WOODLINKS VILLAGE - STAGE 19 COLLINGWOOD DRIVE, COLLINGWOOD PARK FOR 'CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED'

DRAWING LIST

ORKS, ROADWORKS AND DRAINAGE
COVER PLAN
GENERAL NOTES
BULK EARTHWORKS LAYOUT PLAN SHEET 1 OF 2
BULK EARTHWORKS LAYOUT PLAN SHEET 2 OF 2
BULK EARTHWORKS TYPICAL SECTIONS
ROADWORKS AND DRAINAGE LAYOUT PLAN
SURVEY SETOUT AND KERB TYPE LAYOUT PLAN
ALABASTER STREET LONGITUDINAL SECTION AND CROSS SECTIONS
ALABASTER STREET CROSS SECTIONS
NEUMAN DRIVE LONGITUDINAL SECTION
NEUMAN DRIVE CROSS SECTIONS
ELDER PARADE LONGITUDINAL SECTION
ELDER PARADE CROSS SECTIONS
DRIVEWAY 01 LONGITUDINAL SECTION AND CROSS SECTIONS
INTERSECTION DETAILS LAYOUT PLAN SHEET 1 OF 2
INTERSECTION DETAILS LAYOUT PLAN SHEET 2 OF 2
DRIVEWAY JOINTING DETAILS AND NOTES
SIGNS AND LINEMARKING LAYOUT PLAN
STORMWATER DRAINAGE CATCHMENT LAYOUT PLAN
STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 2
STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 2
STORMWATER DRAINAGE Q10 CALCULATIONS TABLE AND STRUCTURE DETAILS
STORMWATER DRAINAGE Q2 CALCULATIONS TABLE
CULVERT DETAILS LAYOUT PLAN

STORMWATER QUALITY

21-0132-200	SWALE LAYOUT PLAN SHEET 1 OF 3
21-0132-201	SWALE LAYOUT PLAN SHEET 2 OF 3
21-0132-202	SWALE LAYOUT PLAN SHEET 3 OF 3
21-0132-203	FOREBAY LAYOUT PLAN

SEWER AND WATER RETICULATION

21-0132-300	SEWERAGE RETICULATION COVER PLAN
21-0132-301	SEWERAGE RETICULATION LAYOUT PLAN
21-0132-302	SEWERAGE RETICULATION LONGITUDINAL SECTIONS SHEET 1 OF 2
21-0132-303	SEWERAGE RETICULATION LONGITUDINAL SECTIONS SHEET 2 OF 2
21-0132-304	SEWERAGE RETICULATION CROSS SECTIONS
21-0132-305	WATER RETICULATION COVER PLAN
21-0132-306	WATER RETICULATION LAYOUT PLAN
21-0132-307	FIRE HYDRANT REACH LAYOUT PLAN



LOCALITY PLAN SCALE 1:2500 (A1) SCALE 1:5000 (A3)



PROJECT INFORMATION SUMMARY:

No. OF LOTS = 38

AREA OF SITE = 3.8 ha

RP DESCRIPTION

LOT 5007 ON SP 317659

DATUM LEVEL AND LOCATION

P.M. 110122 RL 40.320 AHD

LOCAL AUTHORITY: IPSWICH CITY COUNCIL COUNCIL REFERENCE NUMBER: 4280/15/MAMC/C

NOTE:

- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:
- VEGETATION MANAGEMENT PLAN
- LANDSCAPE ARCHITECT'S PLANS
 ELECTRICAL, COMMUNICATIONS AND GAS CONSULTANT'S PLANS
- SEDIMENT AND EROSION HAZARD ASSESSMENT
- SAFETY IN DESIGN REPORT
- SITE BASED MANAGEMENT PLAN
- STORMWATER MANAGEMENT PLAN REPORT

AS-CONSTRUCTED CERTIFICATION

Signature & Thomas Date: 02/12/22 SCOTT THOMAS RPEQ No. 04618 For and on behalf of Colliers Engineering and Design

NAME	DRAWING TITLE		
ODLINKS VILLAGE - STAGE 19	COVER PLAN		
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT №. 21-0132	DRAWING No.	

GENERAL NOTES:

- THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
- 2. THE EXISTING SERVICES THAT ARE SHOWN ON THE DRAWINGS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR INFORMATION THAT HAS BEEN SUPPLIED BY OTHERS, OR ANY EXISTING SERVICES THAT MAY BE PRESENT NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
- 3. ALL CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
- 4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
- 5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
- 6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
- 7. THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS.
- THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
- 9. <u>HOLD POINT:</u> ONCE THE BASE OF MANHOLES, INSPECTION PITS, GULLIES AND FIELD INLETS FOR STORMWATER DRAINAGE AND SEWER RETICULATION HAVE BEEN POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED THE WORKS.
- 10. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SAFE MOVEMENT OF TRAFFIC AND THE PROTECTION OF PERSON AND PROPERTY THROUGH AND AROUND THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC MANAGEMENT INCLUDING THE DESIGN, CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ROADWAYS, DETOURS, SIGNS, LIGHTS AND BARRIER AS REQUIRED STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

BULK EARTHWORKS NOTES

- 1. NOTWITHSTANDING THE EXTENTS OF CUTTING AND FILLING SHOWN ON DRAWINGS, THE SUPERINTENDENT RESERVES THE RIGHT TO ADJUST THE FINISHED SURFACE LEVELS AND EARTHWORKS EXTENTS THROUGH WRITTEN DIRECTION.
- 2. THE CONTRACTOR SHALL UNDERTAKE ALL CLEARING USING INDUSTRY BEST PRACTICE INCLUDING CONSIDERATION OF FAUNA RELOCATION.
- 3. THE CONTRACTOR SHALL UNDERTAKE ALL EARTHWORKS IN ACCORDANCE WITH AS3798-2007 AND LOCAL AUTHORITY REQUIREMENTS. LEVEL 1 SUPERVISION IS REQUIRED.
- 4. THE CONTRACTOR SHALL CONSIDER LOADS GENERATED BY THE EARTHWORKS OPERATIONS SO AS TO AVOID DAMAGE TO ALL PIPES, SERVICES AND STRUCTURES.
- 5. THE EARTHWORKS DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT'S SEDIMENT AND EROSION CONTROL PLAN, WHERE APPLICABLE.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLANNING, DESIGN, CERTIFICATION, IMPLEMENTATION AND MAINTENANCE OF AN EROSION AND SEDIMENT CONTROL PLAN THAT IS COMPLIANT WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) GUIDELINE 'BEST PRACTICE EROSION AND SEDIMENT CONTROL' AND RELEVANT COUNCIL POLICIES.
- 7. ALLOTMENT FINISHED SURFACE LEVELS, SHOWN ON THE LAYOUT PLAN, INDICATE THE FINISHED SURFACE LEVEL <u>AFTER</u> TOPSOIL PLACEMENT.

ROADWORKS AND DRAINAGE NOTES

- 1. ALL WORKS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY'S STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
- 2. NOTWITHSTANDING THE EXTENTS OF CUTTING AND FILLING SHOWN ON DRAWINGS, THE SUPERINTENDENT RESERVES THE RIGHT TO ADJUST THE FINISHED SURFACE LEVELS AND EARTHWORKS EXTENTS THROUGH WRITTEN DIRECTION.
- 3. NEW CONSTRUCTION SHALL BE NEATLY JOINED TO EXISTING FORMATION. WHERE REQUIRED, THE EXISTING FORMATION SHALL BE SAW CUT IN ACCORDANCE WITH IPWEAQ STD DRG RS-170. LEVELS AND GRADIENTS AT CONNECTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE A SMOOTH CONNECTION.
- 4. THE CONTRACTOR SHALL UNDERTAKE ALL EARTHWORKS IN ACCORDANCE WITH AS3798-2007 AND LOCAL AUTHORITY REQUIREMENTS. LEVEL 1 SUPERVISION IS REQUIRED.
- 5. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH THE SUBGRADE TEST RESULTS NECESSARY FOR ALL PAVEMENT DESIGN.
- 6. THE CONTRACTOR SHALL ENSURE A MINIMUM OF 75mm TOPSOIL TO ALL VERGE AND BATTER AREAS (AND STABILISATION AS ORDERED)
- 7. THE CONTRACTOR SHALL INSTALL ALL FOOTPATH AND PRAM RAMPS IN COMPLIANCE WITH THE AUTHORITY'S STANDARD DRAWINGS. PRAM RAMPS ARE TO BE LOCATED CLEAR OF DRAINAGE GULLY PITS AND FUTURE DRIVEWAY POSITIONS INDICATED ON THE LAYOUT PLANS.
- 8. THE CONTRACTOR SHALL INSTALL SUBSOIL DRAINS UNDER ALL KERBS AS REQUIRED BY THE LOCAL AUTHORITY'S STANDARDS.
- 9. THE CONTRACTOR SHALL ENSURE THAT ALL RETAINING WALL SUBSOIL DRAINS ARE TO CONNECT TO EITHER KERB ADAPTORS, KERB SUBSOIL DRAINS OR STORMWATER DRAINAGE STRUCTURES. CONTRACTOR TO DEMONSTRATE TO SUPERINTENDENT THAT SUITABLE CONNECTIONS HAVE BEEN PROVIDED FOR ALL WALLS.
- 10. ALL STORMWATER DRAINAGE MATERIALS, BEDDING, JOINTING AND STEP IRON REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITIES STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
- 11. THE STORMWATER PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS THE SUITABILITY OF MACHINERY USED ON SITE AND THE ANTICIPATED CONSTRUCTION LOADS, AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS3725-2007.
- 12. THE TERM D_{50} DOCUMENTED ON THE DRAWINGS, IN RELATION TO ROCK ARMORING, CORRESPONDS TO THE REQUIRED MEDIAN DIAMETER OF THE PLACED ROCKS. THE ROCKS USED SHALL NOT VARY IN SIZE BY +/- 30% OF THE PROPOSED D_{50} SIZE.

ROOFWATER NOTES

- THE GEOMETRIC CENTRE SHALL BE TAKEN AS THE SETOUT POINT FOR ALL STRUCTURES, UNLESS DETAILED OTHERWISE.
- 2. ROOFWATER ALIGNMENT, COVER, MATERIALS, BEDDING, JOINTING AND STEP IRON REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY'S STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
- ALL PVC PIPES ARE TO BE MINIMUM CLASS SN8.
- 4. END CAPS SHALL BE INSTALLED ON ENDS OF ALL PIPES AND STUBS.
- 5. WHERE ROOFWATER PIPES ARE ALIGNED BEHIND PROPOSED RETAINING WALLS, THE CONTRACTOR IS TO REFER TO THE SPECIFIC PROJECT DESIGN DETAILS AND CONFIRM CLEARANCES WITH THE SUPERINTENDENT PRIOR TO LAYING OF THE PIPES.
- 6. PROPERTY CONNECTIONS SHALL BE 100Ø UNLESS SHOWN OTHERWISE. THE CONTRACTOR SHALL EXTEND CONNECTIONS A MINIMUM OF 1.0m BEYOND ADJACENT SEWER LINES, WHERE APPLICABLE.
- 7. IN INSTANCES WHERE REAR ALLOTMENT DRAINAGE IS NOT PROVIDED, THE CONTRACTOR SHALL INSTALL A ROOFWATER CONNECTION TO EACH PROPERTY BY ONE OF THE FOLLOWING METHODS, AS SHOWN ON THE LAYOUT PLAN:
- TWO ROOFWATER KERB ADAPTOR 500mm FROM THE DOWNSTREAM BOUNDARY (UNLESS SHOWN ON A DIFFERENT ALIGNMENT). WHERE THERE IS A CONCRETE FOOTPATH, A ROOFWATER PIPE SHALL BE INSTALLED FROM THE PROPERTY BOUNDARY CONNECTED TO THE KERB ADAPTOR AT 1.25% MINIMUM GRADE IN ACCORDANCE WITH COUNCIL'S STANDARDS.
- ONE 150Ø ROOFWATER PIPE CONNECTED TO PROPOSED STORMWATER GULLY PIT OR MANHOLE AT MINIMUM 1.0% GRADE WITH 1.0m COVER.

AS-CO
Signature
SC
For and

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE		
A '	7.01.22	CL	CL	ISSUED FOR CONSTRUCTION								
B (1.11.22	CL	TP	AS CONSTRUCTED		AS CONSTRUCTED		CANBERRAESIAIES			NOTEO	
									WOODLINKS VILLAGE - STAGE 19	GENERAL	NOTES	
								CONSORTIUM NO. 36 PTY LIMITED				
					DESIGN	APPROVED						
						SCOTT THOMAS RPEQ 04618					-	
								ASSOCIATED CONSULTANT		PROJECT No.	DRAWING No.	REVISION
								SAUNDERS HAVILL GROUP	COLLINGWOOD DRIVE		101	
						THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBAN		DH: 1300 123 744		21-0132	101	
						AND APPROVED BY URBAN UTILITIES		FT1. 1300 123 744		_		

COTT THOMAS
 REQ No. 04618
 on behalf of Colliers Engineering and Design







DDLINKS VILLAGE - STAGE 19	BULK EARTHWORKS TYPICAL SECTIONS		
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT NO. 21-0132	DRAWING No. 104	





-		-			
NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
3895.310	43.451	53°01'43.85"			
3908.953	44.046	53°01'43.85"			
3940.946	46.622		R = -200.000	103.984	29°47'21.25"
3989.826	48.583	23°14'22.61"			
4056.829	46.454	23°14'22.61"			
4078.588	45.259		R = 200.000	47.142	13°30'18.79"
4097.564	43.824				
4097.564	43.824				
4125.063	41.310		R = -90.000	65.573	41°44'41.37"
4159.251	38.327	355°00'00.03"			
4265.266	35.457	355°00'00.03"			
4277.519	35.928		R = 100.000	24.475	14°01'23.30"
4289.665	36.598	9°01'23.33"			
4402.941		9°01'23.33"			

IORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
4167.603	37.404	32°53'01.07"			
4197.760	36.291	32°53'01.07"		М	
4202.196	36.083		R = -25.000	10.411	23°51'37.07"
4207.413	35.874	9°01'24.00"			
4211.714	35.700	9°01'24.00"			

IORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
4093.326		122°53'01.07"			
4056.783	46.414	122°53'01.07"			
4050.539	46.339		R = -11.500	18.064	90°00'00.00"
4060.197	46.123	32°53'01.07"			
4169.367	37.328	32°53'01.07"			

IORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
4195.251	35.425	85°00'00.00"			
4196.493	35.154	85°00'00.00"			
4196.643	35.138		R = 14.000	3.427	14°01'24.00"
4196.373	35.131	99°01'24.00"			
4184.270	36.743	99°01'24.00"			
4182.447	36.892		R = 55.000	22.904	23°51'37.07"
4176.138	37.072	122°53'01.07"			
4144.800	38.696	122°53'01.07"			

DDLINKS VILLAGE - STAGE 19	SURVEY SETOUT AND KERB TYPE LAYOUT PLAN				
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT NO. 21-0132	DRAWING No.	REVISION		



_											
	ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)										
	ROAD	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH			
	ALABASTER STREET	ACCESS STREET	1.0 x 10⁵	3	35mm	125mm	100mm	160mm	420mm		

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN

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				A	DETAILS					
	LOCATION	SECTION	ROAD CLASS	DESIGN CBR	TOTAL PAVEMENT DEPTH	AC	BASE COURSE TYPE (2.1)	UPPER SUB-BASE TYPE (2.3)	LOWER SUB-BASE TYPE (2.5)	SUBGRADE TREATEMENT
A	LABASTER ST	CH20 - CH220	CLASS A1	CBR 8	265mm	35	125	105	-	-



RE	/ DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT
A	17.01.22	CL	CL	ISSUED FOR CONSTRUCTION			1:100 1 0 1 2 3 4 5 A1		
В	01.11.22	CL	TP	AS CONSRTUCTED		AS CONSTRUCTED	1:200 A3	CANBERRA ESTATES	
	_						CROSS SECTIONS		(WOC
_	-						1:1000 10 0 10 20 30 40 50 A1	CONSORTION NO. 30 PTT LIMITED	7
_	-				DESIGN		HORIZONTAL A3		
						SCUTT THOMAS RPEQ 04618	1:100 1 0 1 2 3 4 5 A1	ASSOCIATED CONSULTANT	
					1		1:200 A3	SAUNDERS HAVILL GROUP	
					1	THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBAN	VERTICAL	DU: 1200 102 744	
						AND APPROVED BY URBAN UTILITIES		PH. 1300 123 744	





RE\ A B

	ASSUM				TO CBR T								
	ASSUMED FAVEMENT DETAILS (SUBJECT TO CBR TESTING)												
ROAD	ROAD CLASSIFICATION	DESIGN ESAS	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH					
NEUMAN DRIVE	COLLECTOR	1.0 x 10 ⁶	3	50mm	125mm	100mm	250mm	525mm					

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN



'	DATE [DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT N
1	7.01.22	CL	CL	ISSUED FOR CONSTRUCTION				1:100 1 0 1 2 3 4 5 A1		
0	1.11.22	CL	TP	AS CONSTRUCTED		AS CONSTRUCTED		1:200 A3	I CANBERRA ESTATES	
								CROSS SECTIONS		I WOO
							I Colliere	1:1000 10 0 10 20 30 40 50 A1	I CONSORTIUM NO. 36 PTY LIMITED	/
					DESIGN	APPROVED		1:2000 A3		
						SCOTT THOMAS RPEO 04618		HORIZONTAL		
								1:100 1 0 1 2 3 4 5 A1	ASSOCIATED CONSULTANT	1
								1:200 A3	SAUNDERS HAVILL GROUP	
						THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBAN		VERTICAL	DU 1200 122 744	
						AND APPROVED BY URBAN UTILITIES			PH: 1300 123 744	





AS-CONSTRUCTED	CERTIFICATION
Signature: Thomas	Date: 02/12/22
SCOTT THOMAS	RPEQ No. 04618
For and on behalf of Colliers	Engineering and Design

DDLINKS VILLAGE - STAGE 19	NEUMAN DRIVE CROSS SECTIONS					
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT No. 21-0132	DRAWING No.	REVISION B			







SB DENOTES SETBACK LINE



DDLINKS VILLAGE - STAGE 19	ELDER PARADE CROSS SECTIONS				
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT №. 21-0132	DRAWING No.			





LEGEND

PROPOSED ROAD CONTROL LINE PROPOSED KERB INVERT LINE PROPOSED KERB TRANSITION LOCATION 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 PROPOSED KERB SETOUT START POINT PROPOSED KERB SETOUT END POINT PROPOSED SLEEPER RETAINING WALL PROPOSED STORMWATER DRAINAGE PIPE -------- PROPOSED SEWERAGE MAIN

BUS BAY SETOUT

POINT	EASTING	NORTHING
01	6245.648	4162.529
02	6244.737	4167.371
03	6241.554	4178.251
04	6241.007	4181.156
05	6240.046	4192.144
06	6240.080	4195.100
07	6241.325	4206.367
08	6241.382	4211.294

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.

NAME	DRAWING TITLE		
DDLINKS VILLAGE - STAGE 19	INTERSECTIO	N DETAILS SHEET 1 OF	2
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT No. 21-0132	DRAWING No.	

DESIGN SCOTT THOMAS RPEQ 04618 THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBA

SAUNDERS HAVILL GROUP PH: 1300 123 744

1:25 0.25 0 1:50

0 0.25 0.5 0.75

1 1.25 A1

A3

PROPOSED ROAD CONTROL LINE PROPOSED KERB INVERT LINE PROPOSED KERB TRANSITION LOCATION 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 PROPOSED KERB SETOUT START POINT PROPOSED KERB SETOUT END POINT PROPOSED SLEEPER RETAINING WALL - PROPOSED STORMWATER DRAINAGE PIPE ------- PROPOSED SEWERAGE MAIN ------ PROPOSED WATER CONDUIT <u>EJ</u> ____ PROPOSED EXPANSION/CONSTRUCTION JOINT PROPOSED SAWN CONTRACTION JOINT TRIMMER BARS - N12 BARS 2000 LONG 50 COVER TO CORNER

KERB TYPES NOTE:

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

DRIVEWAY JOINTING NOTE:

REFER TO 21-0132-116 FOR FURTHER DETAILS ON PROPOSED DRIVEWAY JOINTS

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.

NAME	DRAWING TITLE					
ODLINKS VILLAGE - STAGE 19	INTERSECTION DETAILS LAYOUT PLAN SHEET 2 OF 2					
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT №. 21-0132	DRAWING No.				

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REV	DATE D	ESIGN D	DRAWN REVISION DETAILS	DRAWN	STATUS		SUALE	GLIENT	PROJECT NAME	DRAWING TITLE		
A 1	7.01.22	CL	CL ISSUED FOR CONSTRUCTION				1:250 5 0 5 10 A1					
					I ISSUED FOR CONSTRUCTION		1:500 A3	I CANBERRA ESTATES		I DRIVEWAY	DRIVEWAY JOINTING	
									WOODLINKS VILLAGE - STAGE 19		••••••	
						0 10*0	1:250 5 0 5 10 A1					
							4 500				DINOTEG	
				DESIGN	APPROVED		HORIZONITAL A3					
					SCOTT THOMAS RPEQ 04618		HONZONIAL				-	
							1.25 0.25 0 0.25 0.5 0.75 1 1.25 41	ASSOCIATED CONSULTANT		PROJECT No.	DRAWING No.	REVISION
							1.23 U.23 U U.23 U.3 U.73 I I.23 AI	SAUNDERS HAVILL GROUP	COLLINGWOOD DRIVE		1	
					THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBAN		1:50 A3	DUI: 4000 400 744		1 21-0132	1 116	
					AND APPROVED BY URBAN UTILITIES		VERTICAL	PH: 1300 123 744	COLLINGWOOD PARK		1	

	PROJECT No.	DRAWING No.	REVISION
COLLINGWOOD DRIVE COLLINGWOOD PARK	21-0132	118	2

	NAME	G9/1 G8/1	67/1	G6/1	G5/1	G4/1	G3/1	GM			G15/2		G14/2	G13/2	G12/2		<u>G11/2</u>	0,010		G3/1	G16/3	G5/1	
	STRUCTURE DESCRIPTION	STD TYPE A GULLY LIL; 2.4m LINTEL; TYPE S STD TYPE A GUILY (SAG)	LUL: 2.4m LINTEL: TYPE S STD TYPE A GULLY	LIL; 2.4m LINTEL; TYPE S STD TYPE A GULLY	LIL; 2.4m LINTEL; TYPE S STD TYPE A GULLY I II - 0.4m I INTEI - TYPE S	STD TYPE A GULLY STD TYPE A GULLY	ON A 12000 MH STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	ON A 15000 MH	LIL; 2.4m LINTEL; TYPE S ON A 12000 MH	HEADWALL W	STD TYPE A GULLY		STD TYPE A GULLY LIL; 2.4m LINTEL; TYPE S	STD TYPE A GULLY	STD TYPE A GULLY III - 2 4m I INTEL - TYPE S		STD TYPE A GULLY LIL; 2.4m LINTEL; TYPE S		SID IYPE A GULLY (SAG) LIL; 2.4m LINTEL; TYPE S	STD TYPE A GUILY LIL: 24m LINTEL: TYPE S ON A 12000 MH	STD TYPE A GULLY	LLL: 2.4m LINTEL, TITE 3 STD TYPE A GULLY LLL: 2.4m LINTEL; TYPE S	
PIPE SZE (mm) 335	STORMWATER STRUCTURE NOTE: STANDARD ROUND MANHOLES LESS THAN 3.00 DEEP: CONSTRUCT IN ACCORDANCE WITH THE .OCAL AUTHORITY STANDARDS. STANDARD ROUND MANHOLES 3.0m > Sim DEEP: CONSTRUCT IN ACCORDANCE WITH TMR STD DRAWINGS 1307 AND 1308. STANDARD ROUND MANHOLES GREATER THAN 5.30 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 PEAK URBAN STD DRAWINGS S.101 & S.102. RECTANGULAR STRUCTURE (SPECIAL): SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.				Q ₁₀ HGL	DUIBO WATER MAIN (CL.0.30m)		DN 160 SEWER LINE				- DU160 SEWER LINE	DV160 VATERMAIN (CL.0.330) DV160 SEWER LINE	(CL.0.38M)	AS- Sign For UNP9010)	CONSTR ature The SCOTT TH(and on behalf	UCTEL mas OMAS of Colliers	D CERTIF Date: RPEQ No. (s Engineering	D4618 and Desi	DN 22 gn	Q ₁₀ HGL		
DAUDUM ZAU ZAU <thzau< th=""> <thzau< t<="" td=""><td>PIPE SIZE (mm) PIPE CLASS PIPE GRADE (%) PIPE SLOPE (1 in X) FULL PIPE VELOCITY (m/s) PART FULL PART FULL VELOCITY (m/s) PART FULL PART FULL VELOCITY (m/s) PART FULL PART</td><td>375 3 1.97% <u>-2.10%</u> <u>-47.62</u> 50.63 0.13 1.24</td><td>375 3 1.78% <u>-1.86%</u> -53.69 56.15 1.22 2.23</td><td>375 3 6.41% 6.73% 14.86 15.58 2.96 4.48</td><td>375 3 8.28% 8.42% 11.88 12.07 3.24 4.99</td><td>525 3 8.44% 8.76% -11.41 11.84 2.65 5.73</td><td>600 3.36% 3.55% 28.16 29.71 2.07 4.10</td><td>825 3 1.36% 1.25% 00.24 73.17 1.75 3.11</td><td>825 3 0.71% 0.54% 139.08 1.84 2.24</td><td></td><td>-</td><td>375 3 9.09% 9.34% 10.99 0.83 3.62</td><td>=== 0 === 1 1</td><td>450 3 67% 50% 50% 1.10 1.43</td><td>450 3 0.56% -0.60% -0.60% -166.33 175.95 1.47 1.57</td><td> 450 3 1.74% 1.75% 57.23 57.29 1.48 2.50 </td><td></td><td>450 3 2.04% <u>2.16%</u> 46.24 48.99 1.73 2.81</td><td></td><td>000 3 45% 40% 8.72 8.15 12 85</td><td>=</td><td>375 3 1.26% <u>1.00%</u> 100.07 79.27 0.13 0.96</td><td></td></thzau<></thzau<>	PIPE SIZE (mm) PIPE CLASS PIPE GRADE (%) PIPE SLOPE (1 in X) FULL PIPE VELOCITY (m/s) PART FULL PART FULL VELOCITY (m/s) PART FULL PART FULL VELOCITY (m/s) PART FULL PART	375 3 1.97% <u>-2.10%</u> <u>-47.62</u> 50.63 0.13 1.24	375 3 1.78% <u>-1.86%</u> -53.69 56.15 1.22 2.23	375 3 6.41% 6.73% 14.86 15.58 2.96 4.48	375 3 8.28% 8.42% 11.88 12.07 3.24 4.99	525 3 8.44% 8.76% -11.41 11.84 2.65 5.73	600 3.36% 3.55% 28.16 29.71 2.07 4.10	825 3 1.36% 1.25% 00.24 73.17 1.75 3.11	825 3 0.71% 0.54% 139.08 1.84 2.24		-	375 3 9.09% 9.34% 10.99 0.83 3.62	=== 0 === 1 1	450 3 67% 50% 50% 1.10 1.43	450 3 0.56% -0.60% -0.60% -166.33 175.95 1.47 1.57	 450 3 1.74% 1.75% 57.23 57.29 1.48 2.50 		450 3 2.04% <u>2.16%</u> 46.24 48.99 1.73 2.81		000 3 45% 40% 8.72 8.15 12 85	=	375 3 1.26% <u>1.00%</u> 100.07 79.27 0.13 0.96	
PIPE FLOW (Cumecs) 0.014 0.135 0.227 0.358 0.574 0.585 0.333 0.984 PIPE CAPACITY AT GRADE (Cumecs) 0.224 0.239 0.455 0.599 1.273 1.158 1.604 1.060 DEPTH TO INVERT Image: Sign of the sign of th	H.G.L IN PIPE & W.S.E IN STRUCTURE	43.899 43.894 43.894 43.894 43.894	43.624 43.515 43.515	42.821 41.744 41.792	40.948 37.742 37.807 37.143																		
PIPE CAPACITY AT GRADE (Cumecs) 0.254 0.239 0.455 0.509 1.273 1.158 1.664 1060 0.536 0.202 0.221 0.377 0.419 0.389 0.175 0.175 DEPTH TO INVERT 1.158 1.664 1060 1.99 0.337 0.419 0.389 0.175	PIPE FLOW (Cumecs)	0.014	0.135	0.327	0.358	0.574	0.585	0.936	0.984			0.091	(.175	0.234	0.236		0.275	0.	035		0.028	
DEPTH TO INVERT 1 <th1< th=""> 1 <th1< th=""> <</th1<></th1<>	PIPE CAPACITY AT GRADE (Cumecs)	0.254	0.239	0.455	0.509	1.273	1.158	1.603	1.060			0.536	(.202	0.221	0.377		0.419	0.	389		0.175	
INVERT LEVEL OF DRAIN INVERT LEVEL (INVERT)	DEPTH TO INVERT	1.134 1.17 1.17 1.17	1:104 1:20 1:20 1:320	1.340 1.40 <u>1.28</u> 1.369	1.438 1.40 1.25 1.25 1.270	1.60 1.49 1.481	1.74 1.14 <u>1.187</u> <u>1.510</u>	1.46 	1.25 1.25 1.22		1 1 1 1 1	1.29	1.39 1.404 1.479 1.68	1.64 1.608 1.608	1.71 1.39 1.386	1.406 1.43 1.41	1.400 1.47	1.31	1.437 1.46	1.26 <u>1.273</u> 1.510 1.46	1.34	1.200 1.205 1.505 1.505	1
DESIGN SURFACE 91/1 91/	INVERT LEVEL OF DRAIN	43.044 43.02 42.83 42.83	42.819 42.80 42.47 42.47	4 <u>2.456</u> 42.39 40.67 40.649	40.580 40.55 36.95 36.924 36.55	36.60 34.767 34.582	34.55 33.54 33.528 33.205	33.22 32.99 32.996	32.976 32.95 32.83	37-996 37	<u>20 5 16</u>	39.46	35.62 35.579 35.504 35.504	35.40 35.409 35.409	35.33 35.12 35.12	35.092 35.08 34.52	34.529 34.509 34.509	33.70 33.70	33.55 33.55	33.42 33.442 33.205 33.22	36.89 26.600	36.78 36.806 36.656	****
SETOUT 1000 1111131111111111111111111111111111111	DESIGN SURFACE	44.19 44.00 45.000	43.79 43.79	41.95 42.018	38.20 38.191	36.29 36.248	34.68 34.715	34.20 34.530	34.05	88.111	40.75 40.744		<mark>37.01</mark> 36.983	37.04 <u>37.017</u>	36.51 36.438	35 03	35:300	35.01		34.68 34.715	38.23 38.172 38.172	38.20 38.191	35 01
RUNNING CHAINAGE 9.62 8 18.53 14 26.80 8 21.31 5 30.01 5 16.69 64 1 </td <td>SETOUT COORDINATES</td> <td>E 6246.515 N 4087.143 E 6.237 851</td> <td>N 4083.055 E 6228.188</td> <td>N 4098.673 E 6248.116</td> <td>N 4116.580 E 6254.395 N 4159.580</td> <td>E 6252.559 N 4181.063</td> <td>E 6241.471 N 4208.583</td> <td>E 6248.833</td> <td>N 4223.651</td> <td>E 6262.203</td> <td>E 6345.547 N 4120 172</td> <td></td> <td>E 6361.295 N 4159.266</td> <td>E 6367.967 N 4177.119</td> <td>E 6333.370</td> <td>N 4189.513</td> <td>E 6301.318 N 4186.502</td> <td></td> <td>E 0204.043 N 4192.326</td> <td>E 6241.471 N 4208.583</td> <td>E 6245.821</td> <td>E 6254.395 N 4159.580</td> <td></td>	SETOUT COORDINATES	E 6246.515 N 4087.143 E 6.237 851	N 4083.055 E 6228.188	N 4098.673 E 6248.116	N 4116.580 E 6254.395 N 4159.580	E 6252.559 N 4181.063	E 6241.471 N 4208.583	E 6248.833	N 4223.651	E 6262.203	E 6345.547 N 4120 172		E 6361.295 N 4159.266	E 6367.967 N 4177.119	E 6333.370	N 4189.513	E 6301.318 N 4186.502		E 0204.043 N 4192.326	E 6241.471 N 4208.583	E 6245.821	E 6254.395 N 4159.580	
LINE 1 2 3	RUNNING CHAINAGE	69 89 89 9.62 9.761 0	18.53 18.485 18.485	26.80 67. 26.852 94 26.852	43.44 8. 43.481 8	21.31 1/2 21.561 1/2	141.041 29:670 141.041	16.77 127.811	16.69 16.647	174.458	-42.655	42.21 42.155	1 -0.500	9.27 9.059 8	36.95 85. 36.758 36.758	32.08 32.223	87.541	37.23 37.134	c/0.72	3.36 3.36 123.026	0.000	8.72 99 - 8.606 -∞	
	LINE	I			1			E	····					I_	2	2]	L	3	

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT
Α	17.01.22	CL	CL	ISSUED FOR CONSTRUCTION						
В	08.02.22	CL	CL	AMENDMENTS TO LINE 1, OUT1/1 UPDATED		AS CONSTRUCTED		1:1000 10 0 10 20 30 40 50 A1	I CANBERRA ESTATES	1
С	01.11.22	CL	TP	AS CONSTRUCTED				1:2000 A3		I WOO
							I I Allere	HORIZONTAL	I CONSORTIUM NO. 36 PTY LIMITED	
					DESIGN	APPROVED				
					DEGIGIT	SCOTT THOMAS REFO 04618		1:100 2 1 0 2 4 A1		
								1:200 A3	ASSOCIATED CONSULTANT	1
								VERTICAL	SAUNDERS HAVILL GROUP	
						THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBAN			DUL 4000 400 744	
						AND APPROVED BY URBAN UTILITIES			PH: 1300 123 744	

CL	CL	ISSUED FOR CONSTRUCTION					
CL	MPG	STRUCTURES ON LINES 7, 8 AND 9 AMENDED AND INVERT LEVELS UPDATED		AS CONSTRUCTED		1:1000 10 0 10 20 30 40 50 A1	CANBERRA ESTATES
CL	TP	AS CONSTRUCTED				1:2000 A3	
					I COLLETC	HORIZONTAL	CONSORTIUM NO. 36 PTY LIMITED I
			DESIGN	APPROVED			
			DEGIGIT	SCOTT THOMAS RPEO 04618		1:100 2 1 0 2 4 A1	
						1:200 A3	ASSOCIATED CONSULTANT
						VERTICAL	SAUNDERS HAVILL GROUP
				THE DESIGN HAS BEEN DREV/OUGLY CERTIFIED BY DEAKURRAN			

																															Local Sector								
				Tc I	A	CA	Qc Qa	-						Qg	Qb	Tc	1	CA	Qrat	Q	L S		Qca	vcap & V	t	V2/2g	Ku hi	J Kw	hw	Sf	hf	dn Vn	_						_
DESIGNARI	STRUCTURE No.	DRAIN SECTION	CONTRIBUTING CATCHMENT	SUB-CATCHMENT TIME OF CONC. RaINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENTAREA	SUB-CATCHMENT DISCHARGE FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH RD AD GRADE AT INLET	ROAD CROSSFALLAT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALLINTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH PIPE GRADE	PIPE SIZE	PIPE CLASS CAPACITY FLOW	CAP.& TRA. VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT LI/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E.	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH NORMAL DEPTH VEL.	PIPE U/SILL	PIPE D/SI.L	PIPE U/S H.G.L	MPE D/S H.G.L	W.S.E GRATE LEVEL	FREEBOARD	STRUCTURE No.
yrs				min mm/	/h ha	ha	L/s L/s	L/s	m	m %	%			L/s	L/s	min	mm/	/hr ha	L/s	L/s	m %	mm	L/:	s m/s		m	n	1	m	%	m	m m/s	m	m	m	m r	n m	m	_
10	G9/1	G9/1 to G8/1		10 156	0.037	0.03	13 14	741	0.853	0.04 8.3	1 3	AL2D	8G,3.3X	14	G6/1	10	156	5 0.03	14	14 9	9.761 2.1	375	3 254	1 2.3	G2	0.001	5.82 0.00)5	0.005	0.01 0	.001 0	.061 1.24	43.044	42.839	43.894 43	3.894 43.8	,99 44.178	0.279 G?	9/1
100	G9/1	G9/1 to G8/1		10 232	0.037	0.033	22 24	741	1.093	0.047 8.3	1 3	AL2D	8G,3.3X	24	G6/1	10	232	0.083	24	24 9	9.761 2.1	375	3 254	1 2.3	G2	0.002	5.68 0.01	4	0.014	0.02 0	.002 0	.078 1.45	43.044	42.839	43.898 43	3.896 43.5	44.178	0.266 GS	9/1
10	G8/1	G8/1 to G7/1	C0/4	10 156	0.156	0.126	55 120	160		0.056 3.6	2 2.8	SAL2D	SAG	120	G6/1	10.08	156	0.156	75	135 18	1.86	6 375	3 239	2.16	G2/T9/T10	0.076	3.55 0.2	7 3.61	0.274	0.59 0	. 109 0	202 2.23	42.819	42.476	43.624 43	3.515 43.5	398 43.923	0.025 GF	/8/1
100	G8/1	G8/1 to G7/1	69/1	10 232	0.156	0.142	92 310	95		0.073 3.6	2 2.8	SAL2D	SAG	95	214 G6/1	10.08	231	1 0.176	127	119 18	1.86	6 375	3 239	2.16	G2/T9/T10	0.059	3.07 0.18	32 3.18	0.189	0.46 0	.085 0	.187 2.16	42.819	42.476	43.714 43	3.629 43.9	303 43.923	0.02 GF	/8/1
10	G7/1	G7/1 to G6/1		10 156	0.019	0.015	7 7	732	0.616	0.083 6.4	3 3.03	AL2D	8G,3.3X	7	G16/3	10.24	155	5 0.683	327	327 26	6.852 6.73	3 375	3 459	5 4.12	T3/T6	0.446	1.56 0.69	4 1.62	0.725	4.01 1	083 0	235 4.48	42.456	40.649	42.821 41	1.744 43.	i46 43.796	0.25 G	7/1
100	G7/1	G7/1 to G6/1	EX4/10 EX3/10 EX2/10 G9/1 G8/1	10 232	0.019	0.017	11 12	732	0.827	0.089 6.4	3 3.03	AL2D	8G.3.3X	12	G16/3	10.24	230	0.769	552	337 26	6.852 6.73	3 375	3 455	4.12	T3/T6	0.476	1.43 0.68	1 1.52	0.726	3.7 0	J.994 C	241 4.51	42,456	40.649	42.948 41	1.954 43./	574 43.796	0.122 G	7/1
10	G6/1	G6/1 to G5/1		10 156	0.097	0.079	34 37	420	1,605	0.049 7.6	8 3.12	AL2D	86.3.3X	37	G5/1	10.47	153	3 0.762	358	358 43	3.481 8.42	2 375	3 509	4.61	T3/T6	0.537	1.48 0.79	6 1.57	0.844	7.37 3	1,211 0	232 4.99	40.58	36.921	40.948 37	7.742 41.	/92 42.018	0.226 G ^r	6/1
100	G6/1	G6/1 to G5/1	EX4/10 EX3/10 EX2/10 G9/1 G8/1 G7/1	10 232	0.097	0.089	57 277	420	3,658	0.089 7.6	8 3.12	AL2D	8G 3 3X	85	193 G5/1	10.47	228	3 0.858	605	412 4	3 481 8 43	2 375	3 509	4.61	T3/T6	0.71	141 100	3 15	1.057	7.04 3	(063 C	256 5.13	40.58	36.921	40.951 37	7.891 42/	118 42.018	G	6/1
10	65/1	G5/1 to G4/1		10 156	0.057	0.134	58 53	833	1 502	0.061 81	8 312	AL20	86.3.3V	55	8 G1/1	11.02	150	1 1 252	582	57/ 2	01 561 8 76	5 575	3 127	3 5.88	T3/T6	0.350	1.57 0.50	0 1.95	0.665	833	1.87 (247 5.73	36,656	34.767	37 1/13 35	5 3/7 37	207 39 101	0.38/ 6'	5/1
100	CE/1	CE/1++ C4/1	(7/1 G5/1 G5/1 G5/1 G5/1 G5/1 G5/1 G5/1 G5	10 100	0.100	0.154	07 244	000	2.104	0.001 0.0	0 3.12	AL2D	00,0.0	102	102 C4/1	11.02	222	1.41	002	J/4 2.		C 525	3 127	0.00	13/10	0.00	1.07 0.5	1 171	0.005	0.00 .	471 6	271 5.00	30,000	34.707	37.143 30	C 202 20/	07 30.101	0.199 C)/1)//1
100	60/1	63/100 64/1		10 2.52	0.105	0.015	5/ 344		3.104	0.04 0.0	0 3.12	AL2D	00,3.34	102	102 04/1	11.02	140	1.41	000	0/3 2.	20.67 2.50	5 525	3 12/	3 3.00	13/10	0.454	1.40 0.73	1 1./1	0.044	1.05	.4/1 0.	202 41	34.500	34.707	37.03 30	.703 30.0	03 30.191	0.055 0	3/1
01	04/1	64/10065/1	K///K6//K5//K4//K3//K2//K1//G16/3EX4/10EX3/10EX2/10G9/1G8/1 G7/1GE/1GE/1	10 130	0.010	0.015	6 10	/90	0.00	0.04 0.2	5 5	ALZD-IVIH1200	03,5.5A	15	010/2	11.2	145	9 1.207	262	200 2	29.07 3.5	5 600	3 115	0 4.09	11/15	0.210	1.22 0.20	0/ 1.45	0.515	1.00 0	.011 0.	.502 4.1	34.362	33.526	35.06 34	.320 35.3	95 50.246	04	+/1
100	64/1	G4/1to G3/1	3//13/13/1	10 232	0.018	0.017	11 195	/98	2.533	0.068 8.2	3 3	AL2D-MH1200	85,3.3X	118	77 G10/2	11.2	222	2 1.427	862	/83 2	29.67 3.55	5 600	3 115	8 4.09	11/13	0.392	1.29 0.50	15 1.46	0.5/1	1.63 0	.482 0.	.362 4.4	34.582	33.528	35.197 34	/15 35./	69 36.248	u4/9 G4	4/1
10	G3/1	G3/1 to G2/1		10 156	0.107	0.087	38 42	281	0.778	0.076 3	3	AL2D-MH1200	2G,3.3X	42	G1/10	11.63	147	7 2.802	936	936 1	16.77 1.25	5 825	3 160	3 3	T6/T9	0.156	2.22 0.34	18 2.54	0.398	0.42 0	.071 0.	.453 3.11	33.205	32.996	34.18 34	109 34.5	79 34.715	0.136 G3	3/1
100	G3/1	G3/1 to G2/1	G17/4 G18/5 G19/6 G15/2 G14/2 G13/2 G12/2 G12/2 G11/2 G10/2 R7/7 R6/7 R5/7 R4/7 R3/7 R2/7 R1/7 G16/3 EX4/10 EX3/10 EX2/10 G9/1 G8/1 G7/1 G6/1 G5/1 G4/1	10 232	2 0.107	0.098	63 73	281	1.381	0.099 3	3	AL2D-MH1200	2G,3.3X	- 4 37	510 G1/10	11.63	219	3.155	1935	1012 1	16.77 1.29	5 825	3 160	3	т6/т9	0.183	2.13 0.38	89 2.52	0.46	Q.5 0	.083 0.	476 3.17	33.205	32.996	34.25 34	1.167 34.	71 34.715	0.005 G3	3/1
10	G1/1	G1/1 to 01/1		10 156	0.072	0.058	25 28	40		0.2	2 3	SAL2D-MH1200	SAG	28	LOST	11.77	146	5 2.919	984	984 1	7.322 0.52	2 825	3 103	5 1.94	T3/T6	0.173	1.78 0.30	08 2.17	0.374	1.57 0	1.198 0	.642 2.2	32.976	32.886	33.801 33	3.528 34.	175 34.53	0.355 G	1/1
100	G1/1	G1/1 to 01/1	(G1/10.G1/4/G18/5/G19/5/G15/2/G14/2/G13/2/G12/2/G11/2/G10/2/R7/7/R6/7/S/7 R4/7/R3/7/R2/7/R1/7/G16/3/EX4/10/EX3/10/EX2/10/G9/1/G8/1/G7/1/G6/1/G5/1 G4/1/G3/1	10 232	2 0.072	0.065	42 460	40		٥	2 3	SAL2D-MH1200	SAG	40	420 LOST	11.77	218	8 3.287	2013	1075 17	17.322 0.52	2 825	3 103	5 1.94	T3/T6	0.206	1.77 0.36	6 2.15	0.443	1.19 0	. 166 O	.709 2.2	32.976	32.886	33.801 33	3.595 34.7	244 34.53	0.286 G?	1/1
10	OUT1/1											HW																								33.5	33.781	0.253 OUT	Л1/1
100	OUT1/1		G1/10 G17/4 G18/5 G19/6 G15/2 G14/2 G13/2 G12/2 G11/2 G10/2 R7/7 R5/7 R4/7 R3/7 R2/7 R1/7 G16/3 EX4/10 EX3/10 EX2/10 G9/1 G8/1 G7/1 G6/1 G5/1 G4/1 G3/1 G1/1									HW																								33.5	;95 33.781	0.186 OU'	л <mark>1/1</mark>
10	G3/1		G17/4 G18/5 G19/6 G15/2 G14/2 G13/2 G12/2 G11/2 G10/2 R7/7 R6/7 R5/7 R4/7	10 156	5 0.107	0.087	38 42	281	0.778	0.076 3	3	AL2D-MH1200	2G,3.3X	42	G1/10	(T6/T9		2.22 0.34	18 2.54	0.398							34.5	79 34.715	0.136 G?	3/1
100	G3/1	C1/244 C5/4	R3/7 R2/7 R1/7 G16/3 EX4/10 EX3/10 EX2/10 G9/1 G8/1 G7/1 G6/1 G5/1 G4/1	10 232	0.107	0.098	63 73	281	1.381	0.099 3	3	AL2D-MH1200	2G,3.3X	-437	510 G1/10	10		0.057	20	20 0		275		1.50	T6/T9	0.000	2.13 0.38	9 2.52	0.46	0.02	1000	101 110	26.000	25.005	27 744	34.	71 34.715	0.005 G3	3/1
100	G16/3 G16/3	G1/3 to G5/1		10 156	0.071	0.057	42 47	250	0.486 0	0.0/5 9.6	6 2.92	AL2D AL2D	85,3.3X 86,3.3X	45	2 G3/1	10	232	2 0.065	47	45 8	8.606 1	375	3 1/5	5 1.59	G2 G2	0.003	4.3 0.03	18	0.018	0.02 0	0.002 0.	101 1.16	36.892	36.806	37. 44 37 37. 896 37	7.891 37.	62 38.172 332 38.172	0.41 GIt	16/3
10	G5/1	, , ,	R7/7 R6/7 R5/7 R4/7 R3/7 R2/7 R1/7 G16/3 EX4/10 EX3/10 EX2/10 G9/1 G8/1	10 156	0.165	0.134	58 63	833	1.592 (0.061 8.1	8 3.12	AL2D	8G,3.3X	55	8 G4/1										T3/T6		1.67 0.59	9 1.85	0.665							37.5	307 38.191	0.384 G!	.5/1
100	G5/1		G7/1 G6/1	10 232	0.165	0.151	97 344	833	3.104 (0.104 8.1	8 3.12	AL2D	8G,3.3X	162	182 G4/1							_		_	T3/T6		1.48 0.73	1.71	0.844							38.0	03 38.191	0.188 G5	5/1
10	G5/1		R7/7 R6/7 R5/7 R4/7 R3/7 R2/7 R1/7 G16/3 EX4/10 EX3/10 EX2/10 G9/1 G8/1 G7/1 G6/1	10 156	0.165	0.134	58 63	833	1.592	0.061 8.1	8 3.12	AL2D	8G,3.3X	55	8 G4/1			_						_	T3/T6		1.67 0.59	9 1.85	0.665							37.8	.07 38.191	0.384 G5	5/1
100	G1/10	A	0,1200,2	10 232	5 0.072	0.059	25 28	40	3.104	0.104 8.1	2 3	SAL2D	SAG	28	LOST	10	156	5 0.059	28	28	8.5 0.51	1 375	3 12	5 1.13	G2	0.003	9.32 0.03	32	0.032	0.03 0	0.002 0	122 0.91	33.554	38.511	34.111 34	4.109 34.	143 34.53	0.188 G5	1/10
100	G1/10	А		10 232	0.072	0.066	43 558	40		0.	2 3	SAL2D	SAG	40	518 LOST	10	232	0.066	48	40	8.5 0.51	1 375	3 125	5 1.13	G2	0.007	8.13 0.05	54	0.054	0.05 0	.004 0	146 1.01	33.554	33.511	34.171 34	1.167 34.7	25 34.53	0.305 G1	1/10
10	G1/1 G1/1		-	10 156	0.072	0.058	25 28	40		0:	2 3	SAL2D-MH1200 SAL2D-MH1200	SAG SAG	28	420 LOST										T3/T6		1.78 0.30	08 2.17	0.374							34.1	.75 34.53	0.355 G1	1/1
10	EX4/10	A		10 156	5 0.575	0.466	202 225	5		5.7	3	AL2D			225 EX3/1	0 10	156	0.466	225	2	2.393 5.46	6 375	3 410	3.71									43.742	43.611	44.659 44	4.659 44./	i59 45.012	0.353 EX/	4/10
100	EX4/10	A		10 232	0.575	0.525	338 381		4.900	5.7	3	AL2D	AC 3 DV	160	381 EX3/1	10	232	0.525	381	166	2.393 5.46	6 375	3 410	3.71		0.115	42 0 7	2	0.000	00 0	1076	975 4 5	43.742	43.611	44.793 44	4.793 44.7	93 45.012	0.219 EX4	4/10
100	EX3/10 EX3/10	EX3/10to EX2/10	4	10 156	2 0.001	0.001	1 382	2	4.390 4.474	0.081 5.0	6 2.97	AL4D AL4D	46,3.3X	175	206 G8/1	10.02	232	2 0.526	381	175	8.5 0.51	1 375	3 12	5 1.13	G2 G2	0.115	3.66 0.46	58	0.490	0.99 0	0.085 0	375 1.58	43.619	43.576	44.324 44	44.6	793 44.892	0.099 EX7	3/10
10	EX2/10	EX2/10 to G7/1	-	10 156	5 0.055	0.044	19 21	675	1.11	0.047 5.4	8 3.03	AL2D	4G,3.3X	21	G7/1	10.09	155	5 0.511	246	187 18	8.324 5.05	5 375	3 394	3.57	T10	0.146	2.02 0.29	95 2.47	0.36	1.51 0	312 0	182 3.52	43.476	42.55	43.791 43	3.515 44.1	.51 44.9	0.749 EX2	2/10
100	EX2/10 G7/1	EX 2/10 to G7/1		10 232	0.055	0.05	32 36 7 7	675 732	0.616	0.083 6.4	8 3.03 3 3.03	AL2D AL2D	4G,3.3X 8G.3.3X	36	G7/1	10.09	231	0.576	416	210 18	18.324 5.05	5 375	3 394	+ 3.57	T10 T3/T6	0.184	19 0.34	9 2.26	0.415	1.43 0	262 0.	.195 3.62	43.476	42.55	45.891 43	44.3	44.9 546 43.796	0.594 EX2	2/10
100	G7/1			10 232	2 0.019	0.017	11 12	732	0.827	0.089 6.4	3 3.03	AL2D	8G,3.3X	12	G16/3										T3/T6		1.43 0.68	81 1.52	0.726							43./	574 43.796	0.122 G	7/1

STRUCTURE SETOUT REFERENCE POINT

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

<u>NOTE:</u>

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

NAME ODLINKS VILLAGE - STAGE 19	DRAWING TITLE STORMWATER D CALCULATIONS STRUCTURE	RAINAGE 5 TABLE A 5 DETAILS	Q10 ND
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT №. 21-0132	DRAWING No. 121	

<u> </u>			Te	٨	CA C							Ωσ.	Oh	Te		CA	Orat (Ocan	Vican & Vit		V2/2g k	u bu	Kw hu	u Cf	hf	dn Vn						
				A	CA U	u ua						Ug	ψ	IL.		CA	Uldi i		L 3		Quap	νιαμοινι		V 2/ 28	u nu	NW III	V 31		un vn						
DESIGN ARI STRUCTURE No.	DRAIN SECTION	CONTRIBUTI NG CATCHMENT	SUB-CATCHMENT TIME OF CONC.	SUB-CATCHMENT AREA		FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	ROAD GRADE AT INLET ROAD GROSSFALL AT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALLINTENSITY	TOTAL(C × A)	PEAK FLOW		REACH LENGIH	PIPE SIZE	PIPE CLASS	CAP. & TRA. VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS	W.S.E COEFFICIENT	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	PIPE U/S I.L	PIPE D/S I.L	i PIPE U/S H.G.L	W.S.E	GRATE LEVEL	STRUCTURE No.
Vrs 10 G15/2	A		10 156	0.631	na L/ 0.513 22	S L/S 22 248	L/S 768 2	m m .77 0.094	% % 8.08 3	AL2D	8G,3.3X	L/S 136	112 G19/6	10	156	na 0.513	248 13	36 42.	n %	375	3 533	4.82	G1	m 0.077 4	m 83 0.373	0.3	73 6.76	m 2.933 0	m m/s 0.129 4.03	3 39.516	m 35.579	m m 39.788 36.90	m 6 40.161	40.744 0.5	583 G15/2
100 G15/2	A		10 232	0.631	0.577 33	419	768 3	388 0.112	8.08 3	AL2D	8G, 3. 3X	179	240 619/6	10	232	0.577	419 17	79 42	.655 9.23	375	3 533	4.82	G1	0.133 3	95 0.527	0.5	27 6.66	2.88 (0.15 4.34	39.516	35.579	39.825 36.98	40.352	40.744 0.3	J92 G15/2
10 G14/2	G5/2 to G4/2	G19/6 G15/2	10 156	0.111	0.09 3	9 218	233 4	161 0.134	1.76 3	AL2D	2G,3.3X	26	192 G11/2	10.36	154	0.697	332 16	51 19	0.07 0.5	450	3 202	1.27	T1/T3	0.052 0	72 0.038	0.75 0.0	39 0.32	0.061 0	0.304 1.41	L 35.504	35.409	36.868 36.80	36.908	36.983 0.0	75 G14/2
10 G13/2	G4/2 to G3/2		10 232	0.065	0.053 2	3 452 3 26	378 1	492 0.058	2.03 3	AL2D-MH1200	2G, 3. 3X	26	4/8 G11/2 G12/2	10.56	153	1.03	441 25	50 31.	.471 0.3	450	3 202	0.99	T6/T9	0.126 1	81 0.228	2.05 0.2	58 0.77	0.242 0	0.45 1.57	7 35.388	35.293	36.579 36.33	8 36.837	37.017 0.1	18 G13/2
100 G13/2	G4/2 to G3/2	618/5613/6615/2614/2	10 232	0.065	0.06 3	9 43	378 1	847 0.068	2.03 3	AL2D-MH1200	2G, 3. 3X	43	G12/2	10.51	227	1.159	739 26	51 31	.471 0.3	450	3 157	0.99	T6/T9	0.138 1	.7 0.235	1.87 0.2	58 0.84	0.264 (0.45 1.64	35.388	35.293	36.666 36.40	36.924	37.017 0.0	/93 G13/2
10 G12/2 100 G12/2	G3/2 to G2/2 G3/2 to G2/2	G18/5 G19/6 G15/2 G14/2 G13/2	10 156 10 232	0.026	0.021 9	9 10 6 18	306 1 306 1	109 0.047 391 0.055	1.3 3	AL2D AL2D	1G,3.3X 1G.3.3X	10	G17/4 G17/4	10.78	225	1.051	446 25 747 26	55 37 59 37	.47 1.32 .47 1.32	450	3 328	2.06	T3/T6 T3/T6	0.131 1	43 0.186 37 0.201	1.62 0.2	12 0.8 23 0.89	0.299 0	0.298 2.27	35.273	34.779	36.152 35.85 36.201 35.86	3 36.363 7 36.431	36.568 0.2	05 G12/2 137 G12/2
10 G11/2	G2/2 to G1/2	618/5619/6615/2614/2613/2612/2	10 156	0.227	0.184 8	0 281	438 3	602 0.118	2.62 3	AL2D	2G, 3. 3X	152	128 G10/2	11.09	150	1.235	520 39	92 37.	134 2.57	450	3 457	2.87	Т1/Т3	0.31 1	37 0.424	1.54 0.4	77 1.89	0.702 0	0.321 3.23	3 34.759	33.805	35.429 34.72	35.906	35.909 0.0	J03 G11/2
100 G11/2	G2/2 to G1/2		10 232	0.227	0.207 1	628	438 5	095 0.155	2.62 3	AL2D	2G,3.3X	116	512 G10/2	11.09	222	1.391	874 36	52 37.	134 2.57	450	3 457	2.87	T1/T3	0.264 1	28 0.337	1.44 0.3	79 1.61	0.597 0	0.302 3.19	34.759	33.805	35.53 34.93	3 35.909	35.909	G11/2
10 G10/2 100 G10/2	G1/2 to G3/1 G1/2 to G3/1	G17/4 G18/5 G19/6 G15/2 G14/2 G13/2 G12/2 G11/2	10 156	0.191	0.155 6	7 203	319	0.085	0.35 3	SAL2D SAL2D	SAG	319	G17/4 397 G17/4	11.4	148	1.448	323 32	23 28.	354 0.55	600	3 454	1.61	T3/T6 T3/T6	0.067 1	.8 0.12	2.21 0.1	47 0.28 52 0.31	0.079 0	0.6 2.45	33.73	33.575	34.607 34.52 34.803 34.71	5 34.754	34.993 0.2	39 G10/2 088 G10/2
10 G17/4	G1/2 to G1/4		10 156	0.071	0.058 2	5 28	80		1.47 4.5	SAL2D	SAG	28	G1/1	10	156	0.058	28 2	8 8.	996 1.11	375	3 185	1.67	G2	0.003 6.	76 0.022	0.0	22 0.03	0.002 0	0.098 1.21	1 33.98	33.88	34.73 34.72	34.752	34.955 0.2	203 G17/4
100 G17/4	G1/2 to G1/4		10 232	0.071	0.065 4	2 444	31	0.029	1.47 4.5	SAL2D	SAG	31	413 61/1	10	232	0.065	47 3	1 8.	996 1.11	375	3 185	1.67	G2	0.004 4.	68 0.019	0.0	19 0.03	0.003 0	0.104 1.24	4 33.98	33.88	34.936 34.93	34.955	34.955	G17/4
10 G10/2			10 156	0.191	0.155 6	7 203	319	0.085	0.35 3	SAL2D	SAG	203	G17/4										T3/T6	1	.8 0.12	2.21 0.1	47						34.754	34.993 0.2	239 G10/2
100 G10/2		G17/4 G18/5 G19/6 G15/2 G14/2 G13/2 G12/2 G11/2	10 232	0.191	0.174 11	12 716	319	0.137	0.35 3	SAL2D	SAG	319	397 G17/4										T3/T6	1	75 0.131	2.04 0.1	52						34.955	34.993 0.0	J38 G10/2
10 618/5	G1/5 to G4/2		10 156	0.345	0.28 12	1 121	457 2	568 0.089	2.95 3	ALZD	2G.3.3X	101	21 G19/6	10	156	0.28	121 10	1 24	807 3.56	375	3 331	3	62	0.042 5	9 0.25	Ū.	25 0.33	0.082 0	0.142 2.63	3 36.291	35,408	36.889 36.80	8 37.14	37.591 0.4	451 G18/5
100 G18/5	G1/5 to G4/2		10 232	0.345	0.315 20	03 203	457 3	132 0.105	2.95 3	AL2D	2G, 3.3X	140	63 G19/6	10	232	0.315	203 14	40 24.	807 3.56	375	3 331	3	G2	0.082 3.	98 0.327	0.3	27 0.64	0.159	0.17 2.87	7 36.291	35.408	37.059 36.9	37.386	37.591 0.2	205 G18/5
10 G13/2		G18/5 G19/6 G15/2 G14/2	10 156	0.065	0.053 2	3 26	378 1	492 0.058	2.08 3	AL2D-MH1200	2G, 3.3X	26	G12/2										T6/T9	1	81 0.228	2.05 0.2	58						36.837	37.017 0.1	18 G13/2
100 G13/2			10 232	0.065	0.05 3	9 43	378 1	847 0.068	2.03 3	AL2D-MH1200	2G, 3.3X	43	G12/2										T6/T9	1	.7 0.235	1.87 0.2	58						36.924	37.017 0.0	.93 G13/2
100 G19/6	G1/6 to G5/2	-	10 156	0.116	0.105 6	1 1/8 8 380	3	0.137	1.76 3	SALZD	SAG	1	379 G14/2	10	232	0.094	40 :	1 8.	001 5.76	375	3 421	3.81	62	5.	53			0	0.015 0.85	5 35.983	35.522	36,983 36,98	36,983	36,983 0.0	G19/6
10 G14/2		G10/6 G15/2	10 156	0.111	0.09 3	9 218	233 4	161 0.134	1.76 3	ALZD	2G, 3.3X	26	192 G11/2										T1/T3	0.	72 0.038	0.75 0.0	39						36.908	36.983 0.0	J75 G14/2
100 G14/2		613/6013/2	10 232	0.111	0.101 6	5 452	233 5	962 0.173	1.76 3	AL2D	2G, 3.3X	-26	478 G11/2										T1/T3	0.	26 0.011	0.28 0.0	12						36.963	36.983 0.0	J2 G14/2
10 R7/7	R7/7 to R6/7	-	10 156	0.056	0.046 2	0 22		0.053		RW IN LET 600x600		22		10	156	0.046	22 2	2 1	4.3 6.85	225	PVC 5N8 139	3.5	G1	0.016	7 0.109	0.1	09 6.09	0.906 0	0.061 2.55	5 42.9	41.92	43.023 42.15	43.133	44.7 1.9	.67 R7/7
100 R//7	R6/7 to R5/7		10 252	0.038	0.031 3	5 16		0.041		RW IN LET 600x600		16		10.12	155	0.031	38 3	8 1	2.5 7.84	225 4	PVC 5N8 149	3.5	T1	0.047 1	85 0.088	0.0	88 6.82	0.882 0	0.043 2.13	3 41.9	40.92	42.054 41.21	2 42.152	43.75 1.5	598 R6/7
100 R6/7	R6/7 to R5/7	R7/7	10 232	0.042	0.038 2	5 9		0.022		RW IN LET 600x600		9		10.12	231	0.09	21 2	1 1	2.5 7.84	225 J	PVC SN8 149	3.74	T1	0.014 1	83 0.025	0.0	25 7.55	0.966 0	0.057 2.63	41.9	40.92	42.02 41.07	42.045	43.75 1.7	705 R6/7
10 R5/7	R5/7 to R4/7	R7/7 R6/7	10 156	0.037	0.03 1	3 15		0.037	9	RW IN LET 600x600		15		10.22	155	0.11	53 5	3 13	2.5 8.64	225 J	PVC SN8 156	3.92	T1	0.09 1	35 0.122	0.1	22 7.4	0.945	0.09 3.54	4 40.9	39.82	41.09 40.16	6 41.212	42.75 1.5	i38 R5/7
100 R5/7	R5/7 to R4/7		10 232	0.037	0.034 2	2 8		0.02		RW IN LET 600x600		8		10.22	230	0.124	28 2	8 1	2.5 8.64 604 10.14	225 4	PVC SN8 156	3.92	T1 T1	0.026 1	36 0.035	11 0.0	35 8.28	1.062 0	0.065 2.98	3 40.9	39.82	41.04 40.00	41.075	42.75 1.6	75 R5/7
100 R4/7	R4/7 to R3/7	R7/7 R6/7 R5/7	10 130	0.037	0.034 2	2 8		0.02		RW IN LET 600x600		8		10.33	229	0.158	35 3	5 13.	.604 10.14	225 4	PVC 5N8 169	4.25	T1	0.041 1	17 0.047	1.18 0.0	48 9.22	1.287 0	0.07 3.36	5 39.8	38.42	39.958 38.70	40.006	41.75 1.7	744 R4/7
10 R3/7	R3/7 to R2/7	R7/7 R6/7 R5/7 R4/7	10 156	0.042	0.034 1	5 16		0.041		RW IN LET 600x600		16		10.44	153	0.175	83 8	3 11.	.788 0.59	225 J	PVC SN8 41	1.03	T3	0.223 1	17 0.261	1.34 0.2	99 2.45	0.289 0	0.225 2.09	38.4	38.33	39.407 39.11	.8 39.706	40.65 0.9	344 R3/7
100 R3/7	R3/7 to R2/7		10 232	0.042	0.038 2	5 9		0.022		RW IN LET 600x600		9		10.44	228	0.197	43 4	3 11.	.788 0.59	225 J	PVC SN8 41	1.03	TB	0.061 1.	76 0.107	2.19 0.1	33 0.78	0.075	0.2 1.16	5 38.4	38.33	38.596 38.50	38.729	40.65 1.9	/21 R3/7
10 R2/7	R2/7 to R1/7	R7/7 R6/7 R5/7 R4/7 R3/7	10 156	0.055	0.045 1	9 <u>22</u> 2 11		0.052		RW IN LET 600x600		11		10.54	227	0.219	53 5	3 50.	.622 0.61	300 u	PVC SN8 89 PVC SN8 89	1.27	T10	0.028 2	18 0.062	2.75 0.0	34 0.83 78 0.47	0.42	0.3 1.47	2 38.25	37.94	38.923 38.50 38.428 38.19	9 38.507	39.25 0.0	743 R2/7
10 R1/7	R1/7 to G5/1	87/7 85/7 85/7 8//7 83/7 87/7	10 156	0.098	0.08 3	5 39		0.076	-5.19	RW IN LET 600x600		39		10.96	150	0.299	140 14	40 6.	986 7.54	300 J	PVC SN8 314	4.44	T3/T6	0.2 1	63 0.326	1.89 0.3	78 6.24	0.45	0.14 4.31	1 37.9	37.373	38.177 37.74	38.555	38.872 0.3	317 R1/7
100 R1/7	R1/7 to G5/1	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	10 232	0.098	0.09 5	8 20		0.05	-5.19	RW IN LET 600×600		20		10.96	223	0.337	68 6	8 6.	986 7.54	300 J	PVC SN8 314	4.44	T3/T6	0.047 1.	84 0.087	2.35 0.1	11 3.04	0.256 0	0.095 3.55	5 37.9	37.373	38.103 37.89	38.214	38.872 0.6	.58 R1/7
10 G5/1		R7/7 R6/7 R5/7 R4/7 R3/7 R2/7 R1/7 G16/3 EX4/10 EX3/10 EX2/10 G9/1 G8/1 G7/1 G6/1	10 156	0.165	0.134 5	8 63	833 1	592 0.061	8.8 3.12	ALZD	8G, 3.3X	55	8 G4/1							+ +			T3/T6	1	67 0.599 48 0.729	1.85 0.6	65 44	+ +					37.807	38.191 0.3	84 G5/1
10 R8/8	R8/8 to R7/8	,- wy x	10 232	0.105	0.058 2	5 28	5 60	0.061	0.0 5.12	RW IN LET 600x600	00,3.34	28	102 04/1	10	156	0.058	28 2	8 1	14 1.29	225 u	PVC SN8 60	1.51	G1	0.026 2	39 0.062	0.0	62 0.28	0.04 0	0.108 1.49	35.25	35.07	36.125 36.08	36.187	36.25 0.0	063 R8/8
100 R8/8	R8/8 to R7/8	1	10 232	0.072	0.066 4	2 15		0.037	0	RW IN LET 600×600		15		10	232	0.066	15 1	5 1	14 1.29	225	PVC SN8 60	1.51	G1	0.007	7 0.049	0.0	49 0.98	0.16 0	0.076 1.25	35.25	35.07	35.35 35.21	2 35.399	36.25 0.8	351 R8/8
10 R7/8	R7/8 to R6/8	R8/8	10 156	0.048	0.039 1	7 19		0.047		RW IN LET 600×600	+	19		10.12	155	0.097	47 4	7 1	14 0.93	225 4	PVC SN8 51	1.29	T1	0.071 1	09 0.077	0.0	77 0.78	0.109 0	0.169 1.46	5 35.05	34.92	36.009 35.9	36.086	36.1 0.0	/14 R7/8
100 R7/8	R7/8 to R6/8		10 232	0.048	0.044 2	8 10 6 18		0.024		RW IN LET 600x600	+	10		10.12	231	0.11	24 2	4 1	14 0.93	225 4	PVC SN8 51	1.29	T1 T1	0.019 1	76 0.033 86 0.054	0.0	53 0.6 54 0.60	0.11 0	0.109 1.27	35.05	34.92	35.179 35.09	5 35.212	36.1 0.8	88 R7/8
100 R6/8	R6/8 to R5/8	R8/8 R7/8	10 232	0.045	0.041 2	6 9		0.022		RW IN LET 600×600		9		10.23	230	0.151	32 3	2 1	14 0.93	225	PVC SN8 51	1.29	T1	0.034 1	34 0.045	0.0	45 0.53	0.104	0.13 1.36	5 34.9	34.77	35.051 34.97	7 35.096	35.9 0.8	304 R6/8
10 R5/8	R5/8 to R4/8	R8/8 R7/8 R6/8	10 156	0.045	0.036 1	6 18		0.044		RW IN LET 600×600		18		10.35	154	0.17	81 8	1 1	14 1.64	225 J	PVC SN8 68	1.71	71	0.066 0.	73 0.048	0.0	48 0.73	0.102 0	0.225 2.04	4 34.75	34.52	35.702 35.6	35.75	35.75	R5/8
100 R5/8	R5/8 to R4/8		10 232	0.045	0.041 2	6 9		0.022		RW IN LET 600x600	+	9		10.35	229	0.192	40 4	0 1	14 1.64	225	PVC SN8 68	1.71	T1	0.052 1	13 0.059	0.0	59 1.16	0.191 0	0.124 1.78	34.75	34.52	34.918 34.75	6 34.977	35.75 0.7	73 R5/8
10 R4/8 100 R4/8	R4/8 to R3/8	R8/8 R7/8 R6/8 R5/8	10 156	0.045	0.036 1	6 18 6 9		0.044	0	RW IN LET 600x600		9		10.47	228	0.206	98 9 48 4	8 1	14 Z	225 4	PVC SN8 75 PVC SN8 75	1.89	11 T1	0.114 0.	0.074	0.0	74 1.25	0.1/6 0	0.13 2	34.5	34.22	35.526 35.3 34.682 34.48	5 35.6 2 34.756	35.6 0.8	R4/8 844 R4/8
10 R3/8	R3/8 to R2/8	00/007/005/005/00A/0	10 156	0.045	0.036 1	6 18		0.044		RW IN LET 600×600		18		10.58	153	0.243	115 11	15 1	14 2.36	225	PVC SN8 82	2.05	T1	0.192 0.	59 0.113	0.1	13 2.11	0.295 0	0.225 2.89	9 34.2	33.87	35.237 34.94	2 35.35	35.35	R3/8
100 R3/8	R3/8 to R2/8	no/en//enc/enc/e48	10 232	0.045	0.041 2	6 9		0.022		RW IN LET 600×600		9		10.58	227	0.273	55 5	5 1	14 2.36	225 J	PVC SN8 82	2.05	T1	0.098 0	.9 0.088	0.0	88 1.7	0.257 0	0.136 2.2	34.2	33.87	34.394 34.15	i6 <u>34.482</u>	35.35 0.8	.68 R3/8
10 R1/8	R1/8 to OUT1/8	R8/8 R7/8 R6/8 R5/8 R4/8 R3/8 R2/8	10 156	0.045	0.036 1	6 18		0.044		RW IN LET 600x600	+ +	18		10.73	152	0.315	149 14	49 3	3.2 1.09	225 4	PVC SN8 56	1.4	T10	0.714 1	49 1.065	1.84 1.3	17 7.88	0.252 0	0.225 3.74	4 32.91	32.875	33.351 33.09	9 34.668	34.7 0.0	82 R1/8
10 K1/8 10 OUT2/8	R1/8 to 0011/8		10 232	0.045	0.041 2	0 9		0.022		HW OUTLET		А		LU. /S	225	0.555	70 7		0.2 1.09	225 4	TVC SIVE 56	1.4	110	0.156 1	/o U.282	2 0.3	1/ 2.01	0.054 0	0.225 1.76	5 32.91	32.8/5	55.08	33.099	34.705 1.6	54 K1/8 607 OUT2/8
100 OUT2/8		R8/8 R7/8 R6/8 R5/8 R4/8 R3/8 R2/8 R1/8								HW OUTLET																							33.084	34.706 1.6	522 OUT2/8
10 IN2/9	IN1/9 to IN1/9		10 156	0.133	0.108 4	7 52	79	0.074	4 3	SF2 600x 900	SAG	52	IN 1/9	10	156	0.108	52 5	2 21.	.149 3.88	375	3 345	3.13	G1	0.011	7 0.08	0.0	4.19	0.691 0	0.099 2.25	5 35.268	34.448	35.434 34.54	7 35.514	36.597 1.0	183 IN 2/9
100 IN2/9	IN1/9 to IN1/9		10 232	0.133	0.122 7	8 88	79	0.1	4 3	SF2 600x900	SAG	79	9 IN1/9	10 10	232	0.122	88 7	9 21.	149 3.88	375	3 345	3.13	G1	0.026	0.183	0.1	4.27	0.659 0	0.122 2.53	3 35.268	34.448	35.473 34.5	7 35.656	36.597 0.9	41 IN 2/9
100 IN1/9	IN1/9 to OUT1/9	IN2/9	10 156	0.104	0.095 6	1 78	41407 3	102 0.047	4 3	INVCENT	40, 3.3X 46, 3.3X	20	59 LOST	10.18	230	0.217	156 9	8 6.	728 2.2	375	3 261	2.37	T10	0.018 2	19 0.087	2.66 0.1	06 3.24	0.085 0	0.159 2.19	31.978	31.83	32.208 31.98	19 32.314	35.74 3.4	426 IN 1/9
10 OUT3/9		IN7/0 IN1/0								HW OUTLET																							31.958	32.205 0.2	247 OUT3/S
100 OUT3/9		1142/ 2 1141/ 2								HW OUTLET																							31.989	32.205 0.2	216 OUT3/S

RE\	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT NA
A	17.01.22	CL	CL	ISSUED FOR CONSTRUCTION]					
В	01.11.22	CL	TP	AS CONSTRUCTED		AS CONSTRUCTED			CANBERRA ESTATES	1,000
							i conters		CONSORTIUM NO. 36 PTY LIMITED	
					DESIGN	APPROVED				
_	+ +				_	SCOTT THOMAS RPEQ 04618				
	+ +				-				ASSOCIATED CONSULTANT	
_					-				SAUNDERS HAVILL GROUP	
	+ +				-	THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBAN			PH: 1300 123 744	
						AND APPROVED BY URBAN UTILITIES				

NAME	DRAWING TITLE		
ODLINKS VILLAGE - STAGE 19	STORMWATER I CALCULATIO	DRAINAGE	Q2
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT NO. 21-0132	DRAWING No. 122	REVISION B

AS-CONSTRUCTED	D CERTIFICATION
Signatures Thomas	Date: 02/12/22
SCOTT THOMAS For and on behalf of Colliers	RPEQ No. 04618 s Engineering and Design

NAME			
ODLINKS VILLAGE - STAGE 19	CULVERT I LAYOUT	DETAILS Plan	
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT No. 21-0132	DRAWING No.	REVISION

PROPOSED AREA OF WORKS - - PROPOSED ROAD CONTROL LINE EXISTING ROAD CROWN PROPOSED KERB INVERT LINE PROPOSED EDGE OF BITUMEN PROPOSED KERB TRANSITION LOCATION PROPOSED CONCRETE PATH AND PRAM RAMP PROPOSED NEW ROAD PAVEMENT INDICATIVE DRIVEWAY LOCATION ZERO LOT BOUNDARY ----- PROPOSED SURFACE CONTOUR EXISTING SURFACE CONTOUR PROPOSED STORMWATER DRAINAGE PIPE ------ EXISTING STORMWATER DRAINAGE PIPE PROPOSED ROOFWATER DRAINAGE PIPE PROPOSED ROOFWATER KERB ADAPTOR PROPOSED ROOFWATER KERB ADAPTOR WITH PIPE CONNECTION TO ALLOTMENT PROPOSED SWALE SETOUT NODE PROPOSED SLEEPER RETAINING WALL EXISTING SLEEPER RETAINING WALL EXISTING ROCK RETAINING WALL ---- PROPOSED SEWERAGE MAIN EXISTING SEWERAGE MAIN — PROPOSED WATER MAIN EXISTING WATER MAIN ------ PROPOSED WATER CONDUIT EXISTING WATER CONDUIT EXISTING ELECTRICAL CABLE U/G

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.

AS-CONSTRUCTED CERTIFICATION Signatures. Thomas Date: 02/12/22 SCOTT THOMAS RPEQ No. 04618 For and on behalf of Colliers Engineering and Desigr

NAME ODLINKS VILLAGE - STAGE 19	SWALE LAY	OUT PLAN OF 3	
COLLINGWOOD DRIVE	PROJECT №. 21-0132	DRAWING No.	

WARNING! - EXISTING 30 810 31 810 32 810 33 810 33 810 33 810 33 810 33 810 33 810 33 810 33 810 33 810 33 810 31 7723 615 1482 1331 2114 6782 811	S SERVICES AKEN WHEN EXCAVATING I ING SERVICES ARE LIKELY THE SITE: S ONS CABLES ONS CABLES	N THIS TO BE	
NAME			
	SYVALE LAY SHEET 3	OF 3 DRAWING No.	REVISION
	21-0132	202	В

FOREBAY / DRIVEWAY SETOUT POINT No. EASTING NORTHING 6263.313 4231.711 01 4234.227 6263.039 02 6261.739 4235.457 03 6262.635 4237.352 04 6262.542 4238.197 05 6270.495 4239.065 06 6270.929 4235.088 07 6268 009 4234 770 08 6267.124 4233.667 09 6267,290 4232.145 10 11 6267 449 4230 685 6266.563 4229.582 12 6266.733 4228.031 13 6258.117 4217.537 14 15 6249.435 4216.777 6249.173 4219.766 6257.855 4220.525 16 17 18 6263.750 4227.705

AS-CONSTRUCTED	CERTIFICATION
Signature: 1 Thomas	Date: 02/12/22
SCOTT THOMAS	RPEQ No. 04618
For and on behalf of Colliers	Engineering and Design

RE\	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT
A B	17.01.22 01.11.22	CL CL	CL TP	ISSUED FOR CONSTRUCTION AS CONSTRUCTED		AS CONSTRUCTED	Colliers	1:500 10 5 0 10 20 A1	CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED	wo
					DESIGN	APPROVED SCOTT THOMAS RPEQ 04618		1:1000 A3		
						THE DESIGN HAS BEEN PREVIOUSLY CERTIFIED BY PEAKURBAN			ASSOCIATED CONSULTANT SAUNDERS HAVILL GROUP]
						AND APPROVED BY URBAN UTILITIES			FH. 1300 123 744	

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.

FOREBAY LAYOUT PLAN

COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT No. 21-0132	DRAWING NO

VING TITLE

203

В

SEWERAGE RETICULATION DRAWING IND

21-0132-300	SEWERAGE RETICULATION COVER PLAN
21-0132-301	SEWERAGE RETICULATION LAYOUT PLAN
21-0132-302	SEWERAGE RETICULATION LONGITUDINAL S
21-0132-303	SEWERAGE RETICULATION LONGITUDINAL S
21-0132-304	SEWERAGE RETICULATION CROSS SECTION

GENERAL NOTES:

7

- THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIA STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHO
- EXISTING SERVICES RELEVANT TO THE PROJECT HAVE PROVIDED BY THE SURVEYOR AND THE CONTRACTOR HAVE RELIED UPON THIS INFORMATION TO INFORM THE SERVICES WITHIN THE AREAS OF WORKS AND SHALL BI WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY T ALL DESIGN AND CONSTRUCTION ACTIVITIES UNDERTA
- REQUIREMENTS AND LEGISLATION PRIOR TO COMMENCING WORK, THE CONTRACTOR IS R
- THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLI THE SUPERINTENDENT
- THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRAC 6 DUST, NOISE, FLOODING OR DISCONNECTION OF SERVI PROPERTIES ARE AVAILABLE AT ALL TIMES
- THE CERTIFICATION OF THIS DESIGN IS BASED ON SUR CONTRACTOR AT THE TIME OF DESIGN, PRIOR TO COM SERVICE CROSSINGS AND CONNECTION POINTS AND NO RPEQ OF ANY DISCREPANCIES BETWEEN ACTUAL AND I SURVEY AND POTHOLE INFORMATION PROVIDED BY TH
- THESE ENGINEERING DRAWINGS ARE TO BE READ IN CO 8 APPLICABLE, WHEN IN DOUBT, ALL EXISTING TREES AR
- HOLD POINT: ONCE THE BASE OF MANHOLES HAVE BEE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED
- THE CONTRACTOR SHALL NOTE DURING THE COURSE O 10 SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE NOMINATED DURING THE PRE-START, IN THE APPROVA PROCEED PAST THE INSPECTION POINT UNTIL THE JOIN

SEWER RETICULATION NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE AND STANDARD - SOUTH EAST QUEENSLAND SERVICE
- UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND W 3 THE DESIGN HAS BEEN UNDERTAKEN TO COMPLY WITH
- AUSTRALIA SPECIFICATIONS AND STANDARD SOUTH F THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN
- REGISTRATION. SEWERAGE WORKS NOT COMPLYING W UTILITIES SEWERAGE SYSTEM.
- ALL WORK ASSOCIATED WITH LIVE SEWERS OR MAINTE ALL PIPES AND MATERIALS SHALL COMPLY WITH THE RI BY URBAN UTILITIES
- BENCH MARK AND LEVELS TO AHD. 8.
- WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE COMPACTED UNTIL THE COMPACTION IS NOT LESS THA A S 1289 (MODIFIED COMPACTION) TESTING SHALL BE CONSTRUCTED SEWERS WILL NOT BE ISSUED BY URBA COMPACTION HAS BEEN ACHIEVED.
- SEWERS SHALL BE DISUSED IN ACCORDANCE WITH PRO CONSTRUCT EMBEDMENT AND TRENCHFILL TO SEQ-SE 10. MORE ONEROUS.
- WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPEI
- ACCORDANCE WITH CLAUSE 9.10 OF THE SEQ SEWER O 12. EACH ALLOTMENT SHALL BE SERVED BY A DN110 PE PR
- PROPERTY CONNECTION SHALL BE PROVIDED PROPER DRAWINGS AND SHALL EXTEND INTO THE PROPERTY A 13. CONSTRUCT MH'S TO SEQ-SEW-1301-1 TO 1301-7 (TYPE
- (STUB CUT IN), 1313-1 (CONNECTION) AND 1502-1 (INSER CONSTRUCT MAINTENANCE SHAFTS AND TERMINAL EN
- 15. INSTALL MH/MS TYPE B COVERS TO SEQ-SEW-1308-2 TO
- 16. INSTALL MH/MS TYPE D COVERS TO SEQ-SEW-1308-8 TC
- 17. INSTALL DETECTABLE MARKER TAPE ON ALL SEWER MA
- 18. CONCRETE FOR MH CONSTRUCTION SHALL BE SPECIAL
 - 19. THE UNDERSIDE OF ALL MAINTENANCE HOLES APROS M

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE IMPLEME PRIOR TO ANY CONSTRUCTION WORK COMMENCING, INCLUDING (

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL TH REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND / DEPTH OF PROPERTY CONNECTION AT 1.5m UNLESS OTHERWISE

								OR JUNCTION DETAILS REFER SEQ-SEW-TIDD-TTO SEQ-S	EVV-1100-0.
\sim	\sim	\sim	······································	······	·······································	·····			
	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT NAME
2	CL	MPG	ISSUED FOR CONSTRUCTION						
2	CL	CL	VARIATION TABLE ADDED		AS CONSTRUCTED			I CANBERRA ESTATES	
2	NS	NS	AS CONSTRUCTED				1,2000 20 0 20 40 00 100		i woodlini
					" FOR BUILDER PURPOSES"		1:2000 20 0 20 40 60 80 100	A1 ICONSORIUM NO. 36 PTY LIMITED	
				DESIGN	APPROVED		1:4000	A3	
+					SCOTT THOMAS RPEQ 04618	Achieve more.			
+								ASSOCIATED CONSULTANT	1 .
+								SAUNDERS HAVILL GROUP	C C
+						ENOURIES@REAKURBAN.COM AU		PH: 1300 123 744	C C
┸					FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ENGOINEOUT ERKORBAN.COM.AU		111:1000 120 144	ľ v

EX	ENGINEE	R'S CERTIFICAT	ION					
	I, Scott Thomas, hereby certify tha 1. The information contained in th	t: is drawing / document is in compl	iance with approv	ed				
ECTIONS SH ECTIONS SH S	 drawings and design. The new water and sewerage v constructed in accordance with This generally represents an ac I accept responsibility for the ini 	vorks defined by this drawing hav the SEQ code. ccurate record of as-constructed v formation contained in this drawing	e been designed a vorks ng / document.	and				
ALS, PLANT ORITY STAN	S. Thomas RPEQ (signature) RPEQ N	lo. 04618 Date: 17/08	8/22					
BEEN CON THE RPEQ E DESIGN. T E RESPONS THE SERVIC KEN SHALL	WHO CERTIFIED THE DESIGN OF HE CONTRACTOR SHALL VERIF IBLE FOR MAKING GOOD ANY D E OWNER AUTHORITY UNLESS COMPLY WITH CURRENT WOR	R THE PRINCIPAL'S CONSTR Y THE POSITION OF ANY UN MAAGE THERETO. ANY ALTI APPROVED OTHERWISE. KPLACE HEALTH AND SAFET	UCTION RPEQ DERGROUND ERATION Y]				
RESPONSIBI ITION OF AI	E FOR OBTAINING ALL RELEVA	NT LOCAL AUTHORITY PERM R STRUCTURES WITHOUT AI	NITS. PPROVAL FROM	1				
CTICE SO W	ORKS SHALL NOT DISTURB OR A	AFFECT NEARBY RESIDENTS	S EITHER BY STING					
VEY AND PC MENCEMEN OTIFY THE PROPOSED IE SURVEYC ONJUNCTIC E TO REMA EN POURED D THE WOR D THE WOR D THE WOR D THE WOR E-STARTS, S L AND THE S NT INSPECT	 YES SOMMARISH TO ENSURE INTERVISION SETURATION OF ENDING YEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND/OR YENCEMENT OF WORKS, THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING YIFY THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION YROPOSED DESIGN LEVELS. THE CERTIFICATION OF THIS DESIGN IS BASED ON E SURVEYOR AND CONTRACTOR AT THE TIME OF DESIGN. YNJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE TO REMAIN UNLESS DIRECTED OTHERWISE. N POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE THE WORKS. YE THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE E-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS TINSPECTION HAS BEEN SLICCESSEIULY COMPLETED 							
WITH THE (PROVIDERS ORK SHALL I CURRENT EAST QUEEI N ON THIS C /ITH THIS R	CURRENT WSAA GRAVITY SEWE EDITION. COMPLY WITH THE RELEVANT URBAN UTILITIES STANDARDS / NSLAND SERVICE PROVIDERS E RAWING SHALL BE SUPERVISEI EQUIREMENT WILL NOT BE PER	RAGE CODE OF AUSTRALIA AUSTRALIAN STANDARDS. AND THE WSAA GRAVITY SE EDITION D BY AN ENGINEER WHO HA MITTED TO CONNECT INTO	SPECIFICATION WERAGE CODE S RPEQ THE URBAN	NS OF				
ENANCE HO EQUIREMEI	LES SHALL BE SUPERVISED BY NTS OF THE "ACCEPTED PRODU	URBAN UTILITIES AT THE DE JCTS AND MATERIALS" LIST,	EVELOPER'S CC UNLESS APPRO	ost. Dved				
Carried O IN 95% of T Carried O IN Utilities	JT IN LAYERS NOT EXCEEDING HE MATERIALS MAXIMUM COMP JT AFTER EACH ALTERNATE LA 5 UNLESS CERTIFICATES ARE PI	300mm (LOOSE) IN DEPTH A PACTION WHEN TESTED IN A YER. IN ALL SUCH CASES AF RODUCED CERTIFYING THA	ND SHALL BE ACCORDANCE V PPROVAL OF I THE REQUIRE	VITH D				
OCEDURE 8 W-1200-2, 1	ET OUT IN THE GRAVITY SEWE 201-1 TO 1205-1 AND COUNCIL S	R CODE. STANDARD FOR ROADWAYS	, WHICHEVER IS	8				
 R. BULKHEADS, TRENCH STOPS AND TRENCH DRAINS SHALL BE CONSTRUCTED IN ODE AND DRG'S SEQ-SEW-1206-1 AND 1207-1 OPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN160 PE TY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE WINIMUM OF 300mm AND A MAXIMUM OF 750mm. 3), 1301-8 TO 1301-13 (TYPE F), 1301-14 TO 1301-25 (TYPE X), 1301-26, 1304-1, 1305-1, 1307-4 TION MH AND REPAIR SYSTEM), 1301-27 (LADDERS). ITRY POINTS TO SEQ-SEW 1315-1, 1316-1 AND 1502-1 (INSERT MS). 1308-7. 1308-11. INS AND PROPERTY CONNECTIONS. CLASS TO WSA PS-358 WITH CALCAREOUS AGGREDATE. MUST BE PE LINED AS PER STANDARD DRAWING SEQ-SEW-1301-26 								
ENTED CLEARING	ALL WATER AND SEWERAGE	E CONSTRUCTION SHALL CO	MPLY WITH ALI	-				
IE A MAXIMUM STATED. 6-6.	THIS DESIGN PACKAGE SHO THAT HAS NOT BEEN ACCEP LIVE-WORKS CANNOT COMM BEEN ACCEPTED 'ON MAINT	WS CONNECTIONS TO INFR PTED 'ON-MAINTENANCE' BY MENCE UNTIL THE PRECEDIN ENANCE' BY URBAN UTILITIE	ASTRUCTURE URBAN UTILITI NG WORKS HAV	ES E				
NAME		DRAWING TITLE						
DLINKS	VILLAGE - STAGE 19	SEWERAGE RE COVER	TICULATIO Plan	N				
COLI	INGWOOD DRIVE	PROJECT No. 21-0132	DRAWING No.					

									$\left(\frac{3}{2} \right) \left(\frac{3}{2} \right)$	(4/2) (J/2F) (E
STRUCTURE TYPE	ш. × I	ш × 0	MS HTH HTH	M M O	Н Н Г Г	SW r	HTP HTP	с нтр	SW r	0 ¬
STRUCTURE LID TYPE	D(BD)	0(BD)	<u> </u>		······································	<u> </u>			<u> </u>	<u> </u>
STRUCTURE DROP TYPE	<u>ح</u> ح ۲	< □ <	α	· <				<		ح .
JUNCTION LINE	LINE 1	LINE 1 LINE 2		LINE 2	LINE 2A LI	IE 2B LINE 2C LIN	2D	LIN	NE 3 LINE 4 LINE	2E LINE 2F
DEPTH TO HC			11.14 1.28 1.28 1.28 1.28		1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-					
HC INVERT LEVEL			37.68 37.68 40.75 33.22 41.69 46.75		33.92 33.92 34.31 34.31 34.50					
HC TYPE			A2 B2 B2 A4 A4		$ \begin{array}{c} \begin{array}{c} B_2 \\ B_2 \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \end{array} \\ \begin{array}{c} B_2 \\ \end{array} \\ \end{array} $					
HC LOT No			Lot 562		Lot 559 Lot 559 Lot 558 Lot 556	Lot 553				
CH. FROM D/S STRUC/ BEND			<u>0.917</u> 2.73 4.114		14.43 6.383 20.383 4 3.383	17.383 8.747 9.78				
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/HERE A STORMWATER DID STORMWATER DID STORMWATER DID STORMWATER DIPE >= 600mm DIA CROSSES OVER SEWER, THE STORMWATER PIPE SHALL BE SUPPORTED Y A BRIDGE STRUCTURE THAT SPANS THE SEWER	REFER LIVE WORKS TABLE FOR DETAILS	REFER LIVE WORKS TABLE FOR DETAILS								
RENCH. REFER PEAK URBAN STD DRG S-100.		25.0		26.0			DESEDVE			
	DN315 PE100 SDR21		DN160 PE100 SDR21			RUAL				
JIAMETEK						DN160 F	E100 SDR21			
	1 in 91.05 1 in 175	- 1 in 107_ 1 in 1 3	40 11 in 12.50 1 in 12.50 1 in 1	12.50 1 in 12.50 1 in 55.56	55.70 - 1 in 55.56 1 in 55.56 1 in 55.56	DN160 F	E100 SDR21 102.26 100.001 in 100.001 in 100.00	1 in 100.001 in 1001	36.33 1 in 40.39 _ 1 in 40.00 _ 1 ir	40.24 40.00 1 in 40.00 1 in 40.00
	1 in 91.05 1 in 175	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$\frac{40}{11} = \frac{1}{1} \ln \frac{12.60}{1.00} = \frac{1}{1} \ln \frac{12.50}{1.00} = \frac{1}{1}$	12.50 1 in 12.60	1 in 55.56 1 in 55.56	DN 160 F	E100 SDR21 102.26 100.00 1 in 100.00 1 in 100.00 C	1 in 100.00 1 in 100 1	1 in 40.39 <	40.24 40.00 1 in 40.00 1 in 40.00
GRADE EMBEDMENT TYPE	1 in 91.05 1 in 175 TYPE 4#		40 12.44 · 12.44 · 12.44 · 11.14.260 · 1.11.12.60 · 1.11.11.12.60 · 1.11.12.60 · 1.11.12.60 · 1.11.12.60 · 1.11.12.60 · 1	1250 1 in 1250 1250 2 1 in 1250 8 ft c, st 8 ft 5	1in 55.56 1in 55.56 1in 55.56 1in 55.55 1in 55.55 <t< td=""><td>DN 160 F</td><td>E100 SDR21</td><td>1 in 100.00 1 in 100 → 1 in 100.00 1 in 100 → + + + + + + + + + + + + + + + + + + +</td><td>1 in 40.30 1 in 40.30 1 in 40.00 1 in 4</td><td>40.24 40.00 1 in 40.00 = 1 in 40.00 = 1 in 40.00</td></t<>	DN 160 F	E100 SDR21	1 in 100.00 1 in 100 → 1 in 100.00 1 in 100 → + + + + + + + + + + + + + + + + + + +	1 in 40.30 1 in 40.30 1 in 40.00 1 in 4	40.24 40.00 1 in 40.00 = 1 in 40.00 = 1 in 40.00
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GRADE EMBEDMENT TYPE DEPTH TO INVERT JUNCTION INVERT LEVEL	1 in 91.05 1 in 175 1 in 91.05 1 in 175 TYPE 4# 682 00.8 0 23 500 28 500 23 142 28 500 23 142 28 500 23 142 28 500 23 5142 28 500 23 5142 28 500 23 5142 28 500 23 5142 28 500 25 5142 28 500 25 5142 29 500 25 5142 29 500 20 5142 29 500 20 5142 29 500 20 5142 29 500 20 5142 29 500 20 5142 29 500 20 5142 29 500 20 5142 29 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142 20 5142	38 800 1 in 197 1 in 197	40 11 in 12:50 TYPE 4# 00 524 52 00 524 52 00 525 56 00 56	11 in 55:56 11 in	1in 55.560 1in 55.	DN 160 F	E100 SDR21 102.260 YPE 4# \$\$	1 1	1 in 49.39 1 in 4	40.00 1 in 40.00
GRADE EMBEDMENT TYPE DEPTH TO INVERT IUNCTION INVERT LEVEL SEWER INVERT LEVEL	1 in 91.05 1 in 175 T in 91.05 1 in 175 TYPE 4# 681 9 00.89 61.39 28 580 23 240 28 580 23 28 580 94.818 23 28 580 28 580 32.840 28 580 32.840 28 580 32.840 28 580 32.840 28 580 32.840 28 580 32.840 28 580 32.840 28 580 32.840 28 580 32.840 28 580 32.840 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 34.818 52.850 <	33.473 28.800 1 in 175 33.473 28.800 5773 28.560 2.2.36 2.2.36 2.2.36 2.2.36 2.2.36 2.2.36 2.773 2.2.36 2.773 2.2.36 2.773 2.773 2.725 2.7355 2.7355 2.7355 2.7355 2.7355 2.735	40 40 41 1in 12:50 1 in 12:50 TYPE 4# 1in 12:50 4 in	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1000000000000000000000000000000000000	DN 160 F Hin 55556 1 in 190.00 1 in 190.00 4 Hin 55556 2 in 190.00 2 in 190.00 4 Hin 55556 1 in 190.00 1 in 190.00 4 Hin 190.00 1 in 190.00 4 H	E100 SDR21 102.00 YPE 4# \$ \$ \$\$ \$\$ \$\$ \$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1 1	11 13 14<	40.24 40.00 1 in 40.00 1 in 40.00 600 1 in 40.00 1 in 40.00 1 in 40.00 600 1 in 40.00 1
GRADE EMBEDMENT TYPE DEPTH TO INVERT UNCTION INVERT LEVEL SEWER INVERT LEVEL DESIGN SURFACE LEVEL	4580 300 100 28 240 28 240 28 240 28 240 28 240 28 240 28 240 28 240 28 240 28 240 28 240 28 240 28 24 24 23 142 44 14 14 14 14 14 14 14 14 14 14 14 14	424.671 33.473 28.800 6254.266 28.800 5.773 4231.664 34.385 28.800 6252.766 28.500 5.773 4207.159 32.610 2.2.466 2.3.4	12241 12244 1	6249.518 -49.268 -49.268 +576 55 4110.701 -22.662 -49.226 15.00 55 4107.246 47.20 15.00 15.00 55 4107.246 -22.662 -12.06 15.00 55 4107.246 -22.60 1.500 55 55 4207.159 -32.40 2.630 2.630 11.500 625.56 -32.40 2.630 2.600 10.1	4206.122 4200.122 4200.13950 4200.13950 4200.13950 4200.13950 4200.13950 4200.13950 4200.13950 4200.1395 4200.13950 4200.1395 4200.	1000/UC 3000/UC 3000/UC <t< td=""><td>E100 SDR21 102 26 YPE 4# 988 2 988 2 9888 2 988 2 988 2 988 2 988 2 988 2 9</td><td>4186.312 36.004 34.000 55.000 55.000 10 55.000 10 10 10 10 10 10 10 10 10 10 10 10</td><td>4 10.004 37.22 34.230 34.44.0 2.390 6331.57 34.230 44.00 2.990 6331.57 37.29 34.290 6404.71 239 2.990 6404.71 239 35.70 44.57 1.340</td><td>4024 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2</td></t<>	E100 SDR21 102 26 YPE 4# 988 2 988 2 9888 2 988 2 988 2 988 2 988 2 988 2 9	4186.312 36.004 34.000 55.000 55.000 10 55.000 10 10 10 10 10 10 10 10 10 10 10 10	4 10.004 37.22 34.230 34.44.0 2.390 6331.57 34.230 44.00 2.990 6331.57 37.29 34.290 6404.71 239 2.990 6404.71 239 35.70 44.57 1.340	4024 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
GRADE EMBEDMENT TYPE DEPTH TO INVERT JUNCTION INVERT LEVEL SEWER INVERT LEVEL DESIGN SURFACE LEVEL SETOUT	1 in 91.05 1 in 175 TYPE 4# 689 % 028 % 661 % 997 % 771 % 000 % 781 % 000 % 781 % 000 % 781 % 000 % 982 % <t< td=""><td>1 in 107 1 in 147 1 in 107 1 in 147 987.72 987.72 987.72 987.72 987.72 987.72 987.72 1019.72</td><td>40 12.44 1 in 12.50 1 in 12.50 0 in 12.51 1 in 12.50 0 in 12.51<</td><td>dia 6249.516 -40.500 -</td><td>1000000000000000000000000000000000000</td><td>United for United for <thunited for<="" th=""> United for United f</thunited></td><td>E100 SDR21 102.250 YPE 4# 988 \$\$882 \$\$882 \$\$882 \$\$882 \$\$ 988 \$\$882 \$\$882 \$\$ 988 \$\$882 \$\$882 \$\$ 988 \$\$882 \$\$ 988 \$\$882 \$\$ 988 \$\$882 \$\$ 988 \$\$</td><td>(07.634 4.166.312 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694</td><td>31.25 2.52.L1 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25</td><td>40.00 40.24 1 in 40.00 40.0</td></t<>	1 in 107 1 in 147 1 in 107 1 in 147 987.72 987.72 987.72 987.72 987.72 987.72 987.72 1019.72	40 12.44 1 in 12.50 1 in 12.50 0 in 12.51 1 in 12.50 0 in 12.51<	dia 6249.516 -40.500 -	1000000000000000000000000000000000000	United for United for <thunited for<="" th=""> United for United f</thunited>	E100 SDR21 102.250 YPE 4# 988 \$\$882 \$\$882 \$\$882 \$\$882 \$\$ 988 \$\$882 \$\$882 \$\$ 988 \$\$882 \$\$882 \$\$ 988 \$\$882 \$\$ 988 \$\$882 \$\$ 988 \$\$882 \$\$ 988 \$\$	(07.634 4.166.312 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694 -34.666 -36.694	31.25 2.52.L1 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25 31.25	40.00 40.24 1 in 40.00 40.0

REV DA	TE DESIG	N DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT NAME	DRAWING TITLE		
A 21.0 B 08.0	2.22 CL 3.22 CL	MPG NS	ISSUED FOR CONSTRUCTION HOUSE CONNECTION TYPE AND LEVELS UPDATED FOR LINE 2		AS CONSTRUCTED		1:1000 100 10 20 30 40 50 A1	CANBERRA ESTATES		SEWERAGE RE	ETICULATI	ON
C 16.0	8.22 NS	NS	AS CONSTRUCTED		" FOR BUILDER PURPOSES"	PEAKURBAN	1:2000 HORIZONTAL A3	CONSORTIUM NO. 36 PTY LIMITED	WOODLINKS VILLAGE - STAGE 19	LONGITUDINA	L SECTION	NS
				DESIGN	APPROVED SCOTT THOMAS RPEQ 04618	Achieve more.	1:100 2 1 0 2 4 A1			SHEET	1 OF 2	
		-					1:200 VERTICAL A3			PROJECT No.	DRAWING No.	REVISION
								PH: 1300 123 744		21-0132	302	C
					FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ENQUIRIES@PEAKURBAN.COM.AU		111. 1300 123 744	COLLINGWOOD I ARR	ļ		

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			A	æ	•	A	÷	
			LINE 3	LINE 4	LINE 2E		LINE 2F	
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STRUC/ BEND/ END NAME	J/2A (H	C/2A (/2B (HC	C/2B J/2C (HC/24	C J/2D (HC/	2D J/2E HC/2E	J/2F HC/2F	2/2 (1/3 J	J/3A J/3B	J/3C	2/3	(J/3A) (НС/ЗА
STRUCTURE TYPE	F	END						U	SM SM			SW		END
STRUCTURE LID TYPE		-	-				-	۵			-			-
STRUCTURE DROP TYPE		1	-					A						
JUNCTION LINE	LINE 2	-	LINE 2	LINE 2	LINE 2	LINE 2	LINE 2	LINE 2		LINE 3A LINE 3	B LINE 3C	LINE 30	D LINE 3A	
DEPTH TO HC	0.86 0.984 1.08		1.03 1.03 0.84 0.84	0.38	0.98	1.27 0.396 0.386 0.38	0.88 0.040 0.77			1.80 1			0.730 0.730	1.19
HC INVERT LEVEL	34.69 34.45 34.45 34.45		35.20 <u>35.150</u> 35.20	89 19 19 19 19 19 19 19 19 19 19 19 19 19	35.83 	37.44 <u>37.360</u> <u>37.59</u>	88 38.36 38.36			38.14 38.14 39.62 39.62 40.710 40.710	41.69 41.700 42.68 42.780	43.56 19.564	38.40 	37.80
HC TYPE	83 82		8 1 8	8	물 원	80 × 1						<u>*</u>)	B2	F 🔀
HC LOT No	Lot 566	_	Lot 566 Lot 566		Lot 57	Lot 58				Lot 572	Lot 57	Lot 57	Lot 584	5
CH. FROM D/S STRUC/ BEND	<u>11.75</u> 15.25]	11.75 15.116	15.25	15.511	<u>11.75</u>	11.75 15.24			8.785 8.785 8.2 8.2	<u>20.7</u> . <u>6.705</u>	21.15	11.75 15.25	20
STRUCTURE TYPES G = CONCRETE 0.9000 F = CONCRETE 1.2000 X = CONCRETE 1.2000 X = CONCRETE 1.2000 MS = PE 0.6000 MH DROP TYPES: AS PER SEQ STD DRG SEQ-SEW-1303-1 MS DROP TYPES: MS-A = 20mm DROP THROUGH BULB MS-B = >750mm DROP INTO RISER LID TYPES B = NON-TRAFFICABLE D = TRAFFICABLE D (BD) = TRAFFICABLE WITH BOLT DOWN NOTE: PE LINING OF MANHOLES: MAINTENANCE HOLES > 15000 IN DIA OR > 4.0m IN DEPTH, REQUIRE PE LINED PROTECTIVE COATING # EMBEDMENT NOTE: PIPE EMBEDMENT & TRENCHFILL SHALL BE IN ACCORDANCE WITH SEQ-SEW-1200-2, 1201-1 TO 1201-5. AS PER URBAN UTILITIES MAJOR WORKS TECHNICAL GUIDELINE, SECTION 6.5.1, TYPE 4 SUPPORT IS PROPOSED UNTIL FINAL GEOTECHNICAL INVESTIGATIONS ARE COMPLETED AND PROVIDED TO URBAN UTILITIES PRIOR TO CONSTRUCTION. * STORMWATER PRIDGING NOTE: WHERE A STORMWATER PIPE >= 600mm DIA CROSSES OVER	SWD 450mm CL0.31m WATTER MAN DWARD (10.88m	- 1 TRENCHST AT 20.0m CRS	S S S S S S S S S S S S S S S S S S S S	TRENCHSTOPS T 12.5m CRS	I, Scott Thomas, hereby t The information conta drawings and design. 2. The new water and seconstructed in accord 3. This generally represes 4. I accept responsibility	NEER'S CERTIFIC, sertify that: index in this drawing / document is in or everage works defined by this drawing ance with the SEQ code. ints an accurate record of as-construct for the information contained in this d	ATION g have been designed and cted works drawing / document.	SND 315mm CL.0.76m SND 450mm CL.0.43m WATEN 0450mm CL.0.43m		7 TRENCHSTOP AT 13.3m CRS			SWD 375mm CL 0.68m WATER 125mm CL 117m	
BY A BRIDGE STRUCTURE THAT SPANS THE SEWER TRENCH. REFER PEAK URBAN STD DRG S-100.	25.0		25.0	26.0	S. Thomas RPEQ (signature)	17/ RPEQ No. 04618 Date:	08/22	31.0					30.0	
LAND USE		-)R21 "							->	NUAU KESERVE		->		
DIAMETER	23.29 1 in 20.00		20.51 1 in 18.40		10.89	55.63 1 in 50.44	45.87 1 in 22.22	<	θ 1 in 13.33	13.41	n 13 33 1 in 12		48.2 1 in 59.9	23
GRADE	<	1	< >				<	<	><		><		<	
EMBEDMENT TYPE	-	-		TYPE 4#	TYPE 4#	TYPE 4#	TYPE 4#			TYPE 4#			TYPE 4	4#
DEPTH TO INVERT	2,432 1,870	2 686	2:694 2:694 1:932	2.831 2.861 1.690	2.890 2.911 1.700 1.655	1.564 1.554 1.266 1.266	1.567	3.019 2.79 2.79	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	- 	2:800	5.64 2.64 2.64	2.275 2.148 2.148	1.872
JUNCTION INVERT LEVEL									35.226	37.007	41.564	43.900		
SEWER INVERT LEVEL	33.018 33.018 33.784	33.471	33.471 33.466 34.080 34.200	33.734 33.734 33.683 33.683 34.800 34.800	33.922 33.879 33.879 35.060 35.395	36.829 36.829 36.816 37.132	37.349 37.364 37.364 37.560	34.225 34.425 34.430	35.206 35.226 35.240 37.007	- 1.00.7.6 - 33.557	41.304	43.060 43.150	37.007 37.007 36.982 37.240	37.266
DESIGN SURFACE LEVEL	- 35.466 35.45 35.43	35.673	36.150 36.16 36.10		36.841 36.79 36.79	37.947 38.35 38.30 38.30 38.30	38.016 38.82 38.92 39.145	-37.244 37.22		-39.205 -42.244	403.44	45.70 45.768	30.285 39.13	39.28
SETOUT	4200.393	4185.331 6305 489	4196.472 6303.097	4181.410 6325.241 4193.335 6322.849	41/8.2/4 6343.710 4190.402 6341.277	4175.083 6404.712 4156.339 6396.433 4143.532	6421.508 4145.480 6413.228 4132.674	6371.079 4178.084	6359.511 4160.191 6346.620	4140.252 6328.160 4111.699	6313.773 4089.445	6302.290 4071.684	6346.620 4140.252	6359.427
RUNNING CHAINAGE	8 12.624 15.250	15.250	8 12.595 15.250	000 12.558 00 15.250	00 <u>12.860</u> 0 15.511	12.461 0912.461 0917.55	0912.661 015.250 15.250	8 20.46 2 1.307	200 23.743	중 104.855 중 북 34.000 원 2	8:500 <u>8</u> 21.15	4 126.700	80:12.444 15:250	4 4 4 4
LINE	2A		2B	2C	2D	2E	2F	3					3A	

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT N
Α	21.02.22	CL	MPG	ISSUED FOR CONSTRUCTION						
В	08.03.22	CL	NS	HOUSE CONNECTION TYPE AND LEVELS UPDATED FOR LINE 3		AS CONSTRUCTED		1:1000 10 0 10 20 30 40 50 A1	I CANBERRA ESTATES	
С	16.08.22	NS	NS	AS CONSTRUCTED			DEAL/LIDDANL	1:2000 A3		I WOC
						" FOR BUILDER PURPOSES"		HORIZONTAL	I CONSORTIUM NO. 36 PTY LIMITED	
					DESIGN	APPROVED		4.400 0 4 0 0 4 44		
						SCOTT THOMAS RPEO 04618	Achieve more.	1:100 Z 1 0 Z 4 AT		
								1:200 A3	ASSOCIATED CONSULTANT	
								VERTICAL	SAUNDERS HAVILL GROUP	
									DU: 1200 102 744	
					1	FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ENQUIRIES@PEAKURBAN.COM.AU		FI. 1300 123 744	

RL33.473 P100 LEVEL 1 IN 3 BATTER IN 2 TEMPORARY BATTER OVIDE ROCK ARMORING AROUND BASE FOI OUR PROTECTION (d ₅₀ =200mm,400mm THIC)		ARY ABOVE VEL	
PROVIDE ROCK ARMORING AROUND BASE F SCOUR PROTECTION (d ₅₀ =200mm,400mm THI	OR CK) 	_	
NAME ODLINKS VILLAGE - STAGE 19	DRAWING TITLE SEWERAGE RE CROSS SE		
COLLINGWOOD DRIVE COLLINGWOOD PARK	21-0132	304	C

RE	DATE [ESIGN D	RAWN	REVISION DETAILS	DRAWN	STATUS		SCALE	CLIENT	PROJECT NAME	DRAWING TITLE		
A	21.02.22	CL	MPG	ISSUED FOR CONSTRUCTION									
B	16.08.22	NS	NS	AS CONSTRUCTED		AS CONSTRUCTED			CANBERRA ESTATES		WATER RELICU	LATION CC	JVER
								1.2000 20 0 20 40 60 80 100 44		WOODLINKS VILLAGE - STAGE 19			I
_	+ +					FOR BUILDER PURPOSE		1.2000 20 0 20 40 00 00 100 AT	CONSORTIUM NO. 36 PTY LIMITED		PL/	AN	,
					DESIGN	APPROVED		1:4000 A3					
_	+ +				-	SCOTT THOMAS RPEQ 04	8 Achieve more.			4			
-					-						PROJECT No.	DRAWING No.	REVISION
									SAUNDERS HAVILL GROUP	COLLINGWOOD DRIVE	21-0132	305	I R
						FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ENQUIRIES@PEAKURBAN.COM.AU		PH: 1300 123 744	COLLINGWOOD PARK	21-0152	000	
					1	FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ENQUINES@FEARORBAN.COM.AU		111. 1000 120 144	OBEEINGWOOD I MIN			

ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT WSAA WATER SUPPLY CODE OF AUSTRALIA SPECIFICATIONS AND STANDARD - SOUTH FAST OUFENSI AND SERVICE PROVIDERS EDITION

LINEESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS THE DESIGN HAS BEEN UNDERTAKEN TO COMPLY WITH CURRENT SOUTH EAST QUEENSLAND WATER CODE AND URBAN

THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS REPORTED TO WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO

ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH URBAN UTILITIES ACCEPTED PRODUCTS AND MATERIALS LIST OR BE APPROPRIATELY SHOWN, LISTED AND DEFINED IN THE ENGINEERING SUBMISSION SO THAT THE ALTERNATIVE PRODUCT OR MATERIAL CAN BE ASSESSED AND IF APPROPRIATE, APPROVED BY URBAN UTILITIES.

CONSTRUCT EMBEDMENT AND TRENCH FILL TO SEQ-WAT-1200-2, 1201-1 TO SEQ-WAT-1204-1 AND COUNCIL STANDARDS FOR

PROVIDE BULKHEADS / TRENCH STOPS IN ACCORDANCE WITH SEQ WATER SUPPLY CODE TABLE 7.5 AND SEQ-WAT-1209-1

CONSTRUCT THRUST BLOCKS ON ALL VALVES, BENDS, TEES, TAPERS, DEAD ENDS AS REQUIRED BY PIPE MATERIAL AS WELL AS TRANSITIONS TO UNRESTRAINED PIPEWORK TO SEQ-WAT-1205-1 AND 1206-1

CONSTRUCT FIRE HYDRANTS AND STOP VALVES TO SEQ-WAT-1301-1, 1302-1, 1303-2, 1305-1, 1306-1 AND 1409-1. CONSTRUCT SCOURS TO SEQ-WAT-1307-2 (ONLY MAINS DN315 AND LARGER). SCOURS MUST DISCHARGE INTO AN OPEN STORMWATER GULLY PIT. DISCHARGE TO THE FACE OF KERB AND CHANNEL IS NOT ACCEPTABLE TO URBAN UTILITIES.

CONSTRUCT HYDRANTS AT THE ENDS OF ALL NEW MAINS BEFORE THE SCOUR AND WHERE REQUIRED FOR COMMISSIONING PURPOSES. URBAN UTILITIES PREFERENCE IS TO AVOID TAPPING BANDS FOR TEST POINTS AND PROVIDE EITHER A TEMPORARY DUCKFOOT HYDRANT OR FLANGED SHORT PIPE WITH A TEMPORARY TAPPED BLANK FLANGE. TESTING

TESTING LOCATIONS AND TEMPORARY FITTINGS ARE REQUIRED ON SERVICES OVER 10m LONG UNLESS APPROVED IN WRITING FOR WORKS TO BE UNDERTAKEN AS LIVE WORKS. TESTING AND AS -CONSTRUCTED REQUIREMENTS TO BE

17. 316SS BACKING RINGS SHALL BE USED WITH FULL-FACE PE FLANGES. PE STUB-FLANGES ARE NOT ACCEPTED. WHEN JOINING TO EXISTING UNRESTRAINED PIPELINES, PROVIDE A DICL SHORT PIPE WITH THRUST FLANGE AND THRUST BLOCK. BOLT ON UNI FLANGES SHALL NOT BE USED AS THRUST FLANGES. THRUST (PUDDLE) FLANGES SHALL BE AN APPROVED PREFABRICATED DICL/MSCL SHORT PIPE WITH PREFABRICATED THRUST FLANGE.

18. ALL DISUSED SERVICES SHALL BE PLUGGED AT THE MAIN AND FERRULE CLOSED OR TAPPING BAND REMOVED AND SECTION OF MAIN SUBSTITUTED AS LIVE WORKS, LARGE DIAMETER SERVICES SHALL BE DISUSED BY REMOVING ANY PROPERTY SERVICE PIPEWORK AT THE POINT OF CONNECTION TO THE MAIN. AND INSTALLING A BLANK FLANGE DIRECTLY ON THE TEE.

PROVIDE DN40 PE WATER SERVICES FOR ROAD CROSSINGS SERVICING TWO DWELLINGS. PROVIDE DN32 PE WATER SERVICES FOR ROAD CROSSINGS SERVICING A SINGLE DWELLING. IF THE LONG TERM STATIC HEAD OF THE PROPERTY SERVICE IS LESS THAN 350 kPA (35m) OR IF PRIVATE BOOSTER IS REQUIRED. THE MINIMUM SIZE OF PROPERTY SERVICE

CONSTRUCT SMALL DIAMETER PROPERTY SERVICES TO SEQ-WAT-1107-1 AND 1107-3.

A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN

CONSTRUCT TEST POINTS TO SEQ-WAT-1410-1 AT THE ENDS OF ALL NEW MAINS AND WHERE REQUIRED FOR

WATER MAINS SHALL SHALL CROSS OVER OTHER SERVICES. IF NOT PRACTICABLE THEN AMEND DESIGN TO USE FULLY

26. URBAN UTILITIES WATER METERS AND FIRE HYDRANTS MUST BE LOCATED 1.100m CLEAR OF ENERGEX PILLARS.

TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR

WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION

TREE ROOTS SHALL BE TUNNELED UNDER, RATHER THAN SEVERED, IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL

ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST

TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.

CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK. NO SOIL SHALL BE STOCKPILED WITHIN 5m OF THE CREEK.

PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS SHALL BE REINSTATED. PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED.

NAME	DRAWING TITLE						
ODLINKS VILLAGE - STAGE 19	FIRE HYDRANT REACH LAYOUT PLAN						
COLLINGWOOD DRIVE COLLINGWOOD PARK	PROJECT No. 21-0132	DRAWING No.	REVISION B				

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TERMINATE NEW CONDUIT,

LEGEND						
тт	EXISTING TELSTRA UG CABLE					
^	EXISTING AERIAL CABLE					
TTT	TELSTRA PLANT IN SHARED UTILITY TRENCH					
	PROPOSED NBN UNDERGROUND CONDUIT IN SHARED UTILITY TRENCH					
PIT-ID	Service Drop Access Pit (650mmX280mmX565mm)					
PIT-ID	Network Boundary/Local Network Pit (Single Lid) (700mmX450mmX650mm)					
PIT-ID 8	Distribution/Local Network Connection Pit (1360mmX555mmX860mm)					
PIT-ID 9	Fibre Distribution Hub (FDH) Pit (2000mmX555mmX900mm)					
	Existing Telstra manhole					
5	Existing Telstra Pit (2,3,4,5,6,7,8,9)					
>	Telstra exchange					
	Example of Telstra Major Conduit Layout with Proposed duct marked to be used by NBN					
PCD	Premise Connection Device (PCD)					
FAN	Fan Access Node site (FAN)					
CTL	nbn Cable Transition Location					
NTD	nbn Network Termination Device					
	Energex Pillar					

A proposed streetlight shall be offset 1.2m from the flange of the future driveway.

COMMUNICATIONS PITS are to remain outside 600mm pillar exclusion zone shall not clash with future drivewavs

GAS SERVICE TEE-OFFS are to remain outside 600mm pillar exclusion zone where a pillar is offset to align on one side with the boundary peg

(NOT FOR CONSTRUCTION)

18.12.2021

TO BE BUILT IN CONJUNCTION WITH **ELECTRICAL RETICULATION A211677**

PLAN			DRAWING TITLE: NATIONAL BROADBAND NETWORK						
MAP1	MΔ	P2	7001 Collingwood Dr COLLINGWOOD PARK QLD 4301 Woodlinks – Stage 19						
		777	ENABLE#: 280530						
			STATE:	STATE: REGION:				,	
SHEEXX			FSA:		SAM: AD				
	MAP3 MAP4		PROJECT No: 211677						
MAP3			CADREF No:	T	211677				
			SCALE 1:500	SHEE 1	^{Γ No.} OF	1		rev. B	
10			11			1	2		