SMarT_Foundation™ [Simple Modular Technology]
Assembly and Installation Instructions
(U.S. Patent Pending)

Southwest Windpower Skystream 3.7 Wind Turbine with Towers up to 60 ft. (18.3 m) in Height

AnemErgonics™

A Colorado Limited Liability Company
www.anemergonics.com

DESIGNED IN CONFORMANCE WITH THE INTERNATIONAL ELECTROTECHNICAL COMMISSION
(IEC) 61400-2 ED.2 DESIGN REQUIREMENTS FOR SMALL WIND TURBINES
THE NATIONAL ELECTRICAL SAFETY CODE (NESC) AND
THE INTERNATIONAL BUILDING CODE (IBC) 2003 PRESCRIPTIVE SOIL VALUES

ATTENTION

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Some Important Notes about Constructing a SMarT Foundation!

- ☐ Check with local building officials to determine the design wind speed at the location where you are installing the wind turbine.
- ☐ Check with local building officials to determine the design frost depth at the location where you are installing the wind turbine. If the frost depth is more than 3.5 ft. (1.07 m), you will need to fabricate an extension for the stanchion in the foundation kits (the "Kit").
- ☐ Check that the excavation diameter from the construction drawings (the "Drawings) coincides with your tower height and design wind speed.
- ☐ Check that the bolt circle of your tower base flange matches the bolt circle of the anchor bolt templates and rebar hoops in the Kit.
- ☐ Check that you have ordered fiber-reinforced concrete as specified in the Drawings.
- ☐ Modifications, including design modifications and use of additional or alternative materials supplied by third parties, must be pre-approved in writing by Supplier. Any approvals referenced in these Instructions means Supplier's prior, written approval.

- ☐ Make sure you read the Drawings, Instructions and Terms and Conditions carefully.
- ☐ Make sure all Parts, materials and tools are in hand before gathering at the construction site.
- ☐ Make sure the construction team is familiar with the Kit before gathering at the construction site.

- ☐ Follow the assembly sequence to avoid mistakes that might cause delays or other problems.
- ☐ Have one person in charge of coordinating the participants and directing construction activity.
- ☐ Conduct a site safety meeting to discuss procedures, roles and responsibilities before commencing construction activities.
- ☐ Do not place excavation spoils (the pile of dirt!) close to the excavation. Avoid tripping hazards and keep dirt out of the foundation.

- ☐ Make sure the width of the excavation is at least that specified in the Drawings.
- ☐ Level the center of the excavation floor where the stanchion base will be placed.
- ☐ Mark the center of the excavation floor for placement of the stanchion.
- ☐ Do not allow dirt or other loose materials to fall into the foundation.
- ☐ Make sure that the anchor rods extend the correct height above the "stub pier" and the final grade.
- ☐ Check the bill of lading when the concrete arrives to make sure the supplier has delivered fiber-reinforced concrete.
- ☐ Do not torque the anchor rod nuts until the concrete has achieved its design strength of 2,500 psi. The required curing time depends on the initial strength of the concrete and the cure conditions.

- ☐ Contact us with questions or if you encounter problems with the installation.

- ☐ Please reuse or recycle all materials remaining after construction.

We provide a unique foundation solution along with Drawings, Parts and Instructions to facilitate placement of reinforcement and anchor rods.

We suggest a sequence of tasks for assembly and installation of the Kit and placement of concrete. However, it is the installer that is responsible for applying appropriate techniques and exercising reasonable standards of care in constructing the foundation. The installer is also responsible for adhering to all applicable safety and health regulations and exercising reasonable prudence during construction. Consult the turbine manufacturer and/or qualified professionals regarding lightning protection and electrical grounding requirements. Those issues are not addressed by us and are not our responsibility. Specification of installation procedures for anchor bolts or anchor rods is the responsibility of the turbine manufacturer. Proper installation, inspection and testing of anchor rods are the responsibility of the installer. Please check with the turbine manufacturer for its recommended procedures.

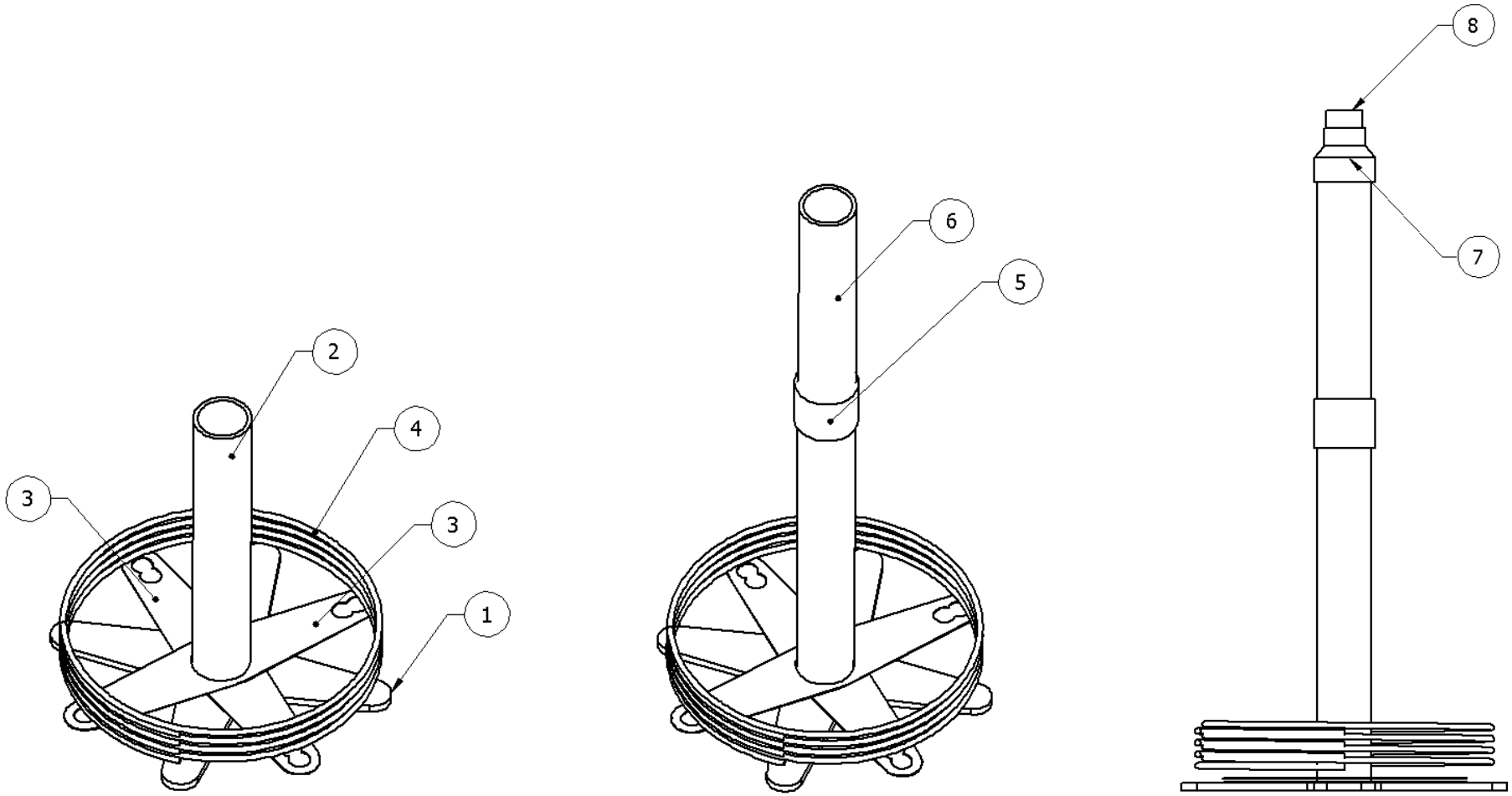
Use of this innovative foundation is intended to reduce material costs, labor hours and wind turbine installed cost. Installers are advised to read the Drawings, Instructions and Terms and Conditions and to plan carefully.

The Kit requires an excavation of 3.5 feet (1.07 m) below the planned final earth grade. Thus, the foundation is suitable for use in frost depths up to and including 3.5 feet (1.07 m). The appropriate frost depth must be determined by consulting local building authorities. For frost depths greater than 3.5 feet (1.07 m), the installer must fabricate a 3" ABS pipe extension, the length of which is given by the equation *l = frost depth – 42 inches (1067 mm)*. Using a standard 3" ABS coupling, this extension would be added to the bottom of the stanchion (Step 4.1).

The required foundation diameter, which depends on the tower height and the site design wind speed, is specified in the Drawings also contained in the Kit.

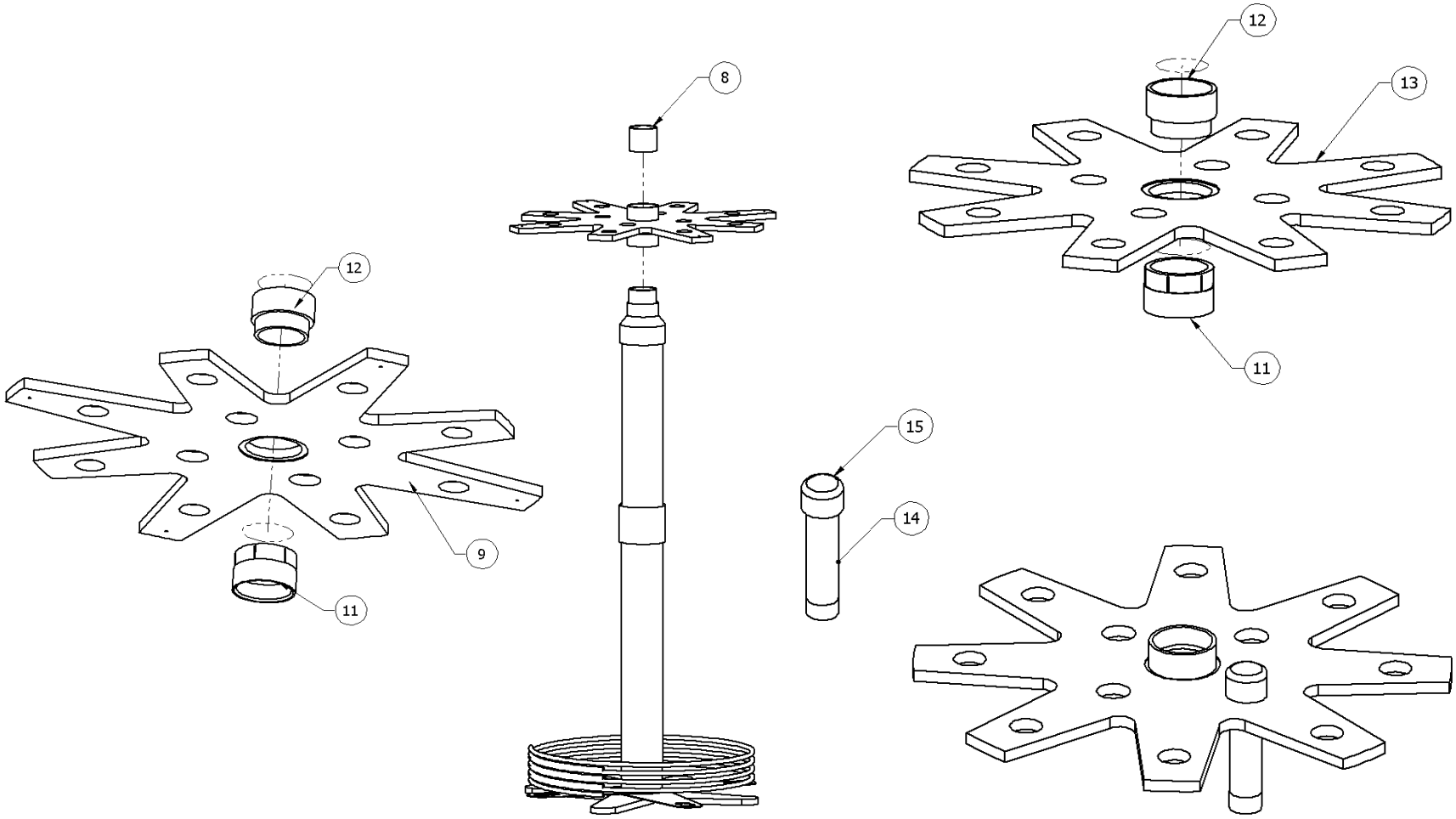
ITEM	PART NUMBER	PART NAME	DESCRIPTION	QTY
1	015-001-0001	STANCHION BASE	1/2" MDF x 19" OUTSIDE DIMENSION	1
2	013-003-0003	LOWER STANCHION	3" ABS PIPE X 23-15/16"	1
3	002-001-001	STANCHION BRACE	16 GA COLD ROLLED STEEL	2
4	014-001-0001/2	REBAR HOOP	#3 STEEL 18 1/2" ID (17" BC) or 20-1/2" ID (19" BC)	4
5	009-002-001	STANCHION COUPLING	3" ABS	1
6	013-003-0004	UPPER STANCHION	3" ABS PIPE X 17-1/16"	1
7	009-006-0001	3" TO 2" ABS REDUCER	3" to 2" ABS REDUCER	1
8	013-001-0003	2" ABS EXTENSION	2" ABS PIPE x 2"	1
8	013-001-0003	2" ABS TEMPLATE SPACER	2" ABS PIPE x 2"	1
9	016-001-0004/6	LOWER ANCHOR BOLT TEMPLATE	1/2" MDF, 17" or 19" BOLT CIRCLE	1
10	008-003-002	CABLE TIE	Plastic Tie, 7"	20
11	009-004-0001	2" ABS FEMALE ADAPTER	2" ABS	2
12	009-005-0001	2" ABS MALE ADAPTER	2" ABS	2
13	016-001-0003/5	UPPER ANCHOR BOLT TEMPLATE	1/2" MDF, 17" or 19" BOLT CIRCLE	1
14	009-007-0001	1" PVC RISER	1" SCH 80 PVC PIPE X 6", THREADED	1
15	009-001-0002	1" PVC THREADED CAP	1" PVC	1
16	013-002-0001	1-1/2" ABS TEMPLATE SPACER	1-1/2" ABS PIPE X 3-15/32"	8
17	009-004-0002	1" PVC FEMALE ADAPTER	1" PVC	1
18	013-001-0002	1" PVC EXTENSION	1" PVC PIPE X 11-15/16"	1
19	009-003-0001	1" PVC ELBOW	1" PVC 90 DEGREE ELBOW WITH BELL END	1
20	008-001-0001	ANCHOR ROD*	1-1/4" x 32" ASTM 1554	8
21	008-002-0001	ANCHOR ROD NUT*	1-1/4" ASTM A563 HEAVY, HDG	24
22	006-001-0001	CYLINDRICAL CONCRETE FORM	24" ID X 7-3/4" LONG	1
23	003-001-0002	LOCATER BRACKET	16 GA COLD ROLLED STEEL, 3/4" X 9-5/8"	4
24	008-005-0001	LOCATER BRACKET SCREWS	#8 x 1/2" SELF TAPPING SCREW, PHILLIPS	8
25	011-001-0001	GUY ROPES	GUY ROPE WITH SLIDES, 10' LONG, 2/PKG	2
26	012-001-0001	NAIL PEGS	NAIL PEGS, 10" LONG, 4/PKG	1
27	017-001-0001	MULTI-PURPOSE CEMENT	2 OZ DABBER CAN	1
28	018-001-0003	DRAWINGS	SMarT 2_v1 DRAWINGS	1
29	018-002-0002	INSTRUCTIONS	SMarT 2_v1 ASSEMBLY/INSTALLATION INSTRUCTIONS	1

* Anchor Rods and Anchor Rod Nuts are sold separately.



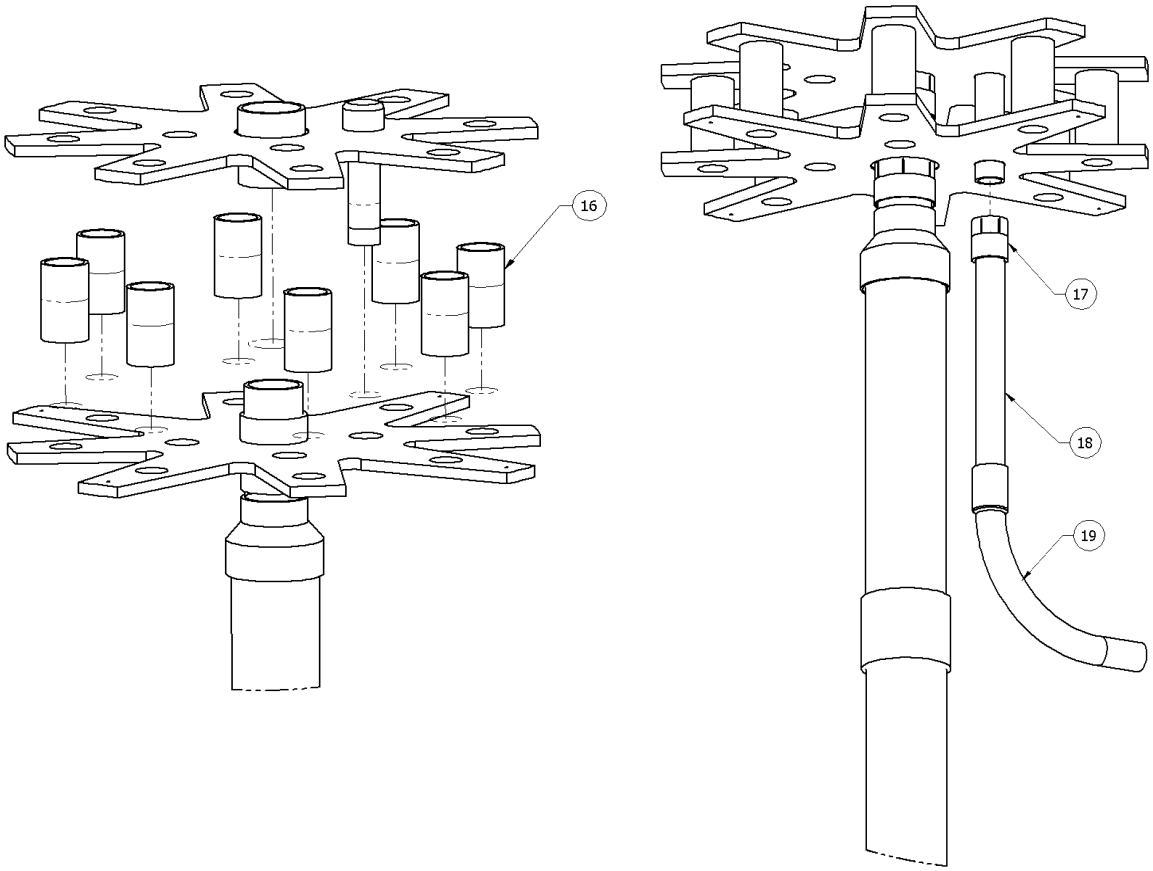
Step 4. Assemble the vertical stanchion. Follow the illustrations from left to right.

Step	Instructions	Notes
1	Check the contents of the Kit against the parts list shown on page 3. Contact the Supplier if any parts are missing.	The Kit is used to assemble and properly locate the anchor bolt templates, spacers, reinforcement and cylindrical concrete form on a vertical stanchion to be placed in the foundation excavation.
2	Read these Instructions carefully, paying close attention to safety issues.	Review the Drawings provided and Terms and Conditions provided with the Kits.
3	Gather all required tools and equipment.	Tools required for Kit assembly and placement are a ***tape measure, carpenter's level, hammer***, ***Phillips head screwdriver, marking pen and cleanup rag***. Typical ***concrete placement and finishing tools*** are required to pour the foundation. Personal protection equipment, including ***work gloves***, ***eye protection*** and ***hard hat*** is required.
4	Assemble the vertical stanchion. 1. If necessary, add an extension (not supplied) to the Lower Stanchion (2) to deal with greater frost depths. 2. Insert the Lower Stanchion in the Stanchion Base (1) and place it on a solid, level surface convenient for assembly of the Kit. 3. Slide the two Stanchion Braces (3) over the top of the Lower Stanchion and rest them on the Stanchion Base. 4. Place the Rebar Hoops (4) over the Lower Stanchion and rest them on the Stanchion Braces. 5. Use the Stanchion Coupling (5) to connect the Upper Stanchion (6) to the Lower Stanchion. These parts should be glued together. 6. Install the 3" to 2" ABS Pipe Reducer (7) and the 2"ABS Extension (8), in that order, on top of the Upper Stanchion. These parts should be glued together.	***Note: The Kit may be constructed in the excavation or at an adjacent location. Consider that when assembled it weighs approximately 145 lbs (66 kg).*** The Lower Stanchion is the longer of the two 3" ABS pipes supplied with the Kit. ***Important: For frost depths greater than 3.5 feet (1.07 m), the installer must provide an ABS coupling and pipe extension of length l = frost depth – 42 inches (1067 mm).*** ***Important: The use of ABS cement, or the Multi-Purpose Cement (27) supplied with the Kit, is required to attach these ABS fittings*** ***Important: The use of ABS cement, or the Multi-Purpose Cement (27) supplied with the Kit, is required to attach these ABS fittings.*** Note: You may find that the parts of Steps 4.5 and 4.6 were pre-assembled at the factory.



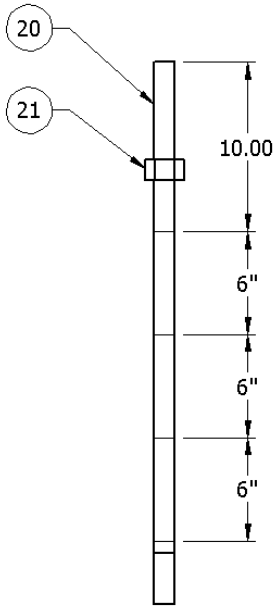
Step 5. Assemble the anchor bolt templates. Follow the illustrations from left to right and top to bottom.

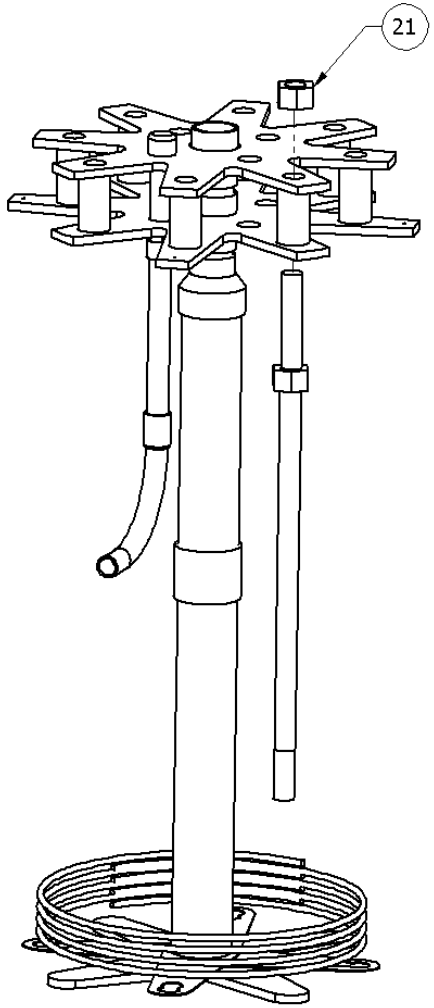
Step	Instructions	Notes
5	Assemble the anchor bolt templates. 1. Insert a 2" ABS Male Adapter (12) through the center of the Lower Anchor Bolt Template (9) into a 2" ABS Female Adapter (11). Hand-tighten the threaded fittings. 2. Insert a 2"ABS Template Spacer (8) into the 2"ABS Male Adapter. These parts should not be glued together. 3. Install the assembly (from Steps 5.1 and 5.2) onto the stanchion by inserting the 2"ABS Female Adapter into the 2" ABS Pipe Extension on the top of the stanchion. These parts should be glued together. 4. Insert a 2" ABS Male Adapter (12) through the center of the Upper Anchor Bolt Template (13) into a 2" ABS Female Adapter (11). Hand-tighten the threaded fittings. 5. Screw the 1" PVC Threaded Cap (15) onto one end of the 1" PVC Riser (14). Insert this assembly through any one of the inner holes of the Upper Anchor Bolt Template.	***Note: The Lower Anchor Bolt Template has four long "spokes" and four short "spokes".*** ***Caution: For this assembly, the 2" ABS Female Adapter fits on the grooved side of the Lower Anchor Bolt Template.*** ***Important: Do not cement these parts.*** ***Important: The use of ABS cement, or the Multi-Purpose Cement (27) supplied with the Kit, is recommended to attach these ABS fittings.*** The Upper Anchor Bolt Template has eight "spokes" that are the same size. ***Caution: For this template, the 2" ABS Male Adapter fits on the grooved side of the Upper Anchor Bolt Template.***

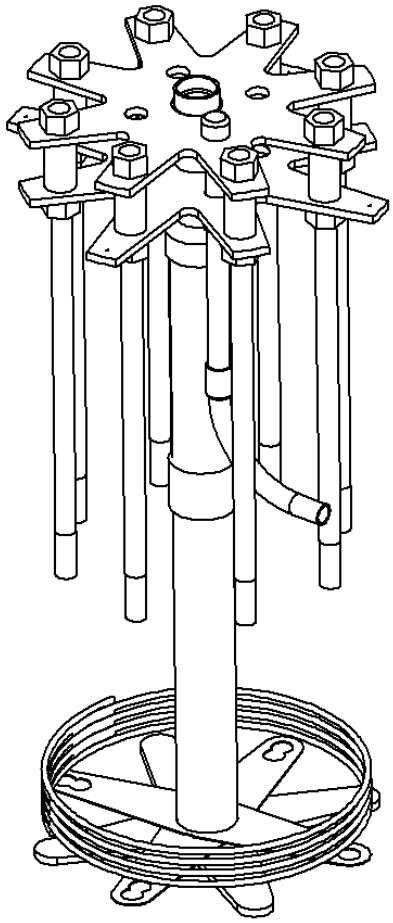


Step 6. Join the upper and lower anchor bolt templates. Follow the illustrations from left to right.

Step	Instructions	Notes
6	Join the Upper and Lower Anchor Bolt Templates.	
	1. Join the Upper and Lower Anchor Bolt Templates by inserting the 2" ABS Female Adapter on the bottom of the Upper Anchor Bolt Template into the 2" ABS Template Spacer protruding from the top of the Lower Anchor Bolt Template assembly. These parts should not be glued together.	***Important: Make sure the 1" PVC Threaded Nipple passes through one of the inner holes in both the Upper and Lower Anchor Bolt Templates.***
	2. Slip the eight 1-1/2" ABS Template Spacers (16) between the Upper and Lower Anchor Bolt Templates and align them with the outer bolt holes in the templates.	***Important: Do not cement these parts.***
	3. Assemble the 1" PVC Female Adapter (17), the 1" PVC Extension (18) and the 1" PVC Elbow (19) as shown in the illustration. These parts should be glued together	***Important: The use of PVC cement, or the Multi-Purpose Cement (27) supplied with the Kit, is recommended to attach these PVC fittings.***
	4. Screw the 1" PVC Female Adapter of the above assembly into the 1" PVC Threaded Nipple protruding from the bottom of the Lower Anchor Bolt Template.	If necessary, this PVC assembly may be relocated to some other holes in order to mate with a planned electrical interconnection.

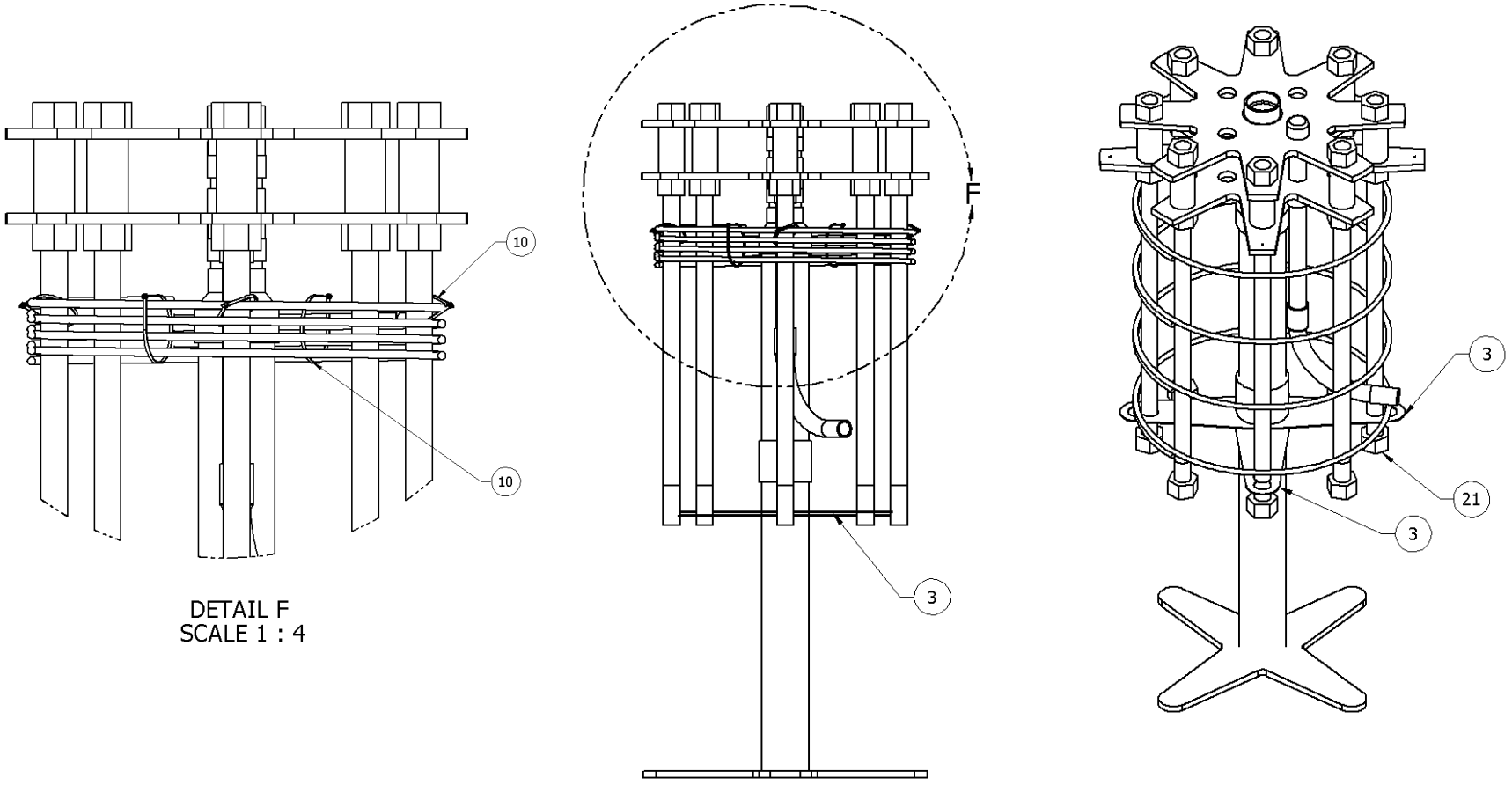






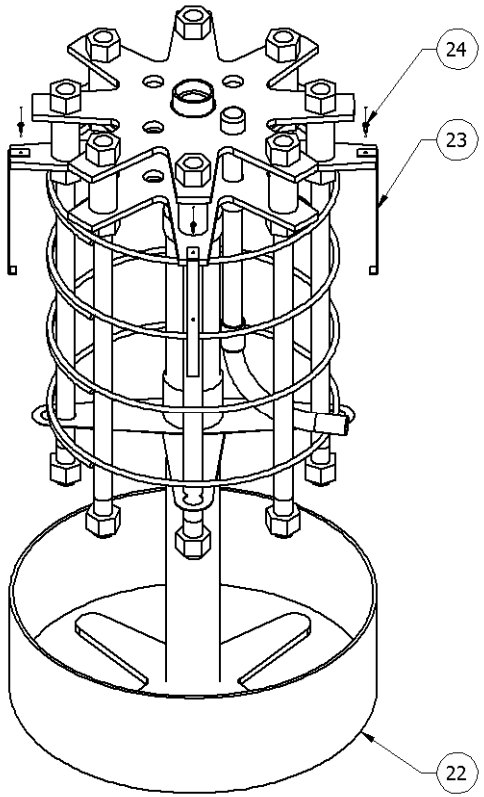
Step 7. Install the anchor rods. Follow the illustrations from left to right.

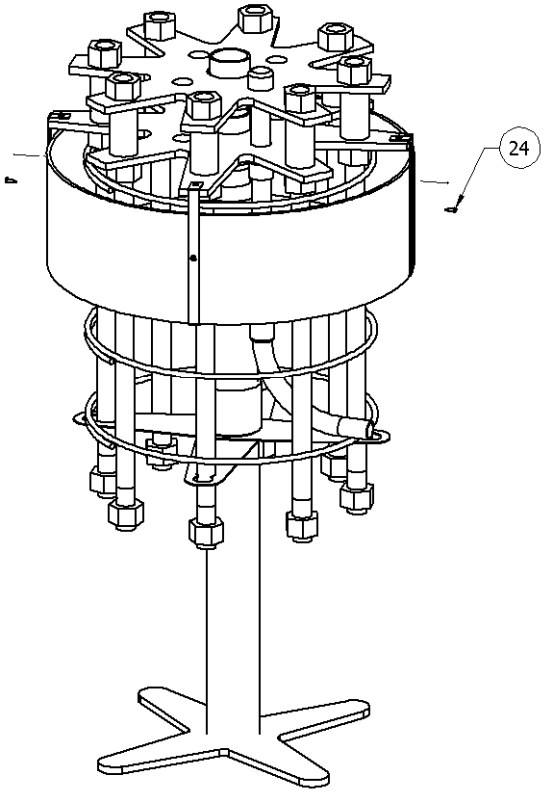
Step	Instructions	Notes
7	Install the anchor rods.	
	1. Prepare the eight 1-1/4" diameter Anchor Rods (20) as shown in the illustration above. 1.1. Remove the Anchor Rod Nuts (21) from the bottom (short thread length) of the Anchor Rods. 1.2. Run one Anchor Rod Nut to the bottom of the thread length on the top of the Anchor Rods. 1.3. Mark the Anchor Rods in the locations shown. These marks will be used to place the rebar hoops.	***Note: Anchor Rods are supplied separately from the Kit. The illustrations above and these Instructions have been prepared for the Anchor Rods provided by the Supplier. If different types or sizes of concrete anchors are supplied by others, appropriate adaptations must be made.*** It is not unusual for minor thread damage to exist. In such cases, external threads may be "dressed" with a metal file and/or both internal and external threads may be "chased" by using a wrench to force the nut past the damaged thread(s).
	2. Insert the Anchor Rods through the outer (bolt circle) holes of the Lower Anchor Bolt Template, the 1-1/2" ABS Template Spacers and the Upper Anchor Bolt Template.	
	3. Thread the Anchor Rod Nuts onto the protruding Anchor Rods until they are just flush with the ends.	A wrench is not needed. Hand tightening is adequate.
	4. Adjust the lower Anchor Rod Nuts until they are snug with the Lower Anchor Bolt Template.	A wrench is not needed. Hand tightening is adequate.
	5. Before advancing to the next step, check that the top surfaces of the top Anchor Rod Nuts are flush with the top surfaces of the Anchor Rods and that the entire assembly is rigid. This may require additional hand tightening of some nuts.	A wrench is not needed. Hand tightening is adequate.



Step 8. Install reinforcement on anchor rod assembly. Follow the illustrations from left to right.

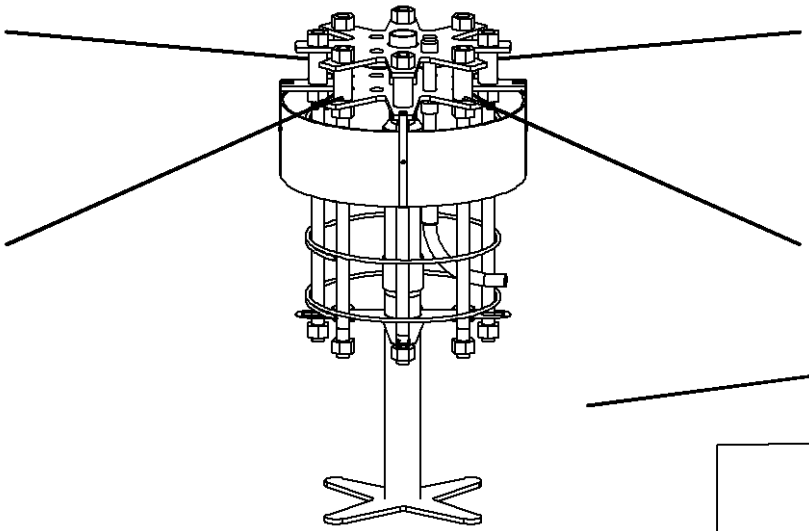
Step	Instructions	Notes
8	Install reinforcement on anchor rod assembly. 1. Slide one Rebar Hoop (4) up over the Anchor Rods to the top marks that were placed on the Anchor Rods in Step 7.1.3. This hoop should be at least 4" below the lower surface of the Lower Anchor Bolt Template. 2. Fasten this Rebar Hoop to every other Anchor Rod using the Plastic Cable Ties (10). 3. Slide all remaining Rebar Hoops up over the Anchor Bolts and temporarily secure them to the top Rebar Hoop using several Plastic Cable Ties. 4. Slide one Stanchion Brace (3) up the Lower Stanchion and over two opposing Anchor Rods. Secure the Stanchion Brace with Anchor Rod Nuts threaded hand tight up to the end of the threads on the Anchor Rods. 5. Slide the remaining Stanchion Brace (3) up the Lower Stanchion and over two Anchor Rods 90 degrees opposed to the first Stanchion Brace. Secure the Stanchion Brace with Anchor Rod Nuts threaded hand tight up to the end of the threads on the Anchor Rods. 6. Install the remaining four Anchor Rod Nuts hand tight up to the end of the threads on the Anchor Rods. 7. Check that all Anchor Rod Nuts are hand tight up against the end of the threads on the Anchor Rods. 8. Cut the Plastic Cable Ties and lower all but the top Rebar Hoop to the positions that were marked on the Anchor Rods in Step 7.1.3. Fasten the Rebar Hoops to every other Anchor Rod using the Plastic Cable Ties.	The vertical position of the Stanchion Braces is not critical, as long as they are below the Stanchion Coupling and secured to the Anchor Rods. ***Note: The Anchor Rod Nuts should be threaded tight up against the end of the threaded portion of the Anchor Rods to discourage movement during assembly in the excavation and subsequent placement of concrete.***

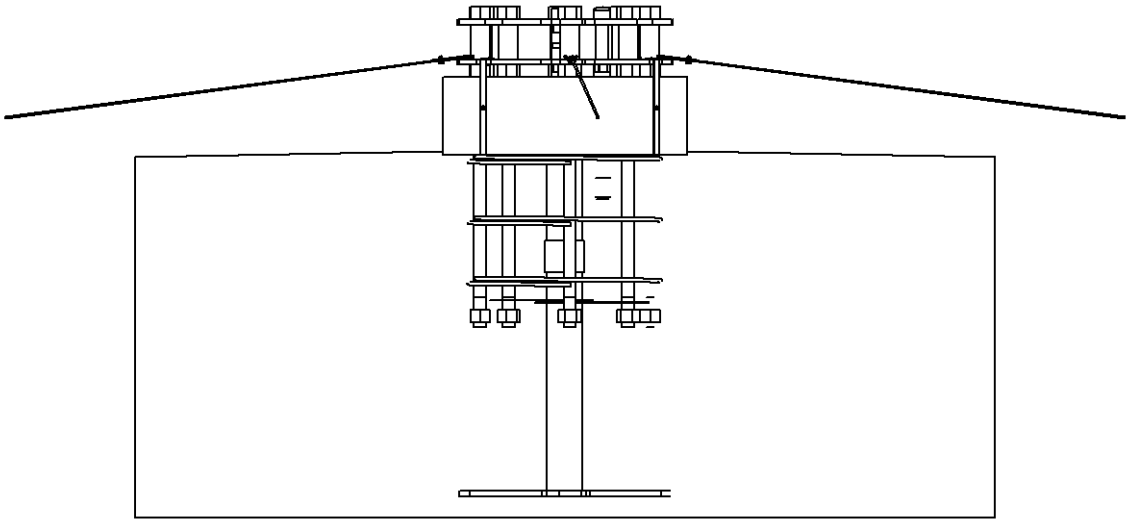




Step 9. Install the cylindrical concrete form. Follow the illustrations from left to right.

Step	Instructions	Notes
9	Install the cylindrical concrete form. 1. Carefully slip the Cylindrical Concrete Form (22) over the anchor bolt assembly and let it rest on the ground. 2. Install the four Locater Brackets (23) on the long "spokes" of the Lower Anchor Bolt Template. Use the Locater Bracket Screws (24) provided and the pre-drilled holes in the Lower Anchor Bolt Template. 3. Raise the Cylindrical Concrete Form and capture it in the bottom tabs of the four Locater Brackets. Fasten the Cylindrical Concrete Form in this position using the self threading Locater Bracket Screws provided and the pre-drilled holes in the Locator Brackets.	***Important: Make sure the bottom of the Cylindrical Concrete Form rests on the tabs of the Locater Brackets. This position determines the top surface of the concrete.***





Step 10. Prepare nail pegs and guy ropes and set the anchor bolt assembly in the excavation. Follow the illustrations from left to right.

Step	Instructions	Notes
10	Prepare nail pegs and guy ropes and set the anchor bolt assembly and stanchion in the excavation. 1. Locate four points on the ground where the Guy Ropes (25) will be attached to the Nail Pegs (26). These will be used to secure the anchor bolt assembly. To keep the work area clear, locate the Nail Pegs 7 to 8 feet (2.1 to 2.4 m) from the centerline of the excavation. The two pairs should be aligned 90 degrees from each other. 2. Drive the Nail Pegs securely into the ground with hooks facing away from the excavation. 3. Tie the ends of the four Guy Ropes to four of the 1-1/2" ABS Template Spacers located 90 degrees apart (every other bolt). 4. Temporarily stow the guy ropes in the hollow top of the stanchion. 5. Check for proper assembly of the Anchor Rods, Rebar Hoops and 1" PVC electrical conduit. The assembly should be quite rigid and the top nuts should be flush with the tops of the Anchor Rods. 6. Check the distance from the bottom of the excavation to the top of grade. It must be as specified in the Drawings or the Anchor Rods will not be at the proper height for installation of the tower. 7. Carefully lift the assembly and lower it to the bottom of the excavation. 8. Locate the 1" PVC Elbow to facilitate the planned electrical conduit installation. Some manipulation may be required to avoid interference with the Anchor Rods.	As noted in Step 4, the installer may already have decided to assemble the Kit in the excavation. ***Caution: Look ahead to Step 11 and plan the alignment of nail pegs, anchor bolt assembly and PVC electrical conduit. These steps should be completed before placing the anchor bolt assembly in the excavation.*** This step may require some loosening and retightening of the anchor bolt nuts. ***Caution:*** • ***Use work gloves.*** • ***Plan and discuss Step 10.7 before proceeding.*** • ***Clear the excavation of any debris or loose soil.*** • ***Check the surrounding area and remove tripping hazards.*** • ***Lift the assembly by the anchor rods and not by the anchor bolt templates or rebar hoops. This step requires at least two people.*** • ***If the bottom of the excavation is muddy or soft in the center – where the stanchion will rest – the assembly may sink below the desired level. If this is likely, set the stanchion on a solid surface (such as a paving block) to reduce the soil pressure.***

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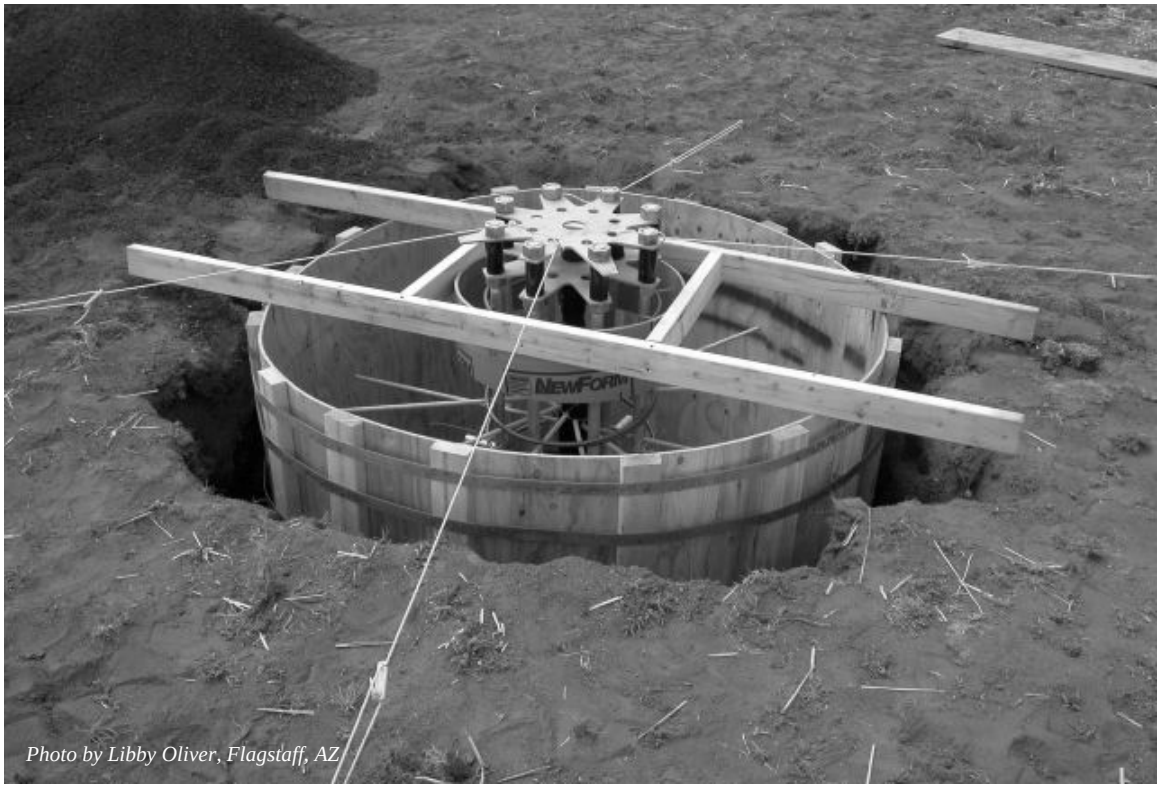

Photo by Libby Oliver, Flagstaff, AZ

Step 11. Level and secure the anchor bolt assembly. Nail Pegs and Guy Ropes are used to stabilize and level the assembly. Here, the installer chose to add wood frames to locate the Cylindrical Concrete Form relative to the overall assembly. The Locater Brackets provided in the Kit serve this purpose, so that the wood frames shown above are unnecessary. Note also the use of a "barrel form" to deal with particularly loose soils. Instead of such a "barrel form" the installer could have chosen simply to pour more concrete. This is an individual choice.

Step	Instructions	Notes
11	Level and secure the anchor bolt assembly. 1. Check that the stanchion is resting in the center of the excavation. 2. Hold the assembly so that the top anchor bolt template is level. 3. Check that the lower surfaces of the lower Anchor Rod Nuts are 2 to 3 inches (51 to 76 mm) above the desired final earth grade. 4. Check that the Guy Ropes align with the Nail Pegs. 5. Attach the free ends of the Guy Ropes (with slides) to the hooks on the Nail Pegs. 6. Place a level atop two opposing Anchor Rods having Guy Ropes attached. Adjust the Guy Ropes until the assembly is level and held firmly. 7. Repeat Step 11.6 for the other two Anchor Rods with Guy Ropes attached. 8. Insert a 1" PVC electrical conduit of appropriate length (not supplied) into the bell end of the 1" PVC Elbow. Cement this joint to prevent moisture intrusion.	The lower surfaces of the Anchor Rod Nuts should be slightly above the top of the Cylindrical Concrete Form, which will also be the top surface of the concrete. The top surface of the Anchor Rod Nuts should be flush with the tops of the Anchor Rods. That way, the Anchor Rods are leveled along with the nuts. ***Caution: Check that the PVC electrical conduit is in an acceptable location. Make sure it is protected against infiltration of debris and that it extends beyond the foundation perimeter for easy access when completing the electrical installation.***

Placing the Concrete

Pour the concrete slowly at several places around the foundation. Consolidate it with appropriate tools. Take care to prevent excessive weight on any of the parts and to minimize movement of the anchor bolt assembly. Make a final check of alignment and level.

Step 12. Place and finish the concrete.

Step	Instructions	Notes
12	Place and finish the concrete. 1. Check that the tops of the Anchor Rods and the top surface of the Cylindrical Concrete Form are level. Adjust if necessary. 2. Check the height of the Cylindrical Concrete Form. Its top edge should be slightly below the bottom surface of the Anchor Rod Nuts. 3. Pour concrete to approximately 6 inches (152 mm) below the final earth grade. The slab should be at least 3 feet (0.91 m) thick. 4. Use a trowel to slope concrete away from the base of the Cylindrical Concrete Form to promote drainage toward the foundation perimeter. 5. Trowel-finish all concrete surfaces. 6. Use an edging tool to smooth the concrete at the perimeter of the Cylindrical Concrete Form. 7. After the concrete sets, remove the templates and forms. 8. Backfill the excavation with native soil and compact it. Gravel or other landscaping materials may be used to fill the annulus around the stub pier. Slope the soil toward the foundation perimeter for drainage. If this area is to be re-vegetated, appropriate soil amendments should be added.	***Caution: Concrete placement should be performed by qualified, responsible individuals. Consult the turbine manufacturer and/or qualified professionals regarding lightning protection and electrical grounding requirements.*** ***Suggestions:*** • ***Safety is first! Identify the work area as a safety hazard and control access to it.*** • ***Prevent the excavation from freezing – use heaters or thermal blankets if necessary.*** • ***Prevent water from accumulating at the bottom of the excavation.*** • ***Keep the excavation clean and free from debris.*** • ***Check the condition of the excavation in preparation for concrete placement.*** • ***Check that the work area is clear, being especially careful about tripping hazards.*** • ***Have all tools and equipment readily available.*** • ***Recheck the anchor bolt height relative to the planned earth grade (Step 11.3).*** • ***Recheck that the anchor bolt assembly is level (Steps 11.6 and 11.7).*** • ***Make sure the concrete mix is fluid enough to fill potential voids.*** • ***Consolidate the concrete around the rebar and anchor bolt assembly. Note the Drawings regarding vibration of concrete during construction.*** • ***Pour the concrete slowly from several locations around the excavation. Check that the anchor bolt assembly remains in its intended position and is plumb.*** • ***Check that the PVC electrical conduit remains in its intended position.*** • ***Use hand tools to place and consolidate concrete within the cylindrical concrete form.*** • ***Protect the concrete from sun, wind, hail, heavy rain and freezing for at least one week after pouring. Use appropriate curing compounds or keep the concrete covered and moist.*** • ***Allow the concrete to cure for 24 hours before removing templates and forms.*** • ***Clean the anchor rods with a wire brush and appropriate solvent.*** • ***The tower and turbine must not be installed and erected – and design loads must not be applied – until the 28-day concrete strength has been achieved as noted in the Drawings.***

SMarT_Foundation™ [Simple Modular Technology]
Limited Warranty

AnemErgonics™

A Colorado Limited Liability Company
www.anemergonics.com

Capitalized terms used in this Warranty have the meanings given them in the "SMarT Foundation Kit Terms and Conditions" applicable to Purchaser's purchase of the Product.

Warranty scope and term: Supplier warrants the Product against defects in design and Parts only and for a period of one (1) year from the date of Installation or eighteen (18) months after the date of purchase, whichever is sooner. Warranty claims outside this term and for other than design and Parts defects are void.

Notice of Warranty claim: Purchaser will immediately, but not later than three (3) business days after discovery, notify Supplier (pursuant to the notice provision of the Terms and Conditions) of any Warranty claim. Purchaser's failure to timely notify Supplier will void this Warranty.

Warranty process: Supplier will within twenty (20) days after notice from Purchaser contact Purchaser to discuss the claim. Purchaser will no later than ten (10) business days after Supplier's request(s) provide Supplier with all documents and information requested. Purchaser's failure to timely provide Supplier with all requested documents and information will void this Warranty.

Covered Warranty claims; Warranty limit: In the case of a claim covered by this Warranty, Supplier will, in its discretion, refund the Price or, at no additional charge, provide a replacement Product. If the particular Product purchased has been discontinued or is otherwise not available, then Supplier may (if in its discretion it chooses to provide a replacement Product) offer Purchaser, at no additional charge, a different product it determines in its discretion is comparable to the Product purchased. If Purchaser chooses to not accept such offered, comparable product, then Supplier will refund the Price.

Supplier's liability under this Warranty is limited to its refunding the Price or providing a replacement Product as described above.

Warranty exclusion: This Warranty will have no application and Warranty claims will be void:

a) in the case of any breach of any condition, provision, or term of the Agreement,
b) if Purchaser or any third party has attempted repairs without Supplier's prior written approval or instruction,
c) in the case of damage due to a Force Majeure Event, or
d) in the case of any damage due to out-of-the-ordinary or negligent operation or use, including out-of-the-ordinary or negligent operation or use of the Tower or Turbine.

SMarT_Foundation™ [Simple Modular Technology] Drawings
(U.S. Patent Pending)

Southwest Windpower Skystream 3.7 Wind Turbine with Towers up to 60-ft (18.3 m) in Height

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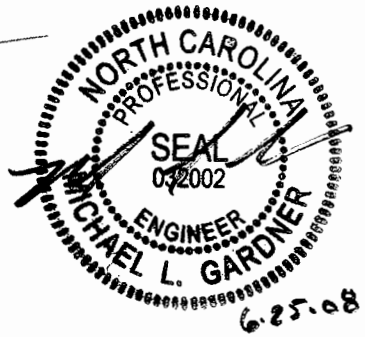

DESIGNED IN CONFORMANCE WITH THE INTERNATIONAL ELECTROTECHNICAL COMMISION (IEC) 61400-2 ED. 2 "DESIGN REQUIREMENTS FOR SMALL WIND TURBINES" THE NATIONAL ELECTRICAL SAFETY CODE (NESC) AND THE INTERNATION BUILDING CODE (IBC) 2003 PRESCRIPTIVE SOIL VALUES

ATTENTION

USE OF THESE DRAWINGS, WHICH ARE PROVIDED BY ANEMERGONICS, LLC ("SUPPLIER") IS CONTROLLED BY, GOVERNED BY AND SUBJECT TO THE APPLICABLE ANEMERGONICS, LLC PURCHASE AGREEMENT, WHICH INCLUDES THE ANEMERGONICS, LLC TERMS AND CONDITIONS ("AGREEMENT"). ANY USE OF THESE DRAWINGS THAT IS IN ANY WAY INCONSISTENT WITH THE AGREEMENT IS UNAUTHORIZED. AMONG OTHER THINGS, THE AGREEMENT INCLUDES: BROAD INDEMNITY PROVISIONS IN FAVOR OF SUPPLIER AND THE SUPPLIER INDEMNIFIED PARTIES (AS DEFINED IN THE AGREEMENT), LIABILITY LIMITATION AND LIMITATIONS ON USE. CONTACT SUPPLIER WITH QUESTIONS REGARDING THE AGREEMENT OR IF YOU HAVE NOT BEEN PROVIDED THE AGREEMENT OR ANY OF THE MATERIALS REFERENCED IN THE AGREEMENT.

TOWER ENGINEERING PROFESSIONALS
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PROJECT INFORMATION:

SMarT Foundation
[Simple Modular Technology]

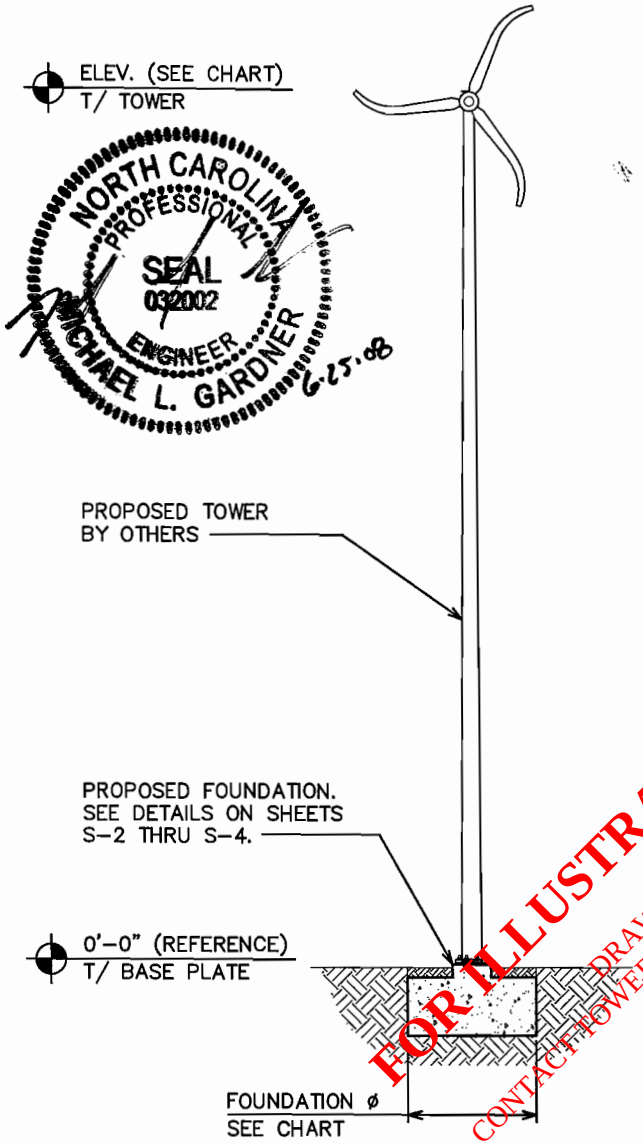
REV	DATE
6	06-25-08
5	06-12-08
4	03-18-08
3	03-14-08

DRAWN BY: KMM | CHECKED BY: MLG

SHEET NUMBER: **T-1**

REVISION: **6**

TEP #: 081330



NORTH CAROLINA PROFESSIONAL SEAL 032002 ENGINEER MICHAEL L. GARDNER 6.25.08

TOWER DESIGN CRITERIA

	ELEVATION (FT)	DESIGN WIND SPEED (MPH)	VERTICAL LOAD (LBS)	BASE MOMENT (FT-LBS)	BASE SHEAR (LBS)	FOUNDATION DIAMETER (FT)
CASE 1	≤ 33.5	≤ 110	761	18,486	677	5'-8"
CASE 2	≤ 33.5	≤ 150	761	31,156	1,179	6'-8"
CASE 3	≤ 45	≤ 110	998	27,612	828	6'-4"
CASE 4	≤ 45	≤ 150	998	47,513	1,459	7'-9"
CASE 5	≤ 50	≤ 110	1,000	35,500	1,100	7'-0"
CASE 6	≤ 50	≤ 150	1,000	66,000	2,000	8'-2"
CASE 7	≤ 55	≤ 110	1,543	43,995	1,129	7'-2"
CASE 8	≤ 55	≤ 150	1,543	76,681	2,020	8'-9"
CASE 9	≤ 60	≤ 110	1,543	43,995	1,129	7'-2"
CASE 10	≤ 60	≤ 150	1,543	76,681	2,020	8'-9"

NOTES:

1. THE FOUNDATION DESIGNS ARE BASED ON AN IBC CLASS 5 (OR BETTER) SOIL CLASSIFICATION AND AN ALLOWABLE BEARING PRESSURE OF 1500 PSF AND A LATERAL BEARING OF 100 PSF/FT BELOW GRADE. IT IS THE RESPONSIBILITY OF THE OWNER TO VERIFY BY GEOTECHNICAL INVESTIGATION THAT ACTUAL SOIL PARAMETERS AT THE SITE EQUAL OR EXCEED THOSE GIVEN. IF CONDITIONS OTHER THAN THOSE DESCRIBED ARE ENCOUNTERED, A FOUNDATION ANALYSIS SHOULD BE PERFORMED TO DETERMINE THE STRUCTURAL ADEQUACY OF THE SUBSTRUCTURE. INSTALLATION SHALL NOT PROCEED UNTIL STRUCTURAL ADEQUACY HAS BEEN CONFIRMED.
2. IF THE FROST DEPTH IS KNOWN TO BE GREATER THAN 42 INCHES, THE 3" ABS PIPE STANCHION SHALL BE LENGTHENED SO THAT ITS BASE IS AT OR BELOW THE FROST DEPTH. THE LENGTH OF THE EXTENDER (INCHES) SHALL BE EQUAL TO THE FROST DEPTH MINUS 42, AND MAY BE ATTACHED WITH A 3" ABS COUPLING.
3. INSTALLATION SHALL NOT PROCEED IF THE WATER TABLE IS LESS THAN THE FOUNDATION DEPTH. CONSULT WITH DESIGN ENGINEER FOR FOUNDATION ANALYSIS OR REDESIGN. CONSTRUCTION SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED FROM THE DESIGN ENGINEER.

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3	03-14-08

DRAWN BY: KMM | CHECKED BY: MLG

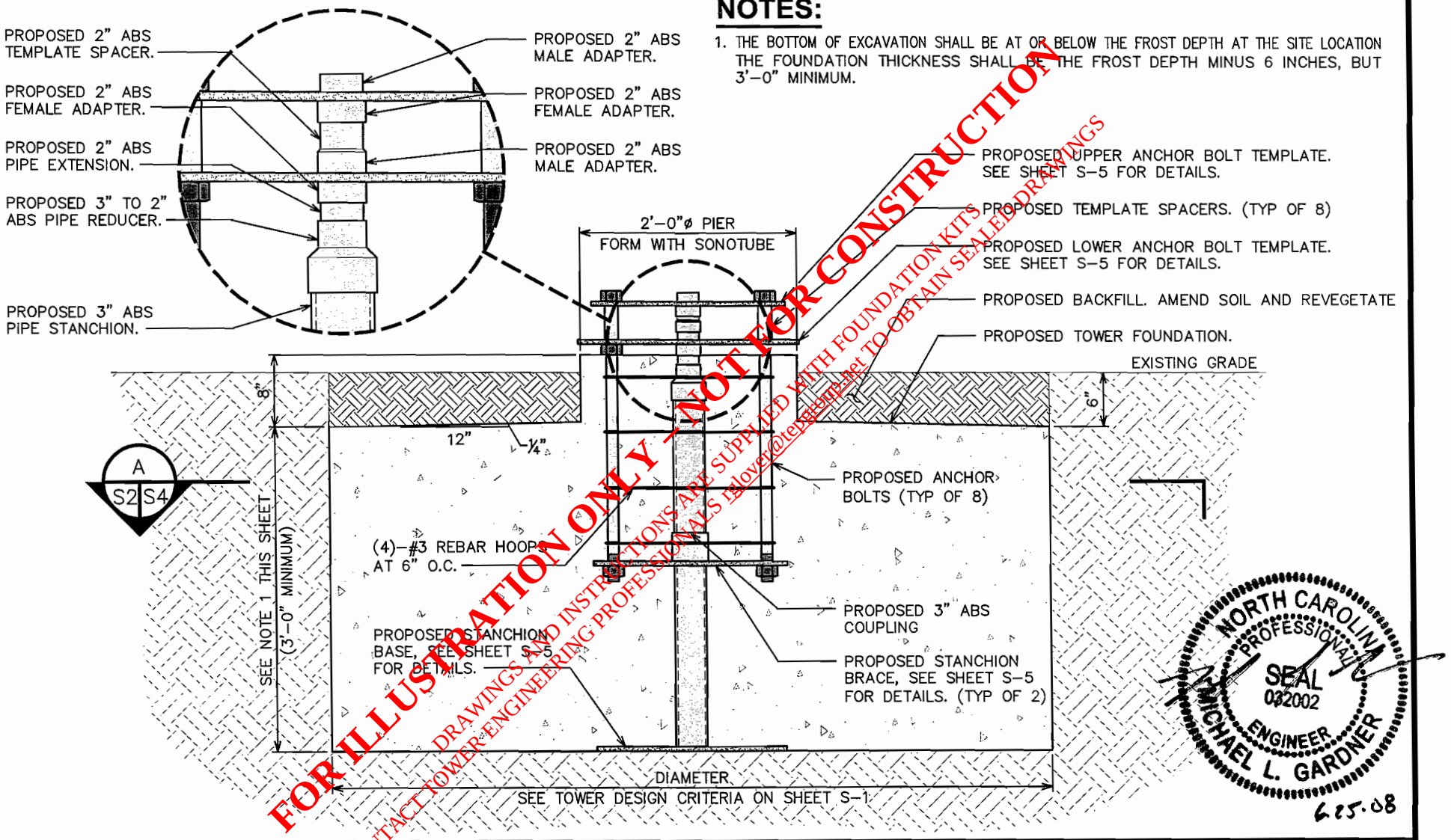
SHEET NUMBER: **S-1**

REVISION: 6

TEP #: 081330

NOTES:

1. THE BOTTOM OF EXCAVATION SHALL BE AT OR BELOW THE FROST DEPTH AT THE SITE LOCATION THE FOUNDATION THICKNESS SHALL BE THE FROST DEPTH MINUS 6 INCHES, BUT 3'–0" MINIMUM.



NORTH CAROLINA PROFESSIONAL SEAL 032002 ENGINEER MICHAEL L. GARDNER

6.25.08

FOUNDATION ELEVATION (ASSEMBLY)

SCALE: ¾" = 1'–0"

0 1 2

SCALE IN FEET

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DRAWN BY: WHM CHECKED BY: MLG

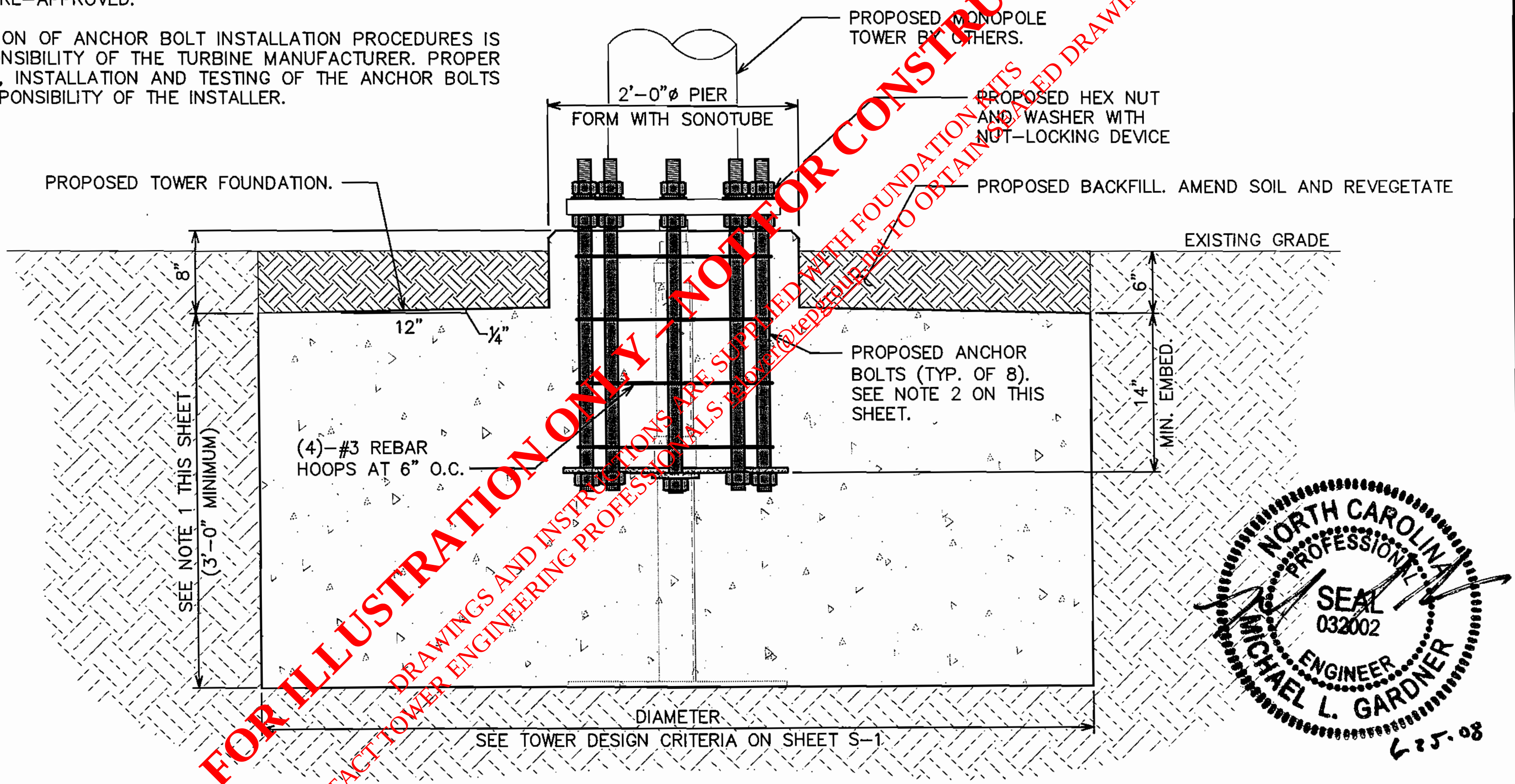
SHEET NUMBER: **S-2**

REVISION: 6

TEP #: 081330

NOTES:

1. THE BOTTOM OF THE EXCAVATION SHALL BE AT OR BELOW THE FROST DEPTH AT THE SITE LOCATION. THE FOUNDATION THICKNESS MUST BE THE FROST DEPTH MINUS 6 INCHES, BUT 3'–0" MINIMUM.
2. 1¼"ø x 32" LONG ASTM F1554 ANCHOR RODS, ASTM A563 NUTS, AND ASTM F436 WASHERS SUPPLIED WITH ANEMERGONICS FOUNDATIONS KITS ARE PRE–APPROVED.
3. SPECIFICATION OF ANCHOR BOLT INSTALLATION PROCEDURES IS THE RESPONSIBILITY OF THE TURBINE MANUFACTURER. PROPER INSPECTION, INSTALLATION AND TESTING OF THE ANCHOR BOLTS IS THE RESPONSIBILITY OF THE INSTALLER.



FOUNDATION ELEVATION (FINISHED)

SCALE: ¾" = 1'–0"

0 1 2
SCALE IN FEET

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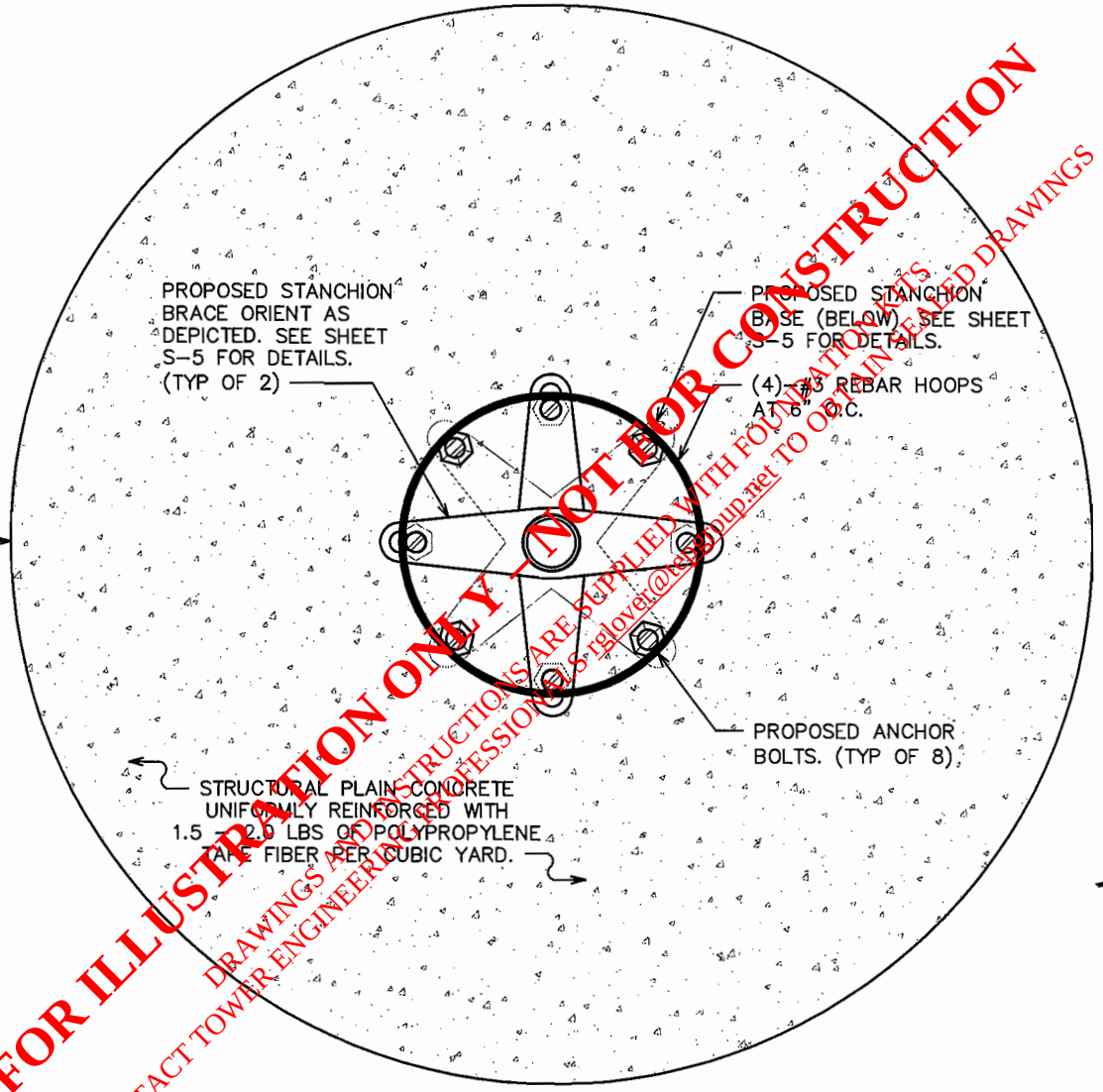
DRAWN BY: WHM CHECKED BY: MLG

SHEET NUMBER: **S-3**

REVISION: 6

TEP #: 081330



NORTH CAROLINA PROFESSIONAL SEAL 032002 ENGINEER MICHAEL L. GARDNER
6-25-08

SECTION

A
S2|S4

SCALE: 1" = 1'-0"

0 1 2
SCALE IN FEET

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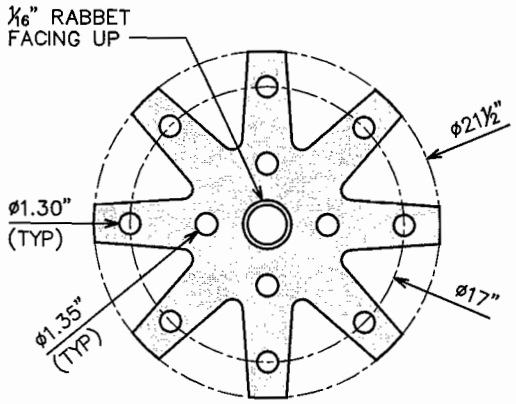
SHEET NUMBER: **S-4**

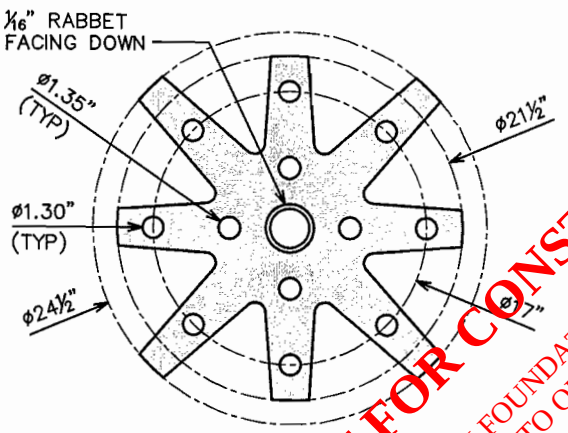
REVISION: 6

TEP #: 081330



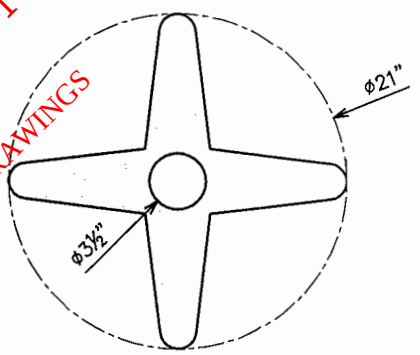
33.5 FT., 45 FT., 50 FT., & 55 FT. TOWER

UPPER ANCHOR BOLT TEMPLATE

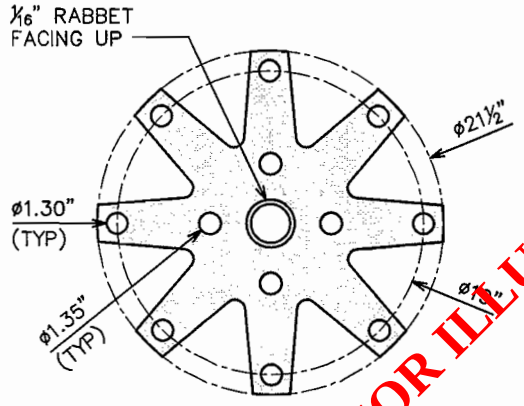


33.5 FT., 45 FT., 50 FT., & 55 FT. TOWER

LOWER ANCHOR BOLT TEMPLATE

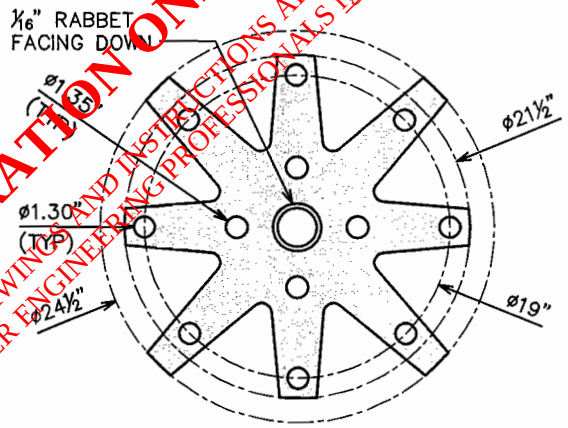


STANCHION BASE SUPPORT



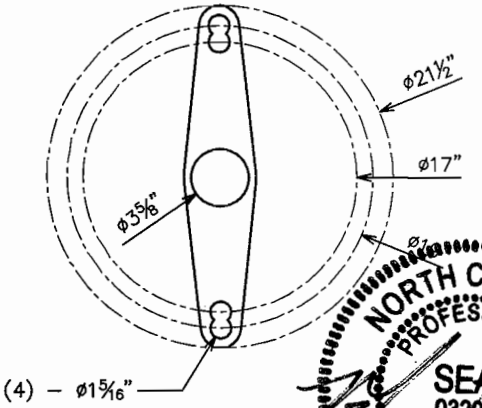
60 FT. TOWER

UPPER ANCHOR BOLT TEMPLATE



60 FT. TOWER

LOWER ANCHOR BOLT TEMPLATE



STANCHION BRAC

NORTH CAROLINA PROFESSIONAL SEAL 032002 ENGINEER MICHAEL L. GARDNER 6.25.08

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SHEET NUMBER: **S-5**

REVISION: 6

TEP #: 081330

FOUNDATION NOTES:

GENERAL NOTES:

1. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICES AND IN A GOOD AND WORKMANLIKE MANNER.
2. FOUNDATION DESIGN ASSUMES LEVEL GRADE AT THE SITE.
3. THE FOUNDATION DESIGN IS IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE LIMITS OF THE ASSUMED SUBSURFACE DATA.
4. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
5. THE FOUNDATION DESIGN ASSUMES INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS, AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON THE CONDITIONS AT THE SITE.
6. THE FOUNDATION DESIGN ASSUMES NO CONSTRUCTION JOINTS. HOWEVER, CONSTRUCTION JOINTS SHALL BE PERMITTED UPON APPROVAL BY THE ENGINEER.

EXCAVATION & GRADING:

1. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND SAFETY REGULATIONS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION, AND UTILITIES SHALL BE ESTABLISHED AND PERFORMED PRIOR TO BEGINNING WORK.
2. ALL CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM, UNLESS OTHERWISE NOTED.
3. ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED IF REQUIRED.
4. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPRISING CONCRETE THICKNESS.
5. THE BOTTOM OF THE EXCAVATION SHOULD BE APPROXIMATELY LEVEL. LOOSE MATERIAL SHALL BE REMOVED BEFORE PLACING CONCRETE AND THE STANCHION SHOULD BE CENTERED IN THE BOTTOM OF THE EXCAVATION.
6. AFTER COMPLETION OF THE FOUNDATION AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, ETC.
7. BACKFILLING SHALL:
   A. USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND, AND GRAVEL OR SOFT SHALE.
   B. BE FREE FROM CLODS OR STONES OVER 2-1/2" MAXIMUM DIMENSIONS.
   C. BE PLACED IN LAYERS OF 6" MAXIMUM AND COMPACTED.
8. FILL MATERIAL AND BACKFILL SHALL BE PLACED IN LAYERS, MAXIMUM 6" DEEP BEFORE COMPACTION. EACH LAYER SHALL BE SPRINKLED IF REQUIRED AND COMPACTED BY HAND OR MACHINE TAMPERS TO 90% OF MAXIMUM DRY DENSITY. AT THE OPTIMUM MOISTURE CONTENT ± 5% AS DETERMINED BY ASTM DESIGNATION D-698, UNLESS OTHERWISE APPROVED. SUCH BACKFILL SHALL NOT BE PLACED WITHIN 3 DAYS OF CONCRETE PLACEMENT.

REINFORCING STEEL:

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. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-05, SECTION 7.7.1, "CAST-IN-PLACE CONCRETE (NONPRESTRESSED)." CONCRETE COVER SHALL BE AS FOLLOWS:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ..... 3 IN. MINIMUM COVER
   B. CONCRETE EXPOSED TO EARTH OR WEATHER:
      NO. 6 BARS THROUGH NO. 18 BARS ..... 2 IN. MINIMUM COVER
      NO. 6 BARS AND SMALLER ..... 1-1/2 IN. MINIMUM COVER

CONCRETE:

1. WORK SHALL BE IN ACCORDANCE WITH ACI 318-05, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
2. THE CONCRETE SHALL BE APPROPRIATELY VIBRATED DURING CONSTRUCTION.
3. THE CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28-DAYS.
4. THE CONCRETE SHALL BE UNIFORMLY REINFORCED WITH 1.5 LBS. MIN. TO 2.0 LBS. MAX. POLYPROPYLENE TAPE FIBER PER CUBIC YARD OF CONCRETE. FIBERS SHALL BE ACCORDANCE WITH ASTM C1116, "STANDARD SPECIFICATION FOR FIBER-REINFORCED CONCRETE." FIBERS SHALL BE PROCONF AS MANUFACTURED BY NYCON, INC., FIBERMESH 300 AS MANUFACTURED BY PROPEX CORP., OR APPROVED EQUIVALENT.
5. 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 318-05 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE.
6. 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.
7. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN MINIMIZING CONTACT WITH THE SIDES OF THE EXCAVATION. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.

FINISHING:

1. THE TOP OF THE FOUNDATION SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH.
2. THE EXPOSED EDGES OF THE CONCRETE SHALL BE CHAMFERED 3/4" x 3/4".

NORTH CAROLINA PROFESSIONAL SEAL 032002 ENGINEER MICHAEL L. GARDNER 6.25.08

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SHEET NUMBER: **S-6**

REVISION: 6

TEP #: 081330

FOUNDATION MATERIAL LIST

ITEM	PART NUMBER	PART NAME	ITEM DESCRIPTION	QTY.
1	015-001-0001	STANCHION BASE	1/2" MDF X 19" OUTSIDE DIMENSION	1
2	013-003-0003	LOWER STANCHION	3" ABS PIPE X 23-15/16"	1
3	002-001-001	STANCHION BRACE	16 GA COLD ROLLED STEEL	2
4	014-001-0001/2	REBAR HOOP	#3 STEEL 18 1/2" ID (17" BC) OR 20-1/2" ID (19"BC)	4
5	009-002-001	STANCHION COUPLING	3" ABS	1
6	013-003-0004	UPPER STANCHION	3" ABS PIPE X 17-1/16"	1
7	009-006-0001	3" TO 2" REDUCER	3" TO 2" ABS REDUCER	1
8	013-001-0003	2" ABS EXTENSION	2" ABS PIPE X 2"	1
9	013-001-0003	2" ABS TEMPLATE SPACER	2" ABS PIPE X 2"	1
10	016-001-0004/6	LOWER ANCHOR BOLT TEMPLATE	1/2" MDF, 17" OR 19" BOLT CIRCLE	1
11	008-003-002	CABLE TIE	PLASTIC TIE, 7"	20
12	009-004-0001	2" ABS FEMALE ADAPTER	2" ABS	2
13	009-005-0001	2" ABS MALE ADAPTER	2" ABS	2
14	016-001-0003/5	UPPER ANCHOR BOLT TEMPLATE	1/2" MDF, 17" OR 19" BOLT CIRCLE	1
15	009-007-0001	1" PVC RISER	1" SCHD 80 PVC PIPE X 6", THREADED	1
16	009-001-0002	1" PVC THREADED CAP	1" PVC	1
17	013-002-0001	1-1/2" ABS TEMPLATE SPACER	1-1/2" ABS PIPE X 3-15/32"	8
18	009-004-0002	1" PVC FEMALE ADAPTER	1" PVC	1
19	013-001-0002	1" PVC EXTENSION	1" PVC PIPE X 11-15/16"	1
20	009-003-0001	1" PVC ELBOW	1' PVC 90 DEGREE ELBOW WITH BELL END	1
21	008-001-0001	ANCHOR ROD*	1-1/4" X 32" ASTM 1554	8
22	008-002-0001	ANCHOR ROD NUT*	1-1/4" ASTM A563 HEAVY, HDG	24
23	008-006-002	ANCHOR ROD LOCK WASHER*	1-1/4" ASTM A563 HEAVY, HDG	8
24	006-001-0001	CYLINDRICAL CONCRETE FORM	24" ID X 7-3/4" LONG	1
25	003-001-0002	LOCATOR BRACKET	16 GA COLD ROLLED STEEL, 3/4" X 9-5/8"	4
26	008-005-0001	LOCATOR BRACKET SCREWS	#8 X 1/2" SELF TAPPING SCREW, PHILLIPS	8
27	011-001-0001	GUY ROPES	GUY ROPE WITH SLIDES, 10' LONG, 2/PKG	2
28	012-001-0001	NAIL PEGS	NAIL PEGS, 10" LONG, 4/PKG	1
29	017-001-0001	MULTI-PURPOSE CEMENT	2 OZ DABBER CAN	1
30	018-001-0003	DRAWINGS	SMarT 2_v1 DRAWINGS	1
31	018-002-0002	INSTRUCTIONS	SMarT 2_v1 ASSEMBLY/INSTALLATION	1

* 17" B.C. KITS CONTAIN (3) EXTRA NUTS FOR HINGE PLATE; 19" B.C. KITS CONTAIN (1) EXTRA NUT FOR ELECTRICAL GROUNDING.

NORTH CAROLINA PROFESSIONAL SEAL 032002 ENGINEER MICHAEL L. GARDNER
6.25.08

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
(919) 661-6351

AnemErgonics, LLC
(303) 940-7530
www.anemergonics.com

PROJECT INFORMATION:

SMarT Foundation
[Simple Modular Technology]

REV	DATE
6	06-25-08
5	06-12-08
4	03-18-08
3	03-14-08

DRAWN BY: KMM | CHECKED BY: MLG

SHEET NUMBER: **S-7**

REVISION: 6

TEP #: 081330

SMarT_Foundation™ [Simple Modular Technology]
Terms and Conditions of Sale

AnemErgonics™

A Colorado Limited Liability Company
www.anemergonics.com

These Terms and Conditions of Sale (the "Terms and Conditions") form part of the Agreement between Supplier and User related to User's ownership, use and/or purchase of the Product. By owning, using and/or purchasing (whether directly from Supplier or otherwise) the Product, User agrees to each and every condition, provision, and term of the Agreement. The capitalized terms used in these Terms and Conditions are defined below.

1) Definitions
   a) "Agreement" means these Terms and Conditions and the Warranty.
   b) "Claim" has the meaning set forth in Section 6 (e).
   c) "Drawings" means the "AnemErgonics, LLC SMarT_Foundation™ [Simple Modular Technology] Drawings" provided by Supplier and includes any supplemental written Drawings Supplier may provide from time-to-time.
   d) "Force Majeure Event" means: act of God; extreme weather condition; labor dispute; natural disaster; terrorist act; theft; vandalism; war; or, any other cause or condition beyond the control of a person.
   e) "Installation" means installation of the Kit in conformance with the Instructions.
   f) "Instructions" means the "AnemErgonics, LLC SMarT_Foundation™ [Simple Modular Technology] Assembly and Installation Instructions" provided by Supplier and includes any supplemental written Instructions Supplier may provide from time-to-time.
   g) "Intellectual Property" has the meaning set forth in Section 5.
   h) "Kit" means the Parts that make up the "AnemErgonics, LLC SMarT_Foundation™ [Simple Modular Technology] Kit" provided by Supplier and includes any supplemental Parts Supplier may provide from time-to-time.
   i) "Law" or "Laws" includes all county, local, state, and federal codes, laws, licenses, orders, permit requirements, regulations, rules, and zoning requirements.
   j) "Parts" means the equipment, materials, parts, and/or tools supplied by Provider and that make up the Kit.
   k) "Parties" means User and Supplier, and "Party" means User or Supplier.
   l) "Product" means the Drawings, Instructions, Kit, Parts, Terms and Conditions, and Warranty.
   m) "Supplier" means AnemErgonics, LLC, a Colorado limited liability company.
   n) "Supplier Indemnified Parties" has the meaning set forth in Section 6 (e).
   o) "Terms and Conditions" means these "AnemErgonics, LLC SMarT_Foundation™ [Simple Modular Technology] Terms and Conditions of Sale."
   p) "Tower" means the specific tower referenced on the first page of the Instructions.
   q) "Turbine" means the specific wind turbine referenced on the first page of the Instructions.
   r) "User" means the purchaser or user of the Product.
   s) "Warranty" means the "AnemErgonics, LLC SMarT_Foundation™ [Simple Modular Technology] Limited Warranty" attached to these Terms and Conditions. (If not attached, contact Supplier to request a copy of the Warranty.)

2) Installation: User will perform the Installation in conformance with the Instructions and these Terms and Conditions. User specifically covenants, represents, and warrants that:

   a) before starting Installation it has investigated and identified all Laws applicable to the Installation and erection of the Tower and Turbine and will in all respects concerning the Installation and erection of the Tower and Turbine comply with such Laws
   b) before starting Installation it will review and understand the Drawings and Instructions
   c) before starting Installation it will confirm all Parts were provided and no Parts are broken, damaged, or missing
   d) it has the ability and experience needed to ensure the Installation is completed in a good, safe, and workmanlike manner in conformance with the Instructions
   e) it will only perform the Installation in appropriate and safe weather and working conditions
   f) anyone assisting User with the Installation will review and understand the Drawings and Instructions
   g) anyone assisting User with the Installation will have the ability and experience needed to ensure the Installation is completed in a good, safe and workmanlike manner in conformance with the Instructions
   h) it will not modify any Parts or supplement any parts, except as may be expressly provided for in the Drawings or Instructions or only after securing Supplier's prior, written approval
   i) it will stop the Installation if it does not understand any Instruction step(s)
   j) it will not forego or modify any Drawings or Instructions step(s), except as may be expressly provided for in the Drawings or Instructions and only after securing Supplier's prior, written approval
   k) it has all tools required for the Installation and will use only use tools that are in good condition and suited for the Installation
   l) it will secure all materials required to complete the Installation (e.g. concrete, fill) from licensed, reputable sources
   m) it will at all times protect the Installation site and excavation from access by any individual not directly involved in the Installation and that does not meet the criteria above
   n) it is solely responsible for the excavation and protecting the excavation site
   o) it will not start excavating without first confirming the absence of any nearby above-ground or underground electric lines, gas lines, phone lines, sewer lines, water lines, or similar structures or utilities
   p) it will mark (such as with signs or caution tape) and cover (with materials sufficient to prevent anyone from falling in the excavation) the excavation when Installation work is not being performed
   q) it will not adjust, modify, or move or attempt to adjust, modify, or move the foundation after Installation
   r) it will not replicate or reproduce or attempt to replicate or reproduce any part or all of the Product

3) Disclaimer:

   a) The Product is provided "as is," without any warranties of any kind, except as expressly provided in the Warranty. Supplier disclaims all other warranties, whether express, implied, statutory or based in case law, related to the Product, including warranties of fitness for a particular purpose, merchantability, non-infringement of third-party rights, and title. User acknowledges and agrees any and all such warranties will have no application and be of no force or effect.
   b) User acknowledges and agrees Supplier will have no liability, obligation, or responsibility, whether based on contract, equity, statute, tort (even in the case of Supplier's comparative fault or negligence), or otherwise, in the case of:
      i) Installation not performed in conformance with this Agreement
      ii) selection of the Installation site
      iii) soil conditions or changes in soil conditions
      iv) excavation and the Installation site
      v) materials, services, or tools supplied by User or any third party
      vi) concrete pouring, including elimination of air bubbles or pockets

vii) fault, failure(s), or negligence of any third party
viii) damage to any Parts during Installation
ix) loss of any Parts
x) modification of the Kit, Tower, or Turbine
xi) any defect or failure of the Tower or Turbine
xii) erection of the Tower and installation of the Turbine
xiii) grounding
xiv) electrical injury
xv) electricity production (including intermittent production, lost production, and non-production)
xvi) damage or injury to animals, buildings, crops, fences, gates, plants, structures, and trees
xvii) damage or injury to or caused by any above-ground or underground electric lines, gas lines, phone lines, sewer lines, water lines, or similar structures or utilities
xviii) damage or injury caused by any Force Majeure Event

The fact of one or more of the foregoing will preclude Supplier's liability, obligation or responsibility.

4) Risk of loss; shipping; title: Risk of damage or loss for all or any of the Product transfers to User upon Supplier's loading the Product at its facility.

5) Intellectual property: All interest, right, and title in and to all: a) copyrights; b) patents, patent applications, and patentable ideas, inventions, and/or improvements; c) trade secrets, proprietary information, and know-how; d) trademarks; and, e) all other intellectual property, proprietary rights, or other rights related to intangible property comprising or developed, embodied, or practiced in connection with, or used in connection with any of the Product or this Agreement ("Intellectual Property," which includes the Product) are owned by Supplier. User will not make any claim of development of, interest in, or ownership of any such Intellectual Property. No license or title to the Intellectual Property is transferred to User, and User does not obtain any rights, express or implied, in the Intellectual Property, other than the limited rights to a one-time use, in connection with a single Installation, of the Drawings, Instructions and Kit. To the extent User creates any derivative work of any Intellectual Property, such derivative work will be owned by Supplier**,** and all interest, right and title in and to each such derivative work will automatically vest in Supplier, with no rights in favor of User. Supplier will have no obligation to grant User any right in any such derivative work. User will not copy, decompile, disassemble, distribute, reproduce, re-use, reverse engineer, sell or otherwise transfer Intellectual Property without Supplier's prior written consent, which consent Supplier may unreasonably withhold. In the case of any breach of the provisions of this Section, User will be liable to Supplier for all actual damages sustained and authorized by Law (including, but not limited to, consequential and exemplary damages).

6) Miscellaneous:
   a) Amendment: No term or provision of this Agreement may be amended or modified in any way except in a writing signed by both Parties that is denominated as an "Amendment."
   b) Cumulative rights: Supplier's rights under this Agreement are cumulative and are in addition to any other rights Supplier may have under contract, at law or in equity, all or any of which Supplier may enforce concurrently or individually.
   c) Dispute resolution:
      i) Arbitration: The Parties will attempt amicable resolution of any disputes. If amicable resolution fails, then the Parties will submit the dispute to binding arbitration pursuant to the rules of the American Arbitration Association before a single arbitrator in Denver, Colorado.
      ii) Injunctive relief: Notwithstanding the foregoing amicable resolution and arbitration obligations, User acknowledges and agrees Supplier has invested substantial effort, money and time in developing its Intellectual Property and that the actual or threatened disclosure, transfer or use of this Intellectual Property in violation of this Agreement will cause Supplier significant economic and non-economic irreparable damage and injury that is not susceptible of economic quantification. Therefore, User agrees that in the case of its actual or threatened violation of Supplier's In-

tellectual Property rights Supplier will be entitled, without waiving any of its other rights or remedies available in equity, at law or under this Agreement, and without any requirement of posting bond, to injunctive and other equitable relief (e.g. restraining order and/or injunction) in the event of such actual or threatened violation of its Intellectual Property rights.

iii) Legal costs and fees: The prevailing Party in any action brought under this Agreement will be entitled to its reasonable attorney fees and other costs incurred, in addition to any other relief to which it is entitled.

d) Entire agreement: This Agreement is the entire agreement between the Parties related to its subject matter. It supersedes all prior or contemporaneous agreements, discussions, or understandings between the Parties, written and oral. Supplier assumes no obligations other than those expressly set forth in this Agreement.

e) Indemnity: User will defend, indemnify, and hold harmless Supplier and its advisors, agents, brokers, consultants, contractors, directors, distributors, employees, engineers, insurers, lawyers, members, officers, representatives, stockholders, and vendors ("Supplier Indemnified Parties") from and against any and all actual or alleged cause of action or claim, damage, expense, fine, lien, liability, loss, penalty, suit, and tax (including attorneys' fees), including claims for death, personal injury, labor, liens, materials, or property damage arising in any way as a result of its breach of any term of this Agreement or its failure, fault, or negligence in connection with the Installation (each a "Claim").

f) Law: U.S. and Colorado law govern this Agreement without regard to applicable conflict of law principles or rules.

g) Liability limitation: In no event will Supplier or any Supplier Indemnified Party have any liability for consequential, exemplary, indirect, punitive or special damages, including lost profits or revenue (including net metering benefits), arising from or related to the Product or Installation, even if Supplier has been advised of the possibility of such damages. Supplier's cumulative, total liability in connection with the Product and Installation, whether based on contract, equity, statute, tort or otherwise will not exceed the amount of the Price actually paid for the Product. One or more claims will not enlarge this limit.

h) No other covenants, representations or warranties: Supplier makes no covenants, representations, or warranties except as expressly set forth in this Agreement, and User acknowledges and agrees Supplier disclaims any such other covenants, representations, or warranties

i) No third-party beneficiaries: Except as may be expressly set forth in this Agreement (e.g. Section 6 (e) and (g)), this Agreement is intended solely for the benefit of the Parties, and nothing in it will be construed to create any duty to, standard of care with reference to, any liability to, or any benefit for any person not a party to it.

j) Severability: If any term of this Agreement is finally held to be illegal, invalid, or void, all other terms will remain in effect.

