CIVIL ENGINEERING

Project No 3335607

PARK TERRACE RETIREMENT VILLAGE

FOR ASSESSMENT

Prepared for



By Beca

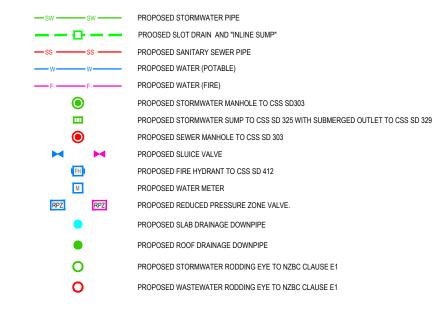
27 MARCH 2020



#### LEGEND: EXISTING SERVICES

— sw —	sw	EXISTING STORMWATER
—ss —	—— ss ———	EXISTING SANITARY SEWER
w	w	EXISTING WATERMAIN
— G —	G	EXISTING GAS
— F0—	F0	EXISTING FIBRE OPTIC CABLE
— ОН——	—— OH———	EXISTING OVERHEAD POWER CABLE
	0	EXISTING STORMWATER MANHOLE
		EXISTING SUMP
	$\Rightarrow$	EXISTING CESSPIT
	<b>(</b>	EXISTING SANITARY SEWER MANHOLE
	W	EXISTING WATER METER
	H	EXISTING WATER HYDRANT
	P	EXISTING POWER BOX
	P	EXISTING POWER POLE
1		EXISTING POWER TRANSFORMER
C	$\triangleright$ O	EXISTING STREET LIGHT
	T	EXISTING TELECOMMUNICATIONS PLINTH
	000	EXISTING TRAFFIC LIGHT
	0	EXISTING UNKNOWN MANHOLE

### LEGEND: PROPOSED SERVICES



DRAWING No.	Rev	DRAWING TITLE	DRAWING STATUS
038-RCT_401_C0-000	D	COVER SHEET	RESOURCE CONSENT
038-RCT_401_C0-000A	Α	COVER SHEET	CONCEPT DESIGN
038-RCT_401_C0-001	D	LEGEND, DRAWING LIST AND GENERAL NOTES	RESOURCE CONSENT
038-RCT_401_C0-001A	Α	LEGEND, DRAWING LIST AND GENERAL NOTES	CONCEPT DESIGN
038-RCT_401_C0-002	D	EXISTING SITE LAYOUT	CONCEPT DESIGN
038-RCT_401_C0-010	D	PROPOSED OVERALL SITE GRADING PLAN	RESOURCE CONSENT
038-RCT_401_C0-011	D	PROPOSED SITE GRADING PLAN SHEET 1 OF 3	CONCEPT DESIGN
038-RCT_401_C0-012	D	PROPOSED SITE GRADING PLAN SHEET 2 OF 3	CONCEPT DESIGN
038-RCT_401_C0-013	В	PROPOSED SITE GRADING PLAN SHEET 3 OF 3	CONCEPT DESIGN
038-RCT_401_C0-020	D	PROPOSED OVERALL SITE SERVICES PLAN	RESOURCE CONSENT
038-RCT_401_C0-021	D	PROPOSED SITE SERVICES PLAN SHEET 1 OF 3	CONCEPT DESIGN
038-RCT_401_C0-022	D	PROPOSED SITE SERVICES PLAN SHEET 2 OF 3	CONCEPT DESIGN
038-RCT_401_C0-023	В	PROPOSED SITE SERVICES PLAN SHEET 3 OF 3	CONCEPT DESIGN
038-RCT_401_C0-050	В	BISHOPSPARK EROSION AND SEDIMENT CONTROL PLAN	CONCEPT DESIGN
038-RCT_401_C0-051	В	PETERBOROUGH EROSION AND SEDIMENT CONTROL PLAN	CONCEPT DESIGN
038-RCT_401_C4-060	В	PROPOSED STORMWATER CONTAINER DEWATERING DEVICE	CONCEPT DESIGN
038-RCT_401_C4-061	В	PROPOSED DN1050 STORMWATER 360 TREATMENT DEVICE	CONCEPT DESIGN
038-RCT_401_C4-062	В	PROPOSED DN1200 STORMWATER 360 TREATMENT DEVICE	CONCEPT DESIGN

DRAWING INDEX



						D
Α	CONCEPT DESIGN	JK	IB	RJ	27.03.20	
No.	Revision	Ву	Chk	Appd	Date	

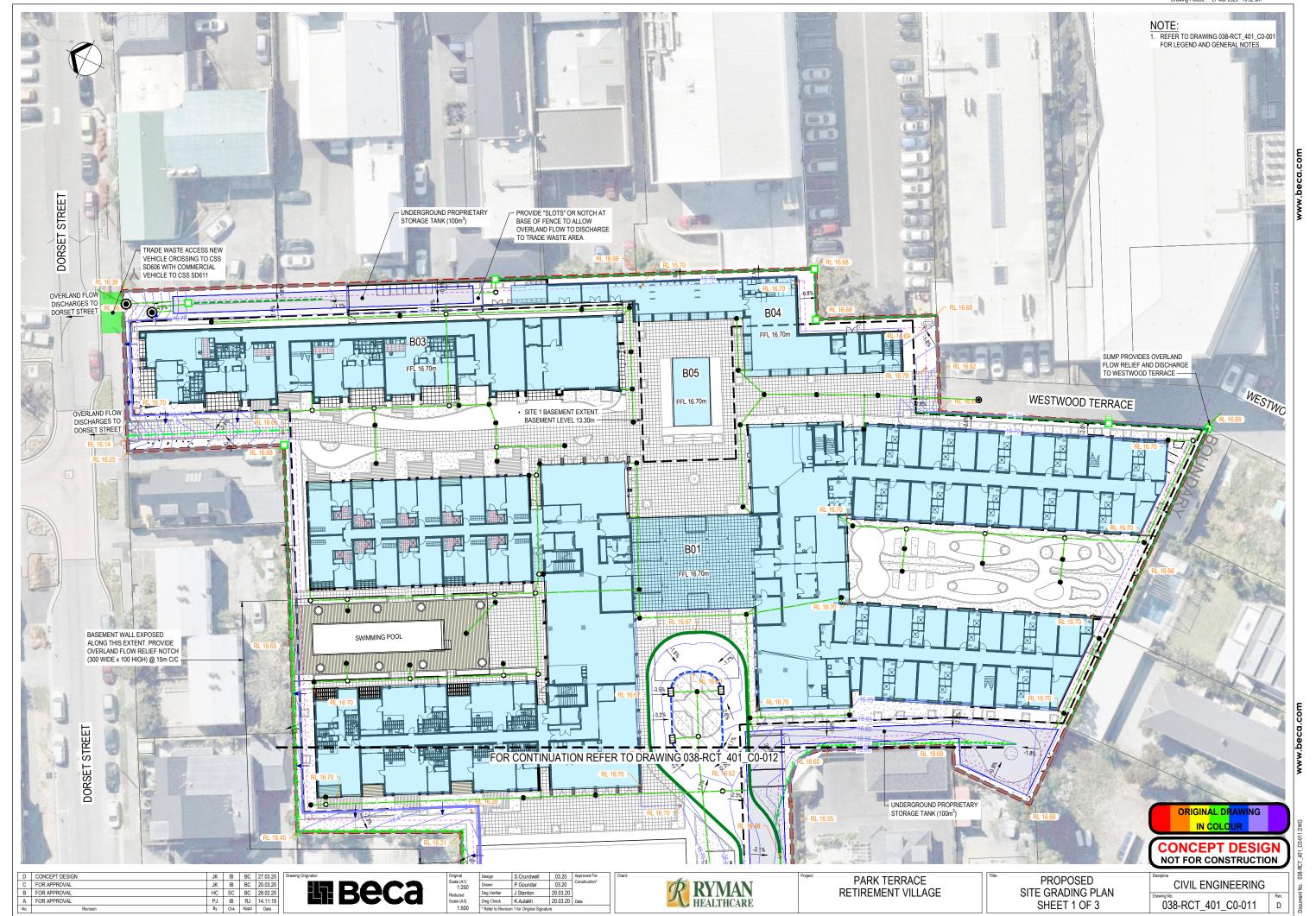


Original	Design	S.Crundwell	10.03.20	Approved For
Scale (A1) NTS	Drawn	P.Goundar	10.03.20	Construction*
Reduced	Dsg Verifier	J.Stanton	20.03.20	
Scale (A3)	Dwg Check	K.Aulakh	20.03.20	Date
NTS	* Refer to Revision			

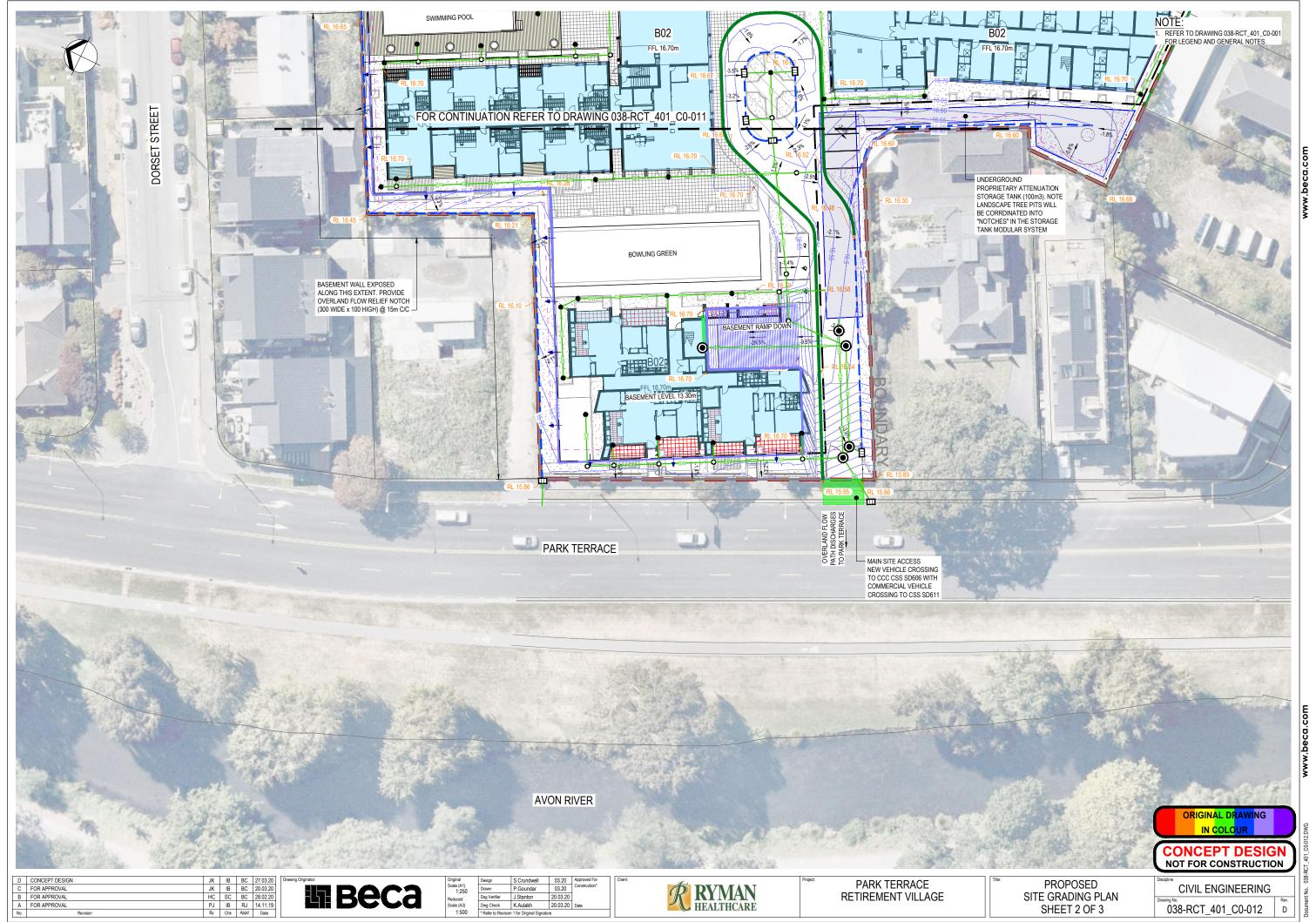


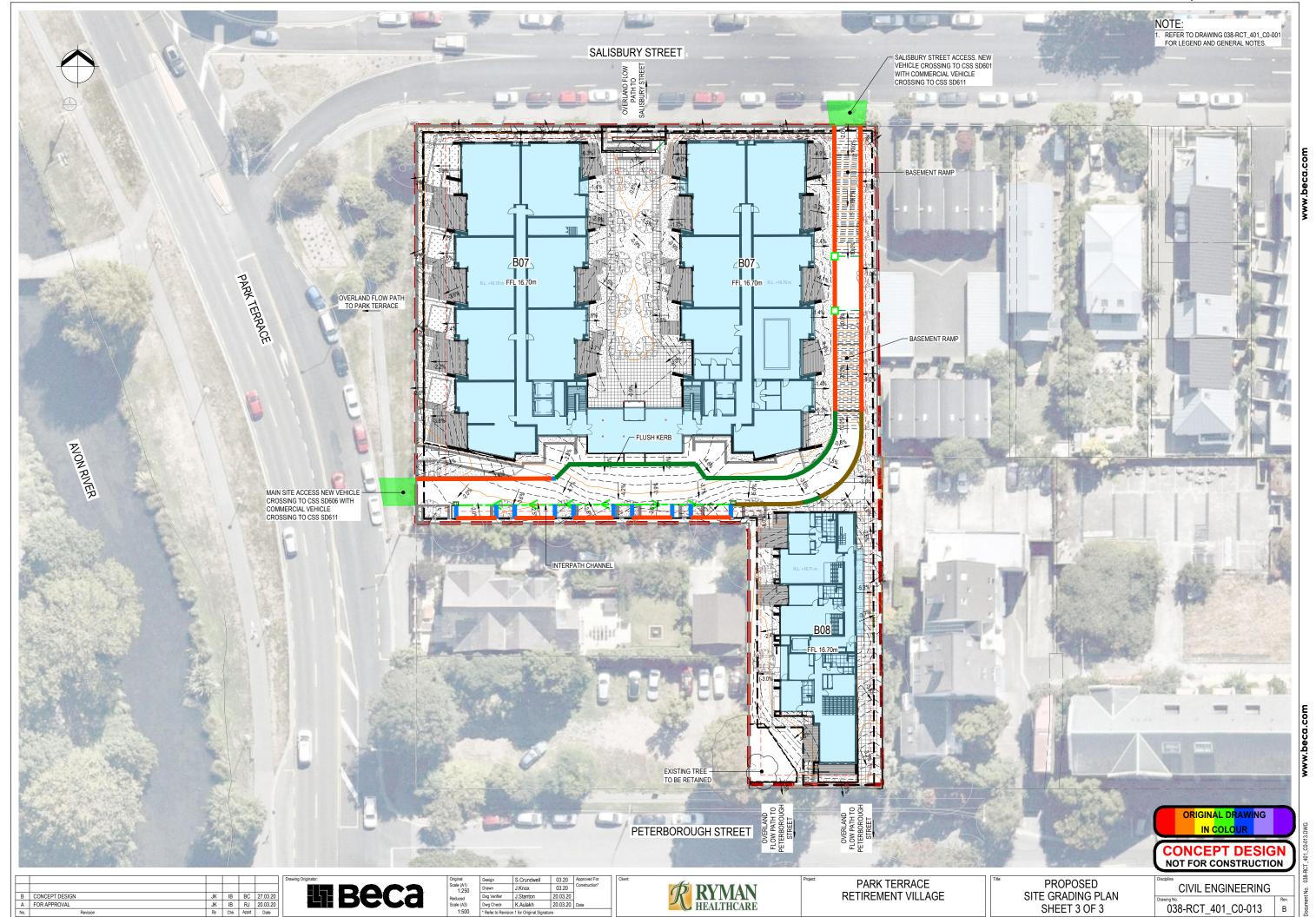
PARK TERRACE RETIREMENT VILLAGE LEGEND, DRAWING LIST AND GENERAL NOTES CIVIL ENGINEERING
rawing No.
038-RCT\_401\_C0-001A

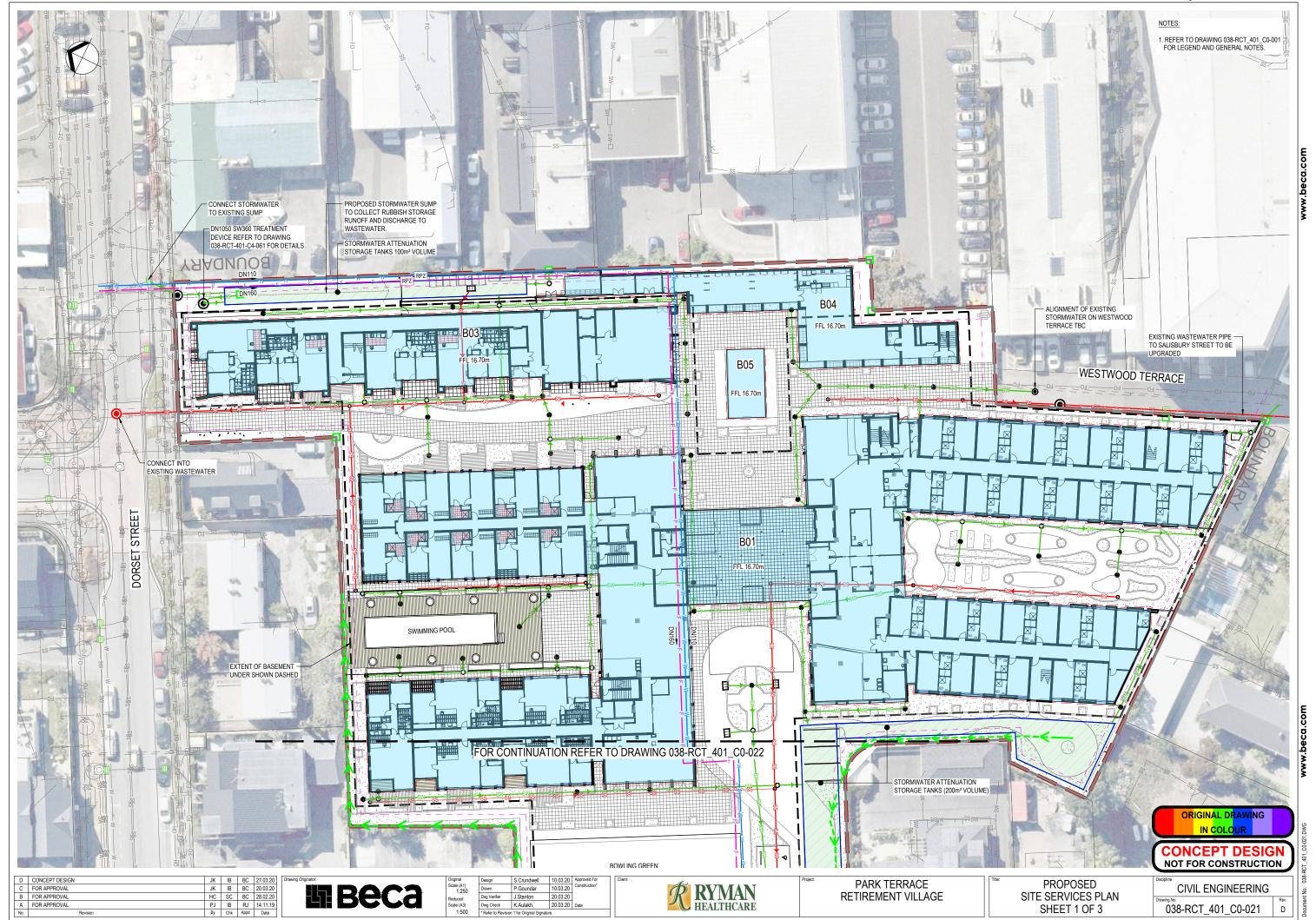
Rev.
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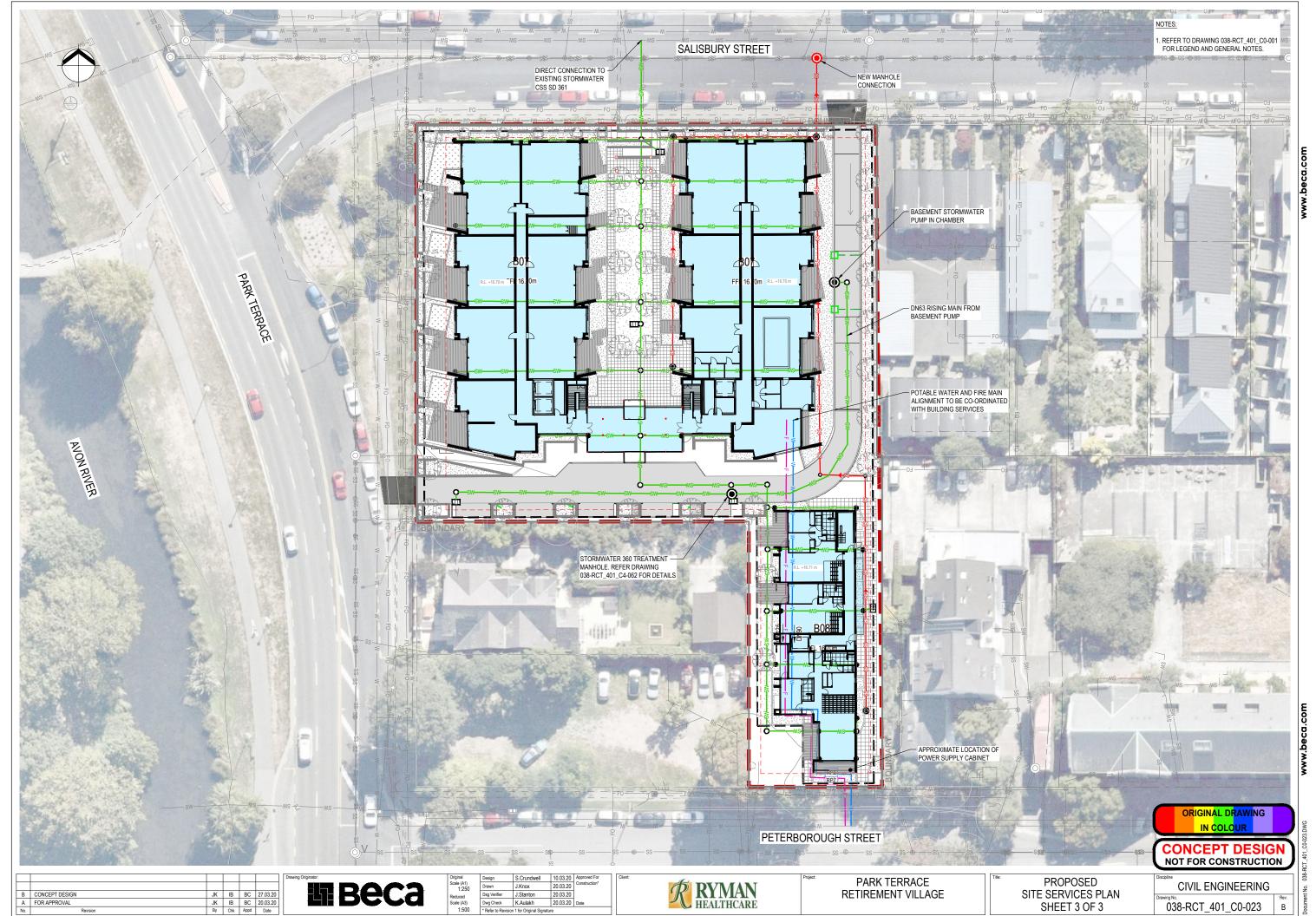












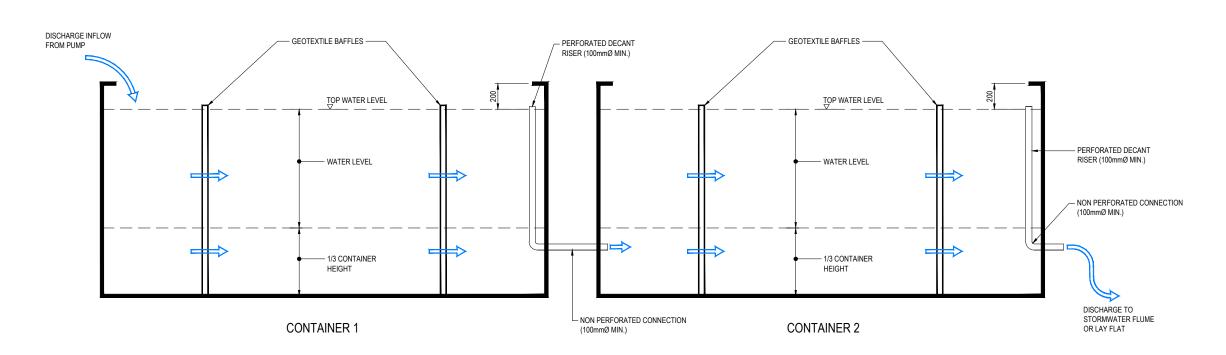






### NOTES

- 1. NOT TO SCALE
- 2. MULTIPLE BAFFLES CAN BE INSTALLED AS APPROPRIATE.
- 3. MULTIPLE CONTAINERS CAN BE CONNECTED IN UNISON FOR ADDITIONAL TREATMENT.
- 4. FLOCCULATION TO BE CONSIDERED INDEPENDENTLY.
- 5. SCHEMATIC ONLY TO BE CONSIDERED ONCE DEVICE AND APPROPRIATE CONTAINERS ARE SOUGHT.



SCHEMATIC CROSS-SECTION - EXAMPLE CONTAINER DEWATERING DEVICE



					ĺ
В	CONCEPT DESIGN	JK	IB	BC	27.03.20
Α	FOR APPROVAL	JK	IB	BC	20.03.20
No.	Revision	By	Chk	Appd	Date



Original	Design	C.Blyth	28.02.20	Approved For	
Scale (A1) NTS	Drawn	J.Knox	20.03.20	Construction*	
Reduced	Dsg Verifier	M.Rademaker	28.02.20		
Scale (A3)	Dwg Check	I.Bannon	20.03.20	Date	
NTS	* Refer to Revision 1 for Original Signature				



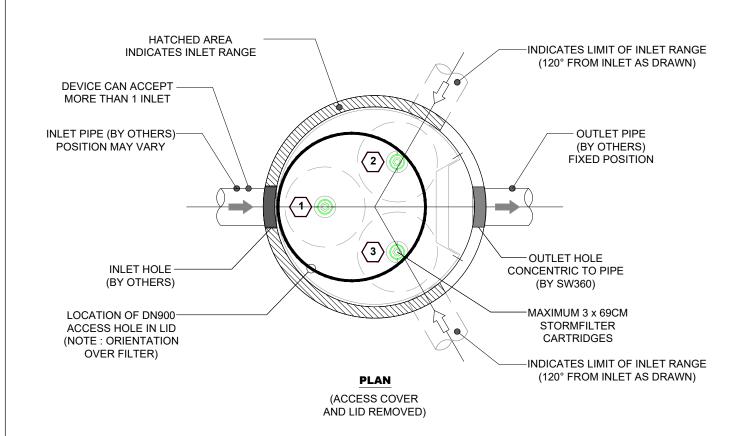
PARK TERRACE RETIREMENT VILLAGE

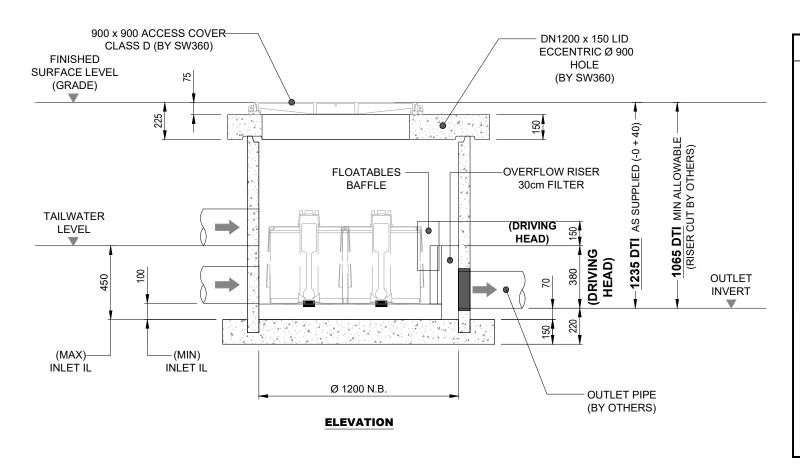
PROPOSED STORMWATER CONTAINER DEWATERING DEVICE CIVIL ENGINEERING

awing No.

038-RCT\_401\_C4-060

B





TO BE COMPLETED BY CUSTOMER / CONTRACTOR							
COMPANY: P.O. NUMBER:							
SITE ADDRESS:							
SITE CONTACT & PHONE :							
PREFERRED DELIVERY DATE (TBC	PREFERRED DELIVERY DATE (TBC SW360):						
STORMFILTER REFERENCE (IF APP	LICABLE) :						
OUTLET HOLE Ø (CIRCLE):         Ø 130         Ø 200         Ø 225         Ø 275         Ø 300         Ø 350           (TYPICAL PIPE MATERIAL)         (DN100 PVC)         (DN150 PVC)         (DN175 PVC)         (DN225 PVC)         (DN225 RRJ)         (DN300 PVC)						Ø 350 (DN300 PVC)	
LID LEVEL (RL) :	OUTLET PIPE (IL) :			DTI:			
COMPLETED BY:		SIGNED: DATE:					

TO BE COMPLETED BY SW360							
SW360 PRODUCT CODE:							
MEDIA TYPE (CIRCLE ONE): PERLITE ZPG OTHER:							
CARTRIDGE QTY (STATE):	PRE-INSTALLATION (Y/N):						
SP FLOW RATE (CIRCLE ONE):	FULL (Ø 22.7 ID) YELLOW	3 QTR (Ø 19.7 ID) GREEN	HALF (Ø 16.2 ID) BLUE	OTHER:			
ACCESS COVER (CIRCLE ONE):	900 x 900 WEB-FC	DRGE / CLASS D	OTHER:				
COMPLETED BY :	SIGNED:	DATE :					

#### **SW360 PRODUCTION DATA**

#### **OUTLET HOLE DETAILS:** (CIRCLE REQUIREMENT)

OUTLET HOLE Ø	DIM (A)
130	120
200	145
225	165
275	190
300	180
350	220

**DWG ISSUE No.:** 

**REQUIRED DATE:** 

#### **NOTES**

- MANHOLE UNIT FITTED WITH SWIFTLIFT ANCHOR POINTS (QTY 2). DO NOT EXCEED 60 DEGREE LIFT ANGLE. CONCRETE LID FITTED WITH SWIFTLIFT ANCHOR POINTS (QTY 4).
- UNIT SUPPLIED WITH OUTLET CORÉ DRILLED. INLET/S CORE DRILLED
- ON SITE BY OTHERS WITHIN RANGE SHOWN ON DRAWING. SEALING / GROUTING OF MANHOLE COMPONENTS AND PIPES BY CONTRACTOR. ENSURING LOCAL CODES AND REGULATIONS ARE COMPLIED WITH.
- ANY RISERS REQUIRED TO INCREASE THE DEPTH TO INVERT (DTI) FROM THAT AS DRAWN TO BE SUPPLIED BY THE CONTRACTOR.
- FOR A DTI EXCEEDING 5m PLEASE CONTACT 0800STORMWATER.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT
- CARTRIDGES FROM CONSTRUCTION RELATED EROSION RUNOFF. BACKFILL, BEDDING AND BUOYANCY DESIGN BY ENGINEER OF RECORD
- QTY OF CARTRIDGES BY ENGINEER OF RECORD.
  CONCRETE MANHOLE RISERS ARE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH AS/NZS 4058: 2007
- CONCRETE MANHOLE BASES ARE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH NZS 3101: 2006 & NZS 3109: 1997
- CONCRETE LID DESIGNED AND MANUFACTURED TO HN-HO-72
- 12. FOR REQUIREMENTS OUTSIDE OF DRAWING SPECIFICATIONS PLEASE CONTACT 0800STORMWATER

MANHOLE SECTION INCLUDING CARTRIDGES: 1800 Kg (AS DELIVERED, BASED ON QTY 3 ZPG CARTS) LID WEIGHT : 550 Kg

> CONCEPT DESIGN NOT FOR CONSTRUCTION

B CONCEPT DESIGN
A FOR APPROVAL

S.Crundwell 10.03.20 J.Knox 20.03.20 Dwg Check K.Aulakh



PARK TERRACE RETIREMENT VILLAGE

PROPOSED DN1050 STORMWATER 360 TREATMENT **DEVICE** 

CIVIL ENGINEERING 038-RCT 401 C4-061

TO BE COMPLETED BY CUSTOMER / CONTRACTOR

	,							
TO BE COMPLETED BY SW360								
SW360 PRODUCT CODE :	SW360 PRODUCT CODE:							
MEDIA TYPE (CIRCLE ONE):	MEDIA TYPE (CIRCLE ONE): PERLITE ZPG OTHER:							
CARTRIDGE QTY (STATE):	CARTRIDGE QTY (STATE):							
SP FLOW RATE (CIRCLE ONE):	FULL (Ø 22.7 ID) YELLOW	3 QTR (Ø 19.7 ID) GREEN	HALF (Ø 16.2 ID) BLUE	OTHER:				
ACCESS COVER (CIRCLE ONE):	VER (CIRCLE ONE): 900 x 900 WEB-FORGE / CLASS D							
COMPLETED BY :	SIGNED :		DATE:					

OUTLET PIPE (IL)

SIGNED:

# **SW360 PRODUCTION DATA OUTLET HOLE DETAILS:** (CIRCLE REQUIREMENT) OUTLET DIM (A) HOLE Ø 130 120 1100 (NOMINAL) 200 145 225 165 275 190 300 180 350 220 **DWG ISSUE No.: REQUIRED DATE:**

LID LEVEL (RL):

COMPLETED BY:

## **NOTES**

DTI:

DATE:

- MANHOLE UNIT FITTED WITH SWIFTLIFT ANCHOR POINTS (QTY 2). DO NOT EXCEED 60 DEGREE LIFT ANGLE. CONCRETE LID FITTED WITH SWIFTLIFT ANCHOR POINTS (QTY 4).
- UNIT SUPPLIED WITH OUTLET CORÉ DRILLED. INLET/S CORE DRILLED ON SITE BY OTHERS WITHIN RANGE SHOWN ON DRAWING.
- SEALING / GROUTING OF MANHOLE COMPONENTS AND PIPES BY CONTRACTOR. ENSURING LOCAL CODES AND REGULATIONS ARE COMPLIED WITH.
- ANY RISERS REQUIRED TO INCREASE THE DEPTH TO INVERT (DTI)
- FROM THAT AS DRAWN TO BE SUPPLIED BY THE CONTRACTOR. FOR A DTI EXCEEDING 5m PLEASE CONTACT 0800STORMWATER.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT
- CARTRIDGES FROM CONSTRUCTION RELATED EROSION RUNOFF.
- BACKFILL, BEDDING AND BUOYANCY DESIGN BY ENGINEER OF RECORD
- QTY OF CARTRIDGES BY ENGINEER OF RECORD.
  CONCRETE MANHOLE RISERS ARE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH AS/NZS 4058: 2007
- CONCRETE MANHOLE BASES ARE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH NZS 3101: 2006 & NZS 3109: 1997
- CONCRETE LID DESIGNED AND MANUFACTURED TO HN-HO-72
- 12. FOR REQUIREMENTS OUTSIDE OF DRAWING SPECIFICATIONS PLEASE CONTACT 0800STORMWATER.

#### **APPROX WEIGHTS**

MANHOLE SECTION INCLUDING CARTRIDGES: 1400 Kg (AS DELIVERED, BASED ON QTY 1 ZPG CARTS) LID WEIGHT: 500 Kg

> CONCEPT DESIGN NOT FOR CONSTRUCTION

B CONCEPT DESIGN
A FOR APPROVAL

HATCHED AREA INDICATES **INLET RANGE** 

DEVICE CAN ACCEPT

MORE THAN 1 INLET

INLET PIPE (BY OTHERS)

POSITION MAY VARY

**INLET HOLE** 

(BY OTHERS)

900 x 900 ACCESS COVER-

CLASS D (BY SW360)

- (MIN)

INLET IL

LOCATION OF DN900

ACCESS HOLE IN LID

**FINISHED** 

SURFACE LEVEL

(GRADE)

**TAILWATER** 

LEVEL

(MAX)

INLET ÍL

**III** Beca

**PLAN** (ACCESS COVER AND LID REMOVED)

> FLOATABLES BAFFLE

> > Ø 1050 N.B.

**ELEVATION** 

J.Knox

INDICATES LIMIT OF INLET RANGE

(120° FROM INLET AS DRAWN)

**OUTLET PIPE** 

(BY OTHERS) FIXED POSITION

INDICATES LIMIT OF INLET RANGE (120° FROM INLET AS DRAWN)

- DN1050 x 150 LID

CONCENTRIC Ø 900 HOLE

(BY SW360)

40)

AS SUPPLIED (-0

1235 DTI

**OUTLET PIPE** 

(BY OTHERS)

(DRIVING HEAD)

**1065 DTI** MIN ALLOWABLE (RISER CUT BY OTHERS)

OUTLET

**INVERT** 

OUTLET HOLE

CONCENTRIC TO PIPE

(BY SW360) MAXIMUM 1 x 69CM

STORMFILTER

CARTRIDGES

**OVERFLOW RISER** 

30cm FILTER



PARK TERRACE RETIREMENT VILLAGE

PROPOSED DN1200 STORMWATER 360 TREATMENT **DEVICE** 

CIVIL ENGINEERING 038-RCT 401 C4-062