



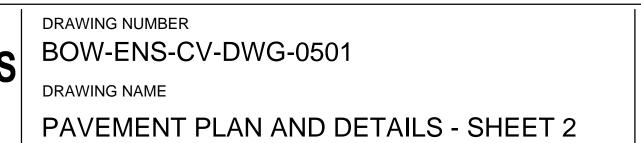


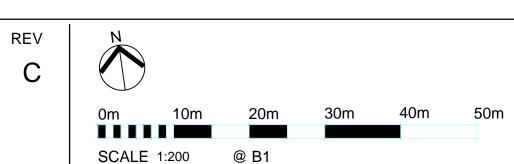




PROJECT

BOWRAL DISTRICT HOSPITAL REDEVELOPMENT - ENABLING WORKS 97-103 Bowral St, Bowral NSW 2576

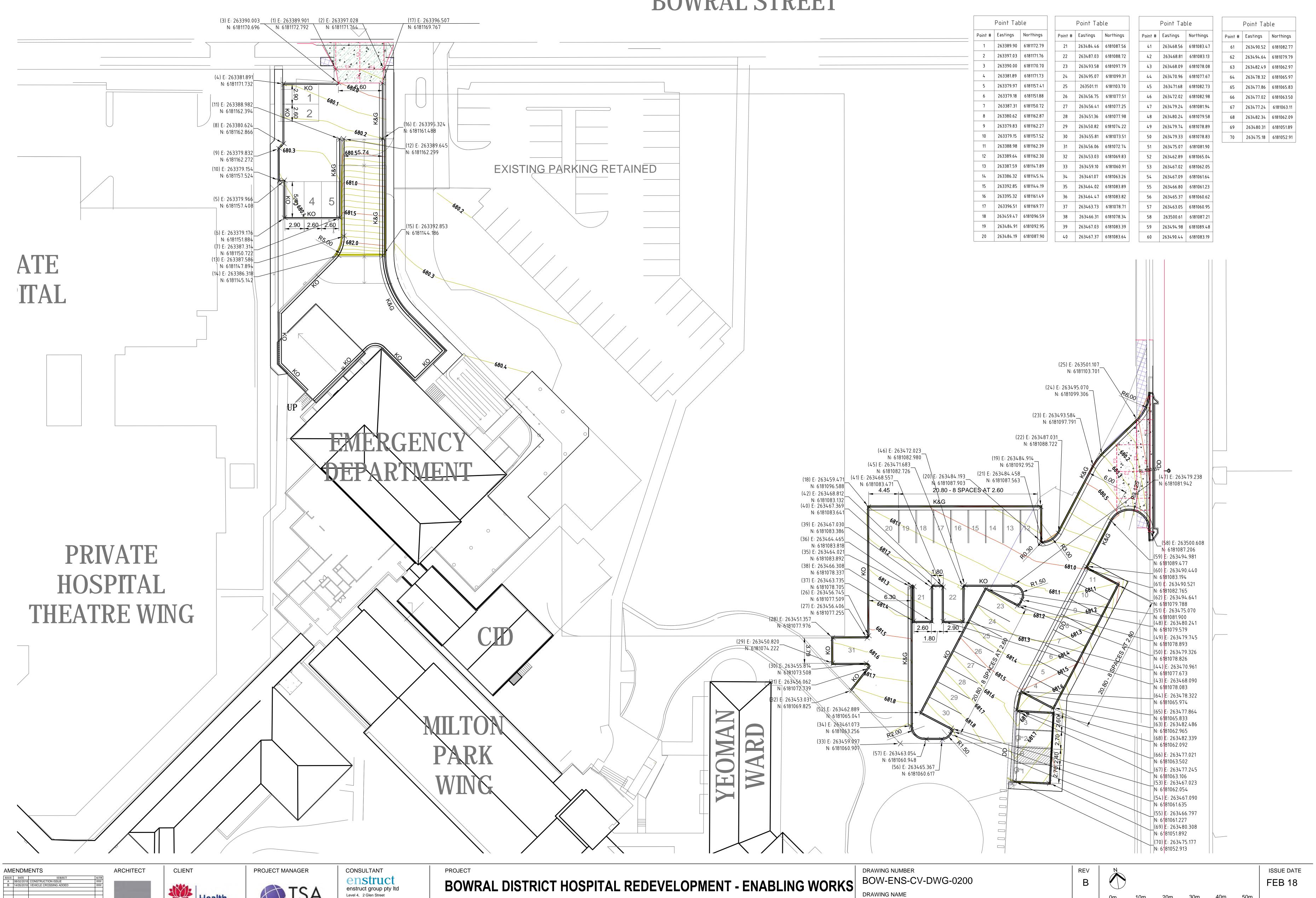




ISSUE DATE

SEPT 17

BOWRAL STREET



NSW

Infrastructure

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97-103 Bowral St, Bowral

NSW 2576

DRAWING NAME

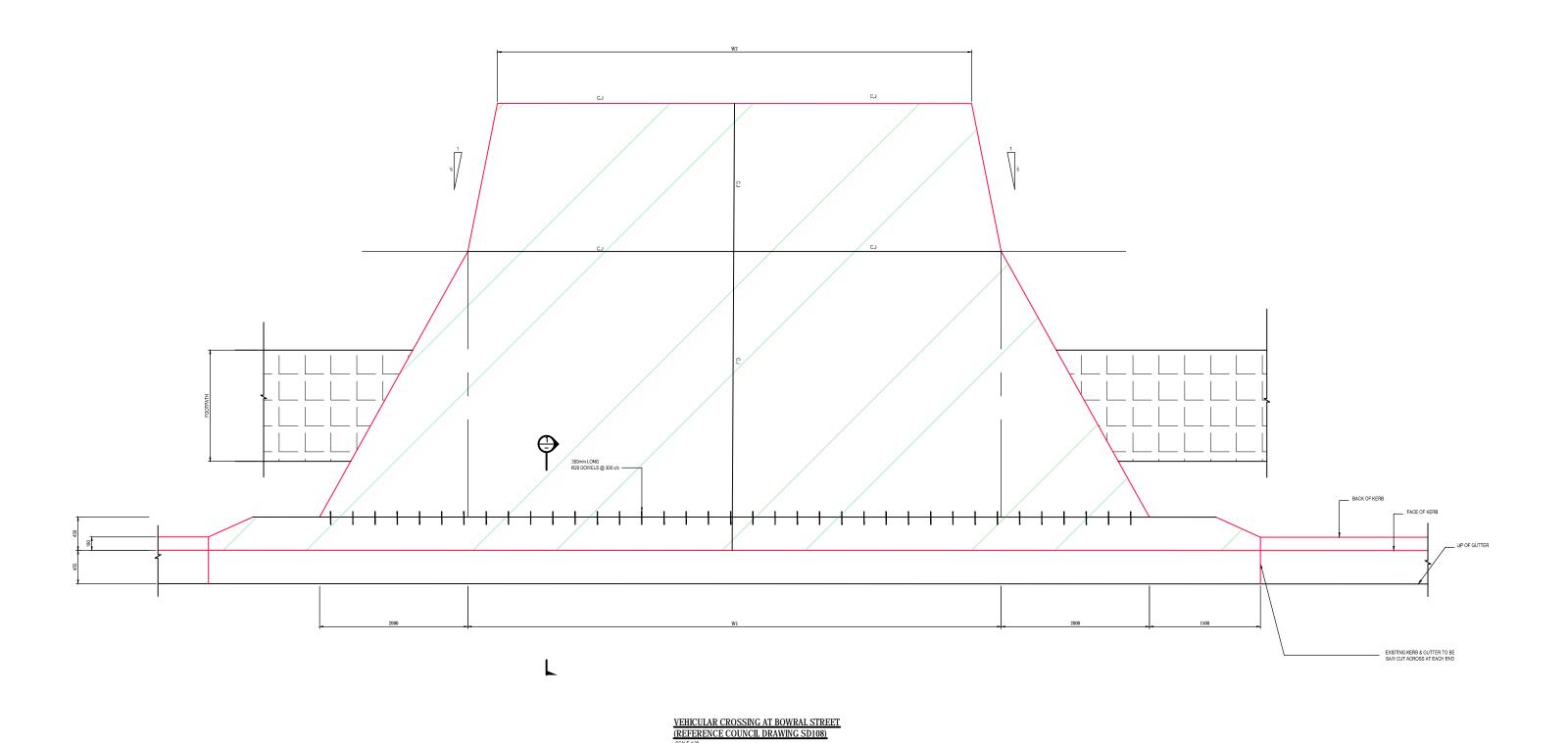
ROADS SET OUT PLAN

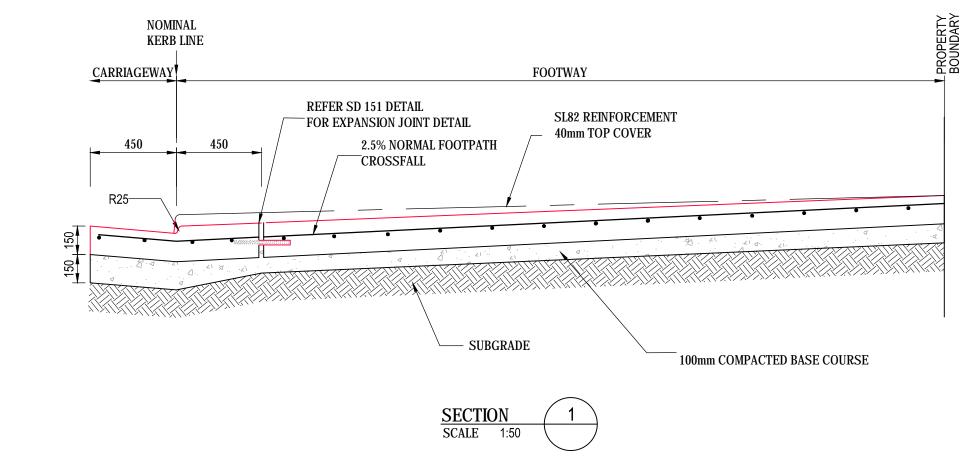
40m 50m

20m

SCALE 1:200

30m



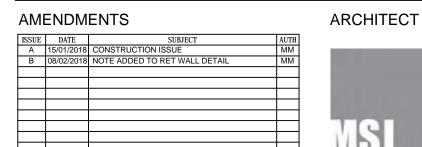




(REFERENCE WINGECARRIBEE SHIRE COUNCIL DRAWING SD 108)

- 1. A SECTION 138 APPROVAL IS REQUIRED BEFORE ANY WORK CAN COMMENCE IN COUNCIL'S ROAD RESERVE.
- 2. DIMENSIONS ARE IN MILLIMETRES UNLESS GIRERWISE SHOWN,
- PROVISION FOR SERVICES UNDER SLAB TO BE INVESTIGATED PRIOR TO CONSTRUCTION. DIAL 1100 BEFORE YOU DIG.
- 4. CONTRACTOR TO NOTIFY COUNCIL'S OFFICER FOR INSPECTION WHEN (I) WORK IS PROPOSED TO COMMENCE, (II) PRICE TO PLACING ANY CONCRETE, (III) WORK HAS BEEN COMPLETED.
- A MINIMUM OF FORTY EIGHT (48) HOURS NOTICE IS TO BE GIVEN PRIOR FOR INSPECTION BY COUNCIL'S OFFICER.
- THE ENTRANCE IS CENERALLY TO BE CONSTRUCTED WITHIN THE ROAD RESERVE, AT AN ANGLE OF MINETY DEGREES (90°) TO THE CENTRE LINE OF THE ROAD. THIS ANGLE MAY BE REDUCED TO A MINIMUM OF SEVENTY DEGREES (701) WITH THE APPROVAL OF THE DEVELOPMENT ENGINEER.
- 7. COMMERCIAL FOOTPATH CROSSINGS TO BE 150mm THICK WITH \$1.82 REINFORCEMENT, 40mm TOP COVER. CONSTRUCT NEW GUTTER AND LAYBACK, OR TIE MEW LAYBACK INTO EXECUTION CUTTER.
- .S. INDUSTRIAL FOOTPATH CROSSINGS TO BE 200mm THICK WITH SUROZ REINFORCEMENT, ADMM TOP COVER, RECONSTRUCT LAYBACK, AND GUTTER, RESTORE ROAD EDGE.
- .9. SPECIFIED CONCRETE STRENGTH SHALL BE FIG 32MPa.
- 10. PROVIDE SAW CUT CONTRACTION JOINTS (C.J.) AT 4th MAXIMUM SPACING IN EACH DIRECTION. REFER SD151 FOR DETAIL.
- 11. SLAB BASE COURSE TO BE 100mm DEEP ROAD BASE, THICKENED TO 150 UNDER KERB &
- 12. COMPACE SUB-CRADE AND BASE COURSE TO 95% STANDARD COMPACTION.
- 13. PROVIDE HOT DIPPED GALVANISED R20 DOWELS ALONG EXPANSION JOINT, 350 LONG, 300 CENTRES. PROVIDE BOND BREAK TO ONE HALF OF DOWEL
- 14. DRIYEWAY SHALL HAVE A "NON SLIF" LIGHT BROOM FINISH.
- 15. REFER TO AS 2890.2-2002 FOR DRIVEWAY MIDTH (W2).

	ENTRY WOTH (W1)	DRIVEWAY WIDTH (W2)
S.R.V. (6.4m)	βгп	•
M.R.V. (8.8m)	9ाम	REFER AS
H.R.V. (12.5m)	12.ວິກາ	2890.2-2002
A.V. (19.0m)	12.ວັດາ	





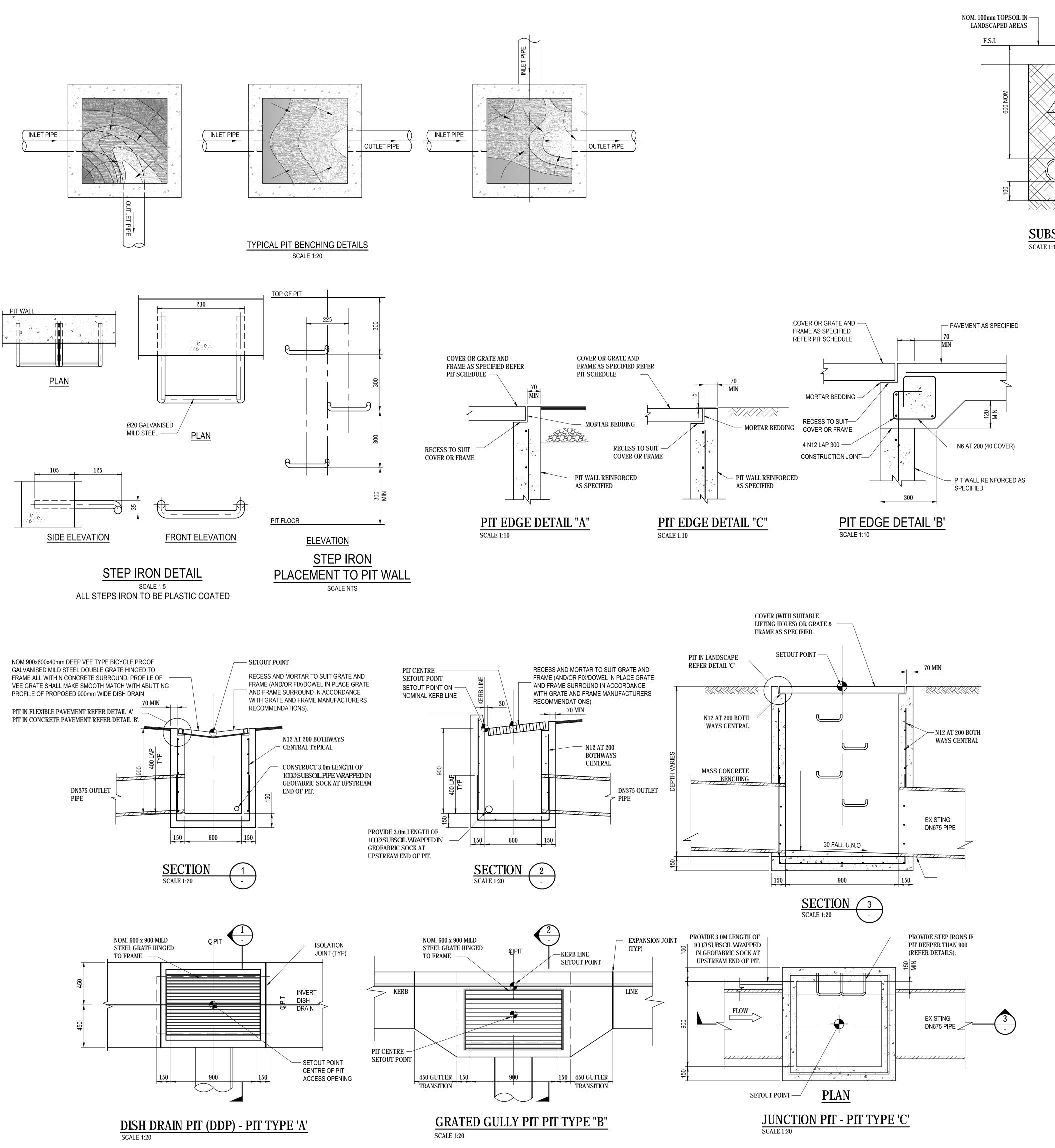


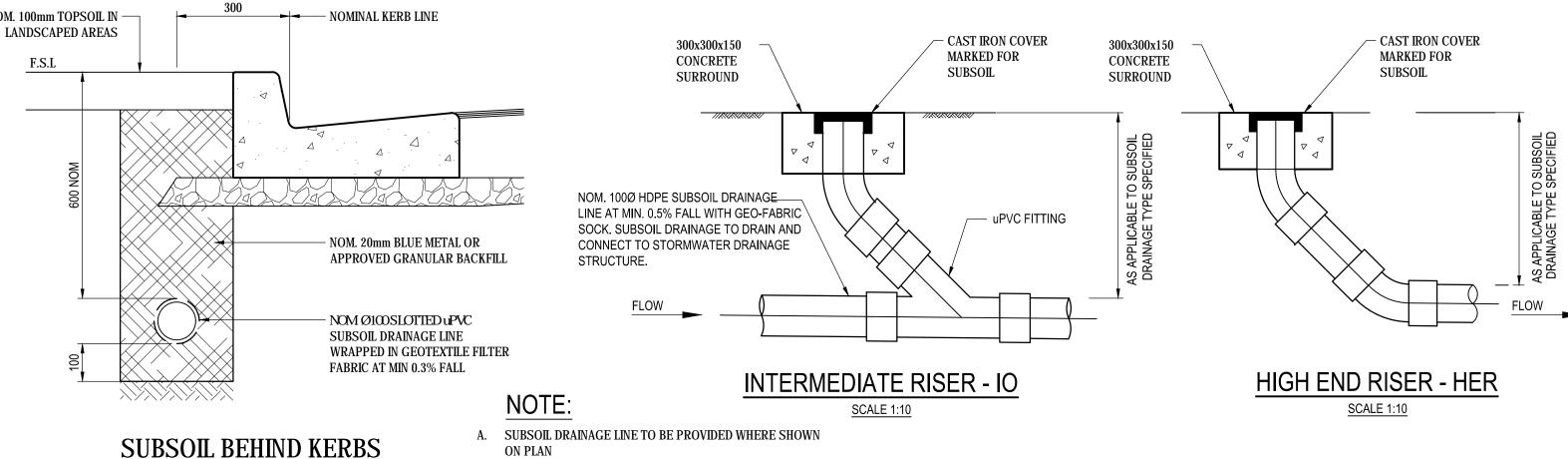






40m



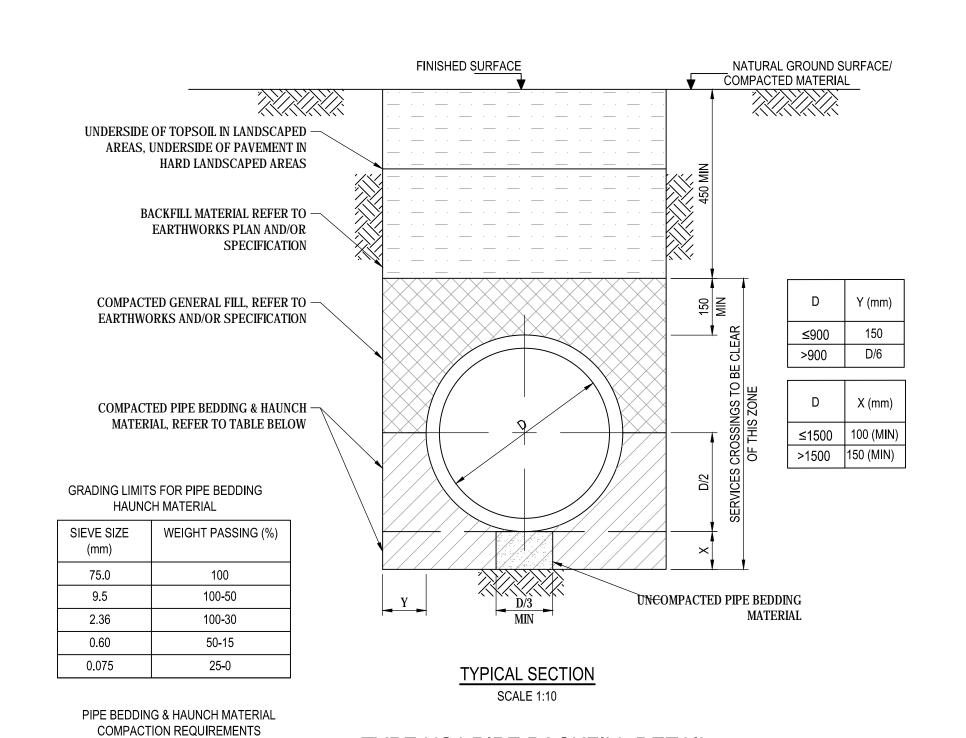


B. SUBSOIL FLUSHING POINTS TO BE PROVIDED AT 50m MAX

INTERVALS ALONG SUBSOIL LINES AND PAVEMENT

AND AT INTERSECTIONS OF SUBSOIL LINES.

DRAINS, AT CHANGES IN DIRECTION OF SUBSOIL LINES,



TYPE HS1 PIPE BACKFILL DETAIL

*1 IN ACCORDANCE WITH AS3725-2007

COHESIVE

COHESIONLESS

MIN STD

COMPACTION

50%*1

85%*2

NOTES FOR PITS: 1. HOLES BROKEN/FORMED IN PRE-CAST PITS FOR THE INSERTION OF PIPES SHALL BE MADE WATERTIGHT AND REINSTATED WITH A STIFF MORTAR (3 CEMENT:1 FINE AGGREGATE) OR EPOXY BASED

- 2. IF PIT DEPTH IS GREATER THAN 1500mm BUT LESS THAN 3000mm, INSITU REINFORCEMENT IS N16-150 EW.
- 3. WIDTH OF PIT WALL TO BE EXTENDED ACCORDINGLY TO ACCOMMODATE TWIN PIPES. INSITU REINFORCEMENT TO SUIT ACCORDINGLY.

NOTES FOR BENCHING:

- 1. MASS CONCRETE BENCHING WITHIN PITS MUST BE FORMED SO AS TO CONVEY WATER FROM INLET(S) TO OUTLET.
- 2. BENCHING SHOULD BE ACHIEVE MINIMUM CROSS FALLS WITHIN PITS AS REQUIRED BY ENSTRUCT'S PIT DETAILS AND AUSTRALIAN
- 3. NO WATER STAND IN PITS WHEN BENCHING IS COMPLETE.

NOTES FOR STEP IRONS:

- 1. STEP IRONS TO AS1657 AND EN13101 ARRANGED IN A SINGLE WIDTH TREAD FORMATION (MIN LENGTH 350mm) OR A SINGLE COLUMN, DOUBLE WIDTH TREAD (MIN LENGTH 150mm) STAGGERED DOUBLE COLUMN.
- APPROVED, MINIMUM THICKNESS OF TREAD 20mm WITH UPSTAND HEIGHT 20mm AT EACH END OF THE TREAD TO PREVENT LATERAL SLIP. 3. STEPS TO BE CHEMICALLY/PHYSICALLY ANCHORED INTO THE

2. STEP IRONS TO BE INDUSTRIAL STEP, SURE-STEP OR SIMILAR

- PIT WALLS IN ACCORDANCE WITH THE STEP IRON MANUFACTURER'S DETAILS. 4. STEP IRONS TO BE LOCATED SO AS TO BE READY ACCESSIBLE
- FROM THE COVER. WHERE INTERNAL PIT SIZE EXCEEDS 1200x1200 THE COVER SLAB, FRAME & COVER POSITION SHOULD BE LOCALLY DISPLACED TO SUIT ACCESS TO THE STEP IRONS.



CLIENT

ARCHITECT





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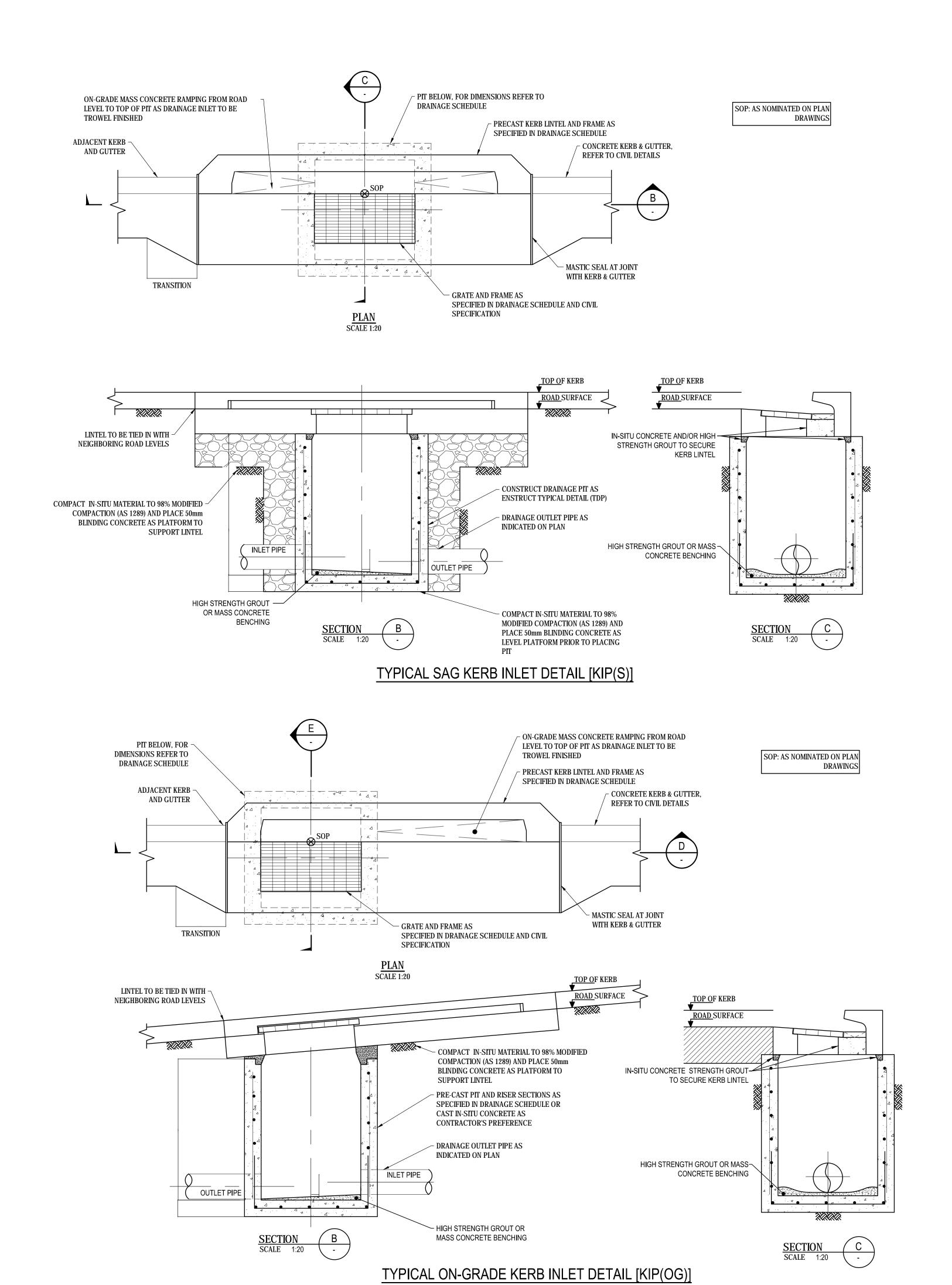
BOWRAL DISTRICT HOSPITAL REDEVELOPMENT - ENABLING WORKS 97-103 Bowral St, Bowral

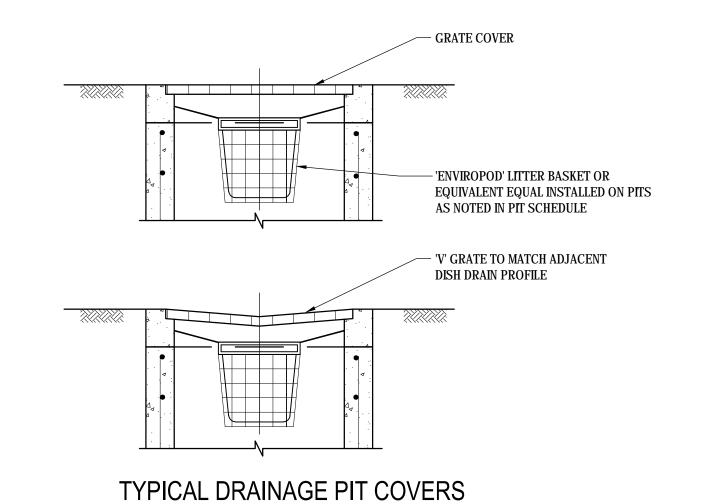
DRAWING NUMBER BOW-ENS-CV-DWG-0810

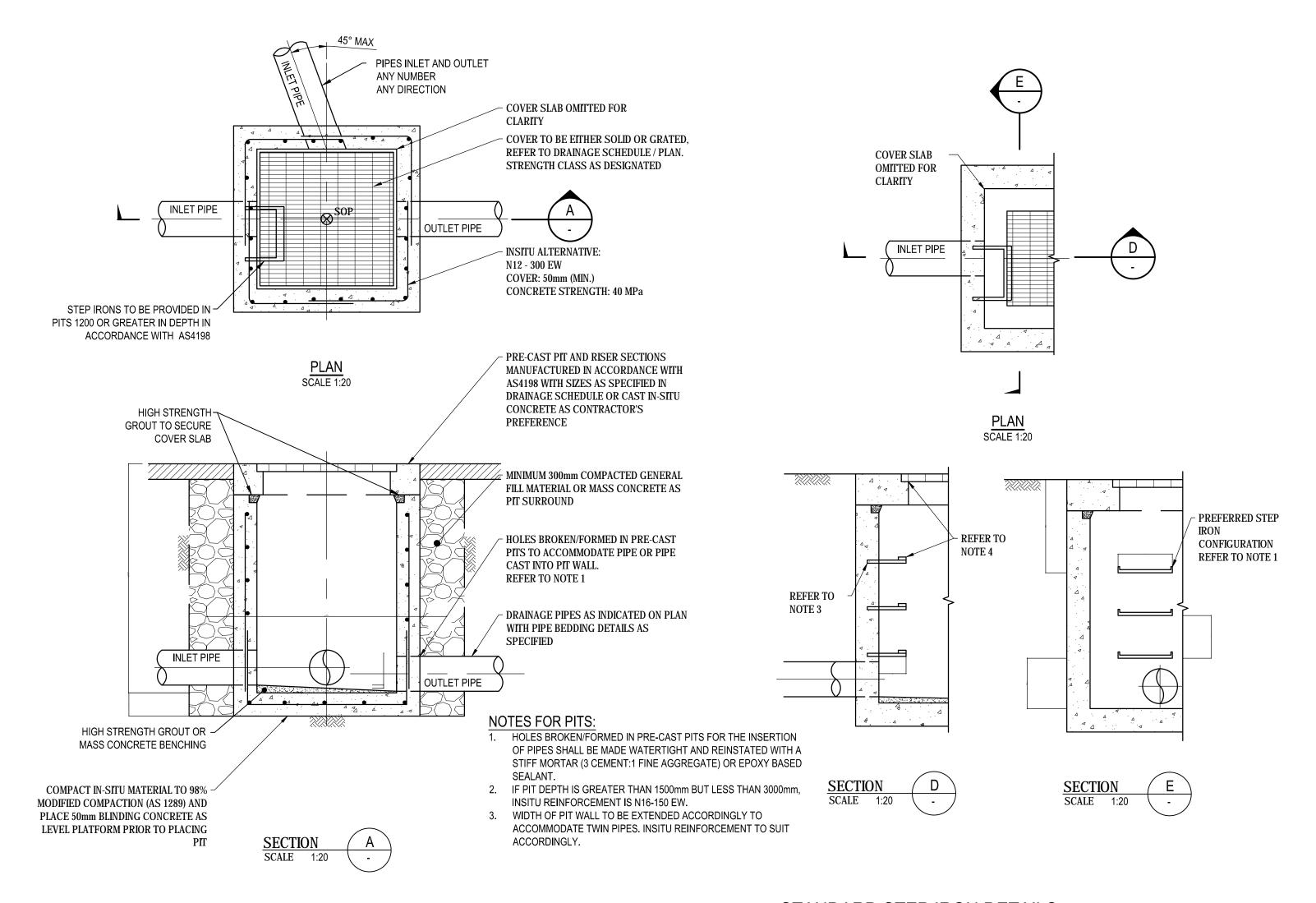
DRAWING NAME TYPICAL STORMWATER DRAINAGE DETAILS SHEET 1

40m 50m SCALE AS SHOWN @ B1

ISSUE DATE







STANDARD DRAINAGE PIT DETAIL [SDP]

STANDARD STEP IRON DETAILS

ARCHITECT



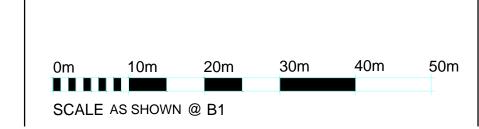


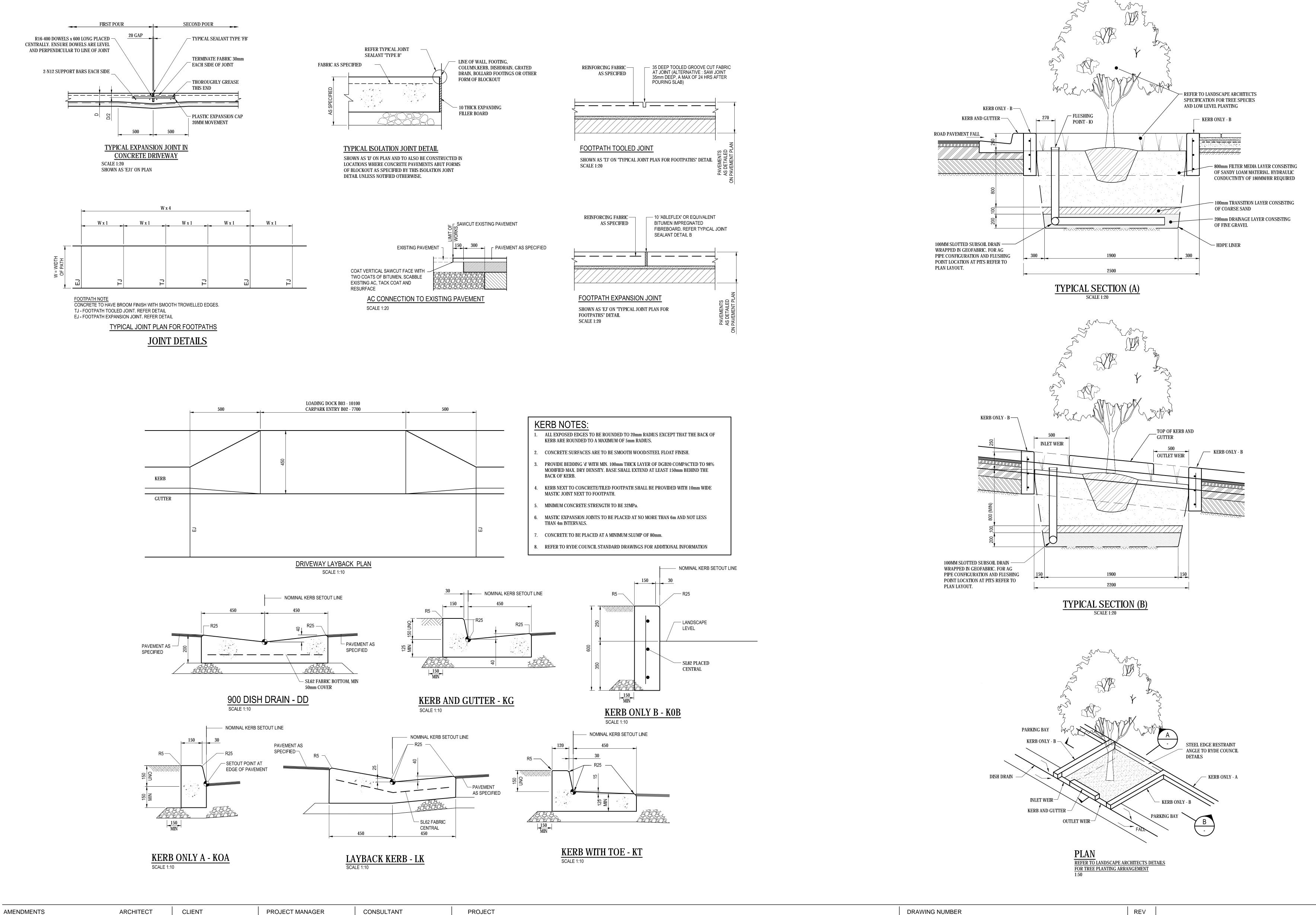
PROJECT

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BOWRAL DISTRICT HOSPITAL REDEVELOPMENT - ENABLING WORKS 97-103 Bowral St, Bowral

DRAWING NUMBER BOW-ENS-CV-DWG-0811 DRAWING NAME TYPICAL STORMWATER DRAINAGE DETAILS SHEET 2











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PROJECT

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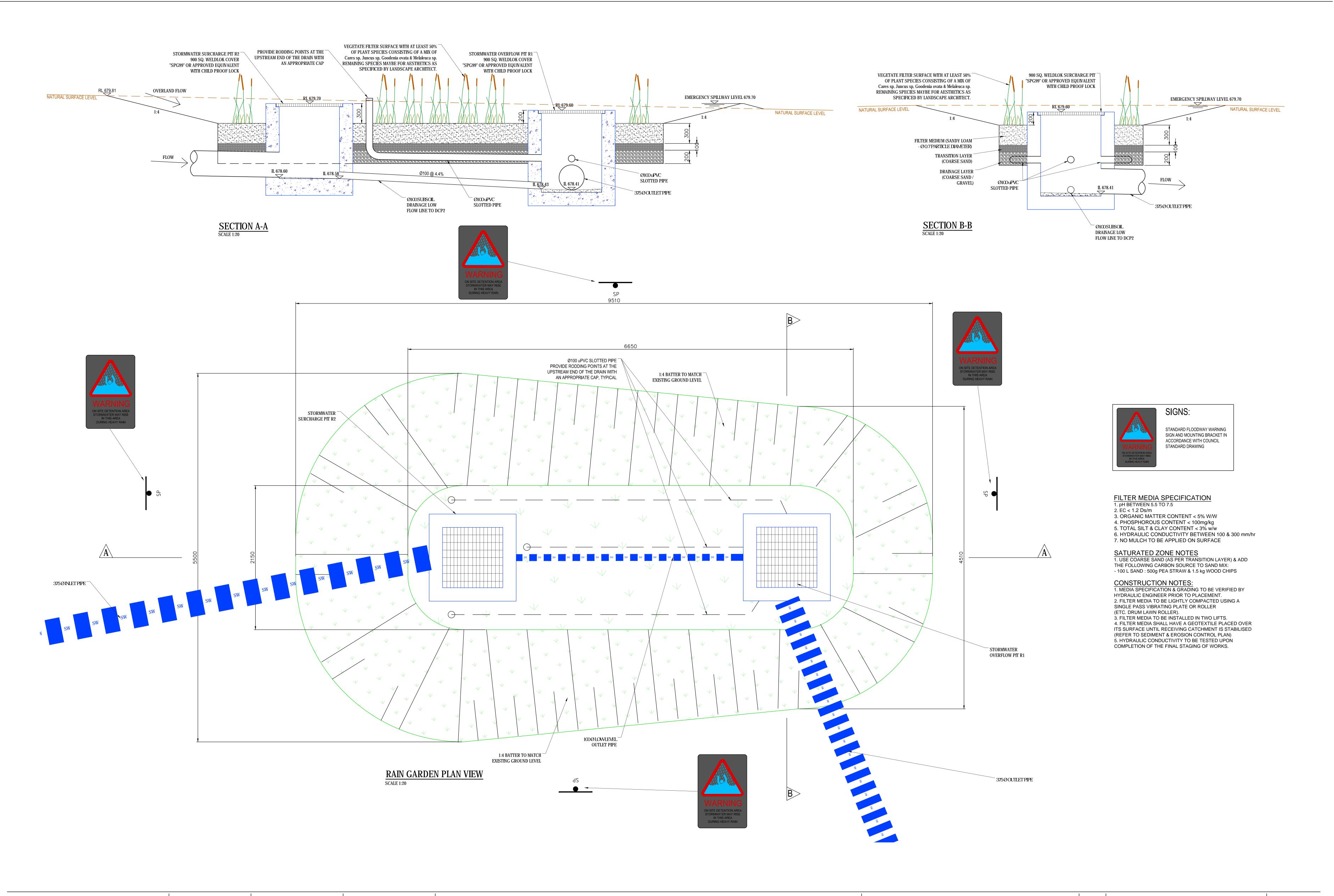
BOWRAL DISTRICT HOSPITAL REDEVELOPMENT - ENABLING WORKS 97-103 Bowral St, Bowral

BOW-ENS-CV-DWG-0820 DRAWING NAME TYPICAL ROAD DETAILS

SCALE AS SHOWN @ B1

ISSUE DATE

SEPT 17



BOWRAL DISTRICT HOSPITAL REDEVELOPMENT MAIN WORKS

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CIVIL ENGINEERING DRAWING LIST:

COVER SHEET - DRAWING LIST BOW-ENS-CV-DWG-1000-01

BOW-ENS-CV-DWG-1001-01 GENERAL NOTES

BOW-ENS-CV-DWG-1200-05

BOW-ENS-CV-DWG-1300-01 BULK EARTHWORKS PLAN

SEDIMENT AND EROSION CONTROL PLAN - SHEET 1 BOW-ENS-CV-DWG-1400-01









NSW 2576



- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH WILLOUGHBY COUNCIL DESIGN GUIDELINES AND SPECIFICATIONS. WHERE DISCREPANCIES OCCUR THE MORE STRINGENT SPECIFICATION WILL TAKE PREFERENCE.
- COORDINATES AND REDUCED LEVELS ARE GIVEN IN METRES UNO.
- REDUCED LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
- 4. ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA) UNO.
- DIMENSIONS ARE IN MILLIMETRES UNO.
- WORKMANSHIP MUST BE IN ACCORDANCE WITH THE DRAWINGS, RELEVANT AUSTRALIAN STANDARDS AND CODES OF PRACTICE.
- DO NOT SCALE OFF FROM DRAWINGS. WRITTEN DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- WHERE REFERENCE IS MADE TO PROPRIETARY COMPONENT NAMES ON THE DRAWINGS, THE CONTRACTOR MAY PROPOSE ALTERNATIVES FOR APPROVAL BY THE ENGINEER IN ADVANCE, AS LONG AS THEY ARE EQUIVALENT OR BETTER.
- 9. SERVICES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK THE EXISTENCE AND LOCATION OF SERVICES PRIOR TO COMMENCING CONSTRUCTION.
- 10. ON COMPLETION OF THE WORKS, THE CONTRACTOR MUST RESTORE AREAS DISTURBED FOR HIS OWN CONVENIENCE TO THE ORIGINAL CONDITION AND LEAVE THE SITE NEAT AND
- TIDY. 11. ALL NEW WORKS SHALL MAKE SMOOTH JUNCTION WITH EXISTING CONDITIONS. WHERE DETAILS DO NOT EXIST, CONTACT THE ENGINEER.
- 12. SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO SOIL DISTURBANCE IN KEEPING WITH THE "MANAGING STORMWATER MANUAL", 2004 BY LANDCOM AND TO COUNCIL'S SOIL EROSION AND SEDIMENT CONTROL POLICY.
- 13. CONTRACTOR SHALL MAINTAINED DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT.
- 14. ALL PITS DEEPER THAN 1.2m SHALL HAVE STEP IRONS PROVIDED IN ACCORDANCE WITH COUNCIL'S STANDARDS.
- 15. ALL DRAINAGE LINES THROUGH LOTS SHALL BE CONTAINED WITH THEIR EASEMENT AND CONFORM WITH COUNCIL'S STANDARDS.
- SUBSOIL DRAINS SHALL BE CONSTRUCTED TO THE SATISFACTION OF THE COUNCIL
- 17. MINIMUM 100mm THICK TOPSOIL SHALL BE SPREAD ON ALL FOOTPATHS, BERMS, BATTERS AND SITE REGRADING AREAS. EXCESS TOPSOIL SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER.
- 18. THE CONTRACTOR SHALL PROVIDE MINIMUM 48 HOURS NOTICE TO THE ENGINEER FOR ALL INSPECTIONS.
- 19. THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO THE ADJOINING PROPERTIES.
- 20. THE CONTRACTOR SHALL UNDERTAKE TRAFFIC CONTROL MEASURES TO ENGINEERS SATISFACTION AND SHALL DISPLAY APPROPRIATE WARNING SIGNS THROUGHOUT THE DURATION OF CONSTRUCTION.
- 21. ALL NATURAL SURFACE DATA HAS BEEN DETERMINED BY TERRAIN MODELLING. ALL SITE WORKS MUST BE CARRIED OUT USING THE BENCH MARKS NOTED ON THIS DRAWING.
- 22. 100 YEAR FLOW PATHS TO BE FORMED AT TIME OF CONSTRUCTION.
- 23. ABBREVIATIONS:

ALT -	ALTERNATE	LV -	LENGTH VARIES
T -	TOP	AB -	ALTERNATE BARS REVERSED
В -	BOTTOM	NSOE-	NOT SHOWN ON ELEVATION
NF -	NEAR FACE	NSOP-	NOT SHOWN ON PLAN
FF -	FAR FACE	NTS -	NOT TO SCALE
EF -	EACH FACE	ADD -	ADDITIONAL BARS
C -	CENTRALLY LOCATED	TSB -	THREADED STARTER BAR
ES -	EQUAL SPACES	UNO -	UNLESS NOTED OTHERWISE
EW -	EACH WAY	MC -	MASS CONCRETE
GL -	GROUND LEVEL	C/S -	BRICKWORK COURSES
RL -	REDUCED LEVEL	U/S -	UNDERSIDE
FFL -	FINISHED FLOOR LEVEL	PL -	PLATE
SSL -	STRUCTURAL SLAB LEVEL	BW -	BOTH WAYS
RC -	REINFORCED CONCRETE	FW -	FILLET WELD
IL -	INVERT LEVEL	KO -	KERB ONLY
TYP -	TYPICAL	RK -	ROLL KERB
CL -	CENTRE LINE	KT -	KERB WITH TOE
STA -	STAGGERED BARS	FK -	FLUSH KERB
NOM -	NOMINAL	K&G -	KERB AND GUTTER
MAX -	MAXIMUM	A.H.D-	AUSTRALIAN HEIGHT DATUM
MIN -	MINIMUM	ha -	HECTARE
CJ -	CONSTRUCTION JOINT	BDY -	BOUNDARY
LJ -	LONGITUDINAL JOINT	DD -	DISH DRAIN
CT -	CONTRACTION JOINT		

TEMPORARY WORKS

- 1. THE CONTRACTOR MUST MAKE ALL ARRANGEMENTS TO CONTROL PEDESTRIAN AND VEHICULAR TRAFFIC ON FOOTPATHS AND PUBLIC ROADS AROUND THE SITE AND MUST INSTALL AND MAINTAIN WARNING SIGNS AND SAFETY DEVICES IN ACCORDANCE WITH AS1742.3 AND RTA TRAFFIC MANAGEMENT GUIDELINES.
- 2. UPON COMPLETION OF THE WORKS, ALL TEMPORARY WORKS MUST BE REMOVED AND AFFECTED AREAS REINSTATED TO MATCH EXISTING.

SURVEY

- 1. DETAILED GROUND SURVEY WITHIN THE SITE AND BOUNDARIES WERE SUPPLIED BY PROJECT SURVEYORS, LINKER SURVEYING, REFERENCE NUMBER 160516, DATED 23.06.16.
- 2. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. ENSTRUCT GROUP DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE. 3. SURVEY MARKS SHALL BE MAINTAINED AT ALL TIMES. WHERE RETENTION IS NOT POSSIBLE THE ENGINEER SHALL BE NOTIFIED AND CONSENT PRIOR TO THEIR REMOVAL
- 4. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT ENSTRUCT GROUP.
- ALL WORKS TO BE SET OUT BY A REGISTERED SURVEYOR.

DEMOLITION

- DEMOLITION WORKS MUST COMPLY WITH THE REQUIREMENTS OF AS2601.
- 2. EXISTING STRUCTURES MUST BE DEMOLISHED AS NECESSARY WITHIN THE EXTENTS OF THE NEW WORKS. THIS INCLUDES FOUNDATIONS TO EXISTING STRUCTURES. DEMOLITION MATERIAL MUST BE REMOVED OFF-SITE OR AS DIRECTED BY THE PROJECT MANAGER.

- ALL PIPES MUST BE REINFORCED CONCRETE CLASS '3' RUBBER RING JOINT TO AS1342 UNO.
- 2. THE CONTRACTOR IS TO ORGANISE AND STAGE CONSTRUCTION WORK AND UNDERTAKE ANY DIVERSION WORKS TO ENSURE THE EXISTING DRAINAGE IS ABLE TO CONVEY ALL STORMWATER FLOWS THAT MAY OCCUR DURING THE PERIOD OF THE CONSTRUCTION WORKS.
- 3. THE CONTRACTOR IS TO PROVIDE DIVERSION WORKS ETC TO PROTECT WORKS IN PROGRESS UNTIL SUCH A TIME AS THE WORKS ARE IN A FINISHED AND STABLE CONDITION.
- 4. ANY DAMAGE TO THE WORKS DUE TO STORMWATER FLOWS OR FLOODING DURING THE CONSTRUCTION PERIOD IS AT THE CONTRACTOR'S RISK.
- SETOUT POINTS FOR STORMWATER STRUCTURES ARE AS INDICATED IN THE DRAWINGS UNLESS OTHERWISE NOTED.
- ALL PAVED SURFACE LEVELS AND GRADES TO BE COORDINATED WITH GULLY PIT LEVELS TO ENSURE NO UNDRAINED AREAS OCCUR.
- 7. THE SIDES OF ALL PIPE TRENCH EXCAVATIONS DEEPER THAN 1.0m SHALL BE FULLY SUPPORTED AT ALL TIMES AND HAVE APPROPRIATE EDGE PROTECTION.
- ALL NEW PIPES TO BE LAID IN AN UPSTREAM DIRECTION. THE LINE, LEVEL AND LOCATION OF EXISTING SERVICES CROSSING THE LINE OF THE PROPOSED STORMWATER PIPE SHALL BE DETERMINED BY EXCAVATION PRIOR TO THE LAYING OF THE PIPE. IF CONFLICT IS APPARENT, THE ENGINEER SHALL BE NOTIFIED AND INSTRUCTIONS AS TO WHETHER THE EXISTING SERVICE IS TO BE ADJUSTED OR THE PROPOSED PIPE INVERT ALTERED WILL BE ISSUED.
- 9. PIPE BEDDING, HAUNCH AND BACKFILL TO BE AS SHOWN ON THE CIVIL DETAILS DRAWINGS AND THE CIVIL SPECIFICATION.
- 10. SUBSOIL DRAINAGE PIPES TO BE SLOTTED PIPE AND FILTER SOCK CLASS 1000 TO AS2439 PART 1 LAID AT PREFERABLE MINIMUM GRADE 1 IN 100 OR ABSOLUTE MINIMUM 1 IN 200 WHERE LIMITED BY OUTFALL LEVELS.
- 11. STORMWATER STRUCTURES ARE TO BE CONSTRUCTED PERPENDICULAR TO THE INCOMING PIPEWORK UNLESS OTHERWISE NOTED.
- 12. PRECAST COMPONENTS SHALL BE CONNECTED BY MEANS OF EPOXY OR CHEMICAL GROUTED BARS OF THE SAME DIAMETER AND SPACING AS THE SMALLER BARS IN THE RESPECTIVE COMPONENTS.
- 13. PRE-CAST PITS MUST HAVE LIFTING ANCHORS.
- 14. WORKING LOADS ARE THOSE DUE TO FILL MATERIAL AND STANDARD HIGHWAY VEHICLES AS PER AS3725. CONSTRUCTION LOADS HAVE NOT BEEN ALLOWED FOR.
- 15. ALL EXPOSED EDGES ON STORMWATER PITS TO BE ROUNDED TO 5mm RAD. UNO.

- 1. ALL TREES AND SHRUBS (UNLESS NOTED TO BE PROTECTED ON THE LANDSCAPE PLANS), RUBBLE, EXISTING PAVEMENT AND EXISTING STRUCTURES WITHIN THE SITE SHALL BE REMOVED AND REUSED OR RECYCLED WHERE POSSIBLE. WHERE NOT POSSIBLE, THIS MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF AS PART OF THE CONTRACT.
- 2. ANY TREES WITHIN THE WORKS AREA WHICH, IN THE OPINION OF THE CONTRACT ADMINISTRATOR, ARE UNSOUND OR WOULD CONSTITUTE A DANGER, SHALL BE CUT DOWN AND REMOVED (EXCEPT THOSE IDENTIFIED AS BEING PROTECTED). ALL STUMPS OF TREES CUT DOWN WITHIN THE BOUNDS OF THE CONSTRUCTION AREA WHICH ARE LARGER THAN 250mm IN GIRTH, SHALL BE COMPLETELY REMOVED.
- 3. ALL ROOTS SHALL BE REMOVED FOR A DEPTH OF 1m. CAVITIES FORMED BY THE REMOVAL OF ROOTS SHALL BE BACKFILLED AND COMPACTED.
- 4. AFTER CLEARING AND GRUBBING ARE COMPLETE, THE CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL FROM THE CLEARED AREA (INCLUDING AREAS THAT HAVE BEEN CLEARED AND GRUBBED). REMOVAL OF TOPSOIL FROM ANY SECTION OF THE WORKS SHALL ONLY COMMENCE AFTER SEDIMENT AND EROSION CONTROLS HAVE BEEN
- 5. TOPSOIL SHALL BE STRIPPED FROM WITHIN THE FORMATION AREAS OF ROADS, PATHWAYS, BUILDING PADS AND MISCELLANEOUS PAVEMENTS, INCLUSIVE OF BATTERS, AND IS TO BE CONSERVED FOR THE TOP-DRESSING OF FORMED FOOTWAYS, BERMS AND BATTERS TO THE SPECIFIED DEPTH, OR WHERE NO DEPTH IS SPECIFIED TO A MINIMUM DEPTH OF 150mm, OR AS DETERMINED ON-SITE.
- 6. EXCAVATED FILL MATERIAL NOT SUITABLE FOR REUSE ON-SITE MUST BE REMOVED OFF-SITE OR OTHERWISE USED IN LANDSCAPING AREAS WHERE AGREED IN ADVANCE WITH
- 7. EROSION AND SEDIMENT CONTROL MUST BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL CITY COUNCIL DCP, DA AND CC CONDITIONS, AND BE INSTALLED TO THE SATISFACTION OF THE ENGINEER.
- 8. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO LIMIT THE CREATION OF DUST NUISANCE, WHICH MIGHT ARISE DURING THE EXECUTION OF THE WORKS.
- 9. FILL MATERIAL MUST BE PLACED IN MAXIMUM LAYERS OF 200mm (LOOSE) OR AS OTHERWISE GIVEN IN THE SPECIFICATION AND COMPACTED TO THE LEVELS AS SPECIFIED ON THE
- 10. COMPACTED FILL MUST BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF AS3798 AND AS GIVEN IN THE CIVIL SPECIFICATION.
- 11. BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH AN 12 TONNE (MIN) DEADWEIGHT SMOOTH DRUM VIBRATORY ROLLER TO DIRECT THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 2mm MOVEMENT UNDER ROLLER. PROOF ROLLING SHALL COMPRISE 6 PASSES OF A MINIMUM.
- 12. FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN:
- (A) 1 TEST PER 200m3 OF FILL PLACED PER 200mm THICK LAYER OF FILL (B) 3 TESTS PER LAYER
- (C) 1 TEST PER 2000m3 OF EXPOSED SUBGRADE
- TESTING SHALL BE "LEVEL1" TESTING IN ACCORDANCE WITH AS 3798 (2007) AT CONTRACTOR EXPENSE.
- 13. NO FILLING SHALL TAKE PLACE TO EXPOSED SUBGRADE UNTIL THE AREA HAS BEEN PROOF ROLLED IN THE PRESENCE OF GEOTECHNICAL ENGINEER AND APPROVAL GIVEN IN WRITING THAT FILLING CAN PROCEED.
- 14. THE CONTRACTOR SHALL ALLOW FOR AND COORDINATE ALL MONITORING AND MAINTENANCE REQUIREMENTS IN RELATION TO SOIL AND GROUNDWATER CONDITIONS DURING CONSTRUCTION.
- 15. ALL LAND DISTRIBUTED BY EARTHWORKS SHALL BE HYDROMULCHED, OR SIMILARLY TREATED TO ESTABLISH GRASS COVER, SEED MIXTURES ARE TO BE APPROVED BY COUNCIL PRIOR TO SPRAYING ALL GRASSED AREAS SHALL BE REGULARLY WATERED AND MAINTAINED UNTIL EXPIRATION OF THE MAINTENANCE PERIOD.

LOCATION	STANDARD DRY DENSITY (AS (1289 E 5.1.1.)

UNDER BUILDING SLABS ON GROUND 98-102% UNDER PADS, FOOTWAYS AND CARPARKS 98-102% LANDSCAPED AREAS UNLESS NOTED OTHERWISE

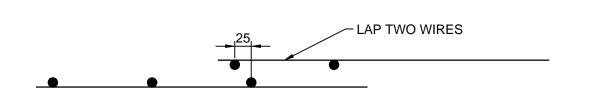
- 1. LOCATE ALL PIPES, DUCTS, CABLES, RETAINING WALLS AND EXCAVATIONS OUTSIDE A 1:2 (VERTICAL:HORIZONTAL) ZONE OF INFLUENCE FROM THE BOTTOM EDGE OF THE FOOTING.
- 2. THE CONTRACTOR MUST TAKE EVERY PRECAUTION TO PROTECT EXISTING GAS, WATER, STORMWATER, SEWERAGE, ELECTRICITY, TELEPHONE CONDUITS AND OTHER EXISTING WORKS AND SERVICES.
- CIVIL WORKS REQUIRED TO PROTECT EXISTING SERVICES IS TO BE AT THE FULL COST OF THE CONTRACTOR.
- 4. THE LOCATION OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITION OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE

- 5. ENSTRUCT GROUP CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
- 6. CONTRACTOR SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
- 7. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- 8. CONTRACTORS ARE TO UNDERTAKE A SERVICE SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULT ARE TO BE KEPT ON SITE AT ALL TIMES.

- 1. THE MINIMUM CONCRETE GRADE MUST BE 25MPa UNO. THE GRADE DESIGNATION SPECIFIES THE REQUIRED CHARACTERISTIC CYLINDER STRENGTH
- 2. EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS, THE FOLLOWING CLASSES OF FORMWORK MUST BE USED ALL IN ACCORDANCE WITH AS3610; SURFACES THAT WILL BE RENDERED-CLASS 4, CONCEALED FROM VIEW BELOW GROUND-CLASS 5, ALL OTHER SURFACES-CLASS 3.

4. IN-SITU CONCRETE KERB AND GUTTERING MUST BE PROVIDED WITH JOINTS AT 4m INTERVALS, JOINTS MUST BE FORMED BY CUTTING THE NEWLY

- 3. PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- PLACED CONCRETE COMPLETELY THROUGH NORMAL TO THE LINE OF KERB AND RADIALLY ON CURVES. EVERY FOURTH JOINT IS TO BE FORMED AS AN **EXPANSION JOINT.**
- 5. KERBS AND GUTTERS MUST BE COVERED AND KEPT DAMP FOR NOT LESS THAN THREE DAYS.
- 6. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 CURRENT ADDITION WITH AMENDMENTS, AS3735 AND WS-SPEC (WATER
- 7. COVER TO REINFORCEMENT SHALL BE OBTAINED BY THE USE OF CONCRETE OR PLASTIC BAR CHAIRS FOR BOTTOM REINFORCEMENT, AND PLASTIC TIPPED WIRE BAR CHAIRS FOR TOP REINFORCEMENT. ALL CHAIRS TO BE SPACED 750 CRS. MAXIMUM.
- 8. FABRIC LAP DETAIL:



- REINFORCEMENT SHALL NOT BE BENT OR HEATED ON-SITE WITHOUT THE ENGINEER'S PRIOR APPROVAL.
- 10. CONCRETE TO BE MECHANICALLY VIBRATED TO ACHIEVE A DENSE HOMOGENOUS MASS COMPLETELY FILLING THE FORMWORK, THOROUGHLY
- EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. 11. SURFACE FINISH TO BE BROOMED UNLESS SHOWN OTHERWISE.
- 12. DECORATIVE FINISHES, COLORS OR PATTERNS TO BE APPLIED AS SHOWN ON THE ARCHITECT'S PLAN.

SIGNS AND LINEMARKING

- 1. ALL PAVEMENT MARKINGS, CHEVRONS AND REFLECTORS ARE TO BE IN ACCORDANCE WITH RMS OA SPECIFICATION R141 & R142, CURRENT RMS DELINEATION GUIDELINES, AUSTRALIAN STANDARDS AND RMS SUPPLEMENTS.
- 2. ALL SIGNS TO BE IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARD AS 1743 ROAD SIGNS,RMS SUPPLEMENTS AND COUNCIL'S SPECIFICATIONS UNLESS STATED OTHERWISE.
- 3. ROAD SIGNS ARE SIZE 'A', UNLESS OTHERWISE SHOWN, LOCATE OUTSIDE OF CLEAR ZONES.
- 4. AUTHORIZATION FOR THE INSTALLATION OF ALL REGULATORY SIGNPOSTING AND LINE MARKING ILLUSTRATED ON THIS PLAN IS TO BE OBTAINED FROM RMS, TRAFFIC ENGINEERING SERVICES.REGULATORY SIGNPOSTING AND LINE MARKING SHOWN ON THESE PLANS ARE NOT
- 5. ALL NEW PAVEMENT MARKINGS ARE TO BE INSTALLED IN WHITE REFLECTIVE, THERMOPLASTIC PAINT.
- 6. PAVEMENT MARKINGS THAT FORM NO PART OF THE FINAL WORKS ARE TO BE REMOVED BY WATER BLASTING OR OTHER METHOD AS APPROVED BY THE SUPERINTENDENT/PROJECT MANAGER.



ARCHITECT



CLIENT





PROJECT MANAGER

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CONSULTANT

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PROJECT

NSW 2576

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DRAWING NUMBER **BOW-ENS-CV-DWG-1001** DRAWING NAME

GENERAL NOTES

01 20m 30m SCALE NTS

40m 50m

ISSUE DATE

SEPT 17