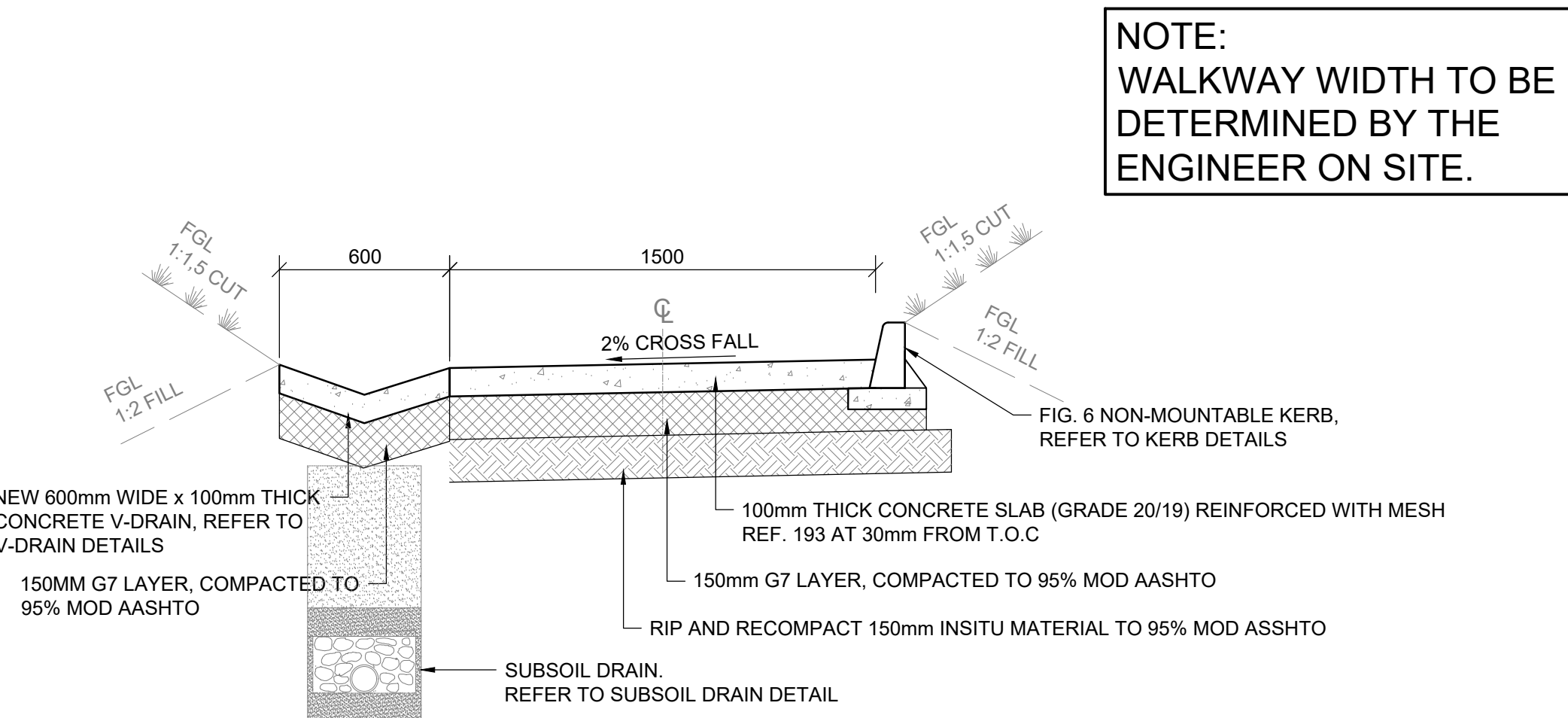
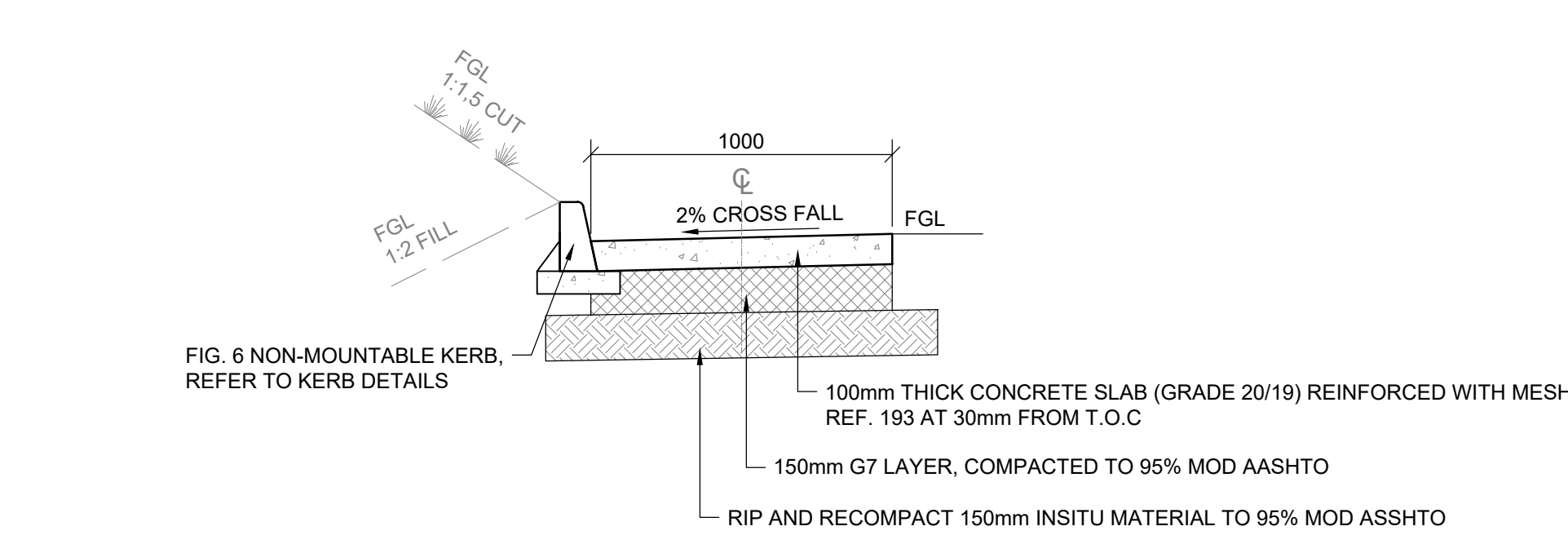


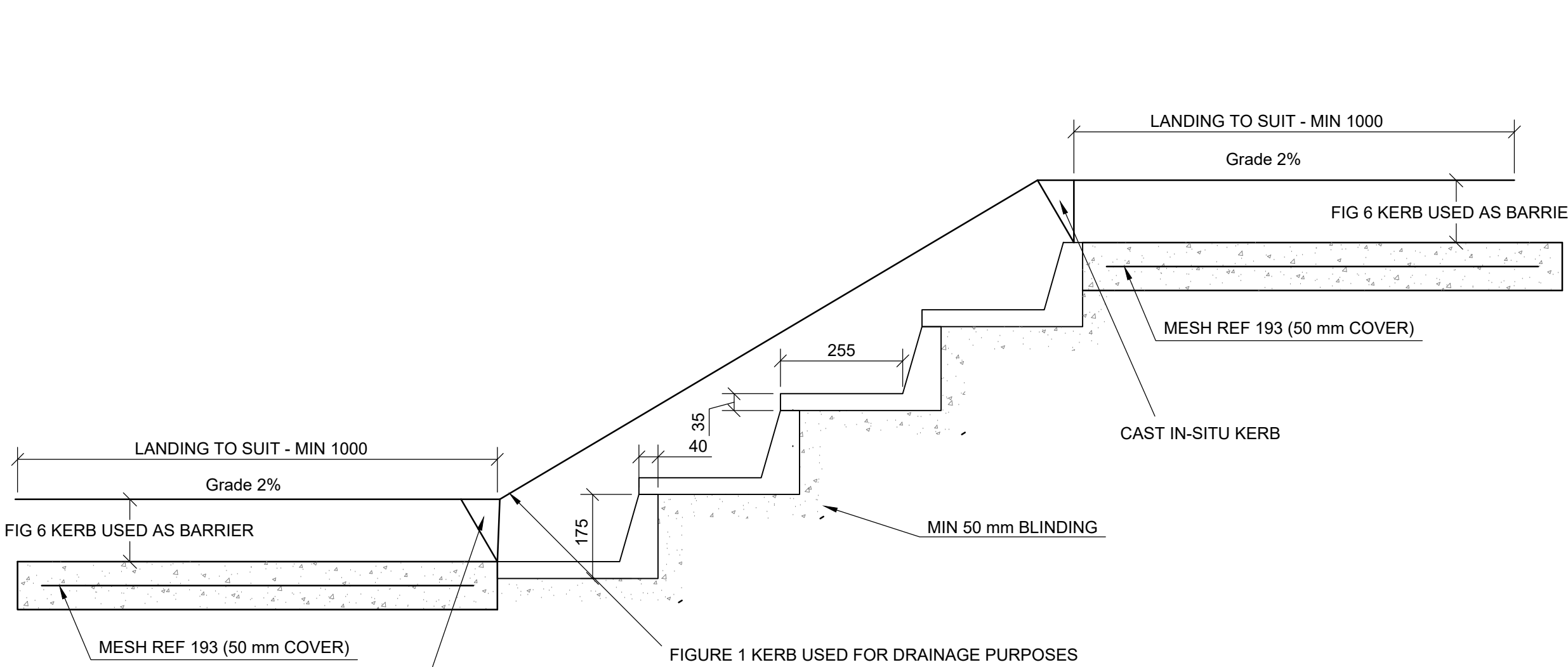
TYPICAL 1500mm WIDE FOOTPATH CROSS SECTION TYPE A
SCALE 1 : 20



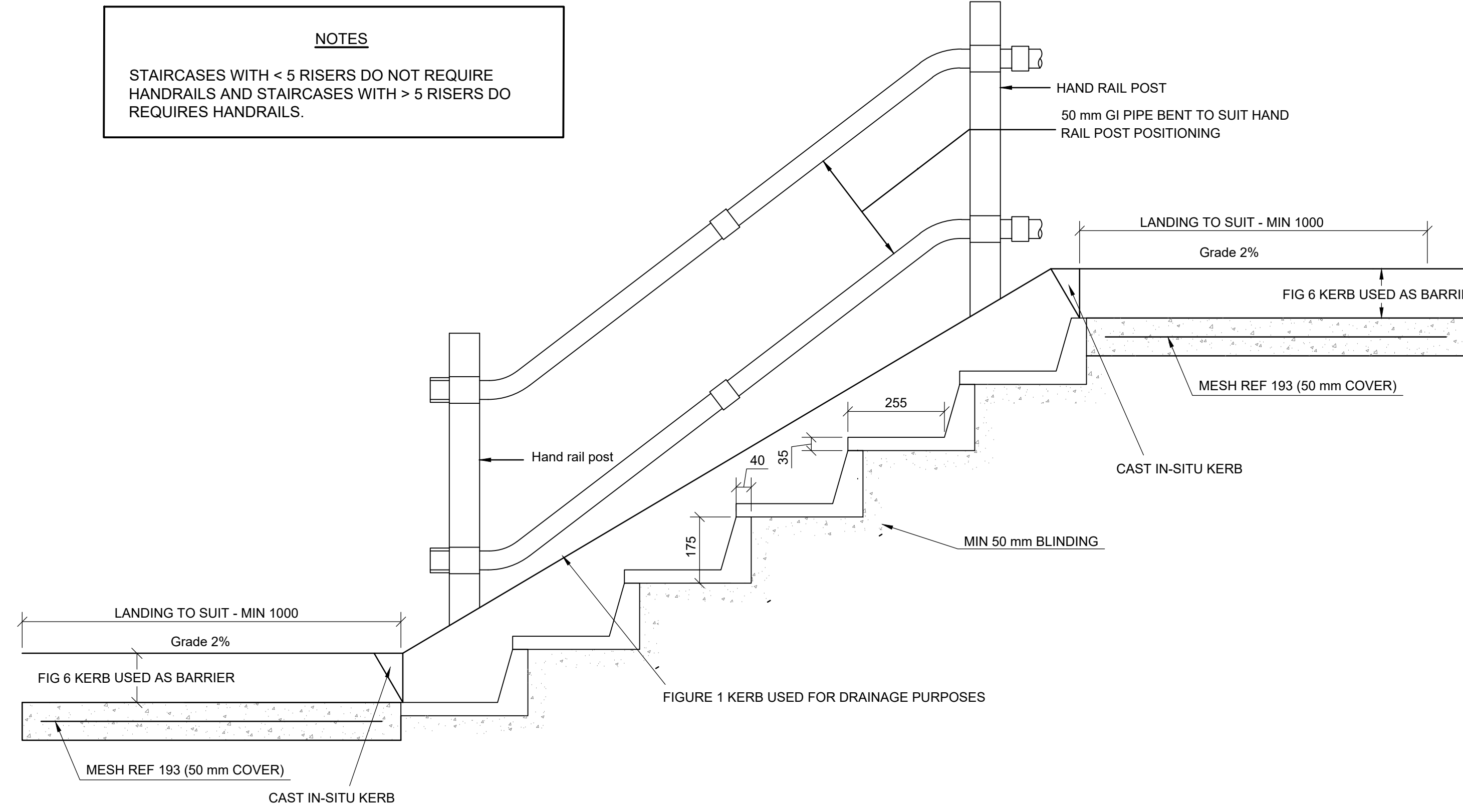
TYPICAL 1500mm WIDE FOOTPATH CROSS SECTION TYPE B
SCALE 1 : 20



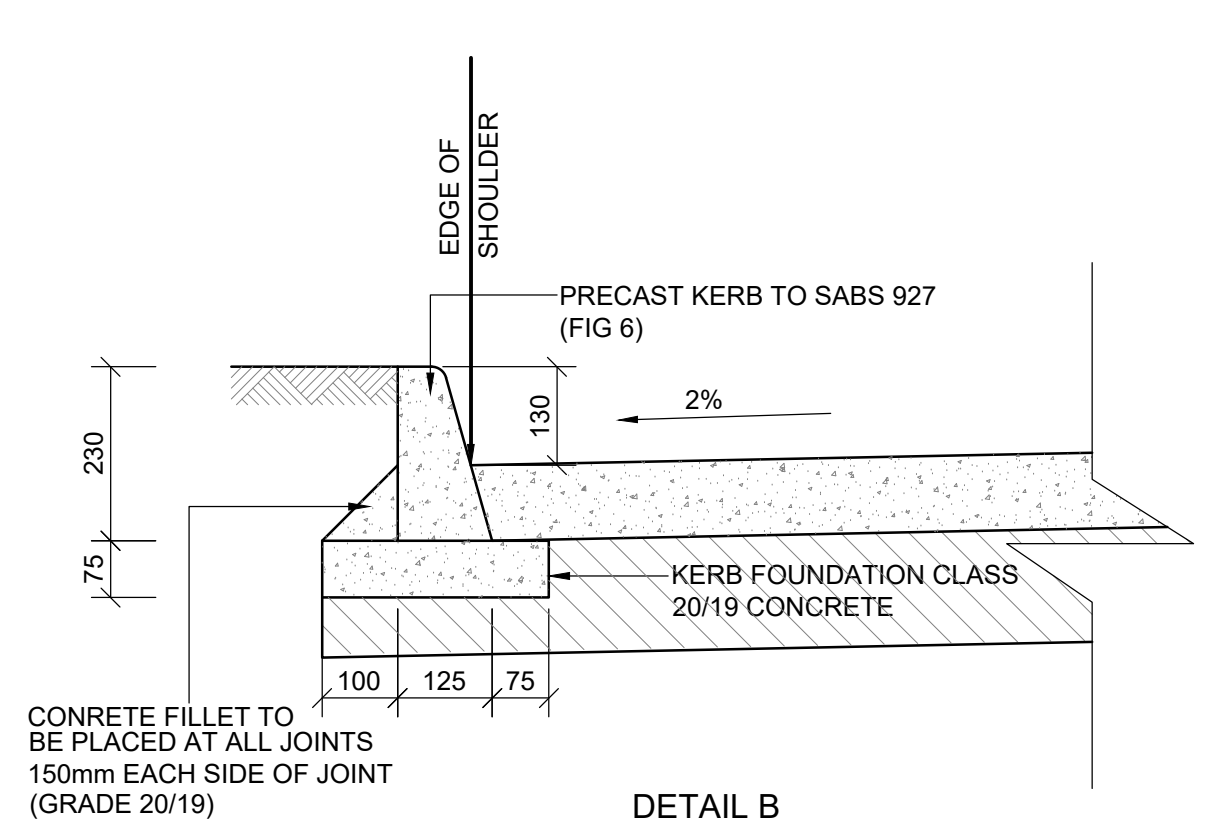
TYPICAL 1000mm WIDE FOOTPATH CROSS SECTION TYPE C
(ONLY WHERE SPACE IS CONSTRAINED)
SCALE 1 : 20



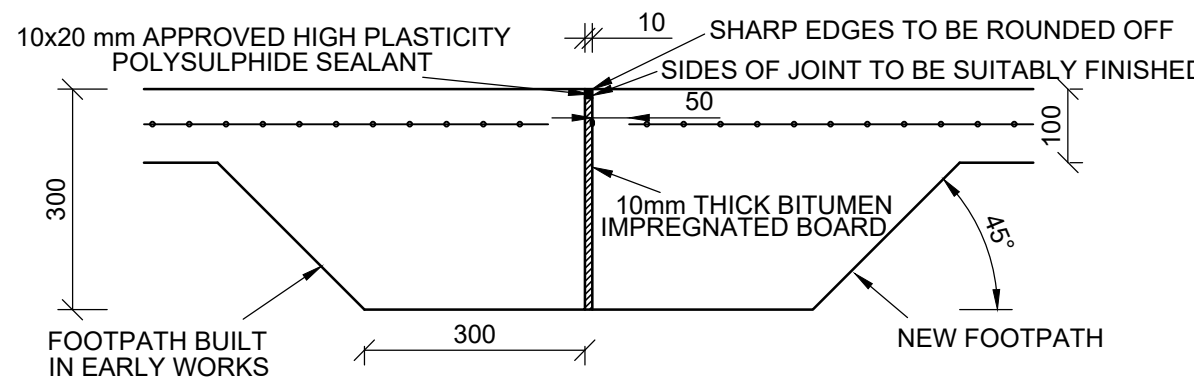
LONGITUDINAL SECTION FOR PRE-CAST STAIRCASE WITH < 5 RISERS
SCALE 1:10



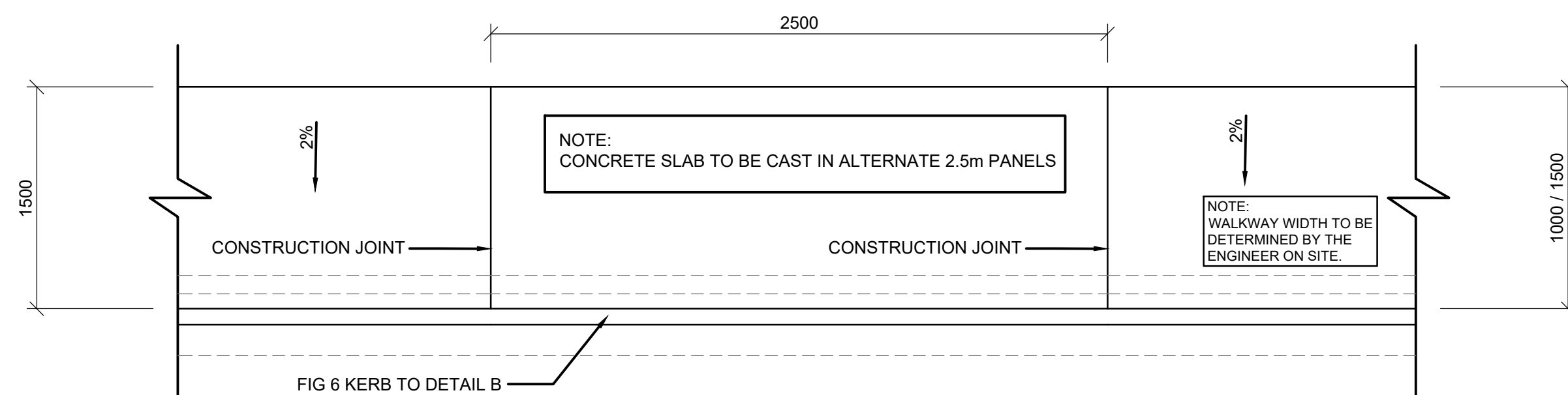
LONGITUDINAL SECTION FOR PRE-CAST STAIRCASE WITH > 5 RISERS
SCALE 1 : 10



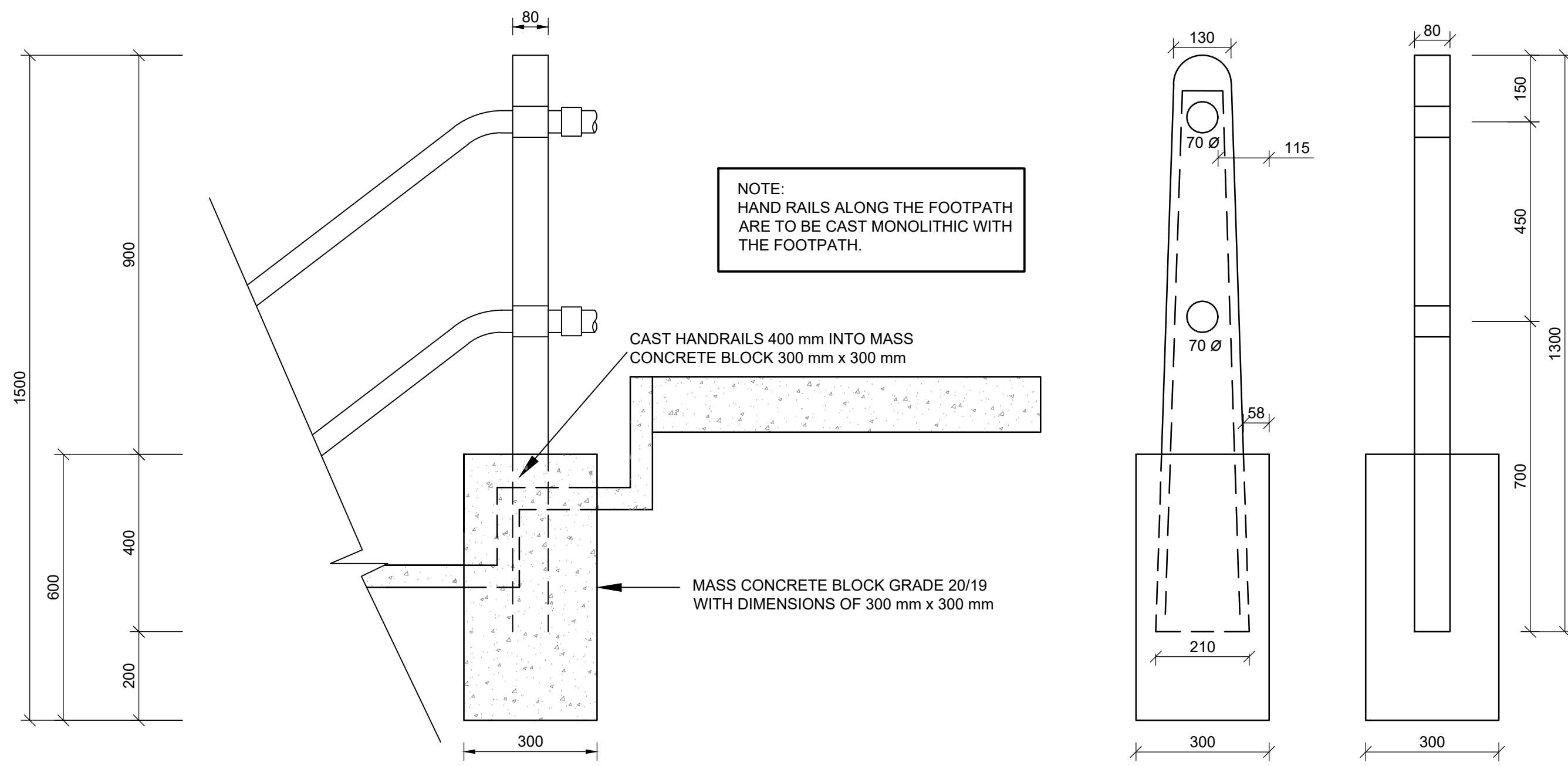
DETAIL B
KERB ONLY DETAIL
SCALE 1 : 10



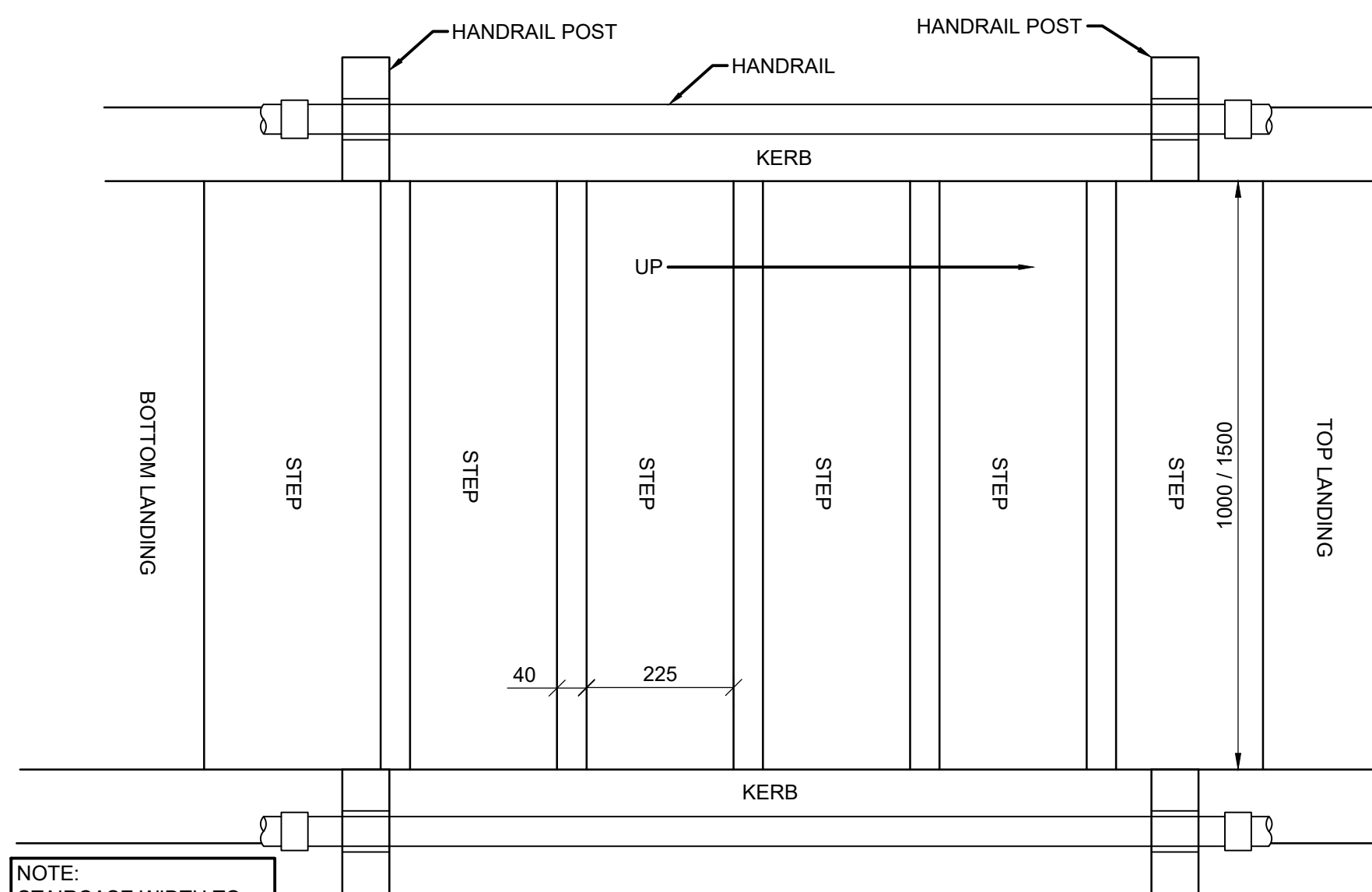
BUTT JOINT DETAIL TO INTEGRATE NEW
FOOTPATH WITH OLD FOOTPATH
SCALE 1 : 10



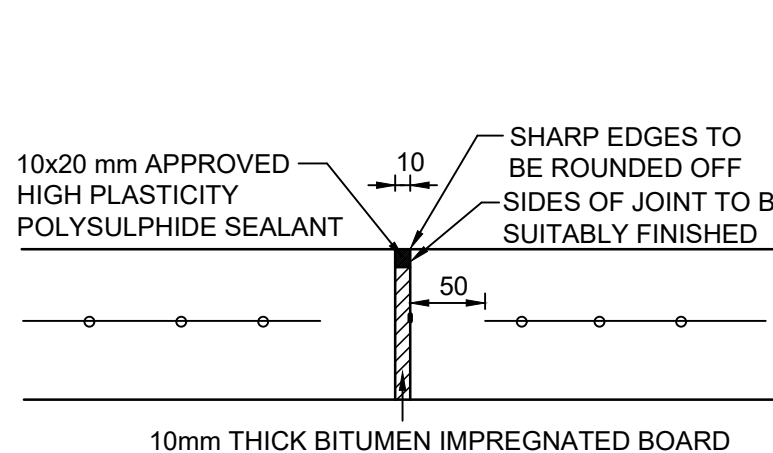
PLAN 1500 mm WIDE LAYOUT OF FOOTPATH
NTS



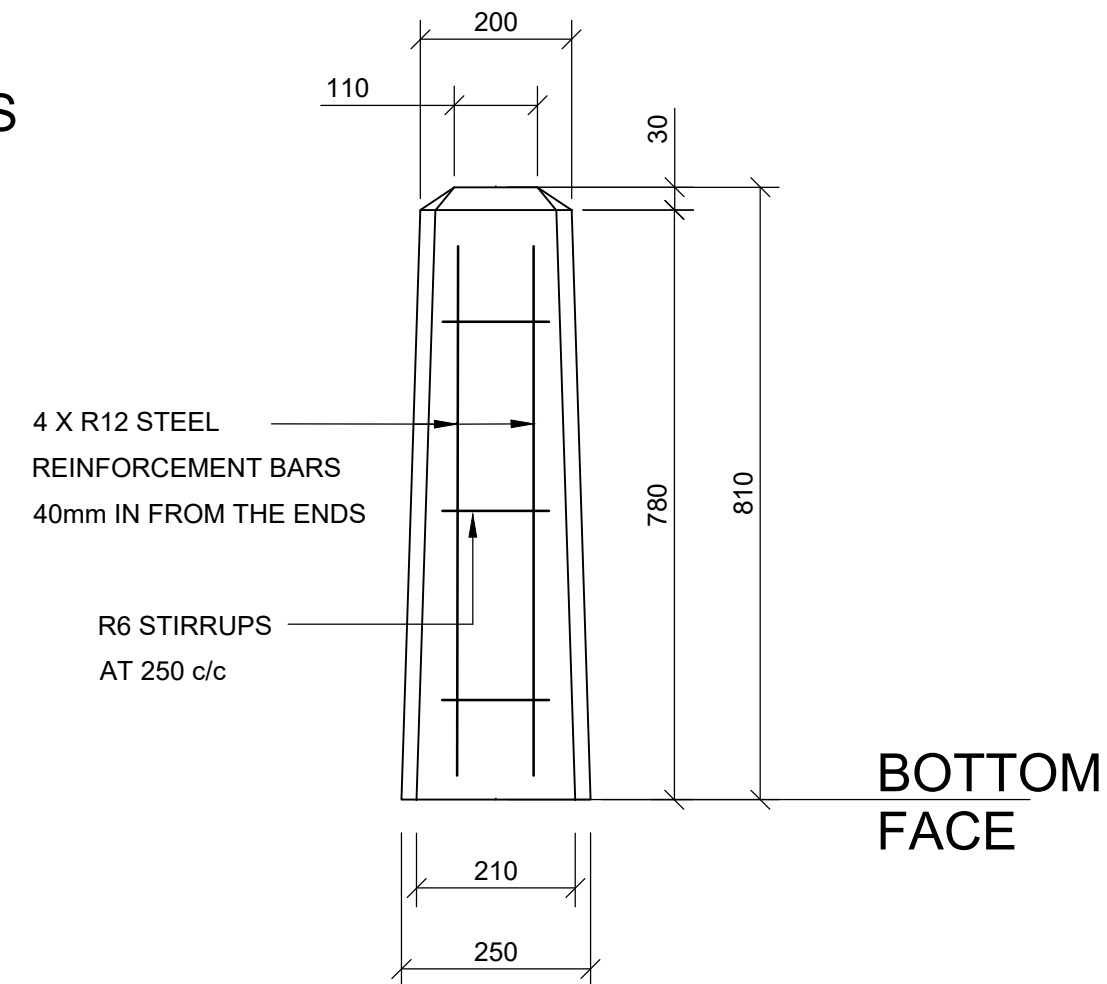
HAND RAIL CONNECTION DETAIL AT STAIRCASE
SCALE 1:10



PLAN OF PRECAST STEPS AND STAIRCASE
NTS

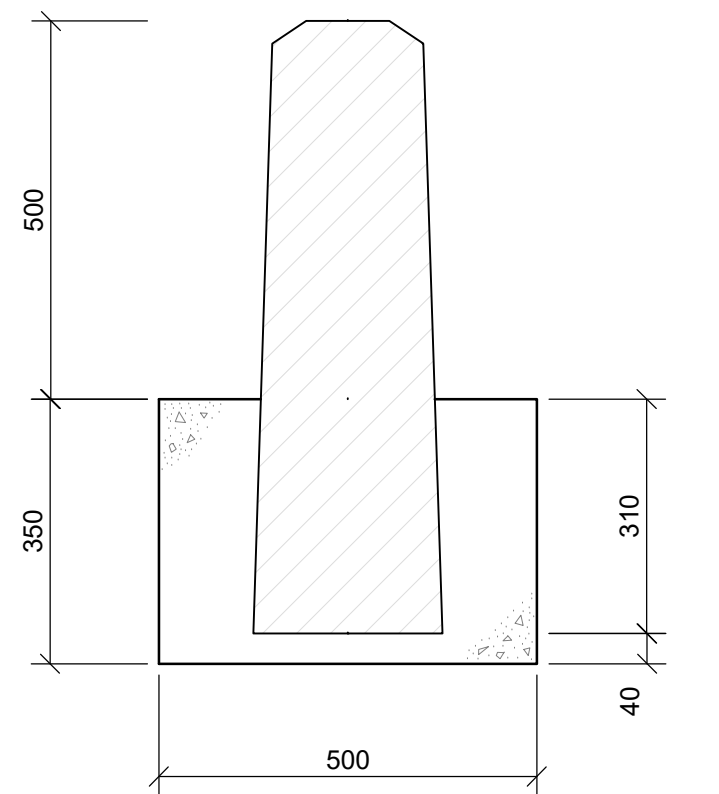


EXPANSION JOINT DETAILS
FOR SURFACE BED
SCALE 1:5

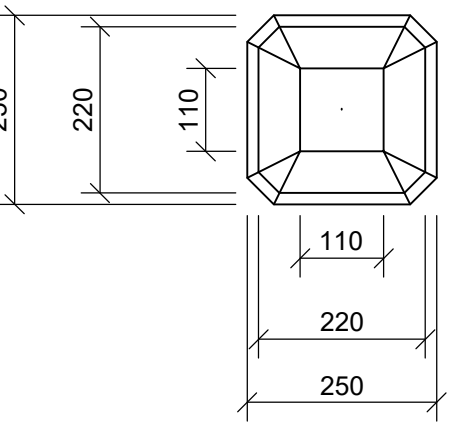


STANDARD BOLLARD
(TYPE A)
Scale 1:10

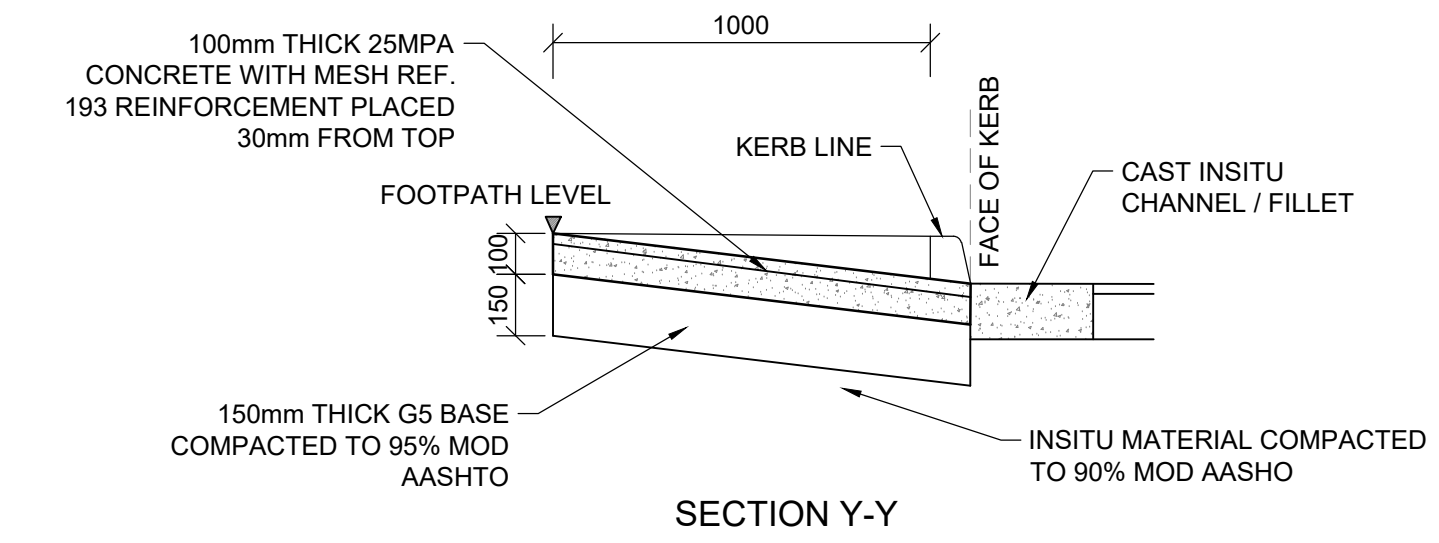
- NOTE:
1. CONCRETE GRADE 30/13
 2. FINISH - SMOOTH WITH BOTTOM FACE BRUSHED.
 3. FOUNDATION CONCRETE TO BE GRADE 20/13 AND IS TO HAVE A STEEL TROWEL FINISH.
 4. TOLERANCE TO ALL DIMENSIONS + 3mm.



SECTION THROUGH BOLLARD
Scale 1:10

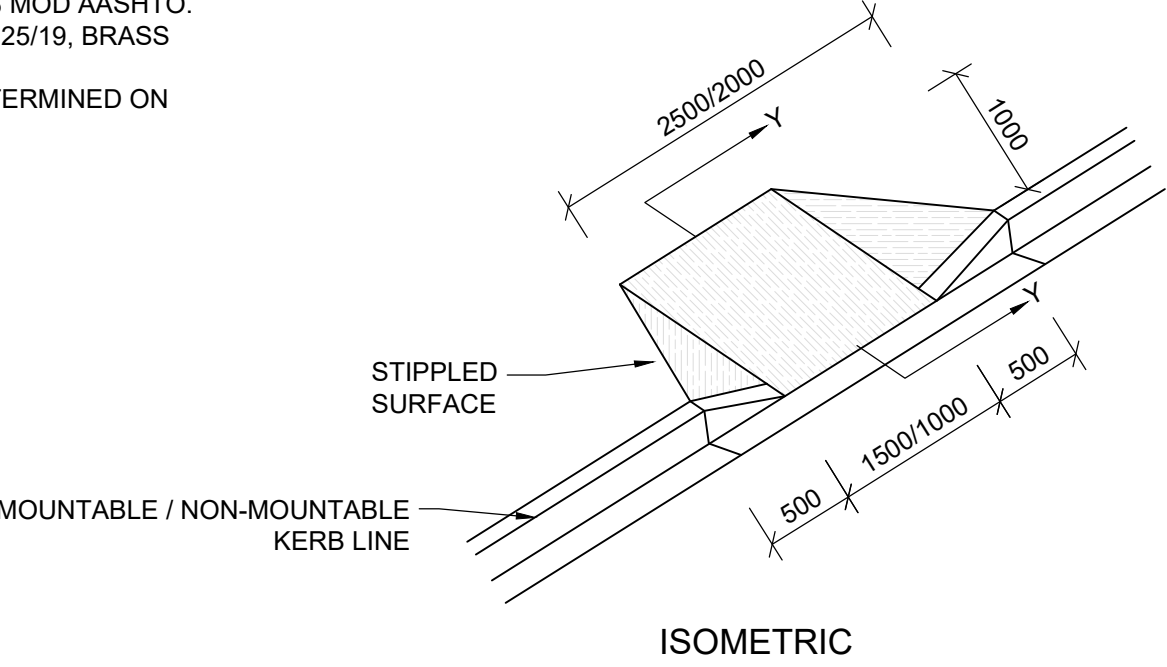


END ELEVATION
Scale 1:10



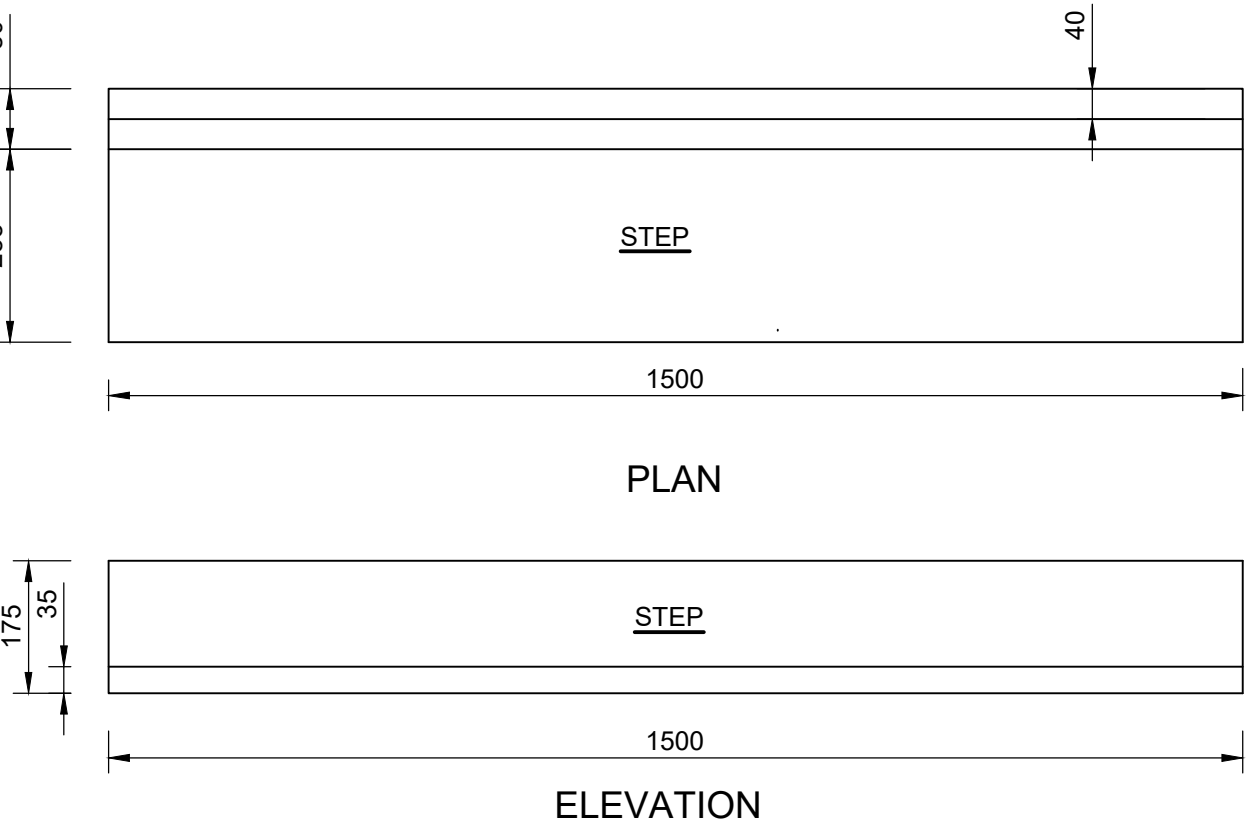
SECTION Y-Y

- NOTES:
1. IN-SITU MATERIAL BENEATH SUBBASE TO BE COMPACTED TO 90% MOD AASHTO.
 2. SUBBASE TO BE G5 QUALITY MATERIAL AND COMPACTED TO 95% MOD AASHTO.
 3. CONCRETE TO BE CLASS 25/19, BRASS BROOM STIPPLE FINISH.
 4. SCOOP WIDTH TO BE DETERMINED ON SITE BY THE ENGINEER.

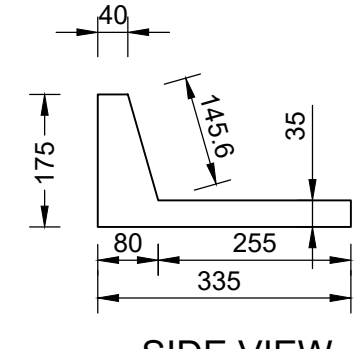


ISOMETRIC

PEDESTRIAN SCOOP DETAILS
N.T.S



1500mm WIDE PRECAST
STEP DETAILS
NTS



SIDE VIEW

GENERAL NOTES:

GENERAL:

1. THESE NOTES MUST BE READ IN CONJUNCTION WITH THE SPECIFICATIONS IN THE BILLS OF QUANTITIES. WHERE DISCREPANCIES ARISE THE NOTES MUST TAKE PREFERENCE AND SUCH DISCREPANCIES BE DRAWN TO THE ATTENTION OF THE ENGINEER, IN WRITING, IMMEDIATELY.
2. DRAWINGS MUST BE CHECKED BY THE CONTRACTOR AND ANY DISCREPANCIES IN DIMENSIONS MUST BE REPORTED, IN WRITING, TO THE ENGINEER BEFORE WORK IS COMMENCED.
3. ALL WORK TO BE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS.
4. CONTRACTOR TO INVESTIGATE SITE PRIOR TO SUBMISSION OF A QUOTATION.
5. ALL LOOSE BRICKWORK, ETC TO BE REPAIRED AND MADE GOOD.

CONCRETE WORK

1. EXCEPT WHERE MENTIONED OTHERWISE ON DRAWING NOTES THE CONCRETE WORK MUST CONFORM WITH THE CONDITIONS SET OUT IN SABS 0100 PART 2 AND SABS 1200 SECTION G.
2. A SET OF THREE TEST CUBES MUST BE MADE OF EVERY 50 CUBIC METER (OR PORTION THEREOF) OF EVERY GRADE OF CONCRETE POURED ON ANY SPECIFIC DAY CURED IN ACCORDANCE WITH THE METHODS SET OUT IN TH NBR AND TESTED BY LABORATORIES APPROVED BY THE ENGINEER.
3. NO CONCRETE IS TO BE POURED BEFORE THE ENGINEER HAS INSPECTED AND APPROVED THE FIXING OF THE REINFORCEMENT AND SHUTTERING.
4. BREAKS IN CONCRETE AND CONSTRUCTION JOINTS ARE TO BE MADE ONLY WITH THE APPROVAL OF THE ENGINEER.
5. SHOULD THERE BE A BREAK OF MORE THAN 45 MINUTES AT ANY TIME IN THE POURING OF CONCRETE, THIS FACT MUST BE DRAWN TO THE ATTENTION OF THE ENGINEER.

CONCRETE STRENGTHS:

1. CONCRETE WORKS CUBE STRENGTH AT 28 DAYS TO BE AS FOLLOWS:

BUILDING	MPa
FOUNDATION WALLS	15
FOOTPATHS	20
CONCRETE INFILLS	20
MASS CONCRETE	15
FOR HANDRAILS	15

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REINFORCEMENT IS CORRECTLY AND SECURELY FIXED IN POSITION.

GENERAL Notes:

1. SET BOTTOM ROW OF BLOCKS IN WET CONCRETE.
2. ALL BACKFILL TO BE COMPACTED TO 90% MOD AASHTO DENSITY.
3. PROVIDE ALL SERVICES PRIOR TO CONSTRUCTION.
4. ALL WORK AREAS TO BE REINSTATED (PREMIX CONCRETE, ETC.) MUNICIPALITY TO EXECUTE ALL CONNECTIONS INTO MUNICIPAL LINES.
5. UNLESS OTHERWISE AGREED WITH ENGINEER, CONTRACTOR TO SUPPLY ENGINEER WITH RESULTS OF COMPACTION TESTS AND WHEN APPLICABLE, PERCENTAGE STABILISATION TESTS ON BACKFILL.
6. STORM WATER BEHIND THE TOP OF THE WALL TO BE MANAGED IN SUCH A MANNER AS TO OBVIATE SCOUR BEHIND OR OVER-TOPPING OF THE WALL.
7. BACKFILL TO BE BENCHED IN COMPACT GROUND.
8. ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE.
9. SUBSOIL DRAINS TO BE USED WHEN INSTRUCTED BY ENGINEER.
10. ALL SETTING OUT TO BE UNDERTAKEN BY A REGISTERED PROFESSIONAL LAND SURVEYOR.
11. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE STRUCTURAL ENGINEERING DRAWINGS.
12. ALL WORKS IN ACCORDANCE WITH CITY OF DURBAN SPEC AND SANS 1200.

MATERIAL COMPLIANCE TESTING

1. RESULTS OF COMPACTION AND CBR TESTS ON INSITU SUB-BASE MATERIAL AND FILLED SUB-BASE MATERIAL MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE THE UPPER LAYER WORKS ARE IMPORTED TO THE SITE AND PLACED.

FREQUENCY OF TESTS

1. CBR TESTS 1 PER 500M² (AS REQUESTED BY ENGINEER ON SITE).
2. COMPACTION TESTS 1 PER 200M² / LOT NOTE: COMPACTION TESTS WILL BE REQUIRED FOR EACH OF THE VARYING LAYER WORKS THAT IS IMPORTED AND COMPACTED IN PLACE.

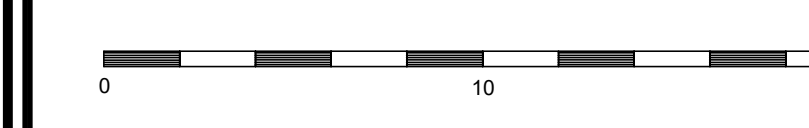
RETAINING WALL:

1. ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS.
3. ALL CONCRETE WORK IS TO COMPLY WITH SANS 1200G.
4. CONCRETE CLASS.
5. COVER TO REINFORCEMENT.
6. AS INDICATED ON DRAWINGS.
7. ALL FOUNDATION EXCAVATIONS ARE TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
8. ALL REINFORCING FIXING IS TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
9. SIX CONCRETE CUBES TO BE TAKEN PER POUR. THREE CUBES TO BE TESTED AT SEVEN DAYS, THE REMAINDER AT TWENTY EIGHT DAYS. THE RESULTS ARE TO BE APPROVAL. FORWARDED TO THE ENGINEER FOR REVIEW AND.
10. ALL STRUCTURAL CONCRETE IS TO BE CURED FOR A MINIMUM OF FIVE DAYS. INSPECTIONS.
11. THE ENGINEER REQUIRES 24 HOURS NOTICE FOR ALL.

ROADS:

1. ALL LEVELS, DIMENSIONS AND SETTING OUT DETAILS TO BE VERIFIED BY CONSULTANT AND CONTRACTORS ON SITE PRIOR TO CONSTRUCTION.
2. ALL EXISTING DRAINAGE CULVERTS ARE TO BE INSPECTED, AND ANY FOUND IN UNSERVICEABLE CONDITION ARE TO BE REPLACED UNLESS SHOWN OTHERWISE.
3. CULVERT INVERTS ARE TO BE DECIDED BY ENGINEER ON SITE UNLESS SHOWN OTHERWISE. MIN. COVER = 600MM. MIN. SLOPE = 2%.
4. FOR EROSION CONTROL, GABION MATTRESSES ARE RECOMMENDED AT CULVERT INLETS AND OUTLETS.
5. ROCK BOLSTERS ARE TO BE PLACED ACROSS THE INVERT OF DRAINS SUSCEPTIBLE TO EROSION FOR EVERY 2M VERTICAL DROP.
6. SUBSOIL DRAINS ACCORDING TO CIVIL ENGINEERS DETAILS AND SPECIFICATIONS ARE TO BE INSTALLED WITH V-DRAINS OR WHERE HIGH WATER TABLES ARE ENCOUNTERED.
7. THE POSITIONS OF ACCESSORIES ARE TO BE DETERMINED IN CONSULTATION WITH THE LOCAL COMMUNITY. DAYLIGHT REQUIREMENTS ARE TO BE DECIDED BY THE ENGINEER ON SITE. CONCRETE WEDGES ACCORDING TO CIVIL ENGINEERS DETAILS AND SPECIFICATIONS MAY BE USED IN PLACE OF SURFACED BELLMOUTHS FOR ACCESSORIES SERVING SINGLE RESIDENTIAL PROPERTIES.
8. EXISTING ROAD SIGNS, SERVICES AND FENCING AFFECTED BY CONSTRUCTION ARE TO BE REMOVED/RELOCATED WHERE NECESSARY.
9. UNDERGROUND SERVICE CROSSINGS AND MARKERS ARE TO BE ACCORDING TO CIVIL ENGINEERS DETAILS AND SPECIFICATIONS.
10. ALL NEW ROAD SIGNS AND ROAD MARKING REQUIREMENTS ARE TO CONFORM TO THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY ROAD TRAFFIC SIGNS MANUAL (SADC - RTSM).
11. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH "COLTO SPECIFICATIONS FOR ROAD AND BRIDGE WORKS FOR STATE ROAD AUTHORITIES".
12. ALL SURVEY AND SETTING OUT DATA PROVIDED IS BASED ON (WGS 84).
13. NEW FILLS AND EXPOSED CUTTINGS ARE TO BE TOP-SOILED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.

SCALE (mm)



No. REFERENCE DRAWINGS

49171-100 ROAD, FOOTPATHS AND STORMWATER LAYOUT AND DETAILS

REV	DESCRIPTION	BY	DATE
-----	-------------	----	------

P1 PRELIMINARY Z.M 2022.09.12

Professional person Registration

CLIENT



PROJECT

eTHEKWINI INCREMENTAL SERVICES BHAMBAYI

DETAILS

TYPICAL DETAILS SHEET 1

DESIGNED

Z.M COPYRIGHT RESERVED SCALES AS SHOWN

DRAWN

Z.M

APPROVED

A.S PL DATE 2022.09.12

TENDER No.

DRAWING No. 49171-307 REV P1

SUITE E88108 STRATHMORE PARK, 305 MUSGRAVE ROAD, MUSGRAVE, DURBAN

e-mail: admin@mapafrica.co.za

website: www.mapafrica.co.za

FAX (031) 3092929 TEL. (031) 3095631

MAP AFRICA CONSULTING ENGINEERS