

THE REGIONAL MUNICIPALITY OF DURHAM

DESIGN SPECIFICATIONS FOR CAD DRAWING STANDARDS

WORKS DEPARTMENT

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1. Introduction

The following requirements shall be used as guidelines for the preparation of engineering drawings for Region of Durham contracts.

Note: Civil 3D Template Drawings are available upon request, for the creation of standard contract drawings from the Region of Durham, Works Department 905-668-7711 Ext. 3419.

In summary, drawings submitted to the Region of Durham shall be in the following format:

- 1.1 <u>AutoCAD</u>
 - current version of AutoCAD being used by the Region of Durham at the time the drawings are being prepared
- 1.2 Page Size
 - ISO A1 (594 mm X 841 mm = 23.39 in. X 33.11 in.)
 - ARCH D (609.6 mm X 914.4 mm = 24 in. X 36 in.)
 - ANSI B half size (279 mm X 432 mm = 11 in. X 17 in.)

1.3 <u>Units</u>

- Linear Metres
- Linear Millimeters for structural drawings
- Angle Degrees
- 1.4 <u>Scale</u>
 - Plan/Profile Horizontal 1:250 or 1:500, Vertical 1:50
 - Design Cross-Sections Horizontal 1:250, Vertical 1:50 or Horizontal 1:200, Vertical 1:40
 - Typical Sections 2:1 Vertical

1.5 <u>Text Font</u>

- RomanS for text height 0.40 to 1.50
- Arial for text height greater than 1.50
- Use L80 for Existing text and L100 for Proposed text, unless otherwise approved by Region Project Manager
- Apply the corresponding text heights for the scale (1:250 L80 = 0.50, L100 = 0.65; 1:500 L80 = 1.0, L100 = 1.30)

1.6 <u>Co-ordinates</u>

• UTM NAD83, Zone 17

2. Layering Structure

2.1 Digital Terrain Model and Base Plans

The PCODE Structure Chart is available upon request.

2.2 Engineering Drawings

The AutoCAD drawing template file for existing and proposed layers is available electronically upon request, (DrawingStandards\TemplateDrawings\RMD C3D.dwt).

All drawings submitted shall be in accordance with the layer structure as outlined in the following AutoCAD Layering Guide.

AutoCAD Layering Guide								
*All existing base layers to be colour 252 when used in contract drawings.								
Layer Name	*Colour	Pen Size	Text Height (1:250)	Linetype	Description			
_V-PORTS	8	0.13		Continuous	Viewport			
Description	7 (white)	0.25	0.5	Continuous	Description			
DIMENSIONS	7 (white)	0.25	0.5	Continuous	DIMENSIONS			
EX-ALGN	7 (white)	0.25	0.5	Continuous	Existing Alignment			
EX-ALGN-TEXT	50	0.4	0.5	Continuous	Existing Alignment- Labeling			
EX-ANTENNA- SYM	7 (white)	0.25	0.5	Continuous	Antenna			
EX-BELL-SYM	7 (white)	0.25	0.5	Continuous	Existing Bell Symbol			
EX-BLDG	6 magenta)	1	0.5	Continuous	Existing Building			
EX-BLDG-BUS	7 (white)	0.25	0.5	Continuous	Existing Building Bus			
EX-BLDG-DRAN	7 (white)	0.25	0.5	Continuous	Existing Building Drain			
EX-BLDG-GARB	8	0.13	0.5	Continuous	Existing Building Garbage			
EX-BLDG-HAND	6 magenta)	1	0.5	Continuous	Existing Building Hand			
EX-BLDG-PATIO	7 (white)	0.25	0.5	Continuous	Existing Building Patio			
EX-BLDG-PIER	7 (white)	0.25	0.5	Continuous	Existing Building Pier			

Layers not appearing on this list may be added at the designer's discretion.

The Regional Municipality of Durham Works Department

AutoCAD Layering Guide								
*All existing base layers to be colour 252 when used in contract drawinLayer Name*ColourPenTextLinetypeDescription								
	Colour	Size	Height (1:250)		Description			
EX-BLDG-PILR	7 (white)	0.25	0.5	Continuous	Existing Building Pillar			
EX-BLDG-PRCH	6 magenta)	1	0.5	Continuous	Existing Building Porch			
EX-BLDG-SPRK	7 (white)	0.25	0.5	Continuous	Existing Building SPRK			
EX-BLDG-STEP	7 (white)	0.25	0.5	Continuous	Existing Building Step			
EX-BOLLARD-SYM	7 (white)	0.25	0.5	Continuous	Existing Bollard Symbol			
EX-BOULDER- SYM	7 (white)	0.25	0.5	Continuous	Existing Boulder Symbol			
EX-CABLE-SYM	7 (white)	0.25	0.5	Continuous	Existing Cable Symbol			
EX- CLEAN_CLEANOU T -SYM	7 (white)	0.25	0.5	Continuous	Existing cleanout Symbol			
EX-CONC_MO- SYM	7 (white)	0.25	0.5	Continuous	Existing Concrete Monument Symbol			
EX-CONTROL- SYM	7 (white)	0.25	0.5	Continuous	Existing Control Symbol			
EX-CULVERT-SYM	7 (white)	0.25	0.5	Continuous	Existing Culvert Symbol			
EX-CULV-FIELD	7 (white)	0.25	0.5	Continuous	EX-CULV-FIELD			
EX-DECID-SYM	7 (white)	0.25	0.5	Continuous	Existing Deciduous Symbol			
EX-DICBMH-SYM	7 (white)	0.25	0.5	Continuous	Existing Ditch Inlet Catchbasin Symbol			
EX- DRAINBRIDGE- SYM	7 (white)	0.25	0.5	Continuous	Existing Bridge Drain Symbol			
EX-FDN_DRAIN- SYM	7 (white)	0.25	0.5	Continuous	Existing Foundation Drain Symbol			
EX-FENCE-SYM	7 (white)	0.25	0.5	Continuous	Existing Fence Symbol			
EX- FRENCH_DRAIN- SYM	7 (white)	0.25	0.5	Continuous	Existing French Drain Symbol			
EX-GAS_PUMP- SYM	7 (white)	0.25	0.5	Continuous	Existing Gas Pump Symbol			
EX-GAS-SYM	7 (white)	0.25	0.5	Continuous	Existing Gas Symbol			
EX-HYDRO-SYM	7 (white)	0.25	0.5	Continuous	Existing Hydro Symbol			
EX-LEACH_INV- SYM	7 (white)	0.25	0.5	Continuous	Existing Leach Inv Symbol			

AutoCAD Layering Guide								
*All existing base layers to be colour 252 when used in contract drawings.								
Layer Name	*Colour	Pen	Text	Linetype	Description			
		Size	Height (1:250)					
EX-LEGAL-SYM	7 (white)	0.25	0.5	Continuous	Existing Legal Symbol			
EX-MAIL-SYM	7 (white)	0.25	0.5	Continuous	Existing Mail Symbol			
EX-MH-SYM	7 (white)	0.25	0.5	Continuous	Existing MH Symbol			
EX-MISC-ANTA	7 (white)	0.25	0.5	Continuous	Existing Misc Antenna			
EX-MISC-BORE	7 (white)	0.25	0.5	Continuous	Existing Misc Borehole			
EX-MISC- INTERLOC	7 (white)	1	0.5	Continuous	Existing Misc Interlock			
EX-MISC-SCALE	6(magen ta)	1	0.5	Continuous	Existing Misc Scale			
EX-MISC-SYM	7 (white)	0.25	0.5	Continuous	Existing Misc Symbol			
EX-MISC-TEST	7 (white)	0.25	0.5	Continuous	Existing Misc Test			
EX-MISC-TOWR	7 (white)	0.25	0.5	Continuous	Existing Misc Tower			
EXOBWELLPL	7 (white)	0.25	0.5	Continuous	Existing OBS Well			
EX-OUTFALL_INV-	7 (white)	0.25	0.5	Continuous	Existing Outfall Invert Symbol			
EX-PAVE	7 (white)	0.25	0.5	Continuous	Existing Pavement			
EX-PAVE-ASPH	1 (red)	0.25	0.5	Continuous	Existing Pavement Ashpalt			
EX-PAVE-BRCK	7 (white)	0.25	0.5	Continuous	Existing Pavement Brick			
EX-PAVE-CLAY	7 (white)	0.25	0.5	Continuous	Existing Pavement Clay			
EX-PAVE-CONC	8	0.13	0.5	Continuous	Existing Pavement Concrete			
EX-PAVE-CONC- STAM	8	0.13	0.5	Continuous	Existing Pavement Concrete STAM			
EX-PAVE-EDGE	1 (red)	0.25	0.5	Continuous	Existing Pavement Edge			
EX-PAVE-GRAV	7 (white)	0.25	0.5	HIDDEN2	Existing Pavement Gravel			
EX-PAVE-JOIN	1 (red)	0.25	0.5	Continuous	Existing Pavement Joint			
EX-PAVE-WALK	8	0.13	0.5	Continuous	Existing Pavement WALK			
EX-PILLAR-SYM	7 (white)	0.25	0.5	Continuous	Existing Pillar Symbol			
EX-PRCL-BLK	74	0.01	0.5	DASHED2	Existing Proposed Centerline BLK			
EX-PRCL-ESMT	42	0.13	0.5	DASHED2	Existing Proposed Centerline Estimate			
EX-PRCL-LOT	14	0.19	0.5	DASHED2	Existing Proposed Centerline			

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.								
All existing t	when used in o	contract drawings.						
Layer Name	*Colour	Pen Size	Text Height (1:250)	Linetype	Description			
EX-PRCL-TABL	7 (white)	0.25	0.5	Continuous	Existing Proposed Centerline Table			
EX-PRCL-TEXT	50	0.4	0.5	Continuous	Existing Proposed Centerline Text			
EX-PROF	231	0.35	0.5	HIDDEN	Existing Profile			
EX-PROF-TEXT	231	0.35	0.5	Continuous	Existing Profile- Labeling			
EX-PROPERTY LINE	13	0.5	0.5	Continuous	Existing Property Line			
EX-RAIL	7 (white)	0.25	0.5	Continuous	Existing Rail			
EX-RAIL-CL	7 (white)	0.25	0.5	CENTER2	Existing Rail Centerline			
EX-RAIL-SYM	7 (white)	0.25	0.5	Continuous	Existing Rail Symbol			
EX-ROAD-BARI	7 (white)	0.25	0.5	Continuous	Existing Road BARI			
EX-ROAD-BRDG	6(magen ta)	1	0.5	Continuous	Existing Road BRDG			
EX-ROAD-CL	7 (white)	0.25	0.5	CENTER2	Existing Road Centerline			
EX-ROAD-CONC	7 (white)	0.25	0.5	Continuous	Existing Road Concrete			
EX-ROAD-CRWN	7 (white)	0.25	0.5	CENTER2	EX-ROAD-CRWN			
EX-ROAD-CURB	1 (red)	0.25	0.5	Continuous	Existing Road Curb			
EX-ROAD-CURB- CONC	8	0.13	0.5	Continuous	Existing Road Curb Concrete			
EX-ROAD-DRIV	7 (white)	0.25	0.5	Continuous	Existing Road Driveway			
EX-ROAD-DRIV- CONC	8	0.13	0.5	Continuous	Existing Road Driveway Concrete			
EX-ROAD-GRAV	7 (white)	0.25	0.5	HIDDEN2	Existing Road Gravel			
EX-ROAD-GUID	8	0.13	0.5	Continuous	Existing Road Guide			
EX-ROAD-LANE- YELLOW	40	1	0.5	Continuous	Existing Road Lane Yellow			
EX-ROAD-MRKS	7 (white)	0.25	0.5	DASHED2	Existing Road Marks			
EX-ROAD-SENS- TRAF	2 (yellow)	0.25	0.5	Continuous	Existing Road Sensor Traffic			
EX-ROAD-SHLD	1 (red)	0.25	0.5	Continuous	Existing Road Shoulder			
EX-ROAD-SHLD- GR	7 (white)	0.25	0.5	HIDDEN2	Existing Road Shoulder Gravel			
EX-ROAD-STOP	7 (white)	0.25	0.5	Continuous	Existing Road STOP			
EX-ROAD-XWLK	7 (white)	0.25	0.5	Continuous	Existing Road Crosswalk			

AutoCAD Layering Guide								
*All existing base layers to be colour 252 when used in contract drawings.								
Layer Name	*Colour	Pen Size	Text Height	Linetype	Description			
		Size	Height (1:250)					
EX-SAN-SYM	7 (white)	0.25	0.5	Continuous	Existing Sanitary Symbol			
EX-SECT	231	0.35	0.5	STORM	Existing Section			
EX-SIGN-SYM	7 (white)	0.25	0.5	Continuous	Existing Sign Symbol			
EX-SPRING-SYM	7 (white)	0.25	0.5	Continuous	Existing Spring Symbol			
EX-STRM-SYM	7 (white)	0.25	0.5	Continuous	Existing Storm Symbol			
EX-STONE_MO- SYM	7 (white)	0.25	0.5	Continuous	Existing Stone Monument Symbol			
EX-SURV	7 (white)	0.25	0.5	Continuous	Existing Survey			
EX-SURV-CTRL	7 (white)	0.25	0.5	Continuous	Existing Survey Control			
EX-SURV-MISC	7 (white)	0.25	0.5	Continuous	Existing Survey Misc			
EX-SURV-MONU- CONC	7 (white)	0.25	0.5	Continuous	Existing Survey Monument Concrete			
EX-SURV-MONU- STON	7 (white)	0.25	0.5	Continuous	Existing Survey Monument Stone			
EX-SURV-TEXT	7 (white)	0.25	0.5	Continuous	Existing Survey- Labeling			
EX-TOPO	7 (white)	0.25	0.5	DOT2	Existing Topo			
EX-TOPO-BLDR	7 (white)	0.25	0.5	Continuous	Existing Topo BLDR			
EX-TOPO-BOLL	7 (white)	0.25	0.5	Continuous	Existing Topo BOLL			
EX-TOPO-BUS	7 (white)	0.25	0.5	Continuous	Existing Topo Bus			
EX-TOPO-CMTRY	7 (white)	0.25	0.5	Continuous	Existing Topo Cemetery			
EX-TOPO-CONT- MAJR	253	0.13	0.5	HIDDEN	Existing Topo Contour Major			
EX-TOPO-CONT- MINR	251	0.13	0.5	HIDDEN2	Existing Topo Contour Minor			
EX-TOPO-CREK	5 (blue)	0.25	0.5	Continuous	Existing Topo Creek			
EX-TOPO-CREK- CL	5 (blue)	0.25	0.5	CENTER2	Existing Topo Creek Centerline			
EX-TOPO-DAM	7 (white)	0.25	0.5	Continuous	Existing Topo Dam			
EX-TOPO-DTCH- CL	7 (white)	0.25	0.5	CENTER2	Existing Topo Ditch Centerline			
EX-TOPO-FENC	7 (white)	0.25	0.5	Continuous	Existing Topo Fence			
EX-TOPO-FENC- CHAN	7 (white)	0.25	0.5	Fence_Ch ain Link	Existing Topo Fence Chainlink			
EX-TOPO-FENC- IRON	7 (white)	0.25	0.5	Continuous	Existing Topo Fence Iron			
EX-TOPO-FENC- PW	7 (white)	0.25	0.5	Fence_Sto ck	Existing Topo Fence Post and Wire			

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.								
*All existing b	vhen used in o Linetype	contract drawings. Description						
Layer Name	*Colour	Pen Size	Text Height	спетуре	Description			
			(1:250)					
EX-TOPO-FENC- RAIL	7 (white)	0.25	0.5	Guide_Rail	Existing Topo Fence Rail			
EX-TOPO-FENC- SNOW	7 (white)	0.25	0.5	Continuous	Existing Topo Fence Snow			
EX-TOPO-FENC- WOOD	7 (white)	0.25	0.5	Fence_Sto c	Existing Topo Fence Wood			
EX-TOPO-MAIL	7 (white)	0.25	0.5	Continuous	Existing Topo Mail			
EX-TOPO-MARSH	5 (blue)	0.25	0.5	Continuous	Existing Topo Marsh			
EX-TOPO-MISC	7 (white)	0.25	0.5	Continuous	Existing Topo Misc			
EX-TOPO-PNTS	7 (white)	0.25	0.5	Continuous	Existing Topo Points			
EX-TOPO-POND	5 (blue)	0.25	0.5	Continuous	Existing Topo Pond			
EX-TOPO-RIPR	7 (white)	0.25	0.5	Continuous	Existing Topo RIPR			
EX-TOPO-ROCK	8	0.13	0.5	Continuous	Existing Topo Rock			
EX-TOPO-SIGN	7 (white)	0.25	0.5	Continuous	Existing Topo Sign			
EX-TOPO-SPRNG	7 (white)	0.25	0.5	Continuous	Existing Topo Spring			
EX-TOPO-SWAL- CL	7 (white)	0.25	0.5	CENTER2	Existing Topo Swale Centerline			
EX-TOPO-TEXT	1 (red)	0.25	0.5	Continuous	Existing Topo-Labeling			
EX-TOPO-TINN- ANAL	252	0.25	0.5	Continuous	Existing Topo TINN- ANAL			
EX-TOPO-TINN- BRDR	3 (green)	0.25	0.5	Continuous	Existing Topo TINN- BRDR			
EX-TOPO-TINN- LINE	3 (green)	0.25	0.5	Continuous	Existing Topo TINN- LINE			
EX-TOPO-TINN- PNTS	1 (red)	0.25	0.5	Continuous	Existing Topo TINN- Points			
EX-TOPO-WALL	7 (white)	0.25	0.5	Continuous	Existing Topo Wall			
EX-TOPO-WALL- BRCK	1 (red)	0.25	0.5	Continuous	Existing Topo Wall Brick			
EX-TOPO-WALL- CONC	8	0.13	0.5	Continuous	Existing Topo Wall Concrete			
EX-TOPO-WALL- GABN	8	0.13	0.5	Continuous	Existing Topo Wall Gabion			
EX-TOPO-WALL- STEL	7 (white)	0.25	0.5	Continuous	Existing Topo Wall Steel			
EX-TOPO-WALL- STON	8	0.13	0.5	Continuous	Existing Topo Wall Stone			
EX-TOPO-WALL- TIMB	7 (white)	0.25	0.5	Continuous	Existing Topo Wall Timber			

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.								
*All existing t Layer Name	*Colour	to be c Pen Size	Olour 252 (Text Height (1:250)	Linetype	Description			
EX-TREE-SYM	7 (white)	0.25	0.5	Continuous	Existing Topo Tree Symbol			
EX-UTIL-BELL	152	0.01	0.5	BellCable_ Un- derground	Existing Bell			
EX-UTIL-BELL- VALT	2 (yellow)	0.25	0.5	Continuous	Existing Bell Vault			
EX-UTIL-CATV	7 (white)	0.25	0.5	TVCable_ Un- derground	Existing Cable			
EX-UTIL-CATV- DISH	7 (white)	0.25	0.5	Continuous	Existing Cable Dish			
EX-UTIL-COMM	2 (yellow)	0.25	0.5	Continuous	Existing COMM			
EX-UTIL-COMM- TOWR	2 (yellow)	0.25	0.5	Continuous	Existing COMM Tower			
EX-UTIL-ELEC- GUY	2 (yellow)	0.25	0.5	Continuous	Existing Electric Guy Wire			
EX-UTIL-ELEC- TRANS-VALT	2 (yellow)	0.25	0.5	Continuous	Existing Electric Transformer Vault			
EX-UTIL-ELEC- TRNS	7 (white)	0.25	0.5	Continuous	Existing Electric TRNS			
EX-UTIL-FUEL	7 (white)	0.25	0.5	Continuous	Existing Fuel			
EX-UTIL-FUEL- TANK	8	0.13	0.5	Continuous	Existing Fuel Tank			
EX-UTIL-GAS	2 (yellow)	0.25	0.5	GasLine	Existing Gas			
EX-UTIL-HYDRO	7 (white)	0.25	0.5	HydroCabl e_Undergr ound	Existing Hydro			
EX-UTIL-HYDRO- TOWR	230	0.21	0.5	Continuous	Existing Hydro Tower			
EX-UTIL-HYDRO- TRAF	7 (white)	0.25	0.5	Continuous	Existing Hydro Transformer			
EX-UTIL-LOCT- CATV	12	0.25	0.5	TVCable_ Un- derground	Existing Cable Locate			

AutoCAD Layering Guide								
*All existing base layers to be colour 252 when used in contract drawings.								
Layer Name	*Colour	Pen Size	Text Height (1:250)	Linetype	Description			
EX-UTIL-LOCT- FOC	12	0.25	0.5	FOC FIBER OPTIC	Existing FOC Locate			
EX-UTIL-LOCT- GAS	72	0.01	0.5	GasLine	Existing Gas Locate			
EX-UTIL-LOCT- HYDRO	11	0.13	0.5	HydroCabl e_Undergr ound	Existing Hydro Locate			
EX-UTIL-LOCT- HYDRO-STRT	11	0.13	0.5	H-SL	Existing Hydro Locate- STRT			
EX-UTIL-LOCT- HYDRO-TRAF	11	0.13	0.5	H-TL	Existing Hydro Locate Transformer			
EX-UTIL-LOCT- MISC	7 (white)	0.25	0.5	Continuous	Existing Misc Locate			
EX-UTIL-LOCT- WATR	154	0.01	0.5	Continuous	Existing Water Locate			
EX-UTIL-MISC-MH	7 (white)	0.25	0.5	Continuous	Existing Misc MH			
EX-UTIL-SANS	1 (red)	0.25	0.5	Continuous	Existing San			
EX-UTIL-SANS-CO	7 (white)	0.25	0.5	Continuous	Existing San Cleanout			
EX-UTIL-SANS-MH	1 (red)	0.25	0.5	Continuous	Existing San MH			
EX-UTIL-SANS- SEPT	1 (red)	0.25	0.5	Continuous	Existing San Septic			
EX-UTIL-SANS- TEXT	1 (red)	0.25	0.5	Continuous	Existing San-Labeling			
EX-UTIL-SANS- VENT	7 (white)	0.25	0.5	Continuous	Existing San Vent			
EX-UTIL-STRM	3 (green)	0.25	0.5	Continuous	Existing Storm			
EX-UTIL-STRM-CB	3 (green)	0.25	0.5	Continuous	Existing Storm CB			
EX-UTIL-STRM- CULV	3 (green)	0.25	0.5	Continuous	Existing Storm Culvert			
EX-UTIL-STRM- DCBMH	3 (green)	0.25	0.5	Continuous	Existing Storm DCBMH			
EX-UTIL-STRM- DICBMH	3 (green)	0.25	0.5	Continuous	Existing Storm DICBMH			
EX-UTIL-STRM- LECH	3 (green)	0.25	0.5	Continuous	Existing Storm LECH			

AutoCAD Layering Guide								
Layer Name*ColourPenTextLinetypeDescription								
Layer Name	Colour	Pen Size	Text Height (1:250)	Linetype	Description			
EX-UTIL-STRM-MH	3 (green)	0.25	0.5	Continuous	Existing Storm MH			
EX-UTIL-STRM- OUTF	3 (green)	0.25	0.5	Continuous	Existing Storm Outfall			
EX-UTIL-STRM- TEXT	3 (green)	0.25	0.5	Continuous	Existing Storm-Labeling			
EX-UTIL-TABL	7 (white)	0.25	0.5	Continuous	Existing Table			
EX-UTIL-WATR	5 (blue)	0.25	0.5	Continuous	Existing Water			
EX-UTIL-WATR- CPP	5 (blue)	0.25	0.5	Continuous	Existing Water CPP			
EX-UTIL-WATR- LEVL	5 (blue)	0.25	0.5	Continuous	Existing Water Level			
EX-UTIL-WATR- SERV	5 (blue)	0.25	0.5	Continuous	Existing Water Service			
EX-UTIL-WATR- TEXT	5 (blue)	0.25	0.5	Continuous	Existing Water-Labeling			
EX-UTIL-WATR- TOWR	5 (blue)	0.25	0.5	Continuous	Existing Water Tower			
EX-UTIL-WATR- WELL	5 (blue)	0.25	0.5	Continuous	Existing Water Well			
EX-VEGE-BUSH	3 (green)	0.25	0.5	TREELINE	Existing Bush			
EX-VEGE-DRIP	7 (white)	0.25	0.5	Continuous	Existing Drip Line			
EX-VEGE-HDGE	3 (green)	0.25	0.5	TREELINE	Existing Hedge			
EX-VEGE-PLNT	3 (green)	0.25	0.5	Continuous	Existing Plant			
EX-VEGE-TREE	7 (white)	0.25	0.5	Continuous	Existing Tree			
EX-VEGE-TREE- CONF	7 (white)	0.25	0.5	Continuous	EX-VEGE-TREE-CONF			
EX-VEGE-TREE- DECD	7 (white)	0.25	0.5	Continuous	EX-VEGE-TREE-DECD			
EX-VEGE-TREE- ROW	3 (green)	0.25	0.5	TREELINE	EX-VEGE-TREE-ROW			
EX-WATER-SYM	7 (white)	0.25	0.5	Continuous	EX-WATER-SYM			
EX-WATLEVEL- SYM	7 (white)	0.25	0.5	Continuous	EX-WATLEVEL-SYM			
EX-WELL-SYM	7 (white)	0.25	0.5	Continuous	EX-WELL-SYM			
NORTHARROW	7 (white)	0.25	0.5	Continuous	NORTHARROW			

AutoCAD Layering Guide									
*All existing base layers to be colour 252 when used in contract drawings.									
Layer Name	*Colour	Pen Size	Text Height	Linetype	Description				
		Size	(1:250)						
OB-ALGN	7 (white)	0.25	0.5	Continuous	Object Layer Alignment				
OB-ALGN-P CL	7 (white)	0.25	0.5	Continuous	Object Layer				
OB-ALGN-P-CL	7 (white)	0.25	0.5	Continuous	Object Layer				
OB-ALGN-TABL	7 (white)	0.25	0.5	Continuous	Object Layer Alignment Table				
OB-ALGN-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Alignment-Labeling				
OB-ALGN-TEXT-P CL	7 (white)	0.25	0.5	Continuous	Object Layer				
OB-ALGN-TEXT-P- CL	7 (white)	0.25	0.5	Continuous	Object Layer				
OB-BLDG	7 (white)	0.25	0.5	Continuous	Object Layer Building Site				
OB-CATC	7 (white)	0.25	0.5	Continuous	Object Layer Catchment				
OB-CATC-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Catchment-Labeling				
OB-CORR	7 (white)	0.25	0.5	Continuous	Object Layer Corridor				
OB-CORR-ASSM	7 (white)	0.25	0.5	Continuous	Object Layer Assembly/Subassembly				
OB-CORR-ASSM- BLIN	1 (red)	0.25	0.5	Continuous	Object Layer Assembly BLIN				
OB-CORR-ASSM- OFFS	1 (red)	0.25	0.5	Continuous	Object Layer Assembly				
OB-CORR-INTS	7 (white)	0.25	0.5	Continuous	Object Layer Intersection				
OB-CORR-INTS- TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Intersection-Labeling				
OB-CORR-SECT	7 (white)	0.25	0.5	Continuous	Object Layer Corridor Section				
OB-GRAD	7 (white)	0.25	0.5	Continuous	Object Layer Grading				
OB-GRAD-FEAT	3 (green)	0.25	0.5	Continuous	Object Layer Feature Line				
OB-GRAD-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Grading- Labeling				
OB-PARC	7 (white)	0.25	0.5	Continuous	Object Layer Parcel/Parcel Segment				
OB-PARC-TABL	7 (white)	0.25	0.5	Continuous	Object Layer Parcel Table				

AutoCAD Layering Guide								
*All existing base layers to be colour 252 when used in contract drawings. Layer Name *Colour Pen Text Linetype Description								
Layer Name	Colour	Size	Height (1:250)	стиетуре	Description			
OB-PARC-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Parcel- Labeling/Parcel Segment-Labeling			
OB-PIPE	7 (white)	0.25	0.5	Continuous	Object Layer Pipe			
OB-PIPE-INTF	7 (white)	0.25	0.5	Continuous	Object Layer Interference			
OB-PIPE-PROF	7 (white)	0.25	0.5	Continuous	Object Layer Pipe or Structure Profile			
OB-PIPE-SECT	7 (white)	0.25	0.5	Continuous	Object Layer Pipe Network Section			
OB-PIPE-TABL	7 (white)	0.25	0.5	Continuous	Object Layer Pipe and Structure Table			
OB-PIPE-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Pipe- Labeling/Structure- Labeling			
OB-PNTS-TABL	7 (white)	0.25	0.5	Continuous	Object Layer Point Table			
OB-PROF	7 (white)	0.25	0.5	Continuous	Object Layer Profile			
OB-PROF-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Profile- Labeling			
OB-PROF-VIEW	7 (white)	0.25	0.5	Continuous	Object Layer Profile View-Labeling			
OB-RAIL	7 (white)	0.25	0.5	Continuous	Object Layer Cant View			
OB-SECT	7 (white)	0.25	0.5	DASHED2	Object Layer Section			
OB-SECT-MASS- LINE	7 (white)	0.25	0.5	Continuous	Object Layer Mass Haul Line			
OB-SECT-MASS- VIEW	7 (white)	0.25	0.5	Continuous	Object Layer Mass Haul View			
OB-SECT-MATR	7 (white)	0.25	0.5	Continuous	Object Layer Material Section			
OB-SECT-MATR- TABL	7 (white)	0.25	0.5	Continuous	Object Layer Material Table			
OB-SECT-SAMP	7 (white)	0.25	0.5	Continuous	Object Layer Material Table			
OB-SECT-TABL	7 (white)	0.25	0.5	Continuous	Object Layer Section View Quantity Takeoff Table			
OB-SECT-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Sample Line-Labeling/Section			

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.							
Layer Name	*Colour	Pen Size	Text Height (1:250)	Linetype	Description		
					View-Labeling/Section- Labeling		
OB-SECT-VIEW	7 (white)	0.25	0.5	Continuous	Object Layer Section View		
OB-SHET	7 (white)	0.25	0.5	Continuous	Object Layer Sheet		
OB-SHET-FRM	7 (white)	0.25	0.5	Continuous	Object Layer Sheet Frame		
OB-SHET-FRM- TEXT	7 (white)	0.25	0.5	Continuous	Object Layer View Frame-Labeling		
OB-SHET-MATC	7 (white)	0.25	0.5	Continuous	Object Layer Match Line		
OB-SHET-MATC- TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Match Line-Labeling		
OB-SHET-VIEW	7 (white)	0.25	0.5	Continuous	Object Layer Sheet View		
OB-SHET-VIEW- TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Sheet View-Labeling		
OB-SUPR-TABL	7 (white)	0.25	0.5	Continuous	Object Layer Superelevation Table		
OB-SUPR-VIEW	7 (white)	0.25	0.5	Continuous	Object Layer Superelevation View		
OB-SURF	7 (white)	0.25	0.5	Continuous	Object Layer Grid Surface/Tin Surface		
OB-SURF-TABL	7 (white)	0.25	0.5	Continuous	Object Layer Surface Legend Table		
OB-SURF-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Grid Surface-Labeling/Tin Surface-Labeling		
OB-SURF-TEXT- EG	7 (white)	0.25	0.5	Continuous	Object Layer		
OB-SURV-FIGR	7 (white)	0.25	0.5	Continuous	Object Layer Survey Figure		
OB-SURV-FIGR- TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Survey Figure Segment Label/Survey Figure- Labeling		
OB-SURV-NETW	7 (white)	0.25	0.5	Continuous	Object Layer Survey Network		

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.							
Layer Name	*Colour	Pen Size	Text Height (1:250)	Linetype	Description		
OB-TEXT	7 (white)	0.25	0.5	Continuous	Object Layer General Note Label/General Segment Label		
OB-UTIL-WATR	7 (white)	0.25	0.5	Continuous	Object Layer Appurtenance/Fitting/Pr essure Network Section/Pressure Part Profile/Pressure Pipe		
OB-UTIL-WATR- TABL	7 (white)	0.25	0.5	Continuous	Object Layer Pressure Part Table		
OB-UTIL-WATR- TEXT	7 (white)	0.25	0.5	Continuous	Object Layer Appurtenance- Labeling/Fitting- Labeling/Pressure Pipe- Labeling		
O-TEXT	7 (white)	0.25	0.5	Continuous	O-TEXT		
PLPR-L80-TXT	232	0.3	0.5	Continuous	PLPR-L80-TXT		
PLPR-L100-TXT	50	0.4	0.65	Continuous	PLPR-L100-TXT		
PLPR-L120-TXT	90	0.5	0.75	Continuous	Plan and Profile Template 120 Text		
PLPR-L140-TXT	130	0.6	0.9	Continuous	PLPR-L140-TXT		
PLPR-L175-TXT	160	0.7	1.1	Continuous	PLPR-L175-TXT		
PLPR-L240-TXT	200	0.8	1.5	Continuous	PLPR-L240-TXT		
PLPR-L290-TXT	210	1.4	1.9	Continuous	PLPR-L290-TXT		
PLPR-L500-TXT	210	1.4	3.2	Continuous	PLPR-L500-TXT		
PLPR-OUTLINE	7 (white)	0.25		Continuous	PLPR-OUTLINE		
PLPR-PAPER	7 (white)	0.25		DOTX2	PLPR-PAPER		
PLPR-STMCHART	255	0.13		Continuous	PLPR-STMCHART		
PR-ALGN-CL	4 (cyan)	0.5	0.65	Continuous	Proposed Alignment Centerline		
PR-ALGN-CURB	131	0.5	0.65	Continuous	Proposed Alignment Curb		
PR-ALGN-OFFS	131	0.5	0.65	Continuous	Proposed Alignment Offsets		
PR-ALGN-TABL	7 (white)	0.25	0.65	Continuous	Proposed Alignment Table		
PR-ALGN-TEXT	231	0.35	0.65	Continuous	Proposed Alignment- Labeling		

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.								
Layer Name	*Colour	Pen	Text	Linetype	Description			
		Size	Height (1:250)					
PR-ALIGN-SAN	240	0.5	0.65	PRSAN25 0	PR-ALIGN-SAN			
PR-ALIGN-WM	150	0.5	0.65	PRWM250	PR-ALIGN-WM			
PR-CORR	5 (blue)	0.25	0.65	Continuous	Proposed Corridor			
PR-CORR-ASSM	7 (white)	0.25	0.65	Continuous	Proposed Corridor Assembly			
PR-CORR-ASSM- BLIN	1 (red)	0.25	0.65	Continuous	Proposed Corridor Assembly BLIN			
PR-CORR-ASSM- OFFS	1 (red)	0.25	0.65	Continuous	Proposed Corridor Assembly Offsets			
PR-CORR-LINK	20	0.25	0.65	Continuous	Proposed Corridor Link			
PR-CORR-LINK- CUT	1 (red)	0.25	0.65	Continuous	Proposed Corridor Link Cut			
PR-CORR-LINK- FILL	3 (green)	0.25	0.65	Continuous	Proposed Corridor Link Fill			
PR-CORR-PNT	7 (white)	0.25	0.65	Continuous	Proposed Corridor Point			
PR-CTCHMNT- FLOW	4 (cyan)	0.5	0.65	CENTER2	Proposed Catchment Flow			
PR-CTCHMNT- POST	3 (green)	0.25	0.65	Continuous	Proposed Catchment Post			
PR-CTCHMNT- PRE	1 (red)	0.25	0.65	HIDDEN2	Proposed Catchment Pre			
PR-CTCHMNT- TEXT	2 (yellow)	0.25	0.65	Continuous	Proposed Catchment Flow-Labeling			
PR-PRCL-BLK	3 (green)	0.25	0.65	Continuous	Proposed Centerline BLK			
PR-PRCL-ESMT	2 (yellow)	0.25	0.65	Continuous	Proposed Centerline ESMT			
PR-PRCL-LOT	1 (red)	0.25	0.65	Continuous	Proposed Centerline			
PR-PROF	4 (cyan)	0.5	0.65	Continuous	Proposed Profile			
PR-PROF-CURB	4 (cyan)	0.5	0.65	Continuous	Proposed Profile Curb			
PR-PROF-OFFS	4 (cyan)	0.5	0.65	Continuous	Proposed Profile Offsets			
PR-PROF-SUBG	4 (cyan)	0.5	0.65	HIDDEN2	Proposed Profile Subgrade			
PR-PROF-TEXT	50	0.4	0.65	Continuous	Proposed Profile- Labeling			

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.							
Layer Name	*Colour	Pen Size	Text Height	Linetype	Description		
		0120	(1:250)				
PR-PROF-TEXT-	3	0.25	0.65	Continuous	Proposed Profile-		
GB	(green)	0.20	0.00	Continuous	Labeling-GB		
PR-PROF-TEXT-	3 (green)	0.25	0.65	Continuous	Proposed Profile- Labeling-VC		
PR-PROF-VIEW	90	0.5	0.65	Continuous	Proposed Profile View		
PR-PROF-VIEW- HATC	1 (red)	0.25	0.65	Continuous	Proposed Profile View Hatch		
PR-PROF-VIEW- MAJR	90	0.5	0.65	Continuous	Proposed Profile View Major		
PR-PROF-VIEW- MINR	252	0.25	0.65	DOT	Proposed Profile View Minor		
PR-PROF-VIEW- TEXT	90	0.5	0.65	Continuous	Proposed Profile View- Labeling		
PR-ROAD-CL	4 (cyan)	0.5	0.65	Continuous	Proposed Road		
PR-ROAD-CURB	50	0.4	0.65	Continuous	Proposed Road Curb		
PR-ROAD-CURB- GUTT	1 (red)	0.25	0.65	CENTER2	Proposed Road Curb Gutter		
PR-ROAD-EDGE	4 (cyan)	0.5	0.65	Continuous	Proposed Road Edge		
PR-ROAD-HATC- CONC	231	0.35	0.65	Continuous	Proposed Road Hatch Concrete		
PR-ROAD-HATC- INTER	231	0.35	0.65	Continuous	Proposed Road Hatch Interlock		
PR-ROAD-HATC- PAVE	230	0.21	0.65	Continuous	Proposed Road Hatch Pavement		
PR-ROAD-SHLD	50	0.4	0.65	Continuous	Proposed Road Shoulder		
PR-ROAD- SIDEWALK	4 (cyan)	0.5	0.65	Continuous	Proposed Road Sidewalk		
PR-SAN-PL	240	0.5	0.65	Continuous	Proposed Road Sanitary Plan		
PR-SECT	4 (cyan)	0.5	0.65	Continuous	Proposed Section		
PR-SECT-HATC- ASPLT	230	0.21	0.65	Continuous	Proposed Section Hatch Asphalt		
PR-SECT-HATC- BASE	32	0.01	0.65	Continuous	Proposed Section Hatch Base		
PR-SECT-HATC- CONC	231	0.35	0.65	Continuous	Proposed Section Hatch Concrete		
PR-SECT-HATC- INTLK	231	0.35	0.65	Continuous	Proposed Section Hatch Interlock		

AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.							
Layer Name	*Colour	Pen	Text	Linetype	Description		
		Size	Height (1:250)				
PR-SECT-MATR- TABL	7 (white)	0.25	0.65	Continuous	Proposed Section Material Table		
PR-SECT-SAMP	1 (red)	0.25	0.65	Continuous	Proposed Section Sample		
PR-SECT-SUB	4 (cyan)	0.5	0.65	Continuous	Proposed Section SUB		
PR-SECT-TEXT	50	0.4	0.65	Continuous	Proposed Section- Labeling		
PR-SECT-VIEW	100	0.45	0.65	Continuous	Proposed Section View		
PR-SECT-VIEW- MAJR	100	0.45	0.65	Continuous	Proposed Section View Major		
PR-SECT-VIEW- MINR	252	0.25	0.65	DOT	Proposed Section View Minor		
PR-SECT-VIEW- TEXT	50	0.4	0.65	Continuous	Proposed Section View- Labeling		
PR-TOPO-CONT- MAJR	4 (cyan)	0.5	0.65	Continuous	Proposed Topo Contour Major		
PR-TOPO-CONT- MINR	1 (red)	0.25	0.65	Continuous	Proposed Topo Contour Minor		
PR-TOPO-DTCH	5 (blue)	0.25	0.65	DITCH500	Proposed Topo Ditch		
PR-TOPO- DYLGHT	142	0.01	0.65	Continuous	Proposed Topo Daylight		
PR-TOPO- DYLGHT-CUT	1 (red)	0.25	0.65	Continuous	Proposed Topo Daylight-Cut		
PR-TOPO- DYLGHT-FILL	3 (green)	0.25	0.65	Continuous	Proposed Topo Daylight-Fill		
PR-TOPO-GRAD	231	0.35	0.65	HIDDEN	Proposed Topo Grading		
PR-TOPO-GRAD- TOE	231	0.35	0.65	HIDDEN	Proposed Topo Grading-TOE		
PR-TOPO-GRAD- TOP	4 (cyan)	0.5	0.65	HIDDEN	Proposed Topo Grading-Top		
PR-TOPO-TABL	7 (white)	0.25	0.65	Continuous	Proposed Topo Table		
PR-TOPO-TEXT	2 (yellow)	0.25	0.65	Continuous	Proposed Topo- Labeling		
PR-TOPO-TINN- ANAL	15	0.01	0.65	Continuous	Proposed Topo Tin- ANAL		
PR-TOPO-TINN- BRDR	250	0.06	0.65	Continuous	Proposed Topo Tin- BRDR		
PR-TOPO-TINN- LINE	250	0.06	0.65	Continuous	Proposed Topo Tin Line		

* • • • • • • • • • • •	AutoCAD Layering Guide *All existing base layers to be colour 252 when used in contract drawings.							
Layer Name	*Colour	Pen Size	Text Height (1:250)	Linetype	Description			
PR-TOPO-TINN- PNTS	250	0.06	0.65	Continuous	Proposed Topo Tin Points			
PR-UTIL-SANS	240	0.5	0.65	PRSAN25 0	Proposed Sanitary Sewer			
PR-UTIL-SANS- TEXT	240	0.5	0.65	Continuous	Proposed Sanitary Sewer-Labeling			
PR-UTIL-STRM	4 (cyan)	0.5	0.65	STORM	Proposed Storm Sewer			
PR-UTIL-STRM- TEXT	4 (cyan)	0.5	0.65	Continuous	Proposed Storm Sewer- Labeling			
PR-UTIL-TABL	7 (white)	0.25	0.65	Continuous	Proposed Utility Table			
PR-UTIL-WATR	150	0.5	0.65	PRWM250	Proposed Watermain			
PR-UTIL-WATR- TEXT	150	0.5	0.65	Continuous	Proposed Watermain- Labeling			

3. Text Styles and Heights

The AutoCAD Layering Guide gives text height examples for a 1:250 scale drawing. For drawings at a 1:500 scale the text heights are multiplied by a factor of two.

4. Colour Tables

All drawings submitted shall be in accordance with the following, AutoCAD Colour – Dependent Plot Style Tables.

4.1 <u>Colour Dependent Plot Style Tables</u>

Region of Durham A1.CTB

1 (red)	0.25	50	0.40	171	0.30
2 (yellow)	0.25	52	0.30	180	0.25
3 (green)	0.25	60	0.19	200	0.80
4 (cyan)	0.50	72	0.01	210	1.40
5 (blue)	0.25	74	0.01	212	0.65
6 (magenta)	1.00	75	0.13	220	1.00
7 (white)	0.25	80	0.25	221	0.25
8	0.13	90	0.50	230	0.21
9	0.25	100	0.45	231	0.35
10	0.13	101	0.50	232	0.30
11	0.13	110	0.25	240	0.50
12	0.25	115	0.70	241	0.45
13	0.50	130	0.60	242	0.25
14	0.19	131	0.50	250	0.06
15	0.01	142	0.01	251	0.13
20	0.25	150	0.50	252	0.25
30	0.25	151	0.45	253	0.13
32	0.01	152	0.01	254	0.19
40	1.00	154	0.01	255	0.30
41	0.25	160	0.70		
42	0.13	170	0.25		

Region of Durham 11 x 17.CTB

	-	-	-	-	
1 (red)	0.10	42	0.06	160	0.30
2 (yellow)	0.10	50	0.20	171	0.12
3 (green)	0.10	52	0.15	180	0.10
4 (cyan)	0.25	60	0.06	200	0.30
5 (blue)	0.10	75	0.06	210	0.30
6 (magenta)	0.50	72	0.15	212	0.30
7 (white)	0.10	74	0.15	220	0.50
8	0.06	80	0.12	221	0.17
9	0.10	90	0.30	230	0.10
10	0.06	100	0.22	231	0.17
11	0.06	101	0.25	232	0.20
12	0.15	110	0.12	240	0.30
13	0.25	115	0.30	241	0.10
14	0.15	130	0.30	242	0.12
15	0.15	131	0.15	250	0.06
20	0.10	142	0.15	251	0.06
30	0.12	150	0.30	252	0.05
32	0.15	151	0.22	253	0.06
40	0.35	152	0.15	254	0.06
41	0.10	154	0.15	255	0.15

5. Line Types

The figure below illustrates the line types to be used when preparing Region of Durham drawings. Also refer to the 03 Legend & Abbreviations Template Drawing and current Region of Durham Civil 3D.dwt file. All custom, Region of Durham, line types are available electronically upon request, in Line Types folder, file REGION OF DURHAM.LIN.

Line Types for AutoCAD Drawings

AutoCAD Drawing Scale LTSCALE for AutoCAD Drawings	1:250 1	1:500 2
*PRSAN250,, LTSCALE 1 LINE T A, 13.5,-0.8,1.905,-0.8,1.905,-0.8	HICKNESS(.	14)
*PRWM250,,LTSCALE 1 LINE THICKNE A, 8,-1.2,1.2,-1.2	:SS(.14)	
*PRSAN500,, LTSCALE 2 (LINE	THICKNESS(.30))
A, 13.5,-0.8,1.905,-0.8,1.905,-0.8		
*PRWM500,,LTSCALE 2 (LINE THICKN A, 8,-1.2,1.2,-1.2	ESS(.30))	
STORM,, LTSCALE 1 AND 2 A, 1.64,-2		

6. Symbols

The following standard symbols are available electronically and are to be used on all engineering drawings for Region of Durham contracts. Also refer to the 03 Legend & Abbreviations Template Drawing and current Region of Durham Civil 3D.dwt file.

<u>Existing</u> - Includes all existing topographic symbols.

Miscellaneous - Includes various symbols e.g. benchmarks, ditch arrows etc.

Proposed - Includes proposed symbols for road, storm sewer, sanitary sewer, and watermain designs at 1:250 & 1:500 scales.

7. Hatch Patterns

The following AutoCAD Hatching Guide is to be used for the Region of Durham custom hatch patterns. Custom, Region of Durham, hatch patterns are available electronically upon request, in Hatch Pattern folder, file CL&GB.pat.

Description	Hatch Pattern	Angle	Layer Name	Colour	Pen Size
CLEARING	ANSI31	0 °	EX-TOPO- MARSH	1 (red)	0.25
CLEARING & GRUBBING	CL&GB	0 °			
CONCRETE- PROPOSED	AR-CONC	0 °	PR-ROAD- HATC-CONC	231	0.35
EARTH PROFILE	EARTH	0 °			
GRUBBING	DASH	135 °			
INTERLOCK	AR- HBONE	0 °	EX-MISC- INTERLOCK-	7 (white)	0.25
PAVEMENT REMOVAL- FULL DEPTH	ANSI31	90 °	PR-ROAD- HATC	231	0.35
PAVEMENT REMOVAL- PARTIAL DEPTH	TRANS	45 °	PR-ROAD- HATC	231	0.35
PAVEMENT – PROPOSED	DOTS	45 °	PR-ROAD- HATC-PAVE	231	0.35
RIP RAP	GRAVEL	15 °			
ROCK PROFILE	AR- PARQ1	0 °			
SANITARY SEWER- PROFILE	DOTS	45 °	PR-UTIL-SAN	231	0.35
STORM SEWER- PROFILE	DOTS	45 °	PR-UTIL-STM	231	0.35
SWAMP	DASH	0 °	EX-TOPO- MARSH	1 (red)	0.25
WATERMAIN- PROFILE (WATERMAIN WORK ONLY)	DOTS	45 °	PR-UTIL- WATER	231	0.35
WATERMAIN- PROFILE (WATERMAIN & SAN SEWER WORK)	SACNCR	0 °	PR- UTILWATER	231	0.35

AutoCAD Hatching Guide

8. Drawing Templates

The following is a list of Template Drawings, which are included in this section and available electronically upon request.

- 01 Title Page Template Drawing title page for Region of Durham contracts.
- 02 Drawing Index Template Drawing Index to drawings for contracts that are too large to be indexed on the Title Page
- 03 Legends & Abbreviations Template Drawing legends and abbreviation page to be included in all contracts
- 04 Road & Storm Sewer Plan and Profile (Scale 1:250) Template Drawing Plan and Profile page for 1:250 scale for road and storm sewer drawing.
- 05 Road & Storm Sewer Plan and Profile (Scale 1:500) Template Drawing Plan and Profile page for 1:500 scale for road and storm sewer drawing. Available in electronic format only.
- 06 Sanitary Sewer & Watermain Plan and Profile (Scale 1:250) Template Drawing Plan and Profile page for 1:250 sanitary and watermain drawing.
- 07 Sanitary Sewer & Watermain Plan and Profile (Scale 1:500) Template Drawing Plan and Profile page for 1:500 sanitary and watermain drawing. Available in electronic format only.
- 08 Horizontal Title Block Title block is along the bottom of the page and is only to be used on site specific jobs and with the Project Engineer's approval.

9. Drawing Samples

The following is a list of Sample Drawings, which are included in this section and available electronically upon request.

- 01 Tie Sheet Ties to the center line of construction sample drawing.
- 02 Construction Staging.
- 03 Removals Typical removals sample drawing.
- 04 Road and Storm Sewer Plan and Profile Typical road and storm sewer contract sample drawing (Scale 1:250).
- 05 Sanitary Sewer & Watermain Plan and Profile Typical sanitary sewer and watermain sample drawing.
- 06 Typical Sections Typical sections sample drawing.
- 07 Pavement Elevation Layout Typical pavement elevation layout sample drawing.
- 08 Pavement Marking and Signage Sample Typical pavement marking and signage sample drawing.
- 09 Landscaping.
- 10 Cross Sections.
- 11 As-Built (Capital) Typical as-built sample drawing for Regional contracts.
- 12 As-Built (Subdivision) Typical as-built sample drawing for subdivisions.