GENERAL NOTES

- 1. DIMENSIONS TAKE PRECEDENCE OVER SCALE ON CONSTRUCTION DOCUMENTS.
- 2. G.C. SHALL VISIT THE SITE PRIOR TO BIDDING TO CHECK EXISTING CONDITIONS. SHOULD CONTRACTOR FIND CONDITIONS WHICH HE BELIEVES WOULD IMPEDE HIS WORK OR FIND DISCREPANCIES BETWEEN THE PLANS AND EXISTING SITE CONDITIONS, SUCH CONDITIONS MUST BE REPORTED IMMEDIATELY TO THE ARCHITECT. FAILURE TO ADVISE WILL CONSTITUTE NOTICE THAT CONTRACTOR IS FULLY SATISFIED WITH THE EXISTING CONDITIONS AND THAT HE INTENDS TO PERFORM HIS OBLIGATIONS WITH NO ALLOWANCE EITHER IN TIME OR MONEY FOR ANY IMPLEMENTS TO HIS WORK.
- 3. ITEMS NOT INDICATED IN THESE DOCUMENTS THAT CAN BE LEGITIMATELY AND REASONABLY INFERRED TO COMPLETE THE WORK SHALL BE FURNISHED BY THE CONTRACTOR AS THOUGH IT WERE DETAILED HEREIN.
- 4. ALL BUILDING AND SITE SIGNS REQUIRE SEPARATE APPROVALS AND PERMITS.
- 5. CONTRACTOR SHALL PROVIDE PROPER SHORING AND DISCONNECTION OF ALL UTILITIES BEFORE ANY DEMOLITION.
- 6. EXIT WAYS SHALL ILLUMINATED BY BACK-UP POWER. THE CONTRACTOR SHALL PROVIDE EMERGENCY LIGHTING TESTING PRIOR TO INSPECTION BY DISCONNECTING THE MAIN.
- 7. THE WARRANTIES AND GUARANTEES PROVIDED IN THE CONSTRUCTION DOCUMENTS SHALL BE IN ADDITION TO AND NOT IN LIMITATION OF ANY OTHER WARRANTY OR GUARANTY OR REMEDY REQUIRED BY LAW OR BY THE CONSTRUCTION DOCUMENTS.
- 8. THE UNLATCHING OF ANY LEAF OF ANY EXIT DOOR SHALL NOT REQUIRE MORE THAN ONE OPERATION.
- 9. HANDLES, PULLS, LATCHES AND LOCKS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.
- 10. BID DOCUMENTS SHALL BE DISTRIBUTED TO SUB-CONTRACTORS IN COMPLETE SETS AS INDICATED BY THE SHEET INDEX. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT SUBCONTRACTORS BID ON ALL ITEMS ASSOCIATED WITH THEIR RESPECTIVE TRADES.
- 11. TELEPHONE CONNECTION REQUIRED BY THE PHONE COMPANY: A 25 PAIR CABLE WITH A PULL STRING IN A 4" CONDUIT STUBBED UP AT THE TELEPHONE MOUNTING BOARD INSIDE THE BUILDING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THIS INSTALLATION WITH THE LOCAL PHONE COMPANY AT THE EARLIEST POSSIBLE TIME TO INSURE COMPATIBILITY WITH THE CONSTRUCTION SCHEDULE, BUT NO LATER THAN 30 DAYS PRIOR TO DATE OF SUBSTANTIAL COMPLETION.
- 12. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
- 13. ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, USED, CLEANED AND CONDITIONED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN SPECIFICATIONS OR INSTRUCTIONS UNLESS HEREINAFTER SPECIFIED TO THE CONTRARY.
- 14. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION AND/OR INSTALLATION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- 15. ALL WORK SHALL BE EXECUTED IN A NEAT AND WORKMANLIKE MANNER, ACCEPTABLE TO OWNER.
- 16. WHEN WORK NOT SPECIFICALLY CALLED OUT IS REQUIRED TO COMPLETE THE PROJECT, IT SHALL BE PROVIDED AND BE OF THE BEST MATERIALS AND WORKMANSHIP.
- 17. CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTATIAL COMPLETION (IN WRITING)
- 18. UNLESS OTHERWISE SPECIFICALLY NOTED, THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT AND MACHINERY, TRANSPORTATION, AND OTHER FACILITIES AND SERVICES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK.
- 19. THE CONTRACTOR WARRANTS TO THE OWNER AND THE ARCHITECT THAT ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT WILL BE NEW UNLESS OTHERWISE SPECIFIED, AND THAT ALL WORK WILL BE GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. ALL WORK NOT SO CONFORMING TO THESE STANDARDS MAY BE CONSIDERED DEFECTIVE. IT IS UNDERSTOOD THAT NO INFERIOR OR NON-CONFORMING WORK OR MATERIALS WILL BE ACCEPTED WHETHER DISCOVERED AT THE TIME THEY ARE INCORPORATED IN THE WORK OR AT ANY TIME BEFORE OR AFTER THE FINAL ACCEPTANCE. IF REQUIRED BY THE ARCHITECT OR OWNERS AGENT, THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF MATERIALS AND

GENERAL SCOPE

- 1. WE CERTIFY TO THE BEST OF OUR KNOWLEDGE AND BELIEF THAT THE DESIGN OF THIS PROJECT COMPLIES WITH THE APPLICABLE PROVISIONS OF THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT OF 1990 AND COMPLIES WITH ANSI A117.1 - 2009.
- 2. ALL EXITS TO BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE
- 3. MANUALLY OPERATED EDGE OF SURFACE MOUNTED FLUSH BOLTS ARE PROHIBITED.
- 4. STUD PARTITIONS TO BE ANCHORED SO AS TO RESIST A LATERAL LOAD OF 5 P.S.F.
- 5. ALL INTERIOR OR EXTERIOR GLASS SUBJECT TO HUMAN IMPACT SHALL CONFORM TO STADARDS SET FORTH BY CHAPTER 24 OF THE I.B.C. AND THE SAFETY STANDARD FOR ARCHITECURAL GLAZING MATERIALS, TITLE 16 CFR PART 1201 AS ISSUED BY THE CONSUMER PRODUCT SAFETY COMMISSION, EFFECTIVE JULY 6, 1972. INCLUDING ALL AMENDMENTS TO DATE. IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL APPLY
- 6. INTERIOR FINISHES TO HAVE MAXIMUM FLAME SPREAD RATING OF 200

FIRE NOTES & REQUIRMENTS:

- 1. Fire suppression and detection drawings are deferred submittals and will not be approved as part of this submitted package.
- 2. Fire stopping materials installed are required to have labels on both sides of the protected
- 3. Thermal and sound insulation and coverings which are installed in concealed and exposed spaces and as covering over pipe and tubing shall be tested in accordance with ASTM E 84 and have a flame spread of 0-25 and a smoke index of 0-450.
- 4. Thermal and sound insulation and coverings over pipe and tubing which are installed in concealed plenum spaces shall be tested in accordance with ASTM E 84 and have a flame spread of 0-25 and a smoke index of 0-50.
- 5. Provide evacuation plans in all public areas. These plans shall indicate the location which the plan is installed and the exit route and doors which serve the occupants.
- 6. Provide a 2A:10 BC rated fire extinguisher within a 75 foot travel distance to all spaces in the structure.
- 7. Fire stopping materials for non-ferrous pipe, conduit and other synthetic materials shall be compatible with each other.
- 8. Environmental air ducts that penetrate fire rated assemblies shall be provided with UL 555 labeled fire dampers that have a fire rating of at least 75% of the assembly being penetrated.
- 9. All fire rated assemblies shall be tested in accordance with ASTM E 119.
- 10. Provide a supra box which may be purchased from Salt Lake City Fire Prevention Bureau and install the box adjacent to the main door.

An elevation certificate shall be required at footing/foundation inspection to confirm top of footing, top of foundation, floor elevations, roof peak elevation and location

on the lot.

Parking Garages are Extra

2x 10lb ABC in Parking

area in locked cabinets

1x 10lb ABC INSIDE

Mech room for elevator, on

Hazard.

wall hook.

TIRE SYSTEMS REQUIRED N.F.P.A. 13 □ STANDPIPE \square N.F.P.A. 13-R \square P.I.V. □ U.L. 300 □ N.F.P.A. 13-D PLANS MUST BE APPROVED

Fire Sprinkler & Alarm Plans; are a deferred submittal & must go to a 3rd party for review then sent to the UFA for review & acceptance

4572 S. & 4600 S. 900 E. - MILLCREEK, UTAH 84107

PROJECT DIRECTORY					
OWNER:	ARLINGTON PROPERTIES L.L.C. Contact: Jay Mirrafie Phone: 801-558-8900 Email: jmirrafie@gmail.com				
ARCHITECT / DESIGN:	EPJ ARCHITECTS, L.L.C. 2619 WEST ALICE SPRINGS ROAD Riverton, Utah 84065 Contact: Ed James Phone: 801-419-5482 Email: EPJames3@gmail.com				
STRUCTURAL ENGINEERING:	GILSON ENGINEERING 12401 South 450 East - Bldg. C2 Draper, Utah 84020 801-571-9414 - Office Brad@GilsonEngineering.com				
CONTRACTOR/ BUILDER:	TABRIZ CONSTRUCTION Contact: Mehran Tahmassebi Phone: 801-808-9382 Email: mehranjan@me.com Tabrizconst@yahoo.com				
Surveyor/ Civil Engineering:	SATURN ENGINEERING 1777 East 2100 South SLC, Utah 84106 Phone: 801-809-5993 Email: Ramin@Saturneng.us				
MECHANICAL/ ELECTRICAL / PLUMBING ENGINEERING:	ROYAL ENGINEERING 1837 S. East Bay Blvd. Provo, UT 84606 Contact: Elliott Breinholt elliott.breinholt@royaleng.com Phone: 801-375-2228 - ex. 47 Contact: Chris Falslev Phone 801-375-2228 - ex. 30 Chris.falslev@royaleng.com				
GEOTECH/ SOILS ENG.	CMT ENGINEERING LABORATORIES Contact: Jeffrey J. Egbert Steven L. Smith www.cmtlaboratories.com				

ENVELOPE INSULATION COMPON BUILDING TO MEET REQUIREMENTS PI CLIMATE ZONE 5	NENT (MINIMUMS), R-Value METHOD ER TABLE C402.1.3 OF THE 2018 IECC.
Roofs: Insulation entirely above roof deck	R-30 ci
Metal buildings Attic and other	R-19 + R-11 LS R-38
Walls, above grade: Mass Motal building	R-11, 4 ci R-13 + R-13 ci
Metal building Metal framed Wood framed and other	R-13 + R-7.5 ci R-13 + R-7.5 ci R-13 + R-3.8 ci or R-20
Below-grade wall Floors:	R-7.5 ci
•	R-10 ci R-30 I REQUIRED BETWEEN LEVEL 1 (GARAGE /
TIGHT TO THE BO	2 (RESIDENTIAL), INSULATION MUST BE DTTOM OF THE SPANDECK.
Slab-on-grade floors: Unheated slabs Heated slabs	R-10 for 24" below R-15 for 36" below+ R-5 full slab
Opaque doors Nonswinging	R-4.75

BOILDING LIVELOI ET LIVE	BUILDING ENVELOPE FENESTRATION MAXIMUM U-FACTOR & SHGC REQUIREMENTS					
Vertical Fenestration	Minimum	Utilized Retail	d Utilized Residential			
Fixed fenstration	0.38	0.38	0.30			
Operable fenstration	0.45	0.38	0.30			
Entrance doors	0.77	0.38	0.00			
SHGC						
Orientation	SEW	Ν				
PF< 0.2	0.38	0.51	-			
0.2 <= PF < 0.5	0.46	0.56				
PF > = 0.5	0.61	0.61				
ci = Continuous Insulation	NR = No Requirement		LS = Liner System			

Air barrier co	mpliance will be verified in accordance with IECC C402.5.1.2 & R402.4:	
	shall be as follows:	
A. All mater	ials in the air barrier shall comply with IECC 402.5.1.2.1 & IECC Table	
R402.4.1.1.	(Residential).	
Other, option	al methods:	
B. Air barrier	s shall be of tested assemblies per IECC 402.5.1.2.2 or	
C. Building v	rill be tested for air leakage per IECC C402.5.2 & IECC R402.4.1.2 (Residenti	al)

Deferred Submittals: 1. FIREPLACE INSERTS.

- 2. FINAL ROOF TRUSS DESIGN & TRUSS DETAILS.
- 3. STUCCO SYSTEM (IECC REPORT) IF STUCCO IS UTILIZED.
- 4. NFPA-13 FIRE SPRINKLER SYSTEM. FIRE SPRINKLERS & FIRE ALARM DETAILS
- TO BE PROVIDED BY FIRE SPRINKLER COMPANY.
- 5. ELECTRIC VEHICLE CHARGING STATIONS IN COMPLIANCE WITH IBC 406.2.7. CHARGING STATIONS SHALL BE INSTALLED IN ACCORDANCE WITH
- NFPA-70 & SHALL BE LISTED & LABELED IN ACCORDANCE w/ UL 2202. 6. CANOPIES / AWNINGS - DESIGN & FABRICATION BY OTHERS.

CODE ANALYSIS

CODI	E ANAL	
CHAPTER 3:	303	USE AND OCCUPANCE CLASSIFICATION 303.4 ASSEMBLY, Group A-3 (Retail Area Option - Main Level)
	304	304.1 BUSINESS, Group B (Retail Area Option - Main Level)
	309	309.1 MERCANTILE, Group M (Retail Area Option - Main Level)
	310 311	3010.3 RESIDENTIAL Group R-2 (2nd & 3rd Levels) 3011.3 LOW-HAZARD STORAGE Group S-2 (Parking)
CHAPTER 4:	011	SPECIAL DETAILED REQUIREMENTS BASED ON USE & OCCUPANCY
OTIVAL TELL T.	** Pa	urking Garage must comply with all applicable Portions of section 406
	406	MÖTOR-VEHICLE-RELATED OCCUPANCIES
	** D	406.2.2 CLEAR HEIGHT - Vehicle & Traffic areas shall not be less than 7 feet.
	^^ RE 420	esidential must comply with all applicable Portions of Section 420 GROUPS I-1, R-1, R-2, R-3 & R-4
	420.5	FIRE & SMOKE ALARM SYSTEMS INSTALLED PER IBC SECTION 907.2.9
CHAPTER 5:	720.0	GENERAL BUILDING HEIGHTS AND AREAS
OTIVIL TELLO.	503	GENERAL BUILDING HEIGHT AND AREA LIMITATIONS
	504	BULDING HEIGHT & NUMBER OF STORIES:
	504.3	BUILDING HEIGHT IN FEET, PER TABLE 504.3:
		A, B, E, F, M, S, U - Equipped with Fire Sprinklers - TYPE VB CONSTRUCTION = 60'-0" R - Equipped with Fire Sprinklers - TYPE VB CONSTRUCTION = 60'-0"
	504.4	TABLE 504.4 - ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE = 3
	506	BUILDING AREA
	506.2.4	LEVEL 1 Allowable Area Determination (Type IA) (S-2, A-3, B, M) UL
		LEVEL 2 Allowable Area Determination (Type VB)R-2 21,000
\wedge \wedge		BUILDINGS TWO or MORE STORIES ABOVE GRADE EQUIPPED WITH AN NFPA-13 FIRE SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH 903.3.1.1.
<u>/2\/3\</u>	508.4	
		BUILDING EQUIPPED THROUGHOUT WITH AUTOMATIC FIRE SPRINKLERS NFPA-13
	Table 508.4	3 HOUR VERTICAL SEPARATION REQ'D BETWEEN S-2 & A-3/B/M OCCUPANCIES.
		3 HOUR VERTICAL SEPARATION REQUIRED BETWEEN S-2 & R-2 OCCUPANCIES.
	500 4 0	3 HOUR HORIZONTAL SEPARATION REQUIRED BETWEEN S-2 & R-2 OCCUPANCIES.
	508.4.2	LEVEL 1 (S-2, A-3, B, M) Each are UNLIMITED (UL) 11,346 / UL LEVEL 2 (SM) 11,800 / 21,000 = 0.562
		LEVEL 2 (SM) $11,800 / 21,000 = 0.562$ LEVEL 3 (SM) $11,800 / 21,000 = 0.562$
		TOTAL FOR 3 LEVELS = 1.124 < 3.0
	510.2	Horizontal building separation allowance:
		1. Horizontal assembly having a fire-restistance rating of not less than 3 hours.
		2. The building below including the horiz. assembly, is of Type 1-A construction.3. Shaft & stairway enclosures through the horiz. assembly shall have not less than a 2 horizeros.
		fire-resistance rating with opening protectives in accordance with Sect 716.
CHAPTER 6:		TYPES OF CONSTRUCTION:
O		TYPE IA (PARKING / RETAIL) - LEVEL 1
		TYPE VB (RESIDENTIAL (R-2)) - LEVELS 2 & 3
CHAPTER 7:	705.8 &	MAXIMUM AREA OF EXTERIOR WALL OPENINGS. (SOUTH SIDE IS 15'-0")
	Table 705.8	15 ft. to less than 20 ft. Unprotected, Sprinkled - Allowable = 75%
	000 0 4 4	South Wall (15'-0") 5,226 / 1152 = 22%
CHAPTER 9:	903.3.1.1. 915	NFPA-13 FIRE PROTECTION SYSTEM - FULLY AUTOMATIC SPRINKLER SYSTEM CARBON DIOXIDE ALARMS INSTALLED PER THIS SECTION
CHAPTER 10:	010	MEANS OF EGRESS
JOAFTER 10:	1004.1	DESIGN OCCUPANT LOAD
	.00 1.1	SEE EMERGENCY EGRESS PLANS (SHEET A104.1 & A104.2)
	1005.2	EGRESS WIDTH: OK
CHAPTER 11:		ACCESSIBILITY

1104 - EXISTING ACCESSIBLE ROUTE: RE: CIVIL PLANS

BE PERMITTED TO BE VERICAL

303.1 GENERAL CHANGES IN FLOOR SURFACES SHALL COMPLY WITH SECTION 303.

303.2 VERTICAL CHANGES IN LEVEL OF INCH (6.4mm) MAXIMUM IN HEIGHT SHALL

303.3 BEVELED CHANGES IN LEVEL GREATER THAN 1/4 INCH (6.4mm) IN HEIGHT

303.4 RAMPED CHANGES IN LEVEL GREATER THAN 1/2 INCH (13mm) IN HEIGHT

AND NOT MORE THAN 1/2 INCH (13mm) MAXIMUM IN HEIGHT

SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.

ICC/ANSI A117.1-2009 303 CHANGES IN FLOOR LEVEL

TOTAL OCCUPANCY (Parking Garage)

TOTAL OCCUPANCY (Residential)

2nd LEVEL

3rd LEVEL

2nd & 3rd Level (Residential) - See Sheet A104

LEVEL 1 - ALLOWABLE	BUIL	DING SHE	LL (RETAIL SPACE)	
OCCUPANCY GROUP(S)	RETA	IL (A3 OR B	OR M) PARKING (S-2))
OCCUPANCY GROUP(S)	PARKING = S2 PROPOSED RETAIL T.B.D.			
LEVEL 2 & LEVEL 3	RESID	DENTIAL GR	OUP R (R-2)	
TYPE(S) OF CONSTRUCTION	TYPE	IA	(Main Level - Parking /	RETAIL)
	TYPE		(2ND & 3RD LEVELS)	2\3
FIRE SPRINKLERS	NFPA-	13 FIRE SPRIN	ATIC FIRE SPRINKLERS IKLER SYSTEM (IBC903.3.1 IKLERS INSTALLED & WITHOUT FF	
MIXED OCCUPANCY RATIO	NONE			
ACCESSORY OCCUPANCY	ACCE < 750		EAS HAVING FLOOR AF	REA
SQUARE FOOTAGES:	Main I	RETAIL AREA:		3,850 s.
· · · · · · · · · · · · · · · · · ·		PARKING GAF	AGE:	7,082 s.
		LOBBY / STAIF	RS / ELEVATOR:	414 s.
			TOTAL:	<u>11,346 s.</u>
		CORRIDORS /		1,106 s.
		RESIDENTIAL		10,229 s.
		EXTERIOR DE	TOTAL:	465 s.
	3rd	CORRIDORS /		<u>11,800 s.</u> 1,106 s.
		RESIDENTIAL		1,100 s. 10,229 s.
		EXTERIOR DE		465 s.
			TOTAL:	11,800 s.
	TOTAL	(ALL LEVELS)		34,946 s.
BUILDING HEIGHT	< 34'-6	IUM 34'-0" (FIN 5" ± (T/RIDGE) OR CEILING: I		
OCCUPANCY SEPARATIONS	<u>1 HO</u> I	JR FIRE PAI	RTY WALL SEPARATION	PER PLANS
DESIGN CODE(S):			NAL BUILDING CODE (I.B.C.))
			endix J, Issued by the ICC	
			NAL PLUMBING CODE (IPC) NAL MECHANICAL CODE (IN	40)
			RGY CONSERVATION CODE	,
			NAL FIRE CODE.	
			LECTRICAL CODE (NEC)	
	ACCESS			
	2018	IBC / 2009 IC	C/ANSI 117.1	
OCCUPANT LOAD				
AREA	OCC.			
DESCRIPTION	RATIO	S.F.	OCCUPANTS	3
RETAIL AREA	15-200	3,850	T.B.D.	
Retail area is Constructed a Occupant Loading to be Re			aont plane	

38 total

126 total

63

63

SHEET INDEX

	ET INDEX
<u>Archited</u>	ctural:
A100	Cover Sheet / Code Analysis
A101	Parking / Retail Level Floor Plan
A102	2nd Level & 3rd Level Residential Floor Plans
A103	Typical Unit Floor Plans
A103.1	Typical Unit Floor Plans
A104.1	Emergency Egress Plan (Level 1)
A104.2	Emergency Egress Plan (Levels 2 & 3)
A201	Exterior Elevations
A202	Exterior Rendering
A301	Building Sections
A401	Stairway Sections & Details
A402	Stairway Sections & Details
A403	Elevator Details
A501	Wall Details

Structural:

A502

A503

S100	Structural Notes & Details
S101	Footing & Foundation Plan
S102	Main Floor Suspended Concrete Plan
S103	Upper Floor Framing Plan
S104	Roof Framing Plan
S105	Structural Suspended Floor Details
S106	Structural Details

Exterior / Wall Structural Straps

Misc. Details

Shaft Liner Cut Sheets

Typical ADA Details

Civil:

CS001	Cover Sheet
NT001	General Notes
CP001	Demolition Plan
CP002	Site Plan
CP003	Utility Plan
CP004	Grading & Drainage Plan
CP005	Erosion Control Plan
CP006	Erosion Control Details
DT001	Details
DT002	Details

Flectrical.

Electrical.	
E000	Electrical Cover Sheet
ES100	Photometric Site Plan
ES101	Electrical Site Plan
E101	Parking & Retail Level Power Plan
E102	2nd Level Power Plan
E103	3rd Level Power Plan
E104	Roof Power Plan
E151	Parking & Retail Level Lighting Plan
E152	2nd Level Lighting Plan
E153	3rd Level Lighting Plan
E401	Typical Unit Electrical Plans

Electrical Diagrams Electrical Wiring Diagrams E503 Electrical Installation Deta Planning Review E601 Electrical Schedules E602

These plans have been reviewed for code compliance by the Millcreek Planning Department. Electrical Schedules Reviewed By:rmay 11/04/2020 10:58:44 AM File: 200468 Updated Plan Set Electrical Schedules Electrical Specifications

Mechanical/ Plumbing

E603

E701

M0.1	Mechanical Notes & Legends
M1.1	Main Level Mechanical Plan
M1.2	2nd / 3rd Floor Mechanical Pla
M4.1	Enlarged Unit Mechanical Plar
M5.11	Mechanical Details
M5.2	Mechanical Details

M6.1 Mechanical Schedules Mechanical Specifications Mechanical Specifications M7.3 Mechanical Specifications

Plumbing Notes & Legends Main Floor Plumbing Plan 2nd/3rd Floor Plumbing Plan

P1.3 Roof Plumbing Plan P4.1 Enlarged Unit Plumbing Plans P5.1 Plumbing Details

P5.2 Plumbing Details Plumbing Schedules & Schematics P6.1

P6.2 Plumbing Schematics P7.1 Plumbing Specifications

ACCEPTED

Shil White 10/29/2020

UNIFIED FIRE AUTHORITY

Plumbing Specifications

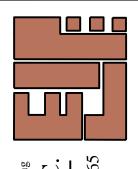


REVIEWED FOR CODE

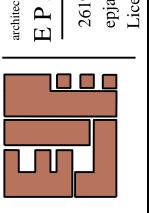
COMPLIANCE
R COMPLIANCE WITH THE APPLICA Shind Bolon afrom

wed by: Jim Hardy on 10/29/2020

EVIEW SHALL NOT RELIEVE THE CONTRA



 \simeq



MIXED USE SITE DEVELOPEMENT

RLING 4572

COVER SHEET A CODE ANALYSIS

CALE (11x17): N/A

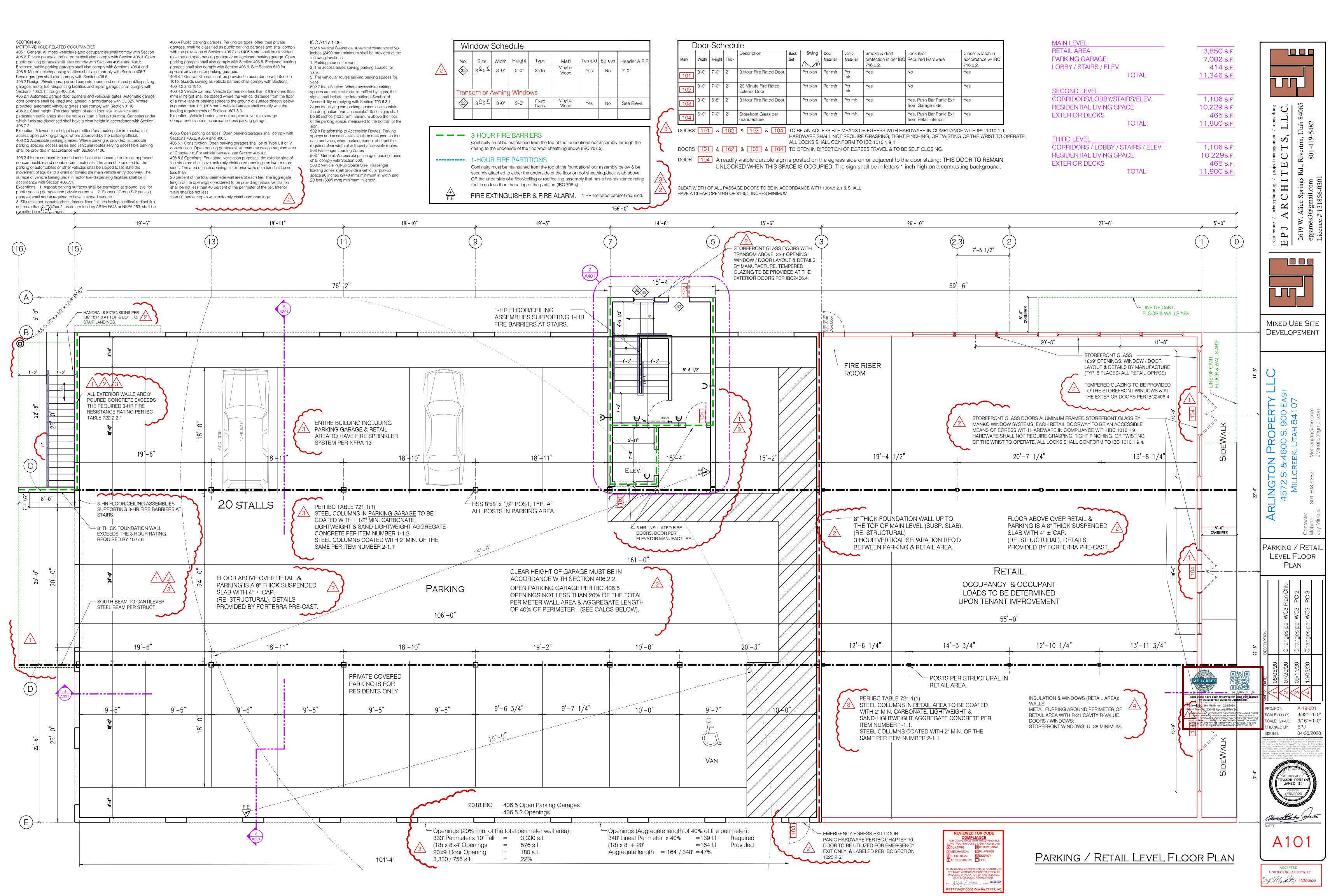
SCALE: (24x36): N/A

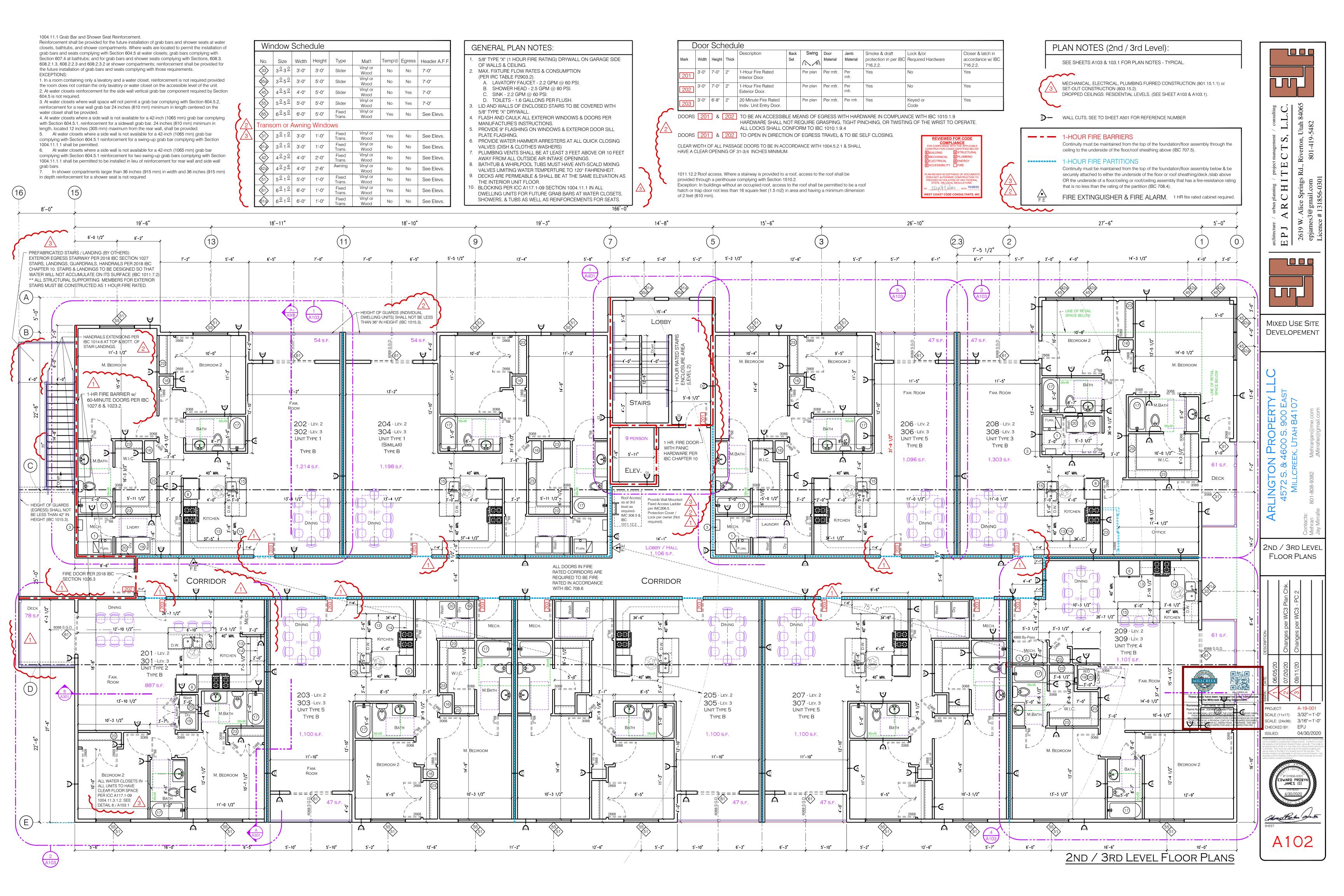
EPJ

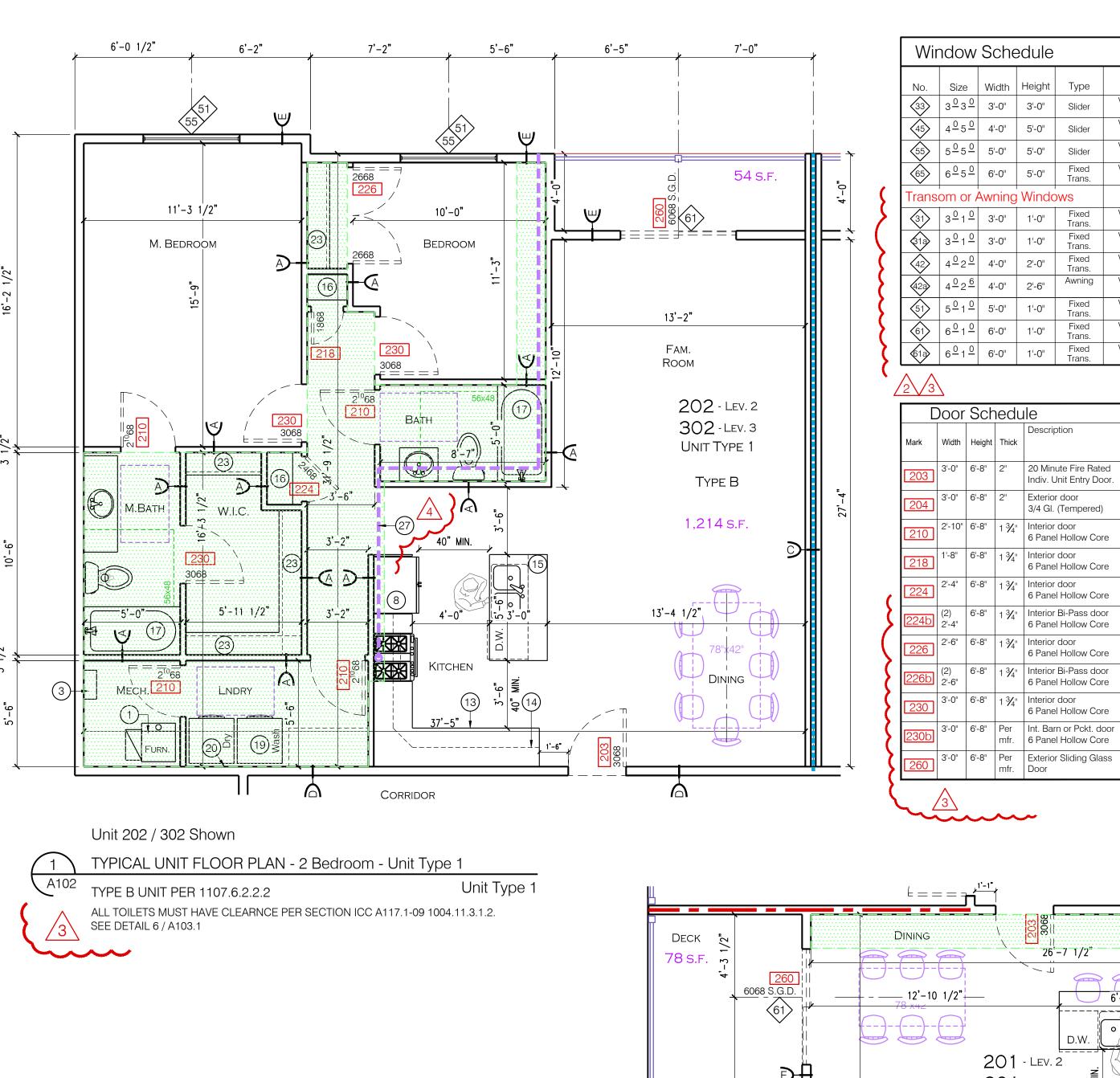
04/30/202

HECKED BY:

ISSUED:







Window Schedule Temp'd | Egress | Header A.F. 45 4050 4'-0" 5'-0" SliderNo Yes 7'-0" 55 | $5\frac{0}{5}$ | 5'-0" | 5'-0" | Slider $\langle 65 \rangle | 6 \stackrel{0}{-} 5 \stackrel{0}{-} | 6'-0" | 5'-0"$ No $\langle 31 \rangle \mid 3 \stackrel{\cup}{=} 1 \stackrel{\cup}{=} \mid 3' - 0" \mid 1' - 0" \mid$ Yes 313 3 - 1 - 3 - 0No (51) | 5 0 1 0 | 5'-0" | 1'-0" 61 $| 6 \stackrel{\cup}{-} 1 \stackrel{\cup}{-} | 6'-0''$ (61) $\left| 6 \frac{0}{1} \right| \left| 6' - 0'' \right| \left| 1' - 0'' \right|$ Trans. No

20 Minute Fire Rated

Indiv. Unit Entry Door.

3/4 Gl. (Tempered)

6 Panel Hollow Core

mfr. 6 Panel Hollow Core

6'-8" 1 3/4" Interior Bi-Pass door

Exterior door

VALVES LIMITING WATER TEMPERTURE TO 120° FAHRENHEIT.

Jamb Smoke & draft

716.2.2.

Material Material

Per plan Per mfr. Per mfr. Yes

Per plan | Per mfr. | Per mfr. | Yes

Per plan | Per mfr. | Per mfr. | No

Per plan | Per mfr. | Per mfr. | No

Per plan | Per mfr. | Per mfr. | No

Per plan Per mfr. Per mfr. No

Pocket Dr. Fibergl.

Sliding Dr. Vinyl or Temp'd Gl. Fibergl.

Lock &/or

Keved or

Keved or

Interior Units

Bathrooms: Yes Bedrooms: Opt.

All others: No

Sliding Drs. Yes No

protection in per IBC Required Hardware accordance w/ IBC

GENERAL PLAN NOTES: 5/8" TYPE "X" (1 HOUR FIRE RATING) DRYWALL ON GARAGE SIDE

OF WALLS & CEILING. MAX. FIXTURE FLOW RATES & CONSUMPTION (PER IRC TABLE P2903.2)

A. LAVATORY FAUCET - 2.2 GPM @ 60 PSI. B. SHOWER HEAD - 2.5 GPM @ 80 PSI. C. SINK - 2.2 GPM @ 60 PSI.

D. TOILETS - 1.6 GALLONS PER FLUSH. LID AND WALLS OF ENCLOSED STAIRS TO BE COVERED WITH 5/8" TYPE "X" DRYWALL. FLASH AND CAULK ALL EXTERIOR WINDOWS & DOORS PER

MANUFACTURE'S INSTRUCTIONS. PROVIDE 9" FLASHING ON WINDOWS & EXTERIOR DOOR SILL PLATE FLASHING. PROVIDE WATER HAMMER ARRESTERS AT ALL QUICK CLOSING

VALVES (DISH & CLOTHES WASHERS) PLUMBING VENTS SHALL BE AT LEAST 3 FEET ABOVE OR 10 FEET AWAY FROM ALL OUTSIDE AIR INTAKE OPENINGS. BATHTUB & WHIRLPOOL TUBS MUST HAVE ANTI-SCALD MIXING

DECKS ARE PERMEABLE & SHALL BE AT THE SAME ELEVATION AS THE INTERIOR UNIT FLOOR. BLOCKING PER ICC A117.1-09 SECTION 1004.11.1 IN ALL DWELLING UNITS FOR FUTURE GRAB BARS AT WATER CLOSETS,

SHOWERS, & TUBS AS WELL AS REINFORCEMENTS FOR SEATS.

6'-1"

5'-7**"**

11'-5"

Fам. R00м

208 - LEV. 2 308 - LEV. 3 UNIT TYPE 3 TYPE B

1,303 s.f.

20'-0 1/2"

TYPICAL UNIT FLOOR PLAN - 2 Bedroom + Office / 3rd Bedroom

3'-0"

4'-0"

-- LINE OF RETAIL

SPACE BELOW

--¹---10'-8"------

BEDROOM 2

Closer & latch in

716.2.2.

VENT PER MFR. SPECIFCATIONS. PROVIDE PROPERLY ADJUSTED EXPANSION TANK.

(1) 90% MINIMUM EFFICIENT FURNACE.

(2) NOT USED.

PLAN NOTES (2nd / 3rd Level)

TANKLESS W.H. INSTALLED PER MFR. SPECIFICATIONS. (4) LOAD BEARING WALL OR COLUMN PER STRUCTURAL.

(COORDINATE w/ STRUCT. SHEETS). (5) FIRE RATED WATER CLOSET FLANGES MUST BE PROVIDED AT ALL WATER CLOSETS. SPECSEAL FIRESTOP GASKET or EQUIVALENT.

COORDINATE MECH. CHASE & RUNS w/ MECH. CONTRACTOR.

3) 40,000 BTU W.H. PROVIDE SEISMIC TIE-DOWNS AS FOLLOWS:

(1) IN LOWER THIRD AND (1) IN UPPER THIRD PER CODE.

or TANKLESS WATER HEATER PER HVAC CONTRACTOR.

(6) STAIRS PER CODE. (7) HANDRAIL / GUARDRAIL PER CODE.

 $(\,8\,)$ INCLUDE WATER LINE TO FRIDGE. (9) BEAM ABOVE PER STRUCTURAL.

10) NOT USED. (13) 36" HIGH COUNTERTOP WITH KITCHEN BASE CABINETS BELOW. (14) LINE OF UPPER 12" DEEP WALL CABINETS.

(15) KITCHEN ISLAND @ 36" A.F.F. W/ BREAKFAST BAR OVERHANG. (16) 12" or 16" or 20" LINEN OR PANTRY SHELVES - 5 SHELVES HIGH.

(17) ONE PIECE SHOWER/TUB PER BUILDER. (19) VENT DRYER TO OUTSIDE WALL (4" RIDGED DUCT. - MAX. 25" LONG w/ TWO 90° ELBOWS). VENT TO MEET 504.6 OF MECH.

CODE. (VENT DOWN THRU JOISTS TO SIDE WALL)

(20) GRAY WATER BOX FOR WASHER HOOKUP. (2x6 WALL REQUIRED) (22) BATHROOM SHOWER: MUD SET SHOWER BASE. TEMPERED GLASS SHOWER SURROUND & DOOR. CULTURED MARBLE OR TILED SHOWER SURROUND OVER PORTLAND CEMENT

APPLICATION, FIBER-CEMENT OR GLASS MAT GYPSUM BACKER. (23) ROD & SHELF OR SHOE SHELVES. FINAL CONFIGURATION PER

OWNER IN COORDINATION WITH CONTRACTOR. TUB PER OWNER WITH DECK MOUNT FAUCET. FREE STANDING or BUILT-IN TUB w/ DECK (PER OWNER).

(25) GAS INSERT FIREPLACE. (26) LOCKERS or BENCH & HOOKS or CUSTOM CABINETS.

(27) KITCHEN HOOD EXHAUST.

803.15.1.1 Furred construction. If the interior finish material is applied to furring strips, the intervening spaces between such furring strips shall comply with one of the following:

1. Be filled with material that is inorganic or noncombustible. 2. Be filled with material that meets the requirements of a Class A material in accordance with Section 803.1.1 or 803.1.2.

803.15.2 Set-out construction. Where walls and ceilings are required to be of fire-resistance-rated or noncombustible construction and walls are set out or ceilings are dropped distances greater than specified in Section 803.15.1, Class A finish materials, in accordance with Section 803.1.1 or 803.1.2, shall be used. Exceptions:

4'-0"

5'-0"

5'-0"

61 s.f.

1. Where interior finish materials are protected on both sides by an

automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. 2. Where interior finish materials are attached to noncombustible backing or furring strips installed as specified in Section 803.15.1.1. 3. Where the combustible void is filled with a noncombustible material.

14'-0 1/2"

M. BEDROOM

14'-3 1/2"

MIXED USE SITE

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DEVELOPEMENT

Typical Unit FLOOR PLANS

EPJ HECKED BY:

Chund Holen age on

Unit 201 / 301 Shown

____ 12'-10 1/2"___ 201 - LEV. 2 301 - LEV. 3 -------Unit Type 2 Type B Room 887 s.f. M. BEDROOM BEDROOM 11'-0 1/2" 10'-0"

5'-6"

The U-factor specified for the windows is less than the default value listed in Table C303.1.3(1) of

the IECC. IECC C303.1.3 requires the U-factors for the windows be certified by an independent

laboratory per NFRC 100 and labeled as such by the manufacturer.

SEE DETAIL 6 / A103.1

TYPE B UNIT PER 1107.6.2.2.2 ALL TOILETS MUST HAVE CLEARNCE PER SECTION ICC A117.1-09 1004.11.3.1.2.

6'-5"

ALL TOILETS MUST HAVE CLEARNCE PER SECTION ICC A117.1-09 1004.11.3.1.2. SEE DETAIL 6 / A103.1

Unit 208 / 308 Shown

TYPE B UNIT PER 1107.6.2.2.2

TYPICAL UNIT FLOOR PLAN - 2 Bedroom Unit Type 2

16'-0"

DECK

W.I.C.

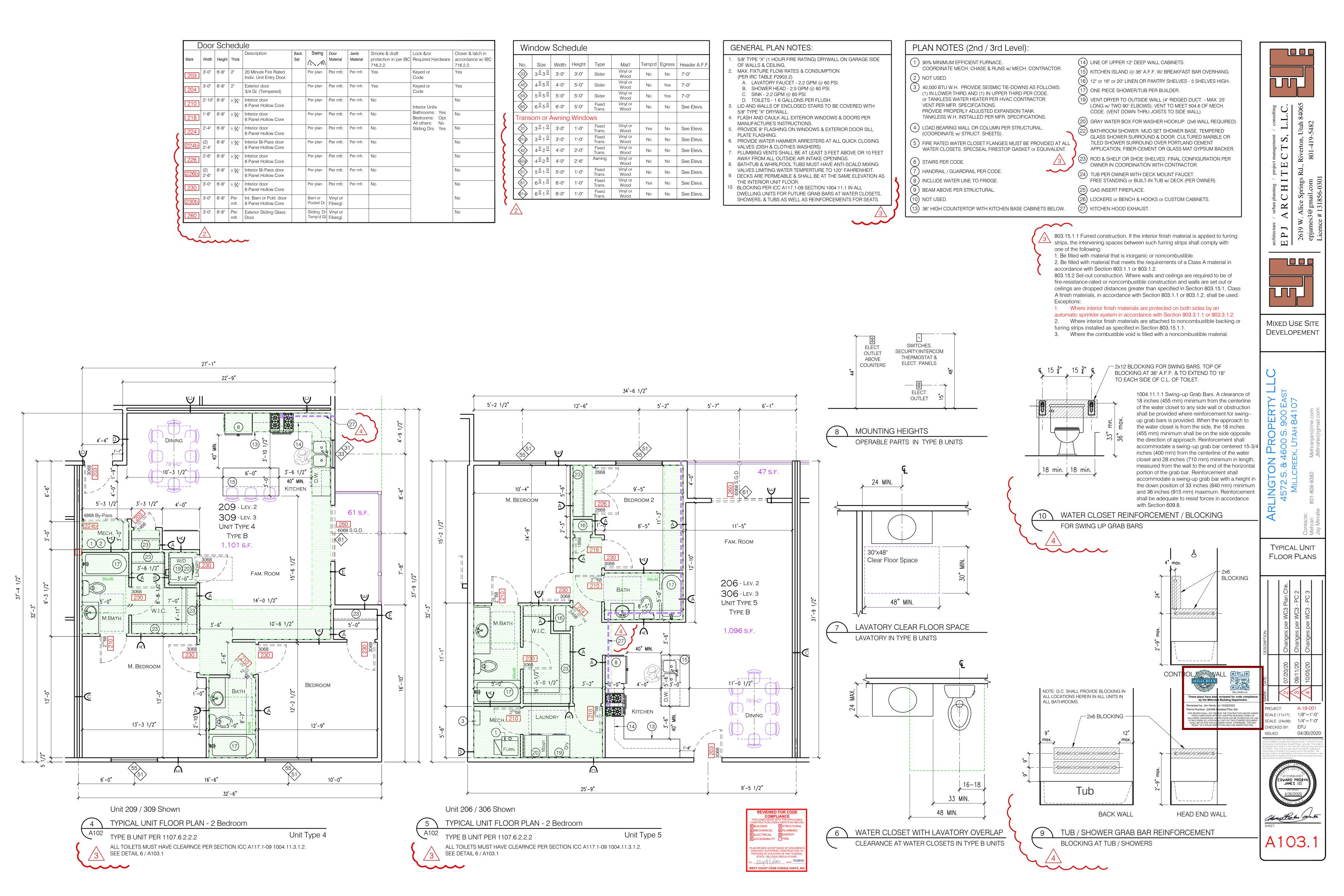
11'-4 1/2"

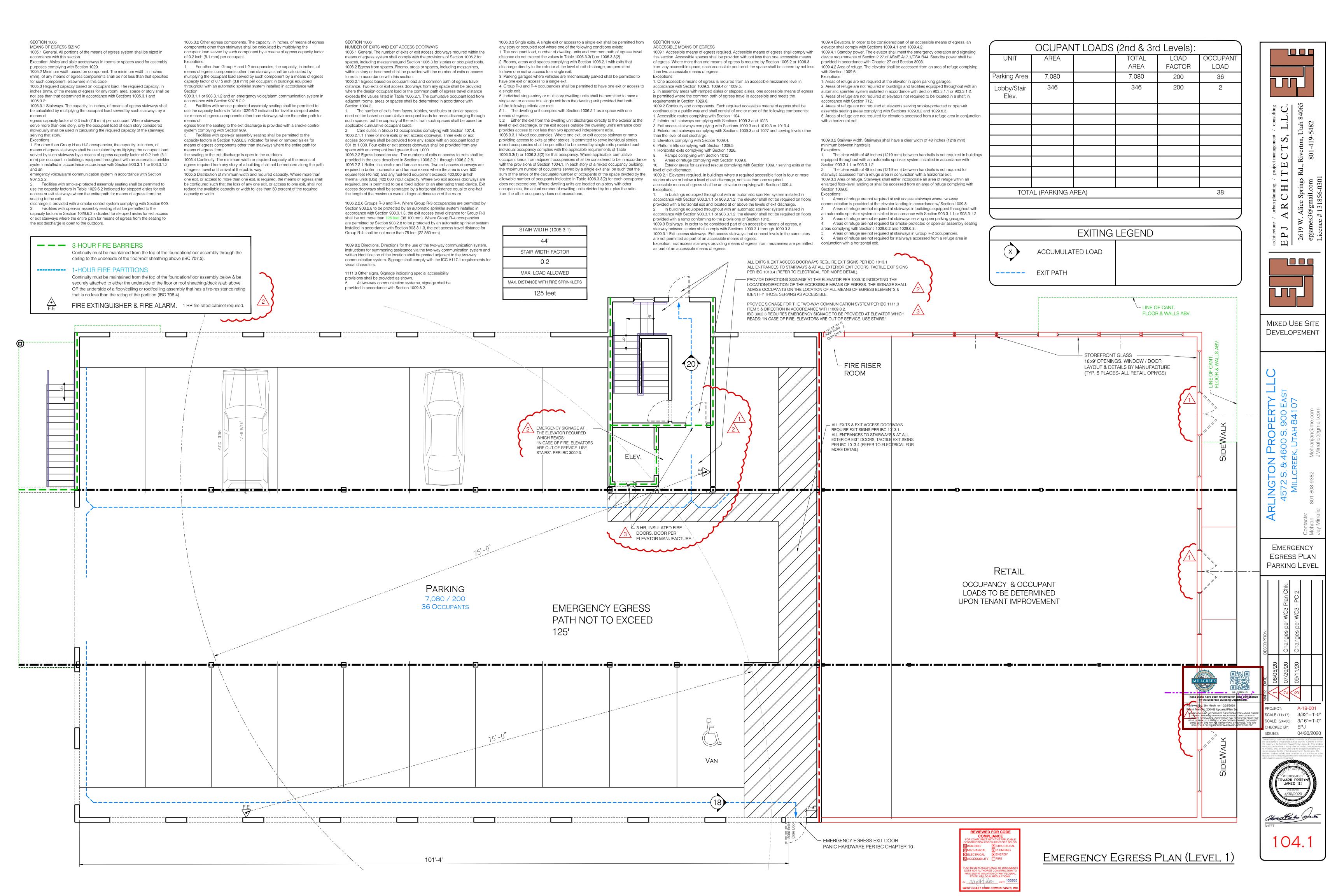
2'-8"

Unit Type 3

34'-1"

SCALE (11x17): 1/8"=1'-0" SCALE: (24x36): 1/4"=1'-0"





SECTION 1005 MEANS OF EGRESS SIZING 1005.1 General. All portions of the means of egress system shall be sized in accordance with this section.

Exception: Aisles and aisle accessways in rooms or spaces used for assembly purposes complying with Section 1029. 1005.2 Minimum width based on component. The minimum width, in inches (mm), of any means of egress components shall be not less than that specified for such component, elsewhere in this code. 1005.3 Required capacity based on occupant load. The required capacity, in inches (mm), of the means of egress for any room, area, space or story shall be

1005.3.1 Stairways. The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a

not less than that determined in accordance with Sections 1005.3.1 and

egress capacity factor of 0.3 inch (7.6 mm) per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways

1. For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance accordance with Section 903.3.1.1 or 903.3.1.2 emergency voice/alarm communication system in accordance with Section

2. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1029.6.2 indicated for stepped aisles for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.

3. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1029.6.3 indicated for stepped aisles for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.

Continuity must be maintained from the top of the foundation/floor assembly through the

ceiling to the underside of the floor/roof sheathing above (IBC 707.5).

- 1-HOUR FIRE BARRIERS

1005.3.2 Other egress components. The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with

903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1029.6.2 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for

egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1029.6.3 indicated for level or ramped aisles for

means of egress components other than stairways where the entire path for means of earess from the seating to the exit discharge is open to the outdoors 1005.4 Continuity. The minimum width or required capacity of the means of egress required from any story of a building shall not be reduced along the path

of egress travel until arrival at the public way. 1005.5 Distribution of minimum width and required capacity. Where more than one exit, or access to more than one exit, is required, the means of egress shall be configured such that the loss of any one exit, or access to one exit, shall not reduce the available capacity or width to less than 50 percent of the required capacity or width.

NUMBER OF EXITS AND EXIT ACCESS DOORWAYS

1006.1 General. The number of exits or exit access doorways required within the means of egress system shall comply with the provisions of Section 1006.2 for spaces, including mezzanines, and Section 1006.3 for stories or occupied roofs. 1006.2 Egress from spaces. Rooms, areas or spaces, including mezzanines, within a story or basement shall be provided with the number of exits or access to exits in accordance with this section.

1006.2.1 Egress based on occupant load and common path of egress travel distance. Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumulative occupant load from adjacent rooms, areas or spaces shall be determined in accordance with

1. The number of exits from foyers, lobbies, vestibules or similar spaces need not be based on cumulative occupant loads for areas discharging through such spaces, but the capacity of the exits from such spaces shall be based on applicable cumulative occupant loads. Care suites in Group I-2 occupancies complying with Section 407.4.

1006.2.1.1 Three or more exits or exit access doorways. Three exits or exit access doorways shall be provided from any space with an occupant load of 501 to 1,000. Four exits or exit access doorways shall be provided from any space with an occupant load greater than 1,000. 1006.2.2 Egress based on use. The numbers of exits or access to exits shall be provided in the uses described in Sections 1006.2.2.1 through 1006.2.2.6. 1006.2.2.1 Boiler, incinerator and furnace rooms. Two exit access doorways are required in boiler, incinerator and furnace rooms where the area is over 500 square feet (46 m2) and any fuel-fired equipment exceeds 400,000 British thermal units (Btu) (422 000 input capacity. Where two exit access doorways are required, one is permitted to be a fixed ladder or an alternating tread device. Exit access doorways shall be separated by a horizontal distance equal to one-half

1006.2.2.6 Groups R-3 and R-4. Where Group R-3 occupancies are permitted by Section 903.2.8 to be protected by an automatic sprinkler system installed in accordance with Section 903.3.1.3, the exit access travel distance for Group R-3 shall be not more than 125 feet (38 100 mm). Where Group R-4 occupancies are permitted by Section 903.2.8 to be protected by an automatic sprinkler system installed in accordance with Section 903.3.1.3. the exit access travel distance for Group R-4 shall be not more than 75 feet (22 860 mm).

the length of the maximum overall diagonal dimension of the room.

1009.8.2 Directions. Directions for the use of the two-way communication system, instructions for summoning assistance via the two-way communication system and written identification of the location shall be posted adjacent to the two-way communication system. Signage shall comply with the ICC A117.1 requirements for visual characters.

1111.3 Other signs. Signage indicating special accessibility provisions shall be provided as shown. At two-way communication systems, signage shall be

1006.3.3 Single exits. A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists: 1. The occupant load, number of dwelling units and common path of egress travel

distance do not exceed the values in Table 1006.3.3(1) or 1006.3.3(2). this section. Accessible spaces shall be provided with not less than one accessible means 2. Rooms, areas and spaces complying with Section 1006.2.1 with exits that of egress. Where more than one means of egress is required by Section 1006.2 or 1006.3 discharge directly to the exterior at the level of exit discharge, are permitted to have one exit or access to a single exit. 3. Parking garages where vehicles are mechanically parked shall be permitted to

than two accessible means of egress. Exceptions: have one exit or access to a single exit. 1. One accessible means of egress is required from an accessible mezzanine level in 4. Group R-3 and R-4 occupancies shall be permitted to have one exit or access to accordance with Section 1009.3, 1009.4 or 1009.5.

2. In assembly areas with ramped aisles or stepped aisles, one accessible means of egress a single exit. 5. Individual single-story or multistory dwelling units shall be permitted to have a is permitted where the common path of egress travel is accessible and meets the single exit or access to a single exit from the dwelling unit provided that both requirements in Section 1029.8. of the following criteria are met: 1009.2 Continuity and components. Each required accessible means of egress shall be 5.1. The dwelling unit complies with Section 1006.2.1 as a space with one continuous to a public way and shall consist of one or more of the following components:

Accessible routes complying with Section 1104.

Ramps complying with Section 1012.

Areas of refuge complying with Section 1009.6.

stories above or below a level of exit discharge, not less than one required

provided with a ramp conforming to the provisions of Section 1012.

are not permitted as part of an accessible means of egress.

as part of an accessible means of egress.

accessible means of egress shall be an elevator complying with Section 1009.4.

provided with a horizontal exit and located at or above the levels of exit discharge.

1. In buildings equipped throughout with an automatic sprinkler system installed in

In buildings equipped throughout with an automatic sprinkler system installed in

1009.3 Stairways. In order to be considered part of an accessible means of egress, a

stairway between stories shall comply with Sections 1009.3.1 through 1009.3.3.

accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors

1009.3.1 Exit access stairways. Exit access stairways that connect levels in the same story

Exception: Exit access stairways providing means of egress from mezzanines are permitted

accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors

Exterior areas for assisted rescue complying with Section 1009.7 serving exits at the

5.2 Either the exit from the dwelling unit discharges directly to the exterior at the 2. Interior exit stairways complying with Sections 1009.3 and 1023. level of exit discharge, or the exit access outside the dwelling unit's entrance door 3. Exit access stairways complying with Sections 1009.3 and 1019.3 or 1019.4. provides access to not less than two approved independent exits. 4. Exterior exit stairways complying with Sections 1009.3 and 1027 and serving levels other 1006.3.3.1 Mixed occupancies. Where one exit, or exit access stairway or ramp than the level of exit discharge. providing access to exits at other stories, is permitted to serve individual stories, 5. Elevators complying with Section 1009.4. nixed occupancies shall be permitted to be served by single exits provided each 6. Platform lifts complying with Section 1009.5. individual occupancy complies with the applicable requirements of Table '. Horizontal exits complying with Section 1026. 1006.3.3(1) or 1006.3.3(2) for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered to be in accordance with the provisions of Section 1004.1. In each story of a mixed occupancy building, the maximum number of occupants served by a single exit shall be such that the level of exit discharge. sum of the ratios of the calculated number of occupants of the space divided by the 1009.2.1 Elevators required. In buildings where a required accessible floor is four or more

allowable number of occupants indicated in Table 1006.3.3(2) for each occupancy

does not exceed one. Where dwelling units are located on a story with other

from the other occupancy does not exceed one.

STAIR WIDTH (1005.3.1)

44"

occupancies, the actual number of dwelling units divided by four plus the ratio

means of egress.

1009.4 Elevators. In order to be considered part of an accessible means of egress, an ACCESSIBLE MEANS OF EGRESS elevator shall comply with Sections 1009.4.1 and 1009.4.2. 1009.1 Accessible means of egress required. Accessible means of egress shall comply with

with a horizontal exit.

ALL EXITS & EXIT ACCESS DOORWAYS REQUIRE EXIT SIGNS PER IBC 1013.1.

ALL ENTRANCES TO STAIRWAYS & AT ALL EXTERIOR EXIT DOORS. TACTILE EXIT SIGNS

1009.4.1 Standby power. The elevator shall meet the emergency operation and signaling device requirements of Section 2.27 of ASME A17.1/CSA B44. Standby power shall be provided in accordance with Chapter 27 and Section 3003. from any accessible space, each accessible portion of the space shall be served by not less 1009.4.2 Area of refuge. The elevator shall be accessed from an area of refuge complying with Section 1009.6.

> Exceptions: 1. Areas of refuge are not required at the elevator in open parking garages. 2. Areas of refuge are not required in buildings and facilities equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. 3. Areas of refuge are not required at elevators not required to be located in a shaft in

accordance with Section 712. 4. Areas of refuge are not required at elevators serving smoke-protected or open-air assembly seating areas complying with Sections 1029.6.2 and 1029.6.3. 5. Areas of refuge are not required for elevators accessed from a refuge area in conjunction

1009.3.2 Stairway width. Stairways shall have a clear width of 48 inches (1219 mm) minimum between handrails.

1. The clear width of 48 inches (1219 mm) between handrails is not required in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 The clear width of 48 inches (1219 mm) between handrails is not required for stairways accessed from a refuge area in conjunction with a horizontal exit.

1009.3.3 Area of refuge. Stairways shall either incorporate an area of refuge within an

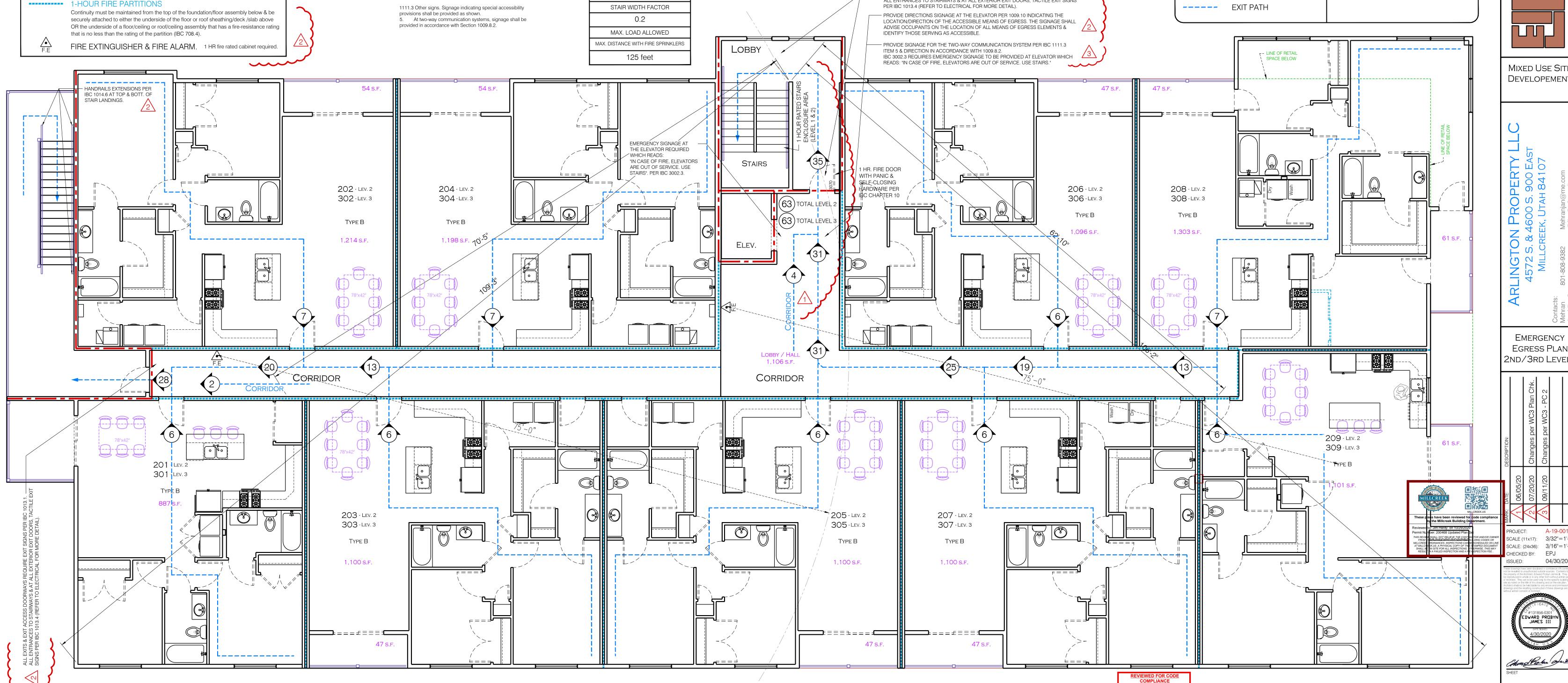
enlarged floor-level landing or shall be accessed from an area of refuge complying with Section 1009 6 Areas of refuge are not required at exit access stairways where two-way

communication is provided at the elevator landing in accordance w/ Section 1009.8. Areas of refuge are not required at stairways in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. Areas of refuge are not required at stairways serving open parking garages. Areas of refuge are not required for smoke-protected or open-air assembly seating

areas complying with Sections 1029.6.2 and 1029.6.3. Areas of refuge are not required at stairways in Group R-2 occupancies. Areas of refuge are not required for stairways accessed from a refuge area in conjunction with a horizontal exit.

OCUPANT LOADS (2nd & 3rd Levels) OCCUPANT AREA AREA AREA **FACTOR** LOAD 1,018 200 201 or 301 6 1,214 1,268 202 or 302 54 200 7 1,100 1,147 203 or 303 200 47 6 1,198 1,245 200 204 or 304 47 1,100 47 1,147 200 6 205 or 305 1,096 1,143 206 or 306 47 200 1,100 1,147 207 or 307 47 200 1,303 1,364 61 200 208 or 308 1,101 1,162 209 or 309 61 200 _obby/Stair 1,106 1,1.06 n/a 200 Elev/Corridor 63 TOTAL (2nd LEVEL) TOTAL (3rd LEVEL) 63 126 TOTAL

EXITING LEGEND ACCUMULATED LOAD **EXIT PATH**



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MIXED USE SITE DEVELOPEMENT

EMERGENCY EGRESS PLAN 2ND/3RD LEVEL

SCALE: (24x36): 3/16"=1'-

104.2

EMERGENCY EGRESS PLAN (LEVELS 2 & 3)

1015.1 General. Guards shall comply with the provisions of Sections 1015.2 through 1015.7. Operable windows with sills located more than 72 inches (1829 mm) above finished grade or other surface below shall comply with Section 1015.8. 1015.2 Where required. Guards shall be located along open-sided walking surfaces, including mezzanines, equipment platforms aisles, stairs, ramps and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Guards shall be adequate in strength and attachment in accordance with Section 1607.8.

1015.3 Height. Required guards shall be not less than 42 inches (1067 mm) nigh, measured vertically as follows: 1. From the adjacent walking surfaces

2. On stairways and stepped aisles, from the line connecting the leading edges of the tread nosings.

3. On ramps and ramped aisles, from the ramp surface at the guard. 1. For occupancies in Group R-3 not more than three stories above grade in height and within individual dwelling units in occupancies in Group R-2 not

required guards shall be not less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces. 2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads. 3. For occupancies in Group R-3, and within individual dwelling units in

more than three stories above grade in height with separate means of egress,

occupancies in Group R-2, where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads. 4. The guard height in assembly seating areas shall comply with Section 1029.17 as applicable.

5. Along alternating tread devices and ships ladders, guards where the top rail serves as a handrail shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread nosing. 6. In Group F occupancies where exit access stairways serve fewer than three stories and such stairways are not open to the public, and where the top of the guard also serves as a handrail, the top of the guard shall be not

less than 34 inches (864 mm) and not more than 38 inches (965 mm)

measured vertically from a line connecting the leading edges of the treads.

1015.4 Opening limitations. Required guards shall not have openings that allow passage of a sphere 4 inches (102 mm) in diameter from the walking surface to the required guard height.

1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), guards shall not have openings that allow passage of a sphere 43/8 inches (111 mm) in 2. The triangular openings at the open sides of a stair, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches (152 mm) in diameter.

3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter 4. In areas that are not open to the public within occupancies in Group I-3, F, H or S, and for alternating tread devices and ships ladders, guards shall not have openings that allow passage of a sphere 21 inches (533 mm) in

5. In assembly seating areas, guards required at the end of aisles in accordance with Section 1029.17.4 shall not have openings that allow bassage of a sphere 4 inches (102 mm) in diameter up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, guards shall not have openings that allow passage of a sphere 8 inches (203 mm) in diameter. 6. Within individual dwelling units and sleeping units in Group R-2 and R-3 occupancies, guards on the open sides of stairs shall not have openings that allow passage of a sphere 43/8 (111 mm) inches in diameter.

SECTION 1014

1014.1 Where required. Handrails serving flights of stairways, ramps, stepped aisles and ramped aisles shall be adequate in strength and attachment in accordance with Section 1607.8. Handrails required for flights of stairways by Section 1011.11 shall comply with Sections 1014.2 through 1014.9. Handrails required for ramps by Section 1012.8 shall comply with Sections 1014.2 through 1014.8. Handrails for stepped aisles and ramped aisles required by Section 1029.16 shall comply with Sections 1014.2 through 1014.8.

1014.2 Height. Handrail height, measured above stair tread nosings, or finish surface of ramp slope, shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm). Handrail height of alternating tread devices and ships ladders, measured above tread nosings, shall be uniform. not less than 30 inches (762 mm) and not more than 34 inches (864 mm).

1. Where handrail fittings or bendings are used to provide continuous transition between flights, the fittings or bendings shall be permitted to exceed the maximum height. and in Group U occupancies that are associated with a Group R-3 occupancy or associated with individual dwelling units in Group R-2 occupancies; where handrail fittings or bendings are used to provide

continuous transition between flights, transition at winder treads, transition from handrail to guard, or where used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum 3. Handrails on top of a guard where permitted along stepped aisles and ramped aisles in accordance with Section 1029.16.

1014.3 Handrail graspability. Required handrails shall comply with Section 1014.3.1 or shall provide equivalent graspability. Exception: In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; handrails shall be Type I in accordance with Section 1014.3.1, Type II in accordance with Section 1014.3.2 or shall provide equivalent

1014.3.1 Type I. Handrails with a circular cross section shall have an outside diameter of not less than 11/4 inches (32 mm) and not greater than 2 inches (51 mm). Where the handrail is not circular, it shall have a perimeter dimension of not less than 4 inches (102 mm) and not greater than 61/4 inches (160 mm) with a maximum cross-sectional dimension of 21/4 inches (57 mm) and minimum cross-sectional dimension of 1 inch (25 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).

1014.3.2 Type II. Handrails with a perimeter greater than 61/4 inches (160 mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of not less than 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 inch (10mm) to a level that is not less than 13/4 inches (45 mm) below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 11/4 inches (32 mm) to not greater than 23/4 inches (70 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm). 1014.4 Continuity. Handrail gripping surfaces shall be continuous, without

nterruption by newel posts or other obstructions. 1. Handrails within dwelling units are permitted to be interrupted by a newel post at a turn or landing.

2. Within a dwelling unit, the use of a volute, turnout, starting easing or starting newel is allowed over the lowest tread. 3. Handrail brackets or balusters attached to the bottom surface of the handrail that do not project horizontally beyond the sides of the handrail within 1-1/2 inches (38 mm) of the bottom of the handrail shall not be considered obstructions. For each 1/2 inch (12.7 mm) of additional handrail perimeter dimension above 4 inches (102 mm), the vertical clearance dimension of 11/2 inches (38 mm) shall be permitted to be reduced by 1/8 inch (3.2 mm).

4. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of the handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.

5. Handrails serving stepped aisles or ramped aisles are permitted to be discontinuous in accordance with Section 1029.16.1.

1026.2 Separation. The separation between buildings or refuge areas connected by a horizontal exit shall be provided by a fire wall complying with Section 706; or by a fire barrier complying with Section 707 or a horizontal assembly complying with Section 711, or both. The minimum fire-resistance rating of the separation shall be 2 hours. Opening protectives in horizontal exits shall also comply with Section 716. Duct and air transfer openings in a fire wall or fire barrier that serves as a horizontal exit shall also comply with Section 717. The horizontal exit separation shall extend vertically through all levels of the building unless floor assemblies have a fire-resistance rating of not less than 2 hours and do not have unprotected openings. Exception: A fire-resistance rating is not required at horizontal exits between a building area and an above-grade pedestrian walkway constructed in accordance with Section 3104 provided that the distance between connected buildings is more than 20 feet (6096 mm). Horizontal exits constructed as fire barriers shall be continuous from exterior wall to exterior wall so as to divide completely the floor served by the horizontal exit.

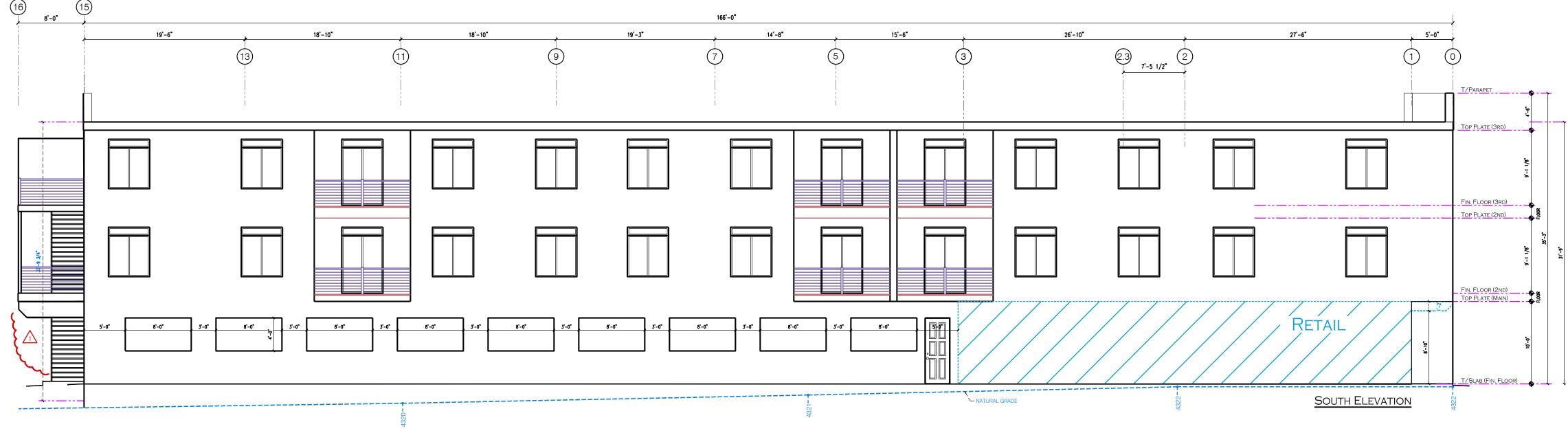
1026.3 Opening protectives. Fire doors in horizontal exits shall be self-closing or automatic-closing when activated by a smoke detector in accordance with Section 716.2.6.6. Doors, where located in a cross-corridor condition, shall be automatic- closing by activation of a smoke detector installed in accordance with Section 716.2.6.6.

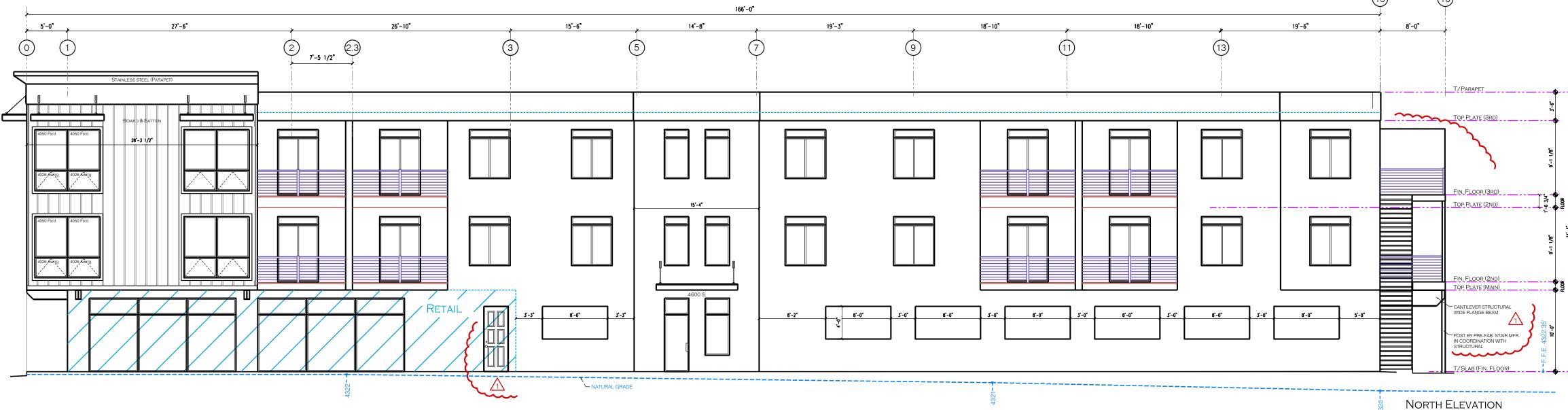
1026.3 Opening protectives. Fire doors in horizontal exits shall be self-closing or automatic-closing when activated by a smoke detector in accordance with Section 716.2.6.6. Doors, where located in a cross-corridor condition, shall be automaticclosing by activation of a smoke detector installed in accordance with Section 716.2.6.6.

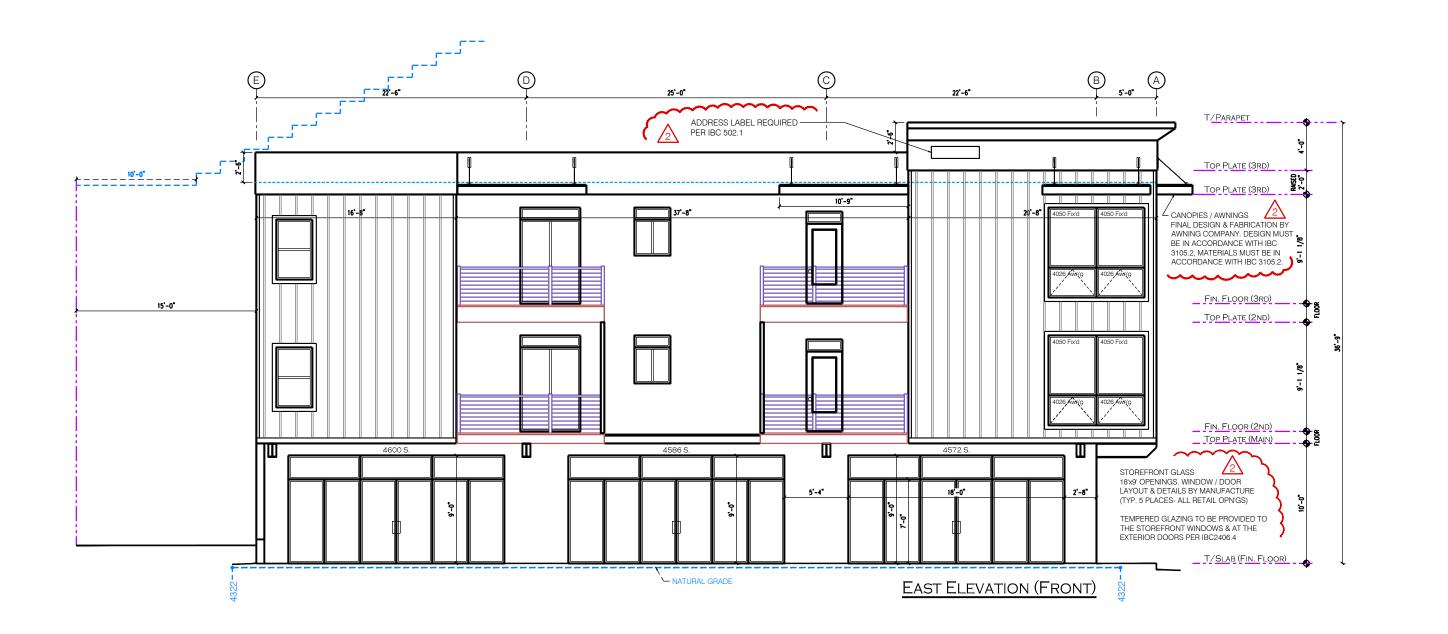
EXTERIOR EXIT STAIRWAYS AND RAMPS 1027.1 Exterior exit stairways and ramps. Exterior exit stairways and ramps serving as an element of a required means of egress shall comply with this section.

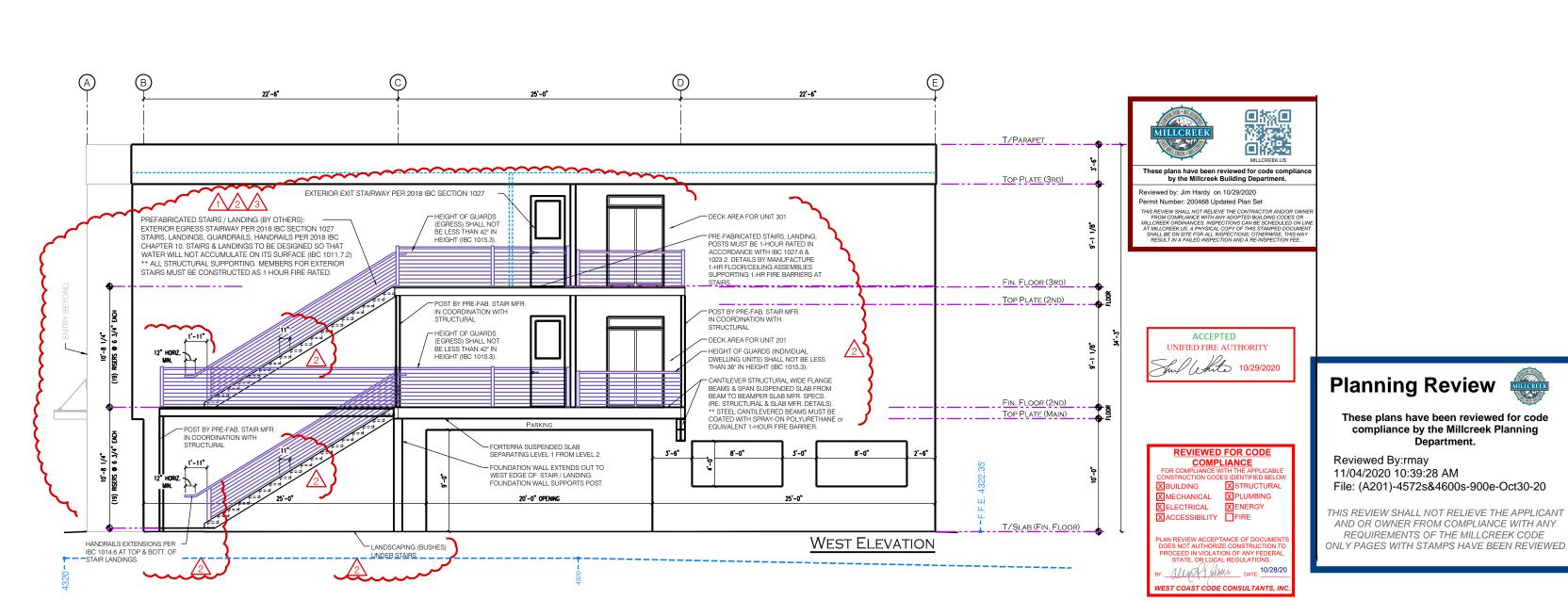
1027.2 Use in a means of egress. Exterior exit stairways shall not be used as an element of a required means of egress for Group I-2 occupancies. For occupancies in other than Group I-2, exterior exit stairways and ramps shall be permitted as an element of a required means of egress for buildings not exceeding six stories above grade plane or that are not high-rise buildings.

1027.3 Open side. Exterior exit stairways and ramps serving as an element of a required means of egress shall be open on not less than one side, except for required structural columns, beams, handrails and guards. An open side shall have not less than 35 square feet (3.3 m2) of aggregate open area adjacent to each floor level and the level of each ntermediate landing. The required open area shall be located not less than 42 inches (1067 mm) above the adjacent floor or landing level.



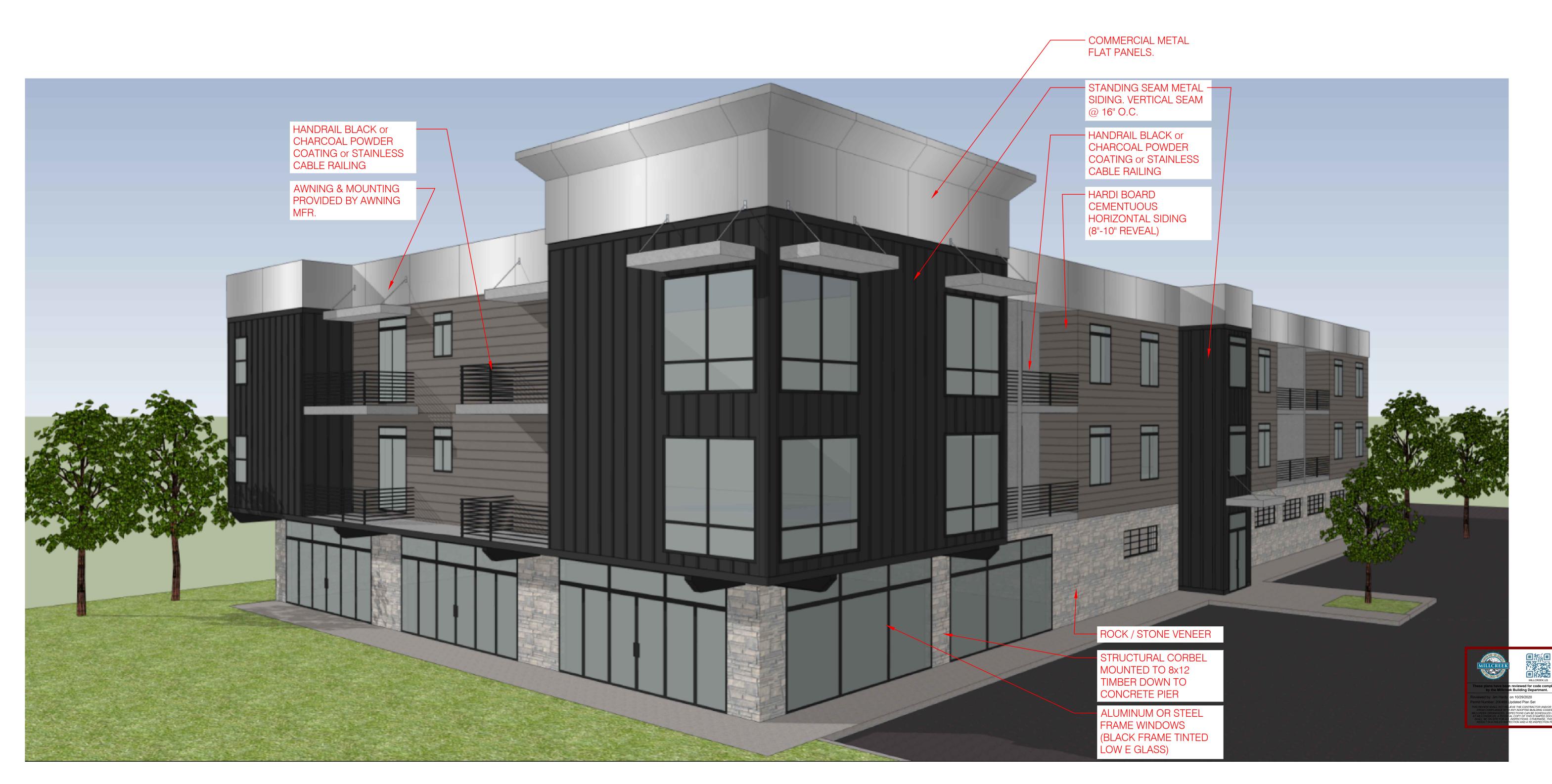




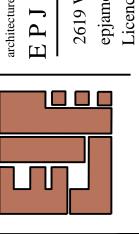




compliance by the Millcreek Planning

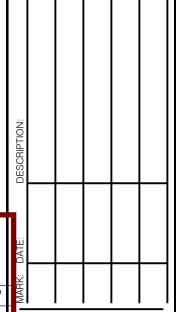


ARCHITECTS,



MIXED USE SITE DEVELOPEMENT

EXTERIOR RENDERING



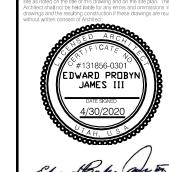
PROJECT: A-19-001

SCALE (11x17): 1/16"=1'-0"

SCALE: (24x36): 1/8"=1'-0"

CHECKED BY: EPJ

04/30/2020





SECTION 718

CONCEALED SPACES 718.1 General. Fireblocking and draftstopping shall be installed in combustible concealed locations in accordance with this section. Fireblocking shall comply with Section 718.2. Draftstopping in floor/ceiling spaces and attic spaces shall comply with Sections 718.3 and 718.4, respectively. The permitted use of combustible materials in concealed spaces of buildings of Type I or II construction shall be limited to the

applications indicated in Section 718.5. 718.2 Fireblocking. In combustible construction, fireblocking shall be installed to cut off concealed draft openings (both vertical and horizontal) and shall form an effective barrier between floors, between a top story and a roof or attic space. Fireblocking shall be installed in the locations specified in Sections 718.2.2 through 718.2.7.

718.2.1 Fireblocking materials. Fireblocking shall consist of the following materials:

1. Two-inch (51 mm) nominal lumber.

2. Two thicknesses of 1-inch (25 mm) nominal lumber with broken lap joints. 3. One thickness of 0.719-inch (18.3 mm) wood structural panels with joints backed by 0.719-inch (18.3 mm) wood structural panels

4. One thickness of 0.75-inch (19.1 mm) particleboard with joints backed by 0.75-inch (19 mm) particleboard.

5. One-half-inch (12.7 mm) gypsum board.

6. One-fourth-inch (6.4 mm) cement-based millboard. 7. Batts or blankets of mineral wool, mineral fiber or other approved materials installed in such a manner as to be securely retained in place.

8. Cellulose insulation installed as tested for the specific application. 718.2.1.1 Batts or blankets of mineral wool or mineral fiber. Batts or blankets of mineral wool or mineral fiber or other approved nonrigid materials shall be walls constructed using parallel rows of studs or staggered studs. 718.2.1.2 Unfaced fiberglass. Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross section of the wall cavity to a minimum height of 16 inches (406 mm) measured vertically. Where piping, conduit or similar obstructions are encountered, the insulation shall be packed tightly

around the obstruction. 718.2.1.3 Loose-fill insulation material. Loose-fill insulation material, insulating foam sealants and caulk materials shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its 1. Fireblocking is not required for slab-on-grade floors in gymnasiums. ability to remain in place and to retard the spread of fire and hot gases. 718.2.1.4 Fireblocking integrity. The integrity of fireblocks shall be maintained. 718.2.1.5 Double stud walls. Batts or blankets of mineral or glass fiber or other approved nonrigid materials shall be allowed as fireblocking in walls constructed using parallel rows of studs or staggered studs. 718.2.2 Concealed wall spaces. Fireblocking shall be provided in concealed spaces of stud walls and partitions, including furred spaces, and parallel rows of studs or staggered studs, as follows:

1. Vertically at the ceiling and floor levels. 2. Horizontally at intervals not exceeding 10 feet (3048 mm). 718.2.3 Connections between horizontal and vertical spaces. Fireblocking shall be provided at interconnections between concealed vertical stud wall or partition spaces and concealed horizontal spaces created by an assembly of floor joists or trusses, and between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, cove ceilings and similar locations. 718.2.4 Stairways. Fireblocking shall be provided in concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces

under stairways shall comply with Section 1011.7.3. 718.2.5 Ceiling and floor openings. Where required by Section 712.1.8, Exception 1 of Section 714.5.1.2 or Section 714.6, fireblocking of the annular space around vents, pipes, ducts, chimneys and fireplaces at ceilings and floor levels shall be installed with a material specifically tested in the form and Exception: Buildings equipped throughout with an automatic sprinkler system manner intended for use to demonstrate its ability to remain in place and in accordance with Section 903.3.1.1. resist the free passage of flame and the products of combustion.

718.2.5.1 Factory-built chimneys and fireplaces

Factory-built chimneys and fireplaces shall be fireblocked in accordance with UL 103 and UL 127.

718.2.6 Exterior wall coverings. Fireblocking shall be installed within concealed spaces of exterior wall coverings and other exterior architectural elements where permitted to be of combustible construction as specified in Section 1405 or where erected with combustible frames. Fireblocking shall be installed at maximum intervals of 20 feet (6096 mm) in either dimension so that there will be no concealed space exceeding 100 square feet (9.3 m2) between fireblocking. Where wood furring strips are used, they shall be of approved wood of natural decay resistance or preservative-treated wood. If noncontinuous, such elements shall have closed ends, with not less than 4

Exceptions: 1. Fireblocking of cornices is not required in singlefamily dwellings. Fireblocking of cornices of a two-family dwelling is required only at the line of dwelling unit separation.

inches (102 mm) of separation between sections.

2. Fireblocking shall not be required where the exterior wall covering is installed on noncombustible framing and the face of the exterior wall covering exposed to the concealed space is covered by one of the following materials:

2.1. Aluminum having a minimum thickness of 0.019 inch (0.5 mm). 2.2. Corrosion-resistant steel having a base metal thickness not less than 0.016 inch (0.4 mm) at any point. 2.3. Other approved noncombustible

3. Fireblocking shall not be required where the exterior wall covering has been tested in accordance with, and complies with the acceptance criteria of, NFPA 285. The exterior wall covering shall be installed as tested in

accordance with NFPA 285. permitted for compliance with the 10-foot (3048 mm) horizontal fireblocking in 718.2.7 Concealed sleeper spaces. Where wood sleepers are used for laying wood flooring on masonry or concrete fire-resistance-rated floors, the space between the floor slab and the underside of the wood flooring shall be filled with an approved material to resist the free passage of flame and products of such surfaces. combustion or fireblocked in such a manner that open spaces under the flooring shall not exceed 100 square feet (9.3 m2) in area and such space shall be filled solidly under permanent partitions so that communication under the flooring between adjoining rooms shall not occur.

> 2. Fireblocking is required only at the juncture of each alternate lane and at the ends of each lane in a bowling facility.

> 718.3 Draftstopping in floors. Draftstopping shall be installed to subdivide floor/ceiling assemblies where required by Section 708.4.2. In other than Group R occupancies, draftstopping shall be installed to subdivide combustible floor/ ceiling assemblies so that horizontal floor areas do not exceed 1,000 square feet.

> Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1

718.3.1 Draftstopping materials. Draftstopping materials shall be not less than 1/2-inch (12.7 mm) gypsum board, 3/8- inch (9.5 mm) wood structural panel, 3/8-inch (9.5 mm) particleboard, 1-inch (25-mm) nominal lumber, cement fiberboard, batts or blankets of mineral wool or glass fiber, or other approved materials adequately supported. The integrity of draftstops

shall be maintained. 718.4 Draftstopping in attics. Draftstopping shall be installed to subdivide attic spaces where required by Section 708.4.2. In other than Group R, draftstopping shall be installed to subdivide combustible attic spaces and combustible concealed roof spaces such that any horizontal area does not exceed 3,000 square feet (279 m2). Ventilation of concealed roof spaces shall be maintained in accordance with Section 1202.2.1

718.4.1 Draftstopping materials. Materials utilized for draftstopping of attic spaces shall comply with Section 718.3.1.

718.4.1.1 Openings. Openings in the partitions shall be protected by self-closing doors with automatic latches constructed as required for the

718.5 Combustible materials in concealed spaces in Type I or II construction. Combustible materials shall not be permitted in concealed spaces of buildings of Type I or II construction.

Exceptions: 1. Combustible materials in accordance with Section 603. 2. Combustible materials exposed within plenums complying with Section

602 of the International Mechanical Code. 3. Class A interior finish materials classified in accordance with Section 803. 4. Combustible piping within partitions or shaft enclosures installed in accordance with the provisions of this code.

5. Combustible piping within concealed ceiling spaces installed in accordance with the International Mechanical Code and the International

Plumbing Code. 6. Combustible insulation and covering on pipe and tubing, installed in concealed spaces other than plenums, complying with Section 720.7.

803.15 Application of interior finish materials to fireresistance- rated or noncombustible building elements.

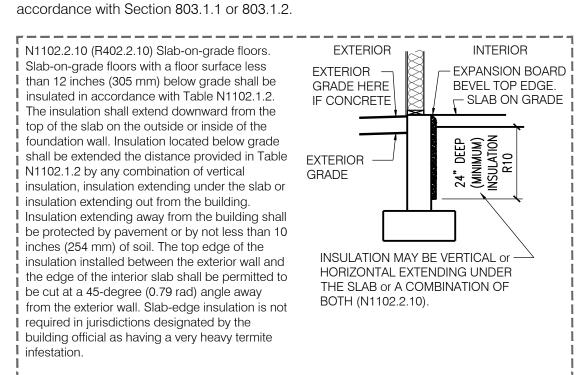
Where interior finish materials are applied on walls, ceilings or structural elements required to have a fire-resistance rating or to be of noncombustible construction, these finish materials shall comply with the provisions of this

803.15.1 Direct attachment and furred construction.

Where walls, ceilings or structural elements are required by any provision in this code to be of fire-resistance-rated or noncombustible construction, the interior finish material shall be applied directly against such construction or to furring strips not exceeding 13/4 inches (44 mm), applied directly against

803.15.1.1 Furred construction. If the interior finish material is applied to furring strips, the intervening spaces between such furring strips shall comply with one of the following: 1. Be filled with material that is inorganic or noncombustible.

2. Be filled with material that meets the requirements of a Class A material in



L_______L FOUNDATION WALL INSULATION DETAIL @ SLAB-ON-GRADE

1202.3 Unvented attic and unvented enclosed rafter assemblies. Unvented attics and unvented enclosed roof framing assemblies created by ceilings applied directly to the underside of the roof framing members/rafters and the

structural roof sheathing at the top of the roof framing members shall be permitted where all of the following conditions are met: 1. The unvented attic space is completely within the building thermal envelope. 2. No interior Class I vapor retarders are installed on the ceiling side (attic floor) sheathing in accordance with the R-values in Table 1202.3 for condensation

of the unvented attic assembly or on the ceiling side of the unvented enclosed roof framing assembly. 3. Where wood shingles or shakes are used, not less than a 1/4-inch (6.4 mm) 5.1.3. Where both air-impermeable and air-permeable insulation are provided,

above the structural sheathing. 4. In Climate Zones 5, 6, 7 and 8, any air-impermeable insulation shall be a Class II vapor retarder or shall direct contact with the underside of the insulation. condensation control. The air-permeable insulation shall be installed directly 5. Insulation shall be located in accordance with the following: Item 5.1.1,

5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the

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insulation directly under the structural roof sheathing. 5.1.1. Where only air-impermeable insulation is provided, it shall be applied in

direct contact with the underside of the structural roof sheathing. 5.1.2. Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Item 5.1.1. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof

vented airspace separates the shingles or shakes and the roofing underlayment the air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing in accordance with Item

5.1.1 and shall be in accordance with the R-values in Table 1202.3 for

under the air-impermeable insulation. 5.1.4 Alternatively, sufficient rigid board or sheet insulation shall be installed

directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45°F (7°C). For calculation purposes, an interior air temperature of 68°F (20°C) is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.

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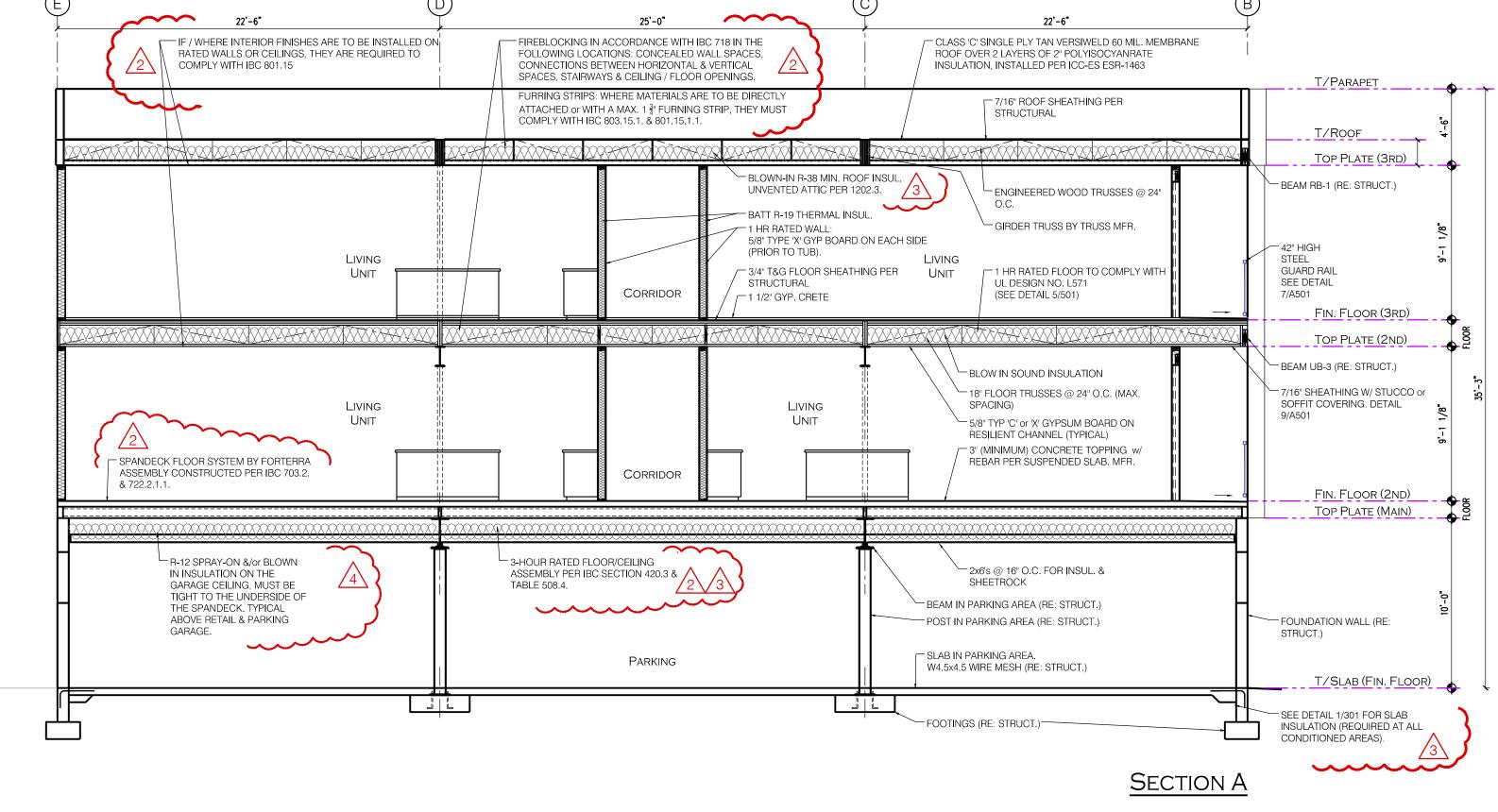
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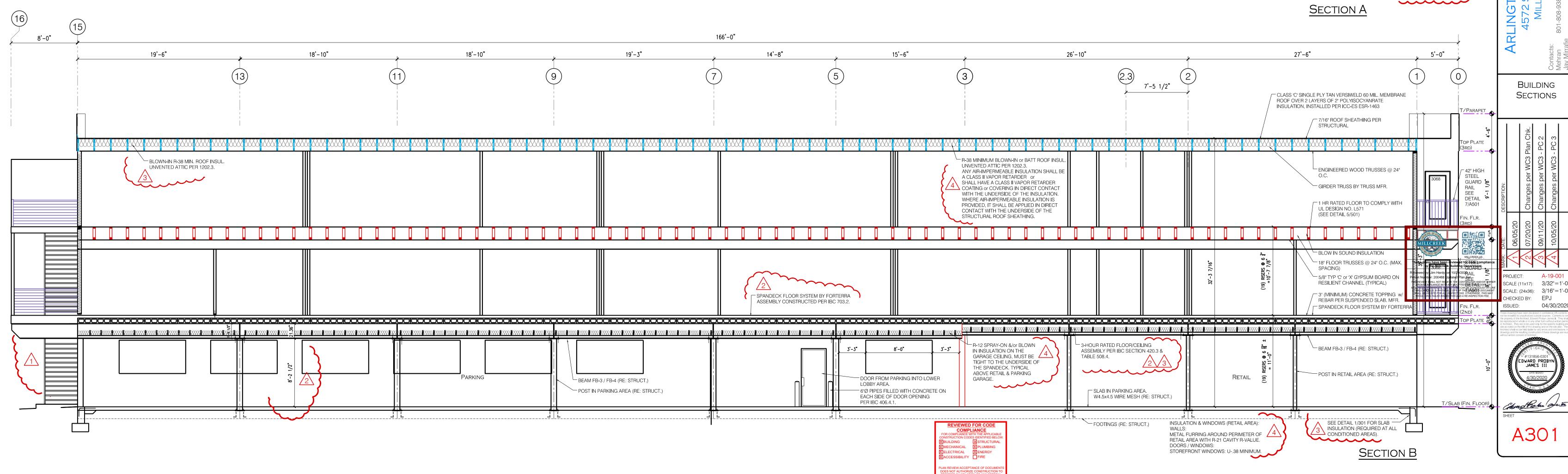
DEVELOPEMENT

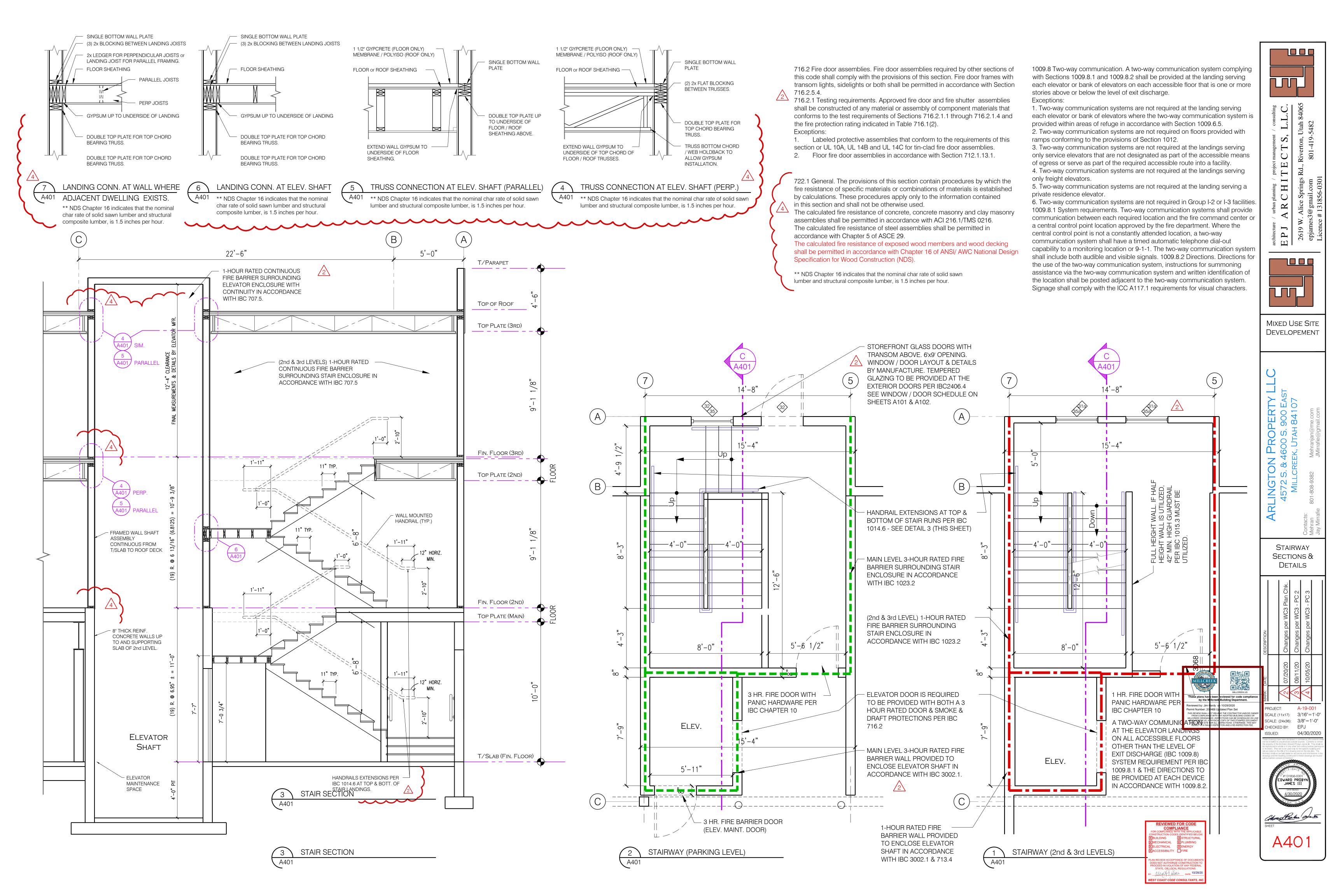
5.1. Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer. Exceptions:

Section 1202.3 does not apply to special use structures or enclosures such as swimming pool enclosures, data processing centers, hospitals or art

Section 1202.3 does not apply to enclosures in Climate Zones 5 through 8 that are humidified beyond 35 percent during the three coldest months.







SECTION 1014 HANDRAILS

1014.1 Where required. Handrails serving flights of stairways, ramps, stepped aisles and ramped aisles shall be adequate in strength and attachment in accordance with Section 1607.8. Handrails required for flights of stairways by Section 1011.11 shall comply with Sections 1014.2 through 1014.9. Handrails required for ramps by Section 1012.8 shall comply with Sections 1014.2 through 1014.8. Handrails for stepped aisles and ramped aisles required by Section 1029.16 shall comply with Sections 1014.2 through 1014.8.

1014.2 Height. Handrail height, measured above stair tread nosings, or finish surface of ramp slope, shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm). Handrail height of alternating tread devices and ships ladders, measured above tread nosings, shall be uniform, not less than 30 inches (762 mm) and not more than 34 inches (864 mm). Exceptions:

1. Where handrail fittings or bendings are used to provide continuous transition between flights, the fittings or bendings shall be permitted to exceed the maximum height.

2. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are associated with a Group R-3 occupancy or associated with individual dwelling units in Group R-2 occupancies; where handrail fittings or bendings are used to provide continuous transition between flights, transition at winder treads, transition from handrail to guard, or where used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

3. Handrails on top of a guard where permitted along stepped aisles and ramped aisles in accordance with Section 1029.16.

1014.3 Handrail graspability. Required handrails shallcomply with Section 1014.3.1 or shall provide equivalent graspability.

Exception: In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; handrails shall be Type I in accordance with Section 1014.3.1, Type II in accordance with Section 1014.3.2 or shall provide equivalent graspability.

1014.3.1 Type I. Handrails with a circular cross section shall have an outside diameter of not less than 1-1/4 inches (32 mm) and not greater than 2 inches (51 mm). Where the handrail is not circular, it shall have a perimeter dimension of not less than 4 inches (102 mm) and not greater than 6-1/4 inches (160 mm) with a maximum cross-sectional dimension of 2-1/4 inches (57 mm) and minimum cross-sectional dimension of 1 inch (25 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).

1014.3.2 Type II. Handrails with a perimeter greater than 6-1/4 inches (160 mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of not less than 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 inch (10 mm) to a level that is

5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 inch (10 mm) to a level that is not less than 1-3/4 inches (45 mm) below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 1-1/4 inches (32 mm) to not greater than 2-3/4 inches (70 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).

1014.4 Continuity. Handrail gripping surfaces shall be continuous, without

interruption by newel posts or other obstructions.Exceptions:1. Handrails within dwelling units are permitted to be interrupted by a newel post at

a turn or landing.

2. Within a dwelling unit, the use of a volute, turnout, starting easing or starting newel is allowed over the lowest tread.

3. Handrail brackets or balusters attached to the bottom surface of the handrail that do not project horizontally beyond the sides of the handrail within 1-1/2 inches (38 mm) of the bottom of the handrail shall not be considered obstructions. For each 1/2 inch (12.7 mm) of additional handrail perimeter dimension above 4

permitted to be reduced by 1/8 inch (3.2 mm).

4. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of the handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or

inches (102 mm), the vertical clearance dimension of 1-1/2 inches (38 mm) shall be

5. Handrails serving stepped aisles or ramped aisles are permitted to be discontinuous in accordance with Section 1029.16.1.

1014.5 Fittings. Handrails shall not rotate within their fittings.

Exceptions:

1014.6 Handrail extensions. Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent flight of stairs or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally not less than 12 inches (305 mm) beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. At ramps where handrails are not continuous between runs, the handrails shall extend horizontally above the landing 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. The extensions of handrails shall be in the same direction of the flights of stairs at stairways and the ramp runs at ramps.

 Handrails within a dwelling unit that is not required to be accessible need extend only from the top riser to the bottom riser.
 Handrails serving aisles in rooms or spaces used for assembly purposes are permitted to comply with the handrail extensions in accordance with Section

3. Handrails for alternating tread devices and ships ladders are permitted to terminate at a location vertically above the top and bottom risers. Handrails for alternating tread devices are not required to be continuous between flights or to extend beyond the top or bottom risers.

1014.7 Clearance. Clear space between a handrail and a wall or other surface shall be not less than 1-1/2 inches (38 mm). A handrail and a wall or other surface adjacent to the handrail shall be free of any sharp or abrasive elements.

1014.8 Projections. On ramps and on ramped aisles that are part of an accessible route, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of aisles, stairways and ramps at each side shall not exceed 4-1/2 inches (114 mm) at or below the handrail

height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1011.3. Projections due to intermediate handrails shall not constitute a reduction in the egress width. Where a pair of intermediate handrails are provided within the stairway width without a walking surface between the pair of intermediate handrails and the distance between the pair of intermediate handrails is greater than 6 inches (152 mm), the available egress width shall be reduced by the distance

between the closest edges of each such intermediate pair of handrails that is greater than 6 inches (152 mm).

1014.9 Intermediate handrails. Stairways shall have intermediate handrails located in

1014.9 Intermediate handrails. Stairways shall have intermediate handrails located in such a manner that all portions of the stairway minimum width or required capacity are within 30 inches (762 mm) of a handrail. On monumental stairs, handrails shall be located along the most direct path of egress travel.

SECTION 1015 GUARDS

1015.1 General. Guards shall comply with the provisions of Sections 1015.2 through 1015.7. Operable windows with sills located more than 72 inches (1829 mm) above finished grade or other surface below shall comply with Section 1015.8.

1015.2 Where required. Guards shall be located along open-sided walking surfaces, including mezzanines, equipment platforms, aisles, stairs, ramps and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Guards shall be adequate in strength and attachment in

accordance with Section 1607.8.

Exception: Guards are not required for the following locations:

On the loading side of loading docks or piers.
 On the audience side of stages and raised platforms, including stairs leading up

to the stage and raised platforms.

3. On raised stage and platform floor areas, such as runways, ramps and side

stages used for entertainment or presentations.

4. At vertical openings in the performance area of stages and platforms.

5. At elevated walking surfaces appurtenant to stages and platforms for access to

and utilization of special lighting or equipment.6. Along vehicle service pits not accessible to the public.

7. In assembly seating areas at cross aisles in accordance with Section 1029.17.2. 1015.2.1 Glazing. Where glass is used to provide a guard or as a portion of the guard system, the guard shall comply with Section 2407. Where the glazing provided does not meet the strength and attachment requirements of Section 1607.8, complying guards shall be located along glazed sides of open-sided walking surfaces.

1015.3 Height. Required guards shall be not less than 42 inches (1067 mm) high, measured vertically as follows:

From the adjacent walking surfaces.

the tread nosings.

2. On stairways and stepped aisles, from the line connecting the leading edges of

3. On ramps and ramped aisles, from the ramp surface at the guard. Exceptions:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual dwelling units in occupancies in Group R-2 not more than three stories above grade in height with separate means of egress, required guards shall be not less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces.

2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.

3. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

4. The guard height in assembly seating areas shall comply with Section 1029.17

5. Along alternating tread devices and ships ladders, guards where the top rail serves as a handrail shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread nosing.

6. In Group F occupancies where exit access stairways serve fewer than three stories and such stairways are not open to the public, and where the top of the guard also serves as a handrail, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

1015.4 Opening limitations. Required guards shall not have openings that allow passage of a sphere 4 inches (102 mm) in diameter from the walking surface to the required guard height.

Exceptions:

1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), guards shall not have openings that allow passage of a sphere 43/8 inches (111 mm) in diameter

2. The triangular openings at the open sides of a stair, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches (152 mm) in diameter

3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.

4. In areas that are not open to the public within occupancies in Group I-3, F, H or S, and for alternating tread devices and ships ladders, guards shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.
5. In assembly seating areas, guards required at the end of aisles in accordance with Section 1029.17.4 shall not have openings that allow passage of a sphere 4 inches (102 mm) in diameter up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent

walking surfaces, guards shall not have openings that allow passage of a sphere 8 inches (203 mm) in diameter.

6. Within individual dwelling units and sleeping units in Group R-2 and R-3

occupancies, guards on the open sides of stairs shall not have openings that

allow passage of a sphere 43/8 (111 mm) inches in diameter.

1015.6 Mechanical equipment, systems and devices.

Guards shall be provided where various components that require service are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below. The guard shall extend not less than 30

inches (762 mm) beyond each end of such components. The guard shall be constructed so as to prevent the passage of a sphere 21 inches (533 mm) in diameter.

Exception: Guards are not required where personal fall arrest anchorage connector devices that comply with ANSI/ASSE Z 359.1 are installed.

1015.7 Roof access. Guards shall be provided where the roof hatch opening is located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below. The guard shall be constructed so as to prevent the passage of a sphere 21 inches (533 mm) in diameter. Exception: Guards are not required where personal fall arrest anchorage connector

devices that comply with ANSI/ASSE Z 359.1 are installed.

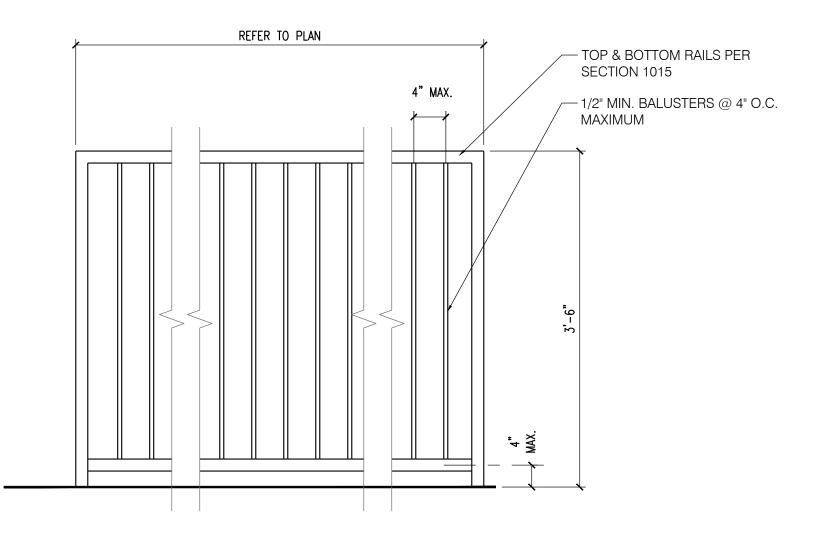
1015.8 Window openings. Windows in Group R-2 and R-3 buildings including dwelling units, where the top of the sill of an operable window opening is located less than 36 inches above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

Operable windows where the top of the sill of the opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F2006.
 Operable windows where the openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.

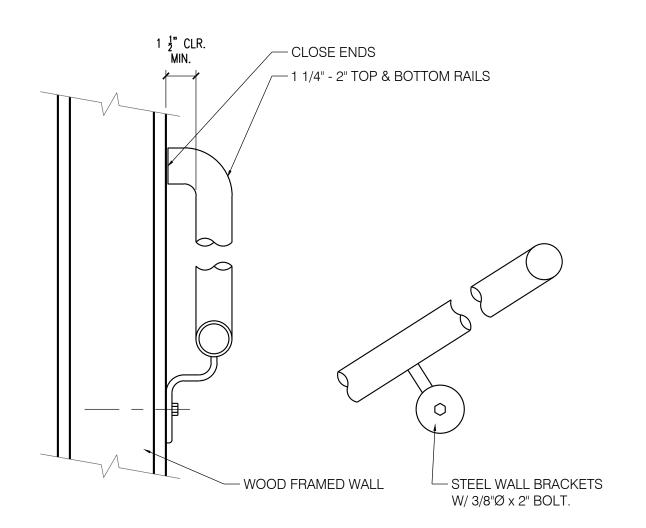
3. Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F2090.4. Operable windows that are provided with window opening control devices that

comply with Section 1015.8.1.

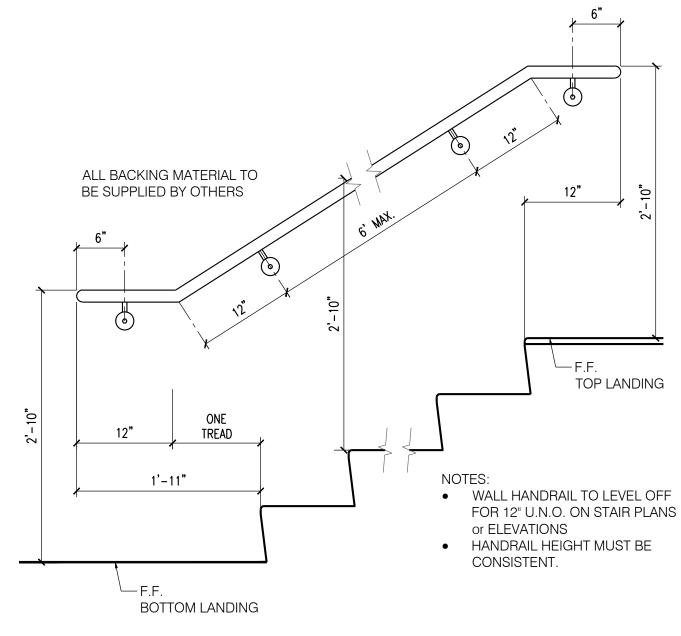
1015.8.1 Window opening control devices. Window opening control devices shall comply with ASTM F2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1030.2.



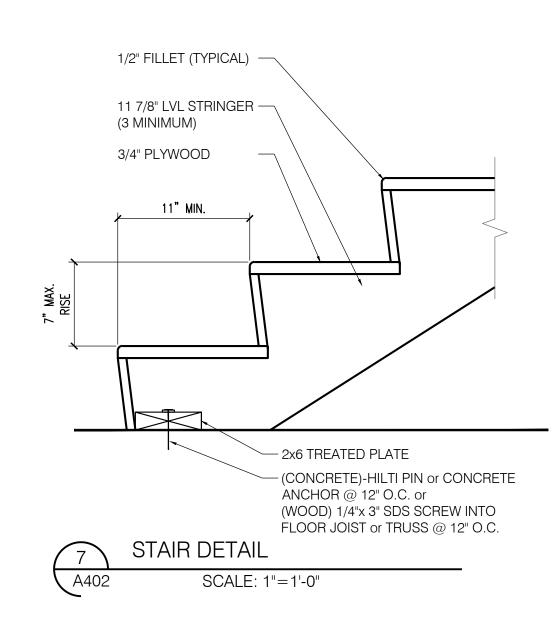


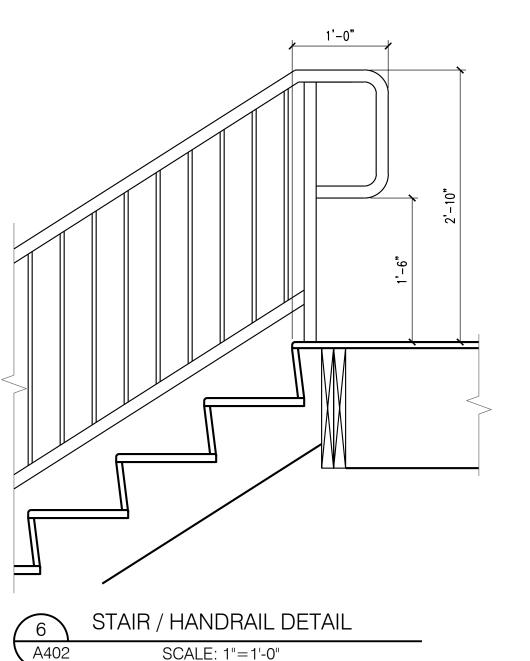


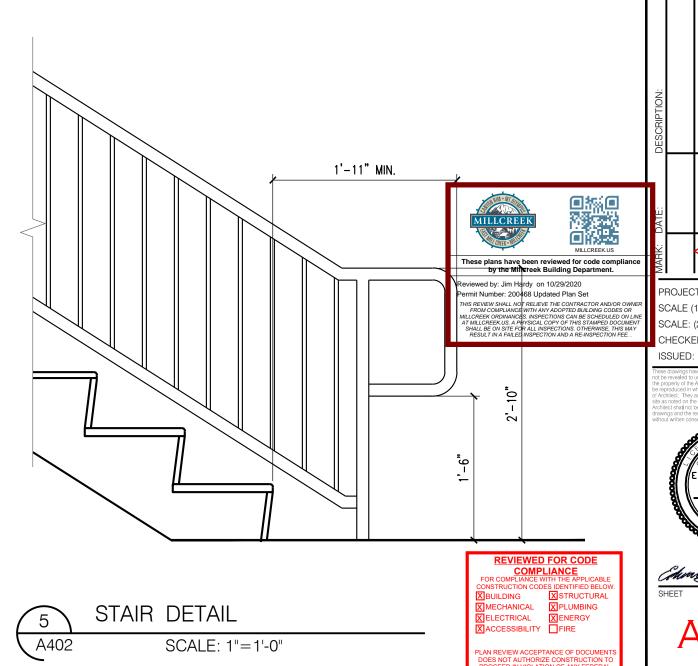


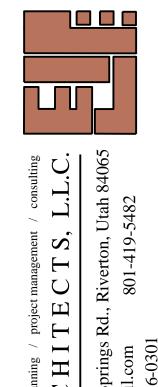




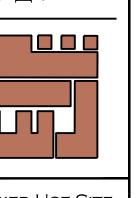








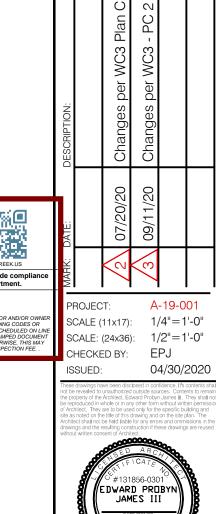


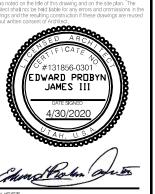












A402

aller Julian DATE: 10/28/2

As required by the Occupational Safety and Health Administration (OSHA) 1926.502 (B) (1-3), a freestanding removable barricade at each hoistway

As required by the Occupational Safety and Health Administration (OSHA) 1926.502(j), hoistway protection from falling debris and other trades materials

2.) Secured / controlled access to all elevator lobbies (lock and key) with posted Notice "Only Elevator Personnel Beyond This Protection."

opening at each floor. Barricades shall be 42" (1067 mm) high, with mid-rail and kick board, and withstand 200 lbs. (90.7 kg) of vertical and

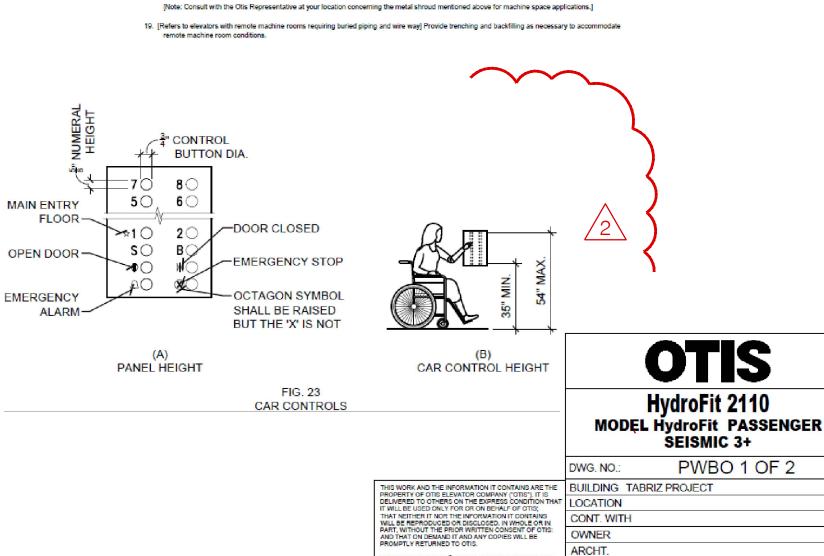
10. A.) Protection from Falls:

B.) Protection from Falling Objects:

Full entrance screening / mesh in front of all elevator entrances.

Hoistway barricades and screening shall be constructed, maintained, and removed by others.

- Items A.) and B.) can be integrated systems.



11. TOP and BOTTOM landings (and the MAIN landing where applicable), are not to be constructed until after all elevator equipment is installed in the hoistway.

The rough openings, per sizes shown on the Otis layout, are required. Prior to the completion and turnover of the elevator(s), all entrance walls must

12. Provide adequate support at all fastening points of each entrance. Provide plumb vertical surfaces for entrances and sill supports, one above the other,

and square with the hoistway. For 4"-0" (1219 mm) and 4"-6" (1372 mm) two speed door arrangements, an additional hoistway attachment point is

required for an auxiliary support bracket under the sill assembly in the center of the clear door opening. Finish floor and grout, if required, between door frames to sill line. A horizontal support is to be provided 1 foot (305 mm) above the clear opening at the top landing to support the door frame

assembly. If floor heights exceed 12'-0" (3658 mm), a horizontal support is to be provided 1 foot (305 mm) above the clear opening. If transoms

load of 5000 lb. (2268 kg). Otis requires 2" (51 mm) clear above the beam. Total clear overhead must cover entire width and depth of the hoistway. An area consisting of the width of the hoistway by 16" depth on each side of the hoist beam must be left clear to the top of the hoistway.

per ASME A17.1-2007, section 2.11.1.2. Contact your local Otis personnel for a detailed drawing (AAA26900D_FMI), showing Otis specific requirements.

13. Provide and install a steel safety beam per elevator, from side wall to side wall at the top of the hoistway, capable of withstanding a maximum live net

15. If an emergency door in a blind hoistway is required, provide an outward swinging single section type door with door closer and a self closing barrier

16. When a machine room is used, provide a suitable dry machine room with access and ventilation in accordance with all applicable codes and regulations.

17. Machine room and Machine space doors to meet code compliant fire resistive construction. When a machine room is used, provide a self closing (local

18. When a machine space is used, Otis will provide a metal shroud and metal shroud cover to be mounted on the hoistway side of the machine space door frame per Otis layout. The metal shroud will accommodate the mounting of the main electrical feeder system, fused disconnect switch or circuit breake for car lighting, and the convenience outlet. Conduit knockouts through the metal shroud cover will be required as needed to access the disconnect

building code dependent) and self looking door with a group 2 looking device. When a machine space is used, provide a standard 3' x 7" self closing (local building code dependent) and self locking metal door with a group 2 locking device in the hoistway per Otis layout. In addition, ensure that all air gaps around the machine room / machine space door are sealed (i.e. threshold, weather stripping, etc.). Self closing mechanism cannot protrude

The machine room is to be maintained at a temperature between 60°F (15.5°C) and 100°F (38°C). When a machine space is used, the machine space

will be in the hoistway behind the metal door installed per Hoistway and Pit Prep / Work above with ventilation in accordance with all applicable codes and regulations. The machine space is to be maintained at a temperature between 32°F (0°C) and 104°F (40°C). Relative humidity not to exceed 95%

non-condensing. Local codes may require tighter temperature ranges. The temperature and humidity range shall be permanently posted in the machine

14. Glass used in hoistway construction must block 98% or more of incident full spectrum ultraviolet radiation for the full height of the hoistway

room / machine space. Please check with your local code authority for the exact requirements in your area.

switches or circuit breakers, and convenience outlet. See Electrical Requirements.

into the machine space at any time. The machine space door knob shall have a blank plate on the hoistway side of the door

2947mm (9'-8") for a 2438mm (8') entrance height

The entire front wall must be open for installation with the following rough opening dimensions (to be shown on layouts): CLEAR HOISTWAY WIDTH

-Rough Opening Height = 2642mm (8'-8") for a 2134mm (7") entrance height

Remaining front entrance walls are not to be constructed until after door frames and sills are in place

Machine Room / Machine Space Prep / Work

UNPUBLISHED WORK (*) OTIS ELEVATOR COMPANY 2004 ALL RIGHTS RESERVED. CONTRACT NO EXPRESS DRAW: WEB:2 NOTE - DO NOT SCALE THIS DRAWING ELEV. No. DETAIL TA NSIDE HOISTWAY **TUBE STEEL RAIL** HALL FIXTURE DETAIL BRACKET SUPPORT 1 HALL BUTTONS @ ALL FLOORS 5 3/16"=A DIM 8 3/4"=A DIM LADDER DETAIL SEE DETAIL FRONT SEE NOTES 10, 13 & 23 3'-8 11/16" CL CAR 11 1/4" 3'-0 CL. OP. 3'-9 3/4" 7'-9" R.O. @ MAIN FLOOR 1 1/4" 4'-8" R.O. 4'-11 3/4" 5'-8 5/16" CAR INSIDE 7'-9" CLEAR HOISTWAY & PIT THIS ARRANGEMENT AND SUPPLEMENTARY NOTES APPROVED INFORMATION TO BE PROVIDED BY ELEVATOR CO COMPLETE DETAILS OF ELEVATOR CALL CONTROLS, SIGNALS, HOISTWAY SIGNAGE, ELEVATOR BUTTONS (IN CAB) CAR POSITION INDICATORS, AND ELEVATOR SIGNAGE HydroFit 2110 TO BE PROVIDED IN ACCORDANCE WITH ICC A117.1-09 SECTION 407. MODEL HydroFit PASSENGER SEISMIC 3+ PLAN VIEW BUILDING TABRIZ PROJECT _OCATION **PLAN VIEW** CONT. WITH OWNER DIRECTIONAL ARROW ARCH1 INDICATES NORTH CONTRACT NO.

NOTE - DO NOT SCALE THIS DRAWING

Fire Prevention Prep / Work 20. Provide hoistway walls designed and constructed in accordance with the required fire rating (including those places where elevator fixture boxes and rail bracket fastenings penetrate into the hoistway walls)

21. In the United States, provide smoke detectors, located as required, with wiring from the sensing devices to the controller(s) designated by Otis. a. For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing

b. For each group of elevators, provide a normally closed contact representing all smoke detectors located in lobbies, hoistways, or machine rooms / machine space, but not the smoke detector at the designated return landing (see above) or the smoke detectors as described in i. and ii. below:

i. If a smoke detector is located in the hoistway at or below the lower of the two recall landings, it shall be wired to activate the same normally closed contact as the smoke detector located in the lobby at the lower of the two recall landings. ii. If machine rooms / machine space is located at the designated return landing, the smoke detectors located therein shall be wired to activate

the same normally closed contact as the smoke detector at the designated landing.

 Requirements for intermittently illuminating the fire hat visual signal in the car operating panel, either i. or ii. apply. i. For a single unit or for a group of elevators having one common machine room / machine space and one common hoistway, provide one

ii. If the group contains more than one hoistway and hoistway smoke detectors are installed, or if the group has more than one machine room / machine space, provide one normally closed contact for each elevator. The contact is to represent the smoke detector in the machine room / machine space for that particular elevator, and any smoke detectors in the hoistway containing that particular elevator. 22. In Canada, provide smoke detectors, located as required, with wiring from the sensing devices to the controller(s) designated return landing.

a. For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing and, if provided,

b. For each group of elevators, provide a normally closed contact representing all smoke detectors located in elevator lobbies, but not the smoke detector at the designated return landing (see above) and, if provided, from the sensing device in the top of the hoistway. c. For each group of elevators, provide a normally closed contact representing the smoke detector in the elevator machine room / machine space(s)

d. If the machine room / machine space is located at the designated return landing, the smoke detectors located therein shall be wired to activate the same normally closed contact as the smoke detector at the designated landings. When a machine room is used, for each group of elevators, provide in addition to the above, a normally closed contact representing the sensing devices in the machine room and, if provided, in the pit or at the top of the hoistway (for the Fire Hat in the Elevator).

23. In the United States, if sprinklers are installed in the hoistway or machine room / machine space(s), a means to automatically disconnect the mainline power supply to the affected elevator and any other power supplies used to move the elevator, upon or prior to the application of water is required (unless prohibited by local code). Smoke detectors shall not be used to activate sprinklers in hoistways or machine rooms / machine spaces or to

24. Provide a Class "ABC" fire extinguisher, minimum 10 lbs., in the machine room or in a location convenient to the machine space. Electrical Requirements

25. All 125 volt, 15 or 20 ampere single phase receptacles installed in pits, machinery spaces, and elevator car tops shall be of ground fault circuit interrupter (GCFI) type. All 125 volt, 15 or 20 ampere single phase receptacles installed in machine rooms / machine spaces shall have GFCI protection. A dedicated single phase receptacle supplying a permanently installed pit sump pump shall not require GFCI protection. (NEC 620-85 or CEC Rule 38-085) 26. Furnish a dedicated, balanced, 3 phase, 3 wire electrical feeder system with a separate solidly grounded equipment grounding conductor terminating in the machine room / machine space. Size of the feeders and grounding conductor to suit elevator power characteristics. Feeder conductors and grounding conductor must be copper. A fused disconnect switch or circuit breaker capable of being locked in the open position for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to the controller (NEC 620-51, 620-61(D), and 620-62 or CEC Rule 38-013(2)(a)) must be provided. Fuses are to be current limiting class RK1 or equivalent. Circuit breakers are to have current limiting characteristics equivalent to class RK1 fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current as listed in the Otis Confirmation of Power Supply form.

[Note: If the 3 phase power to the control system is simulated (not from the utility), by use of a phase converter system, the phase converter must have all three phases balanced. Digital phase converter is required.]

Furnish a separate 120 volt, 15 ampere single phase branch circuit and SPST fused disconnect switch or circuit breaker capable of being looked in the open position to supply the car lights, receptacles, auxiliary lighting power source, and ventilation on each car in compliance with the National Electrical When a machine room is used and where practical, disconnects shall be located adjacent to the door of the machine room enclosure. When a machine

space is used, disconnects or circuit breakers shall be located behind the door of the machine space per Otis layout Branch circuit wiring to each controller (NEC 620-53 or CEC Rule 38-053) must be provided. For machine room applications, a convenience outlet and a suitable light, of not less than 200 Lux (19FC) as measured at floor level must be provided

in the machine room with a light switch located within 18" (456 mm) of lock jamb side of machine room doc For machine space applications a convenience outlet located inside the machine space door and a suitable light located outside the machine space door on the look jamb side, of not less than 200 Lux (19FC) as measured at floor level must be provided per Otis layout. The machine space light circuit shall be a dedicated circuit separate from other lighting circuits. (NEC 620-23 or CEC Rule 38-023)

A convenience outlet and light fixture of not less than 100 Lux (10FC) as measured at the pit floor level must be in the pit with a light switch located adjacent to the pit access door (NEC 620-24 or CEC Rule 38-024). The light bulb(s) shall be externally guarded to prevent contact and accidental

[Note: Consult with the Otis Construction Superintendent at your location concerning the following paragraph.]

To meet the date upon which the elevators are to be turned over, the permanent 3 phase feeder system and protective devices must be installed and power available prior to the start of elevator installation.

HOISTWAY SECTION

27. Provide 120 volt, 20 ampere power for light, tools, hoist, etc. to the hoistway during installation. Source must be within 75 feet (22.88 M) of the

28. Provide one (1) dedicated outside telephone line per elevator car to the elevator machine room / machine space(s), and terminated at the controller designated by the Otis construction superintendent. Reference the A17 1/CSA-844 code and the Otis Confirmation of Power Supply for specific requirements.

29. [Optional for Elevators with an intra building Intercom] Provide a separate 120 volt, 15 ampere, single phase power supply with fused SPST disconnect switch or circuit breaker located as required for intercommunicating system power supply. Circuit to be arranged for feeding from the building emergency lighting supply if provided. Conduit and wiring for remotely located intercommunicating stations must be provided.

30. [Optional for Elevators with a Battery Powered Emergency Return Unit (ERU)] Provide the disconnecting means required by the National Electrical Code (NEC) or Canadian Electrical Code (CEC) with an auxiliary contact and wiring to the controller. The auxiliary contact is to be positively open when the ain disconnecting means is open. The auxiliary contact shall cause the ERU power source to be disconnected from its load when the disconnecting means is in the open position. Size of main contacts to suit elevator power characteristics.

In the United States, heat sensors used to automatically disconnect the mainline power supply prior to the application of water from sprinklers shall be provided with a normally closed contact with wiring from the sensing device to a controller designated by Otis. The normally closed contact shall be closed when the heat sensor is not activated and shall be open when the heat sensor is activated.

31. [Optional for Installations with Emergency (Standby) Power] Provide the emergency (standby) power unit and means for starting it, and deliver to the elevator via disconnect switches in the machine room / machine space, sufficient power to operate one or more elevators at a time at full rated

An automatic Power Transfer Switch is required for each power feeder to monitor both Normal and Emergency (Standby) Power conditions and to perform the transfer from one to the other. Switch to have two sets of normally closed dry contacts, one to be open when the switch is in the Emergency (Standby) Power position, the other to open upon initiation of power transfer and to close when transfer is complete. Switch to have an inhibit function which will delay transfer to Normal and / or Emergency (Standby) Power by an adjustable period of 0 - 300 seconds. Switch shall have a Phase Monitor feature, which prohibits the transfer of power between "live" sources unless the sources are in phase with each other. If a Shunt Trip device is provided, an additional Normally Closed contact is required from the Emergency (Standby) Power source.

Emergency (standby) power system shall be connected to the 125 volt power circuit as noted in A.3 of the Confirmation of Power Supply for the branch circuit supplying the car lights, car top receptacle, auxiliary car lighting power source and car ventilation.

You agree to indemnify and save Otis harmless against any and all liability and costs arising out of your failure to carry out any of the foregoing requirements.

THE FOLLOWING SECTIONS ARE NOT PRESENTED IN THEIR ENTIRETY. REFER TO LOCAL APPLICABLE BUILDING CODES, ANSI / CABO A117.1-1992 AND ADAAG FOR COMPLETE REQUIREMENTS / SPECIFICATIONS.

ACCESSIBLE ELEVATORS SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 4.10 AND WITH THE ASME A17.1-1990, SAFETY CODE FOR ELEVATORS AND ESCALATORS. FREIGHT ELEVATORS SHALL NOT BE CONSIDERED AS MEETING THE REQUIREMENTS OF THIS SECTION UNLESS THE ONLY ELEVATORS PROVIDED ARE USED AS COMBINATION PASSENGER AND FREIGHT ELEVATORS FOR THE PUBLIC AND EMPLOYEES.

4 10 3 - HALL CALL BUTTONS CALL BUTTONS IN ELEVATOR LOBBIES AND HALLS SHALL BE CENTERED AT 42 IN. (1065 MM) ABOVE THE FLOOR. SUCH CALL BUTTONS SHALL HAVE VISUAL SIGNALS TO INDICATE WHEN EACH CALL IS REGISTERED AND WHEN EACH CALL IS ANSWERED. CALL BUTTONS SHALL BE A MINIMUM OF 3/4 IN. (19 MM) IN THE SMALLEST DIMENSION. THE BUTTON DESIGNATING THE "UP" DIRECTION SHALL BE ON TOP. (SEE FIG. 20) BUTTONS SHALL BE RAISED OR FLUSH. OBJECTS MOUNTED BENEATH HALL CALL BUTTONS SHALL NOT PROJECT INTO THE ELEVATOR LOBBY MORE THAN 4 IN. (100 MM).

A VISIBLE AND AUDIRLE SIGNAL SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE TO INDICATE WHICH CAR IS ANSWERING A CALL. AUDIBLE SIGNALS SHALL SOUND ONCE FOR THE "UP" DIRECTION AND TWICE FOR THE "DOWN" DIRECTION OR SHALL HAVE VERBAL ANNUNCIATORS THAT SAY "UP" OR "DOWN". VISIBLE SIGNALS SHALL HAVE THE FOLLOWING FEATURES:
(1) HALL LANTERN FIXTURES SHALL BE MOUNTED SO THAT THEIR CENTERLINE IS AT LEAST 72 IN. (1830 MM) ABOVE THE LOBBY (2) VISUAL ELEMENTS SHALL BE AT LEAST 2-1/2 IN. (64 MM) IN THE SMALLEST DIMENSION

(3) SIGNALS SHALL BE VISIBLE FROM THE VICINITY OF THE HALL CALL BUTTON (SEE FIG. 20). IN-CAR LANTERNS LOCATED IN CARS, VISIBLE FROM THE VICINITY OF HALL CALL BUTTONS, AND CONFORMING TO THE ABOVE REQUIREMENTS, SHALL BE 4.10.5- RAISED AND BRAILLE CHARACTERS ON HOISTWAY ENTRANCES: L ELEVATOR HOISTWAY ENTRANCES SHALL HAVE RAISED AND BRAILLE FLOOR DESIGNATIONS PROVIDED ON BOTH JAMBS. HE CENTERLINE OF THE CHARACTERS SHALL BE 60 IN. (1525 MM) ABOVE THE FINISH FLOOR. SUCH CHARACTERS SHALL BE 2

IN. (50 MM) HIGH AND SHALL COMPLY WITH 4.30.4. PERMANENTLY APPLIED PLATES ARE ACCEPTABLE IF THEY ARE PERMANENTLY FIXED TO THE JAMBS. (SEE FIG. 20)

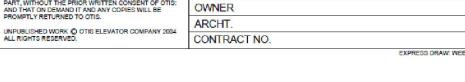
ELEVATOR CONTROL PANELS SHALL HAVE THE FOLLOWING FEATURES: SÚTTONS. ALL CONTROL BUTTONS SHALL BE AT LEAST 3/4" (19 MM) IN THEIR SMALLEST DIMENSION. THEY SHALL BE RAISED OR TACTILE, BRAILLE, AND VISUAL CONTROL INDICATORS, ALL CONTROL BUTTONS SHALL BE DESIGNATED BY BRAILLE AND RAISED STANDARD ALPHABET CHARACTERS FOR LETTERS, ARABIC CHARACTERS FOR NUMERALS, OR STANDARD SYMBOLS

AS SHOWN IN FIG. 23(A), AND AS REQUIRED IN ASME A17.1-1990. RAISED AND BRAILLE CHARACTERS AND SYMBOLS SHALL SHALL COMPLY WITH 4.30. THE CALL BUTTON FOR THE MAIN ENTRY FLOOR SHALL BE DESIGNATED BY A RAISED STAR AT THE LEFT OF THE FLOOR DESIGNATION (SEE FIG. 23(A)). ALL RAISED DESIGNATIONS FOR CONTROL BUTTONS SHALL BE PLACED IMMEDIATELY TO THE LEFT OF THE BUTTON TO WHICH THEY APPLY. APPLIED PLATES, PERMANENTLY ATTACHED, ARE AN ACCEPTABLE MEANS TO PROVIDE RAISED CONTROL DESIGNATIONS. FLOOR BUTTONS SHALL BE PROVIDED WITH VISUAL INDICATORS TO SHOW WHEN EACH CALL IS REGISTERED. THE VISUAL INDICATORS SHALL BE EXTINGUISHED WHEN EACH CALL (3) HEIGHT. ALL FLOOR BUTTONS SHALL BE NO HIGHER THAN 54 IN. (1370 MM) ABOVE THE FINISH FLOOR FOR SIDE APPROACH AND 48 IN. (1220 MM) FOR FRONT APPROACH. EMERGENCY CONTROLS, INCLUDING THE EMERGENCY ALARM AND EMERGENC

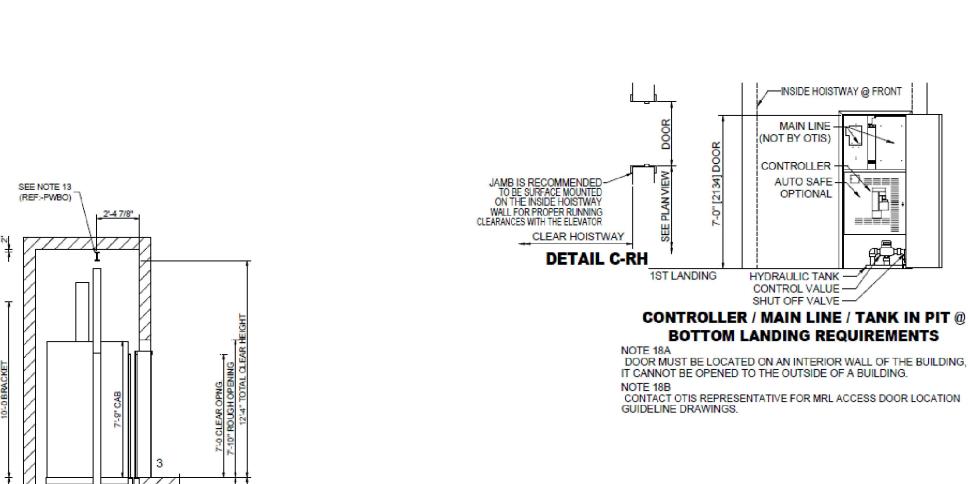
STOP, SHALL BE GROUPED AT THE BOTTOM OF THE PANEL AND SHALL HAVE THEIR CENTERLINES NO LESS THAN 35 IN. (890 MM) ABOVE THE FINISH FLOOR (SEE FIG. 23(A) AND (B)). THIS WORK AND THE INFORMATION IT CONTAINS ARE THE BUILDING TABRIZ PROJECT THIS WORK AND THE INFORMATION IT CONTAINS ARE THE PROPERTY OF OTIS ELEVATOR COMPANY ("OTIS"). IT IS DELIVERED TO OTHERS ON THE EXPRESS CONDITION THAT IT WILL BE USED ONLY FOR OR ON BEHALF OF OTIS. THAT NEITHER IT NOR THE INFORMATION IT CONTAINS WILL BE REPRODUCED OR DISCLOSED. IN WHOLE OR IN PART, WITHOUT THE PRIOR WRITTEN CONSENT OF OTIS:

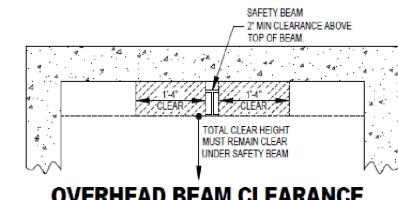
MODEL HydroFit PASSENGER SEISMIC 3+ PWBO 2 OF 2 DWG, NO.

CONT. WITH OWNER

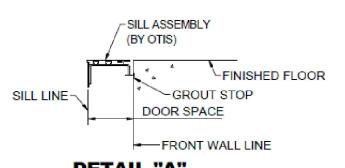


NOTE - DO NOT SCALE THIS DRAWING





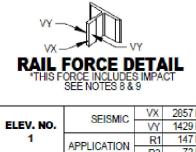




DETAIL "A" SILL SUPPORT

ADEQUATE SUPPORT AT ALL FASTENING POINTS OF ENTRANCE ASSEMBLY REQUIRED. MUST WITHSTAND A HORIZONTAL PULL-OUT FORCE OF 140 LBS. @ EA. FASTENING POINT (8 @ EA. ENTRANCE) INCLUDING SUPPORT FOR CENTER SILL SUPPORT BRACKET (NOT BY OTIS).





PLUNGER MAXIMUM BRACKET SPACING FIRST INTERMEDIATE RAIL SUPPORT LOCATION TO BE LOCATED 14' 0" FROM PIT FLOOR. ALL OTHER INTERMEDIATE SUPPORTS CANNOT EXCEED THE MAXIMUM BRACKET SPACING IN THE RAIL FORCE & BRACKET SPACING DETAIL

APPROVAL
THIS ARRANGEMENT AND
SUPPLEMENTARY NOTES APPROVED

HydroFit 2110

MODEL HydroFit PASSENGER

SEISMIC 3+

DWG. NO.:

DCATION

CONT. WITH

OWNER

BUILDING TABRIZ PROJECT

ELEVATION 1

ACH CYLINDER IMPACT LOAD CAR MAXIMUM BRACKET SPACING 14'-0





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MIXED USE SITE

DEVELOPEMENT

Z

LING 1572

ELEVATOR

DETAILS



Mind Holm apris

CONTRACT NO.

FOR MAX. SPACING BETWEEN INSERTS SEE RAIL FORCE DETAIL ELEV. No. 1

TABLE 722.2.2.1 MINIMUM SLAB THICKNESS (inches)

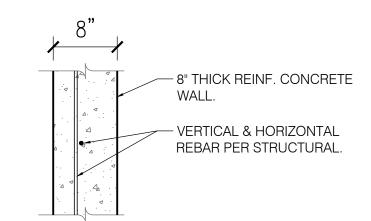
CONCRETE TYPE	FIRE-RESISTANCE RATING (hours)					
CONCRETETIFE	1	11/2	2	3	4	
Siliceous	3.5	4.3	5	6.2	7	
Carbonate	3.2	4	4.6	5.7	6.6	
Sand-lightweight	2.7	3.3	3.8	4.6	5.4	
Lightweight	2.5	3.1	3.6	4.4	5.1	

For SI: 1 inch = 25.4 mm.

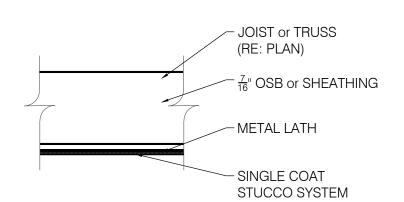
TABLE 722.2.1.1 MINIMUM EQUIVALENT THICKNESS OF CAST-IN-PLACE OR PRECAST CONCRETE WALLS, LOAD-BEARING OR NONLOAD-BEARING

CONCRETE TYPE	MINIMUM SLAB THICKNESS (inches) FOR FIRE-RESISTANCE RATING OF				
	1 hour	1 ¹ / ₂ hours	2 hours	3 hours	4 hours
Siliceous	3.5	4.3	5.0	6.2	7.0
Carbonate	3.2	4.0	4.6	5.7	6.6
Sand-lightweight	2.7	3.3	3.8	4.6	5.4
Lightweight	2.5	3.1	3.6	4.4	5.1

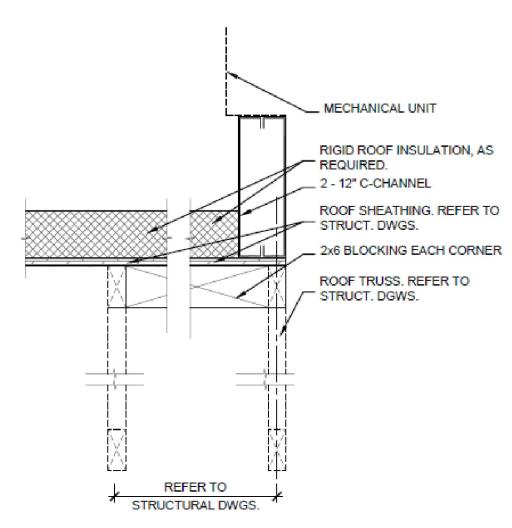
For SI: 1 inch = 25.4 mm.



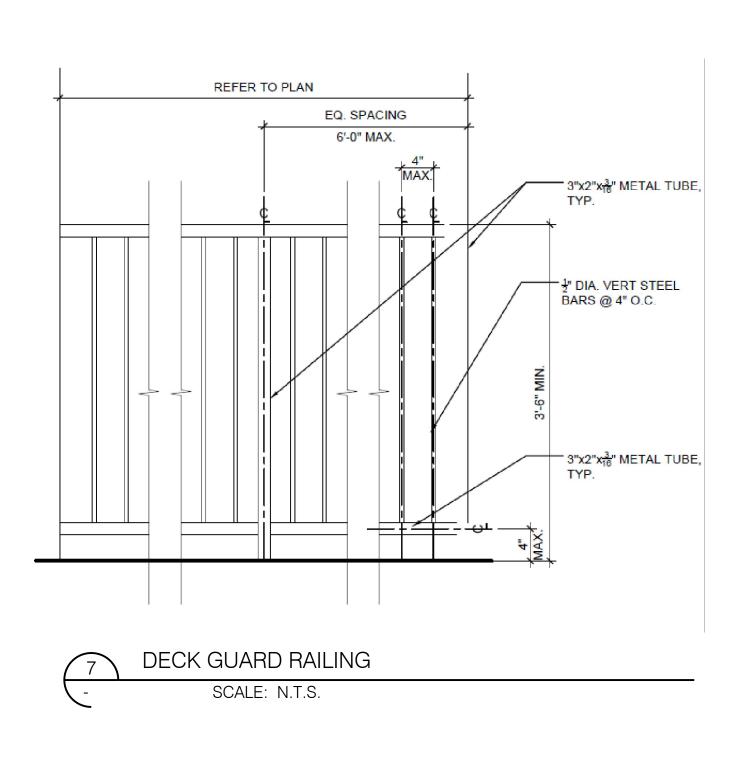
8" THICK REINF. CONCRETE WALL WALL TYPE 'F' - TYPICAL AT MAIN LEVEL **A**501 SCALE: N.T.S.

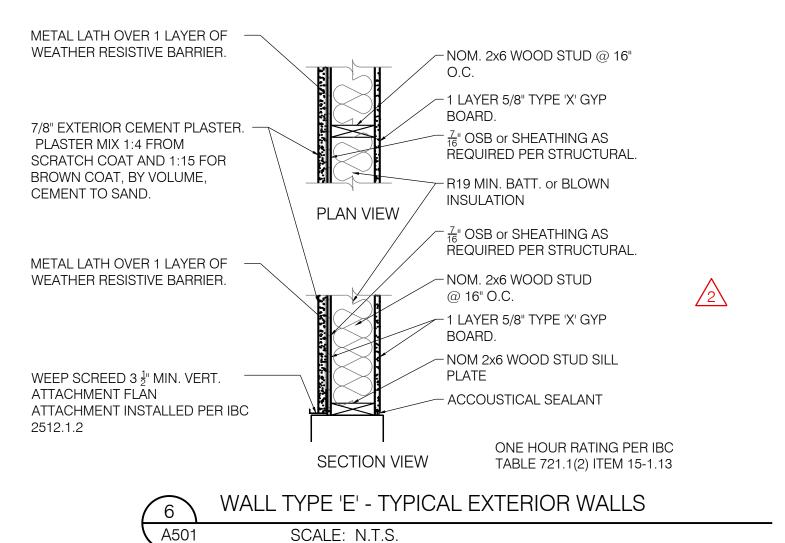








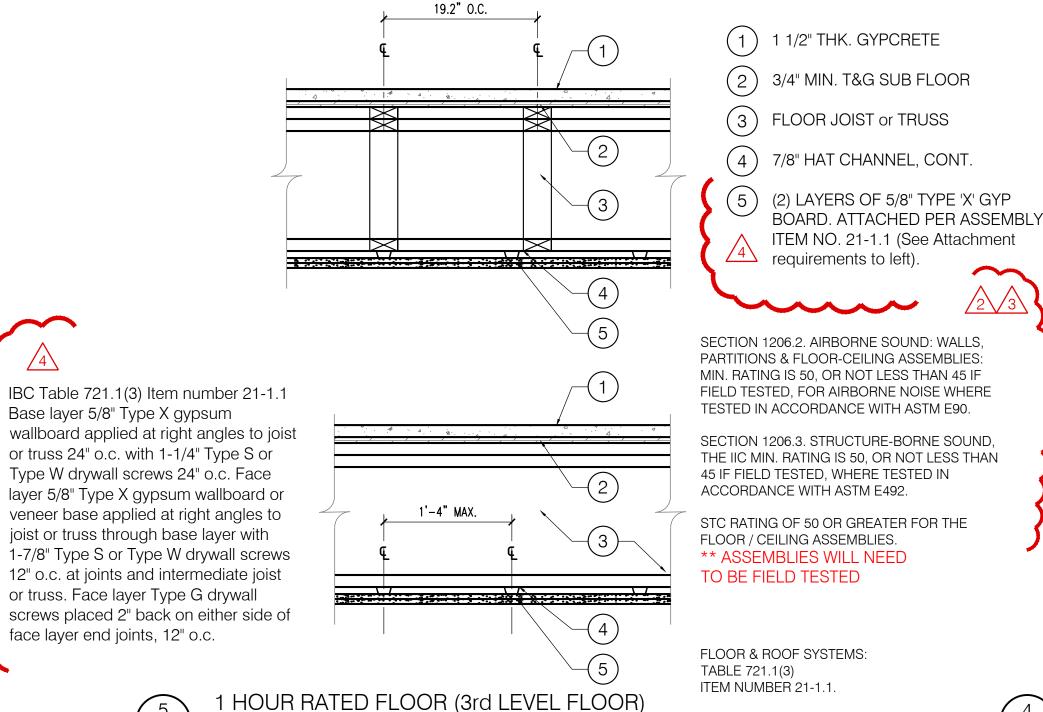


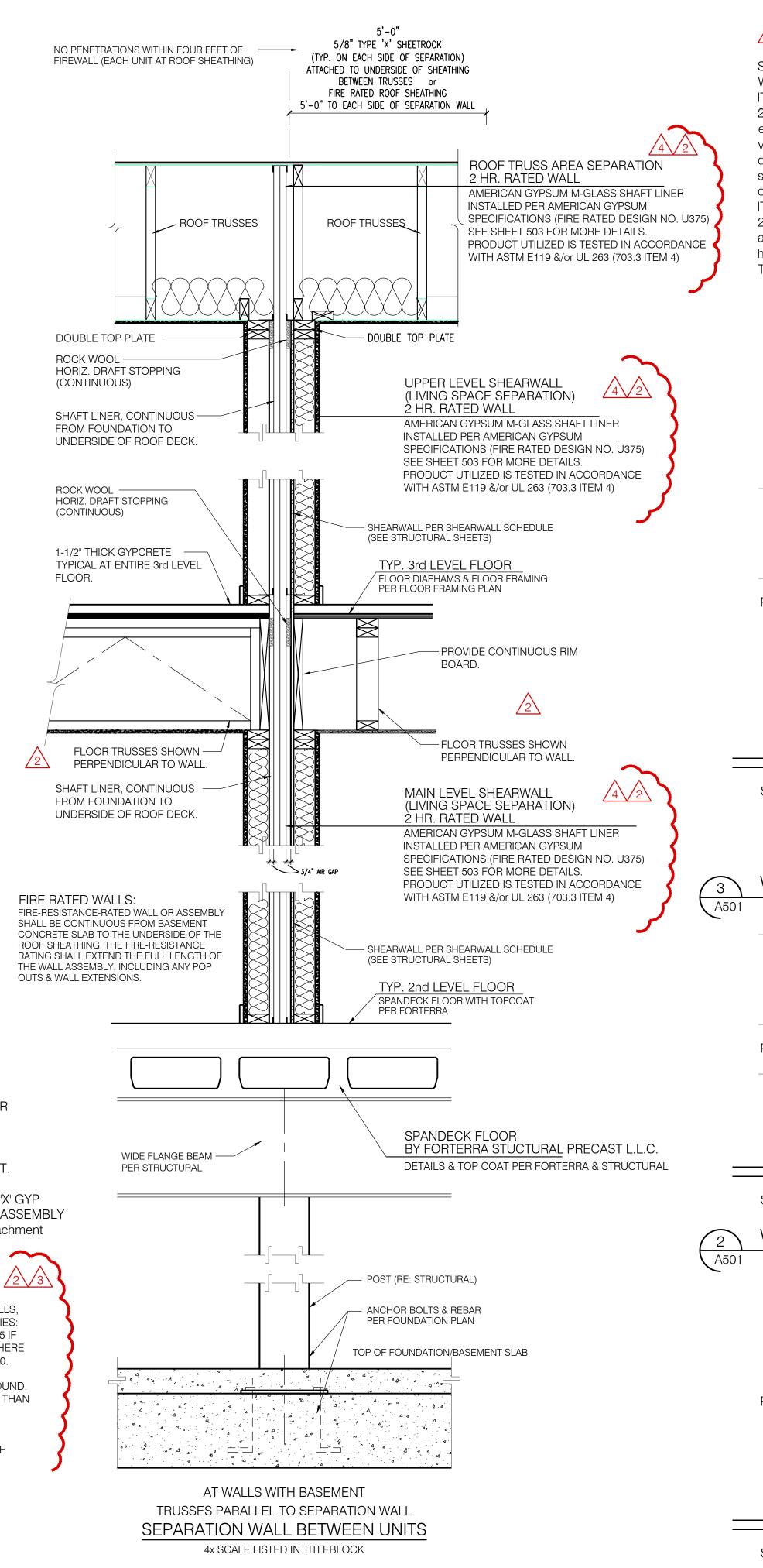


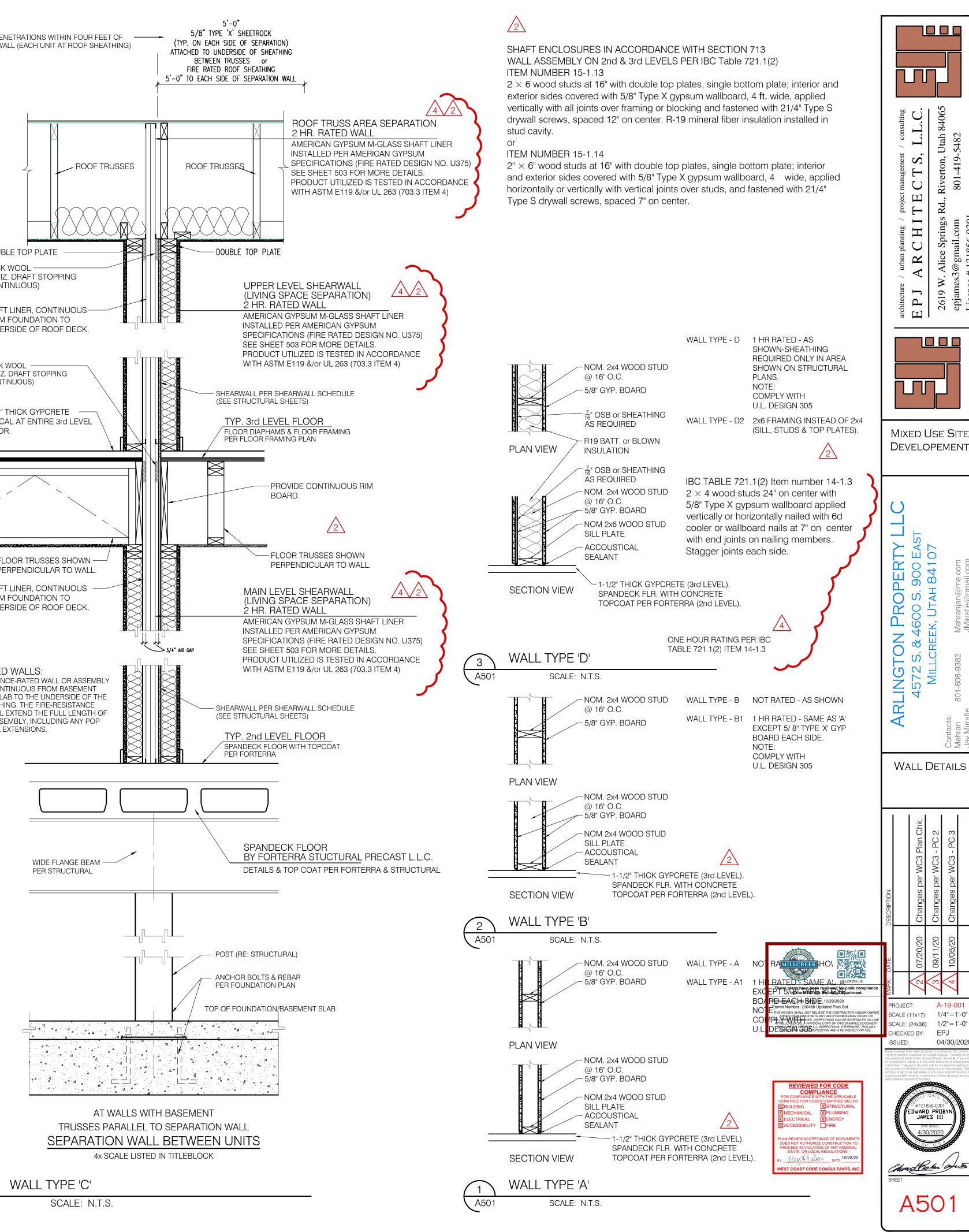
Base layer 5/8" Type X gypsum

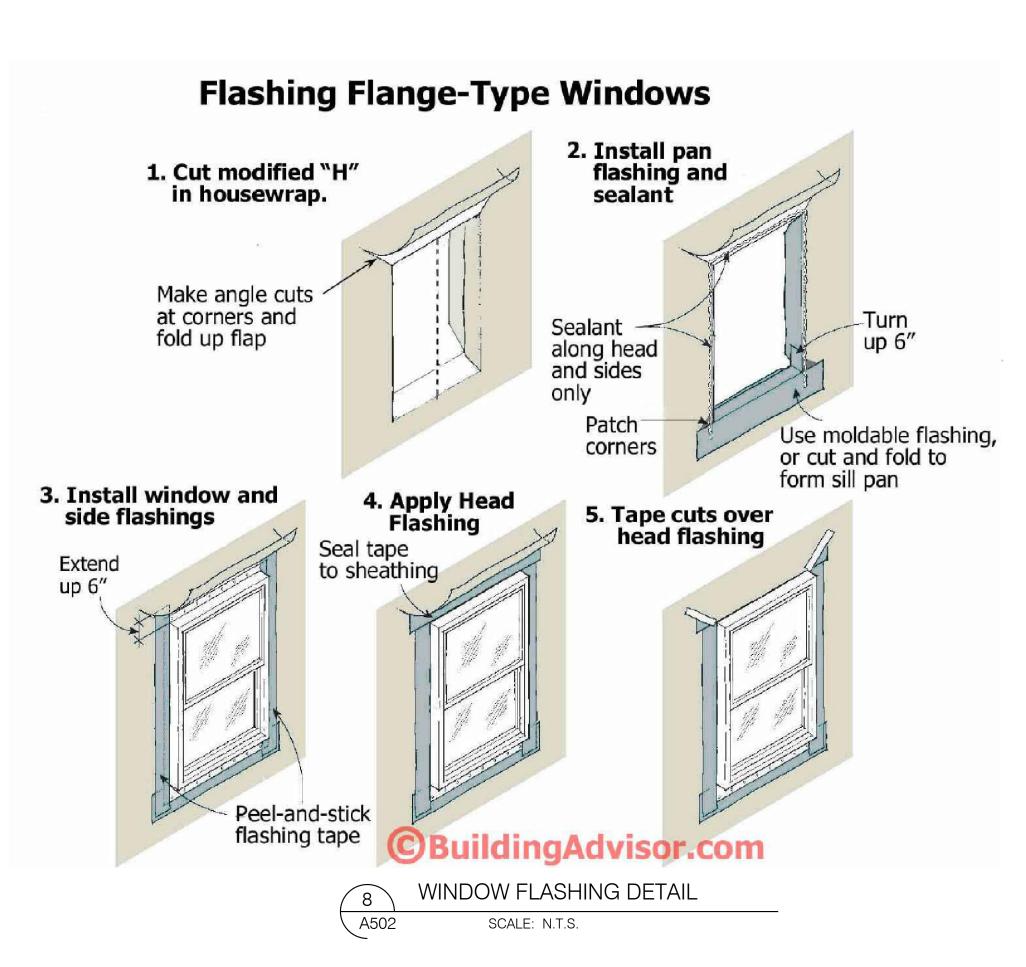
face layer end joints, 12" o.c.

SCALE: N.T.S.









 WALL ASSEMBLY - 1 OR 2 HR RATED ASSEMBLY FROM THE U.L. U300 OR U400 SERIES ASSEMBLY SYSTEMS, REFER TO PLAN FOR WALL TYPE AND RATING.

2 THOUGH PENETRATION - ONE METALIC PIPE OR CONDUIT TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

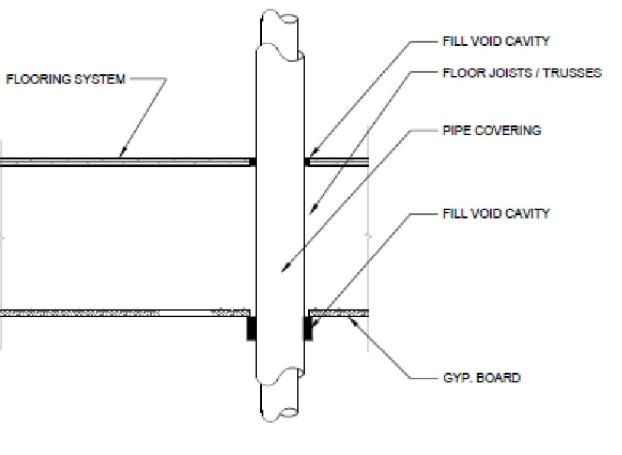
A) - STEEL PIPE NOM. 4" Ø OR LESS SCHEDULE 5 OR HEAVIER STEEL PIPE. B) - CONDUIT NOM 4" Ø OR LESS STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT. A NOM. ANULAR SPACE OF T IS REQUIRED WITHIN THE FIRESTOP SYSTEM

A) - METALLIC SLEVE, NOM, 6" Ø OR LESS STEEL SLEVE W/ NOM * x * LONG TABS TO -RETAIN PUTTY (ITEM C) IN POSITION. REFER TO UL DESIGN FOR DETAILS. B) - PACKING MATERIAL, MIN 3" THICKNESS OF 6 PCF MINERAL WOOL BATT. INSULATION FIRMLY PACKED INTO OPENING AS A PERMAMENT FORM. C) - CAVITY MATERIAL, PUTTY 1" MIN. FILL APPLIED WITHIN THE ANNULS, ON BOTH SURFACES OF WALL, ADDITIONAL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 8" CROWN IS FORMED ARROUND THE PENETRATING ITEM. D) - TRIM RING, NOM 8" x 0.016" (30 GA) THK GALV. STEEL RING.

> TO COMPLY WITH UL DESIGN W-L-1005



ELEVATION VIEW



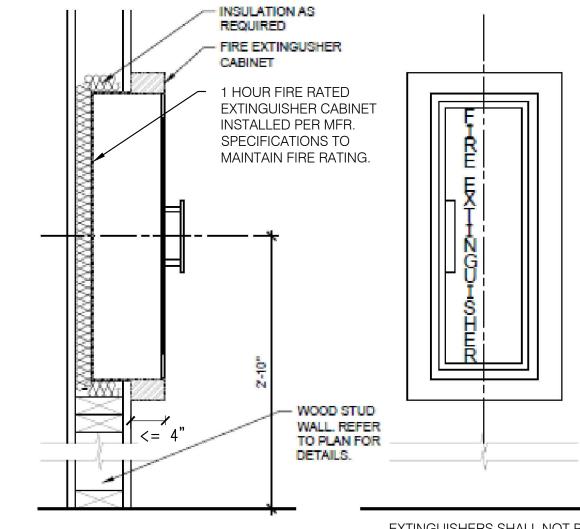
THRU FLOOR PENETRATION

A502 / SCALE: 3"=1'-0"

37

NOTE: BASED ON UL DESIGN F-C-5002

1 HR RATED FLOOR ASSEMBLY



EXTINGUISHERS SHALL NOT PROJECT HORIZONTALLY MORE THAN 4" INTO THE WALKING SURFACE (IBC 1003.3.3).

FIRE EXTINGUISHER CABINET

A502 | SCALE: 3"=1'-0" 1 1 HR RATED FLOOR ASSEMBLY

(2) 1 HR RATED WALL ASSEMBLY

3 NONMETALIC PIPE - NOM 1" Ø MAX. SCHEDULE 40 PVC USED IN CLOSED (PROCES OF SUPPLY) PIPING SYSTEM.

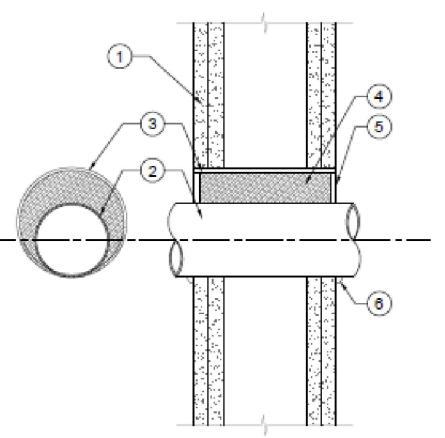
4 SEALANT / CAULK - MIN → THK.
FILL FLUSH WITH TOP OF
SURFACE OF FLOOR, A
GENEROURS BEAD TO BE
APPLIED WITH IN TH EANNUS
OF THE TOP BLATE OF THE TOP PLATE.

2) 1½ MAX. PVC, CPVC, PEX OR ABS TUBING OR PIPE. 3 3 MIN. CAULK APPLIED WITHIN ANNULS, FLUSH WITH BOTTOM SURFACE OF FLOOR OR TOP PLATE. 2' BEAD APPLIED TO SURFACE ON BOTTOM OF SURFACE ASSEMBLY. CENTRAL PROPERTY. * B * 100 * 0 120 * 0 1,100 NOTE: TO COMPLY WITH U.L. F-C-2013

TO COMPLY WITH U.L. DESIGN

THRU WALL PENETRATION \ A502 / SCALE:

THRU WALL PENETRATION



A502 SCALE:

RATED WALL ASSEMBLY (1 HR 1 OR 2 HR RATED, 2 HR SHOWN) 2 16" Ø MAX. STEEL PIPE OR 4" Ø MAX. COPPER PIPE.

3 NO. 8 STEEL WIRE MESH SLEVE 42" THK. MINERAL WOOL (4) FIRMLY PACKED INTO

OPENING 5 FIRESTOP SEALANT

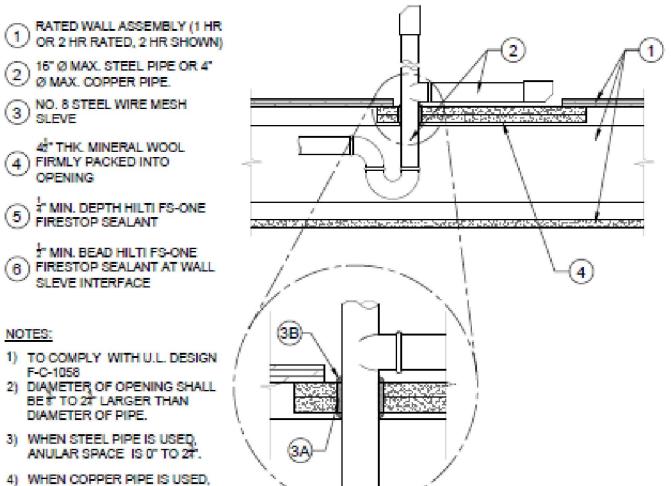
MIN. BEAD HILTI FS-ONE (6) FIRESTOP SEALANT AT WALL SLEVE INTERFACE

 DIAMETER OF OPENING SHALL BE IT TO 2T LARGER THAN DIAMETER OF PIPE. 3) WHEN STEEL PIPE IS USED,

F-C-1058

ANULAR SPACE IS 0" TO 2#. 4) WHEN COPPER PIPE IS USED, ANULAR SPACE IS 0" TO 3".

FIRE PROTECTION DETAIL √A502 / SCALE: 3"=1'**-**0"



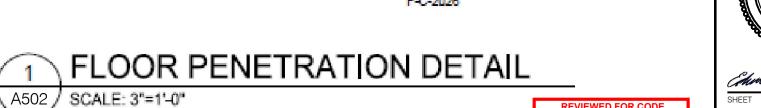
1 1 HR RATED FLOOR ASSEMBLY

2 DRAIN PIPING - NOM 1-2" DIAM SCHEDULE 40 PVC PIPE & DRAIN FITTINGS CEMENTED TOGETHER AND PROVIDED WITH PVC BATHTUB WASTE / OVERFLOW FITTINGS.

3) FIRE STOP SYSTEM STRIP - NO M T T INTUMENT SIDE WITH ALUMN FOIL, SUPPLIED N These plans have been reviewed for code comp 3M COMPANY ES by the Millcreek Building De Reviewed by: Jim Hardy on 10/29/2020

Reviewed by: Jim Hardy on 10/29/2020

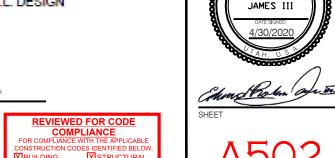
Reviewed by: Jim Hardy on 10/29/2020 CAULK AP LITTER OF SEVEN SHALL NOT RELIEVE THE C PERIMETE : MILICREES GROWANCES INSPECTIONS
SHALL BE ON SITE FOR ALL INSPECTION
AT ITS EGR ESSER PROPRIED INSPECTION AND UNDERSIDE OF GYPSOM



Alle Juliu DATE: 10/28/2

(4) 2 LAYERS FGYPSOM BOARD.

TO COMPLY WITH U.L. DESIGN F-C-2026



UNIFIED FIRE AUTHORITY Sul White 10/29/2020

SCALE (11x17): N.T.S.

SCALE: (24x36): N.T.S.

CHECKED BY: EPJ

04/30/2020

ISSUED:

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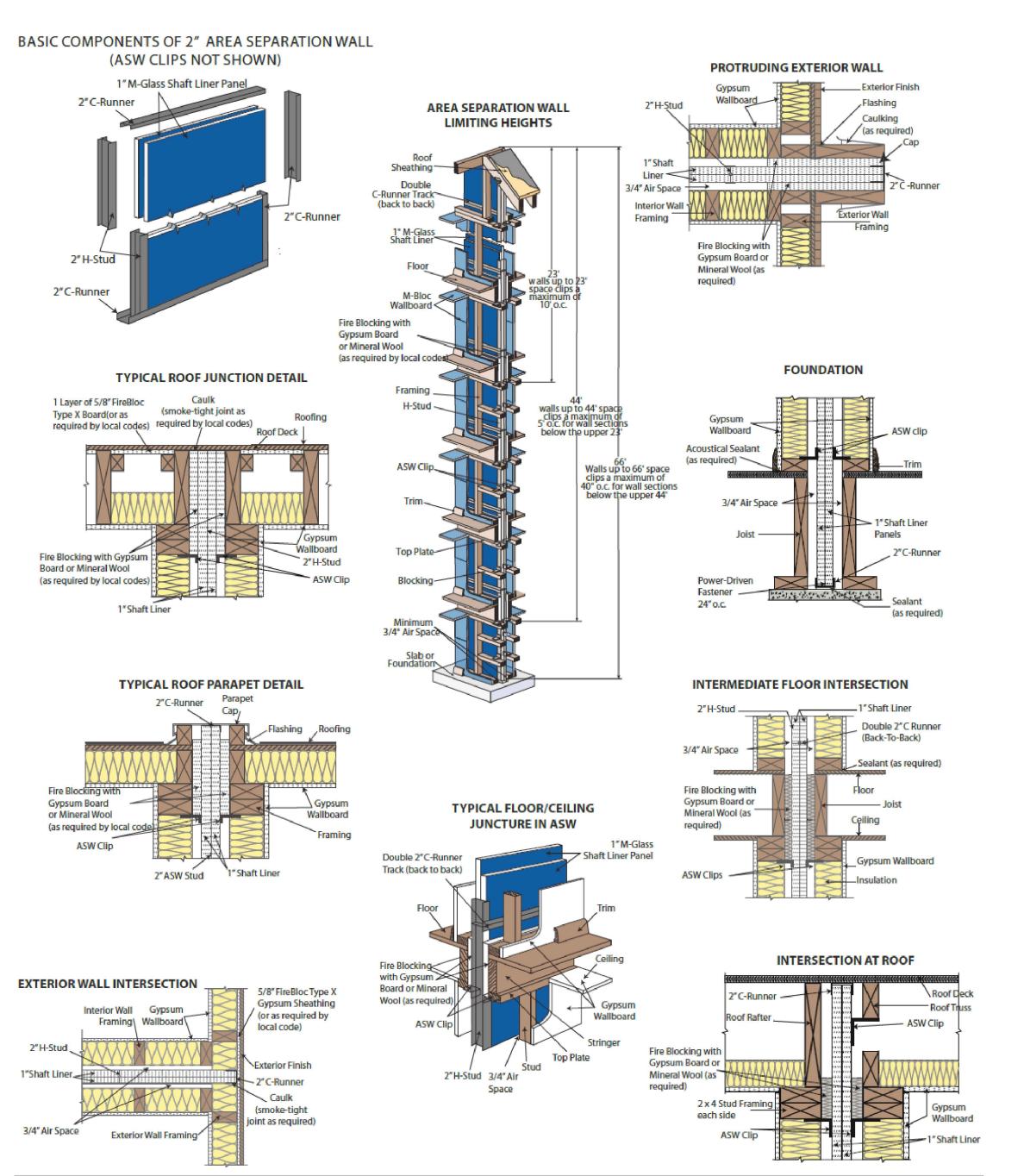
MIXED USE SITE

DEVELOPEMENT

ARLINGTO 4572 S.

MISC. DETAILS





TORAGE AND HANDLING Material must be protected during transit with a weather-tight cover in good condition. Plastic shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likelihood of developing conditions favorable to the growth of mold. M-Glass Shaft Liner that has visible mold growth must not be used. For additional information refer to Gypsum Association publication, "Guidelines for the

ation - The installation of 1" M-Glass Shaft Liner panels shall be consistent with specified application details for Shaftwall or

Prevention of Mold Growth on Gypsum Wallboard" (GA-238).

APPLICABLE STANDARDS

rea Separation Wall systems. The assembly must be erected in the proper manner and with all approved components used in a cessfully completed fire endurance test. The contractor, design professional and or owner shall ensure that only the components that were a part of the approved est are used; do not substitute components. Score of 10 (ASTM D 3273) Mold Resistance

> <10 (ASTM C1177, section 5.2.5) Water Absorption Manufacturing ASTM C1658, C1396 Surface Burning Characteristics ASTM E 84 Flame Spread

Smoke Developed 0 Non-Combustible (ASTM E 136) Combustibility

PRODUCT DATA Thickness Widths Lengths Edge Type 1" (25.4mm) 2' (610mm) 8' - 12' (2438mm- 3658mm) Double Beveled

> Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details. Thermal Resistance "R" Value 1" = 0.73

esired fire rated assemblies are specified from tests performed by independent laboratories. These designs are made up of pecific materials in a precise configuration. When choosing construction designs to meet certain fire resistance requirements, vigilance must be taken to insure that each component of the selected assembly is the one specified in the test and are assembled in accordance with the requirenents of the assembly.

SUBMITTAL APPROVALS ----------

1" M-Glass Shaft Liner, 1" M-Bloc Shaft Liner or 1" traditional Shaft Liner panels must be stored off the ground and under protective cover. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging. Wallboard must be delivered to the job site as near to the time it will be used as possible. Individuals delivering gypsum board to jobsites should ensure that it is carried, not dragged, to place of storage/installation to prevent damage to finished edges. Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

- 1. Beginning at foundation floor, attach 2" C-Runner Track to concrete with power-driven fasteners spaced 24" o/c. positioned a minimum 3/4" from the framed wall of the adjacent unit. If specified, apply acoustical sealant along edges of track at floor line.
- 2. Install C-Runner Track to foundation walls where ASW intersects, if applicable, and fasten with power-driven fasteners 24" o/c. If specified, apply acoustical sealant
- 3. Vertical C-Tracks at each end of the wall should be attached in the corners to the horizontal sections of C-Track using a minimum of one 3/8" Pan Head Type S screw.
- 4. At intersection of foundation or exterior wall and ASW, begin erecting by inserting first layer of 1" M-Glass® Shaft Liner, 1" M-Bloc® Shaft Liner or 1" traditional Shaft Liner panels into floor and wall track. Insert second layer, back-to-back with first panel, and seat into floor and wall track. Liner panels and studs may be set into position from the basement floor or fed through the space provided in the wood framing from the floor above. Install the H-Studs to a maximum height of 2' above
- 5. Making sure that both pieces of liner panels are seated all the way into the floor and wall tracks and that their edges are flush, insert an H-Stud into the floor track and engage the H-Stud legs over the long edges of the liner panels. Seat the H-Stud fully so the board edges contact the stud well
- 6. Continue in this manner, erecting two thicknesses of liner panels, and installing the legs of the H-Stud over the panel edges until wall is completed. Again, make sure all studs and boards are pressed tightly together. Attach H-Studs to floor track with 3/8" Pan Head Type S screws.
- 7. If the ASW terminates at a foundation wall, the last two liner panels will have to be inserted from the floor above. Boards are pushed down into the channel formed by the previous H-Stud's legs and the legs of the wall track.
- 8. The top edge of the erected wall is then capped off by placing a 2" C-Runner Track (legs down) over studs and liner panels. Screw the C-Runner Track to each H-Stud with 3/8" Type S Pan Head screws.
- 9. C-Runner Track splices shall be located at an H-Stud so both track ends can be screw attached to the stud.
- 10. The ASW aluminum angle clips span the minimum 3/4" air space and provide a fusible link between the H-Studs and the adjacent wall framing. Secure the ASW
- lips to the H-Studs with one 3/8" Type S Pan Head screw through the short leg of the clip and secure the other side of ASW clip to wood framing with one 1 1/4" Type W screw through the long leg of the clip.
- 11. The recommended location of these clips when possible is on the lower side of the wood framing. In that location, the clip provides the utmost assurances that the ASW will remain in place and structurally sound should one of the adjoining units fail. When vertical H-Studs do not align with the adjacent wood framing, insert norizontal blocking between wood framing members and attach ASW Clips. 12. At the next floor, attach 2" C-Runner Track (with legs up) to the already installed top track of the lower floors wall. This back-to-back track installation allows for the
- progressive erection of the ASW one floor at a time. Secure the two tracks together with two 3/8" Type 5 Pan Head screws 24" o/c. Stagger back-to-back track joints a minimum of 12".
- 13. Erect Shaft Liner and H-Studs in the same manner as for the first section of wall, except that starting and ending procedures vary depending on the exterior wall
- At roof intersection the walls are capped-off with C-Runner Track. 15. Fire blocking must be installed on both sides of the ASW at each floor to completely fill the wall cavity, by using mineral wool insulation or gypsum wallboard.
- 16. At top floor, the ASW may extend to top of parapet wall or to roof intersection, depending on design professional and detail.

ASW CLIP PLACEMENT

Secure the ASW clips to the H-Studs with one 3/8" Type S Pan Head screw through the short leg of the clip and secure the other side of ASW clip to the wood (or steel) framing with one 1 1/4"Type W screw.

- 1. For walls up to 24" in height, space clips a maximum of 10'o/c vertically between the wood framing (or steel) and the "H" studs.
- 2. For walls up to 44' in height, space clips as described in #1 for the upper 24'. Remaining wall area below requires clips spaced a maximum of 5'o/c vertically between the wood framing (or steel) and the "H" studs.
- 3. For walls up to 66'in height, space clips as described in #1 for the upper 24' and then space clips as described in #2 for the next 20' in height. Remaining wall area below requires clips to be spaced a maximum of 40"o/c vertically between the wood framing (or steel) and the "H" studs

UNIQUE CONDITIONS

- When vertical H-Studs do not align with the adjacent wood framing, insert horizontal blocking between wood framing members and attach ASW Clips.
- When wall framing is spaced greater than 1" away from the ASW, aluminum clips with longer legs are permitted. Contact clip manufacturer for customized clips. While the ASW system is non-load bearing, the adjoining framed walls can be designed as load bearing walls.
- The walls adjacent to the ASW system can be erected of wood or steel framing. When using steel framing, use a minimum of one 3/8" pan head screw to attach the
- The required minimum 3/4" air space can be eliminated if the H-Studs and C-Runner Track are covered with 1/2" FireBloc® Type C wallboard on both sides of the wall. 3" wide battens installed over C-Runner Track at foundation and roof are attached with 1" Type S screws spaced 12" o/c. The H-Studs and remaining C-Runner Track are protected with 6" wide battens, screw attached with 1" Type S screws spaced 12" o/c., alternating on each leg of stud.



AMERICAN GYPSUM American Gypsum 3811 Turtle Creek Blvd., #1200 Dallas, TX 75219

Technical Information

1-800-545-6302 ext. 5607

www.americangypsum.com

SHAFT LINER

WITH MOLD & MOISTURE RESISTANCE

M-Glass Shaft Liner panels consist of a fire-resistant type X gypsum core that is encased in a moisture and mold resistant glass mat fabric. The panels feature a double beveled edge for ease of installation, with the ends being square-cut and finished smooth. I-Glass Shaft Liner panels are available: 1" thick x 2' wide, and in a variety of lengths.

American Gypsum products contain no asbestos and no detectable levels of formaldehyde.

GREENGUARD CERTIFIED M-Glass Shaft Liner panels have achieved UL Environment's GREENGUARD GOLD Certification. GREENGUARD FROM UL ENVIRONMENT

Certified products are scientifically proven to meet some of the world's most rigorous, third-party chemical emissions standards, helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments. For more information, visit www.ul.com/gg.

M-Glass Shaft Liner panels are UL Classified (UL Type - M-Glass) and used in conjunction with other American Gypsum products and metal framing members for Shaftwall and Area Separation Wall systems. Lightweight non-load bearing gypsum Shaftwall systems have replaced traditional masonry for interior vertical enclosures including stairwells, elevator enclosures and mechanical chases.

American Gypsum's M-Glass Shaft Liner panels have been approved for use in the following fire rated assemblies: U 375 2 Hour H-Stud Area Separation Wall System

V 455 1 & 2 Hour Shaftwall Systems using I, C-H and C-T Studs U 428 2 Hour Shaftwall System using C-H and C-T Studs

U 429 2 Hour Area Separation Wall System using C-H and C-T Studs

V 433 2 Hour Shaftwall System using I-Studs

American Gypsum's M-Glass Shaft Liner is manufactured to meet or exceed the requirements of ASTM C1658/C1396, and was developed for and is backed by a limited warranty for exposure up to 12 months under normal weather conditions on commercial and residential projects.

M-Glass Shaft Liner panels have been developed with enhanced mold and moisture resistant technology and at an independent M-Glass Snaπ Liner panels have been developed with ISO 17025-2005 has been tested to the industry's most rigorous standards. When tested per ASTM D 3273, M-Glass Exterior Sheathing scored a perfect 10, thus minimizing the risk of mold and mildew growth. The use of M-Glass Shaft Liner panels in actual job site conditions may not produce the same mold and moisture resistant results as were achieved in a controlled

laboratory setting. While no material can or should be considered mold proof, the use of good design and construction practices including avoiding water exposure during all phases of the project (i.e. - storage, handling, shipping, and installation) is the most effective strategy to manage the growth of mold and mildew. Exposure to excessive or continuous moisture and extreme temperatures should be avoided during delivery, storage, handling and

installation. Eliminate sources of moisture immediately. While M-Glass Shaft Liner panels offers additional resistance to weather, it is not intended for constant exposure to water. Protect this and all comparable materials from the eroding effects of cascading water.

Do not allow standing water to remain on or in contact with M-Glass Shaft Liner panels.

M-Glass Shaft Liner panels shall be sheltered from the elements and maintained in good condition prior to installation. Panels shall be stacked flat with care taken to prevent sagging or damage to edges, ends and surfaces. Following its installation, the building/structure must be adequately maintained by the contractor and/

All design details such as fasteners, sealants, etc., per system requirements or specified by the design professional, must be installed properly. Failure to do so will void the warranty offered by American Gypsum Company.

Used in non-load bearing systems. Not to be used in an unlined air supply duct. Framing must be spaced no more than 24" o/c. Limiting heights and deflection criteria for the system should be based upon the metal stud manufacturer's recommendations.

Panels should not come in direct contact with concrete, masonry or other surfaces that have high moisture content.

Provide flexible sealant/caulk at partition perimeters and penetrations to avoid air leakage/whistling and dust collection. Avoid exposure to temperatures exceeding 125°F (52°C) for extended periods of time, e.g., located adjacent to wood burning stoves and or heating appliances.

M-Glass Shaft Liner panels do not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface. The panels must be stored off the ground and in an area that offers protection from adverse weather conditions, condensation, and other forms of moisture. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging. M-Glass Shaft Liner panels shall always be stacked flat - NEVER on edge or end. Panels stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Care must be taken so weight is evenly distributed and floors are not overloaded.

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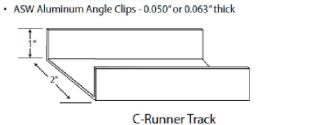
The H-Stud Area Separation Wall (ASW) system from American Gypsum offers the advantages of constructing common walls with fire resistive protection and noise reduction between neighboring housing units. This lightweight, non-load bearing 2-hour fire rated drywall assembly was developed as a vertical fire protection that provides STC sound ratings up to 60-64 between common wall units in wood framed townhouses and apartment complexes up to 66' in height. Area Separation Walls can be built higher, are easier and faster to construct, lighter in weight, and take up less space than masonry wall systems.

This system was designed as a fire barrier between adjacent dwelling units allowing for the falling away of construction on the fire-exposed side without collapse of the entire wall. This is accomplished with the aluminum breakaway clips that attach the ASW to adjacent wood framing. When one side of the system is exposed to fire, the clips soften, break away and allow the wall on the fire side to give way. The aluminum breakaway clips on the non-fire side will remain intact, holding the ASW in place as a barrier to protect neighboring spaces. Additionally, American Gypsum's Area Separation Wall assembly meets the requirements of the International Building Code (IBC) Section 706.

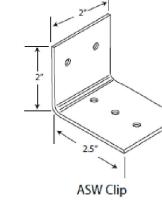
BASIC USES

The system consists of 2" wide light gauge metal H-Studs which secure two layers of 1" M-Glass® Shaft Liner, 1" M-Bloc® Shaft Liner or 1" traditional Shaft Liner panels vertically between adjacent stud walls. The system is stacked, floor to floor, allowing progressive construction using the breakaway aluminum clips.

Materials Needed: 1"M-Glass® Shaft Liner, 1"M-Bloc® Shaft Liner or 1"traditional Shaft Liner panels Metal H-Studs - 2"x up to 12" Metal C-Runner Tracks - 2"x 10"







MOLD & MILDEW RESISTANCE Because this type of system will be exposed to the elements during construction, American Gypsum offers extra protection against mold and mildew with M-Glass or M-Bloc Shaft Liner panels to protect the owner, builder and architect. In independent laboratory tests per ASTM D3273 M-Glass and M-Bloc Shaft Liner scored a 10, the highest level of performance for this test method, which means the risk of mold and mildew growth is minimized.

LIMITATIONS

H-Stud Area Separation Walls are non-load bearing partitions. Unsupported wall height between floors should not exceed 12 feet, with the sys Liner Panels shall not come in direct contact with concrete, masonry or other surfaces that have high moisture content.

Do not install insulation in the wall system until the building has been properly closed or dried in. Penetrations in or through H-Stud Area Separation Walls are not part of the tested assembly.

GOOD BUILDING PRACTICES The installation of 1" M-Glass Shaft Liner, 1" M-Bloc Shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of tradismither or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner or 1" traditional Shaft Liner panels shall be consistent with specified application of the shaft Liner panels shall be consistent with specified application of the shaft Liner panels shall be consistent with specified application of the shaft Liner panels shall be consistent with specified application of the shaft Liner panels shall be consistent with the shall be consistent with the shaft Liner panels shall be consistent with the must be erected in the proper manner and with all approved components used in a successfully completed fire endurance test. The contractor, design provided in the proper manner and with all approved components used in a successfully completed fire endurance test. The contractor, design provided in the proper manner and with all approved components used in a successfully completed fire endurance test. The contractor, design provided in the proper manner and with all approved components used in a successfully completed fire endurance test. The contractor, design provided in the proper manner and with all approved components used in a successfully completed fire endurance test. The contractor, design provided in the proper manner and with all approved components used in a successfully completed fire endurance test. or owner shall ensure that only the components that were a part of the approved test are used; do not substitute components.

When gypsum board is exposed to elevated levels of moisture, an assessment of the potential damage to the gypsum board must be made by the professional/owner as to whether board exposed to these conditions must be replaced. Gypsum wallboard may experience limited intermittent exp from a variety of sources, such as improper storage, construction or design defects, water leaks, etc. Gypsum board exposed to water should be replaced unless all of the following conditions are met.

1. The source of the water or moisture is identified and eliminated. 2. The water or moisture to which the gypsum board was exposed was uncontaminated. 3. The gypsum board can be dried thoroughly before mold growth begins (typically 24 to 48 hours depending on environmental conditions).

4. The gypsum board is structurally sound and there is no evidence of rusting fasteners or physical damage that would diminish the physical properties of the gypsum board or system.

Below are the general recommendations for drying out gypsum wallboard once exposed to moisture:

-The source of water or moisture must be eliminated.

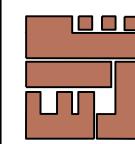
Adequate ventilation, air circulation, and drying are essential to minimize the potential for mold or other fungal growth. Fans should be used to increase air movement.

-The interior of the building must be thoroughly dried immediately.

-The indoor humidity can be lowered by using fans and portable dehumidification equipment and by opening up the building when the outside air is drier than the air inside the structure. -Damaged gypsum board and other wet materials that are to be replaced must be removed from the building to facilitate drying.

-Closets, cabinets, and doors between rooms should be opened to enhance circulation of air. -For more detailed information, a water damage restoration specialist should be contacted.

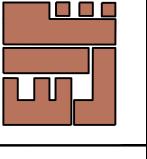
IMPORTANT - IF THERE IS EVER A DOUBT ABOUT WHETHER TO KEEP OR REPLACE GYPSUM BOARD THAT HAS BEEN EXPOSED TO MOISTURE - REPLACE IT. CAUTION: When replacing gypsum board in a fire resistance or sound rated systems, care must be taken to ensure that all repairs are consistent with the specific fire or sound rated design initially constructed (gypsum board type, fasteners and their spacing, and staggered joints).



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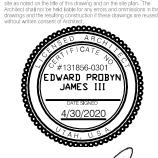
MIXED USE SITE DEVELOPEMENT

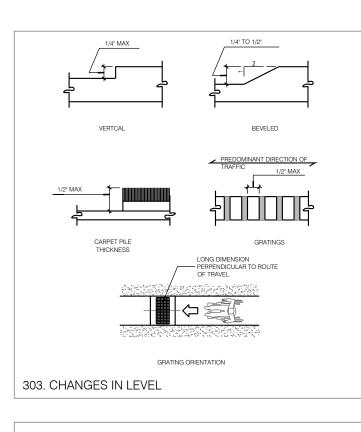
SHAFT LINER

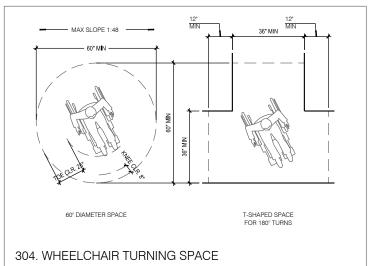
MANUFACTURE CUT SHEETS.

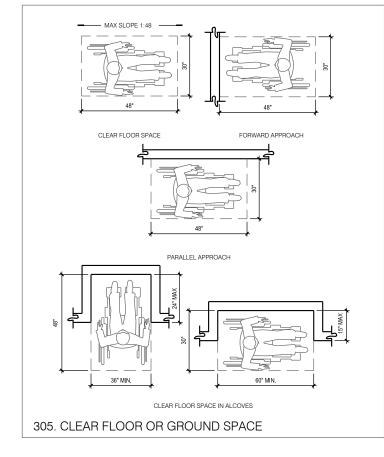
ROJECT: CALE (11x17): N.T.S. CALE: (24x36): N.T.S. HECKED BY: EPJ

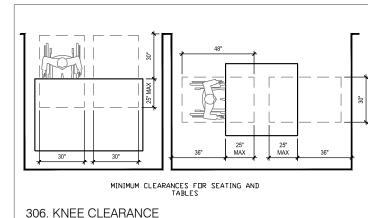
10/05/2020 SSUED:

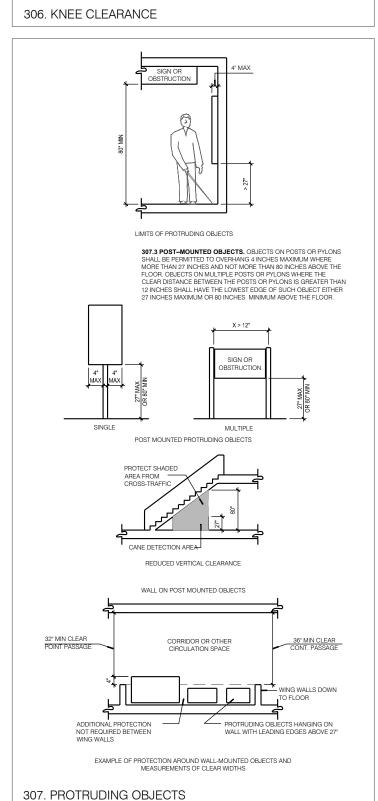


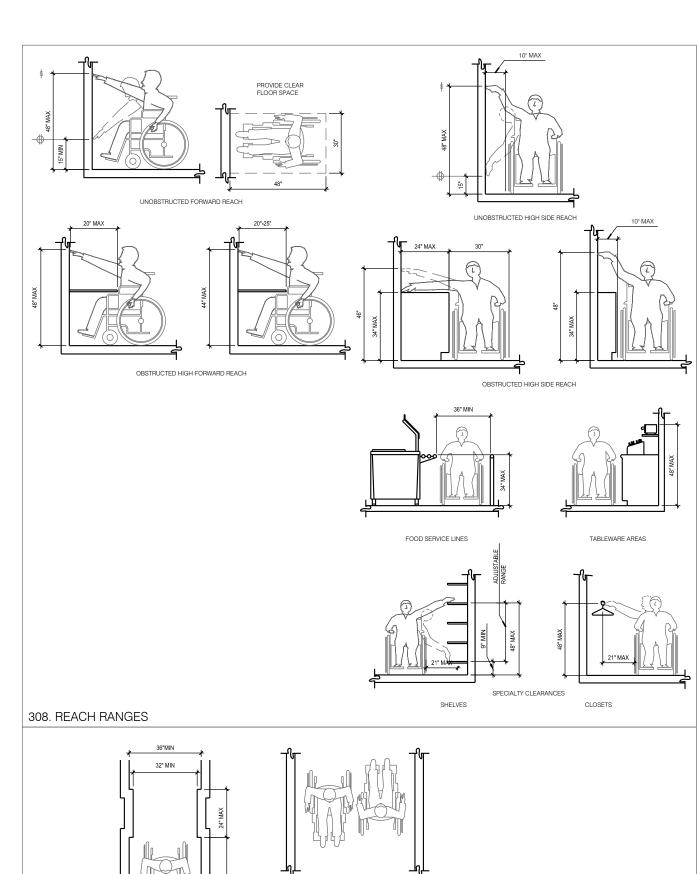


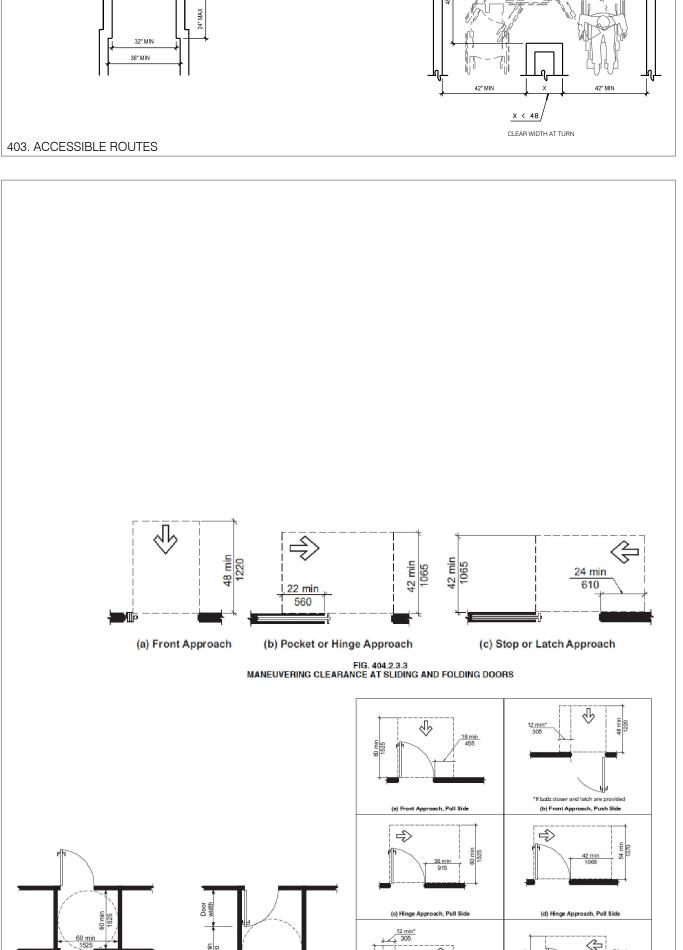












*54 min (1370) if doser is provided

(g) Latch Approach, Push Side FIG. 404.2.3.2 MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS

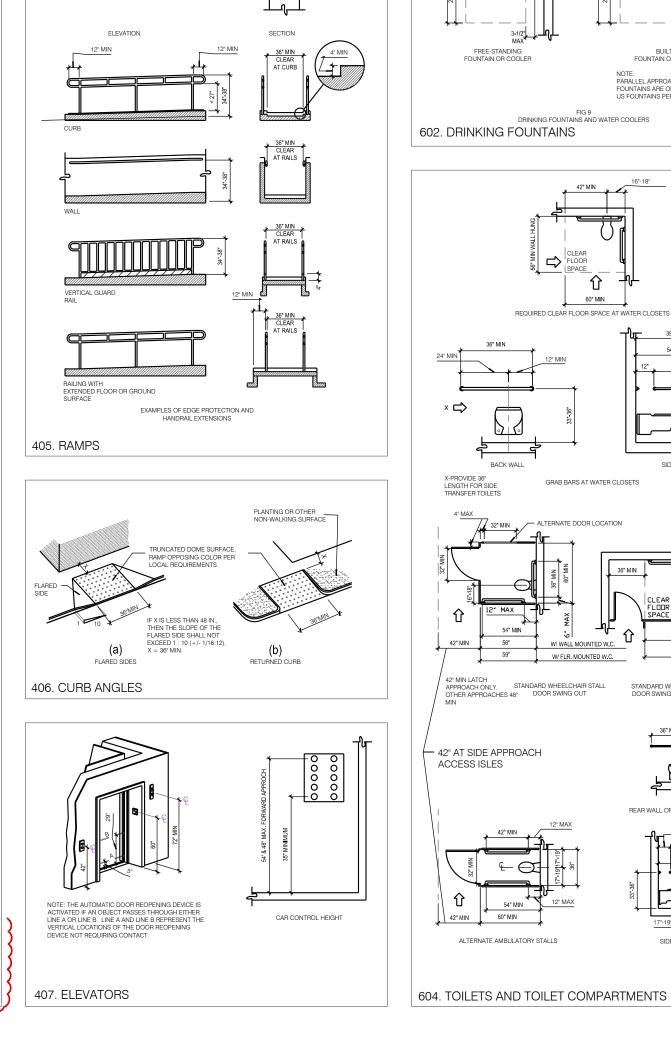
(f) Latch Approach, Pull Side

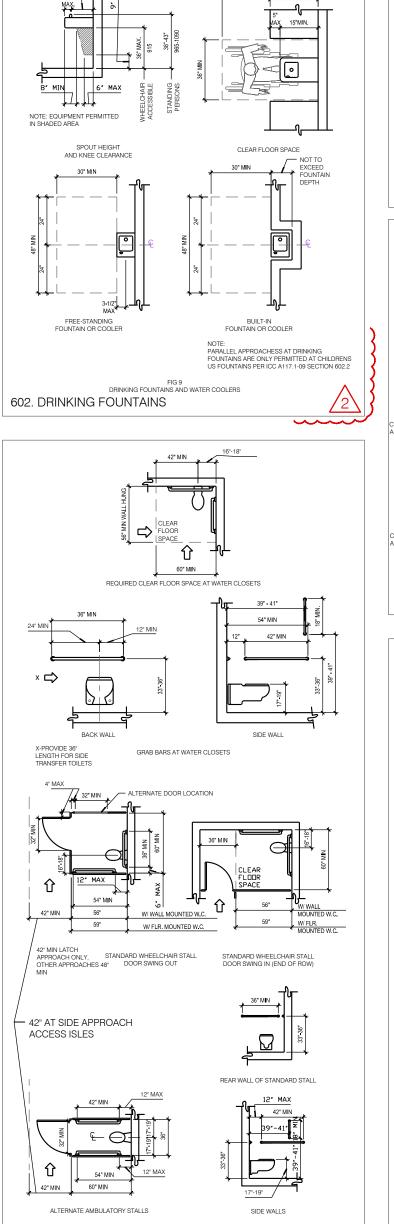
* If both closer and latch are provided ** 48 min (1220) if both closer and latch provi

Fig. 404.2.5 TWO DOORS IN A SERIES

404. DOORS AND DOORWAYS

(e) Hinge Approach, Push Side

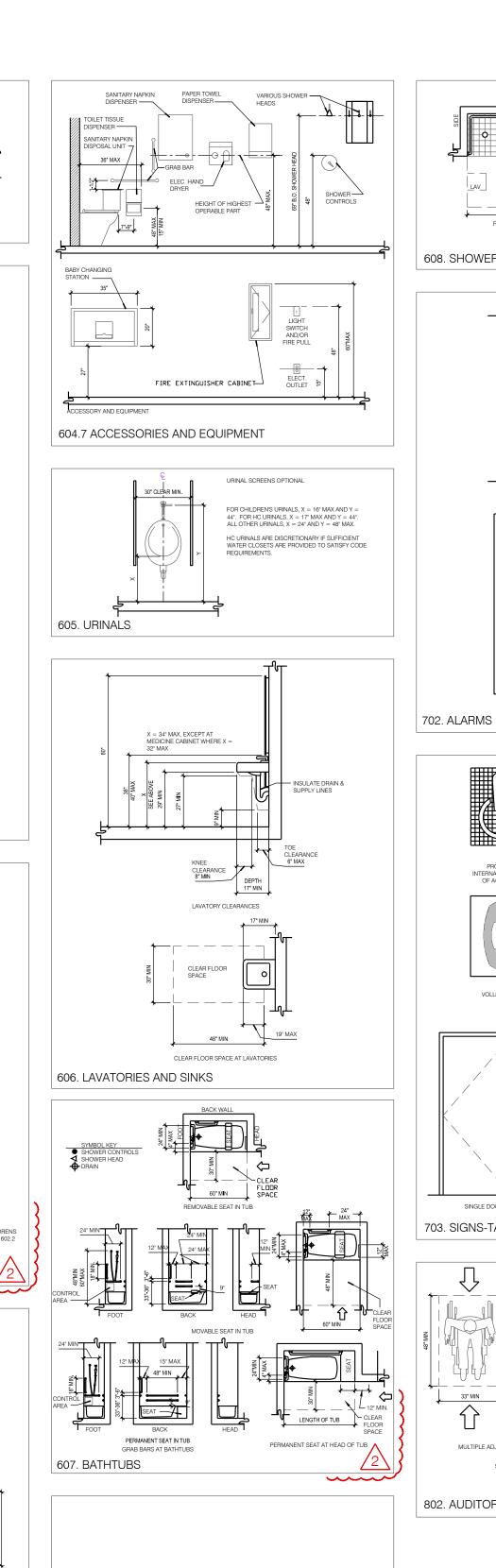


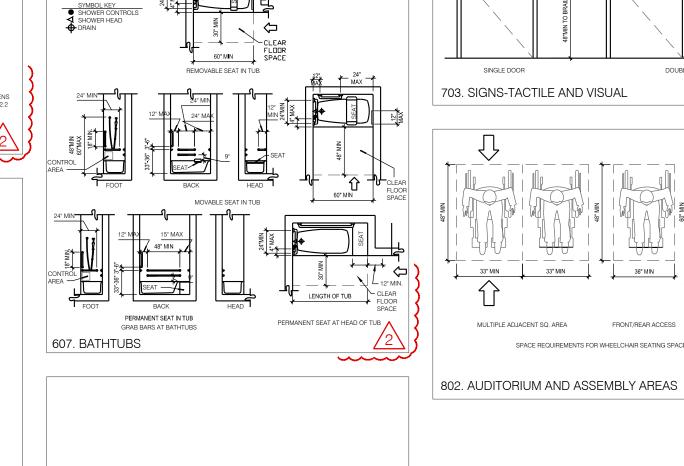


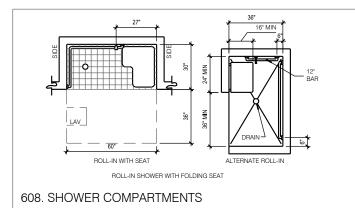
NOTE: X IS THE 12° MINIMUM HANDRAIL EXTENSION REQUIRED AT EACH TOP RISER.

505. HANDRAILS

504.5 STAIR NOSINGS







CEILING VISUAL ALARM DEVICE

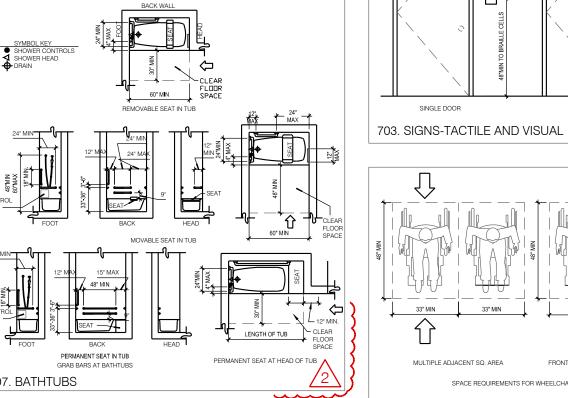
WALL MOUNTED ALARM DEVICES

CEILING MOUNTED ALARM DEVICES

00000

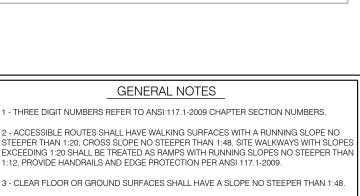
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INTERNATIONAL TTY SYMBOL



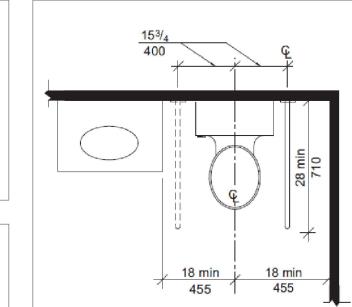
SHOWERS NOT USED FOR THIS PROJECT

608. SHOWER COMPARTMENTS



FRONT/REAR ACCESS

4 - CONTRACTOR TO PROVIDE BLOCKING/ BACKING FOR ALL ACCESSORIES. BLOCKING GRAB BARS TO WITHSTAND 250 LB./FT. LOAD. MANUFACTURER'S RECOMMENDATIONS FOR STANDARD UNITS UNLESS THEY ARE DESIGNATED TO BE FOR HANDICAPPED USE. H.C. ACCESSIBLE UNITS TO BE MOUNTED AS SHOWN ABOVE.



SWING-UP GRAB BAR FOR WATER CLOSET

1004.11.1.1 Swing-up Grab Bars. A clearance of 18 inches (455 mm) minimum from the centerline of the water closet to any side wall or obstruction shall be provided where reinforcement for swing- up grab bars is provided. When the approach to the water closet is from the side, the 18 inches (455 mm) minimum shall be on the side opposite the direction of approach. Reinforcement shall accommodate a swing-up grab bar centered 15-3/4 inches (400 mm) from the centerline of the water closet & 28 inches (710 mm) minimum in length, measured from the wall to the end of the horizontal portion of the grab bar. Reinforcement shall accommodate a swing-up grab bar with a height in the

down position of 33 inches (840 mm) minimum and 36 inches (915 mm) maximum. Reinforcement shall be adequate to resist forces in accordance with Section 609.8. EXCEPTION: Where a water closet is positioned with a wall to the rear and to

one side, the centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the sidewall. 1004.11.2 Clear Floor Space. Clear floor spaces required by Section 1004.11.3.1 (Option A) or 1004.11.3.2 (Option B) shall comply w/ Sections1004.11.2 & 305.3. 1004.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

EXCEPTION: Where a clear floor space complying with Section 305.3, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

1004.11.2.2 Knee and Toe Clearance. Clear floor space at fixtures shall be permitted to include knee and toe clearances complying with Section 306. 1004.11.3 Toilet and Bathing Areas. Either all toilet and bathing areas provided shall comply with Section 1004.11.3.1 (Option A), or one toilet and bathing area shall comply with Section 1004.11.3.2 (Option B).

1004.11.3.1 Option A. Each fixture provided shall comply with Section 1004.11.3.1. **EXCEPTIONS:** 1. Where multiple lavatories are provided in a single toilet & bathing area

such that travel between fixtures does not require travel through other parts of the unit, not more than one lavatory is req'd to comply w/ Section 1004.11.3.1. 2. A lavatory and a water closet in a room containing only a lavatory and water closet, provided the room does not contain the only lavatory or water closet on the accessible level of the unit.

3. 1004.11.3.1.1 Lavatory. A clear floor space complying with Section 305.3, positioned for a parallel approach, shall be provided at a lavatory. The clear floor space shall be centered on the lavatory.

EXCEPTION: A lavatory complying with Section 606 shall be permitted. Cabinetry shall be permitted under the lavatory provided the following criteria

(a) The cabinetry can be removed without removal or replacement of the lavatory; and (b) The floor finish extends under the cabinetry; and

(c) The walls behind and surrounding the cabinetry are finished.

1004.11.3.1.2 Water Closet. The water closet shall comply with Section 1004.11.3.1.2. 1004.11.3.1.2.1 Location. The centerline of the water closet shall be 16 inches

(405 mm) min. & 18 inches (455 mm) maximum from one side of the required clearance. 1004.11.3.1.2.2 Clearance. Clearance around the water closet shall comply with

Sections 1004.11.3.1.2.2.1 through 1004.11.3.1.2.2.3. EXCEPTION: Clearance complying with Sections 1003.11.2.4.2 through

1003.11.2.4.4. 1004.11.3.1.2.2.1 Clearance Width. Clearance around the water closet shall be

48 inches (1220 mm) minimum in width, measured perpendicular from the side of the clearance that is 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the water closet centerline. 1004.11.3.1.2.2.2 Clearance Depth.

Clearance around the water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall. 1004.11.3.1.2.2.3 Increased Clearance Depth at Forward Approach. Where a forward approach is provided, the clearance shall be 66 inches (1675 mm)

minimum in depth, measured perpendicular from the rear wall. 1004.11.3.1.2.2.4 Clearance Overlap. A vanity or other obstruction 24 inches (610mm) maximum in depth, measured perpendicular from the rear wall, shall be permitted to overlap the required clearance, provided the width of the remaining clearance at the water closet is 33 inches (840 minimum. 1004.11.3.1.3 Bathing Fixtures. Where provided, a bathtub shall comply with

comply with Section 1004.11.3.1.3.3. 1004.11.3.1.3.1 Parallel Approach Bathtubs. A clearance 60 inches (1525 mm) minimum in length and 30 inches (760 mm) minimum in width shall be provided in front of bathtubs with a parallel approach. Lavatories complying with Section 606 shall be permitted in the clearance. A lavatory complying with Section 1004.11.3.1.1 shall be permitted at one end of the bathtub if a clearance

Section 1004.11.3.1.3.1 or 1004.11.3.1.3.2 and a shower compartment shall

48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width is provided in front of the bathtub. 1004.11.3.1.3.2 Forward Approach Bathtubs. A clearance 60 inches (1525 mm) minimum in length and 48 inches (1220 mm) minimum in width shall be provided in front of bathtubs with a forward approach. A water closet and a

lavatory shall be permitted in the clearance at 1004.11.3.1.3.3 Shower Compartment. - N/A 1004.11.3.2.1 Lavatory. Lavatories shall comp 1004.11.3.2.1.1. 1004.11.3.2.1.1 Height. The front of the lavator

maximum above the floor, measured to the highernal has rive not consulted such a such as a maximum above the floor, measured to the highernal has rive not not consulted a such as a maximum above the floor, measured to the highernal has rive not not consulted a such as a maximum above the floor. 1004.11.3.2.2 Water Closet. The water closet shall comply with Section 1004.11.3.1.2. 1004.11.3.2.3 Bathing Fixtures. The accessible bathing sixtures that the production of the control of the contr complying with Section 1004.11.3.2.3.1 or a st owner complying with Section 1004.11.3.2.3.1 or a st with Section 1004.11.3.2.3.2.

1004.11.3.2.3.1 Bathtub. A clearance 48 inches (1220 mm) minimum in length measured perpendicular from the control end of the bathtub, and 30 inches (760 mm) minimum in width shall be provided in front of bathtubs.

1004.11





TYPICAL ADA DETAILS SCALE (11x17): N.T.S. SCALE: (24x36): N.T.S.

HECKED BY: EPJ

04/30/2020

ISSUED:

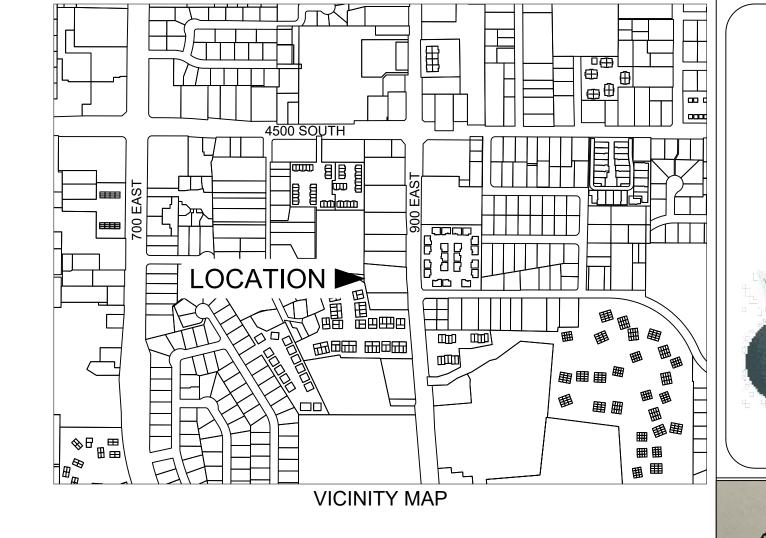
MIXED USE SITE

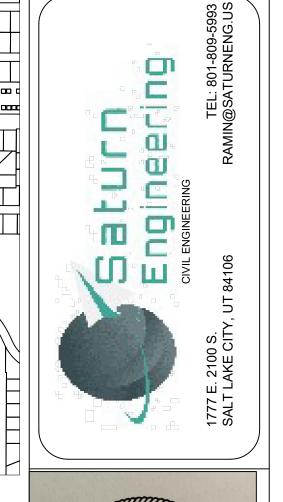
DEVELOPEMENT

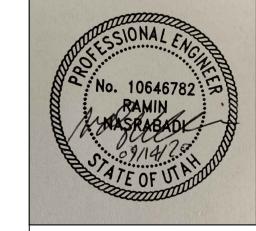


ARLINGTON MIXED USE

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 2 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN MILLCREEK CITY, UTAH







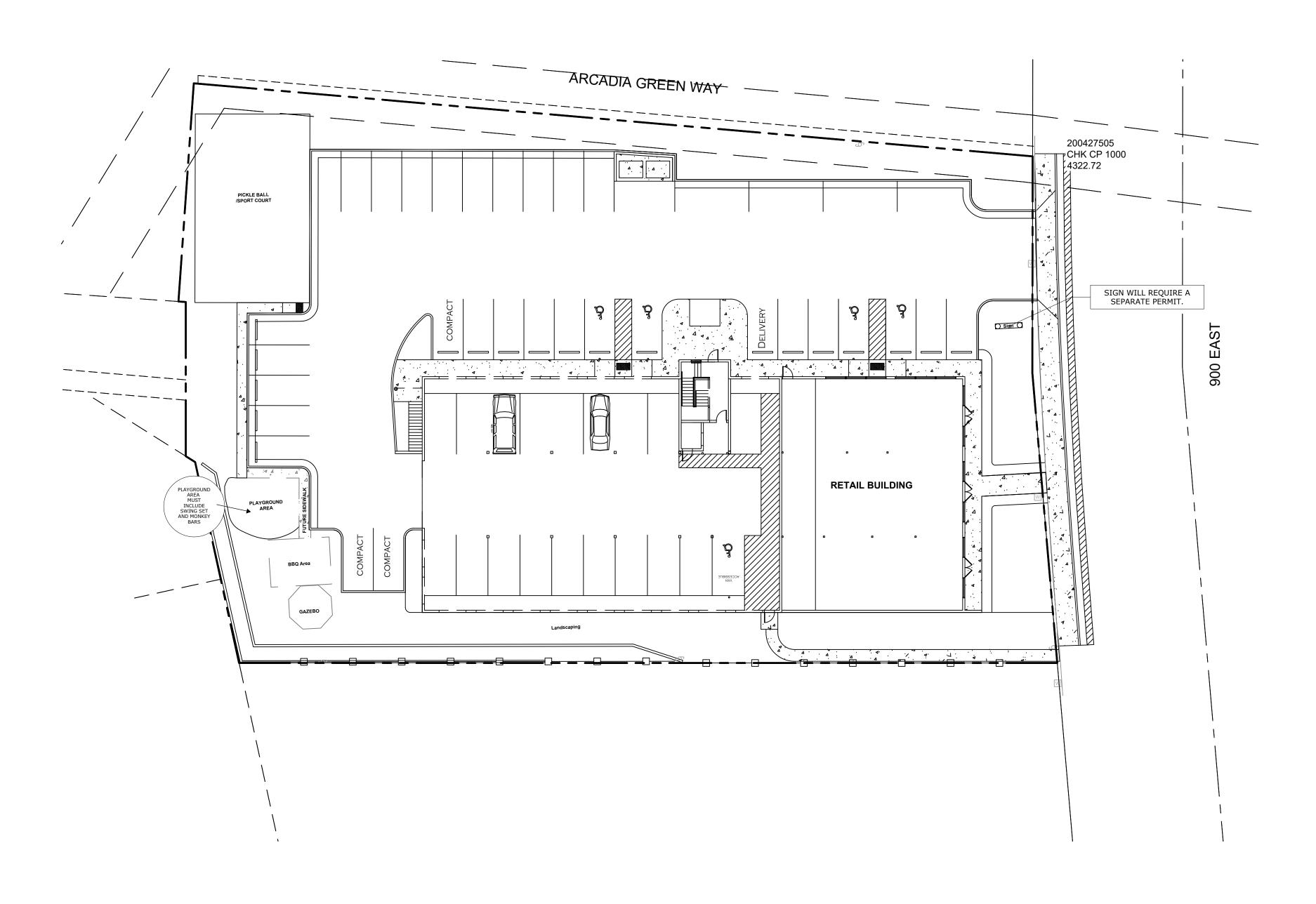
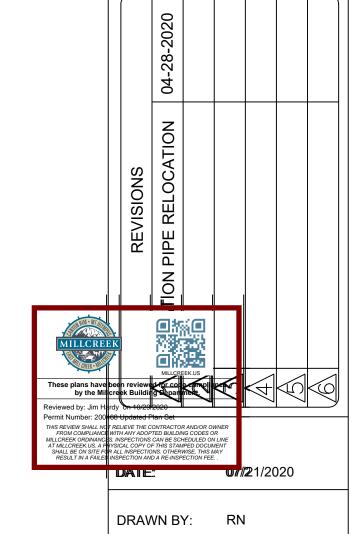


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CP005	6	EROSION CONTROL PLAN
CP006	7	EROSION CONTROL DETAILS
DT001	8	DETAILS
DT002	9	DETAILS
DT003	10	DETAILS

DE



OWNER/DEVELOPER INFORMATION: KAMAL ISLAMI (MANAGING MEMBER) P.O.BOX 58153 SALT LAKE CITY, UTAH 84158

> ACCEPTED
> UNIFIED FIRE AUTHORITY Sul White 10/29/2020

CHECKED BY: RN

DESIGNED BY: RN

Reviewed By:rmay 11/04/2020 10:40:41 AM Use_Construction Plans aller Julsu DATE: 1

Planning Review File: 2020-11-03 _ Revised Arlington Mixed THIS REVIEW SHALL NOT RELIEVE THE APPLICANT
AND OR OWNER FROM COMPLIANCE WITH ANY
REQUIREMENTS OF THE MILLCREEK CODE
ONLY PAGES WITH STAMPS HAVE BEEN REVIEWED

PROJECT NO: 19-101 SHEET: CS001

BINDING ORDER 1 of 10

