

## BUILDING DATA:

RE: 2011 OHIO BUILDING CODE

USE GROUP: "A-3 / A-5" ASSEMBLY; OUTDOOR ACTIVITIES / RECREATION

CONSTRUCTION TYPE: 5B, COMBUSTIBLE-UNPROTECTED

AREA: ALLOWABLE; 9,000 SQ. FT. (Table 503)

PROPOSED; 205 SQ. FT.

HEIGHT: ALLOWABLE: 40'-0" - 1 STORY

PROPOSED; 12'-0" - 1 STORY

MAXIMUM OCCUPANCY LOAD: 14 PERSONS (Estimated Actual)

29 PERSONS (Per Code, Table 1004.1.1)

MAXIMUM EXIT ACCESS TRAVEL DISTANCE: 200' ALLOWABLE 16' MAX. PROPOSED

OCCUPANCY CATEGORY: II

SOIL BEARING CAPACITY: 1,500 p.s.f. (Class 5 Soils)

DESIGN LOADS: FIRST FLOOR; MIN. 100 psf. LIVE plus DEAD LOAD

ROOF; 20 psf. LIVE LOAD plus DEAD LOAD 20 psf. MIN. GROUND SNOW LOAD

SNOW EXPOSURE FACTOR, Ce = 0.9

SNOW LOAD IMPORTANCE FACTOR, I = 1.0

THERMAL FACTOR, Ct = 1.2 (Unheated)

WIND; EXPOSURE "B", 75 mph basic wind speed, 90 mph 3 second gust wind velocity.

WIND IMPORTANCE FACTOR, Iw = 1.00

SEISMIC DATA: SITE CLASS = D

SEISMIC IMPORTANCE FACTOR = 1.00

SPECTRAL RESPONSE COEFFICIENTS, SDS = 0.187 SM1 = 0.137

SEISMIC DESIGN CATEGORY: SHORT PERIOD = B

1 SECOND PERIOD = B

ANALYSIS PROCEDURE: SAP, (1617.5) BASIC STRUCTURAL SYSTEM: 3 MrFS (J)

RESPONSE MODIFICATION COEFFICIENT: R = 6.0

DEFLECTION APPLIFICATION FACTOR: Cd = 5.5

## INDEX OF DRAWINGS:

- 1) EXTERIOR ELEVATION, BUILDING DATA & INDEX OF SHEETS
- 2) FLOOR/FOUNDATION PLAN & GENERAL SPECIFICATIONS
- 3) TYPICAL CROSS SECTION & DETAILS

ATTACHMENTS:

S-1) SITE PLAN & LOCATION MAP MATERIAL SUPPLIER'S PLAN & SPECIFICATIONS

| VETERANS PARK GAZEBO   |                  |
|--|------------------|
| DIRECTORY: C:\ND\NAPOLEON CITY FILE NAME: VETERANS PARK GAZEBO | REVISED:         |
| DRAWN BY: R.D.S. ~ dba: NEW DIMENSIONS                         |                  |
| EXTERIOR ELEVATION, BUILDING DATA                              | SCALE: 1/4"=1'-0 |
| LATERION LEEVATION, BUILDING DATA                              | DATE: MAY 2012   |

P-KH-12-0178

1 of 3

DRAWING NUMBER:

## 17'-8 1/8" o/o OF FACIA 15'-9" o/o CONC. FLOOR C. **4'-7 3/8"-**16"ø x 8" CONC. FTG., TYP. EA. COL. C.L D FLOOR 15'-9" CONC. 9 SAWN & SEALED CONTROL JOINTS SHOWN THUS C.L 3 SLOPE' SLAB TO o/s • 1/4" PER FT. -ROOF OVERHANG -o/s ROOF HEADERS 2"x6" WOOD HEADERS & HIP RAFTERS, SEÉ 6"x6" P. T. WOOD FRAMING NOTE #3 -COL's. (8 REQ'D.) OPTIONAL or FUTURE DECORATIVE HEADER TRIM; RAILING OR BENCH SEE GEN. NOTE #3 SEATING IS OPTIONAL OF FUTURE ON A MAX. OF SEVEN (7) SIDES. FLOOR/FOUNDATION PLAN VIEW

## GENERAL SPECIFICATIONS

## **GENERAL NOTES:**

- 1. ALL WORK & MATERIALS SHALL BE IN ACCORDANCE WITH THE 2011 OHIO BUILDING 1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST SPECIFICATIONS CODE (LATEST EDITION) AND RELATED STATE & LOCAL CODES. CONTRACTORS SHALL INSURE THAT ALL PRODUCTS AND MATERIALS UTILIZED COMPLY WITH CURRENT LOCAL, STATE AND FEDERAL REGULATIONS & CODES AND THAT THEIR INSTALLATION IS IN STRICT COMPLIANCE WITH THE INSTRUCTIONS & RECOMMEND-ATIONS OF THE MANUFACTURER. WHERE THE PROVISIONS OF THE BUILDING CODE(S) AND THESE PLANS CONFLICT, THE MOST RESTRICTIVE REQUIREMENTS
- 2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE PROPOSED CONSTRUCTION PRIOR TO BEGINNING WORK. ANY DISCREPANCIES, INCONSISTENCIES OR ERRORS SHALL BE REPORTED TO THE ENGINEER AND BE RESOLVED PRIOR TO PROCEEDING WITH THE CONSTRUCTION
- 3. ALL EXPOSED SURFACES OF THE PRESSURE TREATED WOOD COLUMNS SHALL BE SANDED SMOOTH & SEALED WITH ONE COAT OF A CLEAR WATERPROOFING SEALANT.

## SITE WORK NOTES:

- 1. CONTRACTOR SHALL REMOVE ALL TOP SOIL TO ITS ENTIRE DEPTH WITHIN AN AREA TWO (2) FEET OUTSIDE OF THE AREA TO BE OCCUPIED BY THE BUILDING CONSTRUCTION. TOP SOIL SHALL BE PLACED AT A LOCATION ON SITE AS DIRECTED BY THE OWNER OR HIS DESIGNATED REPRESENTATIVE.
- 2. CONTRACTOR SHALL EXCAVATE ALL MATERIAL REQUIRED TO PLACE THE BUILDING FOOTINGS, FOUNDATIONS & SUPPORT POSTS IN ACCORDANCE WITH THE PLAN AND SHALL NOTIFY THE OWNER AND ENGINEER IMMEDIATELY IF INADEQUATE SOIL BEARING CONDITIONS ARE FOUND. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL AT A MINIMUM OF 36" BELOW FINAL FINISHED GRADE OR AT THE VERIFIED LOCAL FROST DEPTH.
- 3. IF STRUCTURAL FILL IS REQUIRED BY PLAN, OR DUE TO UNSUITALBE CONDITIONS FOUND UPON EXCAVATION, IT SHALL BE GRANULAR FILL. AS APPROVED BY THE OWNER'S ENGINEER. PLACED IN LIFTS OF 8" MAXIMUM UNCOMPACTED DEPTH & MECHANICALLY COMPACTED TO A MINIMUM OF 95% COMPACTION AS MEASURED BY THE STANDARD MODIFIED PROCTOR TEST, ASTM D-1557.
- 4. UPON COMPLETION OF THE REQUIRED FOOTINGS AND SUPPORT COLUMNS THE CONTRACTOR SHALL BACKFILL ALL AREAS WITHIN & OUTSIDE THE AREA OF THE BUILDING. BACKFILL WITHIN THE BUILDING AREA, AND AREAS OUTSIDE THE BUILDING, TO BE OCCUPIED BY PAVEMENT SHALL BE EXTENDED UP TO THE ELEVATION OF THE BOTTOM OF THE PROPOSED GRANULAR BASE REQUIRED FOR THE CONCRETE FLOOR OR PAVEMENT IN THE SAME MANNER REQUIRED FOR STRUCTURAL FILL. OTHER BACKFILL OUTSIDE OF THE BUILDING AREA MAY BE GRANULAR OR CLEAN NATIVE MATERIAL, WELL COMPACTED, AND EXTENDED UP TO AN ELEVATION 6" BELOW THE FINAL FINISHED GRADE.
- 5. UPON COMPLETION OF THE BUILDING CONSTRUCTION THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS, STONES AND LUMPS, ETC., OFF-SITE: SHALL LEVEL THE SUB GRADE AND SHALL PLACE & FINISH-GRADE THE TOP SOIL TO DRAIN AWAY FROM THE BUILDING AS REQUIRED PER PLAN TO ALLOW THE OWNERS TO SEED AND LANDSCAPE AT THEIR DISCRETION.

## CONCRETE/FOUNDATION WORK NOTES:

- OF THE AMERICAN CONCRETE INSTITUTE. ALL NEW CONCRETE SHALL CONSIST OF A MINIMUM 6 BAG, OR EQUAL, MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000psi AT 28 DAYS. ALL EXTERIOR CONCRETE FLATWORK SHALL BE AIR ENTRAINED (MINIMUM 6% ±2%) CONCRETE. ALL CONCRETE SHALL BE ALLOWED TO CURE A MINIMUM OF 14 DAYS PRIOR TO LOADING.
- 2. ALL GRANULAR BASE PLACED UNDER CONCRETE FLATWORK SHALL BE PLACED AS PER THE REQUIREMENTS OF STRUCTURAL FILL (SEE NOTE 3-SITE WORK).
- 3. INTERIOR FLOOR SLABS SHALL BE PLACED ON A VAPOR BARRIER CONSISTING OF 6 MIL (MINIMUM) POLYETHYLENE MATERIAL, VISQUEEN OR EQUAL. SLABS SHALL BE PLACED LEVEL, EXCEPT AS NOTED OR WHERE FLOOR DRAINS ARE PLACED, AND SHALL BE FINISHED WITH A SMOOTH TROWEL FINISH. ALL CONTROL JOINTS SHALL BE SEALED WITH AN APPROVED ELASTOMERIC JOINT SEALER AND THE SURFACE SHALL RECEIVE ONE COAT OF A CONCRETE FLOOR SEALER/CURING COMPOUND AS APPROVED BY THE ENGINEER.
- 4. ALL SIDEWALK AND ENTRANCE SLABS SHALL BE FLOATED AND PROVIDED WITH A LIGHT BROOM FINISH. PROVIDE SAWN CONTROL JOINTS AT A MAXIMUM OF 5' ON CENTER FOR SIDEWALKS AND 16' APART ON SLABS OR AS NOTED ON THE CONSTRUCTION PLANS. PROVIDE A MINIMUM 1/2" EXPANSION JOINT AT THE JUNCTION OF THE SLAB AND THE BUILDING WALLS & COLUMNS. ALL CONTROL JOINTS SHALL BE SAWN TO A MINIMUM DEPTH OF 1/4 OF THE SLAB THICKNESS. ALL SIDEWALKS AND SLABS SHALL RECEIVE ONE COAT OF AN APPROVED SEALER/ CURING COMPOUND.
- 5. REINFORCING STEEL SHALL BE ASTM A615, A616 OR A617 STEEL, GRADE 60.
- 6. ALL CONCRETE SLABS SHALL BE REINFORCED WITH A MINIMUM OF 1 LAYER OF 6x6x10ga WELDED WIRE FABRIC UNLESS NOTED OTHERWISE ON THE PLAN.

## FRAMING NOTES:

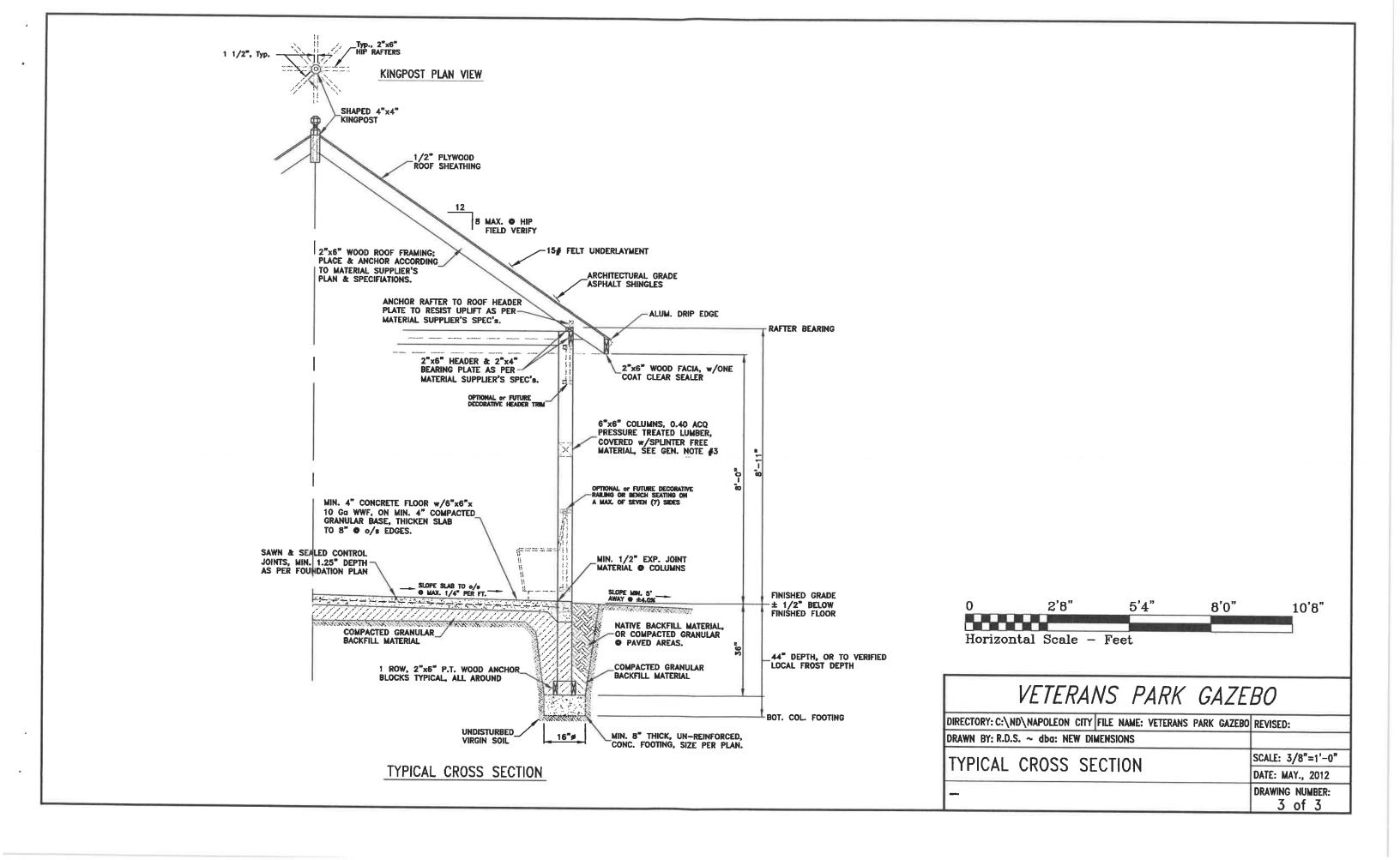
- 1. ALL SIDE & END WALL POSTS (STRUCTURAL COLUMNS) AND ROOF HEADERS SHALL BE EQUAL TO, OR BETTER THAN, \$2 SOUTHERN YELLOW PINE. COLUMNS, HEADERS AND ALL LUMBER IN DIRECT CONTACT WITH CONCRETE OR EARTH AND WITHIN 8" OF FINISHED GRADE, SHALL BE PRESSURE TREATED OR DECAY RESISTANT LUMBER MEETING THE REQUIREMENTS OF SECTIONS 2303.1.8 & 2304.11 O.B.C..
- 2. CONTRACTOR SHALL CONFIRM THE SIZE AND SPACING OF ALL FRAMING AND STRUCTURAL MEMBERS TO MEET LOCAL CODES WITH THE LOCAL CODE OFFICIAL. REQUIRED STRUCTURAL FRAMING MEMBERS NOT INDICATED ON THE PLAN SHALL BE SIZED BY THE CONTRACTOR TO MEET LOCAL CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL SIZING OF ALL STRUCTURAL MEMBERS AND SHALL CONFIRM THEIR SUFFICIENCY WITH THE PROJECT ENGINEER AND CODE OFFICIALS AS REQUIRED.
- 3. ROOF FRAMING SYSTEM TO BE UTILIZED SHALL BE ENGINEERED BY THE MATERIAL SUPPLIER TO MEET THE LOADING REQUIREMENTS SHOWN HEREON OR THE REQUIREMENTS OF THE BUILDING CODE AND LOCAL CONDITIONS, WHICHEVER ARE GREATER. THE MATERIAL SUPPLIER SHALL SUPPLY A PLAN & ASSEMBLY DIAGRAM TO THE OWNER AND OWNER'S OHIO REGISTERED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE ROOF.

VETERANS PARK GAZEBO

A MINIMUM OF ONE (1) SIDE SHALL REMAIN OPEN AND UN-OBSTRUCTED BY DECORATIVE RAILINGS OR BENCH SEATING AND SHALL BE PROVIDED WITH A HANDICAPPED ACCESSIBLE "AT GRADE" WALK FOR EASY ACCESS.

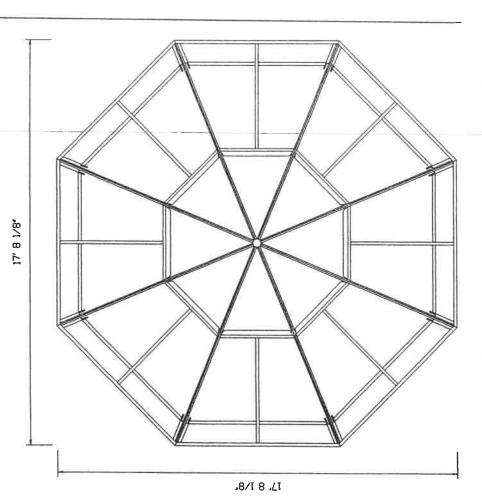


VETERANS PARK GAZEBO DIRECTORY: C:\ND\NAPOLEON CITY FILE NAME: VETERANS PARK GAZEBO REVISED: DRAWN BY: R.D.S. ~ dba: NEW DIMENSIONS SCALE: 1/4"=1'-0" FLOOR/FOUNDATION PLAN VIEW & DATE: MAY., 2012 DRAWING NUMBER: GENERAL SPECIFICATIONS 2 of 3



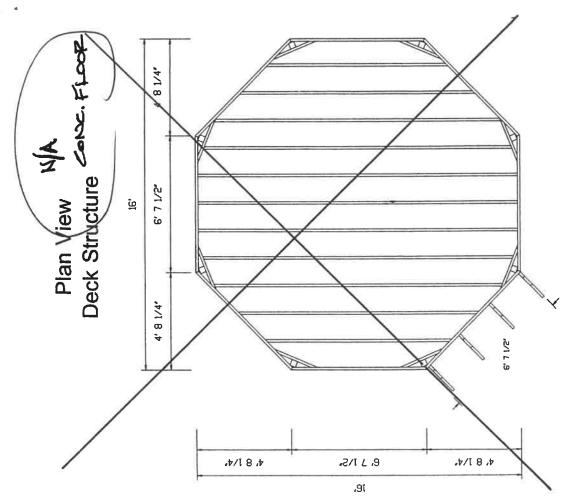
NOTE: SEE ATTACHED FLANS

## Plan View Roof Structure



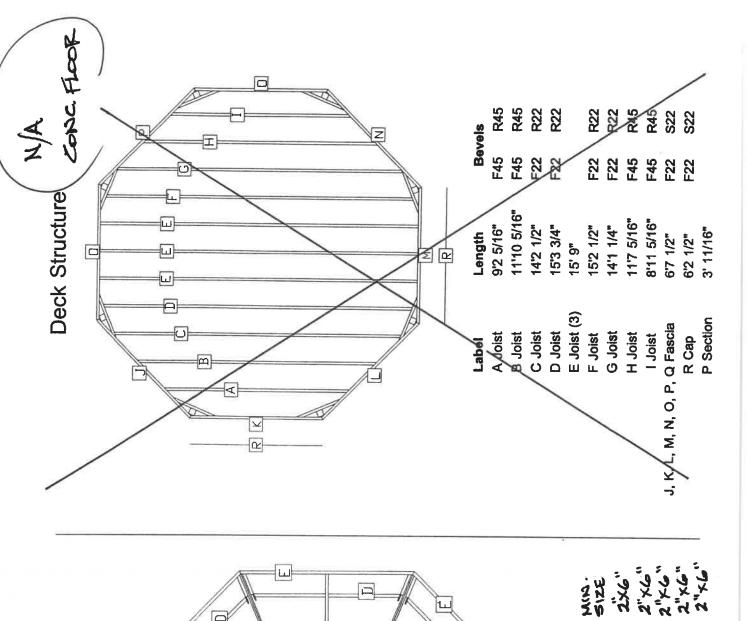
your local building department for specific details concerning your building plans. Joists - Set joists between the Outer Deck Ledgers as shown, 16" center to center Note - Your design may require knee bracing and bridging between joists. Check with The suggested design is not an architectural building plan.

# Plan View & Cut List 16' Octagon Gazebo



Roof Structure

**Cut List** 



A

A

A

(M)

\$30 \$20 \$30 \$22 \$22

F30 F20 F0 F22 F22

11'7 1/16" 3'3 3/4" 4'9 5/8" 6'1 9/16" 7'3 7/8"

A Rafter (8)
B Horiz. Support (8)
C Vertical Support (8)
D Ledger (8)
E Fascia (8)

Bevels

Length

Label

## Gazebo Construction Overview

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A properly installed gazebo must first use proven methods of installation that will withstand the many environmental stresses such as wind, loads and seasonal changes (i.e., frost, thawing and wet/dry conditions) that effect every outdoor project. The basic components of a properly installed gazebo include the footings, sub-framing, hand railings, roof and stairs. The following is only a brief overview of the construction process of a gazebo. Depending upon your level of carpentry experience you are encouraged to check the book department within the store for additional publications detailing specific construction techniques and information.

The construction of a gazebo can be broken down into 9 basic steps:

1. Planning

4. Post Placement

7. Roof Framing

2. Building Permits

5. Deck Framing

8. Shingles

3. Footings (Piers)

6. Deck Board Flooring

9. Maintenance

## Steps 1 Planning and Building Permits

Prior to construction it is important to check the following:

(1) That the soil where you intend to construct your gazebo is adequate in regards to the conditions required to support the foundation (piers). (2) You will need to make certain that there are no underground utilities in the areas where piers will be excavated. (3) Check with your local building department for codes and requirements which may or may not effect the construction of your gazebo.

## Step 2 Footings (Piers) SEE PLAN ATTACHED

One of the most important steps during the construction of your new gazebo is to correctly lay out and excavate the footings (piers). The size and depth of the concrete footings depends upon three factors; weight, temperature (climate conditions) and the type of soil located at your building area. Your local building department should be able to tell you the exact footing dimensions required for your installation. Footings provide an "anchor" which secures your gazebo to the ground in the event of high winds or storms.

## Step 3 Post Placement SEE PLAN ATTACHED

By using the outer deck ledgers and the post layout page included in your plan, you will be able to properly layout the exact post placement. First refer to the deck structure cut list and cut the eight (8) outside ledgers as specified. Next, using two (2), 3" screws in each corner, temporarily assemble the outer deck frame (ledgers) in the exact location where you will be constructing the gazebo. Once this is complete, measure and compare the "corner to corner" distance of the framing to insure all of the measurements are the same. These measurements are very important as they will effect the remaining construction of the gazebo. Carefully mark the placement of each post as shown in the beam layout view. Disassemble the temporary framing and place to the side. Begin post hole excavation and place your footing depths as required by your local building codes. Cut the preformed sono-tubes to 12"-18" high and place them in the post holes so that the top of the tube is approx. 4" above grade. After excavation is complete, be sure to mix the concrete as directed by the manufacturer. Following the mixing instructions is crucial when preparing your footings. Be sure to install the footing anchor bolts into the center of the concrete piers before the concrete begins to "set".

After the concrete piers have set (approx. 24 - 48 hrs), place the 4x4 posts onto the concrete anchors and temporarily brace as needed. Next, reassemble the outer deck ledger and attach each corner with three (3), 3" deck screws. Temporarily attach each 4x4 post to the inside of the octagon frame using two (2), 3" screws. Next, refer to the cut list and cut all of the floor joists as specified. Temporarily lay each joist in place (16" on-center). Using 3" deck screws, secure the joists which attach directly to the outer deck ledger. Next determine the exact length of bridging by holding and marking a piece of framing material against the flat, inside portion of each 4x4 post. Cut each piece of bridging and secure to the inside of the octagon frame and each of the 4x4 posts. Secure the bridging, octagon frame and 4x4 posts with two (2), 8" carriage bolts in each corner. Install the remaining floor joists (16" on-center).

Gazebo Construction Overview

Steps 5 Deck Board Flooring NA - CONC. FLOOR

The deck flooring can be secured using several different methods. Most typical are screws and nails. Begin by laying your deck flooring across the floor joists, starting at one side of the gazebo. Some of the decking will need to be cut around the 4x4 upright posts. Be sure to install the decking as close together as possible as decking shrinks slightly over time, creating even spacing on your deck floor. At least two nails or screws should be installed in each deck board where it lays over each joist. Depending upon the length of your framing, the end board may need to be cut (ripped) for a proper fit. It is also important to predrill the deck board ends to prevent splitting when securing to the outer ledgers.

## Steps 6 Roof Framing, Sheeting, Soffits and Fascia

Construct the roof according to the specifications within the roof plan view and cut lists. Begin by securing the wall top plate to the top inside edges of each 4x4 upright post. You will then cut an eight (8) side, "center kingpin" which is made from a 18" 4x4. See plan for specific details on the central king pin. Using 3" screws, secure each rafter to the top of the 4x4 wall posts and at the central, eight sided kingpin. Depending upon your chosen materials, you will now install the roof sheeting. If you are using plywood, measure, cut and install (using 2 1/2" screws) the sections of plywood sheeting to the rafters. If called for within your material use list, install the second layer of sheeting before you begin step 7. If you are using 5/4" x 6" decking for the roof, cut and install the roof decking, using 2 1/2" screws beginning at the lower edge of the rafters, working upward towards the center kingpin. Next, cut and install the wall corner bracing if shown within your plan. Your installation may or may not call for fascia or soffit. If your gazebo includes these options, cut and install (using 2 1/2" screws) the recommended fascia and soffit materials as described in your material use list. Upon completion of the roof framing, double check to verify that all attachments are secure.

## Steps 7 Roof: Felt Paper and Shingles

If called for, cut the metal drip edge and attach to the bottom outside edge of the roof structure. Starting at the edge of the roof, begin to lay the felt paper, overlapping each pervious row by 12", or as suggested by the manufacturer. Roofing felt may be secured by either tacking or stapling into place. Begin to install your shingles by working from the edge of the roof, working upwards towards the center kingpin. For proper water run off, allow the first row of shingles to hang 3/4" beyond the edge of the roof. It is very important that you closely follow the shingle manufacturers recommended instructions when installing your shingles. Finish the roof by installing the ball cap on the top of the central kingpin.

STORE SDIE NA - CONC. FLOOR @ GRADE

Stair stringers can either be cut from 2x12's or purchased as a prefabricated product. The tread length should be at least 11" with the rise not to exceed 7". Stair treads will be cut from decking lumber and secured to the stringers using 2 1/2" screws. Once your stair stringers are aligned, your next step is to cut and install the stair treads. If your gazebo calls out for stair risers, these pieces will be cut from 1x8 lumber and installed before the stair treads using 2 1/2" screws.

Steps 9 Hand Railings (OPTIONAL)

Before proceeding, check with your local building department for codes relating to railing height and ballast spacing. Railings should first be laid out on the gazebo floor to ensure even spacing. Install the top and bottom, horizontal rails (2x4's) to the inside edge of the 4x4 upright wall posts. Depending upon your installation, your materials use list may call for a 2x6 top rail which will be laid flat and installed on top of the 2x4 horizontal rail. Install your ballasts (pickets, spindles, etc..) evenly spaced, onto the 2x4 horizontal rail sections. When installing the hand railings, be certain that your attachments are properly secured and that they are stable.

## Steps 10 Maintenance

Check with your local building materials retailer for sealers and stains to protect your new gazebo from natures elements.

Thank you.