

Full Automatic Sliding Door Home Elevators

Vertical Ideas for today and
tomorrow

The Future of the Home Elevator

- The only choice we have on every project is to be a leader in passenger safety
- Home elevators must be treated with the same level of safety as their commercial counterparts
- The time has come to get rid of the swing door
- All Elevators must be $\frac{3}{4} \times 4$ compliant
- This elevator must be installed safe today and be safe 20 years from now.

Fully auto doors in the hall and the car is the only answer

Vertechs “Always Safe”

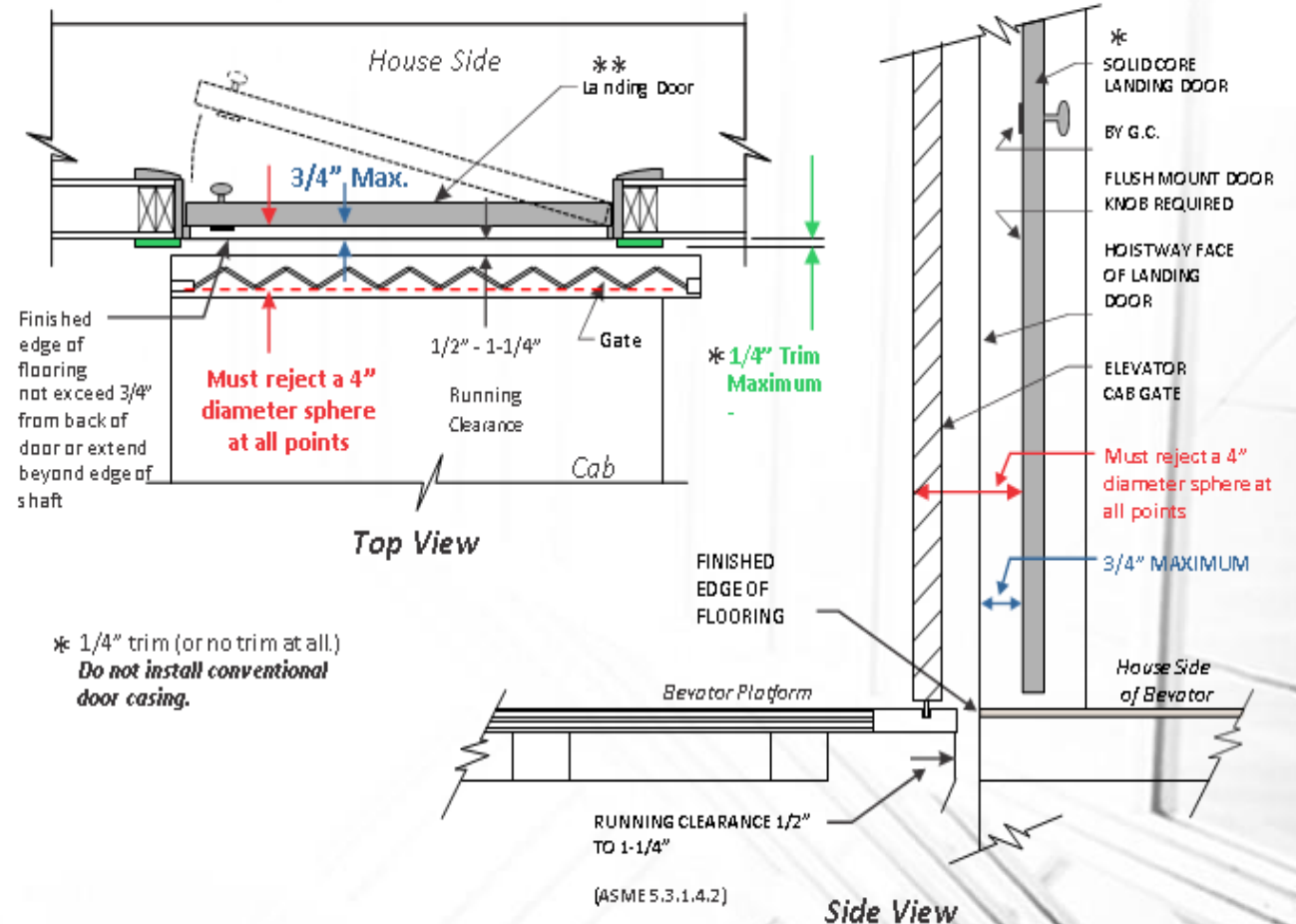
Today the 3 x 5 rule is still in play! WHY???

Understanding the dangers of the 3 x 5 rule. Elevator are dangerous unless taken seriously.

- [Washington Post 2020 Residential elevator safety](#)
- [CBS News Accidents involving Children](#)
- [Consumer agency warning manual gate elevators](#)
- [Manual gate danger Animation](#)
- Door monitoring :
 - [Door monitoring - The importance of a safe system not just doors](#)

3/4" Compliance and the Code

You may have had experience with the 3" x 5" rule on previous residential projects. As of the 2016 code edition for residential elevators (ASME A17.1-2016). The old 3" x 5" rule is no longer acceptable. The 3" x 5" rule required you the builder to provide a hall landing door that was no further from the edge of the hoistway than 3". A series of serious unfortunate accidents with children made it clear that this 3" from the back of the hall swing door to the hoistway was no longer acceptable. Younger children can still fit within the space the 3" x 5" rule allows for. There are many unfortunate examples of this. This is why, Vertechs is enforcing and leading the industry in the transition to the 3/4" compliance code. The code is clear as referenced in ASME A17.1-2016 Section 5.3.1.7.2



How Did We Get Here?

- Swings doors make up over 90 percent of all home elevator installation
- It is impossible for the general contractor to install the landing doors to meet the $\frac{3}{4}$ " x 4" rule.
- Landing doors must be installed by the elevator contractor to ensure code compliance just like every commercial elevator
- The home elevator marketplace is largely unregulated. It is up to all of us to ensure safety and compliance.
- Very few jurisdictions take home elevators as seriously as elevators in public use
- Swings door home elevators have always been dangerous. The home elevator is becoming more popular which is increasing the accident rates.
- There was always a solution right in front of us....
- YOU HAVE TO ASK IS MY ELEVATOR $\frac{3}{4}$ x 4 Compliant ???

The SOLUTION

Fully Automatic Door Elevators



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888-320-5438

www.vertchselevators.com

Example's



Auto 2 panel 8' stainless Frame



Auto 2 panel 8' stainless Frameless



Auto 3 panel 7' stainless Frameless

Full Auto Examples



Auto 2 panel 8' stainless Frame



Auto 2 panel 7' stainless Frameless

Short Video



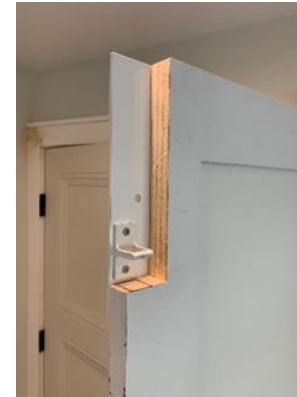
NO MORE Unsightly Baffles



These Baffles no longer even meet code. The code now states the baffle must be the full height of the door panel. How much does each baffle cost the builder to supply?



NO MORE Ugly Door Locks



These door locks had to be cut into the door to ensure the door panel was $\frac{3}{4}$ " from edge of the hoistway. The builder had to do this work how much extra does this cost? And what used to be a nice looking door. Well...

No more Ugly Gates and Locks



Full Auto Benefits

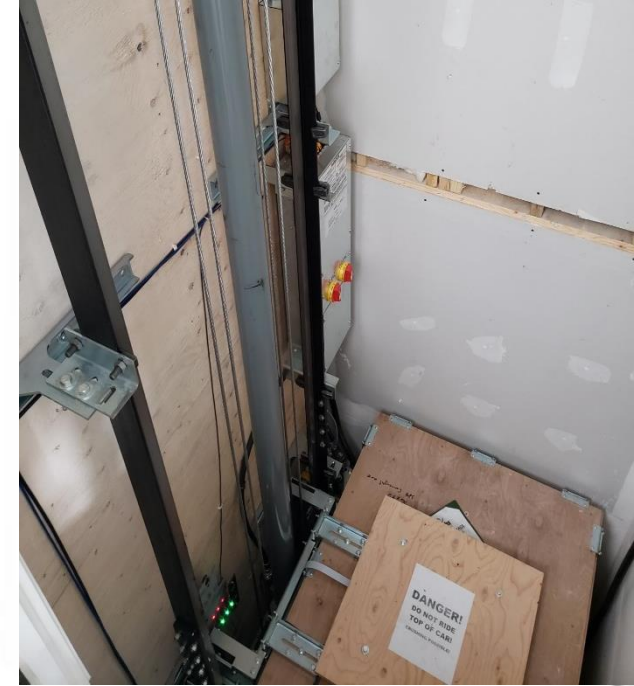
- No doors to close or operate
- Full 36" or 32 " entry (a swing door 36" is actually a 34" opening)
- If you require the elevator for accessibility this is the only option (imagine going in forward in walker or wheelchair then turning in the elevator to open or close the manual swing door)
- Handsfree operation
- A truly automatic home elevator
- Elevator is always ready to use because no one needs to remember to close the door or gates.
- Full length light curtains . No contact ever with door panels
- No swing of hall door panels to interfere with other doors or parts of the home
- Vertechs Installs the sliding hall doors.
- ¾ x 4" rule compliance is not an issue for full automatic elevator door systems.

Vertechs Advantage

- ❖ 2 year standard warranty
- ❖ Machine room less, (no equipment outside the hoistway)
- ❖ Electrical disconnects included (BIG SAVINGS to customer)
- ❖ Door lock monitoring
- ❖ Remote lowering
- ❖ Battery back up
- ❖ No Landing Doors required ; we supply the hall door panels (potential big savings)
- ❖ A phone is a must and included with each elevator
- ❖ Non-Proprietary Controller , Parts available to qualified personnel

Machine Roomless Technology in the home

- Safer, all equipment is kept safely away from others
- No additional space required in the home
- Easier construction for general contractor
- Simpler planning for the design team



Design Idea

Question: Does the look of Full Automatic doors not fit your décor?



Answer: Put a door in Front.

It has zero interaction with the elevator other than it is in front of it. Can stay open. Can have a full handle and latch. Things you cant do with a swing door elevator product. No

need to remember to close this door to get elevator to operate.



There is a full automatic elevator door system behind this door

Answers to common questions

- Q: I don't like the look of automatic doors in my traditional home. What should I do?
- A: Any swing door can be installed in front of the elevator door. It does not have to be closed for the elevator to run. Also entry way to garages is now easily and safely accomplished
- Q: I am scared they are overly complicated and will not be reliable?
- A: In actual fact they are simpler to use and have higher reliability rating than products with manual swings doors.
- Q: How much cost savings can I expect with a full automatic elevator from Vertechs over others? No doors or disconnects required by others
- A: Around \$2800 dollars. Could be well above \$5000 depending on cost of doors, baffles or door lock alterations
- Q: How does Vertechs ensure $\frac{3}{4} \times 4''$ rule compliance?
- A: We supply and install the automatic sliding landing door systems to the elevator platform.
- Q: What if the general contractor installs all of the landing swing doors flush with the hoistway?
- A: The hall door lock for a swing door will not fit. The door panel will have to be cut and an unsightly metal bracket will have to be installed in the door panel to contain the lock.
- Q: Why should I pay extra for automatic doors?
- A: Are you really paying extra, no need for landing doors, how much is each door cost? We also don't require disconnects or a machine room or space. How much does that save the team?
- Q: I am not disabled right now why can't I just use a normal manual gate elevator?
- A: its important to consider the longer term . A manual gate elevator is not an accessible product. And what if you have a handful of groceries how do you open and close the manual swing door and gate.
- Q: Why can't the general contractor install swing doors in compliance with the $\frac{3}{4} \times 4$ rule?
- A: The tolerance required to meet the regulations is impossible. All of the landings would have to line up to one another and be square to the rail wall with literally zero room for error. Every elevator must have running clearance to operate properly.
- Q: Can I install an automatic door in a flood zone or into a garage?
- A: Yes of course you can. The builder would then simply put a normal swing door and frame in front of the automatic door at this landing. The builder supplied door would have zero to do with elevator safety and operation. And would simply be there to ensure flood zone or garage entry door compliance.

Hoistway sizes

Please contact us as there are many different configurations available

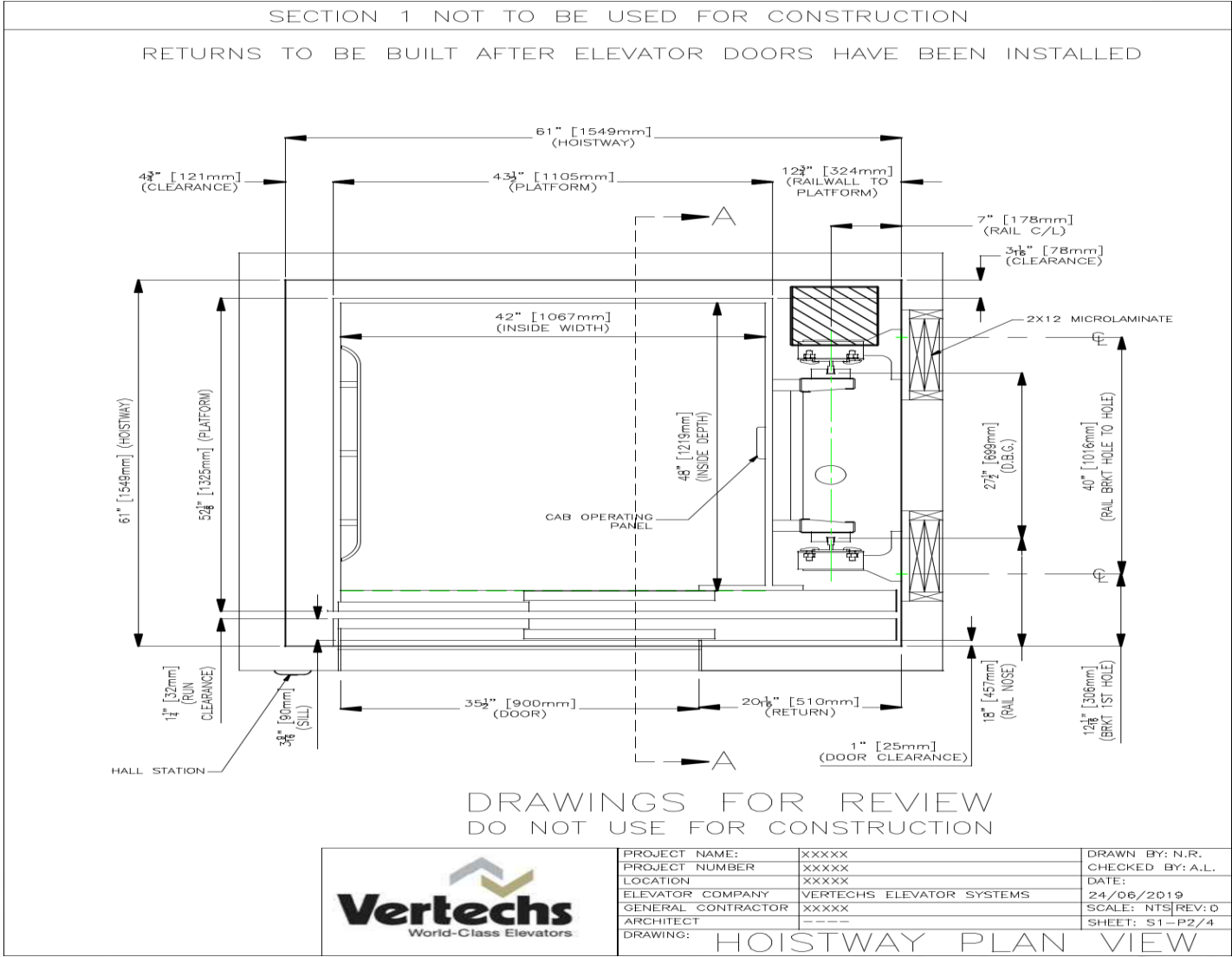
Model	Machine Room Required Minimum Hoistway		Machine Room Less Minimum Hoistway	
	Width	Depth	Width	Depth
Auto 2AT Front	61"	52"	61"	59"
Auto 2AT Front (Rear Mount)	61"	49"	61"	49"
Auto 2AT Front + Rear	61"	60"	61"	68"
Auto 2AT Front + Side	67"	67"	67"	67"
Auto 3AT Front	49"	54"	49"	60"
Auto 3AT Front (Rear Mount)	49"	50"	50"	50"
Auto 3AT Front + Rear	49"	62.5"	49"	70.5"
Auto 3AT Front + Side	55"	55"	55"	60"

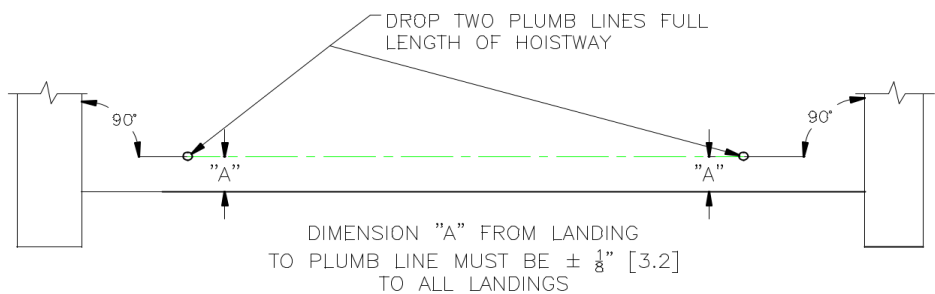
Overhead – Rough Openings - Returns

AUTO 2 SPEED (Wood Frames)	FINISHED OPENING	ROUGH OPENING	MIN OH
2000mm/ 6'8"	78.75"	80"	105"
2100mm / 7'	82.68"	84"	109"
2400mm / 8'	94.50"	95 3/4"	120"
AUTO 3 SPEED (Wood Frames)	FINISHED OPENING	ROUGH OPENING	MIN OH
2000mm/ 6'8"	78.75"	80"	108"
2100mm / 7'	82.68"	84"	112"
2400mm / 8'	94.50"	95 3/4"	124"
AUTO 2 SPEED (Steel Frames)	FINISHED OPENING	ROUGH OPENING	MIN OH
2000mm/ 6'8"	78.75"	88 1/2"	105"
2400mm / 8'	94.50"	104 1/4"	120"
AUTO 3 SPEED (Steel Frames)	FINISHED OPENING	ROUGH OPENING	MIN OH
2000mm/ 6'8"	78.75"	88 1/2"	108"
	MIN RETURNS		
DOOR TYPE	PANEL SIZE	MIN RETURN	HOISTWAY WIDTH
2 SPEED 900mm / 35.5"	480mm / 18.89"	20.00"	61"
3 SPEED 900mm / 35.5"	320mm / 12.59"	13.50"	53"
3 SPEED 800mm / 31.5"	286mm / 11.28"	12"	49"

Pit Depth min 8" from finish floor

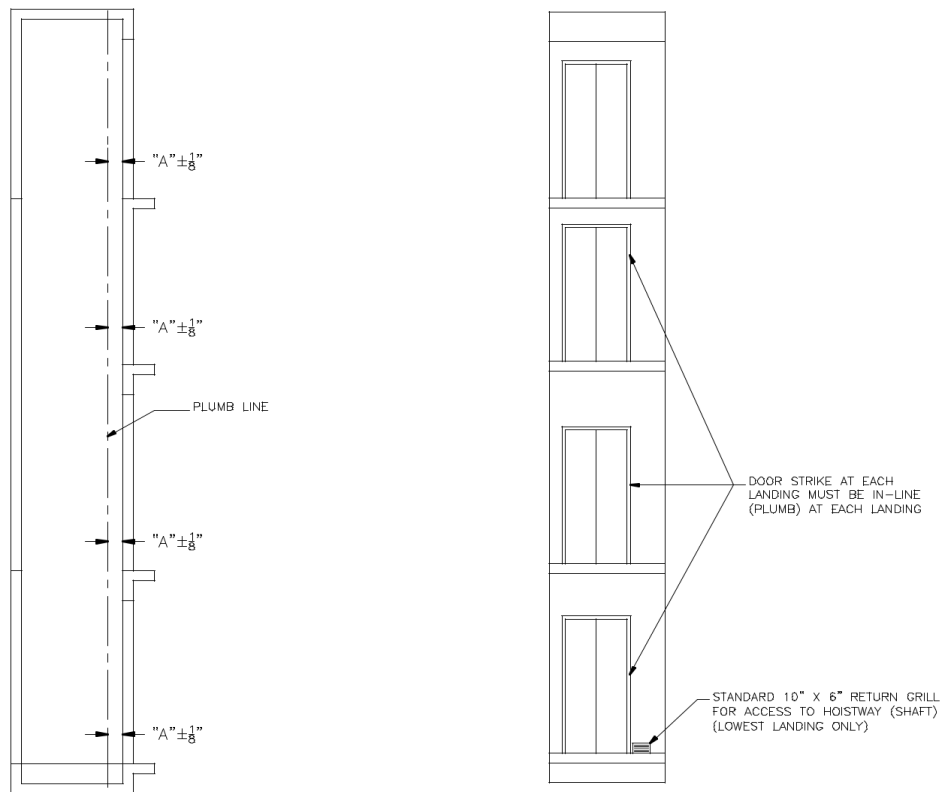
Generic 2 Speed plan view





NOTE:
 -ALL WALLS TO BE PLUMB AND SQUARE
 -SPECIAL ATTENTION TO RAIL WALL, LANDING ENTRANCES AND DOOR JAMB ALIGNMENT

FINISH FRAME AFTER ELEVATOR DOOR IS SET



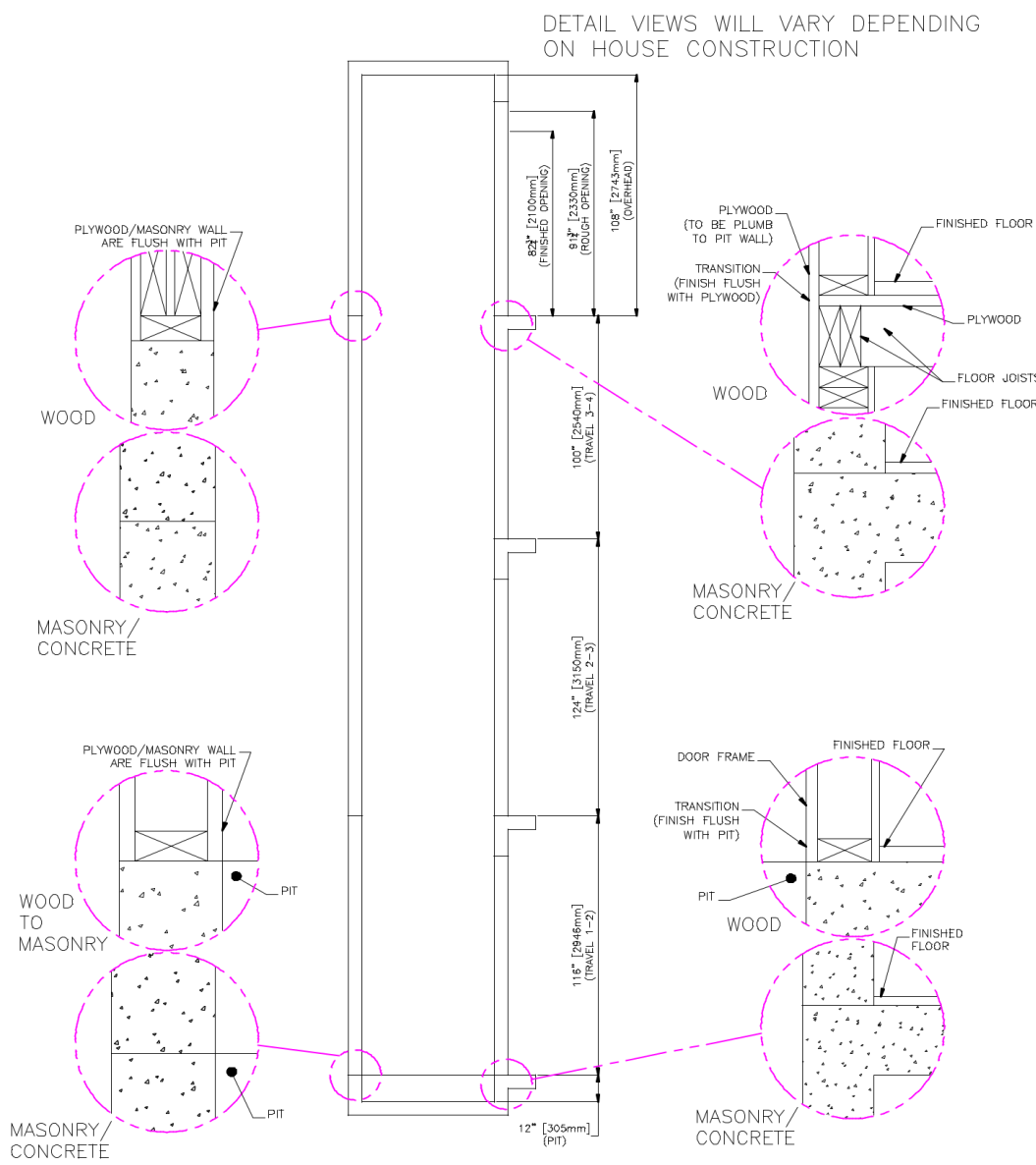
PROJECT NAME:	XXXXX	DRAWN BY:	N.R.
PROJECT NUMBER	XXXXX	CHECKED BY:	A.L.
LOCATION	XXXXX	DATE:	
ELEVATOR COMPANY	VERTECHS ELEVATOR SYSTEMS	SCALE:	NTS[REV:0]
BUILDER	XXXXX	ARCHITECT	----
DRAWING:	PLUMB LINE SPECS	SHEET:	S2-P3/4

Same Plane Please

DRAWINGS FOR REVIEW
DO NOT USE
FOR CONSTRUCTION

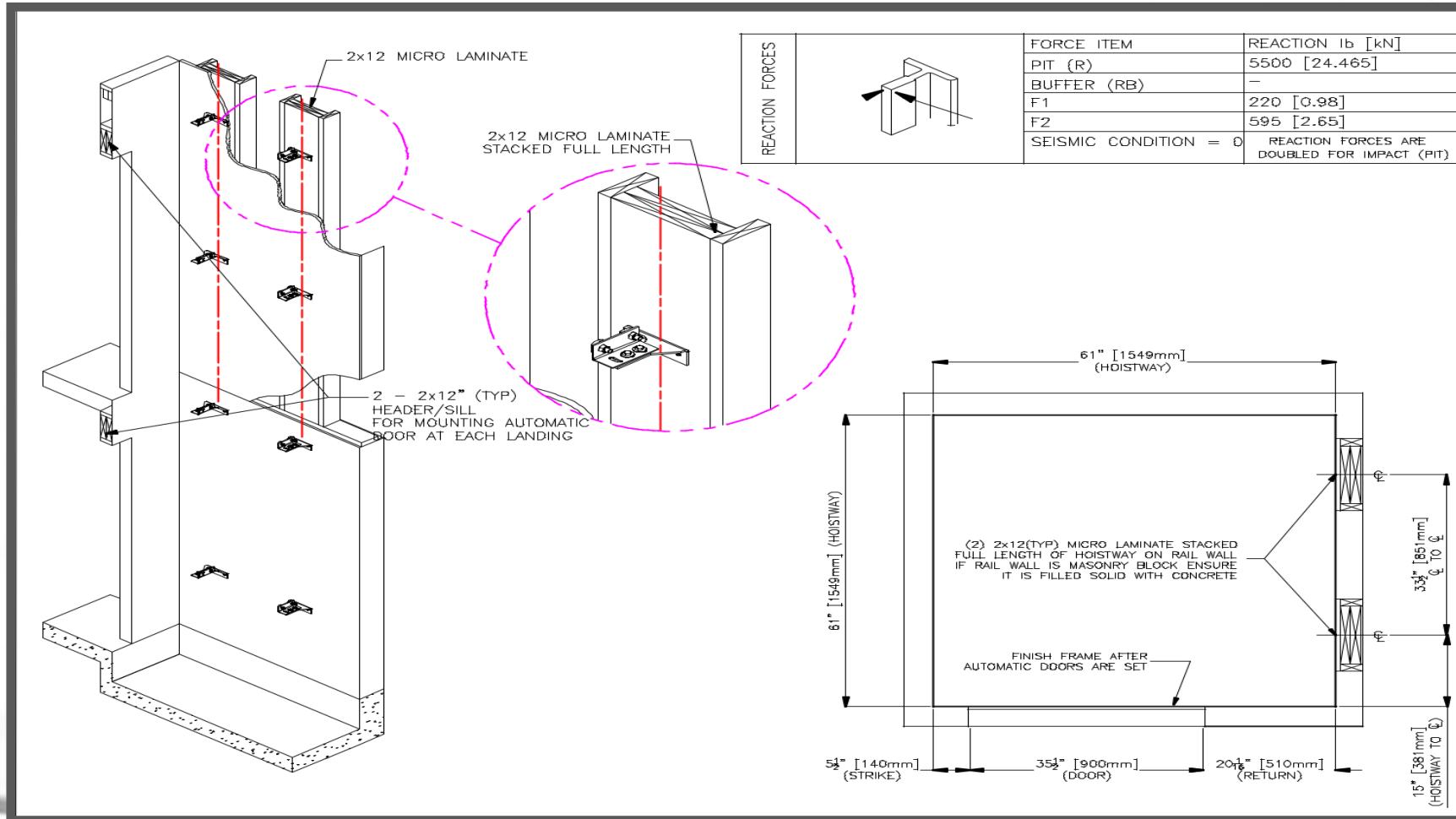


PROJECT NAME:	XXXXX	DRAWN BY:	N.R.
PROJECT NUMBER	XXXXX	CHECKED BY:	A.L.
LOCATION	XXXXX	DATE:	
ELEVATOR COMPANY	VERTECHS ELEVATOR SYSTEMS	SCALE:	NTS[REV:0]
GENERAL CONTRACTOR	XXXXX	ARCHITECT	----
DRAWING:	HOISTWAY X-SECTIONS	SHEET:	S2-P1/4

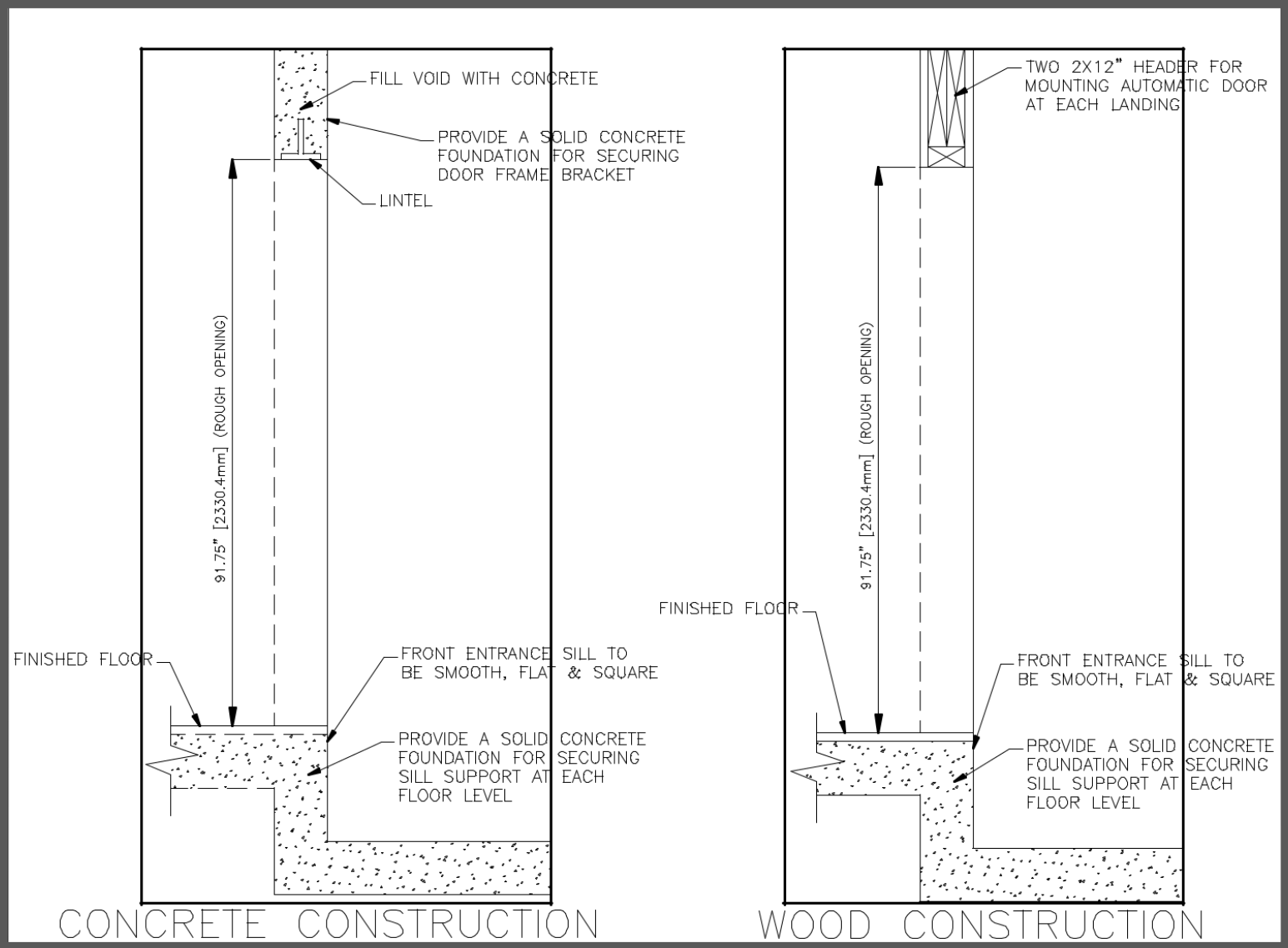


Rail Walls

Can be on rear or side of hoistway



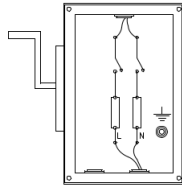
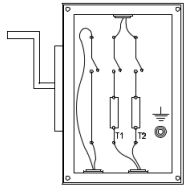
Rough Opening's



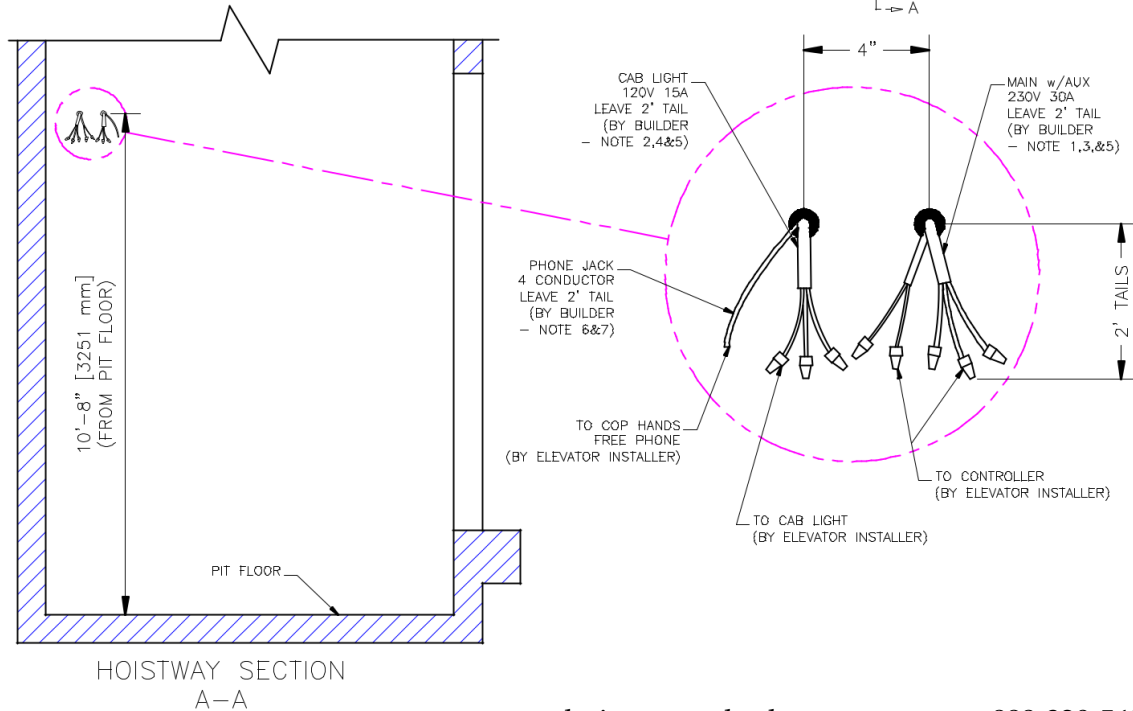
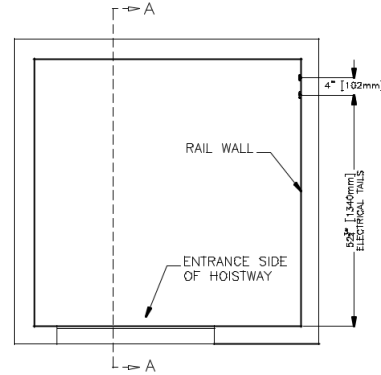
ELECTRICAL	<p>ALL RULES ALLOW ASME A17.1-2013/CSA B44-10 SECTION 5.4 BASED ON THE LATEST REVISION</p> <ol style="list-style-type: none"> 1. RUN MAIN ELECTRICAL FEED LINE FROM MAIN 240V 30A HOUSE BREAKER TO MAIN DISCONNECT 1. 2. RUN CAB LIGHT ELECTRICAL FEED LINE FROM MAIN 120V 15A HOUSE BREAKER TO MAIN DISCONNECT 2. 3. DISCONNECTS MUST BE LOCKABLE AND MUST BE LOCKED OUT PRIOR TO INSTALLATION. 4. MAIN ELECTRICAL FEED LINE 10AWG - 2 CONDUCTOR WITH A GROUND, (10-2 WITH GROUND, 2-LIVE, 1-GROUND AND WITH 2 18AWG AUXILIARY SIGNAL WIRES. AUXILIARY CONTACT MUST BE N/O WHEN THE DISCONNECT IS IN THE OFF POSITION. 5. CAB LIGHT ELECTRICAL FEED LINE 14AWG - 2 CONDUCTOR WITH A GROUND, (14-2 WITH GROUND) 1-LIVE, 1-NEUTRAL, 1-GROUND. 6. ELECTRICAL FEED LINES TO ENTER HOISTWAY AT A DISTANCE FROM PIT FLOOR AS SHOWN ON SKETCH BELOW.
PHONE	<ol style="list-style-type: none"> 7. LIVE TELEPHONE WIRE TO BE RUN FROM MAIN SERVICE AND TERMINATED IN ELEVATOR HOISTWAY AS DETAILED BELOW. TERMINATE WITH 2' TAILS. 8. LIVE TELEPHONE WIRE TO ENTER HOISTWAY AT A DISTANCE FROM PIT FLOOR AS SHOWN ON SKETCH BELOW.

MAIN_DISCONNECT_1
 1 PHASE WITH AUX CONTACT
 230 VOLT 30 AMP (FUSED)

MAIN_DISCONNECT_2
 1 PHASE
 115VOLT 15 AMP (FUSED)



DISCONNECTS LOCATED IN HOME MECHANICAL ROOM. CONDUCTORS TO RUN FROM DISCONNECTS INTO HOISTWAY AND TERMINATED AT SHOWN.



Electrical Requirements

- 208/220/240 VAC single phase 30 amps
- 120vac 15 amp
- Phone line (phone included)
- 16'4 inches from the pit floor
- On the rail wall according to our drawings (close to the corner)