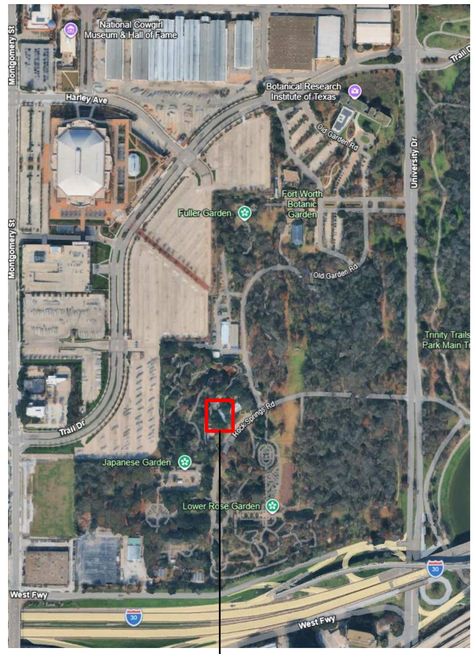


PROJECT LOCATION

VICINITY MAP

NORTH



09-11-2026

A RENOVATION OF THE

FWBG PHOTO LAB

3220 BOTANIC GARDENS BLVD
FORT WORTH, TEXAS 76107

PROJECT NO.: 26122

DATE: 09-11-2026

BUILDING CODE SUMMARY

BUILDING/PROJECT DESCRIPTION:	REMODEL OF EXISTING INTERIOR SPACE ONLY
CITY OF FORT WORTH, TX ADOPTED BUILDING CODES:	2021 INTERNATIONAL BUILDING CODE 2021 INTERNATIONAL EXISTING BUILDING CODE 2021 INTERNATIONAL ENERGY CONSERVATION CODE 2021 INTERNATIONAL FIRE CODE 2021 INTERNATIONAL MECHANICAL CODE 2018 INTERNATIONAL PLUMBING CODE 2023 NATIONAL ELECTRIC CODE
CONTRUCTION TYPE:	SINGLE-STORY, VB, NON/FULLY SPRINKLED
OCCUPANCY CLASSIFICATION:	TYPE B BUSINESS
BUILDING AREA:	500 SF
OCCUPANCY LOAD:	4 OCCUPANTS

MEP

NOVA ENGINEERING
4819 STATE HWY 121 #12,
THE COLONY, TEXAS 76056
972.323.7300

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ARCHITECTS

ABBREVIATIONS

ACOUST.	ACOUSTICAL
ADA	AMERICAN'S WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
ALUM.	ALUMINUM
ANOD.	ALUMINUM ANODIZED
AHJ	AUTHORITY HAVING JURISDICTION
B.O.	BOTTOM OF
CF	CUBIC FOOT
CABT.	CABINET
C.I.P	CAST IN PLACE
C.J.	CONTROL JOINT/ CONSTRUCTION JOINT
C.L.	CENTER LINE
CLG.	CEILING
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
COMM.	COMMUNICATIONS
CONC.	CONCRETE
CONT.	CONTINUOUS
COORD.	COORDINATE
CORR.	CORRIDOR
DBL.	DOUBLE
DR.	DOOR
DS.	DOWNSPOUT
EA.	EACH
EQ.	EQUAL
E.I.F.S	EXTERIOR INSULATED FINISH SYSTEM
E.J.	EXPANSION JOINT
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
F.A.C.P.	FIRE ALARM CONTROL PANEL
F.D.	FLOOR DRAIN
F.DWN	FURR- DOWN
F.D.C.	FIRE DEPARTMENT CONNECTION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FRP	FIBERGLASS REINFORCED PANELS
F.F.	FINISH FLOOR
GYP. BD.	GYPSUM BOARD
H.C./H. CAP.	HANDICAP ACCESSIBLE
H.B.	HOSE BIB
H.D. HT.	HEAD HEIGHT
HM	HOLLOW METAL
HT./HGT.	HEIGHT
WH	WATER HEATER
JT.	JOINT
K/S	KNEE SPACE
LT.	LIGHT
MAX.	MAXIMUM
MAT'L	MATERIAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MTL.	METAL
NTS.	NOT TO SCALE
O.C.	ON CENTER
O.F.C.I	OWNER FURNISHED/CONTRACTOR INSTALLED
O.H.	OPPOSITE HAND
OSB	ORIENTED STRAND BOARD
P.LAM.	PLASTIC LAMINATE
REF.	REFERENCE
REQ.	REQUIRED
RQMTS.	REQUIREMENTS
RM.	ROOM
R.O.	ROUGH OPENING
SCHED.	SCHEDULED
SHWR	SHOWER
STF	STOREFRONT
STN.	STAIN
S.F.	SQUARE FOOT
SHT.	SHEET
STOR.	STORAGE
SUSP.	SUSPENDED
TAS	TEXAS ACCESSIBILITY STANDARDS
T.B.T.& P.T	TAPE, BED, TEXTURE, & PAINT
TELE.	TELEPHONE
T.H.	THRESHOLD
T.O.	TOP OF
T&G	TONGUE AND GROOVE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
W/	WITH
WD.	WOOD
WP	WATER PROOF
WSCT.	WAINSCOT

NOTE: THE ABOVE LIST DOES NOT CONTAIN ALL ABBREVIATIONS USED IN THE DRAWINGS.

GENERAL NOTES

GENERAL NOTES ARE APPLICABLE TO ALL DRAWINGS - ITEMS AND CONDITIONS DETAILED, NOTED OR OTHERWISE IDENTIFIED ON ONE OF THE SECTIONS OR DETAILS ARE APPLICABLE AND BINDING TO ALL OTHER SECTIONS AND DETAILS FOR IDENTICAL OR SIMILAR CONDITIONS.

1. ALL DIMENSIONS ARE FROM STUD TO STUD OR STUD TO EXTERIOR FACE, UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL VISIT THE CONSTRUCTION SITE PRIOR TO BIDDING AND BECOME FAMILIAR WITH EXISTING CONDITIONS.
3. CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
4. LOCATE ALL DOORS 4" FROM THE NEAREST CORNER TO OUTSIDE EDGE OF FRAME UNLESS NOTED OTHERWISE.
5. G.C. TO VERIFY ROUGH OPENING DIMENSION REQUIREMENTS OF ALL DOORS AND WINDOWS.
6. PROVIDE ALL NECESSARY WOOD FRAMING, BRACING, BLOCKING, NAILERS AND SHIMS REQUIRED TO INSTALL ALL DOOR FRAMES, MEP WORK, MILLWORK, ACCESSORIES AND MISCELLANEOUS FIXTURES AND FITTINGS. FIRE TREATED PER CODE.
7. CONTRACTOR SHALL INSTALL DOORS, FRAMES AND FINISH HARDWARE. ALL DOORS TO HAVE HANDICAP ACCESSIBLE LEVER HANDLES, U.N.O. ALL HARDWARE TO BE INSTALLED IN ACCORDANCE WITH T.A.S. GUIDELINES.
8. ANY BUILDING WALL OR ROOF PENETRATIONS TO BE WARRANTED AND WATERTIGHT/WEATHERPROOF. ALL ROOFING PENETRATIONS (EQUIPMENT, STACKS, ETC.) TO BE FLASHED AND RE-ROOFED PER ROOFING MANUFACTURER'S SPECIFICATIONS AND WARRANTIES.
9. CONTRACTOR TO PROVIDE EXIT LIGHTS, SMOKE DETECTORS, EMERGENCY LIGHTING, FIRE EXTINGUISHERS, ETC. PER CODE AND AS DIRECTED BY FIRE MARSHAL HAVING JURISDICTION.
10. CONTRACTOR TO COORDINATE INSTALLATION OF ALL OWNER-PROVIDED ITEMS/SYSTEMS WITH OWNER AND OTHER CONTRACTORS.
11. PARTITION RATINGS: (REFER WALL TYPES SCHEDULE FOR DETAILED INFORMATION.) STAIRS, VERTICAL SHAFTS/CHASES, ELEVATOR HOISTWAYS - 1 HOUR.
12. PARTITION RATINGS: (REFER WALL TYPES SCHEDULE FOR DETAILED INFORMATION.)
13. PROVIDE ALL FIRE PROOFING & FIRE STOPPING AT STRUCTURAL MEMBERS, RATED ASSEMBLIES, ETC. AS REQUIRED. PROVIDE SYSTEMS AND ASSEMBLIES THAT MEET UL LABELS.
14. CONTRACTOR(S) SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK. ENSURE MINIMUM DIMENSION CLEARANCES ARE MAINTAINED FOR MEP SYSTEMS, FIRE PROOFING, ACCESSIBILITY, EGRESS, ETC. VERIFY LAYOUT VERTICALLY AND HORIZONTALLY FOR FOR (DUCTS, PIPING, CONDUIT, ETC.). COORDINATE ANY DISCREPANCIES WITH OWNER AND ARCHITECT.
15. ALL CONTRACTORS ARE TO COORDINATE THEIR SYSTEMS WITH OTHER SYSTEMS AND CONSTRUCTION THAT MAY BE ADJOINING OR AFFECTED BY WORK TO BE DONE.
16. CONTRACTOR(S) ARE RESPONSIBLE TO VERIFY THAT ALL WORK CONFORMS TO APPLICABLE BUILDING AND LIFE SAFETY, ACCESSIBILITY, ENERGY, AND LOCAL CODES AND ORDINANCES.
17. DO NOT SCALE FROM DRAWINGS FOR CONSTRUCTION PURPOSES.
18. ALL SYSTEMS, PRODUCT, FIXTURES, EQUIPMENT, SPECIALTIES, AND FINISHES TO BE INSTALLED PER CODE AND AS SPECIFIED, AS WELL AS PER INDUSTRY STANDARDS AND MANUFACTURER'S INSTRUCTIONS/ RECOMMENDATION - WHETHER NOTED IN THE DOCUMENTS OR NOT.
19. HARDWARE IS GENERALLY SPECIFIED. A DETAILED DOOR AND HARDWARE SCHEDULE SHALL BE SUBMITTED CLEARLY INDICATING ALL COMPONENTS NEEDED FOR EGRESS, ACCESSIBILITY, SECURITY, DURABILITY, AND EASE OF OPERATION. PROVIDE SAMPLES / CUT SHEETS OF EACH COMPONENT.
20. ALL WORK SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE CURRENT TEXAS ACCESSIBILITY STANDARDS (TAS). THE CONTRACTOR SHALL CALL FOR THE SITE INSPECTION BY THE RAS ONCE CONSTRUCTION IS COMPLETED. ANY NON-CONFORMING WORK SHALL BE REMEDIED AS REQUIRED WITHOUT ADDITIONAL EXPENSE.
21. ALL MATERIAL USED IN THE PROJECT SHALL MEET THE FLAME SPREAD INDEX AND SMOKE DEVELOPED INDEX PER CODE. ALL FIRE BLOCKING, FIRE STOPPING, FIRE RATED ASSEMBLIES, FIRE SAFEING, FIRE PROOFING, DRAFT STOPPING SHALL BE MAINTAINED AS REQUIRED BY CODE WHETHER SPECIFICALLY DETAILED OR SPECIFIED OR NOT.
22. NO MATERIAL CONTAINING HAZARDOUS MATERIALS SHALL BE UTILIZED ON THE PROJECT. IF CONTRACTOR SUSPECTS ANY HAZARDOUS MATERIALS PRESENT AT THE PROJECT SITE, WORK SHALL STOP AND THE OWNER NOTIFIED IMMEDIATELY.
23. ALL FLOOR SURFACES SHALL BE BROUGHT TO A LEVEL, SMOOTH SURFACE AT EACH FINISH FLOOR ELEVATION READY TO RECEIVE FUTURE OR SCHEDULED FINISHES SO THAT THE FINAL FLOORING WILL MEET THE ADA/TAS REQUIREMENTS.
24. ALL DOORS LOCATED IN THE FIRE RATED PARTITIONS SHALL BE FIRE RATED PER CODE REQUIREMENTS.
25. REFERENCE STRUCTURAL DRAWINGS FOR FLOOR SLOPES TO DRAIN.
26. REFER TO CIVIL DRAWINGS FOR EXTERIOR GRADE ELEVATIONS.
27. REFER TO STRUCTURAL DRAWINGS FOR RAMP AND SLAB ELEVATIONS.
28. UNLESS NOTED OTHERWISE, WALLS SHALL EXTEND TO THE UNDERSIDE OF ROOF, FLOOR SLAB OR STRUCTURAL FRAMING ABOVE AND BE SEALED IN ACCORDANCE WITH THE WALL TERMINATION DETAILS ON SHEET G0.05. FIRE STOP WALLS IN ACCORDANCE WITH THE SPECIFICATION SECTION 078400 FIRESTOPPING TO SEAL THE TOPS OF FIRE BARRIERS AND WALL WHICH ARE REQUIRED TO RESIST THE PASSAGE OF SMOKE. REFER TO THE LIFE SAFETY PLANS FOR IDENTIFICATION OF ALL SMOKE AND FIRE WALL CONDITIONS.
29. COLUMNS GRIDS ARE FOR REFERENCE ONLY; REFER TO STRUCTURAL DRAWINGS FOR COLUMN LOCATIONS.
30. UNLESS NOTED OTHERWISE, THE SAME WALL TYPE NEXT TO A DOOR OR OPENING SHALL CONTINUE OVER THE DOOR OR OPENING.
31. ALL CEILING HEIGHTS SHALL BE AS INDICATED ON THE PLANS UNLESS MECHANICAL, ELECTRICAL OF STRUCTURAL COMPONENTS PREVENT FULL HEIGHT. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN THE EVENT OF A CONFLICT.
32. ALL BUILDING ELEMENTS SHALL MEET STATE MINIMUM CODE STANDARDS.

ACCESSIBLE ROUTE GENERAL NOTES

1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
2. ACCESSIBLE ROUTES SHALL COMPLY WITH 402 (TAS CHAPTER 4: ACCESSIBLE ROUTES).
3. ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20, DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS. ALL COMPONENTS OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 4.
4. WALKING SURFACES MUST HAVE RUNNING SLOPES NOT STEEPER THAN 1:20, SEE 403.3. OTHER COMPONENTS OF ACCESSIBLE ROUTES, SUCH AS RAMPS (405) AND CURB RAMPS (406), ARE PERMITTED TO BE MORE STEEPLY SLOPED.
5. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
6. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2 INCH DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
7. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48.
8. CHANGES IN LEVEL OF 1/4 INCH HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL.
9. CHANGES IN LEVEL BETWEEN 1/4 INCH HIGH MINIMUM AND 1/2 INCH HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAT 1:2.
10. CHANGES IN LEVEL GREATER THAT 1/2 INCH HIGH SHALL BE RAMPED, AND SHALL COMPLY WITH 405 OR 406.
11. EXCEPT AS PROVIDED IN 403.5.2 AND 403.5.3, THE CLEAR WIDTH OF WALKING SURFACES SHALL BE 36 INCHES MINIMUM.
12. THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32 INCHES MINIMUM FOR A LENGTH OF 24 INCHES MAXIMUM PROVIDED THAT REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48 INCHES LONG MINIMUM AND 36 INCHES WIDE MINIMUM.
13. WHERE THE ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN ELEMENT WHICH IS LESS THAT 48 INCHES WIDE, CLEAR WIDTH SHALL BE 42 INCHES MINIMUM APPROACHING THE TURN, 48 INCHES MINIMUM AT THE TURN AND 42 INCHES MINIMUM LEAVING THE TURN. WHERE THE CLEAR WIDTH AT THE TURN IS 60 INCHES MINIMUM COMPLIANCE WITH 403.5.2 SHALL NOT BE REQUIRED.
14. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60 INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF 200 FEET MAXIMUM. PASSING SPACES SHALL BE EITHER: A SPACE 60 INCHES MINIMUM BY 60 INCHES MINIMUM; OR, AN INTERSECTION OF TWO WALKING SURFACES PROVIDING A T-SHAPED SPACE COMPLYING WITH 304.3.2 WHERE THE BASE AND ARMS OF THE T-SHAPED SPACE EXTEND 48 INCHES MINIMUM BEYOND THE INTERSECTION.
15. REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE PART OF AN ACCESSIBLE ROUTE.
16. AT LEAST ONE OF THE ACTIVE LEAVES OF DOORWAYS WITH TWO LEAVES SHALL COMPLY WITH 404.2.3 AND 404.2.4.
17. DOOR OPENING SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. OPENINGS MORE THAN 24 INCHES DEEP SHALL PROVIDE A CLEAR OPENING OF 36 INCHES MINIMUM. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES.
18. MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH 404.2.4. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE.
19. MANEUVERING CLEARANCES FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18 INCHES OF THE LATCH SIDE OF A DOORWAY PROJECTS MORE THAN 8 INCHES BEYOND THE FACE OF THE DOOR, MEASURED PERPENDICULAR TO THE FACE OF THE DOOR OR GATE.
20. FLOOR OR GROUND SURFACE WITHIN REQUIRED MANEUVERING CLEARANCES SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED.
21. THRESHOLDS, IF PROVIDED AT DOORWAYS, SHALL BE 1/2 INCH HIGH MAXIMUM. RAISED THRESHOLDS AND CHANGES IN LEVEL AT DOORWAYS SHALL COMPLY WITH 302 AND 303.
22. THE DISTANCE BETWEEN TWO HINGED OR PIVOTED DOORS IN A SERIES AND GATES IN A SERIES SHALL BE 48 INCHES MINIMUM PLUS THE WIDTH OF DOORS OR GATES SWINGING INTO THE SPACE.
23. SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACES SHALL BE WITHIN 1/16 INCH OF THE SAME PLANE AS THE OTHER. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.
24. RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12.
25. CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 1:48.
26. FLOOR OR GROUND SURFACES OF RAMP RUNS SHALL COMPLY WITH 302. CHANGES IN LEVEL OTHER THAN THE RUNNING SLOPE AND CROSS SLOPE ARE NOT PERMITTED ON RAMP RUNS.
27. THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36 INCHES MINIMUM.
28. THE RISE FOR ANY RAMP RUN SHALL BE 30 INCHES MAXIMUM.
29. RAMPS SHALL HAVE LANDINGS AT THE TOP AND THE BOTTOM OF EACH RAMP RUN. LANDINGS SHALL COMPLY WITH 405.7.
30. LANDINGS SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED.
31. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING.
32. THE LANDING CLEAR LENGTH SHALL BE 60 INCHES LONG MINIMUM.
33. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 60 INCHES MINIMUM BY 60 INCHES MINIMUM.
34. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY 404.2.4 AND 404.3.2 SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA.
35. RAMP RUNS WITH A RISE GREATER THAN 6 INCHES SHALL HAVE HANDRAILS COMPLYING WITH 505.
36. EDGE PROTECTION COMPLYING WITH 405.9.1 OR 405.9.2 SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH SIDE OF RAMP LANDINGS.
37. THE FLOOR OR GROUND SURFACE OF THE RAMP RUN OR LANDING SHALL EXTEND 12 INCHES MINIMUM BEYOND THE INSIDE FACE OF A HANDRAIL COMPLYING WITH 505.
38. A CURB OR BARRIER SHALL BE PROVIDED THAT PREVENTS THE PASSAGE OF A 4 INCH DIAMETER SPHERE, WHERE ANY PORTION OF THE SPHERE IS WITHIN 4 INCHES OF THE FINISH FLOOR OR GROUND SURFACE.
39. LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT THE ACCUMULATION OF WATER.
40. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL.
41. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10.
42. LANDINGS SHALL BE PROVIDED AT THE TOPS OF CURB RAMPS. THE LANDING CLEAR LENGTH SHALL BE 36 INCHES MINIMUM. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING.
43. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.

SHEET INDEX

G0.0	COVER
G0.2	TEXAS ACCESSIBILITY STANDARDS
G0.3	TEXAS ACCESSIBILITY STANDARDS
G0.4	TEXAS ACCESSIBILITY STANDARDS
G0.5	FRAMING DETAILS
GENERAL	
G0.1	SHEET INDEX
ARCHITECTURAL	
A2.01	FLOOR PLANS AND DETAILS
A7.01	REFLECTED CEILING PLANS AND DETAILS
MEP COVER NOTES	
MEP1.00	COVER SHEET - MEP
MEP1.01	COVER SHEET CONT. - MEP
MECHANICAL	
M2.01	FLOOR PLAN - MECHANICAL
PLUMBING	
P2.01	FLOOR PLAN - PLUMBING
ELECTRICAL	
E2.01	FLOOR PLAN - ELECTRICAL
E5.01	SCHEDULES AND DETAILS - ELECTRICAL

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3220 BOTANIC GARDENS BLVD
FORT WORTH, TEXAS 76107

REGISTERED ARCHITECT
BRAD NAEGELIN
22859
STATE OF TEXAS

09-11-2026

PROJECT NO.:26122

DATE:09-11-2026

REVISION SCHEDULE

Δ	Description	Date

SHEET NAME

SHEET INDEX

SHEET NO.

G0.1

CHAPTER 3: BUILDING BLOCKS

302 FLOOR OR GROUND SURFACES

302.2 CARPET. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAX. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE. CARPET EDGE TRIM SHALL COMPLY WITH 303.

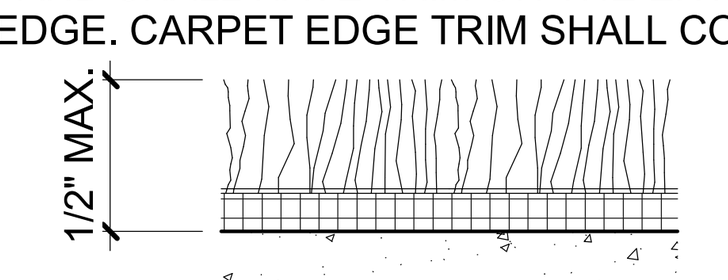


FIGURE 302.2 CARPET PILE HEIGHT

302.3 OPENINGS. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2 INCH DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3 AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

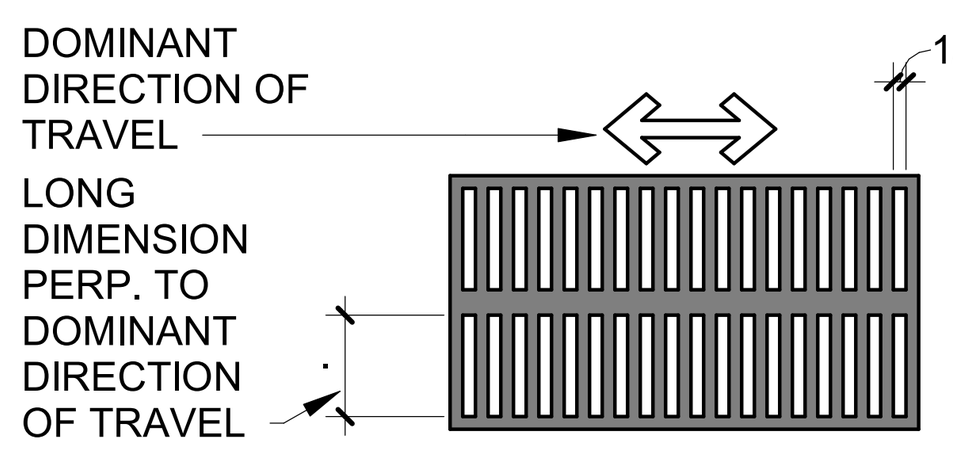


FIGURE 302.3 ELONGATED OPENINGS IN FLOOR OR GROUND SURFACES

303 CHANGES IN LEVEL

303.2 VERTICAL. CHANGES IN LEVEL OF 1/4 INCH HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL.

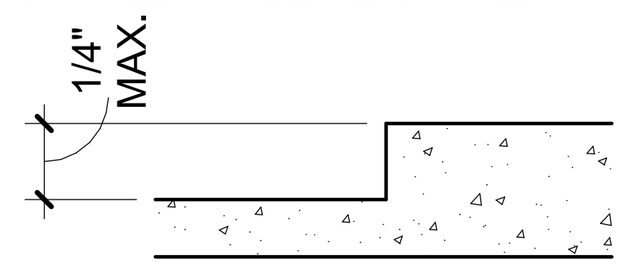


FIGURE 303.2 VERTICAL CHANGE IN LEVEL

303.3 BEVELED. CHANGES IN LEVEL BETWEEN 1/4 INCH HIGH MINIMUM AND 1/2 INCH HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.

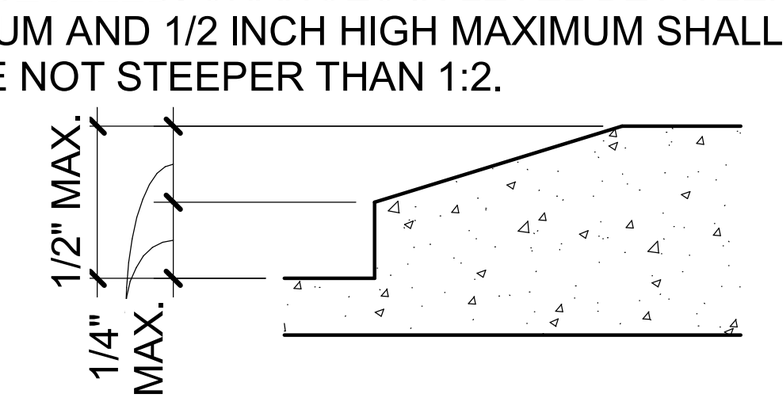


FIGURE 303.3 BEVELED CHANGE IN LEVEL

304 TURNING SPACE

304.3.1 CIRCULAR SPACE. THE TURNING SPACE SHALL BE A SPACE OF 60 INCHES DIAMETER MINIMUM.. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.

304.3.2 T-SHAPED SPACE. THE TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60 INCH SQUARE MINIMUM WITH ARMS AND BASE 36 INCHES WIDE MIN. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12 INCHES MIN. IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24 INCHES MIN. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM.

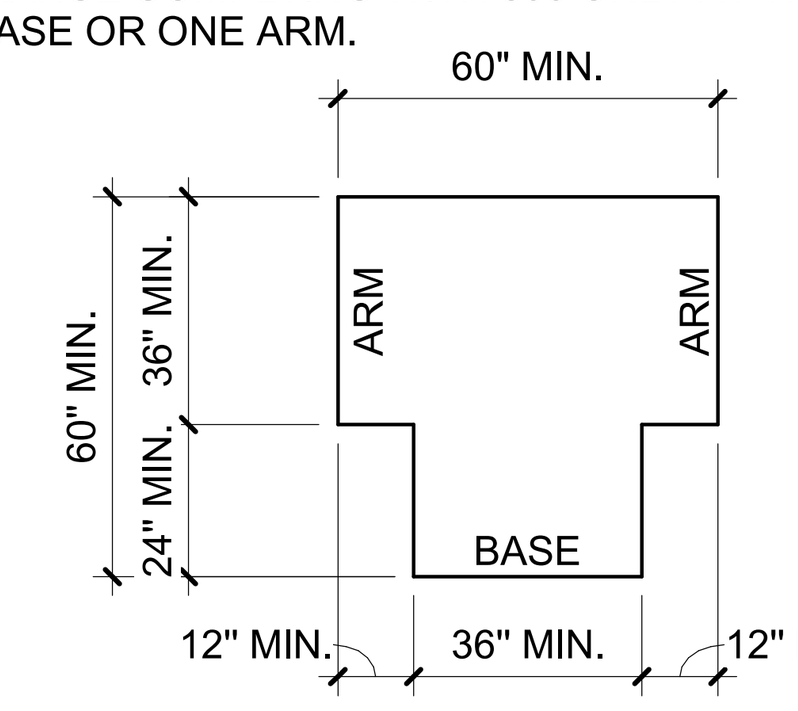


FIGURE 304.3.2 T-SHAPED TURNING SPACE

305 CLEAR FLOOR AND GROUND SPACE

305.3 SIZE. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30 INCHES MIN. BY 48 INCHES MIN.

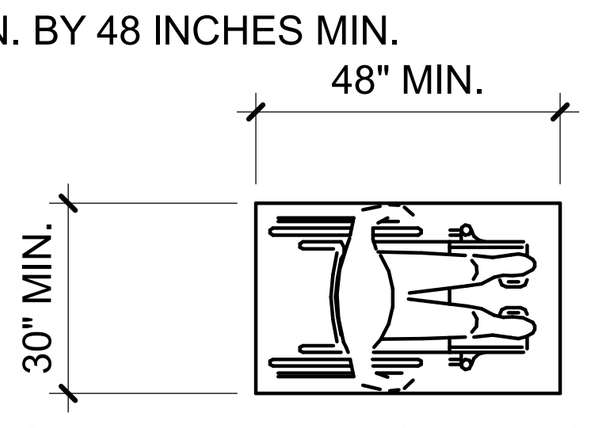


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE

305.5 POSITION. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT.

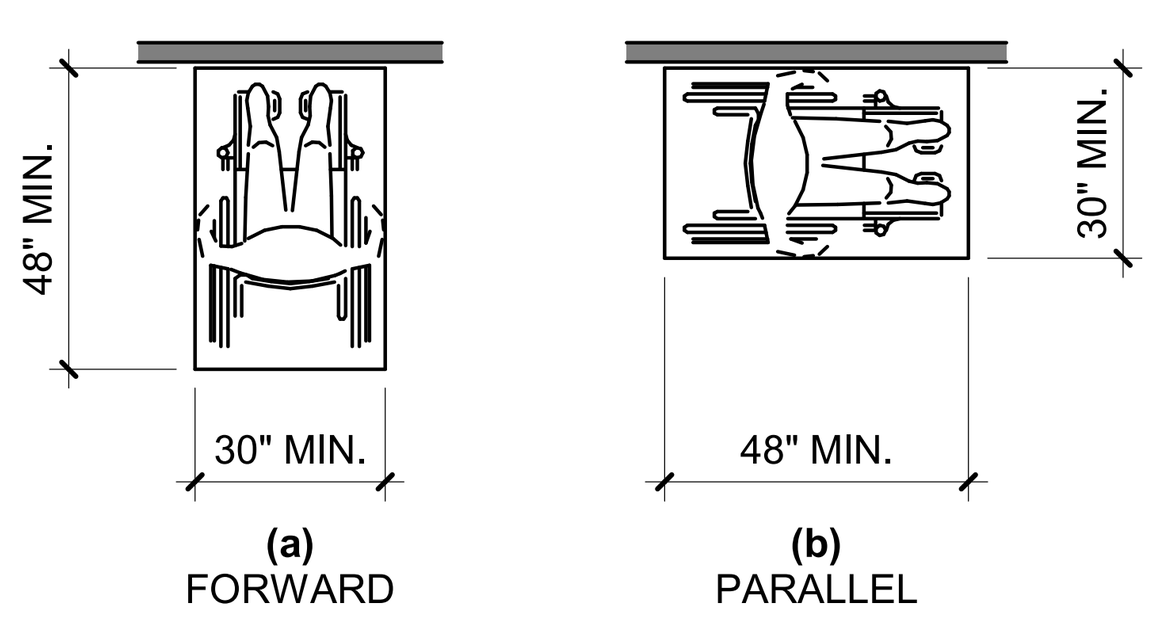


FIGURE 305.5 POSITION OF CLEAR FLOOR OR GROUND SPACE

305.7.1 FORWARD APPROACH. ALCOVES SHALL BE 36 INCHES WIDE MIN. WHERE THE DEPTH EXCEEDS 24 INCHES.

305.7.2 PARALLEL APPROACH. ALCOVES SHALL BE 60 INCHES WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15 INCHES.

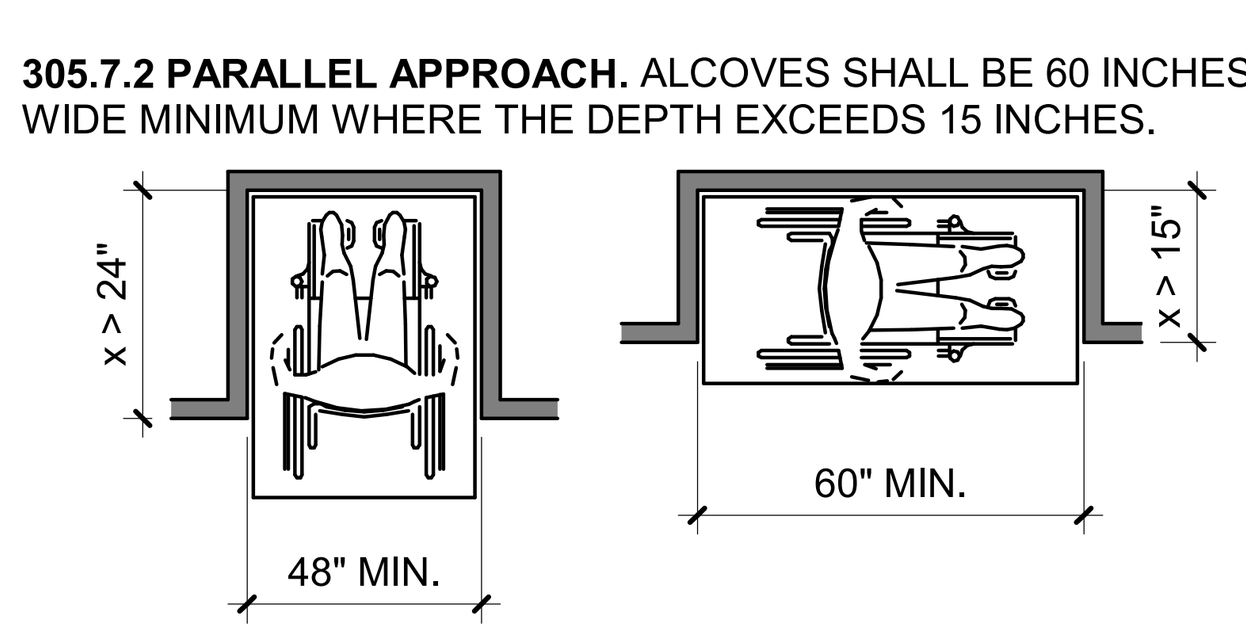


FIGURE 305.7.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH

FIGURE 305.7.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

306 KNEE AND TOE CLEARANCE

306.2 TOE CLEARANCE.

306.2.1 GENERAL. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE AND SHALL COMPLY WITH 306.2.

306.2.2 MAXIMUM DEPTH. TOE CLEARANCE SHALL EXTEND 25 INCHES MAXIMUM UNDER AN ELEMENT.

306.2.3 MINIMUM REQUIRED DEPTH. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17 INCHES MINIMUM UNDER THE ELEMENT.

306.2.4 ADDITIONAL CLEARANCE. SPACE EXTENDING GREATER THAN 6 INCHES BEYOND THE AVAILABLE KNEE CLEARANCE AT 9 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.

306.2.5 WIDTH. TOE CLEARANCE SHALL BE 30 INCHES WIDE MINIMUM.

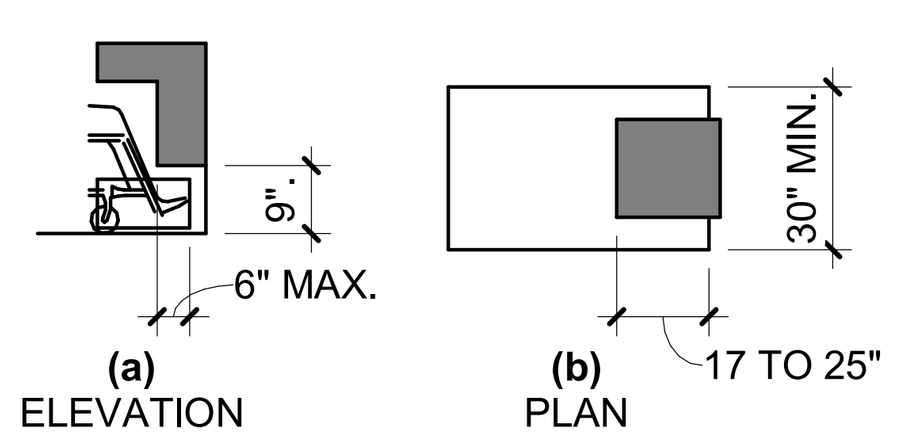


FIGURE 306.2 TOE CLEARANCE

306.3 KNEE CLEARANCE.

306.3.1 GENERAL. SPACE UNDER AN ELEMENT BETWEEN 9 INCHES AND 27 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED KNEE CLEARANCE AND SHALL COMPLY WITH 306.3.

306.3.2 MAXIMUM DEPTH. KNEE CLEARANCE SHALL EXTEND 25 INCHES MAXIMUM UNDER 9 INCHES ABOVE THE FINISH FLOOR OR GROUND.

306.3.3 MINIMUM REQUIRED DEPTH. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11 INCHES DEEP MINIMUM AT 9 INCHES ABOVE THE FINISH FLOOR OR GROUND, AND 8 INCHES DEEP MINIMUM AT 27 INCHES ABOVE THE FINISH FLOOR OR GROUND.

306.3.4 CLEARANCE REDUCTION. BETWEEN 9 INCHES AND 27 INCHES ABOVE THE FINISH FLOOR OR GROUND, THE KNEE CLEARANCE SHALL BE PERMITTED TO REDUCE AT A RATE OF 1 INCH IN DEPTH FOR EACH 6 INCHES IN HEIGHT.

306.3.5 WIDTH. KNEE CLEARANCE SHALL BE 30 INCHES WIDE MINIMUM.

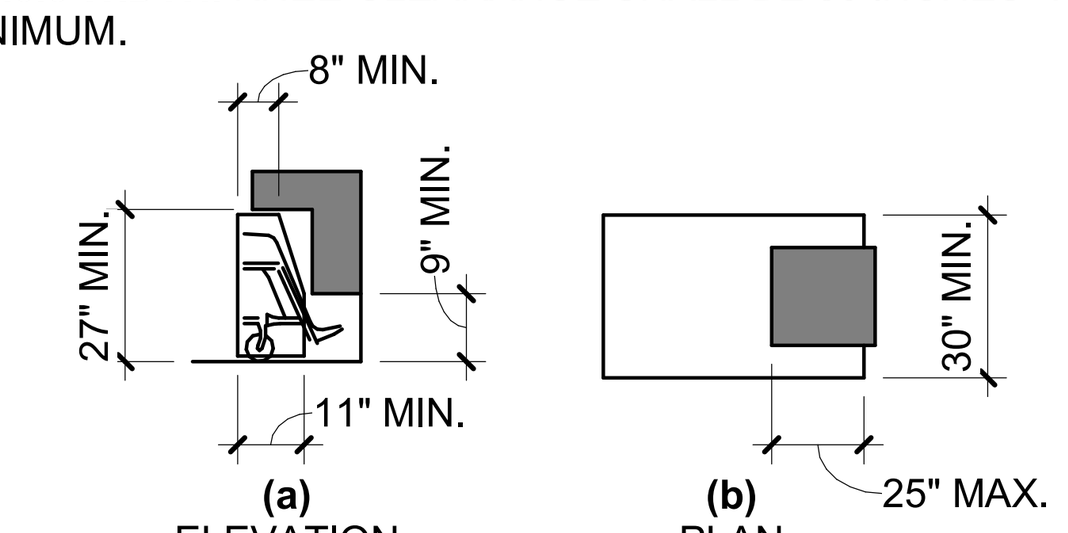


FIGURE 306.3 KNEE CLEARANCE

307 PROTRUDING OBJECTS

307.2 PROTRUSION LIMITS. OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES AND NOT MORE THAN 80 INCHES ABOVE THE FINISHED FLOOR OR GROUND SHALL PROTRUDE 4" MAXIMUM HORIZONTALLY INTO THE CIRCULATION PATH

> **EXCEPTION:** HANDRAILS SHALL BE PERMITTED TO PROTRUDE 4 1/2 INCHES MAX.

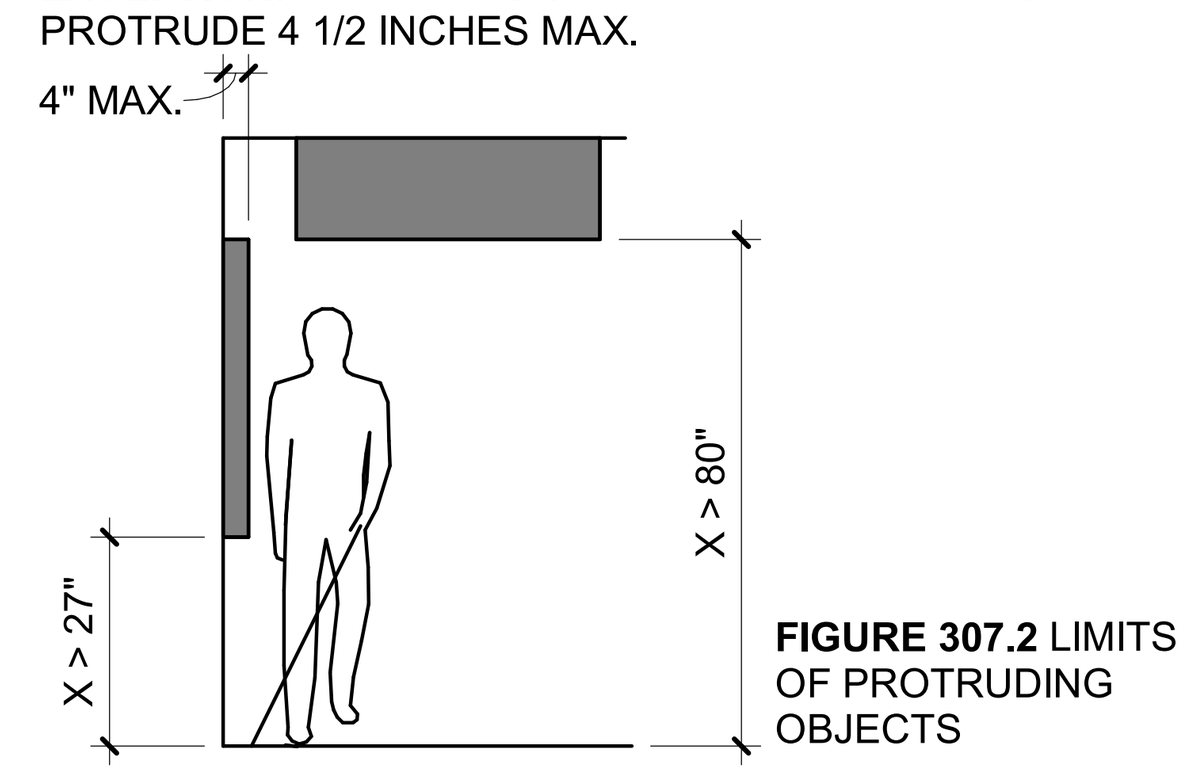


FIGURE 307.2 LIMITS OF PROTRUDING OBJECTS

307.3 POST-MOUNTED OBJECTS. FREE-STANDING OBJECTS MOUNTED ON POSTS OR PYLONS SHALL OVERHANG CIRCULATION PATHS 12 INCHES MAXIMUM WHEN LOCATED 27 INCHES MINIMUM AND 80 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE A SIGN OR OTHER OBSTRUCTION IS MOUNTED BETWEEN POSTS OR PYLONS AND THE CLEAR DISTANCE BETWEEN THE POSTS OR PYLONS IS GREATER THAN 12 INCHES, THE LOWEST EDGE OF SUCH SIGN OR OBSTRUCTION SHALL BE 27 INCHES MAXIMUM OR 80 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

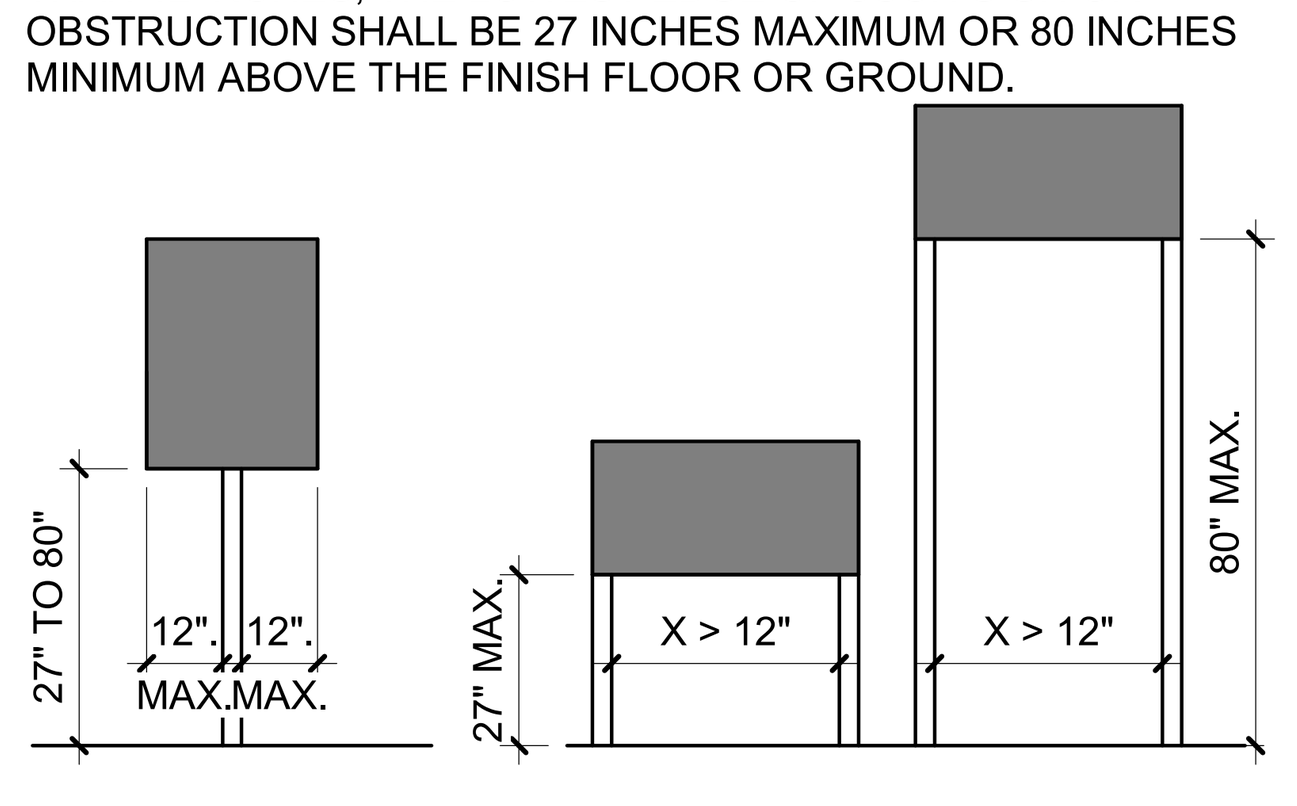


FIGURE 307.3 POST-MOUNTED PROTRUDING OBJECTS

307.4 VERTICAL CLEARANCE. VERTICAL CLEARANCE SHALL BE 80 INCHES HIGH MINIMUM. GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE IS LESS THAN 80 INCHES HIGH. THE LEADING EDGE OF SUCH GUARDRAIL OR BARRIER SHALL BE LOCATED 27 INCHES MAXIMUM ABOVE THE FINISHED FLOOR OR GROUND

> **EXCEPTION:** DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78 INCHES MINIMUM ABOVE THE FINISHED FLOOR OR GROUND

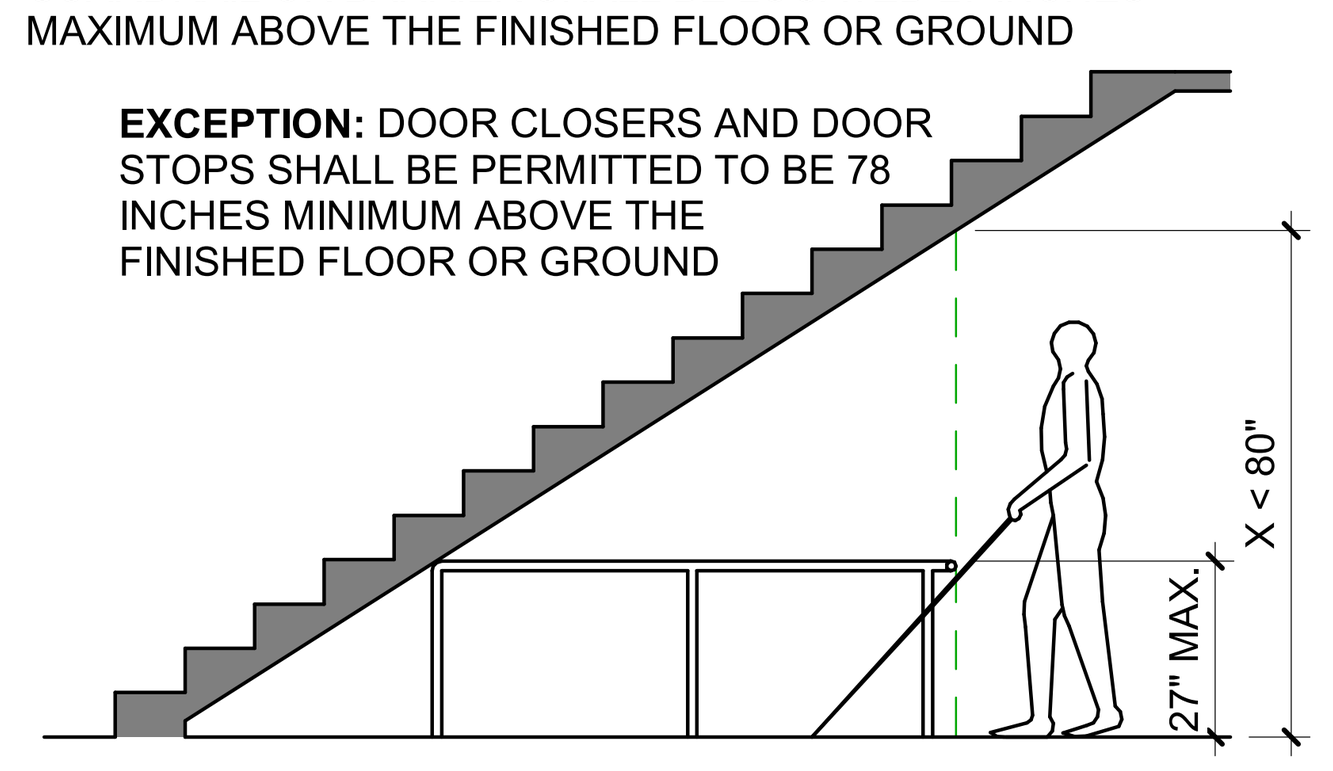


FIGURE 307.4 VERTICAL CLEARANCE

308 REACH RANGES

CHILDREN'S REACH RANGES

FORWARD OR SIDE REACH	HIGH (MAX.)	LOW (MIN.)
AGES 3 AND 4	36"	20"
AGES 5 THROUGH 8	40"	18"
AGES 9 THROUGH 12	44"	16"

308.2 FORWARD REACH.

308.2.1 UNOBSTRUCTED. WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALL BE 48 INCHES MAXIMUM AND THE LOW FORWARD REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

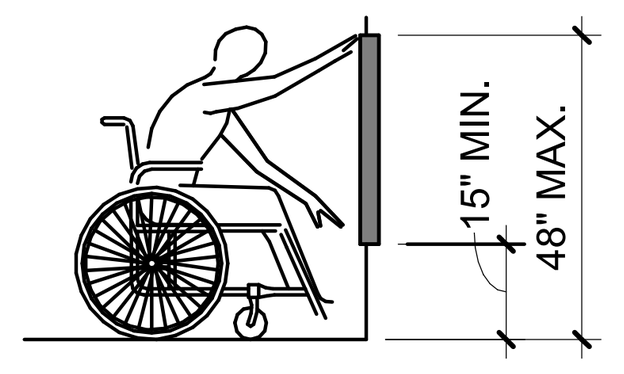


FIGURE 308.2.2 OBSTRUCTED HIGH FORWARD REACH

308.2.2 OBSTRUCTED HIGH REACH. WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR FLOOR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT LESS THAN THE REQUIRED REACH DEPTH OVER THE OBSTRUCTION. THE HIGH FORWARD REACH SHALL BE 48 INCHES MAXIMUM WHERE THE REACH DEPTH IS 20 INCHES MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 20 INCHES, THE HIGH FORWARD REACH SHALL BE 44 INCHES (1120 MM) MAXIMUM AND THE REACH DEPTH SHALL BE 25 INCHES MAXIMUM.

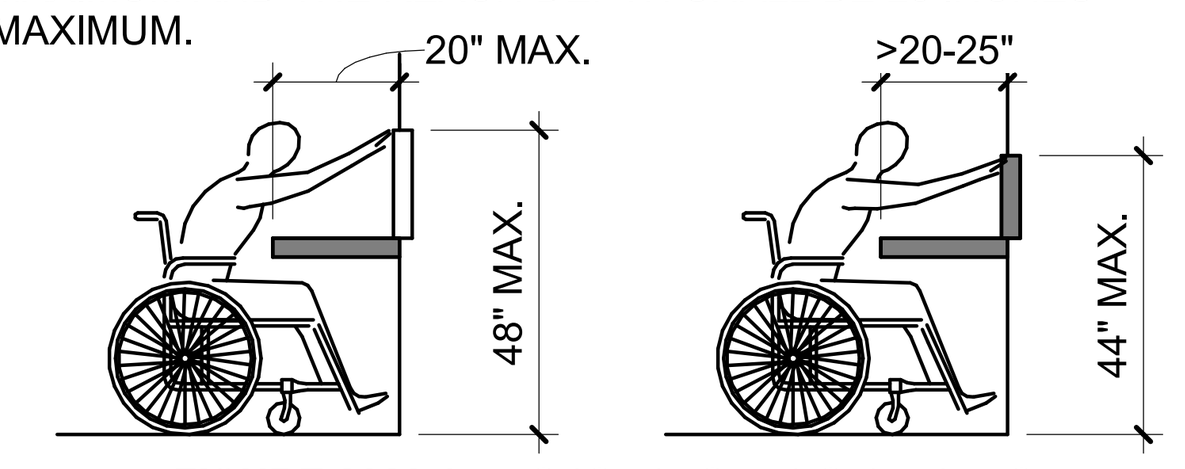


FIGURE 3083.1 UNOBSTRUCTED SIDE REACH

308.3 SIDE REACH.

308.3.1 UNOBSTRUCTED. WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE SIDE REACH IS UNOBSTRUCTED, THE HIGH SIDE REACH SHALL BE 48 INCHES MAXIMUM AND THE LOW SIDE REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

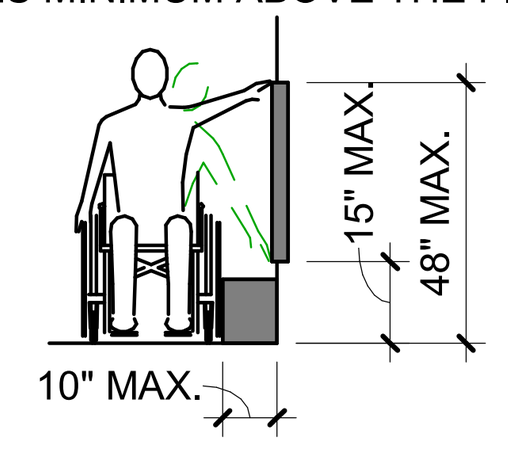


FIGURE 308.3.1 UNOBSTRUCTED SIDE REACH

308.3.2 OBSTRUCTED HIGH REACH. WHERE A CLEAR FLOOR OR ROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34 INCHES MAXIMUM AND THE DEPTH OF THE OBSTRUCTION SHALL BE 24 INCHES MAXIMUM. THE HIGH SIDE REACH SHALL BE 48 INCHES MAXIMUM FOR A REACH DEPTH OF 10 INCHES MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 10 INCHES THE HIGH SIDE REACH SHALL BE 46 INCHES MAXIMUM FOR A REACH DEPTH OF 24 INCHES MAXIMUM.

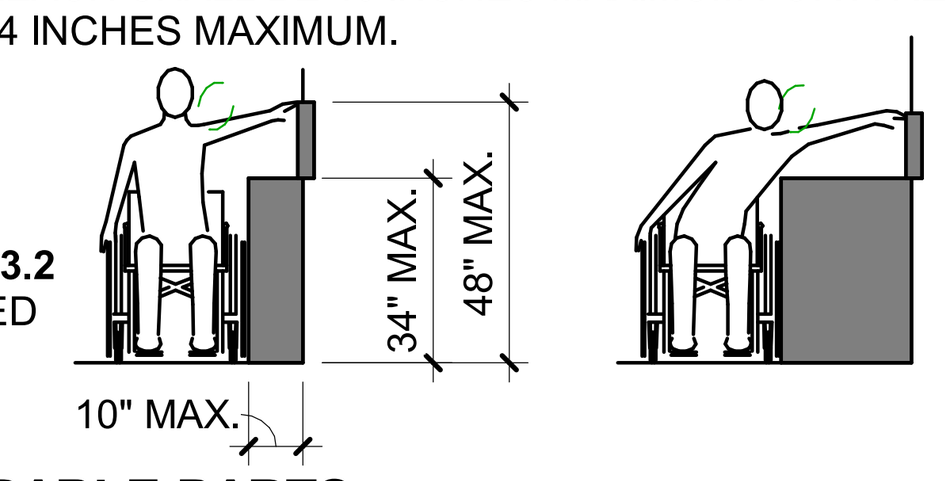


FIGURE 308.3.2 OBSTRUCTED HIGH SIDE REACH

309 OPERABLE PARTS

309.2 CLEAR FLOOR SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED.

309.3 HEIGHT. OPERABLE PARTS SHALL BE PLACED WITHIN ONE OR MORE OF THE REACH RANGES SPECIFIED IN 308.

309.4 OPERATION. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 LBS. MAXIMUM.

CHAPTER 4: ACCESSIBLE ROUTES

402 ACCESSIBLE ROUTES

402.2 COMPONENTS. ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOP NOT STEEPER THAN 1:20, DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS AND PLATFORM LIFTS. ALL COMPONENTS OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 4

> **ADVISORY 402.2 COMPONENTS.** WALKING SURFACES MUST HAVE RUNNING SLOPS NOT STEEPER THAT 1:20, SEE 403.3. OTHER COMPONENTS OF ACCESSIBLE ROUTES, SUCH AS RAMPS (405) AND CURB RAMPS (406) ARE PERMITTED TO BE MORE STEEPLY SLOPED

403 WALKING SURFACES

403.1 GENERAL. WALKING SURFACES THAT ARE A PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 403.

403.2 FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACES SHALL COMPLY WITH 302.

403.3 SLOPE. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48.

403.4 CHANGES IN LEVEL. CHANGES IN LEVEL SHALL COMPLY WITH 303.

403.5 CLEARANCES. WALKING SURFACES SHALL PROVIDE CLEARANCES COMPLYING WITH 403.5

> **EXCEPTION:** WITH EMPLOYEE WORK AREAS, CLEARANCES ON COMMON USE CIRCULATION PATHS SHALL BE PERMITTED TO BE DECREASED BY WORK AREA EQUIPMENT PROVIDED THAT THE DECREASE IS ESSENTIAL TO THE FUNCTION OF THE WORK BEING PERFORMED

403.5.1 CLEAR WIDTH. EXCEPT AS PROVIDED IN 403.5.2 AND 403.5.3, THE CLEAR WIDTH OF WALKING SURFACES SHALL BE 36 INCHES MINIMUM

> **EXCEPTION:** THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32 INCHES MINIMUM FOR A LENGTH OF 24 INCHES MAXIMUM PROVIDED THAT REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48 INCHES LONG MINIMUM AND 36 INCHES WIDE MINIMUM

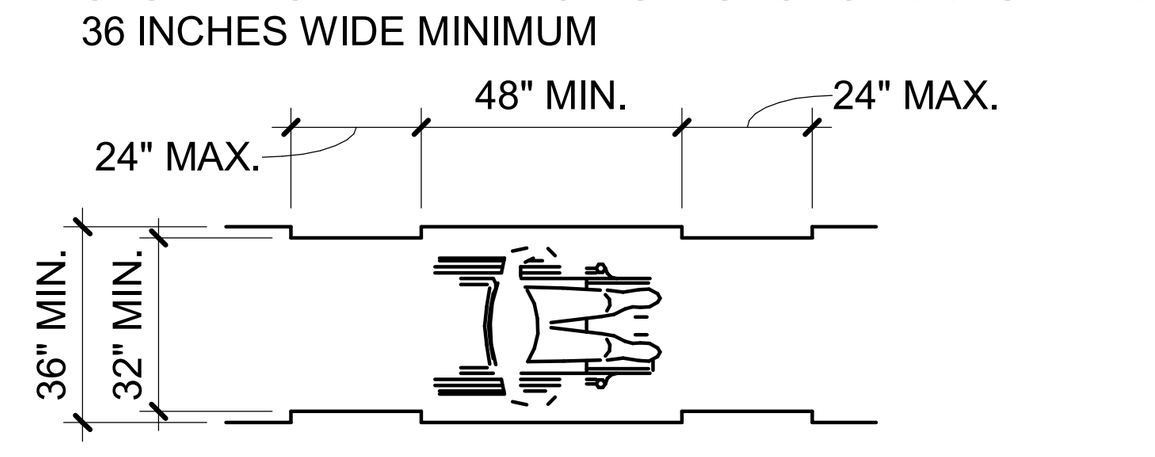


FIGURE 403.5.1 CLEAR WIDTH OF AN ACCESSIBLE ROUTE

403.5.2 CLEAR WIDTH AT TURN. WHERE THE ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN ELEMENT WHICH IS LESS THAN 48 INCHES WIDE, CLEAR WIDTH SHALL BE 42 INCHES MINIMUM APPROACHING THE TURN, 48 INCHES MINIMUM AT THE TURN AND 42 INCHES MINIMUM LEAVING THE TURN.

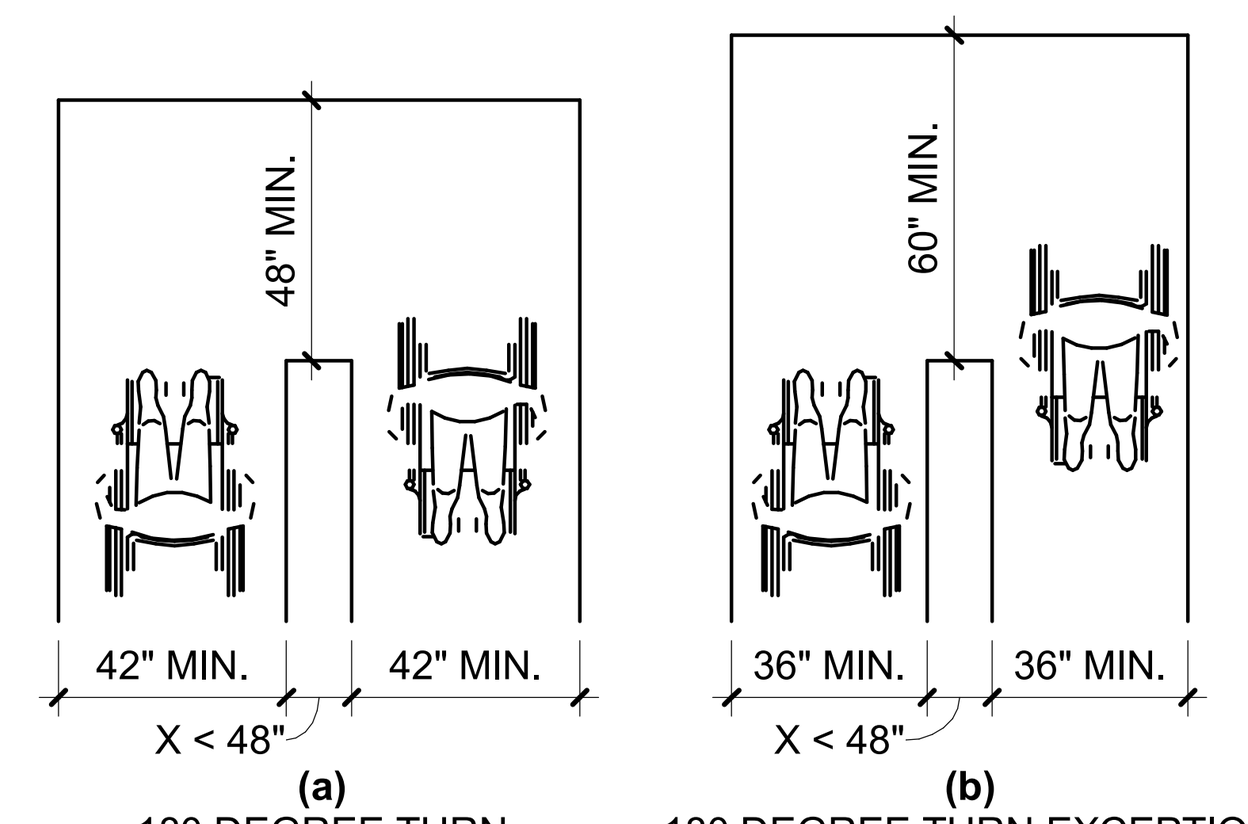


FIGURE 403.5.2 CLEAR WIDTH AT TURN

403.5.3 PASSING SPACES. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60 INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF 200 FEET MAXIMUM.

404 DOORS, DOORWAYS, AND GATES

404.2.3 CLEAR WIDTH. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP WITH THE DOOR OPEN 90 DEGREES. OPENINGS MORE THAN 24 INCHES DEEP SHALL PROVIDE A CLEAR OPENING OF 36 INCHES MINIMUM. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES

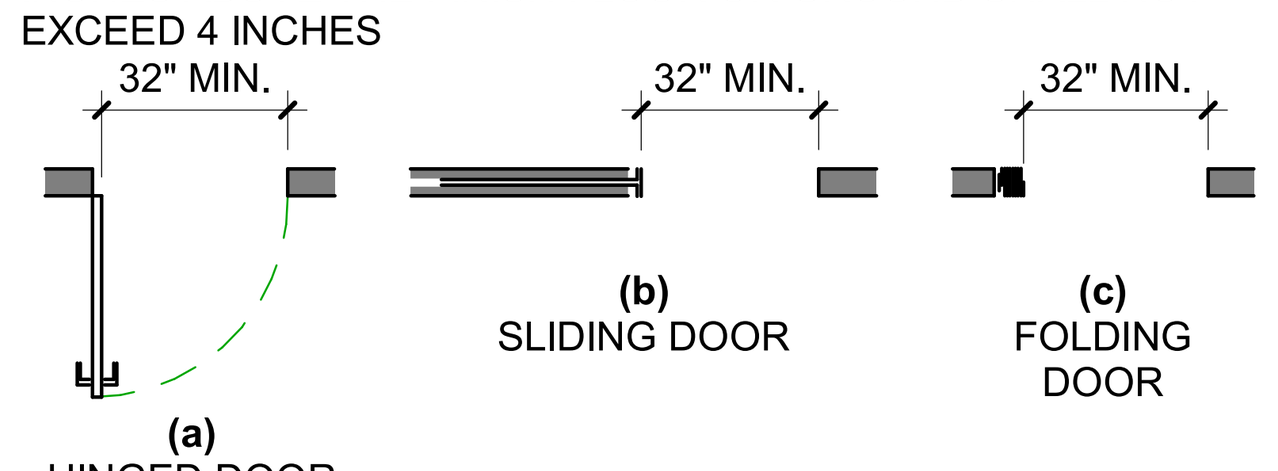


FIGURE 404.2.3 CLEAR WIDTH OF DOORWAYS

404.2.4 MANEUVERING CLEARANCES. MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH 404.2.4. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE.

404.2.4.1 SWINGING DOORS AND GATES. SWINGING DOORS AND GATES SHALL HAVE MANEUVERING CLEARANCE COMPLYING WITH FIGURE 404.2.4.1

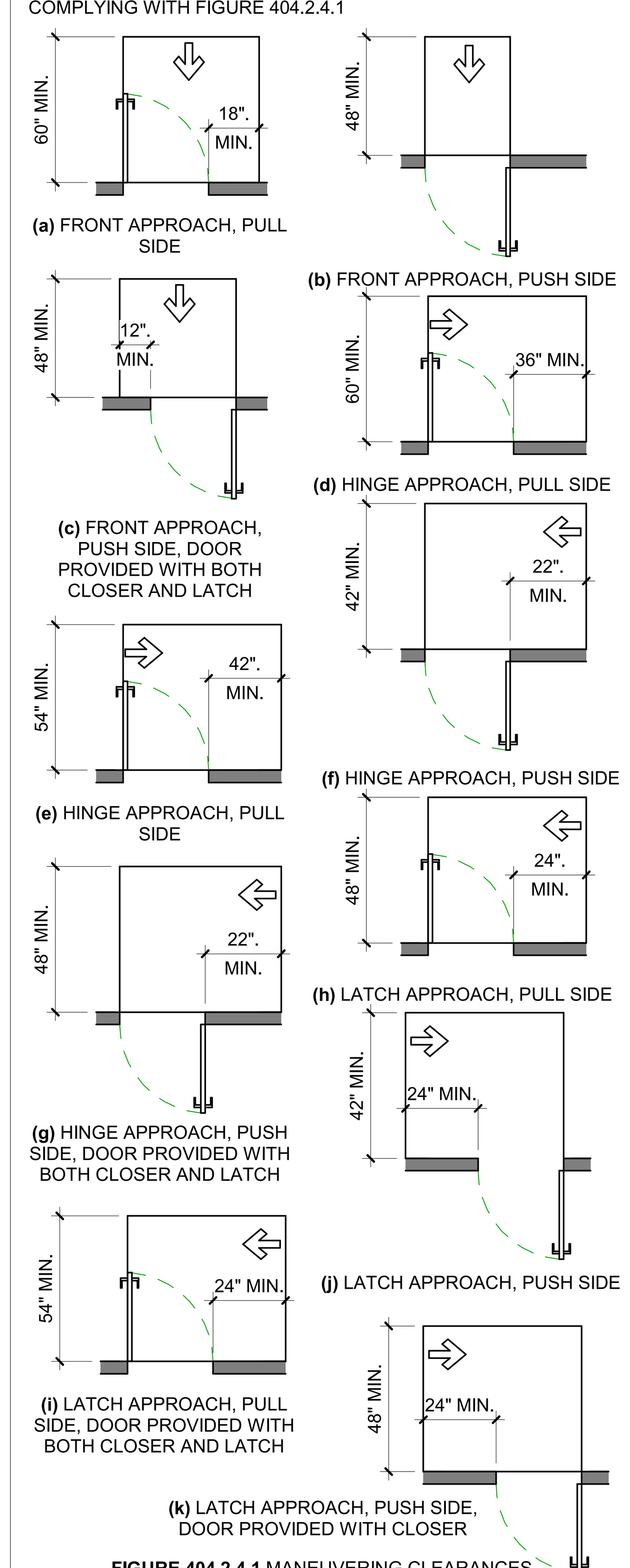


FIGURE 404.2.4.1 MANEUVERING CLEARANCES AT MANUAL SWING DOORS AND GATES

404.2.4.3 RECESSED DOORS AND GATES. MANEUVERING CLEARANCES FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18" OF THE LATCH SIDE OF A DOORWAY PROJECTS MORE THAN 8" BEYOND THE FACE OF THE DOOR, MEASURED PERPENDICULAR TO THE FACE OF THE DOOR OR GATE.

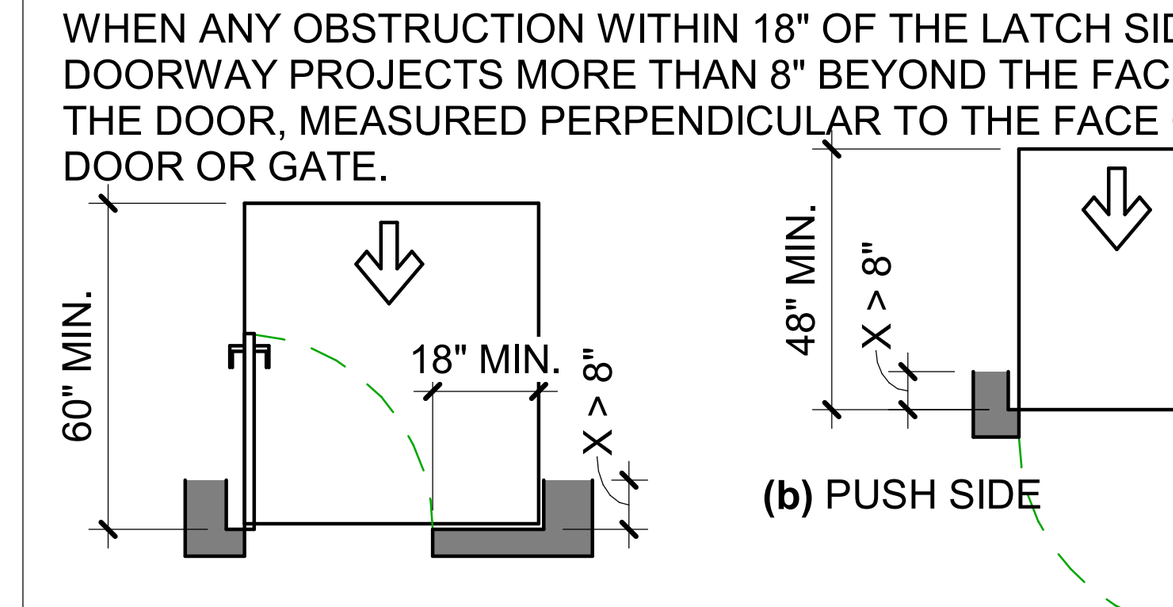


FIGURE 404.2.4.3 MANEUVERING CLEARANCES AT RECESSED DOORS & GATES

404.2.6 DOORS IN SERIES AND GATES IN SERIES. THE DISTANCE BETWEEN TWO HINGED OR PIVOTED DOORS IN SERIES AND GATES IN SERIES SHALL BE 48 INCHES MINIMUM PLUS THE WIDTH OF DOORS OR GATES SWINGING INTO THE SPACE.

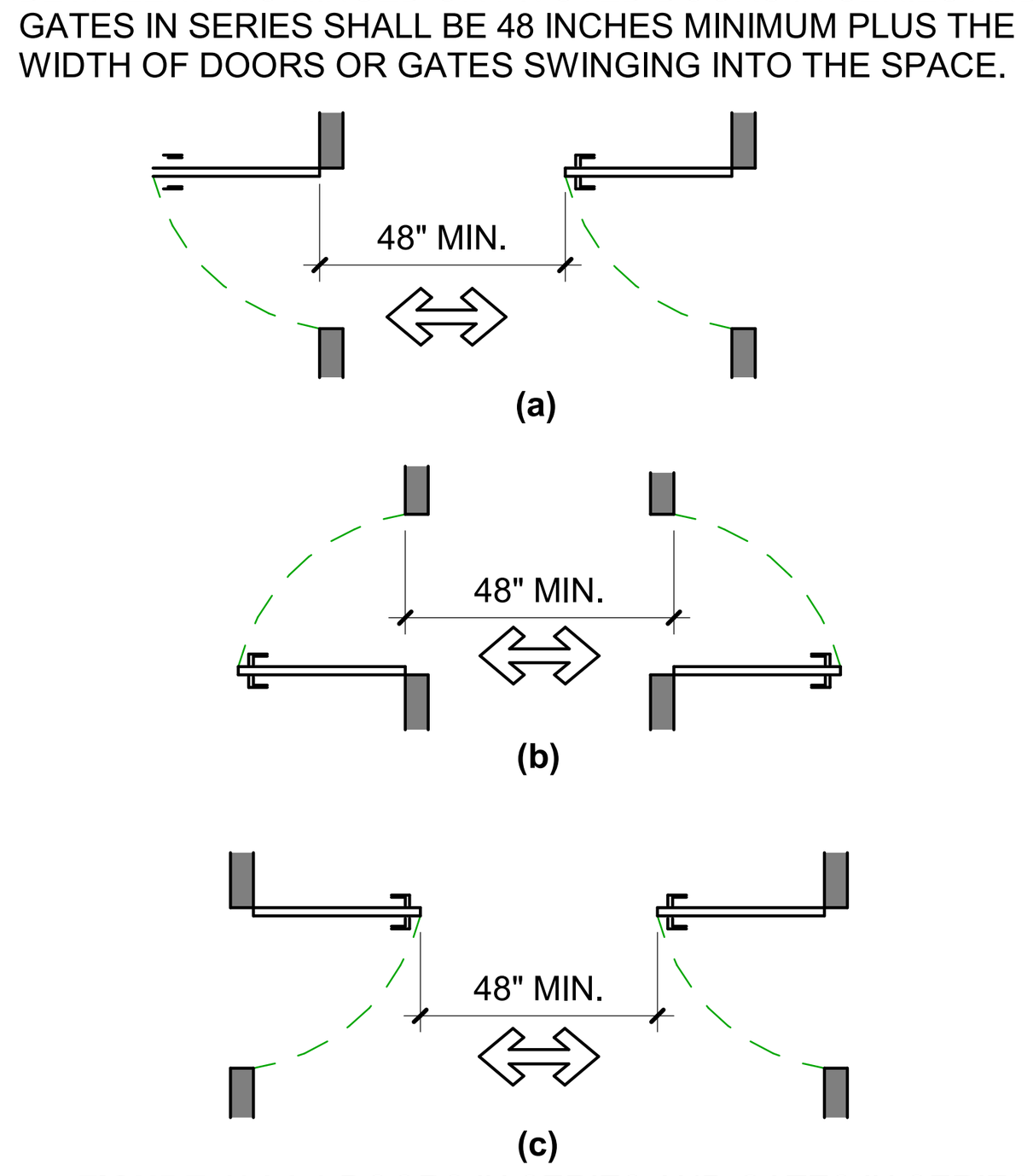


FIGURE 404.2.6 DOORS IN SERIES AND GATES IN SERIES

404.2.7 DOOR AND GATE HARDWARE. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH 309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES MINIMUM AND 48" MAX. ABOVE THE FINISH FLOOR OR GROUND. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.

404.2.8.1 DOOR CLOSERS AND GATE CLOSERS. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.

404.2.8.2 SPRING HINGES. DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR OR GATE SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM

404.2.9 DOOR AND GATE OPENING FORCE. FIRE DOORS SHALL HAVE A MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS:

> 1. INTERIOR HINGED DOOR AND GATES: 5 POUNDS MAXIMUM
> 2. SLIDING OR FOLDING DOORS: 5 POUNDS MAXIMUM
>
> THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR OR GATE IN A CLOSE POSITION

404.2.10 DOOR AND GATE SURFACES. SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACES SHALL BE WITHIN 1/16 INCH (1.6 MM) OF THE SAME PLANE AS THE OTHER. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.

404.2.11 VISION LIGHTS. DOORS, GATES, AND SIDE LIGHTS ADJACENT TO DOORS OR GATES, CONTAINING ONE OR MORE GLAZING PANELS THAT PERMIT VIEWING THROUGH THE PANELS SHALL HAVE THE BOTTOM OF AT LEAST ONE GLAZED PANEL LOCATED 43 INCHES MAXIMUM ABOVE THE FINISH FLOOR.

404.3 AUTOMATIC AND POWER-ASSISTED DOORS AND GATES. AUTOMATIC DOORS AND AUTOMATIC GATES SHALL COMPLY WITH 404.3. FULL-POWERED AUTOMATIC DOORS SHALL COMPLY WITH ANSI/BHMA A156.10 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1). LOW-ENERGY AND POWER-ASSISTED DOORS SHALL COMPLY WITH ANSI/BHMA A156.19 (1997 OR 2002 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1).

404.3.2 MANEUVERING CLEARANCE. CLEARANCES AT POWER-ASSISTED DOORS AND GATES SHALL COMPLY WITH 404.2.4. CLEARANCES AT AUTOMATIC DOORS AND GATES WITHOUT STANDBY POWER AND SERVING AN ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 404.2.4.

404.3.7 REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES. REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE PART OF AN ACCESSIBLE ROUTE.

405 RAMPS

405.2 SLOPE. RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12.

405.3 CROSS SLOPE. CROSS SLOPE OF RAMP SHALL NOT BE STEEPER THAN 1:48.

405.5 CLEAR WIDTH. THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36 INCHES MINIMUM.

405.6 RISE. THE RISE FOR ANY RAMP RUN SHALL BE 30" MAX.

405.7 LANDINGS. RAMPS SHALL HAVE LANDINGS AT THE TOP AND THE BOTTOM OF EACH RAMP RUN. LANDINGS SHALL COMPLY WITH 405.7.

405.7.1 SLOPE. LANDINGS SHALL HAVE SLOPE NO STEEPER THAN 1:48. CHANGES IN LEVEL ARE NOT PERMITTED.

405.7.2 WIDTH. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING.

405.7.3 LENGTH. THE LANDING CLEAR LENGTH SHALL BE 60 INCHES LONG MIN.

405.7.4 CHANGE IN DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 60 INCHES MINIMUM BY 60 INCHES MINIMUM.

405.7.5 DOORWAYS. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY 404.2.4 AND 404.3.2 SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING

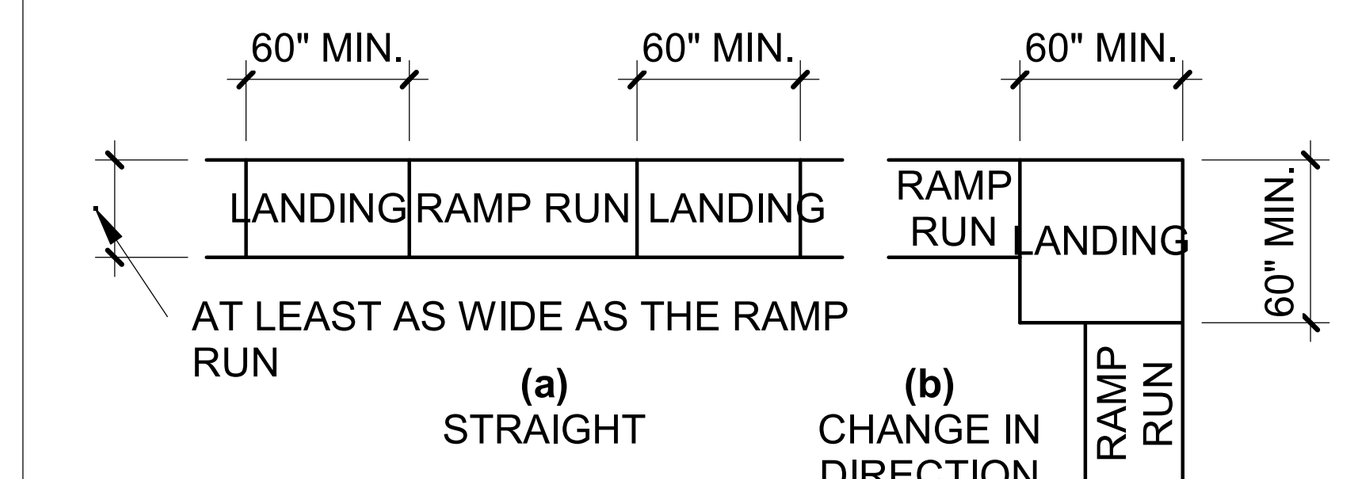


FIGURE 405.7 RAMP LANDINGS

405.8 HANDRAILS. RAMP RUNS WITH A RISE GREATER THAN 6 INCHES SHALL HAVE HANDRAILS COMPLYING WITH 505.

405.9 EDGE PROTECTION. EDGE PROTECTION COMPLYING WITH 405.9.1 OR 405.9.2 SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH SIDE OF RAMP LANDINGS.

405.9.1 EXTENDED FLOOR OR GROUND SURFACE. THE FLOOR OR GROUND SURFACE OF THE RAMP RUN OR LANDING SHALL EXTEND 12 INCHES MINIMUM BEYOND THE INSIDE FACE OF A HANDRAIL COMPLYING WITH 505.

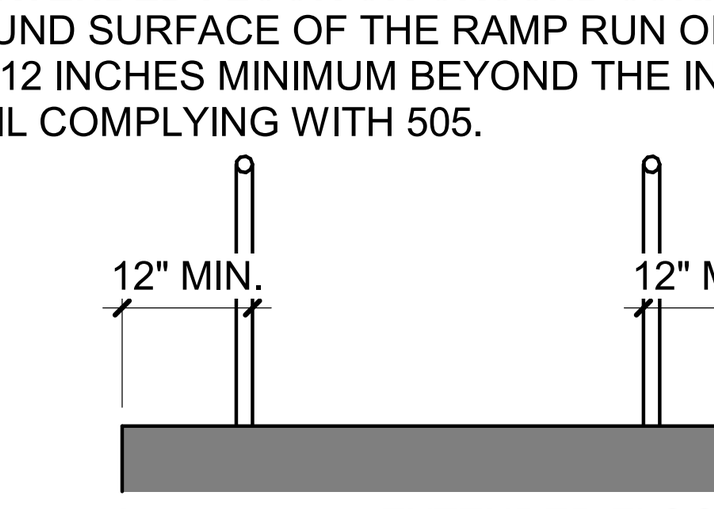


FIGURE 405.9.1 EXTENDED FLOOR OR GROUND SURFACE EDGE PROTECTION

405.9.2 CURB OR BARRIER. A CURB OR BARRIER SHALL BE PROVIDED THAT PREVENTS THE PASSAGE OF A 4 INCH DIAMETER SPHERE, WHERE ANY PORTION OF THE SPHERE IS WITHIN 4 INCHES OF THE FINISH FLOOR OR GROUND SURFACE.



FIGURE 405.9.2 CURB OR BARRIER EDGE PROTECTION

406 CURB RAMPS

406.1 GENERAL. CURB RAMPS ON ACCESSIBLE ROUTES SHALL COMPLY WITH 406, 405.2 THROUGH 405.5 AND 405.10

406.2 COUNTER SLOPE. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL.

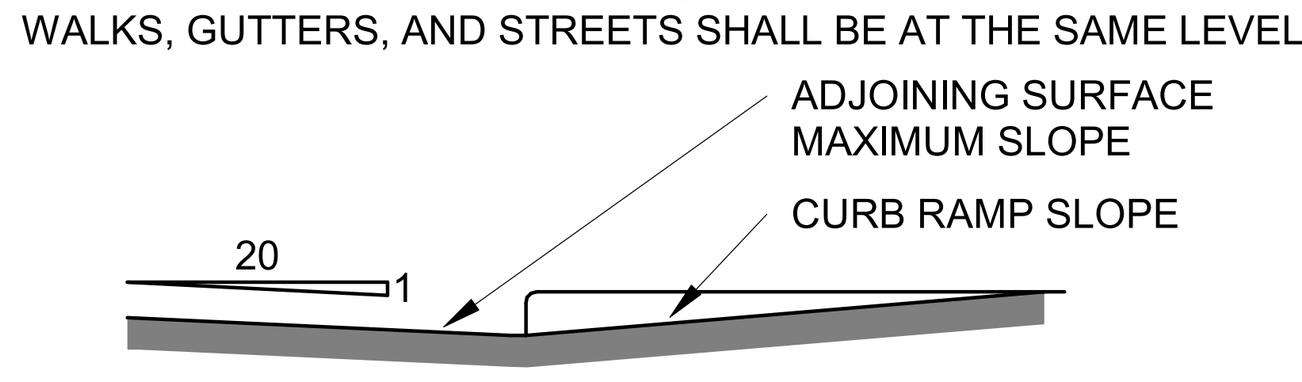


FIGURE 406.2 COUNTER SLOPE OF SURFACES ADJACENT TO CURB RAMPS

406.3 SIDES OF CURB RAMPS. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10.

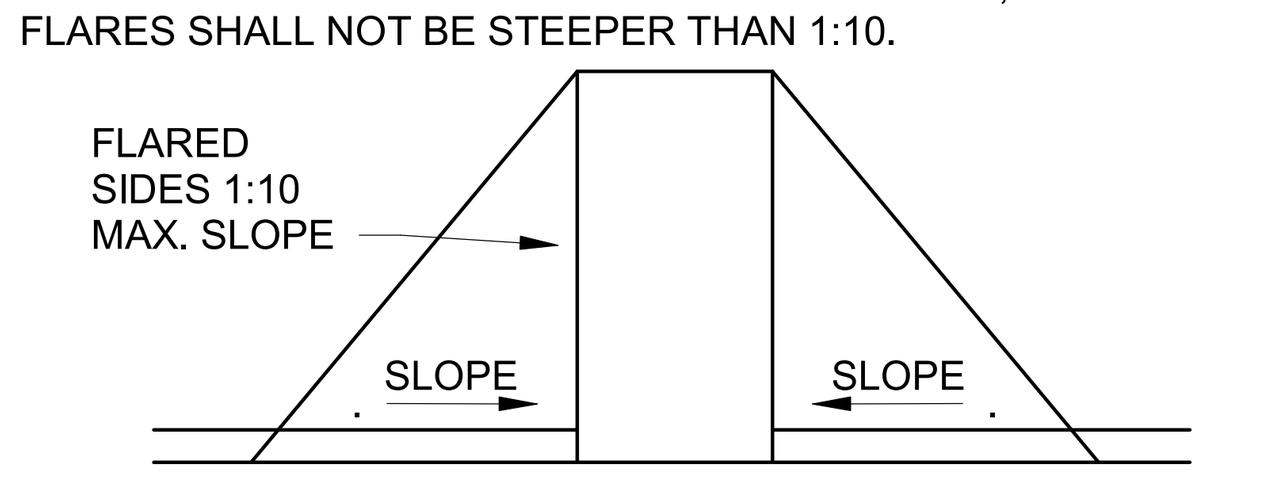


FIGURE 406.3 SIDES OF CURB RAMPS

406.4 LANDINGS. LANDINGS SHALL BE PROVIDED AT THE TOPS OF CURB RAMPS. THE LANDING CLEAR LENGTH SHALL BE 36 INCHES MINIMUM. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING.

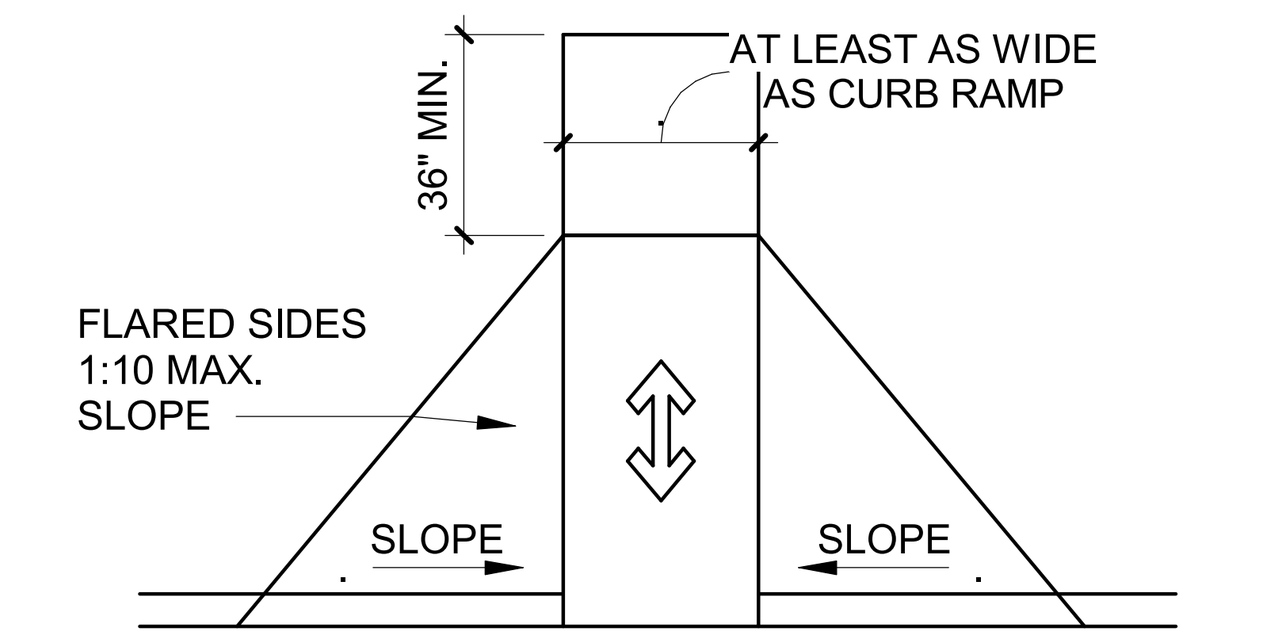


FIGURE 406.4 LANDINGS AT THE TOP OF CURB RAMPS

406.5 LOCATION. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES

406.6 DIAGONAL CURB RAMPS. DIAGONAL OR CORNER TYPE CURB RAMPS WITH RETURNED CURBS OR OTHER WELL-DEFINED EDGES SHALL HAVE THE EDGES PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW. THE BOTTOM OF DIAGONAL CURB RAMPS SHALL HAVE A CLEAR SPACE 48 INCHES MINIMUM OUTSIDE ACTIVE TRAFFIC LANES OF THE ROADWAY. DIAGONAL CURB RAMPS PROVIDED AT MARKED CROSSINGS SHALL PROVIDE THE 48 INCHES MINIMUM CLEAR SPACE WITHIN THE MARKINGS. DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 24 INCHES LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.

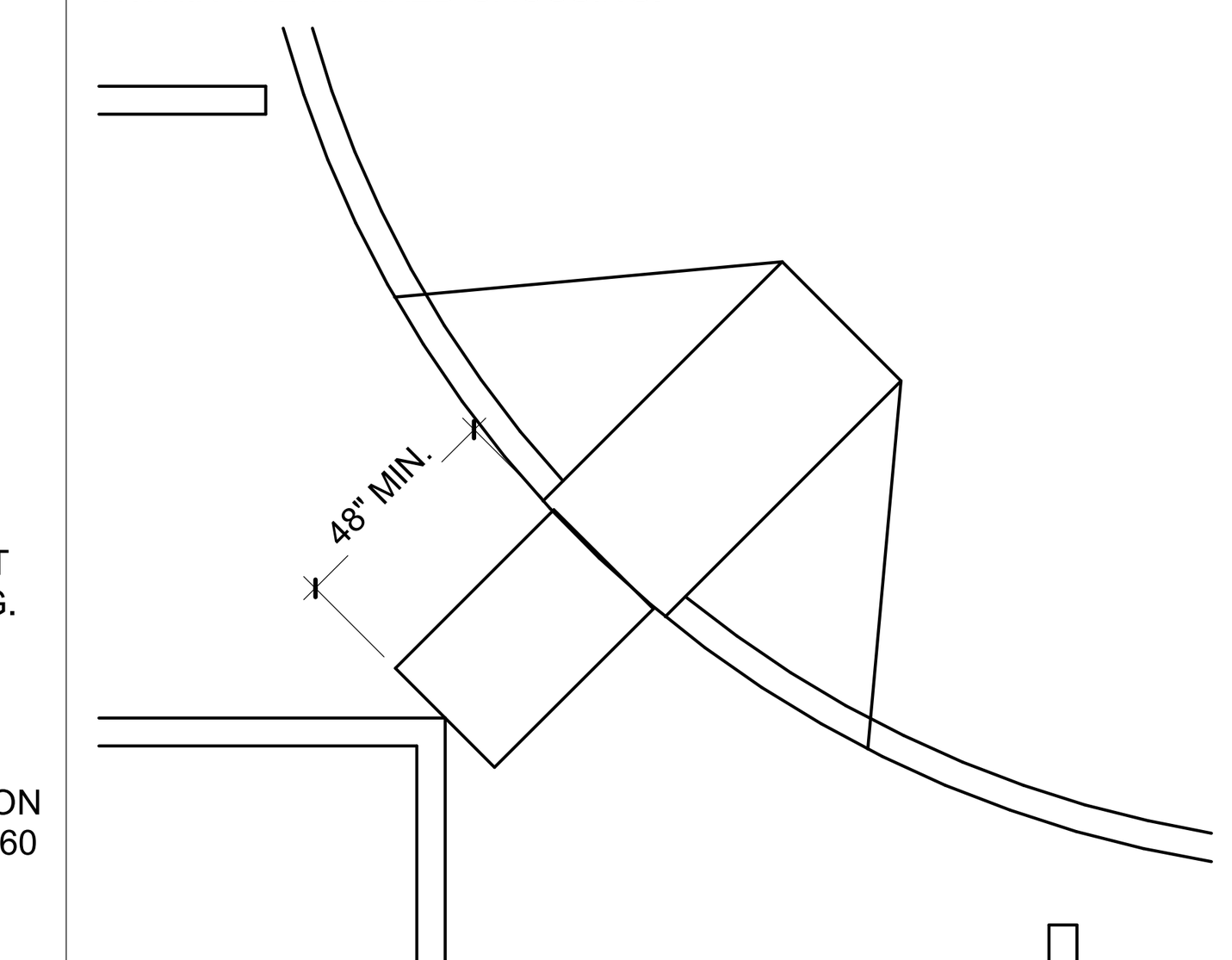


FIGURE 406.6 DIAGONAL OR CORNER TYPE CURB RAMPS

406.7 ISLANDS. RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE CURB RAMPS AT BOTH SIDES. EACH CURB RAMP SHALL HAVE A LEVEL AREA 48 INCHES LONG MINIMUM BY 36 INCHES WIDE MINIMUM AT THE TOP OF THE CURB RAMP IN THE PART OF THE ISLAND INTERSECTED BY THE CROSSINGS. EACH 48 INCH MINIMUM BY 36 INCH MINIMUM AREA SHALL BE ORIENTED SO THAT THE 48 INCH MINIMUM LENGTH IS IN THE DIRECTION OF THE RUNNING SLOPE OF THE CURB RAMP IT SERVES. THE 48 INCH MINIMUM BY 36 INCH (915 MM) MINIMUM AREAS AND THE ACCESSIBLE ROUTE SHALL BE PERMITTED TO OVERLAP

407 ELEVATORS

407.1 GENERAL. ELEVATORS SHALL COMPLY WITH 407 AND WITH ASME A17.1 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1) THEY SHALL BE PASSENGER ELEVATORS AS CLASSIFIED BY ASME A17.1 ELEVATOR OPERATION SHALL BE AUTOMATIC

> **EXCEPTION:** EXISTING CONDITIONS THAT DON'T HAVE TO COMPLY

407.2.1.2 SIZE. CALL BUTTONS SHALL BE 3/4 INCH MINIMUM IN THE SMALLEST DIMENSION.

407.2.2.1 VISIBLE AND AUDIBLE SIGNALS. A VISIBLE AND AUDIBLE SIGNAL SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE TO INDICATE WHICH CAR IS ANSWERING A CALL AND THE CAR'S DIRECTION OF TRAVEL. WHERE IN-CAR SIGNALS ARE PROVIDED, THEY SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTONS

407.2.2.2 VISIBLE SIGNALS. VISIBLE SIGNAL FIXTURES SHALL BE CENTERED AT 72 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. THE VISIBLE SIGNAL ELEMENTS SHALL BE 2 1/2 INCHES MINIMUM MEASURED ALONG THE VERTICAL CENTERLINE OF THE ELEMENT. SIGNALS SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTON.

407.2.3.1 FLOOR DESIGNATION. FLOOR DESIGNATIONS COMPLYING WITH 703.2 AND 703.4.1 SHALL BE PROVIDED ON BOTH JAMBS OF ELEVATOR HOISTWAY ENTRANCES. FLOOR DESIGNATIONS SHALL BE PROVIDED IN BOTH TACTILE CHARACTERS AND BRAILLE. TACTILE CHARACTERS SHALL BE 2 INCHES HIGH MINIMUM. A TACTILE STAR SHALL BE PROVIDED ON BOTH JAMBS AT THE MAIN ENTRY LEVEL.

407.2.3.2 CAR DESIGNATIONS. DESTINATION-ORIENTED ELEVATORS SHALL PROVIDE TACTILE CAR IDENTIFICATION COMPLYING WITH 703.2 ON BOTH JAMBS OF THE HOISTWAY IMMEDIATELY BELOW THE FLOOR DESIGNATION. CAR DESIGNATIONS SHALL BE PROVIDED IN BOTH TACTILE CHARACTERS AND BRAILLE. TACTILE CHARACTERS SHALL BE 2 INCHES HIGH MINIMUM.

407.3.3.1 HEIGHT. THE DEVICE SHALL BE ACTIVATED BY SENSING AN OBSTRUCTION PASSING THROUGH THE OPENING AT 5 INCHES NOMINAL AND 29 INCHES NOMINAL ABOVE THE FINISH FLOOR.

407.3.3.3 DURATION. DOOR REOPENING DEVICES SHALL REMAIN EFFECTIVE FOR 20 SECONDS MINIMUM.

407.3.4 DOOR AND SIGNAL TIMING. THE MINIMUM ACCEPTABLE TIME FROM NOTIFICATION THAT A CAR IS ANSWERING A CALL OR NOTIFICATION OF THE CAR ASSIGNED AT THE MEANS FOR THE ENTRY OF DESTINATION INFORMATION UNTIL THE DOOR OF THAT CAR STAR TO CLOSE SHALL BE CALCULATED FROM THE FOLLOWING EQUATION:

T = D/(1.5 FT/S) = 5 SECONDS MINIMUM

T = TOTAL TIME IN SECONDS
D = DISTANCE (IN FEET) FROM THE POINT IN THE LOBBY OR CORRIDOR 60 INCHES DIRECTLY IN FRONT OF THE FARTHEST CALL BUTTON CONTROLLING THAT CAR TO THE CENTERLINE OF ITS HOISTWAY DOOR.

407.3.5 DOOR DELAY. ELEVATOR DOORS SHALL REMAIN FULLY OPEN IN RESPONSE TO A CAR CALL FOR 3 SECONDS

407.4 ELEVATOR CAR REQUIREMENTS. ELEVATOR CARS SHALL COMPLY WITH 407.4.

407.4.1 CAR DIMENSIONS. INSIDE DIMENSIONS OF ELEVATOR CARS AND CLEAR WIDTH OF ELEVATOR DOORS SHALL COMPLY WITH TABLE 407.4.1.

407.4.3 PLATFORM TO HOISTWAY CLEARANCE. THE CLEARANCE BETWEEN THE CAR PLATFORM SILL AND THE EDGE OF ANY HOISTWAY LANDING SHALL BE 1 1/4 INCH MAXIMUM.

407.4.4 LEVELING. EACH CAR SHALL BE EQUIPPED WITH A SELF-LEVELING FEATURE THAT WILL AUTOMATICALLY BRING AND MAINTAIN THE CAR AT FLOOR LANDINGS WITHIN A TOLERANCE OF 1/2" UNDER RATED LOADING TO ZERO LOADING CONDITIONS.

407.4.5 ILLUMINATION. THE LEVEL OF ILLUMINATION AT THE CAR CONTROLS, PLATFORM, CAR THRESHOLD AND CAR LANDING SILL SHALL BE 5 FOOT CANDLES (54 LUX) MINIMUM.

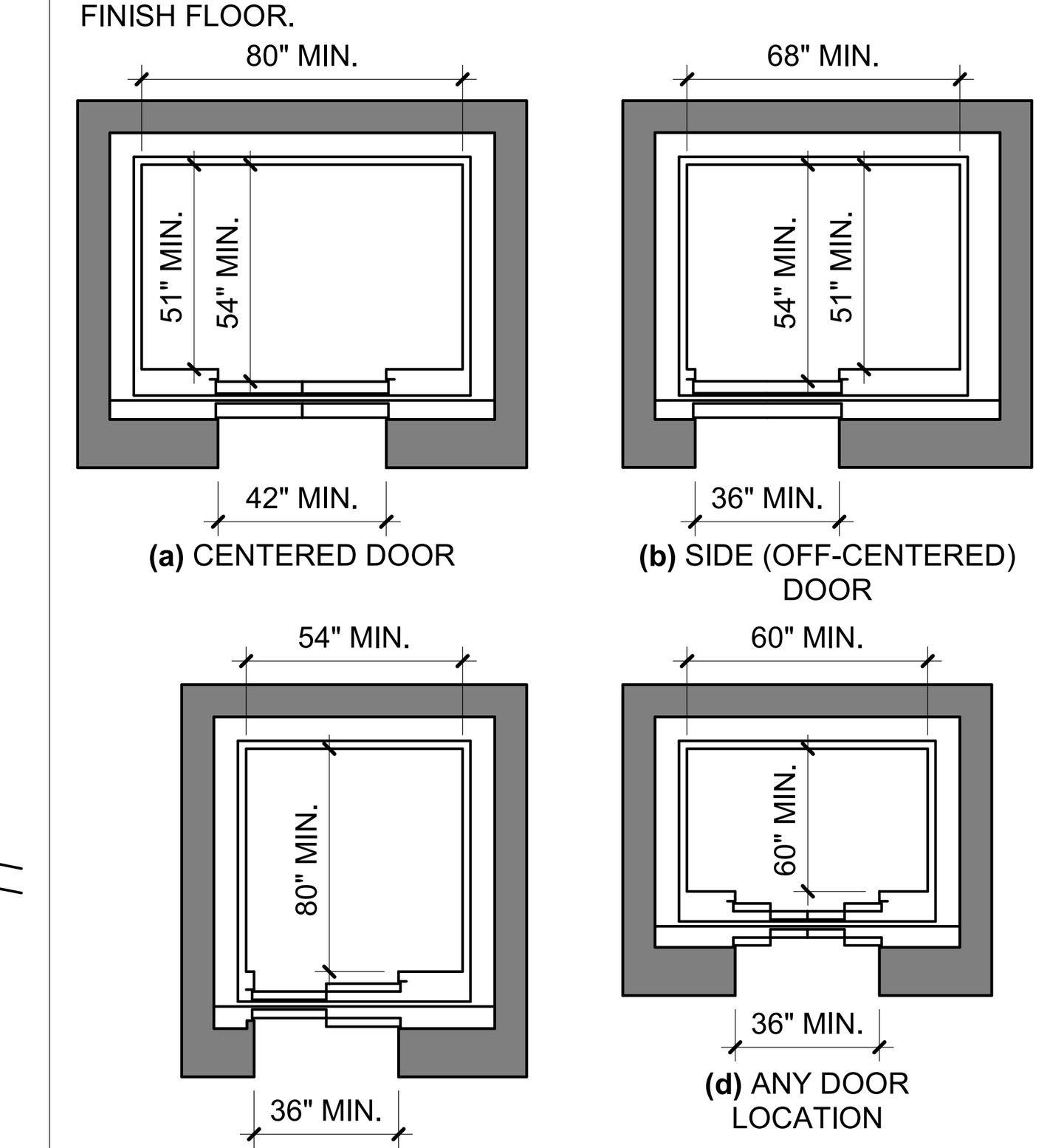
407.4.6 ELEVATOR CAR CONTROLS. WHERE PROVIDED, ELEVATOR CAR CONTROLS SHALL COMPLY WITH 407.4.6 AND 309.4

407.4.6.1 LOCATION. CONTROLS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308.

407.4.6.2 BUTTONS. CAR CONTROL BUTTONS WITH FLOOR DESIGNATIONS SHALL COMPLY WITH 407.4.6.2 AND SHALL BE RAISED OR FLUSH

407.4.6.2.1 SIZE. BUTTONS SHALL BE 3/4 INCH MINIMUM IN THEIR SMALLEST DIMENSION.

407.4.6.4.1 HEIGHT. EMERGENCY CONTROL BUTTONS SHALL HAVE THEIR CENTERLINES 35 INCHES MINIMUM ABOVE THE FINISH FLOOR.



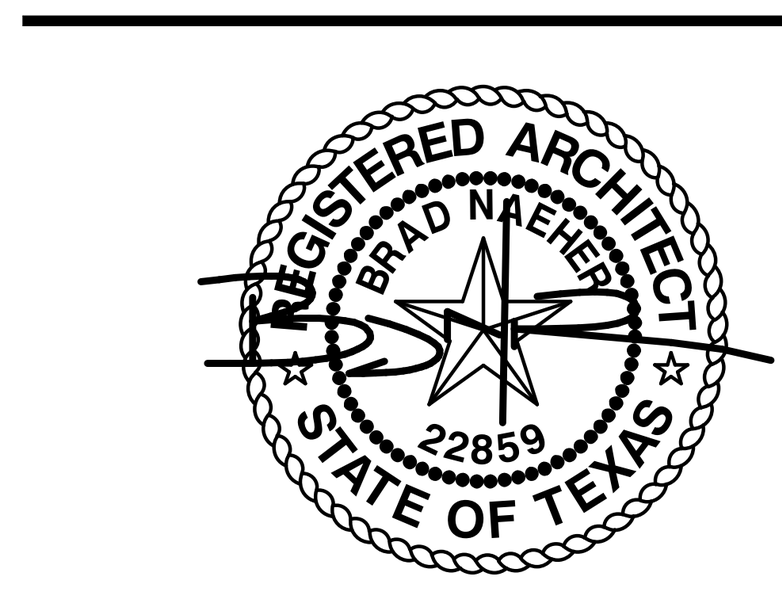
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09-11-2026

PROJECT NO.:26122

DATE:09-11-2026

REVISION SCHEDULE		
Δ	Description	Date

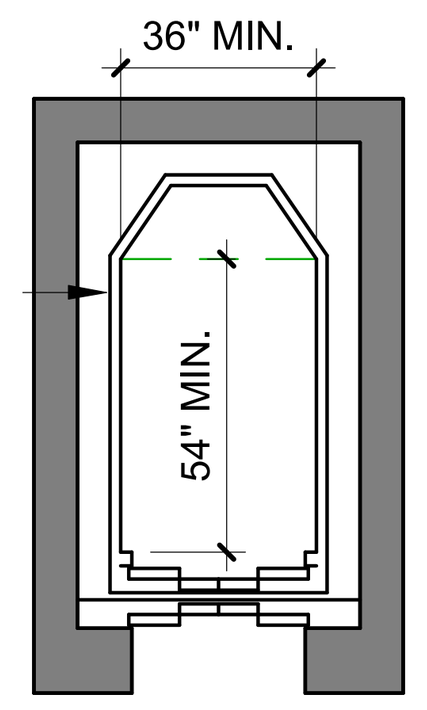
SHEET NAME

TEXAS ACCESSIBILITY STANDARDS

SHEET NO.

G0.2

407 ELEVATORS (CONT'D)



(e) EXCEPTION EXISTING ELEVATOR CAR CONFIGURATION

16 SQ. FT. MIN.

FIGURE 407.4.1 ELEVATOR CAR DIMENSIONS

407.4.7.1.1 TYPE. CONTROL BUTTONS SHALL BE IDENTIFIED BY TACTILE CHARACTERS COMPLYING WITH 703.2.

407.4.7.1.3 SYMBOLS. THE CONTROL BUTTON FOR THE EMERGENCY STOP, ALARM, DOOR OPEN, DOOR CLOSE, MAIN ENTRY FLOOR, AND PHONE, SHALL BE IDENTIFIED WITH TACTILE SYMBOLS AS SHOWN IN TABLE 407.4.7.1.3.

407.4.8.1.1 SIZE. CHARACTERS SHALL BE 1/2 INCH HIGH MINIMUM.

407.4.8.2.2 SIGNAL LEVEL. THE VERBAL ANNUNCIATOR SHALL BE 10 DB MINIMUM ABOVE AMBIENT, BUT SHALL NOT EXCEED 80 DB, MEASURED AT THE ANNUNCIATOR.

407.4.8.2.3 FREQUENCY. THE VERBAL ANNUNCIATOR SHALL HAVE A FREQUENCY OF 300 Hz MINIMUM TO 3000 Hz MAXIMUM

408 LIMITED-USE/LIMITED-APPLICATION ELEVATORS

408.1 GENERAL. LIMITED-USE/LIMITED-APPLICATION ELEVATORS SHALL COMPLY WITH 408 AND WITH ASME A17.1 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1). THEY SHALL BE PASSENGER ELEVATORS AS CLASSIFIED BY ASME A17.1. ELEVATOR OPERATION SHALL BE AUTOMATIC.

408.2 ELEVATOR LANDINGS. LANDINGS SERVING LIMITED-USE/LIMITED-APPLICATION ELEVATORS SHALL COMPLY WITH 408.2

408.2.1 CALL BUTTONS. ELEVATOR CALL BUTTONS AND KEYPADS SHALL COMPLY WITH 407.2.1.

408.2.2 HALL SIGNALS. HALL SIGNALS SHALL COMPLY WITH 407.2.2.

408.2.3 HOISTWAY SIGNS. SIGNS AT ELEVATOR HOISTWAYS SHALL COMPLY WITH 407.2.3.1. 408.3 ELEVATOR DOORS. ELEVATOR HOISTWAY DOORS SHALL COMPLY WITH 408.3.

408.3.1 SLIDING DOORS. SLIDING HOISTWAY AND CAR DOORS SHALL COMPLY WITH 407.3.1 THROUGH 407.3.3 AND 408.4.1

408.3.2 SWINGING DOORS. SWINGING HOISTWAY DOORS SHALL OPEN AND CLOSE AUTOMATICALLY AND SHALL COMPLY WITH 404, 407.3.2 AND 408.3.2.

408.3.2.1 POWER OPERATION. SWINGING DOORS SHALL BE POWER-OPERATED AND SHALL COMPLY WITH ANSI/BHMA A156.19 (1997 OR 2002 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1)

408.3.2.2 DURATION. POWER-OPERATED SWINGING DOORS SHALL REMAIN OPEN FOR 20 SECONDS MINIMUM WHEN ACTIVATED

408.4 ELEVATOR CARS. ELEVATOR CARS SHALL COMPLY WITH 408.4.

408.4.1 CAR DIMENSIONS AND DOORS. ELEVATOR CARS SHALL PROVIDE A CLEAR WIDTH 42 INCHES MINIMUM AND A CLEAR DEPTH 54 INCHES MINIMUM. CAR DOORS SHALL BE POSITIONED AT THE NARROW ENDS OF CARS AND SHALL PROVIDE 32 INCHES MINIMUM CLEAR WIDTH..

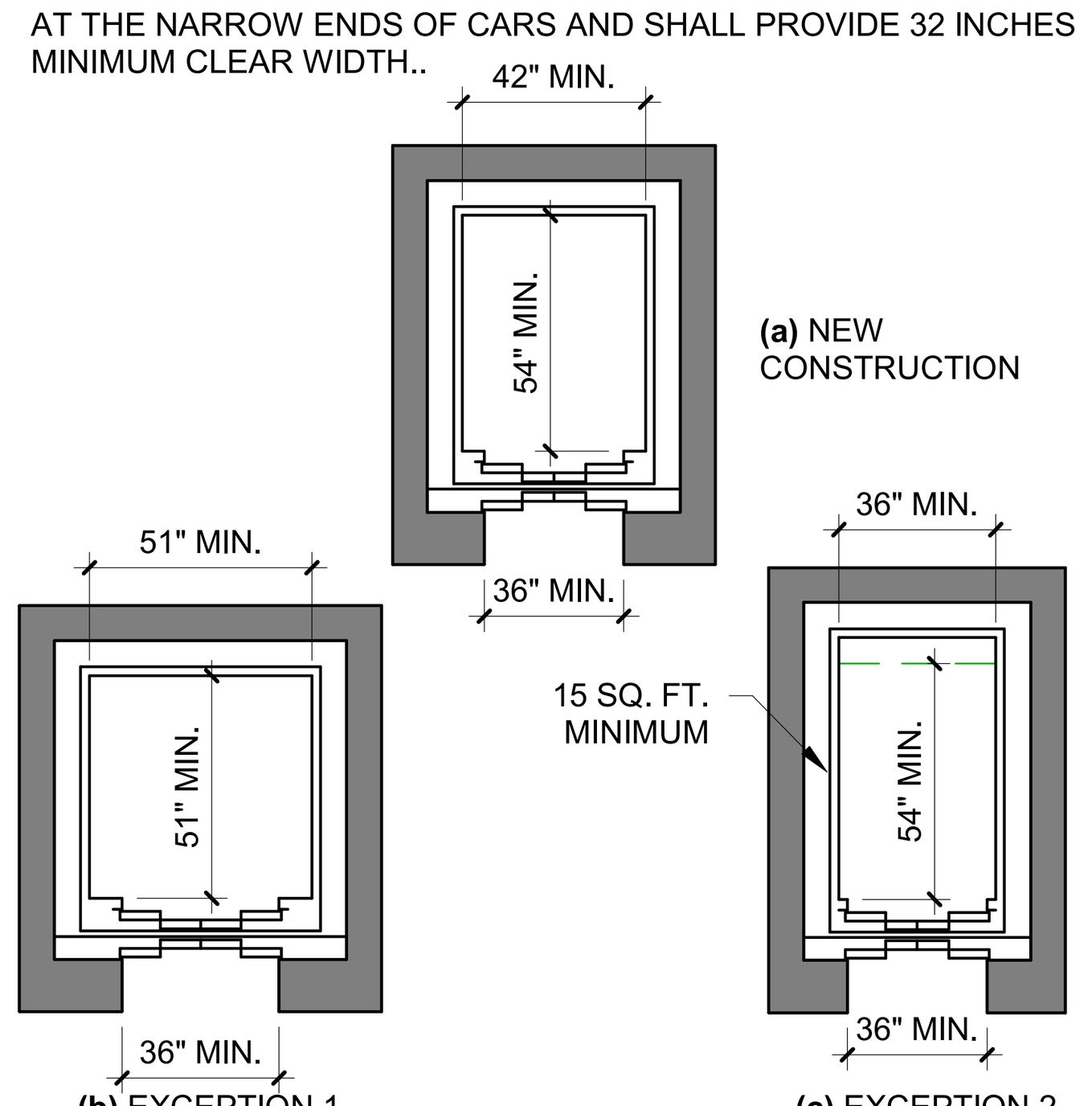


FIGURE 408.4.1 LIMITED-USE/LIMITED-APPLICATION ELEVATOR CAR DIMS.

408.4.2 FLOOR SURFACES. FLOOR SURFACES IN ELEVATOR CARS SHALL COMPLY WITH 302 AND 303.

408.4.3 PLATFORM TO HOISTWAY CLEARANCE. THE PLATFORM TO HOISTWAY CLEARANCE SHALL COMPLY WITH 407.4.3

408.4.4 LEVELING. ELEVATOR CAR LEVELING SHALL COMPLY WITH 407.4.4.

408.4.5 ILLUMINATION. ELEVATOR CAR ILLUMINATION SHALL COMPLY WITH 407.4.5.

408.4.6 CAR CONTROLS. ELEVATOR CAR CONTROLS SHALL COMPLY WITH 407.4.6. CONTROL PANELS SHALL BE CENTERED ON SIDE WALL

408.4.7 DESIGNATIONS AND INDICATORS OF CAR CONTROLS. DESIGNATIONS AND INDICATORS OF CAR CONTROLS SHALL COMPLY WITH 407.4.7

408.4.8 EMERGENCY COMMUNICATIONS. CAR EMERGENCY SIGNALING DEVICES COMPLYING WITH 407.4.9 SHALL BE PROVIDED

410 PLATFORM LIFTS

410.1 GENERAL. PLATFORM LIFTS SHALL COMPLY WITH ASME A18.1 (1999 EDITION OR 2003 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1) PLATFORM LIFTS SHALL NOT BE ATTENDANT-OPERATED AND SHALL PROVIDE UNASSISTED ENTRY AND EXIT FROM THE LIFT

> **ADVISORY 410.1 GENERAL.** INCLUDED STAIRWAY CHAIRLIFTS, INCLINED AND VERTICAL PLATFORM LIFTS ARE AVAILABLE FOR SHOT DISTANCE VERTICAL TRANSPORTATION. BECAUSE AN ACCESSIBLE ROUTE REQUIRES AN 80 INCH VERTICAL CLEARANCE, CARE SHOULD BE TAKEN IN SELECTING LIFTS AS THEY MAY NOT BE EQUALLY SUITABLE FOR USE BY PEOPLE USING WHEELCHAIRS AND PEOPLE STANDING. IF A LIFT DOES NOT PROVIDE 80 INCH VERTICAL CLEARANCE IT CANNOT

> **ADVISORY 410.1 GENERAL (CONT'D).**
> BE CONSIDERED PART OF AN ACCESSIBLE ROUTE IN NEW CONSTRUCTION. THE A.D.A. AND OTHER FEDERAL CIVIL RIGHT LAW REQUIRE THAT ACCESSIBLE FEATURES BE MAINTAINED IN WORKING ORDER SO THAT THEY ARE ACCESSIBLE TO AND USABLE BY THOSE PEOPLE THEY ARE INTENDED TO BENEFIT. BUILDING OWNERS ARE REMINDED THAT THE ASME A18 SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS REQUIRES ROUTINE MAINTENANCE AND INSPECTIONS. ISOLATED OR TEMPORARY INTERRUPTIONS IN SERVICE DUE TO MAINTENANCE OR REPAIRS MAY BE UNAVOIDABLE; HOWEVER, FAILURE TO TAKE PROMPT ACTION TO EFFECT REPAIRS COULD CONSTITUTE A VIOLATION OF FEDERAL LAWS AND THESE REQUIREMENTS

410.2 FLOOR SURFACES. FLOOR SURFACES IN PLATFORM LIFTS SHALL COMPLY WITH 302 & 303.

410.3 CLEAR FLOOR SPACE. CLEAR FLOOR SPACE IN PLATFORM LIFTS SHALL COMPLY WITH 305.

410.4 PLATFORM TO RUNWAY CLEARANCE. THE CLEARANCE BETWEEN THE PLATFORM SILL AND THE EDGE OF ANY RUNWAY LANDING SHALL BE 1 INCH MAXIMUM.

410.5 OPERABLE PARTS. CONTROLS FOR PLATFORM LIFTS SHALL COMPLY WITH 309.

410.6 DOORS AND GATES. PLATFORM LIFTS SHALL HAVE LOW-ENERGY POWER-OPERATED DOORS OR GATES COMPLYING WITH 404.3 DOORS SHALL REMAIN OPEN FOR 20 SECONDS MINIMUM. END DOORS AND GATES SHALL PROVIDE A CLEAR WIDTH 32 INCHES MINIMUM. SIDE DOORS AND GATES SHALL PROVIDE A CLEAR WIDTH 42 INCHES MINIMUM

> **EXCEPTION:** PLATFORM LIFTS SERVING TWO LANDINGS MAXIMUM AND HAVING DOORS OR GATES ON OPPOSITE SIDES SHALL BE PERMITTED TO HAVE SELF-CLOSING MANUAL DOORS OR GATES

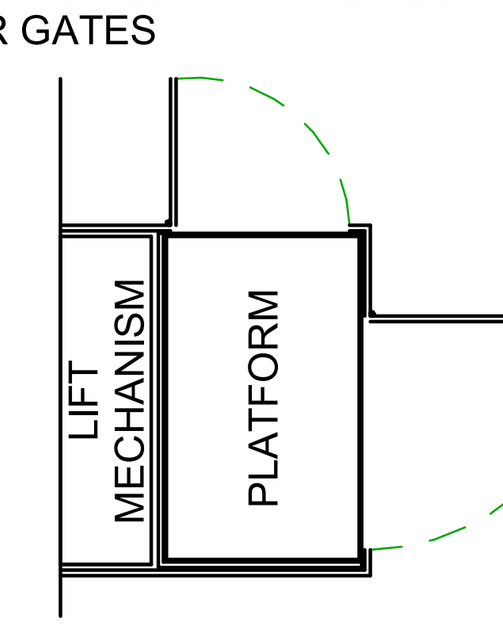


FIGURE 410.6 PLATFORM LIFT DOORS AND GATES

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

501 GENERAL

501.1 SCOPE. THE PROVISIONS OF CHAPTER 5 SHALL APPLY WHERE REQUIRED BY CHAPTER 2 OR WHERE REFERENCED BY A REQUIREMENT IN THIS DOCUMENT

502 PARKING SPACES

502.1 GENERAL. CAR AND VAN PARKING SPACES SHALL COMPLY WITH 502. WHERE PARKING SPACES ARE MARKED WITH LINES, WIDTH MEASUREMENTS OF PARKING SPACES AND AISLES SHALL BE MADE FROM THE CENTERLINE OF THE MARKINGS

> **EXCEPTION:** WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLE MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE

502.2 VEHICLE SPACES. CAR PARKING SPACES SHALL BE 96 INCHES WIDE MINIMUM AND VAN PARKING SPACES SHALL BE 132 INCHES WIDE MINIMUM. SPACES SHALL BE MARKED WITH TO DEFINE THE WIDTH AND SHALL HAVE AN ADJACENT ACCESS AISLE COMPLYING WITH 502.3

> **EXCEPTION:** VAN PARKING SPACES SHALL BE PERMITTED TO BE 96 INCHES WIDE MINIMUM WHERE THE ACCESS AISLE IS 96 INCHES WIDE MINIMUM

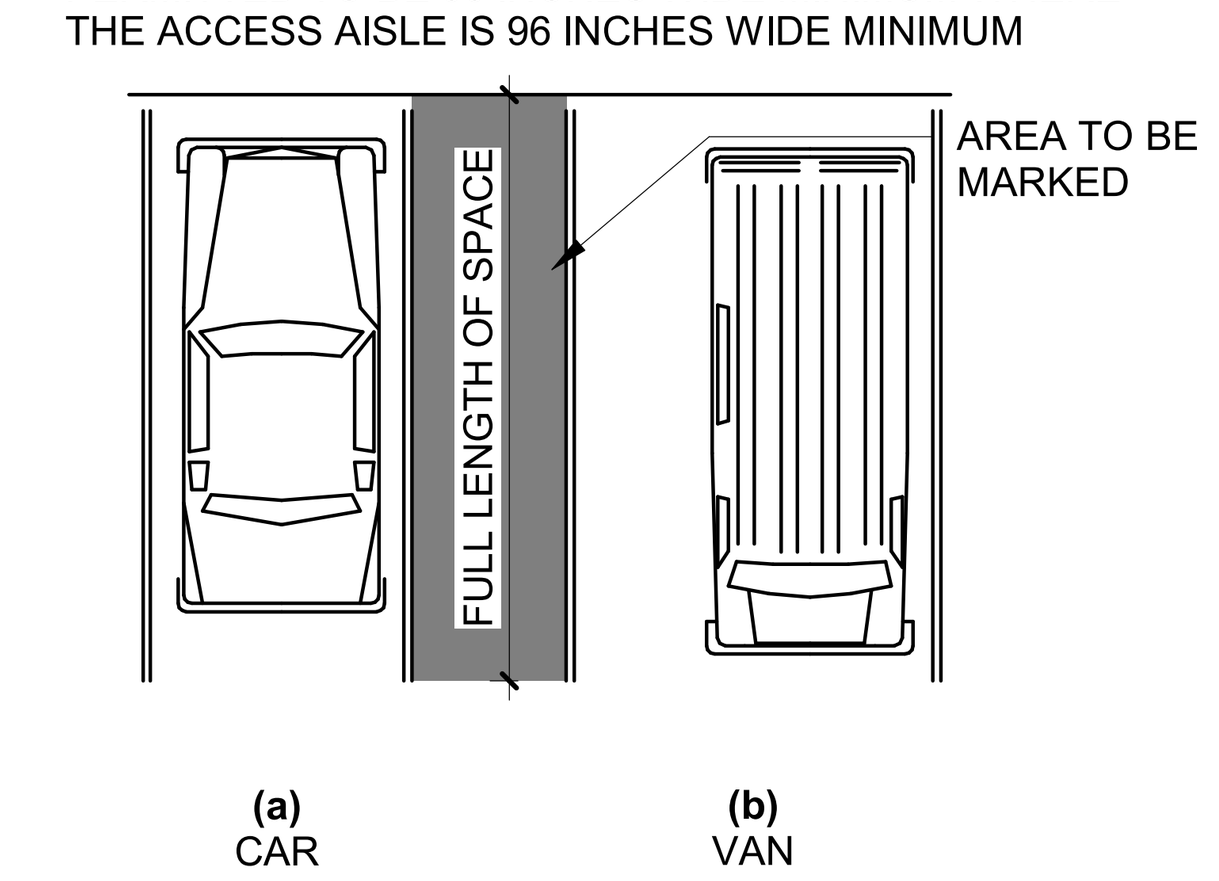


FIGURE 502.2 VEHICLE PARKING SPACES AND **FIGURED 502.3** PARKING SPACE ACCESS AISLE

502.3 ACCESS AISLE. ACCESS AISLES SERVING PARKING SPACES SHALL COMPLY WITH 502.3. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE. TWO PARKING SPACES SHALL BE PERMITTED TO SHARE A COMMON ACCESS AISLE.

502.3.1 WIDTH. ACCESS AISLES SERVING CAR AND VAN PARKING SPACES SHALL BE 60 INCHES WIDE MINIMUM

502.3.2 LENGTH. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACES THEY SERVE.

502.3.3 MARKING. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.

502.3.4 LOCATION. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.

502.4 FLOOR OR GROUND SURFACES. PARKING SPACES AND ACCESS AISLES SERVING THEM HALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE AND CHANGES IN LEVEL ARE NOT PERMITTED

> **EXCEPTION:** SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED

502.4 FLOOR OR GROUND SURFACES. PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.

502.5 VERTICAL CLEARANCE. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF 98 INCHES MINIMUM.

502.6 IDENTIFICATION. PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE." SIGNS SHALL BE 60 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.

502.7 RELATIONSHIP TO ACCESSIBLE ROUTES. PARKING SPACES AND ACCESS AISLES SHALL BE DESIGNED SO THAT CARS AND VANS, WHEN PARKED, CANNOT OBSTRUCT THE REQUIRED CLEAR WIDTH OF ADJACENT ACCESSIBLE ROUTES

503 PASSENGER LOADING ZONES

503.2 VEHICLE PULL-UP SPACE. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96 INCHES WIDE MINIMUM AND 20 FEET LONG MINIMUM.

503.3 ACCESS AISLE. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL-UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.

503.3.1 WIDTH. ACCESS AISLES SERVING VEHICLE PULL-UP SPACES SHALL BE 60 INCHES WIDE MINIMUM

503.3.2 LENGTH. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE.

503.3.3 MARKING. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.

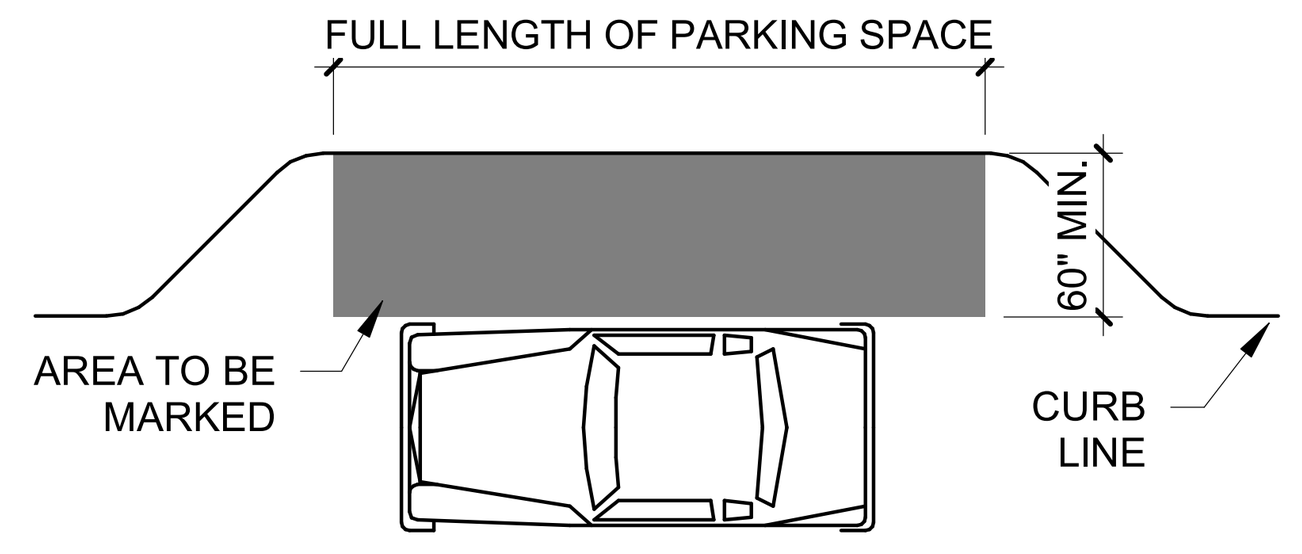


FIGURE 503.3 PASSENGER LOADING ZONE ACCESS AISLE

503.4 FLOOR AND GROUND SURFACES. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

503.5 VERTICAL CLEARANCE. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 114 INCHES MINIMUM.

504 STAIRWAYS

504.1 GENERAL. STAIRS THAT ARE PART OF THE MEANS OF EGRESS IS REQUIRED TO COMPLY WITH 504

504.2 TREADS AND RISERS. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND UNIFORM TREAD DEPTHS. RISERS SHALL BE 4 INCHES HIGH MINIMUM AND 7" HIGH MAXIMUM. TREADS SHALL BE 11" DEEP MINIMUM.

504.3 OPEN RISERS. OPEN RISERS ARE NOT PERMITTED.

504.4 TREAD SURFACE. STAIR TREADS SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED.

504.5 NOSINGS. THE RADIUS OF CURVATURE AT THE LEADING EDGE OF THE TREAD SHALL BE 1/2 INCH MAXIMUM. NOSINGS THAT PROJECT BEYOND RISERS SHALL HAVE THE UNDERSIDE OF THE LEADING EDGE CURVED OR BEVELED. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2 INCHES MAXIMUM OVER THE TREAD BELOW.

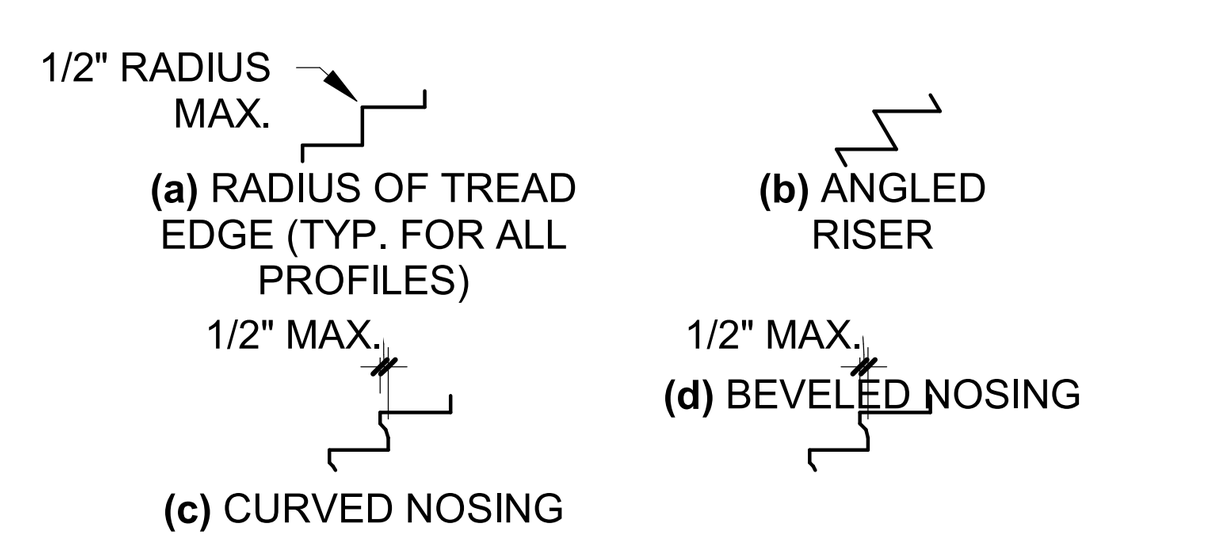


FIGURE 504.5 STAIR NOSINGS

504.6 HANDRAILS. STAIRS SHALL HAVE HANDRAILS COMPLYING WITH 505.

504.7 WET CONDITIONS. STAIR TREADS AND LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT THE ACCUMULATION OF WATER.

505 HANDRAILS

505.1 GENERAL. HANDRAILS PROVIDED ALONG WALKING SURFACES COMPLYING WITH 403, REQUIRED AT RAMPS COMPLYING WITH 405, AND REQUIRED AT STAIRS COMPLYING WITH 504 SHALL COMPLY WITH 505

> **ADVISORY: 505.1 GENERAL.** HANDRAILS ARE REQUIRED ON RAMP RUNS WITH A RISE GREATER THAN 6 INCHES (SEE 405.8) AND ON CERTAIN STAIRWAYS (SEE 504) HANDRAILS ARE NOT REQUIRED ON WALKING SURFACES WITH RUNNING SLOPES LESS THAN 1:20 HOWEVER, HANDRAILS ARE REQUIRED TO COMPLY WITH 505 WHEN THEY ARE PROVIDED ON WALKING SURFACES WITH RUNNING SLOPES LESS THAN 1:20 (SEE 403.6) SECTION 505.2, 505.3, AND 505.10 DO NOT APPLY TO HANDRAILS PROVIDED ON WALKING SURFACES WITH RUNNING SLOPES LESS THAN 1:20 AS THESE SECTIONS ONLY REFERENCE REQUIREMENTS FOR RAMPS AND STAIRS.

505.2 WHERE REQUIRED. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS.

505.3 CONTINUITY. HANDRAILS SHALL BE CONTINUOUS WITHIN THE FULL LENGTH OF EACH STAIR FLIGHT OR RAMP 38 INCHES MAXIMUM VERTICALLY ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES. HANDRAILS SHALL BE AT A CONSISTENT HEIGHT ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES.

505.4 HEIGHT. TOP OF GRIPPING SURFACES OF HANDRAILS SHALL BE 34 INCHES MINIMUM AND 38 INCHES MAXIMUM VERTICALLY ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES. HANDRAILS SHALL BE AT A CONSISTENT HEIGHT ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES.

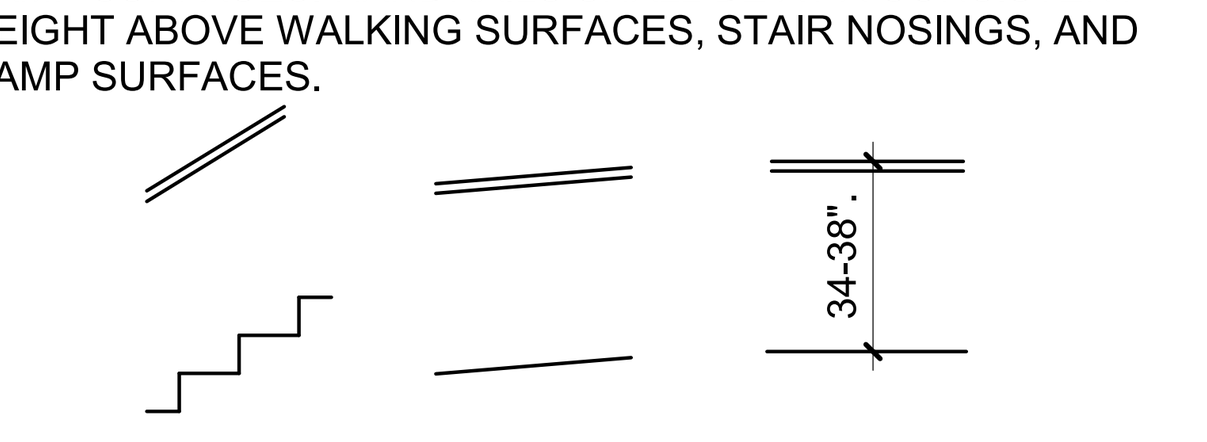


FIGURE 505.4 HANDRAIL HEIGHT

505.5 CLEARANCE. CLEARANCE BETWEEN HANDRAIL GRIPPING SURFACES AND ADJACENT SURFACES SHALL BE 1 1/2" MIN.

505.6 GRIPPING SURFACE. HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS ALONG THEIR LENGTH AND SHALL NOT BE OBSTRUCTED ALONG THEIR TOPS OR SIDES. THE BOTTOMS OF HANDRAIL GRIPPING SURFACES SHALL NOT BE OBSTRUCTED FOR MORE THAN 20 PERCENT OF THEIR LENGTH. WHERE PROVIDED, HORIZONTAL PROJECTIONS SHALL OCCUR 1 1/2 INCHES MINIMUM BELOW THE BOTTOM OF THE HANDRAIL GRIPPING SURFACE.

505.7.1 CIRCULAR CROSS SECTION. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4 INCHES MINIMUM AND 2" MAX.

505.7.2 NON-CIRCULAR CROSS SECTIONS. HANDRAIL GRIPPING SURFACES WITH A NON-CIRCULAR CROSS SECTION SHALL HAVE A PERIMETER DIMENSION OF 4 INCHES MINIMUM AND 6 1/4 INCHES MAXIMUM, AND A CROSS-SECTION DIMENSION OF 2 1/4 INCHES MAXIMUM.

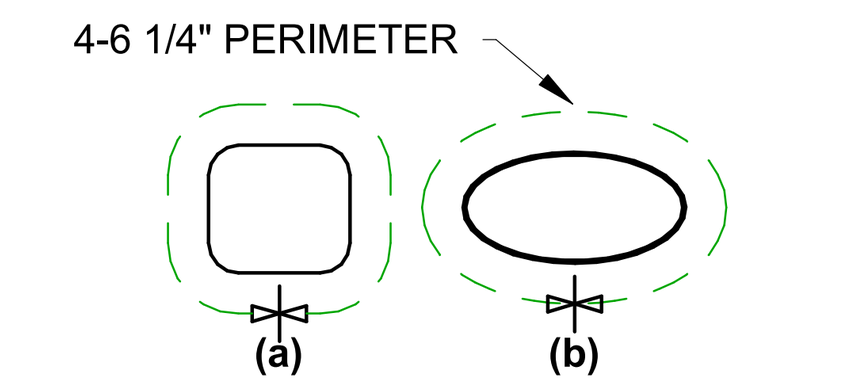


FIGURE 505.7.2 HANDRAIL NON-CIRCULAR CROSS SECTION

505.8 SURFACES. HANDRAIL GRIPPING SURFACES AND ANY SURFACES ADJACENT TO THEM SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.

505.9 FITTINGS. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

505.10 HANDRAIL EXTENSIONS. HANDRAIL GRIPPING SURFACES SHALL EXTEND BEYOND AND IN THE SAME DIRECTION OF STAIR FLIGHTS AND RAMP RUNS IN ACCORDANCE WITH 505.10.

505.10.1 TOP AND BOTTOM EXTENSION AT RAMPS. RAMP HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12 INCHES MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP RUN.

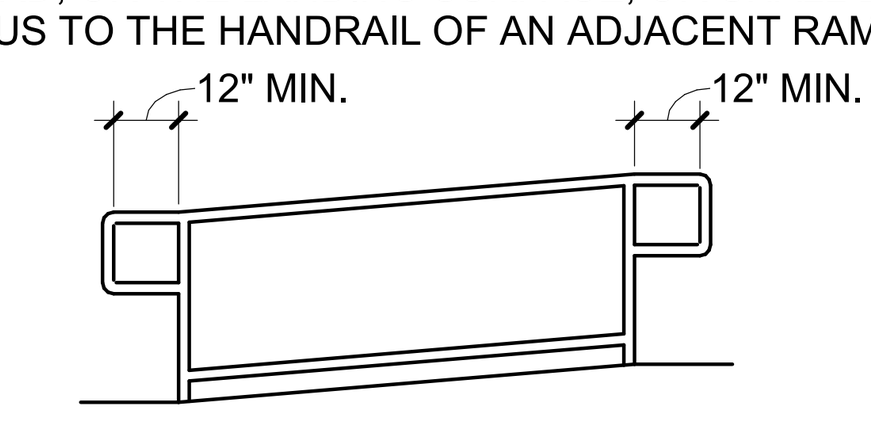


FIGURE 505.10.1 TOP AND BOTTOM HANDRAIL EXTENSION AT RAMPS

505.10.2 TOP EXTENSION AT STAIRS. AT THE TOP OF A STAIR FLIGHT, HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12 INCHES MINIMUM BEGINNING DIRECTLY ABOVE THE FIRST RISER NOSING. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT.

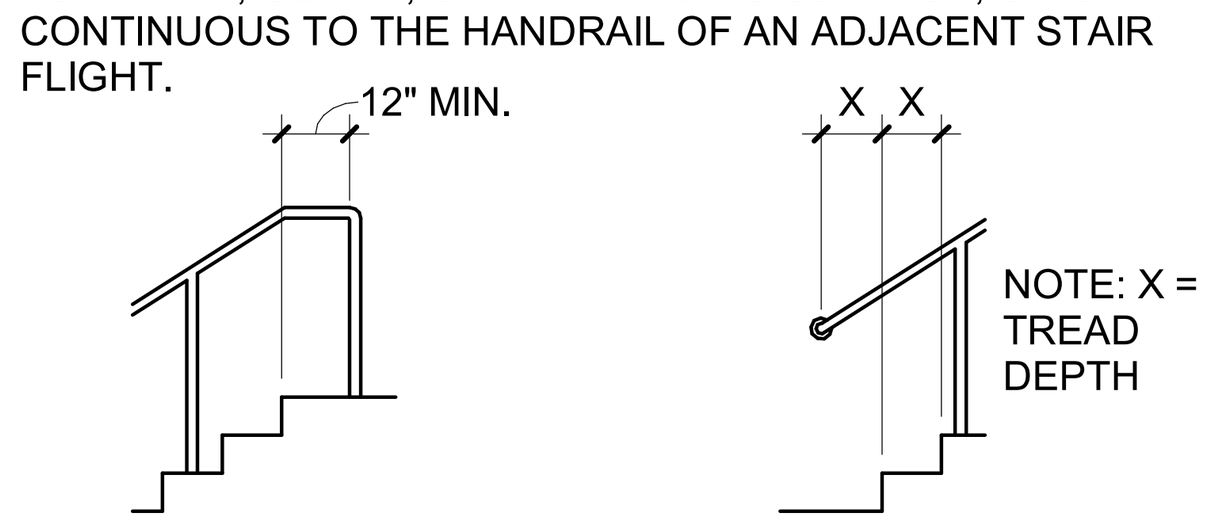


FIGURE 505.10.2 TOP HANDRAIL EXTENSION AT STAIRS

FIGURE 505.10.3 BOTTOM HANDRAIL EXTENSION AT STAIRS

505.10.3 BOTTOM EXTENSION AT STAIRS. AT THE BOTTOM OF A STAIR FLIGHT, HANDRAILS SHALL EXTEND AT THE SLOPE OF THE STAIR FLIGHT FOR A HORIZONTAL DISTANCE AT LEAST EQUAL TO ONE TREAD DEPTH BEYOND THE LAST RISER NOSING. EXTENSION SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT.

CHAPTER 6: PLUMBING ELEMENTS & FACILITIES

602 DRINKING FOUNTAINS

602.2 CLEAR FLOOR SPACE. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED

> **EXCEPTION:** A PARALLEL APPROACH COMPLYING WITH 305 SHALL BE PERMITTED AT UNITS FOR CHILDREN'S USE WHERE THE SPOUT IS 30 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND AND IS 3 1/2 INCHES MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS

602.3 OPERABLE PARTS. OPERABLE PARTS SHALL COMPLY WITH 309.

602.4 SPOUT HEIGHT. SPOUT OUTLETS SHALL BE 36 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND

602.5 SPOUT LOCATION. THE SPOUT SHALL BE LOCATED 15 INCHES MINIMUM FROM THE VERTICAL SUPPORT (WALL OR STAND) AND 5 INCHES MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS

602.6 WATER FLOW. THE SPOUT SHALL PROVIDE A FLOW OF WATER 4 INCHES HIGH MINIMUM AND SHALL BE LOCATED 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT. THE ANGLE OF THE WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT. WHERE SPOUTS ARE LOCATED LESS THAN 3 INCHES OF THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3 INCHES AND 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

602.7 DRINKING FOUNTAINS FOR STANDING PERSONS. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38 INCHES MINIMUM AND 43 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

603 TOILET AND BATHING ROOMS

603.2 CLEARANCES. CLEARANCES SHALL COMPLY WITH 603.2.

603.2.1 TURNING SPACE. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM.

603.2.2 OVERLAP. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP

603.2.3 DOOR SWING. DOORS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS SHALL BE PERMITTED TO SWING INTO THE REQUIRED TURNING SPACE.

603.3 MIRRORS. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

603.4 COAT HOOKS AND SHELVES. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISH FLOOR.

604 WATER CLOSETS & TOILET COMPARTMENTS

604.2 LOCATION. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16 INCHES MINIMUM TO 18 INCHES MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT THAT THE WATER CLOSET SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM FROM THE SIDE WALL OR PARTITION IN THE AMBULATORY ACCESSIBLE TOILET COMPARTMENT SPECIFIED IN 604.8.2. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH.

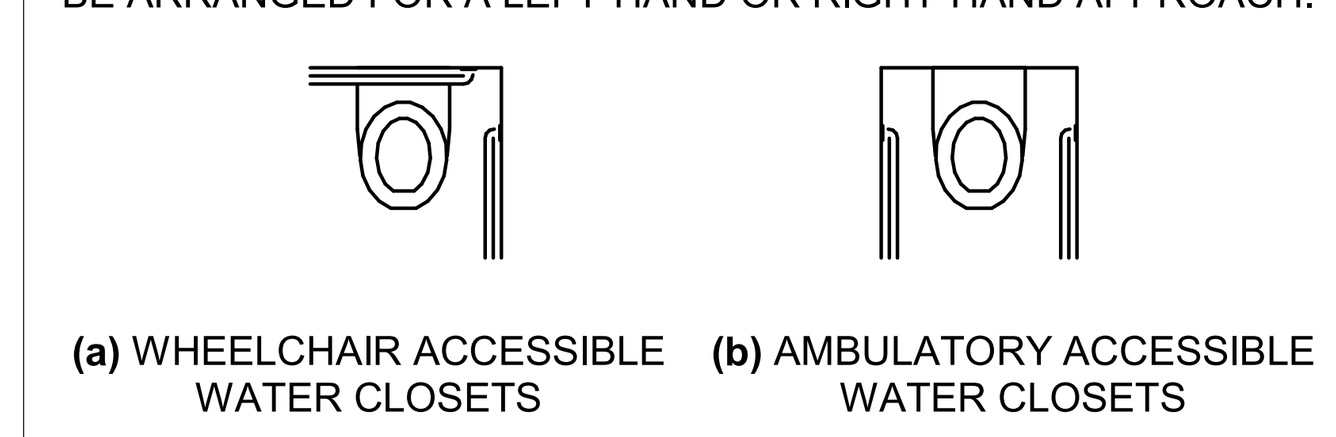


FIGURE 604.2 WATER CLOSET LOCATION

604.3.1 SIZE. CLEARANCE AROUND A WATER CLOSET SHALL BE 60 INCHES MINIMUM MEASURED PERPENDICULAR FROM THE SIDE WALL AND 56 INCHES MINIMUM MEASURED PERPENDICULAR FROM THE REAR WALL.

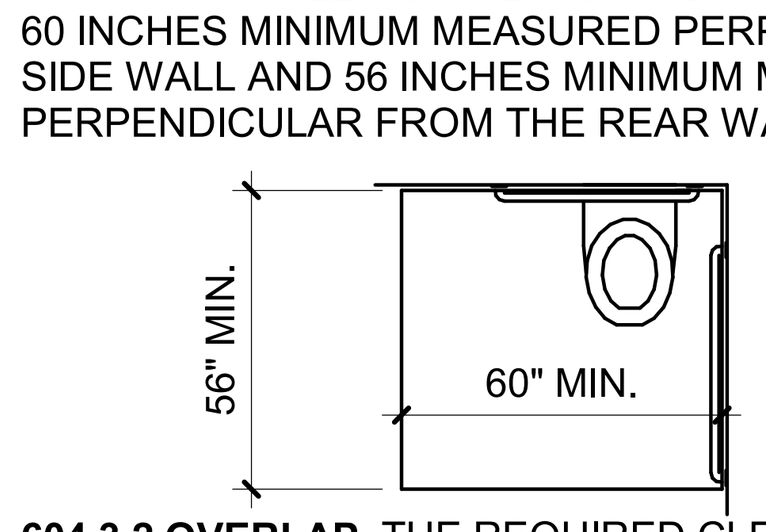


FIGURE 604.3.1 SIZE OF CLEARANCE AT WATER CLOSETS

604.3.2 OVERLAP. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.

604.4 SEATS. THE SEAT HEIGHT OF A WATER CLOSET ABOVE THE FINISH FLOOR SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.

604.5 GRAB BARS. GRAB BARS FOR WATER CLOSETS SHALL COMPLY WITH 609. GRAB BARS SHALL BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.

604.5.1 SIDE WALL. THE SIDE WALL GRAB BAR SHALL BE 42 INCHES LONG MINIMUM, LOCATED 12" MAX. FROM THE REAR WALL AND EXTENDING 54" MIN. FROM THE REAR WALL.

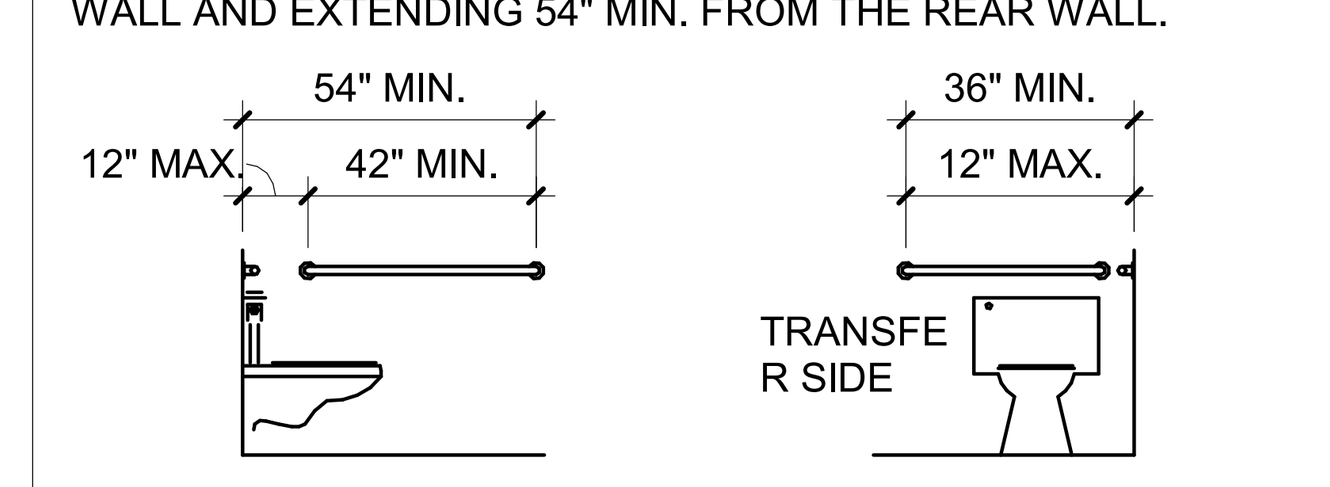


FIGURE 604.5.1 SIDE WALL GRAB BAR AT WATER CLOSETS

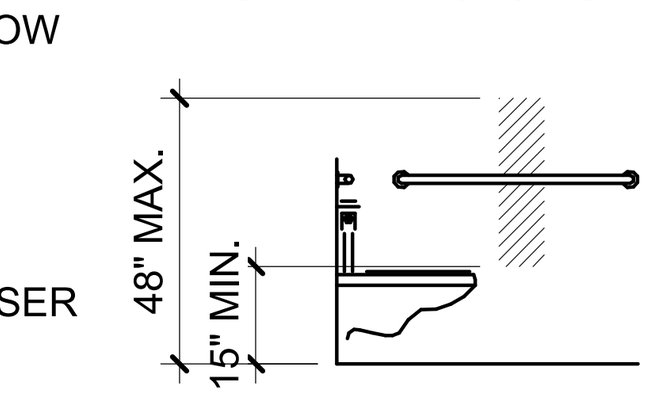
FIGURE 604.5.2 REAR WALL GRAB BAR AT WATER CLOSETS

604.5.2 REAR WALL. THE REAR WALL GRAB BAR SHALL BE 36 INCHES LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12 INCHES MINIMUM ON ONE SIDE AND 24 INCHES MINIMUM ON THE OTHER SIDE.

604.6 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

604.7 DISPENSERS. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7 INCHES MINIMUM AND 9 INCHES MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR THAT DOES NOT ALLOW CONTINUOUS PAPER FLOW

FIGURE 604.7 DISPENSER OUTLET LOCATION



604.8 TOILET COMPARTMENTS. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3

604.8.1 WHEELCHAIR ACCESSIBLE COMPARTMENTS. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1

604.8.1.1 SIZE. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60 INCHES WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56 INCHES DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59 INCHES DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60 INCHES WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 59 INCHES DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.

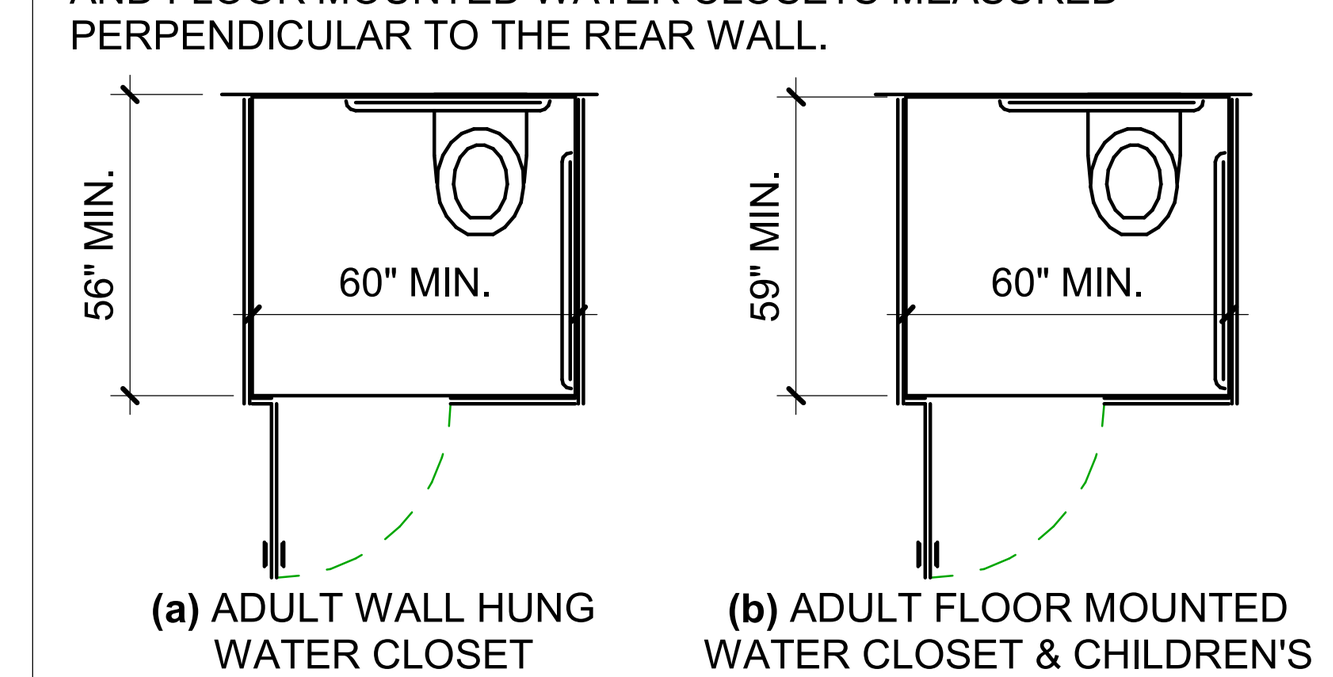


FIGURE 604.8.1.1 SIZE OF WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT

604.8.1.2 DOORS. TOILET COMPARTMENT DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MIN. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAX. FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAX. FROM THE FRONT PARTITION. THE DOOR SHALL BE

604.8.1.2 DOORS (CONT'D).
SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.

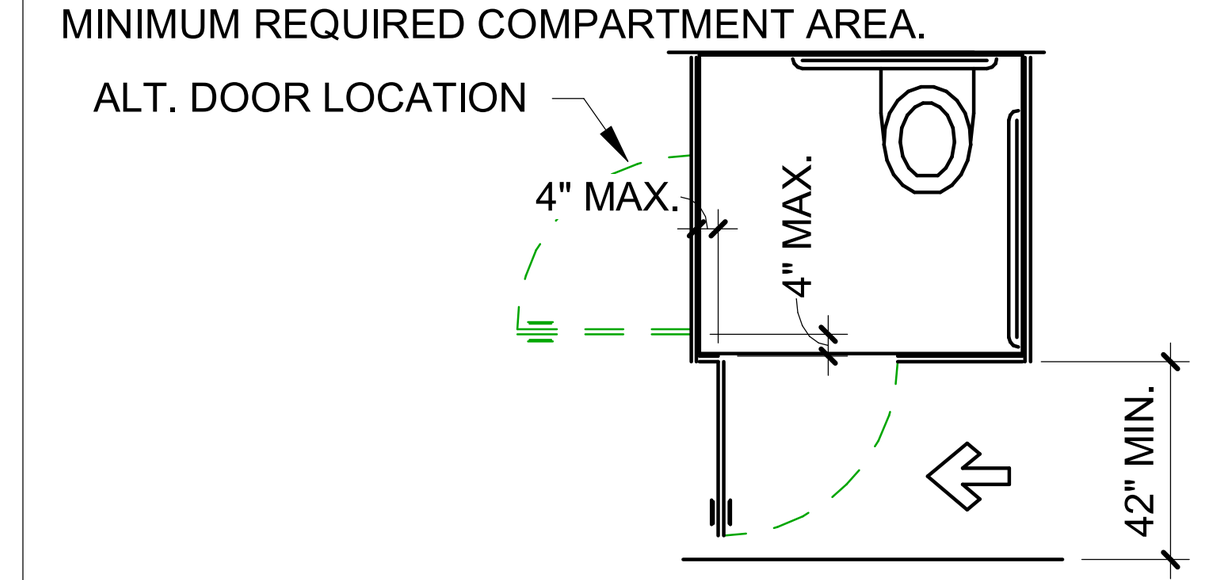


FIGURE 604.8.1.2 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

604.8.1.3 APPROACH. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET

604.8.1.4 TOE CLEARANCE. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9 INCHES MINIMUM ABOVE THE FINISH FLOOR AND 6 INCHES DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDREN'S USE SHALL PROVIDE A TOE CLEARANCE OF 12 INCHES MINIMUM ABOVE THE FINISH FLOOR. EXCEPTION: TOE CLEARANCE AT THE FRONT PARTITION IS NOT REQUIRED IN A COMPARTMENT GREATER THAN 62 INCHES DEEP WITH A WALL-HUNG WATER CLOSET OR 65 INCHES DEEP WITH A FLOOR-MOUNTED WATER CLOSET. TOE CLEARANCE AT THE SIDE PARTITION IS NOT REQUIRED IN A COMPARTMENT GREATER THAN 66 INCHES WIDE. TOE CLEARANCE AT THE FRONT PARTITION IS NOT REQUIRED IN A COMPARTMENT FOR CHILDREN'S USE THAT IS GREATER THAN 65 INCHES DEEP

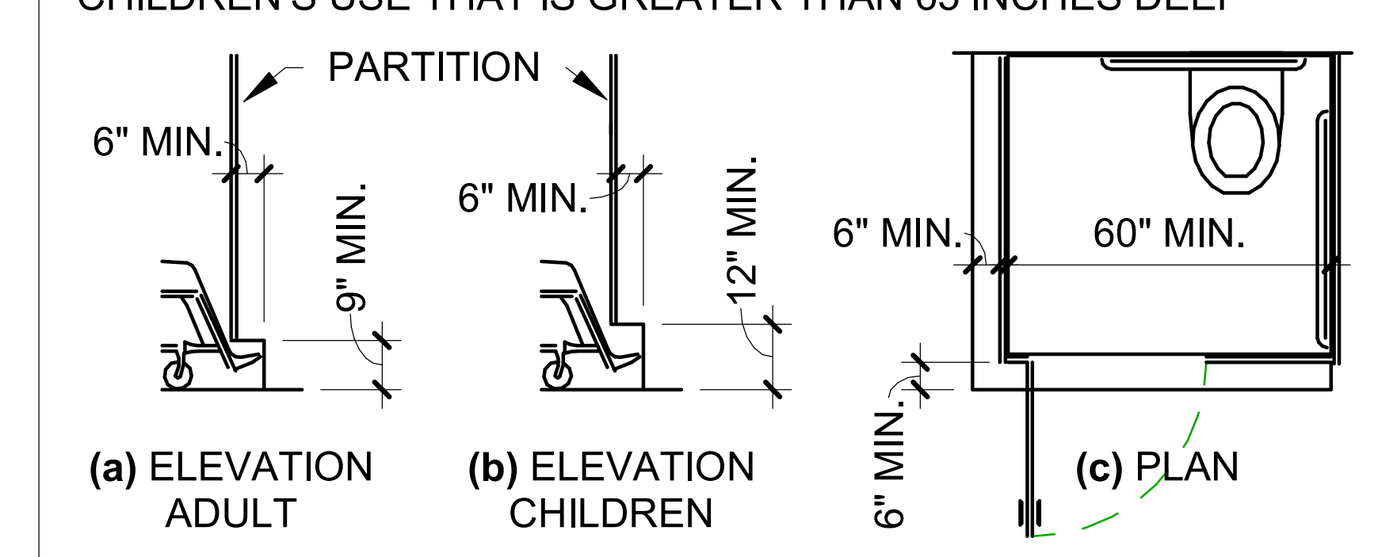


FIGURE 604.8.1.4 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT TOE CLEARANCE

604.8.1.5 GRAB BARS. GRAB BARS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR COMPLYING WITH 604.5.1 SHALL BE PROVIDED AND SHALL BE LOCATED ON THE WALL CLOSEST TO THE WATER CLOSET. IN ADDITION, A REAR-WALL GRAB BAR COMPLYING WITH 604.5.2 SHALL BE PROVIDED.

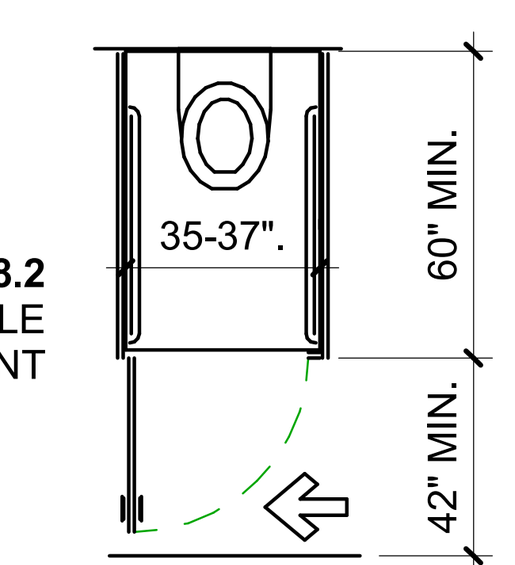
604.8.2 AMBULATORY ACCESSIBLE COMPARTMENTS. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2

604.8.2.1 SIZE. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60 INCHES MINIMUM AND A WIDTH OF 35 INCHES MINIMUM AND 37 INCHES MAXIMUM

604.8.2.2 DOORS. TOILET COMPARTMENT DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42 INCHES MINIMUM. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.

604.8.2.3 GRAB BARS. GRAB BARS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR COMPLYING WITH 604.5.1 SHALL BE PROVIDED ON BOTH SIDES OF THE COMPARTMENT

FIGURE 604.8.2 AMBULATORY ACCESSIBLE TOILET COMPARTMENT



604.8.3 COAT HOOKS AND SHELVES. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISH FLOOR.

604.9 WATER CLOSETS AND TOILET COMPARTMENTS FOR CHILDREN'S USE. WATER CLOSETS & TOILET COMPARTMENTS FOR CHILDREN'S USE SHALL COMPLY WITH 604.9

604.9.1 LOCATION. THE WATER CLOSET SHALL BE LOCATED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 12 INCHES MINIMUM AND 18 INCHES MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT THAT THE WATER CLOSET SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM FROM THE SIDE WALL OR PARTITION IN THE AMBULATORY ACCESSIBLE TOILET COMPARTMENT SPECIFIED IN 604.8.2. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.

604.9.2 CLEARANCE. CLEARANCE AROUND A WATER CLOSET SHALL COMPLY WITH 604.3.

604.9.3 HEIGHT. THE HEIGHT OF WATER CLOSETS SHALL BE 11" MIN. AND 17" MAX. MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.

604.9.4 GRAB BARS. GRAB BARS FOR WATER CLOSETS SHALL COMPLY WITH 604.5.

604.9.5 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309.2 AND 309.4 AND SHALL BE INSTALLED 36 INCHES MAXIMUM ABOVE THE FINISH FLOOR. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

604.9.6 DISPENSERS. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7 INCHES MM) MINIMUM AND 9 INCHES MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 14" MIN. AND 19" MAX. ABOVE THE FINISH FLOOR. THERE SHALL BE A CLEARANCE OF 1 1/2" MIN. BELOW THE GRAB BAR. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR THAT DOES NOT ALLOW CONTINUOUS PAPER FLOW.

604.9.7 TOILET COMPARTMENTS. TOILET COMPARTMENTS SHALL COMPLY WITH 604.8.

605 URINALS

605.2 HEIGHT AND DEPTH. URINALS SHALL BE THE STALL-TYPE OR THE WALL-HUNG TYPE WITH THE RIM 17 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2 INCHES DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK OF THE FIXTURE.

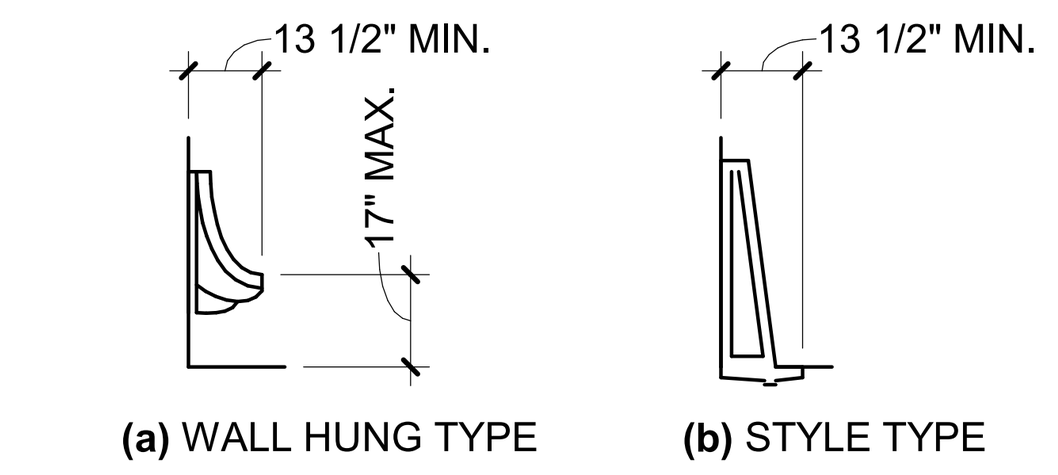


FIGURE 605.2 HEIGHT AND DEPTH OF URINALS

605.3 CLEAR FLOOR SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

605.4 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309.

606 LAVATORIES AND SINKS

606.2 CLEAR FLOOR SPACE. A CLEAR FLOOR SPACE COMPLYING WITH 305, POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED.

606.3 HEIGHT. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 34 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

606.4 FAUCETS. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MINIMUM.

606.5 EXPOSED PIPES AND SURFACES. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

607 BATHTUBS

607.2 CLEARANCE. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12 INCHES (305 MM) MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.

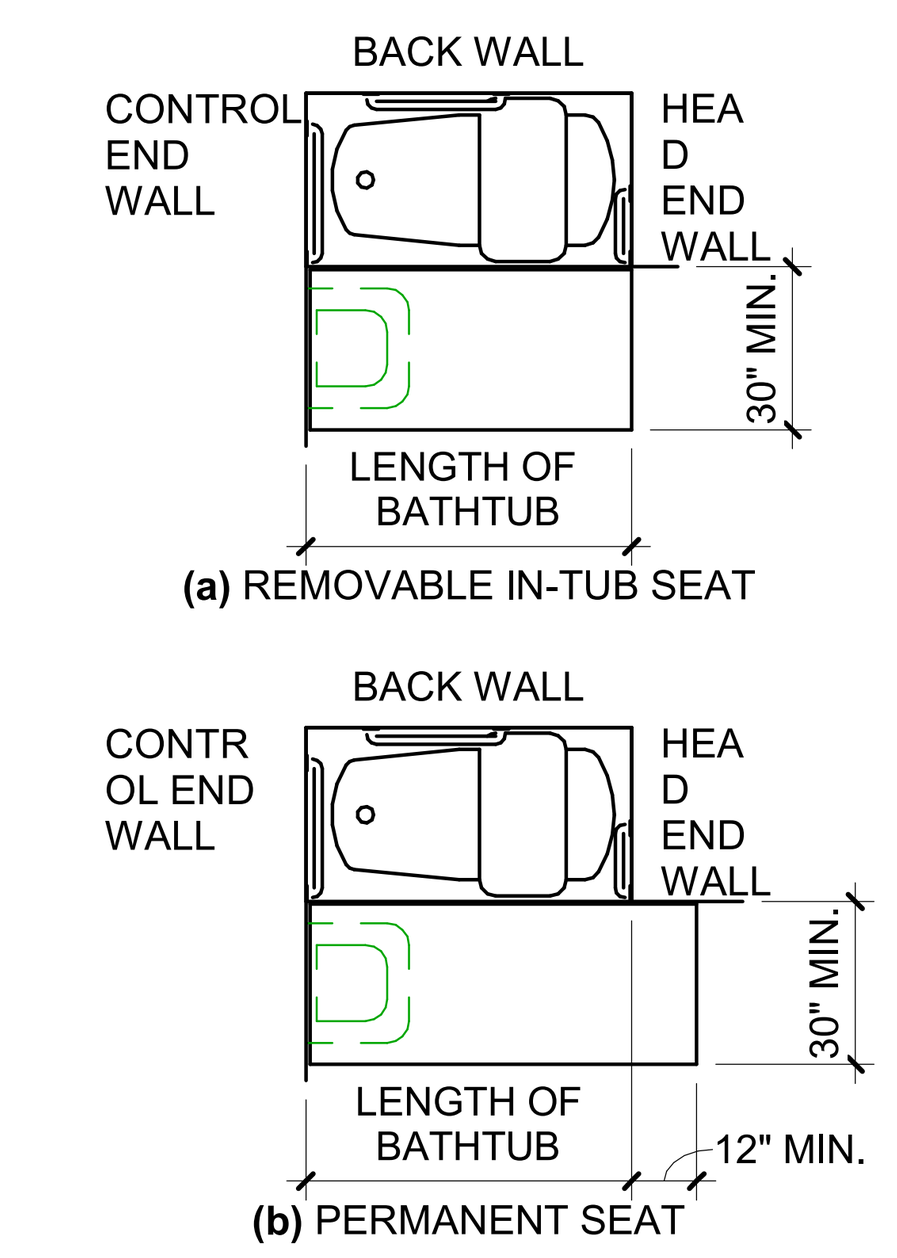


FIGURE 607.2 CLEARANCE FOR BATHTUBS

607.3 SEAT. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.

607.4 GRAB BARS. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH 607.4.1 OR 607.4.2

607.4.1 BATHTUBS WITH PERMANENT SEATS. FOR BATHTUBS WITH PERMANENT SEATS, GRAB BARS SHALL BE PROVIDED IN ACCORDANCE WITH 607.4.1

607.4.1.1 BACK WALL. TWO GRAB BARS SHALL BE INSTALLED ON THE BACK WALL, ONE LOCATED IN ACCORDANCE WITH 609.4 AND THE OTHER LOCATED 8 INCHES MINIMUM AND 10 INCHES MAXIMUM ABOVE THE RIM OF THE BATHTUB. EACH GRAB BAR SHALL BE INSTALLED 15 INCHES MAXIMUM FROM THE HEAD END WALL AND 12 INCHES MAXIMUM FROM THE CONTROL END WALL.

607.4.1.2 CONTROL END WALL. A GRAB BAR 24 INCHES (610 MM) LONG MINIMUM SHALL BE INSTALLED ON THE CONTROL END AT THE FRONT EDGE OF THE BATHTUB.

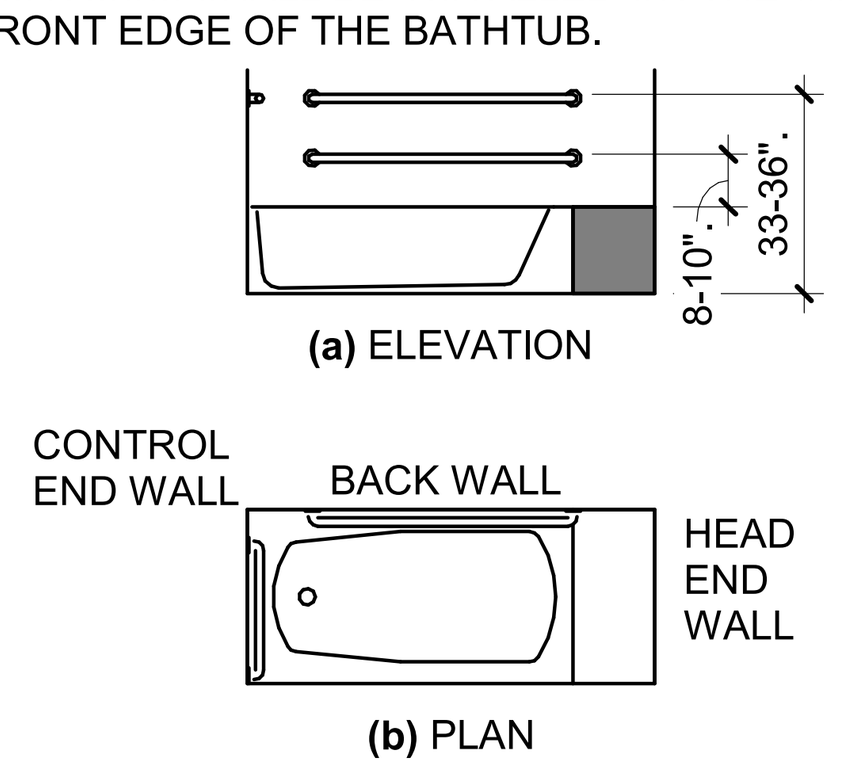


FIGURE 607.4.1 GRAB BARS FOR BATHTUBS WITH PERMANENT SEATS

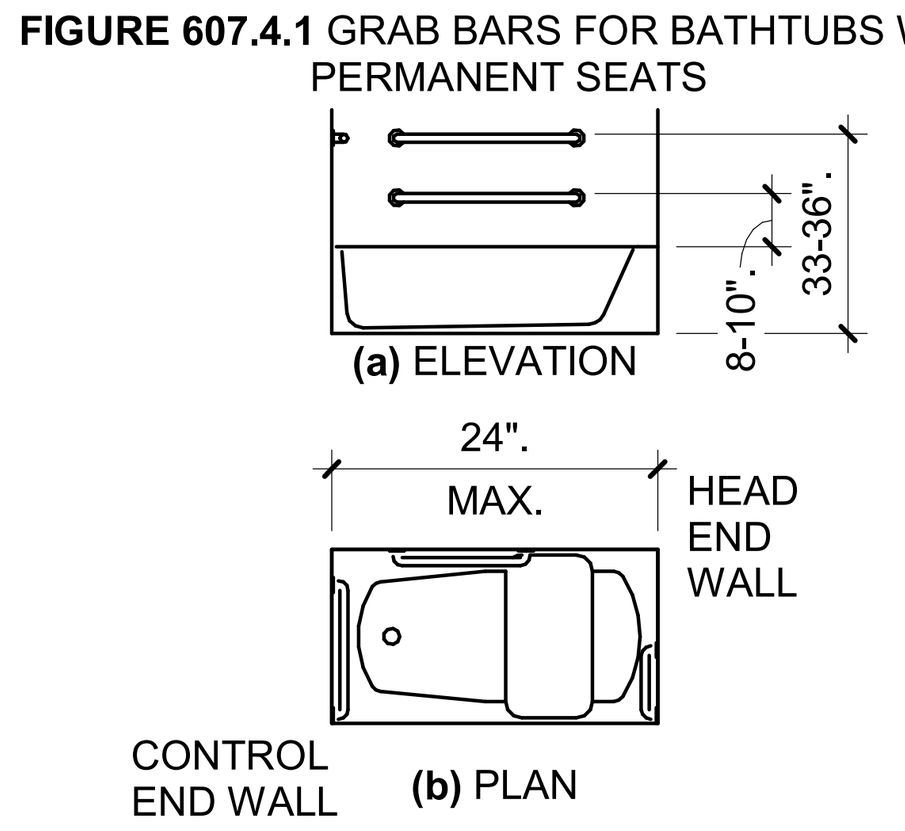


FIGURE 607.4.2 GRAB BARS FOR BATHTUBS WITH REMOVABLE IN-TUB SEATS

607.4.2 BATHTUBS WITHOUT PERMANENT SEATS. FOR BATHTUBS WITHOUT PERMANENT SEATS, GRAB BARS SHALL COMPLY WITH 607.4.2

607.4.2.1 BACK WALL. TWO GRAB BARS SHALL BE INSTALLED ON THE BACK WALL, ONE LOCATED IN ACCORDANCE WITH 609.4 AND OTHER LOCATED 8 INCHES MINIMUM AND 10 INCHES MAXIMUM ABOVE THE RIM OF THE BATHTUB. EACH GRAB BAR SHALL BE 24 INCHES LONG MINIMUM AND SHALL BE INSTALLED 24 INCHES MAXIMUM FROM THE HEAD END WALL AND 12 INCHES MAXIMUM FROM THE CONTROL END WALL.

607.4.2.2 CONTROL END WALL. A GRAB BAR 24 INCHES LONG MINIMUM SHALL BE INSTALLED ON THE CONTROL END WALL AT THE FRONT EDGE OF THE BATHTUB.

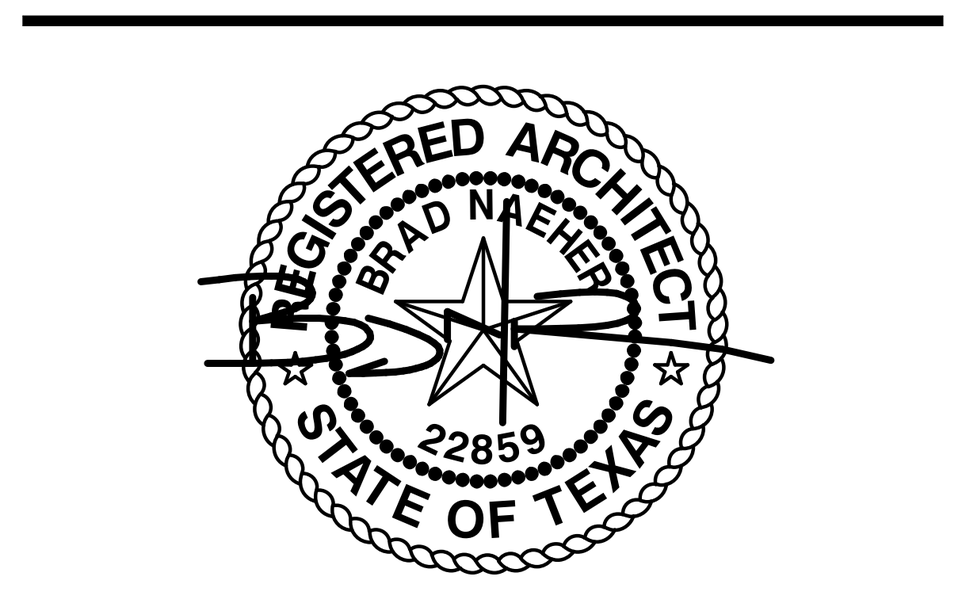
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09-11-2026

PROJECT NO.:26122

DATE:09-11-2026

REVISION SCHEDULE		
Δ	Description	Date

SHEET NAME

TEXAS ACCESSIBILITY STANDARDS

SHEET NO.

G0.3

607 BATHTUBS (CONT'D)

607.4.2.3 HEAD END WALL. A GRAB BAR 12" (305 MM) LONG MIN. SHALL BE INSTALLED ON THE HEAD END WALL AT THE FRONT EDGE OF THE BATHTUB.

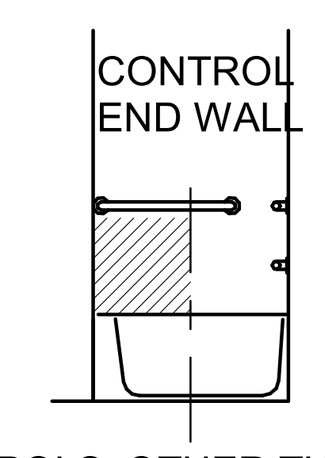


FIGURE 607.5 BATHTUB CONTROL LOCATION

607.5 CONTROLS. CONTROLS, OTHER THAN DRAIN STOPPERS, SHALL BE LOCATED ON AN END WALL. CONTROLS SHALL BE BETWEEN THE BATHTUB RIM AND GRAB BAR, AND BETWEEN THE OPEN SIDE OF THE BATHTUB AND THE CENTERLINE OF THE WIDTH OF THE BATHTUB. CONTROLS SHALL COMPLY WITH 309.4.

607.6 SHOWER SPRAY UNIT AND WATER. A SHOWER SPRAY UNIT WITH A HOSE 59 INCHES LONG MINIMUM THAT CAN BE USED BOTH AS A FIXED-POSITION SHOWER HEAD AND AS A HAND-HELD SHOWER SHALL BE PROVIDED. THE SHOWER SPRAY UNIT SHALL HAVE AN ON/OFF CONTROL WITH A NON-POSITIVE SHUT-OFF. IF AN ADJUSTABLE-HEIGHT SHOWER HEAD ON A VERTICAL BAR IS USED, THE BAR SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE USE OF GRAB BARS. BATHTUB SHOWER SPRAY UNITS SHALL DELIVER WATER THAT IS 120°F (49°C) MAXIMUM.

607.7 BATHTUB ENCLOSURES. ENCLOSURES FOR BATHTUBS SHALL NOT OBSTRUCT CONTROLS, FAUCETS, SHOWER AND SPRAY UNITS OR OBSTRUCT TRANSFER FROM WHEELCHAIRS ONTO BATHTUB SEATS OR INTO BATHTUBS. ENCLOSURES ON BATHTUBS SHALL NOT HAVE TRACKS INSTALLED ON THE RIM OF THE OPEN FACE OF THE BATHTUB

608 SHOWER COMPARTMENTS

608.2 SIZE AND CLEARANCES FOR SHOWER COMPARTMENTS. SHOWER COMPARTMENTS SHALL HAVE SIZES AND CLEARANCES COMPLYING WITH 608.2.

608.2.1 TRANSFER TYPE SHOWER COMPARTMENTS. TRANSFER TYPE SHOWER COMPARTMENTS SHALL BE 36 INCHES BY 36 INCHES CLEAR INSIDE DIMENSIONS MEASURED AT THE CENTER POINTS OF OPPOSING SIDES AND SHALL HAVE A 36 INCH WIDE MINIMUM ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. CLEARANCE OF 36 INCHES WIDE MINIMUM BY 48 INCHES LONG MINIMUM MEASURED FROM THE CONTROL WALL SHALL BE PROVIDED.

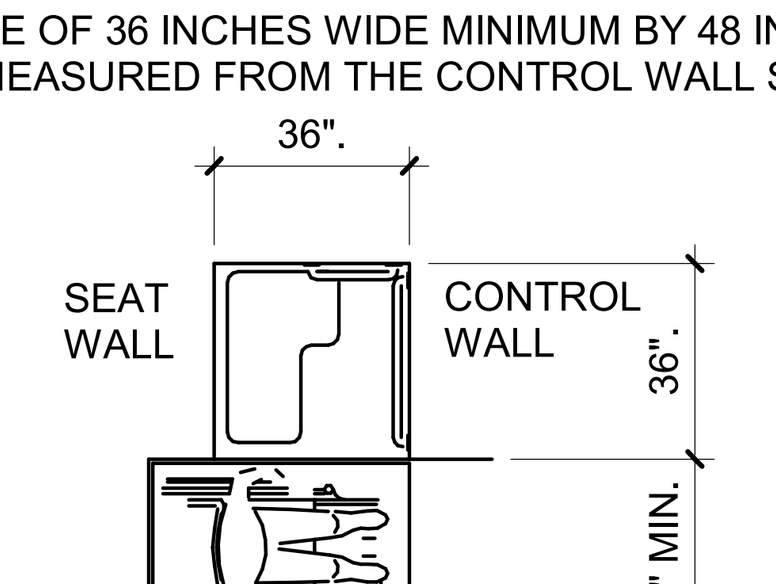


FIGURE 608.2.1 TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

608.2.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS. STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30 INCHES WIDE MINIMUM BY 60 INCHES DEEP MINIMUM CLEAR INSIDE DIMENSIONS MEASURED AT CENTER POINTS OF OPPOSING SIDES AND SHALL HAVE A 60 INCHES WIDE MINIMUM ENTRY ON THE FACE OF THE SHOWER COMPARTMENT.

608.2.2.1 CLEARANCE. A 30 INCH WIDE MINIMUM BY 60 INCH LONG MINIMUM CLEARANCE SHALL BE PROVIDED ADJACENT TO THE OPEN FACE OF THE SHOWER COMPARTMENT.

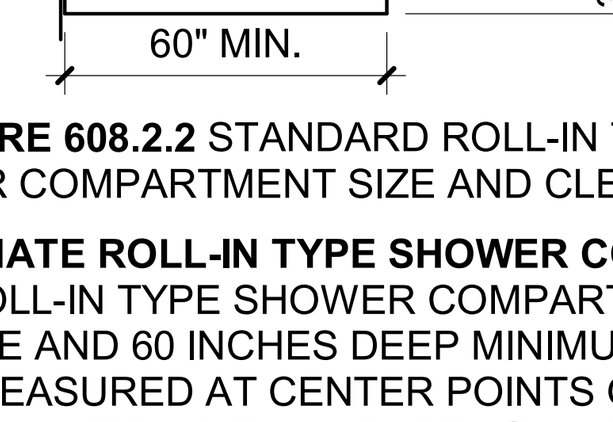


FIGURE 608.2.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

608.2.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS. ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 36 INCHES WIDE AND 60 INCHES DEEP MINIMUM CLEAR INSIDE DIMENSIONS MEASURED AT CENTER POINTS OF OPPOSING SIDES. A 36 INCH WIDE MINIMUM ENTRY SHALL BE PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

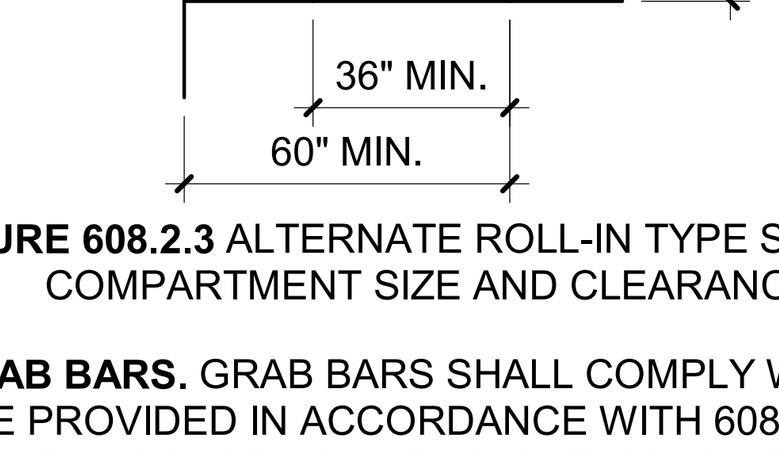


FIGURE 608.2.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

608.3 GRAB BARS. GRAB BARS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH 608.3. WHERE MULTIPLE GRAB BARS ARE USED, REQUIRED HORIZONTAL GRAB BARS SHALL BE INSTALLED AT THE SAME HEIGHT ABOVE THE FINISH FLOOR.

608.3.1 TRANSFER TYPE SHOWER COMPARTMENTS. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18 INCHES FROM THE CONTROL WALL

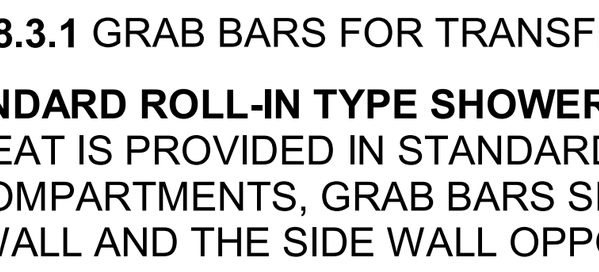


FIGURE 608.3.1 GRAB BARS FOR TRANSFER TYPE SHOWERS

608.3.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS. WHERE A SEAT IS PROVIDED IN STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ON THE BACK WALL AND THE SIDE WALL OPPOSITE THE SEAT. GRAB BARS SHALL NOT BE PROVIDED ABOVE THE SEAT. WHERE A SEAT IS NOT PROVIDED IN STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ON THREE WALLS. GRAB BARS SHALL BE INSTALLED 6 INCHES MAXIMUM FROM ADJACENT WALLS

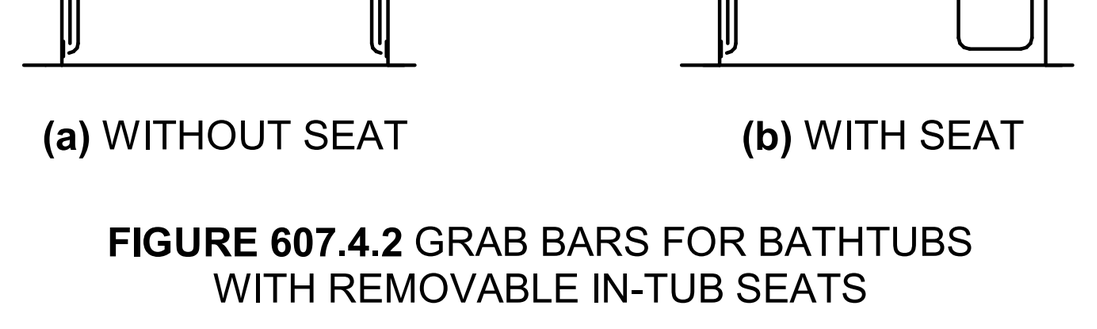


FIGURE 607.4.2 GRAB BARS FOR BATHTUBS WITH REMOVABLE IN-TUB SEATS

608.3.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS. IN ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ON THE BACK WALL AND THE SIDE WALL FARTHEST FROM THE COMPARTMENT ENTRY. GRAB BARS SHALL NOT BE PROVIDED ABOVE THE SEAT. GRAB BARS SHALL BE INSTALLED 6 INCHES MAXIMUM FROM ADJACENT WALLS.

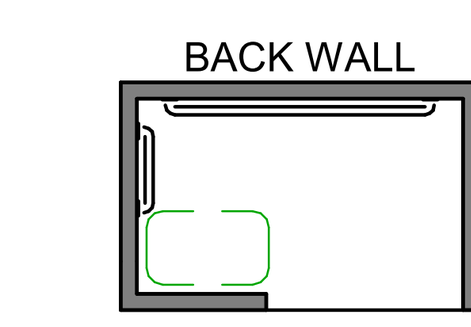


FIGURE 608.3.3 GRAB BARS FOR ALTERNATE ROLL-IN TYPE SHOWERS

608.4 SEATS. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS. A FOLDING SEAT SHALL BE PROVIDED IN ROLL-IN TYPE SHOWERS REQUIRED IN TRANSIENT LODGING GUEST ROOMS WITH MOBILITY FEATURES COMPLYING WITH 806.2. SEATS SHALL COMPLY WITH 610.

608.5 CONTROLS. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4.

608.5.1 TRANSFER TYPE SHOWER COMPARTMENTS. IN TRANSFER TYPE SHOWER COMPARTMENTS, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE INSTALLED ON THE SIDE WALL OPPOSITE THE SEAT 38 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE SHOWER FLOOR AND SHALL BE LOCATED ON THE CONTROL WALL 15 INCHES MAXIMUM FROM THE CENTERLINE OF THE SEAT TOWARD THE SHOWER OPENING.

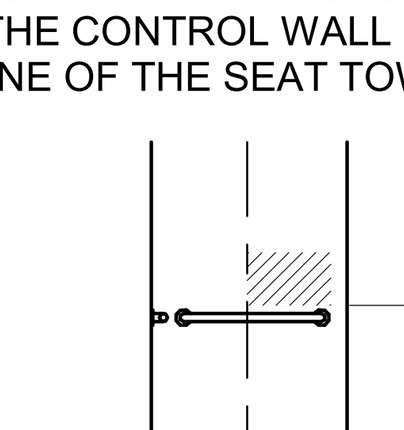


FIGURE 608.5.1 TRANSFER TYPE SHOWER COMPARTMENT CONTROL LOCATION

608.5.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS. IN STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE LOCATED ABOVE THE GRAB BAR, BUT NO HIGHER THAN 48 INCHES ABOVE THE SHOWER FLOOR. WHERE A SEAT IS PROVIDED, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE INSTALLED ON THE BACK WALL ADJACENT TO THE SEAT WALL AND SHALL BE LOCATED 27 INCHES (685 MM) MAXIMUM FROM THE SEAT WALL

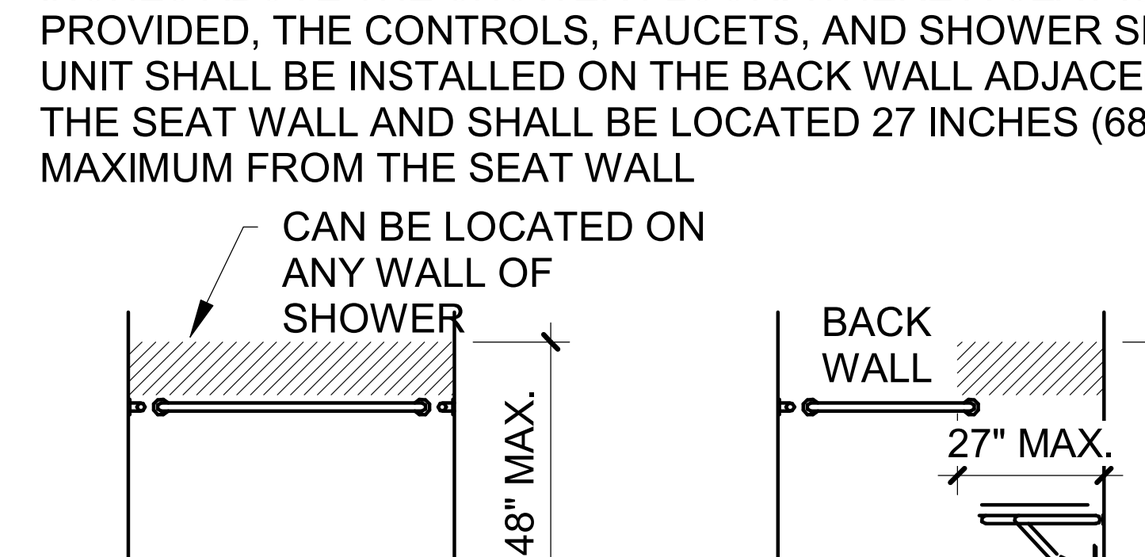


FIGURE 608.5.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENT CONTROL LOCATION

608.5.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS. IN ALTERNATE ROLL-IN TYPE SHOWER BAR, BUT NO HIGHER THAN 48 INCHES ABOVE THE SHOWER FLOOR. WHERE A SEAT IS PROVIDED, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE LOCATED ON THE SIDE WALL SHOWER. SPRAY UNIT SHALL BE INSTALLED ON THE SIDE WALL FARTHEST FROM THE COMPARTMENT ENTRY.

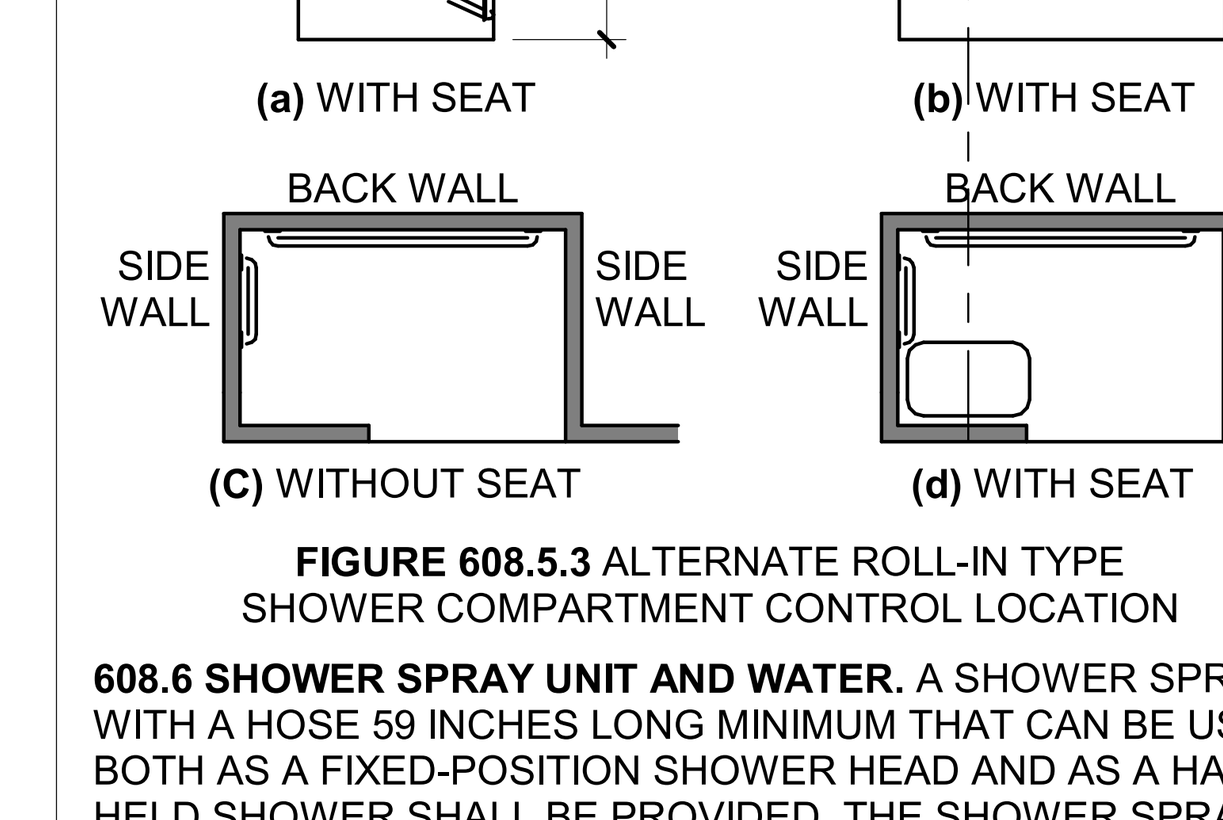


FIGURE 608.5.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENT CONTROL LOCATION

608.6 SHOWER SPRAY UNIT AND WATER. A SHOWER SPRAY UNIT WITH A HOSE 59 INCHES LONG MINIMUM THAT CAN BE USED BOTH AS A FIXED-POSITION SHOWER HEAD AND AS A HAND-HELD SHOWER SHALL BE PROVIDED. THE SHOWER SPRAY UNIT SHALL HAVE AN ON/OFF CONTROL WITH A NON-POSITIVE SHUT-OFF. IF AN ADJUSTABLE-HEIGHT SHOWER HEAD ON A VERTICAL BAR IS USED, THE BAR SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE USE OF GRAB BARS. SHOWER SPRAY UNITS SHALL DELIVER WATER THAT IS 120°F (49°C) MAXIMUM..

608.7 THRESHOLDS. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2 INCH HIGH MAXIMUM IN ACCORDANCE
WITH 303. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2 INCH HIGH MAXIMUM SHALL BE BEVELED, ROUNDED, OR VERTICAL.

608.8 SHOWER ENCLOSURES. ENCLOSURES FOR SHOWER COMPARTMENTS SHALL NOT OBSTRUCT CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS OR OBSTRUCT TRANSFER FROM WHEELCHAIRS ONTO SHOWER SEATS.

609 GRAB BARS

609.1 GENERAL. GRAB BARS IN TOILET FACILITIES AND BATHING FACILITIES SHALL COMPLY WITH 609.

609.2 CROSS SECTION. GRAB BARS SHALL HAVE A CROSS SECTION COMPLYING WITH 609.2.1 OR 609.2.2.

609.2.1 CIRCULAR CROSS SECTION. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4 INCHES (32 MM) MINIMUM AND 2" MAX.

609.2.2 NON-CIRCULAR CROSS SECTION. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2 INCHES MAXIMUM AND A PERIMETER DIMENSION OF 4 INCHES MINIMUM AND 4.8 INCHES MAXIMUM.

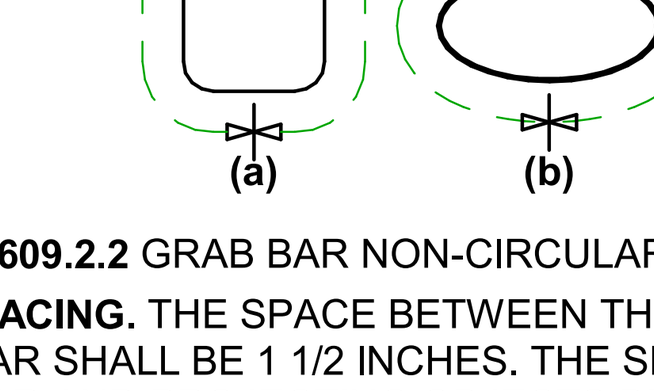


FIGURE 609.2.2 GRAB BAR NON-CIRCULAR CROSS SECTION

609.3 SPACING. THE SPACE BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1 1/2 INCHES. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 1 1/2 INCHES MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12 INCHES MINIMUM

609.3 SPACING. THE SPACE BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1 1/2 INCHES. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 1 1/2 INCHES MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12 INCHES MINIMUM

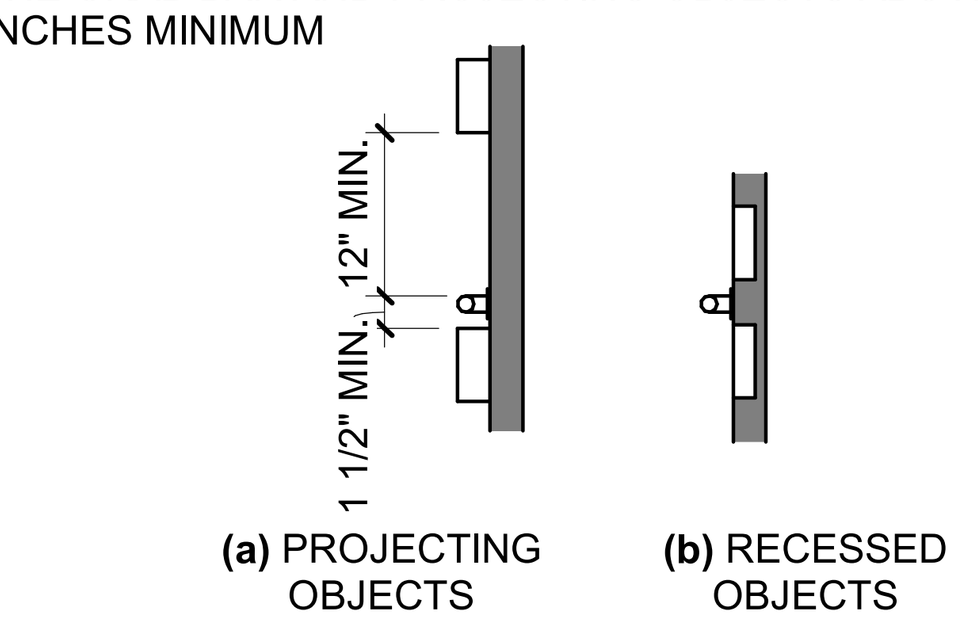


FIGURE 609.3 SPACING OF GRAB BARS

609.4 POSITION OF GRAB BARS. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MIN. AND 36" MAX. ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE, EXCEPT THAT AT WATER CLOSETS FOR CHILDREN'S USE COMPLYING WITH 604.9, GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION 18 INCHES MINIMUM AND 27 INCHES MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. THE HEIGHT OF THE LOWER GRAB BAR ON THE BACK WALL OF A BATHTUB SHALL COMPLY WITH 607.4.1.1 OR 607.4.2.1.

609.5 SURFACE HAZARDS. GRAB BARS AND ANY WALL OR OTHER SURFACES ADJACENT TO GRAB BARS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.

609.6 FITTINGS. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

609.7 INSTALLATION. GRAB BARS SHALL BE INSTALLED IN ANY MANNER THAT PROVIDES A GRIPPING SURFACE AT THE SPECIFIED LOCATIONS AND THAT DOES NOT OBSTRUCT THE REQUIRED CLEAR FLOOR SPACE.

609.8 STRUCTURAL STRENGTH. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS (1112 N) IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.

610 SEATS

610.2 BATHTUB SEATS. THE TOP OF BATHTUB SEATS SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM ABOVE THE BATHROOM FINISH FLOOR. THE DEPTH OF A REMOVABLE IN-TUB SEAT SHALL BE 15 INCHES MINIMUM AND 16 INCHES MAXIMUM. THE SEAT SHALL BE CAPABLE OF SECURE PLACEMENT. PERMANENT SEATS AT THE HEAD END OF THE BATHTUB SHALL BE 15 INCHES DEEP MINIMUM AND SHALL EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.

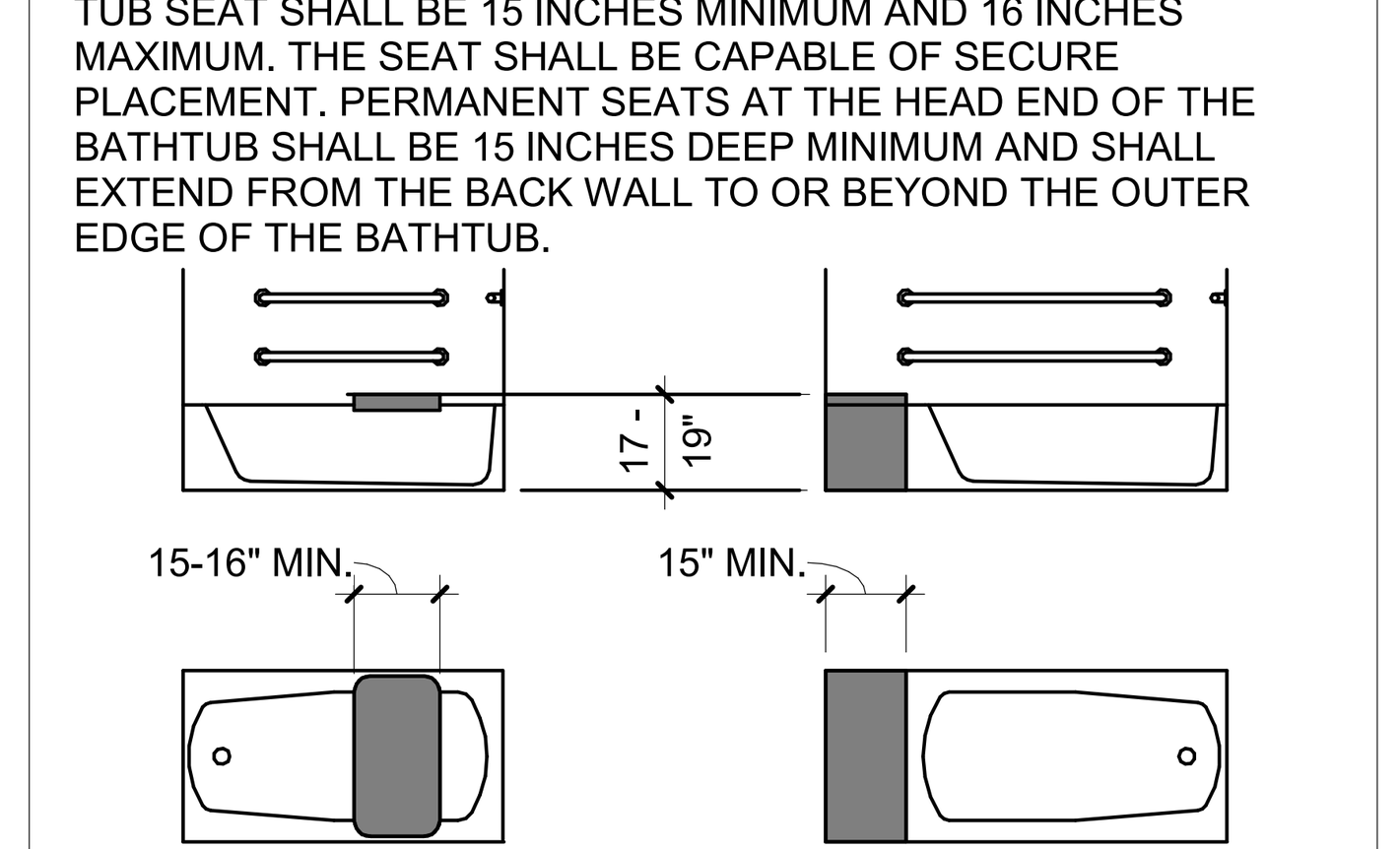


FIGURE 610.2 BATHTUB SEATS

610.3 SHOWER COMPARTMENT SEATS. WHERE A SEAT IS PROVIDED IN A STANDARD ROLL-IN SHOWER COMPARTMENT, IT SHALL BE A FOLDING TYPE, SHALL BE INSTALLED ON THE SIDE WALL ADJACENT TO THE CONTROLS, AND SHALL EXTEND FROM THE BACK WALL TO A POINT WITHIN 3 INCHES OF THE COMPARTMENT ENTRY. WHERE A SEAT IS PROVIDED IN AN ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENT, IT SHALL BE A FOLDING TYPE, SHALL BE INSTALLED ON THE FRONT WALL OPPOSITE THE BACK WALL, AND SHALL EXTEND FROM THE ADJACENT SIDE WALL TO A POINT WITHIN 3 INCHES OF THE COMPARTMENT ENTRY. IN TRANSFER-TYPE SHOWERS, THE SEAT SHALL EXTEND FROM THE BACK WALL TO A POINT WITHIN 3 INCHES OF THE COMPARTMENT ENTRY. THE TOP OF THE SEAT SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM ABOVE THE BATHROOM FINISH FLOOR. SEATS SHALL COMPLY WITH 310.3.2

610.3.1 RECTANGULAR SEATS. THE REAR EDGE OF A RECTANGULAR SEAT SHALL BE 2 1/2 INCHES MAXIMUM AND THE FRONT EDGE 15 INCHES (380 MM) MINIMUM AND 16 INCHES MAXIMUM FROM THE SEAT WALL. THE SIDE EDGE OF THE SEAT SHALL BE 1 1/2 INCHES MAXIMUM FROM THE ADJACENT WALL.

610.3.2 L-SHAPED SEATS. THE REAR EDGE OF AN L-SHAPED SEAT SHALL BE 2 1/2 INCHES MAXIMUM AND THE FRONT EDGE 15 INCHES (380 MM) MINIMUM AND 16 INCHES MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION OF THE SEAT SHALL BE 1 1/2 INCHES MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14 INCHES MINIMUM AND 15 INCHES MAXIMUM FROM THE WALL. THE END OF THE "L" SHALL BE 22 INCHES MINIMUM AND 23 INCHES MAXIMUM FROM THE MAIN SEAT WALL.

610.4 STRUCTURAL STRENGTH. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS (1112 N) IS APPLIED AT ANY POINT ON THE SEAT, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.

611 WASHING MACHINES AND CLOTHES DRYERS

611.2 CLEAR FLOOR SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR PARALLEL APPROACH SHALL BE PROVIDED. THE CLEAR FLOOR OR GROUND SPACE SHALL BE CENTERED ON THE APPLIANCE.

611.3 OPERABLE PARTS. OPERABLE PARTS, INCLUDING DOORS, LINT SCREENS, AND DETERGENT AND BLEACH COMPARTMENTS SHALL COMPLY WITH 309.

611.4 HEIGHT. TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMENT LOCATED 36 INCHES MAXIMUM ABOVE THE FINISH FLOOR. FRONT LOADING MACHINES SHALL HAVE THE BOTTOM OF THE OPENING TO THE LAUNDRY COMPARTMENT LOCATED 15 INCHES MINIMUM AND 36 INCHES MAXIMUM ABOVE THE FINISH FLOOR.

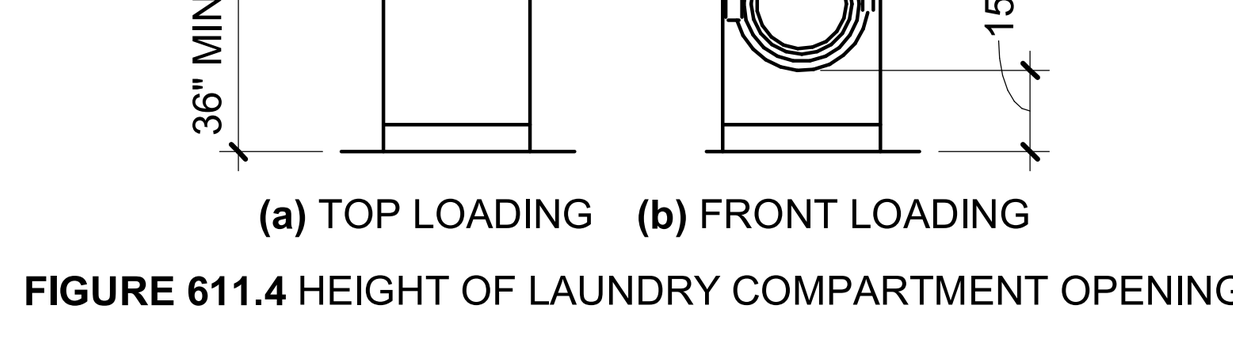


FIGURE 611.4 HEIGHT OF LAUNDRY COMPARTMENT OPENING

612 SAUNAS AND STEAM ROOMS

612.2 BENCH. WHERE SEATING IS PROVIDED IN SAUNAS AND STEAM ROOMS, AT LEAST ONE BENCH SHALL COMPLY WITH 903. DOORS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE REQUIRED BY 903.2.

612.3 TURNING SPACE. A TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN SAUNAS AND STEAM ROOMS

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 FIRE ALARM SYSTEMS

702.1 GENERAL. FIRE ALARM SYSTEMS SHALL HAVE PERMANENTLY INSTALLED AUDIBLE AND VISIBLE ALARMS COMPLYING WITH NFPA 72 (1999 OR 2002 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1), EXCEPT THAT THE MAXIMUM ALLOWABLE SOUND LEVEL OF AUDIBLE NOTIFICATION APPLIANCES COMPLYING WITH SECTION 4-3.2.1 OF NFPA 72 (1999 EDITION) SHALL HAVE A SOUND LEVEL NO MORE THAN 110 DB AT THE MINIMUM HEARING DISTANCE FROM THE AUDIBLE APPLIANCE. IN ADDITION, ALARMS IN GUEST ROOMS REQUIRED TO PROVIDE COMMUNICATION FEATURES SHALL COMPLY WITH SECTIONS 4-3 AND 4-4 OF NFPA 72 (1999 EDITION) OR SECTIONS 7.4 AND 7.5 OF NFPA 72 (2002 EDITION)

703 SIGNS

703.1 GENERAL. SIGNS SHALL COMPLY WITH 703. WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED, EITHER ONE SIGN WITH BOTH VISUAL AND TACTILE CHARACTERS, OR TWO SEPARATE SIGNS, ONE WITH VISUAL, AND ONE WITH TACTILE CHARACTERS, SHALL BE PROVIDED.

703.2 RAISED CHARACTERS. RAISED CHARACTERS SHALL COMPLY WITH 703.2 AND SHALL BE DUPLICATED IN BRAILLE COMPLYING WITH 703.3. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH 703.4.

703.2.1 DEPTH. RAISED CHARACTERS SHALL BE 1/32 INCH (0.8 MM) MINIMUM ABOVE THEIR BACKGROUND.

703.2.2 CASE. CHARACTERS SHALL BE UPPERCASE.

703.2.3 STYLE. CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

703.2.4 CHARACTER PROPORTIONS. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". 703.2.5 CHARACTER HEIGHT. CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH MINIMUM AND 2 INCHES MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I"

703.2.6 STROKE THICKNESS. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.

703.2.7 CHARACTER SPACING. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT RAISED CHARACTERS WITHIN A MESSAGE, EXCLUDING WORD SPACES. WHERE CHARACTERS HAVE RECTANGULAR CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/8 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM. WHERE CHARACTERS HAVE OTHER CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/16 INCH (1.6 MM) MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE BASE OF THE CROSS SECTIONS, AND 1/8 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE TOP OF THE CROSS SECTIONS. CHARACTERS SHALL BE SEPARATED FROM RAISED BORDERS AND DECORATIVE ELEMENTS 3/8 INCH MINIMUM.

703.2.8 LINE SPACING. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE RAISED CHARACTER HEIGHT.

703.3 BRAILLE. BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH 703.3 AND 703.4.

703.3.1 DIMENSIONS AND CAPITALIZATION. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS, AND ACRONYMS.

703.3.2 POSITION. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH MINIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS.

703.4 INSTALLATION HEIGHT AND LOCATION. SIGNS WITH TACTILE CHARACTERS SHALL COMPLY WITH 703.4.

703.4.1 HEIGHT ABOVE FINISH FLOOR OR GROUND. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER.

703.4.2 LOCATION. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18 INCHES MINIMUM BY 18 INCHES MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION.

703.5 VISUAL CHARACTERS. VISUAL CHARACTERS SHALL COMPLY WITH 703.5.

703.5.1 FINISH AND CONTRAST. CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

703.5.2 CASE. CHARACTERS SHALL BE UPPERCASE OR LOWERCASE OR A COMBINATION OF BOTH.

703.5.3 STYLE. CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

703.5.4 CHARACTER PROPORTIONS. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".

703.5.5 CHARACTER HEIGHT. MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 703.5.5. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS THE SIGN. CHARACTER HEIGHT SHALL BE BASED ON THE UPPERCASE LETTER "I".

703.5.6 HEIGHT FROM FINISH FLOOR OR GROUND. VISUAL CHARACTERS SHALL BE 40 INCHES (1015 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

703.5.7 STROKE THICKNESS. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 30 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.

703.5.8 CHARACTER SPACING. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT CHARACTERS, EXCLUDING WORD SPACES. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND 35 PERCENT MAXIMUM OF CHARACTER HEIGHT.

703.5.9 LINE SPACING. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT.

703.6 PICTOGRAMS. PICTOGRAMS SHALL COMPLY WITH 703.6.

703.6.1 PICTOGRAM FIELD. PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.

703.6.2 FINISH AND CONTRAST. PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH. PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD.

703.6.3 TEXT DESCRIPTORS. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD. TEXT DESCRIPTORS SHALL COMPLY WITH 703.2, 703.3 AND 703.4.

703.7 SYMBOLS OF ACCESSIBILITY. SYMBOLS OF ACCESSIBILITY SHALL COMPLY WITH 703.7.

703.7.1 FINISH AND CONTRAST. SYMBOLS OF ACCESSIBILITY AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. SYMBOLS OF ACCESSIBILITY SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER A LIGHT SYMBOL ON A DARK BACKGROUND OR A DARK SYMBOL ON A LIGHT BACKGROUND.

704 TELEPHONES

704.1 GENERAL. PUBLIC TELEPHONES SHALL COMPLY WITH 704.

704.2 WHEELCHAIR ACCESSIBLE TELEPHONES. WHEELCHAIR ACCESSIBLE TELEPHONES SHALL COMPLY WITH 704.2.

704.2.1 CLEAR FLOOR OR GROUND SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED. THE CLEAR FLOOR OR GROUND SPACE SHALL NOT BE OBSTRUCTED BY BASES, ENCLOSURES, OR SEATS. ADVISORY 704.2.1 CLEAR FLOOR OR GROUND SPACE. BECAUSE CLEAR FLOOR AND GROUND SPACE IS REQUIRED TO BE UNOBSTRUCTED, TELEPHONES, ENCLOSURES AND RELATED TELEPHONE BOOK STORAGE CANNOT ENCROACH ON THE REQUIRED CLEAR FLOOR OR GROUND SPACE AND MUST COMPLY WITH THE PROVISIONS FOR PROTRUDING OBJECTS. (SEE SECTION 307).

704.2.1.1 PARALLEL APPROACH. WHERE A PARALLEL APPROACH IS PROVIDED, THE DISTANCE FROM THE EDGE OF THE TELEPHONE ENCLOSURE TO THE FACE OF THE TELEPHONE UNIT SHALL BE 10 INCHES MAXIMUM.

704.2.1.2 FORWARD APPROACH. WHERE A FORWARD APPROACH IS PROVIDED, THE DISTANCE FROM THE FRONT EDGE OF A COUNTER WITHIN THE TELEPHONE ENCLOSURE TO THE FACE OF THE TELEPHONE UNIT SHALL BE 20" MAX.

704.2.2 OPERABLE PARTS. OPERABLE PARTS SHALL COMPLY WITH 309. TELEPHONES SHALL HAVE PUSH-BUTTON CONTROLS WHERE SUCH SERVICE IS AVAILABLE.

704.2.3 TELEPHONE DIRECTORIES. TELEPHONE DIRECTORIES, WHERE PROVIDED, SHALL BE LOCATED IN ACCORDANCE WITH 309

704.2.4 CORD LENGTH. THE CORD FROM THE TELEPHONE TO THE HANDSET SHALL BE 29 INCHES LONG MINIMUM

704.3 VOLUME CONTROL TELEPHONES. PUBLIC TELEPHONES REQUIRED TO HAVE VOLUME CONTROLS SHALL BE EQUIPPED WITH A RECEIVE VOLUME CONTROL THAT PROVIDES A GAIN ADJUSTABLE UP TO 20 DB MIN. FOR INCREMENTAL VOLUME CONTROL, PROVIDE AT LEAST ONE INTERMEDIATE STEP OF 12 DB OF GAIN MIN. AN AUTOMATIC RESET SHALL BE PROVIDED.

704.4 TTYS. TTYS REQUIRED AT A PUBLIC PAY TELEPHONE SHALL BE PERMANENTLY AFFIXED WITHIN, OR ADJACENT TO, THE TELEPHONE ENCLOSURE. WHERE AN ACOUSTIC COUPLER IS USED, THE TELEPHONE CORD SHALL BE SUFFICIENTLY LONG TO ALLOW CONNECTION OF THE TTY AND THE TELEPHONE RECEIVER.

704.4.1 HEIGHT. WHEN IN USE, THE TOUCH SURFACE OF TTY KEYPADS SHALL BE 34" MIN. ABOVE THE FINISH FLOOR.

704.5 TTY SHELF. PUBLIC PAY TELEPHONES REQUIRED TO ACCOMMODATE PORTABLE TTYS SHALL BE EQUIPPED WITH A SHELF AND AN ELECTRICAL OUTLET WITHIN OR ADJACENT TO THE TELEPHONE ENCLOSURE. THE TELEPHONE HANDSET SHALL BE CAPABLE OF BEING PLACED FLUSH ON THE SURFACE OF THE SHELF. THE SHELF SHALL BE CAPABLE OF ACCOMMODATING A TTY AND SHALL HAVE 6 INCHES MINIMUM VERTICAL CLEARANCE ABOVE THE AREA WHERE THE TTY IS TO BE PLACED

705 DETECTABLE WARNINGS

705.1 GENERAL. DETECTABLE WARNINGS SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES AND SHALL COMPLY WITH 705

705.1.1 DOME SIZE. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9 INCH MINIMUM AND 1.4 INCHES MAXIMUM, A TOP DIAMETER OF 50 PERCENT OF THE BASE DIAMETER MINIMUM TO 65 PERCENT OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2 INCH.

705.1.2 DOME SPACING. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6 INCHES MINIMUM AND 2.4" MAXIMUM, AND A BASE-TO-BASE SPACING OF 0.65 INCH MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.

705.1.2 DOME SPACING. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6 INCHES MINIMUM AND 2.4" MAXIMUM, AND A BASE-TO-BASE SPACING OF 0.65" MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.

705.1.3 CONTRAST. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT ON DARK OR DARK ON LIGHT

705.2 PLATFORM EDGES. DETECTABLE WARNING SURFACES AT PLATFORM BOARDING EDGES SHALL BE 24 INCHES WIDE AND SHALL EXTEND THE FULL LENGTH OF THE PUBLIC USE AREAS OF THE PLATFORM.

706 ASSISTIVE LISTENING SYSTEMS

706.2 RECEIVER JACKS. RECEIVERS REQUIRED FOR USE WITH AN ASSISTIVE LISTENING SYSTEM SHALL INCLUDE A 1/8 INCH STANDARD MONO JACK

706.3 RECEIVER HEARING-AID COMPATIBILITY. RECEIVERS REQUIRED TO BE HEARING-AID COMPATIBLE SHALL INTERFACE WITH TELECOILS IN
HEARING AIDS THROUGH THE PROVISION OF NECKLOOPS.

706.4 SOUND PRESSURE LEVEL. ASSISTIVE LISTENING SYSTEMS SHALL BE CAPABLE OF PROVIDING A SOUND PRESSURE LEVEL OF 110 DB MINIMUM AND 118 DB MAXIMUM WITH A DYNAMIC RANGE ON THE VOLUME CONTROL OF 50 DB.

706.5 SIGNAL-TO-NOISE RATIO. THE SIGNAL-TO-NOISE RATIO FOR INTERNALLY GENERATED NOISE IN ASSISTIVE LISTENING SYSTEMS SHALL BE 18 DB MINIMUM.

706.6 PEAK CLIPPING LEVEL. PEAK CLIPPING SHALL NOT EXCEED 18 DB OF CLIPPING RELATIVE TO THE PEAKS OF SPEECH

707 AUTOMATIC TELLER MACHINES AND FARE MACHINES

707.2 CLEAR FLOOR OR GROUND SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED.

707.3 OPERABLE PARTS. OPERABLE PARTS SHALL COMPLY WITH 309. UNLESS A CLEAR OR CORRECT KEY IS PROVIDED, EACH OPERABLE PART SHALL BE ABLE TO BE DIFFERENTIATED BY SOUND OR TOUCH, WITHOUT ACTIVATION

EXCEPTION: DRIVE-UP ONLY AUTOMATIC TELLER MACHINES AND FARE MACHINES SHALL NOT BE REQUIRED TO COMPLY WITH 309.2 AND 309.3

707.4 PRIVACY. AUTOMATIC TELLER MACHINES SHALL PROVIDE THE OPPORTUNITY FOR THE SAME DEGREE OF PRIVACY OF INPUT AND OUTPUT AVAILABLE TO ALL INDIVIDUALS.

707.5 SPEECH OUTPUT. MACHINES SHALL BE SPEECH ENABLED. OPERATING INSTRUCTIONS AND ORIENTATION, VISIBLE TRANSACTION PROMPTS, USER INPUT VERIFICATION, ERROR MESSAGES, AND ALL DISPLAYED INFORMATION FOR FULL USE SHALL BE ACCESSIBLE TO AND INDEPENDENTLY USABLE BY INDIVIDUALS WITH VISION IMPAIRMENTS. SPEECH SHALL BE DELIVERED THROUGH A MECHANISM THAT IS READILY AVAILABLE TO ALL USERS, INCLUDING BUT NOT LIMITED TO, AN INDUSTRY
STANDARD CONNECTOR OR A TELEPHONE HANDSET. SPEECH SHALL BE RECORDED OR DIGITIZED HUMAN, OR SYNTHESIZED.

707.5.1 USER CONTROL. SPEECH SHALL BE CAPABLE OF BEING REPEATED OR INTERRUPTED. VOLUME CONTROL SHALL BE PROVIDED FOR THE SPEECH FUNCTION.

707.5.2 RECEIPTS. WHERE RECEIPTS ARE PROVIDED, SPEECH OUTPUT DEVICES SHALL PROVIDE AUDIBLE BALANCE INQUIRY INFORMATION, ERROR MESSAGES, AND ALL OTHER INFORMATION ON THE PRINTED RECEIPT NECESSARY TO COMPLETE OR VERIFY THE TRANSACTION

707.6 INPUT. INPUT DEVICES SHALL COMPLY WITH 707.6.

707.6.1 INPUT CONTROLS. AT LEAST ONE TACTILELY DISCERNIBLE INPUT CONTROL SHALL BE PROVIDED FOR EACH FUNCTION. WHERE PROVIDED, KEY SURFACES NOT ON ACTIVE AREAS OF DISPLAY SCREENS, SHALL BE RAISED ABOVE SURROUNDING SURFACES. WHERE MEMBRANE KEYS ARE THE ONLY METHOD OF INPUT, EACH SHALL BE TACTILELY DISCERNABLE FROM SURROUNDING SURFACES AND ADJACENT KEYS.

707.6.2 NUMERIC KEYS. NUMERIC KEYS SHALL BE ARRANGED IN A 12-KEY ASCENDING OR DESCENDING TELEPHONE KEYPAD LAYOUT. THE NUMBER FIVE KEY SHALL BE TACTILELY DISTINCT FROM THE OTHER KEYS.

707.6.3.1 CONTRAST. FUNCTION KEYS SHALL CONTRAST VISUALLY FROM BACKGROUND SURFACES. CHARACTERS AND SYMBOLS ON KEY SURFACES SHALL CONTRAST VISUALLY FROM KEY SURFACES. VISUAL CONTRAST SHALL BE EITHER LIGHT-ON-DARK OR

707.6.3.2 TACTILE SYMBOLS. FUNCTION KEY SURFACES SHALL HAVE TACTILE SYMBOLS AS FOLLOWS: ENTER OR PROCEED KEY: RAISED CIRCLE; CLEAR OR CORRECT KEY: RAISED LEFT ARROW; CANCEL KEY: RAISED LETTER EX; ADD VALUE KEY: RAISED PLUS SIGN; DECREASE VALUE KEY: RAISED MINUS SIGN.

707.7 DISPLAY SCREEN. THE DISPLAY SCREEN SHALL COMPLY WITH 707.7.

707.7.1 VISIBILITY. THE DISPLAY SCREEN SHALL BE VISIBLE FROM
A POINT LOCATED 40 INCHES ABOVE THE CENTER OF THE CLEAR FLOOR SPACE IN FRONT OF THE MACHINE.

707.7.2 CHARACTERS. CHARACTERS DISPLAYED ON THE SCREEN SHALL BE IN A SANS SERIF FONT. CHARACTERS SHALL BE 3/16
INCH HIGH MINIMUM BASED ON THE UPPERCASE LETTER "I". CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

707.8 BRAILLE INSTRUCTIONS. BRAILLE INSTRUCTIONS FOR INITIATING THE SPEECH MODE SHALL BE PROVIDED. BRAILLE SHALL COMPLY WITH 703.3.

708 TWO-WAY COMMUNICATION SYSTEMS

708.1 GENERAL. TWO-WAY COMMUNICATION SYSTEMS SHALL COMPLY WITH 708.

708.2 AUDIBLE AND VISUAL INDICATORS. THE SYSTEM SHALL PROVIDE BOTH AUDIBLE AND VISUAL SIGNALS.

708.3 HANDSETS. HANDSET CORDS, IF PROVIDED, SHALL BE 29 INCHES LONG MINIMUM.

708.4 RESIDENTIAL DWELLING UNIT COMMUNICATION SYSTEMS. COMMUNICATIONS SYSTEMS BETWEEN A RESIDENTIAL DWELLING UNIT AND A SITE, BUILDING, OR FLOOR ENTRANCE SHALL COMPLY WITH 708.4.

708.4.1 COMMON USE OR PUBLIC USE SYSTEM INTERFACE. THE COMMON USE OR PUBLIC USE SYSTEM INTERFACE SHALL INCLUDE THE CAPABILITY OF SUPPORTING VOICE AND TTY COMMUNICATION WITH THE RESIDENTIAL DWELLING UNIT INTERFACE.

CHAPTER 9: BUILT IN ELEMENTS

902 DINING SURFACES AND WORK SURFACES

902.2 CLEAR FLOOR OR GROUND SPACE. A CLEAR FLOOR SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH SHALL BE PROVIDED. KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED.

902.3 HEIGHT. THE TOPS OF DINING SURFACES AND WORK SURFACES SHALL BE 28 INCHES MINIMUM AND 34 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

902.4 DINING SURFACES AND WORK SURFACES FOR CHILDREN'S USE. ACCESSIBLE DINING SURFACES AND WORK SURFACES FOR CHILDREN'S USE SHALL COMPLY WITH 902.4

902.4.1 CLEAR FLOOR OR GROUND SPACE. A CLEAR FLOOR SPACE COMPLYING WITH 305 POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED. KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED, EXCEPT THAT KNEE CLEARANCE 24 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SHALL BE PERMITTED.

902.4.2 HEIGHT. THE TOPS OF TABLES AND COUNTERS SHALL BE 26 INCHES MINIMUM AND 30 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND

903 BENCHES

903.2 CLEAR FLOOR OR GROUND SPACE. CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED AND SHALL BE POSITIONED AT THE END OF THE BENCH SEAT AND PARALLEL TO THE SHORT AXIS OF THE BENCH

903.3 SIZE. BENCHES SHALL HAVE SEATS THAT ARE 42" LONG MINIMUM AND 20 INCHES DEEP MINIMUM AND 24" DEEP MAXIMUM

903.4 BACK SUPPORT. THE BENCH SHALL PROVIDE FOR BACK SUPPORT OR SHALL BE AFFIXED TO A WALL. BACK SUPPORT SHALL BE 42 INCHES LONG MINIMUM AND SHALL EXTEND FROM A POINT 2 INCHES MAXIMUM ABOVE THE SEAT SURFACE TO A POINT 18 INCHES MINIMUM ABOVE THE SEAT SURFACE. BACK SUPPORT SHALL BE 2 1/2 INCHES MAXIMUM FROM THE REAR EDGE OF THE SEAT MEASURED HORIZONTALLY.

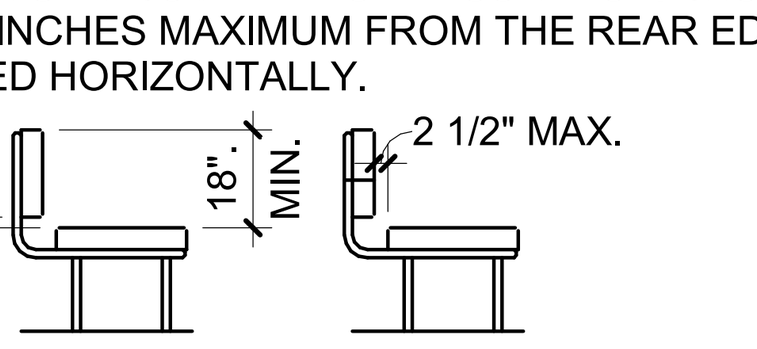


FIGURE 903.4 BENCH BACK SUPPORT

903.5 HEIGHT. THE TOP OF THE BENCH SEAT SURFACE SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM ABOVE FINISH FLOOR OR GROUND

903.6 STRUCTURAL STRENGTH. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS (1112 N) IS APPLIED AT ANY POINT ON THE SEAT, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE

903.7 WET LOCATIONS. WHERE INSTALLED IN WET LOCATIONS, THE SURFACE OF THE SEAT SHALL BE SLIP RESISTANT AND SHALL NOT ACCUMULATE WATER

904 CHECK OUT AISLES, SALES AND SERVICE COUNTERS

904.1 GENERAL. CHECK-OUT AISLES AND SALES AND SERVICE COUNTERS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF 904

904.2 APPROACH. ALL PORTIONS OF COUNTERS REQUIRED TO COMPLY WITH 904 SHALL BE LOCATED ADJACENT TO WALKING SURFACE COMPLYING WITH 403

904.3 CHECK-OUT AISLES. CHECK-OUT AISLES SHALL COMPLY WITH 904.3.

904.3.1 AISLE. AISLES SHALL COMPLY WITH 403.

904.3.2 COUNTER. THE COUNTER SURFACE HEIGHT SHALL BE 38 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. THE TOP OF THE COUNTER EDGE PROTECTION SHALL BE 2 INCHES MAXIMUM ABOVE THE TOP OF THE COUNTER SURFACE ON THE AISLE SIDE OF THE CHECK-OUT COUNTER.

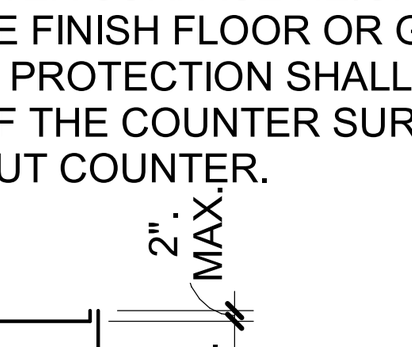


FIGURE 904.3.2 CHECK-OUT AISLE COUNTERS

904.3.3 CHECK WRITING SURFACES. WHERE PROVIDED, CHECK WRITING SURFACES SHALL COMPLY WITH 902.3.

904.4 SALES AND SERVICE COUNTERS. SALES COUNTERS AND SERVICE COUNTERS SHALL COMPLY WITH 904.4.1 OR 904.4.2. THE ACCESSIBLE PORTION OF THE COUNTER TOP SHALL EXTEND THE SAME DEPTH AS THE SALES OR SERVICE COUNTER TOP

904.4.1 PARALLEL APPROACH. A PORTION OF THE COUNTER SURFACE THAT IS 36 INCHES LONG MINIMUM AND 36 INCHES HIGH MAXIMUM ABOVE THE FINISH FLOOR SHALL BE PROVIDED. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE POSITIONED FOR A PARALLEL APPROACH ADJACENT TO THE 36 INCH MINIMUM LENGTH OF COUNTER

904.4.2 FORWARD APPROACH. A PORTION OF THE COUNTER SURFACE THAT IS 30 INCHES LONG MINIMUM AND 36 INCHES HIGH MAXIMUM SHALL BE PROVIDED. KNEE AND TOE SPACE COMPLYING WITH 306 SHALL BE PROVIDED UNDER THE COUNTER. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE POSITIONED FOR A FORWARD APPROACH TO THE COUNTER

904.5 FOOD SERVICE LINES. COUNTERS IN FOOD SERVICE LINES SHALL COMPLY WITH 904.5.

904.5.1 SELF-SERVICE SHELVES AND DISPENSING DEVICES. SELF-SERVICE SHELVES AND DISPENSING DEVICES FOR TABLEWARE, DISHWARE, CONDIMENTS, FOOD AND BEVERAGES SHALL COMPLY WITH 308.

904.5.2 TRAY SLIDES. THE TOPS OF TRAY SLIDES SHALL BE 28 INCHES MINIMUM AND 34 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND

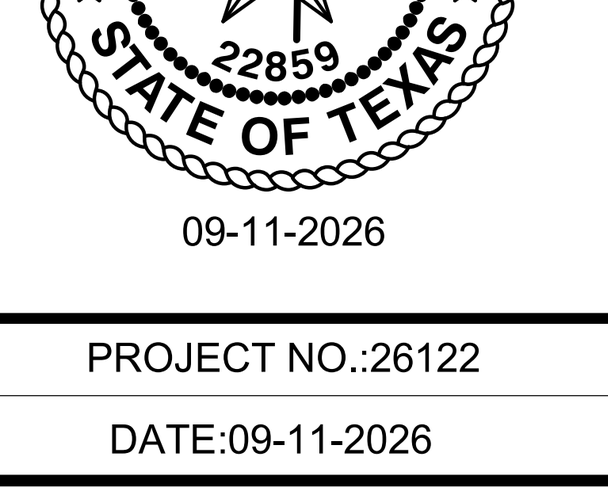
904.6 SECURITY GLAZING. WHERE COUNTERS OR TELLER WINDOWS HAVE SECURITY GLAZING TO SEPARATE PERSONNEL FROM THE PUBLIC, A METHOD TO FACILITATE VOICE COMMUNICATION SHALL BE PROVIDED. TELEPHONE HANDSET DEVICES, IF PROVIDED, SHALL COMPLY WITH 704.3

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09-11-2026

PROJECT NO.:26122

DATE:09-11-2026

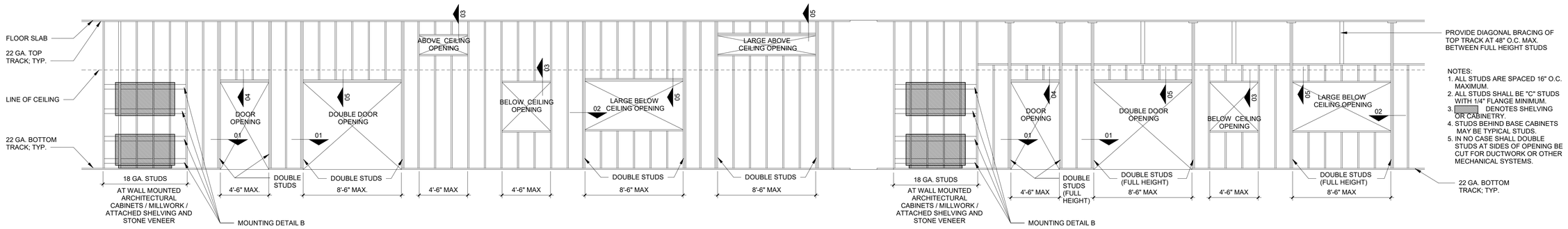
REVISION SCHEDULE		
Δ	Description	Date

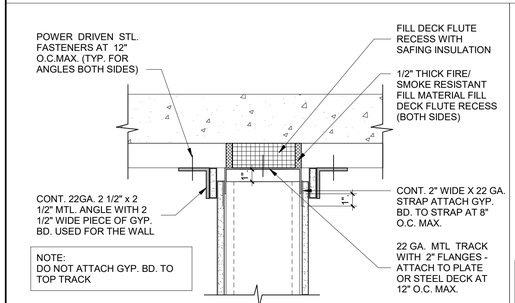
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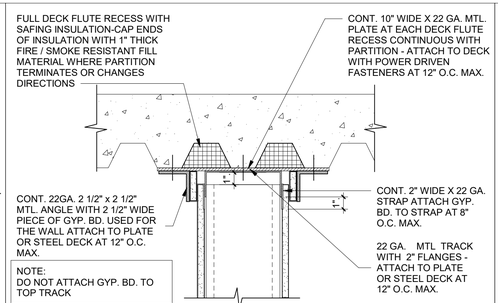
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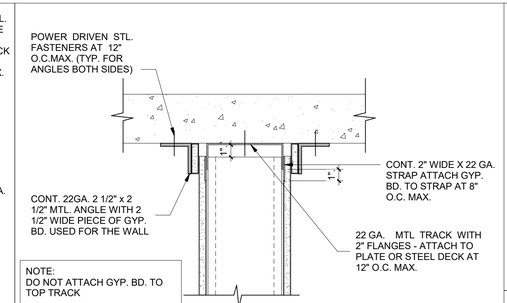




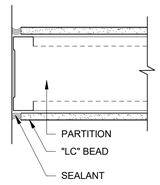
ONE HOUR FIRE RESISTANT AND ONE HOUR FIRE RESISTANT SMOKE BARRIER
UL-HW-D-0001



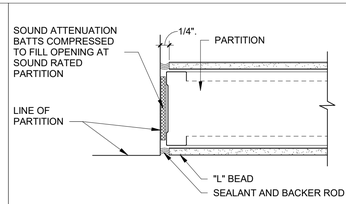
ONE HOUR FIRE RESISTANT AND ONE HOUR FIRE RESISTANT SMOKE BARRIER
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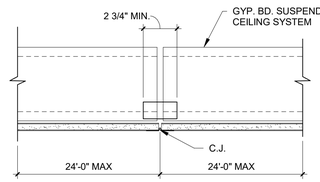
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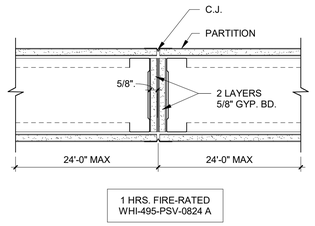
06 INTERIOR PARTITION NON-EXPOSED EDGE



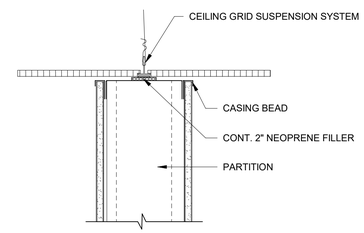
CONTROL JOINT AT PARTITION INTERSECTION / CHANGE IN CONSTRUCTION



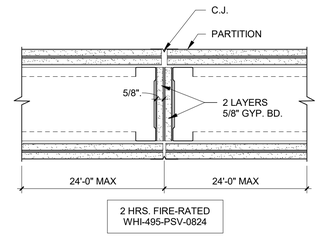
CONTROL JOINT FOR GYPSUM BOARD CEILING



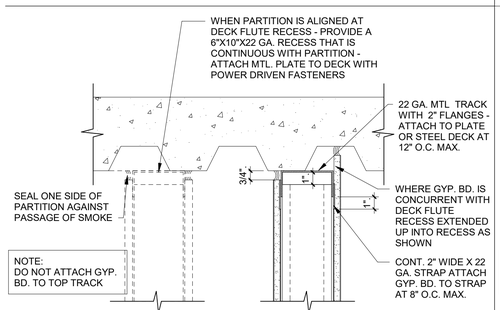
CONTROL JOINT AT FIRE-RATED PARTITION



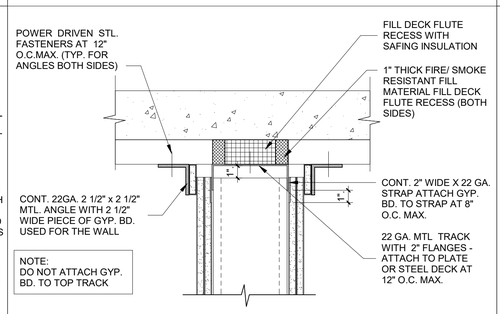
PARTITION ATTACHMENT TO CEILING GRID



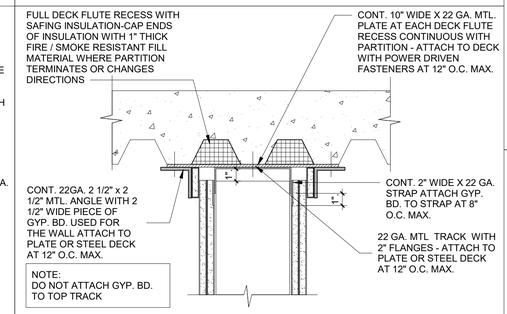
CONTROL JOINT AT FIRE-RATED PARTITION



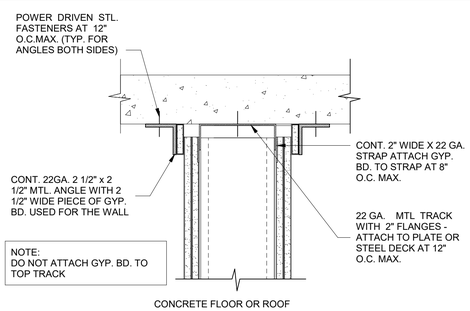
NON-RATED OR SMOKE RESISTANT



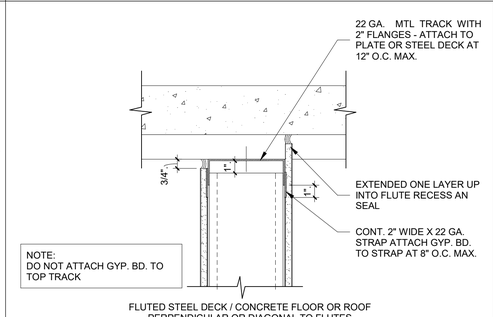
TWO HOURS FIRE RESISTANT AND TWO HOURS FIRE RESISTANT SMOKE BARRIER
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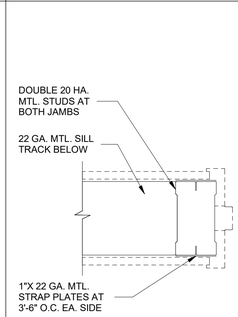
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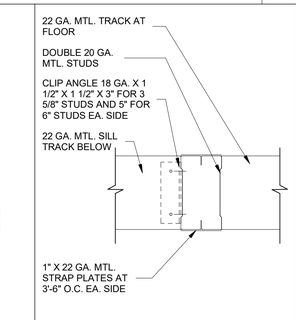
TWO HOURS FIRE RESISTANT AND TWO HOURS FIRE RESISTANT SMOKE BARRIER
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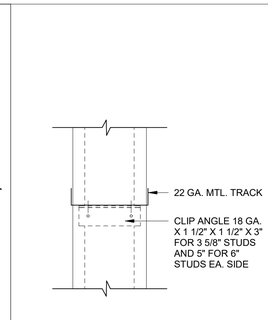
NON-RATED OR SMOKE RESISTANT



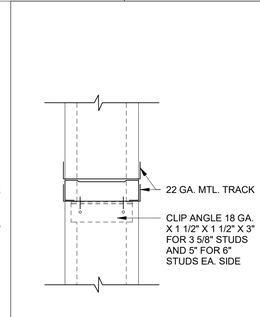
01 DOOR OPENING JAMB STUDS



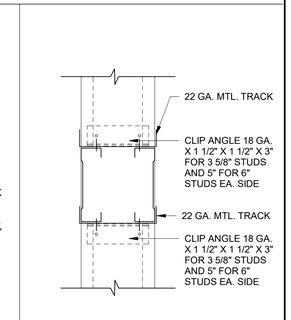
02 OPENING JAMB



03 OPENING HEADER



04 DOOR OPENING HEADER



05 DOUBLE DOOR / LARGE OPENING HEADER

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FORT WORTH, TEXAS 76107

REGISTERED ARCHITECT BRAD MATHEWS 22859 STATE OF TEXAS
09-11-2026

PROJECT NO.:26122

DATE:09-11-2026

REVISION SCHEDULE

Δ	Description	Date

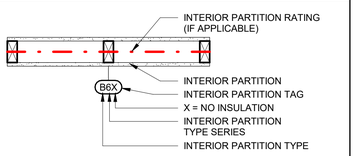
SHEET NAME

FRAMING DETAILS

SHEET NO.

G0.5

INTERIOR GRAPHIC LEGEND



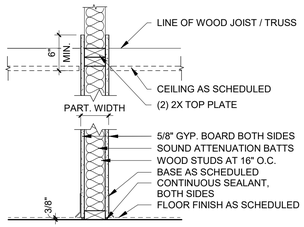
PARTITION NOTES

1. WALL TYPE TO CONTINUE AT DOOR & WINDOW OPENINGS (TOP & BOTTOM) U.N.O.
2. USE WATER RESISTANT GYP. BOARD AT ALL WET WALL LOCATIONS AND AROUND EXTERIOR WINDOW AND DOOR OPENINGS.
3. PARTITION TYPE REFERENCES ARE INDICATED ON THE FLOOR PLANS.
4. PARTITION TYPES DO NOT DETERMINE EXTERIOR WALL CONSTRUCTION. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
5. ALL PARTITIONS THAT EXTEND FROM FLOOR TO THE UNDERSIDE OF DECK ABOVE SHALL HAVE THEIR PERIMETER AND ALL PENETRATIONS SEALED SMOKETIGHT WITH ACOUSTICAL SEALANT OR FIRESTOPPING SEALANT, AS APPLICABLE.
6. ALL FIRE, SMOKE, OR FIRE/SMOKE PARTITIONS SHALL HAVE ALL CONTROL JOINTS AND EXPANSION JOINTS IN PARTITIONS CONSTRUCTED IN A MANNER SO AS TO NOT VIOLATE THE RATING, USING CONTINUOUS FIRESTOPPING MATERIAL WITHIN THE JOINT. OTHER UNRATED PARTITIONS SHALL HAVE ALL CONTROL JOINTS AND EXPANSION JOINTS IN PARTITIONS, CONSTRUCTED IN A MANNER TO RESIST SOUND TRANSMISSION, USING FIRE RESISTANT SOUND ATTENUATION BLANKET MATERIAL WITHIN THE JOINT.
7. CEILING HEIGHTS MAY VARY ON EITHER OR BOTH SIDES OF THE PARTITION. REFER TO FLOOR PLANS, REFLECTED CEILING PLAN AND CEILING DETAILS FOR CEILING HEIGHTS.
8. WOOD STUDS SHALL BE SPACED AT 16" O.C. MAXIMUM, UNLESS NOTED OTHERWISE. WOOD FRAMING STUDS SPACED AT 24" O.C. MAXIMUM SHALL BE USED WHERE SPECIFIED OR DETAILED.
9. ALL GYPSUM BOARD IS TO BE 5/8" THICK UNLESS NOTED OTHERWISE.
10. REFER TO PARTITION DETAILS, DOOR INFORMATION, AND DOOR DETAILS FOR FRAMING AND ANCHORAGE AT DOORS.
11. INSTALL DOUBLE WD STUDS AT ALL OPENINGS, HEADS, SILLS, JAMBS UNLESS NOTED OTHERWISE AT MINIMUM.
12. ALL JOINTS IN GYPSUM BOARD SURFACES TO BE TAPED AND FLOATED, INCLUDING RATED PARTITIONS, UNRATED PARTITIONS, EXPOSED SURFACES, CONCEALED SURFACES, AND SURFACES ABOVE THE CEILINGS.
13. ALL SOUND ATTENUATION BATTS SHALL BE CONTINUOUS FOR THE FULL HEIGHT OF PARTITION AND FULL WIDTH OF THE PARTITION UNLESS OTHERWISE NOTED.
14. STC RATING SHOWN IN PARTITION TABLES ARE TAKEN FROM MANUF. PRODUCT LITERATURE. ADDITIONAL STC INFORMATION IS AVAILABLE THROUGH ADDITIONAL RESOURCES.
15. ALL FIRE, SMOKE OR FIRE SMOKE PARTITIONS SHALL HAVE MECH. AND ELEC, DEVICES SEALED WITH PUTTY PACKS OR CONSTRUCTED IN A MANNER SO AS NOT TO VIOLATE THE RATING. OTHER UNRATED PARTITION SHALL HAVE MECH. AND ELEC. DEVICES SEALED WITH PUTTY PACKS FOR WALLS THAT EXCEED STC 45.

DOOR HARDWARE SCHEDULE

HW 01: EXTERIOR HM DOOR –REQUIRED EXIT DOOR
(3) HINGES
(1) PANIC DEVICE WITH LEVER
(1) PERMANENT CORE
(1) CONSTRUCTION CORE
(1) LOCKSET
(1) SURFACE CLOSER W/ INTEGRATED HOLDER/STOP
(1) STAINLESS STEEL KICK PLATE
(1) DOOR SWEEP
(1) THRESHOLD
(1) WEATHERSTRIP
(1) DRIP CAP

NOTE:
1. ALL HARDWARE IN STOREFRONT SYSTEMS TO BE PROVIDED BY STOREFRONT MFG. SELECTED HARDWARE PROVIDER TO PROVIDE KEY SCHEDULE.
2. MOUNT CLOSERS INSIDE VESTIBULES OR INSIDE ROOMS U.N.O.
3. PROVIDE WALL STOP/FLOOR STOP AT ALL DOORS WITHOUT CLOSERS.
4. SELECTED HARDWARE PROVIDER TO PROVIDE KEY SCHEDULE. CONTRACTOR TO COORDINATE WITH OWNER.
5. CONTRACTOR TO VERIFY LOCK TYPES FOR ALL ROOMS WITH OWNER.



B PARTITION TYPE

TYPE	STUD	PART. WIDTH	DESIGN NO.	DESIGN STC	
				MIN STC	INSUL
B3	3 1/2"	4 3/4"	N/A	-	3 1/2"

NOTE: VERIFY EXISTING INTERIOR WALL CONSTRUCTION BEFORE COMMENCEMENT OF WORK. DESIGN INTENT IS FOR THE NEW PARTITION TO MATCH EXISTING

FLOOR PLAN KEYNOTES:

01. GC TO COORDINATE FINAL LOCATIONS OF ALL OWNER FURNISHED EQUIPMENT AND FURNITURE
02. FURNITURE AND EQUIPMENT TO BE FURNISHED BY OWNER.
03. REUSE AND RELOCATE 30"x96" STAINLESS STEEL WORK STATION WITH UNDER COUNTER STORAGE
04. NEW 30"x48" STAINLESS STEEL WORK STATION
05. REUSE AND RELOCATE EXISTING STAINLESS STEEL STORAGE CABINET
06. REUSE AND RELOCATE EXISTING REFRIGERATOR
07. 24"x60" COMPUTER STATIONS, FURNISHED BY OWNER
08. REUSE AND RELOCATE EXISTING GROW TENTS
09. NEW 30"x72"x36" STAINLESS STEEL CABINET WITH BUILT-IN SINK FURNISHED BY OWNER
10. NEW 18"x33"x72" STAINLESS STEEL STORAGE CABINET FURNISHED BY OWNER
11. COORDINATE RELOCATION OF EXISTING PHOTOGRAPHY EQUIPMENT FROM THE BRIT BUILDING WITH OWNER

REMARKS KEY

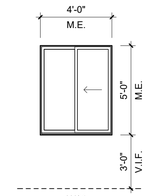
1. DESIGN INTENT IS FOR THE EXTERIOR FACES OF THE NEW DOOR AND FRAME TO MATCH THE EXISTING TO REMAIN. INTERIOR FINISHES ARE TBD.

DOOR AND FRAME FINISH KEY

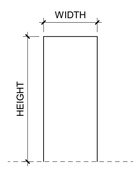
HM HOLLOW METAL FRAME
M.E. MATCH EXISTING

GENERAL DOOR NOTES

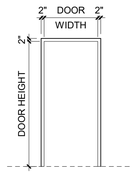
1. ALL EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT ANY SPECIAL EFFORT OR KNOWLEDGE.
2. CONTRACTOR TO VERIFY LOCK TYPES FOR ALL ROOMS WITH OWNER
3. ALL DOORS SHALL INCLUDE FLOOR MOUNTED DOOR STOPS UNLESS NOTED OTHERWISE.
4. PROVIDE MASTER KEY SETS.
5. ALL DOORS RECEIVING CLOSERS ARE TO BE REINFORCED AT THE POINT OF CLOSER CONNECTION.
6. ALL DOOR HARDWARE SHALL COMPLY WITH ADA REQUIREMENTS.
7. PROVIDE SILENCERS IN ALL FRAMES UNLESS WEATHERSTRIPPING IS PROVIDED.
8. INSTALL DOORS PLUMB AND LEVEL.
9. ENSURE DOORS OPERATE FREELY.
10. IF FIELD CUTTING FOR HEIGHT IS NECESSARY, CUT BOTTOM ONLY, 1/2" UNDERCUT MAXIMUM.



W01
1" CLEAR, TEMPERED, SAFETY GLAZING, THERMAL, LOW-E ALUMINUM FRAME AS SELECTED



TYPE D1



TYPE F1

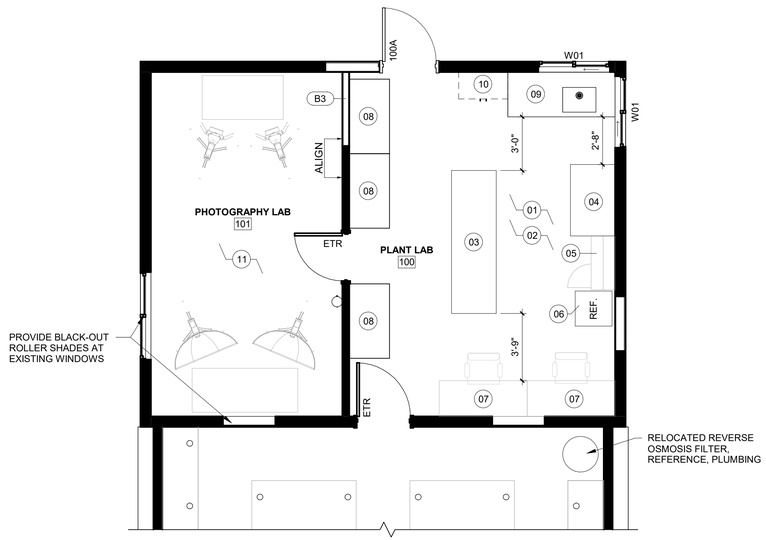
WINDOW TYPES | DOOR TYPES | FRAME TYPES

DOOR SCHEDULE

DOOR MARK	ROOM NAME	HARDWARE	DOOR DIMENSIONS WIDTH	DOOR DIMENSIONS HEIGHT	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	REMARKS
FLOOR PLAN											
100A	PLANT LAB		3' - 0"	7' - 0"	D1	HM	M.E	F1	HM	F1	1

FLOOR PLAN LEGEND:

ROOM NAME 101	ROOM TAG
100A	DOOR SYMBOL
B6X	WALL TYPE

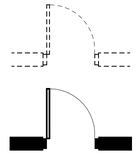


FLOOR PLAN 2
SCALE: 1/4" = 1'-0" A2.01

GENERAL DEMOLITION NOTES:

1. CONTRACTOR TO CONDUCT PRE-DEMOLITION MEETING WITH OWNER, AND CITY REPRESENTATIVES PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
2. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE RECYCLED, REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN THE OWNER'S PROPERTY, REMOVE DEMOLISHED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN AN APPROVED LANDFILL.
3. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON SITE.
4. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ONTO ADJACENT SURFACES AND AREAS.
5. DO NOT BURN DEMOLISHED MATERIALS ON SITE.
6. BUILDING DEMOLITION MAY INCLUDE ITEMS NOT REPRESENTED ON THESE DRAWINGS. CONTRACTOR MUST VERIFY ALL ITEMS TO BE DEMOLISHED.
7. CONTRACTOR TO COVER AND PROTECT EXISTING EXTERIOR FINISHES TO REMAIN ADJACENT TO ITEMS TO BE REMOVED.
8. CONTRACTOR MUST FILE A NOTIFICATION OF DEMOLITION WITH AHJ PRIOR TO DEMOLITION.

DEMOLITION LEGEND:



BLACK DASHED LINE INDICATES REMOVAL OF EXISTING WALLS, DOORS, CEILINGS, AND OTHER COMPONENTS.

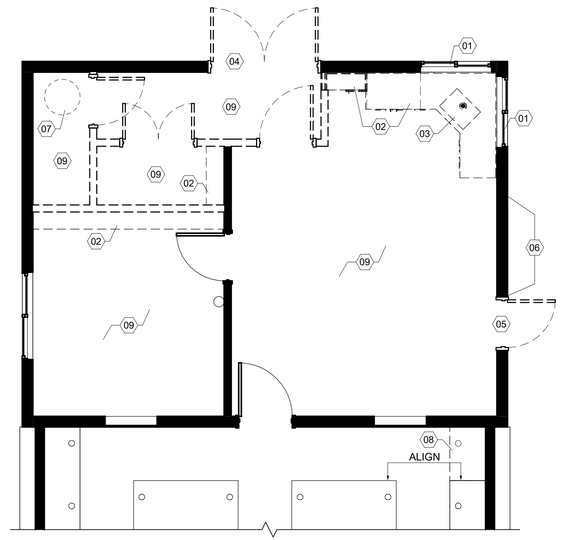
SOLID BLACK FILLED LINE INDICATES EXISTING COMPONENTS TO REMAIN. DOORS DESIGNATED "EXISTING TO REMAIN" ARE GRAPHICALLY DEPICTED WITH A DARK BOLD CUT LINE.

DEMOLITION NOTES:

1. WHERE INDICATED, DEMO WALL OR PORTION OF WALL, IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO DOORS AND DOOR FRAMES, WINDOWS, OUTLETS, TECHNOLOGY, SWITCHES, HVAC CONTORLS, MISC. EQUIPMENT, ETC., U.N.O.
2. DEMO EXISTING FINISHES, PREP WALLS AND SUBFLOOR FOR NEW FINISHES AS SCHEDULED, U.N.O.

DEMOLITION FLOOR PLAN KEYNOTES:

01. DEMO EXISTING WINDOW AND WINDOW FRAME COMPLETE; INFILL OPENINGS AS NECESSARY AND PREP FOR NEW FINISHES
02. DEMO MILLWORK IN ITS ENTIRETY, PATCH AND PREPARE FLOORS AND WALLS AS NECESSARY TO RECEIVE NEW FINISHES, U.N.O.
03. DEMO PLUMBING FIXTURE, TERMINATE AND CAP OFF UNUSED CONNECTIONS; SALVAGE CONNECTIONS FOR NEW FIXTURES WHERE NECESSARY, REF. PLUMBING, U.N.O.
04. DEMO EXISTING DOOR AND DOOR FRAME COMPLETE; INFILL OPENING AS REQUIRED TO RECEIVE NEW DOOR AS SCHEDULED.
05. DEMO EXISTING DOOR AND DOOR FRAME COMPLETE; INFILL OPENINGS AS NECESSARY AND PREP FOR NEW FINISHES, U.N.O.
06. REMOVE EXISTING WATER DAMAGED SIDING IN PREPARATION FOR NEW; MATCH EXISTING 1x6 SIDING
07. PREP EXISTING REVERSE OSMOSIS FILTER TO BE RELOCATED, REFERENCE PLUMBING
08. DEMOLISH PORTION OF EXISTING PLANT SHELF TO ALIGN WITH ADJACENT EXISTING TO REMAIN SHELF
09. PREP EXISTING CONCRETE FLOORS TO BE SEALED



DEMOLITION FLOOR PLAN 1
SCALE: 1/4" = 1'-0" A2.01

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REGISTERED ARCHITECT BRAD NASHER 22859 STATE OF TEXAS

09-11-2026

PROJECT NO.:26122

DATE:09-11-2026

REVISION SCHEDULE

Δ	Description	Date

SHEET NAME

FLOOR PLANS AND DETAILS

SHEET NO.

A2.01

DEMOLITION LEGEND:

DEMO EXISTING CEILING, SALVAGE WHERE ABLE, PREP FOR NEW.

DASHED LINE IS INDICATION OF THE REMOVAL AND SALVAGE OR DEMOLITION OF EXISTING LIGHT FIXTURES; GC TO COORDINATE FIXTURES TO BE RELOCATED WITH OWNER

DEMOLITION RCP KEYNOTES:

01 DEMO LIGHT FIXTURE

02 EXISTING GYPSUM FURR-DOWN TO REMAIN

REFLECTED CEILING PLAN LEGEND

TYPE → A
ELEVATION → 9'-0"

DETAIL NUMBER → 1
SHEET, LOCATED ON → A9.2

ACT 2' x 2' LAY-IN ACOUSTICAL TILE WITH SQUARE EDGE; FINE FINISH; WHITE, HIGH LIGHT REFLECTANCE; IN 15/16" STEEL GRID.

GYP 5/8" GYPSUM; SMOOTH, FINISH LEVEL 3; PAINTED (TBD)

SYMBOL LEGEND

A 2 x 2 LED LIGHT FIXTURE

NOTES:

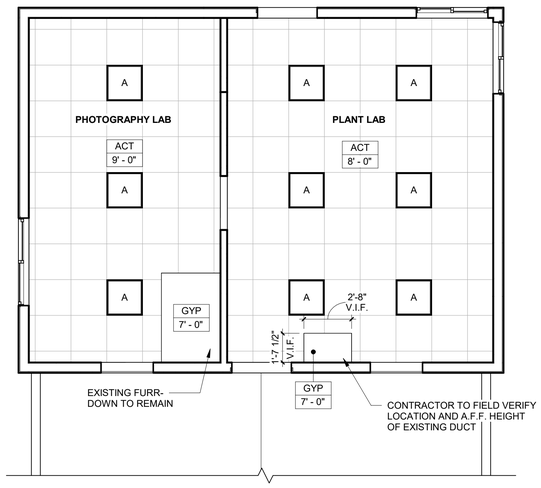
1. REFERENCE ELECTRICAL DRAWINGS FOR LIGHTING FIXTURE SCHEDULE.

2. MECHANICAL AND ELECTRICAL DATA SHOWN FOR REFERENCE ONLY. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR LIGHT FIXTURES, DUCTS, AND GRILLES. ANY CONFLICT OR DISCREPANCY WITH ARCHITECTURAL DRAWINGS SHOULD BE ADDRESSED WITH ARCHITECT AS SOON AS POSSIBLE, PRIOR TO INSTALLATION.

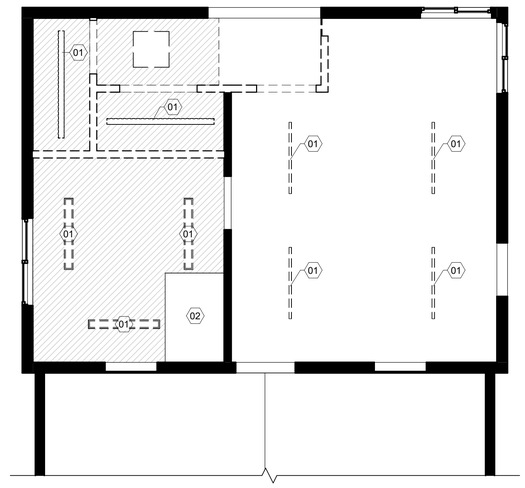
3. LIGHT FIXTURES ARE LOCATED TO CENTERLINE OF ROOM, CORRIDOR, OR GRID AND EQUALLY SPACED UNLESS NOTED OTHERWISE.

GENERAL DEMOLITION NOTES:

1. CONTRACTOR TO CONDUCT PRE-DEMOLITION MEETING WITH OWNER, AND CITY REPRESENTATIVES PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
2. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE RECYCLED, REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN THE OWNER'S PROPERTY, REMOVE DEMOLISHED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN AN APPROVED LANDFILL.
3. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON SITE.
4. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ONTO ADJACENT SURFACES AND AREAS.
5. DO NOT BURN DEMOLISHED MATERIALS ON SITE.
6. BUILDING DEMOLITION MAY INCLUDE ITEMS NOT REPRESENTED ON THESE DRAWINGS. CONTRACTOR MUST VERIFY ALL ITEMS TO BE DEMOLISHED.
7. CONTRACTOR TO COVER AND PROTECT EXISTING EXTERIOR FINISHES TO REMAIN ADJACENT TO ITEMS TO BE REMOVED.
8. CONTRACTOR MUST FILE A NOTIFICATION OF DEMOLITION WITH AHJ PRIOR TO DEMOLITION.



REFLECTED CEILING PLAN 2
SCALE: 1/4" = 1'-0" A7.01



DEMOLITION CEILING PLAN 1
SCALE: 1/4" = 1'-0" A7.01

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BRAD NABERS
22859
STATE OF TEXAS

09-11-2026

PROJECT NO.:26122

DATE:09-11-2026

REVISION SCHEDULE

Δ	Description	Date

SHEET NAME

REFLECTED CEILING PLANS AND DETAILS

SHEET NO.

A7.01

MECHANICAL AND PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	THIN LINE WEIGHTS REPRESENT EXISTING WORK
	BOLD LINE WEIGHTS REPRESENT NEW WORK
	EXISTING DUCTWORK TO BE REMOVED
	EXISTING DUCTWORK
	NEW DUCTWORK
→D	CHANGE OF ELEVATION - RISE (R) DROP (D)
	DUCT UP, POSITIVE PRESSURE FIRST FIGURE IS TOP DIMENSION
	DUCT UP, NEGATIVE PRESSURE FIRST FIGURE IS TOP DIMENSION
	DUCT DOWN, POSITIVE PRESSURE FIRST FIGURE IS TOP DIMENSION
	DUCT DOWN, NEGATIVE PRESSURE FIRST FIGURE IS TOP DIMENSION
	MANUAL VOLUME DAMPER
	FIRE DAMPER, VERTICAL POSITION
	FIRE DAMPER, HORIZONTAL POSITION
	CEILING DIFFUSER
	CEILING EXHAUST/RETURN GRILLE
	SLOT DIFFUSER
	SIDEWALL GRILLE OR REGISTER
	INDICATES DIRECTION OF AIRFLOW
AIR DEVICE TAG (A 10"ø / 200)	SCHEDULE DESIGNATION; NECK SIZE; AIR QUANTITY (CFM)
DETAIL TAG (01 / M201)	DETAIL NUMBER; SHEET ON WHICH DETAIL APPEARS
RISER TAG (P1)	P: PLUMBING RISER/F: FIRE RISER; RISER NUMBER
Ⓗ	HUMIDISTAT SENSOR
Ⓖ	TEMPERATURE AND HUMIDITY GAUGE
Ⓢ	TEMPERATURE SENSOR
Ⓣ	THERMOSTAT
	EXISTING PIPING TO BE REMOVED
— SAN —	SANITARY SEWER
— GW —	GREASE WASTE
— - -	DOMESTIC COLD WATER
— - - -	DOMESTIC HOT WATER
- - - - -	DOMESTIC HOT WATER RETURN
— —	VENT
— CD —	CONDENSATE DRAIN
— F —	FIRE PIPING
— G —	GAS PIPING
— TW —	TEMPERED WATER PIPING
	CONNECT NEW TO EXISTING
	PIPE, TURNED UP
	PIPE, TURNED DOWN
	CONNECTION, BOTTOM
	CONNECTION, TOP
	ELBOW
	TEE
	CAP
	STRAINER
	UNION
	FLANGE
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	ANGLE VALVE
	SHUT-OFF VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	GATE VALVE
	GLOBE VALVE
	PLUG VALVE
	PRESSURE RELIEF VALVE
	PRESSURE REDUCING VALVE
	AUTOMATIC BUTTERFLY VALVE
	AUTOMATIC 2-WAY VALVE
	AUTOMATIC 3-WAY VALVE
	PENETRATION
	WATER HAMMER ARRESTER

NOTES:
1. ALL SYMBOLS MAY NOT APPEAR ON DRAWINGS.
(2023.02)

ABBREVIATIONS

TEXT	DESCRIPTION
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BOD	BOTTOM OF DUCT
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CO	CLEANOUT
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
CU	COPPER
CW	DOMESTIC COLD WATER
(D)	EXISTING TO BE DEMOLISHED
DCO	DOUBLE CLEANOUT
(E)	EXISTING TO REMAIN
E/A	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWT	ENTERING WATER TEMPERATURE
°F	DEGREES FAHRENHEIT
F	FIRE LINE
FCO	FLOOR CLEANOUT
FLD	FLOOR DRAIN
FD	FIRE DAMPER
FS	FLOOR SINK
FSD	COMBINATION FIRE SMOKE DAMPER
G	GAS
GPM	GALLONS PER MINUTE
HG	REFRIGERANT HOT GAS
HP	HORSEPOWER
HR	HEATING HOT WATER RETURN
HS	HEATING HOT WATER SUPPLY
HW	HOT WATER SUPPLY
HWR	HOT WATER RETURN
IC	IN COUNTER
K/E	KITCHEN EXHAUST
KW	KILOWATT
L	LAVATORY
M/A	MAKE-UP AIR
MB	MOP BASIN
MTD	MOUNTED
(N)	NEW
NIC	NOT IN CONTRACT
O/A	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OCD	OVERFLOW CONDENSATE DRAIN
OD	OVERFLOW ROOF DRAIN
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
PBD	PARALLEL BLADE DAMPER
PSI	POUNDS PER SQUARE INCH
(R)	EXISTING TO BE RELOCATED
R/A	RETURN AIR
RD	ROOF DRAIN
RL	REFRIGERANT LIQUID
RO	REVERSE OSMOSIS
RS	REFRIGERANT SUCTION
S	SINK
S/A	SUPPLY AIR
SAN	SANITARY SEWER
SD	STORM DRAIN
SIM	SIMILAR
TP	TRAP PRIMER
TWH	TANKLESS WATER HEATER
TW	TEMPERED WATER
U	URINAL
UF	UNDERFLOOR
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VENT
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VTR	VENT THROUGH ROOF
W	WALL MOUNTED
WC	WATER CLOSET
WCO	WALL CLEANOUT
WP	WEATHER PROOF

DIVISION 21 - FIRE SUPPRESSION

211313 - WET PIPE SPRINKLER SYSTEMS
A. PROVIDE COMPLETE WET PIPE FIRE SPRINKLER SYSTEM FOR THE ENTIRE SPACE. FIRE SPRINKLER SYSTEM SHALL BE APPROVED BY THE AUTHORITIES HAVING JURISDICTION. SUBMIT SPRINKLER LAYOUT FOR REVIEW.
B. SPRINKLER HEADS IN FINISHED AREAS SHALL BE CONCEALED TYPE WITH WHITE COVER PLATES. SPRINKLER HEADS SHALL BE CENTERED IN CEILING TILES.
C. COORDINATE THE DESIGN AND LAYOUT OF FIRE SUPPRESSION PIPING WITH THE WORK OF ALL TRADES TO ALLOW ADEQUATE ABOVE CEILING CLEARANCES FOR MECHANICAL EQUIPMENT, DUCTS, CONDUIT, PLUMBING PIPING, AND LIGHT FIXTURES.
D. REVISIONS TO THE EXISTING FIRE SUPPRESSION PIPING SYSTEM SHALL BE PROVIDED TO MAINTAIN A FULLY OPERATIONAL SYSTEM THAT SATISFIES THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. FIRE SUPPRESSION SYSTEM SHALL BE LIGHT HAZARD UNLESS OTHERWISE NOTED.
E. SPRINKLER HEADS IN FINISHED CEILINGS SHALL BE CONCEALED TYPE WITH WHITE FLUSH COVERS OR RECESSED TYPE WITH TWO-PIECE CHROME ESCUTCHEONS AS NOTED. SPRINKLER HEADS IN UNFINISHED SPACES SHALL BE CHROME PENDANT TYPE.
F. EXTENDED COVERAGE TYPE SPRINKLER HEADS MAY BE USED WHERE APPROVED BY THE AUTHORITIES HAVING JURISDICTION.

DIVISION 22 - PLUMBING

220100 - BASIC PLUMBING REQUIREMENTS
A. PROVIDE ALL EQUIPMENT, MATERIALS, LABOR, SUPERVISION, AND SERVICES NECESSARY FOR OR INCIDENTAL TO THE INSTALLATION OF COMPLETE AND OPERATING MECHANICAL SYSTEMS AS SHOWN OR INDICATED ON THE DRAWINGS. PROPER PRECAUTIONS SHALL BE TAKEN TO PROTECT ALL EXISTING OPERATIONS AND PROPERTY WITH WHICH WORK COMES IN CONTACT OR OVER WHICH MATERIALS, EQUIPMENT, DEBRIS, ETC. MAY BE TRANSPORTED, HOISTED, OR MOVED. ALL DAMAGE RESULTING FROM THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER.
B. NOTIFY AND COORDINATE WITH THE OWNER FOR APPROVAL AND SCHEDULING OF ANY BUILDING OR EXISTING TENANT SYSTEM INTERRUPTION.
C. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS FOR THE SERVICE INTENDED. THE INSTALLATION OF ALL EQUIPMENT SHALL BE MADE BY EXPERIENCED CRAFTSMEN IN A MANNER DEMONSTRATING NEAT WORKMANSHIP.
D. THE SCOPE OF WORK SHALL INCLUDE ALL MATERIAL, TOOLS, SERVICE, AND COSTS NECESSARY TO COMPLETELY INSTALL ALL MECHANICAL WORK. IT IS THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS THAT THE MECHANICAL SYSTEM BE INSTALLED COMPLETE INCLUDING ALL ITEMS AND APPURTENANCES NECESSARY, REASONABLY INCIDENTAL, OR CUSTOMARILY INCLUDED EVEN THOUGH EACH AND EVERY ITEM IS NOT SPECIFICALLY MENTIONED OR SHOWN.
E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND ALL APPLICABLE CODES AND STANDARDS WHICH INCLUDE ALL ORDINANCES, AMENDMENTS, AND UTILITY COMPANY REGULATIONS. WHERE CONFLICTS EXIST AMONG APPLICABLE CODES AND STANDARDS, THE ARCHITECT SHALL BE NOTIFIED IN WRITING. SHOULD WORK BE PERFORMED THAT DOES NOT COMPLY WITH APPLICABLE CODES AND STANDARDS, THOSE DEFECTS SHALL BE CORRECTED WITH NO CHANGE IN CONTRACT AMOUNT.
F. THE CONTRACT DOCUMENTS WERE PREPARED FROM INFORMATION MADE AVAILABLE; HOWEVER, CONDITIONS SURROUNDING THE INSTALLATION OF THE WORK SHALL BE CAREFULLY INVESTIGATED PRIOR TO SUBMITTING A BID, FABRICATION OF DUCTS OR PIPING, OR PROCEEDING WITH INSTALLATION. CONFLICTS DUE TO EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR REVIEW AND RESOLUTION. UPON COMMENCEMENT OF CONSTRUCTION, IT SHALL BE UNDERSTOOD THAT THE CONDITIONS OF THE PREMISES HAVE BEEN ACCEPTED.
G. ALL EXISTING PLUMBING FIXTURES IMPACTED BY THE DRAWINGS AND DESIGNATED TO REMAIN SHALL BE INSPECTED PRIOR TO SUBMITTING A BID. THIS EQUIPMENT IS TO BE SERVICED, CLEANED, AND PLACED IN WORKING ORDER AS PART OF THIS WORK; THEREFORE, ALL REPAIRS, PARTS, ETC. SHALL BE INCLUDED.
H. ALL EXISTING PLUMBING LINES SHOWN IN THE DRAWINGS ARE APPROXIMATE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS AND SIZES PRIOR TO BID.
I. ALL PLUMBING EQUIPMENT SHALL BE AS SCHEDULED OR AS APPROVED EQUAL BY THE ENGINEER.
J. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY STANDARDS (TAS).
K. ALL BIDDERS SHALL BE FAMILIAR WITH EXISTING CONDITIONS ON THE PREMISES AND BE PREPARED TO COORDINATE WITH ALL EXISTING CONDITIONS TO BE ENCOUNTERED BY ALL TRADES. ANY EXCEPTIONS SHALL BE NOTED IN WRITING AND SHALL BE INCLUDED IN THE BID.
L. THE WORKING CONDITION OF ALL EXISTING EQUIPMENT TO BE RE-USED SHALL BE VERIFIED PRIOR TO THE START OF CONSTRUCTION. THE OWNER SHALL BE GIVEN WRITTEN NOTIFICATION OF ANY MISSING OR MALFUNCTIONING DEVICES.
M. COORDINATE EQUIPMENT SUBSTITUTIONS FOR THE SCHEDULED OR SPECIFIED ITEM WITH ALL OTHER TRADES. COMPENSATION TO OTHER TRADES DUE TO CHANGES IN RATED VOLTAGE, PHASE, AMPERAGE, PHYSICAL SIZE, WEIGHT, ARRANGEMENT, SHAPE, COLOR, OR OTHER CHARACTERISTIC AND THE RELATED EFFECTS ARISING FROM THE SUBSTITUTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR MAKING THE CHANGE.
N. THE DRAWINGS ARE DIAGRAMMATIC, BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK OF OTHER TRADES WILL PERMIT. PIPING ARRANGEMENTS, PLUMBING COMPONENT LOCATIONS, AND THE LIKE HAVE BEEN DESIGNED FOR ECONOMY CONSISTENT WITH GOOD PRACTICE AND OTHER CONSIDERATIONS. MAJOR CHANGES TO THE SYSTEMS ARRANGED AS SHOWN ON THE DRAWINGS MUST BE APPROVED IN WRITING AND ALL SUCH CHANGES SHALL BE INCORPORATED INTO THE 'AS-BUILT' DRAWINGS.
O. MAINTAIN MINIMUM CLEARANCES ABOVE FINISHED CEILINGS TO ALLOW INSTALLATION OF MECHANICAL EQUIPMENT, DUCTS, CONDUIT, PLUMBING PIPING, FIRE SUPPRESSION PIPING, AND LIGHT FIXTURES.
P. IN THE EVENT OF A CONFLICT WITHIN THE CONTRACT DOCUMENTS, PROVIDE THE GREATER QUANTITY OR HIGHER QUALITY.
Q. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE RULES, REGULATIONS, INDUSTRY STANDARDS, LOCAL CODES, LAWS, AND ORDINANCES. IN THE EVENT THAT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, NOTIFY THE ENGINEER IMMEDIATELY.

220110 - BASIC PUMBING MATERIALS AND METHODS
A. MATERIALS AND/OR EQUIPMENT FAILING TO GIVE SATISFACTORY SERVICE DURING A ONE YEAR MATERIALS AND LABOR WARRANTY PERIOD SHALL BE REPAIRED OR REPLACED WITH NEW.
B. SUBMIT A PDF FILE OF PRODUCT DATA FOR ALL PLUMBING ITEMS FOR APPROVAL.
C. UPON COMPLETION OF THE WORK, ALL EXPOSED PORTIONS OF THE PLUMBING EQUIPMENT PROVIDED SHALL BE THOROUGHLY CLEANED. REMOVE ALL TRACES OF SOIL, LABELS, GRADE, OIL, AND OTHER FOREIGN MATERIAL USING ONLY THE TYPES OF CLEANERS RECOMMENDED BY THE MANUFACTURERS OF THE EQUIPMENT BEING CLEANED.
D. UPON COMPLETION, PROVIDE MANUFACTURER'S OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT INSTALLED AS PART OF THE WORK TO THE OWNER.
E. PROVIDE TRAINING TO OPERATING PERSONNEL FOR ALL SYSTEMS AND EQUIPMENT INSTALLED AS PART OF THE WORK.
F. UPON THE COMPLETION OF THE WORK, PROVIDE 'AS-BUILT' RECORD DRAWINGS TO THE OWNER. DRAWINGS SHALL BE PROVIDED IN ELECTRONIC FORMAT COMPATIBLE WITH AUTOCAD RELEASE 2022.

220523 - VALVES
A. ALL VALVES SHALL BE RATED FOR THE MAXIMUM PRESSURE OF THE SYSTEM IN WHICH THEY ARE TO BE INSTALLED.
B. ALL WATER SERVICE VALVES SHALL BE LUG TYPE BUTTERFLY OR BALL TYPE.

220529 - HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT
A. ALL EQUIPMENT AND PIPING SHALL BE PROPERLY SUPPORTED WITHIN THE BUILDING AND ADEQUATE PROVISIONS SHALL BE MADE FOR SLOPE AND ANCHORAGE. HANGERS, RODS, CLAMPS, AND INSERTS SHALL BE APPROVED BY UL FOR THE SERVICE INTENDED.

220553 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT
A. ALL MAJOR EQUIPMENT SHALL BE PROVIDED WITH ENGRAVED NAMEPLATES ATTACHED WITH SCREWS. LABELS SHALL USE NOMENCLATURE FROM EQUIPMENT SCHEDULES.
B. PIPING SYSTEMS SHALL BE IDENTIFIED WITH SNAP-ON PIPE MARKERS LOCATED EVERY TEN FEET. MARKERS SHALL DESIGNATE PIPE CONTENT AND FLOW DIRECTION.

220719 - PLUMBING PIPE INSULATION
A. CHILLED WATER AND REFRIGERANT SUCTION LINES 1.5 INCHES AND SMALLER SHALL BE INSULATED WITH 1 INCH THICKNESS PRE-FORMED GLASS FIBER PIPE INSULATION WITH WHITE ALL SERVICE JACKET AND INTEGRAL VAPOR BARRIER. INSULATION THICKNESS ON THESE LINES GREATER THAN 1.5 INCHES SHALL BE 1.5 INCH THICKNESS.
B. CIRCULATED DOMESTIC HOT WATER PIPING SHALL BE INSULATED WITH 1 INCH THICKNESS PRE-FORMED GLASS FIBER PIPE INSULATION WITH WHITE ALL SERVICE JACKET.
C. DOMESTIC COLD WATER, HOT WATER, AND HVAC CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH 0.5 INCH THICKNESS PRE-FORMED GLASS FIBER PIPE INSULATION WITH WHITE ALL SERVICE JACKET AND INTEGRAL VAPOR BARRIER.
D. ALL INSULATION AND JACKET MATERIALS EXPOSED TO RETURN AIR SHALL BE SPECIFICALLY APPROVED FOR THAT APPLICATION.

221116 - DOMESTIC WATER PIPING
A. DOMESTIC COLD, HOT, AND CIRCULATED HOT WATER PIPING AND EQUIPMENT CONDENSATE DRAIN PIPING SHALL BE TYPE L HARD COPPER WITH WROUGHT COPPER FITTINGS.
B. DIELECTRIC UNIONS, FITTINGS, OR COUPLINGS SHALL BE USED WHEN DISSIMILAR METALS ARE JOINED.

221319 - SANITARY WASTE AND VENT PIPING
A. SANITARY WASTE, VENT, AND DRAIN PIPING 2 INCHES AND LARGER SHALL BE SERVICE WEIGHT CAST IRON. PIPING BELOW THE SLAB SHALL BE HUB AND SPIGOT TYPE WITH SEALED JOINTS. PIPING ABOVE THE SLAB SHALL BE NO-HUB TYPE. VENT PIPING MAY BE SCHEDULE 40 GALVANIZED STEEL, DWV COPPER, OR SERVICE WEIGHT CAST IRON. WASTE PIPING SMALLER THAN 2 INCHES MAY BE DWV COPPER. SCHEDULE 40 PVC PIPING MAY BE USED WHERE ACCEPTED BY THE AUTHORITIES HAVING JURISDICTION; HOWEVER, PVC PIPING MAY NOT BE USED IN SPACES USED FOR RETURN AIR PLENUMS.

224213 - PLUMBING FIXTURES
A. PLUMBING FIXTURES AND EQUIPMENT SHALL BE PROVIDED AS SCHEDULED OR INDICATED AND INSTALLED COMPLETE WITH STOP VALVES, SUPPLIES, ESCUTCHEONS, AND ALL OTHER APPURTENANCES REQUIRED TO CONNECT TO ROUGH-IN PIPING AT FLOORS AND WALLS.

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING

230100 - BASIC MECHANICAL REQUIREMENTS
A. PROVIDE ALL EQUIPMENT, MATERIALS, LABOR, SUPERVISION, AND SERVICES NECESSARY FOR OR INCIDENTAL TO THE INSTALLATION OF COMPLETE AND OPERATING MECHANICAL SYSTEMS AS SHOWN OR INDICATED ON THE DRAWINGS. PROPER PRECAUTIONS SHALL BE TAKEN TO PROTECT ALL EXISTING OPERATIONS AND PROPERTY WITH WHICH WORK COMES IN CONTACT OR OVER WHICH MATERIALS, EQUIPMENT, DEBRIS, ETC. MAY BE TRANSPORTED, HOISTED, OR MOVED. ALL DAMAGE RESULTING FROM THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER.
B. NOTIFY AND COORDINATE WITH THE OWNER FOR APPROVAL AND SCHEDULING OF ANY BUILDING OR EXISTING TENANT SYSTEM INTERRUPTION.
C. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS FOR THE SERVICE INTENDED. THE INSTALLATION OF ALL EQUIPMENT SHALL BE MADE BY EXPERIENCED CRAFTSMEN IN A MANNER DEMONSTRATING NEAT WORKMANSHIP.
D. THE SCOPE OF WORK SHALL INCLUDE ALL MATERIAL, TOOLS, SERVICE, AND COSTS NECESSARY TO COMPLETELY INSTALL ALL MECHANICAL WORK. IT IS THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS THAT THE MECHANICAL SYSTEM BE INSTALLED COMPLETE INCLUDING ALL ITEMS AND APPURTENANCES NECESSARY, REASONABLY INCIDENTAL, OR CUSTOMARILY INCLUDED EVEN THOUGH EACH AND EVERY ITEM IS NOT SPECIFICALLY MENTIONED OR SHOWN.
E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND ALL APPLICABLE CODES AND STANDARDS WHICH INCLUDE ALL ORDINANCES, AMENDMENTS, AND UTILITY COMPANY REGULATIONS. WHERE CONFLICTS EXIST AMONG APPLICABLE CODES AND STANDARDS, THE ARCHITECT SHALL BE NOTIFIED IN WRITING. SHOULD WORK BE PERFORMED THAT DOES NOT COMPLY WITH APPLICABLE CODES AND STANDARDS, THOSE DEFECTS SHALL BE CORRECTED WITH NO CHANGE IN CONTRACT AMOUNT.
F. THE CONTRACT DOCUMENTS WERE PREPARED FROM INFORMATION MADE AVAILABLE; HOWEVER, CONDITIONS SURROUNDING THE INSTALLATION OF THE WORK SHALL BE CAREFULLY INVESTIGATED PRIOR TO SUBMITTING A BID, FABRICATION OF DUCTS OR PIPING, OR PROCEEDING WITH INSTALLATION. CONFLICTS DUE TO EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR REVIEW AND RESOLUTION. UPON COMMENCEMENT OF CONSTRUCTION, IT SHALL BE UNDERSTOOD THAT THE CONDITIONS OF THE PREMISES HAVE BEEN ACCEPTED.
G. COORDINATE LOCATIONS OF EXISTING EQUIPMENT (DUCTS, TERMINAL BOXES, ETC.) WITH NEW FLOOR TO STRUCTURE PARTITIONS. RELOCATE EQUIPMENT IF REQUIRED TO MAINTAIN ADEQUATE SERVICE CLEARANCE.
H. ALL EXISTING MECHANICAL EQUIPMENT IMPACTED BY THE DRAWINGS AND DESIGNATED TO REMAIN SHALL BE INSPECTED PRIOR TO SUBMITTING A BID. THIS EQUIPMENT IS TO BE SERVICED, CLEANED, AND PLACED IN WORKING ORDER AS PART OF THIS WORK; THEREFORE, ALL REPAIRS, PARTS, ETC. SHALL BE INCLUDED.
I. ALL MECHANICAL EQUIPMENT SHALL BE AS SCHEDULED OR AS APPROVED EQUAL BY THE ENGINEER.
J. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY STANDARDS (TAS).
K. ALL BIDDERS SHALL BE FAMILIAR WITH EXISTING CONDITIONS ON THE PREMISES AND BE PREPARED TO COORDINATE WITH ALL EXISTING CONDITIONS TO BE ENCOUNTERED BY ALL TRADES. ANY EXCEPTIONS SHALL BE NOTED IN WRITING AND SHALL BE INCLUDED IN THE BID.
L. THE WORKING CONDITION OF ALL EXISTING EQUIPMENT TO BE RE-USED SHALL BE VERIFIED PRIOR TO THE START OF CONSTRUCTION. THE OWNER SHALL BE GIVEN WRITTEN NOTIFICATION OF ANY MISSING OR MALFUNCTIONING DEVICES.
M. COORDINATE EQUIPMENT SUBSTITUTIONS FOR THE SCHEDULED OR SPECIFIED ITEM WITH ALL OTHER TRADES. COMPENSATION TO OTHER TRADES DUE TO CHANGES IN RATED VOLTAGE, PHASE, AMPERAGE, PHYSICAL SIZE, WEIGHT, ARRANGEMENT, SHAPE, COLOR, OR OTHER CHARACTERISTIC AND THE RELATED EFFECTS ARISING FROM THE SUBSTITUTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR MAKING THE CHANGE.
N. THE DRAWINGS ARE DIAGRAMMATIC, BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK OF OTHER TRADES WILL PERMIT. PIPING ARRANGEMENTS, MECHANICAL COMPONENT LOCATIONS, AND THE LIKE HAVE BEEN DESIGNED FOR ECONOMY CONSISTENT WITH GOOD PRACTICE AND OTHER CONSIDERATIONS. MAJOR CHANGES TO THE SYSTEMS ARRANGED AS SHOWN ON THE DRAWINGS MUST BE APPROVED IN WRITING AND ALL SUCH CHANGES SHALL BE INCORPORATED INTO THE 'AS-BUILT' DRAWINGS.
O. MAINTAIN MINIMUM CLEARANCES ABOVE FINISHED CEILINGS TO ALLOW INSTALLATION OF MECHANICAL EQUIPMENT, DUCTS, CONDUIT, PLUMBING PIPING, FIRE SUPPRESSION PIPING, AND LIGHT FIXTURES.
P. IN THE EVENT OF A CONFLICT WITHIN THE CONTRACT DOCUMENTS, PROVIDE THE GREATER QUANTITY OR HIGHER QUALITY.
Q. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE RULES, REGULATIONS, INDUSTRY STANDARDS, LOCAL CODES, LAWS, AND ORDINANCES. IN THE EVENT THAT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, NOTIFY THE ENGINEER IMMEDIATELY.

230110 - BASIC MECHANICAL MATERIALS AND METHODS
A. MATERIALS AND/OR EQUIPMENT FAILING TO GIVE SATISFACTORY SERVICE DURING A ONE YEAR MATERIALS AND LABOR WARRANTY PERIOD SHALL BE REPAIRED OR REPLACED WITH NEW.
B. SUBMIT A PDF FILE OF PRODUCT DATA FOR ALL MECHANICAL ITEMS FOR APPROVAL.
C. UPON COMPLETION OF THE WORK, ALL EXPOSED PORTIONS OF THE MECHANICAL EQUIPMENT PROVIDED SHALL BE THOROUGHLY CLEANED. REMOVE ALL TRACES OF SOIL, LABELS, GRADE, OIL, AND OTHER FOREIGN MATERIAL USING ONLY THE TYPES OF CLEANERS RECOMMENDED BY THE MANUFACTURERS OF THE EQUIPMENT BEING CLEANED.
D. UPON COMPLETION, PROVIDE MANUFACTURER'S OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT INSTALLED AS PART OF THE WORK TO THE OWNER.
E. PROVIDE TRAINING TO OPERATING PERSONNEL FOR ALL SYSTEMS AND EQUIPMENT INSTALLED AS PART OF THE WORK.
F. UPON THE COMPLETION OF THE WORK, PROVIDE 'AS-BUILT' RECORD DRAWINGS TO THE OWNER. DRAWINGS SHALL BE PROVIDED IN ELECTRONIC FORMAT COMPATIBLE WITH AUTOCAD RELEASE 2022.

230529 - HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT
A. ALL EQUIPMENT AND PIPING SHALL BE PROPERLY SUPPORTED WITHIN THE BUILDING AND ADEQUATE PROVISIONS SHALL BE MADE FOR SLOPE AND ANCHORAGE. HANGERS, RODS, CLAMPS, AND INSERTS SHALL BE APPROVED BY UL FOR THE SERVICE INTENDED.

230553 - IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
A. ALL MAJOR EQUIPMENT SHALL BE PROVIDED WITH ENGRAVED NAMEPLATES ATTACHED WITH SCREWS. LABELS SHALL USE NOMENCLATURE FROM EQUIPMENT SCHEDULES.
B. PIPING SYSTEMS SHALL BE IDENTIFIED WITH SNAP-ON PIPE MARKERS LOCATED EVERY TEN FEET. MARKERS SHALL DESIGNATE PIPE CONTENT AND FLOW DIRECTION.

230593 - TESTING, ADJUSTING, AND BALANCING FOR HVAC
A. ALL MECHANICAL SYSTEMS SHALL BE TESTED AND BALANCED USING AABC OR NEBB PROCEDURES. FINAL REPORT SHALL BE SUBMITTED TO THE OWNER.

230713 - DUCT INSULATION
A. INTERIOR METAL DUCTS SHALL BE INSULATED EXTERNALLY WITH TYPE IV DUCT WRAP, TWO INCH THICKNESS (ONE AND ONE-HALF INCHES IN PLACE), OR LINED WITH ONE-HALF INCH THICKNESS DUCT LINER. ALL DUCT DIMENSIONS INDICATE FREE AREA REQUIRED. INCREASE DUCT DIMENSIONS AS REQUIRED IF LINER IS USED.
B. INSTALLED R-VALUE SHALL BE EQUAL TO 5.0.
C. ALL INSULATION AND JACKET MATERIALS EXPOSED TO RETURN AIR SHALL BE SPECIFICALLY APPROVED FOR THAT APPLICATION.

230923 - INSTRUMENTATION AND CONTROLS FOR HVAC
A. PROVIDE ALL CONTROLS REQUIRED TO COMPLETELY ACCOMPLISH THE IMPLIED OR INTENDED FUNCTIONS AND OPERATION OF THE SYSTEMS AND EQUIPMENT INSTALLED.
B. CONTROLS SHALL COMPATIBLE WITH AND CONNECT TO THE EXISTING BUILDING CONTROL SYSTEM. IF PNEUMATIC CONTROLS ARE USED, THE QUALITY AND CAPACITY OF THE EXISTING CONTROL AIR SYSTEM SHALL BE VERIFIED AND COORDINATED WITH THE NEW CONTROL DEVICES.
C. ELECTRIC AND/OR ELECTRONIC CONTROLS SHALL BE INSTALLED COMPLETE WITH REQUIRED POWER CIRCUITS, POWER SUPPLIES, WIRING, CONDUIT, ACCESSORIES, AND ENCLOSURES.
D. PROVIDE DDC CONTROLS.
E. LOCATIONS OF ALL THERMOSTATS/SENSORS SHALL BE COORDINATED WITH FURNITURE LOCATIONS AND FINISHES. THERMOSTATS/SENSORS SHALL NOT BE INSTALLED BEHIND SYSTEM FURNITURE PANELS, IN MILLWORK, OR ABOVE DIMMERS.
F. THERMOSTATS AND SENSORS SHALL BE INSTALLED TO COMPLY WITH THE REQUIREMENTS OF TAS AND ADA.
G. EACH SYSTEM SHALL HAVE ONE SOLID-STATE PROGRAMMABLE THERMOSTAT WHICH SHALL HAVE THE CAPABILITY TO SET BACK OR SHUT DOWN THE SYSTEM BASED ON DAY OF THE WEEK AND TIME OF DAY, AND PROVIDE A READILY ACCESSIBLE MANUAL OVERRIDE THAT WILL RETURN TO PRESET OR SHUTDOWN SCHEDULE WITHOUT REPROGRAMMING.

232300 - REFRIGERANT PIPING
A. REFRIGERANT PIPING SHALL BE DRAWN COPPER TUBE: ASTM B 280, TYPE ACR. WROUGHT- COPPER FITTINGS: ASME B16.22. WROUGHT-COPPER UNIONS: B16.22.

233113 - METAL DUCTS
A. PROVIDE SHOP DRAWINGS FOR REVIEW. SHOP DRAWINGS SHALL INCLUDE:
    1. FABRICATION, ASSEMBLY, AND INSTALLATION, INCLUDING PLANS, ELEVATIONS, SECTIONS, COMPONENTS, AND ATTACHMENTS TO OTHER WORK.
    2. DUCT LAYOUT INDICATING SIZES, CONFIGURATION, LINER MATERIAL, AND STATIC-PRESSURE CLASSES.
    3. ELEVATION OF BOTTOM OF DUCTS.
    4. FITTINGS.
    5. PENETRATIONS THROUGH FIRE-RATED AND OTHER PARTITIONS.
    6. LOCATIONS FOR DUCT ACCESSORIES, INCLUDING DAMPERS, TURNING VANES, AND ACCESS DOORS AND PANELS.
B. DUCTS SHALL BE MINIMUM 24 GAUGE SHEETMETAL CONSTRUCTED AND SEALED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS FOR THE PRESSURE CLASS OF THE SYSTEM SERVED.
C. UNLESS NOTED OTHERWISE, ALL DUCT DIMENSIONS INDICATE THE FREE AREA REQUIRED. WHERE INTERNAL DUCT LINER IS USED, INCREASE THE DUCT DIMENSIONS ACCORDINGLY.
D. ALL SUPPLY AND RETURN DUCTS WITHIN TWENTY FEET OF AIR CONDITIONING UNITS AND WITHIN EIGHT FEET OF TERMINAL BOXES SHALL BE LINED WITH ONE INCH THICKNESS, ONE AND ONE-HALF POUND DENSITY ACOUSTIC DUCT LINER APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
E. PROVIDE PAINT GRIP DUCT WHERE EXPOSED.

233300 - AIR DUCT ACCESSORIES
A. PROVIDE FLEXIBLE DUCT CONNECTIONS AT EQUIPMENT.
B. FLEXIBLE DUCTS MAY BE USED FOR INDIVIDUAL RUNOUTS; HOWEVER, RUNOUTS SHALL NOT EXCEED 6 FEET IN TOTAL LENGTH AND BE PROPERLY SUPPORTED TO PREVENT RESTRICTIONS TO AIR FLOW. ALL CHANGES IN DIRECTION GREATER THAN FORTY-FIVE DEGREES SHALL BE MADE WITH RIGID DUCT FITTINGS.
C. FLEXIBLE DUCTS SHALL HAVE ONE INCH THICKNESS EXTERNAL INSULATION WITH FOIL JACKET AND VAPOR BARRIER. FLEXIBLE DUCTS SHALL MEET CLASS I, UL-181 AND 25/50 FIRE RATING REQUIREMENTS.
D. VERIFY ADEQUATE PATHS ARE PROVIDED FOR RETURN AIR. LINED RETURN AIR TRANSFER BOOTS SHALL BE PROVIDED IN ALL FLOOR TO STRUCTURE PARTITIONS TREATED FOR SOUND. TRANSFER BOOTS SHALL BE SIZED FOR A MAXIMUM VELOCITY OF 500 FPM.
E. ALL FIRE DAMPERS SHALL BE TYPE B WITH THE CURTAIN OUT OF THE AIRSTREAM.
F. PROVIDE ACCESS DOORS AT EACH DUCT MOUNTED FIRE DAMPER.
G. PROVIDE MANUAL VOLUME CONTROL DAMPER IN THE DUCT RUNOUT TO EACH AIR SUPPLY DEVICE.

233413 - HVAC FANS
A. ALL FANS SHALL BE AMCA CERTIFIED.

233713 - AIR DIFFUSERS, REGISTERS, AND GRILLES
A. DIFFUSERS, REGISTERS, AND GRILLES SHALL BE BUILDING STANDARD UNLESS NOTED OTHERWISE AND SHALL BE PROVIDED WITH MOUNTING FRAMES COMPATIBLE WITH THE CEILING OR WALL TYPE IN WHICH THEY ARE TO BE INSTALLED.

238126 - SPLIT-SYSTEM AIR-CONDITIONERS
A. PRODUCT OPTIONS: DRAWINGS INDICATE SIZE, PROFILES, AND DIMENSIONAL REQUIREMENTS OF SPLIT-SYSTEM UNITS AND ARE BASED ON THE SPECIFIC SYSTEM INDICATED. OTHER MANUFACTURERS' SYSTEMS WITH EQUAL PERFORMANCE CHARACTERISTICS MAY BE CONSIDERED.
B. COORDINATE SIZE, LOCATION, AND CONNECTION DETAILS WITH EQUIPMENT SUPPORTS, AND WALL PENETRATIONS.
C. FURNISH EXTRA MATERIALS DESCRIBED BELOW THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS.
    1. FILTERS: ONE SET OF FILTERS FOR EACH UNIT.
    2. FAN BELTS: ONE SET OF BELTS FOR EACH UNIT.
D. REFRIGERANT COIL: COPPER TUBE, WITH MECHANICALLY BONDED ALUMINUM FINS, COMPLYING WITH ARI 210/240, AND WITH THERMAL-EXPANSION VALVE.
E. INSTALL UNITS LEVEL AND PLUMB.
F. INSTALL EVAPORATOR-FAN COMPONENTS USING MANUFACTURER'S STANDARD MOUNTING DEVICES SECURELY FASTENED TO BUILDING STRUCTURE.
G. INSTALL PIPING ADJACENT TO UNIT TO ALLOW SERVICE AND MAINTENANCE. UNLESS OTHERWISE INDICATED, CONNECT PIPING WITH UNIONS AND SHUTOFF VALVES TO ALLOW UNITS TO BE DISCONNECTED WITHOUT DRAINING PIPING.
H. AIR-COOLED, COMPRESSOR-CONDENSER COMPONENTS.
    1. CASING: STEEL, FINISHED WITH BAKED ENAMEL, WITH REMOVABLE PANELS FOR ACCESS TO CONTROLS, WEEP HOLES FOR WATER DRAINAGE, AND MOUNTING HOLES IN BASE. PROVIDE BRASS SERVICE VALVES, FITTINGS, AND GAGE PORTS ON EXTERIOR OF CASING.
    2. RELAY, AND CONTACTOR. REFRIGERANT COIL: COPPER TUBE, WITH MECHANICALLY BONDED ALUMINUM FINS, COMPLYING WITH ARI 210/240, AND WITH LIQUID SUBCOOLER.
    3. FAN: PROPELLER TYPE, DIRECTLY CONNECTED TO MOTOR.
    4. MOTOR: PERMANENTLY LUBRICATED, WITH INTEGRAL THERMAL-OVERLOAD PROTECTION.

MECHANICAL SYSTEMS COMMISSIONING

EXEMPTION: BUILDINGS WHERE TOTAL MECHANICAL EQUIPMENT CAPACITY IS < 480,000 BTU/H (40 TONS) COOLING CAPACITY AND < 600,000 BTU/H COMBINED SERVICE WATER HEATING AND SPACE-HEATING CAPACITY

C408.2.2 - SYSTEMS ADJUSTING AND BALANCING
A. HVAC SYSTEMS BALANCED PER GENERALLY ACCEPTED ENGINEERING STANDARDS
B. AIR AND WATER FLOW RATES MEASURED AND ADJUSTED TO DELIVER FINAL FLOW RATES WITHIN TOLERANCES IN PRODUCT SPECIFICATIONS
C. TEST AND BALANCE ACTIVITIES TO INCLUDE AIR SYSTEM AND HYDRONIC SYSTEM BALANCING

C408.2.2.1 - AIR SYSTEMS BALANCING
A. EACH SUPPLY AIR OUTLET AND ZONE TERMINAL DEVICE EQUIPPED WITH MEANS FOR AIR BALANCING PER CHAPTER 6 OF THE IMC
B. NO DISCHARGE DAMPERS USED FOR AIR-SYSTEM BALANCING ON CONSTANT VOLUME FANS AND VARIABLE VOLUME FANS WITH MOTORS ≥ 10 HP
C. AIR SYSTEMS BALANCED IN A MANNER TO FIRST MINIMIZE THROTTLING LOSSES, THEN, FOR FANS WITH SYSTEM POWER > 1HP, FAN SPEED ADJUSTED TO MEET DESIGN FLOW CONDITIONS
D. EXCEPTION - FANS WITH MOTORS ≤ 1HP ARE NOT REQUIRED TO HAVE A MEANS FOR AIR BALANCING

C408.2.2.2 - HYDRONIC SYSTEMS BALANCING
A. INDIVIDUAL HYDRONIC HEATING AND COOLING COILS EQUIPPED WITH MEANS FOR BALANCING AND MEASURING FLOW
B. HYDRONIC SYSTEMS PROPORTIONATELY BALANCED IN A MANNER TO FIRST MINIMIZE THROTTLING LOSSES, THEN PUMP IMPELLER TO BE TRIMMED OR PUMP SPEED TO BE ADJUSTED TO MEET DESIGN FLOW CONDITIONS
C. EACH HYDRONIC SYSTEM TO HAVE EITHER CAPABILITY TO MEASURE PRESSURE ACROSS THE PUMP, OR TEST PORTS AT EACH SIDE OF EACH PUMP
D. EXCEPTIONS WITH A MEANS FOR BALANCING OR MEASURING FLOW:
    1. PUMPS WITH PUMP MOTORS ≤ 5HP
    2. WHERE THROTTLING RESULTS IN ≤ 5% OF NAMEPLATE HP DRAW ABOVE THAT REQUIRED IF THE IMPELLER WERE TRIMMED

C408.2.3.1 - FUNCTIONAL PERFORMANCE TESTING - EQUIPMENT
A. TO DEMONSTRATE THE INSTALLATION AND OPERATION OF COMPONENTS, SYSTEMS, AND SYSTEM-TO-SYSTEM INTERFACING RELATIONSHIPS IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS, SUCH THAT OPERATION, FUNCTION, AND MAINTENANCE SERVICEABILITY FOR EACH OF THE COMMISSIONED SYSTEMS IS CONFIRMED
B. TESTING TO INCLUDE ALL MODES AND SEQUENCE OF OPERATION, INCLUDING UNDER FULL-LOAD, PART-LOAD AND THE FOLLOWING EMERGENCY CONDITIONS:
    1. ALL MODES AS DESCRIBED IN THE SEQUENCE OF OPERATION
    2. REDUNDANT OR AUTOMATIC BACK-UP MODE
    3. PERFORMANCE OF ALARMS, AND
    4. MODE OF OPERATION UPON A LOST OFF POWER AND RESTORATION OF POWER
C. EXCEPTION - UNITARY OR PACKAGED HVAC EQUIPMENT LISTED IN TABLES C403.2.3(1) THROUGH C403.2.3(3) THAT DON'T REQUIRE SUPPLY AIR ECONOMIZERS

C408.2.3.2 - FUNCTIONAL PERFORMANCE TESTING - CONTROLS
A. HVAC AND SWH CONTROL SYSTEMS TO BE TESTED TO DOCUMENT THAT CONTROL DEVICES, COMPONENTS, EQUIPMENT, AND SYSTEMS ARE CALIBRATED, ADJUSTED AND OPERATE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS
B. SEQUENCES OF OPERATION TO BE FUNCTIONALLY TESTED TO DOCUMENT THEY OPERATE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS

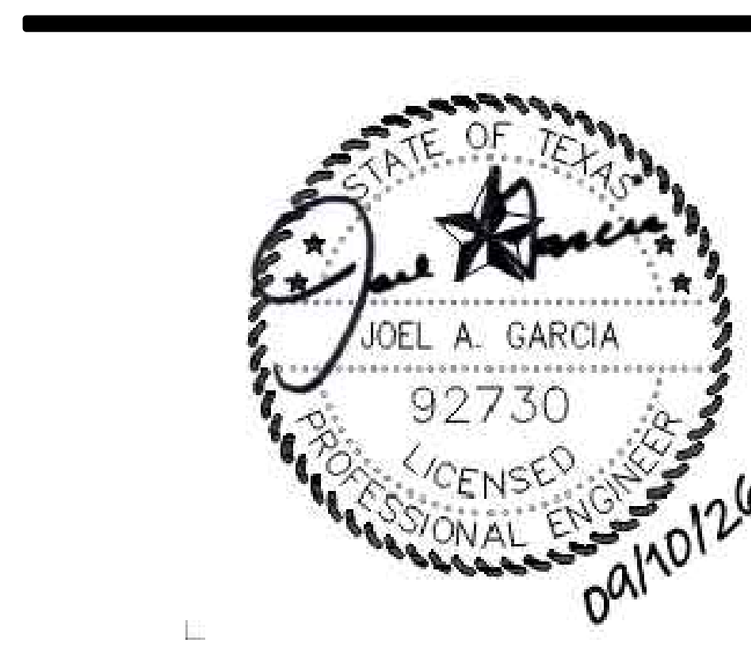
C408.2.3.3 - FUNCTIONAL PERFORMANCE TESTING -ECONOMIZERS
A. AIR ECONOMIZERS TO UNDERGO A FUNCTIONAL TEST TO DETERMINE THEY OPERATE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

REPORT
PROVIDE REPORT TO BUILDING OWNER OR AUTHORIZED AGENT WITHIN 90 DAYS OF RECEIVING THE CERTIFICATE OF OCCUPANCY. REPORT SHALL INCLUDE:
1. RESULTS OF FUNCTIONAL PERFORMANCE TESTS
2. DEFICIENCIES FOUND DURING TESTING, INCLUDING DETAILS OF CORRECTIVE MEASURES USED OR PROPOSED
3. FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING THE COMMISSIONING PROCESS INCLUDING MEASURABLE CRITERIA FOR TEST ACCEPTANCE.

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PROJECT NO.:26122
DATE:09-10-2026

REVISION SCHEDULE		
Δ	Description	Date

SHEET NAME
COVER SHEET - MEP

SHEET NO.
MEP1.00

ELECTRICAL AND LIGHTING SYMBOLS

SYMBOL	DESCRIPTION
	THIN LINE WEIGHTS REPRESENT EXISTING WORK
	BOLD LINE WEIGHTS REPRESENT NEW WORK
	DASHED LINE REPRESENTS DEMO WORK
	CONDUIT
	UNDERGROUND/UNDERFLOOR CONDUIT
	FLEXIBLE CONDUIT
	PLUG MOLD
	WIRING, HOMERUN
	WIRING, NEUTRAL
	WIRING, HOT
	WIRING, SWITCHLEG
	WIRING, GROUND
	WIRING, ISOLATED GROUND
	CONTINUATION
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	ABOVE COUNTER DUPLEX RECEPTACLE MOUNT @ 44" AFF UNO
	IG RECEPTACLE
	SPLIT "CONTROLLED" RECEPTACLE. MODEL SHALL BE LEVITON #TDR20-S1 UNO ON PLANS.
	QUADRAPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED QUADRAPLEX RECEPTACLE
	CEILING MOUNTED QUADRAPLEX RECEPTACLE
	ABOVE COUNTER QUADRAPLEX RECEPTACLE MOUNT @ 44" AFF UNO
	IG QUADRAPLEX RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	FLUSH FLOOR MOUNTED SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	CEILING MOUNTED SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT
	ABOVE COUNTER DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT MOUNT @ 44" AFF UNO
	QUADRAPLEX RECEPTACLE ON EMERGENCY CIRCUIT
	ABOVE COUNTER QUAD RECEPTACLE ON EMERGENCY CIRCUIT MOUNT @ 44" AFF UNO
NC	NURSE CALL. PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING.
DS	DUTY STATION. PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING.
ZD	ZONE DOME
EC	TOILET HELP CALL. PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING.
CD	CORRIDOR DOME LIGHT. PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING.
P1	CODE CALL PANEL. PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING.
M1	MONITOR PANEL. PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING.
	DATA COMMUNICATIONS OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING. CONDUIT SIZE IS BASED ON MAX OF (4) CAT6 CABLES. COORDINATE WITH OWNER PRIOR TO INSTALLATION.
	FLUSH FLOOR DATA COMMUNICATIONS OUTLET
	TELEPHONE OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING.
	FLUSH FLOOR TELEPHONE OUTLET
	TELEPHONE / DATA OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING. CONDUIT SIZE IS BASED ON MAX OF (6) CAT6 CABLES. COORDINATE WITH OWNER PRIOR TO INSTALLATION.
	FLUSH FLOOR TELEPHONE / DATA OUTLET
	FLUSH FLOOR BOX FOR RECEPTACLES, COMMUNICATIONS AND/OR A/V DEVICES. PROVIDE BOX SUITABLE FOR APPLICATION. MODEL WIREMOLD EVOLUTION EFB45S OR EQUAL.
	VERTICAL DROP POLE WITH 2 CHANNELS FOR POWER AND COMMUNICATIONS. MODEL SHALL BE WIREMOLD #25DTC UNO ON PLANS. VERIFY LENGTH AND FINISH PRIOR INSTALLATION.
USB	USB OUTLET EXTENSION. PROVIDE WITH (2) PORTS AND EXTEND 3/4" CONDUIT BETWEEN LOCATIONS. COORDINATE EXACT REQUIREMENTS WITH OWNER.
TV	RECESSED COMBINATION A/V (TELEVISION) OUTLET AND DUPLEX RECEPTACLE MOUNTED AT 84" AFF UNO ON PLANS. UTILIZE RECEPTACLE SHOWN ADJACENT TO DEVICE ON FLOOR PLAN. PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING FOR LOW-VOLTAGE. MODEL SHALL BE PASS & SEYMOUR #TV2MW.
TV	CEILING MOUNTED A/V (TELEVISION) OUTLET
J	JUNCTION BOX
J	WALL MOUNTED JUNCTION BOX
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	COMBINATION MOTOR STARTER
	VFD (VARIABLE FREQUENCY DRIVE)
	TVSS (TRANSIENT VOLTAGE SURGE SUPPRESSOR)
$M	MOTOR RATED SWITCH
	MOTOR
M	MOTION DETECTOR. ACUITY #WSXA
M	CEILING MOUNTED MOTION DETECTOR. ACUITY #CM PDT
OS	OCCUPANCY SENSOR. ACUITY #WSXA PDT
OS	CEILING MOUNTED OCCUPANCY SENSOR. ACUITY #CM PDT
OS D	OCCUPANCY SENSOR DIMMER. ACUITY #WSXA PDT D
VS	VACANCY SENSOR. ACUITY #WSXA PDT SA
VS	CEILING MOUNTED VACANCY SENSOR. ACUITY #CM PDT
PP	POWER PACK
PL	PLUG LOAD CONTROLLER

ELECTRICAL AND LIGHTING SYMBOLS

SYMBOL	DESCRIPTION
CL ?A	CURRENT LIMITER FOR TRACK LIGHTING WITH AMP RATING. ACUITY #SILVER BULLET SERIES
$	SWITCH
$2	DOUBLE POLE SWITCH
$3	THREE-WAY SWITCH
$4	FOUR-WAY SWITCH
	DIMMER SWITCH. MODEL SHALL BE CRESTRON CLW SERIES. REFER TO DRAWINGS FOR LOAD AND LIGHT TYPE.
	LOW-VOLTAGE CONTROLS
$P	PILOT LIGHT SWITCH
$T	TIMECLOCK SWITCH. MODEL SHALL BE INTERMATIC ST700W OR EQUAL.
S	SPEAKER
C	CAMERA
$V	WALL MOUNTED VOLUME CONTROL (P.A.)
CR	CARD READER
DC	DOOR CONTACT
KP	KEY PAD
ML	MAG-LOCK
G	GENERATOR
ST	SHUNT TRIP
C	CLOCK
M	METER
K	KIRK-KEY INTERLOCK
	120V/208Y OR 120/240V ELECTRICAL PANEL
	277V/480Y ELECTRICAL PANEL
	TRANSFORMER
	GROUND BUS. PROVIDE 1/4" X 4" X 12" COPPER GROUND BUS ON ISOLATORS UNO ON PLANS
	VIA LIGHTING CONTACTOR
LIGHT FIXTURE LABELS	a — SWITCH DESIGNATION A — LIGHT FIXTURE TYPE
	HATCH REPRESENTS EMERGENCY FIXTURE
	2' X 4' LIGHT FIXTURE. REFERENCE LIGHT FIXTURE SCHEDULE.
	2' X 2' LIGHT FIXTURE. REFERENCE LIGHT FIXTURE SCHEDULE.
	UTILITY STRIP. REFERENCE LIGHT FIXTURE SCHEDULE.
	DOWNLIGHT. REFERENCE LIGHT FIXTURE SCHEDULE.
	SCONCE. REFERENCE LIGHT FIXTURE SCHEDULE.
	WALL WASHER. REFERENCE LIGHT FIXTURE SCHEDULE.
	PENDANT. REFERENCE LIGHT FIXTURE SCHEDULE.
	UNDER CABINET LIGHT FIXTURE. REFERENCE LIGHT FIXTURE SCHEDULE.
	WALL PACK. REFERENCE LIGHT FIXTURE SCHEDULE.
	POLE MTD. SITE LIGHT FIXTURE REFERENCE LIGHT FIXTURE SCHEDULE.
>	EXIT SIGN CHEVRON
	SINGLE FACE EXIT SIGN SHADED AREA INDICATES ILLUMINATED FACE. MODEL SHALL BE LITHONIA #EXRG/EL/M6 UNO ON PLANS.
	DOUBLE FACE EXIT SIGN SHADED AREA INDICATES ILLUMINATED FACE. MODEL SHALL BE LITHONIA #EXRG/EL/M6 UNO ON PLANS.
	SINGLE FACE WALL MOUNTED EXIT SIGN. MODEL SHALL BE LITHONIA #EXRG/EL/M6 UNO ON PLANS.
	DOUBLE FACE WALL MOUNTED EXIT SIGN. MODEL SHALL BE LITHONIA #EXRG/EL/M6 UNO ON PLANS.
	COMBO EXIT SIGN AND EMERGENCY EGRESS LIGHTING FIXTURE. MODEL SHALL BE LITHONIA #ECRG/RD/M6 UNO ON PLANS. CONFIRM FINISH.
	EMERGENCY LIGHTING FIXTURE. MODEL SHALL BE LITHONIA #ELM4L UNO ON PLANS.
	EXTERIOR EMERGENCY LIGHTING FIXTURE. MODEL SHALL BE LITHONIA #AFB/OEL/DDBTXD/UVOLT/N UNO ON PLANS. CONFIRM FINISH.

FIRE ALARM SYMBOLS

SYMBOL	DESCRIPTION
	THIN LINE WEIGHTS REPRESENT EXISTING WORK
	BOLD LINE WEIGHTS REPRESENT NEW WORK
	DASHED LINE REPRESENTS DEMO WORK
A	FM 200 ABORT SWITCH
M	MANUAL FM 200 RELEASE PULL STATION
DH	DOOR HOLDER
FAA	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FS	FIRE ALARM SYSTEM FLOW SWITCH
TS	FIRE ALARM TAMPER SWITCH
GEN	GENERATOR REMOTE ANNUNCIATOR PANEL
H	ADA APPROVED FIRE ALARM HORN. MOUNT @ 80" AFF.
H	ADA APPROVED FIRE ALARM HORN. CEILING MOUNTED.
F	ADA APPROVED AUDIO/VISUAL FIRE ALARM SIGNALING DEVICE. MOUNT @ 80" AFF.
F	ADA APPROVED AUDIO/VISUAL FIRE ALARM SIGNALING DEVICE. CEILING MOUNTED.
S	ADA APPROVED STROBE ONLY FIRE ALARM DEVICE. MOUNT @ 80" AFF.
S	ADA APPROVED STROBE ONLY FIRE ALARM DEVICE. CEILING MOUNTED.
F	ADA APPROVED FIRE ALARM PULLSTATION DEVICE
	SMOKE DETECTOR
U	UNDERFLOOR SMOKE DETECTOR
D	DUCT MOUNTED SMOKE DETECTOR
R	REMOTE PILOT LIGHT
	HEAT DETECTOR
U	UNDERFLOOR HEAT DETECTOR
	FLAME DETECTOR
S F	FIRE ALARM SPEAKER

ABBREVIATIONS

TEXT	DESCRIPTION
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
(B)	EXISTING JUNCTION BOX WITH BLANK PLATE
C	CONDUIT
CB	CIRCUIT BREAKER
CU	COPPER
(D)	EXISTING TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
EC	EMPTY CONDUIT
EMT	ELECTRICAL METALLIC TUBING
FDS	FUSED DISCONNECT SWITCH
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HP	HORSEPOWER
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
K/E	KITCHEN EXHAUST
KW	KILOWATT
MTD	MOUNTED
(N)	NEW
NIC	NOT IN CONTRACT
N3R	NEMA 3R
OCPD	OVERCURRENT PROTECTIVE DEVICE
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
(R)	EXISTING TO BE RELOCATED
RMC	RIGID METALLIC CONDUIT
SPD	SURGE PROTECTION DEVICE
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
USB	UNIVERSAL SERIAL BUS. PROVIDE NEMA 5-20R DUPLEX RECEPTACLE WITH (2) USB TYPE 'A' PORTS RATED FOR 3.6 AMPS MINIMUM. PROVIDE LEVITON #T5832 OR EQUAL.
USBC	UNIVERSAL SERIAL BUS. PROVIDE NEMA 5-20R DUPLEX RECEPTACLE WITH (1) USB TYPE 'A' PORT & (1) USB TYPE 'C' PORT RATED FOR 5.1 AMPS MINIMUM. PROVIDE LEVITON #T5833 OR EQUAL.
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
WP	WEATHER PROOF

NOTES:
1. ALL SYMBOLS MAY NOT APPEAR ON DRAWINGS.
2. PROVIDE TAMPER-RESISTANT RECEPTACLES IN ACCORDANCE WITH NEC 406.12.
3. ALL WALL MOUNTED DEVICES (POWER, DATA, TELEPHONE, ETC.) SHALL BE MOUNTED NO LESS THAN 15" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. DATA OUTLETS SHALL BE MOUNTED AT SAME HEIGHT AS ADJACENT RECEPTACLE.
4. ALL LIGHT CONTROLS (SWITCHES, DIMMERS AND/OR SENSORS) SHALL BE MOUNTED NO MORE THAN 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. LIGHT CONTROLS SHOWN SIDE BY SIDE ON FLOOR PLANS SHALL BE GANGED TOGETHER WITHIN THE SAME COVER PLATE.
5. COORDINATE FINISH OF ELECTRICAL DEVICES WITH ARCHITECT UNLESS NOTED OTHERWISE.
(2023.02)

FUNCTIONAL TESTING OF LIGHTING CONTROLS

C408.3.1.1 - OCCUPANT SENSOR CONTROLS
A. CERTIFY LOCATION AND AIMING PER MANUFACTURER RECOMMENDATION
B. TEST ALL SENSORS IF PROJECT ≤ 7
C. IF > 7 SENSORS, TEST FOR EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY
D. WHERE MULTIPLES OF EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY ARE PROVIDED > 10%, BUT IN NO CASE < 1 OF EACH COMBINATION SHALL BE TESTED UNLESS THE CODE OFFICIAL OR DESIGN PROFESSIONAL REQUIRES A HIGHER PERCENTAGE TO BE TESTED
E. WHERE >30% OF TESTED CONTROLS FAIL, ALL REMAINING IDENTICAL COMBINATIONS MUST BE TESTED
F. VERIFY THE FOLLOWING:
   1. STATUS INDICATOR, VERIFY CORRECT OPERATION
   2. LIGHTS TURN OFF OR DOWN TO PERMITTED LEVEL WITHIN REQUIRED TIME
   3. AUTO-ON - LIGHTS TURN ON TO PERMITTED LEVEL WHEN SOMEONE ENTERS THE SPACE
   4. MANUAL ON - LIGHTS TURN ON ONLY WHEN MANUALLY ACTIVATED
   5. LIGHTS AREN'T INCORRECTLY TURNED ON BY MOVEMENT IN NEARBY AREAS OR BY HVAC OPERATION

C408.3.1.2 - TIME-SWITCH CONTROLS
A. CONFIRM PROGRAMMED SCHEDULES
B. DOCUMENT SCHEDULES FOR OWNER
C. VERIFY CORRECT TIME AND DATE ARE SET
D. VERIFY ANY BATTERY BACKUP IS INSTALLED AND ENERGIZED
E. VERIFY OVERRIDE TIME LIMIT SET TO ≤ 2 HOURS
F. SIMULATE OCCUPIED CONDITION AND VERIFY AND DOCUMENT:
   1. LIGHTS TURN ON AND OFF WITH RESPECTIVE SWITCHES
   2. SWITCH ONLY OPERATES LIGHTS IN ENCLOSED SPACE WHERE SWITCH IS LOCATED
G. SIMULATE UNOCCUPIED CONDITION AND VERIFY AND DOCUMENT:
   1. ALL NONEXEMPT LIGHTS TURN OFF
   2. MANUAL OVERRIDE ONLY OPERATES LIGHTING WHERE IT IS LOCATED

C408.3.1.3 - DAYLIGHT RESPONSIVE CONTROLS
A. PROPERLY LOCATED, FIELD-CALIBRATED, AND SET TO HAVE APPROPRIATE SETPOINTS AND THRESHOLD LIGHT LEVELS
B. DAYLIGHT CONTROLLED LIGHTING LOADS ADJUST TO CORRECT LEVELS WITH AVAILABLE DAYLIGHT
C. AUTHORIZED PERSONNEL HAVE READY ACCESS TO CALIBRATION ADJUSTMENT EQUIPMENT

REPORT
PROVIDE REPORT TO BUILDING OWNER OR AUTHORIZED AGENT WITHIN 90 DAYS OF RECEIVING THE CERTIFICATE OF OCCUPANCY. REPORT SHALL INCLUDE THE RESULTS OF FUNCTIONAL PERFORMANCE TESTS AND DEFICIENCIES FOUND DURING TESTING, INCLUDING DETAILS OF CORRECTIVE MEASURES USED OR PROPOSED.

DIVISION 26 - ELECTRICAL

260100 - BASIC ELECTRICAL REQUIREMENTS
A. PROVIDE LABOR MATERIALS, EQUIPMENT AND TRANSPORTATION TO RECEIVE, INSTALL, ADJUST, AND PUT INTO OPERATION COMPLETE ELECTRICAL SYSTEMS IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. PROVIDE PRODUCTS NOT MENTIONED BUT OBVIOUSLY NECESSARY AND INCIDENTAL TO THE COMPLETION OF THIS WORK.
B. OBTAIN ALL PERMITS AND PAY ALL FEES.
C. ALL WORK DONE SHALL BE PERFORMED BY QUALIFIED ELECTRICIANS, UNDER THE SUPERVISION AND DIRECTION OF A SUPERINTENDENT HAVING SUCCESSFUL EXPERIENCE INSTALLING AND SUPERVISING EQUIPMENT AND SYSTEMS OF SIMILAR TYPE AND SIZE AS INDICATED BY CONTRACT DOCUMENTS.
D. EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE PROJECT AND BECOME FAMILIAR WITH CONDITIONS AND SCOPE OF WORK. ALL COSTS SUBMITTED SHALL BE BASED ON A THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED. ANY ADDITIONAL COSTS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
E. COORDINATE WORK WITH ALL OTHER TRADES. GIVE SPECIAL CONSIDERATION TO COORDINATING INSTALLATION OF LIGHTING, SPRINKLER PIPING, AND DUCTWORK. COORDINATE WALL OUTLET LOCATIONS WITH MILLWORK. COORDINATE WALL SWITCHES WITH DOOR SWINGS. VERIFY EXACT LOCATION, COLOR AND FINISH OF OUTLETS AND DEVICES WITH INTERIOR DESIGNER, ARCHITECT, OR DESIGNATED TENANT REPRESENTATIVE PRIOR TO INSTALLATION.
F. PRODUCTS OF A SIMILAR NATURE SHALL BE THE SAME TYPE AND MANUFACTURER. PROVIDE THE STANDARD PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SPECIFIED PRODUCTS, UNLESS OTHERWISE REQUIRED BY THE DRAWINGS.
G. ALL PRODUCTS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH NATIONALLY RECOGNIZED AND ACCEPTED STANDARDS AND PROCEDURES.
H. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE RULES, REGULATIONS, INDUSTRY STANDARDS, LOCAL CODES, LAWS, AND ORDINANCES. IN THE EVENT THAT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, NOTIFY THE ENGINEER IMMEDIATELY.

260110 - BASIC ELECTRICAL MATERIALS AND METHODS
A. FOR SUBMITTALS, PROVIDE A PDF FILE OF ELECTRICAL MATERIALS AND PRODUCTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: LIGHTING FIXTURES, DEVICES (SWITCHES, RECEPTACLES, ETC.), SWITCHBOARDS, TRANSFORMERS, PANELBOARDS, CIRCUIT AND MOTOR DISCONNECTS, MOTOR CONTROLLERS, SUPPORTING DEVICES, TRANSIENT VOLTAGE SURGE SUPPRESSION, AND FIRE ALARM SYSTEMS.
B. COMPILE AND ASSEMBLE THE WARRANTIES FOR ALL EQUIPMENT SPECIFIED IN DIVISION 26, INTO A SEPARATED SET OF VINYL COVERED, THREE RING BINDERS, TABULATED AND INDEXED FOR EASY REFERENCE. PROVIDE COMPLETE WARRANTY INFORMATION FOR EACH ITEM TO INCLUDE PRODUCT OR EQUIPMENT TO INCLUDE DATE OF BEGINNING OF WARRANTY OR BOND; DURATION OF WARRANTY OR BOND; AND NAMES, ADDRESSES, AND TELEPHONE NUMBERS AND PROCEDURES FOR FILING A CLAIM AND OBTAINING WARRANTY SERVICES.
C. PREPARE MAINTENANCE MANUALS THAT INCLUDE THE FOLLOWING INFORMATION FOR EQUIPMENT ITEMS:
   1. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS.
   2. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, AND ROUTINE AND NORMAL OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER OPERATING INSTRUCTIONS.
   3. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS.
   4. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.
D. UPON COMPLETION OF WORK, PREPARE ELECTRICAL 'AS-BUILT' DRAWINGS. PRESENT COMPLETED DRAWINGS TO OWNER AND TWO SETS TO ARCHITECT. 'AS-BUILT' DRAWINGS SHALL INCLUDE ALL BRANCH CIRCUIT WORK, PANELBOARD INFORMATION, FINAL SWITCHING, FINAL LOCATION OF ALL EQUIPMENT, ETC.
E. PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL SYSTEMS IN ACCORD WITH APPLICABLE CODES AND STANDARDS AND AS REQUIRED.
F. PROVIDE ONLY FASTENERS OF THE FOLLOWING TYPES, MATERIALS, AND CONSTRUCTION FEATURES:
   1. EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE.
   2. TOGGLE BOLTS: ALL STEEL SPRINGHEAD TYPE.
   3. POWDER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.

260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
A. PROVIDE COPPER, TYPE THW, THWN, OR THHN AS REQUIRED FOR THE INTENDED USE. MINIMUM CONDUCTOR SIZE FOR BRANCH CIRCUITS SHALL BE NUMBER 12 AWG. USE NUMBER 10 AWG FOR ALL 120 VOLT BRANCH CIRCUITS LONGER THAN 100 FEET AND FOR ALL 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET MEASURED FROM PANEL TO CENTER OF LOAD.
B. INSTALL ALL CONDUCTORS IN CONDUIT. USE UL APPROVED PULLING LUBRICANT WHERE REQUIRED.
C. USE NUMBER 12 AWG AS MINIMUM CONDUCTOR SIZE FOR POWER SYSTEMS AND FOR CONTROL CIRCUITS. ALL WIRES NUMBER 10 AWG AND SMALLER SHALL BE SOLID; ALL CONTROL WIRES SHALL BE STRANDED AND TERMINATED WITH CRIMPED LUGS.
D. WHERE ALLOWED BY CODE, TYPE "MC" CABLE IS ACCEPTABLE ONLY ABOVE LAY-IN CEILINGS FOR MAXIMUM 6 FT. LENGTHS AS LIGHTING FIXTURE WHIPS

260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
A. PROVIDE AN ELECTRICAL EQUIPMENT GROUND SYSTEM AND AN ELECTRICAL SERVICE GROUND SYSTEM AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION. A SEPARATE INSULATED EQUIPMENT GROUND CONDUCTOR SHALL BE INSTALLED IN ALL FEEDERS AND BRANCH CIRCUITS, INCLUDING ALL MOTOR FEEDERS FROM STARTER TO MOTOR. TEST AND SUBMIT REPORT OF GROUNDING SYSTEM TESTS.
B. PATIENT CARE AREAS:
   1. PROVIDE A REDUNDANT GROUNDING PATH BY USING A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN CONJUNCTION WITH A TOTALLY SEPARATE GROUNDING PATH ON EITHER A METAL RACEWAY OR A CABLE WITH AN OUTER METAL ARMOR OR METAL SHEATH IDENTIFIED AS AN ACCEPTABLE GROUNDING RETURN PATH.

260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
A. CONCEAL ALL CONDUITS, UNLESS INDICATED OTHERWISE, WITHIN FINISHED WALLS, CEILINGS, AND FLOORS. KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES AND STEAM OR HOT WATER PIPES. INSTALL RACEWAYS LEVEL, SQUARE AT RIGHT ANGLES TO THE BUILDING AND AT PROPER ELEVATIONS.
B. USE ONLY MALLEABLE IRON METALLIC CONDUIT BODIES (DIECAST BODIES ARE NOT ACCEPTABLE). USE ONLY STEEL BODIES WITH GLAND RING COMPRESSION-THREADED TYPE EMT CONNECTORS WITH INSULATED THROATS.
C. OUTDOORS: USE THE FOLLOWING WIRING METHODS:
   1. EXPOSED: INTERMEDIATE METAL CONDUIT.
   2. CONCEALED: INTERMEDIATE METAL CONDUIT.
   3. UNDERGROUND, SINGLE RUN: RIGID NONMETALLIC CONDUIT.
   4. UNDERGROUND, GROUPED: RIGID NONMETALLIC CONDUIT.
   5. CONNECTION TO VIBRATING EQUIPMENT: INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT: LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
   6. INDOORS OR OUTDOORS: CONNECTION TO VIBRATING EQUIPMENT AND HYDRAULIC, PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT IN MOIST OR HUMID LOCATION OR CORROSIVE ATMOSPHERE, OR WHERE SUBJECT TO WATER SPRAY OR DRIPPING OIL, GREASE, OR WATER: LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
D. INDOORS: USE THE FOLLOWING WIRING METHODS:
   1. CONNECTION TO VIBRATING EQUIPMENT: INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC OR ELECTRIC SOLENOID OR MOTOR-OPERATED EQUIPMENT: FLEXIBLE METAL CONDUIT.
   2. EXPOSED: ELECTRICAL METALLIC TUBING.
   3. CONCEALED: ELECTRICAL METALLIC TUBING.
E. ELECTRICAL METALLIC TUBING (EMT) IS EXCLUDED FROM USE IN THE FOLLOWING LOCATIONS OR CONDITIONS:
   1. OUTSIDE STRUCTURE OR ON ROOF.
   2. AT OR BELOW GRADE.
   3. IN OR BENEATH SLABS ON GRADE.
   4. IN HAZARDOUS LOCATIONS.
   5. WHERE EXPOSED TO PHYSICAL DAMAGE.
   6. WHERE SUBJECT TO EXCESSIVE MOISTURE OR DETERIORATION.
   7. HIGH VOLTAGE RACEWAYS.
F. MINIMUM CONDUIT SIZE, INCLUDING FLEXIBLE CONDUIT, SHALL BE 3/4 INCH UNLESS MINIMUM SIZES ARE INDICATED TO BE LARGER FOR SPECIFIC SYSTEMS SPECIFIED ELSEWHERE IN THE DOCUMENTS.
G. PROVIDE GALVANIZED STEEL PULL AND JUNCTION BOXES THAT COMPLY WITH NEC AS TO SIZE AND CONSTRUCTION.
H. FOR JUNCTION AND PULL BOXES, USE BOXES NOT LESS THAN 4-INCHES SQUARE AND 4-INCHES DEEP WITH REMOVABLE COVERS.
I. USE CAST ALUMINUM OR CAST IRON BOXES WITH THREADED HUBS AND GASKETED COVERS IN DAMP/WET AREAS OR OUTDOORS.

260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
A. FURNISH AND INSTALL ENGRAVED PLASTIC LAMINATE NAMEPLATES FOR ALL PANELS, SWITCHGEAR, SWITCHES, MOTOR STARTERS, AND ELECTRICAL EQUIPMENT. PROVIDE BRANCH CIRCUIT IDENTIFICATION (PANEL AND BRANCH CIRCUIT NUMBER) ON EACH SWITCH, RECEPTACLE, ETC., AND/OR ASSOCIATED WALL PLATE, FOR EVERY DEVICE. EXCEPT AS OTHERWISE INDICATED, PROVIDE SINGLE LINE OF TEXT, WITH 1/2-INCH-HIGH LETTERING ON 1-1/2-INCH-HIGH LABEL (2-INCH-HIGH WHERE TWO LINES ARE REQUIRED), WHITE LETTERING IN BLACK FIELD. TEXT SHALL MATCH TERMINOLOGY AND NUMBERING OF THE CONTRACT DOCUMENTS AND SHOP DRAWINGS.
B. PROVIDE TYPED PANELBOARD SCHEDULES FOR ALL NEW PANELBOARDS AND ALL PANELBOARDS TO WHICH CIRCUITS HAVE BEEN ADDED.

260923 - LIGHTING CONTROL DEVICES
A. PROVIDE UL LISTED SPECIFICATION GRADE MINIMUM 20 AMP (120 AND/OR 277 VOLT) SWITCHES. COLOR OF DEVICES AND PLATES SHALL BE SELECTED BY ARCHITECT.
B. PROVIDE SOLID STATE DIMMER SWITCHES CONFORMING TO NEMA WD 1, MOUNTED IN OUTLET BOXES AS INDICATED AND IN ACCORDANCE WITH THE FOLLOWING:
   1. INCANDESCENT LAMP DIMMERS: MODULAR DIMMER SWITCHES FOR INCANDESCENT FIXTURES; SWITCH POLES AND WATTAGE AS INDICATED, 120-VOLTS, 60-HZ, WITH CONTINUOUSLY ADJUSTABLE ROTARY KNOB OR TOGGLE, ANODIZED ALUMINUM FACE, SINGLE-POLE, WITH SOFT-TAP OF OTHER QUIET ON-OFF SWITCH. EQUIP WITH ELECTROMAGNETIC FILTER TO ELIMINATE NOISE, RF AND TV INTERFERENCE, AND 5 INCH WIRE CONNECTING LEADS.
   2. FLUORESCENT LAMP DIMMERS: FULL-WAVE MODULAR TYPE AC DIMMER SWITCHES, FOR FLUORESCENT FIXTURES; WATTAGE AND VOLTAGE RATINGS AS INDICATED, AND WITH ELECTROMAGNETIC FILTERS TO MINIMIZE NOISE, AND RF AND TV INTERFERENCE. CONSTRUCT WITH CONTINUOUSLY ADJUSTABLE TRIM POTENTIOMETER FOR ADJUSTMENT OF LOW END DIMMING, ANODIZED HEAT SINKS, 5 INCH WIRE CONNECTING LEADS AND QUIET ON-OFF SWITCH. INCLUDE COMPATIBLE DIMMING LAMP BALLASTS.
   3. LED LAMP DIMMERS: MODULAR; COMPATIBLE WITH LED LAMPS; TRIM POTENTIOMETER TO ADJUST LOW-END DIMMING; CAPABLE OF CONSISTENT DIMMING WITH LOW END NOT GREATER THAN 20 PERCENT OF FULL BRIGHTNESS.

262413 - SWITCHBOARDS
A. SWITCHBOARDS AND ASSOCIATED BREAKERS SHALL BE MANUFACTURED BY SCHNEIDER ELECTRIC (SQUARE D), GENERAL ELECTRIC (GE) OR EATON (CUTLER HAMMER)
B. COMPLY WITH UL 891, "DEADFRONT SWITCHBOARDS." SWITCHBOARD BUSSING SHALL BE TIN OR SILVER PLATED COPPER.
C. FRONT-CONNECTED, FRONT-ACCESSIBLE, WITH FIXED, INDIVIDUALLY MOUNTED MAIN DEVICE, PANEL-MOUNTED BRANCHES, AND SECTIONS REAR ALIGNED.
D. INTERRUPTING RATINGS SHALL BE AS REQUIRED BY THE VENDOR PROVIDED SHORT CIRCUIT AND COORDINATION STUDY, BUT NOT LESS THAN 65,000 A.I.C.
E. CIRCUIT BREAKERS SHALL BE MOLDED CASE, CURRENT LIMITING WITH SOLID STATE TRIP. PROVIDE GROUND FAULT PROTECTION ON THE MAIN CIRCUIT BREAKER. BREAKERS 400A AND GREATER SHALL BE 100% RATED.
F. PRODUCT SELECTION FOR RESTRICTED SPACE: THE DRAWINGS INDICATE MAXIMUM DIMENSIONS FOR SWITCHBOARD EQUIPMENT INCLUDING CLEARANCES BETWEEN SWITCHBOARD AND ADJACENT SURFACES AND ITEMS. SWITCHBOARDS HAVING EQUAL PERFORMANCE CHARACTERISTICS AND COMPLYING WITH INDICATED MAXIMUM DIMENSIONS MAY BE CONSIDERED.
G. WHERE INDICATED PROVIDE A MULTIFUNCTION DIGITAL METERING MONITOR WITH THE FOLLOWING FEATURES:
   1. INPUTS: FROM SENSORS OR CURRENT TRANSFORMERS FROM 100/5 THROUGH 5000/5 RATINGS AND POTENTIAL TERMINALS UP TO 600 VOLTS.
   2. DISPLAY: SWITCH SELECTABLE DIGITAL DISPLAY OF THE FOLLOWING VALUES WITH MAXIMUM ACCURACY TOLERANCES AS INDICATED:
      a. PHASE CURRENTS, EACH PHASE, PLUS OR MINUS 1 PERCENT.
      b. PHASE-TO-PHASE VOLTAGES, 3 PHASE, PLUS OR MINUS 1 PERCENT.
      c. PHASE-TO-NEUTRAL VOLTAGES, 3 PHASE, PLUS OR MINUS 1 PERCENT.
      d. MEGAWATTS, PLUS OR MINUS 2 PERCENT.
      e. MEGAVARS, PLUS OR MINUS 2 PERCENT.
      f. POWER FACTOR, PLUS OR MINUS 2 PERCENT.
      g. FREQUENCY, PLUS OR MINUS 0.5 PERCENT.
      h. MEGAWATT DEMAND WITH DEMAND INTERVAL PROGRAMMABLE FROM 5 TO 60 MINUTES, PLUS OR MINUS 2 PERCENT.
G. MANUFACTURER'S FIELD SERVICES: ARRANGE AND PAY FOR THE SERVICES OF A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO SUPERVISE INSTALLATION AND ADJUSTMENT OF SWITCHBOARD COMPONENTS.

262416 - PANELBOARDS
A. PANELBOARDS SHALL BE MANUFACTURED BY SCHNEIDER ELECTRIC (SQUARE D), GENERAL ELECTRIC (GE) OR EATON (CUTLER HAMMER).
B. UNITS SHALL CONSIST OF A BOX, FRONT, INTERIOR AND CIRCUIT PROTECTIVE DEVICES AND SHALL BE MANUFACTURED IN ACCORDANCE WITH NEMA STANDARDS AND BEAR APPLICABLE UL LABELS.
C. MAIN BREAKERS SHALL BE RATED FOR 100%.
D. PROVIDE DOOR-IN-DOOR OR HINGED TRIM CONSTRUCTION.
E. EACH FRONT SHALL HAVE A DOOR MOUNTED ON SEMI-CONCEALED HINGES WITH A LOCK, INDEX CARD AND CARD HOLDER. ALL FRONT COVERS SHALL BE HINGED FOR QUICK ACCESS. ALL INDEX CARDS SHALL BE PRINTED AND NOT HANDWRITTEN.
F. PANELBOARDS SHALL BE FURNISHED FOR 3 PHASE, 4 WIRE SERVICE.
G. EACH ENCLOSURE SHALL BE PROVIDED WITH GROUNDING LUGS AND INSULATED EQUIPMENT GROUNDING BUS.
H. BUSSING SHALL BE TIN OR SILVER PLATED COPPER ATTACHED FOR SEQUENCE PHASING THROUGHOUT.
I. INTERRUPTING CAPACITY FOR NEW EQUIPMENT SHALL BE VERIFIED AND SHALL MATCH EXISTING. ALL EQUIPMENT SHALL BE RATED 14,000 A.I.C. (480Y/277V), 22,000 A.I.C. (240/120V) AND 10,000 A.I.C. (208Y/120V) MINIMUM.

262726 - WIRING DEVICES
A. PROVIDE UL LISTED SPECIFICATION GRADE MINIMUM 20 AMP (120V) RECEPTACLES. PROVIDE TAMPER-RESISTANT RECEPTACLES IN ACCORDANCE WITH NEC 406.12. ISOLATED GROUND RECEPTACLES SHALL BE FURNISHED WITH AN ORANGE TRIANGLE ON THE FACE OF THE DEVICE. DEVICES AND WALL PLATES SHALL BE COLORED RED WHERE CONNECTED TO THE EMERGENCY POWER DISTRIBUTION SYSTEM. COLOR OF DEVICES AND PLATES NOT CONNECTED TO THE EMERGENCY SYSTEM SHALL BE SELECTED BY THE ARCHITECT.

262816 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS
A. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY, QUICK MAKE, QUICK BREAK, 3 PHASE, 3 OR 4 POLE WITH AMPERE RATING AS REQUIRED OR SAME AS UPSTREAM OVERCURRENT PROTECTIVE DEVICE.
B. CLASS J FUSES: UL 198C, "HIGH-INTERRUPTING CAPACITY FUSES, CURRENT- LIMITING TYPE." CLASS L FUSES: UL 198C, "HIGH-INTERRUPTING CAPACITY FUSES, CURRENT- LIMITING TYPE."
C. CIRCUIT BREAKERS: UL 489, "MOLDED CASE CIRCUIT BREAKERS AND CIRCUIT BREAKER ENCLOSURES," AND NEMA AB 1, "MOLDED CASE CIRCUIT BREAKERS.".

262913 - MANUAL AND MAGNETIC MOTOR CONTROLLERS
A. PROVIDE FULL-VOLTAGE, NONREVERSING, ACROSS-THE-LINE, MAGNETIC CONTROLLER, WITH HAND-OFF-AUTO SWITCH, RED AND RED PILOT LIGHTS ON THE FACE OF THE ENCLOSURE. PROVIDE CONTROL POWER TRANSFORMER INTEGRAL WITH CONTROLLER WHERE NO OTHER SUPPLY OF 120 VOLT CONTROL POWER TO CONTROLLER IS INDICATED. PROVIDE CONTROL POWER TRANSFORMER WITH ADEQUATE CAPACITY TO OPERATE CONNECTED PILOTS, INDICATING AND CONTROL DEVICES, PLUS 100 PERCENT SPARE CAPACITY.
B. FOR COMBINATION CONTROLLER, PROVIDE CLASS 'J' FUSED SWITCH; FACTORY ASSEMBLED WITH CONTROLLER AND ARRANGED TO DISCONNECT IT. INTERLOCK SWITCH WITH UNIT COVER OR DOOR.

264313 - SURGE PROTECTION FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS
A. UNITS SHALL BE CURRENT TECHNOLOGY MODEL SELECT 3 300 OR APPROVED EQUAL.

265119 - INTERIOR LIGHTING
A. SUPPORT ALL RECESSED AND SEMI-RECESSED FIXTURES. INSTALL UNITS MAY BE SUPPORTED FROM SUSPENDED CEILING SUPPORT SYSTEM. INSTALL CEILING SYSTEM SUPPORT RODS OR WIRES AT A MINIMUM OF FOUR RODS OR WIRES PER FIXTURE LOCATED NOT MORE THAN 6 INCHES FROM FIXTURE CORNERS. CONFORM TO THE FOLLOWING:
   1. FIXTURES SMALLER THAN CEILING GRID: INSTALL A MINIMUM OF FOUR RODS OR WIRES FOR EACH FIXTURE AND LOCATE AT CORNER OF THE CEILING GRID WHERE THE FIXTURE IS LOCATED. DO NOT SUPPORT FIXTURES BY CEILING ACOUSTICAL PANELS.
   2. FIXTURES OF SIZES LESS THAN CEILING GRID: CENTER IN THE ACOUSTICAL PANEL. SUPPORT FIXTURES INDEPENDENTLY WITH AT LEAST TWO 3/4-INCH METAL CHANNELS SPANNING AND SECURED TO THE CEILING TEES.
   3. INSTALL SUPPORT CLIPS FOR RECESSED FIXTURES, SECURELY FASTENED TO CEILING GRID MEMBERS, AT OR NEAR EACH FIXTURE CORNERS.

269010 - TESTING AND COMMISSIONING
A. ALL ELECTRICAL EQUIPMENT AND WIRING SYSTEMS SHALL BE THOROUGHLY TESTED AND ALL DEFECTS AND MALFUNCTIONING EQUIPMENT SHALL BE CORRECTED, REPAIRED OR REPLACED. ALL SYSTEMS SHALL BE TESTED; TEST DATA SHALL BE PROVIDED FOR OWNER'S RECORDS.
B. PROVIDE INDEPENDENT TESTING AGENCY TO PERFORM FUNCTIONAL TESTING OF LIGHTING CONTROLS PER IECC. REFER TO PROVISIONS WITHIN THESE DOCUMENTS.

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

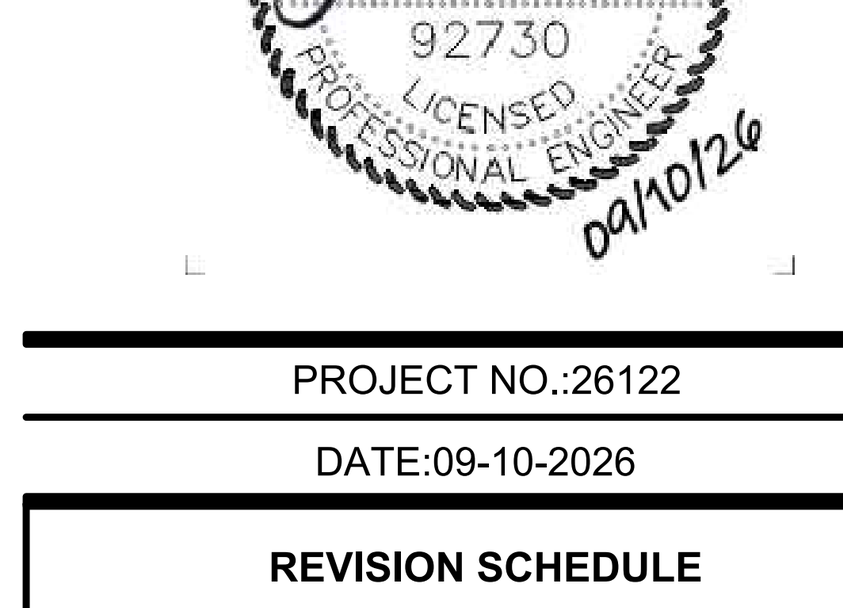
284621 - FIRE ALARM SYSTEMS (EXISTING)
A. FIRE ALARM SYSTEM SHALL BE AN EXTENSION OF THE EXISTING FIRE ALARM SYSTEM(S). PROVIDE NEW DEVICES TO FIT AND MATCH EXISTING FIRE ALARM EQUIPMENT. PROVIDE NEW CONTROL AND/OR ANNUNCIATOR PANELS AS NECESSARY. PROVIDE NEW EQUIPMENT TO ENABLE FIRE ALARM SYSTEM TO ACCOMMODATE BOTH EXISTING AND NEW ALARM, INDICATING AND INITIATION DEVICES.
B. PROVIDE NECESSARY WIRE AND CONDUIT FOR TYING NEW FIRE ALARM INITIATING AND SIGNALING DEVICES TO NEAREST AVAILABLE FIRE ALARM INITIATING ZONE. VERIFY THAT EXISTING FIRE ALARM SYSTEM HAS CAPACITY FOR ADDITIONAL EQUIPMENT. PROVIDE ADDITIONAL CAPACITY AS REQUIRED FOR NEW EQUIPMENT.

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PROJECT NO.:26122
DATE:09-10-2026

REVISION SCHEDULE		
Δ	Description	Date

SHEET NAME
COVER SHEET CONT. - MEP

SHEET NO.
MEP1.01

SPLIT SYSTEM SCHEDULE

AIR HANDLING UNIT																CONDENSING UNIT								REMARKS
MARK	NOM. TONS	SUPPLY FAN				COOLING				HEATING			MANUFACTURER	WEIGHT (LBS)	MODEL NO.	VOLT/PH	MCA	MOCD	MARK	AMBIENT TEMP (°F)	VOLT/PH	MCA	MOCD	MANUFACTURER	WEIGHT (LBS)	MODEL NO.	
		O/A	CFM	E.S.P (" WG)	BHP/HP	E.A.T. (°F) DB/WB	L.A.T. (°F) DB/WB	TOT. CAP (MBH)	SEN. CAP (MBH)	TYPE	INPUT (MBH)	OUTPUT (MBH)														
AC-1	2.0	160	800	0.5	0.11	80.0/67.0	57.5/56.9	24.8	19.0	GAS	50	40	RHEEM	110	R802V0503A14UHSCAP/R802V0503A14UHSCAP	115/1Ø	13	20	CU-1	105	208/1Ø	13	20	RHEEM	178	RA15AY24AJ1NA	1,2,3,4

1. WITH HAIL GUARDS ON THE CONDENSER. 2. WITH 7 DAY PROGRAMMABLE T-STAT. 3. WITH TWO STAGE HEATING. 4. WITH 95% EFFICIENT FURNACES REQUIRING CONCENTRIC VENT KIT. 5. WITH FIELD INSTALLED ELECTRIC HEAT.

DUCTLESS SPLIT SYSTEM-HEAT PUMP

AIR HANDLING UNIT											HEAT PUMP							REMARKS
MARK	CFM	COOLING			HEATING		MANUFACTURER	MODEL NO.	VOLT/PH	MCA	MOCP	MARK	AMBIENT TEMP (°F)	VOLT/PH	MCA	MOCD	MANUFACTURER	MODEL NO.	
		E.A.T. (°F) DB/WB	TOT. CAP (MBH)	SEN. CAP (MBH)	TOT. CAP @ 47°F (MBH)	TOT. CAP @ 17°F (MBH)												
AC-2	394-252	80.0/67.0	12.0	12.0	12.0	8.8	FRIEDRICH	FAHFW12A3A	115/1ø	1.0	---	CU-2	105	208/1ø	10.5	15	FRIEDRICH	FPHSR12A3B	1,2,3

1. 14 SEER MINIMUM.
2. PROVIDE OPTIONAL WIRELESS REMOTE CONTROLLER, CONDENSATE PUMP AND WASHABLE FILTER.
3. DISCONNECT FOR INDOOR AND OUTDOOR UNIT BY DIVISION 16.

AIR DEVICE SCHEDULE

MARK	DUTY	TYPE	FACE SIZE	NECK SIZE	CFM	MAX. T.P. (" W.G)	MAX. N.C.	MFG.	MODEL NO.	REMARKS
A	SUPPLY	CEILING	24"X24"	AS NOTED	AS NOTED	0.15	25	TITUS	TMS	1,2
B	RET/EXH	CEILING	24"X24"	22"X22"	AS NOTED	0.15	25	TITUS	50F - 1"	1,2

1. AIR DEVICE SHALL BE FURNISHED WHITE UNLESS SPECIFIED OTHERWISE BY THE ARCHITECT.
2. AIR DEVICE SHALL HAVE FRAMES AND BORDERS SUITABLE FOR THE CONSTRUCTION IN WHICH THEY WILL BE INSTALLED.

BAS CONTROLS:

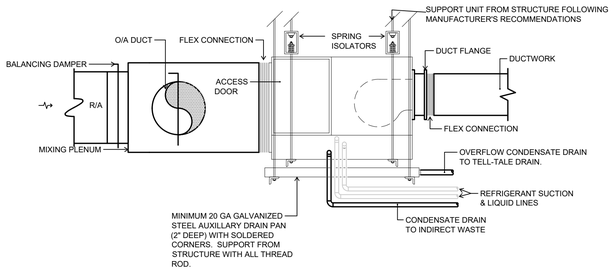
HVAC SYSTEMS NEED TO CONNECT BACK TO EXISTING BAS SYSTEM.
ENVIROMATICS IS OUR CONTRACTOR FOR THIS BAS
THE SYSTEM IS MACH-PROWEBSYS FROM RELIABLE CONTROLS
SOFTWARE VERSION 2.21.2
FIRMWARE VERSION 8.31.9
ADDITIONAL LICENSES MAY BE REQUIRED
CONTACT:
ENVIROMATIC SYSTEMS, INC.
JIM BONHAM
JBONHAM@ENVIROMATICSSYSTEMS.COM
2337 W. WARRIOR TRAIL #7255
GRAND PRAIRIE, TX 75052

GENERAL NOTE(S):

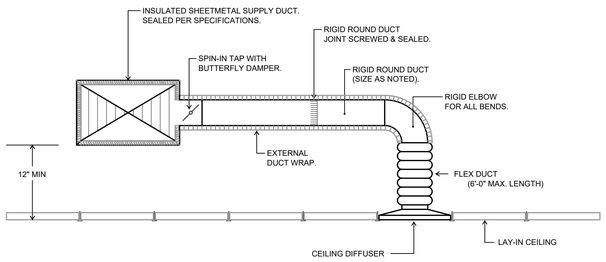
1. COORDINATE FINAL PLACEMENT OF DIFFUSERS WITH ARCHITECTURAL RCP AND LIGHTING LAYOUT.
2. COORDINATE EXACT LOCATION FOR ALL ROOF MOUNTED EQUIPMENT AND ASSOCIATED ROOF PENETRATIONS WITH EXISTING STRUCTURE. VERIFY FINAL LOCATION WITH STRUCTURAL ENGINEER.
3. DUCTWORK IS DIAGRAMMATICAL IN NATURE. BRANCH DUCTS THAT CROSS UNDER/OVER MAIN DUCT RUNS ARE SHOWN WITH BROKEN LINES. THOSE BRANCH DUCTS SHALL BE FITTED WITH TRANSITIONS TO ROUTE ABOVE/BELOW THE MAINS.
4. PROVIDE YOUNG REGULATORS WITH BOWDEN CONTROL CABLES WHERE MANUAL VOLUME DAMPERS ARE CONCEALED ABOVE INACCESSIBLE CEILINGS.
5. MAINTAIN A MINIMUM 10'-0" CLEARANCE BETWEEN OUTSIDE AIR INTAKES AND BUILDING EXHAUST PER INTERNATIONAL MECHANICAL CODE.

KEYED NOTES BY SYMBOL:

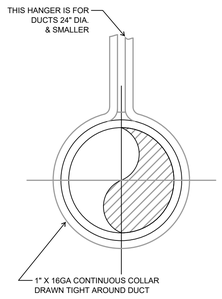
1. THERMOSTAT LOCATIONS ARE TO BE COORDINATED WITH THE OWNER. THE GC AND HVAC SUBCONTRACTOR SHALL NOT INSTALL THESE WITHOUT THEIR APPROVAL.
2. RS AND RL LINES SIZED PER MANUFACTURER'S RECOMMENDATION. ROUTE TO RESPECTIVE INDOOR/OUTDOOR UNIT.



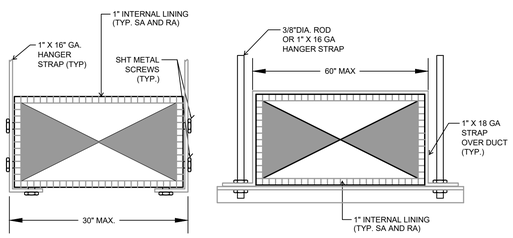
06 AIR HANDLING DETAIL (HORIZONTAL)
SCALE: NOT TO SCALE



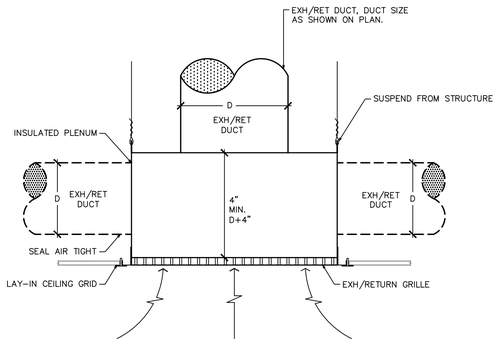
05 TYPICAL DIFFUSER CONNECTION DETAIL
SCALE: NOT TO SCALE



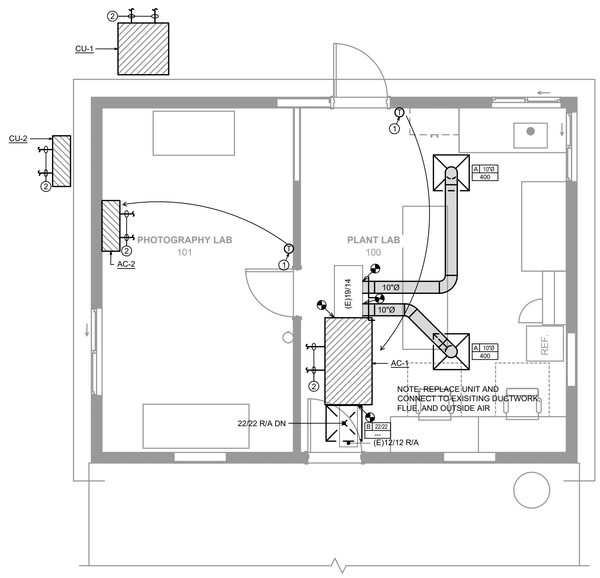
03 ROUND DUCT HANGER
SCALE: NOT TO SCALE



04 RECTANGULAR DUCT HANGER
SCALE: NOT TO SCALE



02 DUCTED EXH/RETURN GRILLE
SCALE: NOT TO SCALE



01 FLOOR PLAN - MECHANICAL
SCALE: 1/4" = 1'-0"

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PROJECT NO.:26122

DATE:09-10-2026

REVISION SCHEDULE

Δ	Description	Date
1	ADDENDUM 01	11/02/2026

SHEET NAME

FLOOR PLAN - MECHANICAL

SHEET NO.

M2.01

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE								
MARK	LOCATION	KW	VOLT/PH	TEMP. RISE IN °F		MANUFACTURER	MODEL NO.	REMARKS
				0.5 GPM	1.0 GPM			
IWH-1	L-1	4.2	208V/1Ø	57	28	CHRONOMITE	M-20L/208	1, 2

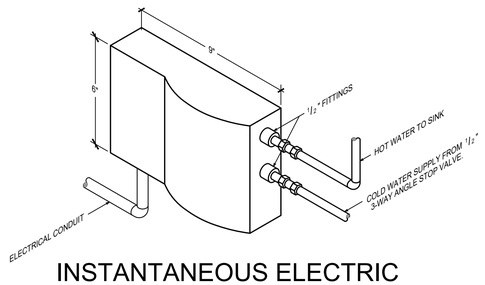
1. PROVIDE OMNI FLOW CONTROL WITH THREE ADAPTERS AND ONE COMPRESSION FITTING.
2. SET TEMPERATURE AT 110°F

GENERAL NOTES:

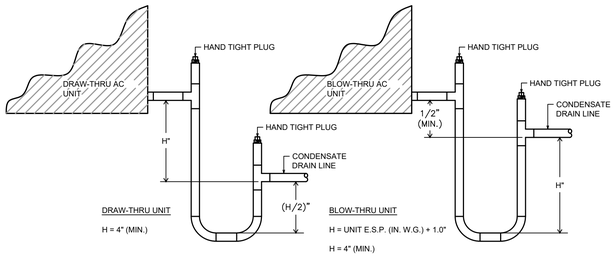
1. REFERENCE ARCHITECTURAL PLANS FOR ALL EQUIPMENT DETAILS.
2. ALL NEW SANITARY WASTE PIPING SHALL BE A ¼" PER FOOT SLOPE.

KEYED NOTES BY SYMBOL:

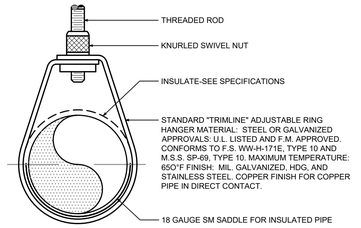
(1) PROVIDE WITH CONDENSATE SHUT OFF SWITCH IN THE OVERFLOW CONDENSATE TO SHUT OFF UNIT IN THE EVENT THAT WATER ACCUMULATES IN THE OVERFLOW LINE.



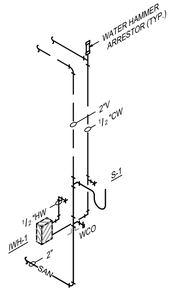
04 INSTANTANEOUS ELECTRIC WATER HEATER DETAIL (TYPICAL)
SCALE: NOT TO SCALE



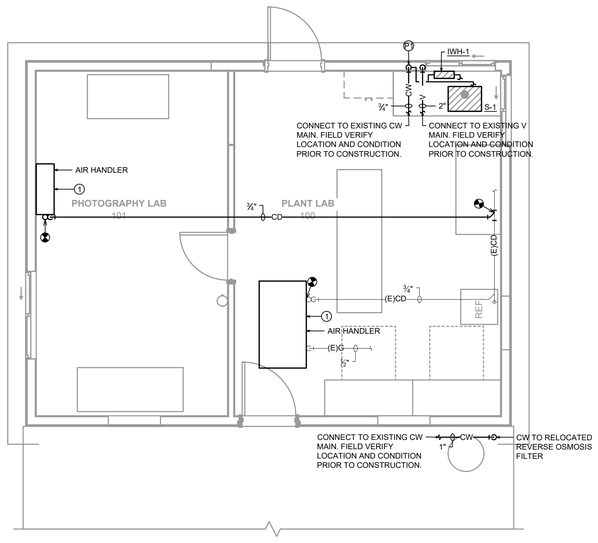
05 CONDENSATE DRAIN TRAP DETAIL
SCALE: NOT TO SCALE



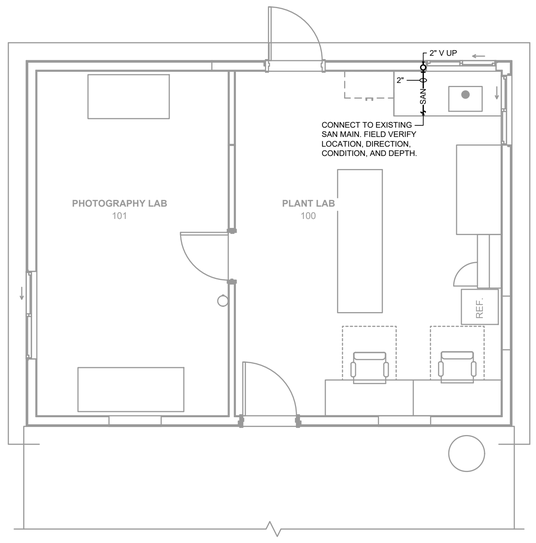
03 TYPICAL PIPE HANGER DETAIL
SCALE: NOT TO SCALE



P1 TYPICAL SINK WITH IWH PLUMBING RISER DIAGRAM
SCALE: NOT TO SCALE



02 FLOOR PLAN - PLUMBING
SCALE: 1/4" = 1'-0"



01 UNDERFLOOR PLAN - PLUMBING
SCALE: 1/4" = 1'-0"

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A RENOVATION
FWBG PHOTO LAB
3220 BOTANIC GARDENS BLVD
FORT WORTH, TEXAS 76107

STATE OF TEXAS
JOEL A. GARCIA
92730
LICENSED
PROFESSIONAL ENGINEER
09/10/26

PROJECT NO.:26122

DATE:09-10-2026

REVISION SCHEDULE

Δ	Description	Date

SHEET NAME

FLOOR PLAN - PLUMBING

SHEET NO.

P2.01

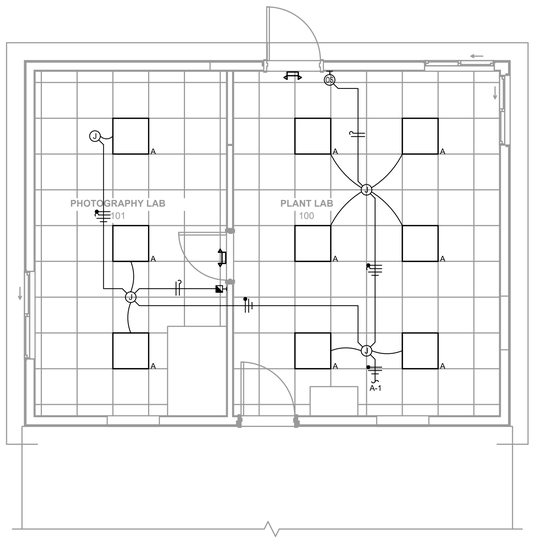
LIGHTING FIXTURE SCHEDULE

TYPE	QTY	DESCRIPTION	MANUFACTURER	MODEL NO.	LAMPS				VOLTAGE
					TYPE	COLOR	LUMENS	WATTS	
A	9	2 X 2 LED LIGHT FIXTURE	LITHONIA	STAKS 2X2 AL03 SWW7	LED	4000K	4000	36	120-277

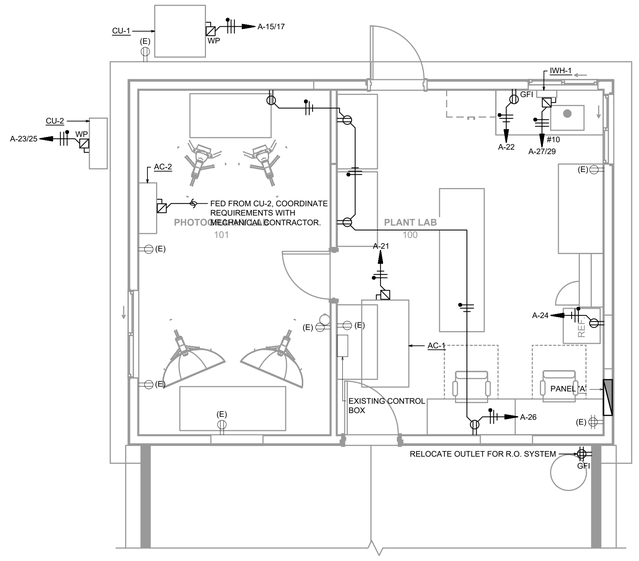
NOTES:
1) ALL FIXTURES MAY NOT BE USED.
2) FURNISH COLD WEATHER (0°) DRIVERS FOR ALL OUTDOOR LED LIGHTING FIXTURES.
3) ENSURE ALL OUTDOOR FIXTURES ARE UL LISTED FOR THEIR INTENDED USE (I.E., DAMP OR WET LOCATION LISTED).
4) CONTRACTOR SHALL PROVIDE 2', 3', OR 4' LENGTHS AS REQUIRED FOR UNDERCABINET LIGHTING FIXTURES TO ENSURE LIGHTING IS CONTINUOUS FROM END TO END WITH NO GAPS BETWEEN FIXTURES.

GENERAL NOTES:

1. CIRCUIT EXIT SIGNS AND EMERGENCY EGRESS FIXTURES TO NEAREST NORMAL LIGHTING CIRCUIT SERVING THIS AREA ON A NON-SWITCHED HOT LEG.
2. HATCHED LIGHT FIXTURES INDICATE EMERGENCY CIRCUIT OR BATTERY BACK-UP. EMERGENCY LIGHT FIXTURES SHALL BE WIRED TO REMAIN ON AT ALL TIMES AND SERVE AS NIGHT LIGHTS WHEN SURROUNDING FIXTURES ARE SWITCHED OFF UNLESS NOTED OTHERWISE ON PLANS.
3. REFER TO ARCHITECTURAL PLANS FOR LIGHT FIXTURE SCHEDULE AND MOUNTING HEIGHTS.



02 FLOOR PLAN - LIGHTING
SCALE: 1/4" = 1'-0"



01 FLOOR PLAN - ELECTRICAL
SCALE: 1/4" = 1'-0"

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FLOOR PLAN - ELECTRICAL

SHEET NO.

E2.01

PANEL [A] SCHEDULE

DESCRIPTION	P	AMP	LIGHT	RECEP	MOTOR	HEAT	KITCH	COMP	OTHER	PHASE	OTHER	COMP	KITCH	HEAT	MOTOR	RECEP	LIGHT	P	AMP	DESCRIPTION
EXISTING LIGHTS	1	20	600	0	0	0	0	0	0	1 A 2	0	0	0	0	0	0	0	1	20	SPARE
EXISTING RECEPTACLES	1	20	0	600	0	0	0	0	0	3 B 4	0	0	0	0	0	600	0	1	20	EXISTING OUTLETS
EXISTING RECEPTACLES	1	20	0	600	0	0	0	0	0	5 A 6	0	0	0	1200	0	0	0	1	20	EXISTING HEATER
EXISTING CONTROLS	1	20	0	0	0	0	0	0	600	7 B 8	0	0	0	0	0	0	600	1	20	EXISTING LIGHTS
EXISTING FAN	1	20	0	0	600	0	0	0	0	9 A 10	0	0	0	0	0	0	600	1	20	EXISTING LIGHTS
EXISTING FAN JETS	1	20	0	0	600	0	0	0	0	11 B 12	0	0	0	0	0	600	0	1	20	EXISTING OUTLETS
EXISTING HEATERS	1	20	0	0	0	1200	0	0	0	13 A 14	600	0	0	0	0	0	0	1	20	EXISTING MIST SYSTEM
(CU-1	2	20	0	0	1352	0	0	0	0	15 B 16	600	0	0	0	0	0	0	1	20	EXISTING MIST SYSTEM
(			0	0	1352	0	0	0	0	17 A 18	0	0	0	0	0	600	0	1	20	EXISTING OUTLETS
EXISTING RECEPTACLES	1	20	0	600	0	0	0	0	0	19 B 20	0	0	0	0	1200	0	0	1	20	EXISTING PUMP
AC-1	1	20	0	0	1495	0	0	0	0	21 A 22	0	0	0	0	0	200	0	1	20	(1) RECEPTACLE
(CU-2/AC-2	2	15	0	0	1092	0	0	0	0	23 B 24	0	0	0	0	0	200	0	1	20	(1) RECEPTACLE
(			0	0	1092	0	0	0	0	25 A 26	0	0	0	0	0	600	0	1	20	(4) RECEPTACLES
(IWH-1	2	30	0	0	0	2100	0	0	0	27 B 28	0	0	0	0	0	0	0			
(			0	0	0	2100	0	0	0	29 A 30	0	0	0	0	0	0	0			
			0	0	0	0	0	0	0	31 B 32	0	0	0	0	0	0	0			
TOTALS			600	1800	7583	5400	0	0	600		1200	0	0	1200	1200	2800	1200			TOTALS

LOAD SUMMARY	CON KVA	CON AMP	C W/SF	DIV. FAC	DES KVA	DES AMP	D W/SF
1. LIGHTING	1.8	7.5	1.8	1.25	2.3	9.4	2.3
2. RECEPTACLES	4.6	19.2	4.6	1.00	4.6	19.2	4.6
3. MOTORS	8.8	36.6	8.8	1.00	8.8	36.6	8.8
4. ELECTRIC HEAT	6.6	27.5	6.6	1.00	6.6	27.5	6.6
5. KITCHEN EQUIPMENT	0.0	0.0	0.0	1.00	0.0	0.0	0.0
6. COMPUTER EQUIPMENT	0.0	0.0	0.0	1.00	0.0	0.0	0.0
7. OTHER	1.8	7.5	1.8	1.00	1.8	7.5	1.8
8. SPARE CAPACITY	0.0			1.00	0.0	0.0	0.0
TOTAL:	24	98	24		24	100	24

NOTES:
1. MINIMUM INTEGRATED EQUIPMENT RATING 22KAIC (240V).
2. PROVIDE FULL SIZE NEUTRAL AND GROUND BUS.
3. PROVIDE LOCK-ON TYPE CIRCUIT BREAKER FOR FIRE ALARM CONTROL PANEL AND ITS POWER SUPPLIES. BREAKER SHALL BE COLORED RED AND IDENTIFIED AS "FIRE ALARM CIRCUIT".

JOB NM:	FWBG PHOTO LAB		SUMMARY
---		1ϕ VOLTAGE:	240
FORT WORTH, TX		MCB/MLO:	MCB
UPSTREAM O.C.P.D.		AMPS:	125
		# OF POLES:	32
		MOUNT:	SURFACE
NOTE: CONTRACTOR TO		BY:	---
BALANCE PHASES		TIME:	9:07:05 AM
WITHIN +/- 10%		DATE:	9/11/2026
JOB #:	26147	AREA (SF):	1000

FEEDER SCHEDULE

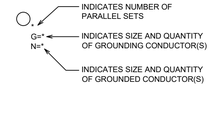
3 CONDUCTOR			COPPER CONDUCTORS WITH GROUND WIRE				4 CONDUCTOR		
CODE	WIRES	CONDUIT	SIZE	AMP	DEG.	LUGS	CODE	WIRES	CONDUIT
(45)	(3) #12 & (1) #12 G.	3/4"	#12	20	60°	MECH.	(67)	(4) #12 & (1) #12 G.	3/4"
(46)	(3) #10 & (1) #10 G.	3/4"	#10	30	60°	MECH.	(68)	(4) #10 & (1) #10 G.	3/4"
(47)	(3) #8 & (1) #10 G.	3/4"	#8	40	60°	MECH.	(69)	(4) #8 & (1) #10 G.	1"
(48)	(3) #6 & (1) #10 G.	1"	#6	55	60°	MECH.	(70)	(4) #6 & (1) #10 G.	1"
(49)	(3) #4 & (1) #8 G.	1 1/4"	#4	70	60°	MECH.	(71)	(4) #4 & (1) #8 G.	1 1/4"
(50)	(3) #3 & (1) #8 G.	1 1/4"	#3	85	60°	MECH.	(72)	(4) #3 & (1) #8 G.	1 1/4"
(51)	(3) #2 & (1) #8 G.	1 1/4"	#2	95	60°	MECH.	(73)	(4) #2 & (1) #8 G.	1 1/2"
(52)	(3) #1 & (1) #6 G.	1 1/2"	#1	110	60°	COMP.	(74)	(4) #1 & (1) #6 G.	2"
(53)	(3) #2 & (1) #6 G.	1 1/2"	#2	115	75°	COMP.	(75)	(4) #2 & (1) #6 G.	1 1/2"
(54)	(3) #1 & (1) #6 G.	1 1/2"	#1	130	75°	COMP.	(76)	(4) #1 & (1) #6 G.	2"
(55)	(3) #1/0 & (1) #6 G.	1 1/2"	#1/0	150	75°	COMP.	(77)	(4) #1/0 & (1) #6 G.	2"
(56)	(3) #2/0 & (1) #6 G.	2"	#2/0	175	75°	COMP.	(78)	(4) #2/0 & (1) #6 G.	2"
(57)	(3) #3/0 & (1) #6 G.	2"	#3/0	200	75°	COMP.	(79)	(4) #3/0 & (1) #6 G.	2 1/2"
(58)	(3) #4/0 & (1) #4 G.	2"	#4/0	230	75°	COMP.	(80)	(4) #4/0 & (1) #4 G.	2 1/2"
(59)	(3) #250MCM & (1) #4 G.	2 1/2"	#250MCM	255	75°	COMP.	(81)	(4) #250MCM & (1) #4 G.	3"
(60)	(3) #300MCM & (1) #4 G.	2 1/2"	#300MCM	285	75°	COMP.	(82)	(4) #300MCM & (1) #4 G.	3"
(61)	(3) #350MCM & (1) #3 G.	3"	#350MCM	310	75°	COMP.	(83)	(4) #350MCM & (1) #3 G.	3"
(62)	(3) #400MCM & (1) #3 G.	3"	#400MCM	335	75°	COMP.	(84)	(4) #400MCM & (1) #3 G.	3"
(63)	(3) #500MCM & (1) #3 G.	3"	#500MCM	380	75°	COMP.	(85)	(4) #500MCM & (1) #3 G.	4"
(64)	(3) #600MCM & (1) #2 G.	4"	#600MCM	420	75°	COMP.	(86)	(4) #600MCM & (1) #2 G.	4"
(65)	(3) #700MCM & (1) #2 G.	4"	#700MCM	460	75°	COMP.	(87)	(4) #700MCM & (1) #2 G.	4"
(66)	(3) #750MCM & (1) #2 G.	4"	#750MCM	475	75°	COMP.	(88)	(4) #750MCM & (1) #2 G.	4"
EF	EXISTING FEEDER. WIRE AND CONDUIT TO REMAIN.								

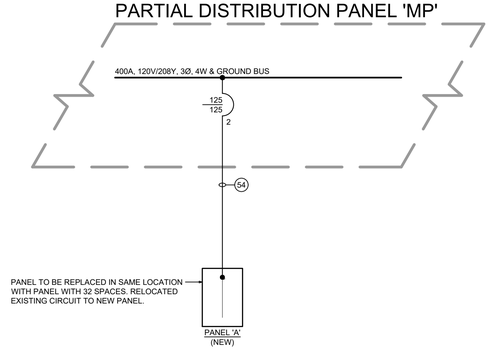
FEEDER SCHEDULE NOTES:

1. WHERE PARALLEL FEEDERS ARE USED, RESIZE GROUND WIRE PER NEC TABLE 250.122.

2. RESIZE MOTOR CIRCUIT GROUND WIRES PER OVERCURRENT DEVICE AS SCHEDULED IN NEC TABLE 250.122.

3. PROVIDE COMPRESSION LUGS ON LOADS ABOVE 100 AMPS.





01 SINGLE LINE DIAGRAM
SCALE: NONE

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Δ	Description	Date

SHEET NAME

SCHEDULES AND DETAILS - ELECTRICAL

SHEET NO.

E5.01