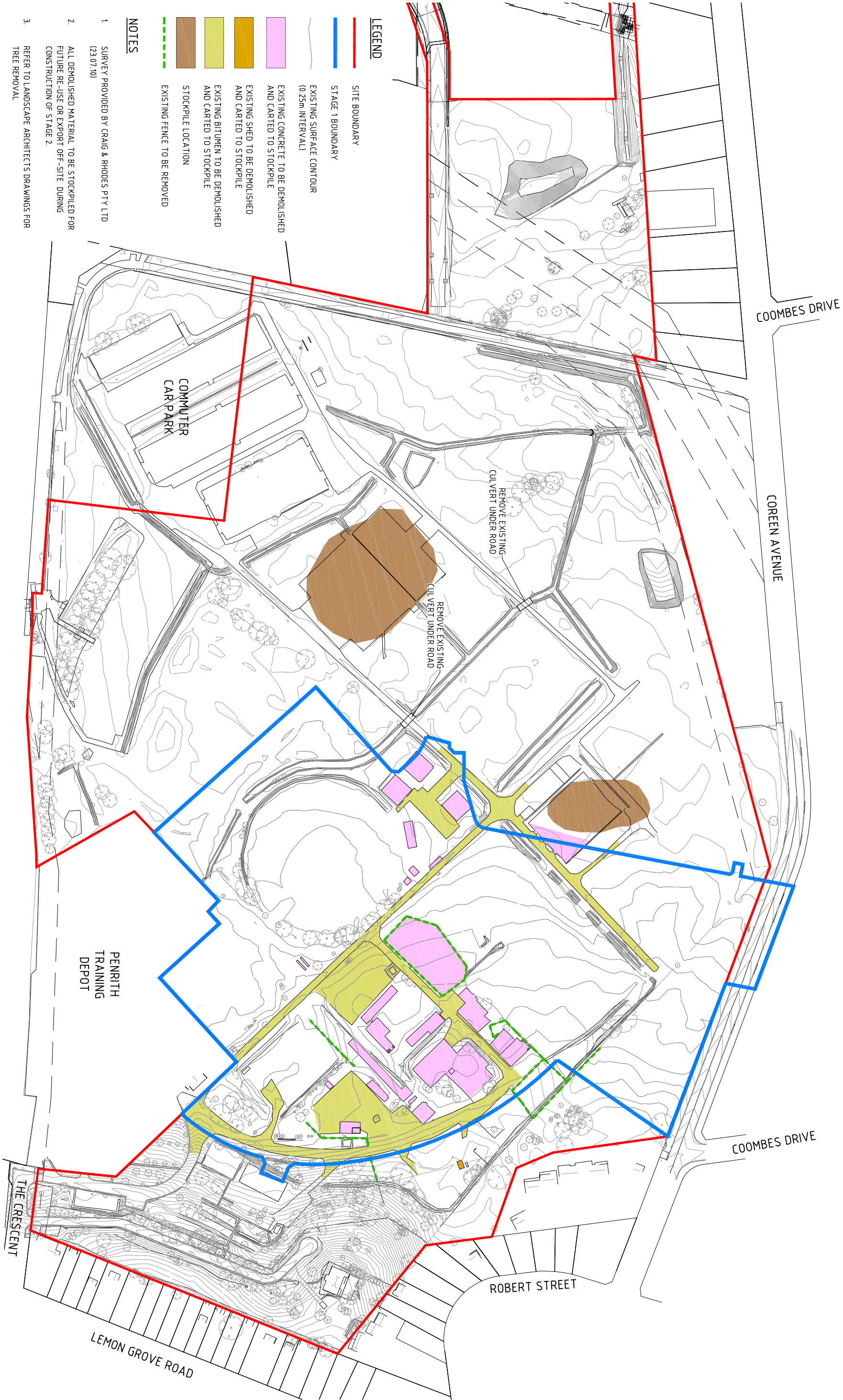




LEGEND

- SITE BOUNDARY
- STAGE 1 BOUNDARY
- EXISTING SURFACE CONTOUR (0.25m INTERVAL)
- EXISTING CONCRETE TO BE DEMOLISHED AND CARTED TO STOCKPILE
- EXISTING SHED TO BE DEMOLISHED AND CARTED TO STOCKPILE
- EXISTING BITUMEN TO BE DEMOLISHED AND CARTED TO STOCKPILE
- STOCKPILE LOCATION
- EXISTING FENCE TO BE REMOVED

NOTES

- SURVEY PROVIDED BY CRAIG & RHODES PTY LTD (23.07.10)
- ALL DEMOLISHED MATERIAL TO BE STOCKPILED FOR FUTURE RE-USE OR EXPORT OFF-SITE DURING CONSTRUCTION OF STAGE 2.
- REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR TREE REMOVAL



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to zero harm

ISSUE	DATE	ISSUE DESCRIPTION
C	31/03/11	ISSUED FOR STAGE 1 PREFERRED PROJECT REPORT
B	27/10/10	FINAL
A	10/09/10	ISSUED FOR REVIEW



NORTH PENRITH
STAGE 1 PREFERRED PROJECT REPORT
DEMOLITION PLAN
301015-00NP-ST1-F04a

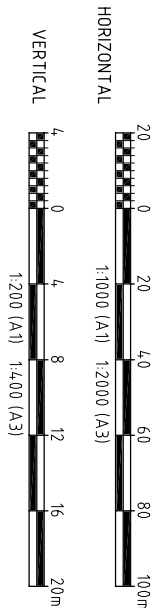


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LANDCOM

LANDCOM



LONGITUDINAL SECTION THE SPEEDWAY CIRCUIT

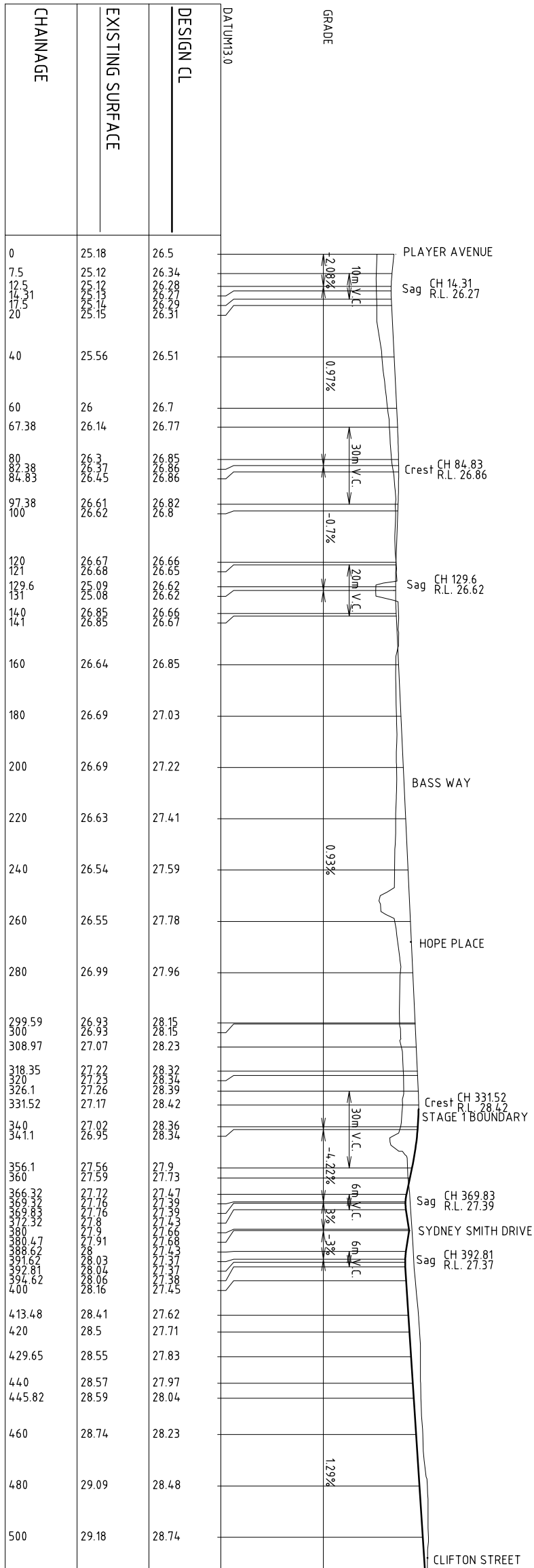
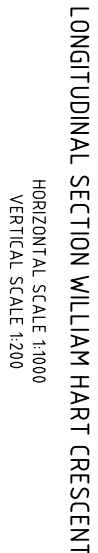
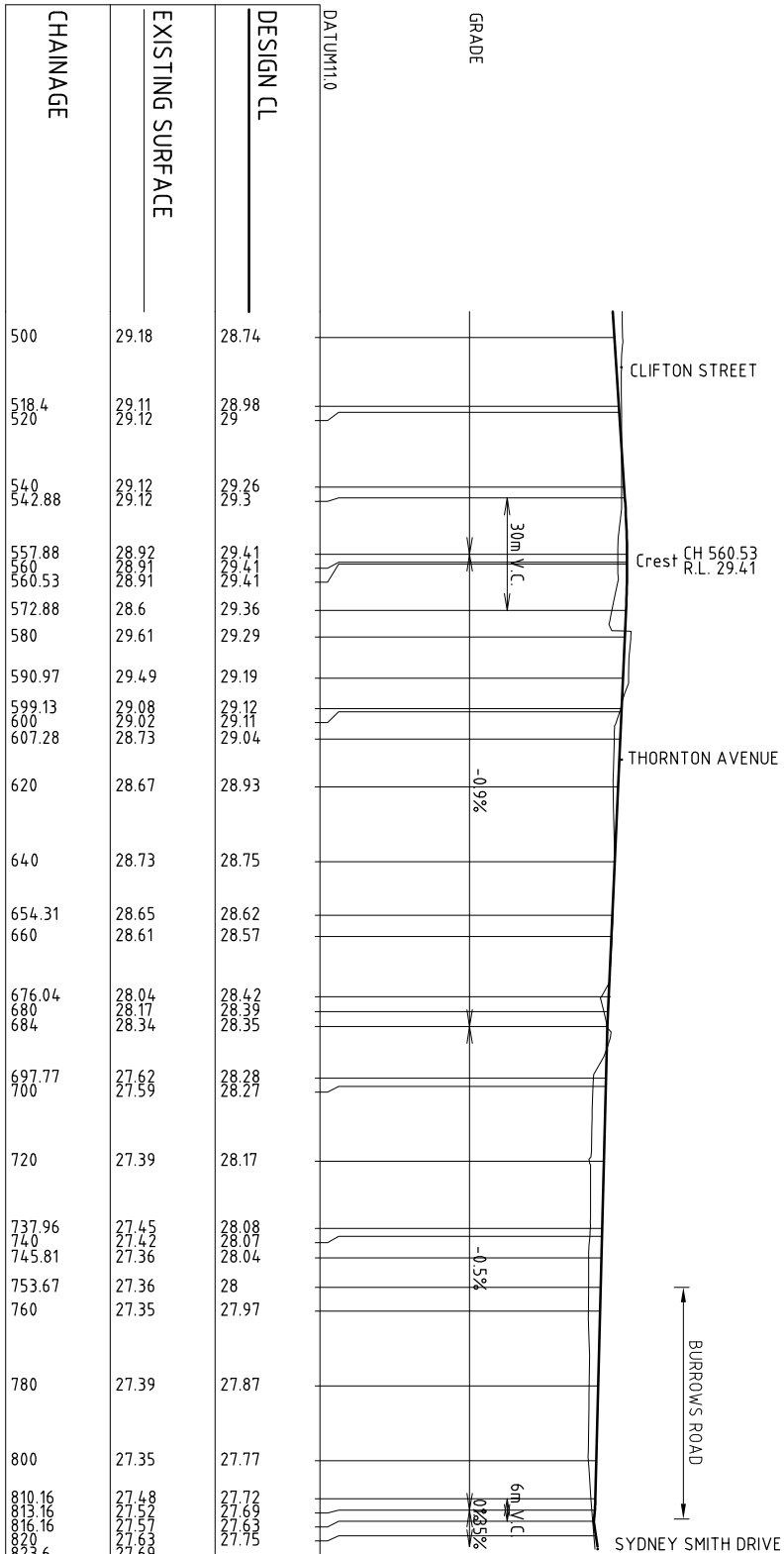
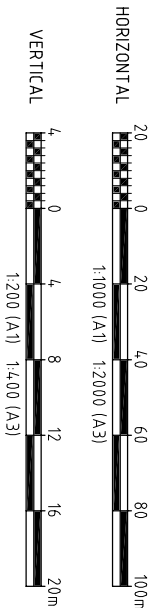
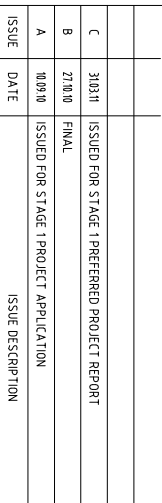
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:200

LONGITUDINAL SECTION THE SPEEDWAY CIRCUIT

HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:200

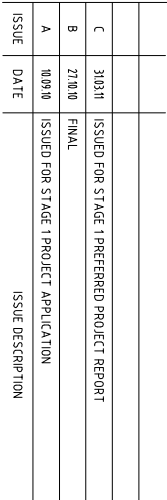
CHAINAGE	EXISTING SURFACE	DESIGN CL	DATUM110	GRADE	
0	25.5				DANIEL WOODRUFF DRIVE
6.83	24.64	26.15		-2.73%	
20	25.54	26.33			
40	25.62	26.59			
60	24.73	26.86			
80	25.16	27.13		1.34%	PLAYER AVENUE
100	25.56	27.4			
120	25.82	27.67			
122.2	25.96	27.7			
137.2	26.17	27.82		30m V.C.	Crest CH 140.88 R.L. 27.82
140	26.16	27.82			
140.88	26.16	27.82			
152.2	26.21	27.78		-0.81%	
160	26.26	27.71			
171.3	26.31	27.62		30m V.C.	Sag CH 184.77 R.L. 27.57
180	26.38	27.57			HOWELL PLACE
184.77	26.43	27.57			
185.24	26.44	27.57			
186.3	26.44	27.57			
198.26	26.53	27.62			
200	26.55	27.64			
201.3	26.57	27.65			
211.27	26.68	27.75			
220	26.72	27.84			
240	26.82	28.04			
260	26.78	28.24			
280	26.81	28.44			
300	26.76	28.64		1%	
320	26.77	28.84			
340	26.76	29.04			
360	26.89	29.24			
380	26.89	29.44			
381.34	26.89	29.45			
386.67	26.84	29.5			
390.72	26.81	29.54		30m V.C.	Crest CH 395.77 R.L. 29.55
395.77	26.76	29.55			
400	26.77	29.54			
400.09	26.77	29.54			
401.67	26.79	29.53			
416.67	27.16	29.31			
420	27.14	29.23			
440	27.28	28.77		-2.33%	STAGE 1 BOUNDARY
455.77	27.41	28.41		6m V.C.	Sag CH 458.37 R.L. 28.38
458.37	27.43	28.38			
458.77	27.44	28.38		3% - 3%	
461.77	27.44	28.43			
461.77	27.44	28.43			
469.92	27.54	28.68		6m V.C.	SYDNEY SMITH DRIVE
478.07	27.46	28.43			
481.07	27.44	28.39			
482.93	27.44	28.37			
484.07	27.47	28.36			
495.85	26.82	28.45			
500	28.01	28.48			
512.73	28.33	28.57			
520	28.5	28.62			
529.6	28.68	28.68			
530.1	28.68	28.69			
540	28.82	28.76			

**NORTH PENRITH
PROJECT REPORT
NS SHEET 1 OF 4
115-00NP-ST1-F05**

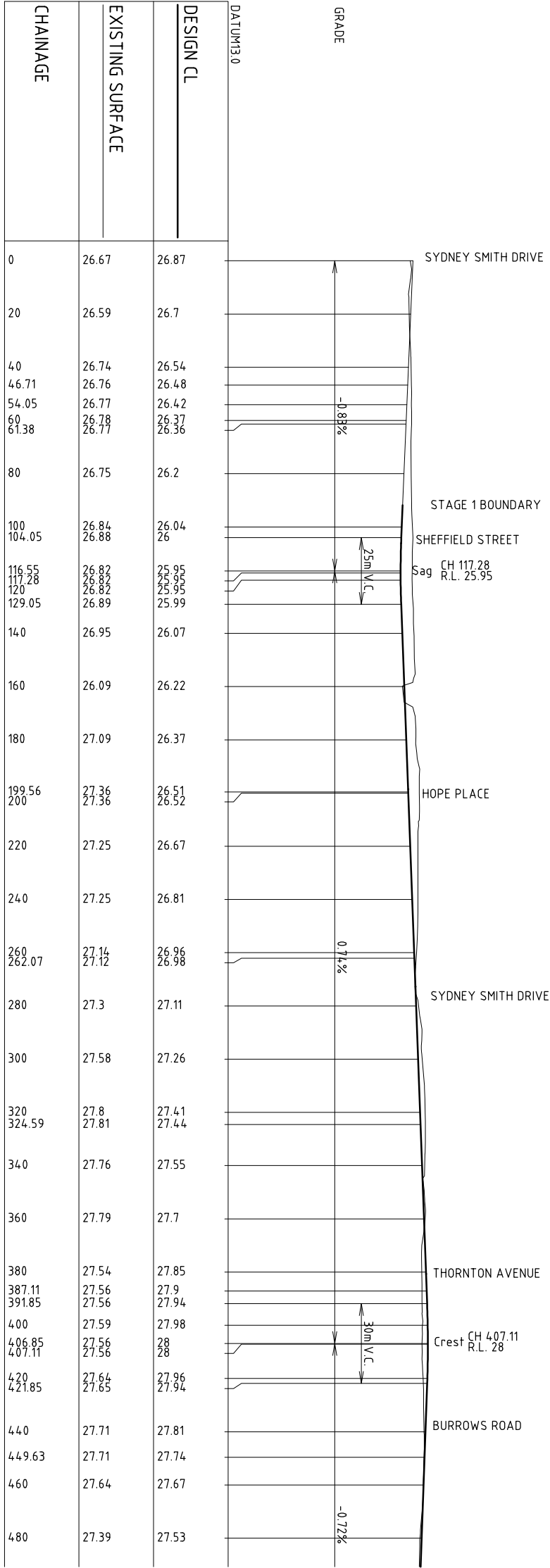
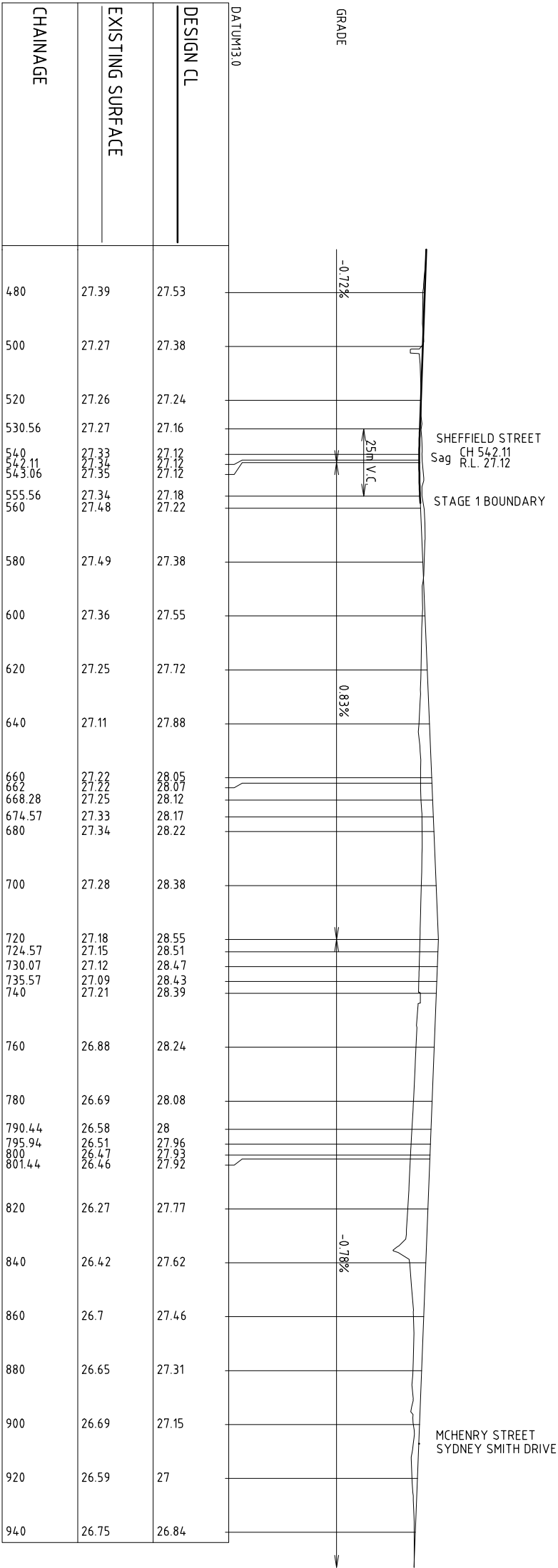
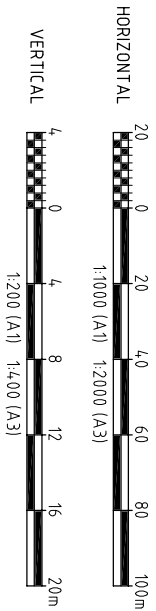


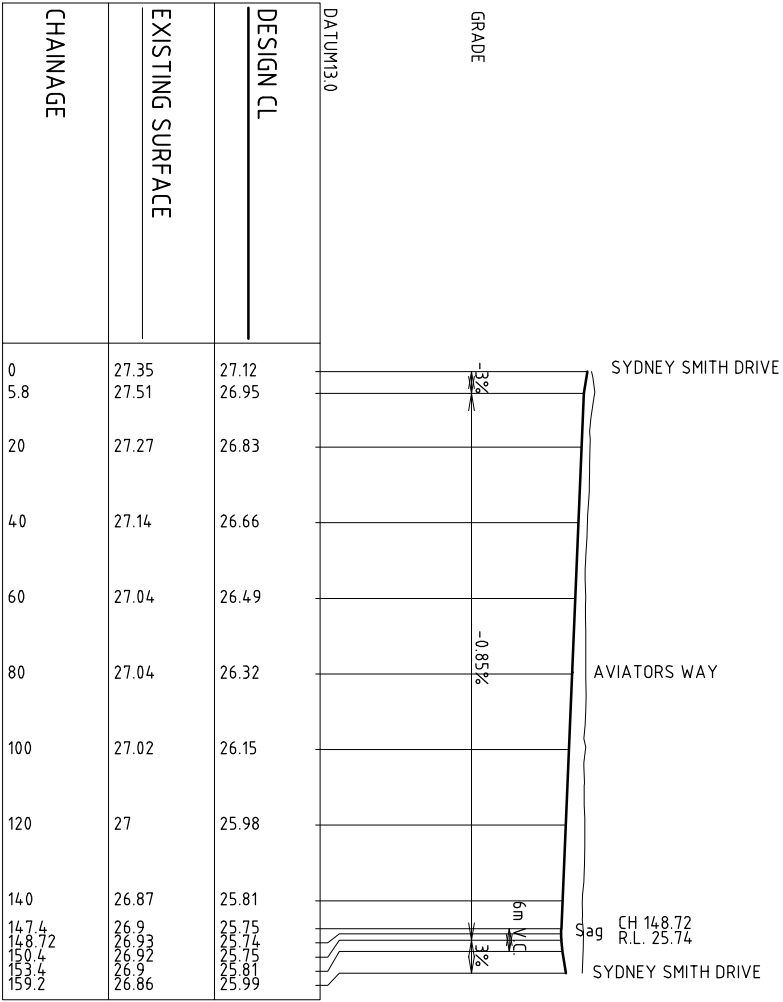


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**NORTH PENNITH
ED PROJECT REPORT
CTIONS SHEET 3 OF 4**

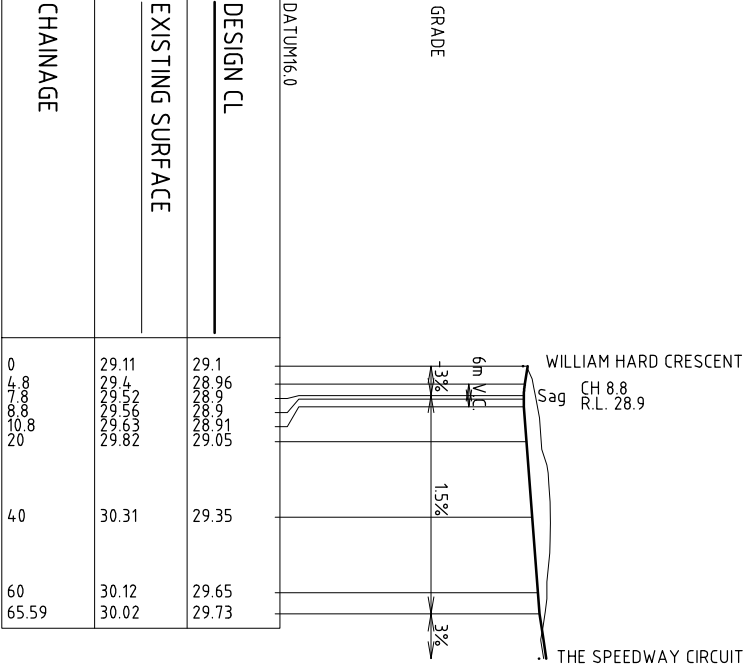


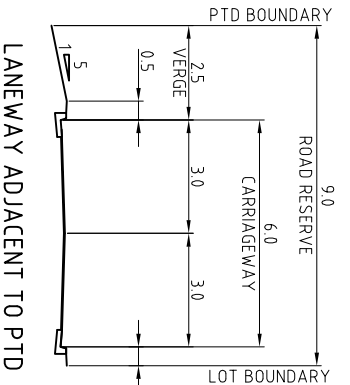
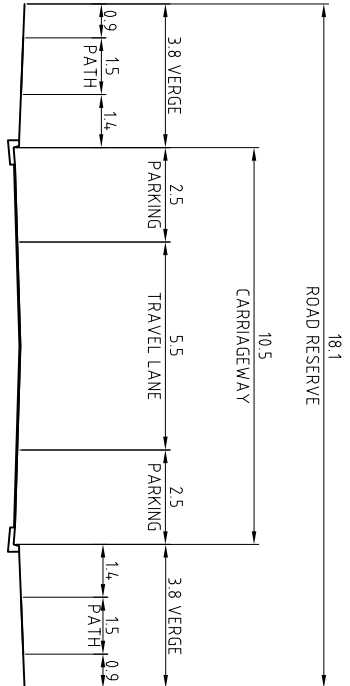
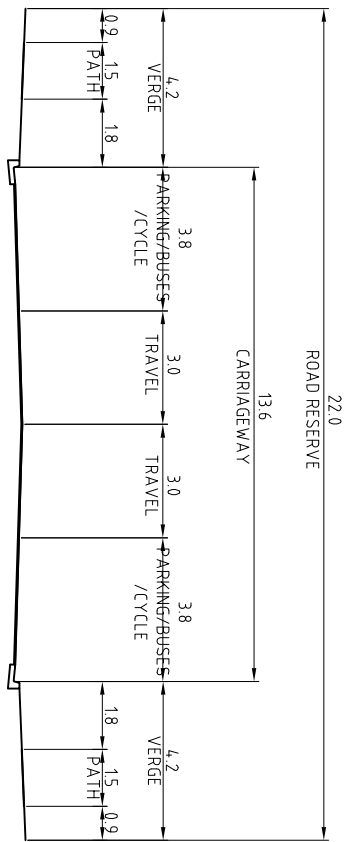
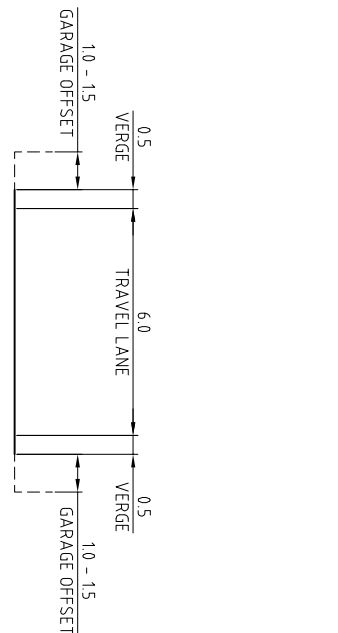
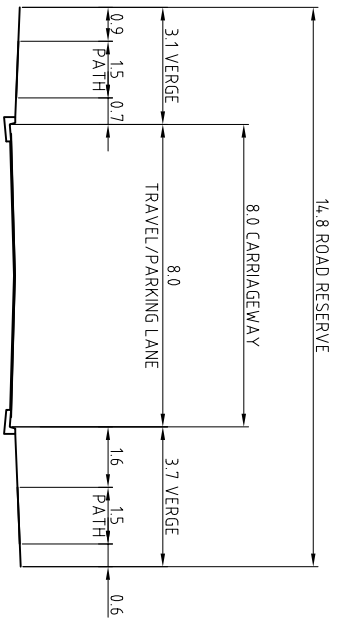
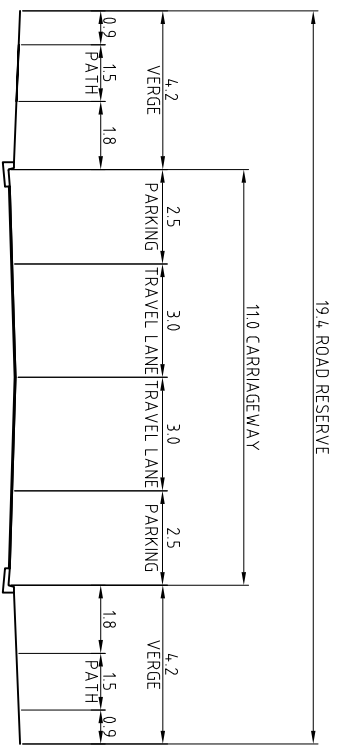
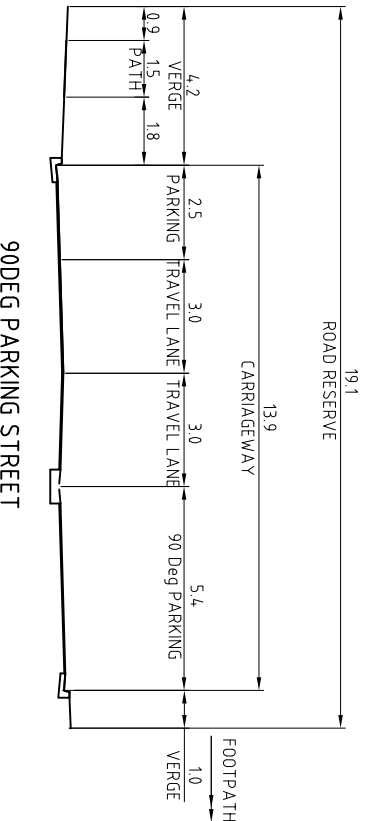
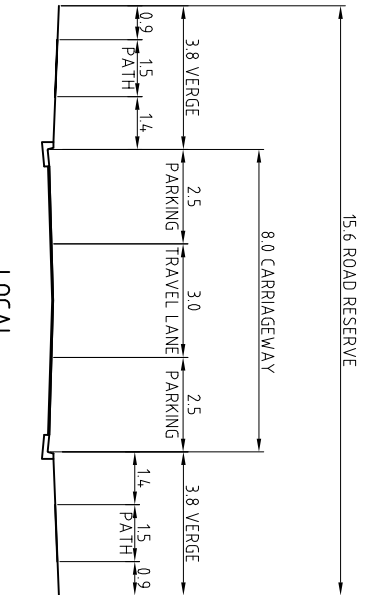
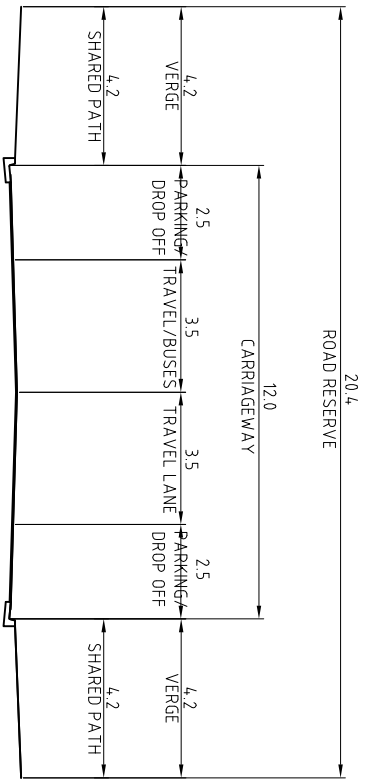
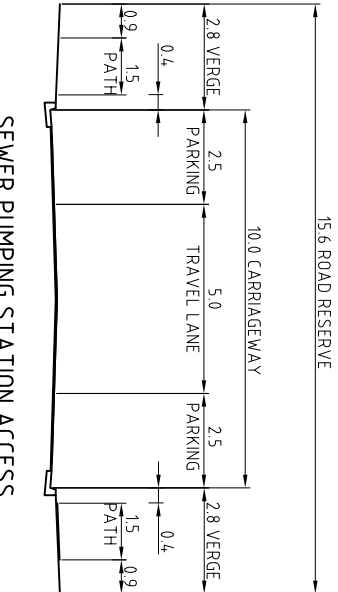
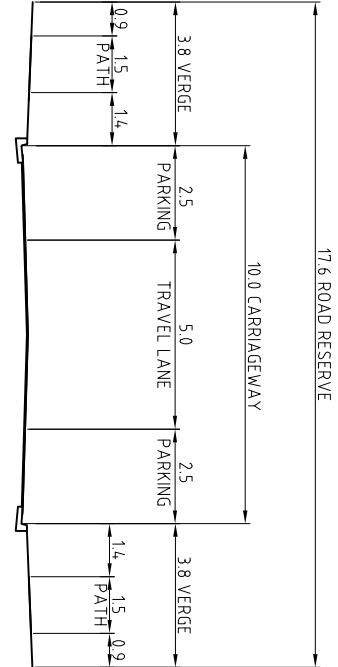
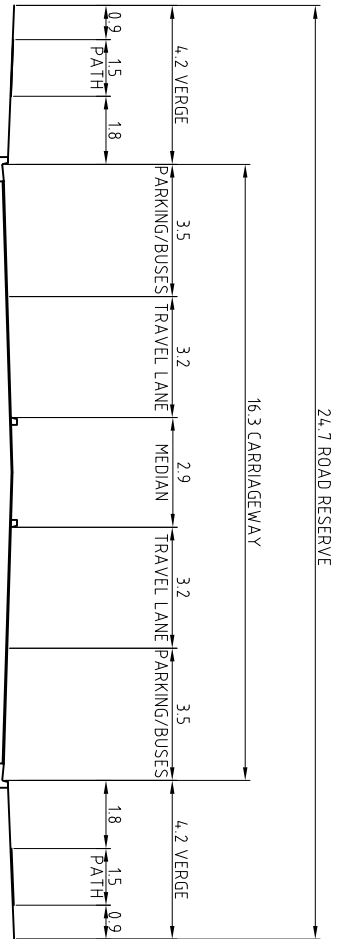


LONGITUDINAL SECTION SHEFFIELD STREET

HORIZONTAL SCALE 1:1000

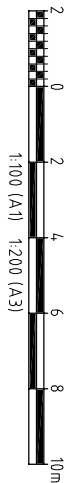
VERTICAL SCALE 1:200





NOTES

- 1. REFER TO ROAD HIERARCHY PLAN SUBMITTED AS PART OF THE PREFERRED PROJECT REPORT FOR LOCATION OF ROAD TYPES



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C	31/03/11	ISSUED FOR STAGE 1 PREFERRED PROJECT REPORT
B	27/10/10	FINAL
A	10/09/10	ISSUED FOR STAGE 1 PROJECT APPLICATION
ISSUE	DATE	ISSUE DESCRIPTION



STAGE 1 PREFERRED REPORT
CONCEPT ROAD TYPICAL CROSS SECTIONS

301015-00NP-ST1-F09

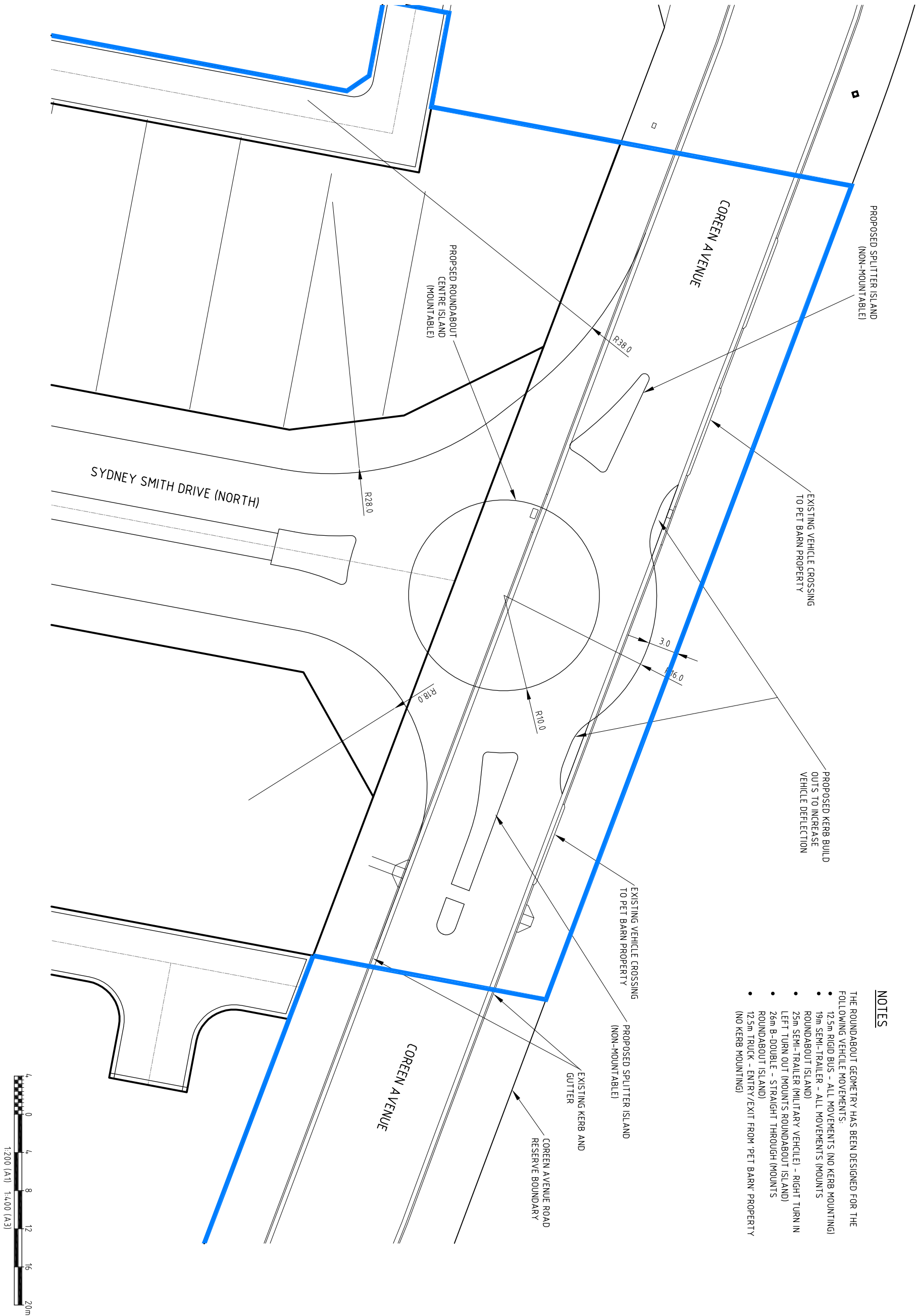


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B	2/17/10	FINAL	
A	6/11/10	ISSUED FOR REVIEW	
ISSUE	DATE	ISSUE DESCRIPTION	



**NORTH PENRITH
STAGE 1 PREFERRED PROJECT REPORT
COREEN AVENUE CONCEPT ROUNDABOUT INTERSECTION**

301015-00NP-ST1-F10

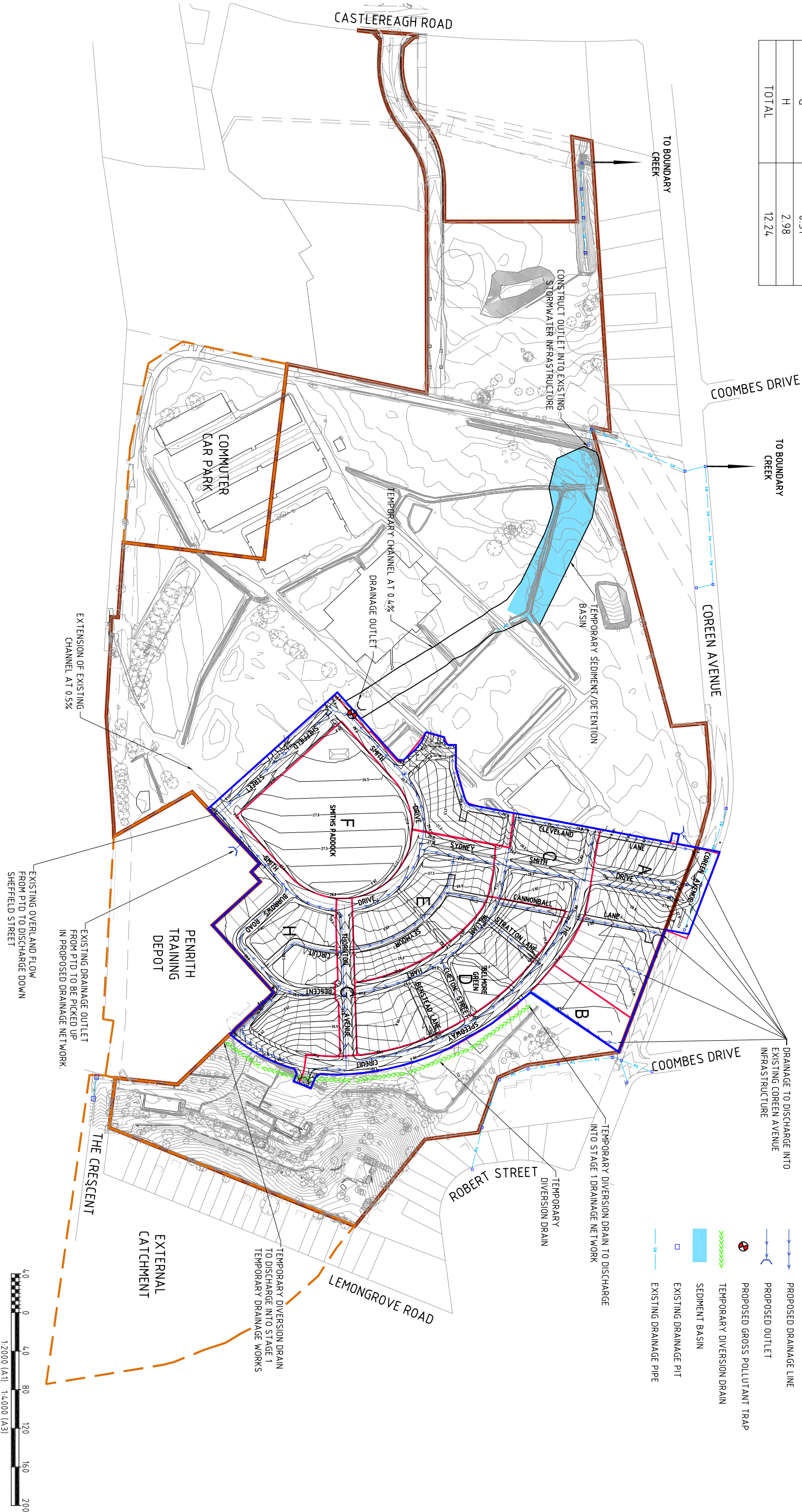


NOTES

THE ROUNDABOUT GEOMETRY HAS BEEN DESIGNED FOR THE FOLLOWING VEHICLE MOVEMENTS:

- 12.5m RIGID BUS - ALL MOVEMENTS AND KERB MOUNTING
- 19m SEMI-TRAILER - ALL MOVEMENTS (MOUNTS ROUNDABOUT ISLAND)
- 25m SEMI-TRAILER (MILITARY VEHICLE) - RIGHT TURN IN LEFT TURN OUT (MOUNTS ROUNDABOUT ISLAND)
- 26m B-DOUBLE - STRAIGHT THROUGH (MOUNTS ROUNDABOUT ISLAND)
- 12.5m TRUCK - ENTRY/EXIT FROM 'PET BARN' PROPERTY (NO KERB MOUNTING)

STAGE 1 CATCHMENT AREAS	
NAME	AREA (ha)
A	1.76
B	0.47
C	1.48
D	1.69
E	1.42
F	2.14
G	0.31
H	2.98
TOTAL	12.24



LEGEND	
	EXISTING SURFACE CONTOUR (0.25m INTERVAL)
	PROPOSED SURFACE CONTOUR (0.25m INTERVAL)
	SITE BOUNDARY
	STAGE 1 BOUNDARY
	STAGE 1 CATCHMENT BOUNDARY
	EXTERNAL CATCHMENT BOUNDARY
	CATCHMENT NAME
	PROPOSED DRAINAGE LINE
	PROPOSED OUTLET
	PROPOSED GROSS POLLUTANT TRAP
	TEMPORARY DIVERSION DRAIN
	SEDIMENT BASIN
	EXISTING DRAINAGE PIT
	EXISTING DRAINAGE PIPE

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STAGE 1 PREFERRED PROJECT REPORT
CONCEPT STORMWATER DRAINAGE PLAN

NORTH PENRITH
301015-00NP-ST1-F11

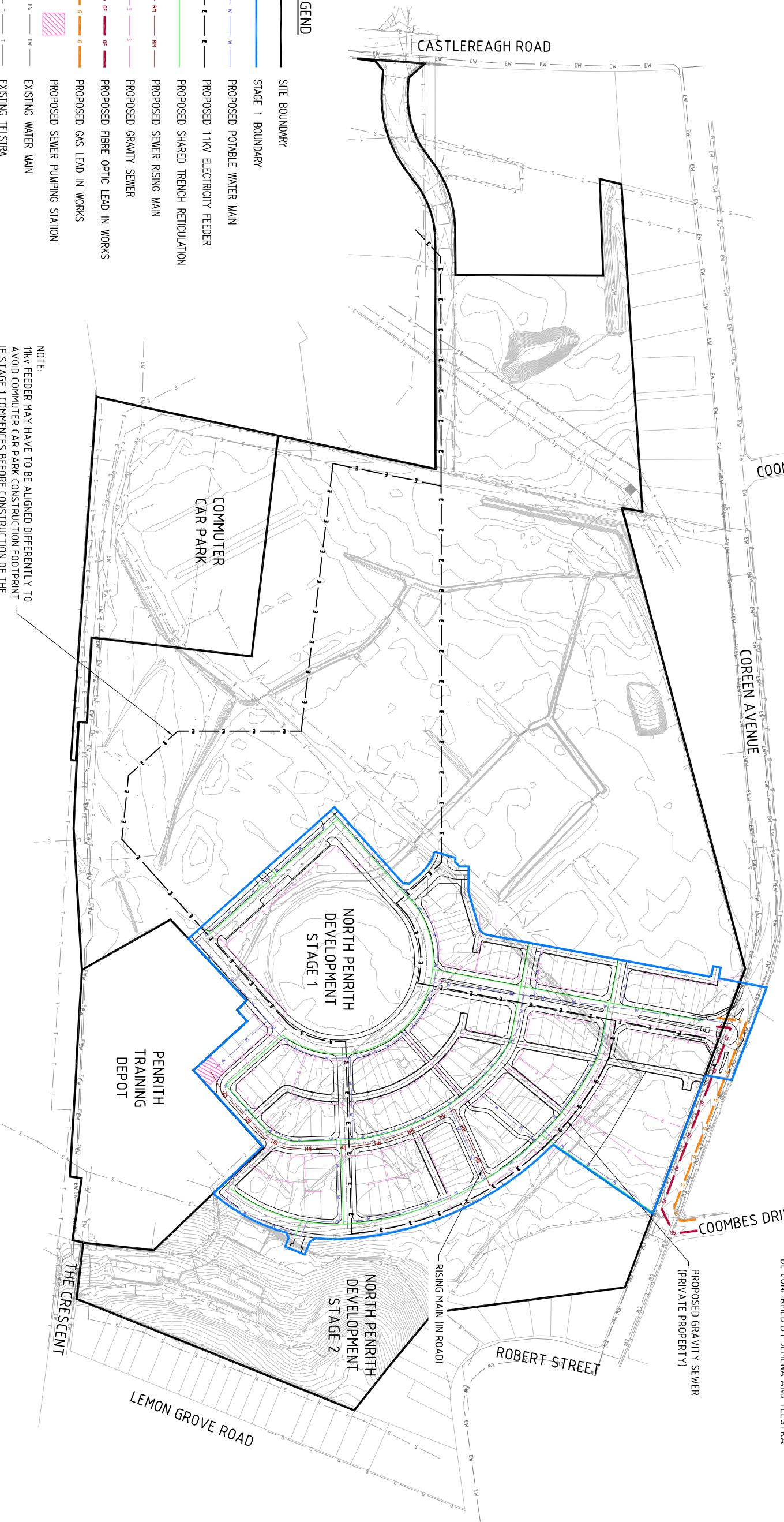
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SAVE DATE & TIME: 1/4/2011 8:29:29 AM

USER NAME: ron.warren
CTB FILE: _00-WP-Syd-std.ctb

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Plotter:\sausydwppt01v\110SYDRIC\CH3500RPCS

- LEGEND**
- SITE BOUNDARY
 - STAGE 1 BOUNDARY
 - PROPOSED POTABLE WATER MAIN
 - PROPOSED 11KV ELECTRICITY FEEDER
 - PROPOSED SHARED TRENCH RETICULATION
 - PROPOSED SEWER RISING MAIN
 - PROPOSED GRAVITY SEWER
 - PROPOSED FIBRE OPTIC LEAD IN WORKS
 - PROPOSED GAS LEAD IN WORKS
 - PROPOSED SEWER PUMPING STATION
 - EXISTING WATER MAIN
 - EXISTING TELSTRA
 - EXISTING JEMENA GAS
 - EXISTING INTERNAL STORMWATER
 - EXISTING ELECTRICAL
 - EXISTING SURFACE CONTOUR (0.25m INTERVAL)

NOTE:
11kv FEEDER MAY HAVE TO BE ALIGNED DIFFERENTLY TO
AVOID COMPUTER CAR PARK CONSTRUCTION FOOTPRINT
IF STAGE 1 COMMENCES BEFORE CONSTRUCTION OF THE
COMPUTER CAR PARK FINISHES.



NOTE:
GAS AND TELECOMMUNICATIONS LEAD IN WORKS TO
BE CONFIRMED BY JEMENA AND TELSTRA



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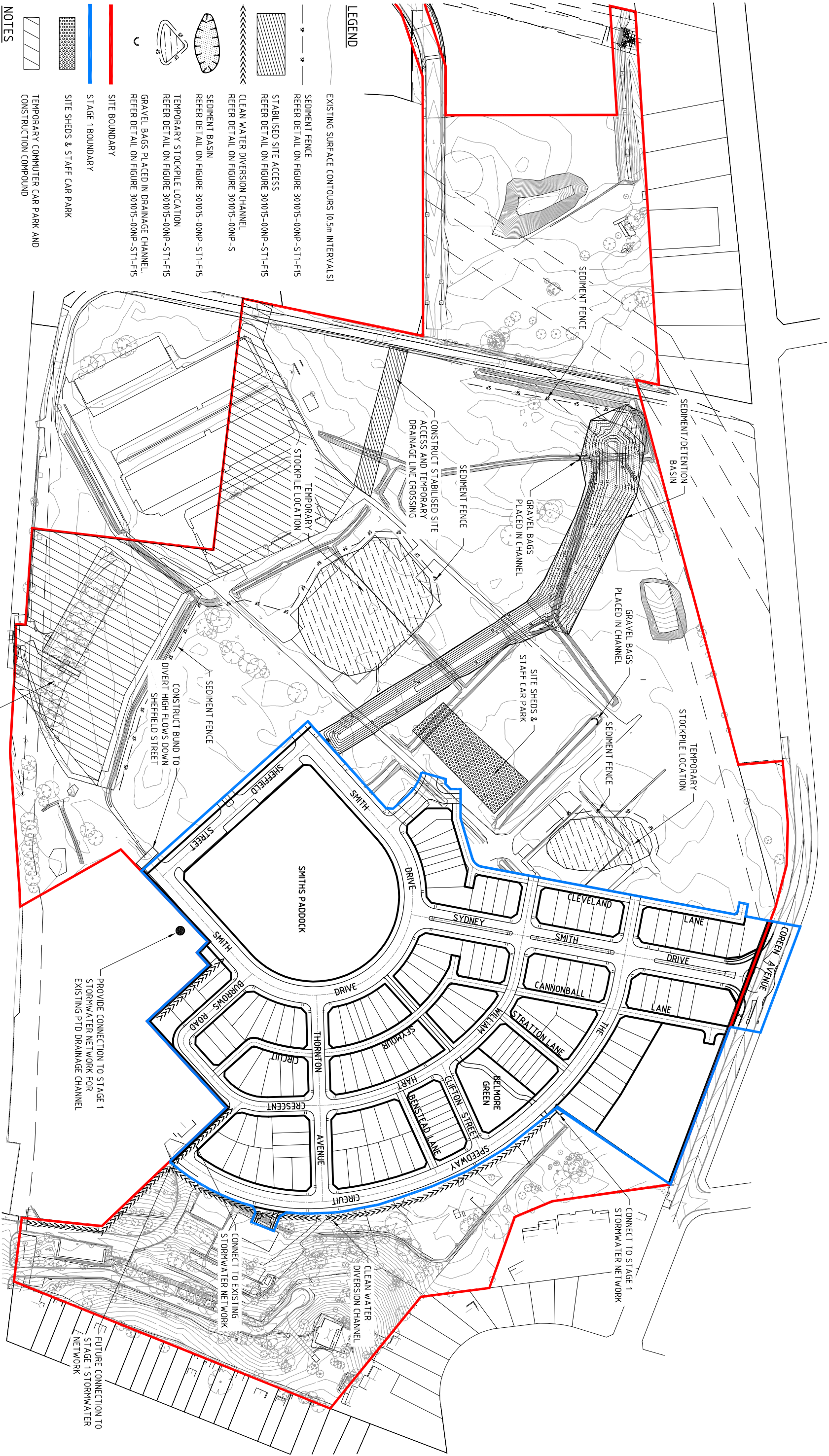
C	31/3/11	ISSUED FOR STAGE 1 PREFERRED PROJECT REPORT
B	27/10/10	FINAL
A	10/09/10	ISSUED FOR STAGE 1 PROJECT APPLICATION
ISSUE	DATE	ISSUE DESCRIPTION



STAGE 1 PREFERRED PROJECT REPORT
CONCEPT SERVICING NETWORK

NORTH PENRITH

301015-00NP-ST1-F12

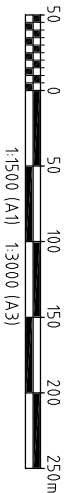


- LEGEND**
- EXISTING SURFACE CONTOURS (0.5m INTERVALS)
 - SEDIMENT FENCE
REFER DETAIL ON FIGURE 301015-00NP-ST1-F15
 - STABILISED SITE ACCESS
REFER DETAIL ON FIGURE 301015-00NP-ST1-F15
 - CLEAN WATER DIVERSION CHANNEL
REFER DETAIL ON FIGURE 301015-00NP-S
 - SEDIMENT BASIN
REFER DETAIL ON FIGURE 301015-00NP-ST1-F15
 - TEMPORARY STOCKPILE LOCATION
REFER DETAIL ON FIGURE 301015-00NP-ST1-F15
 - GRAVEL BAGS PLACED IN DRAINAGE CHANNEL.
REFER DETAIL ON FIGURE 301015-00NP-ST1-F15
 - SITE BOUNDARY
 - STAGE 1 BOUNDARY
 - SITE SHEDS & STAFF CAR PARK
 - TEMPORARY COMPUTER CAR PARK AND CONSTRUCTION COMPOUND

NOTES

- SEDIMENT & EROSION CONTROL PLAN SUBJECT TO CONFIRMATION WITH CONTRACTOR.
- SEDIMENT BASIN EXCEEDS REQUIREMENTS.

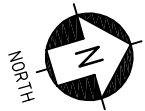
APPROXIMATE EXTENT OF TEMPORARY COMPUTER CAR PARK AND CONSTRUCTION COMPOUND



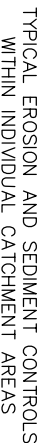
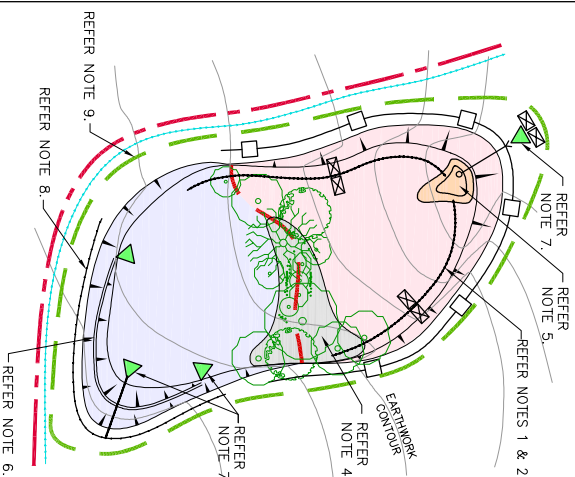
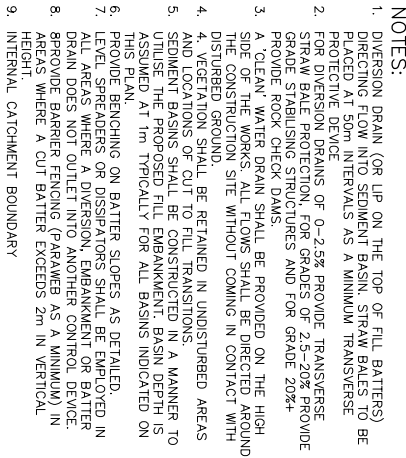
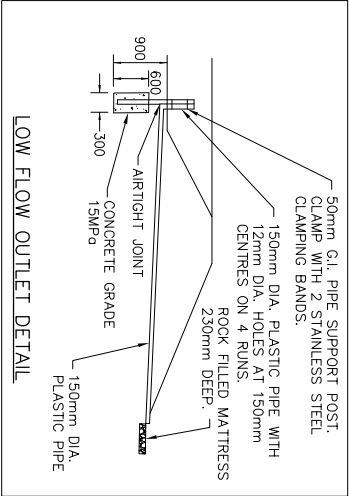
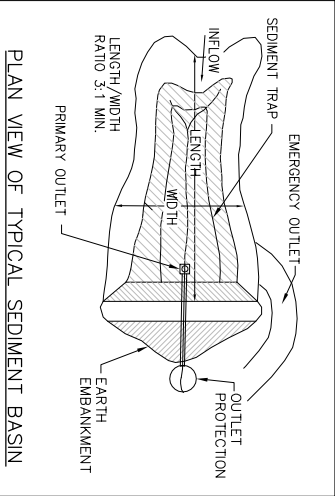
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C	31/01/11	ISSUED FOR STAGE 1 PREFERRED PROJECT REPORT
B	27/10/10	FINAL
A	10/09/10	ISSUED FOR STAGE 1 PROJECT APPLICATION
ISSUE	DATE	ISSUE DESCRIPTION



NORTH PENRITH
STAGE 1 PREFERRED PROJECT REPORT
SEDIMENT AND EROSION CONTROL PLAN
301015-00NP-ST1-F13



- ## GEOFABRIC LINED SEDIMENT FENCE

- ## DIVERSION CHANNEL

5. COMPACT WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.

- 6 EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER
IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.
- 7 ALL OPEN DRAINS TO BE TYPED AS A MINIMUM, PROVIDE JUTE
MESH LINING ON ANY DRAIN WITH A LONGITUDINAL GRADE
EXCEEDING 5%.

1. STRIP TOPSOIL AND LEVEL SITE

2. COMPACT SUBGRADE
3. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE
4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE AGGREGATE. MINIMUM LENGTH 15 METRES OR TO ALIGNMENT. MINIMUM WIDTH 3 METRES.

1. CONTRACTOR IS TO PREPARE A MANAGEMENT PLAN THAT MONITORS WIND DIRECTION AND DUST TRANSPORT OFF-SITE. RECORDS ARE TO BE KEPT OF ALL COMPLAINTS AS TO THE LOCATION, WIND DIRECTION, ACTIVITIES ON-SITE AND NATURE OF ISSUE.

2. WORKS ARE TO BE STAGED AND DISTURBED AREAS VEGETATED IMMEDIATELY TO LIMIT POTENTIAL FOR WIND EROSION.
3. DISTURBED SURFACES ARE TO BE LEFT IN A ROUGH CLOUDY CONDITION WHERE POSSIBLE TO INCREASE ROUGHNESS AND SLOW SURFACE WIND SPEED.
4. DISTURBED SURFACES ARE TO BE KEPT IN DAMP AND A WATER CART AVAILABLE ON-SITE ALL TIMES.

1. Site Data Sheet												
Note: These "Standard Calculation" spreadsheets relate only to low erosion hazard lands as identified in figure 4.6 where the designer chooses to not use the RUSLE to size sediment basins. The more "Detailed Calculation" spreadsheets should be used on high erosion hazard lands.												
Site name: North Penrhin Defence Land												
Site location: North Penrhin												
Precinct: North Penrhin												
Description of site: Assumes Type D soils												
Site area		Site					Remarks					
Total catchment area (ha)		A										
Disturbed catchment area (ha)		26.8										
		10										
Soil analysis												
Soil landscape		Ludlumham (H)										
Soil texture Group		Type D										
Rainfall data												
Design rainfall depth (days)		5										
Design rainfall depth (per centile)		80										
1 x day, Y percentile rainfall event		18.2										
Rainfall intensity, 2 year, 6-hour storm		10.2										
Rainfall intensity, 10 year, 6-hour storm		22.0										
See Section 6.3.4 (d) and (e)												
See Section 6.3.4 (f) and (g)												
See Section 6.3.4 (h)												
See F10 chart for the site												
Automatic calculation from data in Section 6.3.4 (d) to (h)												

[illegible]

2. Storm Flow Calculations	
Peak flow is given by the Rational Formula	
$Q_p =$	$0.00078 \times C_p \times F_p \times I_p \times A$
where	
Q_p	is peak flow rate (m ³ /sec) of average recurrence interval (ARI) of "p" years
C_p	is the runoff coefficient (dimensionless) for ARI of "p" years. Runoff coefficients are given in Volume 2, Figure 6 of Pilgrim (1988). The same coefficients are given in Volume 1, Book VII, Figure 13 of Pilgrim (1988) and contribution
F_p	is a frequency factor for "p" years. Runoff values are given in Volume 1, Book IV, Figure 13 of Pilgrim (1988). The same coefficients are given in Volume 1, Book VII, Table 1.6 of Pilgrim (1988)
A	is the catchment area in hectares (ha)
I_p	is the average rainfall intensity (mm/hr) for an ARI of "p" years and a design duration of t_c (minutes or hours)
Time of concentration (t_c) = $0.76 \times (A/100)^{1/3}$ hr (Volume 1, Book IV of Pilgrim, 1988)	
Note: For urban catchments the time of concentration should be determined by more precise calculations or reduced by a factor of 50 per cent.	

[illegible]