



**EPC Well Gathering System at Badra
Oil Field, in Republic of Iraq**



DOCUMENT DETAILS

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Doc. No. GB164-BD01-100-CV-CL-006
CALCULATION REPORT FOR 8m HEIGHT
LIGHT POLE FOUNDATIONS

Rev : 0
Date: 12.06.13
Page: 2 / 20



REVISION DESCRIPTION SHEET

Rev.	Para.	Revision Description
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Hold No.	Para.	Description of Hold
1		Geotechnical Report is not finished. Geotechnical parameters are assumed data.
2		Final light pole vendor drawing awaited



Doc. No. GB164-BD01-100-CV-CL-006
CALCULATION REPORT FOR 8m HEIGHT
LIGHT POLE FOUNDATIONS

Rev : 0
Date: 12.06.13
Page: 3 / 20



CONTENTS

1.0	Scope.....	4
2.0	Design Data.....	4
2.1.	Construction Material.....	4
2.2.	Reference Codes, Documents and Drawing.....	4
3.0	Design Philosophy.....	4
3.1.	Foundation System.....	4
3.2.	Design Considerations.....	4
3.3.	Use of Computer Software.....	4
4.0	Loading Considerations.....	4
5.0	Result and Conclusion.....	4
	APPENDIX- I: 8m HEIGHT LIGHT POLE FOUNDATION DESIGN.....(No. OF PAGES =13)	
	APPENDIX- II: VENDOR DRAWING AND FOUNDATION DRAWING.....(No. OF PAGES = 2)	



1.0 Scope

This document furnishes design calculations for foundation of 8m height light pole foundations for EPC Well Gathering System at Badra Oil Field, in Republic of Iraq.

2.0 Design Data

2.1. Construction Material

Structural Concrete C30, Cylindrical strength of 30 Mpa.

Reinforcement Conforming to ASTM A615M grade 60 with $f_y = 420$ Mpa

2.2. Reference Codes, Documents and Drawing

- a) ACI 318-08 Building Code Requirement for Structural Concrete
- b) GB164-BD01-100-CV-DB-001 Design Basis for Civil and Structural Works
- c) UBC-1997 Uniform Building Code
- d) ASCE 7, Section 6 - Wind Loads

3.0 Design Philosophy

3.1. Foundation System

The light pole foundation is isolated foundation carrying light pole at elevation of 300 mm above FGL.

3.2. Design Considerations

Design of foundation is based on Geotechnical Report No. GB164-BD01-100-CV-RM-004.SBC & coefficient of friction for foundations design is taken from the report mentioned above, depending on the area, depth & width of foundation.

Minimum Net soil bearing capacity SBC= 160 kN/m²

3.3. Use of Computer Software

Analysis and design of light pole foundation to ACI 318-08 are carried out using MS Excel spreadsheet.

4.0 Loading Considerations

Refer to Appendix-II vendor drawing for loads information. The net soil pressures below foundations are checked for service load combination. The reinforced concrete design of foundation and pedestal are performed for ultimate load combination.

5.0 Result and Conclusion

Refer Appendix I for analysis and design of light pole foundation. All stability checks for sliding, overturning and bearing pressure are within allowable limits as specified in project design basis.

Hence it may be concluded that light pole foundation is carried out in compliance with "Civil/Structural Design Basis" and found to be adequate with strength and serviceability point of view.



Doc. No. GB164-BD01-100-CV-CL-006
CALCULATION REPORT FOR 8m HEIGHT
LIGHT POLE FOUNDATIONS

Rev : 0
Date: 12.06.13
Page: 5 / 20



APPENDIX I
8m HEIGHT LIGHT POLE FOUNDATION DESIGN

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/80533104011011131>