School Building Committee Meeting

February 6, 2019

Amesbury Elementary School

CITY OF AMESBURY Incorporated 1668 MASSACHUSETTS

DINISCO DESIGN
architects + planners

Agenda

- Building Design Update
- Cost Estimate Review
- VE Review

Site Plan


WOODSOM FARM
PROPOSED AMESBURY ELEMENTARY SCHOOL
EXISTING CASHMAN ELEMENTARY SCHOOL
LIONS MOUTH ROAD

Ground Floor Plan

LEGEND

- CLASSROOM
- SPECIAL EDUCATION
- LIBRARY
- ART/MUSIC
- STAGE
- GYMNASIUM
- KITCHEN/CAFETERIA
- ADMINISTRATION
- BUILDING SERVICES
- CIRCULATION

N

First Floor Plan

First Floor Plan

Birdseye View

Main Entry

View From Playground

Lobby View From Admin Desk

Main Lobby View

Library View From Teaching Area

Cafeteria

Cafeteria

Cost Estimate Summary

NV5

AMESBURY ELEMENTARY SCHOOL: AMESBURY, MA

Design Development Cost Estimate Reconciliation 2/3/2020

		ARCH Estimator (AM Fogarty)		OPM Estimator (PM & C)		Variance (AMF - PM&C)		PFA Budget		Variance (AMF - PFA Budget)
		GSF 98,195		GSF 98,195						
		Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount
A10	**FOUNDATIONS**	**$ 1,882,621**	**$ 19.17**	**$ 2,056,732**	**$ 20.95**	**$ (174,111)**	**$ (1.77)**	**$ 1,751,786**	**$ 17.84**	**$ 130,835**
	A1010 Standard Foundations	$ 1,227,927	$ 12.50	$ 1,420,855	$ 14.47	$ (192,928)	$ (1.96)	$ 1,286,847	$ 13.11	$ (58,920)
	A1020 Special Foundations	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	A1030 Slab on Grade	$ 654,694	$ 6.67	$ 635,877	$ 6.48	$ 18,817	$ 0.19	$ 464,939	$ 4.73	$ 189,755
A20	**BASEMENT CONSTRUCTION**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	A2010 Basement Excavation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
B10	**STRUCTURE**	**$ 3,905,897**	**$ 39.78**	**$ 3,903,713**	**$ 39.75**	**$ 2,184**	**$ 0.02**	**$ 3,957,302**	**$ 40.30**	**$ (51,405)**
	B1010 Floor Construction	$ 2,572,566	$ 26.20	$ 2,601,493	$ 26.49	$ (28,927)	$ (0.29)	$ 2,623,511	$ 26.72	$ (50,945)
	B1020 Roof Construction	$ 1,333,331	$ 13.58	$ 1,302,220	$ 13.26	$ 31,111	$ 0.32	$ 1,333,791	$ 13.58	$ (460)
B20	**EXTERIOR CLOSURE**	**$ 5,207,601**	**$ 53.03**	**$ 5,063,143**	**$ 51.56**	**$ 144,458**	**$ 1.47**	**$ 4,813,108**	**$ 49.02**	**$ 394,493**
	B2010 Exterior Walls	$ 3,687,204	$ 37.55	$ 3,627,802	$ 36.94	$ 59,402	$ 0.60	$ 3,404,390	$ 34.67	$ 282,814
	B2020 Exterior Windows	$ 1,419,091	$ 14.45	$ 1,341,806	$ 13.66	$ 77,285	$ 0.79	$ 1,312,996	$ 13.37	$ 106,095
	B2030 Exterior Doors	$ 101,306	$ 1.03	$ 93,535	$ 0.95	$ 7,771	$ 0.08	$ 95,722	$ 0.97	$ 5,584
B30	**ROOFING**	**$ 1,080,684**	**$ 11.01**	**$ 1,073,881**	**$ 10.94**	**$ 6,803**	**$ 0.07**	**$ 974,991**	**$ 9.93**	**$ 105,693**
	B3010 Roof Coverings	$ 1,065,584	$ 10.85	$ 998,306	$ 10.17	$ 67,278	$ 0.69	$ 968,616	$ 9.86	$ 96,968
	B3020 Roof Openings	$ 15,100	$ 0.15	$ 75,575	$ 0.77	$ (60,475)	$ (0.62)	$ 6,375	$ 0.06	$ 8,725
C10	**INTERIOR CONSTRUCTION**	**$ 4,256,086**	**$ 43.34**	**$ 4,219,731**	**$ 42.97**	**$ 36,355**	**$ 0.37**	**$ 3,859,857**	**$ 39.31**	**$ 396,229**
	C1010 Partitions	$ 2,618,552	$ 26.67	$ 2,487,732	$ 25.33	$ 130,820	$ 1.33	$ 2,429,050	$ 24.74	$ 189,502
	C1020 Interior Doors	$ 631,070	$ 6.43	$ 587,960	$ 5.99	$ 43,110	$ 0.44	$ 546,701	$ 5.57	$ 84,369
	C1030 Specialties/Millwork	$ 1,006,464	$ 10.25	$ 1,144,039	$ 11.65	$ (137,575)	$ (1.40)	$ 884,106	$ 9.00	$ 122,358
C20	**STAIRS**	**$ 304,378**	**$ 3.10**	**$ 314,080**	**$ 3.20**	**$ (9,702)**	**$ (0.10)**	**$ 327,500**	**$ 3.34**	**$ (23,122)**
	C2010 Stair Construction	$ 253,400	$ 2.58	$ 256,500	$ 2.61	$ (3,100)	$ (0.03)	$ 281,450	$ 2.87	$ (28,050)
	C2020 Stair Finishes	$ 50,978	$ 0.52	$ 57,580	$ 0.59	$ (6,602)	$ (0.07)	$ 46,050	$ 0.47	$ 4,928
C30	**INTERIOR FINISHES**	**$ 2,964,473**	**$ 30.19**	**$ 2,925,420**	**$ 29.79**	**$ 39,053**	**$ 0.40**	**$ 2,709,297**	**$ 27.59**	**$ 255,176**
	C3010 Wall Finishes	$ 928,578	$ 9.46	$ 934,717	$ 9.52	$ (6,139)	$ (0.06)	$ 881,397	$ 8.98	$ 47,181
	C3020 Floor Finishes	$ 940,571	$ 9.58	$ 942,400	$ 9.60	$ (1,829)	$ (0.02)	$ 997,240	$ 10.16	$ (56,669)
	C3030 Ceiling Finishes	$ 1,095,324	$ 11.15	$ 1,048,303	$ 10.68	$ 47,021	$ 0.48	$ 830,660	$ 8.46	$ 264,664
D10	**CONVEYING**	**$ 195,000**	**$ 1.99**	**$ 170,000**	**$ 1.73**	**$ 25,000**	**$ 0.25**	**$ 174,000**	**$ 1.77**	**$ 21,000**
	D1010 Elevators & Lifts	$ 195,000	$ 1.99	$ 170,000	$ 1.73	$ 25,000	$ 0.25	$ 174,000	$ 1.77	$ 21,000
D20	**PLUMBING**	**$ 1,563,304**	**$ 15.92**	**$ 1,524,315**	**$ 15.52**	**$ 38,989**	**$ 0.40**	**$ 1,625,965**	**$ 16.56**	**$ (62,661)**
D30	**HVAC**	**$ 5,239,255**	**$ 53.36**	**$ 5,333,651**	**$ 54.32**	**$ (94,396)**	**$ (0.96)**	**$ 4,925,032**	**$ 50.16**	**$ 314,223**
D40	**FIRE PROTECTION**	**$ 431,729**	**$ 4.40**	**$ 516,245**	**$ 5.26**	**$ (84,516)**	**$ (0.86)**	**$ 476,381**	**$ 4.85**	**$ (44,652)**
D50	**ELECTRICAL**	**$ 3,603,887**	**$ 36.70**	**$ 3,594,228**	**$ 36.60**	**$ 9,659**	**$ 0.10**	**$ 3,639,616**	**$ 37.07**	**$ (35,729)**
D60	**COMMUNICATIONS**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
E10	**EQUIPMENT**	**$ 699,141**	**$ 7.12**	**$ 698,343**	**$ 7.11**	**$ 798**	**$ 0.01**	**$ 607,648**	**$ 6.19**	**$ 91,493**
	E1010 Commercial Equipment	$ 423,975	$ 4.32	$ 698,343	$ 7.11	$ (274,368)	$ (2.79)	$ 368,475	$ 3.75	$ 55,500
	E1020 Other Equipment	$ 275,166	$ 2.80	$ -	$ -	$ 275,166	$ 2.80	$ 239,173	$ 2.44	$ 35,993
E20	**FURNISHINGS**	**$ 1,338,865**	**$ 13.63**	**$ 1,327,882**	**$ 13.52**	**$ 10,983**	**$ 0.11**	**$ 1,369,707**	**$ 13.95**	**$ (30,842)**
	E2010 Fixed Furnishings	$ 1,338,865	$ 13.63	$ 1,327,882	$ 13.52	$ 10,983	$ 0.11	$ 1,369,707	$ 13.95	$ (30,842)
	E2020 Movable Furnishings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Estimate Summary

AMESBURY ELEMENTARY SCHOOL: AMESBURY, MA

Design Development Cost Estimate Reconciliation 2/3/2020

		ARCH Estimator (AM Fogarty)		OPM Estimator (PM & C)		Variance (AMF - PM&C)		PFA Budget		Variance (AMF - PFA Budget)
		GSF 98,195		GSF 98,195						
		Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount
F10	**SPECIAL CONSTRUCTION**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
F20	**SELECTIVE BUILDING DEMOLITION**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G10	**SITE PREPARATION**	**$ 1,676,432**	**$ 17.07**	**$ 1,494,563**	**$ 15.22**	**$ 181,869**	**$ 1.85**	**$ 1,393,930**	**$ 14.20**	**$ 282,502**
	G1010 Site Clearing	$ 811,225	$ 8.26	$ -	$ -	$ 811,225	$ 8.26	$ 845,905	$ 8.61	$ (34,680)
	G1020 Site Demolition & Relocations	$ -	$ -	$ 281,624	$ 2.87	$ (281,624)	$ (2.87)	$ -	$ -	$ -
	G1030 Site Earthwork	$ 865,207	$ 8.81	$ 1,212,939	$ 12.35	$ (347,732)	$ (3.54)	$ 548,025	$ 5.58	$ 317,182
	G1040 Hazardous Wate Remediation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G20	**SITE IMPROVEMENTS**	**$ 3,945,830**	**$ 40.18**	**$ 3,798,739**	**$ 38.69**	**$ 147,091**	**$ 1.50**	**$ 4,086,886**	**$ 41.62**	**$ (141,056)**
	G2010 Roadways	$ 1,657,121	$ 16.88	$ -	$ -	$ 1,657,121	$ 16.88	$ 1,690,155	$ 17.21	$ (33,034)
	G2020 Parking Lots	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	G2030 Pedestrian Paving	$ 350,097	$ 3.57	$ -	$ -	$ 350,097	$ 3.57	$ 368,838	$ 3.76	$ (18,741)
	G2040 Site Development	$ 1,241,863	$ 12.65	$ 3,195,871	$ 32.55	$ (1,954,008)	$ (19.90)	$ 1,571,421	$ 16.00	$ (329,558)
	G2050 Landscaping	$ 696,749	$ 7.10	$ 602,868	$ 6.14	$ 93,881	$ 0.96	$ 456,472	$ 4.65	$ 240,277
G30	**SITE MECHANICAL UTILITIES**	**$ 1,505,671**	**$ 15.33**	**$ 1,614,340**	**$ 16.44**	**$ (108,669)**	**$ (1.11)**	**$ 1,447,039**	**$ 14.74**	**$ 58,632**
	G3010 Water Supply	$ 219,406	$ 2.23	$ 286,550	$ 2.92	$ (67,144)	$ (0.68)	$ 234,145	$ 2.38	$ (14,739)
	G3020 Sanitary Sewer	$ 221,960	$ 2.26	$ 225,350	$ 2.29	$ (3,390)	$ (0.03)	$ 210,251	$ 2.14	$ 11,709
	G3030 Storm Sewer	$ 1,015,989	$ 10.35	$ 1,075,190	$ 10.95	$ (59,201)	$ (0.60)	$ 945,043	$ 9.62	$ 70,946
	G3040 Heating Distribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	G3050 Cooling Distribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	G3060 Fuel Distribution	$ 48,316	$ 0.49	$ 27,250	$ 0.28	$ 21,066	$ 0.21	$ 57,600	$ 0.59	$ (9,284)
	G3090 Other Mechanical Utilities	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G40	**SITE ELECTRICAL UTILITIES**	**$ 915,454**	**$ 9.32**	**$ 890,025**	**$ 9.06**	**$ 25,429**	**$ 0.26**	**$ 906,882**	**$ 9.24**	**$ 8,572**
	G4010 Electrical Distribution	$ 384,001	$ 3.91	$ 443,000	$ 4.51	$ (58,999)	$ (0.60)	$ 380,567	$ 3.88	$ 3,434
	G4020 Site Lighting	$ 531,453	$ 5.41	$ 311,975	$ 3.18	$ 219,478	$ 2.24	$ 476,315	$ 4.85	$ 55,138
	G4030 Site Communications & Security	$ -	$ -	$ 135,050	$ 1.38	$ (135,050)	$ (1.38)	$ 50,000	$ 0.51	$ (50,000)
	G4090 Other Site Electrical Utilities	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G50	**OTHER SITE CONSTRUCTION**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL CONSTRUCTION COSTS (DBB)	**0.48%**	**$ 40,716,307**	**$ 414.65**	**$ 40,519,031**	**$ 412.64**	**$ 197,276**	**$ 2.01**	**$ 39,046,926**	**$ 397.65**	**$ 1,669,381**
	Design & Estimating Contingency (5%)	$ 2,035,815	$ 20.73	$ 2,025,952	$ 20.63	**$ 9,863**	**$ 0.10**	**$ 3,123,754**	**$ 31.81**	**$ (1,087,939)**
	General Conditions	$ 2,629,255	$ 26.78	$ 2,640,000	$ 26.89	**$ (10,745)**	**$ (0.11)**	**$ 2,618,799**	**$ 26.67**	**$ 10,456**
	General Requirements	$ 929,004	$ -	$ 871,159	$ 8.87	**$ 57,845**	**$ (8.87)**	**$ 925,309**	**$ -**	**$ 3,695**
	Bonds	$ 829,136	$ 8.44	$ 392,022	$ 3.99	**$ 437,114**	**$ 4.45**	**$ 825,838**	**$ 8.41**	**$ 3,298**
	Insurances (incl above for AM Fogarty)	$ -	$ -	$ 784,043	$ 7.98	**$ (784,043)**	**$ (7.98)**	**$ -**	**$ -**	**$ -**
	Profit	$ 964,166	$ 9.82	$ 1,206,130	$ 12.28	**$ (241,964)**	**$ (2.46)**	**$ 960,332**	**$ 9.78**	**$ 3,834**
	Escalation (2.5%)	$ 1,068,803	$ 10.88	$ 1,012,976	$ 10.32	**$ 55,827**	**$ 0.57**	**$ 1,475,974**	**$ 15.03**	**$ (407,171)**
SUB-TOTAL ESTIMATED COST (DBB)	**-0.57%**	**$ 49,172,486**	**$ 500.76**	**$ 49,451,313**	**$ 503.60**	**$ (278,827)**	**$ (2.84)**	**$ 48,976,932**	**$ 498.77**	**$ 195,554**
	Direct Purchase Playground Equipment	$ 300,000	$ 3.06	$ 300,000	$ 3.06	$ -	$ -	$ -	$ -	$ 300,000
TOTAL ESTIMATED COST INCLUDING PLAYGROUND EQUIP.		**$ 49,472,486**	**$ 503.82**	**$ 49,751,313**	**$ 506.66**	**$ (278,827)**	**$ (2.84)**	**$ 48,976,932**	**$ 498.77**	**$ 495,554**

Cost Estimate Summary

NV5

AMESBURY ELEMENTARY SCHOOL: AMESBURY, MA

Design Development Cost Estimate Reconciliation — **2/3/2020**

		ARCH Estimator (AM Fogarty)		OPM Estimator (PM & C)		Variance (AMF - PM&C)		PFA Budget		Variance (AMF - PFA Budget)
		GSF	98,195	GSF	98,195					
		Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount	Cost/SF	Total Amount
VALUE ENGINEERING ITEMS*		**Recommended**	**Hold**							
1	Eliminate Warewash	$ (66,045)								
2	Modular LCT in lieu of Linoleum Sheet	$ (59,500)								
3	ACT in lieu of GWB @ Project Area Ceiling	$ (23,800)								
4	Reduce Stone Sign by 40%	$ (19,040)								
5	Norman Brick in lieu of Modular	$ (89,250)								
6	Stair C Swisspearl to Brick	$ (53,550)								
7	Abuse Resistant GWB ILO 50% Tile @ Stair B & C	$ (49,385)								
8	Pavement Markings ILO Pavers at Speed Table	$ (54,900)								
9	Eliminate Roof Overflow Drains	$ (75,000)								
10	Asphalt Sidewalk ILO Concrete at New Exit Road	$ (20,000)								
11	Reduce Classroom Sinks from 2/each to 1/each		$ (105,600)							
12	50% Cape Cod Berm in lieu of Granite Curb		$ (178,500)							
13	Eliminate Irrigation		$ (126,140)							
14	Shiplap Oak in lieu of Interior Phenolic		$ (24,990)							
15	Metal panel soffit in lieu of Phenolic		$ (130,900)							
16	Furniture Desk ILO Built-in Teacher Desk at 1st & 2nd Floor		$ (58,310)							
TOTAL OF VALUE ENGINEERING ITEMS		**$ (510,470)**	**$ (624,440)**					**$ -**	**$ -**	**$ (510,470)**
TOTAL ESTIMATED COST WITH RECOMMENDED VE ITEMS		**$ 48,962,016**						**$ 48,976,932**	**$ 498.77**	**$ (14,916)**

* The list of Value Engineering Items identified as accepted at will be incorporated into the design during the Construction Documents Phase in order to keep the project scope on budget

Value Management

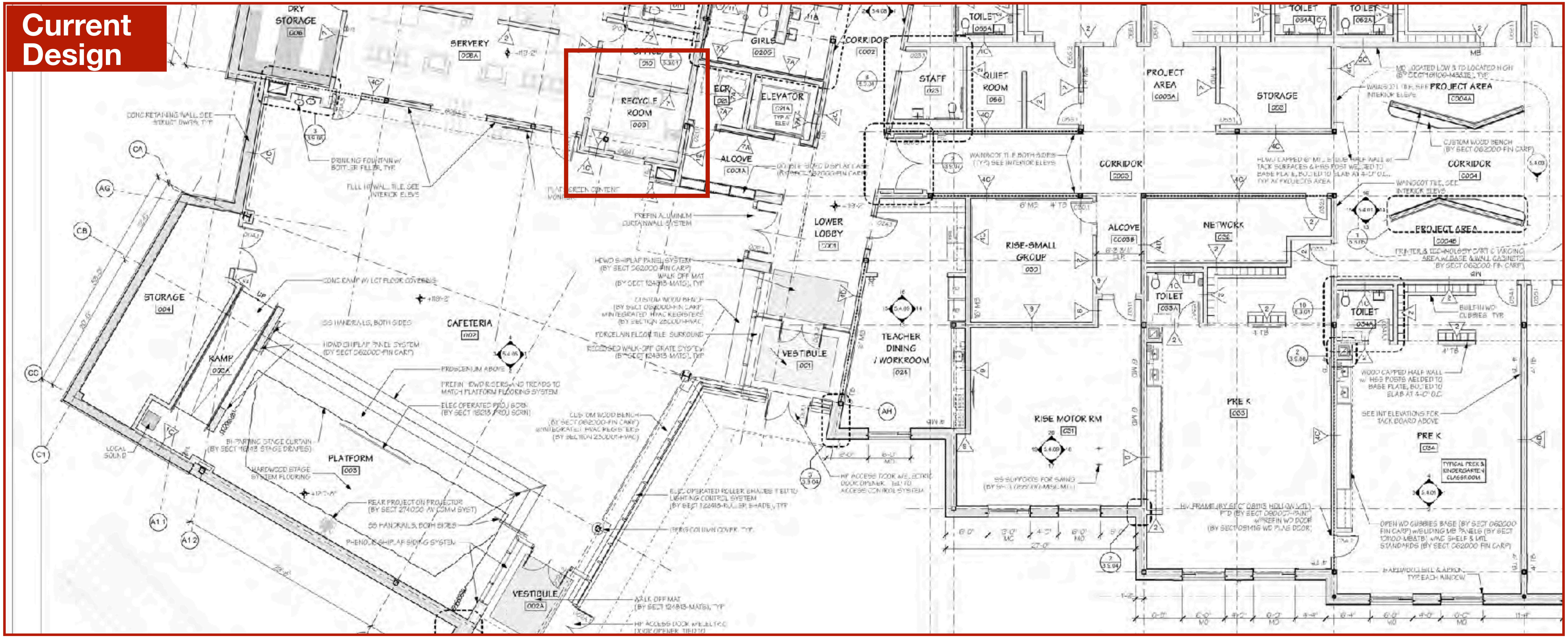
Value Engineering Items	Recommend	Hold
Eliminate warewash	$66,045	
Modular LCT in lieu of linoleum sheet goods	$59,500	
ACT in lieu of GWB @ project area ceilings	$23,800	
Reduce stone sign by 40%	$19,040	
Norman brick in lieu of modular	$89,250	
Stair C replace fiber cement rainscreen with brick	$53,550	
Abuse resistant GWB in lieu of tile @ Stair B & C walls	$49,385	
Pavement markings in lieu of concrete pavers at speed table	$54,900	
Eliminate roof overflow drains	$75,000	
25% Bituminious in lieu of concrete sidewalk	$20,000	
Reduce classroom sinks from 2 each to 1 each		$105,600
50% Cape Cod berm in lieu of granite curbing		$178,500
Eliminate irrigation		$126,140
Shiplap oak panels in lieu of interior phenolic panels		$24,990
Metal panel soffit in lieu of phenolic panels		$130,900
Furniture desk in lieu of built in teacher desk at 1st & 2nd floors		$58,310
Total Value Engineering Items	**$510,470**	**$624,440**

PFA Budget	**$48,976,932**
DD Cost Estimate	$49,472,485
Total Recommended VE	$510,470
Total Estimated Cost with Recommended VE Items	**$48,962,016**
Variance between DD Cost Estimate and PFA	**-$14,916**

Value Engineering

- Eliminate Warewash

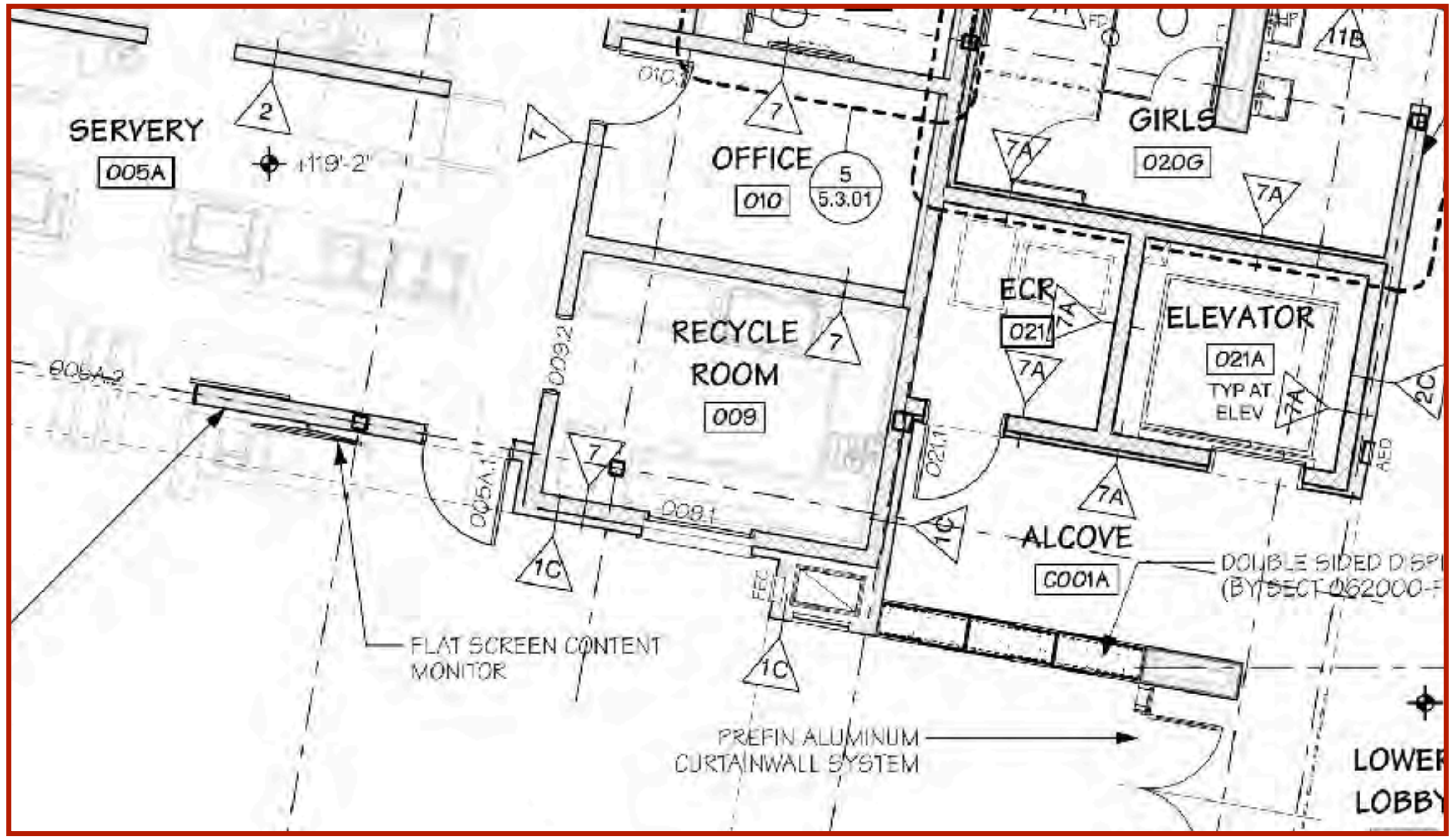
Current Design



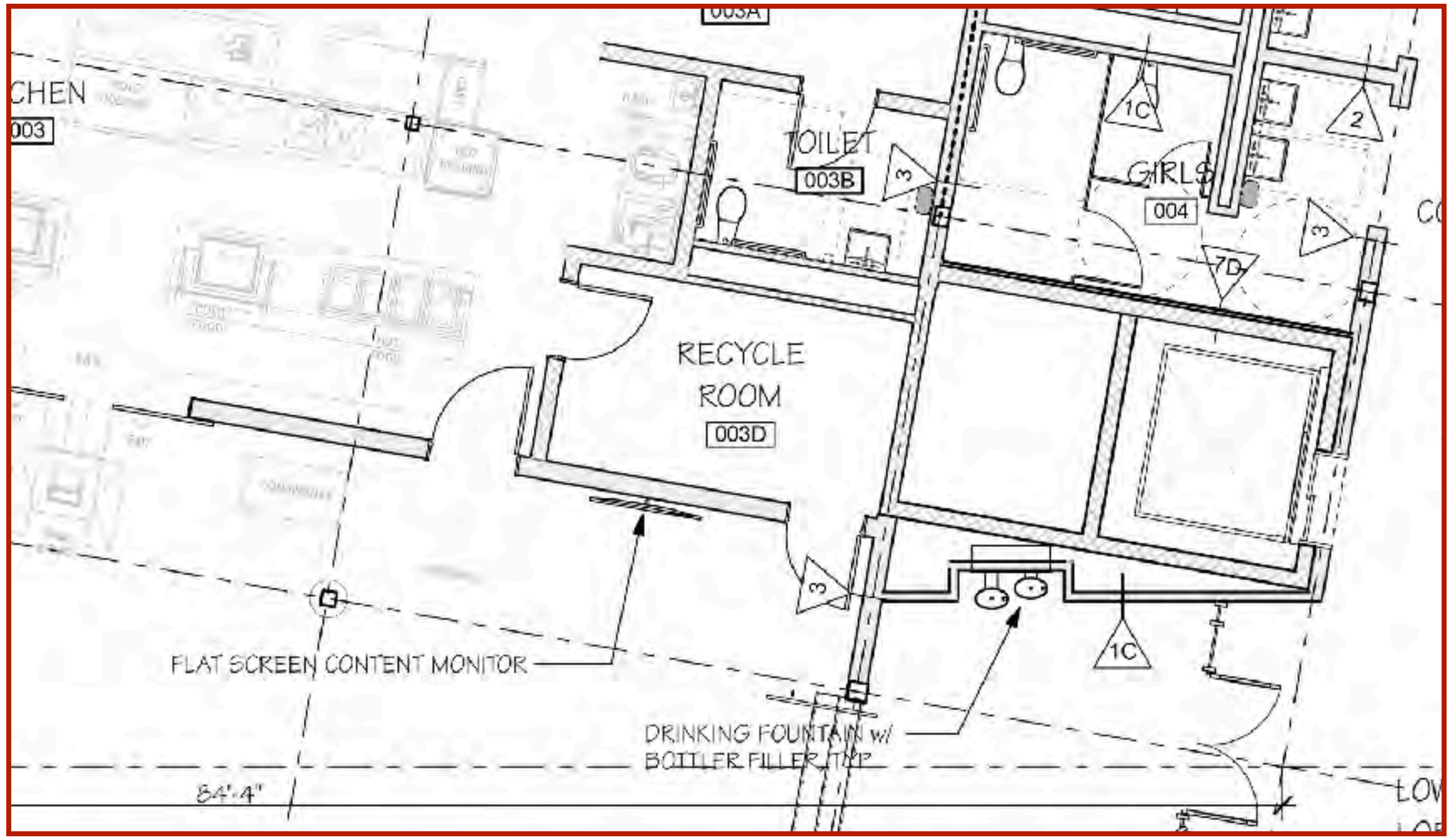
Value Engineering

- Eliminate Warewasher

Current Design



Proposed VE Design



Value Engineering

- Modular LCT in lieu of linoleum sheet goods

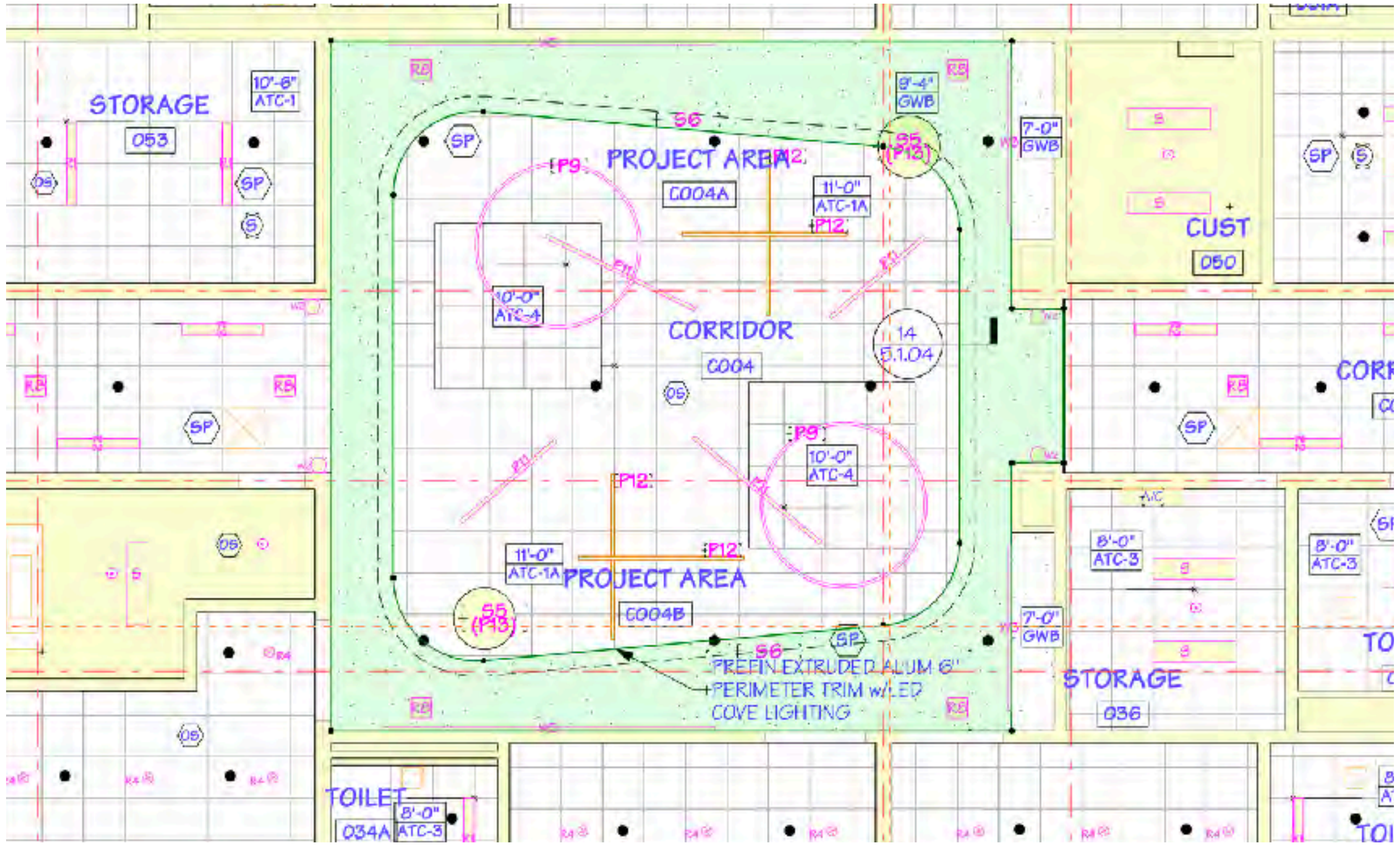
Current Design Material

Proposed VE Design Material

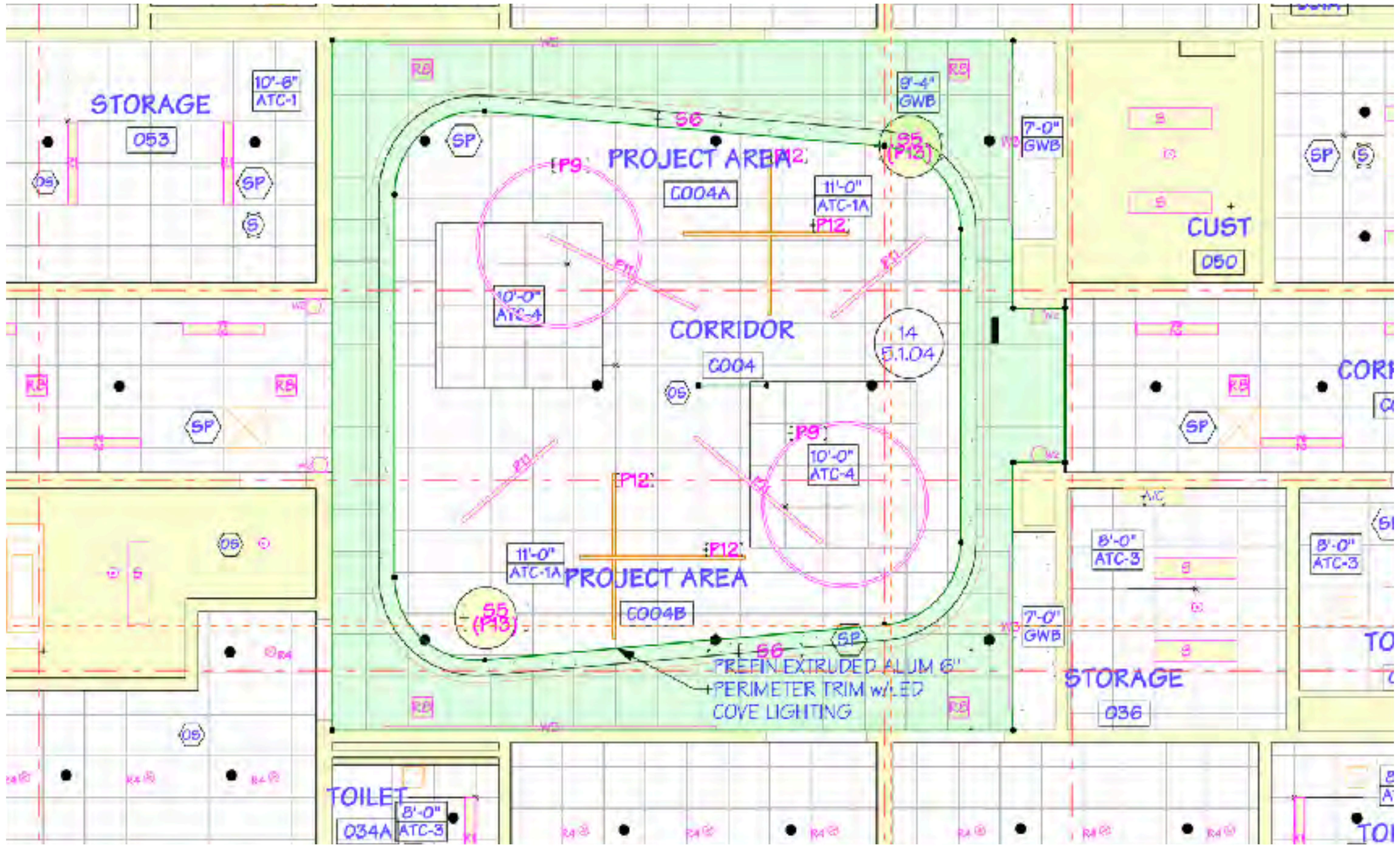
Value Engineering

- ACT in lieu of GWB at project area ceilings

Current Design



Proposed VE Design



Value Engineering

- ACT in lieu of GWB at Project area ceilings

Design Precedent

Value Engineering

- Reduce stone sign wall by 40%

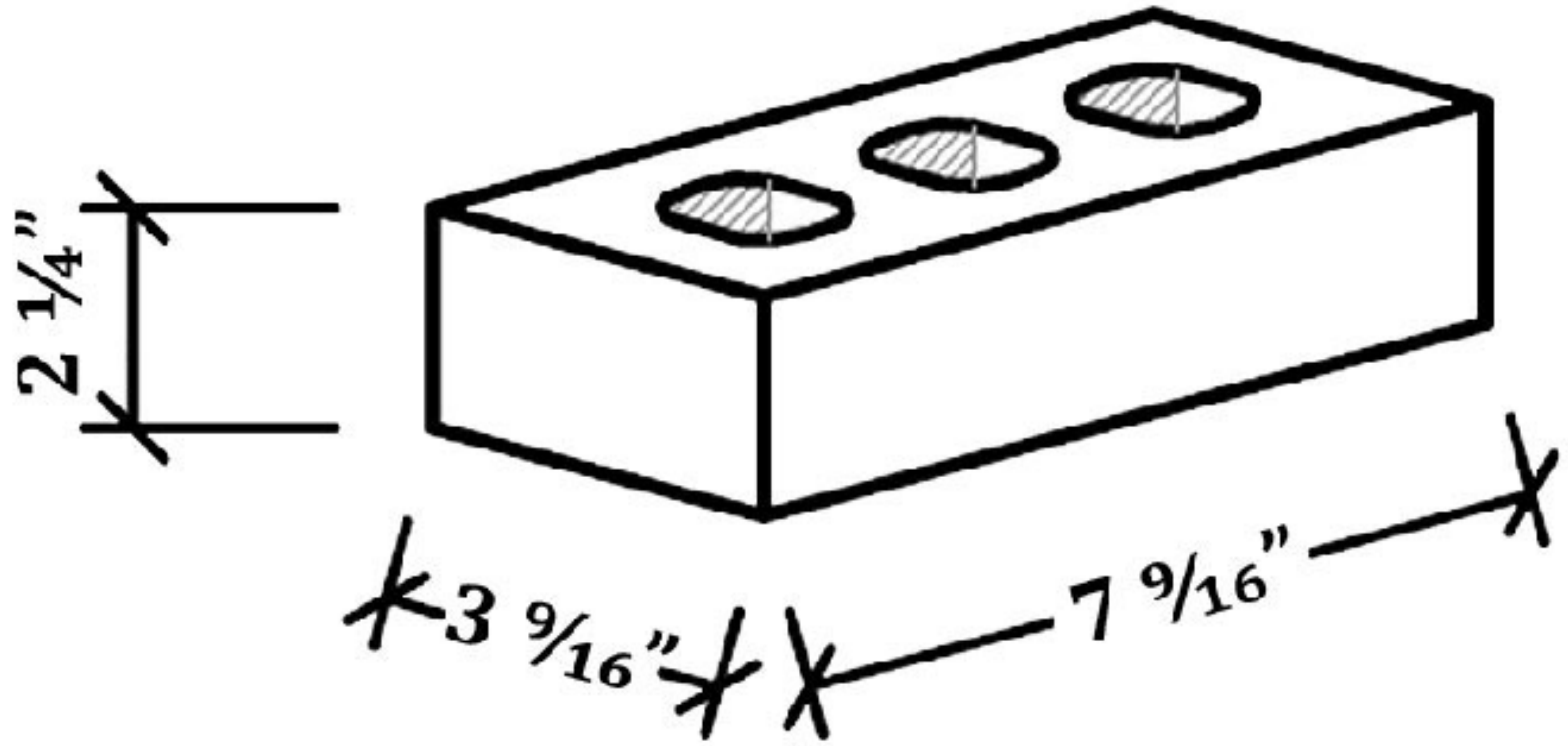
Current Design

Proposed VE Design

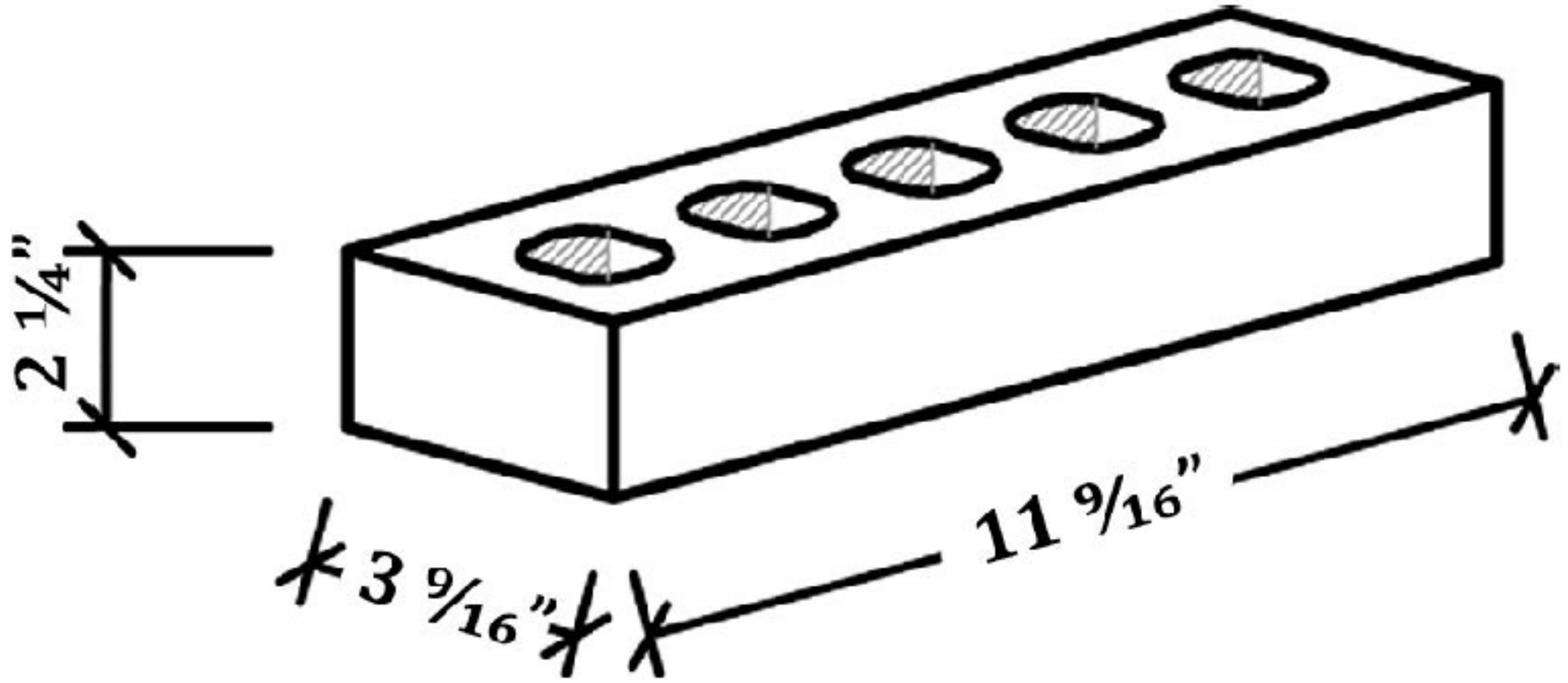
Value Engineering

- Norman brick in lieu of Modular

Current Design

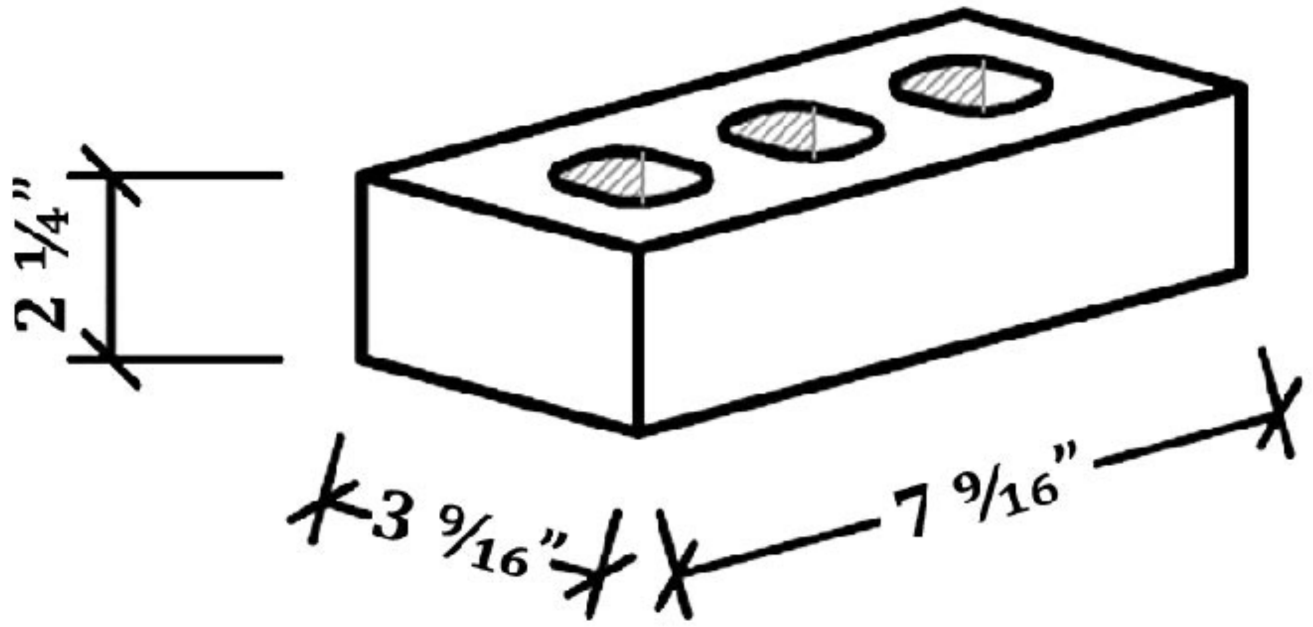


Proposed VE Design



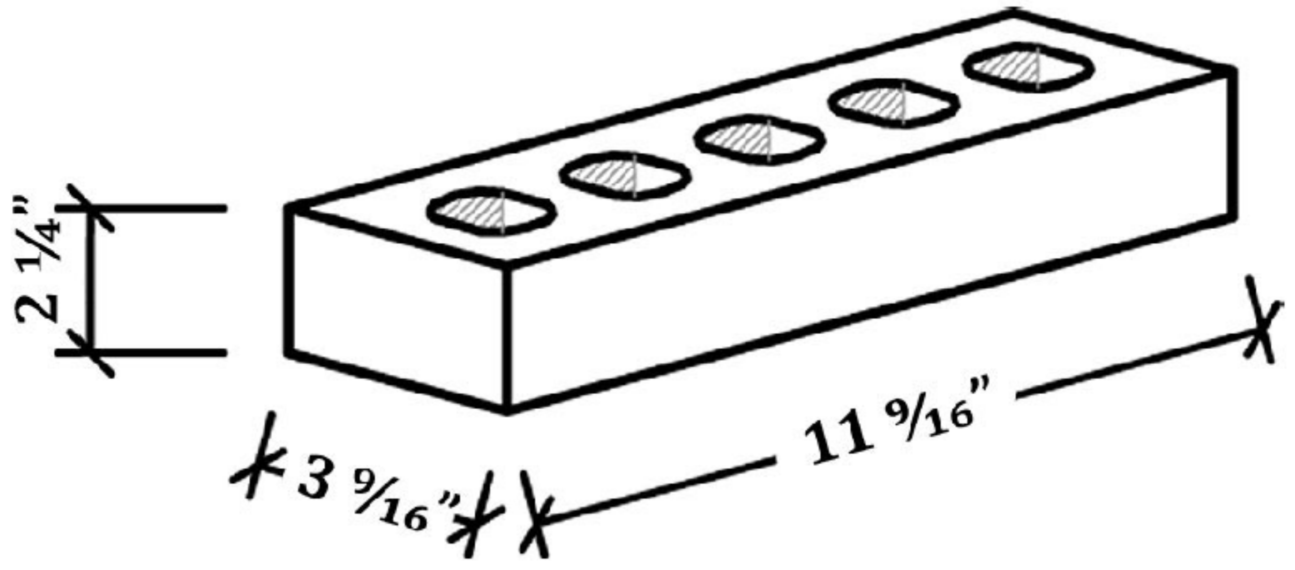
Value Engineering

- Norman brick in lieu of modular



Value Engineering

- Norman brick in lieu of modular



Value Engineering

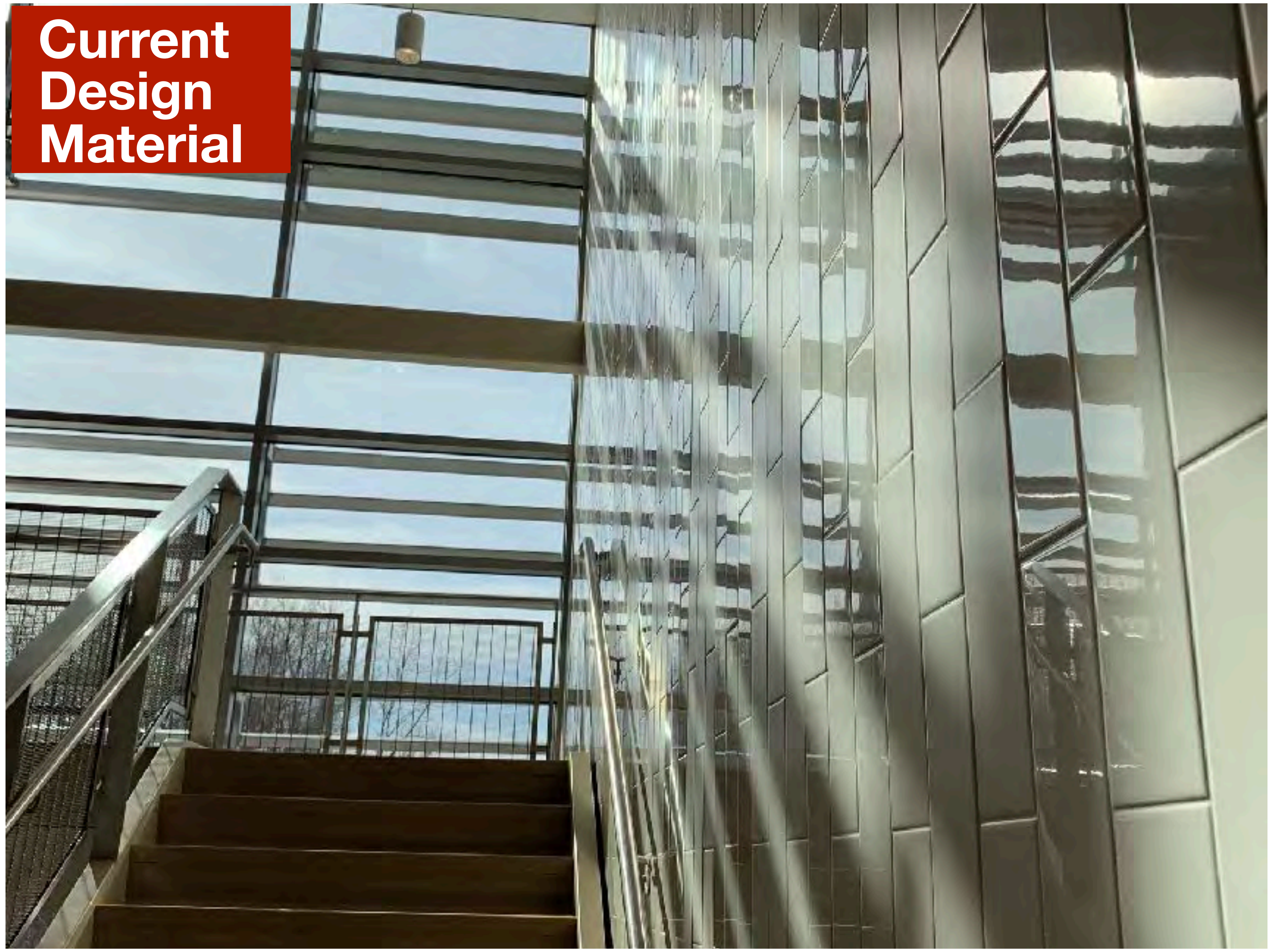
- Brick in lieu of fibre cement panels at Stair C

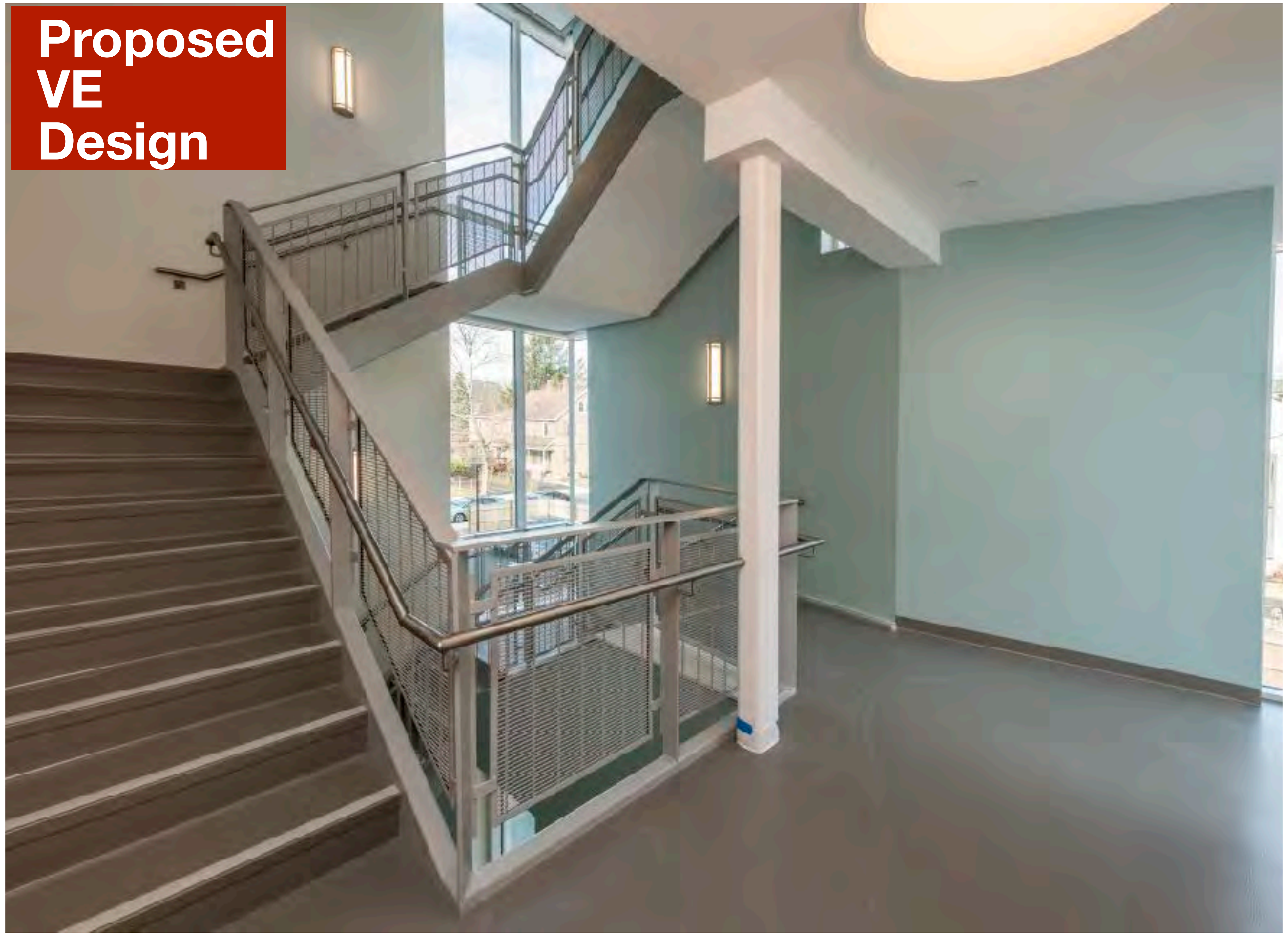
Current Design

Proposed VE Design

Value Engineering

- Abuse resistant GWB in lieu of tile @ stair B & C walls





Value Engineering

- Pavement markings ILO of concrete pavers at speed table

Value Engineering

- Eliminate roof overflow drains

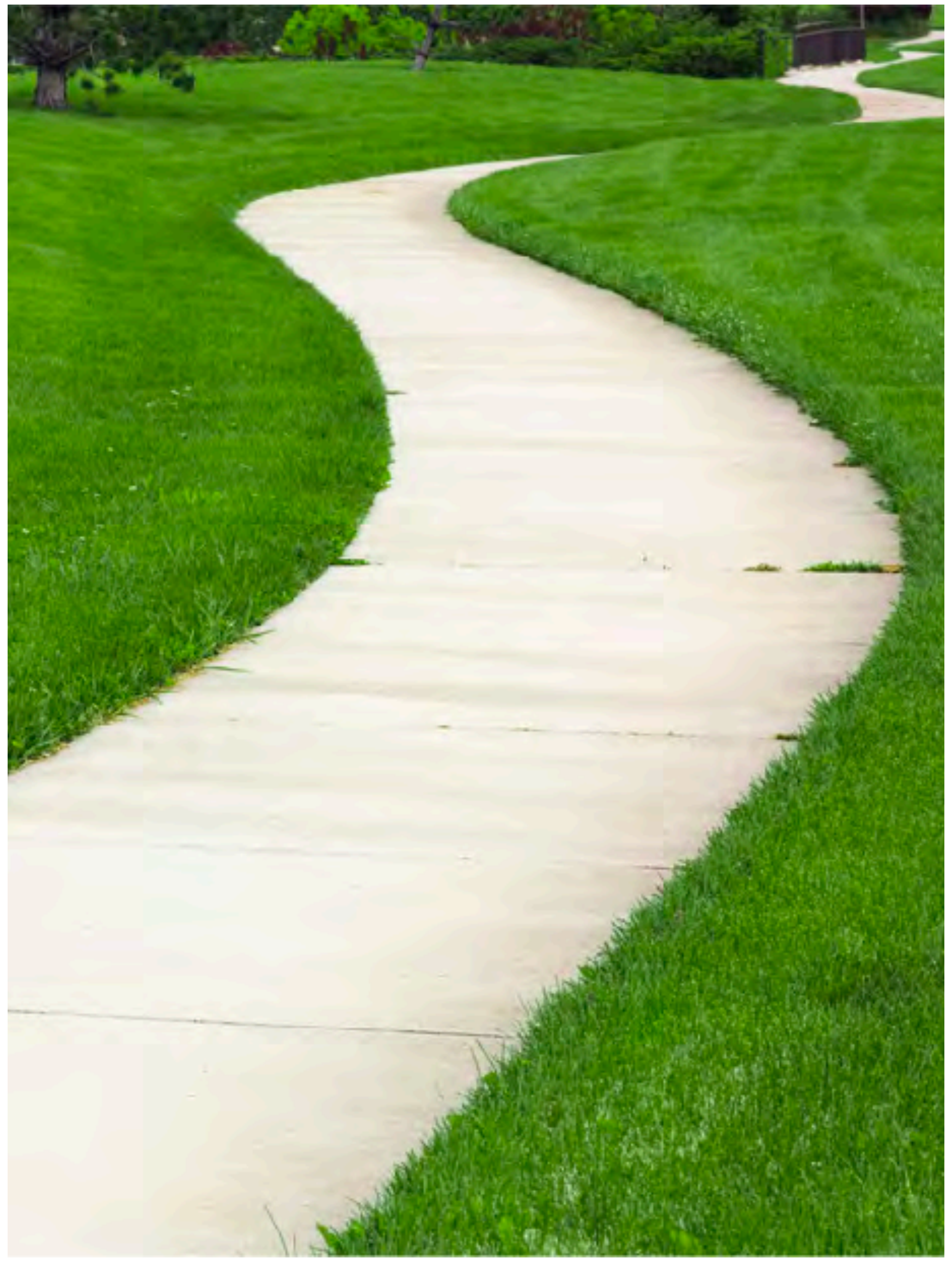
Current Design

Proposed VE Design

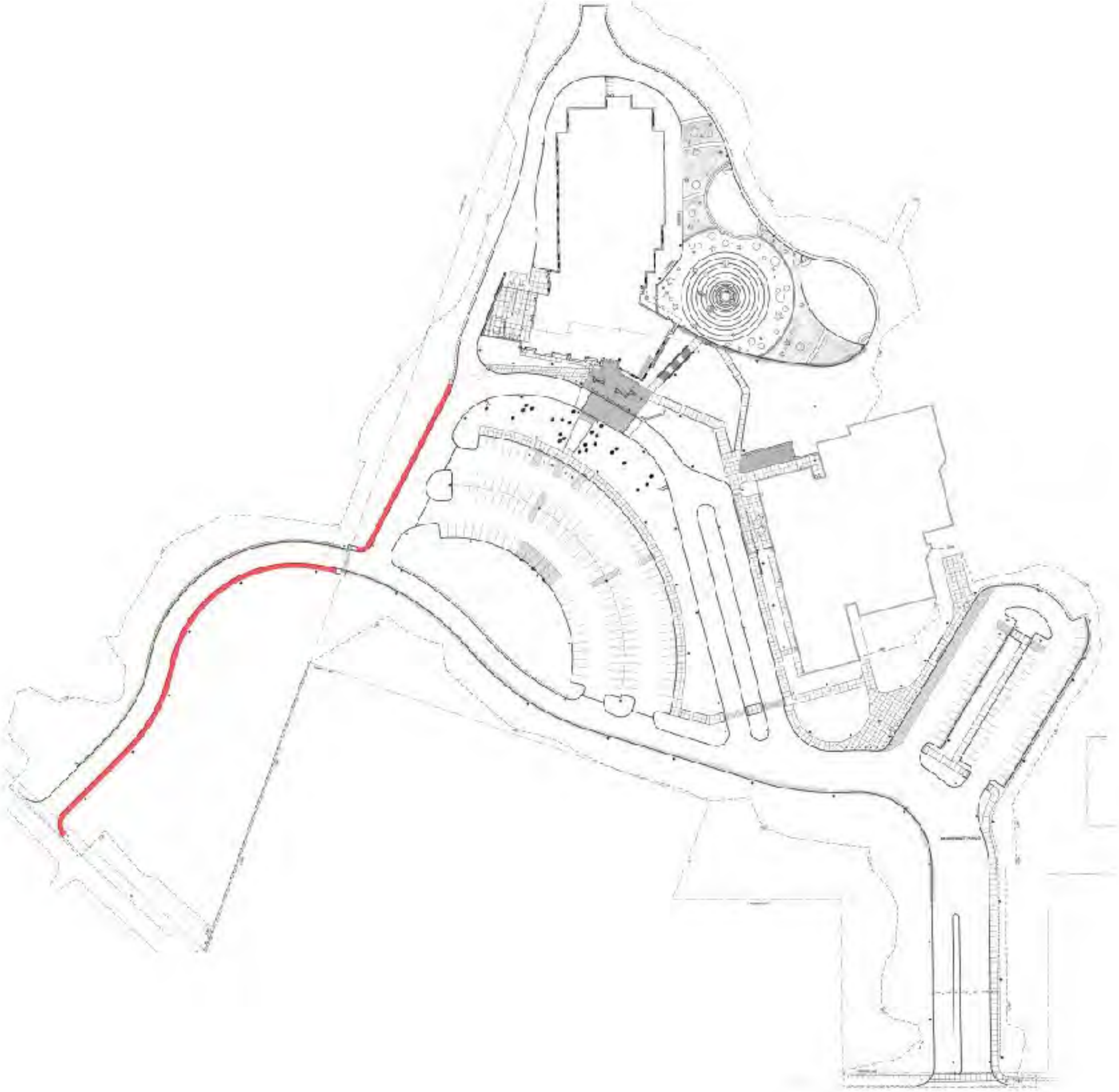
Value Engineering

- Asphalt sidewalk in lieu of concrete at new exit road

Current Design

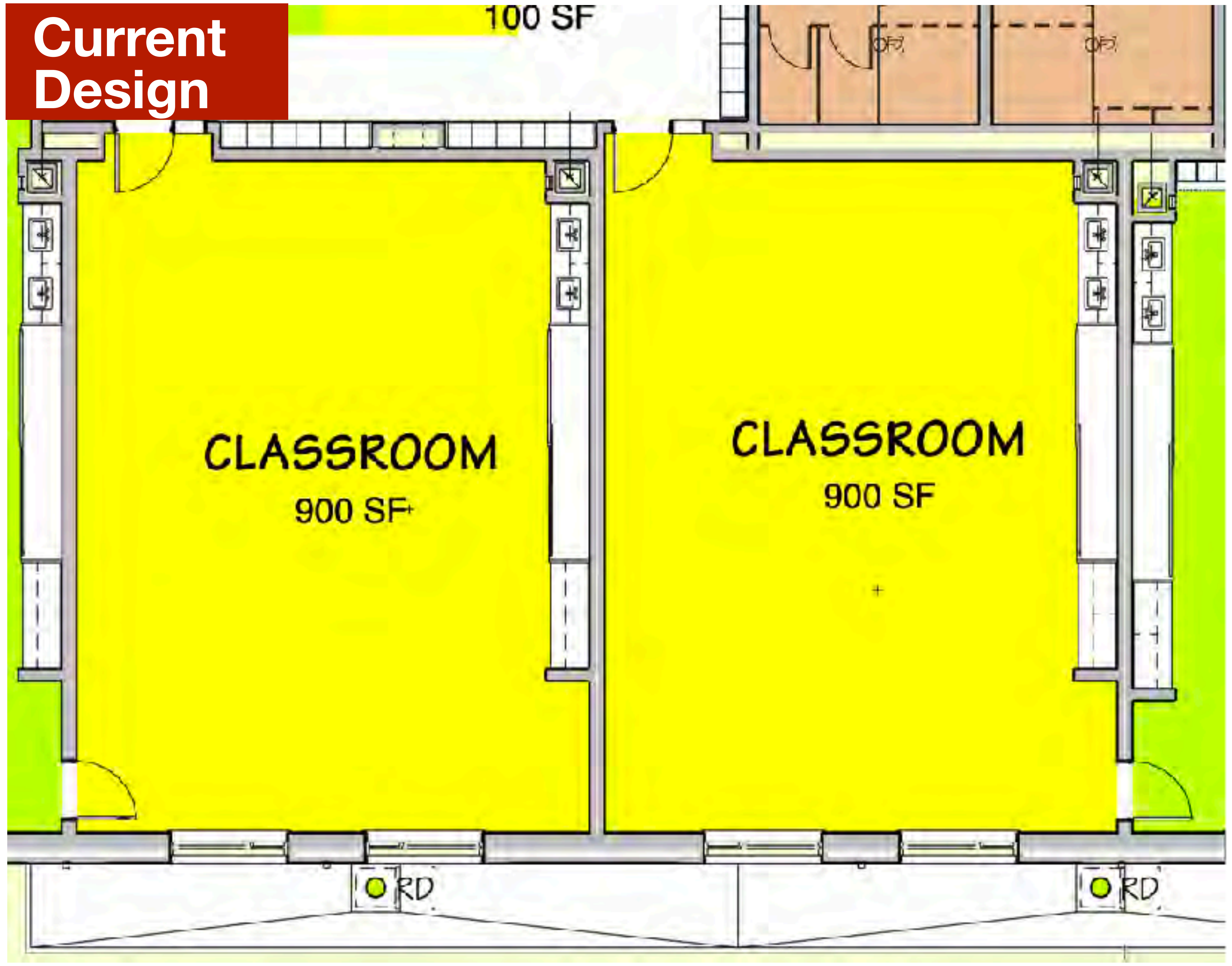


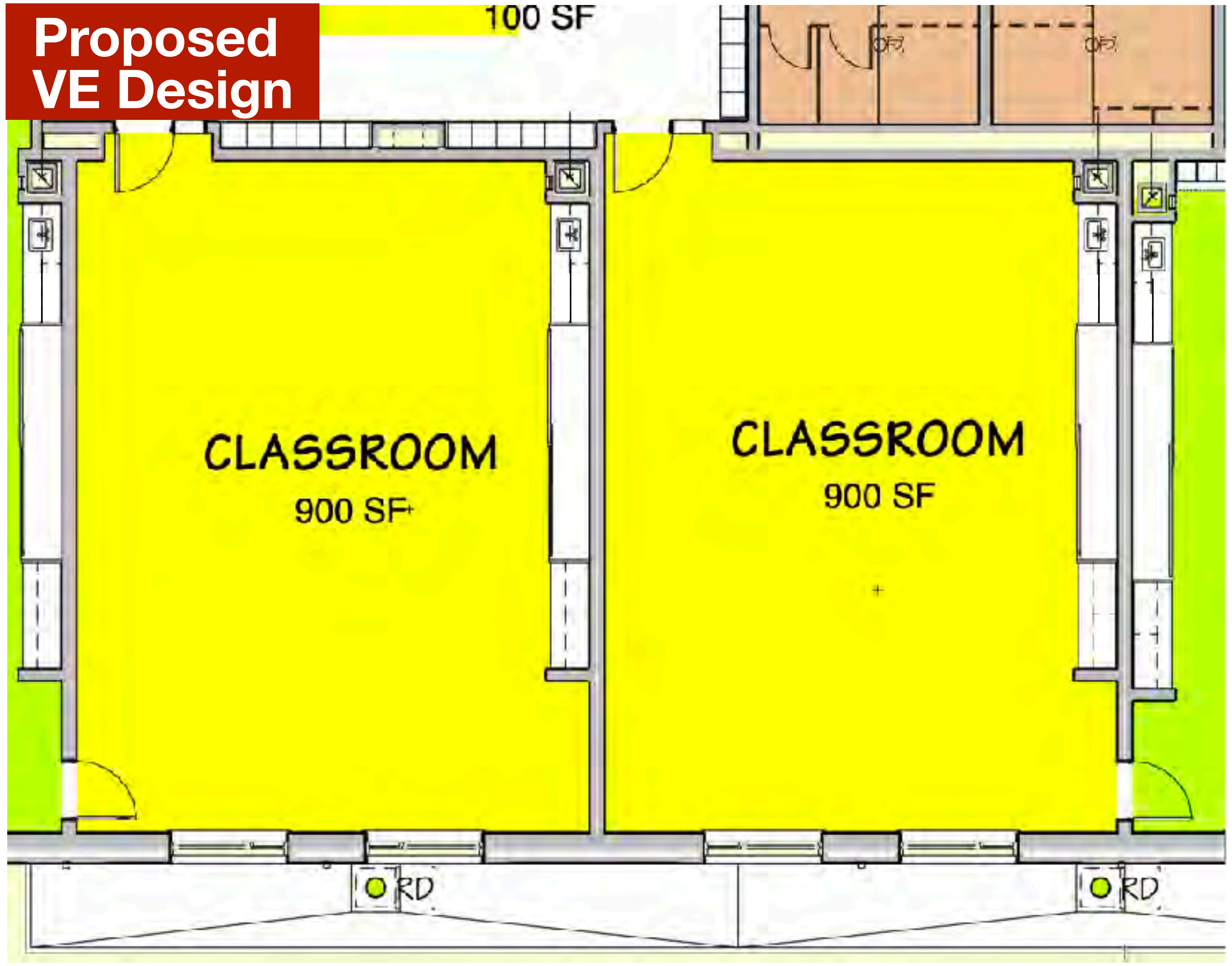
Proposed VE Design



Value Engineering

- Reduce classroom sinks from 2 each to 1 each





Value Engineering

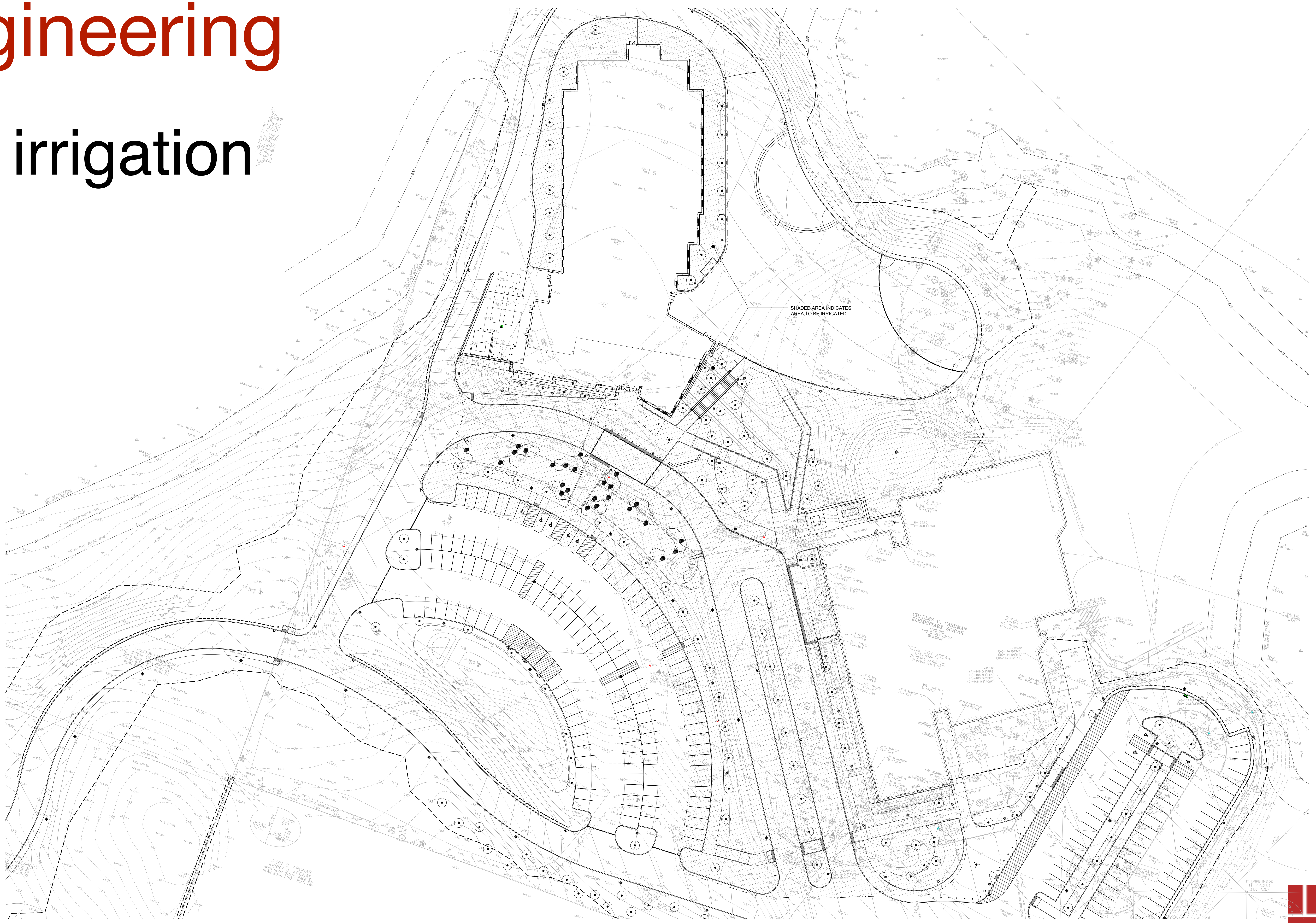
- 50% Cape Cod berm in lieu of granite curbing

Current Design

Proposed VE Design

Value Engineering

- Eliminate irrigation



Value Engineering

- Design Precedent - No Irrigation

Value Engineering

- Shiplap oak in lieu of interior phenolic panels

Current Design Material

Proposed VE Design Material

Value Engineering

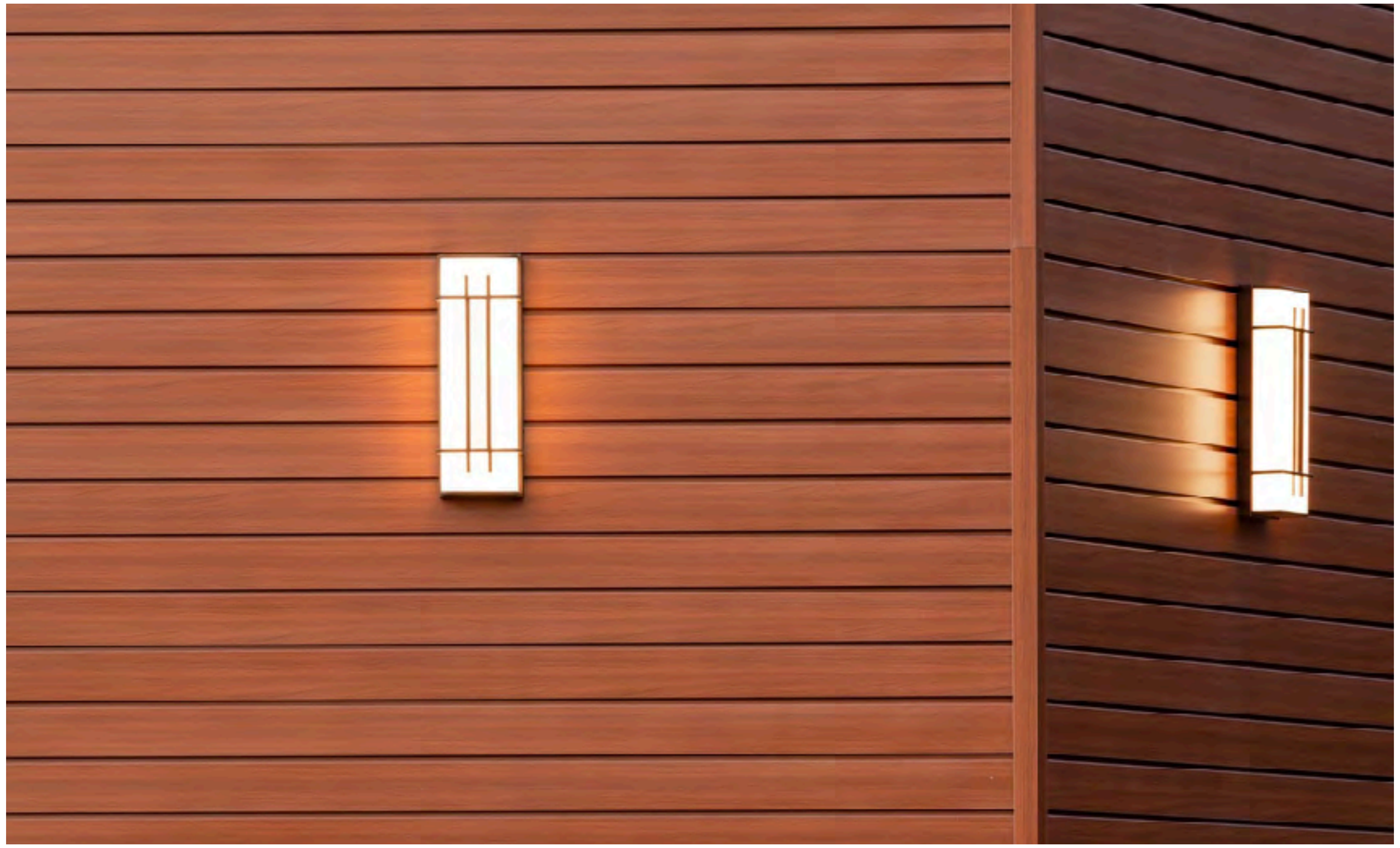
- Shiplap oak in lieu of interior phenolic panels

Value Engineering

- Metal panel in lieu of phenolic panel

Current Design Material

Proposed VE Design Material



Value Engineering

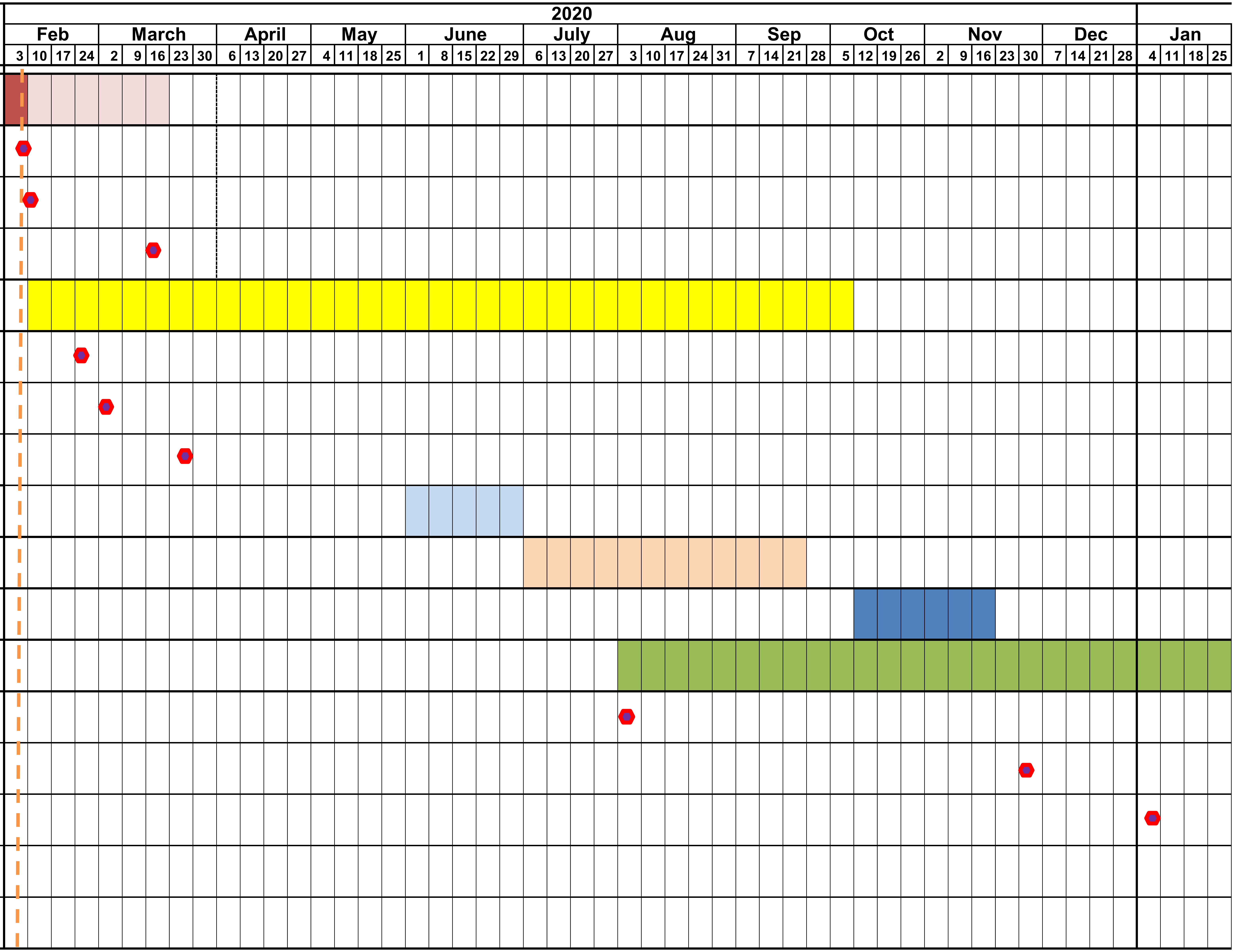
- Furniture desk in lieu of built in teachers desk

Current Design

Proposed VE Design

Project Schedule Summary

	Start	Finish
Design Development	**10-Oct-19**	**17-Mar-19**
AESBC Meeting-February	6-Feb-20	
DD Submission to MSBA	10-Feb-20	
MSBA Review/Resonse Complete	17-Mar-20	
Construction Documents	**11-Feb-20**	**9-Oct-20**
PB Site Plan Review Hearing	24-Feb-20	
Conservation Comm NOI Public Hearing	2-Mar-20	
AESBC Meeting - March	26-Mar-20	
Bidding-Early Site Package	**3-Jun-20**	**1-Jul-20**
General and Filed Sub-bidder Prequalification	**6-Jul-20**	**25-Sep-20**
Bidding-Main Bid Package	**14-Oct-20**	**20-Nov-20**
Construction	**27-Jul-20**	**29-Aug-22**
Early Site Package Commence Work	27-Jul-20	
Early Site Package Complete	30-Nov-20	
Main Bid Package Mobilization	4-Jan-21	
Substantial Completion	31-May-22	
Occupancy	1-Aug-22	



Amesbury Elementary School

School Building Committee Meeting

February 6, 2019

CITY OF AMESBURY
Incorporated
1668
MASSACHUSETTS

DINISCO DESIGN
architects + planners