

WSU - INDIGENOUS CENTRE OF EXCELLENCE

CIVIL DRAWINGS

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LOCALITY PLAN

ICoE PROJECT - DRAWING INDEX

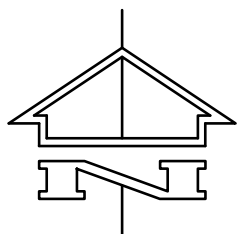
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CITY OF PARRAMATTA STANDARD DRAWINGS

STANDARD	DRAWING DESCRIPTION
DS1	KERBS AND LAYBACKS
DS3	FOOTPATH
DS8	VEHICULAR CROSSING
DS25	SURFACE INLET PIT GENERAL PURPOSE
DS9	HEAVY DUTY VEHICULAR CROSSING
DS10	VEHICULAR CROSSING PROFILES
DS19	STEP IRONS
DS21	KERB INLET PIT (ON GRADE)
DS25 SHT2	SURFACE INLET PIT GENERAL PURPOSE
DS26 SHT1	JUNCTION PIT
DS29	SURFACE INLET PIT FOR DRIVEWAYS
DS33	SUBSOIL DRAINAGE DETAILS
DS36 SHT1	HEADWALLS FOR PIPES UP TO 900 DIAMETER
DS37 SHT1	INSTALLATION OF PIPELINES AND RESTORATION OF TRENCHES
DS43	TREE PROTECTION TIMBER HOARDING
DS47	TYPICAL SECTIONS ROAD PAVEMENTS



NOT TO BE USED FOR CONSTRUCTION

						Client: WESTERN SYDNEY UNIVERSITY			Engineer: TTW			Project: WSU INDIGENOUS CENTRE OF EXCELLENCE			Drawing Title: GENERAL COVER SHEET, DRAWING INDEX, AND LOCALITY PLAN		
			BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN												Scale at A1		
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GENERAL NOTES

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING AND ARCHITECTURAL DRAWINGS.
2. ANY OBSERVED DISCREPANCY IS TO BE REFERRED TO THE SUPERINTENDENT PRIOR TO COMMENCING WORKS.
3. THESE DRAWINGS SHALL ALSO BE READ IN CONJUNCTION WITH THE CIVIL SPECIFICATION.
4. DO NOT SCALE FROM THE DRAWINGS.
5. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
6. ALL LEVELS ARE EXPRESSED TO THE AUSTRALIAN HEIGHT DATUM (AHD).
7. THE CONTRACTOR SHALL SEEK APPROVAL FROM THE SUPERINTENDENT FOR ANY SUBSTITUTIONS OF PRODUCTS AND MATERIALS NOTED IN THE DRAWINGS.

SURVEY AND SERVICES INFORMATION

SURVEY

ORIGIN OF LEVELS : CONTACT THE SURVEYOR

DATUM OF LEVELS: CONTACT THE SURVEYOR

COORDINATE SYSTEM: MGA 2020

SURVEY PREPARED BY : LTS

SETOUT POINTS: CONTACT THE SURVEYOR

TTW DOES NOT GUARANTEE THAT THE SURVEY INFORMATION SHOWN ON THESE DRAWINGS IS ACCURATE AND WILL ACCEPT NO LIABILITY FOR ANY INACCURACIES IN THE SURVEY INFORMATION PROVIDED TO US FROM ANY CAUSE WHATSOEVER.

THE CONTRACTOR IS TO GET APPROVAL FROM THE RELEVANT STATE SURVEY DEPARTMENT, TO REMOVE/ADJUST ANY SURVEY MARK. THIS INCLUDES BUT IS NOT LIMITED TO: STATE SURVEY MARKS (SSM), PERMANENT MARKS (PM), CADASTRAL REFERENCE MARKS OR ANY OTHER SURVEY MARK WHICH IS TO BE REMOVED OR ADJUSTED IN ANY WAY.

TTW PLANS DO NOT INDICATE THE PRESENCE OF ANY SURVEY MARK. THE CONTRACTOR IS TO UNDERTAKE THEIR OWN SEARCH.

UNDERGROUND SERVICES - WARNING

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON TTW'S DRAWINGS HAVE BEEN PLOTTED FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES. THIS INFORMATION HAS BEEN PREPARED SOLELY FOR THE AUTHORITIES OWN USE AND MAY NOT NECESSARILY BE UPDATED OR ACCURATE.

THE POSITION OF SERVICES AS RECORDED BY THE AUTHORITY AT THE TIME OF INSTALLATION MAY NOT REFLECT CHANGES IN THE PHYSICAL ENVIRONMENT SUBSEQUENT TO INSTALLATION.

TTW DOES NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS SHOWS MORE THAN THE PRESENCE OR ABSENCE OF SERVICES, AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

THE CONTRACTOR MUST CONFIRM THE EXACT LOCATION AND EXTENT OF SERVICES PRIOR TO CONSTRUCTION AND NOTIFY ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY TO THE ENGINEER/SUPERINTENDENT.

THE CONTRACTOR SHALL NOTIFY THE RELEVANT SERVICE AUTHORITY FOR ANY REQUIRED MODIFICATION WORKS TO THEIR ASSETS. ALL SERVICE MODIFICATION WORKS SHALL BE UNDERTAKEN IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT SERVICE AUTHORITY.THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION MEASURES TO EXISTING SERVICES THAT ARE TO BE RETAINED. THE CONTRACTOR IS LIABLE FOR RECTIFICATION/REINSTATEMENT COSTS FOR DAMAGE TO EXISTING SERVICES.

BOUNDARY AND EASEMENT NOTE

THE PROPERTY BOUNDARY AND EASEMENT LOCATIONS SHOWN ON TTW'S DRAWINGS HAVE BEEN BASED FROM INFORMATION RECEIVED FROM : LTS

TTW MAKES NO GUARANTEES THAT THE BOUNDARY OR EASEMENTINFORMATION SHOWN IS CORRECT. TTW WILL ACCEPT NO LIABILITIES FOR BOUNDARY INACCURACIES. THE CONTRACTOR/BUILDER IS ADVISED TO CHECK/CONFIRM ALL BOUNDARIES IN RELATION TO ALL PROPOSED WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. BOUNDARY INACCURACIES FOUND ARE TO BE REPORTED TO THE SUPERINTENDENT PRIOR TO CONSTRUCTION STARTING.

KERBING NOTES

- INCLUDES ALL KERBS, CHANNELS, SPOON DRAINS, CROSSINGS AND EDGES.
1. CONCRETE KERBS SHALL BE CONSTRUCTED USING GRADE 32MPA CONCRETE U.N.O.
2. ALL KERBS, CHANNELS, SPOON DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MINIMUM 75MM GRANULAR BASECOURSE COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1.

3. EXPANSION JOINTS (EJ) TO BE FORMED FROM 10MM COMPRESSIBLE FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE.
EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT 12M CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
4. SAW CUT JOINTS TO BE MIN 3MM WIDE AND LOCATED AT 3M CENTRES EXCEPT FOR INTEGRAL KERBS WHERE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
5. BROOM FINISHED TO ALL RAMPED AND VEHICULAR CROSSINGS, ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
6. IN THE REPLACEMENT OF KERBS - EXISTING ROAD PAVEMENT IS TO BE SAWCUT 350MM FROM LIP OF UPON COMPLETION OF NEW KERBS. NEW BASECOURSE AND SURFACE IS TO BE LAID 350MM WIDE TO MATCH EXISTING MATERIALS AND THICKNESSES. EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB WITH A 100MM DIA HOLE. EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

STORMWATER DRAINAGE NOTES

1. ALL NEW DRAINAGE PIPES EQUAL TO OR GREATER THAN 450Ø TO BE RUBBER RING JOINTED RCP UNLESS NOTED OTHERWISE IN DRAWINGS

1.1. RCP PIPES SUBJECT TO PEDESTRIAN LOADING ONLY TO BE CLASS 3 UNLESS NOTED OTHERWISE.

1.2. RCP PIPES SUBJECT TO TRAFFIC LOADING TO BE MIN. CLASS 4 UNLESS NOTED OTHERWISE
2. PIPES UP TO 375Ø SHALL BE HDPE OR SEWER GRADE UPVC WITH SOLVENT WELDED JOINTS UNLESS NOTED OTHERWISE IN DRAWINGS. SOME OF OUR PIPES ARE CPP. IN AREAS OF EXPANSIVE SOILS, UPVC PIPES MUST BE RUBBER RING JOINTED.
3. EQUIVALENT STRENGTH VCP OR FRP PIPES MAY BE USED SUBJECT TO APPROVAL.
4. PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY THE SUPERINTENDENT.
5. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE MANUFACTURED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
6. SUBSOIL DRAINS TO BE SLOTTED FLEXIBLE 100DIA UPVC U.N.O.
7. WHERE SUBSOIL DRAINS ARE SHOWN AS UNSLOTTED, UNSLOTTED 100DIA UPVC SEWER GRADE PIPE IS TO BE USED.
8. SUBSOIL DRAINS TO BE LOCATED BEHIND ALL RETAINING WALLS AND NEW KERBING SHALL BE CONNECTED TO NEAREST STORMWATER PIT.
9. GRATES AND COVERS SHALL CONFORM WITH AS 3996-2006, AND AS 1428.1 FOR ACCESS REQUIREMENTS. ALL PITS WITHIN FOOT TRAFFIABLE AREA TO HAVE MINIMUM SLIP RESISTANCE OF R10 OR R11.
10. CONCRETE PIPES ARE TO BE INSTALLED IN ACCORDANCE WITH AS 3725. ALL BEDDING TO BE TYPE H2 U.N.O.
11. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
12. ALL STORMWATER PIPES TO BE 150 DIA AT 1 IN 100 MIN FALL U.N.O.
13. ADOPT INVERT LEVELS FOR PIPE INSTALLATION (GRADES SHOWN ARE ONLY NOMINAL).
14. ALL DRAINS AND OTHER SERVICE INFRASTRUCTURE TRENCHES BENEATH ROAD PAVEMENTS, DRIVEWAYS, FOOTPATHS OR CONCRETE STRUCTURES SLABS, OR WITHIN 1.0M OF CONCRETE STRUCTURES OR OTHER COUNCIL ASSETS, INCLUDING KERB, FOOTPATH, DRAINS, ETC MUST BE BACKFILLED WITH CLASS 2 FCR, COMPACTED AND TESTED TO THE SATISFACTION OF THE SUPERINTENDENT.
15. LITTER TRAPS TO BE INSTALLED IN ALL NEW GRATED PITS WITHIN LANDSCAPE AREAS.
16. ALL GRATED PITS WITHIN PAVED PEDESTRIAN AREAS TO BE HEEL GUARD BOLT DOWN COVER UNLESS SPECIFIED OTHERWISE ON PLANS.
17. ALL DOWNPIPES TO BE CONNECTED TO ADJACENT INGROUND STORMWATER DRAINAGE INFRASTRUCTURE. REFER TO HYDRAULIC DRAWINGS FOR DOWN PIPE LOCATION IF NOT DETAILED ON CIVIL PLANS.
18. ALL EXISTING ACTIVE DOWNPIPS, WHERE INGROUND STORMWATER HAS BEEN ABANDONED, TO BE CONNECTED TO NEW INGROUND STORMWATER DRAINAGE NETWORK.
19. PRIOR TO COMMENCING ANY STORMWATER DRAINAGE WORKS ON SITE THE CONTRACTOR MUST CONFIRM THE CONNECTION TO THE LEGAL POINT OF DISCHARGE AUTHORITY DRAIN AS DOCUMENTED BY:
- 19.1. VERIFICATION OF THE EXISTING INVERT LEVEL OF THE LEGAL POINT OF DISCHARGE TO COUNCIL DRAIN.
- 19.2. VERIFICATION THAT THE PROPOSED STORMWATER DRAIN INVERT LEVELS CAN ACHIEVE THE COUNCIL STANDARD CONNECTION DETAIL IN ACCORDANCE WITH COUNCIL STANDARDS
- 19.3. VERIFICATION THAT THE ROUTE IS CLEAR OF ALL OBSTRUCTIONS AND EXISTING SERVICES.

THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT IF ANY OF THE ABOVE CANNOT BE ACHIEVED PRIOR TO COMMENCING WORKS ON SITE.

20. THE INTERNAL BASE OF ALL DRAINAGE PITS SHALL BE BENCHED AND SHAPED TO ALLOW FREE FLOW OF WATER THROUGH TO THE PIT OUTLET PIPE.
21. PITS DEEPER THAN 1.0M SHALL BE FITTED WITH STEP IRONS.

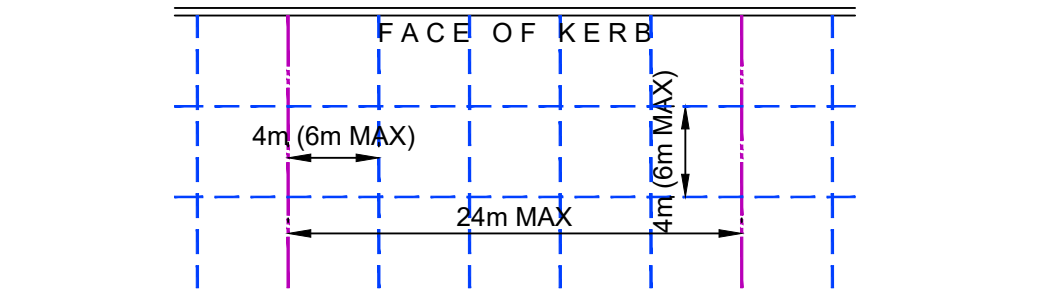
CONCRETE FINISHING NOTES

1. ALL EXPOSED CONCRETE PAVEMENTS ARE TO BE BROOMED FINISHED U.N.O REFER ARCHITECTURAL / LANDSCAPE DRAWINGS FOR PAVEMENT FINISHES.
2. ALL EDGES OF THE CONCRETE PAVEMENT INCLUDING KEYED AND DOWELLED JOINTS ARE TO BE FINISHED WITH AN EDGING TOOL.
3. CONCRETE PAVEMENTS WITH GRADES GREATER THAN 1:10 SHALL BE HEAVILY BROOM FINISHED.
4. CARBORUNDUM TO BE ADDED TO ALL STAIR TREADS AND RAMPED CROSSINGS U.N.O.

JOINTING NOTES

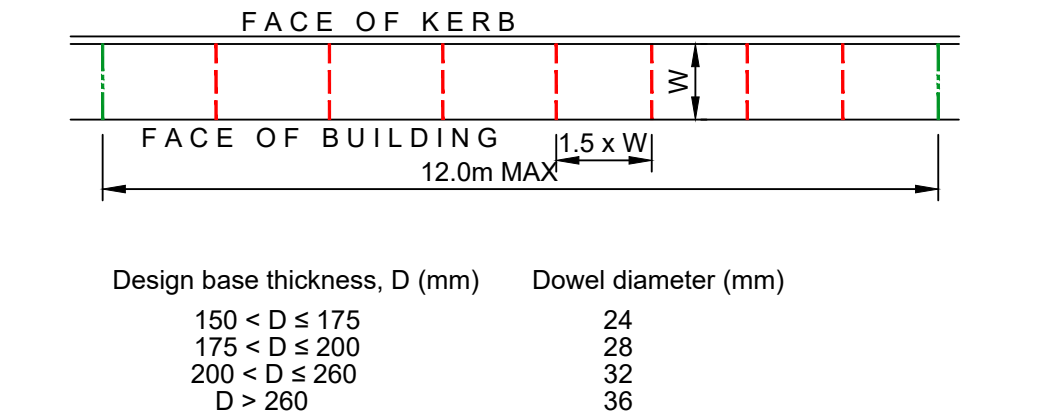
VEHICULAR PAVEMENT JOINTING

1. ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON DRAWINGS.
2. SAWCUT JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6.0M CENTRES.
3. SAW CUT JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6.0M CENTRES OR 1.5 X THE SPACING OF KEYED JOINTS, WHERE KEY JOINT SPACING IS LESS THAN 4.0M, WITH DOWELLED EXPANSION JOINTS AT MAXIMUM OF 24M CENTRES.
4. PROVIDE 10MM WIDE FULL DEPTH ISOLATION JOINTS BETWEEN BUILDINGS, STRUCTURES AND KERBS.
5. THE TIMING OF THE SAW CUT IS TO BE CONFIRMED BY THE CONTRACTOR ON SITE. SITE CONDITIONS WILL DETERMINE HOW MANY HOURS AFTER THE CONCRETE POUR BEFORE THE SAW CUTS ARE COMMENCED. REFER TO THE SPECIFICATION FOR WEATHER CONDITIONS AND TEMPERATURES REQUIRED.
6. INDICATIVE VEHICULAR PAVEMENT JOINTING AS FOLLOWS.



PEDESTRIAN FOOTPATH JOINTING

1. SAWCUT JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE.
2. SAW CUT JOINTS ARE TO BE LOCATED AT A MAX 1.5 X WIDTH OF THE PAVEMENT.
3. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.
4. ALL PEDESTRIAN FOOTPATH JOINTINGS AS FOLLOWS (U.N.O).
5. JOINTS SPACING ARE INDICATIVE ONLY AND THE CONTRACTOR TO REFER LANDSCAPE ARCHITECTURAL PLAN FOR FINAL LOCATION.



BULK EARTHWORKS NOTES

1. CONTRACTOR TO REFERENCE GEOTECHNICAL REPORTS BY DOUGLAS PARTNERS 227190.00.R.001 Rev1 DATED 2 MAY 2024 AND 227191.00.R.001 Rev0 DATE 15 NOVEMBER 2024 FOR SUBGRADE PREPARATION REQUIREMENTS.
2. ALL BATTERS AT A MAXIMUM SLOPE TO BE CONFIRMED AND SUBJECT TO GEOTECHNICAL ENGINEER ADVICE. REFER TO GEOTECHNICAL REPORTS BY DOUGLAS PARTNERS 227190.00.R.001.Rev1 DATED 2 MAY 2024 AND 227191.00.R.001.Rev0 DATE 15 NOVEMBER 2024.
3. EXCAVATED MATERIAL MAY BE USED AS STRUCTURAL FILL PROVIDED,

3.1. IT COMPLIES WITH THE SPECIFICATION REQUIREMENTS FOR FILL MATERIAL,

3.2. THE PLACEMENT MOISTURE CONTENT COMPLIES WITH THE GEOTECHNICAL CONSULTANTS REQUIREMENTS, AND ALLOWS FILLING TO BE PLACED AND PROOF-ROLLED IN ACCORDANCE WITH THE SPECIFICATION. WHERE NECESSARY THE CONTRACTOR MUST MOISTURE CONDITION THE EXCAVATED MATERIAL TO MEET THESE REQUIREMENTS.

4. COMPACT FILL AREAS AND SUBGRADE TO NOT LESS THAN:		
LOCATION	STANDARD DRY DENSITY (AS 1289 5.1.1)	OPTIMUM MOISTURE CONTENT (OMC)
UNDER BUILDING SLABS ON GROUND	98%	±2%
UNDER ROADS AND CARPARKS	98%	±2%
LANDSCAPE AREAS:	95%	±2%

5. BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH A 10 TONNE MINIMUM ROLLER TO TEST SUBGRADE AND THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 3MM MOVEMENT UNDER ROLLER). SOFT SPOTS TO BE REPLACED WITH GRANULAR FILL UNLESS NOTED OTHERWISE.
6. CONTRACTOR SHALL PLACE SAFETY BARRIERS AROUND EXCAVATIONS IN ACCORDANCE WITH RELEVANT SAFETY REGULATIONS.
7. BULK EARTHWORKS DRAWINGS ARE NOT TO BE USED FOR DETAILED EXCAVATION IN LANDSCAPE ZONES. CONTRACTOR TO MAKE ALLOWANCE FOR ADDITIONAL FILL OR CUT THROUGH LANDSCAPE ZONES.
8. CONTRACTOR TO REVIEW LANDSCAPE DRAWINGS TO CONFIRM SOFTSCAPE PROFILE DEPTHS.
9. STRIP ALL TOPSOIL FROM THE CONSTRUCTION AREA. ALL STRIPPED TOPSOIL SHALL BE DISPOSED OF OFFSITE UNLESS DIRECTED OTHERWISE.
10. MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS
11. COMPACT SUBGRADE UNDER BUILDINGS AND PAVEMENTS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289.5.1.1. COMPACTION UNDER BUILDINGS TO EXTEND 2.0M MINIMUM BEYOND BUILDING FOOTPRINT.
12. TEMPORARY STORMWATER CONTROL AND CONNECTIONS TO BE MANAGED ONSITE BY THE BUILDER/CONTRACTOR.
13. SITE TO BE FREE DRAINING AND SUBGRADE TO BE PROTECTED FROM MOISTURE INGRESS.
14. DEWATERING TO BE MANAGED BY CONTRACTOR AT ALL TIMES.
15. QUANTITIES TO UNDERLYING GEOLOGY SUCH AS ROCK OR NATURAL CLAY ARE INDICATIVE ONLY AND BASED ON THE GEOTECHNICAL INFORMATION AVAILABLE AT THE TIME OF ISSUE. UNDERLYING NATURAL CLAY AND ROCK LEVELS CAN BE HIGHLY VARIABLE BETWEEN GEOTECH SAMPLE LOCATIONS.
16. ALL EARTHWORKS ACTIVITIES SHALL BE UNDERTAKEN WITH LEVEL 1 SUPERVISION IN ACCORDANCE WITH AS3798 (2007) BY A SUITABLY QUALIFIED GEOTECHNICAL INSPECTION AND TESTING AUTHORITY (GITA) ENGAGED BY THE CONTRACTOR. AS A MINIMUM, THE FREQUENCY AND LOCATION OF TESTING SHALL BE IN ACCORDANCE WITH TABLE 8.1 OF AS3798 (2007). THE GITA IS TO MAINTAIN DAILY SITE RECORD SHEETS AS SET OUT IN AS3798 (2007).

EROSION AND SEDIMENT CONTROL

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING AND ARCHITECTURAL DRAWINGS.

1. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:

1.1. LOCAL AUTHORITY REQUIREMENTS

1.2. EPA - POLLUTION CONTROL MANUAL FOR URBAN STORMWATER,
2. EROSION AND SEDIMENT CONTROL ARE TO BE PROVIDED FOR THE WHOLE OF THE WORKS BY THE CONTRACTOR. SHOULD THE CONTRACTOR STAGE THESE WORKS THEN THE DESIGN MAY BE REQUIRED TO BE MODIFIED. VARIATION TO THESE DETAILS MAY REQUIRE APPROVAL BY THE RELEVANT AUTHORITIES. THE EROSION AND SEDIMENT CONTROL SHALL BE IMPLEMENTED AND ADOPTED TO MEET RELEVANT EPA AND/OR AUTHORITY GUIDELINES
3. MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
4. WHEN STORMWATER PITS ARE CONSTRUCTED PREVENT SITE RUNOFF ENTERING THE PITS UNLESS SILT FENCES ARE ERECTED AROUND PITS.
5. MINIMISE THE AREA OF SITE BEING DISTURBED AT ANY ONE TIME.
6. PROTECT ALL STOCKPILES OF MATERIALS FROM SCOUR AND EROSION. DO NOT STOCKPILE LOOSE MATERIAL IN ROADWAYS, NEAR DRAINAGE PITS OR IN WATERCOURSES.
7. ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORKING DAY, AND MODIFIED TO BEST SUIT SITE CONDITIONS.
8. CONTROL WATER FROM UPSTREAM OF THE SITE SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.
9. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE TEMPORARY CONSTRUCTION ENTRY/EXIT.
10. ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING.
11. MAINTAIN ALL STORMWATER PIPES AND PITS CLEAR OF DEBRIS AND SEDIMENT. INSPECT STORMWATER SYSTEM AND CLEAN OUT AFTER EACH STORM EVENT.
12. CLEAN OUT ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH STORM EVENT.

SEQUENCE OF WORKS

1. PRIOR TO COMMENCEMENT OF EXCAVATION THE FOLLOWING SOIL MANAGEMENT DEVICES MUST BE INSTALLED.

1.1. CONSTRUCT SILT FENCES BELOW THE SITE AND ACROSS ALL POTENTIAL RUNOFF SITES.

1.2. CONSTRUCT TEMPORARY CONSTRUCTION ENTRY/EXIT AND DIVERT RUNOFF TO SUITABLE CONTROL SYSTEMS.

1.3. CONSTRUCT MEASURES TO DIVERT UPSTREAM FLOWS INTO EXISTING STORMWATER SYSTEM.

1.4. CONSTRUCT SEDIMENTATION TRAPS/BASIN INCLUDING OUTLET CONTROL AND OVERFLOW.

1.5. CONSTRUCT TURF LINED SWALES.

1.6. PROVIDE SANDBAG SEDIMENT TRAPS UPSTREAM OF EXISTING PITS.

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2. CONSTRUCT GEOTEXTILE FILTER PIT SURROUND AROUND ALL PROPOSED PITS AS THEY ARE CONSTRUCTED.
3. ON COMPLETION OF PAVEMENT PROVIDE SAND BAG KERB INLET SEDIMENT TRAPS AROUND PITS.
4. PROVIDE AND MAINTAIN A STRIP OF TURF ON BOTH SIDES OF ALL ROADS AFTER THE CONSTRUCTION OF KERBS.

NOT TO BE USED FOR CONSTRUCTION

3	SSDA SUBMISSION	JLE	JLE 07.10.2025												
2	SSDA SUBMISSION	JLE	JLE 27.02.2025												
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Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date						



BEFORE YOU DIG
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BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN

Client:

WESTERN SYDNEY UNIVERSITY

Engineer:

TTW
www.ttwengineers.com

Project:

WSU INDIGENOUS CENTRE OF EXCELLENCE

Drawing Title:

GENERAL NOTES AND LEGEND SHEET 1

Scale at A1

NA

TTW Job number: 234338

Project Code Campus Building Originator Discipline Sheet No. Rev

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Drawn

VV

Designed

JLE

Approved

RP

SERVICE TRENCHES

EXCAVATION

1. BEFORE EXCAVATING TRENCHES THROUGH EXISTING PAVEMENT, SAW-CUT EXISTING CONCRETE AND BITUMINOUS SURFACES ON EACH SIDE OF THE TRENCH TO PROVIDE A STRAIGHT EVEN JOINT. LIFT AND STORE UNIT PAVING FOR LATER REINSTATEMENT.
2. EXCAVATE FOR UNDERGROUND SERVICES, TO REQUIRED LINES, LEVELS AND GRADES. GENERALLY MAKE THE TRENCHES STRAIGHT BETWEEN MANHOLES. INSPECTION POINTS AND JUNCTIONS, WITH VERTICAL SIDES AND UNIFORM GRADES. EXCAVATION OF SERVICE TRENCHES SHALL BE COMPLETED PRIOR TO LIME STABILIZATION OF THE SUBGRADE. NOTIFY THE CONTRACT ADMINISTRATOR IF ANY TRENCHES ARE BE TO EXCAVATED IN STABILISED GROUND. ANY TRENCHES IN STABILISED GROUND TO BE BACKFILLED AS SPECIFIED IN THE "BACKFILLING" NOTES.
3. KEEP TRENCH WIDTHS TO THE MINIMUM CONSISTENT WITH THE LAYING AND BEDDING OF THE RELEVANT SERVICE AND CONSTRUCTION OF PERSONNEL ACCESS WAYS AND PITS.
4. EXCAVATE TRENCHES IN SECTIONS OF SUITABLE LENGTH.
5. TRENCH DEPTHS TO BE CONSTRUCTED AS REQUIRED BY THE RELEVANT SERVICE AND ITS BEDDING METHOD.

6. IF EXCAVATION IS NECESSARY BELOW THE LEVEL OF ADJACENT FOOTINGS, GIVE NOTICE, AND PROVIDE NECESSARY SUPPORT FOR THE FOOTINGS.
7. CLEAR TRENCHES OF SHARP PROJECTIONS. CUT BACK ROOTS ENCOUNTERED IN TRENCHES TO AT LEAST 600MM CLEAR OF SERVICES. REMOVE OTHER OBSTRUCTIONS INCLUDING STUMPS AND BOULDERS WHICH MAY INTERFERE WITH SERVICES OR BEDDING.

8. KEEP TRENCHES FREE OF WATER. PLACE BEDDING MATERIAL, SERVICES AND BACKFILLING ON FIRM GROUND FREE OF SURFACE WATER.

9. IF TRENCH EXCAVATION EXCEEDS THE CORRECT DEPTH, REINSTATE TO THE CORRECT DEPTH AND BEARING VALUE USING COMPACTED BEDDING MATERIAL OR GRADE 20MPA CONCRETE.

BACKFILLING

THESE REQUIREMENTS APPLY TO BACKFILL TO STORMWATER DRAINAGE TRENCHES AND SERVICE ACCESS POINTS. BEDDING AND OVERLAY TO A MINIMUM DEPTH OF 200MM ABOVE THE SERVICE SHALL BE PIPE BEDDING AS SPECIFIED BELOW UNLESS SPECIFIED OTHERWISE IN RELEVANT SERVICE SPECIFICATION. TRENCH BACKFILL ABOVE THIS LEVEL SHALL BE BACKFILL MATERIAL AS SPECIFIED BELOW. BEDDING, OVERLAY AND TRENCH BACKFILL TO BE COMPACTED IN ACCORDANCE WITH THE COMPACTION SCHEDULE. PLACE FILLING IN LAYERS NOT EXCEEDING 200MM COMPACTED LAYER THICKNESS.

PIPE BEDDING

UNLESS NOTED OTHERWISE IN "STORMWATER DRAINAGE" NOTES, PIPE BEDDING TO BE GRANULAR MATERIAL (CLEAN SHARP WASHED RIVER SAND OR CLEAN UNWEATHERED HARD BASALTIC OR SEDIMENTARY CRUSHED ROCK, FREE OF SALT, CLAY OR ORGANIC CONTAMINANTS) OR CEMENTITIOUS MATERIAL (MORTAR OR CONCRETE) AS SPECIFIED.

CRUSHED ROCK:

SLEVE APERTURE (mm) TO AS 1152	PERCENTAGE PASSING (BY MASS)
9.50	98 TO 100
6.70	50 TO 100
4.75	15 TO 75
2.36	0 TO 40
1.16	0 TO 5

CEMENT MORTAR BEDDING: 1 PORTLAND CEMENT: 4 SAND.
CONCRETE BEDDING: NOT LESS THAN 20 MPA.

BACKFILL MATERIAL

GENERAL: GENERAL FILL EXCEPT WITH NO STONES GREATER THAN 25 MM OCCURRING WITHIN 150 MM OF THE SERVICE, OR OTHER MATERIALS AS REQUIRED FOR PARTICULAR SERVICES OR LOCATIONS. WELL GRADED, INORGANIC, NON-PERISHABLE MATERIAL, MAXIMUM SIZE 75 MM, PLASTICITY INDEX * 55% AND CLASSIFIED AS CLASS A OR CLASS S MATERIAL IN TABLE 2.1 OF AS 2870. FILL MATERIAL TO HAVE A MINIMUM 4 DAY SOAKED CBR OF 4% IN ACCORDANCE WITH AS 1239.6.1.1 UNLESS NOTED OTHERWISE ON DRAWINGS. MATERIAL TO BE NON-DISPERSIVE (A RATING OF NIL AS DEFINED BY THE DISPERSION TEST AS 1239.3.8.1).

UNDER ROADS AND PAVED AREAS: COARSE SAND, FINE CRUSHED ROCK, OR 3% CEMENT STABILISED SAND.

IN TOPSOIL AREAS: COMPLETE THE BACKFILLING WITH TOPSOIL FOR AT LEAST THE TOP 50 MM.

AREA	COMPACTION RATIO % OF MAXIMUM DRY DENSITY OR DENSITY INDEX (DI)	MOISTURE % FROM OPTIMUM*
LANDSCAPE AREA		
BEDDING AND OVERLAY	70 (DI)	±2
TRENCH BACKFILL	70 (DI) OR 95% STANDARD	±2
UNDER OR WITHIN LINE OF INFLUENCE OF PAVEMENTS, STRUCTURES OR BUILDING SLABS		
BEDDING AND OVERLAY	80 (DI)	±2
TRENCH BACKFILL	80 (DI) OR 98% STANDARD	±2
PAVEMENT ZONE	98% MODIFIED	±2

SIGNS AND LINE MARKING

1. PAVEMENT MARKING AND SIGN POSTING ON PUBLIC ROADS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT ROAD AUTHORITY. THE CONTRACTOR SHALL OBTAIN THESE REQUIREMENTS FROM THE ROAD AUTHORITY.
2. PAVEMENT MARKING AND SIGN POSTING TO BE IN ACCORDANCE WITH R.T.A. 'INTERIM GUIDE TO SIGNS AND MARKINGS'.
3. CONTRACTOR IS TO PROVIDE GUIDE POSTS, SPACED IN ACCORDANCE WITH AS1742.2. THEY ARE TO BE LOCATED NEAR ALL HEAD WALLS AND PIPE OUTLETS.
4. RAISED PAVEMENT MARKERS TO BE IN ACCORDANCE WITH AS1742.2
5. WHERE EXISTING PAVEMENT MARKING CONFLICTS WITH PROPOSED, IT IS TO BE REMOVED.
6. LANE WIDTHS DO NOT INCLUDE WIDTH OF GUTTER.
7. LINE MARKING PLAN DOES NOT DEFINE BOUNDARIES.
8. ERECT TEMPORARY SIGN 'CHANGED TRAFFIC CONDITIONS AHEAD' 120M AHEAD OF NEW WORK IN BOTH DIRECTIONS.
9. ESTABLISH THE LOCATION OF EXISTING UTILITY SERVICES AND LOCATE NEW SIGNS CLEAR OF THESE INSTALLATIONS.
10. THE SLOPED FACE OF THE SF MEDIAN KERBS WHICH ADJOIN THROUGH LANES, ARE TO BE PAINTED WHITE IN LIEU OF AN E3 EDGE LINE. THE REFLECTIVE PAVEMENT MARKERS NORMALLY ASSOCIATED WITH AN E3 EDGE LINE ARE TO BE LOCATED ON THE PAVEMENT ADJACENT TO THE SF KERB.
11. BICYCLE PAVEMENT MARKINGS AND SIGN POSTING TO BE IN ACCORDANCE WITH AUSTROADS STANDARDS.
12. THE DESIGN OF MAJOR DIRECTIONAL SIGN POSTING TO BE PREPARED AND ASSESSED BY THE RELAVENT ROAD AUTHORITY

SAFETY IN DESIGN

EXISTING SERVICES
BEFORE EXCAVATING TRENCHES THROUGH EXISTING PAVEMENT, SAW-CUT EXISTING CONCRETE AND BITUMINOUS SURFACES ON EACH SIDE OF THE TRENCH TO PROVIDE A STRAIGHT EVEN JOINT. LIFT AND STORE UNIT PAVING FOR LATER REINSTATEMENT.

EXISTING STRUCTURES
CONTRACTOR TO BE AWARE EXISTING STRUCTURES MAY EXIST WITHIN THE SITE. TO PREVENT DAMAGE TO EXISTING STRUCTURE(S) AND/OR PERSONNEL, SITE WORKS TO BE CARRIED OUT AS FAR AS PRACTICABLY POSSIBLE FROM EXISTING STRUCTURE(S).

EXISTING TREES
CONTRACTOR TO BE AWARE EXISTING TREES EXIST WITHIN THE SITE WHICH NEED TO BE PROTECTED. TO PREVENT DAMAGE TO TREES AND/OR PERSONNEL, SITE WORKS TO BE CARRIED OUT AS FAR AS PRACTICABLY POSSIBLE FROM EXISTING TREES. ADVICE NEEDS TO BE SOUGHT FROM ARBORIST AND/OR LANDSCAPE ARCHITECT ON MEASURES REQUIRED TO PROTECT TREES.

GROUNDWATER
CONTRACTOR TO BE AWARE OF GROUNDWATER LEVELS CLOSE TO EXISTING SURFACE LEVEL. TEMPORARY DE-WATERING MAY BE REQUIRED DURING CONSTRUCTION WORKS.

EXCAVATIONS
DEEP EXCAVATIONS DUE TO STORMWATER DRAINAGE WORKS IS REQUIRED. CONTRACTOR TO ENSURE SAFE WORKING PROCEDURES ARE IN PLACE FOR WORKS. ALL EXCAVATIONS TO BE FENCED OFF AND BATTERS ADEQUATELY SUPPORTED TO APPROVAL OF GEOTECHNICAL ENGINEER.

GROUND CONDITIONS
CONTRACTOR TO BE AWARE OF THE SITE GEOTECHNICAL CONDITIONS. REFER TO THE GEOTECHNICAL REPORT FOR FURTHER INFORMATION.

HAZARDOUS MATERIALS
EXISTING ASBESTOS PRODUCTS & CONTAMINATED MATERIAL MAY BE PRESENT ON SITE. CONTRACTOR TO ENSURE ALL HAZARDOUS MATERIALS ARE IDENTIFIED PRIOR TO COMMENCING WORKS. SAFE WORKING PRACTISES AS PER RELEVANT AUTHORITY TO BE ADOPTED AND APPROPRIATE PPE TO BE USED WHEN HANDLING ALL HAZARDOUS MATERIALS. REFER TO GEOTECHNICAL REPORT FOR FURTHER INFORMATION.

CONFINED SPACES
CONTRACTOR TO BE AWARE OF POTENTIAL HAZARDS DUE TO WORKING IN CONFINED SPACES SUCH AS STORMWATER PITS, TRENCHES AND/OR TANKS. CONTRACTOR TO PROVIDE SAFE WORKING METHODS AND USE APPROPRIATE PPE WHEN ENTERING CONFINED SPACES.

MANUAL HANDLING
CONTRACTOR TO BE AWARE MANUAL HANDLING MAY BE REQUIRED DURING CONSTRUCTION. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ENSURE MANUAL HANDLING PROCEDURES AND ASSESSMENTS ARE IN PLACE PRIOR TO COMMENCING WORKS.

WATER POLLUTION
CONTRACTOR TO ENSURE APPROPRIATE MEASURES ARE TAKEN TO PREVENT POLLUTANTS FROM CONSTRUCTION WORKS CONTAMINATING THE SURROUNDING ENVIRONMENT, INCLUDING COUNCIL STORMWATER DRAINAGE SYSTEM.

SITE ACCESS/EGRESS
CONTRACTOR TO BE AWARE SITE WORKS OCCUR IN CLOSE PROXIMITY TO FOOTPATHS AND ROADWAYS. CONTRACTOR TO ERECT APPROPRIATE BARRIERS AND SIGNAGE TO PROTECT SITE PERSONNEL AND PUBLIC.

VEHICLE MOVEMENT
CONTRACTOR TO SUPPLY AND COMPLY WITH TRAFFIC MANAGEMENT PLAN AND PROVIDE ADEQUATE SITE TRAFFIC CONTROL INCLUDING A CERTIFIED TRAFFIC MARSHALL TO SUPERVISE VEHICLE MOVEMENTS WHERE NECESSARY.

ABBREVIATIONS

TOK	TOP OF KERB	EX	EXISTING LEVEL
IOK	INVERT OF KERB	FL	FINISHED LEVEL
BOK	BACK OF KERB	F*	FUTURE LEVEL
RCL	ROAD CENTRE LINE		
BDY	BOUNDARY	FFL	FINISHED FLOOR LEVEL
		SSL	STRUCTURAL SLAB LEVEL
TOW	TOP OF WALL		
BOW	BOTTOM OF WALL		
CL	COVER LEVEL		
IL	INVERT LEVEL		

SITEWORKS LEGEND

	Finished surface level
	Finished major contour
	Finished minor contour
	Property Boundary
	Kerb and Gutter
	Kerb Only
	Edge Strip
	Dish Drain
	Vehicular Crossing
	Pedestrian Kerb
	Ramp
	Stormwater pit and drain
	Grated Trench
	Ag Drain
	Grated Inlet / Floor Waste
	Concrete Endwall
	Gross Pollutant Trap
	Water Quality Treatment
	Inspection Opening with subsoil drainage line (100 dia) to be provided at the start of all AG
	Flushout point with subsoil drainage line (100 dia)
	Down pipe
	Rodding point
	Concrete encased stormwater line
	Overland Flowpath
	Wheelstop
	Retaining wall
	Batter
	Tool Joint
	Expansion Joint
	Dowelled Tool Joint
	Dowelled Expansion Joint
	Grass Swale
	Guard Rail
	Fence
	Tree Protection Zone
	Structural Root Zone

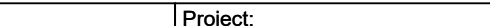
EXISTING SERVICES LEGEND

	TELECOMS
	GAS
	ELECTRICAL
	ELECTRICAL (OVERHEAD)
	WATER
	STORMWATER (WSU)
	STORMWATER (CoP)
	SEWER



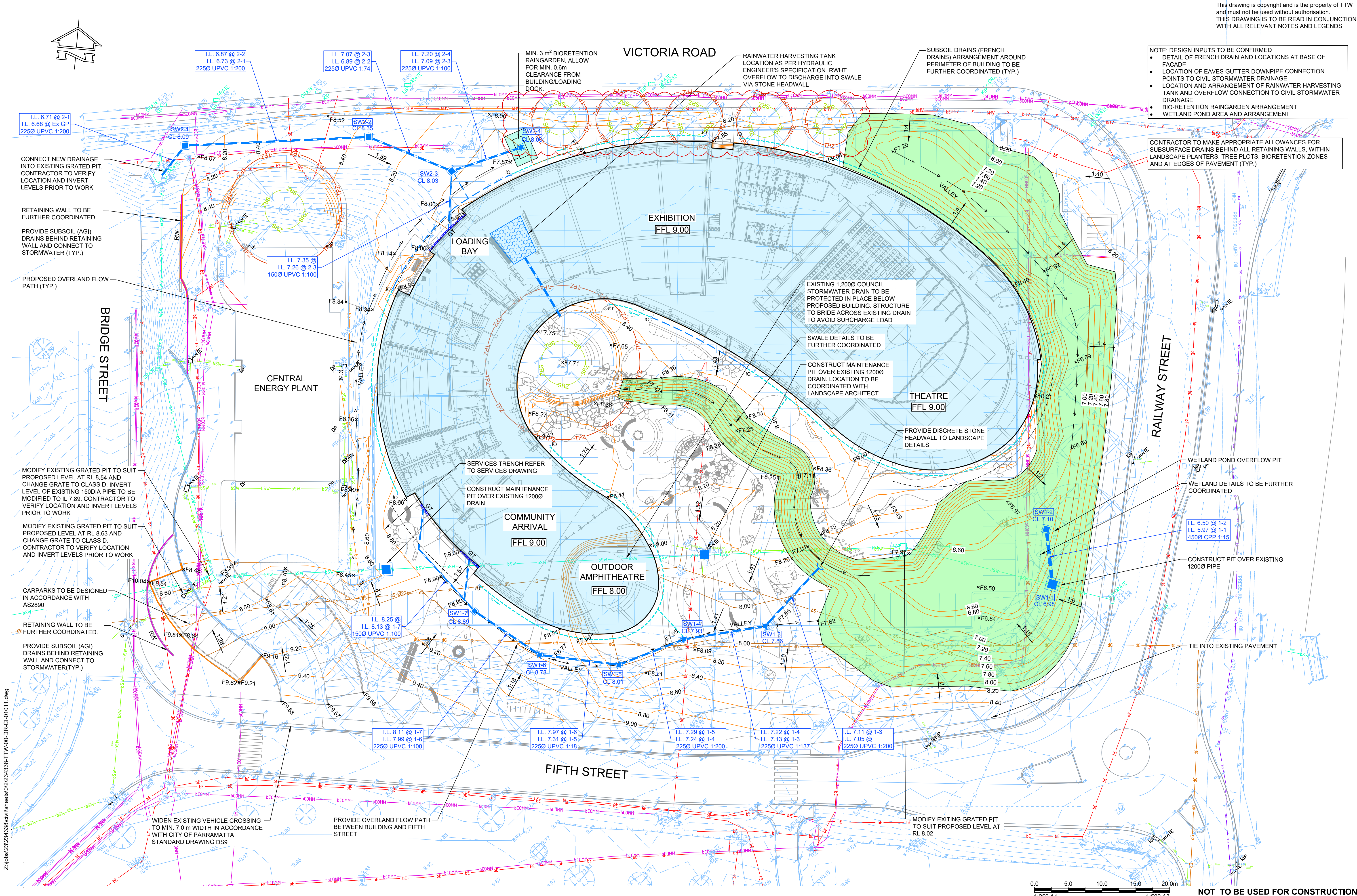
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						 BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN			Client: 			Engineer: 			Project: WSU INDIGENOUS CENTRE OF EXCELLENCE			Drawing Title: GENERAL NOTES AND LEGEND SHEET 2			Scale at A1 NA TTW Job number: 234338			Drawn VV			Designed JLE			Approved RP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

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NOTE: DESIGN INPUTS TO BE CONFIRMED

- DETAIL OF FRENCH DRAIN AND LOCATIONS AT BASE OF FACADE
- LOCATION OF EAVES GUTTER DOWNPIPE CONNECTION POINTS TO CIVIL STORMWATER DRAINAGE
- LOCATION AND ARRANGEMENT OF RAINWATER HARVESTING TANK AND OVERFLOW CONNECTION TO CIVIL STORMWATER DRAINAGE
- BIO-RETENTION RAINGARDEN ARRANGEMENT
- WETLAND POND AREA AND ARRANGEMENT

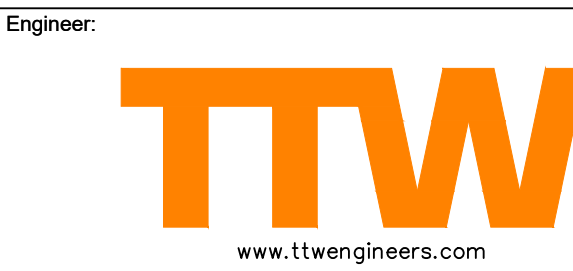
CONTRACTOR TO MAKE APPROPRIATE ALLOWANCES FOR SUBSURFACE DRAINS BEHIND ALL RETAINING WALLS, WITHIN LANDSCAPE PLANTERS, TREE PLOTS, BIORETENTION ZONES AND AT EDGES OF PAVEMENT (TYP.)

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Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
5	SSDA SUBMISSION	JLE	JLE	28.11.2025					
4	SSDA SUBMISSION	JLE	JLE	07.10.2025					
3	SSDA SUBMISSION	JLE	JLE	01.04.2025					
2	SSDA SUBMISSION	JLE	JLE	27.02.2025					
1	SSDA SUBMISSION	JLE	AE	08.05.2024					



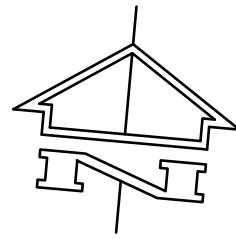
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Project: WSU
INDIGENOUS CENTRE
OF EXCELLENCE

Drawing Title:
CIVIL
SITE PLAN

Scale at A1	Drawn	Designed	Approved
1:250	VV	JLE	RP
TTW Job number: 234338			
Project Code	Campus	Building	Originator
			Discipline
			Sheet No.
			Rev
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28.11.2025 12:18 PM			



VICTORIA ROAD

CUT AND FILL VOLUME ESTIMATES

ICOE
CUT 1600 m³
FILL 6700 m³

FX.XX DENOTES CUT AND FILL DEPTH FROM THE NATURAL SURFACE TO THE DESIGN FINISHED SURFACE

- NOTES:
- NO BULKING FACTOR APPLIED.
 - CUT AND FILL VOLUME ESTIMATES CALCULATED FROM THE NATURAL SURFACE TO THE DESIGNED FINISHED SURFACE.
 - NO VOLUME ALLOWANCE HAS BEEN MADE FOR EXCAVATIONS REQUIRED FOR STRUCTURAL SLABS, BENCHING FOR PAVEMENTS, REMOVAL OF EXISTING TOP SOIL, UNCONTROLLED FILL, STRUCTURAL FOOTINGS, THICKENING, EDGE BEAMS, SERVICE TRENCHING, GRUBBING OF TREES ETC.
 - FOR RE-USE OF SITE WON MATERIAL, REFERENCE SHOULD BE MADE TO THE GEOTECHNICAL REPORT. THE CONTRACTOR IS TO MAKE ALLOWANCE FOR SORTING/TESTING AND HANDLING OF ANY FILL MATERIAL PROPOSED FOR RE-USE. ALL TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE.
 - REFER TO GEOTECHNICAL REPORT PREPARED BY DOUGLAS PARTNERS 227190.00.R.001.REV1 DATED 2 MAY 2024 FOR EARTHWORKS, SUBGRADE PREPARATION REQUIREMENTS (SECTION 8.3) AND GROUND SLABS & PAVEMENTS (SECTION 8.11). THE CONTRACTORS SHALL FAMILIARISE THEMSELVES WITH THE EXISTING SITE CONDITIONS PRIOR TO COMMENCING WORKS.
 - WORKS WITHIN CLOSE PROXIMITY TO EXISTING RETAINED TREES TO BE SUPERVISED BY A SUITABLY QUALIFIED ARBORIST.
 - CONTRACTORS SHALL UNDERTAKE APPROPRIATE MEASURES TO LIMIT EXPOSURE AND MOISTURE INGRESS INTO THE EXPOSED NATURAL SUBGRADE (ALLUVIUM HIGH PLASTICITY CLAY) DURING WORKS.
 - THE CONTRACTOR SHALL UNDERTAKE A DILAPIDATION SURVEY OF EXISTING PAVEMENTS AROUND THE EXTENT OF WORKS PRIOR TO COMMENCING WORKS. DAMAGE TO EXISTING PAVEMENTS OUTSIDE THE LIMIT OF WORKS SHALL BE REMEDIATED AND MADE GOOD AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO OBTAIN ALL NECESSARY AUTHORITY PERMITS & APPROVALS.

LEVELS TABLE

No.	FROM LEVEL (m)	TO LEVEL (m)	COLOUR
1	-2.00	-1.50	
2	-1.50	-1.00	
3	-1.00	-0.50	
4	-0.50	-0.15	
5	0.15	0.50	
6	0.50	1.00	
7	1.00	1.50	
8	1.50	2.00	

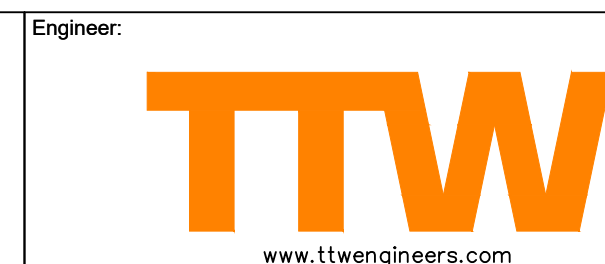
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Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
4	SSDA SUBMISSION	JLE	JLE	28.11.2025					
3	SSDA SUBMISSION	JLE	JLE	07.10.2025					
2	SSDA SUBMISSION	JLE	JLE	27.02.2025					
1	SSDA SUBMISSION	JLE	AE	08.05.2024					



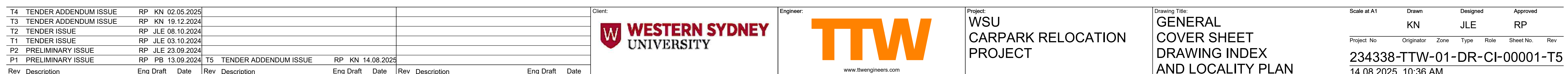
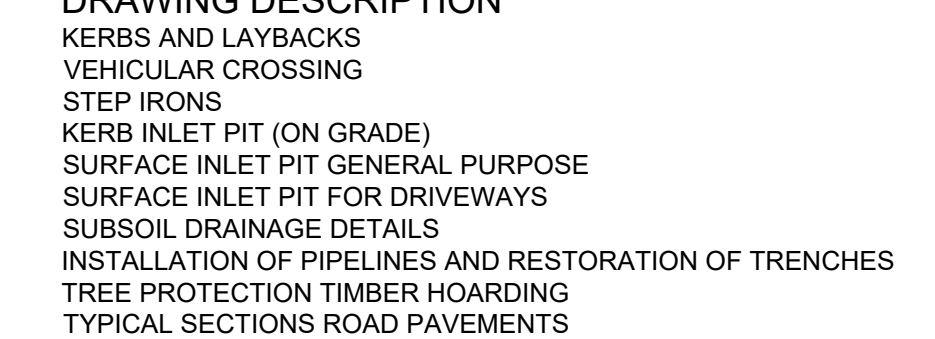
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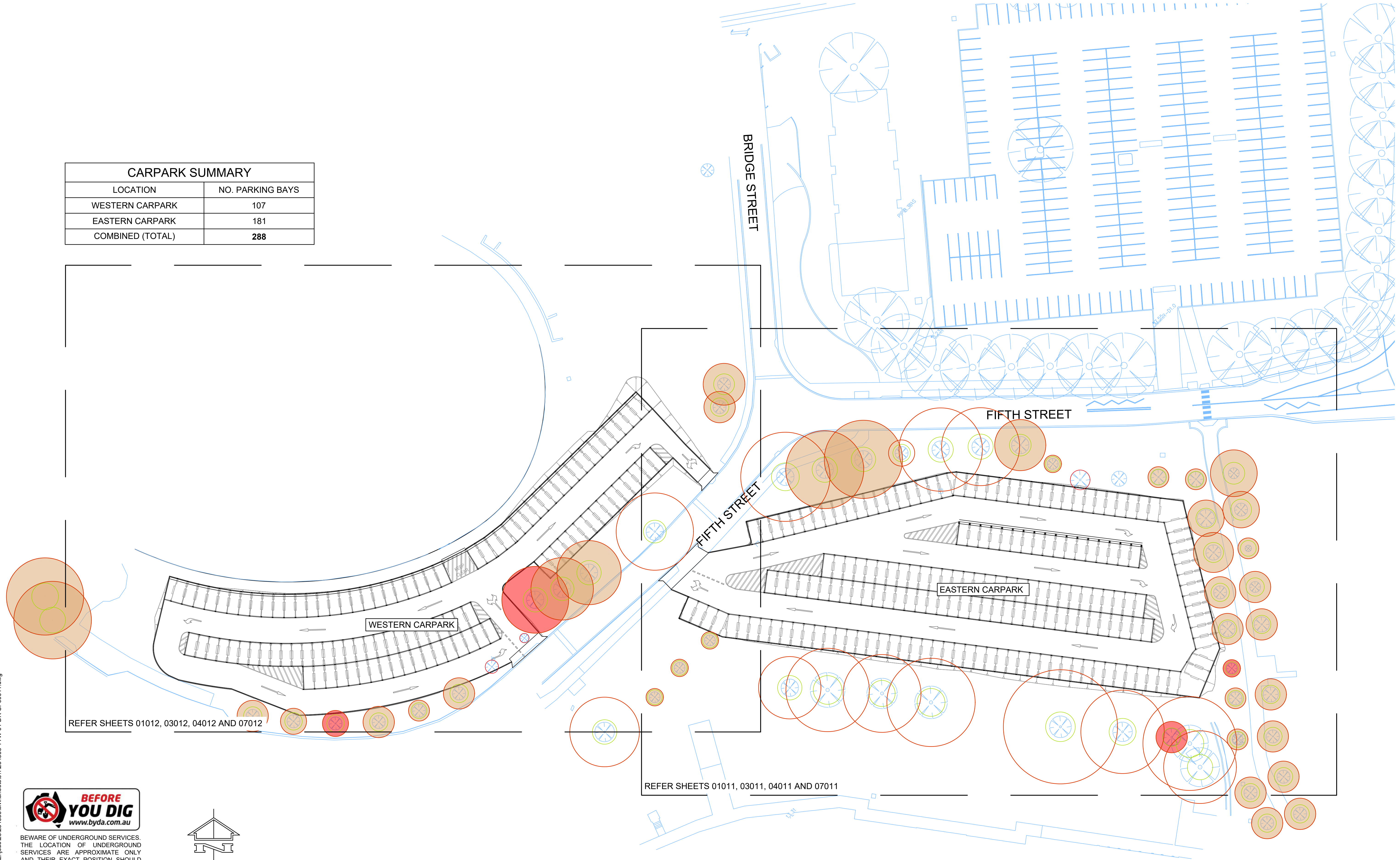


Project:
WSU
INDIGENOUS CENTRE
OF EXCELLENCE

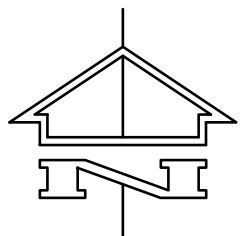
Drawing Title:
EARTHWORKS
CUT AND FILL
VOLUMES PLAN

Scale at A1
1:250
TTW Job number: 234338
Project Code Campus Building Originator Discipline Sheet No. Rev
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BEWARE OF UNDERGROUND SERVICES.
THE LOCATION OF UNDERGROUND
SERVICES ARE APPROXIMATE ONLY
AND THEIR EXACT POSITION SHOULD
BE PROVEN ON SITE. NO GUARANTEE IS
GIVEN THAT ALL EXISTING SERVICES
ARE SHOWN



0.0 8.0 16.0 24.0 32.0m

1:400 A1 1:800 A3

T4	TENDER ADDENDUM ISSUE	RP KN 02.05.2025		
T3	TENDER ADDENDUM ISSUE	RP KN 19.12.2024		
T2	TENDER ISSUE	RP JLE 08.10.2024		
T1	TENDER ISSUE	RP JLE 03.10.2024		
P2	PRELIMINARY ISSUE	RP JLE 23.09.2024		
P1	PRELIMINARY ISSUE	RP PB 13.09.2024		
Rev	Description	Eng Draft	Date	Rev Description Eng Draft Date

Client:  **WESTERN SYDNEY**
UNIVERSITY

Engineer:

TTW

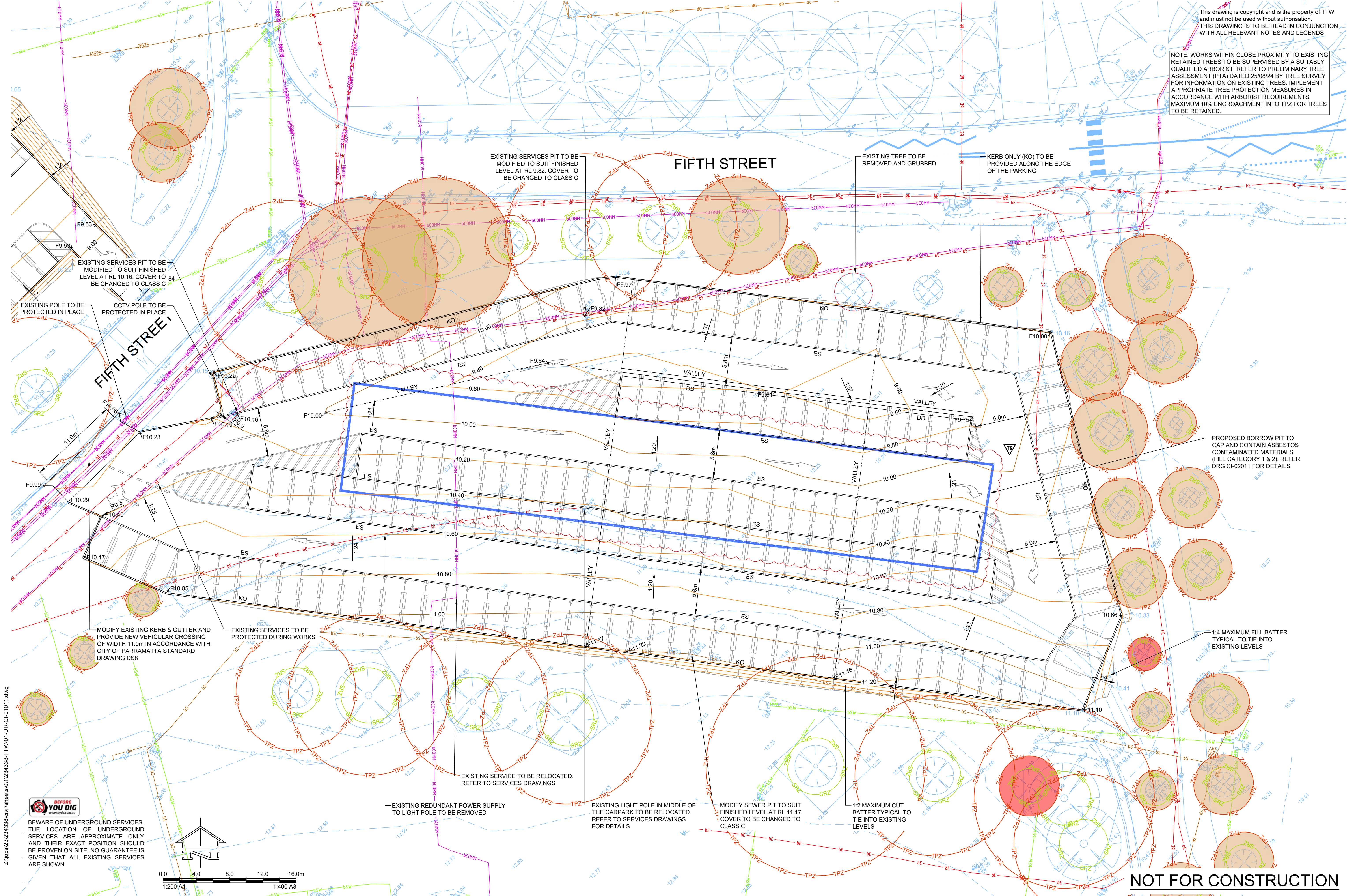
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Project:
WSU
CARPARK RELOCATION
PROJECT

Drawing Title:
**GENERAL
ARRANGEMENT PLAN**

NOT FOR CONSTRUCTION

Scale at A1	Drawn	Designed			Approved	
1:400	KN	JLE			RP	
Project No	Originator	Zone	Type	Role	Sheet No.	Rev
234338-TTW-01-DR-CI-00011-T4						
14.08.2025 10:53 AM						



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NOTE: WORKS WITHIN CLOSE PROXIMITY TO EXISTING RETAINED TREES TO BE SUPERVISED BY A SUITABLY QUALIFIED ARBORIST. REFER TO PRELIMINARY TREE ASSESSMENT (PTA) DATED 25/08/24 BY TREE SURVEY FOR INFORMATION ON EXISTING TREES. IMPLEMENT APPROPRIATE TREE PROTECTION MEASURES IN ACCORDANCE WITH ARBORIST REQUIREMENTS. MAXIMUM 10% ENCROACHMENT INTO TPZ FOR TREES TO BE RETAINED.

PROPOSED BORROW PIT TO CAP AND CONTAIN ASBESTOS CONTAMINATED MATERIALS (FILL CATEGORY 1 & 2). REFER DRG CI-02011 FOR DETAILS

1:4 MAXIMUM FILL BATTER TYPICAL TO TIE INTO EXISTING LEVELS

NOT FOR CONSTRUCTION

T4	TENDER ADDENDUM ISSUE	RP	KN	02.05.2025					
T3	TENDER ADDENDUM ISSUE	RP	KN	19.12.2024					
T2	TENDER ISSUE	RP	JLE	08.10.2024					
T1	TENDER ISSUE	RP	JLE	03.10.2024					
P2	PRELIMINARY ISSUE	RP	JLE	23.09.2024	T6	TENDER ADDENDUM ISSUE	RP	KN	27.10.2025
P1	PRELIMINARY ISSUE	RP	PB	13.09.2024	T5	TENDER ADDENDUM ISSUE	RP	KN	14.08.2025
Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date

Client:
WESTERN SYDNEY UNIVERSITY

Engineer:
TTW
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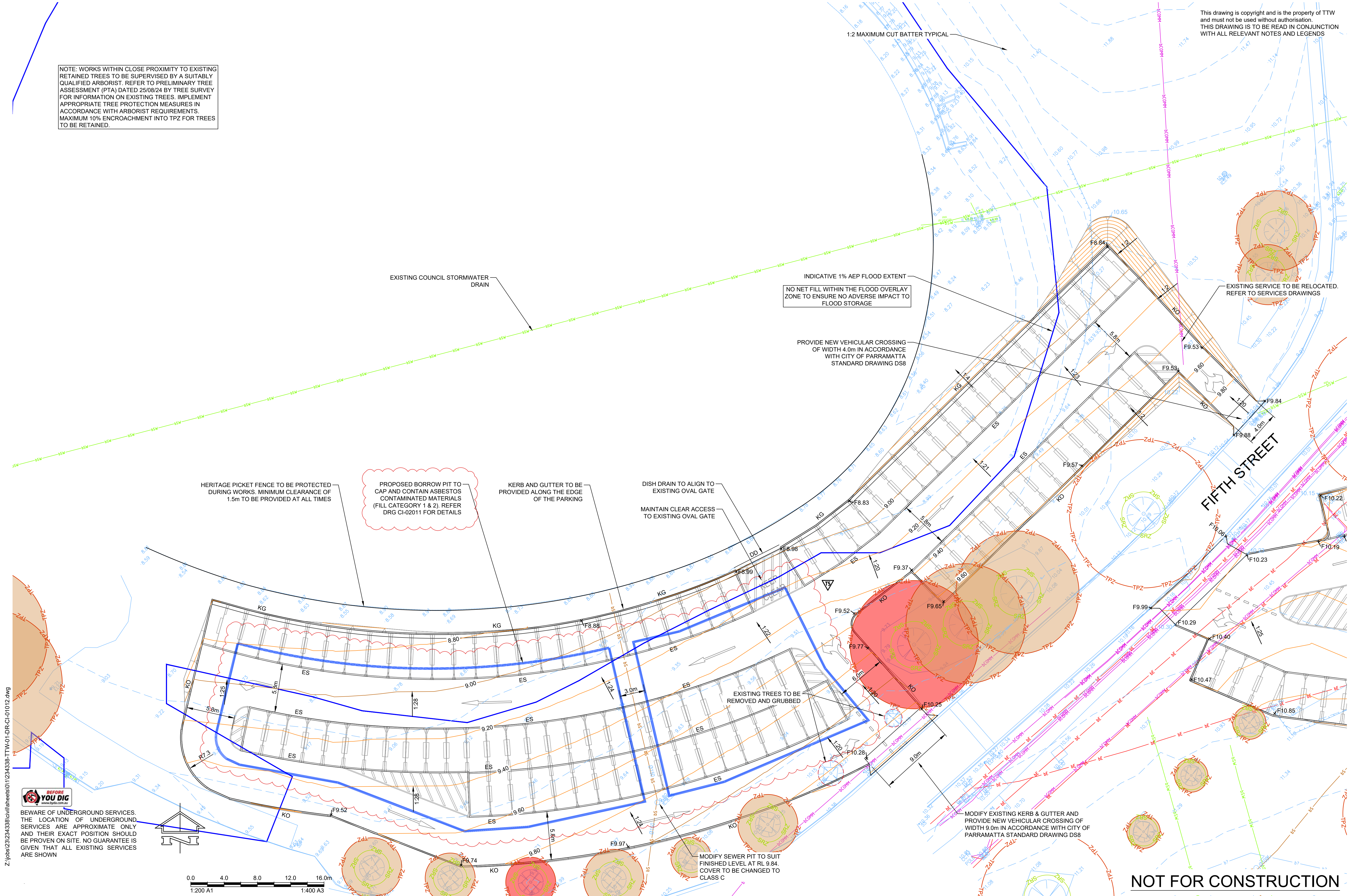
Project:
WSU CARPARK RELOCATION PROJECT

Drawing Title:
GEOMETRY SITE PLAN SHEET 1

Scale at A1
1:200
Project No
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27.10.2025 3:04 PM
Drawn
KN
Designed
JLE
Approved
RP
Project No
Originator
Zone
Type
Role
Sheet No.
Rev

NOTE: WORKS WITHIN CLOSE PROXIMITY TO EXISTING RETAINED TREES TO BE SUPERVISED BY A SUITABLY QUALIFIED ARBORIST. REFER TO PRELIMINARY TREE ASSESSMENT (PTA) DATED 25/08/24 BY TREE SURVEY FOR INFORMATION ON EXISTING TREES. IMPLEMENT APPROPRIATE TREE PROTECTION MEASURES IN ACCORDANCE WITH ARBORIST REQUIREMENTS. MAXIMUM 10% ENCROACHMENT INTO TPZ FOR TREES TO BE RETAINED.

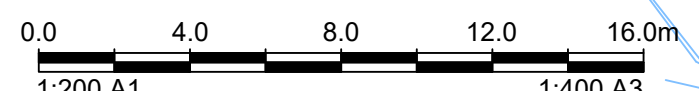
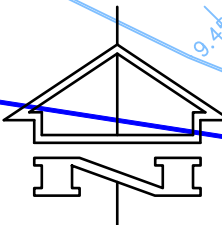
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BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN



T4	TENDER ADDENDUM ISSUE	RP	KN	02.05.2025					
T3	TENDER ADDENDUM ISSUE	RP	KN	19.12.2024					
T2	TENDER ISSUE	RP	JLE	08.10.2024					
T1	TENDER ISSUE	RP	JLE	03.10.2024					
P2	PRELIMINARY ISSUE	RP	JLE	23.09.2024					
P1	PRELIMINARY ISSUE	RP	PB	13.09.2024					
Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date



Project:
**WSU
CARPARK RELOCATION
PROJECT**

Drawing Title:
**GEOMETRY
SITE PLAN
SHEET 2**

Scale at A1
1:200
Project No
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Drawn	Designed	Approved
KN	JLE	RP
Originator	Zone	Type
Role	Sheet No.	Rev

CUT AND FILL VOLUME ESTIMATES

EASTERN CARPARK
CUT 940 m³
FILL 110 m³

WESTERN CARPARK
CUT 310 m³
FILL 190 m³

FX.XX DENOTES CUT AND FILL DEPTH FROM THE NATURAL SURFACE TO THE DESIGN FINISHED SURFACE

DENOTES PROPOSED ACM BORROW PIT EXTENT AS PER RAP REQUIREMENTS - SEE NOTE 4 & ASBESTOS CONTAMINATED MATERIALS VOLUMES AND BORROW PIT NOTES

NOTES:

- NO BULKING FACTOR APPLIED.
- CUT AND FILL VOLUME ESTIMATES CALCULATED FROM THE NATURAL SURFACE TO THE DESIGNED FINISHED SURFACE.
- NO VOLUME ALLOWANCE HAS BEEN MADE FOR EXCAVATIONS REQUIRED FOR SERVICE TRENCHINGS, THICKENINGS, BORROW PITS TO CAP AND CONTAIN ASBESTOS CONTAMINATED MATERIALS AS DESCRIBED IN THE REMEDIATION ACTION PLAN (RAP) BY DOUGLAS PARTNERS ETC. THE CONTRACTOR SHALL MAKE THEIR OWN ALLOWANCE AS REQUIRED TO COMPLETE BULK EARTHWORKS.
- CONTRACTOR TO BE AWARE OF ASBESTOS CONTAMINATED MATERIALS (ACM) PRESENT ON SITE. REMEDIATION OF ACM EXPOSED ON SITE SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE REQUIREMENTS NOTED IN THE REMEDIATION ACTION PLAN BY DOUGLAS PARTNERS. ACM VOLUMES ARE INDICATIVE ONLY AND ARE BASED ON REPORT BY DOUGLAS PARTNERS. ACTUAL VOLUME OF ACM MAY VARY. REFER ASBESTOS CONTAMINATED MATERIALS VOLUME AND BORROW PIT NOTES FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR TO MAKE ALLOWANCE FOR DISPOSAL OF SITE WON MATERIAL. FOR RE-USE OF SITE WON MATERIAL, REFERENCE SHOULD BE MADE TO THE GEOTECHNICAL REPORT. THE CONTRACTOR IS TO MAKE ALLOWANCE FOR SORTING/TESTING AND HANDLING OF ANY FILL MATERIAL PROPOSED FOR RE-USE.
- REFER TO GEOTECHNICAL REPORT PREPARED BY DOUGLAS PARTNERS 227191.00.R.001.REV0 DATED 15 NOVEMBER 2024 FOR SUBGRADE PREPARATION.
- WORKS WITHIN CLOSE PROXIMITY TO EXISTING RETAINED TREES TO BE SUPERVISED BY A SUITABLY QUALIFIED ARBORIST.
- THE CONTRACTOR SHALL UNDERTAKE A DILAPIDATION SURVEY OF EXISTING PAVEMENTS AROUND THE EXTENT OF WORKS PRIOR TO COMMENCING WORKS. DAMAGE TO EXISTING PAVEMENTS OUTSIDE THE LIMIT OF WORKS SHALL BE REMEDIATED AND MADE GOOD AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO OBTAIN ALL NECESSARY AUTHORITY PERMITS & APPROVALS.

ASBESTOS CONTAMINATED MATERIALS VOLUMES AND BORROW PIT NOTES

ASBESTOS CONTAMINATED MATERIALS (ACM) VOLUMES SHOWN ARE PRELIMINARY ESTIMATES ONLY, DERIVED FROM AVAILABLE ENVIRONMENTAL INVESTIGATIONS AND GEOTECHNICAL TEST PIT DATA PROVIDED BY DOUGLAS PARTNERS.

ESTIMATES ARE BASED ON ASSUMED CONTAMINATION EXTENTS FROM THE REMEDIATION ACTION PLAN (RAP) AND MAY NOT REFLECT ACTUAL SITE CONDITIONS. ACTUAL VOLUME OF ACM MAY VARY.

TTW DRAWINGS SHOW DESIGN INTENT ONLY. BORROW PIT LOCATIONS, EXTENTS, LEVELS AND VOLUMES ARE INDICATIVE ONLY.

THE CONTRACTOR SHALL UNDERTAKE THEIR OWN SITE INVESTIGATIONS AND DETAILED DESIGN TO FINALISE THE BORROW PIT VOLUME AND ARRANGEMENT IN ACCORDANCE WITH:

- GEOTECHNICAL REPORT BY DOUGLAS PARTNERS 227191.00.R.001Rev0 DATED 15 NOVEMBER 2024
- REMEDIATION ACTION PLAN BY DOUGLAS PARTNERS 227190.04.R.001Rev0 DATED 14 AUGUST 2025
- TTW DRAWINGS (DESIGN INTENT ONLY)

THE DETAILED DESIGN SHALL BE CERTIFIED BY A SUITABLY QUALIFIED CIVIL AND/OR GEOTECHNICAL ENGINEER ENGAGED BY THE CONTRACTOR AND SUBMITTED TO THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.

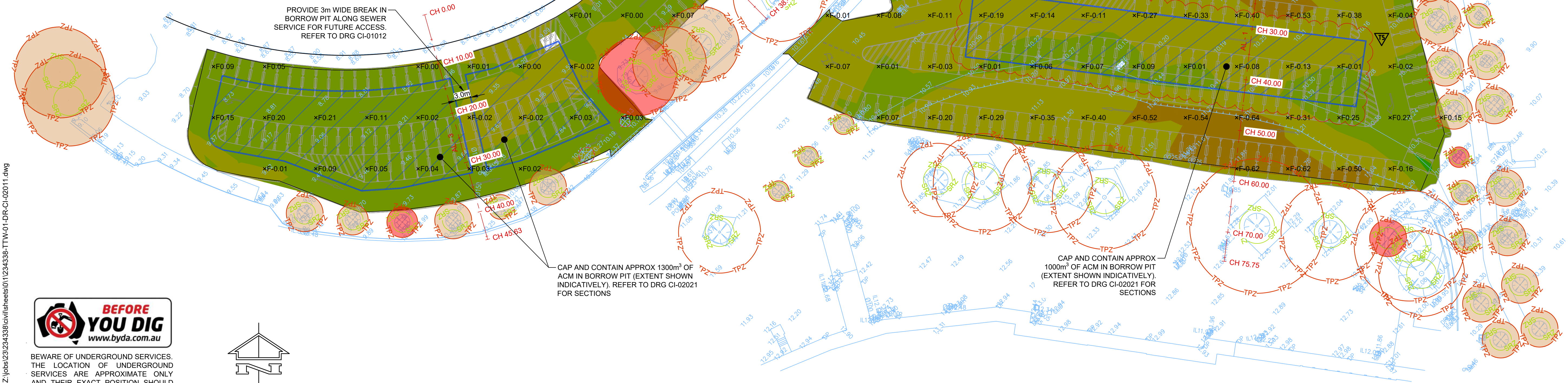
CONTRACTOR TO ALLOW FOR ALL NECESSARY ELEMENTS TO CONSTRUCT BORROW PITS INCLUDING BUT NOT LIMITED TO; TEMPORARY DEWATERING, MARKER LAYERS, GEOTEXTILES, GEOGRIDS, CAPPING LAYERS ETC. AS DESCRIBED IN THE GEOTECHNICAL REPORT AND RAP.

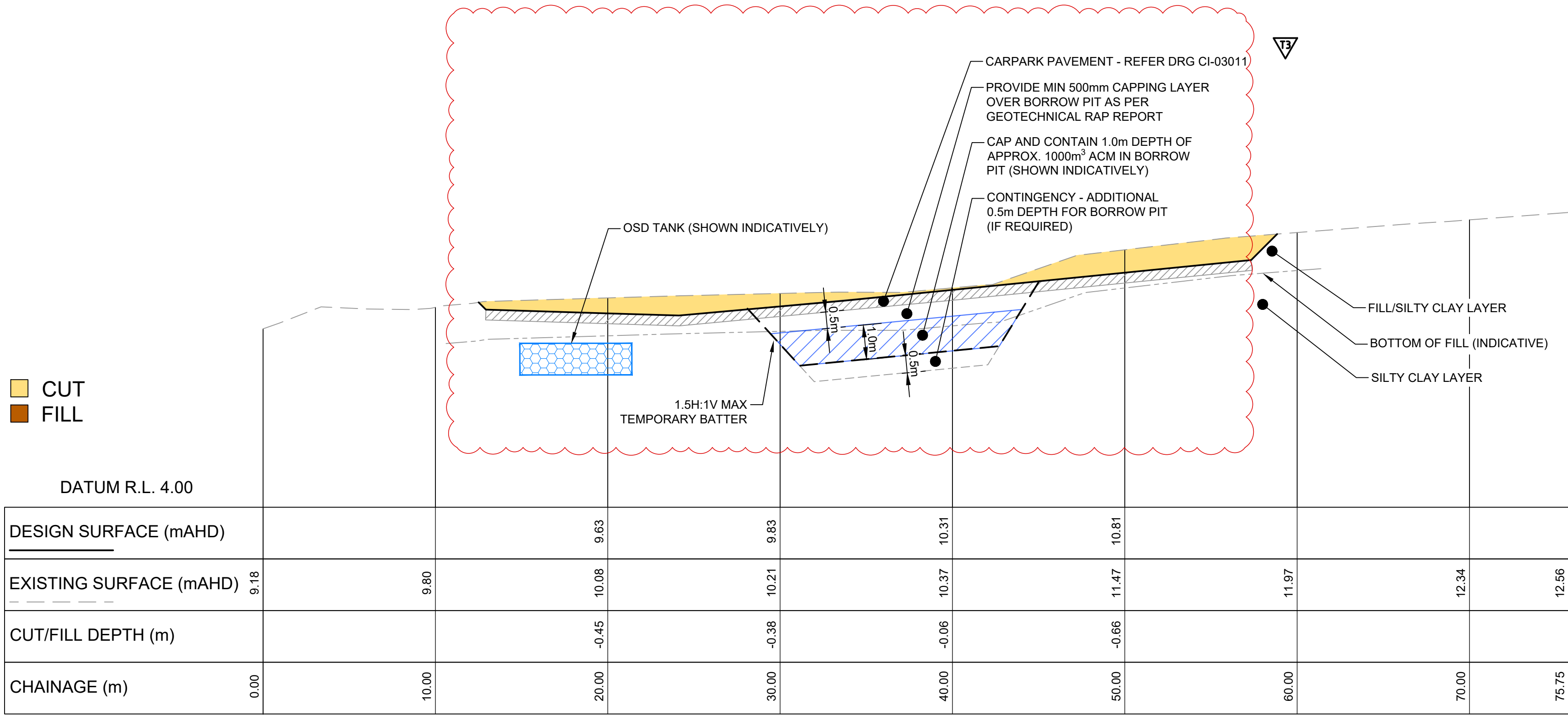
NOTE: WORKS WITHIN CLOSE PROXIMITY TO EXISTING RETAINED TREES TO BE SUPERVISED BY A SUITABLY QUALIFIED ARBORIST. REFER TO PRELIMINARY TREE ASSESSMENT (PTA) DATED 25/08/24 BY TREE SURVEY FOR INFORMATION ON EXISTING TREES. IMPLEMENT APPROPRIATE TREE PROTECTION MEASURES IN ACCORDANCE WITH ARBORIST REQUIREMENTS. MAXIMUM 10% ENCROACHMENT INTO TPZ FOR TREES TO BE RETAINED.

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LEVELS TABLE

No.	FROM LEVEL (m)	TO LEVEL (m)	COLOUR
1	-2.00	-1.50	
2	-1.50	-1.00	
3	-1.00	-0.50	
4	-0.50	0.00	
5	0.00	0.50	
6	0.50	1.00	





LONGITUDINAL SECTION AL - 1
SCALES: HORIZONTAL 1:200 VERTICAL 1:100

ASBESTOS CONTAMINATED MATERIALS VOLUMES AND BORROW PIT NOTES

ASBESTOS CONTAMINATED MATERIALS (ACM) VOLUMES SHOWN ARE PRELIMINARY ESTIMATES ONLY, DERIVED FROM AVAILABLE ENVIRONMENTAL INVESTIGATIONS AND GEOTECHNICAL TEST PIT DATA PROVIDED BY DOUGLAS PARTNERS.

ESTIMATES ARE BASED ON ASSUMED CONTAMINATION EXTENTS FROM THE REMEDIATION ACTION PLAN (RAP) AND MAY NOT REFLECT ACTUAL SITE CONDITIONS. ACTUAL VOLUME OF ACM MAY VARY.

TTW DRAWINGS SHOW DESIGN INTENT ONLY. BORROW PIT LOCATIONS, EXTENTS, LEVELS AND VOLUMES ARE INDICATIVE ONLY.

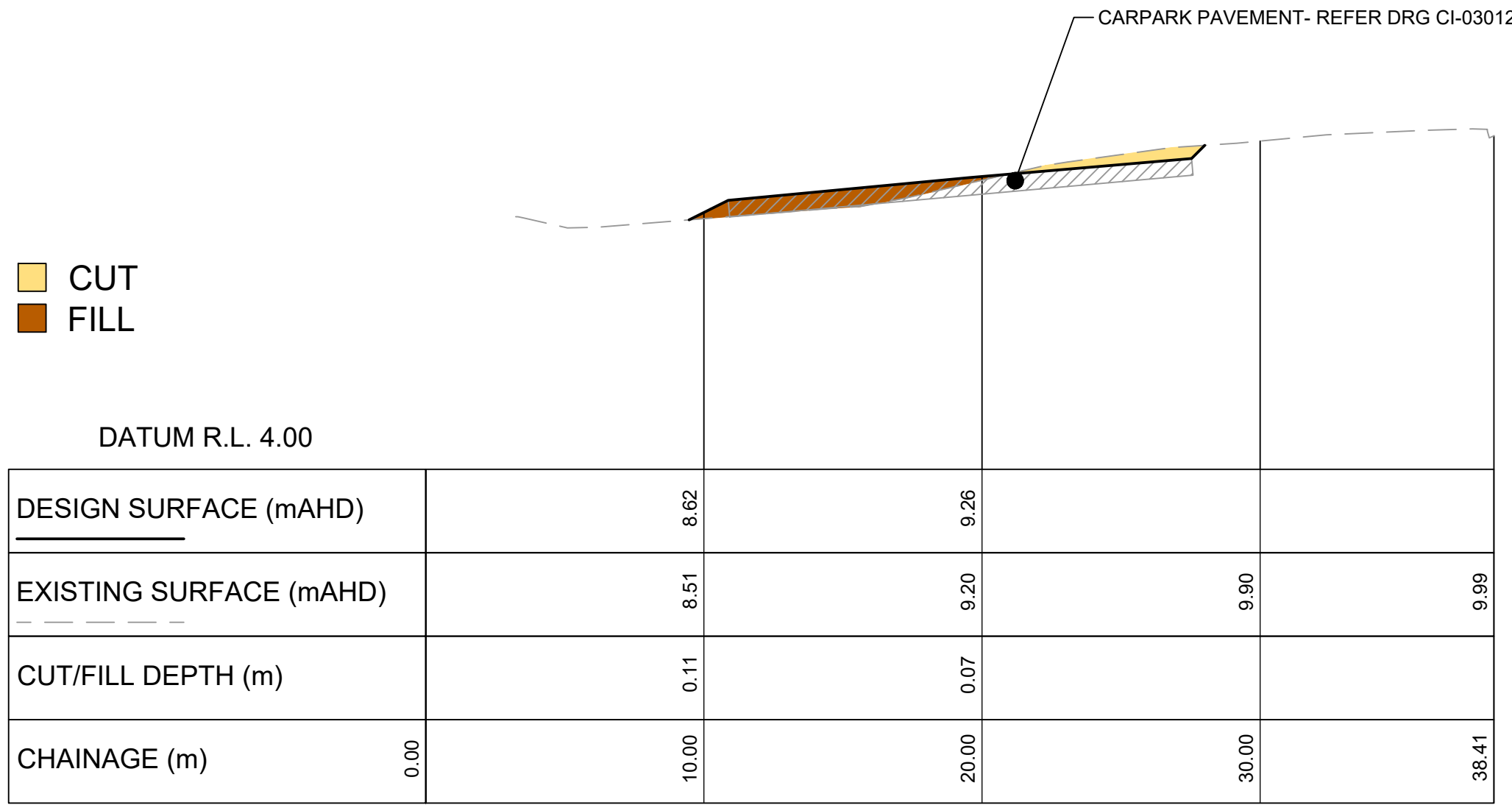
THE CONTRACTOR SHALL UNDERTAKE THEIR OWN SITE INVESTIGATIONS AND DETAILED DESIGN TO FINALISE THE BORROW PIT VOLUME AND ARRANGEMENT IN ACCORDANCE WITH:

- GEOTECHNICAL REPORT BY DOUGLAS PARTNERS 227191.00.R.001Rev0 DATED 15 NOVEMBER 2024
- REMEDIATION ACTION PLAN BY DOUGLAS PARTNERS 227190.04.R.001Rev0 DATED 14 AUGUST 2025
- TTW DRAWINGS (DESIGN INTENT ONLY)

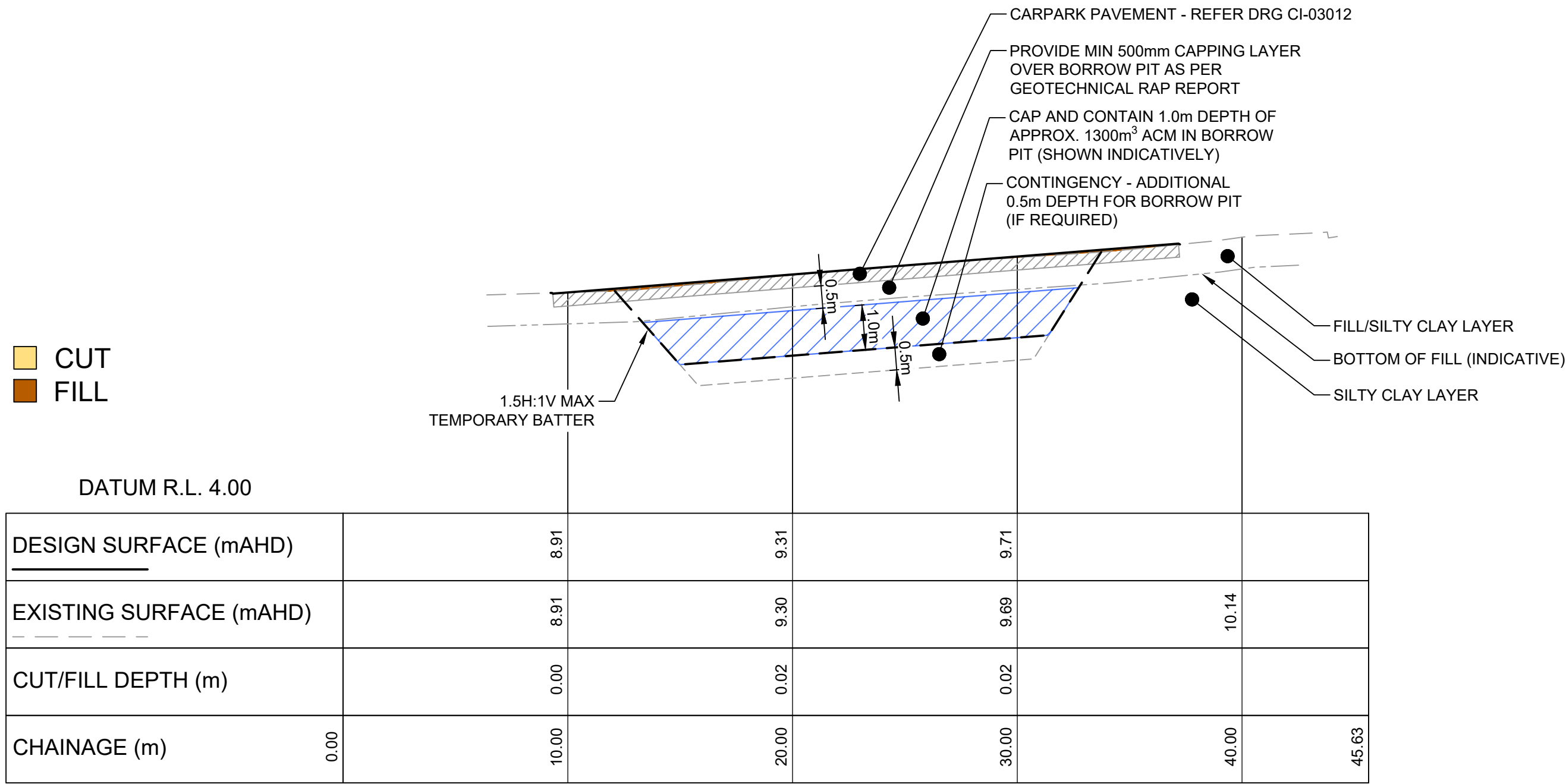
THE DETAILED DESIGN SHALL BE CERTIFIED BY A SUITABLY QUALIFIED CIVIL AND/OR GEOTECHNICAL ENGINEER ENGAGED BY THE CONTRACTOR AND SUBMITTED TO THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.

CONTRACTOR TO ALLOW FOR ALL NECESSARY ELEMENTS TO CONSTRUCT BORROW PITS INCLUDING BUT NOT LIMITED TO; TEMPORARY DEWATERING, MARKER LAYERS, GEOTEXTILES, GEOGRIDS, CAPPING LAYERS ETC. AS DESCRIBED IN THE GEOTECHNICAL REPORT AND RAP.

THE NATURAL SILTY CLAY/BOTTOM OF FILL LEVEL SHOWN IN THE LONGITUDINAL SECTIONS ARE INDICATIVE ONLY BASED ON GEOTECHNICAL BOREHOLE INFORMATION AND IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. CONTRACTOR SHALL CONFIRM EXACT DEPTH TO THE NATURAL SILTY CLAY ON SITE. DEPTH MAY VARY ACROSS SITE.

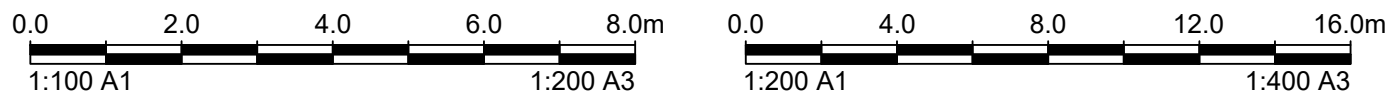


LONGITUDINAL SECTION AL - 2
SCALES: HORIZONTAL 1:200 VERTICAL 1:100



LONGITUDINAL SECTION AL - 3
SCALES: HORIZONTAL 1:200 VERTICAL 1:100

Z:\jobs\23\234338\civil\sheets\01\234338-TTW-01-DR-CI-02021.dwg



T3	TENDER ADDENDUM ISSUE	RP	KN	27.10.2025	
T2	TENDER ADDENDUM ISSUE	RP	KN	14.08.2025	
T1	TENDER ADDENDUM ISSUE	RP	KN	02.05.2025	
Rev	Description	Eng	Draft	Date	

Client:	
	WESTERN SYDNEY UNIVERSITY

Engineer:	
	TTW www.ttwengineers.com

Project:	
	WSU CARPARK RELOCATION PROJECT

Drawing Title:	
	EARTHWORKS SITE SECTIONS

Scale at A1	Drawn	Designed	Approved
AS SHOWN	KN	JLE	RP
Project No	Originator	Zone	Type
234338-TTW-01-DR-CI-02021-T3			
27.10.2025	1:03 PM		

NOT FOR CONSTRUCTION

PAVEMENT LEGEND

- P1

VEHICULAR ASPHALT PAVEMENT
REFER TO CITY OF PARRAMATTA COUNCIL STANDARD
DRAWING DS47 PAVEMENT FOR OFF-STREET CAR PARK.
PROVIDE BIDIM A29 GEOTEXTILE.
- P2

VEHICULAR CONCRETE PAVEMENT
REFER TO CITY OF PARRAMATTA COUNCIL STANDARD
DRAWING DS8
- P3

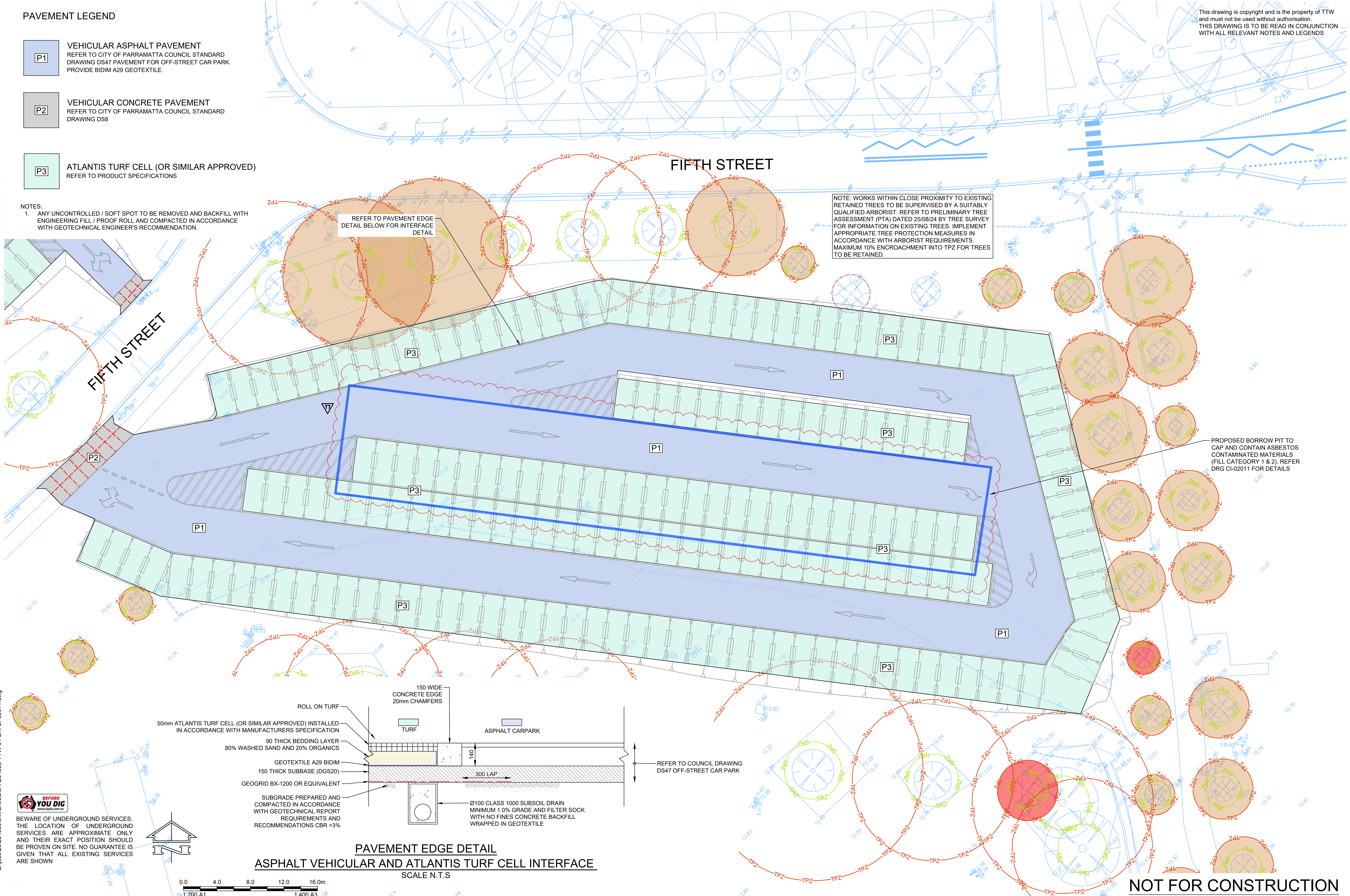
ATLANTIS TURF CELL (OR SIMILAR APPROVED)
REFER TO PRODUCT SPECIFICATIONS

NOTES:
1. ANY UNCONTROLLED / SOFT SPOT TO BE REMOVED AND BACKFILL WITH
ENGINEERING FILL / PROOF ROLL AND COMPACTED IN ACCORDANCE
WITH GEOTECHNICAL ENGINEER'S RECOMMENDATION.

REFER TO PAVEMENT EDGE
DETAIL BELOW FOR INTERFACE
DETAIL

NOTE: WORKS WITHIN CLOSE PROXIMITY TO EXISTING
RETAINED TREES TO BE SUPERVISED BY A SUITABLY
QUALIFIED ARBORIST. REFER TO PRELIMINARY TREE
ASSESSMENT (PTA) DATED 25/08/24 BY TREE SURVEY
FOR INFORMATION ON EXISTING TREES. IMPLEMENT
APPROPRIATE TREE PROTECTION MEASURES IN
ACCORDANCE WITH ARBORIST REQUIREMENTS.
MAXIMUM 10% ENCROACHMENT INTO TPZ FOR TREES
TO BE RETAINED.

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WITH ALL RELEVANT NOTES AND LEGENDS



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T4	TENDER ADDENDUM ISSUE	RP	KN	02.05.2025					
T3	TENDER ADDENDUM ISSUE	RP	KN	19.12.2024					
T2	TENDER ISSUE	RP	JLE	08.10.2024					
T1	TENDER ISSUE	RP	JLE	03.10.2024	T7	TENDER ADDENDUM ISSUE	RP	KN	27.10.2025
P2	PRELIMINARY ISSUE	RP	JLE	23.09.2024	T6	TENDER ADDENDUM ISSUE	RP	KN	14.08.2025
P1	PRELIMINARY ISSUE	RP	PB	13.09.2024	T5	TENDER ADDENDUM ISSUE	RP	SFU	06.05.2025
Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date



Project:
**WSU
CARPARK RELOCATION
PROJECT**

Drawing Title:
**PAVEMENT
AND JOINTING PLAN
SHEET 1**

Scale at A1	Drawn	Designed	Approved			
1:200	KN	JLE	RP			
Project No	Originator	Zone	Type	Role	Sheet No.	Rev
234338-TTW-01-DR-CI-03011-T7						
27.10.2025 2:58 PM						

P1	VEHICULAR ASPHALT PAVEMENT REFER TO CITY OF PARRAMATTA COUNCIL STANDARD DRAWING DS47 PAVEMENT FOR OFF-STREET CAR PARK. PROVIDE BIDIM A29 GEOTEXTILE.
----	--

VEHICULAR ASPHALT PAVEMENT
REFER TO CITY OF PARRAMATTA COUNCIL STANDARD
DRAWING DS47 PAVEMENT FOR OFF-STREET CAR PARK.
PROVIDE BIDIM A29 GEOTEXTILE.

P

VEHICULAR CONCRETE PAVEMENT
REFER TO CITY OF PARRAMATTA COUNCIL STANDARDS
DRAWING DS8

VEHICULAR CONCRETE PAVEMENT
REFER TO CITY OF PARRAMATTA COUNCIL STANDARD
DRAWING DS8

P:

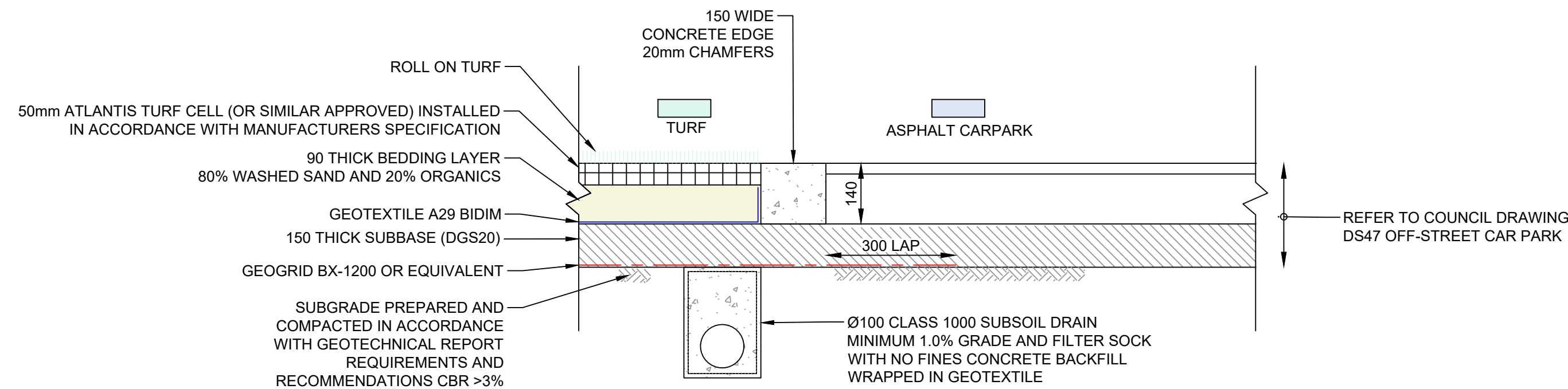
ATLANTIS TURF CELL (OR SIMILAR APPROVED)
REFER TO PRODUCT SPECIFICATIONS

REFER TO PRODUCT SPECIFICATIONS

P

NOTES:

1. ANY UNCONTROLLED / SOFT SPOT TO BE REMOVED AND BACKFILL WITH ENGINEERING FILL / PROOF ROLL AND COMPACTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATION.



PAVEMENT EDGE DETAIL
ASPHALT VEHICULAR AND ATLANTIS TURF CELL INTERFACE
SCALE N.T.S

NOTE: WORKS WITHIN CLOSE PROXIMITY TO EXISTING RETAINED TREES TO BE SUPERVISED BY A SUITABLY QUALIFIED ARBORIST. REFER TO PRELIMINARY TREE ASSESSMENT (PTA) DATED 25/08/24 BY TREE SURVEY FOR INFORMATION ON EXISTING TREES. IMPLEMENT APPROPRIATE TREE PROTECTION MEASURES IN ACCORDANCE WITH ARBORIST REQUIREMENTS. MAXIMUM 10% ENCROACHMENT INTO TPZ FOR TREES TO BE RETAINED.

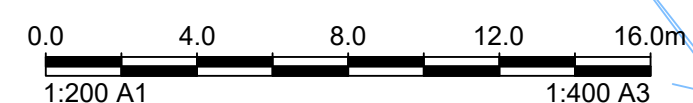
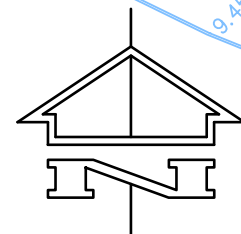
PROPOSED BORROW PIT TO CAP AND CONTAIN ASBESTOS CONTAMINATED MATERIALS (FILL CATEGORY 1 & 2). REFER DRG CI-02011 FOR DETAILS

REFER TO PAVEMENT EDGE DETAIL ABOVE
FOR INTERFACE DETAIL



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YOU DIG**
www.byda.com.au

BEWARE OF UNDERGROUND SERVICES.
THE LOCATION OF UNDERGROUND
SERVICES ARE APPROXIMATE ONLY
AND THEIR EXACT POSITION SHOULD
BE PROVEN ON SITE. NO GUARANTEE IS
GIVEN THAT ALL EXISTING SERVICES
ARE SHOWN



T4	TENDER ADDENDUM ISSUE	RP KN	02.05.2025							
T3	TENDER ADDENDUM ISSUE	RP KN	19.12.2024							
T2	TENDER ISSUE	RP JLE	08.10.2024							
T1	TENDER ISSUE	RP JLE	03.10.2024							
P2	PRELIMINARY ISSUE	RP JLE	23.09.2024	T6	TENDER ADDENDUM ISSUE	RP KN	14.08.2025			
P1	PRELIMINARY ISSUE	RP PB	13.09.2024	T5	TENDER ADDENDUM ISSUE	RP SFU	06.05.2025			
Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft Date

Client: **WESTERN SYDNEY UNIVERSITY**

Engineer: 
www.ttwengeers.com

Project:
WSU
CARPARK RELOCATION
PROJECT

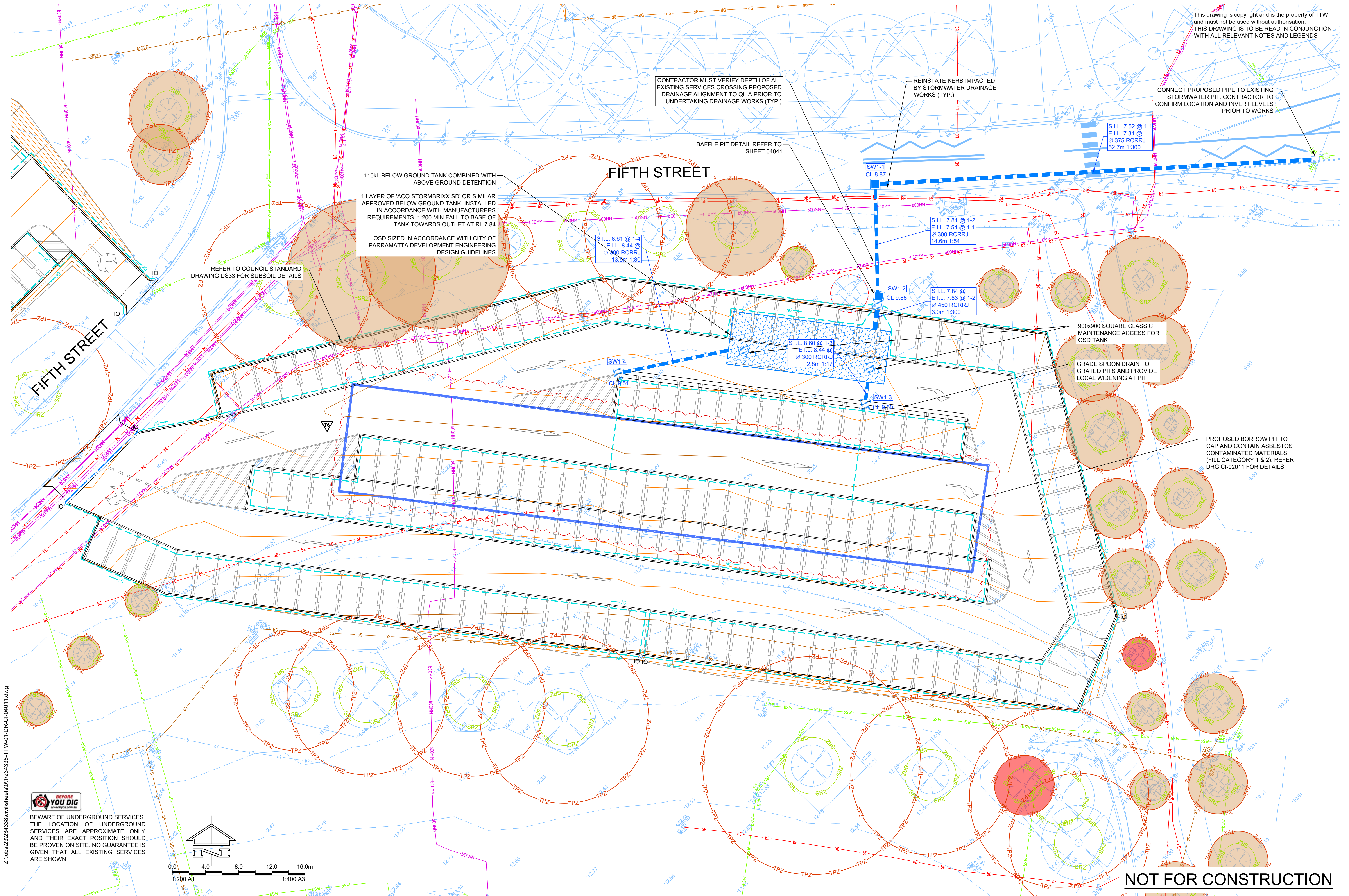
Drawing Title:
**PAVEMENT
AND JOINTING PLAN
SHEET 2**

NOT FOR CONSTRUCTION

Scale at A1	Drawn	Designed	Approved
1:200	KN	JLE	RP
Project No	Originator	Zone	Type Role Sheet No. Rev
234338-TTW-01-DR-CI-03012-T6			
14.08.2025 4:24 PM			

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[illegible]

Client:	
---------	--



Engineer:



www.ttwengineers.com

Project:	
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WSU
CARPARK RELOCATION
PROJECT

Drawing Title:

STORMWATER
DRAINAGE PLAN
SHEET 1

Scale at A1	Drawn	Designed	Approved			
1:200	KN	JLE	RP			
Project No	Originator	Zone	Type	Role	Sheet No.	Rev
234338-TTW-01-DR-CI-04011-T6						
27.10.2025 3:00 PM						

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CONNECT PROPOSED PIPE TO EXISTING PIT. CONTRACTOR TO CONFIRM LOCATION AND INVERT LEVELS PRIOR TO WORKS

MODIFY EXISTING GRATED PIT TO SUIT PROPOSED VEHICLE CROSSOVER IN ACCORDANCE WITH COUNCIL STANDARD DRAWING DS29

EXISTING COUNCIL STORMWATER DRAIN

INDICATIVE 1% AEP FLOOD EXTENT

REFER TO COUNCIL STANDARD DRAWING DS33 FOR SUBSOIL DETAILS

PROPOSED BORROW PIT TO CAP AND CONTAIN ASBESTOS CONTAMINATED MATERIALS (FILL CATEGORY 1 & 2). REFER DRG CI-02011 FOR DETAILS

BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN

1:200 A1 1:400 A3

NOT FOR CONSTRUCTION

Key features and labels include:

- Manholes: SW2-1, SW2-2, SW2-3, SW2-4, SW2-5, SW2-6, SW2-7, SW2-8, SW2-9, SW2-10, SW2-11, SW2-12, SW2-13, SW2-14, SW2-15, SW2-16, SW2-17, SW2-18, SW2-19, SW2-20, SW2-21, SW2-22, SW2-23, SW2-24, SW2-25, SW2-26, SW2-27, SW2-28, SW2-29, SW2-30, SW2-31, SW2-32, SW2-33, SW2-34, SW2-35, SW2-36, SW2-37, SW2-38, SW2-39, SW2-40, SW2-41, SW2-42, SW2-43, SW2-44, SW2-45, SW2-46, SW2-47, SW2-48, SW2-49, SW2-50, SW2-51, SW2-52, SW2-53, SW2-54, SW2-55, SW2-56, SW2-57, SW2-58, SW2-59, SW2-60, SW2-61, SW2-62, SW2-63, SW2-64, SW2-65, SW2-66, SW2-67, SW2-68, SW2-69, SW2-70, SW2-71, SW2-72, SW2-73, SW2-74, SW2-75, SW2-76, SW2-77, SW2-78, SW2-79, SW2-80, SW2-81, SW2-82, SW2-83, SW2-84, SW2-85, SW2-86, SW2-87, SW2-88, SW2-89, SW2-90, SW2-91, SW2-92, SW2-93, SW2-94, SW2-95, SW2-96, SW2-97, SW2-98, SW2-99, SW2-100.
- Pipes: 375 RCRRJ, 225 uPVC, 300 RCRRJ, 450 uPVC, 600 uPVC, 900 uPVC, 1200 uPVC, 1500 uPVC, 1800 uPVC, 2100 uPVC, 2400 uPVC, 2700 uPVC, 3000 uPVC, 3300 uPVC, 3600 uPVC, 3900 uPVC, 4200 uPVC, 4500 uPVC, 4800 uPVC, 5100 uPVC, 5400 uPVC, 5700 uPVC, 6000 uPVC, 6300 uPVC, 6600 uPVC, 6900 uPVC, 7200 uPVC, 7500 uPVC, 7800 uPVC, 8100 uPVC, 8400 uPVC, 8700 uPVC, 9000 uPVC, 9300 uPVC, 9600 uPVC, 9900 uPVC, 10200 uPVC, 10500 uPVC, 10800 uPVC, 11100 uPVC, 11400 uPVC, 11700 uPVC, 12000 uPVC, 12300 uPVC, 12600 uPVC, 12900 uPVC, 13200 uPVC, 13500 uPVC, 13800 uPVC, 14100 uPVC, 14400 uPVC, 14700 uPVC, 15000 uPVC, 15300 uPVC, 15600 uPVC, 15900 uPVC, 16200 uPVC, 16500 uPVC, 16800 uPVC, 17100 uPVC, 17400 uPVC, 17700 uPVC, 18000 uPVC, 18300 uPVC, 18600 uPVC, 18900 uPVC, 19200 uPVC, 19500 uPVC, 19800 uPVC, 20100 uPVC, 20400 uPVC, 20700 uPVC, 21000 uPVC, 21300 uPVC, 21600 uPVC, 21900 uPVC, 22200 uPVC, 22500 uPVC, 22800 uPVC, 23100 uPVC, 23400 uPVC, 23700 uPVC, 24000 uPVC, 24300 uPVC, 24600 uPVC, 24900 uPVC, 25200 uPVC, 25500 uPVC, 25800 uPVC, 26100 uPVC, 26400 uPVC, 26700 uPVC, 27000 uPVC, 27300 uPVC, 27600 uPVC, 27900 uPVC, 28200 uPVC, 28500 uPVC, 28800 uPVC, 29100 uPVC, 29400 uPVC, 29700 uPVC, 30000 uPVC, 30300 uPVC, 30600 uPVC, 30900 uPVC, 31200 uPVC, 31500 uPVC, 31800 uPVC, 32100 uPVC, 32400 uPVC, 32700 uPVC, 33000 uPVC, 33300 uPVC, 33600 uPVC, 33900 uPVC, 34200 uPVC, 34500 uPVC, 34800 uPVC, 35100 uPVC, 35400 uPVC, 35700 uPVC, 36000 uPVC, 36300 uPVC, 36600 uPVC, 36900 uPVC, 37200 uPVC, 37500 uPVC, 37800 uPVC, 38100 uPVC, 38400 uPVC, 38700 uPVC, 39000 uPVC, 39300 uPVC, 39600 uPVC, 39900 uPVC, 40200 uPVC, 40500 uPVC, 40800 uPVC, 41100 uPVC, 41400 uPVC, 41700 uPVC, 42000 uPVC, 42300 uPVC, 42600 uPVC, 42900 uPVC, 43200 uPVC, 43500 uPVC, 43800 uPVC, 44100 uPVC, 44400 uPVC, 44700 uPVC, 45000 uPVC, 45300 uPVC, 45600 uPVC, 45900 uPVC, 46200 uPVC, 46500 uPVC, 46800 uPVC, 47100 uPVC, 47400 uPVC, 47700 uPVC, 48000 uPVC, 48300 uPVC, 48600 uPVC, 48900 uPVC, 49200 uPVC, 49500 uPVC, 49800 uPVC, 50100 uPVC, 50400 uPVC, 50700 uPVC, 51000 uPVC, 51300 uPVC, 51600 uPVC, 51900 uPVC, 52200 uPVC, 52500 uPVC, 52800 uPVC, 53100 uPVC, 53400 uPVC, 53700 uPVC, 54000 uPVC, 54300 uPVC, 54600 uPVC, 54900 uPVC, 55200 uPVC, 55500 uPVC, 55800 uPVC, 56100 uPVC, 56400 uPVC, 56700 uPVC, 57000 uPVC, 57300 uPVC, 57600 uPVC, 57900 uPVC, 58200 uPVC, 58500 uPVC, 58800 uPVC, 59100 uPVC, 59400 uPVC, 59700 uPVC, 60000 uPVC, 60300 uPVC, 60600 uPVC, 60900 uPVC, 61200 uPVC, 61500 uPVC, 61800 uPVC, 62100 uPVC, 62400 uPVC, 62700 uPVC, 63000 uPVC, 63300 uPVC, 63600 uPVC, 63900 uPVC, 64200 uPVC, 64500 uPVC, 64800 uPVC, 65100 uPVC, 65400 uPVC, 65700 uPVC, 66000 uPVC, 66300 uPVC, 66600 uPVC, 66900 uPVC, 67200 uPVC, 67500 uPVC, 67800 uPVC, 68100 uPVC, 68400 uPVC, 68700 uPVC, 69000 uPVC, 69300 uPVC, 69600 uPVC, 69900 uPVC, 70200 uPVC, 70500 uPVC, 70800 uPVC, 71100 uPVC, 71400 uPVC, 71700 uPVC, 72000 uPVC, 72300 uPVC, 72600 uPVC, 72900 uPVC, 73200 uPVC, 73500 uPVC, 73800 uPVC, 74100 uPVC, 74400 uPVC, 74700 uPVC, 75000 uPVC, 75300 uPVC, 75600 uPVC, 75900 uPVC, 76200 uPVC, 76500 uPVC, 76800 uPVC, 77100 uPVC, 77400 uPVC, 77700 uPVC, 78000 uPVC, 78300 uPVC, 78600 uPVC, 78900 uPVC, 79200 uPVC, 79500 uPVC, 79800 uPVC, 80100 uPVC, 80400 uPVC, 80700 uPVC, 81000 uPVC, 81300 uPVC, 81600 uPVC, 81900 uPVC, 82200 uPVC, 82500 uPVC, 82800 uPVC, 83100 uPVC, 83400 uPVC, 83700 uPVC, 84000 uPVC, 84300 uPVC, 84600 uPVC, 84900 uPVC, 85200 uPVC, 85500 uPVC, 85800 uPVC, 86100 uPVC, 86400 uPVC, 86700 uPVC, 87000 uPVC, 87300 uPVC, 87600 uPVC, 87900 uPVC, 88200 uPVC, 88500 uPVC, 88800 uPVC, 89100 uPVC, 89400 uPVC, 89700 uPVC, 90000 uPVC, 90300 uPVC, 90600 uPVC, 90900 uPVC, 91200 uPVC, 91500 uPVC, 91800 uPVC, 92100 uPVC, 92400 uPVC, 92700 uPVC, 93000 uPVC, 93300 uPVC, 93600 uPVC, 93900 uPVC, 94200 uPVC, 94500 uPVC, 9480

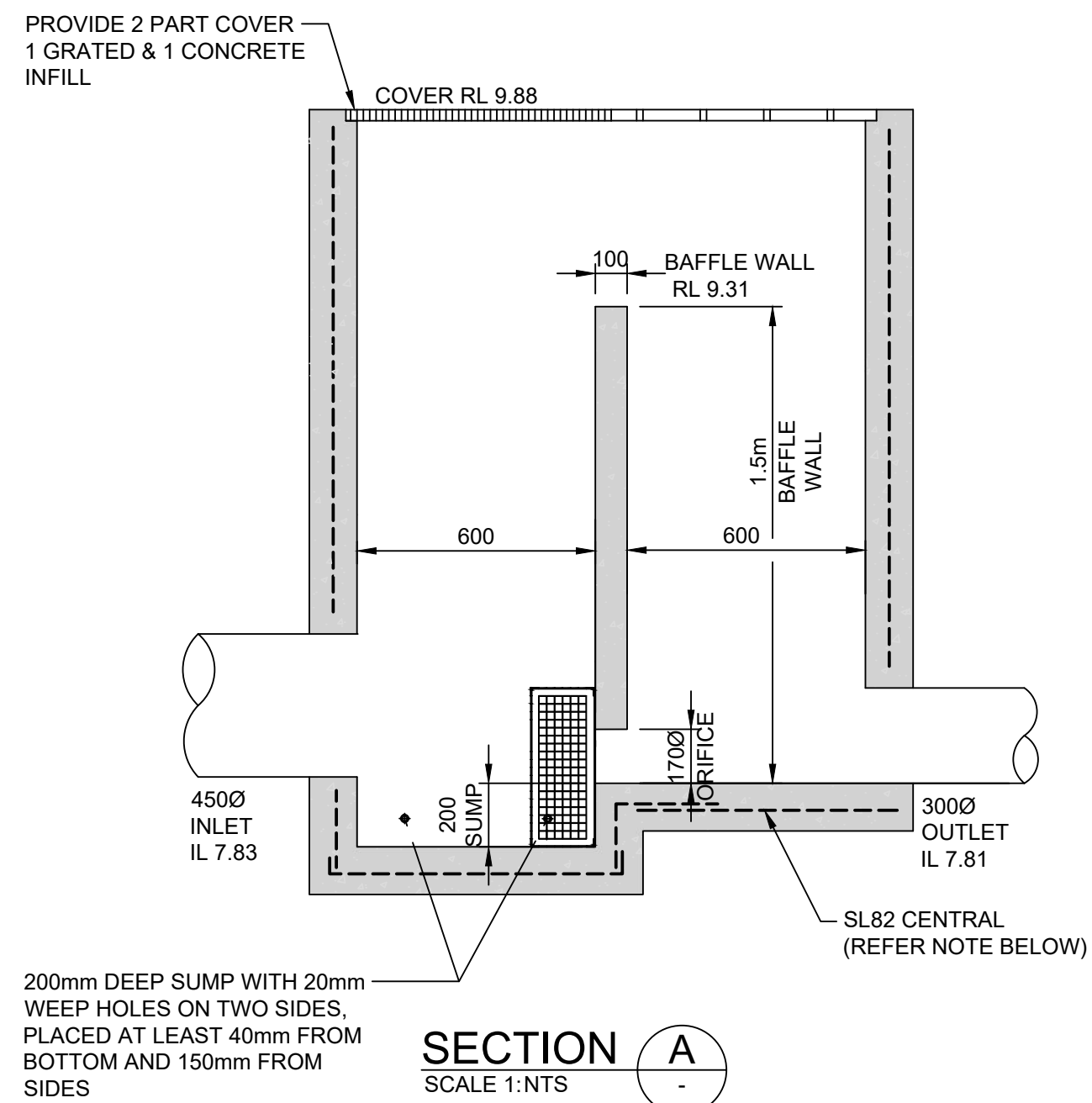
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Engineer: 
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- BAFFLE DRAINAGE PIT 1-2 DETAIL**
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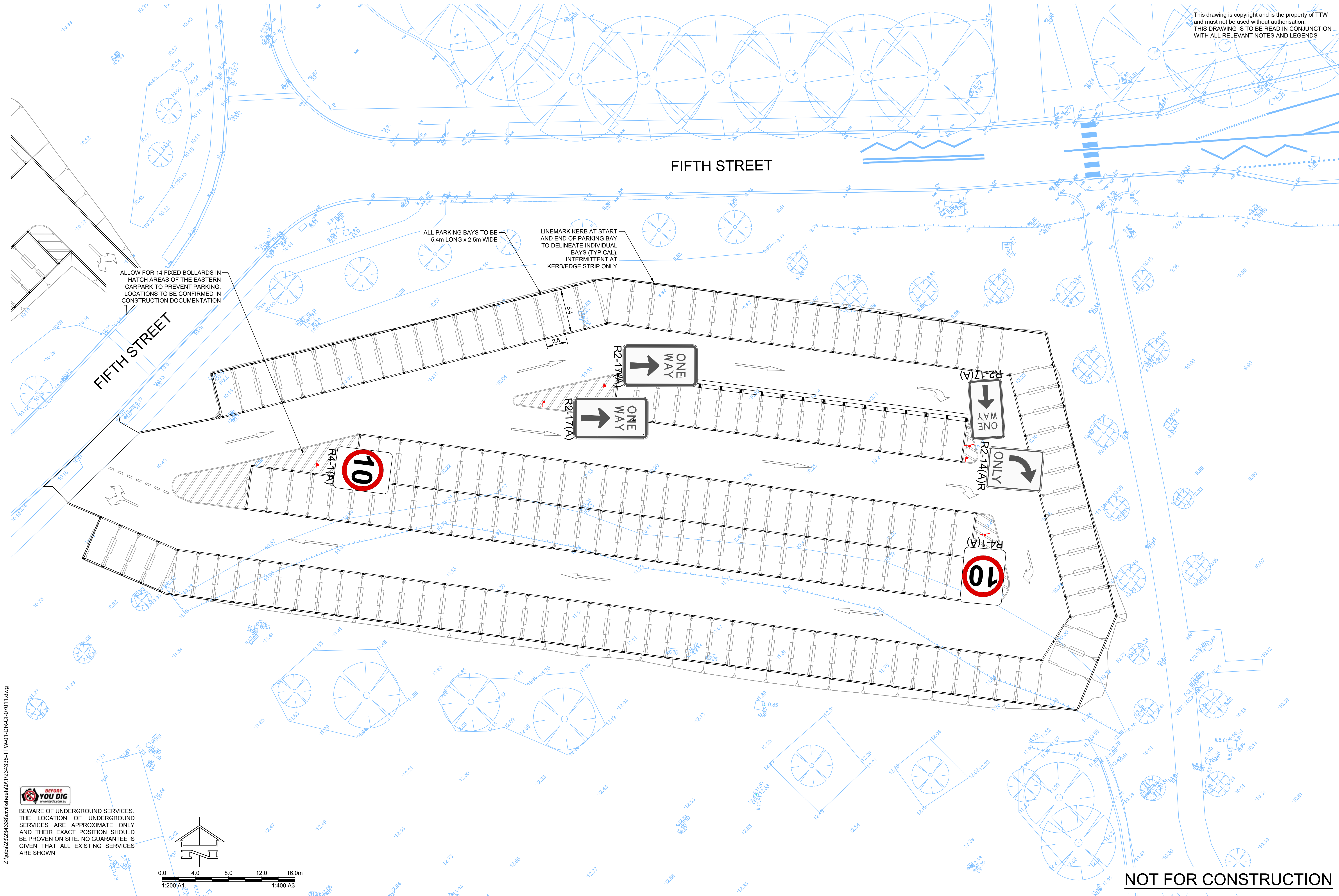
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T4	TENDER ADDENDUM ISSUE	RP	KN	02.05.2025										
T3	TENDER ADDENDUM ISSUE	RP	KN	19.12.2024										
T2	TENDER ISSUE	RP	JLE	08.10.2024										
T1	TENDER ISSUE	RP	AE	03.10.2024										

Client:

WESTERN SYDNEY UNIVERSITY

Engineer:

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Project:

WSU CARPARK RELOCATION PROJECT

Drawing Title:

TRAFFIC CONTROL SIGNAGE AND LINEMARKING SHEET 1

Scale at A1: 1:200

Project No: 234338-TTW-01-DR-CI-07011-T4

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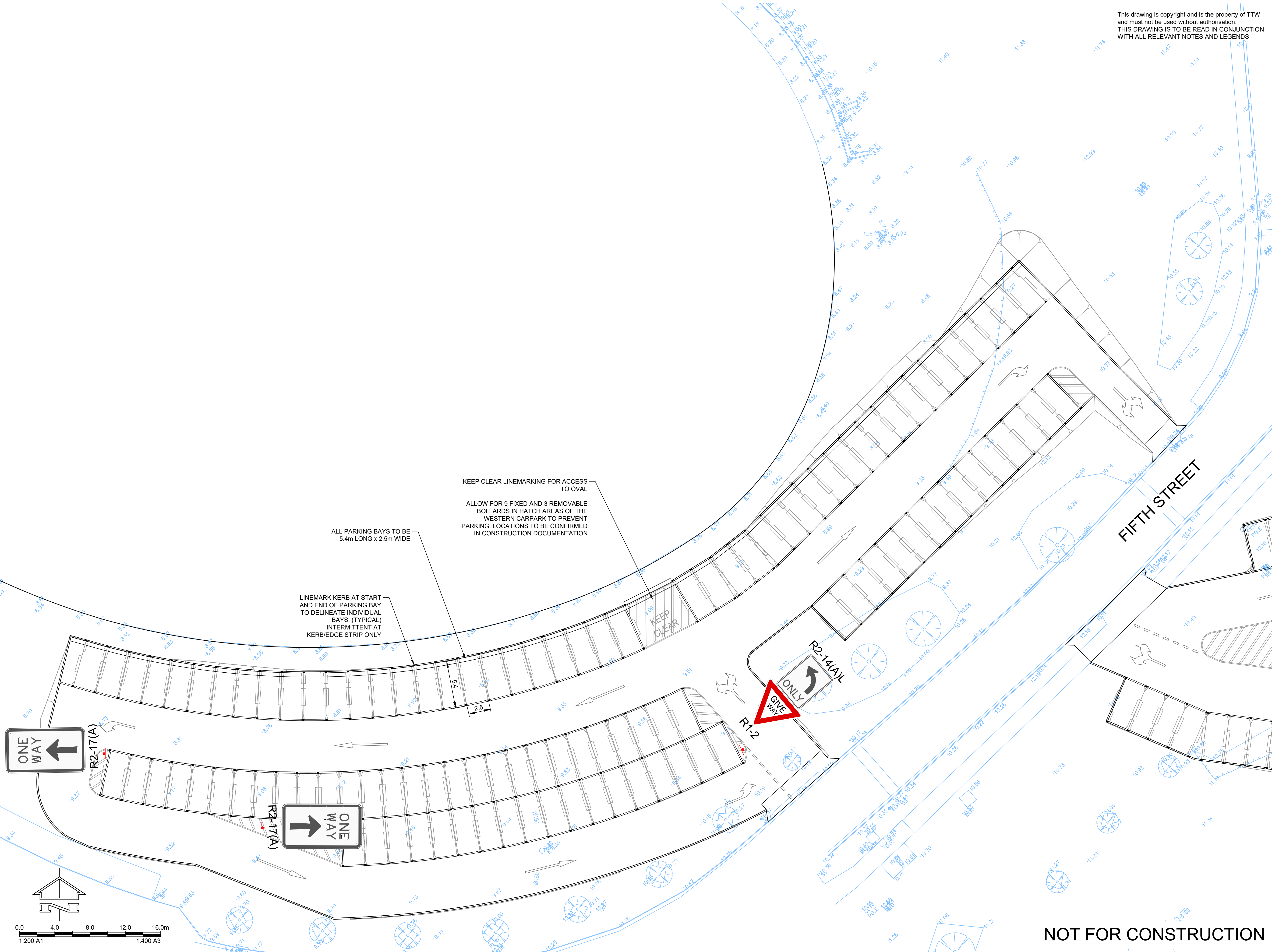
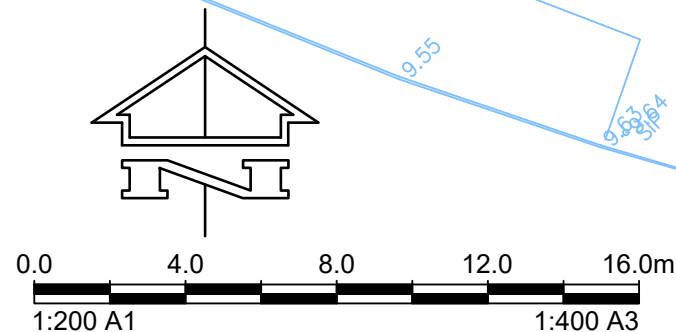
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Originator		Zone	Type	Role	Sheet No.
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T4	TENDER ADDENDUM ISSUE	RP	KN	02.05.2025										
T3	TENDER ADDENDUM ISSUE	RP	KN	19.12.2024										
T2	TENDER ISSUE	RP	JLE	08.10.2024										
T1	TENDER ISSUE	RP	AE	03.10.2024										

Client:

Engineer:

Project:

WSU
CARPARK RELOCATION
PROJECT

Drawing Title:

TRAFFIC CONTROL
SIGNAGE AND LINEMARKING
SHEET 2

Scale at A1	Drawn	Designed	Approved			
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