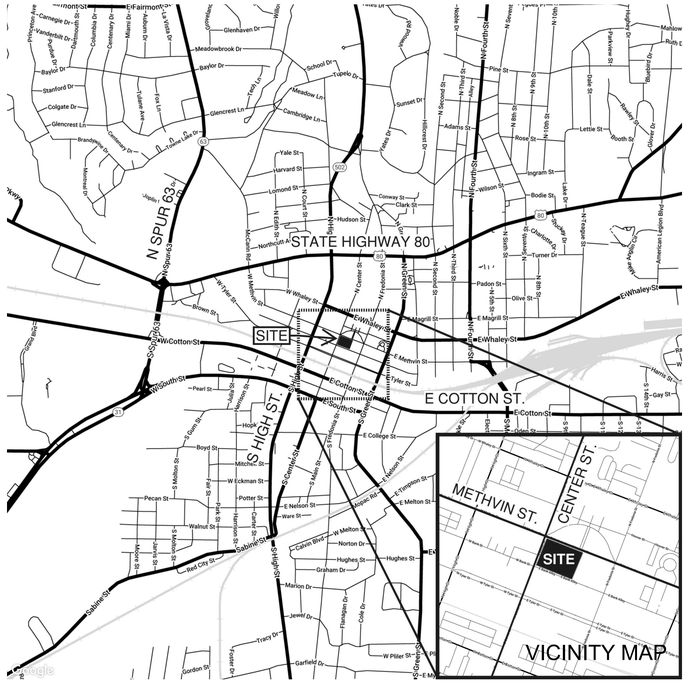


02-18-2022

A NEW FACILITY FOR

GREGG COUNTY - PARKING GARAGE & OFFICE

100 E. METHVIN ST.
LONGVIEW, TX 75601

100% CONSTRUCTION DOCUMENT BID SET

PROJECT NO.: 20011

DATE: 02/18/2022

CIVIL
BALLARD & BRAUGHTON ENG.
3815 OLD BULLARD ROAD
TYLER, TEXAS 75701
903.531.9800

MEP
WALKER CONSULTANTS
2525 BAY AREA BLVD, SUITE 400
HOUSTON, TEXAS 77058
281.280.0068

STRUCTURE
WALKER CONSULTANTS
2525 BAY AREA BLVD, SUITE 400
HOUSTON, TEXAS 77058
281.280.0068

2570 RIVER PARK PLAZA
SUITE 100
FORT WORTH, TX 76116
817-377-3600
www.schwarz-hanson.com

SCHWARZ HANSON ARCHITECTS

ABBREVIATIONS

ACOUST.	ACOUSTICAL
ADA	AMERICAN'S WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
ALUM.	ALUMINIUM
ANOD.	ALUMINIUM ANODIZED
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 MASONARY UNIT
COL.	COLUMN
COMM.	COMMUNICATIONS
CONC.	CONCRETE
CONT.	CONTINUOUS
COORD.	COORDINATE
COORR.	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	FIREGLASS 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.

SHEET INDEX

		2022-02-18 - 100% CDs Bid Set
GENERAL		
G0.0	COVER	X
G0.1	SHEET INDEX	X
G0.2	TEXAS ACCESSIBILITY STANDARDS	X
G0.3	TEXAS ACCESSIBILITY STANDARDS	X
G0.4	TEXAS ACCESSIBILITY STANDARDS	X
G0.5	FRAMING DETAILS	X
G0.6	MOUNTING HEIGHTS	X
G0.7	FIRE PENETRATION DETAILS	X
CIVIL		
C-1	DEMOLITION PLAN	X
C-2	STORM WATER POLLUTION PREVENTION PLAN	X
C-3	SITE PLAN	X
C-4	GRADING PLAN	X
C-5	UTILITY PLAN	X
C-6	STANDARD DETAILS	X
C-7	CITY OF LONGVIEW STANDARD DETAILS	X
ARCHITECTURAL		
A0.0	CODE REVIEW	X
A0.1	LIFE SAFETY PLAN - OFFICE LEVEL & GARAGE TIER 1	X
A0.2	LIFE SAFETY PLAN - GARAGE TIER 2	X
A0.3	LIFE SAFETY PLAN - GARAGE TIER 3	X
A0.4	LIFE SAFETY PLAN - GARAGE TIER 4	X
A1.0	DEMOLITION SITE PLAN	X
A1.1	ARCHITECTURAL SITE PLAN	X
A2.1	FLOOR PLAN - OFFICE LEVEL & GARAGE TIER G	X
A2.2	FLOOR PLAN - GARAGE TIER 2	X
A2.3	FLOOR PLAN - GARAGE TIER 3	X
A2.4	FLOOR PLAN - GARAGE TIER 4	X
A2.5	ROOF PLAN	X
A2.6	ENLARGED PLAN - NW - OFFICE LEVEL & GARAGE TIER G	X
A2.7	ENLARGED PLAN - NE - OFFICE LEVEL & GARAGE TIER G	X
A2.8	ENLARGED PLAN - SW - OFFICE LEVEL & GARAGE TIER G & RESTROOMS	X
A3.1	EXTERIOR ELEVATIONS	X
A3.2	EXTERIOR ELEVATIONS	X
A3.3	PARTIAL BUILDING SECTIONS	X
A4.1	BUILDING SECTIONS	X
A4.2	BUILDING SECTIONS	X
A4.3	WALL SECTIONS	X
A4.4	WALL SECTIONS	X
A4.5	WALL SECTIONS	X
A4.6	WALL SECTIONS	X
A4.8	VERTICAL CIRCULATION N.E. STAIR PLANS	X
A4.9	VERTICAL CIRCULATION S.W. STAIR PLANS	X
A5.0	SECTION DETAILS	X
A5.1	SECTION DETAILS	X
A5.2	SECTION DETAILS	X
A5.3	SECTION DETAILS	X
A5.5	PLAN DETAILS	X
A6.1	STOREFRONT DOOR & WINDOW ELEVATIONS & SCHEDULES	X
A6.2	PARTITION TYPES	X
A7.1	REFLECTED CEILING PLAN & CEILING DETAILS	X
INTERIORS		
A8.1	INTERIOR ELEVATIONS	X
A8.2	MILLWORK DETAILS	X
A9.1	FINISH SCHEDULE AND NOTES	X
A9.2	FINISH PLAN	X
SIGNAGE & STRIPING		
AG101	GROUND TIER STRIPING AND SIGNAGE PLAN	X
AG102	SECOND TIER STRIPING AND SIGNAGE PLAN	X
AG103	THIRD TIER STRIPING AND SIGNAGE PLAN	X
AG104	TOP TIER STRIPING AND SIGNAGE PLAN	X
AG601	SIGN SCHEDULE AND DETAILS	X
AG701	SIGN MOUNTING DETAILS	X

SHEET INDEX

		2022-02-18 - 100% CDs Bid Set
STRUCTURAL		
S-001	STRUCTURAL GENERAL NOTES	X
S-002	ABBREVIATIONS AND LEGENDS	X
S-003	POST-TENSION POUR SEQUENCE	X
S-100	FOUNDATION PLAN	X
S-101	GROUND TIER PLAN	X
S-102	SECOND TIER PLAN	X
S-103	THIRD TIER PLAN	X
S-104	FOURTH TIER PLAN	X
S-105	ROOF PLAN	X
S-410	ENLARGED STAIR/ELEVATOR PLANS	X
S-420	ENLARGED STAIR PLANS	X
S-501	TYPICAL DETAILS	X
S-510	FOUNDATION DETAILS	X
S-511	FOUNDATION WALL DETAILS	X
S-512	FOUNDATION DETAILS	X
S-520	STRUCTURAL DETAILS	X
S-530	CIP BEAM SCHEDULE AND DETAILS	X
S-535	POST-TENSION SLAB DETAILS	X
S-540	WALL DETAILS	X
S-541	STRUCTURAL DETAILS	X
S-542	STRUCTURAL DETAILS	X
S-543	STRUCTURAL DETAILS	X
S-550	CIP COLUMN SCHEDULE & DETAILS	X
S-570	STAIR AND ELEVATOR DETAILS	X
S-650	LAP SLICE SCHEDULES	X
MECHANICAL		
M-001	MECHANICAL EQUIPMENT SCHEDULE, GENERAL NOTES, SYMBOLS & ABBREVIATIONS	X
M-002	DETAILS	X
M-101	GROUND TIER PLAN	X
M-102	SECOND TIER PLAN	X
M-103	THIRD TIER PLAN	X
M-104	TOP TIER PLAN	X
PLUMBING		
P-001	GENERAL NOTES, SYMBOLS & ABBREVIATIONS	X
P-101	GROUND TIER PLAN	X
P-102	SECOND TIER PLAN	X
P-103	THIRD TIER PLAN	X
P-104	TOP TIER PLAN	X
P-400	GENERAL OFFICE PLUMBING INFORMATION	X
P-401	FOUNDATION OFFICE PLUMBING PLAN	X
P-402	OFFICE PLUMBING PLAN	X
P-403	ENLARGED OFFICE PLUMBING PLANS	X
P-601	RISER DIAGRAMS	X
FIRE PROTECTION		
F-001	GENERAL NOTES, SYMBOLS & ABBREVIATIONS	X
F-101	FIRE PROTECTION PLANS	X
F-201	PARTIAL FIRE PROTECTION PLAN	X
F-301	FIRE STANDPIPE RISER DIAGRAM	X
ELECTRICAL		
E-001	LIGHT FIXTURE SCHEDULE, GENERAL NOTES, SYMBOLS & ABBREVIATIONS	X
E-101	GROUND TIER PLAN	X
E-102	SECOND TIER PLAN	X
E-103	THIRD TIER PLAN	X
E-104	TOP TIER PLAN	X
E-401	ENTRY/EXIT PLANS	X
E-402	ELECTRICAL ROOM PLAN	X
E-403	OFFICE AREA - ENLARGED POWER & LIGHTING PLAN	X
E-410	SW STAIR TOWER	X
E-420	NE STAIR / ELEVATOR TOWER	X
E-501	DETAILS	X
E-601	RISER DIAGRAMS	X
E-602	LIGHTING CONTROL	X
E-603	NORMAL POWER PANEL SCHEDULES	X
E-604	EMERGENCY AND STANDBY POWER PANEL SCHEDULES	X
E-605	POWER ONE LINE DIAGRAM	X

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST. LONGVIEW, TX 75601

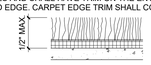
REGISTERED ARCHITECT
BRADLEY S. NAEHER
22859
STATE OF TEXAS
02-18-2022

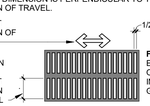
PROJECT NO.: 20011
DATE: 02/18/2022

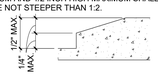
REVISION SCHEDULE		
Δ	Description	Date

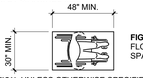
SHEET NAME
SHEET INDEX

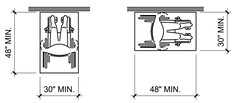
SHEET NO.
G0.1

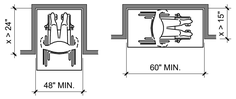


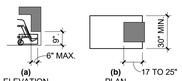


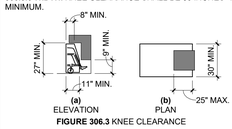


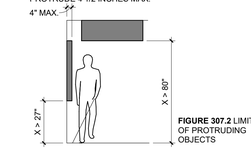


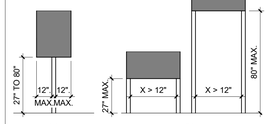


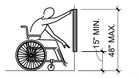


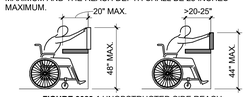


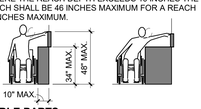


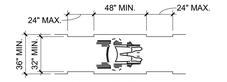


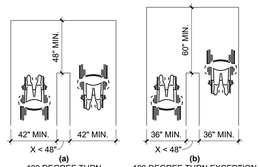


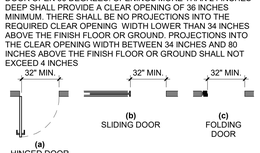


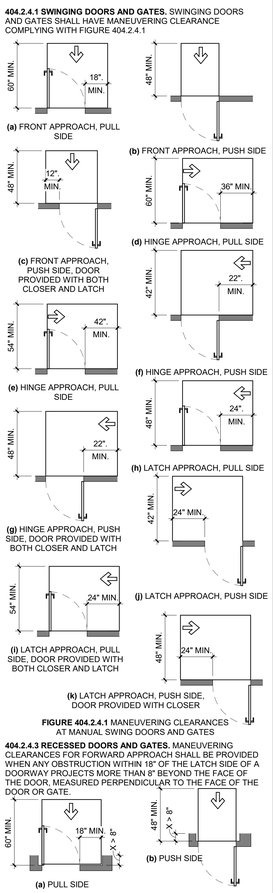


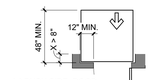


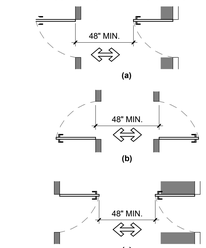


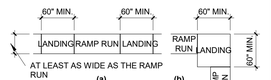


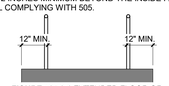


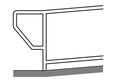


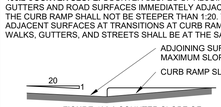


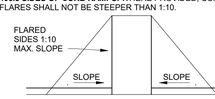


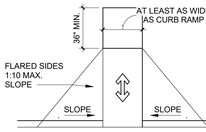


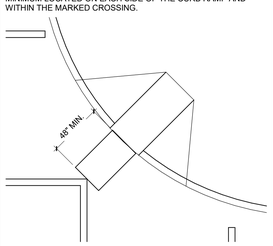












CHAPTER 3: BUILDING BLOCKS

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.

(a) FORWARD

(b) PARALLEL

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.

(a) ELEVATION

(b) PLAN

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.

(a) ELEVATION

(b) PLAN

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.

(a)

(b)

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.

(a) 180 DEGREE TURN

(b) 180 DEGREE TURN EXCEPTION

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

(a) HINGED DOOR

(b) SLIDING DOOR

(c) FOLDING DOOR

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

(a) FRONT APPROACH, PULL SIDE

(b) FRONT APPROACH, PUSH SIDE

(c) FRONT APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH

(d) HINGE APPROACH, PULL SIDE

(e) HINGE APPROACH, PULL SIDE

(f) HINGE APPROACH, PUSH SIDE

(g) HINGE APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH

(h) LATCH APPROACH, PULL SIDE

(i) LATCH APPROACH, PULL SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH

(j) LATCH APPROACH, PUSH SIDE

(k) LATCH APPROACH, PUSH SIDE, DOOR PROVIDED WITH CLOSER

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.

(a) PULL SIDE

(b) PUSH SIDE

(c) PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH

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

(a) STRAIGHT

(b) CHANGE IN DIRECTION

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.

(a) CENTERED DOOR

(b) SIDE (OFF-CENTERED) DOOR

(c) ANY DOOR LOCATION

(d) ANY DOOR LOCATION

SCHWARZ
HANSON
ARCHITECTS

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE

**100 E. METHVIN ST.
LONGVIEW, TX 75601**

REGISTERED ARCHITECT
22859
STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

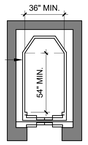
Δ	Description	Date

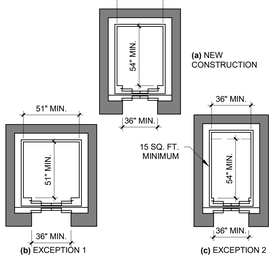
SHEET NAME

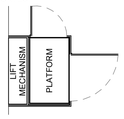
TEXAS ACCESSIBILITY STANDARDS

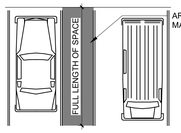
SHEET NO.

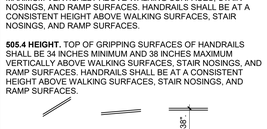
G0.2

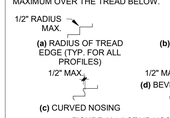


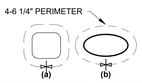


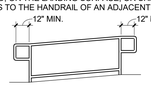


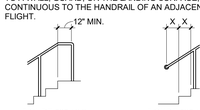


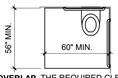


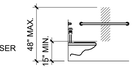


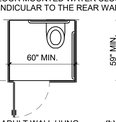












407 ELEVATORS (CONT'D)

(e) EXCEPTION EXISTING ELEVATOR CAR CONFIGURATION

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..

(a) NEW CONSTRUCTION

(b) EXCEPTION 1

(c) EXCEPTION 2

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 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

(a) CAR

(b) VAN

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.

(a) RADIUS OF TREAD EDGE (TYP. FOR ALL PROFILES)

(b) ANGLED RISER

(c) CURVED NOSING

(d) BEVELED NOSING

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.

(a) STAIRS **(b)** RAMPS **(c)** WALKING 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.

(a) WHEELCHAIR ACCESSIBLE WATER CLOSETS

(b) AMBULATORY ACCESSIBLE WATER CLOSETS

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.

(a) ADULT WALL HUNG WATER CLOSET

(b) ADULT FLOOR MOUNTED WATER CLOSET & CHILDREN'S WATER CLOSET

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 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

(a) ELEVATION ADULT

(b) ELEVATION CHILDREN

(c) PLAN

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.

(a) WALL HUNG TYPE **(b)** STYLE TYPE

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.

(a) REMOVABLE IN-TUB SEAT

(b) PERMANENT SEAT

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.

(a) ELEVATION

(b) PLAN

FIGURE 607.4.1 GRAB BARS FOR BATHTUBS WITH PERMANENT SEATS

(a) ELEVATION

(b) PLAN

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.

SCHWARZ
HANSON
ARCHITECTS

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

22859
02-18-2022

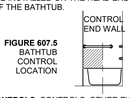
PROJECT NO.: 20011
DATE: 02/18/2022

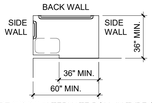
REVISION SCHEDULE

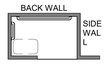
Δ	Description	Date

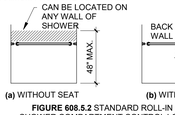
SHEET NAME
TEXAS ACCESSIBILITY STANDARDS

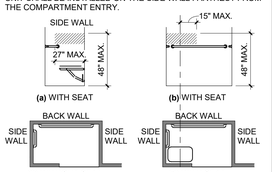
SHEET NO.
G0.3

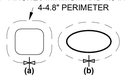


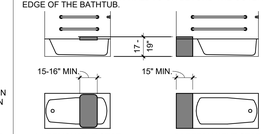


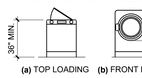












607 BATHTUBS (CONT'D)

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

(a) WITHOUT SEAT **(b)** WITH SEAT

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

(a) WITHOUT SEAT **(b)** WITH SEAT

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

(a) PROJECTING OBJECTS **(b)** RECESSED OBJECTS

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.

(a) REMOVABLE SEAT (b) PERMANENT SEAT

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.

(a) TOP LOADING **(b)** FRONT LOADING

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

SCHWARZ
HANSON
ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

02-18-2022

PROJECT NO.: 20011
DATE: 02/18/2022

REVISION SCHEDULE

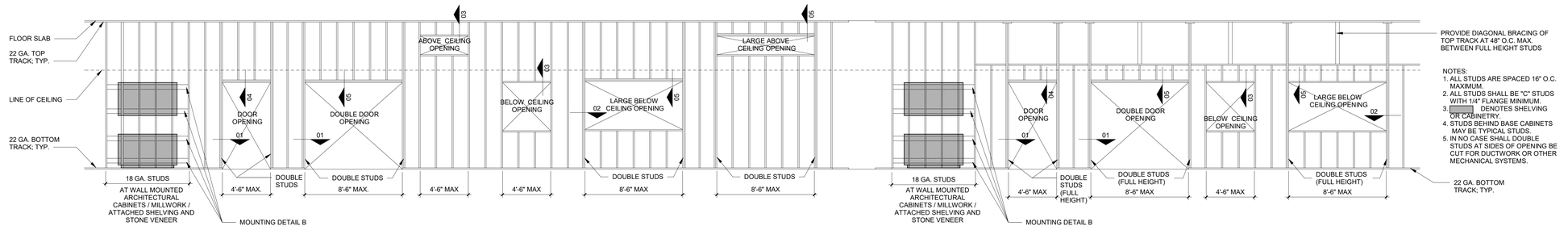
Δ	Description	Date

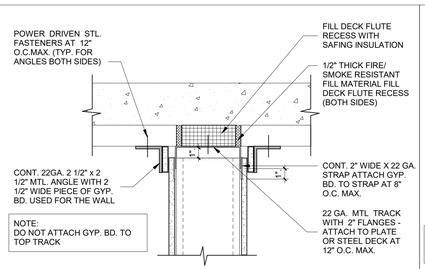
SHEET NAME
TEXAS ACCESSIBILITY STANDARDS

SHEET NO.
G0.4

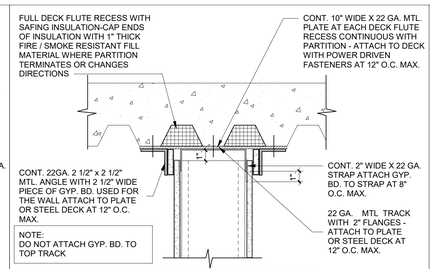
SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

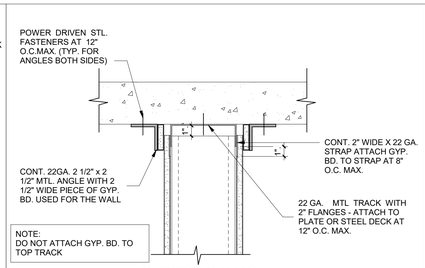




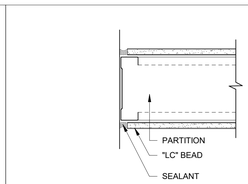
ONE HOUR FIRE RESISTANT AND ONE HOUR FIRE RESISTANT SMOKE BARRIER UL-HW-D-0001



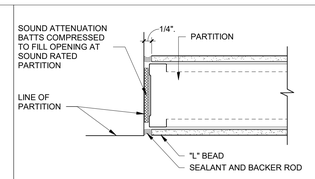
ONE HOUR FIRE RESISTANT AND ONE HOUR FIRE RESISTANT SMOKE BARRIER UL-HW-D-0001



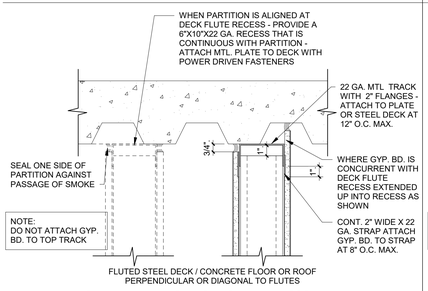
ONE HOUR FIRE RESISTANT AND ONE HOUR FIRE RESISTANT SMOKE BARRIER UL-HW-D-0001



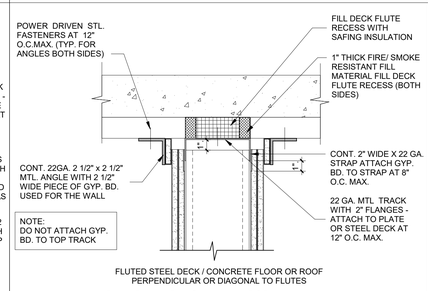
06 INTERIOR PARTITION NON-EXPOSED EDGE



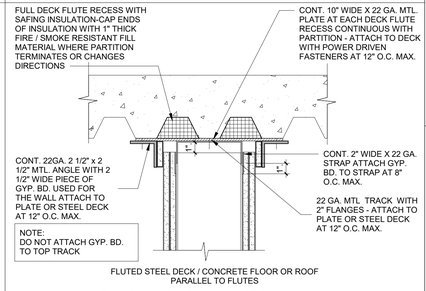
CONTROL JOINT AT PARTITION INTERSECTION / CHANGE IN CONSTRUCTION



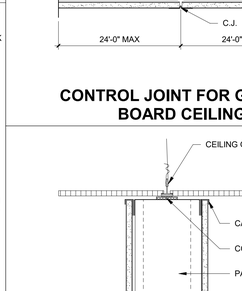
NON-RATED OR SMOKE RESISTANT



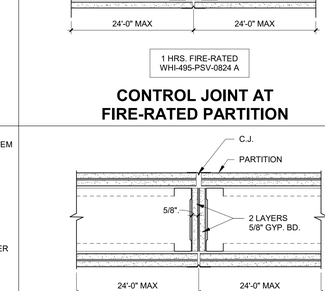
TWO HOURS FIRE RESISTANT AND TWO HOURS FIRE RESISTANT SMOKE BARRIER UL-HW-D0002



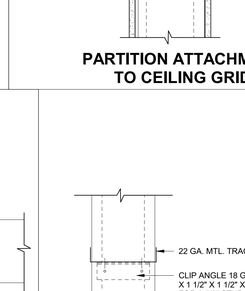
TWO HOURS FIRE RESISTANT AND TWO HOURS FIRE RESISTANT SMOKE BARRIER UL-HW-D0001



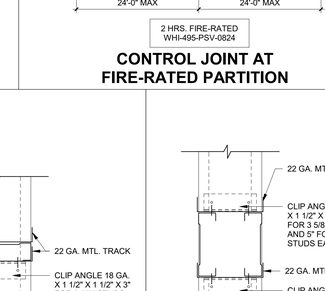
CONTROL JOINT FOR GYPSUM BOARD CEILING



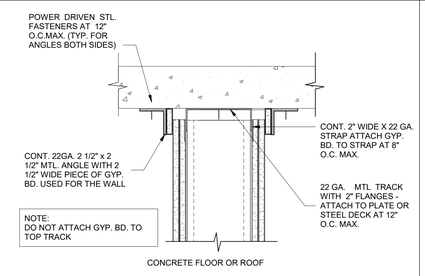
CONTROL JOINT AT FIRE-RATED PARTITION



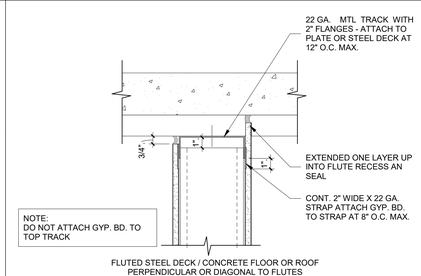
PARTITION ATTACHMENT TO CEILING GRID



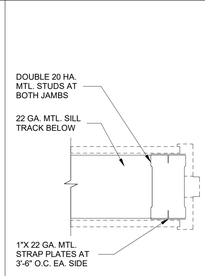
CONTROL JOINT AT FIRE-RATED PARTITION



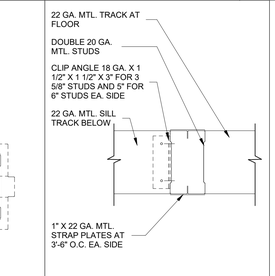
TWO HOURS FIRE RESISTANT AND TWO HOURS FIRE RESISTANT SMOKE BARRIER UL-HW-D-0001



NON-RATED OR SMOKE RESISTANT

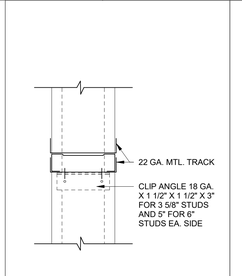


01 DOOR OPENING JAMB STUDS

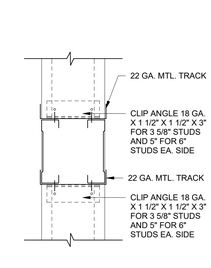


02 OPENING HEADER

03 DOOR OPENING HEADER



04 DOOR OPENING HEADER



05 DOUBLE DOOR / LARGE OPENING HEADER

REGISTERED ARCHITECT
BRADLEY S. HANSON
22859
STATE OF TEXAS
02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

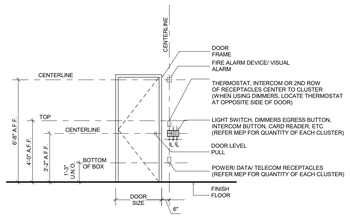
SHEET NAME

FRAMING DETAILS

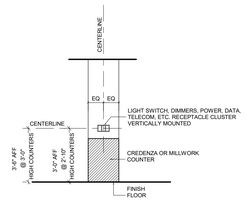
SHEET NO.

G0.5

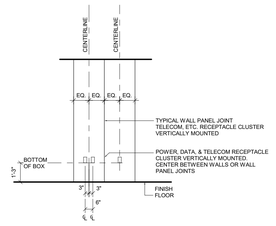
SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com



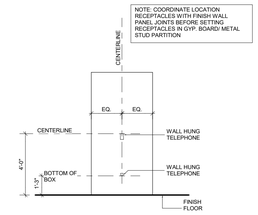
01 TYPICAL MULTIPLE MEP CONTROLS LOCATIONS @ DOOR CONDITIONS



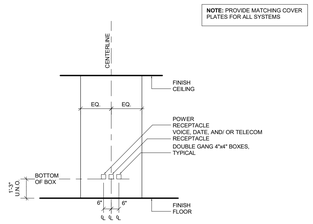
02 TYPICAL MEP CONTROLS LOCATIONS @ COUNTER CONDITIONS



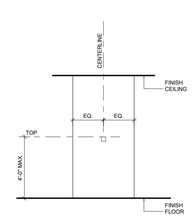
03 TYPICAL MEP DEVICE LOCATIONS @ WALL OR COLUMN CONDITIONS



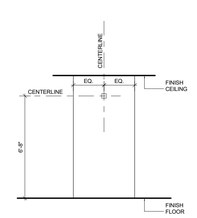
04 TYPICAL WALL MOUNTED TELEPHONE LOCATION @ WALL OR COLUMN CONDITIONS



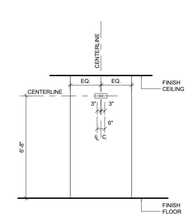
05 CLUSTER MEP DEVICE LOCATIONS @ VISIBLE WALL CONDITIONS



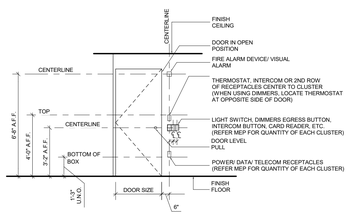
06 SINGLE WALL MOUNTED FIRE ALARM DEVICE/ PULL @ WALL OR COLUMN CONDITIONS



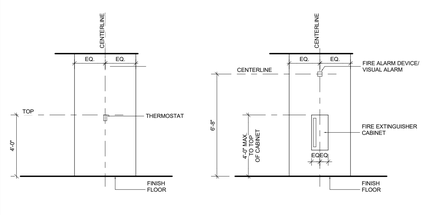
07 SINGLE WALL MOUNTED FIRE ALARM DEVICE/ VISUAL ALARM @ WALL OR COLUMN CONDITIONS



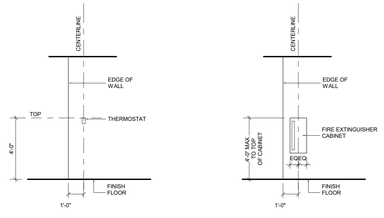
08 DOUBLE MOUNTED FIRE ALARM DEVICE/ VISUAL ALARM @ WALL OR COLUMN CONDITIONS



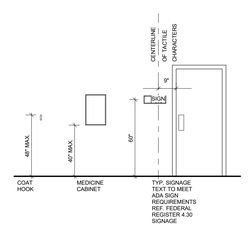
09 TYPICAL MULTIPLE MEP CONTROLS LOCATIONS @ DOOR CONDITIONS (BEHIND DOOR)



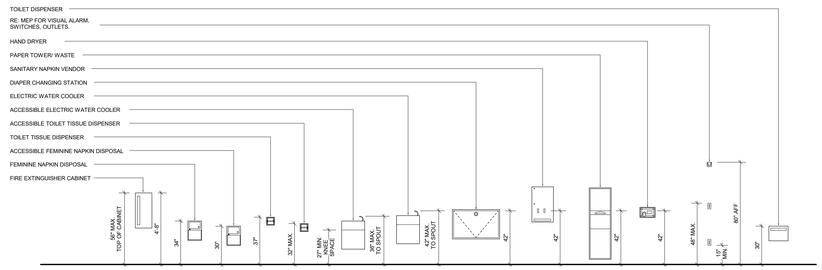
10 FIRE EXTINGUISHER CABINET @ WALL OR COLUMN CONDITIONS



11 FIRE EXTINGUISHER CABINET @ WALL OR COLUMN CONDITIONS



12 ACCESSIBLE MOUNTING HEIGHTS



13 ACCESSIBLE MOUNTING HEIGHTS

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

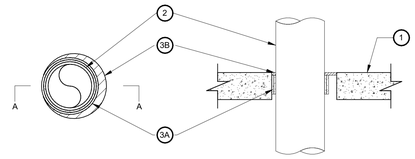
Δ	Description	Date

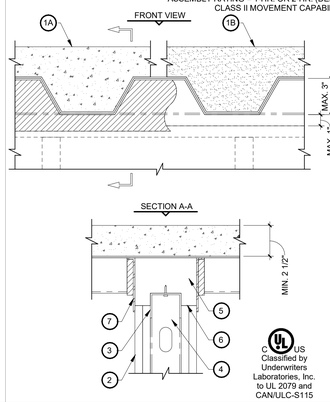
SHEET NAME

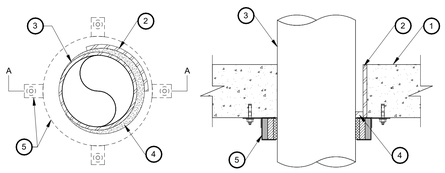
MOUNTING HEIGHTS

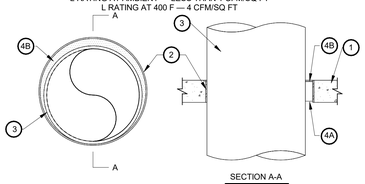
SHEET NO.

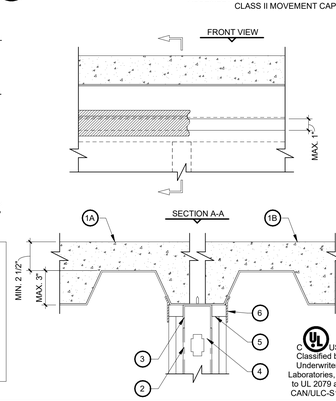
G0.6

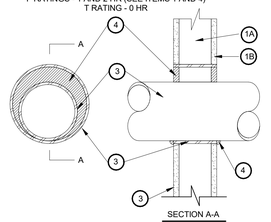












SYSTEM NO. C-AJ-2342
F RATING — 3 HR
T RATING — 0 HR
W RATING - CLASS 1 (SEE ITEM 3B)

1. FLOOR OR WALL ASSEMBLY — MIN 2-1/2 IN. (64 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE FLOOR OR WALL. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 6 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. THROUGH PENETRANTS — ONE NONMETALLIC PIPE TO BE INSTALLED CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM IS DEPENDENT UPON THE MAX DIAM AND TYPE OF PENETRANT USED AS TABULATED IN ITEM 3A. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES MAY BE USED:
   A. POLYVINYL CHLORIDE (PVC) PIPE — NOM 4 IN. (102 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID OR CELLULAR CORE PVC FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
   B. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE — NOM 4 IN. (102 MM) DIAM (OR SMALLER) SDR13.5 CPVC FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
   C. ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE — NOM 4 IN. (102 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID OR CELLULAR CORE ABS FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
   D. FLAME RETARDANT POLYPROPYLENE (FRPP) PIPE — NOM 4 IN. (102 MM) DIAM (OR SMALLER) SCHEDULE 40 FRPP PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
3. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. FILL, VOID OR CAVITY MATERIAL* — WRAP STRIP — LAYERS OF INTUMESCENT WRAP STRIP ARE CONTINUOUSLY WRAPPED AROUND THE PIPE WITH ENDS HELD IN PLACE WITH TAPE. WRAP STRIP INSTALLED RECESSED MAX 1/4 IN. (6 MM) FROM BOTTOM SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL. SIZE OF WRAP STRIP AND NUMBER OF LAYERS FOR A GIVEN SIZE PENETRANT ARE SHOWN IN TABLE BELOW:

      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E W25/1" OR CP648-E W45/1-3/4" FIRESTOP WRAP STRIP

PRODUCT	PIPE SIZE IN. (MM)	MAX OPENING DIAM (IN.)	ANNULAR SPACE MIN IN.(MM)	ANNULAR SPACE MAX IN. (MM)	NUMBER OF LAYERS	NOM WRAP STRIP WIDTH IN. (MM)
CP648-E W25/1"	1 1/2 (38)	3 (76)	3/16 (4.8)	15/16 (24)	1	1 (25)
CP648-E W45/1-3/4"	1 1/2 (38)	3 (76)	3/16 (4.8)	15/16 (24)	1	1 3/4 (45)
CP648-E W25/1"	2 (51)	3 1/2 (89)	3/16 (4.8)	15/16 (24)	1	1 (25)
CP648-E W45/1-3/4"	2 (51)	3 1/2 (89)	3/16 (4.8)	15/16 (24)	1	1 3/4 (45)
CP648-E W45/1-3/4"	3 (76)	4 (102)	3/16 (4.8)	15/16 (24)	1	1 3/4 (45)
CP648-E W45/1-3/4"	3 (76)	5 (127)	3/8 (10)	1 1/16 (27)	2	1 3/4 (45)
CP648-E W45/1-3/4"	4 (102)	6 (152)	3/8 (10)	1 1/8 (29)	2	1 3/4 (45)

   a. FILL, VOID OR CAVITY MATERIAL* — WRAP STRIP — (AS AN ALTERNATE TO THE WRAP STRIP IN ITEM 3A) - ONE LAYER OF INTUMESCENT WRAP STRIP IS CONTINUOUSLY WRAPPED AROUND THE PIPE WITH ENDS BUTTED AND HELD IN PLACE WITH INTEGRATED TAPE. WRAP STRIP INSTALLED RECESSED MAX 1/4 IN. (6 MM FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL. SIZE OF WRAP STRIP FOR A GIVEN SIZE PENETRANT ARE SHOWN IN THE TABLE BELOW.

      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-S-1.5" US, CP648-S-2" US, CP648-S-3" US OR CP648-S-4" US WRAP STRIP

PRODUCT	PIPE SIZE IN. (MM)	MAX OPENING DIAM (IN.)	ANNULAR SPACE MIN IN.(MM)	ANNULAR SPACE MAX IN. (MM)	NOM WRAP STRIP LEGTH IN. (MM)	NOM WRAP STRIP THICK IN. (MM)	NOM WRAP STRIP WIDTH IN. (MM)
CP648-S-1.5" US	1 1/2 (38)	3 (76)	3/16 (4.8)	15/16 (24)	6.5 (165)	0.18 (4.6)	1 (25)
CP648-S-2" US	2 (51)	3 1/2 (89)	3/16 (4.8)	15/16 (24)	8 (203)	0.18 (4.6)	1 (25)
CP648-S-3" US	3 (76)	4 (102)	3/16 (4.8)	15/16 (8)	11.5 (292)	0.18 (4.6)	1 3/4 (45)
CP648-S-4" US	4 (102)	6 (152)	3/8 (10)	1 1/8 (29)	15.1 (384)	0.36 (.9)	1 3/4 (45)

   a. FILL, VOID OR CAVITY MATERIAL* — WRAP STRIP — (AS AN ALTERNATE TO THE WRAP STRIP IN ITEM 3A) - ONE LAYER OF INTUMESCENT WRAP STRIP IS CONTINUOUSLY WRAPPED AROUND THE PIPE WITH ENDS BUTTED AND HELD IN PLACE WITH INTEGRATED TAPE. WRAP STRIP INSTALLED RECESSED MAX 1/4 IN. (6 MM) FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL. SIZE OF WRAP STRIP FOR A GIVEN SIZE PENETRANT ARE SHOWN IN THE TABLE BELOW.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-S-1.5" US, CP648-S-2" US, CP648-S-3" US OR CP648-S-4" US WRAP STRIP
   b. FILL, VOID OR CAVITY MATERIAL* - SEALANT — MIN 1/4 IN. (6 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OF BOTH SURFACES OF WALL. W RATING APPLIES ONLY WHEN CP 601S OR CP 604 SEALANT IS USED.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE SEALANT, CP 601S SEALANT OR CP 604 SEALANT
   c. PACKING MATERIAL (NOT SHOWN) — MIN 1/2 IN. (13 MM) THICKNESS OF 4 PCF (64 KG/M3) MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO ANNULAR SPACE AND RECESSED FROM THE TOP SURFACE OF FLOOR TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. REQUIRED ONLY WHEN CP 604 SEALANT IS USED.

*BEARING THE UL CLASSIFICATION MARK

CLASSIFIED

SYSTEM NO. C-AJ-2109
F RATINGS — 2 AND 3 HR (SEE ITEM 3)
T RATINGS — 0, 2 AND 3 HR (SEE ITEMS 2 AND 3)
W RATING - CLASS 1 (SEE ITEMS 2, 3 AND 4)

1. FLOOR OR WALL ASSEMBLY — MIN 4-1/2 IN. (114 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL EIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 12 IN. (305 MM). SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURES.
2. STEEL SLEEVE — (OPTIONAL) - NOM 12 IN. (305 MM) DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY, FLUSH WITH FLOOR OR WALL SURFACES A MAX OF 3 IN. (76 MM) ABOVE THE FLOOR. IF THE STEEL SLEEVE EXTENDS ABOVE THE FLOOR, THE T RATING OF THE FIRESTOP SYSTEM IS 0 HR AND A MIN 1/2 IN. (13 MM) ANNULAR SPACE IS REQUIRED BETWEEN THE THROUGH PENETRANT (ITEM 3) AND THE PERIPHERY OF THE OPENING. THE W RATING DOES NOT APPLY WHEN THE STEEL SLEEVE IS USED.
3. THROUGH PENETRANTS — ONE NONMETALLIC PIPE TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. FOR MAX 6 IN. (152 MM) DIAM PIPES, THE ANNULAR SPACE BETWEEN THE PIPE AND THE PERIPHERY OF OPENING SHALL BE MIN 0 IN. (0 MM, POINT CONTACT) TO MAX 1/2 IN. (13 MM). FOR NOM 8 IN. (203 MM) AND 10 IN. (254 MM) DIAM PIPES, THE ANNULAR SPACE BETWEEN THE PIPE AND THE PERIPHERY OF OPENING SHALL BE MIN 0 IN. (0 MM, POINT CONTACT) TO MAX 1-1/4 IN. (32 MM). IF THE STEEL SLEEVE EXTENDS ABOVE THE FLOOR (ITEM 2), A MIN 1/2 IN. (13 MM) ANNULAR SPACE IS REQUIRED BETWEEN THE THROUGH PENETRANT (ITEM 3) AND THE PERIPHERY OF THE OPENING. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. FOR SYSTEMS WITH A W RATING, THE MAX ANNULAR SPACE IS 1/2 IN. (13 MM). THE T RATINGS ARE DEPENDENT ON THE SIZE AND/OR TYPE OF PIPE AS SHOWN IN THE TABLE BELOW. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES MAY BE USED:
   A. OLYVINYL CHLORIDE (PVC) PIPE — NOM 10 IN. (254 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID CORE OR CELLULAR CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. FOR SYSTEMS WITH A W RATING, THE NOM DIAM OF PIPE SHALL NOT EXCEED 6 IN. (152 MM).
   B. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE — NOM 10 IN. (254 MM) DIAM (OR SMALLER) SDR13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. FOR SYSTEMS WITH A W RATING, THE NOM DIAM OF PIPE SHALL NOT EXCEED 6 IN. (152 MM).
   C. ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID-CORE OR CELLULAR CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
   D. FLAME RETARDANT POLYPROPYLENE (FRPP) PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) SCHEDULE 40 FRPP PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN,

PIPE TYPE	NOM PIPE DIAM. IN. (MM)	F RATING HR
PVC, CPVC	GREATER THAN 6 (152)	2
PVC, CPVC, ABS, FRPP	6 (152) OR SMALLER	3
PIPE TYPE	NOM PIPE DIAM. IN. (MM)	T RATING HR
PVC, CPVC, ABS, FRPP	1-1/2, 2, 3 (38, 51, 76)	2
PVC, CPVC, ABS, FRPP	4 (102)	3
PVC, CPVC, ABS+, FRPP	6 (152)	3
PVC, CPVC	GREATER THAN 6 (152)	0
ABS++	6 (152)	0

+ - INDICATES SOLID CORE ABS ONLY.
++ - INDICATES CELLULAR CORE ABS ONLY.

4. FILL, VOID OR CAVITY MATERIAL* — SEALANT — MIN 1/2 IN. (13 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP OR BOTTOM SURFACE OF FLOOR OR BOTH SURFACES OF WALL. SEALANT IS OPTIONAL FOR PIPES HAVING A MAX DIAM OF 6 IN. (152 MM) IN UNSLEEVED OPENINGS. FOR SYSTEMS WITH W RATING, MIN 1/2 IN. (13 MM) THICKNESS OF CP 601S OR CP 604 SEALANT SHALL BE APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP OR BOTTOM SURFACE OF FLOOR.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE SEALANT, CP 601S SEALANT OR CP 604 SEALANT
   4A. PACKING MATERIAL (NOT SHOWN) — MIN 1/2 IN. (13 MM) THICKNESS OF 4 PCF (64 KG/M3) MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO ANNULAR SPACE AND RECESSED FROM THE TOP SURFACE OF FLOOR TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. REQUIRED ONLY WHEN CP 604 SEALANT IS USED.
5. FIRESTOP DEVICE* — FIRESTOP COLLAR — FIRESTOP COLLAR SHALL BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATION INSTRUCTIONS. COLLAR TO BE INSTALLED AND LATCHED AROUND THE PIPE AND SECURED TO UNDERSIDE OF FLOOR OR BOTH SIDES OF WALL USING THE ANCHOR HOOKS PROVIDED WITH THE COLLAR. MINIMUM TWO ANCHOR HOOKS FOR NOM 1-1/2 AND 2 IN. (38 AND 51 MM) DIAM PIPES. MINIMUM THREE ANCHOR HOOKS REQUIRED FOR NOM 3 AND 4 IN. (76 AND 102 MM) DIAM PIPES. MINIMUM FOUR ANCHOR HOOKS REQUIRED FOR NOM 6 IN. (152 MM) DIAM PIPES. MINIMUM TEN ANCHOR HOOKS REQUIRED FOR NOM 8 IN (203 MM) DIAM PIPES. MINIMUM TWELVE ANCHOR HOOKS REQUIRED FOR NOM 10 IN. (254 MM) DIAM PIPES. THE ANCHOR HOOKS ARE TO BE SECURED WITH MIN 1/4 IN. (6 MM) DIAM BY MIN 1-1/4 IN. (32 MM) LONG STEEL EXPANSION BOLTS OR MIN 0.145 IN. (3.7 MM) DIAM BY 1-1/4 IN. (32 MM) LONG POWDER ACTUATED FASTENERS UTILIZING A 1-7/16 IN. (37 MM) DIAM BY 1/16 IN. (1.6 MM) THICK STEEL WASHER. AS ALTERNATES TO THE ANCHORS SPECIFIED ABOVE, HILTI 1/4 IN. (6 MM) DIAM BY 1-1/4 IN. (32 MM) LONG KWIK-CON II+ CONCRETE SCREW ANCHOR, HILTI 1/4 IN. (6 MM) DIAM BY 1-3/4 IN. (45 MM) LONG KWIK-BOLT 3 STEEL EXPANSION ANCHOR OR HILTI X-DNI 27 P8 S15 POWDER ACTUATED FLOOR PIN WITH INTEGRAL NOM 9/16 IN. (15 MM) DIAM WASHER MAY BE USED.
6. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 643N 50/1.5", CP 643N 63/2", CP 643N 90/3", CP 643N 110/4", CP 643 160/6", CP 644 200/8" OR CP 644 250/10" FIRESTOP COLLAR

*BEARING THE UL CLASSIFICATION MARK

CLASSIFIED

SYSTEM NO. C-AJ-1226
F RATING — 3 HR
T RATING — 0 HR
L RATING AT AMBIENT — LESS THAN 1 CFM/SQ FT
L RATING AT 400 F — 4 CFM/SQ FT

1. FLOOR OR WALL ASSEMBLY — MIN 4-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 32 IN.
2. METALLIC SLEEVE — (OPTIONAL) NOM 32 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY, FLUSH WITH FLOOR OR WALL SURFACES OR EXTENDING A MAX OF 3 IN. ABOVE FLOOR OR BEYOND BOTH SURFACES OF WALL.
   A. SHEET METAL SLEEVE — (OPTIONAL) MAX 6 IN. DIAM, MIN 26 GA GALV STEEL PROVIDED WITH A 26 GA GALV STEEL SQUARE FLANGE SPOT WELDED TO THE SLEEVE AT APPROX MID-HEIGHT, OR FLUSH WITH BOTTOM OF SLEEVE IN FLOORS, AND SIZED TO BE A MIN OF 2 IN. LARGER THAN THE SLEEVE DIAM. THE SLEEVE IS TO BE CAST IN PLACE AND MAY EXTEND A MAX OF 4 IN. BELOW THE BOTTOM OF THE DECK AND A MAX OF 1 IN. ABOVE THE TOP SURFACE OF THE CONCRETE FLOOR.
   B. SHEET METAL SLEEVE — (OPTIONAL) - MAX 12 IN. DIAM, MIN 24 GA GALV STEEL PROVIDED WITH A 24 GA GALV STEEL SQUARE FLANGE SPOT WELDED TO THE SLEEVE AT APPROX MID-HEIGHT, OR FLUSH WITH BOTTOM OF SLEEVE IN FLOORS, AND SIZED TO BE A MIN OF 2 IN. LARGER THAN THE SLEEVE DIAM. THE SLEEVE IS TO BE CAST IN PLACE AND MAY EXTEND A MAX OF 4 IN. BELOW THE BOTTOM OF THE DECK AND A MAX OF 1 IN. ABOVE THE TOP SURFACE OF THE CONCRETE FLOOR.
3. THROUGH-PENETRANT — ONE METALLIC PIPE, TUBE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PENETRANT AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 1-7/8 IN. PENETRANT MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PENETRANT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PENETRANTS MAY BE USED:
   A. STEEL PIPE — NOM 30 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE — NOM 30 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. COPPER PIPE — NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   D. COPPER TUBING — NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. CONDUIT — NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT.
   F. CONDUIT — NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT).
4. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. PACKING MATERIAL — MIN 4 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR SLEEVE OR FROM BOTH SURFACES OF WALL OR SLEEVE AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
   B. FILL, VOID OR CAVITY MATERIAL* — SEALANT — MIN 1/4 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR SLEEVE OR WITH BOTH SURFACES OF WALL OR SLEEVE. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PENETRANT AND CONCRETE OR SLEEVE, A MIN 1/4 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE OR SLEEVE/ PIPE PENETRANT INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE SEALANT

*BEARING THE UL CLASSIFICATION MARK

CLASSIFIED

SYSTEM NO. W-L-1164
F RATINGS - 1 AND 2 HR (SEE ITEMS 1 AND 4)
T RATING - 0 HR

1. WALL ASSEMBLY THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2-1/2 IN. WIDE AND SPACED MAX 24 IN. OC. WHEN STEEL STUDS ARE USED AND THE DIAM OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4 TO 6 IN. WIDER AND 4 TO 6 IN. HIGHER THAN THE DIAM OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2 TO 3 IN. CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
   B. GYPSUM BOARD* THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IN STEEL STUD WALLS IS 32IN.. MAX DIAM OF OPENINGS IN WOOD STUD WALLS IS 14-1/2 IN. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
2. STEEL SLEEVE - NOM 32 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE SLEEVE FRICTION FIT IN NOM 32 IN. DIAM CIRCULAR OPENING CUT THROUGH GYPSUM WALLBOARD LAYERS. LENGTH OF STEEL SLEEVE TO BE EQUAL TO THICKNESS OF WALL.
3. THROUGH-PENETRANT - ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND THE STEEL SLEEVE SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 1-7/8 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOM 30 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOM 30 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.
   C. CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
   D. COPPER TUBING - NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE - NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
4. FILL, VOID OR CAVITY MATERIAL*-SEALANT - MIN 5/8 IN. AND 1-14 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY FOR 1 OR 2 HR RATED WALLS, RESPECTIVELY. MIN 1/2 IN. DIAM BEAD OF CAULK APPLIED TO THE PENETRANT/WALLBOARD INTERFACE AT THE POINT CONTACT LOCA TION ON BOTH SIDES OF WALL.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-ONE SEALANT
*BEARING THE UL CLASSIFICATION MARKING

CLASSIFIED

SYSTEM NO. W-L-1148
F RATINGS - 1 AND 2 HR
T RATING - 0 HR

1. WALL ASSEMBLY - THE FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS - WALL FRAMING SHALL CONSIST OF EITHER WOOD STUDS OR CHANNEL SHAPED STEEL STUDS. WOOD STUDS TO CONSIST OF 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2-1/2 IN. WIDE, FABRICATED FROM MIN 25 MSG GALVANIZED STEEL, SPACED MAX 24 IN. OC.
   B. WALLBOARD, GYPSUM* - 5/8 IN. THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, NUMBER OF LAYERS AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 13 IN. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOM 8 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOM 8 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
3. PIPE COVERING - NOM 2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) FIBERGLASS PIPE COVERING WITH AN ALL-SERVICE JACKET. PIPE COVERING MATERIAL TO BE MIN 9 IN. LONG AND INSTALLED ON PENETRANT TO EXTEND 2 IN. BEYOND BOTH SIDES OF WALL SURFACE. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP (SSL) TAPE. THE ANNULAR SPACE BETWEEN THE PIPE COVERING AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 3/8 IN. SEE PIPE AND EQUIPMENT COVERING-MATERIALS (BRGU) CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.
4. FILL, VOID OR CAVITY MATERIAL* - SEALANT - IN 1 HR ASSEMBLIES, MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS FLUSH WITH BOTH SURFACES OF WALL. IN 2 HR ASSEMBLIES, MIN 1-1/4 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS FLUSH WITH BOTH SURFACES OF WALL. FOR BOTH 1 AND 2 HR ASSEMBLIES, AT POINT CONTACT LOCATION BETWEEN INSULATION AND GYPSUM, A MIN 1/2 IN. BEAD OF FILL MATERIAL SHALL BE APPLIED ON BOTH SIDES OF WALL.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI, INC. - FS-ONE SEALANT
*BEARING THE UL CLASSIFICATION MARKING

CLASSIFIED

FIRE PROOFING NOTES

1. PROVIDE SRAY-ON FIRE PROOFING, FIRE RESISTIVE JOINT SYSTEMS, FIRESTOPPING AND THROUGH-PENETRATION FIRESTOP SYSTEMS TO MAINTAIN ALL FIRE RATINGS ON STRUCTURAL MEMBERS, CHASES AND SHAFTS, PENETRATIONS THROUGH FLOOR SEPARATIONS AND OTHER ASSEMBLIES AS REQUIRED BY CODE OR THE BUILDING OFFICIAL.
2. MATERIALS OR COMBINATIONS OF MATERIALS USED TO RETAIN INTEGRITY OF FIRE-RATED CONSTRUCTION BY MAINTAINING AN EFFECTIVE BARRIER AGAINST, OR THE SPREAD OF, FLAME, SMOKE, AND HOT GASES THROUGH PENETRATIONS IN RATED ASSEMBLIES, SHALL ONLY BE SYSTEMS THAT ARE TESTED AND LISTED AS SUCH BY UL OR OTHER APPROVED AGENCIES.
3. USE ONLY FIRESTOP PRODUCTS THAT HAVE BEEN TESTED PER UL 1479, ASTM E 814, OR UL 2079 TESTED FOR SPECIFIC FIRE-RATED CONSTRUCTION CONDITIONS THAT MATCH THOSE ON THE PROJECT, INCLUDING CONFORMING TO THE CONSTRUCTION ASSEMBLY TYPE, PENETRATION ITEM TYPE, ANNULAR SPACE REQUIREMENTS, AND FIRE-RATING INVOLVED FOR EACH SEPARATE INSTANCE.
4. INSTALL ALL SYSTEMS IN ACCORDANCE WITH UL FIRE RESISTANCE DIRECTORY AND COMPLY WITH MANUFACTURERS INSTRUCTIONS FOR INSTALLATION.
5. ACCEPTABLE MANUFACTURER'S OF FIRESTOPPING, FIRE-RESISTIVE JOINTS SYSTEMS, AND THROUGH-WALL FIRESTOP SYSTEMS: HILTI, INC., TULSA OK. (800-878-8000, WWW.US.HILTI.COM)
6. ENGAGE AN EXPERIENCED INSTALLER WHO IS CERTIFIED, LICENSED. OR OTHERWISE QUALIFIED BY THE FIRESTOPPING MANUFACTURER AS BEEN PROVIDED THE NECESSARY TRAINING TO INSTALL THE MANUFACTURER'S PRODUCTS PER THE SPECIFIED AND TESTING AGENCY REQUIREMENTS; HAVE 3 YEARS MINIMUM EXPERIENCE WITH THE TYPE OF INSTALLATION, AND HAVE AT LEAST ONE OF THE FOLLOWING QUALIFICATIONS: FM 4991 APPROVED CONTRACTOR, UL APPROVED CONTRACTOR, OR HILTI ACCREDITED FIRE STOP SPECIALTY CONTRACTOR.
7. ASSIGN TO A SINGLE SOLE SOURCE FIRE SPECIALTY CONTRACTOR.

UL/cUL SYSTEM NO. HW-D-0042
TOP OF WALL JOINT : 1-HR. OR 2-HR. GYPSUM WALL ASSEMBLY
ASSEMBLY RATING = 1-HR. OR 2-HR. (DEPENDING ON RATING OF WALL AND FLOOR ASSEMBLY)
CLASS II MOVEMENT CAPABILITIES - 50% COMPRESSION OR EXTENSION

1. FLOOR OR ROOF ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING);
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2" THICK) OVER METAL DECKING (UL/cUL CLASSIFIED D700 OR D900 SERIES).
   B. INSULATING CONCRETE (MIN. 2-1/4" THICK) OVER METAL DECKING (UL/cUL CLASSIFIED P900 SERIES).
   C. [NOT SHOWN] FLUTED STEEL ROOF DECK WITH SPRAY-APPLIED FIREPROOFING SERIRES (UL/cUL CLASSIFIED P700
2. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U400 OR V400 SERIES) (1-HR OR 2-HR FIRE-RATING).
3. CEILING RUNNER (MIN. 25 GA., FLANGE HEIGHT OF CEILING RUNNER SHALL BE MINIMUM 1/4" GREATER THAN MAXIMUM EXTENDED JOINT WIDTH) FASTENED TO UNDERSIDE OF DECK WITH STEEL MASONRY ANCHORS, STEEL FASTENERS, OR WELDS (SPACED MAX. 24" O.C.) (SEE NOTE NO. 3 BELOW).
4. STEEL STUDS (MIN. 2-1/2" WIDE), CUT 1/2" TO 3/4" LESS IN LENGTH THAN ASSEMBLY HEIGHT, NESTING IN CEILING RUNNER WITHOUT ATTACHMENT.
5. HILTI CP 777 SPEED PLUGS FRICTION FITTED TO COMPLETELY FILL FLUTE FLUSH WITH BOTH SIDES OF WALL (SEE NOTE NO. 4 BELOW)
6. HILTI CP 767 SPEED STRIPS COMPRESSED 50% AND INSERTED INTO JOINT, FLUSH WITH BOTH SIDES OF WALL.
7. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY OR HILTI CP 672 SPEED SPRAY TO COMPLETELY COVER MINERAL WOOL AND TO OVERLAP A MINIMUM 1/2" ONTO GYPSUM WALL AND METAL, DECK, ON BOTH SIDES OF GYPSUM WALL ASSEMBLY.

1. STEEL FLOOR UNITS MAY BE SPRAYED WITH MIN. 5/16" THICKNESS TO MAX 1-3/4" THICKNESS OF UL CLASSIFIED MONOKOTE TYPE MK-6/HY FIREPROOFING MANUFACTURED BY W.R. GRACE PRIOR TO INSTALLATION OF CEILING RUNNERS.
2. WHEN THE STEEL DECK IS COATED WITH FIREPROOFING, HILTI FIRESTOP SPRAY SHALL OVERLAP THE WALL A MINIMUM 1/2" AND OVERLAP THE FIREPROOFING A MINIMUM 2" ON BOTH SIDES OF GYPSUM WALL ASSEMBLY.
3. AS AN ALTERNATE TO CEILING RUNNER IN ITEM NO. 3, CEILING RUNNERS, MANUFACTURED BY BRADY CONSTRUCTION INNOVATIONS, INC., DBA SLIPTRACK SYSTEMS, METAL-LITE, INC., TOTAL STEEL SOLUTIONS, THE STEEL NETWORK, INC., CEMCO, CLARKWESTERN BUILDING SYSTEM, INC., SCAFCO, OR OLMAR SUPPLY, INC., MAY BE USED. WHEN ALTERNATE CEILING TRACKS ARE USED, CONSULT THE UL FIRE RESISTANCE DIRECTORY FOR INSTALLATION INSTRUCTIONS.
4. AS AN ALTERNATE TO HILTI CP 767 SPEED STRIPS AND/OR CP 777 SPEED PLUGS, MINERAL WOOL (MIN. 4 PCF DENSITY) COMPRESSED 50% MAY BY USED.

C US
Classified by
Underwriters
Laboratories, Inc.
to UL 2079 and
CAN/ULC-S115

UL/cUL SYSTEM NO. HW-D-0042
TOP OF WALL JOINT : 1-HR. OR 2-HR. GYPSUM WALL ASSEMBLY
ASSEMBLY RATING = 1-HR. OR 2-HR. (DEPENDING ON RATING OF WALL AND FLOOR ASSEMBLY)
CLASS II MOVEMENT CAPABILITIES - 50% COMPRESSION OR EXTENSION

1. FLOOR OR ROOF ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING);
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2" THICK) OVER METAL DECKING (UL/cUL CLASSIFIED D700 OR D900 SERIES).
   B. INSULATING CONCRETE (MIN. 2-1/4" THICK) OVER METAL DECKING (UL/cUL CLASSIFIED P900 SERIES).
   C. [NOT SHOWN] FLUTED STEEL ROOF DECK WITH SPRAY-APPLIED FIREPROOFING SERIRES (UL/cUL CLASSIFIED P700
2. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U400 OR V400 SERIES) (1-HR OR 2-HR FIRE-RATING).
3. CEILING RUNNER (MIN. 25 GA., FLANGE HEIGHT OF CEILING RUNNER SHALL BE MINIMUM 1/4" GREATER THAN MAXIMUM EXTENDED JOINT WIDTH) FASTENED TO UNDERSIDE OF DECK WITH STEEL MASONRY ANCHORS, STEEL FASTENERS, OR WELDS (SPACED MAX. 24" O.C.) (SEE NOTE NO. 3 BELOW).
4. STEEL STUDS (MIN. 2-1/2" WIDE), CUT 1/2" TO 3/4" LESS IN LENGTH THAN ASSEMBLY HEIGHT, NESTING IN CEILING RUNNER WITHOUT ATTACHMENT.
5. HILTI CP 777 SPEED PLUGS FRICTION FITTED TO COMPLETELY FILL FLUTE FLUSH WITH BOTH SIDES OF WALL (SEE NOTE NO. 4 BELOW)
6. HILTI CP 767 SPEED STRIPS COMPRESSED 50% AND INSERTED INTO JOINT, FLUSH WITH BOTH SIDES OF WALL.
7. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY OR HILTI CP 672 SPEED SPRAY TO COMPLETELY COVER MINERAL WOOL AND TO OVERLAP A MINIMUM 1/2" ONTO GYPSUM WALL AND METAL, DECK, ON BOTH SIDES OF GYPSUM WALL ASSEMBLY.

1. STEEL FLOOR UNITS MAY BE SPRAYED WITH MIN. 5/16" THICKNESS TO MAX 1-3/4" THICKNESS OF UL CLASSIFIED MONOKOTE TYPE MK-6/HY FIREPROOFING MANUFACTURED BY W.R. GRACE PRIOR TO INSTALLATION OF CEILING RUNNERS.
2. WHEN THE STEEL DECK IS COATED WITH FIREPROOFING, HILTI FIRESTOP SPRAY SHALL OVERLAP THE WALL A MINIMUM 1/2" AND OVERLAP THE FIREPROOFING A MINIMUM 2" ON BOTH SIDES OF GYPSUM WALL ASSEMBLY.
3. AS AN ALTERNATE TO CEILING RUNNER IN ITEM NO. 3, CEILING RUNNERS, MANUFACTURED BY BRADY CONSTRUCTION INNOVATIONS, INC., DBA SLIPTRACK SYSTEMS, METAL-LITE, INC., TOTAL STEEL SOLUTIONS, THE STEEL NETWORK, INC., CEMCO, CLARKWESTERN BUILDING SYSTEM, INC., SCAFCO, OR OLMAR SUPPLY, INC., MAY BE USED. WHEN ALTERNATE CEILING TRACKS ARE USED, CONSULT THE UL FIRE RESISTANCE DIRECTORY FOR INSTALLATION INSTRUCTIONS.
4. AS AN ALTERNATE TO HILTI CP 767 SPEED STRIPS AND/OR CP 777 SPEED PLUGS, MINERAL WOOL (MIN. 4 PCF DENSITY) COMPRESSED 50% MAY BY USED.

C US
Classified by
Underwriters
Laboratories, Inc.
to UL 2079 and
CAN/ULC-S115

SCHWARZ
HANSON
ARCHITECTS

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING
GARAGE & OFFICE

100 E. METHVIN ST.
LONGVIEW, TX 75601

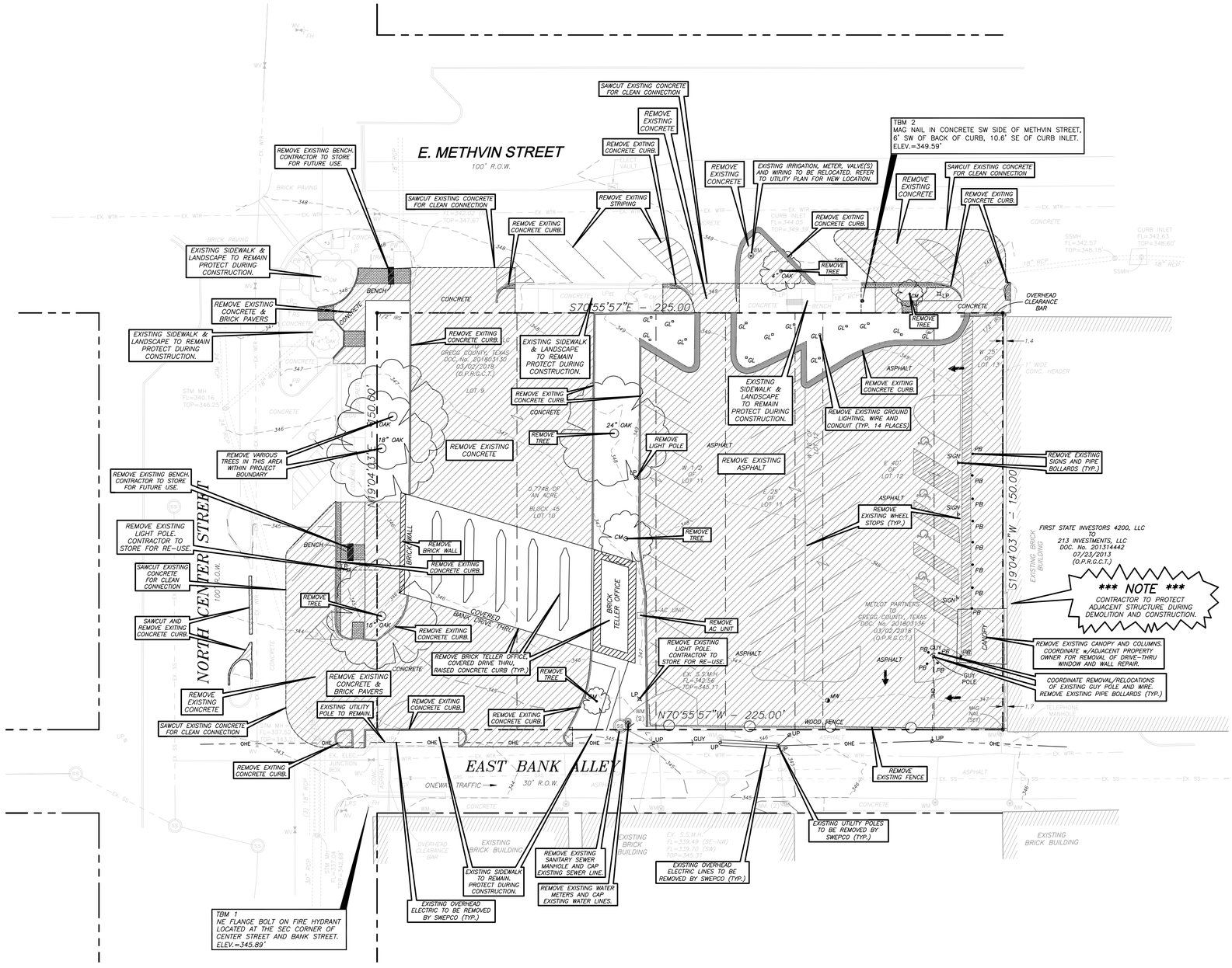
BRADLEY S. NAEKER
22859
02-18-2022

PROJECT NO.: 20011
DATE: 02/18/2022

REVISION SCHEDULE		
Δ	Description	Date

SHEET NAME
FIRE PENETRATION DETAILS

SHEET NO.
G0.7



BALLARD & BRAUGHTON
ENGINEERING
CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - LAND PLANNING
3815 OLD BULLARD ROAD TYLER, TEXAS 75701 Tel: 903-531-9800 Fax: 903-531-9839
FIRM REGISTRATION # F-21438

DEMOLITION NOTES:

1. NOTES SHOWN HEREON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE EXTENT AS REQUIRED FOR CONSTRUCTION.
2. NO EARTH—DISTURBING ACTIVITIES SHALL COMMENCE UNTIL EROSION CONTROL MEASURES ARE IN PLACE IN ACCORDANCE WITH THE EROSION CONTROL SHEET OF THESE PLANS.
3. INGRESS AND EGRESS POINTS MUST BE APPROVED BY CITY OFFICIALS PRIOR TO REMOVAL OF DEMOLITION DEBRIS OFF—SITE.
4. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION, AND DISPOSAL OF ALL DEMOLITION DEBRIS.
5. THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING AND CONDUIT, UP TO A DEPTH OF 24 INCHES BELOW EXISTING GRADES. ALL SANITARY SEWER LINES SHALL BE LOCATED AND REMOVED, REGARDLESS OF DEPTH.
6. THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) UP TO A DEPTH OF 24 INCHES BELOW EXISTING GRADES.
7. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
8. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING SITE WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM THE SAME TO COMMENCE DEMOLITION ACTIVITIES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLUGGING, CAPPING, OR OTHERWISE TERMINATING UTILITY SERVICE LINES AT EXISTING METER LOCATIONS, CLEANOUTS, ETC. A MIN. DISTANCE OF 1 FOOT OUTSIDE THE LIMITS OF THE TRACT SHOWN.

PLANS SUBJECT TO REVIEW AND
APPROVAL BY JURISDICTIONAL ENTITIES

**** STOP! CALL BEFORE YOU DIG! ****

As required by "The Texas Underground Facility Damage Prevention and Safety Act" Texas One Call System must be contacted (800—245—4545) at least 48 hours prior to any excavation operations being performed. It is the Contractor's responsibility to contact Texas One Call System.

*** NOTICE TO CONTRACTORS ***

Topographic information provided by SUMMIT SURVEYING, INC. Registered Professional Land Surveyors, Tyler, Texas. The contractor shall notify the engineer and Owner immediately, in writing, of any discrepancies or omissions to the topographic information. The contractor(s) shall be responsible for confirming the location (horizontal/vertical) of any buried cables, conduits, pipes, and structures (storm sewer, sanitary sewer, water, gas, television, telephone, etc.) which impact the construction site. The contractor(s) shall notify the owner and engineer if any discrepancies are found between the actual conditions versus the data contained in the construction plans. Any costs incurred as the result of not confirming the actual location (horizontal/vertical) of said cables, conduits, pipes, and structures shall be borne by the contractor. Additionally, the contractor(s) shall notify the owner and engineer if any errors or discrepancies are found on the construction documents (ps&e), which negatively impact the project. Engineer and owner shall be indemnified of problems and/or cost which may result from contractor's failure to notify engineer and owner.

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE

100 E. METHVIN ST.
LONGVIEW, TX 75601

BRIAN A. BALLARD
86856

B. Ballard
2/18/2022

PROJECT NO.: 20-030
DATE: FEBRUARY 18, 2022

REVISION SCHEDULE

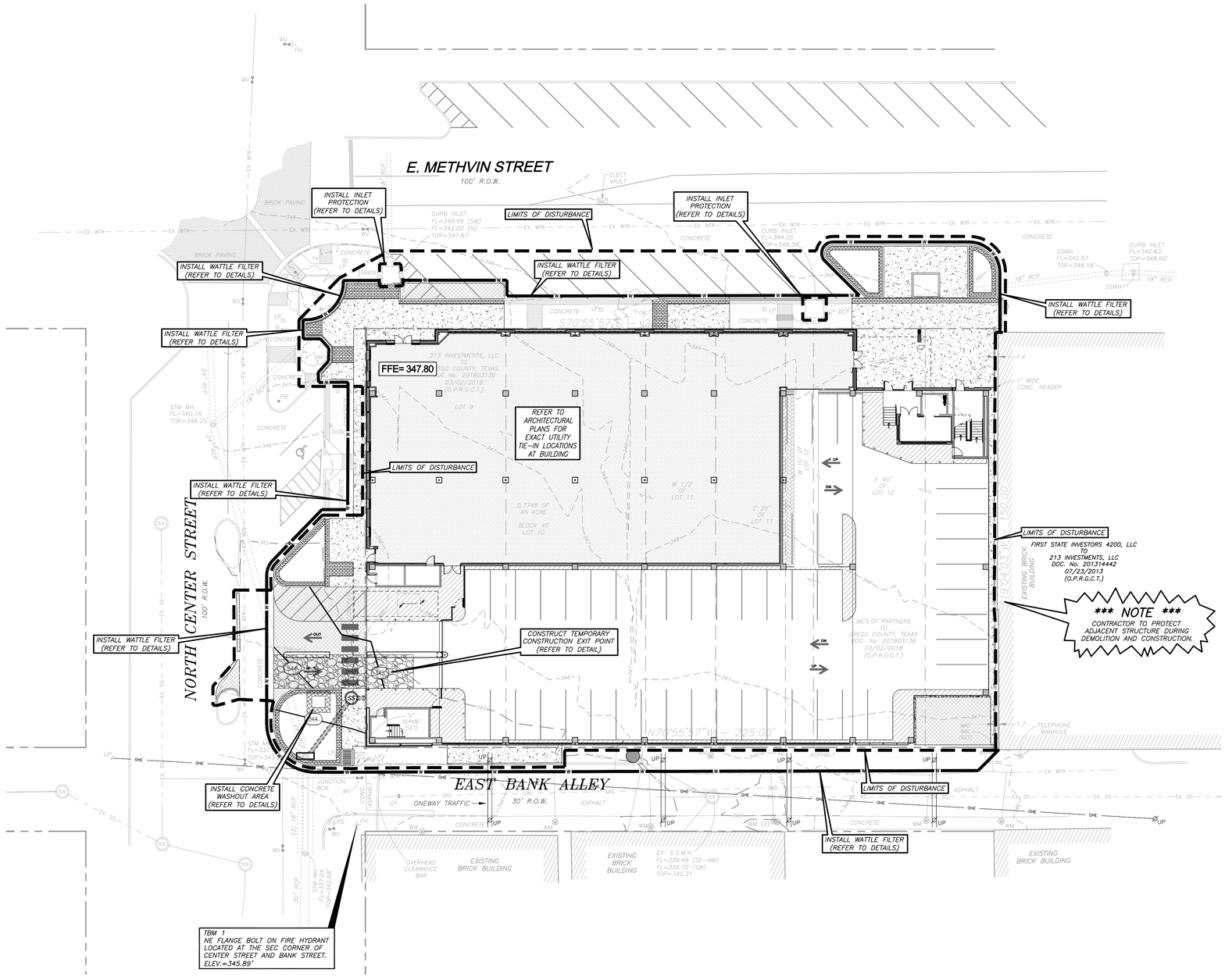
Δ	Description	Date
	50% CD's	08/27/2021
	70% CD's	10/27/2021
	90% CD's	11/22/2021
	100% CD's	02/18/2022

SHEET NAME

DEMOLITION PLAN

SHEET NO.

C-1



CONSTRUCTION NOTES:

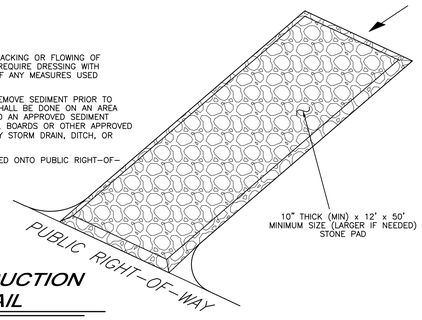
1) GRADATION OF ROCK

SIZE OF ROCK LBS.	% SMALLER BY WEIGHT
200	100
50	35–65
3	0

2) THE ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT–OF–WAY. THIS MAY REQUIRE DRESSING WITH ADDITIONAL STONE AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

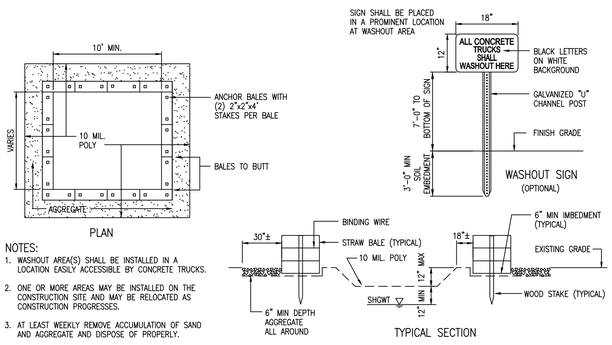
3) WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE INTO PUBLIC RIGHT–OF–WAY. WASHING SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT CONTROLLING STRUCTURE. USE SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS TO PREVENT SEDIMENT FROM ENTERING ANY STORM DRAIN, DITCH, OR WATER COURSE.

4) ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHT–OF–WAY MUST BE REMOVED IMMEDIATELY.



TEMPORARY CONSTRUCTION EXIT POINT DETAIL

(NOT TO SCALE)



NOTES:
1. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
2. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
3. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT DETAIL

(NOT TO SCALE)

BALLARD & BRAUGHTON ENGINEERING
CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - LAND PLANNING
3815 OLD BULLARD ROAD TYLER, TEXAS 75701 Tel: 903-531-9800 Fax: 903-531-9839
FIRM REGISTRATION # F-21438

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

GRAPHIC SCALE
0 20 40 60 80 100 FEET

CONSTRUCTION SEQUENCE:

A. CONSTRUCT TEMPORARY CONSTRUCTION EXIT POINTS AT LOCATIONS SHOWN IN THE PLANS FOR CONSTRUCTION TRAFFIC.
B. DUST ON SITE SHALL BE MINIMIZED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.
C. IF THE MAJORITY OF MUD OR DIRT IS NOT REMOVED FROM EXITING TRAFFIC, HOSE BIBS SHALL BE PROVIDED AT CONSTRUCTION TRAFFIC EXIT POINTS AND VEHICLE TIRES SHALL BE WASHED BEFORE EXITING ON PUBLIC ROADS. SILT FROM THIS WASHING OPERATION SHALL BE INTERCEPTED AND TRAPPED BEFORE WASHWATER IS ALLOWED TO BE DISCHARGED OFF–SITE.
D. INSTALL PERIMETER SILT FENCES AS SHOWN ON THE STORM WATER POLLUTION PREVENTION SITE PLAN.
E. PERFORM CLEARING, GRUBBING, AND TOPSOIL REMOVAL AS REQUIRED.

EROSION CONTROL NOTES:

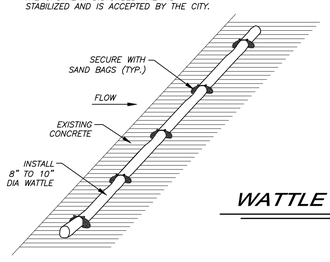
1. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED SWPPP DRAWINGS DURING CONSTRUCTION OPERATIONS.
2. CONTRACTOR SHALL PREVENT ANY SILTATION FROM ENTERING THE STORMSEWER SYSTEM. ALL INLETS & INLET OPENINGS SHALL BE FULLY ENCIRCLED WITH SILT FENCE DURING AND AFTER CONSTRUCTION OF INLET.
3. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
4. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.
5. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE; AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
6. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
7. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
8. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 7 DAYS OF FINAL GRADING. SHOULD CONSTRUCTION STOP FOR LONGER THAN 15 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
9. CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.

WATTLE MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT WATTLES EVERY WEEK AND AFTER ANY SIGNIFICANT STORM EVENT AND MAKE REPAIRS OR REMOVE SEDIMENT ACCUMULATED BEHIND WATTLE AS NECESSARY.
2. SEDIMENT ACCUMULATED BEHIND WATTLE SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DIAMETER OF THE WATTLE.
3. WATTLES SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND IS ACCEPTED BY THE CITY.

WATTLE GENERAL NOTES:

1. WATTLES SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
2. ON SLOPES, WATTLES SHOULD BE INSTALLED ON CONTOUR WITH A SLIGHT DOWNWARD ANGLE AT THE END OF THE ROW IN ORDER TO PREVENT PONDING AT THE MID SECTION.
3. RUNNING LENGTHS OF WATTLES SHOULD BE ABUTTED FIRMLY TO ENSURE NO LEAKAGE AT THE ABUTMENTS.
4. SPACING – DOWNSLOPE:
   VERTICAL SPACING FOR SLOPE INSTALLATIONS SHOULD BE DETERMINED BY SITE CONDITIONS: SLOPE GRADIENT AND SOIL TYPE ARE THE MAIN FACTORS. A GOOD RULE OF THUMB IS:
   1:1 SLOPES = 10 FEET APART
   2:1 SLOPES = 20 FEET APART
   3:1 SLOPES = 30 FEET APART
   4:1 SLOPES = 40 FEET APART, ETC.
   HOWEVER, ADJUSTMENTS MAY HAVE TO BE MADE FOR THE SOIL TYPE: FOR SOFT, LOAMY SOILS – ADJUST THE ROWS CLOSER TOGETHER. FOR HARD, ROCKY SOILS – ADJUST THE ROWS FURTHER APART.
   A SECONDARY WATTLE PLACED BEHIND THE ABUTMENT OF TWO WATTLES IS ENCOURAGED ON STEEP SLOPES OR WHERE JOINTS HAVE FAILED IN THE PAST.



WATTLE FILTER DETAIL

(NOT TO SCALE)

LEGEND

TRACT BOUNDARY
LIMITS OF DISTURBANCE
WATTLE FILTER
CONSTRUCTION EXIT
DIRECTION OF RUNOFF
534 EXISTING 1' CONTOUR
535 EXISTING 5' CONTOUR
516 PROPOSED 1' CONTOUR
515 PROPOSED 5' CONTOUR

PLANS SUBJECT TO REVIEW AND APPROVAL BY JURISDICTIONAL ENTITIES

TOTAL DISTURBED AREA = 1.04 ACRES
PRE–DEVELOPED RUNOFF COEFFICIENT = 0.35
POST–DEVELOPED RUNOFF COEFFICIENT = 0.89
AREA ROOFED OR PAVED = 1.03 ACRES
AREA LANDSCAPED = 0.01 ACRES

*** STOP! CALL BEFORE YOU DIG! ***
As required by "The Texas Underground Facility Damage Prevention and Safety Act" Texas One Call System must be contacted (800–245–4545) at least 48 hours prior to any excavation operations being performed. It is the Contractor's responsibility to contact Texas One Call System.

** NOTICE TO CONTRACTORS **
Topographic information provided by SUMMIT SURVEYING, INC. Registered Professional Land Surveyors, Tyler, Texas. The contractor shall notify the engineer and Owner immediately, in writing, of any discrepancies or omissions to the topographic information. The contractor(s) shall be responsible for confirming the location (horizontal/vertical) of any buried cables, conduits, pipes, and structures (storm sewer, sanitary sewer, water, gas, television, telephone, etc.) which impact the construction site. The contractor(s) shall notify the owner and engineer if any discrepancies are found between the actual conditions versus the data contained in the construction plans. Any costs incurred as the result of not confirming the actual location (horizontal/vertical) of said cables, conduits, pipes, and structures shall be borne by the contractor. Additionally, the contractor(s) shall notify the owner and engineer if any errors or discrepancies are found on the construction documents (psbe), which negatively impact the project. Engineer and owner shall be indemnified of problems and/or cost which may result from contractor's failure to notify engineer and owner.

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

STATE OF TEXAS
BRIAN A. BALLARD
86856
LICENSED PROFESSIONAL ENGINEER
2/18/2022

PROJECT NO.: 20-030

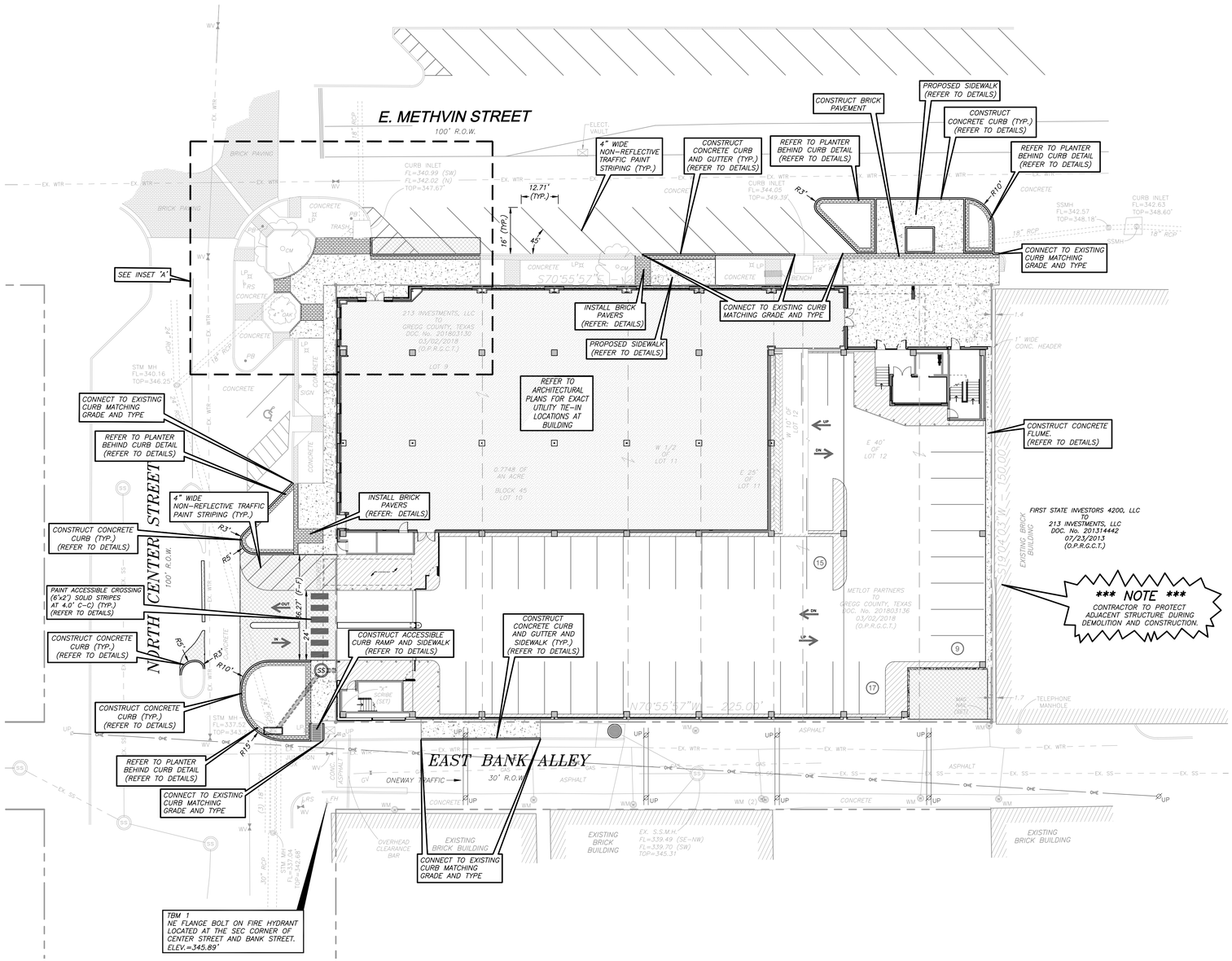
DATE: FEBRUARY 18, 2022

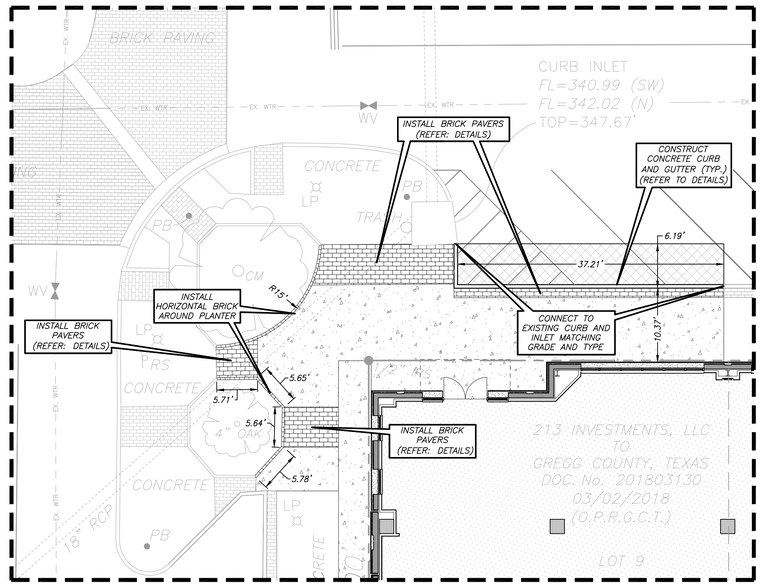
REVISION SCHEDULE

Δ	Description	Date
	50% CD's	08/27/2021
	70% CD's	10/27/2021
	90% CD's	11/22/2021
	100% CD's	02/18/2022

SHEET NAME
STORM WATER POLLUTION PREVENTION PLAN

SHEET NO.
C-2





INSET 'A'
SCALE: 1" = 10'

SITE NOTES:

1. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF SLOPED PAVING, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING ENTRANCE LOCATIONS, TOTAL NUMBER, LOCATIONS, SIZES AND OUTFALLS OF ROOF DOWNSPOUTS.
2. ALL SIGNS PLACED IN AREAS ACCESSIBLE BY VEHICLE TRAFFIC SHALL BE PLACED IN GUARD POST.
3. ALL TRAFFIC CONTROL SIGNS SHALL BE FABRICATED AS SHOWN IN THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
4. ALL CURB RADII SHOWN ARE TO FACE OF CURB.
5. ALL PAVING DIMENSIONS ARE TO FACE OF CURB, WHERE APPLICABLE OR TO THE EDGE OF PAVEMENT WHEN NO CURB IS PROPOSED, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS RESPONSIBLE FOR PROTECTION & REPLACEMENT OF ALL PROPERTY CORNERS.
7. CONTRACTOR SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT.
8. CONTRACTOR SHALL MATCH EXISTING CURB AND GUTTER IN GRADE, SIZE, TYPE AND ALIGNMENT AT ADJACENT ROADWAYS.
9. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS, SPECIFICATIONS AND GEOTECHNICAL REPORT.
10. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
11. ALL A.D.A. ACCESSIBLE ROUTES SHALL BE A.D.A. COMPLIANT (MAXIMUM 2% CROSS SLOPE, 5% LONGITUDINAL SLOPE).
12. ALL PAVEMENT MARKING PAINT SHALL BE COLOR WHITE. PAINT SHALL BE APPLIED IN TWO COATS TO A CLEAN, DRY SURFACE USING TEMPLATE OR STRIPING MACHINE. STRIPES SHALL BE 4" WIDE UNLESS OTHERWISE INDICATED.
13. CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COSTS.
14. FOR SITE UTILITIES, SEE UTILITY PLAN.
15. ALL WORK ON THIS PLAN SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LONGVIEW REQUIREMENTS AND SPECIFICATIONS.

LEGEND

- PROPOSED CONCRETE SIDEWALK
- PROPOSED BRICK SIDEWALK INLAY.
- PROPOSED CONCRETE PAVEMENT PAVING PER GEOTECH REPORT.
- (X) NUMBER OF PARKING SPACES IN A ROW

GRAPHIC SCALE
0 20 40 60 80 100 FEET

PLANS SUBJECT TO REVIEW AND APPROVAL BY JURISDICTIONAL ENTITIES

*** STOP! CALL BEFORE YOU DIG! ***
As required by "The Texas Underground Facility Damage Prevention and Safety Act" Texas One Call System must be contacted (800-245-4545) at least 48 hours prior to any excavation operations being performed. It is the Contractor's responsibility to contact Texas One Call System.

** NOTICE TO CONTRACTORS **
Topographic information provided by SUMMIT SURVEYING, INC. Registered Professional Land Surveyors, Tyler, Texas. The contractor shall notify the engineer and Owner immediately, in writing, of any discrepancies or omissions to the topographic information. The contractor(s) shall be responsible for confirming the location (horizontal/vertical) of any buried cables, conduits, pipes, and structures (storm sewer, sanitary sewer, water, gas, television, telephone, etc.) which impact the construction site. The contractor(s) shall notify the owner and engineer if any discrepancies are found between the actual conditions versus the data contained in the construction plans. Any costs incurred as the result of not confirming the actual location (horizontal/vertical) of said cables, conduits, pipes, and structures shall be borne by the contractor. Additionally, the contractor(s) shall notify the owner and engineer if any errors or discrepancies are found on the construction documents (sic&e), which negatively impact the project. Engineer and owner shall be indemnified of problems and/or cost which may result from contractor's failure to notify engineer and owner.

BALLARD & BRAUGHTON ENGINEERING
CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - LAND PLANNING
3815 OLD BULLARD ROAD TYLER, TEXAS 75701 Tel: 903-531-9800 Fax: 903-531-9839
FIRM REGISTRATION # F-21438

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

STATE OF TEXAS
BRIAN A. BALLARD
86856
LICENSED
PROFESSIONAL ENGINEER
2/18/2022

PROJECT NO.: 20-030

DATE: FEBRUARY 18, 2022

REVISION SCHEDULE

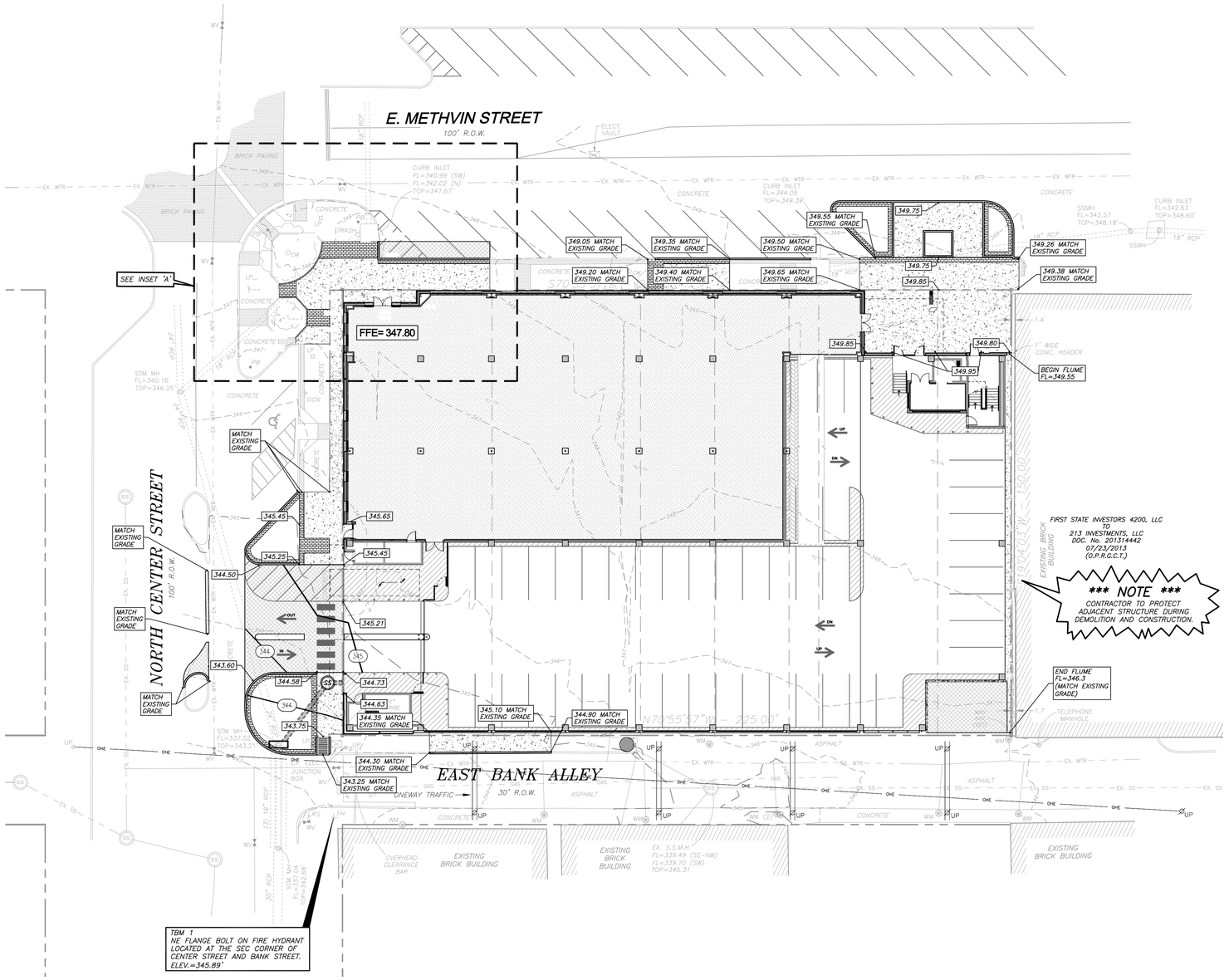
Δ	Description	Date
	50% CD's	08/27/2021
	70% CD's	10/27/2021
	90% CD's	11/22/2021
	100% CD's	02/18/2022

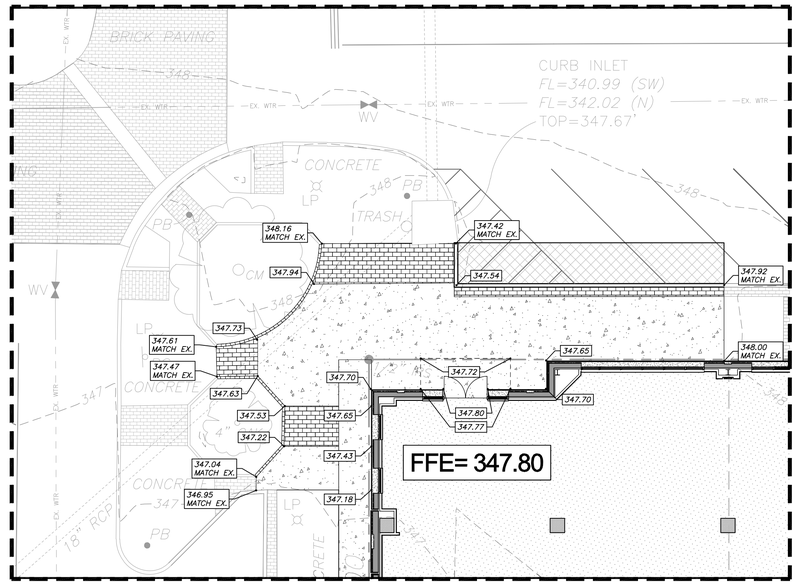
SHEET NAME

SITE PLAN

SHEET NO.

C-3





INSET 'A'
SCALE: 1" = 10'

DRAINAGE CALCULATIONS

DRAINAGE AREA #	ACREAGE AND RUNOFF COEFFICIENTS (ACRES)				TOTAL DRAINAGE AREA	AVERAGE RUNOFF COEFFICIENT	TIME OF CONCENTRATION (DESIGN)	I(25)	Q(25)
	PAV.	COMM.	RES.	GRASS					
	0.90	0.70	0.50	0.35	Acres	C	(Min.)	in./hr.	cfs
1	0.78	0.00	0.00	0.00	0.78	0.90	5.00	8.80	6.18

GRADING NOTES :

1. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
2. ADJUST PAVEMENT AND/OR CURB ELEVATIONS AS NECESSARY TO ASSURE A SMOOTH FIT & CONTINUOUS GRADE WITH EXISTING.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.
4. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES, AND ALL UTILITIES PRIOR TO CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURBS, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
6. EXISTING GRADE CONTOURS INTERVAL SHOWN AT ONE FOOT (1').
7. PROPOSED GRADE CONTOURS INTERVAL SHOWN AT ONE FOOT (1').
8. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE FOUR (4) INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
9. FOR LOCATION OF ALL UTILITY ENTRANCES, SEE ARCHITECTURAL PLANS AND SPECIFICATIONS.
10. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS, POWER COMPANY, TELEPHONE COMPANY & GAS CO. FOR ACTUAL ROUTING OF POWER AND SERVICES TO BUILDING.
11. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AN BE CONSTRUCTED TO SAME.
12. ALL SPOT GRADES ARE TO FINISHED PAVEMENT UNLESS OTHERWISE NOTED.
13. ALL A.D.A. ACCESSIBLE ROUTES SHALL BE A.D.A. COMPLIANT (MAXIMUM 2% CROSS SLOPE, 5% LONGITUDINAL SLOPE).

L E G E N D

- 511 — PROPOSED 1' CONTOUR
- 510 — PROPOSED 5' CONTOUR
- 99 — EXISTING 1' CONTOUR
- 100 — EXISTING 5' CONTOUR
- 125.00 — PROPOSED SPOT GRADE (PAVEMENT)

GRAPHIC SCALE

0 20 40 60 80 100 FEET

PLANS SUBJECT TO REVIEW AND APPROVAL BY JURISDICTIONAL ENTITIES

*** STOP! CALL BEFORE YOU DIG! ***
As required by "The Texas Underground Facility Damage Prevention and Safety Act" Texas One Call System must be contacted (800-245-4545) at least 48 hours prior to any excavation operations being performed. It is the Contractor's responsibility to contact Texas One Call System.

** NOTICE TO CONTRACTORS **
Topographic information provided by SUMMIT SURVEYING, INC. Registered Professional Land Surveyors, Tyler, Texas. The contractor shall notify the engineer and Owner immediately, in writing, of any discrepancies or omissions to the topographic information. The contractor(s) shall be responsible for confirming the location (horizontal/vertical) of any buried cables, conduits, pipes, and structures (storm sewer, sanitary sewer, water, gas, television, telephone, etc.) which impact the construction site. The contractor(s) shall notify the owner and engineer if any discrepancies are found between the actual conditions versus the data contained in the construction plans. Any costs incurred as the result of not confirming the actual location (horizontal/vertical) of said cables, conduits, pipes, and structures shall be borne by the contractor. Additionally, the contractor(s) shall notify the owner and engineer if any errors or discrepancies are found on the construction documents (pasted), which negatively impact the project. Engineer and owner shall be indemnified of problems and/or cost which may result from contractor's failure to notify engineer and owner.

BALLARD & BRAUGHTON ENGINEERING
CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - LAND PLANNING
3815 OLD BULLARD ROAD TYLER, TEXAS 75701 Tel: 903-531-9800 Fax: 903-531-9839
FIRM REGISTRATION # F-21438

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

STATE OF TEXAS
BRIAN A. BALLARD
86856
LICENSED PROFESSIONAL ENGINEER
2/18/2022

PROJECT NO.: 20-030

DATE: FEBRUARY 18, 2022

REVISION SCHEDULE

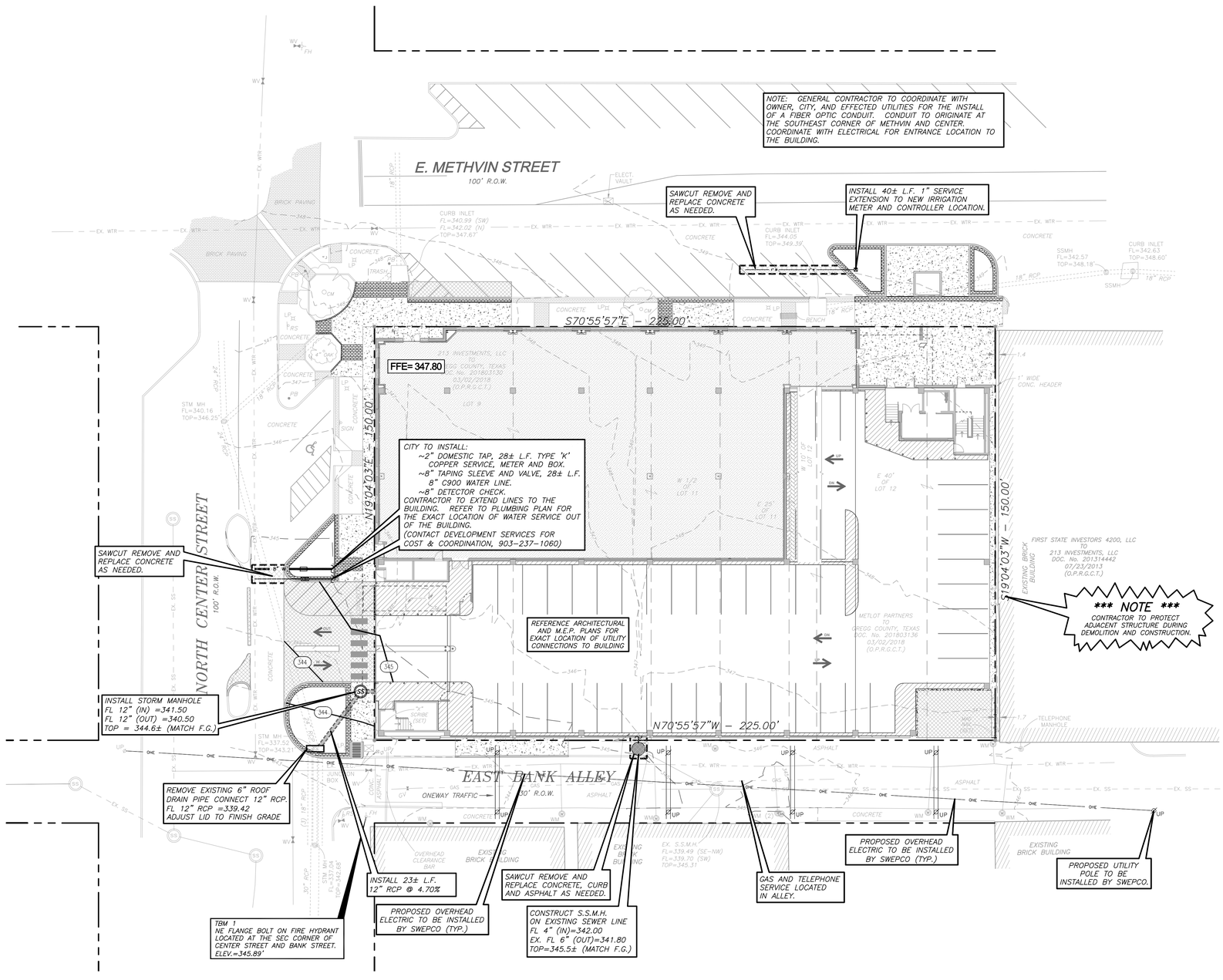
Δ	Description	Date
	50% CD's	08/27/2021
	70% CD's	10/27/2021
	90% CD's	11/22/2021
	100% CD's	02/18/2022

SHEET NAME

GRADING PLAN

SHEET NO.

C-4



LEGEND

511	EXISTING 1' CONTOUR
515	EXISTING 5' CONTOUR
511	PROPOSED 1' CONTOUR
510	PROPOSED 5' CONTOUR
4" SS	PROPOSED SANITARY SEWER LINE
8" W	PROPOSED 8" WATER SERVICE LINE
2" W	PROPOSED 2" WATER SERVICE LINE
EX. WTR	EXISTING WATER LINE
EX. SS	EXISTING SANITARY LINE
S.S.C.O.	EXISTING SANITARY SEWER CLEANOUT

PLANS SUBJECT TO REVIEW AND APPROVAL BY JURISDICTIONAL ENTITIES

***** STOP! CALL BEFORE YOU DIG! *****

As required by "The Texas Underground Facility Damage Prevention and Safety Act" Texas One Call System must be contacted (800-245-4545) at least 48 hours prior to any excavation operations being performed. It is the Contractor's responsibility to contact Texas One Call System.

**** NOTICE TO CONTRACTORS ****

Topographic information provided by SUMMIT SURVEYING, INC. Registered Professional Land Surveyors, Tyler, Texas. The contractor shall notify the engineer and Owner immediately, in writing, of any discrepancies or omissions to the topographic information. The contractor(s) shall be responsible for confirming the location (horizontal/vertical) of any buried cables, conduits, pipes, and structures (storm sewer, sanitary sewer, water, gas, television, telephone, etc.) which impact the construction site. The contractor(s) shall notify the owner and engineer if any discrepancies are found between the actual conditions versus the data contained in the construction plans. Any costs incurred as the result of not confirming the actual location (horizontal/vertical) of said cables, conduits, pipes, and structures shall be borne by the contractor. Additionally, the contractor(s) shall notify the owner and engineer if any errors or discrepancies are found on the construction documents (psbe), which negatively impact the project. Engineer and owner shall be indemnified of problems and/or cost which may result from contractor's failure to notify engineer and owner.

BALLARD & BRAUGHTON ENGINEERING INC.
CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - LAND PLANNING
3815 OLD BULLARD ROAD TYLER, TEXAS 75701 Tel: 903-531-9800 Fax: 903-531-9839
FIRM REGISTRATION # F-21438

GRAPHIC SCALE
0 20 40 60 80 100 FEET

CONSTRUCTION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, SIDEWALKS, DRIVEWAYS, FENCES, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
2. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURE. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED TO, ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
3. ALL WORK ON THIS PLAN SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LONGVIEW AND PROJECT SPECIFICATIONS.
4. CONTRACTOR SHALL, ON ALL UTILITIES, COORDINATE INSPECTION WITH APPROPRIATE AUTHORITIES PRIOR TO COVERING TRENCHES.
5. CONSTRUCTION SHALL COMPLY WITH GOVERNING CODES AND REQUIREMENTS. CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE UTILITY COMPANIES AND OWNERS INSPECTING AUTHORITIES.
6. ALL UTILITY CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CITY OF LONGVIEW APPROVED PRODUCTS LIST. REFER TO WATER AND SANITARY SEWER DETAILS SHEETS.
7. ADJUST PAVEMENT AND/OR CURB ELEVATIONS AS NECESSARY TO ASSURE A SMOOTH FIT & CONTINUOUS GRADE WITH EXISTING.
8. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES, AND ALL UTILITIES PRIOR TO CONSTRUCTION.
10. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE FOUR (4) INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH STANDARD SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
11. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS, POWER COMPANY, TELEPHONE COMPANY & GAS CO. FOR ACTUAL ROUTING OF POWER AND SERVICES TO BUILDING.
12. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND BE CONSTRUCTED TO SAME.

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

STATE OF TEXAS
BRIAN A. BALLARD
86856
LICENSED PROFESSIONAL ENGINEER
2/18/2022

PROJECT NO.: 20-030

DATE: FEBRUARY 18, 2022

REVISION SCHEDULE

Δ	Description	Date
	50% CD's	08/27/2021
	70% CD's	10/27/2021
	90% CD's	11/22/2021
	100% CD's	02/18/2022

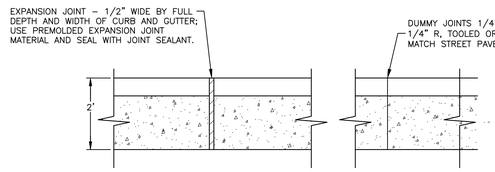
SHEET NAME

UTILITY PLAN

SHEET NO.

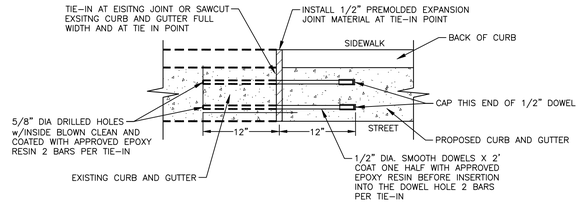
C-5

MARK	DESCRIPTION
1a	7" PORTLAND CEMENT CONCRETE PAVEMENT, SEE PAVING PLAN FOR LOCATIONS. PAVEMENT SHALL BE TXDOT CLASS HAVING A MINIMUM 4400 PSI COMPRESSIVE STRENGTH AT 28 DAYS (MINIMUM 6 SACKS PER CUBIC YARD), WITH SMOOTH #7 DOWEL BARS ALONG ALL TRAVERSE JOINTS (18" LONG AT MINIMUM 12" SPACING O.C.) AND DEFORMED #4 TIE BARS ALONG ALL LONGITUDINAL JOINTS (36" LONG AT MINIMUM 24" SPACING O.C.). TRAVERSE AND LONGITUDINAL JOINTS SHALL HAVE A MAXIMUM SPACING OF 12" ON CENTER.
2	4" PORTLAND CEMENT CONCRETE. SIDEWALK CONCRETE SHALL BE MODIFIED CLASS 'A' WITH A COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS.
3	REMOVE AND REPLACE UNSTABLE SUBGRADE WITH FOUNDATION MATERIAL, COARSE AGGREGATE TYPE A3-1 (TXDOT ITEM 247, GRADE 2), PER TECHNICAL SPECIFICATION 02228.



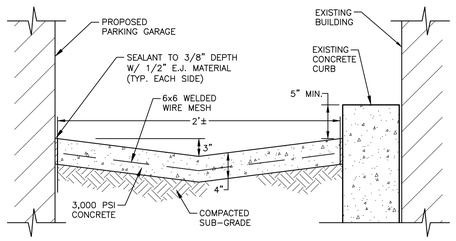
JOINT DETAIL - CURB AND GUTTER

(NOT TO SCALE)



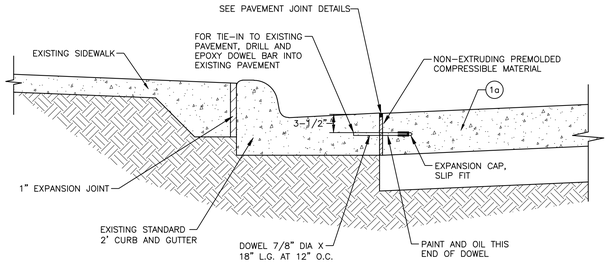
CURB AND GUTTER TIE-IN DETAIL

(NOT TO SCALE)



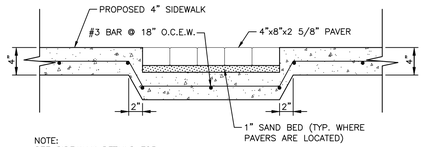
FLUME DETAIL

(NOT TO SCALE)



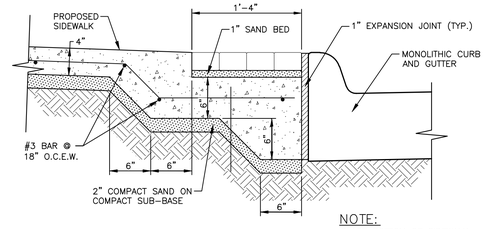
EXISTING CURB AND GUTTER TIE-IN

(NOT TO SCALE)



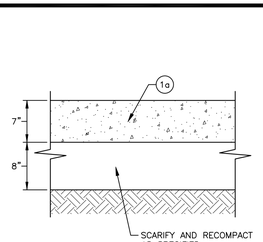
CONCRETE SIDEWALK PAVER SECTION

(NOT TO SCALE)



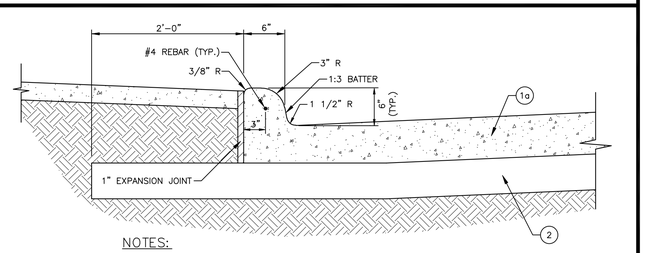
PAVER STRIP BEHIND CURB DETAIL

(NOT TO SCALE)



TYPICAL 7" CONCTRETE PAVEMENT SECTION

(NOT TO SCALE)

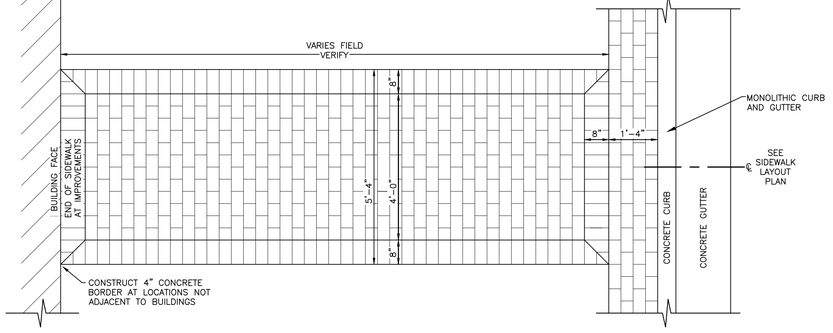


NOTES:

1. SAWCUT AND REMOVE OF EXISTING CURB AND GUTTER AND PAVEMENT SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICE BID FOR ROW PREPARATION.
2. JOINT SHALL MATCH PROPOSED CONCRETE JOINTS.

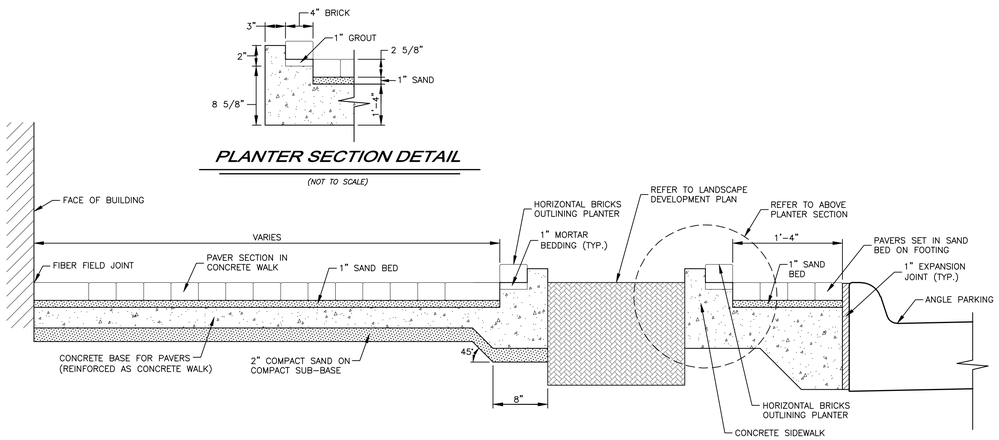
MONOLITHIC CURB AND GUTTER

(NOT TO SCALE)



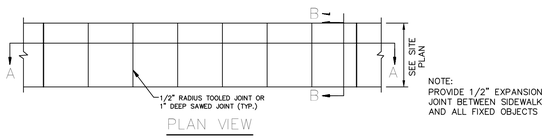
TYPICAL BRICK SIDEWALK INLAY

(NOT TO SCALE)

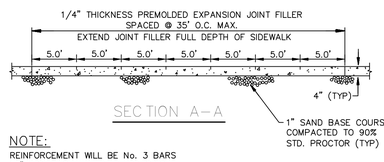


PLANTER BEHIND CURB DETAIL

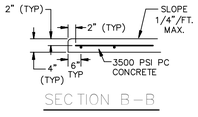
(NOT TO SCALE)



PLAN VIEW



SECTION A–A



SECTION B–B

NOTE:
REINFORCEMENT WILL BE No. 3 BARS 18" O.C. EACH WAY MAX. SPACING,

CONCRETE SIDEWALK DETAIL

(NOT TO SCALE)

BALLARD & BRAUGHTON ENGINEERING
CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - LAND PLANNING
3815 OLD BULLARD ROAD TYLER, TEXAS 75701 Tel: 903-531-9800 Fax: 903-531-9839
FIRM REGISTRATION # F-21438

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

STATE OF TEXAS
BRIAN A. BALLARD
86856
LICENSED
PROFESSIONAL ENGINEER

2/18/2022

PROJECT NO.: 20-030

DATE: FEBRUARY 18, 2022

REVISION SCHEDULE

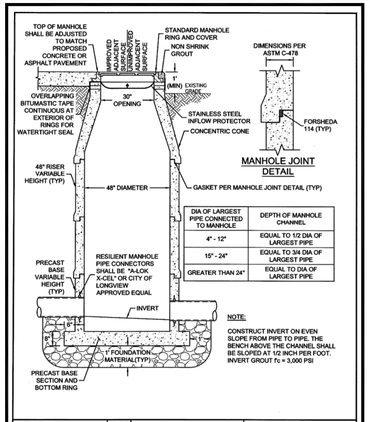
Δ	Description	Date
	50% CD's	08/27/2021
	70% CD's	10/27/2021
	90% CD's	11/22/2021
	100% CD's	02/18/2022

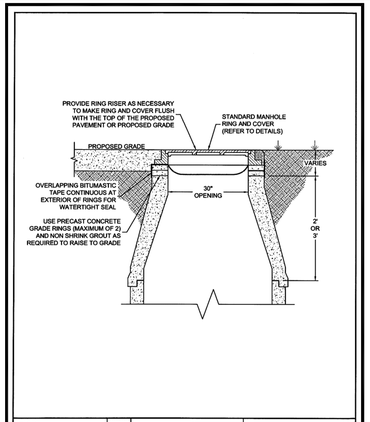
SHEET NAME

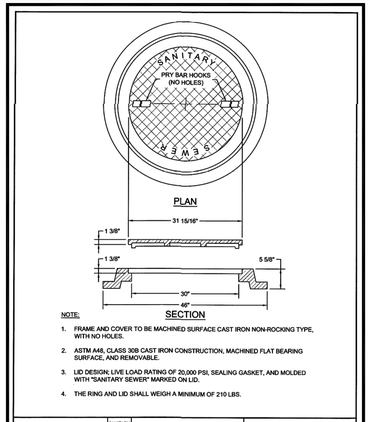
STANDARD DETAILS

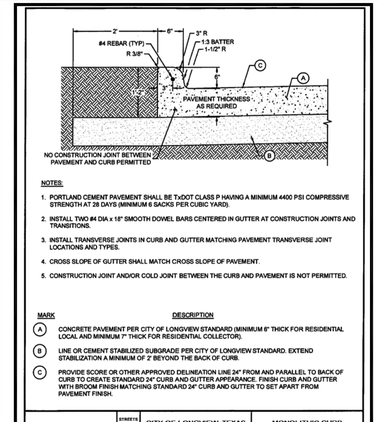
SHEET NO.

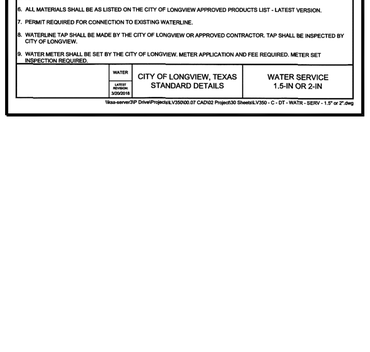
C-6

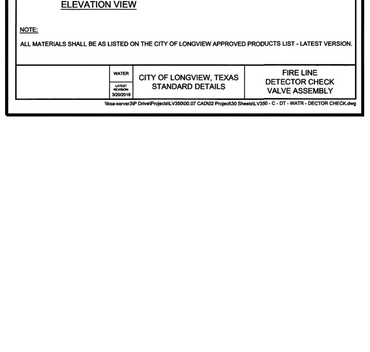


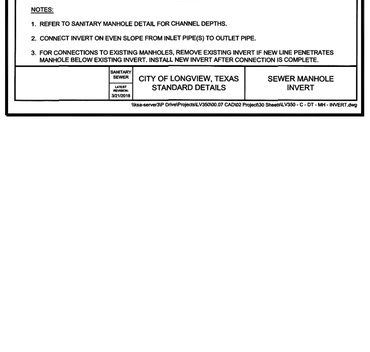


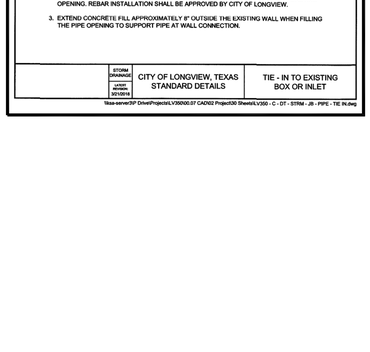


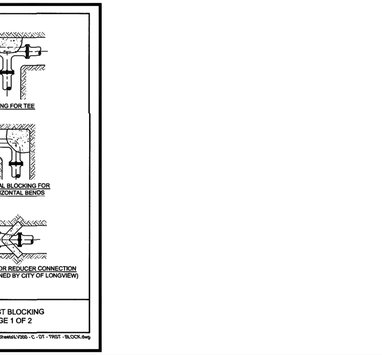












DIA OF LARGEST PIPE CONNECTED TO MANHOLE	DEPTH OF MANHOLE CHANNEL
4" - 12"	EQUAL TO 1/2 DIA OF LARGEST PIPE
15" - 24"	EQUAL TO 3/4 DIA OF LARGEST PIPE
GREATER THAN 24"	EQUAL TO DIA OF LARGEST PIPE

NOTE:

CONSTRUCT INVERT ON EVEN SLOPE FROM PIPE TO PIPE. THE BENCH ABOVE THE CHANNEL SHALL BE SLOPED AT 1/2 INCH PER FOOT. INVERT GROUT f'c = 3,000 PSI

SANITARY SEWER
LATEST REVISION: 3/21/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
SANITARY SEWER MANHOLE

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - SSWR - MH.dwg

---

CONCRETE MANHOLE GENERAL NOTES:

1. PRECAST RISERS, CONES, FLOORS, GRADE RINGS, AND RINGS AND COVERS SHALL BE MANUFACTURED ACCORDING TO THE MOST RECENT ASTM C-478 SPECIFICATIONS.
2. ALL MANHOLE CONSTRUCTION SHALL BE WATERTIGHT. JOINTS SHALL BE RUBBER GASKET MANHOLE SECTIONS WITH PROFILE JOINT AND FORSHEDA 114 JOINT SEALS OR APPROVED EQUAL.
3. ANY ERECTION HOLES, STEP HOLES, OR OTHER HOLES THROUGH THE WALL OF THE MANHOLE SHALL BE COVERED WITH 3" NON-SHRINK CONCRETE GROUT.
4. GRADE RINGS SHALL BE FORMED WITH TONGUE AND GROOVE OF LUGS AND NOTCHES. GRADE RINGS SHALL BE SET IN MORTAR OR PLASTIC JOINT COMPOUND.
5. WHEN FIELD CONDITIONS REQUIRE HEIGHT TO BE ADJUSTED, ADDITIONAL GRADE RINGS MAY BE USED AS DIRECTED BY THE CITY OF LONGVIEW. INSTALL BITUMASTIC TAPE CONTINUOUS AT EXTERIOR OF GRADE RINGS AND COVER OVERLAPPING JOINTS FOR WATERTIGHT SEAL.
6. WHENEVER THE SUBGRADE FOR ANY MANHOLE OR DROP MANHOLE IS OF AN UNSATISFACTORY MATERIAL, SAME SHALL BE REMOVED AND REPLACED WITH A CRUSHED ROCK FOUNDATION AND COMPACTED TO THE SATISFACTION OF THE CITY OF LONGVIEW.
7. ALL CONCRETE ENCASEMENT IN ROCK SHALL BE POURED AGAINST THE FACE OF THE ROCK. NO PAYMENT WILL BE MADE FOR EXTRA CONCRETE USED IN OVER BREAKAGE OF THE DIMENSIONS AS SHOWN ON THE TYPICAL SECTION OF CONCRETE ENCASEMENT.
8. WHENEVER SEWER PIPE IS CONNECTED INTO THE WALL OF A MANHOLE WITHOUT A RESILIENT MANHOLE PIPE CONNECTOR THE FIRST JOINT OF THE SEWER PIPE SHALL BE LOCATED A MAXIMUM OF 12" OUTSIDE THE WALL OF THE MANHOLE. CONNECTION INTO A MANHOLE WITHOUT A RESILIENT CONNECTOR WILL BE USED ONLY WITH APPROVAL OF THE CITY OF LONGVIEW.
9. BACKFILL EXCAVATION WITH SELECT FILL COMPACTED IN 8" LAYERS TO 95% OF MAXIMUM DENSITY WITHIN 2% OF OPTIMUM MOISTURE AS DETERMINED BY ASTM D-698.

SANITARY SEWER
LATEST REVISION: 3/21/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
SANITARY SEWER MANHOLE NOTES

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - SSWR - MH - GEN NOTES.dwg

---

SANITARY SEWER
LATEST REVISION: 3/21/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
SEWER MANHOLE FINISHED GRADE ADJUSTMENT

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - SSWR - MH - GRADE RINGS.dwg

---

NOTE:

1. FRAME AND COVER TO BE MACHINED SURFACE CAST IRON NON-ROCKING TYPE, WITH NO HOLES.
2. ASTM A48, CLASS 30B CAST IRON CONSTRUCTION, MACHINED FLAT BEARING SURFACE, AND REMOVABLE.
3. LID DESIGN; LIVE LOAD RATING OF 20,000 PSI, SEALING GASKET, AND MOLDED WITH "SANITARY SEWER" MARKED ON LID.
4. THE RING AND LID SHALL WEIGH A MINIMUM OF 210 LBS.

SANITARY SEWER
LATEST REVISION: 3/21/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
STANDARD SEWER MANHOLE RING AND COVER

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - MH - ST - RING AND COVER.dwg

---

NOTES:

1. PORTLAND CEMENT PAVEMENT SHALL BE TxDOT CLASS P HAVING A MINIMUM 4400 PSI COMPRESSIVE STRENGTH AT 28 DAYS (MINIMUM 6 SACKS PER CUBIC YARD).
2. INSTALL TWO #4 DIA x 18" SMOOTH DOWEL BARS CENTERED IN GUTTER AT CONSTRUCTION JOINTS AND TRANSITIONS.
3. INSTALL TRANSVERSE JOINTS IN CURB AND GUTTER MATCHING PAVEMENT TRANSVERSE JOINT LOCATIONS AND TYPES.
4. CROSS SLOPE OF GUTTER SHALL MATCH CROSS SLOPE OF PAVEMENT.
5. CONSTRUCTION JOINT AND/OR COLD JOINT BETWEEN THE CURB AND PAVEMENT IS NOT PERMITTED.

MARK	DESCRIPTION
Ⓐ	CONCRETE PAVEMENT PER CITY OF LONGVIEW STANDARD (MINIMUM 6" THICK FOR RESIDENTIAL LOCAL AND MINIMUM 7" THICK FOR RESIDENTIAL COLLECTOR).
Ⓑ	LINE OR CEMENT STABILIZED SUBGRADE PER CITY OF LONGVIEW STANDARD. EXTEND STABILIZATION A MINIMUM OF 2' BEYOND THE BACK OF CURB.
Ⓒ	PROVIDE SCORE OR OTHER APPROVED DELINEATION LINE 24" FROM AND PARALLEL TO BACK OF CURB TO CREATE STANDARD 24" CURB AND GUTTER APPEARANCE. FINISH CURB AND GUTTER WITH BROOM FINISH MATCHING STANDARD 24" CURB AND GUTTER TO SET APART FROM PAVEMENT FINISH.

STREETS
LATEST REVISION: 3/16/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
MONOLITHIC CURB AND GUTTER

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - ST - CURB - MONOLITHIC.dwg

STREETS
STANDARD DETAILS
CITY OF LONGVIEW
DEVELOPMENT SERVICES
PAGE 9 OF 26

MARK	DESCRIPTION
Ⓐ	CONCRETE PAVEMENT PER CITY OF LONGVIEW STANDARDS.
Ⓑ	LINE OR CEMENT TREATED, COMPACTED SUBGRADE PER CITY OF LONGVIEW STANDARDS.
Ⓒ	SCARIFY AND COMPACT PER CITY OF LONGVIEW STANDARDS.

NOTES:

1. ALL TIE - INS SHALL BE DONE WITH EXPANSION JOINTS AS DETAILED HERE UNLESS OTHERWISE APPROVED BY THE CITY OF LONGVIEW.
2. DETAIL IS TYPICAL FOR TIE - IN OF NEW CONCRETE PAVEMENT TO EXISTING CURB AND GUTTER.
3. NEW CURB AND GUTTER TIE - IN TO EXISTING PAVEMENT - SIMILAR CONSTRUCTION IS REQUIRED FOR TIE - IN OF NEW CURB AND GUTTER TO EXISTING PAVEMENT WITH DOWEL BARS FIXED IN PAVEMENT AND GREASED BAR WITH CAP IN CURB AND GUTTER.
4. EXPANSION JOINTS SHALL BE CONTINUOUS AND SHALL EXTEND ON ALL SIDES OF BLOCKOUTS AND TIE - INS.
5. PREMOLDED JOINT MATERIAL SHALL HAVE SNAP CAP AT THE TOP. CUTTING OR SHREDDING THE JOINT MATERIAL IS NOT PERMITTED. SEAL JOINTS AS REQUIRED BY THE CITY OF LONGVIEW.

STREETS
LATEST REVISION: 3/17/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
CURB AND GUTTER PAVEMENT TIE - IN

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - ST - CURB - GUTR - TIE IN - EXIST.dwg

STREETS
STANDARD DETAILS
CITY OF LONGVIEW
DEVELOPMENT SERVICES
PAGE 11 OF 26

MARK	DESCRIPTION
①	3" OF HMAC, TXDOT ITEM 340, TYPE C, COMPACTED USING AIR VOID CONTROL METHOD.
②	AR-4000 TACK COAT MECHANICALLY APPLIED AT A MAXIMUM RATE OF 0.25 GALLONS PER SQUARE YARD. RATE OF APPLICATION SHALL BE ADJUSTED IN THE FIELD TO PROVIDE UNIFORM COVERAGE WITHOUT RUNOFF. THE RATE SHALL BE APPROVED BY THE CITY OF LONGVIEW, BASED UPON FIELD TESTS. TACK COAT SHALL BE APPLIED BETWEEN ALL LAYERS OF HMAC.
③	9" OF HMAC, TXDOT ITEM 340, TYPE B, INSTALLED IN THREE 3" LIFTS AND COMPACTED USING AIR VOID CONTROL METHOD. A TACK COAT SHALL BE APPLIED BETWEEN THE THREE LIFTS.
④	MC-30 PRIME COAT APPLIED AT A MAXIMUM RATE OF 0.25 GALLONS PER SQUARE YARD. RATE OF APPLICATION SHALL BE ADJUSTED IN THE FIELD TO PROVIDE UNIFORM COVERAGE WITHOUT RUNOFF. THE RATE SHALL BE APPROVED BY THE CITY OF LONGVIEW, BASED UPON FIELD TESTS.
⑤	8" CEMENT TREATED SUBGRADE INSTALLED IN ACCORDANCE WITH TXDOT ITEM 275. TYPE I, TYPE II, OR TYPE I/II PORTLAND CEMENT SHALL BE ADDED TO THE SUBGRADE AFTER REMOVAL OF ALL DEBRIS. THE CEMENT APPLICATION RATE SHALL BE 4% (30 LBS PER SQUARE YARD). THE PULVERIZATION REQUIREMENT SHALL BE 60% PASSING THE No. 4 SIEVE. THE FINAL COMPACTION SHALL BE A MINIMUM OF 95%± OF STANDARD PROCTOR (ASTM D-698) AT A MOISTURE CONTENT OF -4% TO +1% OF OPTIMUM MOISTURE.
⑥	BACKFILL EXCAVATION WITH SELECT FILL (TYP S3). COMPACT IN 8" HORIZONTAL LIFTS TO 95% OF MAXIMUM DENSITY WITHIN 2% OF OPTIMUM MOISTURE (ASTM D-698)

NOTE:

CONCRETE STREETS -TOP 12" SHALL BE TxDOT CLASS P CONCRETE WITH A MINIMUM COMPRESSIVE OF 4,400 PSI AT 28 DAYS. INSTALL EXPANSION JOINTS ON ALL SIDES OF CONCRETE PAVEMENT REPAIR WITH #8 x 18" SMOOTH DOWELS DRILL AND EPOXY AT 12" OC AT CENTER OF PAVEMENT. GREASE AND GREASE CAPS ON DOWELS INSIDE CONCRETE PAVEMENT REPAIR.

STREETS
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
PAVEMENT REPAIR AT MANHOLE

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - MH - STREET REPAIR.dwg

STREETS
STANDARD DETAILS
CITY OF LONGVIEW
DEVELOPMENT SERVICES
PAGE 25 OF 26

TYPE A2	ANGULAR 3/4" TO 1" CRUSHED ROCK OR NATURAL STONE MEETING THE REQUIREMENTS OF ATM C-33 No. 57. EMBEDMENT MATERIAL SHALL BE CLEAN, WASHED, SOUND, DURABLE, AND WELL GRADED.
TYPE S2	GRADED FREE OF LUMPS LARGER THAN 3", ROCKS LARGER THAN 2", EXCESSIVE SILTS, AND DEBRIS. DO NOT USE SOIL CONTAINING BRUSH, ROOTS, OR SIMILAR ORGANIC MATTER. CONFORMING TO ASTM D2487 CLASS II OR CLASS III SOILS WITH A LIQUID LIMIT LESS THAN 40, AND THE PLASTICITY INDEX LESS THAN 20, BUT GREATER THAN 4.
TYPE S3	CLAYEY SAND SOILS FREE FROM ORGANIC MATTER WITH NO LUMPS LARGER THAN 1", NO ROCKS LARGER THAN 1/2", NOR EXCESSIVE SILTS. DO NOT USE SOILS CONTAINING BRUSH, ROOTS, SOD, OR OTHER ORGANIC MATERIALS. SELECT FILL SHALL CONFORM TO ASTM D2487 CLASS II OR CLASS III AND SHALL HAVE A LIQUID LIMIT LESS THAN 30 WITH PLASTICITY INDEX LESS THAN 15, BUT GREATER THAN 4.

GENERAL NOTES:

1. PIPE AND FITTINGS SHALL BE INSTALLED AND TESTED PER AWWA C600 OR C605 AS APPLICABLE.
2. WATER LINES SHALL BE DISINFECTED AND TESTED PER AWWA C651. TEST RESULTS SHALL BE SUBMITTED TO THE CITY OF LONGVIEW.
3. ALL BELOW GRADE FITTINGS SHALL BE DIMJ WITH RETAINING GLANDS AND THRUST BLOCKING.
4. PROVIDED AND INSTALL ADDED RESTRAINT AND USING SS ALL-THREADS AT LOCATIONS DESIGNATED BY THE CITY OF LONGVIEW.
5. ALL MATERIALS SHALL BE AS LISTED ON THE CITY OF LONGVIEW APPROVED PRODUCTS LIST - LATEST VERSION.

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
WATERLINE INSTALLATION CLASS C EMBEDMENT

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - WATR - UTILITY EMBEDMENT - CLASS C.dwg

---

TYPE A2	ANGULAR 3/4" TO 1" CRUSHED ROCK OR NATURAL STONE MEETING THE REQUIREMENTS OF ATM C-33 NO. 57. EMBEDMENT MATERIAL SHALL BE CLEAN, WASHED, SOUND, DURABLE, AND WELL GRADED.
TYPE A3	COARSE STONE OR CRUSHED GRAVEL. FOUNDATION MATERIAL SHALL BE PIT RUN ANGULAR CRUSHED, NATURAL WASHED STONE FREE OF SHALE, CLAY, FRIABLE MATERIAL AND DEBRIS; WELL GRADED BETWEEN 1" AND 3" IN SIZE, WITH A MINIMUM OF 90% RETAINED ON A 1" SIEVE.
TYPE S2	GRADED FREE OF LUMPS LARGER THAN 3", ROCKS LARGER THAN 2", EXCESSIVE SILTS, AND DEBRIS. DO NOT USE SOIL CONTAINING BRUSH, ROOTS, OR SIMILAR ORGANIC MATTER. CONFORMING TO ASTM D2487 CLASS II OR CLASS III SOILS WITH A LIQUID LIMIT LESS THAN 40, AND THE PLASTICITY INDEX LESS THAN 20, BUT GREATER THAN 4.
TYPE S3	CLAYEY SAND SOILS FREE FROM ORGANIC MATTER WITH NO LUMPS LARGER THAN 1", NO ROCKS LARGER THAN 1/2", NOR EXCESSIVE SILTS. DO NOT USE SOILS CONTAINING BRUSH, ROOTS, SOD, OR OTHER ORGANIC MATERIALS. SELECT FILL SHALL CONFORM TO ASTM D2487 CLASS II OR CLASS III AND SHALL HAVE A LIQUID LIMIT LESS THAN 30 WITH PLASTICITY INDEX LESS THAN 15, BUT GREATER THAN 4.

GENERAL NOTES:

1. PIPE AND FITTINGS SHALL BE INSTALLED AND TESTED PER AWWA C600 OR C605 AS APPLICABLE.
2. WATER LINES SHALL BE DISINFECTED AND TESTED PER AWWA C651 TEST RESULTS SHALL BE SUBMITTED TO THE CITY OF LONGVIEW.
3. ALL BELOW GRADE FITTINGS SHALL BE DIMJ WITH RETAINING GLANDS AND THRUST BLOCKING.
4. PROVIDED AND INSTALL ADDED RESTRAINT USING SS AND ALL-THREADS AT LOCATIONS DESIGNATED BY THE CITY OF LONGVIEW.
5. ALL MATERIALS SHALL BE AS LISTED ON THE CITY OF LONGVIEW APPROVED PRODUCTS LIST - LATEST VERSION.

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
WATERLINE INSTALLATION CLASS D EMBEDMENT

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - WATR - UTILITY EMBEDMENT - CLASS D.dwg

---

WATER PIPE MATERIAL DETAIL NOTES:

A. DUCTILE IRON WATER PIPE
  1. ALL DUCTILE IRON WATER PIPE SHALL BE IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51.
  2. DUCTILE IRON WATER PIPE SHALL BE AT LEAST PRESSURE CLASS 150.
  3. ALL PIPES SHALL BEAR THE NSF SEAL OF APPROVAL.
  4. INTERIOR SURFACES SHALL BE CEMENT LINED PER AWWA C104.
  5. EXTERIOR SURFACES SHALL BE COATED WITH BITUMINOUS COATING PER AWWA C110.
  6. PIPE SHALL BE FREE FROM EXCESSIVE PITS, SCARS, OR OTHER SURFACE DEFECTS.
  7. JOINTS SHALL BE INTEGRAL BELL WITH FLEXIBLE ELASTOMERIC SEAL PER AWWA C111.
  8. ALL WATERLINES SHALL BE INSTALLED WITH TRACER WIRE.
  9. ALL DUCTILE IRON PIPE, FITTINGS, AND APPURTENANCES SHALL BE WRAPPED IN EIGHT MIL POLYETHYLENE AND TAPE ENCASEMENT PER AWWA C105.

B. PVC WATER PIPE
  1. AWWA C900 AND AWWA C905 PIPE FOUR INCHES AND LARGER IN DIAMETER SHALL BE DR 18 PRESSURE CLASS 235.
  2. AWWA C909 PIPE SHALL BE PRESSURE CLASS 235.
  3. PIPE LESS THAN FOUR INCHES IN DIAMETER SHALL BE TYPE 1, GRADE 1, POLYVINYL CHLORIDE, SCHEDULE 40 PIPE CONFORMING TO ASTM D1785.
  4. BLUE PIPE SHALL BE USED UNLESS OTHERWISE APPROVED BY THE CITY OF LONGVIEW.
  5. ALL PIPE SHALL BEAR THE NSF SEAL OF APPROVAL.
  6. FOR PIPE TWO INCHES AND LARGER IN DIAMETER, THE JOINTS SHALL BE INTEGRAL BELL WITH A FLEXIBLE ELASTOMERIC SEAL. FOR PIPE SMALLER THAN TWO INCHES IN DIAMETER, JOINTS SHALL BE GLUED.
  7. PIPE SHALL BE FREE OF EXCESSIVE PITS, SCARS, OR OTHER SURFACE DEFECTS
  8. JOINTS SHALL BE INTEGRAL BELL WITH FLEXIBLE ELASTOMERIC SEAL PER AWWA STANDARDS
  9. ALL PVC LINES SHALL BE INSTALLED WITH TRACER WIRE.

C. RESTRAINED JOINT PVC WATER PIPE
  1. PIPE SHALL BE DR 18 PRESSURE CLASS 235.
  2. ALL PIPE SHALL BEAR THE NSF SEAL OF APPROVAL.
  3. THE RESTRAINED JOINT PIPE SYSTEM SHALL MEET ALL SHORT AND LONG TERM PRESSURE TEST REQUIREMENTS OF AWWA C900 AND C905.
  4. PIPE AND COUPLING SHALL BE MADE FROM UNPLASTICIZED PVC COMPOUNDS HAVING A MINIMUM CELL CLASSIFICATION OF 12454-B AS DEFINED IN ASTM D1784.
  5. THE COMPOUND SHALL QUALIFY FOR A HYDROSTATIC DESIGN BASE OF 4000 PSI OF WATER AT 73.4° F IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D2837.
  6. BLUE PIPE SHALL BE USED UNLESS OTHERWISE APPROVED BY THE CITY OF LONGVIEW.
  7. RESTRAINED JOINT PVC PIPE PRODUCTS SHALL HAVE BEEN TESTED AND APPROVED BY AN INDEPENDENT THIRD-PARTY LABORATORY FOR CONTINUOUS USE AT RATED PRESSURES.
     a. COPIES OF AGENCY APPROVAL REPORTS OR PRODUCT LISTING SHALL BE PROVIDED TO THE CITY OF LONGVIEW IF REQUESTED.
     b. PRODUCTS INTENDED FOR CONTACT WITH POTABLE WATER SHALL BE EVALUATED, TESTED, AND CERTIFIED FOR CONFORMANCE WITH NSF STANDARD 61 OR THE HEALTH EFFECTS PORTION OF NSF STANDARD 14 BY AN ACCEPTABLE CERTIFYING ORGANIZATION WHEN REQUIRED BY THE REGULATORY AUTHORITY HAVING JURISDICTION.
  8. PIPE SHALL BE JOINED USING NON-METALLIC COUPLINGS WHICH, TOGETHER, HAVE BEEN DESIGNED AS AN INTEGRAL SYSTEM FOR MAXIMUM RELIABILITY AND INTERCHANGEABILITY.
     a. HIGH-STRENGTH FLEXIBLE THERMOPLASTIC SPLINES SHALL BE INSERTED INTO MATING PRECISION-MACHINED GROOVES IN THE PIPE AND COUPLING TO PROVIDE FULL 360° RESTRAINT WITH EVENLY DISTRIBUTED LOADING.
     b. MJ GLAND ADAPTERS SHALL BE USED TO ANCHOR THIS RESTRAINED-JOINT PVC PIPE TO DUCTILE IRON ACCESSORIES SUCH AS FITTINGS AND VALVES.
     c. COUPLINGS SHALL BE DESIGNED FOR USE AT THE RATED PRESSURES OF THE PIPE WITH WHICH THEY ARE UTILIZED AND SHALL INCORPORATE TWIN ELASTOMERIC SEALING GASKETS MEETING THE REQUIREMENTS OF ASTM F477.
     d. JOINTS SHALL BE DESIGNED TO MEET THE LEAKAGE TEST REQUIREMENTS OF ASTM D3139.
  9. ALL PVC LINES SHALL BE INSTALLED WITH TRACER WIRE.

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
WATERLINE INSTALLATION GENERAL NOTES

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - WATR - PIPE SPECS.dwg

---

NOTES:

1. DRAWING PERTAINS TO ALL GATE VALVES SIZES 4" THRU 12".
2. IN UNPAVED AREAS, INSTALL 2' x 2' x 6" CONCRETE VALVE PAD FLUSH WITH TOP OF VALVE BOX, REINFORCE WITH #3 BARS AT 6" OCEW.
3. TAPPING SLEEVES SHALL BE STAINLESS STEEL WITH STAINLESS STEEL NUTS AND BOLTS (SLEEVE MAY BE EPOXY COATED STAINLESS STEEL).
4. FULL DIAMETER DUCTILE IRON TAPPING SLEEVES MAY BE USED IN PLACE OF STAINLESS STEEL.
5. ALL MATERIALS SHALL BE AS LISTED ON THE CITY OF LONGVIEW APPROVED PRODUCTS LIST - LATEST VERSION.

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
WATERLINE TAPPING SLEEVE AND VALVE

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - WATR - MAIN - TAP.dwg

---

NOTES:

1. 3/4" TO 1" CRUSHED ROCK OR NATURAL STONE MEETING THE REQUIREMENTS OF ATM C-33 No. 57. ROCK MATERIAL SHALL BE CLEAN, WASHED, SOUND, DURABLE, AND WELL GRADED.
2. METER BOX - FROM CITY OF LONGVIEW APPROVED PRODUCT LIST: PLASTIC METER BOX SHALL BE INSTALLED OUTSIDE OF DRIVEWAYS, SIDEWALKS, OR PAVEMENT. METER BOXES LOCATED IN DRIVEWAYS, SIDEWALKS, OR PAVEMENT SHALL BE PRE-FAB FIBERCRETE BOX WITH COVER AS MANUFACTURED BY CDR (HUBBELL POWER SYSTEMS, INC.) A221118501050 WATER OR CITY OF LONGVIEW APPROVED EQUAL.
3. NEW METER FITTINGS SHALL HAVE FLARED CONNECTIONS.
4. ALL FITTINGS SHALL BE IN ACCORDANCE WITH AWWA C-800. NO-LEAD BRASS SHALL CONTAIN NO MORE THAN ONE FIFTH *(0.20% OR LESS) TOTAL LEAD CONTENT BY WEIGHT.*
5. ALL MATERIALS, PIPE, TUBING, METER BOX, COVER, AND FITTINGS SHALL BE NEW.
6. ALL MATERIALS SHALL BE AS LISTED ON THE CITY OF LONGVIEW APPROVED PRODUCTS LIST - LATEST VERSION.
7. PERMIT REQUIRED FOR CONNECTION TO EXISTING WATERLINE.
8. WATERLINE TAP SHALL BE MADE BY THE CITY OF LONGVIEW OR APPROVED CONTRACTOR. TAP SHALL BE INSPECTED BY CITY OF LONGVIEW.
9. WATER METER SHALL BE SET BY THE CITY OF LONGVIEW. METER APPLICATION AND FEE REQUIRED. METER SET INSPECTION REQUIRED.

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
WATER SERVICE 1.5-IN OR 2-IN

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - WATR - SERV - 1.5" or 2".dwg

---

NOTE:

ALL MATERIALS SHALL BE AS LISTED ON THE CITY OF LONGVIEW APPROVED PRODUCTS LIST - LATEST VERSION.

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
FIRE LINE DETECTOR CHECK VALVE ASSEMBLY

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - WATR - DECTOR CHECK.dwg

---

NOTES:

1. REFER TO SANITARY MANHOLE DETAIL FOR CHANNEL DEPTHS.
2. CONNECT INVERT ON EVEN SLOPE FROM INLET PIPE(S) TO OUTLET PIPE.
3. FOR CONNECTIONS TO EXISTING MANHOLES, REMOVE EXISTING INVERT IF NEW LINE PENETRATES MANHOLE BELOW EXISTING INVERT. INSTALL NEW INVERT AFTER CONNECTION IS COMPLETE.

SANITARY SEWER
LATEST REVISION: 3/21/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
SEWER MANHOLE INVERT

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - MH - INVERT.dwg

---

NOTES:

1. DRILL 1/2" TO 3/4" HOLES (SPACED 3" TO 4") AT PERIMETER OF PROPOSED OPENING TO PROTECT WALL FROM DAMAGE IF DIRECTED BY THE CITY OF LONGVIEW.
2. REINFORCEMENT DAMAGED DURING SCORING OR CHIPPING OR IF OPENING IS MORE THAN 5" LARGER THAN PIPE OD, INSTALL #5 REBAR AT 8" OCEW PRIOR TO CONCRETING OPENING. REBAR INSTALLATION SHALL BE APPROVED BY CITY OF LONGVIEW.
3. EXTEND CONCRETE FILL APPROXIMATELY 8" OUTSIDE THE EXISTING WALL WHEN FILLING THE PIPE OPENING TO SUPPORT PIPE AT WALL CONNECTION.

STORM DRAINAGE
LATEST REVISION: 3/21/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
TIE - IN TO EXISTING BOX OR INLET

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - STRM - JB - PIPE - TIE IN.dwg

---

NOTES ON THRUST BLOCKING:

1. ALL BLOCKING SHALL BE AGAINST UNDISTURBED HAND DUG SOIL AND SHALL BE CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
2. THRUST CALCULATIONS TO BE BASED ON THRUST DUE TO WATER PRESSURE AT 100% OF TEST PRESSURE.
3. VERTICAL UPLIFT BLOCKS SHALL BE DESIGNED ON THE BASIS OF 150 LBS PER CU FT FOR CONCRETE AND SOIL AT 120 LBS PER CU FT OVER THE AREA OF BLOCK.
4. VERTICAL DOWN THRUST BLOCKS SHALL BE DESIGNED ON THE BASIS OF 3,000 LBS PER SQ FT ALLOWABLE SOIL BEARING PRESSURE. DIMENSIONS MAY BE DECREASED WITH APPROVAL OF THE CITY OF LONGVIEW OR MEASURED SOIL CONDITIONS. IN POOR SOIL CONDITIONS, BLOCK DIMENSIONS SHALL BE INCREASED IN PROPORTION TO ALLOWABLE BEARING VALUE.
5. THRUST BLOCKS ON HORIZONTAL BENDS, TEES, CROSSES, AND REDUCERS SHALL BE SIZED BASED ON 2,400 LBS PER SQ FT OF BLOCKING SURFACE AREA IN CONTACT WITH UNDISTURBED SOIL, BLOCK DIMENSIONS MAY BE DECREASED WITH APPROVAL OF THE CITY OF LONGVIEW OR MEASURED SOIL CONDITIONS. IN POOR SOIL CONDITIONS, BLOCK DIMENSIONS SHALL BE INCREASED IN PROPORTION TO THE ALLOWABLE BEARING VALUE.
6. ALL BLOCKING SHALL HAVE A MINIMUM SOIL COVER OF TWO FEET.
7. ADDITIONAL REINFORCING MAY BE REQUIRED FOR HORIZONTAL BLOCKING TO HANDLE UNUSUAL SHEAR LOADING CONDITIONS.
8. ANCHOR COLLARS SHALL BE REINFORCED IN ACCORDANCE WITH REINFORCING BAR SCHEDULE FOR REDUCED BLOCKS SHOWN ABOVE. STEEL ANCHOR RING IN ACCORDANCE WITH DIMENSIONS OF ANCHOR COLLAR.

PIPE SIZE	TEES	BENDS			REDUCER		
	THRUST BLOCKING REQ'D (SF)	90° THRUST BLOCKING REQ'D (SF)	45° THRUST BLOCKING REQ'D (SF)	22 1/2° THRUST BLOCKING REQ'D (SF)	PIPE SIZE (IN)	ANGLE (THETA)	THRUST BLOCKING REQ'D (SF)
2 1/2"	0.61	0.43	0.23	0.12	4 - 3	8.2	0.05
3"	0.88	0.62	0.34	0.17	6 - 3	19.5	0.45
4"	1.57	1.11	0.60	0.31	6 - 4	12.8	0.22
6"	3.53	2.50	1.35	0.69	8 - 6	10.5	0.25
8"	6.28	4.44	2.40	1.23	10 - 8	9.6	0.30
10"	9.82	6.94	3.76	1.92	12 - 10	8.2	0.31
12"	14.14	10.00	5.41	2.76	14 - 12	7.2	0.32
14"	19.24	13.61	7.36	3.75	18 - 12	18.4	2.83
16"	25.13	17.77	9.62	4.90	20 - 14	17.5	3.04
18"	31.81	22.49	12.17	6.21	20 - 16	11.5	1.42
20"	39.27	27.77	15.03	7.66	24 - 18	14.5	3.12
24"	56.55	39.99	21.64	11.03	24 - 20	9.6	1.44
30"	88.36	62.48	33.81	17.24	30 - 20	19.5	8.30
36"	127.23	89.97	48.69	24.82	30 - 24	11.5	3.20

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
THRUST BLOCKING PAGE 2 OF 2

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - TRST - BLOCK.dwg

---

TYPICAL SECTION OF CROSS AND 2 PLUG BLOCKING
(WHEN DIRECTED BY CITY OF LONGVIEW)

SPECIAL BLOCKING FOR TEE WITH PLUG
(WHEN DIRECTED BY CITY OF LONGVIEW)

BLOCKING FOR TEE

TYPICAL BLOCKING FOR HORIZONTAL BENDS

TYPICAL SECTION OF CROSS AND BLOCKING
(WHEN DIRECTED BY CITY OF LONGVIEW)

TYPICAL BLOCKING FOR VERTICAL BENDS

THRUST SUPPORT FOR REDUCER CONNECTION
(SIZE TO BE DETERMINED BY CITY OF LONGVIEW)

WATER
LATEST REVISION: 3/20/2018
CITY OF LONGVIEW, TEXAS
STANDARD DETAILS
THRUST BLOCKING PAGE 1 OF 2

\\ksa-server3\P Drive\Projects\LV350\00.07 CAD\02 Project\30 Sheets\LV350 - C - DT - TRST - BLOCK.dwg

---

BALLARD & BRAUGHTON
ENGINEERING
CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - LAND PLANNING
3815 OLD BULLARD ROAD TYLER, TEXAS 75701 Tel: 903-531-9800 Fax: 903-531-9839
FIRM REGISTRATION # F-21438

2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING
GARAGE & OFFICE

100 E. METHVIN ST.
LONGVIEW, TX 75601

BRIAN A. BALLARD
86856

2/18/2022

PROJECT NO.: 20-030

DATE: FEBRUARY 18, 2022

REVISION SCHEDULE

Δ	Description	Date
	50% CD's	08/27/2021
	70% CD's	10/27/2021
	90% CD's	11/22/2021
	100% CD's	02/18/2022

SHEET NAME

CITY OF LONGVIEW
STANDARD DETAILS

SHEET NO.

C-7

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 RECUCED 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.

CODE ANALYSIS

CITY OF LONGVIEW, TX ADOPTED BUILDING CODES

2015 INTERNATIONAL ENERGY CODE (IECC)
2012 INTERNATIONAL BUILDING CODE (IBC)
"WITH LOCAL AMENDMENTS
2012 INTERNATIONAL FIRE CODE (IFC)
2012 INTERNATIONAL PLUMBING CODE (IPC)
2012 INTERNATIONAL MECHANICAL CODE (IMC)
2017 NATIONAL ELECTRIC CODE (NEC)

ICC/ANSI A117.1
TEXAS ACCESSIBILITY STANDARDS

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION

OCCUPANCY TYPE(S) 301-312
ENTIRE BUILDING: TYPE "B" (SINGLE OCCUPANCY - MULTI-STORY)
NOTE: IBC 406.4.6, 508.3, 508.3.2, 506.2.3, 506.3

CHAPTER 4 - SPECIAL REQUIREMENTS BASED ON USE/OCCUPANCY

SEE SECTION 406 & 413
NOTE: SPRINKLER SYSTEM COMPLYING WITH NFPA 13 REQ'D (PER SECTION 406.6.3)

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS

ALLOWABLE BUILDING HEIGHT 504.3
ALLOWABLE BUILDING HEIGHT = 65'
ACTUAL BUILDING HEIGHT = 62'-6" (From Lowest Pnt. @ SW Corner to Highest Pnt. on the building.)

ALLOWABLE NUMBER OF STORIES 504.4
ALLOWABLE NUMBER OF STORIES = 4 STORIES
ACTUAL NUMBER OF STORIES = 4 STORIES

ALLOWABLE FLOOR AREA 506.2.3
ALLOWABLE TOTAL BUILDING AREA = 322,672 SF
ALLOWABLE (PER STORY) FLOOR AREA = 83,168 SF (SEE 506.1)

NOTE: IN ORDER TO BE NON-SEPARATED PER 508.3. THE SINGLE OCCUPANCY - MULTI STORY EQUATION IN 506.2.3 WAS USED, IN COMBINATION WITH THE FRONTAGE INCREASE OF 506.3 EQUATIONS 5-4 & 5-5 TO INCREASE ALLOWABLE FLOOR AREA FOR A "B" OCCUPANCY (TYPE IIB CONSTRUCTION) 69,000 SF

ACTUAL TOTAL BUILDING AREA = 119,364 SF
ACTUAL FLOOR AREA(s):

FIRST STORY	41,056 SF
OFFICE	10,370 SF
VA OFFICE	1,730 SF
STORAGE	1,601 SF
PARKING (LG)	24,907 SF
SECOND STORY	28,469 SF
PARKING (L2)	28,469 SF
THIRD STORY	28,469 SF
PARKING (L3)	28,469 SF
FOURTH STORY	23,817 SF
PARKING (L4)	23,817 SF

FRONTAGE INCREASE 506.3
ALLOWABLE SF INCREASE BASED ON FRONTAGE (***YES***/NO)
AREA FACTOR INCREASE = .616 (PER 506.2 EQUATION 5-2)

MIXED USE OCCUPANCY SEPARATION 508
NON-SEPARATED (PER 508.3) "B-OCC. USED AS MOST RESTRICTIVE

CHAPTER 6 - TYPES OF CONSTRUCTION

CONSTRUCTION TYPE 601: TYPE IIB

FIRE RESISTANCE RATING REQUIREMENTS:

PER TABLE 601	
PRIMARY STRUCTURAL FRAME	= 0 HR
BEARING WALLS	
EXTERIOR	= 0 HR
INTERIOR	= 0 HR
NONBEARING WALLS / PARTITIONS	= SEE TABLE 602
EXTERIOR	= SEE TABLE 602 & TABLE 705.2
INTERIOR	= 0 HR
FLOOR CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS	= 0 HR
ROOF CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS	= 0 HR
PER TABLE 602	
CONSTRUCTION TYPE	= IIB
OCCUPANCY TYPE	= (B) BUSINESS
IF, X < 5'	= 1 HR
IF, 5' ≤ X < 10'	= 1 HR
IF, 10' ≤ X < 30'	= 0 HR
IF, X > 30'	= 0 HR

"X" = FIRE SEPARATION DISTANCE

CHAPTER 7 - FIRE AND SMOKE PROTECTION

FIRE RESISTANCE OF EXTERIOR WALLS & PROJECTIONS (PER 705)

TABLE 705.2
IF, 0' ≤ FSD < 2' = NOT PERMITTED
IF, 2' ≤ FSD < 5' = 24" MAX PROJECTION PERMITTED FROM "FSD"
IF, FSD > 5' = 40" MAX PROJECTION PERMITTED FROM "FSD"

"FSD" = FIRE SEPARATION DISTANCE

NOTE: 705.5 REQUIRES EXTERIOR WALLS WITH A "FSD" OF LESS THAN OR EQUAL TO 10FT TO BE RATED FOR EXPOSURE FROM BOTH SIDES OF THE WALL. IF "FSD" IS GREATER THAN 10' THE WALL IS REQUIRED TO BE RATED FROM THE INTERIOR SIDE OF WALL ONLY.

FIRE WALLS REQUIRED / PROVIDED?
YES/NO (REQUIRED BASED ON FIRE SEPARATION DISTANCE ALONG EAST WALL SEE)

OPENINGS IN EXTERIOR WALLS (PER 705.8)

TABLE 705.8

IF, 0' ≤ FSD < 3'	UP | S	= NOT PERMITTED
IF, 20' ≤ FSD < 30'	UP | S	= NO LIMIT
IF, FSD > 30'	UP | S	= NO LIMIT

"FSD" = FIRE SEPARATION DISTANCE
"UP" = UNPROTECTED
"S" = SPRINKLERED

FIRE BARRIERS REQUIRED?
YES/NO
NOTE: ALL "INTERIOR EXIT STAIRS" OR "SHAFT ENCLOSURES" AS DEFINED IN SECTION 713 ARE REQUIRED TO BE CONSTRUCTED AS FIRE BARRIERS (PER 713.2)
NOTE: SECTION 1022 REQUIRES ALL "INTERIOR EXIT STAIRS" CONNECTING 4-STORIES OR MORE TO HAVE A 2-HR FIRE RATING.

HORIZONTAL ASSEMBLY REQUIRED?
YES/NO
NOTE: THIS IS A NON-SEPERATED OCCUPANCY BUILDING PER 508.3, THEREFORE NO HORIZONTAL ASSEMBLY FIRE RATING REQUIRED.

BUT...

HORIZONTAL ASSEMBLY REQUIRED?
YES/NO
NOTE: SEE SECTIONS 508.4, 510

CHAPTER 9 - FIRE PROTECTION SYSTEMS

AUTOMATIC SPRINKLER SYSTEM REQUIRED? (903.2)
YES/NO (SEE 903.2.10 - ITEM #1)
NOTE: PER (504.2, 506.1, & 508.3) WE CALCULATED ALL OF OUR ALLOWABLE BUILDING AREAS, STORY AND HEIGHT INCREASES BASED ON A FULLY SPRINKLERED BUILDING.

PORTABLE FIRE EXTINGUISHERS (906)
MAX TRAVEL DISTANCE TO EXTINGUISHER = 75FT
MAX FLOOR AREA PER EXTINGUISHER = 11,250 SFT (MODERATE HAZARD)
NOTE: SEE TABLE 906.1 OF 2012 IFC

CHAPTER 10 - MEANS OF EGRESS

MINIMUMS
CEILING HEIGHT = 7'-6"

OCCUPANT LOAD 1004.1.2

OFFICE PORTION
MAX FLOOR AREA ALLOWANCES (TABLE 1004.1.2)
BUSINESS AREAS = 100 GROSS
STORAGE AREAS = 300 GROSS

TIER 1	128
OFFICE	= 104
STORAGE	= 6
VA OFFICE	= 18

GARAGE PORTION
MAX FLOOR AREA ALLOWANCES (TABLE 1004.1.2)
PARKING GARAGES = 200 GROSS

TIER 1	
PARKING (LG)	= 125
TIER 2	
PARKING (L2)	= 143
TIER 3	
PARKING (L3)	= 143
TIER 4	
PARKING (L4)	= 119

TOTAL BUILDING OCCUPANT LOAD: 658

OCCUPANT LOAD TOTAL FOR PLUMBING FIXTURE COUNT

OFFICE PORTION

TIER 1	128
OFFICE	= 104
STORAGE	= 6
VA OFFICE	= 18

MEANS OF EGRESS SIZING 1005

REQUIRED CAPACITY BASED ON OCC. LOAD (1005.3)
STAIRWAYS (1005.3.1)
OFFICE (W/ STORAGE) = 32.4"
VA OFFICE = 3.6"
PARKING (LG) = 42.3"
PARKING (L2) = 42.3"
PARKING (L3) = 42.3"
PARKING (L4) = 26.1"

OTHER COMPONENTS (1005.3.2)
OFFICE (W/ STORAGE) = 20.4"
VA OFFICE = 2.4"
PARKING (LG) = 28.2"
PARKING (L2) = 28.2"
PARKING (L3) = 28.2"
PARKING (L4) = 17.4"

NUMBER OF EXITS AND EXIT ACESS DOORWAYS 1006

MAX. OCCUPANT LOAD OF SPACE W/ ONE EXIT (TABLE 1006.2.1)
OCCUPANCY (B): 49

MAX. COMMON PATH OF EGRESS DIST. (TABLE 1006.2.1)
OCCUPANCY (B): 100'

MIN. NUMBER OF EXITS REQ'D WHEN EGRESS FROM ***SPACES*** (TABLE 1006.2.1)

OFFICE PORTION
TIER 1
STORAGE AREA = 1

MIN. NUMBER OF EXITS REQ'D WHEN EGRESS FROM ***STORIES*** (TABLE 1006.3.1)

OFFICE PORTION
TIER 1
OFFICE = 2
VA OFFICE = 1 (PER TABLE 1006.3.2(2))

GARAGE PORTION
PARKING (LG) = 2
PARKING (L2) = 2
PARKING (L3) = 2
PARKING (L4) = 2

NOTE: SEE 1007.1.1 EXCEPTION #3 FOR DOOR CONFIGURATION DISTANCE BETWEEN (2) DOORS.

NOTE: A NUMBER CIRCLED ##.# REPRESENTS THE MOST RESTRICTIVE DIMENSION REQUIRED BY CODE AND CAN BE ASSUMED AS THE LIMITING DIMENSION FOR ITS RESPECTIVE COMPONENT ACCORDING TO CHAPTER 10 OF THE IBC.

CHAPTER 10 - MEANS OF EGRESS (CONTINUED)

MIN. EXIT WIDTH DISTRIBUTION (1005.5)

	REQUIRED EGRESS WIDTH FOR STAIRS	*REQUIRED # OF EXITS PER STORY*	*AVERAGE EXIT WIDTH FOR STAIRS*	*AVERAGE EXIT WIDTH FOR OTHER COMPONENTS*
OFFICE PORTION				
TIER 1				
OFFICE (W/STORAGE)	32.4"	2	16.2"	10.2"
VA OFFICE	3.6"	1	3.6"	2.4"
GARAGE PORTION				
TIER 1				
PARKING (LG)	42.3"	2	21.15"	14.1"
TIER 2				
PARKING (L2)	42.3"	2	21.15"	14.1"
TIER 3				
PARKING (L3)	42.3"	2	21.15"	14.1"
TIER 4				
PARKING (L4)	26.1"	2	13.05"	8.7"

ACCESSIBLE MEANS OF EGRESS 1009

EGRESS COMPONENTS IN OUR BUILDING (PER 1009.2)
1. ACCESSIBLE ROUTE (SHALL COMPLY WITH 1104)
2. INTERIOR EXIT STAIRWAY (SHALL COMPLY WITH 1009.3 & 1023)
3. ELEVATORS (SHALL COMPLY WITH 1009.4)
4. RAMPS (SHALL COMPLY WITH 1012)

ELEVATOR REQUIRED AS AN ACCESSIBLE MEANS OF EGRESS? (1009.2.1)
YES/**NO** *(HOWEVER WE ARE PROVIDING IT AS SUCH TO PREVENT NEEDING AN AREA OF REFUGE, CALL BOXES, OR ANY OTHER ITEM REQ'D BY CODE IF WE WEREN'T PROVIDING IT AS AN ACCESSIBLE MEANS OF EGRESS)*

STAIRWAYS WIDTH MIN. TO BE AN ACCESSIBLE MEANS OF EGRESS? (1009.3)
48" MIN. (NOTE EXCEPTION #2)

AREA OF REFUGE REQUIRED FOR STAIRWAYS? (1009.3)
YES/**NO (NOTE: EXCEPTION #5 & RESPONSE TO 1009.2.1 ABOVE)**

2-WAY COMMUNICATION REQUIRED AT ELEVATOR LANDINGS 1009.8: **YES**/NO

DOORS, GATES TURNSTILES 1010
SIZE OF DOORS
MIN. CLEAR WIDTH OF SINGLE DOOR = 32" (IF NOT REQ'D TO BE LARGER ELSEWHERE IN THE CODE.)
MIN. CLEAR WIDTH OF A SINGLE LEAF WITHIN A DOUBLE DOOR W/O A MULLION = 32" (IF NOT REQ'D TO BE LARGER ELSEWHERE IN THE CODE.)

EXIT TRAVEL DISTANCE (TABLE 1017.2)
OCCUPANCY (B) W/ SPRINKLER: 300'

CORRIDOR FIRE-RESISTANCE RATING 1020.1 (FIRE PARTITIONS): 0 HR

MINIMUM CORRIDOR WIDTH (TABLE 1020.2) = 44" OR 36" IF (OCC. LOAD < 50)

DEAD-END MAX. 1020.4: 50' **(NOTE EXCEPTION #2)**

NOTE: A NUMBER CIRCLED (##.#) REPRESENTS THE MOST RESTRICTIVE DIMENSION REQUIRED BY CODE AND CAN BE ASSUMED AS THE LIMITING DIMENSION FOR ITS RESPECTIVE COMPONENT ACCORDING TO CHAPTER 10 OF THE IBC.

CHAPTER 29: PLUMBING SYSTEMS

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (TABLE 2902.1)
WATER CLOSETS
OCCUPANCY B: 1 PER 25 FOR THE FIRST 50, 1 PER 50 FOR THE REMAINDER EXCEEDING 50

REQUIRED: 128 - 50 = 78/50 = 1.56 + 2 = 3.56 = 4

PROVIDED TOTAL: 4
MALE: 2
FEMALE: 2

LAVATORIES
OCCUPANCY B: 1 PER 40 FOR THE FIRST 80, 1 PER 80 FOR THE REMAINDER EXCEEDING 80

REQUIRED: 128 - 80 = 48/80 = .6 + 2 = 2.6 = 3

PROVIDED TOTAL: 4
MALE: 1
FEMALE: 2

DRINKING FOUNTAINS
OCCUPANCY B: 1 PER 100
REQUIRED: 128/100 = 2

PROVIDED TOTAL: 2

SERVICE SINKS
REQUIRED: 1

PROVIDED TOTAL: 1

CHAPTER 30 - ELEVATOR LOBBIES AND HOISTWAY OPENING PROTECTION

ELEVATOR CAR TO ACCOMMODATE AMBULANCE STRETCHER? 3002.4: YES/NO

HOISTWAY OPENING PROTECTION REQUIRED? 3006.2: YES/**NO**

HOISTWAY OPENING PROTECTION OPTION 3006.3: N/A

CITY AND ZONING ORDINANCES

MUNICIPALITY: LONGVIEW, TX

ZONE: (CB) CENTRAL BUSINESS DISTRICT

SETBACK REQUIREMENTS
FRONT = 0'
REAR= 0'
SIDE = 0'
(SEE "NON-RESIDENTIAL" SCHEDULE IN APPENDIX A - 9-105)

ALLOWABLE BUILDING HEIGHT
20 STORIES (SEE "NON-RESIDENTIAL" SCHEDULE IN APPENDIX A - 9-105)

MAXIMUM LOT COVERAGE RATIO
15:1 (SEE "NON-RESIDENTIAL" SCHEDULE IN APPENDIX A - 9-105)

BUFFER YARDS REQUIREMENTS
NO BUFFER YARDS REQUIRED (SEE 9-108)

OFF-STREET PARKING REQUIREMENTS
NO OFF-STREET PARKING REQUIRED (SEE 10-104)

OFF-STREET LOADING REQUIREMENTS
NO OFF-STREET LOADING REQUIRED (SEE 11-100)

REFUSE COLLECTION & SCREENING REQUIREMENTS
SOME REQUIREMENTS (SEE 9-109 A & B)

LANDSCAPING REQUIREMENTS
NO REQUIREMENTS (SEE 9-111)

2012 IFC REVIEW

IFC REQUIREMENTS
MAX TRAVEL DISTANCE TO FIRE EXTINGUISHER = 75'

IFC AMENDMENTS
HOSE LENGTH AMENDMENT FOR FULLY SPRINKLERED (IFC 503.1 = 150' MIN.): N/A

FIRE LANE WIDTH AMENDMENT (IFC 503.2.1 = 20' MIN.): N/A

FIRE LANE TURNING RADIUS (IFC 503.2.4 DETERMINED BY FIRE MARSHAL): N/A

ADDITIONAL AMENDMENT NOTES: N/A

FEC FIRE EXTINGUISHER CABINET

NOTE: FINAL LOCATION AND QUANTITY T.B.D. BY AUTHORITY HAVING JURISDICTION

2015 IECC REVIEW

ENVELOPE R-VALUE MIN. REQUIREMENTS C402.1.3

CLIMATE ZONE C301: 3A

ROOFS: INSULATION ENTIRELY ABOVE DECK - R-25CI

WALLS, ABOVE GRADE: METAL FRAMED - R-13, R-6.5CI

WALLS, ABOVE GRADE: MASS - R-7.6CI

WALLS, BELOW GRADE: N/A

FLOORS: MASS - R-10CI

SLAB-ON-GRADE FLOORS: UNHEATED SLABS - NR

NONSWINGING DOORS: R-4.75

ENVELOPE FENESTRATION MAX. REQUIREMENTS C402.4

VERTICAL FENESTRATION

U-FACTOR		
FIXED FENESTRATION		.46
OPERABLE FENESTRATION		.60
ENTRANCE DOORS		.77
SHGC	SEW	N
PF < 0.2	.25	.33
0.2 ≤ PF < 0.5	.30	.37
PF ≥ 0.5	.40	.40

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT — BRADLEY S. HANSON — 22855 — STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

SHEET NAME

CODE REVIEW

SHEET NO.

A0.0

LIFE SAFETY SYMBOL LEGEND:

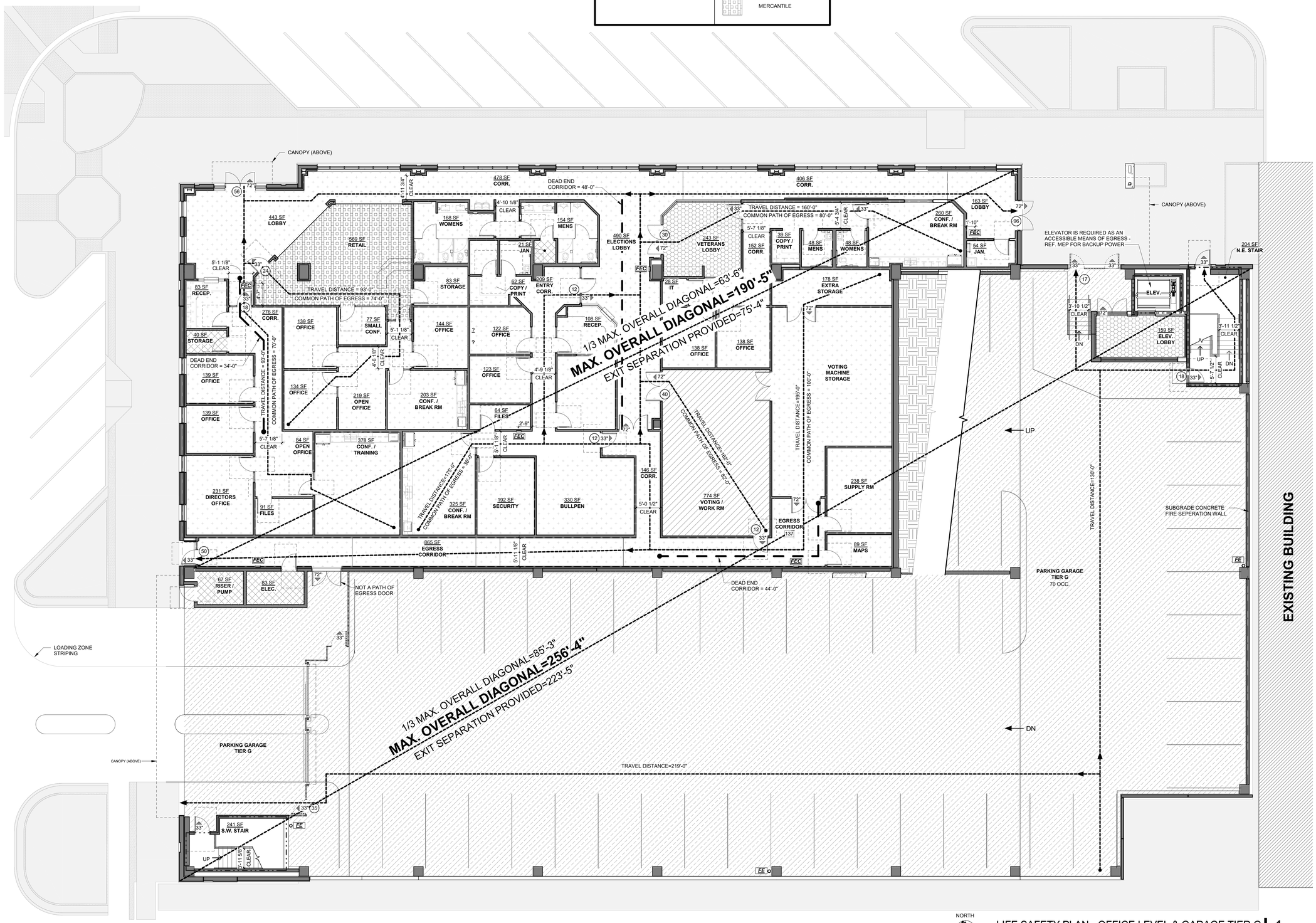
FEC	FIRE EXTINGUISHER CABINET
FE	WALL MOUNTED FIRE EXTINGUISHER
●---→	PATH OF EGRESS
▲	EXIT DOOR WIDTH
- - -	1 HR RATED FIRE BARRIER
—·—	2 HR RATED FIRE BARRIER
##	OCC. LOAD AT EXIT

OCCUPANCY LOAD

- PARKING GARAGE
- BUSINESS
- ASSEMBLY (UNCONCENTRATED)
- WAITING AREAS
- ACCESSORY STORAGE
- CIRCULATION
- MERCANTILE

LIFE SAFETY GENERAL NOTES

1. BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM THROUGHOUT.
2. AUTOMATIC SPRINKLER SYSTEMS SHALL COMPLY WITH **IBC SECTION 903**.
3. FIRE EXTINGUISHERS SHALL COMPLY WITH **IBC SECTION 906**.
4. PORTABLE FIRE EXTINGUISHERS SHALL BE SELECTED AND INSTALLED IN ACCORDANCE WITH **IBC SECTION 906.2 AND NFPA 10**.
5. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. **(IBC 1013.1)**
6. EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED. **(IBC 1013.3)**
7. EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54 LUX) **(IBC 1013.6.2)**.
8. INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.5.**
9. EXTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.6.**
10. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. **(IBC 1013.5)**
11. A SIGN STATING "EXIT" IN VISUAL CHARACTERS, RAISED CHARACTERS AND BRAILLE AND COMPLYING WITH ICC A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN AREA OF REFUGE, AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY OR RAMP, AN EXIT PASSAGE WAY AND THE EXIT DISCHARGE. **(IBC 1013.4)**
12. EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WILL PROVIDE AN ILLUMINATION OF NOT LESS THAN 90 MIN. IN CASE OF PRIMARY POWER LOSS. **(IBC 1013.6.3)**
13. EXIT SIGNS AND DIRECTIONAL EXIT SIGNS GRAPHICS SHALL COMPLY WITH **IBC SECTION 1013.6.1**.
14. MEANS OF EGRESS DOORS SHALL COMPLY WITH **IBC SECTION 1010 & 1022.2**.
15. SIZE OF DOORS SERVING A MEANS OF EGRESS SYSTEM SHALL COMPLY WITH **IBC SECTION 1010.1.1.**
16. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. **(IBC 1010.1.9)**



NORTH

LIFE SAFETY PLAN - OFFICE LEVEL & GARAGE TIER G | 1
SCALE: 1/8" = 1'-0" | A0.1

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com
© SCHWARZ-HANSON, LTD

A NEW FACILITY FOR

GREGG COUNTY - PARKING GARAGE & OFFICE

100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT — BRADLEY S. HANSON — 22855 — STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME

LIFE SAFETY PLAN - OFFICE LEVEL & GARAGE TIER 1

SHEET NO.

A0.1

LIFE SAFETY SYMBOL LEGEND:

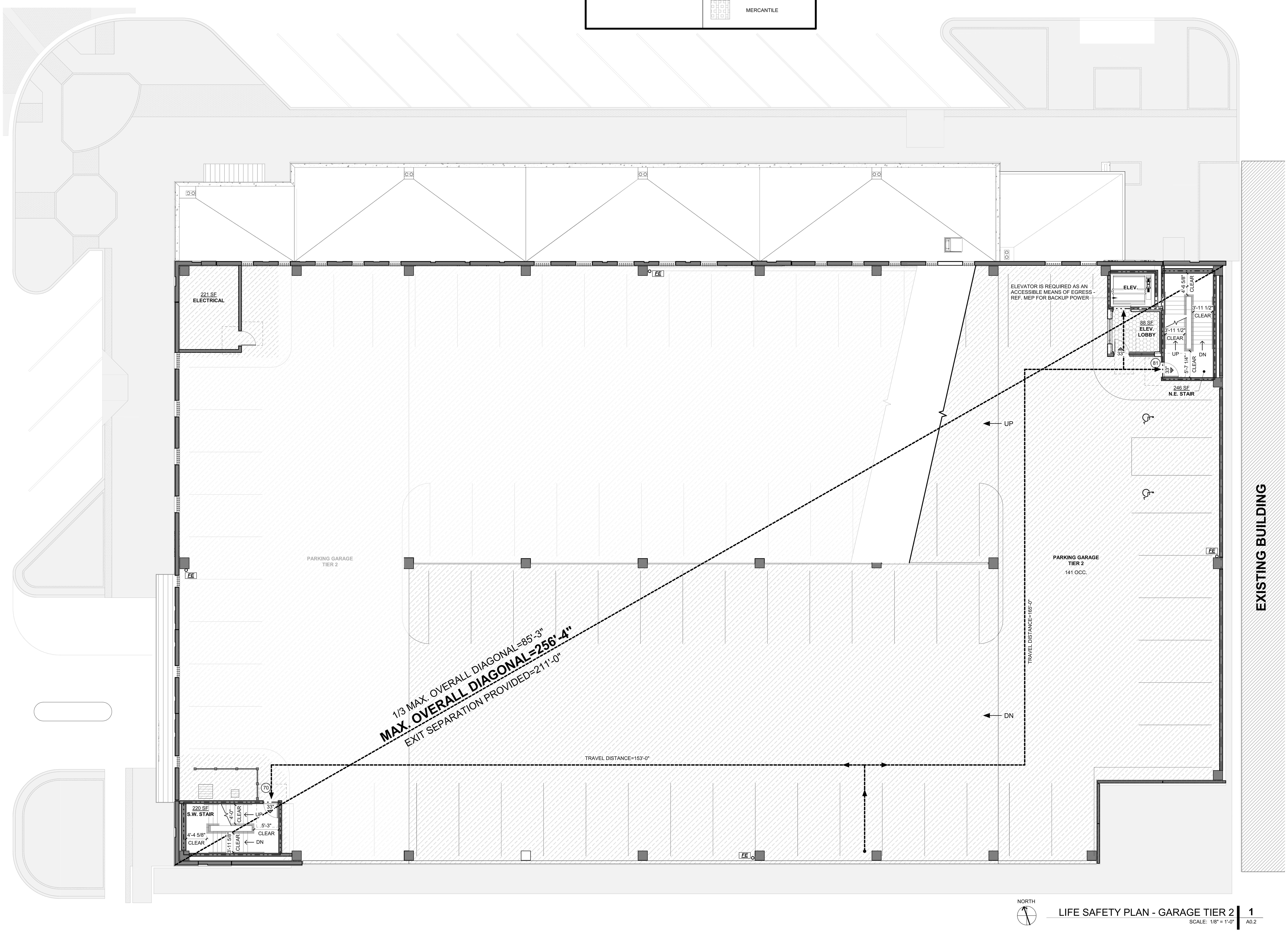
Symbol	Description
FEC	FIRE EXTINGUISHER CABINET
FE	WALL MOUNTED FIRE EXTINGUISHER
●- - ->	PATH OF EGRESS
▲	EXIT DOOR WIDTH
— · —	1 HR RATED FIRE BARRIER
— · · —	2 HR RATED FIRE BARRIER
##	OCC. LOAD AT EXIT

OCCUPANCY LOAD

- PARKING GARAGE
- BUSINESS
- ASSEMBLY (UNCONCENTRATED)
- WAITING AREAS
- ACCESSORY STORAGE
- CIRCULATION
- MERCANTILE

LIFE SAFETY GENERAL NOTES

1. BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM THROUGHOUT.
2. AUTOMATIC SPRINKLER SYSTEMS SHALL COMPLY WITH **IBC SECTION 903**.
3. FIRE EXTINGUISHERS SHALL COMPLY WITH **IBC SECTION 906**.
4. PORTABLE FIRE EXTINGUISHERS SHALL BE SELECTED AND INSTALLED IN ACCORDANCE WITH **IBC SECTION 906.2 AND NFPA 10**.
5. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. **(IBC 1013.1)**
6. EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED. **(IBC 1013.3)**
7. EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54 LUX) **(IBC 1013.6.2)**
8. INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.5.**
9. EXTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.6.**
10. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. **(IBC 1013.5)**
11. A SIGN STATING "EXIT" IN VISUAL CHARACTERS, RAISED CHARACTERS AND BRAILLE AND COMPLYING WITH ICC A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN AREA OF REFUGE, AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY OR RAMP, AN EXIT PASSAGE WAY AND THE EXIT DISCHARGE. **(IBC 1013.4)**
12. EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WILL PROVIDE AN ILLUMINATION OF NOT LESS THAN 90 MIN. IN CASE OF PRIMARY POWER LOSS. **(IBC 1013.6.3)**
13. EXIT SIGNS AND DIRECTIONAL EXIT SIGNS GRAPHICS SHALL COMPLY WITH **IBC SECTION 1013.6.1.**
14. MEANS OF EGRESS DOORS SHALL COMPLY WITH **IBC SECTION 1010 & 1022.2**.
15. SIZE OF DOORS SERVING A MEANS OF EGRESS SYSTEM SHALL COMPLY WITH **IBC SECTION 1010.1.1.**
16. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. **(IBC 1010.1.9)**

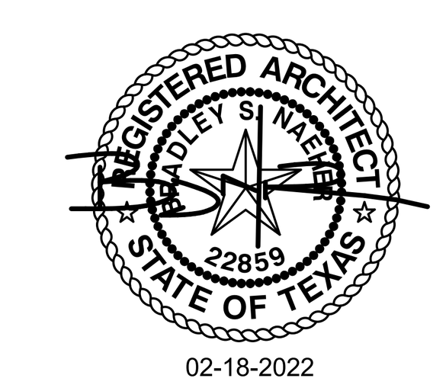


LIFE SAFETY PLAN - GARAGE TIER 2 | 1

SCALE: 1/8" = 1'-0" | A0.2

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

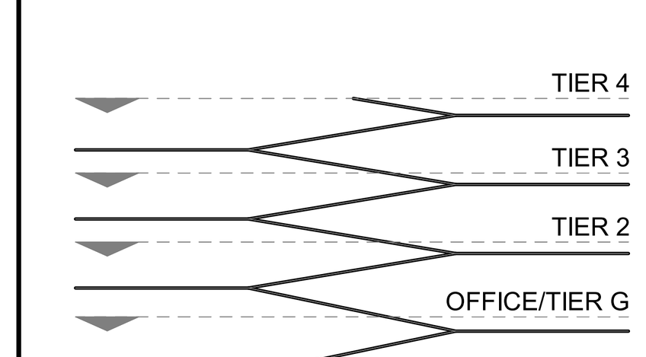


02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE		
Δ	Description	Date



SHEET NAME

LIFE SAFETY PLAN - GARAGE TIER 2

SHEET NO.

A0.2

LIFE SAFETY SYMBOL LEGEND:

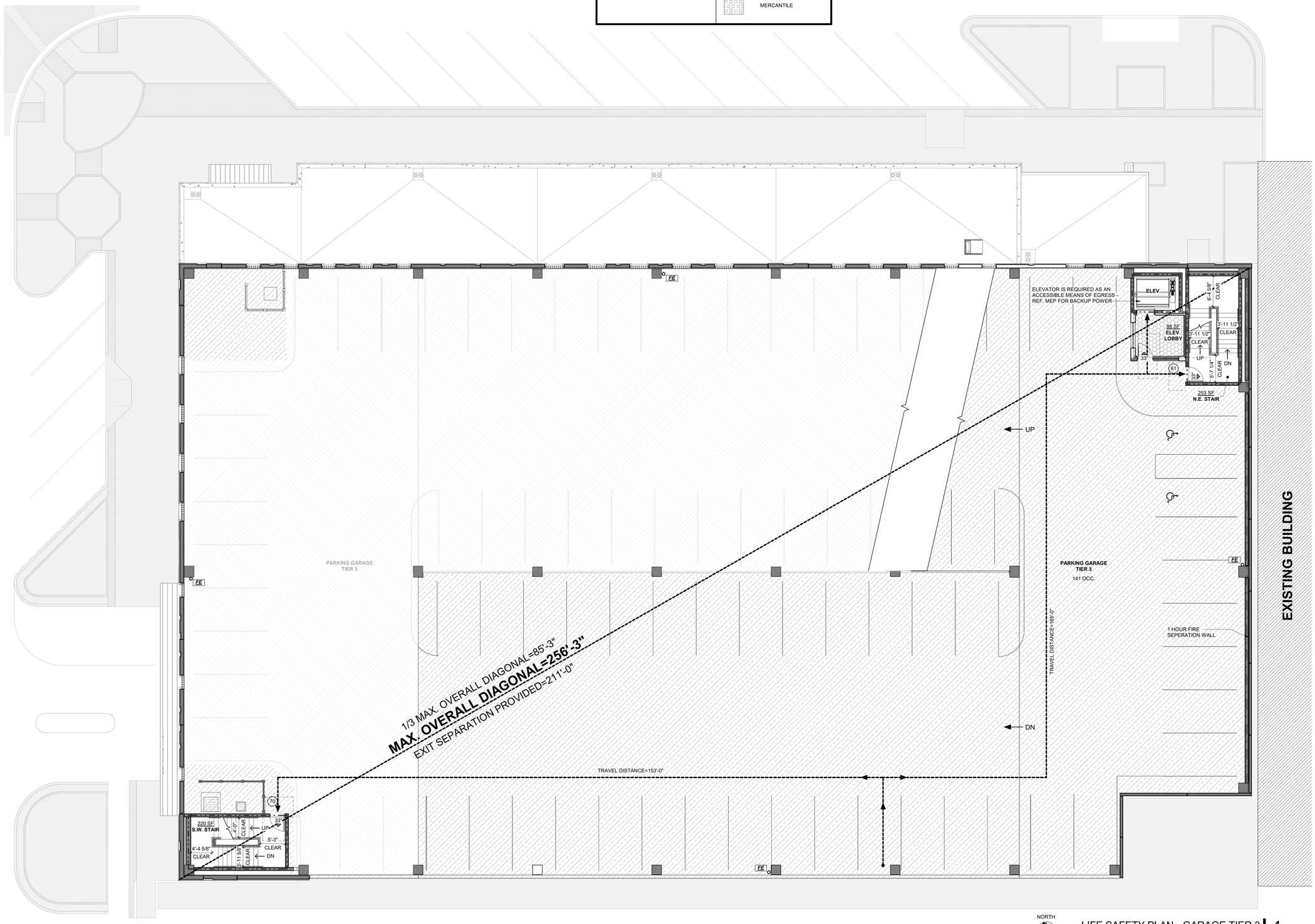
FEC	FIRE EXTINGUISHER CABINET
FE	WALL MOUNTED FIRE EXTINGUISHER
●---→	PATH OF EGRESS
▲	EXIT DOOR WIDTH
— - —	1 HR RATED FIRE BARRIER
— · —	2 HR RATED FIRE BARRIER
##	OCC. LOAD AT EXIT

OCCUPANCY LOAD

- PARKING GARAGE
- BUSINESS
- ASSEMBLY (UNCONCENTRATED)
- WAITING AREAS
- ACCESSORY STORAGE
- CIRCULATION
- MERCANTILE

LIFE SAFETY GENERAL NOTES

1. BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM THROUGHOUT.
2. AUTOMATIC SPRINKLER SYSTEMS SHALL COMPLY WITH **IBC SECTION 903**.
3. FIRE EXTINGUISHERS SHALL COMPLY WITH **IBC SECTION 906**.
4. PORTABLE FIRE EXTINGUISHERS SHALL BE SELECTED AND INSTALLED IN ACCORDANCE WITH **IBC SECTION 906.2 AND NFPA 10**.
5. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. **(IBC 1013.1)**
6. EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED. **(IBC 1013.3)**
7. EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54 LUX) **(IBC 1013.6.2)**
8. INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.5.**
9. EXTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.6.**
10. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. **(IBC 1013.5)**
11. A SIGN STATING "EXIT" IN VISUAL CHARACTERS, RAISED CHARACTERS AND BRAILLE AND COMPLYING WITH ICC A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN AREA OF REFUGE, AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY OR RAMP, AN EXIT PASSAGE WAY AND THE EXIT DISCHARGE. **(IBC 1013.4)**
12. EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WILL PROVIDE AN ILLUMINATION OF NOT LESS THAN 90 MIN. IN CASE OF PRIMARY POWER LOSS. **(IBC 1013.6.3)**
13. EXIT SIGNS AND DIRECTIONAL EXIT SIGNS GRAPHICS SHALL COMPLY WITH **IBC SECTION 1013.6.1.**
14. MEANS OF EGRESS DOORS SHALL COMPLY WITH **IBC SECTION 1010 & 1022.2**.
15. SIZE OF DOORS SERVING A MEANS OF EGRESS SYSTEM SHALL COMPLY WITH **IBC SECTION 1010.1.1.**
16. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. **(IBC 1010.1.9)**



NORTH

LIFE SAFETY PLAN - GARAGE TIER 3 | 1
SCALE: 1/8" = 1'-0" | A0.3

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com
© SCHWARZ-HANSON LTD

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT — STACEY S. NASH — 22853 — STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011
DATE: 02/18/2022

REVISION SCHEDULE		
Δ	Description	Date

TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME
LIFE SAFETY PLAN - GARAGE TIER 3

SHEET NO.
A0.3

LIFE SAFETY SYMBOL LEGEND:

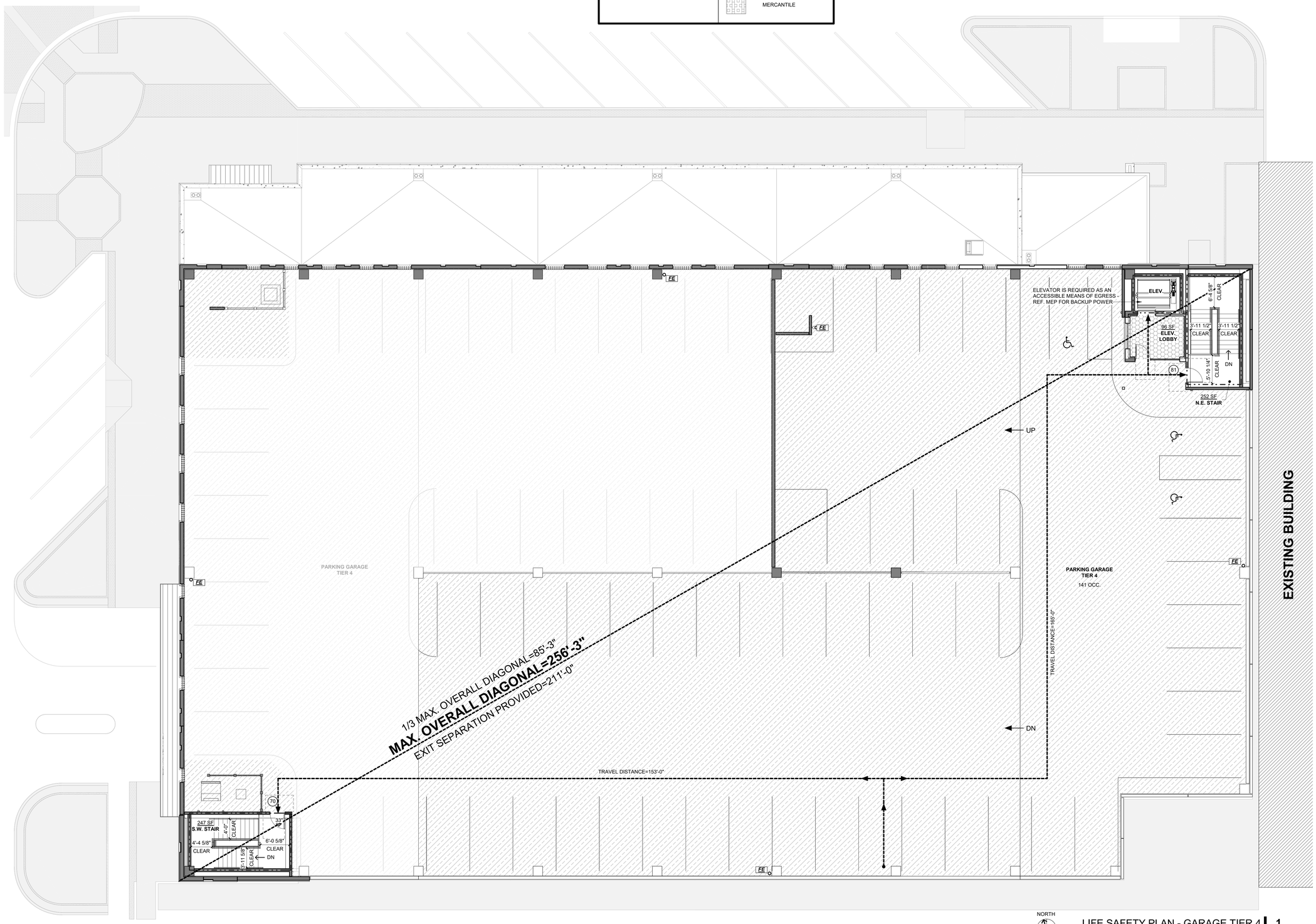
FEC	FIRE EXTINGUISHER CABINET
FE	WALL MOUNTED FIRE EXTINGUISHER
●---→	PATH OF EGRESS
▲	EXIT DOOR WIDTH
— - —	1 HR RATED FIRE BARRIER
— - - —	2 HR RATED FIRE BARRIER
##	OCC. LOAD AT EXIT

OCCUPANCY LOAD

- PARKING GARAGE
- BUSINESS
- ASSEMBLY (UNCONCENTRATED)
- WAITING AREAS
- ACCESSORY STORAGE
- CIRCULATION
- MERCANTILE

LIFE SAFETY GENERAL NOTES

1. BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM THROUGHOUT.
2. AUTOMATIC SPRINKLER SYSTEMS SHALL COMPLY WITH **IBC SECTION 903**.
3. FIRE EXTINGUISHERS SHALL COMPLY WITH **IBC SECTION 906**.
4. PORTABLE FIRE EXTINGUISHERS SHALL BE SELECTED AND INSTALLED IN ACCORDANCE WITH **IBC SECTION 906.2 AND NFPA 10**.
5. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. **(IBC 1013.1)**
6. EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED. **(IBC 1013.3)**
7. EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54 LUX) **(IBC 1013.6.2)**
8. INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.5.**
9. EXTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND **IBC SECTION 1013.6.**
10. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. **(IBC 1013.5)**
11. A SIGN STATING "EXIT" IN VISUAL CHARACTERS, RAISED CHARACTERS AND BRAILLE AND COMPLYING WITH ICC A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN AREA OF REFUGE, AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY OR RAMP, AN EXIT PASSAGE WAY AND THE EXIT DISCHARGE. **(IBC 1013.4)**
12. EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WILL PROVIDE AN ILLUMINATION OF NOT LESS THAN 90 MIN. IN CASE OF PRIMARY POWER LOSS. **(IBC 1013.6.3)**
13. EXIT SIGNS AND DIRECTIONAL EXIT SIGNS GRAPHICS SHALL COMPLY WITH **IBC SECTION 1013.6.1.**
14. MEANS OF EGRESS DOORS SHALL COMPLY WITH **IBC SECTION 1010 & 1022.2**.
15. SIZE OF DOORS SERVING A MEANS OF EGRESS SYSTEM SHALL COMPLY WITH **IBC SECTION 1010.1.1.**
16. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. **(IBC 1010.1.9)**



NORTH

LIFE SAFETY PLAN - GARAGE TIER 4 | 1
SCALE: 1/8" = 1'-0" | A0.4

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com
© SCHWARZ HANSON LTD

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT — STACEY S. NASH — 22859 — STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

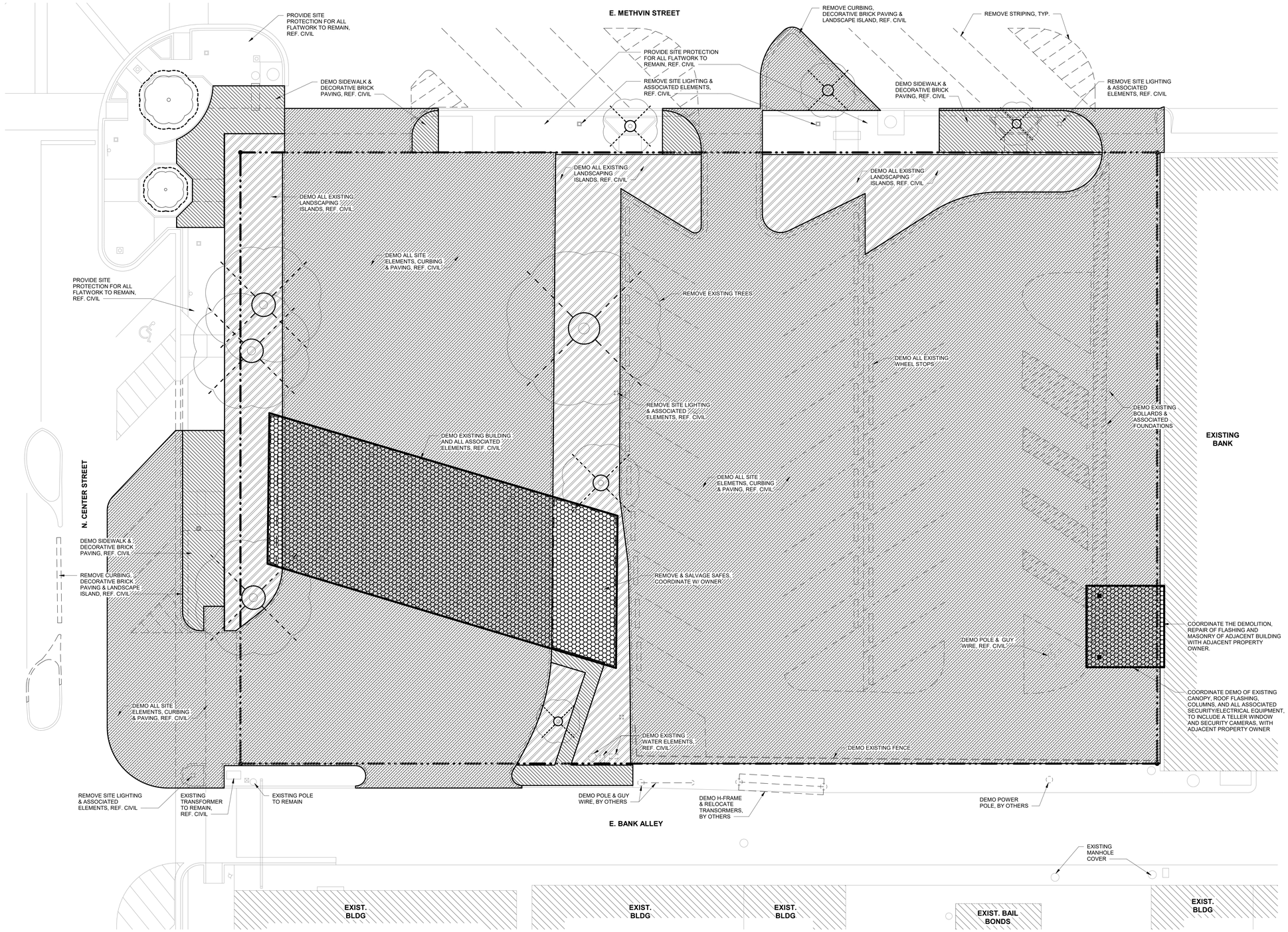
TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME

LIFE SAFETY PLAN - GARAGE TIER 4

SHEET NO.

A0.4



DEMO SITE PLAN | 1
SCALE: 1" = 10'-0" | A1.0

DEMOLITION PLAN LEGEND:

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE PRESERVED AND PROTECTED DURING DEMOLITION AND CONSTRUCTION PHASES
- EXISTING SIDEWALK TO BE REMOVED
- EXISTING PAVEMENT AND CONCRETE CURB TO BE REMOVED
- EXISTING BUILDING TO BE DEMOLISHED

GENERAL DEMOLITION NOTES:

1. CONTRACTOR TO CONDUCT PRE-DEMOLITION MEETING WITH ARCHITECT, 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. SITE AND 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. REMOVE DOMESTIC WATER AND SEWER PIPING TO POINT WHERE SERVICE ENTERS THE BUILDING.
9. REMOVE ALL ELECTRICAL COMPLETELY. PANELS INCLUDED, BACK TO CONDUIT WHERE SERVICE ENTERS THE BUILDING.
10. REMOVE ALL HVAC COMPLETELY, INCLUDING ALL RTU, EXHAUST FANS, DUCTWORK, ETC.
11. REMOVE ALL PHONE/COMM. COMPLETELY BACK TO SERVICE ENTRANCE. VERIFY WITH COMM. PROVIDER.
12. REMOVE ALL EXISTING WINDOW COVERINGS COMPLETELY.
13. REMOVE ALL ROOFING AND FLASHING COMPLETELY. REMOVE ALL ROOF DRAINS AND PIPE BACK TO POINT WHERE DRAINS TIE-IN TO UNDERGROUND.
14. VERIFY WITH THE OWNER IF ANY DEMO ITEM IS TO BE SALVAGED.
15. CONTRACTOR MUST FILE A NOTIFICATION OF DEMOLITION WITH TCEQ PRIOR TO DEMOLITION.
16. REMOVE AND RECYCLE ALL LAMPS, BALLASTS AND FREON PRIOR TO DEMOLITION
17. PER TEXAS HISTORIC COMMISSION REQUIREMENTS, CONTRACTOR MUST COORDINATE WITH STONE POINT SERVICES, CONTACT TODD MCMAKIN (todd@stonepointservices.com 903-881-3103) PRIOR TO DEMOLITION FOR MONITORING DURING PAVEMENT REMOVAL. FURTHERMORE, IF DURING DEEPER EXCAVATION A HISTORIC FEATURE IS IDENTIFIED, WORK SHALL STOP AND THE "THC" NOTIFIED.
18. CONTRACTOR RESPONSIBLE FOR REVIEWING AND COORDINATING ANY DEMOLITION OR NEW WORK WITH SWEPCO IN THE E. BANK ALLEY.

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT
JEFF S. NYE
23855
STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02-18-2022

REVISION SCHEDULE

Δ	Description	Date

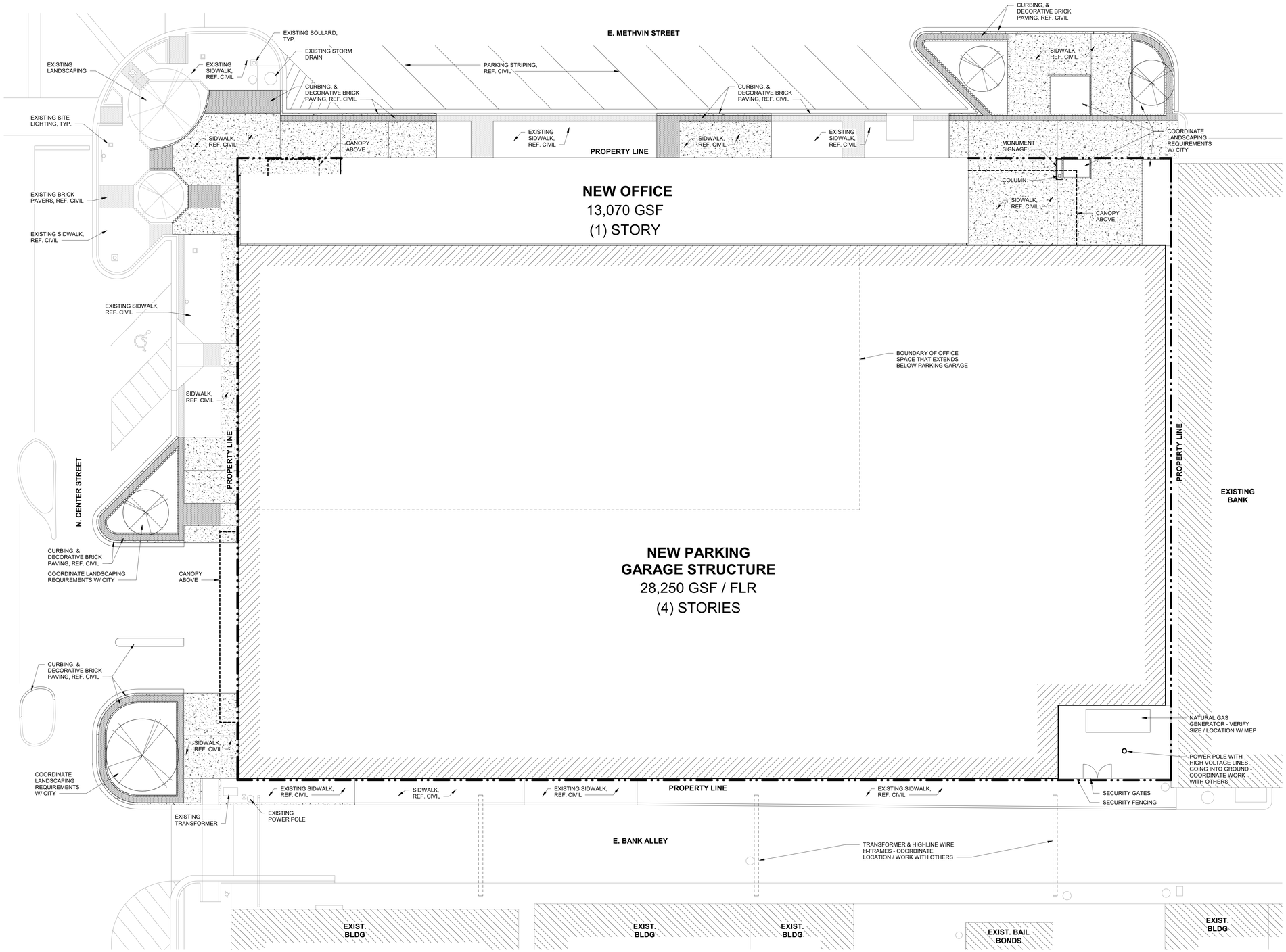
TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME

DEMOLITION SITE PLAN

SHEET NO.

A1.0



NORTH

PROPOSED SITE PLAN | 1
SCALE: 1" = 10'-0" | A1.1

GENERAL NOTES:

1. THE CITY OF 'X' CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING ANY REQUIRED TRENCH SAFETY PLAN OR TRAFFIC CONTROL PLAN.

3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL MAKE CERTAIN THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED.

4. EROSION CONTROLS SHALL BE IN PLACE PRIOR TO THE DISTURBANCE OF ANY EXISTING SURFACE.

5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, ETC. MUST BE ADJUSTED TO PROPER LINE AND GRADE BY THE CONTRACTOR PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THIS PROJECT.

6. ALL UNDERGROUND UTILITIES AND SLEEVES (IRRIGATION AND SITE LIGHTING) MUST BE INSTALLED BEFORE PAVING.

7. ALL PAVEMENT REPAIR WORK REQUIRES FULL PANEL REPLACEMENT.

8. ALL RETAINING/DETAINING WALLS, TURN-DOWN CURBS, TREE RETAINING WALLS SHALL BE CLAD IN A MATERIAL TO COMPLEMENT THE MATERIALS AND COLORS WITHIN THIS DEVELOPMENT.

9. ALL GROUND BASED HVAC SHALL BE SCREENED WITH LIVE SCREENING OR MASONRY ENCLOSURE. MASONRY ENCLOSURE SHALL BE CLAD IN THE SAME MATERIAL AS THE MAIN BUILDING.

10. ALL ROOF-MOUNTED MECHANICAL UNITS AND/OR EQUIPMENT SHALL BE SCREENED FROM VIEW.

11. DUMPSTER SCREENING WALL SHALL BE CLAD IN A MATERIAL TO MATCH THE MATERIALS ON THE MAIN BUILDING.

12. DUMPSTER SCREENING WALL REQUIRES A SEPARATE BUILDING PERMIT.

13. SIGNS REQUIRE A SEPARATE BUILDING PERMIT. ANY SIGNS DEPICTED ON THE SUBJECT SITE PLAN/ELEVATIONS ARE NOT APPROVED AS A PART OF THIS REVIEW AND MUST COMPLY WITH ALL APPLICABLE TOWN REGULATIONS.

14. REFERENCE CIVIL, LANDSCAPE, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT BRADLEY S. HANSON 22855 STATE OF TEXAS
02-18-2022

PROJECT NO.: 20011
DATE: 02-18-2022

REVISION SCHEDULE		
Δ	Description	Date

TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME
ARCHITECTURAL SITE PLAN

SHEET NO.
A1.1

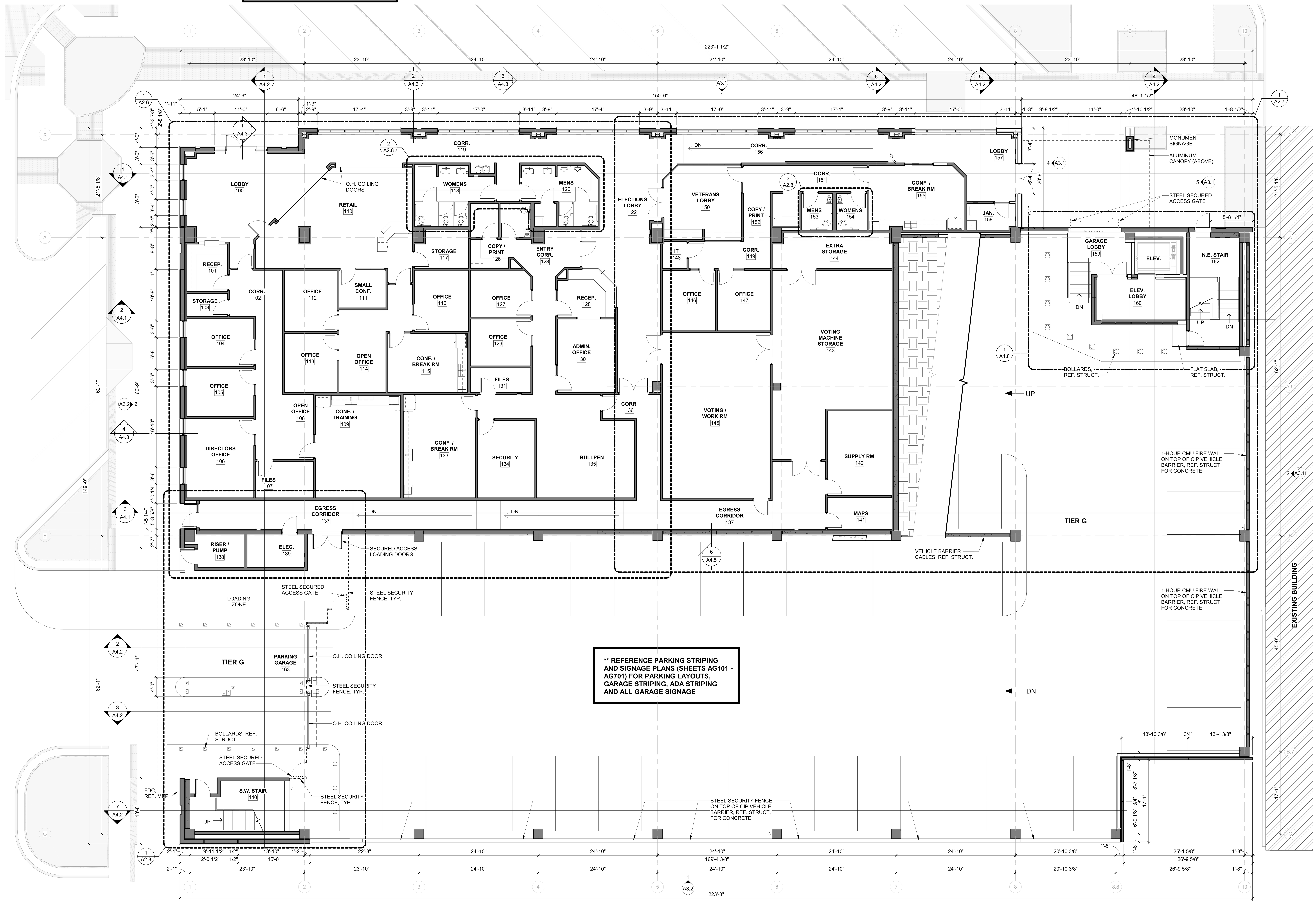
FLOOR PLAN LEGEND:

1 / A-A0.00 SIM	BUILDING SECTION
1 / A101 SIM	WALL SECTION
X / AX.XX	ENLARGED DETAIL REFERENCE
1 A0.0 1	ELEVATION
ROOM NAME 101	ROOM TAG
100A	DOOR SYMBOL
W8	WALL TYPE
W#	STOREFRONT SYMBOL

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 CMU 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 DECTECTORS, 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 INFORMATOIN.)
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 SYTEMS AND CONSTRUCTION THAT MAY BE ADJOINING OR AFFECTED BY WORK TO BE DONE.
16. CONTRACTOR(S) ARE RESPONSIBLE TO VERIFY THAT ALL WORK CONFROMS 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 WITHOUTH 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 EXPOSED CMU SHALL BE PAINTED. COLOR TO BE SELECTED BY ARCHITECT.
33. ALL REFERENCES TO AHJ CAN BE DISREGARDED. ALL BUILDING ELEMENTS SHALL MEET STATE MINIMUM CODE STANDARDS.



FLOOR PLAN - OFFICE LEVEL & GARAGE TIER G 1 / A2.1

SCALE: 1/8" = 1'-0"

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT · BRADLEY SCOTT NAUTON · 22859 · STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME

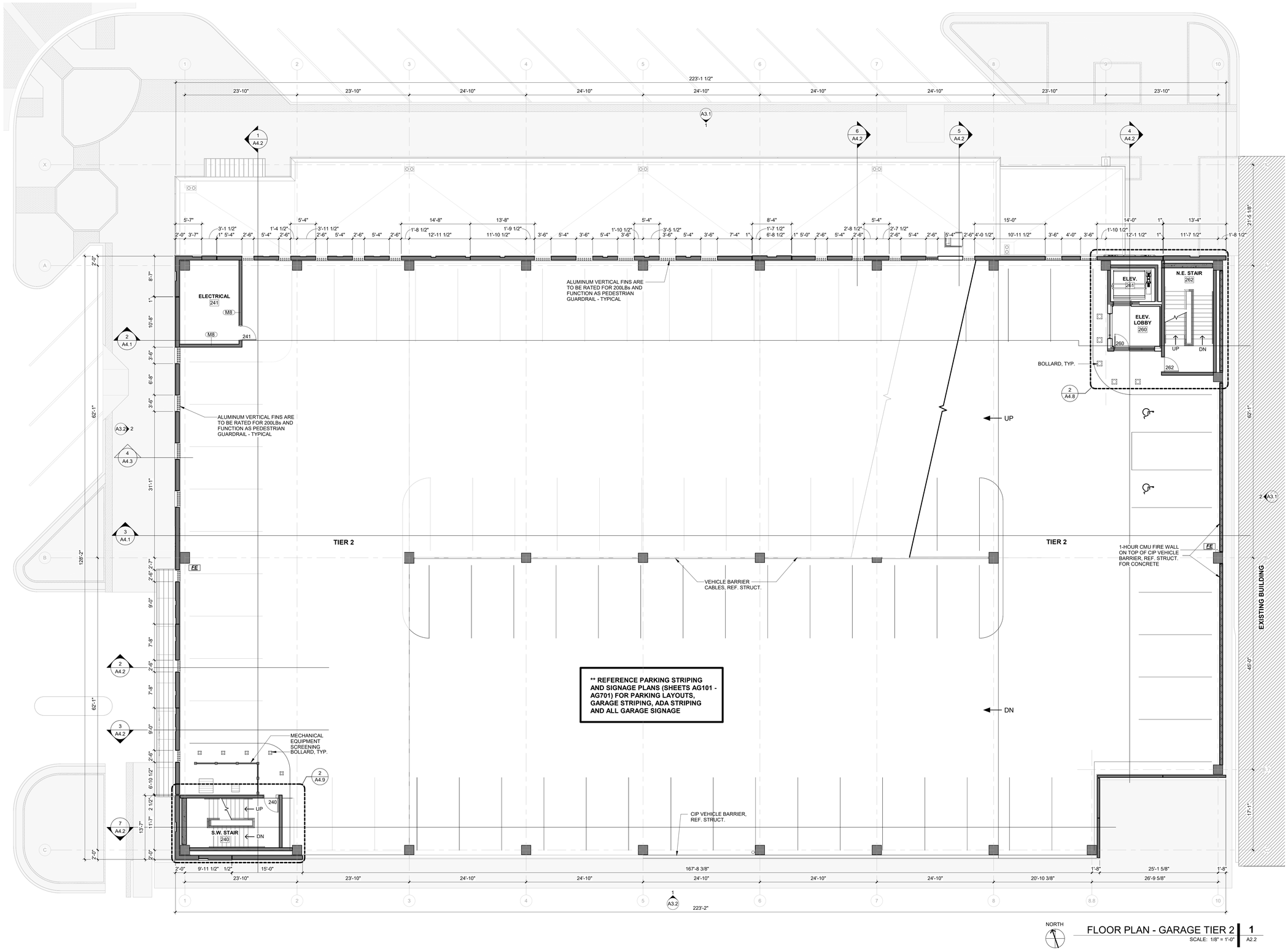
FLOOR PLAN - OFFICE LEVEL & GARAGE TIER G

SHEET NO.

A2.1

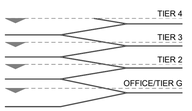
SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601



NORTH

FLOOR PLAN - GARAGE TIER 2 | 1 A2.2
SCALE: 1/8" = 1'-0"



REGISTERED ARCHITECT
BRADLEY S. HANSON
23855
STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

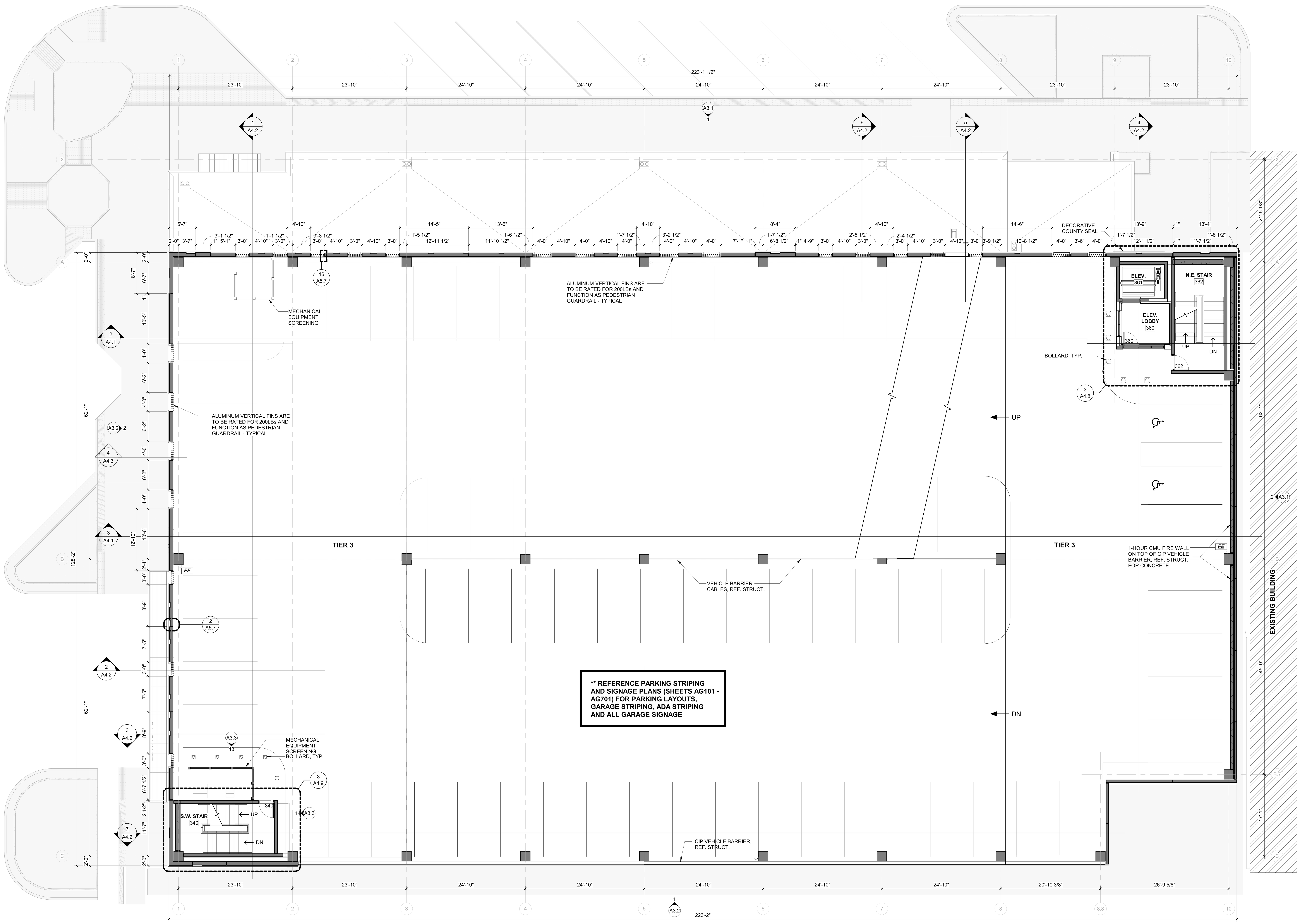
SHEET NAME

FLOOR PLAN - GARAGE TIER 2

SHEET NO.

A2.2

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com



FLOOR PLAN - GARAGE TIER 3 | 1
SCALE: 1/8" = 1'-0" | A2.3

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT
STATE OF TEXAS
22859
02-18-2022

PROJECT NO.: 20011
DATE: 02/18/2022

REVISION SCHEDULE		
Δ	Description	Date

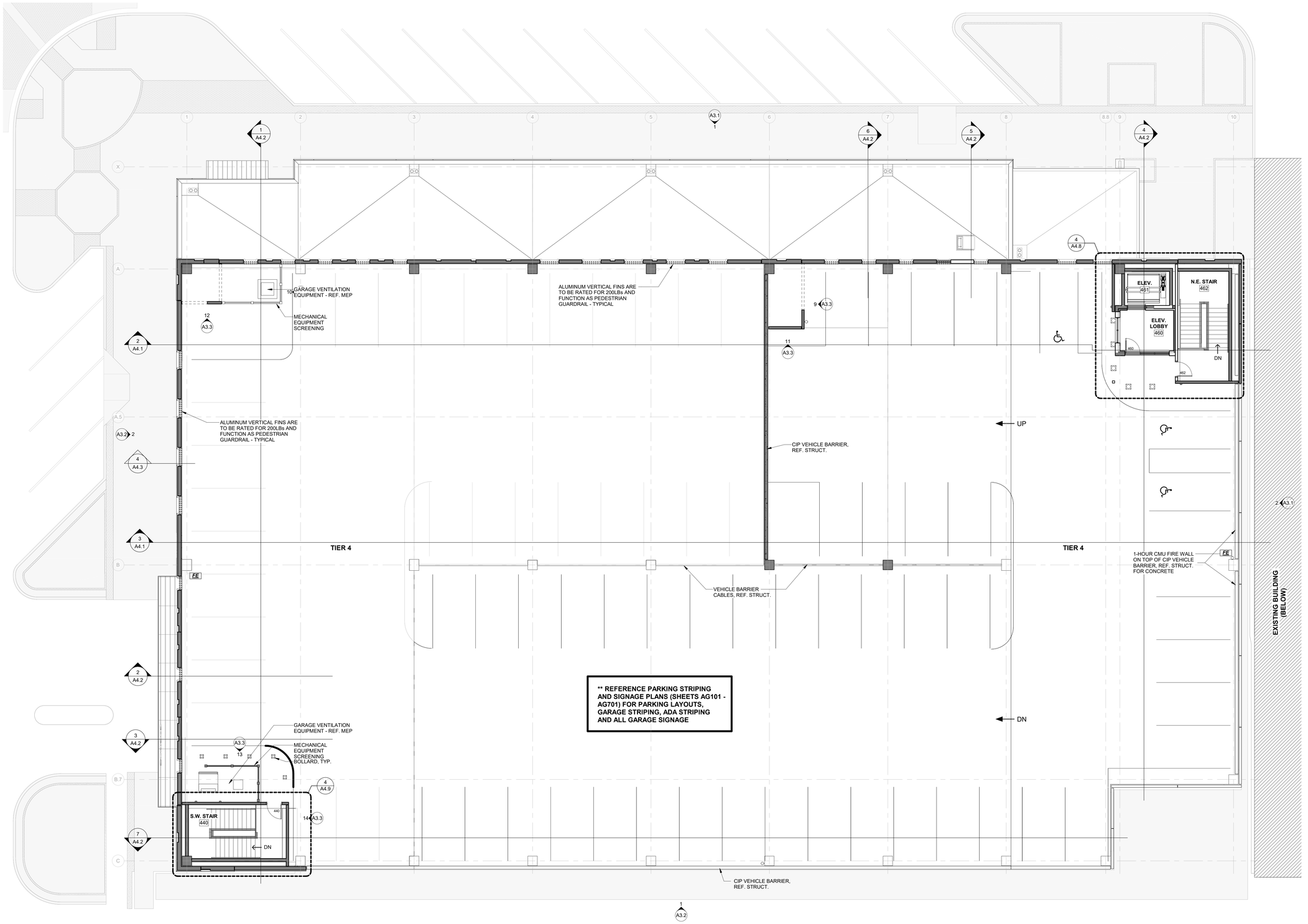
TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME
FLOOR PLAN - GARAGE TIER 3

SHEET NO.
A2.3

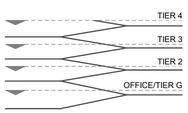
SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601



NORTH

FLOOR PLAN - GARAGE TIER 4 | 1
SCALE: 1/8" = 1'-0" | A2.4



02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

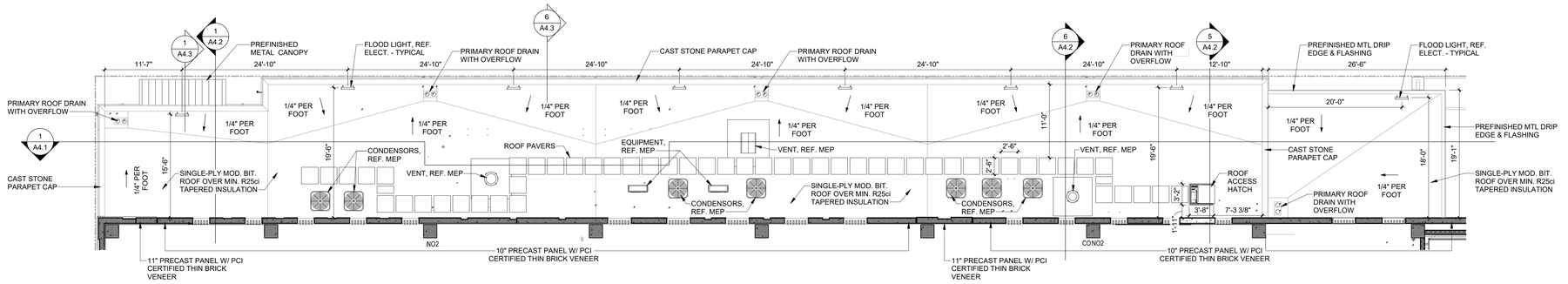
REVISION SCHEDULE		
Δ	Description	Date

SHEET NAME

FLOOR PLAN - GARAGE TIER 4

SHEET NO.

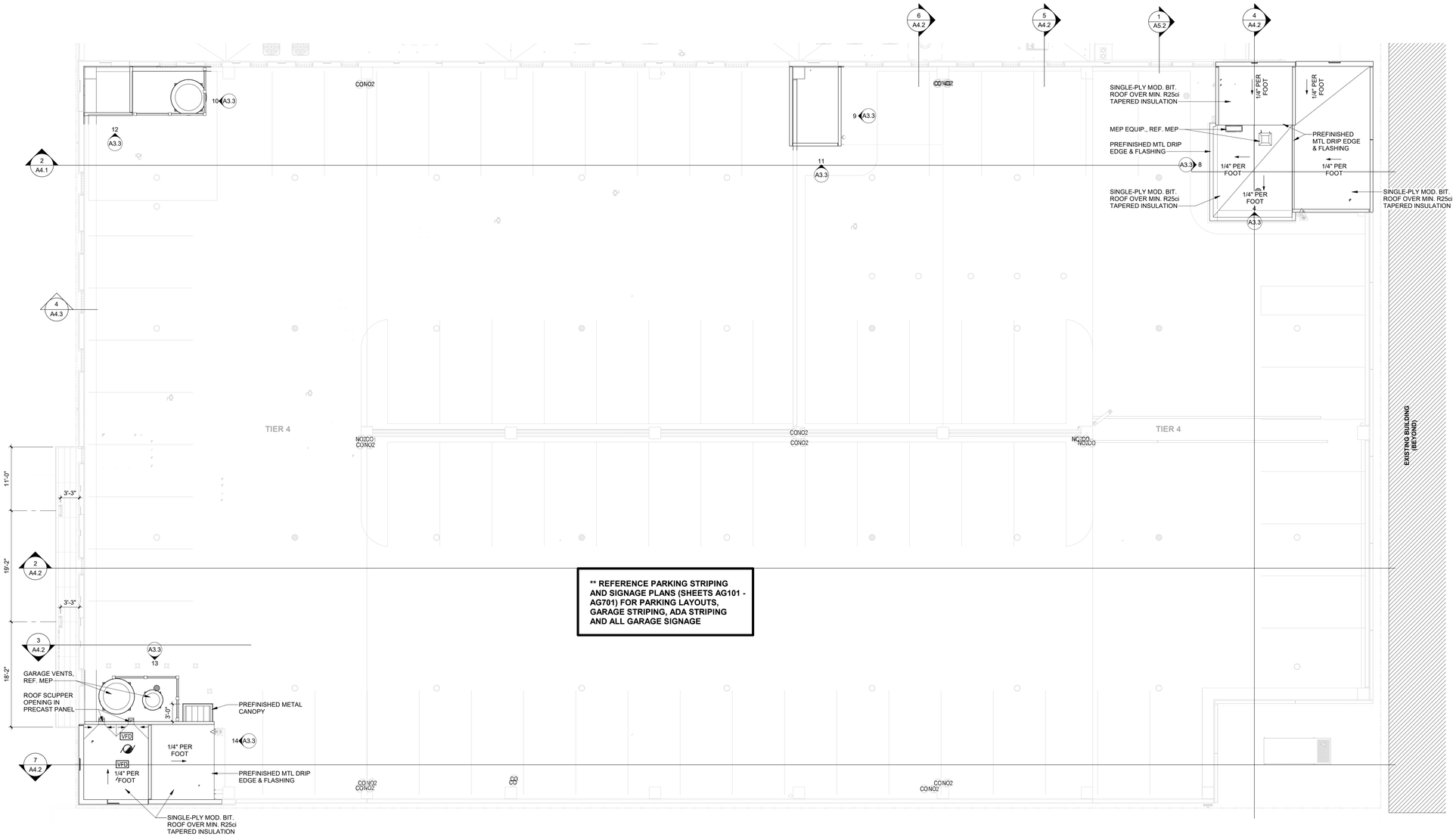
A2.4



NORTH

FLOOR PLAN - GARAGE LEVEL 2 | 2

SCALE: 1/8" = 1'-0" | A2.5



**** REFERENCE PARKING STRIPING AND SIGNAGE PLANS (SHEETS AG101 - AG701) FOR PARKING LAYOUTS, GARAGE STRIPING, ADA STRIPING AND ALL GARAGE SIGNAGE**

NORTH

GARAGE FOURTH LEVEL ROOF PLAN | 1

SCALE: 1/8" = 1'-0" | A2.5

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR

GREGG COUNTY - PARKING GARAGE & OFFICE

100 E. METHVIN ST.
LONGVIEW, TX 75601

REGISTERED ARCHITECT
BRADLEY S. HANSON
22855
STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

SHEET NAME

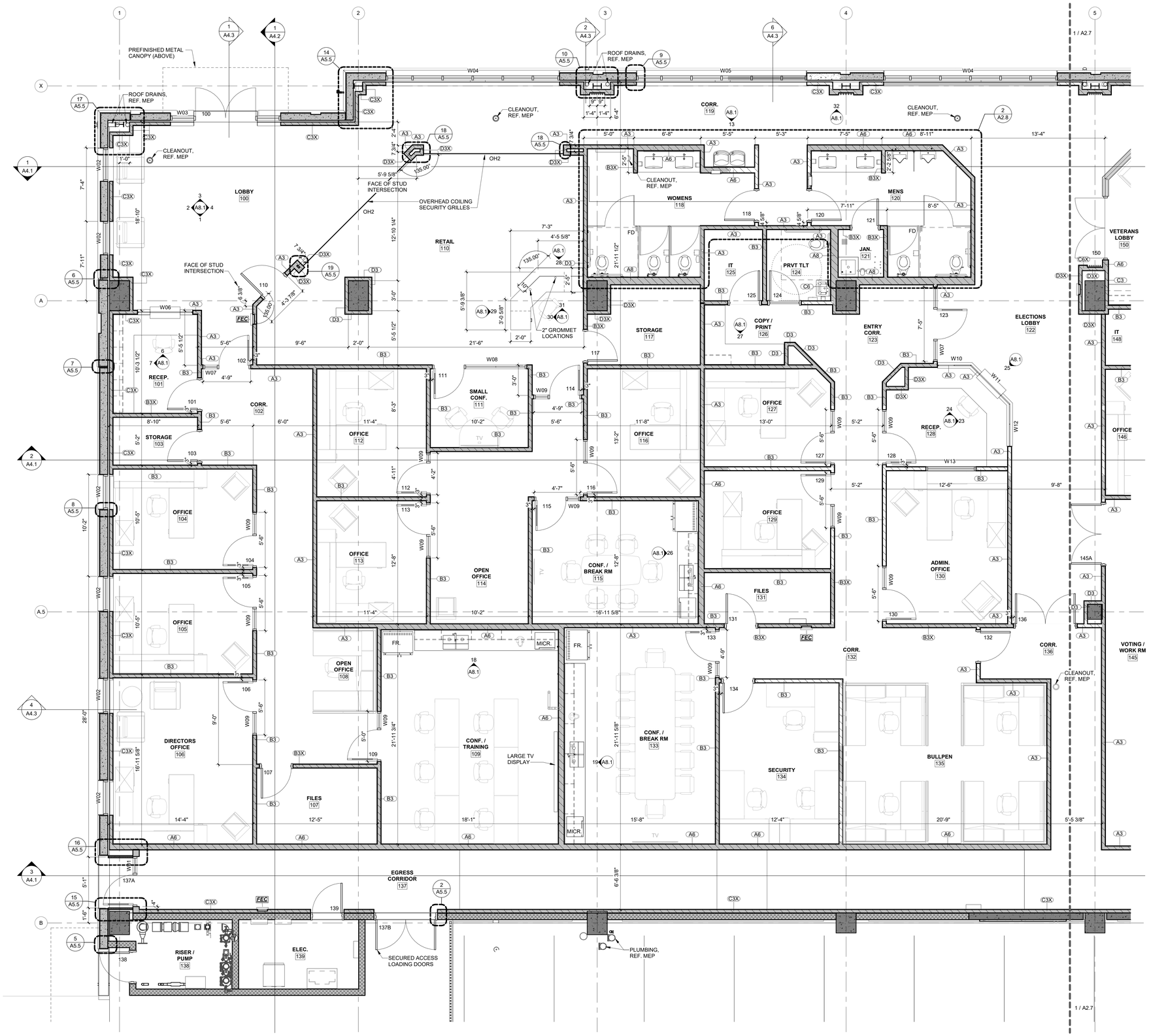
ROOF PLAN

SHEET NO.

A2.5

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601



NORTH

ENLARGED PLAN - NW- OFFICE LEVEL & GARAGE TIER G | 1
SCALE: 1/4" = 1'-0" | A2.6

REGISTERED ARCHITECT
STANLEY SCHWARZ
22855
STATE OF TEXAS

02-18-2022

PROJECT NO.: 20011

DATE: 02/18/2022

REVISION SCHEDULE

Δ	Description	Date

TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME

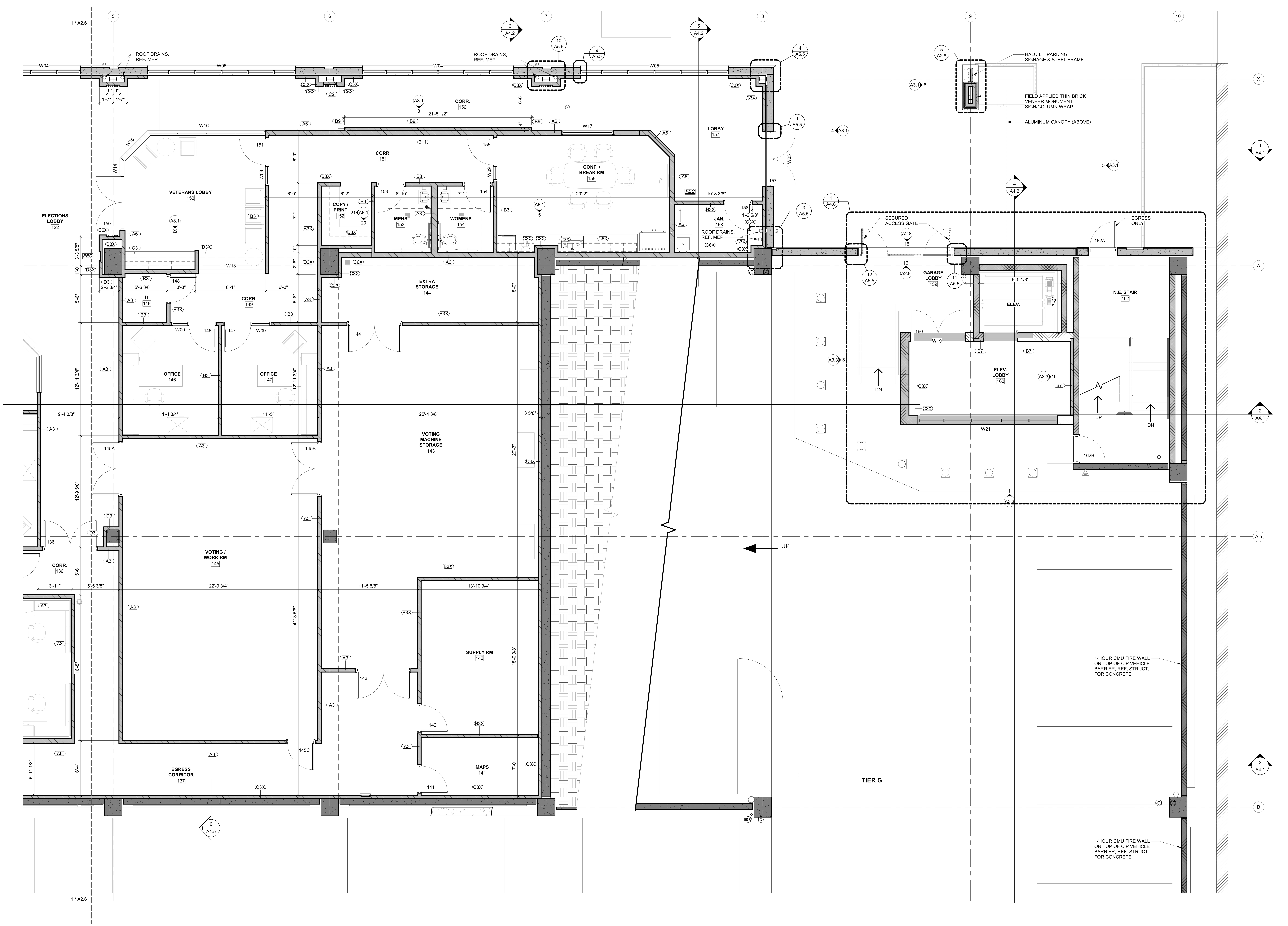
ENLARGED PLAN - NW - OFFICE LEVEL & GARAGE TIER G

SHEET NO.

A2.6

SCHWARZ
HANSON
ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601



ENLARGED PLAN - NE- OFFICE LEVEL & GARAGE TIER G | 1
SCALE: 1/4" = 1'-0" | A2.7

02-18-2022

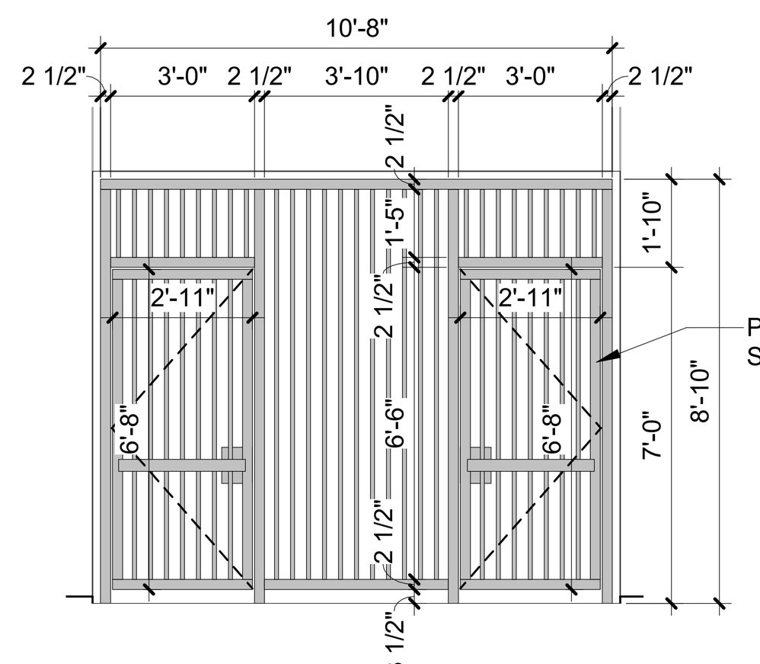
PROJECT NO.: 20011
DATE: 02/18/2022

REVISION SCHEDULE		
Δ	Description	Date

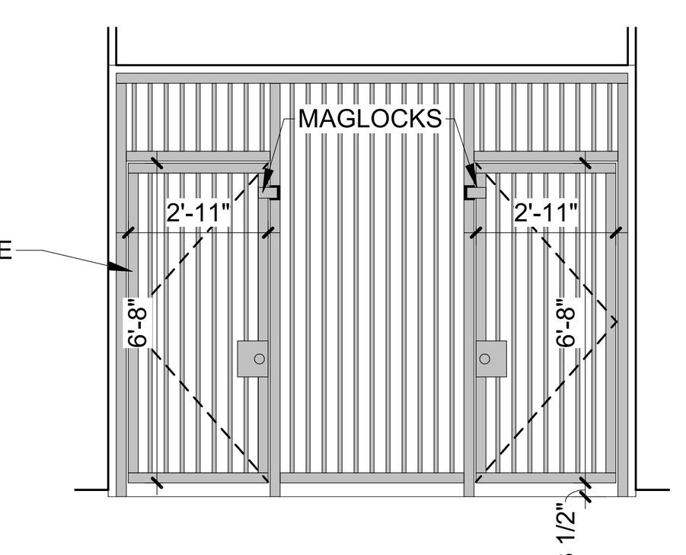
TIER 4
TIER 3
TIER 2
OFFICE/TIER G

SHEET NAME
ENLARGED PLAN - NE - OFFICE LEVEL & GARAGE TIER G

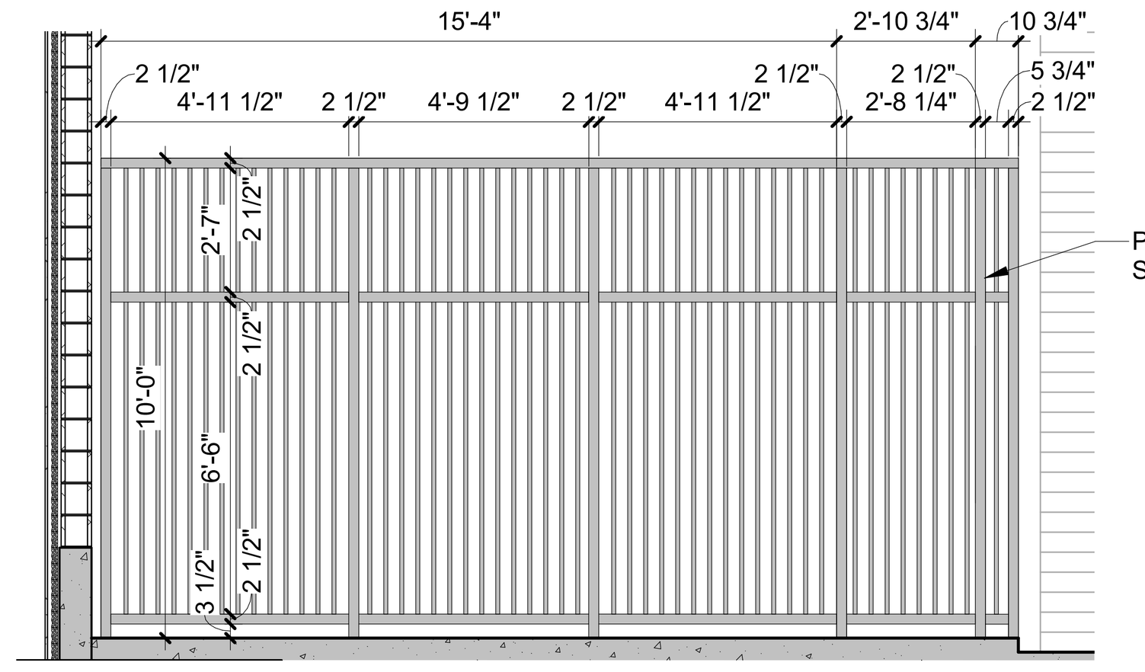
SHEET NO.
A2.7



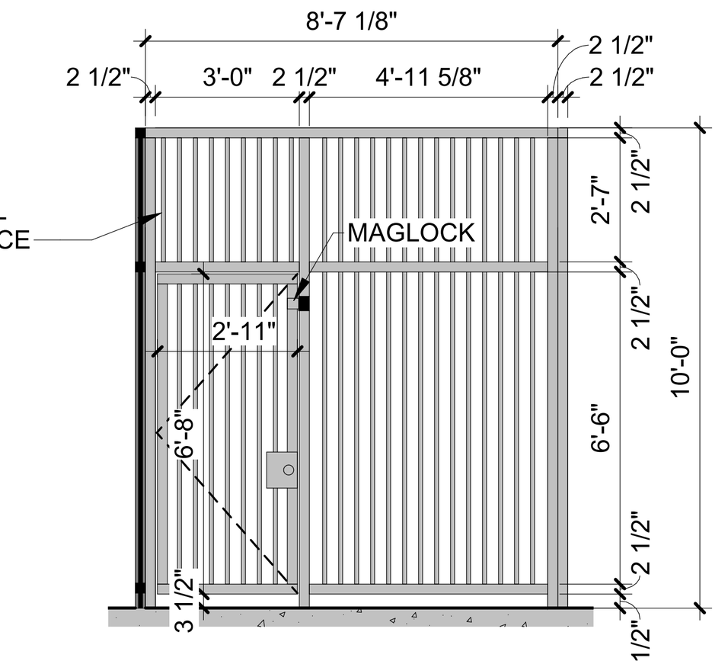
ELEVATION @ SECURITY GATE 16
SCALE: 1/4" = 1'-0" A2.8



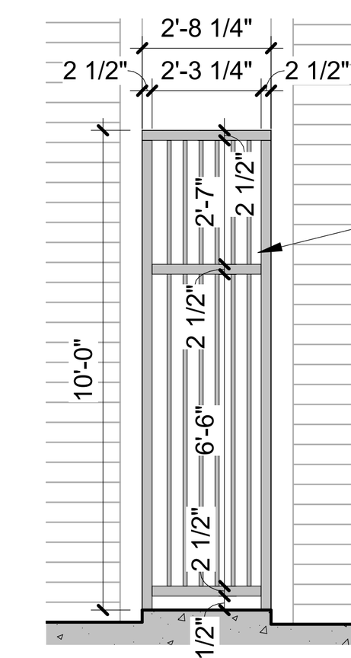
ELEVATION @ SECURITY GATE 15
SCALE: 1/4" = 1'-0" A2.8



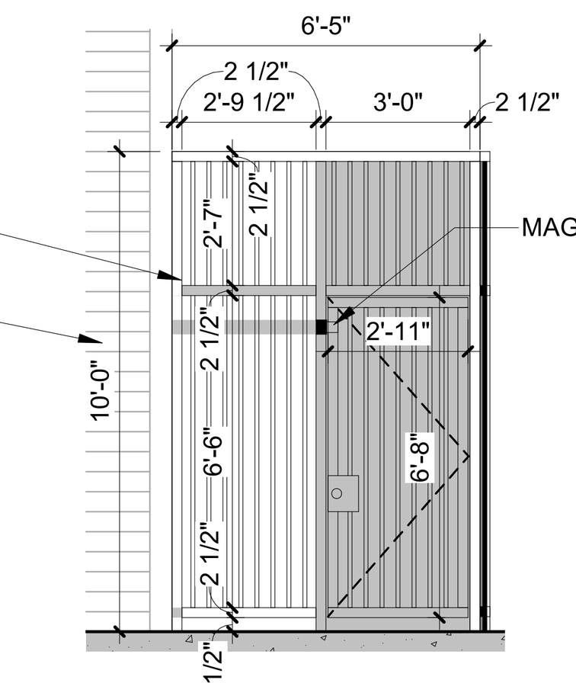
ELEVATION @ SECURITY GATE 14
SCALE: 1/4" = 1'-0" A2.8



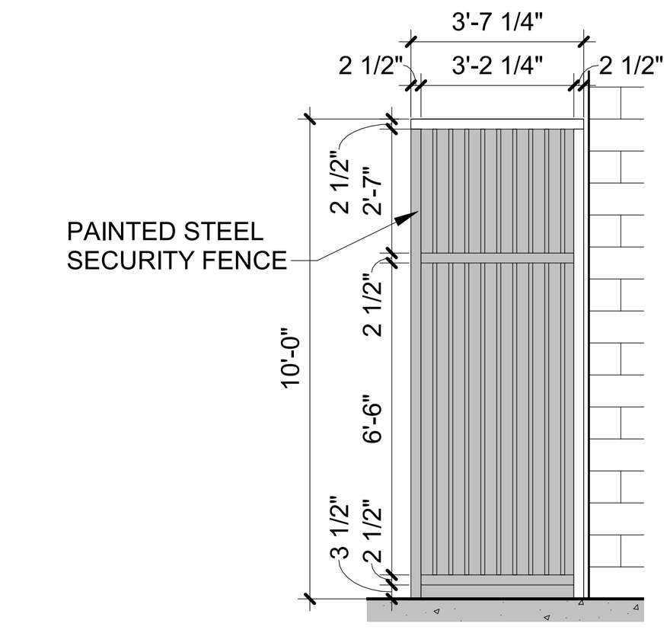
ELEVATION @ SECURITY GATE 13
SCALE: 1/4" = 1'-0" A2.8



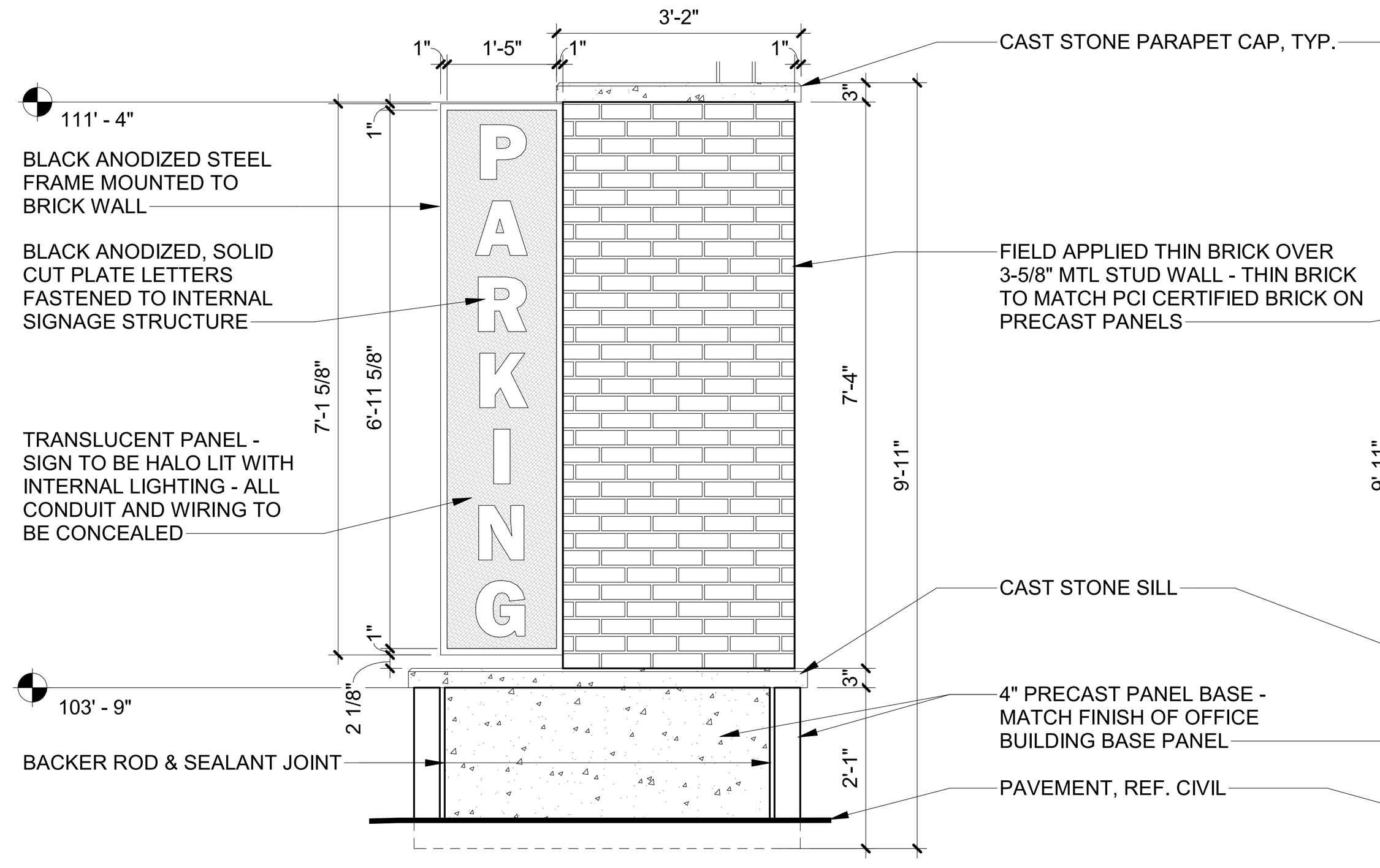
ELEVATION @ SECURITY GATE 12
SCALE: 1/4" = 1'-0" A2.8



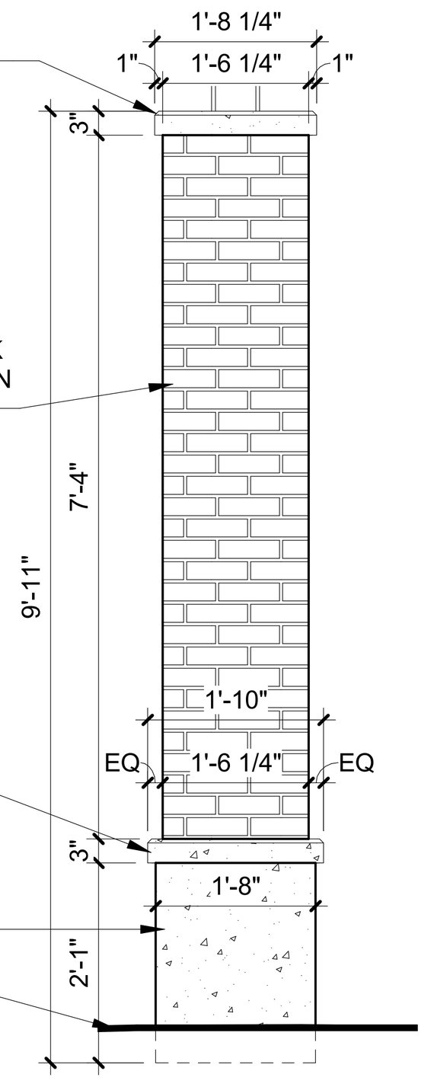
ELEVATION @ SECURITY GATE 11
SCALE: 1/4" = 1'-0" A2.8



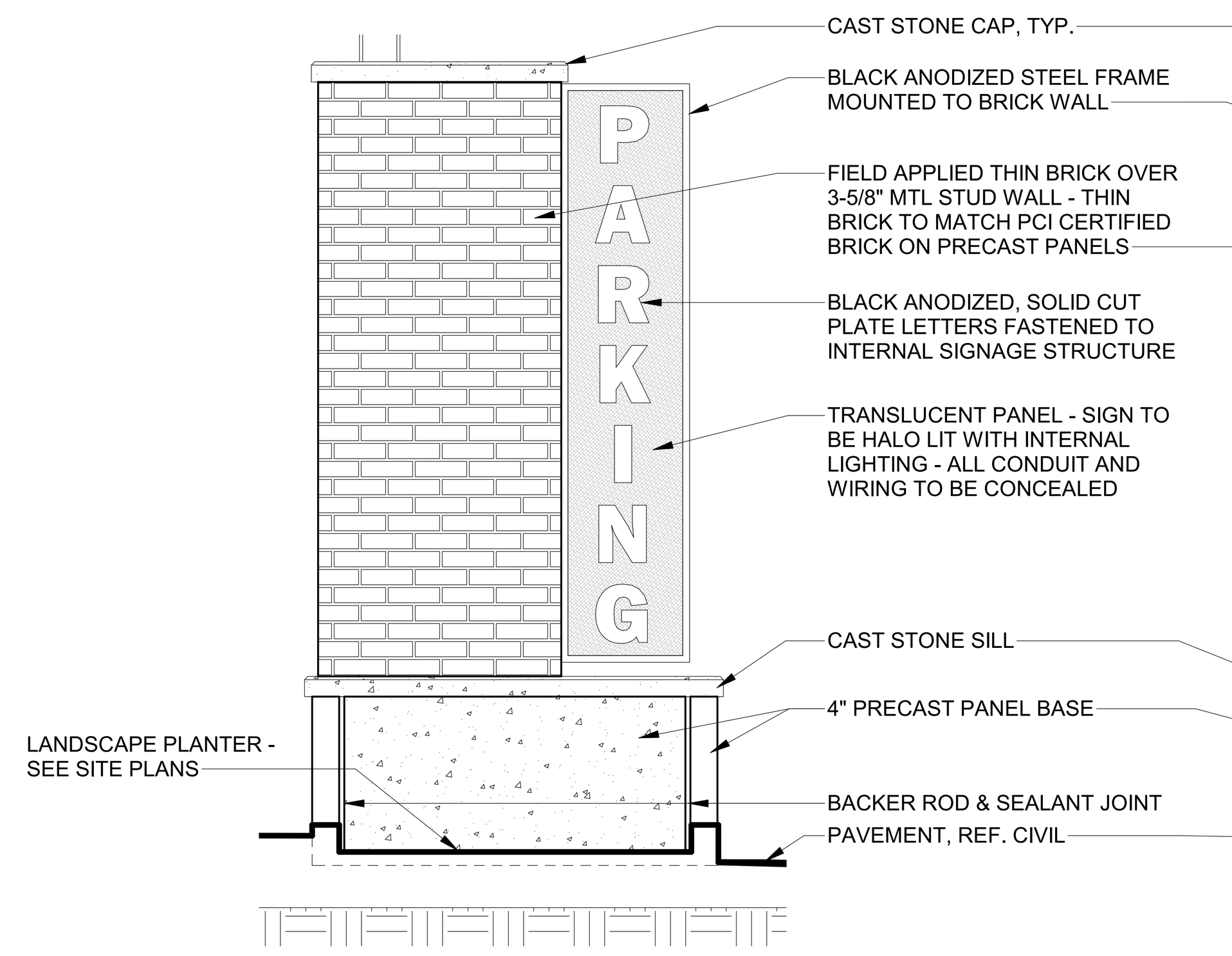
ELEVATION @ SECURITY GATE 10
SCALE: 1/4" = 1'-0" A2.8



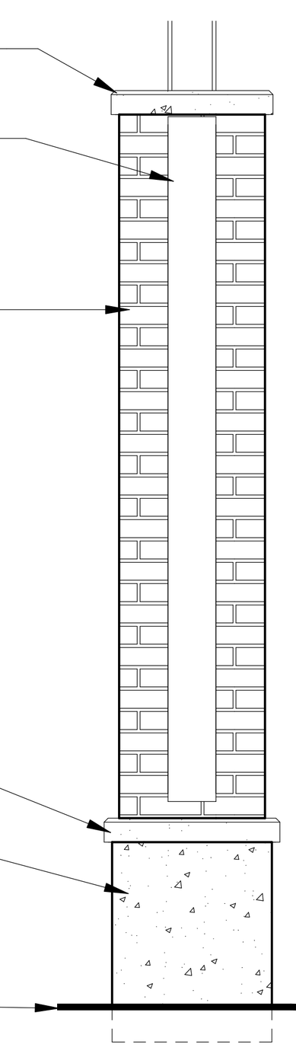
WEST ELEVATION 9
SCALE: 1/2" = 1'-0" A2.8



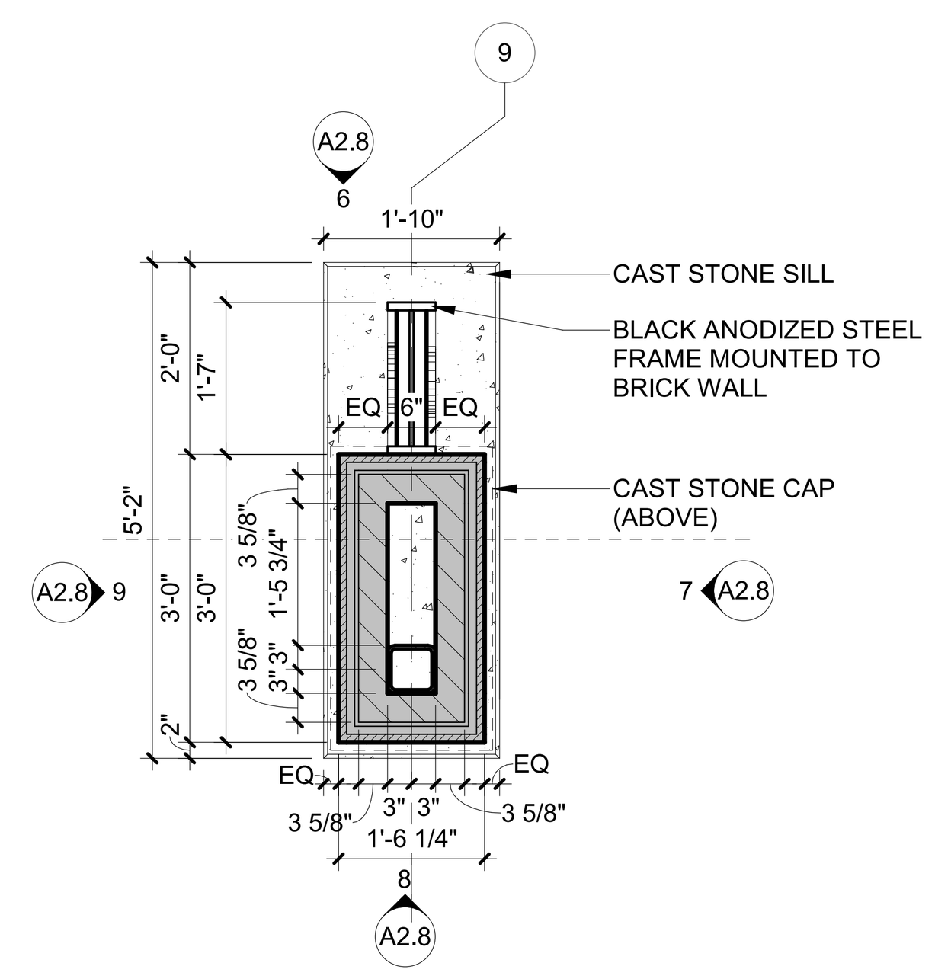
SOUTH ELEVATION 8
SCALE: 1/2" = 1'-0" A2.8



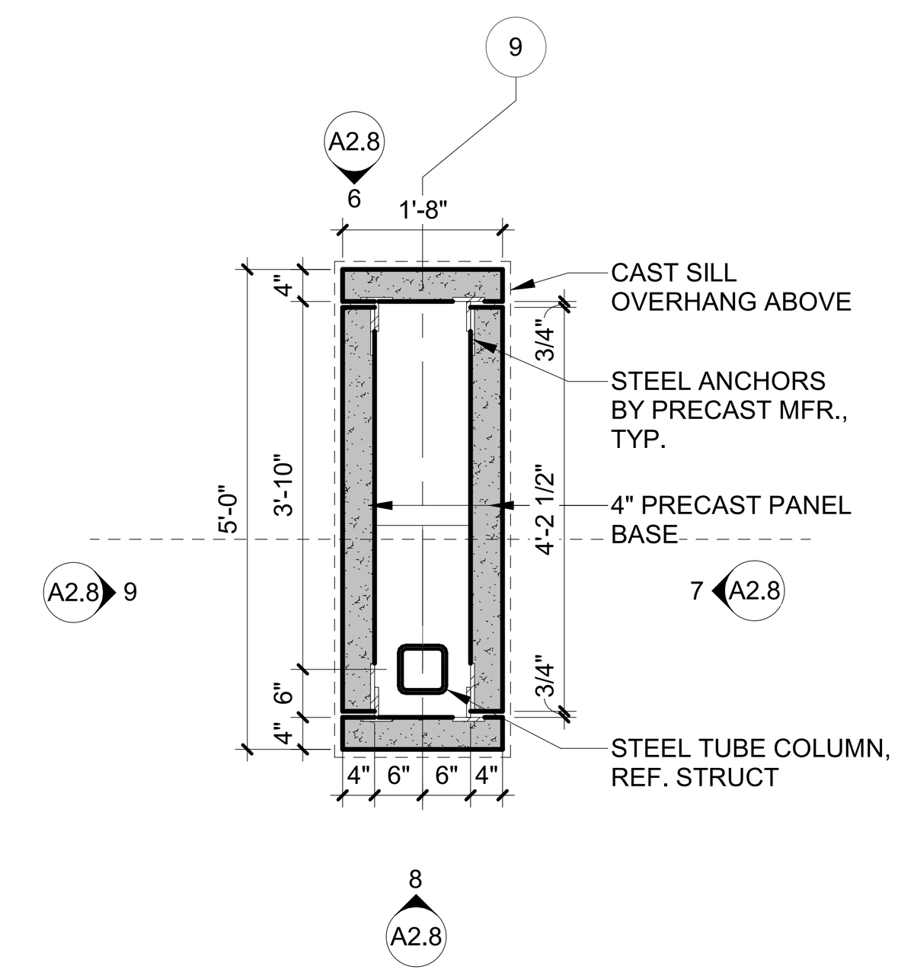
EAST ELEVATION 7
SCALE: 1/2" = 1'-0" A2.8



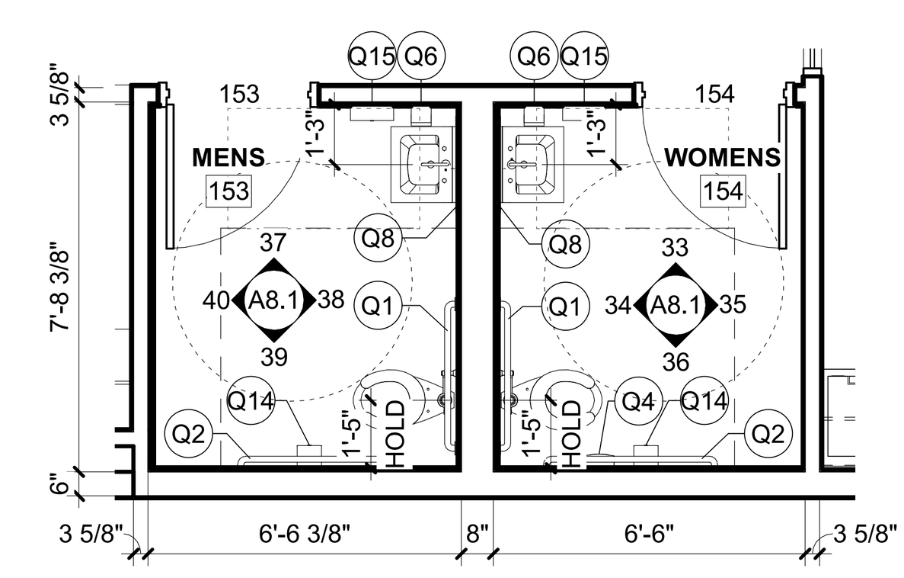
NORTH ELEVATION 6
SCALE: 1/2" = 1'-0" A2.8



ENLARGED PLAN - MONUMENT SIGN 5
SCALE: 1/2" = 1'-0" A2.8



ENLARGED PLAN - MONUMENT SIGN 4
SCALE: 1/2" = 1'-0" A2.8



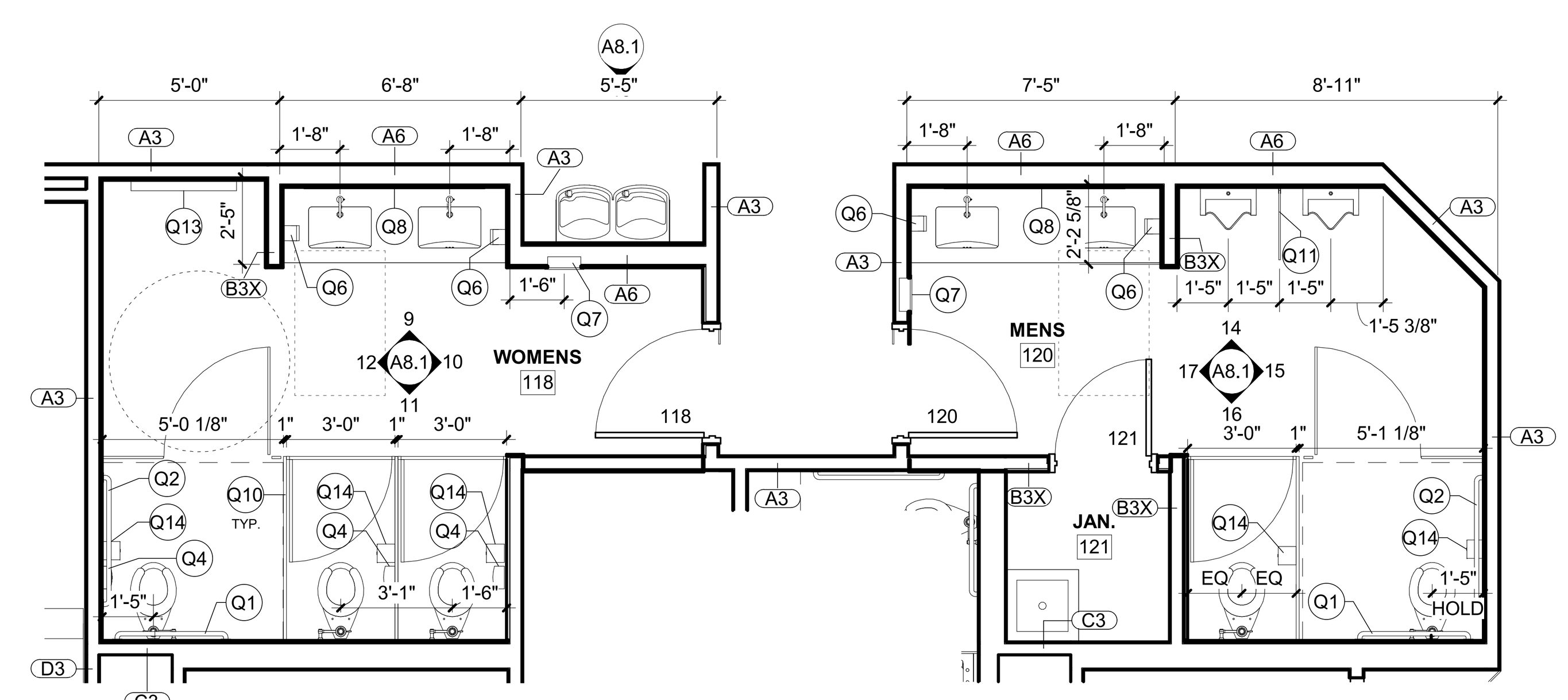
NORTH

ENLARGED PLAN - VETERANS RESTROOM 3
SCALE: 1/4" = 1'-0" A2.8

TAG	DESCRIPTION	MANUF.	MODEL #
Q1	36" W STRAIGHT 1-1/2" DIA ADA GRAB BAR	BOBRICK	B-6806 X 36
Q2	42" W STRAIGHT 1-1/2" DIA ADA GRAB BAR	BOBRICK	B-6806 X 42
Q3	DOUBLE-ROLL TOILET TISSUE DISPENSER	KC IN-SIGHT	09551
Q4	SURFACE-MOUNT SANITARY NAPKIN DISPOSAL	BOBRICK	B-254
Q5	RECESSED TOILET SEAT COVER DISPENSER	KC IN-SIGHT	09506
Q6	MANUAL WALL-MOUNTED SOAP DISPENSER	KC PROFESSIONAL	92145
Q7	RECESSED PAPER TOWEL DISPENSER/WASTE. BOBRICK B-38034	BOBRICK	B-38034
Q8	FRAMELESS CLEAR GLASS MIRROR	TO SUBMIT	SIZE AS DRAWN
Q9	WELDED FRAME MIRROR	BOBRICK	B-290 2472
Q10	HDPE FLOOR MOUNTED TOILET PARTITIONS - HINY HIDERS	SCRANTON PROD.	STANDARD HEIGHT, COLOR GREY
Q11	18" URINAL SCREEN - TO MATCH Q10	SCRANTON PROD.	
Q12	RECESSED SANITARY PRODUCT VENDOR (NO COIN OPERATION)	BOBRICK	B-37063C
Q13	WALL MOUNTED BABY CHANGING TABLE.	KOALAKARE	KB110-SSWM
Q14	SURFACE MOUNTED TOILET PAPER DISPENSER	BOBRICK	B-2888
Q15	WALL MOUNTED PAPER TOWEL DISPENSER	BOBRICK	B-262

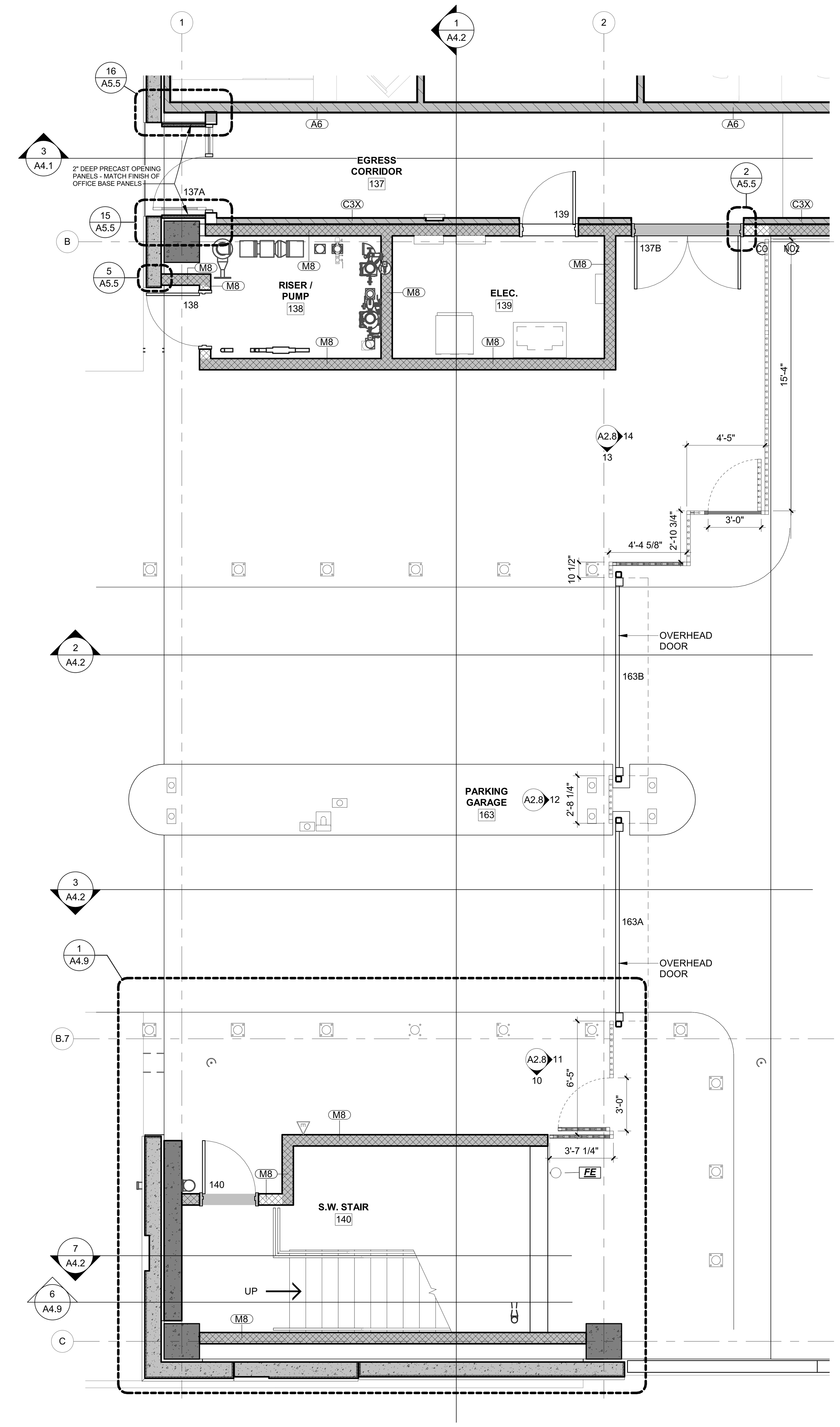
Q# ACCESSORY SCHEDULE

NOTES:
1. CONTRACTOR TO COORDINATE MISC. BLOCKING IN WALLS AS REQUIRED FOR TOILET ACCESSORIES.
2. ALL MOUNTING HEIGHTS AND CLEARANCES SHALL MEET TAS REQUIREMENTS.
3. SUBSTITUTIONS MUST BE SUBMITTED TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
4. SLOPE FLOOR TO DRAINS AT LOCATIONS AS SHOWN. TOTAL SLOPE OF FLOORS SHALL NOT EXCEED SLOPE OF 1:50 IN ANY DIRECTION.
5. ALL ACCESSIBLE 'CLEAR' AND 'HOLD' DIMENSIONS ARE FROM FINISHED FACE TO FINISHED FACE OF MATERIAL.



NORTH

ENLARGED PLAN - PUBLIC RESTROOMS 2
SCALE: 1/4" = 1'-0" A2.8

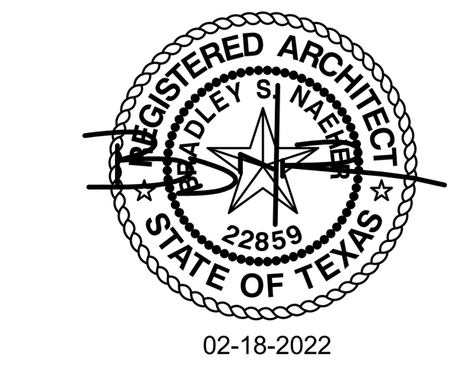


NORTH

ENLARGED PLAN - SW- OFFICE LEVEL & GARAGE TIER G 1
SCALE: 1/4" = 1'-0" A2.8

SCHWARZ HANSON ARCHITECTS
2570 RIVER PARK PLAZA, SUITE 100
FORT WORTH, TX 76116
817-377-3600
mail@schwarz-hanson.com

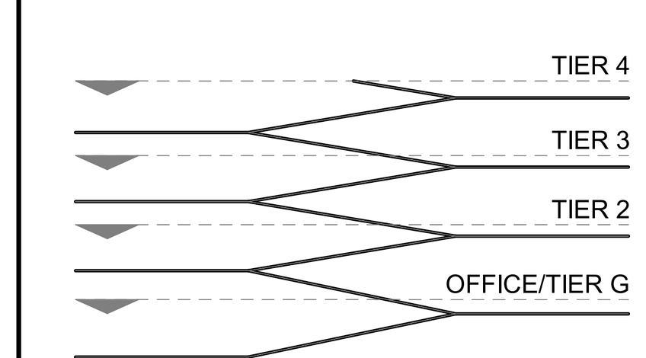
A NEW FACILITY FOR
GREGG COUNTY - PARKING GARAGE & OFFICE
100 E. METHVIN ST.
LONGVIEW, TX 75601



02-18-2022

PROJECT NO.: 20011
DATE: 02/18/2022

REVISION SCHEDULE		
Δ	Description	Date



SHEET NAME
ENLARGED PLAN - SW - OFFICE LEVEL & GARAGE TIER G & RESTROOMS

SHEET NO.
A2.8