

Appendix A

Model File Level/Layer Assignment Tables

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Discipline: General
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types		
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Border Sheet	Cover Sheet	Key Plan
General Information									
G-ANNO-KEYN	G-----KEP-	Reference keynotes with associated leaders	0	V	V	V			X
G-ANNO-MASK	G-----MAP-	Text/shape mask for use with photo backgrounds	0	0.18	113	16	X	X	
G-ANNO-MATC	G-----MTP-	Match lines	0	0.35	6	5			X
G-ANNO-NOTE	G-----NOP-	General notes and general remarks	0	0.35	2	4			X
G-ANNO-NPLT	G-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X
G-ANNO-PATT	G-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9			X
G-ANNO-RDME	G-----RDP-	Read-me information	0	0.18	5	1	X	X	X
G-ANNO-REFR	G-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA			X
G-ANNO-SYMB	G-----SYP-	Miscellaneous symbols	V	0.35	6	5	X	X	X
G-ANNO-TEXT	G-----TEP-	Miscellaneous text	0	V	V	V	X	X	X
G-ANNO-TTLB	G-----TTP-	Border and titleblock linework	V	V	V	V	X	X	
G-ANNO-TTLB-GRID	G-----TGP-	Grid lines inside border	7	0.18	5	1	X		
Grid Lines									
G-GRID-COOR	G-GRIDCOM-	X-Y coordinate grid lines	0	0.25	7	0			X
G-GRID-COOR-IDEN	G-GRIDCIM-	X-Y coordinate grid lines annotator	0	0.25	7	0			X
G-GRID-EXTR	G-GRIDEXM-	Column grid outside building	7	0.18	5	1			X
G-GRID-IDEN	G-GRIDIDM-	Column grid tags	0	0.25	1	3			X
Floor Information									
G-PLAN-OTLN	G-PLANOTM-	Floor outline/perimeter/building footprint	0	0.35	6	5			X
Coordinate Information									
G-PROJ-LALO-COOR	G-PROJLCM-	Latitude/longitude coordinate grid ticks	0	0.25	2	4	X		
G-PROJ-LALO-IDEN	G-PROJLIM-	Latitude/longitude coordinate text	0	0.25	2	4	X		
G-PROJ-STAT-COOR	G-PROJSCM-	State plane coordinate grid ticks	3	0.25	2	4	X		
G-PROJ-STAT-IDEN	G-PROJSIM-	State plane coordinate text	0	0.25	2	4	X		
Site Information									
G-SITE-OTLN	G-SITEOTM-	Site plan - key map	0	0.35	6	5			X

Note: V = Varies, NA = Not Applicable

Discipline: Hazardous Materials

Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types		
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Pollution Prevention Plan	Sections	Details
General Information									
H-ANNO-DIMS	H-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X
H-ANNO-KEYN	H-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X
H-ANNO-NOTE	H-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X
H-ANNO-NPLT	H-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X
H-ANNO-PATT	H-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X
H-ANNO-RDME	H-----RDP-	Read-me information	0	0.18	5	1	X	X	X
H-ANNO-REFR	H-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X
H-ANNO-SYMB	H-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X
H-ANNO-TEXT	H-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X
Buildings									
H-BLDG-IDEN	H-BLDGIDM-	Annotation	0	0.35	2	4	X		
H-BLDG-OTLN	H-BLDGOTM-	Command posts, information centers	0	0.35	2	4	X		
Decontamination									
H-DECN-EQPM	H-DECNEQM-	Decontamination equipment	0	0.25	1	3	X		
H-DECN-IDEN	H-DECNIDM-	Annotation	0	0.35	6	5	X		
Disposal Areas									
H-DISP-HAZW	H-DISPHWM-	Hazardous waste	0	0.18	5	1	X		
H-DISP-IDEN	H-DISPIDM-	Annotation	0	0.35	6	5	X		
H-DISP-MUNT	H-DISPMUM-	Munitions	0	0.18	5	1	X		
H-DISP-TANK	H-DISP TAM-	Spill containment tanks	0	0.35	6	5	X		
Emergency Fixtures									
H-FIXT-EYEW	H-FIXTEYM-	Emergency eyewashes	0	0.25	3	2	X		
H-FIXT-SHWR	H-FIXTSHM-	Emergency showers	0	0.25	3	2	X		
Monitoring Stations									
H-MNST-AIRQ	H-MNSTAIM-	Air quality	0	0.25	3	2	X		
H-MNST-GWTR	H-MNSTGWM-	Ground water	0	0.25	3	2	X		
H-MNST-IDEN	H-MNSTIDM-	Annotation	0	0.25	3	2	X		
H-MNST-LAND	H-MNSTLAM-	Landfill gas	0	0.25	3	2	X		
H-MNST-SOIL	H-MNSTSOM-	Soil gas	0	0.25	3	2	X		
H-MNST-SWTR	H-MNSTSWM-	Surface water	0	0.25	3	2	X		
Pollution Areas									
H-POLL-CONC	H-POLLCOM-	Polluted area of concern	0	0.35	2	4	X		
H-POLL-IDEN	H-POLLIDM-	Annotation	0	0.35	2	4	X		
H-POLL-ORIG	H-POLLORM-	Point of pollution origin	0	0.35	2	4	X		
H-POLL-POTN	H-POLLPOM-	Potential spill, emission, or release source	0	0.35	2	4	X		
Sample Points									
H-SAMP-AIRS	H-SAMP AIM-	Air samples	0	0.25	1	3	X		
H-SAMP-BIOL	H-SAMPBIM-	Biological samples	0	0.25	1	3	X		
H-SAMP-GWTR	H-SAMPGWM-	Ground water samples	0	0.25	1	3	X		
H-SAMP-IDEN	H-SAMPIDM-	Annotation	0	0.25	1	3	X		
H-SAMP-MAGN	H-SAMPMAM-	Magnetometer location points	0	0.25	1	3	X		
H-SAMP-SEDI	H-SAMPSEM-	Sediment samples	0	0.25	1	3	X		
H-SAMP-SOIL	H-SAMP SOM-	Soil samples	0	0.25	1	3	X		
H-SAMP-SOLI	H-SAMP SLM-	Solid material samples	0	0.25	1	3	X		
H-SAMP-SWTR	H-SAMP SWM-	Surface water samples	0	0.25	1	3	X		
H-SAMP-WAST	H-SAMP WAM-	Waste samples	0	0.25	1	3	X		

Discipline: Hazardous Materials

Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types		
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Pollution Prevention Plan	Sections	Details
Storage Facilities									
H-STOR-HAZM	H-STORHMM-	Hazardous materials	0	0.35	6	5	X		
H-STOR-HAZW	H-STORHWM-	Hazardous waste	0	0.35	6	5	X		
H-STOR-IDEN	H-STORIDM-	Annotation	0	0.35	6	5	X		
Sections									
H-SECT-IDEN	H-SECTIDM-	Component identification numbers	0	0.35	2	4		X	
H-SECT-MBND	H-SECTMBM-	Material beyond section cu	0	0.18	5	1		X	
H-SECT-MCUT	H-SECTMCM-	Material cut by section	0	0.50	4	7		X	
H-SECT-PATT	H-SECTPAM-	Textures and hatch patterns	0	0.18	8	9		X	
Detail Information									
H-DETL-GRPH	H-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V			X
H-DETL-INPD	H-DETLINM-	Inch-pound specific dimensions and notes	0	V	V	V			X
H-DETL-METR	H-DETLMEM-	Metric specific dimensions and notes	0	V	V	V			X

Note: V = Varies, NA = Not Applicable

Discipline: Survey/Mapping
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types									
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Survey and Mapping Plan	Existing Hydrographic Survey & Mapping Plan	Property Boundary	Existing Electrical Utilities Plan	Existing Communication System Plan	Existing Utilities Plan	Existing HICW Utilities Plan	Existing Airfield Lighting Plan	Existing Profiles	Existing X-Sections
General Information																
V-ANNO-DIMS	V-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X	X	X	X	X	X	X	X
V-ANNO-KEYN	V-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X	X	X	X	X	X	X	X
V-ANNO-MASK	V-----MAP-	Text/shape mask for use with photo backgrounds	0	0.18	113	16	X	X	X	X	X	X	X	X	X	X
V-ANNO-NOTE	V-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X	X	X	X	X
V-ANNO-NPLT	V-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X
V-ANNO-PATT	V-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X	X	X	X	X	X	X	X
V-ANNO-RDME	V-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X
V-ANNO-REFR	V-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X	X	X	X	X	X	X
V-ANNO-SYMB	V-----SYP-	Reference symbols	V	V	6	5	X	X	X	X	X	X	X	X	X	X
V-ANNO-TEXT	V-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X	X	X	X	X	X	X	X
Aerial Survey																
V-AERI-BNDY	V-AERIBNM-	Aerial photography boundaries	0	0.35	6	5	X									
V-AERI-BNDY-NEAT	V-AERIBNM-	Neat model boundary	0	0.35	2	4	X									
V-AERI-FLYS	V-AERIFLM-	Fly station	0	0.35	6	5	X									X
V-AERI-IDEN	V-AERIIDM-	Aerial annotator	0	0.35	2	4	X									
V-AERI-INDX	V-AERIINM-	Aerial photo index	0	0.70	7	0	X									
V-AERI-PATH	V-AERIPAM-	Aerial flight lines/paths	11	0.35	22	22	X									
V-AERI-PHOT	V-AERIPHM-	Photo center (exposure station)	0	0.35	22	22	X									
V-AERI-PNPT	V-AERIPNM-	Panel points	0	0.35	6	5	X									X
Airfields																
V-AFLD-BCNS-IDEN	V-AFLDBIM-	Identifier tags, symbol modifiers, and text	0	0.25	203	45									X	
V-AFLD-BCNS-MISC	V-AFLDBMM-	Miscellaneous nav aids - windcones and beacons	0	0.35	203	45									X	
V-AFLD-BCNS-STRB	V-AFLDBSM-	Strobe beacons	0	0.35	203	45									X	
V-AFLD-CIRC-CTRL	V-AFLDCCM-	Control and monitoring circuits	0	0.35	163	41									X	
V-AFLD-CIRC-IDEN	V-AFLDCIM-	Circuit identifier tags, symbol modifier, and text	0	0.25	2	4									X	
V-AFLD-CIRC-MULT	V-AFLDCMM-	Multiple circuits	0	0.35	23	46									X	
V-AFLD-CIRC-SERS	V-AFLDCSM-	Series circuits	0	0.35	203	45									X	
V-AFLD-DEVC	V-AFLDDEM-	Capacitors, voltage regulators, motors, buses, generators, meters, grounds, and markers	0	0.35	23	46									X	
V-AFLD-DUCT	V-AFLDDUM-	Ductbanks	EUDUCX	0.25	83	42									X	
V-AFLD-IDEN	V-AFLDIDM-	Airfield annotation	0	0.35	2	4									X	
V-AFLD-JBOX	V-AFLDJBM-	Junction boxes, pull boxes, manholes, handholes, pedestals, splice	0	0.35	23	46									X	
V-AFLD-LITE-APPR	V-AFLDLAM-	Approach lights	0	0.35	203	45									X	
V-AFLD-LITE-DIST	V-AFLDLDM-	Distance and arresting gear markers	0	0.35	203	45									X	
V-AFLD-LITE-LANE	V-AFLDLLM-	Hoverlane, taxilane, and helipad lights	0	0.35	203	45									X	
V-AFLD-LITE-OBST	V-AFLDLDM-	Obstruction lights	0	0.35	203	45									X	
V-AFLD-LITE-RUNW	V-AFLDLRM-	Runway lights	0	0.35	203	45									X	
V-AFLD-LITE-SIGN	V-AFLDLSM-	Taxiway guidance signs	0	0.35	203	45									X	
V-AFLD-LITE-TAXI	V-AFLDLTM-	Taxiway lights	0	0.35	203	45									X	
V-AFLD-LITE-THRS	V-AFLDLHM-	Threshold lights	0	0.35	203	45									X	
V-AFLD-VALT	V-AFLDVAM-	Airfield lighting vaults	0	0.35	203	45									X	
Alignments																
V-ALGN-DATA	V-ALGNDAM-	Alignment coordinates and curve data	0	0.25	3	2	X	X			X	X			X	X
V-ALGN-LINE	V-ALGNLIM-	Alignments	4	0.25	2	4	X	X			X	X			X	X
V-ALGN-MAJR	V-ALGNMAM-	Alignment major stationing and tick marks	0	0.25	1	3	X	X			X	X			X	X
V-ALGN-MARK	V-ALGNMAM-	Alignment tick marks	0	0.25	3	2	X	X			X	X			X	X

Discipline: Survey/Mapping
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types									
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Survey and Mapping Plan	Existing Hydrographic Survey & Mapping Plan	Property Boundary	Existing Electrical Utilities Plan	Existing Communication System Plan	Existing Utilities Plan	Existing HICW Utilities Plan	Existing Airfield Lighting Plan	Existing Profiles	Existing X-Sections
V-ALGN-MINR	V-ALGNMIM-	Alignment minor stationing and tick marks	0	0.18	6	5	X	X								
V-ALGN-STAT	V-ALGNSTM-	Alignment stationing	0	0.25	3	2	X	X			X	X			X	X
V-ALGN-SYMB	V-ALGNSYM-	Alignment symbols (PIs)	0	0.25	6	5	X	X			X	X			X	X
V-ALGN-TEXT	V-ALGNTEM-	Alignment text, annotation with associated leader:	0	0.25	2	4	X	X			X	X			X	X
Aprons																
V-APRN-CNTR	V-APRNCTM-	Apron centerlines	7	0.25	1	3	X									
V-APRN-CNTR-IDEN	V-APRNCIM-	Apron centerline annotator	0	0.25	2	4	X									
V-APRN-GRND	V-APRNCRM-	Grounding points	0	0.25	2	4	X									
V-APRN-HOLD	V-APRNHOM-	Holding position markings	0	0.18	1	3	X									
V-APRN-IDEN	V-APRNIDM-	Airfield apron - annotation	0	0.25	2	4	X								X	X
V-APRN-MOOR	V-APRNMOM-	Mooring points	0	0.25	2	4	X									
V-APRN-MRKG	V-APRNMRM-	Apron markings	0	0.35	4	7	X									
V-APRN-OTLN	V-APRNOTM-	Airfield apron - outlines	0	0.35	4	7	X								X	X
V-APRN-SECU	V-APRNSEM-	Security zone markings	0	0.18	1	3	X									
V-APRN-SHLD	V-APRNSHM-	Shoulders with annotator	0	0.25	2	4	X									
V-APRN-SHLD-MRKG	V-APRNSMM-	Shoulder stripes	0	0.25	2	4	X									
Beach Renourishment																
V-BECH-BANK-TOP~	V-BECHBTM-	Beach top of bank	0	0.18	6	5	X									X
V-BECH-BKLN	V-BECHBKM-	Beach breakline	2	0.25	5	1	X									X
V-BECH-BNCH	V-BECHBNM-	Beach bench	6	0.25	22	22	X									X
V-BECH-CNTR	V-BECHCNM-	Beach centerline	7	0.18	5	1	X									X
V-BECH-LIMIT	V-BECHLMM-	Beach limit lines	0	0.35	4	7	X									X
V-BECH-OHWM	V-BECHOHM-	Ordinary high water marks	0	0.25	2	4	X									X
V-BECH-OTLN	V-BECHOTM-	Beach outline	0	0.18	2	4	X									X
V-BECH-SLOP-IDEN	V-BECHSIM-	Beach slope indicator with annotator	0	0.18	7	0	X									X
V-BECH-SLOP-TOP~	V-BECHSTM-	Beach top of slope	2	0.25	22	22	X									X
V-BECH-SYMB	V-BECHSYM-	Beach symbols	0	0.18	6	5	X									X
V-BECH-TOE~	V-BECHTOM-	Beach toe	3	0.35	5	1	X									X
V-BECH-TOE~-IDEN	V-BECHTIM-	Beach toe annotator	0	0.18	7	0	X									X
Buildings and Primary Structures																
V-BLDG-DECK	V-BLDGDEM-	Outdoor decks (attached, no roof overhead)	0	0.35	4	7	X		X						X	X
V-BLDG-DOCK	V-BLDGDOM-	Loading docks	0	0.35	4	7	X		X						X	X
V-BLDG-IDEN	V-BLDGIDM-	Building and other structure annotator	0	0.25	2	4	X		X						X	X
V-BLDG-OTLN	V-BLDGOTM-	Building and other structure outlines	0	0.50	7	0	X		X						X	X
V-BLDG-OVHD	V-BLDGOVM-	Building overhangs	0	0.35	4	7	X		X						X	X
V-BLDG-PRCH	V-BLDGPRM-	Porches (attached, roof overhead)	0	0.35	4	7	X		X						X	X
Borings																
V-BORE-GENL-LOCN	V-BOREGLM-	General boring X,Y location marker	0	0.35	6	5	X	X								
V-BORE-GENL-NAME	V-BOREGNM-	General boring name	0	0.35	6	5	X	X								
V-BORE-GENL-NOTE	V-BOREGOM-	General boring notes	0	0.35	6	5	X	X								
V-BORE-GPRO-LOCN	V-BOREGCM-	GeoProbe X,Y location marker	0	0.35	6	5	X	X								
V-BORE-GPRO-NAME	V-BOREGAM-	GeoProbe boring name	0	0.35	6	5	X	X								
V-BORE-GPRO-NOTE	V-BOREGPM-	GeoProbe boring notes	0	0.35	6	5	X	X								
V-BORE-UNDS-LOCN	V-BOREULM-	Undisturbed boring X,Y location marker	0	0.35	6	5	X	X								
V-BORE-UNDS-NAME	V-BOREUNM-	Undisturbed boring name	0	0.35	6	5	X	X								
V-BORE-UNDS-NOTE	V-BOREUOM-	Undisturbed boring notes	0	0.35	6	5	X	X								
V-BORE-VCOR-LOCN	V-BOREVLM-	Vibra-Core X,Y location marker	0	0.35	6	5	X	X								

Discipline: Survey/Mapping
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types									
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Survey and Mapping Plan	Existing Hydrographic Survey & Mapping Plan	Property Boundary	Existing Electrical Utilities Plan	Existing Communication System Plan	Existing Utilities Plan	Existing HTCW Utilities Plan	Existing Airfield Lighting Plan	Existing Profiles	Existing X-Sections
V-BORE-VCOR-NAME	V-BOREVN-	Vibra-Core name	0	0.35	6	5	X	X								
V-BORE-VCOR-NOTE	V-BOREVOM-	Vibra-Core notes	0	0.35	6	5	X	X								
Borrow Areas																
V-BORW-IDEN	V-BORWIDM-	Borrow/spoil area annotation	0	0.25	2	4	X	X								
V-BORW-LINE	V-BORWLN-	Borrow/spoil area	2	0.25	2	4	X	X								
Bridges																
V-BRDG-CHRD-LOW-	V-BRDGCLM-	Low chord	0	0.35	4	7									X	
V-BRDG-CNTR	V-BRDGCNM-	Bridge centerlines	7	0.18	1	3	X									
V-BRDG-CTLJ	V-BRDGCTM-	Control joints	0	0.18	4	7	X									
V-BRDG-DECK	V-BRDGDDEM-	Bridge deck	0	0.35	4	7	X								X	
V-BRDG-IDEN	V-BRDGIDM-	Bridge annotation	0	0.25	2	4	X									
V-BRDG-OTLN	V-BRDGOTM-	Bridge outlines	0	0.35	4	7	X									
V-BRDG-RAIL	V-BRDGRAM-	Bridge railing	0	0.18	4	7	X								X	
Cathodic Protection System																
V-CATH-ANOD	V-CATHANM-	Sacrificial anode system	0	0.35	83	42				X						
V-CATH-CURR	V-CATHCUM-	Impress current system	0	0.35	83	42				X						
V-CATH-IDEN	V-CATHIDM-	Identifier tags, symbol modifier, and text	0	0.25	83	42				X						
V-CATH-TEST	V-CATHTEM-	Test stations	0	0.35	83	42				X						
Channels																
V-CHAN-BANK-IDEN	V-CHANBIM-	Channel/canal top of bank annotation	0	0.25	2	4		X							X	X
V-CHAN-BANK-TOP-	V-CHANBTM-	Channel/canal top of bank	0	0.25	2	4		X							X	X
V-CHAN-BNCH	V-CHANBNM-	Channel/canal bench design feature lines (breaklines form DTMs)	0	0.25	2	4		X							X	X
V-CHAN-BWTR	V-CHANBWM-	Breakwaters	0	0.25	6	5	X	X								X
V-CHAN-CNTR	V-CHANCNM-	Channel centerline and survey report lines	7	0.18	5	1	X	X								X
V-CHAN-CNTR-IDEN	V-CHANCIM-	Channel centerline and survey report lines - annotation	0	0.25	5	1	X	X								X
V-CHAN-DACL	V-CHANDAM-	De-authorized channel limits, anchorages, etc	0	0.25	3	2	X	X								X
V-CHAN-DACL-IDEN	V-CHANDIM-	De-authorized channel limits, anchorages, etc. - annotation	0	0.25	3	2	X	X								X
V-CHAN-DOCK	V-CHANDOM-	Docks, decks, floats, piers, and mooring facilities	0	0.25	6	5	X	X							X	X
V-CHAN-LIMT	V-CHANLIM-	Channel limits, anchorages, turning basins, disposal areas, etc	0	0.25	6	5	X	X							X	X
V-CHAN-LIMT-IDEN	V-CHANLDM-	Channel limits, anchorages, turning basins, disposal areas, etc. - annotation	0	0.25	6	5	X	X							X	X
V-CHAN-NAID	V-CHANNAM-	Navigation aids and text	0	0.25	2	4	X	X								X
V-CHAN-SLOP-LINE	V-CHANSLM-	Channel cut/fill slope (Indicates cut and fill lines)	0	0.25	2	4	X	X								X
V-CHAN-SPOL	V-CHANSPLM-	Spoil limits	0	0.35	4	7	X	X								X
V-CHAN-SYMB	V-CHANSYM-	Channel/canal symbols	0	0.25	6	5	X	X								X
V-CHAN-TEXT	V-CHANTEM-	Channel/canal text, annotation with associated leader	0	0.25	2	4	X	X								X
V-CHAN-TOE-	V-CHANTOM-	Channel/canal toe	3	0.35	5	1	X	X							X	X
V-CHAN-TOE--IDEN	V-CHANTIM-	Channel/canal toe annotation	0	0.25	6	5	X	X								X
V-CHAN-TURN	V-CHANTUM-	Turning points	0	0.25	2	4	X	X								X
V-CHAN-WIDE	V-CHANWDM-	Channel/canal widener	3	0.35	4	7	X	X								X
Communications																
V-COMM-EQPM	V-COMMEQM-	Other communications distribution equipment	0	0.35	23	46				X						
V-COMM-JBOX	V-COMMJBM-	Communication junction boxes, pull boxes, manholes, handholes, pedestals, and splices	0	0.35	23	46				X						
V-COMM-OVHD	V-COMMOVHM-	Overhead communications/telephone lines	COMARX	0.35	4	7	X		X						X	X
V-COMM-OVHD-IDEN	V-COMMOIM-	Identifier tags, symbol modifier and text	0	0.25	4	7	X		X						X	X
V-COMM-POLE	V-COMMPOM-	Poles	0	0.35	203	45	X		X						X	X
V-COMM-POLE-GUYS	V-COMMPGM-	Guying equipment	0	0.35	203	45	X		X						X	X

Discipline: Survey/Mapping
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types									
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Survey and Mapping Plan	Existing Hydrographic Survey & Mapping Plan	Property Boundary	Existing Electrical Utilities Plan	Existing Communication System Plan	Existing Utilities Plan	Existing HICW Utilities Plan	Existing Airfield Lighting Plan	Existing Profiles	Existing X-Sections
V-COMM-POLE-IDEN	V-COMMPIM-	Identifier tags, symbol modifiers, and text	0	0.25	203	45	X		X						X	X
V-COMM-UNDR	V-COMMUNM-	Underground communications/telephone lines	COMUGX	0.35	4	7	X		X						X	X
V-COMM-UNDR-IDEN	V-COMMUIM-	Identifier tags, symbol modifier and text	0	0.25	4	7	X		X		X				X	X
Control Points																
V-CTRL-BMRK	V-CTRLBMM-	Benchmarks	0	0.35	6	5	X	X								X
V-CTRL-GRID	V-CTRLGRM-	Grid	0	0.25	3	2	X	X								X
V-CTRL-HCPT	V-CTRLHCM-	Horizontal control points	0	0.35	6	5	X	X								X
V-CTRL-HVPT	V-CTRLHVM-	Horizontal/vertical control points	0	0.35	6	5	X	X								X
V-CTRL-IDEN	V-CTRLIDM-	Control point annotation	0	0.35	2	4	X	X								X
V-CTRL-TRAV	V-CTRLTRM-	Traverse points	0	0.35	6	5	X	X								X
V-CTRL-VCPT	V-CTRLVCM-	Vertical control points	0	0.35	6	5	X	X								X
Domestic Water																
V-DOMW-ABND-PIPE	V-DOMWAPM-	Abandoned piping	2	0.25	6	5	X		X		X				X	X
V-DOMW-DEVC	V-DOMWDEM-	Connectors, faucets, reducers, regulators, vents, intake points, taps, backflow preventers, and valves	0	0.25	6	5					X					
V-DOMW-FIRE	V-DOMWFIM-	Fire lines	FIRE	0.25	1	3					X					
V-DOMW-FTTG	V-DOMWFTM-	Caps, cleanouts, crosses, and tees	0	0.25	6	5					X					
V-DOMW-HYDR	V-DOMWHYM-	Hydrants	0	0.25	1	3	X		X		X					
V-DOMW-IDEN	V-DOMWIDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4	X		X		X				X	X
V-DOMW-MAIN-PIPE	V-DOMWMPM-	Main domestic water piping	WATR	0.25	6	5	X		X		X					
V-DOMW-METR	V-DOMWMEM-	Meters	0	0.25	3	2					X					
V-DOMW-NPOT-HYDR	V-DOMWNHM-	Non-potable hydrants/flushing hydrants	0	0.25	1	3					X					
V-DOMW-NPOT-PIPE	V-DOMWNPM-	Non-potable water piping	NONPOT	0.25	6	5					X					
V-DOMW-PITS-IDEN	V-DOMWPIM-	Identifier tags, symbol modifier, and text	0	0.25	3	2					X					
V-DOMW-PITS-VENT	V-DOMWPVM-	Vent pits	0	0.25	3	2					X					
V-DOMW-PITS-VLVE	V-DOMWPLM-	Valve pits/vaults	0	0.25	3	2	X		X		X					
V-DOMW-SERV-PIPE	V-DOMWSPM-	Domestic water service piping	0	0.25	6	5					X				X	X
V-DOMW-SIGN	V-DOMWSGM-	Surface markers/signs	0	0.25	1	3					X					
V-DOMW-STNS-IDEN	V-DOMWSIM-	Identifier tags, symbol modifier, and text	0	0.25	2	4					X					
V-DOMW-STNS-PUMP	V-DOMWSUM-	Booster pump stations	0	0.25	6	5					X					
V-DOMW-STNS-REDC	V-DOMWSRM-	Pressure reducing stations	0	0.25	6	5					X					
V-DOMW-TANK	V-DOMWTAM-	Water storage tanks	0	0.25	1	3	X		X		X					
V-DOMW-WELL	V-DOMWWEM-	Water well houses	0	0.25	1	3					X					
Ditches or Washes																
V-DTCH-BOTD	V-DTCHBOM-	Bottom of ditch or wash	0, DITCH	0.18	3	2	X								X	X
V-DTCH-CNTR	V-DTCHCNM-	Centerline of ditch or wash	7	0.18	5	1	X								X	X
V-DTCH-EWAT	V-DTCHWEM-	Edge of water	0	0.18	4	7	X								X	X
V-DTCH-IDEN	V-DTCHIDM-	Ditches and washes annotator	0	0.25	3	2	X								X	X
V-DTCH-TOP-	V-DTCHTOM-	Top of ditch or wash	0	0.18	3	2	X								X	X
Underground Ductbanks (to be used when multiple systems are in one ductbank system)																
V-DUCT-MULT	V-DUCTMUM-	Ductbank	EUDUCX	0.35	83	42	X		X	X	X				X	X
V-DUCT-MULT-IDEN	V-DUCTMIM-	Identifier tags, symbol modifier and text	0	0.25	83	42	X		X	X	X				X	X
Habitats/Landforms																
V-ECCO-BURR	V-ECCOBUM-	Burrow	0	0.35	4	7	X									
V-ECCO-DENS	V-ECCODEM-	Den	0	0.35	4	7	X									
V-ECCO-GATR	V-ECCOGAM-	Gator hole	2	0.25	6	5	X									
V-ECCO-HUMK	V-ECCOHUM-	Hummocks	0	0.25	6	5	X									

Discipline: Survey/Mapping
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V-ECCO-IDEN	V-ECCOIDM-	Habitat annotation	0	0.25	2	4	X									
V-ECCO-NEST	V-ECCONEM-	Nest, nesting tree	0	0.35	4	7	X									
V-ECCO-PRCH	V-ECCOPRM-	Perch/nesting hole	0	0.35	4	7	X									
Flood Hazard Area																
V-FLHA-025Y	V-FLHA25M-	25 year mark	6	0.25	6	5	X									
V-FLHA-050Y	V-FLHA50M-	50 year mark	3	0.25	2	4	X									
V-FLHA-100Y	V-FLHA10M-	100 year mark	0	0.25	6	5	X									
V-FLHA-200Y	V-FLHA20M-	200 year mark	2	0.25	2	4	X									
V-FLHA-500Y	V-FLHA5CM-	500 year mark	7	0.25	6	5	X									
V-FLHA-IDEN	V-FLHAIDM-	Flood hazard area annotator	0	0.25	2	4	X									
Floodwalls																
V-FLOD-BASE	V-FLODBAM-	Floodwall base of wall	0	0.35	20	6	X									
V-FLOD-BASE-IDEN	V-FLODBIM-	Floodwall base of wall annotator	0	0.25	20	6	X									
V-FLOD-CNTR	V-FLODCNM-	Floodwall centerline	7	0.18	20	6	X									X
V-FLOD-CNTR-IDEN	V-FLODCIM-	Floodwall centerline annotator	0	0.25	20	6	X									X
V-FLOD-DRAN	V-FLODDRIM-	Floodwall toe drain	0	0.25	6	5	X								X	X
V-FLOD-DRAN-IDEN	V-FLODDIM-	Floodwall toe drain annotator	0	0.25	6	5	X								X	X
V-FLOD-PILE	V-FLODPIM-	Floodwall sheet piling	0	0.35	22	22	X								X	X
V-FLOD-PILE-IDEN	V-FLODPDM-	Floodwall sheet piling annotator	0	0.25	22	22	X								X	X
V-FLOD-TOE~	V-FLODTOM-	Floodwall toe outline	0	0.25	4	7	X								X	X
V-FLOD-TOP~	V-FLODTPM-	Floodwall top of wall	0	0.35	2	4	X								X	X
V-FLOD-TOP~-IDEN	V-FLODTIM-	Floodwall top of wall annotator	0	0.25	20	6	X								X	X
Liquid Fuel																
V-FUEL-ABND-PIPE	V-FUELAPM-	Abandoned piping	2	0.25	6	5	X		X			X			X	X
V-FUEL-BERM	V-FUELBERM-	Berms for retaining fuel in case of major tank/line rupture	0	0.25	6	5					X					
V-FUEL-DEFL-PIPE	V-FUELDPM-	Defueling piping	0	0.25	6	5					X					
V-FUEL-DEVC	V-FUELDEM-	Air eliminators, filter strainers, hydrant fill points, line vents, markers, oil/water separators, reducers, regulators, and valves	0	0.25	6	5						X				
V-FUEL-FLOW	V-FUELFLM-	Flow direction arrows	0	0.25	6	5					X					
V-FUEL-FTTG	V-FUELFTM-	Caps, crosses, and tees	0	0.25	6	5					X					
V-FUEL-IDEN	V-FUELIDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4	X		X		X				X	X
V-FUEL-JBOX	V-FUELJBM-	Junction boxes, manholes, handholes, test boxes	0	0.25	1	3	X		X		X					
V-FUEL-MAIN-PIPE	V-FUELMPM-	Main fuel piping	LIQPET	0.25	6	5	X		X		X				X	X
V-FUEL-METR	V-FUELMEM-	Meters	0	0.25	3	2					X					
V-FUEL-PITS-HYDR	V-FUELPHM-	Hydrant control pits	0	0.25	3	2					X					
V-FUEL-PITS-IDEN	V-FUELPIIM-	Identifier tags, symbol modifier, and text	0	0.25	3	2					X					
V-FUEL-PITS-VENT	V-FUELPPM-	Vent pits	0	0.25	3	2					X					
V-FUEL-PITS-VLVE	V-FUELPLM-	Valve pits	0	0.25	3	2					X					
V-FUEL-SERV-PIPE	V-FUELSPM-	Service piping	0	0.25	6	5					X					
V-FUEL-STNS-IDEN	V-FUELSIM-	Identifier tags, symbol modifier, and text	0	0.25	2	4					X					
V-FUEL-STNS-PUMP	V-FUELSUM-	Booster pump stations	0	0.25	6	5					X					
V-FUEL-TANK	V-FUELTPM-	Fuel tanks	0	0.25	3	2	X		X		X					
V-FUEL-TRCH	V-FUELTRM-	Fuel line trench	0	0.25	3	2					X					
Grade Linework																
V-GRAD-AFTR	V-GRADAFM-	After dredge depth	0	0.35	2	4		X							X	X
V-GRAD-EXST	V-GRADEXM-	Existing grade, ground line	3	0.35	6	5									X	X
V-GRAD-EXST-BASE	V-GRADBEM-	Base survey	2	0.18	22	22		X							X	X

Discipline: Survey/Mapping
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V-GRAD-EXST-SYR1	V-GRADE1M-	Survey year one or area one	4	0.18	6	5									X	X
V-GRAD-EXST-SYR2	V-GRADE2M-	Survey year two or area two	5	0.18	2	4									X	X
V-GRAD-EXST-SYR3	V-GRADE3M-	Survey year three or area three	6	0.18	3	2									X	X
V-GRAD-EXST-SYR4	V-GRADE4M-	Survey year four or area four	3	0.18	113	16									X	X
V-GRAD-IDEN	V-GRADIDM-	Grade annotation	0	0.25	2	4		X							X	X
V-GRAD-PRED	V-GRADPRM-	Pre-dredge	0	0.35	2	4		X							X	X
V-GRAD-SCLN	V-GRADSCM-	Stability control line	7	0.35	5	1									X	X
Grid Lines																
V-GRID-FRAM	V-GRIDFRM-	Frame	0	0.35	4	7									X	X
V-GRID-MAJR	V-GRIDMAM-	Major grid lines	1	0.25	8	9									X	X
V-GRID-MINR	V-GRIDMIM-	Minor grid lines	1	0.18	8	9									X	X
V-GRID-TEXT	V-GRIDTEM-	Border text, annotator	0	0.25	2	4									X	X
Geothermal Heat Pump System																
V-GTHP-EQPM	V-GTHPEQM-	Geothermal heat pump system equipment	0	0.25	203	45										
V-GTHP-IDEN	V-GTHPIDM-	Geothermal heat pump annotator	0	0.35	2	4							X			
V-GTHP-RETN-PIPE	V-GTHPRPM-	Geothermal heat pump system return piping	0	0.35	203	45							X			
V-GTHP-SUPP-PIPE	V-GTHPSPM-	Geothermal heat pump system supply piping	0	0.35	203	45							X			
High Temperature/Chilled Water System																
V-HTCW-ABND-PIPE	V-HTCWAPM-	Abandoned piping	2	0.18	1	3	X		X				X		X	X
V-HTCW-CWTR-MAIN	V-HTCWCMM-	Main chilled water piping	0	0.25	163	41							X			
V-HTCW-CWTR-PLNT	V-HTCWCLM-	Chilled water plant	0	0.25	163	41							X			
V-HTCW-CWTR-SERV	V-HTCWCSSM-	Chilled water service piping	0	0.18	163	41							X			
V-HTCW-DEVC	V-HTCWDEM-	Rigid anchors, anchor guides, rectifiers, reducers, markers, meters, pumps, regulators, tanks, and valves	0	0.25	6	5							X			
V-HTCW-FLOW	V-HTCWFLM-	Flow direction arrows	0	0.18	3	2							X			
V-HTCW-FTTG	V-HTCWFTM-	Caps and flanges	0	0.25	6	5							X			
V-HTCW-HWTR-MAIN	V-HTCWHMM-	Main high temperature piping	0	0.25	113	16							X			
V-HTCW-HWTR-PLNT	V-HTCWHPM-	High temperature water plant	0	0.25	113	16							X			
V-HTCW-HWTR-SERV	V-HTCWHSM-	High temperature service piping	0	0.18	113	16							X			
V-HTCW-IDEN	V-HTCWIDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4	X		X				X		X	X
V-HTCW-JBOX	V-HTCWJBM-	Junction boxes, manholes, handholes, test boxes	0	0.18	1	3	X		X				X			
V-HTCW-LWTR-MAIN	V-HTCWLMM-	Main low temperature piping	0	0.25	1	3							X			
V-HTCW-LWTR-SERV	V-HTCWLSSM-	Low temperature service piping	0	0.18	1	3							X			
V-HTCW-PITS	V-HTCWPTM-	Valve pits/vaults, steam pits	0	0.18	3	2							X			
V-HTCW-PLNT-IDEN	V-HTCWPIM-	Identifier tags, symbol modifier, and text	0	0.25	2	4							X			
V-HTCW-RETN-PIPE	V-HTCWRPM-	Return for all HTCW lines	0	0.18	5	1							X			
V-HTCW-STEM-MAIN	V-HTCWSMM-	Main steam piping	0	0.25	113	16	X		X				X		X	X
V-HTCW-STEM-SERV	V-HTCWSSM-	Steam service piping	0	0.18	113	16							X			
V-HTCW-STNS-IDEN	V-HTCWSIM-	Pump station identifier tags, symbol modifier, and text	0	0.25	6	5							X			
V-HTCW-STNS-PUMP	V-HTCWSUM-	Pump stations	0	0.25	6	5							X			
Industrial Waste Water																
V-INDW-ABND-PIPE	V-INDWAPM-	Abandoned piping	2	0.25	6	5	X		X				X		X	X
V-INDW-DEVC	V-INDWDEM-	Grit chambers, meters, flumes, neutralizers, oil/water separators, ejectors, tanks, and valves	0	0.25	6	5							X			
V-INDW-FLOW	V-INDWFLM-	Flow direction arrows	0	0.25	6	5							X			
V-INDW-FTTG	V-INDWFTM-	Caps and cleanouts	0	0.25	6	5							X			
V-INDW-IDEN	V-INDWIDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4	X		X				X		X	X

Discipline: Survey/Mapping
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V-INDW-JBOX	V-INDWJBM-	Junction boxes and manholes	0	0.25	1	3	X		X		X					
V-INDW-LAGN	V-INDWLAM-	Lagoons	0	0.25	6	5	X	X			X					
V-INDW-LAGN-IDEN	V-INDWLIM-	Identifier tags, symbol modifier, and text	0	0.25	6	5					X					
V-INDW-MAIN-PIPE	V-INDWMPM-	Main industrial waste water piping	IWASTE	0.25	6	5	X	X			X			X	X	
V-INDW-PLNT	V-INDWPLM-	Treatment plants	0	0.25	6	5					X					
V-INDW-SERV-PIPE	V-INDWSPM-	Industrial waste water service piping	0	0.25	1	3					X					
V-INDW-SIGN	V-INDWSGM-	Surface markers/signs	0	0.25	1	3					X					
V-INDW-STNS-IDEN	V-INDWSIM-	Identifier tags, symbol modifier, and text	0	0.25	2	4					X					
V-INDW-STNS-LIFT	V-INDWSLM-	Lift stations	0	0.25	6	5	X		X		X					
Irrigation																
V-IRRG-EQPM	V-IRRGQM-	Irrigation equipment (e.g., controllers, valves, etc.)	0	0.25	6	5	X	X			X					
V-IRRG-IDEN	V-IRRGIDM-	Irrigation annotator	0	0.25	2	4	X	X			X			X	X	
V-IRRG-PIPE	V-IRRGPIM-	Irrigation piping	0	0.25	6	5	X	X			X			X	X	
V-IRRG-WELL	V-IRRGWEM-	Irrigation wells	0	0.18	3	2					X					
Joints																
V-JNTS-CNSL	V-JNTSSLM-	Construction joints - longitudinal	0	0.25	6	5	X									
V-JNTS-CNST	V-JNTSSTM-	Construction joints - transverse	0	0.25	6	5	X									
V-JNTS-CNTL	V-JNTSTLM-	Contraction joints - longitudinal	0	0.25	2	4	X									
V-JNTS-CNTT	V-JNTSTTM-	Contraction joints - transverse	0	0.25	2	4	X									
V-JNTS-EDGE	V-JNTSEDM-	Thickened edges	0	0.25	4	7	X									
V-JNTS-EXPN	V-JNTSEXM-	Expansion joints	0	0.25	12	27	X									
V-JNTS-IDEN	V-JNTSIDM-	Joint annotator	0	0.25	2	4	X									
Levees																
V-LEVE-BANK-IDEN	V-LEVEBIM-	Levee top of bank annotator	0	0.25	20	6	X									X
V-LEVE-BANK-TOP-	V-LEVEBTM-	Levee top of bank	0	0.25	20	6	X									X
V-LEVE-BERM	V-LEVEBEM-	Existing berms	0	0.25	6	5	X									X
V-LEVE-BNCH	V-LEVEBEM-	Levee bench design feature lines (breaklines form DTMs)	0	0.25	20	6	X									X
V-LEVE-BNCH-IDEN	V-LEVEBIM-	Levee bench annotator	0	0.18	2	4	X									X
V-LEVE-BRRW	V-LEVEBRM-	Borrow limits	0	0.35	4	7	X									X
V-LEVE-CNTR	V-LEVECTM-	Levee centerline	7	0.18	20	6	X									X
V-LEVE-CNTR-IDEN	V-LEVECIM-	Levee centerline annotator	0	0.25	20	6	X									X
V-LEVE-IDEN	V-LEVEIDM-	Levee annotator	0	0.25	2	4	X									X
V-LEVE-OTLN	V-LEVEOTM-	Levee outline	0	0.35	4	7	X									X
V-LEVE-SLOP	V-LEVESFM-	Levee slope indicator with annotator	0	0.25	2	4	X									X
V-LEVE-STAT	V-LEVESTM-	Levee stationing	0	0.25	2	4	X									X
V-LEVE-TOE-	V-LEVEETOM-	Levee toe	2	0.25	20	6	X									X
V-LEVE-TOE--IDEN	V-LEVEETIM-	Levee toe annotator	0	0.18	20	6	X									X
Lights																
V-LITE-EXTR	V-LITEEXM-	Exterior lights	0	0.35	203	45			X	X						
V-LITE-EXTR-IDEN	V-LITEEIM-	Exterior light identifier tags, symbol modifiers, and text	0	0.25	203	45			X	X						
Military Ranges																
V-MILR-BATP	V-MILRBAM-	Battle positions	0	0.35	4	7	X									
V-MILR-CAMS	V-MILRCAM-	Range cameras	0	0.25	6	5	X									
V-MILR-FOXH	V-MILRFOM-	Fox holes and pits	0	0.25	6	5	X									
V-MILR-MATS	V-MILRMAM-	Moving army targets	0	0.35	4	7	X									
V-MILR-MITS	V-MILRMIM-	Moving infantry targets	0	0.35	4	7	X									
V-MILR-MITS-IDEN	V-MILRMDM-	Moving infantry targets annotator	0	0.25	2	4	X									

Discipline: Survey/Mapping
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types									
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Survey and Mapping Plan	Existing Hydrographic Survey & Mapping Plan	Property Boundary	Existing Electrical Utilities Plan	Existing Communication System Plan	Existing Utilities Plan	Existing HICW Utilities Plan	Existing Airfield Lighting Plan	Existing Profiles	Existing X-Sections
V-MILR-PUTS	V-MILRPUM-	Pop up targets	0	0.35	4	7	X									
V-MILR-PUTS-IDEN	V-MILRPIM-	Pop up targets annotation	0	0.25	2	4	X									
V-MILR-SATS	V-MILRSAM-	Stationary army targets	0	0.35	4	7	X									
V-MILR-SATS-IDEN	V-MILRSDM-	Stationary army targets annotator	0	0.25	2	4	X									
V-MILR-SITS	V-MILRSIM-	Stationary infantry targets	0	0.35	4	7	X									
V-MILR-SITS-IDEN	V-MILRSEM-	Stationary infantry targets annotator	0	0.25	2	4	X									
Natural Gas																
V-NGAS-ABND-PIPE	V-NGASAPM-	Abandoned piping	2	0.25	6	5	X		X			X			X	X
V-NGAS-DEVC	V-NGASDEM-	Hydrant fill points, lights, vents, markers, rectifiers, reducers, regulators, sources, drip pots, taps, and valves	0	0.25	6	5					X					
V-NGAS-DEVC-IDEN	V-NGASDIM-	Identifier tags, symbol modifier, and text	0	0.25	6	5					X					
V-NGAS-FLOW	V-NGASFLM-	Flow direction arrows	0	0.25	6	5					X					
V-NGAS-FTTG	V-NGASFTM-	Caps, crosses, and tees	0	0.25	6	5					X					
V-NGAS-IDEN	V-NGASIDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4	X		X		X			X	X	
V-NGAS-MAIN-PIPE	V-NGASMPM-	Main natural gas piping	NTGASX	0.25	6	5	X	X		X				X	X	
V-NGAS-METR	V-NGASMEM-	Meters	0	0.25	3	2					X					
V-NGAS-PITS-IDEN	V-NGASPIM-	Identifier tags, symbol modifier, and text	0	0.25	3	2					X					
V-NGAS-PITS-VENT	V-NGASPM-	Vent pits	0	0.25	3	2					X					
V-NGAS-PITS-VLVE	V-NGASPLM-	Valve pits/boxes	0	0.25	3	2					X					
V-NGAS-SERV-PIPE	V-NGASSPM-	Service piping	0	0.25	1	3					X					
V-NGAS-SIGN	V-NGASSIM-	Surface markers/signs	0	0.25	1	3					X					
V-NGAS-STNS-IDEN	V-NGASISM-	Identifier tags, symbol modifier, and text	0	0.25	2	4					X					
V-NGAS-STNS-PUMP	V-NGASSUM-	Compressor stations	0	0.25	6	5					X					
V-NGAS-STNS-REDC	V-NGASSRM-	Reducing stations	0	0.25	6	5					X					
V-NGAS-TANK	V-NGASTAM-	Tanks	0	0.18	3	2	X		X		X					
Obstructions																
V-OBST-AIRS	V-OBSTAIM-	Airspace obstructions	0	0.25	3	2										X
V-OBST-AIRS-IDEN	V-OBSTADM-	Airspace obstruction annotation	0	0.25	2	4										X
V-OBST-UWTR	V-OBSTUWM-	Underwater obstructions (e.g., sunken ship, barge, etc.)	2	0.25	1	3		X								X
V-OBST-UWTR-IDEN	V-OBSTUIM-	Underwater obstruction annotation	0	0.25	2	4	X									X
Overrun Areas																
V-OVRN-CNTR	V-OVRNCTM-	Centerlines	7	0.18	1	3										X
V-OVRN-CNTR-IDEN	V-OVRNCIM-	Centerline annotator	0	0.25	2	4										X
V-OVRN-IDEN	V-OVRNIDM-	Airfield overrun area - annotator	0	0.25	2	4								X	X	
V-OVRN-OTLN	V-OVRNOTM-	Airfield overrun area - outlines	0	0.25	4	7								X	X	
V-OVRN-SHLD-MRKG	V-OVRNSHM-	Shoulder markings	0	0.25	4	7										X
Pads (Arm/Disarm/Calibration, etc.)																
V-PADS-CNTR	V-PADSCTM-	Centerlines	7	0.18	1	3										X
V-PADS-CNTR-IDEN	V-PADSCIM-	Centerline annotator	0	0.25	2	4										X
V-PADS-IDEN	V-PADSIDM-	Pads - annotation	0	0.25	2	4								X	X	
V-PADS-OTLN	V-PADSOTM-	Pad - outlines	0	0.25	4	7								X	X	
V-PADS-SHLD	V-PADSSHM-	Shoulders with annotator	0	0.18	2	4										X
Power																
V-POWR-DEVC	V-POWRDEM-	Capacitors, voltage regulators, motors, buses, generators, meters, grounds, and markers	0	0.35	23	46				X						
V-POWR-IDEN	V-POWRIDM-	Power annotation	0	0.35	2	4	X		X	X						
V-POWR-JBOX	V-POWRJBM-	Junction boxes, pull boxes, manholes, handholes, pedestals, splice:	0	0.35	83	42				X						

Discipline: Survey/Mapping
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types									
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V-POWR-POLE	V-POWRPOM-	Power poles	0	0.35	203	45	X		X	X						
V-POWR-POLE-GUYS	V-POWRPGM-	Guying equipment	0	0.35	203	45			X							
V-POWR-POLE-IDEN	V-POWRPIM-	Identifier tags, symbol modifiers, and text	0	0.25	203	45			X							
V-POWR-SUBS	V-POWRSUM-	Other substation equipment	0	0.35	23	46			X							
V-POWR-SWCH	V-POWRSWM-	Fuse cutouts, pole mounted switches, circuit breakers, gang operated disconnects, reclosers, cubicle switches	0	0.35	163	41			X							
V-POWR-XFMR-PADM	V-POWRXPM-	Pad mounted transformers	0	0.35	23	46			X							
V-POWR-XFMR-POLM	V-POWRXOM-	Pole mounted transformers	0	0.35	23	46			X							
Primary Electrical Cables																
V-PRIM-OVHD	V-PRIMOVM-	Overhead electrical utility lines	EPARX	0.35	4	7	X		X	X					X	X
V-PRIM-OVHD-IDEN	V-PRIMOIM-	Identifier tags, symbol modifiers, and text	0	0.25	4	7	X		X	X					X	X
V-PRIM-UNDR	V-PRIMUMN-	Underground electrical utility lines	EPUGX	0.35	4	7	X		X	X					X	X
V-PRIM-UNDR-IDEN	V-PRIMUMI-	Identifier tags, symbol modifiers, and text	0	0.25	4	7	X		X	X					X	X
Parking Lots																
V-PRKG-CNTR	V-PRKGCTM-	Parking lot centerlines	7	0.18	1	3	X		X							
V-PRKG-CNTR-IDEN	V-PRKGCIM-	Parking lot centerline annotator	0	0.18	1	3	X		X							
V-PRKG-CURB	V-PRKGCUM-	Curbs and gutters	0	0.25	3	2	X		X							
V-PRKG-DRAN	V-PRKGDORM-	Drainage slope indications	0	0.25	1	3	X		X							
V-PRKG-FIXT	V-PRKGFIM-	Parking lot fixtures (e.g., wheel stops, parking meters)	0	0.25	91	106	X		X						X	X
V-PRKG-FLNE	V-PRKGFIM-	Fire lanes	0	0.18	1	3	X		X						X	X
V-PRKG-IDEN	V-PRKGDIM-	Parking lot annotator	0	0.25	6	5	X		X						X	X
V-PRKG-MRKG	V-PRKGMRM-	Pavement markings	0	0.25	2	4	X		X							
V-PRKG-OTLN	V-PRKGOTM-	Parking lot outlines	0	0.35	4	7	X		X							
V-PRKG-SIGN	V-PRKGSIM-	Signs	0	0.25	2	4	X		X							
Property																
V-PROP-BRNG	V-PROPBRM-	Bearings and distance labels	0	0.35	6	5	X		X							X
V-PROP-ESMT	V-PROPESM-	Easements	CONEMT	0.50	7	0	X		X							X
V-PROP-IDEN	V-PROPIDM-	Property annotator	0	0.25	6	5	X		X							X
V-PROP-LINE	V-PROPLIM-	Property lines (Existing recorded plats)	PROPL	0.35	2	4	X		X							X
V-PROP-QTRS	V-PROPQTM-	Quarter lines	11	0.35	6	5	X		X							X
V-PROP-RWAY	V-PROPRWM-	Right of ways	6	0.50	7	0	X		X							X
V-PROP-SECT	V-PROPSEM-	Section lines	7	0.35	6	5	X		X							X
V-PROP-SECT-IDEN	V-PROPSIM-	Section lines annotator	0	0.25	6	5	X		X							X
V-PROP-SUBD	V-PROPSUM-	Subdivision (interior) lines	0	0.25	1	3	X		X							X
V-PROP-SXTS	V-PROPSXM-	Sixteenth lines (40 lines)	16THLN	0.35	6	5	X		X							X
V-PROP-TSHP	V-PROPTSM-	Township/range lines	4	0.35	6	5	X		X							X
V-PROP-TSHP-IDEN	V-PROPTIM-	Township/range lines annotator	0	0.25	6	5	X		X							X
Pavements																
V-PVMT-ASPH	V-PVMTASM-	Pavement pattern - asphalt	0	0.18	8	9	X									
V-PVMT-CONC	V-PVMTCOM-	Pavement pattern - concrete	0	0.18	8	9	X									
V-PVMT-GRVL	V-PVMTGRM-	Pavement pattern - gravel	0	0.18	8	9	X									
V-PVMT-IDEN	V-PVMTIDM-	Road, parking lot, railroad, airfield pavement annotator	0	0.25	2	4	X								X	X
V-PVMT-MRKG	V-PVMTMRM-	Pavement markings	0	0.35	2	4	X									
V-PVMT-PATT	V-PVMTPAM-	Joint patterns, text and dimensions	0	0.35	2	4	X									
Railroads																
V-RAIL-CNTR	V-RAILCNM-	Railroad track centerlines	7	0.18	1	3	X		X						X	X
V-RAIL-CNTR-IDEN	V-RAILCIM-	Railroad track centerline annotator	0	0.25	1	3	X		X						X	X

Discipline: Survey/Mapping
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V-RAIL-EQPM	V-RAILEQM-	Railroad equipment (e.g., gates, signals)	0	0.25	91	106	X		X						X	X
V-RAIL-IDEN	V-RAILIDM-	Railroad - annotation	0	0.25	2	4	X		X						X	X
V-RAIL-TRAK	V-RAILTRM-	Railroad tracks	RAILS	0.25	2	4	X		X						X	X
Rivers																
V-RIVR-BANK-TOP~	V-RIVRBTM-	Top of river bank	0	0.25	5	1	X	X							X	X
V-RIVR-BOTM	V-RIVRBOM-	River bottom	0	0.25	5	1	X	X							X	X
V-RIVR-CNTR	V-RIVRCNM-	Centerline of river	7	0.18	1	3	X	X							X	X
V-RIVR-EDGE	V-RIVREDM-	River edge	0	0.35	5	1	X	X							X	X
V-RIVR-IDEN	V-RIVRIDM-	Identifier tags, symbol modifiers, and text	0	0.25	2	4	X	X							X	X
Roads, Streets, and Highways																
V-ROAD-ASPH	V-ROADASM-	Road outlines - asphalt surface	0	0.18	8	9	X		X							X
V-ROAD-CNTR	V-ROADCTM-	Road centerlines	7	0.18	1	3	X		X							X
V-ROAD-CNTR-IDEN	V-ROADCIM-	Road centerline annotator	0	0.18	1	3	X		X							X
V-ROAD-CONC	V-ROADCOM-	Road outlines - concrete surface	0	0.18	7	0	X		X							X
V-ROAD-CURB	V-ROADCUM-	Curbs and gutters	0	0.25	6	5	X		X							X
V-ROAD-GRAL	V-ROADGRM-	Guard rails	GUARD	0.25	6	5	X		X							X
V-ROAD-GRVL	V-ROADGVM-	Road outlines - gravel surface	0	0.18	20	6	X		X							X
V-ROAD-IDEN	V-ROADIDM-	Road, street, highway annotator	0	0.25	6	5	X		X						X	X
V-ROAD-MRKG	V-ROADMRM-	Pavement markings	0	0.25	2	4	X		X							X
V-ROAD-OTLN	V-ROADOTM-	Road outlines	0	0.25	4	7	X		X							X
V-ROAD-PATT	V-ROADPAM-	Joint patterns, text and dimensions	0	0.25	2	4	X									X
V-ROAD-SHLD	V-ROADSHM-	Roadway shoulders	0	0.25	6	5	X		X							X
V-ROAD-SIGN	V-ROADSIM-	Signs	0	0.18	1	3	X									X
V-ROAD-UPVD	V-ROADUPM-	Road outlines - unpaved surface	0	0.18	3	2	X									X
Riprap and Other Permanent Erosion Control Items																
V-RRAP-GABN	V-RIVRGAM-	Gabions	V	0.18	1	3	X	X								
V-RRAP-MATS	V-RRAPMAM-	Articulated concrete mats	V	0.18	3	2	X	X								
V-RRAP-RVMT	V-RIVRRVM-	Revetments	V	0.18	1	3	X	X								
V-RRAP-WEIR	V-RRAPWEM-	Weirs	V	0.18	3	2	X	X								
Runways																
V-RUNW-BLST	V-RUNWBLM-	Blast pad and stopway markings	0	0.25	1	3	X								X	X
V-RUNW-CNTR	V-RUNWCNM-	Centerlines	7	0.25	1	3	X									
V-RUNW-CNTR-MRKG	V-RUNWCMM-	Centerline markings	0	0.25	1	3	X									
V-RUNW-DISP	V-RUNWDSM-	Displaced threshold markings	0	0.25	1	3	X									
V-RUNW-DIST	V-RUNWDIM-	Fixed distance markings	0	0.25	1	3	X									
V-RUNW-EDGE	V-RUNWRUM-	Airfield runway edges	0	0.25	6	5	X									
V-RUNW-IDEN	V-RUNWIDM-	Airfield runway annotator	0	0.25	2	4	X								X	X
V-RUNW-SHLD	V-RUNWSHM-	Shoulder markings	0	0.25	6	5	X									
V-RUNW-SIDE	V-RUNWSIM-	Side stripes	0	0.25	4	7	X									
V-RUNW-TDZM	V-RUNWTDM-	Touchdown zone markers	0	0.25	6	5	X									
V-RUNW-THRS	V-RUNWTHM-	Threshold markers	0	0.25	6	5	X									
Secondary Electrical Cables																
V-SECD-OVHD	V-SECDOVM-	Overhead electrical utility lines	ESARX	0.35	163	41	X		X	X					X	X
V-SECD-OVHD-IDEN	V-SECDOIM-	Identifier tags, symbol modifiers, and text	0	0.25	163	41	X		X	X					X	X
V-SECD-UNDR	V-SECDUNM-	Underground electrical utility lines	ESUGX	0.35	163	41	X		X	X					X	X
V-SECD-UNDR-IDEN	V-SECDUIM-	Identifier tags, symbol modifiers, and text	0	0.25	163	41	X		X	X					X	X
Site Features																

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V-SITE-EWAT	V-SITEEWM-	Edge of water	0	0.35	162	33	X		X							
V-SITE-FENC	V-SITEFEM-	Fences and handrails	0, FENCE	0.25	6	5	X		X							
V-SITE-FENC-IDEN	V-SITEFIM-	Fence, handrail, ramp, and trail annotator	0	0.25	6	5	X		X							
V-SITE-FLDS	V-SITEFLM-	Stump fields	0	0.25	1	3		X								
V-SITE-IDEN	V-SITEIDM-	Existing site feature/structure annotation	0	0.25	6	5	X	X	X						X	X
V-SITE-OTLN	V-SITEOTM-	Existing site features (play structures, bike racks, benches, recreational equipment)	0	0.50	4	7	X		X						X	X
V-SITE-ROCK	V-SITEROM-	Rock and rock outcroppings, boulders and cobble	0	0.25	1	3	X		X							
V-SITE-STRC	V-SITESRM-	Structures (bridges, sheds, foundation pads, footings, etc.)	0	0.25	22	22	X		X						X	X
V-SITE-STRS	V-SITESTM-	Stairs and ramps	0	0.25	6	5	X		X							
V-SITE-VEGE	V-SITEVEM-	Existing treelines and vegetator	0, TREEL	0.35	82	18	X		X							
V-SITE-VEGE-IDEN	V-SITEVIM-	Existing treelines and vegetation - identifier	0	0.35	82	18	X		X							
V-SITE-WALK	V-SITEWAM-	Walks, trails, and bicycle paths	0	0.25	2	4	X		X							
V-SITE-WATR	V-SITEWTM-	Water features	0	0.35	162	33	X		X							
Special Systems																
V-SPCL-SYST	V-SPCLSPM-	Special systems (UMCS, EMCS, CATV, etc.)	0	0.35	203	45				X						X
V-SPCL-SYST-IDEN	V-SPCLSIM-	Special systems (UMCS, EMCS, CATV, etc.) identifier tags, symbol modifier, and text	0	0.25	203	45				X						X
V-SPCL-TRAF	V-SPCLTRM-	Traffic signal system	0	0.35	203	45				X						X
V-SPCL-TRAF-IDEN	V-SPCLTIM-	Traffic signal identifier tags, symbol modifier, and text	0	0.25	203	45				X						X
Sanitary Sewer																
V-SSWR-ABND-PIPE	V-SSWRAPM-	Abandoned piping	2	0.25	6	5	X		X						X	X
V-SSWR-DEVC	V-SSWRDEM-	Grease traps, grit chambers, flumes, neutralizers, oil/water separators, ejectors, and valves	0	0.25	6	5					X					
V-SSWR-DEVC-IDEN	V-SSWRDIM-	Identifier tags, symbol modifier, and text	0	0.18	6	5					X					X
V-SSWR-FILT	V-SSWRFIM-	Filtration beds	0	0.25	3	2					X					X
V-SSWR-FILT-IDEN	V-SSWRFDM-	Identifier tags, symbol modifier, and text	0	0.25	3	2					X					X
V-SSWR-FLOW	V-SSWRFLM-	Flow direction arrows	0	0.25	6	5					X					X
V-SSWR-FTTG	V-SSWRFTM-	Caps and cleanouts	0	0.25	6	5					X					X
V-SSWR-IDEN	V-SSWRIDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4	X		X		X				X	X
V-SSWR-JBOX	V-SSWRJBM-	Junction boxes and manholes	0	0.25	1	3	X		X		X					X
V-SSWR-JBOX-IDEN	V-SSWRJIM-	Identifier tags, symbol modifier, and text	0	0.25	1	3					X					X
V-SSWR-LAGN	V-SSWRLAM-	Lagoons	0	0.25	3	2	X		X		X					X
V-SSWR-LEAC	V-SSWRLEM-	Leach field	0	0.25	3	2					X					X
V-SSWR-MAIN-PIPE	V-SSWRMPM-	Sanitary sewer piping	SSWAFX	0.25	6	5	X		X		X				X	X
V-SSWR-NITF	V-SSWRNIM-	Nitrification drain fields	0	0.25	3	2	X		X		X					X
V-SSWR-PLNT	V-SSWRPLM-	Treatment plants	0	0.25	6	5	X		X		X					X
V-SSWR-SERV-PIPE	V-SSWRSPM-	Sanitary sewer service piping	0	0.25	1	3					X					X
V-SSWR-SIGN	V-SSWRSIM-	Surface markers/signs	0	0.25	1	3					X					X
V-SSWR-STNS-IDEN	V-SSWRISM-	Identifier tags, symbol modifier, and text	0	0.25	2	4					X					X
V-SSWR-STNS-PUMP	V-SSWRSUM-	Booster pump stations	0	0.25	6	5	X		X		X					X
V-SSWR-TANK	V-SSWRTAM-	Septic tanks	0	0.25	3	2	X		X		X					X
Storm Sewer																
V-STRM-ABND-PIPE	V-STRMAPM-	Abandoned piping	2	0.25	6	5	X		X			X			X	X
V-STRM-AFFF	V-STRMAFM-	AFFF lagoon/detention pond	0	0.25	3	2					X					X
V-STRM-CHUT	V-STRMCHM-	Chutes and concrete erosion control structures	0	0.25	1	3					X					X
V-STRM-CULV	V-STRMCLM-	Culverts	CULVRT	0.25	3	2	X		X		X					X
V-STRM-DEVC	V-STRMDEM-	Downspouts, flumes, oil/water separators, and flap gates	0	0.25	6	5					X					X
V-STRM-FLOW	V-STRMFLM-	Flow direction arrows	0	0.25	6	5					X					X

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V-STRM-FMON	V-STRMFMM-	Flow monitoring station	0	0.25	6	5					X					X	
V-STRM-FTTG	V-STRMFTM-	Caps and cleanouts	0	0.25	6	5					X					X	
V-STRM-HDWL	V-STRMHDM-	Headwalls and endwalls	0	0.35	7	0		X			X					X	
V-STRM-IDEN	V-STRMIDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4		X	X		X				X	X	
V-STRM-INLT	V-STRMINM-	Inlets (curb, surface, and catch basins)	0	0.25	3	2	X	X		X						X	
V-STRM-LAGN	V-STRMLAM-	Lagoons, ponds, watersheds, and basins	0	0.25	3	2	X	X		X						X	
V-STRM-MAIN-PIPE	V-STRMMPM-	Storm sewer piping	STRAFX	0.25	6	5	X		X		X				X	X	
V-STRM-MHOL	V-STRMMHM-	Manholes	0	0.25	1	3	X	X			X					X	
V-STRM-ROOF	V-STRMROM-	Roof drain line	0	0.25	3	2					X					X	
V-STRM-SERV-PIPE	V-STRMSPM-	Storm sewer service piping	0	0.25	1	3	X		X		X					X	
V-STRM-SIGN	V-STRMSIM-	Surface markers/signs	0	0.25	1	3					X					X	
V-STRM-STNS-IDEN	V-STRMSDM-	Identifier tags, symbol modifier, and text	0	0.25	2	4					X					X	
V-STRM-STNS-PUMP	V-STRMSUM-	Pump stations	0	0.25	6	5					X					X	
V-STRM-SUBS-PIPE	V-STRMSUM-	Subsurface drain piping	0	0.25	3	2					X					X	
Survey																	
V-SURV-DATA	V-SURVDAM-	Survey data (benchmarks and horizontal control points or monuments)	0	0.25	6	5	X	X	X								X
V-SURV-IDEN	V-SURVIDM-	Survey, baseline, and control line annotator	0	0.25	6	5	X	X	X								X
V-SURV-LINE	V-SURVLIM-	Survey, baseline, and control line	2	0.25	4	7	X	X	X								X
V-SURV-SYMB	V-SURVSYM-	Survey line symbol (PLs)	0	0.35	2	4	X	X	X								X
Taxiways																	
V-TAXI-CNTR	V-TAXICNM-	Centerlines	7	0.18	1	3	X										
V-TAXI-CNTR-IDEN	V-TAXICIM-	Centerline annotator	0	0.25	2	4	X										
V-TAXI-CNTR-MRKG	V-TAXICMM-	Centerline markings	0	0.18	1	3	X										
V-TAXI-EDGE	V-TAXIEDM-	Edge markings	0	0.25	4	7	X										
V-TAXI-HOLD	V-TAXIHOM-	Holding lines	0	0.25	2	4	X										
V-TAXI-IDEN	V-TAXIIDM-	Taxiway - annotator	0	0.25	2	4	X								X	X	
V-TAXI-OTLN	V-TAXIOTM-	Taxiway - outlines	0	0.25	4	7	X								X	X	
V-TAXI-SHLD	V-TAXISHM-	Shoulders with annotator	0	0.25	2	4	X										
Topography																	
V-TOPO-BDRY-EXTR	V-TOPOBEM-	Surface exterior boundary	0	0.18	3	2	X	X									X
V-TOPO-BDRY-INTR	V-TOPOBIM-	Surface interior boundary	2	0.18	1	3	X	X									X
V-TOPO-BKLN	V-TOPOBKM-	Breaklines	4	0.35	7	0	X	X									X
V-TOPO-BKLN-COMM	V-TOPOKCM-	Subsurface utilities communications breakline	COMUGX	0.35	7	0	X	X									X
V-TOPO-BKLN-DOMW	V-TOPOKDM-	Subsurface utilities water breakline	WATERL	0.35	7	0	X	X									X
V-TOPO-BKLN-ELEC	V-TOPOKEM-	Subsurface utilities electric breakline	EPUGX	0.35	7	0	X	X									X
V-TOPO-BKLN-FUEL	V-TOPOKFM-	Subsurface utilities liquid fuel breakline	LIQPET	0.35	7	0	X	X									X
V-TOPO-BKLN-NGAS	V-TOPOKGM-	Subsurface utilities natural gas breakline	NTGASN	0.35	7	0	X	X									X
V-TOPO-BKLN-SSWR	V-TOPOKSM-	Subsurface utilities sanitary sewer breakline	SSWAF	0.35	7	0	X	X									X
V-TOPO-BKLN-STRM	V-TOPOKTM-	Subsurface utilities storm sewer breakline	STRAF	0.35	7	0	X	X									X
V-TOPO-BORE	V-TOPOBOM-	Boring locations and text	0	0.25	6	5	X	X									X
V-TOPO-COOR	V-TOPOCOM-	Coordinate grid ticks and text	0	0.25	122	23	X	X									X
V-TOPO-COOR-LALO	V-TOPOCLM-	Latitude and longitude grid ticks	0	0.18	3	2	X	X									X
V-TOPO-COOR-STAT	V-TOPOCSM-	State Plane coordinate ticks	0	0.18	3	2	X	X									X
V-TOPO-DTMO	V-TOPODOM-	DTM obscure area boundary	0	0.25	6	5	X	X									X
V-TOPO-DTMP	V-TOPODPM-	DTM points	0	0.25	6	5	X	X									X
V-TOPO-DTMT	V-TOPODTM-	DTM triangles	0	0.25	22	22	X	X									X
V-TOPO-MAJR	V-TOPOMJM-	Major contours	0	0.25	2	4	X	X									X

Discipline: Survey/Mapping
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types									
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Survey and Mapping Plan	Existing Hydrographic Survey & Mapping Plan	Property Boundary	Existing Electrical Utilities Plan	Existing Communication System Plan	Existing Utilities Plan	Existing HICW Utilities Plan	Existing Airfield Lighting Plan	Existing Profiles	Existing X-Sections
V-TOPO-MAJR-IDEN	V-TOPOMAM-	Major contours - annotator	0	0.25	2	4	X	X								X
V-TOPO-MINR	V-TOPOMNM-	Minor contours	0	0.18	3	2	X	X								X
V-TOPO-MINR-IDEN	V-TOPOMIM-	Minor contours - annotator	0	0.18	3	2	X	X								X
V-TOPO-PERM	V-TOPOPEM-	Surface perimeter	0	0.18	3	2	X	X								X
V-TOPO-SHAP	V-TOPOSHM-	Inroads generated shapes/lines	0	0.18	1	3										X
V-TOPO-SHOR	V-TOPOSHM-	Shorelines, land features, and references	0	0.25	4	7	X	X								X
V-TOPO-SLOP-FILL	V-TOPOSOM-	Cut/fill slopes	0	0.25	2	4	X	X								X
V-TOPO-SLOP-IDEN	V-CHANSIM-	Cut/fill slope, top/toe slope annotator	0	0.25	2	4	X									X
V-TOPO-SLOP-TOPT	V-TOPOSTM-	Top/toe slopes	0	0.25	6	5	X									X
V-TOPO-SOUN	V-TOPOSOM-	Soundings and overbanks	0	0.18	V	V		X								X
V-TOPO-SPOT	V-TOPOSPM-	Spot elevations	0	0.25	2	4	X	X								X
V-TOPO-VOID	V-TOPOVOM-	Surface void region	0	0.18	1	3	X	X								X
V-TOPO-WATR	V-TOPOWAM-	Water level reference (e.g., LWRP, after-grading LWRP, SWP, etc.)	0	0.35	V	V	X	X								X
Airfield Traffic Areas																
V-TRAF-IDEN	V-TRAFIDM-	Airfield traffic area annotator	0	0.25	2	4	X									
V-TRAF-TYPA	V-TRAFTAM-	Type A traffic area	4	0.35	4	7	X									
V-TRAF-TYPB	V-TRAFTBM-	Type B traffic area	6	0.35	4	7	X									
V-TRAF-TYPC	V-TRAFTCM-	Type C traffic area	10	0.35	4	7	X									
Wetlands																
V-WETL-BOGS	V-WETLBOM-	Bogs	0	0.25	6	5	X									X
V-WETL-FENS	V-WETLFEM-	Fens	0	0.25	2	4	X									X
V-WETL-IDEN	V-WETLIDM-	Wetland annotation	0	0.25	2	4	X									X
V-WETL-MRSH	V-WETLMRM-	Fresh water marshes	0	0.25	162	33	X									X
V-WETL-MRSH-SALT	V-WETLMSM-	Tidal saltwater marshes	0	0.25	162	33	X									X
V-WETL-MRSH-TIDL	V-WETLMTM-	Tidal freshwater marsh	0	0.25	162	33	X									X
V-WETL-PCSN	V-WETLPCM-	Pocosins	0	0.25	6	5	X									X
V-WETL-PHOL	V-WETLPHM-	Vernal pools, playas, prairie potholes, wet meadows, and wet prairies	0	0.25	6	5	X									X
V-WETL-RPRN	V-WETLRPM-	Riparian forested wetlands	0	0.25	162	33	X									X
V-WETL-SLGH	V-WETLSLM-	Sloughs	0	0.25	162	33	X									X
V-WETL-SWMP	V-WETLSWM-	Swamps	0	0.25	162	33	X									X
Sections																
V-SECT-IDEN	V-SECTIDM-	Component identification numbers	0	0.35	2	4										X
V-SECT-MBND	V-SECTMBM-	Material beyond section cu	0	0.18	5	1										X
V-SECT-MCUT	V-SECTMCM-	Material cut by section	0	0.50	4	7										X
V-SECT-PATT	V-SECTPAM-	Textures and hatch patterns	0	0.18	8	9										X

Note: V = Varies, NA = Not Applicable

Discipline: Geotechnical
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types					
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Subsurface Investigation Plan	Boring Log	Joint Layout Plan *	Pavement Site Plan	Sections	Details
General Information												
B-ANNO-DIMS	B-----DIP-	Witness/extension lines, dimension terminators, dimension tex	0	V	V	V	X		X	X	X	X
B-ANNO-KEYN	B-----KEP-	Reference keynotes with associated leader	0	V	V	V	X		X	X	X	X
B-ANNO-NOTE	B-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X
B-ANNO-NPLT	B-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X	X	X
B-ANNO-PATT	B-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X		X	X
B-ANNO-RDME	B-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X
B-ANNO-REFR	B-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X		X	X	X	X
B-ANNO-SYMB	B-----SYP-	Miscellaneous symbols	V	V	6	5	X			X	X	X
B-ANNO-TEXT	B-----TEP-	Miscellaneous text and callouts with associated leader:	0	V	V	V	X	X	X	X	X	X
Existing Conditions												
B-EXST-BLDG	B-EXSTBLM-	Existing building	0	0.25	1	3	X		X	X		
B-EXST-COND	B-EXSTCOM-	Existing conditions	0	0.25	1	3	X		X	X		
Geophysical Borings												
B-BORE-CONE	B-BORECOM-	Cone penetrometer test locator	0	0.35	162	33	X					
B-BORE-HOLE	B-BOREHOM-	Geophysical boring locations	0	0.35	162	33	X					
B-BORE-IDEN	B-BOREIDM-	Geophysical location identification	0	0.35	2	4	X					
B-BORE-LINE	B-BORELIM-	Geophysical transect lines	0	0.50	4	7	X					
B-BORE-PUSH	B-BOREPUM-	Direct push test location	0	0.35	162	33	X					
B-BORE-STRK	B-BORESTM-	Geophysical strike line	0	0.35	162	33	X					
Consolidation Curve												
B-CONS-DATA	B-CONSDAM-	Consolidation curve data	0	0.25	6	5	X					
B-CONS-DATA-TEXT	B-CONSDTM-	Consolidation curve data tex	0	0.25	6	5	X					
B-CONS-FRAM	B-CONSFPM-	Consolidation curve frame	0	0.50	4	7	X					
B-CONS-GRID	B-CONSGRM-	Consolidation curve grid	0	0.25	1	3	X					
B-CONS-GRID-TEXT	B-CONSGTM-	Consolidation curve grid text	0	0.25	2	4	X					
Water Content												
B-H2OC-ATTB-DATA	B-H2OCADM-	Water content Atterberg limits	0	0.25	3	2	X					
B-H2OC-ATTB-TEXT	B-H2OCATM-	Water content Atterberg limits text	0	0.25	3	2	X					
B-H2OC-GRID-MAJR	B-H2OCGMM-	Water content major grid	0	0.25	1	3	X					
B-H2OC-GRID-MINR	B-H2OCGIM-	Water content minor grid	1	0.18	8	9	X					
B-H2OC-GRID-TEXT	B-H2OCGTM-	Water content grid text	0	0.25	2	4	X					
B-H2OC-MOIS-DATA	B-H2OCMDM-	Water content moisture content points and lines	0	0.25	6	5	X					
B-H2OC-MOIS-TEXT	B-H2OCMTM-	Water content moisture content tex	0	0.25	6	5	X					
Joints												
B-JNTS-CNTJ-LONG	B-JNTSCLM-	Construction joints - longitudinal	0	0.35	6	5			X			
B-JNTS-CNTJ-TRAV	B-JNTSCTM-	Construction joints - transverse	0	0.35	6	5			X			
B-JNTS-CTRJ-LONG	B-JNTSTLM-	Contraction joints - longitudinal	0	0.35	2	4			X			
B-JNTS-CTRJ-TRAV	B-JNTSTTM-	Contraction joints - transverse	0	0.35	2	4			X			
B-JNTS-EDGE	B-JNTSEDM-	Thickened edges	0	2.00	4	7			X			
B-JNTS-EXPJ	B-JNTSEXM-	Expansion joints	0	0.35	12	27			X			
Logs												
B-LOGS-FDTA	B-LOGSFDM-	Field data	0	0.25	3	2		X				
B-LOGS-FORM	B-LOGSFOM-	Bore log form	0	V	V	V		X				
B-LOGS-FRAM	B-LOGSFPM-	Frame for boring log and associated test date	0	0.50	4	7		X				
B-LOGS-FRAM-TEXT	B-LOGSFPM-	Text associated with boring log frame	0	0.25	2	4		X				
B-LOGS-LDTA	B-LOGSLDM-	Laboratory data	0	0.25	1	3		X				

Discipline: Geotechnical

Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types					
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Subsurface Investigation Plan	Boring Log	Joint Layout Plan *	Pavement Site Plan	Sections	Details
B-LOGS-PATT	B-LOGSPAM-	Soil/rock patterns	0	0.18	8	9		X				
Normal Stress												
B-NORM-DATA	B-NORMDAM-	Normal stress data	0	0.25	6	5	X					
B-NORM-DATA-TEXT	B-NORMDTM-	Normal stress data text	0	0.25	6	5	X					
B-NORM-GRID-MAJR	B-NORMGMM-	Normal stress major grid	0	0.25	1	3	X					
B-NORM-GRID-MINR	B-NORMGIM-	Normal stress minor grid	1	0.18	8	9	X					
B-NORM-GRID-TEXT	B-NORMGTM-	Normal stress grid text	0	0.25	2	4	X					
Plasticity Chart												
B-PLAS-DATA	B-PLASDAM-	Plasticity chart data	0	0.25	6	5	X					
B-PLAS-DATA-TEXT	B-PLASDTM-	Plasticity chart data text	0	0.25	6	5	X					
B-PLAS-FRAM	B-PLASFRM-	Plasticity chart frame	0	0.50	4	7	X					
B-PLAS-GRID	B-PLASGRM-	Plasticity chart grid	0	V	V	V	X					
B-PLAS-GRID-TEXT	B-PLASGTM-	Plasticity chart grid text	0	V	V	V	X					
Pavements												
B-PVMT-MISM	B-PVMTMIM-	Mismatched pavement joint	0	0.35	6	5				X		
B-PVMT-OTLN-AGSC	B-PVMTOAM-	Outline - aggregate surface course and grave	0	0.35	195	13				X		
B-PVMT-OTLN-HMAC	B-PVMTOFM-	Outline - hot mix, asphaltic concrete	0	0.35	6	5				X		
B-PVMT-OTLN-PCCP	B-PVMTORM-	Outline - Portland cement, concrete pavemen	0	0.35	2	4				X		
B-PVMT-PATT-AGSC	B-PVMTMPAM-	Pattern - aggregate surface course and grave	0	0.18	8	9				X		
B-PVMT-PATT-HMAC	B-PVMTPFM-	Pattern - hot mix, asphaltic concrete	0	0.18	8	9				X		
B-PVMT-PATT-PCCP	B-PVMTPRM-	Pattern - Portland cement, concrete pavemen	0	0.18	8	9				X		
B-PVMT-REIN	B-PVMTREM-	Reinforced pavement	0	0.35	6	5				X		
Sample Locations												
B-SAMP-AUGR	B-SAMPAUM-	Auger sample location	0	0.35	17	67	X					
B-SAMP-CORE	B-SAMPKOM-	Core sample location	0	0.35	17	67	X					
B-SAMP-DRVE	B-SAMPDRM-	Drive sample (shelby split spoon) location	0	0.35	17	67	X					
B-SAMP-GRAB	B-SAMPGRM-	Grab sample location	0	0.35	17	67	X					
B-SAMP-IDEN	B-SAMPIDM-	Sample location identification	0	0.35	2	4	X					
B-SAMP-PERC	B-SAMPPEM-	Percolation test hole	0	0.50	83	42	X					
B-SAMP-PITS	B-SAMPPIM-	Test pit sample location	0	0.50	83	42	X					
B-SAMP-VERT	B-SAMPVEM-	Vertical core hole location	0	0.35	122	23	X					
B-SAMP-WASH	B-SAMPWAM-	Wash bored hole location	0	0.35	122	23	X					
Shear Strength vs. Normal Stress												
B-SSNS-DATA	B-SSNSDAM-	Shear strength vs. normal stress data	0	0.25	6	5	X					
B-SSNS-DATA-TEXT	B-SSNSDTM-	Shear strength vs. normal stress data text	0	0.25	6	5	X					
B-SSNS-FRAM	B-SSNSFRM-	Shear strength vs. normal stress frame	0	0.50	4	7	X					
B-SSNS-GRID	B-SSNSGRM-	Shear strength vs. normal stress grid	0	0.25	1	3	X					
B-SSNS-GRID-TEXT	B-SSNSGTM-	Shear strength vs. normal stress grid text	0	V	2	4	X					
Shear Strength												
B-SSTR-1TST-DATA	B-SSTR1DM-	Shear strength 1 Point Q test data	0	0.25	4	7	X					
B-SSTR-1TST-TEXT	B-SSTR1TM-	Shear strength 1 Point Q test text	0	0.25	4	7	X					
B-SSTR-GRID-MAJR	B-SSTRGMM-	Shear strength major grid	0	0.25	1	3	X					
B-SSTR-GRID-MINR	B-SSTRGIM-	Shear strength minor grid	1	0.18	8	9	X					
B-SSTR-GRID-TEXT	B-SSTRGTM-	Shear strength grid text	0	0.25	2	4	X					
B-SSTR-QTST-DATA	B-SSTRQDM-	Shear strength Q test data	0	0.25	6	5	X					
B-SSTR-QTST-TEXT	B-SSTRQTM-	Shear strength Q test text	0	0.25	6	5	X					
B-SSTR-RTST-DATA	B-SSTRRDM-	Shear strength R test data	0	0.25	2	4	X					

Discipline: Geotechnical

Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types					
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Subsurface Investigation Plan	Boring Log	Joint Layout Plan *	Pavement Site Plan	Sections	Details
B-SSTR-RTST-TEXT	B-SSTRRTM-	Shear strength R test tex	0	0.25	2	4	X					
B-SSTR-STST-DATA	B-SSTRSDM-	Shear strength S test data	0	0.25	5	1	X					
B-SSTR-STST-TEXT	B-SSTRSTM-	Shear strength S test tex	0	0.25	5	1	X					
B-SSTR-UTST-DATA	B-SSTRUDM-	Shear strength UCT test data	0	0.25	3	2	X					
B-SSTR-UTST-TEXT	B-SSTRUTM-	Shear strength UCT test text	0	0.25	3	2	X					
B-SSTR-VTST-DATA	B-SSTRVDM-	Shear strength Vane shear test data	0	0.25	7	0	X					
B-SSTR-VTST-TEXT	B-SSTRVTM-	Shear strength Vane shear test tex	0	0.25	7	0	X					
Tabular Test												
B-TABT-DATA	B-TABTDAM-	Tabular test data	0	0.25	6	5	X					
B-TABT-DATA-TEXT	B-TABTDTM-	Tabular test data text	0	0.25	6	5	X					
B-TABT-FRAM	B-TABTFRM-	Tabular test data frame	0	0.50	4	7	X					
B-TABT-GRID	B-TABTGMR-	Tabular test data grid	0	0.25	1	3	X					
B-TABT-GRID-TEXT	B-TABTGTM-	Tabular test data grid text	0	V	2	4	X					
Wells												
B-WELL-ASR~	B-WELLASM-	ASR wells	0	0.35	82	18	X					
B-WELL-MONT	B-WELLMOM-	Monitoring wells	0	0.35	82	18	X					
B-WELL-PIZO	B-SAMPPIM-	Piezometers	0	0.35	82	18	X					
Wet Density												
B-WETD-DATA	B-WETDDAM-	Wet density data	0	0.25	6	5	X					
B-WETD-DATA-TEXT	B-WETDDTM-	Wet density data text	0	0.25	6	5	X					
B-WETD-GRID-MAJR	B-WETDGMM-	Wet density major grid	0	0.25	1	3	X					
B-WETD-GRID-MINR	B-WETDGIM-	Wet density minor grid	1	0.18	8	9	X					
B-WETD-GRID-TEXT	B-WETDGTM-	Wet density grid text	0	0.25	2	4	X					
Sections												
B-SECT-IDEN	B-SECTIDM-	Component identification numbers	0	0.35	2	4					X	
B-SECT-MBND	B-SECTMBM-	Material beyond section cu	0	0.18	5	1					X	
B-SECT-MCUT	B-SECTMCM-	Material cut by section	V	V	V	V					X	
B-SECT-PATT	B-SECTPAM-	Textures and hatch patterns	0	0.18	8	9					X	
B-SECT-SLOG	B-SECTSLM-	Stick log graphics	0	0.35	3	2					X	
Detail Information												
B-DETL-GRPH	B-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V						X
B-DETL-INPD	B-DETLINM-	Inch-pound specific dimensions and notes	V	V	V	V						X
B-DETL-METR	B-DETLMEM-	Metric specific dimensions and notes	V	V	V	V						X

Note: V = Varies, NA = Not Applicable

* = Check to see if a Civil Joint Layout Plan has been developed, to avoid duplication

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types													
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Site Plan	Grading Plan	Eco-Restoration Plan	Beach Renourishment Plan	Navigation/Dredging Plan	Flood Control Plan	Transportation Site Plan	Joint Layout Plan	Airfield Plan	Utilities Plan	Profiles	Elevations	X-Sections	Details
General Information																				
C-ANNO-DIMS	C-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-KEYN	C-----KEP-	Reference keynotes with associated leaders	0	V	V	V	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-MASK	C-----MAP-	Text/shape mask for use with photo backgrounds	0	0.18	113	16	X	X				X	X	X	X	X	X	X	X	X
C-ANNO-NOTE	C-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-NPLT	C-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-PATT	C-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-RDME	C-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-REFR	C-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-SYMB	C-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-ANNO-TEXT	C-----TEP-	Miscellaneous text and callouts with associated leaders	0	V	V	V	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Alignments																				
C-ALGN-DATA	C-ALGNDAM-	Alignment coordinates and curve data	0	0.35	3	2	X	X			X		X		X	X	X			
C-ALGN-LINE	C-ALGNLIM-	Alignments	4	0.35	2	4	X	X	X	X	X	X	X	X	X	X	X			
C-ALGN-MAJR	C-ALGNMAM-	Alignment major stationing and tick marks	0	0.35	1	3	X	X			X		X		X	X				
C-ALGN-MARK	C-ALGNMAM-	Alignment tick marks	0	0.35	3	2	X	X					X		X	X	X			
C-ALGN-MINR	C-ALGNMIM-	Alignment minor stationing and tick marks	0	0.18	6	5	X	X			X		X		X	X				
C-ALGN-STAT	C-ALGNSTM-	Alignment stationing and tick marks, alignment PI stations	0	0.35	3	2	X	X					X		X	X	X			
C-ALGN-SYMB	C-ALGNSYM-	Alignment symbols (PIs)	0	0.35	6	5	X	X			X		X		X	X	X			
C-ALGN-TEXT	C-ALGNTEM-	Alignment text, annotation with associated leaders	0	0.35	2	4	X	X	X	X	X	X	X	X	X	X	X			
Aprons																				
C-APRN-CNTR	C-APRNCNTM-	Apron centerlines	7	0.35	1	3									X					
C-APRN-CNTR-IDEN	C-APRNCNIM-	Apron centerline annotation	0	0.35	2	4									X					
C-APRN-GRND	C-APRNGRM-	Grounding points	0	0.35	2	4									X					
C-APRN-HOLD	C-APRNHOM-	Holding position markings	0	0.25	1	3									X					
C-APRN-IDEN	C-APRNIDM-	Airfield apron - annotation	0	0.35	2	4									X				X	
C-APRN-MOOR	C-APRNMOM-	Mooring points	0	0.35	2	4									X					
C-APRN-MRKG	C-APRNMRM-	Apron markings	0	0.50	4	7									X					
C-APRN-OTLN	C-APRNOTM-	Airfield apron - outlines	0	0.50	4	7									X				X	
C-APRN-SECU	C-APRNSEM-	Security zone markings	0	0.25	1	3									X					
C-APRN-SHLD	C-APRNSHM-	Shoulders with annotation	0	0.35	2	4									X					
C-APRN-SHLD-MRKG	C-APRNSMM-	Shoulder stripes	0	0.35	2	4									X					
Beach Renourishment																				
C-BECH-BANK-TOP-	C-BECHBTM-	Beach top of bank	0	0.25	6	5			X	X										
C-BECH-BKLN	C-BECHBKM-	Beach breakline	2	0.35	5	1			X	X										
C-BECH-BLIN	C-BECHBLM-	Beach baseline and control line	0	0.50	4	7			X	X										
C-BECH-BLIN-IDEN	C-BECHBIM-	Beach baseline and control line annotation	0	0.25	4	7			X	X										
C-BECH-BNCH	C-BECHBNM-	Beach bench	6	0.35	22	22			X	X										
C-BECH-CNTR	C-BECHCNM-	Beach centerline	7	0.25	5	1			X	X										
C-BECH-CNTR-IDEN	C-BECHCNIM-	Beach centerline annotation	0	0.25	6	5			X	X										
C-BECH-ELIN	C-BECHELM-	Beach erosion control line	0	0.50	4	7			X	X										
C-BECH-ELIN-IDEN	C-BECHELIM-	Beach erosion control line annotation	0	0.25	6	5			X	X										
C-BECH-LIMT	C-BECHLMM-	Beach limit lines	0	0.50	4	7			X	X										
C-BECH-OHWM	C-BECHOHM-	Ordinary high water marks	0	0.35	2	4			X	X										
C-BECH-OTLN	C-BECHOTM-	Beach outline	0	0.25	2	4			X	X										
C-BECH-SLOP-IDEN	C-BECHSIM-	Beach slope indicator with annotation	0	0.25	7	0			X	X										
C-BECH-SLOP-TOP-	C-BECHSTM-	Beach top of slope	2	0.35	22	22			X	X										
C-BECH-SYMB	C-BECHSYM-	Beach symbols	0	0.18	6	5			X	X										
C-BECH-TOE-	C-BECHTOM-	Beach toe	3	0.50	5	1			X	X										
C-BECH-TOE-IDEN	C-BECHTIM-	Beach toe annotation	0	0.25	7	0			X	X										
Buildings and Primary Structures																				
C-BLDG-DECK	C-BLDGDDEM-	Outdoor decks (attached, no roof overhead)	0	0.50	4	7	X	X	X	X	X	X								
C-BLDG-DOCK	C-BLDGDOM-	Loading docks	0	0.50	4	7	X	X	X	X	X	X								

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types													
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Site Plan	Grading Plan	Eco-Restoration Plan	Beach Renourishment Plan	Navigation/Dredging Plan	Flood Control Plan	Transportation Site Plan	Joint Layout Plan	Airfield Plan	Utilities Plan	Profiles	Elevations	X-Sections	Details
C-BLDG-IDEN	C-BLDGIDM-	Building and other structure annotation	0	0.35	2	4	X	X	X	X	X	X					X		X	
C-BLDG-OTLN	C-BLDGOTM-	Building and other structure outlines	0	0.70	7	0	X	X	X	X	X						X		X	
C-BLDG-OVHD	C-BLDGOVM-	Building overhangs	0	0.50	4	7	X	X	X	X	X									
C-BLDG-PRCH	C-BLDGPRM-	Porches (attached, roof overhead)	0	0.50	4	7	X	X	X	X	X									
Borrow Areas																				
C-BORW-IDEN	C-BORWIDM-	Borrow/spoil area annotation	0	0.35	2	4	X	X		X	X	X								
C-BORW-LINE	C-BORWLNM-	Borrow/spoil area	2	0.35	2	4	X	X		X	X	X								
Bridges																				
C-BRDG-CHRD-LOW	C-BRDGCLM-	Low chord	0	0.50	4	7											X		X	
C-BRDG-CNTR	C-BRDGCNM-	Bridge centerlines	7	0.25	1	3	X				X	X	X							
C-BRDG-CTLJ	C-BRDGCTM-	Control joints	0	0.25	4	7	X				X	X	X							
C-BRDG-DECK	C-BRDGDEM-	Bridge deck	0	0.50	4	7	X				X	X	X				X		X	
C-BRDG-IDEN	C-BRDGIDM-	Bridge annotation	0	0.35	2	4	X				X	X	X							
C-BRDG-OTLN	C-BRDGOTM-	Bridge outlines	0	0.50	4	7	X				X	X	X							
C-BRDG-RAIL	C-BRDGRAM-	Bridge railing	0	0.25	4	7	X				X	X	X				X		X	
Channels																				
C-CHAN-BANK-IDEN	C-CHANBIM-	Channel/canal top of bank annotation	0	0.35	2	4	X				X	X								
C-CHAN-BANK-TOP-	C-CHANBTM-	Channel/canal top of bank	0	0.35	2	4	X				X	X					X		X	
C-CHAN-BNCH	C-CHANBNM-	Channel/canal bench design feature lines (breaklines form DTMs)	0	0.35	2	4	X				X	X					X		X	
C-CHAN-BWTR	C-CHANBWM-	Breakwaters	0	0.35	6	5	X				X	X								
C-CHAN-CNTR	C-CHANCNM-	Channel centerline and survey report lines	7	0.18	5	1	X				X	X					X		X	
C-CHAN-CNTR-IDEN	C-CHANCNM-	Channel centerline and survey report lines - annotation	0	0.35	5	1	X				X	X								
C-CHAN-DACL	C-CHANDAM-	De-authorized channel limits, anchorages, etc.	0	0.35	3	2	X				X	X								
C-CHAN-DACL-IDEN	C-CHANDIM-	De-authorized channel limits, anchorages, etc. - annotation	0	0.35	3	2	X				X	X								
C-CHAN-DOCK	C-CHANDOM-	Docks, decks, floats, piers, and mooring facilities	0	0.35	6	5	X				X	X								
C-CHAN-LIMIT	C-CHANLIM-	Channel limits, anchorages, turning basins, disposal areas, etc.	0	0.35	6	5	X				X	X								
C-CHAN-LIMIT-IDEN	C-CHANLDM-	Channel limits, anchorages, turning basins, disposal areas, etc. - annotation	0	0.35	6	5	X				X	X								
C-CHAN-NAID	C-CHANNAM-	Navigation aids and text	0	0.35	V	V	X			X	X	X								
C-CHAN-SLOP-LINE	C-CHANSLM-	Channel cut/fill slope (Indicates cut and fill lines)	0	0.35	2	4	X			X	X									
C-CHAN-SPOL	C-CHANSPM-	Spoil limits	0	0.50	4	7	X				X	X								
C-CHAN-SYMB	C-CHANSYM-	Channel/canal symbols	0	0.35	6	5	X				X	X								
C-CHAN-TEXT	C-CHANTEM-	Channel/canal text, annotation with associated leaders	0	0.35	2	4	X				X	X								
C-CHAN-TOE-	C-CHANTOM-	Channel/canal toe	3	0.50	5	1	X				X	X					X		X	
C-CHAN-TOE--IDEN	C-CHANTIM-	Channel/canal toe annotation	0	0.35	6	5	X				X	X								
C-CHAN-TURN	C-CHANTUM-	Turning points	0	0.35	2	4	X				X	X								
C-CHAN-WIDE	C-CHANWDM-	Channel/canal widener	3	0.50	4	7	X				X	X								
Domestic Water																				
C-DOMW-ABND-PIPE	C-DOMWAPM-	Abandoned piping	2	0.35	6	5	X				X	X					X	X		X
C-DOMW-DEVC	C-DOMWDEM-	Connectors, faucets, reducers, regulators, vents, intake points, taps, backflow preventers, and valves	0	0.35	6	5					X	X					X			
C-DOMW-FIRE	C-DOMWFIM-	Fire lines	FIRE	0.35	1	3					X	X					X			
C-DOMW-FTTG	C-DOMWFTM-	Caps, cleanouts, crosses, and tees	0	0.35	6	5					X	X					X			
C-DOMW-HYDR	C-DOMWHYM-	Hydrants	0	0.35	1	3	X				X	X					X	X		X
C-DOMW-IDEN	C-DOMWIDM-	Identifier tags, symbol modifier, and text	0	0.35	2	4	X				X	X					X	X		X
C-DOMW-MAIN-PIPE	C-DOMWMPM-	Main domestic water piping	WATERL	0.35	6	5	X				X	X					X	X		X
C-DOMW-METR	C-DOMWMEM-	Meters	0	0.35	3	2					X	X					X			
C-DOMW-NPOT-HYDR	C-DOMWNHM-	Non-potable hydrants/flushing hydrants	0	0.35	1	3					X	X					X			
C-DOMW-NPOT-PIPE	C-DOMWNPM-	Non-potable water piping	NONPOT	0.35	6	5					X	X					X			
C-DOMW-PITS-IDEN	C-DOMWPIM-	Identifier tags, symbol modifier, and text	0	0.35	3	2					X	X					X			
C-DOMW-PITS-VENT	C-DOMWPVM-	Vent pits	0	0.35	3	2					X	X					X			
C-DOMW-PITS-VLVE	C-DOMWPLM-	Valve pits/vaults	0	0.35	3	2	X				X	X					X	X		X
C-DOMW-SERV-PIPE	C-DOMWSPM-	Domestic water service piping	0	0.35	6	5					X	X					X			
C-DOMW-SIGN	C-DOMWSGM-	Surface markers/signs	0	0.35	1	3					X	X					X			

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types													
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Site Plan	Grading Plan	Eco-Restoration Plan	Beach Renourishment Plan	Navigation/Dredging Plan	Flood Control Plan	Transportation Site Plan	Joint Layout Plan	Airfield Plan	Utilities Plan	Profiles	Elevations	X-Sections	Details
C-DOMW-STNS-IDEN	C-DOMWSIM-	Identifier tags, symbol modifier, and text	0	0.35	2	4	X					X				X				
C-DOMW-STNS-PUMP	C-DOMWSUM-	Booster pump stations	0	0.35	6	5	X					X				X				
C-DOMW-STNS-REDC	C-DOMWSRM-	Pressure reducing stations	0	0.35	6	5	X					X				X				
C-DOMW-TANK	C-DOMWTAM-	Water storage tanks	0	0.35	1	3	X					X				X				
C-DOMW-WELL	C-DOMWWEM-	Water well houses	0	0.35	1	3	X					X				X				
Dredging																				
C-DRED-IDEN	C-DREDIDM-	Dredging annotation	0	0.35	2	4	X			X	X	X								
C-DRED-LIMIT	C-DREDLIM-	Dredge limit lines	0	0.50	4	7	X			X	X	X								
C-DRED-OHWM	C-DREDOHM-	Ordinary high water marks	0	0.35	2	4	X			X	X	X								
Ditches or Washes																				
C-DTCH-BOTD	C-DTCHBOM-	Bottom of ditch or wash	0, DITCH	0.25	3	2	X					X								
C-DTCH-CNTR	C-DTCHCNM-	Centerline of ditch or wash	7	0.18	5	1	X					X								
C-DTCH-EWAT	C-DTCHWEM-	Edge of water	0	0.25	4	7	X					X								
C-DTCH-IDEN	C-DTCHIDM-	Ditches and washes annotation	0	0.35	3	2	X					X								
C-DTCH-TOP-	C-DTCHTOM-	Top of ditch or wash	0	0.25	3	2	X					X								
Habitats/Landforms																				
C-ECCO-BURR	C-ECCOBUM-	Burrow	0	0.50	4	7			X											
C-ECCO-DENS	C-ECCODEM-	Den	0	0.50	4	7			X											
C-ECCO-GATR	C-ECCOGAM-	Gator hole	2	0.35	6	5			X											
C-ECCO-HUMK	C-ECCOHUM-	Hummocks	0	0.35	6	5			X											
C-ECCO-IDEN	C-ECCOIDM-	Habitat annotation	0	0.35	2	4			X											
C-ECCO-NEST	C-ECCONEM-	Nest, nesting tree	0	0.50	4	7			X											
C-ECCO-PRCH	C-ECCOPRM-	Perch/nesting hole	0	0.50	4	7			X											
Erosion and Sediment Control (Temporary/Construction)																				
C-EROS-CIPR	C-EROSCIM-	Culvert inlet protection	V	0.25	3	2	X	X				X								
C-EROS-CNTE	C-EROSCNM-	Construction entrance	V	0.35	6	5	X	X				X								
C-EROS-DDIV	C-EROSDDM-	Drainage divides	0	0.50	4	7	X	X				X								
C-EROS-DVDK	C-EROSDVM-	Diversion dike	0	0.50	4	7	X	X				X								
C-EROS-IDEN	C-EROSIDM-	Erosion and sediment control annotation	0	0.35	3	2	X	X				X								
C-EROS-INPR	C-EROSINM-	Inlet protection	V	0.25	3	2	X	X				X								
C-EROS-SILT	C-EROSSIM-	Silt fence	SILT	0.35	2	4	X	X				X								
C-EROS-SILT-CHCK	C-EROSSCM-	Silt check	0	0.35	2	4	X	X				X								
C-EROS-SILT-TRAP	C-EROSSTM-	Silt trap	0	0.35	2	4	X	X				X								
C-EROS-SSLT	C-EROSSSM-	Super silt fence	SSILT	0.35	2	4	X	X				X								
Flood Hazard Area																				
C-FLHA-025Y	C-FLHA25M-	25 year mark	6	0.35	6	5	X					X								
C-FLHA-050Y	C-FLHA50M-	50 year mark	3	0.35	2	4	X					X								
C-FLHA-100Y	C-FLHA10M-	100 year mark	0	0.35	6	5	X					X								
C-FLHA-200Y	C-FLHA20M-	200 year mark	2	0.35	2	4	X					X								
C-FLHA-500Y	C-FLHA5CM-	500 year mark	7	0.35	6	5	X					X								
C-FLHA-IDEN	C-FLHAIDM-	Flood hazard area annotation	0	0.35	2	4	X					X								
Floodwalls																				
C-FLOD-BASE	C-FLODBAM-	Floodwall base of wall	0	0.50	20	6	X					X								
C-FLOD-BASE-IDEN	C-FLODBIM-	Floodwall base of wall annotation	0	0.35	20	6	X					X								
C-FLOD-CNTR	C-FLODCNM-	Floodwall centerline	7	0.18	20	6	X					X								
C-FLOD-CNTR-IDEN	C-FLODCIM-	Floodwall centerline annotation	0	0.35	20	6	X					X								X
C-FLOD-DRAN	C-FLODDRM-	Floodwall toe drain	0	0.35	6	5	X					X					X			X
C-FLOD-DRAN-IDEN	C-FLODDIM-	Floodwall toe drain annotation	0	0.35	6	5	X					X					X			X
C-FLOD-PILE	C-FLODPIM-	Floodwall sheet piling	0	0.50	22	22	X					X					X			X
C-FLOD-PILE-IDEN	C-FLODPDM-	Floodwall sheet piling annotation	0	0.35	22	22	X					X					X			X
C-FLOD-TOE-	C-FLODTOM-	Floodwall toe outline	0	0.35	4	7	X					X					X			X
C-FLOD-TOP-	C-FLODTPM-	Floodwall top of wall	0	0.50	2	4	X					X					X			X
C-FLOD-TOP--IDEN	C-FLODTIM-	Floodwall top of wall annotation	0	0.35	20	6	X					X					X			X

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types													
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Liquid Fuel																				
C-FUEL-ABND-PIPE	C-FUELAPM-	Abandoned piping	2	0.35	6	5	X									X	X		X	
C-FUEL-BERM	C-FUELDEM-	Berms for retaining fuel in case of major tank/line rupture	0	0.35	6	5										X				
C-FUEL-DEFL-PIPE	C-FUELDFM-	Defueling piping	0	0.35	6	5										X				
C-FUEL-DEVC	C-FUELDEM-	Air eliminators, filter strainers, hydrant fill points, line vents, markers, oil/water separators, reducers, regulators, and valves	0	0.35	6	5										X				
C-FUEL-FLOW	C-FUELFLM-	Flow direction arrows	0	0.35	6	5										X				
C-FUEL-FTTG	C-FUELFTM-	Caps, crosses, and tees	0	0.35	6	5										X				
C-FUEL-IDEN	C-FUELIDM-	Identifier tags, symbol modifier, and text	0	0.35	2	4	X			X						X	X		X	
C-FUEL-JBOX	C-FUELJBM-	Junction boxes, manholes, handholes, test boxes	0	0.35	1	3										X				
C-FUEL-MAIN-PIPE	C-FUELMPM-	Main fuel piping	LIQPET	0.35	6	5	X			X						X	X		X	
C-FUEL-METR	C-FUELMEM-	Meters	0	0.35	3	2										X				
C-FUEL-PITS-HYDR	C-FUELPHM-	Hydrant control pits	0	0.35	3	2	X			X						X	X		X	
C-FUEL-PITS-IDEN	C-FUELPIM-	Identifier tags, symbol modifier, and text	0	0.35	3	2										X				
C-FUEL-PITS-VENT	C-FUELPPM-	Vent pits	0	0.35	3	2										X				
C-FUEL-PITS-VLVE	C-FUELPLM-	Valve pits	0	0.35	3	2	X			X						X	X		X	
C-FUEL-SERV-PIPE	C-FUELSPM-	Service piping	0	0.35	6	5										X				
C-FUEL-STNS-IDEN	C-FUELSIM-	Identifier tags, symbol modifier, and text	0	0.35	2	4										X				
C-FUEL-STNS-PUMP	C-FUELSPM-	Booster pump stations	0	0.35	6	5										X				
C-FUEL-TANK	C-FUELTM-	Fuel tanks	0	0.35	3	2	X			X						X	X		X	
C-FUEL-TRCH	C-FUELTRM-	Fuel line trench	0	0.35	3	2										X				
Grade Linework																				
C-GRAD-ALOW	C-GRADALM-	Allowable over depth	0	0.35	6	5														X
C-GRAD-BNCH	C-GRADBNP-	Bench cut	0	0.35	6	5														X
C-GRAD-DSGN	C-GRADDSM-	Design grade (proposed)	0	0.35	3	2	X		X	X	X					X			X	
C-GRAD-EXCV	C-GRADDECP-	Excavation grade	0	0.50	4	7										X			X	
C-GRAD-EXST	C-GRADDEXM-	Existing grade, ground line	3	0.35	6	5	X		X	X	X					X			X	
C-GRAD-FNSH	C-GRADDFNM-	Finished grade	0	0.50	4	7	X									X			X	
C-GRAD-FNSH-PRP1	C-GRADDF1M-	Proposed Surface #1	0	0.35	8	9	X			X	X					X			X	
C-GRAD-FNSH-PRP2	C-GRADDF2M-	Proposed Surface #2	0	0.35	8	9	X			X	X					X			X	
C-GRAD-FNSH-PRP3	C-GRADDF3M-	Proposed Surface #3	0	0.35	8	9	X			X	X					X			X	
C-GRAD-FNSH-PRP4	C-GRADDF4M-	Proposed Surface #4	0	0.35	8	9	X			X	X					X			X	
C-GRAD-GTXL	C-GRADGTP-	Geotextile placement grade	0	0.25	1	3	X			X	X					X			X	
C-GRAD-IDEN	C-GRADIDM-	Grade annotation for cross sections and profiles	0	0.35	2	4	X			X	X					X			X	
C-GRAD-REQD	C-GRADREM-	Required depth	0	0.35	6	5														X
C-GRAD-SCLN	C-GRADSCM-	Stability control line	7	0.50	5	1	X			X	X					X			X	
C-GRAD-WATR	C-GRADWAP-	Water surface in section view	0	0.35	2	4	X			X	X					X			X	
Grid Lines																				
C-GRID-FRAM	C-GRIDFRM-	Frame	0	0.50	4	7														X
C-GRID-MAJR	C-GRIDMAM-	Major grid lines	1	0.35	8	9														X
C-GRID-MINR	C-GRIDMIM-	Minor grid lines	1	0.18	8	9														X
C-GRID-TEXT	C-GRIDTEM-	Border text, annotation	1	0.35	2	4														X
Heliports																				
C-HELI-BLST	C-HELIBLM-	Blast pad and stopway markings	0	0.35	1	3										X	X		X	
C-HELI-CNTR	C-HELICNM-	Centerline markings	0	0.35	1	3										X				
C-HELI-DISP	C-HELIDSM-	Displaced threshold markings	0	0.35	1	3										X				
C-HELI-DIST	C-HELIDIM-	Fixed distance markings	0	0.35	1	3										X				
C-HELI-IDEN	C-HELIIDM-	Heliport numbers and letters	0	0.35	2	4										X			X	
C-HELI-SHLD	C-HELISHM-	Shoulder markings	0	0.35	6	5										X				
C-HELI-SIDE	C-HELISIM-	Side stripes	0	0.50	4	7										X				
C-HELI-TDZM	C-HELITDM-	Touchdown zone markers	0	0.35	6	5										X				
C-HELI-THRS	C-HELITHM-	Threshold markers	0	0.35	6	5										X				
Industrial Waste Water																				

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types													
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Site Plan	Grading Plan	Eco-Restoration Plan	Beach Renourishment Plan	Navigation/Dredging Plan	Flood Control Plan	Transportation Site Plan	Joint Layout Plan	Airfield Plan	Utilities Plan	Profiles	Elevations	X-Sections	Details
C-INDW-ABND-PIPE	C-INDWAPM-	Abandoned piping	2	0.35	6	5	X													
C-INDW-DEVC	C-INDWDEM-	Grit chambers, meters, flumes, neutralizers, oil/water separators, ejectors, tanks, and valves	0	0.35	6	5										X				
C-INDW-FLOW	C-INDWFLM-	Flow direction arrows	0	0.35	6	5										X				
C-INDW-FTTG	C-INDWFMT-	Caps and cleanouts	0	0.35	6	5										X				
C-INDW-IDEN	C-INDWIDM-	Identifier tags, symbol modifier, and text	0	0.35	2	4	X			X	X					X	X		X	
C-INDW-JBOX	C-INDWJBM-	Junction boxes and manholes	0	0.35	1	3										X				
C-INDW-LAGN	C-INDWLAM-	Lagoons	0	0.35	6	5										X				
C-INDW-LAGN-IDEN	C-INDWLIM-	Identifier tags, symbol modifier, and text	0	0.35	6	5										X				
C-INDW-MAIN-PIPE	C-INDWMPM-	Main industrial waste water piping	IWASTE	0.35	6	5	X			X						X	X		X	
C-INDW-PLNT	C-INDWPLM-	Treatment plants	0	0.35	6	5										X				
C-INDW-SERV-PIPE	C-INDWSPM-	Industrial waste water service piping	0	0.35	1	3										X				
C-INDW-SIGN	C-INDWSGM-	Surface markers/signs	0	0.35	1	3										X				
C-INDW-STNS-IDEN	C-INDWSIM-	Identifier tags, symbol modifier, and text	0	0.35	2	4										X				
C-INDW-STNS-LIFT	C-INDWSLM-	Lift stations	0	0.35	6	5										X				
Irrigation																				
C-IRRG-EQPM	C-IRRGEQM-	Irrigation equipment (e.g., controllers, valves, etc.)	0	0.35	6	5	X		X							X				
C-IRRG-IDEN	C-IRRGIDM-	Irrigation annotation	0	0.35	2	4	X	X								X	X	X	X	X
C-IRRG-PIPE	C-IRRGPIM-	Irrigation piping	0	0.35	6	5	X	X								X	X	X	X	X
C-IRRG-WELL	C-IRRGWEM-	Irrigation wells	0	0.25	3	2										X				
Joints																				
C-JNTS-CNSL	C-JNTSSLM-	Construction joints - longitudinal	0	0.35	6	5								X						
C-JNTS-CNST	C-JNTSSTM-	Construction joints - transverse	0	0.35	6	5								X						
C-JNTS-CNTL	C-JNTSTLM-	Contraction joints - longitudinal	0	0.35	2	4								X						
C-JNTS-CNTT	C-JNTSTTM-	Contraction joints - transverse	0	0.35	2	4								X						
C-JNTS-EDGE	C-JNTSEDM-	Thickened edges	0	0.35	4	7								X						
C-JNTS-EXPN	C-JNTSEXM-	Expansion joints	0	0.35	12	27								X						
C-JNTS-IDEN	C-JNTSIDM-	Joint annotation	0	0.35	2	4								X						
Levees																				
C-LEVE-BANK-IDEN	C-LEVEBIP-	Levee top of bank annotation	0	0.25	20	6	X			X	X									
C-LEVE-BANK-TOP~	C-LEVEBTM-	Levee top of bank	0	0.35	2	4	X			X	X					X			X	
C-LEVE-BERM	C-LEVEBRM-	Levee berm outline	0	0.35	6	5	X			X	X					X			X	
C-LEVE-BNCH	C-LEVEBNEM-	Levee bench design feature lines (breaklines form DTMs)	0	0.35	20	6	X			X	X					X			X	
C-LEVE-BNCH-IDEN	C-LEVEBIM-	Levee bench annotation	0	0.25	2	4	X			X	X								X	
C-LEVE-BRRW	C-LEVEBRM-	Borrow limits	0	0.50	4	7	X			X	X								X	
C-LEVE-CNTR	C-LEVECNM-	Levee centerline	7	0.18	20	6	X			X	X					X			X	
C-LEVE-CNTR-IDEN	C-LEVECIM-	Levee centerline annotation	0	0.35	20	6	X			X	X								X	
C-LEVE-IDEN	C-LEVEIDM-	Levee annotation	0	0.35	2	4	X			X	X								X	
C-LEVE-OTLN	C-LEVEOTM-	Levee outline	0	0.50	4	7	X			X	X								X	
C-LEVE-SLOP	C-LEVESFM-	Levee slope indicator with annotation	0	0.35	2	4	X			X	X								X	
C-LEVE-STAT	C-LEVESTM-	Levee stationing	0	0.35	2	4	X			X	X								X	
C-LEVE-TOE~	C-LEVETOM-	Levee toe	2	0.35	20	6	X			X	X					X			X	
C-LEVE-TOE--IDEN	C-LEVETIM-	Levee toe annotation	0	0.25	20	6	X			X	X								X	
Military Ranges																				
C-MILR-BATP	C-MILRBAM-	Battle positions	0	0.50	4	7	X													
C-MILR-CAMS	C-MILRCAM-	Range cameras	0	0.35	6	5	X													
C-MILR-FOXH	C-MILRFOM-	Fox holes and pits	0	0.35	6	5	X													
C-MILR-MATS	C-MILRMAM-	Moving army targets	0	0.50	4	7	X													
C-MILR-MITS	C-MILRMIM-	Moving infantry targets	0	0.50	4	7	X													
C-MILR-MITS-IDEN	C-MILRMDM-	Moving infantry targets annotation	0	0.35	2	4	X													
C-MILR-PUTS	C-MILRPUM-	Pop up targets	0	0.50	4	7	X													
C-MILR-PUTS-IDEN	C-MILRPIM-	Pop up targets annotation	0	0.35	2	4	X													
C-MILR-SATS	C-MILRSAM-	Stationary army targets	0	0.50	4	7	X													

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types													
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C-MILR-SATS-IDEN	C-MILRSDM-	Stationary army targets annotation	0	0.35	2	4	X													
C-MILR-SITS	C-MILRSIM-	Stationary infantry targets	0	0.50	4	7	X													
C-MILR-SITS-IDEN	C-MILRSEM-	Stationary infantry targets annotation	0	0.35	2	4	X													
Natural Gas																				
C-NGAS-ABND-PIPE	C-NGASAPM-	Abandoned piping	2	0.35	6	5	X				X					X	X		X	
C-NGAS-DEVC	C-NGASDEM-	Hydrant fill points, lights, vents, markers, rectifiers, reducers, regulators, sources, drip pots, taps, and valves	0	0.35	6	5										X				
C-NGAS-DEVC-IDEN	C-NGASDIM-	Identifier tags, symbol modifier, and text	0	0.35	6	5										X				
C-NGAS-FLOW	C-NGASFLM-	Flow direction arrows	0	0.35	6	5										X				
C-NGAS-FTTG	C-NGASFMT-	Caps, crosses, and tees	0	0.35	6	5										X				
C-NGAS-IDEN	C-NGASIDM-	Identifier tags, symbol modifier, and text	0	0.35	2	4	X			X						X	X		X	
C-NGAS-MAIN-PIPE	C-NGASMPM-	Main natural gas piping	NTGASN	0.35	6	5	X			X						X	X		X	
C-NGAS-METR	C-NGASMEM-	Meters	0	0.35	3	2										X				
C-NGAS-PITS-IDEN	C-NGASPIV-	Identifier tags, symbol modifier, and text	0	0.35	1	3										X				
C-NGAS-PITS-VENT	C-NGASPVV-	Vent pits	0	0.35	3	2										X				
C-NGAS-PITS-VLVE	C-NGASPLM-	Valve pits/boxes	0	0.35	3	2	X			X						X	X		X	
C-NGAS-SERV-PIPE	C-NGASSPM-	Service piping	0	0.35	1	3										X				
C-NGAS-SIGN	C-NGASSIM-	Surface markers/signs	0	0.35	1	3										X				
C-NGAS-STNS-IDEN	C-NGASISM-	Identifier tags, symbol modifier, and text	0	0.35	2	4										X				
C-NGAS-STNS-PUMP	C-NGASSUM-	Compressor stations	0	0.35	6	5										X				
C-NGAS-STNS-REDC	C-NGASSRM-	Reducing stations	0	0.35	6	5										X				
C-NGAS-TANK	C-NGASTAM-	Tanks	0	0.25	3	2	X									X				
Obstructions																				
C-OBST-AIRS	C-OBSTAIM-	Airspace obstructions	0	0.35	3	2										X				
C-OBST-AIRS-IDEN	C-OBSTADM-	Obstruction annotation	0	0.35	2	4										X				
Overrun Areas																				
C-OVRN-CNTR	C-OVRNCTM-	Centerlines	7	0.25	1	3										X				
C-OVRN-CNTR-IDEN	C-OVRNCIM-	Centerline annotation	0	0.35	2	4										X				
C-OVRN-IDEN	C-OVRNIDM-	Airfield overrun area - annotation	0	0.35	2	4										X		X		X
C-OVRN-OTLN	C-OVRNOTM-	Airfield overrun area - outlines	0	0.35	4	7										X		X		X
C-OVRN-SHLD-MRKG	C-OVRNSHM-	Shoulder markings	0	0.35	4	7										X				
Pads (Arm/Disarm/Calibration, etc.)																				
C-PADS-CNTR	C-PADSCIM-	Centerlines	7	0.25	1	3										X				
C-PADS-CNTR-IDEN	C-PADSCIM-	Centerline annotation	0	0.35	2	4										X				
C-PADS-IDEN	C-PADSIDM-	Pads - annotation	0	0.35	2	4										X		X		X
C-PADS-OTLN	C-PADSOTM-	Pad - outlines	0	0.35	4	7										X		X		X
C-PADS-SHLD	C-PADSSHM-	Shoulders with annotation	0	0.25	2	4										X				
Parking Lots																				
C-PRKG-CARS	C-PRKGCAM-	Graphic illustration of cars	0	0.35	2	4	X					X	X							
C-PRKG-CNTR	C-PRKGCIM-	Parking lot centerlines	7	0.25	1	3	X					X	X							
C-PRKG-CNTR-IDEN	C-PRKGCIM-	Parking lot centerline annotation	0	0.25	1	3	X					X	X							
C-PRKG-CURB	C-PRKGCUM-	Curbs and gutters	0	0.35	3	2	X					X	X							
C-PRKG-DRAIN	C-PRKGDIM-	Drainage slope indications	0	0.35	1	3	X					X	X							
C-PRKG-FIXT	C-PRKGFIM-	Parking lot fixtures (e.g., wheel stops, parking meters)	0	0.35	91	106	X					X	X							
C-PRKG-FLNE	C-PRKGFIM-	Fire lanes	0	0.25	1	3	X					X	X							
C-PRKG-IDEN	C-PRKGDIM-	Parking lot annotation	0	0.35	6	5	X					X	X				X		X	
C-PRKG-MRKG	C-PRKGMIM-	Pavement markings	0	0.35	2	4	X					X	X							
C-PRKG-OTLN	C-PRKGMIM-	Parking lot outlines	0	0.50	4	7	X					X	X				X		X	
C-PRKG-SIGN	C-PRKGSIM-	Signs	0	0.35	2	4	X					X	X							
Property																				
C-PROP-CONS	C-PROPCOM-	Construction limits/controls, staging area	CONLMT	0.70	7	0	X				X	X								X
C-PROP-ESMT	C-PROPESEM-	Easements	CONEMT	0.70	7	0	X				X	X								X
C-PROP-IDEN	C-PROPIDM-	Property annotation	0	0.35	6	5	X				X	X								X

Discipline: Civil
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Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types													
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C-PROP-RWAY	C-PROPRWM	Right of ways	6	0.70	7	0	X													
C-PROP-RWAY-ACQU	C-PROPRAM	Right of way to be acquired in perpetuity	0	0.70	7	0	X				X	X								X
C-PROP-SECT	C-PROPSEM	Section lines	7	0.50	6	5	X				X	X								X
C-PROP-SECT-IDEN	C-PROPSIM	Section lines annotation	0	0.35	6	5	X				X	X								X
C-PROP-TSHP	C-PROPTSM	Township/range lines	4	0.50	6	5	X				X	X								
C-PROP-TSHP-IDEN	C-PROPTIM	Township/range lines annotation	0	0.35	6	5	X				X	X								
Pavements																				
C-PVMT-ASPH	C-PVMTASM	Pavement pattern - asphalt	0	0.18	8	9	X				X	X	X		X					
C-PVMT-CONC	C-PVMTCOM	Pavement pattern - concrete	0	0.18	8	9	X				X	X	X		X					
C-PVMT-GRVL	C-PVMTGRM	Pavement pattern - gravel	0	0.18	8	9	X				X	X	X		X					
C-PVMT-IDEN	C-PVMTIDM	Road, parking lot, railroad, airfield pavement annotation	0	0.25	2	4	X				X	X			X		X			X
C-PVMT-MRKG	C-PVMTMRM	Pavement markings	0	0.35	2	4	X				X	X	X							
C-PVMT-PATT	C-PVMTPAM	Joint patterns, text and dimensions	0	0.35	2	4	X				X	X		X						
Railroads																				
C-RAIL-CNTR	C-RAILCTM	Railroad track centerlines	7	0.25	1	3							X							
C-RAIL-CNTR-IDEN	C-RAILCIM	Railroad track centerline annotation	0	0.35	1	3							X							
C-RAIL-EQPM	C-RAILEQM	Railroad equipment (e.g., gates, signals)	0	0.35	91	106							X							
C-RAIL-IDEN	C-RAILIDM	Railroad - annotation	0	0.35	6	5							X					X		X
C-RAIL-TRAK	C-RAILTRM	Railroad tracks	RAILRD	0.35	2	4							X					X		X
Rivers																				
C-RIVR-BANK-TOP-	C-RIVRBTM	Top of river bank	0	0.35	5	1	X				X	X					X	X	X	
C-RIVR-BOTM	C-RIVRBOM	River bottom	0	0.35	5	1	X				X	X					X	X	X	
C-RIVR-CNTR	C-RIVRCNM	Centerline of river	7	0.25	1	3	X				X	X					X	X	X	
C-RIVR-EDGE	C-RIVREDM	River edge	0	0.50	5	1	X				X	X					X	X	X	
C-RIVR-IDEN	C-RIVRIDM	Identifier tags, symbol modifiers, and text	0	0.35	2	4	X				X	X					X	X	X	
Roads, Streets, and Highways																				
C-ROAD-ASPH	C-ROADASM	Road outlines - asphalt surface	0	0.25	8	9	X				X	X					X		X	
C-ROAD-CNTR	C-ROADCNM	Road centerlines	7	0.25	1	3	X				X	X							X	
C-ROAD-CNTR-IDEN	C-ROADCIM	Road centerline annotation	0	0.25	1	3	X				X	X					X		X	
C-ROAD-CONC	C-ROADCOM	Road outlines - concrete surface	0	0.25	7	0	X				X	X					X		X	
C-ROAD-CURB	C-ROADCUM	Curbs and gutters	0	0.35	6	5	X				X	X					X		X	
C-ROAD-GRAL	C-ROADGRM	Guard rails	GUARD	0.35	6	5	X				X	X					X		X	
C-ROAD-GRVL	C-ROADGVM	Road outlines - gravel surface	0	0.25	20	6	X				X	X					X		X	
C-ROAD-IDEN	C-ROADIDM	Road, street, highway annotation	0	0.35	6	5	X				X	X					X		X	
C-ROAD-MRKG	C-ROADMRM	Pavement markings	0	0.35	2	4	X				X	X								
C-ROAD-PATT	C-ROADPAM	Joint patterns, text and dimensions	0	0.35	2	4	X				X	X								
C-ROAD-SHLD	C-ROADSHM	Roadway shoulder	0	0.35	6	5	X				X	X								
C-ROAD-SIGN	C-ROADSIM	Signs	0	0.25	1	3	X				X	X								X
C-ROAD-UPVD	C-ROADUPM	Road outlines - unpaved surface	0	0.25	3	2	X				X	X					X		X	
Riprap and Other Permanent Erosion Control Items																				
C-RRAP-GABN	C-RIVRGAM	Gabions	V	0.25	1	3	X				X	X	X							
C-RRAP-MATS	C-RRAPMAM	Articulated concrete mats	V	0.25	3	2	X				X	X	X							
C-RRAP-RVMT	C-RIVRRVM	Revetments	V	0.25	1	3	X				X	X	X							
C-RRAP-WEIR	C-RRAPWEM	Weirs	V	0.25	3	2	X				X	X	X							
Runways																				
C-RUNW-BLST	C-RUNWBLM	Blast pad and stopway markings	0	0.35	1	3									X			X		X
C-RUNW-CNTR	C-RUNWCNM	Centerlines	7	0.25	1	3									X					
C-RUNW-CNTR-MRKG	C-RUNWCMM	Centerline markings	0	0.35	1	3									X					
C-RUNW-DISP	C-RUNWDSM	Displaced threshold markings	0	0.35	1	3									X					
C-RUNW-DIST	C-RUNWDIM	Fixed distance markings	0	0.35	1	3									X					
C-RUNW-EDGE	C-RUNWRUM	Airfield runway edges	0	0.35	6	5									X					
C-RUNW-IDEN	C-RUNWIDM	Airfield runway annotation	0	0.35	2	4									X		X		X	
C-RUNW-SHLD	C-RUNWSHM	Shoulder markings	0	0.35	6	5									X					

Discipline: Civil
Model File Layers/Levels

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C-RUNW-SIDE	C-RUNWSIM	Side stripes	0	0.35	4	7									X					
C-RUNW-TDZM	C-RUNWTDZM	Touchdown zone markers	0	0.35	6	5									X					
C-RUNW-THRS	C-RUNWTHM	Threshold markers	0	0.35	6	5									X					
Site Features																				
C-SITE-BLIN	C-SITEBLM	Site breakline	2	0.35	3	2	X													
C-SITE-FENC	C-SITEFEM	Fences and handrails	0, FENCE	0.35	6	5	X				X									
C-SITE-FENC-IDEN	C-SITEFIM	Fence, handrail, ramp, and trail annotation	0	0.35	6	5	X				X									
C-SITE-IDEN	C-SITEIDM	Site feature annotation	0	0.35	6	5	X				X					X			X	
C-SITE-STRC	C-SITESRM	Structures (bridges, sheds, foundation pads, footings, etc.)	0	0.35	22	22	X				X									
C-SITE-STRS	C-SITESTM	Stairs and ramps	0	0.35	6	5	X				X									
C-SITE-WALK	C-SITEWAM	Walks, trails and bicycle paths	0	0.35	2	4	X				X									
Sanitary Sewer																				
C-SSWR-ABND-PIPE	C-SSWRAPM	Abandoned piping	2	0.35	6	5	X				X	X			X	X			X	
C-SSWR-DEVC	C-SSWRDEM	Grease traps, grit chambers, flumes, neutralizers, oil/water separators, ejectors, and valves	0	0.35	6	5	X								X	X			X	
C-SSWR-DEVC-IDEN	C-SSWRDIM	Identifier tags, symbol modifier, and text	0	0.25	6	5	X								X	X			X	
C-SSWR-FILT	C-SSWRFIM	Filtration beds	0	0.35	3	2									X	X			X	
C-SSWR-FILT-IDEN	C-SSWRFDM	Identifier tags, symbol modifier, and text	0	0.35	3	2									X	X			X	
C-SSWR-FLOW	C-SSWRFLM	Flow direction arrows	0	0.35	6	5									X	X			X	
C-SSWR-FTTG	C-SSWRFTM	Caps and cleanouts	0	0.35	6	5	X								X	X			X	
C-SSWR-IDEN	C-SSWRIDM	Identifier tags, symbol modifier, and text	0	0.35	2	4	X				X	X			X	X			X	
C-SSWR-JBOX	C-SSWRJBM	Junction boxes and manholes	0	0.35	1	3	X								X	X			X	
C-SSWR-JBOX-IDEN	C-SSWRJIM	Identifier tags, symbol modifier, and text	0	0.35	1	3									X	X			X	
C-SSWR-LAGN	C-SSWRLAM	Lagoons	0	0.35	3	2									X	X			X	
C-SSWR-LEAC	C-SSWRLEM	Leach field	0	0.35	3	2									X	X			X	
C-SSWR-MAIN-PIPE	C-SSWRMPM	Sanitary sewer piping	SSWAF	0.35	6	5	X				X	X			X	X			X	
C-SSWR-NITF	C-SSWRNIM	Nitrification drain fields	0	0.35	3	2									X	X			X	
C-SSWR-PLNT	C-SSWRPLM	Treatment plants	0	0.35	6	5									X	X			X	
C-SSWR-SERV-PIPE	C-SSWRSPM	Sanitary sewer service piping	0	0.35	1	3									X	X			X	
C-SSWR-SIGN	C-SSWRSIM	Surface markers/signs	0	0.35	1	3									X	X			X	
C-SSWR-STNS-IDEN	C-SSWRISM	Identifier tags, symbol modifier, and text	0	0.35	2	4									X	X			X	
C-SSWR-STNS-PUMP	C-SSWRSUM	Booster pump stations	0	0.35	6	5									X	X			X	
C-SSWR-TANK	C-SSWRTAM	Septic tanks	0	0.35	3	2	X				X	X			X	X			X	
Storm Sewer																				
C-STRM-ABND-PIPE	C-STRMAPM	Abandoned piping	2	0.35	6	5	X			X	X	X			X	X			X	
C-STRM-AFFF	C-STRMAFM	AFFF lagoon/detention pond	0	0.35	3	2									X	X			X	
C-STRM-CHUT	C-STRMCHM	Chutes and concrete erosion control structures	0	0.35	1	3									X	X			X	
C-STRM-CULV	C-STRMCLM	Culverts	CULVRT	0.35	3	2	X			X	X	X			X	X			X	
C-STRM-DEVC	C-STRMDEM	Downspouts, flumes, oil/water separators, and flap gates	0	0.35	6	5	X			X	X	X			X	X			X	
C-STRM-FLOW	C-STRMFLM	Flow direction arrows	0	0.35	6	5									X	X			X	
C-STRM-FMON	C-STRMFMM	Flow monitoring station	0	0.35	6	5									X	X			X	
C-STRM-FTTG	C-STRMFTM	Caps and cleanouts	0	0.35	6	5	X			X	X	X			X	X			X	
C-STRM-HDWL	C-STRMHDM	Headwalls and endwalls	0	0.50	7	0	X			X	X	X			X	X			X	
C-STRM-IDEN	C-STRMIDM	Identifier tags, symbol modifier, and text	0	0.35	2	4	X			X	X	X			X	X			X	
C-STRM-INLT	C-STRMINM	Inlets (curb, surface, and catch basins)	0	0.35	3	2									X	X			X	
C-STRM-LAGN	C-STRMLAM	Lagoons, ponds, watersheds, and basins	0	0.35	3	2									X	X			X	
C-STRM-MAIN-PIPE	C-STRMMPM	Storm sewer piping	STRAF	0.35	6	5	X			X	X	X			X	X			X	
C-STRM-MHOL	C-STRMMHM	Manholes	0	0.35	1	3	X								X	X			X	
C-STRM-ROOF	C-STRMROM	Roof drain line	0	0.35	3	2									X	X			X	
C-STRM-SERV-PIPE	C-STRMSPM	Storm sewer service piping	0	0.35	1	3									X	X			X	
C-STRM-SIGN	C-STRMSIM	Surface markers/signs	0	0.35	1	3									X	X			X	
C-STRM-STNS-IDEN	C-STRMISM	Identifier tags, symbol modifier, and text	0	0.35	2	4									X	X			X	
C-STRM-STNS-PUMP	C-STRMSUM	Pump stations	0	0.35	6	5	X				X				X	X			X	

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types														
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Site Plan	Grading Plan	Eco-Restoration Plan	Beach Renourishment Plan	Navigation/Dredging Plan	Flood Control Plan	Transportation Site Plan	Joint Layout Plan	Airfield Plan	Utilities Plan	Profiles	Elevations	X-Sections	Details	
C-STRM-SUBS-PIPE	C-STRMSUM	Subsurface drain piping	0	0.35	3	2															
Survey																					
C-SURV-DATA	C-SURVDAM	Survey data (benchmarks and horizontal control points or monuments)	0	0.35	6	5	X														
C-SURV-IDEN	C-SURVIDM	Survey, baseline, and control line annotation	0	0.35	6	5	X			X	X	X									
C-SURV-LINE	C-SURVLM	Survey, baseline, and control lines	2	0.35	4	7	X			X	X	X									
Taxiways																					
C-TAXI-CNTR	C-TAXICNM	Centerlines	7	0.25	1	3										X					
C-TAXI-CNTR-IDEN	C-TAXICIM	Centerline annotation	0	0.35	2	4										X					
C-TAXI-CNTR-MRKG	C-TAXICMM	Centerline markings	0	0.25	1	3										X					
C-TAXI-EDGE	C-TAXIEDM	Edge markings	0	0.35	4	7										X					
C-TAXI-HOLD	C-TAXIHOM	Holding lines	0	0.35	2	4										X					
C-TAXI-IDEN	C-TAXIIDM	Taxiway - annotation	0	0.35	2	4										X		X		X	
C-TAXI-OTLN	C-TAXIOTM	Taxiway - outlines	0	0.35	4	7										X		X		X	
C-TAXI-SHLD	C-TAXISHM	Shoulders with annotation	0	0.35	2	4										X		X		X	
Topography																					
C-TOPO-BDRY-EXTR	C-TOPOBEM	Surface exterior boundary	0	0.18	3	2	X	X	X		X	X	X		X						
C-TOPO-BDRY-INTR	C-TOPOBIM	Surface interior boundary	2	0.18	1	3	X	X	X		X	X	X		X						
C-TOPO-BKLN	C-TOPOBKM	Breaklines	4	0.50	7	0	X	X		X	X	X									
C-TOPO-BKLN-COMM	C-TOPOKCM	Subsurface utilities communications breakline	COMUGN	0.50	7	0	X			X	X	X									
C-TOPO-BKLN-DOMW	C-TOPOKDM	Subsurface utilities water breakline	WATERL	0.50	7	0	X			X	X	X									
C-TOPO-BKLN-ELEC	C-TOPOKEM	Subsurface utilities electric breakline	EPUGN	0.50	7	0	X			X	X	X									
C-TOPO-BKLN-FUEL	C-TOPOKFM	Subsurface utilities liquid fuel breakline	LIQPET	0.50	7	0	X			X	X	X									
C-TOPO-BKLN-NGAS	C-TOPOKGM	Subsurface utilities natural gas breakline	NTGASN	0.50	7	0	X			X	X	X									
C-TOPO-BKLN-SSWR	C-TOPOKSM	Subsurface utilities sanitary sewer breakline	SSWAF	0.50	7	0	X			X	X	X									
C-TOPO-BKLN-STRM	C-TOPOKTM	Subsurface utilities storm sewer breakline	STRAF	0.50	7	0	X			X	X	X									
C-TOPO-BORE	C-TOPOBOM	Boring locations and text	0	0.35	6	5	X	X	X	X	X	X									
C-TOPO-COOR	C-TOPOCOM	Coordinate grid ticks and text	0	0.35	122	23	X	X			X	X									
C-TOPO-COOR-LALC	C-TOPOCLM	Latitude and longitude grid ticks	0	0.25	3	2	X	X			X	X									
C-TOPO-COOR-STAI	C-TOPOCSM	State Plane coordinate ticks	0	0.25	3	2	X	X			X	X									
C-TOPO-DTMC	C-TOPODOM	DTM obscure area boundary	0	0.35	6	5	X	X	X		X	X	X		X						
C-TOPO-DTMP	C-TOPODPM	DTM points	0	0.35	6	5	X	X	X		X	X	X		X						
C-TOPO-DTMT	C-TOPODTM	DTM triangles	0	0.35	22	22	X	X	X		X	X	X		X						
C-TOPO-MAJR	C-TOPOMJM	Major contours	0	0.35	2	4	X	X	X	X	X	X									
C-TOPO-MAJR-IDEN	C-TOPOMAM	Major contours - annotation	0	0.35	2	4	X	X	X	X	X	X									
C-TOPO-MINR	C-TOPOMNM	Minor contours	0	0.25	3	2	X	X	X	X	X	X									
C-TOPO-MINR-IDEN	C-TOPOMIM	Minor contours - annotation	0	0.25	3	2	X	X	X	X	X	X									
C-TOPO-SHAP	C-TOPOSAM	Inroads generated shapes/lines	0	0.25	1	3	X	X	X	X	X	X	X	X	X	X					
C-TOPO-SHOR	C-TOPOSHM	Shorelines, land features, and references	0	0.35	4	7	X			X	X	X									
C-TOPO-SLOP-FILL	C-TOPOSOM	Cut/fill slopes	0	0.35	2	4	X	X		X	X	X									
C-TOPO-SLOP-IDEN	C-TOPOSLM	Cut/fill slope, top/toe slope annotation	0	0.35	2	4	X	X		X	X	X									
C-TOPO-SLOP-TOPT	C-TOPOSTM	Top/toe slopes	0	0.35	6	5	X	X	X	X	X	X									
C-TOPO-SOUN	C-TOPOSDM	Soundings and overbanks	0	0.18	V	V	X			X	X	X									
C-TOPO-SPOT	C-TOPOSPM	Spot elevations	0	0.35	2	4	X	X	X	X				X							
C-TOPO-SURF-PERM	C-TOPOSPM	Surface perimeter	0	0.18	3	2	X	X	X		X	X	X		X						
C-TOPO-SURF-PONT	C-TOPOSIM	Surface feature points	0	0.25	7	0	X	X	X		X	X	X		X						
C-TOPO-SURF-VOID	C-TOPO SVM	Surface void region	0	0.18	1	3	X	X	X	X	X	X			X						
C-TOPO-WATR	C-TOPOWAM	Water level reference (LWRP, after-grading LWRP, SWL, etc)	3	0.50	V	V	X			X	X	X									
Airfield Traffic Areas																					
C-TRAF-IDEN	C-TRAFIDM	Airfield traffic area annotation	0	0.35	2	4										X					
C-TRAF-TYPA	C-TRAFIAM	Type A traffic area	4	0.50	4	7										X					
C-TRAF-TYPB	C-TRAFIBM	Type B traffic area	6	0.50	4	7										X					
C-TRAF-TYPC	C-TRAFICM	Type C traffic area	10	0.50	4	7										X					
Wetlands																					

Discipline: Civil
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types													
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Site Plan	Grading Plan	Eco-Restoration Plan	Beach Renourishment Plan	Navigation/Dredging Plan	Flood Control Plan	Transportation Site Plan	Joint Layout Plan	Airfield Plan	Utilities Plan	Profiles	Elevations	X-Sections	Details
C-WETL-BOGS	C-WETLBOM-	Bogs	0	0.35	6	5			X											
C-WETL-FENS	C-WETLFEM-	Fens	0	0.35	2	4			X											
C-WETL-IDEN	C-WETLIDM-	Wetland annotation	0	0.35	2	4			X											
C-WETL-MRSH	C-WETLMRM-	Fresh water marshes	0	0.35	162	33			X											
C-WETL-MRSH-SALT	C-WETLMMSM-	Tidal saltwater marshes	0	0.35	162	33			X											
C-WETL-MRSH-TIDL	C-WETLMTM-	Tidal freshwater marsh	0	0.35	162	33			X											
C-WETL-PCSN	C-WETLPCM-	Pocosins	0	0.35	6	5			X											
C-WETL-PHOL	C-WETLPHM-	Vernal pools, playas, prairie potholes, wet meadows, and wet prairies	0	0.35	6	5			X											
C-WETL-RPRN	C-WETLRPM-	Riparian forested wetlands	0	0.35	162	33			X											
C-WETL-SLGH	C-WETLSLM-	Sloughs	0	0.35	162	33			X											
C-WETL-SWMP	C-WETLSWM-	Swamps	0	0.35	162	33			X											
Elevations																				
C-ELEV-FIXT	C-ELEV-FIM-	Miscellaneous fixtures	0	0.35	2	4	X			X	X							X		
C-ELEV-IDEN	C-ELEV-IDM-	Component identification numbers	0	0.35	2	4	X		X	X								X		
C-ELEV-OTLN	C-ELEV-OTM-	Building outlines	0	0.35	6	5	X		X	X								X		
C-ELEV-PATT	C-ELEV-PAM-	Textures and hatch patterns	0	0.18	8	9	X		X	X								X		
C-ELEV-SIGN	C-ELEV-SIM-	Signage	0	0.35	1	3	X		X	X								X		
Sections																				
C-SECT-IDEN	C-SECT-IDM-	Component identification numbers	0	0.35	2	4													X	
C-SECT-MBND	C-SECT-MBM-	Material beyond section cut	0	0.18	5	1													X	
C-SECT-MCUT	C-SECT-MCM-	Cuts through road surfaces, buildings, structures, fence lines, etc.	V	V	V	V													X	
C-SECT-PATT	C-SECT-PAM-	Textures and hatch patterns	0	0.18	8	9													X	
Details																				
C-DETL-GRPH	C-DETL-GRM-	Graphics, gridlines, non-text items	V	V	V	V														X
C-DETL-INPD	C-DETL-INM-	Inch-pound-specific dimensions and notes	0	0.35	1	3														X
C-DETL-METR	C-DETL-MEM-	Metric-specific dimensions and notes	0	0.35	3	2														X

Note: V = Varies, NA = Not Applicable

Discipline: Landscape
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types		
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Landscape Plan	Irrigation Plan	Details
General Information									
L-ANNO-DIMS	L-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X
L-ANNO-KEYN	L-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X
L-ANNO-NOTE	L-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X
L-ANNO-NPLT	L-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X
L-ANNO-PATT	L-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X
L-ANNO-RDME	L-----RDP-	Read-me information	0	0.18	5	1	X	X	X
L-ANNO-REFR	L-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X
L-ANNO-SYMB	L-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X
L-ANNO-TEXT	L-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X
Irrigation System									
L-IRRG-COVR	L-IRRGCOM-	Irrigation coverage, spray distribution patterns	0	0.18	5	1		X	
L-IRRG-EQPM	L-IRRGEQM-	Equipment (e.g., controllers, valves, RPBP, etc.)	0	0.35	6	5		X	
L-IRRG-HEAD	L-IRRGHEM-	Irrigation heads, bubblers, and drip irrigation emitters	0	0.25	1	3		X	
L-IRRG-IDEN	L-IRRGIDM-	Annotation	0	0.35	2	4		X	
L-IRRG-PIPE	L-IRRGPIPM-	Piping	LAWNSP	0.35	6	5		X	
L-IRRG-SPKL	L-IRRGSPM-	Sprinklers	0	0.35	6	5		X	
Plant and Landscape Material									
L-PLNT-BEDS	L-PLNTBEM-	Planting beds (perennial and annual beds)	0	0.35	6	5	X		
L-PLNT-BUSH	L-PLNTBUM-	Bushes and shrubs (e.g., evergreen, deciduous, etc.)	0	0.50	83	42	X		
L-PLNT-BUSH-LINE	L-PLNTBLM-	Bush and shrub line	0	0.50	83	42	X		
L-PLNT-CTNR	L-PLNTCTM-	Containers or planters	0	0.25	1	3	X		
L-PLNT-GRND	L-PLNTGRM-	Groundcover and vines	0	0.35	82	18	X		
L-PLNT-IDEN	L-PLNTIDM-	Annotation	0	0.35	6	5	X		
L-PLNT-MLCH	L-PLNTMLM-	Mulches - organic and inorganic	0	0.25	3	2	X		
L-PLNT-PLTS	L-PLNTPLM-	Planting plants (e.g., ornamental annuals and perennials)	0	0.50	83	42	X		
L-PLNT-SHAD	L-PLNTSHM-	Shadow areas	0	0.18	5	1	X		
L-PLNT-SPRG	L-PLNTSPM-	Sprigs	0	0.25	3	2	X		
L-PLNT-TREE	L-PLNTTRM-	Trees (e.g., evergreen, deciduous, etc.)	0	0.50	83	42	X		
L-PLNT-TREE-LINE	L-PLNTTLM-	Tree line	TREEL	0.50	83	42	X		
L-PLNT-TURF	L-PLNTTUM-	Lawn areas (turfing limits)	0	0.50	23	46	X		
Site Improvements									
L-SITE-BRDG	L-SITEBRM-	Bridges (pedestrian)	0	0.35	22	22	X		
L-SITE-DECK	L-SITEDEM-	Decks	0	0.35	232	107	X		
L-SITE-FENC	L-SITEFEM-	Fencing	FENCE	0.35	2	4	X		
L-SITE-FURN	L-SITEFUM-	Furnishings	0	0.50	4	7	X		
L-SITE-IDEN	L-SITEIDM-	Annotation	0	0.35	6	5	X		
L-SITE-PLAY	L-SITEPLM-	Play structures	0	0.35	2	4	X		
L-SITE-POOL	L-SITEPOM-	Pools and spas	0	0.35	162	33	X		
L-SITE-ROCK	L-SITEROM-	Boulders and cobble	0	0.25	1	3	X		
L-SITE-RTWL	L-SITERTM-	Retaining walls	0	0.50	4	7	X		
L-SITE-SPRT	L-SITESPM-	Sports fields	0	0.35	2	4	X		
L-SITE-WALK	L-SITEWAM-	Walks and steps	0	V	V	V	X		
Detail Information									
L-DETL-GRPH	L-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V			X
L-DETL-INPD	L-DETLINM-	Inch-pound specific dimensions and notes	V	V	V	V			X
L-DETL-METR	L-DETLMEM-	Metric specific dimensions and notes	V	V	V	V			X

Note: V = Varies, NA = Not Applicable

Discipline: Structural
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types												
AIA Format	ISO Format	Level/Layer Description	Line Style*	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Foundation Plan	Framing Plan	Column Plan	Substructure	Decks	Superstructure	Locks	Dams	Hydraulic Steel Structures	Flood Control Structures	Misc Small Civil Works Structures	3D Alignment	Details **
General Information																			
S-ANNO-DIMS	S-----DIP-	Witness/extension lines, dimension terminators, dimension tex	0	V	V	V	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-KEYN	S-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-NOTE	S-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-NPLT	S-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-PATT	S-----PAP-	Patterning, poche, shading, and hatching	0	0.18	8	9	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-RDME	S-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-REFR	S-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-SYMB	S-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X	X	X	X	X	X	X	X	X	X	X
S-ANNO-TEXT	S-----TEP-	Miscellaneous text and callouts with associated leader:	0	V	V	V	X	X	X	X	X	X	X	X	X	X	X	X	X
Access																			
S-ACCS-ADIT	S-ACCSADM-	Adits in galleries and passages	0	0.35	21	30							X	X		X			
S-ACCS-CHAM	S-ACCSCHM-	Chambers	0	0.35	22	22							X	X		X			
S-ACCS-EVTR	S-ACCSEVM-	Elevators	0	0.35	132	103		X											
S-ACCS-GLRY	S-ACCSGLM-	Galleries, cross overs, trenches, etc	0	0.35	30	86	X						X			X			
S-ACCS-HTCH	S-ACCSHTM-	Hatches	0	0.25	32	102	X				X				X	X			
S-ACCS-LADD	S-ACCSLAM-	Ladders and ladder safety devices	0	0.35	162	33	X	X		X	X	X	X	X		X	X		
S-ACCS-MHOL	S-ACCSMHM-	Manholes	0	0.35	83	42				X	X					X	X		
S-ACCS-MISC	S-ACCSMIM-	Miscellaneous access	0	0.35	83	42				X	X					X	X		
S-ACCS-STRS	S-ACCSSTM-	Stairs	0	0.35	133	111	X			X		X	X	X		X			
S-ACCS-STRS-FRMG	S-ACCSFFM-	Stair framing	0	0.35	135	127	X	X		X		X	X	X		X			
S-ACCS-TUNL	S-ACCSTUM-	Tunnels	0	0.35	42	182	X			X		X	X		X				
Alignment																			
S-ALGN-LINE	S-ALGNLIM-	Alignments	4	0.25	1	3													X
Armor																			
S-ARMR-CRNR	S-ARMRCRM-	Corner protection, corner cap casting	0	0.25	143	191							X						
S-ARMR-LINR	S-ARMRLIM-	Protective liner (used for walls, culverts, etc.)	0	0.25	122	23							X						
S-ARMR-MISC	S-ARMRMIM-	Miscellaneous armor	0	0.25	143	191							X						
S-ARMR-WALL	S-ARMRWAM-	Wall armor	0	0.25	143	191							X						
Beams																			
S-BEAM-CNTR	S-BEAMCNM-	Beam centerlines	7	0.18	214	117		X				X	X	X	X	X			
S-BEAM-PRIM	S-BEAMPRM-	Continuous beam or primary beam of two-way beam system	0	0.50	211	109		X				X	X	X	X	X			
S-BEAM-RBAR	S-BEAMRBM-	Beam rebar	0	0.70	5	1		X				X	X	X	X	X			
S-BEAM-SECD	S-BEAMSEM-	Girders or secondary beams of two-way beam system	0	0.35	212	101		X				X	X	X	X	X			
Bracing																			
S-BRAC-DIA-	S-BRACDIM-	Diagonal bracing	0	0.35	161	25		X				X		X	X				
S-BRAC-HORZ	S-BRACHOM-	Horizontal bracing	0	0.35	161	25		X				X		X	X				
S-BRAC-VERT	S-BRACVEM-	Vertical bracing	0	0.35	144	199		X				X		X	X				
Bridges																			
S-BRDG-ABUT	S-BRDGABM-	Abutments	0	0.50	83	42				X									
S-BRDG-ABUT-RBAR	S-BRDGARM-	Abutment rebar	0	0.70	5	1				X									
S-BRDG-BEAR	S-BRDGBEM-	Bridge bearing	0	0.35	152	88				X		X							
S-BRDG-BEAR-CNTR	S-BRDGBCM-	Bridge bearing centerlines	7	0.18	214	117				X		X							
S-BRDG-BENT	S-BRDGBNM-	Bent cap	0	0.35	3	2				X									
S-BRDG-BENT-CNTR	S-BRDGBTM-	Centerline of bents	7	0.18	214	117				X									
S-BRDG-BENT-RBAR	S-BRDGBRM-	Bent cap rebar	0	0.70	5	1				X									

Discipline: Structural
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types												
AIA Format	ISO Format	Level/Layer Description	Line Style*	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Foundation Plan	Framing Plan	Column Plan	Substructure	Decks	Superstructure	Locks	Dams	Hydraulic Steel Structures	Flood Control Structures	Misc Small Civil Works Structures	3D Alignment	Details **
S-BRDG-CURB	S-BRDGCRM-	Curbs/sidewalks on structure	0	0.35	2	4						X							
S-BRDG-DIAP	S-BRDGDIM-	Diaphragms	0	0.35	5	1						X							
S-BRDG-DIAP-RBAR	S-BRDGDRM-	Diaphragm rebar	0	0.70	5	1						X							
S-BRDG-DRAN	S-BRDGDAM-	Drains	0	0.25	22	22					X	X							
S-BRDG-FENC	S-BRDGFEM-	Fencing rails, fabric, supports, and gates	0	0.25	3	2						X							
S-BRDG-FEND	S-BRDGFNM-	Fenders	0	0.35	75	220						X							
S-BRDG-GIRD	S-BRDGGIM-	Girders	0	0.35	70	180						X							
S-BRDG-GIRD-CNTR	S-BRDGGCM-	Girder centerline	7	0.18	214	117						X							
S-BRDG-HEAD	S-BRDGHEM-	Headers	0	0.35	112	247						X							
S-BRDG-PIER	S-BRDGPIM-	Piers	0	0.50	83	42				X									
S-BRDG-STRG	S-BRDGSTM-	Stringers	0	0.35	212	101						X							
Columns																			
S-COLS-CNTR	S-COLSCNM-	Column centerlines/working lines	7	0.18	40	166													
S-COLS-POST	S-COLSPOM-	Short columns	0	0.35	87	74													
S-COLS-PRIM	S-COLSPRM-	Primary columns	0	0.35	3	2													
S-COLS-RBAR	S-COLSRBM-	Column rebar	0	0.70	5	1													
S-COLS-SECD	S-COLSSEM-	Secondary columns	0	0.35	84	34													
Decking																			
S-DECK-BRDG	S-DECKBRM-	Bridge deck	0	0.35	22	22													
S-DECK-BRDG-RBAR	S-DECKBBM-	Bridge deck rebar	0	0.70	5	1													
S-DECK-FLOR	S-DECKFLM-	Floor deck	0	0.25	101	186													
S-DECK-ROOF	S-DECKROM-	Roof deck	0	0.25	62	116													
Equipment Pads and Foundations																			
S-PADS-EQPM	S-PADSEQM-	Equipment pads	0	0.35	21	30													
Erosion Control																			
S-EROS-BARR	S-EROSBAM-	Vapor/capillary water barriers	0	0.25	233	115													
S-EROS-GABN	S-EROSGAM-	Gabions	0	0.25	241	179													
S-EROS-PVMT	S-EROSPVM-	Slope paving	0	0.25	241	179													
S-EROS-RRAP	S-EROSRRM-	Riprap, stone protection, jetties, breakwaters	0	0.25	232	107													
Fasteners & Connections																			
S-FSTN-ABL	S-FSTNABM-	Anchor bolts	0	0.25	30	86													
S-FSTN-MISC	S-FSTNMIM-	Fasteners and connections (non-specific)	0	0.25	13	35													
Foundation																			
S-FNDN-ANCH	S-FNDNANM-	Anchor piles, blocks, strands, deadmen, soil/rock anchors	0	0.35	42	182													
S-FNDN-CNTR	S-FNDNCNM-	Foundation centerlines	7	0.18	44	198													
S-FNDN-DRAN	S-FNDNDRM-	Foundation drainage features and objects	0	0.25	43	206													
S-FNDN-FTNG	S-FNDNFTM-	Footings	0	0.35	42	182													
S-FNDN-FTNG-RBAR	S-FNDNFRM-	Footing rebar	0	0.70	5	1													
S-FNDN-GRBM	S-FNDNGRM-	Grade beams	0	0.50	52	36													
S-FNDN-PCAP	S-FNDNPCM-	Pile caps	0	0.35	52	36													
S-FNDN-PEDS	S-FNDNPEM-	Foundation pedestals/pads	0	0.35	41	190													
S-FNDN-PIER	S-FNDNPIM-	Piers, drilled shafts, caissons	0	0.50	72	196													
S-FNDN-PILE	S-FNDNPLM-	Piles	0	0.35	40	166													
S-FNDN-RIBS	S-FNDNRIM-	Ribbed mat foundation	0	0.35	52	36													
S-FNDN-TRMT	S-FNDNTRM-	Foundation treatment (grouting)	0	0.35	51	28													
S-FNDN-TUNL	S-FNDNTUM-	Service tunnel/duct banks	0	0.35	42	182													
Gates																			

Discipline: Structural
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types											
AIA Format	ISO Format		Line Style*	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Vertical Const		Bridges			Hydraulic Structures						3D Alignment
						Foundation Plan	Framing Plan	Column Plan	Substructure	Decks	Superstructure	Locks	Dams	Hydraulic Steel Structures	Flood Control Structures	Misc Small Civil Works Structures		
S-GATE-ANCH	S-GATEANM-	Gate anchorages	0	0.25	30	86								X	X			
S-GATE-ANCH-DEAD	S-GATEADM-	Dead man anchorage	0	0.25	30	86								X				
S-GATE-ARMS	S-GATEARM-	Arm	0	0.35	161	25								X				
S-GATE-AXIS	S-GATEAXM-	Gate axis and centerlines	7	0.18	214	117	X				X	X	X	X				
S-GATE-BLKH	S-GATEBLM-	Bulkhead	0	0.35	5	1								X				
S-GATE-BLKH-NDLB	S-GATEBBM-	Bulkhead needles beam	0	0.35	212	101								X				
S-GATE-BLKH-NDLS	S-GATEBNM-	Bulkhead needles	0	0.35	13	35								X				
S-GATE-CONN	S-GATECOM-	Gate connects, links	0	0.35	30	86								X		X		
S-GATE-DIA--	S-GATEDIM-	Diagonals, gussets, sleeve nul	0	0.35	13	35								X				
S-GATE-DIA--CHAN	S-GATEDCM-	Diagonal channels	0	0.35	13	35								X				
S-GATE-DIA--GUST	S-GATEDGM-	Diagonal gusset plate	0	0.35	13	35								X				
S-GATE-DIA--SUPT	S-GATEDSM-	Diagonal gusset plate support	0	0.35	13	35								X				
S-GATE-DIAP	S-GATEDAM-	Diaphragms	0	0.35	5	1								X				
S-GATE-FEND	S-GATEFEM-	Gate fenders	0	0.35	75	220								X				
S-GATE-FLNG	S-GATEFLM-	Flange	0	0.35	5	1								X				
S-GATE-FLNG-DNST	S-GATEFDM-	Downstream flange	0	0.35	5	1								X				
S-GATE-FLNG-GIRD	S-GATEFGM-	Girder flange	0	0.35	30	86								X				
S-GATE-FLNG-UPST	S-GATEFUM-	Upstream flange	0	0.35	5	1								X				
S-GATE-GIRD-WEB-	S-GATEGWM-	Girder web plates	0	0.35	162	33								X				
S-GATE-GUDG	S-GATEGUM-	Gudgeon	0	0.35	6	5								X				
S-GATE-GUDG-HOOD	S-GATEGOM-	Gudgeon hood	0	0.35	6	5								X				
S-GATE-GUDG-HUB-	S-GATEGHM-	Gudgeon hub	0	0.35	6	5								X				
S-GATE-GUDG-PIN-	S-GATEGPM-	Gudgeon pin	0	0.35	6	5								X				
S-GATE-GUDG-STIF	S-GATEGTM-	Gudgeon (hood) stiffener	0	0.35	6	5								X				
S-GATE-GUDG-SUPT	S-GATEGSM-	Gudgeon (pin) support	0	0.35	6	5								X				
S-GATE-HORZ	S-GATEHOM-	Horizontal rolled shapes	0	0.35	211	109								X				
S-GATE-ICST	S-GATEICM-	Intercostals	0	0.35	132	103								X				
S-GATE-JACK	S-GATEJAM-	Gate jack	0	0.35	5	1								X				
S-GATE-JACK-HORZ	S-GATEJHM-	Gate jack - horizontal	0	0.35	5	1								X				
S-GATE-JACK-VERT	S-GATEJVM-	Gate jack - vertical	0	0.35	5	1								X				
S-GATE-LIFT	S-GATELIM-	Lifting mechanism	0	0.35	142	183								X	X	X		
S-GATE-LTCH	S-GATELTM-	Latching device	0	0.35	5	1								X				
S-GATE-LTCH-BOTM	S-GATELBM-	Latching device - bottom	0	0.35	5	1								X				
S-GATE-LTCH-TOP-	S-GATELOM-	Latching device - top	0	0.35	5	1								X				
S-GATE-LUBE	S-GATELUM-	Lubrication system	0	0.25	5	1								X				
S-GATE-MISC	S-GATEMIM-	Gates incidental to structure	0	0.25	5	1						X	X	X	X			
S-GATE-MITR-ASSY	S-GATEMAM-	Miter guide assembly	0	0.35	152	88								X				
S-GATE-PIN-	S-GATEPIM-	Gate pins	0	0.25	30	86								X				
S-GATE-PNTL	S-GATEPNM-	Pintle ball, bushing & base	0	0.35	30	86								X				
S-GATE-PNTL-CAST	S-GATEPCM-	Pintle casting	0	0.35	62	116								X				
S-GATE-QOIN	S-GATEQOM-	Quoin	0	0.35	152	88								X				
S-GATE-QOIN-FLNG	S-GATEQFM-	Quoin flange	0	0.35	152	88								X				
S-GATE-QOIN-MITR	S-GATEQMM-	Quoin, miter	0	0.35	152	88								X				
S-GATE-QOIN-STIF	S-GATEQSM-	Quoin stiffener	0	0.35	152	88								X				
S-GATE-QOIN-TRST	S-GATEQTM-	Quoin thrust plate	0	0.35	152	88								X				
S-GATE-QOIN-WALL	S-GATEQWM-	Quoin, wall	0	0.35	152	88								X				
S-GATE-QOIN-WEB-	S-GATEQEM-	Quoin web	0	0.35	152	88								X				

Discipline: Structural
Model File Layers/Levels

Level/Layer Naming		Graphic Defaults				Model File Types													
AIA Format	ISO Format	Level/Layer Description	Line Style*	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Vertical Const	Bridges			Hydraulic Structures				3D Alignment	Details **			
							Foundation Plan	Framing Plan	Column Plan	Substructure	Decks	Superstructure	Locks	Dams	Hydraulic Steel Structures	Flood Control Structures	Misc Small Civil Works Structures		
S-GATE-RAIL	S-GATERAM-	Rails and guides	0	0.35	152	88									X	X	X		
S-GATE-SEAL	G-GATESEM-	Gate seal	0	0.35	232	107										X	X		
S-GATE-SEAL-HORZ	S-GATESHM-	Gate seal - horizonta	0	0.35	232	107									X				
S-GATE-SEAL-VERT	S-GATESVM-	Gate seal - vertical	0	0.35	232	107									X				
S-GATE-SHOE	S-GATESOM-	Gate shoe	0	0.35	142	183									X				
S-GATE-SKIN	S-GATESKM-	Skin plates	0	0.25	142	183									X				
S-GATE-STIF	S-GATESTM-	Stiffener	0	0.35	5	1									X				
S-GATE-STIF-LONG	S-GATESLM-	Stiffener - longitudinal	0	0.35	5	1									X				
S-GATE-STIF-TRAN	S-GATESRM-	Stiffener - transverse	0	0.35	5	1									X				
S-GATE-STOP	S-GATESPM-	Stoplogs	0	0.35	42	182									X	X	X		
S-GATE-THBL	S-GATETHM-	Thimble	0	0.25	241	179									X	X	X		
S-GATE-TRST	S-GATETRM-	Thrust plate	0	0.25	122	23									X				
S-GATE-TRUN	S-GATETUM-	Trunion	0	0.35	6	5									X				
S-GATE-VALV	S-GATEVAM-	Valves (general shape)	0	0.35	202	21									X				
S-GATE-VERT	S-GATEVEM-	Rolled vertical shapes	0	0.35	144	199									X				
S-GATE-WALK	S-GATEWAM-	Walkway	0	0.35	132	103									X				
S-GATE-WALK-FRMG	S-GATEWFM-	Walkway - framing	0	0.35	132	103									X				
S-GATE-WALK-GRTG	S-GATEWGM-	Walkway - grating	0	0.35	132	103									X				
S-GATE-WALK-SUPT	S-GATEWSM-	Walkway - support	0	0.35	132	103									X				
S-GATE-WEB~	S-GATEWEM-	Web	0	0.35	162	33									X				
Grade Lines																			
S-GRLN-SURF-E	S-GRLNSEM-	Existing ground	3	0.25	31	110							X	X		X	X		
S-GRLN-SURF-N	S-GRLNSNM-	Finished grade	0	0.35	32	102							X	X		X	X		
S-WATR-SURF	S-WATRSUM-	Water surface	0	0.25	161	25							X	X		X	X		
Grids																			
S-GRID-HORZ	S-GRIDHOM-	Grid lines (horizontal)	7	0.18	6	5													
S-GRID-HORZ-IDEN	S-GRIDHIM-	Column I.D. tags (horizontal)	0	0.25	6	5		X		X	X	X	X	X	X				
S-GRID-VERT	S-GRIDVEM-	Grid lines (vertical)	7	0.18	6	5		X		X	X	X	X	X	X				
S-GRID-VERT-IDEN	S-GRIDVIM-	Column I.D. tags (vertical)	0	0.25	6	5		X		X	X	X	X	X					
Hydraulic Features																			
S-HYDR-AXIS	S-HYDRAXM-	Axis of structure	4	0.18	202	21								X					
S-HYDR-BAFL	S-HYDRBAM-	Baffle blocks, splash pads	0	0.35	122	23							X	X		X			
S-HYDR-BASN	S-HYDRBSM-	Stilling and settling basins	0	0.35	122	23								X		X			
S-HYDR-CHAN	S-HYDRCHM-	Channel (Does not include earthen structures)	0	0.35	122	23										X			
S-HYDR-COFF	S-HYDRCOM-	Cofferdam	0	0.35	42	182							X	X		X	X		
S-HYDR-COND	S-HYDRCNM-	Diversiory/bypass conduits and culverts	0	0.35	122	23							X	X		X	X		
S-HYDR-DAM~	S-HYDRDAM-	Dam	0	0.35	122	23								X		X			
S-HYDR-FISH	S-HYDRFIM-	Fish ladder or passage	0	0.35	122	23								X		X			
S-HYDR-FLUM	S-HYDRFLM-	Flume	0	0.35	122	23								X		X			
S-HYDR-INTK	S-HYDRINM-	Intake, outlet	0	0.35	122	23							X	X		X	X		
S-HYDR-NOVR	S-HYDRNOM-	Non-overflow structures	0	0.35	122	23								X		X			
S-HYDR-PENS	S-HYDRPEM-	Penstock outline and feature	0	0.35	122	23								X					
S-HYDR-STRC-POWR	S-HYDRSPM-	Powerhouse	0	0.35	124	39							X	X					
S-HYDR-SWAY	S-HYDRSWM-	Spillway	0	0.35	122	23								X		X			
S-HYDR-WEIR	S-HYDRWEM-	Weirs and sluiceways	0	0.35	122	23								X		X			
Joints																			
S-JNTS-CNTJ	S-JNTSCNM-	Construction/lift joints - (Do not use when 3D modeling)	0	0.25	122	23	X	X			X	X	X	X		X			

Discipline: Structural
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types												
AIA Format	ISO Format	Level/Layer Description	Line Style*	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Foundation Plan	Framing Plan	Column Plan	Substructure	Decks	Superstructure	Locks	Dams	Hydraulic Steel Structures	Flood Control Structures	Misc Small Civil Works Structures	3D Alignment	Details **
S-JNTS-CTLJ	S-JNTSCTM-	Control/contraction joints (saw cut) - (Do not use when 3D modeling)	0	0.25	122	23	X	X			X		X	X		X			
S-JNTS-EXPJ	S-JNTSEXM-	Expansion joints, joint materials (e.g., felt) - (Do not use when 3D modeling)	0	0.25	124	39	X	X			X	X	X	X		X			
S-JNTS-STUC	S-JNTSSTM-	Stucco joints - (Do not use when 3D modeling)	0	0.25	111	246		X											
S-JNTS-WTRS	S-JNTSWTM-	Waterstops	0	0.25	221	189	X				X		X	X		X	X		
Joists																			
S-JOIS-BRDG	S-JOISBRM-	Bridging	0	0.35	82	18		X											
S-JOIS-GIRD	S-JOISGIM-	Joist girders	0	0.50	122	23		X											
S-JOIS-PERI	S-JOISPEM-	Perimeter channel or rim joist	0	0.35	142	183		X											
S-JOIS-PRIM	S-JOISPRM-	Primary joists	0	0.35	132	103		X											
S-JOIS-SECD	S-JOISSEM-	Secondary joists	0	0.35	134	119		X											
S-JOIS-TRIM	S-JOISTRM-	Partial length or trimmer floor joist	0	0.35	134	119		X											
Fabrications (metal or other specialty)																			
S-FABR-EMBD	S-FABREMM-	Embedded metals (framing around openings)	0	0.35	183	201	X	X		X	X	X	X	X	X	X	X		
S-FABR-HOIS	S-FABRHOM-	Hoist structures	0	0.25	142	183					X	X	X	X	X				
S-FABR-HOOK	S-FABRHKM-	Line hooks, lifting hooks, check posts etc	0	0.25	142	183						X	X		X	X			
S-FABR-MOOR	S-FABRMOM-	Mooring bits, chocks, rings	0	0.35	142	183						X	X		X				
S-FABR-PL~~	S-FABRPLM-	Plates	0	0.35	142	183	X	X		X	X	X	X	X	X	X	X		
S-FABR-TRSH	S-FABRTRM-	Trash racks, intake screens	0	0.35	142	183							X		X	X			
Pipes and Culverts																			
S-PIPE-CULV	S-PIPECLM-	Precast/manufactured culverts	0	0.35	200	13										X	X		
Platforms																			
S-PLAT-FRMG	S-PLATFRM-	Platform frame/stringers	0	0.35	212	101				X	X	X	X	X	X	X			
S-PLAT-GRTG	S-PLATGRM-	Platform grating (add a second minor group to indicate platform # or elev)	0	0.25	121	15		X		X	X		X	X	X	X	X		
S-PLAT-WALK	S-PLATWAM-	Platform walkway	0	0.35	33	126				X	X	X	X	X	X	X			
Reinforcement																			
S-REIN-RBAR	S-REINRBM-	Steel reinforcing, welded wire fabric	0	0.70	5	1	X	X	X	X	X	X	X	X		X	X		
S-REIN-TEND-HORZ	S-REINTHM-	Horizontal Tendons	0	0.50	181	185					X	X			X				
S-REIN-TEND-VERT	S-REINTVM-	Vertical Tendons	0	0.50	181	185					X	X			X				
Reference Outlines																			
S-OTLN-BLDG	S-OTLNBLM-	Building outline	6	0.25	5	1	X	X	X			X	X			X	X		
S-OTLN-FLOR	S-OTLNFLM-	Floor outline	6	0.25	5	1	X	X	X			X	X						
S-OTLN-OPNG	S-OTLNOPM-	Openings	6	0.25	5	1	X	X	X			X	X	X	X	X			
S-OTLN-ROOF	S-OTLNROM-	Roof	6	0.25	5	1	X	X	X										
S-OTLN-STRC	S-OTLNSTM-	Misc. structures	6	0.25	5	1	X		X	X	X	X	X	X	X	X	X		
Safety Features																			
S-SAFE-FENC	S-SAFEFEM-	Fencing rails, fabric, supports, and gates	0	0.25	3	2					X		X	X		X	X		
S-SAFE-GRAL	S-SAFEGRM-	Guardrails	0	0.35	62	116					X	X	X	X		X	X		
S-SAFE-HRAL	S-SAFEHRM-	Handrails, railings	0	0.25	3	2					X	X	X	X	X	X			
S-SAFE-PARA	S-SAFEPEM-	Parapet/jersey barrier	0	0.50	3	2					X	X	X				X		
S-SAFE-PARA-RBAR	S-SAFEPRM-	Parapet/jersey barrier rebar	0	0.70	5	1					X	X	X			X	X		
S-SAFE-WATR	S-SAFEWAM-	Waterway safety barriers	0	0.35	3	2					X		X	X		X	X		
Signs																			
S-SIGN-BUOY	S-SIGNBUM-	Sign buoys	0	0.35	242	187								X					
S-SIGN-EXTN	S-SIGNEXM-	Extrusions	0	0.35	212	101		X											
S-SIGN-FRMG	S-SIGNFRM-	Framing & connections	0	0.35	3	2		X											
S-SIGN-GAGE	S-SIGNGAM-	Staff gages	0	0.35	232	107						X	X						
S-SIGN-PANL	S-SIGNPAM-	Sign panels	0	0.35	232	107		X				X	X						

Discipline: Structural
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types												
AIA Format	ISO Format	Level/Layer Description	Line Style*	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Foundation Plan	Framing Plan	Column Plan	Substructure	Decks	Superstructure	Locks	Dams	Hydraulic Steel Structures	Flood Control Structures	Misc Small Civil Works Structures	3D Alignment	Details **
S-SIGN-SPRT	S-SIGNSUM-	Supports	0	0.35	5	1		X											
S-SIGN-TEXT	S-SIGNTEM-	Signage text	0	0.35	222	181		X											
Slabs																			
S-SLAB-APPR	S-SLABAPM-	Approach slab	0	0.35	41	190						X							
S-SLAB-APPR-RBAR	S-SLABARM-	Approach slab rebar	0	0.70	5	1						X							
S-SLAB-EDGE	S-SLABEDM-	Edge of slab	0	0.35	41	190						X							
S-SLAB-RBAR	S-SLABRBM-	Slab rebar	0	0.70	5	1						X							
S-SLAB-SECD	S-SLABSEM-	Second pour, slab cap	0	0.35	41	190						X							
S-SLAB-SILL	S-SLABSIM-	Sill	0	0.35	41	190						X							
Stiffeners																			
S-STIF-LONG	S-STIFLOM-	Stiffeners - longitudinal	0	0.35	3	2		X				X			X				
S-STIF-TRAN	S-STIFTRM-	Stiffeners - transverse	0	0.35	3	2		X				X			X				
Trusses																			
S-TRUS-PRIM	S-TRUSPRM-	Primary trusses	0	0.50	4	7		X				X		X					
S-TRUS-SECD	S-TRUSSEM-	Secondary trusses	0	0.35	6	5		X				X		X					
Walls																			
S-WALL-ABUT	S-WALLABM-	Abutments	0	0.35	83	42								X			X		
S-WALL-CELL	S-WALLCEM-	Cell	0	0.35	53	44							X						
S-WALL-COFF	S-WALLCOM-	Cutoff wall	0	0.35	30	86							X	X			X	X	
S-WALL-CURT	S-WALLCRM-	Curtain/breast wall	0	0.35	72	196								X			X		
S-WALL-FULL	S-WALLFUM-	Wall going to the top of the structure	0	0.35	3	2		X				X					X		
S-WALL-GARD	S-WALLGAM-	Guard/guide walls	0	0.35	72	196							X	X			X		
S-WALL-LOAD	S-WALLLOM-	Load bearing walls	0	0.35	3	2													
S-WALL-MONO	S-WALLMOM-	Wall monoliths	0	0.35	3	2							X	X					
S-WALL-MSE~	S-WALLMSM-	Mechanically stabilized earth (MSE) wal	0	0.35	72	196													
S-WALL-NONL	S-WALLNOM-	Non-load bearing walls	0	0.35	72	196		X	X										
S-WALL-PCST	S-WALLPCM-	Pre-cast concrete walls	0	0.35	126	55													
S-WALL-PRHT	S-WALLPRM-	Wall that does not reach to the top of the structure	0	0.35	72	196							X				X		
S-WALL-RBAR	S-WALLRBM-	Wall rebar	0	0.70	5	1							X	X			X	X	
S-WALL-RTWL	S-WALLRTM-	Retaining wall (flood walls, wingwalls, etc.)	0	0.35	72	196								X			X	X	
S-WALL-SHEA	S-WALLSHM-	Shear walls	0	0.35	101	186		X	X										
S-WALL-STUD	S-WALLSTM-	Stud walls	0	0.35	42	182		X	X										
Waterway Specialties																			
S-WWAY-DLPH	S-WWAYDLM-	Dolphins (associated with but not part of bridges, locks and guidewalls)	0	0.35	122	23							X	X			X		
S-WWAY-FEND	S-WWAYFEM-	Fenders	0	0.35	75	220							X	X			X		
S-WWAY-MOOR	S-WWAYMOM-	Mooring cells	0	0.35	142	183							X	X			X		
Details																			
S-DETL-GRPH	S-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V													X
S-DETL-INPD	S-DETLINM-	Inch-pound specific dimensions and notes	0	0.35	1	3													X
S-DETL-METR	S-DETLMEM-	Metric-specific dimensions and notes	0	0.35	3	2													X

NOTES:

* Hidden lines will be drawn using line style 2, weight 0.25

**This model type is for generic details that will be utilized on multiple projects. It is assumed that other details will be referenced from the feature design model:

Discipline: Architectural
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types							
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Floor Plan	Reflected Ceiling Plan	Roof Plan	Equipment Plan	Area Calculations/Occupancy Plan	Elevations	Sections	Details
General Information														
A-ANNO-DIMS	A-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X	X	X	X	X	X
A-ANNO-KEYN	A-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X	X	X	X	X	X
A-ANNO-MASK	A-----MAP-	Text/shape mask for use with photo backgrounds	0	0.18	113	16	X	X	X	X	X	X	X	X
A-ANNO-NOTE	A-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X	X	X
A-ANNO-NPLT	A-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X	X	X	X	X
A-ANNO-PATT	A-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X	X	X	X	X	X
A-ANNO-RDME	A-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X	X	X
A-ANNO-REFR	A-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X	X	X	X	X
A-ANNO-SYMB	A-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X	X	X	X	X	X
A-ANNO-TEXT	A-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X	X	X	X	X	X
Area Information														
A-AREA-IDEN	A-AREAIDM-	Room numbers, tenant identifications, area calculation:	0	0.35	2	4					X			
A-AREA-LINE	A-AREALIM-	Architectural area calculation boundary lines	0	0.50	4	7					X			
A-AREA-OCCP	A-AREAOCM-	Occupant or employee names	0	0.35	2	4					X			
A-AREA-PATT	A-AREAPAM-	Area cross hatching	0	0.18	8	9					X			
Ceiling Information														
A-CLNG-ACCS	A-CLNGACM-	Access panels	0	0.35	6	5		X						
A-CLNG-CTLJ	A-CLNGCJM-	Ceiling control joints	0	0.35	2	4		X						
A-CLNG-GRID	A-CLNGGRM-	Ceiling grid	0	0.25	1	3		X						
A-CLNG-LITE	A-CLNGLIM-	Specialty ceiling lights not shown on the Electrical Lighting Plan	0	0.50	4	7		X						
A-CLNG-OPNG	A-CLNGOPM-	Openings, ceiling/roof penetrations (see also A-FLOOR-OVHD in Floor Plan model file)	0	0.18	8	9		X						
A-CLNG-PATT	A-CLNGPAM-	Ceiling patterns	0	0.18	8	9		X						
A-CLNG-SFFT	A-CLNGSFM-	Soffits	0	0.25	2	4		X						
A-CLNG-SUSP	A-CLNGSUM-	Suspended elements, ceiling mounted specialties (e.g., clocks, fans, etc.)	0	0.18	5	1		X						
A-CLNG-TEES	A-CLNGTEM-	Main tees	0	0.18	5	1		X						
Columns														
A-COLS-ENCL	A-COLSENM-	Column enclosures/fire protector	0	0.50	4	7	X							
Doors														
A-DOOR-FULL	A-DOORFUM-	Full height (to ceiling) door: swing and leaf	0	0.25	3	2	X							
A-DOOR-IDEN	A-DOORIDM-	Door number and symbol, hardware group, etc.	0	0.25	3	2	X							
A-DOOR-PRHT	A-DOORPRM-	Partial height door: swing and leaf	0	0.35	6	5	X							
A-DOOR-SYMB	A-DOORSYM-	Miscellaneous door symbols (e.g., overhead, bifold, pocket, etc.)	0	0.25	1	3	X							
Equipment														
A-EQPM-ACCS	A-EQPMACM-	Equipment access	0	0.35	6	5				X				
A-EQPM-FIXD	A-EQPMFIM-	Fixed equipment	0	0.50	4	7				X				
A-EQPM-IDEN	A-EQPMIDM-	Equipment identification numbers	0	0.35	6	5				X				
A-EQPM-MOVE	A-EQPMOMM-	Moveable equipment	0	0.35	6	5				X				
A-EQPM-OVHD	A-EQPMOVM-	Overhead, ceiling mounted, or suspended equipment	0	0.35	6	5				X				
Floor Information														
A-FLOOR-CASE	A-FLOORCAM-	Casework (manufactured cabinets)	0	0.25	3	2	X							
A-FLOOR-EVTR	A-FLOREVIM-	Elevator cars and equipment	0	0.35	2	4	X							
A-FLOOR-FIXT	A-FLOORFXM-	Plumbing fixtures	0	0.25	201	29	X							
A-FLOOR-HRAL	A-FLOORHRM-	Stair and balcony handrails, guard rails	0	0.25	1	3	X							
A-FLOOR-IDEN	A-FLOORIDM-	Room name, space identification text	0	0.35	3	2	X							
A-FLOOR-LEVL	A-FLOORLEM-	Level changes, shafts, ramps, pits, breaks in construction, and depressions	0	0.35	6	5	X							
A-FLOOR-NUMB	A-FLOORNUM-	Room/space identification number and symbol	0	0.35	3	2	X							

Discipline: Architectural
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types							
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Floor Plan	Reflected Ceiling Plan	Roof Plan	Equipment Plan	Area Calculations/Occupancy Plan	Elevations	Sections	Details
A-FLOR-OTLN	A-FLOROTM-	Floor outline/perimeter/building footprint	0	0.50	4	7	X							
A-FLOR-OTLN-RPRM	A-FLORORM-	Room perimeter shape (interior walls)	0	0.35	2	4	X							
A-FLOR-OVHD	A-FLOROV-	Overhead items (skylights, overhangs, etc.)	2	0.18	8	9	X							
A-FLOR-PATT	A-FLORPAM-	Paving, tile, carpet patterns	0	0.18	8	9	X							
A-FLOR-RAIS	A-FLORRAM-	Access (raised) flooring	0	0.25	3	2	X							
A-FLOR-SIGN	A-FLORSIM-	Signage	0	0.25	1	3	X							
A-FLOR-SPCL	A-FLORSPM-	Architectural specialties (e.g., toilet room accessories, display cases)	0	0.25	3	2	X							
A-FLOR-STRS	A-FLORSTM-	Stair risers/treads, escalators, ladders	0	0.25	1	3	X							
A-FLOR-TPTN	A-FLORTPM-	Toilet partitions	0	0.25	1	3	X							
A-FLOR-WDWK	A-FLORWDM-	Architectural woodwork (field built cabinets and counters)	0	0.25	3	2	X							
Windows														
A-GLAZ-FULL	A-GLAZFUM-	Full height glazed walls and partitions (see A-WALL-CWMG for curtain walls)	0	0.25	1	3	X							
A-GLAZ-IDEN	A-GLAZIDM-	Window number and symbol	0	0.35	3	2	X							
A-GLAZ-PRHT	A-GLAZPRM-	Windows and partial height glazed partitions	0	0.25	1	3	X							
A-GLAZ-SILL	A-GLAZSIM-	Window sills	0	0.18	5	1	X							
Roof Information														
A-ROOF-CRTS	A-ROOFCRM-	Crickets flow arrows flow info	0	0.25	1	3								
A-ROOF-EXPJ	A-ROOFEXM-	Expansion joints	0	0.18	5	1			X					
A-ROOF-GUTR	A-ROOFGUM-	Roof internal gutters	0	0.18	8	9			X					
A-ROOF-HRAL	A-ROOFHRM-	Stair handrails, nosings, guard rails	0	0.18	5	1			X					
A-ROOF-LEVL	A-ROOFLEM-	Level changes	0	0.18	5	1			X					
A-ROOF-OTLN	A-ROOFOTM-	Roof perimeter/edge, roof geometry	0	0.35	6	5			X					
A-ROOF-PATT	A-ROOFPAM-	Roof surface patterns, hatching	0	0.18	8	9			X					
A-ROOF-RFDR	A-ROOFRDM-	Roof drains	0	0.25	1	3			X					
A-ROOF-SPCL	A-ROOFSPM-	Roof specialties, accessories, access hatches, dormers	0	0.25	3	2			X					
A-ROOF-STRS	A-ROOFSTM-	Stair risers/treads, ladders	0	0.18	5	1			X					
A-ROOF-WALK	A-ROOFWAM-	Roof walkways	0	0.25	3	2			X					
A-ROOF-WALL	A-ROOFWLM-	Parapet walls and wall caps	0	0.35	2	4			X					
Walls														
A-WALL-CAVI	A-WALLCAM-	Cavity wall lines	0	0.18	8	9	X							
A-WALL-CNTR	A-WALLCNM-	Wall centerlines	7	0.18	5	1	X							
A-WALL-CWMG	A-WALLCWM-	Curtain wall mullions and glass	0	0.25	1	3	X							
A-WALL-FIRE	A-WALLFIM-	Fire wall designators (patterning)	0	0.35	2	4	X							
A-WALL-FULL-EXTR	A-WALLFEM-	Exterior full height walls	0	0.35	2	4	X							
A-WALL-FULL-INTR	A-WALLFNM-	Interior full height walls	0	0.25	3	2	X							
A-WALL-HEAD	A-WALLHEM-	Door and window headers	0	0.25	1	3	X							
A-WALL-IDEN	A-WALLIDM-	Wall identification/type text or tags	0	0.35	3	2	X							
A-WALL-JAMB	A-WALLJAM-	Door and window jambs	0	0.25	1	3	X							
A-WALL-MOVE	A-WALLMOM-	Moveable walls/partitions	0	0.18	5	1	X							
A-WALL-OPEN-LVRS	A-WALLOLM-	Louvers	0	0.25	1	3	X							
A-WALL-PATT	A-WALLPAM-	Wall insulation, hatching, and fill	INBATT	0.18	8	9	X							
A-WALL-PRHT	A-WALLPRM-	Partial height walls (do not appear on Reflected Ceiling Plan)	0	0.25	1	3	X							
A-WALL-SPCL	A-WALLSPM-	Wall-hung/attached specialties (e.g., fixtures, grab bars (incl. handicap), telephone booths)	0	0.25	1	3	X							
Elevations														
A-ELEV-CASE	A-ELEVCAM-	Wall-mounted casework	0	0.25	3	2						X		
A-ELEV-FIXT	A-ELEV-FIM-	Plumbing fixtures	0	0.35	2	4						X		

Discipline: Architectural
 Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types							
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Floor Plan	Reflected Ceiling Plan	Roof Plan	Equipment Plan	Area Calculations/Occupancy Plan	Elevations	Sections	Details
A-ELEV-FNSH	A-ELEV-FNM-	Finishes, woodwork, trim	0	0.25	3	2						X		
A-ELEV-IDEN	A-ELEV-IDM-	Component identification numbers	0	0.35	2	4						X		
A-ELEV-OTLN	A-ELEV-OTM-	Building outlines	0	0.50	4	7						X		
A-ELEV-PATT	A-ELEV-PAM-	Textures and hatch patterns	0	0.18	8	9						X		
A-ELEV-SIGN	A-ELEV-SIM-	Signage	0	0.25	1	3						X		
Sections														
A-SECT-IDEN	A-SECT-IDM-	Component identification numbers	0	0.35	2	4							X	
A-SECT-MBND	A-SECT-MBM-	Material beyond section cut	0	0.18	5	1							X	
A-SECT-MCUT	A-SECT-MCM-	Material cut by section	V	V	V	V							X	
A-SECT-PATT	A-SECT-PAM-	Textures and hatch patterns	0	0.18	8	9							X	
Detail Information														
A-DETL-GRPH	A-DETL-GRM-	Graphics, gridlines, non-text items	V	V	V	V								X
A-DETL-INPD	A-DETL-INM-	Inch-pound specific dimensions and notes	0	V	V	V								X
A-DETL-METR	A-DETL-MEM-	Metric specific dimensions and notes	0	V	V	V								X

Note: V = Varies, NA = Not Applicable

Discipline: Interiors
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types					
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Furniture Plan	System Furniture Plan	Signage Placement Plan	Floor Patterns	Elevations	Details
General Information												
I-ANNO-DIMS	I-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X	X	X	X
I-ANNO-KEYN	I-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X	X	X	X
I-ANNO-NOTE	I-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X
I-ANNO-NPLT	I-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X	X	X
I-ANNO-PATT	I-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X	X	X	X
I-ANNO-RDME	I-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X
I-ANNO-REFR	I-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X	X	X
I-ANNO-SYMB	I-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X	X	X	X
I-ANNO-TEXT	I-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X	X	X	X
Carpet/Carpet Tile												
I-CRPT-ROLL-ACNT	I-CRPTRAM-	Carpet (roll goods) - accent color	0	V	1	3				X		
I-CRPT-ROLL-FILD	I-CRPTRFM-	Carpet (roll goods) - field color	0	V	60	100				X		
I-CRPT-TILE-ACN1	I-CRPPT1M-	Carpet tile - accent color	0	V	208	69				X		
I-CRPT-TILE-ACN2	I-CRPPT2M-	Carpet tile - accent color	0	V	236	139				X		
I-CRPT-TILE-FILD	I-CRPPTFM-	Carpet tile - field color	0	V	204	37				X		
Equipment												
I-EQPM-ACCS	I-EQPMACM-	Equipment access	2	0.18	8	9	X					
I-EQPM-CHLD	I-EQPMCHM-	Child development (play toys, teaching rugs, play forms)	0	0.35	2	4	X					
I-EQPM-COPY	I-EQPMCOM-	Copiers, fax machines, office equipment	0	0.35	2	4	X					
I-EQPM-FIXD	I-EQPMFIM-	Fixed equipment	0	0.18	5	1	X					
I-EQPM-IDEN	I-EQPMIDM-	Equipment identification numbers	0	0.25	1	3	X					
I-EQPM-MEDI	I-EQPMMEM-	Medical (exam beds, dental chairs, etc.)	0	0.35	2	4	X					
I-EQPM-MOVE	I-EQPMOM-	Moveable equipment	2	0.18	5	1	X					
I-EQPM-OVHD	I-EQPMOVM-	Overhead, ceiling mounted, and suspended equipment	0	0.25	3	2	X					
I-EQPM-STOR	I-EQPMSTM-	Storage equipment	0	0.35	2	4	X					
Signage												
I-FLOR-SIGN	I-FLORSIM-	Signage	0	0.35	6	5			X			
Flooring Items and Materials												
I-FLRG-MATS	I-FLRGMAM-	Entrance mat components and frames	0	V	4	7				X		
I-FLRG-STON	I-FLRGSTM-	Stone flooring	0	V	153	104				X		
I-FLRG-TRAN	I-FLRGTRM-	All floor thresholds and transition moldings	0	V	5	1				X		
I-FLRG-WOOD	I-FLRGWOM-	Wood parquet tile or planks	0	V	22	22				X		
Furnishings												
I-FURN-ACCS	I-FURNACM-	Accessories (vestibule mats, partitions, draperies, clocks, trash cans, lecturns, lamps, etc.)	0	0.25	1	3	X					
I-FURN-ADPC	I-FURNADM-	Automated Data Processing Components	0	0.35	2	4	X					
I-FURN-ARTW	I-FURNARM-	Artwork	0	0.35	2	4	X					
I-FURN-FLOR	I-FURNFLM-	Flooring (carpet, rugs, etc.)	0	0.35	2	4	X					
I-FURN-FREE	I-FURNFRM-	Free-standing furnishings (desks, beds, tables, dressers, credenzas, casegoods)	0	0.35	6	5	X					
I-FURN-GRID	I-FURNGRM-	Planning grid/modular outline	0	0.50	4	7	X					
I-FURN-IDEN	I-FURNIDM-	Furniture code identification	0	0.25	3	2	X					
I-FURN-PLNT	I-FURNPLM-	Plants	0	0.25	3	2	X					
I-FURN-SEAT	I-FURNSEM-	Seating (chairs, sofas, etc.)	0	0.35	2	4	X					
I-FURN-STOR	I-FURNSTM-	File cabinets, high density storage, shelving, storage cabinets	0	0.35	2	4	X					
Monolithic (Poured or Broadcast) Flooring												
I-MONO-SRFL-ACNT	I-MONOSAM-	Seamless resinous flooring - accent color	0	V	203	45				X		
I-MONO-SRFL-FILD	I-MONOSFM-	Seamless resinous flooring - field color	0	V	9	14				X		
I-MONO-TERR-ACN1	I-MONOT1M-	Terrazzo - accent color	0	V	144	199				X		

Discipline: Interiors
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types					
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Furniture Plan	System Furniture Plan	Signage Placement Plan	Floor Patterns	Elevations	Details
I-MONO-TERR-ACN2	I-MONOT2M-	Terrazzo - accent color	0	V	67	156				X		
I-MONO-TERR-FILD	I-MONOTFM-	Terrazzo - field color	0	V	239	163				X		
Resilient Flooring												
I-SHTP-ACNT	I-SHTPACM-	Sheet product (vinyl/rubber/linoleum) - accent color	0	V	190	245				X		
I-SHTP-FILD	I-SHTPFIM-	Sheet product (vinyl/rubber/linoleum) - field color	0	V	241	179				X		
System Furniture												
I-SYST-FURN	I-SYSTFUM-	Furniture	0	0.35	2	4		X				
I-SYST-IDEN	I-SYSTIDM-	Code identification components	0	0.25	1	3		X				
I-SYST-IDPL	I-SYSTIPM-	Code identification panels	0	0.25	1	3		X				
I-SYST-LITE	I-SYSTLIM-	Lighting components	0	0.50	4	7		X				
I-SYST-PATT	I-SYSTPAM-	Patterns	0	0.18	8	9		X				
I-SYST-PNLS	I-SYSTPNM-	Panels	0	0.35	2	4		X				
I-SYST-POWR	I-SYSTPOM-	Power, communication components	0	0.50	4	7		X				
I-SYST-STOR	I-SYSTSTM-	Storage components	0	0.35	2	4		X				
I-SYST-WALL	I-SYSTWAM-	System furniture partition walls	0	0.35	2	4		X				
I-SYST-WKSF	I-SYSTWKM-	Work surface components	0	0.35	2	4		X				
Tile												
I-TILE-CERM-ACNT	I-TILECAM-	Ceramic mosaic tile - accent color	0	V	153	104				X		
I-TILE-CERM-FILD	I-TILECFM-	Ceramic mosaic tile - field color	0	V	124	39				X		
I-TILE-LINO-ACNT	I-TILELAM-	Linoleum tile - accent color	0	V	236	139				X		
I-TILE-LINO-FILD	I-TILELFM-	Linoleum tile - field color	0	V	60	100				X		
I-TILE-PORC-ACN1	I-TILEP1M-	Porcelain tile - accent color	0	V	78	244				X		
I-TILE-PORC-ACN2	I-TILEP2M-	Porcelain tile - accent color	0	V	9	14				X		
I-TILE-PORC-FILD	I-TILEPFM-	Porcelain tile - field color	0	V	128	71				X		
I-TILE-QUAR-ACNT	I-TILEQAM-	Quarry tile - accent color	0	V	2	4				X		
I-TILE-QUAR-FILD	I-TILEQFM-	Quarry tile - field color	0	V	30	86				X		
I-TILE-RUBB-ACNT	I-TILERAM-	Rubber tile - accent color	0	V	209	93				X		
I-TILE-RUBB-FILD	I-TILERFM-	Rubber tile - field color	0	V	20	6				X		
I-TILE-TERR-ACN1	I-TILET1M-	Terrazzo tile - accent color	0	V	144	199				X		
I-TILE-TERR-ACN2	I-TILET2M-	Terrazzo tile - accent color	0	V	67	156				X		
I-TILE-TERR-ACN3	I-TILET3M-	Terrazzo tile - accent color	0	V	221	189				X		
I-TILE-TERR-FILD	I-TILETFM-	Terrazzo tile - field color	0	V	239	163				X		
I-TILE-VNYL-ACN1	I-TILEV1M-	Vinyl or Vinyl composition tile - accent color	0	V	203	45				X		
I-TILE-VNYL-ACN2	I-TILEV2M-	Vinyl or Vinyl composition tile - accent color	0	V	115	48				X		
I-TILE-VNYL-FILD	I-TILEVFM-	Vinyl or Vinyl composition tile - field color	0	V	89	90				X		
Elevations												
I-ELEV-CASE	I-ELEVACM-	Wall mounted casework	0	0.35	2	4					X	
I-ELEV-FIXT	I-ELEVIFM-	Plumbing fixtures	0	0.25	3	2					X	
I-ELEV-FNSH	I-ELEVIFM-	Finishes, woodwork and trim	0	0.35	2	4					X	
I-ELEV-IDEN	I-ELEVIDM-	Component identification numbers	0	0.25	1	3					X	
I-ELEV-PATT	I-ELEVIFM-	Textures and hatch patterns	0	0.18	5	1					X	
I-ELEV-SIGN	I-ELEVIFM-	Signage	0	0.25	1	3					X	
Detail Information												
I-DETL-GRPH	I-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V						X
I-DETL-INPD	I-DETLINM-	Inch-pound specific dimensions and notes	0	V	V	V						X
I-DETL-METR	I-DETLMEM-	Metric specific dimensions and notes	0	V	V	V						X

Note: V = Varies, NA = Not Applicable

Pattern used within each material to differentiate colors shall match the color and level of the material.

Discipline: Fire Protection
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types			
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Life Safety Plan	Fire Suppression Plan	Fire Alarm/Detection Plan	Details
General Information										
F-ANNO-DIMS	F-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X	X
F-ANNO-KEYN	F-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X	X
F-ANNO-NOTE	F-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X
F-ANNO-NPLT	F-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X
F-ANNO-PATT	F-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X	X
F-ANNO-RDME	F-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X
F-ANNO-REFR	F-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X
F-ANNO-SYMB	F-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X	X
F-ANNO-TEXT	F-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X	X
Aqueous Film Forming Foam System										
F-AFFF-EQPM	F-AFFFEQPM-	Equipment	0	0.35	82	18		X		
F-AFFF-PIPE	F-AFFFPIM-	Piping	0	0.35	82	18		X		
CO2 Sprinkler System										
F-CO2S-EQPM	F-CO2SEQM-	Equipment	0	0.35	6	5		X		
F-CO2S-PIPE	F-CO2SPIM-	CO2 piping or CO2 discharge nozzle piping	0	0.35	6	5		X		
Control Panels										
F-CTRL-PANL	F-CTRLPAM-	Control panels	0	0.50	23	46	X		X	
Floor Information										
F-FLOR-IDEN	F-FLORIDM-	Room name, space identification text (copied from Architectural - Floor Plan model)	0	0.25	3	2	X	X	X	
F-FLOR-NUMB	F-FLORNUM-	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)	0	0.25	3	2	X	X	X	
Halon System										
F-HALN-EQPM	F-HALNEQM-	Equipment	0	0.35	22	22		X		
F-HALN-PIPE	F-HALNPIM-	Piping	0	0.35	22	22		X		
Inert Gas										
F-IGAS-EQPM	F-IGASEQM-	Equipment	0	0.35	162	33		X		
F-IGAS-PIPE	F-IGASPIM-	Piping	0	0.35	162	33		X		
Means of Egress Lighting										
F-LITE-EMER	F-LITEEMM-	Emergency fixtures	0	0.50	23	46	X			
F-LITE-EXIT	F-LITEEXM-	Exit fixtures	0	0.50	203	45	X			
Egress Requirements										
F-LSFT-EGRE	F-LSFTEGM-	Egress requirements designator	0	0.35	6	5	X			
F-LSFT-OCCP	F-LSFTOCM-	Occupant load for egress capacity	0	0.35	6	5	X			
F-LSFT-TRVL	F-LSFTTRM-	Maximum travel distances	0	0.35	6	5	X			
Fire Protection/Suppression/Alarm/Detection Equipment										
F-PROT-ALRM-INDC	F-PROTAIM-	Indicating appliances	0	0.50	83	42			X	
F-PROT-ALRM-MANL	F-PROTAMM-	Manual fire alarm pull stations	0	0.50	23	46	X		X	
F-PROT-EXTN	F-PROTEXM-	Fire extinguishers	0	0.35	2	4	X			
F-PROT-EXTN-CABN	F-PROTECM-	Fire extinguisher cabinets	0	0.35	2	4	X			
F-PROT-HOSE	F-PROTHOM-	Fire hoses	0	0.35	2	4	X			
F-PROT-HOSE-CABN	F-PROTHCM-	Fire hose cabinets	0	0.35	2	4	X			
F-PROT-SMOK	F-PROTSMM-	Smoke detectors and heat sensors	0	0.50	23	46			X	
Fire Ratings										
F-RATE-DOOR	F-RATEDOM-	Door fire ratings	0	0.50	4	7	X			
F-RATE-WALL	F-RATEWAM-	Wall fire ratings	0	0.50	4	7	X			
Smoke/Pressurization Control										

Discipline: Fire Protection

Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types			
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Life Safety Plan	Fire Suppression Plan	Fire Alarm/Detection Plan	Details
F-SMOK-DMPR	F-SMOKDMM-	Dampers	0	0.35	22	22	X		X	
Sprinkler System										
F-SPRN-CLHD	F-SPRNCLM-	Sprinkler - ceiling heads	0	0.35	122	23		X		
F-SPRN-OTHD	F-SPRNOTM-	Sprinkler - other heads	0	0.35	122	23		X		
F-SPRN-PIPE	F-SPRNPIM-	Sprinkler piping	SPRINK	0.50	4	7		X		
F-SPRN-STAN	F-SPRNSTM-	Standpipe system	0	0.35	122	23		X		
Water Supply and Distribution										
F-WATR-CONN	F-WATRCONM-	Fire department connections	0	0.35	122	23		X		
F-WATR-HYDR	F-WATRHYM-	Hydrants	0	0.35	122	23		X		
F-WATR-PIPE	F-WATRPIM-	Piping	FIRE	0.50	4	7		X		
F-WATR-PUMP	F-WATRPUM-	Fire pumps	0	0.35	122	23		X		
Detail Information										
F-DETL-GRPH	F-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V				X
F-DETL-INPD	F-DETLINM-	Inch-pound specific dimensions and notes	0	V	V	V				X
F-DETL-METR	F-DETLMEM-	Metric specific dimensions and notes	0	V	V	V				X

Note: V = Varies, NA = Not Applicable

Discipline: Plumbing
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types		
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Piping Plan	Riser Diagrams	Details
General Information									
P-ANNO-DIMS	P-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X
P-ANNO-KEYN	P-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X
P-ANNO-NOTE	P-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X
P-ANNO-NPLT	P-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X
P-ANNO-PATT	P-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X
P-ANNO-RDME	P-----RDP-	Read-me information	0	0.18	5	1	X	X	X
P-ANNO-REFR	P-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X
P-ANNO-SYMB	P-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X
P-ANNO-TEXT	P-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X
Domestic Water System									
P-DOMW-CPIP	P-DOMWCPM-	Cold water piping	CLDWTR	0.50	123	31	X		
P-DOMW-EQPM	P-DOMWEQM-	Hot and cold water equipment	0	0.70	7	0	X		
P-DOMW-EQPM-ACCS	P-DOMWEAM-	Equipment access doors	0	0.35	82	18	X		
P-DOMW-FPIP	P-DOMWFPM-	Domestic filtered water piping	0	0.50	83	42	X		
P-DOMW-HPIP	P-DOMWHPM-	Hot water piping	HWTR, HWTRR	0.50	113	16	X		
P-DOMW-RISR	P-DOMWRIM-	Hot and cold water risers	2	0.25	3	2	X		
Floor Information									
P-FLOR-IDEN	P-FLORIDM-	Room name, space identification text (copied from Architectural - Floor Plan model)	0	0.25	3	2	X		
P-FLOR-NUMB	P-FLORNUM-	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)	0	0.25	3	2	X		
Laboratory Gas Piping									
P-LGAS-EQPM	P-LGASEQM-	Equipment	0	0.70	24	38	X		
P-LGAS-PIPE	P-LGASPIM-	Piping	OXYGEN, NITROG, HELIUM, HYDRGN, ACIDWS,	0.50	23	46	X		
Medical/Dental Gas Piping									
P-MDGS-EQPM	P-MDGSEQM-	Equipment	0	0.70	24	38	X		
P-MDGS-NITG	P-MDGSNIM-	Nitrogen piping	NITROG	0.50	23	46	X		
P-MDGS-NOXG	P-MDGSNOM-	Nitrous oxide piping	NITOXI	0.50	23	46	X		
P-MDGS-OXYG	P-MDGSOXM-	Pure O2 piping	OXYGEN	0.50	23	46	X		
P-MDGS-SAIR	P-MDGSSAM-	Scavenge air	0	0.50	23	46	X		
P-MDGS-VACU	P-MDGSVAM-	Medical vacuum piping	VACAIR	0.50	23	46	X		
Penetrations									
P-PENE-FLOR	P-PENEFLM-	Floor penetrations	2	0.25	3	2	X		
P-PENE-ROOF	P-PENEROM-	Roof penetrations	2	0.25	1	3	X		
P-PENE-WALL	P-PENEWAM-	Wall penetrations	2	0.25	2	4	X		
Sanitary Drainage System									
P-SANR-COND	P-SANRCOM-	Condensate piping	0	0.50	83	42	X		
P-SANR-EQPM	P-SANREQM-	Equipment (e.g., sand/oil/water separators)	0	0.70	204	37	X		
P-SANR-FLDR	P-SANRFLM-	Floor drains, sinks, and cleanouts	0	0.35	6	5	X		
P-SANR-PIPE	P-SANRPIM-	Piping	SSWAF	0.50	203	45	X		
P-SANR-RISR	P-SANRRIM-	Sanitary risers	2	0.50	203	45	X		

Discipline: Plumbing
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types		
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Piping Plan	Riser Diagrams	Details
P-SANR-VENT	P-SANRVEM-	Vent piping	VENT	0.50	203	45	X		
Storm Drainage System									
P-STRM-PIPE	P-STRMPIM-	Storm drain piping	STRAF	0.50	163	41	X		
P-STRM-RFDR	P-STRMRFM-	Roof drains	0, ROOFDN	0.50	163	41	X		
P-STRM-RISR	P-STRMRIM-	Storm drain risers	2	0.50	163	41	X		
Diagram Information									
P-DIAG-GRPH	P-DIAGGRM-	Graphics, gridlines, non-text items	V	V	V	V		X	
P-DIAG-INPD	P-DIAGINM-	Inch-pound specific dimensions and notes	0	V	V	V		X	
P-DIAG-METR	P-DIAGMEM-	Metric specific dimensions and notes	0	V	V	V		X	
Detail Information									
P-DETL-GRPH	P-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V			X
P-DETL-INPD	P-DETLINM-	Inch-pound specific dimensions and notes	0	V	V	V			X
P-DETL-METR	P-DETLMEM-	Metric specific dimensions and notes	0	V	V	V			X

Note: V = Varies, NA = Not Applicable

Discipline: Mechanical
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types									
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	HVAC Plan	Specialty Piping and Equipment	Hydraulic Systems	HTCW Utilities Plan	Material Handling	Machine Design	Control Diagrams	Elevations	Sections	Details
General Information																
M-ANNO-DIMS	M-----DIP-	Witness/extension lines, dimension terminators, dimension text, weld symbol:	0	V	V	V	X	X	X	X	X	X	X	X	X	X
M-ANNO-KEYN	M-----KEP-	Reference keynotes with associated leaders	0	V	V	V	X	X	X	X	X	X	X	X	X	X
M-ANNO-MASK	M-----MAP-	Text/shape mask for use with photo backgrounds	0	0.18	113	16	X	X	X	X	X	X	X	X	X	X
M-ANNO-NOTE	M-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X	X	X	X	X
M-ANNO-NPLT	M-----NPP-	Non-plotting graphic information (e.g., clearances and working space information)	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X
M-ANNO-PATT	M-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X	X	X	X	X	X	X	X
M-ANNO-RDME	M-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X	X	X	X	X
M-ANNO-REFR	M-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X	X	X	X	X	X	X
M-ANNO-SYMB	M-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X	X	X	X	X	X	X	X
M-ANNO-TEXT	M-----TEP-	Miscellaneous text and callouts with associated leader:	0	V	V	V	X	X	X	X	X	X	X	X	X	X
Industrial Waste Piping																
M-ACID-EQPM	M-ACIDEQM-	Acid, alkaline, and oil waste equipment	0	0.35	80	11		X								
M-ACID-PIPE	M-ACIDPIP-	Acid, alkaline, and oil waste piping	ACIDWS, IWASTE	0.50	80	11		X								
M-ACID-VENT	M-ACIDVEM-	Acid, alkaline, and oil waste vent piping	2	0.50	80	11		X								
Anti-Freeze																
M-AFRZ-EQPM	M-AFRZEQM-	Anti-freeze equipment	0	0.35	82	18		X	X							
M-AFRZ-SUPP-PIPE	M-AFRZSPM-	Anti-freeze supply piping	0	0.50	82	18		X	X							
M-AFRZ-WAST-PIPE	M-AFRZWPM-	Anti-freeze waste piping	0	0.50	82	18		X	X							
Brine System																
M-BRIN-EQPM	M-BRINEQM-	Brine system equipment	0	0.35	123	31		X								
M-BRIN-RETN-PIPE	M-BRINRPM-	Brine system return piping	BRINER	0.50	123	31		X								
M-BRIN-SUPP-PIPE	M-BRINSPM-	Brine system supply piping	BRINES	0.50	123	31		X								
Chemical Treatment System																
M-CHEM-EQPM	M-CHEMEQM-	Chemical treatment system equipment	0	0.35	123	31	X									
M-CHEM-RETN-PIPE	M-CHEMRPM-	Chemical treatment system return piping	0	0.50	123	31	X									
M-CHEM-SUPP-PIPE	M-CHEMSPM-	Chemical treatment system supply piping	0	0.50	123	31	X									
Compressed Air																
M-CMPA-EQPM	M-CMPAEQM-	Equipment	0	0.70	84	34		X								
M-CMPA-PIPE	M-CMPAPIM-	Piping	CMPAIR	0.50	83	42		X								
Condenser Water System																
M-CNDW-EQPM	M-CNDWEQM-	Condenser water system equipment	0	0.35	83	42	X									
M-CNDW-RETN-PIPE	M-CNDWRPM-	Condenser water system return piping	CONDWR	0.50	83	42	X									
M-CNDW-SUPP-PIPE	M-CNDWSPM-	Condenser water system supply piping	CONDWS	0.50	83	42	X									
Controls																
M-CONT-THER	M-CONTTHM-	Thermostats	0	0.25	1	3	X		X							
M-CONT-WIRE	M-CONTWIM-	Low voltage wiring	1, 2	0.25	1	3	X									
Chilled Water System																
M-CWTR-CNDS-PIPE	M-CWTRCPM-	Condensate piping	CDRNAF	0.50	83	42	X									
M-CWTR-EQPM	M-CWTRREQM-	Chilled water equipment	0	0.35	163	41	X									
M-CWTR-RETN-PIPE	M-CWTRRPM-	Chilled water return piping	CWR	0.50	163	41	X									
M-CWTR-SUPP-PIPE	M-CWTRSPM-	Chilled water supply piping	CWS	0.50	163	41	X									
Culvert Valves																
M-CVAL-BASE	M-CVALBAM-	Culvert valve machinery base	0	0.35	2	4			X							
M-CVAL-BEAM	M-CVALBEM-	Culvert valve beams	0	0.35	2	4			X							

Discipline: Mechanical
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types									
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	HVAC Plan	Specialty Piping and Equipment	Hydraulic Systems	HTCW Utilities Plan	Material Handling	Machine Design	Control Diagrams	Elevations	Sections	Details
M-CVAL-CYLD	M-CVALCYM-	Culvert valve machinery cylinder (outline not for details)	0	0.35	80	11			X							
M-CVAL-SEAL	M-CVALSEM-	Culvert valve seals	0	0.35	3	2			X							
M-CVAL-SKIN	M-CVALSKM-	Culvert valve skin plate	0	0.35	1	3			X							
M-CVAL-STIF	M-CVALSTM-	Stiffener plates, angles, etc	0	0.35	4	7			X							
M-CVAL-TRUN	M-CVALTRM-	Culvert valve trunnion beam	0	0.35	6	5			X							
Dual Temperature System																
M-DUAL-EQPM	M-DUALEQM-	Dual temperature system equipment	0	0.35	23	46	X									
M-DUAL-RETN-PIPE	M-DUALRPM-	Dual temperature system return piping	DTR	0.50	23	46	X									
M-DUAL-SUPP-PIPE	M-DUALSPM-	Dual temperature system supply piping	DTS	0.50	23	46	X									
Dust and Fume Collection Systems																
M-DUST-DUCT	M-DUSTDUM-	Dust and fume ductwork	0	0.50	203	45	X									
M-DUST-DUCT-CNTR	M-DUSTDCM-	Dust and fume ductwork centerlines	7	0.18	5	1	X									
M-DUST-EQPM	M-DUSTEQM-	Dust and fume equipment	0	0.35	203	45	X									
M-DUST-GRIL	M-DUSTGRM-	Dust and fume grilles	0	0.35	203	45	X									
Exhaust Air System																
M-EXHS-DUCT	M-EXHSDUM-	Exhaust ductwork	V	0.50	83	42	X		X							
M-EXHS-DUCT-CNTR	M-EXHSDCM-	Exhaust ductwork centerlines	7	0.18	5	1	X		X							
M-EXHS-EQPM	M-EXHSEQM-	Exhaust equipment	0	0.35	83	42	X		X							
M-EXHS-GRIL	M-EXHSGRM-	Grilles	0	0.35	83	42	X		X							
Floor Information																
M-FLOR-IDEN	M-FLORIDM-	Room name, space identification text (copied from Architectural - Floor Plan model)	0	0.25	3	2	X	X	X							
M-FLOR-NUMB	M-FLORNUM-	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)	0	0.25	3	2	X	X	X							
Fuel Systems																
M-FUEL-DIES-RETN	M-FUELDRM-	Diesel fuel return piping	0	0.50	23	46			X							
M-FUEL-DIES-SUPP	M-FUELDSM-	Diesel fuel supply piping	0	0.50	23	46			X							
M-FUEL-DIES-VENT	M-FUELDM-	Diesel fuel vent piping	0	0.50	23	46			X							
M-FUEL-EQPM	M-FUELEQM-	Equipment	0	0.70	24	38		X	X							
M-FUEL-GGEP-LQPG	M-FUELGLM-	Liquid petroleum gas	LIQPET	0.50	23	46		X	X							
M-FUEL-OGEP-RETN	P-FUELORM-	Return oil piping	FUELOR	0.50	23	46		X	X							
M-FUEL-OGEP-SUPP	P-FUELOSM-	Supply oil piping	FUELOS	0.50	23	46		X	X							
M-FUEL-OGEP-VENT	M-FUELOVM-	Oil piping vent	FUELOV	0.50	23	46		X								
Glycol System																
M-GLYC-EQPM	M-GLYCEQM-	Glycol system equipment	0	0.35	82	18	X	X								
M-GLYC-RETN-PIPE	M-GLYCRPM-	Glycol system return piping	GHR	0.50	82	18	X	X								
M-GLYC-SUPP-PIPE	M-GLYCSPM-	Glycol system supply piping	GHS	0.50	82	18	X	X								
Geothermal Heat Pump System																
M-GTHP-EQPM	M-GTHPEQM-	Geothermal heat pump system equipment	0	0.35	203	45	X			X						
M-GTHP-RETN-PIPE	M-GTHPRPM-	Geothermal heat pump system return piping	0	0.50	203	45	X			X						
M-GTHP-SUPP-PIPE	M-GTHPSPM-	Geothermal heat pump system supply piping	0	0.50	203	45	X			X						
Hydraulic Control Systems (Hydraulic Fluid)																
M-HCSF-CYLD	M-HCSFCYM-	Hydraulic cylinders	0	0.35	7	0			X							
M-HCSF-CYLD-PSTN	M-HCSFCPM-	Hydraulic cylinder pistons	0	0.35	5	1			X							
M-HCSF-CYLD-WEAR	M-HCSFCWM-	Wear rings	0	0.35	3	2			X							
M-HCSF-EQPM	M-HCSFEQM-	Hydraulic system equipment	0	0.35	200	13		X	X							
M-HCSF-FTTG	M-HCSFFTM-	Hose and pipe fittings	0	0.35	4	7			X							

Discipline: Mechanical
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types									
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	HVAC Plan	Specialty Piping and Equipment	Hydraulic Systems	HTCW Utilities Plan	Material Handling	Machine Design	Control Diagrams	Elevations	Sections	Details
M-HCSF-HOSE	M-HCSFHOM	Hydraulic hoses	0	0.35	4	7			X							
M-HCSF-MOTR	M-HCSFMOM	Hydraulic motors and actuators	0	0.35	7	0			X							
M-HCSF-OTLN	M-HCSFOTM	Outlines of machinery, etc. in the vicinity of the hydraulic component	0	0.35	80	11			X							
M-HCSF-PUMP	M-HCSFPUM	Hydraulic pumps and pump motors	0	0.35	7	0			X							
M-HCSF-RETN-PIPE	M-HCSFRPM	Hydraulic system return piping	0	0.50	120	12		X	X							
M-HCSF-ROOM	M-HCSFROM	Floor, walls, etc. that hydraulic system attaches to	0	0.35	5	1			X							
M-HCSF-SCHM-MISC	M-HCSFSMM	Miscellaneous schematic figures (i.e., common location lines)	0	0.35	6	5			X							
M-HCSF-SPRT	M-HCSFSPM	Pipe supports, hangers, etc.	0	0.35	20	6			X							
M-HCSF-SUPP-PIPE	M-HCSFSPM	Hydraulic system supply piping	0	0.50	200	13		X	X							
M-HCSF-VALV	M-HCSFVLM	Hydraulic valves	0	0.35	6	5			X							
M-HCSF-VALV-CONT	M-HCSFVCM	Hydraulic directional control valves	0	0.35	6	5			X							
M-HCSF-VALV-FLOW	M-HCSFVFM	Flow control valves, check valves, etc	0	0.35	6	5			X							
M-HCSF-VALV-PRES	M-HCSFVPM	Pressure control valves: relief valves, counterbalance valves, etc	0	0.35	6	5			X							
M-HCSF-VALV-SOFF	M-HCSFVSM	Hydraulic shutoff type valves (ball, gate, etc.)	0	0.35	6	5			X							
Hydraulic Control Systems (Water)																
M-HCSW-DEVC	M-HCSWDEM	Stilling wells, rigid anchors, anchor guides, rectifiers, reducers, markers, meters, regulators, tanks, and valves	0	0.35	6	5			X							
M-HCSW-DEVC-IDEN	M-HCSWDIM	Device identifiers	0	0.25	6	5			X							
M-HCSW-EQPM-ACCS	M-HCSWEAM	Equipment access doors	0	0.25	3	2			X							
M-HCSW-PUMP	M-HCSWPUM	Pump station equipment	0	0.35	6	5			X							
M-HCSW-PUMP-FLOW	M-HCSWPFM	Flow direction arrows	0	0.25	3	2			X							
M-HCSW-PUMP-FTTG	M-HCSWPTM	Caps and flanges	0	0.35	6	5			X							
M-HCSW-PUMP-IDEN	M-HCSWPIM	Pump identifier tags, symbol modifiers, and text	0	0.25	2	4			X							
M-HCSW-PUMP-PIPE	M-HCSWPPM	Pump piping (includes fittings and valves)	0	0.50	163	41			X							
High Temperature/Chilled Water System																
M-HTCW-ABND-PIPE	M-HTCWAPM	Abandoned piping	2	0.25	1	3	X			X						
M-HTCW-CWTR-MAIN	M-HTCWCMM	Main chilled water piping	0	0.35	163	41	X			X						
M-HTCW-CWTR-PLNT	M-HTCWPCM	Chilled water plant	0	0.35	163	41	X			X						
M-HTCW-CWTR-SERV	M-HTCWCSM	Chilled water service piping	0	0.25	163	41	X		X	X						
M-HTCW-DEVC	M-HTCWDEM	Rigid anchors, anchor guides, rectifiers, reducers, markers, meters, pumps, regulators, tanks, and valves	0	0.35	6	5	X			X						
M-HTCW-FLOW	M-HTCWFLM	Flow direction arrows	0	0.25	3	2	X			X						
M-HTCW-FTTG	M-HTCWFTM	Caps and flanges	0	0.35	6	5	X		X	X						
M-HTCW-HWTR-MAIN	M-HTCWHMM	Main high temperature piping	0	0.35	113	16	X			X						
M-HTCW-HWTR-PLNT	M-HTCWPHM	High temperature water plant	0	0.35	113	16	X			X						
M-HTCW-HWTR-SERV	M-HTCWHSM	High temperature service piping	0	0.25	113	16	X			X						
M-HTCW-IDEN	M-HTCWIDM	Identifier tags, symbol modifiers, and text	0	0.35	2	4	X			X						
M-HTCW-JBOX	M-HTCWJBM	Junction boxes, manholes, handholes, test boxes	0	0.25	1	3	X			X						
M-HTCW-LWTR-MAIN	M-HTCWLMM	Main low temperature piping	0	0.35	1	3	X			X						
M-HTCW-LWTR-SERV	M-HTCWLSM	Low temperature service piping	0	0.25	1	3	X		X	X						
M-HTCW-PITS	M-HTCWPTM	Valve pits/vaults, steam pits	0	0.25	3	2	X			X						
M-HTCW-PLNT-IDEN	M-HTCWPIM	Water plant identifier tags, symbol modifiers, and text	0	0.35	2	4	X			X						
M-HTCW-RETN-PIPE	M-HTCWRPM	Return for all HTCW lines	0	0.18	5	1	X			X						
M-HTCW-STEM-MAIN	M-HTCWSMM	Main steam piping	0	0.35	113	16	X			X						
M-HTCW-STEM-SERV	M-HTCWSSM	Steam service piping	0	0.25	113	16	X		X	X						
M-HTCW-STNS-IDEN	M-HTCWSIM	Pump station identifier tags, symbol modifiers, and text	0	0.35	6	5	X			X						

Discipline: Mechanical
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types									
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	HVAC Plan	Specialty Piping and Equipment	Hydraulic Systems	HTCW Utilities Plan	Material Handling	Machine Design	Control Diagrams	Elevations	Sections	Details
M-HTCW-STNS-PUMP	M-HTCWSPM-	Pump stations	0	0.35	6	5	X			X						
HVAC System																
M-HVAC-ACCS	M-HVACACM-	Equipment access doors	0, 1, 2	0.25	3	2	X		X							
M-HVAC-CDFF	M-HVACCDM-	Ceiling diffusers, registers, and grilles	0	0.35	20	6	X		X							
M-HVAC-DMPR	M-HVACDMM-	Fire, smoke, volume dampers	0	0.25	1	3	X		X							
M-HVAC-EQPM	M-HVACEQM-	Equipment (non-powered)	0	0.35	2	4	X		X							
M-HVAC-EQPM-EFAN	M-HVACEFM-	Equipment with electric fans or motors	0	0.35	2	4	X		X							
M-HVAC-EQPM-EPIP	M-HVACEPM-	Equipment with piping and electricity	0	0.35	2	4	X		X							
M-HVAC-EQPM-FLOR	M-HVACELM-	Equipment - floor mounted	0	0.35	2	4	X		X							
M-HVAC-EQPM-SUSP	M-HVACESM-	Equipment - suspended	0	0.35	2	4	X		X							
M-HVAC-FDFF	M-HVACFDM-	Floor diffusers, registers, and grilles	0	0.35	162	33	X		X							
M-HVAC-IDEN	M-HVACIDM-	Duct sizes and pressure classes	0	0.35	6	5	X		X							
M-HVAC-RDFF	M-HVACRDM-	Return air diffusers	0	0.35	23	46	X		X							
M-HVAC-RETN	M-HVACREM-	Return ductwork	V	0.50	23	46	X		X							
M-HVAC-RETN-CNTR	M-HVACRCM-	Return ductwork centerlines	7	0.18	5	1	X		X							
M-HVAC-ROOF	M-HVACROM-	Roof mounted HVAC equipment	0	0.35	2	4	X		X							
M-HVAC-SUPP	M-HVACSUM-	Supply ductwork	V	0.50	4	7	X		X							
M-HVAC-SUPP-CNTR	M-HVACSCM-	Supply ductwork centerlines	7	0.18	5	1	X		X							
M-HVAC-SUPP-HDUC	M-HVACSHM-	Supply ductwork - high pressure	V	0.50	4	7	X		X							
M-HVAC-SUPP-LDUC	M-HVACSLM-	Supply ductwork - low pressure	V	0.50	4	7	X		X							
M-HVAC-TAGS	M-HVACTAM-	Diffuser/register/grille tags and air flow arrows	0	0.35	6	5	X		X							
M-HVAC-WDFF	M-HVACWDM-	Wall diffusers, registers, and grilles	0	0.35	2	4	X		X							
Hot Water Heating System																
M-HWTR-EQPM	M-HWTREQM-	Hot water heating system equipment	0	0.35	113	16	X		X							
M-HWTR-RETN-PIPE	M-HWTRRPM-	Hot water heating system return piping	HWR	0.50	113	16	X		X							
M-HWTR-SUPP-PIPE	M-HWTRSPM-	Hot water heating system supply piping	HWS	0.50	113	16	X		X							
Insulating (Transformer) Oil System																
M-INSL-EQPM	M-INSLEQM-	Insulating oil equipment	0	0.35	200	13		X								
M-INSL-RETN-PIPE	M-INSLRPM-	Insulating oil return piping	0	0.50	200	13		X								
M-INSL-SUPP-PIPE	M-INSLSPM-	Insulating oil supply piping	0	0.50	200	13		X								
Lubrication Oil																
M-LUBE-EQPM	M-LUBEEQM-	Lubrication oil equipment	0	0.35	200	13		X	X							
M-LUBE-RETN-PIPE	M-LUBERPM-	Lubrication oil return piping	0	0.50	200	13		X	X							
M-LUBE-SUPP-PIPE	M-LUBESPM-	Lubrication oil supply piping	0	0.50	200	13		X	X							
Machine Design																
M-MACH-AXLE	M-MACHAXM-	Shafts and axles	0	0.35	2	4			X			X				
M-MACH-BASE	M-MACHBEM-	Machinery bases	0	0.35	2	4			X			X				
M-MACH-BEAR	M-MACHBRM-	Bearings and couplings	0	0.35	2	4			X			X				
M-MACH-BELT	M-MACHBLM-	Wire rope, chains, and belts	0	0.35	22	22			X			X				
M-MACH-BSHG	M-MACHBSM-	Bushings, wear plates, shims, and spacers	0	0.35	2	4			X			X				
M-MACH-CLEV	M-MACHCLM-	Clevises	0	0.35	22	22			X			X				
M-MACH-COMP	M-MACHCOM-	Miscellaneous machinery parts and components	0	0.35	2	4			X			X				
M-MACH-COVR	M-MACHCVM-	Machinery covers, cover plates, and guarding	0	0.35	4	7			X			X				
M-MACH-FSTN	M-MACHFSM-	Fasteners, nuts, and bolts	0	0.35	2	4			X			X				
M-MACH-GEAR	M-MACHGEM-	Gears	0	0.35	6	5			X			X				
M-MACH-KEYS	M-MACHKEM-	Keys and keeper plates	0	0.35	22	22			X			X				

Discipline: Mechanical
Model File Layers/Levels

Level/Layer Naming			Graphic Defaults				Model File Types									
AIA Format	ISO Format	Level/Layer Description	Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	HVAC Plan	Specialty Piping and Equipment	Hydraulic Systems	HTCW Utilities Plan	Material Handling	Machine Design	Control Diagrams	Elevations	Sections	Details
M-MACH-LROT	M-MACHLRM-	Large rotating machinery (turbine and pump outlines)	0	0.35	6	5			X			X				
M-MACH-MOTR	M-MACHMOM-	Machinery motors	0	0.35	6	5			X			X				
M-MACH-PINS	M-MACHPIM-	Pins	0	0.35	22	22			X			X				
M-MACH-PULL	M-MACHPUM-	Pulleys, drums, and sheaves	0	0.35	22	22			X			X				
M-MACH-RAIL	M-MACHRAM-	Rails (e.g., crane rails, rail hoots, splice plates, etc.)	0	0.35	22	22			X			X				
M-MACH-ROLL	M-MACHROM-	Rollers and wheels	0	0.35	22	22			X			X				
M-MACH-ROLL-TRAK	M-MACHRTM-	Roller tracks	0	0.35	22	22			X			X				
M-MACH-SEAL	M-MACHSEM-	Seals	0	0.35	22	22			X			X				
M-MACH-SHOE	M-MACHSHM-	Sliding shoes, skids, etc.	0	0.35	22	22			X			X				
M-MACH-SPPT	M-MACHSPM-	Support brackets	0	0.35	2	4			X			X				
M-MACH-SPRG	M-MACHSRM-	Springs	0	0.35	22	22			X			X				
Mixed Air System																
M-MAIR-DUCT	M-MAIRDUM-	Mixed air ductwork	0	0.50	7	0	X									
M-MAIR-DUCT-CNTR	M-MAIRDCM-	Mixed air ductwork centerlines	7	0.18	5	1	X									
M-MAIR-EQPM	M-MAIREQM-	Mixed air equipment	0	0.35	7	0	X									
Material Handling Equipment																
M-MATL-CRAN	M-MATLCRM-	Cranes	0	0.35	2	4			X		X					
M-MATL-CRAN-BOOM	M-MATLCBM-	Crane, boom	0	0.35	2	4			X		X					
M-MATL-HOIS	M-MATLHOM-	Hoists	0	0.35	2	4			X		X					
M-MATL-HOOK	M-MATLHKM-	Hooks, eyes, and other end attachment	0	0.35	2	4			X		X					
M-MATL-LIFT	M-MATLLIM-	Miscellaneous lifting equipment	0	0.35	6	5			X		X					
M-MATL-WIRE	M-MATLWIM-	Wire rope, chains, and other hoisting medium	0	0.35	6	5			X		X					
Miter Gates																
M-MITR-BASE	M-MITRBAM-	Miter gate machinery base	0	0.35	2	4			X							
M-MITR-CLEV	M-MITRCLM-	Clevises	0	0.35	22	22			X							
M-MITR-CRNG	M-MITRCRM-	Cardanic ring	0	0.35	3	2			X							
M-MITR-CYLD	M-MITRCYM-	Miter gate machinery cylinder (outline not for details)	0	0.35	80	11			X							
M-MITR-TRUN	M-MITRTRM-	Miter gate machinery trunnion	0	0.35	1	3			X							
Makeup Air System																
M-MKUP-DUCT	M-MKUPDUM-	Makeup air ductwork	0	0.50	2	4	X									
M-MKUP-DUCT-CNTR	M-MKUPDCM-	Makeup air ductwork centerlines	7	0.18	5	1	X									
M-MKUP-EQPM	M-MKUPEQM-	Makeup air equipment	0	0.35	2	4	X									
M-MKUP-GRIL	M-MKUPGRM-	Makeup air grilles	0	0.35	2	4	X									
Natural Gas System																
M-NGAS-EQPM	M-NGASEQM-	Natural gas equipment	0	0.35	6	5		X	X							
M-NGAS-PIPE	M-NGASPIM-	Natural gas piping	NTGASN	0.35	6	5		X	X							
Penetrations																
M-PENE-FLOR	M-PENEFLM-	Floor penetrations	2	0.25	3	2	X	X	X							
M-PENE-ROOF	M-PENEROM-	Roof penetrations	2	0.25	1	3	X	X	X							
M-PENE-WALL	M-PENEWAM-	Wall penetrations	2	0.25	2	4	X	X	X							
Process Piping																
M-PROC-EQPM	M-PROCEQM-	Process equipment	0	0.35	120	12		X								
M-PROC-RETN-PIPE	M-PROCRPM-	Process return piping	0	0.50	120	12		X								
M-PROC-SUPP-PIPE	M-PROCSPM-	Process supply piping	0	0.50	120	12		X								
Relief Air System																
M-RAIR-DUCT	M-RAIRDUM-	Relief air ductwork	0	0.50	1	3	X									

Discipline: Mechanical
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types									
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	HVAC Plan	Specialty Piping and Equipment	Hydraulic Systems	HTCW Utilities Plan	Material Handling	Machine Design	Control Diagrams	Elevations	Sections	Details
M-RAIR-DUCT-CNTR	M-RAIRDCM-	Relief air ductwork centerlines	7	0.18	5	1	X									
M-RAIR-EQPM	M-RAIREQM-	Relief air equipment	0	0.35	1	3	X									
M-RAIR-GRIL	M-RAIRGRM-	Relief air grilles	0	0.35	1	3	X									
Energy Recovery System																
M-RCOV-EQPM	M-RCOVEQM-	Energy recovery system equipment	0	0.35	203	45	X									
M-RCOV-RETN-PIPE	M-RCOVRPM-	Energy recovery system return piping	0	0.50	203	45	X									
M-RCOV-SUPP-PIPE	M-RCOVSPM-	Energy recovery system supply piping	0	0.50	203	45	X									
Refrigeration System																
M-REFG-DISC-PIPE	M-REFGDPM-	Refrigeration system discharge	REFRD	0.50	163	41	X									
M-REFG-EQPM	M-REFGEQM-	Refrigeration system equipment	0	0.35	163	41	X									
M-REFG-RETN-PIPE	M-REFGRPM-	Refrigeration system return piping	REFRS	0.50	163	41	X									
M-REFG-SUPP-PIPE	M-REFGSPM-	Refrigeration system supply piping	REFRL	0.50	163	41	X									
Raw Water Piping																
M-RWTR-EQPM	M-RWTREQM-	Raw water equipment	0	0.35	123	31		X	X							
M-RWTR-RETN-PIPE	M-RWTRRPM-	Raw water return piping	0	0.50	123	31		X	X							
M-RWTR-SUPP-PIPE	M-RWTRSPM-	Raw water supply piping	0	0.50	123	31		X	X							
Steam System																
M-STEM-BLBD-PIPE	M-STEMBPM-	Boiler blow down piping	BOILBD	0.50	113	16	X									
M-STEM-CNDS-PIPE	M-STEMCPM-	Condensate piping	CDRNAF	0.50	83	42	X									
M-STEM-EQPM	M-STEMEQM-	Steam system equipment	0	0.35	113	16	X									
M-STEM-HPIP-PIPE	M-STEMHPM-	High pressure steam piping	STEAMH	0.50	113	16	X									
M-STEM-LPIP-PIPE	M-STEMLPM-	Low pressure steam piping	STEAML	0.50	1	3	X									
M-STEM-MPIP-PIPE	M-STEMMPM-	Medium pressure steam piping	STEAMM	0.50	2	4	X									
Transfer Air System																
M-TAIR-DUCT	M-TAIRDUM-	Transfer air ductwork	0	0.50	200	13	X									
M-TAIR-DUCT-CNTR	M-TAIRDCM-	Transfer air ductwork centerlines	7	0.18	5	1	X									
M-TAIR-EQPM	M-TAIREQM-	Transfer air equipment	0	0.35	200	13	X									
Diagram Information																
M-DIAG-GRPH	M-DIAGGRM-	Graphics, gridlines, non-text items	V	V	V	V						X				
M-DIAG-INPD	M-DIAGINM-	Inch-pound specific dimensions and notes	0	0.25	1	3						X				
M-DIAG-METR	M-DIAGMEM-	Metric specific dimensions and notes	0	0.25	3	2						X				
Elevations																
M-ELEV-FIXT	M-ELEV-FIM-	Miscellaneous fixtures	0	0.35	6	5								X		
M-ELEV-IDEN	M-ELEV-IDM-	Component identification numbers	0	0.35	2	4								X		
M-ELEV-OTLN	M-ELEV-OTM-	Building outlines	0	0.35	6	5								X		
M-ELEV-PATT	M-ELEV-PAM-	Textures and hatch patterns	0	0.18	8	9								X		
Sections																
M-SECT-IDEN	M-SECT-IDM-	Component identification numbers	0	0.35	2	4									X	
M-SECT-MBND	M-SECT-MBM-	Material beyond section cut	0	0.18	5	1									X	
M-SECT-MCUT	M-SECT-MCM-	Material cut by section	0	0.50	4	7									X	
M-SECT-PATT	M-SECT-PAM-	Textures and hatch patterns	0	0.18	8	9									X	
Detail Information																
M-DETL-GRPH	M-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V										X
M-DETL-INPD	M-DETLINM-	Inch-pound specific dimensions and notes	0	V	V	V										X
M-DETL-METR	M-DETLMEM-	Metric specific dimensions and notes	0	V	V	V										X

Note: V = Varies, NA = Not Applicable

Discipline: Electrical
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types								
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Lighting Plan	Power Plan	Special Systems Plan	Grounding System Plan	Electrical Utilities Plan	Exterior Communication Systems Plan	Airfield Lighting Plan	Details	Riser/One-Line Diagrams
General Information															
E-ANNO-DIMS	E-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X	X	X	X	X	X	X
E-ANNO-KEYN	E-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X	X	X	X	X	X	X
E-ANNO-MASK	E-----MAP-	Text/shape mask for use with photo backgrounds	0	0.18	113	16	X	X	X	X	X	X	X	X	X
E-ANNO-NOTE	E-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X	X	X	X	X	X	X
E-ANNO-NPLT	E-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X	X	X	X	X	X	X
E-ANNO-PATT	E-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X	X	X	X	X	X	X
E-ANNO-RDME	E-----RDP-	Read-me information	0	0.18	5	1	X	X	X	X	X	X	X	X	X
E-ANNO-REFR	E-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X	X	X	X	X	X	X
E-ANNO-SYMB	E-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X	X	X	X	X	X	X
E-ANNO-TEXT	E-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X	X	X	X	X	X	X
Airfields															
E-AFLD-BCNS-IDEN	E-AFLDBIM-	Identifier tags, symbol modifiers, and text	0	0.35	203	45						X			
E-AFLD-BCNS-MISC	E-AFLDBMM-	Miscellaneous nav aids - windcones and beacons	0	0.50	203	45						X			
E-AFLD-BCNS-STRB	E-AFLDBSM-	Strobe beacons	0	0.50	203	45						X			
E-AFLD-CIRC-CTRL	E-AFLDCCM-	Control and monitoring circuits	0	0.50	163	41						X			
E-AFLD-CIRC-IDEN	E-AFLDCIM-	Circuit identifier tags, symbol modifier, and text	0	0.35	2	4						X			
E-AFLD-CIRC-MULT	E-AFLDCMM-	Multiple circuits	0	0.50	23	46						X			
E-AFLD-CIRC-SERS	E-AFLDCSM-	Series circuits	0	0.50	203	45						X			
E-AFLD-DEVC	E-AFLDDEM-	Capacitors, voltage regulators, motors, buses, generators, meters, grounds, and m	0	0.50	23	46						X			
E-AFLD-DUCT	E-AFLDDUM-	Ductbanks	EUDUCN	0.50	83	42						X			
E-AFLD-JBOX	E-AFLDJBM-	Junction boxes, pull boxes, manholes, handholes, pedestals, splice	0	0.50	23	46						X			
E-AFLD-LITE-APPR	E-AFLDLAM-	Approach lights	0	0.50	203	45						X			
E-AFLD-LITE-DIST	E-AFLDLDM-	Distance and arresting gear markers	0	0.50	203	45						X			
E-AFLD-LITE-LANE	E-AFLDLLM-	Hoverlane, taxilane, and helipad lights	0	0.50	203	45						X			
E-AFLD-LITE-OBST	E-AFLDLDM-	Obstruction lights	0	0.50	203	45						X			
E-AFLD-LITE-RUNW	E-AFLDLRM-	Runway lights	0	0.50	203	45						X			
E-AFLD-LITE-SIGN	E-AFLDLSM-	Taxiway guidance signs	0	0.50	203	45						X			
E-AFLD-LITE-TAXI	E-AFLDLTM-	Taxiway lights	0	0.50	203	45						X			
E-AFLD-LITE-THRS	E-AFLDLHM-	Threshold lights	0	0.50	203	45						X			
E-AFLD-VALT	E-AFLDVAM-	Airfield lighting vaults	0	0.50	203	45						X			
Alarm System															
E-ALRM-EQPM	E-ALRMEQM-	Alarm system equipment	0	0.50	203	45			X						
E-ALRM-IDEN	E-ALRMIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
Bell System															
E-BELL-EQPM	E-BELLEQM-	Bell system equipment	0	0.50	203	45			X						
E-BELL-IDEN	E-BELLIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
Cable System															
E-CABL-COAX	E-CABLCOM-	Coax cable	2	0.50	83	42			X						
E-CABL-FIBR	E-CABLFIM-	Fiber optics cable	FIBOPT	0.50	83	42			X						
E-CABL-IDEN	E-CABLIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
E-CABL-MULT	E-CABLMUM-	Multi-conductor cable	V	0.50	83	42			X						
E-CABL-TRAY	E-CABLTRM-	Cable trays and wireways	0, WIREWY	0.50	203	45		X	X						
Cathodic Protection System															
E-CATH-ANOD	E-CATHANM-	Sacrificial anode system	0	0.50	83	42				X					
E-CATH-CURR	E-CATHCUM-	Impress current system	0	0.50	83	42				X					

Discipline: Electrical
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types								
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Lighting Plan	Power Plan	Special Systems Plan	Grounding System Plan	Electrical Utilities Plan	Exterior Communication Systems Plan	Airfield Lighting Plan	Details	Riser/One-Line Diagrams
E-CATH-IDEN	E-CATHIDM-	Identifier tags, symbol modifier, and text	0	0.35	83	42					X				
E-CATH-TEST	E-CATHTEM-	Test stations	0	0.50	83	42					X				
Cable TV System															
E-CATV-EQPM	E-CATVEQM-	Cable TV system equipment	0, CABLTV	0.50	203	45									
E-CATV-IDEN	E-CATVIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
Closed-Circuit Television System															
E-CCTV-EQPM	E-CCTVEQM-	Closed-circuit television system equipment	0	0.50	203	45			X						
E-CCTV-IDEN	E-CCTVIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
Clock System															
E-CLOK-EQPM	E-CLOKEQM-	Clock system equipment	0	0.50	203	45									
E-CLOK-IDEN	E-CLOKIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4									
Communications															
E-COMM-EQPM	E-COMMEQM-	Other communications distribution equipment	0	0.50	23	46						X			
E-COMM-JBOX	E-COMMJBM-	Communication junction boxes, pull boxes, manholes, handholes, pedestals, and splices	0	0.50	23	46						X			
E-COMM-OVHD	E-COMMOVM-	Overhead communications/telephone lines	COMARN	0.50	4	7						X			
E-COMM-OVHD-IDEN	E-COMMOIM-	Identifier tags, symbol modifier and text	0	0.35	4	7						X			
E-COMM-POLE	E-COMMPOM-	Poles	0	0.50	203	45						X			
E-COMM-POLE-GUYS	E-COMMPGM-	Guying equipment	0	0.50	203	45						X			
E-COMM-POLE-IDEN	E-COMMPIM-	Identifier tags, symbol modifiers, and text	0	0.35	203	45						X			
E-COMM-UNDR	E-COMMUNM-	Underground communications/telephone lines	COMUGN	0.50	4	7						X			
E-COMM-UNDR-IDEN	E-COMMUIM-	Identifier tags, symbol modifier and text	0	0.35	4	7						X			
Central Dictation System															
E-DICT-EQPM	E-DICTEQM-	Central dictation system equipment	0	0.50	203	45									
E-DICT-IDEN	E-DICTIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4									
Underground Ductbanks (to be used when multiple systems are in one ductbank system)															
E-DUCT-MULT	E-DUCTMUM-	Ductbank	EUDUCN	0.50	83	42					X	X			
E-DUCT-MULT-IDEN	E-DUCTMIM-	Identifier tags, symbol modifier and text	0	0.35	83	42					X	X			
Energy Monitoring Control Systems															
E-EMCS-EQPM	E-EMCSEQM-	Energy monitoring control system equipment	0	0.50	203	45									
E-EMCS-IDEN	E-EMCSIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4									
Floor Information															
E-FLOR-IDEN	E-FLORIDM-	Room name, space identification text (copied from Architectural - Floor Plan model file)	0	0.25	3	2		X	X	X					
E-FLOR-NUMB	E-FLORNUM-	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)	0	0.25	3	2		X	X	X					
Ground System															
E-GRND-CIRC	E-GRNDCIM-	Circuits	0	0.50	4	7				X					
E-GRND-DIAG	E-GRNDDIM-	Ground system diagram	0	0.50	163	41				X					
E-GRND-EQUI	E-GRNDEQM-	Equipotential ground system	0	0.50	83	42				X					
E-GRND-REFR	E-GRNDREM-	Reference ground system	0	0.50	23	46				X					
Intercom System															
E-INTC-EQPM	E-INTCEQM-	Intercom system equipment	0	0.50	203	45									
E-INTC-IDEN	E-INTCIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4									
Lighting															
E-LITE-CIRC	E-LITECIM-	Lighting circuits (including crosslines and homeruns)	0	0.50	83	42		X							
E-LITE-CIRC-NUMB	E-LITECNM-	Lighting circuit numbers (e.g., panel/circuit number, wire/conduit size)	0	0.35	2	4		X							
E-LITE-CLNG	E-LITECLM-	Ceiling mounted (surface/pendant) fixtures	0	0.50	203	45		X							

Discipline: Electrical
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types								
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Lighting Plan	Power Plan	Special Systems Plan	Grounding System Plan	Electrical Utilities Plan	Exterior Communication Systems Plan	Airfield Lighting Plan	Details	Riser/One-Line Diagrams
E-LITE-EMER	E-LITEEMM-	Emergency fixtures (outline of light (if ceiling mounted) should go on E-LITE-CLNG	0	0.50	23	46	X								
E-LITE-EXIT	E-LITEEXM-	Exit fixtures (outline of light (if ceiling mounted) should go on E-LITE-CLNG	0	0.50	203	45	X								
E-LITE-EXTR	E-LITEEXM-	Exterior lights	0	0.50	203	45					X				
E-LITE-EXTR-IDEN	E-LITEEIM-	Exterior light identifier tags, symbol modifiers, and tex	0	0.35	203	45					X				
E-LITE-FLOR	E-LITEFLM-	Floor mounted fixtures (e.g., stage)	0	0.50	203	45	X								
E-LITE-IDEN	E-LITEIDM-	Light fixture identifier tags	0	0.35	2	4	X								
E-LITE-JBOX	E-LITEJBM-	Junction boxes	0	0.50	83	42	X								
E-LITE-PANL	E-LITEPAM-	Main distribution panels, switchboards, lighting panels	0	0.50	4	7	X								
E-LITE-ROOF	E-LITEROM-	Roof lighting	0	0.50	203	45	X								
E-LITE-SPCL	E-LITESPM-	Special fixtures	0	0.50	203	45	X								
E-LITE-SWCH	E-LITESWM-	Lighting contactors, photoelectric controls, low-voltage lighting controls, etc	0	0.50	163	41	X								
E-LITE-WALL	E-LITEWAM-	Wall mounted fixtures	0	0.50	203	45	X								
Lightning Protection System															
E-LTNG-COND	E-LTNGCOM-	Lightning protection conductors	0	0.50	203	45				X					
E-LTNG-TERM	E-LTNGTEM-	Lightning protection terminals	0	0.35	2	4				X					
Nurse Call/Paging System															
E-NURS-EQPM	E-NURSEQM-	Nurse call/paging system equipment	0	0.50	203	45			X						
E-NURS-IDEN	E-NURSIDM-	Identifier tags, symbol modifiers, and tex	0	0.35	2	4			X						
Power															
E-POWR-BUSW	E-POWRBUM-	Busways	0, BUSWAY	0.50	203	45		X							
E-POWR-CIRC	E-POWRCIM-	Power circuits (including crosslines and homeruns)	V	0.50	83	42		X							
E-POWR-CIRC-NUMB	E-POWRRCNM-	Power circuit numbers (e.g., panel/circuit number, wire/conduit size)	0	0.35	2	4		X							
E-POWR-CLNG	E-POWRCLM-	Ceiling outlets (receptacles and switches)	0	0.50	83	42		X							
E-POWR-DEVC	E-POWRDEM-	Capacitors, voltage regulators, motors, buses, generators, meters, grounds, and m	0	0.50	23	46					X				
E-POWR-FEED	E-POWRFEM-	Feeders	0	0.50	203	45		X							
E-POWR-GENR	E-POWRGEM-	Generators and auxiliary equipmen	0	0.50	4	7		X							
E-POWR-JBOX	E-POWRJBM-	Junction boxes, pull boxes, manholes, handholes, pedestals, splice:	0	0.50	83	42		X	X		X				
E-POWR-MOTR	E-POWRMOM-	Motors and utilization equipment	0	0.50	4	7		X							
E-POWR-PANL	E-POWRPAM-	Panelboards, switchboards, MCC, unit substations, backing boards, patch panel ra	0	0.50	4	7		X	X						
E-POWR-POLE	E-POWRPOM-	Power poles	0	0.50	203	45					X				
E-POWR-POLE-GUYS	E-POWRPGM-	Guying equipment	0	0.50	203	45					X				
E-POWR-POLE-IDEN	E-POWRPIM-	Identifier tags, symbol modifiers, and tex	0	0.35	203	45					X				
E-POWR-SUBS	E-POWRSUM-	Other substation equipment	0	0.50	23	46					X				
E-POWR-SWCH	E-POWRSWM-	Fuse cutouts, motor starters, contactors, pole mounted switches, circuit breakers, gang operated disconnects, reclosers, cubicle switches	0	0.50	163	41		X			X				
E-POWR-URAC	E-POWRURM-	Underfloor raceways	3	0.50	203	45		X							
E-POWR-WALL	E-POWRWAM-	Wall/floor outlets (receptacles and switches)	0	0.50	83	42		X							
E-POWR-XFMR-PADM	E-POWRXPM-	Pad mounted transformers	0	0.50	23	46					X				
E-POWR-XFMR-POLM	E-POWRXOM-	Pole mounted transformers	0	0.50	23	46					X				
Primary Electrical Cables															
E-PRIM-OVHD	E-PRIMOVM-	Overhead electrical utility lines	EPARN	0.50	4	7					X				
EV-PRIM-OVHD-IDEN	E-PRIMOIM-	Identifier tags, symbol modifiers, and tex	0	0.35	4	7					X				
EV-PRIM-UNDR	E-PRIMUNM-	Underground electrical utility lines	EPUGN	0.50	4	7					X				
E-PRIM-UNDR-IDEN	E-PRIMUIM-	Identifier tags, symbol modifiers, and tex	0	0.35	4	7					X				
Secondary Electrical Cables															
E-SECD-OVHD	E-SECDOVM-	Overhead electrical utility lines	ESARN	0.50	163	41					X				

Discipline: Electrical
Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types								
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Lighting Plan	Power Plan	Special Systems Plan	Grounding System Plan	Electrical Utilities Plan	Exterior Communication Systems Plan	Airfield Lighting Plan	Details	Riser/One-Line Diagrams
E-SECD-OVHD-IDEN	E-SECDOIM-	Identifier tags, symbol modifiers, and text	0	0.35	163	41									
E-SECD-UNDR	E-SECDUNM-	Underground electrical utility lines	ESUGN	0.50	163	41					X				
E-SECD-UNDR-IDEN	E-SECDUIM-	Identifier tags, symbol modifiers, and text	0	0.35	163	41					X				
Security System															
E-SERT-ACCS	E-SERTACM-	Access control system	0	0.50	23	46			X						
E-SERT-CLNG	E-SERTCLM-	Ceiling mounted sensors	0	0.50	23	46			X						
E-SERT-FLOR	E-SERTFLM-	Floor mounted sensors	0	0.50	23	46			X						
E-SERT-IDEN	E-SERTIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
E-SERT-UNDR	E-SERTUNM-	Buried sensors	0	0.50	23	46			X						
E-SERT-WALL	E-SERTWAM-	Wall mounted sensors	0	0.50	23	46			X						
Sound/PA System															
E-SOUN-EQPM	E-SOUNEQM-	Sound/PA system equipment	0	0.50	203	45			X						
E-SOUN-IDEN	E-SOUNIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
Special Systems															
E-SPCL-SYST	E-SPCLSPM-	Special systems (UMCS, EMCS, CATV, etc.)	0	0.50	203	45				X					
E-SPCL-SYST-IDEN	E-SPCLSIM-	Special systems (UMCS, EMCS, CATV, etc.) identifier tags, symbol modifier, and text	0	0.35	203	45				X					
E-SPCL-TRAF	E-SPCLTRM-	Traffic signal system	0	0.50	203	45				X					
E-SPCL-TRAF-IDEN	E-SPCLTIM-	Traffic signal identifier tags, symbol modifier, and text	0	0.35	203	45				X					
TV Antenna System															
E-TVAN-EQPM	E-TVANEQM-	Television antenna system equipment	0	0.50	203	45			X						
E-TVAN-IDEN	E-TVANIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4			X						
Other Discipline Information															
E-DISC-INFO	E-DISCINM-	Clearances and working space information (NEC code, etc.)	0	0.25	3	2	X	X	X		X	X	X	X	X
Detail Information															
E-DETL-GRPH	E-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V								X	
E-DETL-INPD	E-DETLINM-	Inch-pound specific dimensions and notes	0	0.35	2	4								X	
E-DETL-METR	E-DETLMEM-	Metric specific dimensions and notes	0	0.35	2	4								X	
Diagram Information															
E-DIAG-GRPH	E-DIAGGRM-	Graphics, gridlines, non-text items	V	V	V	V									X
E-DIAG-IDEN	E-DIAGIDM-	Metric specific dimensions and notes	0	0.35	2	4									X
E-DIAG-INPD	E-DIAGINM-	Inch-pound specific dimensions and notes	0	0.35	2	4									X
E-DIAG-METR	E-DIAGMEM-	Metric specific dimensions and notes	0	0.35	2	4									X

Note: V = Varies, NA = Not Applicable

Discipline: Telecommunications

Model File Layers/Levels

Level/Layer Naming		Level/Layer Description	Graphic Defaults				Model File Types		
AIA Format	ISO Format		Line Style	Line Width (mm)	AutoCAD Color #	MicroStation Color #	Telephone/Data Plan	Riser Diagrams	Details
General Information									
T-ANNO-DIMS	T-----DIP-	Witness/extension lines, dimension terminators, dimension text	0	V	V	V	X	X	X
T-ANNO-KEYN	T-----KEP-	Reference keynotes with associated leader	0	V	V	V	X	X	X
T-ANNO-NOTE	T-----NOP-	General notes and general remarks	0	0.35	2	4	X	X	X
T-ANNO-NPLT	T-----NPP-	Non-plotting graphic information	0	0.18	5	1	X	X	X
T-ANNO-PATT	T-----PAP-	Patterning, poche, shading, and hatching	V	0.18	8	9	X	X	X
T-ANNO-RDME	T-----RDP-	Read-me information	0	0.18	5	1	X	X	X
T-ANNO-REFR	T-----RFP-	Reference files (AutoCAD users only)	NA	NA	NA	NA	X	X	X
T-ANNO-SYMB	T-----SYP-	Miscellaneous symbols	V	V	6	5	X	X	X
T-ANNO-TEXT	T-----TEP-	Miscellaneous text and callouts with associated leader	0	V	V	V	X	X	X
Cable System									
T-CABL-COAX	T-CABLCOM-	Coax cable	2	0.50	83	42	X		
T-CABL-FIBR	T-CABLFIM-	Fiber optics cable	FIBOPT	0.50	83	42	X		
T-CABL-IDEN	T-CABLIDM-	Cable identifiers	0	0.35	2	4	X		
T-CABL-MULT	T-CABLMUM-	Multi-conductor cable	0	0.50	83	42	X		
T-CABL-TRAY	T-CABLTRM-	Cable trays and wireways	0	0.50	203	45	X		
Equipment									
T-EQPM-COMB	T-EQPMCMM-	Distribution equipment for both copper and fiber optics	0	0.50	4	7	X		
T-EQPM-COPP	T-EQPMCOM-	Distribution equipment for copper	0	0.50	4	7	X		
T-EQPM-FIBR	T-EQPMFIM-	Distribution equipment for fiber optic	0	0.50	4	7	X		
T-EQPM-OTHR	T-EQPMOTM-	Other telecommunications equipment	0	0.50	4	7	X		
T-EQPM-RELA	T-EQPMREM-	Relays, resistors, capacitors, and inductors	0	0.50	4	7	X		
Floor Information									
T-FLOR-IDEN	T-FLORIDM-	Room name, space identification text (copied from Architectural - Floor Plan model file)	0	0.25	3	2	X		
T-FLOR-NUMB	T-FLORNUM-	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)	0	0.25	3	2	X		
Jacks									
T-JACK-COMB	T-JACKCOM-	Combination telephone and data/LAN jacks	0	0.50	203	45	X		
T-JACK-DATA	T-JACKDAM-	Data/LAN jacks	0	0.50	203	45	X		
T-JACK-IDEN	T-JACKIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4	X		
T-JACK-PHON	T-JACKPHM-	Telephone jacks	0	0.50	203	45	X		
Junction Boxes									
T-COMM-JBOX	T-COMMJBM-	Junction boxes	0	0.50	83	42	X		
Other Discipline Information									
T-DISC-INFO	T-DISCINM-	Information and notes for other disciplines	V	V	V	V	X	X	
Diagram Information									
T-DIAG-GRPH	T-DIAGGRM-	Graphics, gridlines, non-text items	V	V	V	V		X	
T-DIAG-IDEN	T-DIAGIDM-	Identifier tags, symbol modifiers, and text	0	0.35	2	4		X	
T-DIAG-INPD	T-DIAGINM-	Inch-pound specific dimensions and notes	0	0.35	2	4		X	
T-DIAG-METR	T-DIAGMEM-	Metric specific dimensions and notes	0	0.35	2	4		X	
Detail Information									
T-DETL-GRPH	T-DETLGRM-	Graphics, gridlines, non-text items	V	V	V	V			X
T-DETL-INPD	T-DETLINM-	Inch-pound specific dimensions and notes	V	V	V	V			X
T-DETL-METR	T-DETLMEM-	Metric specific dimensions and notes	V	V	V	V			X

Note: V = Varies, NA = Not Applicable