



NOTES

GENERAL NOTES

- DESIGN METHOD: LIMIT STATE DESIGN ACCORDING TO TM7 (PART 3) (AS AMENDED 1988) FOR NA, NB AND NC LOADINGS THE CONTRACTOR MUST VERIFY IF THE TRANSPORT VEHICLE EXCEEDS THE TM7 LOADINGS AND AMEND THE DESIGN ACCORDINGLY

DESIGN DETAIL

- DENSITY OF FILL MATERIAL = 2000 kg/m³
- DESIGN FILL: 0.7m
- FILL MATERIAL: ANGLE OF INTERNAL FRICTION 30°
- REINFORCEMENT IS DETAILED ACCORDING TO SANS 10144

MATERIALS SPECIFICATION

- ALL CONCRETE TO HAVE MINIMUM 300 kg/m³
- CONCRETE

POSITION	CLASS	CHARACTERISTIC STRENGTH (MPa)
STRUCTURE AND WINGWALLS	30/19	30
IN/OUTLET SLABS	30/19	30
- REINFORCEMENT (SANS 920)

TYPE	YIELD STRENGTH (MPa)	MIN RADIUS
MILD STEEL BARS (R)	250	2xØMM

BENDING OF REINFORCEMENT IN ACCORDANCE WITH SANS 282

- FOUNDING MATERIAL:
 - MAX. CALCULATED GROUND PRESSURE: 200 kPa
 - FOUNDING LEVEL TO BE APPROVED BY THE ENGINEER. UNSUITABLE FOUNDING MATERIAL SHALL BE REPLACED WITH COMPACTED GRANULAR MATERIAL/MASS CONCRETE UP TO A MIN DEPTH OF 500mm AND TO A WIDTH OF 500mm BEYOND THE FOUNDATION LIMIT OR SPECIFIED BY THE ENGINEER

CONSTRUCTION

- ALL VISIBLE CORNERS TO HAVE 25mm x 25mm CHAMFERS
- COVER:
 - FOOTINGS - 75mm
 - ALL OTHER - 50mm
- CONCRETE FINISH:
 - NON-VISIBLE SURFACES - F1
 - VISIBLE SURFACES - F2
 - UNFORMED SURFACES - U2
- A 75mm BLINDING LAYER (CLASS 15/19) CONCRETE TO BE CAST UNDER ALL REINFORCED SLABS.
- BACKFILL IS REQUIRED TO BE SYMMETRICAL
- INVERT LEVELS SHOWN ON DRAWINGS BASED ON LIDAR SURVEY. CONTRACTOR MUST VERIFY CHANNEL LEVELS ON SITE AND AMEND INVERT LEVELS ACCORDINGLY

HYDRAULIC INFORMATION

1. CATCHMENT AREA	- 1.13 km ²
2. 1:5 YEAR FLOOD	- 3.5 m/s
3. 1:10 YEAR FLOOD (DESIGN FLOOD)	- 5.0 m/s