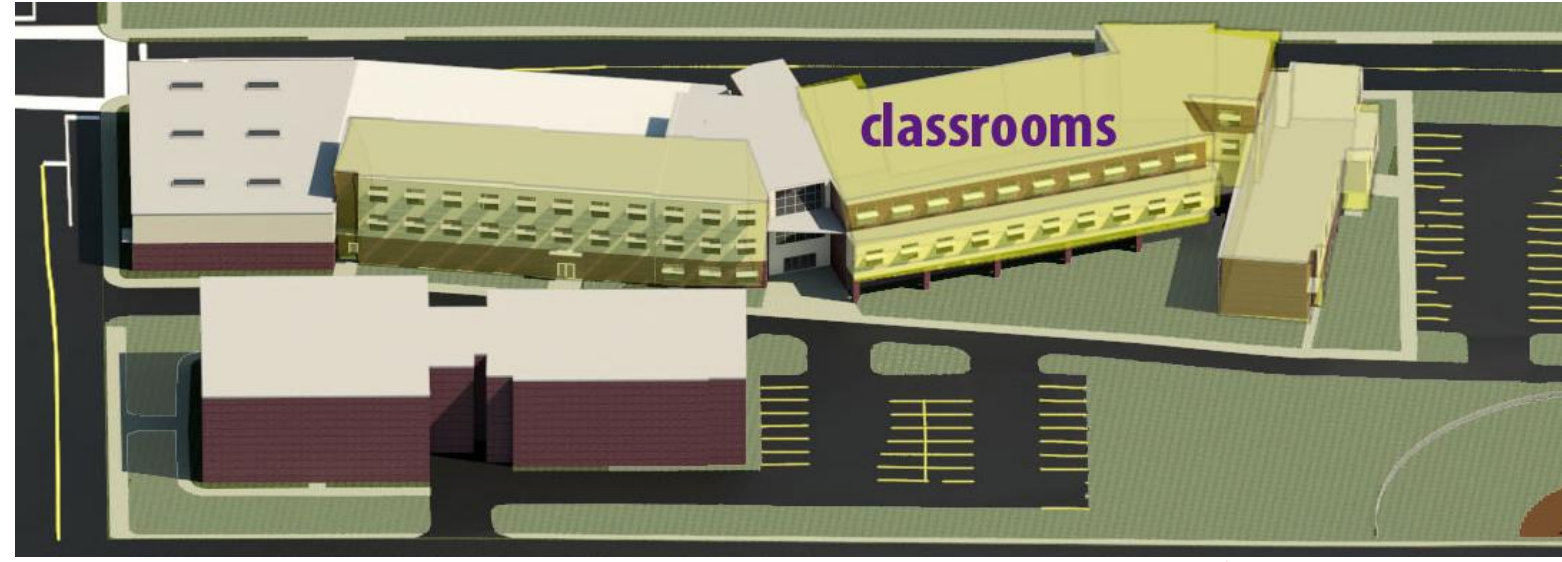
First Floor Plan



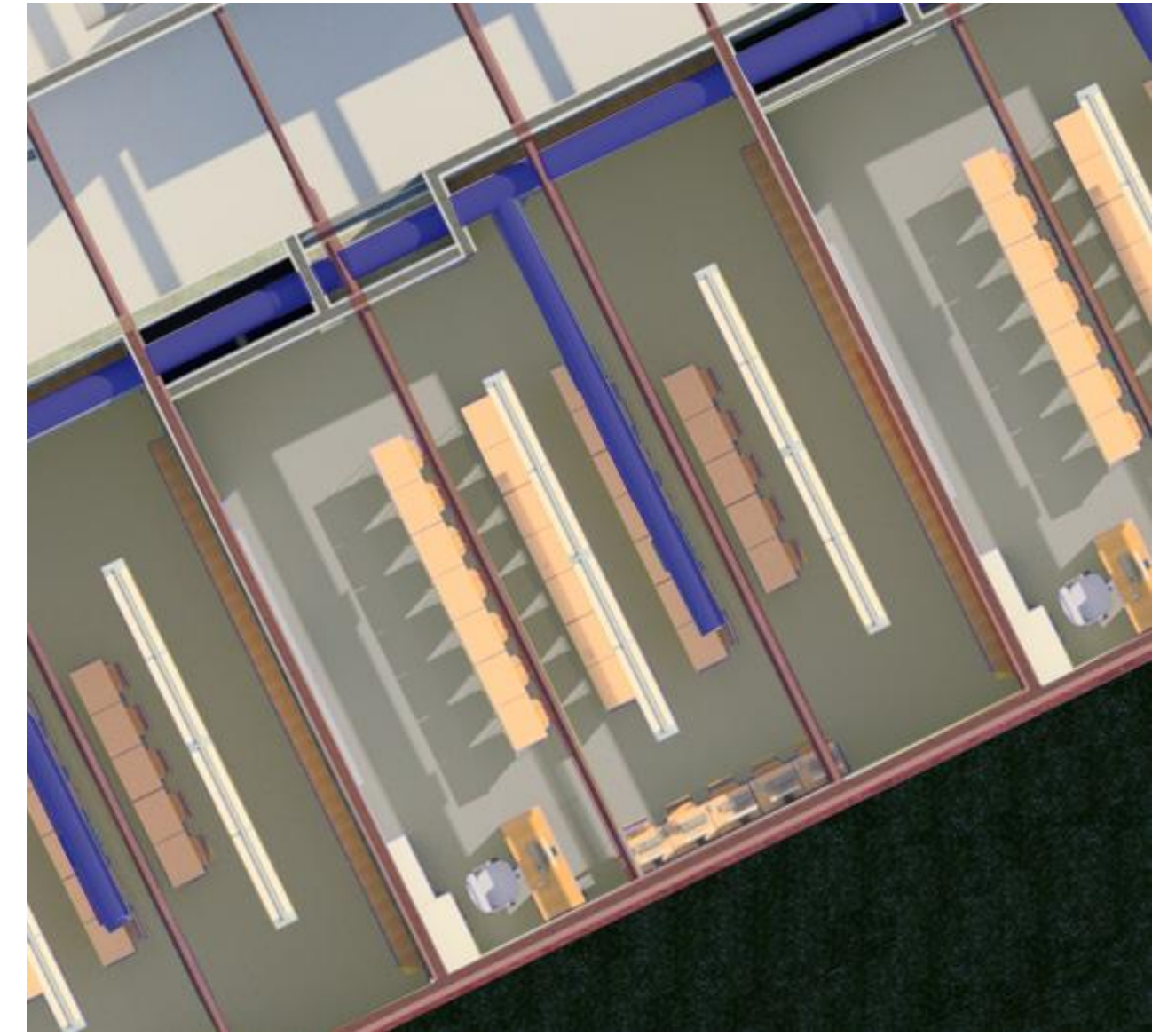


First Floor Plan

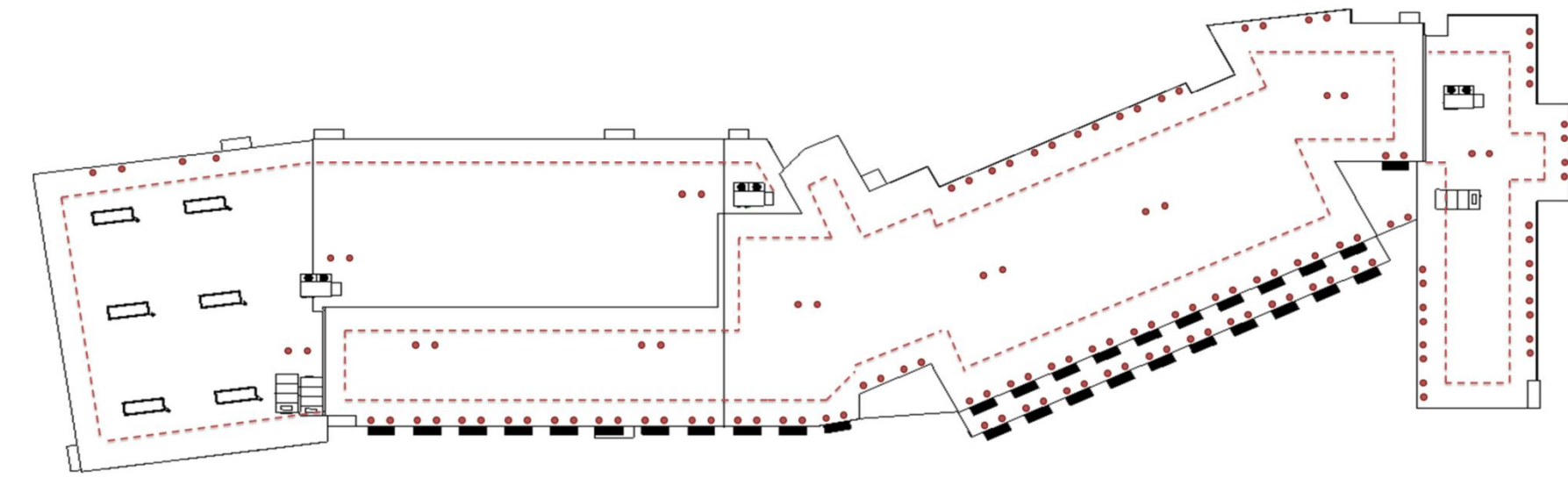
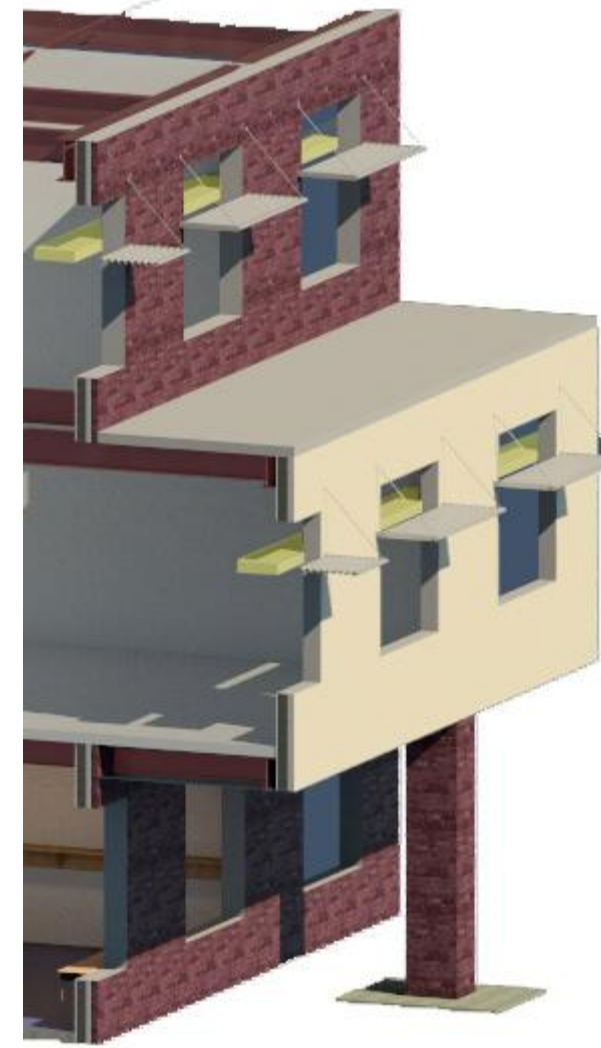
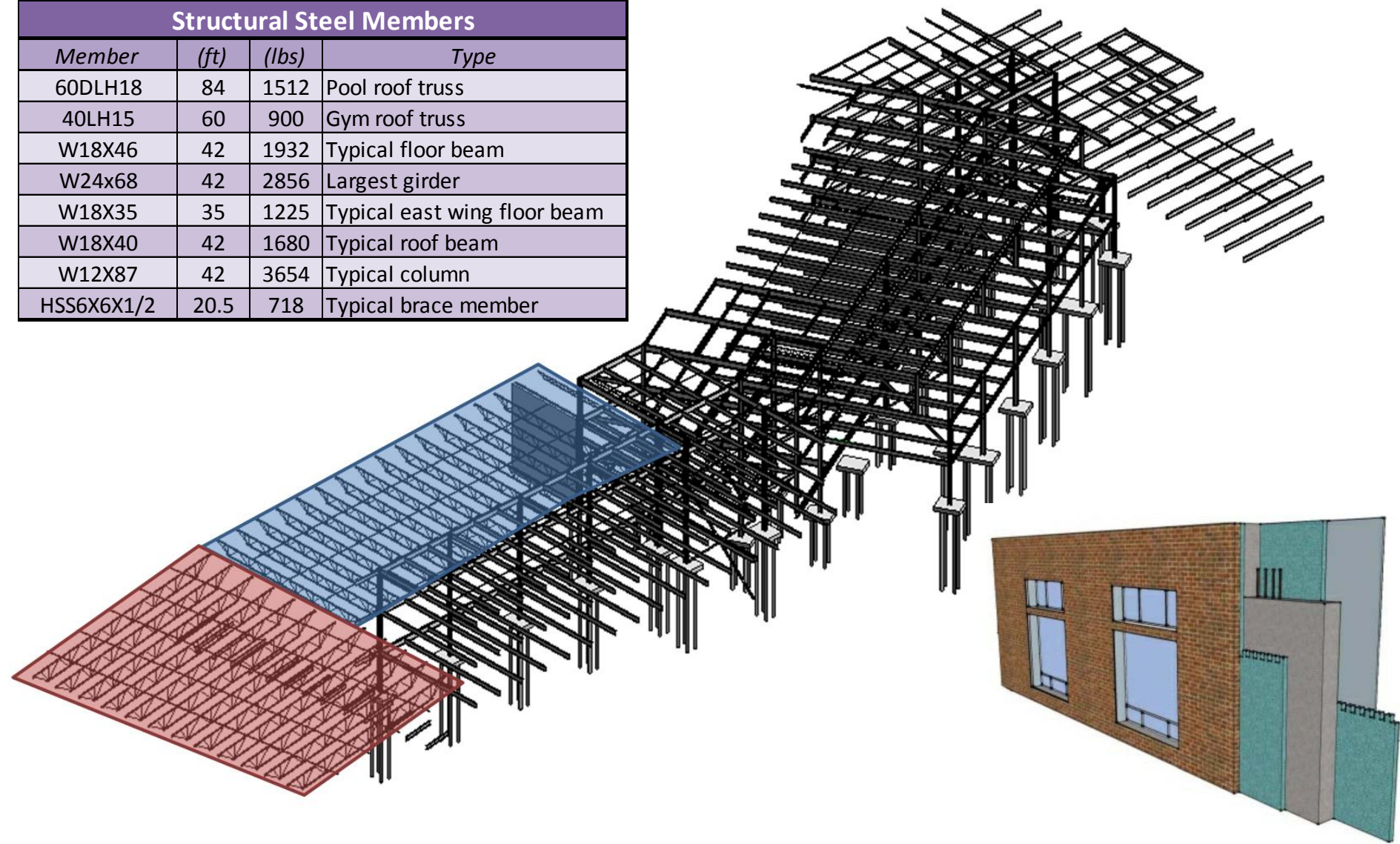


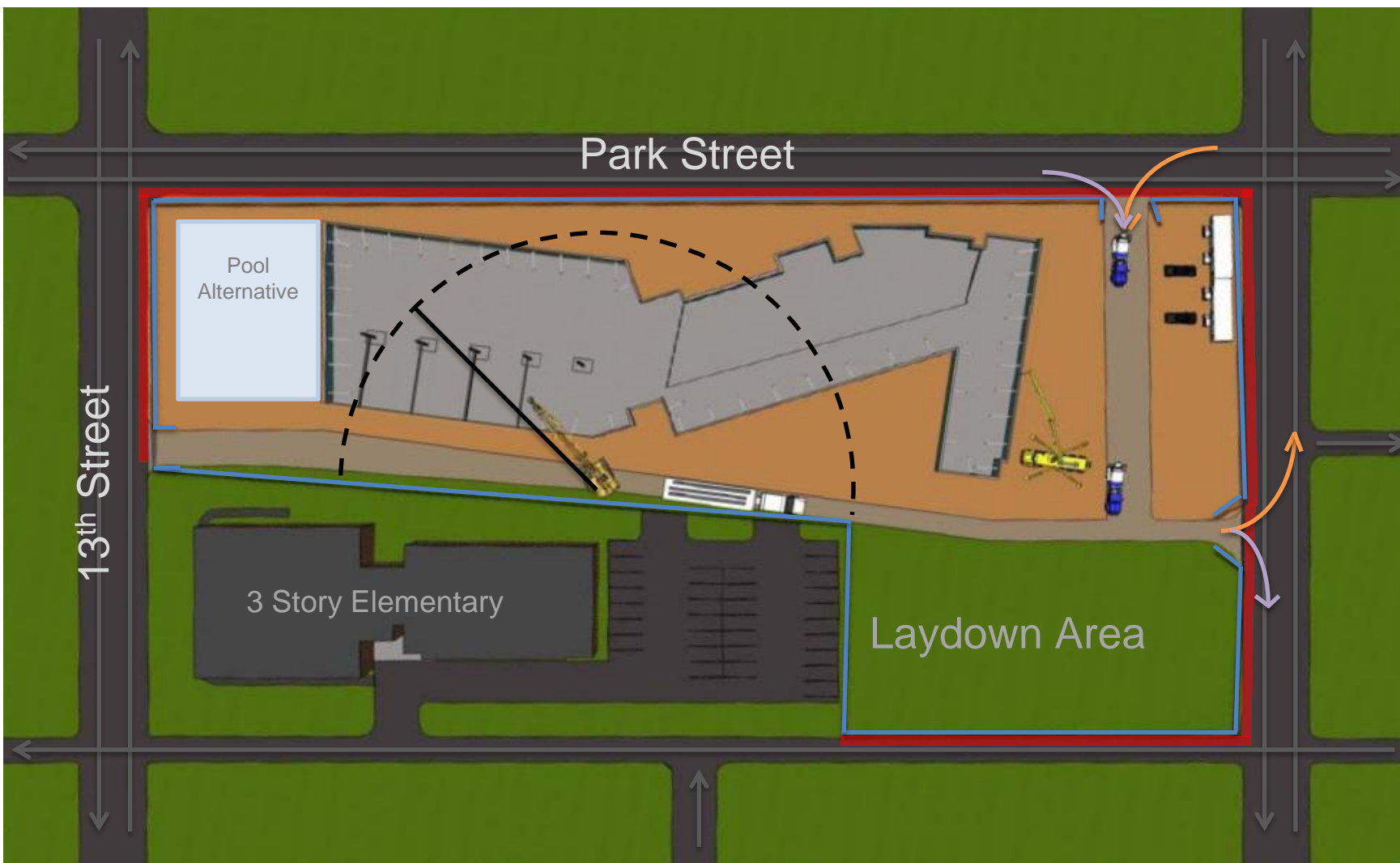


First Floor Plan

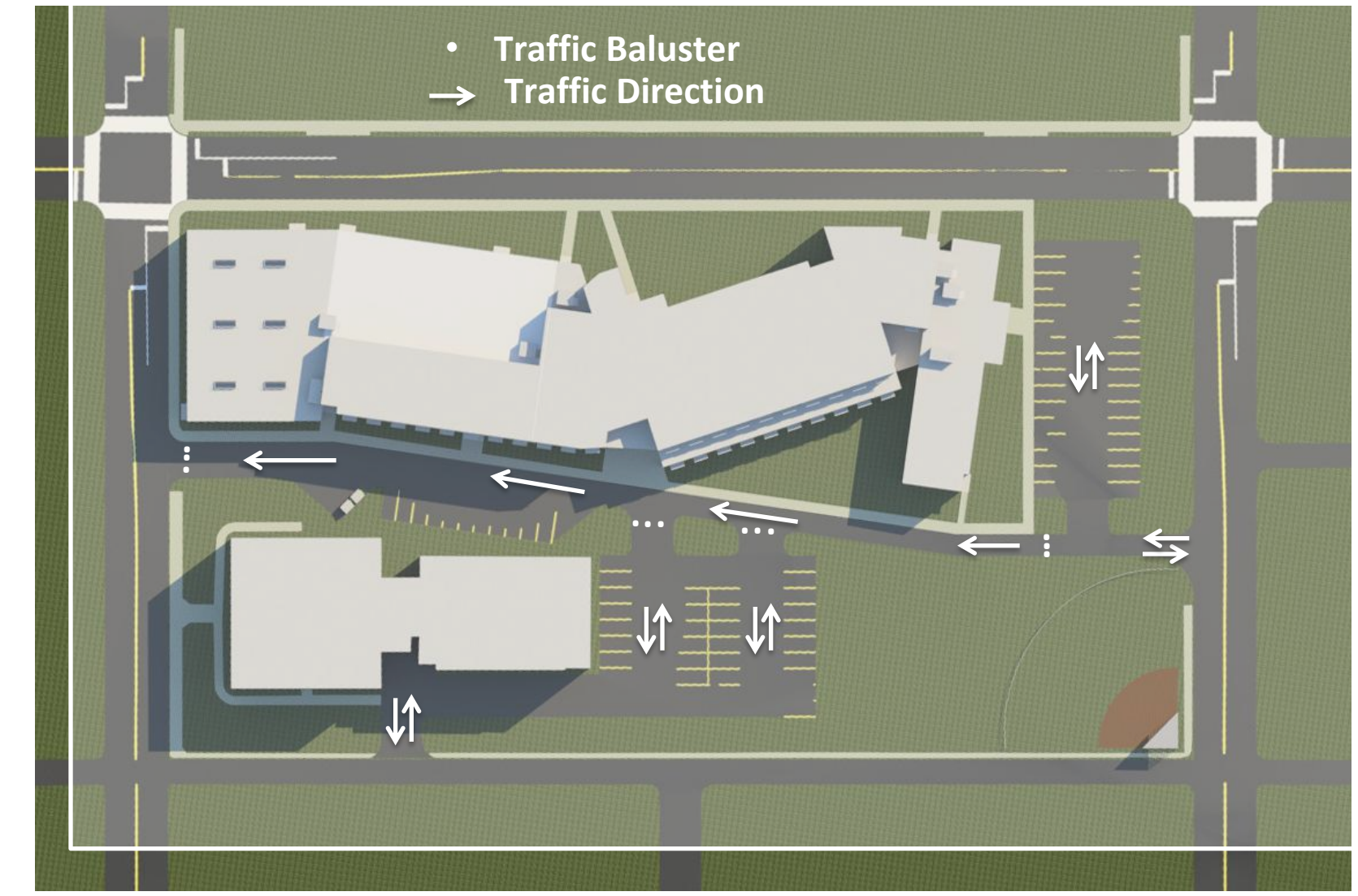


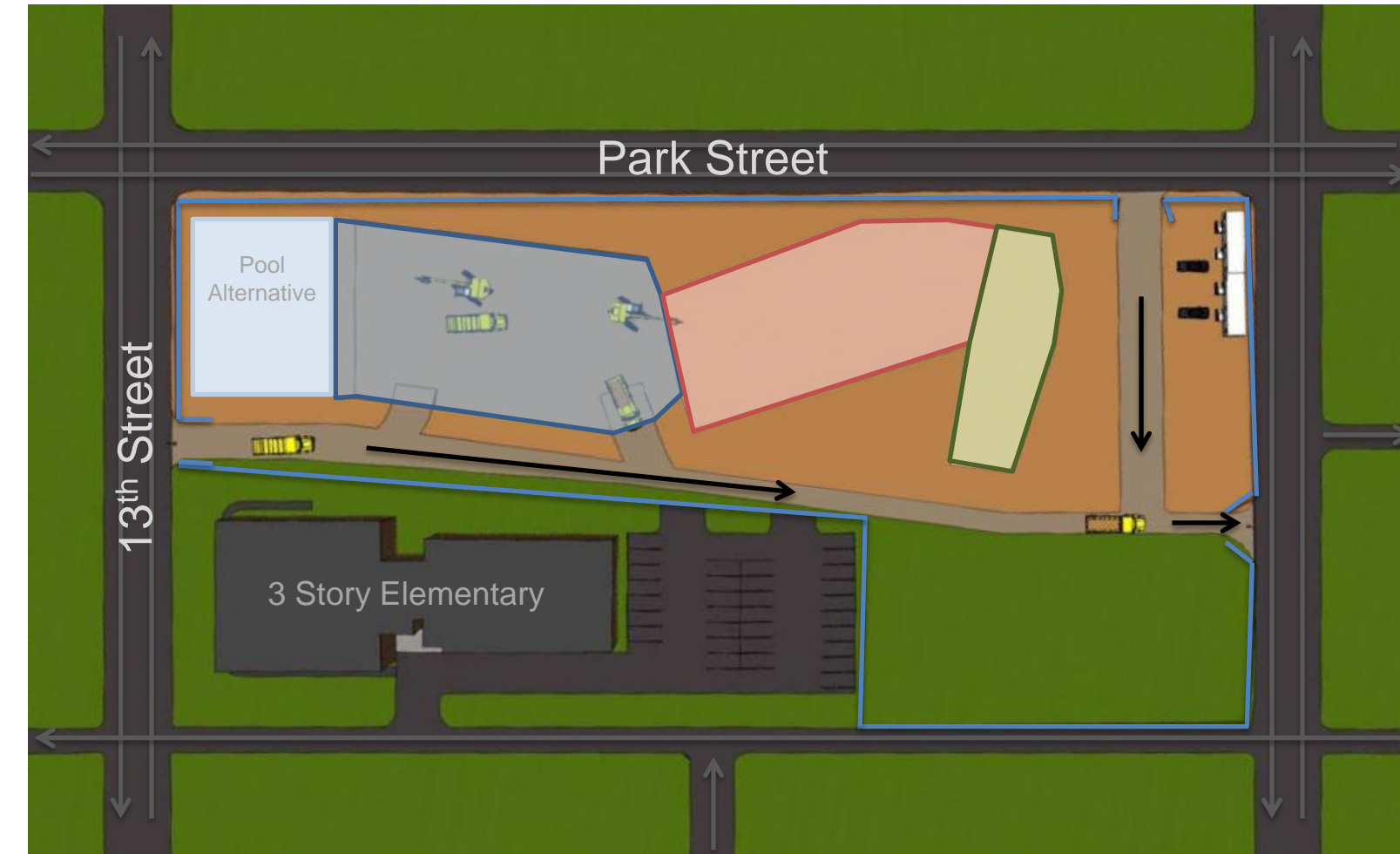
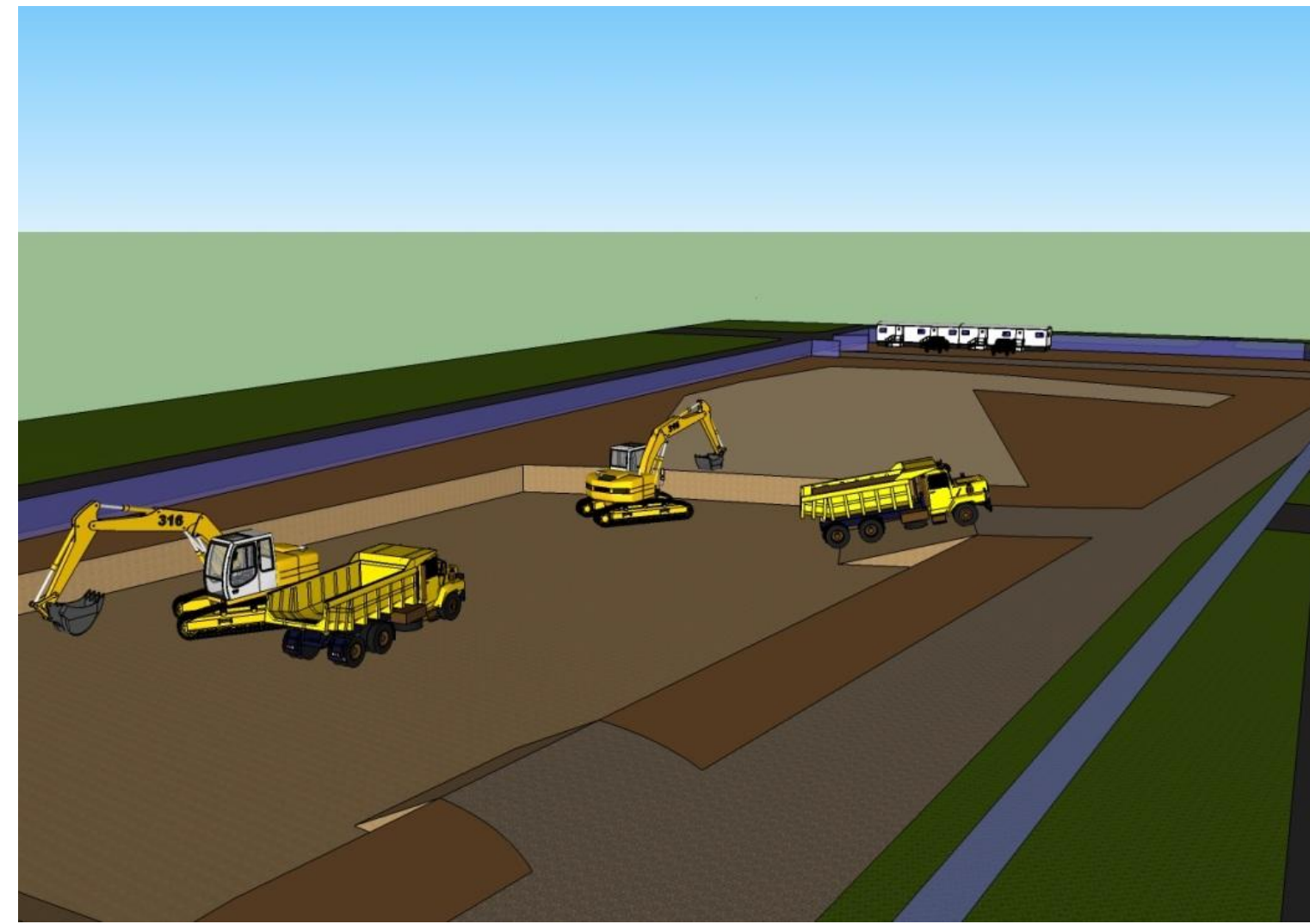
Structural Steel Members			
Member	(ft)	(lbs)	Type
60DLH18	84	1512	Pool roof truss
40LH15	60	900	Gym roof truss
W18X46	42	1932	Typical floor beam
W24x68	42	2856	Largest girder
W18X35	35	1225	Typical east wing floor beam
W18X40	42	1680	Typical roof beam
W12X87	42	3654	Typical column
HSS6X6X1/2	20.5	718	Typical brace member





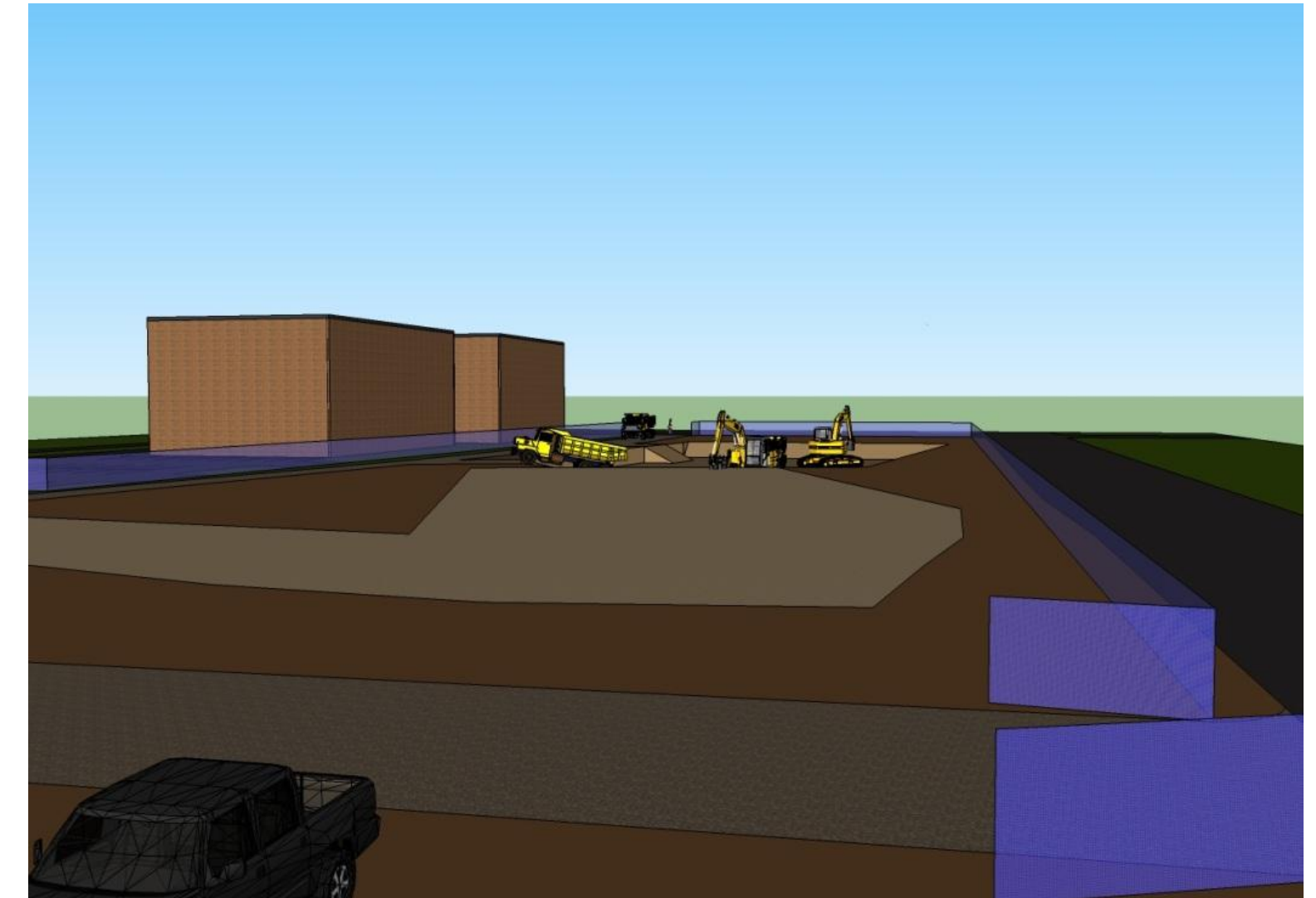
Nexus' School Security and Occupant Safety Checklist		
Level of Integration	Significant	Acceptable
Secure Main Entrance	✓	
Safe Main Entrance	✓	
Parking Lot Balusters		✓
Public Address System	✓	
Security Alarms	✓	
Intrusion Detection System	✓	
Lockdown Security Doors	✓	
Manual Window Shades		✓
Video Surveillance	✓	
First Floor Bullet-Resistant Glass	✓	

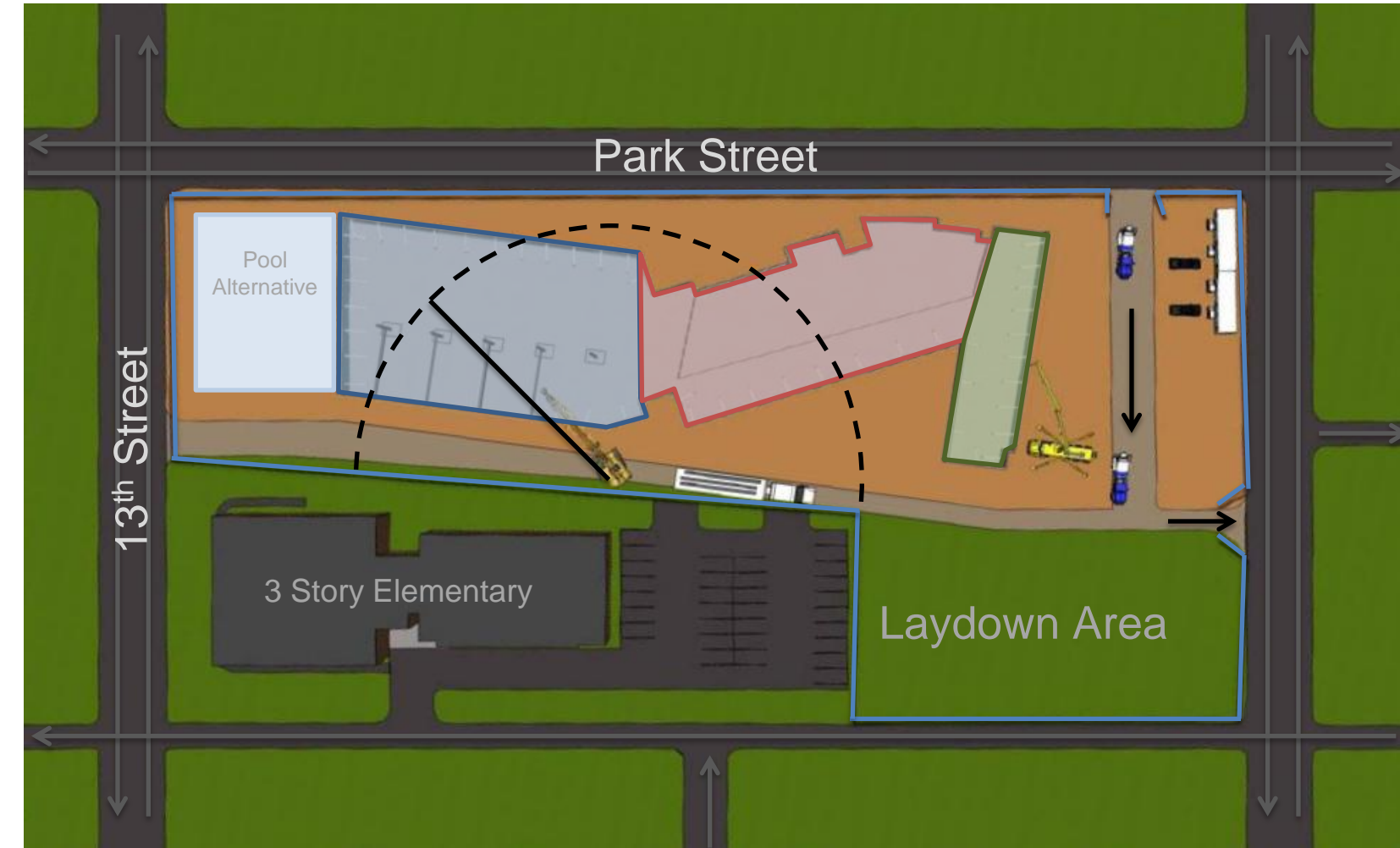
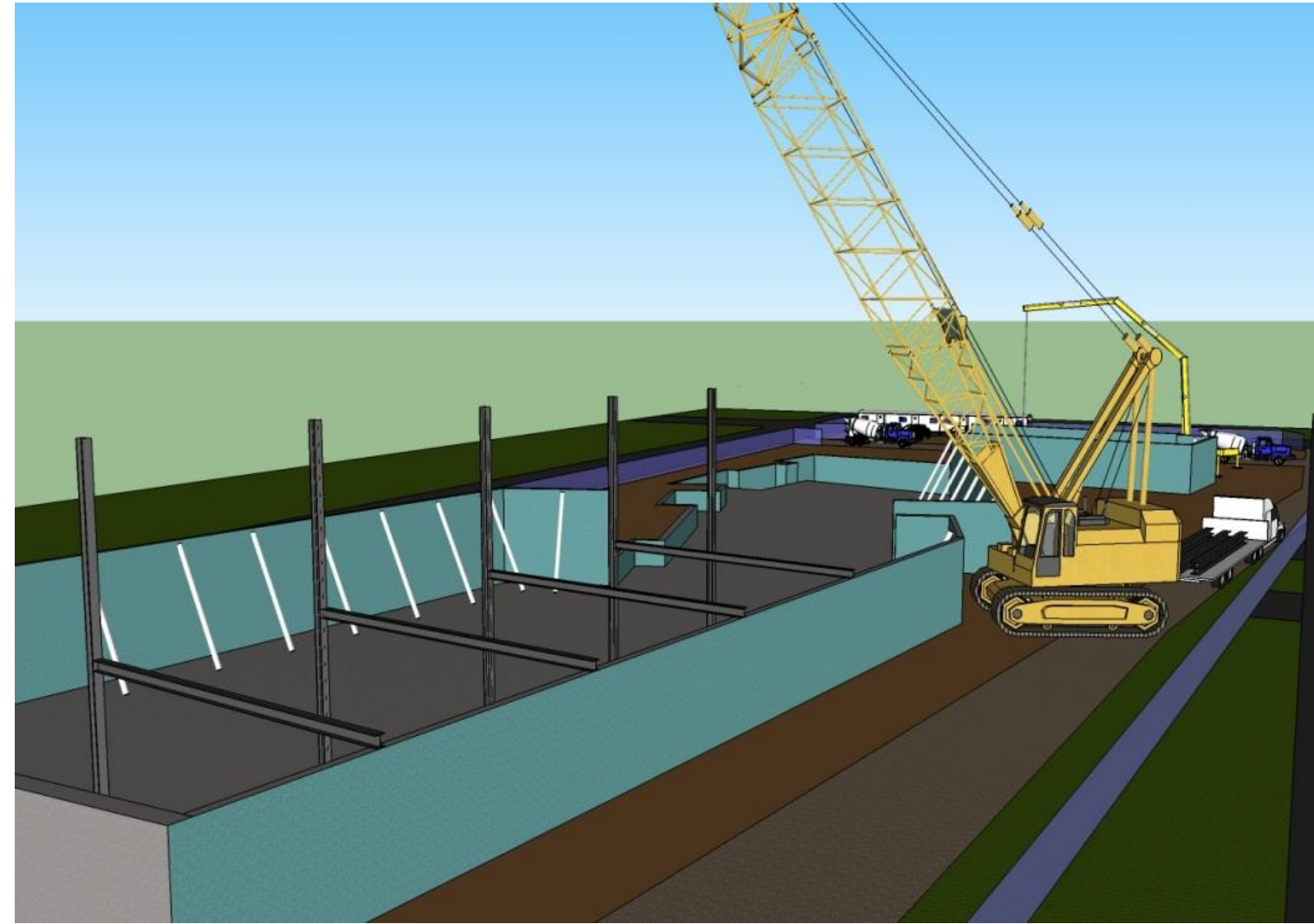




- Zone 1
- Zone 2
- Zone 3

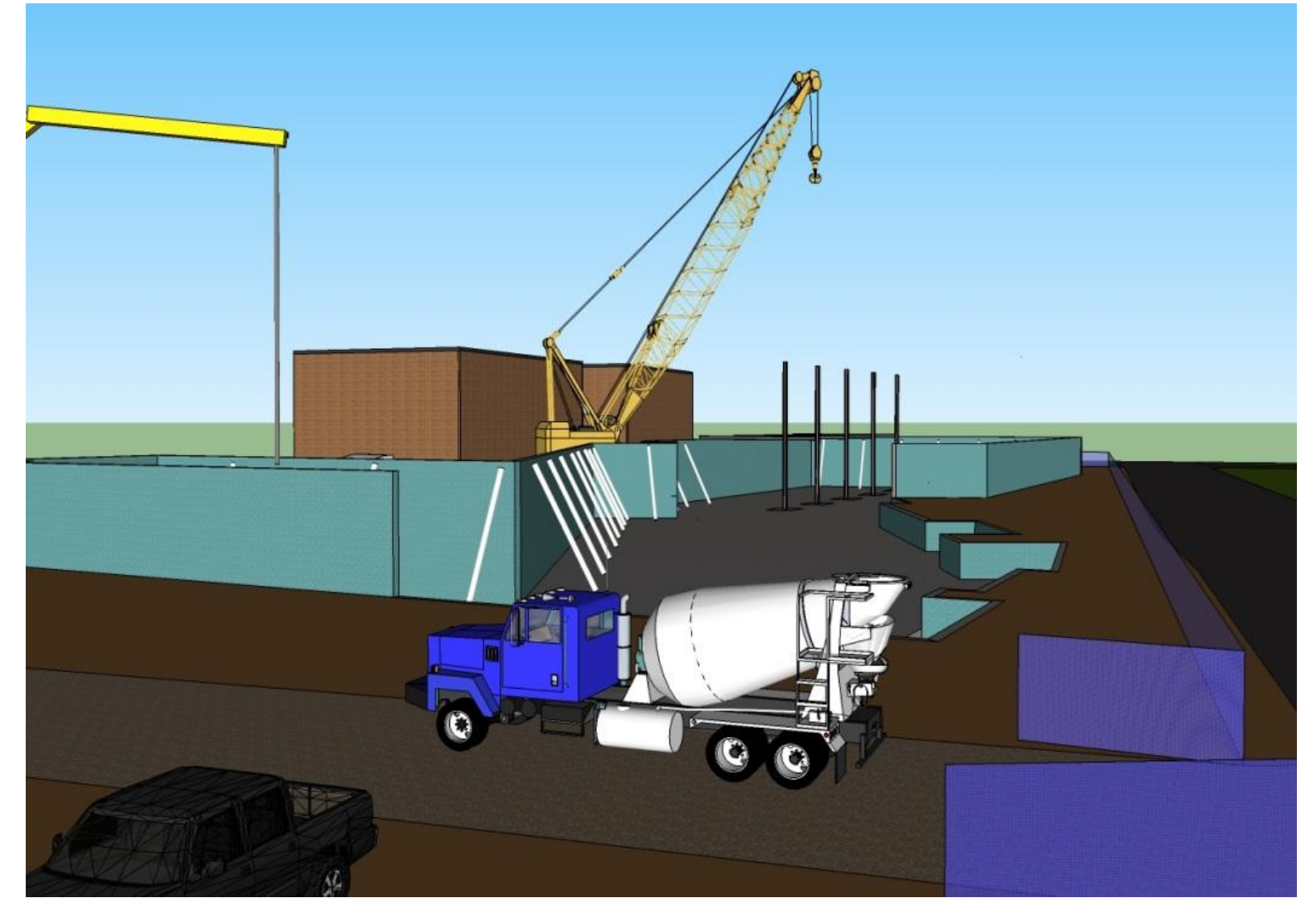
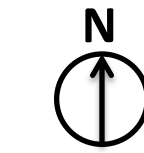
Excavation - 6/16/14 to 7/18/14

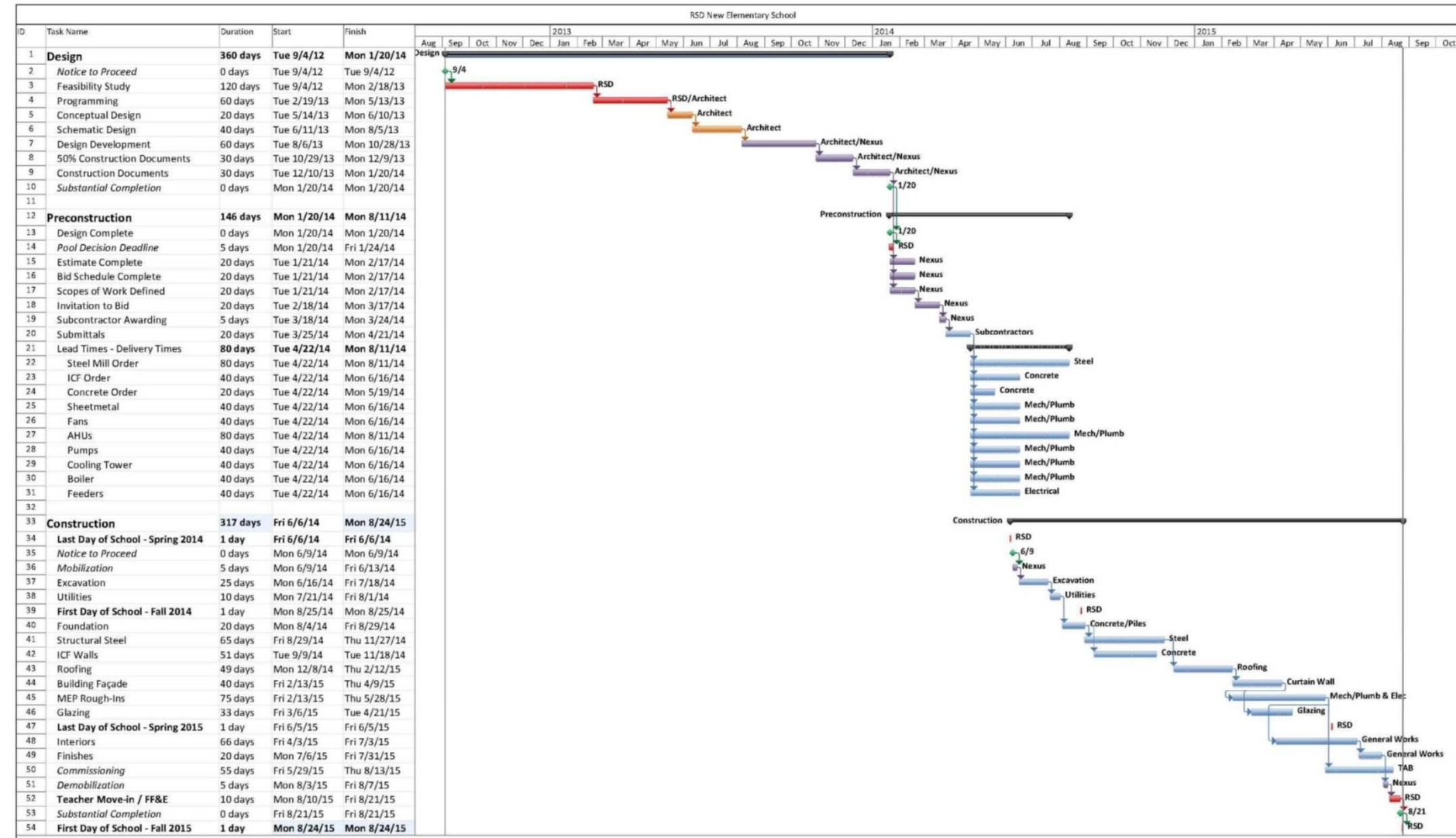
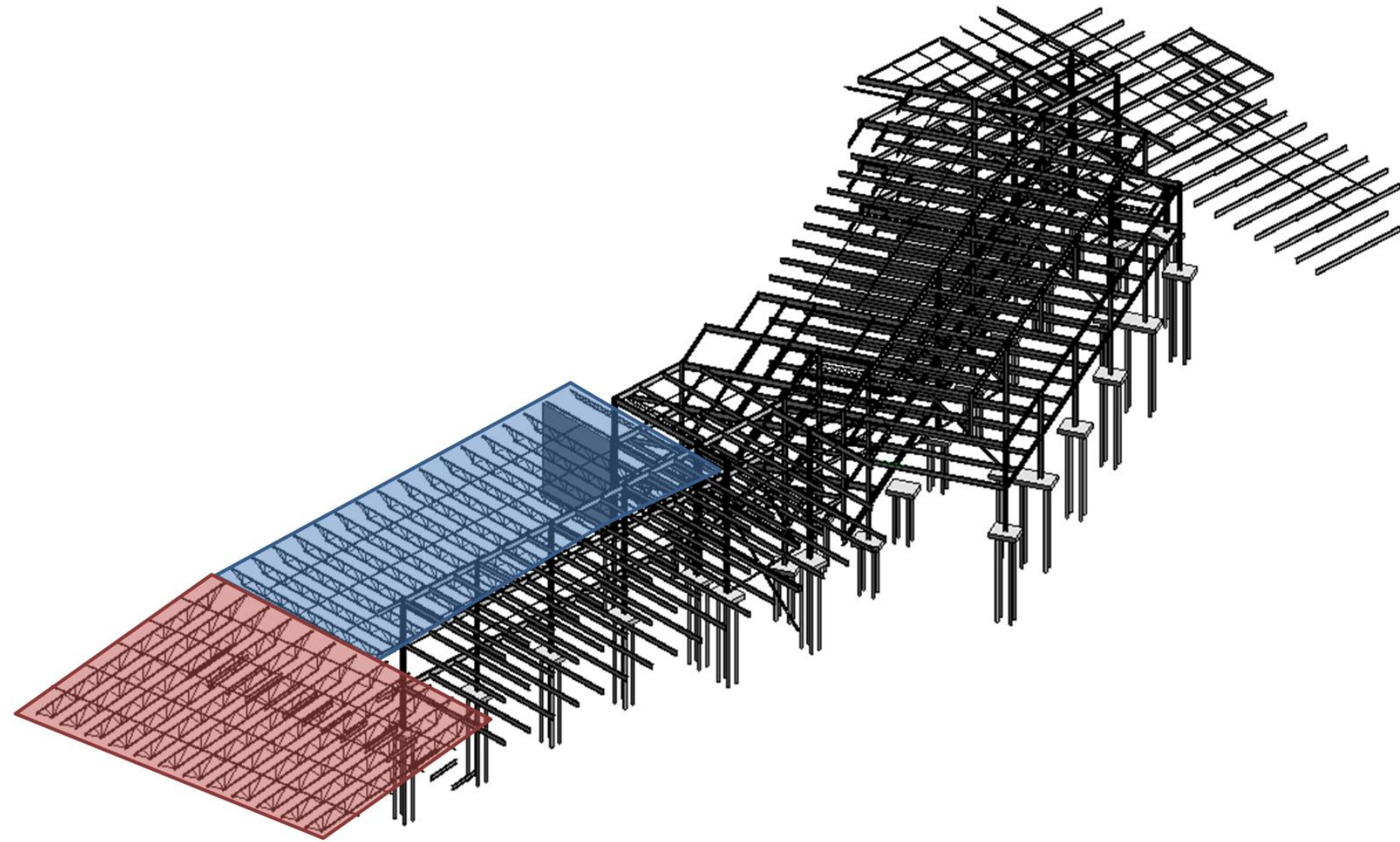


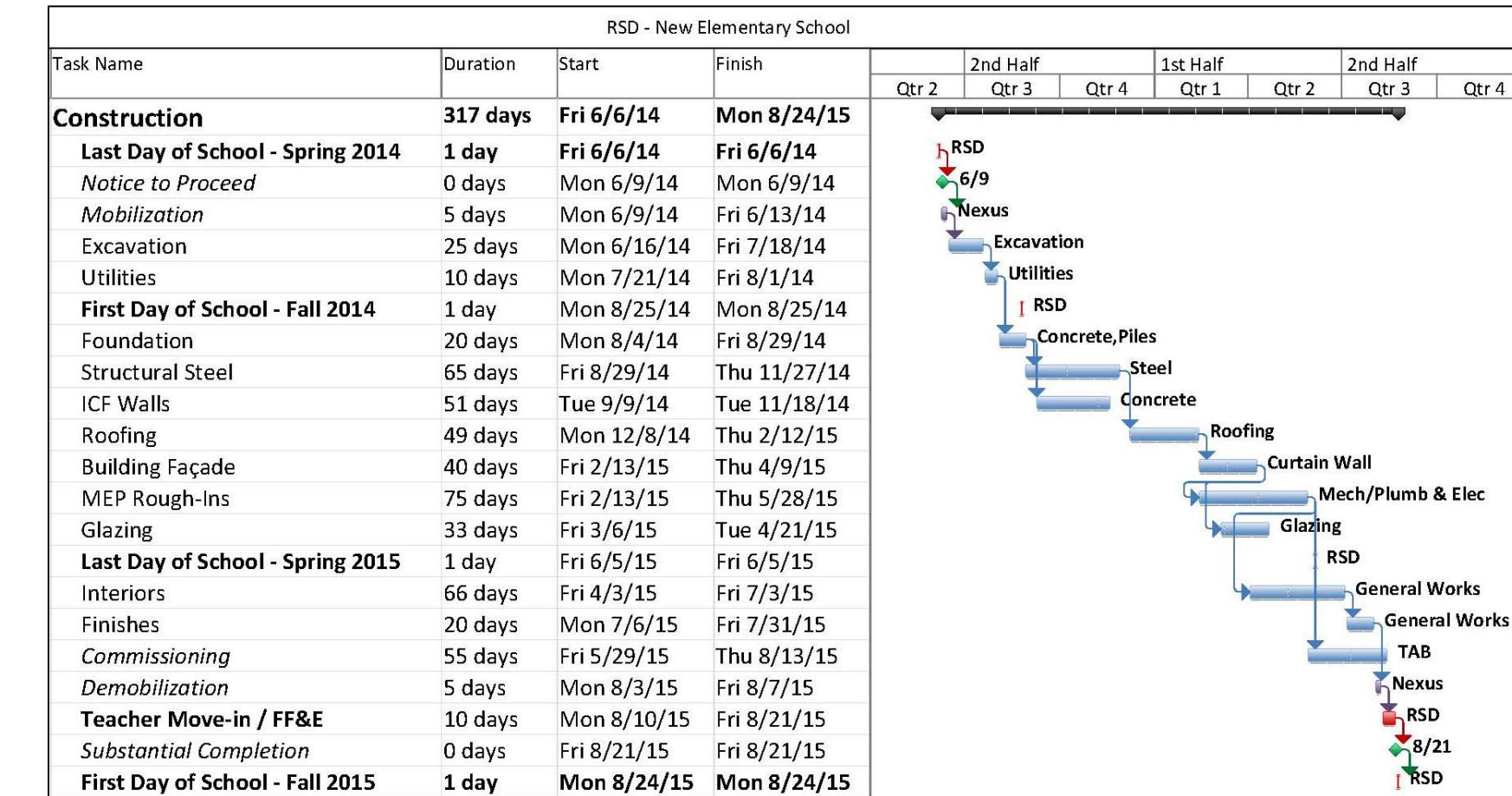
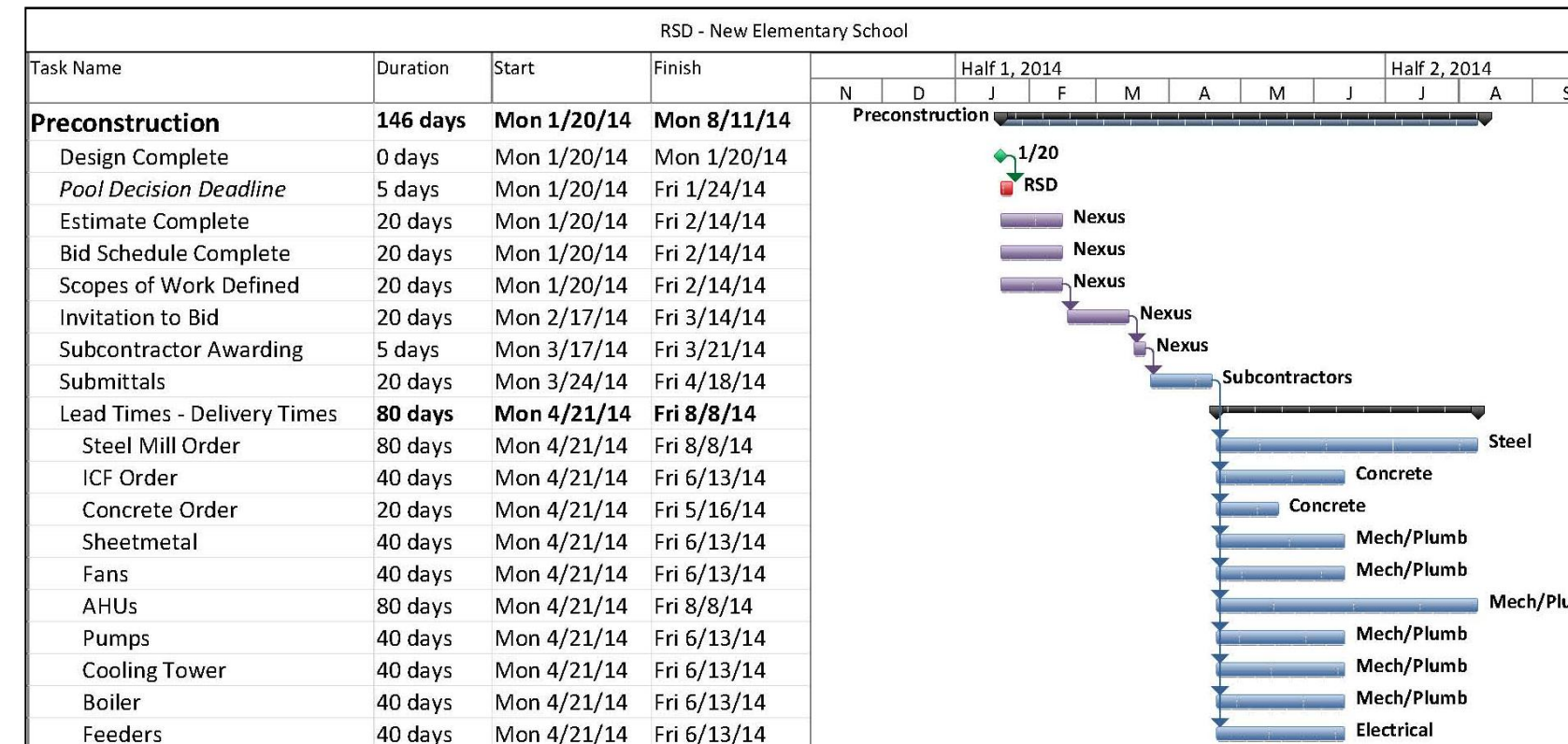
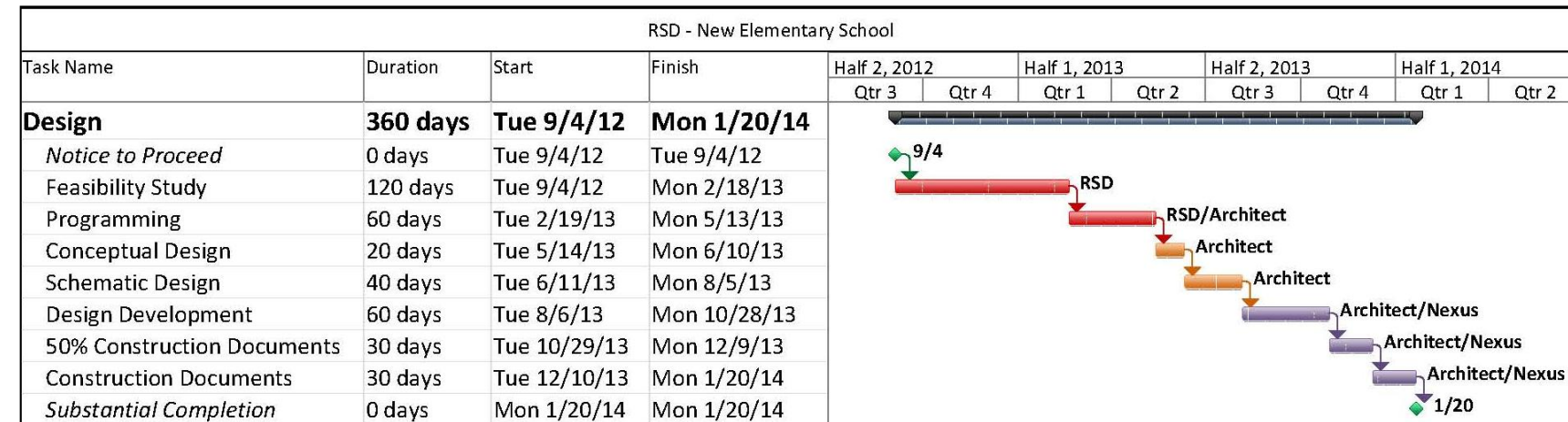


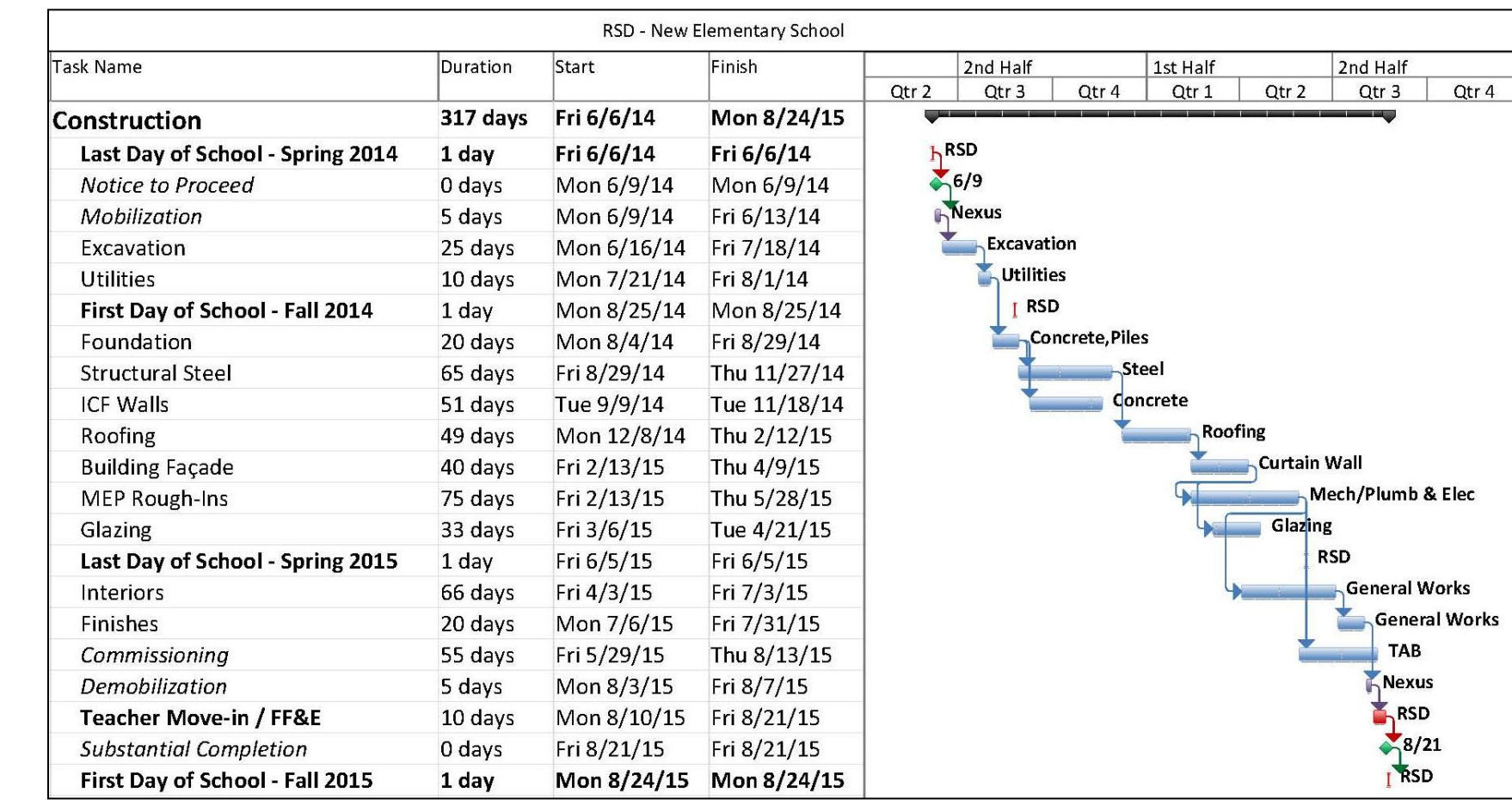
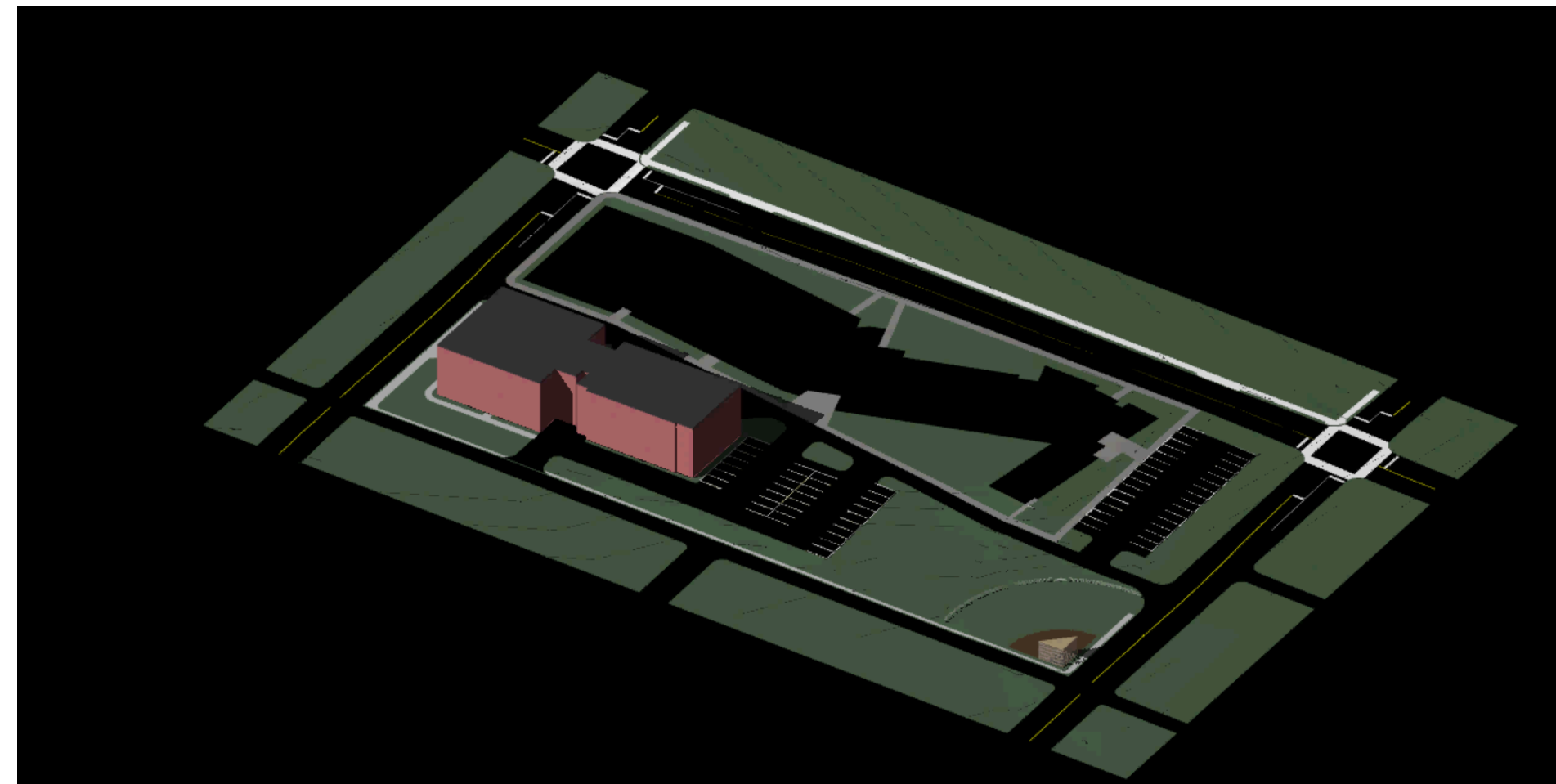
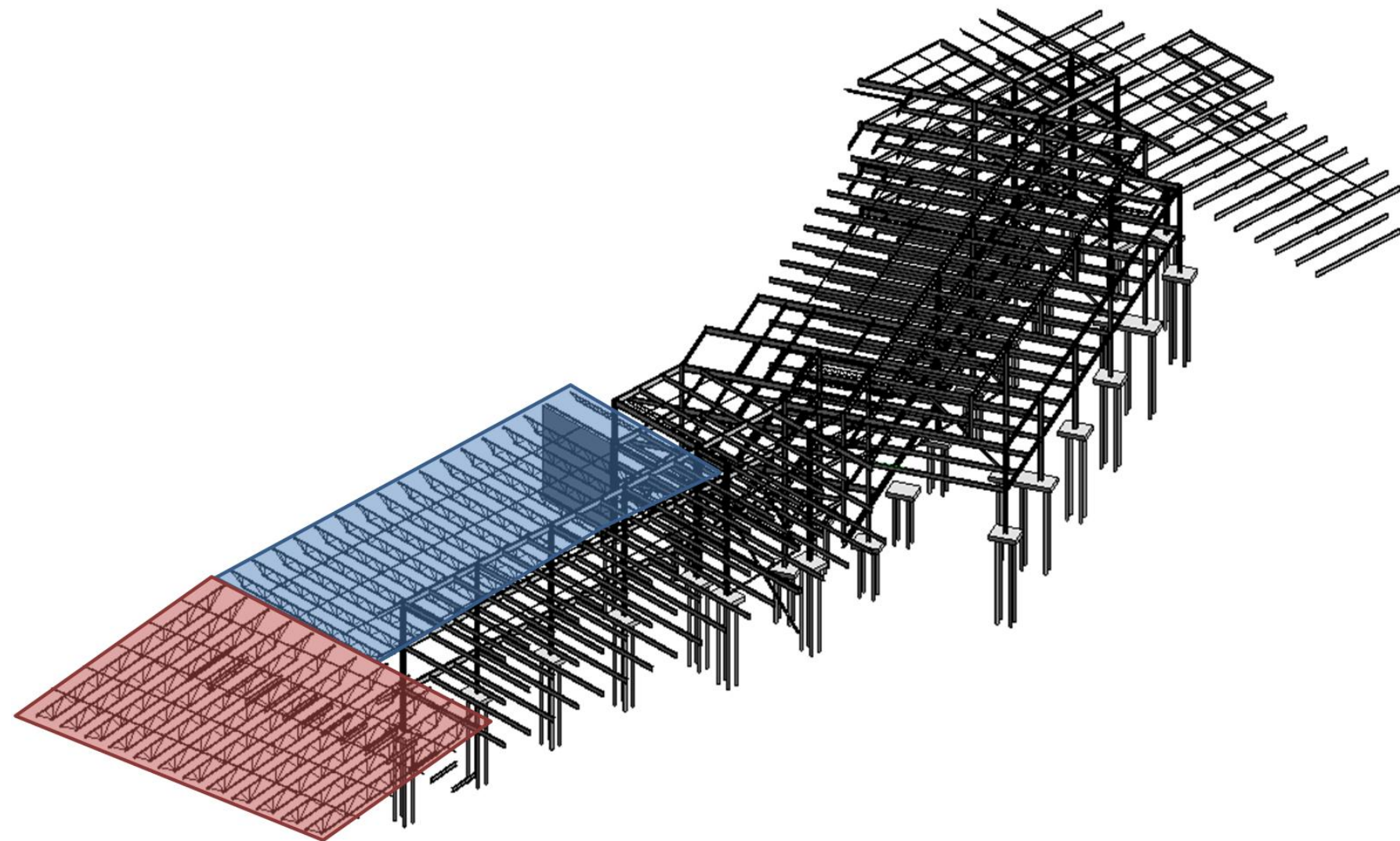
- Zone 1
- Zone 2
- Zone 3

Superstructure Erection - 8/29/14 to 1/23/15

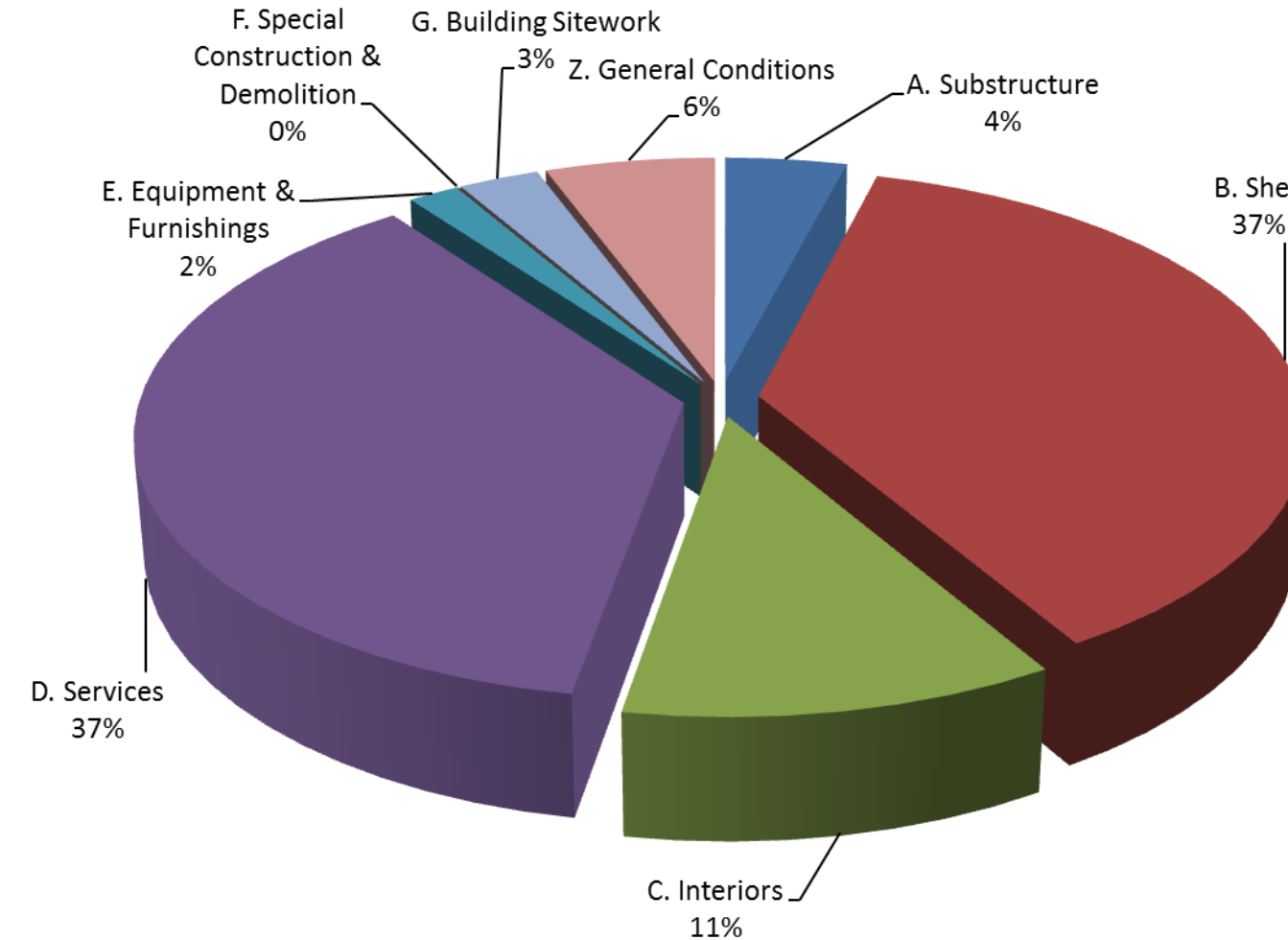








Cost Estimate			
	Total Cost	\$ / SF	% of Cost
A. Substructure	\$ 713,750	\$ 8.02	4%
B. Shell	\$ 6,516,250	\$ 73.22	37%
C. Interiors	\$ 1,970,000	\$ 22.13	11%
D. Services	\$ 6,475,000	\$ 72.75	37%
E. Equipment & Furnishings	\$ 300,000	\$ 3.37	2%
F. Special Construction & Demolition	\$ -	\$ -	0%
G. Building Sitework	\$ 475,000	\$ 5.34	3%
Z. General Conditions	\$ 997,650	\$ 11.21	6%
*Uniformat Categories (A-G, Z)	\$ 17,447,650	\$ 196.04	89,000 SF



- General Works - \$1,800,000**
 metal stud interior partitions; gypsum wallboard; casework; finishes; painting; exterior and interior doors; retractable wall systems in gymnasium and stage
- Concrete - \$2,425,000**
 footers; pile caps / column piers; insulated concrete forms; cast-in-place concrete walls; slab-on-decks; slab-on-grades
- Mechanical and Plumbing - \$4,120,000**
 mechanical equipment and units; sheetmetal; piping; domestic and sanitary piping; diffusers, registers, grilles
- Electrical - \$1,575,000**
 electrical equipment; transformers; switchgear; utility connections; conduit; wiring; fixtures; luminaires
- Data - \$350,000**
 cable trays; data and telecommunication wiring; data and telecommunication devices
- Excavation - \$400,000**
 soil excavation; hauling offsite; disposal of contaminated soil
- Utilities - \$125,000**
 underground utility runs and connections
- Piles - \$200,000**
 steel-driven piles
- Elevator - \$175,000**
 elevator
- Structural Steel - \$1,275,000**
 structural steel members (HSS columns and lateral bracing); wide-flange girders and beams; joists; trusses; truss braces; metal decking; shear studs
- Roofing - \$700,000**
 built-up white membrane roofing
- Curtain Wall - \$300,000**
 curtain wall elements in classroom spaces; aluminum panel exterior cladding
- Masonry - \$1,400,000**
 concrete masonry unit infill walls; face-brick exterior cladding
- Glazing - \$850,000**
 glazing elements
- Carpet - \$200,000**
 carpet tiles in the classroom spaces
- Flooring - \$300,000**
 finished concrete flooring in corridors and auxiliary spaces; gymnasium hardwood floor; stage floor
- Fire Protection - \$175,000**
 sprinkler piping and heads
- Testing, Adjusting, Balancing - \$80,000**
 mechanical, plumbing, electrical, and fire protection system commissioning

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PlanCon Calculation	
Full time equivalent capacity	875 students
Conversion factor	1.3205
Rated Pupil Capacity	1155 students
Elementary legislated per pupil amount	\$4,700
	$\$4,700 \times 1155 =$
Reimbursable Amount	\$5,428,500
Additional Funding for LEED Silver Certification	\$470
	$\$470 \times 1155 =$
Total Additional Funding for LEED Silver Certification	\$542,850
	$\$5,428,500 + \$542,850 =$
Total Reimbursable Project Cost	\$5,971,350
	$\$5,428,500 / \$17,500,000 =$
Reimbursable Percent	34.12%
Minus 0.5% reduction until final project accounting	33.62%
Reading School District - Market Value Aid Ratio	0.9003
	$\$17,500,000 * 0.3362 * 0.9003 =$
State of Pennsylvania Contribution	\$5,296,915.05

Value Engineered Finishes			
	SF	\$/SF	Total
Concrete with Epoxy Finish	21,000	\$ 0.51	\$ 10,710
VCT	21,000	\$ (4.31)	\$ (90,510)
Acoustic Ceiling Tile	55,600	\$ (3.51)	\$ (195,156)
Total Savings			\$ (274,956)



LEED 2009 for Schools New Construction and Major Renovations		Project Name
Project Checklist		Date
Sustainable Sites Possible Points: 24		
Y	Prereq 1 Construction Activity Pollution Prevention	
Y	Prereq 2 Environmental Site Assessment	
Y	Cred 1 Site Selection	1
Y	Cred 2 Development Density and Community Connectivity	4
N	Cred 3 Brownfield Redevelopment	1
Y	Cred 4.1 Alternative Transportation—Public Transportation Access	4
Y	Cred 4.2 Alternative Transportation—Bicycle Storage and Changing Rooms	1
Y	Cred 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	2
Y	Cred 4.4 Alternative Transportation—Parking Capacity	2
Y	Cred 5.1 Site Development—Protect or Restore Habitat	1
Y	Cred 5.2 Site Development—Maximize Open Space	1
Y	Cred 6.1 Stormwater Design—Quantity Control	1
N	Cred 6.2 Stormwater Design—Quality Control	1
Y	Cred 7.1 Heat Island Effect—Non-roof	1
Y	Cred 7.2 Heat Island Effect—Roof	1
Y	Cred 8 Light Pollution Reduction	1
Y	Cred 9 Site Master Plan	1
Y	Cred 10 Joint Use of Facilities	1
Water Efficiency Possible Points: 11		
Y	Prereq 1 Water Use Reduction—20% Reduction	
Y	Cred 1 Water Efficient Landscaping	2 to 4
Y	Cred 2 Innovative Wastewater Technologies	2
Y	Cred 3 Water Use Reduction	2 to 4
Y	Cred 4 Process Water Use Reduction	1
Energy and Atmosphere Possible Points: 33		
Y	Prereq 1 Fundamental Commissioning of Building Energy Systems	
Y	Prereq 2 Minimum Energy Performance	
Y	Prereq 3 Fundamental Refrigerant Management	
Y	Cred 1 Optimize Energy Performance	1 to 19
N	Cred 2 On-Site Renewable Energy	1 to 7
Y	Cred 3 Enhanced Commissioning	2
Y	Cred 4 Enhanced Refrigerant Management	1
Y	Cred 5 Measurement and Verification	2
N	Cred 6 Green Power	2
Materials and Resources Possible Points: 13		
Y	Prereq 1 Storage and Collection of Recyclables	
N	Cred 1.1 Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 2
N	Cred 1.2 Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
Y	Cred 1.3 Construction Waste Management	1 to 2
Materials and Resources, Continued		
Y	Cred 3 Materials Reuse	1 to 2
Y	Cred 4 Recycled Content	1 to 2
Y	Cred 5 Regional Materials	1 to 2
Y	Cred 6 Rapidly Renewable Materials	1
Y	Cred 7 Certified Wood	1
Indoor Environmental Quality Possible Points: 19		
Y	Prereq 1 Minimum Indoor Air Quality Performance	
Y	Prereq 2 Environmental Tobacco Smoke (ETS) Control	
Y	Prereq 3 Minimum Acoustical Performance	
Y	Cred 1 Outdoor Air Delivery Monitoring	1
Y	Cred 2 Increased Ventilation	1
Y	Cred 3.1 Construction IAQ Management Plan—During Construction	1
Y	Cred 3.2 Construction IAQ Management Plan—Before Occupancy	1
Y	Cred 4 Low-Emitting Materials	1 to 4
Y	Cred 5 Indoor Chemical and Pollutant Source Control	1
N	Cred 6.1 Controllability of Systems—Lighting	1
N	Cred 6.2 Controllability of Systems—Thermal Comfort	1
Y	Cred 7.1 Thermal Comfort—Design	1
Y	Cred 7.2 Thermal Comfort—Verification	1
Y	Cred 8.1 Daylight and Views—Daylight	1 to 3
Y	Cred 8.2 Daylight and Views—Views	1
Y	Cred 9 Enhanced Acoustical Performance	1
Y	Cred 10 Mold Prevention	1
Innovation and Design Process Possible Points: 6		
N	Cred 1.1 Innovation in Design: Specific Title	1
N	Cred 1.2 Innovation in Design: Specific Title	1
N	Cred 1.3 Innovation in Design: Specific Title	1
N	Cred 1.4 Innovation in Design: Specific Title	1
Y	Cred 2 LEED Accredited Professional	1
Y	Cred 3 The School as a Teaching Tool	1
Regional Priority Credits Possible Points: 4		
N	Cred 1.1 Regional Priority: Specific Credit	1
N	Cred 1.2 Regional Priority: Specific Credit	1
N	Cred 1.3 Regional Priority: Specific Credit	1
N	Cred 1.4 Regional Priority: Specific Credit	1
Total Possible Points: 110		
Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110		

LEED 2009 for Schools	
Sustainable Site	13
Water Efficiency	7
Energy and Atmosphere	14
Materials and Resources	4
Indoor Environmental Quality	15
Innovation and Design Process	2
Regional Priority Credits	0
Total	55



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White TPO Roofing²
Approx. \$2-3 / SF

Green Roof³
Approx. \$10-25 / SF

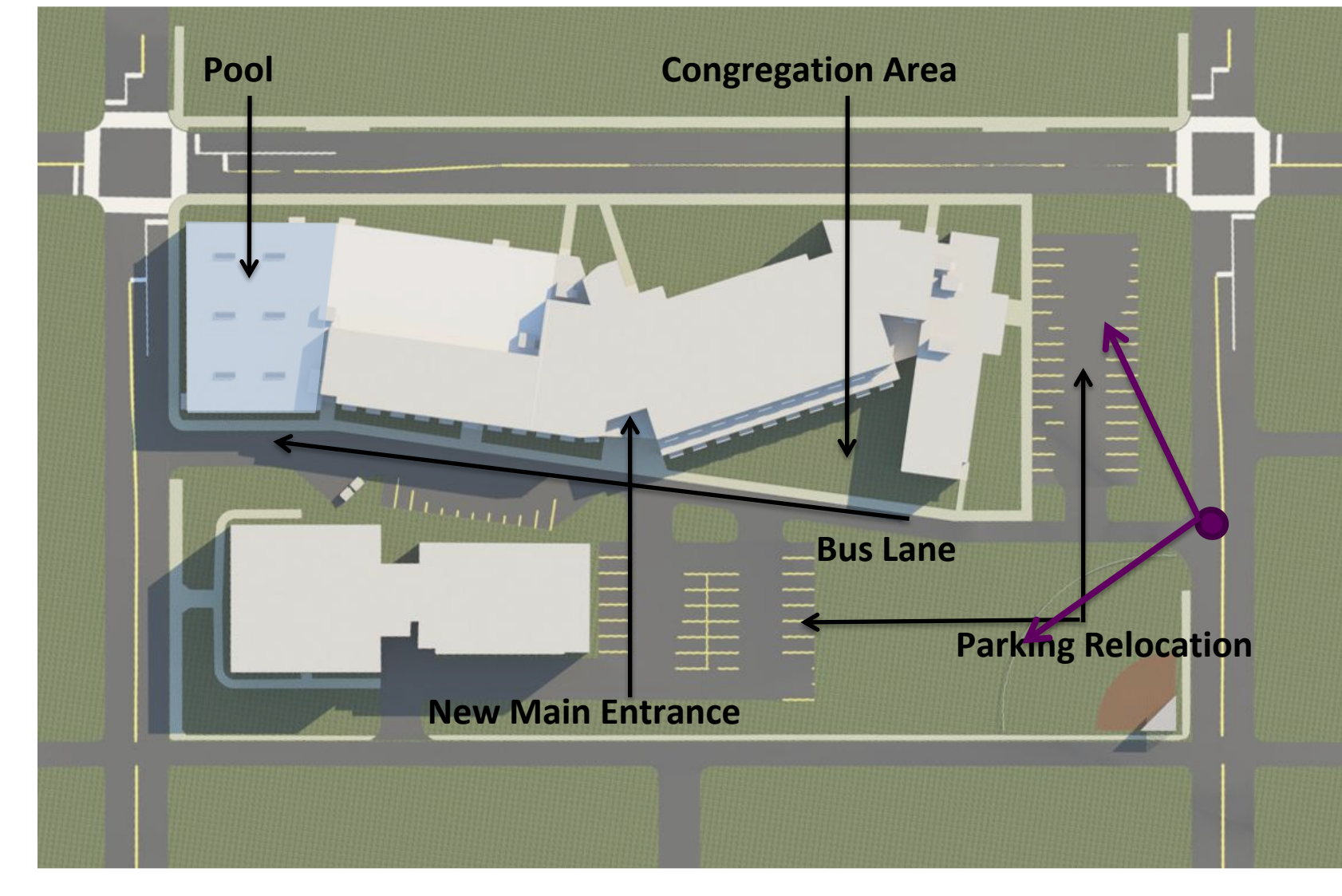
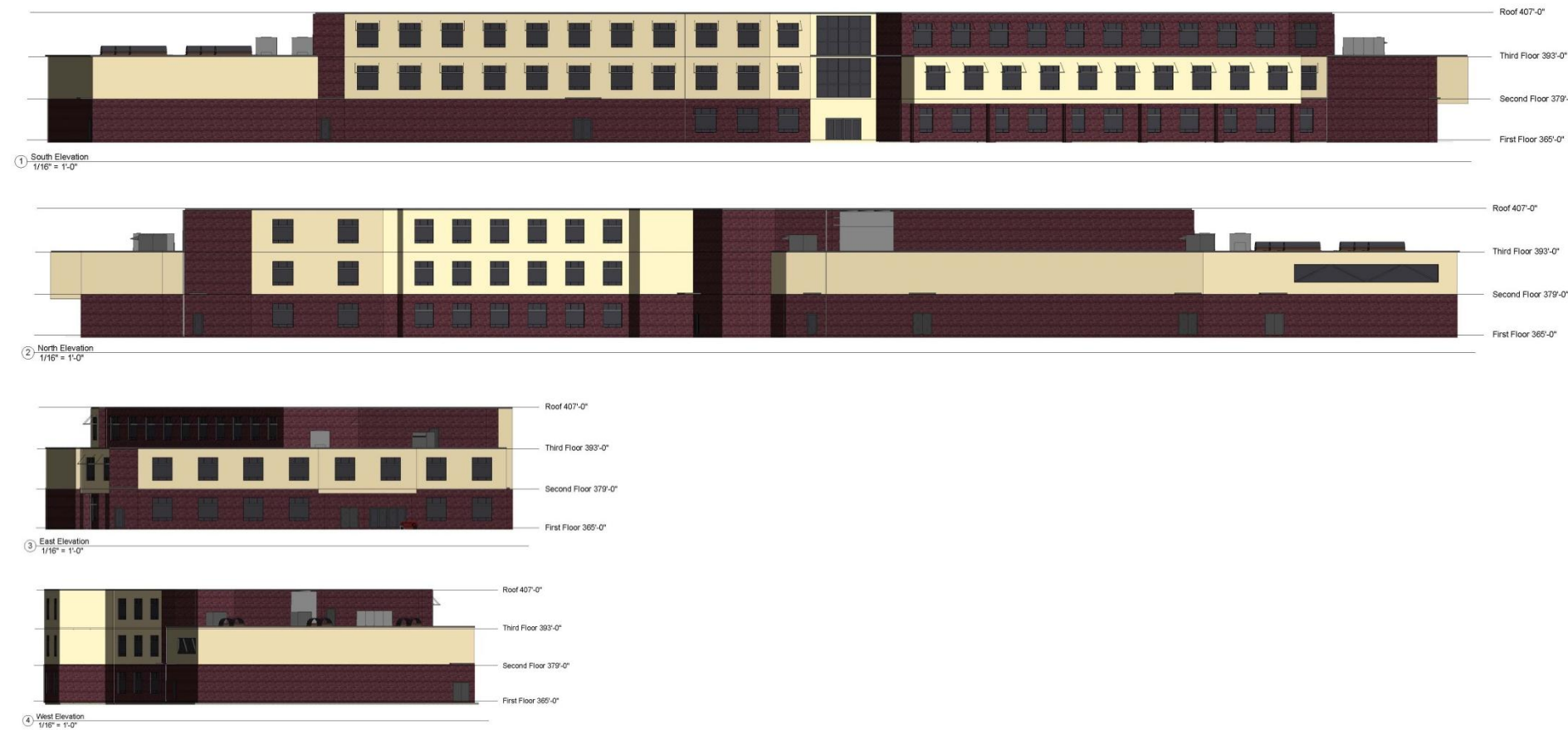
Integrated ICF Facade System
8% Reduction in Building Load
10% Reduction in Infiltration

Louvers over South Facing Glazing
35% Reduction Summer Solar Radiation



-   **Safety & Security**
-   **Lifecycle & Maintenance**
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Cost Estimate



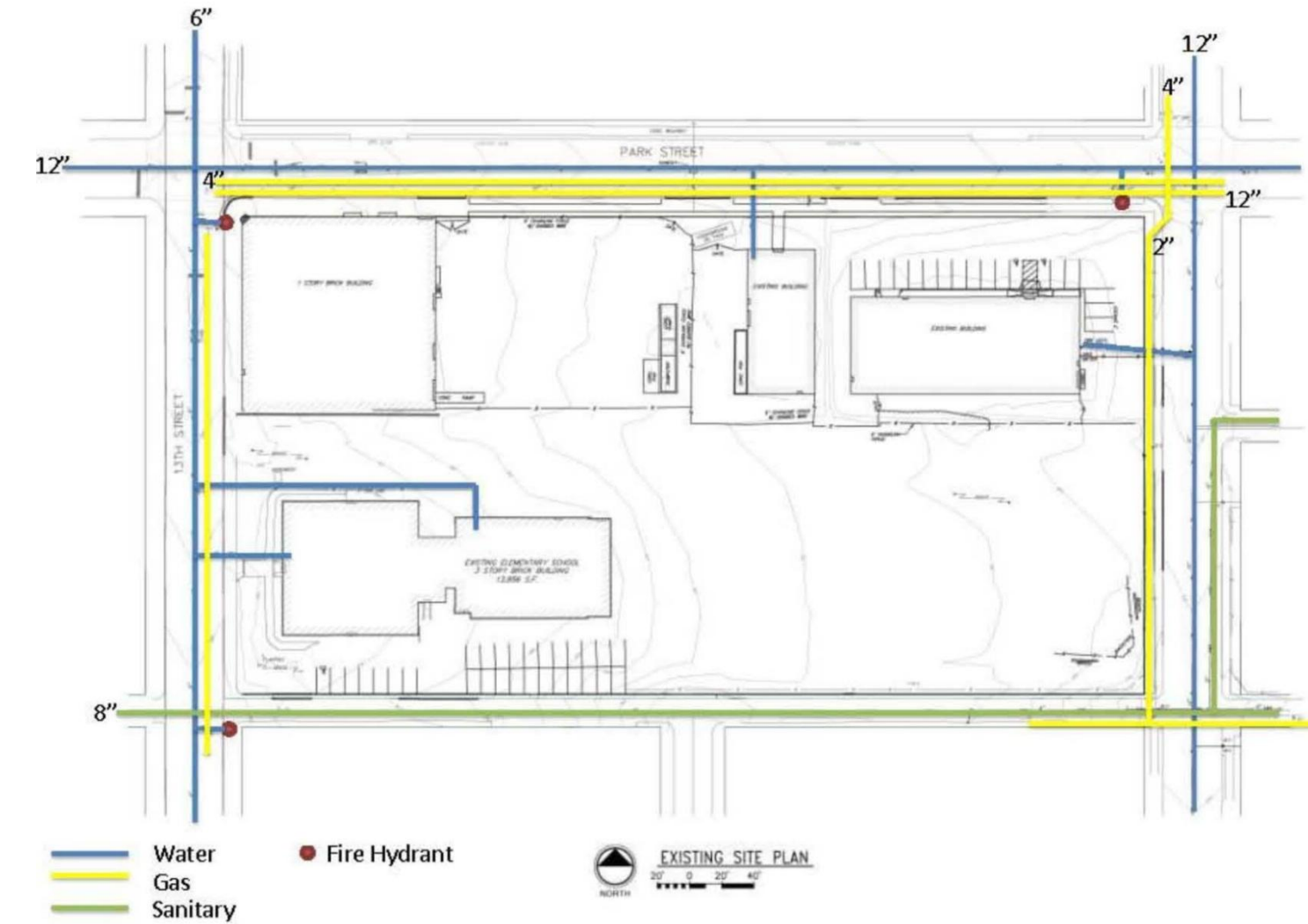
Uniformat Cost Estimate			
A. Substructure	\$ 713,750	A10 Foundations	\$ 450,750
		A100 Standard Foundations	\$ 138,000
		A1020 Special Foundations	\$ 200,000
		A1030 Slab on Grade	\$ 121,250
		A200 Basement Excavation	\$ 150,000
		A2020 Basement Walls	\$ 104,000
B. Shell	\$ 6,390,250	B10 Superstructure	\$ 1,777,250
		B1010 Floor Construction	\$ 1,181,000
		B1020 Roof Construction	\$ 396,250
		B200 Exterior Walls	\$ 2,250,000
		B2020 Exterior Windows	\$ 629,000
		B2030 Exterior Doors	\$ 40,000
		B300 Roofing	\$ 725,000
		B3010 Roof Covering	\$ 700,000
		B3020 Roof Openings	\$ 25,000
C. Interiors	\$ 1,970,000	C10 Interior Construction	\$ 965,000
		C1010 Partitions	\$ 880,000
		C1020 Interior Doors	\$ 75,000
		C1030 Entrances	\$ 60,000
		C20 Stairs	\$ 110,000
		C2010 Stair Construction	\$ 109,000
		C2020 Stair Finishes	\$ 7,000
		C30 Interior Finishes	\$ 895,000
		C3010 Wall Finishes	\$ 180,000
		C3020 Floor Finishes	\$ 550,000
		C3030 Ceiling Finishes	\$ 215,000
D. Services	\$ 6,475,000	D10 Conveying	\$ 175,000
		D1010 Elevators & Lifts	\$ 175,000
		D1020 Escalators & Moving Walks	\$ -
		D1090 Other Conveying Systems	\$ -
		D20 Plumbing	\$ 1,400,000
		D2010 Plumbing Fixtures	\$ 100,000
		D2020 Domestic Water Distribution	\$ 300,000
		D2030 Sanitary Waste	\$ 740,000
		D2040 San Water Drainage	\$ 74,000
		D2090 Other Plumbing Systems	\$ 686,000
		D30 HVAC	\$ 2,800,000
		D3010 Energy Supply	\$ -
		D3020 Heat Generating Systems	\$ 140,000
		D3030 Cooling & Dehumidifying Systems	\$ 280,000
		D3040 Distribution Systems	\$ 520,000
		D3050 Terminal & Package Units	\$ 840,000
		D3060 Controls & Instrumentation	\$ 350,000
		D3070 Systems Testing & Balancing	\$ 200,000
		D3090 Other HVAC Systems & Equipment	\$ 460,000
		D40 Fire Protection	\$ 175,000
		D4010 Sprinklers	\$ 125,000
		D4020 Standpipes	\$ 62,000
		D4030 Fire Protection Specialties	\$ 8,000
		D4090 Other Fire Protection Systems	\$ -
		D50 Electrical	\$ 1,925,000
		D5010 Electrical Service & Distribution	\$ 551,250
		D5020 Lighting and Branch Wiring	\$ 1,028,750
		D5030 Communications & Security	\$ 345,000
		D5090 Other Electrical Systems	\$ -
E. Equipment & Furnishings	\$ 300,000	E10 Equipment	\$ -
		E1010 Commercial Equipment	\$ -
		E1020 Institutional Equipment	\$ -
		E1030 Vehicular Equipment	\$ -
		E1090 Other Equipment	\$ -
		E20 Furnishings	\$ 300,000
		E2010 Fixed Furnishings	\$ 100,000
		E2020 Movable Furnishings	\$ 100,000
F. Special Construction & Demolition	\$ -	F10 Special Construction	\$ -
		F1010 Special Structures	\$ -
		F1020 Integrated Construction	\$ -
		F1030 Special Construction Systems	\$ -
		F1040 Special Facilities	\$ -
		F1050 Special Controls and Instrumentation	\$ -
		F20 Selective Building Demolition	\$ -
		F2010 Building Elements Demolition	\$ -
		F2020 Hazardous Components Abatement	\$ -
G. Building Sitework	\$ 601,000	G10 Site Preparation	\$ 175,000
		G1010 Site Clearing	\$ -
		G1020 Site Demolition and Relocations	\$ -
		G1030 Site Earthwork	\$ 128,000
		G1040 Hazardous Waste Remediation	\$ 50,000
		G20 Site Improvements	\$ 301,000
		G2010 Roadways	\$ 177,500
		G2020 Parking Lots	\$ 133,500
		G2030 Pedestrian Paths	\$ 15,000
		G2040 Site Dewatering	\$ -
		G2050 Landscaping	\$ 25,000
		G30 Site Mechanical Utilities	\$ 75,000
		G3010 Water Supply	\$ 19,000
		G3020 Sanitary Sewer	\$ 15,000
		G3030 Storm Sewer	\$ 16,000
		G3040 Heating Distribution	\$ 12,000
		G3050 Cooling Distribution	\$ 8,000
		G3060 Gas Distribution	\$ 11,000
		G3090 Other Site Mechanical Utilities	\$ -
		G40 Site Electrical Utilities	\$ 30,000
		G4010 Electrical Distribution	\$ 10,000
		G4020 Site Lighting	\$ 20,000
		G4030 Site Communications & Security	\$ 15,000
		G4090 Other Site Electrical Utilities	\$ -
		G50 Other Site Construction	\$ -
		G5010 Service and Pedestrian Tunnels	\$ -
		G5090 Other Site Systems & Equipment	\$ -
H. General Conditions	\$ 997,650	H10 Design Allowance	\$ -
		H20 Overhead & Profit	\$ 997,650
		H2010 Overhead	\$ 485,100
		H2020 Profit	\$ 512,550
TOTAL	\$ 17,447,650		

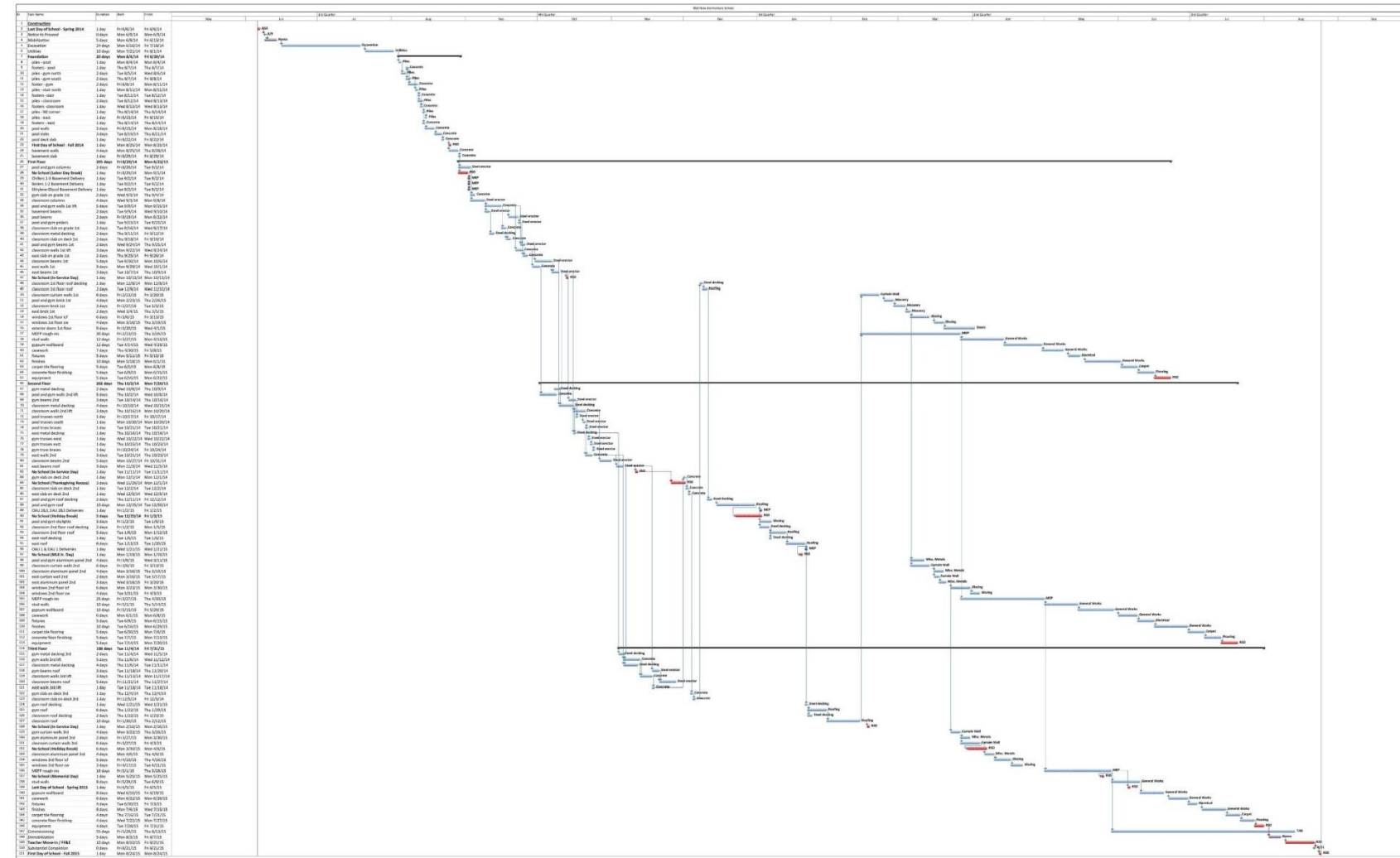
General Conditions Cost Estimate				
Personnel	Quantity	Unit	Unit Price	Total Cost
Project manager	30	Week	\$ 2,125.00	\$ 63,750
Engineer	30	Week	\$ 1,300.00	\$ 39,000
Superintendent	60	Week	\$ 1,975.00	\$ 118,500
Clerk	30	Week	\$ 420.00	\$ 12,600
				\$ 233,850
Facilities	Quantity	Unit	Unit Price	Total Cost
Trailer (32'x8')	15	Month	\$ 185.00	\$ 2,775
Dumpster (40 CY, 1 dump/wk.)	12	Month	\$ 860.00	\$ 10,320
Portable toilet	15	Month	\$ 180.00	\$ 2,700
Storage (40' x 8')	15	Month	\$ 385.00	\$ 5,775
Office expenses	15	Month	\$ 460.00	\$ 6,900
Gravel road (8")	500	SY	\$ 11.73	\$ 5,865
				\$ 34,335
Protection	Quantity	Unit	Unit Price	Total Cost
Site fence (6' tall)	4000	LF	\$ 5.16	\$ 20,640
Temporary Utilities	Quantity	Unit	Unit Price	Total Cost
Heat (w/ fuel, 12hrs., /wk.)	2700	CSF * wk.	\$ 40.13	\$ 108,351
Lighting	900	CSF	\$ 14.95	\$ 13,455
Power (lighting, 11.8 KWH)	3375	CSF * mn.	\$ 1.65	\$ 5,569
Power (job)	3375	CSF * mn.	\$ 47.00	\$ 158,625
Water	15	Month	\$ 63.00	\$ 945
				\$ 286,945
Insurance, Bonds, Taxes	Quantity	Unit	Unit Price	Total Cost
Builder's risk (0.64%)	0.0064	Job		\$ 105,280
				\$ 105,280
Mobilization/Demobilization	Quantity	Unit	Unit Price	Total Cost
Mobilization	6	/equipment	\$ 350.00	\$ 2,100
Demobilization	6	/equipment	\$ 325.00	\$ 1,950
				\$ 4,050
Fee	Quantity	Unit	Unit Price	Total Cost
1.9%	0.019	Job		\$ 312,550
				\$ 312,550
General Conditions Total				\$ 997,650
Building Direct Cost (materials put in place)				\$ 16,450,000
Gross Total (building direct cost + general conditions)				\$ 17,447,650
Adjustment Factors	Quantity	Unit	Unit Price	Total Cost
PA Sales Tax (6%)	0.06	Job		\$ 1,046,859
Available work space (-2%)	-0.02	Job		\$ (348,953)
Good GC/CM management (-2%)	-0.02	Job		\$ (348,953)
Location Factor (0.98)	-0.02	Job		\$ (348,953)
				\$ -
<i>*all information in this table is referenced from RSMeans Building Construction Cost Data 2013</i>				
Building Net Total (building direct cost + general conditions)				\$ 17,447,650

Phase 2 Pool Cost Estimate				
Personnel	Quantity	Unit	Unit Price	Total Cost
Project manager	12	Week	\$ 2,125.00	\$ 25,500
Engineer	12	Week	\$ 1,300.00	\$ 15,600
Superintendent	12	Week	\$ 1,975.00	\$ 23,700
				\$ 64,800
Facilities	Quantity	Unit	Unit Price	Total Cost
Trailer (32'x8')	3	Month	\$ 185.00	\$ 555
Dumpster (40 CY, 1 dump/wk.)	3	Month	\$ 860.00	\$ 2,580
Portable toilet	3	Month	\$ 180.00	\$ 540
Office expenses	3	Month	\$ 460.00	\$ 1,380
Gravel road (8")	100	SY	\$ 11.73	\$ 1,173
				\$ 6,228
Protection	Quantity	Unit	Unit Price	Total Cost
Site fence (6' tall)	400	LF	\$ 5.16	\$ 2,064
Temporary Utilities	Quantity	Unit	Unit Price	Total Cost
Lighting	893	CSF	\$ 14.95	\$ 13,350
Power (lighting, 11.8 KWH)	1340	CSF * mn.	\$ 1.65	\$ 2,211
Power (job)	670	CSF * mn.	\$ 47.00	\$ 31,490
Water	3	Month	\$ 63.00	\$ 189
				\$ 47,240
Insurance, Bonds, Taxes	Quantity	Unit	Unit Price	Total Cost
Builder's risk (0.64%)	0.0064	Job		\$ 15,974
				\$ 15,974
Mobilization/Demobilization	Quantity	Unit	Unit Price	Total Cost
Mobilization	6	/equipment	\$ 350.00	\$ 2,100
Demobilization	6	/equipment	\$ 325.00	\$ 1,950
				\$ 4,050
Fee	Quantity	Unit	Unit Price	Total Cost
1.9%	0.019	Job		\$ 47,422
				\$ 47,422
General Conditions Total				\$ 187,778
Building Direct Cost (materials put in place)				\$ 2,495,876
Gross Total (building direct cost + general conditions)				\$ 2,683,654
Adjustment Factors	Quantity	Unit	Unit Price	Total Cost
PA Sales Tax (6%)	0.06	Job		\$ 161,019
Available work space (-2%)	-0.02	Job		\$ (53,673)
Good GC/CM management (-2%)	-0.02	Job		\$ (53,673)
Location Factor (0.98)	-0.02	Job		\$ (53,673)
				\$ -
<i>*all information in this table is referenced from RSMeans Building Construction Cost Data 2013</i>				
Building Net Total (building direct cost + general conditions)				\$ 2,683,654

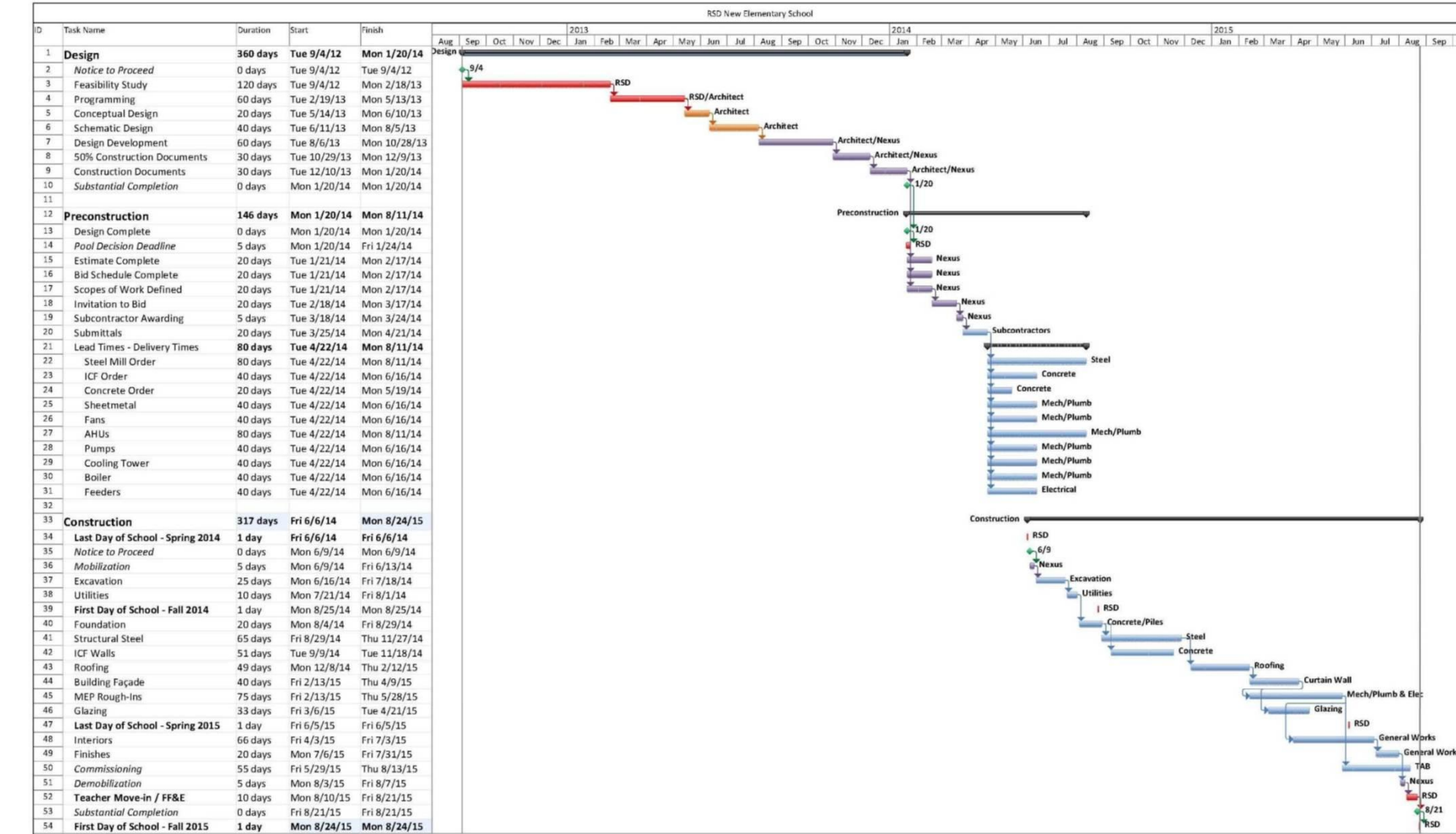
School Cost Comparison							
	Total Cost	Construction Schedule	Total SF	\$ / SF	# of Students	\$ / Student	SF / Student
Mount Nittany Elementary School	\$15,700,000	16 months	60,000	\$261.67	400	\$ 39,250	150
Ferguson Township Elementary School	\$16,500,000	16 months	64,500	\$255.81	400	\$ 41,250	161
Nexus' Proposed New RSD Elementary School	\$17,835,545	15 months	89,000	\$200.40	875	\$ 20,383	102

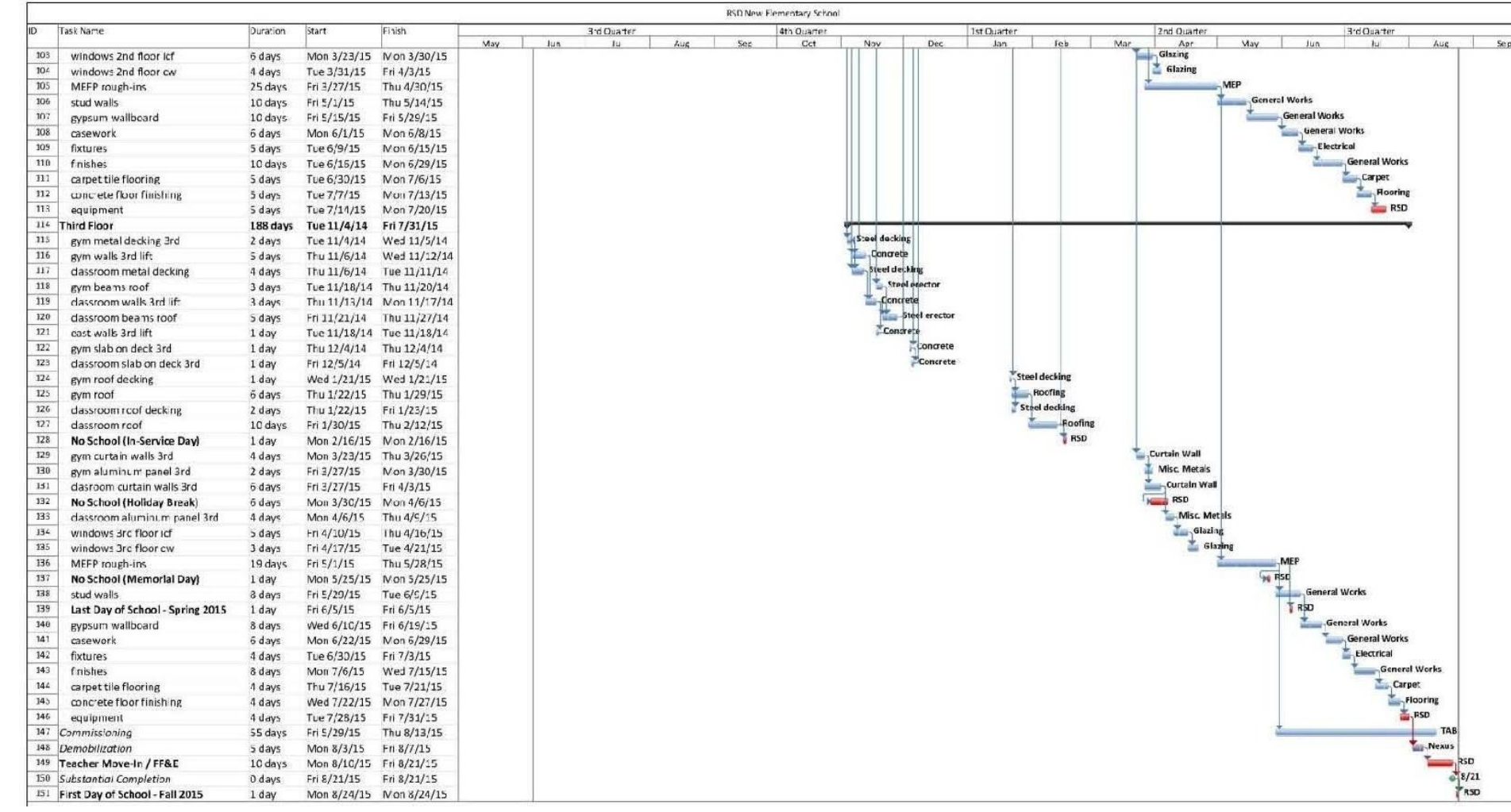
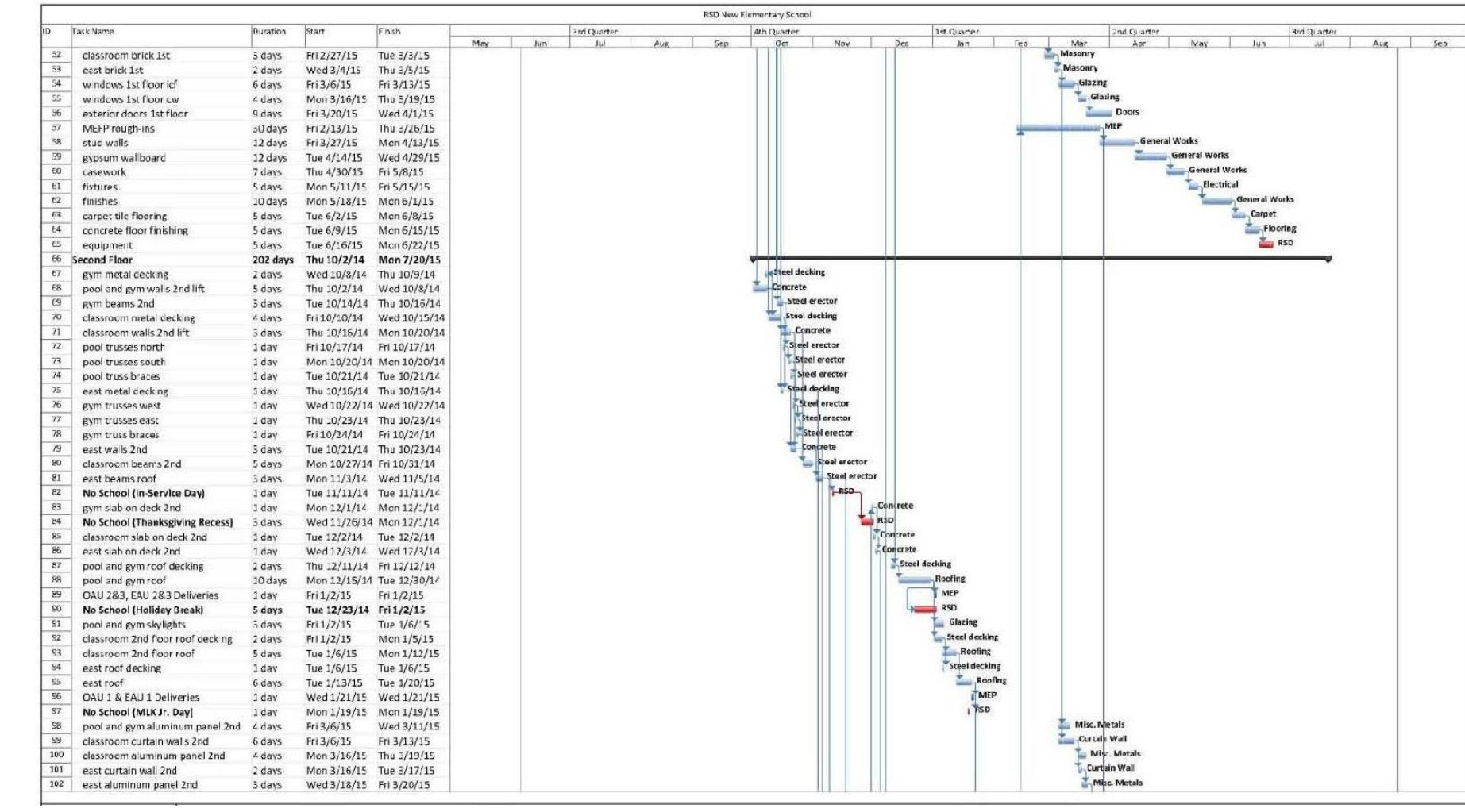
Pool Phase 1	
SF	8,925
\$/SF	\$ 225.50
Total Cost	\$ 2,012,588
Pool Phase 2	
SF	8,925
\$ / SF	\$ 300.69
Total Cost	\$ 2,683,654
Variance	
	\$ 671,067





Long Lead Items	
Items	Months
Steel Mill Order	4
Insulated Concrete Form Order	2
AHU's	4
Pumps & Boilers	2
Switchgear	3







-   **Safety & Security**
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