

REINFORCING STEEL NOTES:

1. THE REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60. IT SHALL BE DEFORMED AND SPLICES SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED.
2. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
3. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE. WHEN TEMPORARY CASING IS UTILIZED, BRACING SHALL BE ADEQUATE TO RESIST FORCES OCCURRING FROM FLOWING CONCRETE DURING CASING EXTRACTION.
4. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF TIEBACK REINFORCING TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
5. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3" UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3" MINIMUM COVER ON REINFORCEMENT.

CONCRETE NOTES:

1. WORK SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
2. THE CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28-DAYS.
3. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI-318 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE.
4. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL, AND OTHER OCCURRENCES THAT MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.

TOWER REACTIONS

MOMENT (Ft-Kips)	SHEAR (Kips)	VERTICAL (Kips)
40.1	1.08	0.9

CONCRETE NOTES (CONTINUED):

5. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING THE SIDES OF THE EXCAVATION, FORMWORK, REINFORCING BARS, FORM TIES, CAGE BRACING, OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
6. THE MAXIMUM SIZE OF THE AGGREGATE SHALL NOT EXCEED A SIZE SUITABLE FOR THE INSTALLATION METHOD UTILIZED OR 1/3-CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. THE MAXIMUM SIZE MAY BE INCREASED TO 2/3-CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS AND VOIDS.

NOTE:

THE FOUNDATION DESIGNS WERE BASED ON SOIL INFORMATION LISTED IN THE TABLE BELOW. IT IS THE RESPONSIBILITY OF THE OWNER TO VERIFY BY GEOTECHNICAL INVESTIGATION THAT ACTUAL SITE SOIL PARAMETERS EQUAL OR EXCEED THOSE SHOWN IN THE TABLE BELOW. IF CONDITIONS OTHER THAN THOSE DESCRIBED IN THE TABLE BELOW ARE ENCOUNTERED A FOUNDATION ANALYSIS SHOULD BE PERFORMED TO DETERMINE THE STRUCTURAL ADEQUACY OF THE SUBSTRUCTURE.

ALLOWABLE FOUNDATION AND LATERAL PRESSURE

SOIL CLASS	DESCRIPTION	ALLOWABLE FOUNDATION PRESSURE (PSF)	LATERAL BEARING (PSF/FT BELOW NATURAL GRADE)	LATERAL SLIDING	
				COEFF. OF FRICTION	RESISTANCE (PSF)
1	CRYSTALLINE BEDROCK	12,000	1,200	0.70	-
2	SEDIMENTARY AND FOLIATED ROCK	4,000	400	0.35	-
3	SANDY GRAVEL AND/OR GRAVEL (GW AND GP)	3,000	200	0.35	-
4	SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL, AND CLAYEY GRAVEL (SW,SP,SM,SC,GM AND GC)	2,000	150	0.25	-
5	CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILT AND SANDY SILT (CL, ML, MH AND CH)	1,500	100	-	130

TOWER ENGINEERING PROFESSIONALS
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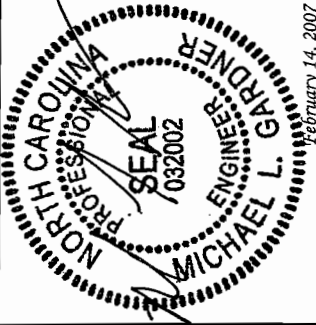
PROJECT INFORMATION:

45' MONOPOLE FOUNDATIONS

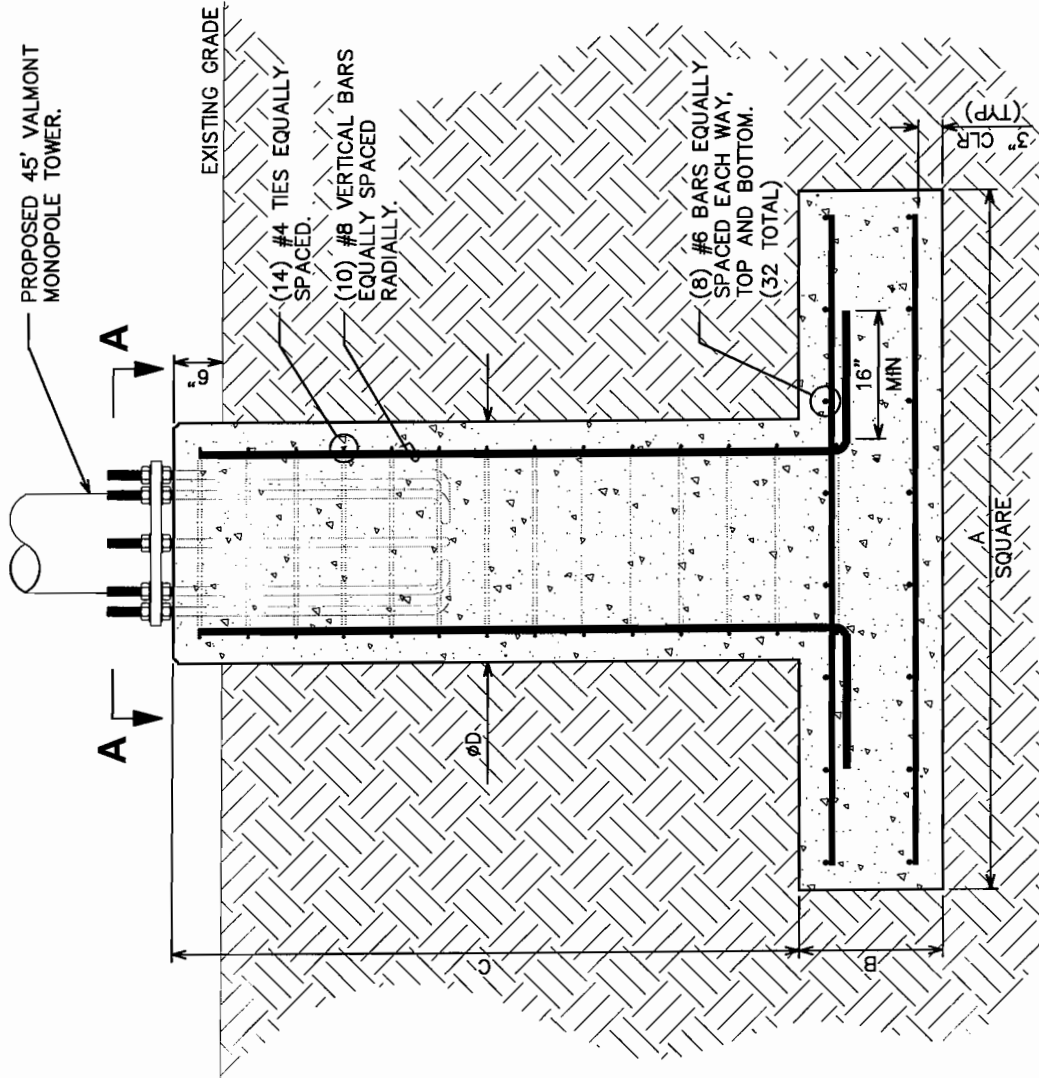
Southwest Windpower
Renewable Energy Made Simple
1801 West Route 66
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Office: (928) 779-9463

REV	DATE
0	02-14-07

DRAWN BY: WHM	CHECKED BY: MLG
SHEET NUMBER: S-1	REVISION: 0
TEP #: 070175	



PROPOSED 45' VALMONT
MONOPOLE TOWER.



EXISTING GRADE

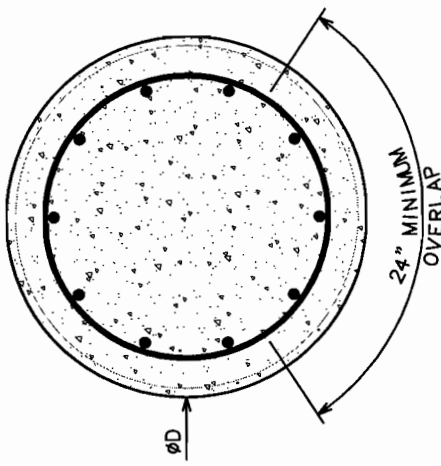
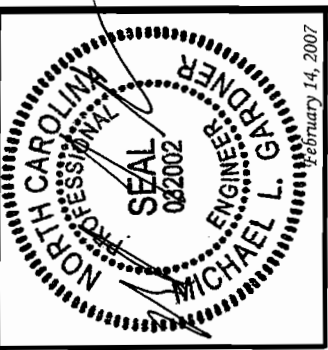
(14) #4 TIES EQUALLY
SPACED.

(10) #8 VERTICAL BARS
EQUALLY SPACED
RADIALLY.

(8) #6 BARS EQUALLY
SPACED EACH WAY,
TOP AND BOTTOM.
(32 TOTAL)

SQUARE

16" MIN



SECTION A-A
SCALE: 3/4" = 1'-0"

FOUNDATION DIMENSIONS

SOIL CLASS	A	B	C	D
1	-	-	-	-
2	-	-	-	-
3	8'-6"	1'-6"	4'-6"	2'-6"
4	8'-9"	1'-6"	4'-6"	2'-6"
5	9'-0"	1'-6"	4'-6"	2'-6"

NOTE:

1. IF FROST LINE IS KNOWN TO BE GREATER THAN THE FOUNDATION DEPTH OR WATER TABLE IS LESS THAN THE FOUNDATION DEPTH, THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION.

FOUNDATION ALTERNATIVE I - PAD AND PIER

SCALE: N.T.S.

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DRAWN BY: WHM	CHECKED BY: MLG
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REV: 0	DATE: 02-14-07
REV:	DATE:
TEP # 070175	

