

ROAD DESIGN PRESENTATION STANDARDS

DP012 TRAFFIC SIGNAL CONDUIT

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DEPARTMENT FOR
INFRASTRUCTURE
AND TRANSPORT



Government of South Australia

Department for Infrastructure
and Transport

Document Amendment Record

Rev	Change Description	Date	Author	Checked	Authorised
1	Initial Issue	23 December 2011	Natasha Stone Alison Freer	Jeremy Champion	Noel O'Callaghan
2	Design line marking, signal pole numbers and schedule added	17 July 2012	Natasha Stone Alison Freer	Greg Gurner	Noel O'Callaghan
3	Scale of example drawing changed from 300 to 200	13 September 2012	Natasha Stone Alison Freer	Greg Gurner	Noel O'Callaghan
4	Drawing Type name made consistent with official naming.	31 October 2013	John Hastie	Greg Gurner	Noel O'Callaghan
5	PTSP points changed and Long/Lat added	21 January 2014	Natasha Stone	Greg Gurner	Noel O'Callaghan
6	Example drawings updated and as-constructed drawing requirements clause 2.5 added	8 September 2022	Yolanda Zhao	Yanyan Xiao	Collin Boulden
6.1	Minor update	24 February 2023	Yolanda Zhao	Yanyan Xiao	Collin Boulden

Document Management

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To be read in conjunction with CAD Manual & Presentation Guidelines DP001

DP012 TRAFFIC SIGNAL CONDUIT

1 Purpose


- 1.1 The Traffic Signal Conduit drawing is used to show a diagrammatic layout of the conduits connecting the traffic signal infrastructure.
- 1.2 For examples of this standard see attached drawings demonstrating typical conduit design for signalised intersection and pedestrian activated crossing.

2 Content

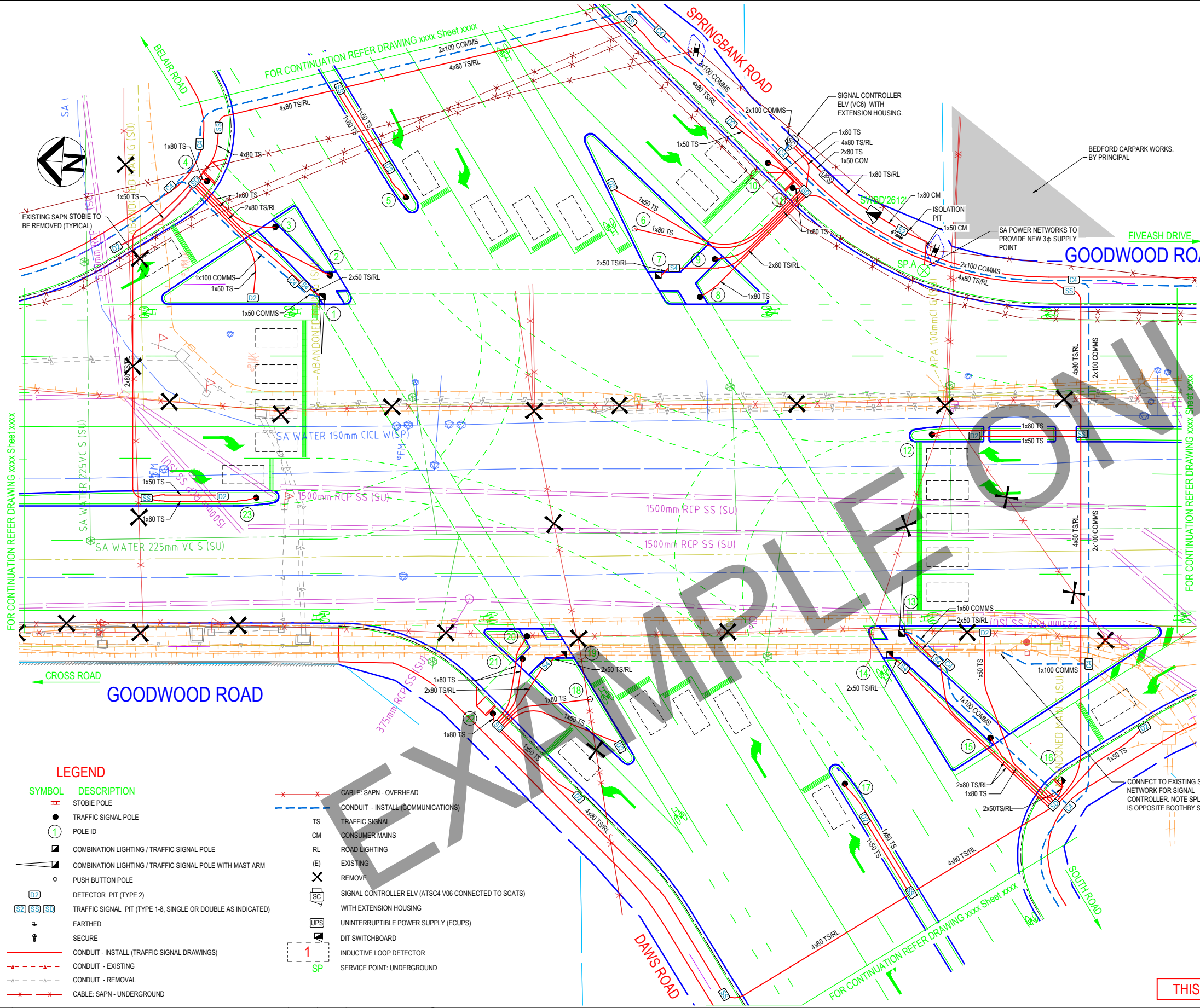
- 2.1 Layers to be shown as per the DIT Layer Matrix (DP001)
- 2.2 The following CAD entities are required:
 - a) All information in DP001 – General Requirements.
 - b) Symbols showing the detector loops. (layer = D-ELEC-Signal Loop Detector)
 - c) Symbols showing the signal pole locations. (layer = D-ELEC-Signal Pole)
 - d) Text identifying signal pole. (layer = D-ELEC-Signal Pole ID number, Block provided)
 - e) Symbols showing the switchboard. (layer = D-ELEC-Switchboard)
 - f) Text identifying supply points. (layer = D-ELEC-Service Point ID label)
 - g) Lines showing the signal conduit. (layer = D-ELEC-Signal Conduit)
 - h) Text showing the signal conduit (number & size). (layer = D-ELEC-Signal Conduit Label) (Paper Space text height=2.5mm)
 - i) Symbols showing the signal pits. (layer = D-ELEC-Signal Pits)
 - j) Lines showing the combined lighting and signal conduit. (layer = D-ELEC-Combined Lighting Signal Conduit)
 - k) Text showing the combined lighting and signal conduit (number & size). (layer = D-ELEC-Combined Lighting Signal Conduit + Label) (Paper Space text height=2.5mm)
 - l) Symbols showing the combined lighting and signal pits. (layer = D-ELEC-Combined Lighting Signal pits)
 - m) Schedule showing “Signal Pole Mast Arm and Combined Pole Details” (layer = D-ENHA-Schedules)
- 2.3 Survey on the Traffic Signal Conduit Drawing shall be trimmed (i.e. survey detail should only be shown outside the extents of the design).
- 2.4 Existing Services shall be shown untrimmed and presented using DIT standard legends.
- 2.5 Additional requirements for the submission of as constructed traffic signal conduit drawing:
 - a) Constructional notes implying “something to be installed/modified/constructed” shall be deleted.
 - b) All infrastructure that has been removed shall be deleted from the drawing, not covered with “X” symbol.
 - c) Do not use “red denotes existing”.

d) Lines showing “existing” or “install” traffic signal conduits from IFC drawing, i.e.

 CONDUIT - EXISTING or  CONDUIT - INSTALL (TRAFFIC SIGNAL DRAWINGS) shall

be changed to  CONDUIT - TRAFFIC SIGNAL DRAWINGS

e) Texts showing new/existing shall be removed from the pole details table.



SIGNAL POLE, MAST ARM AND COMBINATION POLE DETAILS							
ID	SET OUT	MAST ARM	LIGHTING	LIGHT POLE	LAMP	COMMENTS	
	PTSP PT	ORIENTATION	OUTREACH	OUTREACH	MOUNTING HEIGHT	TYPE	
1	-	-	5.5m	3.0m	12.0m	175W LED	NEW COMBO MASTARM
2	-	-	-	-	-	-	NEW SIGNAL POLE
3	-	-	-	-	-	-	NEW SIGNAL POLE
4	-	-	-	-	-	-	NEW SIGNAL POLE
5	-	-	-	-	-	-	NEW SIGNAL POLE
6	-	-	-	-	-	-	NEW PUSHBUTTON POLE
7	-	-	-	3.0m	12.0m	2x175W LED	NEW COMBO POLE
8	-	-	-	-	-	-	NEW SIGNAL POLE
9	-	-	-	-	-	-	NEW SIGNAL POLE
10	-	-	-	-	-	-	NEW SIGNAL POLE
11	-	-	-	-	-	-	NEW SIGNAL POLE
12	-	-	-	-	-	-	NEW SIGNAL POLE
13	-	-	5.5m	3.0m	12.0m	175W LED	NEW COMBO MASTARM
14	-	-	-	3.0m	12.0m	175W LED	NEW COMBO POLE
15	-	-	-	-	-	-	NEW SIGNAL POLE
16	-	-	-	3.0m	12.0m	175W LED	NEW COMBO POLE
17	-	-	-	-	-	-	NEW SIGNAL POLE
18	-	-	-	-	-	-	NEW PUSHBUTTON POLE
19	-	-	-	3.0m	12.0m	175W LED	NEW COMBO POLE
20	-	-	-	-	-	-	NEW SIGNAL POLE
21	-	-	-	-	-	-	NEW SIGNAL POLE
22	-	-	-	-	-	-	NEW SIGNAL POLE
23	-	-	-	-	-	-	NEW SIGNAL POLE

CIRCUIT DETAILS				
SUPPLY POINT	SERVICE POINT	CIRCUIT	LAMPS	LAMPS
	MEN			VDROP/ZLOOP
FOR TS109 CIRCUIT DETAILS REFER DRG 7517 Sheets 0037 & 0038				
FOR PTZ ESSENTIAL DISTRIBUTION CIRCUIT DETAILS REFER DRG S-4055 Sheet 0073				

- NOTES:
- DETAILS PROVIDED BY SERVICE AUTHORITIES. DIT, ITS SERVANTS OR AGENTS SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED BY THE USE OF THIS SERVICES INFORMATION. THIS DESIGN MAY INCLUDE THE POSSIBILITY OF SERVICE CONFLICT AND / OR ENCROACHMENT WITHIN SAFETY CLEARANCES REQUIRING ASSESSMENT AND APPROVAL BY THE OFFICE OF TECHNICAL REGULATOR AND SERVICES AUTHORITIES.
 - THIS DESIGN COMPLIES WITH THE OFFICE OF THE TECHNICAL REGULATOR OVERHEAD & UNDERGROUND ELECTRICAL CABLES CLEARANCE REQUIREMENTS. IF DURING CONSTRUCTION IT IS DETERMINED THAT THE CLEARANCES CANNOT BE MET, WORK MUST IMMEDIATELY CEASE AND THE DESIGNER AND PROJECT MANAGER NOTIFIED.
 - ELECTRICAL DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AUSTRALIAN / NEW ZEALAND STANDARD 'AS/NZS 3000 ELECTRICAL INSTALLATIONS (WIRING RULES)'.
 - ALL SIGNAL CONDUIT TO BE 'CATEGORY A' UNDERGROUND PVC.
 - TELSTRA CONDUIT TO CONFORM TO AUSTRALIAN STANDARD 'AS 1477 PVC PIPES AND FITTINGS FOR PRESSURE APPLICATIONS' CLASS 12 WHITE.
 - FOR PIPEWORK DETAILS REFER TO DRAWING S-4516 SHEET 1.

THIS SHEET SUPERSEDES DRAWING 50332 SHEET 8

AMENDMENT DESCRIPTION

BY

CHECK

ACCEPTANCE

DATE

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100 MILLIMETRES ON ORIGINAL DRAWING

ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE

DESIGNED
WTK
QUALIFICATION DATE: 28/09/2020
REVIEWER
WTK
QUALIFICATION DATE: 28/09/2020
INDEPENDENT DESIGN CERTIFIER (IF REQUIRED)
GHD
QUALIFICATION DATE: 14/08/2020

Department for Infrastructure and Transport

PROJECT No.: 11221249
DESIGN No.: 201900680
PROJECT START ROAD RUNNING DISTANCE: 06461, CH 4.58
PROJECT END ROAD RUNNING DISTANCE: 06461, CH 7.15

FILE No.: 2019/06840
SURVEY No.: 201900516

SCALES:
6 0 3 6 9 12

ROAD No. 6464 / 6461 / 6458
GOODWOOD ROAD
SPRINGBANK - DAWS ROAD INTERSECTION
MC00; CH 110.00 - 220.00, MC10; CH 240.00 - 340.00
TRAFFIC SIGNAL CONDUIT

SIGNAL No.: TS109

DESIGNED: TK
DRAFTED: TK
ACCEPTED FOR USE: M. RANDER
TITLE: DELIVERY MANAGER
DATE: 10/11/2020

ACCEPTANCE FORM KNET No.: #163641111
DRAWING No.: 7517
SHEET No.: 35
AMEND No.: 0

PROJECT DOCUMENT REFERENCE
WTK 191090-DR-CV-0035

SHEET LATITUDE -34.991244
SHEET LONGITUDE 138.592709

CAD FILE NAME: 7517 SHEET 0035.DWG

ID	SET OUT PTSP PT ORIENTATION	MAST ARM OUTREACH	LIGHTING OUTREACH	LIGHT POLE MOUNTING HEIGHT	LAMP TYPE	COMMENTS
1	-	5.5m	3.0m	12.0m	175W LED	NEW COMBO MASTARM POLE
2	-	-	-	-	-	NEW SIGNAL POLE
3	-	-	-	-	-	NEW SIGNAL POLE
4	-	-	-	-	-	NEW SIGNAL POLE
5	-	-	3.0m	12.0m	175W LED	NEW COMBINATION POLE
6	-	-	-	-	-	NEW SIGNAL POLE

SUPPLY POINT	SERVICE POINT MEN	CIRCUIT	LAMPS	LAMPS VDROP/ZLOOP
FOR PC394 CIRCUIT DETAILS REFER DRG 7517 Sheet 0040				

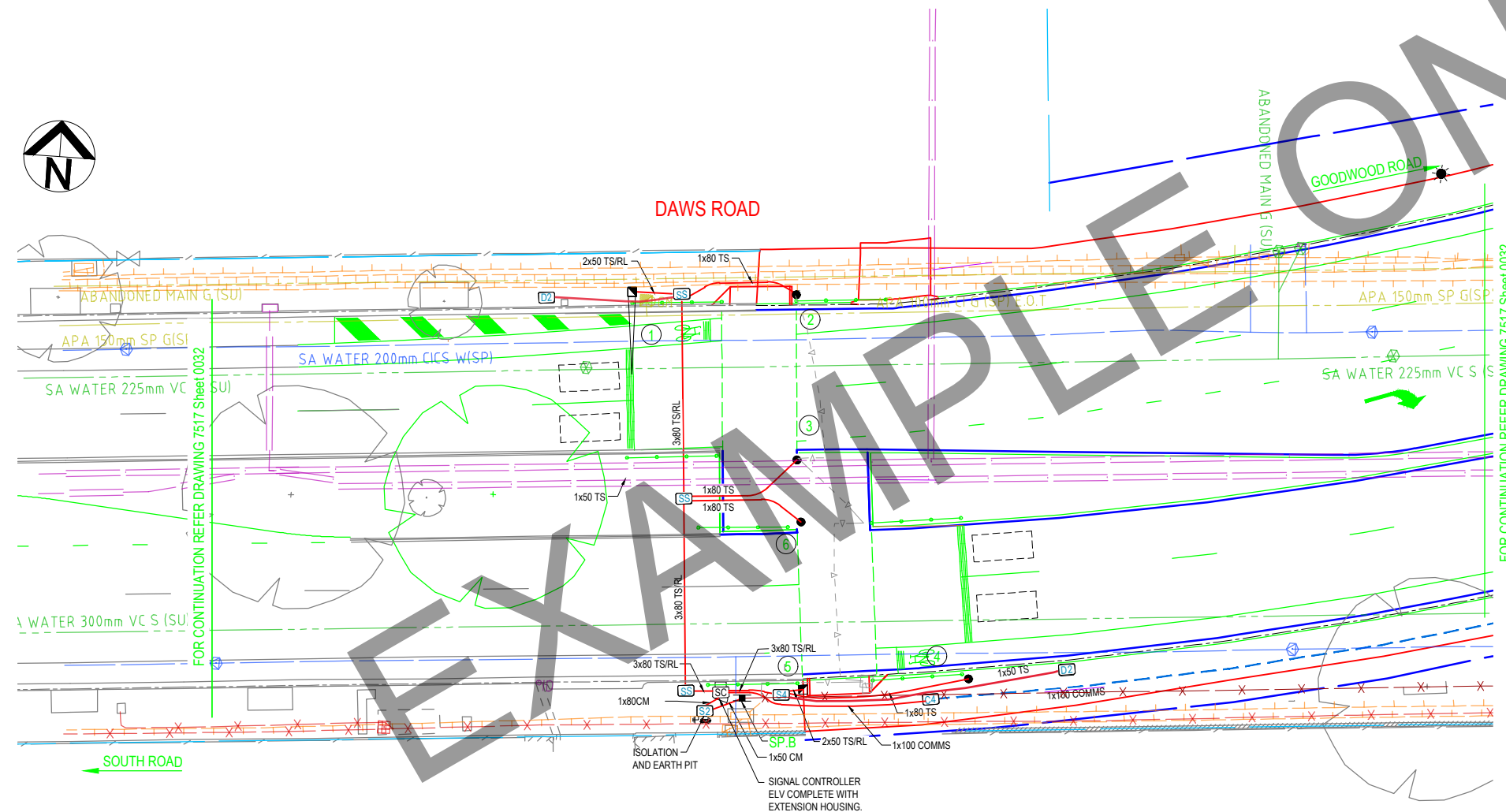
SYMBOL		DESCRIPTION		
STOBIE POLE		STOBIE POLE - INSTALL		CONDUIT - INSTALL (TRAFFIC SIGNAL DRAWINGS)
		LIGHT POLE BASE - INSTALL		CONDUIT - EXISTING
		TRAFFIC SIGNAL POLE		CONDUIT - REMOVAL
		POLE ID		CABLE: SAPN - UNDERGROUND
		COMBINATION LIGHTING / TRAFFIC SIGNAL POLE		CABLE: SAPN - OVERHEAD
		COMBINATION LIGHTING / TRAFFIC SIGNAL POLE WITH MAST ARM		CONDUIT - INSTALL (COMMUNICATIONS)
		DETECTOR PIT (TYPE 2)	TS	TRAFFIC SIGNAL
		TRAFFIC SIGNAL PIT (TYPE 1-8, SINGLE OR DOUBLE AS INDICATED)	CM	CONSUMER MAINS
		EARTHED	RL	ROAD LIGHTING
		SIGNAL CONTROLLER ELV (ATSC4 CONNECTED TO SCATS) WITH EXTENSION HOUSING		
		INDUCTIVE LOOP DETECTOR		
		SERVICE POINT: ON STOBIE POLE		

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4. ALL SIGNAL CONDUIT TO BE 'CATEGORY A' UNDERGROUND PVC.
5. TELSTRA CONDUIT TO CONFORM TO AUSTRALIAN STANDARD 'AS 1477 PVC PIPES AND FITTINGS FOR PRESSURE APPLICATIONS' CLASS 12 WHITE.
6. FOR PIPEWORK DETAILS REFER TO DRAWING S-4516 SHEET 1.

IGNAL No.:
PC394

DESIGNED:	DRAFTED:	ACCEPTED FOR USE:	ACCEPTANCE FORM KNET No.	DRAWING No.:	SHEET No.:	AMEND No.:
TK	TK	M. RANDER TITLE: DELIVERY MANAGER DATE: 10/11/2020	#163641111	7517	36	0
			IN ACCORDANCE WITH DP013	SHEET LATITUDE: 34.992056	SHEET LONGITUDE: 138.590661	

FILE NAME: 7517 SHEET 0036.DWG



**Government
of South Australia**

Department for
Infrastructure and Transport

PROJECT No.: 11221249	FILE No.: 2019/06840
DESIGN No.: 201900680	SURVEY No.: 201900516
PROJECT START ROAD RUNNING DISTANCE: 06461, CH 4.58	
PROJECT END ROAD RUNNING DISTANCE: 06461, CH 7.15	
SCALES:	
6	0 3 6 9 12

No.	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE	UNCONTROLLED COPY WHEN PRINTED	100 MILLIMETRES ON ORIGINAL DRAWING	ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
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