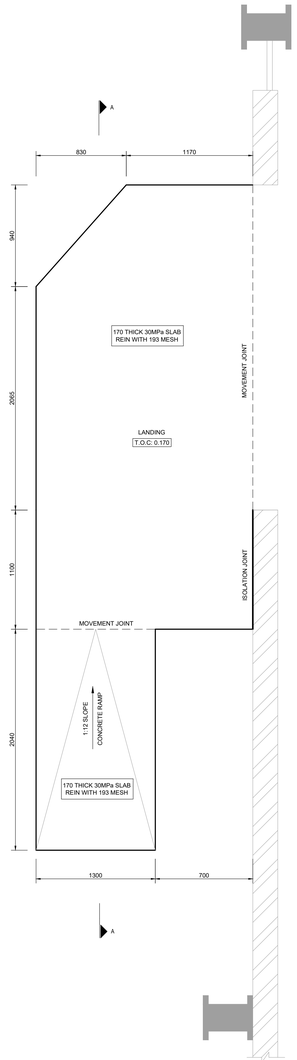
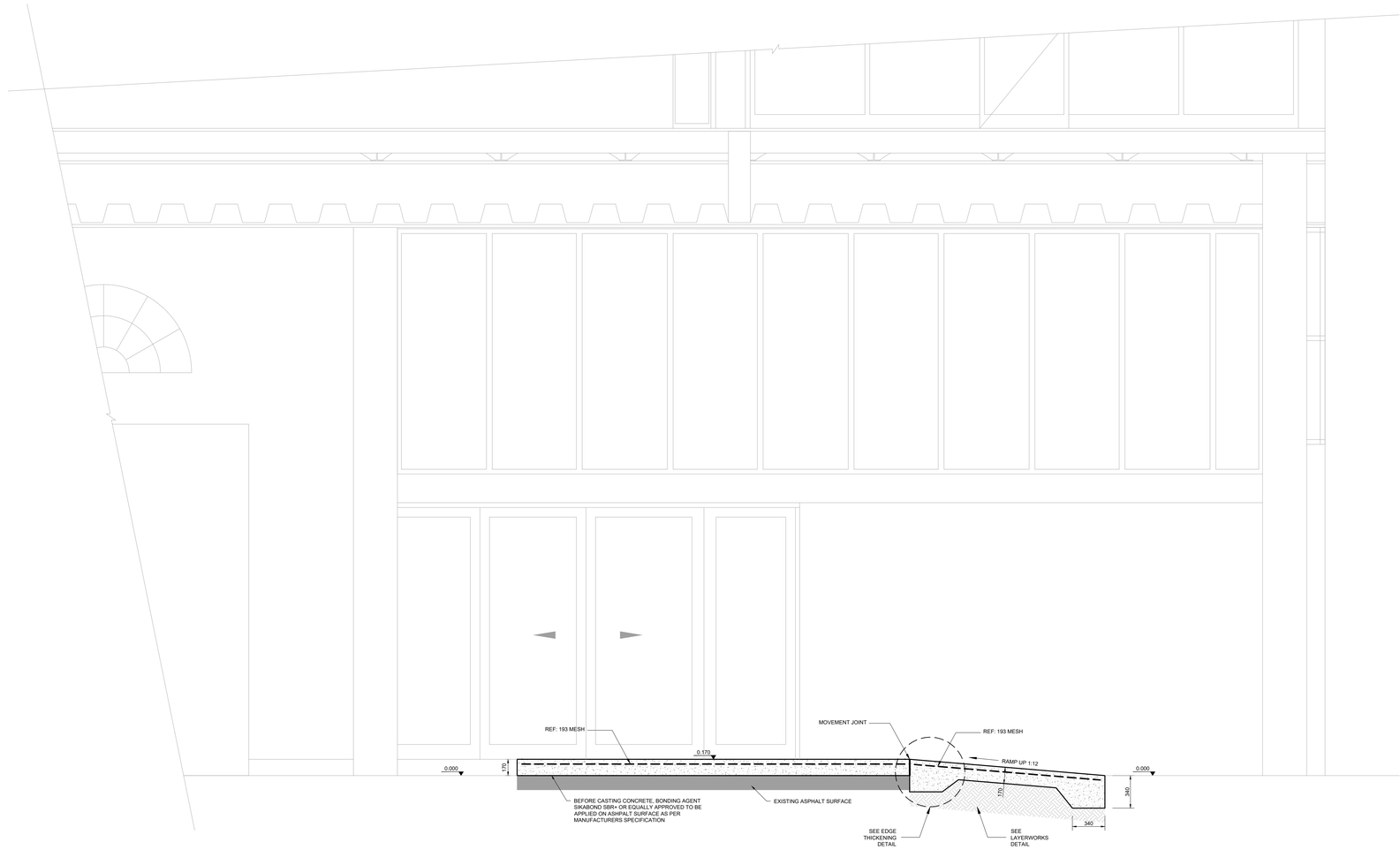


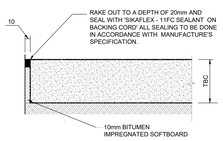
NEW CONCRETE RAMP

1 : 20



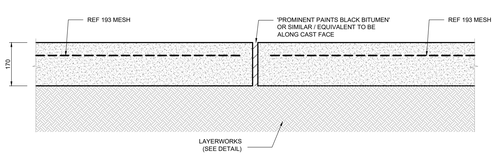
SECTION A - A

1 : 20



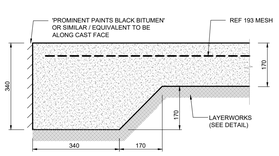
TYPICAL ISOLATION JOINT DETAIL (IJ)

1 : 5



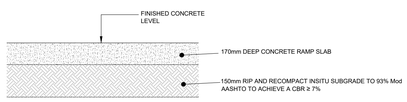
TYPICAL MOVEMENT JOINT DETAIL (MJ)

1 : 5



TYPICAL EDGE THICKENING DETAIL

1 : 5



LAYERWORKS FOR CONCRETE RAMP SLAB

SCALE 1 : 10

NOTE :

BRICKWORK TO BE TIED TO CONCRETE PERIMETER BEAMS AT ROOF LEVEL USING HOOP IRON OR POSI TIES.

ALL ENGINEERED FILL TO CIVIL ENGINEERS DETAIL.

POSITION OF FOUNDATIONS FOR EXISTING WALLS AND COLUMNS TO BE VERIFIED PRIOR TO CONSTRUCTION OF NEW FOUNDATIONS AND WALLS. ENGINEER TO BE ADVISED OF ANY CLASHES.

ADDITIONAL NOTES :

ALL DEVIATIONS FROM ENGINEER'S DRAWING TO BE CONFIRMED BY ENGINEER PRIOR TO CONSTRUCTION

ALL DRAINAGE AND WATERPROOFING TO ARCHITECT'S DETAIL

ALL FOUNDATION DEPTHS TO BE CONFIRMED WITH ENGINEER ON SITE.

FOUNDATIONS NOT TO ENCROACH OVER BOUNDARY

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWING

BARS ARE TO BE CUT/BENT TO SUIT ON SITE

BARS MARKED B-ADD TO BE PLACED FIRST.
(B1-ADD INDICATES BOTTOM 1 ADDITIONAL)
(B2-ADD INDICATES BOTTOM 2 ADDITIONAL)

ABBREVIATIONS USED :

EF	-	each face	NF	-	near face
FF	-	far face	T	-	top
B	-	bottom	EW	-	each way
ABR	-	alternate bars reversed			
ABS	-	alternate bars staggered			
MJ	-	movement joint			
IJ	-	isolation joint			

ALL EXPOSED CONCRETE SLABS AND BEAMS BEARING ON BRICKWORK TO HAVE A SLIP JOINT MADE UP OF 2 SHEETS OF 3mm THICK MASONITE WITH SMOOTH FACES ABUTTING EACH OTHER AT TOP OF BRICK-CONCRETE INTERFACE.

MIN. LAP LENGTH = 45 x BAR DIAMETER

ALL BRICKWORK TO HAVE A MIN. COMP. STRENGTH OF 14MPA

A BLINDING LAYER (50 MM MIN.) TO BE PROVIDED

COVER BLOCKS TO BE PROVIDED

ALL EXPOSED SHARP CORNERS TO BE CHAMFERED 20mm.

NOTES PERTAINING TO STRUCTURAL STEELWORK

1. All structural steelwork fabrication shall comply to SANS 1200H.
2. All structural steel to be Grade 350W according to SANS 1431 or Steel EN 10025-2 Grade S355JR.
3. Unless otherwise noted all welds shall be continuous 6mm fillet welds
4. All structural steel shall be hot-dip galvanised to SANS 121/ISO1461 (Heavy Duty Application) and then shop painted.
5. All metal surface defects such as laminations and welding spatter shall be removed by grinding and sharp edges, burrs, etc, shall be rounded before galvanising
6. The Contractor must ensure adequate structural stability of the structure for the full duration of erection.
7. The Contractor must confirm all dimensions on site. Discrepancies must be reported to the supervisor immediately.
8. No holes may be formed/widened with the use of a cutting torch.
9. All painting to be done in accordance with the works information.
10. All fasteners in accordance with works information.
11. Shop drawings to be approved by structural engineer prior to installation.

General

This drawing to be read in conjunction with all relevant Architects and Engineers drawings.

Dimensions must not be scaled or assumed. After notification, discrepancies or missing dimensions will be corrected in writing by the Project Manager.

Levels shown to foundations are provisional and will be finalised by the engineer on site.

Foundations have been designed for a permissible bearing pressure of 50 KN/m²

Reinforcement shall comply with SANS 920 and be bent to SANS 282.
Symbols :
R = Mild steel bars with characteristic strength of 250 MPa.
Y = Hot rolled or cold worked high yield steel bars with characteristic strength of 450 MPa.
(Only reinforcement fabricated under the SANS mark shall be deemed to comply

Concrete (where applicable the following shall apply)

All concrete work shall conform with the latest amended issue of :
SANS 1200 : Standard Specification for concrete and
SANS 10100 : The structural use of concrete.

A set of six cubes must be made for every pour of concrete poured on a specific day, 3 of the cubes must be tested at seven days, and the balance must be available for testing at 28 days to ensure strength results are achieved. Cube tests to be done by independent laboratory and accepted by the supervisor.

The test results are to be submitted to the supervisor immediately and should any problems be anticipated no shuttering is to be stripped until further notice from the supervisor.

All concrete shall be vibrated according to specification. All concrete must be cured continuously for seven days after pouring and effectively protected against dehydration.

28 Day Concrete strengths are specified in terms of clauses in SANS 1200.
For the various elements they are as follows

Structural Element	Concrete Grade
Blinding	15
Bases/footings	30
Beams / Slabs	30
Ramps	30
Columns	30

The structure has been designed for the following imposed floor loads:

Structure	Loading(kN/m²)
Live Load	2.5

Concrete cover to reinforcement (in mm)
Unless Otherwise Specified

Bases/footings	-	40
Pilecap (top and sides)	-	50
Pilecap (bottom)	-	75
Ground beams	-	50
Retaining walls (earth face)	-	50
Strap beams	-	50
Columns	-	50
Beams	-	50
Slab (top steel)	-	50
Slab (bottom steel)	-	50
Slab (Mesh)	-	30

FOR TENDER

No.	DESCRIPTION / REVISIONS	DATE
OA	ISSUED FOR TENDER	2025-09-19

TRANSNET national ports authority

PROJECT / AREA / ASSET / SUBJECT

PORT OF DURBAN

REFURBISHMENT TO QUEENS WAREHOUSE

DRAWING TITLE

NEW CONCRETE RAMP SECTION AND LAYOUT

DATE	2025-09-19	DISCIPLINE LEAD: P. MAHARAJ	PR. REGISTRATION -
SCALE	AS SHOWN	SIGNATURE	19-Sep-2025 DATE
DESIGNED BY	PM	CHECKED BY: P. MAZIBUKO	PR. REGISTRATION 202302624
CHECKED BY	PIM	SIGNATURE	19-Sep-2025 DATE
DRAWN BY	PM	DRAWN BY: P. MAHARAJ	
CHECKED BY	PIM	SIGNATURE	19-Sep-2025 DATE

PAPER SIZE	PROJ. NO. FBS DIS TYPE SHEET REV.
A0	XDN.E.0037-1-100-S-LA-0001-01_OA

CONSULTANT / CONTRACTOR DRW. NO.

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