Lusit Precast Engineered Retaining Wall System

The Lusit Retaining Wall system is a precast concrete engineered wall suitable for a wide variety of ground retention uses.

### Applications
- Retaining Wall applications
- Motorways, courtyards, parking areas, walkways, basements, stairwells
- Containment bunds
- Silage bins

### Product Attributes
- Engineered to NZ codes
- Self supporting
- Functional & elegant
- Durable - 100 years design life
- Simple installation
- Concrete - 50mpa

### Approvals/Standards
- Concrete Structures Standards NZS 3101:Part 1:2006

### Quality
The Lusit Retaining Wall system is a precast concrete engineered wall suitable for a wide variety of ground retention uses.

One of the key advantages of Lusit is the flexibility of design to suit varying applications.

**LAS system - Lusit Angle Support**

**Features**
- Pre-production of units means saving of on site project time as not weather dependent
- High quality construction
- Specifically designed steel forms and reinforcing baskets
- Available in heights from 1 to 4 metres, in 200mm increments. Wall thickness of 150, 200 and 250mm, depending on height and load.
- Precision, versatility, durability, structural integrity, and speed of installation.

**Design Criteria**
- Three different loading capabilities:
  1. Light duty: Level backfill behind wall *(up to 2.5kPa surcharge)*
  2. Medium duty: 0-20° sloping backfill behind wall or up to 12kPa surcharge)
  3. Heavy duty: TNZBM 2003 HN-H0 loading
- In cases where vehicular traffic is allowed, no wheel loadings permissible within 1 metre of inside edge of Lusit panel.
- Backfill to be GAP65 with 60° maximum allowable batter, with 100mmØ Novacoil drain behind base of wall.
- Maximum specific weight of backfill: 18kN/m³

**Transport and Storage**
- All LAS panels are delivered on H/D wooden pallets (returnable). Panels up to 1.6 metres high delivered in upright position, with taller panels delivered face down.
- LAS panels fitted with 2.5 Tonne Reid swiftlift anchors cast into back face for lifting (if panels are fitted with loops near the top these are for alignment only, and must not be used for lifting).
- LAS panels to be unloaded individually, to avoid damage.

*Note:* If storing on site LAS panels should be stored upright (on level ground) or lying face down no more than 2 high with distance packers between. Upright storage is preferred.
NOTES for Light Duty Lusit LAS Element

1. Minimum allowable bearing capacity of soil foundation = 100 kPa \( (q_{u} = 150 \text{kPa} \ (NZS 3604, \text{Sec 3, Good Ground}) \]

2. Placement and compaction of backfill to be done a minimum of 7 days after in situ footing pour, or when concrete has reached a minimum strength of 25MPa

3. Concrete = 50MPa

4. Reo = Grade 500E

5. Reo Cover (40mm min)

6. Min Lap Length 40 X Bar Dia

7. Dimensional tolerance: Table 5.1-NZS3109:1997

8. Design Loading:
   - 0 - 2.5kPa surcharge, 0 degree backslope
   - Max. specific weight of backfill max = 18kN/m3
   - EQ horizontal acceleration coefficient \( K_h = 0.2 \) (NZBC B1/VM4)

9. Exposure classification B2. Design life 100 years NZS3101 Tables 3.1 & 3.6

FIG. 3 Typical Section Light Duty Lusit LAS Element - Hynds Standard Drawing T4301 - 33
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