

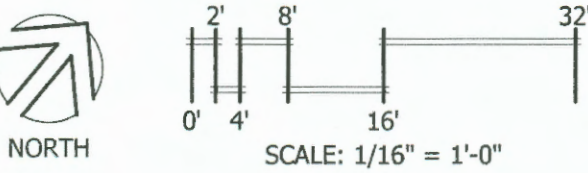
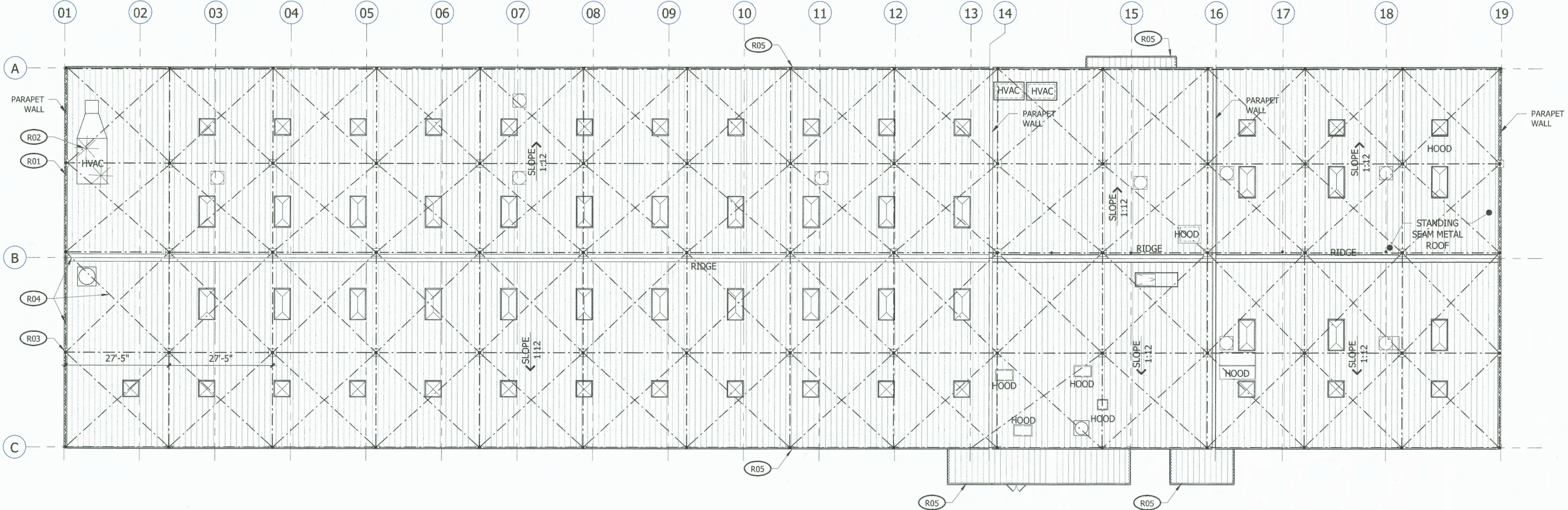


BIRD DETERRENT PLAN

1/16" = 1'-0"

BIRD DETERRENT LEGEND	
DESCRIPTION	SYMBOL AND TEXT
BIRD DETERRENT SYSTEM	
ROOF POST*, WIRES AND ROOF PAD	
PARAPET MOUNTED POST AND WIRES*	
SEAGULL DETERRENT UMBRELLA / SPIDER, DIAMETER	
PARAPET BIRD SPIKES	
* SEE GENERAL NOTE C POLE MOUNTING REQUIREMENTS	
WIRES	

BIRD DETERRENT NOTES	
SYMBOL	NOTE
	PROVIDE BIRD DETERRENT SYSTEM IN ACCORDANCE WITH SPECIFICATION SECTION 10 81 13, AS FOLLOWS:
(R01)	PROVIDE BIRD SPIKES ON PERIMETER PARAPET WALLS.
(R02)	PROVIDE UMBRELLAS AT ROOFTOP UNITS MECHANICAL UNITS AND EXISTING ENTRY CANOPY.
(R03)	PROVIDE POLES AND WIRES AT PERIMETER AND ACROSS FIELD OF ROOF. POLES AT PERIMETER SHALL BE MECHANICALLY ATTACHED TO PARAPET WALL, ROOFING EDGE WITH BRACKETS. INTERIOR POLES SHALL BE MOUNTED TO MECHANICALLY ATTACHED TO METAL ROOF SEAMS. PROVIDE HORIZONTAL WIRES APPROXIMATELY 18" O.C. VERTICALLY BETWEEN THE PARAPET PERIMETER POLES, TYPICAL. BOTTOM WIRE SHALL BE LOCATED 8" ABOVE PARAPETS AND EAVES.
(R04)	PROVIDE CROSS WIRES DIAGONALLY BETWEEN POLES.
(R05)	PROVIDE BIRD DETERRENT WIRE MOUNTED APPROXIMATELY 8" ABOVE OUTER EDGE OF GUTTERS



6604
A1.1
4 OF 7

W. SITCUM BLDG. 600
ROOF UPGRADE
BIRD DETERRENT PLAN

6021 12th street east
suite 201
tacoma, wa. 98424
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fax: 253.922.6499

Helix
design group

6834
REGISTERED
PROFESSIONAL
ENGINEER
TACOMA
STATE OF WASHINGTON

APPR: _____
BY: _____
DATE: _____

CHK 04.16.19
CHECKED BY DATE

APPROVED:
DIRECTOR ENG. DATE: _____
PRINTED BY: DRW

PORT ADDRESS: TACOMA, WASHINGTON

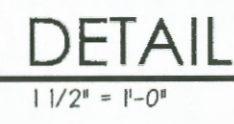
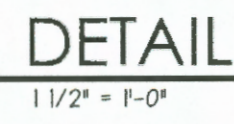
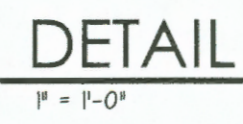
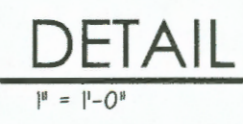
TOWNSHIP: 21
DAT-HRZ: WA83-SF
PARCEL:

SECTION: 35
RANGE: 03
VERT: MLLW 19.39' @ Tide 22 1933
DRAWING SCALE: 1/16" = 1'-0"

CONT/CONS: 071108
M. ID: 201062.03
PHASE: BID SET

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Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)355-5841



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GENERAL NOTES

CODES AND STANDARDS

1. ALL METHODS AND MATERIALS SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (IBC) 2015 EDITION AS AMENDED AND ADOPTED BY THE CITY OF TACOMA.
2. STRUCTURAL AND MISCELLANEOUS STEEL FABRICATIONS AND ERECTION THEREOF SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 360) 2010 EDITION, AND "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (AISC 303) 2010 EDITION.
3. WELDING OF STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1) 2015 EDITION.
4. TIMBER CONSTRUCTION SHALL CONFORM TO THE AMERICAN WOOD COUNCIL, NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2018 EDITION.

GENERAL

1. THESE NOTES CONTAIN GENERAL INFORMATION AND ARE NOT NECESSARILY COMPLETE FOR CONSTRUCTION PURPOSES. VERIFY INFORMATION SHOWN ON THE DRAWINGS WITH OTHER DOCUMENTS AND BRING ANY CONFLICTS TO THE ATTENTION OF THE ENGINEER BEFORE BEGINNING THE AFFECTED WORK. THE ENGINEER WILL RESOLVE ANY SUCH CONFLICTS.
2. VERIFY DIMENSIONS AND DETAILS PRIOR TO FABRICATION AND CONSTRUCTION.
3. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS TO EXISTING FEATURES, STRUCTURES, AND UTILITIES THAT ARE TO REMAIN, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. PERFORM WORK IN ACCORDANCE WITH PERMIT REQUIREMENTS.
5. COORDINATE UTILITY AND/OR HVAC INTERRUPTIONS WITH THE OWNER. PROVIDE THE OWNER AT LEAST TWO WEEKS ADVANCED NOTICE OF ANY POSSIBLE IMPACTS. THE OWNER WILL SHUT DOWN AFFECTED UTILITIES AND DE-ENERGIZE MECHANICAL UNITS AND TEST THEM ONCE THEY ARE RE-ENERGIZED.

DEMOLITION

1. CONTAIN THE DEMOLITION WITHIN THE LIMITS DESIGNATED TO PREVENT DAMAGE TO EXISTING STRUCTURES, UTILITIES, OR FACILITIES.
2. PRIOR TO DEMOLITION, SAWCUT WHERE NOTED TO PROVIDE A SMOOTH CLEAN BREAK BETWEEN ITEMS THAT ARE TO BE DEMOLISHED AND ITEMS THAT ARE TO REMAIN.
3. DEMOLITION MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE COMPLETELY REMOVED AND DISPOSED OF.
4. THE REMOVAL, HANDLING, HAULING, AND DISPOSAL OF ALL DEMOLITION MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
5. THE CONTRACTOR SHALL FAMILIARIZE ITSELF WITH THE MATERIALS TO BE DISPOSED OF AND ALL GOVERNING AGENCIES AND PERMIT REQUIREMENTS.

DESIGN CRITERIA

- | | | |
|----|---|-----------|
| 1. | DEAD LOADS: ACTUAL WEIGHT OF CONSTRUCTION AND MATERIALS OF PERMANENT EQUIPMENT. | |
| 2. | LIVE LOADS: | |
| | ROOF SNOW LOAD | 25 PSF |
| | WIND | |
| | BASIC WIND SPEED (ULTIMATE) | 110 MPH |
| | RISK CATEGORY | II |
| | EXPOSURE | D |
| 3. | FALL ARREST ANCHORS | 3,000-LBS |

DIMENSIONAL LUMBER

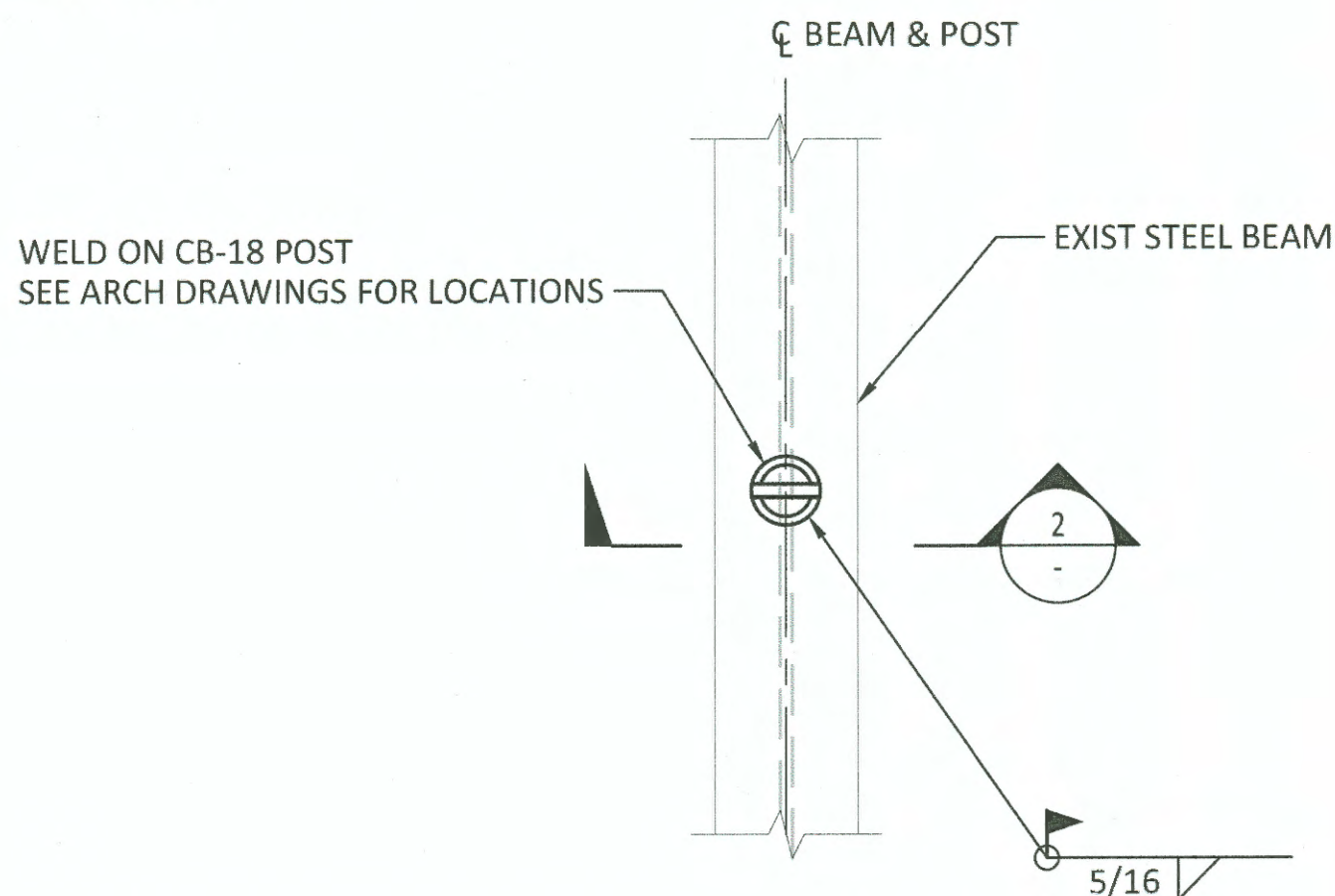
1. BOLTS HOLES THROUGH TIMBER MEMBERS SHALL BE OVERSIZED 1/8-INCH
2. NOTCHING AND BORING OF WOOD MEMBERS IS NOT ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.

STRUCTURAL STEEL

1. STEEL PLATES AND BARS: ASTM A36 (FY=36 KSI).
2. STEEL PIPE: ASTM A 53, GRADE B, TYPE E OR S (FY=42 KSI).
3. FASTENERS
 - A. ASTM F 3125, GRADE A325, UNO
 - B. NUTS: ASTM A 563 (GRADE DH), HEAVY HEX
 - C. WASHERS: ASTM F 436
4. HOT DIP GALVANIZE MISCELLANEOUS STEEL AND FASTENERS. GALVANIZE ITEMS AFTER FABRICATION AS FAR AS PRACTICAL. RESTORE GALVANIZING DAMAGED BY WELDING OR HANDLING WITH A FIELD-APPLIED GALVANIZING COMPOUND IN ACCORDANCE WITH ASTM A 780, ANNEX A1, 12 MILS MINIMUM THICKNESS.
5. AFTER GALVANIZATION, MISCELLANEOUS STEEL SHALL BE PAINTED IN ACCORDANCE WITH THE MASTER PAINTERS INSTITUTE.
 - A. EXTERIOR - MPI EXT 5.3D
 1. FIRST COAT: VINYL WASH PRIMER, MPI PRODUCT #80
 2. SECOND COAT: EPOXY, MPI PRODUCT #101
 3. THIRD COAT: POLYURETHANE, MPI PRODUCT #72, FAST DRYING, WITH MINIMUM PENCIL HARDNESS OF 4H PER ASTM D 3363.
 4. MPI GLOSS LEVEL 5.
 - B. COORDINATE PAINT COLOR WITH PORT.
6. WELDERS SHALL BE CURRENTLY CERTIFIED BY THE WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO) FOR STRUCTURAL WELDING.
7. QUALIFY WELDING PROCEDURES, OPERATIONS, WELDERS, TACKERS IN ACCORDANCE WITH AWS D1.1.
8. ALL PRODUCTS SHALL BE NEW, FREE FROM OXIDATION, CORROSION, AND DEFECTS, AND SHALL BE OF THE SPECIFIED QUALITY.
9. PROTECT ALL MATERIALS AND FABRICATIONS BEFORE, DURING, AND AFTER INSTALLATION FROM DAMAGE. PROTECT THE INSTALLED WORK OF OTHER TRADE FROM DAMAGE.
10. SHOP-WELD CONNECTION UNLESS OTHERWISE DIRECTED ON THE DRAWINGS. ALL JOINTS SHALL BE TIGHTLY FITTING, SECURELY FASTENED, SQUARE, PLUMB, STRAIGHT, AND TRUE.
11. DRILL OR PUNCH HOLES REQUIRED FOR ATTACHED AND BOLTED CONNECTIONS INCLUDING THOSE OF OTHER TRADES. BURNED HOLES ARE NOT ACCEPTABLE.
12. WELDING OF METAL FABRICATIONS SHALL CONFORM TO AWS D1.1.
13. SPECIAL INSPECTIONS - WELDS
 - A. SPECIAL INSPECTION OF WELDS SHALL BE PERFORMED IN ACCORDANCE WITH AISC 360-10, TABLES N5.4-1, N5.4-2 AND N5.4-3
14. SPECIAL INSPECTION - BOLTED CONNECTIONS
 - A. PERFORM SPECIAL INSPECTION OF HIGH STRENGTH BOLTED CONNECTIONS IN ACCORDANCE WITH AISC 360-10, TABLE 5.6-3. ALL BOLTED CONNECTIONS SHALL BE SNUG-TIGHT.

ABBREVIATIONS

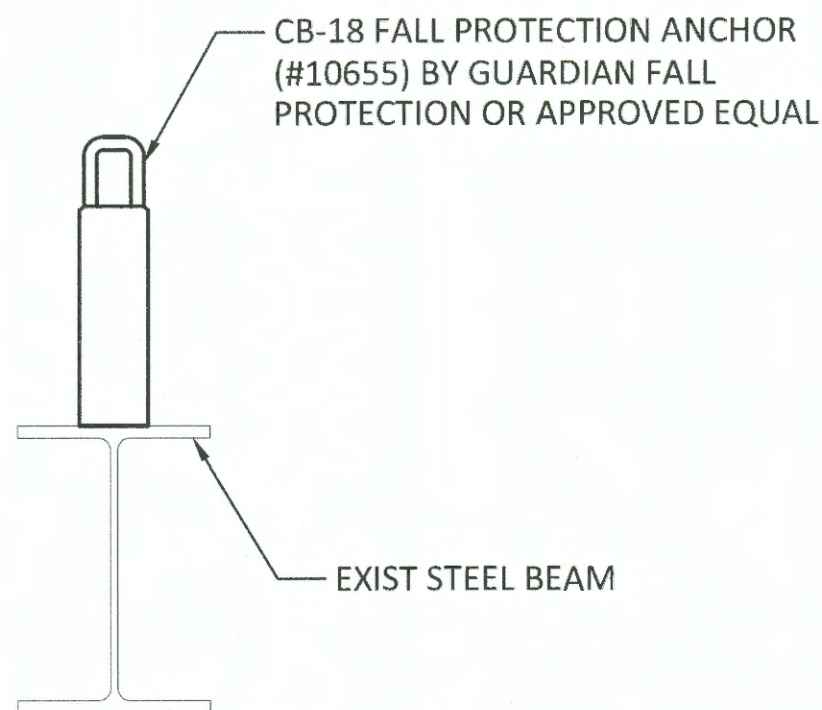
APPROX	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	MPH	MILES PER HOUR
ARCH	APPROXIMATE	NO	NUMBER
ASTM	ARCHITECT	NOM	NOMINAL
AWS	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NTS	NOT TO SCALE
	AMERICAN WELDING SOCIETY		
BOT	BOTTOM	OC	ON CENTER
CJP	COMPLETE JOINT PENETRATION	OD	OUTSIDE DIAMETER
CL	CENTER LINE	OPP	OPPOSITE
CLR	CLEAR	PEN	PENETRATION
CONN	CONNECTION	PL	PLATE
CONT	CONTINUOUS	PS	PERFORMANCE STANDARD
CONT'D	CONTINUED	PSF	POUNDS PER SQUARE FOOT
DBL	DOUBLE	R	RADIUS
DEMO	DEMOLITION, DEMOLISH	REQ'D	REQUIRED
DIA	DIAMETER		
Ø	DIAMETER	S4S	SURFACED ON (4) SIDES
DWG	DRAWING	SCH	SCHEDULE
		SECT	SECTION
EA	EACH	SIM	SIMILAR
EL, ELEV	ELEVATION	SP,SPA	SPACE(S)
EQ	EQUAL	SQ	SQUARE
EXIST,EX	EXISTING	STD	STANDARD
FB	FLAT BAR	T&B	TOP & BOTTOM
FT	FEET	THD	THREADED
		TYP	TYPICAL
GALV	GALVANIZED		
GR	GRADE	UNO	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL	W/	WITH
		W/O	WITH OUT
IBC	INTERNATIONAL BUILDING CODE	WT	WEIGHT
ICC	INTERNATIONAL CODE COUNCIL		
ID	INSIDE DIAMETER	X-BRACING	CROSS BRACING
IN	INCH		
INFO	INFORMATION		
KSI	KIPS PER SQUARE INCH		
L	ANGLE (E.G. L2x2x1/4)		
LB(S)	POUND(S)		
LF	LINEAL FEET		



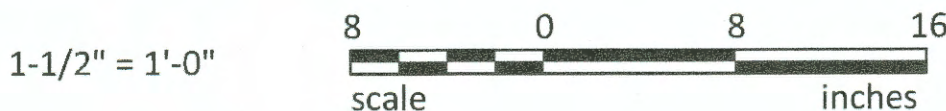
1
A1.0

PLAN - FALL PROTECTION ANCHOR

SCALE: 1 1/2" = 1'-0"

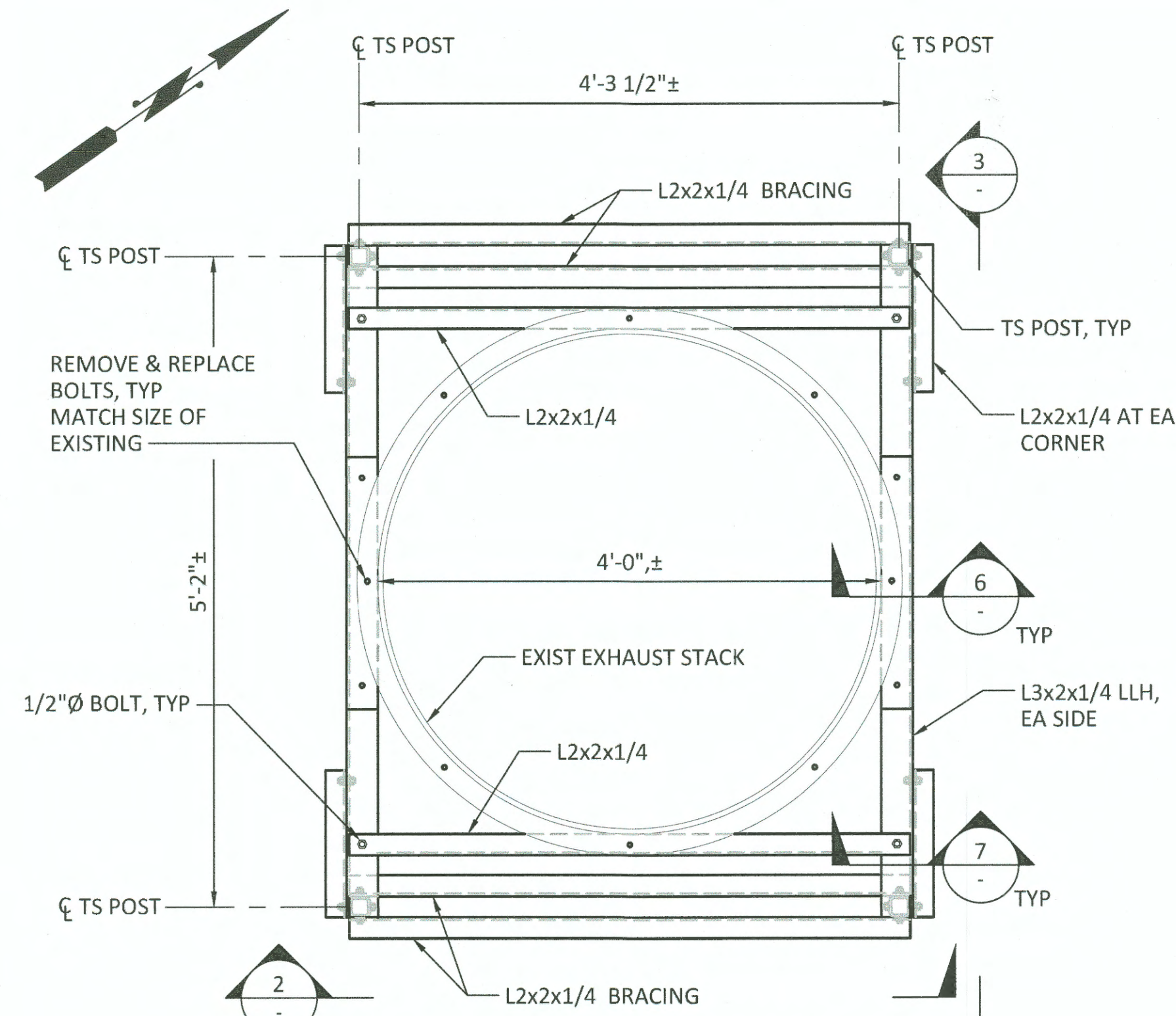


2
- SECTION - FALL PROTECTION ANCHOR
SCALE: 1 1/2" = 1'-0"



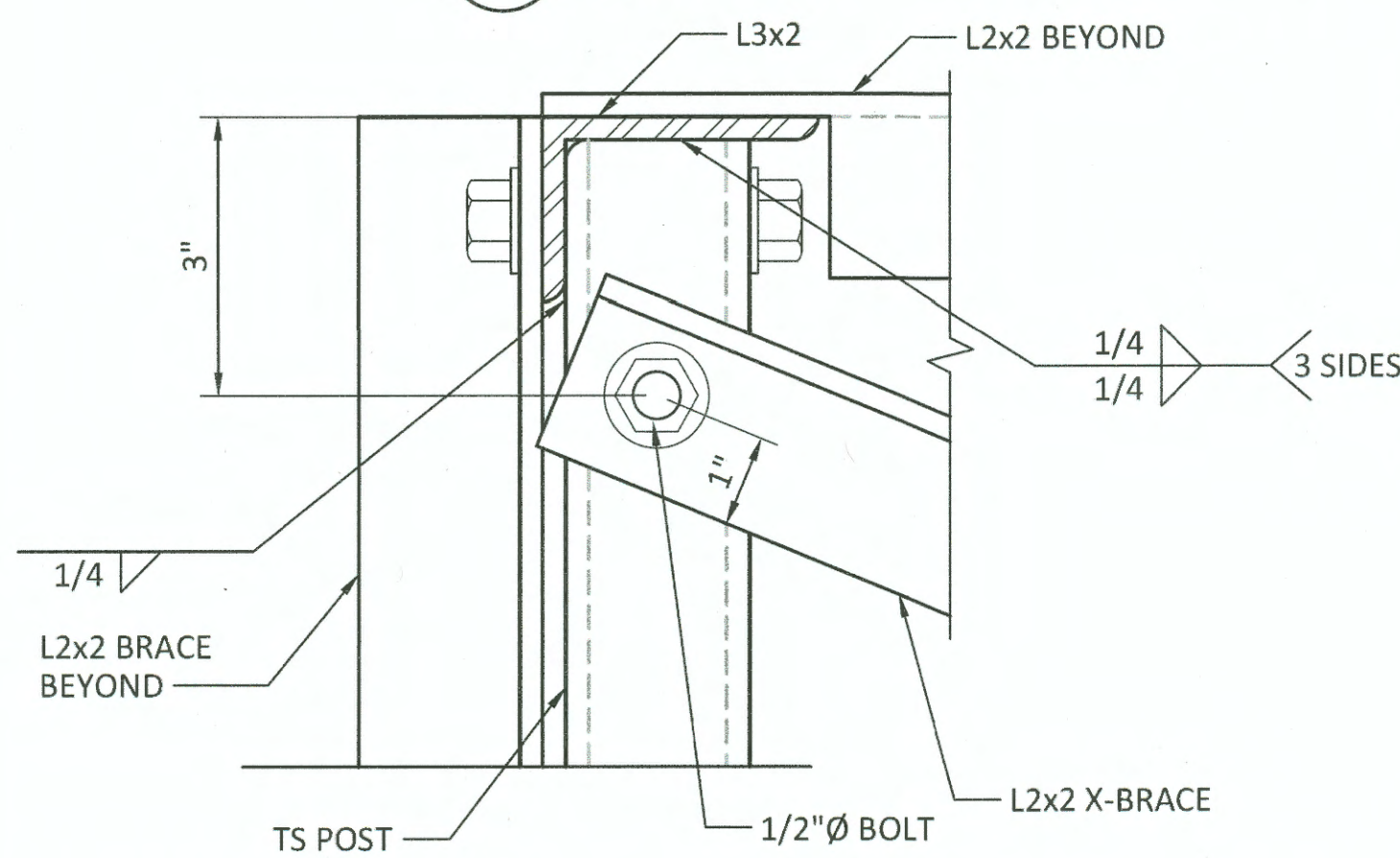
BID SET

6604 S1.0 6 OF 7		PORT OF TACOMA W. SITCUM BLDG 600 ROOF UPGRADE GENERAL NOTES AND FALL PROTECTION DETAILS				APPROVED: _____ _____ DIRECTOR ENG. DATE		JRG 4/16/19 CHECKED BY DATE MAD 4/16/19 PROJ. ENGR DATE						33301 9th Avenue South, Suite 300 Federal Way, Washington 98003-2600 (206) 431-2300 Fax: (206) 431-2250		Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (253)385-5641	
CONT/CONS: 07/1108 M. ID: 201062.03 PHASE: BID SET		TOWNSHIP: 21 DAT-HRZ: WA83-SF PARCEL:		RANGE: 03 SECTION: 35 VERT: MLW 19.39' at TIDE 22 1933		PRINTED BY: mike dodson PORT ADDRESS: 401 EAST ALEXANDER AVENUE TACOMA, WA 98421		MARK: _____ REVISION: _____ BY: _____ APPR: _____ DATE: _____		_____ _____ _____ _____		_____ _____ _____ _____		_____ _____ _____ _____			



1 PLAN - EXHAUST STACK

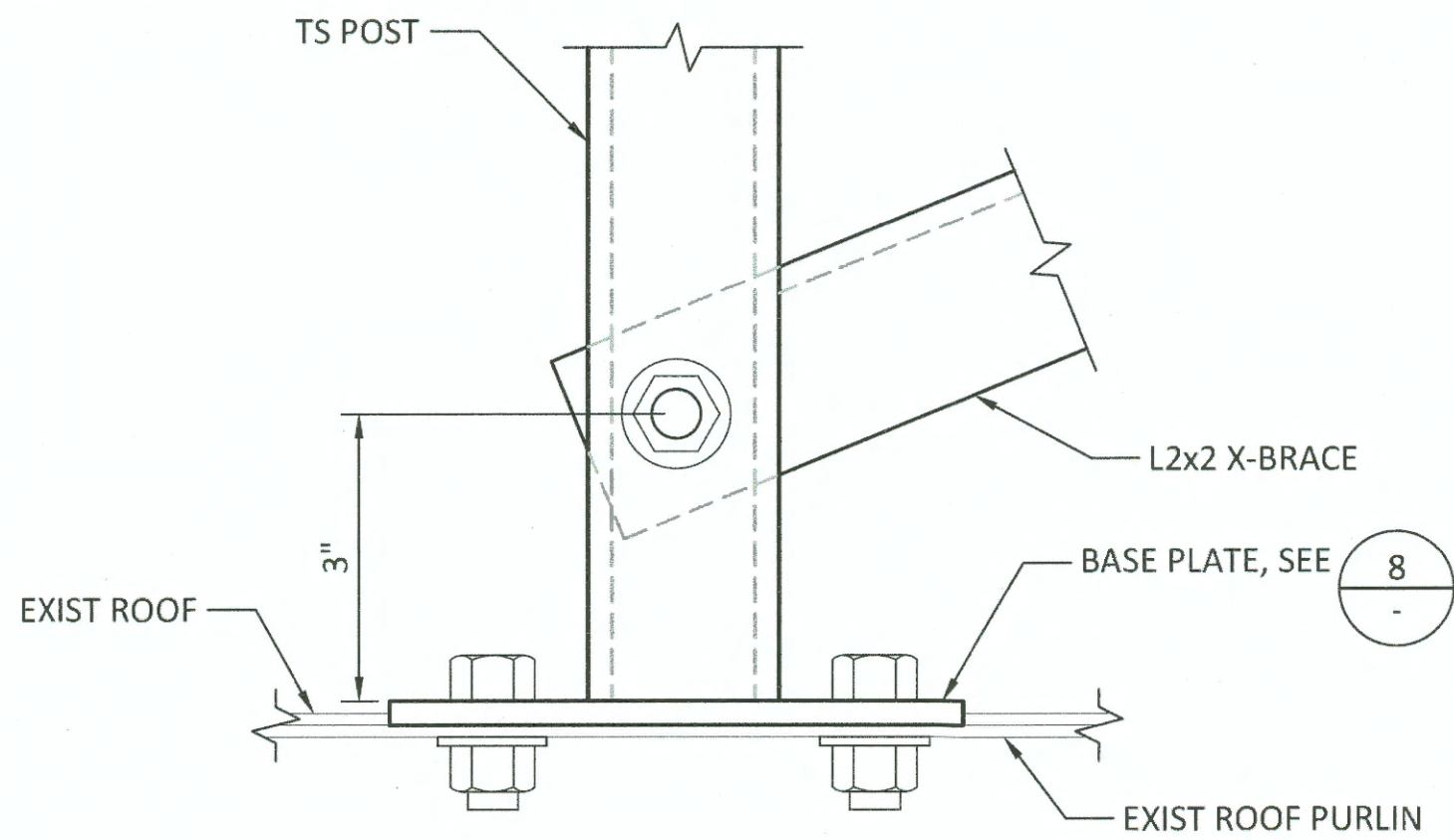
SCALE: 1" = 1'-0"



4 DETAIL - POST TO ANGLE CONNECTION

SCALE: 6" = 1'-0"

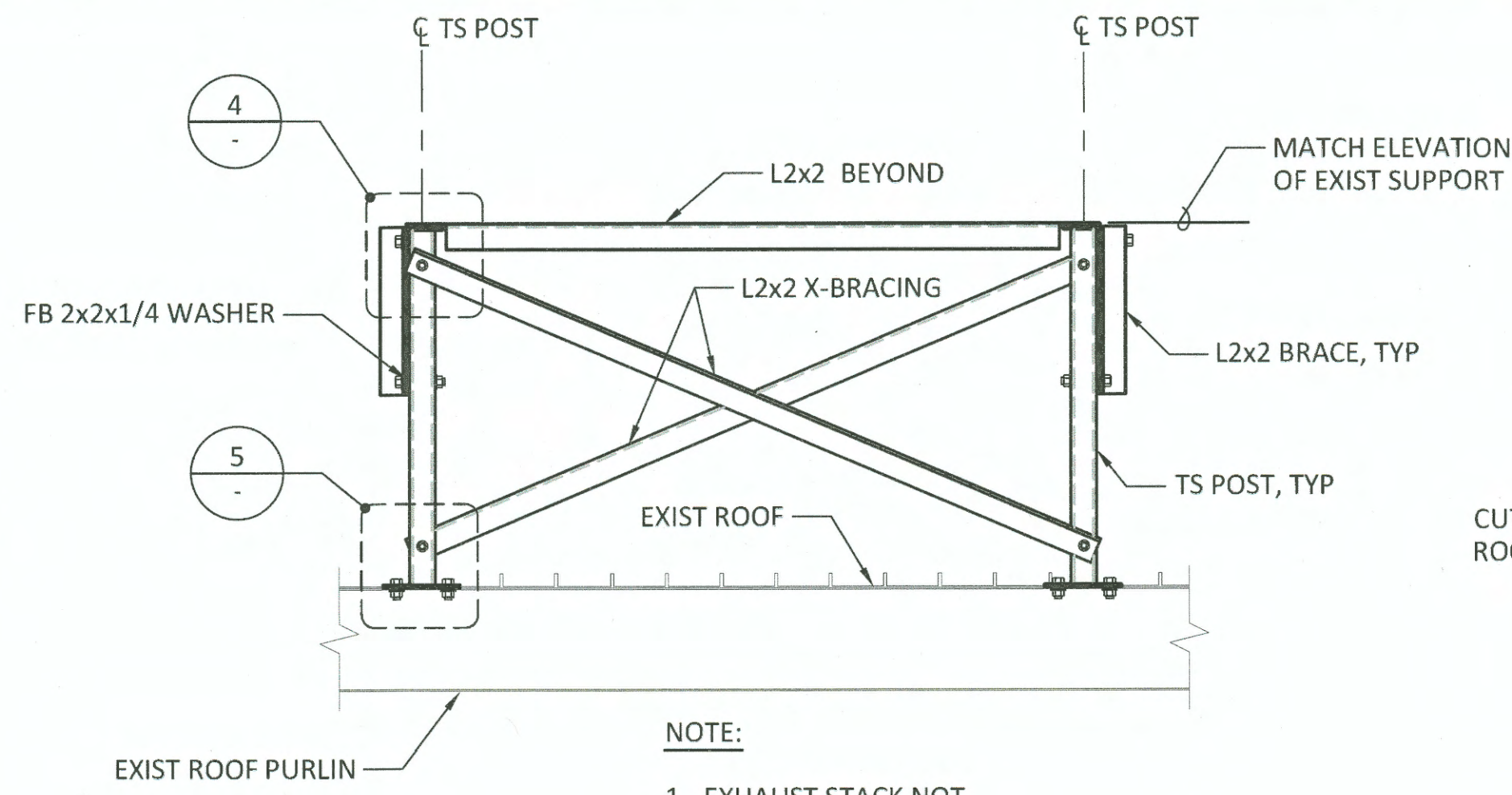
(TOP)



5 DETAIL - POST TO ANGLE CONNECTION

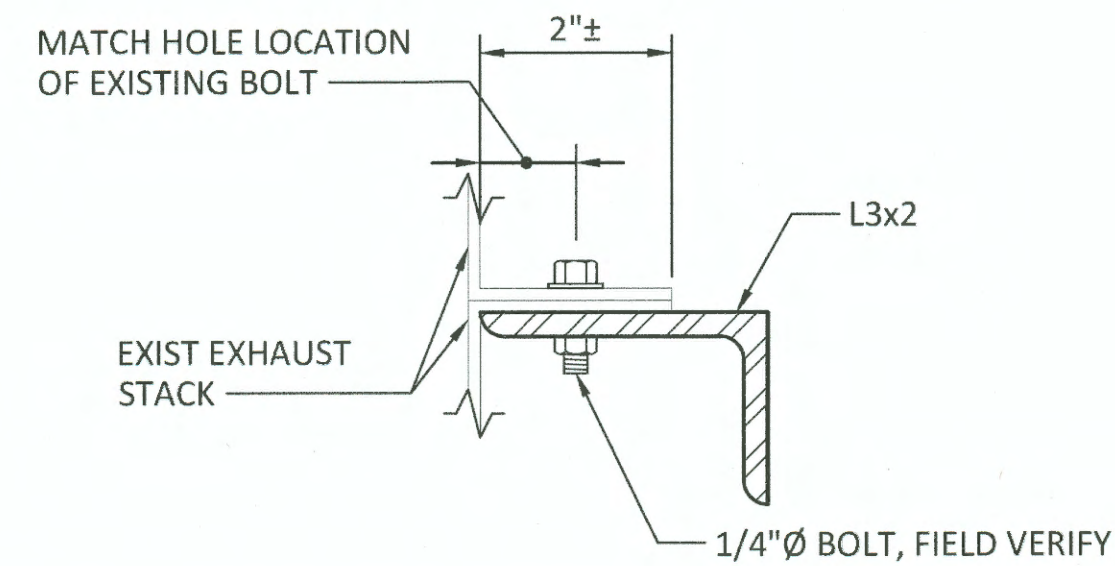
SCALE: 6" = 1'-0"

(BOTTOM)



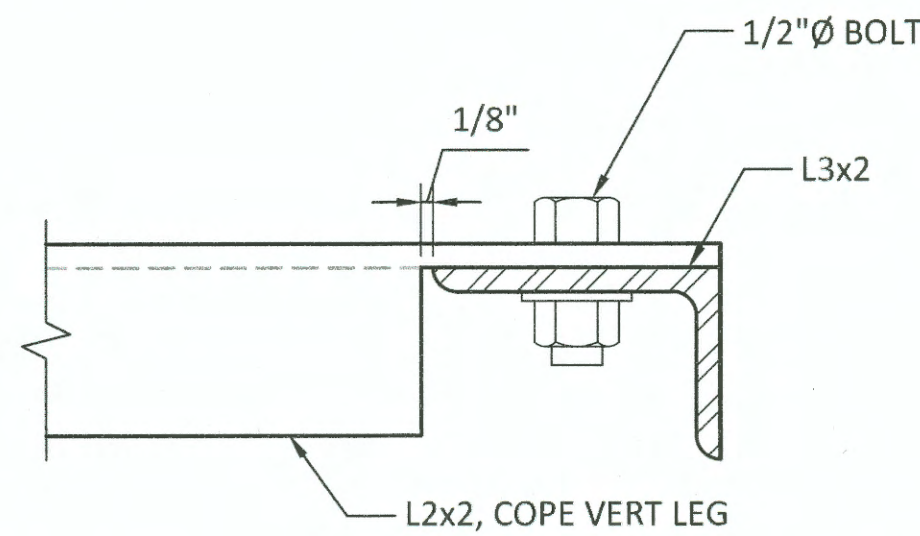
2 SECTION - CROSS BRACING

SCALE: 1" = 1'-0"



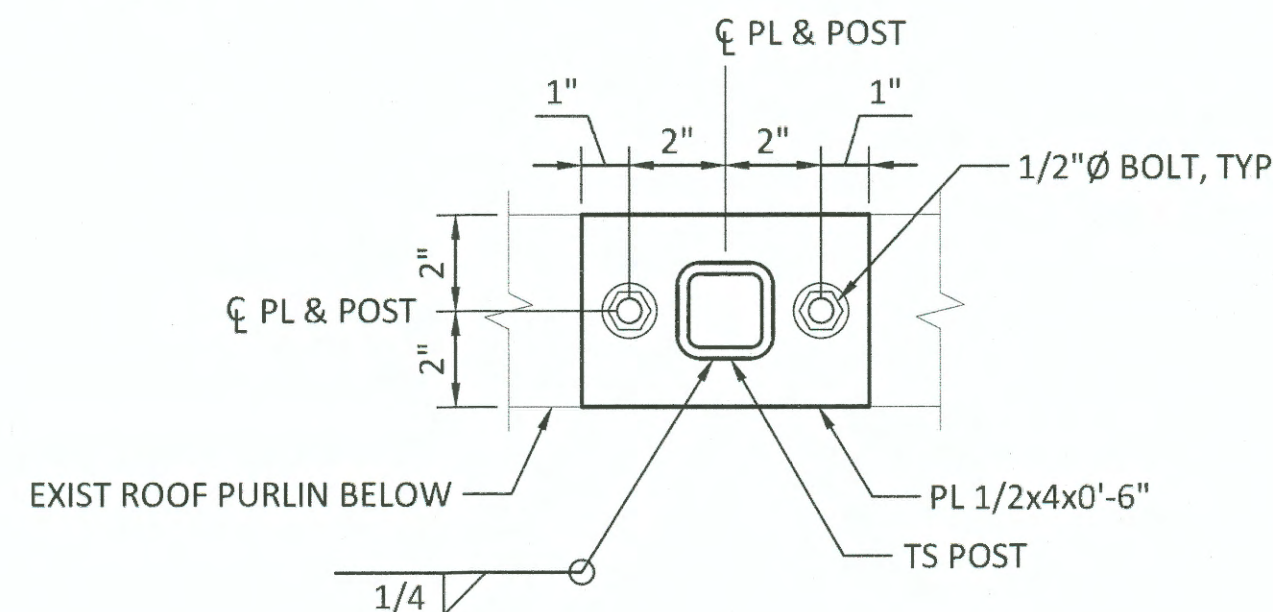
6 DETAIL - EXHAUST STACK SUPPORT

SCALE: 6" = 1'-0"



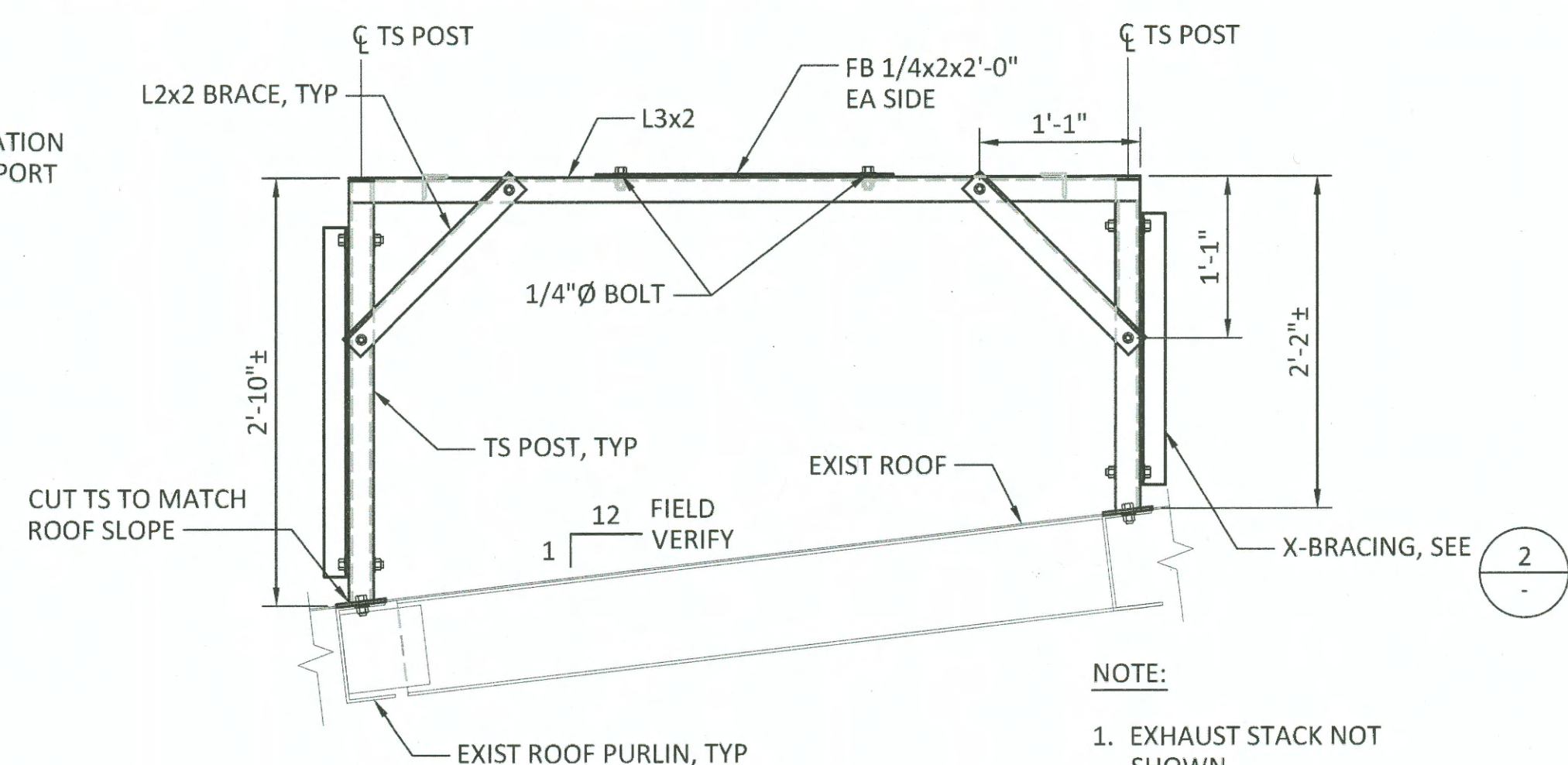
7 DETAIL - EXHAUST STACK SUPPORT

SCALE: 6" = 1'-0"



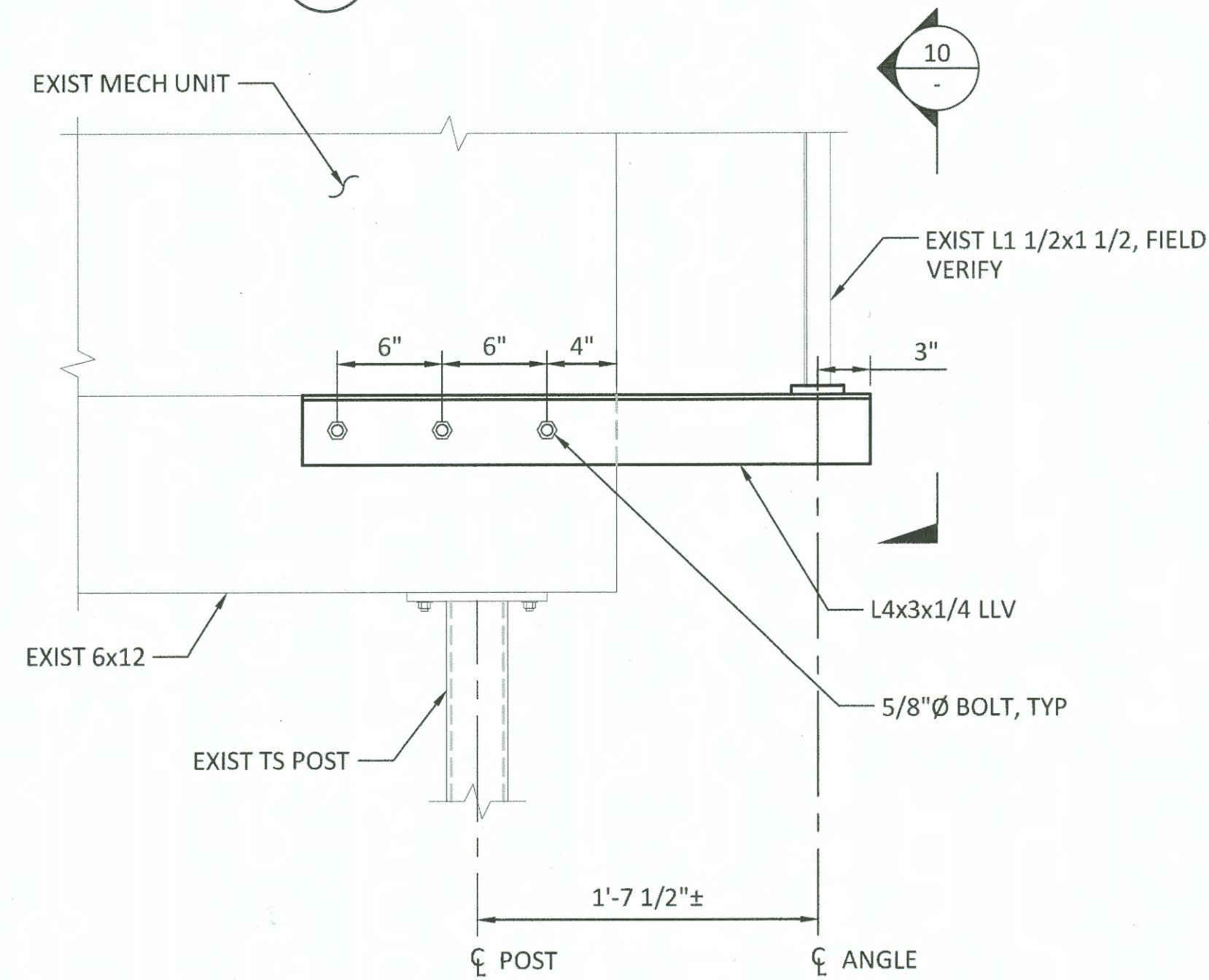
8 DETAIL - BASE PLATE

SCALE: 3" = 1'-0"



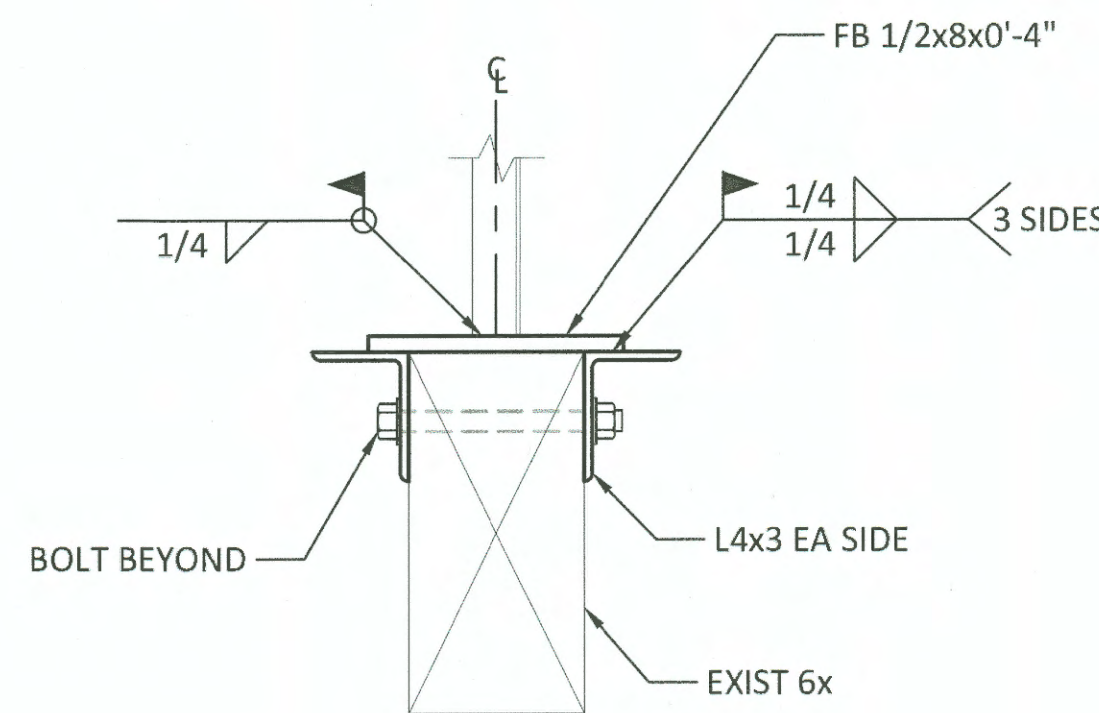
3 SECTION - BRACING

SCALE: 1" = 1'-0"



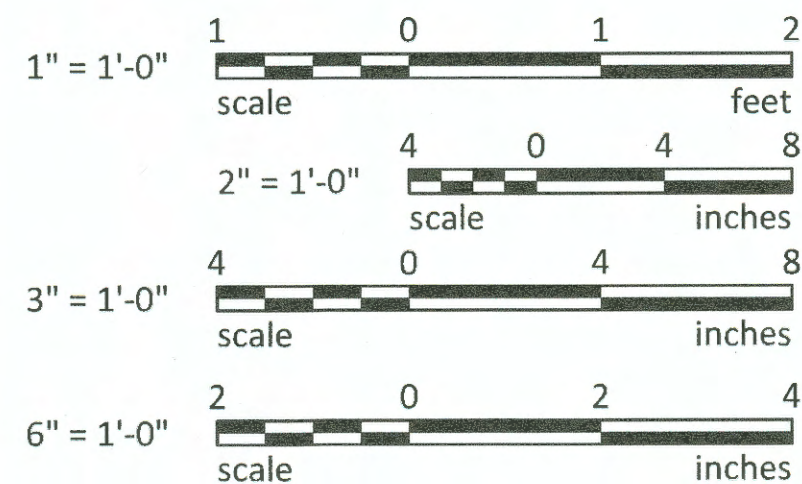
9 ELEVATION - MECHANICAL UNIT SUPPORT

SCALE: 1 1/2" = 1'-0"



10 SECTION - ANGLE SUPPORT

SCALE: 2" = 1'-0"



BID SET

Port of Tacoma 33301 9th Avenue South, Suite 300 Federal Way, Washington 98003-2600 (206) 431-2300 Fax: (206) 431-2250 P.O. BOX 1887 TACOMA, WA 98401	
BergerABAM	
33301 9th Avenue South, Suite 300 Federal Way, Washington 98003-2600 (206) 431-2300 Fax: (206) 431-2250 P.O. BOX 1887 TACOMA, WA 98401	
DATE: 4/16/19	APPR: [Signature]
BY: [Signature]	REVISION: [Signature]
MARK: [Signature]	REVISION: [Signature]
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PORT OF TACOMA W. SITCUM BLDG 600 ROOF UPGRADE DETAILS	
6604	7 OF 7
CONTRACT: 071108	TOWNSHIP: 21
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	DAT-HRZ: WA83-SF
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	DRAWING SCALE: AS SHOWN
	PARCEL: [Signature]