

| ULTIMATE & NOMINAL |     |  |
|--------------------|-----|--|
| WIND SPEEDS        |     |  |
| ULTIMATE NOMINAL   |     |  |
| 120                | 93  |  |
| 130                | 101 |  |
| 140                | 108 |  |
| 150 116            |     |  |
| 155 120            |     |  |
| 160 124            |     |  |
| <u>.</u>           |     |  |

LEAN POST HEIGHT (D-6)

10'

# **DESIGN CRITERIA:**

FLORIDA BUILDING CODE 2023 8TH ED. **DESIGN LOADS PER ASCE 7-22 DESIGN SPEED - 120 MPH ROOF LIVE LOAD - 12.5 PSF DEAD LOAD - 2.5 PSF** WIND RISK CATEGORY - I **EXPOSURE CATEGORY - B IMPORTANCE FACTOR - 1.0** INTERNAL WIND PRESSURE - +/- 0.18 PSI ROOF RISE LEAN TO: 1:12

# **POLE BARN SPECIFICATIONS**

**GABLE WIDTH (D-1): 45' BUILDING LENGTH (D-2): 84' EAVE HEIGHT (D-3): 16' POLE SPACING: 12'** 

GABLE WIDTH LEAN TO (D-4): 16' **LENGTH OF LEAN TO (D-5): 84'** 

EAVE HEIGHT OF LEAN TO (D-6): 12'

**ROOF PITCH: 4:12** 

**RIDGE HEIGHT : 23' - 06"** WALLS: ENCLOSED OTHERS

**FLOOR: CONCRETE ROOF METAL: 29 GA.** SIDE METAL: N/A

POST SIZE BARN: 8"x8" PT POST SIZE LEAN TO: 8"x8"PT **FOOTING SIZE BARN: 24"X48" FOOTING SIZE LEAN: 24"X48"** 

**CONCRETE: 3.000 PSI** 

| WIND EXP | OSURE CA | TEGORY |
|----------|----------|--------|
| X B      | □С       |        |

| MAIN BUILDING DIMENSIONS |           |           |  |
|--------------------------|-----------|-----------|--|
| D-1                      |           |           |  |
| BARN                     | 6"X6"     | 8"X8"     |  |
| WIDTH (FT) POST POST     |           |           |  |
| 45                       | 44' - 01" | 43' - 08" |  |

| <br> |  |
|------|--|

SIZE CIRCLED OR LESS OTHER

12'

14'

16'

| MAIN | BLD ROOF P       | ITCH |
|------|------------------|------|
| 3/12 | <b>4/12</b> 5/12 | 6/12 |

| LEAN | BLD RO | OOF PI | TCH (a) |
|------|--------|--------|---------|
| 1/12 |        |        |         |

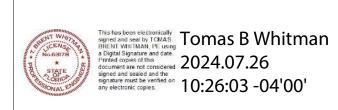
| LEA        | N POST FOOTING SIZE |
|------------|---------------------|
| F-1        | 18" DIA. X 48" DEEP |
| <b>F-2</b> | 24" DIA. X 48" DEEP |

MAIN POST FOOTING SIZE

F-2 24" DIA. X 48" DEEP

18" DIA. X 48" DEEP







SHEET NO.

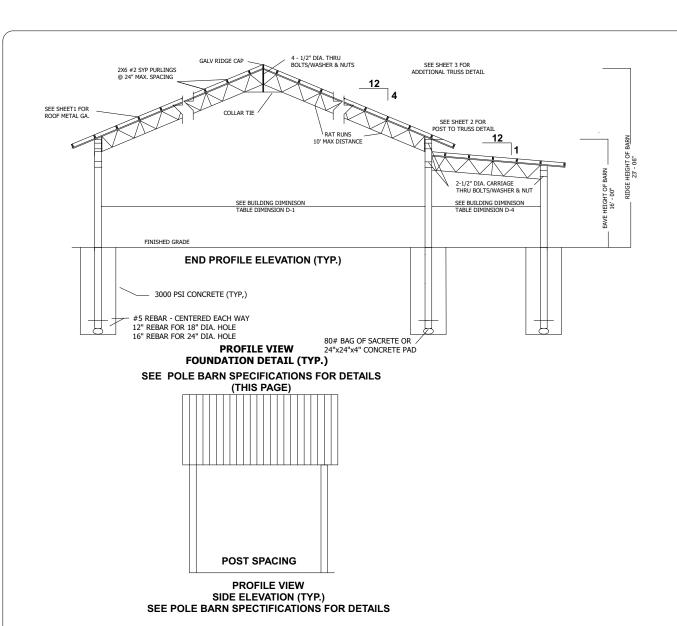
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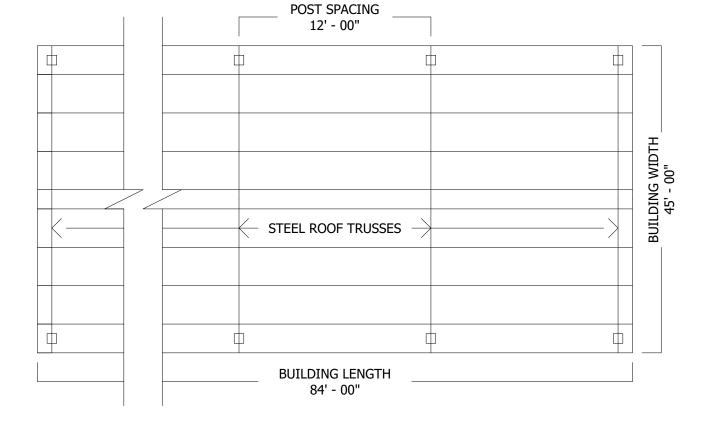
| M | MAIN BUILDING DIMENSIONS             |       |       |
|---|--------------------------------------|-------|-------|
|   | D-1                                  |       |       |
|   | BARN                                 | 6"X6" | 8"X8" |
| V | /IDTH (FT)                           | POST  | POST  |
|   | <b>45</b> 44' - 01" <b>43' - 08"</b> |       |       |

| MAIN POST HEIGHT (D-3) |        |        |      |       |
|------------------------|--------|--------|------|-------|
| SIZE (                 | CIRCLE | D OR I | LESS | OTHER |
| 10'                    | 12'    | 14'    | 16'  | 20'   |

| POST S    | PACING ( | FT)      |  |
|-----------|----------|----------|--|
| □ 8       | □ 10     |          |  |
|           |          |          |  |
| LEAN BUIL | DING DIM | MENSIONS |  |
|           | D-4      |          |  |

| D-4        |           |           |
|------------|-----------|-----------|
| LEAN       | 6"X6"     | 8"X8"     |
| WIDTH (FT) | POST      | POST      |
| 16         | 15'-6''2" | 15'-61/2" |





# **BARN PLAN VIEW (TYP.)**



# SYDASH CONSTRUCTION

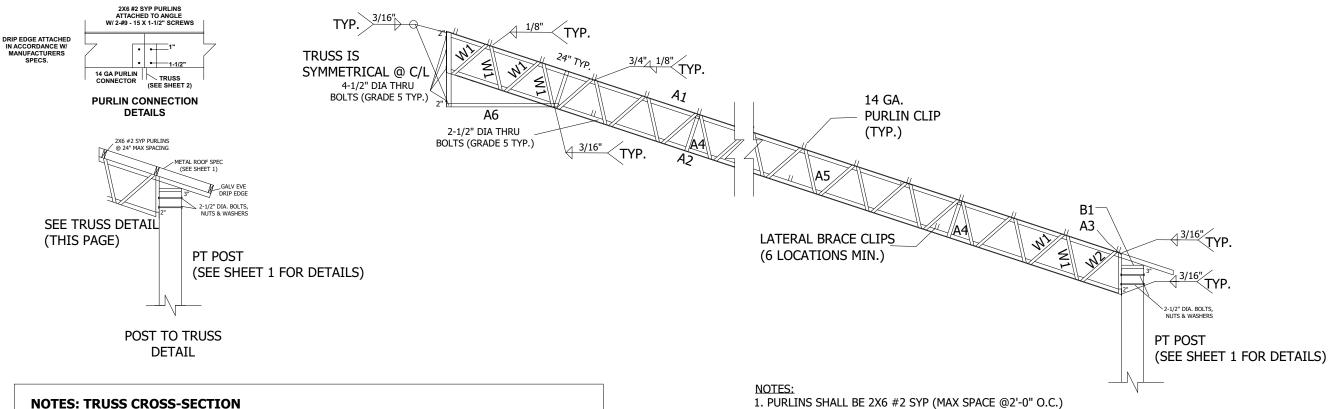
(45X84)

VALID ONLY WITH DATED ORIGINAL SIGNATURE AND INK OR EMBOSSED SEAL OR DIGITAL SEAL

T. BRENT WHITMAN, P.E. . P.E. #63178 / GA. P.E. #031 SHEET NO.

### **NOTES:**

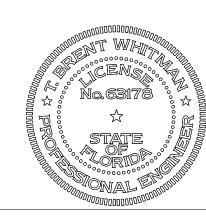
- 1. PURLINS SHALL BE 2X6 #2 SYP (MAX SPACE @2'-0" O.C.)
- 2. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY & PERMANENT CONSTRUCTION BRACING.
- 3. ALL DEMINSIONS SHALL BE VERIFIED PRIOR TO FABRICATION.
- 4. ALL WELD PER AWS STANDARDS.
- 5. ALL STELL AND FABRICATION PER ASCI STANDARDS.
- 7. ITEM DEMINSIONS ARE TO BE MODIFIED FOR SHORTER TRUSS LENGTHS.
- 8. ALL FASTNERS SHALL BE INSTALLED PER MANUFACTURES SPECIFICATIONS.
- 9. TRUSS DESIGN CAN BE USED FOR TRUSS LENGTHS SHORTER THAN 25 FEET.
- 10. CONCRETE WORK SHALL CONFORM TO 'BUILDING CODE REQUIRMENTS FOR REINFORCED CONCRETE' (ACI-318).
- 11. ALL CONCRETE SHALL BE 3000 PSI MIN. W/ WWF OR FIBER
- 12. FL PRODUCT APPROVAL CODE ROOF SYSTEM 36904.1

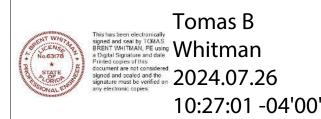


- 1- MATERIALS SHALL CONFORM TO STEEL ASTM 572.
- 2- ALL STEEL SHALL BE 50ksi IN ACCORD WITH CURRENT AISC MANUAL.
- 3- WELDING ELECTRODES SHALL BE TYPE E70XX
- 4- ALL WELDING SHALL BE IN ACCORD WITH CURRENT AWS REQUIREMENTS
- 5- ALL WELDING SHALL BE DONE BY A CERTIFIED WELDER.
- 6- BOL TS SHALL BE ASTM A325. w/ NUTS & WASHERS. TYP)
- 7- WELD STRENGTH 70 KSI MIN:
- 8- ALL POST SHALL BE #2 DENSE PRESSURE TREATED GROUND CONTACT.
- 9- PRIMING & PAINTING SHALL BE DONE BY TRUSS MANUFACTURER.
- 10- MIN EDGE DISTANCE FOR BOLTS HOLES SHALL BE 3/4" MIN
- 11- MAX TRUSS SPACING SHALL NOT EXCEED 12'-0" OC.
- 12-THE DESIGNER DISCLAMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF POOR WORKMANSHIP, OR IMPROPER USE, AND ACCEPTS NO RESPONSIBIL TY OR EXERCISES NO CONTROL WITH REGUARD TO FABRICATION, HANDLING, AND **INSTALLATION OF TRUSSES.**

| ITEM<br>NO | DESCRIP        | TION                   | MATERIAL (50 KSI) |
|------------|----------------|------------------------|-------------------|
| A1         | TOP CHORD      | LL 2 X 2 X 3/16*       | ASTM 572          |
| A2         | BOTTOM CHORD   | LL 2 X 2 X 3/16*       | ASTM 572          |
| A3         | VERTICAL CHORD | LL 2 X 2 X 3/16*       | ASTM 572          |
| A4         | VERTICAL CHORD | L 1 1/2 X 1 1/2 X 3/16 | ASTM 572          |
| A5         | TIE            | L 2 X 2 X 3/16         | ASTM 572          |
| A6         | TIE            | L 2 X 2 X 3/16         | ASTM 572          |
| W1         | WEB            | L 1-1/4 X 1-1/4 X 3/16 | ASTM 572          |
| W2         | WEB            | L 1-1/4 X 1-1/4 X 3/16 | ASTM 572          |
| B1         | BASE           | LL 2 X 2 X 3/16*       | ASTM 572          |

- 1. PURLINS SHALL BE 2X6 #2 SYP (MAX SPACE @2'-0" O.C.)
- 2. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY & PERMANENT CONSTRUCTION BRACING.
- 3. ALL DEMINSIONS SHALL BE VERIFIED PRIOR TO FABRICATION.
- 4. ALL WELD PER AWS STANDARDS.
- 5. ALL STELL AND FABRICATION PER ASCI STANDARDS.
- 7. ITEM DEMINSIONS ARE TO BE MODIFIED FOR SHORTER TRUSS LENGTHS.
- 8. ALL FASTNERS SHALL BE INSTALLED PER MANUFACTURES SPECIFICATIONS.
- 9. TRUSS DESIGN CAN BE USED FOR TRUSS LENGTHS SHORTER THAN 50 FEET.
- 10. WELDING ELECTRODES SHALL BE E70XX
- 11. ALL WELDS SHALL BE IN ACCORDANCE WITH AWS REQUIRMENTS.
- 12. ALL POST SHALL BE #2 DENSE PRESSURE TREATED.



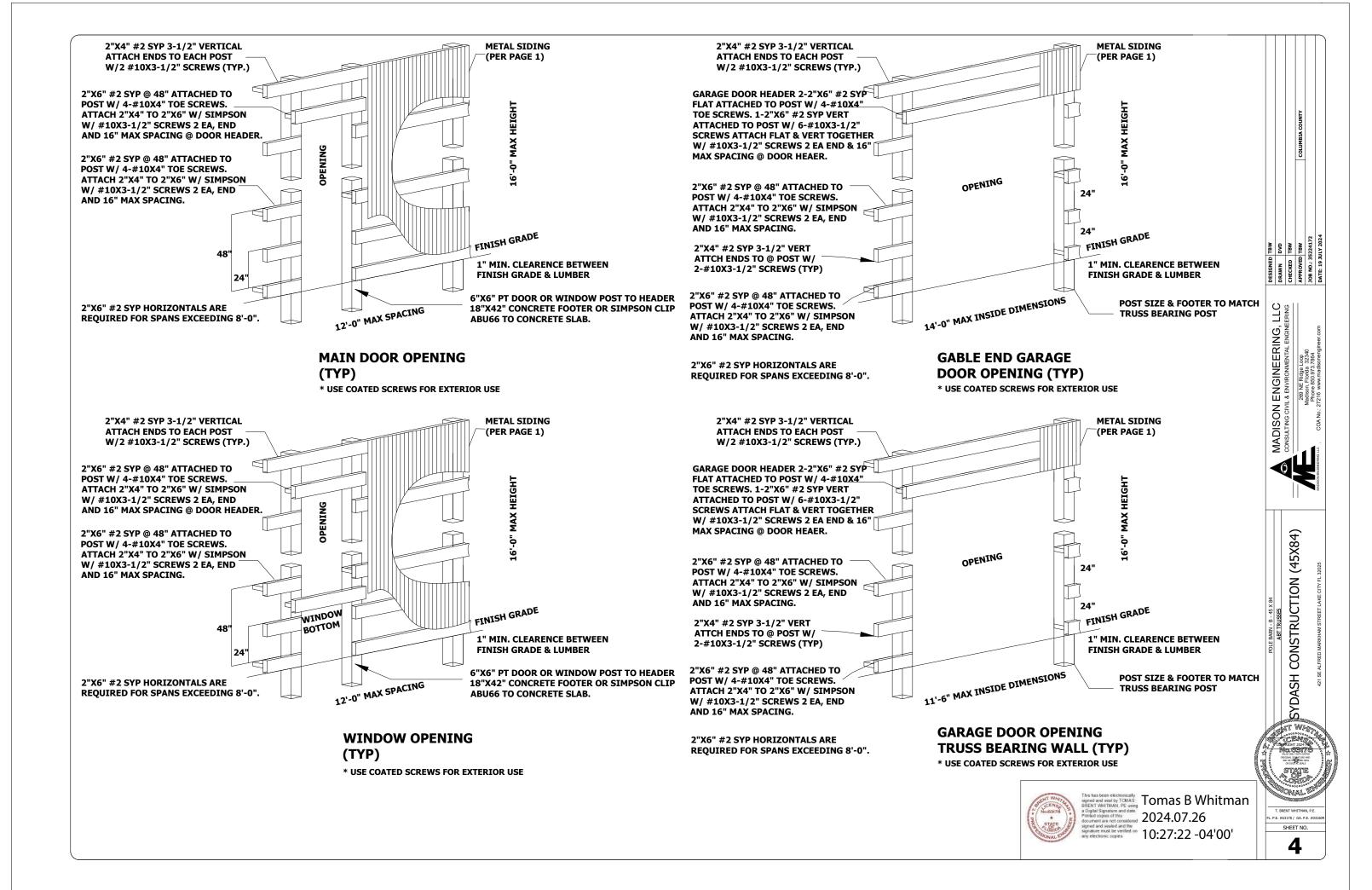


MADISON ENGINEERING, LLC CONSTRUCTION (45X84)

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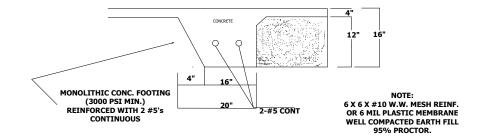
3



MAIN BUILDING 45'-00" X 84'-00" **LEAN TO** 16'00" X 84'-00" 4" CONC. SLAB 6~X~6~#10 W.W. MESH REINF. FIBERMESH OPTIONAL **6 MIL PLASTIC MEMBRANE** WELL COMPACTED EARTH FILL 95% PROCTOR TREAT SOIL FOR TERMITES **WIDTH WIDTH** 45' - 00"

- 00

LENGTH



### **CONCRETE:**

CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. COVER OVER REINFORCING STEEL FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE 3 INCHES IN FOUNDATIONS WHERE THE CONCRETE IS CAST AGAINST AND PREMANENTLY IN CONTACT WITH EARCH OR EXPOSED TO THE EARTH OR WEATHERAND 1 1/2" ELSEWHERE. REINFORCING BARS EMBEDDED IN GROUTED CELLS SHALL HAVE A MINIMUM CLEAR DISTANCE OF 1/4" FOR FINE GROUT OR 1/2" FOR COURSE GROUT BETWEEN REINFORCING BARS AND ANY FACE OF A CELL. REINFORCING BARS USED IN MASONRY WALLS SHALL HAVE A MASONRY COVER (INCLUDING GROUT) OF NOT LESS THAN 2" FOR MASONRY UNITS WITH FACE EXPOSED TO EARTH OR WEATHER 1 1/2" FOR MASONRY UNITS NOT EXPOSED TO EARCH OR WEATHER.

### **REINFORCING STEEL:**

THE REINFORCING STEEL SHALL BE MINIMUM GRADE 40.

METAL ACCESSORIES FOR USE IN EXTERIOR WALL CONSTRUCTION NOT DIRECTLY EXPOSED TO THE WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153, CLASS B-2. METAL PLATE CONNECTORS, SCREWS, BOLTS AND NAILS EXPOSED DIRECTLY TO THE WEATHER SHALL BE IN STAINLESS STEEL OR HOT DIPPED GALVANIZED.

### REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED:

- 1. ALL REINFORCEMENT IS BENT COLD
- 2. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN 6-BAR **DIAMETERS AND**
- 3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.

WHERE BENDING IS NECESSARY TO ALIGN BARS WITH A VERTICAL CELL, BARS PARTIALLY EMBEDDED IN CONCRETE SHALL BE PERMITTED TO BE BENT AT A SLOPE NOT MORE THAN 1" OF THE HORIZONTAL DISPLACEMENT TO 6" OF VERTICAL BAR LENGTH.

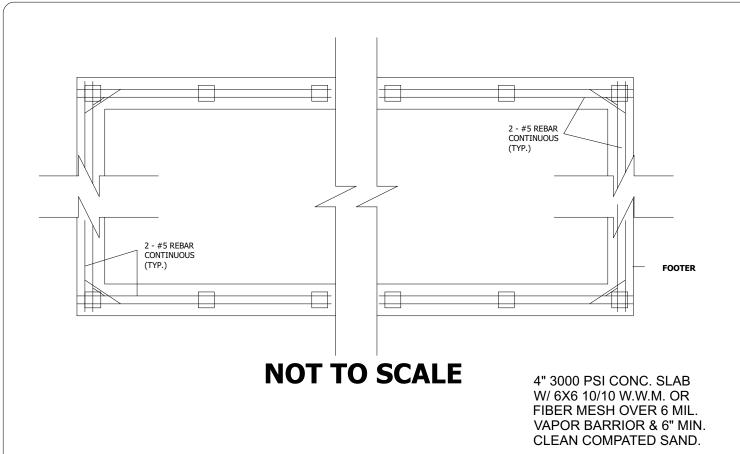




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SYDASH CONSTRUCTION (45X84)

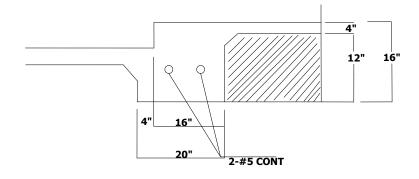
P.E. #63178 / GA. P.E. #031 SHEET NO.



### CONTROL JOINT NOTES:

- 1. Control joints shall be field located by the contractor.
- 2. Control joints shall be located to limit the frequency and width of random cracks in the concrete slab.
- 3. Locate and install control joints in accordance with ACI 360R "Design of Slabs on Ground" and the details shown.
- 4. Maximum spacing of joints shall be per the table below.
- 5. Saw cuts should be made as soon as possible after hardening.
- 6. Keyed form to be removed before adjacent slab is poured.

## FOOTER DETAILS



### NOTES:

- 1. ALL CONSTRUCTION SHALL CONFORM TO FBC 2023, 8TH EDITION. (CODE SHALL GOVERN OVER PLANS IN CASE OF CONFLICT.)
- 2. DESIGN WIND SPEED = 120 MPH
- 3. CONCRETE: 3000 PSI / STEEL: GRADE 60
- 4. FOUNDATION DESIGN FOR 14' EAVE HT.
- (4:12 PITCH) NO COLATERAL OR CRANE LOADING.
- 5. ALL SPLICES IN STEEL SHALL BE LAPPED
- 40 BAR DIA. IN CONCRETE BLOCK & 30 BAR DIA. IN MONOLITHIC SLAB.
- 6. ALL REINFORCEMENT STEEL SHALL BE LOCATED A MIN. 3" FROM CONCRETE SURFACE.
- 7. ALL ORGANIC MATERIAL SHALL BE REMOVED FROM UNDER FOUNDATION PRIOR TO
- CONSTRUCTION.
- 8. ALL FILL SHALL BE COMPACTED TO A MIN. 95% OF MAX. DRY DENSITY AS DETWRMINED BY MODIFIED PROCTOR TEST.
- 9. FOOTER @ A 12" MIN INTO UNDISTURBED SOIL.
- 10. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY VARIATION IN DIAMENSTIONS.
- 11. THE ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATION FROM THESE PLANS UNLESS SUCH CHANGES ARE AUTHERIZED IN WRITING BY THE ENGINEER.



This has been electronically signed and seal by TOMAS BRENT WHITMAN, PE using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Tomas B

Using Whitman

Gate. Whitman

Sidered the idea on 2024.07.26

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T. BRENT WHITMAN, P.E.
.. P.E. #63178 / GA. P.E. #0316
SHEET NO.

6

POLE BARN -B- 45 X 84
USA BARN KITS
SYDASH CONSTRUCTION (45X84)

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