

TILLERMAN

PARK RIDGE

PROPOSED RESIDENTIAL DEVELOPMENT

STAGE 6 OPERATIONAL WORKS

133-159 PARK RIDGE ROAD, PARK RIDGE

FOR 'HB PARK RIDGE'

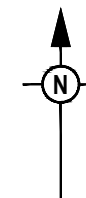
DRAWING LIST

EARTHWORKS, ROADWORKS AND DRAINAGE

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- 22-0447-101 GENERAL NOTES
- 22-0447-102 BULK EARTHWORKS LAYOUT PLAN
- 22-0447-103 BULK EARTHWORKS TYPICAL SECTIONS
- 22-0447-104 PADMOUNT TRANSFORMER SITE DETAILS AND LAYOUT PLAN
- 22-0447-105 ROADWORKS AND DRAINAGE LAYOUT PLAN
- 22-0447-106 SURVEY SETOUT AND KERB TYPES LAYOUT PLAN
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SEWERAGE AND WATER RETICULATION

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- 22-0447-303 SEWERAGE LAYOUT PLAN
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- 22-0447-305 SEWERAGE LONGITUDINAL SECTIONS SHEET 2 OF 3
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- 22-0447-307 WATER RETICULATION LAYOUT PLAN
- 22-0447-308 FIRE HYDRANT REACH LAYOUT PLAN



PROJECT INFORMATION SUMMARY:
STAGE 6 WORKS
No. OF LOTS = 32
AREA OF STAGE 6 SITE = 1.61 ha
RP DESCRIPTION LOT 3 ON RP137533
LOCAL AUTHORITY: LOGAN CITY COUNCIL
COUNCIL REFERENCE NUMBER: COM/36/2021

NOTE:
THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:
- LANDSCAPE ARCHITECT'S PLANS
- VEGETATION MANAGEMENT PLAN
- ELECTRICAL, COMMUNICATIONS AND GAS CONSULTANT'S PLANS
- SEDIMENT AND EROSION HAZARD ASSESSMENT
- SAFETY IN DESIGN REPORT
- COLLIERS STANDARD DRAWINGS FOR BRIDGING STRUCTURE
- 22-0141 - STAGE 4 ENGINEERING DRAWINGS
- 22-0446 - STAGE 5 ENGINEERING DRAWINGS
- 21-0017- 100 SERIES BULK EARTHWORKS ENGINEERING DRAWINGS

ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:
As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.

RPEQ (signature) RPEQ No. 18631 Date: 20/11/24

LOCALITY PLAN
SCALE 1:2000 (A1)
SCALE 1:4000 (A3)

<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESIGN</th> <th>DRAWN</th> <th>REVISION DETAILS</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>27.05.24</td> <td>CL</td> <td>CL</td> <td>AS CONSTRUCTED</td> </tr> <tr> <td>2</td> <td>20.11.24</td> <td>CL</td> <td>BP</td> <td>AS CONSTRUCTED</td> </tr> </tbody> </table>	REV	DATE	DESIGN	DRAWN	REVISION DETAILS	1	27.05.24	CL	CL	AS CONSTRUCTED	2	20.11.24	CL	BP	AS CONSTRUCTED	<table border="1"> <thead> <tr> <th>DRAWN</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td></td> <td>AS CONSTRUCTED</td> </tr> </tbody> </table>	DRAWN	STATUS		AS CONSTRUCTED		<table border="1"> <thead> <tr> <th>SCALE</th> </tr> </thead> <tbody> <tr> <td>1:2000 20 0 20 40 60 80 100 A1</td> </tr> <tr> <td>1:4000</td> </tr> </tbody> </table>	SCALE	1:2000 20 0 20 40 60 80 100 A1	1:4000	<table border="1"> <thead> <tr> <th>CLIENT</th> </tr> </thead> <tbody> <tr> <td></td> </tr> </tbody> </table>	CLIENT		<table border="1"> <thead> <tr> <th>PROJECT NAME</th> </tr> </thead> <tbody> <tr> <td> TILLERMAN PARK RIDGE</td> </tr> </tbody> </table>	PROJECT NAME	TILLERMAN PARK RIDGE	<table border="1"> <thead> <tr> <th>DRAWING TITLE</th> </tr> </thead> <tbody> <tr> <td>COVER PLAN</td> </tr> </tbody> </table>	DRAWING TITLE	COVER PLAN
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ENGINEER'S CERTIFICATION

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RPEQ (signature) RPEQ No. 18631 Date: 20/11/24

LEGEND

- PROPOSED AREA OF WORKS
- - - 24.0 - - - PROPOSED SURFACE CONTOUR
- - - 24.0 - - - EXISTING SURFACE CONTOUR
- - - - - PROPOSED EARTHWORKS PAD SETBACK LINE
- - - - - CONCRETE SLEEPER RETAINING WALL HEIGHT RANGE 0.50m-1.50m MAX
- - - - - PROPOSED ENERGEX RETAINING WALL. REFER ENERGEX STANDARD DRAWING FOR WALL DETAILS.
- - - - - FUTURE CONCRETE SLEEPER RETAINING WALL
- - - - - EXISTING CONCRETE SLEEPER RETAINING WALL
- - - - - RETAINING WALL SUBSOIL PIPE EXTENSION
- - - - - EXISTING RETAINING WALL SUBSOIL PIPE EXTENSION
- 24.60 PROPOSED FINISHED SURFACE LEVEL (FSL) (AFTER TOPSOIL PLACEMENT)
- 24.60 FUTURE SURFACE LEVEL
- 24.60 EXISTING SURFACE LEVEL (ESL)
- PROPOSED AREA OF CUT
- PROPOSED AREA OF FILL
- ▲ INDICATIVE DRIVEWAY LOCATIONS
- — — — — ZERO LOT BOUNDARY
- - - - - EXISTING STORMWATER DRAINAGE PIPE
- - - - - EXISTING SEWERAGE MAIN
- - - - - EXISTING WATER MAIN
- - - - - EXISTING WATER CONDUIT
- - - - - EXISTING ELECTRICAL CABLE U/G

EARTHWORKS VOLUMES	
CUT:	1,008m ³
FILL:	4,583m ³
IMPORT:	3,575m ³ (SHORT FILL)

NOTE:

1. VOLUMES SHOWN ARE SOLID VALUES ONLY. NO ALLOWANCES FOR BULKING, COMPACTION, ROAD BOXING, UNSUITABLE MATERIALS.

WARNING! - EXISTING SERVICES

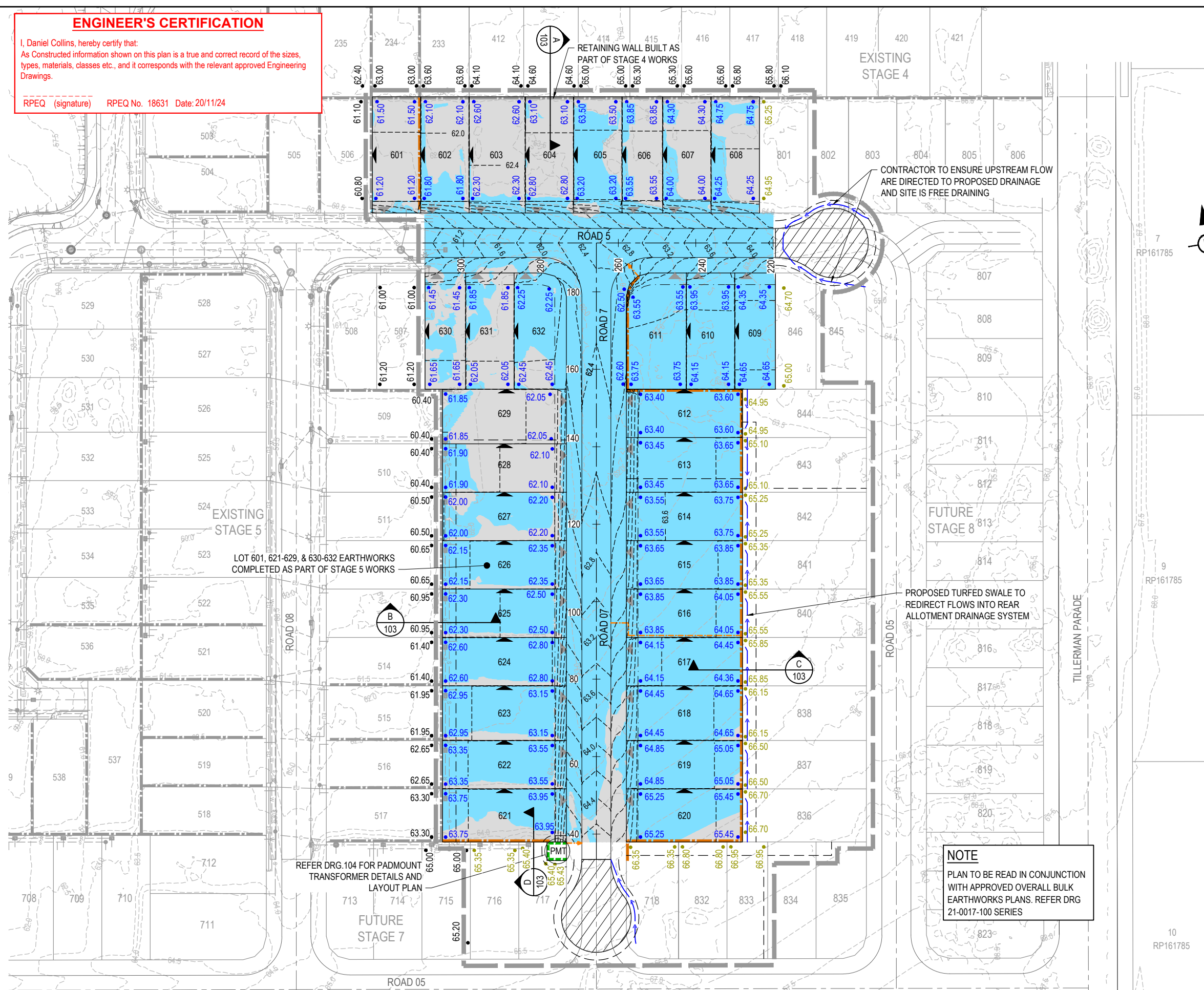
EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

RETAINING WALL NOTES:

1. ALL RETAINING WALLS ARE TO BE DELIVERED UNDER DESIGN AND CONSTRUCTION ARRANGEMENT - FORMS 12 AND 15 CERTIFICATIONS ARE TO BE PROVIDED BY THE CONTRACTOR.
2. DESIGN OF WALLS TO CONSIDER ALL LOADS (FENCES, DWELLINGS ETC) AS WELL AS ASSOCIATED IMPACTS FROM ANY ADJACENT SERVICES - FOOTING DEPTHS TO BE EXTENDED AS REQUIRED.
3. GEOTECHNICAL CONDITIONS ARE TO BE CONFIRMED AND APPROPRIATELY CONSIDERED FOR ALL WALLS.
4. REFER LANDSCAPE DRAWINGS FOR FURTHER INFORMATION ON RETAINING WALLS, PARTICULARLY RELATING TO FINISHES.
5. TEMPORARY SAFETY FENCING TO BE INSTALLED BEHIND ALL WALLS 1.0m HIGH AND GREATER.



CONTRACTOR TO ENSURE UPSTREAM FLOW ARE DIRECTED TO PROPOSED DRAINAGE AND SITE IS FREE DRAINING

PROPOSED TURFED SWALE TO REDIRECT FLOWS INTO REAR ALLOTMENT DRAINAGE SYSTEM

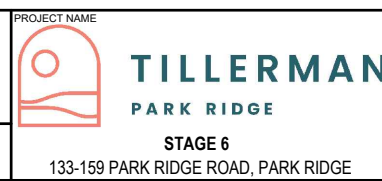
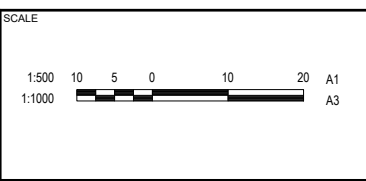
NOTE
PLAN TO BE READ IN CONJUNCTION WITH APPROVED OVERALL BULK EARTHWORKS PLANS. REFER DRG 21-0017-100 SERIES

REFER DRG.104 FOR PADMOUNT TRANSFORMER DETAILS AND LAYOUT PLAN

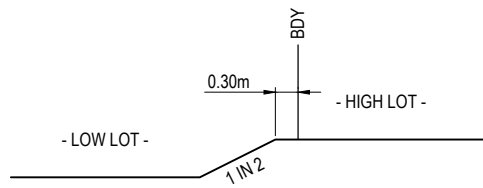
LOT 601, 621-629, & 630-632 EARTHWORKS COMPLETED AS PART OF STAGE 5 WORKS

REV	DATE	DESIGN	DRAWN	ISSUED FOR CONSTRUCTION
1	27.05.24	CL	CL	ISSUED FOR CONSTRUCTION
2	20.11.24	CL	BP	AS CONSTRUCTED

DESIGN	APPROVED	DATE
DANIEL COLLINS	RPEQ 18631	20.11.24



DRAWING TITLE		
BULK EARTHWORKS LAYOUT PLAN		
PROJECT No.	DRAWING No.	REVISION
22-0447	102	2



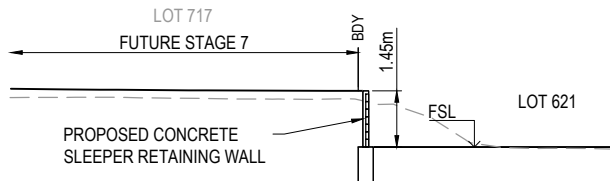
TYPICAL STEP BETWEEN LOTS DETAIL

SCALE 1:50 (A1)
SCALE 1:100 (A3)

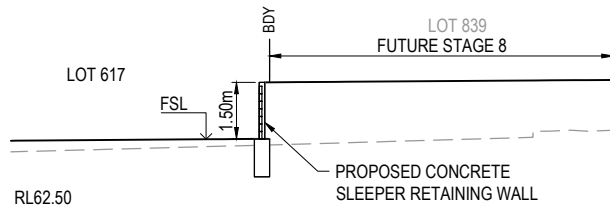
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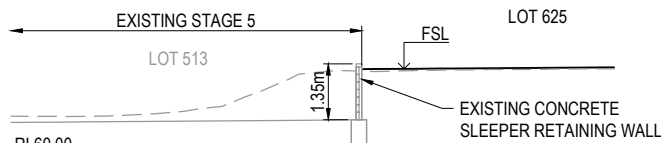
RPEQ (signature) RPEQ No. 18631 Date: 20/11/24



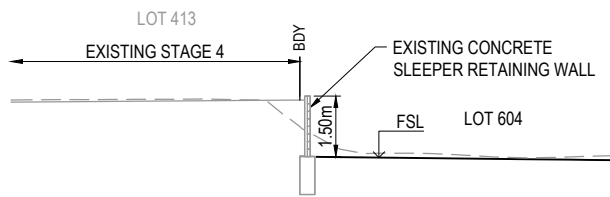
SECTION D
SCALE 1:100 (A1)
SCALE 1:200 (A3)



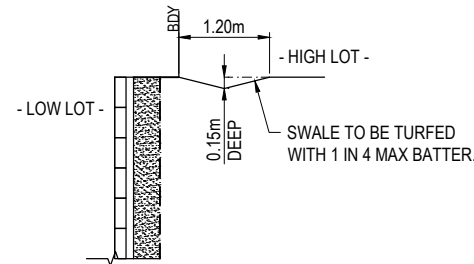
SECTION C
SCALE 1:100 (A1)
SCALE 1:200 (A3)



SECTION B
SCALE 1:100 (A1)
SCALE 1:200 (A3)

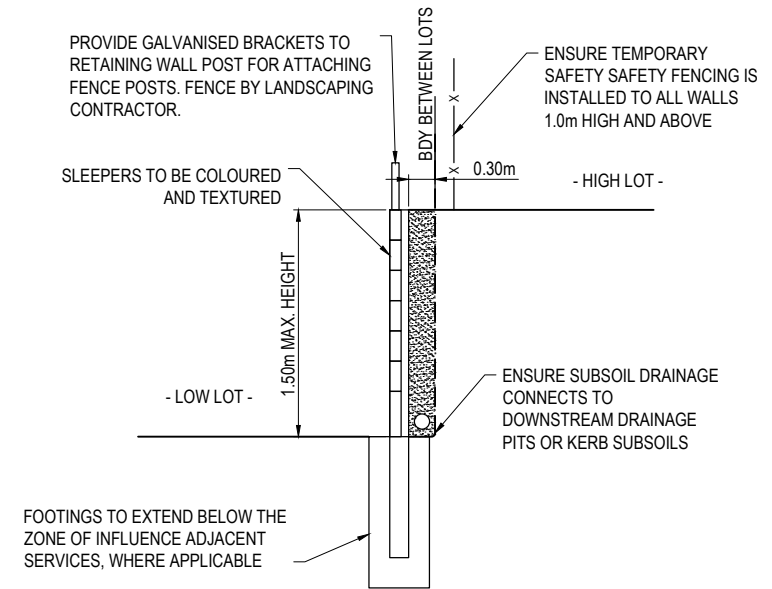


SECTION A
SCALE 1:100 (A1)
SCALE 1:200 (A3)



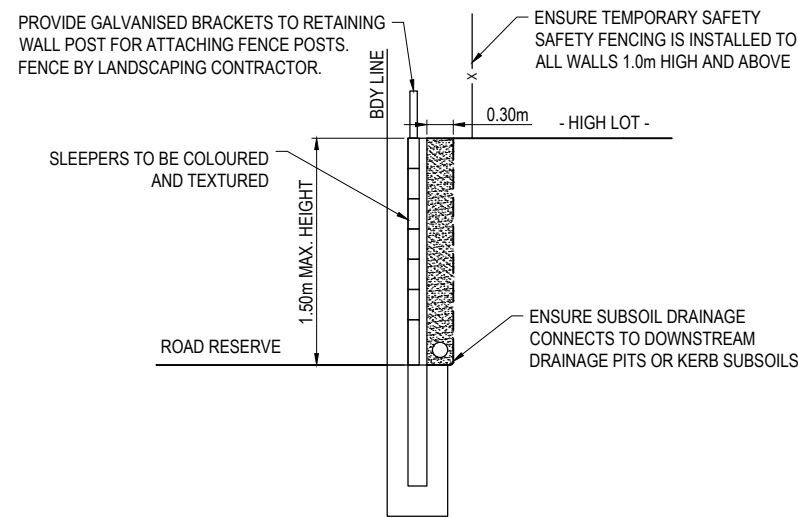
TYPICAL REAR ALLOTMENT SWALE - BEHIND WALL

SCALE 1:50 (A1)
SCALE 1:100 (A3)



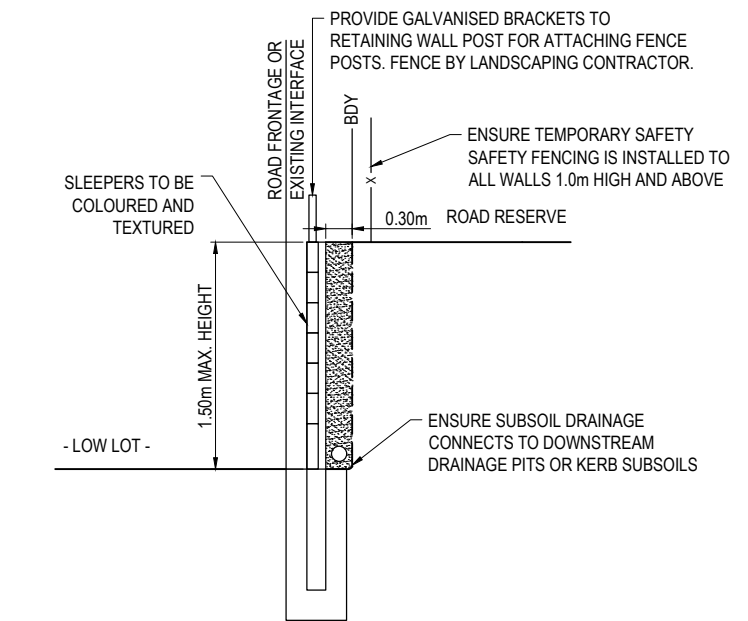
TYPICAL RETAINING DETAIL (BETWEEN LOTS)

SCALE 1:50 (A1)
SCALE 1:100 (A3)



TYPICAL RETAINING DETAIL (HIGHER LOT FRONTING ROAD RESERVE OR EXISTING)

SCALE 1:50 (A1)
SCALE 1:100 (A3)



TYPICAL RETAINING DETAIL (LOWER LOT FRONTING ROAD RESERVE OR EXISTING)

SCALE 1:50 (A1)
SCALE 1:100 (A3)

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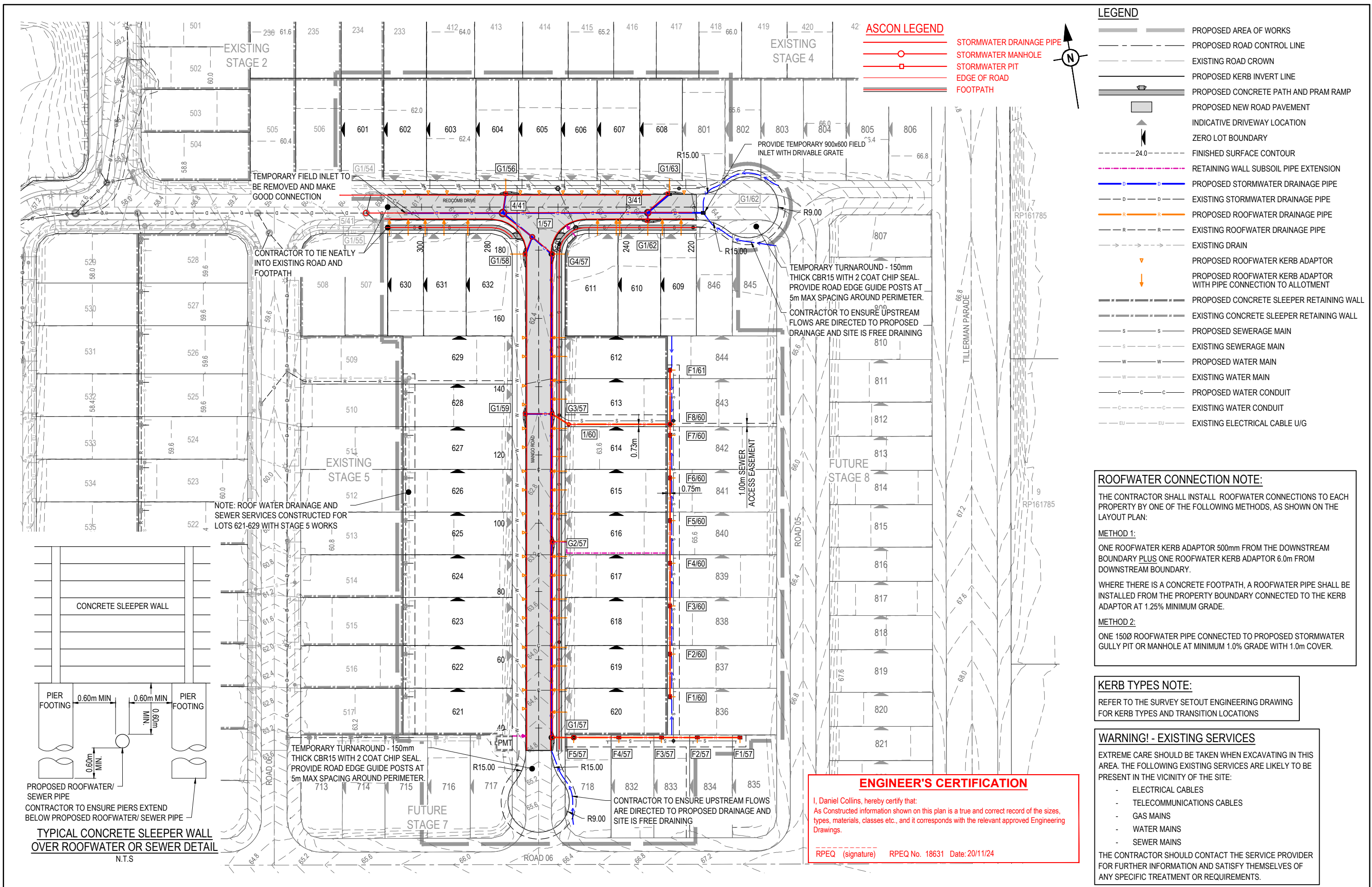


DESIGN	APPROVED	RPEQ	DATE
	DANIEL COLLINS	RPEQ 18631	20.11.24

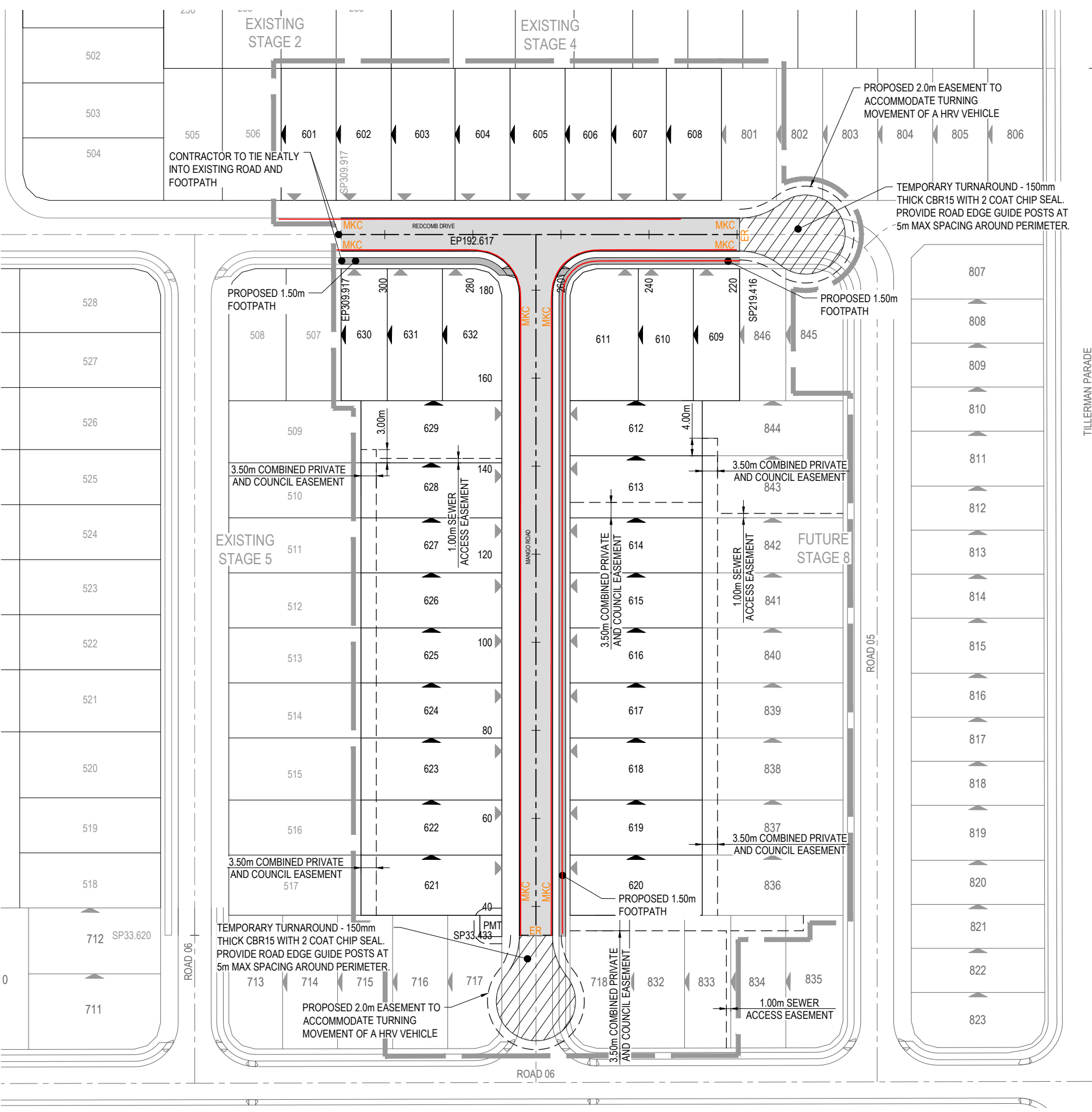
CLIENT
HB Land
ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME
TILLERMAN PARK RIDGE
STAGE 6
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE	PROJECT No.	DRAWING No.	REVISION
BULK EARTHWORKS TYPICAL SECTIONS	22-0447	103	2



REV	DATE	DESIGN	DRAWN	ISSUED FOR CONSTRUCTION	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE					
1	27.05.24	CL	CL	AS CONSTRUCTED			AS CONSTRUCTED	1:500 1:1000	HB Land	TILLERMAN PARK RIDGE	ROADWORKS AND DRAINAGE LAYOUT PLAN					
2	20.11.24	CL	BP	AS CONSTRUCTED					SAUNDERS HAVILL GROUP PH: 1300 123 744	STAGE 6 133-159 PARK RIDGE ROAD, PARK RIDGE						
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22-0447	105	2														



LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED NEW ROAD PAVEMENT
- PROPOSED ROAD CONTROL LINE
- MKC PROPOSED MOUNTABLE KERB AND CHANNEL 'TYPE M3'
- ER PROPOSED EDGE OF RESTRAINT
- PROPOSED CONCRETE PATH (FINISHED AS PER LANDSCAPE ARCHITECT PLANS)
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY

CONTROL LINE SETOUT ROAD 05

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING
CT	198.167	505314.907	935539.550	64.334	279°38'00.23"
TC	408.667	505107.375	935574.775	57.331	279°38'00.23"

CONTROL LINE SETOUT ROAD 07

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING
IP 1	0.000	505216.126	935360.945	65.893	9°38'00.23"
IP 2	192.617	505248.359	935550.845	62.563	9°38'00.23"

ASCON LEGEND

- EDGE OF ROAD
- FOOTPATH

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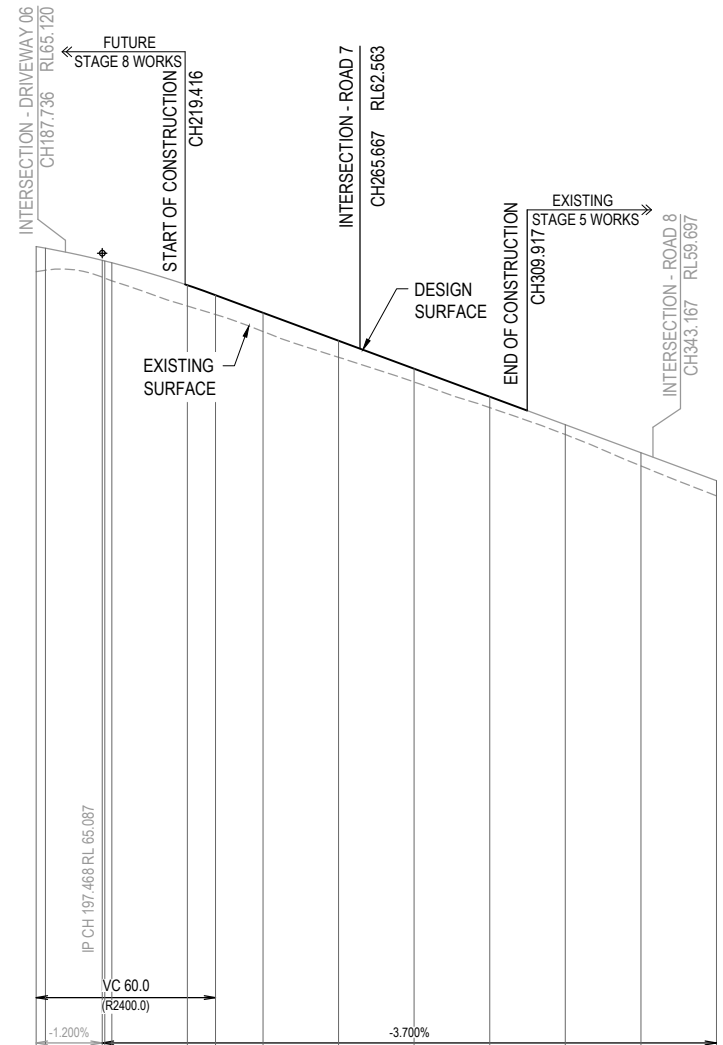
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				FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD		 ASSOCIATED CONSULTANT SAUNDERS HAVILL GROUP PH: 1300 123 744	
				 STAGE 6 133-159 PARK RIDGE ROAD, PARK RIDGE		DRAWING TITLE SURVEY SETOUT AND KERB TYPES LAYOUT PLAN PROJECT No. 22-0447 DRAWING No. 106 REVISION 2	

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

ROAD	ROAD CLASSIFICATION	DESIGN ESAS	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 05	URBAN ACCESS ROAD	5.9 x 10 ⁵	3	35mm	150mm	150mm	200mm	535mm

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN. THE PAVEMENT DESIGN IS SUBJECT TO A SEPARATE PAVEMENT DESIGN APPROVAL BY COUNCIL.



DATUM RL 43.0

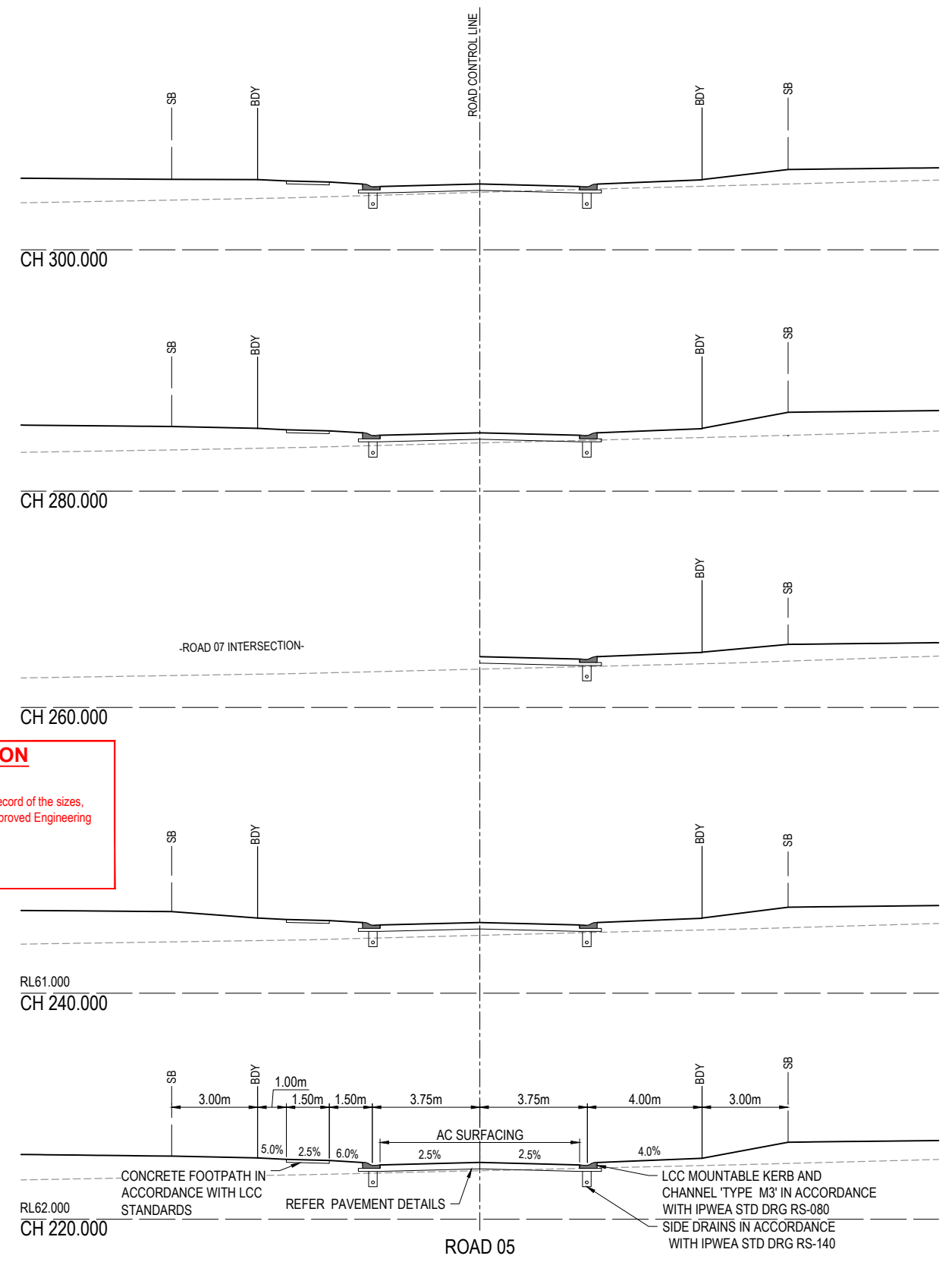
	180.000	182.459	197.468	198.167	200.000	220.000	227.468	240.000	260.000	280.000	300.000	320.000	340.000	360.000	
CUT (-) / FILL			0.663	0.580	0.443	0.453	0.479	0.511	0.495	0.437	0.352	0.290	0.262	0.353	0.403
LHS LIP LEVEL	65.177	65.125	64.801	64.787	64.749	64.155	63.890	63.426	#	61.206	60.466	59.813	58.986		
RHS LIP LEVEL	65.177	65.133	64.813	64.795	64.749	64.155	63.890	63.426	62.773	61.946	61.206	60.466	59.986	58.986	
DESIGN SURFACE	65.264	65.220	64.900	64.882	64.836	64.242	63.977	63.513	62.773	62.033	61.293	60.553	59.813	59.073	
EXISTING SURFACE	64.601	64.640	64.456	64.429	64.357	63.691	63.466	63.018	62.336	61.682	61.003	60.292	59.461	58.671	
CHAINAGES	180.000	182.459	197.468	198.167	200.000	220.000	227.468	240.000	260.000	280.000	300.000	320.000	340.000	360.000	
HORIZONTAL CURVES	R-10.000														

REFER INTERSECTION DETAILS PLAN FOR KERB RETURN LONGITUDINAL SECTIONS ROAD 5

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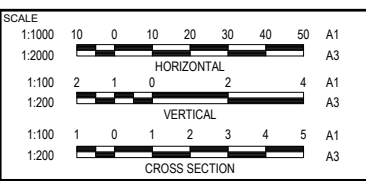
AS-CONSTRUCTED PAVEMENT DETAILS

LOCATION	SECTION	ESA	DESIGN CBR	TOTAL PAVEMENT DEPTH	A C	BASE COURSE CLASS (1)	UPPER SUB-BASE CLASS (2)	BLANKET COURSE TYPE (3)	SUBGRADE TREATMENT
ROAD 05	CH219.416 - CH309.917	5.9 x 10 ⁵ UAR	10%	335mm	35mm	150mm	150mm		-



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2	20.11.24	CL	BP	AS CONSTRUCTED	

DRAWN	STATUS
	AS CONSTRUCTED



CLIENT

 ASSOCIATED CONSULTANT
 SAUNDERS HAVILL GROUP
 PH: 1300 123 744

PROJECT NAME

 STAGE 6
 133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE	PROJECT No.	DRAWING No.	REVISION
ROAD 5 LONGITUDINAL SECTION AND CROSS SECTIONS	22-0447	107	2

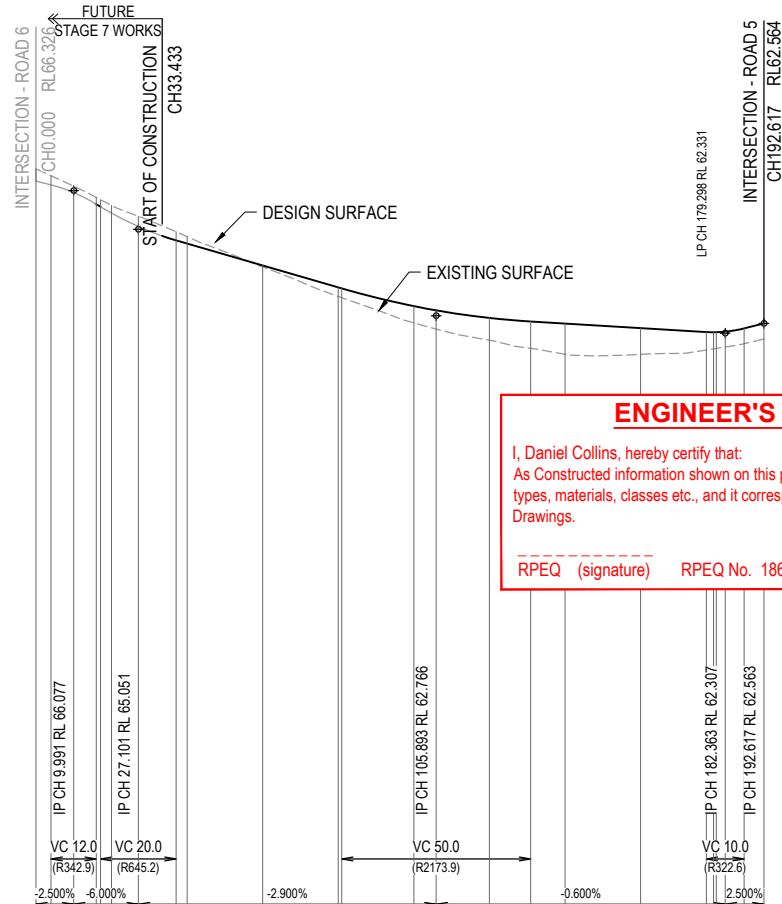
ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

ROAD	ROAD CLASSIFICATION	DESIGN ESAS	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 07	URBAN ACCESS ROAD	5.9 x 10 ⁵	3	35mm	150mm	150mm	200mm	535mm

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN. THE PAVEMENT DESIGN IS SUBJECT TO A SEPARATE PAVEMENT DESIGN APPROVAL BY COUNCIL.

AS-CONSTRUCTED PAVEMENT DETAILS

LOCATION	SECTION	ESA	DESIGN CBR	TOTAL PAVEMENT DEPTH	A C	BASE COURSE CLASS (1)	UPPER SUB-BASE CLASS (2)	BLANKET COURSE TYPE (3)	SUBGRADE TREATMENT
ROAD 07	CH33.433 - CH192.617	5.9 x 10 ⁵ UAR	10%	335mm	35mm	150mm	150mm		-



ENGINEER'S CERTIFICATION

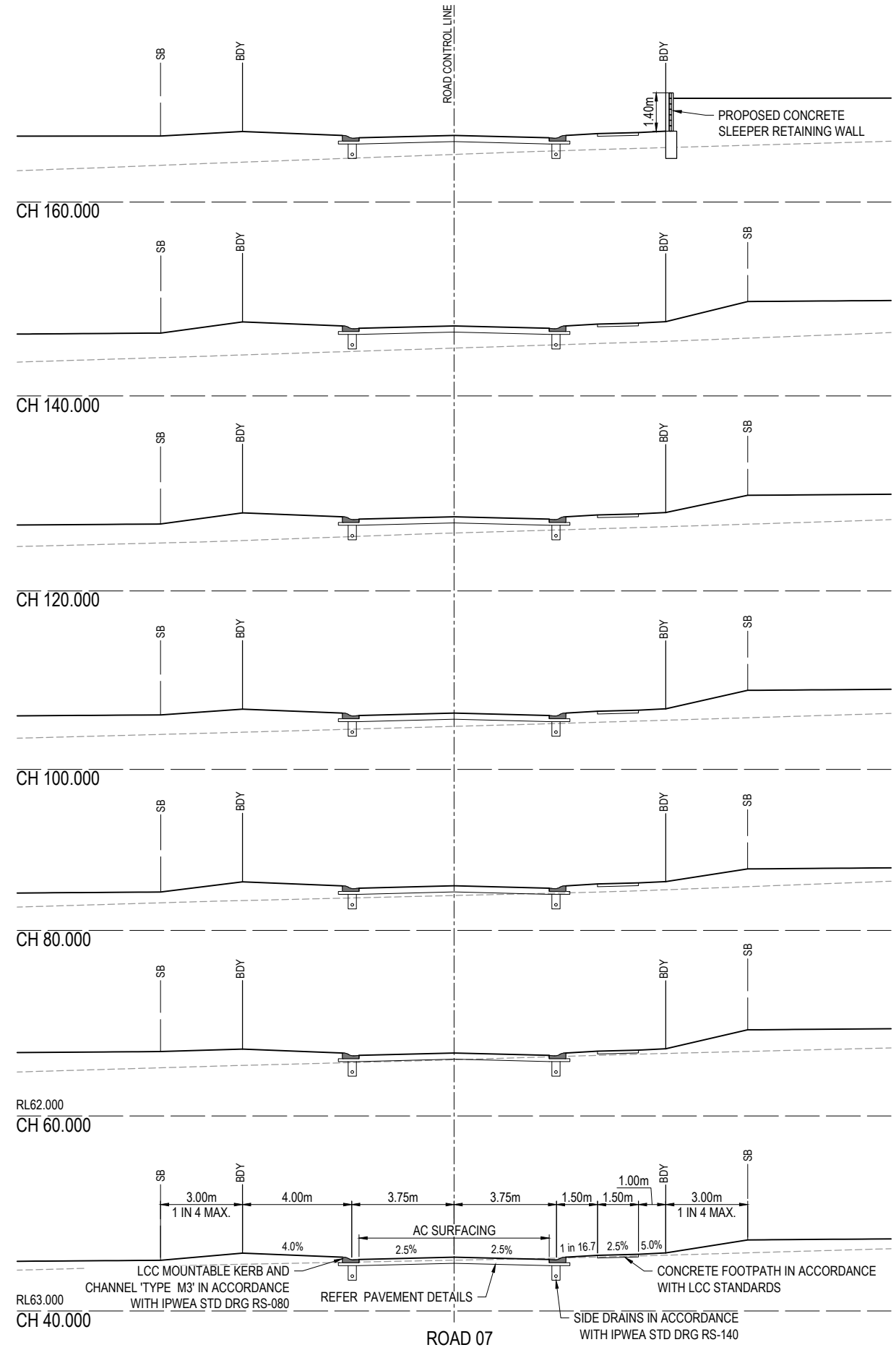
I, Daniel Collins, hereby certify that:
As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.

RPEQ (signature) RPEQ No. 18631 Date: 20/11/24

DATUM RL 46.0

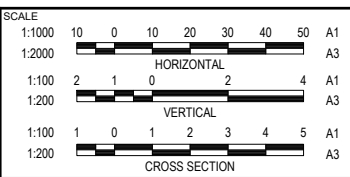
	0.000	3.991	9.991	15.991	17.101	20.000	27.101	37.101	40.000	60.000	80.000	80.893	100.000	105.893	120.000	130.893	140.000	160.000	177.363	179.298	180.000	182.363	187.363	192.617
CUT (-) / FILL		-0.327	-0.245	-0.169	-0.178	-0.201	-0.271	-0.227	-0.182	0.039	0.240	0.246	0.443	0.492	0.589	0.711	0.813	0.695	0.476	0.439	0.429	0.405	0.405	0.410
LHS LIP LEVEL		67.905	66.992	65.942	65.630	65.564	65.396	64.674	64.590	64.010	63.430	63.404	62.934	62.823	62.621	62.529	62.474	62.354	62.250	62.331	62.332	62.346	62.432	62.563
RHS LIP LEVEL		66.326	66.227	66.025	65.630	65.564	65.396	64.674	64.590	64.010	63.430	63.404	62.934	62.823	62.621	62.529	62.474	62.354	62.250	62.331	62.332	62.346	62.432	62.563
DESIGN SURFACE	66.327	66.227	66.025	65.630	65.564	65.396	64.674	64.674	64.674	64.097	63.517	63.491	63.021	62.910	62.708	62.616	62.561	62.441	62.337	62.331	62.332	62.346	62.432	62.563
EXISTING SURFACE	66.654	66.472	66.194	65.896	65.837	65.685	65.399	64.988	64.858	64.057	63.277	63.245	62.577	62.417	62.119	61.905	61.748	61.746	61.881	61.892	61.903	61.940	62.027	62.153
CHAINAGES	0.000	3.991	9.991	15.991	17.101	20.000	27.101	37.101	40.000	60.000	80.000	80.893	100.000	105.893	120.000	130.893	140.000	160.000	177.363	179.298	180.000	182.363	187.363	192.617
HORIZONTAL CURVES																								

REFER INTERSECTION DETAILS PLAN FOR KERB RETURN LONGITUDINAL SECTIONS ROAD 7



REV	DATE	DESIGN	DRAWN	ISSUED FOR CONSTRUCTION
1	27.05.24	CL	CL	ISSUED FOR CONSTRUCTION
2	20.11.24	CL	BP	AS CONSTRUCTED

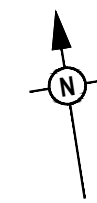
DRAWN	STATUS
	AS CONSTRUCTED



CLIENT
HB Land
ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME
TILLERMAN PARK RIDGE
STAGE 6
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE	PROJECT No.	DRAWING No.	REVISION
ROAD 7 LONGITUDINAL SECTION AND CROSS SECTIONS	22-0447	108	2



KERB TYPES NOTE:
REFER TO THE SURVEY SETOUT ENGINEERING DRAWING FOR KERB TYPES AND TRANSITION LOCATIONS

WARNING! - EXISTING SERVICES
EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

LEGEND

	PROPOSED ROAD CONTROL LINE
	PROPOSED KERB INVERT LINE
	PROPOSED KERB SETOUT NODE
	PROPOSED CONCRETE PATH AND PRAM RAMP
	PROPOSED NEW ROAD PAVEMENT
	INDICATIVE DRIVEWAY LOCATION
	PROPOSED PAVEMENT CONTOUR (0.2m INTERVAL)
	PROPOSED KERB SETOUT LINE
SP —	PROPOSED KERB SETOUT START POINT
EP —	PROPOSED KERB SETOUT END POINT
	PROPOSED SLEEPER RETAINING WALL
	PROPOSED STORMWATER DRAINAGE PIPE
	EXISTING STORMWATER DRAINAGE PIPE
	PROPOSED SEWERAGE MAIN
	EXISTING SEWERAGE MAIN
	PROPOSED WATER MAIN
	EXISTING WATER MAIN
	PROPOSED WATER CONDUIT

ASCON LEGEND

	EDGE OF ROAD
	FOOTPATH

ENGINEER'S CERTIFICATION
I, Daniel Collins, hereby certify that:
As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.
RPEQ (signature) RPEQ No. 18631 Date: 20/11/24

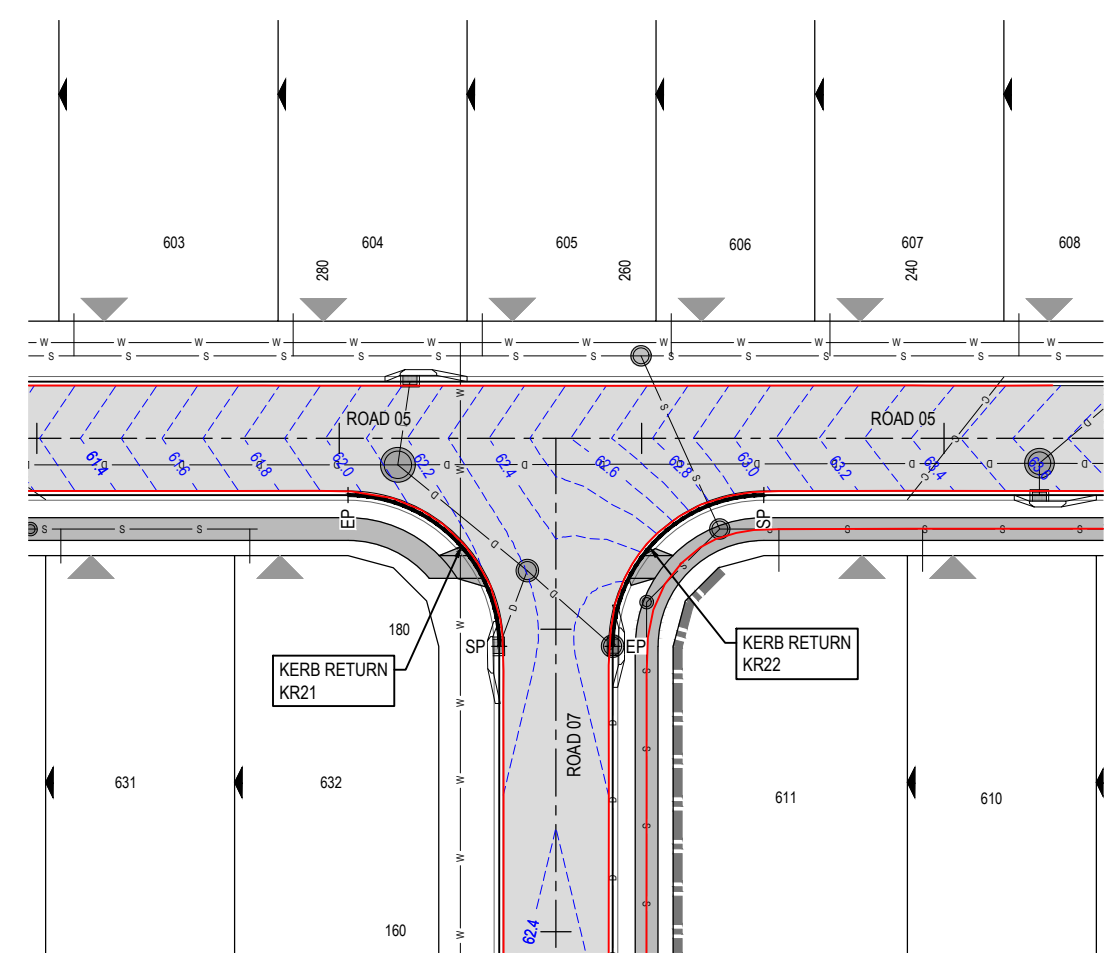
DATUM RL 60.0

LIP LEVEL	NORTHING	EASTING	CHAINAGES	HORIZONTAL CURVES
62.264	935534.059	505241.980	0.000	R-10.270
62.246	935537.017	505242.482	3.000	
62.241	935537.872	505242.627	3.867	
62.234	935538.997	505242.754	5.000	
62.228	935539.997	505242.764	6.000	
62.209	935542.458	505242.363	8.500	
62.204	935542.935	505242.212	9.000	
62.174	935545.589	505240.838	11.999	
62.174	935545.589	505240.837	12.000	
62.123	935547.736	505238.757	15.000	
62.112	935548.030	505238.354	15.499	
62.040	935549.192	505236.146	18.000	
62.005	935549.500	505235.196	18.999	
61.968	935549.715	505234.220	19.999	

IP CH 0.000 RL 62.264
IP CH 8.500 RL 62.213
IP CH 15.499 RL 62.134
IP CH 19.999 RL 61.968

SP
LIP OF KERB
EP

KR 21



DATUM RL 60.0

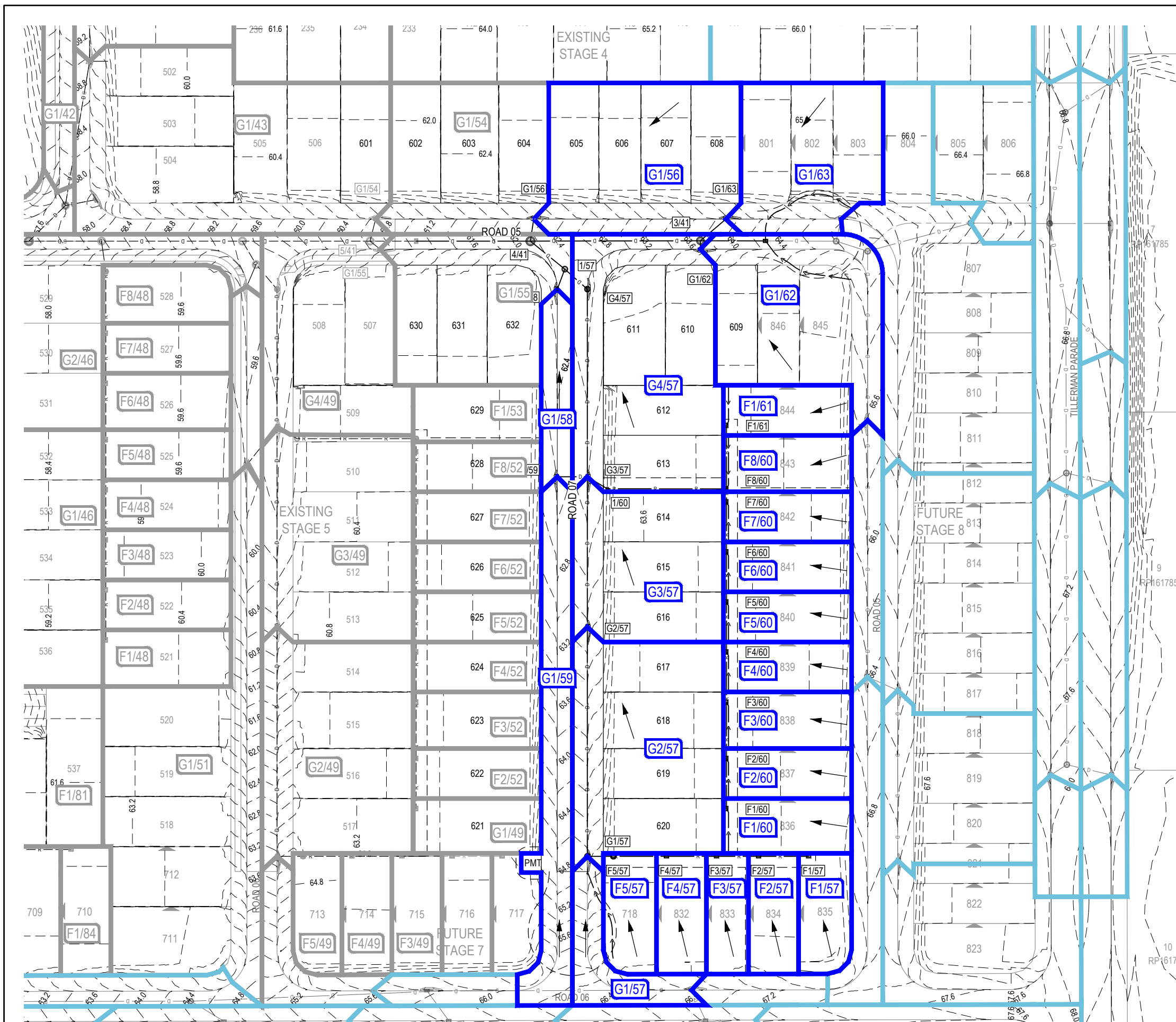
LIP LEVEL	NORTHING	EASTING	CHAINAGES	HORIZONTAL CURVES
62.984	935545.113	505261.332	0.000	R-10.270
62.844	935545.179	505258.344	3.000	
62.832	935545.153	505258.146	3.200	
62.638	935544.382	505255.463	6.000	
62.606	935544.213	505255.101	6.400	
62.423	935542.789	505252.934	9.000	
62.317	935541.191	505251.428	11.999	
62.290	935540.534	505250.970	12.000	
62.239	935537.810	505249.739	15.000	
62.238	935537.476	505249.650	15.346	
62.240	935536.838	505249.512	15.999	
62.241	935536.707	505249.489	16.132	
62.264	935534.865	505249.176	18.000	
62.264	935534.865	505249.176	19.999	

IP CH 0.000 RL 62.984
IP CH 3.200 RL 62.869
IP CH 11.999 RL 62.211
IP CH 15.346 RL 62.238
IP CH 19.999 RL 62.264

SP
LIP OF KERB
EP

KR 22

<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESIGN</th> <th>DRAWN</th> <th>REVISION DETAILS</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>27.05.24</td> <td>CL</td> <td>CL</td> <td>ISSUED FOR CONSTRUCTION</td> </tr> <tr> <td>2</td> <td>20.11.24</td> <td>CL</td> <td>BP</td> <td>AS CONSTRUCTED</td> </tr> </tbody> </table>	REV	DATE	DESIGN	DRAWN	REVISION DETAILS	1	27.05.24	CL	CL	ISSUED FOR CONSTRUCTION	2	20.11.24	CL	BP	AS CONSTRUCTED	<table border="1"> <thead> <tr> <th>DRAWN</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td></td> <td>AS CONSTRUCTED</td> </tr> </tbody> </table>	DRAWN	STATUS		AS CONSTRUCTED		<p>SCALE</p>	<table border="1"> <tr> <td> </td> <td> <table border="1"> <tr> <th>PROJECT NAME</th> </tr> <tr> <td>TILLERMAN PARK RIDGE</td> </tr> <tr> <th>STAGE</th> </tr> <tr> <td>STAGE 6</td> </tr> <tr> <td>133-159 PARK RIDGE ROAD, PARK RIDGE</td> </tr> </table> </td> </tr> </table>		<table border="1"> <tr> <th>PROJECT NAME</th> </tr> <tr> <td>TILLERMAN PARK RIDGE</td> </tr> <tr> <th>STAGE</th> </tr> <tr> <td>STAGE 6</td> </tr> <tr> <td>133-159 PARK RIDGE ROAD, PARK RIDGE</td> </tr> </table>	PROJECT NAME	TILLERMAN PARK RIDGE	STAGE	STAGE 6	133-159 PARK RIDGE ROAD, PARK RIDGE	<table border="1"> <tr> <th>DRAWING TITLE</th> </tr> <tr> <td>INTERSECTION DETAILS LAYOUT PLAN</td> </tr> <tr> <td>PROJECT No. 22-0447</td> </tr> <tr> <td>DRAWING No. 109</td> </tr> <tr> <td>REVISION 2</td> </tr> </table>	DRAWING TITLE	INTERSECTION DETAILS LAYOUT PLAN	PROJECT No. 22-0447	DRAWING No. 109	REVISION 2
REV	DATE	DESIGN	DRAWN	REVISION DETAILS																																
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DESIGN	APPROVED	DATE																																		
	DANIEL COLLINS	20.11.24																																		



LEGEND

- 1 CATCHMENT NAME
- 1 EXISTING CATCHMENT NAME
- CATCHMENT BOUNDARY
- FUTURE STAGE CATCHMENT BOUNDARY
- EXISTING STAGE CATCHMENT BOUNDARY
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- PROPOSED ROOFWATER DRAINAGE PIPE
- EXISTING ROOFWATER DRAINAGE PIPE
- EXISTING SWALE DRAIN
- FINISHED SURFACE CONTOUR
- ← CATCHMENT FLOW DIRECTION ARROW

CATCHMENT TABLE

CATCHMENT NAME	CATCHMENT AREA (ha)	RUNOFF COEFF MINOR	RUNOFF COEFF MAJOR	IMPERVIOUS CATCHMENT AREA MINOR (ha)	IMPERVIOUS CATCHMENT AREA MAJOR (ha)
G1/56	0.181	0.72	1	0.13	0.181
F1/57	0.039	0.69	1	0.027	0.039
F2/57	0.038	0.69	1	0.026	0.038
F3/57	0.032	0.69	1	0.022	0.032
F4/57	0.038	0.69	1	0.026	0.038
F5/57	0.039	0.69	1	0.027	0.039
G1/57	0.047	0.74	1	0.035	0.047
G2/57	0.203	0.72	1	0.146	0.203
G3/57	0.142	0.72	1	0.102	0.142
G4/57	0.232	0.72	1	0.167	0.232
G1/58	0.036	0.74	1	0.027	0.036
G1/59	0.109	0.74	1	0.081	0.109
F1/60	0.044	0.69	1	0.03	0.044
F2/60	0.04	0.69	1	0.028	0.04
F3/60	0.045	0.69	1	0.031	0.045
F4/60	0.04	0.69	1	0.028	0.04
F5/60	0.04	0.69	1	0.028	0.04
F6/60	0.04	0.69	1	0.028	0.04
F7/60	0.04	0.69	1	0.028	0.04
F8/60	0.045	0.69	1	0.031	0.045
F1/61	0.04	0.69	1	0.028	0.04
G1/62	0.165	0.72	1	0.119	0.165
G1/63	0.128	0.72	1	0.092	0.128

ENGINEER'S CERTIFICATION

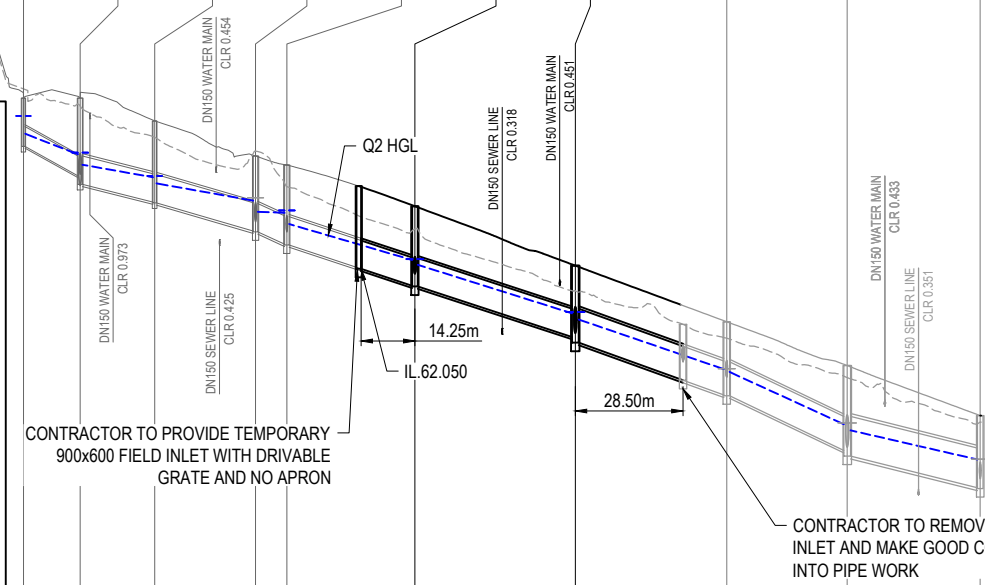
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RPEQ (signature) RPEQ No. 18631 Date: 20/11/24

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REV	DATE	DESIGN	DRAWN	ISSUED FOR CONSTRUCTION																							
1	27.05.24	CL	CL	ISSUED FOR CONSTRUCTION																							
2	20.11.24	CL	BP	AS CONSTRUCTED																							
REVISION DETAILS	DRAWN	STATUS																									
		AS CONSTRUCTED																									

STRUCTURE NAME	G1/41
STRUCTURE DESCRIPTION	STD TYPE A GULLY (SAG) L.I.L.: 4.8m Linel: TYPE E K&C
G2/41	STD TYPE A GULLY (SAG) K.I.L.: 4.8m Linel: TYPE E K&C ON 1200Ø MH
F1/41	900x600 GULLY WITH INVERTED GRATED LID
1/41	STD MANHOLE 1200mm DIA
2/41	STD MANHOLE 1200mm DIA
3/41	STD MANHOLE 1500mm DIA
4/41	STD MANHOLE 1800mm DIA REFER DETAIL ON DRG. 114
5/41	STD MANHOLE 1500mm DIA
6/41	STD MANHOLE 1800mm DIA
7/41	STD MANHOLE 1500mm DIA

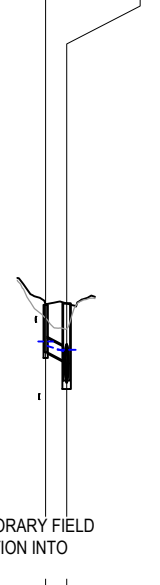
STORMWATER STRUCTURE NOTE:
 STANDARD ROUND MANHOLES LESS THAN 3.0m DEEP:
 CONSTRUCT IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS.
 STANDARD ROUND MANHOLES 3.0m > 5.3m DEEP:
 CONSTRUCT IN ACCORDANCE WITH TMR STD DRAWINGS 1307 AND 1308.
 STANDARD ROUND MANHOLES GREATER THAN 5.3m DEEP:
 SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.
 ROUND EXTENDED (900mm MAX) MANHOLES:
 CONSTRUCT IN ACCORDANCE WITH COLLIER'S STD DRAWINGS S-101 & S-102.
 NON-STANDARD STRUCTURE (SPECIAL):
 SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.



PIPE SIZE (mm)	525	750	750	750	750	750	900	900	1050																																											
PIPE CLASS	3	3	3	3	3	3	3	3	3																																											
PIPE GRADE (%)	5.19%	2.39%	2.80%	3.95%	3.18%	3.15%	3.46%	4.53%	2.38%																																											
PIPE SLOPE (1 in X)	19.28	41.80	35.71	25.29	34.44	31.76	28.94	22.05	41.94																																											
FULL PIPE VELOCITY (m/s)	1.11	1.57	1.56	1.66	1.81	1.94	1.69	1.77	1.65																																											
PART FULL VELOCITY (m/s)	3.74	3.69	3.90	4.50	4.25	4.31	4.70	5.26	4.40																																											
DATUM RL	47.0																																																			
H.G.L. IN PIPE & W.S.E IN STRUCTURE	66.094	65.621	65.080	64.804	64.472	64.310	63.854	63.531	63.558	63.533	63.594	63.236	62.285	62.307	62.157	60.875	60.907	60.711	59.397	59.407	59.322	57.940	57.972	57.778	57.008	57.019																										
PIPE FLOW (Cumecs)	0.240	0.695	0.691	0.731	0.800	0.858	1.074	1.129	1.431																																											
PIPE CAPACITY AT GRADE (Cumecs)	0.980	1.723	1.864	2.215	1.986	1.976	3.367	3.857	4.218																																											
DEPTH TO INVERT	1.279	2.057	2.282	2.149	2.169	2.096	2.116	2.055	2.102	2.122	1.84	1.888	2.099	2.099	2.07	1.938	1.958	2.245	2.395	1.911																																
INVERT LEVEL OF DRAIN	65.290	64.512	64.287	63.815	63.795	63.048	63.028	62.701	62.681	61.63	61.669	61.593	60.27	60.247	60.097	60.04	60.944	60.89	60.62	60.622	60.097	60.097	60.04	58.713	58.693	57.247	57.097	56.258	56.238																							
DESIGN SURFACE LEVEL	66.569	66.569	66.569	65.964	65.964	65.036	64.797	63.88	63.88	62.999	62.999	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12	62.12																							
SETOUT COORDINATES	E 505381.133	N 93531.020	E 505366.340	N 93533.500	E 505346.906	N 93536.908	E 505320.355	N 93534.300	E 505313.008	N 93538.097	E 505279.613	N 93543.869	E 505237.757	N 93550.870	E 505198.273	N 93557.572	E 505166.837	N 93562.907	E 505132.142	N 93566.796	E 505239.472	N 93556.157	E 505237.757	N 93550.870	E 505280.522	N 93538.763	E 505268.198	N 93538.855	E 505257.846	N 93539.162	E 505245.522	N 93539.704	E 505232.459	N 93539.921	E 50526.051	N 93539.009	E 505235.640	N 93535.506	E 505241.916	N 93549.477	E 505249.755	N 93536.662	E 505245.029	N 93542.543								
RUNNING CHAINAGE	0.000	15.000	19.731	34.731	26.678	61.409	8.270	63.679	33.890	103.569	42.64	42.437	146.006	40.21	40.049	186.056	31.886	217.941	35.191	253.132	0.000	5.84	5.559	5.569	0.000	12.48	12.500	12.500	10.56	10.500	23.000	12.41	12.500	35.500	13.25	13.250	48.750	6.19	6.500	55.250	57.22	57.305	112.555	37.54	37.500	150.055	46.88	46.945	196.900	7.80	7.545	204.445

LINE 41 56 57

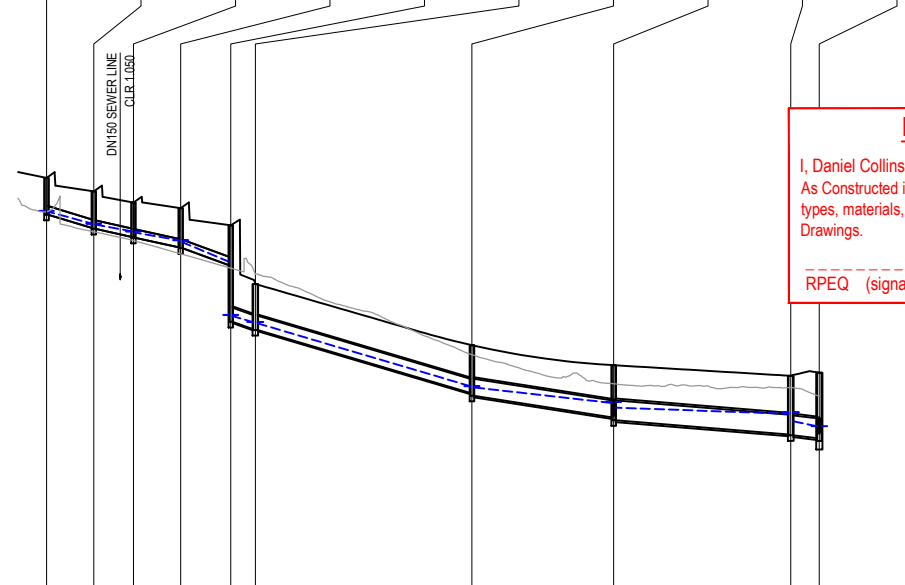
G1/56	STD TYPE A GULLY L.I.L.: 3.6m Linel: TYPE D K&C
4/41	STD MANHOLE 1800mm DIA REFER DETAIL ON DRG. 114



PIPE SIZE (mm)	375						
PIPE CLASS	3						
PIPE GRADE (%)	4.62%						
PIPE SLOPE (1 in X)	25.00						
FULL PIPE VELOCITY (m/s)	0.48						
PART FULL VELOCITY (m/s)	2.30						
DATUM RL	48.0						
H.G.L. IN PIPE & W.S.E IN STRUCTURE	61.128	61.012	60.875	60.907	60.711		
PIPE FLOW (Cumecs)	0.054						
PIPE CAPACITY AT GRADE (Cumecs)	0.351						
DEPTH TO INVERT	1.265	1.23	1.49	1.513	2.07		
INVERT LEVEL OF DRAIN	60.944	60.89	60.62	60.622	60.04		
DESIGN SURFACE LEVEL	62.12	62.12	62.12	62.12	62.12		
SETOUT COORDINATES	E 505239.472	N 93556.157	E 505237.757	N 93550.870	E 505239.472	N 93556.157	
RUNNING CHAINAGE	0.000	5.84	5.559	5.569	0.000	12.48	12.500

LINE 56

F1/57	STD FIELD INLET TYPE 2 900x600
F2/57	STD FIELD INLET TYPE 2 900x600
F3/57	STD FIELD INLET TYPE 2 900x600
F4/57	STD FIELD INLET TYPE 2 900x600
F5/57	STD FIELD INLET TYPE 2 900x600 ON 1200Ø MH
G1/57	STD TYPE A GULLY L.I.L.: 2.4m Linel: TYPE D K&C ON 1200Ø MH
G2/57	STD TYPE A GULLY L.I.L.: 2.4m Linel: TYPE D K&C
G3/57	STD TYPE A GULLY L.I.L.: 2.4m Linel: TYPE D K&C
G4/57	STD TYPE A GULLY (SAG) L.I.L.: 2.4m Linel: TYPE D K&C ON 1200Ø MH
1/57	STD MANHOLE 1200mm DIA



PIPE SIZE (mm)	225	225	225	225	375	375	450	525	525																			
PIPE CLASS	PVC	PVC	PVC	PVC	3	3	3	3	3																			
PIPE GRADE (%)	2.72%	2.00%	1.93%	3.32%	1.62%	2.95%	1.44%	0.85%	1.03%																			
PIPE SLOPE (1 in X)	10.92	8.00	7.73	13.25	6.50	11.81	5.84	3.40	4.12																			
FULL PIPE VELOCITY (m/s)	0.24	0.48	0.67	0.90	0.41	0.52	0.63	1.13	1.37																			
PART FULL VELOCITY (m/s)	1.47	1.59	1.75	2.28	1.98	2.09	1.91	1.88	2.19																			
DATUM RL	50.0																											
H.G.L. IN PIPE & W.S.E IN STRUCTURE	66.563	66.246	66.222	66.042	66.009	65.809	65.809	65.755	65.237	63.830	63.803	63.639	63.645	63.608	61.948	61.914	61.503	61.531	61.380	61.215	61.257	61.019	60.885	60.889				
PIPE FLOW (Cumecs)	0.010	0.019	0.027	0.036	0.045	0.058	0.100	0.244	0.296																			
PIPE CAPACITY AT GRADE (Cumecs)	0.089	0.076	0.076	0.098	0.304	0.299	0.353	0.385	0.443																			
DEPTH TO INVERT	0.973	0.97	0.96	0.992	1.01	0.91	0.94	0.93	1.04	1.06	1.08	1.05	1.14	1.14	1.30	1.262	1.39	1.39	1.46	1.57	1.569	1.59	1.73	1.73				
INVERT LEVEL OF DRAIN	66.493	66.49	66.15	66.126	66.10	65.89	65.87	65.63	65.616	65.596	65.59	65.15	65.14	63.424	63.42	61.73	61.73	61.15	61.15	61.046	60.68	60.679	60.659	60.58				
DESIGN SURFACE LEVEL	67.46	67.46	67.11	67.11	66.80	66.80	66.67	66.67	66.20	66.20	66.20	64.65	64.65	63.03	63.03	62.54	62.54	62.25	62.25	62.25	62.25	62.25	62.25	62.31				
SETOUT COORDINATES	E 505280.522	N 93538.763	E 505268.198	N 93538.855	E 505257.846	N 93539.162	E 505245.522	N 93539.704	E 505232.459	N 93539.921	E 50526.051	N 93539.009	E 505235.640	N 93535.506	E 505241.916	N 93549.477	E 505249.755	N 93536.662	E 505245.029	N 93542.543								
RUNNING CHAINAGE	0.000	12.48	12.500	12.500	10.56	10.500	23.000	12.41	12.500	35.500	13.25	13.250	48.750	6.19	6.500	55.250	57.22	57.305	112.555	37.54	37.500	150.055	46.88	46.945	196.900	7.80	7.545	204.445

LINE 57

ENGINEER'S CERTIFICATION
 I, Daniel Collins, hereby certify that:
 As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.
 RPEQ (signature) RPEQ No. 18631 Date: 20/11/24

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STRUCTURE NAME	1/57
STRUCTURE DESCRIPTION	STD MANHOLE 1200mm DIA REFER DETAIL ON DRG. 114
	4/41
	STD MANHOLE 1800mm DIA REFER DETAIL ON DRG. 114

STORMWATER STRUCTURE NOTE:
 STANDARD ROUND MANHOLES LESS THAN 3.0m DEEP:
 CONSTRUCT IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS.
 STANDARD ROUND MANHOLES 3.0m > 5.3m DEEP:
 CONSTRUCT IN ACCORDANCE WITH TMR STD DRAWINGS 1307 AND 1308.
 STANDARD ROUND MANHOLES GREATER THAN 5.3m DEEP:
 SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.
 ROUND EXTENDED (900mm MAX) MANHOLES:
 CONSTRUCT IN ACCORDANCE WITH COLLIER'S STD DRAWINGS S-101 & S-102.
 NON-STANDARD STRUCTURE (SPECIAL):
 SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

PIPE SIZE (mm)	600
PIPE CLASS	3
PIPE GRADE (%)	0.90% 0.89%
PIPE SLOPE (1 in X)	112.81 110.60
FULL PIPE VELOCITY (m/s)	1.07
PART FULL VELOCITY (m/s)	2.07
DATUM RL	48.0
H.G.L. IN PIPE & W.S.E IN STRUCTURE	60.885 60.889 60.855 60.875 60.907 60.711
PIPE FLOW (Cumecs)	0.304
PIPE CAPACITY AT GRADE (Cumecs)	0.578
DEPTH TO INVERT	1.73 1.733 1.809 1.82 1.72 1.788 2.098 2.07
INVERT LEVEL OF DRAIN	60.58 60.570 60.495 60.49 60.39 60.997 60.997 60.04
DESIGN SURFACE LEVEL	62.203 62.31 62.303 62.31
SETOUT COORDINATES	E 505245.029 N 935542.543 E 505237.757 N 935550.870
RUNNING CHAINAGE	204.445 11.06 11.055 215.500

STRUCTURE NAME	G1/58
STRUCTURE DESCRIPTION	STD TYPE A GULLY L.I.L.: 2.4m Linel; TYPE D K&C
	1/57
	STD MANHOLE 1200mm DIA

PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	3.22% 4.00%
PIPE SLOPE (1 in X)	25.60 31.06
FULL PIPE VELOCITY (m/s)	0.09
PART FULL VELOCITY (m/s)	1.39
DATUM RL	48.0
H.G.L. IN PIPE & W.S.E IN STRUCTURE	61.007 61.003 60.885 60.889 60.855
PIPE FLOW (Cumecs)	0.010
PIPE CAPACITY AT GRADE (Cumecs)	0.351
DEPTH TO INVERT	1.286 1.34 1.56 1.583 1.82
INVERT LEVEL OF DRAIN	60.934 60.93 60.75 60.720 60.495 60.49
DESIGN SURFACE LEVEL	62.203 62.27 60.720 62.31
SETOUT COORDINATES	E 505242.361 N 935537.917 E 505245.029 N 935542.543
RUNNING CHAINAGE	0.000 5.59 5.344 5.341

STRUCTURE NAME	G1/59
STRUCTURE DESCRIPTION	STD TYPE A GULLY L.I.L.: 2.4m Linel; TYPE D K&C
	G3/57
	STD TYPE A GULLY L.I.L.: 2.4m Linel; TYPE D K&C

PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	1.85% 2.25%
PIPE SLOPE (1 in X)	44.38 54.20
FULL PIPE VELOCITY (m/s)	0.27
PART FULL VELOCITY (m/s)	1.46
DATUM RL	50.0
H.G.L. IN PIPE & W.S.E IN STRUCTURE	65.530 65.503 65.233 65.206 64.916 64.916 64.863 64.709 64.709 64.641 64.288 64.275 64.274 64.118 64.118 64.083
PIPE FLOW (Cumecs)	0.027
PIPE CAPACITY AT GRADE (Cumecs)	0.263
DEPTH TO INVERT	1.197 1.12 1.24 1.260 1.279 1.28 1.24 1.24 1.299 1.27 1.19 1.217 1.22 1.19 1.21 1.225 1.30 1.27 1.24 1.244 1.314 1.30 1.37 1.409 1.439 1.39 1.43 1.43 1.46 2.77 1.78 1.27 1.266 1.324 1.45 1.27 1.305 1.455 1.46
INVERT LEVEL OF DRAIN	65.419 65.42 65.126 65.106 65.096 65.08 64.76 64.734 64.74 64.73 64.51 64.490 64.479 64.48 64.21 64.174 64.174 64.10 63.92 63.914 63.891 63.89 63.70 63.705 63.682 63.68 63.63 63.634 62.905 62.29 61.78 61.744 61.666 61.60 61.27 61.196 61.046 61.08
DESIGN SURFACE LEVEL	66.555 66.54 65.126 65.106 65.096 66.36 66.04 66.00 66.707 66.70 66.50 66.205 66.19 66.103 65.07 64.969 65.06 62.907 63.05 62.975 29.75 5.57 5.834
SETOUT COORDINATES	E 505262.310 N 935402.975 E 505264.402 N 935415.299 E 505266.762 N 935429.200 E 505268.854 N 935441.514 E 505270.945 N 935453.848 E 505273.037 N 935465.171 E 505275.129 N 935478.495 E 505275.669 N 935481.675 E 505246.342 N 935486.678 E 505241.916 N 935490.477
RUNNING CHAINAGE	0.000 12.47 12.500 12.500 14.07 14.100 26.600 12.45 12.490 38.090 12.51 12.510 51.600 12.51 12.500 64.100 12.56 12.500 76.600 3.22 3.225 79.825 29.75 29.750 109.575 5.57 5.834 115.409

STRUCTURE NAME	F1/61
STRUCTURE DESCRIPTION	STD FIELD INLET TYPE 2 900x600
	F8/60
	STD FIELD INLET TYPE 2 900x600 ON 12000 MH

PIPE SIZE (mm)	225
PIPE CLASS	PVC
PIPE GRADE (%)	0.00% 1.00%
PIPE SLOPE (1 in X)	00.00 00.00
FULL PIPE VELOCITY (m/s)	0.25
PART FULL VELOCITY (m/s)	1.02
DATUM RL	50.0
H.G.L. IN PIPE & W.S.E IN STRUCTURE	63.936 63.913 63.739 62.757 62.540 62.530 62.465 62.285 62.307 62.157
PIPE FLOW (Cumecs)	0.010
PIPE CAPACITY AT GRADE (Cumecs)	0.053
DEPTH TO INVERT	1.435 1.10 1.39 1.277 2.645 2.77 1.318 1.35 1.72 1.747 2.122 2.12
INVERT LEVEL OF DRAIN	62.892 63.83 63.67 63.675 62.905 62.29 62.221 62.32 61.96 61.956 61.593 61.56
DESIGN SURFACE LEVEL	64.967 64.93 63.67 63.675 64.969 65.06 63.699 63.67 63.68 63.68
SETOUT COORDINATES	E 505278.325 N 935497.326 E 505275.669 N 935481.675 E 505246.342 N 935486.678 E 505241.916 N 935490.477
RUNNING CHAINAGE	0.000 15.79 15.875 15.875 15.875 15.875 0.000 2.44 2.103 2.103 0.000 8.00 8.348

STRUCTURE SETOUT REFERENCE POINT

STRUCTURE TYPE	HORIZONTAL	VERTICAL
MANHOLE	CL MAIN SHAFT	FINISHED SURFACE LEVEL
GULLY PIT	INTERSECTION OF PIT AND KERB INVERT LINE # (INCLUDING MANHOLES UNDER GULLIES)	KERB INVERT LEVEL
HEADWALL	INTERSECTION OF HEADWALL FACE & PIPE CENTRE LINE	TOP OF HEADWALL

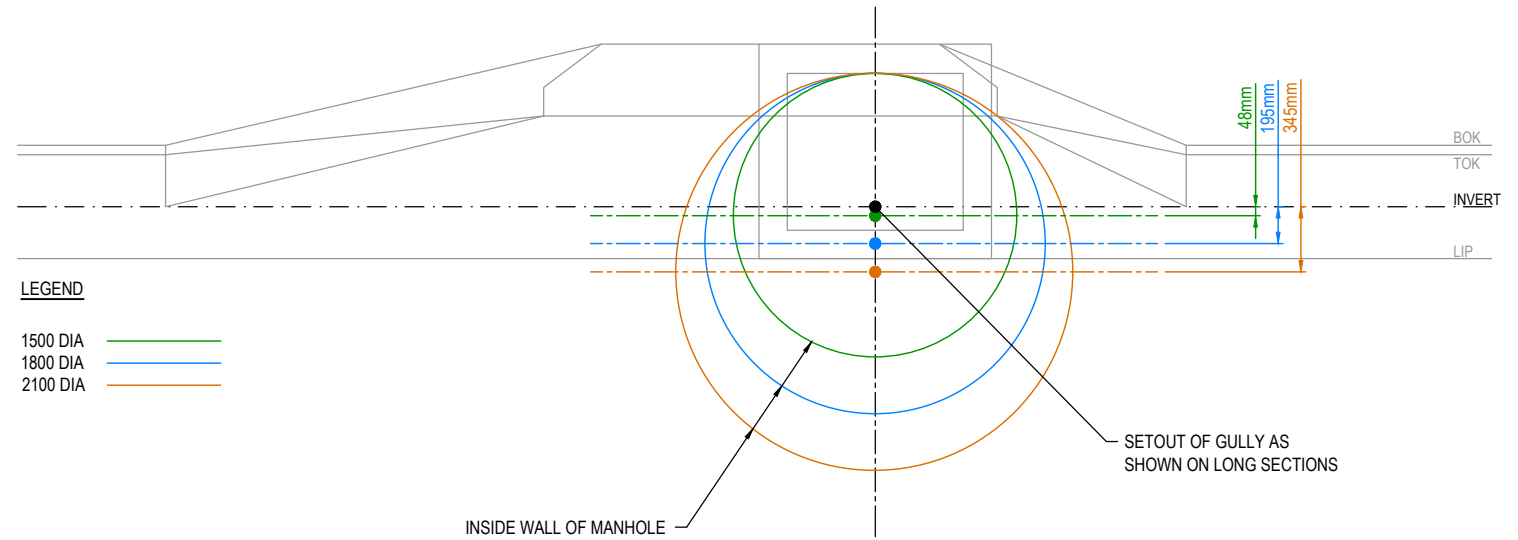
NOTE:
 WITHIN GULLY PIT CHAMBER, CONTRACTOR TO ENSURE STORMWATER PIPES ARE OFFSET AS REQUIRED SO THAT PIPES ENTER WHOLLY WITHIN A SIDE WALL

ENGINEER'S CERTIFICATION
 I, Daniel Collins, hereby certify that:
 As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.
 RPEQ (signature) RPEQ No. 18631 Date: 20/11/24

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LEGEND

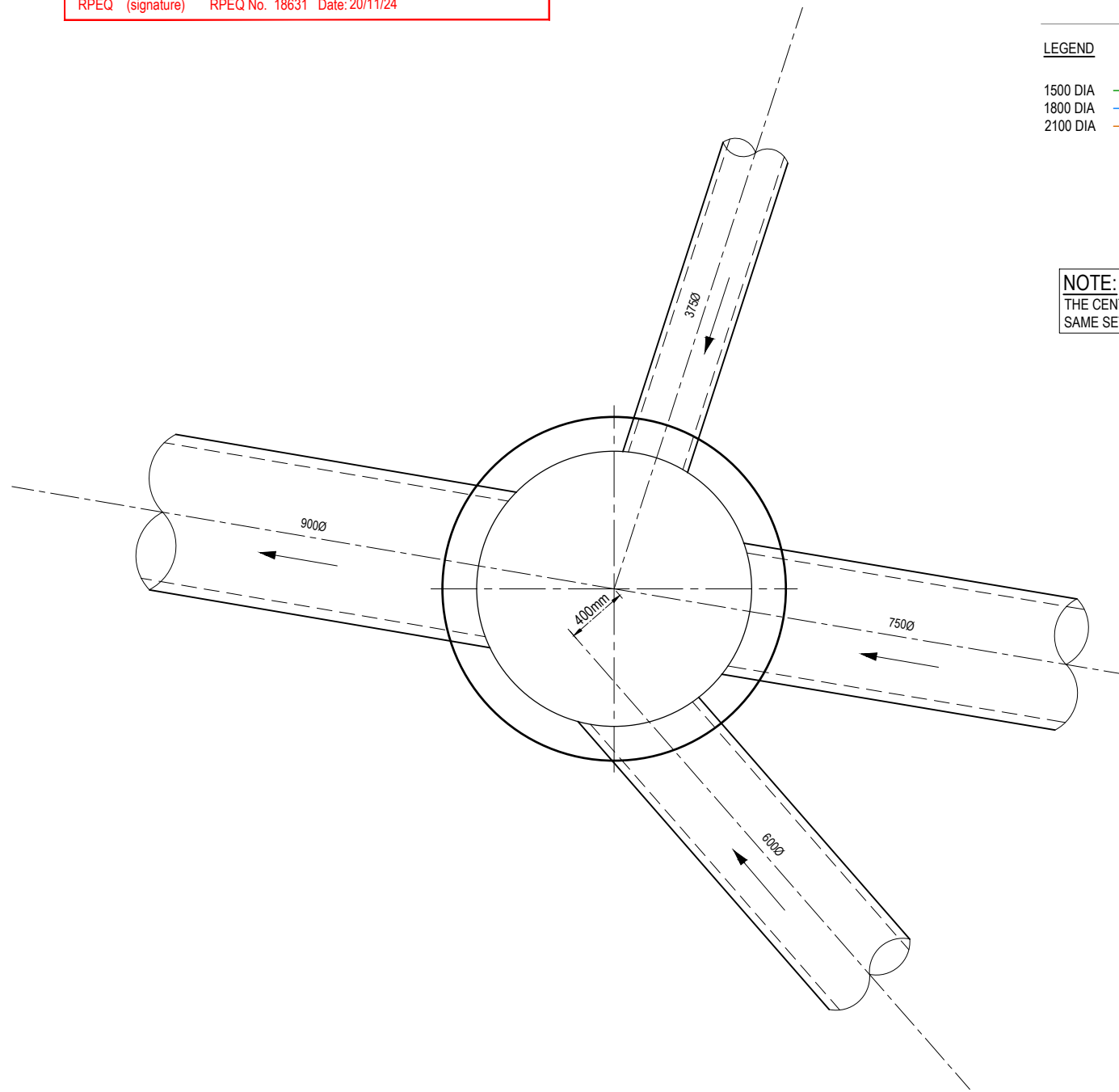
- 1500 DIA —
- 1800 DIA —
- 2100 DIA —

NOTE:

THE CENTRE OF 1050, 1200 & 1350 DIA MANHOLES ARE THE SAME SETOUT POINTS AS THEIR RESPECTIVE GULLY PITS.

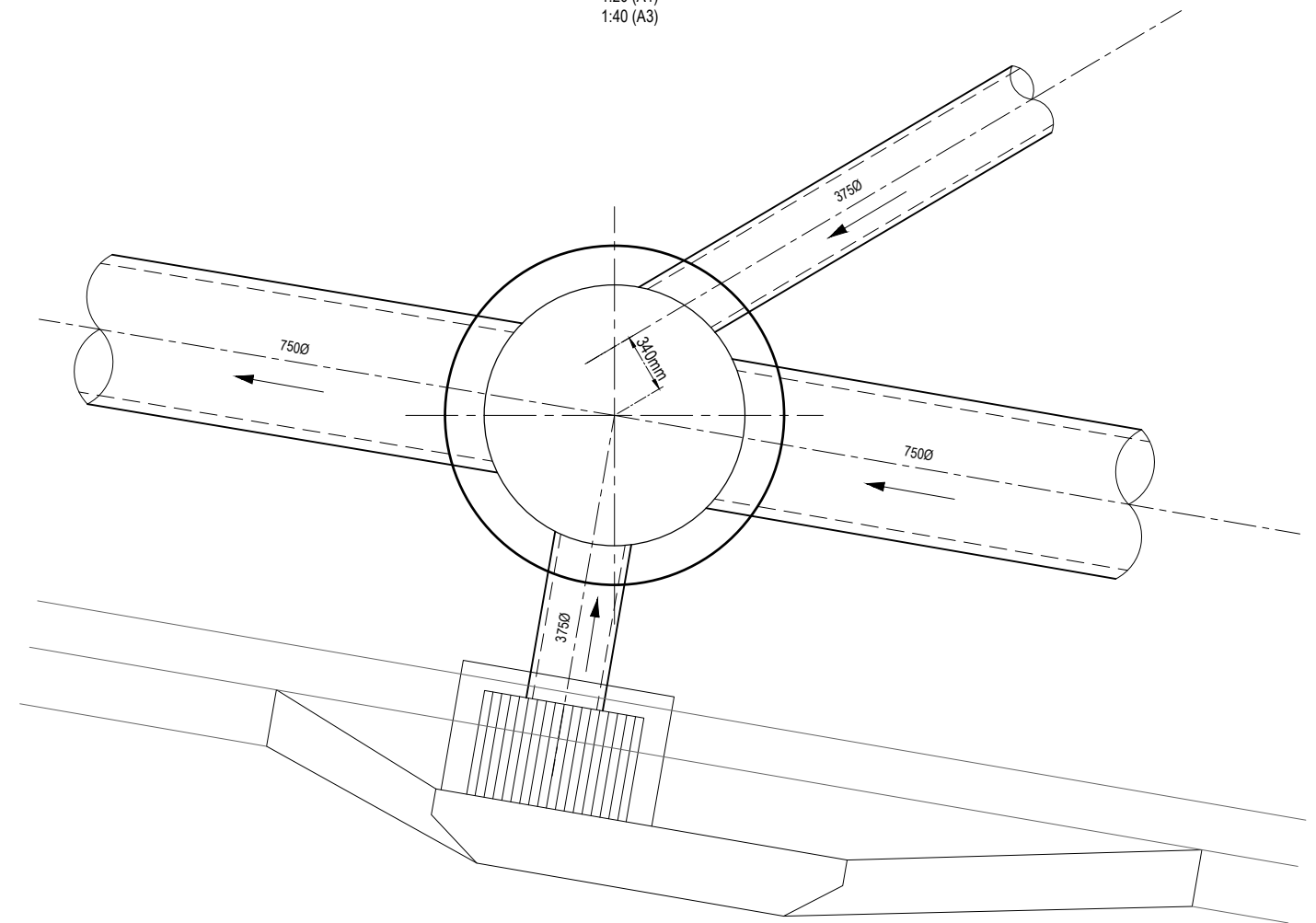
TYPICAL MANHOLE UNDER GULLY SETOUT - MOUNTABLE K&C - STANDARD TYPE A GULLY

1:20 (A1)
1:40 (A3)



4/41 - STD. 1800mm MANHOLE

1:20 (A1)
1:40 (A3)



3/41 - 1500mm MANHOLE

1:20 (A1)
1:40 (A3)

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FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD

SAUNDERS HAVILL GROUP
PH: 1300 123 744

STAGE 6
133-159 PARK RIDGE ROAD, PARK RIDGE

