

Ministry of higher education & scientific research
University of technology
Building & construction engineering Dep.
Structural branch



**Design of hall suitable to use as a wing in an
international trade fair**

تصميم قاعه تصلح للاستخدام كجناح في معرض تجاري دولي

(كجزء من متطلبات نيل شهادة البكالوريوس في هندسة البناء والانشاءات)

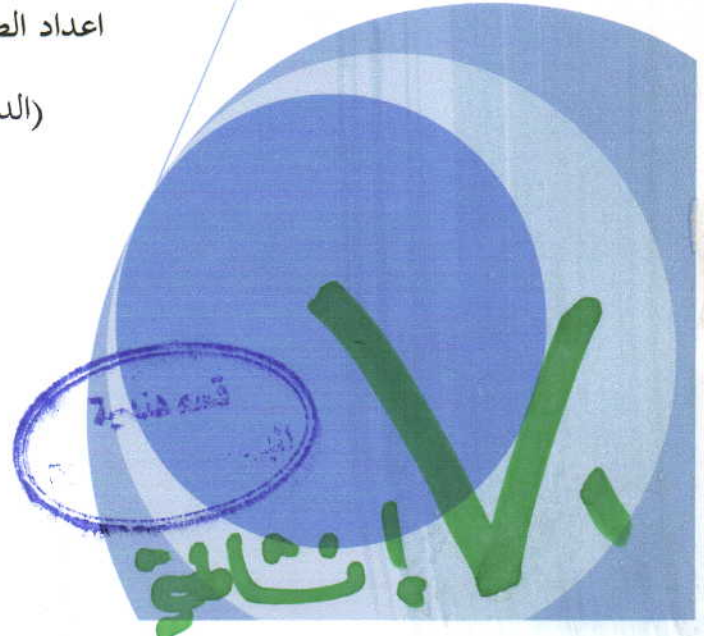
بأشراف : د. مي جاسم حمودي

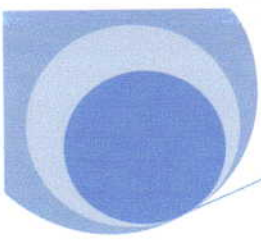
M. J. Hamoudi

اعداد الطالب : رامي امير بهجت

(الدراسه الصباحيه)

2010 م





الاهداء

الى الرجل الذي زرعتي بذره.... وعكف على اثماني وتربيته بما ينفق من راحته وروحه وانفاسه

الى ذلك الرجل الكبير..... والدي العزيز

الى من اخص الله بالجنه تحت قدميها.... امي العزيزه

الى الشخص الذي ترعرت معه اخي الوحيد

والى الارض التي خلقنا من اديمها والام الرؤوف التي طالما نمنا في حجرها ورضعنا من خيراتها

اطفالا حتى نشانا رجالا ونساء

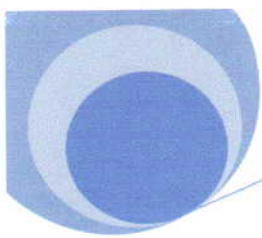
الى وطننا الحبيب.... العراق والذي من اقل حقوقه علينا ان نعلمه لعلنا نضمم بعد جراحه



شكر وتقدير

الى الذين شملونا برعايتهم واهتمامهم وافاضو علينا من علمهم الشيء الكثير دون
ان تضيق صدورهم بتقصير بدر منا او لعلها ضاقت ولكن سرعان ما
رجعت احن واوسع من ذي قبل .

الى كل اساتذتنا الاعزاء الذين درسونا في قسمنا العزيز
والى المشرف على هذا المشروع : د. مي جاسم حمودي



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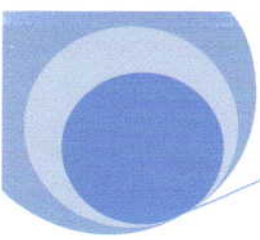
A_g	Gross area
A_n	Net area
A_e	Effective net area
$R_{s,s}$	Single shear resistance of the plate
$R_{bearing}$	Bearing resistance of the plate
d	Diameter of the bolt
l_e	Edge distance
F_b	Allowable bearing stress
F_v	Allowable stress on fasteners
S.H	Standard size hole
f_a	Computed axial stress
F_a	Allowable axial compression stress
f_b	Computed compression bending stress
F_b	Allowable compression bending stress
C_m	Reduction factor
e	Eccentricity
N_p, B_p	Dimensions of concrete pedestal
t_p	Thickness of base plate
K	Effective length factor
KL	Effective length



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Figures :

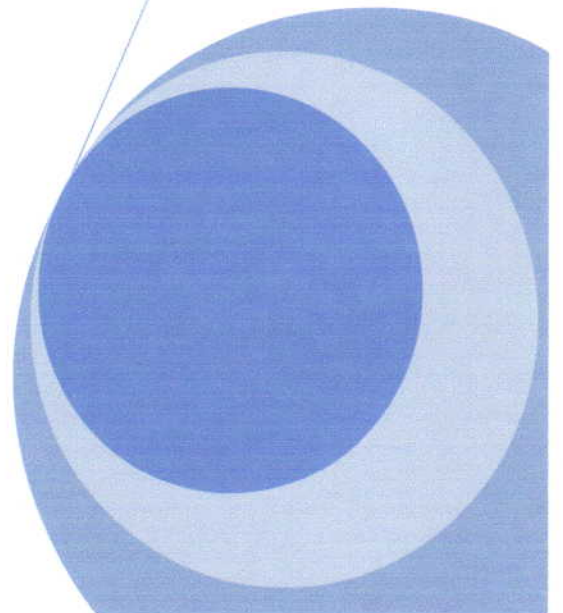
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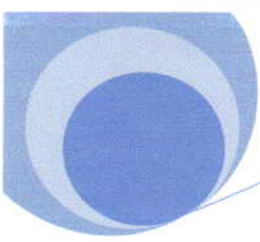


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Chapter one

Introduction





Design of hall suitable to use as a wing in an international trade fair

1-1 Introduction:

The aim of this project is to design a hall suitable to use as a wing in an international trade fair. As many companies participating in the exhibition, each company has a part in this commercial wing. This project has an importance for the economic and trade of the country.

The implementation of such halls are by using steel construction which is characterized by fast build up and providing large internal spaces. Also it can be removed and re-used the steel of the building again, ductility, high strength, easy to make extension. But it has less fire resisting from concrete and maintenance cost.

In the design of this hall the trusses will be used for roofing because it is more economical and has a lightweight. Therefore it will be less load on the foundation. The design of the purlins, column, and base plate will be presented as well.