

Appendix A

Brookfield Town Hall Prioritized Recommendations Cost Estimate



**Prepared By
Austin Design, Inc.**

June 1,2014 rev. 7/1/2014

DESIGN ESTIMATE**DIVISION SUMMARY**

Phase 1: Immediate term - Accessibility alterations

1.1 Minimal access alterations

Date: 1 July 2014

Town Hall - Phased access improvement and re-use study

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

	GROSS SF : 18,650	
DIVISION	AMOUNT	COST / SF
1 - GENERAL CONDITIONS	\$3,022	\$0.85
2 - DEMOLITION	\$2,975	\$0.83
3 - CONCRETE	\$0	\$0.00
4 - MASONRY	\$900	\$0.25
5 - METALS	\$2,000	\$0.56
6 - CARPENTRY & MILLWORK	\$3,890	\$1.09
7 - THERMAL / MOISTURE PROTECTION	\$431	\$0.12
8 - DOORS & WINDOWS	\$8,650	\$2.42
9 - FINISHES	\$3,240	\$0.91
10 - SPECIALTIES	\$1,320	\$0.37
11 - EQUIPMENT	\$0	\$0.00
12 - FURNISHINGS	\$0	\$0.00
13 - SPECIAL CONSTRUCTION	\$0	\$0.00
14 - CONVEYING SYSTEMS	\$0	\$0.00
23 - MECHANICAL		
FIRE PROTECTION	\$0	\$0.00
PLUMBING	\$5,000	\$1.40
H.V.A.C.	\$2,750	\$0.77
25 - INTEGRATED AUTOMATION SYSTEM		
INTEGRATED AUTOMATION SYSTEM	\$0	\$0.00
26 - ELECTRICAL	\$2,425	\$0.68
28 - ELECTRONIC SAFETY AND SECURITY	\$0	\$0.00
30 - EARTHWORK	\$0	\$0.00
50 - CONTINGENCIES		
CONTINGENCY	\$1,700	\$0.48
PERMITS	\$168	\$0.05
TAXES	\$0	\$0.00
60 - FEE	\$1,900	\$0.53
TOTAL	<u>\$40,400</u>	<u>\$11.32</u>

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6 Central Street - Brookfield, Massachusetts

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>01100 - GENERAL REQUIREMENTS</u>				
GENERAL CONDITIONS	%	9		3,022
TRADE CODE (01000) SUB-TOTAL=				3,022
<u>02050 - DEMOLITION</u>				
DECKING AND RAILING DAMAGED PARTS	LS	1	250.00	250
REMOVE EXISTING DOOR AND THRESHOLD AT EXTERIOR DOOR	EA	2	200.00	400
WALL MOUNTED HC BOTTOM DOOR OPENER	EA	2	200.00	400
GUT EXISTING LAV	SF	75	15.00	1,125
ENLARGE EXISTING DOOR OPENING AT LAV MASONRY	EA	2	400.00	800
TRADE CODE (05500) SUB-TOTAL=				2,975
<u>04200 - MASONRY</u>				
REPAIR LAV OPENING AND LINTEL	LF	20	45.00	900
TRADE CODE (05500) SUB-TOTAL=				900
<u>05500 - METAL FABRICATIONS - MISC.</u>				
ADJUST RAILINGS	LF	80	25.00	2,000
TRADE CODE (05500) SUB-TOTAL=				2,000
<u>06100 - ROUGH CARPENTRY</u>				
ADJUST RAIL DECKING	SF	220	4.00	880
REPLACE EXISTING THRESHOLD	LF	4	45.00	180
REFRAME LAV DOOR	LF	18	30.00	540
TRADE CODE (06100) SUB-TOTAL=				1,600

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>06200 - FINISH CARPENTRY</u>				
REINSTALL EXISTING DOOR AT RAMP	LF	2	250.00	500
TRIM NEW LAV DOOR	LF	20	12.00	240
INSTALL DOOR AND HARDWARE	EA	2	250.00	500
LAV UNDERLAYMENT AND PREP	SF	75	10.00	750
DOOR TRIM AT REMOVED DOOR	EA	2	150.00	300
TRADE CODE (06200) SUB-TOTAL=				2,290
<u>07200 - THERMAL INSULATION</u>				
4" RIGID INSULATION @ EXTERIOR WALL LAV	SF	72	3.00	216
TRADE CODE (07200) SUB-TOTAL=				216
<u>07900 - JOINT SEALER</u>				
DOORS	EA	2	75.00	150
WINDOWS	EA	1	65.00	65
TRADE CODE (07900) SUB-TOTAL=				215
<u>08140 - WOOD DOORS - INTERIOR</u>				
CUSTOM WOOD DOOR AND FRAME	EA	1	850.00	850
TRADE CODE (08140) SUB-TOTAL=				850
<u>08530 - VINYL WINDOW</u>				
EXISTING WINDOW AT LAV RECONFIGURE	EA	1	350.00	350
TRADE CODE (08530) SUB-TOTAL=				350

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>08700 - FINISH DOOR HARDWARE</u>				
HARDWARE SETS - SINGLE EXTERIOR	SET	2	3,500.00	7,000
HARDWARE SETS - INTERIOR SINGLE	SET	1	450.00	450
TRADE CODE (08700) SUB-TOTAL=				7,450
<u>09250 - GYPSUM WALLBOARD</u>				
INTERIOR FRAME AND GWB w/ SOUND BLANKET	LF	35	35.00	1,225
GYPSUM CEILINGS AND FURRING	SF	75	4.50	338
TRADE CODE (09250) SUB-TOTAL=				1,563
<u>09600 - RESILIENT FLOOR AND BASE</u>				
RESILIENT FLOOR TILE	SF	75	9.00	675
BASE	SF	35	4.00	140
TRADE CODE (09600) SUB-TOTAL=				815
<u>09900 - PAINTING</u>				
PAINT WALLS	SF	350	0.50	175
PAINT CEILINGS	SF	75	0.50	38
PAINT DOOR & FRAME - SINGLE	EA	2	200.00	400
MISC. AT RAMP	LS	1	250.00	250
TRADE CODE (09900) SUB-TOTAL=				863

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>10280 - TOILET AND BATH ACCESSORIES</u>				
TOILET PAPER DISPENSER	EA	1	75.00	75
HANDICAP GRAB BARS	SETS	1	350.00	350
SOAP DISPENSER	EA	1	45.00	45
MIRROR UNITS	EA	1	350.00	350
HAND DRYER	EA	1	500.00	500
TRADE CODE (10280) SUB-TOTAL=				1,320
<u>21130 - FIRE SUPPRESSION SPRINKLER SYSTEMS</u>				
SPRINKLER SYSTEM ADJUST	SF	0	0.00	0
TRADE CODE (21130) SUB-TOTAL=				0
<u>22000 - PLUMBING</u>				
FIXTURES AND PIPING	EA	2	2,500.00	5,000
TRADE CODE (22000) SUB-TOTAL=				5,000
<u>23000 - HVAC</u>				
HEAT UNITS, BATHROOM FAN	LS	1	2,750.00	2,750
TRADE CODE (23000) SUB-TOTAL=				2,750
<u>26000 - ELECTRICAL</u>				
LIGHTING / POWER AT LAV	SF	75	15.00	1,125
POWER AT ENTRANCE DOOR	EA	2	650.00	1,300
TRADE CODE (26000) SUB-TOTAL=				2,425

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6 Central Street - Brookfield, Massachusetts

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>50000 - CONTINGENCY</u>	%	5		1,679
TRADE CODE (50000) SUB-TOTAL=				1,700
<u>50500 - PERMITS</u>	%	1		168
TRADE CODE (50500) SUB-TOTAL=				168
<u>55500 - STATE TAX</u>	%	0		0
TRADE CODE (55500) SUB-TOTAL=				0
<u>60000 - CONSTRUCTION FEE</u>	%	5		1,900
TRADE CODE (60000) SUB-TOTAL=				1,900
<u>59000 - TOTAL</u>				40,400
TRADE CODE (59000) TOTAL=				<u>40,400</u>

DESIGN ESTIMATE

Phase 1.2 Immediate term - Accessibility alterations
 1.2 CMR and IEBC egress code iterations
 Town Hall - Phased access improvement and re-use study
 6 Central Street - Brookfield, Massachusetts

DIVISION SUMMARY

Date: 1 July 2014

DIVISION	GROSS SF : 18,650	
	AMOUNT	COST / SF
1 - GENERAL CONDITIONS	\$61,156	\$17.13
2 - DEMOLITION	\$17,900	\$5.01
3 - CONCRETE	\$8,176	\$2.29
4 - MASONRY	\$34,535	\$9.67
5 - METALS	\$49,525	\$13.87
6 - CARPENTRY & MILLWORK	\$34,595	\$9.69
7 - THERMAL / MOISTURE PROTECTION	\$31,459	\$8.81
8 - DOORS & WINDOWS	\$52,650	\$14.75
9 - FINISHES	\$72,710	\$20.37
10 - SPECIALTIES	\$2,090	\$0.59
11 - EQUIPMENT	\$0	\$0.00
12 - FURNISHINGS	\$0	\$0.00
13 - SPECIAL CONSTRUCTION	\$0	\$0.00
14 - CONVEYING SYSTEMS	\$131,000	\$36.69
23 - MECHANICAL		
FIRE PROTECTION	\$94,750	\$26.54
PLUMBING	\$16,000	\$4.48
H.V.A.C.	\$3,500	\$0.98
25 - INTEGRATED AUTOMATION SYSTEM		
INTEGRATED AUTOMATION SYSTEM	\$0	\$0.00
26 - ELECTRICAL	\$89,750	\$25.14
28 - ELECTRONIC SAFETY AND SECURITY	\$0	\$0.00
30 - EARTHWORK	\$40,867	\$11.45
50 - CONTINGENCIES		
CONTINGENCY	\$101,900	\$28.54
PERMITS	\$3,398	\$0.95
TAXES	\$0	\$0.00
60 - FEE	\$42,100	\$11.79
TOTAL	<u>\$888,100</u>	<u>\$248.77</u>

DESIGN ESTIMATE

Phase 1.2 Immediate term - Accessibility alterations

1.2 CMR and IEBC egress code iterations

Town Hall - Phased access improvement and re-use study

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6 Central Street - Brookfield, Massachusetts

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>01100 - GENERAL REQUIREMENTS</u>				
GENERAL CONDITIONS	%	9		61,156
TRADE CODE (01000) SUB-TOTAL=				61,156
<u>02050 - DEMOLITION</u>				
EXTERIOR RAMP AND AWNING	SF	225	5.00	1,125
EXTERIOR AWNING MAIN ENTRANCE AND RAILINGS	SF	200	5.00	1,000
EXTERIOR WALL AT ELEVATOR	SF	80	25.00	2,000
EXISTING FLOORS AT NEW ELEVATOR SHAFT	SF	1,000	5.00	5,000
OPENING FOR LIFT AT STAGE (LAV / STAIR)	EA	15	15.00	225
OPENING AT 2nd FLOOR LOBBY WALL	EA	1	500.00	500
REMOVE EXISTING WATER FOUNTAIN	EA	2	25.00	50
CUT CAP AND MAKE SAFE MEP's	LS	1	3,500.00	3,500
DUMPSTER 40 YARD	EA	10	450.00	4,500
TRADE CODE (02050) SUB-TOTAL=				17,900
<u>03300 - CONCRETE</u>				
ELEVATOR:				
FOOTING	LF	45	15.00	675
WALL 3-6 x12"x45	SF	45	14.43	649
SLAB ON GRADE	SF	200	15.00	3,000
CONCRETE PAD AT ELEVATOR PIT	SF	60	4.75	285
ELEVATOR PIT WALL	LF	35	4.75	166
REPAIR FLOOR AT NEW ELEVATOR OPENING	EA	4	150.00	600
NEW STAIR:				
STAIR AND PLATFORM	SF	30	10.00	300
RISERS	EA	5	500.00	2,500
TRADE CODE (03300) SUB-TOTAL=				8,176

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1.2 CMR and IEBC egress code iterations

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>04200 - UNIT MASONRY</u>				
RESTORE BASEMENT WALL AT ELEVATOR BASEMENT	LF	20	15.00	300
RESTORE BASEMENT WALL AT ELECTRIC, / MACHINE ROOM	LF	20	15.00	300
RESTORE BASEMENT WALL MECH ENTRANCE	LF	20	15.00	300
RESTORE BASEMENT WALL AT ELEVATOR 1st FLOOR	EA	2	15.00	30
RESTORE WALL AT AWNING REMOVAL	LF	30	25.00	750
MAKE HOLE AND REPAIR FOR NEW WATER MAIN	EA	2	250.00	500
CMU's 8" TYPE RATED WALL BASEMENT PARTITIONS	SF	400	30.00	12,000
BRICK INFILL AT WINDOW / ELEVATOR	SF	16	30.00	480
BRICK, BLOCK FACADE AT NEW ELEVATOR LOBBY	SF	225	55.00	12,375
EXTERIOR REPAIR	LS	1	7,500.00	7,500
TRADE CODE (04200) SUB-TOTAL=				34,535
<u>05500 - METAL FABRICATIONS - MISC.</u>				
ELEVATOR LOBBY STRUCTURE	TON	3	4,500.00	13,500
ELEVATOR HOISTWAY STRUCTURE	TON	1	4,500.00	4,500
RAILING AT NEW EXTERIOR STAIR	LF	16	400.00	6,400
RAILING AT EXTERIOR STAIR MAIN ENTRANCE	LF	20	400.00	8,000
ELEVATOR ENTRANCE ANGLE SETS	EA	4	150.00	600
RAILING AT EXTERIOR HALL ENTRANCE	LF	16	400.00	6,400
ELEVATOR LOBBY ROOF STRUCTURE	TON	2	4,500.00	10,125
TRADE CODE (05500) SUB-TOTAL=				49,525
<u>06100 - ROUGH CARPENTRY</u>				
BEVELED TRANSITIONS AT THRESHOLDS	EA	27	75.00	2,025
REMOVE INTERIOR HARDWARE AT EXISTING DOORS	EA	27	100.00	2,700
INTERIOR PARTITION 2x4 - 1st AND 2nd FLOORS	LF	60	15.00	900
INTERIOR PARTITION EXISTING REWORKED	LF	100	20.00	2,000
4x8 PLYWOOD BACKER BOARDS - ELEC. & PHONE CLOSETS	EA	5	50.00	250
FASTENERS AND HARDWARE	LS	1	2,500.00	2,500
BLOCKING	LF	240	3.00	720
TRADE CODE (06100) SUB-TOTAL=				11,095

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>06200 - FINISH CARPENTRY</u>				
BATHROOM VANITY AND COUNTERTOP HC	EA	2	450.00	900
INSTALL DOORS, FRAMES, & HARDWARE - EXTERIOR PAIRS	EA	2	500.00	1,000
INSTALL DOORS, FRAMES, & HARDWARE - INTERIOR 1st FLC	EA	15	200.00	3,000
INSTALL DOORS, FRAMES, & HARDWARE - INTERIOR 1st FLC	EA	13	200.00	2,600
WOOD TRIM AT ELEVATOR LOBBY	SF	50	200.00	10,000
PATCH WOOD FLOORS	SF	250	20.00	5,000
WINDOW TRIM REPAIR	LS	1	1,000.00	1,000
TRADE CODE (06200) SUB-TOTAL=				23,500
<u>07120 - WATERPROOFING AND DAMPPROOFING</u>				
PARGE FOUNDATION WALL AT ELEVATOR	SF	250	1.25	313
VAPOR BARRIER @ SLAB ON GRADE 6 MILL	SF	260	0.35	91
DOOR CAULKING	EA	3	50.00	150
WATERPROOF MECH. ROOMS	SF	1,000	3.50	3,500
TRADE CODE (07120) SUB-TOTAL=				4,054
<u>07200 - THERMAL INSULATION</u>				
4" RIGID INSULATION @ SLAB ON GRADE	SF	260	3.00	780
4" RIGID INSULATION @ FOUNDATION WALLS	SF	225	3.00	675
ELEVATOR ROOF DECK INSULATION	SF	400	3.00	1,200
TRADE CODE (07200) SUB-TOTAL=				2,655
<u>07300 - ROOFING AND ACCESSORIES</u>				
STANDING SEAM ROOF AND STRUCTURE	SF	300	65.00	19,500
MISC REPAIRS TO ROOF WERE AWNINGS REMOVED	LS	1	2,500.00	2,500
TRADE CODE (07300) SUB-TOTAL=				22,000

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>07900 - JOINT SEALER</u>				
INTERIOR CAULKING	LS	1	500.00	500
DOORS	EA	30	75.00	2,250
TRADE CODE (07900) SUB-TOTAL=				2,750
<u>08110 - HOLLOW METAL FRAMES</u>				
HOLLOW METAL FRAME AND DOOR RATED BASEMENT	EA	3	750.00	2,250
HOLLOW METAL FRAME INTERIOR 2nd FLOOR	EA	3	250.00	750
TRADE CODE (08110) SUB-TOTAL=				3,000
<u>08140 - WOOD DOORS - INTERIOR</u>				
CUSTOM WOOD DOOR AND FRAME	EA	3	850.00	2,550
TRADE CODE (08140) SUB-TOTAL=				2,550
<u>08305 - ACCESS DOORS</u>				
LOUVER AT ELEVATOR	EA	1	1,200.00	1,200
ACCESS DOOR ALLOWANCE	EA	3	100.00	300
TRADE CODE (08305) SUB-TOTAL=				1,500
<u>08700 - FINISH DOOR HARDWARE</u>				
HARDWARE SETS - EXTERIOR ENTRANCE PAIR	SET	2	1,200.00	2,400
HARDWARE SETS - SINGLE EXTERIOR	SET	1	650.00	650
HARDWARE SETS - INTERIOR SINGLE	SET	18	350.00	6,300
HARDWARE SETS - INTERIOR SINGLE STAIR	SET	9	750.00	6,750
HARDWARE SETS - INTERIOR SINGLE MECHANICAL	SET	3	550.00	1,650
HARDWARE SETS - INTERIOR PAIRS	SET	3	1,250.00	3,750
TRADE CODE (08700) SUB-TOTAL=				21,500

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>08910 - WINDOW WALL ELEVATOR LOBBY</u>				
EXTERIOR WALL AT ELEVATOR	SF	240	65.00	15,600
EXTERIOR DOOR	EA	1	8,500.00	8,500
TRADE CODE (08910) SUB-TOTAL=				24,100
<u>09250 - GYPSUM WALLBOARD</u>				
INTERIOR RATED w/ SOUND BLANKET	LF	70	72.00	5,040
GYPSUM CEILINGS AND FURRING	SF	400	4.50	1,800
ELEVATOR SHAFT WALLS	SF	1,200	15.00	18,000
TRADE CODE (09250) SUB-TOTAL=				24,840
<u>09300 - CERAMIC TILE</u>				
TILE FLOOR LAV	SF	150	45.00	6,750
TILE WALLS LAV	SF	600	45.00	27,000
TILE BASE LAV	LF	100	30.00	3,000
ELEVATOR LOBBY TILE AND BASE	SF	156	45.00	7,020
TRADE CODE (09300) SUB-TOTAL=				43,770
<u>09900 - PAINTING</u>				
PAINT WALLS	SF	1,400	0.50	700
EXTERIOR PAINT	SF	500	2.00	1,000
PAINT CEILINGS	SF	400	0.50	200
PAINT DOOR & FRAME - SINGLE	EA	10	175.00	1,750
- PAIRS	PRS	2	225.00	450
TRADE CODE (09900) SUB-TOTAL=				4,100

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>10280 - TOILET AND BATH ACCESSORIES</u>				
TOILET PAPER DISPENSER	EA	2	75.00	150
HANDICAP GRAB BARS	SETS	2	350.00	700
SOAP DISH	EA	2	45.00	90
MIRROR UNITS	EA	2	550.00	1,100
ROBE HOOK	EA	2	25.00	50
TRADE CODE (10280) SUB-TOTAL=				2,090
<u>14000 - CONVEYING SYSTEM</u>				
ELEVATOR STOPS	EA	4	30,000.00	120,000
CAB FINISH	LS	1	11,000.00	11,000
TRADE CODE (14000) SUB-TOTAL=				131,000
<u>21130 - FIRE SUPPRESSION SPRINKLER SYSTEMS</u>				
MOVE WATER MAIN AND SPRINKLER ROOM	LS	1	25,500	25,500
SPRINKLER SYSTEM WET	SF	13,850	5.00	69,250
TRADE CODE (21130) SUB-TOTAL=				94,750
<u>22000 - PLUMBING</u>				
PIPING	LS	1	10,000	10,000
FIXTURE PLUMBED	EA	4	1,250.00	5,000
WATER HEATERS	EA	2	500.00	1,000
TRADE CODE (22000) SUB-TOTAL=				16,000
<u>23000 - HVAC</u>				
HEAT UNITS, BATHROOM FAN, KITCHEN EXHAUST	LS	1	3,500.00	3,500
TRADE CODE (23000) SUB-TOTAL=				3,500

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>26000 - ELECTRICAL</u>				
LIGHTING / POWER / SERVICE	LS	1	20,000.00	20,000
FIRE ALARM SYSTEM AT MINIMAL	SF	13,850	5.00	69,250
TELEPHONE / CATV	LS	1	500.00	500
TRADE CODE (26000) SUB-TOTAL=				89,750
<u>312000 - EARTHWORK</u>				
CLEAR AND GRUB	SY	100	1.75	175
GRADING	SY	100	1.00	100
EROSION CONTROL	LF	200	6.50	1,300
EXCAVATION FOOTING ELEVATOR PIT AND SHORING	CY	15	30.00	444
EXCAVATION FOOTING ELEVATOR LOBBY	CY	42	15.00	625
EXCAVATION FOOTING NEW STAIR	CY	17	15.00	256
BACKFILL	CY	15	25.00	375
STONE UNDER SLAB 9"	CY	17	40.00	667
HAUL OFF SITE	CY	30	25.00	750
MISC PADS	LS	1	750.00	750
TRADE CODE (32320) SUB-TOTAL=				5,442
<u>321300 - CONCRETE PAVING</u>				
CONCRETE PAVING AT NEW STAIR & ELEVATOR	SF	0	6.50	0
TRADE CODE (321300) SUB-TOTAL=				0
<u>322000 - ASPHALT PAVING</u>				
CURB CUT FOR NEW HC PARKING	LF	30	35.00	1,050
ASPHALT PAVING	SY	300	20.00	6,000
BUMPERS	EA	2	150.00	300
MARKINGS	LS	1	200.00	200
SIGNS	EA	5	200.00	1,000
TRADE CODE (322000) SUB-TOTAL=				8,550

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Date: 1 July 2014

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>330000 - UTILITIES</u>				
STORM DRAIN APPROX. 125 LF AND CB	LS	1	5,375.00	5,375
WATER LINE	LS	1	10,000.00	10,000
WATER LINE	LS	1	10,000.00	10,000
ELECTRICAL	LS	1	1,500.00	1,500
TRADE CODE (33000) SUB-TOTAL=				26,875
<u>50000 - CONTINGENCY</u>				
		%	15	101,926
TRADE CODE (50000) SUB-TOTAL=				101,900
<u>50500 - PERMITS</u>				
		%	1	3,398
TRADE CODE (50500) SUB-TOTAL=				3,398
<u>55500 - STATE TAX</u>				
		%	0	0
TRADE CODE (55500) SUB-TOTAL=				0
<u>60000 - CONSTRUCTION FEE</u>				
		%	5	42,100
TRADE CODE (60000) SUB-TOTAL=				42,100
<u>59000 - TOTAL</u>				
TRADE CODE (59000) TOTAL=				888,100

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation

Medium term 1st and 2nd floors

Town Hall - Phased access improvement and re-use study

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

DIVISION SUMMARY

Date: 1 July 2014

		GROSS SF :	18,650
DIVISION		AMOUNT	COST / SF
1 - GENERAL CONDITIONS		\$109,440	\$30.66
2 - DEMOLITION		\$28,200	\$7.90
3 - CONCRETE		\$1,625	\$0.46
4 - MASONRY		\$271,329	\$76.00
5 - METALS		\$22,500	\$6.30
6 - CARPENTRY & MILLWORK		\$62,500	\$17.51
7 - THERMAL / MOISTURE PROTECTION		\$20,950	\$5.87
8 - DOORS & WINDOWS		\$104,600	\$29.30
9 - FINISHES		\$341,150	\$95.56
10 - SPECIALTIES		\$8,375	\$2.35
11 - EQUIPMENT		\$0	\$0.00
12 - FURNISHINGS		\$0	\$0.00
13 - SPECIAL CONSTRUCTION		\$0	\$0.00
14 - CONVEYING SYSTEMS		\$0	\$0.00
23 - MECHANICAL			
	FIRE PROTECTION	\$4,848	\$1.36
	PLUMBING	\$66,000	\$18.49
	H.V.A.C.	\$138,500	\$38.80
25 - INTEGRATED AUTOMATION SYSTEM			
	INTEGRATED AUTOMATION SYSTEM	\$0	\$0.00
26 - ELECTRICAL		\$145,425	\$40.74
28 - ELECTRONIC SAFETY AND SECURITY		\$0	\$0.00
30 - EARTHWORK		\$0	\$0.00
50 - CONTINGENCIES			
	CONTINGENCY	\$182,400	\$51.09
	PERMITS	\$6,080	\$1.70
	TAXES	\$0	\$0.00
60 - FEE		\$75,400	\$21.12
TOTAL		<u>\$1,589,300</u>	<u>\$445.18</u>

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation

Medium term 1st and 2nd floors

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>01100 - GENERAL REQUIREMENTS</u>				
GENERAL CONDITIONS	%	9		109,440
TRADE CODE (01000) SUB-TOTAL=				109,440
<u>02050 - DEMOLITION</u>				
GUT 1st FLOOR	SF	3,500	3.00	10,500
WALLS	LF	200	5.00	1,000
PREP FOR REMODEL OF 2nd FLOOR AUDITORIUM	SF	4,800	2.00	9,600
CUT CAP AND MAKE SAFE MEP's	LS	1	3,500.00	3,500
DUMPSTER 40 YARD	EA	8	450.00	3,600
TRADE CODE (02050) SUB-TOTAL=				28,200
<u>03300 - CONCRETE</u>				
	ELEVATOR:			
FOOTING 3x3x3 AT LALLY COLUMNS	EA	4	250.00	1,000
SLAB ON GRADE REPAIR	SF	25	25.00	625
TRADE CODE (03300) SUB-TOTAL=				1,625
<u>04200 - UNIT MASONRY</u>				
EXTERIOR REPAIR	LS	1	7,500.00	7,500
TRADE CODE (04200) SUB-TOTAL=				7,500

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation**Medium term 1st and 2nd floors**

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>04210 - MASONRY AND EXTERIOR RESTORATION</u>				
GENERAL REPOINTING OF FACADE	SF	25,700	2.00	51,400
FACADE CLEANING	SF	25,700	3.00	77,100
EXTERIOR RESTORATION	SF	25,700	3.00	77,100
CLOCK TOWER REPOINTING	SF	2,170	12.00	26,040
EXTERIOR WINDOW CAULKING	SF	6,168	3.50	21,588
PAINTING OF EXTERIOR WOOD WORK	SF	3,855	2.75	10,601
TRADE CODE (04210) SUB-TOTAL=				263,829
<u>05500 - METAL FABRICATIONS - MISC.</u>				
REINFORCE STRUCTURE UNDER NEW LAVS LALLY COLUMN AND STEEL BEAM	TON	5	4,500.00	22,500
TRADE CODE (05500) SUB-TOTAL=				22,500
<u>06100 - ROUGH CARPENTRY</u>				
INTERIOR PARTITION 2x4 - 1st FLOOR	LF	200	15.00	3,000
INTERIOR PARTITION EXISTING REWORKED 2nd FLOOR	LF	100	20.00	2,000
PERIMETER WALL 1st FLOOR	LF	260	20.00	5,200
PERIMETER WALL 2nd FLOOR	LF	260	20.00	5,200
FASTENERS AND HARDWARE	LS	1	2,500.00	2,500
BLOCKING	LF	1,200	3.00	3,600
TRADE CODE (06100) SUB-TOTAL=				21,500
<u>06200 - FINISH CARPENTRY</u>				
BATHROOM VANITY AND COUNTERTOP	LF	15	450.00	6,750
INSTALL DOORS, FRAMES, & HARDWARE - INTERIOR 1st FLC	EA	20	200.00	4,000
RESTORE WINDOWS	EA	40	600.00	24,000
RECEPTION COUNTER AND SHELVING	LS	1	6,250.00	6,250
TRADE CODE (06200) SUB-TOTAL=				41,000

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation

Medium term 1st and 2nd floors

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>.07120 - WATERPROOFING AND DAMPPROOFING</u>				
WATERPROOF LAV FLOORS	SF	500	3.50	1,750
TRADE CODE (07120) SUB-TOTAL=				1,750
<u>.07200 - THERMAL INSULATION</u>				
PERIMETER WALLS 1st AND 2nd FLOOR	SF	5,200	3.00	15,600
TRADE CODE (07200) SUB-TOTAL=				15,600
<u>.07300 - ROOFING AND ACCESSORIES</u>				
MISC PENETRATIONS FOR VENTS	EA	6	350.00	2,100
TRADE CODE (07300) SUB-TOTAL=				2,100
<u>.07900 - JOINT SEALER</u>				
DOORS	EA	20	75.00	1,500
TRADE CODE (07900) SUB-TOTAL=				1,500
<u>.08140 - WOOD DOORS - INTERIOR</u>				
CUSTOM WOOD DOOR AND FRAMES	EA	20	850.00	17,000
BORROWED LIGHT FRAME AND GLAZING	EA	8	750.00	6,000
TRADE CODE (08140) SUB-TOTAL=				23,000

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation**Medium term 1st and 2nd floors**

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>08305 - ACCESS DOORS</u>				
ACCESS DOOR ALLOWANCE	EA	6	100.00	600
TRADE CODE (08305) SUB-TOTAL=				600
<u>08700 - FINISH DOOR HARDWARE</u>				
HARDWARE SETS - INTERIOR SINGLE LOCKSETS	SET	20	350.00	7,000
TRADE CODE (08700) SUB-TOTAL=				7,000
<u>08910 - WINDOWS</u>				
REFURBISH WINDOWS	SF	40	350.00	14,000
STORM WINDOWS INTERIOR	SF	40	1,500.00	60,000
TRADE CODE (08910) SUB-TOTAL=				74,000
<u>09250 - GYPSUM WALLBOARD</u>				
PERIMETER WALL 1st FLOOR	SF	2,600	2.00	5,200
PERIMETER WALL 2nd FLOOR (SAY 1/2)	SF	2,600	2.00	5,200
INTERIOR GWB PARTITIONS w/ SOUND BLANKET	LF	350	72.00	25,200
GYPSUM CEILINGS AND FURRING 1st FLOOR	SF	5,100	4.50	22,950
PLASTER CEILINGS REPAIR 2nd FLOOR	SF	6,600	4.50	29,700
FIRST FLOOR CEILINGS	SF	5,100	5.00	25,500
TRADE CODE (09250) SUB-TOTAL=				113,750

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation**Medium term 1st and 2nd floors**

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>09300 - CERAMIC TILE</u>				
TILE FLOOR LAV	SF	500	45.00	22,500
TILE WALLS LAV	SF	1,000	45.00	45,000
TILE BASE LAV	LF	125	30.00	3,750
MARBLE THRESHOLD	EA	2	75.00	150
TRADE CODE (09300) SUB-TOTAL=				71,400
<u>09550 - WOOD FLOORING</u>				
1st FLOOR LOBBY	SF	5,100	10.00	51,000
2nd FLOOR AND STAGE	SF	5,100	10.00	51,000
TRADE CODE (09550) SUB-TOTAL=				102,000
<u>09900 - PAINTING</u>				
PREP AND PAINT WALLS	SF	6,000	2.00	12,000
PREP AND PAINT CEILINGS	SF	4,500	3.00	13,500
PAINT DOOR & FRAME - SINGLE	EA	20	175.00	3,500
PAINT / STAIN EXISTING WOOD TO REMAIN	LS	1	25,000.00	25,000
TRADE CODE (09900) SUB-TOTAL=				54,000
<u>10150 TOILET COMPARTMENTS</u>				
TOILET PARTITIONS	EA	6	350.00	2,100
TOILET PARTITIONS HC	EA	2	750.00	1,500
URINAL SCREENS	EA	2	200.00	400
TRADE CODE (10150) SUB-TOTAL=				4,000

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation

Medium term 1st and 2nd floors

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>10280 - TOILET AND BATH ACCESSORIES</u>				
TOILET PAPER DISPENSER	EA	7	75.00	525
HANDICAP GRAB BARS	SETS	2	350.00	700
SOAP DISH	EA	5	45.00	225
MIRROR UNITS	EA	5	550.00	2,750
ROBE HOOK	EA	7	25.00	175
TRADE CODE (10280) SUB-TOTAL=				4,375
<u>21130 - FIRE SUPPRESSION SPRINKLER SYSTEMS</u>				
FUTURE SPRINKLER ROOM	LS	1	0.00	0
SPRINKLER SYSTEM WET RENOVATE 1st, 2nd, 3rd FLOOR AN	SF	13,850	0.35	4,848
TRADE CODE (21130) SUB-TOTAL=				4,848
<u>22000 - PLUMBING</u>				
PIPING	LS	1	25,000.00	25,000
FIXTURE PLUMBED	EA	16	2,500.00	40,000
WATER HEATERS	EA	2	500.00	1,000
TRADE CODE (22000) SUB-TOTAL=				66,000
<u>23000 - HVAC</u>				
HEAT UNITS, BATHROOM FAN, KITCHEN EXHAUST	SF	13,850	10.00	138,500
TRADE CODE (23000) SUB-TOTAL=				138,500

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation

Medium term 1st and 2nd floors

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>26000 - ELECTRICAL</u>				
LIGHTING / POWER / SERVICE	SF	13,850	8.00	110,800
FIRE ALARM	LS	13,850	0.50	6,925
TELEPHONE / CATV	LS	13,850	2.00	27,700
TRADE CODE (26000) SUB-TOTAL=				145,425
<u>312000 - EARTHWORK</u>				
MISC PADS	LS		0.00	0
TRADE CODE (32320) SUB-TOTAL=				0
<u>321300 - CONCRETE PAVING</u>				
CONCRETE	SF		0.00	0
TRADE CODE (321300) SUB-TOTAL=				0
<u>322000 - ASPHALT PAVING</u>				
CURB CUT FOR NEW HC PARKING	LF		35.00	0
ASPHALT PAVING	SY		15.00	0
BUMPERS	EA		150.00	0
MARKINGS	LS		200.00	0
SIGNS	EA		200.00	0
TRADE CODE (322000) SUB-TOTAL=				0

DESIGN ESTIMATE

Phase 2 1st and 2nd Floor renovation

Medium term 1st and 2nd floors

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>330000 - UTILITIES</u>				
BRING INTO BUILDING :				
WATER (MOVE FIRE LINE ? WATER LINE?)	LS			0
ELECTRICAL	LS			0
SANITARY NEW	LS		0.00	0
TRADE CODE (33000) SUB-TOTAL=				0
<u>50000 - CONTINGENCY</u>				
	%	15		182,400
TRADE CODE (50000) SUB-TOTAL=				182,400
<u>50500 - PERMITS</u>				
	%	1		6,080
TRADE CODE (50500) SUB-TOTAL=				6,080
<u>55500 - STATE TAX</u>				
	%	0		0
TRADE CODE (55500) SUB-TOTAL=				0
<u>60000 - CONSTRUCTION FEE</u>				
	%	5		75,400
TRADE CODE (60000) SUB-TOTAL=				75,400
<u>59000 - TOTAL</u>				1,589,300
TRADE CODE (59000) TOTAL=				<u>1,589,300</u>

DESIGN ESTIMATE

Phase 3 Basement

Long term basement renovations

Town Hall - Phased access improvement and re-use study

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

DIVISION SUMMARY

Date: 1 July 2014

	GROSS SF :	4,800
DIVISION	AMOUNT	COST / SF
1 - GENERAL CONDITIONS	\$68,372	\$19.15
2 - DEMOLITION	\$46,400	\$13.00
3 - CONCRETE	\$56,601	\$15.85
4 - MASONRY	\$3,500	\$0.98
5 - METALS	\$79,250	\$22.20
6 - CARPENTRY & MILLWORK	\$45,935	\$12.87
7 - THERMAL / MOISTURE PROTECTION	\$218,025	\$61.07
8 - DOORS & WINDOWS	\$28,235	\$7.91
9 - FINISHES	\$135,031	\$37.82
10 - SPECIALTIES	\$3,135	\$0.88
11 - EQUIPMENT	\$0	\$0.00
12 - FURNISHINGS	\$0	\$0.00
13 - SPECIAL CONSTRUCTION	\$0	\$0.00
14 - CONVEYING SYSTEMS	\$0	\$0.00
23 - MECHANICAL		
FIRE PROTECTION	\$14,400	\$4.03
PLUMBING	\$25,000	\$7.00
H.V.A.C.	\$48,000	\$13.45
25 - INTEGRATED AUTOMATION SYSTEM		
INTEGRATED AUTOMATION SYSTEM	\$0	\$0.00
26 - ELECTRICAL	\$27,200	\$7.62
28 - ELECTRONIC SAFETY AND SECURITY	\$0	\$0.00
30 - EARTHWORK	\$18,526	\$5.19
50 - CONTINGENCIES		
CONTINGENCY	\$189,900	\$53.19
PERMITS	\$3,798	\$1.06
TAXES	\$0	\$0.00
60 - FEE	\$50,900	\$14.26
TOTAL	<u>\$1,072,700</u>	<u>\$297.54</u>

DESIGN ESTIMATE

Phase 3 Basement

Long term basement renovations

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>01100 - GENERAL REQUIREMENTS</u>				
GENERAL CONDITIONS	%	9		68,372
TRADE CODE (01000) SUB-TOTAL=				68,372
 <u>02050 - DEMOLITION</u>				
GUT BASEMENT	SF	4,800	3.00	14,400
WALLS	LF	250	5.00	1,250
CUT CAP AND MAKE SAFE MEP's (AND DEMO)	LS	1	5,500.00	5,500
DEMO WALL AT NEW WINDOW OPENING	EA	7	500.00	3,500
DEMO WALL AT NEW DOOR OPENING	EA	2	500.00	1,000
DEMO 1st FLOOR TO ACCOMMODATE NEW MONUMENTAL S	SF	325	50.00	16,250
DUMPSTER 40 YARD	EA	10	450.00	4,500
TRADE CODE (02050) SUB-TOTAL=				46,400
 <u>03300 - CONCRETE</u>				
EXISTING FLOOR:				
LEVEL CONCRETE FLOOR 1-1/2 " TO 8"	SF	4,800	4.00	19,200
SLAB ON GRADE REPAIR	SF	4,800	1.00	4,800
EXTERIOR RAMP AND WALKWAY				
FOOTING	LF	200	15.00	3,000
WALL 3-6 x12"x200	SF	700	14.43	10,101
SLAB ON GRADE	SF	900	15.00	13,500
NEW STAIR:				
RISERS	EA	12	500.00	6,000
TRADE CODE (03300) SUB-TOTAL=				56,601
 <u>04200 - UNIT MASONRY</u>				
EXTERIOR REPAIR OPENINGS	EA	10	325.00	3,250
TRADE CODE (04200) SUB-TOTAL=				3,250

DESIGN ESTIMATE

Phase 3 Basement

Long term basement renovations

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>04210 - MASONRY AND EXTERIOR RESTORATION</u>				
INFILL AT EXISTING WINDOW	EA	1	250.00	250
TRADE CODE (04210) SUB-TOTAL=				250
<u>05500 - METAL FABRICATIONS - MISC.</u>				
RAILING AT EXTERIOR STAIR	LF	175	450.00	78,750
MISC. METAL	LS	1	500.00	500
TRADE CODE (05500) SUB-TOTAL=				79,250
<u>06100 - ROUGH CARPENTRY</u>				
PERIMETER WALL	LF	615	20.00	12,300
FASTENERS AND HARDWARE	LS	1	500.00	500
BLOCKING	LF	1,845	3.00	5,535
TRADE CODE (06100) SUB-TOTAL=				18,335
<u>06200 - FINISH CARPENTRY</u>				
MONUMENTAL STAIR BASEMENT TO 1st FLOOR	EA	1	22,000.00	22,000
BATHROOM VANITY AND COUNTERTOP	LF	3	450.00	1,350
INSTALL DOORS, FRAMES, & HARDWARE	EA	16	200.00	3,200
INSTALL WINDOWS	EA	7	150.00	1,050
TRADE CODE (06200) SUB-TOTAL=				27,600
<u>07120 - WATERPROOFING AND DAMPPROOFING</u>				
BASEMENT WATERPROOFING	SF	4,800	10.00	48,000
TRADE CODE (07120) SUB-TOTAL=				48,000

DESIGN ESTIMATE

Phase 3 Basement**Long term basement renovations**

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>07200 - THERMAL INSULATION</u>				
PERIMETER WALL	SF	6,150	3.00	18,450
TRADE CODE (07200) SUB-TOTAL=				18,450
<u>07300 - ROOFING AND ACCESSORIES</u>				
ROOF AND STRUCTURE AT SENIOR CENTER	SF	1,000	150.00	150,000
MISC PENETRATIONS FOR VENTS	EA	3	450.00	1,350
TRADE CODE (07300) SUB-TOTAL=				151,350
<u>07900 - JOINT SEALER</u>				
DOORS	EA	3	75.00	225
TRADE CODE (07900) SUB-TOTAL=				225
<u>08110 - HOLLOW METAL FRAMES</u>				
HOLLOW METAL FRAME EXTERIOR	EA	2	250.00	500
HOLLOW METAL FRAME INTERIOR	EA	14	250.00	3,500
BORROWED LIGHT FRAMES	EA	8	325.00	2,600
TRADE CODE (08110) SUB-TOTAL=				6,600
<u>08140 - WOOD DOORS - INTERIOR</u>				
SOLID CORE WOOD DOOR	EA	16	385.00	6,160
TRADE CODE (08140) SUB-TOTAL=				6,160

DESIGN ESTIMATE

Phase 3 Basement**Long term basement renovations**

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>08305 - ACCESS DOORS</u>				
ACCESS DOOR ALLOWANCE	EA	5	100.00	500
TRADE CODE (08305) SUB-TOTAL=				500
<u>08700 - FINISH DOOR HARDWARE</u>				
HARDWARE SETS - EXTERIOR SINGLE LOCKSETS	SET	2	750.00	1,500
HARDWARE SETS - INTERIOR SINGLE LOCKSETS	SET	14	350.00	4,900
TRADE CODE (08700) SUB-TOTAL=				6,400
<u>08910 - WINDOWS</u>				
WINDOWS (NEW)	EA	7	1,225.00	8,575
TRADE CODE (08910) SUB-TOTAL=				8,575
<u>09250 - GYPSUM WALLBOARD</u>				
PERIMETER WALL	SF	6,150	2.00	12,300
WALLS AT BASEMENT	LF	300	35.00	10,500
GYPSUM CEILINGS AND FURRING	SF	1,000	4.50	4,500
TRADE CODE (09250) SUB-TOTAL=				27,300
<u>09300 - CERAMIC TILE</u>				
TILE FLOOR LAV	SF	300	45.00	13,500
TILE WALLS LAV	SF	800	45.00	36,000
TILE BASE LAV	LF	100	30.00	3,000
MARBLE THRESHOLD	EA	4	75.00	300
TRADE CODE (09300) SUB-TOTAL=				52,800

DESIGN ESTIMATE

Phase 3 Basement

Long term basement renovations

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>.09500 - ACOUSTICAL CEILING</u>				
CEILINGS	SF	3,800	5.00	19,000
TRADE CODE (09500) SUB-TOTAL=				19,000
<u>.09650 - RESILIENT FLOORING</u>				
1st FLOOR	SF	1,000	10.00	10,000
TRADE CODE (09650) SUB-TOTAL=				10,000
<u>.09680 - CARPETING</u>				
1st FLOOR	SY	422	25.00	10,556
TRADE CODE (09550) SUB-TOTAL=				10,556
<u>.09900 - PAINTING</u>				
PAINT WALL PERIMETER	SF	6,150	0.50	3,075
PAINT WALLS MASONRY	SF	6,000	1.50	9,000
PAINT CEILINGS	SF	1,000	0.50	500
PAINT DOOR & FRAME - SINGLE	EA	16	175.00	2,800
TRADE CODE (09900) SUB-TOTAL=				15,375
<u>10280 - TOILET AND BATH ACCESSORIES</u>				
TOILET PAPER DISPENSER	EA	3	75.00	225
HANDICAP GRAB BARS	SETS	3	350.00	1,050
SOAP DISH	EA	3	45.00	135
MIRROR UNITS	EA	3	550.00	1,650
ROBE HOOK	EA	3	25.00	75
TRADE CODE (10280) SUB-TOTAL=				3,135

DESIGN ESTIMATE

Phase 3 Basement

Long term basement renovations

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>21130 - FIRE SUPPRESSION SPRINKLER SYSTEMS</u>				
SPRINKLER SYSTEM WET RENOVATE 1st, 2nd, 3rd FLOOR AN	SF	4,800	3.00	14,400
TRADE CODE (21130) SUB-TOTAL=				14,400
<u>22000 - PLUMBING</u>				
PIPING	LS	1	12,000.00	12,000
FIXTURE PLUMBED	EA	6	2,000.00	12,000
WATER HEATERS	EA	2	500.00	1,000
TRADE CODE (22000) SUB-TOTAL=				25,000
<u>23000 - HVAC</u>				
HEAT UNITS, BATHROOM FAN, KITCHEN EXHAUST	SF	4,800	10.00	48,000
TRADE CODE (23000) SUB-TOTAL=				48,000
<u>26000 - ELECTRICAL</u>				
LIGHTING / POWER / SERVICE	SF	4,800	4.00	19,200
FIRE ALARM	LS	1	6,500.00	6,500
TELEPHONE / CATV	LS	1	1,500.00	1,500
TRADE CODE (26000) SUB-TOTAL=				27,200

DESIGN ESTIMATE

Phase 3 Basement

Long term basement renovations

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>312000 - EARTHWORK</u>				
CLEAR AND GRUB	SY	139	1.75	243
GRADING	SY	139	1.00	139
EROSION CONTROL	LF	100	6.50	650
EXCAVATION FOOTING NEW STAIR AND RAMP	CY	17	7.00	119
BACKFILL	CY	15	25.00	375
STONE UNDER SLAB 9"	CY	25	40.00	1,000
HAUL OFF SITE	CY	10	25.00	250
MISC PADS	LS	1	750.00	750
TRADE CODE (32320) SUB-TOTAL=				3,526
<u>322000 - ASPHALT PAVING</u>				
ASPHALT PAVING	SY	333	30.00	10,000
PAVEMENT MARKINGS	LS	1	450.00	450
TRADE CODE (322000) SUB-TOTAL=				10,450
<u>330000 - UTILITIES</u>				
BRING INTO BUILDING :				
WATER (MOVE FIRE LINE ? WATER LINE?)	LS	1	5,000.00	5,000
ELECTRICAL	LS	1	5,000.00	5,000
SANITARY NEW	LS	1	5,000.00	5,000
TRADE CODE (33000) SUB-TOTAL=				15,000

DESIGN ESTIMATE

Phase 3 Basement

Long term basement renovations

Town Hall - Phased access improvement and re-use study

Date: 1 July 2014

6 Central Street - Brookfield, Massachusetts

Architect: Austin Design

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
<u>50000 - CONTINGENCY</u>	%	25		189,922
TRADE CODE (50000) SUB-TOTAL=				189,900
<u>50500 - PERMITS</u>	%	1		3,798
TRADE CODE (50500) SUB-TOTAL=				3,798
<u>55500 - STATE TAX</u>	%	0		0
TRADE CODE (55500) SUB-TOTAL=				0
<u>60000 - CONSTRUCTION FEE</u>	%	5		50,900
TRADE CODE (60000) SUB-TOTAL=				50,900
<u>59000 - TOTAL</u>				1,072,700
TRADE CODE (59000) TOTAL=				<u>1,072,700</u>

Study Drawings

June 1, 2014 rev. 7/1/2014



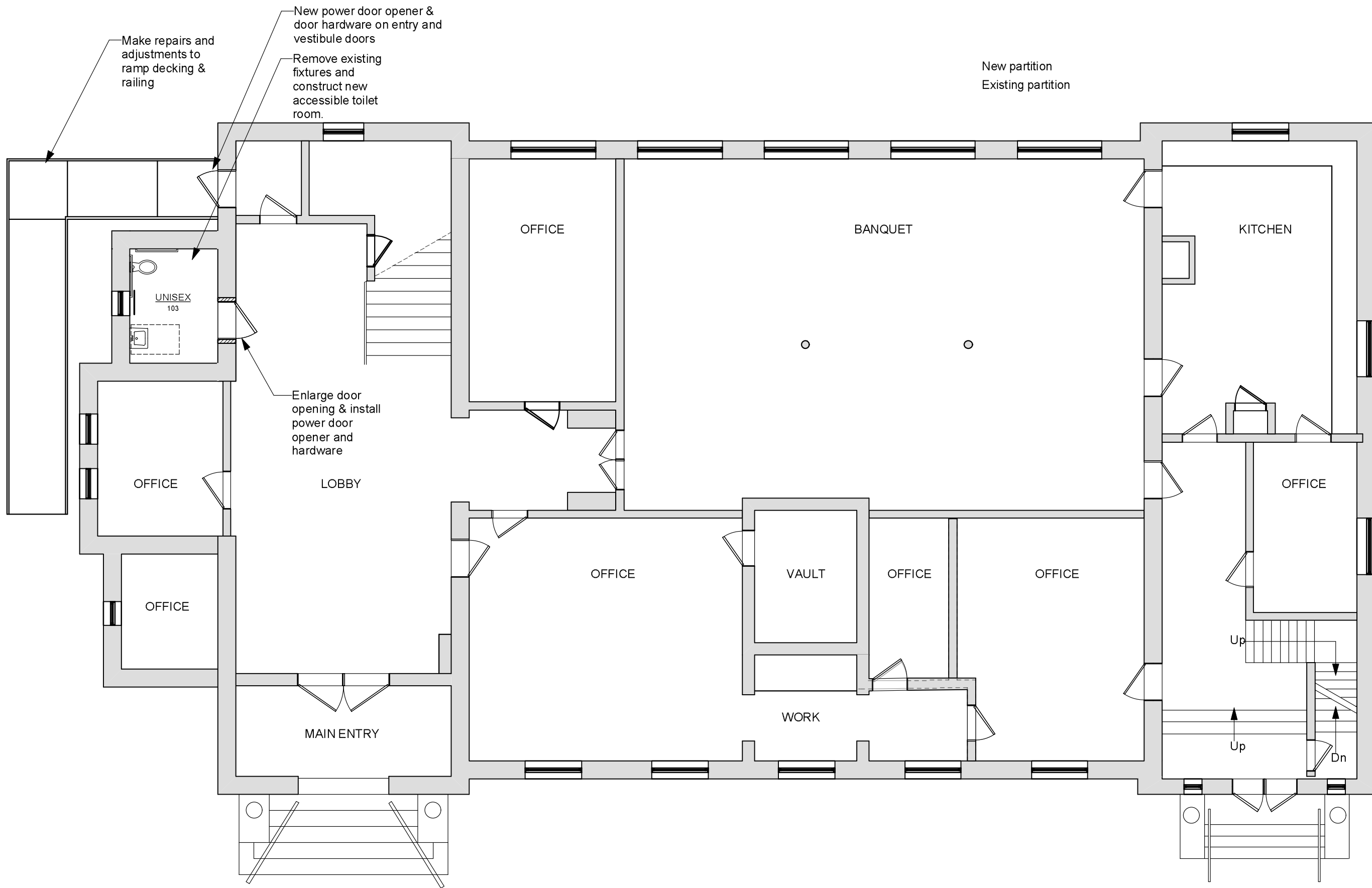
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 - 1.1 First Floor Plan
 - Phase 1.2 521CMR and IEBC Code Alterations
 - 1.2.X Site Plan
 - 1.2.0 Basement Floor Plan
 - 1.2.1 First Floor Plan
 - 1.2.2 Second Floor Plan
 - 1.2.3 Lobby Elevations
 - Phase 2 First and Second Floor Renovations
 - 2.1 First Floor Plan
 - 2.2 Second Floor Plan
 - 2.3 Exterior Elevation Photos
 - 2.4 Exterior Elevation Photos
 - 2.5 Exterior Elevation Photos
 - 2.6 Exterior Elevation Photos
 - Phase 3 Basement Level Renovations
 - 3.X Site Plan
 - 3.1 Basement Floor Plan

Brookfield Town Hall

Phased Access Improvements and Re-Use Study

Town of Brookfield
6 Central Street
Brookfield, MA 01506



**Phase 1.1:
Minimal
Access
Alterations**

Scale: As Shown

Date: June 1, 2014
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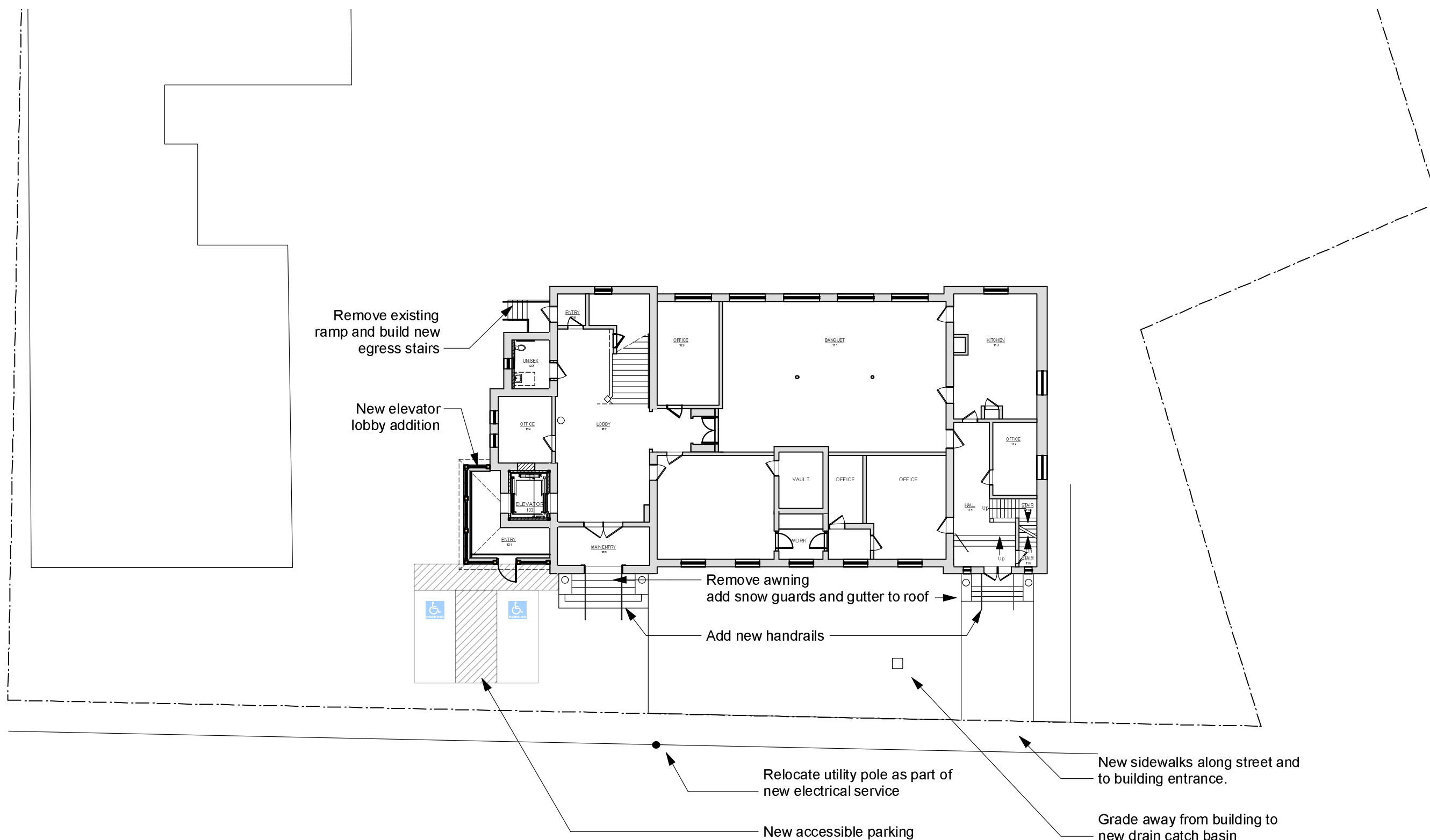
1 First Floor Plan
1.1 1/8" = 1' - 0"

1.1

Brookfield Town Hall

**Phased Access
Improvements and
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6 Central Street
Brookfield, MA 01506



**Phase 1.2:
521 CMR &
IEBC Code
Alterations**

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1 Site Layout
1.2.X Scale: 1" = 20 ft

1.2.X

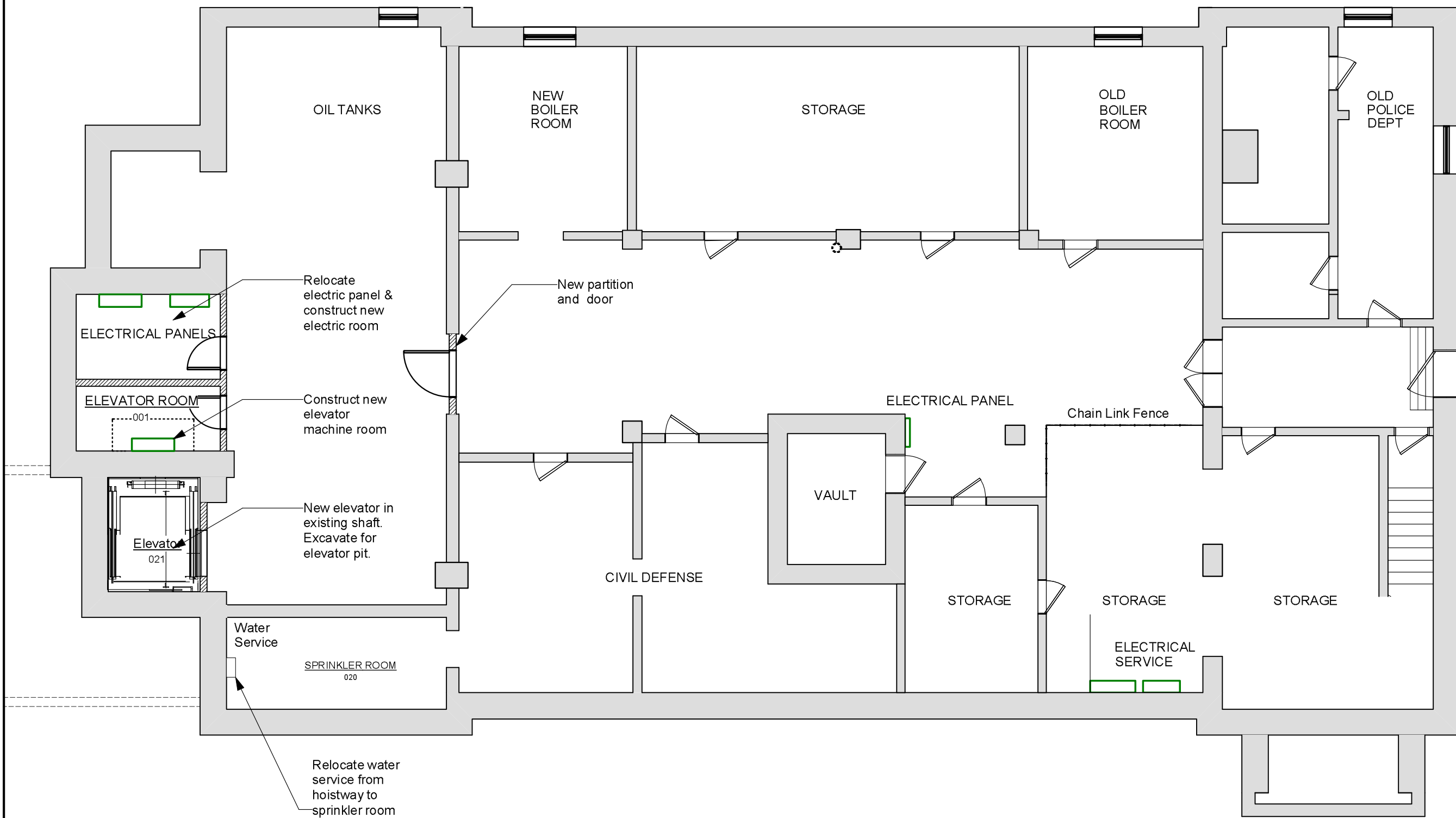
Brookfield Town Hall

**Phased Access
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Town of Brookfield
6 Central Street
Brookfield, MA 01506

Building code compliance work
a. Install a complete manual fire alarm system on all floors.
b. Install exit signs and egress illumination on all floors.
c. Install sprinkler full sprinkler system

RELOCATIONS:
021 - Water main to 220
002 - Electric panel shift to provide elevator room



**Phase 1.2:
521 CMR &
IEBC Code
Alterations**

Scale: As Shown
Date: June 1, 2014
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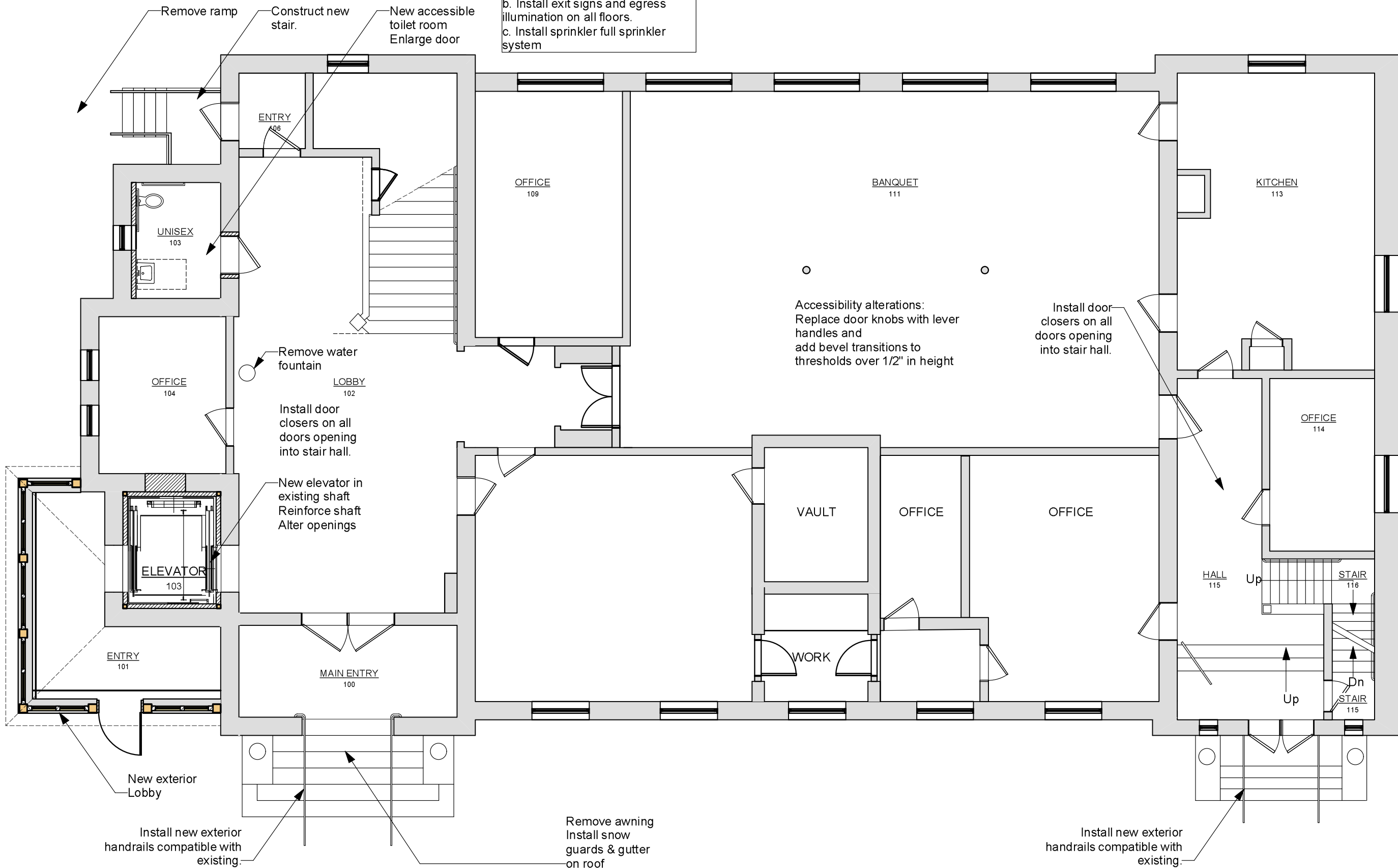
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1 Basement Floor Plan
1.2.0 1/8" = 1' - 0"

1.2.0

RELOCATIONS:
103 - Accountant

Building code compliance work
 a. Install a complete manual fire alarm system on all floors.
 b. Install exit signs and egress illumination on all floors.
 c. Install sprinkler full sprinkler system



**Phase 1.2:
521 CMR &
IEBC Code
Alterations**

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1.2.1

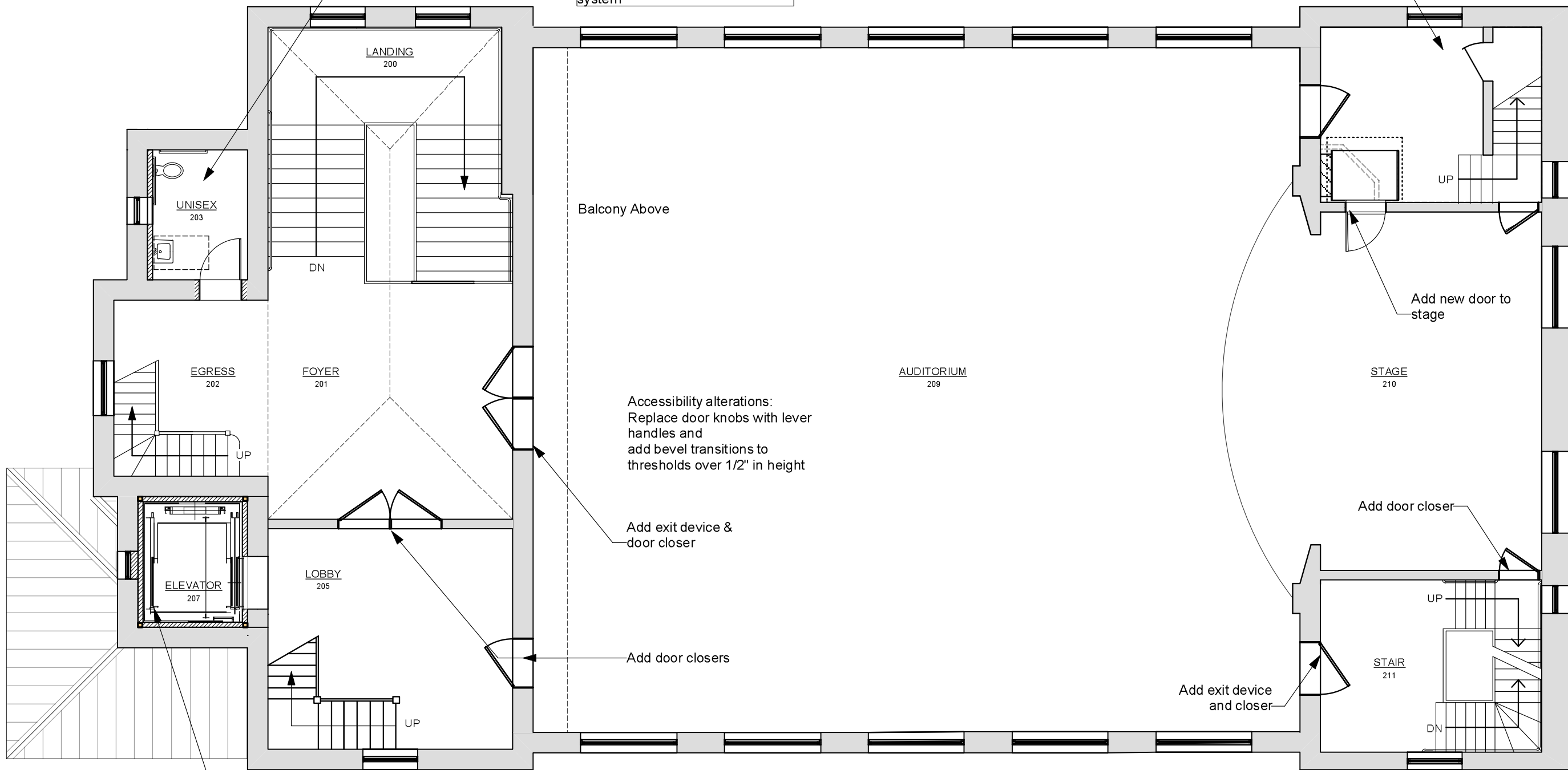
1 First Floor Plan
1.2.1 1/8" = 1' - 0"

RELOCATIONS:
203 - Storage

New accessible toilet room & water fountain
Enlarge door opening, new door and hardware

Building code compliance work
a. Install a complete manual fire alarm system on all floors.
b. Install exit signs and egress illumination on all floors.
c. Install sprinkler full sprinkler system

Restore toilet to functioning condition
Add lift to stage



New elevator & lobby

Balcony Above

Accessibility alterations:
Replace door knobs with lever handles and add bevel transitions to thresholds over 1/2" in height

Add exit device & door closer

Add door closers

Add exit device and closer

Add door closer

Add new door to stage



16 Call Rd
Colrain MA 01340
413 624 9669
413 624 9635 fax
office@austindesign.biz

Brookfield Town Hall

Phased Access Improvements and Re-Use Study

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Phase 1.2:
521 CMR &
IEBC Code
Alterations

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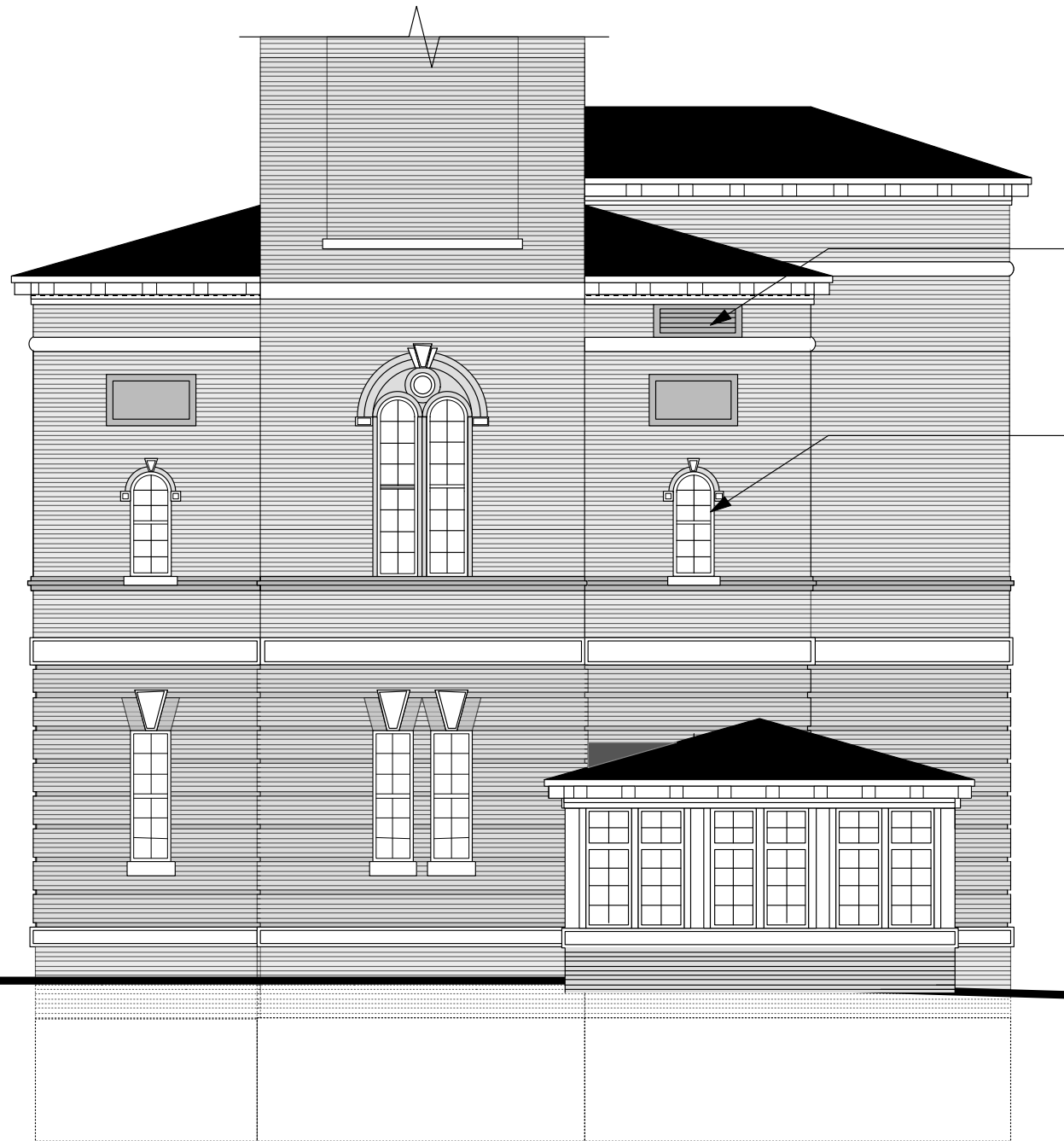
1 Second Floor Plan
1.2.2 1/8" = 1' - 0"

1.2.2

Brookfield Town Hall

Phased Access Improvements and Re-Use Study

Town of Brookfield
6 Central Street
Brookfield, MA 01506



2 West Elevation
1.2.3 1/8" = 1' - 0"

Elevator hoistway vent to mimic panel below

Window requires Infill to accept elevator. Treatment of exterior to maintain glazing and muntins

Standing seam metal or slate shingles.

Window muntins to match existing windows. Entry door to be monumental wood panel and glass

Painted timber or steel frame

Stone band to match existing building

Brick material, coursing and mortar to match existing building



1 South Elevation
1.2.3 1/8" = 1' - 0"



**Phase 1.2:
521 CMR &
IEBC Code
Alterations**

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1.2.3

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Phased Access Improvements and Re-Use Study

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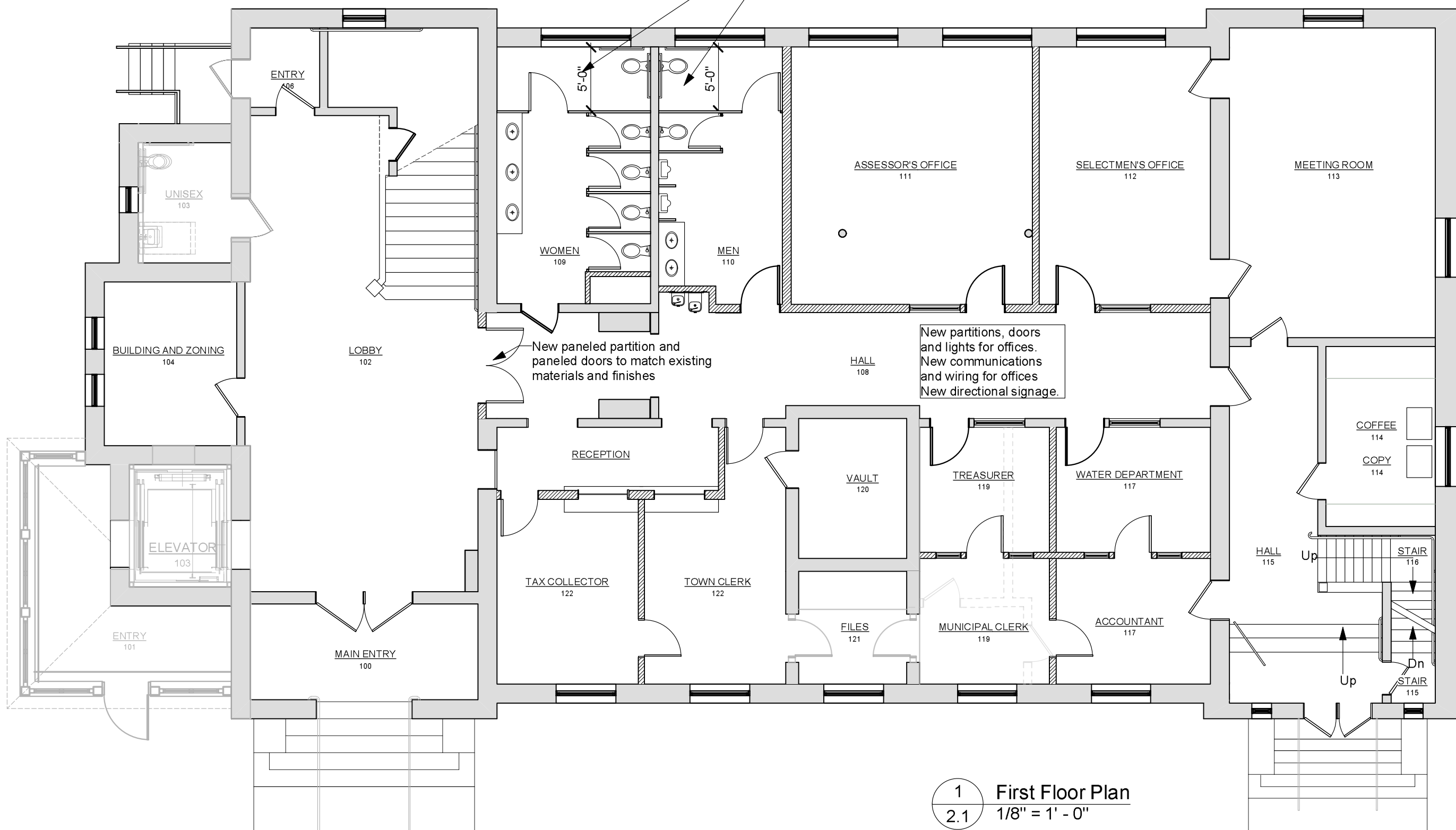
Modify building code compliance work as required by new partition layout.
a. Modify manual fire alarm system on all floors.
b. Modify exit signs and egress illumination on all floors.
c. Modify sprinkler piping and head locations

Update mechanical and electrical systems
a. Update plumbing systems
b. New boiler and radiation for first floor, with provisions for basement level
c. Update electrical systems

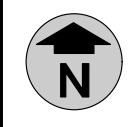
Perform energy improvements including insulation and westernization.

Construct new multi fixture accessible toilet rooms

 New partition
 Existing partition



1 First Floor Plan
2.1 1/8" = 1' - 0"



**Phase 2:
First and
Second Floor
Renovations**

Scale: As Shown

Date: June 1, 2014
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Brookfield Town Hall

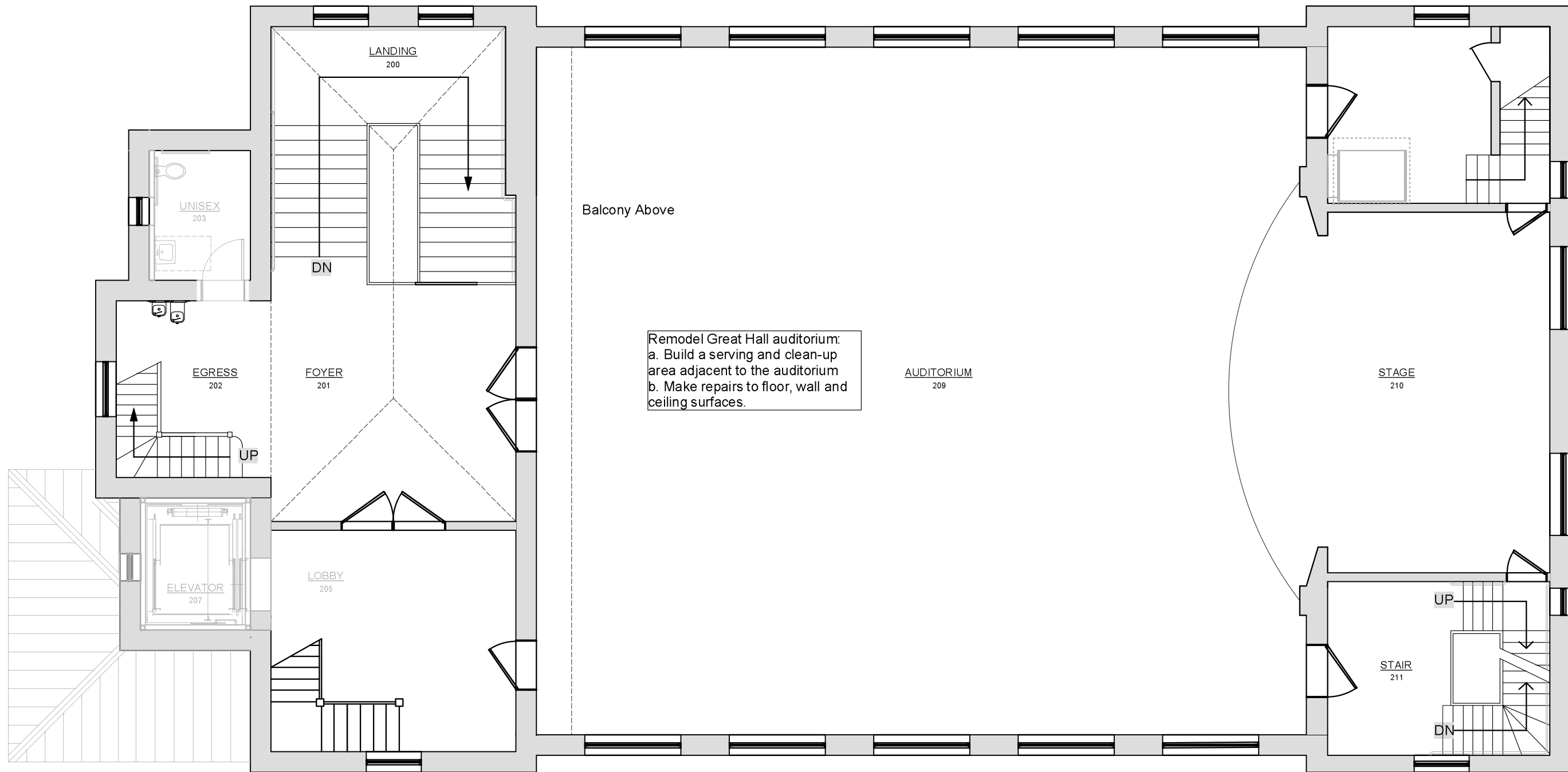
Phased Access Improvements and Re-Use Study

Town of Brookfield
6 Central Street
Brookfield, MA 01506

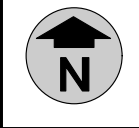
Modify building code compliance work as required by new partition layout.
a. Modify manual fire alarm system on all floors.
b. Modify exit signs and egress illumination on all floors.
c. Modify sprinkler piping and head locations

Update mechanical and electrical systems
a. Install new HVAC system to service the auditorium and second floor hall and service areas
b. Update electrical systems

Perform energy improvements including insulation and westernization.



Remodel Great Hall auditorium:
a. Build a serving and clean-up area adjacent to the auditorium
b. Make repairs to floor, wall and ceiling surfaces.



**Phase 2:
First and
Second Floor
Renovations**

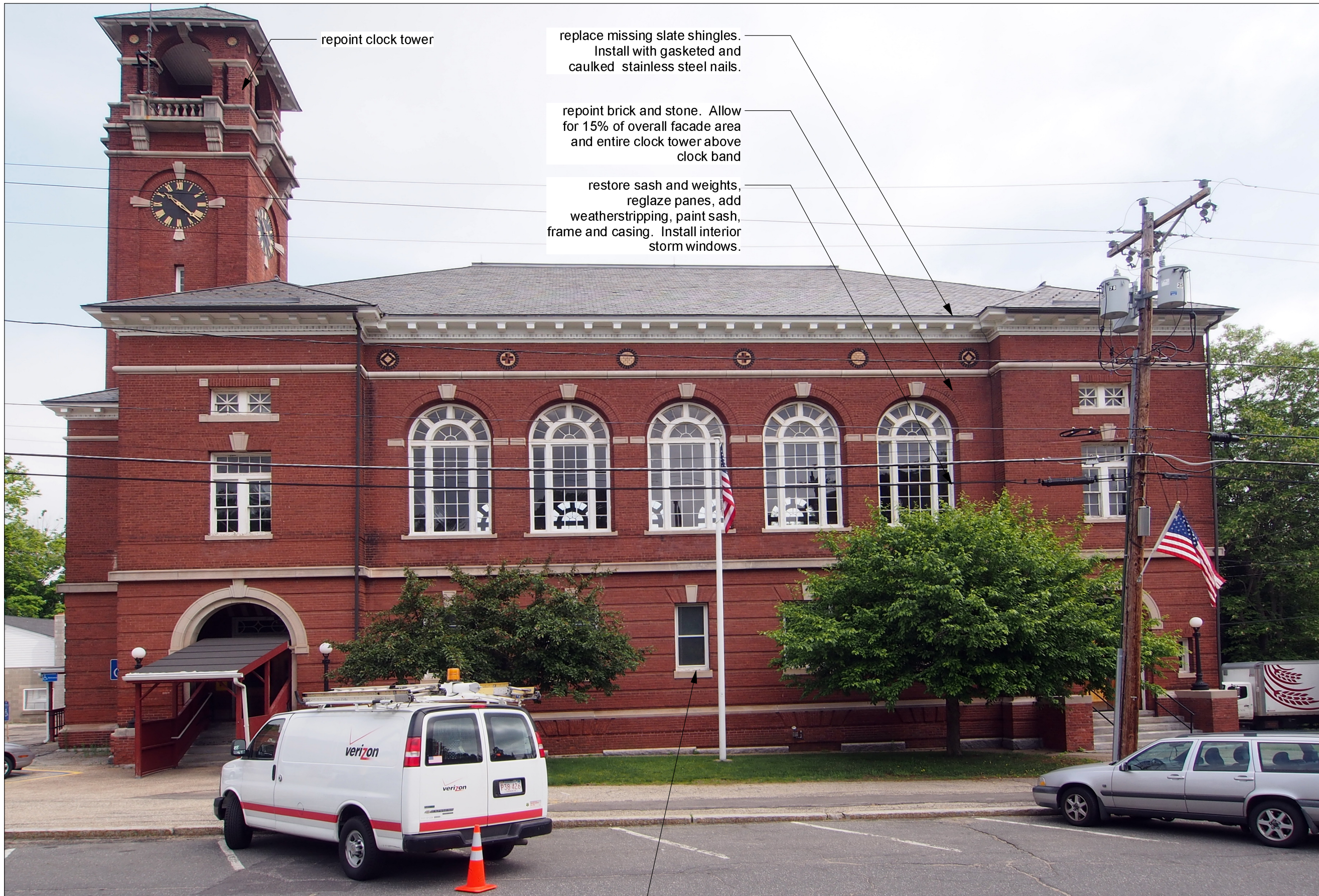
Scale: As Shown

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1 Second Floor Plan
2.2 1/8" = 1' - 0"

2.2



repoint clock tower

replace missing slate shingles.
Install with gasketed and
caulked stainless steel nails.

repoint brick and stone. Allow
for 15% of overall facade area
and entire clock tower above
clock band

restore sash and weights,
reglaze panes, add
weatherstripping, paint sash,
frame and casing. Install interior
storm windows.

remove existing storm windows,
restore sash as above and
install interior storm windows

1 Front, South Elevation
2.3 1/8" = 1' - 0"

Brookfield Town Hall

**Phased Access
Improvements and
Re-Use Study**

Town of Brookfield
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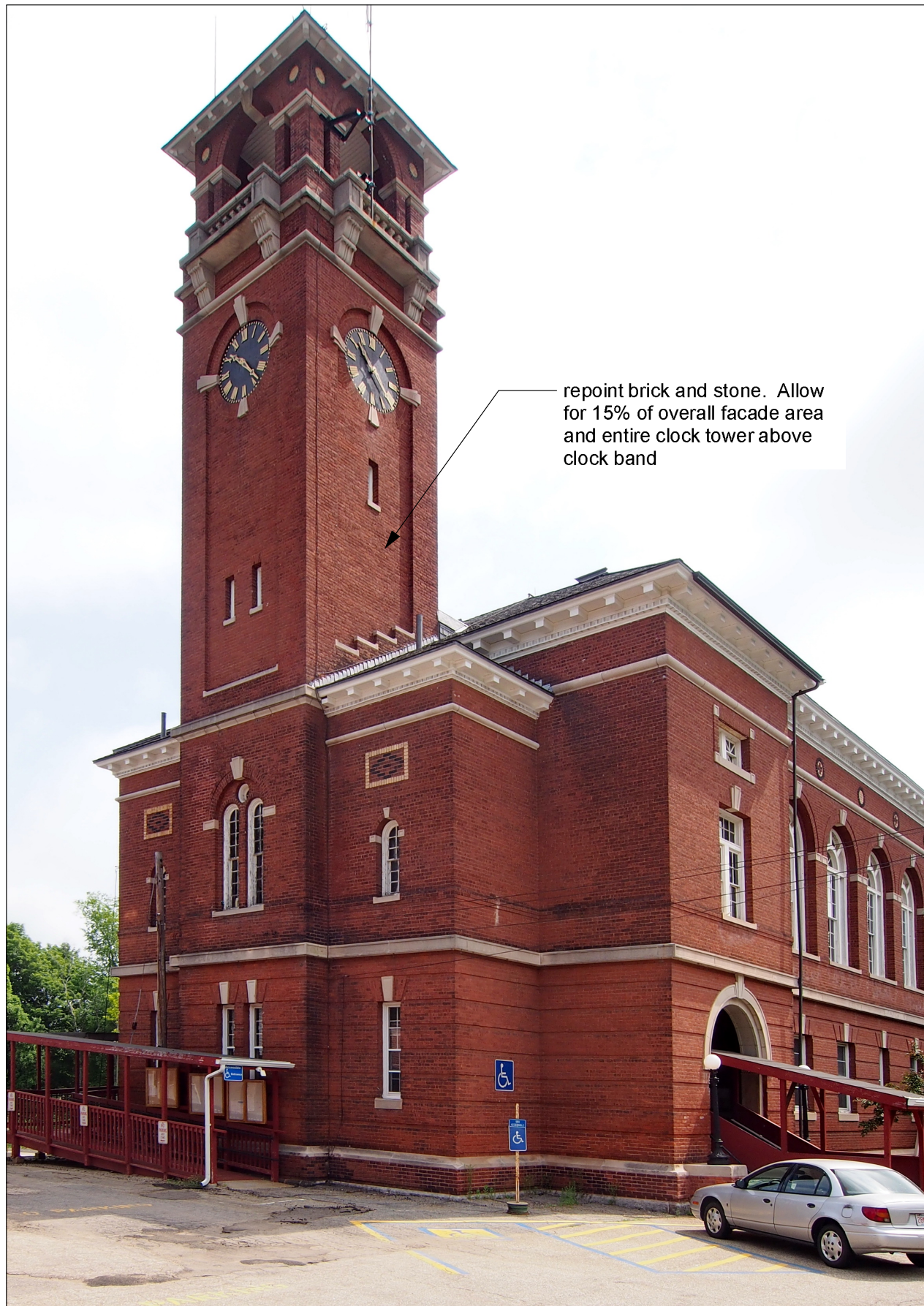
**Phase 2:
Exterior Repairs
and Restoration**

Scale: As Shown

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2.3



2 West End Elevation
2.4 1/8" = 1' - 0"



1 East End Elevation
2.4 1/8" = 1' - 0"

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Phased Access Improvements and Re-Use Study

Town of Brookfield
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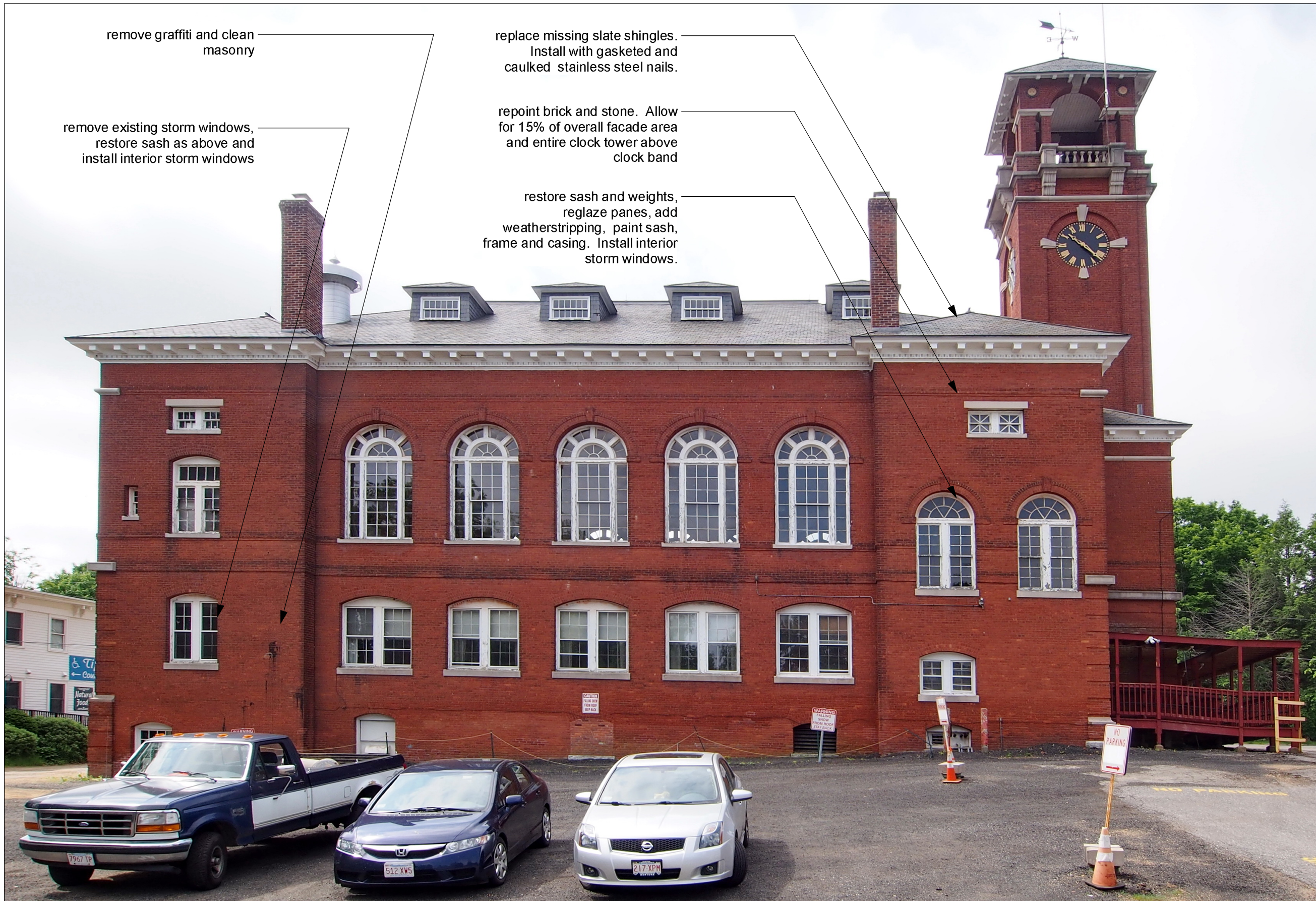


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Exterior Repairs
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Exterior Repairs
and Restoration**

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1 Rear, North Elevation
2.5 1/8" = 1' - 0"

2.5

Brookfield Town Hall

Phased Access Improvements and Re-Use Study

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**Phase 2:
Exterior Repairs
and Restoration**

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2.6

Repoint entire chimney

Repoint entire clock tower
above clock band
Caulk stone top joints

Repoint entire clock tower
above clock band.
Caulk stone top joints



2 West End Elevation
2.4 1/8" = 1' - 0"

1 Clock Tower Details
2.6 1/8" = 1' - 0"

Brookfield Town Hall

Phased Access Improvements and Re-Use Study

Town of Brookfield
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**Phase 3:
Basement Floor Renovations**

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Modify building code compliance works required by new partition layout.
a. Modify manual fire alarm system on all floors.
b. Modify exit signs and egress illumination on all floors.
c. Modify sprinkler piping and head locations

Update mechanical and electrical systems
a. Extend radiation and controls from new boiler to service the basement level.
b. Update electrical systems

Perform energy improvements including ceiling insulation and westernization.

Construct and independent accessible entrance to senior center at the Northeast corner of the building.
Steel framed hip roof to provide protection from snow and ice

Construct new stairs beneath the monumental stairs from the first floor to the basement level.

Build-out the interior to provide a finished accessible route from the elevator and new stairs at the West end to the senior center and egress exit at the east end.

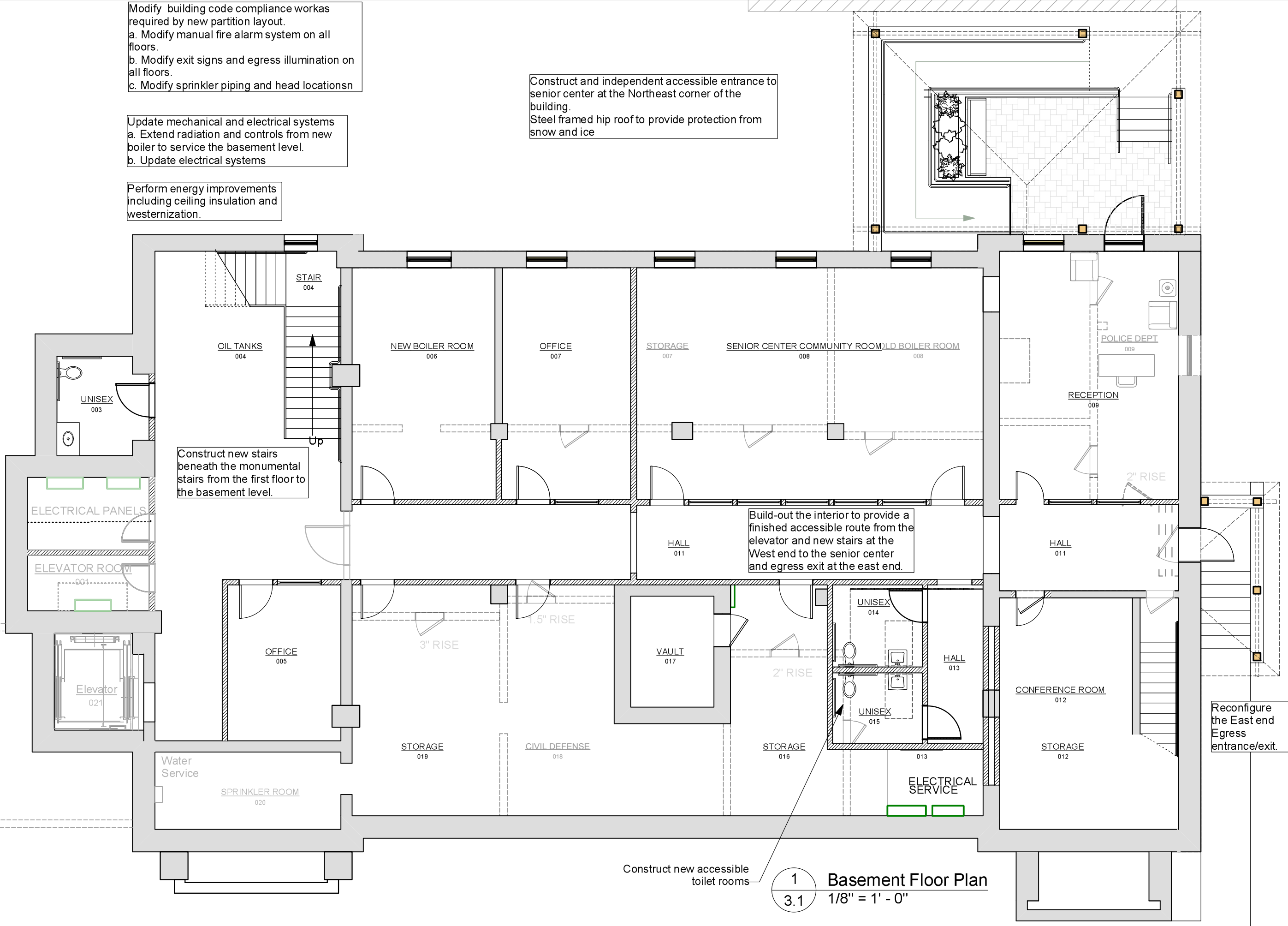
Reconfigure the East end Egress entrance/exit.

Construct new accessible toilet rooms

1
3.1

Basement Floor Plan

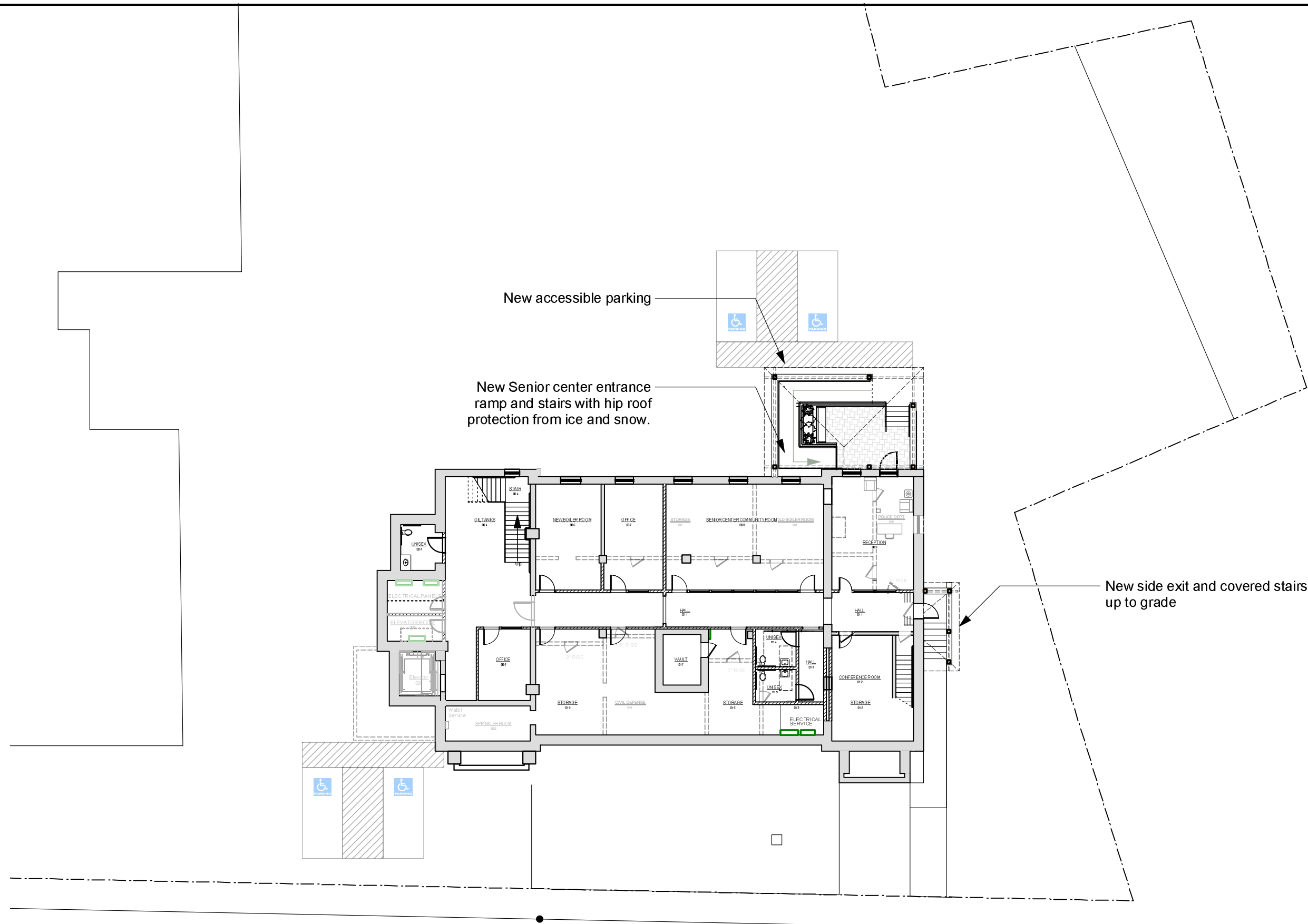
1/8" = 1' - 0"



Brookfield Town Hall

Phased Access Improvements and Re-Use Study

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New Senior center entrance ramp and stairs with hip roof protection from ice and snow.

New side exit and covered stairs up to grade



**Phase 3:
Basement
Renovations**

Scale: As Shown

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1 Site Layout
3.X Scale: 1" = 20 ft

3.X

**Town of Brookfield
Brookfield Town Hall**

**Planned Access Improvement and and Re-Use Study
6 Central Street, Brookfield, MA 01506**

Study Drawings

June 1, 2014 rev. 7/1/2014

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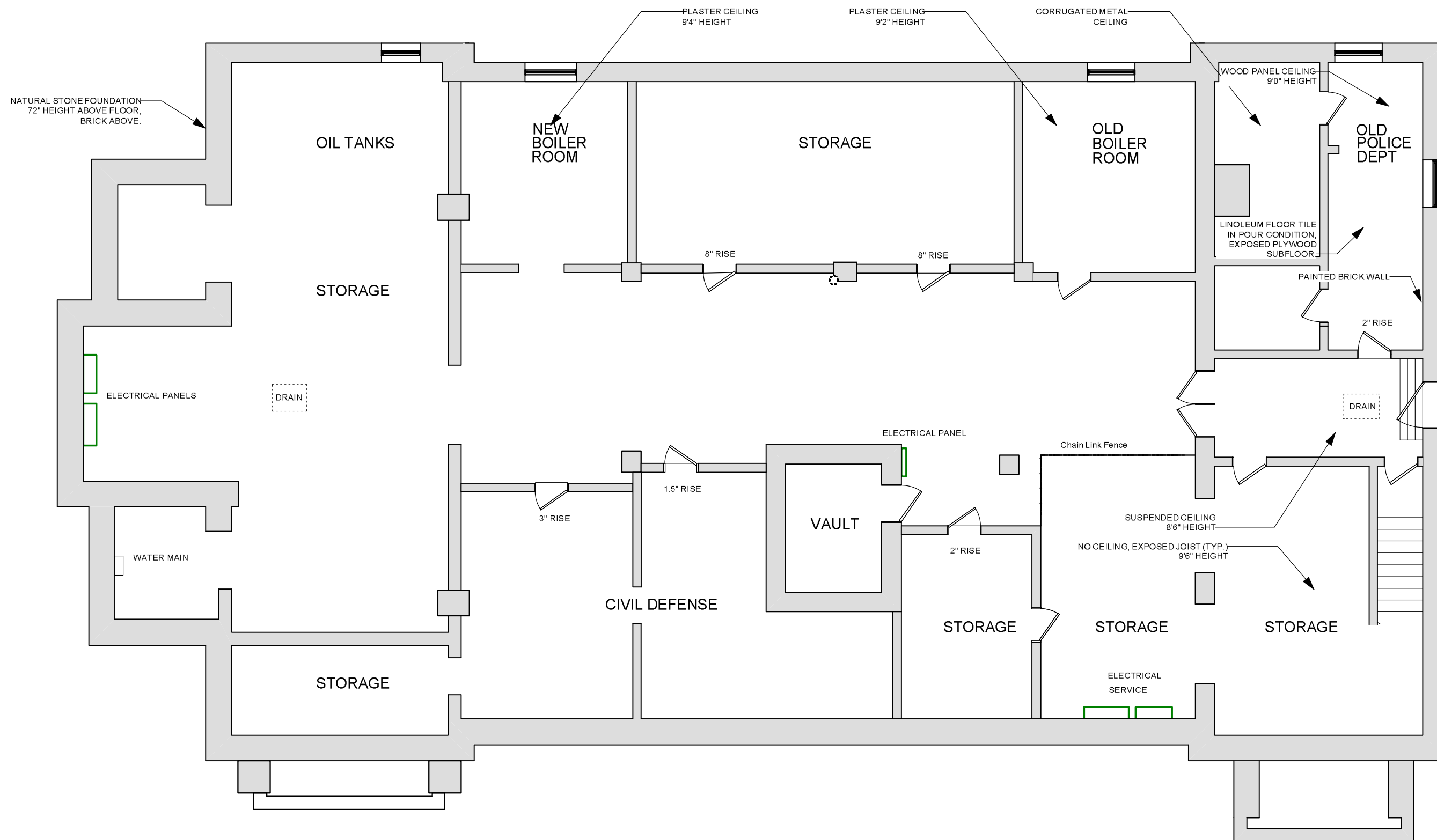
- Appendix C: Existing Floor Plans
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EX.1 Existing First Floor Plan
EX.2 Existing Second Floor Plan
EX.3 Existing Balcony Plan
EX.4 Existing Third Floor Plan
EX.5 Existing Roof Plan
EX.6 Existing Partial Elevations
EX.7 Existing Building Section
EX.8 Existing Site Plan



Brookfield Town Hall

Phased Access Improvements and Re-Use Study

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1 Existing Basement Plan
EX.0 Scale: 1/8" = 1'-0"

Scale: As Shown

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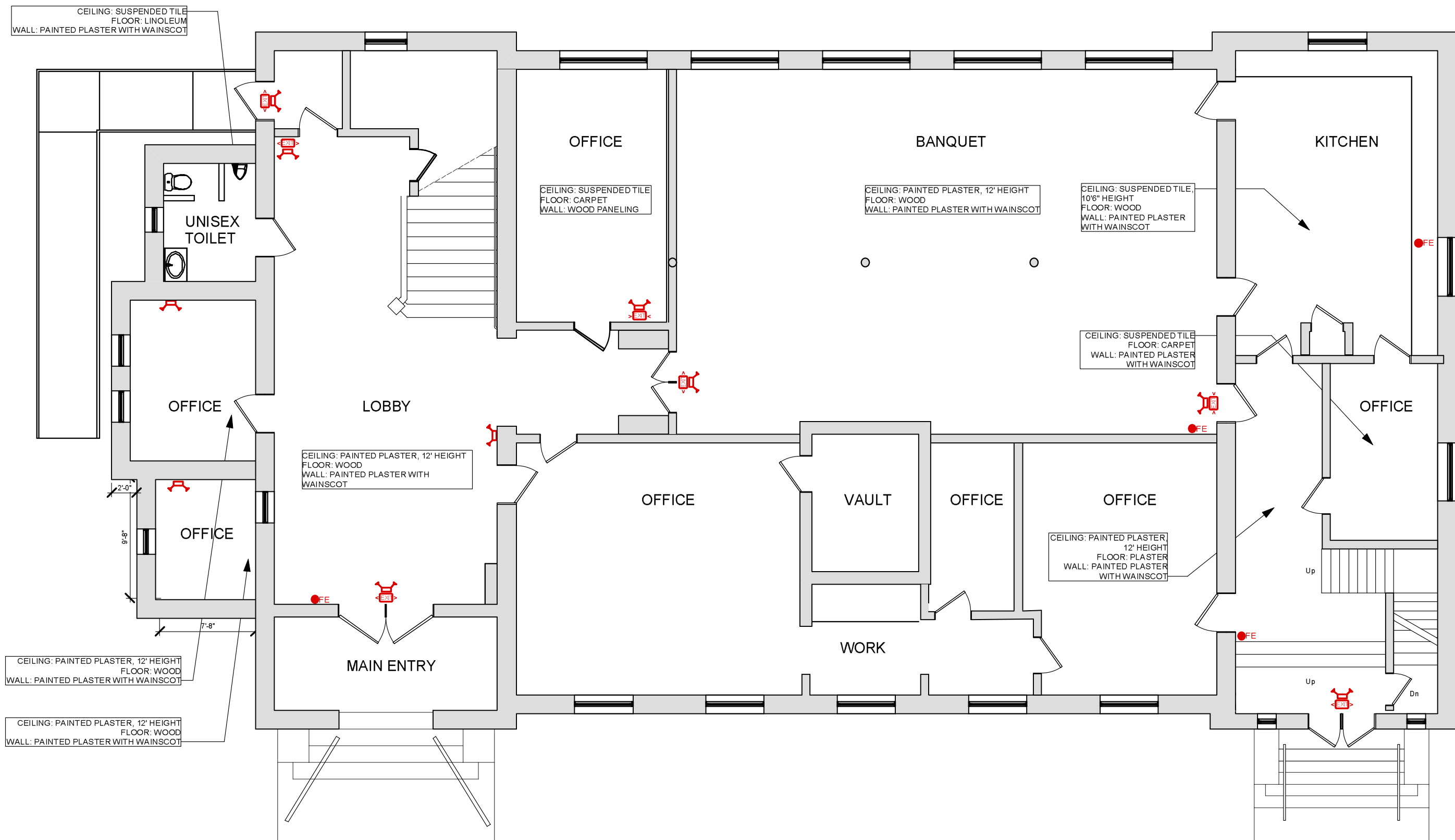
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EX.0

Brookfield Town Hall

Phased Access Improvements and Re-Use Study

Town of Brookfield
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Existing First Floor Plan

Scale: As Shown

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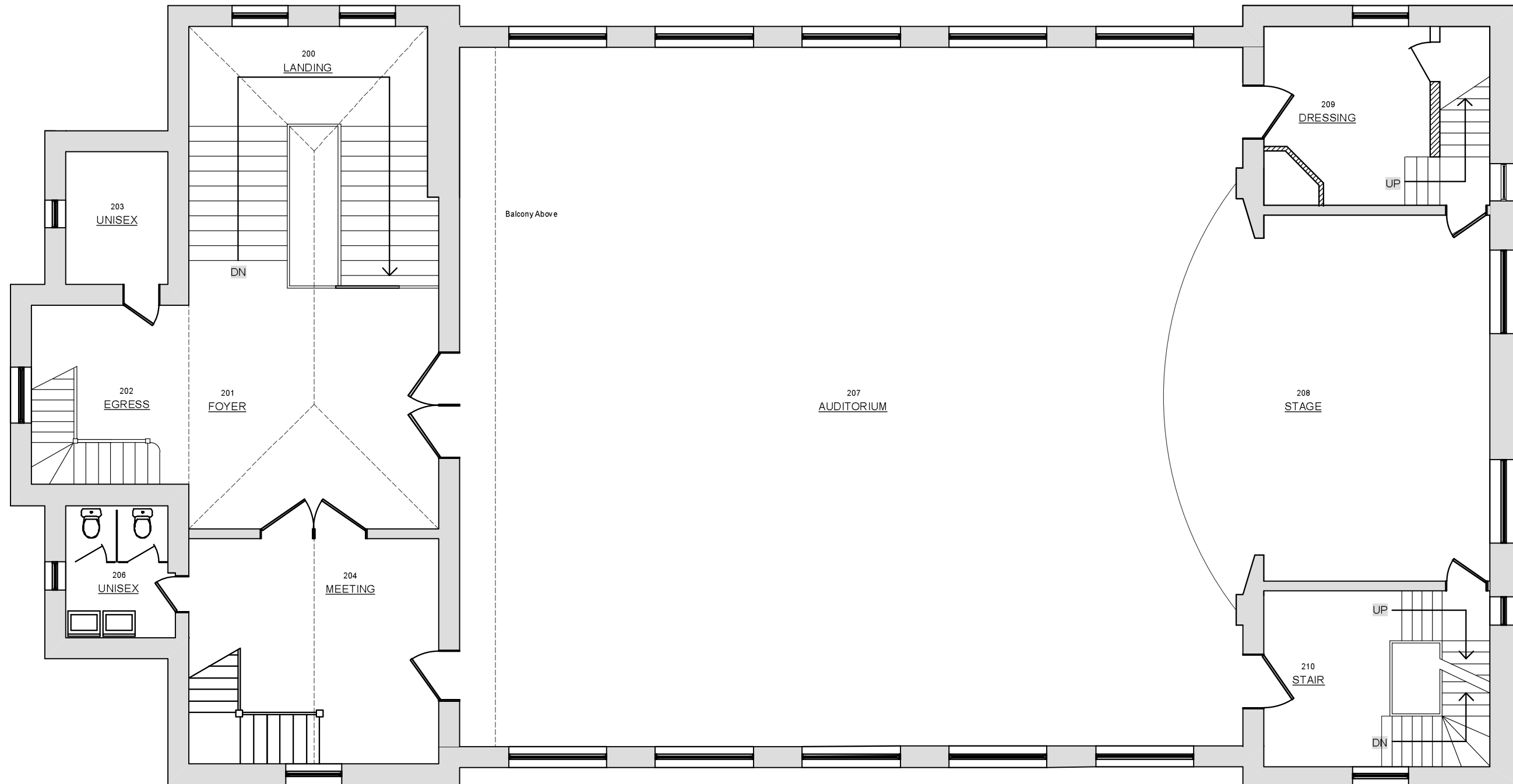
1 Existing First Floor Plan
EX.1 Scale: 1/8" = 1'-0"

EX.1

Brookfield Town Hall

**Phased Access
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6 Central Street
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**Existing
Second Floor
Plan**

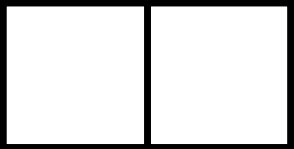
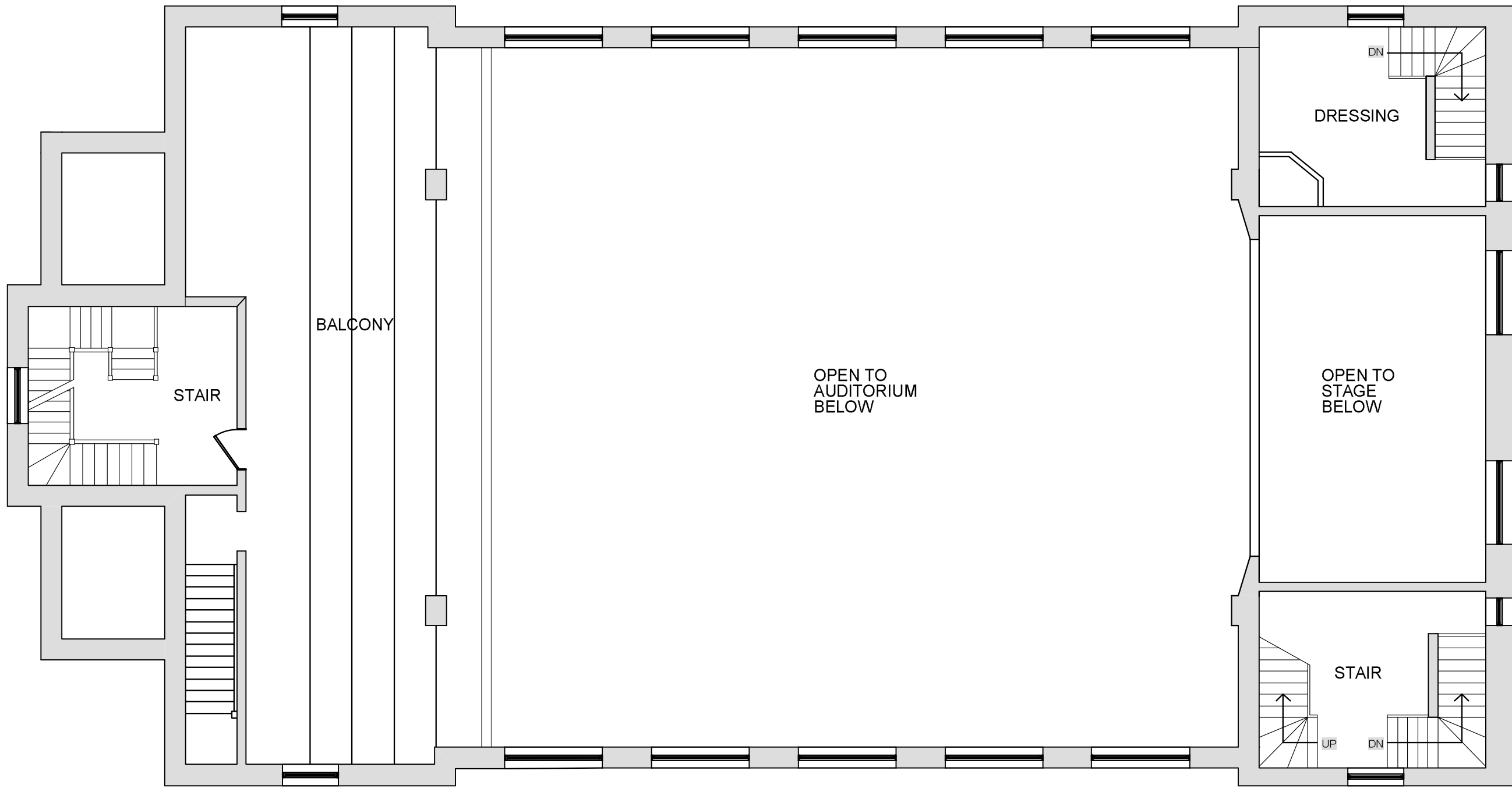
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1 Existing Second Floor Plan
EX.2 Scale: 1/8" = 1'-0"

EX.2



Existing
Balcony
Plan

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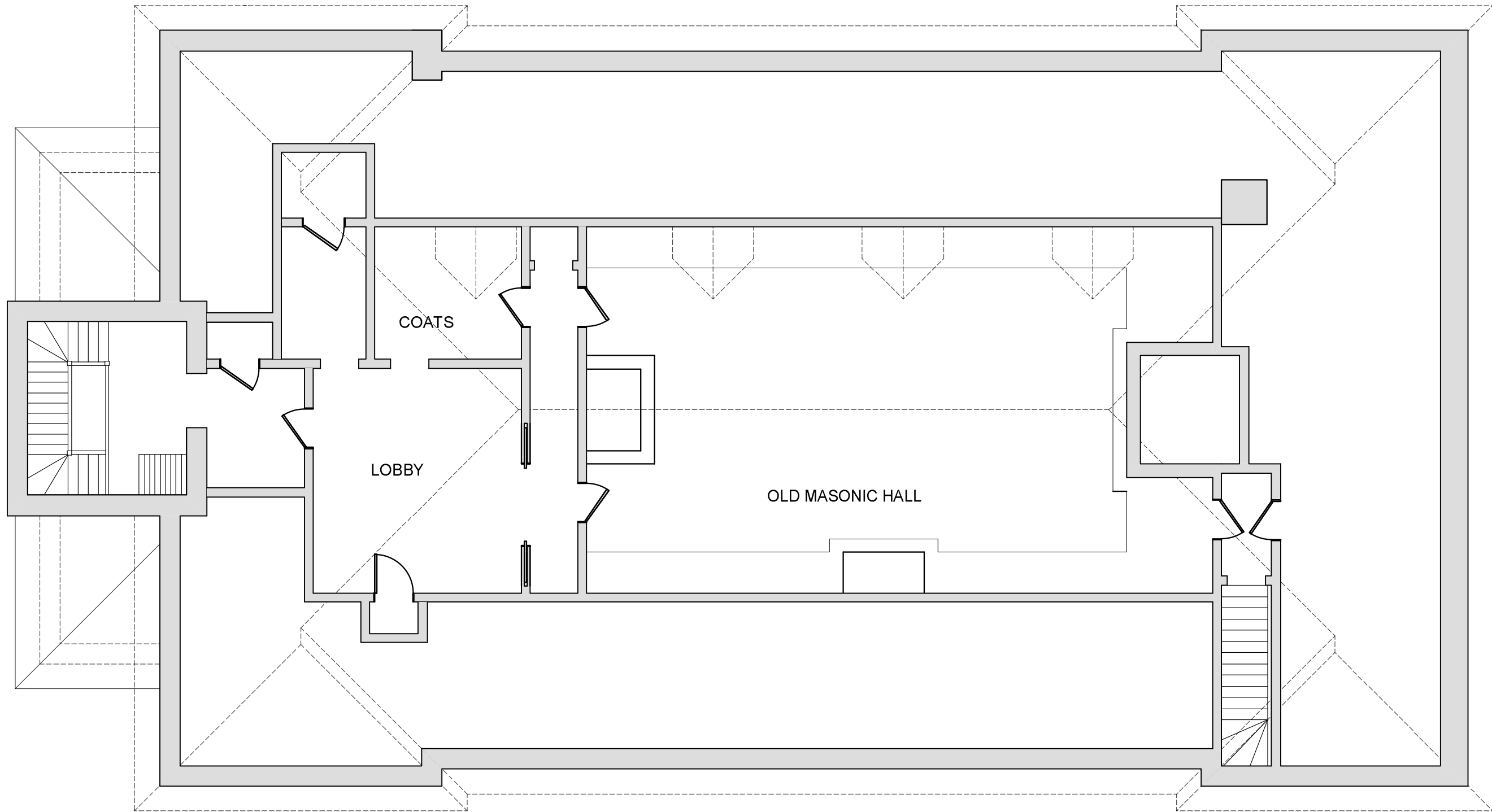
1 Existing Balcony Floor Plan
EX.3 Scale: 1/8" = 1'-0"

EX.3

Brookfield Town Hall

**Phased Access
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1 Existing Third Floor Plan
EX.4 Scale: 1/8" = 1'-0"

Existing Third
Floor
Plan

Scale: As Shown

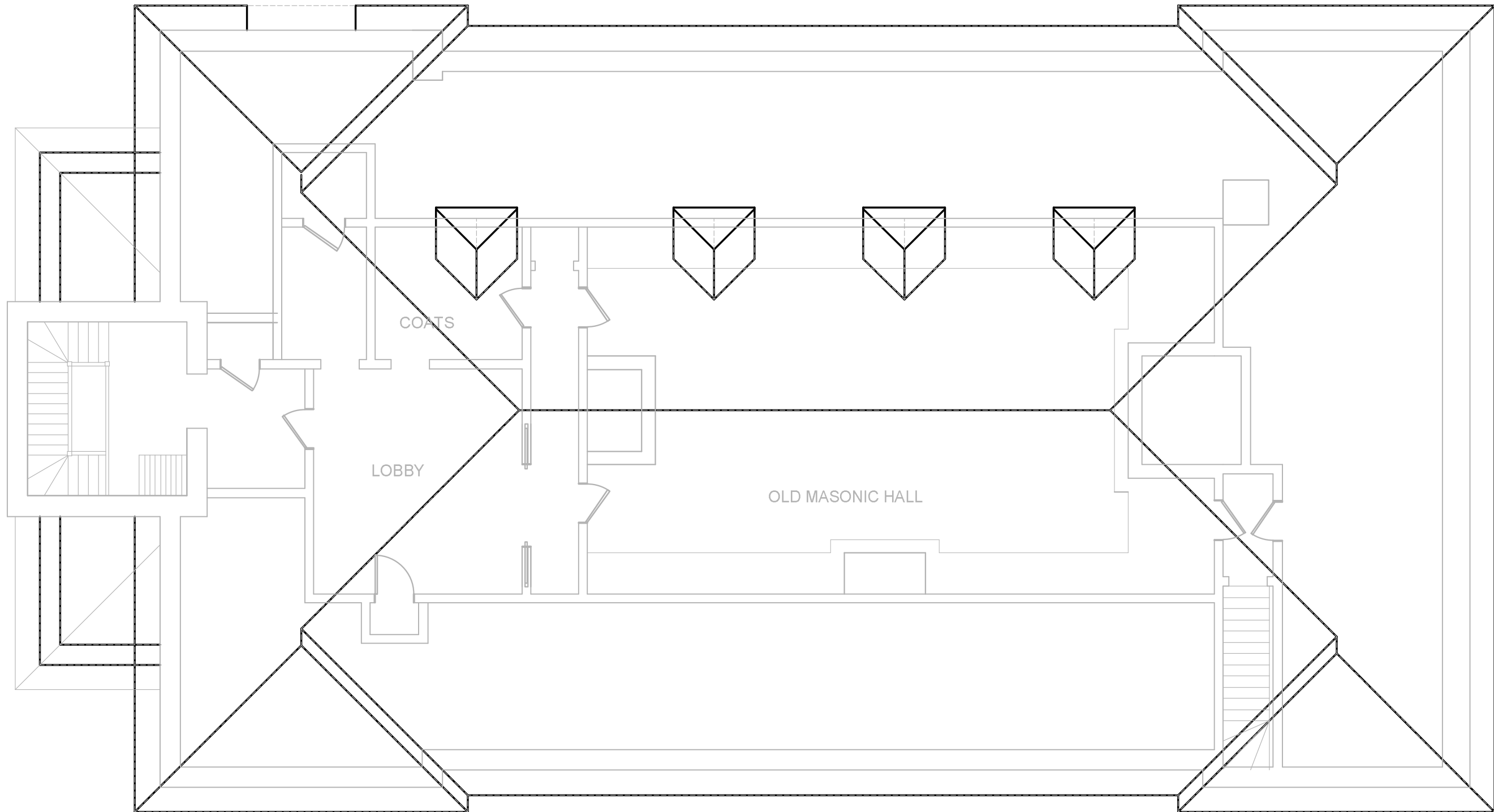
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EX.4

Brookfield Town Hall
**Phased Access
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Town of Brookfield
6 Central Street
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**Existing Roof
Plan**

Scale: As Shown

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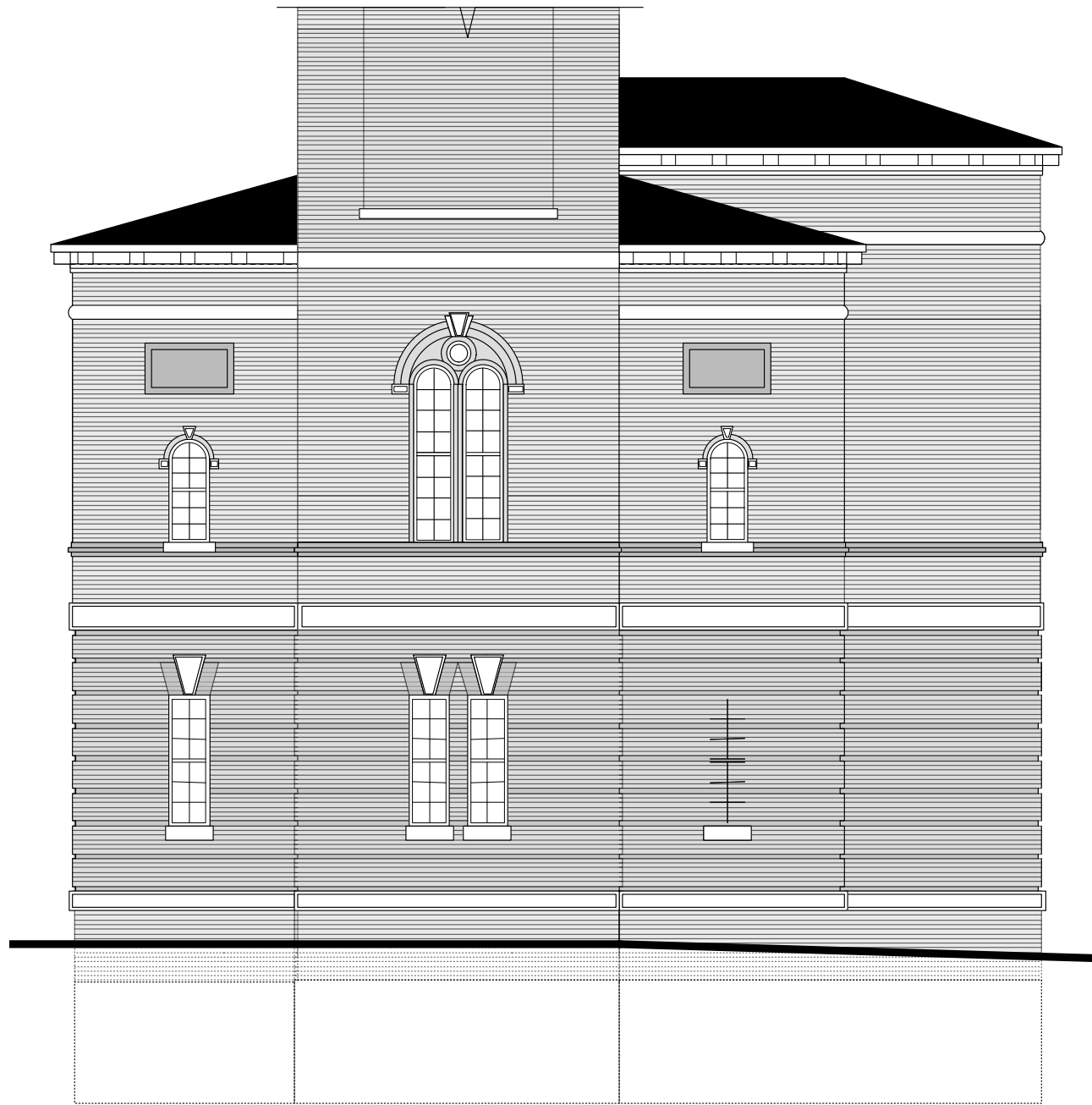
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1 Existing Roof Plan
EX.5 Scale: 1/8" = 1'-0"

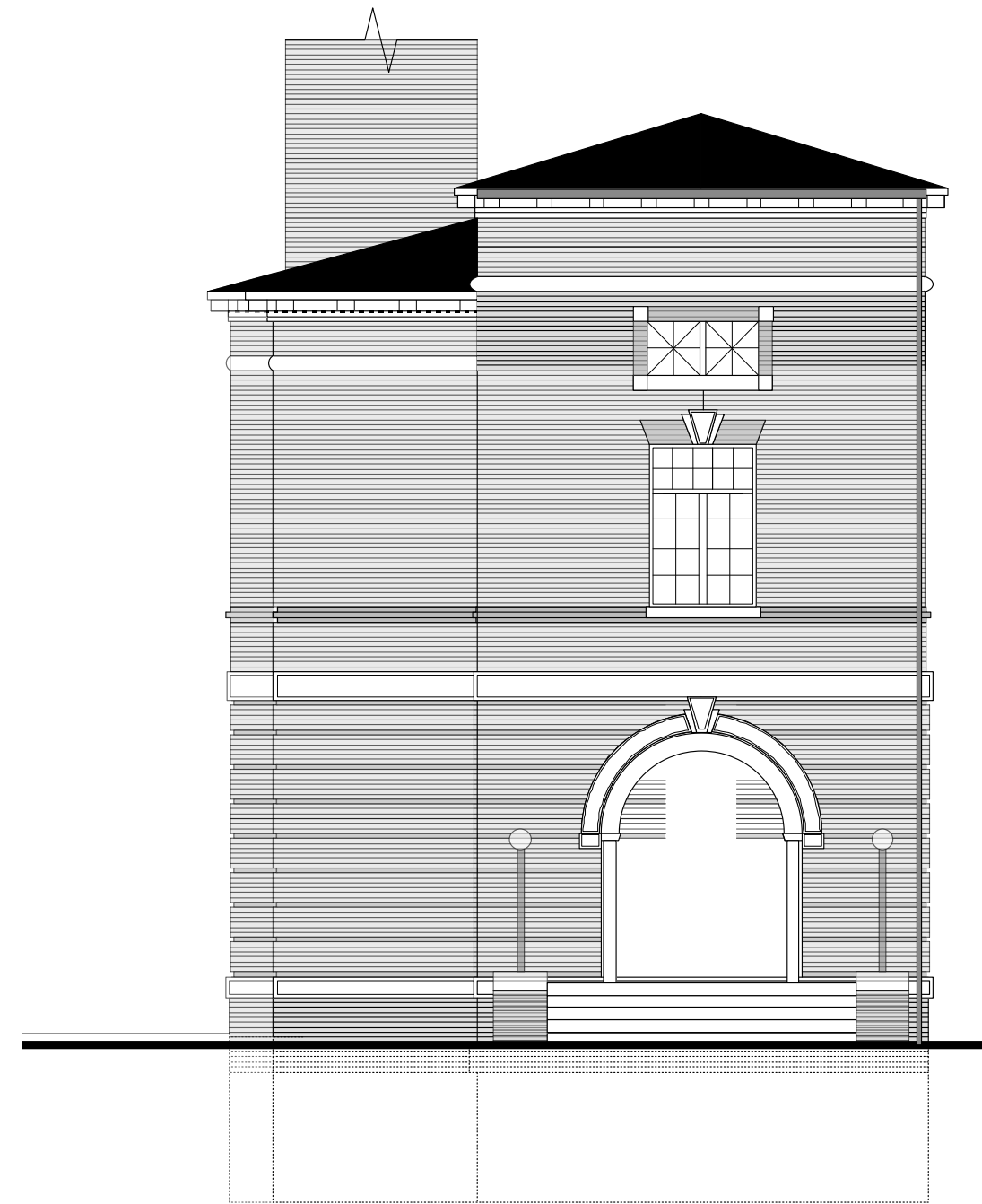
EX.5

Brookfield Town Hall
**Phased Access
Improvements and
Re-Use Study**

Town of Brookfield
6 Central Street
Brookfield, MA 01506



2 Existing West Part Elevation
EX.6 Scale: 1/8" = 1'-0"



1 Existing South Part Elevation
EX.6 Scale: 1/8" = 1'-0"

Existing
Partial
Elevations

Scale: As Shown

Date: June 1, 2014
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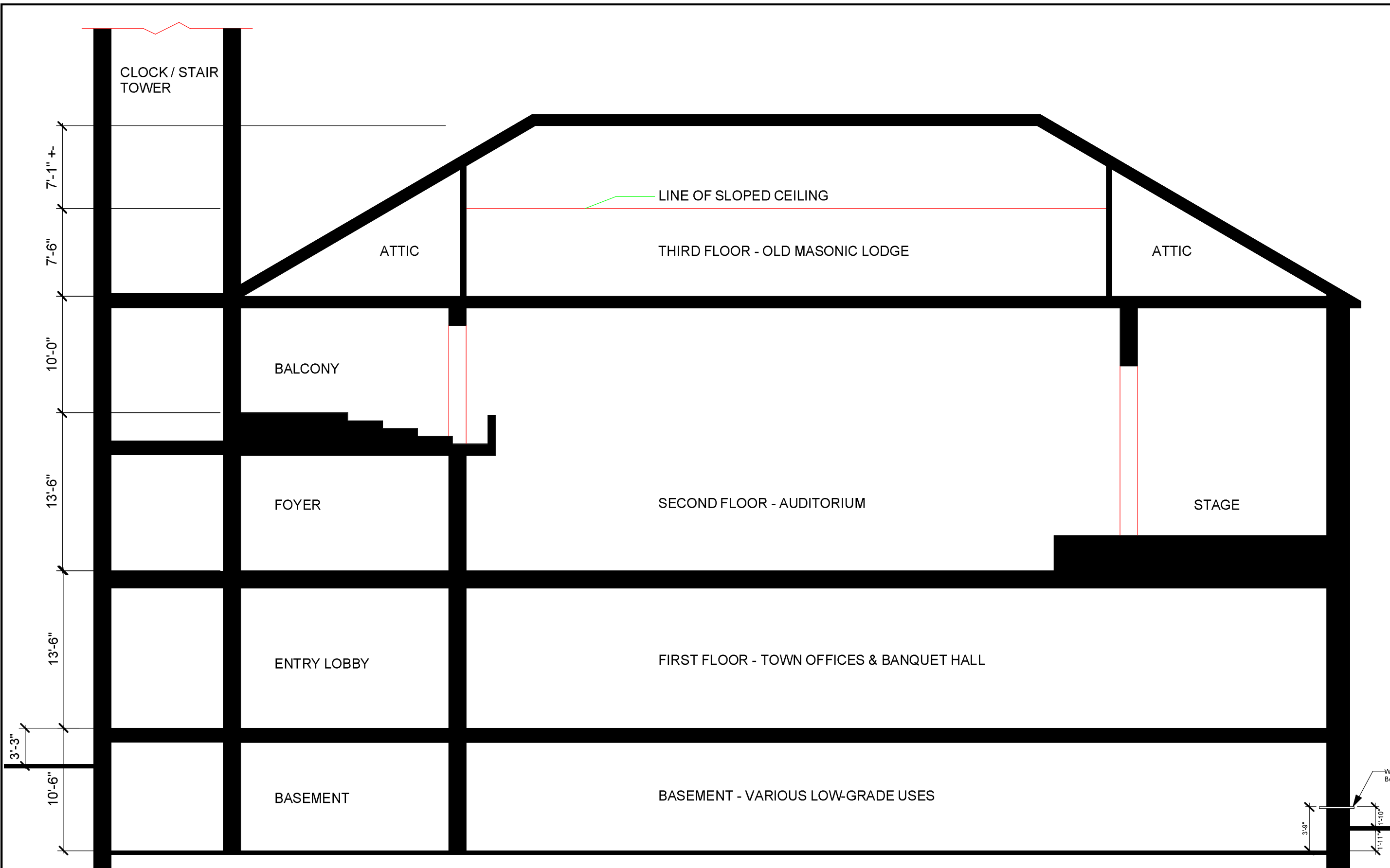
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EX.6

Brookfield Town Hall

Phased Access Improvements and Re-Use Study

Town of Brookfield
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Existing Building Section

Scale: As Shown

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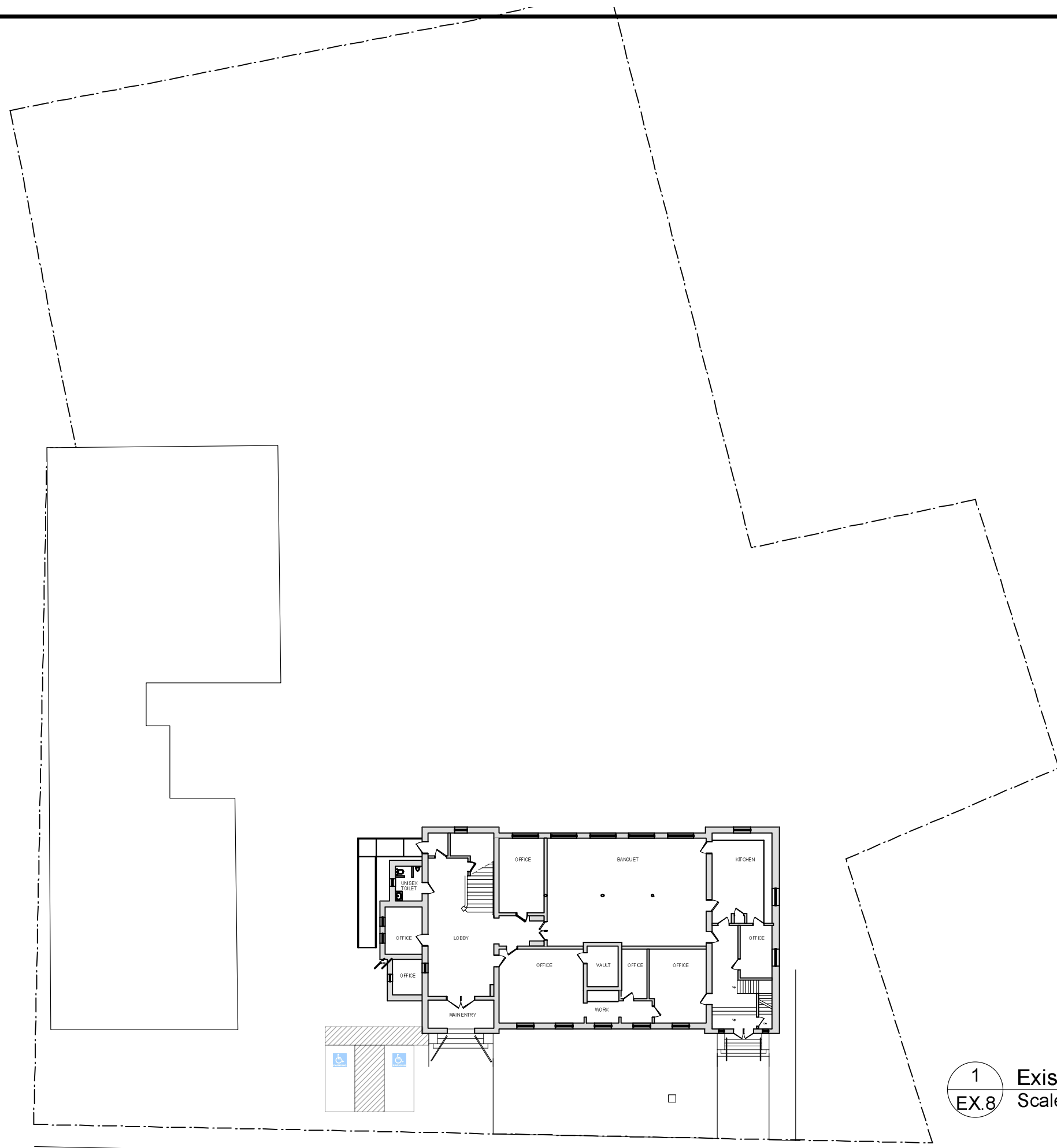
1 Existing Building Section
EX.7 Scale: 1/8" = 1'-0"

EX.7

Brookfield Town Hall

**Phased Access
Improvements and
Re-Use Study**

Town of Brookfield
6 Central Street
Brookfield, MA 01506



1 Existing Site Plan
EX.8 Scale: 1" = 30 ft



**Existing Site
Plan**

Scale: As Shown

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EX.8

**Town of Brookfield
Phased Access Improvement and Re-Use Study**

**Appendix D
Building Structure Report**



**Prepared By
Austin Design, Inc.**

**June 1, 2014
rev.7/1/2014**

Brookfield Building Structure Report

The Town Hall is a Neo-Classical brick building of masonry and wood structure consisting of a stone foundation; solid, multi-wythe brick exterior walls, wood frame and truss floor framing, and wood frame roof structure. The building is solidly built with no floor deflection noticeable, except for a slight bounciness on the third / attic level. The building does not meet modern seismic standards for new construction and will require a full seismic review as part of the design for an addition or extensive renovation. Such review is based on the proposed use after renovations and is done as part of the construction document phase.

Basement Level: The basement has a concrete slab, masonry walls and piers and the occasional wood and plaster partition. The basement ceiling is both exposed floor framing and attached drywall or metal. All materials appear in good condition. Not decay was noticed at wood joists.

1. Foundation: The foundation walls are of granite stone blocks to just below grade with solid brick walls above. Granite is roughly 24" thick with mortared joints. No footing is visible. It is consistent with this age and type of structure that the granite rests on a gravel fill base without footing. Walls may taper and increase in thickness at base but this is not visible on the interior. Brick knee wall above the granite is 18" thick.
2. Bearing walls and piers: Internal bearing walls are 8" and 12" thick solid brick. Bearing column points are 12" x 16" brick. There are some newer concrete block partitions.
3. Bearing at Openings: Wood beams roughly 6 x 12 and larger span between piers and openings. Some openings have arched brick bearing instead of wood the beam. Exterior window openings are spanned with arched brick lintels. Some openings have been filled in with brick.
4. Floor Structure: The floor is concrete slab of unknown thickness. At some locations a concrete topping or raised wood floor has been added over the slab structure.
5. Ceiling Framing: The ceiling framing is the same as the first floor framing, full 2x12 joists 16" on center. At some locations the joists are exposed, in others a ceiling has been hung below or attached directly to the joists.



Stone foundation wall, brick knee wall above, 2x12 exposed floor joists



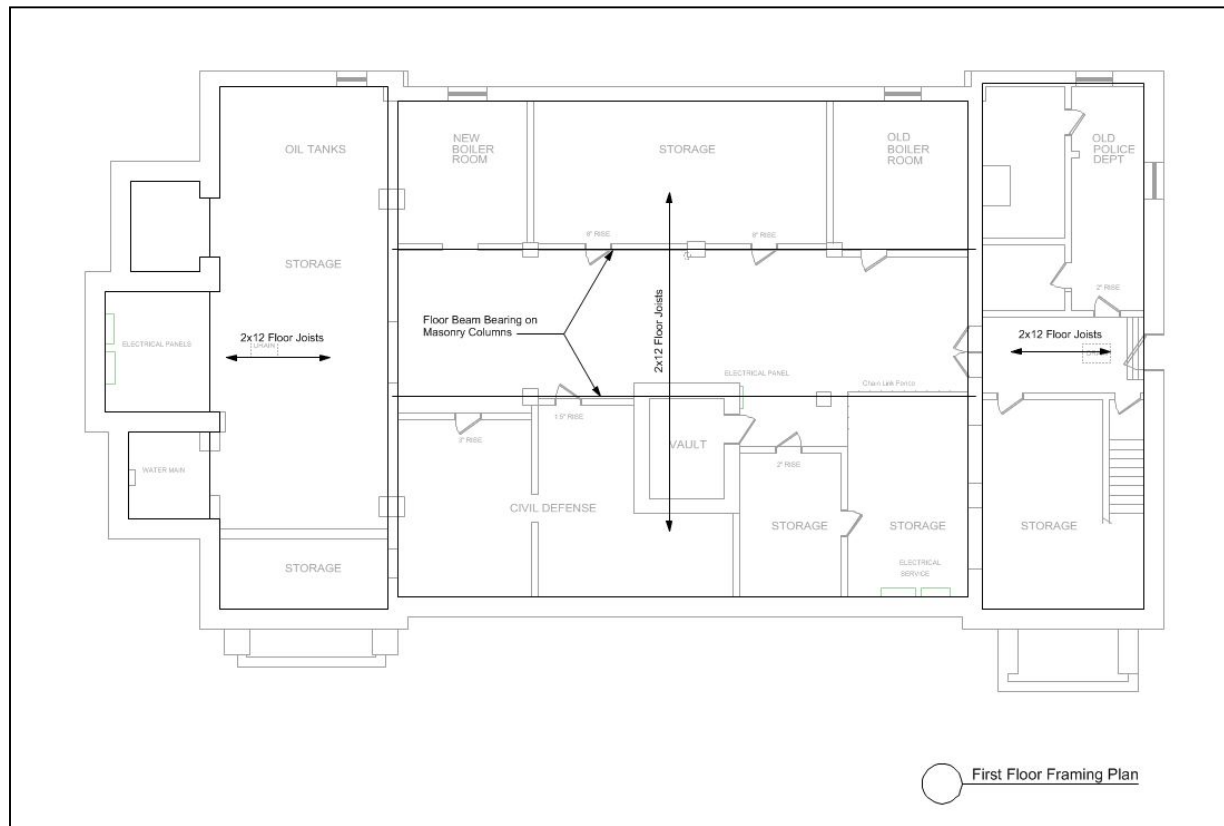
Arched opening, brick pier, wood beam and wood joists.



Window opening showing original arched brick lintel and brick infill.

First Floor Level: The first floor structure bears on the exterior walls, on the interior masonry walls that define the stair halls and on brick walls and piers in the interior central core. Interior partitions are both solid masonry with plaster finish and wood frame with plaster finish. The ceiling is plaster attached to the underside of the floor joists, with the occasional hung acoustical ceiling added at a later date.

1. **Exterior Walls:** The exterior walls are 16” thick and consist of 11” unreinforced solid brick masonry, 3 ½” of 2xe stud wall against the brick, and 1 ½” of lath and horse hair plaster over the studs. There is no insulation.
2. **Interior Bearing Walls:** Interior bearing walls at stair halls are 12” thick solid brick masonry with plaster finish . Bearing walls within central core are wood with plaster finish.
3. **Bearing at Openings:** Exterior window openings are spanned with arched and pedimented brick lintels. Bearing at door and passage openings was not observable. The second floor structure over the central core meeting room is carried by a wood beam and 5” steel columns. The size of the wood beam was not observable.
4. **Floor Structure:** The floor structure is wood frame, full 2 x 12 joists 16” on center bearing on masonry walls and wood beams in basement below.
5. **Ceiling Framing:** The ceiling framing was unobservable, but appears in most locations to be directly attached the second floor framing. At some locations non-structural hung ceilings have been installed..





Main stair Hall with masonry partitions on side walls



Central core – Banquet hall showing steel columns. Wood beam carrying second floor structure is above lowered ceiling.



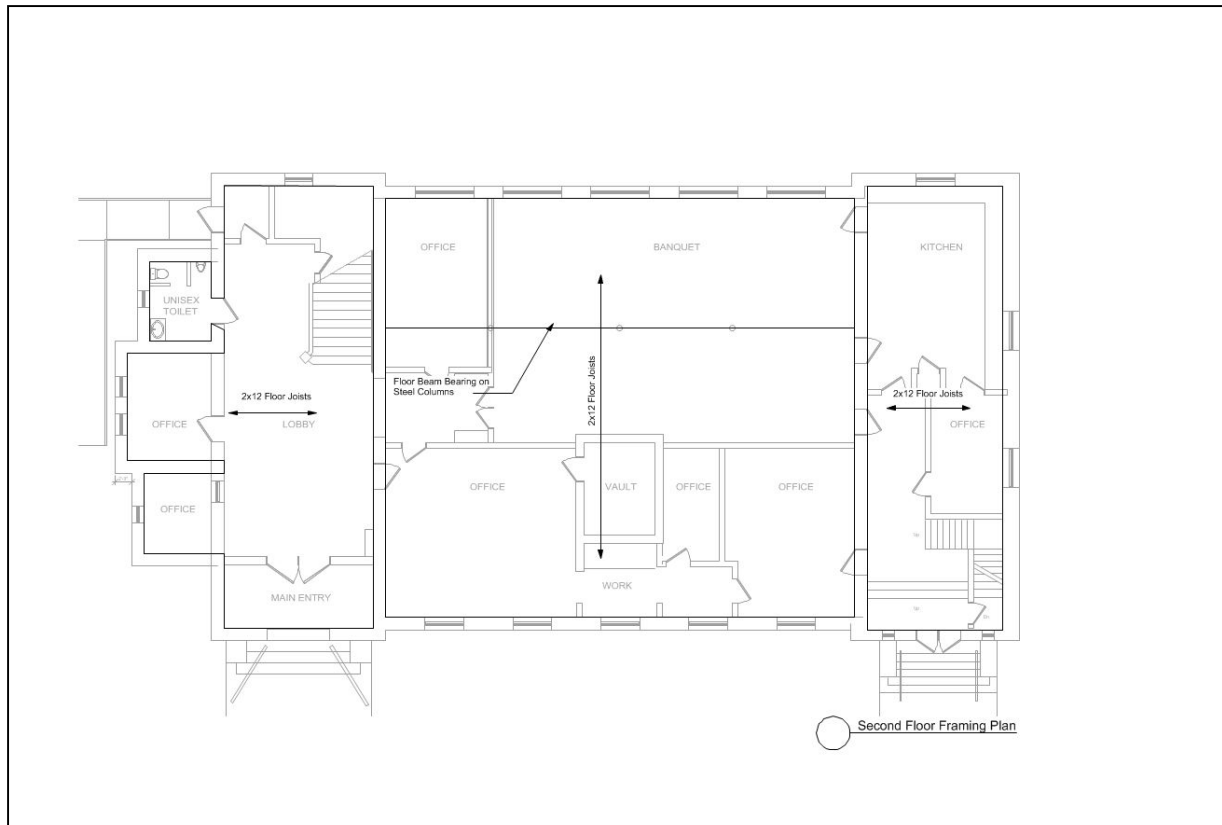
Pedimented brick opening at First Floor Window



Arched brick opening at First Floor Window

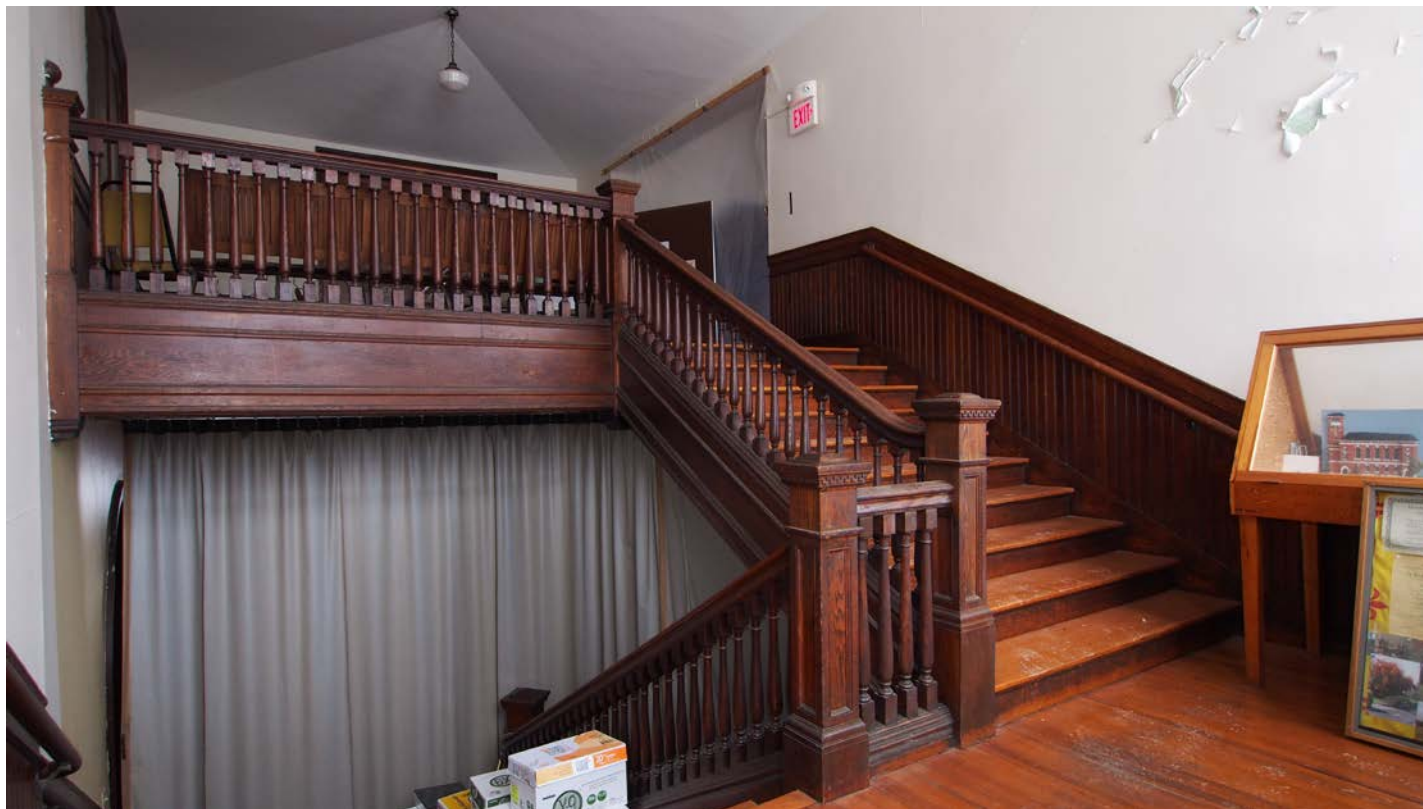
Second Floor: The second floor structure bears on the exterior walls, on the interior masonry walls that define the stair halls and on beams and columns over the large banquet hall space below on the first floor. The ceiling in the stair hall wings is plaster attached to the underside of the floor joists. The ceiling in the auditorium is plaster hung on the underside of the trusses that span across the space and support the third floor. The curved section of plaster ceiling at the perimeter is hung down from the trusses.

1. Exterior Walls: Exterior walls are 16” thick solid brick masonry with plaster finish on interior
2. Interior Bearing Walls: Interior bearing walls at stair halls are 12” thick solid brick masonry with plaster finish.
3. Bearing at Openings: Exterior window openings are spanned with arched brick lintels. Bearing at door and passage openings was not observable.
4. Floor Structure: The floor structure is wood frame, full 2 x 12 joists 16” on center bearing on masonry walls and wood beams in first floor below.
5. Ceiling Framing: The ceiling framing was unobservable, but is both hung from and directly attached to the third floor structure.





Main Auditorium space showing clear span of third floor – ceiling trusses.



Main Stair Hall at second Floor showing hip ceiling hung from auditorium mezzanine structure above..

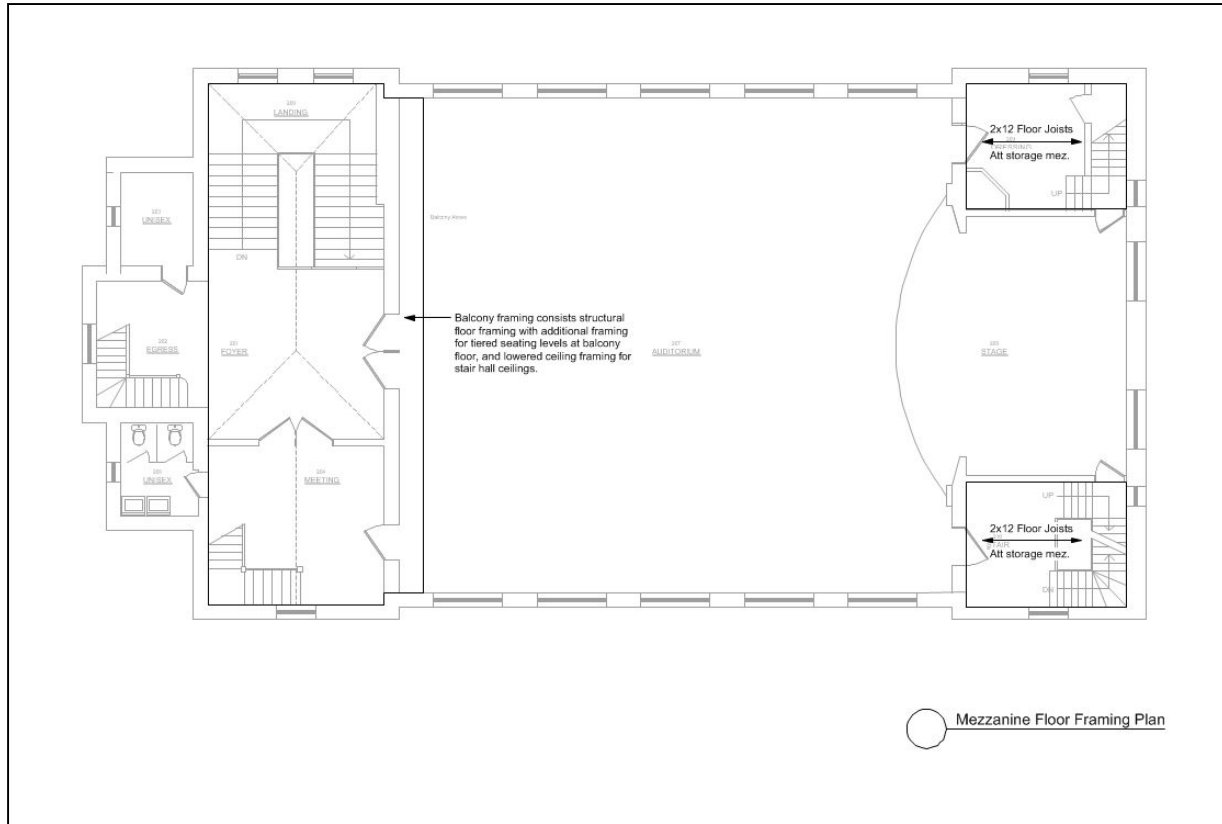


Arched brick opening at Second Floor Window

Mezzanine / Balcony Level:

The mezzanine in the auditorium bears on the exterior walls and on the interior masonry walls at the stair halls. The framing is wood joists, size not confirmed

1. Exterior Walls: Exterior walls are 16” thick solid brick masonry with plaster finish on interior
2. Interior Bearing Walls: Interior bearing walls at stair halls are 12” thick solid brick masonry with plaster finish.
3. Floor Structure: The floor structure is wood frame, most likely, though not confirmed, full 2 x 12 joists 16” on center bearing on masonry walls. Balcony tiered floor is built-up from the main floor framing, ceilings are hung off the main floor framing.

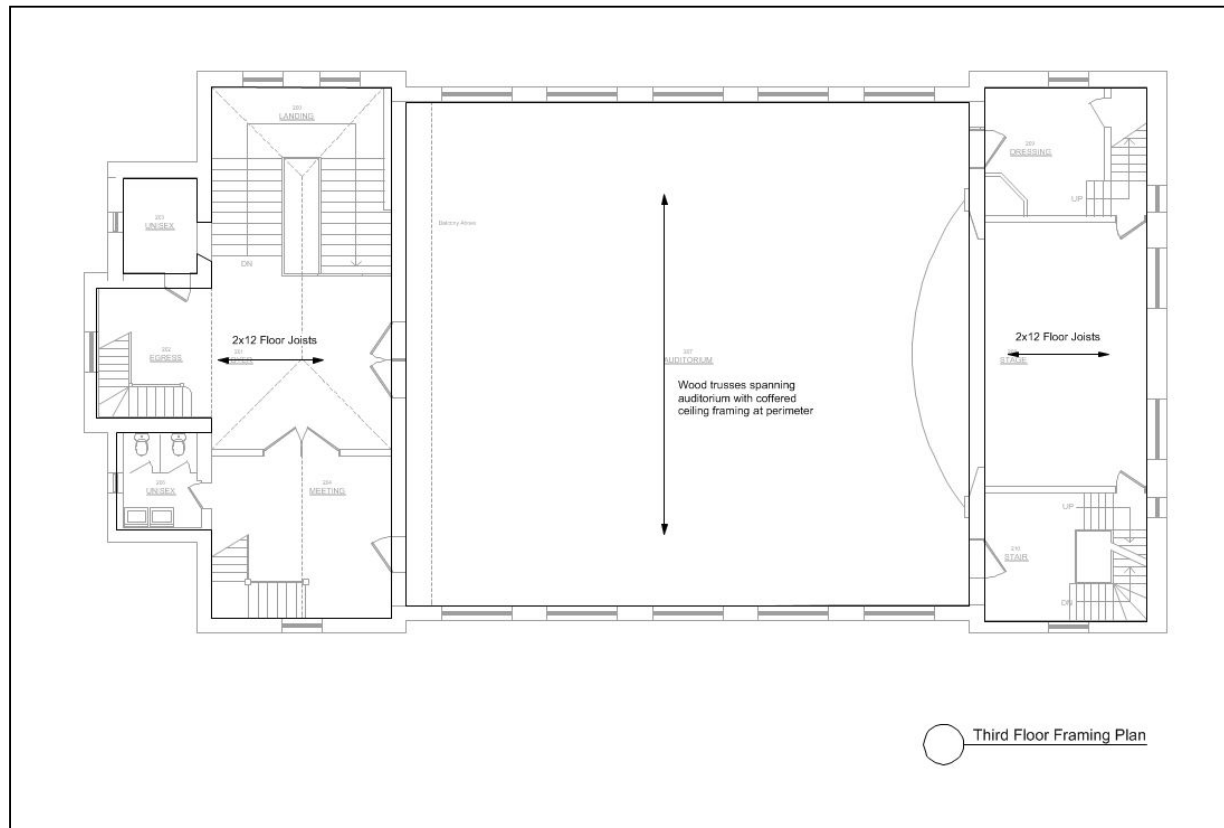


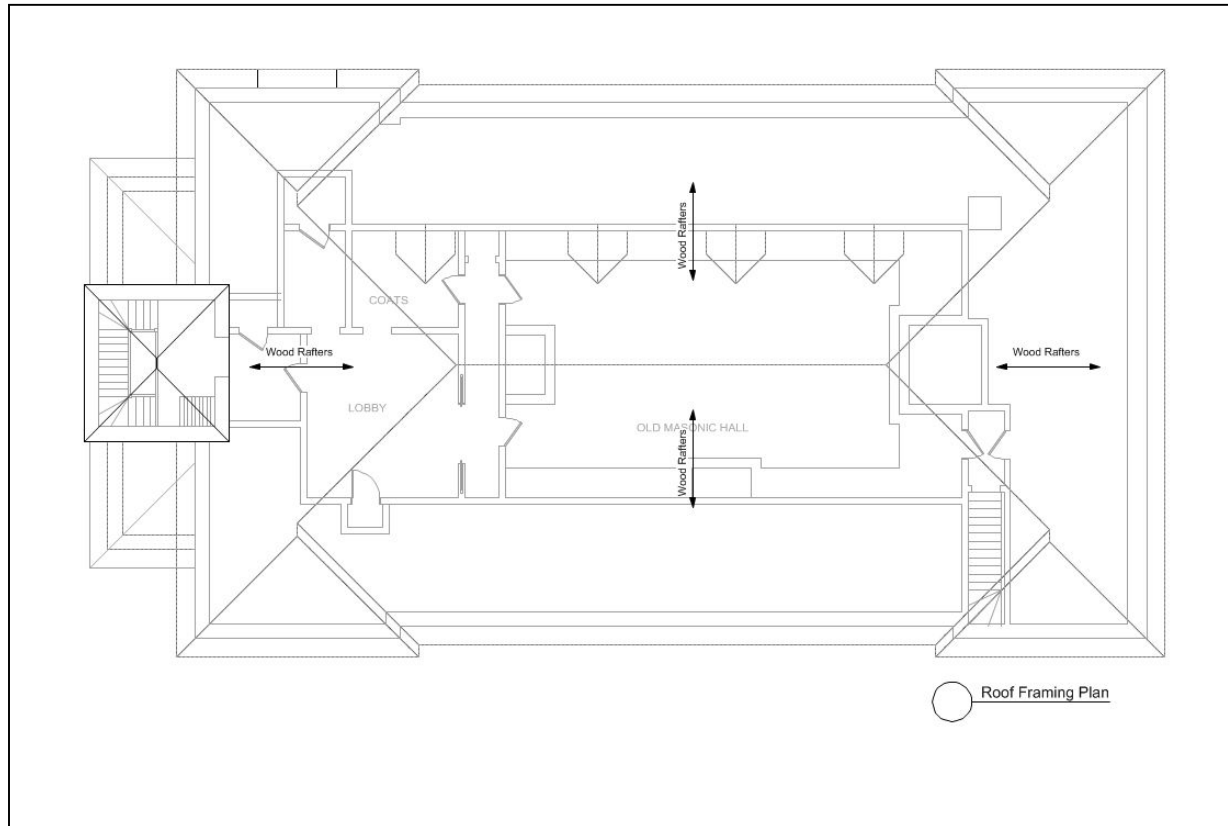


Main Auditorium balcony showing tiered levels built off the main floor framing.

Third Floor and Roof: The third floor structure bears on the exterior walls, on the interior masonry walls at the stair halls and on trusses over the open auditorium below. The finished space is enclosed by wood frame knee walls. There are hip dormers on the North face. Rafters are of wood.

1. Exterior Walls: Exterior walls are 16” thick solid brick masonry with plaster finish on interior
2. Interior Bearing Walls: Interior bearing walls at stair halls are 12” thick solid brick masonry with plaster finish.
3. Bearing at Openings: Exterior window openings are spanned with arched brick lintels. Bearing at door and passage openings was not observable.
4. Floor Structure: The floor structure is wood frame, full 2 x 12 joists 16” on center bearing on masonry walls and wood beams in first floor below.
5. Ceiling Framing: The ceiling framing was unobservable, but is both hung from and directly attached to the third floor structure.
6. Roof Framing: The roof framing is 2 x 10 16” on center with 1” board sheathing. Framing layout is hip ridge and valley with 4 hip dormers. When roof was replaced with new slate, plywood was added over the original wood sheathing and ice and water shield membrane applied over plywood.







Main third floor space showing dormers and sloped rafter / ceiling plane.



**Town of Brookfield
Phased Access Improvement and Re-Use Study**

**Appendix E
Brookfield Town Hall Access Audit**



**Prepared By
Austin Design, Inc.**

June 1, 2014 rev. 7/1/2014

Brookfield Town Hall Access Audit

Purpose:

The report describes the findings of an accessibility audit carried out at the Brookfield Town Hall as part of an accessibility and re-use study conducted by Austin Design, Inc.

Federal and State Access Requirements:

Both the state requirements codified at 521 Code of Massachusetts Regulations and the Federal requirements under Title II Part A of the ADA and 2010 Standard for Accessible Design (2010-SAD) define scoping and technical standards for the elimination of architectural and structural communication barriers.

Federal Access Requirements:

The interaction between Federal and State accessibility requirements for a pre-existing facility like the Town Hall fall under the *program accessibility standard* of ADA.

Under Title II of the ADA, it is discriminatory for an otherwise qualified person with a disability to be denied equal opportunity to participate in, or benefit from, a program, service or activity because a facility is not accessible and usable. This does not mean however that buildings and facilities constructed prior to the effective date of Title II regulation have to be brought up to a new construction standard of accessibility -- rather, barriers must be removed by structural or non-structural means to the extent necessary to ensure that programs *when viewed in their entirety* are safe, accessible and usable by persons with disabilities.

At the Brookfield Town Hall this means that access routes must be provided on the exterior of the building connecting accessible parking and pedestrian routes to an accessible entrance; and on the interior that the entrance must be connected vertically and horizontally by access routes to rooms and spaces where programs, services and activities are conducted.

Interaction Between Federal and State Access Standards

The interaction between the federal 2010 Standards for Accessible Design (2010-SAD) and the scoping and technical standards at 521 CMR is that 2010-SAD sets the minimum and any more stringent 521 CMR standard must also be followed. So, for example, the larger 521 CMR standard for the size of an accessible toilet room is to be followed in program spaces, but for employee only spaces – where the MAAB does not exercise its authority – the 2010-SAD must at a minimum be followed.

State Access Requirements:

All work on existing buildings requiring a building permit must comply with 521 CMR as follows:

- If the value of the work is less than 30% of the value of the building and the cost of the work is less than \$100,000, then only the new work is required to comply with 521 CMR. (521CMR 3.3.1.a)
- If the value of the work is less than 30% of the value of the building and the cost of the work is \$100,000 or more, then the new work is required to comply with 521 CMR and an accessible entrance and an accessible toilet room, telephone and drinking fountain (if toilets, telephones and drinking fountains are provided) must also be provided. (521CMR 3.3.1.b) Certain work, including roof repair, masonry repair, alterations of electrical, mechanical or plumbing systems, septic systems are exempt from the calculation if less than \$500,000.
- If the value of the work including exempted work is more than 30% of the value of the building then the entire building is required to comply with 521 CMR. (521CMR 3.3.2)

Summary of Findings:

Site:	Parking:	There are two van accessible parking spaces at the Southwest corner. Pavement is patched and uneven
	Walks:	Walks around the building are of asphalt and concrete and are in deteriorated to severely deteriorated condition. Slopes and cross slopes vary but are in excess of 5% and 2% respectively in many locations.
	Entrances:	
	Front (South West) Entrance:	The main entrance is accessed via stairs from the sidewalk. Stair railings are non-compliant and are blocked from use by an awning construction. Entry doors are a pair of 3'-0" doors with exit devices and a power door opener on one leaf.
	Front (South East) Entrance:	The secondary front entrance is accessed via stairs from the sidewalk. Stair railings are non-compliant and there is no exterior landing at the entrance door. Entry doors are a pair of 3'-0" doors with exit devices.
	End (West) Entrance:	The West entrance is approached via a wood ramp with shed roof cover. The wood decking is older and deteriorating. The railings are wood. The entrance door is a single 36" door with adequate pull side clearance, but inadequate push side clearance on exiting.

Vertical Circulation:	End (East) Entrance:	The East end entrance leads into the basement. There is no landing on the interior, a set of steps has no railing, and the stairs protrude into the egress access from the adjacent stairway.
	Elevators:	There is no elevator in the building.
	Ramps:	There is an exterior wood ramp, see above.
	Interior Stairs:	There are a number of stairs throughout the building, all of which lack compliant handrails, some have non-compliant tread and riser sizes, and some have winder treads that are not allowed by code.
Toilet rooms:		There are no accessible toilet rooms in the building. The only functioning toilet room is on the first floor with a urinal and one toilet. A second floor toilet room with two toilets is shut down. There is a single shut down toilet in the stage dressing room, under the stairs.
Other:	Floor Level Access	The basement, second floor, mezzanine and third floor are not accessible due to lack of elevator or accessible entrance at the basement level.
	Door Hardware	Door hardware throughout is non-compliant knobs.
	Thresholds	Many doorways have thresholds that are 5/8" to 7/8" in height – above the 1/2". Maximum permitted level change.
	Kitchen	The kitchen has non-compliant counters at 36" and no accessible sink or cooking equipment.
	Stage	The stage is not accessible. There is no accessible route from the stage to the adjacent dressing rooms.
	Mezzanine	The mezzanine is not accessible. There the tiered seating configuration lacks Handrails, guardrails and accessible seating locations.
	Masonic Hall	The Masonic Hall on the third floor is not accessible. There are level changes located within the space that are in excess of 1/2" There are podium platforms that are not accessible.
	Water Fountain	The water fountains are not accessible and protrude into an accessible route.

Summary of Access Recommendations: As described above, the scope of accessibility work required to comply with 521CMR regulations is determined by the cost of the work in relation to the assessed value of the building. The assessed value of the building, less land is \$1,236,000. 30% of \$1,236,000 is \$370,800. A construction amount over \$370,800 will trigger full compliance.

At a minimum, a fully accessible entrance, accessible toilet room and accessible route to all publicly occupied spaces and all public programs and activities should be provided

1. Minimal Access Alterations: Where work falls under 521CMR 3.3.1.b (see above)
 - 1.1. Repairs and adjustments to the existing ramp to bring it into full compliance.
 - 1.2. Add power door openers to doors from ramp into building.
 - 1.3. Renovate existing first floor toilet room to make it fully accessible.

2. Full Access Alterations: Where work falls under 521CMR 3.3.2 (see above) and to provide full access and compliance to the building.
 - 2.1. Remove front awning and add snow guards and gutter on roof above.
 - 2.2. Remove existing ramp and build new landing and stairs at side exit.
 - 2.3. General Site Work including drainage, paving, accessible walks and parking.
 - 2.4. New Elevator and Associated Alterations.
 - 2.5. Toilet Rooms: In addition to first floor toilet room scoped under phase 1.1, install one single fixture toilet room on second floor.
 - 2.6. Stage Access - Install lift to stage.
 - 2.7. Miscellaneous access alterations including installing floor bevels to door thresholds, changing door knobs to lever handles and other items as described below.

3. Variance Application: Apply to the MAAB for a variance for elements that will not be brought into compliance by full access alterations. As a registered historic structure, the MAAB may grant a variance for certain items whose alteration or replacement would jeopardize the historic integrity of the building.
 - Permanent Variance:
 - 3.1. Restrict elevator to access to basement, first and second floors with commitment not to use balcony or third floor for programs or operations.
 - 3.2. Retain existing interior stair hand railings.
 - 3.3. Use of power door openers at select locations in lieu of changing door openings where door clearance is inadequate.
 - 3.4. Retain 2nd floor stage non-accessible toilet rooms.
 - Time variance:
 - 3.5. Time variance for completing renovation work at basement level.
 - 3.6. Time variance for such items as the Town decides to delay until later phases of the work.

X.1 Building Exterior: Entrances: *South Side, Main Entrance:*



X.1.a

The main front entrance is not accessible:

- Hand rails are non-compliant due to lack of extensions.
- Access to handrails is blocked by awning

- **521CMR 20.1 General:** An accessible route shall provide a continuous unobstructed path connecting accessible spaces and elements inside and outside a facility.

- **521CMR 20.2 Location:** an accessible route(s) shall be provided from accessible parking, accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve.

- **521CMR 27.4 Stair Handrails:** Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition.

- *Remove constructed awning and install compliant handrails on both sides of stair.*



X.1.b

X.2 Building Exterior: Entrances: *South Side, Secondary Front Entrance:*



X.2.a

The secondary front entrance is not accessible:

- There is no signage indicating direction to accessible entrance
- There is no landing level with the floor on the exterior of the stairs
- Hand rails are non-compliant due to lack of extensions.

- *Add signage indicating route(s) to accessible entrance(s).*
- *Install compliant handrails.*

- 521CMR 25.1 Entrances: All public entrance(s) of a building or tenancy in a building shall be accessible.
- 521CMR 25.6, 41.1.3.c Inaccessible entrances shall have directional signage to indicate the route to the nearest accessible entrance.
- 521CMR 26.6 Maneuvering Clearance: A minimum clear floor area shall be provided on both sides of all doors and gates.
- 521CMR 27.4 Stair Handrails: Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition.



X.2.b

X.3 Building Exterior: Entrances: Rear Ramp Entrance:



X.3.a

Entrance ramp is technically compliant but leads to a non-compliant doorway off a back hall beneath the main interior stairs

- Entrance ramp leading to rear/side entrance is built of wood and is in deteriorated condition
- Surface is uneven
- Slope?

•

- *Remove/rebuild ramp?*



X.3.b

Ramp entrance door is non-compliant:

- No push side clearance due to wall depth

- 521CMR 26.6.4 Door Push Side Clearance: Comply with Fig. 26e. 12” side clearance, 36” x 48” in front of door.

- 521CMR 25.3 Vestibules: Between any two hinged or pivoted doors, there shall be a minimum of 48 inches plus the width of any door swinging into the space. See Fig. 25a and 25b.

- *Add power door openers to doors.*

X.4 Building Exterior: Entrances: *East Side Basement Entrance and Egress:*



X.4.a

East Side Basement Entrance is non-compliant:

- Stairs protrude into doorway to egress stair.
- Floor surface is in poor condition
- There is no landing level with the door.
- Stair treads and risers are non-compliant with inconsistent riser heights over 8”.
- Handrails are on only one side and lack extensions.

- *Construct new accessible entrance to basement level as part of renovations to basement.*

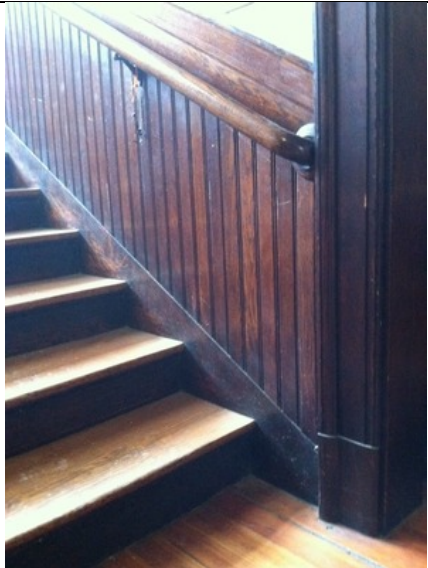


- **521CMR 20.1 General:** An accessible route shall provide a continuous unobstructed path connecting accessible spaces and elements inside and outside a facility. Accessible routes may not include stairs, steps or escalators, even if the stairs and steps are required to be accessible under 521 CMR.
- **521CMR 20.6 Protruding Objects:** Objects shall not reduce the clear width of an accessible route or maneuvering space (see Fig. 20c) and must comply with 521CMR 20.6.1.
- **521CMR 20.8 Surface Textures:** The surface of an accessible route shall comply with 521CMR 29.00 Floor Surfaces.



X.4.b

- **521CMR 25.1 Entrances:** All public entrance(s) of a building or tenancy in a building shall be accessible.
- **521CMR 26.6 Maneuvering Clearance:** A minimum clear floor area shall be provided on both sides of all doors and gates.
- **521CMR 27.2 Treads and Risers:** On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. See Fig. 27a.
- **521CMR 27.4 Stair Handrails:** Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition.

3.1 Building Interior: First Floor: *Monumental Stair off Lobby to Second Floor:*

 <p>3.1.a</p>	<p>Monumental stair is non-compliant due to:</p> <ul style="list-style-type: none"> • Non-compliant railings, size of handrail • Handrails lack extensions at top and bottom of run. • Gripping surface is interrupted and not continuous. • No rail on guard <ul style="list-style-type: none"> • <i>Request variance from MAAB to maintain existing handrails.</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • 521CMR 27.4 Stair Handrails: Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition, 27.4.9.
 <p>3.1.b</p>	 <p>3.1.c</p>	

3.2 Building Interior: Second Floor: *Clock Tower Stairs:*

3.2.a



Stair to mezzanine and third floor is non-compliant due to:

- Non-compliant tread depth at 10” and riser height at 7.5”
- Non-compliant winders to mezzanine and third floor
- Handrails are on one side only and are not continuous
- Handrails lack extensions at top and bottom of run.
- Handrails are too large at 2 ¼”



- *Request variance from MAAB to maintain existing handrails*
- *Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.*

- **521CMR 27.2 Treads and Risers:** On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. See Fig. 27a.
- **521CMR 27.4 Stair Handrails:** Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition, 27.4.9

3.2.b



3.3 Building Interior: Second Floor: Balcony Egress Stair:

<p>3.3.a</p>		<p>Egress stair from balcony is non-compliant due to:</p> <ul style="list-style-type: none"> • Stair clear width reduced to 30" • Non-compliant tread depth at 10" and riser height at 7.5" • Handrails lack extensions at top and bottom of run • Non-compliant window at stair <ul style="list-style-type: none"> • <i>Request variance from MAAB to maintain existing handrails</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • 521CMR 20.3 Width: An accessible route shall have a minimum clear width of 36 inches. • 521CMR 27.2 Treads and Risers: On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. See Fig. 27a. • 521CMR 27.4 Stair Handrails: Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition, 27.4.9.
<p>3.3.b</p>			

3.4 Building Interior: Second Floor: *Second Floor Rear Egress:*

3.4.a



Egress stair to second floor is non-compliant due to:

- Non-compliant tread depth at 10"
- Non-compliant winders down from third floor
- Handrails lack extensions at top and bottom of run

- **521CMR 27.2 Treads and Risers:** On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. See Fig. 27a.

- **521CMR 27.4 Stair Handrails:** Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition, 27.4.9.

- *Request variance from MAAB to maintain existing handrails*
- *Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.*

3.4.b




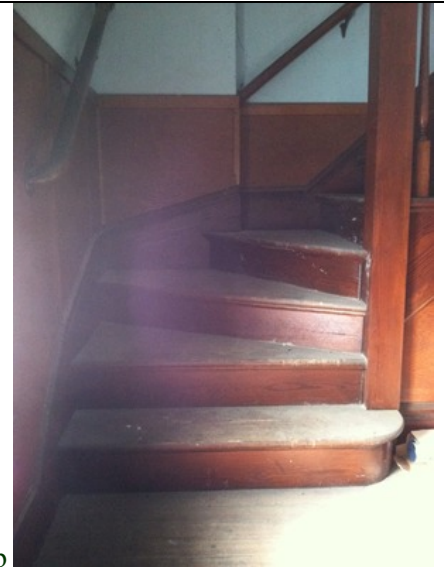

3.4.c







3.4.d







3.5 Building Interior: Second Floor: Egress from Third Floor:



<p>3.5.a</p>		<p>Egress stairs from third floor are non-compliant due to:</p> <ul style="list-style-type: none"> • Door swing obstructs clear landing • Non-compliant tread depth at 10” and riser height at 7.5” • Non-compliant winders to mezzanine and third floor • Handrails are on one side only and are not continuous • Handrails lack extensions at top and bottom of run • <i>Request variance from MAAB to maintain existing handrails</i> • <i>Install an additional compliant handrail on outside wall of the stair if feasible and approved by MHC s.</i> 	<ul style="list-style-type: none"> • <u>521CMR 26.6 Maneuvering Clearance:</u> A minimum clear floor area shall be provided on both sides of all doors and gates. • <u>521CMR 27.2 Treads and Risers:</u> On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. See Fig. 27a. • <u>521CMR 27.4 Stair Handrails:</u> Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition, 27.4.9.
<p>3.5.b</p>		<p>3.5.c</p>	


<p>4.1 Building Interior: First Floor: <i>First Floor Men's and Women's Restrooms:</i></p>		
<p>4.1.a</p>		<p>First floor toilet room is non-compliant due to:</p> <ul style="list-style-type: none"> • Toilet rooms are not accessible. There are no accessible toilet rooms in the building. • Not accessible 29" clear on door • No push side clearance due to wall depth • Door handle is a round knob and non-compliant <ul style="list-style-type: none"> • <i>Renovate toilet rooms to make fully accessible.</i> • <i>Install new doors with compliant clear opening width and hardware.</i> <ul style="list-style-type: none"> • 521CMR 30.1-30.20 Public Toilet Rooms: In each adult public toilet room, at least one water closet and one sink in each location shall be accessible to persons in wheelchairs, or a separate accessible unisex toilet room shall be provided at each location. • 521CMR 26.5 Door Width: All doorways and openings that are required to be accessible shall have a clear opening of not less than 32 inches (32" = 813mm). • 521CMR 26.6.4 Door Push Side Clearance: Comply with Fig. 26e. 12" side clearance, 36" x 48" in front of door.
<p>4.1 Building Interior: First Floor: <i>First Floor Men's and Women's Restrooms:</i></p>		
<p>4.1.b</p>		<ul style="list-style-type: none"> • 521CMR 26.11 Door Hardware: Type: Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand.

<p>5.1 Building Interior: First Floor: <i>Main Hall Water Fountain:</i></p>		
 <p>5.1.a</p>	<p>Main hall water fountain is non-compliant due to:</p> <ul style="list-style-type: none"> • Non-compliant protrusion • <i>Remove water fountain</i> 	<ul style="list-style-type: none"> • <u>ADA 602.2 Drinking Fountains Clear Floor Space:</u> Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided. • <u>521CMR 36.1.1 General, Fig 36a:</u> Drinking fountains shall have a maximum height of 36 inches and a minimum knee clearance height of 27 inches. • <u>521CMR 36.2.1:</u> Cantilevered Units. • <u>521CMR 36.2.3:</u> Built-in Units. • <u>521CMR 20.6:</u> Protruding Objects
<p>5.2 Building Interior: General: <i>Doors and Doorways:</i></p>		
 <p>5.2.a</p>	<p>Most doors are non-compliant:</p> <ul style="list-style-type: none"> • As a general condition, door hardware are non-compliant knobs • <i>Replace knobs with lever handles consistent with historic character of the building.</i> 	<ul style="list-style-type: none"> • <u>521CMR 26.11 Door Hardware: Type:</u> Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs. When sliding doors are fully open, operating hardware shall be exposed and usable from both sides


<p>5.3 Building Interior: First Floor: <i>Main Entry Hall:</i></p>		
<p>5.3.a</p>		<p>Main entry hall is non-compliant due to:</p> <ul style="list-style-type: none"> • Buckled wood flooring at threshold <p>• <i>Repair wood flooring</i></p> <ul style="list-style-type: none"> • 521CMR 26.10.2 Thresholds: Changes in floor finish materials shall have an edge strip or threshold that is beveled at a ratio of one-in-two (1:2) (50%). • 521CMR 29.2.2 Changes in Level: Changes in level greater than ¼ inch and less than ½ inch shall be beveled with a slope no greater than one-in-two (1:2) (50%). See Fig. 29a.
<p>5.4 Building Interior: First Floor: <i>Most Doors on First Floor:</i></p>		
<p>5.4.a</p>		<p>First floor thresholds are non-compliant due to:</p> <ul style="list-style-type: none"> • As a general condition at all office partitions, the transition plate at partition doorways is too steep for the height of the threshold plate <p>• <i>Add transition plates to existing thresholds..</i></p> <ul style="list-style-type: none"> • 521CMR 26.10.2 Thresholds: Changes in floor finish materials shall have an edge strip or threshold that is beveled at a ratio of one-in-two (1:2) (50%). • 521CMR 29.2.2 Changes in Level: Changes in level greater than ¼ inch and less than ½ inch shall be beveled with a slope no greater than one-in-two (1:2) (50%). See Fig. 29a

5.5 Building Interior: First Floor: <i>First Floor Building Inspector's Office:</i>		
<p>5.5.a</p>		<p>First floor Building Inspector's office is non-compliant due to:</p> <ul style="list-style-type: none"> • Door width does not meet minimum 32" clear opening requirement • Insufficient push side clearance on both doors • Door hardware are non-compliant knobs <p>• <i>Install new power door opener</i></p> <p>• <i>Or request variance from MAAB.</i></p>
<p>5.5.b</p>		<p>• 521CMR 26.11 Door Hardware: Type: Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs. When sliding doors are fully open, operating hardware shall be exposed and usable from both sides.</p> <p>• <i>Replace knobs with lever handles consistent with historic character of the building.</i></p>



<p>5.6 Building Interior: First Floor: <u>First Floor Assessor's Office:</u></p>		
<p>5.6.a</p>		<p>First floor Assessor's office is non-compliant due to:</p> <ul style="list-style-type: none"> • Insufficient pull side clearance of 17" • Door hardware are non-compliant knobs. <p>• <i>Install new power door opener</i> • <i>Or request variance from MAAB.</i></p> <ul style="list-style-type: none"> • 521CMR 26.6.3 Door Pull Side Clearance: A minimum of 18 inches of clear floor space shall be provided on the latch pull side of the door when the clear floor space in front of the door is a minimum of 60 inches. See Fig. 26.d. • 521CMR 26.11 Door Hardware: Type: Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand.
<p>5.7 Building Interior: First Floor: <u>First Floor Selectman's Office:</u></p>		
<p>5.7.a</p>		<p>First Floor Selectman's office is non-compliant due to:</p> <ul style="list-style-type: none"> • Insufficient push side clearance of 5". • Door hardware are non-compliant knobs. <p>• <i>Install new power door opener</i> • <i>Or request variance from MAAB.</i></p> <ul style="list-style-type: none"> • 521CMR 26.6.4 Door Push Side Clearance: Comply with Fig. 26e. 12" side clearance, 36" x 48" in front of door. • 521CMR 26.11 Door Hardware: Type: Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand.

 <p>5.8.a</p>	<p>Entrance to banquet hall is non-compliant due to:</p> <ul style="list-style-type: none"> • Entrance to the banquet hall has two independent door leaves, neither of which have a clear opening of the minimum 32 inches. • Door hardware are non-compliant knobs. <ul style="list-style-type: none"> • <i>Install new power door opener</i> • <i>Or request variance from MAAB.</i> 	<ul style="list-style-type: none"> • 521CMR 26.4 Double Leaf Doorways: A doorway having two independently operated door leaves shall have at least one leaf that meets the requirements of 521 CMR 26.5, Width and 521 CMR 26.6, Maneuvering Clearance. That leaf shall be an active leaf. • 521CMR 26.11 Door Hardware: Type: Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand.
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5.9 Building Interior: First Floor: *First Floor Kitchen:*

 <p>5.9.a</p>	<p>First floor kitchen is non-compliant due to:</p> <ul style="list-style-type: none"> • Insufficient clear space • There is no kneespace under cooktops, sinks and cabinetry. 	<ul style="list-style-type: none"> • 521CMR 32.1 General: Non-commercial kitchens in public facilities such as classrooms and community rooms shall provide a clear space of 60 inches in diameter, measured 12 inches above the floor. • 521CMR 32.2 Countertops: Countertops that contain sinks and cooking units shall provide a minimum of 15 inches of clear countertop on at least one side of the cooking unit and on at least one side of the sink and shall have a clear space underneath that complies with 521CMR 32.6 Kneespace. Countertops shall be mounted no higher than 34 inches above the finished floor. See Fig. 32a. • 521CMR 32.5 Hardware: Cabinet hardware shall be operable with a closed fist. Cabinet opening devices shall be located at the top of base cabinets and at the bottom of wall cabinets.
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5.10 Building Interior: First Floor: *First Floor Side Entrance:*

 <p>5.10.a</p>	<p>Stairs to side exit are non-compliant due to:</p> <ul style="list-style-type: none"> • Handrails on one side only • Handrails lack extensions at top and bottom of run <ul style="list-style-type: none"> • Request variance from MAAB to maintain existing <i>handrails</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • 521CMR 25.1 Entrances: All public entrance(s) of a building or tenancy in a building shall be accessible. • 521CMR 27.4 Stair Handrails: Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition, 27.4.9
 <p>5.10.b</p>		

5.11 Building Interior: Second Floor: *Second Floor Auditorium:*

<p>5.11.a</p>		<p>Auditorium is non-compliant due to:</p> <ul style="list-style-type: none"> • Stairs to stage lack handrails • Inaccessible toilet room • Stage wings and dressing rooms are inaccessible • Handrails lack extensions at top and bottom of run <ul style="list-style-type: none"> • <i>Add lift to stage</i> • <i>Install compliant handrails on both sides of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • 521CMR 20.1 General: An accessible route shall provide a continuous unobstructed path connecting accessible spaces and elements inside and outside a facility. • 521CMR 30.1-30.20 Public Toilet Rooms: In each adult public toilet room, at least one water closet and one sink in each location shall be accessible to persons in wheelchairs, or a separate accessible unisex toilet room shall be provided at each location. • 521CMR 33.1 Dressing, Fitting and Changing Rooms: Where provided, dressing, fitting and changing rooms shall comply with 33.2 Distribution, 33.3 Location, 33.4 Size, 33.5 Doors, 33.6 Seat, 33.7 Mirror.
<p>5.11.b</p>		<p>5.11.c</p> 	<p>5.11.d</p> 

5.12 Building Interior: Second Floor: *Second Floor Auditorium:*



5.12.a



Balcony is non-compliant due to:

- No balcony access



- *Eliminate access to balcony*

- 521CMR 20.1 General: An accessible route shall provide a continuous unobstructed path connecting accessible spaces and elements inside and outside a facility.



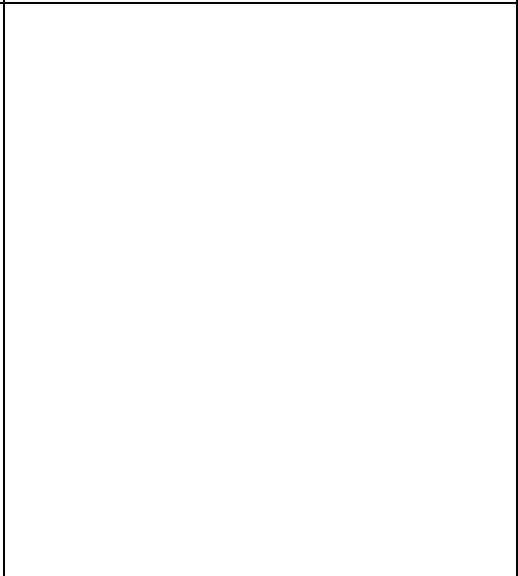
5.13 Building Interior: Second Floor: *Second Floor Balcony:*

<p>3.4.a</p>		<p>Auditorium balcony is non-compliant due to:</p> <ul style="list-style-type: none"> • Balcony is inaccessible • Continuous railings are not provided at stairs • Guards are non-compliant at 27" • There is no accessible seating provided 	<ul style="list-style-type: none"> • <u>521CMR 20.1 General</u>: An accessible route shall provide a continuous unobstructed path connecting accessible spaces and elements inside and outside a facility. • <u>521CMR 27.4 Stair Handrails</u>: Handrails shall comply with 27.4.1 Location, 27.4.2 Height, 27.4.3 Extensions, 27.4.4 Size, 27.4.5 Shape, 27.4.6 Surface, 27.4.7 Clearance, 27.4.8 End Condition, 27.4.9.
<p>3.4.b</p>		<ul style="list-style-type: none"> • <i>Eliminate access to balcony</i> 	

5.14 Building Interior: Second Floor: *Second Floor Toilet Room:*

<p>5.14.a</p>		<p>Second floor toilet room is non-complaint due to:</p> <ul style="list-style-type: none"> • Threshold material transition exceeds 1/2" height • Insufficient push side clearance of 17" • Does not meet requirements for accessible toilet rooms <p>• <i>Renovate toilet rooms to make fully accessible.</i></p> <p>• <i>Install new doors with compliant clear opening width and hardware.</i></p>	<ul style="list-style-type: none"> • <u>521CMR 26.6.4 Door Push Side Clearance:</u> Comply with Fig. 26e. 12" side clearance, 36" x 48" in front of door. • <u>521CMR 26.10.1 Thresholds:</u> Thresholds shall not exceed 1/2" in height and shall be beveled on both sides with a slope no greater than one-in-two (1:2) (50%). • <u>521CMR 30.1-30.20 Public Toilet Rooms:</u> In each adult public toilet room, at least one water closet and one sink in each location shall be accessible to persons in wheelchairs, or a separate accessible unisex toilet room shall be provided at each location.
<p>5.14.b</p>			

5.15 Building Interior: Third Floor: *Third Floor Door from Stairs:*

<p>5.15.a</p>		<p>Entrance to masonic hall is non-compliant due to:</p> <ul style="list-style-type: none"> • Insufficient push side clearance of 5" • Pocket door hardware • Floor level change to platform is greater than 1/2" and does not provide a ramp for access <p>• <i>Eliminate access to third floor.</i></p>	<ul style="list-style-type: none"> • <u>521CMR 26.6.4 Door Push Side Clearance:</u> Comply with Fig. 26e. 12" side clearance, 36" x 48" in front of door. • <u>521CMR 26.11 Door Hardware: Type:</u> Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand. • <u>521CMR 29.2.3 Level Changes:</u> Changes in level greater than 1/2 inch are not allowed unless a ramp, walkway, or means of vertical access complying with 521CMR is provided.
<p>5.15.b</p>		<p>5.15.c</p>	

**Town of Brookfield
Phased Access Improvement and Re-Use Study**

**Appendix F
Brookfield Town Hall IEBC Compliance Audit**



**Prepared By
Austin Design, Inc.**

June 1, 2014 rev. 7/1/2014

Brookfield Town Hall IBC & IEBC Compliance Survey

Purpose:

The report describes the findings of a site building code survey carried out at the Brookfield Town Hall.

Applicable Codes:

IBC: 2009 Edition of the International Building Code
 IEBC: 2009 Edition of the International Existing Building Code
 EBCM: Existing Building Code of Massachusetts, Amendments to the 2009 IEBC, Eighth Addition.
 Mass General laws Section 26G: Fire Prevention

The alteration, repair, addition, and change of occupancy of existing buildings shall be controlled by the provisions of the International Existing Building Code 2009 (IEBC 2009) and its appendices as modified by Massachusetts Amendments.

Basic IEBC and EBCM Requirements:

The EBCM offers three alternatives for regulations of work in existing buildings: (1) the “Prescriptive Compliance Method”, (2) “Work Area Compliance Method” and (3) the “Performance Compliance Method”. These three approaches are mutually exclusive and can not be combined within the scope of one project. The Work Area Compliance Method is the method most commonly used in projects such as this.

Work Area Compliance Method requires that repairs, alterations, additions, changes in occupancy and relocated buildings shall comply with the applicable requirements of Chapters 4 through 12 of the code. The Work Area Compliance Method focuses upon upgrading of the work area itself with only limited requirements outside the work area.

A basic concept of this method is that the required upgrades shall be based on the classification of work being done in the work area.

Classification of Work: Alterations of buildings being performed under the Work Area Compliance Method are to be classified as defined in Sections 403 - 409. Those classifications are defined as follows:

- **Repairs** include the patching or restoration or replacement of damaged materials and equipment.
- **Level 1** alterations include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose.
- **Level 2** alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment. Provisions for Level 2 include level 1 provisions.
- **Level 3** alterations apply where the work area exceeds 50 percent of the aggregate area of the building. Provisions for Level 3 include levels 1 and 2 provisions.
- **Change of Occupancy** provisions apply where there is a change in occupancy.
- **Additions** provisions apply where there are additions to existing buildings.
- **Historic Buildings** provisions apply where work is being performed on listed historic structures
- **Relocated Buildings** provisions apply to relocated or moved buildings.

Relevant IEBC and EBCM Requirements:

Because the Town Hall is listed with the National Register for Historic Places, the provisions of Chapter 11, Historic Buildings apply. Chapter 11 of the code permits many existing conditions to remain in place. A primary exception is MA amendment 102.2.2 which requires that existing non-conforming means of egress with the following conditions be corrected: 1. Less than the number of required exits; 2. Exits of insufficient width (modified by 1103.3) unless approved by the building official.

All new work must comply with the provisions of the IBC

Accessibility must comply with the provisions of 521CMR. There are no allowances within 521 CMR for historic structures.

Repairs to historic buildings shall comply with provisions under Repairs.

Structural requirements shall comply with the requirements for Level of work being performed (1, 2 or 3).

The appropriate level that will be applicable will depend on the type and amount of work performed. The addition of an elevator and interior modifications would require meeting Level 2 provisions for structural work. When alterations reach 50% of the building floor area (i.e. work done on the basement, first and second floors) the provisions of level 3 in addition to Level 2 would apply. Generally, if the work being performed increases gravity loads by less than 5% and lateral load demand capacity ratios by less than 10%, no structural or seismic alterations are required.

Mass General laws Section 26G: Fire Prevention

Section 26G requires that every building or structure, including any additions or major alterations which total more than 7,500 sf shall be protected with an automatic sprinkler system. The head of the Fire Department shall enforce the provisions of this Section.

Summary of Findings:

IBC Chapter 5: General Heights and Areas	The total building area(20,670 sf) is less than the allowable area (19,000 sf) per floor
IBC Chapter 7: Fire and Smoke Protection	While the exterior wall fire rating complies with requirements, there is no fire rating for fire interior partitions at stairs and corridors and no rating for doors. IEBC allows no rating at these locations.
IBC Chapter 8: Interior Finishes	IBC specifies flame spread requirements for interior finishes, but IEBC allows historic finishes to remain.
IBC Chapter 9: Fire Protection Systems	Sprinklers are required only in new construction. Manual fire alarm system is required for group A occupancies with occupancy load over 50 persons.
IBC Chapter 10: Egress	All stairs except for the main monumental stairs do not conform to required stair width, landing, handrail and tread and riser requirements. IEBC permits existing conditions to remain if determined by the building official not be a hazard.

Emergency egress lighting and exit signs are required.

Door closers are required on doors opening onto the egress stairs and halls.

Exit device hardware is required where occupancy load is greater than 49.

Summary of Building Code Recommendations:

1. Add structural frame to interior of elevator hoistway.
2. Install door closers on doors to stair halls and corridors.
3. Install exit device hardware on doors from spaces with >49 occupancy
4. Modify existing doors to have minimum width requirements where noted or add automatic door closers.
5. Install hand railings on exterior stairs as outlined in Accessibility recommendations.
6. Install a complete manual fire alarm system.
7. Install exit signs and egress illumination.
8. Installation of sprinkler system as required by the Fire Department and / or as triggered by the area of the building affected by renovation work. (greater than 7,500 sf)



Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
X.1 Building Exterior: Entrances: <i>South Side, Main Entrance:</i>		
 <p>X.1.a</p>	<p>Main Entrance is non-compliant:</p> <ul style="list-style-type: none"> • Gripping surface is interrupted and not continuous. • Hand rails lack required extension • Access to handrails is blocked by awning <p>• <i>Remove constructed awning and install compliant handrails on both sides of stair.</i></p>	<ul style="list-style-type: none"> • IBC 1012.4 Handrail Continuity: Handrail gripping surfaces shall be continuous, without interruption by newel posts and other obstructions. • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.
 <p>X.1.b</p>		




Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
X.2 Building Exterior: Entrances: <i>South Side, East Entrance:</i>		
 <p data-bbox="291 878 359 906">X.2.a</p>	<p data-bbox="968 355 1272 383">Entrance is non-compliant:</p> <ul data-bbox="968 423 1297 488" style="list-style-type: none"> • There is no exterior landing • Hand rails lack extensions <p data-bbox="968 883 1297 911">• <i>Install compliant handrails.</i></p>	<ul data-bbox="1551 358 2043 891" style="list-style-type: none"> • IBC 1009.5 Stairway Landings: There shall be floor or landing at the top and bottom of each stairway. The width of the landings shall not be less than the width of stairways they serve. • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.
 <p data-bbox="321 1430 388 1458">X.2.b</p>		

Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
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X.3 Building Interior: Entrances: *East End Basement Entrance and Egress:*

 <p>X.3.a</p>	<p>East end entrance is non-compliant:</p> <ul style="list-style-type: none"> • Steps obstruct doorway to egress stair • Riser height too high at 8" • No interior landing • Non-compliant handrails <p>• <i>Renovate entrance as part of basement alterations.</i></p>	<ul style="list-style-type: none"> • IBC 1003.3.4 Clear Width: Protruding objects shall not reduce the minimum clear width of accessible routes. • IBC 1009.4.2 Riser Height and Tread Depth: Stair riser height shall be 7 inches maximum. Rectangular tread depths shall be 11 inches minimum. • IBC 1009.5 Stairway Landings: There shall be floor or landing at the top and bottom of each stairway. The width of the landings shall not be less than the width of stairways they serve. • IBC 1009.12 Handrails: Stairways shall have handrails on each side and shall comply with Section 1012.
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 <p>X.3.b</p>		
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Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
1.1 Building Interior: First Floor: <i>First Floor Banquet Hall:</i>		
<p>1.1.a</p> 	<p>Entrance to banquet hall is non-compliant:</p> <ul style="list-style-type: none"> • Entrance to the banquet hall has two independent door leaves, neither of which have a clear opening of the minimum 32 inches. • Closers are required on the doors <p>• <i>Add automatic door openers if required by building official..</i></p>	<ul style="list-style-type: none"> • <u>IBC 1008.1.1 Size of Doors:</u> The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of 32 inches.

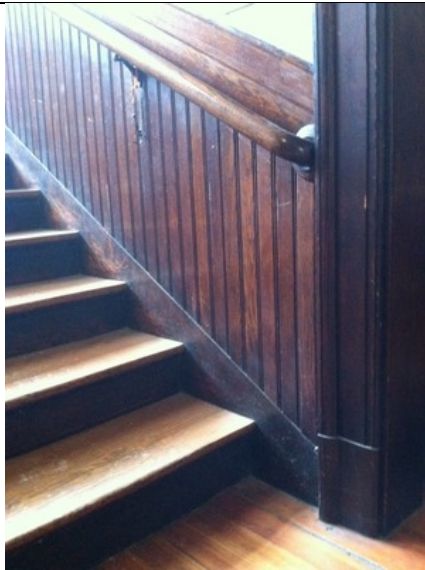


Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
1.2 Building Interior: First Floor: <i>Monumental Stair off Lobby to Second Floor:</i>		
 <p>1.2.a</p>	<p>Monumental stair is non-compliant due to guards and handrails:</p> <ul style="list-style-type: none"> • No rail on guard • Non-compliant railings, size of handrail • Gripping surface is interrupted and not continuous. • Handrails lack extensions at top and bottom of run. <p>• <i>Request variance from MAAB to maintain existing handrails</i></p> <p>• <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i></p>	<ul style="list-style-type: none"> • IBC 1009.12 Handrails: Stairways shall have handrails on each side and shall comply with Section 1012. • IBC 1012.3.1 Handrail Type I: Handrails with a circular cross section shall have an outside diameter of at least 1 ¼ inches and not greater than 2 inches • IBC 1012.4 Handrail Continuity: Handrail gripping surfaces shall be continuous, without interruption by newel posts and other obstructions.
 <p>1.2.b</p>	 <p>2.2.c</p>	<ul style="list-style-type: none"> • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.



Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
1.3 Building Interior: First Floor: <i>First Floor Side Entrance:</i>		
 <p>1.3.a</p>	<p>Stairs to side exit are non-compliant:</p> <ul style="list-style-type: none"> • Handrail on one side only • Handrails lack extensions at top and bottom of run <ul style="list-style-type: none"> • <i>Request variance from MAAB to maintain existing handrails</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • IBC 1009.12 Handrails: Stairways shall have handrails on each side and shall comply with Section 1012. • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.
 <p>1.3.b</p>		

Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
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1.4 Building Interior: Second Floor: *Second Floor Rear Egress:*





 <p>1.4.a</p>	<p>Egress stair to second floor is non-compliant due to winders, tread depth and handrails:</p> <ul style="list-style-type: none"> • Non-compliant tread depth at 10" • Non-compliant winders down from third floor • Handrails lack extensions at top and bottom of run. <ul style="list-style-type: none"> • <i>Request variance from MAAB to maintain existing handrails</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • IBC 1009.4.2 Riser Height and Tread Depth: Stair riser height shall be 7 inches maximum. Rectangular tread depths shall be 11 inches minimum. • IBC 1009.4.3 Winder Treads: Winder treads are not permitted in means of egress stairways except within a dwelling unit. • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run.
 <p>1.4.b</p>	 <p>1.4.c</p>	 <p>1.4.d</p>



Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
2.1 Building Interior: Second Floor: <i>Clock Tower Stairs:</i>		
 <p>2.1.a</p>	<p>Stair to mezzanine and third floor is non-compliant:</p> <ul style="list-style-type: none"> • Non-compliant tread depth at 10" and riser 7.5" • Non-compliant winders to mezzanine and third floor • Handrails are on one side only and are not continuous • Handrails are too large at 2 ¼" • Handrails lack extensions at top and bottom • Stairway is open to second floor landing and is not enclosed • <i>Request variance from MAAB to maintain existing handrails</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC</i> 	<ul style="list-style-type: none"> • IBC 1009.4.2 Riser Height and Tread Depth: Stair riser height shall be 7 inches maximum. Rectangular tread depths shall be 11 inches minimum. • IBC 1009.4.3 Winder Treads: Winder treads are not permitted in means of egress stairways except within a dwelling unit. • IBC 1009.12 Handrails: Stairways shall have handrails on each side and shall comply with Section 1012. • IBC 1012.3.1 Handrail Type I: Handrails with a circular cross section shall have an outside diameter of at least 1 ¼ inches and not greater than 2 inches
 <p>2.1.b</p>		<ul style="list-style-type: none"> • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. • IBC 1022.1 Enclosures Required: Interior exit stairways and interior exit ramps shall be enclosed with fire barriers constructed in accordance with Section 707.

Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
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2.2 Building Interior: Second Floor: *Second Floor Auditorium:*





 <p data-bbox="323 834 380 862">2.2.a</p>	<p data-bbox="968 319 1377 347">Auditorium is non-compliant due to:</p> <ul data-bbox="968 391 1528 591" style="list-style-type: none"> • Stairs to stage lack handrails. • Handrails lack extensions at top and bottom of run. • Doors lack panic hardware and closers. • Second egress is non-compliant in stair and door width <p data-bbox="968 802 1528 829">• <i>Install exit device and closer hardware on doors.</i></p>	<ul data-bbox="1554 326 2039 786" style="list-style-type: none"> • IBC 1009.12 Handrails: Stairways shall have handrails on each side and shall comply with Section 1012. • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.
 <p data-bbox="323 1403 380 1430">2.2.b</p>	 <p data-bbox="974 1403 1031 1430">2.2.c</p>	 <p data-bbox="1562 1403 1619 1430">2.2.d</p>

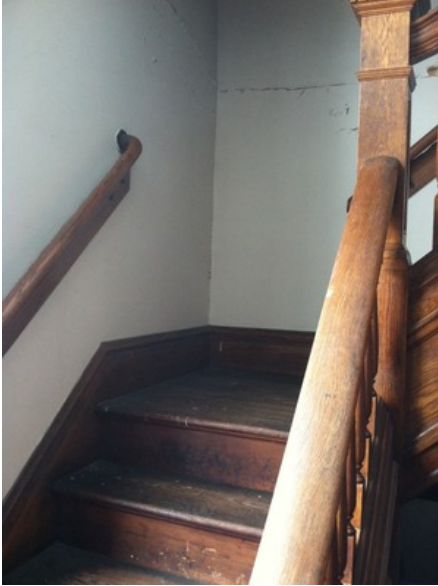

Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
2.3 Building Interior: Second Floor: <i>Balcony Egress Stair:</i>		
 <p>2.3.a</p>	<p>Egress stair from balcony is non-compliant:</p> <ul style="list-style-type: none"> • Stair clear width reduced to 30" • Non-compliant tread depth at 10" and riser height at 7.5" • Handrails lack extensions at top and bottom of run. • Non-compliant window at stair <ul style="list-style-type: none"> • <i>Request variance from MAAB to maintain existing handrails</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • IBC 1009.1 Stairway Width: The width of stairways shall be determined as specified in section 1005.1, but such width shall not be less than 44 inches. • IBC 1009.4.2 Riser Height and Tread Depth: Stair riser height shall be 7 inches maximum. Rectangular tread depths shall be 11 inches minimum. • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.
 <p>2.3.b</p>		<ul style="list-style-type: none"> • IBC 2406.4 Hazardous Locations: The following shall be considered hazardous locations requiring safety glazing materials: 10. Glazing adjacent to stairways, landings and ramps within 36 inches horizontally of a walking surface.



Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
2.4 Building Interior: Second Floor: <i>Second Floor Balcony:</i>		
 <p>2.4.a</p>	<p>Auditorium balcony is non-compliant due to:</p> <ul style="list-style-type: none"> • Continuous railings are not provided at stairs • Guards are non-compliant at 27" <ul style="list-style-type: none"> • <i>Eliminate access to balcony</i> 	<ul style="list-style-type: none"> • IBC 1009.12 Handrails: Stairways shall have handrails on each side and shall comply with Section 1012. • IBC 1013.1 Guards: Guards shall be located along open-sided waling surfaces, including mezzanines, equipment platforms, stairs, ramps and landings that are located more than 30 inches measured vertically to the floor or grade below at any point 36" horizontally to the edge of the open side.
 <p>2.4.b</p>		




Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
3.1 Building Interior: Second Floor: Egress from Third Floor:		
 <p>3.1.a</p>	<p>Egress stairs from third floor are non-compliant:</p> <ul style="list-style-type: none"> • Non-compliant tread depth at 10” and riser height at 7.5” • Non-compliant winders to mezzanine and third floor • Door swing obstructs clear landing • Handrails are on one side only and are not continuous • Handrails lack extensions at top and bottom of run <ul style="list-style-type: none"> • <i>Request variance from MAAB to maintain existing handrails</i> • <i>Install an additional compliant handrail on outside wall of the stairs if feasible and approved by MHC.</i> 	<ul style="list-style-type: none"> • IBC 1009.4.2 Riser Height and Tread Depth: Stair riser height shall be 7 inches maximum. The riser height shall be measured vertically between the leading edges of adjacent of treads. Rectangular tread depths shall be 11 inches minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread’s leading edge. • IBC 1009.4.3 Winder Treads: Winder treads are not permitted in means of egress stairways except within a dwelling unit. • IBC 1009.5 Stairway Landings: There shall be floor or landing at the top and bottom of each stairway. The width of the landings shall not be less than the width of stairways they serve.
 <p>3.1.b</p>		<ul style="list-style-type: none"> • IBC 1009.12 Handrails: Stairways shall have handrails on each side and shall comply with Section 1012. • IBC 1012.6 Handrail Extensions: Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run.

Photo	Non-Compliant Element / Condition <i>Potential Solution</i>	IBC Reference
3.2 Building Interior: Third Floor: <i>Third Floor Door from Stairs:</i>		
 <p data-bbox="310 824 373 852">3.2.a</p>	<p data-bbox="968 285 1444 313">Entrance to masonic hall is non-compliant:</p> <ul data-bbox="968 354 1528 852" style="list-style-type: none"> <li data-bbox="968 354 1528 381">• 6' pocket door to masonic hall is non-compliant. <li data-bbox="968 824 1304 852">• <i>Eliminate access to balcony.</i> 	<ul data-bbox="1549 285 2043 381" style="list-style-type: none"> <li data-bbox="1549 285 2043 381">• IBC 1008.1.2 Door Swing: Egress doors shall be of the pivoted or side-hinged swinging type.

**Appendix G
IBC and IEBC Code Compliance Checklist**

Brookfield Town Hall
6 Central Street, Brookfield, MA 01508

June 1, 2014 rev. 7/1/2014

Ref. Codes: IBC: 2009 Edition of the International Building Code
IEBC: 2009 Edition of the International Existing Building Code
EBCM: Mass code ammendments to IEBC
Mass General laws Section 26G: Fire Prevention

Gross Floor Areas		Area SF	Occupancy Group	Occupancy Load
Floor				
Basement		5,600	B-2,600 / S1-3,000	B: 26 (100 gross)
First Floor		5,600	B - 5,600	B: 56 (100 gross)
Second Floor		5,600	A3 / Stage	A3: 400 (7 net) / 23 (15 net stage) / 49
Balcony		1,480	A3	A3: 49 (restricted to fixed seats)
Third Floor		2,390	A3	A3: 177 (7 net)
Totals		20,670		731
Basement, 1st & 2nd Flrs		16,800		
3 floors Plus Balcony		18,280		
Total with 3rd floor		20,670		

Phased Access Improvement and Re-Use Study

The following table addresses the existing building's conformance with the IBC Building Code. As an existing building, application of the code is subject to the IEBC and MA ammendments and is dependent on the level of work being performed over a three year period and the status of the building as an historic structure. Under each category existing conditions are noted, and potential corrections indicated.

Code	Ch	Section	Description	Code Requirement	Existing	Proposed	Notes / IEBC modifications
IBC	3	303.1	Use and Occupancy See above				
IBC	5	Table 503	General Heights and Areas Heights and Areas Heights Area	3/19000 per floor	3/15,070	no change	
IBC	6	Table 601	Types of Construction Fire resistance rating for building elements		Type 3B	no change	2 hour exterior masonry walls, 0 all others
IBC	7	704.2 704.3 704.4 705.5 709.3 710.3 7.11.3 7.12.3 Table 715.4 Table 715.5 Table 715.5.4	Fire and Smoke Protection Column protection Primary structural frame protection Secondary member protection Exterior wall rating Fire Partitions rating Smoke Barriers rating Smoke Partitions rating Horizontal assembly rating Fire door ratings Fire window assembly ratings Limiting size of wired glass panels	0 0 0 2 1* 1* 0 0 20 minute* 3/4 hour 1,296 sqin	0 0 0 2 0 0 0 0 N/A N/A	no change no change no change no change no change no change no change no change no change no change no change	Masonry exterior * IEBC 1103.6 & 1103.7 no rating required * IEBC 1103.6 & 1103.7 no rating required * IEBC 1103.6 & 1103.7 no rating required
IBC	8	Table 803.9	Interior Finishes Wall and ceiling finishes	A - Exit Enclosures B-Corridors C-Rooms	Plaster, wood and timber interior partitions and ceilings, wood floors, wood wainscoting in public areas	no change	* IEBC 1103.5 Interior finishes allowed if historic.

Code	Ch	Section	Description	Code Requirement	Existing	Proposed	Notes / IEBC modifications
IBC	9		Fire Protection Systems				
		903.2	Sprinkler systems: where required	Sprinkler required in new construction *	Not sprinklered	no change	Mass general law requires sprinkler if work area is over 7,500 sf at direction of Fire Department
		906.1	Portable fire extinguishers: Where required in new and existing group A	Required in new and existing group A, B	Some fire extinguishers in key places	no change	
		907.2	Fire alarm detection systems: Where required.	Fire alarm detection required for new buildings and structures	No fire alarm system, detectors or pull stations	no change	MA amendment 907.2 requires manual fire alarm in Group A occupancies >49
IBC	10		Means of Egress				
		1003.2	Ceiling height	7' 6"		no change	
		Table 1004.1.1	Floor area allowances per occupant	See above	See above	no change	
		1004.3	Posting of occupant load	Posting required	not posted	Post load	
		1005.1	Required egress width	.3* occ load for stairs * .2* occ load for doors *	Second egress from auditorium is non compliant	no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.
		1006.1	Emergency powered egress illumination	Means of egress shall be illuminated	Some emergency lighting and lighted exit signs		
		1007.1	Accessible means of egress required	See 521 CMR	None		
		1008.1.1	Clear widths of doors	32" clear minimum *	Non compliant door widths, Non compliant pocket door	no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.
		1008.1.2	Door swing	Shall swing in the direction of travel if occ load is >50	compliant	no change	
		1008.1.5	Floor elevation: landing on each side of a door	Landing is required on each side of a door	Non compliant landings		
		1008.1.6	Landing size	not less than width of door x 44"	Non compliant landings		
		1008.1.10	Panic / fire exit hardware	Required if over occ load >50	none at auditorium		
		1009.1	Stairway width	not less than 44" *	Non compliant	no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.
1009.2	Headroom	80"	Non compliant stairs in some locations due headroom	no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.		
1009.4.2	Stair risers and treads	Riser: 7" max, 4" min Tread 11" min	Non compliant stairs in some locations due to risers and treads	no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.		
1009.4.3	Winder Treads	Winders not permitted	Non compliant stairs in some locations due to winders and width	no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.		

Code	Ch	Section	Description	Code Requirement	Existing	Proposed	Notes / IEBC modifications
		1009.5	Stairway landings	Landings are required at top and bottom of stairways	Non compliant stairs in some locations due to lack of landings	no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.
		1009.12	Handrails	Handrails required on both sides of stairway *	Non compliant handrails: only single rails in some locations, not continuous, non compliant rail size, no extensions	no change	*IEBC 1103.9 Grand stairways can be accepted without complying.
		1011.1	Exit signs: Where required	Required at exits and exit access doors	Some emergency lighting and lighted exit signs	no change	*IEBC 1103.11 Alternate exit signs permitted with approval of building official.
		1012.2	Handrail height	34" *	Non compliant stairs in some locations due to handrail height	no change	*IEBC 1103.9 Grand stairways can be accepted without complying.
		1012.3	Handrail graspability	diameter 1 1/4" - 2"	Non compliant stairs in some locations due to handrail size	no change	*IEBC 1103.9 Grand stairways can be accepted without complying.
		1012.4	Handrail continuity	continuous without interruption	Non compliant stairs in some locations due to handrail continuity	no change	*IEBC 1103.9 Grand stairways can be accepted without complying.
		1012.6	Handrail extensions		Non compliant stairs in some locations due to handrail extensions	no change	
		1012.9	Intermediate handrails	required on egress stairs over 5' in width	Compliant	no change	
		1013.1	Guards: Where required	at level changes >30"	low or missing at various locations	no change	
		1013.2	Guard height	42"	Non compliant 37" guard rails	no change	
		1013.3	Openings	<4" sphere	Compliant	no change	
		1015.1	Two exits required if:	occ load >50	Compliant	no change	
		1015.2.1	Two exit arrangement	apart by 1/2 the diagonal length	Compliant	no change	
		1016.1	Travel distance	200'	Compliant	no change	
		Table 1018.1	Corridor rating	1 hr, 0 if sprinklered if occ load <30 *	0	no change	* IEBC 1103.6 & 1103.7 no rating required
		1018.2	Corridor width	by 1005.1 but not less than 44" *		no change	*IEBC 1103.3 Existing stair and corridor and door widths may be approved if determined to be sufficient and not prove a hazard by building official.
		1018.3	Dead ends	shall be <20'	Compliant	no change	
		Table 1021.1	Min. no. of exits per story per	occ load	2	no change	
		Table 1021.2	Stories with one exit	First floor or basement A, B: if <50 occupants	Compliant	no change	
		1022.1	Exit enclosures required	1 hr rating if connecting <4 stories	non compliant	no change	* IEBC 1103.6 & 1103.7 no rating required