

**LEGEND**

**WASTEWATER DESIGN**

- WASTEWATER DESIGN
- FLOW DIRECTION
- STAGE 1 BOUNDARY
- SUBCATCHMENT BOUNDARY

**FOR CONSTRUCTION**

**CONTROLLED COPY**

Date Issued: 21 May 2015

Project Manager: Tom Hogan

Signed:

DESIGNED	C. Cadogan	CC	19.12.2012	APPROVED	
DES. REVIEW	A. Ingles	AI	19.12.2012	FOR RECOMMENDATION	
DRAWN	S. Sutton	SS	19.12.2012	DATE	SIGNED
DRW. CHECK	N. Locke	NBL	19.12.2012	19.12.2012	GT
FILE LOCATION	[10995-DE-WW-DG-1001.dwg]				
PRINTED ON	19-Dec-12	BY	gainsford	DATE	SIGNED
				19.12.2012	GT

CONSULTANT

**SCIRT**

Rebuilding Infrastructure

CONSULTANT FILE REF.  
10995-DE-WW-DG-1001

PROJECT TITLE

**INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1**

DRAWING TITLE

**WASTEWATER  
SUBCATCHMENT  
PLAN**

SCIRT PROJECT REF. 10995	ORIGINAL SHEET SIZE A1	SCALES 1:2500
CPG CAD DRAWING FILE REF. ---	DRAWING No. WW1001	
CPG PROJECT FILE NUMBER ---		

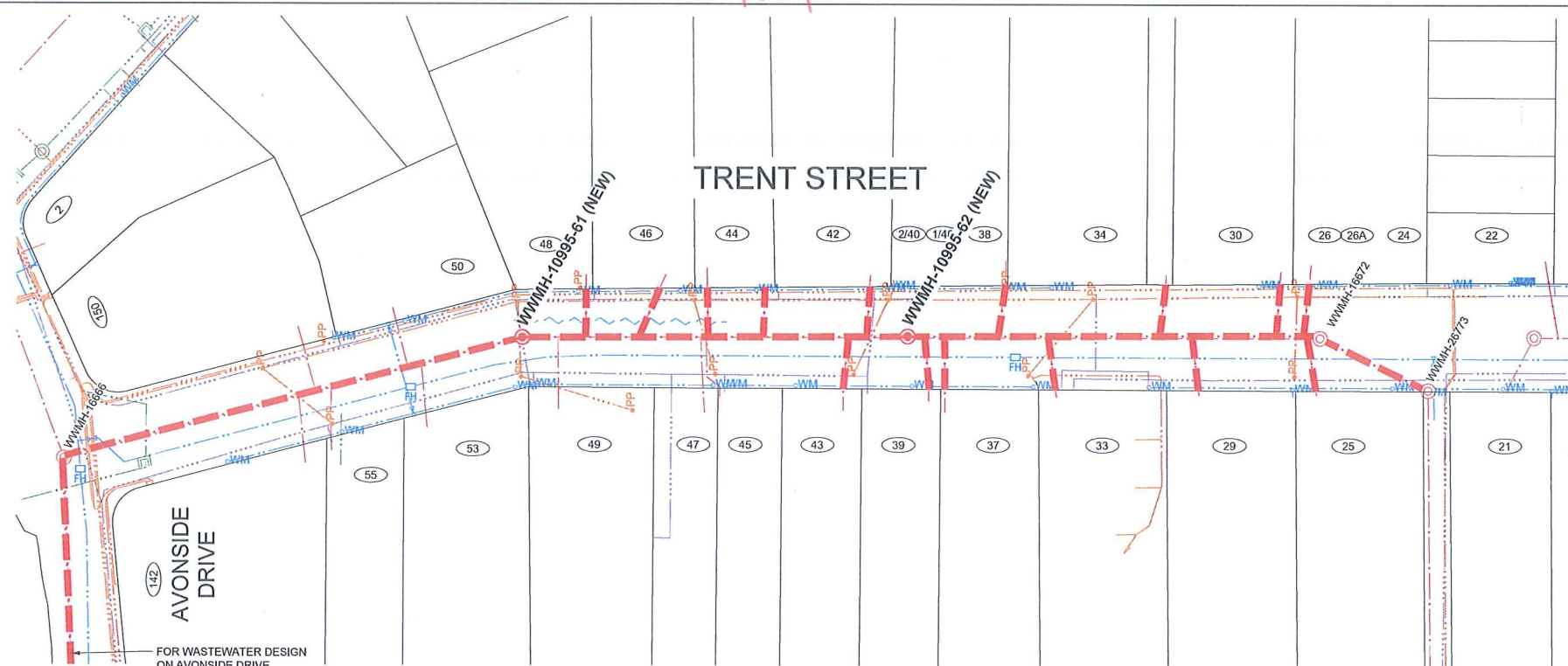
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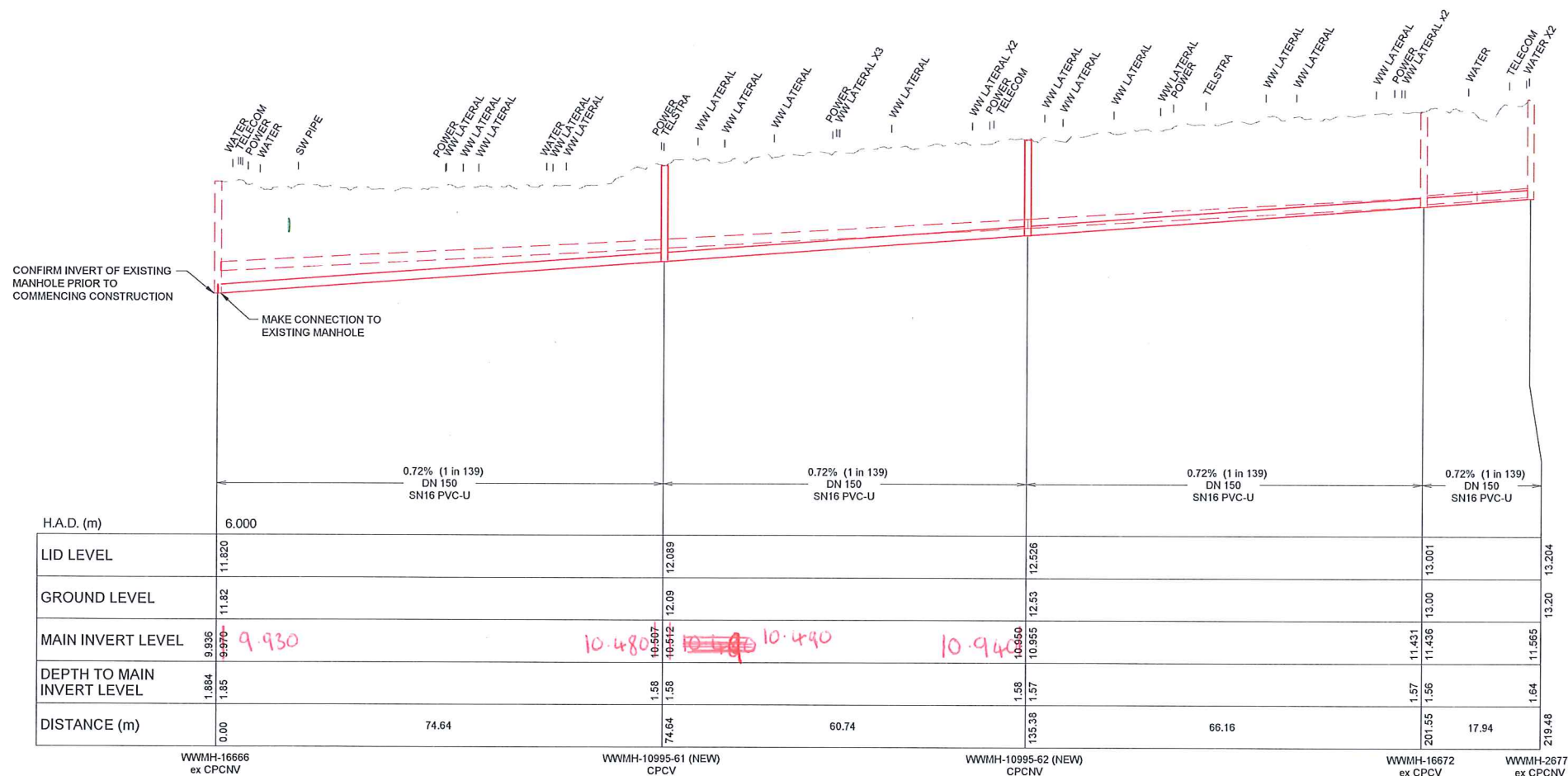




As per plan



PLAN



WWMH-16666 to WWMH-26773

LONGITUDINAL SECTION

LEGEND	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER PREV. ABANDONED
---	WATER SUPPLY
---	WATER SUPPLY PREV. ABANDONED
---	STORMWATER
---	POWER (& High Voltage Indicated)
---	TELECOMS
---	FIBRE OPTIC NETWORK
---	GAS
---	POWER POLE
---	WATER SUPPLY VALVES
---	FIRE HYDRANT
---	MANHOLES
---	SINGLE SUMP (SS), DOUBLE SUMP (DS)
---	WWMH 17900
---	MANHOLE ID
WASTEWATER DESIGN	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER (RELINED)
---	WASTEWATER LINE TO BE ABANDONED
---	MANHOLE, VENTED MANHOLE
LONG SECTION VIEW	
---	WASTEWATER EXISTING
---	WASTEWATER DESIGN
---	EXISTING SURFACE
---	DESIGN SURFACE

- NOTES
- REFER TO CONSTRUCTION STANDARD SPECIFICATION, CSS PARTS 1-7 AND INFRASTRUCTURE DESIGN STANDARD (IDS) FOR STANDARD DETAILS AND SPECIFICATIONS.
  - CONFIRM ALL PIPE / MANHOLE LEVELS AND LOCATIONS AFFECTING DESIGN PRIOR TO START OF CONSTRUCTION.
  - THE LEVELS AND LOCATIONS OF EXISTING SERVICES ARE APPROXIMATE ONLY. CARRY OUT FURTHER INVESTIGATION TO DETERMINE EXACT DEPTH AND LOCATION OF EXISTING SERVICES.
  - NOMINAL COVERS FOR SERVICES ARE:  
TELSTRA/TELECOM 0.60  
ORION 0.60  
WATER SUBMAIN 0.50  
WATER MAIN 0.80
  - DISTANCES SHOWN ON LONG SECTIONS ARE BETWEEN THE CENTRELINE OF THE MANHOLES.
  - VERTICAL DATUM IS THE CHRISTCHURCH DRAINAGE DATUM (CDD). REFER TO SURVEY CONTROL PLAN FOR POSITION OF BMS AND LEVELS.
  - ALL COORDINATES ARE IN TERMS OF MT PLEASANT PROJECTION (NZGD2000).
  - LAY DN150 PVC-U COLLECTOR TO A MINIMUM GRADE OF 0.47% (1 in 213). MINIMUM COVER ON COLLECTOR IS 1.2m. COLLECTOR TO MANHOLE CONNECTIONS AS SHOWN ON SHEET WW4001. COLLECTOR LEVELS ARE TO BE CONFIRMED FOLLOWING EXPOSURE OF PRIVATE PROPERTY LATERALS AT BOUNDARY.
  - WASTEWATER LATERALS TO HAVE MINIMUM GRADE OF 1.25% (1 in 80) WITHIN THE ROAD CORRIDOR. LATERALS TO HAVE A MINIMUM GRADE OF 0.83% (1 in 120) WITHIN PRIVATE PROPERTY.
  - ALL LATERAL CONNECTIONS ARE TO BE "CONNECTION BY RAMPED RISER" OR "CONNECTION TO 45° SIDE JUNCTION" AS PER SD363. VERTICAL RISER JUNCTIONS ARE NOT TO BE USED.
  - HAUNCHING TO CSS SD344 / P.
  - CONSTRUCTION AND INSTALLATION OF ALL NEW MANHOLES SHALL BE TO CSS SD303 UNLESS STATED OTHERWISE.
  - PIPE JOINT WRAP DETAIL OF RUBBER RING JOINTED (RRJ) PIPE, REFER SHEET WW4001.
  - WHERE EXISTING RCRJ OR PVC PIPE IS EXPOSED, RECORD OBSERVATIONS OF THE CONDITION OF EXPOSED PIPE, JOINTS AND LATERALS USING THE "CONCURRENT WORKS DAMAGE INVESTIGATION FIELD FORM" AND PASS COMPLETED RECORDS BACK TO THE SCIRT DELIVERY TEAM MANAGER. DIRECT QUERIES TO YVONNE MACDONALD, PH. 021 279 6566
  - WHERE AN EXISTING PIPE IS SPECIFIED FOR ABANDONMENT TREATMENT SHALL BE EITHER REMOVED OR TREATED AS FOLLOWS:  
REMOVAL: ALL PIPES, INCLUDING LATERALS, SHALL BE REMOVED AND THE TRENCH BACKFILLED TO THE REQUIREMENTS OF CSS PART 127.0.  
FILL: FILLING SHALL BE WITH A FLOWABLE FILL OR CONCRETE WITH STRENGTH OF 15 MPa. THE VOLUME OF MATERIAL INSERTED INTO THE PIPE SHALL BE EQUAL TO OR GREATER THAN THE VOLUME OF PIPE TO BE ABANDONED. BEFORE FILLING COMMENCES ALL CONNECTIONS TO THE PIPE SHALL BE SEALED OR THE VOLUME OF CONNECTED PIPES INCLUDED IN THE VOLUME OF MATERIAL INSERTED.

THE DESIGNER IS TO PROVIDE COORDINATES FOR THE LOCATION OF SUMPS, MANHOLES AND OUTLETS AS REQUIRED, AT THE TIME OF CONSTRUCTION

FOR CONSTRUCTION

New Zealand Government

Christchurch City Council

DESIGNED	C. Cadogan	CC	19.12.2012
DES. REVIEW	A. Inglis	AI	19.12.2012
DRAWN	S. Sutton	SS	19.12.2012
DRW. CHECK	N. Locke	NBL	19.12.2012
FILE LOCATION: \\10995-DE-WW-DG-2001.dwg			
PRINTED ON: 19-Dec-12 BY: galsfordb			

APPROVED	
FOR RECOMMENDATION	
DATE	SIGNED
19.12.2012	GT
FOR CONSTRUCTION	
DATE	SIGNED
19.12.2012	GT

CONSULTANT	
<b>SCIRT</b> Rebuilding Infrastructure	
CONSULTANT FILE REF.	
10995-DE-WW-DG-2001	

PROJECT TITLE

INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
TRENT STREET

DRAWING TITLE

WASTEWATER  
PLAN & LONG SECTION

SCIRT PROJECT REF.	10995	ORIGINAL SHEET SIZE	A1	SCALES	1:500 HORIZ 1:50 VERT
CPG CAD DRAWING FILE REF.	---			DRAWING No.	WW2001
CPG PROJECT FILE NUMBER	---				





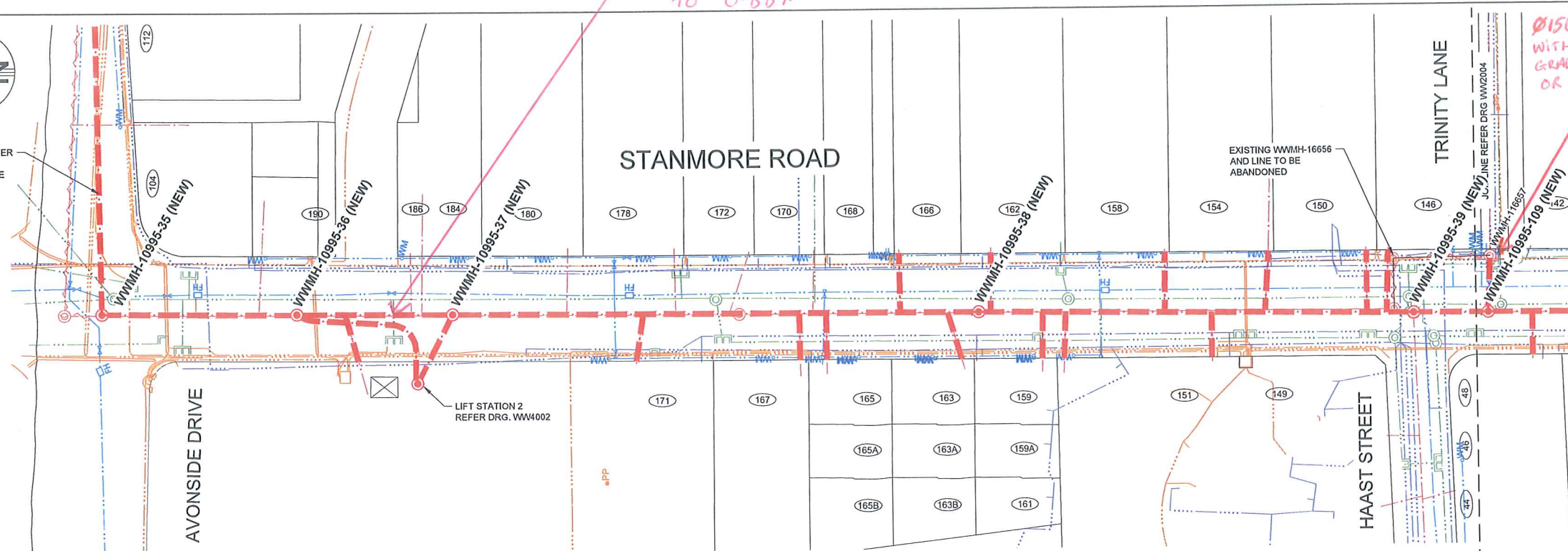


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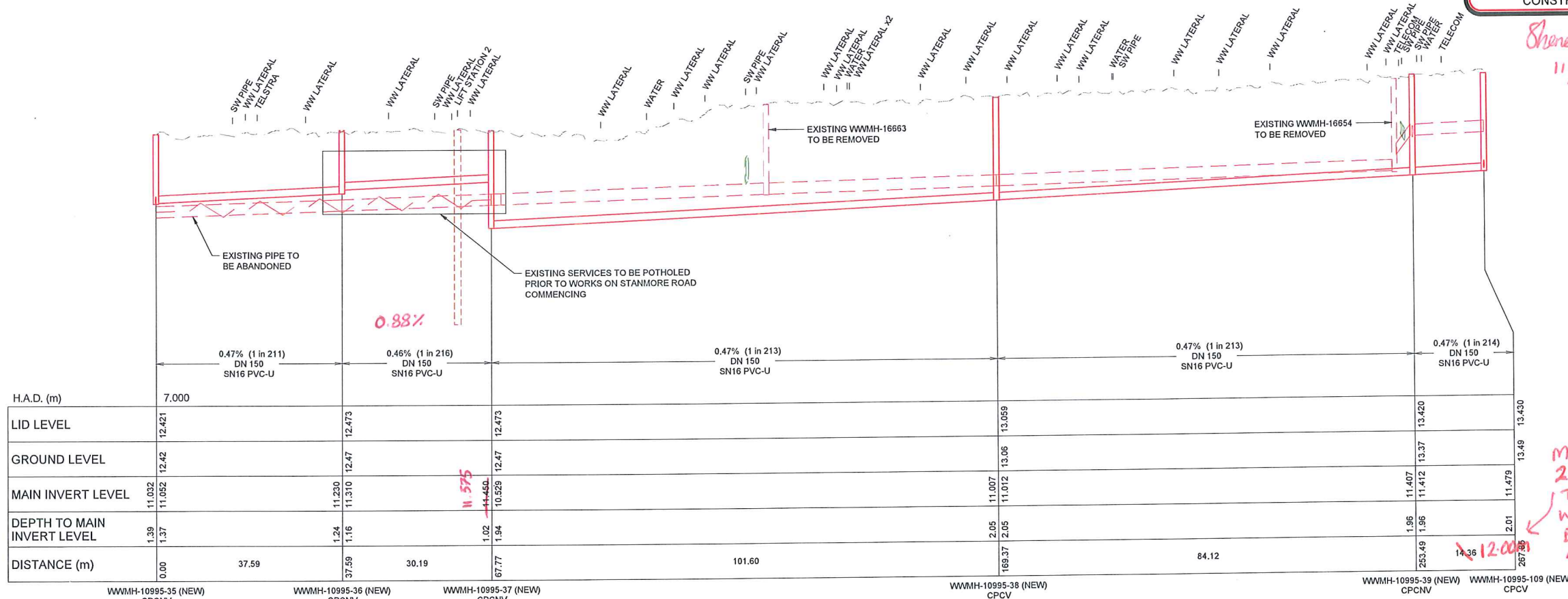
FOR WASTEWATER DESIGN ON AVONDSIDE DRIVE REFER TO DRG WW2002



PLAN

THE DESIGNER IS TO PROVIDE COORDINATES FOR THE LOCATION OF SUMPS, MANHOLES AND OUTLETS AS REQUIRED, AT THE TIME OF CONSTRUCTION

Shane & Suter  
11/09/14



LONGITUDINAL SECTION

WWMH-10995-35 to WWMH-10995-109

MH109 moved 2.36m NORTH TO AVOID A WATER VALVE BETWEEN MH109 AND MH16657

LEGEND	
SERVICES	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER PREV. ABANDONED
---	WATER SUPPLY
---	WATER SUPPLY PREV. ABANDONED
---	STORMWATER
---	POWER (& High Voltage Indicated)
---	TELECOMS
---	FIBRE OPTIC NETWORK
---	GAS
PP	POWER POLE
WM	WATER SUPPLY VALVES
FD	FIRE HYDRANT
○	MANHOLES
○	SINGLE SUMP (SS), DOUBLE SUMP (DS)
17900	MANHOLE ID
WASTEWATER DESIGN	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER (RELINED)
---	WASTEWATER LINE TO BE ABANDONED
○	MANHOLE, VENTED MANHOLE
LONG SECTION VIEW	
---	WASTEWATER EXISTING
---	WASTEWATER DESIGN
---	EXISTING SURFACE
---	DESIGN SURFACE

- NOTES
- REFER TO CONSTRUCTION STANDARD SPECIFICATION: CSS PARTS 1-7 AND INFRASTRUCTURE DESIGN STANDARD (IDS) FOR STANDARD DETAILS AND SPECIFICATIONS.
  - CONFIRM ALL PIPE / MANHOLE LEVELS AND LOCATIONS AFFECTING DESIGN PRIOR TO START OF CONSTRUCTION.
  - THE LEVELS AND LOCATIONS OF EXISTING SERVICES ARE APPROXIMATE ONLY. CARRY OUT FURTHER INVESTIGATION TO DETERMINE EXACT DEPTH AND LOCATION OF EXISTING SERVICES.
  - NOMINAL COVERS FOR SERVICES ARE:  
TELSTRA/TELCOM 0.60  
ORION 0.60  
WATER SUBMAIN 0.50  
WATER MAIN 0.60
  - DISTANCES SHOWN ON LONG SECTIONS ARE BETWEEN THE CENTRELINE OF THE MANHOLES.
  - VERTICAL DATUM IS THE CHRISTCHURCH DRAINAGE DATUM (CDD). REFER TO SURVEY CONTROL PLAN FOR POSITION OF BMs AND LEVELS.
  - ALL COORDINATES ARE IN TERMS OF MT PLEASANT PROJECTION (NZGD2000).
  - LAY DN150 PVC-U COLLECTOR TO A MINIMUM GRADE OF 0.47% (1 in 213). MINIMUM COVER ON COLLECTOR IS 1.2m. COLLECTOR TO MANHOLE CONNECTIONS AS SHOWN ON SHEET WW401. COLLECTOR LEVELS ARE TO BE CONFIRMED FOLLOWING EXPOSURE OF PRIVATE PROPERTY LATERALS AT BOUNDARY.
  - WASTEWATER LATERALS TO HAVE MINIMUM GRADE OF 1.25% (1 in 80) WITHIN THE ROAD CORRIDOR. LATERALS TO HAVE A MINIMUM GRADE OF 0.83% (1 in 120) WITHIN PRIVATE PROPERTY.
  - ALL LATERAL CONNECTIONS ARE TO BE 'CONNECTION BY RAMPED RISER' OR 'CONNECTION TO 45° SIDE JUNCTION' AS PER SD363. VERTICAL RISER JUNCTIONS ARE NOT TO BE USED.
  - HAUNCHING TO CSS SD344 / P.
  - CONSTRUCTION AND INSTALLATION OF ALL NEW MANHOLES SHALL BE TO CSS SD303 UNLESS STATED OTHERWISE.
  - PIPE JOINT WRAP DETAIL OF RUBBER RING JOINTED (RRJ) PIPE, REFER SHEET WW401.
  - WHERE EXISTING RCRRJ OR PVC PIPE IS EXPOSED, RECORD OBSERVATIONS OF THE CONDITION OF EXPOSED PIPE, JOINTS AND LATERALS USING THE 'CONCURRENT WORKS DAMAGE INVESTIGATION FIELD FORM' AND PASS COMPLETED RECORDS BACK TO THE SCIRT DELIVERY TEAM MANAGER. DIRECT QUERIES TO YVONNE MACDONALD, PH. 021 279 6566.
  - WHERE AN EXISTING PIPE IS SPECIFIED FOR ABANDONMENT TREATMENT SHALL BE EITHER REMOVED OR TREATED AS FOLLOWS.  
REMOVAL: ALL PIPES, INCLUDING LATERALS, SHALL BE REMOVED AND THE TRENCH BACKFILLED TO THE REQUIREMENTS OF CSS PART 1.27.0.  
FILLED: FILLING SHALL BE WITH A FLOWABLE FILL OR CONCRETE WITH STRENGTH OF 1.5 MPa. THE VOLUME OF MATERIAL INSERTED INTO THE PIPE SHALL BE EQUAL TO OR GREATER THAN THE VOLUME OF PIPE TO BE ABANDONED. BEFORE FILLING COMMENCES ALL CONNECTIONS TO THE PIPE SHALL BE SEALED OR THE VOLUME OF CONNECTED PIPES INCLUDED IN THE VOLUME OF MATERIAL INSERTED.

FOR CONSTRUCTION

New Zealand Government



NAME			SIGNED	DATE	APPROVED	
DESIGNED	C. Cadogan		CC	19.12.2012	FOR RECOMMENDATION	
DES. REVIEW	A. Inglis		AI	19.12.2012	DATE	SIGNED
DRAWN	S. Sutton		SS	19.12.2012	19.12.2012	GT
DRWL CHECK	N. Locke		NBL	19.12.2012		
FILE LOCATION	110103 Avonside Linwood Stage 1 (\\WS\B\VS\RG\Drawings)				FOR CONSTRUCTION	
	10995-DE-WW-DG-2003.dwg				DATE	SIGNED
PRINTED ON 19-Dec-12 BY gairnsford				19.12.2012	GT	



CONSULTANT FILE REF.  
10995-DE-WW-DG-2003

INFRASTRUCTURE REBUILD  
AVONDSIDE - LINWOOD STAGE 1  
STANMORE ROAD

WASTEWATER  
PLAN & LONG SECTION  
SHEET 1

SCIRT PROJECT REF.	ORIGINAL SHEET SIZE	SCALES
10995	A1	1:500 HORIZ 1:50 VERT
CPG CAD DRAWING FILE REF.	CPG PROJECT FILE NUMBER	DRAWING No.
-	-	WW2003

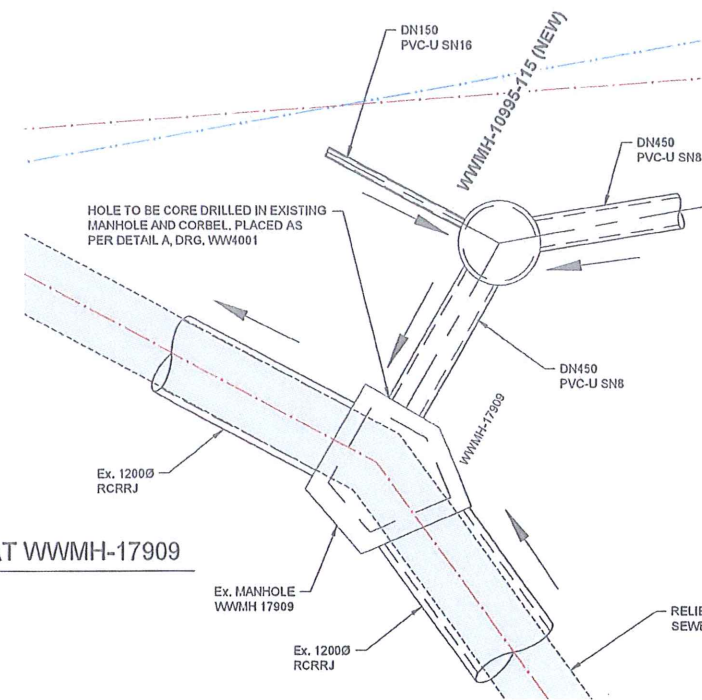
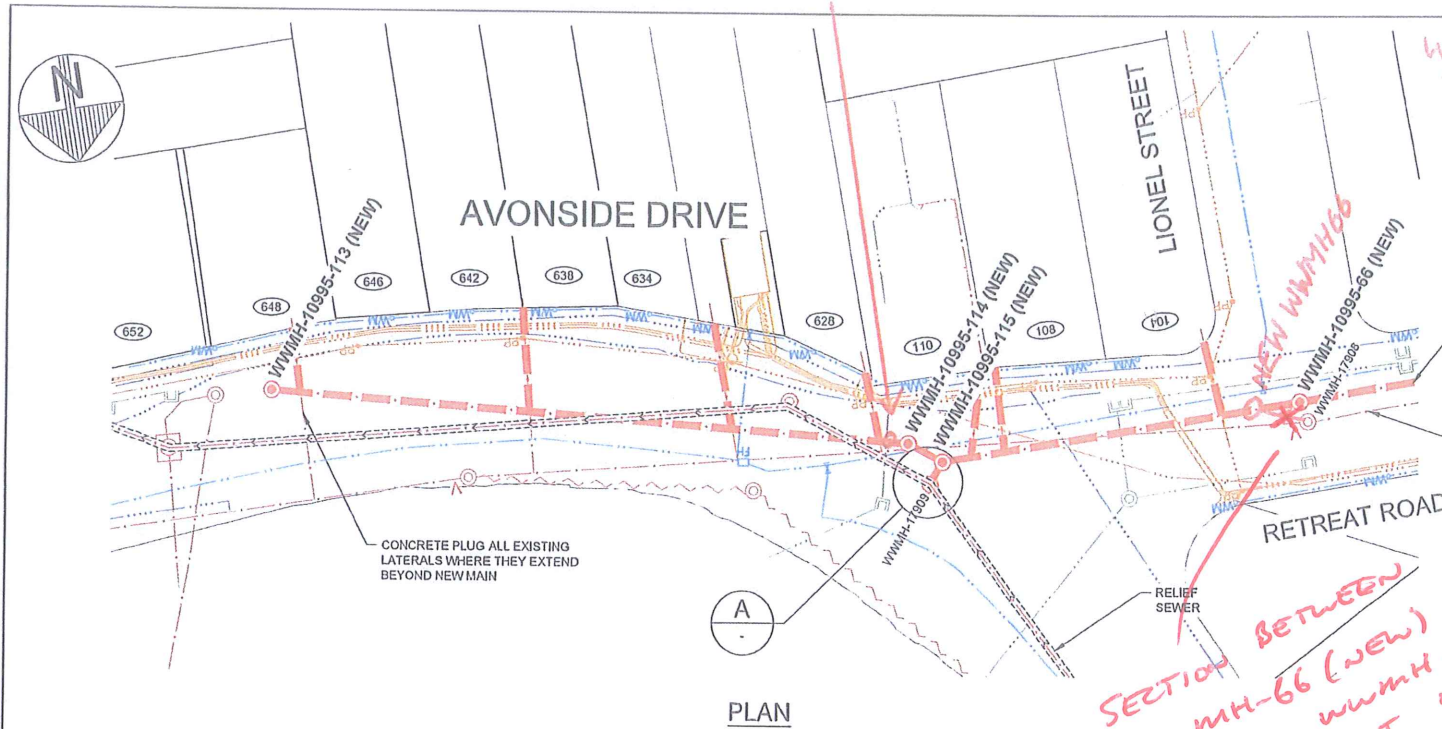




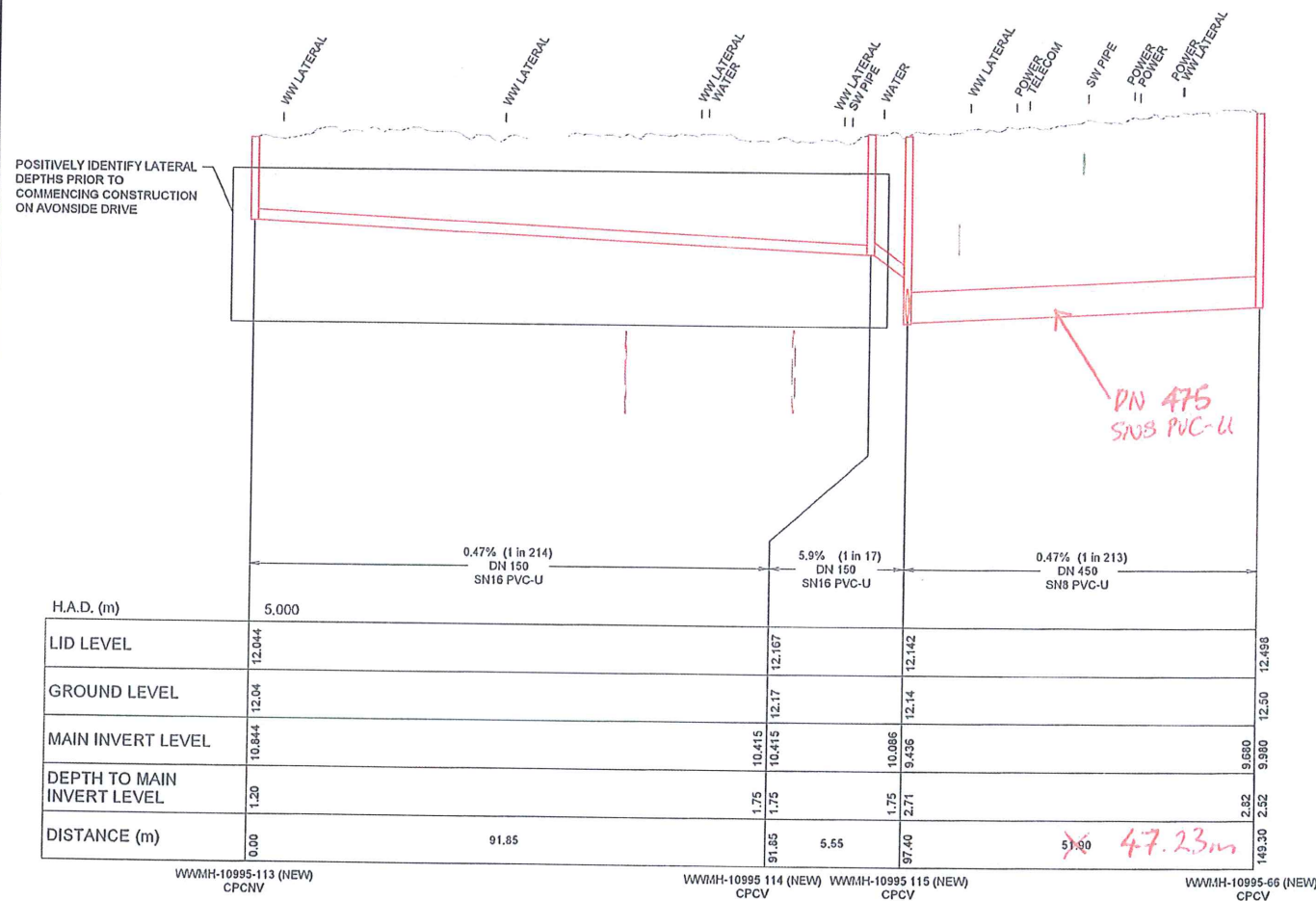


MH114 MOVED BACK 0.7m  
TO AVOID CLASHING WITH THE Ø150 WATER MAIN.

WWMH 66 MOVED BACK 4.67m DOWNSTREAM  
THERE IS A Ø475 SN8 PVC PIPE BETWEEN  
EX WWMH 17908 AND NEW WWMH 66.

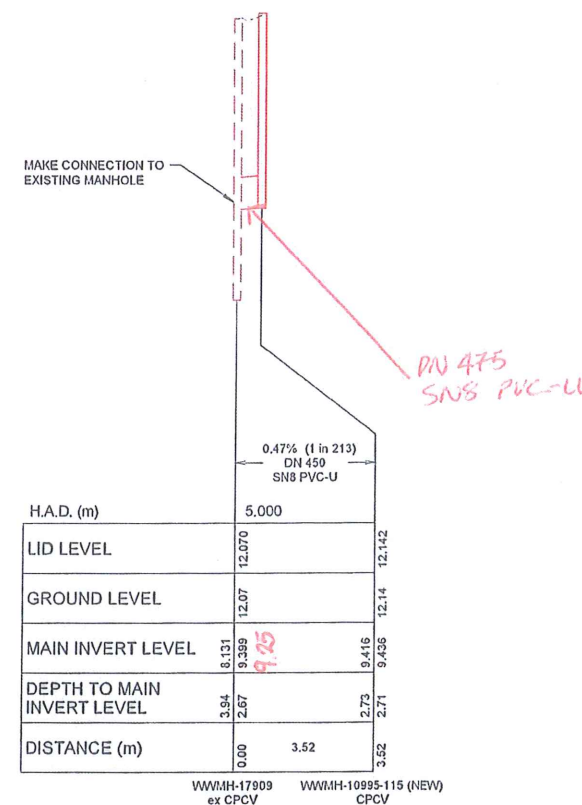


A DETAIL AT WWMH-17909  
SCALE 1:50



WWMH-10995-113 to WWMH-10995-66

LONGITUDINAL SECTIONS



WWMH-17909 to WWMH-10995-115

LEGEND	
WASTEWATER	WASTEWATER (PRESSURE)
WASTEWATER PREV. ABANDONED	WATER SUPPLY
WATER SUPPLY PREV. ABANDONED	STORMWATER
POWER (A High Voltage Indicated)	TELECOMS
FIBRE OPTIC NETWORK	GAS
POWER POLE	WATER SUPPLY VALVES
FIRE HYDRANT	MANHOLES
SINGLE SUMP (SS), DOUBLE SUMP (DS)	MANHOLE ID
WWMH 17900	
WASTEWATER DESIGN	
WASTEWATER	WASTEWATER (PRESSURE)
WASTEWATER (RELINED)	WASTEWATER LINE TO BE ABANDONED
MANHOLE, VENTED MANHOLE	
LONG SECTION VIEW	
WASTEWATER EXISTING	WASTEWATER DESIGN
EXISTING SURFACE	DESIGN SURFACE

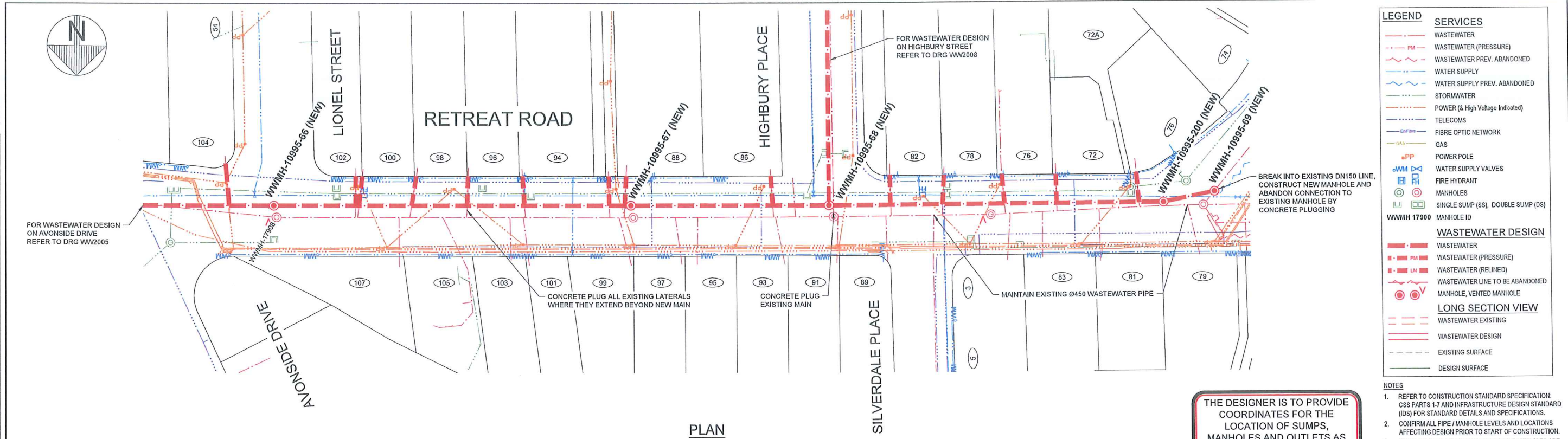
- NOTES
- REFER TO CONSTRUCTION STANDARD SPECIFICATION, CSS PARTS 1-7 AND INFRASTRUCTURE DESIGN STANDARD (IDS) FOR STANDARD DETAILS AND SPECIFICATIONS.
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ORION 0.60  
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  - WASTEWATER LATERALS TO HAVE MINIMUM GRADE OF 1.25% (1 in 80) WITHIN THE ROAD CORRIDOR. LATERALS TO HAVE A MINIMUM GRADE OF 0.83% (1 in 120) WITHIN PRIVATE PROPERTY.
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REMOVAL: ALL PIPES, INCLUDING LATERALS, SHALL BE REMOVED AND THE TRENCH BACKFILLED TO THE REQUIREMENTS OF CSS PART 1.27.0.  
FILLING: FILLING SHALL BE WITH A FLOWABLE FILL OR CONCRETE WITH STRENGTH OF 15 MPa. THE VOLUME OF MATERIAL INSERTED INTO THE PIPE SHALL BE EQUAL TO OR GREATER THAN THE VOLUME OF PIPE TO BE ABANDONED. BEFORE FILLING COMMENCES ALL CONNECTIONS TO THE PIPE SHALL BE SEALED OR THE VOLUME OF CONNECTED PIPES INCLUDED IN THE VOLUME OF MATERIAL INSERTED.

Shondalee  
11/09/14

THE DESIGNER IS TO PROVIDE  
COORDINATES FOR THE  
LOCATION OF SUMPS,  
MANHOLES AND OUTLETS AS  
REQUIRED, AT THE TIME OF  
CONSTRUCTION

FOR CONSTRUCTION





**LEGEND**

**SERVICES**

- WASTEWATER
- WASTEWATER (PRESSURE)
- WASTEWATER PREV. ABANDONED
- WATER SUPPLY
- WATER SUPPLY PREV. ABANDONED
- STORMWATER
- POWER (& High Voltage Indicated)
- TELECOMS
- FIBRE OPTIC NETWORK
- GAS
- POWER POLE
- WATER SUPPLY VALVES
- FIRE HYDRANT
- MANHOLES
- SINGLE SUMP (SS), DOUBLE SUMP (DS)
- MANHOLE ID

**WASTEWATER DESIGN**

- WASTEWATER
- WASTEWATER (PRESSURE)
- WASTEWATER (RELINED)
- WASTEWATER LINE TO BE ABANDONED
- MANHOLE, VENTED MANHOLE

**LONG SECTION VIEW**

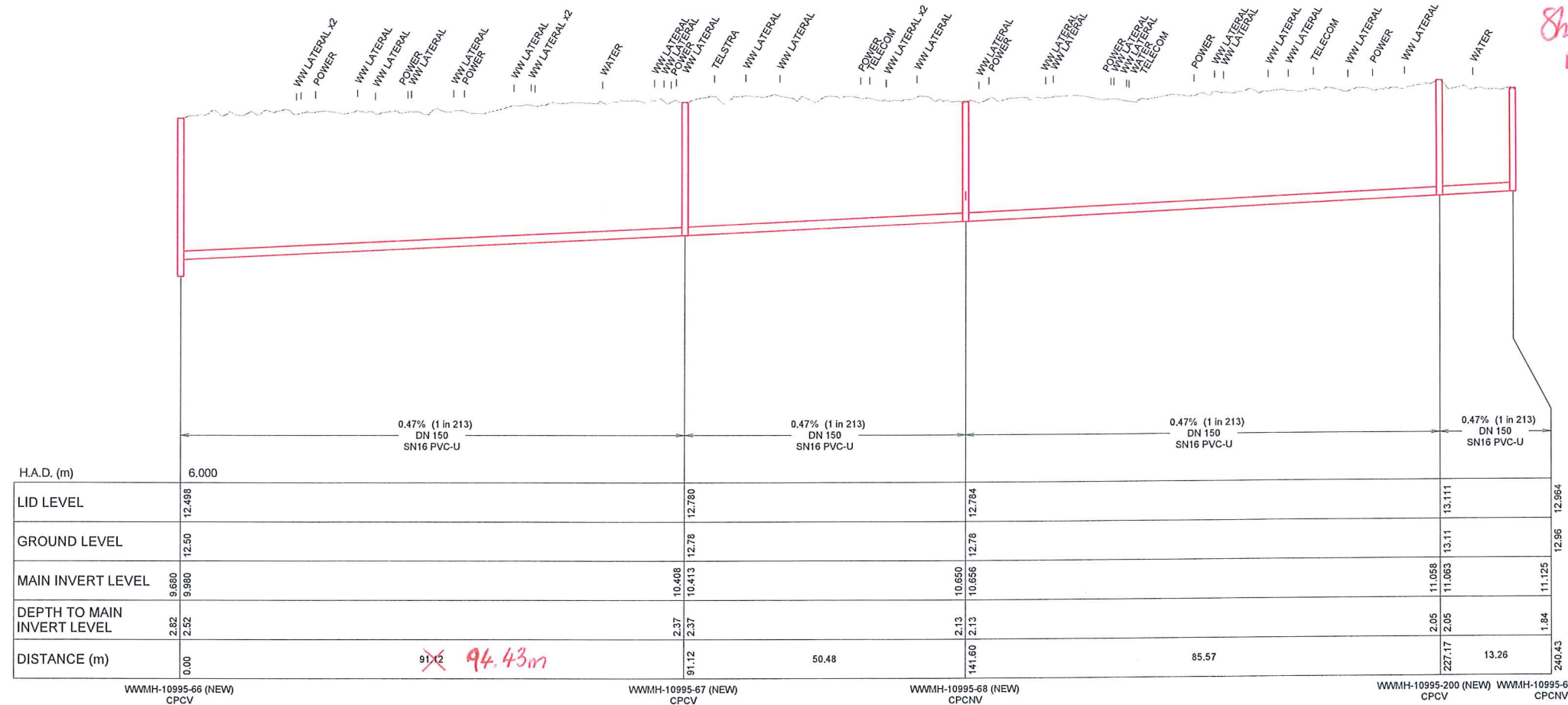
- WASTEWATER EXISTING
- WASTEWATER DESIGN
- EXISTING SURFACE
- DESIGN SURFACE

- NOTES
- REFER TO CONSTRUCTION STANDARD SPECIFICATION: CSS PARTS 1-7 AND INFRASTRUCTURE DESIGN STANDARD (IDS) FOR STANDARD DETAILS AND SPECIFICATIONS.
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REMOVAL: ALL PIPES, INCLUDING LATERALS, SHALL BE REMOVED AND THE TRENCH BACKFILLED TO THE REQUIREMENTS OF CSS PART 1:27.0.  
FILLED: FILLING SHALL BE WITH A FLOWABLE FILL OR CONCRETE WITH STRENGTH OF 1.5 MPa. THE VOLUME OF MATERIAL INSERTED INTO THE PIPE SHALL BE EQUAL TO OR GREATER THAN THE VOLUME OF PIPE TO BE ABANDONED. BEFORE FILLING COMMENCES ALL CONNECTIONS TO THE PIPE SHALL BE SEALED OR THE VOLUME OF CONNECTED PIPES INCLUDED IN THE VOLUME OF MATERIAL INSERTED.

THE DESIGNER IS TO PROVIDE COORDINATES FOR THE LOCATION OF SUMPS, MANHOLES AND OUTLETS AS REQUIRED, AT THE TIME OF CONSTRUCTION

Shane Bullock  
11/09/14



WWMH-10995-66 to WWMH-10995-69 LONGITUDINAL SECTIONS

FOR CONSTRUCTION

DESIGNED	C. Cadogan	CC	19.12.2012	FOR RECOMMENDATION
DES. REVIEW	A. Inglis	AI	19.12.2012	DATE
DRAWN	S. Sutton	SS	19.12.2012	GT
DRW. CHECK	N. Locke	NSL	19.12.2012	FOR CONSTRUCTION
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PRINTED ON	19-Dec-12 BY gairford			

CONSULTANT FILE REF.  
10995-DE-WW-DG-2006

PROJECT TITLE  
INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
RETREAT ROAD

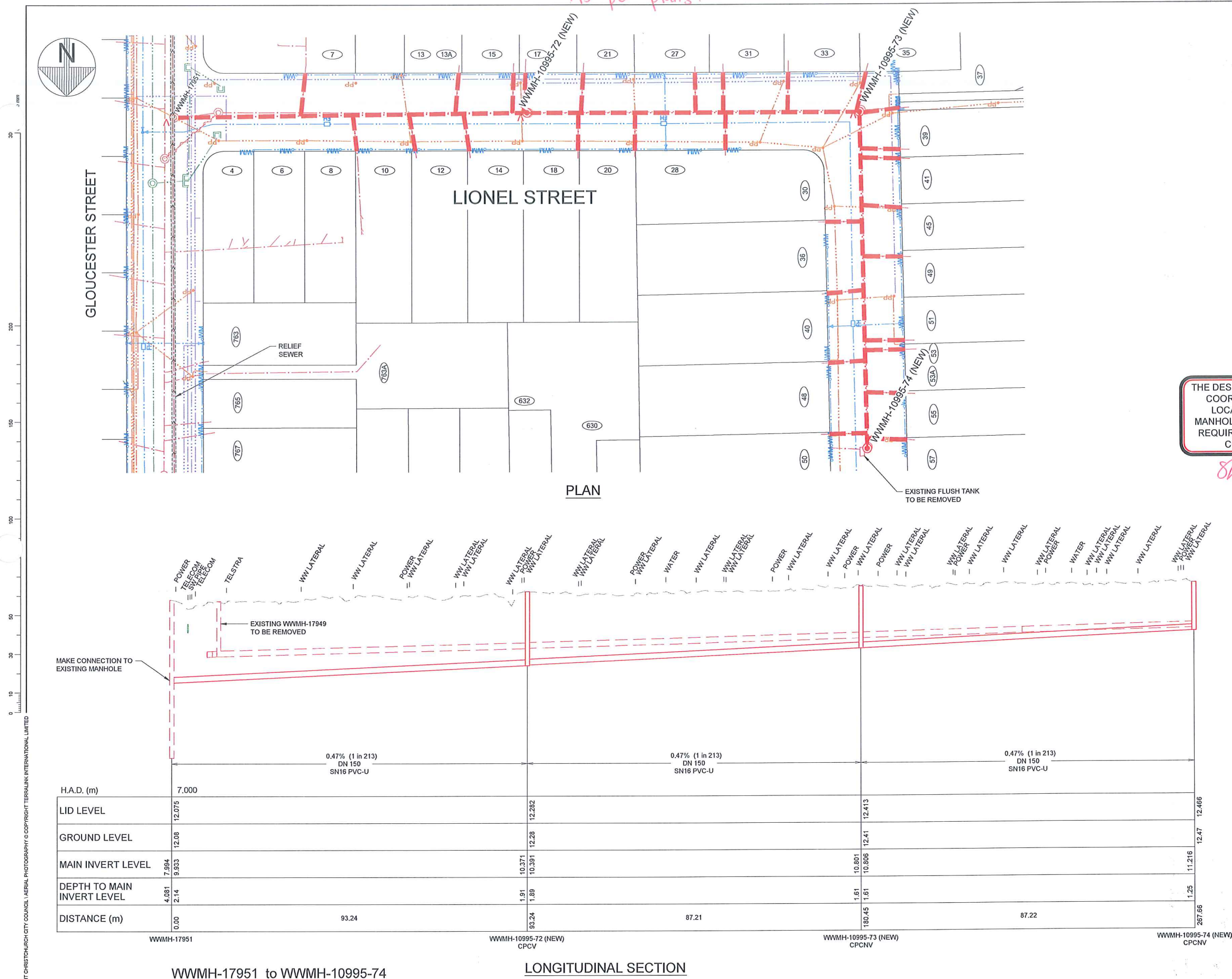
DRAWING TITLE  
WASTEWATER  
PLAN & LONG SECTION

SCIRT PROJECT REF. 10995	ORIGINAL SHEET SIZE A1	SCALES 1:500 HORIZ 1:50 VERT
CFG CAD DRAWING FILE REF. ---	CFG PROJECT FILE NUMBER ---	DRAWING No. WW2006

1	ISSUED FOR CONSTRUCTION	GT	19.12.2012
ISSUE	AMENDMENTS	SIGNED	DATE



As per plans.



LEGEND	
SERVICES	
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER PREV. ABANDONED
	WATER SUPPLY
	WATER SUPPLY PREV. ABANDONED
	STORMWATER
	POWER (& High Voltage Indicated)
	TELECOMS
	FIBRE OPTIC NETWORK
	GAS
	POWER POLE
	WATER SUPPLY VALVES
	FIRE HYDRANT
	MANHOLES
	SINGLE SUMP (SS), DOUBLE SUMP (DS)
WWW-MH 17900 MANHOLE ID	
WASTEWATER DESIGN	
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER PREV. ABANDONED
	WASTEWATER LINE TO BE ABANDONED
	MANHOLE, VENTED MANHOLE
LONG SECTION VIEW	
	WASTEWATER EXISTING
	WASTEWATER DESIGN
	EXISTING SURFACE
	DESIGN SURFACE

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TELSTRA/TEL.COM	0.60
ORION	0.60
WATER SUBMAIN	0.50
WATER MAIN	0.80
  - DISTANCES SHOWN ON LONG SECTIONS ARE BETWEEN THE CENTRELINE OF THE MANHOLES.
  - VERTICAL DATUM IS THE CHRISTCHURCH DRAINAGE DATUM (CDD). REFER TO SURVEY CONTROL PLAN FOR POSITION OF BMs AND LEVELS.
  - ALL COORDINATES ARE IN TERMS OF MT PLEASANT PROJECTION (NZGD2000).
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FOR CONSTRUCTION

New Zealand Government

Christchurch City Council

DESIGNED	NAME	SIGNED	DATE
DES. REVIEW	C. Cadogan	CC	19.12.2012
DRAWN	A. Ingles	AI	19.12.2012
DRW. CHECK	S. Sutton	SS	19.12.2012
FILE LOCATION	N. Locke	NBL	19.12.2012
PRINTED ON	19-Dec-12	BY gairfordb	

APPROVED	DATE
FOR RECOMMENDATION	19.12.2012
GT	
FOR CONSTRUCTION	19.12.2012
GT	

CONSULTANT	CONSULTANT FILE REF.
SCIRT	10995-DE-WW-DG-2007
Rebuilding Infrastructure	

PROJECT TITLE

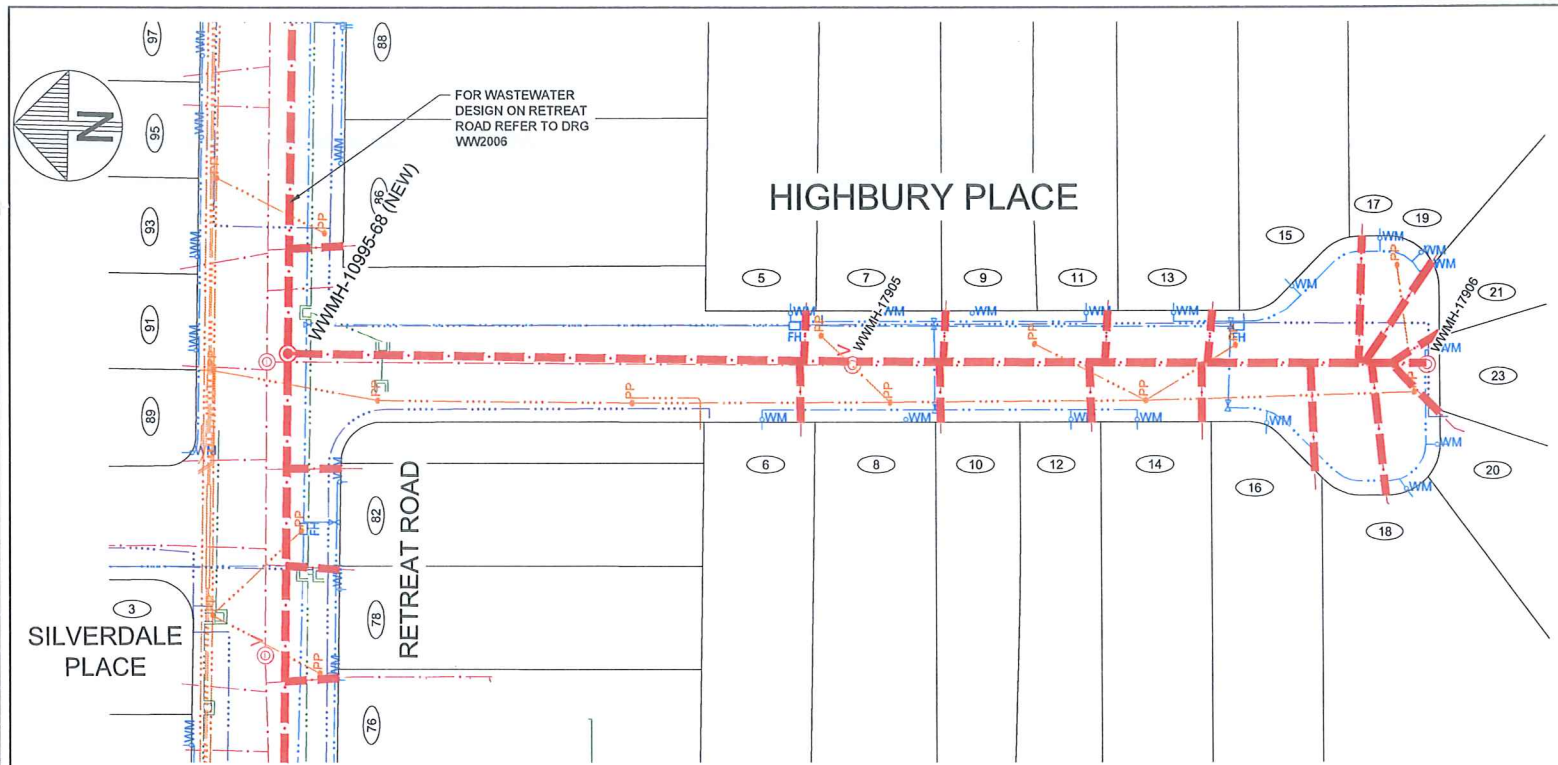
INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
LIONEL STREET

DRAWING TITLE

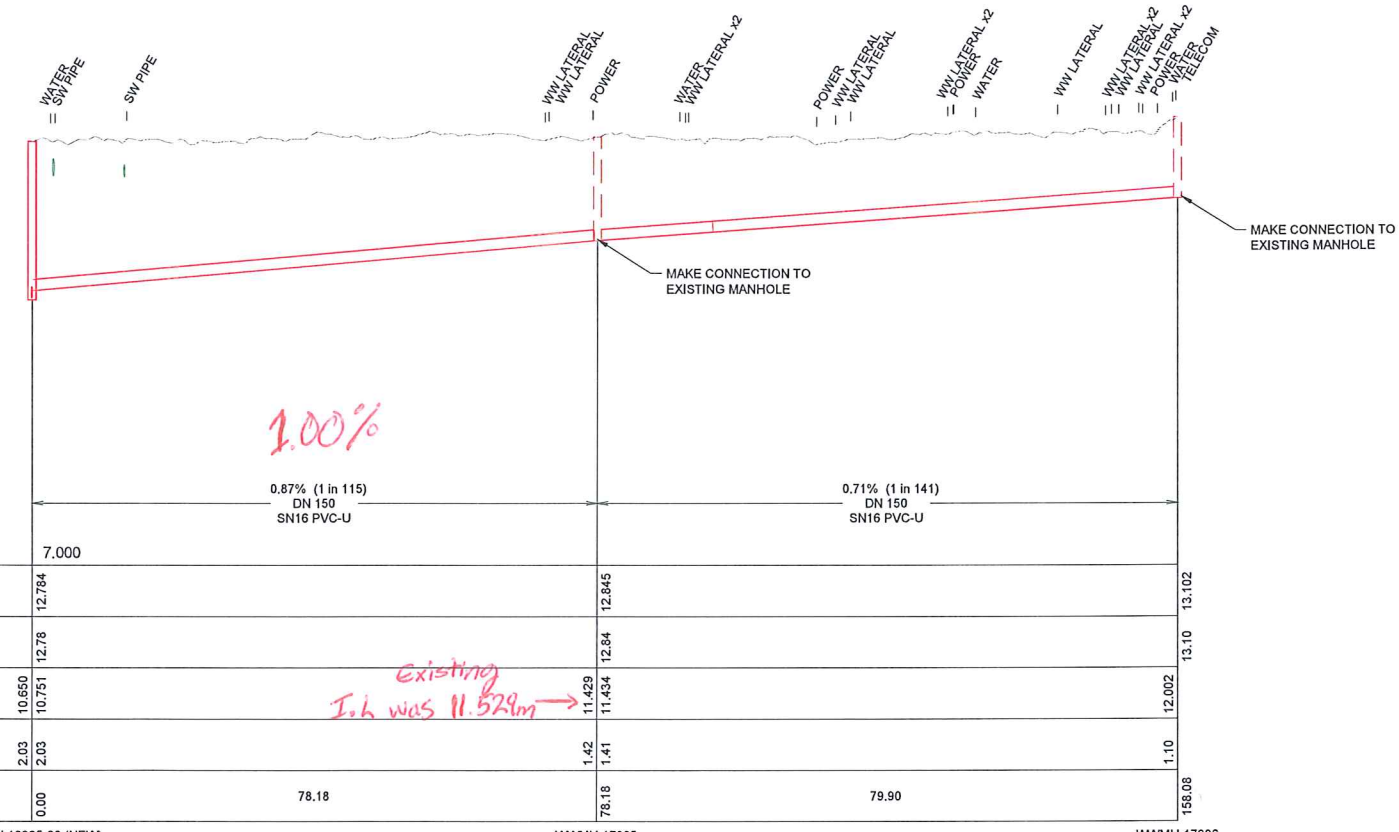
WASTEWATER  
PLAN & LONG SECTION

SCIRT PROJECT REF.	ORIGINAL SHEET SIZE	SCALES
10995	A1	1:500 HORIZ 1:50 VERT
CPG CAD DRAWING FILE REF.	CPG PROJECT FILE NUMBER	DRAWING No.
		WW2007





PLAN



LONGITUDINAL SECTION

**LEGEND**

**SERVICES**

- WASTEWATER
- WASTEWATER (PRESSURE)
- WASTEWATER PREV. ABANDONED
- WATER SUPPLY
- WATER SUPPLY PREV. ABANDONED
- STORMWATER
- POWER (& High Voltage Indicated)
- TELECOMS
- FIBRE OPTIC NETWORK
- GAS
- POWER POLE
- WATER SUPPLY VALVES
- FIRE HYDRANT
- MANHOLES
- SINGLE SUMP (SS), DOUBLE SUMP (DS)
- MANHOLE ID

**WASTEWATER DESIGN**

- WASTEWATER
- WASTEWATER (PRESSURE)
- WASTEWATER (RELINED)
- WASTEWATER LINE TO BE ABANDONED
- MANHOLE, VENTED MANHOLE

**LONG SECTION VIEW**

- WASTEWATER EXISTING
- WASTEWATER DESIGN
- EXISTING SURFACE
- DESIGN SURFACE

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*Shane Dyball*  
11/09/14

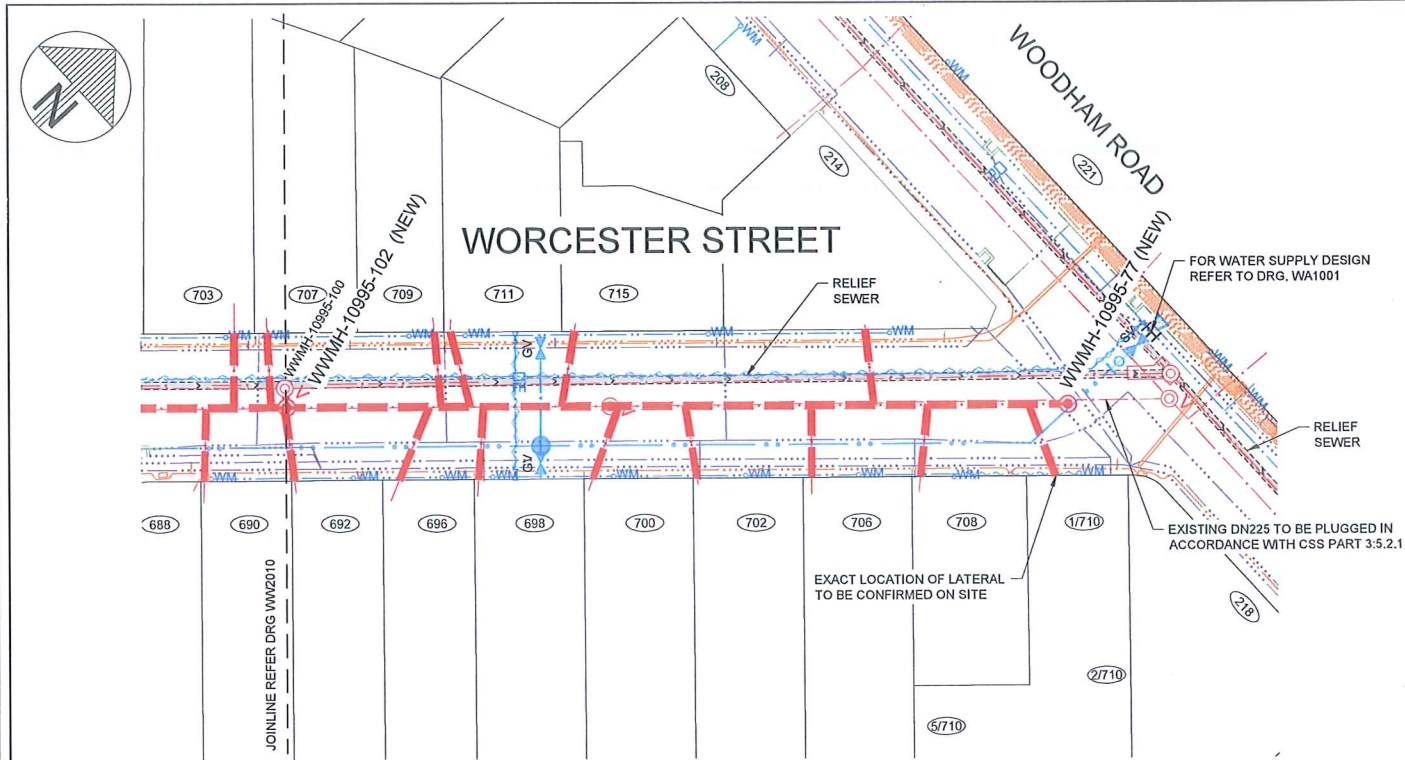
THE DESIGNER IS TO PROVIDE COORDINATES FOR THE LOCATION OF SUMPS, MANHOLES AND OUTLETS AS REQUIRED, AT THE TIME OF CONSTRUCTION

**FOR CONSTRUCTION**

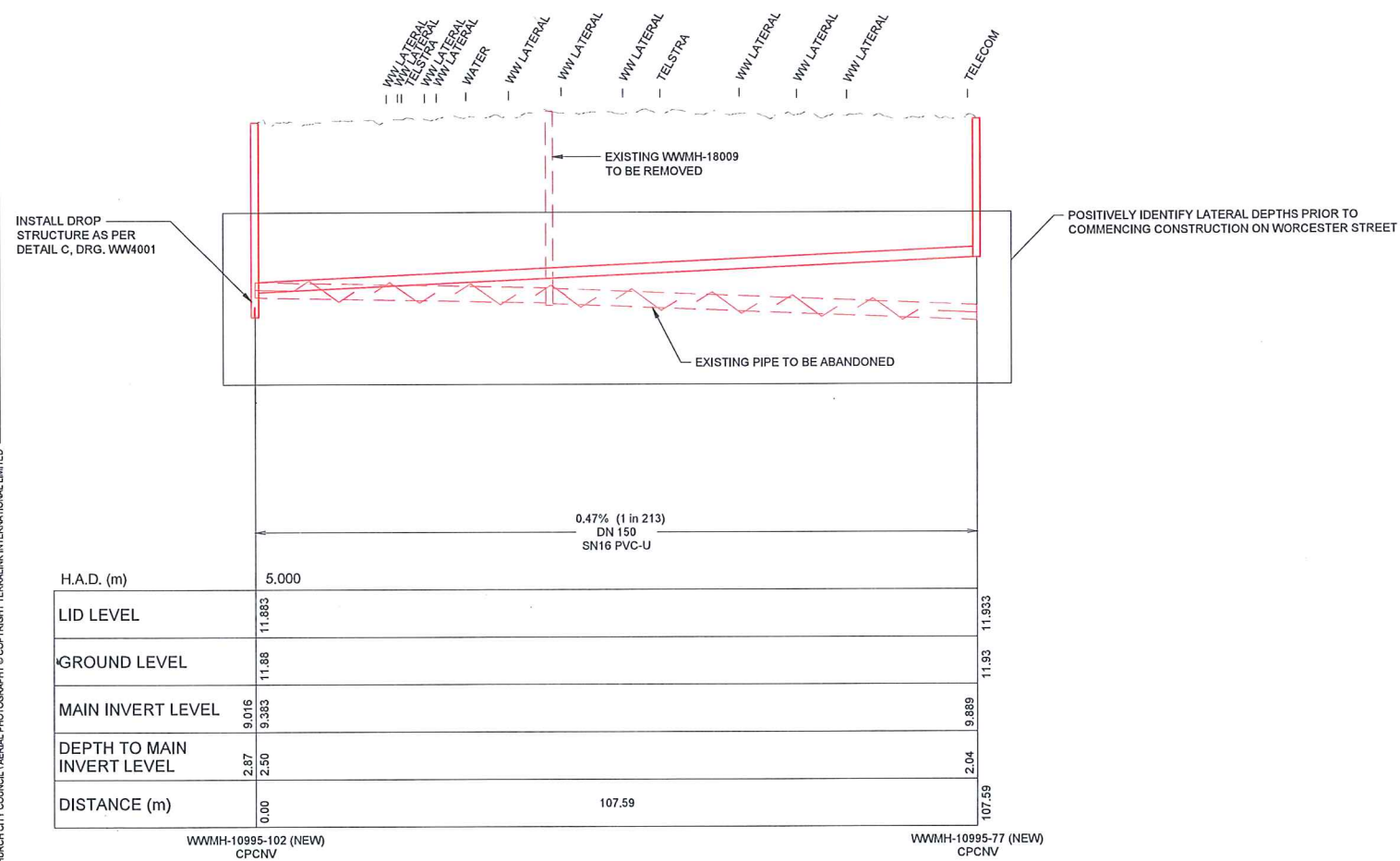








PLAN



LONGITUDINAL SECTION

WWMH-10995-102 to WWMH-10995-77

TAKEN out of contract.

#20/5/15

LEGEND	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER PREV. ABANDONED
---	WATER SUPPLY
---	WATER SUPPLY PREV. ABANDONED
---	STORMWATER
---	POWER (& High Voltage Indicated)
---	TELECOMS
---	FIBRE OPTIC NETWORK
---	GAS
PP	POWER POLE
WM	WATER SUPPLY VALVES
FD	FIRE HYDRANT
MD	MANHOLES
SS	SINGLE SUMP (SS), DOUBLE SUMP (DS)
WMH 17900	MANHOLE ID
WASTEWATER DESIGN	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER (RELINED)
---	WASTEWATER LINE TO BE ABANDONED
MD	MANHOLE, VENTED MANHOLE
LONG SECTION VIEW	
---	WASTEWATER EXISTING
---	WASTEWATER DESIGN
---	EXISTING SURFACE
---	DESIGN SURFACE

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FOR CONSTRUCTION

New Zealand Government

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DESIGNED	NAME	SIGNED	DATE	APPROVED
DES. REVIEW	C. Cadogan	CC	19.12.2012	FOR RECOMMENDATION
DRAWN	A. Ingles	AI	19.12.2012	DATE
DRW. CHECK	S. Sutton	SS	19.12.2012	GT
	N. Locke	NBL	19.12.2012	FOR CONSTRUCTION
FILE LOCATION	\\100200 Auckland Linwood Stage 1			DATE
	10995-DE-WW-DG-2009.dwg			SIGNED
PRINTED ON	19-Dec-12	BY	gainsford	GT

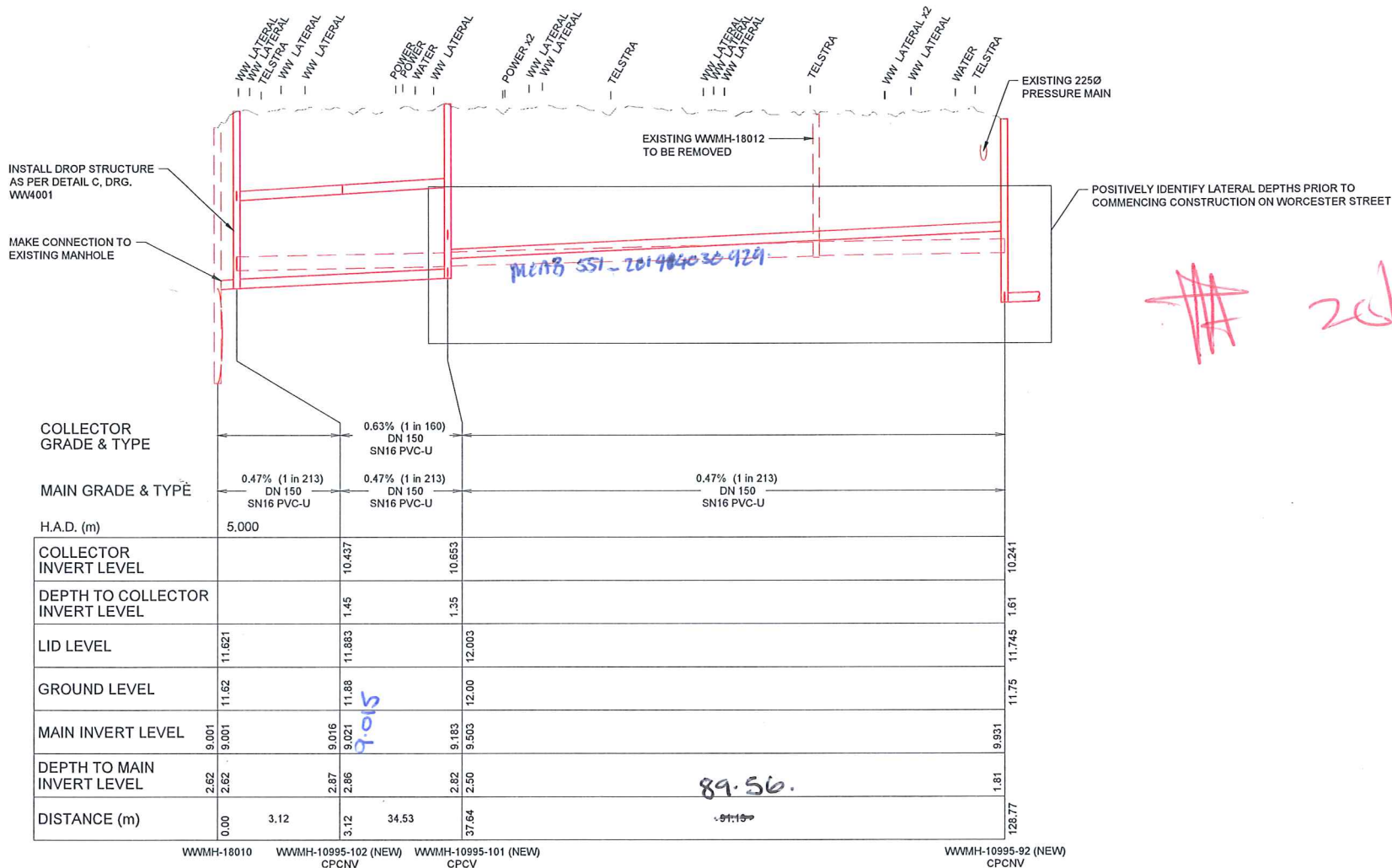
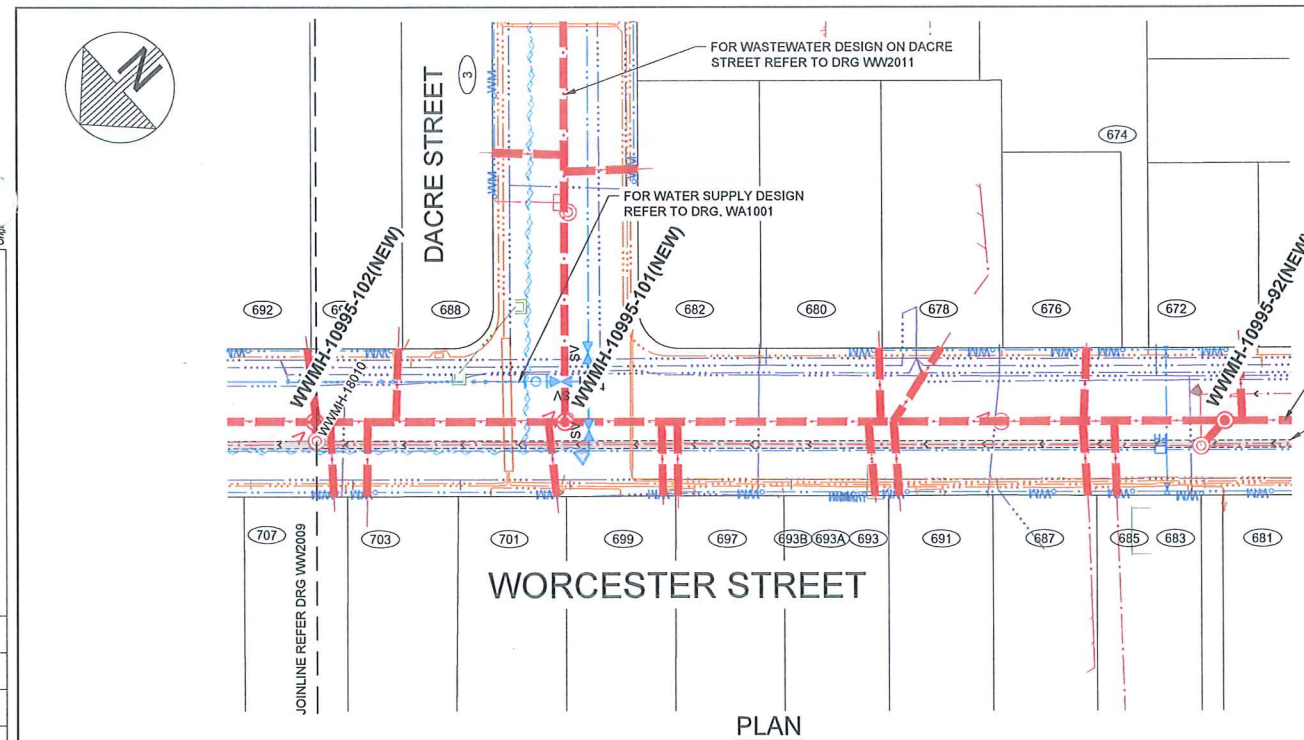
CONSULTANT  
**SCIRT**  
Rebuilding Infrastructure  
CONSULTANT FILE REF.  
10995-DE-WW-DG-2009

PROJECT TITLE  
**INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
WORCESTER STREET**

DRAWING TITLE  
**WASTEWATER  
PLAN & LONG SECTION  
SHEET 1**

SCIRT PROJECT REF. <b>10995</b>	ORIGINAL SHEET SIZE <b>A1</b>	SCALES <b>1:500 HORIZ 1:50 VERT</b>
CPG CAD DRAWING FILE REF. ---		
CPG PROJECT FILE NUMBER ---		DRAWING No. <b>WW2009</b>





LEGEND	
WASTEWATER	WASTEWATER (PRESSURE)
WASTEWATER (PRESSURE)	WASTEWATER (RELINED)
WASTEWATER (RELINED)	WASTEWATER LINE TO BE ABANDONED
WASTEWATER LINE TO BE ABANDONED	MANHOLE, VENTED MANHOLE
MANHOLE, VENTED MANHOLE	LONG SECTION VIEW
LONG SECTION VIEW	WASTEWATER EXISTING
WASTEWATER EXISTING	WASTEWATER DESIGN
WASTEWATER DESIGN	EXISTING SURFACE
EXISTING SURFACE	DESIGN SURFACE

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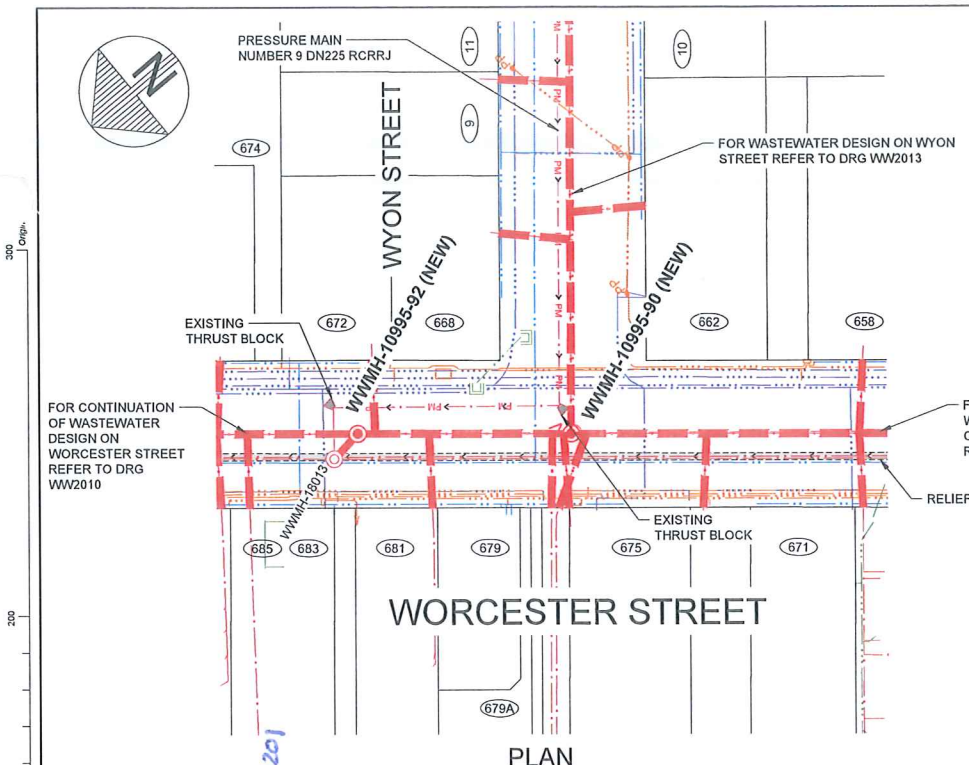
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FOR CONSTRUCTION









PLAN

INSTALL DROP STRUCTURE AS PER DETAIL C, DRG. WW4001		MAKE CONNECTION TO EXISTING MANHOLE	
COLLECTOR GRADE & TYPE		MAIN GRADE & TYPE	
H.A.D. (m)		5.000	
COLLECTOR INVERT LEVEL		10.241	
DEPTH TO COLLECTOR INVERT LEVEL		1.35	
LID LEVEL		11.799	
GROUND LEVEL		11.80	
MAIN INVERT LEVEL		8.933	
DEPTH TO MAIN INVERT LEVEL		2.87	
DISTANCE (m)		34.31	

WWMH-18013 WWMH-10995-92 (NEW) WWMH-10995-90 (NEW)  
CPCNV CPCNV

LONGITUDINAL SECTION

**LEGEND**  
WASTEWATER  
WASTEWATER (PRESSURE)  
WASTEWATER PREV. ABANDONED  
WATER SUPPLY  
WATER SUPPLY PREV. ABANDONED  
STORMWATER  
POWER (& High Voltage Indicated)  
TELECOMS  
FIBRE OPTIC NETWORK  
GAS  
POWER POLE  
WATER SUPPLY VALVES  
FIRE HYDRANT  
MANHOLES  
SINGLE SUMP (SS), DOUBLE SUMP (DS)  
WWMH 17900  
MAINHOLE ID

**SERVICES**  
WASTEWATER  
WASTEWATER (PRESSURE)  
WASTEWATER (RELINED)  
WASTEWATER LINE TO BE ABANDONED  
MANHOLE, VENTED MANHOLE  
LONG SECTION VIEW  
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FOR CONSTRUCTION

DESIGNED	C. Cadogan	CO	19.12.2012	FOR RECOMMENDATION	DATE	SIGNED
DES. REVIEW	A. Ingles	AI	19.12.2012	DATE	19.12.2012	GT
DRAWN	S. Sutton	SS	19.12.2012	DATE	19.12.2012	GT
DRW. CHECK	N. Leckie	NBL	19.12.2012	DATE	19.12.2012	GT
FILE LOCATION	\\10995-Avonside-Linwood\Stage 1\10995-DE-WW-DG-2012.dwg					
PRINTED ON	19-Dec-12 BY gairford					

CONSULTANT FILE REF. 10995-DE-WW-DG-2012

PROJECT TITLE

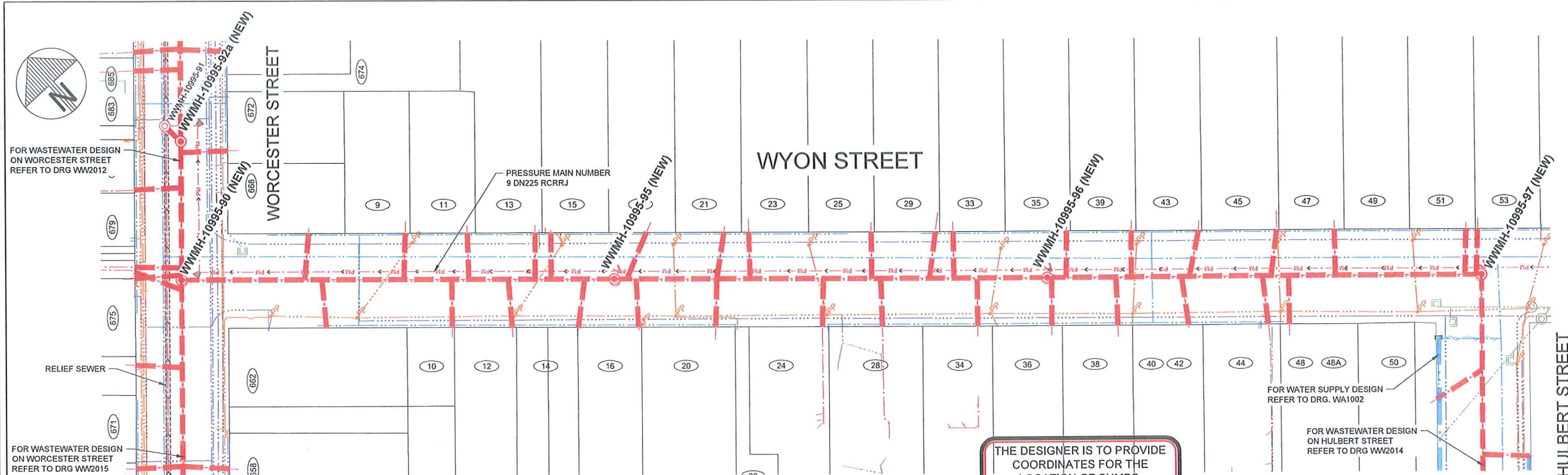
INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
WORCESTER STREET

DRAWING TITLE

WASTEWATER  
PLAN & LONG SECTION

SCIRT PROJECT REF. 10995	ORIGINAL SHEET SIZE A1	SCALES 1:500 HORIZ 1:50 VERT
CPG CAD DRAWING FILE REF. --	CPG PROJECT FILE NUMBER --	DRAWING No. WW2012





**LEGEND SERVICES**

- WASTEWATER
- WASTEWATER (PRESSURE)
- WASTEWATER PREV. ABANDONED
- WATER SUPPLY
- WATER SUPPLY PREV. ABANDONED
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**WWMH 17900 MANHOLE ID**

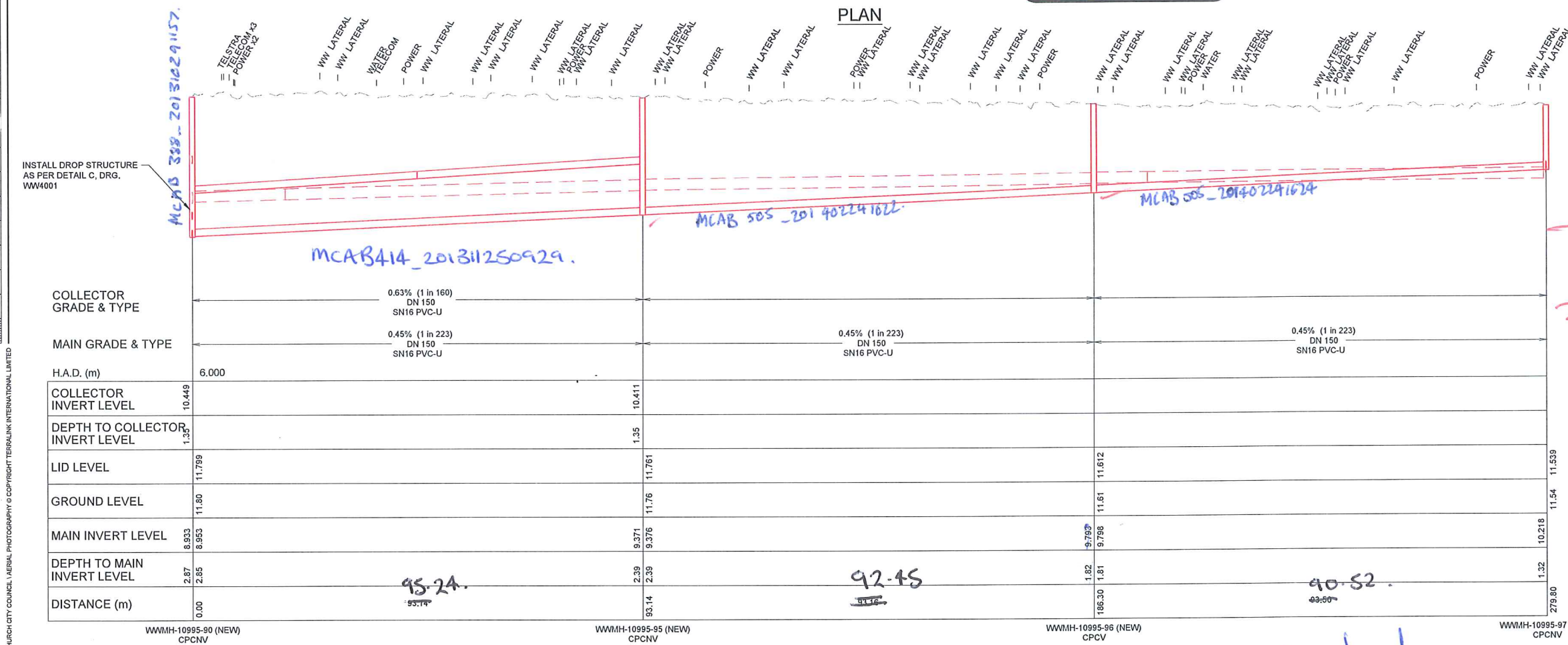
**WASTEWATER DESIGN**

- WASTEWATER
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- WASTEWATER (RELINED)
- WASTEWATER LINE TO BE ABANDONED
- MANHOLE, VENTED MANHOLE

**LONG SECTION VIEW**

- WASTEWATER EXISTING
- WASTEWATER DESIGN
- EXISTING SURFACE
- DESIGN SURFACE

- NOTES**
- REFER TO CONSTRUCTION STANDARD SPECIFICATION: CSS PARTS 1-7 AND INFRASTRUCTURE DESIGN STANDARD (IDS) FOR STANDARD DETAILS AND SPECIFICATIONS.
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TELSTRATELCOM 0.60  
ORION 0.60  
WATER SUBMAIN 0.50  
WATER MAIN 0.80
  - DISTANCES SHOWN ON LONG SECTIONS ARE BETWEEN THE CENTRELINE OF THE MANHOLES.
  - VERTICAL DATUM IS THE CHRISTCHURCH DRAINAGE DATUM (CDD). REFER TO SURVEY CONTROL PLAN FOR POSITION OF BMS AND LEVELS.
  - ALL COORDINATES ARE IN TERMS OF MT PLEASANT PROJECTION (NZGD2000).
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  - HAUNCHING TO CSS-SD344 / P.
  - CONSTRUCTION AND INSTALLATION OF ALL NEW MANHOLES SHALL BE TO CSS-SD303 UNLESS STATED OTHERWISE.
  - PIPE JOINT WRAP DETAIL OF RUBBER RING JOINTED (RRJ) PIPE, REFER SHEET WW4001.
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  - WHERE AN EXISTING PIPE IS SPECIFIED FOR ABANDONMENT TREATMENT SHALL BE EITHER REMOVED OR TREATED AS FOLLOWS:  
REMOVAL: ALL PIPES, INCLUDING LATERALS, SHALL BE REMOVED AND THE TRENCH BACKFILLED TO THE REQUIREMENTS OF CSS PART 1.2.7.  
FILLING: FILLING SHALL BE WITH A FLOWABLE FILL OR CONCRETE WITH STRENGTH OF 15 MPa. THE VOLUME OF MATERIAL INSERTED INTO THE PIPE SHALL BE EQUAL TO OR GREATER THAN THE VOLUME OF PIPE TO BE ABANDONED. BEFORE FILLING COMMENCES ALL CONNECTIONS TO THE PIPE SHALL BE SEALED OR THE VOLUME OF CONNECTED PIPES INCLUDED IN THE VOLUME OF MATERIAL INSERTED.



WWW-10995-90 to WWW-10995-97 LONGITUDINAL SECTION

Inspected 25/8/14 Phil Kerny

**FOR CONSTRUCTION**

New Zealand Government

Christchurch City Council

DESIGNED	NAME	SIGNED	DATE
C. Cadogan	CC		19.12.2012
A. Inglis	AI		19.12.2012
S. Sutton	SS		19.12.2012
N. Locke	NBL		19.12.2012

FILE LOCATION: J:\10995 Avonside Linwood Stage 1\10995-DE-WW-DG-2013.dwg

PRINTED ON: 19-Dec-12 BY: gainsford

APPROVED

DATE	SIGNED
19.12.2012	GT

FOR CONSTRUCTION

DATE	SIGNED
19.12.2012	GT

CONSULTANT

**SCIRT**  
Rebuilding Infrastructure

CONSULTANT FILE REF.  
10995-DE-WW-DG-2013

PROJECT TITLE

**INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
WYON STREET**

DRAWING TITLE

**WASTEWATER  
PLAN & LONG SECTION**

SCIRT PROJECT REF.	ORIGINAL SHEET SIZE	SCALES
10995	A1	1:500 HORIZ 1:50 VERT
CPG CAD DRAWING FILE REF.		
CPG PROJECT FILE NUMBER		

DRAWING No.  
**WW2013**





HULBERT STREET

WYON STREET

PLAN

EXISTING FLUSH TANK  
TO BE REMOVED

FOR WASTEWATER  
DESIGN ON WYON  
STREET REFER TO  
DRG WW2013

FOR WATER SUPPLY DESIGN  
REFER TO DRG. WA1002

LEGEND	
SERVICES	
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER PREV. ABANDONED
	WATER SUPPLY
	WATER SUPPLY PREV. ABANDONED
	STORMWATER
	POWER (& High Voltage Indicated)
	TELECOMS
	FIBRE OPTIC NETWORK
	GAS
	POWER POLE
	WATER SUPPLY VALVES
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	MANHOLES
	SINGLE SUMP (SS), DOUBLE SUMP (DS)
	MANHOLE ID
WASTEWATER DESIGN	
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER (RELINED)
	WASTEWATER LINE TO BE ABANDONED
	MANHOLE, VENTED MANHOLE
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ORION	0.60
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SW PIPE		WW LATERAL 2		WW LATERAL	
POWER	TELECOM	WATER	POWER	WATER	POWER
SW PIPE	WW LATERAL	SW PIPE	WW LATERAL	SW PIPE	WW LATERAL
0.47% (1 in 213)	DN 150	0.48% (1 in 210)	DN 150		
SN16 PVC-U		SN16 PVC-U			
H.A.D. (m)	6.000				
LID LEVEL	11.539	11.594			
GROUND LEVEL	11.54	11.69			
MAIN INVERT LEVEL	10.218	10.515			
DEPTH TO MAIN INVERT LEVEL	1.32	1.17			
DISTANCE (m)	0.00	59.03			
WWMH-10995-97 (NEW) CPCNV		WWMH-10995-20 (NEW) CPCV		WWMH-10995-21 (NEW) CPCNV	

WWMH-10995-97 to WWMH-10995-21

LONGITUDINAL SECTION

THE DESIGNER IS TO PROVIDE  
COORDINATES FOR THE  
LOCATION OF SUMPS,  
MANHOLES AND OUTLETS AS  
REQUIRED, AT THE TIME OF  
CONSTRUCTION

FOR CONSTRUCTION

New Zealand Government

Christchurch  
City Council

DESIGNED	NAME	SIGNED	DATE
DES. REVIEW	C. Cadogan	CO	19.12.2012
DRAWN	A. Ingles	AI	19.12.2012
CHKD	S. Sullivan	SS	19.12.2012
FILE LOCATION	N. Locke	NBL	19.12.2012
FILE LOCATION	10995-DE-WW-DG-2014.dwg		
PRINTED ON	19-Dec-12	BY	gainsford

APPROVED	FOR CONSTRUCTION
DATE	SIGNED
19.12.2012	GT
DATE	SIGNED
19.12.2012	GT

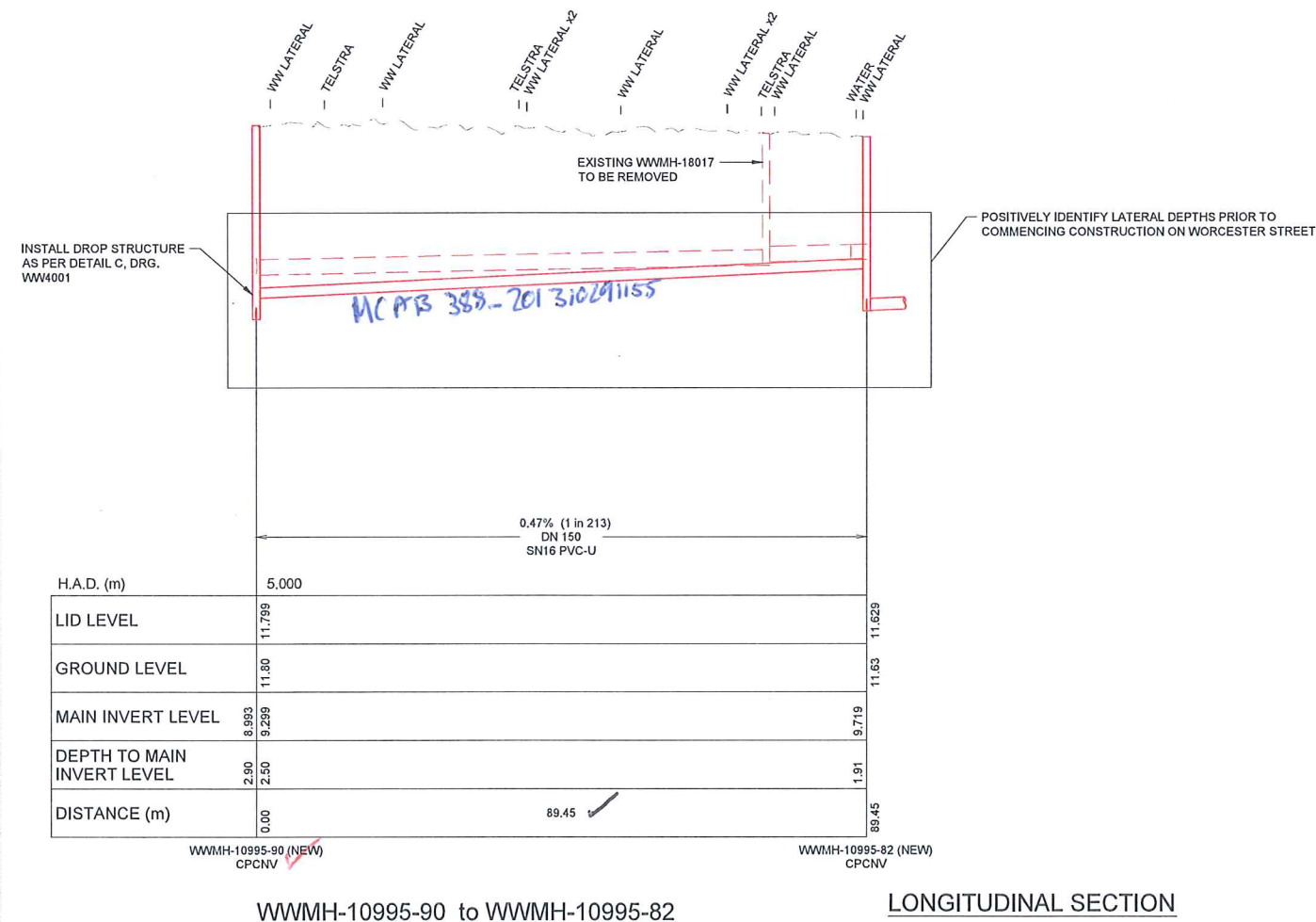
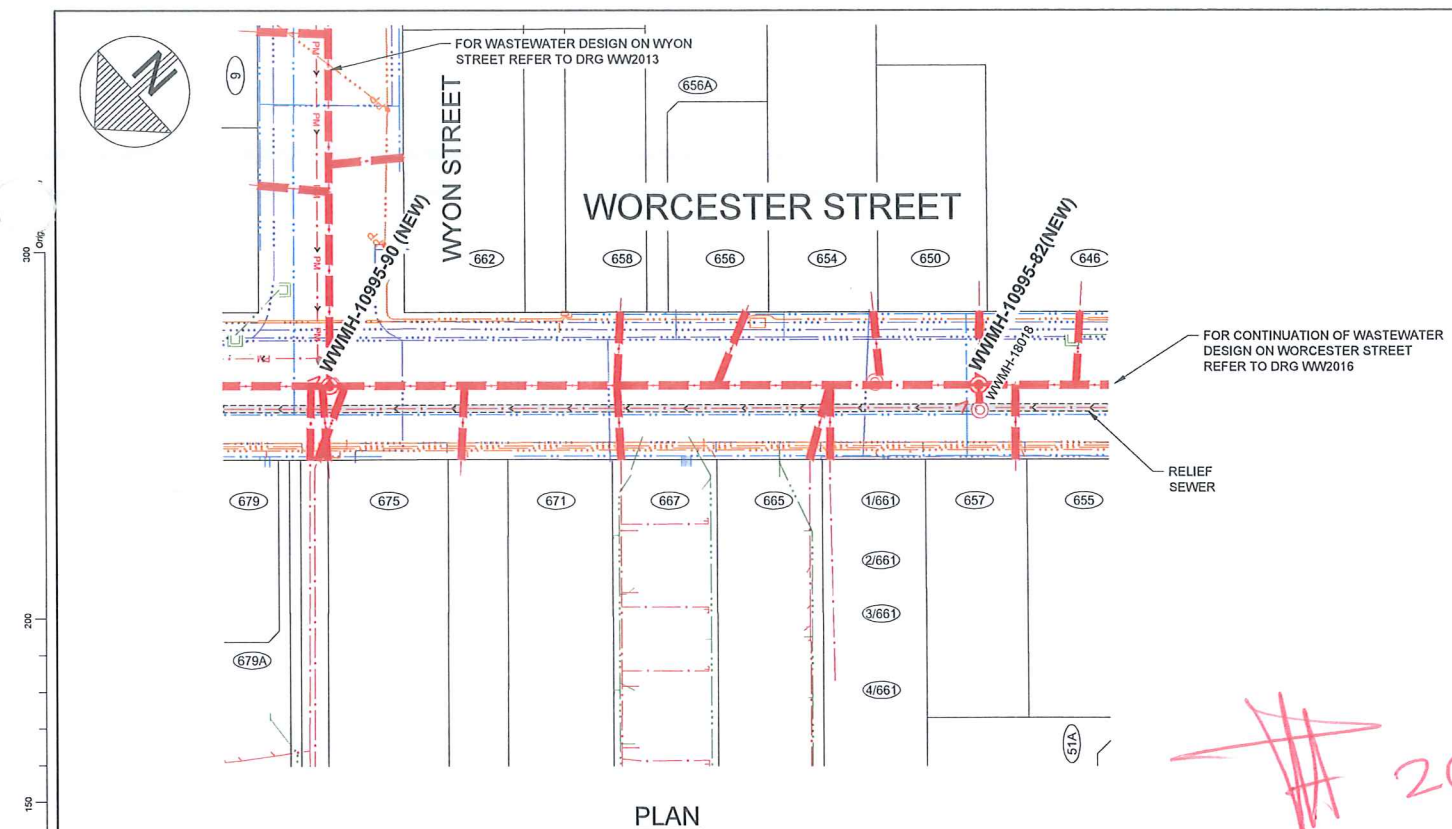
CONSULTANT	PROJECT TITLE
SCIRT	INFRASTRUCTURE REBUILD
Rebuilding Infrastructure	AVONSIDE - LINWOOD STAGE 1
	HULBERT STREET




























INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
HULBERT STREET

DRAWING TITLE  
WASTEWATER  
PLAN & LONG SECTION

SCIRT PROJECT REF.	ORIGINAL SHEET SIZE	SCALES
10995	A1	1:500 HORIZ 1:50 VERT
CPG CAD DRAWING FILE REF.	CPG PROJECT FILE NUMBER	DRAWING No.
-	-	WW2014



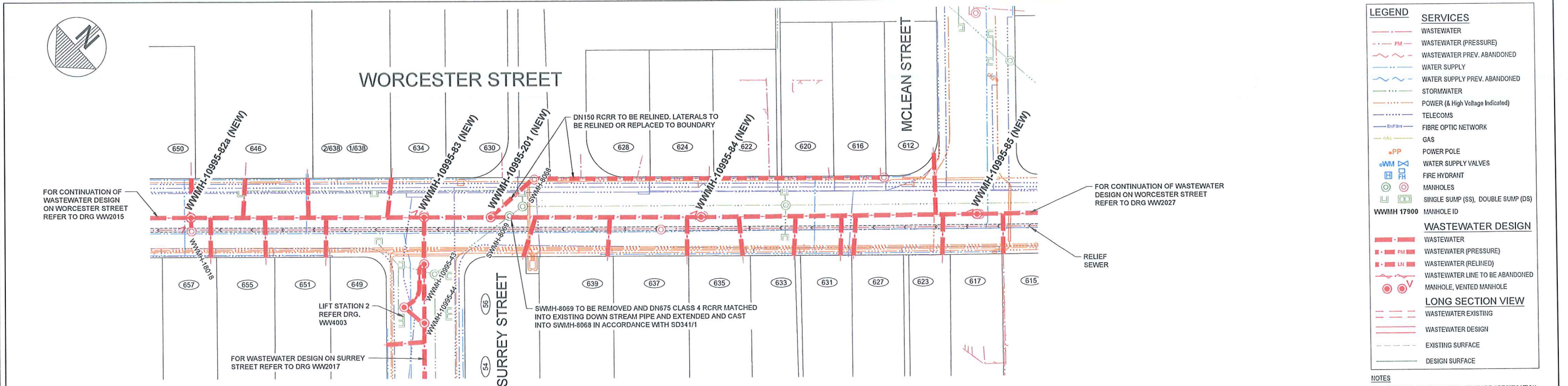


<b>LEGEND</b>	<b>SERVICES</b>
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER PREV. ABANDONED
	WATER SUPPLY
	WATER SUPPLY PREV. ABANDONED
	STORMWATER
	POWER (& High Voltage Indicated)
	TELECOMS
	FIBRE OPTIC NETWORK
	GAS
	POWER POLE
	WATER SUPPLY VALVES
	FIRE HYDRANT
	MANHOLES
	
	SINGLE SUMP (SS), DOUBLE SUMP (DS)
<b>WWMH 17000</b>	MANHOLE ID
<b>WASTEWATER DESIGN</b>	
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER (RELINED)
	WASTEWATER LINE TO BE ABANDONED
	MANHOLE, VENTED MANHOLE
	
<b>LONG SECTION VIEW</b>	
	WASTEWATER EXISTING
	
	WASTEWATER DESIGN
	EXISTING SURFACE
	DESIGN SURFACE

1	ISSUED FOR CONSTRUCTION	GT	19.12.201
ISSUE	AMENDMENTS	SIGNED	DATE

<div>New Zealand Government</div>	<div>Christchurch City Council</div>	<table><tr><th>NAME</th><th>SIGNED</th><th>DATE</th></tr><tr><td>DESIGNED</td><td>C. Cadogan</td><td>CC 19.12.2012</td></tr><tr><td>DES. REVIEW</td><td>A. Ingles</td><td>AI 19.12.2012</td></tr><tr><td>DRAWN</td><td>S. Sutton</td><td>SS 19.12.2012</td></tr><tr><td>DRWN. CHECK</td><td>HBL</td><td>19.12.2012</td></tr><tr><td>FILE LOCATION</td><td colspan="2">J:\10995-Avonside Linwood Stage 1\10995-DE-WW-DG-2015.dwg</td></tr></table>	NAME	SIGNED	DATE	DESIGNED	C. Cadogan	CC 19.12.2012	DES. REVIEW	A. Ingles	AI 19.12.2012	DRAWN	S. Sutton	SS 19.12.2012	DRWN. CHECK	HBL	19.12.2012	FILE LOCATION	J:\10995-Avonside Linwood Stage 1\10995-DE-WW-DG-2015.dwg		<table><tr><th>APPROVED</th><th>DATE</th></tr><tr><td>FOR RECOMMENDATION</td><td></td></tr><tr><td></td><td>19.12.2012</td></tr><tr><td>GT</td><td></td></tr><tr><td>FOR CONSTRUCTION</td><td></td></tr><tr><td></td><td>19.12.2012</td></tr><tr><td>GT</td><td></td></tr></table>	APPROVED	DATE	FOR RECOMMENDATION			19.12.2012	GT		FOR CONSTRUCTION			19.12.2012	GT		<div>CONSULTANT</div> <div><div>SCIRT</div><div>Rebuilding Infrastructure</div></div> <div>CONSULTANT FILE REF. 10995-DE-WW-DG-2015</div>	PROJECT TITLE INFRASTRUCTURE REBUILD AVONSIDE - LINWOOD STAGE 1 WORCESTER STREET
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PLAN

**LEGEND**

**SERVICES**

WASTEWATER

WASTEWATER (PRESSURE)

WASTEWATER PREV. ABANDONED

WATER SUPPLY

WATER SUPPLY PREV. ABANDONED

STORMWATER

POWER (& High Voltage Indicated)

TELECOMS

FIBRE OPTIC NETWORK

GAS

POWER POLE

WATER SUPPLY VALVES

FIRE HYDRANT

MANHOLES

SINGLE SUMP (SS), DOUBLE SUMP (DS)

WWMH 17900 MANHOLE ID

**WASTEWATER DESIGN**

WASTEWATER

WASTEWATER (PRESSURE)

WASTEWATER (RELINED)

WASTEWATER LINE TO BE ABANDONED

MANHOLE, VENTED MANHOLE

**LONG SECTION VIEW**

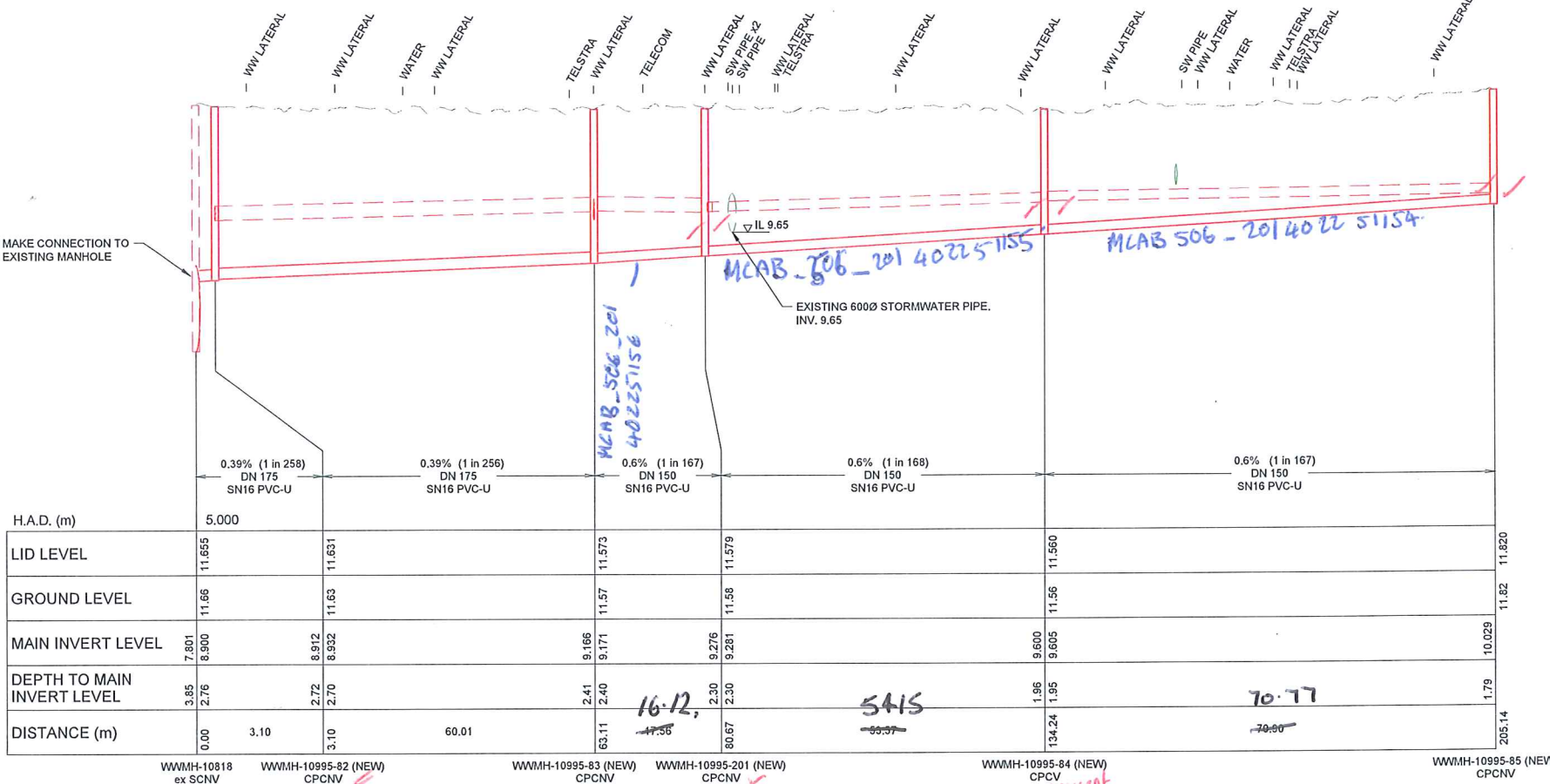
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WASTEWATER DESIGN

EXISTING SURFACE

DESIGN SURFACE

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LONGITUDINAL SECTION

THE DESIGNER IS TO PROVIDE COORDINATES FOR THE LOCATION OF SUMPS, MANHOLES AND OUTLETS AS REQUIRED, AT THE TIME OF CONSTRUCTION

**FOR CONSTRUCTION**

New Zealand Government

Christchurch City Council

DESIGNED: C. Cadogan CC 19.12.2012

DES. REVIEW: A. Ingles AJ 19.12.2012

DRAWN: S. Sutton SS 19.12.2012

DRW. CHECK: N. Locke NBL 19.12.2012

FILE LOCATION: J:\10995 Avonside Linwood Stage 1\10995-DE-WW-DG-2016.dwg

PRINTED ON: 19-Dec-12 BY: galsfordb

APPROVED

FOR RECOMMENDATION

DATE: 19.12.2012

SIGNED: GT

FOR CONSTRUCTION

DATE: 19.12.2012

SIGNED: GT

CONSULTANT

SCIRT

Rebuilding Infrastructure

CONSULTANT FILE REF: 10995-DE-WW-DG-2016

PROJECT TITLE

INFRASTRUCTURE REBUILD AVONSIDE - LINWOOD STAGE 1 WORCESTER STREET

DRAWING TITLE

WASTEWATER PLAN & LONG SECTION

SCIRT PROJECT REF. 10995

CPG CAD DRAWING FILE REF. --

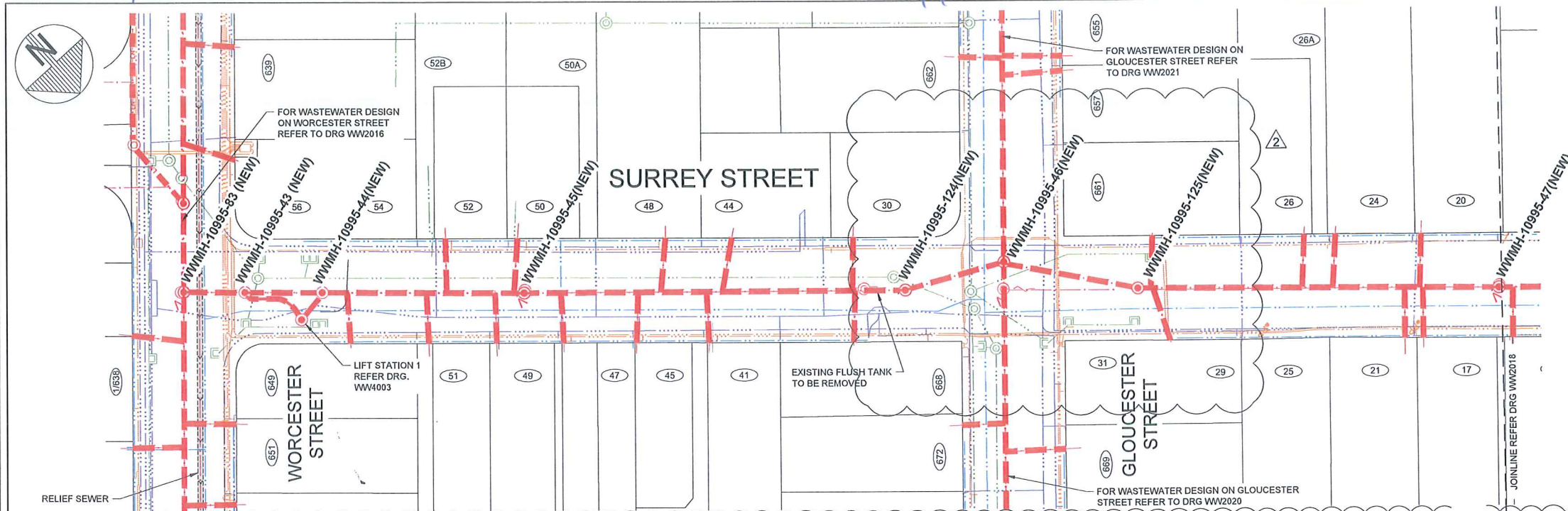
CPG PROJECT FILE NUMBER --

ORIGINAL SHEET SIZE A1

SCALES 1:500 HORIZ 1:50 VERT

DRAWING No. WW2016





PLAN

**LEGEND**

**SERVICES**

- WASTEWATER
- WASTEWATER (PRESSURE)
- WASTEWATER PREV. ABANDONED
- WATER SUPPLY
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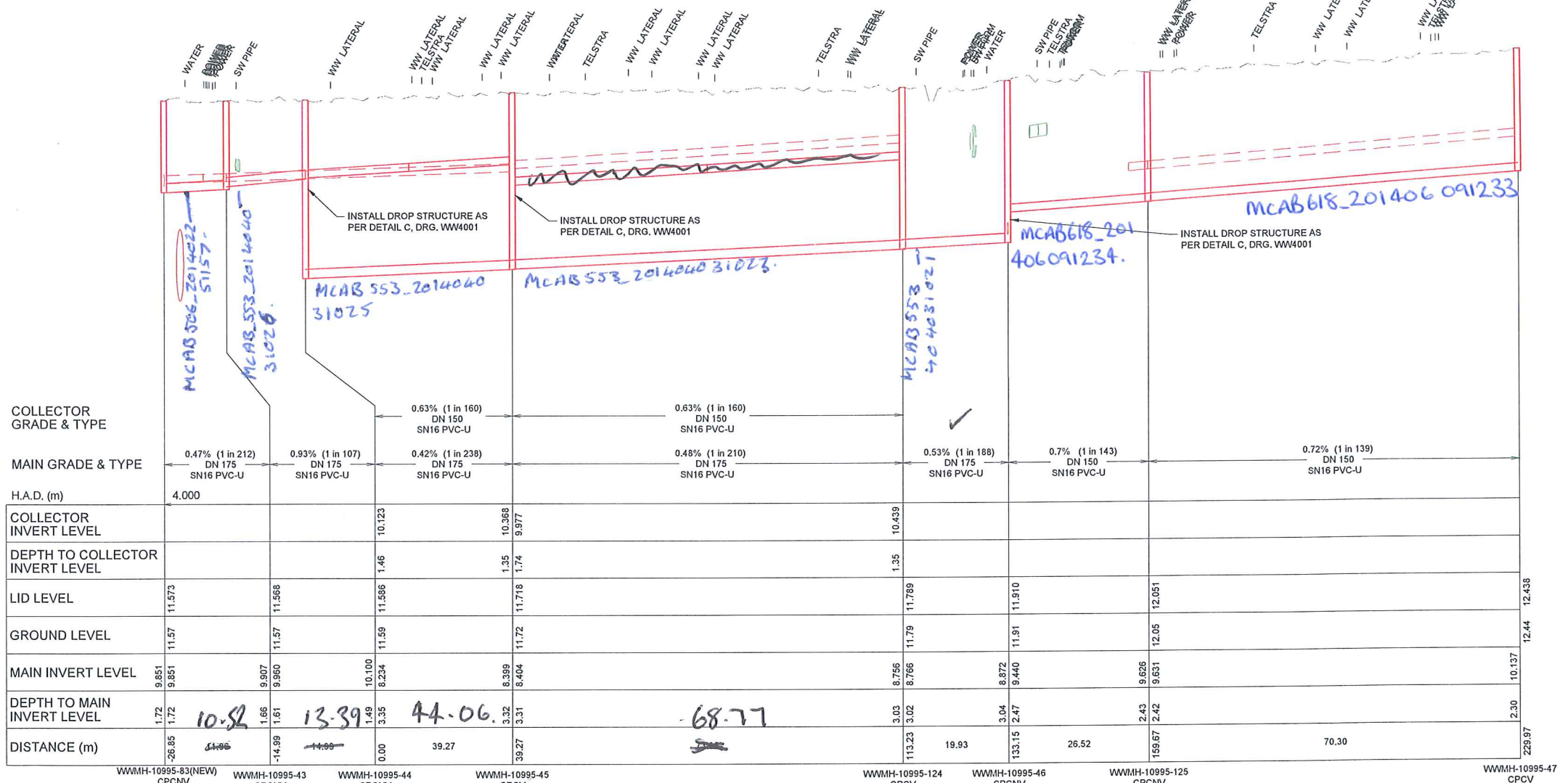
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- WASTEWATER
- WASTEWATER (PRESSURE)
- WASTEWATER (RELINED)
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**FOR CONSTRUCTION**

New Zealand Government

Christchurch City Council

DESIGNED: C. Cadogan

DES. REVIEW: A. Ingles

DRAWN: S. Sutton

DRW. CHECK: N. Locke

FILE LOCATION: J:\10995 Avonside Linwood Stage 1\10995-DE-WW-DG-2017.dwg

PRINTED ON: 3-Feb-14 BY: gwinford

APPROVED FOR RECOMMENDATION

DATE: 19.12.2012

SIGNED: GT

FOR CONSTRUCTION

DATE: 19.12.2012

SIGNED: GT

CONSULTANT

**SCIRT**

Rebuilding Infrastructure

CONSULTANT FILE REF: 10995-DE-WW-DG-2017

PROJECT TITLE

**INFRASTRUCTURE REBUILD AVONSIDE - LINWOOD STAGE 1 SURREY STREET**

DRAWING TITLE

**WASTEWATER PLAN & LONG SECTION SHEET 1**

SCIRT PROJECT REF: 10995

CPG CAD DRAWING FILE REF: --

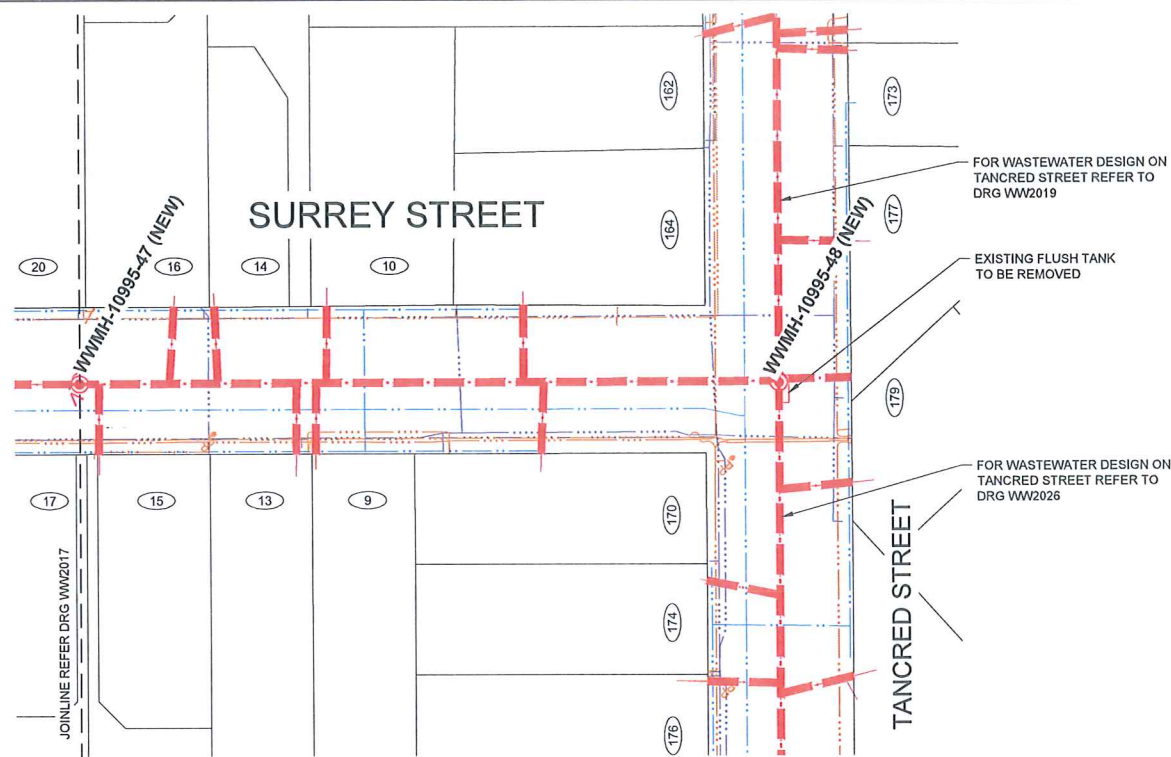
CPG PROJECT FILE NUMBER: --

ORIGINAL SHEET SIZE: A1

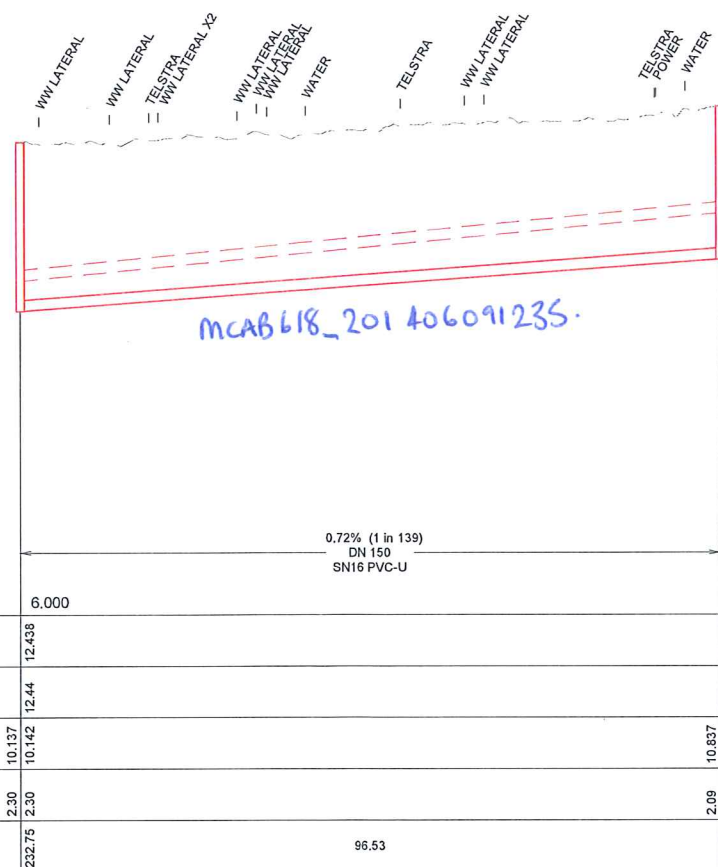
SCALES: 1:500 HORIZ, 1:50 VERT

DRAWING NO: WW2017





PLAN



LONGITUDINAL SECTION

H.A.D. (m)	6.000	
LID LEVEL	12.438	12.926
GROUND LEVEL	12.44	12.93
MAIN INVERT LEVEL	10.137 10.142	10.637
DEPTH TO MAIN INVERT LEVEL	2.30 2.30	2.09
DISTANCE (m)	232.75	96.53

WWMH-10995-47 (NEW)  
CPCV

WWMH-10995-48 (NEW)  
CPCV

WWMH-10995-47 to WWMH-10995-48

LEGEND	
SERVICES	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER PREV. ABANDONED
---	WATER SUPPLY
---	WATER SUPPLY PREV. ABANDONED
---	STORMWATER
---	POWER (& High Voltage Indicated)
---	TELECOMS
---	FIBRE OPTIC NETWORK
---	GAS
PP	POWER POLE
WM	WATER SUPPLY VALVES
FM	FIRE HYDRANT
MM	MANHOLES
SS	SINGLE SUMP (SS), DOUBLE SUMP (DS)
MMH 17900	MANHOLE ID
WASTEWATER DESIGN	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER (RELINED)
---	WASTEWATER LINE TO BE ABANDONED
---	MANHOLE, VENTED MANHOLE
LONG SECTION VIEW	
---	WASTEWATER EXISTING
---	WASTEWATER DESIGN
---	EXISTING SURFACE
---	DESIGN SURFACE

- NOTES
- REFER TO CONSTRUCTION STANDARD SPECIFICATION: CSS PARTS 1-7 AND INFRASTRUCTURE DESIGN STANDARD (IDS) FOR STANDARD DETAILS AND SPECIFICATIONS.
  - CONFIRM ALL PIPE / MANHOLE LEVELS AND LOCATIONS AFFECTING DESIGN PRIOR TO START OF CONSTRUCTION.
  - THE LEVELS AND LOCATIONS OF EXISTING SERVICES ARE APPROXIMATE ONLY. CARRY OUT FURTHER INVESTIGATION TO DETERMINE EXACT DEPTH AND LOCATION OF EXISTING SERVICES.
  - NOMINAL COVERS FOR SERVICES ARE:  
TELSTRATELCOM 0.60  
ORION 0.60  
WATER SUBMAIN 0.50  
WATER MAIN 0.60
  - DISTANCES SHOWN ON LONG SECTIONS ARE BETWEEN THE CENTRELINE OF THE MANHOLES.
  - VERTICAL DATUM IS THE CHRISTCHURCH DRAINAGE DATUM (CDD). REFER TO SURVEY CONTROL PLAN FOR POSITION OF BMS AND LEVELS.
  - ALL COORDINATES ARE IN TERMS OF MT PLEASANT PROJECTION (NZGD2000).
  - LAY DN150 PVC-U COLLECTOR TO A MINIMUM GRADE OF 0.47% (1 in 213). MINIMUM COVER ON COLLECTOR IS 1.2m. COLLECTOR TO MANHOLE CONNECTIONS AS SHOWN ON SHEET WW4001. COLLECTOR LEVELS ARE TO BE CONFIRMED FOLLOWING EXPOSURE OF PRIVATE PROPERTY LATERALS AT BOUNDARY.
  - WASTEWATER LATERALS TO HAVE MINIMUM GRADE OF 1.25% (1 in 80) WITHIN THE ROAD CORRIDOR. LATERALS TO HAVE A MINIMUM GRADE OF 0.83% (1 in 120) WITHIN PRIVATE PROPERTY.
  - ALL LATERAL CONNECTIONS ARE TO BE "CONNECTION BY RAMPED RISER" OR "CONNECTION TO 45° SIDE JUNCTION" AS PER SD363. VERTICAL RISER JUNCTIONS ARE NOT TO BE USED.
  - HAUNCHING TO CSS SD344 / P.
  - CONSTRUCTION AND INSTALLATION OF ALL NEW MANHOLES SHALL BE TO CSS SD303 UNLESS STATED OTHERWISE.
  - PIPE JOINT WRAP DETAIL OF RUBBER RING JOINTED (RRJ) PIPE, REFER SHEET WW4001.
  - WHERE EXISTING RCRRJ OR PVC PIPE IS EXPOSED, RECORD OBSERVATIONS OF THE CONDITION OF EXPOSED PIPE, JOINTS AND LATERALS USING THE "CONCURRENT WORKS DAMAGE INVESTIGATION FIELD FORM" AND PASS COMPLETED RECORDS BACK TO THE SCIRT DELIVERY TEAM MANAGER. DIRECT QUERIES TO YVONNE MACDONALD, PH. 021 279 6566.
  - WHERE AN EXISTING PIPE IS SPECIFIED FOR ABANDONMENT TREATMENT SHALL BE EITHER REMOVED OR TREATED AS FOLLOWS:  
REMOVAL: ALL PIPES, INCLUDING LATERALS, SHALL BE REMOVED AND THE TRENCH BACKFILLED TO THE REQUIREMENTS OF CSS PART 1.27.0.  
FILLING: FILLING SHALL BE WITH A FLOWABLE FILL OR CONCRETE WITH STRENGTH OF 1.5 MPa. THE VOLUME OF MATERIAL INSERTED INTO THE PIPE SHALL BE EQUAL TO OR GREATER THAN THE VOLUME OF PIPE TO BE ABANDONED. BEFORE FILLING COMMENCES ALL CONNECTIONS TO THE PIPE SHALL BE SEALED OR THE VOLUME OF CONNECTED PIPES INCLUDED IN THE VOLUME OF MATERIAL INSERTED.

THE DESIGNER IS TO PROVIDE COORDINATES FOR THE LOCATION OF SUMPS, MANHOLES AND OUTLETS AS REQUIRED, AT THE TIME OF CONSTRUCTION

FOR CONSTRUCTION

New Zealand Government

Christchurch City Council



DESIGNED	NAVE	SIGNED	DATE	APPROVED
DES. REVIEW	C. Cadogan	CC	19.12.2012	FOR RECOMMENDATION
DRAWN	A. Ingles	AI	19.12.2012	DATE
DRW. CHECK	S. Sutton	SS	19.12.2012	GT
FILE LOCATION	N. Locke	NBL	19.12.2012	FOR CONSTRUCTION
10995-DE-WW-DG-2018.dwg				DATE
10995-DE-WW-DG-2018.dwg				SIGNED
PRINTED ON 19-Dec-12 BY gairford				GT

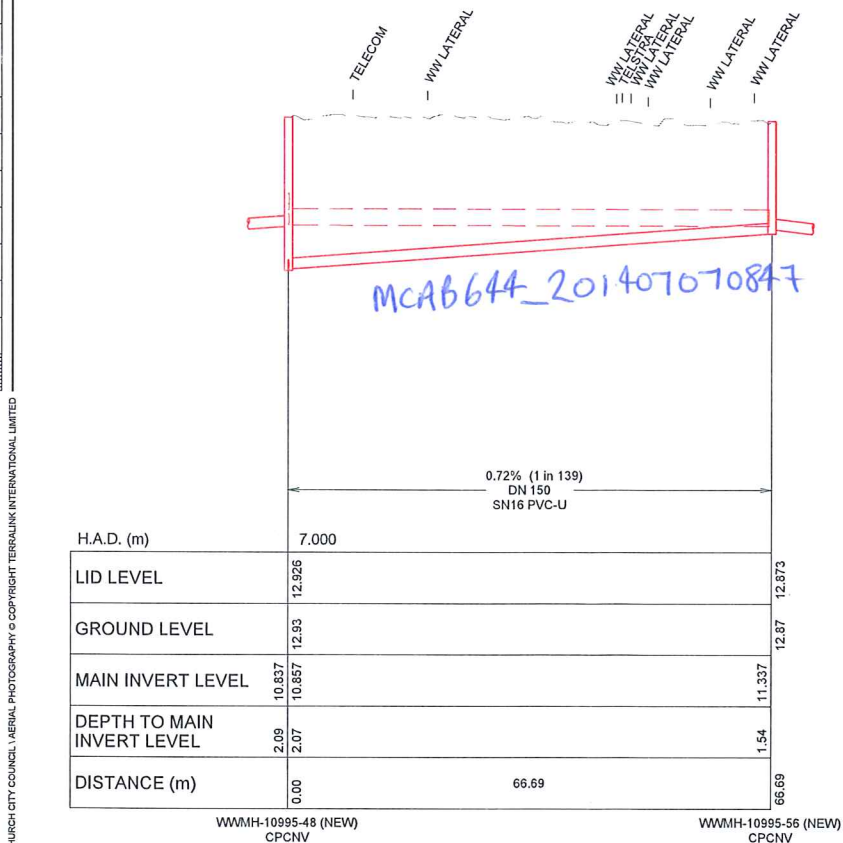
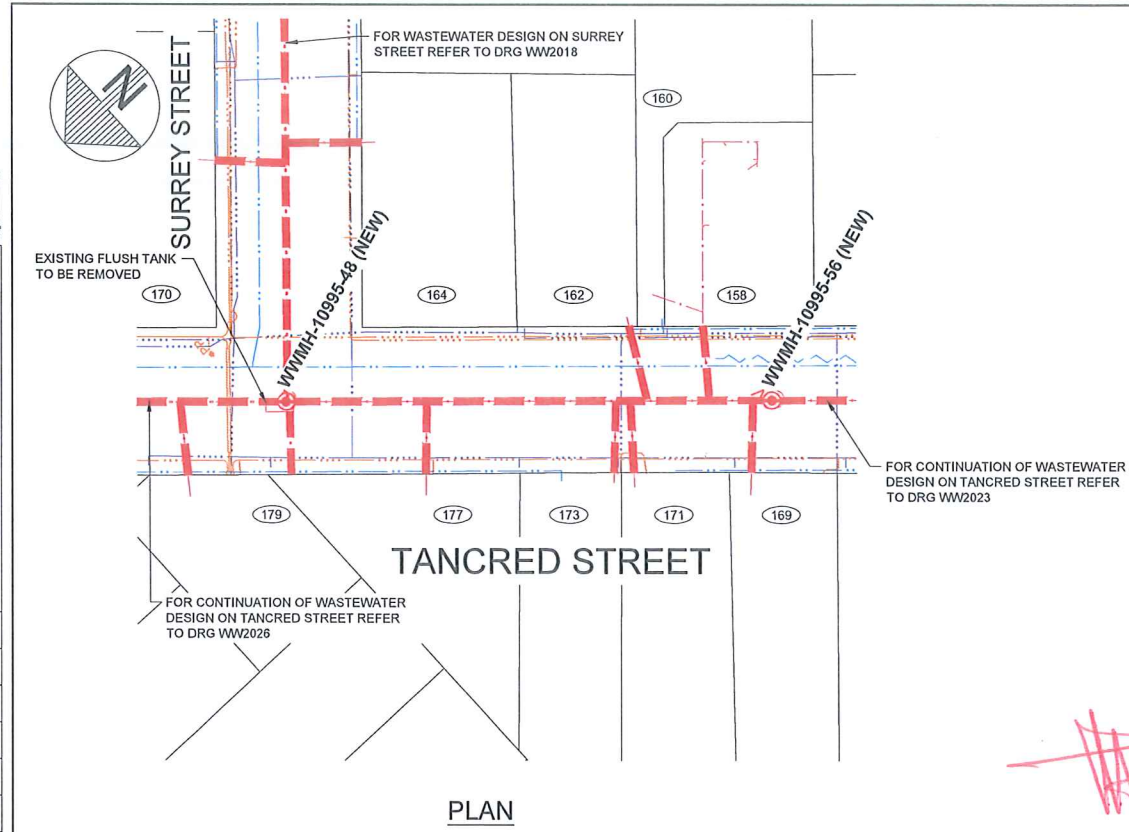
CONSULTANT  
**SCIRT**  
Rebuilding Infrastructure  
CONSULTANT FILE REF.  
10995-DE-WW-DG-2018

PROJECT TITLE  
**INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
SURREY STREET**

DRAWING TITLE  
**WASTEWATER  
PLAN & LONG SECTION  
SHEET 2**

SCIRT PROJECT REF.	ORIGINAL SHEET SIZE	SCALES
10995	A1	1:500 HORIZ 1:50 VERT
CPCV CAD DRAWING FILE REF.		
CPCV PROJECT FILE NUMBER		
		DRAWING No. <b>WW2018</b>





LEGEND	
SERVICES	
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER (PRESSURE) ABANDONED
	WATER SUPPLY
	WATER SUPPLY (PRESSURE) ABANDONED
	STORMWATER
	POWER (& High Voltage Indicated)
	TELECOMS
	FIBRE OPTIC NETWORK
	GAS
	POWER POLE
	WATER SUPPLY VALVES
	FIRE HYDRANT
	MANHOLES
	SINGLE SUMP (SS), DOUBLE SUMP (DS)
	MANHOLE ID
WASTEWATER DESIGN	
	WASTEWATER
	WASTEWATER (PRESSURE)
	WASTEWATER (RELINED)
	WASTEWATER LINE TO BE ABANDONED
	MANHOLE, VENTED MANHOLE
LONG SECTION VIEW	
	WASTEWATER EXISTING
	WASTEWATER DESIGN
	EXISTING SURFACE
	DESIGN SURFACE

- NOTES
- REFER TO CONSTRUCTION STANDARD SPECIFICATION, CSS PARTS 1-7 AND INFRASTRUCTURE DESIGN STANDARD (IDS) FOR STANDARD DETAILS AND SPECIFICATIONS.
  - CONFIRM ALL PIPE / MANHOLE LEVELS AND LOCATIONS AFFECTING DESIGN PRIOR TO START OF CONSTRUCTION.
  - THE LEVELS AND LOCATIONS OF EXISTING SERVICES ARE APPROXIMATE ONLY. CARRY OUT FURTHER INVESTIGATION TO DETERMINE EXACT DEPTH AND LOCATION OF EXISTING SERVICES.
  - NOMINAL COVERS FOR SERVICES ARE:

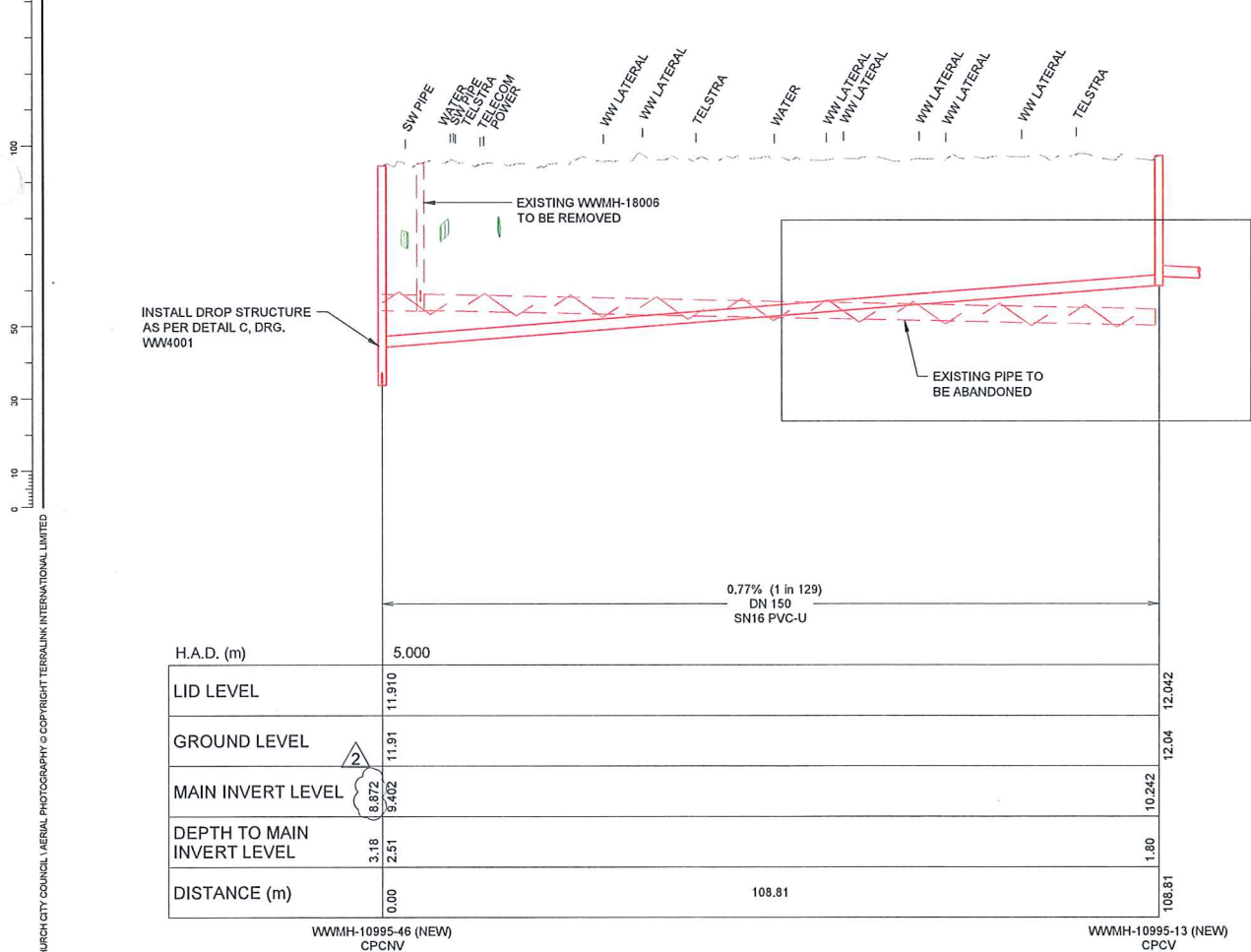
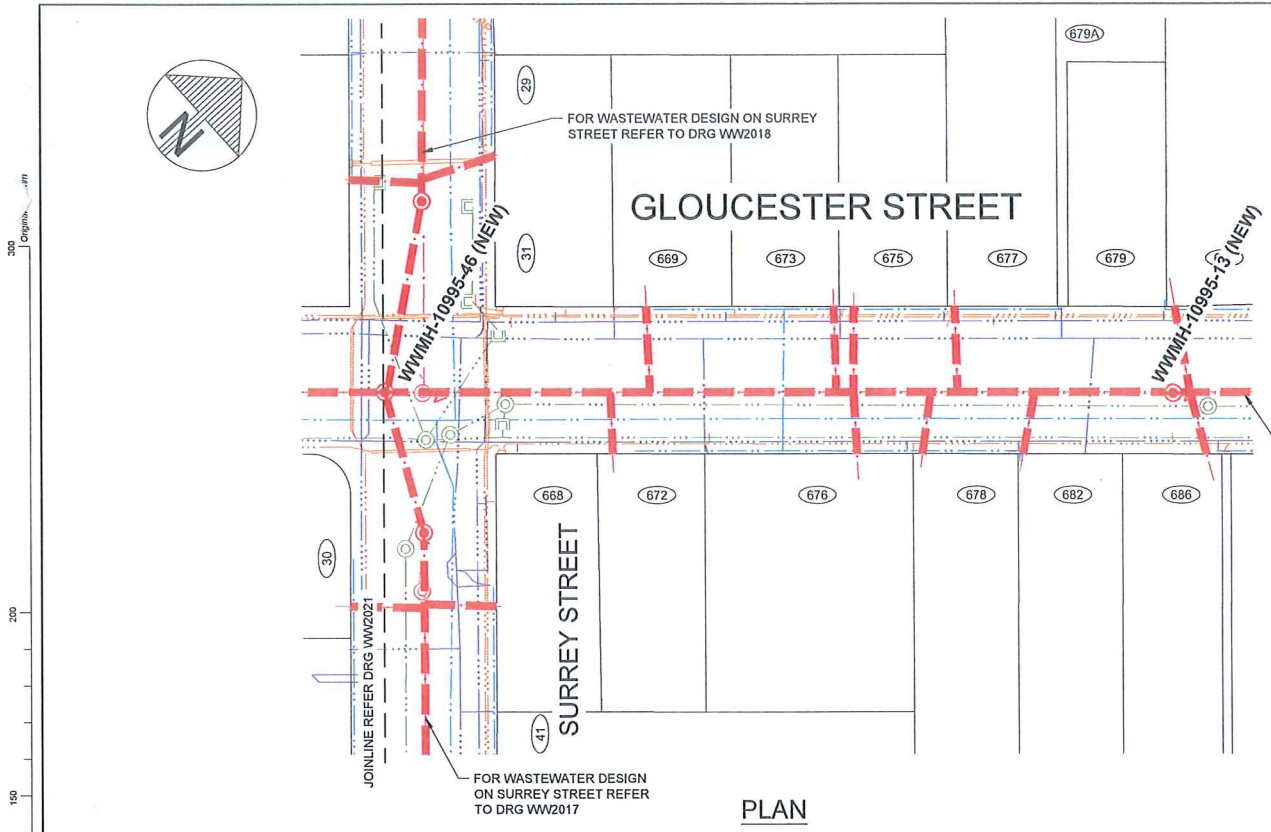
TELSTRATELCOM	0.60
ORION	0.60
WATER SUBMAIN	0.50
WATER MAIN	0.80
  - DISTANCES SHOWN ON LONG SECTIONS ARE BETWEEN THE CENTRELINE OF THE MANHOLES.
  - VERTICAL DATUM IS THE CHRISTCHURCH DRAINAGE DATUM (CDD). REFER TO SURVEY CONTROL PLAN FOR POSITION OF BMS AND LEVELS.
  - ALL COORDINATES ARE IN TERMS OF MT PLEASANT PROJECTION (NZGD2000).
  - LAY DN150 PVC-U COLLECTOR TO A MINIMUM GRADE OF 0.47% (1 in 213). MINIMUM COVER ON COLLECTOR IS 1.2m. COLLECTOR TO MANHOLE CONNECTIONS AS SHOWN ON SHEET WW4001. COLLECTOR LEVELS ARE TO BE CONFIRMED FOLLOWING EXPOSURE OF PRIVATE PROPERTY LATERALS AT BOUNDARY.
  - WASTEWATER LATERALS TO HAVE MINIMUM GRADE OF 1.25% (1 in 80) WITHIN THE ROAD CORRIDOR. LATERALS TO HAVE A MINIMUM GRADE OF 0.83% (1 in 120) WITHIN PRIVATE PROPERTY.
  - ALL LATERAL CONNECTIONS ARE TO BE "CONNECTION BY RAMPED RISER" OR "CONNECTION TO 45° SIDE JUNCTION" AS PER SD363. VERTICAL RISER JUNCTIONS ARE NOT TO BE USED.
  - HAVING TO GO TO CSS SD344 / P.
  - CONSTRUCTION AND INSTALLATION OF ALL NEW MANHOLES SHALL BE TO CSS SD303 UNLESS STATED OTHERWISE.
  - PIPE JOINT WRAP DETAIL OF RUBBER RING JOINTED (RRJ) PIPE, REFER SHEET WW4001.
  - WHERE EXISTING RRRJ OR PVC PIPE IS EXPOSED, RECORD OBSERVATIONS OF THE CONDITION OF EXPOSED PIPE, JOINTS AND LATERALS USING THE "CONCURRENT WORKS DAMAGE INVESTIGATION FIELD FORM" AND PASS COMPLETED RECORDS BACK TO THE SCIRT DELIVERY TEAM MANAGER. DIRECT QUERIES TO YVONNE MACDONALD, PH. 021 279 6568.
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REMOVAL: ALL PIPES, INCLUDING LATERALS, SHALL BE REMOVED AND THE TRENCH BACKFILLED TO THE REQUIREMENTS OF CSS PART 1.27.0.  
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Inspected  
18/9/14  
Phu Terry

THE DESIGNER IS TO PROVIDE COORDINATES FOR THE LOCATION OF SUMPS, MANHOLES AND OUTLETS AS REQUIRED, AT THE TIME OF CONSTRUCTION

FOR CONSTRUCTION





WWMH-10995-46 to WWMH-10995-13

LONGITUDINAL SECTION

LEGEND	
SERVICES	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER PREV. ABANDONED
---	WATER SUPPLY
---	WATER SUPPLY PREV. ABANDONED
---	STORMWATER
---	POWER (& High Voltage Indicated)
---	TELECOMS
---	FIBRE OPTIC NETWORK
---	GAS
PP	POWER POLE
WM	WATER SUPPLY VALVES
FD	FIRE HYDRANT
○	MANHOLES
○	SINGLE SUMP (SS), DOUBLE SUMP (DS)
WWMH 17900	MANHOLE ID
WASTEWATER DESIGN	
---	WASTEWATER
---	WASTEWATER (PRESSURE)
---	WASTEWATER (RELINED)
---	WASTEWATER LINE TO BE ABANDONED
○	MANHOLE, VENTED MANHOLE
LONG SECTION VIEW	
---	WASTEWATER EXISTING
---	WASTEWATER DESIGN
---	EXISTING SURFACE
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FILL: FILLING SHALL BE WITH A FLOWABLE FILL OR CONCRETE WITH STRENGTH OF 15 MPa. THE VOLUME OF MATERIAL INSERTED INTO THE PIPE SHALL BE EQUAL TO OR GREATER THAN THE VOLUME OF PIPE TO BE ABANDONED. BEFORE FILLING COMMENCES ALL CONNECTIONS TO THE PIPE SHALL BE SEALED OR THE VOLUME OF CONNECTED PIPES INCLUDED IN THE VOLUME OF MATERIAL INSERTED.

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FOR CONSTRUCTION

New Zealand Government

Christchurch City Council

DESIGNED	NAME	SIGNED	DATE
DES. REVIEW	C. Cadogan	CC	19.12.2012
DRAWN	A. Inglis	AI	19.12.2012
DRW. CHECK	S. Sutton	SS	19.12.2012
FILE LOCATION	N. Locke	NBL	19.12.2012
10995-DE-WW-DG-2020.dwg			
PRINTED ON 3-Feb-14 BY gahinfordb			

APPROVED		FOR CONSTRUCTION	
DATE	SIGNED	DATE	SIGNED
19.12.2012	GT	19.12.2012	GT

CONSULTANT  
**SCIRT**  
Rebuilding Infrastructure

PROJECT TITLE  
**INFRASTRUCTURE REBUILD  
AVONSIDE - LINWOOD STAGE 1  
GLOUCESTER STREET**

DRAWING TITLE  
**WASTEWATER  
PLAN & LONG SECTION  
SHEET 1**

SCIRT PROJECT REF. 10995	ORIGINAL SHEET SIZE A1	SCALES 1:500 HORIZ 1:50 VERT
CPG CAD DRAWING FILE REF. ---	CPG PROJECT FILE NUMBER ---	DRAWING No. WW2020