

REDSTONE ESTATE STAGE 18B VILLAWOOD PROPERTIES

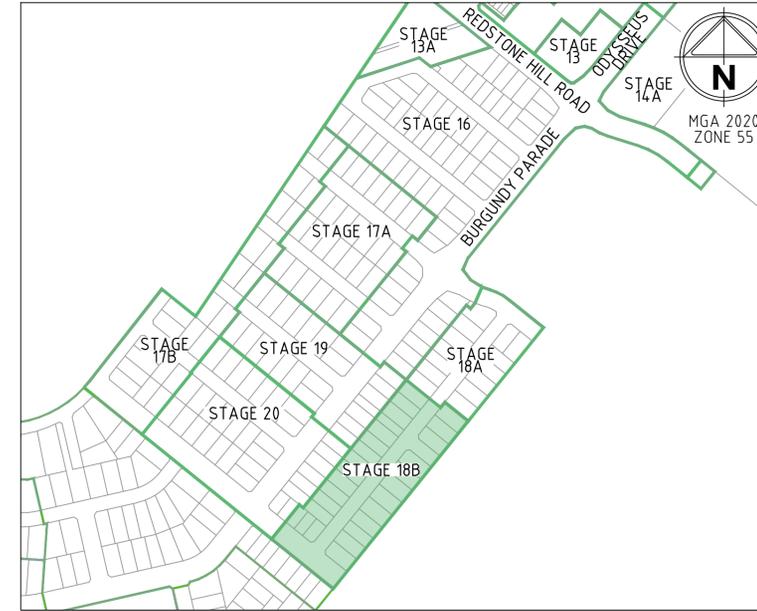
HUME CITY COUNCIL GENERAL NOTES:

- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH V.P.A. AND HUME CITY COUNCIL STANDARD DRAWINGS, SPECIFICATIONS, APPROVED PLANS AND TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- COUNCIL TO BE NOTIFIED SEVEN (7) CLEAR WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORKS WITH A PRE-COMMENCEMENT MEETING BEING HELD BETWEEN HUME CITY COUNCIL, THE CONSULTANT AND THE CONTRACTOR BEFORE WORKS COMMENCE. A SITE MANAGEMENT PLAN IS TO BE SUBMITTED PRIOR TO COMMENCEMENT OF WORKS AND PRIOR TO AN ONSITE PRE-COMMENCEMENT MEETING.
- PRIOR TO COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION:
 - SOURCE OF QUARRY MATERIAL.
 - N.A.T.A. APPROVED TESTS RESULTS FOR THE F.C.R. THAT IS TO BE USED.
 - IF THE SOURCE OF THE QUARRY MATERIAL IS CHANGED DURING THE COURSE OF THE WORKS, THEN NEW TEST RESULTS SHALL BE PROVIDED.
- PRIOR TO COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004 AND O.H.S. REGULATIONS 2007 HAVE BEEN AND WILL BE COMPLIED WITH.
- ON COMMENCEMENT OF CONSTRUCTION WORKS, THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL." APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD OF THE WORKS.
- THE DISPOSAL SITE FOR SPOIL REMOVAL FROM SITE AND TRUCK ROUTE IS TO BE SUBMITTED TO AND APPROVED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE IN WRITING PRIOR TO THE COMMENCEMENT OF ANY WORKS.
- WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND EXPOSED/PROVED PRIOR TO COMMENCEMENT OF WORKS, AND THE RELEVANT AUTHORITIES NOTIFIED SEVEN (7) CLEAR DAYS PRIOR TO THE COMMENCEMENT OF THE WORKS.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (A.H.D.).
- ALL CO-ORDINATES ARE TO MAP GRID OF AUSTRALIA - MGA 2020 ZONE 55
- THE CONTRACTOR MUST ARRANGE THE REQUISITE INSPECTIONS OF THE WORKS WITH THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE AS PER THE HOLD POINTS IN THE V.P.A. MANUAL AND HUME CITY COUNCIL SPECIFICATIONS.
- FILL AREAS TO BE STRIPPED OF TOPSOIL, FILLED AND TOPSOIL REPLACED TO OBTAIN FINAL FILL LEVELS AS SHOWN ON PLAN. FILLING IS TO BE CLEAN CLAY COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.1.1-2003.
- FILLING TO COMPLY WITH A.S.3798-2007, LEVEL 1 UNLESS SPECIFIED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL IMPORTED FILL MATERIAL, INCLUDING TOPSOIL, SATISFIES THE DESCRIPTION FOR CLEAN FILL MATERIAL IN EPA BULLETIN PUBLICATION NO 448 (SEPT '95) AND SUBSEQUENT REVISIONS. THE CONTRACTOR SHALL IF REQUIRED PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- WHERE, AS A CONDITION OF THE PLANNING PERMIT OR AS A RESULT OF THE PRE-CONSTRUCTION MEETING, FENCING OF AREAS CONTAINING TREES, NATIVE GRASSES AND SHRUBS IS REQUIRED, A THREE STRAND STAR PICKET AND WIRE FENCE SHALL BE CONSTRUCTED.
- NO TREE OR NATIVE VEGETATION IS TO BE DISTURBED OR REMOVED WITHOUT PRIOR APPROVAL FROM COUNCIL'S SUSTAINABLE ENVIRONMENT DEPARTMENT. ANY TREES REMOVED, VEGETATION OR OTHER MATERIALS ARE NOT TO BE BURNT ON SITE.
- BEFORE COMMENCING WORK ON TRENCHES IN EXCESS OF 1.5m DEEP, NOTICE OF SUCH PROPOSAL IS TO BE FORWARDED BY THE CONTRACTOR TO WORKSAFE VICTORIA.
- THE CONTRACTOR IS TO OBTAIN A BUILDING PERMIT FOR ANY STRUCTURES / FENCES AND FOR ANY RETAINING WALLS OVER 1.0m IN HEIGHT.
- ANY INFRASTRUCTURE DAMAGE DURING THE DEFECTS LIABILITY PERIOD IS THE RESPONSIBILITY OF THE DEVELOPER OR HIS REPRESENTATIVE AND IS TO BE REINSTATED TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER OR HIS REPRESENTATIVE.
- PRIOR TO STATEMENT OF COMPLIANCE ALL DISTURBED AREAS (INCLUDING NATURE STRIPS, BATTERS, ALLOTMENTS WITH GRADES OF 15 AND GREATER, AND RESERVES) ARE TO BE REINSTATED TO A CLEAN, TIDY CONDITION, TOP DRESSED (100MM LOAMY TOP SOIL FREE OF RUBBISH, DEBRIS, CLUMPS, SODS AND CLAY LUMPS), LIGHTLY COMPACTED AND HYDRO MULCHED.
HYDROMULCH AND SEED MIX TO BE:
 - 40KG/HA KIKUYU
 - 200KG/HA TURF TYPE PERENNIAL RYE
 - 100KG/HA CREEPING RED FESCUE
 - 1500KG/HA OF CELLULOSE FIBRE
 - SOIL BINDER, SPECIFICALLY MANUFACTURED FOR HYDROMULCHING, USED AT MANUFACTURERS RECOMMENDED RATES. (E.G. ORGANIC GAUR TACKIFIERS @ 20 - 30 KG/HA, BASED ON SITE CONDITIONS).
 GRASS IS TO BE ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE PERIOD, UNLESS OTHERWISE AGREED IN WRITING.
- FOOTPATHS ARE TO BE 50mm OFFSET FROM TITLE BOUNDARIES UNLESS NOTED OTHERWISE. VEHICLE CROSSING ALIGNMENTS ARE GENERALLY TO BE PARALLEL TO THE SIDE BOUNDARY.
- ALL NEW CONCRETE WORKS SHALL BE JOINED INTO ABUTTING EXISTING CONCRETE WITH 450mm LONG Y20 DOWEL BARS @ 600 CENTRES, UNLESS OTHERWISE SPECIFIED.
- ANY EXPOSED AGGREGATE CONCRETE WORKS TO BE ACHIEVED BY SAND-BLASTING ONLY. WASHING AGGREGATE OFF WITH WATER IS NOT PERMITTED.
- ALL SERVICE CONDUITS TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH 20mm 3% CEMENT TREATED CLASS 3 CRUSHED ROCK COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.2.1-2003. ALL SERVICE CONDUITS TRENCHES UNDER FOOTPATH, VEHICULAR CROSSINGS, PARKING BAYS AND WITHIN 750MM OF PARKING BAYS TO BE BACKFILLED WITH CLASS 3 CRUSHED ROCK.
- ALL STORMWATER DRAINS ARE TO BE CLASS 2 R.C. OR RIGID F.R.C. PIPES WITH ADCOL FLEXIBLE COLLARS UNLESS NOTED OTHERWISE. ALL PIPES UP TO AND INCLUDING 750mm DIAMETER ARE TO BE RUBBER RING JOINTED, INTERLOCKING / FLUSH JOINTS WITH EXTERNAL BANDS CAN ONLY BE USED ON PIPE SIZES OVER 750mm DIAMETER.
- WHERE NEW ASPHALT, CONCRETE KERB & CHANNEL, PATHS AND DRIVEWAYS MATCH INTO EXISTING, THE EXISTING SURFACE IS TO BE SAW CUT AND MATCHED NEATLY.
- ALL REDUNDANT ASSETS ARE TO BE REMOVED AND DISPOSED OFF SITE.
- ALL TREES AND SHRUBS ARE TO BE RETAINED UNLESS OTHERWISE SHOWN OR DIRECTED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- AT THE COMPLETION OF ALL WORKS, ALL RUBBISH, DEBRIS AND SURPLUS SPOIL SHALL BE REMOVED AND THE SITE SHALL BE CLEARED TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- ALL DRAINS BEHIND KERB AND CHANNEL SHALL BE BACKFILLED TO MATCH PAVEMENT SUBGRADE LEVEL WITH 20mm CLASS 3 F.C.R. COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S. 1289.5.2.1-2003. ALL DRAINS, SEWERS, GAS & WATER MAINS LAID THROUGH THE ROAD PAVEMENT (EXCEPT CONDUITS) ARE TO BE BACKFILLED WITH 20mm CLASS 2 FCR COMPACTED TO 98% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.2.1-2003.
- PAVEMENT DEPTH SPECIFIED IS A MINIMUM DEPTH AND MAY BE VARIED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE. SOFT SPOTS SHALL BE EXCAVATED TO A PROOF ROLLED BASE AND BACKFILLED WITH APPROVED MATERIAL COMPACTED IN 150mm LAYERS TO ACHIEVE TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.1.1-2003.

- ALL EXISTING ASSETS AFFECTED BY THE WORKS, E.G. SIGNS, VEHICLE CROSSINGS, FOOTPATHS, KERB AND LINEMARKING SHALL BE REINSTATED BY THE CONTRACTOR PRIOR TO THE COMPLETION OF THE WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- PRIOR TO THE COMPLETION OF THE WORKS ALL FIRE HYDRANTS ARE TO BE MARKED IN ACCORDANCE WITH "IDENTIFICATION OF STREET HYDRANTS FOR FIREFIGHTING PURPOSES" PUBLICATION (DEVELOPED BY C.F.A. M.F.B. & E.S.B). MARKINGS TO BE VIA BLUE PAVEMENT MARKER AND A (RED TOPPED) WHITE POST.
- AGRICULTURAL DRAINS ARE TO BE PLACED BEHIND ALL KERB AND CHANNEL, KERB ONLY AND EDGE STRIPS IN ACCORDANCE WITH COUNCIL STANDARD DRAWING SD202.
- ALL TABLE DRAINS AND VERGES ARE TO BE REINSTATED UPON COMPLETION OF WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- ALL TRAFFIC CONTROL MEASURES, SIGNS AND LINEMARKING SHALL BE IN ACCORDANCE WITH A.S.1742 - 1, 2 & 3. STREET NAME SIGNS ARE TO BE IN ACCORDANCE WITH COUNCIL STANDARD DRAWING SD408.
- ALL LINEMARKING PAINT SHALL BE LONG LIFE TYPE IN ACCORDANCE WITH SECTION 95C OF THE HUME CITY COUNCIL SPECIFICATIONS. LATERAL WORKS AND ARROWS BEING COLD APPLIED PLASTIC TROWELLED INTO PLACE (MATERIAL DEGADUR PLASTELINE) AND LONGITUDINAL LINES BEING EXTRUDED THERMOPLASTIC MATERIAL.
- ALL SIGNS TO BE CLASS 1 HIGH INTENSITY TYPE AND TO COMPLY WITH THE REQUIREMENTS OF A.S.1743 -2001.
- HOUSE DRAIN CONNECTIONS TO 150mm DIAMETER PIPES TO BE VIA A MANUFACTURED JUNCTION PIECE. 150mm DIAMETER STORMWATER PIPES ARE TO BE HEAVY DUTY SEWER GRADE. PVC PIPES SHALL BE BACKFILLED WITH 10mm MINUS F.C.R. TO 150mm ABOVE TOP OF PIPE IN ALL LOCATIONS.
- 100mm HOUSE DRAIN CONNECTIONS TO BE LAID AT AN OFFSET OF 5.5m FROM THE LOW SIDE TITLE BOUNDARY AND PROPERTY INLETS 1.0m FROM THE LOW SIDE OF TITLE BOUNDARY REAR EASEMENTS UNLESS OTHERWISE SHOWN.
- BLASTING GENERALLY IS NOT ENCOURAGED, HOWEVER BLASTING MAY BE REQUIRED AS A LAST RESORT DEPENDING ON GROUND CONDITIONS. COUNCIL IS TO BE NOTIFIED IN WRITING IF ANY BLASTING IS NECESSARY. RESIDENTS LIKELY TO BE AFFECTED BY THE BLASTING AND ALL SERVICE AUTHORITIES SHALL BE NOTIFIED IN WRITING PRIOR TO WORKS COMMENCING. COPIES OF THESE NOTIFICATIONS ARE TO BE SUBMITTED TO COUNCIL. RESIDENT NOTIFICATION LETTER IS TO INCLUDE BLASTING GUIDELINES, FIRING AND MISFIRE PROCEDURES AND CONTRACTOR AND CONSULTANT CONTACT NAMES AND PHONE NUMBERS.
- ALL BLASTING IS TO BE WITHIN THE LIMITS FOR AIR AND GROUND VIBRATION LEVELS AS SET DOWN IN A.S.2187.2-1993. ALL BLASTS SHALL BE MONITORED FOR AIR AND NOISE VIBRATION AT POTENTIALLY AFFECTED RESIDENCES. "FORM A" FROM A.S. 2187.2-1993, AND WAVE TRACE COPIES ARE TO BE SUBMITTED TO COUNCIL FOR EACH BLAST. BLASTING IS TO BE RESTRICTED TO BETWEEN 9.00am AND 3.30pm. BLASTING IS NOT TO OCCUR ON WEEKENDS OR PUBLIC HOLIDAYS. BLASTING AREA SIGNS ARE TO BE PLACED AT ALL ENTRANCES TO THE SITE.
- FENCING TO BE PROVIDED ALONG LOT BOUNDARIES ABUTTING RESERVES TO THE SATISFACTION OF THE RESPONSIBLE AUTHORITY.
- WHERE SODIC SOILS ARE ENCOUNTERED, SODIC SOIL INVESTIGATIONS SHOULD BE CARRIED OUT BY A QUALIFIED SOIL SCIENTIST AND THE RECOMMENDATIONS OF THE REPORT SHOULD BE APPLIED DURING ROAD & DRAINAGE DESIGN AND CONSTRUCTION.

SPiIRE GENERAL NOTES:

- ALL EXISTING SURFACE LEVELS SHOWN ON THE ENGINEERING DRAWINGS HAVE BEEN INTERPOLATED FROM A DIGITAL TERRAIN MODEL. THESE LEVELS HAVE BEEN USED AS THE BASIS FOR ALL ENGINEERING DESIGN AND DETERMINATION OF QUANTITIES AND ARE ACCURATE TO WITHIN ±0.05m.
- ANY EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
- WHERE REQUIRED ANY BUILDINGS, TRENCHES, FENCES AND OTHER STRUCTURES ON SITE ARE TO BE REMOVED AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL IS TO BE INCLUDED IN THE OVERALL EARTHWORKS FIGURE UNLESS A SPECIFIC ITEM FOR REMOVAL IS DENOTED IN THE SCHEDULE.
- ALL FILLING ON LOTS AND WITHIN ROAD RESERVES GREATER THAN 200mm IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH A.S.3798-2007. FILLING MATERIAL IS TO BE IN ACCORDANCE WITH THE SPECIFICATION, A.S.3798-2007 & TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT.
- ALL BATTERS SHALL BE 1 IN 6, UNLESS OTHERWISE SHOWN.
- NO FILL OR STOCKPILING OF MATERIAL IS TO BE PLACED ON ANY RESERVE FOR PUBLIC OPEN SPACE UNLESS OTHERWISE DIRECTED OR APPROVED BY THE SUPERINTENDENT.
- T.B.M.'S TO BE RE-ESTABLISHED BY THE LICENSED SURVEYOR IF FOUND TO BE MISSING AT THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR CARE AND MAINTENANCE OF T.B.M.'S THEREAFTER.
- AT LEAST THREE (3) DAYS PRIOR TO COMMENCING WORK ON EXCAVATIONS IN EXCESS OF 1.50m DEEP, A NOTIFICATION FORM MUST BE SENT TO WORKSAFE. THE CONTRACTOR IS TO COMPLY WITH WORKSAFE, THE MINES (TRENCHES) REGULATION 1982, THE MINES ACT 1958 AND OCCUPATIONAL HEALTH AND SAFETY ACT 1985, 2004.
- WHERE REQUIRED, ALL EXISTING DAMS, DEPRESSIONS AND DRAINS ARE TO BE BREACHED, DRAINED, DE-SLUDGED AND SHALL BE EXCAVATED TO A CLEAN FIRM BASE. THE SURFACE SHALL BE INSPECTED, APPROVED AND LEVELLED BY THE ENGINEER PRIOR TO COMMENCEMENT OF FILLING. THE FILL SHALL BE APPROVED SELECTED ON SITE MATERIAL OR APPROVED IMPORTED MATERIAL. THE FILL SHALL BE PLACED UNDER CONTROLLED MOISTURE CONDITIONS IN ACCORDANCE WITH THE SPECIFICATION.
- GAS AND WATER CONDUITS SIZES ARE AS FOLLOWS:
Ø50mm CLASS 12 P.V.C. - SINGLE SERVICE
Ø100mm CLASS 12 P.V.C. - DUAL SERVICE (DRINKING AND NON DRINKING WATER)
WITH THE FOLLOWING MINIMUM COVER TO FINISHED SURFACE LEVELS.
ROAD PAVEMENT - 0.80m
VERGE & FOOTPATHS - 0.45m
- A.G. / SUBSOIL DRAIN TO BE LAID BEHIND KERB & CHANNEL. KERB ONLY AND EDGE STRIPS WHERE REQUIRED IN ACCORDANCE WITH THE HUME CITY COUNCIL STANDARD DRAWING SD282 AND CONNECTED TO UNDERGROUND DRAINAGE. CENTRE LINES OF ALL EASEMENT DRAINS ARE OFFSET 1.0m OR 2.2m (WHERE OUTSIDE OF SEWER) FROM THE PROPERTY LINE UNLESS SHOWN OTHERWISE.
- WHERE CURVED PIPE ALIGNMENTS ARE SHOWN ON THE FACE PLANS THEY ARE TO BE LAID PARALLEL TO THE BACK OF KERB, EXCEPT WHERE A RADIUS HAS BEEN SPECIFICALLY NOMINATED. CURVED PIPES ARE TO BE APPROVED BY COUNCIL AND IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS2124-1992 GENERAL CONDITIONS OF CONTRACT.
- TELSTRA IS TO BE NOTIFIED 7 DAYS PRIOR TO PLACEMENT OF CONCRETE WORKS.
- PAVEMENT DEPTHS MAY BE MODIFIED AS DIRECTED BY THE SUPERINTENDENT. PAVEMENT TO BE BOXED OUT TO MINIMUM DEPTH DENOTED, INSPECTED AND IF SUBGRADE IS IN QUESTION, FURTHER TESTING CARRIED OUT TO DETERMINE FINAL PAVEMENT DEPTH.
- WHERE PAVEMENT IS CONSTRUCTED ON FILLING, FILL MATERIAL IS TO BE APPROVED BY THE SUPERINTENDENT AND COUNCIL. FILLING TO BE CONSTRUCTED IN LAYERS 150mm THICK WITH COMPACTION ACHIEVING 95% AUSTRALIAN STANDARD DENSITY.
- WHEN PAVEMENT EXCAVATION IS IN ROCK, ALL LOOSE MATERIAL (INCLUDING ROCKS AND CLAY) MUST BE REMOVED. THE SUB-GRADE MUST THEN BE REGULATED WITH COUNCIL APPROVED MATERIAL.
- ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE SUPPLIED AND MAINTAINED IN ACCORDANCE WITH A.S.1742-3.
- THE CONTRACTOR IS REQUIRED TO OBTAIN A "PERMIT TO WORK" FROM MELBOURNE WATER'S SURVEILLANCE OFFICER AT THE PRE-COMMENCEMENT MEETING. THE CONTRACTOR IS REQUIRED TO ENSURE THAT THE "PERMIT TO WORK" IS KEPT UP TO DATE FOR THE DURATION OF THE CONTRACT.
- CONTRACTOR TO ENSURE SEWER MANHOLES ARE WHOLLY LOCATED IN PROPOSED FOOTPATHS.



DRAWING SCHEDULE

DRAWING	DESCRIPTION	SHEET No.	REVISION
CR100	FACE SHEET	1	C
CR200	FACE PLAN	2	C
CR201	SERVICES PLAN	3	C
CR300	ROAD LONG SECTIONS - SHEET 1	4	B
CR301	ROAD LONG SECTIONS - SHEET 2	5	B
CR400	ROAD CROSS SECTIONS - SHEET 1	6	B
CR401	ROAD CROSS SECTIONS - SHEET 2	7	B
CR402	ROAD CROSS SECTIONS - SHEET 3	8	C
CR500	INTERSECTION DETAILS	9	B
CR600	DRAINAGE LONG SECTIONS - SHEET 1	10	B
CR601	DRAINAGE LONG SECTIONS - SHEET 2	11	C
CR602	DRAINAGE LONG SECTIONS & PIT SCHEDULE	12	C
CR700	PAVEMENT AND TYPICAL DETAILS	13	C
CR800	SIGNAGE AND LINEMARKING	14	B
CR900	RETAINING WALLS	15	C

LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER MAIN, VALVE AND HYDRANT		
UNDERGROUND ELECTRICITY		
OPTIC FIBRE		
SEWER & MAINTENANCE STRUCTURE		
CENTRAL INVERT		
COUNCIL STORMWATER DRAIN AND PIT		
COUNCIL 50 YR STORMWATER DRAIN AND PIT		
STORM WATER DRAINAGE PROPERTY INLETS		
COUNCIL STORM WATER PITS		
HOUSE DRAIN		
AG DRAIN AND FLUSHER		
STORM WATER DRAINAGE PIT NUMBER		
WATER CONDUITS		
CONCRETE VEHICLE CROSSING		
CONCRETE VEHICLE CROSSING (INDUSTRIAL) AS PER EDM 503		
RIDGE / CHANGE OF GRADE LINE		
SURFACE CONTOUR MINOR		
SURFACE CONTOUR MAJOR		
SURFACE LEVEL		
BATTER LEVEL (TOP / TOE)		
RETAINING WALL LEVEL (TOP/BOTTOM)		
LOT FALL DIRECTION		
EARTHWORKS GRADE		
SIGN AND POST		
LIGHT & POLE (BY OTHERS)		
STREET SIGN		
PERMANENT SURVEY MARK		
TEMPORARY BENCH MARK		
ROAD CHAINAGES		
LOT CHAINAGES		
SETOUT POINT		
LIMIT OF WORKS		
BATTER		
EXCAVATION GREATER THAN 0.20m		
FILLING GREATER THAN 0.20m		
SLEEPER RETAINING WALL		
ROCK RETAINING WALL		
FENCES		
TREE (& SURVEYED CANOPY) TO BE RETAINED		
TREE TO BE REMOVED		
VEGETATION LINE		
FOOTPATH		
TACTILE GROUND SURFACE INDICATOR		
STREET TREES		
PARKED PASSENGER VEHICLE		



Zero damage - Zero harm - Zero disruption

WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY, AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

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Rev	Amendments	Approved	Date
C	RETAINING WALLS ADDED	L.T	05/02/26
B	AMENDED AS PER COUNCIL COMMENTS	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25

Scale

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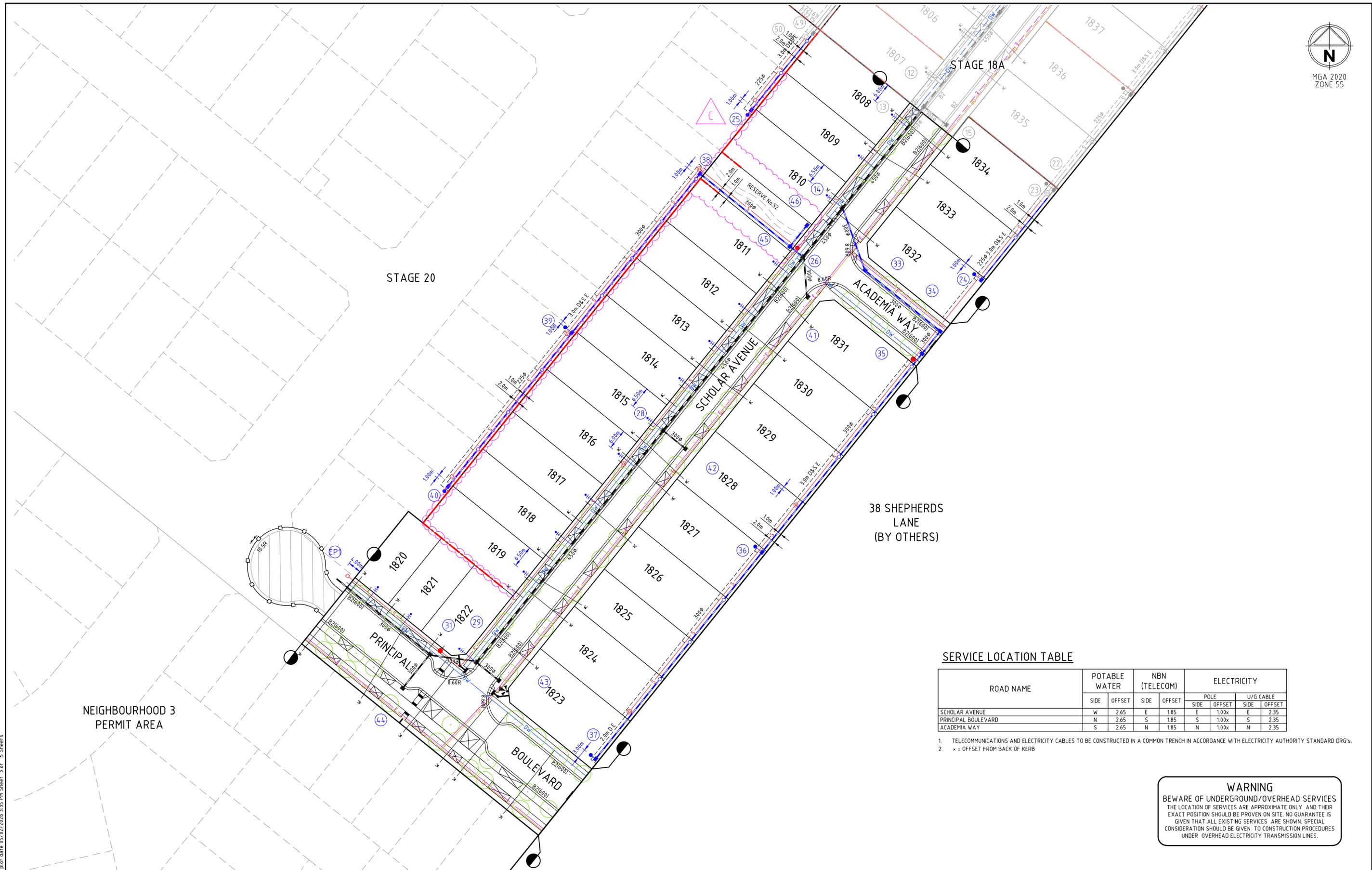
Redstone.
Your world awaits

Designed
L. TRAN
Authorised
M. RANJANAN

Checked
J. POYNER
Date
21/10/25

**REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
FACE SHEET**
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

PRELIMINARY Drg No **310068CR100** Rev **C**



SERVICE LOCATION TABLE

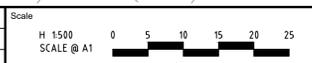
ROAD NAME	POTABLE WATER		NBN (TELECOM)		ELECTRICITY			
	SIDE	OFFSET	SIDE	OFFSET	POLE		U/G CABLE	
					SIDE	OFFSET	SIDE	OFFSET
SCHOLAR AVENUE	W	2.65	E	1.85	E	1.00x	E	2.35
PRINCIPAL BOULEVARD	N	2.65	S	1.85	S	1.00x	S	2.35
ACADEMIA WAY	S	2.65	N	1.85	N	1.00x	N	2.35

- TELECOMMUNICATIONS AND ELECTRICITY CABLES TO BE CONSTRUCTED IN A COMMON TRENCH IN ACCORDANCE WITH ELECTRICITY AUTHORITY STANDARD DRG's.
- * = OFFSET FROM BACK OF KERB

WARNING
 BEWARE OF UNDERGROUND/OVERHEAD SERVICES
 THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

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Rev	Amendments	Approved	Date
C	RETAINING WALLS ADDED	L.T	05/02/26
B	PRINCIPAL BOULEVARD & DRAINAGE AMENDED, DRIVEWAY & DIMENSIONS ADDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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Designed
 L. TRAN
 Authorised
 M. RANJANAN

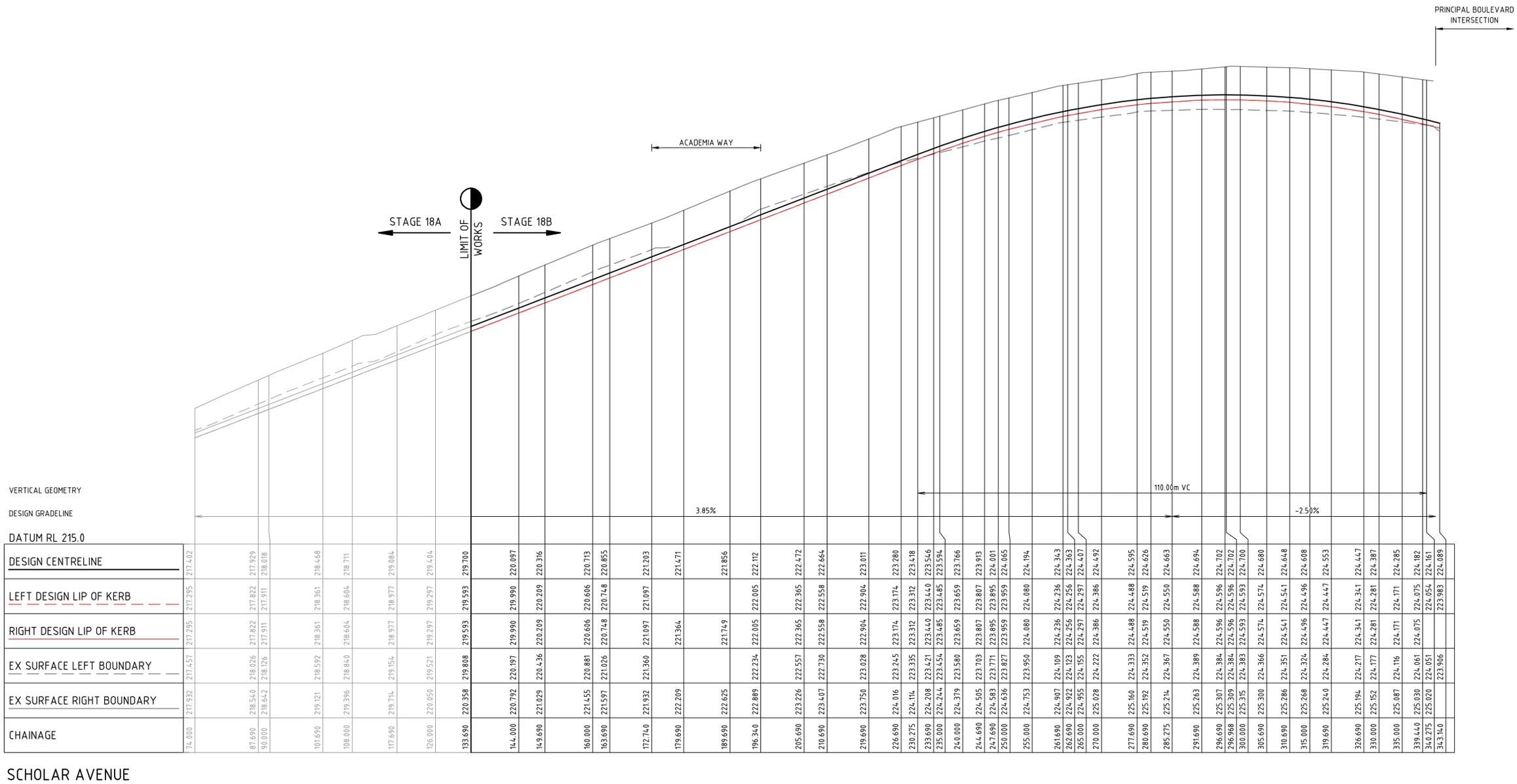


Checked
 J. POYNER
 Date
 21/10/25

REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
SERVICES PLAN
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

PRELIMINARY Drg No **310068CR201** Rev **C**

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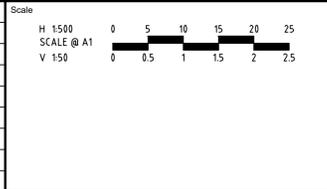


VERTICAL GEOMETRY
DESIGN GRADELINE
DATUM RL 215.0

CHAINAGE	DESIGN CENTRELINE	LEFT DESIGN LIP OF KERB	RIGHT DESIGN LIP OF KERB	EX SURFACE LEFT BOUNDARY	EX SURFACE RIGHT BOUNDARY
74.000	217.932	217.457	217.295	217.402	
87.690	218.540	218.026	217.822	217.822	217.929
90.000	218.642	218.126	217.911	217.911	218.018
101.690	219.121	218.592	218.361	218.468	
108.000	219.396	218.840	218.604	218.711	
117.690	219.714	219.154	218.977	219.084	
126.000	220.050	219.521	219.297	219.404	
133.690	220.358	219.808	219.593	219.700	
144.000	220.792	220.197	219.990	220.097	
149.690	221.029	220.436	220.209	220.316	
160.000	221.155	220.881	220.606	220.713	
163.690	221.197	221.026	220.748	220.855	
172.740	221.932	221.360	221.097	221.203	
179.690	222.209		221.364	221.471	
189.690	222.625		221.749	221.856	
196.340	222.889	222.234	222.005	222.112	
205.690	223.226	222.557	222.365	222.472	
210.690	223.407	222.730	222.558	222.664	
219.690	223.150	223.028	222.904	223.011	
226.690	224.016	223.245	223.174	223.280	
230.275	224.114	223.335	223.312	223.418	
233.690	224.208	223.421	223.440	223.546	
235.000	224.244	223.454	223.485	223.594	
240.000	224.319	223.580	223.659	223.766	
244.690	224.505	223.703	223.807	223.913	
247.690	224.583	223.771	223.895	224.001	
250.000	224.636	223.827	223.959	224.065	
255.000	224.753	223.950	224.080	224.194	
261.690	224.907	224.109	224.236	224.343	
262.690	224.922	224.123	224.256	224.363	
265.000	224.955	224.155	224.297	224.407	
270.000	225.028	224.222	224.386	224.492	
277.690	225.160	224.333	224.488	224.595	
280.690	225.192	224.352	224.519	224.626	
285.275	225.214	224.367	224.550	224.663	
291.690	225.263	224.389	224.588	224.694	
296.690	225.307	224.384	224.596	224.702	
296.968	225.309	224.384	224.596	224.702	
300.000	225.315	224.383	224.593	224.700	
305.690	225.300	224.366	224.574	224.680	
310.690	225.286	224.351	224.541	224.648	
315.000	225.268	224.324	224.496	224.608	
319.690	225.240	224.284	224.447	224.553	
326.690	225.194	224.217	224.341	224.447	
330.000	225.152	224.177	224.281	224.387	
335.000	225.087	224.116	224.171	224.285	
339.440	225.030	224.061	224.075	224.182	
340.275	225.020	224.051	224.054	224.161	
343.140		223.906	223.983	224.089	

SCHOLAR AVENUE

Rev	Amendments	Approved	Date
B	LONG SECTION AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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Designed
L. TRAN

Authorised
M. RANJANAN

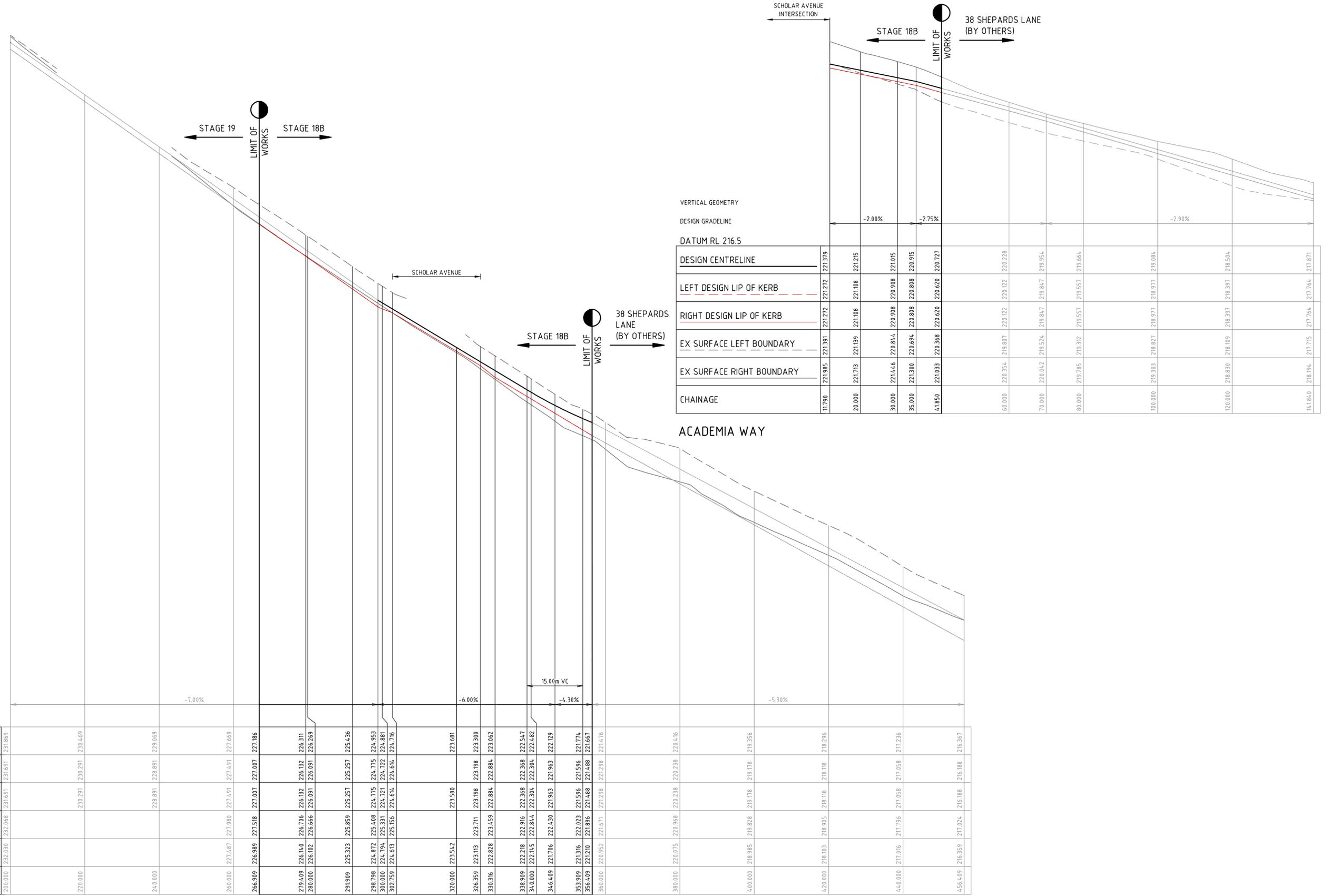
Checked
J. POYNER

Date
21/10/25

**REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
ROAD LONG SECTIONS - SHEET 1
HUME CITY COUNCIL
VILLAWOOD PROPERTIES**

PRELIMINARY Drg No **31068CR300** Rev **B**

file name: 310068CR300.dwg, layout: rans: CR301, plotted by: IJian, T:ran
 file location: G:\310068\310068\WALK\A1\plot date: 05/10/2026 3:35 PM, Sheet: 5 of 15 Sheets



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 216.5

DESIGN CENTRELINE	221.319	221.215	221.015	220.915	220.727	220.228	219.954	219.664	219.084	218.504	217.871
LEFT DESIGN LIP OF KERB	221.272	221.108	220.908	220.808	220.620	220.122	219.847	219.557	218.977	218.397	217.764
RIGHT DESIGN LIP OF KERB	221.272	221.108	220.908	220.808	220.620	220.122	219.847	219.557	218.977	218.397	217.764
EX SURFACE LEFT BOUNDARY	221.391	221.139	220.694	220.808	220.368	219.807	219.524	219.312	218.827	218.342	217.715
EX SURFACE RIGHT BOUNDARY	221.985	221.713	221.446	221.300	221.033	220.354	220.042	219.785	219.303	218.830	218.194
CHAINAGE	11.790	20.000	30.000	35.000	41.850	60.000	70.000	80.000	100.000	120.000	141.840

VERTICAL GEOMETRY

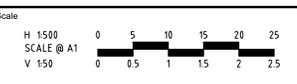
DESIGN GRADELINE

DATUM RL 213.5

DESIGN CENTRELINE	231.869	230.469	227.186	226.311	225.436	223.681	223.300	223.062	222.547	222.482	221.476
LEFT DESIGN LIP OF KERB	231.691	230.291	227.007	226.132	225.257	223.500	223.198	222.884	222.368	222.304	221.298
RIGHT DESIGN LIP OF KERB	231.691	230.291	227.007	226.132	225.257	223.500	223.198	222.884	222.368	222.304	221.298
EX SURFACE LEFT BOUNDARY	232.068	230.668	227.384	226.509	225.634	223.877	223.575	223.261	222.745	222.681	221.675
EX SURFACE RIGHT BOUNDARY	232.030	230.630	227.346	226.471	225.596	223.839	223.537	223.223	222.707	222.643	221.637
CHAINAGE	200.000	220.000	266.909	279.409	280.000	291.909	298.798	300.000	302.753	320.000	353.909

PRINCIPLE BOULEVARD

Rev	Amendments	Approved	Date
B	LONG SECTIONS AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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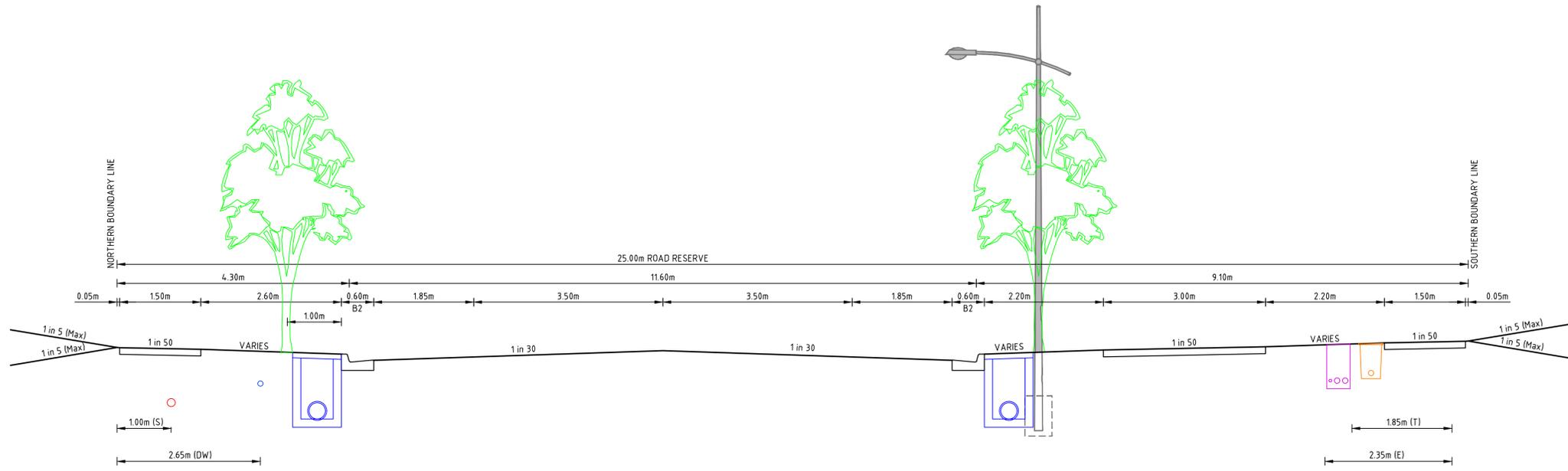
Designed
L. TRAN
Authorised
M. RANJANAN



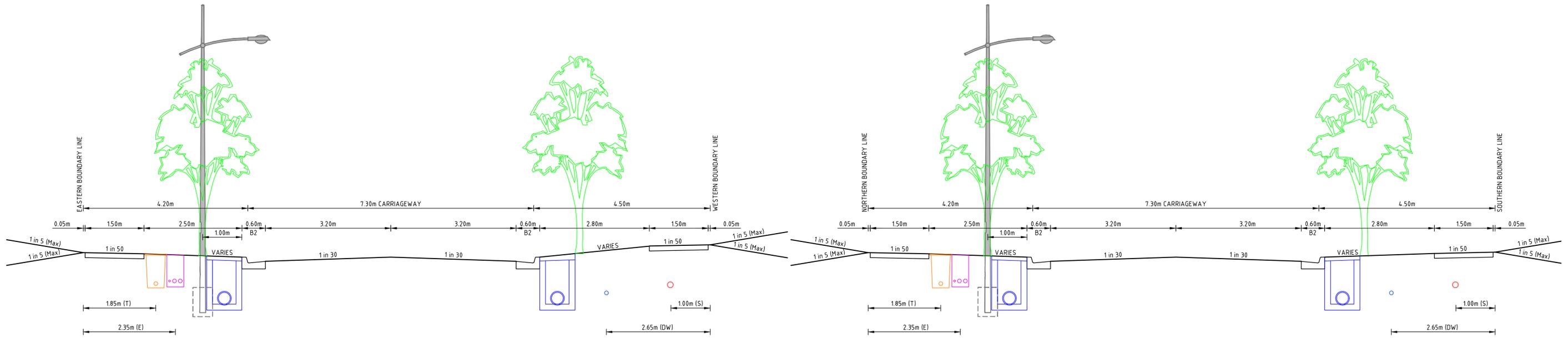
Checked
J. POYNER
Date
21/10/25

REDSTONE ESTATE
STAGE 18B
 ROAD AND DRAINAGE
 ROAD LONG SECTIONS - SHEET 2
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

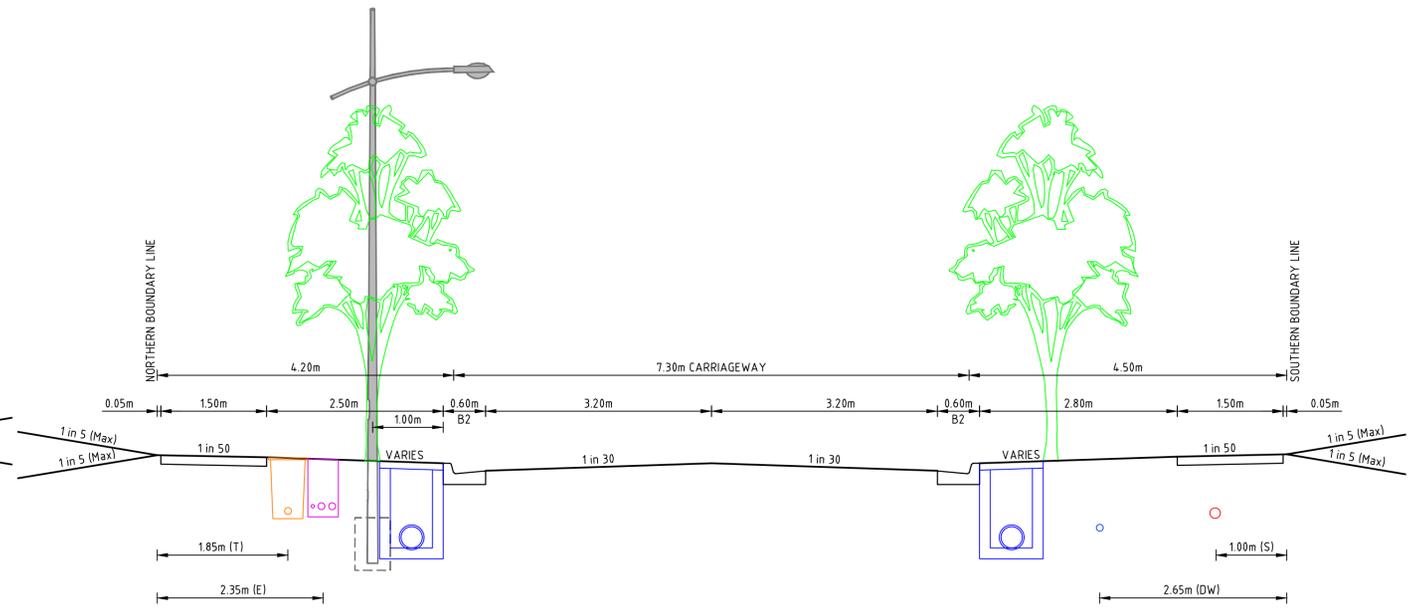
PRELIMINARY Drg No **310068CR301** Rev **B**



PRINCIPAL BOULEVARD TYPICAL CROSS SECTION
 25m WIDE CONNECTOR STREET
 SCALE 1:50 @ A1



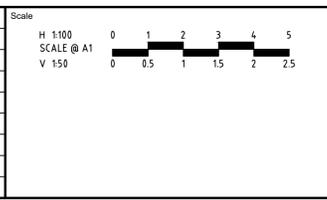
SCHOLAR AVENUE TYPICAL CROSS SECTION
 16m WIDE ACCESS STREET
 SCALE 1:50 @ A1



ACADEMIA WAY TYPICAL CROSS SECTION
 16m WIDE ACCESS STREET
 SCALE 1:50 @ A1

file name: 310668CR400.dwg, layout: rns, cdu:00, plotted by: Lillian Tran, plot date: 05/10/2024, plot time: 3:36 PM, sheet: 6 of 15, sheets: 310668

Rev	Amendments	Approved	Date
B	PRINCIPAL BOULEVARD TYPICAL CROSS SECTION AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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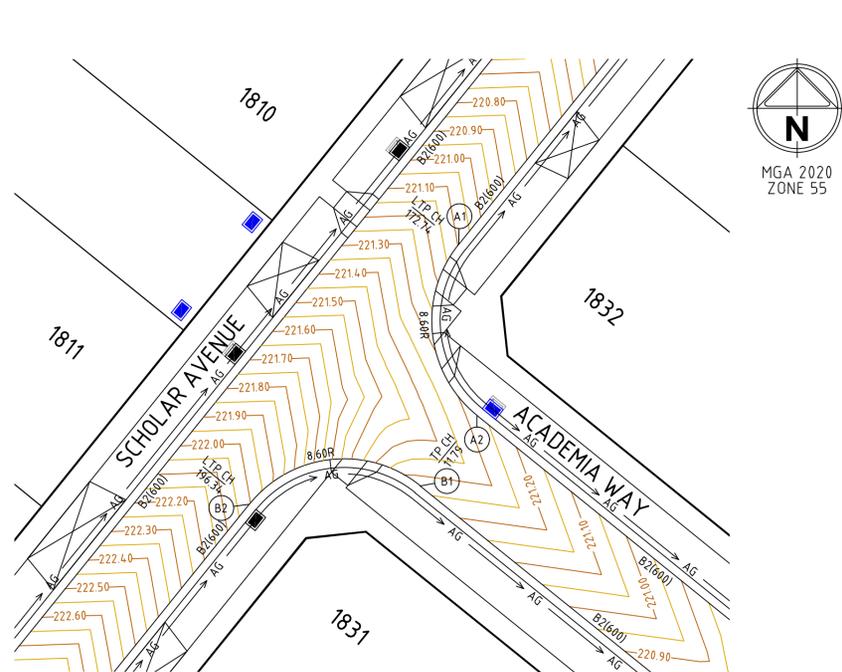
Checked
 J. POYNER

Authorised
 M. RANJANAN

Date
 21/10/25

**REDSTONE ESTATE
 STAGE 18B
 ROAD AND DRAINAGE
 ROAD CROSS SECTIONS - SHEET 1
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES**

PRELIMINARY Drg No **31068CR400** Rev **B**



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 220.0

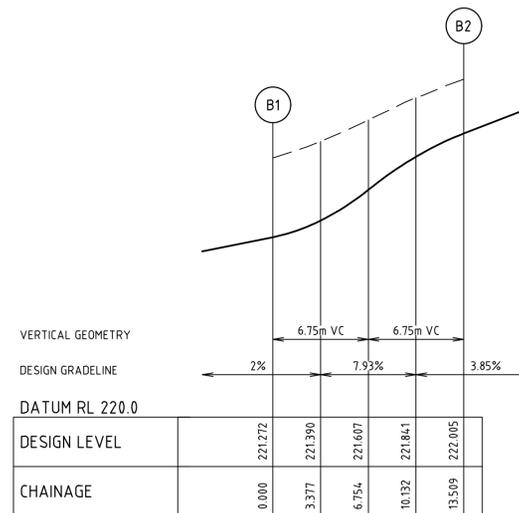
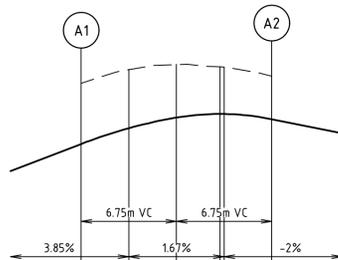
DESIGN LEVEL	221.097	221.208	221.283	221.309	221.309	221.272
CHAINAGE	0.000	3.377	6.754	9.831	10.132	13.509

ALIGNMENT A

ALIGNMENT A

POINT NO	EASTING	NORTHING	RL
A1	302207.726	5835106.844	221.097
1/4	302206.169	5835103.872	221.208
1/2	302205.867	5835100.530	221.283
3/4	302206.867	5835097.327	221.309
A2	302209.017	5835094.751	221.272

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
A1-A2	8.600	13.509	12.162	2.519	-0.655



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 220.0

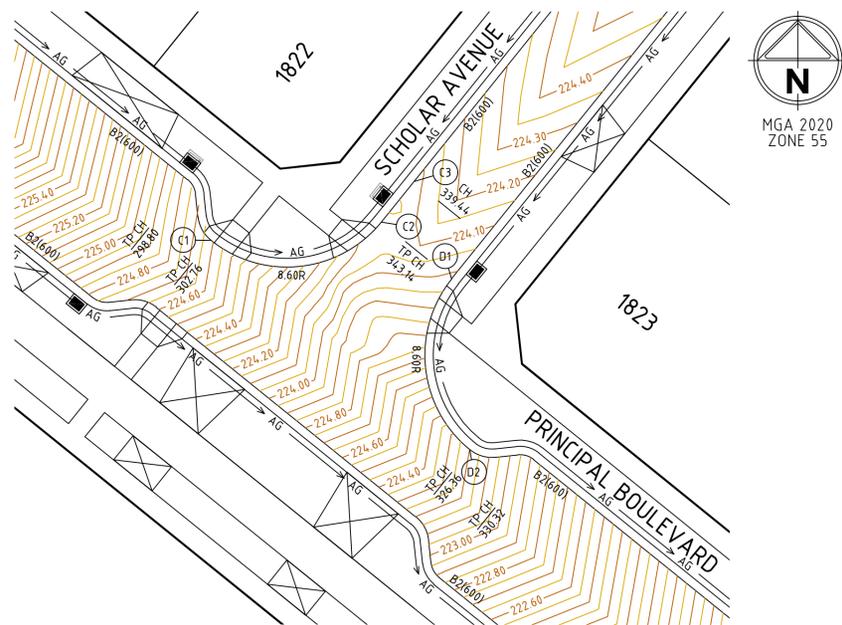
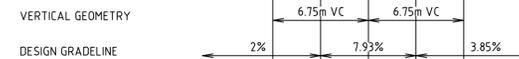
DESIGN LEVEL	221.272	221.390	221.607	221.841	222.005
CHAINAGE	0.000	3.377	6.754	10.132	13.509

ALIGNMENT B

ALIGNMENT B

POINT NO	EASTING	NORTHING	RL
B1	302204.998	5835089.770	221.272
1/4	302202.026	5835091.328	221.390
1/2	302198.684	5835091.629	221.607
3/4	302195.481	5835090.629	221.841
B2	302192.904	5835088.479	222.005

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
B1-B2	8.600	13.509	12.162	2.519	-0.655



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 223.0

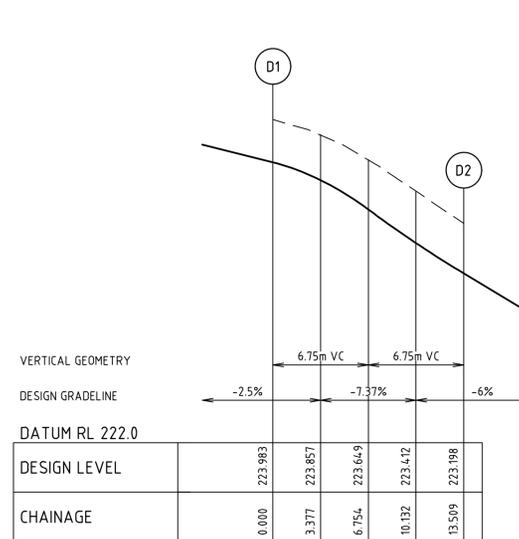
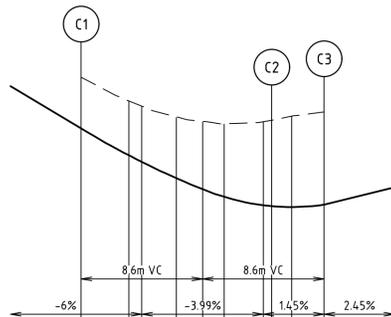
DESIGN LEVEL	224.614	224.425	224.378	224.262	224.184	224.131	224.071	224.064	224.058	224.075
CHAINAGE	0.000	3.377	4.302	6.754	8.604	10.132	12.907	14.914	17.209	22.075

ALIGNMENT C

ALIGNMENT C

POINT NO	EASTING	NORTHING	RL
C1	302083.634	5834976.970	224.614
1/4	302086.607	5834975.413	224.425
1/2	302089.949	5834975.111	224.262
3/4	302093.152	5834976.112	224.131
C2	302095.728	5834978.261	224.064
C3	302098.052	5834981.141	224.075

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
C1-C2	8.600	13.509	12.162	2.519	-0.655



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 222.0

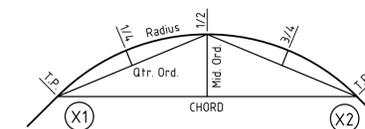
DESIGN LEVEL	223.983	223.857	223.649	223.412	223.198
CHAINAGE	0.000	3.377	6.754	10.132	13.509

ALIGNMENT D

ALIGNMENT D

POINT NO	EASTING	NORTHING	RL
D1	302100.708	5834974.242	223.983
1/4	302099.151	5834971.270	223.857
1/2	302098.849	5834967.928	223.649
3/4	302099.850	5834964.725	223.412
D2	302102.000	5834962.149	223.198

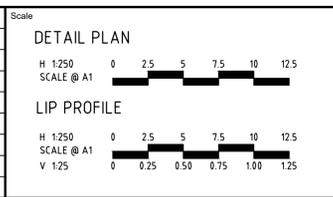
CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
D1-D2	8.600	13.509	12.162	2.519	-0.655



KERB RETURN SETOUT DETAIL

file name: 31068CR500.dwg layout: name: CR500 plotted by: Lillian Tran file location: G:\31068CR500\31068CR500\31068CR500.dwg plot date: 05/10/2025 3:56 PM sheet: 9 of 15 sheets

Rev	Description	By	Date
B	ALIGNMENT B, C & D AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25
Rev	Amendments	Approved	Date



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Designed
L. TRAN
Authorised
M. RANJANAN



Checked
J. POYNER
Date
21/10/25

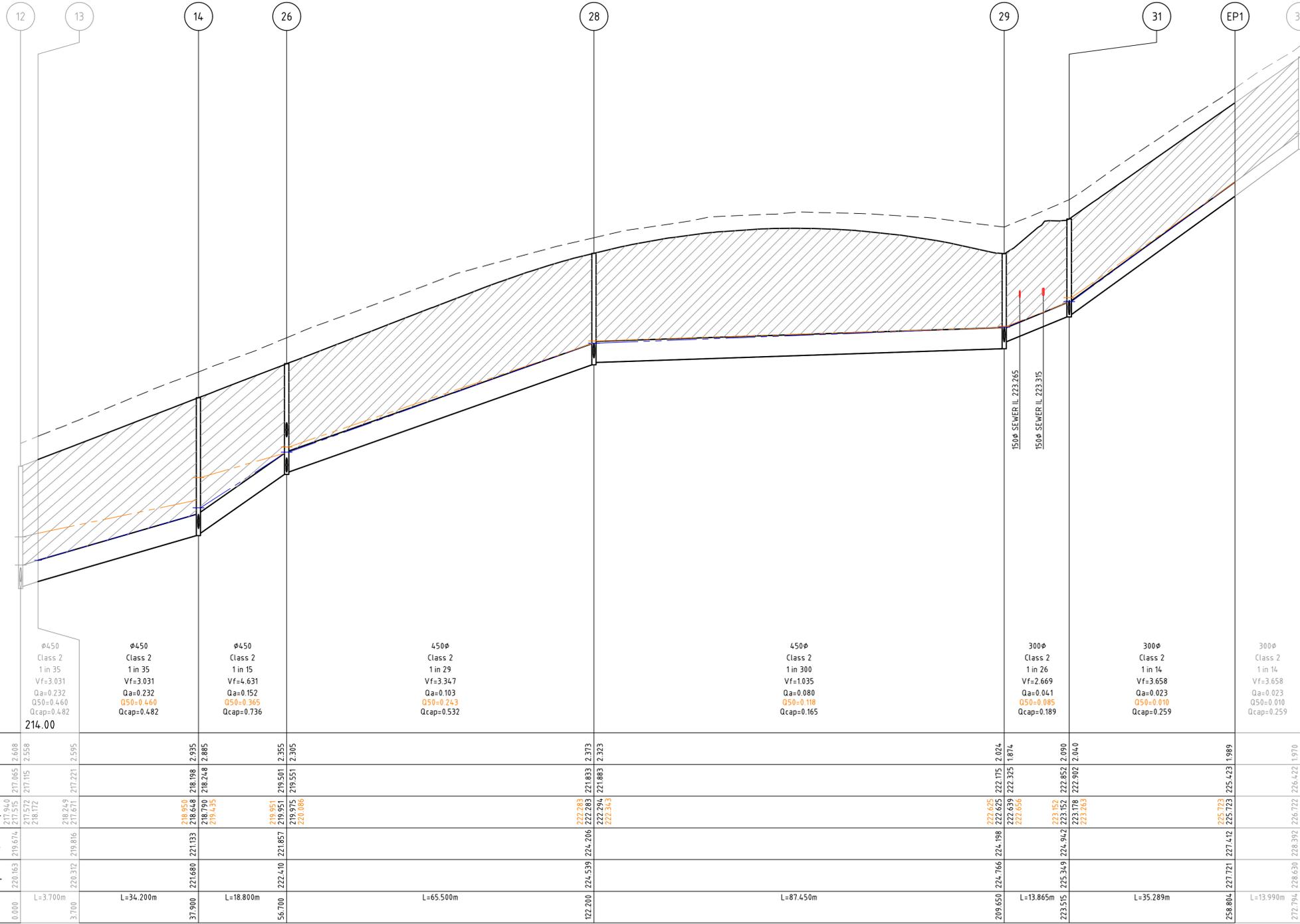
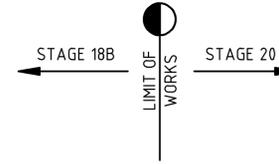
REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
INTERSECTION DETAILS
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

PRELIMINARY Drg No **31068CR500** Rev **B**

CLASS 2 CRUSHED ROCK BACKFILL

50YR HYDRAULIC GRADE LEVEL

5YR HYDRAULIC GRADE LEVEL



	12	13	14	26	28	29	31	EP1	32
Pipe Diameter	Ø450								
Pipe Class	Class 2								
Pipe Grade	1 in 35	1 in 35	1 in 35	1 in 35	1 in 29	1 in 300	1 in 26	1 in 14	1 in 14
Velocity (m/s)	Vf=3.031	Vf=3.031	Vf=3.031	Vf=3.031	Vf=3.347	Vf=1.035	Vf=2.669	Vf=3.658	Vf=3.658
Pipe Flow (m3/s)	Qa=0.232	Qa=0.232	Qa=0.232	Qa=0.152	Qa=0.103	Qa=0.080	Qa=0.041	Qa=0.023	Qa=0.023
Pipe Capacity (m3/s)	Q50=0.460	Q50=0.460	Q50=0.460	Q50=0.365	Q50=0.243	Q50=0.118	Q50=0.085	Q50=0.010	Q50=0.010
Pipe Capacity (m3/s)	Qcap=0.482	Qcap=0.482	Qcap=0.482	Qcap=0.736	Qcap=0.532	Qcap=0.165	Qcap=0.189	Qcap=0.259	Qcap=0.259
DATUM	214.00								
DEPTH TO INVERT	2.608	2.558	2.595	2.885	2.313	2.323	2.024	2.090	2.440
DESIGN INVERT LEVEL	217.065	217.115	218.198	218.248	221.833	221.833	222.175	222.325	225.423
HYDRAULIC GRADE LEVEL	217.572	217.115	218.950	218.648	222.283	222.283	222.625	222.852	225.723
FINISHED SURFACE LEVEL	219.674	218.172	218.249	219.435	224.206	224.206	224.198	224.942	227.412
EXISTING SURFACE LEVEL	220.163	219.674	221.133	221.133	224.539	224.206	224.766	225.349	227.721
CHAINAGE	L=3.700m	L=34.200m	L=18.800m	L=65.500m	L=87.450m	L=13.865m	L=35.289m	L=13.990m	L=13.990m

file name: 310668CR600.dwg, layout: name: CR600, plotted by: IJL: Tran, file location: G:\310668\310668\310668.dwg, plot date: 05/10/2025 3:56 PM, Sheet: 10 of 15 Sheets

Q50 PIPES AND PITS TO REDUCE GAP FLOWS IN ROAD

Rev	Amendments	Approved	Date
B	DRAINAGE LONG SECTION AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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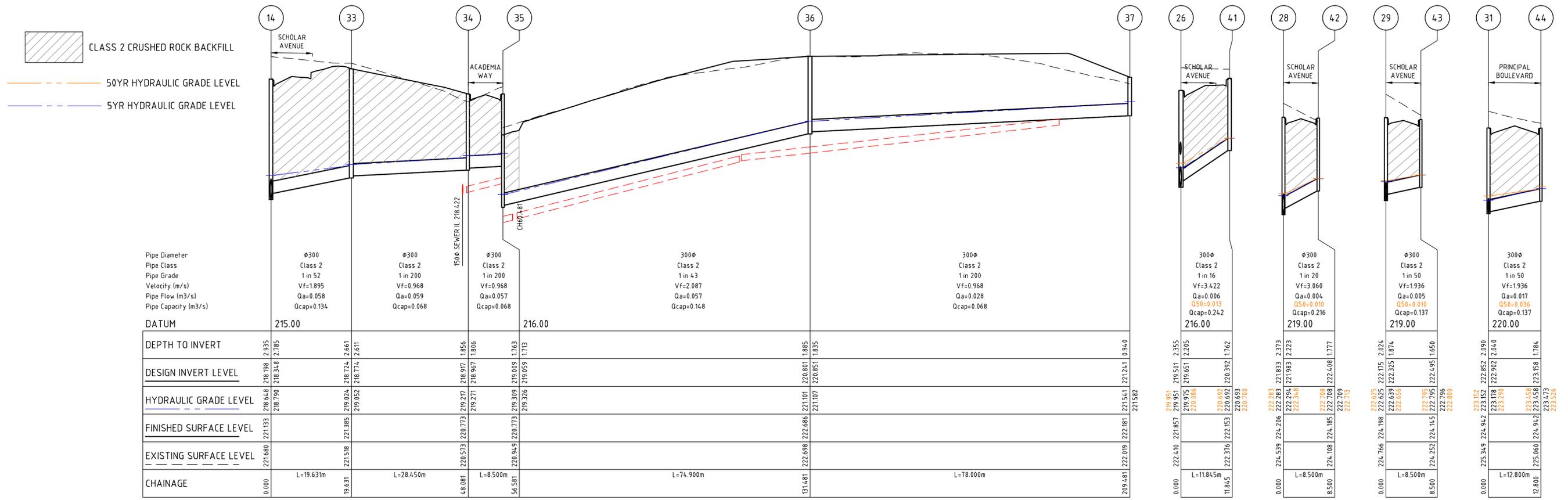


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J. POYNER
Date
21/10/25

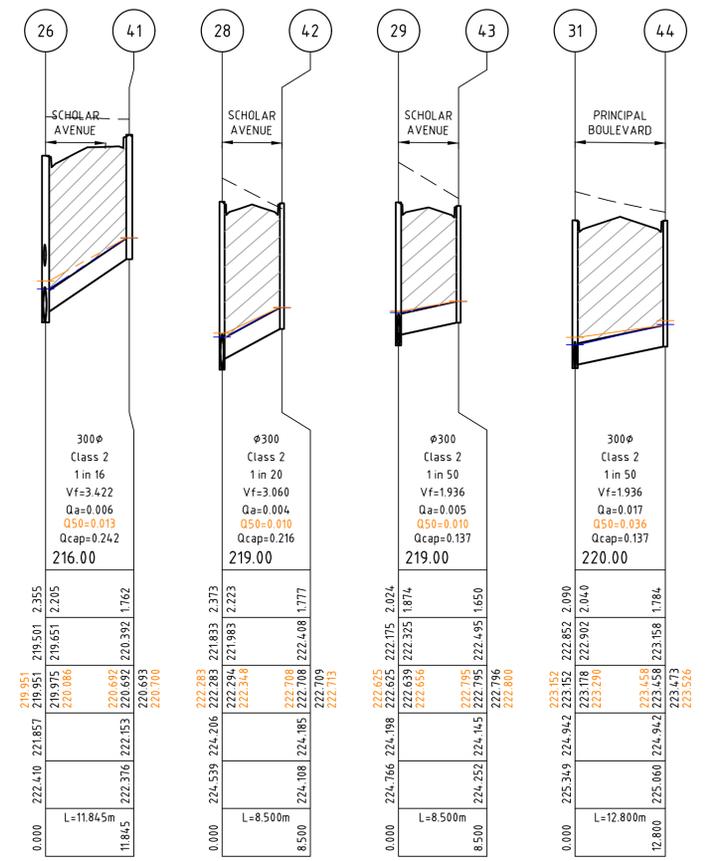
REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS - SHEET 1
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

PRELIMINARY Drg No **310668CR600** Rev **B**

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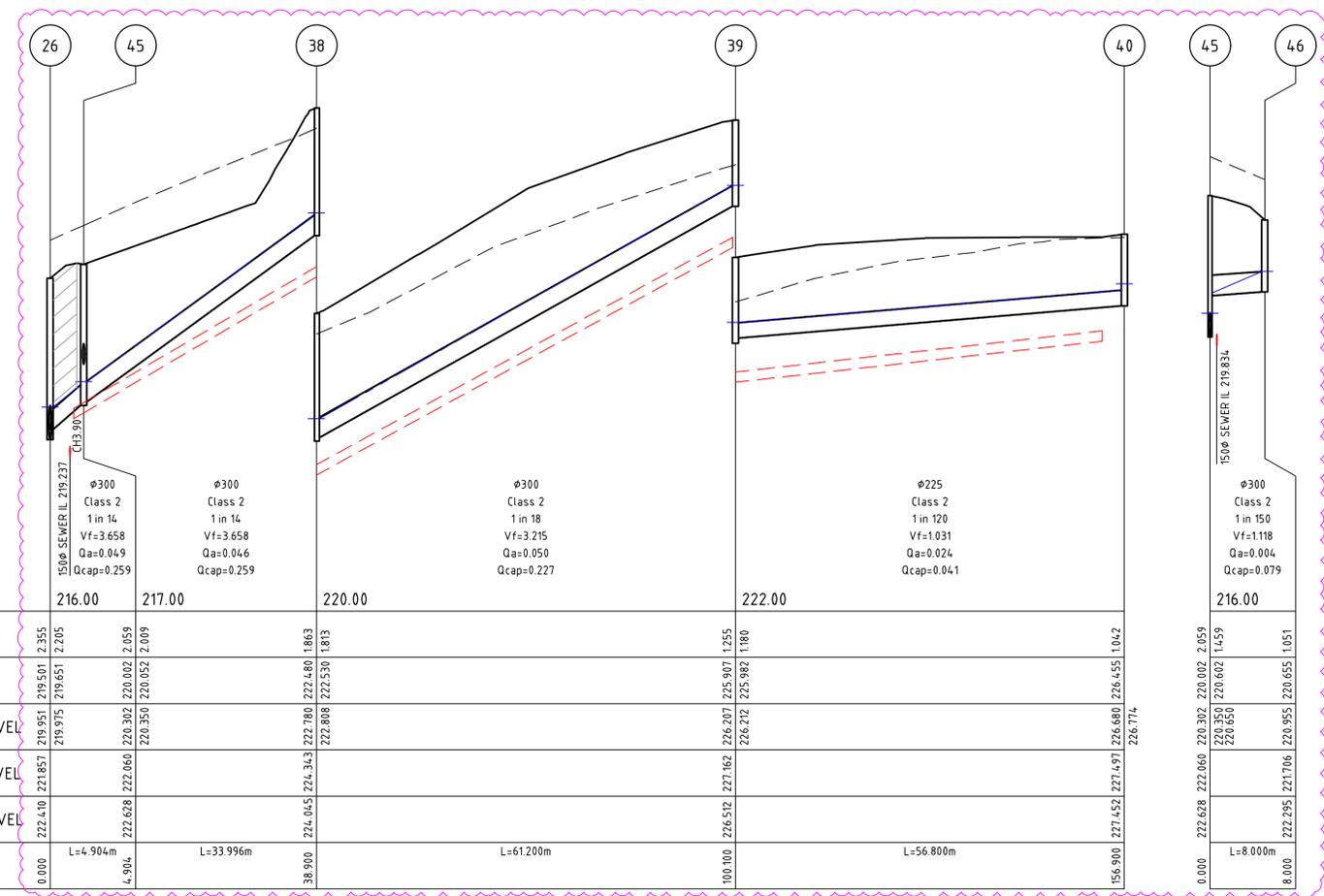


Pipe Diameter	14	33	34	35	36	37
Pipe Class	Class 2					
Pipe Grade	1 in 52	1 in 200	1 in 43	1 in 200	1 in 16	1 in 200
Velocity (m/s)	Vf=1.895	Vf=0.968	Vf=0.968	Vf=2.087	Vf=0.968	Vf=3.422
Pipe Flow (m ³ /s)	Qa=0.058	Qa=0.059	Qa=0.057	Qa=0.057	Qa=0.028	Qa=0.006
Pipe Capacity (m ³ /s)	Qcap=0.134	Qcap=0.068	Qcap=0.068	Qcap=0.148	Qcap=0.068	Qcap=0.242
DATUM	215.00		216.00			
DEPTH TO INVERT	2.935	2.661	1.856	1.713	1.885	0.940
DESIGN INVERT LEVEL	218.065	218.339	218.144	219.287	220.115	221.060
HYDRAULIC GRADE LEVEL	218.065	218.339	218.144	219.287	220.115	221.060
FINISHED SURFACE LEVEL	221.133	221.385	220.713	219.309	222.686	222.881
EXISTING SURFACE LEVEL	221.680	221.518	220.513	220.949	222.698	222.019
CHAINAGE	0.000	L=19.631m	L=28.450m	L=8.500m	L=74.900m	L=78.000m

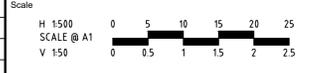


Pipe Diameter	26	41	28	42	29	43	31	44
Pipe Class	Class 2							
Pipe Grade	1 in 16	1 in 200	1 in 20	1 in 50				
Velocity (m/s)	Vf=3.422	Vf=0.006	Vf=3.060	Vf=1.936	Vf=1.936	Vf=1.936	Vf=1.936	Vf=1.936
Pipe Flow (m ³ /s)	Qa=0.006	Qa=0.004	Qa=0.004	Qa=0.005	Qa=0.005	Qa=0.005	Qa=0.005	Qa=0.005
Pipe Capacity (m ³ /s)	Qcap=0.242	Qcap=0.216	Qcap=0.137	Qcap=0.137	Qcap=0.137	Qcap=0.137	Qcap=0.137	Qcap=0.137
DATUM	216.00		219.00		219.00		220.00	
DEPTH TO INVERT	2.355	2.205	2.223	1.777	1.650	1.784	1.784	1.784
DESIGN INVERT LEVEL	219.645	219.795	221.777	222.223	222.223	222.223	222.223	222.223
HYDRAULIC GRADE LEVEL	219.645	219.795	221.777	222.223	222.223	222.223	222.223	222.223
FINISHED SURFACE LEVEL	222.410	221.857	222.294	222.348	222.008	222.008	222.008	222.008
EXISTING SURFACE LEVEL	222.410	221.857	222.294	222.348	222.008	222.008	222.008	222.008
CHAINAGE	0.000	L=11.845m	L=8.500m	L=8.500m	L=8.500m	L=12.800m		

Q50 PIPES AND PITS TO REDUCE GAP FLOWS IN ROAD TO REDUCE GAP FLOWS IN ROAD TO REDUCE GAP FLOWS IN ROAD TO REDUCE GAP FLOWS IN ROAD



Pipe Diameter	26	45	38	39	40	45	46
Pipe Class	Class 2						
Pipe Grade	1 in 16	1 in 16	1 in 18	1 in 120	1 in 150	1 in 150	1 in 150
Velocity (m/s)	Vf=3.658	Vf=3.658	Vf=3.215	Vf=1.031	Vf=1.118	Vf=1.118	Vf=1.118
Pipe Flow (m ³ /s)	Qa=0.049	Qa=0.046	Qa=0.050	Qa=0.024	Qa=0.004	Qa=0.004	Qa=0.004
Pipe Capacity (m ³ /s)	Qcap=0.259	Qcap=0.259	Qcap=0.227	Qcap=0.041	Qcap=0.079	Qcap=0.079	Qcap=0.079
DATUM	216.00	217.00	220.00	222.00	216.00		
DEPTH TO INVERT	2.355	2.205	1.863	1.255	2.059	1.051	1.051
DESIGN INVERT LEVEL	219.645	219.795	222.137	223.745	220.000	220.941	220.941
HYDRAULIC GRADE LEVEL	219.645	219.795	222.137	223.745	220.000	220.941	220.941
FINISHED SURFACE LEVEL	222.410	221.857	222.000	226.207	222.680	222.680	222.680
EXISTING SURFACE LEVEL	222.410	221.857	222.000	226.207	222.680	222.680	222.680
CHAINAGE	0.000	L=4.904m	L=33.996m	L=61.200m	L=56.800m	L=8.000m	



Rev	Amendments	Approved	Date
C	DRAINAGE LONG SECTIONS AMENDED	L.T	05/02/26
B	DRAINAGE LONG SECTIONS AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25

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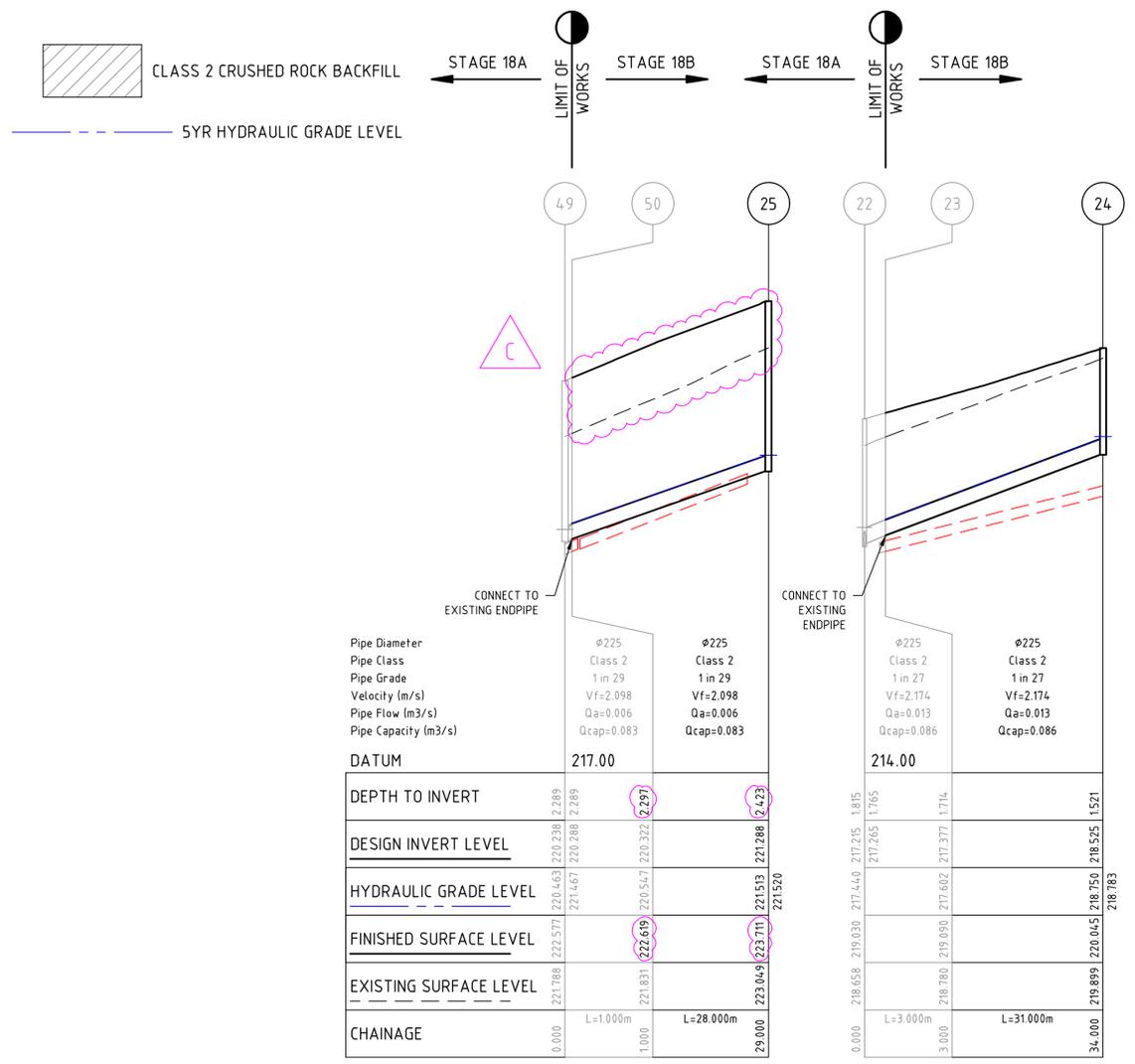
Designed
 L. TRAN
 Authorised
 M. RANJANAN



Checked
 J. POYNER
 Date
 21/10/25

REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS - SHEET 2
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

PRELIMINARY Drg No **31068CR601** Rev **C**

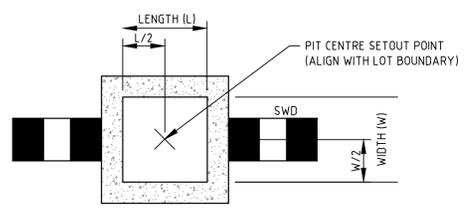


DRAINAGE PIT SCHEDULE

PIT NAME	TYPE	INTERNAL		INLET		OUTLET		PIT		REMARKS
		WIDTH	LENGTH	DIA	INV LEVEL	DIA	INV LEVEL	FS LEVEL	DEPTH	
13	ENDPIPE					450	217.221	219.816	2.595	CONNECT TO EXISTING ENDPIPE
14	DOUBLE SIDE ENTRY PIT	900	900	450	218.248	450	218.198	221.133	2.935	REFER TO EDMC STD FIG 602 & 607
23	ENDPIPE					225	217.377	219.090	1.714	CONNECT TO EXISTING ENDPIPE
24	JUNCTION PIT	600	900			225	218.525	220.045	1.521	REFER TO EDMC STD FIG 605
25	JUNCTION PIT	600	900			225	221.288	223.711	2.423	REFER TO EDMC STD FIG 605
26	DOUBLE SIDE ENTRY PIT	900	900	450	219.551	450	219.501	221.857	2.355	REFER TO EDMC STD FIG 602 & 607
28	DOUBLE SIDE ENTRY PIT	900	900	450	221.883	450	221.833	224.206	2.373	REFER TO EDMC STD FIG 602 & 607
29	DOUBLE SIDE ENTRY PIT	900	900	300	222.325	450	222.175	224.198	2.024	REFER TO EDMC STD FIG 602 & 607
31	DOUBLE SIDE ENTRY PIT	900	900	300	222.902	300	222.852	224.942	2.090	REFER TO EDMC STD FIG 602 & 607
EP1	ENDPIPE					300	225.423	227.412	1.989	
33	JUNCTION PIT	900	900	300	218.774	300	218.724	221.385	2.661	REFER TO EDMC STD FIG 605
34	GRADED SIDE ENTRY PIT	600	900	300	218.967	300	218.917	220.773	1.856	REFER TO EDMC STD FIG 601 & 605
35	GRADED SIDE ENTRY PIT	600	900	300	219.059	300	219.009	220.773	1.763	REFER TO EDMC STD FIG 601 & 605
36	JUNCTION PIT	600	900	300	220.851	300	220.801	222.686	1.885	REFER TO EDMC STD FIG 605
37	JUNCTION PIT	600	900	300	221.241	300	221.241	222.181	0.940	REFER TO EDMC STD FIG 605
38	JUNCTION PIT	600	900	300	222.530	300	222.480	224.343	1.863	REFER TO EDMC STD FIG 605
39	JUNCTION PIT	600	900	225	225.982	300	225.907	227.162	1.255	REFER TO EDMC STD FIG 605
40	JUNCTION PIT	600	900			225	226.455	227.497	1.042	REFER TO EDMC STD FIG 605
41	DOUBLE SIDE ENTRY PIT	600	900			300	220.392	222.153	1.762	REFER TO EDMC STD FIG 602 & 605
42	DOUBLE SIDE ENTRY PIT	600	900			300	222.408	224.185	1.777	REFER TO EDMC STD FIG 602 & 605
43	DOUBLE SIDE ENTRY PIT	600	900			300	222.495	224.145	1.650	REFER TO EDMC STD FIG 602 & 605
44	DOUBLE SIDE ENTRY PIT	600	900			300	223.158	224.942	1.784	REFER TO EDMC STD FIG 602 & 605
45	GRADED JUNCTION PIT	600	900	300	220.052	300	220.002	222.060	2.059	REFER TO EDMC STD FIG 605 & HCC STD DWG SD225
46	GRADED JUNCTION PIT	600	900	300	220.602	300	220.655	221.706	1.051	REFER TO EDMC STD FIG 605 & HCC STD DWG SD225
50	ENDPIPE					225	220.322	222.619	2.297	CONNECT TO EXISTING ENDPIPE

PIT SETOUT CO-ORDINATES

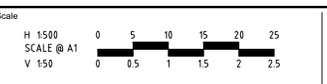
NAME	POINT	EASTING	NORTHING
26	B	302191.911	5835099.111
45	C	302188.095	5835102.191
46	C	302193.120	5835108.416



TYPICAL DRAINAGE PIT SETOUT POINT 'B'
JUNCTION PIT / EASEMENT PIT
NOT TO SCALE

file name: 31066CR602.dwg, layout: name: CR602, plotted by: Lillian Tran, file location: G:\31066CR602\31066CR602.dwg, plot date: 05/10/2024 3:36 PM, Sheet 12 of 15 Sheets

Rev	Amendments	Approved	Date
C	DRAINAGE LONG SECTION & PIT SCHEDULE AMENDED	L.T	05/02/26
B	DRAINAGE PIT SCHEDULE AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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Designed
L. TRAN
Authorised
M. RANJANAN



Checked
J. POYNER
Date
21/10/25

REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS & PIT SCHEDULE
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

PRELIMINARY Drg No 31066CR602 Rev C

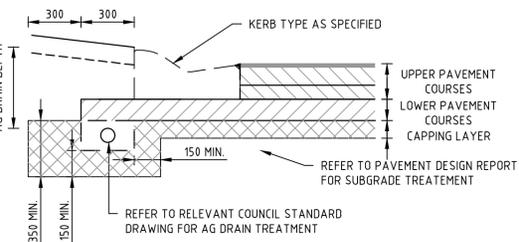
DESIGN PAVEMENT PROFILE

PAVEMENT LAYER	DESCRIPTION	DEPTH (mm)	
		TYPE A*	TYPE B*
ASPHALT WEARING COURSE	SIZE 10 TYPE L CLASS 320 ASPHALT	30	30
ASPHALT BASE COURSE	SIZE 10 TYPE N CLASS 320 ASPHALT	30	30
	SIZE 10 SAMI SEAL CLASS S18RF	10	10
	BITUMINOUS PRIMECOAT	Y	Y
BASE COURSE	SIZE 20mm CLASS 2 FCR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 100% MODIFIED DRY DENSITY RATIO AND WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT	130	
	SIZE 20mm CLASS 2 FCR, COMPACTED TO AT LEAST 100% CHARACTERISTIC MODIFIED DRY DENSITY RATIO WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT		130
SUBBASE COURSE	SIZE 20mm CLASS 3 FCR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 95% MODIFIED DRY DENSITY RATIO AND WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT	100	
	SIZE 20mm CLASS 3 FCR, COMPACTED TO AT LEAST 98% CHARACTERISTIC MODIFIED DRY DENSITY RATIO WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT		100
CAPPING LAYER	SELECT GRANULAR MATERIAL WITH A MINIMUM SOAKED CBR OF 10% COMPACTED TO AT LEAST 98% STANDARD DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 100% STANDARD DRY DENSITY RATIO AND WITHIN 1% OF THE STANDARD OPTIMUM MOISTURE CONTENT, A PERCENTAGE SWELL OF LESS THAN 1.5% AND A MAXIMUM HYDRAULIC CONDUCTIVITY OF 5×10^{-9} m/s	200	260
CONSTRUCTION LAYER	SELECT GRANULAR MATERIAL WITH A MINIMUM SOAKED CBR OF 10% COMPACTED TO AT LEAST 98% STANDARD DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 100% STANDARD DRY DENSITY RATIO AND WITHIN 1% OF THE STANDARD OPTIMUM MOISTURE CONTENT, A PERCENTAGE SWELL OF LESS THAN 1.5% AND A MAXIMUM HYDRAULIC CONDUCTIVITY OF 5×10^{-9} m/s	150	150
TOTAL PAVEMENT DEPTH		650	710
SUBGRADE	NATURAL SILTY CLAY TESTED TO CONFIRM AN IN-SITU CBR OF AT LEAST 15% OR APPROVED FILL COMPACTED TO AT LEAST 100% STANDARD DRY DENSITY RATIO (SOAKED CBR \geq 3.0%) WITHIN 2% OF THE STANDARD OPTIMUM MOISTURE CONTENT		

* REFER PAVEMENT PLAN FOR LOCATION OF PAVEMENT TYPES

ROAD NAME	TYPE
SCHOLAR AVENUE	A
ACADAMIA WAY	A
PRINCIPAL BOULEVARD	B

CONCRETE PAVEMENT	DESCRIPTION	LEGEND
FOOTPATH	125mm THICK N25 CONCRETE WITH SL72 MESH TOP 50 COVER. MESH TO HAVE 50 COVER TO ALL EDGES. ON 50mm THICK 20mm CLASS CRUSHED ROCK. REFER TO EDCM401 FOR DETAILS	
RESIDENTIAL VEHICLE CROSSING	125mm THICK N25 CONCRETE WITH SL72 MESH TOP 50 COVER. MESH TO HAVE 50 COVER TO ALL EDGES. ON 50mm THICK 20mm CLASS CRUSHED ROCK. REFER TO EDCM501-502 FOR DETAILS	
HEAVY DUTY VEHICLE CROSSING	200mm THICK N25 CONCRETE WITH SL82 MESH TOP 50 COVER. MESH TO HAVE 50 COVER TO ALL EDGES. ON 100mm THICK 20mm CLASS CRUSHED ROCK. REFER TO EDCM503 FOR DETAILS	



TYPICAL SUBSURFACE DRAIN DETAIL FOR EXPANSIVE SUBGRADE
REFER TO AUTHORITY REQUIREMENTS FOR SPECIFIC DETAILS

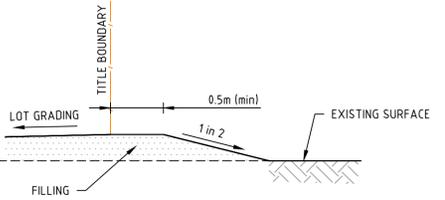
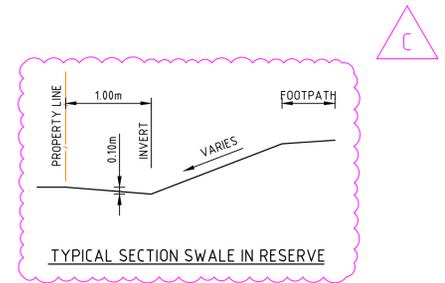
PAVEMENT DETAILS

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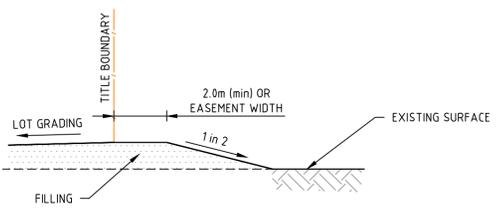
THE DESIGN HAS BEEN EXTRACTED FROM THE V180556REPORT07.2 REPORT ON "GEOTECHNICAL INVESTIGATION FOR PROPOSED RESIDENTIAL SUBDIVISION REDSTONE HILL ESTATE (STAGES 16, 17, 18, 19 AND 20), SUNBURY, VIC" THIS DOCUMENT SHOULD BE REVIEWED TO ENSURE THAT THE DESIGN HAS BEEN ACCURATELY REPRODUCED.

A COPY OF THE DOCUMENT WILL BE PROVIDED ON REQUEST.

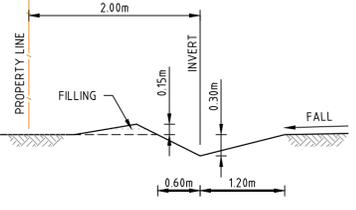
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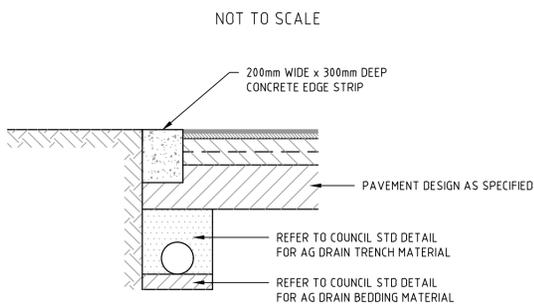
FILLING AT 38 SHEPARDS LANE PROPERTY BOUNDARY



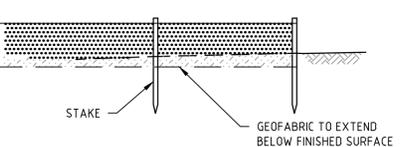
LOT FILLING AT STAGE BOUNDARY



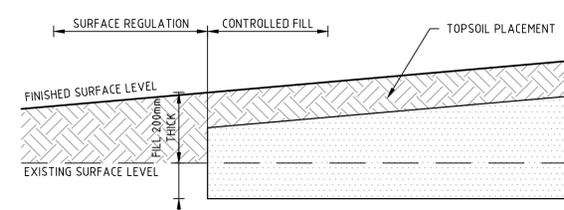
TYPICAL CATCH DRAIN SECTION



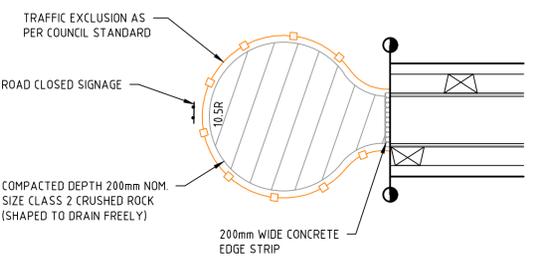
LIMIT OF WORKS CONCRETE EDGE STRIP & PAVEMENT INTERFACE DETAIL



SILT CONTROL FOR LOTS
GEOFABRIC SILT FENCE



LOT REGRADING DETAIL

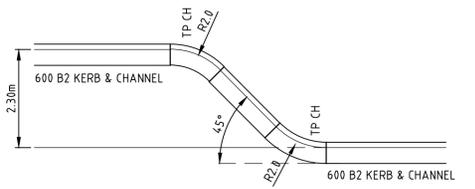


TEMPORARY TURNING AREA DETAIL

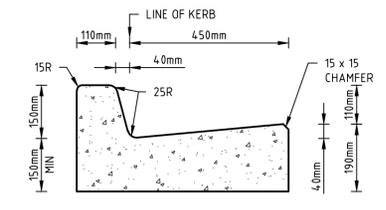


PAVEMENT PLAN

H 1:1000 SCALE @ A1



TYPICAL PARKING BAY DETAIL
NOT TO SCALE



STANDARD KERB PROFILES

NOTE: ALL KERB & CHANNEL AS PER EDCM STD DRAWING EDCM 301

H 1:100 SCALE @ A1

- KERB NOTES:**
- ALL KERBS AND KERB & CHANNEL TO BE REINFORCED IN ACCORDANCE WITH MUNICIPALITY STD DRAWINGS.
 - ALL KERBS AND KERB & CHANNEL TO HAVE MINIMUM 150mm DEPTH OF CONCRETE BELOW TOP OF PAVEMENT LEVEL.
 - REFER TO EDCM 301 AND 302 FOR MORE DETAIL.
 - THE 190mm FACE DIMENSION TO BE INCREASED TO 200mm WHERE A SAMI SEAL IS USED

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Rev	Amendments	Approved	Date
C	DETAIL ADDED	L.T	05/02/26
B	PRINCIPAL BOULEVARD AMENDED, FILLING DETAIL & KERB NOTES ADDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25

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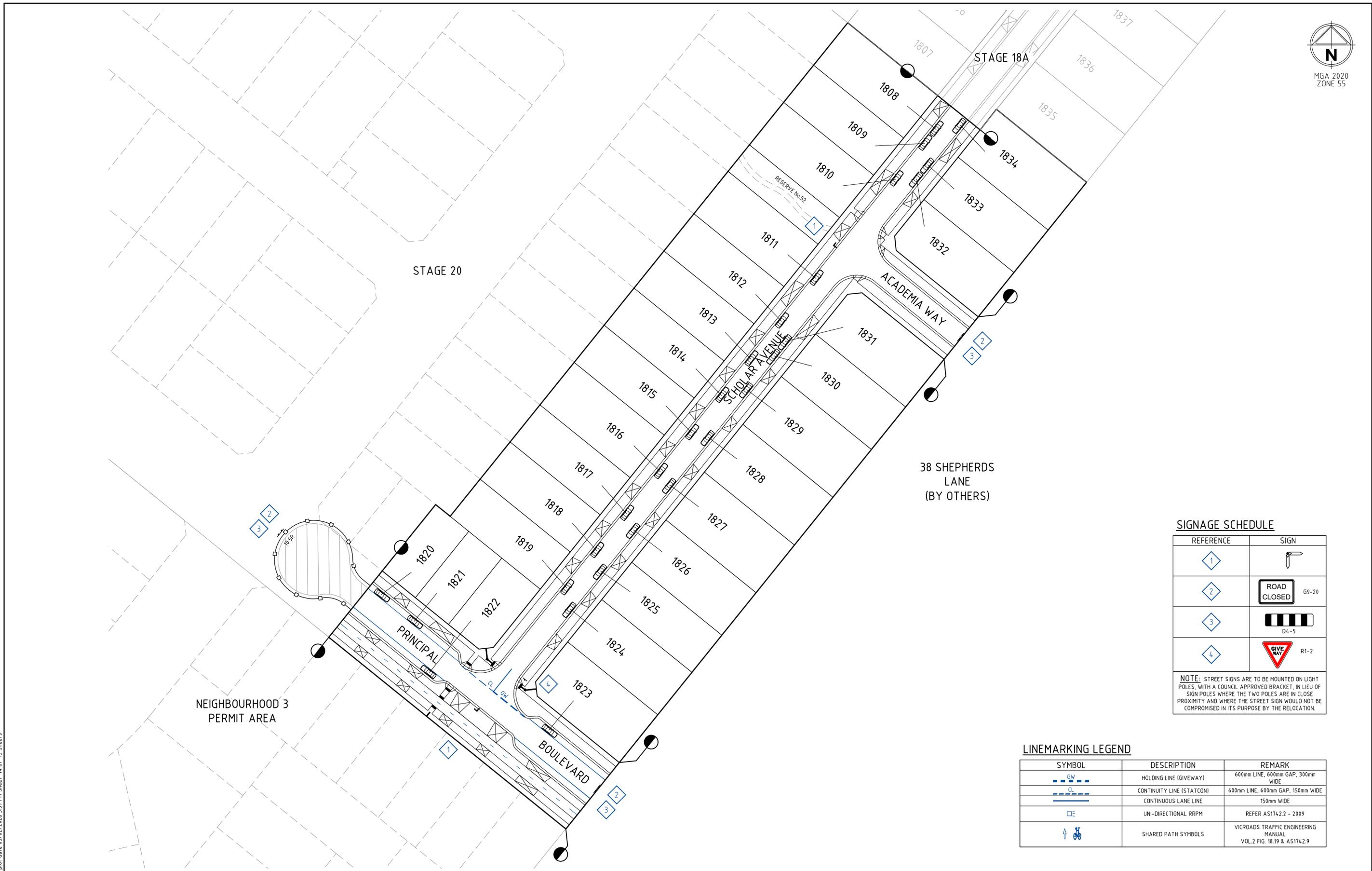
Designed
L. TRAN
Authorised
M. RANJANAN



Checked
J. POYNER
Date
21/10/25

REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
PAVEMENT AND TYPICAL DETAILS
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

PRELIMINARY Drg No **31068CR700** Rev **C**



SIGNAGE SCHEDULE

REFERENCE	SIGN
1	
2	G9-20
3	D4-5
4	R1-2

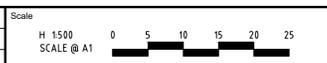
NOTE: STREET SIGNS ARE TO BE MOUNTED ON LIGHT POLES, WITH A COUNCIL APPROVED BRACKET, IN LIEU OF SIGN POLES WHERE THE TWO POLES ARE IN CLOSE PROXIMITY AND WHERE THE STREET SIGN WOULD NOT BE COMPROMISED IN ITS PURPOSE BY THE RELOCATION.

LINEMARKING LEGEND

SYMBOL	DESCRIPTION	REMARK
	HOLDING LINE (GIVEWAY)	600mm LINE, 600mm GAP, 300mm WIDE
	CONTINUITY LINE (STATCON)	600mm LINE, 600mm GAP, 150mm WIDE
	CONTINUOUS LANE LINE	150mm WIDE
	UNI-DIRECTIONAL RRP	REFER AS1742.2 - 2009
	SHARED PATH SYMBOLS	VICROADS TRAFFIC ENGINEERING MANUAL VOL.2 FIG. 18.19 & AS1742.9

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Rev	Amendments	Approved	Date
B	PRINCIPAL BOULEVARD AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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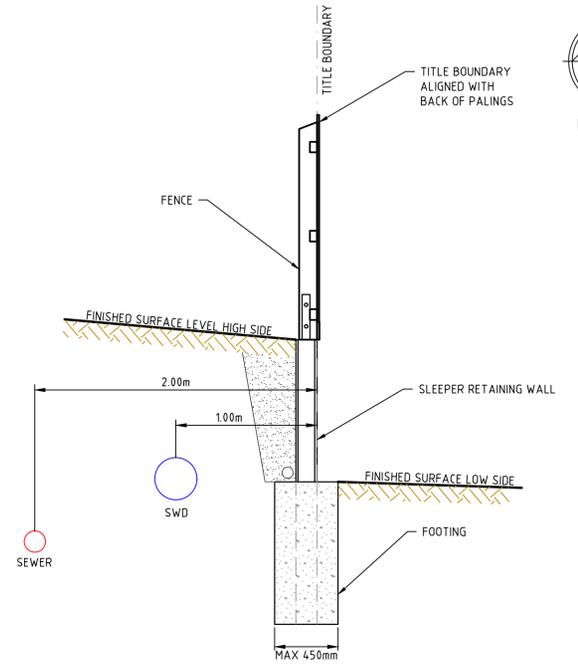
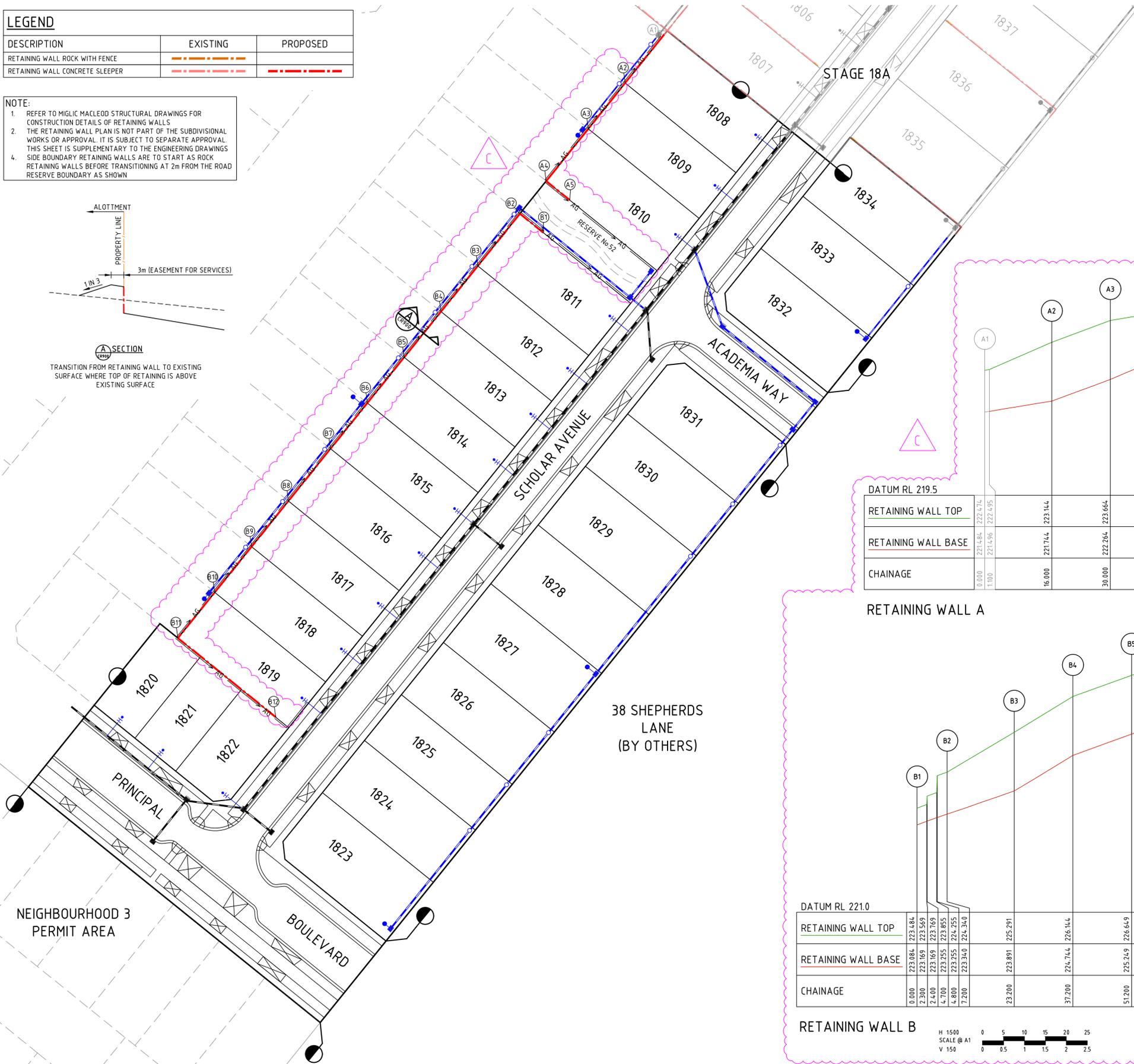
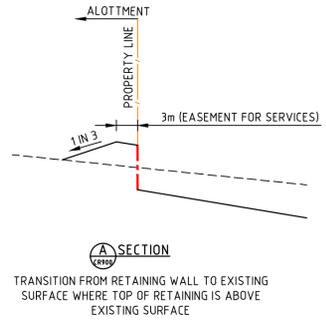
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Date
21/10/25

**REDSTONE ESTATE
STAGE 18B
ROAD AND DRAINAGE
SIGNAGE AND LINEMARKING**
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

PRELIMINARY Drg No **310668CR800** Rev **B**

DESCRIPTION	EXISTING	PROPOSED
RETAINING WALL ROCK WITH FENCE		
RETAINING WALL CONCRETE SLEEPER		

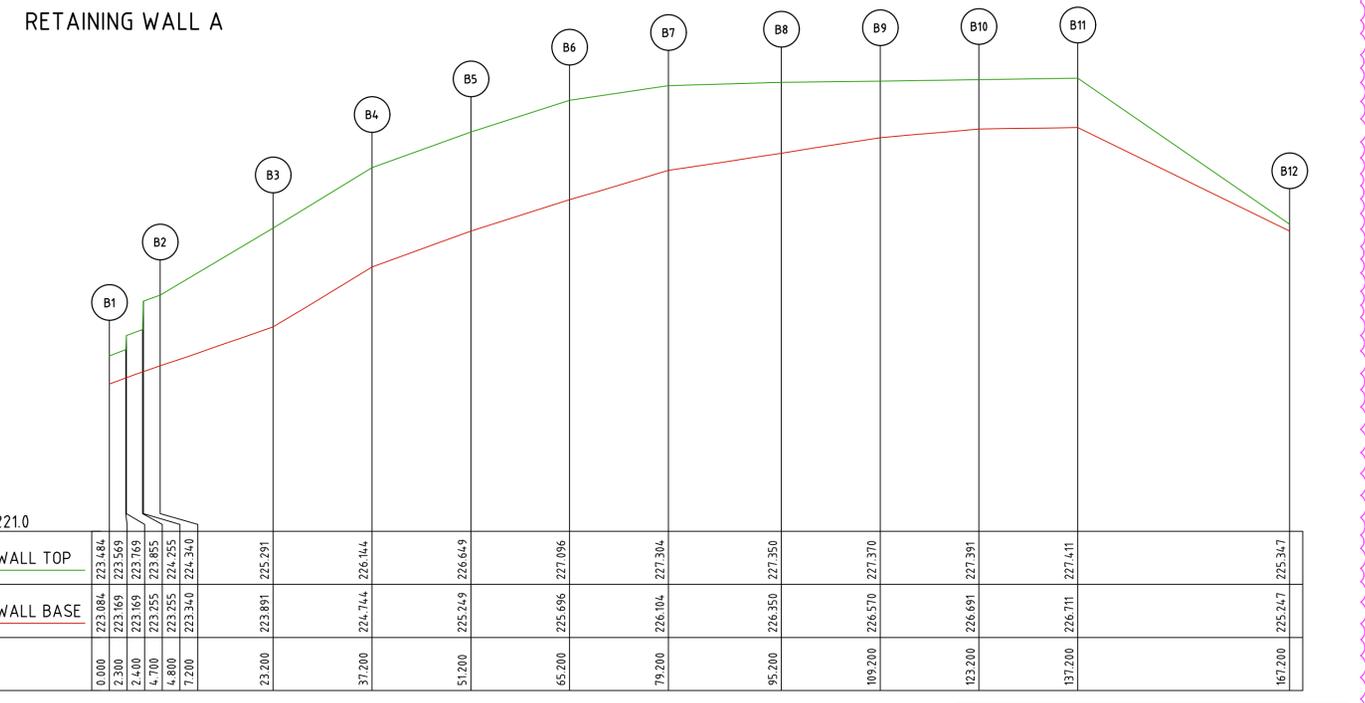
NOTE:
 1. REFER TO MIGLIC MACLEOD STRUCTURAL DRAWINGS FOR CONSTRUCTION DETAILS OF RETAINING WALLS
 2. THE RETAINING WALL PLAN IS NOT PART OF THE SUBDIVISIONAL WORKS OR APPROVAL. IT IS SUBJECT TO SEPARATE APPROVAL
 3. THIS SHEET IS SUPPLEMENTARY TO THE ENGINEERING DRAWINGS
 4. SIDE BOUNDARY RETAINING WALLS ARE TO START AS ROCK RETAINING WALLS BEFORE TRANSITIONING AT 2m FROM THE ROAD RESERVE BOUNDARY AS SHOWN



- NOTES:**
- DRAIN AND SEWER DEPTH VARIES ACROSS SITE
 - DEPTH OF SERVICE MUST BE ABOVE ANGLE OF REPOSE OF RETAINING WALL FOOTING
 - MINIMUM COVER TO SERVICES IS 450mm
 - AG DRAINS TO CONNECT TO HIGH SIDE LOT OWNERS STORMWATER SYSTEM
 - ALL RETAINING WALLS WITH 1m OR GREATER HEIGHT REQUIRE BUILDING PERMITS

DATUM RL 219.5

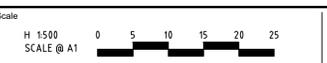
RETAINING WALL TOP	RETAINING WALL BASE	CHAINAGE
221.484	221.496	0.000
222.674	222.695	1.100
223.144	223.144	16.000
222.264	222.264	30.000
223.431	223.431	40.000
223.931	223.931	46.000
223.846	223.846	48.000
223.446	223.446	48.500
223.361	223.361	50.800
223.761	223.761	50.900
223.076	223.076	53.200



NOTE:
 RETAINING WALL LEVELS PROVIDED IN LONG SECTION ABOVE ARE TO FINISHED SURFACE LEVELS. RETAINING WALLS BUILT ON SITE NEED TO CATER FOR LEVELS SHOWN.

file name: 31068CR900.dwg, layout: rans, c8000, plotted by: Lilia Tran, file location: \\spire\media\31068CR900.dwg, plot date: 05/02/2026 3:38 PM, Sheet 15 of 15 Sheets

Rev	Amendments	Approved	Date
C	RETAINING WALLS ADDED	L.T	05/02/26
B	NOTES ADDED AND PRINCIPAL BOULEVARD AMENDED	L.T	26/11/25
A	ISSUED TO COUNCIL	M.R	21/10/25



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 Date
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**REDSTONE ESTATE
 STAGE 18B
 ROAD AND DRAINAGE
 RETAINING WALLS**
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

PRELIMINARY Drg No **31068CR900** Rev **C**