

PINE RIVERS SHIRE COUNCIL

DESIGN MANUAL

CIVIL INFRASTRUCTURE DESIGN



STANDARD DRAWINGS

- 8-10000 Roadworks
- 8-20000 Industrial Driveways
- 8-30000 Stormwater Drainage Works
- 8-40000 Water Supply Works
- 8-50000 Sewerage Works
- 8-60000 Traffic Control and Management
- 8-70000 Parks and Landscaping
- 8-90000 Miscellaneous Items

PINE RIVERS SHIRE COUNCIL

STANDARD DRAWINGS



8-10000 Series

ROADWORKS

DRAWING	AMEND	DESCRIPTION	DATE
8-10001	C	Cross-Section – Residential Access Place & Access Street	12/2004
8-10002	D	Cross-Section – Residential Collector Street	12/2004
8-10003	C	Cross-Section – Residential Single Sided Street	12/2004
8-10004	D	Cross-Section – Residential Bi-Level Street	12/2004
8-10005	E	Cross-Section – Residential Trunk Collector Street	12/2004
8-10006	E	Cross-Section – Urban Sub Arterial Road	12/2004
8-10007	D	Cross-Section – Urban Arterial Road	12/2004
8-10008	C	Verge & Access Profiles – Residential Access Place, Access Street & Collector Street	12/2004
8-10009	D	Verge Profile – Urban Sub-Arterial & Arterial Roads	11/2004
8-10010	D	Verge Profile – Residential Trunk Collector Street	12/2004
8-10011	B	Service Allocations - Urban Access Place, Access Street & Collector Street - Typical Layout Plan and Sectional View	12/2004
8-10012	B	Service Allocations – Residential Trunk Collector Street	12/2004
8-10013	B	Service Allocations - Urban Arterial and Sub-Arterial Roads	11/2004
8-10014	C	Cross-Section - Industrial Access Road and Verge Details	12/2004
8-10015	C	Cross-Section - Industrial Collector Road and Verge Details	12/2004
8-10016	A	Service Allocations for Industrial Access Road and Industrial Collector Road	07/2003
8-10017	B	Cross Section - Rural Residential Access Place	12/2004
8-10018	B	Cross Section - Rural Residential Access Street	12/2004
8-10019	B	Cross Section - Rural Residential Collector Street	12/2004
8-10020	B	Verge and Access Profiles - Rural Residential Access Place, Access Street & Collector Street	12/2004

DRAWING	AMEND	DESCRIPTION	DATE
8-10021	B	Cross Section - Rural Access Road	12/2004
8-10022	B	Cross Section - Rural Collector Road	12/2004
8-10023	B	Cross Section - Rural Sub-Arterial Road	12/2004
8-10024	B	Cross Section - Rural Arterial Road	12/2004
8-10025	B	Verge Profile - Rural Access and Collector Roads	12/2004
8-10026	B	Verge Profile - Rural Sub-Arterial and Arterial Roads	12/2004
8-10027	A	Service Allocations for Rural Residential Access Place/Street, Collector Street - Typical Layout Plan	07/2003
8-10028	A	Service Allocations for Rural Access, Collector, Sub-Arterial or Arterial Roads	07/2003
8-10029	B	Service Allocations, Typical Service Conduit Sections, General Notes and Cover Requirements	12/2004
8-10030	-	Standard Batter Profiles and Stabilisation Details. All Road Types Except Urban Access Place/Street and Collector Street.	07/2003
8-10036	E	Standard Concrete Pathways	11/2004
8-10037	-	Road Edge Guide Posts	09/1996
8-10038	-	Concrete Wheel Stops	07/2003
8-10039	B	Side Drains and Mitre Drains	11/2004
8-10040	B	Side Drain Flushing Points	06/1999
8-10041	-	Traffic Signs – Location and Post Details	11/2004
8-10042	-	Standard Access Pipe Crossing	11/2004
8-10043	C	Residential Access and Invert Crossings	11/2004
8-10044	A	Standard Kerb and Channel, Kerbs, and Spoon Drains	11/2004
8-10045	B	Standard Kerb Ramp	11/2004
8-10047	B	Street Signs	10/2004
8-10048	-	Street Signs – Sign and Blade Details	07/2003
8-10049	B	Roadside Drainage - Upgrading of Existing Roads - Swale Drains	11/2004
8-10050	B	Roadside Drainage - Upgrading of Existing Roads - Shoulder Dykes and Batter Drains	11/2004

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STANDARD DRAWINGS



8-20000 Series

INDUSTRIAL CROSSINGS

DRAWING	AMEND	DESCRIPTION	DATE
8-20001	A	Industrial Driveway Types 1 & 2	10/2004
8-20002	A	Industrial Driveway Types 3 & 4	10/2004
8-20003	A	Industrial Driveway Types 5 & 6	10/2004
8-20004	A	Industrial Driveway Type 7	10/2004
8-20005	C	Standard Industrial Driveway - Commercial/Industrial Developments - Construction Details	10/2004
8-20006	C	Special Industrial Driveway - Residential Developments - Construction Details	10/2004
8-20007	B	Bitumen Sealed Driveway	10/2004
8-20008	B	Industrial Driveway Extension and Reinstatement	10/2004
8-20009	A	Proposed Industrial Driveway Sealed Turnout	10/2004

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STANDARD DRAWINGS



8-30000 Series

STORMWATER DRAINAGE



DRAWING	AMEND	DESCRIPTION	DATE
8-30001	B	Gully Type 'A' for Upright Kerb and Channel	06/1999
8-30002	C	Gully Grate and Frame - Type 'A'	08/1999
8-30003	-	Catchpit Type 'A' for Layback Kerb and Channel	06/1999
8-30004	-	Standard Field Inlet	11/1995
8-30005	-	Side Entry Field Inlet	11/2004
8-30006	B	Standard 1100 dia. Stormwater Manhole	11/2004
8-30007	B	Standard 1350 dia. Stormwater Manhole	11/2004
8-30008	B	Standard 1500 dia. Stormwater Manhole	11/2004
8-30010	-	Standard Stormwater Manhole Cover & Frame - Concrete Filled	11/1995
8-30011	-	Standard Stormwater Manhole Cover and Frame - Cast Iron	09/1996
8-30012	-	Field inlet Pit Dome Top Cover	02/2005
8-30013	B	Bedding and Backfill to Pipes and Culverts Sheet 1 of 2	01/2005
8-30014	A	Bedding and Backfill to Pipes and Culverts Sheet 2 of 2	08/1999
8-30015	-	End Walls for Pipe Culverts 300 - 675 dia.	11/1995
8-30016	-	Wing Walls, Headwalls and Aprons for Pipe Culverts 750 - 2400 dia. - General arrangement	11/1995
8-30017	-	Wing Walls, Headwalls and Aprons for Pipe Culverts 750 - 2400 dia. - Details Sheet 1 of 2	11/1995
8-30018	-	Wing Walls, Headwalls and Aprons for Pipe Culverts 750 - 2400 dia. - Detail Sheet 2 of 2	11/1995
8-30019	-	End Walls to R.C. Box Culverts H > 750	11/1995
8-30020	-	Wing Walls and Headwalls for R.C. Box Culverts - Reinforcing Details Sheet 1 of 2	11/1995

DRAWING	AMEND	DESCRIPTION	DATE
8-30021	-	Wing Walls and Headwalls for R.C. box Culverts - Reinforcing Details Sheet 2 of 2	11/1995
8-30022	-	Bases and Aprons to R.C. Box Culverts - General arrangements	11/1995
8-30023	-	Bases and aprons to R.C. Box Culverts - Reinforcing details	11/1996
8-30024	-	R. C. Box Culvert crown unit holding down anchors	11/1995
8-30025	B	Security Grate for Stormwater Outlets	11/2004
8-30026	A	Pathway Detail as an Overland Flow Path	08/1999
8-30027	-	Sample Roofwater As-Constructed Plan	11/1996
8-30028	-	Roofwater & Stormwater Drains in Verge with Kerb Outlet	06/2003
8-30029	-	Weir Type Sediment and Trash Trap	11/1996
8-30030	-	Scour Basin Typical Details	11/1996
8-30031	-	Water Course Advisory Sign	11/1996
8-30032	-	Minor Gross Pollutant Trap - General Arrangement	02/1997
8-30033	-	Stormwater Drainage Calculation Sheet	02/2005
8-30034	-	New Pits and Manholes Over Existing Stormwater Pipes	02/2005
8-30035	-	Saddle Joint to Stormwater Systems	02/2005
8-30036	-	Catchpit Stencil / Imprint Environmental Awareness Message	06/1999
8-30037	-	Special 610 x 380 Catchpit	11/2004
8-30038	-	Roofwater Drainage Pit	11/2004

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STANDARD DRAWINGS



8-40000 Series

WATER SUPPLY WORKS



DRAWING	AMEND	DESCRIPTION	DATE
8-40001	A	Sample Water Reticulation As Constructed	12/2004
8-40002	A	Hydrant and Valve Installations	02/2005
8-40003	A	Guide to use of Pavement Markers and Delineators for Locating Hydrants and Valves	04/2001
8-40004	A	Hydrant, Valve and Main Marker Posts	02/2005
8-40005	A	Valve and Hydrant Inspection Boxes	04/2001
8-40006	-	Thrust Block Details	06/1998
8-40007	A	50 dia. And 80 dia. Air Valve Installation Details	02/2005
8-40008	-	Air Valve Sizing for Large Orifice Air Valves Relative to Scour Discharge	06/1998
8-40009	-	Scour Outlets - General Arrangements	08/1998
8-40010	A	Typical Trench Details For Water Main Construction	12/2004
8-40011	A	Section Valve Pit and Interconnection Pit -General Arrangements	02/2005
8-40012	B	Pressure Reducing Valve Pit - Pit and Pipework	12/2004
8-40013	-	Pressure Reducing Valve Pit - Cover and Frame	06/1998
8-40014	-	Pressure Gauge and Line installation Detail	06/1998
8-40015	-	Offtake From Mains - Typical Details	08/1998
8-40016	A	Property Service Conduits	02/2005
8-40017	B	20 dia. and 25 dia. Copper Property Services	12/2002
8-40018	-	40 dia. to 80 dia. Property Service	08/1998
8-40019	A	40 dia. to 80 dia. Property Service With Hydrant Line	12/2004
8-40020	-	Combination Metered Property Service	08/1998
8-40021	A	Combination Metered Property Service with Hydrant Line	12/2004

DRAWING	AMEND	DESCRIPTION	DATE
8-40022	-	New 20 dia. and 25 dia. Water Meter Installation Layout and Details	02/2005

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STANDARD DRAWINGS



8-50000 Series

SEWERAGE WORKS



DRAWING	AMEND	DESCRIPTION	DATE
GENERAL			
8-50001	A	Sample As Constructed	04/2001
8-50002	B	Sewer Manhole Type 1 - 1100 dia. and Step Irons	11/2004
8-50003	C	Sewer Manhole Type 2 - 1500 dia.	02/2005
8-50004	C	Precast Concrete Manhole - 1050 dia.	02/2005
8-50006	B	Details of Inlets and Outlets	02/2001
8-50007	-	Sewer Manhole Covers and Frames	05/1997
8-50008	A	Pipeline Construction - Typical Trench Details	02/2005
8-50009	C	House Connection Branches	02/2005
8-50010	A	Standard Reinforcement Details	02/2005
SEWAGE PUMPING STATIONS AND RISING MAINS			
8-50015	A	General Arrangement - 2000 dia.	02/2001
8-50016	-	Reinforcement - 2000 dia.	05/1997
8-50017	A	Backflow Prevention Device	02/2001
8-50018	A	Sewage Overflow Arrangement	02/2005
8-50019	A	Air Release	02/2005
8-50020	-	Probac Tank and Pump	04/2000
8-50021	A	Amenities Building Pumping Station	02/2005
8-50023	-	Pump Selection Curves	05/1997
8-50024	-	Design Information	05/1997
8-50025	-	As Constructed Details	05/1997
8-50026	-	Pressure Main Discharge Manhole	02/2001

DRAWING	AMEND	DESCRIPTION	DATE
8-50027	A	Sewer Valve Installation Details	02/2005
8-50028	-	Rising Main Scour Discharge Detail	02/2001
8-50029	A	Rising Main Manual Air Release Vent Connection Details	02/2005
FABRICATED METALWORK			
8-50040	-	Aluminium Handrails	02/2001
8-50041	-	Aluminium Ladders	02/2001
8-50042	-	Fabricated Metalwork Sheet 1 of 2	02/2001
8-50043	-	Fabricated Metalwork Sheet 2 of 2	02/2001
VENT POLES			
8-50050	A	7.2m - On Station Installation	02/2005
8-50051	A	7.2m - Remote Installation	02/2005
8-50052	A	12.0m - On Station Installation	02/2005
8-50053	A	12.0m - Remote Installation	02/2005
TRADE WASTE			
8-50080	-	Venting Details – Interceptor Traps and Holding Tanks	12/2004
8-50081	-	Mica Flap Vent and Box Detail	12/2004
ELECTRICAL SWITCHBOARDS			
8-50100	D	22kW Switchboard - Schematic Wiring Diagram	02/2005
8-50101	D	22kW Switchboard - Equipment Schedule	02/2005
8-50102	D	22kW Switchboard - Construction Requirements	02/2005
8-50103	C	22kW Switchboard - Cubicle Construction Details	02/2005
8-50110	A	22-50kW Switchboard - Schematic Wiring Diagram	02/2005
8-50111	A	22-50kW Switchboard - Equipment Schedule	02/2005
8-50112	A	22-50kW Switchboard - Cubicle Construction Schedule	02/2005
8-50113	A	22-50kW Switchboard - Cubicle Construction Details	02/2005
8-50120	A	50kW & Up Switchboard - Pump 1 Wiring Diagram	02/2005
8-50121	A	50kW & Up Switchboard - Equipment Schedule	02/2005
8-50122	A	50kW & Up Switchboard - Cubicle Construction Schedule	02/2005
8-50123	A	50kW & Up Switchboard - Cubicle Construction Details	02/2005
8-50124	-	50kW & Up Switchboard - Pump 2 Wiring Diagram	02/2005
8-50125	-	50kW & Up Switchboard – Disconnection Box Details	02/2001

DRAWING	AMEND	DESCRIPTION	DATE
ELECTRICAL MISCELLANEOUS			
8-50140	A	Electrical Conduit Pit - Types 1 and 2	02/2005
8-50141	-	Disconnecter Box and Base	05/1997
8-50144	-	Optional Vent Fan / Flow Meter Installation - Schematic Wiring Diagram	02/2005
8-50147	-	Optional Compressor Installation - Schematic Wiring Diagram	02/2005
8-50153	-	Standard Pump Station Installation - Radio Telemetry Equipment Layout	02/2005
VARIABLE FREQUENCY DRIVES			
8-50170	-	50kW & Up Variable Frequency Drive - Schematic Wiring Diagram	02/2005
8-50171	-	50kW & Up Variable Frequency Drive - Schematic Wiring Diagram	02/2005
8-50172	-	50kW & Up Variable Frequency Drive - Vent Fan Wiring Diagram	02/2005
8-50173	-	50kW & Up Variable Frequency Drive - Equipment Schedule	02/2005
8-50174	-	50kW & Up Variable Frequency Drive - Switchboard Layout	02/2005
8-50175	-	50kW & Up Variable Frequency Drive - Switchboard Sectional Views	02/2005
8-50176	-	50kW & Up Variable Frequency Drive - Disconnection Box Details	02/2005
8-50177	-	50kW & Up Variable Frequency Drive - Switchboard Room Layout	02/2005
CONTRACT CAD DRAWINGS – TO BE COMPLETED WITH DESIGNS AND AS CONSTRUCTED DATA			
CS 8-50015	A	General Arrangement - 2000 dia.	02/2001
CS 8-50024	-	Design Information	05/1997
CS 8-50025	-	As Constructed Details	05/1997

PINE RIVERS SHIRE COUNCIL

STANDARD DRAWINGS



8-60000 Series TRAFFIC CONTROL



DRAWING	AMEND	DESCRIPTION	DATE
8-60001	-	Manoeuvring Template - Small Car 5.1m.	06/1995
8-60002	-	Manoeuvring Template - Medium Car 6.1 m.	06/1995
8-60003	A	Manoeuvring Template - Large Car 6.4 m.	02/2005
8-60004	-	Turning Template - car and trailer 10mt.	06/1995
8-60005	-	Manoeuvring Template - Car & Trailer 7.5 m.	06/1995
8-60006	-	Turning Template - Van 8 m.	06/1995
8-60007	-	Manoeuvring Template - Van 7 m.	06/1995
8-60008	-	Turning Template - Small Rigid Vehicle - 10m.	06/1995
8-60009	A	Manoeuvring Template - Small Rigid Vehicle 7.1m.	02/2005
8-60010	A	Turning Template - Medium Rigid Vehicle 11m.	02/2005
8-60011	A	Manoeuvring Template - Medium Rigid Vehicle 8.5m.	02/2005
8-60012	A	Turning Template - Heavy Rigid Vehicle 12.5m.	02/2005
8-60013	A	Manoeuvring Template - Heavy Rigid Vehicle 11.0 m.	02/2005
8-60014	A	Turning Template - Commercial Collection Vehicle 12.5m.	02/2005
8-60015	A	Manoeuvring Template - Commercial Collection Vehicle 11.8m.	02/2005
8-60016	A	Turning Template - Coach (Tourist Bus) 12.5m.	02/2005
8-60017	A	Manoeuvring Template - Coast (Tourist Bus) 11.5m.	02/2005
8-60018	A	Turning Template - Articulated Vehicle 12.5m.	02/2005
8-60019	A	Manoeuvring Template - Articulated Vehicle 11.0m.	02/2005
8-60020	A	3 Point Turn Manoeuvre - Articulated Vehicle	02/2005
8-60021	A	Manoeuvring Template - Domestic Collection vehicle 9.2m.	02/2005
8-60022	-	Turning Template - Large Car 8.0m.	04/1996

DRAWING	AMEND	DESCRIPTION	DATE
8-60023	A	Turning Template - Domestic Collection Vehicle 11m.	02/2005
8-60024	A	Turning Template - Domestic Collection Vehicle 15m.	02/2005
8-60025	-	Turning Template - Heavy Rigid Vehicle 15m.	04/1996
8-60026	-	Turning Template - Coach (Tourist Bus) 15m.	04/1996
8-60027	-	Turning Template - Articulated Vehicle 15m.	04/1996
8-60028	A	Standard Watts Profile - Road Hump for Existing Roads Only	12/2004
8-60029	B	Standard Flat Top Road Hump for Existing Roads Only	12/2004
8-60030	B	Standard Splitter Island for Existing Roads Only	07/2003
8-60031	A	Standard Blister Island for Existing Roads Only	02/2003
8-60032	C	Standard Pedestrian Refuge for Existing Roads Only	12/2004
8-60033	A	Standard 3 Rail Chicane Treatment for Bike/Footways	02/2005
8-60034	A	Standard Bike / Footway Termination at Roads of Collector Standard or Greater	02/2005
8-60035	A	Standard Bike / Footway Direct Road Crossing	02/2005
8-60036	A	Standard Bike / Footway Chicane Barrier Types and Installation	02/2005
8-60037	-	Typical Signing Treatment of Combined Bicycle/Footway at Roadway Crossings	08/1999
8-60038	A	Bike / Footways Beside Roads Kerb Ramp Locations at Intersections	06/2001
8-60039	A	Splitter Islands Type 3 for Existing Roads greater than 10m Wide	02/2003
8-60040	-	Manoeuvring Template – Domestic Collection Vehicle 8.5m	11/2004
8-60041	-	Manoeuvring Template – Crane Truck 7.5m	11/2004
8-60042	-	Standard Two Lane Threshold Type 1	11/2004
8-60043	-	Standard Single Lane Threshold	11/2004
8-60044	-	Standard Single Lane Slowpoint	11/2004

PINE RIVERS SHIRE COUNCIL

STANDARD DRAWINGS



8-70000 Series

PARKS AND GARDENS



DRAWING	AMEND	DESCRIPTION	DATE
8-70001	A	Planting Restrictions on Footpaths and Roadways	02/2005
8-70002	A	Landscape Planting - Median Strips and Roundabouts	02/2005
8-70003	B	Hardwood Timber Vehicle Barrier and Bollard	12/2004
8-70004	A	Trail Marker Posts	12/2004
8-70005	A	Trail Marker Post – Directional Arrow Plate	12/2004
8-70006	A	Trail Marker Post – Horse and Rider and Bicycle Template	12/2004
8-70007	A	Trail Marker Post - Walking Template	12/2004
8-70008	-	Street Tree Planting	02/2005
8-70009	-	Hardwood Timber Pedestrian Barrier	12/2004
8-70010	-	Vehicle Gate with Hardwood Timber Post	12/2004
8-70011	-	Drinking Fountain	12/2004

PINE RIVERS SHIRE COUNCIL

STANDARD DRAWINGS



8-90000 Series MISCELLANEOUS



DRAWING	AMEND	DESCRIPTION	DATE
8-90001	-	Chain Wire Security Fence	11/2004
8-90002	-	Bus Shelter Shed - Pictorial Views	08/2003
8-90003	-	Bus Shelter Shed - Structural Details and Floor Plan	08/2003
8-90004	-	Bus Shelter Shed - Lattice Panel and Post Details	08/2003
8-90005	-	Bus Shelter Shed - Roofing Structure Details	08/2003
8-90006	-	Bus Shelter Shed - Seating Details	08/2003
8-90007	-	PRSC Date Plate – General Arrangement	11/2004
8-90008	-	Standard Step Iron	11/2004