

GUIDELINES FOR THE PREPARATION OF A GEOTECHNICAL REPORT

I. PURPOSE AND INTENT

- a) The intended purpose of these guidelines is to assist the Customer and/or Owner retain the services of a Geotechnical Engineer.
- b) It is not ROHN's purpose or Intent to supercede the Geotechnical Engineer's knowledge, judgement and/or experience. It is the Geotechnical Engineer's responsibility to add or delete from these Items, based on local site conditions and other factors.

II. DISCLAIMER

- a) ROHN will not accept any liability, either expressed or implied, for the use of, or omissions in, these guidelines.
- b) These guidelines are considered as proprietary data and the sole property of ROHN. These guidelines cannot be copied, reproduced or otherwise used, in whole or in part, beyond their intended purpose, without the express written consent of ROHN.

III. EXPLORATORY BORINGS

- a) Borings should be taken at tower legs for self-supporting towers and at the base and anchor points for guyed towers. For small self-supporting towers, two borings may suffice. For large self-supporting towers, one boring should be taken at each tower leg. A "small" self-supporting tower is assumed to have a face width less than 20 feet and a compression load less than 50 kips per leg. For pole structures, one boring may suffice.
- b) The minimum boring depth should be 30 feet for pole structures, self-supporting towers and guyed tower bases. For guyed tower anchors, the minimum depth should be 15 feet. The actual depth of boring must be determined by the Geotechnical Engineer based on reactions, soil conditions and the type of foundation recommended.
- c) If borings cannot be advanced to the desired depth, rock corings should be taken. Rock Quality Designation (RQD) values and compressive strengths should be determined.

IV. GEOTECHNICAL REPORT

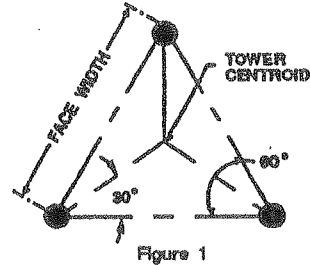
- a) The following properties, for each soil layer encountered, should be determined by field or laboratory testing and summarized in the geotechnical report:
 1. Soil classification and elevations
 2. Standard penetration values
 3. Unconfined compression strength
 4. Angle of internal friction
 5. Cohesion
 6. "In-Situ" soil density and moisture content
 7. Other properties unique to site conditions
- b) The following items should be discussed in the geotechnical report:
 1. Geologic description of site
 2. Observed and expected ground water conditions
 3. Expected frost penetration depth
 4. Corrosion potential of soil and corrosion protection recommendations
 5. Site access and potential construction difficulties
 6. Dewatering or site drainage requirements
 7. Backfill material recommendations
 8. Settlement considerations
 9. Additional information to aid foundation designer
 10. Recommended types of foundations
 11. Design parameters for uplift, download and lateral load
 12. Factor of safety considered when allowable vs ultimate design parameters are provided
 13. Recommended construction techniques and inspections

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Reactions shown for all structures are for maximum wind loading conditions based on an allowable working stress design. Reactions have not been reduced by a factor to account for increased allowable stresses due to wind loading.

V. SELF-SUPPORTING TOWERS (Figure 1)

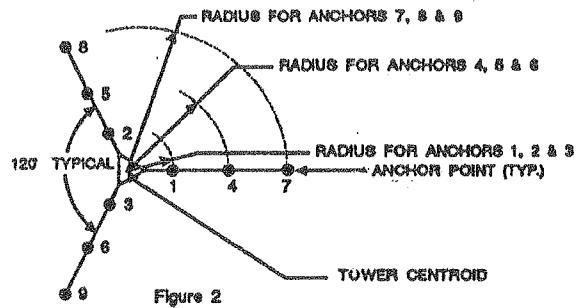
Tower Face Width _____ feet
 Compression/Leg _____ kips
 Tension/Leg _____ kips
 Shear/Leg _____ kips
 Overturning Moment/Tower _____ foot-kips



VI. GUYED TOWERS (Figure 2)

Base Reaction _____ kips (Compression)
 _____ kips (Shear)

Anchor Number	Anchor Radius (feet)	Horizontal Force (kips)	Vert. Uplift Force (kips)
1-3	_____	_____	_____
4-6	_____	_____	_____
7-9	_____	_____	_____



NOTE: Anchor radii are to be measured from the tower centroid.

VII. POLES

Pole Base Diameter _____ inches
 Overturning Moment _____ foot-kips
 Shear _____ kips
 Compression _____ kips

VIII. COMMONLY USED FOUNDATION TYPES

- | | |
|---|---------------------------------|
| a) Pier and Pad | e) Straight Shaft Drilled Piers |
| b) Mat Foundations | f) Drill and Bell Foundations |
| c) Driven Piles | g) Rock Anchors |
| d) Buried Anchor Blocks (Deadmen) for Guy Anchors | |