ARE THERE ANY TECHNICAL OR COMPLIANCE PRE QUALIFICATIONS REQUIRED (e.g. Electrical License, Plumbing certificate)	Design to comply with: National Building Regulations and Building Standards Act (Act 103 of 1977) Occupational Health and Safety Act, 1993 (Act 85 of 1993) SANS 10400

SCOPE OF WORK: Design of Warehouse Toilet with Septic Tank

Objective

Design a warehouse toilet facility with a hand basin and a compact kitchen unit (including a sink), suitable for use by a single person, including a septic tank system located adjacent to the warehouse. This scope covers design only, excluding any construction activities.

Requirements:

1. Toilet Specifications

- Single-use toilet, dimensions: 2.5 m × 1.2 m.
- Partitioning walls: Using standard bricks, strong and durable to withstand warehouse activities.
- Toilet fixture: Standard white ceramic toilet, gravity flush, dual flush if possible.
- Hand basin: White ceramic, single-bowl, with one-hole electric mixer tap for hot and cold water.
- Accessories: Toilet paper holder, towel hook.
- Door: Standard white wooden door, lockable.
- Window: Casement aluminium window, 450 mm × 450 mm, placed 1.6 m above finished floor, clear glass.
- Lighting: Ceiling-mounted LED light in the toilet.
- Floor finish: White ceramic tile.
- Wall finish: Painted with washable, semi-gloss paint.
- Ceiling finish: Painted white.

2. Kitchenette Specifications

- Compact kitchen unit, 1.2 m length, with two-door cabinet, wooden countertop.
- Sink: Stainless steel, single bowl, electric hot and cold mixer tap.
- Floating shelf: Wood, mounted above countertop.
- Floor & wall finishes: Not specified—uses existing office finishes.

3. Septic Tank System (Two Users)

- Material: Reinforced concrete (durable, suitable for warehouse environment).
- Volume: Designer to calculate based on two users and local municipal regulations.

- Inspection hatches: Three hatches – inlet, outlet, and over the baffle for maintenance and sludge monitoring.
- Pipe material: PVC for all inlet and outlet drainage pipes (durable, corrosion-resistant).
- Trenching, slopes, layout: Designed for proper gravity flow.
- **Site assessment:**
    - Identify underground and above-ground services.
    - Establish site levels, feasible connection points, and separation distances from foundations and water sources.
    - Soil considerations: Gravel top layer present—designer to ensure proper bedding and backfill for concrete tank and confirm subsoil stability via test pits or soil assessment.

4. Water Supply

- Source: Municipal water connection using copper piping, supplying the single electric geyser that serves both toilet and kitchenette sink.
- Supply an electric geyser: Single unit serving both the toilet hand basin and the kitchenette sink.

5. Health, Safety, and Regulatory Compliance

All designs must comply with the following:

- SANS 10400 – Structural design and building regulations.
- SANS 10252 – Domestic water supply and drainage systems.
- Occupational Health and Safety Act (OHSA) – Safe access, hygienic surfaces, ventilation, and maintenance.
- Local municipal environmental and health regulations – Including septic tank siting, sludge management, and separation from water sources.

All designs must be reviewed and signed off by a registered civil engineer.

6. Deliverables

- Drawings:
    - Floor plans
    - Elevations
    - Sections
    - Plumbing schematic
    - Isometrics for plumbing and septic tank connections
- Technical specifications: Materials, finishes, fixtures, and regulatory compliance notes.
- Design guidance notes: Methodology, critical considerations, and compliance.

Image 1: Proposed area for septic tank construction

Image 2: Interior area for proposed toilet construction

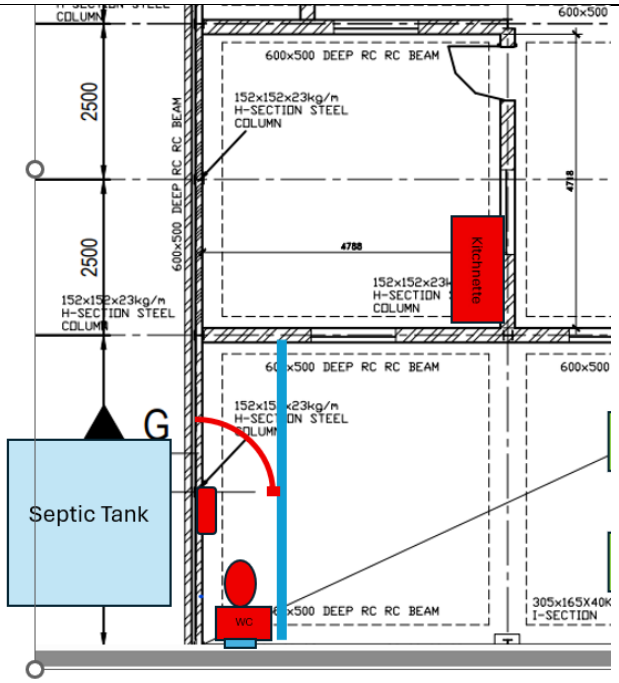

Image 3: Proposed design