

PASSIVE RAINSCREEN SYSTEM

EXTERIOR CLADDING SYSTEM

FRANK L. BENNARDO, P.E.
PE# 0046549

04/26/2018

IF CHECKED, CERTIFYING P.E. APPEARS BELOW
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PASSIVE RAINSCREEN SYSTEM
MASTER PLAN SHEET
FLORIDA BUILDING CODE SIXTH EDITION (2017)

DRWN	CHKD	DATE
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REMARKS
INIT ISSUE

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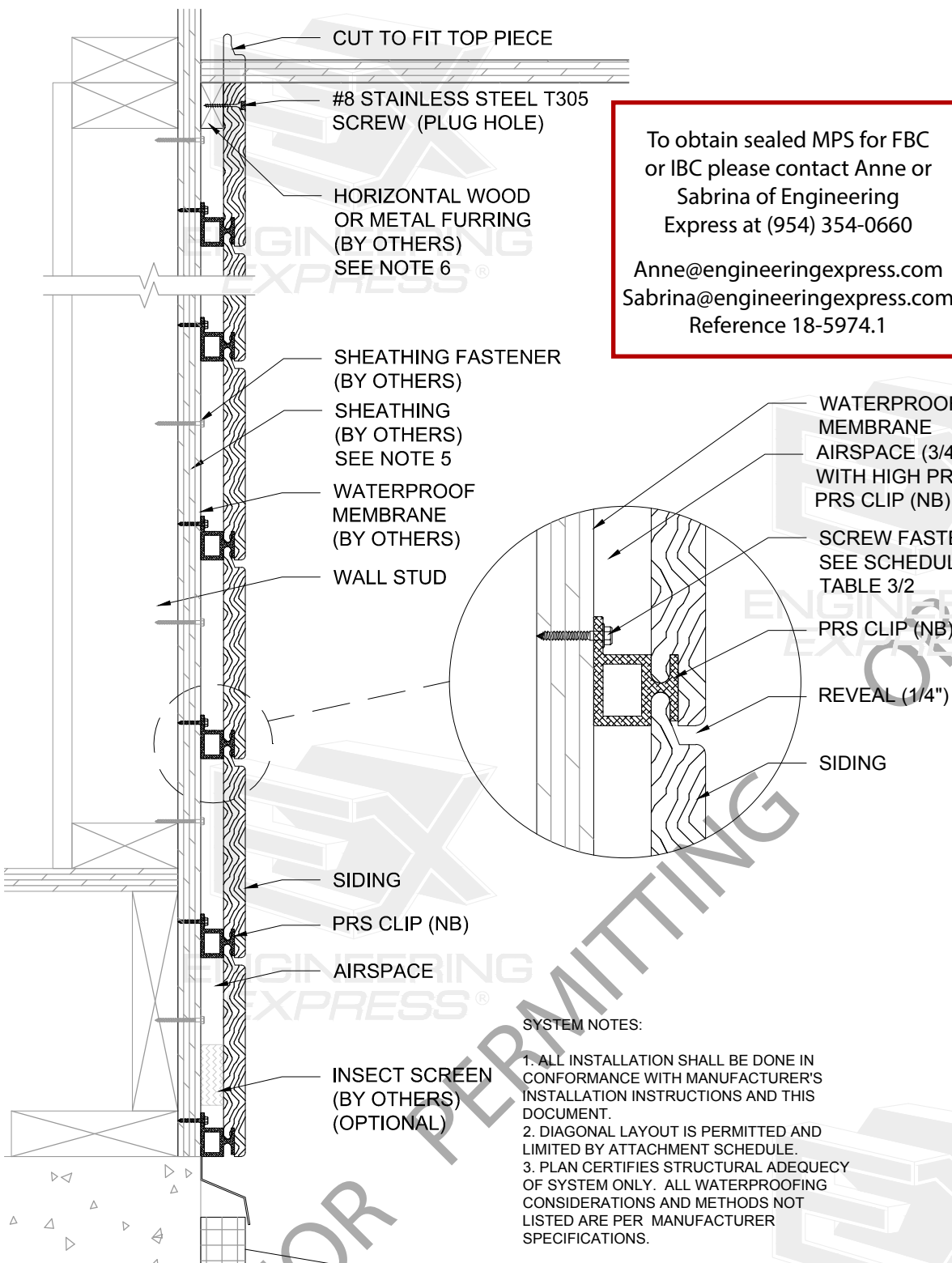
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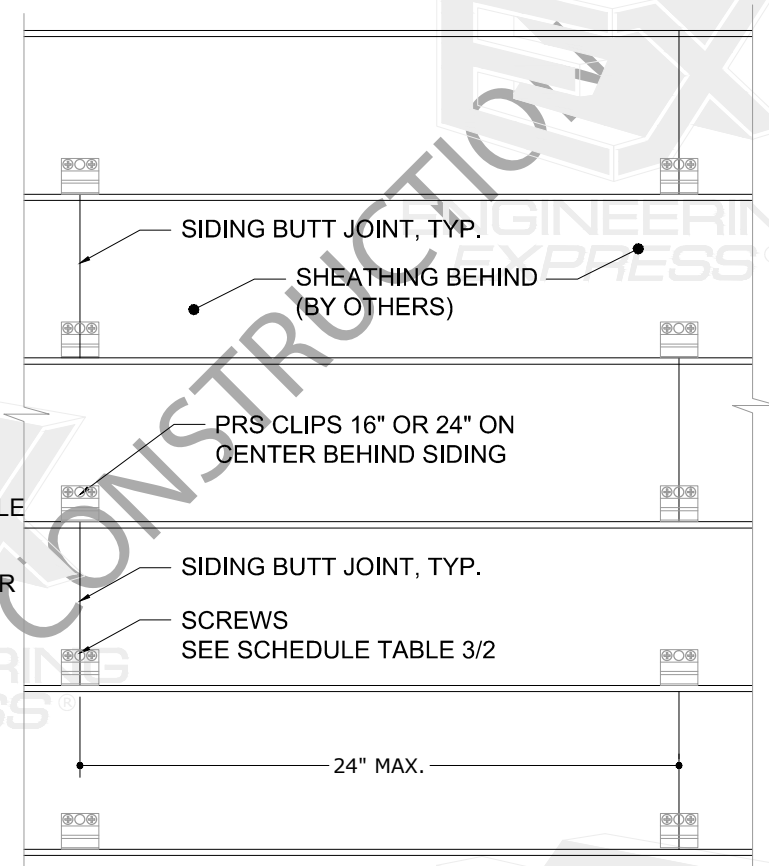
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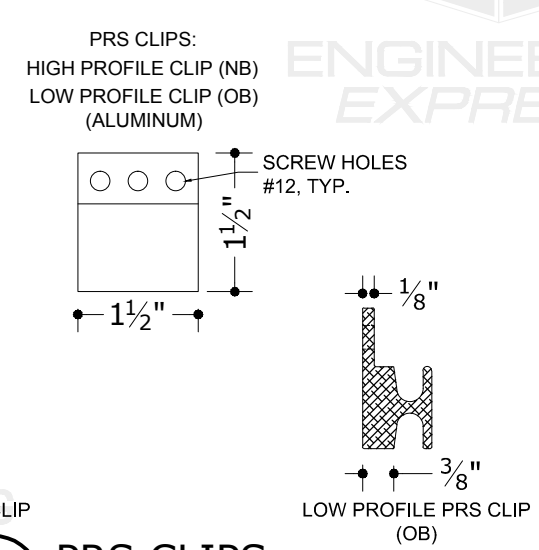
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2
1 N.T.S. HORIZONTAL RAINSCREEN ATTACHED TO SHEATHING ELEVATION VIEW



3
1 N.T.S. PRS CLIPS VIEW

- SYSTEM NOTES:
1. ALL INSTALLATION SHALL BE DONE IN CONFORMANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS DOCUMENT.
 2. DIAGONAL LAYOUT IS PERMITTED AND LIMITED BY ATTACHMENT SCHEDULE.
 3. PLAN CERTIFIES STRUCTURAL ADEQUACY OF SYSTEM ONLY. ALL WATERPROOFING CONSIDERATIONS AND METHODS NOT LISTED ARE PER MANUFACTURER SPECIFICATIONS.

SCOPE OF WORK:

PROVIDE STRUCTURAL DETAILS FOR THE CONNECTION OF THE RAINSCREEN SYSTEM TO STRUCTURAL SHEATHING, AND WOOD OR METAL FURRING.

GENERAL NOTES:

1. ALL WORK SPECIFIED HEREIN HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017).
2. THE HOST STRUCTURE IS ASSUMED TO BE ADEQUATE TO WITHSTAND THE LOADS IMPOSED BY THIS DESIGN. THE CONTRACTOR/BUILDING OFFICIAL SHALL VERIFY THAT THE SUBSTRATE IS SOUND FOR INSTALLATION OF THIS SYSTEM.
3. ALL MATERIALS USED & FABRICATION METHODS SHALL CONFORM TO THE MANUFACTURER'S PUBLISHED AND APPROVED REQUIREMENTS.
4. ALL FASTENERS TO BE ASTM F593 COLD WORKED 316 STAINLESS STEEL (FY=100KSI), 304 STAINLESS STEEL, OR BETTER, SAE GRADE 5 OR OTHERWISE CORROSION RESISTANT MATERIAL UNLESS OTHERWISE NOTED AND SHALL COMPLY WITH THE SPECIFICATIONS FOR ALUMINUM STRUCTURES, THE ALUMINUM ASSOCIATION, INC. AND ANY APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
5. STRUCTURAL SHEATHING SHALL BE APA RATED PLYWOOD, 1/2" OR BETTER THICKNESS (PLYWOOD PER F.B.C 2308.6.3(2)) & CONTINUOUS OVER TWO OR MORE SPANS, WITH FACE GRAIN PERPENDICULAR TO THE SUPPORTS. OTHER STRUCTURAL SHEATHING MATERIALS PERMITTED AS LOCAL CODE REGULATIONS ALLOW, WITH DENSITY 0.45 MINIMUM & 1/2" THICKNESS MINIMUM.
6. WOOD FURRING SHALL HAVE A MINIMUM SPECIFIC GRAVITY OF 0.5 AND MIN THICKNESS OF 3/4" (UNLESS OTHERWISE NOTED); STEEL FURRING SHALL BE A MINIMUM OF 20ga THICKNESS, STRENGTH OF 45 KSI ULTIMATE & 33 KSI YIELDING.
7. ALL EXTRUDED MEMBERS SHALL BE ALUMINUM ALLOY TYPE 6063-T6, UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR IS RESPONSIBLE TO INSULATE DISSIMILAR METALS TO PREVENT ELECTROLYSIS. ENGINEER SEAL AFFIXED HERETO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY THE PERMIT HOLDER/CONTRACTOR, et. al. INDEMNIFIES, DEFENDS, & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
9. THIS DOCUMENT IS GENERIC AND DOES NOT PERTAIN TO ANY SPECIFIC PROJECT SITE. INFORMATION CONTAINED HEREIN IS BASED ON MANUFACTURER-SUPPLIED DATA AND MEASUREMENTS. ENGINEERING EXPRESS SHALL NOT BE HELD RESPONSIBLE OR LIABLE IN ANY WAY FOR ERRONEOUS OR INACCURATE DATA OR MEASUREMENTS. DIMENSIONS ARE SHOWN TO ILLUSTRATE DESIGN FORCES AND OTHER DESIGN CRITERIA. THEY MAY VARY SLIGHTLY, BUT MUST REMAIN WITHIN THE LIMITATIONS SPECIFIED HEREIN. WORK SHALL BE FIELD VERIFIED BY OTHERS PRIOR TO CONSTRUCTION. ENGINEERING EXPRESS SHALL BE NOTIFIED AND GIVEN AN OPPORTUNITY TO REEVALUATE OUR WORK UPON DISCOVERY OF ANY INACCURATE INFORMATION PRIOR TO MODIFICATION OF EXISTING FIELD CONDITIONS AND FABRICATION AND INSTALLATION OF MATERIALS. ALTERATIONS OR ADDITIONS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.
10. EXCEPT AS EXPRESSLY PROVIDED IN HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

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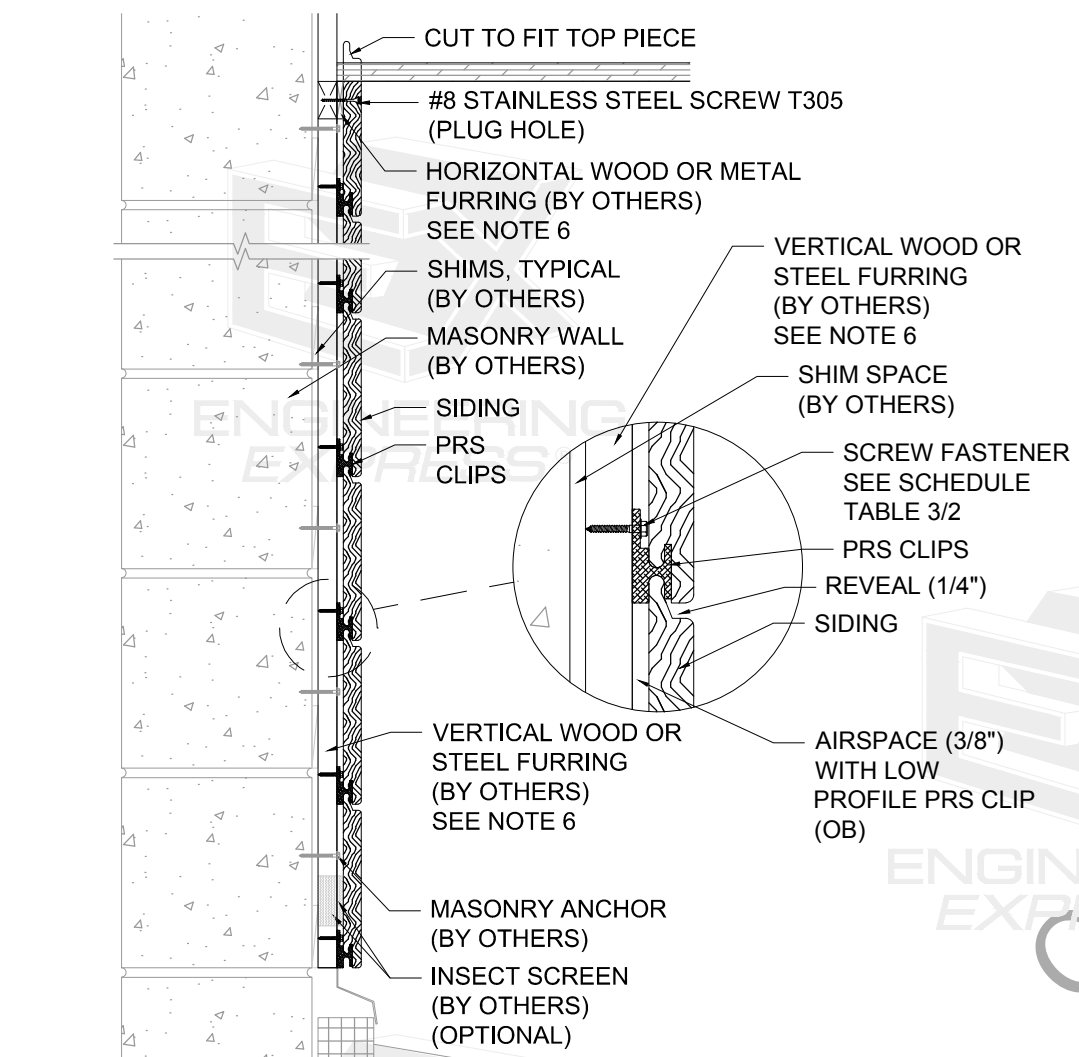
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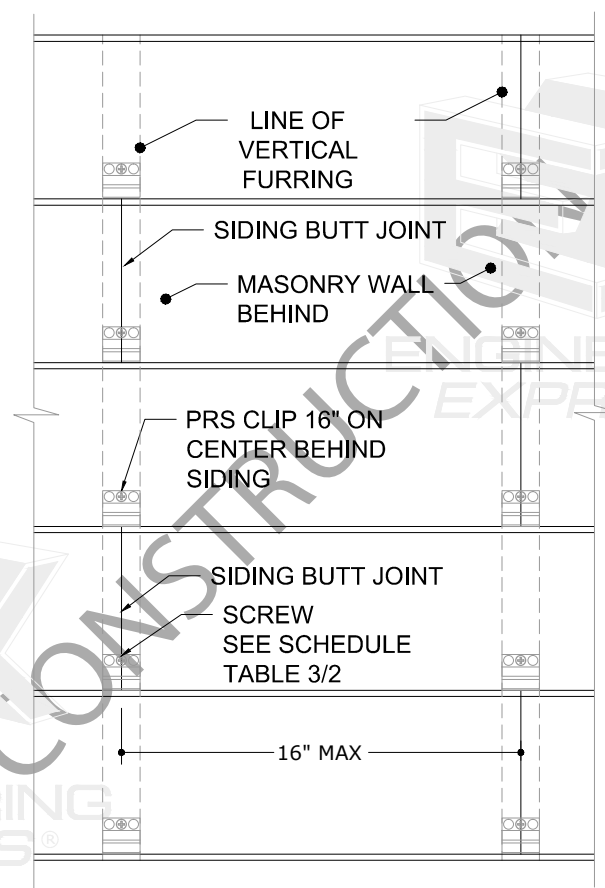
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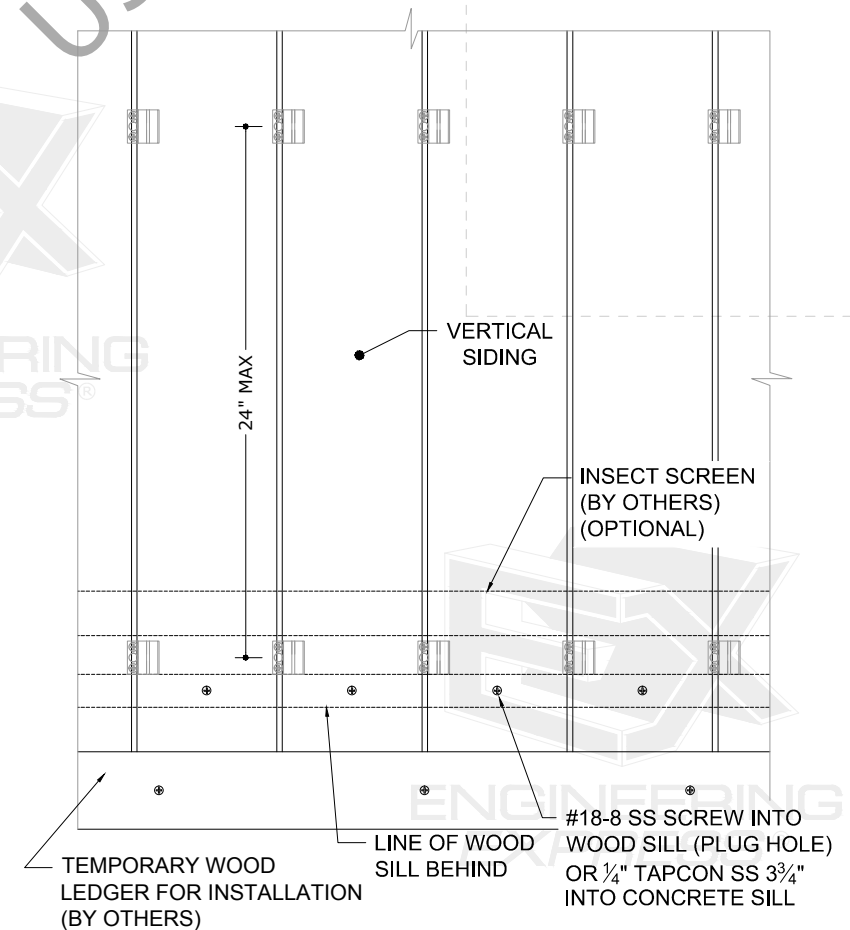
2 OF 2



1 RAINSCREEN ATTACHED TO FURRING SECTION VIEW
2 N.T.S



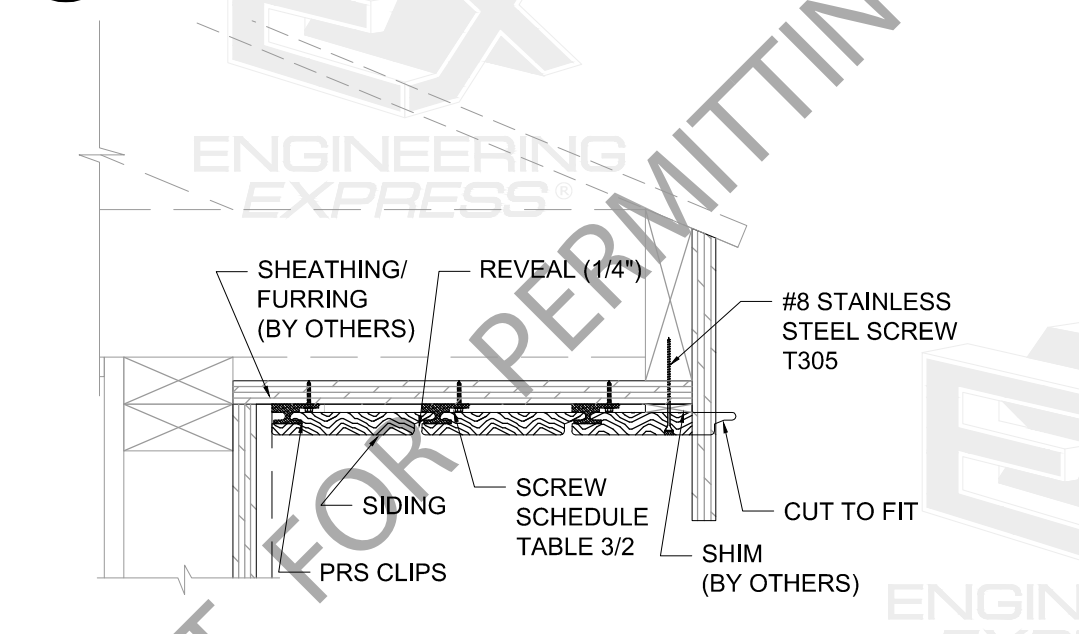
2 HORIZONTAL RAINSCREEN ATTACHED TO FURRING ELEVATION VIEW
2 N.T.S



5 VERTICAL RAINSCREEN ATTACHED TO SHEATHING ELEVATION VIEW
2 N.T.S

SIDING SIZES (NOMINAL)	TYPE OF CONNECTION	SHEATHING / FURRING THICKNESS	CLIP SPACING	CLIP TYPE	SCREWS PER CLIP	SCREW DIAMETER	ALLOWABLE PRESSURE
1" x 6"	Clip to Sheathing	1/2"	16"	NB / OB	2 pcs	#12	110.0 Psf
1" x 6"	Clip to Sheathing	1/2"	24"	NB / OB	2 pcs	#12	80.6 Psf
1" x 6"	Clip to Wood Furring	3/4"	16"	OB	1 pcs	#12	110.0 Psf
1" x 6"	Clip to Steel Furring	20 GA	16"	OB	1 pcs	#12	110.0 Psf
1" x 4"	Clip to Sheathing	1/2"	16"	NB / OB	2 pcs	#12	110.0 Psf
1" x 4"	Clip to Sheathing	1/2"	24"	NB / OB	2 pcs	#12	110.0 Psf
1" x 4"	Clip to Wood Furring	3/4"	16"	OB	1 pcs	#12	110.0 Psf
1" x 4"	Clip to Steel Furring	20 GA	16"	OB	1 pcs	#12	110.0 Psf

NOTES:
1. IF WOOD FURRING STRIPS ARE USED, USE #12 STAINLESS STEEL 316 SCREW. ATTACHMENT AND INTEGRITY OF FURRING STRIP IS BY OTHERS AND SHALL MEET THE LIMITATIONS OF ALL IMPOSING LOADS. 3/4" MINIMUM THICK FURRING REQUIRED.
2. IF METAL FURRING STRIPS ARE USED, USE #12 SCREW WITH 'QUICK GUARD' COATING OR MANUFACTURER-RATED EQUIVALENT FOR CAPACITY AND CORROSION RESISTANCE. ATTACHMENT AND INTEGRITY OF FURRING STRIP IS BY OTHERS AND SHALL MEET ALL IMPOSING LOADS. METAL FURRING SHALL BE 20 GA MINIMUM.
3. ANCHORS TO WOOD SHALL HAVE A MINIMUM OF 1/2" THREAD PENETRATION INTO THE MAIN MEMBER.
4. THE 'CLIP TYPE' COLUMN ABOVE ILLUSTRATES THE CLIPS PERMITTED FOR EACH TYPE OF CONSTRUCTION.
NB = HIGH PROFILE (SEE DETAIL 3 / 1) OB = LOW PROFILE (SEE DETAIL 3 / 1)
5. NOTE: IF A LESSER DIAMETER OR OTHER THAN MANUFACTURER'S SCREW TYPE IS DESIRED TO BE USED, THE RESULTING PRESSURES AND SPACING WILL CHANGE. THE PERMUTATIONS OF THESE OPTIONS IS OUTSIDE THE SCOPE OF THIS PLAN. PLEASE CONSULT WITH THIS FIRM FOR ANY SITE SPECIFIC NEEDS YOU MAY HAVE. NOTE THAT EXTRA FEES MAY APPLY TO THE END USER FOR OUR SITE-SPECIFIC ANALYSIS AS APPLICABLE.



4 SOFFIT ATTACHED TO SHEATHING ELEVATION VIEW
2 N.T.S

3 RAINSCREEN ATTACHMENT SCHEDULE TABLE
2 N.T.S