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**TECHNICAL JOB
SPECIFICATION**

452/1

REVISION 0

DATE 29/06/2011

LNG PLANT

CONCRETE PAVING AND CURBS



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REVISIONS LOG

Rev. No	Rev. Date	REASON FOR CHANGE	Made By	Approved By
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ΠΤΠ Ο-150
[Technical Standard Specification O-150, Construction of road subbases]

ΠΤΠ Ο-155
[Technical Standard Specification O-155, Construction of road base courses]

Job Spec. No. 499/2
[Trenching and excavation]

Job Spec. No. 499/7
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Dwg No. STD- 1-43-02
[Paving and Curbs Standard]

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1.0 SCOPE

This specification refers to the general requirements of design and construction for paving and curbs.

This specification shall be considered and applied in conjunction with the following technical documents: soil investigation report (if any), the technical specifications applied for site preparation, and the corresponding standard drawing for concrete paving and curbs.

2.0 CONCRETE PAVING AND CURBS

Site areas to be paved shall be as defined in paving engineering drawings.

Paving shall be 100 mm thick (light duty) if subject to a bearing live load of 2 KN/m² and 200 mm thick (heavy duty) if subject to truck traffic. Reinforcement shall consist of one layer of 150x150 mm mesh, 6 mm diameter for light duty paving and two layers of same mesh for heavy duty paving.

Wire mesh reinforcement shall be continuous in construction joints but it shall not extend through expansion joints.

Concrete curbs shall be placed at the edges of paving. Concrete curbs shall be 150 mm thick and 200 mm high with two continuous reinforcing bars Ø10 mm and stirrups of Ø 8 mm at 300 mm spacing.

Paving shall be laid on polythene foils of grade 500, which serve as water barrier for the water in the concrete. The polythene foils shall be placed on top of a 50 mm sand layer to avoid damage, as shown in the standard drawing for concrete paving and curbs **Dwg No STD-1-43-02.**

Paving shall be sloped to the catch basins or trenches with minimum slope of 1 per cent.

Construction and expansion joints are detailed in the standard drawing for concrete paving and curbs and shall be provided as follows:

- Construction joints shall consist of a D/4 deep score in the top surface of the slab where D is the slab thickness. They shall be provided at spacing not exceeding 5 meters both ways.
- Longitudinal and transverse expansion joints shall be used in concrete pavements at spacing not exceeding 15 meters, both ways. Expansion joints shall also be used in paving slabs adjoining building walls, columns, catch basins, manholes, and equipment foundations. These gaps shall be filled with premoulded asphalt expansion joint materials for the upper 20 mm and with expanded polystyrene (FELIZOL) for the rest. The way of application of the asphalt joint material shall be according to manufacturer's instructions. Gap shall be 25 mm wide around blocks supporting reciprocating machines and 12 mm wide for all other expansion joints.
- In heavy duty paving expansion joints shall be provided with dowels.
- Expansion joints may be omitted around certain piers, when the deck is utilized to resist lateral loads.

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Paved surfaces shall be provided with a wood float finish, unless otherwise indicated on paving drawings.

The subgrade soil shall be provided as follows:

- The upper part (base) shall consist of two layers sand gravel 100mm min thick each (0,074mm min and 19,1mm max grain dia). Each layer shall be compacted to a degree of compaction of 95% of modified Proctor complying with National Technical Specification ΠΤΠ Ο-155.
- The lower part (subbase) shall consist of two layers gravel 200mm thick each (24,5mm min and 76,2mm max grain dia). Each layer shall be compacted to a degree of compaction of 95% of modified Proctor complying with National Technical Specification ΠΤΠ Ο-150.

Special care must also be taken when compact the backfill over sewers, drainage facilities and other permanent structures in the paved area.