

Code 7th Edition.

11-19-2021

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B8.447-12

SHEET:

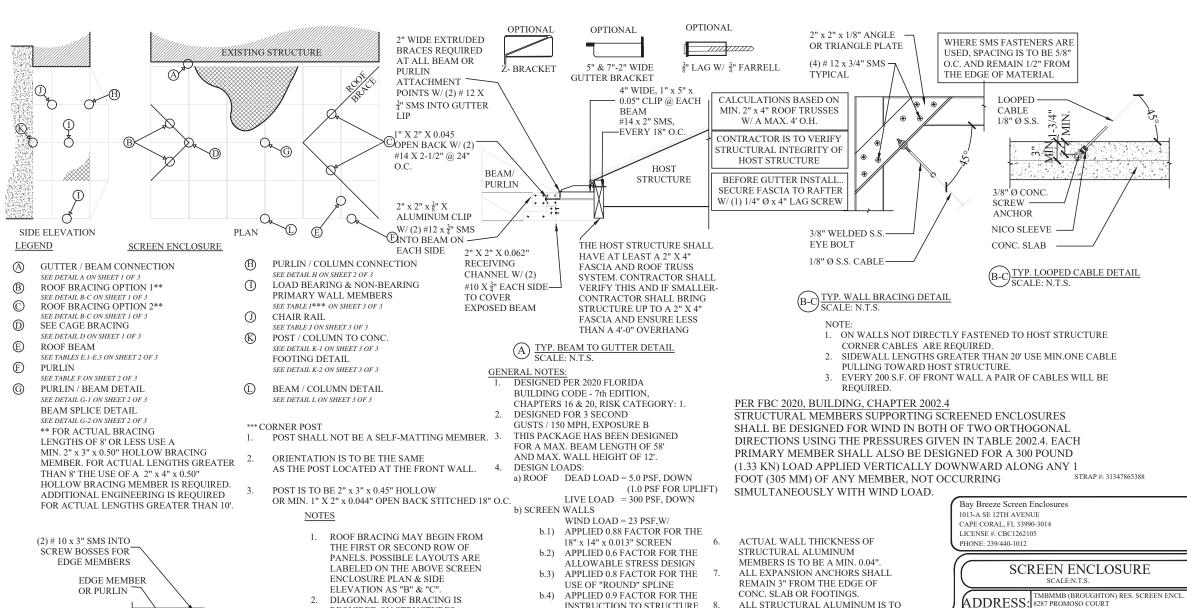
LAYOUT

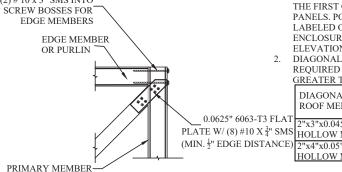
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ermission from Aqua-Terra Engineering, Inc.

DRAWING DATE: DRAWING ATE JOB #

- CONTRACTOR TO REVIEW PLAN FOR COMPLIANCE WITH ALL CURRENT BUILDING CODES / REVISIONS / ADDITIONS AND ALL DIMENSIONS WITH
- DEVIATIONS FROM DRAWINGS OR CODE MUST BE APPROVED BY THE ENGINEER AND FLORIDA BUILDING DEPARTMENT OF APPROPRIATE MUNICIPALITY.
- IF ANY ERRORS OR OMISSIONS EXIST IN THESE DRAWINGS, THE CONTRACTOR SHALL, WITHIN 15 DAYS AFTER RECEIPT OF THESE PLANS AND PRIOR TO CONSTRUCTION, NOTIFY THE ENGINEER IN WRITING OF SUCH ERRORS OR OMISSIONS OR BE HELD RESPONSIBLE FOR THE RESULTS AND COST OF RECTIFYING THE SAME
- ENGINEER WILL MAKE INSPECTIONS (IF REQUIRED BY MUNICIPALITY OR OWNER) NECESSARY TO ENSURE CONSTRUCTION IS CONSISTENT WITH BUILDING DEPARTMENT APPROVED PLANS.
- 5. VELOCITY PRESSURE = 47.35 PSF ROOF.
- 6. CONCRETE TO BE 3,000 LBF/SQ.IN. @ 28 DAYS.
- 7. ALL SOILS ARE TO BE COMPACTED WITH A
- MINIMUM SOIL BEARING CAPACITY OF 2,000 LBF/SQ.FT.
- 8. DESIGN IS BASED ON THE USE OF EXTRUSIONS THAT ARE 6005-T5 ALLOY.
- 9. ALL DIMENSIONS TO BE FIELD VERIFIED.
- 10. 18/14 MIN. SCREEN
- 11 ALL SMB ARE TO HAVE # 10 SMS @ 24" O.C. & 2" FROM END.





REQUIRED ON STRUCTURES GREATER THAN 12' DIAGONAL MEMB. ROOF MEMBER MAX. LENGTH

0.0625" 6063-T3 FLAT 2"x3"x0.045" PLATE W/ (8) #10 X 4" SMS HOLLOW MEMBER 8' 8'-10' HOLLOW MEMBER

INSTRUCTION TO STRUCTURE OWNERS TO CUT EVERY OTHER BE 6005-T5 OR 6061-T5. SCREEN PANEL FOR THE

PREDICTED HURRICANE WINDS

GREATER THAN 90 MPH. SCREEN SURFACES ARE PERMITTED WITH A MAX OF 25% OF SOLID FLEXIBLE FINISH.

NAPLES FL 34114

AOUA-TERRA ENGINEERING.INC CIVIL-AOUATIC ENGINEERING CONSULTATION PROJECT ADMINISTRATION

Eldin Hotic, P.E FL. LICENSE NO. 60118 Oldin on.

P.O.BOX #150249 CAPE CORAL, FLORIDA 33915-0249 PHONE: (239) 458-8200 FAX: (866) 773-4968 hereby certify that Aqua-Terra Engineering, Inc. has designed this plan under

CERTIFICATE OF AUTHORIZATION # 28656

v guidance and approval and is in compliance with the 2020 Florida Building ode 7th Edition

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DRAWING DATE: DRAWING ATE JOB # 11-19-2021 B8 447-1

ROOF BRACING DETAIL

TABLE E.2 WALL HEIGHT 8' MAX._MAY BE USED FOR MANSARD, HALF MANSARD AND GABLE STYLE ROOF BEAMS W/4' RISE (MAX.)

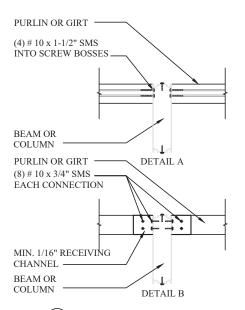
| MIN. COLUMN | BEAM / TRIBUTARY WIDTH | ROOF SPAN MAX RISE 4' | | | | | | | | | | |
|----------------|--------------------------------|-----------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| | | 4'-0" | 4'-6" | 5'-0" | 5'-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" |
| 2" x 4" | 2" x 4" x 0.044" x 0.100" SMB | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 14'-9" | 14'-1" | 13'-4" | 12'-10" | 12'-4" |
| 2" x 4" | 2" x 5" x 0.050" x 0.116" SMB | 22'-9" | 22'-9" | 22'-9" | 21'-2" | 20'-2" | 19'-5" | 18'-9" | 18'-2" | 17'-6" | 16'-10" | 16'-4 |
| 2" x 4" | 2" x 6" x 0.050" x 0.120" SMB | 28'-11" | 27'-2" | 26'-11" | 26'-7" | 26'-3" | 25'-10" | 22'-3" | 21'-4" | 20'-6" | 19'-10" | 19'-2" |
| 2" x 4" | 2" x 7" x 0.055" x 0.120" SMB | 34'-7" | 32'-11 | '31'-6" | 30'-2" | 29'-2" | 28'-1" | 27'-1" | 26'-6" | 25'-9" | 24'-9" | 24'-2" |
| 2" x 4" | 2" x 8" x 0.072" x 0.224" SMB | 42'-10" | 41'-4" | 40'-1" | 38'-11" | 37'-11" | 37'-0" | 36'-3" | 35'-6" | 34'-9" | 34'-1" | 33'-6" |
| 2" x 5" | 2" x 9" x 0.072" x 0.224" SMB | 46'-8" | 45'-3" | 43'-11" | 42'-9" | 41'-7" | 40-9" | 39'-10" | 38'-11" | 38'-1" | 37'-6" | 36'-5" |
| 2" x 5" | 2" x 9" x 0.082" x 0.306" SMB | 49'-5" | 47'-11 | 46'-6" | 45'-3" | 44'-2" | 43'-0" | 42'-1" | 41'-3" | 40'-6" | 39'-9" | 39'-1" |
| 2" x 6" | 2" x 10" x 0.092" x 0.374" SMB | 57'-3" | 55'-6" | 53'-10" | 52'-1" | 51'-2" | 49'-11" | 48'-9" | 47'-10" | 46'-11" | 46'-0" | 45'-4" |

TABLE E.3 WALL HEIGHT 10' MAX. MAY BE USED FOR MANSARD, HALF MANSARD AND GABLE STYLE ROOF BEAMS W/4' RISE (MAX.)

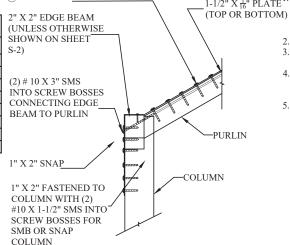
| MIN. COLUMN | BEAM / TRIBUTARY WIDTH | ROOF SPAN MAX RISE 4' | | | | | | | | | | |
|----------------|--------------------------------|-----------------------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
| | | 4'-0" | 4'-6" | 5'-0" | 5'-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" |
| 2" x 4" | 2" x 4" x 0.044" x 0.100" SMB | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 14'-6" | 13'-9" | 13'-1" | 12'-8" | 12'-2" |
| 2" x 4" | 2" x 5" x 0.055" x 0.116" SMB | 22'-9" | 22'-9" | 21'-10" | 20'-4" | 19'-7" | 18'-10" | 18'-3" | 17'-6" | 16'-11" | 16'-4" | 15'-10" |
| 2" x 4" | 2" x 6" x 0.050" x 0.120" SMB | 28'-4" | 26'-8" | 25'-4" | 24'-2" | 23'-3" | 22'-4" | 21'-9" | 20'-10" | 20'-1" | 19'-5" | 18'-9" |
| 2" x 4" | 2" x 7" x 0.055" x 0.120" SMB | 33'-11" | 32'-4" | 30'-11" | 29'-9" | 28'-8" | 27'-9" | 26'-10" | 25'-11" | 25'-2" | 24'-3" | 23'-7" |
| 2" x 4" | 2" x 8" x 0.072" x 0.224" SMB | 42'-11" | 41'-6" | 40'-2" | 39'-1" | 38'-2" | 37'-1" | 36'-3" | 35'-6" | 34'-9" | 34'-1" | 33'-2" |
| 2" x 5" | 2" x 9" x 0.072" x 0.224" SMB | 46'-11" | 45'-5" | 44'-1" | 42'-9" | 41'-8" | 40'-9" | 39'-10" | 38'-10" | 37'-10" | 36'-8" | 35'-6" |
| 2" x 5" | 2" x 9" x 0.082" x 0.306" SMB | 49'-10" | 48'-0" | 46'-6" | 45'-5" | 44'-1" | 43'-2" | 42'-1" | 41'-5" | 40'-6" | 39'-10" | 39'-2" |
| 2" x 6" | 2" x 10" x 0.092" x 0.374" SMB | 57'-5" | 55'-6" | 53'-11" | 52'-4" | 51'-2" | 49'-11" | 48'-9" | 47'-10" | 47'-1" | 46'-2" | 45'-6" |

TABLE M.1 WALL HEIGHT 12' MAX._MAY BE USED FOR MANSARD, HALF MANSARD AND GABLE STYLE ROOF BEAMS W//4' RISE (MAX.)

| MIN. | BEAM / | ROOF SPAN MAX RISE 4' | | | | | | | | | | | |
|---------|--------------------------------|-----------------------|--------|---------|---------|---------|---------|---------|---------|--------|---------|--------|---|
| COLUMN | TRIBUTARY WIDTH | 4'-0" | 4'-6" | 5'-0" | 5'-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" |] |
| 2" x 4" | 2" x 4" x 0.044" x 0.120" SMB | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 15'-1" | 14'-7" | 13'-9" | 12'-10" | 12'-2" | 11'-9" | 11'-2" |] |
| 2" x 4" | 2" x 5" x 0.050" x 0.116" SMB | 22'-9" | 22'-7" | 21'-2" | 19'-9" | 18'-10" | 18'-3" | 17'-8" | 17'-0" | 16'-4" | 15'-10" | 15'-1" |] |
| 2" x 4" | 2" x 6" x 0.050" x 0.120" SMB | 27'-7" | 25'-9" | 24'-8" | 23'-8" | 22'-9" | 21'-10" | 21'-1" | 20'-2" | 19'-5" | 18'-9" | 18'-1" |] |
| 2" x 4" | 2" x 7" x 0.055" x 0.120" SMB | 33'-4" | 31'-8" | 30'-2" | 29'-1" | 28'-0" | 27'-1" | 26'-3" | 25'-4" | 24'-4" | 23'-9" | 23'-2" |] |
| 2" x 4" | 2" x 8" x 0.072" x 0.224" SMB | 42'-10" | 41'-5" | 40'-2" | 39'-0" | 38'-1" | 37'-0" | 36'-2" | 35'-3" | 34'-1" | 33'-1" | 32'-0" |] |
| 2" x 5" | 2" x 9" x 0.072" x 0.224" SMB | 46'-11" | 45'-4" | 44'-1" | 42'-10" | 41'-9" | 40'-8" | 39'-6" | 38'-1" | 36'-9" | 35'-8" | 34'-6" |] |
| 2" x 5" | 2" x 9" x 0.082" x 0.306" SMB | 49'-8" | 48'-0" | 46'-8" | 45'-3" | 44'-1" | 43'-0" | 42'-2" | 41'-4" | 40'-6" | 39'-9" | 39'-1" |] |
| 2" x 6" | 2" x 10" x 0.092" x 0.374" SMB | 57'-3" | 55'-6" | 53'-10" | 52'-4" | 51'-3" | 49'-11" | 48'-10" | 47'-11" | 47'-0" | 46'-1" | 45'-4" |] |



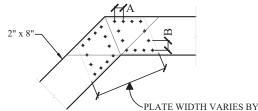




NOTE: A RECEIVING CHANNEL ($\frac{1}{16}$ " THICKNESS) WITH (4) #10 X ³" SMS AT EACH CONNECTION MAY BE USED IN PLACE OF THE (2) #10 X 3" SCREW BOSS CONNECTION



SAMPLE: 2" X 8" BEAM CONNECTION, FROM TABLE BELOW-10 SCREWS REQUIRED FOR EACH BEAM (20 TOTAL), 24 SCREWS SHOWN-USED



TYP. MANSARD BEAM SPLICE

ANGLE OF BEAM, FASTENERS REQUIRED AND SPACING OF FASTENERS **SEE TABLE FOR THIS INFORMATION

| BEAM SIZE | QTY | A SPACE O.C. | B SPACE O.C. |
|-----------|-----|--------------------|--------------------|
| 2" x 4" | 10 | 1" | 1" |
| 2" x 5" | 10 | 1" | 1" |
| 2" x 6" | 14 | 1" | 1" |
| 2" x 7" | 20 | 1" | 1" |
| 2" x 8" | 24 | 1-1/2" | 1-1/4" |
| 2" x 9" | 24 | 1-1/2" | 1-3/8" |
| 2" x 10" | 26 | 1-1/2" | 1-1/2" |

(TABLE SHOWS MIN. SPACING AND NUMBER OF SCREWS. TO ACHIEVE SYMMETRICAL PATTERN ADDITIONAL SCREWS MAY BE USED)

1-1/2" X_{16}^{-1} " PLATE 1. ALL PLATES ARE TO BE 1/8" THICK FOR 2" x 7" BEAMS AND SMALLER (WITH #12 SCREWS) AND 3/16" THICK FOR 2" x 8" BEAMS AND LARGER (WITH # 14 SCREWS).

- 2. ONLY 3/4" (#14) SCREWS ARE TO BE USED.
- 3. GUSSET PLATES MAY BE MOUNTED INTERNALLY OR EXTERNALLY.
- 4. FLAT BEAM SPLICE MAY ALSO USE THE SAME SPECIFIED CONNECTION, FOR 2" x 9" x 0.072" SMB OR SMALLER
- 5. FASTENERS TO REMAIN 1/2" FROM MATERIAL EDGE.

STRAP #: 31347865388

Bay Breeze Screen Enclosures 1013-A SE 12TH AVENUE CAPE CORAL, FL 33990-3014 LICENSE #: CBC1262105 PHONE: 239/440-1012

SCREEN ENCLOSURE

SCALE:N.T.S.

ADDRESS TABLES FL 34114 TMBMMB (BROUGHTON) RES. SCREEN ENCL.

Eldin Hotic, P.E. FL. LICENSE NO. 60118

STATE OF

AOUA-TERRA ENGINEERING.INC CIVIL-AOUATIC ENGINEERING CONSULTATION

PROJECT ADMINISTRATION CERTIFICATE OF AUTHORIZATION # 28656 P.O.BOX #150249 CAPE CORAL, FLORIDA 33915-0249 PHONE: (239) 458-8200 FAX: (866) 773-4968

ereby certify that Aqua-Terra Engineering, Inc. has designed this plan under my guidance and approval and is in compliance with the 2020 Florida Building Code 7th Edition.

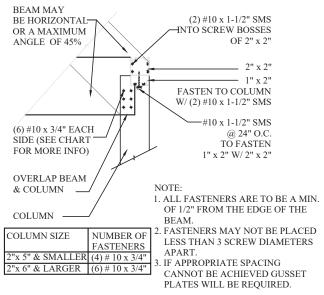
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DRAWING DATE: DRAWING ATE JOB # 11-19-2021

TABLE I.1 SPAN INFORMATION APPLICABLE FOR LOAD BEARING PRIMARY WALL MEMBERS

| COLUMN / | PRIMARY WALL MEMBER SPAN | | | | | | | | | | |
|-------------------------------|--------------------------|---------|---------|--------|--------|---------|---------|--------|--------|--------|---------|
| TRIBUTARY WIDTH | 4'-0" | 4'-6" | 5'-0" | 5'-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" |
| 2" x 4" x 0.050" HOLLOW | 11'-1" | 10'-6' | 10'-0" | 9'-5" | 9'-1" | 8'-9" | 8'-6" | 8'-2" | 7'-11" | 7'-8" | 7'-6" |
| 2" x 5" x 0.050" HOLLOW | 12'-1" | 11'-6" | 11'-0" | 10'-6" | 10'-0" | 9'-7" | 9'-4" | 9'-1" | 8'-9" | 8'-6" | 8'-2" |
| 2" x 4" x 0.045" SNAP | 11'-8" | 12'-9" | 11'-11" | 11'-5" | 11'-1" | 10'-6" | 10'-3" | 9'-11" | 9'-6" | 9'-2" | 8'-11" |
| 2" x 5" x 0.055" SNAP | 15'-4" | 15'-9" | 15'-0" | 14'-3" | 13'-8" | 13'-3" | 12'-8" | 12'-4" | 12'-0" | 11'-6" | 11'-3" |
| 2" x 4" x 0.044" x 0.100" SMB | 11'-9" | 11'-2" | 10'-7" | 10'-1" | 9'-8" | 9'-4" | 9'-0" | 8'-9" | 8'-6" | 8'-3" | 8'-0" |
| 2" x 5" x 0.050" x 0.116" SMB | 14'-8" | 13'-11' | 13'-1" | 12'-6" | 12'-0" | 11'-6" | 11'-1" | 10'-9" | 10'-6" | 10'-1" | 9'-10" |
| 2" x 6" x 0.050" x 0.120" SMB | 16'-5" | 15'-6" | 14'-9" | 14'-1" | 13'-6" | 12'-11" | 12'-6" | 12'-1" | 11'-8" | 11'-4" | 11'-1" |
| 2" x 7" x 0.055" x 0.120" SMB | 18'-4" | 17'-5" | 16'-5" | 15'-5" | 14'-9" | 14'-5" | 13'-11" | 13'-6" | 13'-1" | 12'-8" | 12'-5" |
| 2" x 8" x 0.072" x 0.224" SMB | 20'-0" | 20'-0" | 20'-0" | 20'-0" | 20'-0" | 20'-0" | 20'-0" | 20'-0" | 20'-0" | 20'-0" | 19'-11" |

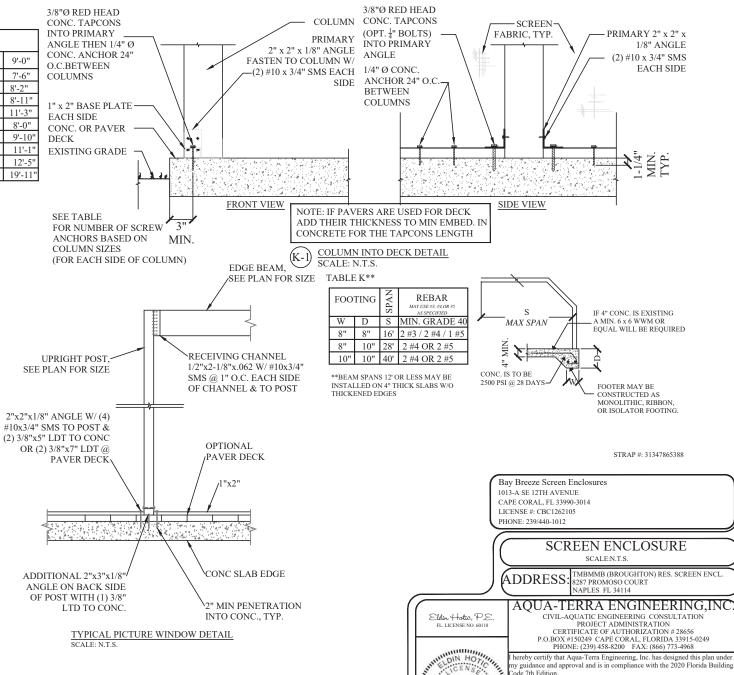


TYP. BEAM TO COLUMN DETAIL SCALE: N.T.S.

NOTE:

- CONNECTIONS INTO DECK AREAS ARE TO BE MADE USING, ITW RED HEAD 3/8" Ø TAPCONS (OPTIONAL 1/4" BOLTS, ULTIMATE TENSION CAPACITY OF 3740 lbs, AND ULTIMATE SHEER CAPACITY OF 3328 lbs. THIS OPTION REQUIRES EXTRA 2" x 2" ANGLE ON EACH SIDE OF BEAM UPRIGHT WITH 1/4" BOLT).
- 3/8 "Ø S.S. ANCHORS MEETING THE SAME TENSION CAPACITY AS THE SPECIFIED RED HEAD TAPCONS, MAY BE USED AS AND ALTERNATE.

| COLUMN SIZE | NUMBER OF 3/8" Ø TAPCONS OR BOLTS | a = MIN SPACE |
|-------------------|--------------------------------------|------------------|
| 2" x 4" & 2" x 5" | 1 1 1 1 APCONS OR BOLTS | 3" |
| 2" x 6" | 1 | 4" |
| 2" x 7" | 1 | 5" |
| 2" x 8" | 1 | 6" |
| 2" x 9" | 2 | 4" |
| 2" x 10" | 2 | 4.5" |



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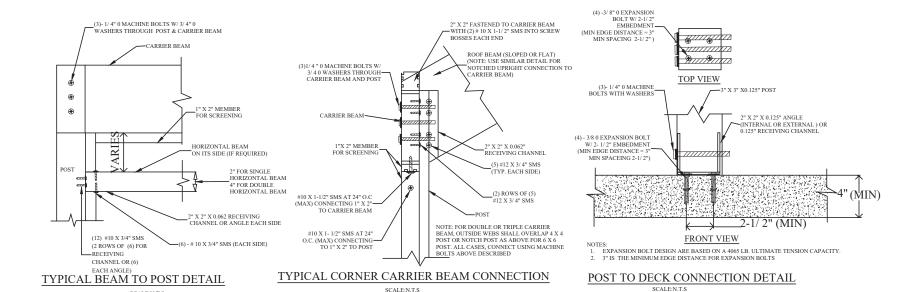
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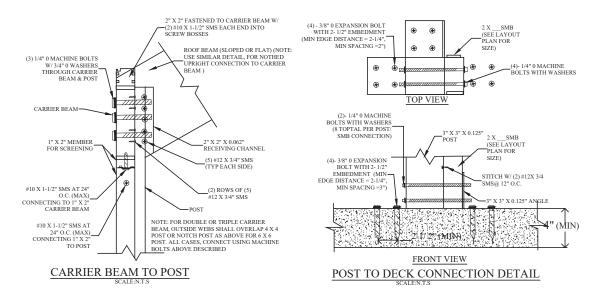
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DRAWING DATE: DRAWING ATE JOB #

11-19-2021

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SCALE:N.T.S

STRAP #: 31347865388

Bay Breeze Screen Enclosures

1013-A SE 12TH AVENUE CAPE CORAL, FL 33990-3014 LICENSE #: CBC1262105 PHONE: 239/440-1012

SCREEN ENCLOSURE

SCALE:N.T.S.

ADDRESS: TMBMMB (BROUGHTON) RES. SCREEN ENCL. 8287 PROMOSO COURT NAPLES FL 34114

Eldin Hotic, P.E FL. LICENSE NO. 60118

Eldu Stelo STATE OF SIONALENG

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|-------------|-----------|------------|--------|
| 11-19-2021 | BY: DH | B8.447-'21 | 4 OF 4 |