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**From Eurocodes, Special Investigations and Risk Analysis  
to  
Design Requirements for the Øresund Coast to Coast Structures**

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### **Abstract**

Establishing a physical link of the magnitude and importance such as the Øresund Coast to Coast calls for early and focused attention towards developing and implementing a coherent strategy dealing with the Design Requirements for the structural parts of the link.

Design Requirements are instrumental in securing the owner and ultimately the Society, that issues such as structural safety and durability are addressed for each and every part of the Link, in a uniform manner and independent of the contract form and contract division.

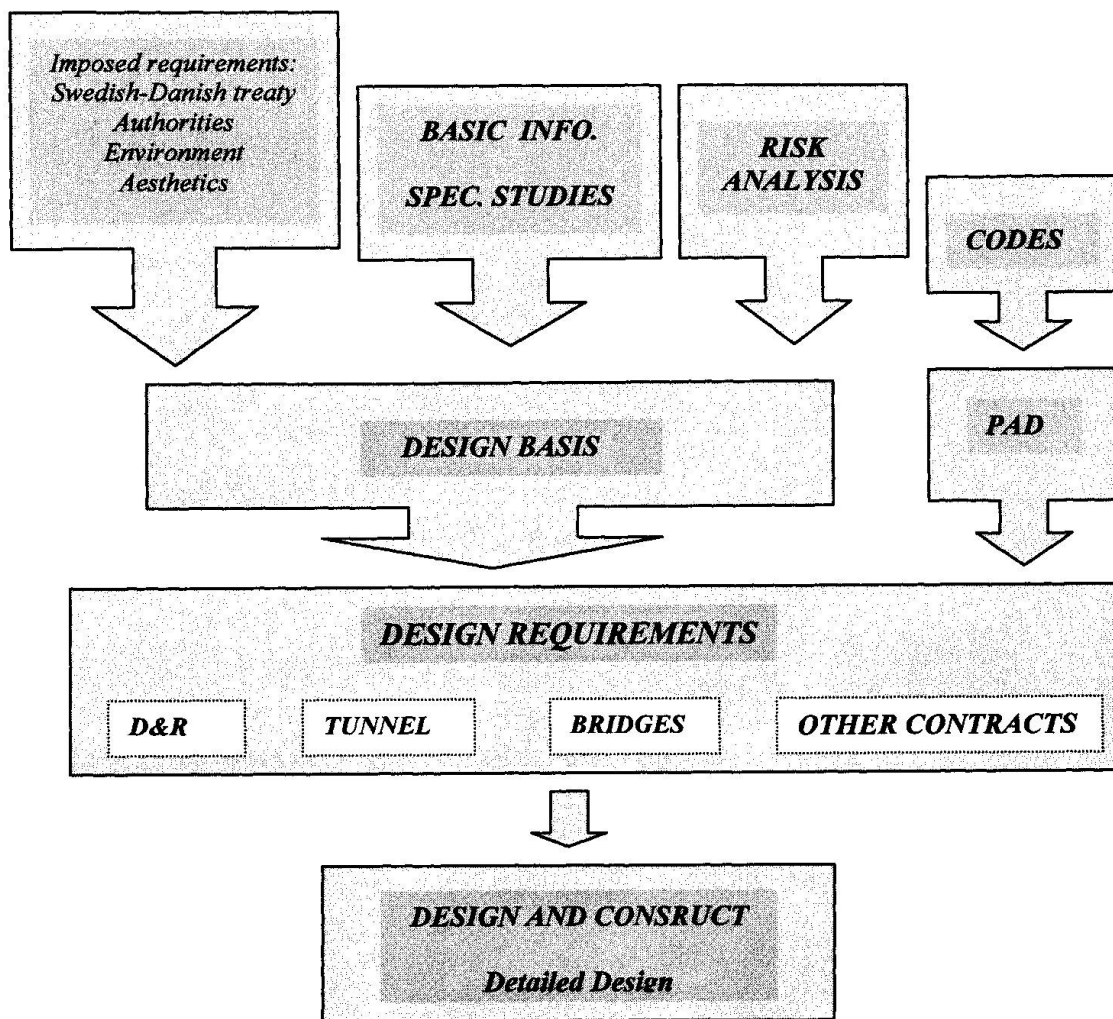
The owner addressed these issues at an early stage of the present project. This paper briefly gives a picture of the options available at the time, the strategic decisions taken and the organisation of the work leading to the final preparation of the Design Requirements.

Some of the questions to be answered were:

- *Which set of structural codes shall be/can be applied?*
- *Can the chosen set of basic structural codes properly fit the project at hand or will amendments have to be prepared?*
- *Does project specific features call for additional preparatory investigations?*

A brief expose of the considerations behind these questions as well the answers arrived at and the ensuing need for clarifications and further preparation is given.

Furthermore a brief expose of the process leading to the Design Requirements for the various contracts is presented. This has been illustrated by the figure:



The Design Basis, prepared as an internal technical document is a key document, containing technical specifications and serving the purpose of being a common platform for the technical contract documents – the Design Requirements for the various contracts.

The elements in the process of establishing the Design Basis – the Basic Information, Special Studies and the Risk Analysis and their interrelationship are explained illustrated by a few examples.

It is concluded that the experience from the process has confirmed that early attention and consistent implementation related to these issues make a manifest contribution to the ultimate result.