

Port of Seattle CAD Standards Appendices 2025 Edition

Effective March 17, 2025

Major changes in this Edition are documented in the Change Log on page 2.

**These Appendices supersede Port of Seattle
CAD Standards, 2023 Edition**

2025 Port of Seattle Appendices Change Log	
Section	Modification Description
Appendix A	Updated Public Website Index
Appendix B	Updated Abbreviations List
Appendix C	Updated Design Symbols Library
Appendix C	Updated Sample Drawings
Appendix D	Removed Section and Re-sequenced Subsequent Sections
Appendix E	Now "Appendix D - Port of Seattle CAD Layer Naming Standards"
	Layering Convention Updated to NCS v6/AIA Standard
Appendix F	Now "Appendix E - QA/QC Design Submittal Deliverable Flowcharts"
	Updated Flowcharts
Appendix G	Now "Appendix F - Bluebeam Design Review Flowcharts"
	Updated Flowcharts
Appendix H	Now "Appendix G - AutoCAD & Bluebeam PDF Submittal Checklists"
	Updated AutoCAD Submittal Checklist
	Updated Bluebeam PDF Submittal Checklist
Appendix H	Added "Change Control & Contact Information" - New Appendix

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Appendix A

Public Website CAD Standards 2025 Index

Port of Seattle Cad Standards Index 2025

Included with the Port of Seattle CAD Standards manual is an AutoCAD Resource Library which includes Port standard symbol blocks, title blocks, sheet index & templates, etc. Below is an index of the files found in this download. They are located at <https://www.portseattle.org/page/design-standards-and-guidelines>. Click on CAD Standards to download the package. Please contact your Port Project Manager for the current link.

Port of Seattle Drawing Template

Port_QNEW_R1.0.dwt – Standard AutoCAD Template

Port of Seattle AutoCAD Resource Library Folders

- ▼ **Port AutoCAD Resource Library 2025**
 - **Port Design Symbols**
 - Port DWG Templates**
 - **Port Layer Templates**
 - ▼ **Port Project Sheet_Blocks**
 - Model Space_Only**
 - ▼ **Paper Space_Only**
 - ▼ **Cover_Blocks**
 - Cover Sheet Stamps_22x34**
 - Cover Sheet_22x34**
 - Cover Sheet_22x34_w_Sheet Index**
 - North_Arrows**
 - Scale_Bars**
 - **Titleblock for Xref**
 - Titleblock Sheet Index Template_22x34**
 - Titleblock_Stamps**
 - View_Titles**
 - Port Forms**

Port of Seattle CAD Standards Appendices

Appendix A Port of Seattle Public Website CAD Standards 2025 Index

Appendix B Port of Seattle Abbreviation Tables and Descriptions

Appendix C Port of Seattle Design Symbols and Sample Drawings

Appendix D Port of Seattle CAD Layer Naming Standards 2025

Appendix E QA/QC Design Submittal Deliverable Flowcharts

Appendix F Bluebeam Design Review Flowcharts

Appendix G AutoCAD and Bluebeam PDF Submittals Checklist

Appendix H Change Control & Contact Information

Port of Seattle CAD Standards Manual

Port of Seattle CAD Standards 2025 Edition.pdf

Port of Seattle CAD Standards 2025 Edition Appendix A to H.pdf

Appendix B

Port of Seattle Abbreviation Tables and Descriptions

Abbreviations	Definition
A	
A/C	Alternating Current
A/M	Auto/Manual Controller
AB	Anchor Bolt (-S)
ABAN	Abandon (-Ed)
ABBR	Abbreviation
ABS	Acrylonitrile-Butadiene-Styrene
ABST	Absolute
ABV	Above
AC	Acre
ACOT	Acoustical Title
ACST	Acoustic, Acoustical
ACT	Activate
AD	Area Drain
ADDL	Additional
ADH	Adhesive
ADJ	Adjust (-Ed, -Ment, -Able)
ADJT	Adjacent
ADWF	Average Dry Weather Flow
AEGP	Assured Equipment Grounding Program
AF	Ampere Frame
AFD	Adjustable Frequency Drive
AFET	Acre-Feet
AFF	Above Finished Floor
AGG	Aggregate
AHCC	Ambulatory Health Care Center
AHJ	Authority Having Jurisdiction
AHU	Air Handling Unit
AIC	Amperes Interrupting Capacity
AIH	Air Handler
AIL	Aileron
AIR	Ampere Interrupting Rating
AIRCON	Air Condition (-Er, -Ing)
AIRVAC	Air And Vacuum Valve
AL/ALUM	Aluminum
ALM	Alarm
ALT	Alternate (-E, -Ive)
ALTD	Altitude
ALY	Alloy
AM	Ammeter
AMB	Ambient
AMP	Ampere, Amps
AMPT	Ampere Trip
AMS	Ammeter Switch
AN	Anode
ANC	Anchor
ANN	Annunciator
ANSI	American National Standard Institute
ANT	Antenna

Abbreviations	Definition
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A

AOS	Automatic Sprinkler
APPD	Approved
APPL	Appliance
APPROX	Approximate (-E, -Ly)
APT	Apartment
AR	Area
ARC	Air Conditioned
ARCH	Architect (-Ural)
ARCON	Air Condition
AREQ	As Required
ARM	Armature
ARV	Air Release Valve
AS	Astragal
ASB	Asbestos
ASCM	Asbestos Cement
ASHRAE	American Society of Heating, Refrigerating & Air Conditioning Engineers
ASPC	Asphalt Concrete
ASPH	Asphalt
ASPT	Asphalt Tile
ASST	Assistant
ASTM	American Society for Testing and Materials
AT	Airtight
ATCB	Adjustable-Trip Circuit Breaker
ATM	Atmosphere (147 Lb./In)2
ATS	Automatic Transfer Switch
AU	Gold
AUTO	Automatic
AUX	Auxiliary
AVAR	Air Vacuum Air Release
AVE	Avenue
AVG	Average
AWG	American Wire Gauge
AWWA	American Water Works Association
AZ	Azimuth

B

BARM	Barminutor
BATT	Battery (Electric)
BCG	Bare Copper Ground
BCV	Ball Check Valve
BD	Board
BDD	Back draft Damper
BDF	Brace (D) Frame
BDR	Bedroom
BF	Blind Flange
BFP	Backflow Preventer
BFV	Butterfly Valve

Abbreviations	Definition
---------------	------------

B

BHC	Beginning Of Horizontal Curve
BHP	Brake Horsepower
BIO	Bio Filter
BIOL	Biological
BITUM	Bituminous
BJ	Bonding Jumper
BKR	Breaker
BLDG	Building
BLDL	Building Line
BLK	Black
BLKG	Blocking
BLKHD	Bulkhead
BLOC	Block (-S)
BLS	Black Steel
BLU	Blue
BLVD	Boulevard
BM	Beam
BMK	Benchmark
BOD5	Biochemical Oxygen Demand (5 Day)
BOT	Bottom
BPL	Bearing Plate
BRDF	Board Foot
BRDG	Bridge
BREL	Brake Relay
BRG	Bearing
BRK	Brick
BRN	Brown
BRS	Brass
BRZ	Bronze
BSMT	Basement
BT	Bathtub
BTH	Bathroom
BTO	Bottom Of
BTU	British Thermal Unit
BV	Ball Valve
BVC	Beginning of Vertical Curve
BYP	Bypass
BTWN	Between
BUR	Built-Up Roofing

C

C/S	Constant Speed/Control Switch
CA	Cold Air
CAB	Cabinet
CANTIL	Cantilever
CAP	Capacitor
CASO	Cased Opening
CAT	Catalog

Abbreviations	Definition
C	
CATV	Cable Antenna Television
CB	Catch Basin
CBL	Cable
CBR	Circuit Breaker
CC	Control Cable, Closing Coil
CCF	Concrete Floor
CCW	Counterclockwise
CEL	Celsius (Centigrade) Degrees
CELR	Cellar
CEM	Cement
CEMF	Counter Electromotive Force
CEN	Central
CENM	Centimeter
CER	Ceramic
CF	Cubic Feet
CFM	Cubic Foot Per Minute
CFS	Cubic Foot Per Second
CHAN	Channel
CHAP	Chapter
CHAR	Characteristics
CHEM	Chemical, Chemistry
CHH	Communication Handhold
CHKD	Checkered
CHM	Chimney
CHMB	Chamber
CHMOD	Chemical Oxygen Demand
CI	Cast Iron
CIP	Cast Iron Pipe
CIPTR	Circuit Interrupter
CIR	Circuit
CIRC	Circular, Circulation
CIRCUM	Circumference
CISP	Cast Iron Soil Pipe
CL	Centerline
CL2	Chlorine
CLASS	Classification
CLG	Ceiling
CLO	Cleanout
CLOS	Closet
CLR	Clear, Clearance
CLWA	Castaic Lake Water Agency
CM	Circular Mills
CM2	Centimeter Square
CM3	Centimeter Cubic
CMC	Cement Mortar Coated
CMF	Cement Floor
CMH	Communications Manhole
CML	Cement Mortar Lined
CML&C	Cement Mortar Lined & Coated
CMP	Code-Making Panel
CMU	Concrete Masonry Unit

Abbreviations	Definition
C	
CND	Conduit
CNDO	Conduit Only
CNR	Corner
CNST JT	Construction Joint
CNTOL	Control
CNTR	Counter
CNTRSK	Countersunk
CNTUR	Contour
CO2	Carbon Dioxide
COAX	Coaxial
COL	Column
COMM	Communication
COMPA	Compacted
COMPR	Compressor
CONC	Concrete
CONC BLK	Concrete Block
COND	Condenser
CONN	Connect (-S, -lon)
CONP	Concrete Pipe
CONS	Control Switch
CONSJ	Construction Joint
CONST	Construct (-lon)
CONT	Continuous
CONTJ	Control Joint
CONTR	Contractor
CONTY	County
COORD	Coordinate
COR	Cornice
CORMP	Corrugated Metal Pipe
CORR	Corrugated
CPLG	Coupling
CPR	Copper
CPS	Cycles Per Second
CPT	Control Power Transformer
CPU	Central Processing Unit
CPVC	Chlorinated Polyvinyl Chloride
CR	Control Relay
CRBS	Carbon Steel
CRM	Control Relay Master
CRMT	Ceramic Tile
CRS	Coarse
CS	Cast Steel
CSC	Car Sealed Closed
CSG	Casing
CSMT	Casement
CSO	Car Sealed Open
CST	Cast Stone
CTC	Center to Center
CTD	Coated
CTR	Center
CTRAN	Current Transformer

Abbreviations	Definition
---------------	------------

C

CU	Cubic
CU FT	Cubic Foot
CU IN	Cubic Inch
CU YD	Cubic Yard
CURT	Court
CV	Check Valve
CW	Clockwise
CWT	One Hundred Pounds
CWTR	Cold Water
CWTRP	Cold Water Pipe
CY	Cubic Yard

D

DB	Decibel
DBC	Dynamic Braking Contactor or Relay
DBL	Double
DBL ACT	Double-Acting
DC	Direct Current
DD	Dutch Door
DDO	Ditto (Repeating Typical Beam Sizes on Plan)
DEG	Degree (-S)
DEMO	Demolish Or Demolition
DEPT	Department
DET	Detail (-S)
DF	Drinking Fountain
DFIR	Douglas Fir
DGRM	Diagram
DHW	Double Hung Window
DI	Ductile Iron
DIA	Diameter
DIAPH	Diaphragm
DIM	Dimension (-S)
DINR	Dining Room
DIP	Ductile Iron Pipe
DIR	Direction
DISC	Disconnect
DISCH	Discharge
DISTB	Distribution
DIV	Division
DK	Deck
DKG	Decking
DL	Dead Load
DI0	Diode
DIAG	Diagram
DINAL	Diagonal
DML	Demolition
DMPR	Damper
DMR	Dimmer

Abbreviations	Definition
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D

DN	Down
DNS	Down Spout
DO	Dissolved Oxygen
DP	Double-Pole
DP SW	Double-Pole Switch
DPANL	Distribution Panel
DPDT	Double-Pole Double-Throw
DPDT SW	Double-Pole Double-Throw Switch
DPNL	Distribution Panel
DPRO	Damp Proofing
DPST	Double-Pole Single-Throw
DPTH	Depth
DR	Door
DRG	Double Rubber Gasket Joint
DRM	Dormer
DRMS	Drum Switch
DRN	Drain
DRNT	Drain Tile
DRY	Dryer
DRYW	Drywall
DS	Disconnect Switch
DSG	Double Strength Glass
DSTT	Dust Tight
DTR	Double-Throw
DTY CY	Duty Cycle
DUP	Duplex
DW	Dishwasher
DWG	Drawing

E

EA	Each
EBJ	Equipment Bonding Jumper
EC	End Of Horizontal Curve
ECC	Eccentric
ECD	Epoxy Coated
EF	Each Face; Exhaust Fan
EFF	Effluent
EFFIC	Efficiency
EGC	Equipment Grounding Conductor
EGL	Energy Grade Line
EHH	Electrical Handhold
EL	Elevation
EL	Epoxy Lined
EL&C	Epoxy Lined & Coated
ELB	Elbow
ELEC	Electric (-Al)
ELEK	Electronic
ELEM	Elementary
ELEV	Elevator

Abbreviations	Definition
---------------	------------

E

ELF	Efficiency
ELMCH	Electromechanical
ELVTR, EVTR	Elevator
EM	Expanded Metal
EMERG	Emergency
EMF	Electromotive Force
ENAM	Enamel
ENCL	Enclose, Enclosed
ENGR	Engineer
ENTR	Entrance
EP	Ejector Pump
EPA	Environmental Protection Agency
EPAN	Electric Panel
EPAV	Edge of Pavement
EPR	Ethylene Propylene Rubber
ESCL	Escalator
EQ	Equal (-Ly)
EQPT	Equipment
EQUAL	Equalization
EQULV	Equivalent
EST	Estimate (-D)
ETM	Elapsed Time Meter
EUC	Eucalyptus
EVC	End Of Vertical Curve
EW	Each Way
EW C	Electric Water Cooler
EW H	Electric Water Heater
EXC	Excavate
EXH	Exhauster (-S) or Exhaust
EXPP	Explosion Proof
EXPT	Exception
EXST	Existing
EXT	Exterior
EXT GR	Exterior Grade

F

F1S	Finish One Side
F2S	Finish Two Sides
FA	Fire Alarm
FAA	Federal Aviation Administration
FAB	Fabricate (-D)
FAC	Factory
FACIL	Facility (-les)
FAHT	Fahrenheit
FAI	Fresh Air Intake
FAO	Finish All Over
FAS	Fast
FB	Flat Bar
FBCK	Firebrick

Abbreviations	Definition
F	
FBLK	Fuse Block
FBRK	Face Brick
FC	Flexible Coupling
FCA	Flanged Coupling Adapter
FCO	Floor Cleanout
FD	Floor Drain
FDC	Fire Department Connection
FDN	Foundation
FDR	Fire Door
FDRN	Floor Drain
FEDR	Feeder
FEXT	Fire Extinguisher
FF	Far Face/Finish Floor
FG	Flap Gate
FH	Fire Hydrant
FHP	Fractional Horsepower
FHY	Fire Hydrant
FIG	Figure
FILT	Filter
FIN	Finish (-Ed)
FIN FLR	Finished Floor
FIN GD	Finish Grade
FIN GR	Finished Grade
FIXT	Fixture
FL	Floor Line
FLA	Full-Load Amps
FLC	Full-Load Current
FLD	Field
FLEX	Flexible
FLG	Flange (-D)
FLLT	Full-Load Torque
FLMB	Flammable
FLMT	Flush Mount
FLNE	Flow Line
FLR	Floor
FLS	Flow Switch
FLSH	Flashing
FLT	Flat
FLUOR	Fluorescent
FLUS	Flush
FM	Flow Meter
FMC	Flexible Metallic Conduit
FNSH	Finish
FNSH FL	Finished Floor
FOF	Face Of Flange
FOS	Face Of Stud
FP	Four-Pole
FPACE	Fireplace
FPDT SW	Four-Pole Double-Throw Switch
FPM	Foot Per Minute
FPN	Fine Print Note

Abbreviations	Definition
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F

FPRF	Fireproof
FPS	Foor Per Second
FPST SW	Four-Pole Single-Throw Switch
FPSW	Four-Pole Switch
FR	Frame
FRACE	Furnace
FRC	Flexible Rubber Coupling
FREQ	Frequency
FRP	Fiberglass Reinforced Plastic
FS	Far Side
FSBL	Fusible
FSWTH	Float Switch
FT	Feet, Foot
FT2	Square Feet
FT3	Cubic Feet
FTG	Footing
FTS	Foot Switch
FU	Fuse
FUBX	Fuse Box
FUHLR	Fuse Holder
FURN	Furniture
FURR	Furring
FV	Full Voltage
FVNR	Full Voltage, Non-Reversing
FVR	Full Voltage, Reversing
FVW	Front View
FWAL	Fire Wall
FWD	Forward
FWTR	Feed Water
FX WDW	Fixed window

G

GA	Gauge
GAL	Gallon (-S)
GALV	Galvanize (-D)
GAR	Garage
GASO	Gasoline
GC	Grooved Coupling
GDL	Ground Level
GEC	Grounding Electrode Conductor
GEN	Generator
GENL	General
GES	Grounding Electrode System
GFCI	Ground-Fault Circuit Interrupter
GFI	Ground Fault Interrupter
GFPE	Ground Fault Protection of Equipment
GL	Glass
GLB	Glu-Lam or Glu-Lam Beam
GLB	Glass Block

Abbreviations	Definition
---------------	------------

G

GLL	Glass Lined
GLV	Globe Valve
GLZ	Glaze
GND	Ground
GNDO	Grounded (Outlet)
GPD	Gallons Per Day
GPH	Gallons Per Hour
GPM	Gallons Per Minute
GR	Grade
GRDL	Grade Line
GRL	Guardrail
GRM	Gram
GRN	Green
GRS	Galvanized Rigid Steel
GRY	Gray
GS	Gas
GSB	Gypsum Sheathing Board
GSTL	Galvanized Steel
GTE	Gate
GV	Gate Valve
GVL	Gravel
GVW	Gross Vehicle Weight
GWB	Gypsum Wall Board
GYP	Gypsum

H

H2 O2	Hydrogen Peroxide
HACR	Heating, Air-Conditioning, Refrigeration
HAZ	Hazardous
HB	Hose Bibb
HBD	Hardboard
HC	Hollow Core
HD	Heavy-Duty
HDPE	High Density Polyethylene
HDR	Header
HDW	Hardware
HDWD	Hardwood
HGH	High
HGL	Hydraulic Grade Line
HGR	Hanger
HH	Handhold
HID	High Intensity Discharge
HM	Hollow Metal
HMD	Hollow Metal Door
HMI	Human Machine Interface
HNDRL	Handrail

Abbreviations	Definition
---------------	------------

H

HOA	Hand-Off-Automatic
HOR	Hand-Off-Remote
HORIZ	Horizontal
HP	High Point
HPFS	High Point Finished Surface
HPS	High Pressure Sodium
HPWR	Horsepower
HR	Hour
HRL	Handrail
HRS	Hours
HSS	High Strength Steel
HT	Height
HTG	Heating
HTR	Heater
HV	High Voltage
HVAC	Heating, Ventilating, And Air Conditioning
HVY	Heavy
HW	Hot Water
HWH	Hot Water Heater
HWL	High Water Level
HWY	Highway
HYDR	Hydraulic
HZ	Hertz

I

I & C	Instrumentation And Controls
IA	Instrument Air
IC	Interrupting Capacity
IC	Integrated Circuit
ICS	Illumination Control Station
ID	Inside Diameter
IDCI	Immersion Detection Circuit Interrupter
IEC	International Electro Technical Commission
IELV	Invert Elevation
IF	Inside Face
IG	Isolated Ground
IH	Insulation Hot
IJB	Instrument Junction Box
IMC	Intermediate Metal Conduit
IN	Inch (-Es)
IN LB	Inch-Pound
IN2	Inches Square
IN3	Inches Cubic
INCAN	Incandescent
IND LT	Indicator Light
INFL	Influent
INST	Instantaneous
INSTR	Instrument

Abbreviations	Definition
---------------	------------

I

INSUL	Insulate (-E, -Ion)
INT	Interior
INT	Interrupt
INTLR	Interlock
INTR	Interior
INV	Invert
IOL	Instantaneous Overload
IP	Iron Pipe
IPS	International Pipe Standard
IPS	Inch Per Second
IR	Infrared
IRN	Iron
ITB	Instantaneous-Trip Circuit Breaker
ITB	Inverse Time Breaker
ITCB	Inverse-Time Circuit Breaker
IW	Industrial Waste

J

JAN	Janitor
JBOX	Junction Box
JCT	Junction
JMB	Jamb
JST	Joist
JT	Joint

K

K	Kilo (1000)
KIT	Kitchen
KCMIL	1000 Circular Mils
KD	Kiln-Dried
KFT	1000'
KG	Kilogram; Knife Gate
KIP	One Thousand Pounds
KM	Kilometer
KN SW	Knife Switch
KO	Knockout
KPL	Kick Plate
KV	Kilovolt (-S)
KVA	Kilovolt Amps
KVAR	Kilovolt-Amperes Reactive
KVARH	Kilovolt-Amperes Reactive Hours
KW	Kilowatt
KWH	Kilowatt-Hour
KWHD	Kilowatt-Hour Demand
KWY	Keyway

Abbreviations	Definition
L	
LAB	Laboratory
LAM	Laminate
LAT	Lateral
LAU	Laundry
LAV	Lavatory
LB	Pound (-S)
LB-FT	Pounds Per Feet
LB-IN	Pounds Per Inch
LBR	Lumber
LC	Locked Closed
LD	Load
LDG	Landing
LDT	Laundry tray
LE	Lifting Eye
LED	Light Emitting Diode
LEL	Lower Explosion Limit
LEN	Length
LF	Linear Feet
LFLI	Less-Flammable, Liquid-Insulated
LFT	Left
LG	Long
LGT	Light
LH	Left Hand
LIB	Library
LIQ	Liquid
LL	Live Load
LLH	Long Leg Horizontal
LINO	Linoleum
LLV	Long Leg Vertical
LM	Lime
LMP	Lamp
LNTL	Lintel
LO	Live Oak
LOC	Location
LONG	Longitudinal
LP	Lighting Panel
LPD	Liters Per Day
LPG	Liquefied Petroleum Gas – Propane or Butane as Noted
LPS	Low Pressure Sodium
LR	Living Room
LRA	Locked-Rotor Opacity
LRC	Locked-Rotor Current
LS	Limit Switch
LT	Light
LTG	Lighting
LTH	Lath
LTS	Lights
LV	Low Voltage
LVR	Louver

Abbreviations	Definition
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L

LWL	Low Water Level
-----	-----------------

M

M2	Square Meters
M3	Cubic Meters
MA	Mill Amperes
MA	Metal Anchor
MACH	Machine
MAGB	Magnetic Brake
MAN	Manual
MATL	Material
MAX	Maximum
MBCSCGF	Motor Branch-Circuit, Short-Circuit, Ground-Fault
MBH	Thousand Btu Per Hour
MBJ	Main Bonding Jumper
MBT	Machine Bolt
MC	Medicine Cabinet
MCC	Motor Control Center
MCP	Motor Circuit Protector
MECH	Mechanical
MED	Medium
MEM	Memory
MEZZ	Mezzanine
MFR	Manufacturer
MGAL	Million Gallons
MGPD	Million Gallons Per Day
MGPL	Milligrams Per Liter
MGRM	Milligrams
MH	Manhole
MILI	1/1000 Inch
MIN	Minimum
MINT	Minute
MIR	Mirror
MJ	Mechanical Joint
ML	Milliliter (-S), Monolithic
MLDG	Molding
MLO	Main Lugs Only
MLP	Metal Lath & Plaster
MISC	Miscellaneous
MMTR	Millimeter (-S)
MN	Main
MNCC	Main Control Center
MO	Masonry Opening
MOD	Modification (-S)
MOM	Moment (As in Moment Frame)
MON	Monument
MOR	Mortar
MOT	Motor

Abbreviations	Definition
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M

MOV	Motor Operated Valve
MPG	Miles Per Gallon
MPH	Miles Per Hour
MRB	Marble
MS	Motor Starter
MSNRY	Masonry
MT	Mount
MTD	Mounted
MTG	Mounting
MTL	Metal
MTLD	Metal Door
MTLF	Metal Flashing
MTLJ	Metal Jalousie
MTLT	Metal Threshold
MTOR	Motor
MTR	Meter
MTS	Manual Transfer Switch
MUL	Mullion
MV	Mud Valve, Medium Voltage
MVA	Million Volt Amperes
MWP	Maximum working pressure

N

N/A	Not Applicable
NATCB	Nonadjustable-trip circuit breaker
NC	Normally closed
NE	Northeast
NEC	National Electrical Code©
NEG	Negative
NEMA	National Electrical Manufacturer's Assoc
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code
NEUT	Neutral
NEUT	Neutral
NF	Near Face
NFPA	National Fire Protection Association
NGVD	National Geodetic Vertical Datum
NIC	Not In Contract
NNO	Number/Normally Open
NO	Normally open
NOM	Nominal
NOR	North
NORM	Normal
NOS	Nosing
NPL	Nameplate
NRS	Non-Rising Stem Valve
NS	Non-Shear
NSD	Near Side

Abbreviations	Definition
---------------	------------

N

NT	Normally Throttled
NTDF	Non-Time Delay Fuse
NTS	Not to Scale
NTWT	Net Weight
NUMB	Number
NV	Needle Valve
NW	Northwest
NWL	Normal Water Level

O

O/C	Open/Close Service
OA	Overall, Outside Air
OBD	Opposed Blade Damper
OC	On Center
OCPD	Over Current Protection Device
OCRT	Over Current
OD	Outside Diameter
OF	Outside Face, Overflow
OFE	Owner Furnished Equipment
OFF	Office
OFS	Outside Face of Stud
OH	Overhead
OHM	Ohmmeter
OL	Overload
OL	Overload Relay
ONGE	Orange
OPA	Opaque
OPNG	Opening
OPP	Opposite
ORIG	Original
OS&Y	Outside Screw & Yoke
OSA	Outside Air
OSHA	Occupational Safety and Health Administration
OT	Over Temperature
OUIIN	Ounces per inch
OUTL	Outlet
OVHG	Overhang
OWJ	Open web joist
OZ	Ounce (-S)

P

P&ID	Process (Or Piping) & Instrumentation Diagram
P/P	Poly Polyethylene
PA	Public Address
PAN	Pantry
PAV	Pavement
PBU	Push Button

Abbreviations	Definition
P	
PBX	Private Branch Exchange
PC	Personal Computer
PCC	Point of Compound Curve
PCF	Pounds Per Cubic Feet
PCO	Pressure Cleanout
PD	Pressure Drop
PDV	Plug Drain Valve
PEC	Photoelectric Cell
PED	Plain End
PEN	Penetration
PERF	Perforate (-Ed, -Es, -Ation)
PERP	Perpendicular
PF	Power Factor
PFB	Prefabricated
PFN	Prefinished
PG	Pressure Gauge
PGS	Pages
PH	Phase
PHM	Measure Of Acidity Or Alkalinity
PHMS	Pan Head Machine Screw
PIE	Piece
PIT	Pitch
PIV	Post Indicator Valve
PKG	Package
PL	Plate
PLAS	Plaster
PLAT	Platform
PLC	Programmable Logic Controller
PLCS	Places
PLG	Piling
PLGL	Plate glass
PLIT	Pilot light
PLK	Plank
PLMB	Plumbing
PLR	Pillar
PLS	Plugging switch
PLSTC	Plastic
PLWD	Plywood
PMP	Pump
PNEU	Pneumatic
PNL	Panel
PNLBD	Panel Board
PNT	Paint
PO	Pump Out
POB	Point of beginning
POC	Point Of Connection
POHC	Point Of Horizontal Curve
POHI	Point Of Horizontal Intersection
POL	Pole
POR	Porch

Abbreviations	Definition
P	
PORC	Porcelain
POS	Positive
POT	Point of Tangency
POVC	Point of Vertical Curve
POVI	Point of Vertical Intersection
POVT	Point of Vertical Tangency
PP	Pipe
PPB	Parts Per Billion
PPH	Pipe Hanger
PPM	Parts Per Million
PPOL	Power Pole
PR	Pair
PRCST	Precast
PRESS	Pressure
PRF	Profile
PRFV	Pressure Relief Valve
PRG	Pull Ring
PRI	Primary
PRIS	Primary switch
PRL	Property line
PRL	Parallel
PROJ	Project (-ion)
PROP	Property
PROT	Protector
PRS	Pressure Snubber
PRSS	Pressure Switch
PRV	Pressure Reducing Valve
PSF	Pounds Per Square Feet
PSF	Pounds per square foot
PSI	Pounds Per Square Inch
PSIA	Pounds Per Square Inch Absolute (Pressure Above Vacuum)
PSIG	Pounds Per Square Inch-Gauge (Pressure Above Atmosphere)
PSL	Pipe Sleeve
PSTA	Pump Station
PSUP	Pipe Support
PSV	Pressure Safety (Relief) Valve
PSW	Pressure Switch
PSWT	Pressure Switch
PT	Point
PTD	Painted
PTOE	Photoelectric
PTP	Peak-to-Peak
PUB	Pull Box
PULS	Pull Switch
PUSB	Pushbutton
PUT	Pull-up Torque
PV	Plug Valve
PVC	Poly Vinyl Chloride
PWR	Power
PWRC	Power Consumed
PWWF	Peak Wet Weather Flow

Abbreviations	Definition
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Q

QA	Quick-acting
QDRNT	Quadrant
QT	Quarry tile
QTR	Quarry-tile roof
QTY	Quantity
QUT	Quart

R

R/W	Right-Of-Way
RA	Return Air
RACT	Reverse-Acting
RAD	Radius
RC	Reinforced Concrete
RCP	Reinforced Concrete Pipe
RCPT	Receptacle
RCT	Repeat Cycle Timer
RD	Road
RDM	Random
RDRN	Roof Drain
RDU	Reduce (-R)
RE	Red
REC	Recessed
REC	Rectifier
RECIRC	Recirculation (-E, -Ion)
REF	Reference
REFR	Refrigerator
REFSB	Reinforcing Steel Bar
REG	Regulate (-E, -Or, -Ion, -Ing)
REINF	Reinforce (-E, -Ed, -Ing, -Ment)
REL	Relative
REQD	Required
REQT	Requirement
RES	Resistor
RESIL	Resilient
REVC	Receiving
REVR	Reverse
REVSN	Revision
RF	Raised Face
RFG	Roofing
RGD	Rigid
RGH	Rough
RGT	Right
RGTR	Register
RH	Right-hand
RHES	Rheostat
RIB	Ribbed

Abbreviations	Definition
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R

RJ	Restrained Joints
RM	Room
RMS	Root Mean Square
RND	Round
RNGE	Range
RO	Rough Opening
ROC	Receipt of Comments
ROF	Roof
ROP	Receipt Of Proposals
RPM	Revolutions Per Minute
RPS	Revolutions Per Second
RPS	Revolutions Per Second
RR	Railroad
RRM	Roll Room
RS	Rough Sawn
RSET	Reset Timer/Right
RSR	Riser
RST	Reinforcing Steel
RSVR	Reservoir
RT	Rain tight
RTE	Route
RTN	Return
RTR	Rotor
RVAT	Reduced Voltage Autotransformer
RVNR	Reduced Voltage Non-Reversing
RWD	Redwood

S

S/W	Sidewalk
S1S	Surface One Side
S4S	Surface Four Sides
SA	Supply Air
SAN	Sanitary
SB	Splash Block
SC	Sill Cock
SCA	Scale
SCFM	Standard Cubic Feet Per Minute
SCHED	Schedule
SCR	Silicon Controlled Rectifier
SCRN	Screen
SCU	Scuttle
SD	Smoke Detector
SDCR	Solid Core
SDG	Siding
SE	Southeast

Abbreviations	Definition
S	
SEC	Second (-S, -Any)
SECN	Secondary
SECT	Section (-S)
SED	Sedimentation
SER	Series
SERE	Service Entrance
SERV	Service
SERVF	Service Factor
SEW	Sewer
SF	Soffit
SG	Sluice Gate
SGLA	Structural Glass
SH	Shower
SH & RD	Shelf & Rod
SHELV	Shelving
SHGL	Shingle
SHK	Shake
SHLD	Shield or Shielded
SHT	Sheet
SHTHG	Sheathing
SHTR	Shutter
SI	Sidewalk Inlet
SIG	Signal
SIM	Similar
SK	Sink
SKLT	Skylight
SKTH	Sketch
SL	Sludge
SLD	Sliding Door
SLO	Slow
SLP	Slope
SLT	Slate
SM	Sheet Metal
SN	Solid Neutral
SO2	Sulfur Dioxide
SOC	Socket
SOG	Slab On Grade
SOL	Solenoid
SOW	Socket Weld
SPC	Space
SPCB	Single-Pole Circuit Breaker
SPCD	Spaced
SPCNG	Spacing
SPCS	Spaces
SPDT	Single Pole, Double Throw
SPDT SW	Single-Pole Double-Throw Switch
SPEC	Specification
SPGR	Specific Gravity
SPIP	Soil Pipe
SPLY	Supply

Abbreviations	Definition
S	
SPOLE	Single-Pole
SPR	Spare
SPRES	Static Pressure
SPST	Single-Pole Single-Throw
SPST SW	Single-Pole Single-Throw Switch
SPSW	Single-Pole Switch
SPUP	Sump Pump
SQ	Square
SQ FT	Square Foot
SQ IN	Square Inch
SQ YD	Square Yard
SRG	Single Rubber Gasket Joint
SS	Stainless
SS 304	Stainless Steel Type 304
SS 316	Stainless Steel Type 316
SS/SS	Sanitary Sewer/Stainless Steel
SSG	Single Strength Glass
SST	Stainless Steel
SSW	Safety Switch
SSWT	Selector Switch
ST	Street
STA	Station
STD	Standard
STH	South
STIFF	Stiffen (-Er)
STK	Stack
STL	Steel
STM	Steam
STN	Stone
STOR	Storage
STP	Standpipe
STR	Starter
STRMD	Storm Drain
STRP	Shunt Trip
STRS	Stairs
STRUCT	Structure (-E, -Al)
SUB	Substitution
SUBM	Submission (Submit)
SUBSTA	Substation
SUP	Supernatant
SUPF	Supply Fan
SUPP	Support (-S)
SURF	Surface
SUSP	Suspend (-Ed)
SV	Solenoid Valve
SVC	Service
SW	Southwest
SWBD	Switchboard
SWD	Switched Disconnect
SWGR	Switchgear

Abbreviations	Definition
S	
SYM	Symmetrical
SYNC	Synchronizing
SYNCS	Synchroscope
SYS	System
T	
T & B	Top & Bottom
T & G	Tongue & Groove
T/	Timer; Time Top Of
T-__-P	Type __ Pipe
T-__-S	Type __ Support
TAN	Tangent (-ial)
TB	Terminal Board
TB/TB	Thrust Block/Terminal Box
TBM	Temporary Benchmark
TBO	Test Boring
TC	Terra Cotta
TCAB	Telephone Cabinet
TD	Time Delay
TDF	Time-Delay Fuse
TDH	Total Dynamic Head
TDR	Time Delay Relay
TECV	Twin Element Check Valve
TEL	Telephone
TEMP	Temperature
TEMPD	Tempered
TEMPY	Temporary
TER	Terrazzo
TERM	Terminal
TH	Threshold
THERMO	Thermostat
THERMP	Thermally Protected
THHN	Heat-Resistant Thermoplastic
THK	Thick (-Ened, -Ener, -Ness)
THMST	Thermostat
THOL	Test Hole
THRM	Thermal
THS	Thermostat Switch
THWN	Moisture-And-Heat Resistant Thermoplastic
TOCON	Top Of Concrete
TOCUB	Top Of Curb
TOD	Total Oxygen Demand
TOIL	Toilet
TOP	Top of Pavement
TOPO	Topography
TOR	Torque
TOS	Top of Steel, Top of Slab

Abbreviations	Definition
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T

TOW	Top of Wall
TP	Telephone Pole
TRANSF	Transformer
TRANSV	Transverse
TRD	Tread
TROF	Through Roof
TRS	Truss
TRTMT	Treatment
TS	Tube Steel
TSP	Twisted Shielded Pair
TTB	Telephone Terminal Board
TURB	Turbidity
TV	Television
TYP	Typical

U

U RM	Utility Room
UCL	Unclamp
UDG	Underground
UF	Under Floor
UGE	Underground Electric
UGND	Underground
UH	Unit Heater
UKWN	Unknown
UL	Underwriter Laboratories
UNEXC	Unexcavated
UNFLN	Unfinished
UNGF	Underground Feeder
UNO	Unless Noted Otherwise
UP	Up
UPR	Upper
UPS	Uninterruptible Power Supply
UV	Under voltage

V

VA	Volt Amps
VAC	Volts Alternating Current
VACUM	Vacuum
VAL	Valley
VALV	Valve
VAPS	Vapor Seal
VAPT	Vapor Tight
VAR	Volt Amperes Reactive, Various
VARB	Variable
VARS	Variable Speed
VAT	Vinyl Asbestos Tile
VB	Valve Box

Abbreviations	Definition
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V

VC	Vertical Curve
VCP	Vitrified Clay Pipe
VD	Voltage Drop
VDC	Volts Direct Current
VDMPR	Volume Damper
VELO	Velocity
VENT	Ventilation
VERT	Vertical
VERTBS	Vertical Bars
VEST	Vestibule
VF	Ventilation Fan
VFD	Variable Frequency Drive
VH	Var-Hour
VIO	Violet
VL	Vault
VM	Voltmeter
VNT	Vent
VOL	Volt
VOLM	Volume
VP	Vent Pipe
VPI	Vertical Point of Intersection
VS	Vent Stack
VT	Vinyl Tile

W

W CL	Water Column
W/	With
W/O	Without
WA	Warm Air
WAIN	Wainscot
WASP	Waste Pipe
WC	Water Closet
WD	Wood
WF	Wide Flange
WH	Water Heater
WHDM	Watt-Hour Demand Meter
WHM	Watt-Hour Meter
WHS	Welded, Headed Stud
WI	Wrought Iron
WIC	Walk-In Closet
WID	Width
WIRG	Wire Gauge
WIRM	Wire Mesh
WLD	Welded
WM	Water Meter
WN	Weld Neck
WP	Weatherproof
WPT	Work Point
WRE	Wire

Abbreviations	Definition
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W

WS	West
WS	Welded Steel
WS	Waste Stack
WSHM	Washing Machine
WST	Water Stop
WT	Watertight
WTR	Water
WTRG	Water Gauge
WTRM	Water Meter
WTRP	Waterproof
WTRTP	Water Treatment Plant
WTRW	Water Waste
WWF	Welded Wire Fabric
WWM	Welded Wire Mesh

X

XFMR	Transformer
XFMRSS	Transformer, Secondary Side
XHHW	Moisture/And Heat-Resistant Cross-Linked Synthetic Polymer
XP	Explosion Proof
XRNC	Reactance
XXH	Double Extra Heavy

Y

YEL	Yellow
YD	Yard
YD2	Square Yard
YD3	Cubic Yard
YR	Year

Z

Z	Impedance
---	-----------

Misc

&	And
□□□□	Angle
±	Approximately
@	At
CL	Centerline
°	Degree
=	Equals
'	Foot
>	Greater Than
"	Inch
%%C	Phase

Abbreviations	Definition
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Misc




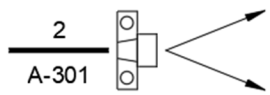
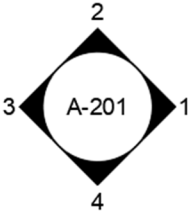
<	Less Than
#	Number
%	Percent
1 PH	Single-Phase
2PH	Two-Phase
3P	Three-Pole
3P SW	Triple-Pole Switch
3PDT	Three-Pole Double-Throw
3PDT	Triple-Pole Double-Throw
3PDT SW	Triple-Pole Double-Throw Switch
3PH	Three-Phase
3PST	Three-Pole Single-Throw
3PST	Triple-Pole Single-Throw
3PST SW	Triple-Pole Single-Throw Switch
3W	Three-Wire
3WAY	Three-Way

Appendix C

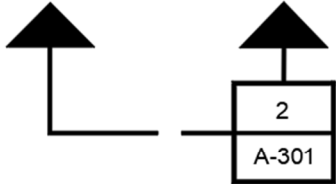
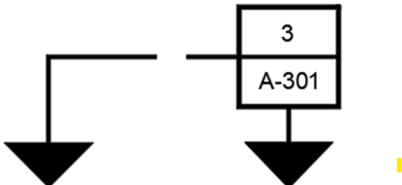
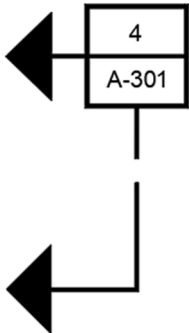
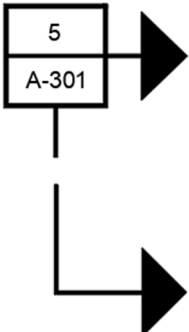
Design Symbols

Notes:





1. Refer to Sections 4.4, 4.5, and 4.6 of the Port of Seattle CAD Standards manual for information applicable to symbol usage and protocols.
2. The Port recognizes that not all required blocks/symbols may be represented in the provided resource library. Follow the guidelines in Section 4.4.1 when creating new symbols and blocks and submit to the Port of Seattle Design Quality team for approval.
3. The Port of Seattle welcomes any comments or suggestions regarding the Design Symbol Resource Library content. If errors in functionality are found, or if you have suggestions for improvement of any of the provided content, please send an e-mail with description and comments to DesignQuality@portseattle.org.

Symbol	Description	Block Name
	Detail Callout	Ref-Symbols.dwg Dynamic Select Type: Bub_Detl
	Elevation Callout	Ref-Symbols.dwg Dynamic Select Type: Bub_Elev
	Section Callout	Ref-Symbols.dwg Dynamic Select Type: Bub_Sect
	Photo/Image Camera Angle Callout	Ref-Symbols.dwg Dynamic Select Type: Cam-Ang-360
	Interior Elevation Callout	Int-Elev.dwg Dynamic Select Direction(s)



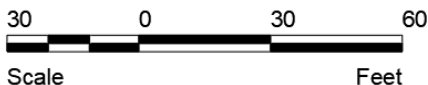


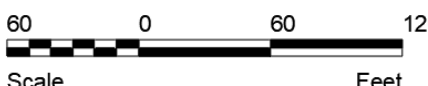





Reference Callouts (Model Space)

Symbol	Block Name
	Sect-Cut.dwg Dynamic Select Direction Move/Adjust Arrow
	
	
	

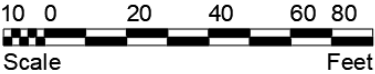

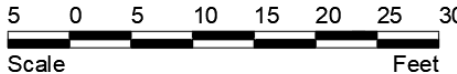
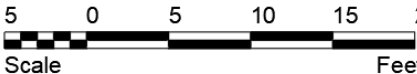


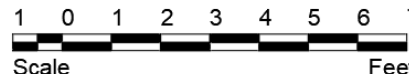
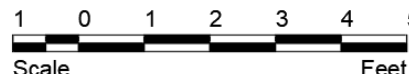
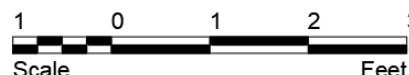

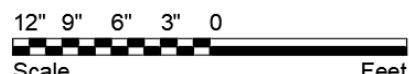

Section Cuts (Model Space)

Symbol	Block Name
	NAro.dwg Dynamic Rotate Arrow Upon Insertion
	
	
	










North Arrows (Paper Space)

Symbol	Block Name
<p>1"=10'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C10</p>
<p>1"=20'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C20</p>
<p>1"=30'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C30</p>
<p>1"=40'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C40</p>
<p>1"=50'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C50</p>
<p>1"=60'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C60</p>
<p>1"=100'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C100</p>
<p>1"=200'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C200</p>
<p>1"=300'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C300</p>
<p>1"=400'-0"</p>  <p>Scale Feet</p>	<p>Civil-Bar-Scale.dwg Visibility State C400</p>
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

Civil Scale Bars (Paper Space)

Symbol	Block Name
$1/32"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 1/32"SC
$1/16"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 1/16"SC
$3/32"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 3/32"SC
$1/8"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 1/8"SC
$3/16"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 3/16"SC
$1/4"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 1/4"SC
$3/8"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 3/8"SC
$1/2"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 1/2"SC
$3/4"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 3/4"SC
$1"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 1"SC
$1-1/2"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 1-1/2"SC
$3"=1'-0"$ 	Arch-Bar-Scale.dwg Visibility State 3"SC

Architectural Scale Bars (Paper Space)

Symbol	Block Name
PLAN  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-PLAN
DETAIL  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-DETAIL
ELEVATION  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-ELEV
SECTION  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-SECT
ENLARGED PLAN  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-EPLAN
BLOCK DIAGRAM  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-BDIA
LINE DIAGRAM  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-LDIA
RISER DIAGRAM  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-RDIA
PHOTO  LINE_1 LINE_2 LINE_3 SCALE: 1/8" = 1'-0"	Ref-TTLE.dwg Dynamic Select Type: TTL-PHOT



View Titles (Paper Space)

Symbol	Block Name
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	_TagHexa
	_TagTria
	Delta




































































General Annotation

Symbol & Block Name	Symbol & Block Name
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; margin: 0;">APPROVED AS-BUILT SET</p> <p style="margin: 5px 0;">DOCUMENTS ARE BASED SOLELY ON THE RECORD WORKING DRAWINGS SUPPLIED BY THE CONTRACTOR AND THE CONTRACT DOCUMENTS. THEY DO NOT NECESSARILY SHOW ALL EXISTING CONDITIONS AND MAY NOT BE ACCURATE AT ALL LOCATIONS. FIELD VERIFY EXISTING AND/OR HIDDEN CONDITIONS PRIOR TO COMMENCEMENT OF NEW WORK.</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>ABCD _____</p> <p>APPROVED BY</p> <p>00/00/00 _____</p> <p>DATE</p> </div> <p style="text-align: center; margin-top: 10px;">PORT_22X34_AsBltCvr</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; margin: 0;">TENANT IMPROVEMENT CONTRACT</p> <p>APPROVED BY</p> <p>ABCD _____</p> <p>00/00/00 _____</p> <p>DATE</p> </div> <div style="border: 1px solid black; padding: 5px; display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>WORK PROJECT NO.</p> <p>D-NNNN _____</p> </div> <div style="width: 45%;"> <p>PORT OF SEATTLE NO. + SHEET NUMBER</p> <p>STIA-07XX G0 _____</p> </div> </div> <p style="text-align: center; margin-top: 10px;">PORT_22X34_TenantCvr</p>
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; margin: 0;">MAJOR CONTRACT</p> <p>APPROVED BY</p> <p>ABCD _____</p> <p>00/00/00 _____</p> <p>DATE</p> </div> <div style="border: 1px solid black; padding: 5px; display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>WORK PROJECT NO.</p> <p>D-NNNN _____</p> </div> <div style="width: 45%;"> <p>PORT OF SEATTLE NO. + SHEET NUMBER</p> <p>STIA-07XX G0 _____</p> </div> </div> <p style="text-align: center; margin-top: 10px;">PORT_22X34_MajContCvr</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; margin: 0;">PORT OF SEATTLE SURVEY</p> <p>APPROVED BY</p> <p>ABCD _____</p> <p>00/00/00 _____</p> <p>DATE</p> </div> <div style="border: 1px solid black; padding: 5px; display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>WORK PROJECT NO.</p> <p>D-NNNN _____</p> </div> <div style="width: 45%;"> <p>PORT OF SEATTLE NO. + SHEET NUMBER</p> <p>STIA-07XX G0 _____</p> </div> </div> <p style="text-align: center; margin-top: 10px;">PORT_22X34_SurveyCvr</p>
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; margin: 0;">SMALL WORKS CONTRACT</p> <p>APPROVED BY</p> <p>ABCD _____</p> <p>00/00/00 _____</p> <p>DATE</p> </div> <div style="border: 1px solid black; padding: 5px; display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>WORK PROJECT NO.</p> <p>D-NNNN _____</p> </div> <div style="width: 45%;"> <p>PORT OF SEATTLE NO. + SHEET NUMBER</p> <p>STIA-07XX G0 _____</p> </div> </div> <p style="text-align: center; margin-top: 10px;">PORT_22X34_SmWkCvr</p>	


























































Cover Sheet Stamps (Paper Space)

Symbol	Block Name	Symbol	Block Name
	4RefOnly		
NOT FOR CONSTRUCTION	NFC		
NOTICE INFORMATION CONTAINED IS REPRESENTATIVE OF EXISTING CONDITIONS. THE PORT DOES NOT GUARANTEE THE INFORMATION CONTAINED HEREON AND FIELD VERIFICATION IS RECOMMENDED. " NOT AS-BUILT "	DISCLAIM		
	AsBltSht		



















































Titleblock/Plan Sheet Stamps (Paper Space)

Symbol	Block Name	Description	Symbol	Block Name	Description
 AIRCRAFT TIE-DOWN  AIRFIELD SIGN  FAA ANTENNA  FAA CABLE MARKER  FAA MANHOLE  DEBRIS SENSOR	SITE_AFLD-DEVICE	AIRFIELD DEVICES DYNAMIC: SELECT TYPE	 RIP-RAP  ROCK  BENCH  BOLLARD  CRANE STOP  ECOLOGY BLOCK	SITE_EARTHWORK	EARTHWORK DYNAMIC: SELECT TYPE
 ABANDONED LIGHT CAN  RUNWAY CENTERLINE  TAXIWAY CENTERLINE  FAA LANDING  RUNWAY  HOLDING  LANDING  PAPI  RUNWAY EDGE (FLUSH)  RUNWAY EDGE (UPRIGHT)  TAXIWAY EDGE  TOUCHDOWN  THRESHOLD  MGWAG	SITE_AFLD-LIGHT	AIRFIELD LIGHTING DYNAMIC: SELECT TYPE	 ELECTRICAL PUMP  EMER SHUT-OFF SWITCH  LIFT HOIST  LIFT STATION  MAILBOX  MONITORING WELL  PLUG  RAILROAD FLANGE LUBRICATOR  SUMP PUMP  TEST HOLE  VENT VALVE  WINDSOCK	SITE_EQUIP	MISC. EQUIPMENT DYNAMIC: SELECT TYPE
 AIR SERVICE PIT  AIR VENT	SITE_AIR	AIR SYSTEMS DYNAMIC: SELECT TYPE			
 CABLE TV JUNCTION BOX  SATELLITE DISK  HANDHOLE  PANEL  POLE  RISER  PHONE BOOTH  CARD READER  MANHOLE  VAULT	SITE_COMM	COMMUNICATIONS DYNAMIC: SELECT TYPE	 GATE POST  GATE CONTROL BOX  METAL POST  WOOD POST	SITE_FENCE	FENCING DYNAMIC: SELECT TYPE
 SCO  ICO  DOO	SITE_CO	DYNAMIC CLEANOUT SELECT TYPE	 FIRE ALARM  FIRE DEPT CONNECTION  HYDRANT  HYDRANT FLUSH  SHIP'S HYDRANT  FIRE HOSE  FIRE HOLES IN DOCK  STANDPIPE	SITE_FIRE	FIRE SUPPRESSION DYNAMIC: SELECT TYPE
 DECK DRAIN  ROOF DRAIN	SITE_DRAINS	DRAINS DYNAMIC: SELECT TYPE			









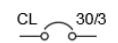








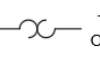
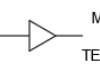



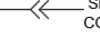

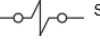



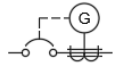

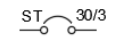
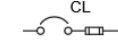
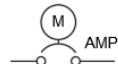
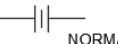
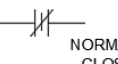
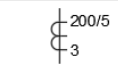
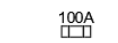

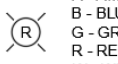
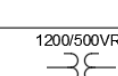
Site Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 FUEL CAP  FUEL HATCH  NATURAL GAS METER  NATURAL GAS VALVE  WITNESS POST  FUEL PUMP  FUEL TANK  TEST STATION  FUEL VALVE  FUEL VENT	SITE_FUEL	FUEL SYSTEMS DYNAMIC: SELECT TYPE	 HANDICAP  TURN  STRAIGHT  STRAIGHT THEN TURN	SITE_PAVE-MRKG	PAVEMENT MARKINGS DYNAMIC: SELECT TYPE/DIRECTION
 IRRIGATION CONTROL PANEL  IRRIGATION CONTROL VALVE  IRRIGATION SPRINKLER HEAD  IRRIGATION SPRINKLER VALVE	SITE_IRRIG	IRRIGATION DYNAMIC: SELECT TYPE	 CABINET  GROUND ROD BOX  GROUND ROD  GUY ANCHOR  GUY POST  HANDHOLE  JUNCTION BOX  MANHOLE  METER  OUTLET  REEFER OUTLET  SHIP OUTLET  PANEL  POLE  SENSOR  XFMR  XFMR CAN  VLT VAULT	SITE_POWER	POWER DYNAMIC: SELECT TYPE
 IWSS CATCH BASIN  IWSS MANHOLE  IWSS ROOF DRAIN  IWSS VALVE	SITE_IWSS	INDUSTRIAL WASTEWATER SEWER DYNAMIC: SELECT TYPE			
 END OF TRACE  PHOTO TARGET	SITE_MISC	MISCELLANEOUS DYNAMIC			
 AREA LIGHT  POLE BASE  LIGHT POLE  SINGLE ARM LIGHT POLE  DOUBLE ARM LIGHT POLE  LIGHT POLE W/ TRAFFIC SIGNAL  ALTERNATE TRAFFIC SIGNAL POLE  TS	SITE_LIGHTING	LIGHTS & LIGHT POLES DYNAMIC: SELECT TYPE	 AIR RELIEF VALVE  BACKFLOW PREVENTER  PIPE CAP  BUILDING COLUMN  BUILDING LINE  PROPERTY CORNER	SITE_PIPE-MISC	MISC PIPING DYNAMIC: SELECT TYPE
 WHEEL CHAIR RAMP	SITE_PAVE	DYNAMIC		SITE_PROPERTY	MISC SITE SYMBOLS DYNAMIC: SELECT TYPE

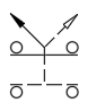
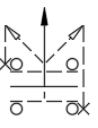






















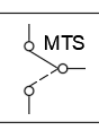
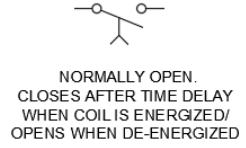
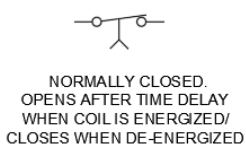
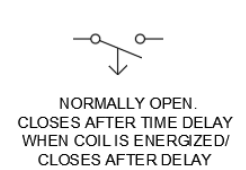
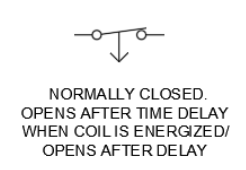
Site Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 CLEAT	SITE_SEAPORT	SEAPORT/DOCK/PIER DYNAMIC: SELECT TYPE	 UTIL	SITE_UTIL-POLE	GENERIC UTILITY POLE
 HATCH ON PIER			 I VLT	SITE_UTIL-VAULT	UTILITY VAULTS DYNAMIC: SELECT TYPE
 LADDER			 S VLT		
 LIFE RING			 D VLT		
 DOLPHIN PILE			 W VLT		
 SEAPORT PILE			 P VLT		
 SHIP BOLLARD			 T VLT		
 SHIP TIE-DOWN			 U VLT		
 BRIDGE SIGN	SITE_SIGNAGE	SIGNS DYNAMIC: SELECT TYPE	 AW	SITE_WATER	WATER SYSTEM DYNAMIC: SELECT TYPE
 RAILROAD SIGN			 BO		
 STOP SIGN			 WHH		
 CB	SITE_STORM	STORM DRAIN DYNAMIC: SELECT TYPE	 W		
 CULVERT			 M		
 D			 P&J VALVE		
 D VLT			 SPIGOT		
 CONIFER	SITE_TREES	TREES/SHRUBS DYNAMIC: SELECT TYPE	 S		
 DECIDUOUS			 SPILLWAY		
 SHRUB			 W		
 U	SITE_UTIL-HHOL-UNKN	UNIDENTIFIED UTILITY HANDHOLE	 W		
 W	SITE_UTIL-MHOL	DYNAMIC UTILITY MANHOLE SELECT TYPE	 W VLT		
 D			 W		
 P					
 O					
 I					
 T					
 S					
 M					
 C					
 U					


















































Site Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description		
	SCHEM_ACB	DRAWOUT AC CIRCUIT BREAKER	   	SCHEM_RELAY-COIL	DRAWOUT AC CIRCUIT BREAKER		
 A - AMBER B - BLUE G - GREEN R - RED W - WHITE	SCHEM_ALS	ALARM LIGHT/STROBE ENTER TYPE					
	SCHEM_ACB-600V	DRAWOUT AC CIRCUIT BREAKER - 600V				SCHEM_SS-START	SOLID STATE STARTER
	SCHEM_CBCL	CURRENT LIMITING CIRCUIT BREAKER	                  			SCHEM_INLINE-MISC	MISC INLINE SELECT TYPE
	SCHEM_CBEG	EXTERIOR GFCI CIRCUIT BREAKER					
	SCHEM_CBG	GFCI CIRCUIT BREAKER					
	SCHEM_CBST	SHUNT TRIP CIRCUIT BREAKER					
	SCHEM_CLCB	CURRENT LIMITING CIRCUIT BREAKER					
	SCHEM_CMOB	MOTOR OPERATED CIRCUIT BREAKER					
 	SCHEM_CIRCUIT	CIRCUIT SELECT TYPE					
	SCHEM_CRT	CURRENT TRANSFORMER					
	SCHEM_FUSE	FUSE - AMPERAGE INDICATED					
 METER TYPE: AM - AMMETER AFD - ARCH FLASH DM - DIGITAL FM - FREQUENCY I - INTERLOCK KWH - KILOWATT HOUR VARHM - VAR HOUR VM - VOLTMETER KVA - KILOVOLT AMP	SCHEM_IND-INSTRU	INDICATING INSTRUMENT ENTER TYPE					
 A - AMBER B - BLUE G - GREEN R - RED W - WHITE	SCHEM_ILC	INDICATION LIGHT ENTER TYPE					
	SCHEM_PV-XFMR	POTENTIAL VOLTAGE TRANSFORMER					

















































Electrical Schematic/Diagram Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 2-POSITION  3-POSITION  ON/OFF	SCHEM_S-SWITCH	SELECTOR SWITCHES SELECT TYPE	 TEMP ACTUATED - CLOSING ON RISE  TEMP ACTUATED - OPENING ON RISE  TESTING - SHORTING TYPE  TESTING	SCHEM_SWITCH	SELECTOR SWITCHES SELECT TYPE
 DISCONNECT  ELECTRICALLY OPERATED  FLOW ACTUATED - CLOSING ON INCREASED FLOW  FLOW ACTUATED - OPENING ON INCREASED FLOW  FUSED CUTOOUT  GROUP OPERATED  LIQUID LEVEL ACTUATED - CLOSING ON RISING LIQUID  LIQUID LEVEL ACTUATED - OPENING ON RISING LIQUID  NORMALLY CLOSED  NORMALLY CLOSED, HELD OPEN  NORMALLY OPEN  NORMALLY OPEN, HELD CLOSED  PUSH BUTTON, NORMALLY CLOSED  PUSH BUTTON, NORMALLY OPEN  PRESSURE/VAC - CLOSING ON INCREASE  PRESSURE/VAC - OPENING ON INCREASE	SCHEM_SWITCH	SELECTOR SWITCHES SELECT TYPE	 ST GFCI  MTS	SCHEM_SEGF SCHEM_TRNFSW	SWITCH WITH EXT. GFCI TRANSFER SWITCH
			 NORMALLY OPEN. CLOSING AFTER TIME DELAY WHEN COIL IS ENERGIZED/ OPENS WHEN DE-ENERGIZED  NORMALLY CLOSED. OPENING AFTER TIME DELAY WHEN COIL IS ENERGIZED/ CLOSING WHEN DE-ENERGIZED  NORMALLY OPEN. CLOSING AFTER TIME DELAY WHEN COIL IS ENERGIZED/ CLOSING AFTER DELAY  NORMALLY CLOSED. OPENING AFTER TIME DELAY WHEN COIL IS ENERGIZED/ OPENS AFTER DELAY	SCHEM_TDSW	TIME DELAY SWITCHES SELECT TYPE





















































Electrical Schematic/Diagram Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 ANNUNCIATOR  AUXILIARY INPUT JACK  AUXILIARY OUTPUT JACK  CABLE TRAY  CLOCK  CARD READER  CONTROL PANEL  DOOR STRIKE  EMERGENCY SHUTOFF  INSTRUMENT SWITCH  INTERCOM STATION  PUSH BUTTON SWITCH  REQUEST EXIT  SECURITY CAMERA  TELEPHONE FLUSH FLOOR COUPLING PEDESTAL  VOLUME CONTROL  TRANSDUCER	E_COMM-DEVICE	COMMUNICATION SYSTEM DEVICES DYNAMIC: SELECT TYPE/STATE (ANNOTATIVE)	 PULL STATION  MANUAL PULL STATION  GONG BELL  ALARM BELL  ALARM BUZZER  ALARM CHIME  ALARM LIGHT STROBE  HORN  STROBE  ALARM HORN STROBE  ALARM PANEL  FLAME DETECTOR  GAS DETECTOR  HEAT DETECTOR  SMOKE DETECTOR  EMERGENCY TELEPHONE STATION	E_FIRE-DEVICE	ELECTRICAL FIRE SYSTEM DEVICES. DYNAMIC: SELECT TYPE/STAT (ANNOTATIVE)
 DATA  TELEPHONE  COMBO	E_COMM-OTLT	COMMUNICATION OUTLET TEL/DATA/COMBO DYNAMIC: SELECT TYPE (ANNOTATIVE)	 GROUND  PIGTAIL  ROD  WELL  WELDED CONNECTION	E_GRND	ELECTRICAL GROUNDING DYNAMIC: SELECT TYPE/STATE (ANNOTATIVE)
 CLNG RECESS  CLNG SURFACE  WALL RECESS  WALL SURFACE  CLOCK COMBO  SPEAKER W/ SWITCHING GROUP TAG	E_COMM-SPKR	SPEAKER DYNAMIC: SELECT TYPE (ANNOTATIVE)	 480Y/270V 4W  208Y/120V 4W	E_PANEL	ELECTRICAL PANELS DYNAMIC: SELECT TYPE/STATE (ANNOTATIVE)












































Electrical Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 3-POLE STARTER  3-POLE COMBO STARTER  CAPACITOR BANK  CONTROL STATION  EQUIPMENT CABINET  FLUSH FLOOR BOX  FLUSH FLOOR COUPLING  FLUSH FLOOR DEVICE  GENERATOR  JUNCTION BOX  HANDHOLE  PHOTOELEC SENSOR  PULLBOX  POWER INVERTER  VFD  xxA  xxAF  M  T D°	E_POWR-DEVICE	POWER DEVICES/EQUIPMENT DYNAMIC: SELECT TYPE/STATE (ANNOTATIVE)	 CEILING MTD DUPLEX  GROUND TYPE DUPLEX  GROUND TYPE DOUBLE DUPLEX  GROUND TYPE SINGLE  P  POKE THRU TYPE  POWER/DATA  X WP  SPECIAL PURPOSE  SPLIT WIRED GROUND DUPLEX	E_RECPT	RECEPTACLES DYNAMIC: SELECT TYPE/STATE (ANNOTATIVE)
 STANDARD  EMERGENCY	E_LITE-CHAIN HUNG	LIGHT - CHAIN HUNG STANDARD & EMERGENCY DYNAMIC: SELECT SIZE/TYPE	 BATTERY ONLY - NO DIRECTION  BATTERY ONLY - THIS WAY  BATTERY ONLY - THAT WAY  BATTERY ONLY - BOTH WAYS  BATTERY/EXIT NO DIRECTION  BATTERY/EXIT THIS WAY  BATTERY/EXIT THAT WAY  BATTERY/EXIT BOTH WAYS	E_LITE-BATT	LIGHT - BATTERY POWERED & EXIT COMBO DYNAMIC: SELECT TYPE/STATE
 FRONT - NO DIRECTION  FRONT - THIS WAY  FRONT - THAT WAY  FRONT - BOTH WAYS  SIDE - THIS WAY  SIDE - THAT WAY	E_LITE-CLG-EXIT	LIGHT - CEILING MTD EXIT DYNAMIC: SELECT TYPE/DIRECTION	 ROUND  SQUARE  TRACK TYPE	E_LITE-SCONCE	LIGHT - SCONCE DYNAMIC: SELECT TYPE






Electrical Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 SURFACE MTD STANDARD  SURFACE MTD EMERGENCY  RECESSED STANDARD  RECESSED EMERGENCY  RECESSED WALL WASHER	E_LITE-DOWN	DOWNLIGHT DYNAMIC: SELECT TYPE/STATE	 BOLLARD  CEILING MTD DOUBLE FACED  DIRECTIONAL EMERGENCY  EXTERIOR FIXTURE  EXTERIOR STEP FIXTURE  RECESSED WALL	E_LITE-MISC	LIGHTING DEVICES/EQUIPMENT DYNAMIC: SELECT TYPE
 STANDARD  EMERGENCY	E_LITE-FLUOR-CMTD	LIGHT - CEILING MTD FLUOR STANDARD & EMERGENCY DYNAMIC: SELECT SIZE/TYPE	 ILLUMINATION CONTROL  NIGHT LIGHT  OCCUPANCY SWITCH  PHOTOCCELL CONTROL  SUBSTATION LIGHT	E_LITE-DEVICE	LIGHTING DEVICES/EQUIPMENT DYNAMIC: SELECT TYPE (ANNOTATIVE)
 STANDARD  EMERGENCY	E_LITE-FLUOR	LIGHT - FLUOR 1x STANDARD & EMERGENCY DYNAMIC: SELECT SIZE/TYPE			
 STANDARD  EMERGENCY	E_LITE-STRIP	LIGHT - STRIP STANDARD & EMERGENCY DYNAMIC: SELECT SIZE/TYPE			
 STANDARD  EMERGENCY	E_LITE-FLUOR-WALL	LIGHT - FLUOR WALL STANDARD & EMERGENCY DYNAMIC: SELECT SIZE/TYPE			
 STANDARD  EMERGENCY	E_LITE-FLUOR-TROFF	LIGHT - FLUOR TROFFER STANDARD & EMERGENCY DYNAMIC: SELECT SIZE/TYPE	 SINGLE POLE SWITCH  3-WAY SWITCH  3-WAY KEYED SWITCH  4-WAY SWITCH  4-WAY KEYED SWITCH  4-WAY KEYED SWITCH  DIMMER SWITCH  DIMMER W/ OCCUPANCY SWITCH  KEY OPERATED SWITCH  LOW VOLTAGE SWITCH  OCCUPANCY SENSOR SWITCH  PILOT LIGHT SWITCH  MANUAL MOTOR STARTER SWITCH  TIMER SWITCH  WALL SWITCH W/ INDICATOR & GROUP	E_SWITCH	ELECTRICAL SWITCHES DYNAMIC: SELECT TYPE (ANNOTATIVE)
 STANDARD  EMERGENCY	E_LITE-PARA-TROFF	LIGHT - PARABOLIC TROFFER STANDARD & EMERGENCY DYNAMIC: SELECT SIZE/TYPE			
 FRONT - NO DIRECTION  FRONT - THIS WAY  FRONT - THAT WAY  FRONT - BOTH WAYS  SIDE - THIS WAY  SIDE - THAT WAY	E_LITE-WALL-EXIT	LIGHT - WALL MTD EXIT DYNAMIC: SELECT TYPE/DIRECTION			
 ARM  FLOOD  TOP	E_LITE-POLE-MTD	LIGHT - POLE MOUNTED DYNAMIC: SELECT TYPE			



















Electrical Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description		
<div></div> <div>CEILING DIFFUSER (4-WAY)</div>	M_HVAC-CLG-DIFF	CEILING DIFFUSER DYNAMIC: SELECT SIZE/TYPE	<div></div> <div>VAV</div>	M_HVAC-VAV	TERMINAL UNIT W/ ACCESS DYNAMIC: SELECT SIZE/DIRECTION		
<div></div> <div>CEILING DIFFUSER (3-WAY)</div>			<div></div>	M_HVAC-FTU-PF	GENERIC PARALLEL FLOW FAN TERMINAL UNIT		
<div></div> <div>CEILING PLENUM/GRILLE</div>	M_HVAC-CLG-GRILLE	RETURN/EXHAUST/TRANSFER DYNAMIC: SELECT SIZE	<div></div>	M_HVAC-FTU-SF	GENERIC SERIES FLOW FAN TERMINAL UNIT		
<div></div> <div>ROUND CEILING DIFFUSER</div>	M_HVAC-CLG-DIFF-RND	ROUND CEILING DIFFUSER DYNAMIC: SELECT SIZE	<div></div>	M_HVAC-TU	GENERIC TERMINAL UNIT		
<div></div> <div>LINEAR CEILING DIFFUSER</div>	M_HVAC-CLG-DIFF-LIN	LINEAR CEILING DIFFUSER DYNAMIC: SELECT SIZE/SLOT #	<div></div>	M_HVAC-UH	UNIT HEATER		
			<div></div>	M_HVAC-FLEX-CONN	FLEX CONNECTION DYNAMIC: SELECT SIZE		
<div></div> <div>AIR FLOW MONITOR</div>	M_HVAC-DUCT-DEVICE	DAMPERS & ACCESSORIES DYNAMIC: SELECT TYPE	<div></div> <div>TEMPERATURE</div>	M_HVAC-SENSOR	SENSORS DYNAMIC: SELECT TYPE		
<div></div> <div>BACKDRAFT DAMPER</div>			<div></div> <div>PRESSURE</div>				
<div></div> <div>FIRE DAMPER THRU WALL</div>			<div></div> <div>HUMIDITY</div>				
<div></div> <div>FIRE DAMPER THRU FLOOR</div>			<div></div> <div>INDOOR AIR</div>				
<div></div> <div>FIRE/SMOKE DAMPER THRU FLOOR</div>			<div></div> <div>AIRFLOW</div>				
<div></div> <div>FIRE/SMOKE DAMPER THRU FLOOR</div>			<div></div>	M_HVAC-90D-TVANE	90° ELBOW W/ TURNING VANES DYNAMIC: SELECT SIZE		
<div></div> <div>FIRE/SMOKE DAMPER THRU FLOOR</div>			<div></div> <div>AD ACCESS DOOR</div>	M_HVAC-ACCESS	HVAC ACCESS DYNAMIC: SELECT TYPE		
<div></div> <div>REMOTE OPERATED VOLUME DAMPER</div>			<div></div> <div>ACCESS PANEL</div>				
<div></div> <div>MOTORIZED DAMPER</div>			<div></div>	M_HVAC-AMU	AIR MEASURING UNIT		
<div></div> <div>SUPPLY ARROW</div>			<div></div> <div>VANE AXIAL</div>	M_HVAC-FAN	FANS SELECT TYPE		
<div></div> <div>RETURN ARROW</div>						<div></div> <div>PROPELLER</div>	
<div></div> <div>VOLUME DAMPER</div>						<div></div> <div>INLINE</div>	
<div></div> <div>PRESSURE SENSOR</div>						<div></div> <div>FAN</div>	
<div></div> <div>TEMPERATURE SENSOR</div>							
<div></div> <div>SUPPLY WALL GRILLE</div>			M_HVAC-WALL-GRILLE	WALL GRILLES DYNAMIC: SELECT TYPE	<div></div>	M_HVAC-DUCT-EADN	EXHAUST/RETURN AIR DOWN SELECT SIZE
<div></div> <div>RETURN WALL GRILLE</div>							
<div></div> <div>FAN POWERED VAV</div>	M_HVAC-FPVAV	FAN POWERED TERMINAL UNIT W/ ACCESS DYNAMIC: SELECT SIZE/DIRECTION	<div></div>	M_HVAC-DUCT-EAUP	EXHAUST/RETURN AIR UP SELECT SIZE		









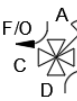























HVAC Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
	M_HVAC-DUCT-SADN	SUPPLY AIR DOWN SELECT SIZE			
	M_HVAC-DUCT-SAUP	SUPPLY AIR UP SELECT SIZE			
	M_HVAC-DUCT-RNDDN	ROUND DUCT DOWN SELECT SIZE			
	M_HVAC-DUCT-RNDUP	ROUND DUCT UP SELECT SIZE			
	M_HVAC-COIL	HEATING/COOLING COIL ROTATE/STRETCH			




HVAC Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 PRIMARY LOCATION (NORMALLY ACCESSIBLE TO OPERATOR)	P&ID_DISCRETE-INST	DISCRETE INSTRUMENTS SELECT TYPE	 PRIMARY LOCATION (NORMALLY ACCESSIBLE TO OPERATOR)	P&ID_COMP-FUNCT	COMPUTER FUNCTION SELECT TYPE
 PRIMARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)			 PRIMARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)		
 FIELD MOUNTED			 FIELD MOUNTED		
 AUXILIARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)			 AUXILIARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)		
 PRIMARY LOCATION (NORMALLY ACCESSIBLE TO OPERATOR)	P&ID_SHARED-DC	SHARED DISPLAY SHARED CONTROL SELECT TYPE	 PRIMARY LOCATION (NORMALLY ACCESSIBLE TO OPERATOR)	P&ID_PROG-LOG	PROGRAMMABLE LOGIC CONTROL SELECT TYPE
 PRIMARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)			 PRIMARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)		
 FIELD MOUNTED			 FIELD MOUNTED		
 AUXILIARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)			 AUXILIARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)		
 AUXILIARY LOCATION (NORMALLY INACCESSIBLE TO OPERATOR)	P&ID_INDICATOR	INDICATOR	 INTERLOCK	P&ID_INTERLOCK	INTERLOCK


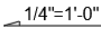





P&ID Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 2-WAY_1  2-WAY_2  3-WAY  4-WAY  4-WAY DOUBLE	P&ID_VALV-SOLENOID	INLINE ACTUATED SOLENOID VALVES SELECT TYPE	 FAIL OPEN  FAIL CLOSED  3-WAY FAIL OPEN TO PATH A-C  4-WAY FAIL OPEN TO PATH A-C, D-B	P&ID_VALV-FAILLOC	INLINE ACTUATED FAIL OPEN/CLOSED SELECT TYPE
 SINGLE ACTING PISTON  DOUBLE ACTING PISTON  SINGLE ACTING PISTON OPERATED  DOUBLE ACTING PISTON OPERATED  SINGLE ACTING PISTON OPERATED W/ POSITIONER  DOUBLE ACTING PISTON OPERATED W/ POSITIONER  DOUBLE ACTING PISTON OPERATED W/ 4-WAY SOLENOID	P&ID_VALV-PISTON	INLINE ACTUATED PISTON VALVES SELECT TYPE	 BACK PRESSURE REGULATOR  BACK PRESSURE REGULATOR (EXTERNAL TAP)  PRESSURE REGULATOR  PRESSURE REDUCING REGULATOR  VACUUM RELIEF PRESSURE REDUCING REGULATOR (EXTERNAL TAP)  PRESSURE RELIEF OR SAFETY  PRESSURE RELIEF & VACUUM  VACUUM RELIEF  DIFFERENTIAL PRESSURE REDUCING REGULATOR	P&ID_VALV-BCKPRS	INLINE ACTUATED BACK PRESSURE REGULATORS SELECT TYPE
			 CONTROL  CONTROL W/ MANUAL ACTUATOR  3-WAY PNEUMATIC PILOT  4-WAY PNEUMATIC PILOT  MOTORIZED BALL	P&ID_VALV-MISC	INLINE ACTUATED MISCELLANEOUS SELECT TYPE
 FLOAT  FLOAT OPERATED	P&ID_VALV-FLOAT	INLINE ACTUATED FLOAT VALVES SELECT TYPE			


























P&ID Inline Actuated Valve Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 MOTOR OPERATED  DOUBLE ACTING ELECTRICALLY OPERATED  DIAPHRAGM OPERATED W/ POSITIONER	P&ID_VALV-MISC	INLINE ACTUATED MISCELLANEOUS SELECT TYPE			

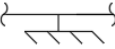


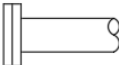



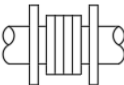

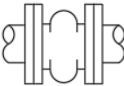

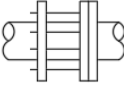

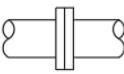

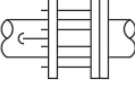



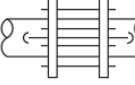

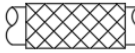

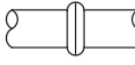
P&ID Inline Actuated Valve Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 FLOW ARROW	P_FLOW-ARROW	FLOW DIRECTION ARROW			
 SLOPE INDICATOR	P_SLOPE	PIPE SLOPE			
 POINT OF CONNECTION  POINT OF DEMOLITION	P_POC-D	SELECT TYPE			
 FIXTURE TAG	P_TAG-FIXT	PLUMBING FIXTURE TAG			
 EQUIPMENT TAG	P_TAG-EQMT	EQUIPMENT TAG			
 PIPE TAG	P_TAG-PIPE	PIPE IDENTIFICATION			


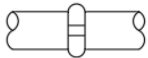














Pipe/Plumbing Design Symbols - Annotation

Symbol	Block Name	Description	Symbol	Block Name	Description
 PIPE BREAK	P_FITG-SINGLE	SINGLE LINE PIPE FITTINGS SELECT TYPE	 CAP (DOUBLE LINE)	P_FITG-DOUBLE	DOUBLE LINE PIPE FITTINGS SELECT TYPE
 CAP			 CROSS (DOUBLE LINE)		
 CROSS			 45 DEGREE ELBOW (DOUBLE LINE)		
 45 DEGREE ELBOW			 90 DEGREE ELBOW (DOUBLE LINE)		
 90 DEGREE ELBOW			 ELBOW DOWN (DOUBLE LINE)		
 ELBOW DOWN			 ELBOW UP (DOUBLE LINE)		
 ELBOW UP			 TEE (DOUBLE LINE)		
 TEE			 TEE DOWN (DOUBLE LINE)		
 TEE DOWN			 TEE UP (DOUBLE LINE)		
 TEE UP			 LATERAL		
 LATERAL			 LATERAL DOWN		
 LATERAL DOWN			 LATERAL UP		
 LATERAL UP					















































Pipe Design Symbols - Fittings

Symbol	Block Name	Description	Symbol	Block Name	Description
 ANCHOR			 ANCHOR		
 BLIND FLANGE			 BLIND FLANGE		
 BELLOW			 BELLOW		
 EXPANSION JOINT			 EXPANSION JOINT		
 FABRIC EXPANSION JOINT			 FABRIC EXPANSION JOINT		
 FLANGE COUPLING	P_FITG-CONN-SINGLE	SINGLE LINE PIPE CONNECTION FITTINGS SELECT TYPE	 FLANGE COUPLING	P_FITG-CONN-DOUBLE	DOUBLE LINE PIPE CONNECTION FITTINGS SELECT TYPE
 FLANGE JOINT			 FLANGE JOINT		
 RESTRAINED FLANGE			 RESTRAINED FLANGE		
 SLEEVE			 SLEEVE		
 RESTRAINED SLEEVE			 RESTRAINED SLEEVE		
 FLEXIBLE CONNECTION			 FLEXIBLE CONNECTION		
 GROOVED END ADAPTER			 GROOVED END ADAPTER		








Pipe Design Symbols - Fittings

Symbol	Block Name	Description	Symbol	Block Name	Description
 GROOVED END COUPLING	P_FITG-CONN-SINGLE	SINGLE LINE PIPE CONNECTION FITTINGS SELECT TYPE	 GROOVED END COUPLING	P_FITG-CONN-DOUBLE	DOUBLE LINE PIPE CONNECTION FITTINGS SELECT TYPE
 GROOVED END FLANGE JOINT			 GROOVED END FLANGE JOINT		
 PUSH ON SOCKET JOINT			 PUSH ON SOCKET JOINT		
 PUSH ON SOCKET JOINT, RESTRAINED			 PUSH ON SOCKET JOINT RESTRAINED		
 UNION			 UNION		
 WELDED			 WELDED		
 CONCENTRIC REDUCER (SINGLE LINE)	P_FITG-REDUCE	PIPE REDUCER SELECT TYPE			
 ECCENTRIC REDUCER (SINGLE LINE)					
 CONCENTRIC REDUCER (DOUBLE LINE)					
 ECCENTRIC REDUCER (DOUBLE LINE)					












































Pipe Design Symbols - Fittings

Symbol	Block Name	Description	Symbol	Block Name	Description
 BALL  BALL (ALTERNATE)  MOTORIZED  HYDRAULIC  PNEUMATIC CONTROL	P_VALV-BALL	BALL VALVES SELECT TYPE	 GATE  3-WAY  ANGLE  KNIFE  HYDRAULIC  PNEUMATIC CONTROL  MANUAL  MOTORIZED  HOSE VALVE	P_VALV-GATE	GATE VALVES SELECT TYPE
 BUTTERFLY  BUTTERFLY (ALTERNATE)	P_VALV-BTRFLY	BUTTERFLY VALVE			
 CHECK  SWING CHECK  STOP CHECK  BALL CHECK  DOUBLE LEAF CHECK  DCBA  FLAP GATE  PUMP DISCHARGE  DIAPHRAGM	P_VALV-CHECK	CHECK VALVE SELECT TYPE	 BASKET STRAINER  FLOAT VALVE  GAS COCK  GAUGE ROOT VALVE  PINCH VALVE  PRESSURE BALANCE OPERATING  SOLENOID  STRAINER W/ BLOWDOWN  THERMO CONTROL	P_VALV-MISC	MISCELLANEOUS VALVES SELECT TYPE
 DIAPHRAGM VALVE  DIAPHRAGM OPERATED VALVE	P_VALV-DIAPH	DIAPHRAGM SELECT TYPE	 BALANCING COCK  CIRCUIT SETTER  GLOBE VALVE  NEEDLE VALVE	P_VALV-REGU	REGULATING VALVES SELECT TYPE
 PRESSURE REDUCING VALVE  RPBA	P_VALV-REDC	REDUCING VALVES SELECT TYPE	 BACK PRESSURE REGULATOR  PRESSURE REGULATING VALVE		
 PLUG VALVE  ECCENTRIC PLUG	P_VALV-PLUG	PLUG VALVES SELECT TYPE			













Pipe Design Symbols - Valves

Symbol	Block Name	Description	Symbol	Block Name	Description
 RELIEF  VACUUM RELIEF  PRESSURE/ VACUUM RELIEF  AIR/VACUUM RELEASE  AAV → AUTO AIR VENT  MAV → MANUAL AIR VENT  IN-LINE SPRING	P_VALV-RELIEF	RELIEF VALVES SELECT TYPE			

Pipe/Plumbing - Valves

Symbol	Block Name	Description	Symbol	Block Name	Description
 AIR FROM ATMOSPHERE	P_DEVC	DEVICES SELECT TYPE	 CLEANOUT (SITE)	P_FITG-CLNOUT	CLEANOUT
 AIR TO ATMOSPHERE			 HOSE BIBB	P_EQPM	EQUIPMENT SELECT TYPE
 GAUGE W/ COCK			 STATIC MIXER		
 PIPE ANCHOR			 STEAM TRAP ASSEMBLY		
 PIPE GUIDE			 STEAM TRAP W/ BYPASS		
 PRESSURE GAUGE			 STEAM TRAP - NO BYPASS		
 ROTAMETER			 CHEMICAL SEAL	P_MISC	MISCELLANEOUS SELECT TYPE
 THERMOMETER			 EXPANSION JOINT		
 THERMOWELL			 FLEXIBLE HOSE		
 WATER HAMMER ARRESTOR			 INSULATION	P_MACHINE	MACHINERY SELECT TYPE
 REDUCED PRESSURE DEVICE			 NUCLEAR		
 SITE GLASS			 AIR DIAPHRAGM PUMP		
 PRESSURE/TEMP TEST PORT			 AGITATOR		
 FUNNEL DRAIN	P_DRAIN	DRAINS SELECT TYPE	 FAN		
 FLOOR DRAIN			 MOTOR		
 ROOF DRAIN			 METERING PUMP		
 OVERFLOW ROOF DRAIN			 POSITIVE DISPLACEMENT PUMP		
 FLOOR SINK			 PUMP		
 FLOOR CLEANOUT			 SUMP PUMP		
 GRADE CLEANOUT			 VERTICAL PUMP - STANDARD HEAD		
 WALL CLEANOUT			 VERTICAL PUMP - TEE HEAD		
 HOSE END DRAIN VALVE					

Pipe/Plumbing Design Symbols

Symbol	Block Name	Description	Symbol	Block Name	Description
 ALARM BELL	P_FIRE	FIRE PIPING SELECT TYPE			
 DRY ALARM VALVE					
 WET ALARM VALVE					
 PENDANT HEAD					
 DRY PENDANT HEAD					
 SIDEWALL HEAD					
 DRY SIDEWALL HEAD					
 UPRIGHT HEAD					
 FIRE DEPARTMENT CONNECTION (FDC)					
 HOSE VALVE					
 SUPERVISED VALVE					
 FLOW DETECTOR SWITCH					

Fire Design Symbols

Appendix C

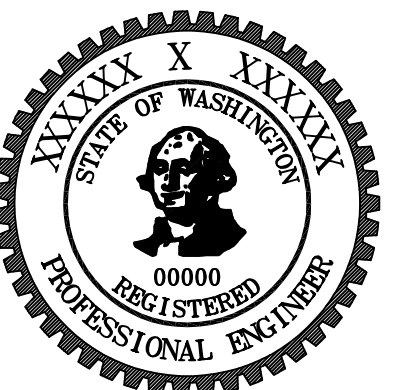
Sample Drawings

SEA-TAC INTERNATIONAL AIRPORT RENTAL CAR FACILITY SECURITY IMPROVEMENTS

MC# 012345

WP# N00001

EDIT ATTRIBUTE WITH
PROJECT INFORMATION



DESIGN TEAM LOGOS ACROSS HERE

FREEZE OR THAW LAYER
G-ANNO-COVR-ASBT AS NEEDED

FREEZE OR THAW LAYERS AS
NEEDED TO SWITCH BETWEEN
CONTRACT TYPE STAMPS

APPROVED AS-BUILT SET	
DOCUMENTS ARE BASED SOLELY ON THE RECORD WORKING DRAWINGS SUPPLIED BY THE CONTRACTOR AND THE CONTRACT DOCUMENTS. THEY DO NOT NECESSARILY SHOW ALL EXISTING CONDITIONS AND MAY NOT BE ACCURATE AT ALL LOCATIONS. FIELD VERIFY EXISTING AND/OR HIDDEN CONDITIONS PRIOR TO COMMENCEMENT OF NEW WORK.	
ABCD APPROVED BY	
00/00/00 DATE	
MAJOR CONTRACT	
APPROVED BY	
ABCD	
00/00/00 DATE	
WORK PROJECT NO. D-NNNN	PORT OF SEATTLE NO. + SHEET NUMBER STIA-07XX G-001

FISHERMEN'S TERMINAL
NORDBY BUILDING
CONFERENCE ROOM

MC# 054321

WP # N00002

COVER SHEET INDEX (OPTION #1)
SMALL PROJECTS



EDIT ATTRIBUTE WITH
PROJECT INFORMATION

FREEZE OR THAW LAYER
G-ANNO-COVR-ASBT AS NEEDED

FREEZE OR THAW LAYERS AS
NEEDED TO SWITCH BETWEEN
CONTRACT TYPE STAMPS

EXAMPLE ONLY

DESIGN TEAM LOGOS ACROSS HERE

SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE	APPROVED AS-BUILT SET	
	GENERAL PROJECT PLANS					DOCUMENTS ARE BASED SOLELY ON THE RECORD WORKING DRAWINGS SUPPLIED BY THE CONTRACTOR AND THE CONTRACT DOCUMENTS. THEY DO NOT NECESSARILY SHOW ALL EXISTING CONDITIONS AND MAY NOT BE ACCURATE AT ALL LOCATIONS. FIELD VERIFY EXISTING AND/OR HIDDEN CONDITIONS PRIOR TO COMMENCEMENT OF NEW WORK.	
G01.00	TITLE SHEET AND SHEET INDEX						
	LANDSCAPING PROJECT PLANS					ABCD APPROVED BY _____	
L01.00	GRADING PLAN					00/00/00 DATE _____	
L02.00	PLANTING PLAN, LEGEND, SCHEDULE & DETAILS					TENANT IMPROVEMENT CONTRACT	
						APPROVED BY _____	
						ABCD _____	
						00/00/00 DATE _____	
						WORK PROJECT NO.	PORT OF SEATTLE NO. + SHEET NUMBER
						D-NNNN	STIA-07XX G-001

EXPORT OF SEATTLE STANDARDS 2024/CXR WORKING TO APPROVE/IFOR APPENDICES APP C SAMPLE PG 2.DWG SAVED: 1/23/2025 10:05 AM CXR123 PLOTTED: 1/23/2025 1:22 PM

PLOT STAMP/DATE

NWSA LOGO -
FREEZE LAYER
IF NOT NEEDED

CONSULTANT
LOGO LOCATION

PROFESSIONAL
SEAL/STAMP LOCATION

APPLIES TO ALL SHEETS.
MODIFY IN XREF TITLEBLOCK

INSERT 22x34_SHT-PROJ-INFO BLOCK INTO
INDIVIDUAL DRAWING SHEETS

REVISION BLOCK. THIS IS A TABLE
INSERTED INTO DRAWING SHEET AS A
BLOCK (AT CONSTRUCTION STAGE ONLY)
NAMED "REV-INFO-TABLE_22x34".
DELETE/ADD CELLS AS NEEDED. DO NOT
DISPLAY BLANK CELLS.

DATE THAT CURRENT
SET/MILESTONE IS PLOTTED

FOR SDCI/ABD ONLY, FREEZE
OR THAW LAYER AS NEEDED

STAMP LOCATION:
NFC, SDCI, AS BUILT, ETC.
ALREADY INCLUDED IN TB,
FREEZE/THAW LAYERS AS NEEDED

SCALE BAR LOCATION.
BOTTOM RIGHT CORNER,
ABOVE KEY PLAN (IF
USED); STACKED IF
MULTIPLE SCALES IN USE.

CONSULTANT'S INTERNAL
PROJECT NUMBER

PORT WORK PROJECT (WP) #

KEY PLANS IN LOWER RIGHT
CORNER OF SHEET

PORT PROJECT
TRACKING NUMBER

DISCIPLINE & SHEET #



CALL 2 DAYS BEFORE
YOU DIG 1-800-424-5555

PROFESSIONAL SEAL

PROJECT NAME

2024 AIRFIELD
PROJECTS
CONTRACT2

SHEET TITLE

TESC PLAN -
CAMP CHANNEL
DRAIN

REVISIONS

NO.	DATE	DESCRIPTION
1	2-2-2023	DESIGN BULLETIN 2

PORT PROJECT MANAGER:
JOHN DOE
PROJECT ENGR/ARCH:
CONSULTANT NAME
DESIGNER:
KARA IRVIN
CHECKED BY:
PERRY WELCH
DATE:
DATE
ABD STAMP

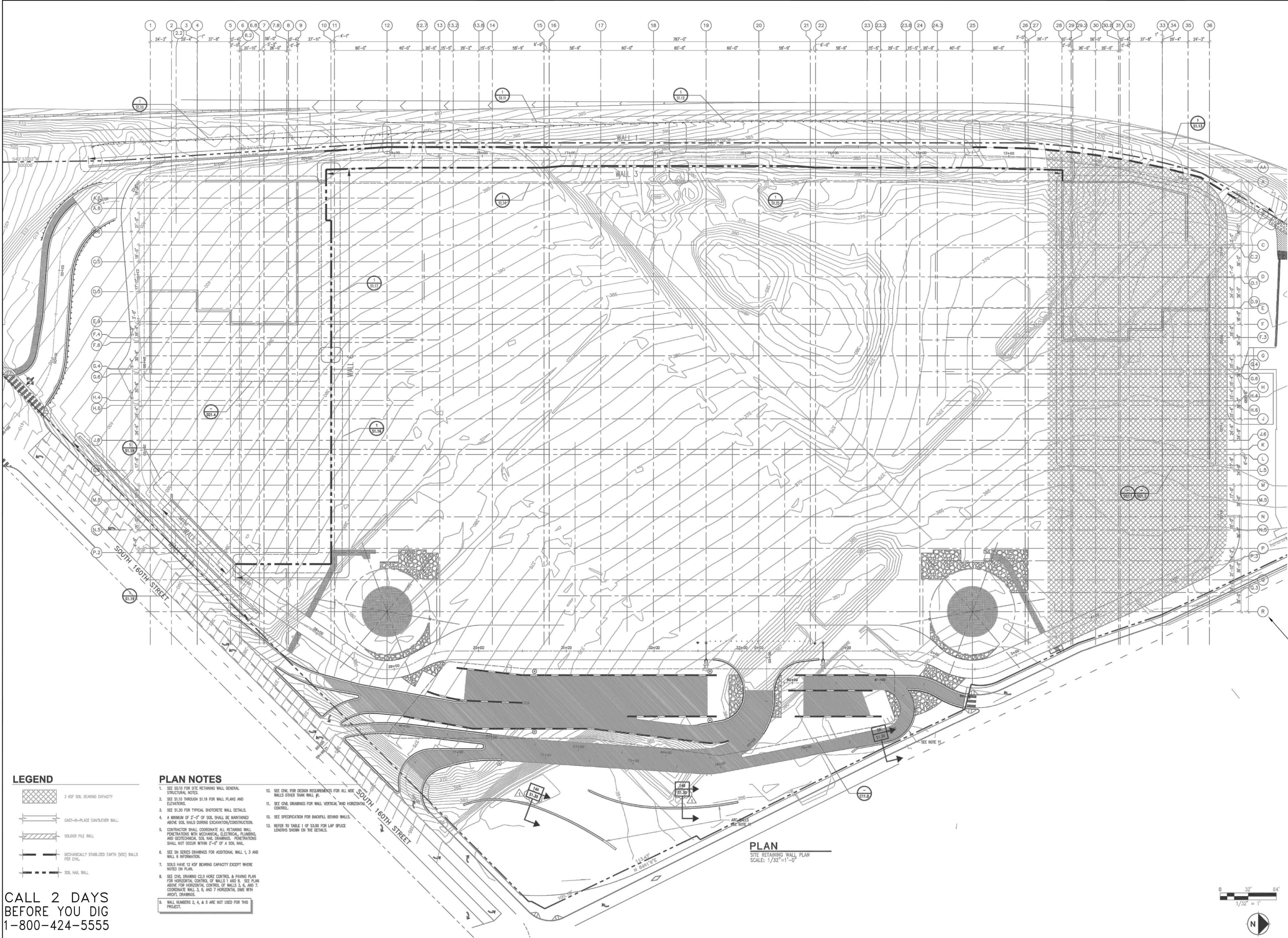
PORT WORK PROJECT NUMBER
N10165, N10266
CONSULTANT PROJECT NUMBER
CONSULTANT #
PORT PROJECT TRACKING NUMBER
STIA-2314
SHEET NUMBER

C-201

STATUS/MILESTONE

ISSUED FOR CONSTRUCTION

EXPORT OF SEATTLESTANDARDSD2024.CXWWORKING TO APPROVE FOR APPENDICES APP C REF ONLY SAMPLE.DWG SAVED: 7/23/2025 9:13 AM CXR 123 PLOTTED: 7/23/2025 9:50 AM

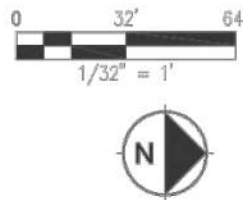


LEGEND

- 2 KSF SOIL BEARING CAPACITY
- CAST-IN-PLACE CANTILEVER WALL
- SOLDIER PILE WALL
- MECHANICALLY STABILIZED EARTH (MSE) WALLS
- SOIL NAIL WALL

- PLAN NOTES**
- SEE S110 FOR SITE RETAINING WALL GENERAL STRUCTURAL NOTES.
 - SEE S110 THROUGH S119 FOR WALL PLANS AND ELEVATIONS.
 - SEE S120 FOR TYPICAL SHOTCRETE WALL DETAILS.
 - A MINIMUM OF 2'-0" OF SOIL SHALL BE MAINTAINED ABOVE SOIL NAILS DURING EXCAVATION/CONSTRUCTION.
 - CONTRACTOR SHALL COORDINATE ALL RETAINING WALL PENETRATIONS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND GEOTECHNICAL. SOIL NAIL DRAWINGS. PENETRATIONS SHALL NOT OCCUR WITHIN 2'-0" OF A SOIL NAIL.
 - SEE ON SERIES DRAWINGS FOR ADDITIONAL WALL 1, 3 AND WALL 6 INFORMATION.
 - SOILS HAVE 12 KSF BEARING CAPACITY EXCEPT WHERE NOTED ON PLAN.
 - SEE CIVIL DRAWING C2.0 HORIZ. CONTROL & PAVING PLAN FOR HORIZONTAL CONTROL OF WALLS 1 AND 5. SEE PLAN ABOVE FOR HORIZONTAL CONTROL OF WALLS 3, 6, AND 7. COORDINATE WALL 3, 6, AND 7 HORIZONTAL DIMS WITH ARCHT. DRAWINGS.
 - WALL NUMBERS 2, 4, & 5 ARE NOT USED FOR THIS PROJECT.
 - SEE CIVIL FOR DESIGN REQUIREMENTS FOR ALL MSE WALLS OTHER THAN WALL #1.
 - SEE CIVIL DRAWINGS FOR WALL VERTICAL AND HORIZONTAL CONTROL.
 - SEE SPECIFICATION FOR BACKFILL BEHIND WALLS.
 - REFER TO TABLE 1 OF S100 FOR LAP SPACE LENGTHS SHOWN ON THE DETAILS.

PLAN
SITE RETAINING WALL PLAN
SCALE: 1/32"=1'-0"



TURN ON "FOR REFERENCE ONLY" STAMP BY UNFREEZING LAYER G-ANNO-STMP-4REF

EXAMPLE "FOR REFERENCE ONLY" DISCLAIMER

THIS REFERENCE DRAWING IS AN AS BUILT DRAWING FROM PORT PROJECT # STIA-0617, WORK # 103640, DATED 10/11/2012.
THE REFERENCE DRAWING IS INCLUDED TO PROVIDE INFORMATION ABOUT THE EXISTING CONDITIONS TO THE SUPPLIER OF THE NO-CLIMB FENCE.



CALL 2 DAYS BEFORE YOU DIG 1-800-424-5555

PROFESSIONAL SEAL

PROJECT NAME
RENTAL CAR FACILITY (RCF) PAVEMENT REMEDIATION

SHEET TITLE
**SITE RETAINING WALL PLAN
1/32 SCALE**

REVISIONS

NO.	DATE	DESCRIPTION
-----	------	-------------

PORT PROJECT MANAGER
PM NAME
PROJECT ENGR/ARCH
CONSULTANT NAME
DESIGNER
DESIGNED BY
CHECKED BY
DATE
DATE

FOR REFERENCE ONLY

PORT WORK PROJECT NUMBER
U00470
CONSULTANT PROJECT NUMBER
WA15.0259.07
PORT PROJECT TRACKING NUMBER
STIA-1817
SHEET NUMBER

S-701

ISSUED FOR CONSTRUCTION

Appendix D

Port of Seattle

CAD Layer Naming Standards

2025 Edition

The following Port of Seattle Layer Naming Convention is based on the U.S. National CAD Standard (NCS v6/AIA CAD Layer Guidelines). This format is organized as a hierarchy that allows selection from a number of options according to the level of detailed information desired. Layer names consist of distinct data fields separated from one another by dashes. Most of the prescribed field codes are mnemonic English abbreviations of construction terminology that are easily recognized and easy to remember.

Prescribed Major Groups and Minor Groups are logically grouped within specific disciplines. However, any Major Group may be combined with any Discipline Designator provided that the definition of the Major Group remains unchanged (i.e., ANY reasonable combination of Discipline Designators and Major Groups is permissible).

Any prescribed Minor Group may be used to modify any Major Group provided that the definition of the Major Group remains unchanged (i.e., ANY reasonable combination of Major and Minor Groups is permissible).

For more information, please refer to Section 6 of the Port of Seattle CAD Standards 2025 Edition. All available field codes may not be represented. Please refer to the [National CAD Standards](#) for a full list of field codes.

During the Port's QC review process, the following will trigger a non-compliance flag and result in immediate return to the project team for correction and resubmittal:

- *Objects or elements found on incorrect layers.*
- *Layers surpassing the name length limit of 19 characters and 5 fields.*

When in doubt, contact the Port of Seattle Design Quality team for direction.

General Layers

ANNO - GENERAL ANNOTATION

Discipline	Major	Minor 1	Minor 2	Status	Description
G	ANNO	COVR	ASBT		Cover Sheet: Port As-Built Stamp
			INDX		Cover Sheet Index Linework
			MCON		Cover Sheet: Port Major Contract Stamp
			SMWK		Cover Sheet: Port Small Works Contract Stamp
			SRVY		Cover Sheet: Port Survey Contract Stamp
			TNET		Cover Sheet: Port Tenant Contract Stamp
			TEXT		Cover Sheet Annotation
G	ANNO	DIMS			Dimensions
G	ANNO	IMGS			Images, Photos
G	ANNO	KEYN			Keynotes
G	ANNO	LABL			Labels
G	ANNO	LEGN			Legends, Symbol Keys
G	ANNO	LOGO			Logos
			NWSA		Logo: Northwest Seaport Alliance
			PORT		Logo: Port of Seattle
G	ANNO	MATC			Match Lines
G	ANNO	NOTE			Notes
G	ANNO	NPLT			Non-plotting Graphic Information
G	ANNO	NRTH			Plan North Arrow
G	ANNO	PATT			Textures and Hatch Patterns
G	ANNO	REDL			Redlines
G	ANNO	REFR			Reference Files
G	ANNO	REVC			Revision Clouds
G	ANNO	REVS			Revisions
G	ANNO	SCAL			Drawing Scale Symbol
G	ANNO	SCHD			Schedules
G	ANNO	STMP			Stamp: Professional (Engineer/Designer of Record)
			4REF		Stamp: Port For Reference Only
			ASBT		Stamp: Port As Built
			B4D1		Stamp: Port Before You Dig
			DISC		Stamp: Port Disclaimer
			NFC		Stamp: Port Not For Construction
			PLOT		Stamp: Plot Information
G	ANNO	SYMB			Miscellaneous Symbols
G	ANNO	TABL			Tables
G	ANNO	TEXT			Miscellaneous Text & Callouts with Associated Leaders
G	ANNO	TITL			Drawing or Detail titles
G	ANNO	TTLB			Border, Title Block
G	ANNO	VIEW			Paper Space Viewport

GRID - GRID LINES

Discipline	Major	Minor 1	Minor 2	Status	Description
G	GRID				Grids
G	GRID	EXTR			Column Grid Outside Building
G	GRID	IDEN			Column Grid Tag/Bubble
G	GRID	INTR			Column Grid Inside Building
G	GRID	LINE			Grid Lines - Miscellaneous

PLAN - PLAN/OUTLINE

Discipline	Major	Minor 1	Minor 2	Status	Description
G	PLAN	OTLN			Floor Outline / Perimeter / Building Footprint

SITE - SITE INFORMATION

Discipline	Major	Minor 1	Minor 2	Status	Description
G	SITE	OTLN			Site Plan - Keymap
G	SITE	OTLN	FRME		Site Plan - Keymap Frame
G	SITE	OTLN	IDEN		Site Plan - Keymap Annotation

DETL - DETAILS

Discipline	Major	Minor 1	Minor 2	Status	Description
TRADE	DETL				Details
TRADE	DETL	BOLD			Detail: Bold Line
TRADE	DETL	CNTR			Detail: Center Line
TRADE	DETL	FINE			Detail: Fine Line
TRADE	DETL	HIDE			Detail: Hidden Line
TRADE	DETL	IDEN			Detail: Tags & Annotation
TRADE	DETL	INVR			Detail: Invert Data
TRADE	DETL	MEDM			Detail: Medium Line
TRADE	DETL	PATT			Detail: Textures and Hatch Patterns
TRADE	DETL	SCRN			Detail: Screened Line
TRADE	DETL	THIN			Detail: Thin Line
TRADE	DETL	WIDE			Detail: Wide Line

DIAG - DIAGRAMS

Discipline	Major	Minor 1	Minor 2	Status	Description
TRADE	DIAG				Diagrams
TRADE	DIAG	BOLD			Diagram: Bold Line
TRADE	DIAG	CNTR			Diagram: Center Line
TRADE	DIAG	FINE			Diagram: Fine Line
TRADE	DIAG	HIDE			Diagram: Hidden Line

DIAG - DIAGRAMS

Discipline	Major	Minor 1	Minor 2	Status	Description
TRADE	DIAG	IDEN			Diagram: Tags & Annotation
TRADE	DIAG	INVR			Diagram: Invert Data
TRADE	DIAG	MEDM			Diagram: Medium Line
TRADE	DIAG	PATT			Diagram: Textures and Hatch Patterns
TRADE	DIAG	SCRN			Diagram: Screened Line
TRADE	DIAG	THIN			Diagram: Thin Line
TRADE	DIAG	WIDE			Diagram: Wide Line

ELEV - ELEVATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
TRADE	ELEV				Elevations
TRADE	ELEV	BOLD			Elevation: Bold Line
TRADE	ELEV	CNTR			Elevation: Center Line
TRADE	ELEV	FINE			Elevation: Fine Line
TRADE	ELEV	HIDE			Elevation: Hidden Line
TRADE	ELEV	IDEN			Elevation: Tags & Annotation
TRADE	ELEV	INVR			Elevation: Invert Data
TRADE	ELEV	MEDM			Elevation: Medium Line
TRADE	ELEV	PATT			Elevation: Textures and Hatch Patterns
TRADE	ELEV	SCRN			Elevation: Screened Line
TRADE	ELEV	THIN			Elevation: Thin Line
TRADE	ELEV	WIDE			Elevation: Wide Line

ISOM - ISOMETRIC

Discipline	Major	Minor 1	Minor 2	Status	Description
TRADE	ISOM				Isometric
TRADE	ISOM	BOLD			Iso: Bold Line
TRADE	ISOM	CNTR			Iso: Center Line
TRADE	ISOM	FINE			Iso: Fine Line
TRADE	ISOM	HIDE			Iso: Hidden Line
TRADE	ISOM	IDEN			Iso: Tags & Annotation
TRADE	ISOM	INVR			Iso: Invert Data
TRADE	ISOM	MEDM			Iso: Medium Line
TRADE	ISOM	PATT			Iso: Textures and Hatch Patterns
TRADE	ISOM	SCRN			Iso: Screened Line
TRADE	ISOM	THIN			Iso: Thin Line
TRADE	ISOM	WIDE			Iso: Wide Line

PROF - PROFILE

Discipline	Major	Minor 1	Minor 2	Status	Description
TRADE	PROF				Profiles
TRADE	PROF	BOLD			Profile: Bold Line
TRADE	PROF	CNTR			Profile: Center Line
TRADE	PROF	FINE			Profile: Fine Line
TRADE	PROF	HIDE			Profile: Hidden Line
TRADE	PROF	IDEN			Profile: Tags & Annotation
TRADE	PROF	INVR			Profile: Invert Data
TRADE	PROF	MEDM			Profile: Medium Line
TRADE	PROF	PATT			Profile: Textures and Hatch Patterns
TRADE	PROF	SCRN			Profile: Screened Line
TRADE	PROF	THIN			Profile: Thin Line
TRADE	PROF	WIDE			Profile: Wide Line

SECT - SECTIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
TRADE	SECT				Sections
TRADE	SECT	BOLD			Sections: Bold Line
TRADE	SECT	CNTR			Sections: Center Line
TRADE	SECT	FINE			Sections: Fine Line
TRADE	SECT	HIDE			Sections: Hidden Line
TRADE	SECT	IDEN			Sections: Tags & Annotation
TRADE	SECT	INVR			Sections: Invert Data
TRADE	SECT	MEDM			Sections: Medium Line
TRADE	SECT	PATT			Sections: Textures and Hatch Patterns
TRADE	SECT	SCRN			Sections: Screened Line
TRADE	SECT	THIN			Sections: Thin Line
TRADE	SECT	WIDE			Sections: Wide Line

Survey Layers

Notes for Survey Drawings:

4. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
5. Optional Reference Point information (XGRD/XUGD) may be included using the next available field in the string (i.e., either Minor Group Field or the Status Field). Refer to Section 6 of the Port of Seattle CAD Standards manual for more information.

AERI - AERIAL SURVEY

Discipline	Major	Minor 1	Minor 2	Status	Description
V	AERI				Aerial Survey Elements
V	AERI	BNDY			Aerial Survey: Photography Boundaries
V	AERI	INDX			Aerial Survey: Photo Index
V	AERI	PATH			Aerial Survey: Flight Lines/Paths

AFLD - AIRFIELD

Discipline	Major	Minor 1	Minor 2	Status	Description
V	AFLD		XGRD/UGD	XGRD/UGD	Airfield Elements
V	AFLD	AHOA			Airfield: Aircraft/Helicopter Operations Area
V	AFLD	AIDC			Airfield: Navigation Aid Critical Area
V	AFLD	AIDS			Airfield: Navigation Aid Site
V	AFLD	APRN			Airfield Aprons
			ACPK		Airfield Apron: Aircraft Gate/Stand Parking Area
			NMOV		Airfield Apron: Aircraft Non-movement Area
			CNTR		Airfield Apron: Centerlines
			DEIC		Airfield Apron: Aircraft Deicing Area
			GRND		Airfield Apron: Grounding Points
			HOLD		Airfield Apron: Holding Position Markings
			IDEN		Airfield Apron: Tags and Annotation
			JNTS		Airfield Apron: Joints
			LITE		Airfield Apron: Lighting
			MOOR		Airfield Apron: Mooring Points
			MRKG		Airfield Apron: Markings
			OTLN		Airfield Apron: Outline
			SECU		Airfield Apron: Security Zone Markings
			SHLD		Airfield Apron: Shoulder
			SIGN		Airfield Apron: Signage
V	AFLD	CONC			Airfield: Concrete
			CNTJ		Airfield: Concrete Contraction Joint
			CTLJ		Airfield: Concrete Control Joint
			EXPJ		Airfield: Concrete Expansion Joint
			FTNG		Airfield: Concrete Footing
			ISLD		Airfield: Concrete Island
			JNTS		Airfield: Concrete Joints
			PADS		Airfield: Concrete Pads
			RAMP		Airfield: Concrete Ramp
			SWLK		Airfield: Concrete Sidewalk
V	AFLD	DUCT			Airfield: Duct Banks
V	AFLD	IDEN			Airfield: Tags & Annotation
V	AFLD	LITE			Airfield Lighting

AFLD - AIRFIELD

Discipline	Major	Minor 1	Minor 2	Status	Description
V	AFLD	LITE	BASE		Airfield Lighting: Light Base
			CLRW		Airfield Lighting: Runway Centerline Lights
			EDGE		Airfield Lighting: Edge Lights (Flush)
			FAAL		Airfield Lighting: FAA Runway Light
			FODS		Airfield Lighting: FOD Sensor
			HOLD		Airfield Lighting: Runway Holding/Holdbar Lights
			IDEN		Airfield Lighting: Tags & Annotation
			LNDL		Airfield Lighting: Landing Lights
			PAPI		Airfield Lighting: Papi Lights
			RUNW		Airfield Lighting: Runway Lights
			RWEU		Airfield Lighting: Runway Edge Light (Upright)
			RWEF		Airfield Lighting: Runway Edge Light (Flush)
			SAFE		Airfield Lighting: Safedock Sensor
			TAXI		Airfield Lighting: Taxiway Edge Lights
			TDZL		Airfield Lighting: Touchdown Lights
			THRS		Airfield Lighting: Threshold Lights
			TWCL		Airfield Lighting: Taxiway Centerline Light
			WWAG		Airfield Lighting: Wigwag Lights
V	AFLD	OBST			Airfield: Obstructions
V	AFLD	RUNW			Airfield: Runway Elements
			APPR		Airfield Runway: Approaches
			ARST		Airfield Runway: Arresting Gear Locations
			BLST		Airfield Runway: Blast Pad Markings
			CNTR		Airfield Runway: Centerline
			DISP		Airfield Runway: Displaced Threshold Markings
			DIST		Airfield Runway: Fixed Distance Markings
			EDGE		Airfield Runway: Edges
			IDEN		Airfield Runway: Tags & Annotation
			INTS		Airfield Runway: Intersections
			LAHS		Airfield Runway: Land & Hold Short Area
			SAFE		Airfield Runway: Safety Area
			SHLD		Airfield Runway: Shoulder Markings
			SIDE		Airfield Runway: Side Striping
			STWY		Airfield Runway: Stopway Markings
			TDZM		Airfield Runway: Touchdown Zone Markers
			THRS		Airfield Runway: Threshold Markers
V	AFLD	SIDA			Airfield: Security Identification Display Area
V	AFLD	SIGN			Airfield: Signage
V	AFLD	TAXI			Airfield: Taxiway

ALGN - ALIGNMENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	ALGN				Alignment Elements
V	ALGN	DATA			Alignment: Coordinates & Curve Data
V	ALGN	LINE			Alignment: Lines
V	ALGN	MARK			Alignment: Tick Marks
V	ALGN	STAT			Alignment: Stationing

BLDG - BUILDINGS AND STRUCTURES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	BLDG		XGRD/UGD	XGRD/UGD	Buildings and Primary Structures
V	BLDG	BASE	BRKT		Building: Bracket
V	BLDG	COLS			Building: Columns
			CRNR		Building: Column Corner
V	BLDG	COMR			Building: Commercial Use
V	BLDG	CRNR			Building: Corner
V	BLDG	CTLJ			Building: Control Joints
V	BLDG	DECK			Building: Attached Decks (No Roof)
V	BLDG	DOOR			Building: Door
V	BLDG	ELEV			Building: Elevation
V	BLDG	ENCL			Building: Equipment Enclosure
V	BLDG	EVTR	SHFT		Building: Elevator Shaft
V	BLDG	FACE			Building: Face of Building
V	BLDG	FNDN			Building: Foundation
V	BLDG	IDEN			Building: Tags & Annotation
V	BLDG	INDU			Building: Industrial Use
V	BLDG	JTWY			Building: Jet Way
V	BLDG	LOAD			Building: Loading Dock
V	BLDG	OFFC			Building: Office Use
V	BLDG	OTLN			Building: Footprints/Object Outlines
V	BLDG	OVHD			Building: Overhangs
V	BLDG	PATT			Building: Textures & Hatch Patterns
V	BLDG	PLBR			Building: Passenger Loading Bridge
			COLS		Building: Passenger Loading Bridge Columns
V	BLDG	PORT			Building: Portable Structures
			TRLR		Building: Trailer
V	BLDG	PRCH			Building: Porch
V	BLDG	RAMP			Building: Ramp
V	BLDG	ROOF			Building: Roof
V	BLDG	WALL			Building: Wall
V	BLDG	WRHS			Building: Warehouse

BRDG - BRIDGES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	BRDG		XGRD/UGD	XGRD/UGD	Bridges
V	BRDG	BENT			Bridge: Top of Bent
V	BRDG	CNTR			Bridge: Center
V	BRDG	COLS			Bridge: Columns
V	BRDG	COLS	JTWY		Bridge: Jet Way Columns
V	BRDG	CONC			Bridge: Concrete Elements
V	BRDG	CTLJ			Bridge: Control Joint
V	BRDG	CTWK			Bridge: Catwalk
V	BRDG	DECK			Bridge: Deck
V	BRDG	FNDN			Bridge: Foundation Elements
V	BRDG	FRAM			Bridge: Framing/Framework
V	BRDG	IDEN			Bridge: Tags & Annotation
V	BRDG	PASS			Bridge: Passenger
V	BRDG	PEDS			Bridge: Pedestrian
V	BRDG	TMBR			Bridge: Timber Elements

CATH - CATHODIC PROTECTION

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CATH		XGRD/UGD	XGRD/UGD	Cathodic Protection
V	CATH	ABOV			Cathodic Protection: Elements Above
V	CATH	ACCY			Cathodic Protection: Accessory
V	CATH	ANOD			Cathodic Protection: Anode Terminal
V	CATH	AREA			Cathodic Protection: Area
V	CATH	AUXL			Cathodic Protection: Auxiliary
V	CATH	BASE			Cathodic Protection: Base
V	CATH	BELW			Cathodic Protection: Elements Below
V	CATH	BENT			Cathodic Protection: Bent
V	CATH	CABL			Cathodic Protection: Cable
V	CATH	CIRC			Cathodic Protection: Circuit
V	CATH	COND			Cathodic Protection: Conduit
V	CATH	CTRL			Cathodic Protection: Controls
V	CATH	CURR			Cathodic Protection: Impress Current System
V	CATH	EQPM			Cathodic Protection: Equipment
V	CATH	FIXT			Cathodic Protection: Fixtures
V	CATH	GRND			Cathodic Protection: Ground
V	CATH	HHOL			Cathodic Protection: Handhole
V	CATH	IDEN			Cathodic Protection: Tags & Annotation
V	CATH	JBOX			Cathodic Protection: Junction Box
V	CATH	MHOL			Cathodic Protection: Manhole
V	CATH	OTLN			Cathodic Protection: Object Outlines

CATH - CATHODIC PROTECTION

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CATH	PILE			Cathodic Protection: Piles
V	CATH	UTIL			Cathodic Protection: Utilities

CATV - CABLE TELEVISION

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CATV		XGRD/UGD	XGRD/UGD	Cable Television System
V	CATV	CABL			Cable TV: Cable (Exposed)
			COAX		Cable TV: Coaxial Cable
			FIBR		Cable TV: Fiber Optic Cable
			LOCT		Cable TV: Cable Locates
			MULT		Cable TV: Multi-Conductor Cable
			TRAY		Cable TV: Cable Trays
V	CATV	COND			Cable TV: Conduit
			LOCT		Cable TV: Conduit Locates
V	CATV	EQPM			Cable TV: Equipment
V	CATV	IDEN			Cable TV: Tags & Annotation
V	CATV	HHOL			Cable TV: Handhole
V	CATV	JBOX			Cable TV: Junction Box
V	CATV	MHOL			Cable TV: Manhole
V	CATV	PANL			Cable TV: Panel
V	CATV	SATD			Cable TV: Satellite Dish
V	CATV	UNID			Cable TV: Unidentified

CHAN - CHANNELS (WATERWAY)

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CHAN		XGRD/UGD	XGRD/UGD	Navigable Channels/Waterways
		BWTR			Channels: Breakwater
V	CHAN	CNTR			Channels: Centerline and Survey Report Lines
V	CHAN	DACL			Channels: De-authorized Limits, Anchorages, etc.
V	CHAN	DOCK			Channels: Decks, Docks, Floats, Piers
V	CHAN	IDEN			Channels: Tags & Annotation
V	CHAN	LIMT			Channels: Limits, Anchorages, Turning Basins, Disposal Areas, etc.
V	CHAN	NAID			Channels: Navigation Aids

CMPA - COMPRESSED AIR

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CMPA		XGRD/UGD	XGRD/UGD	Compressed Air
V	CMPA	EQPM			Compressed Air: Equipment (Dryers, Receivers, Disconnects, etc.)

CMPA - COMPRESSED AIR

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CMPA		XGRD/UGD	XGRD/UGD	Compressed Air
V	CMPA	EQPM			Compressed Air: Equipment (Dryers, Receivers, Disconnects, etc.)
V	CMPA	IDEN			Compressed Air: Tags & Annotation
V	CMPA	PIPE			Compressed Air: Piping
V	CMPA	PIPE			Compressed Air: Piping (Exposed)
			LOCT		Compressed Air: Piping/Line Locates
			PCAL		Compressed Air: Pre-Conditioned Piping (Above Ground)
V	CMPA	STRC			Compressed Air: Structures & Supports
			PITS		Compressed Air: Structure Pit
			VENT		Compressed Air: Structure Vent
V	CMPA	TANK			Compressed Air: Tanks
V	CMPA	VALT			Compressed Air: Vaults/Pits
V	CMPA	VENT			Compressed Air: Venting Elements

CNDW - CONDENSER WATER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CNDW		XGRD/UGD	XGRD/UGD	Condenser Water System
V	CNDW	EQPM			Condenser Water: Equipment
			TOWR		Condenser Water: Cooling Tower
V	CNDW	IDEN			Condenser Water: Tags and Annotation
V	CNDW	MNHL			Condenser Water: Manhole
V	CNDW	PIPE			Condenser Water: Piping (Includes Fittings, Valves)
			LOCT		Condenser Water: Piping Locates
			RETN		Condenser Water: Return Piping
			SPLY		Condenser Water: Supply Piping
V	CNDW	PUMP			Condenser Water: Pumps
V	CNDW	STRC			Condenser Water: Structures & Supports
V	CNDW	TANK			Condenser Water: Tank (Expansion, Surge, Storage)
V	CNDW	VALT			Condenser Water: Vaults/Pits
V	CNDW	VALV			Condenser Water: Valves
V	CNDW	VENT			Condenser Water: Venting Elements

COMM - TELEPHONE COMMUNICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	COMM		XGRD/UGD	XGRD/UGD	Communications - Telephone System
V	COMM	CABL			Telephone System: Cable
			COAX		Telephone System: Cable
			FIBR		Telephone System: Fiber Optic Cable

COMM - TELEPHONE COMMUNICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	COMM	CABL	LOCT		Telephone System: Cable Locates
			MULT		Telephone System: Multi-Conductor Cable
			TRAY		Telephone System: Cable Trays
V	COMM	COND			Telephone System: Conduit
			LOCT		Telephone System: Conduit Locates
V	COMM	DBNK			Telephone System: Duct Bank
V	COMM	DISH			Telephone System: Dish
V	COMM	ENCL			Telephone System: Booth
V	COMM	EQPM			Telephone System: Equipment
V	COMM	HHOL			Telephone System: Handhole
V	COMM	IDEN			Telephone System: Tags & Annotation
V	COMM	JBOX			Telephone System: Junction Box
V	COMM	MHOL			Telephone System: Manhole
V	COMM	OVHD			Telephone System: Overhead Elements
V	COMM	PANL			Telephone System: Panel
V	COMM	POLE			Telephone System: Poles
V	COMM	RISR			Telephone System: Riser
V	COMM	STRC			Telephone System: Structures & Supports
V	COMM	UNID			Telephone System: Unidentified
V	COMM	VALT			Telephone System: Vault/Pit
V	COMM	XFMR			Telephone System: Transformer

CONC - CONCRETE

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CONC		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Site Concrete
V	CONC	DRIV			Concrete: Driveway
V	CONC	EDGE			Concrete: Edge
V	CONC	EXPJ			Concrete: Expansion Joint
V	CONC	FTNG			Concrete: Footing
V	CONC	JNTS			Concrete: Joints
V	CONC	PADS			Concrete: Pad
V	CONC	RAMP			Concrete: Ramp
			ADAE		Concrete: Wheelchair Ramp
V	CONC	RBBL			Concrete: Rubble
V	CONC	SWAY			Concrete: Spillway
V	CONC	SWLK			Concrete: Sidewalk

CWTR - CHILLED WATER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	CWTR		XGRD/UGD	XGRD/UGD	Chilled Water
V	CWTR	EQPM			Chilled Water: Equipment
V	CWTR	IDEN			Chilled Water: Tags & Annotation
V	CWTR	MHOL			Chilled Water: Manhole
V	CWTR	PIPE			Chilled Water: Piping
			LOCT		Chilled Water: Piping Locates
V	CWTR	PUMP			Chilled Water: Pump
			PRIM		Chilled Water: Primary Pump
			SECD		Chilled Water: Secondary Pump
V	CWTR	TANK			Chilled Water: Tanks (Expansion/Storage/Surge)
V	CWTR	VALT			Chilled Water: Vault
V	CWTR	VALV			Chilled Water: Valve

DATA - DATA COMMUNICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	DATA		XGRD/UGD	XGRD/UGD	Data Communication Systems
V	DATA	CABL			Data Comm: Cable
			COAX		Data Comm: Coaxial Cable
			FIBR		Data Comm: Fiber Optic Cable
			LOCT		Data Comm: Cable Locates
			MULT		Data Comm: Multi-Conductor Cable
			TRAY		Data Comm: Cable Trays
V	DATA	COND			Data Comm: Conduit
			LOCT		Data Comm: Conduit Locates
V	DATA	FIBR			Data Comm: Fiber Optic System Elements
V	DATA	HHOL			Data Comm: Handhole
V	DATA	IDEN			Data Comm: Tags and Annotation
V	DATA	JBOX			Data Comm: Junction Box
V	DATA	MHOL			Data Comm: Manhole
V	DATA	NETW			Data Comm: Network Components
V	DATA	OVHD			Data Comm: Overhead Elements
V	DATA	PANL			Data Comm: Panel
V	DATA	POLE			Data Comm: Poles
V	DATA	VALT			Data Comm: Vaults

DOCK - DOCKS AND PIERS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	DOCK		XGRD/UGD	XGRD/UGD	Docks and Piers
V	DOCK	BEAM			Dock: Beams
V	DOCK	BENT			Dock: Bent

DOCK - DOCKS AND PIERS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	DOCK	BLRD			Dock: Bollards
V	DOCK	BRTH			Dock: Ship Berth
V	DOCK	BULK			Dock: Bulkhead
V	DOCK	BULR			Dock: Bull Rail
V	DOCK	CLET			Dock: Cleats
V	DOCK	CONC			Dock: Concrete
			CURB		Dock: Curbs
V	DOCK	DECK			Dock: Decking
			DKDR		Dock: Deck Drain
			DPNL		Dock: Deck Panel
			EDGE		Dock: Deck Edge
			STGR		Dock: Stringers
V	DOCK	DOLP			Dock: Dolphins
V	DOCK	EQPM			Dock: Equipment
			BAGL		Dock: Baggage Loading Equipment
			CCRN		Dock: Container Crane
			EMER		Dock: Safety (Life Rings, etc.)
			GCRN		Dock: Gantry Crane
			HOIS		Dock: Hoist
			PLOD		Dock: Passenger Loading Equipment
			SCAL		Dock: Weigh Scales
			SLOD		Dock: Ship Loading Equipment
			WASH		Dock: Truck Wash
V	DOCK	FEND			Dock: Fenders
V	DOCK	FHOL			Dock: Fire Holes in Deck
V	DOCK	FLTS			Dock: Floats
V	DOCK	GRAL			Dock: Guard Rail
V	DOCK	HRAL			Dock: Handrail
V	DOCK	HTCH			Dock: Utility Hatch
V	DOCK	IDEN			Docks: Tags & Annotation
V	DOCK	LADD			Dock: Ladders
V	DOCK	PCAP			Dock: Pile Caps
V	DOCK	PILE			Dock: Piles
			AUGR		Dock: Piles - Auger Cast
			BATT		Dock: Piles - Batter
			BEAR		Dock: Piles - Bearing
			CONC		Dock: Piles - Concrete
			FEND		Dock: Piles - Fender
			MCRO		Dock: Piles - Micro
			MOOR		Dock: Piles - Mooring

DOCK - DOCKS AND PIERS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	DOCK	PILE	SHTP		Dock: Piles - Sheet
			TMBR		Dock: Piles - Timber
V	DOCK	PNSK			Dock: Pin Socket
V	DOCK	PVMT			Dock: Pavement
V	DOCK	RAIL			Dock: Rails
			CRAN		Dock: Crane Rails
			STOP		Dock: Crane Stops
V	DOCK	RAMP			Dock: Ramps
V	DOCK	SPDR			Dock: Spreaders
V	DOCK	STRS			Dock: Stairs & Platforms
V	DOCK	UTIL	SLVE		Dock: Utility Sleeves
V	DOCK	WHAL			Dock: Whaler

DTCH - DITCHES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	DTCH		XGRD/UGD	XGRD/UGD	Ditches, Washes, Creeks, Swales
V	DTCH	BOTM			Ditches: Bottom of Ditch
V	DTCH	CNTR			Ditches: Centerline of Ditch
V	DTCH	IDEN			Ditches: Tags & Annotation
V	DTCH	TOP~			Ditches: Top of Ditch
V	DTCH	WATR	EDGE		Ditches: Edge of Water

EROS - ENVIRONMENTAL/EROSION

Discipline	Major	Minor 1	Minor 2	Status	Description
V	EROS		XGRD/UGD	XGRD/UGD	Environmental Elements/Erosion Control
V	EROS	ASB~			Enviro: Asbestos Contaminated Area
V	EROS	BDRY			Enviro: Erosion Control Boundary Area
V	EROS	BORE			Enviro: Borings
			THLE		Enviro: Soil Boring Test Hole
V	EROS	EBAK			Enviro: Ecology Backfill
V	EROS	EBLK			Enviro: Ecology Block
V	EROS	ENMT			Enviro: Mitigation Area
V	EROS	HAZM			Enviro: Hazmat Storage Area
V	EROS	IDEN			Enviro: Tags & Annotation
V	EROS	LOGW			Enviro: Log Weir (Habitat Log)
V	EROS	MWEL			Enviro: Monitoring Well
			PIPE		Enviro: Monitoring Well Pipe
V	EROS	POND			Enviro: Ponds/Lagoons
			DTTN		Enviro: Detention Pond
			EDGE		Enviro: Edge of Pond

EROS - ENVIRONMENTAL/EROSION

Discipline	Major	Minor 1	Minor 2	Status	Description
V	EROS	POND	RTTN		Enviro: Retention Pond
			SWAY		Enviro: Spillway
			TOPB		Enviro: Top of Bank
V	EROS	RMDS			Enviro: Remediation System
V	EROS	SHOR			Enviro: Shoreline Mitigation Area
V	EROS	SOIL	CTAM		Enviro: Contaminated Soil
V	EROS	WTLN			Enviro: Wetland Boundary

ESMT - EASEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
V	ESMT		XGRD/UGD	XGRD/UGD	Property Easements
V	ESMT	ACCS			Easement: Access (Pedestrian Only, Private)
V	ESMT	CONS			Easement: Conservation
V	ESMT	CSTG			Easement: Construction/Grading
V	ESMT	FDPL			Easement: Flood Plain
V	ESMT	IDEN			Easement: Tags & Annotation
V	ESMT	INEG			Easement: Ingress/Egress (Vehicles, Private)
V	ESMT	LSCP			Easement: Landscape
V	ESMT	RWAY			Easement: Right-of-Way (Public Access)
V	ESMT	SGHT			Easement: Sight Distance
V	ESMT	SWMT			Easement: Storm Water Management
V	ESMT	TRAL			Easement: Trails (Public Access)
V	ESMT	UTIL			Easement: Utility
			CABL		Easement: Utility - Cable Television
			ELEC		Easement: Utility - Electrical, Power
			MULT		Easement: Utility - Multiple
			NGAS		Easement: Utility - Natural Gas
			PHON		Easement: Utility - Telephone
V	ESMT	WATR			Easement: Water Supply

FAAC - FAA COMMUNICATION SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FAAC		XGRD/UGD	XGRD/UGD	Federal Aviation Communication Systems
V	FAAC	ANTN			FAA Comm: Antenna
V	FAAC	CABL			FAA Comm: Cable
			COAX		FAA Comm: Coaxial Cable
			FIBR		FAA Comm: Fiber Optic Cable
			LOCT		FAA Comm: Cable Locates
			MRKR		FAA Comm: Cable Marker
			MULT		FAA Comm: Multi-Conductor Cable

FAAC - FAA COMMUNICATION SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FAAC	CABL	TRAY		FAA Comm: Cable Trays
V	FAAC	CKPT			FAA Comm: Checkpoint
V	FAAC	COND			FAA Comm: Conduit
V	FAAC	DBNK			FAA Comm: Duct Bank
V	FAAC	EQPM			FAA Comm: Equipment (Panels/Switchboards, etc.)
V	FAAC	FIBO			FAA Comm: Fiber Optic System Elements
V	FAAC	IDEN			FAA Comm: Tags & Annotation
V	FAAC	LCZR			FAA Comm: Localizer
V	FAAC	MHOL			FAA Comm: Manhole
V	FAAC	PANL			FAA Comm: Panel
V	FAAC	PBOX			FAA Comm: Pull Box
V	FAAC	STRC			FAA Comm: Structural & Support Elements
V	FAAC	TOWR			FAA Comm: Tower
V	FAAC	UNID			FAA Comm: Unidentified

FAAL - FAA LIGHTING SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FAAL		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Federal Aviation Lighting Systems
V	FAAL	CABL			FAA Light: Cable
			COAX		FAA Light: Coaxial Cable
			FIBR		FAA Light: Fiber Optic Cable
			LOCT		FAA Light: Cable Locates
			MRKR		FAA Light: Cable Marker
			MULT		FAA Light: Multi-Conductor Cable
			TRAY		FAA Light: Cable Trays
V	FAAL	COND			FAA Light: Conduit
			LOCT		FAA Light: Conduit Locates
V	FAAL	DBNK			FAA Light: Duct Bank
V	FAAL	EQPM			FAA Light: Equipment (Panels/Switchboards, etc.)
V	FAAL	FEED			FAA Light: Feeders
V	FAAL	HHOL			FAA Light: Hand Hole
V	FAAL	IDEN			FAA Light: Tags & Annotation
V	FAAL	JBOX			FAA Light: Junction Box
V	FAAL	MHOL			FAA Light: Manhole
V	FAAL	PANL			FAA Light: Panel
V	FAAL	PBOX			FAA Light: Pull Box
V	FAAL	RUNW			FAA Light: Runway
V	FAAL	STRC			FAA Light: Structural & Support Elements
V	FAAL	TOWR			FAA Light: Tower

FAAL - FAA LIGHTING SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FAAL	UNID			FAA Light: Unidentified
V	FAAL	XFMR			FAA Light: Transformer

FAAP - FAA POWER SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FAAL		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Federal Aviation Power Systems
V	FAAL	CABL			FAA Power: Cable
			COAX		FAA Power: Coaxial Cable
			FIBR		FAA Power: Fiber Optic Cable
			LOCT		FAA Power: Cable Locates
			MRKR		FAA Power: Cable Marker
			MULT		FAA Power: Multi-Conductor Cable
			TRAY		FAA Power: Cable Trays
V	FAAL	COND			FAA Power: Conduit
			LOCT		FAA Power: Conduit Locates
V	FAAL	DBNK			FAA Power: Duct Bank
V	FAAL	EQPM			FAA Power: Equipment (Panels/Switchboards, etc.)
V	FAAL	FEED			FAA Power: Feeders
V	FAAL	HHOL			FAA Power: Hand Hole
V	FAAL	IDEN			FAA Power: Tags & Annotation
V	FAAL	JBOX			FAA Power: Junction Box
V	FAAL	MHOL			FAA Power: Manhole
V	FAAL	PANL			FAA Power: Panel
V	FAAL	PBOX			FAA Power: Pull Box
V	FAAL	STRC			FAA Power: Structural & Support Elements
V	FAAL	TOWR			FAA Power: Tower
V	FAAL	UNID			FAA Power: Unidentified
V	FAAL	XFMR			FAA Power: Transformer

FIRE - FIRE PROTECTION SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FIRE		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Fire Protection Systems
V	FIRE	ALRM			Fire: Alarm
V	FIRE	BFPA			Fire: Backflow Prevention Assembly
V	FIRE	BLRD			Fire: Bollards
V	FIRE	CTRL			Fire: Alarm Panel/Controls
V	FIRE	DELU			Fire: Deluge Systems
			LOCT		Fire: Deluge - Piping Locates
			PIPE		Fire: Deluge - Piping
			VALV		Fire: Deluge - Valves

FIRE - FIRE PROTECTION SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FIRE	EQPM			Fire: Equipment
V	FIRE	FDCN			Fire: Fire Dept Connection
V	FIRE	FOAM			Fire: Foam Water System
			LOCT		Fire: Foam - Pipe Locates
			PIPE		Fire: Foam - Piping
			TANK		Fire: Foam - Tanks
			VALV		Fire: Foam - Valves
V	FIRE	HOSE			Fire: Hose
			CABN		Fire: Hose Cabinet
			RACK		Fire: Hose Rack
			METR		Fire: Metered Hose
V	FIRE	HYDT			Fire: Hydrants
			FLSH		Fire: Hydrant Flush
V	FIRE	PIPE			Fire: Piping
			DSP~		Fire: Piping - Dry
			LOCT		Fire: Piping Locates
			STAN		Fire: Standpipe
			WSP~		Fire: Piping - Wet
V	FIRE	PUMP			Fire: Pumps
V	FIRE	SPKL			Fire: Sprinkler System
			HEAD		Fire: Sprinkler Heads
			LINE		Fire: Sprinkler Line (Exposed)
			LOCT		Fire: Sprinkler Line Locates
V	FIRE	STRC			Fire: Structures & Support
V	FIRE	VALV			Fire: Valves
			ENCL		Fire: Valve Enclosure
V	FIRE	VALT			Fire: Vaults/Pits

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FUEL		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Liquid Fuel Systems
V	FUEL	DIES			Fuel System: Diesel
			CAP~		Fuel System: Diesel - Fuel Cap
			DISP		Fuel System: Diesel - Dispenser
			EQPM		Fuel System: Diesel - Equipment
			FITG		Fuel System: Diesel - Pipe Fitting
			FLTR		Fuel System: Diesel - Filter
			IDEN		Fuel System: Diesel - Tags & Annotation
			LOCT		Fuel System: Diesel - Pipe Locates
			METR		Fuel System: Diesel - Meter

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FUEL	DIES	PIPE		Fuel System: Diesel - Pipe (Exposed)
			PUMP		Fuel System: Diesel - Pump
			STRC		Fuel System: Diesel - Structure & Support
			TANK		Fuel System: Diesel - Storage/Expansion Tanks
			UNID		Fuel System: Diesel - Unidentified
			VALT		Fuel System: Diesel - Vaults/Pits
			VALV		Fuel System: Diesel - Valves
			VENT		Fuel System: Diesel - Venting
V	FUEL	FLFO			Fuel System: Fuel Oil
			EQPM		Fuel System: Fuel Oil - Equipment
			FITG		Fuel System: Fuel Oil - Pipe Fitting
			FLTR		Fuel System: Fuel Oil - Filter
			IDEN		Fuel System: Fuel Oil - Tags & Annotation
			LOCT		Fuel System: Fuel Oil - Pipe Locates
			METR		Fuel System: Fuel Oil - Meter
			PIPE		Fuel System: Fuel Oil - Pipe (Exposed)
			PUMP		Fuel System: Fuel Oil - Pump
			STRC		Fuel System: Fuel Oil - Structure & Support
			TANK		Fuel System: Fuel Oil - Storage/Expansion Tanks
			UNID		Fuel System: Fuel Oil - Unidentified
			VALT		Fuel System: Fuel Oil - Vaults/Pits
			VALV		Fuel System: Fuel Oil - Valves
			VENT		Fuel System: Fuel Oil - Venting
V	FUEL	FLGS			Fuel System: Gasoline
			DISP		Fuel System: Gas - Dispenser
			EQPM		Fuel System: Gas - Equipment
			FITG		Fuel System: Gas - Pipe Fitting
			FLTR		Fuel System: Gas - Filter
			IDEN		Fuel System: Gas - Tags & Annotation
			LOCT		Fuel System: Gas - Pipe Locates
			METR		Fuel System: Gas - Meter
			PIPE		Fuel System: Gas - Pipe (Exposed)
			PUMP		Fuel System: Gas - Pump
			STRC		Fuel System: Gas - Structure & Support
			TANK		Fuel System: Gas - Storage/Expansion Tanks
			UNID		Fuel System: Gas - Unidentified
			VALT		Fuel System: Gas - Vaults/Pits
			VALV		Fuel System: Gas - Valves
			VENT		Fuel System: Gas - Venting

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FUEL	FLJT			Fuel System: Jet
			ANOD		Fuel System: Jet - Anode (Ground Rod)
			CAP~		Fuel System: Jet - Fuel Cap
			EQPM		Fuel System: Jet - Equipment
			FILL		Fuel System: Jet - Fill Pipe
			FITG		Fuel System: Jet - Pipe Fitting
			FLTR		Fuel System: Jet - Filter
			HTCH		Fuel System: Jet - Hatch
			IDEN		Fuel System: Jet - Tags & Annotation
			LOCT		Fuel System: Jet - Pipe Locates
			METR		Fuel System: Jet - Meter
			PIPE		Fuel System: Jet - Pipe (Exposed)
			PUMP		Fuel System: Jet - Pump
			STRC		Fuel System: Jet - Structure & Support
			TANK		Fuel System: Jet - Storage Tanks
			TCSE		Fuel System: Jet - CP Test Station
			TRCK		Fuel System: Jet - Truck Loading/Unloading Station
			UNID		Fuel System: Jet - Unidentified
			VALT		Fuel System: Jet - Vaults/Pits
			VALV		Fuel System: Jet - Valves
			VENT		Fuel System: Jet - Venting
			WAST		Fuel System: Jet - Waste Elements
V	FUEL	HHOL			Fuel System: Hand Holes
V	FUEL	HYDT			Fuel System: Hydrant Control Pits
V	FUEL	IDEN			Fuel System: Tags & Annotation
V	FUEL	INST			Fuel System: Instrumentation
V	FUEL	JBOX			Fuel System: Junction Box
V	FUEL	METR			Fuel System: Meters
V	FUEL	MHOL			Fuel System: Manholes
V	FUEL	LQPG			Fuel System: Propane
			CTRL		Fuel System: Propane - Alarm Panel/Controls
			FITG		Fuel System: Propane - Pipe Fitting
			EQPM		Fuel System: Propane - Equipment
			METR		Fuel System: Propane - Meter
			LOCT		Fuel System: Propane - Pipe Locates
			PIPE		Fuel System: Propane - Pipe
			STRC		Fuel System: Propane - Structure & Support
			TANK		Fuel System: Propane - Tanks
			VENT		Fuel System: Propane - Venting Elements
V	FUEL	PIPE			Fuel System: Piping

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	FUEL	PIPE	LOCT		Fuel System: Piping Locates
			MAIN		Fuel System: Piping Main
			SERV		Fuel System: Service Piping
V	FUEL	PUMP			Fuel System Booster Pump Station
V	FUEL	STRC			Fuel System: Structures & Support
V	FUEL	TANK			Fuel System: Tanks
V	FUEL	TRCH			Fuel System: Trench
V	FUEL	VALT			Fuel System: Vaults/Pits
V	FUEL	VENT			Fuel System: Venting Elements

HWTR - HEATING HOT WATER SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	HWTR		XGRD/UGD	XGRD/UGD	Heating Hot Water System
V	HWTR	EQPM			Heating Hot Water: Equipment
			BOIL		Heating Hot Water: Boiler
			HEX~		Heating Hot Water: Heat Exchanger
V	HWTR	MHOL			Heating Hot Water: Manhole
V	HWTR	PIPE			Heating Hot Water: Piping
			FITG		Heating Hot Water: Pipe Fittings
			LOCT		Heating Hot Water: Piping Locates
V	HWTR	PUMP			Heating Hot Water: Pumps
V	HWTR	STRC			Heating Hot Water: Structures & Support
V	HWTR	TANK			Heating Hot Water: Tanks
V	HWTR	VALT			Heating Hot Water: Vaults/Pits
V	HWTR	VALV			Heating Hot Water: Valves

INDW - INDUSTRIAL WASTEWATER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	INDW		XGRD/UGD	XGRD/UGD	Industrial Wastewater System
V	INDW	CBSN			Industrial Waste: Catch Basin
			ROUN		Industrial Waste: Round Catch Basin
V	INDW	COUT			Industrial Waste: Cleanout
V	INDW	EQPM			Industrial Waste: Equipment
V	INDW	FLSH			Industrial Waste: Flush Gutter
V	INDW	IDEN			Industrial Waste: Tags & Annotation
V	INDW	JBOX			Industrial Waste: Junction Box
V	INDW	MHOL			Industrial Waste: Manhole
V	INDW	LIFT			Industrial Waste: Lift stations
V	INDW	OWSP			Industrial Waste: Oil/Water Separator
V	INDW	PIPE			Industrial Waste: Piping

INDW - INDUSTRIAL WASTEWATER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	INDW	PIPE	FITG		Industrial Waste: Pipe Fitting
			FORC		Industrial Waste: Piping - Force Main
			GRAV		Industrial Waste: Piping - Gravity Drain
			LOCT		Industrial Waste: Pipe Locates
			PERF		Industrial Waste: Perforated Pipe
			RFDR		Industrial Waste - Roof Drain
			SERV		Industrial Waste: Piping - Service
			WOIL		Industrial Waste: Piping - Waste Oil
V	INDW	SDRN			Industrial Waste: Sub-Drain Elements
V	INDW	STRC			Industrial Waste: Structures & Support
V	INDW	TANK			Industrial Waste: Tanks
V	INDW	UNID			Industrial Waste: Unidentified
V	INDW	VALT			Industrial Waste: Vaults/Pits
V	INDW	VALV			Industrial Waste: Valves

IRRG - IRRIGATION

Discipline	Major	Minor 1	Minor 2	Status	Description
V	IRRG		XGRD/UGD	XGRD/UGD	Irrigation System
V	IRRG	COND			Irrigation: Conduit
			LOCT		Irrigation: Conduit Locates
V	IRRG	CTRL			Irrigation: Control Stations/Panels
V	IRRG	EQPM			Irrigation: Equipment
V	IRRG	IDEN			Irrigation: Tags & Annotation
V	IRRG	PIPE			Irrigation: Piping
			LOCT		Irrigation: Piping Locates
V	IRRG	PUMP			Irrigation: Pumps
V	IRRG	SPKL			Irrigation: Sprinklers
			CVAL		Irrigation: Sprinkler Box
			HEAD		Irrigation: Sprinkler Heads, Bubblers, and Drip Irrigation Emitters
V	IRRG	STRC			Irrigation: Structures & Support
V	IRRG	TANK			Irrigation: Tanks
V	IRRG	VALV			Irrigation: Valves
			BOX~		Irrigation: Valve Box

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
V	LITE		XGRD/UGD	XGRD/UGD	Lighting System
V	LITE	CABL			Lighting: Cable
			COAX		Lighting: Coaxial Cable
			FIBR		Lighting: Fiber Optic Cable

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
V	LITE	CABL	LOCT		Lighting: Cable Locates
			MRKR		Lighting: Cable Markers
			MULT		Lighting: Multi-Conductor
			TRAY		Lighting: Cable Trays
V	LITE	CCR~			Lighting: Constant Current Regulator
V	LITE	COND			Lighting: Conduit
			LOCT		Lighting: Conduit Locates
V	LITE	CTRL			Lighting: Controls
			PANL		Lighting: Control Panels
			SNSR		Lighting: Sensors
			SWBD		Lighting: Switchboards
V	LITE	DBNK			Lighting: Duct Bank
V	LITE	EMER			Lighting: Emergency
V	LITE	EQPM			Lighting: Equipment
V	LITE	FEED			Lighting: Feeders
V	LITE	FIXT			Lighting: Fixtures
			AREA		Lighting: Area Light
			CLNG		Lighting: Ceiling Mounted Fixtures
			FLOR		Lighting: Floor Mounted Fixtures
			WALL		Lighting: Wall Mounted Fixtures
V	LITE	IDEN			Lighting: Tags & Annotation
V	LITE	JBOX			Lighting: Junction Box
V	LITE	NAVG			Lighting: Marine Navigation, GYRS System
V	LITE	POLE			Lighting: Poles
V	LITE	VALT			Lighting: Vaults
V	LITE	XFMR			Lighting: Transformers

NGAS - NATURAL GAS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	NGAS		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Natural Gas System
V	NGAS	CTRL			Natural Gas: Alarm Panels/Controls
V	NGAS	EQPM			Natural Gas: Equipment
V	NGAS	IDEN			Natural Gas - Tags & Annotation
V	NGAS	METR			Natural Gas: Meters
V	NGAS	MHOL			Natural Gas: Manhole
V	NGAS	PIPE			Natural Gas: Piping
			FITG		Natural Gas: Pipe Fittings
			LOCT		Natural Gas: Piping Locates
			MAIN		Natural Gas: Piping - Main
			POST		Natural Gas: Witness Post

NGAS - NATURAL GAS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	NGAS	PIPE	SERV		Natural Gas: Piping - Service
V	NGAS	PREG			Natural Gas: Pressure Regulator
V	NGAS	SIGN			Natural Gas: Surface Markers/Signs
V	NGAS	STRC			Natural Gas: Structure & Support
V	NGAS	TANK			Natural Gas: Tanks
V	NGAS	VALV			Natural Gas: Valves
V	NGAS	VENT			Natural Gas: Venting Elements

NODE - NODES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	NODE				Survey/Mapping Nodes
V	NODE	ABUT			Node: Abutment
V	NODE	ACTL			Node: Aerial Horizontal & Vertical Control Points
V	NODE	BLDG			Node: Building Points
V	NODE	BASE			Node: Baseline
V	NODE	BRDG			Node: Bridge Survey Points
V	NODE	BRKL			Node: Breaklines, Spot Elevation Points, etc.
V	NODE	BROW			Node: Brush Row Points
V	NODE	CABL			Node: Underground Cable System
V	NODE	CURB			Node: Curb
V	NODE	DECK			Node: Deck
V	NODE	DRIV			Node: Driveway
V	NODE	IDEN			Node: Survey Point Identification
			DASP		Node: Survey Point Description Attributes
			EASP		Node: Survey Point Elevation Attributes
			PASP		Node: Survey Point Number Attributes
V	NODE	EXPJ			Node: Expansion Joint
V	NODE	GRND			Node: Ground
V	NODE	MHOL			Node: Manhole
V	NODE	MRKG			Node: Pavement Markings
V	NODE	NGAS			Node: Natural Gas Line
V	NODE	PIPE			Node: Piping (Roadway/Driveway Culverts)
V	NODE	POLE			Node: Poles (Utility)
V	NODE	PVMT			Node: Pavement
V	NODE	SIGN			Node: Signage
V	NODE	SSWR			Node: Sanitary Sewer
V	NODE	STRM			Node: Storm Sewer
V	NODE	SWLK			Node: Sidewalks
V	NODE	TREE			Node: Trees
V	NODE	TROW			Node: Tree Rows

NODE - NODES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	NODE	WATR			Node: Water Supply

POWR - POWER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	POWR		XGRD/UGD	XGRD/UGD	Power System
V	POWR	CABL			Power: Cables
			COAX		Power: Coaxial Cable
			FIBR		Power: Fiber Optic Cable
			LOCT		Power: Cable Locates
			MULT		Power: Multi-Conductor Cable
			TRAY		Power: Cable Tray
V	POWR	CABN			Power: Cabinet
V	POWR	CIRC			Power: Circuits
V	POWR	COND			Power: Conduit
			LOCT		Power: Conduit Locates
V	POWR	CRAN			Power: Crane Power System Elements
V	POWR	CTRL			Power: Controls
			REEF		Power: Reefer Outlet
			SNSR		Power: Sensors
			TLM~		Power: Telemetry
V	POWR	DUCT			Power: Duct Bank
V	POWR	EMER			Power: Emergency Power
V	POWR	EQPM			Power: Equipment
			GENR		Power: Generator
			PBOX		Power: Pull Box
V	POWR	FENC			Power: System Fences
V	POWR	G480			Power: Elements Greater Than 480V
V	POWR	GRND			Power: Ground Rod/Ground Rod Box
V	POWR	GYRS			Power: Landis GYRS System
V	POWR	GYWR			Power: Guy Wire Anchor
			POST		Power: Guy Post
V	POWR	HHOL			Power: Hand Hole
V	POWR	IDEN			Power: Tags and Annotation
V	POWR	INST			Power: Instrumentation
V	POWR	JBOX			Power: Junction Box
V	POWR	L480			Power: Elements Less Than 480V
V	POWR	METR			Power: Meter
			DUAL		Power: 2 Meters
			MUNI		Power: City Meter
			PORT		Power: Port Meter

POWR - POWER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	POWR	MHOL			Power: Manhole
V	POWR	MONI			Power: Site Monitoring
V	POWR	OTLT			Power: Outlets
			SHIP		Power: Ship Outlet
V	POWR	OVHD			Power: Overhead Elements
V	POWR	PANL			Power: Panel
V	POWR	POLE			Power: Poles
V	POWR	SOLR			Power: Solar System (Panels, etc.)
V	POWR	STRC			Power: Structural Elements
V	POWR	SBST			Power: Substation
V	POWR	SWGR			Power: Switchgear
V	POWR	TRCH			Power: Trench
V	POWR	UNID			Power: Unidentified Elements
V	POWR	VALT			Power: Vaults
V	POWR	XFMR			Power: Transformers

PRKG - PARKING LOTS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PRKG		XGRD/UGD	XGRD/UGD	Parking Lots/Features
V	PRKG	ASPH			Parking: Asphalt
V	PRKG	CARS			Parking: Graphic Illustration of Vehicles
V	PRKG	CONC			Parking: General Concrete Area
V	PRKG	CURB			Parking: Curbs and Gutters
V	PRKG	DRAN			Parking: Lot Drainage Slope Indications
V	PRKG	FLNE			Parking: Fire Lanes
V	PRKG	GRVL			Parking: Gravel Lots
V	PRKG	IDEN			Parking: Tags & Annotation
V	PRKG	ISLD			Parking: Islands
V	PRKG	MRKG			Parking: Pavement Markings
V	PRKG	STOP			Parking: Stops and Blocks
V	PRKG	STRP			Parking: Paved Area Striping
V	PRKG	UPVD			Parking: Unpaved Surfaces

PRCL - PARCELS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PRCL				Parcels
V	PRCL	ESMT			Parcels: Easements
V	PRCL	IDEN			Parcels: Tags & Annotation
V	PRCL	RWAY			Parcels: Right of Way
V	PRCL	TABL			Parcels: Tables

PLNT - PLANTS/MATERIAL

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PLNT		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Planting
V	PLNT	EDGE			Planting: Edge Vegetation
V	PLNT	SEED			Planting: Seeding Areas
V	PLNT	TREE			Planting: Trees
			DCID		Planting: Tree - Deciduous
			CONI		Planting: Tree - Coniferous
V	PLNT	SHRB			Planting: Shrubs

PROF - PROFILE

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PROF				Profiles
V	PROF	CUID			Profiles: Grading and Grading Cuts - Annotation
V	PROF	FILL			Profiles: Grading Fills
V	PROF	INLT			Profiles: Curb and Surface Inlets, Catch Basins
V	PROF	MHOL			Profiles: Manholes
V	PROF	PIPE			Profiles: Piping
V	PROF	ROAD			Profiles: Roads

PROP - PROPERTY

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PROP		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Property
V	PROP	ACCS			Property: Access
			PBLC		Property: Public Access
			RSTD		Property: Restricted Access
V	PROP	BNDY			Property: Survey Boundaries
			CNTY		Property: County Boundary
			GLOT		Property: Survey Boundaries - Government Lot Lines
			MENR		Property: Survey Boundaries - Meander Section Lines
			MUNI		Property: Municipal Boundary
			PARC		Property: Parcel Boundary
			QTRS		Property: Survey Boundaries - Quarter Section Lines
			SECT		Property: Survey Boundaries - Section Lines
			STAT		Property: State Boundaries
			SXTS		Property: Survey Boundaries - Sixteenth Section Lines
V	PROP	BERM			Property: Berms
V	PROP	BRKW			Property: Breakwater

PROP - PROPERTY

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PROP	BRNG			Property: Bearings and Distance Labels
V	PROP	BULK			Property: Bulkheads
V	PROP	CONS			Property: Construction Limits/Controls, Staging Area
V	PROP	CRNR			Property: Corner
V	PROP	DAMS			Property: Dams, Runoff Control
V	PROP	ESMT			Property: Easements
V	PROP	FENC			Property: Fences
			ASPH		Property: Fence at Asphalt
			CLNK		Property: Fence - Chain-link
			CRNR		Property: Fence Corner
			POST		Property: Fence Post
			SILT		Property: Silt Fence
V	PROP	GATE			Property: Gates
			CTRL		Property: Gate Control Box
			POST		Property: Gate Post
V	PROP	HARB			Property: Harbor Lines
			FORM		Property: Harbor Lines - Former
			INNER		Property: Harbor Lines - Inner
			OUTR		Property: Harbor Lines - Outer
			PIER		Property: Harbor Lines - Pier Head
V	PROP	IDEN			Property: Tags & Annotation
V	PROP	LEAS			Property: Lease Line/Area (Surveyed)
			PORT		Property: Port of Seattle Lease Line
V	PROP	LEGL			Property: Legal Descriptions
V	PROP	LINE			Property: Lines (Existing Recorded Plats)
			NPRT		Property: Lines - Non-Port of Seattle Property
V	PROP	LOTS			Property: Lot Lines
V	PROP	LUSE			Property: Land Use Area
V	PROP	MON~			Property: Survey Monuments
V	PROP	PARK			Property: Parks
V	PROP	PRKG			Property: Public Parking Areas
V	PROP	PORT			Property: Port of Seattle Property Lines
			CRNR		Property: Port of Seattle Property Corner
V	PROP	RTWL			Property: Retaining Wall
V	PROP	RWAY			Property: Right of Way
V	PROP	SBCK			Property: Setback Lines
V	PROP	SIGN			Property: Signage (Non-Traffic)
V	PROP	STEP			Property: Steps (Site/Landscaping)
V	PROP	WWAY			Property: Channels, Canals, Waterways

PVMT - PAVEMENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PVMT		XGRD/UGD	XGRD/UGD	Pavements
V	PVMT	ACST			Pavement: Aircraft Control Striping
			IDEN		Pavement: Aircraft Control Striping - Tags & Annotation
			JANG		Pavement: Aircraft Control Striping - J Line Angle
			JEND		Pavement: Aircraft Control Striping - J Line End
			JLIN		Pavement: Aircraft Control Striping - J Line/Box/Wheel Stop
			JNOS		Pavement: Aircraft Control Striping - J Line Nose
			LSTR		Pavement: Aircraft Control Striping - Left Straight Arrow
			OFAL		Pavement: Aircraft Control Striping - Object Free Area
			PATT		Pavement: Aircraft Control Striping - Hashed Line
			RSTR		Pavement: Aircraft Control Striping - Right Straight Arrow
			RTRN		Pavement: Aircraft Control Striping - Right Turn Arrow
			SBAR		Pavement: Aircraft Control Striping - Stop Bar
			STRA		Pavement: Aircraft Control Striping - Straight Arrow
			SWLK		Pavement: Aircraft Control Striping - Sidewalks
			TWCL		Pavement: Aircraft Control Striping - Taxiway Centerline
			VHCL		Pavement: Aircraft Control Striping - Vehicle Control
			WING		Pavement: Aircraft Control Striping - Equipment Restraint/Wing Line
			ZIPL		Pavement: Aircraft Control Striping - Zipper Line
V	PVMT	ADAE	WARN		Pavement: Wheelchair Warning Surface
V	PVMT	ASPH			Pavement: Asphalt
			DRIV		Pavement: Asphalt Driveway
			EDGE		Pavement: Edge of Asphalt
			SWCT		Pavement: Asphalt Sawcut
V	PVMT	CONC			Pavement: Concrete
			AFLD		Pavement: Aviation Concrete
			DRIV		Pavement: Concrete Driveway
			EDGE		Pavement: Edge of Concrete
			FTNG		Pavement: Concrete Footing
			PADS		Pavement: Concrete Pads
			JNTS		Pavement: Concrete Joints
			RAMP		Pavement: Concrete Ramps
			SWAY		Pavement: Concrete Spillway

PVMT - PAVEMENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	PVMT	CONC	SWCT		Pavement: Concrete Sawcut
V	PVMT	CURB			Pavement: Paved Roadway Curbs
V	PVMT	GRV~			Pavement: Grooving
V	PVMT	GRVL			Pavement: Gravel
V	PVMT	IDEN			Pavement: Tags & Annotation
V	PVMT	MRKG			Pavement: Markings
V	PVMT	STRP			Pavement: Paint Striping
			FOGL		Pavement: Fog Line
			PATT		Pavement: Hatched Striping
			SBAR		Pavement: Stop Bar Striping
			WALK		Pavement: Painted Walkway
			WHIT		Pavement: White Paint Stripe
			YELO		Pavement: Yellow Paint Stripe

RAIL - RAILROADS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	RAIL		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Railroads
V	RAIL	CNTR			Railroad: Centerlines
V	RAIL	CROS			Railroad: Crossing
V	RAIL	EQPM			Railroad: Equipment (Gates, etc.)
V	RAIL	IDEN			Railroad: Tags & Annotation
V	RAIL	RWAY			Railroad: Right of Way
V	RAIL	SGNL			Railroad: Signals
V	RAIL	SIGN			Railroad: Signage
V	RAIL	SWCH			Railroad: Switches
			FROG		Railroad: Switches - Frog
V	RAIL	TRAK			Railroad: Tracks
			LUBE		Railroad: Flange Lubricator
			SIDG		Railroad: Siding Track
			SPUR		Railroad: Spur Track
			TIES		Railroad: Tracks - Railroad Ties
V	RAIL	YARD			Railroad Yard

ROAD - ROADS, STREETS, HIGHWAYS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	ROAD		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Roadways
V	ROAD	ACCS			Road: Access
V	ROAD	BRCK			Road: Brick
V	ROAD	BRDG			Road: Surface at Bridge
V	ROAD	CNTR			Road: Centerlines

ROAD - ROADS, STREETS, HIGHWAYS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	ROAD	CRWN			Road: Crown
V	ROAD	CURB			Road: Curbs
			CAST		Road: Curb (Cast-in-Place)
			EXTR		Road: Curb (Extruded)
			GUTR		Road: Curb & Gutter
			LINE		Road: Curb (Standard)
			PCST		Road: Curb (Pre-Cast)
			STOP		Road: Wheel Stops
			TOP~		Road: Top of Curb (Note Type)
V	ROAD	EDGE			Road: Edge
V	ROAD	FEAT			Road: Feature Line
V	ROAD	FLNE			Road: Fire Lanes
V	ROAD	GRAL			Road: Guardrails
V	ROAD	IDEN			Road: Tags & Annotation
V	ROAD	MRKG			Road: Pavement Markings
V	ROAD	OTLN			Road: Outlines
			ASPH		Road: Outlines - Asphalt Surface
			CONC		Road: Outlines - Concrete Surface
			GRVL		Road: Outlines - Gravel Surface
			UPVD		Road: Outlines - Unpaved Surface
V	ROAD	RPNT			Road: Survey Points
V	ROAD	RSTA			Road: Stationing
V	ROAD	SIGN			Road: Signs
V	ROAD	STRP			Road: Striping
V	ROAD	SWLK			Road: Sidewalk
V	ROAD	TUNL			Road: Tunnels
			HWAY		Road: Tunnels - Highway
			RAIL		Road: Tunnels - Railway
			TRAN		Road: Tunnels - Transit

SITE - SITE FEATURES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	SITE		XGRD/UGD	XGRD/UGD	Survey Site Features/Elements
V	SITE	BNCH			Site: Benches
V	SITE	EQPM			Site: Equipment
			MLBX		Site: Equipment - Mailbox
			PUMP		Site: Equipment - Pumps
			SUMP		Site: Equipment - Sump Pump
V	SITE	EROS			Site: Erosion Revetments/Control
			BRKW		Site: Breakwater

SITE - SITE FEATURES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	SITE	EROS	DRAN		Site: Drains
			DVDK		Site: Diversion Dike
			JETY		Site: Jetties
			RRAP		Site: Rip Rap
V	SITE	FENC			Site: Fences
			ASPH		Site: Fence at Asphalt
			CLNK		Site: Fence - Chain-link
			CRDR		Site: Fence - Card Reader
			CRNR		Site: Fence Corner
			POST		Site: Fence Post
			SILT		Site: Silt Fence
V	SITE	GATE			Site: Gates
			CTRL		Site: Gate Control Box
			POST		Site: Gate Post
V	SITE	IDEN			Site: Tags & Annotation
V	SITE	ROCK			Site: Large Rocks & Rock Outcroppings
			RAT~		Site: Rat Rock
V	SITE	SYRD			Site: Shipyard
			CLOC		Site: Shipyard Container Location Sign
			EQPM		Site: Shipyard Equipment
			FENC		Site: Shipyard Fencing (Security, etc.)
			GATE		Site: Shipyard Entrance/Exit Gates
			SCAL		Site: Shipyard Weigh Scales/Pits
			SGNL		Site: Shipyard Traffic Signals
			SIGN		Site: Shipyard Traffic/General Signage
			SUPT		Site: Shipyard Pipe & Equipment Supports
			WASH		Site: Shipyard Truck Wash System
V	SITE	VALT			Site: Vaults
			CRNR		Site: Vault Corner
V	SITE	VEGE			Site: Tree Lines & Vegetation
V	SITE	WATR			Site: Water Features
			EDGE		Site: Edge of Water

SSWR - SANITARY SEWER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	SSWR		XGRD/UGD	XGRD/UGD	Sanitary Sewer System
V	SSWR	CBSN			Sewer: Catch Basin
V	SSWR	COUT			Sewer: Cleanout
V	SSWR	DRAN			Sewer: Drains
			NITF		Sewer: Nitrification Drain Fields

SSWR - SANITARY SEWER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	SSWR	EQPM			Sewer: Equipment
			OWSP		Sewer: Oil/Water Separator
V	SSWR	FILT			Sewer: Filtration Beds
V	SSWR	FLOW			Sewer: Flow Lines
V	SSWR	IDEN			Sewer: Tags & Annotation
V	SSWR	JBOX			Sewer: Junction Box
V	SSWR	LEAC			Sewer: Leach Field
V	SSWR	LIFT			Sewer: Lift Station
V	SSWR	MHOL			Sewer: Manhole
			COMB		Sewer: Combined Sewer/Storm Manhole
V	SSWR	PIPE			Sewer: Piping
			FITG		Sewer: Pipe Fittings
			FORC		Sewer: Piping - Force Main
			GRAV		Sewer: Piping - Gravity Drain
			LOCT		Sewer: Piping Locates
			STUB		Sewer: Pipe Stub
V	SSWR	POND			Sewer: Ponds, Lagoons
V	SSWR	STRC			Sewer: Structures
V	SSWR	UNID			Sewer: Unidentified Elements
V	SSWR	VALT			Sewer: Vaults/Pits
V	SSWR	VALV			Sewer: Valves
V	SSWR	VENT			Sewer: Vent System

STEM - STEAM SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
V	STEM		<i>XGRD/UGD</i>	<i>XGRD/UGD</i>	Steam System
V	STEM	EQPM			Steam: Equipment
V	STEM	EXPJ			Steam: Expansion Joint
V	STEM	IDEN			Steam: Tags and Annotation
V	STEM	MHOL			Steam: Manhole
V	STEM	PIPE			Steam: Piping
			FITG		Steam: Pipe Fittings
			LOCT		Steam: Piping Locates
V	STEM	SUPT			Steam: Pipe and Equipment Supports
V	STEM	STRC			Steam: Structures
V	STEM	TRAP			Steam: Trap
V	STEM	VALT			Steam: Vaults/Pits
V	STEM	VALV			Steam: Valves
V	STEM	VENT			Steam: Venting Elements

STRC - STRUCTURES

Discipline	Major	Minor 1	Minor 2	Status	Description
V	STRC		XGRD/UGD	XGRD/UGD	Structures
V	STRC	CTWK			Structures: Catwalks
V	STRC	IDEN			Structures: Tags & Annotation
V	STRC	OTLN			Structures: Outlines (Bridge, Pier, Breakwaters, Docks, Float, etc.)
V	STRC	PADS			Structures: Site Equipment Pads
V	STRC	PLAT			Structures: Platforms
V	STRC	SLAB			Structures: Slabs
V	STRC	TOWR			Structures: Tower
			COMM		Structures: Communication Radio Towers
			CTRL		Structures: Control Towers

STRM - STORM SEWER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	STRM		XGRD/UGD	XGRD/UGD	Storm Sewer System
V	STRM	CBSN			Storm: Catch Basin
			ROUN		Storm: Round Catch Basin
V	STRM	COUT			Storm: Clean Out
V	STRM	CULV			Storm: Culvert
V	STRM	DRAN			Storm: Drains
			AREA		Storm: Area/Yard Drains
			UNID		Storm: Unidentified Drains
V	STRM	DTCH			Storm: Drainage Ditch/Swale
V	STRM	EQPM			Storm: Equipment
			LSPR		Storm: Level Spreader (Wood Separator)
			OWSP		Storm: Oil/Water Separator
V	STRM	FLOW			Storm: Flow Line
			STN~		Storm: Flow Monitoring Station
V	STRM	GUTR			Storm: Gutter/Half Pipe
			FLSH		Storm: Flush Gutter
V	STRM	HWAL			Storm: Headwalls and Endwalls
V	STRM	IDEN			Storm: Tags & Annotation
V	STRM	LIFT			Storm: Lift Stations
V	STRM	MHOL			Storm: Manhole
			COMB		Storm: Combined Sewer/Storm Manhole
			MTRO		Storm: Metro Manhole
			OWSP		Storm: Manhole w/ Oil/Water Separator
			UNID		Storm: Unidentified Manhole
V	STRM	OFAL			Storm: Outfalls
V	STRM	PIPE			Storm: Piping
			FITG		Storm: Pipe Fitting

STRM - STORM SEWER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	STRM	PIPE	FORC		Storm: Piping - Force Main
			GRAV		Storm: Piping - Gravity Drain
			LOCT		Storm: Pipe Locates
			NPRF		Storm: Piping (Non-Perforated)
			PERF		Storm: Piping (Perforated)
			RFDR		Storm: Roof Drain
			SUBS		Storm: Subsurface Drain Piping
			UNID		Storm: Unidentified Pipe
V	STRM	POND			Storm: Ponds, Lagoons, Watersheds, Basins
V	STRM	STRC			Storm: Drain Structure
			CHUT		Storm: Chutes & Concrete Erosion Control Structures
V	STRM	SUPT			Storm: Pipe & Equipment Supports
V	STRM	UNID			Storm: Unidentified Elements
V	STRM	VALT			Storm: Vaults/Pits
V	STRM	VALV			Storm: Valves
V	STRM	VENT			Storm: Vent System

SURV - SURVEY DATA

Discipline	Major	Minor 1	Minor 2	Status	Description
V	SURV		XGRD/UGD	XGRD/UGD	Survey Data
V	SURV	ALGN			Survey: Alignment
V	SURV	BMRK			Survey: Benchmarks
V	SURV	BNDY			Survey: Boundary
V	SURV	BRNG			Survey: Bearings & Distance
V	SURV	CRNR			Survey: Surveyed Corner
V	SURV	CTRL			Survey: Control Points
			ANOD		Survey: Controls - Anode
			CKPT		Survey: Controls - Checkpoint
			FLYS		Survey: Controls - Fly Station
			HORZ		Survey: Controls - Horizontal
			HVPT		Survey: Control - Horizontal/Vertical
			IDEN		Survey: Controls - Annotation
			PANL		Survey: Controls - Panel Points
			PHTO		Survey : Controls - Aerial Photo Target/Photo Location
			SOUN		Survey: Controls - Sounding Lead Line
			STGT		Survey: Controls - Scanning Target
			T		Survey: Temporary Control
			VERT		Survey: Controls - Vertical

SURV - SURVEY DATA

Discipline	Major	Minor 1	Minor 2	Status	Description
V	SURV	DATM			Survey: Datum Information
V	SURV	GRID			Survey: Grid System
			LAMB		Survey: Lambert Grid System
			STIA		Survey: Sea-Tac Grid System
			TIDE		Survey: Tideland Grid System
V	SURV	IDEN			Survey: Tags & Annotation
V	SURV	MON~			Survey: Monuments
			ROWS		Survey: Row Monument
			WATR		Survey: Water Monument
V	SURV	PNTS			Survey: Point Data
			IDEN		Survey: Point Data Annotation
V	SURV	SOUN			Survey: Sounding Data
			IDEN		Survey: Sounding Data Annotation
V	SURV	SYMB			Survey: line symbol
V	SURV	TRAV			Survey: Transverse Data
			BCRV		Survey: Beginning of Curve
			BLIN		Survey: Baseline
			CKPT		Survey: Checkpoint
			DIRC		Survey: Transverse Lines
			ECRV		Survey: End of Curve
			ERRO		Survey: Transverse Error Ellipses
			IDEN		Survey: Transverse Annotation
			INST		Survey: Instrument Setup
			NETW		Survey: Transverse Network
			PCRV		Survey: Point of Curve
			PTAN		Survey: Point of Tangent
			RCRV		Survey: Radius of Curve
			SHOT		Survey: Transverse Sideshot
V	SURV	UNID			Survey: Unidentified Elements

TOPO - TOPOGRAPHY

Discipline	Major	Minor 1	Minor 2	Status	Description
V	TOPO		XGRD/UGD	XGRD/UGD	Topography/Mapping
V	TOPO	ACFT	TIED		Topography: Aircraft Tie Down
V	TOPO	APPR			Topography: Runway Approach
V	TOPO	BAGS	BELT		Topography: Baggage Conveyor Belt
V	TOPO	BATH			Topography: Bathymetry
V	TOPO	BKLN			Topography: Breaklines
V	TOPO	BLRD			Topography: Bollard/Guard Post
V	TOPO	BNCH			Topography: Bench

TOPO - TOPOGRAPHY

Discipline	Major	Minor 1	Minor 2	Status	Description
V	TOPO	BORE			Topography: Boring locations
V	TOPO	COLS			Topography: Top of Bolt (Columns)
V	TOPO	CONC	EDGE		Topography: Edge of Concrete
V	TOPO	COOR			Topography: Coordinate Grid Ticks & Annotation
V	TOPO	CTNR			Topography: Container or Planter
V	TOPO	DTCH			Topography: Ditches, Swales, Creeks
			EDGE		Topography: Edge of Ditch, Swale, Creek
			FLOW		Topography: Flowline/Centerline
V	TOPO	EQPM			Topography: Misc. Equipment
V	TOPO	FENC			Topography: Fences
V	TOPO	FLOW	IDEN		Topography: Flow Line (Note)
V	TOPO	FLZN			Topography: Flood Zone
V	TOPO	GATE			Topography: Gates
V	TOPO	GRAD	LIMI		Topography: Grading Limits
V	TOPO	GRVL			Topography: Gravel
V	TOPO	HHOL			Topography: Hand Hole
			UNID		Topography: Unidentified Hand Hole
V	TOPO	HOIS			Topography: Lift Hoist
V	TOPO	LIFT			Topography: Lift Station
V	TOPO	MAJR			Topography: Major Contours
V	TOPO	MAJR	IDEN		Topography: Major Contours - Annotation
V	TOPO	METL			Topography: Metal Plate
V	TOPO	MHOL			Topography: Manhole
V	TOPO	MINR			Topography: Minor Contours
V	TOPO	MINR	IDEN		Topography: Minor Contours - Annotation
			INDX		Topography: Minor Contours - Index
V	TOPO	NCTR			Topography: Normal Contour
			FNGR		Topography: Normal Contour - Finished Grade
			GRBR		Topography: Normal Contour - Grade Break
			ORGR		Topography: Normal Contour - Original Grade
V	TOPO	NOIS			Topography: Noise Elements
			AUCO		Topography: Noise Complaint
			AUST		Topography: Noise Monitoring Station
			AUZN		Topography: Noise Contour/Zone
V	TOPO	PILE			Topography: Non-Seaport Pile
			SHTP		Topography: Sheet Pile
V	TOPO	PIPE			Topography: Piping (Any Utility)
			CSG~		Topography: Pipe Casing (Any Utility)
			UNID		Topography: Unidentified Piping
V	TOPO	POST			Topography: Posts

TOPO - TOPOGRAPHY

Discipline	Major	Minor 1	Minor 2	Status	Description
V	TOPO	POST	METL		Topography: Posts - Metal
			WOOD		Topography: Posts - Wood
V	TOPO	POTH			Topography: Pothole (Utilities)
V	TOPO	PUMP			Topography: Pump
			SUMP		Topography: Sump Pump
V	TOPO	RIVR			Topography: River
			EDGE		Topography: Edge of River
			FLOW		Topography: Flow Line
V	TOPO	ROCK			Topography: Large Rocks & Rock Outcroppings
			RAT~		Topography: Rat Rock
V	TOPO	RRAP			Topography: Rip Rap
V	TOPO	RTWL			Topography: Retaining Wall
			TOE~		Topography: Retaining Wall - Toe Face
			TOP~		Topography: Retaining Wall - Top/Back
V	TOPO	SCAL			Topography: Scale Pit
V	TOPO	SHOR			Topography: Shorelines
			EDGE		Topography: Shoreline Edge/Bank at Water
V	TOPO	SIGN			Topography: Signage
			STOP		Topography: Stop Sign
V	TOPO	SLOP			Topography: Slopes
			DAYL		Topography: Daylight (Top/Toe)
			TOE~		Topography: Toe of Slope
			TOP~		Topography: Top of Slope
V	TOPO	SOUN			Topography: Soundings
V	TOPO	SPOT			Topography: Spot Elevations
V	TOPO	STEP			Topography: Stair/Steps
V	TOPO	SUBG			Topography: Sub-Grades
			GRVL		Topography: Top of Rock/Base Coarse
V	TOPO	SVEX			Topography: Soil Vapor Extraction
V	TOPO	SWLK			Topography: Sidewalk
V	TOPO	TRCH			Topography: Utility Trench
			UNID		Topography: Unidentified Trench
V	TOPO	UTIL	VENT		Topography: Utility Vent
V	TOPO	VALT	UNID		Topography: Unidentified Vault
V	TOPO	VALV	UNID		Topography: Unidentified Valve
V	TOPO	WETL			Topography: Wetland
V	TOPO	WWAY			Topography: Waterway

TRAF - TRAFFIC CONTROL

Discipline	Major	Minor 1	Minor 2	Status	Description
V	TRAF		XGRD/UGD	XGRD/UGD	Traffic Control Elements
V	TRAF	ATTN			Traffic Control: Attenuators
V	TRAF	BARR			Traffic Control: Barriers
			JRSY		Traffic Control" Jersey Barrier
V	TRAF	GRAL			Traffic Control: Guard Rails
V	TRAF	ISLD			Traffic Control: Islands
V	TRAF	IDEN			Traffic Control: Tags & Annotation
V	TRAF	POST			Traffic Control: Posts/Guard Posts
V	TRAF	SGNL			Traffic Control: Signals
			HHOL		Traffic Control: Signal - Hand Hole
			PANL		Traffic Control: Signal - Control Panel
			POLE		Traffic Control: Signal - Pole
V	TRAF	SIGN			Traffic Control Signage
			POLE		Traffic Control: Sign Pole
V	TRAF	STRP			Traffic Control: Paint Striping

WATR - WATER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	WATR		XGRD/UGD	XGRD/UGD	Domestic Water
V	WATR	BKFL			Domestic Water: Backflow Preventer
V	WATR	DCBA			Domestic Water: Double Check Backflow Assembly
V	WATR	DEVC			Domestic Water: Devices (Connectors, Faucets, Reducers, etc.)
			HB~~		Domestic Water: Hose Bibb
V	WATR	EQPM			Domestic Water: Equipment
V	WATR	FITG			Domestic Water: Fittings (Caps, Cleanouts, etc.)
V	WATR	HYDT			Domestic Water: Hydrants
			FIRE		Domestic Water: Fire Hydrant
			FLSH		Domestic Water: Fire Hydrant (Flush)
			NPOT		Domestic Water: Non-potable/Flushing Hydrants
			SHIP		Domestic Water: Ship Hydrant
			WALL		Domestic Water: Wall Hydrant
			YARD		Domestic Water: Yard Hydrant
V	WATR	HHOL			Domestic Water: Hand Hole
V	WATR	IDEN			Domestic Water: Tags & Annotation
V	WATR	INST			Domestic Water: Instrumentation
V	WATR	LIFT			Domestic Water: Lift Station
V	WATR	METR			Domestic Water: Meters
			MUNI		Domestic Water: City Meters

WATR - WATER

Discipline	Major	Minor 1	Minor 2	Status	Description
V	WATR	METR	PORT		Domestic Water: Port Meters
V	WATR	MHOL			Domestic Water: Manhole
			STRC		Domestic Water: Manhole Structure
V	WATR	MON~			Domestic Water: Water Monument
V	WATR	PIPE			Domestic Water: Piping
			FIRE		Domestic Water: Fire Lines
			LOCT		Domestic Water: Pipe Locates
			MAIN		Domestic Water: Main Piping
			NPOT		Domestic Water: Non-Potable Water Piping
			SERV		Domestic Water: Service Piping
			POST		Domestic Water: Witness Post
V	WATR	PUMP			Domestic Water: Booster Pump Stations
V	WATR	REDC			Domestic Water: Pressure Reducing Stations
V	WATR	RSVR			Domestic Water: Reservoirs
V	WATR	RPBA			Domestic Water: Reduced Pressure Backflow Assembly
V	WATR	SIGN			Domestic Water: Surface Markers/Signs
V	WATR	STND			Domestic Water: Standpipe
V	WATR	STRC			Domestic Water: Structures
			AW~~		Domestic Water: Air Water Pit
			UGND		Domestic Water: Underground Structures
V	WATR	SUPT			Domestic Water: Pipe & Equipment Supports
V	WATR	TANK			Domestic Water: Storage Tanks
V	WATR	UNID			Domestic Water: Unidentified Elements
V	WATR	VALT			Domestic Water: Valve Pits/Vaults
V	WATR	VALV			Domestic Water: Valves/Top of Nut
			ARV~		Domestic Water: Air Release Valve
			BO~~		Domestic Water: Blowoff Valve
			PIV~		Domestic Water: Post Indicator Valve
			SPGT		Domestic Water: Spigots
V	WATR	VENT			Domestic Water: Venting/Vent Pits
V	WATR	WELL			Domestic Water: Wells/Well Houses

Civil Layers

Notes for Civil Site Plan Drawings:

1. To the greatest extent possible, the civil layers should be used for all site work (including docks). The other disciplines (mechanical, electrical, plumbing, etc.) should be used for buildings and airport/seaport terminals. Landscaping may be used for both site and buildings.
2. To the greatest extent possible, the layer standards are divided into systems. All utilities, equipment, elements, etc., associated with a system should be placed on layers associated with that system.
3. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
4. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable. The standard symbology with text and point information for manholes, hand holes, catch basins, pipe sizes, etc., used by Survey in Background and Basemap drawings can remain provided the symbols are small enough and the attribute and point information can be frozen if required.

AFLD - AIRFIELDS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	AFLD				Airfield Elements
C	AFLD	ACST			Airfield: Aircraft Control Striping
			FOGL		Fog Line
			HASH		Hash Line
			IDEN		Tags & Annotation
			JANG		J Line Angle
			JEND		J Line End
			JLIN		J Line
			JNOS		J Line Nose
			LSTR		Left Straight Arrow
			LTRN		Left Turn Arrow
			PATT		Textures/Hatch Patterns
			RSTR		Right Straight Arrow
			RTRN		Right Turn Arrow
			SBAR		Stop Bar
			STRA		Straight Arrow
			SWLK		Sidewalk
			TWCL		Taxiway Center Line
			VHCL		Vehicle Access Route
			WING		Stripe Wing Line
C	AFLD	AHOA			Airfield: Aircraft / Helicopter Operations Area
C	AFLD	AIDS			Airfield: Navigational Aids
			BECN		Airfield: Beacon
			COMM		Airfield: Communications Navigational Aids
			CRIT		Airfield: Critical Navigational Aids Area
			DF~~		Airfield: Direction Finding Navigation Aids
			DME~		Airfield: Direction Measuring Navigation Aids
			GPS~		Airfield: GPS Navigational Aids
			ILS~		Airfield: Instrument Landing System
			MCWV		Airfield: Microwave Navigational Aids
			OTHR		Airfield: Other Navigational Aids (Wind Cones/Windsocks)
			RADI		Airfield: Radio Navigational Aids
			RADR		Airfield: Radar Navigational Aids
			RMTE		Airfield: Remote Navigational Aids
			SITE		Airfield: Navigational Aid - Site
			SYST		Airfield: NAVAID System
			WTHR		Airfield: Weather Navigational Aids
C	AFLD	APLN			Airfield: Airplanes
			CLER		Airfield: Airplane Turning Clearance
			DOCK		Airfield: Docked Airplanes

AFLD - AIRFIELDS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	AFLD	APLN	EQPM		Airfield: Airplane Equipment
			LBRG		Airfield: Passenger Boarding Bridge
			LCAB		Airfield: Boarding Bridge Cab Equipment
			TIED		Airfield: Aircraft Tie-Down
C	AFLD	ARWY			Airfield: Airway
C	AFLD	CONC			Airfield Concrete
			CTLJ		Airfield: Concrete Control Joint
			EXPJ		Airfield: Concrete Expansion Joint
			FTNG		Airfield: Concrete Footing
			ISLD		Airfield: Concrete Island
			JNTS		Airfield: Concrete Joints
			PADS		Airfield: Concrete Pads
			RAMP		Airfield: Concrete Ramps
			SWLK		Airfield: Concrete Sidewalks
C	AFLD	CNTR			Airfield: Centerline of Objects
C	AFLD	DSRF			Airfield: Design Surfaces
			BLDR		Airfield: Building Restriction Line
			KEYH		Airfield: Key Holes
			MRKR		Airfield: Surface Markers
			NMOV		Airfield: Aircraft Non-Movement Area
			OFA~		Airfield: Object Free Area
			OFZ~		Airfield: Object Free Zone
			POFA		Airfield: Precision Object Free Area
			RPZ~		Airfield: Runway Protection Zone
			RSA~		Airfield: Runway Safety Area
C	AFLD	FAAC			Airfield: FAA Communication Systems
			ANTN		FAA Comm Antenna
			CABL		FAA Comm Cable
			CKPT		FAA Checkpoint
			CIRC		FAA Comm Circuit
			CLNG		FAA Comm Ceiling Elements
			COND		FAA Comm Conduit
			DBNK		FAA Comm Duct Bank
			EQPM		FAA Comm Equipment
			FIBR		FAA Comm Fiber Optic Cable
			IDEN		Tags & Annotation
			LOCL		FAA Comm Local Elements
			MHOL		FAA Comm Manhole
			MRKR		FAA Comm Cable Marker
			PANL		FAA Comm Panel

AFLD - AIRFIELDS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	AFLD	FAAC	PBOX		FAA Comm Pull Box
			STRC		FAA Comm System Structural Elements
			SWBD		FAA Comm Switchboards
			TOWR		FAA Comm Radio Towers
			TRAY		FAA Comm Cable Trays
C	AFLD	FAAL			Airfield: FAA Lighting Systems
			CABL		FAA Lighting Cable
			CIRC		FAA Lighting Circuit
			COND		FAA Lighting Conduit
			DBNK		FAA Lighting Duct Bank
			EQPM		FAA Lighting Equipment
			FEED		FAA Lighting Feeders
			FIBR		FAA Lighting Fiber Optic Cable
			HHOL		FAA Lighting Hand Hole
			IDEN		Tags & Annotation
			JBOX		FAA Lighting Junction Box
			MHOL		FAA Lighting Manhole
			MRKR		FAA Lighting Cable Marker
			PANL		FAA Lighting Panels
			PBOX		FAA Lighting Pull Box
			RUNW		FAA Runway Light
			STRC		FAA Lighting System Structural Elements
			SWBD		FAA Lighting Switchboards
			SWGR		FAA Lighting Switchgear
			TRAY		FAA Lighting Cable Trays
			XFMR		FAA Lighting Transformers
C	AFLD	FAAR			Airfield: FAA Region
C	AFLD	FAAP			Airfield: FAA Power Systems
			CABL		FAA Power Cable
			CIRC		FAA Power Circuit
			COND		FAA Power Conduit
			DBNK		FAA Power Duct Bank
			EQPM		FAA Power Equipment
			FEED		FAA Power Feeders
			FIBR		FAA Power Fiber Optic Cable
			HHOL		FAA Power Hand Hole
			IDEN		Tags & Annotation
			JBOX		FAA Power Junction Box
			MHOL		FAA Power Manhole
			MRKR		FAA Power Cable Marker

AFLD - AIRFIELDS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	AFLD	FAAP	PANL		FAA Power Panels
			PBOX		FAA Power Pull Box
			STRC		FAA Power System Structural Elements
			SWBD		FAA Power Switchboards
			SWGR		FAA Power Switchgear
			TRAY		FAA Power Tray
			XFMR		FAA Power Transformer
C	AFLD	FLNE			Airfield: Fire Lanes
			MRKG		Airfield: Fire Lane Pavement Markings
			SIGN		Airfield: Fire Lane Signage
C	AFLD	FREQ			Airfield: Frequency Area
C	AFLD	GFLD			Airfield: Greenfield
C	AFLD	GRVL			Airfield: Gravel
C	AFLD	IDEN			Airfield: Tags & Annotation
C	AFLD	JETB			Airfield: Airport Jet Bridge
C	AFLD	LITE			Airfield: Navigation Lighting
			APPR		Airfield: Approach Lights
			BASE		Airfield: Light Base
			CABL		Airfield: Lighting Cable
			CCR~		Airfield: Lighting - Constant Current Regulator
			CIRC		Airfield: Lighting Circuits
			COND		Airfield: Lighting Conduit
			DBNK		Airfield: Lighting Duct Bank
			DEVC		Airfield: Lighting Devices/Accessories/Instruments
			DIST		Airfield: Distance Measuring Lights
			EDGE		Airfield: Edge Lighting
			EQPM		Airfield: Lighting Equipment
			HHOL		Airfield: Lighting Hand Hole
			IDEN		Tags & Annotation
			EMER		Airfield: Emergency Lighting
			MHOL		Airfield: Lighting Manhole
			MRKR		Airfield: Lighting Cable Marker
			PANL		Airfield: Lighting Control Panel
			PBOX		Airfield: Lighting Pull Box
			SIGN		Airfield: Lighting Signage
			SNSR		Airfield: Lighting Sensor
			STRC		Airfield: Structural Lighting Elements
			SWBD		Airfield: Lighting Switchboards
C	AFLD	LOUT			Airfield Layout Plan
			APLN		Airfield Airplane Layout Plan

AFLD - AIRFIELDS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	AFLD	OBST			Airfield: Obstructions
C	AFLD	OVRN			Airfield: Overrun Areas
			CNTR		Airfield: Overrun Area Centerlines
			IDEN		Airfield: Overrun Tags and Annotation
			JNTS		Airfield: Overrun Joints
			OTLN		Airfield: Overrun Outlines
			SHLD		Airfield: Overrun Shoulder Markings
C	AFLD	PVMT			Airfield: Paving
			MRKG		Airfield: Pavement Markings
C	AFLD	SECR			Airfield: Security
			AOPF		Airfield: Airside Operations Security Fence
			BLST		Airfield: Blast Fence
			DEVC		Airfield: Security Devices/Accessories/Instruments
			FAAF		Airfield: FAA Security Fence
			FAAG		Airfield: FAA Secure Area Access Gate
			FENC		Airfield Security Fence
			GATE		Airfield: Security Control Gate
			PERI		Airfield: Security Perimeter
			SIDA		Airfield: Security Identification Display Area
			SECA		Airfield: Security Area
			STER		Airfield: Sterile Area
			RSTR		Airfield: Military Restricted Access Boundary
C	AFLD	SIGN			Airfield: Signage
C	AFLD	STAN			Airfield: Stationing
C	AFLD	TOWR			Airfield: Control Tower
			EQPM		Airfield: Control Tower Equipment
			STRC		Airfield: Control Tower Structure
C	AFLD	TRKL			Airfield: Flight Track Line
C	AFLD	TRKP			Airfield: Flight Track Point
C	AFLD	WHIT			Airfield: White Paint
C	AFLD	WNDS			Airfield: Windsock
C	AFLD	YELO			Airfield: Yellow Paint

AIRS - AIRSPACE

Discipline	Major	Minor 1	Minor 2	Status	Description
C	AIRS				Airspace Elements
C	AIRS	ISOC			Approach Surface Isolines
C	AIRS	LNDM			Landmark Segment
C	AIRS	OBST			Airfield Obstruction
C	AIRS	OTHR			Other Airspace Surfaces

AIRS - AIRSPACE

Discipline	Major	Minor 1	Minor 2	Status	Description
C	AIRS	PART	APRC		FAR Part 77 Approach Surface
C	AIRS	PART	CONL		FAR Part 77 Conical Surface
C	AIRS	PART	HORZ		FAR Part 77 Horizontal Surface
C	AIRS	PART	PRIM		FAR Part 77 Primary Surface
C	AIRS	PART	TRNS		FAR Part 77 Transitional Surface
C	AIRS	TERP			Terminal Instrument Procedures

ALGN - ALIGNMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
C	ALGN				Alignment Elements
C	ALGN	DATA			Coordinates and Curve Data
C	ALGN	LINE			Lines
C	ALGN	STAT			Stationing and Tick Marks

APRN - APRON

Discipline	Major	Minor 1	Minor 2	Status	Description
C	APRN				Apron Elements
C	APRN	ACCS			Apron Access Road
C	APRN	ACPK			Aircraft Gate/Stand Parking Area
C	APRN	NMOV			Aircraft Non-Movement Area
C	APRN	CNTR			Apron Centerlines
C	APRN	DEIC			Aircraft Deicing Area
C	APRN	GRND			Grounding Points
C	APRN	HOLD			Holding Position Markings
C	APRN	IDEN			Tags and Annotation
C	APRN	JNTS			Joints
C	APRN	LITE			Lighting
C	APRN	MOOR			Mooring Points
C	APRN	MRKG			Markings
C	APRN	NMOV			Non-Movement Area
C	APRN	OTLN			Airfield Apron Outline
C	APRN	SECR			Security Zone Markings
C	APRN	SHLD			Shoulders
			MRKG		Shoulder Markings
C	APRN	SIGN			Signage

BLDG - BUILDINGS AND STRUCTURES

Discipline	Major	Minor 1	Minor 2	Status	Description
C	BLDG				Building/Structures
C	BLDG	AREA			Areas w/ Specific Boundaries
C	BLDG	COLS			Columns

BLDG - BUILDINGS AND STRUCTURES

Discipline	Major	Minor 1	Minor 2	Status	Description
C	BLDG	COMR			Commercial Use Building
C	BLDG	DECK			Building/Structure Attached Decks
C	BLDG	DOOR			Building Doors
C	BLDG	ENCL			Equipment Building/Enclosure
C	BLDG	FACE			Building Face
			CRNR		Building Corner
			JTWY		Jetway
			OVHG		Building Overhang
C	BLDG	FNDN			Building Foundation
C	BLDG	IDEN			Building/Structure Tags and Annotation
C	BLDG	INDU			Industrial Use Building
			BPLT		Batch-Plant
C	BLDG	LOAD			Loading Dock
C	BLDG	OFFC			Office Building
C	BLDG	PATT			Building/Structure Hatching and Patterns
C	BLDG	PORT			Portable Structure
			TRLR		Trailer
C	BLDG	RAMP			Ramps
			ADA~		ADA Accessible Ramps
C	BLDG	ROOF			Building Roof
C	BLDG	STRC			Structural Building Elements
C	BLDG	WALL			Exterior Wall
C	BLDG	WRHS			Warehouse Building

BRDG - BRIDGES (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	BRDG				Bridge Elements
C	BRDG	CNTJ			Construction Joint
C	BRDG	CNTR			Center
C	BRDG	COLS			Bridge Columns
C	BRDG	CONC			Concrete Elements
C	BRDG	DECK			Bridge Deck
C	BRDG	FNDN			Foundation Elements
C	BRDG	FRAM			Bridge Framework
C	BRDG	EXPJ			Expansion Joint
C	BRDG	FALT			Fault/break Line
C	BRDG	HIDE			Objects/Lines Hidden From View
C	BRDG	OBJT			Objects
C	BRDG	PASS			Passenger Bridge
C	BRDG	PEDS			Pedestrian Bridge

BRDG - BRIDGES (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	BRDG	RBAR			Reinforcing Bar
C	BRDG	TMBR			Timber Elements

CATH - CATHODIC PROTECTION SYSTEM (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CATH				Cathodic Protection
C	CATH	ANOD			Anode Terminal
C	CATH	AUXL			Auxiliary
C	CATH	CABL			Cathodic Cable
C	CATH	CIRC			Cathodic Circuit
C	CATH	COND			Cathodic Conduit
C	CATH	CTRL			Cathodic Controls
C	CATH	DEVC			Device/Accessory
C	CATH	EQPM			Cathodic Equipment
C	CATH	GRND			Ground
C	CATH	OVHD			Elements Overhead/Above

CATV - CABLE TV SYSTEM (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CATV				Cable Television System
C	CATV	CABL			Cable
			COAX		Coaxial Cable
			FIBR		Fiber Optic Cable
			MULT		Multi-Conductor Cable
			TRAY		Trays and Wire Ways
C	CATV	CIRC			Circuit
C	CATV	COND			Conduit
			SLVE		Conduit Sleeve
C	CATV	EQPM			Equipment
			SATD		Satellite Dish/Disk
C	CATV	HHOL			Hand Holes
C	CATV	IDEN			Tags and Annotation
C	CATV	JBOX			Junction Box
C	CATV	MHOL			Manhole
C	CATV	OVHD			Overhead
C	CATV	PANL			Panels
C	CATV	PBOX			Pull Box
C	CATV	POLE			Poles
C	CATV	UGND			Underground Elements

NOTE: REFER TO TELECOMMUNICATION LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

CH4S - METHANE SYSTEM (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CH4S				Methane Systems
C	CH4S	CTRL			Controls
			SNSR		Sensors
C	CH4S	DEVC			Devices/Accessories/Instruments
			ALRM		Alarm
C	CH4S	EQPM			Equipment
			PREG		Pressure Regulator
C	CH4S	IDEN			Tags and Annotation
C	CH4S	METR			Meters
C	CH4S	PIPE			Piping (Includes Fittings/Valves)
			SLVE		Pipe Sleeve
			VENT		Vent Piping
C	CH4S	SUPT			Pipe & Equipment Support
C	CH4S	TANK			Tanks
C	CH4S	UGND			Underground Elements
C	CH4S	VENT			Venting Elements

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

CHAN - CHANNELS (WATERWAY)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CHAN				Channels & Waterways
C	CHAN	BWTR			Breakwater
C	CHAN	CNTR			Channel Centerline & Survey Report Lines
			IDEN		Tags & Annotation
C	CHAN	DACL			De-authorized Channel Limits, Anchorages, etc.
			IDEN		Tags & Annotation
C	CHAN	DOCK			Decks, Docks, Floats, Piers
C	CHAN	IDEN			Tags & Annotation
C	CHAN	LIMT			Channel Limits, Anchorages, Turning Basins, Disposal Areas, etc.
			IDEN		Tags & Annotation
C	CHAN	NAID			Navigation Aids
C	CHAN	TURN			Turning Points

COMM - COMMUNICATIONS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	COMM				Data & Telephone Communications
C	COMM	CABL			Cable
			COAX		Coaxial Cable
			FIBR		Fiber Optic Cable
			MULT		Multi-Conductor Cable

COMM - COMMUNICATIONS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	COMM	CABL	TRAY		Trays and Wire Ways
C	COMM	CIRC			Circuits
C	COMM	COND			Conduits
			SLVE		Conduit Sleeves
C	COMM	DEVC			Devices/Accessories-Instruments
C	COMM	ENCL			Telephone Enclosure (Booth)
C	COMM	EQPM			Equipment
C	COMM	HHOL			Hand Hole
C	COMM	JBOX			Junction Box
C	COMM	IDEN			Tags and Annotation
C	COMM	MHOL			Manhole
			STRC		Manhole Structure
C	COMM	NETW			Data Network Components
C	COMM	OVHD			Overhead
C	COMM	PANL			Panels
C	COMM	PBOX			Pull Box
C	COMM	POLE			Poles
C	COMM	STRC			Structural Elements
C	COMM	TOWR			Radio Tower
			EQPM		Radio Tower Equipment
C	COMM	UGND			Underground Elements
C	COMM	VALT			Vaults/Pits
C	COMM	XFMR			Transformer

NOTE: REFER TO TELECOMMUNICATIONS LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

CMPA - COMPRESSED AIR SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CMPA				Compressed Air Systems
C	CMPA	EQPM			Equipment
			CMPR		Compressor
			DRYR		Compressed Air Dryer
			QCON		Quick Disconnect
			RCVR		Receiver
C	CMPA	PIPE			Piping (Includes Fittings/Valves)
			SLVE		Pipe Sleeve
C	CMPA	STRC			Comp Air System Structural Elements
C	CMPA	SUPT			Pipe & Equipment Support
C	CMPA	TANK			Tanks
C	CMPA	UGND			Underground Elements
C	CMPA	VALT			Vaults/Pits

CMPA - COMPRESSED AIR SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CMPA	VENT			Venting Elements

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

CNDW - CONDENSER WATER SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CNDW				Condenser Water Systems
C	CNDW	EQPM			Equipment
C	CNDW	MHOL			Manhole
C	CNDW	PIPE			Piping (Includes Fittings/Valves)
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
C	CNDW	PUMP			Pumps
C	CNDW	STRC			Condenser Water System Structural Elements
C	CNDW	SUPT			Pipe & Equipment Support
C	CNDW	TANK			Tanks
C	CNDW	UGND			Underground Elements
C	CNDW	VALT			Vaults/Pits
C	CNDW	VENT			Venting Elements

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

COND - CONDENSATE (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	COND				Condensate Systems
C	COND	CTRL			Controls
C	COND	EQPM			Equipment
C	COND	EXPJ			Expansion Joint
C	COND	IDEN			Tags and Annotation
C	COND	MHOL			Manhole
C	COND	PUMP			Pumps
C	COND	PIPE			Piping (Includes Fittings/Valves)
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
C	COND	SUPT			Pipe and Equipment Supports
C	COND	UGND			Underground Elements
C	COND	VALT			Vaults

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

CWTR - CHILLED WATER SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	CWTR				Chilled Water Systems
C	CWTR	EQPM			Equipment
C	CWTR	PIPE			Piping (Includes Fittings/Valves)
C	CWTR	STRC			Chilled Water System Structural Elements
C	CWTR	SUPT			Pipe & Equipment Supports
C	CWTR	TANK			Tanks
C	CWTR	UGND			Underground Elements
C	CWTR	VALT			Vaults/Pits

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

DOCK - DOCKS AND PIERS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	DOCK				Docks and Piers
C	DOCK	ACCS			Access Elements
			LADD		Access Ladders
C	DOCK	GENL			General Elements
C	DOCK	OTLN			Dock, Pier, Float Outlines
C	DOCK	RAMP			Ramps
C	DOCK	SIGN			Signage
C	DOCK	STEP			Steps
C	DOCK	SUPT			Supports
C	DOCK	TMBR			Timber Elements
C	DOCK	UTIL			Dock Utilities
			SLVE		Utility Sleeves

NOTE: REFER TO STRUCTURAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

EROS - EROSION AND SEDIMENTATION CONTROL/ENVIRONMENTAL

Discipline	Major	Minor 1	Minor 2	Status	Description
C	EROS				Environmental Elements/Erosion Control
C	EROS	BORE			Boring
			FDTA		Field Data
			LDTA		Laboratory Data
			THOL		Test Holes
C	EROS	CNTE			Construction Entrance
C	EROS	DDIV			Drainage Divides
C	EROS	DVDK			Diversion Dike
C	EROS	EBLK			Ecology Block
C	EROS	EBAK			Ecology Backfill
C	EROS	ENMT			Environmental Mitigation Area
			AIRQ		Air Quality Mitigation Area
			ASB~		Asbestos Mitigation Area

EROS - EROSION AND SEDIMENTATION CONTROL/ENVIRONMENTAL

Discipline	Major	Minor 1	Minor 2	Status	Description
C	EROS	ENMT	GWTR		Ground Water Mitigation
			LAND		Landfill Gas/Methane Mitigation
			NOIS		Noise Mitigation Area
			SHOR		Shoreline Mitigation Area
			SOIL		Soil Mitigation
			SWTR		Surface Water Mitigation
C	EROS	IDEN			Identification Tags and Annotation
C	EROS	INPR			Inlet Protection
			CULV		Culvert Inlet Protection
C	EROS	LIMI			Limit of Division
C	EROS	POND	DTTN		Detention Pond/Lagoon
			EDGE		Edge of Pond
			RTTN		Retention Pond
			SWAY		Spillway
			TOPB		Top of Bank
C	EROS	RMDS			Remediation System
C	EROS	RRAP			Riprap
C	EROS	SILT			Silt
			FENC		Silt Fence
			TRAP		Silt Trap
C	EROS	SOIL			Soil
			CTAM		Contaminated Soil
C	EROS	SSLT			Super Silt
			FENC		Super Silt Fence
C	EROS	STOR			Storage Elements
			HAZM		Hazardous Material Storage
C	EROS	TPRT			Tree Protection
C	EROS	WELL			Environmental Wells
			MNTR		Monitoring Well
C	EROS	WTLN			Wetland Area

ESMT - EASEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
C	ESMT				Property Easements
C	ESMT	ACCS			Access (Pedestrian Only, Private)
C	ESMT	CONS			Conservation
C	ESMT	CSTG			Construction/Grading
C	ESMT	FDPL			Flood Plain
C	ESMT	IDEN			Tags & Annotation
C	ESMT	LSCP			Landscape
C	ESMT	ROAD			Roadway

ESMT - EASEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
			PERM		Permanent Roadway
			TEMP		Temporary Roadway
C	ESMT	RWAY			Right-of-way (Public Access)
C	ESMT	SGHT			Sight Distance
C	ESMT	SSWR			Sanitary Sewer
C	ESMT	STRM			Storm Sewer
C	ESMT	SWMT			Storm Water Management
C	ESMT	TRAL			Trails (Public Access)
C	ESMT	UTIL			Utility
			CABL		Utility - Cable Television
			ELEC		Utility - Electrical, Power
			MULT		Utility - Multiple
			NGAS		Utility - Natural Gas
			PHON		Utility - Telephone
C	ESMT	WATR			Water Supply

FENC - FENCES (GENERAL SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	FENC				Fencing Elements
C	FENC	ASPH			Fence at Asphalt
C	FENC	CLNK			Chain Link
C	FENC	GATE			Gates
			CBOX		Gate Control Box
			POST		Gate Post
C	FENC	GRAL			Guardrails
C	FENC	POST			Posts
C	FENC	SECR			Security Fencing
C	FENC	STEL			Steel (Barbed Wire/Chain Link)
C	FENC	WOOD			Wood

FIRE - FIRE PROTECTION SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	FIRE				Fire Protection
C	FIRE	AFFF			Aqueous Film Forming Foam System
C	FIRE	BLRD			Bollards
C	FIRE	CTRL			Controls
C	FIRE	DELU			Deluge System
C	FIRE	DEVC			Devices/Accessories/Instruments
			ALRM		Alarm
			BFPA		Backflow Prevention Assembly

FIRE - FIRE PROTECTION SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	FIRE	DRYS			Dry Pipe System
C	FIRE	EQPM			Equipment
C	FIRE	FDCN			Fire Department Connection
C	FIRE	HOSE			Hoses
C	FIRE	HYDT			Hydrants
C	FIRE	METR			Meters
C	FIRE	PIPE			Piping
			SLVE		Pipe Sleeve
C	FIRE	PUMP			Pumps/Jockey Pumps
C	FIRE	SPKL			Sprinklers
C	FIRE	STDP			Standpipe
C	FIRE	SUPT			Pipe/Equipment Support
C	FIRE	TANK			Storage Tanks
C	FIRE	UGND			Underground Elements
C	FIRE	VALT			Valve Pits/Vaults
C	FIRE	VALV			Valves
			ENCL		Valve Enclosure
C	FIRE	WETS			Wet Pipe System

NOTE: REFER TO FIRE PROTECTION LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	FUEL				Liquid Fuel Systems
C	FUEL	CTRL			Fuel System Controls
C	FUEL	DEFL			Fuel: Defueling
C	FUEL	DEVC			Fuel: Devices/Accessories/Instruments
C	FUEL	DIES			Diesel Fuel
			CTRL		Diesel Controls
			DEVC		Diesel Devices/Accessories/Instruments
			DISP		Diesel Dispenser
			EQPM		Diesel Equipment
			FLTR		Diesel Filter
			METR		Diesel Meter
			PIPE		Diesel Piping (Includes Fittings/Valves)
			PUMP		Diesel Pumps
			TANK		Diesel Tanks
			UGND		Diesel Underground Elements
			VALT		Diesel Vaults/Pits
			VENT		Diesel Venting Elements
C	FUEL	EQPM			Fuel: Equipment

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	FUEL	FLFO			Fuel Oil
			CTRL		Fuel Oil Controls
			DEVC		Fuel Oil Devices/Accessories/Instruments
			DISP		Fuel Oil Dispenser
			EQPM		Fuel Oil Equipment
			FLTR		Fuel Oil Filter
			METR		Fue Oil Meter
			PIPE		Fuel Oil Pipe (Includes Fittings/Valves
			PUMP		Fuel Oil Pumps
			TANK		Fuel Oil Tanks
			UGND		Fuel Oil Underground Elements
			VALT		Fuel Oil Vaults/Pits
			VENT		Fuel Oil Venting Elements
C	FUEL	FLGS			Gasoline
			CTRL		Gas Controls
			DEVC		Gas Devices/Accessories/Instruments
			DISP		Gas Dispenser
			EQPM		Gas Equipment
			FLTR		Gas Filter
			METR		Gas Meter
			PIPE		Gas Piping (Includes Fittings/Valves)
			PUMP		Gas Pump
			TANK		Gas Tanks
			UGND		Gas Underground Elements
			VALT		Gas Vaults/Pits
			VENT		Gas Venting Elements
C	FUEL	FLJT			Jet Fuel
			CTRL		Jet Fuel Controls
			DEVC		Jet Fuel Devices/Accessories/Instruments
			DISP		Jet Fuel Dispenser
			EQPM		Jet Fuel Equipment
			FLTR		Jet Fuel Filter
			HTCH		Jet Fuel Hatches
			METR		Jet Fuel Meters
			PIPE		Jet Fuel Piping (Included Fittings/Valves)
			PUMP		Jet Fuel Pumps
			STA~		Jet Fuel Truck Load/Unload Station
			TANK		Jet Fuel Tanks
			TCSE		Jet Fuel Test Casing
			UGND		Jet Fuel Underground Elements

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
			VALT		Jet Fuel Vaults/Pits
			VENT		Jet Fuel Venting Elements
			WSTE		Jet Fuel Waste System Elements
C	FUEL	HHOL			Fuel: Hand Holes
C	FUEL	HYDT			Fuel: Hydrant Control Pits
C	FUEL	IDEN			Fuel: Tags & Annotation
C	FUEL	JBOX			Fuel: Junction Box
C	FUEL	LQPG			Liquid Propane Gas
			ALRM		Propane System Alarm
			DEVC		Propane Devices/Accessories/Instruments
			DISP		Propane Dispenser
			EQPM		Propane Equipment
			METR		Propane Meter
			PIPE		Propane Piping (Includes Fittings/Valves)
			PREG		Propane Pressure Regulator
			SNSR		Propane Sensor
			TANK		Propane Tanks
			UGND		Propane Underground Elements
			VENT		Propane Venting Elements
C	FUEL	METR			Meters
C	FUEL	MHOL			Manholes
C	FUEL	PIPE			Piping (Includes Fittings/Valves)
			MAIN		Piping Main
			SEGM		Pipeline Segment
			SERV		Service Piping
			SLVE		Pipe Sleeves
C	FUEL	PITS			Fuel: Pits
C	FUEL	PUMP			Pumps
			STA~		Booster Pump Station
C	FUEL	STRC			Fuel System Structural Elements
C	FUEL	SUPT			Piping & Equipment Supports
C	FUEL	TANK			Tanks
C	FUEL	TRCH			Line Trench
C	FUEL	UGND			Underground Elements
C	FUEL	VALT			Valve Pits/Vaults
C	FUEL	VENT			Venting Elements

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

GRND - GROUNDING SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
C	GRND	CIRC			Circuits
C	GRND	COND			Conduit
			SLVE		Conduit Sleeves
C	GRND	EQPM			Equipment
C	GRND	GROD			Ground Rod
C	GRND	HHOL			Hand Hole
C	GRND	IDEN			Tags and Annotation
C	GRND	JBOX			Junction Box

NOTE: REFER TO ELECTRICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

HELI - HELIPORTS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	HELI				Heliports/Helipads
C	HELI	BLST			Blast Pad and Stopway Markings
C	HELI	CNTR			Centerline
			MARK		Centerline Markings
C	HELI	DIST			Fixed Distance Markings
C	HELI	DSPL			Displaced Threshold Markings
C	HELI	DSRF			Helipad Design Surface
C	HELI	FATO			Helipad FATO - Final Approach and Takeoff
C	HELI	IDEN			Heliport Numbers and Letters, Identification Tags
C	HELI	SHLD			Shoulder
C	HELI	SIDE			Side Stripes
C	HELI	TDZM			Touchdown Zone Markers
C	HELI	THRS			Threshold Markers
C	HELI	TLOF			Helipad Take-off and Landing Area

HWTR - HEATING HOT WATER SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	HWTR				Heating Hot Water (Site)
C	HWTR	DEVC			Devices/Accessories/Instruments
C	HWTR	EQPM			Equipment
C	HWTR	MHOL			Manhole
			STRC		Manhole Structure
C	HWTR	PIPE			Piping (Includes Fittings/Valves)
C	HWTR	SUPT			Pipe & Equipment Supports
C	HWTR	TANK			Tanks
C	HWTR	VALT			Vaults/Pits

NOTE: REFER TO MECHANICAL LAYER LIST FOR MINOR GROUP FIELDS

INDW - INDUSTRIAL WASTEWATER (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	INDW				Industrial Wastewater Systems
C	INDW	DEVC			Devices/Accessories/Instruments
			FLSH		Flushing System Components
C	INDW	DRAN			Industrial Waste Drains
			COUT		Cleanout
			ROOF		Roof Drains
			SUBD		Sub-Drain Elements
C	INDW	EQPM			Equipment
			OWS~		Oil/Water Separator
C	INDW	IDEN			Tags & Annotation
C	INDW	INLT			Inlets
			CBSN		Catch Basins
C	INDW	JBOX			Junction Boxes
C	INDW	LIFT			Lift Stations
			PUMP		Lift Station Pumps
C	INDW	MHOL			Manhole
			STRC		Manhole Structure
C	INDW	PIPE			Industrial Wastewater Piping
			FORC		Force Main
			GRAV		Gravity Drain
			MAIN		Industrial Wastewater Piping Main
			RFDR		Roof Drain
			SERV		Service Piping
			SLVE		Pipe Sleeve
			VENT		Vent Piping
			WSTE		Waste Oil Piping
C	INDW	PLNT			Treatment Plant Elements
C	INDW	SIGN			Surface Markers/Signs
C	INDW	SUPT			Pipe/Equipment Supports
C	INDW	TANK			Storage Tanks
C	INDW	VALT			Valve Pits/Vaults
C	INDW	VENT			Vent Pits/Venting Elements

IRRG - LANDSCAPE IRRIGATION (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	IRRG				Heating Hot Water (Site)
C	IRRG	EQPM			Equipment
C	IRRG	IDEN			Tags & Annotation
C	IRRG	PIPE			Piping (Includes Fittings/Valves)
C	IRRG	SPKL			Sprinklers

IRRG - LANDSCAPE IRRIGATION (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	IRRG	SUPT			Pipe & Equipment Supports
C	IRRG	TANK			Tanks

NOTE: REFER TO LANDSCAPE LAYER LIST FOR MINOR GROUP FIELDS

LITE - LIGHTING SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	LITE				Site Lighting systems
C	LITE	DBNK			Lighting Duct Banks
C	LITE	EMER			Emergency Lighting
			NAVG		Emergency Lighting: Marine GYRS System Navigation Lights
C	LITE	NORM			Normal Lighting
C	LITE	POLE			Light Poles
C	LITE	VALT			Vaults
C	LITE	WALL			Exterior Wall Lighting

NOTE: REFER TO ELECTRICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

NGAS - NATURAL GAS SYSTEM (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	NGAS				Natural Gas Systems (Site)
C	NGAS	CTRL			Controls
			ALRM		Alarms
			SNSR		Sensors
C	NGAS	DEVC			Devices/Accessories/Instruments
C	NGAS	IDEN			Natural Gas Device Tags and Annotation
C	NGAS	HHOL			Hand Holes
C	NGAS	METR			Natural Gas Meters
C	NGAS	MHOL			Manholes
C	NGAS	PIPE			Piping (Includes Fittings/Valves)
			MAIN		Natural Gas Piping Main
			SERV		Service Piping
C	NGAS	PUMP			Compressor Stations
C	NGAS	REDC			Reducing Stations
C	NGAS	SIGN			Surface Markers/Signs
C	NGAS	TANK			Storage Tanks
C	NGAS	UGND			Underground Elements
C	NGAS	VALT			Valve Pits/Vaults
C	NGAS	VENT			Vent Pits/Venting elements

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

POWR - POWER SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	POWR				Site Power
C	POWR	BUSW			Busway
C	POWR	CABL			Cable
C	POWR	CCR~			Constant Current Regulator
C	POWR	CIRC			Circuit
C	POWR	COND			Conduit
			SLVE		Conduit Sleeve
C	POWR	CRAN			Crane Power System Elements
C	POWR	CTRL			Controls
			SNSR		Sensors
C	POWR	DBNK			Power Duct Bank
C	POWR	DEVC			Devices/Accessories/Instruments
			INST		Instrumentation
C	POWR	EMER			Emergency Power
C	POWR	EMLV			Emergency Power - Low Voltage
C	POWR	EMMV			Emergency Power - Medium Voltage
C	POWR	EQPM			Equipment
			TELM		Telemetry
C	POWR	FEED			Feeders
C	POWR	FENC			Power System Security Fencing
C	POWR	G480			Elements Greater Than 480V
C	POWR	GRND			Ground Rod Box
C	POWR	GYWR			Guy Wire
C	POWR	HHOL			Hand Hole
C	POWR	JBOX			Junction Box
C	POWR	L480			Elements Less Than 480V
C	POWR	METR			Power Meters
			MUNI		Power Meters: Municipal
			PORT		Power Meters: Port
C	POWR	MHOL			Manholes
			STRC		Manhole Structure
C	POWR	MNTR			Power Monitoring
C	POWR	NPHV			Normal Power - High Voltage
C	POWR	NPLV			Normal Power - Low Voltage
C	POWR	NPMV			Normal Power - Medium Voltage
C	POWR	OVHD			Overhead Power
C	POWR	PANL			Power Panels
C	POWR	POLE			Power Poles
			BASE		Power Pole Base
			GPST		Guy Post

POWR - POWER SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	POWR	POLE	GYWR		Guy Wire
C	POWR	RCPT			Exterior Receptacle/Outlet
C	POWR	REEF			Reefer Outlet
C	POWR	SBST			Substations
C	POWR	STRC			Structures
C	POWR	SWBD			Switchboard
C	POWR	SWGR			Switchgear
C	POWR	TRCH			Power Trenches
C	POWR	UGND			Underground elements
C	POWR	UNID			Unidentified Elements
C	POWR	VALT			Vaults/Pits
C	POWR	XFMR			Transformers
			TCAN		Transformer Can

NOTE: REFER TO ELECTRICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

PRKG - PARKING LOTS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	PRKG				Parking Lots
C	PRKG	ADA~			Accessible Parking
C	PRKG	AREA			Areas w/ Specific Boundaries
C	PRKG	ASPH			Asphalt
C	PRKG	CARS			Graphic Illustration of Cars
C	PRKG	CNTR			Centerlines
C	PRKG	CNTR	IDEN		Centerline Annotations
C	PRKG	CONC			Concrete
C	PRKG	CURB			Curbs
			BACK		Back of Curb
			FACE		Face of Curb
			GUTR		Curb & Gutter
			STOP		Wheel Stops
C	PRKG	DRAN			Parking Lot Drainage
			SLOP		Drainage Slope Indications
C	PRKG	EQPM			Parking Equipment (e.g., Booths, Gates, etc.)
C	PRKG	FIXT			Parking Lot Fixtures (e.g., Parking Meters)
C	PRKG	FLNE			Fire Lanes
			MRKG		Fire Lane Pavement Markings
			SIGN		Fire Lane Signage
C	PRKG	GRVL			Gravel
C	PRKG	IDEN			Parking Lot, Minor Road, and Curb Annotation
C	PRKG	ISLD			Parking Islands

PRKG - PARKING LOTS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	PRKG	OTLN			Parking Lot Outlines
C	PRKG	SIGN			Parking Signage
C	PRKG	STRP			Parking Lot Striping, ADA Symbols, Pavement Markings
			WHIT		White Paint
			YELO		Yellow Paint
C	PRKG	UPVD			Unpaved

NOTE: REFER TO PAVING LIST BELOW FOR ADDITIONAL MINOR GROUP FIELDS

PROF - PROFILES

Discipline	Major	Minor 1	Minor 2	Status	Description
C	PROF				Profiles
C	PROF	ANNO			Existing Grade and Grading Cuts - Annotation
C	PROF	GRAD			New Work, Grading Fills
C	PROF	GRID			Profile Grid
C	PROF	INLT			Curb and Surface Inlets, Catch Basins
C	PROF	LABL			Profile Elevation and Station Labels
C	PROF	MHOL			Manholes
C	PROF	PIPE			Piping
C	PROF	ROAD			Roads

PROP - PROPERTY

Discipline	Major	Minor 1	Minor 2	Status	Description
C	PROP				Site Property Elements
C	PROP	ACCS			Property Access
			PBLC		Public Access Areas
			RSTD		Restricted Access Areas
C	PROP	AREA			Areas w/ Specific Boundaries
C	PROP	BERM			Berms
C	PROP	BNDY			Property Boundary
			MUNI		Municipal Boundaries
			PORT		Port Boundaries
C	PROP	BRNG			Property - Bearing and Distance Annotation/Labels
C	PROP	BULK			Bulkheads
C	PROP	BWTR			Breakwater
C	PROP	CONS			Construction Limits/Controls, Staging Area
C	PROP	CRNR			Property Corner
			PORT		Port of Seattle Property Corner
C	PROP	DAMS			Dams and Runoff Control
C	PROP	ESMT			Easements
C	PROP	IDEN			Property Annotation

PROP - PROPERTY

Discipline	Major	Minor 1	Minor 2	Status	Description
C	PROP	IDEN	LEGL		Legal Descriptions
C	PROP	LEAS			Lease Line (Exterior/Ground lease)
			PORT		Port of Seattle Lease Line
C	PROP	LINE			Property Lines
			HARB		Harbor Lines
			MUNI		Municipal Property Lines
			PIER		Pier Head Lines
			PORT		Port Property Lines
C	PROP	LNDF			Landfill
C	PROP	LUSE			Land Use Area
C	PROP	MEAN			Mean Water/Tide Level
C	PROP	PARK			All Parks
C	PROP	PRCL			Parcel
C	PROP	PRKG			Public Parking Areas
C	PROP	RTWL			Retaining Wall
C	PROP	RWAY			Right-of-Ways
C	PROP	SBCK			Setbacks
C	PROP	SIGN			Non-traffic Signage
C	PROP	STEP			Site Located Steps
C	PROP	WWAY			Channels, Canals, and Waterways

PVMT - PAVEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
C	PVMT				Paving Elements
C	PVMT	ASPH			Asphalt
			CONC		Asphalt Concrete
			SWCT		Asphalt Sawcut
C	PVMT	CONC			Concrete
C	PVMT	CURB			Paved Roadway Curbs
C	PVMT	DRIV			Driveway
			ASPH		Asphalt Driveway
			CONC		Concrete Driveway
C	PVMT	EDGE			Edge of Pavement
C	PVMT	GROV			Pavement Grooving
			RMBL		Rumble Strip
C	PVMT	GRVL			Gravel
C	PVMT	IDEN			Identification Tags and Annotation
C	PVMT	JNTS			Construction/Expansion Joints
C	PVMT	MRKG			Pavement Markings
			WHIT		Roadway Markings (White)

PVMT - PAVEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
C	PVMT	MRKG	YELO		Roadway Markings (Yellow)
C	PVMT	PATT			Pavement Textures and Hatch Patterns
C	PVMT	ROAD			Roads
C	PVMT	STRP			Pavement Striping
C	PVMT	SWLK			Sidewalks
			ADA~		Accessible (ADA)

RAIL - RAILROADS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	RAIL				Railroad Elements
C	RAIL	CNTR			Railroad Centerlines
C	RAIL	CROS			Railroad Crossing
C	RAIL	DEVC			Devices/Accessories/Instruments
C	RAIL	EQPM			Railroad Equipment
C	RAIL	IDEN			Tags and Annotation
C	RAIL	SGNL			Railroad Signals
C	RAIL	SIGN			Railroad Signage
C	RAIL	SWCH			Railroad Switch
			FROG		Railroad Switch: Frog
C	RAIL	TRAK			Railroads Tracks
			LUBE		Flange Lubricator
			SIDG		Railroad Siding Track
			SPUR		Spur Track
C	RAIL	YARD			Railroad Yard

ROAD - ROADS, STREETS, HIGHWAYS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	ROAD				Site Roadways
C	ROAD	ACCS			Access Road
C	ROAD	ASPH			Asphalt Road
C	ROAD	BRCK			Brick Road
C	ROAD	CNTR			Centerlines
C	ROAD	CURB			Curbs
			ASPH		Asphalt Curb
			BACK		Back of Curb
			FACE		Face of Curb
			GUTR		Curb & Gutter
			LINE		Curb Line
			PCST		Pre-Cast Curb
			STOP		Wheel Stops

ROAD - ROADS, STREETS, HIGHWAYS

Discipline	Major	Minor 1	Minor 2	Status	Description
C	ROAD	CURB	TOC~		Top of Curb
			XTRU		Extruded Curb
C	ROAD	EDGE			Edge of Road/Pavement
C	ROAD	ELVD			Elevated Road
C	ROAD	FLNE			Fire Lanes
			MRKG		Fire Lane Markings
			SIGN		Fire Lane Signage
C	ROAD	GRAL			Guardrails
C	ROAD	GRVL			Gravel Road
C	ROAD	IDEN			Road Name, Curb and Guardrail Annotation
C	ROAD	MRKG			Road Markings
C	ROAD	OTLN			Roads: Outlines
C	ROAD	PATT			Road Textures and Hatch Patterns
C	ROAD	SIGN			Road Sign
C	ROAD	STAN			Stationing
C	ROAD	STRP			Roadway Striping
			WHIT		White Paint
			YELO		Yellow Paint
C	ROAD	SURV			Survey Datum
			PNTS		Survey Points
C	ROAD	SWLK			Sidewalks
C	ROAD	UPVD			Unpaved

RUNW - RUNWAYS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	RUNW				Runway Elements (Site)
C	RUNW	APPR			Approaches
C	RUNW	ARST			Runway Arresting Gear Location
C	RUNW	BLST			Blast Pad Markings
C	RUNW	CLRW			Runway Clearway
C	RUNW	CNTR			Centerline
			MRKG		Centerline Markings
C	RUNW	DISP			Displaced Threshold Markings
C	RUNW	DIST			Fixed Distance Markings
C	RUNW	EDGE			Airfield Runway Edges
C	RUNW	ENDP			Runway Endpoint
C	RUNW	IDEN			Runway Numbers and Letters
C	RUNW	INTS			Runway Intersection
C	RUNW	LAHS			Runway Land and Hold Short Area
C	RUNW	LITE			Navigation lighting

RUNW - RUNWAYS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	RUNW	LITE	CNTR		Centerline Lights
			DIST		Distance to Go Lights
			EDGE		Edge Lights
			EDGF		Edge Lights - Flush
			EDGU		Edge Lights - Upright
			FAAL		FAA Runway Light
			HOLD		Holding Lights
			LNDG		Landing Lights
			NTDZ		North Touchdown Zone Light
			PAPI		Papi Lights
			STDZ		South Touchdown Zone Light
			TDZN		Touchdown Zone Lights
			THRS		Threshold Lights
			WWAG		Wigwag Lights
C	RUNW	NMBR			Runway Numbers and Letters
C	RUNW	SAFT			Runway Safety Area
C	RUNW	SEGM			Segments
C	RUNW	SHLD			Shoulders
			MRKG		Shoulder Markings
C	RUNW	SIDE			Side Stripes
C	RUNW	SIGN			Airfield Signs on the Runway
C	RUNW	STWY			Runway Stop Way Markings
C	RUNW	TDZM			Touchdown Zone Markers
C	RUNW	THRS			Threshold Markers

SITE - FEATURES/IMPROVEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
C	SITE				Site Features/Improvements
C	SITE	AREA			Areas w/ Specific Boundaries
C	SITE	BARR			Barricades
C	SITE	BNCH			Benches
C	SITE	EQPM			Equipment
			MLBX		Mailbox
C	SITE	FENC			Fences
			POST		Fence Posts
C	SITE	GATE			Gates
			CTRL		Gate Control Boxes
			POST		Gate Posts
C	SITE	HRAL			Handrails
C	SITE	HTCH			Miscellaneous Hatches

SITE - FEATURES/IMPROVEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
C	SITE	IDEN			Identification Tags and Annotation
C	SITE	IMPR			Site Improvements (Channel or Levee Features)
C	SITE	LIMI			Project Limits of Disturbance
C	SITE	OTLN			Site Boundary Outline
C	SITE	PITS			Service Pits
			AIR~		Air Service Pit
			AWTR		Air/Water Service Pit
			WATR		Water Service Pit
C	SITE	POND			Ponds/Lagoons
			EDGE		Edge of Pond
			INLT		Inlet Structures
			OTLT		Outlet Structures
			SWAY		Spillways
			TOPB		Top of Bank
C	SITE	RAMP			Ramps
C	SITE	ROCK			Site Rockery
			RAT~		Rat Rock
			RRAP		Rip Rap Rock
C	SITE	SECR			Security Camera Locations (Exterior)
C	SITE	STRC			Structures (Bridges, Sheds, Foundation Pads, Footings, etc.)
C	SITE	STRS			Stairs
C	SITE	SYRD			Shipyards Site
			CLOC		Container Location Signs
			EQPM		Equipment
			FENC		Security Fence
			GATE		Entrance/Exit Gates
			SBTH		Security Booth
			SCAL		Weigh Scales
			SGNL		Traffic Signals
			SIGN		Signage
			SUPT		Pipe/Equip Supports
			WASH		Truck Wash System
C	SITE	TUNL			Tunnels
			EQPM		Tunnel Equipment
			HWAY		Highway Tunnels
			RAIL		Railway Tunnels
			ROAD		Roadway Tunnels
			TRAN		Transit Tunnels
			UTIL		Utility Tunnels
C	SITE	WALK			Walks, Trails and Bicycle Paths

SITE - FEATURES/IMPROVEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
C	SITE	WALK	BIKE		Bike Path
			PEDS		Pedestrian Path

SSWR - SANITARY SEWER SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	SSWR				Sanitary Sewer (Wastewater) System
C	SSWR	CTRL			Controls
			SNSR		Sensors
C	SSWR	DEVC			Devices/Accessories/Instruments
C	SSWR	DRAN			Drains
			COUT		Cleanouts
			NITF		Nitrification Drain Fields
C	SSWR	EQPM			Equipment
			OWS~		Oil/Water Separator
C	SSWR	FILT			Filtration Beds
C	SSWR	IDEN			Tags and Annotation
C	SSWR	INLT			Inlets
			CBSN		Catch Basins
C	SSWR	LIFT			Lift Station
			PUMP		Lift Station Pump
C	SSWR	METR			Meters
C	SSWR	MHOL			Sanitary Sewer (Wastewater) Manhole
			COMB		Combined Sewer/Storm
			STRC		Manhole Sewer Structure
C	SSWR	PIPE			Wastewater Piping
			FITG		Fittings & Valves
			FORC		Force Main
			GRAV		Gravity
			LATL		Lateral Line
			SERV		Sanitary Sewer Service (Wastewater) Piping
			SLVE		Pipe Sleeves
C	SSWR	PLNT			Treatment Plants
C	SSWR	PUMP			Booster Pump Stations
C	SSWR	SIGN			Surface Markers/Signs
C	SSWR	STAN			Stationing
C	SSWR	STRC			Sanitary Sewer Structures
C	SSWR	TANK			Septic Tanks
C	SSWR	UGND			Underground Elements
C	SSWR	VALT			Valve Pits/Vaults

SSWR - SANITARY SEWER SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	SSWR	VENT			Vent Pits/Venting Elements

NOTE: REFER TO PLUMBING LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

STEM - STEAM SYSTEMS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	STEM				Steam Systems (Site)
C	STEM	DEVC			Devices/Accessories/Instruments
C	STEM	EQPM			Equipment
C	STEM	MHOL			Manhole
C	STEM	PIPE			Piping (Includes Fittings/Valves)
C	STEM	STRC			Steam System Structural Elements
C	STEM	SUPT			Pipe & Equipment Supports
C	STEM	TANK			Tanks
C	STEM	UGND			Underground Elements
C	STEM	VALT			Vaults/Pits

NOTE: REFER TO MECHANICAL LAYER LIST FOR MINOR GROUP FIELDS

STRC - STRUCTURAL ELEMENTS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	STRC				Site Structural Elements
C	STRC	BASE			Equipment Support Base
C	STRC	CATW			Catwalk
C	STRC	CMUW			Concrete Block Masonry Unit
C	STRC	COLS			Columns
			CRNR		Column Corner
C	STRC	CONC			Concrete Elements
			RUBL		Concrete Rubble
C	STRC	DECK			Structural Deck
C	STRC	FABR			Fabrications
			METL		Metal Fabrications
			PLTE		Metal Plate
C	STRC	FNDN			Foundations
			FTNG		Foundation Footings
			PILE		Foundation Piles
C	STRC	FRAM			Framing Elements
C	STRC	FTNG			Footings
C	STRC	HRAL			Handrails
C	STRC	IDEN			Generic Structure Tags and Identification
C	STRC	JNTS			Structural Joints
			CNST		Construction Joints
			EXPJ		Expansion Joints

STRC - STRUCTURAL ELEMENTS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	STRC	OTLN			Generic Structure Outlines
C	STRC	PADS			Equipment Pads
C	STRC	PLAT			Platform
C	STRC	POST			Structural Post
			METL		Metal Post
			WOOD		Wood Post
C	STRC	RAMP			Ramps
			ADA~		ADA Accessible
			CONC		Concrete
			LOAD		Loading
			METL		Metal
C	STRC	RTWL			Retaining Wall
			FACE		Face of Wall
			TOPW		Top of Wall
C	STRC	SIGN			Sign Elements
			BASE		Sign Support Base
			BRDG		Sign - Bridge
C	STRC	SLAB			Structural Slabs
C	STRC	SWLK			Sidewalks
			ADA~		ADA Accessible
C	STRC	TMBR			Timber Elements
C	STRC	TOWR			Tower
C	STRC	UTIL	SLVE		Utility Sleeves
C	STRC	WALL			Structural Site Walls

STRM - STORM SEWER DRAINAGE (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	STRM				Storm Sewer Systems
C	STRM	CHAN			Storm Water Channel
C	STRM	CHUT			Chutes and Concrete Erosion Control Structures
C	STRM	CULV			Culverts
C	STRM	DEVC			Devices/Accessories/Instruments
C	STRM	DRAN			Storm System Drains
			COUT		Cleanouts
			FLSH		Gutter Flush
			GUTR		Gutters
			OFAL		Outfalls
			ROOF		Roof Drains
			SUBD		Subsurface Drain Piping
			UNDR		Under-Drain Elements

STRM - STORM SEWER DRAINAGE (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	STRM	DRAN	UNDR		Under-Drain Elements
			UNID		Unidentified Drains
C	STRM	DTCH			Drainage Ditch
C	STRM	EQPM			Equipment
			OWS~		Oil/Water Separator
C	STRM	FLOW			Flow Line
			MNTR		Flow Monitoring Station
C	STRM	HWAL			Headwalls and End Walls
C	STRM	IDEN			Tags and Annotation
C	STRM	INLT			Inlets (Curb, Surface, and Catch Basins)
			CBSN		Catch Basin
C	STRM	LIFT			Lift Stations
			PUMP		Lift Station Pumps
C	STRM	MHOL			Manholes
			COMB		Combined Sewer/Storm
			MTRO		Metro
			STRC		Manhole Stormwater Structure
			UNID		Unidentified Manholes
C	STRM	PIPE			Piping
			FORC		Force Main
			GRAV		Gravity Drain
			HALF		Gutter Half Pipe
			NPRF		Non-Perforated Pipe
			PERF		Perforated Pipe
			RFDR		Roof Drain Piping
			SERV		Storm Sewer Service
			SLVE		Pipe Sleeves
			STUB		Pipe Stub
C	STRM	POND			Detention Pond
C	STRM	PUMP			Pump Stations
C	STRM	RISR			Storm Drain Risers
C	STRM	SIGN			Surface Markers/Signs
C	STRM	STAN			Stationing
C	STRM	STRC			Storm Drainage Structures
C	STRM	SUPT			Pipe/Equipment Support
C	STRM	UGND			Underground elements
C	STRM	VALT			Valve Pits/Vaults
C	STRM	VENT			Vent Pits/Venting Elements

NOTE: REFER TO PLUMBING LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

SURV - SURVEY DATA

Discipline	Major	Minor 1	Minor 2	Status	Description
C	SURV				Survey Data
C	SURV	ALGN			Survey: Alignment
C	SURV	BMRK			Survey: Benchmarks
C	SURV	BNDY			Survey: Boundary
C	SURV	BRNG			Survey: Bearings & Distance
C	SURV	CRNR			Survey: Surveyed Corner
C	SURV	CTRL			Survey: Control Points
C	SURV	DATM			Survey: Datum Information
C	SURV	IDEN			Survey: Tags & Annotation
C	SURV	MON~			Survey: Monuments
			ROWS		Survey: Row Monument
			WATR		Survey: Water Monument
C	SURV	PNTS			Survey: Point Data
C	SURV	SOUN			Survey: Sounding Data
C	SURV	TRAV			Survey: Transverse Data
			BCRV		Survey: Beginning of Curve
			BLIN		Survey: Baseline
			CKPT		Survey: Checkpoint
			ECRV		Survey: End of Curve
			INST		Survey: Instrument Setup
			PCRV		Survey: Point of Curve
			PTAN		Survey: Point of Tangent
			RCRV		Survey: Radius of Curve
C	SURV	UNID			Survey: Unidentified Elements

NOTE: REFER TO SURVEY LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

TANK - MISCELLANEOUS STORAGE TANKS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	TANK				General Storage Tanks
C	TANK	ACCS			Tank Access
			DOOR		Man Door
			LADD		Access Ladder
C	TANK	CTRL			Controls
			SNSR		Tanks: Controls (Sensors, etc.)
C	TANK	DEVC			Devices/Accessories/Instruments
C	TANK	DRAN			Drains
C	TANK	FBRG			Fiberglass Tanks
C	TANK	IDEN			Tags & Annotation
C	TANK	PLAS			Plastic Tanks
C	TANK	STEL			Steel Tanks

TANK - MISCELLANEOUS STORAGE TANKS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	TANK	SUPT			Tanks: Supports
C	TANK	VALV			Valves
C	TANK	VENT			Venting Elements

NOTE: REFER TO MECHANICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

TAXI - TAXIWAYS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	TAXI				Taxiway Elements
C	TAXI	CNTR			Taxiway Centerline
C	TAXI	CNTR	MARK		Taxiway Centerline Markings
C	TAXI	EDGE			Edge Markings
C	TAXI	HOLD			Holding Lines
C	TAXI	IDEN			Annotation
C	TAXI	INTS			Taxiway Intersections
C	TAXI	JNTS			Taxiway Joints
C	TAXI	LITE			Taxiway Lighting
			CNTR		Taxiway Center Lights
			EDGE		Taxiway Edge Lights
C	TAXI	OTLN			Taxiway - Outlines
C	TAXI	SHLD			Taxiway Shoulder
			STRP		Shoulder Stripe Markings
C	TAXI	SIGN			Taxiway Signs

TOPO - TOPOGRAPHY

Discipline	Major	Minor 1	Minor 2	Status	Description
C	TOPO				Site Topographical Elements
C	TOPO	AUCO			Noise Complaint
C	TOPO	AUST			Noise Monitoring Station
C	TOPO	AUZN			Noise Contour/Zone
C	TOPO	BKLN			Breaklines
C	TOPO	BORE			Boring Locations
			IDEN		Boring Identifications
			PATT		Boring Patterns/Hatches
C	TOPO	COOR			Coordinate Grid Ticks and Text
C	TOPO	DEPR			Depression
C	TOPO	DTCH			Ditches/Creeks
			EDGE		Edge of Ditch/Creek
			FLOW		Flowline
C	TOPO	DTMP			DTM Points
C	TOPO	DTMT			DTM Triangles
C	TOPO	FLZN			Flood Zone

TOPO - TOPOGRAPHY

Discipline	Major	Minor 1	Minor 2	Status	Description
C	TOPO	GRAD			Grading Limits
			E		Existing Grade
			FNSH		Finished Grade
			SUB~		Sub-Grades
C	TOPO	GRVL			Gravel
C	TOPO	MAJR			Major Contours
C	TOPO	MAJR	IDEN		Major Contours - Annotation
C	TOPO	MINR			Minor Contours
C	TOPO	MINR	IDEN		Minor Contours - Annotation
			INDX		Minor Contours - Index
C	TOPO	NCTR			Normal Contours
C	TOPO	RIVR			Rivers
			EDGE		Edge of River
			FLOW		Flowline
C	TOPO	RTWL			Retaining Wall
C	TOPO	SHOR			Shorelines, Land features, and References
			EDGE		Edge of Shoreline
C	TOPO	SLOP			Slopes
			FILL		Cut/Fill Slopes
			IDEN		Slope Identification and Annotation
			TOPT		Top of Slope
C	TOPO	SLTP			Top/Toe Slopes
C	TOPO	SOUN			Soundings
C	TOPO	SPOT			Spot Elevations
C	TOPO	TPIT			Test Pits
C	TOPO	WWAY			Waterways

NOTE: REFER TO SURVEY LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

TRAF - TRAFFIC CONTROL (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	TRAF				Site Traffic Control Elements
C	TRAF	ATTN			Attenuators
C	TRAF	BARR			Barriers
			JRSY		Jersey Barrier
C	TRAF	CTRL			Generic Traffic Control
C	TRAF	DEVC			Devices/Accessories/Instruments
C	TRAF	GRAL			Guard Rails
C	TRAF	ISLD			Traffic Islands
C	TRAF	FLOW			Traffic Flow - Directional Arrows
C	TRAF	IDEN			Traffic Control Annotation

TRAF - TRAFFIC CONTROL (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	TRAF	LOAD			Traffic Load Limits
C	TRAF	POST			Traffic Control Posts/Guard Posts
C	TRAF	SGNL			Traffic Signals (Electrical)
			PANL		Traffic Signal Control Panels
C	TRAF	SIGN			Traffic Control Signage
C	TRAF	STRP			Traffic Control Paint Striping

UTIL - GENERAL UTILITIES (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	UTIL				General Site Utilities
C	UTIL	AREA			Utility Area
C	UTIL	DIST			Energy Distribution Control Facility
C	UTIL	SOLR			Solar Systems
			PANL		Solar Panels
C	UTIL	TANK			Tanks
C	UTIL	TUNL			Tunnels
C	UTIL	UDOR			Utility Utilidor Line
C	UTIL	UNID			Undefined Feature
			LINE		Undefined Utility Line

WALL - GENERAL WALLS (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	WALL				General Site Walls
C	WALL	CTLJ			Walls: Control Joints
C	WALL	EXPJ			Walls: Expansion Joints
C	WALL	HIDE			Walls: Hidden/Below
C	WALL	IDEN			Tags & Annotation
C	WALL	NSBR			Walls: Noise Barrier
C	WALL	OVHD			Walls: Overhead/Above
C	WALL	RTWL			Walls: Retaining
C	WALL	SHEA			Walls: Shear

WATR - DOMESTIC WATER SYSTEM (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	WATR				Domestic Water Systems
C	WATR	DEVC			Devices/Accessories/Instruments
			BKFL		Backflow Assembly
			DCBA		Double Check Backflow Assembly
			HBIB		Hose Bibb
			INST		Instrumentation
			RPBA		Reduced Pressure Backflow Assembly

WATR - DOMESTIC WATER SYSTEM (SITE)

Discipline	Major	Minor 1	Minor 2	Status	Description
C	WATR	DEVC	SPGT		Spigot
C	WATR	FIRE			Fire Lines
			HOSE		Fire Hose
C	WATR	HHOL			Hand Hole
C	WATR	HYDT			Hydrants
			FIRE		Fire Hydrant
			NPW~		Non-potable/Flushing
			SHIP		Ship's Hydrant
			WALL		Wall Hydrant
			YARD		Yard Hydrant
C	WATR	IDEN			Tags and Annotations
C	WATR	LIFT			Lift Station
C	WATR	METR			Meters
			MUNI		Municipal
			PORT		Port
C	WATR	MHOL			Manhole
C	WATR	PIPE			Piping (Includes Fittings/Valves)
			FIRE		Sire System Piping
			MAIN		Main Domestic Water Piping
			NPW~		Non-Potable Water Piping
			SERV		Domestic Water Service Piping
			SLVE		Pipe Sleeves
C	WATR	PUMP			Pumps
C	WATR	REDC			Pressure Reducing Stations
C	WATR	RSVR			Reservoirs
C	WATR	SIGN			Surface Markers/Signs
C	WATR	STAN			Stationing
C	WATR	STRC			Structures
C	WATR	TANK			Water Storage Tanks
C	WATR	UGND			Underground Elements
C	WATR	VALT			Valve Pits/Vaults
C	WATR	VENT			Vent Pits
C	WATR	WELL			Water Wells

NOTE: REFER TO PLUMBING LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

Landscaping Layers

Notes for Landscape Drawings:

1. To the greatest extent possible, the layer standards are divided into systems. All utilities, equipment, elements, etc., associated with a system should be placed on layers associated with that system.
2. Discipline Designator and Major Field Groups are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable. The standard symbology with text and point information for manholes, hand holes, catch basins, pipe sizes, etc., used by Survey in Background and Basemap drawings can remain provided the symbols are small enough and the attribute and point information can be frozen if required.

IRRG - IRRIGATION

Discipline	Major	Minor 1	Minor 2	Status	Description
L	IRRG				Irrigation
L	IRRG	COVR			Coverage, Spray Distribution Patterns
L	IRRG	CTRL			Control Station
			CIRC		Control Circuit
			COND		Conduit
			PANL		Control Panel
			SNSR		Sensors
L	IRRG	DRIP			Drip Irrigation Tubing
L	IRRG	EQPM			Equipment
L	IRRG	HEAD			Irrigation Heads, Bubblers
			FULL		Full Coverage
			HALF		Half Coverage
			IMPL		Impulse Type
			QRTR		Quarter Coverage
L	IRRG	IDEN			Tag &, Annotation
L	IRRG	PIPE			Piping (Includes Fittings)
			LATL		Lateral Pipe
			MAIN		Mainline
			SLVE		Pipe Sleeve
L	IRRG	PUMP			Pumps
L	IRRG	SPKL			Sprinklers
			SBOX		Sprinkler Box
L	IRRG	SUPT			Pipe & Equipment Supports
L	IRRG	TANK			Tanks
L	IRRG	VALV			Valves
			CTRL		Valve Control Station
			VBOX		Valve Box

PLNT - PLANTS/MATERIAL

Discipline	Major	Minor 1	Minor 2	Status	Description
L	PLNT				Planting
L	PLNT	BEDS			Flower Beds
			EDGR		Bed Edger
L	PLNT	BUSH			Landscape Bushes
			DCID		Bush - Deciduous
			EVGR		Bush - Evergreen
L	PLNT	CTNR			Container or Planter
L	PLNT	CTRL			Controls, Control Station
L	PLNT	DEVC			Devices/Accessories/Instruments
L	PLNT	DRAN			Drainage

PLNT - PLANTS/MATERIAL

Discipline	Major	Minor 1	Minor 2	Status	Description
L	PLNT	DRAN	FLOW		Drainage - Flow Line
			SWAL		Drainage - Swales
L	PLNT	FLWR			Flowers
			ANUL		Annual Flowers
			PERI		Perennial Flowers
L	PLNT	GCVR			Ground Coverings
L	PLNT	GRAD			Finished Grade
L	PLNT	GRAS			Grass Areas
L	PLNT	IDEN			Tags & Annotation
L	PLNT	MLCH			Mulches
L	PLNT	SEED			Seeding Areas
L	PLNT	SHAD			Shadow Area
L	PLNT	SHRB			Shrubs
			DCID		Shrub - Deciduous
			CONI		Shrub - Coniferous
L	PLNT	SOIL			Soil or Mix
L	PLNT	SUPT			Supports (Trellis, Stand, etc.)
L	PLNT	TREE			Trees
			DCID		Tree - Deciduous
			EVGR		Tree - Evergreen
			CONI		Tree - Coniferous
			PALM		Tree - Palm
			SHD~		Tree - Shade
L	PLNT	TURF			Lawn Areas (Limits)
L	PLNT	VINE			Vines

PVMT - PAVEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
L	PVMT				Landscape Pavement
L	PVMT	ASPH			Asphalt
L	PVMT	BRCK			Brick
L	PVMT	CONC			Concrete
L	PVMT	CTLJ			Control Joint
L	PVMT	EXPJ			Expansion Joint
L	PVMT	GRVL			Gravel
L	PVMT	IDEN			Tags & Annotation
L	PVMT	PAVR			Unit Pavers
L	PVMT	RAMP			Ramps
L	PVMT	STRS			Stairs

NOTE: REFER TO CIVIL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

SITE - SITE FEATURES

Discipline	Major	Minor 1	Minor 2	Status	Description
L	SITE				Landscape Site Features
L	SITE	AREA			Areas w/ Specific Boundaries
L	SITE	BRDG			Landscape Bridge
			CONC		Concrete Bridge
			ROCK		Rock Bridge
			WOOD		Wooden Bridge
L	SITE	CURB			Curbs
L	SITE	DECK			Landscape Decks
			CONC		Concrete Decks
			LOAD		Floor Load
			WOOD		Wood Decks
L	SITE	DEVC			Devices/Accessories/Instruments
L	SITE	FENC			Landscape Fencing
			LINK		Chain Link
			PRVC		Privacy
			WOOD		Wood
L	SITE	FOUN			Fountains
			CIRC		Fountain Power Circuit
			CTRL		Fountain Control Station
			DEVC		Devices/Accessories/Instruments
			PANL		Fountain Power/Control Panels
			PIPE		Fountain Water Piping
			PUMP		Fountain Pumps
			SUPT		Fountain Supports
			VALV		Fountain Valves
L	SITE	FURN			Furniture
			BNCH		Benches
			DEVC		Devices/Accessories/Instruments
			TBLE		Tables
L	SITE	GATE			Gates
L	SITE	IDEN			Tags & Annotation
L	SITE	LITE			Landscape Lighting Elements
			CIRC		Lighting Circuit
			CTRL		Lighting Controls
			DEVC		Devices/Accessories/Instruments
			FIXT		Lighting Fixtures
			PANL		Lighting Panels
L	SITE	PLAY			Play Structures
L	SITE	POND			Ponds
			CIRC		Pond Power Circuit

SITE - SITE FEATURES

Discipline	Major	Minor 1	Minor 2	Status	Description
			CTRL		Pond Control Station
			DEVC		Devices/Accessories/Instruments
			EQPM		Pond Equipment
			PANL		Pond Power/Control Panel
			PIPE		Pond Water Piping
			PUMP		Pond Pumps
			SLVE		Pond Pipe Sleeve
			SUPT		Pond Pipe & Equipment Supports
			VALV		Pond Water Valves
			WTRB		Pond Water Bodies
			WTRW		Pond Waterway or Stream
I	SITE	POOL			Pools and Spas
L	SITE	PRKG			Parking Areas
L	SITE	ROAD			Edge of Roadway Line
L	SITE	ROCK			Boulders and Cobblestone
L	SITE	RRAP			Rip Rap Rock
L	SITE	RTWL			Retaining Wall
			CONC		Concrete Retaining Wall
			ROCK		Rock Retaining Wall
			TMBR		Wood Retaining Wall
L	SITE	SAFT			Safety Equipment
L	SITE	SIGN			Signage
L	SITE	SPCL			Specialty Equipment
L	SITE	SPRT			Sports Field
L	SITE	STEP			Steps
L	SITE	SWLK			Sidewalks
L	SITE	TRAL			Trails and Paths (Non-Sidewalk)
			ASPH		Asphalt Path
			BIKE		Biking Path
			CNTR		Path Centerline
			GRVL		Gravel Path
			PEDS		Pedestrian Path
			STON		Stone Steps
			STRP		Path Striping
L	SITE	TUNL			Tunnels
L	SITE	WALL			Landscape Walls

NOTE: REFER TO CIVIL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

TOPO - TOPOGRAPHY

Discipline	Major	Minor 1	Minor 2	Status	Description
L	TOPO				Topography
L	TOPO	IDEN			Tags & Annotation
L	TOPO	LIMI			Limits of Earthwork
L	TOPO	SPOT			Spot Elevations

NOTE: REFER TO CIVIL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

Architectural Layers

Notes for Architectural Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional. Depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-Refs. These should be placed on each individual drawing. Text and pattern X-Ref's that are sized for the drawing they are attached to are acceptable.

AREA - AREA AND BOUNDARIES

Discipline	Major	Minor 1	Minor 2	Status	Description
A	AREA				Areas/Boundaries
A	AREA	ABAT			HazMat Abatement Areas
A	AREA	IDEN			Tags & Annotation
A	AREA	LINE			Arch. Area Calc. Boundary Lines
A	AREA	OCCP			Occupant/Employee Names
A	AREA	PATT			Textures and Hatch Patterns

BAGS - BAGGAGE AND COMPONENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	BAGS				Baggage System
A	BAGS	CART			Cart/Tug
A	BAGS	CASE			Casework
A	BAGS	CATW			Catwalk
A	BAGS	CLRZ			Clearance Zones
A	BAGS	CONV			Conveyor
			CRBS		Curbside Conveyor
			DOOR		Conveyor Security Door
			ICNV		Inbound Conveyor
			INTM		Interim Conveyor
			IOSZ		Inbound Oversized Conveyor
			MAIN		Mainline Conveyor
			MANL		Manual Encoding Conveyor
			OCNV		Outbound baggage conveyor
			OOSZ		Outbound Oversized Conveyor
			RCRC		Recirc Conveyor
			RFSC		RF Scanning Conveyor
			SSUB		Security Sub-System Conveyor
			TCBC		Ticket Counter Conveyor
			TTRY		Tilt-Tray System
			XFER		Transfer Conveyor
			XOVR		Crossover Conveyor
A	BAGS	CTRL			Control
A	BAGS	CURT			Draft Curtain
A	BAGS	DEVC			Devices/Accessories/Instruments
			CLMD		Claim Device
			DVRT		Diversers
			EDS~		Explosive Detection (Includes Trace)
			MKUP		Make-up Device
			SCNU		Screening Unit
			TAGR		Tag Reader

BAGS - BAGGAGE AND COMPONENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	BAGS	DEVC	VSU~		Vertical Sorting Unit
			XRAY		X-Ray Unit
A	BAGS	EQPM			Equipment
			PADS		
A	BAGS	GRAL			Guardrails
A	BAGS	IDEN			Tags & Annotation
A	BAGS	ROWY			Right of Way
A	BAGS	SCDR			Security Doors
A	BAGS	WALL			System Walls

NOTE: REFER TO ELEC/MECH LAYER LISTS FOR ADDITIONAL MINOR GROUP FIELDS

CLNG - CEILINGS AND COMPONENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	CLNG				Ceilings
A	CLNG	ACCS			Access panels
A	CLNG	BULK			Bulkheads
A	CLNG	CHAS			Utility chase
A	CLNG	FIRE			Ceiling Fire Protection Elements
			SMOK		Smoke Detector
			SPKL		Fire Sprinkler
A	CLNG	GRID			Grid
A	CLNG	GRIL			Grilles, Ventilation Supply/Return
A	CLNG	HEAD			Headers
A	CLNG	HVAC	Rdff		HVAC Return Air Grille
A	CLNG	HVAC	SDFF		HVAC Supply Air Diffuser
A	CLNG	IDEN			Tags & Annotation
A	CLNG	JNTS			
			CTLJ		Control Joints
			EXPJ		Expansion Joints
A	CLNG	LEVL			Level Changes
A	CLNG	LITE			Lighting
A	CLNG	OPNG			Openings, Ceiling/Roof Penetrations
A	CLNG	PATT			Textures & Hatch Patterns
A	CLNG	RCPT			Receptacles/Outlets
A	CLNG	RFDR			Roof Drains
A	CLNG	SKLT			Skylights
A	CLNG	SOFF			Soffits
A	CLNG	SPCL			Screens, Tracks, etc.
A	CLNG	SUSP			Suspended or Ceiling Mounted Elements
A	CLNG	TEES			Main Tees

COLS - COLUMNS AND COMPONENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	COLS				Columns
A	COLS	CONC			Concrete
A	COLS	COVR			Covers
A	COLS	ENCL			Enclosures/Fire Protection
A	COLS	IDEN			Tags & Annotation
A	COLS	STEL			Steel

DOOR - DOORS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	DOOR				Doors
A	DOOR	ACCS			Access Doors
A	DOOR	FIRE			Fire Doors
A	DOOR	FRAM			Door Frames
A	DOOR	FULL			Full Height
			GLAS		Full Height, Glass
			EXTR		Full Height, Exterior
			INTR		Full Height, Interior
			METL		Full Height, Metal
			WOOD		Full Height, Wood
A	DOOR	HEAD			Headers
A	DOOR	HRDW			Hardware
A	DOOR	IDEN			Tags & Annotation
A	DOOR	PRHT			Partial Height, Swing and Leaf
A	DOOR	ROLL			Roll Up
A	DOOR	SECR			Security
A	DOOR	SLDG			Sliding Glass

ESCL - ESCALATORS AND COMPONENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	ESCL				Escalators
A	ESCL	ACCS			Access
A	ESCL	DEVC			Devices/Accessories/Instruments
A	ESCL	EQPM			Equipment
			MOTR		Motors
			PANL		Control Panels
A	ESCL	HRAL			Handrail
A	ESCL	IDEN			Tags & Annotation
A	ESCL	LNDG			Landing
A	ESCL	STEP			Steps

EVTR - ELEVATORS AND COMPONENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	EVTR				Elevators
A	EVTR	ACCS			Access
			LADD		Access Egress Ladder
A	EVTR	CABL			Cables and Sheaves
A	EVTR	CASE			Wall-mounted Casework
A	EVTR	DEVC			Devices
			CRDR		Card Reader
			CWGT		Counterweight
A	EVTR	ECAB			Cab Frame
			FNSH		Cab Finish
			OPNG		Cab Opening
A	EVTR	EQPM			Equipment
			MOTR		Motors
			PANL		Control Panel
A	EVTR	FIRE			Fire Detector
			SNSR		Fire Sensor
			SMOK		Smoke Detector
A	EVTR	FNSH			Finishes, Woodwork, Trim
A	EVTR	GRAL			Guide/Guard Rail
A	EVTR	IDEN			Tags & Annotation
A	EVTR	LITE			Lighting
			EMER		Lighting, Emergency
	EVTR	OTLN			Building Outlines
A	EVTR	PATT			Textures and Hatch Patterns
A	EVTR	SHFT			Shafts
			VENT		Shaft Vent
A	EVTR	SIGN			Signage
A	EVTR	VENT			Passenger Ventilation

EQPM - EQUIPMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
A	EQPM				Equipment
A	EQPM	ACCS			Access
A	EQPM	CLRN			Clearance
A	EQPM	FIXD			Fixed
A	EQPM	HIDE			Below Floor
A	EQPM	IDEN			Tags & Annotation
A	EQPM	JETB			Jet Bridges
			COLS		Jet Bridge Columns
A	EQPM	MOVE			Moveable

EQPM - EQUIPMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
A	EQPM	OVHD			Overhead, Ceiling Mounted, Suspended
A	EQPM	SECU			Security
A	EQPM	STOR			Storage

FLOR - FLOOR

Discipline	Major	Minor 1	Minor 2	Status	Description
A	FLOR				Floor Elements
A	FLOR	ADA~			American Disability Act Elements
A	FLOR	APPL			Appliances
			DISH		Dishwasher
			FRZR		Walk-In Freezer
			GRIL		Grille
			HOOD		Exhaust Hood
			MCRO		Microwave
			OVEN		Ovens
			RCPT		Appliance Receptacles
			REFR		Refrigerator
			STOV		Stove
A	FLOR	CASE			Casework
			OVHD		Wall-Mounted Casework
A	FLOR	CHAS			Utility Chase
A	FLOR	DECO			Décor
A	FLOR	DEVC			Devices/Accessories
A	FLOR	EQPM			
			DATA		Computers
			COPY		Copiers/Scanners/Plotters
			RCPT		Receptacles/Outlets
A	FLOR	FENC			Interior Fencing
A	FLOR	FIXT			Floor Mounted/Free Standing Plumbing Fixtures
			DEVC		Fixture Devices & Accessories
			DFTN		Drinking Fountain
			FAUC		Faucets
			FLDR		Drains
			SINK		Sinks
			TOIL		Toilets
			URNL		Urinals
A	FLOR	FNSH			Finishes
			CONC		Concrete
			MRBL		Marble
			SPCL		Specialty

FLOR - FLOOR

Discipline	Major	Minor 1	Minor 2	Status	Description
			TILE		Tile
A	FLOR	GRAD			Finished Floor/Grade
A	FLOR	HRAL			Handrails/Guardrails
A	FLOR	IDEN			Tags & Annotation
			RMNA		Room Name
			RMNO		Room Number
A	FLOR	JNTS			Floor Joints
			EXPJ		Expansion Joints
A	FLOR	JOIS			Joists
A	FLOR	LADD			Ladders
			GRAL		Ladder Guardrails
			GRTG		Landing Grating
			HRAL		Ladder Handrails
			LNDG		Ladder Landings
			STEP		Ladder Steps/Rungs
			SUPT		Ladder Structural Support
A	FLOR	LEAS			Tenant Lease Lines
A	FLOR	LEVL			Level Changes (Shafts, Ramps, Pits)
A	FLOR	MVWK			Moving Walkways
A	FLOR	OPNG			Openings/Penetrations
A	FLOR	OTLN			Floor and Building Outlines
			RPRM		Room Perimeter Outlines
A	FLOR	OVHD			Overhead Items (Skylights, Overhangs, etc.)
A	FLOR	PATT			Paving, Tile, Carpet Patterns
A	FLOR	RAIS			Access (Raised) Flooring
A	FLOR	RISR			Risers
A	FLOR	SHFT			Shafts
A	FLOR	SIGN			Signage
A	FLOR	SLVE			Utility Sleeve
A	FLOR	SPCL			Specialties (Toilet Room Accessories, Display Cases)
A	FLOR	STRP			Striping
A	FLOR	STRS			Stair Risers/Treads
			CATW		
			EMER		Emergency Stairs
			FIRE		Fire Escape
			HRAL		Stair Handrails
			LNDG		Stair Landings
			STEP		Stair Steps
			TRED		Stair Treads
A	FLOR	TPTN			Toilet Partitions

FLOR - FLOOR

Discipline	Major	Minor 1	Minor 2	Status	Description
A	FLOR	WDWK			Architectural Woodwork

FURN - FURNITURE

Discipline	Major	Minor 1	Minor 2	Status	Description
A	FURN				Furniture
A	FURN	CASE			Casework
A	FURN	DEVC			Devices/Accessories
A	FURN	IDEN			Tags & Annotation

NOTE: REFER TO INTERIORS LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

GLAZ - WINDOWS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	GLAZ				Glazing/Windows
A	GLAZ	ASSM			Assemblies
A	GLAZ	CURT			Curtain Wall
			FRAM		Curtain Wall Mullions
A	GLAZ	DEVC			Devices/Accessories
A	GLAZ	FRAM			Window Frames
A	GLAZ	FULL			Full Height Glazed Walls and Windows
			EXTR		Full Height Glazed Walls and Windows, Exterior
			INTR		Full Height Glazed Walls and Windows, Interior
A	GLAZ	HEAD			Window Header
A	GLAZ	IDEN			Tags & Annotation
A	GLAZ	OVHD			Overhead/Above
A	GLAZ	PRHT			Windows and Partial Height Glazed Partitions
A	GLAZ	SILL			Window Sills

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
A	LITE				Lighting
A	LITE	CLNG			Specialty Ceiling Lights (Not on Elec. Lighting Plan)

NOTE: REFER TO ELECTRICAL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

PROP - PROPERTY

Discipline	Major	Minor 1	Minor 2	Status	Description
A	PROP				Property Information
A	PROP	LEAS			Lease Line (Interior)
A	PROP	LEAS	IDEN		Lease Identification

ROOF - ROOFING

Discipline	Major	Minor 1	Minor 2	Status	Description
A	ROOF				Roofing
A	ROOF	BEAM			Beams
A	ROOF	CNPY			Canopy
A	ROOF	CRTS			Crickets, Flow Arrows, Flow Info
A	ROOF	DEVC			Devices/Accessories
A	ROOF	EQPM			Equipment
A	ROOF	HRAL			Handrails and Guardrails
A	ROOF	INSU			Insulation
A	ROOF	JNTS			Roof Joints
			EXPJ		Expansion Joints
A	ROOF	JOIS			Joists
A	ROOF	LEVL			Level changes
A	ROOF	OPNG			Openings
A	ROOF	OTLN			Outline
A	ROOF	PATT			Textures and Hatch Patterns
A	ROOF	RFDR			Drains
			GUTR		Gutters
A	ROOF	SKLT			Skylights
A	ROOF	SPCL			Specialties, Accessories, Dormers, Canopies
A	ROOF	STRS			Stairs Risers/Treads, Ladders
A	ROOF	TRUS			Truss
A	ROOF	WALK			Walkways
A	ROOF	WALL			Parapet Walls and Wall Caps

WALL - WALLS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	WALL				Walls
A	WALL	AGAP			Air Gap
A	WALL	BACK			Backing
A	WALL	CAVI			Cavity Wall Lines
A	WALL	CMUW			Concrete Block
A	WALL	CMUW			Concrete Masonry
A	WALL	CONC			Concrete
A	WALL	DEVC			Devices/Accessories
A	WALL	FIRE			Fire Wall
			RATE		Fire Rated Wall
			RT1H		1 Hour Fire Rated
			RT2H		2 Hour Fire Rated
			RT3H		3 Hour Fire Rated
A	WALL	FNSH			Finishes

WALL - WALLS

Discipline	Major	Minor 1	Minor 2	Status	Description
A	WALL	FULL			Full Height
			EXTR		Full Height, Exterior
			INTR		Full Height, Interior
A	WALL	HEAD			Door and Window Headers
		HRAL			Wall Mounted Handrails
A	WALL	IDEN			Tags & Annotation
A	WALL	INSU			Insulation
A	WALL	JAMB			Door and Window Jambs
A	WALL	MOVE			Moveable Walls/Partitions
A	WALL	MSNW			Masonry
A	WALL	OPNG			Openings
A	WALL	PATT			Textures and Hatch Patterns
A	WALL	PRHT			Partial Height
A	WALL	SPCL			Wall-Hung/Attached Specialties
A	WALL	STUD			Studs
			METL		Metal Studs
			WOOD		Wood Studs
A	WALL	VENR			Masonry Veneer Lines

Interiors Layers

Notes for Interiors Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional. Depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-Refs. These should be placed on each individual drawing. Text and pattern X-Ref's that are sized for the drawing they are attached to are acceptable.

ELEV - ELEVATION

Discipline	Major	Minor 1	Minor 2	Status	Description
I	ELEV				Interior Elevations
I	ELEV	CASE			Casework
I	ELEV	FIXT			Miscellaneous Fixtures
I	ELEV	FNSH			Finishes, Woodwork & Trim
I	ELEV	IDEN			Tags & Annotation
I	ELEV	PATT			Textures and Hatch Patterns
I	ELEV	PFIX			Plumbing Fixtures
I	ELEV	SIGN			Signage

EQPM - EQUIPMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
I	EQPM	ACCS			Interior Equipment Access
I	EQPM	COPY			Copiers, Office Equipment
I	EQPM	FIXD			Fixed
I	EQPM	IDEN			Tags & Annotation
I	EQPM	MOVE			Moveable
I	EQPM	X			Not in Contract
I	EQPM	OVHD			Overhead
I	EQPM	STOR			Storage

FLOR - FLOOR INFORMATION

Discipline	Major	Minor 1	Minor 2	Status	Description
I	FLOR				Interior Floor Info
I	FLOR	IDEN			Tags & Annotation
			PHAS		Phasing Info
			RMNA		Room Name
			RMNO		Room Number
I	FLOR	SIGN			Signage

FURN - FURNITURE

Discipline	Major	Minor 1	Minor 2	Status	Description
I	FURN				Interior Furniture
I	FURN	ADPC			Automated Data Processing Components
I	FURN	ARTW			Artwork
I	FURN	CASE			Casework
I	FURN	DEVC			Accessories (Partitions, Curtains, Clocks, Trash Cans, Lecterns, Lamps, Etc.)
I	FURN	FLOR			Flooring
I	FURN	FREE			Free-Standing Furniture
I	FURN	GRID			Planning Grid/Modular Outline
I	FURN	IDEN			Tags & Annotation

FURN - FURNITURE

Discipline	Major	Minor 1	Minor 2	Status	Description
I	FURN	MISC			Miscellaneous Furniture
I	FURN	X			Not in Contract
I	FURN	PLNT			Plants
I	FURN	SEAT			Seating
I	FURN	STOR			Storage (Cabinets, Shelves, File Cabinets, etc.)
I	FURN	SYST			Modular Systems

SYST - SYSTEMS FURNITURE

Discipline	Major	Minor 1	Minor 2	Status	Description
I	SYST				System Furniture
I	SYST	FURN			Furniture
I	SYST	IDEN			Tags & Annotation
I	SYST	LITE			Lighting Components
I	SYST	PATT			Textures & Hatch Patterns
I	SYST	PNLS			Panels/Partitions
I	SYST	POWR			Power, Communication Components
I	SYST	STOR			Storage Components
I	SYST	WALL			Walls
I	SYST	WKSF			Work Surface Components

Structural Layers

Notes for Structural Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”. (For Example: All structural elements of a dock must be placed on individual layers (i.e., deck panels on deck panel layer, fenders on fender layer, pile cap on pile cap layer, etc.).
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

ACCS - ACCESS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	ACCS				Structural Access
S	ACCS	EVTR			Elevator
S	ACCS	GLRY			Galleries, Crossovers, Trenches, etc.)
S	ACCS	HTCH			Hatches
S	ACCS	IDEN			Tags & Annotation
S	ACCS	LADD			Ladders and Safety Devices
S	ACCS	STRS			Stairs
S	ACCS	TUNL			Tunnels

ALGN - ALIGNMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
S	ALGN				Alignments
S	ALGN	IDEN			Tags and Annotation

BEAM - BEAMS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	BEAM				Structural Beams
S	BEAM	ALUM			Aluminum
S	BEAM	CNTR			Centerlines
S	BEAM	CONC			Concrete
S	BEAM	IDEN			Tags & Annotation
S	BEAM	FLOR			Floor Beams
S	BEAM	PRIM			Primary Beams, Girders
S	BEAM	RBAR			Reinforcing Bar
S	BEAM	ROOF			Roof
			CONC		Roof - Concrete
			STEL		Roof - Steel
S	BEAM	SECD			Secondary Beams, Girders
S	BEAM	STEL			Steel
S	BEAM	WOOD			Wood

BRCG - BRACING

Discipline	Major	Minor 1	Minor 2	Status	Description
S	BRCG				Structural Bracing
S	BRCG	ALUM			Aluminum
			DIAG		Aluminum - Diagonal
			HORZ		Aluminum - Horizontal
			VERT		Aluminum - Vertical
S	BRCG	IDEN			Tags & Annotation
S	BRCG	LATL			Lateral

BRCG - BRACING

Discipline	Major	Minor 1	Minor 2	Status	Description
S	BRCG	METL			Metal
S	BRCG	SHEA			Shear
S	BRCG	STEL			Steel
			DIAG		Steel - Diagonal
			HORZ		Steel - Horizontal
			VERT		Steel - Vertical
S	BRCG	WOOD			Wood
			DIAG		Wood - Diagonal
			HORZ		Wood - Horizontal
			VERT		Wood - Vertical

COLS - COLUMNS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	COLS				Structural Columns
S	COLS	ABLT			Anchor Bolts
S	COLS	ALUM			Aluminum
S	COLS	BRNG			Load Bearing
S	COLS	CONC			Concrete
S	COLS	COVR			Column Covers
S	COLS	IDEN			Tags & Annotation
S	COLS	LOAD			Floor Load
S	COLS	PRIM			Primary
S	COLS	RBAR			Reinforcing Bar
S	COLS	SECD			Secondary
S	COLS	STEL			Steel
S	COLS	WOOD			Wood

DECK - DECK

Discipline	Major	Minor 1	Minor 2	Status	Description
S	DECK				Structural Decks
S	DECK	FLOR			Floor
			OPNG		Floor Openings and Penetrations
S	DECK	IDEN			Tags & Annotation
S	DECK	RBAR			Deck/Slab Reinforcing
S	DECK	ROOF			Roof
			OPNG		Roof Openings and Penetrations

DETL - DETAIL

Discipline	Major	Minor 1	Minor 2	Status	Description
S	DETL				Structural Detail
S	DETL	HSSS			Hollow Structural Steel

DETL - DETAIL

Discipline	Major	Minor 1	Minor 2	Status	Description
S	DECK	PLYW			Plywood
S	DECK	W2XS			Dimension Lumber

DOCK - DOCKS AND PIERS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	DOCK				Docks
S	DOCK	BEAM			Beams
S	DOCK	BENT			Bent
S	DOCK	BLRD			Bollards
S	DOCK	BRNG			Load Bearing
S	DOCK	BRTH			Ship Berth
S	DOCK	BULK			Bulkhead
S	DOCK	BULR			Bull Rail
S	DOCK	CLET			Cleats
S	DOCK	CONC			Concrete
			CMUW		Concrete Block/Masonry Unit
			CURB		Curbs
			RBAR		Reinforcing
S	DOCK	DECK			Decking
			DKDR		Deck Drain
			DPNL		Deck Panel
			EDGE		Deck Edge
			STGR		Stringers
S	DOCK	DEVC			Devices/Accessories/Instruments
			PNSK		Pin Socket
S	DOCK	DOLP			Dolphins
S	DOCK	EQPM			Equipment
			BAGL		Baggage Loading Equipment
			CCRN		Container Crane
			EMER		Safety (Life Rings, etc.)
			GCRN		Gantry Crane
			HOIS		Hoist
			PLOD		Passenger Loading Equipment
			SCAL		Weigh Scales
			SLOD		Ship Loading Equipment
			WASH		Truck Wash
S	DOCK	FEND			Fenders
S	DOCK	FHOL			Fire Holes in Deck
S	DOCK	FLTS			Floats
S	DOCK	GRAL			Guard Rail

DOCK - DOCKS AND PIERS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	DOCK	HRAL			Handrail
S	DOCK	HTCH			Utility Hatch
S	DOCK	IDEN			Docks: Tags & Annotation
S	DOCK	LADD			Ladders
S	DOCK	LOAD			Floor Load
S	DOCK	METL	FAB~		Metal Fabrications
S	DOCK	PCAP			Pile Caps
S	DOCK	PILE			Piles
			AUGR		Piles - Auger Cast
			BATT		Piles - Batter
			BRNG		Piles - Bearing
			CONC		Piles - Concrete
			FEND		Piles - Fender
			MCRO		Piles - Micro
			MOOR		Piles - Mooring
			SHTP		Piles - Sheet
			TMBR		Piles - Timber
S	DOCK	RAIL			Rails
			CRAN		Crane Rail
			STOP		Crane Stop
S	DOCK	RAMP			Ramps
S	DOCK	RBAR			Reinforcing Bar
S	DOCK	SPDR			Spreaders
S	DOCK	STRS			Stairs
			STEP		Steps
S	DOCK	SUPT			Equipment Supports
			SEIS		Seismic Restraints
S	DOCK	TMBR			Timber Elements
S	DOCK	UTIL			Utility Elements
			SLVE		Utility Sleeves
S	DOCK	WHAL			Whaler

FABR - FABRICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	FABR				Fabricated Elements
S	FABR	ABLT			Anchor Bolts
S	FABR	BASE			Equipment Bases
			SEIS		Seismic Restraints
			VIBR		Vibration Isolation
S	FABR	BEAM			Beams

FABR - FABRICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	FABR	BRCG			Bracings
S	FABR	CATW			Catwalks
			GRTG		Catwalk Grating
S	FABR	DEVC			Devices/Accessories
S	FABR	EMBD			Embedded Metals (Framing Around Openings)
S	FABR	HRAL			Handrails
S	FABR	LADD			Ladders
S	FABR	METL			General Metal Fabrications
S	FABR	PLAT			Plates
S	FABR	POST			Posts
S	FABR	RAMP			Ramps
S	FABR	STEP			Steps
S	FABR	SUPT			Supports
S	FABR	WELD			Welding Symbols

FNDN - FOUNDATION ELEMENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	FNDN				Foundations
S	FNDN	ABLT			Anchor Bolt
S	FNDN	BASE			Foundation Base
			SUB~		Sub-Base
S	FNDN	BLRD			Bollards, Bollards Foundation
S	FNDN	CONC			Concrete
			CMUW		Concrete Block/Masonry Unit
			SWLK		Concrete Sidewalk
S	FNDN	DEVC			Devices/Accessories
S	FNDN	DRNS			Drainage Features
S	FNDN	FACE			Face of Foundation
S	FNDN	FTNG			Footings
			RBAR		Footing Reinforcement
S	FNDN	GRBM			Grade Beams
S	FNDN	IDEN			Tags & Annotation
S	FNDN	INSU			Insulation
S	FNDN	PCAP			Pile Caps
			RBAR		Pile Cap Reinforcement
S	FNDN	PEDS			Column Pedestals
S	FNDN	PIER			Drilled Piers
S	FNDN	PILE			Piles
			BRNG		Piles - Bearing
			CONC		Piles - Concrete

FNDN - FOUNDATION ELEMENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	FNDN	PILE	RBAR		Pile Reinforcement
			SHTP		Sheet Piles
			STEL		Piles - Steel
			TMBR		Piles - Wood
S	FNDN	RAMP			Ramps
S	FNDN	RBAR			Foundation Reinforcing
S	FNDN	RIBS			Ribbed Mat
S	FNDN	SLVE			Utility Sleeves
S	FNDN	WALL			Foundation Walls

FRAM - FRAMING

Discipline	Major	Minor 1	Minor 2	Status	Description
S	FRAM				Framing
S	FRAM	ABLT			Anchor Bolts
S	FRAM	BRCD			Braced Frame
S	FRAM	BRCG			Bracing
S	FRAM	DEVC			Devices/Accessories
			BRKT		Brackets
S	FRAM	IDEN			Tags & Annotation
S	FRAM	MOM~			Moment Frame
S	FRAM	SCOL			Framework Columns
S	FRAM	SEIS			Seismic Support Elements
S	FRAM	SLVE			Utility Sleeves
S	FRAM	STEL			Steel Elements

FSTN - FASTENERS & CONNECTIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	FSTN				Fasteners & Connections
S	FSTN	IDEN			Tags & Annotation

GRLN - GRADE LINES

Discipline	Major	Minor 1	Minor 2	Status	Description
S	GRLN				Grade Lines
S	GRLN	FNGR			Grade Lines: Finished Grade
S	GRLN	SURF			Grade Lines: Surface Areas
S	GRLN	WATR			Grade Lines: Water Surface

GRTG - GRATING

Discipline	Major	Minor 1	Minor 2	Status	Description
S	GRTG				Grating
S	GRTG	ELEV			Elevated (Catwalks)

GRTG - GRATING

Discipline	Major	Minor 1	Minor 2	Status	Description
S	GRTG	FLOR			Floor
S	GRTG	IDEN			Tags & Annotation
S	GRTG	OVHD			Overhead
S	GRTG	SUBS			Subsurface

HYDR - HYDRAULIC STRUCTURES

Discipline	Major	Minor 1	Minor 2	Status	Description
S	HYDR				Hydraulic Structures
S	HYDR	AXIS			Axis of Structure
S	HYDR	BAFL			Baffles, Splash Pads
S	HYDR	BASN			Stilling & Settling Basins
S	HYDR	CHAN			Channels (Non-Earthen)
S	HYDR	COFF			Cofferdam
S	HYDR	COND			Diversionary/Bypass Conduits & Culverts
S	HYDR	DAM~			Dam
S	HYDR	FISH			Fish Ladder/Passage
S	HYDR	FLUM			Flume
S	HYDR	IDEN			Tags & Annotation
S	HYDR	INTK			Intake, Outlet
S	HYDR	NOVR			Non-Overflow Structure
S	HYDR	SWAY			Spillway
S	HYDR	WEIR			Weirs & Sluiceways

JNTS- JOINTS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	JNTS				Structural Joints
S	JNTS	CNTJ			Construction
S	JNTS	CTLJ			Control
S	JNTS	EXPJ			Expansion
S	JNTS	IDEN			Tags & Annotation
S	JNTS	WTRS			Waterstops

JOIS - JOISTS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	JOIS				Structural Joists
S	JOIS	BRGX			Bridging
S	JOIS	IDEN			Tags & Annotation
S	JOIS	PERI			Perimeter Channel or Rim
S	JOIS	PRIM			Primary
S	JOIS	SECD			Secondary
S	JOIS	TRIM			Partial Length or Trimmer

LNTL - LINTELS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	LNTL				Lintels
S	LNTL	IDEN			Tags & Annotation

PADS - STRUCTURAL PADS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	PADS				Structural Pads
S	PADS	EQPM			Equipment
S	PADS	IDEN			Tags & Annotation
S	PADS	SEIS			Seismic Restraint/Support

PLAT - PLATFORMS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	PLAT				Platforms
S	PLAT	FRMG			Framing
S	PLAT	GRTG			Grating
S	PLAT	IDEN			Tags & Annotation

ROOF - ROOF ELEMENTS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	ROOF				Structural Roofing Elements
S	ROOF	ABLT			Anchor Bolts
S	ROOF	BEAM			Roof Beams
			CONC		Concrete Beams
			RBAR		Concrete Beam Reinforcing Bar
			STEL		Steel Beams
S	ROOF	DECK			Deck Openings
			EDGE		Edge of Deck
S	ROOF	DEVC			Devices/Accessories
S	ROOF	IDEN			Tags & Annotation
S	ROOF	JNTS			Slab Control Joints
S	ROOF	JOIS			Joists
S	ROOF	OPNG			Openings/Penetrations
S	ROOF	OVHD			Overhead/Above
S	ROOF	RBAR			Slab Reinforcement Bar
S	ROOF	SAFE			Safety Elements
S	ROOF	SEIS			Seismic Support Elements
S	ROOF	SLVE			Utility Sleeves
S	ROOF	TRUS			Trusses

SIGN - SIGNAGE

Discipline	Major	Minor 1	Minor 2	Status	Description
S	SIGN				Signage
S	SIGN	BOUY			Buoy
S	SIGN	FRMG			Framing
S	SIGN	GAGE			Gauge (Staff)
S	SIGN	TEXT			Signage Text
S	SIGN	XTRU			Extrusion

SLAB - SLABS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	SLAB				Slabs
S	SLAB	ABLT			Anchor Bolts
S	SLAB	CONC			Concrete
S	SLAB	CTLJ			Control Joints
S	SLAB	DECK			Slab Top Surface
S	SLAB	DEVC			Devices/Accessories
S	SLAB	EDGE			Edge of Slab
S	SLAB	IDEN			Tags & Annotation
S	SLAB	OPNG			Openings, Penetrations, Depressions
S	SLAB	OPNX			Opening Indication ("X")
S	SLAB	RBAR			Slab Reinforcing
S	SLAB	SEIS			Seismic Support Elements
S	SLAB	SILL			Sills
S	SLAB	SLVE			Utility Sleeve
S	SLAB	STEL			Steel
S	SLAB	WOOD			Wood

STIF - STIFFENER

Discipline	Major	Minor 1	Minor 2	Status	Description
S	STIF				Stiffener
S	STIF	LONG			Longitudinal
S	STIF	TRAV			Transverse

STRS - STAIRS AND ELEVATORS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	STRS				Stairs
S	STRS	ABLT			Anchor Bolts
S	STRS	CONC			Concrete Stairs
S	STRS	FRAM			Stair/Elevator Framing
S	STRS	IDEN			Tags & Annotation
S	STRS	LADD			Ladders & Ladder Assemblies
S	STRS	RBAR			Reinforcing

STRS - STAIRS AND ELEVATORS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	STRS	SEIS			Seismic Support Elements
S	STRS	SLVE			Utility Sleeves

TRUS - TRUSSES

Discipline	Major	Minor 1	Minor 2	Status	Description
S	TRUS				Trusses
S	TRUS	IDEN			Tags & Annotation
S	TRUS	PRIM			Primary
S	STRS	SECD			Secondary

WALL - WALLS

Discipline	Major	Minor 1	Minor 2	Status	Description
S	WALL				Walls
S	WALL	BARR			Safety Barrier
S	WALL	CMUW			Concrete Masonry Unit
			LOAD		Load Bearing Concrete Masonry Unit
			NONL		Non-Load Bearing Concrete Masonry Unit
S	WALL	CONC			Concrete walls
S	WALL	EXTR			Exterior Walls
S	WALL	HBAR			Horizontal/Secondary Reinforcement
S	WALL	IDEN			Tags & Annotation
S	WALL	INTR			Interior Walls
S	WALL	LOAD			General Load Bearing
S	WALL	MSNW			Masonry
			LOAD		Load Bearing Masonry Wall
			NONL		Non-Load Bearing Masonry Wall
S	WALL	NONL			General Non-Load Bearing
S	WALL	OPNG			Openings and Penetrations
S	WALL	OVHD			Overhead/Above
S	WALL	PCST			Pre-Cast
S	WALL	RBAR			Reinforcing
S	WALL	RETN			Retaining Wall
S	WALL	SHEA			Shear/Structural Bearing
S	WALL	SLVE			Utility Sleeves
S	WALL	STUD			Stud Walls
			STEL		Steel Stud
			WOOD		Wood Stud
S	WALL	VBAR			Vertical/Primary Reinforcement
S	WALL	VENR			Veneer
S	WALL	WOOD			Wood

Mechanical Layers

Notes for Mechanical Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

ACID - ACID WASTE PIPING

Discipline	Major	Minor 1	Minor 2	Status	Description
M	ACID				Acid Waste System (Acid, Alkaline, Oil Waste)
M	ACID	EQPM			Equipment
			PADS		Equipment Pads
M	ACID	IDEN			Tags and Annotation
M	ACID	PIPE			Piping (Includes Fitting/Valves)
			SLVE		Pipe Sleeves
M	ACID	SUPT			Pipe & Equipment Support
			SEIS		Seismic Restraints
M	ACID	VENT			Venting Elements
M	ACID	VIBR			Vibration Isolation

AFRZ - ANTIFREEZE

Discipline	Major	Minor 1	Minor 2	Status	Description
M	AFRZ				Anti-Freeze System
M	AFRZ	EQPM			Equipment
M	AFRZ	IDEN			Tags and Annotation
M	AFRZ	PIPE			Piping (Includes Fittings. Valves)
			WAST		Waste Piping

BAGS - BAGGAGE SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	BAGS				Baggage System (Mechanical Elements)
M	BAGS	ACCS			Access
M	BAGS	CART			Carts/Tugs
			STRP		Cart/Tug Striping
M	BAGS	CATW			Catwalks
M	BAGS	CLRZ			Clearance Zones
M	BAGS	CONV			Conveyor
			CRBS		Curbside Conveyor
			DOOR		Conveyor Security Door
			FEED		Feed Conveyor
			ICNV		Inbound Conveyor
			INTM		Interim Conveyor
			IOSZ		Inbound Oversize Conveyor
			MAIN		Mainline Conveyor
			MANL		Manual Encoding Conveyor
			OCNV		Outbound Conveyor
			OOSZ		Outbound Oversize Conveyor
			RCRC		Recirculation Conveyor
			RFSC		RF Scanning Conveyor

BAGS - BAGGAGE SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	BAGS	CONV	SSUB		Security Sub-System Conveyor
			TCBC		Ticketing Conveyor
			TTRY		Tilt-Tray Conveyor
			XFER		Transfer Conveyor
			XOVR		Crossover Conveyor
M	BAGS	CTRL			Controls
			PANL		Panels
			SNSR		Sensors
M	BAGS	CURT			Draft Curtain
M	BAGS	DEVC			Devices/Accessories/Instruments
			CLMD		Claim Device
			DVRT		Diverter
			EDS~		Explosive Detection (Includes Trace)
			MKUP		Make-up Device
			TAGR		Tag Reader
			VSU~		Vertical Sorting Unit
M	BAGS	DOOR			Doors
			FIRE		Conveyor Fire Door
M	BAGS	EQPM			Equipment
			MULT		Multiple Layer Equipment
			PADS		Equipment Pads
M	BAGS	GRAL			Guardrail
M	BAGS	HIDE			Hidden Elements (Below)
M	BAGS	IDEN			Tags and Annotation
M	BAGS	LADD			Ladders
M	BAGS	NOTE			System Notes (Only)
M	BAGS	OPNG			Openings
M	BAGS	OVHD			Overhead Elements
M	BAGS	PLAT			Platform
M	BAGS	PROT			Protection
M	BAGS	WALL			Walls

BRIN - BRINE SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	BRIN				Brine System
M	BRIN	CTRL			Controls
M	BRIN	DEVC			Devices/Accessories/Instruments
M	BRIN	EQPM			Equipment
			PADS		Equipment Pads
M	BRIN	IDEN			Tags and Annotation

BRIN - BRINE SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	BRIN	INSU			Pipe/Equipment Insulation
M	BRIN	PIPE			Piping (Includes Fittings, Valves)
M	BRIN	SUPT			Pipe/Equipment Support
			SEIS		Seismic Restraints

CH4S - METHANE SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CH4S				Methane System
M	CH4S	CTRL			Controls
			SNSR		Sensors
M	CH4S	DEVC			Devices/Accessories/Instruments
			ALRM		Alarms
M	CH4S	EQPM			Equipment
			PADS		Equipment Pads
			PREG		Pressure Regulator
			STRN		Strainer
M	CH4S	IDEN			Tags and Annotation
M	CH4S	METR			Meter
M	CH4S	PIPE			Piping (Includes Fittings, Valves)
			SLVE		Pipe Sleeves
			VENT		Venting
M	CH4S	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	CH4S	TANK			Tanks
M	CH4S	UGND			Underground Elements
M	CH4S	VIBR			Vibration Isolation

CHEM - CHEMICAL FEED SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CHEM				Chemical Feed System
M	CHEM	CTRL			Controls
			SNSR		Sensors
M	CHEM	DEVC			Devices/Accessories/Instruments
M	CHEM	EQPM			Equipment
			PADS		Equipment Pads
			STRN		Strainers
M	CHEM	IDEN			Tags and Annotation
M	CHEM	INSU			Pipe/Equipment Insulation
M	CHEM	PIPE			Piping (Includes Fittings, Valves)
			RETN		Return Piping

CHEM - CHEMICAL FEED SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CHEM	PIPE	SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	CHEM	PUMP			Pumps
M	CHEM	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	CHEM	TANK			Tanks (Expansion, Surge, Storage)
M	CHEM	VIBR			Vibration Isolation

CMPA - COMPRESSED AIR SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CMPA				Compressed Air System
M	CMPA	CTRL			Controls
			SNSR		Sensors
M	CMPA	DEVC			Devices/Accessories/Instruments
M	CMPA	EQPM			Equipment
			CMPR		Compressor
			DRYR		Air Dryer
			PADS		Equipment Pads
			PEQP		Process Equipment
			QCON		Quick Disconnect
			RCVR		Receiver
			STRN		Strainer
M	CMPA	IDEN			Tags and Annotation
M	CMPA	INSU			Pie/Equipment Insulation
M	CMPA	PIPE			Piping (Includes Fittings, Valves)
			LPIP		Low Pressure Piping
			PPIP		Process Piping
			SLVE		Pipe Sleeves
M	CMPA	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	CMPA	VALT			Vaults/Pits
M	CMPA	VIBR			Vibration Isolation

CNDW - CONDENSER WATER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CNDW				Condenser Water System
M	CNDW	CTRL			Controls
			SNSR		Sensors
M	CNDW	DEVC			Devices/Accessories/Instruments
M	CNDW	EQPM			Equipment

CNDW - CONDENSER WATER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CNDW	EQPM	CTWR		Cooling Tower & Elements
			HEX~		Heat Exchanger
			PADS		Equipment Pads
			STRN		Strainer
M	CNDW	IDEN			Tags and Annotation
M	CNDW	INSU			Pipe and Equipment Insulation
M	CNDW	MHOL			Manhole
M	CNDW	PIPE			Piping (Includes Fittings, Valves)
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	CNDW	PUMP			Pumps
M	CNDW	SUPT			Pipe and Equipment Supports
			SEIS		Seismic Restraints
M	CNDW	TANK			Tank (Expansion, Surge, Storage)
M	CNDW	VALT			Vaults/Pits
M	CNDW	VIBR			Vibration Isolation

COND - CONDENSATE

Discipline	Major	Minor 1	Minor 2	Status	Description
M	COND				Condensate System
M	COND	CTRL			Controls
			SNSR		Sensors
M	COND	DEVC			Devices/Accessories/Instruments
M	COND	EQPM			Equipment
			PADS		Equipment Pads
			STRN		Strainers
M	COND	EXPJ			Expansion Joint
M	COND	IDEN			Tags and Annotation
M	COND	INSU			Pipe/Equipment Insulation
M	COND	MHOL			Manhole
M	COND	PIPE			Piping (Includes Fittings, Valves)
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	COND	PUMP			Pumps
M	COND	SUPT			Pipe and Equipment Supports
			SEIS		Seismic Restraints
M	COND	VALT			Vaults
M	COND	VIBR			Vibration Isolation

CONT - CONTROLS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CONT				Controls
M	CONT	INST			Instrumentation
M	CONT	SNSR			Sensors
M	CONT	THER			Thermostats
M	CONT	WIRE			Low Voltage Wiring

CWTR - CHILLED WATER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	CWTR				Chilled Water System
M	CWTR	CNDS			Condensate Piping
M	CWTR	CTRL			Controls
			SNSR		Sensors
M	CWTR	DEVC			Devices/Accessories/Instruments
M	CWTR	EQPM			Equipment
			CHLR		Chiller
			COIL		Coils
			HEX~		Heat Exchangers
			PADS		Equipment Pads
			STRN		Strainers
M	CWTR	IDEN			Tags and Annotation
M	CWTR	INSU			Pipe/Equipment Insulation
M	CWTR	PIPE			General Piping (Includes Fittings/Valves)
			CNDS		Condensate (Includes Fittings/Valves)
			SLVE		Pipe Sleeves
M	CWTR	PUMP			Pumps
			PRIM		Primary Pumps
			SECD		Secondary Pumps
M	CWTR	RETN			Return Piping (Includes Fitting/Valves)
			SECD		Secondary Return Piping
M	CWTR	SPLY			Supply Piping (Includes Fittings/Valves)
			SECD		Secondary Supply Piping
M	CWTR	SUPT			Pipe and Equipment Supports
			SEIS		Seismic Restraints
M	CWTR	VALT			Vaults/Pits
M	CWTR	VIBR			Vibration Isolation

DUAL - DUAL TEMP SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	DUAL				Dual Temp Systems
M	DUAL	CTRL			Controls

DUAL - DUAL TEMP SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	DUAL	CTRL	SNSR		Sensors
M	DUAL	DEVC			Devices/Accessories/Instruments
M	DUAL	EQPM			Equipment
			PADS		Equipment Pads
M	DUAL	IDEN			Tags and Annotation
M	DUAL	INSU			Pipe/Equipment Insulation
M	DUAL	PIPE			Piping (Includes Fittings, Valves)
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	DUAL	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	DUAL	VIBR			Vibration Isolation

DUST - DUST AND FUME COLLECTION

Discipline	Major	Minor 1	Minor 2	Status	Description
M	DUST				Dust and Fume Collection System
M	DUST	ACCS			Access Doors
M	DUST	BIN~			Dust Bins
M	DUST	CATW			Catwalks
M	DUST	CHBR			Clean Air Chamber
M	DUST	CTRL			Controls
			LEVL		Dust Level Indicator
M	DUST	DEVC			Devices/Accessories/Instruments
M	DUST	DRUM			Drum
			COVR		Drum Cover
M	DUST	DUCT			Ductwork
M	DUST	EQPM			Equipment
			PADS		Equipment Pads
M	DUST	FANS			Exhaust Fans
M	DUST	FLTR			Filters
			FNAL		Final Filters
			PRE~		Pre-Filters
M	DUST	HOPR			Hopper
			EVNT		Explosion Vent
			RLCK		Rotary Airlock
M	DUST	SNSR			Sensors
			PRES		Pressure Sensor
			SMOK		Smoke Sensor
			TEMP		Temperature Sensor

DUST - DUST AND FUME COLLECTION

Discipline	Major	Minor 1	Minor 2	Status	Description
M	DUST	SUPT			Duct, Pipe, and Equipment Supports
			SEIS		Seismic Restraints
M	DUST	VIBR			Vibration Isolation

EXHS - VENTILATION AND EXHAUST SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	EXHS				Ventilation & Exhaust System
M	EXHS	CDFF			Ceiling Diffusers
M	EXHS	CTRL			Controls
			SNSR		Sensors
M	EXHS	DEVC			Devices/Accessories/Instruments
M	EXHS	DMPR			Dampers
			AUTO		Automatic Dampers
			EXHS		Exhaust Air Dampers
			FIRE		Fire/Smoke Dampers
			MANL		Manual Dampers
			OAIR		Outside Air Dampers
			SPLY		Supply Air Dampers
M	EXHS	DUCT			Exhaust Air Duct
M	EXHS	EQPM			Equipment
			BLWR		Blower
			MOTR		Motor
			PADS		Equipment Pads
			PLNM		Plenum
			ROOF		Rooftop Equipment
M	EXHS	FANS			Fans
M	EXHS	FLTR			Filters
			HEPA		HEPA Filters
M	EXHS	GRIL			Grilles & Registers
M	EXHS	INSU			Duct/Equipment Insulation
M	EXHS	LUVR			Louvers
M	EXHS	OAIR			Outside Air
			DUCT		Outside Air Duct
M	EXHS	SUPT			Duct and Equipment Supports
			SEIS		Support - Seismic Restraint
M	EXHS	VIBR			Vibration Isolation

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	FUEL				Fuel System
M	FUEL	ACCS			System Access

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	FUEL	ACCS	DOOR		Access Door
			LADD		Access Ladder
M	FUEL	DEVC			Devices/Accessories/Instruments
M	FUEL	DIES			Diesel Fuel
			CTRL		Diesel Fuel Controls, Alarm Panels, Sensors
			DEVC		Diesel Fuel Devices/Accessories/Instruments
			DISP		Diesel Fuel Dispenser
			EQPM		Diesel Fuel Equipment
			FLTR		Diesel Fuel Filter
			IDEN		Diesel Fuel Tags and Annotation
			INSU		Diesel Fuel Pie/Equipment Insulation
			METR		Diesel Fuel Meters
			PIPE		Diesel Fuel Pipe (Includes Fittings/Valves)
			PUMP		Deisel Fuel Pumps
			RETN		Diesel Fuel Return Piping (Includes Fittings, Valves)
			SPLY		Diesel Fuel Supply Piping (Includes Fittings, Valves)
			STRN		Diesel Fuel Strainer
			TANK		Diesel Fuel Tanks (Storage, Expansion, Surge)
			VALT		Diesel Fuel Vaults/Pits
M	FUEL	EQPM			General Equipment
			PADS		Equipment Pads
M	FUEL	FLFO			Fuel Oil
			CTRL		Fuel Oil Controls, Alarm Panels, Sensors
			DEVC		Fuel Oil Devices/Accessories/Instruments
			DISP		Fuel Oil Dispenser
			EQPM		Fuel Oil Equipment
			FLTR		Fuel Oil Filter
			IDEN		Fuel Oil Tags and Annotation
			INSU		Fuel Oil Pipe/Equipment Insulation
			METR		Fuel Oil Meters
			PIPE		Fuel Oil Pipe (Includes Fittings/Valves)
			PUMP		Fuel Oil Pumps
			RETN		Fuel Oil Return Piping (Includes Fittings, Valves)
			SPLY		Fuel Oil Supply Piping (Includes Fittings, Valves)
			STRN		Fuel Oil Strainer
			TANK		Fuel Oil Tanks (Storage, Expansion, Surge)
			VALT		Fuel Oil Vaults/Pits
M	FUEL	FLGS			Gasoline
			CTRL		Gasoline Controls
M	FUEL	FLGS	DEVC		Gasoline Devices/Accessories/Instruments

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	FUEL	FLGS	DISP		Gasoline Dispensers
			EQPM		Gasoline Equipment
			FLTR		Gasoline Filters
			IDEN		Gasoline Tags and Annotation
			INSU		Gasoline Pipe/Equipment Insulation
			METR		Gasoline Meters
			PIPE		Gasoline Pipe (Includes Fittings/Valves)
			PUMP		Gasoline Pumps
			RETN		Gasoline Return Piping (Includes Fittings, Valves)
			SPLY		Gasoline Supply Piping (Includes Fittings, Valves)
			TANK		Gasoline Tanks (Storage, Expansion, Surge)
			VALT		Gasoline Vaults/Pits
M	FUEL	FLJT			Jet Fuel
			CTRL		Jet Fuel Controls, Alarm Panels, Sensors
			DEVC		Jet Fuel Devices/Accessories/Instruments
			DISP		Jet Fuel Dispensers
			EQPM		Jet Fuel Equipment
			FLTR		Jet Fuel Filters
			HTCH		Jet Fuel Hatch
			IDEN		Jet Fuel Tags and Annotation
			INSU		Jet Fuel Pipe/Equipment Insulation
			METR		Jet Fuel Meters
			PIPE		Jet Fuel General Pipe (Includes Fittings/Valves)
			PUMP		Jet Fuel Pumps
			RETN		Jet Fuel Return Piping (Includes Fittings, Valves)
			SPLY		Jet Fuel Supply Piping (Includes Fittings, Valves)
			STA~		Jet Fuel Truck Load/Unload Station
			STRC		Jet Fuel Structural Elements
			TANK		Jet Fuel Tanks (Storage, Expansion, Surge)
			TCSE		Jet Fuel Test Casing
			VALT		Jet Fuel Vaults/Pits
			WSTE		Jet Fuel Waste System Elements
M	FUEL	IDEN			Tags and Annotation
M	FUEL	LQPG			Liquid Propane Gas
			CTRL		Propane Controls, Alarm Panels, Sensors
			DEVC		Propane Devices/Accessories/Instruments
			EQPM		Propane Equipment
			IDEN		Propane Tags & Annotation
			INSU		Propane Pipe/Equipment Insulation

FUEL - FUEL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	FUEL	LQPG	METR		Propane Meters
			PIPE		Propane Piping (Includes Fittings/Valves)
			PREG		Propane Pressure Regulator
			STRN		Propane Strainer
			TANK		Propane Storage Tanks
			VENT		Propane Venting Elements
M	FUEL	PIPE			General Fuel Piping (Includes Fittings/Valves)
			SLVE		Pipe Sleeves
M	FUEL	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	FUEL	TANK			Tanks (Storage, Expansion, Surge)
			FROF		Floating Roof
			VALV		Tank Valves
			VENT		Tank Venting
M	FUEL	VALT			Vaults/Pits
M	FUEL	VENT			Venting Elements
M	FUEL	VIBR			Vibration Isolation

GLYC - GLYCOL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	GLYC				Glycol System
M	GLYC	CTRL			Controls
			SNSR		Sensors
M	GLYC	DEVC			Devices/Accessories/Instruments
M	GLYC	EQPM			Equipment
			PADS		Equipment Pads
			STRN		Strainers
M	GLYC	IDEN			Tags and Annotation
M	GLYC	INSU			Pipe and Equipment Insulation
M	GLYC	MHOL			Manhole
M	GLYC	PIPE			Piping (Includes Fittings, Valves)
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	GLYC	PUMP			Pumps
M	GLYC	RCOV			Recovery Point
M	GLYC	RSVR			Reservoir Point
M	GLYC	SUPT			Pipe and Equipment Supports
			SEIS		Seismic Restraints
M	GLYC	TANK			Tanks (Storage, Expansion, Surge)

GLYC - GLYCOL SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	GLYC	VALT			Vaults/Pits
M	GLYC	VIBR			Vibration Isolation

HVAC - HEATING, VENTILATION, & AIR CONDITIONING

Discipline	Major	Minor 1	Minor 2	Status	Description
M	HVAC				Heating, Ventilation, & Air Conditioning
M	HVAC	ACCS			Access Doors
M	HVAC	CDFF			General Ceiling Diffusers
M	HVAC	CLDA			Cold Air
			DUCT		Cold Air Ductwork
M	HVAC	CTRL			Controls
			SNSR		Sensors
M	HVAC	DEVC			Devices/Accessories/Instruments
M	HVAC	DMPR			Fire, Smoke, and Volume Dampers
			AUTO		Automatic Dampers
			EXHS		Exhaust Air Dampers
			FIRE		Fire/Smoke Dampers
			MANL		Manual Dampers
			MKUP		Make-Up Air Dampers
			OAIR		Outside Air Dampers
			RETN		Return Air Dampers
			SPLY		Supply Air Dampers
M	HVAC	DUCT			General Ductwork
M	HVAC	EQPM			Equipment
			BLWR		Blowers
			BOXD		Dual Duct Mixing Box
			BOXS		Single Duct Mixing Box
			COIL		System Coils
			CU~~		Condensing Unit
			DHMD		Dehumidifier
			DRAN		Equipment Drains
			EFAN		Equipment w/ Electric Fans
			EPDU		Equipment w/ Pipe, Duct, Electricity
			EPIP		Equipment w/ Pipe and Electricity
			FPTU		Fan Powered Terminal Unit
			HMID		Humidifier
			MOTR		Motor
			PADS		Equipment Pads
			PLNM		Plenum
			TU~~		Terminal Unit
			TUDD		Dual Duct Terminal Unit

HVAC - HEATING, VENTILATION, & AIR CONDITIONING

Discipline	Major	Minor 1	Minor 2	Status	Description
M	HVAC	EQPM	TUSD		Single Duct Terminal Unit
			UHTR		Unit Heater
M	HVAC	EXHS			Exhaust Air
			DUCT		Exhaust Air Ductwork
			EQPM		Exhaust Air Equipment
			GRIL		Exhaust Air Grilles
M	HVAC	FANS			General Fans
			EXHS		Exhaust Air Fans
			RETN		Return Air Fans
			SPLY		Supply Air Fans
M	HVAC	FDFF			General Floor Diffusers
M	HVAC	FLTR			Filters
			CHAR		Charcoal Filters
			HEPA		HEPA Filters
M	HVAC	HOTA			Hot Air
			DUCT		Hot Air Ductwork
M	HVAC	IDEN			Tags & Annotation
M	HVAC	INSU			Duct/Equipment Insulation
M	HVAC	LUVR			Louvers
M	HVAC	MKUP			Make-Up Air
			DUCT		Make-Up Air Ductwork
M	HVAC	OAIR			Outside Air
			DUCT		Outside Air Ductwork
M	HVAC	ODFF			Other Diffusers
M	HVAC	RETN			Return Air
			DUCT		Return Air Ductwork
			GRIL		Return Air Grilles & Registers
M	HVAC	RDFF			Return Air Diffusers & Registers
M	HVAC	ROOF			Roof Mounted Equipment
M	HVAC	SDFF			Supply Diffusers
M	HVAC	SPLY			Supply Air
			DUCT		Supply Air Ductwork
			GRIL		Supply Air Grille
M	HVAC	SUPT			Duct/Equipment Supports
			SEIS		Seismic Restraints
M	HVAC	VIBR			Vibration Isolation
M	HVAC	WDFF			Wall Diffusers, Registers, and Grilles

HWTR - HEATING HOT WATER SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	HWTR				Heating Hot Water System
M	HWTR	CTRL			Controls
			SNSR		Sensors
M	HWTR	DEVC			Devices/Accessories/Instruments
M	HWTR	EQPM			Equipment
			BLR~		Boiler
			COIL		Coils
			HEX~		Heat Exchanger
			PADS		Equipment Pads
			STRN		Strainer
M	HWTR	IDEN			Tags & Annotation
M	HWTR	INSU			Pipe/Equipment Insulation
M	HWTR	MHOL			Manhole
M	HWTR	PIPE			General Piping (Includes Fittings/Valves)
			SLVE		Pipe Sleeves
M	HWTR	PUMP			Pumps
			PRIM		Primary Pumps
			SECD		Secondary Pumps
M	HWTR	RETN			Return Piping (Includes Fittings, Valves)
			SECD		Secondary Return Piping
M	HWTR	SPLY			Supply Piping (Includes Fittings, Valves)
			SECD		Secondary Supply Piping
M	HWTR	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	HWTR	TANK			Tanks (Storage, Expansion, Surge)
M	HWTR	VALT			Vaults
M	HWTR	VIBR			Vibration Isolation

HYDR - HYDRAULIC SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	HYDR				Hydraulic Systems
M	HYDR	CTRL			Controls
M	HYDR	DEVC			Devices/Accessories/Instruments
M	HYDR	EQPM			Equipment
			PADS		Equipment Pads
			STRN		Strainer
M	HYDR	IDEN			Tags & Annotation
M	HYDR	INSU			Pipe/Equipment Insulation
M	HYDR	MHOL			Manholes
M	HYDR	PIPE			Piping (Includes Fittings, Valves)

HYDR - HYDRAULIC SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	HYDR	PIPE	RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	HYDR	PUMP			Pumps
M	HYDR	SUPT			Piping and Equipment Supports
			SEIS		Seismic Restraints
M	HYDR	TANK			Tanks (Expansion, Surge, etc.)
M	HYDR	VALT			Vaults
M	HYDR	VIBR			Vibration Isolation

IWTP - INDUSTRIAL WASTEWATER TREATMENT PLANT

Discipline	Major	Minor 1	Minor 2	Status	Description
M	IWTP				Industrial Wastewater Treatment
M	IWTP	CTRL			Controls
			SNSR		Sensors
M	IWTP	DEVC			Devices/Accessories/Instruments
			FLSH		Flushing System Components
M	IWTP	DRAN			Drains
			COUT		Cleanouts
M	IWTP	EQPM			Equipment
			CENT		Centrifuge
			CLFY		Clarifier
			DGST		Digester
			FLTR		Filters
			OWS~		Oil/Water Separator
			PADS		
M	IWTP	IDEN			Tags and Annotation
M	IWTP	INLT			Inlets
			CBSN		Catch Basin
M	IWTP	MHOL			Manholes
M	IWTP	PIPE			Piping (Includes Fittings, Valves)
			RETN		Return Piping
			SPLY		Supply Piping
			SLVE		Pipe Sleeves
			VENT		Venting
M	IWTP	PUMP			Pumps
M	IWTP	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	IWTP	TANK			Tanks
M	IWTP	VALT			Vaults/Pits

IWTP - INDUSTRIAL WASTEWATER TREATMENT PLANT

Discipline	Major	Minor 1	Minor 2	Status	Description
M	IWTP	VIBR			Vibration Isolation

MATL - MATERIAL HANDLING

Discipline	Major	Minor 1	Minor 2	Status	Description
M	MATL				Material Handling
M	MATL	CRAN			Bridge Cranes, Jib Cranes, and Monorails
M	MATL	HOIS			Hoists and Hooks
M	MATL	LIFT			Miscellaneous Lifting Equipment

NGAS - NATURAL GAS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	NGAS				Natural Gas System
M	NGAS	CTRL			Controls
			ALRM		Alarms
			SNSR		Sensors
M	NGAS	DEVC			Devices/Accessories/Instruments
M	NGAS	EQPM			Equipment
			COIL		Gas Fired Heater Coil
			PADS		Equipment Pads
			PREG		Pressure Regulator
			STRN		Strainer
M	NGAS	IDEN			Tags and Annotation
M	NGAS	INSU			Pipe/Equipment Insulation
M	NGAS	METR			Meters
			MUNI		City Meters
			PORT		Port of Seattle Meters
M	NGAS	MHOL			Manhole
M	NGAS	PIPE			Piping (Includes Fittings, Valves)
			SLVE		Pipe Sleeves
M	NGAS	SUPT			Pipe/Equipment Support
			SEIS		Seismic Restraints
M	NGAS	VENT			Venting
M	NGAS	VIBR			Vibration Isolation

PENE - PENETRATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	PENE				Mechanical Penetrations
M	PENE	FLOR			Floor Penetrations
M	PENE	ROOF			Roof Penetrations
M	PENE	WALL			Wall Penetrations

PROC - PROCESS PIPING

Discipline	Major	Minor 1	Minor 2	Status	Description
M	PROC				Process System
M	PROC	CTRL			Controls (Sensors, etc.)
M	PROC	DEVC			Devices/Accessories/Instruments
			SNSR		Sensors
M	PROC	EQPM			Equipment
			HEX~		Heat Exchanger
			PADS		Equipment Pads
			STRN		Strainer
M	PROC	IDEN			Tags and Annotation
M	PROC	INSU			Pipe/Equipment Insulation
M	PROC	MHOL			Manholes
M	PROC	PIPE			Piping (Includes Fittings, Valves)
			AR~~		Argon Gas Piping
			LGAS		Lab Gas Piping
			N2~~		Nitrogen Gas Piping
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
			TEMP		Temporary Hot Water Piping
M	PROC	PUMP			Pumps
M	PROC	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	PROC	TANK			Tanks (Expansion, Surge, Storage)
M	PROC	VALT			Vaults/Pits
M	PROC	VIBR			Vibration Isolation

RCOV - ENERGY RECOVERY SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	RCOV				Energy Recovery System
M	RCOV	CTRL			Controls
M	RCOV	EQPM			Equipment
			PADS		Equipment Pads
M	RCOV	IDEN			Tags & Annotation
M	RCOV	PIPE			Piping (Includes Fittings, Valves)

REFG - REFRIGERATION SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	REFG				Refrigeration System
M	REFG	AMMO			Ammonia System
			AHU~		Ammonia Air Handling Unit

REFG - REFRIGERATION SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	REFG	AMMO	CMPR		Ammonia Compressor
			COIL		Ammonia Coils
			CTRL		Ammonia Controls
			CU~~		Ammonia Condensing Unit
			EQPM		Ammonia Equipment
			IDEN		Ammonia Tags and Annotation
			PIPE		Ammonia Piping (Includes Fittings, Valves)
			PUMP		Ammonia Pumps
			RCVR		Ammonia Receiver
			RETN		Ammonia Return Piping (Includes Fittings, Valves)
			SPLY		Ammonia Supply Piping (Includes Fittings, Valves)
M	REFG	CTRL			Controls
			SNSR		Sensors
M	REFG	DEVC			Devices/Accessories/Instruments
M	REFG	DISC			Discharge
M	REFG	EQPM			Equipment
			AHU~		Air Handling Unit
			CMPR		Compressor
			COIL		Coils
			CU~~		Condensing Unit
			PADS		Equipment Pads
			RCVR		Receiver
M	REFG	IDEN			Tags and Annotation
M	REFG	INSU			Pipe/Equipment Insulation
M	REFG	PIPE			Piping (Includes Fittings, Valves)
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	REFG	PUMP			Pumps
M	REFG	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	REFG	VIBR			Vibration Isolation

SMOK - SMOKE EXTRACTION SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	SMOK				Smoke Extraction System
M	SMOK	CDFF			Ceiling Diffusers
M	SMOK	CTRL			Controls
M	SMOK	DEVC			Devices/Accessories/Instruments
M	SMOK	DUCT			Ductwork

SMOK - SMOKE EXTRACTION SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
M	SMOK	EQPM			Equipment
M	SMOK	IDEN			Tags and Annotation
M	SMOK	SUPT			Duct/Equipment Supports

STEM - STEAM SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	STEM				Steam System
M	STEM	CTRL			Controls (Sensors, etc.)
			SNSR		Sensors
M	STEM	DEVC			Devices/Accessories/Instruments
M	STEM	EQPM			Equipment
			BLR~		Boiler
			COIL		Coils
			DRUM		Steam Drum
			HEX~		Heat Exchanger
			PADS		Equipment Pads
			STRN		Strainer
			TRAP		Trap
M	STEM	EXPJ			Expansion Joint
M	STEM	IDEN			Tags and Annotation
M	STEM	INSU			Pipe/Equipment Insulation
M	STEM	MHOL			Manhole
M	STEM	PIPE			Piping (Includes Fittings, Valves)
			BLBD		Boiler Blowdown Piping
			CNDS		Condensate Piping
			HPIP		High Pressure Piping
			LPIP		Low Pressure Piping
			MPIP		Medium Pressure Piping
			RETN		Return Piping
			SLVE		Pipe Sleeves
			SPLY		Supply Piping
M	STEM	SUPT			Pipe and Equipment Supports
			SEIS		Seismic Restraints
M	STEM	TANK			Tanks
			BLDN		Blowdown Tank
M	STEM	VALT			Vaults/Pits
M	STEM	VIBR			Vibration Isolation

TANK - MISCELLANEOUS STORAGE TANKS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	TANK				General Storage Tanks
M	TANK	ACCS			Tank Access
			DOOR		Man Door
			LADD		Access Ladder
M	TANK	CTRL			Controls (Sensors, etc.)
			SNSR		Sensors
M	TANK	DEVC			Devices/Accessories/Instruments
M	TANK	DRAN			Tank Drains
M	TANK	FBRG			Fiberglass Tanks
M	TANK	IDEN			Tags & Annotation
M	TANK	INSU			Tank Insulation
M	TANK	PADS			Equipment Pads
M	TANK	PLAS			Plastic Tanks
M	TANK	STEL			Steel Tanks
M	TANK	SUPT			Supports
			SEIS		Seismic Restraints
M	TANK	VALV			Tank Valves
M	TANK	VENT			Tank Venting
M	TANK	VIBR			Vibration Isolation

VACU - VACUUM SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
M	VACU				Vacuum System
M	VACU	CTRL			Controls
			SNSR		Sensors
M	VACU	DEVC			Devices/Accessories/Instruments
M	VACU	EQPM			Equipment
			COND		Condenser
			DRYR		Air Dryer/Liquid Separator
			FLTR		Filter
			HBIB		Hose Bibb
			PADS		Equipment Pads
			STRN		Strainer
M	VACU	PIPE			Piping (Includes Fittings, Valves)
			SLVE		Pipe Sleeves
M	VACU	PUMP			Pumps
M	VACU	SUPT			Pipe/Equipment Supports
			SEIS		Seismic Restraints
M	VACU	TANK			Tanks
M	VACU	VIBR			Vibration Isolation

Plumbing Layers

Notes for Plumbing Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

DOMW - DOMESTIC WATER SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
P	DOMW				Domestic Water System
P	DOMW	ACCS			Access Doors/Panels
P	DOMW	CTRL			Controls
P	DOMW	DEVC			Devices/Accessories/Instruments
			DCBA		Double Check Backflow Assembly
			HBIB		Hose Bibb
			RPBA		Reduced Pressure Backflow Assembly
			SPGT		Spigot
			STRN		Strainers
			TMV~		Valves - Mixing Valve
P	DOMW	EQPM			Equipment
			PADS		Equipment Pads
P	DOMW	FIXT			Fixtures (Eyewash, Faucet, Sink, etc.)
P	DOMW	HYDT			Hydrants
			WALL		Wall Hydrant
			YARD		Yard Hydrant
P	DOMW	IDEN			Tags & Annotation
P	DOMW	INSU			Pipe/Equipment Insulation
P	DOMW	METR			Meters
			MUNI		Municipal Owned
			PORT		Port Owned Meters
P	DOMW	MHOL			Manholes
P	DOMW	MKUP			Make-up Water
P	DOMW	PIPE			Piping (Includes Fittings/Valves)
			CPIP		Cold Water Piping
			FPIP		Filtered Water Piping
			HPIP		Hot Water Piping
			RPIP		Hot Water Recirculation Piping
			SLVE		Pipe Sleeves
P	DOMW	PUMP			Pumps
P	DOMW	RISR			Hot and Cold-Water Risers
P	DOMW	SUPT			Pipe and Equipment Supports
			SEIS		Seismic Support/Restraints
P	DOMW	TANK			Tanks (Expansion, Surge, Storage)
P	DOMW	VALT			Vaults/Pits
P	DOMW	VIBR			Vibration Isolation

NOTE: REFER TO CIVIL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

SSWR - SANITARY SEWER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
P	SSWR				Sanitary Sewer System
P	SSWR	CTRL			Controls
P	SSWR	DEVC			Devices/Accessories/Instruments
			INST		Instrumentation
P	SSWR	DRNS			Drains
			COUT		Cleanouts
			EQPM		Equipment Drains
			FLOR		Floor Drains, Floor Sinks
P	SSWR	EQPM			Equipment
			PADS		Equipment Pads
P	SSWR	FIXT			Plumbing Fixtures
P	SSWR	FLOW			Flow Line
			MNTR		Flow Monitoring Station
P	SSWR	IDEN			Tags and Annotation
P	SSWR	MHOL			Manhole
P	SSWR	PIPE			Piping (Includes Fittings)
			COND		Condensate Piping
			DRAN		Drain Piping
			FORC		Force Main Piping
			GRAV		Gravity Drain
			SLVE		Pipe Sleeves
			VENT		Vent Piping
P	SSWR	RISR			Risers
P	SSWR	ROOF			Roof Elements
P	SSWR	SUPT			Racks and Supports
			SEIS		Seismic Restraints
P	SSWR	UNID			Unidentified Elements
P	SSWR	VALT			Vaults/Pits
P	SSWR	VALV			Valves
P	SSWR	VENT			Vent Pits/Venting Elements

NOTE: REFER TO CIVIL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

STRM - STORM SEWER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
P	STRM				Storm Sewer
P	STRM	CTRL			Controls
P	STRM	DEVC			Devices/Accessories/Instruments
P	STRM	DRNS			Storm System Drains
			COUT		Cleanouts
			DECK		Deck Drains

STRM - STORM SEWER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
P	STRM	DRNS	FLOR		Floor Drains, Floor Sinks
			FLSH		Gutter Flush
			GUTR		Gutter
			ROOF		Roof Drains/Downspouts
			SUBD		Subsurface Drain Elements
			UNDR		Under-Drain Elements
			UNID		Unidentified Drains
P	STRM	EQPM			Equipment
			OWS~		Oil/Water Separator
P	STRM	FLOW			Flow Line
			MNTR		Flow Monitoring Station
P	STRM	IDEN			Tags and Annotation
P	STRM	INLT			Inlets
			CBSN		Catch Basin
P	STRM	LIFT			Lift stations
P	STRM	MHOL			Manholes
			COMB		Combined Sewer/Storm
			MTRO		Metro
			STRC		Manhole Water Structure
			UNID		Unidentified
P	STRM	PIPE			Piping (Includes Fittings)
			FORC		Force Main Piping
			GRAV		Gravity Drain
			HALF		Gutter Pipe Half
			NPRF		Non-Perforated Piping
			PERF		Perforated Piping
			RISR		Riser Piping
			ROOF		Roof Drain Piping
			SLVE		Pipe Sleeves
			STUB		Pipe Stub
P	STRM	RISR			Drainage Risers
P	STRM	SUPT			Racks and Supports
			SEIS		Seismic Restraints
P	STRM	UNID			Unidentified Elements
P	STRM	VALT			Vaults/Pits
P	STRM	VALV			Valves
P	STRM	VENT			Venting Elements

NOTE: REFER TO CIVIL LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

Electrical Layers

Notes for Electrical Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

ACCS - ACCESS SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	ACCS				Access Systems
E	ACCS	CTRL			Controls
			BUSW		Control Busways
			CIRC		Control Circuits
			COND		Control Conduits
			EQPM		Control Equipment
			IDEN		Control Line #
			PANL		Control Panels
			WIRE		Control Wiring
E	ACCS	DEVC			Devices/Accessories/Instruments
E	ACCS	EQPM			Equipment
			CRDR		Card Reader
E	ACCS	GRND			Grounding
E	ACCS	IDEN			Tags and Annotation
E	ACCS	JBOX			Junction Box
E	ACCS	MAIN			Main Control Power
E	ACCS	POWR			Power Elements
			BUSW		Power Busways
			CIRC		Power Circuits
			COND		Power Conduits
			EQPM		Power Equipment
			IDEN		Power Line #
			PANL		Power Panels
			WIRE		Power Wiring

ALRM - ALARM SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	ALRM				Alarm Systems
E	ALRM	CABL			Cable
			TRAY		Cable Tray
E	ALRM	CTRL			Control Elements
			BUSW		Control Busways
			CIRC		Control Circuits
			COND		Control Conduit
			PANL		Control Panel
			WIRE		Control Wiring
E	ALRM	DEVC			Devices/Accessories/Instruments
E	ALRM	EQPM			Equipment
			BELL		Pushbuttons, Horns, Bells, Buzzers, etc.
			CLNG		Ceiling-Mounted

ALRM - ALARM SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	ALRM	EQPM	DOOR		Door-Mounted
			FLOR		Floor-Mounted
			GATE		Gate-Mounted
			WALL		Wall-Mounted
E	ALRM	FIRE			Fire Alarm
E	ALRM	HHOL			Hand Hole
E	ALRM	IDEN			Tags and Annotation
E	ALRM	JBOX			Junction Box
E	ALRM	POWR			Power Elements
			BUSW		Power Busways
			CIRC		Power Circuits
			COND		Power Conduit
			GRND		Ground for Electrical Power
			PANL		Power Panel
			WIRE		Power Wiring

BAGS - BAGGAGE SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	BAGS				Baggage System Electrical
E	BAGS	CTRL			Controls
			BUSW		Control Busways
			CIRC		Control Circuits
			COND		Control Conduit
			IDEN		Control Line Number
			WIRE		Control Wiring
E	BAGS	EQPM			Equipment
			APSY		Audio Paging System
			ATMS		Advanced Traffic Management System
			AVID		Auto Vehicle Identification System
			BIDS		Information Display System
			FIDS		Flight Info Display System
			GISY		Gate Info System
			PMRC		Parking Management & Revenue Control System
			VPSY		Visual Paging System
			XRAY		X-Ray Machine
E	BAGS	GRND			Grounding
E	BAGS	IDEN			Tags and Annotation
E	BAGS	JBOX			Junction Box
E	BAGS	POWR			Power Elements

BAGS - BAGGAGE SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	BAGS	POWR	BUSW		Power Busways
			CIRC		Power Circuits
			COND		Power Conduit
			GRND		Ground for Electrical Power
			PANL		Power Panel
			WIRE		Power Wiring

BCNS - BEACONS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	BCNS				Beacons
E	BCNS	IDEN			Tags and Annotation
E	BCNS	MISC			Misc. Nav aids - Wind Cones and Beacons
E	BCNS	STRB			Strobe

CATV - CABLE SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
E	CATV				Cable Television Systems
E	CATV	AUDI			Audio/Visual Components
E	CATV	CABL			Cables
			COAX		Coaxial Cable
			FIBR		Fiber Optic Cable
			MULT		Multi-Conductor cable
			TRAY		Trays and Wireways
E	CATV	CIRC			Circuits
			CNMB		Circuit Numbers
E	CATV	CLNG			Ceiling Elements
E	CATV	COND			Conduit
E	CATV	CTRL			Controls
E	CATV	DEVC			Devices/Accessories/Instruments
E	CATV	EQPM			Equipment
E	CATV	FLOR			Floor Elements
E	CATV	GRND			Grounding
E	CATV	IDEN			Tags and Annotation
E	CATV	SATD			Satellite Dish/Disk
E	CATV	WALL			Wall Elements

CATH - CATHODIC PROTECTION SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
E	CATH				Cathodic Protection Systems
E	CATH	ANOD			Anode Terminal
E	CATH	AREA			Areas w/ Specific Boundaries

CATH - CATHODIC PROTECTION SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
E	CATH	AUXL			Auxiliary
E	CATH	BASE			Base
E	CATH	CABL			Cathodic Cable
E	CATH	CIRC			Circuits
E	CATH	COND			Conduit
E	CATH	CTRL			Controls
E	CATH	CURR			Impress Current
E	CATH	DEVC			Devices/Accessories/Instruments
E	CATH	EQPM			Equipment
E	CATH	GRND			Grounding
E	CATH	HHOL			Hand Hole
E	CATH	HIDE			Hidden/Below
E	CATH	IDEN			Tags and Annotation
E	CATH	JBOX			Junction Box
E	CATH	MHOL			Manhole
E	CATH	OTLN			Object Outlines
E	CATH	OVHD			Overhead/Above
E	CATH	PANL			Panels
E	CATH	PATT			Textures/Hatching
E	CATH	PIPE			Piping
E	CATH	PROP			Property Lines
			MUNI		Non-Port Property
			PORT		Port Property
E	CATH	STRC			Structural Elements
E	CATH	TEST			Test Stations

CIRC - CIRCUITS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	CIRC				General Circuits
E	CIRC	CTRL			Control and Monitoring Circuits
E	CIRC	IDEN			Tags & Annotation
E	CIRC	MULT			Multiple Circuits
E	CIRC	SERS			Series Circuits

COMM - COMMUNICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	COMM				Communication Systems
E	COMM	CABL			Telephone Cable
			COAX		Coaxial Cable

COMM - COMMUNICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
E	COMM	CABL	FIBR		Fiber Optic Cable
			MULT		Multi-Conductor Cable
			TRAY		Trays and Wireways
E	COMM	CIRC			Circuits
			CNMB		Circuit Numbers
E	COMM	COND			Conduits
E	COMM	CTRL			Controls
E	COMM	DEVC			Devices/Accessories/Instruments
E	COMM	EQPM			Distribution Equipment
E	COMM	HHOL			Hand Hole
E	COMM	IDEN			Tags and Annotation
E	COMM	JBOX			Junction Box
E	COMM	MHOL			Manhole
E	COMM	OVHD			Overhead Communication/Telephone Elements
E	COMM	PANL			Panel
E	COMM	POLE			Telephone Pole
E	COMM	STRC			Structural Elements
E	COMM	TOWR			Radio Tower
			EQPM		Radio Tower Equipment
E	COMM	UGND			Underground Elements
E	COMM	VALT			Vaults

NOTE: REFER TO TELECOMMUNICATION LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

DATA - DATA & COMPUTER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
E	DATA				Data Systems
E	DATA	CABL			Cable
			COAX		Coaxial Cable
			FIBR		Fiber Optic Cable
			MULT		Multi-Conductor Cable
			TRAY		Trays and Wireways
E	DATA	CIRC			Circuits
			CNMB		Circuit Number
E	DATA	COND			Conduit
E	DATA	CTRL			Controls & Instrumentation
			WIRE		Control Wiring
E	DATA	DEVC			Devices/Accessories/Instruments
E	DATA	EQPM			Equipment
			VIDO		Video Equipment
E	DATA	GRND			Grounding

DATA - DATA & COMPUTER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
E	DATA	IDEN			Tags and Annotation
E	DATA	JBOX			Junction Box
E	DATA	MHOL			Manhole
E	DATA	NETW			Network Components
E	DATA	PANL			Panels
E	DATA	STRC			Structural Elements
E	DATA	SUPT			Racks/Support

NOTE: REFER TO TELECOMMUNICATION LAYER LIST FOR ADDITIONAL MINOR GROUP FIELDS

DUCT - UNDERGROUND DUCT BANK

Discipline	Major	Minor 1	Minor 2	Status	Description
E	DUCT				General Duct Banks
E	DUCT	COMM			Communication Duct Bank
E	DUCT	LITE			Lighting Duct Bank
E	DUCT	IDEN			Tags and Annotation
E	DUCT	MULT			Multiple Utility Duct Bank
E	DUCT	POWR			Power Duct Bank
			EMLV		Emergency Low Volt Power Duct Bank
			EMMV		Emergency Medium Volt Power Duct Bank
			NPHV		Normal Power High Volt Duct Bank
			NPLV		Normal Power Low Volt Duct Bank
			NPMV		Normal Power Medium Volt Duct Bank

GRND - GROUNDING SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
E	GRND				General Grounding Systems
E	GRND	CIRC			Circuits
			CNMB		Circuit Numbers
E	GRND	COND			Conduit
E	GRND	EQPM			Equipment
E	GRND	HHOL			Hand Hole
E	GRND	IDEN			Tags and Annotation
E	GRND	JBOX			Junction Box

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
E	LITE				Normal Lighting System
E	LITE	AFLD			Airfield Lighting
			APPR		Airfield Lighting: Approach Lights

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
			APRN		Airfield Lighting: Apron Lighting
			DIST		Airfield Lighting: Distance and Arresting Gear Markers/Lights
			OBST		Airfield Lighting: Obstruction Lights
E	LITE	CCR~			Normal Lighting: Constant Current Regulator
E	LITE	CIRC			Normal Lighting: Circuits
			CNMB		Normal Lighting: Circuit Number
E	LITE	CLNG			Normal Lighting: Ceiling Elements
E	LITE	COND			Normal Lighting: Conduit
E	LITE	CTRL			Normal Lighting: Controls
			PANL		Normal Lighting: Panels
			SNSR		Normal Lighting: Sensors
E	LITE	DEVC			Normal Lighting: Devices/Accessories/Instruments
E	LITE	DUCT			Normal Lighting: Duct Bank
E	LITE	EMER			Emergency Lighting
			CCR~		Emergency Lighting: Constant Current Regulator
			CIRC		Emergency Lighting: Circuits
			CLNG		Emergency Lighting: Ceiling Elements
			CNMB		Emergency Lighting: Circuit Numbers
			COND		Emergency Lighting: Conduit
			CTRL		Emergency Lighting: Controls
			EQPM		Emergency Lighting: Equipment
			EXIT		Emergency Lighting: Exit Fixtures
			FEED		Emergency Lighting: Feeders
			FIXT		Emergency Lighting: Fixtures
			GRND		Emergency Lighting: Ground for Electrical Power
			IDEN		Emergency Lighting: Tags and Annotation
			JBOX		Emergency Lighting: Junction Box
			NAVG		Emergency Lighting: Marine GYRS System Navigation Lights
			PANL		Emergency Lighting: Panels
			SNSR		Emergency Lighting: Sensors
			SWCH		Emergency Lighting: Switches
			WALL		Emergency Lighting: Wall Elements
			XFMR		Emergency Lighting: Transformers
E	LITE	EQPM			Normal Lighting: Equipment
E	LITE	EXTR			Normal Lighting: Exterior Elements
E	LITE	FEED			Normal Lighting: Feeders
E	LITE	FIXT			Normal Lighting: Fixtures
E	LITE	GRND			Normal Lighting: Ground for Electrical Power
E	LITE	IDEN			Normal Lighting: Tags and Annotation

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
E	LITE	JBOX			Normal Lighting: Junction boxes
E	LITE	ROOF			Normal Lighting: Rooftop Elements
E	LITE	RUNW	CNTR		Runway Lighting: Runway Centerline Lights
			DTGS		Runway Lighting: Distance To Go Lights
			EDGE		Runway Lighting: Edge Lights
			GARD		Runway Lighting: Guard Lights
			TDZN		Runway Lighting: Touchdown Zone Lights
			THRS		Runway Lighting: Threshold Markers/Lights
E	LITE	SPCL			Normal Lighting: Specialty Fixtures
E	LITE	SWCH			Normal Lighting: Switches
E	LITE	TAXI	CNTR		Taxiway Lighting: Centerline Lights
			EDGE		Taxiway Lighting: Edge Lights
			SIGN		Taxiway Lighting: Guidance Signs
E	LITE	WALL			Normal Lighting: Wall Elements
E	LITE	XFMR			Normal Lighting: Transformers

POWR - POWER

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR				Power System
E	POWR	BUSW			Busways and Wireways
E	POWR	CABL			Cables
			COAX		Coaxial Cable
			FIBR		Fiber Optic Cable
			MULT		Multi-Conductor Cable
			TRAY		Cable Tray
E	POWR	CIRC			Circuits
			CNMB		Circuit Numbers
E	POWR	CLNG			Ceiling Outlets (Receptacles/Switches)
E	POWR	COND			Conduits
			CNTR		Center Line Conduit
			UGND		Underground Conduit
E	POWR	CTRL			Controls
			REEF		Reefer Outlet
			SNSR		Sensors
E	POWR	DEVC			Devices/Accessories/Instruments
E	POWR	EMER			Emergency Power
E	POWR	EQPM			Equipment
			AUXL		Auxiliary Equipment
			CBOX		Combiner Box
			GENR		Generators
			MOTR		Motors/Utilization Equipment

POWR - POWER

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	FEED			Feeders
E	POWR	FLOR			Floor Outlets (Receptacles/Switches)
E	POWR	G480			Elements Greater Than 480V
E	POWR	GRND			Ground Rod/Ground Rod Box
E	POWR	GYWR			Guy Wires
E	POWR	IDEN			Tags and Annotation
E	POWR	HHOL			Hand Hole
E	POWR	JBOX			Junction Box
E	POWR	L480			Elements Less Than 480V
E	POWR	METR			Meter
			MUNI		City Meter
			PORT		Port Meter
E	POWR	MHOL			Manhole
E	POWR	MNTR			Monitoring System
E	POWR	PANL			Panels
E	POWR	RACE			Raceways
			UFLR		Underfloor raceways
E	POWR	RCPT			Receptacles/Outlets
E	POWR	ROOF			Roof Top Elements
E	POWR	SBST			Substation
E	POWR	STRC			Power System Structural Elements
E	POWR	SWBD			Switchboard
E	POWR	SWCH			Switches
E	POWR	SWGR			Switchgear
E	POWR	TRCH			Trench
E	POWR	UCPT			Under-Carpet Wiring
E	POWR	UNID			Unidentified/Unknown Elements
E	POWR	VALT			Vaults
E	POWR	WALL			Wall Outlets (Receptacles/Switches)
E	POWR	XFMR			Transformers

POWR - EMERGENCY LOW VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	EMLV			Emergency Low Volt Power
			BUSW		Busways and Wireways
			CABL		Cables
			CCR~		Constant Current Regulator
			CIRC		Circuits
			COND		Conduits
			CLNG		Ceiling Outlets (Receptacles/Switches)

POWR - EMERGENCY LOW VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	EMLV	CNMB		Circuit Number
			COND		Conduits
			CTRL		Controls
			DEVC		Devices/Accessories/Instruments
			EQPM		Equipment
			FEED		Feeder
			FLOR		Floor Outlets (Receptacles/Switches)
			GRND		Grounding
			GYWR		Guy Wire
			HHOL		Hand Hole
			IDEN		Tags and Annotation
			JBOX		Junction Box
			METR		Meters
			MHOL		Manhole
			MNTR		Monitoring
			PANL		Panels
			PBOX		Pull Box
			POLE		Power Pole
			RCPT		Receptacle/Outlet
			REEF		Reefer Outlet
			SBST		Substation
			SNSR		Sensors
			SWBD		Switchboard
			SWGR		Switchgear
			TCAN		Transformer Can
			TRAY		Cable Tray
			WALL		Wall Outlets (Receptacles/Switches)
			XFMR		Transformers

POWR - EMERGENCY MEDIUM VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	EMMV			Emergency Medium Volt
			BUSW		Busways and Wireways
			CABL		Cables
			CCR~		Constant Current Regulator
			CLNG		Ceiling Outlets (Receptacles/Switches)
			CIRC		Circuits
			CNMB		Circuit Number
			COND		Conduits
			CTRL		Controls
			DEVC		Devices/Accessories/Instruments

POWR - EMERGENCY MEDIUM VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	EMMV	EQPM		Equipment
			FEED		Feeder
			FLOR		Floor Outlets (Receptacles/Switches)
			GRND		Grounding
			GYWR		Guy Wire
			HHOL		Hand Hole
			IDEN		Tags and Annotation
			JBOX		Junction Box
			METR		Meters
			MHOL		Manhole
			MNTR		Monitoring
			PANL		Panels
			PBOX		Pull Box
			POLE		Power Pole
			RCPT		Receptacle/Outlet
			REEF		Reefer Outlet
			SBST		Substation
			SNSR		Sensors
			SWBD		Switchboard
			SWGR		Switchgear
			TCAN		Transformer Can
			TRAY		Cable Tray
			WALL		Wall Outlets (Receptacles/Switches)
			XFMR		Transformers/Cans

POWR - NORMAL LOW VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	NPLV			Normal Low Volt
			BUSW		Busways and Wireways
			CABL		Cables
			CCR~		Constant Current Regulator
			CLNG		Ceiling Outlets (Receptacles/Switches)
			CIRC		Circuits
			CNMB		Circuit Number
			COND		Conduits
			CTRL		Controls
			DEVC		Devices/Accessories/Instruments
			EQPM		Equipment
			FEED		Feeder
			FLOR		Floor Outlets (Receptacles/Switches)

POWR - NORMAL LOW VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
			GRND		Grounding
			GYWR		Guy Wire
			HHOL		Hand Hole
			IDEN		Tags and Annotation
			JBOX		Junction Box
			METR		Meters
			MHOL		Manhole
			MNTR		Monitoring
			PANL		Panels
			POLE		Power Pole
			RCPT		Receptacles/Outlets
			REEF		Reefer Outlet
			SBST		Substation
			SNSR		Sensors
			SWBD		Switchboard
			SWGR		Switchgear
			TCAN		Transformer Can
			TRAY		Cable Tray
			WALL		Wall Outlets (Receptacles/Switches)
			XFMR		Transformers/Cans

POWR - NORMAL MEDIUM VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	NPMV			Normal Medium Volt
			BUSW		Busways and Wireways
			CABL		Cables
			CCR~		Constant Current Regulator
			CLNG		Ceiling Outlets (Receptacles/Switches)
			CIRC		Circuits
			CNMB		Circuit Number
			CLNG		Ceiling Outlets (Receptacles/Switches)
			COND		Conduits
			CTRL		Controls
			DEVC		Devices/Accessories/Instruments
			EQPM		Equipment
			FEED		Feeder
			FLOR		Floor Outlets (Receptacles/Switches)
			GRND		Grounding
			GYWR		Guy Wire
			HHOL		Hand Hole

POWR - NORMAL MEDIUM VOLTAGE (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	NPMV	IDEN		Tags and Annotation
			JBOX		Junction Box
			METR		Meters
			MHOL		Manhole
			MNTR		Monitoring
			PANL		Panels
			POLE		Power Pole
			RCPT		Receptacles/Outlets
			REEF		Reefer Outlet
			SBST		Substation
			SNSR		Sensors
			SWBD		Switchboard
			SWGR		Switchgear
			TCAN		Transformer Can
			TRAY		Cable Tray
			WALL		Wall Outlets (Receptacles/Switches)
			XFMR		Transformers/Cans

POWR - HIGH VOLTAGE OVER 480 (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	NPHV			High Volt
			BUSW		Busways and Wireways
			CABL		Cables
			CCR~		Constant Current Regulator
			CIRC		Circuits
			CNMB		Circuit Number
			CLNG		Ceiling Outlets (Receptacles/Switches)
			COND		Conduits
			CTRL		Controls
			DEVC		Devices/Accessories/Instruments
			EQPM		Equipment
			FEED		Feeder
			FLOR		Floor Outlets (Receptacles/Switches)
			GRND		Grounding
			GYWR		Guy Wire
			HHOL		Hand Hole
			IDEN		Tags and Annotation
			JBOX		Junction Box
			METR		Meters
			MHOL		Manhole

POWR - HIGH VOLTAGE OVER 480 (If Necessary for Design Intent)

Discipline	Major	Minor 1	Minor 2	Status	Description
E	POWR	NPHV	MNTR		Monitoring
			PANL		Panels
			POLE		Power Pole
			RCPT		Receptacles/Outlets
			REEF		Reefer Outlet
			SBST		Substation
			SNSR		Sensors
			SWBD		Switchboard
			SWGR		Switchgear
			TCAN		Transformer Can
			TRAY		Cable Tray
			WALL		Wall Outlets (Receptacles/Switches)
			XFMR		Transformers

Fire Protection Layers

Notes for Fire Protection Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

AFFF - AQUEOUS FILM FORMING FOAM SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
F	AFFF				Aqueous Film Forming Foam
F	AFFF	BLRD			Bollards
F	AFFF	CTRL			Controls
			SNSR		Sensors
F	AFFF	DEVC			Devices/Accessories/Instruments
F	AFFF	EQPM			Equipment
F	AFFF	HOSE			Hoses
			CABN		Hose Cabinets
			RACK		Hose Racks
F	AFFF	PIPE			Piping (Includes Fittings)
			SPLY		Supply Piping
F	AFFF	PUMP			Pumps
F	AFFF	SPKL			Sprinklers
F	AFFF	SUPT			Pipe and Equipment Support
F	AFFF	TANK			Tanks (Storage)
F	AFFF	VALT			Vaults/Pits
F	AFFF	VALV			Valves
			BFPA		Backflow Prevention Assembly
			ENCL		Valve Enclosures

ALRM - ALARM/DETECTION SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
F	ALRM				Fire Alarm & Detection System
F	ALRM	CTRL			Controls
			PANL		Control Panel
F	ALRM	DEVC			Devices/Accessories/Instruments
			COMB		Combination Detector
			FD~~		Fire Detector
			HD~~		Heat Detector
			SD~~		Smoke Detector
F	ALRM	FABX			Alarm Box
			MANL		Manual Pull Box
F	ALRM	FAS~			Alarm Station
			MANL		Manual Alarm Station
F	ALRM	IDEN			Tags & Annotation
F	ALRM	INDC			Indicating Appliances (Annunciators, Horns, Strobes, Bells, Chimes, etc.)
			FAAP		Annunciator Panel
			FABL		Bell
F	ALRM	PHON			Fire Service/Emergency Telephone Station
F	ALRM	WIRE			Wiring

CO2S - CO2 SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
F	CO2S				Carbon Dioxide (CO2) System
F	CO2S	CTRL			Controls
			SNSR		Sensors
F	CO2S	DEVC			Devices/Accessories/Instruments
F	CO2S	EQPM			Equipment
F	CO2S	IDEN			Tags and Annotation
F	CO2S	PIPE			Piping (Includes Fittings, Valves)
			DISC		Discharge Nozzle Piping
			SPLY		Supply Pipe
F	CO2S	PUMP			Pumps
F	CO2S	SUPT			Pipe and Equipment Supports

CTRL - CONTROLS

Discipline	Major	Minor 1	Minor 2	Status	Description
F	CTRL				Fire System Controls
F	CTRL	DEVC			Devices/Accessories/Instruments
F	CTRL	EQPM			Equipment
F	CTRL	IDEN			Tags & Annotation
F	CTRL	PANL			Panels
F	CTRL	SMOK	DMPR		Smoke Dampers
F	CTRL	SMOK	EQPM		Smoke/Pressurization Control Equipment

DELU - DELUGE SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
F	DELU				Fire Protection Deluge System
F	DELU	BLRD			Bollards
F	DELU	CIRC			Circuits
F	DELU	CTRL			Controls
			SNSR		Sensors
F	DELU	DEVC			Devices/Accessories/Instruments
			DTCT		Detection Devices
F	DELU	FDCN			Fire Dept Connection
			SIAM		Siamese Connection
F	DELU	HOSE			Hoses
			CABN		Hose Cabinet
			RACK		Hose Rack
F	DELU	IDEN			Tags & Annotation
F	DELU	PIPE			Piping (Includes Fittings)
			SPLY		Supply Piping
F	DELU	PUMP			Pumps

DELU - DELUGE SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
F	DELU	SPKL			Sprinklers
F	DELU	SUPT			Pipe and Equipment Support
F	DELU	TANK			Tanks (Storage)
F	DELU	VALT			Vaults/Pits
F	DELU	VALV			Valves
			BFPA		Backflow Prevention Assembly
			ENCL		Valve Enclosure

HALN - HALON SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
F	HALN				Halon System
F	HALN	CTRL			Controls
			SNSR		Sensors
F	HALN	DEVC			Devices/Accessories/Instruments
F	HALN	EQPM			Equipment
F	HALN	IDEN			Tags & Annotation
F	HALN	PIPE			Piping (Includes Fittings)
			SPLY		Supply Piping
F	HALN	PUMP			Pumps
F	HALN	SUPT			Pipe and Equipment Support
F	HALN	VALV			Valves

IGAS - INERT GAS

Discipline	Major	Minor 1	Minor 2	Status	Description
F	IGAS				Inert Gas System
F	IGAS	CTRL			Controls
			SNSR		Sensors
F	IGAS	DEVC			Devices/Accessories/Instruments
F	IGAS	EQPM			Equipment
F	IGAS	IDEN			Tags & Annotation
F	IGAS	PIPE			Piping
			SPLY		Supply Piping
F	IGAS	PUMP			Pumps
F	IGAS	SUPT			Pipe and Equipment Support
F	IGAS	VALV			Valves

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
F	LITE				Fire System Lighting
F	LITE	DEVC			Devices/Accessories/Instruments
F	LITE	EMER			Emergency Fixtures

LITE - LIGHTING

Discipline	Major	Minor 1	Minor 2	Status	Description
F	LITE	EXIT			Exit Fixtures
F	LITE	IDEN			Tags & Annotation

LSFT - LIFE SAFETY/EGRESS

Discipline	Major	Minor 1	Minor 2	Status	Description
F	LSFT				Life Safety/Egress
F	LSFT	DEVC			Devices/Accessories/Instruments
F	LSFT	EGRE			Egress Requirements Designator
F	LSFT	IDEN			Tags & Annotation
F	LSFT	OCCP			Occupant Load for Egress Capacity
F	LSFT	SYMB			Symbols
F	LSFT	TRVL			Maximum Travel Distances

PROT - FIRE PROTECTION/SUPPRESSION

Discipline	Major	Minor 1	Minor 2	Status	Description
F	PROT				Fire Protection System
F	PROT	DEVC			Devices/Accessories/Instruments
			ALRM		Alarms
F	PROT	DMPR			Dampers
			SMOK		Smoke Damper
F	PROT	EQPM			Equipment
F	PROT	EXTI			Extinguishers
			CABN		Extinguisher Cabinets
F	PROT	EQPM			Equipment
F	PROT	IDEN			Tags & Annotation
F	PROT	HOSE			Hoses
			CABN		Hose Cabinets
			RACK		Hose Rack
F	PROT	HYDT			Hydrants & Connections
F	PROT	PANL			System Panels
F	PROT	PIPE			Piping (Includes Fittings)
			SPLY		Supply Piping
F	PROT	PUMP			Pumps
F	PROT	SMOK			Smoke Control
			DEVC		Smoke Control Devices
			DTCT		Smoke Detectors
F	PROT	SUPT			Pipe & Equipment Supports
F	PROT	VALV			Valves

RATE - FIRE RATING

Discipline	Major	Minor 1	Minor 2	Status	Description
F	RATE				Fire Rating
F	RATE	CLNG			Ceilings
F	RATE	DOOR			Doors
F	RATE	IDEN			Tags & Annotation
F	RATE	WALL			Walls

SPKL - SPRINKLER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
F	SPKL				Sprinkler System
F	SPKL	BLRD			Bollards
F	SPKL	COMB			Combination System
F	SPKL	CTRL			Controls
			SNSR		Sensors
			SWCH		Switches
F	SPKL	DEVC			Devices/Accessories/Instruments
			DTCT		Detection Devices
F	SPKL	EQPM			Equipment
F	SPKL	FDCN			Fire Dept Connection
			SIAM		Siamese Connection
F	SPKL	HEAD			Sprinkler Heads
			CLNG		Ceiling Heads
			OTHR		Other Heads
			PEND		Pendent Heads
F	SPKL	HOSE			Hoses
			CABN		Hose Cabinet
			RACK		Hose Rack
F	SPKL	HYDT			Hydrants
F	SPKL	IDEN			Tags & Annotation
F	SPKL	PIPE			Piping (Includes Fittings)
			DSP~		Dry System Pipe
			RETN		Return Piping
			SPLY		Supply Piping
			STAN		Standpipe System
			WSP~		Wet Pipe System
F	SPKL	PUMP			Pumps
F	SPKL	SUPT			Pipe & Equipment Supports
F	SPKL	VALT			Vaults/Pits
F	SPKL	VALV			Valves
			BFPA		Backflow Prevention Assembly
			DSP~		Dry System Valves

SPKL - SPRINKLER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
F	SPKL	VALV	ENCL		Valve Enclosure
			WSP~		Wet System Valves

STND - BUILDING STANDPIPE SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
F	STND				Standpipe System
F	STND	BLRD			Bollards
F	STND	CTRL			Controls
			SNSR		Sensors
			SWCH		Switches
F	STND	DEVC			Devices/Accessories/Instruments
F	STND	EQPM			Equipment
F	STND	FDCN			Fire Dept Connection
			SIAM		Siamese Connection
F	STND	HOSE			Hoses
			CABN		Hose Cabinet
			RACK		Hose Rack
F	STND	IDEN			Tags & Annotation
F	STND	PIPE			Piping (Includes Fittings)
			DSP~		Dry Pipe System
			WSP~		Wet Pipe System
F	STND	PUMP			Pumps
F	STND	SPKL			Sprinklers
F	STND	SUPT			Pipe & Equipment Supports
F	STND	VALT			Vaults/Pits
F	STND	VALV			Valves
			BFPA		Backflow Prevention Assembly
			DSP~		Dry System Valves
			ENCL		Valve Enclosure
			WSP~		Wet System Valves
F	STND	WFDT			Water Flow Detection
			ALRM		Flow Detection - Alarm Valve
			PIV~		Flow Detection - Post Indicator Valve
			WMAL		Flow Detection - Water Motor Alarm Valve

WATR - WATER SUPPLY AND DISTRIBUTION

Discipline	Major	Minor 1	Minor 2	Status	Description
F	WATR				Water Supply
F	WATR	DEVC			Devices/Accessories/Instruments
F	WATR	FDCN			Fire Dept Connections

WATR - WATER SUPPLY AND DISTRIBUTION

Discipline	Major	Minor 1	Minor 2	Status	Description
F	WATR	HOSE			Hoses
F	WATR	HYDT			Hydrants
F	WATR	IDEN			Tags & Annotation
F	WATR	PIPE			Piping (Includes Fittings, Valves)
F	WATR	PUMP			Pumps

Telecommunication Layers

Notes for Telecommunication Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

CABL - CABLE SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	CABL				Cable System
T	CABL	COAX			Coaxial Cable
T	CABL	FIBR			Fiber Optic Cable
T	CABL	FLOR			Floor Elements
T	CABL	IDEN			Tags and Annotation
T	CABL	MULT			Multi-Conductor cable
T	CABL	TRAY			Trays and Wireways

CATV - CABLE TV SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	CATV				Cable Television System
T	CATV	CLNG			Ceiling Elements
T	CATV	DEVC			Devices/Accessories/Instruments
T	CATV	EQPM			Equipment
			AV~~		Audio/Visual Equipment
			CRDR		Secure Access Card Reader
			SATD		Satellite Dish/Disks
T	CATV	FLOR			Floor Elements
T	CATV	IDEN			Tags and Annotation
T	CATV	WALL			Wall Elements

CCTV - CLOSED CIRCUIT TELEVISION SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	CCTV				Closed Circuit Television System
T	CCTV	DEVC			Devices/Accessories/Instruments
T	CCTV	EQPM			Equipment
T	CCTV	IDEN			Tags and Annotation

CLOK - CLOCK SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	CLOK				Clock System
T	CLOK	CIRC			Circuits
			CNMB		Circuit Number
T	CLOK	CLNG			Ceiling Elements
T	CLOK	DEVC			Devices/Accessories/Instruments
T	CLOK	EQPM			Equipment
T	CLOK	FLOR			Floor Elements
T	CLOK	IDEN			Tags and Annotation
T	CLOK	WALL			Wall Elements

COMM - COMMUNICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
T	COMM				Communication System
T	COMM	ANTN			Antenna
T	COMM	APSY			Audio Paging System
T	COMM	ATMS			Advanced Traffic Management System
T	COMM	AVID			Auto Vehicle Identification System
T	COMM	BIDS			Baggage Info Display System
T	COMM	CIRC			Circuits
			CNMB		Circuit Numbers
T	COMM	CLNG			Ceiling Elements
T	COMM	DEVC			Devices/Accessories/Instruments
T	COMM	DICT			Dictation System
			CIRC		Dictation System - Circuits
			CLNG		Dictation System - Ceiling Elements
			CNMB		Dictation System - Circuit Number
			EQPM		Dictation System - Equipment
			FLOR		Dictation System - Floor Elements
			IDEN		Dictation System - Tags & Annotation
			WALL		Dictation System - Wall Elements
T	COMM	EQPM			Distribution Equipment
T	COMM	FIDS			Flight Information Display System
T	COMM	FLOR			Floor Elements
T	COMM	GISY			Gate Info System
T	COMM	IDEN			Tags and Annotation
T	COMM	INTC			Intercom/PA
			CIRC		Intercom/PA - Circuits
			CLNG		Intercom/PA - Ceiling Elements
			CNMB		Intercom/PA - Circuit Number
			EQPM		Intercom/PA - Equipment
			FLOR		Intercom/PA - Floor Elements
			IDEN		Intercom/PA - Tags & Annotation
			WALL		Intercom/PA - Wall Elements
T	COMM	PANL			Panel
T	COMM	PGNG			Paging System
			CIRC		Paging System - Circuits
			CLNG		Paging System - Ceiling Elements
			CNMB		Paging System - Circuit Number
			EQPM		Paging System - Equipment
			FLOR		Paging System - Floor Elements
			IDEN		Paging System - Tags & Annotation
			WALL		Paging System - Wall Elements

COMM - COMMUNICATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
T	COMM	PHON			Telephone System
			ENCL		Telephone Enclosure/Booth
			JACK		Telephone Jacks
T	COMM	PMRC			Parking Management & Revenue Control System
T	COMM	PROJ			Projector System
T	COMM	TOWR			Radio Tower
			EQPM		Radio Tower Equipment
T	COMM	VIDO			Video Equipment (Cameras, Displays, etc.)
T	COMM	VPSY			Video Paging System
T	COMM	WALL			Wall Elements

CONT - CONTROLS

Discipline	Major	Minor 1	Minor 2	Status	Description
T	CONT				Controls and Instrumentation
T	CONT	DEVC			Devices/Accessories/Instruments
T	CONT	IDEN			Tags & Annotation
T	CONT	WIRE			Wiring

DATA - DATA & COMPUTER SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	DATA				Data/LAN System
T	DATA	CIRC			Circuits
			CNMB		Circuit Number
T	DATA	CLNG			Ceiling Elements
T	DATA	DEVC			Devices/Accessories/Instruments
T	DATA	EQPM			Equipment
			VIDO		Video Equipment (Cameras, Displays, Projectors)
T	DATA	FLOR			Floor Elements
T	DATA	IDEN			Tags and Annotation
T	DATA	JACK			Jacks
			COMB		Combination Telephone/Data Jacks
T	DATA	NETW			Network Components
T	DATA	WALL			Wall Elements

DIAG - DIAGRAMS

Discipline	Major	Minor 1	Minor 2	Status	Description
T	DIAG				Diagrams
T	DIAG	ENCL			Diagrams: Equipment Enclosures
T	DIAG	EQPM			Diagrams: Equipment

DIAG - DIAGRAMS

Discipline	Major	Minor 1	Minor 2	Status	Description
T	DIAG	GRND			Diagrams: Ground
T	DIAG	IDEN			Diagrams: Tags & Annotation

EQPM - EQUIPMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
T	EQPM				TeleCom Equipment
T	EQPM	COMB			Distribution Equipment (Copper & Fiber Optic)
T	EQPM	COPP			Distribution Equipment (Copper)
T	EQPM	FIBR			Distribution Equipment (Fiber Optic)
T	EQPM	IDEN			Tags & Annotation
T	EQPM	OTHR			Other
T	EQPM	RELA			Relays, Resistors, Capacitors, Inducers

EMCS - ENERGY MONITORING CONTROL SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	EMCS				Energy Monitoring Control
T	EMCS	DEVC			Devices
T	EMCS	IDEN			Tags & Annotation

FIRE - FIRE ALARM/DETECTION

Discipline	Major	Minor 1	Minor 2	Status	Description
T	FIRE				Fire Protection System
T	FIRE	CIRC			Circuits
			CNMB		Circuit Numbers
T	FIRE	CLNG			Ceiling Elements
T	FIRE	DEVC			Devices/Accessories/Instruments
T	FIRE	EQPM			Equipment
T	FIRE	FLOR			Floor Elements
T	FIRE	IDEN			Tags & Annotation
T	FIRE	WALL			Wall Elements

SERT - SECURITY SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	SERT				Security System
T	SERT	ACCS			Access Control
			CRDR		Access Control Card Reader
			EXTR		Exterior Mounted Access Control Devices
			PANL		Access Control Panel
			WALL		Interior Wall Mounted Access Control Devices
T	SERT	ALRM			Alarms
T	SERT	CIRC			Circuits

SERT - SECURITY SYSTEM

Discipline	Major	Minor 1	Minor 2	Status	Description
T	SERT	CIRC	CNMB		Circuit Numbers
T	SERT	CLNG			Ceiling Elements
T	SERT	DEVC			Devices/Accessories/Instruments
T	SERT	EQPM			Equipment
T	SERT	EXTR			Exterior Mounted
T	SERT	FLOR			Floor Elements
T	SERT	IDEN			Tags & Annotation
T	SERT	LITE			Lighting
			CLNG		Ceiling Mounted Lighting
			POLE		Pole Mounted Lighting
			WALL		Wall Mounted Lighting
T	SERT	LOCK			Locks
			ELEC		Electric Lock
			MANL		Manual Lock
T	SERT	SNSR			Sensors
			CLNG		Ceiling Mounted Sensor
			FLOR		Floor Mounted Sensor
			GLAS		Glass/Foil Mounted Sensor
			PANL		Sensor Control Panel
			UGND		Buried Sensors
			WALL		Wall Mounted Sensor
T	SERT	WALL			Wall Elements

SOUN - SOUND SYSTEMS

Discipline	Major	Minor 1	Minor 2	Status	Description
T	SOUN				Sound System
T	SOUN	CIRC			Circuits
			CNMB		Circuit Numbers
T	SOUN	CLNG			Ceiling Elements
T	SOUN	DEVC			Devices/Accessories/Instruments
T	SOUN	EQPM			Equipment
T	SOUN	FLOR			Floor Elements
T	SOUN	IDEN			Tags & Annotation
T	SOUN	WALL			Wall Elements

TRAN - TRANSMISSION

Discipline	Major	Minor 1	Minor 2	Status	Description
T	TRAN				Transmission System
T	TRAN	MW~~			Microwave
T	TRAN	RF~~			Radio Frequency

TRAN - TRANSMISSION

Discipline	Major	Minor 1	Minor 2	Status	Description
T	TRAN	EQPM			Equipment
T	TRAN	IDEN			Tags & Annotation

TVVS - TELEVISION AND VIDEO

Discipline	Major	Minor 1	Minor 2	Status	Description
T	TVVS				Television and Video Systems
T	TVVS	IDEN			Tags & Annotation
T	TVVS	SAUD			Audio Signal
T	TVVS	SCOM			Communications Signal
T	TVVS	SCTL			Control Signal
T	TVVS	SDAT			Data Signal
T	TVVS	SDGA			Digital Audio Signal
T	TVVS	SDGV			Digital Video Signal
T	TVVS	SMIC			Microphone Signal
T	TVVS	SPWR			Power Signal
T	TVVS	SRFI			RF Signal
T	TVVS	SRGB			RGB & Component Video Signal
T	TVVS	SSYN			Sync Signal
T	TVVS	SVID			Video Signal

Geotechnical Layers

Notes for Geotechnical Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

BORE - BORINGS

Discipline	Major	Minor 1	Minor 2	Status	Description
B	BORE				Borings
B	BORE	ELEV			Borings: Elevations
B	BORE	FDTA			Borings: Field Data
B	BORE	HOLE			Borings: Bore/Perc Hole Number
B	BORE	IDEN			Borings: Tags & Annotation
B	BORE	LDTA			Borings: Laboratory Data

Hazardous Materials Layers

Notes for HazMat Drawings:

1. To the greatest extent possible, the layer standards are divided into “systems”. All utilities, equipment, structural elements, etc., associated with a “system” must be placed on layers associated with that “system”.
2. Discipline Designator and Major Group Field are mandatory. The (2) Minor Group Fields and the Status Field are optional, depending on the level of granularity required.
3. Do not place text, notes, leaders, etc., on X-REFs. These should be placed on each individual drawing. Text and pattern X-REFs that are scaled for the drawing they are attached to are acceptable.

ABAT - ABATEMENT

Discipline	Major	Minor 1	Minor 2	Status	Description
H	ABAT				HazMat Abatement
H	ABAT	ASB~			Asbestos
H	ABAT	BARR			Barriers (Tape, etc.)
			STRC		Critical Structure Barriers
H	ABAT	IDEN			Tags & Annotation
H	ABAT	LEAD			Lead
H	ABAT	NOIS			Noise
H	ABAT	PCB~			Polychlorinated Biphenyl
H	ABAT	POLY			Polyethylene Sheeting

BLDG - BUILDINGS

Discipline	Major	Minor 1	Minor 2	Status	Description
H	BLDG				Building Elements
H	BLDG	IDEN			Tags & Annotation
H	BLDG	OTLN			Outlines/Footprints

DECN - DECONTAMINATION

Discipline	Major	Minor 1	Minor 2	Status	Description
H	DECN				Decontamination Elements
H	DECN	EQPM			Equipment
H	DECN	IDEN			Tags & Annotation

DISP - DISPOSAL AREAS

Discipline	Major	Minor 1	Minor 2	Status	Description
H	DISP				HazMat Disposal
H	DISP	HAZW			Hazardous Waste
H	DISP	IDEN			Tags & Annotation
H	DISP	MUNT			Munitions
H	DISP	TANK			Spill Containment Tanks

FIXT - EMERGENCY FIXTURES

Discipline	Major	Minor 1	Minor 2	Status	Description
H	FIXT				HazMat Emergency Fixtures
H	FIXT	EYEW			Eyewashes
H	FIXT	IDEN			Tags & Annotation
H	FIXT	SHOW			Showers

MNST - MONITORING STATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
H	MNST				Monitoring Stations
H	MNST	AIRQ			Air Quality

MNST - MONITORING STATIONS

Discipline	Major	Minor 1	Minor 2	Status	Description
H	MNST	GWTR			Ground Water
H	MNST	IDEN			Tags & Annotation
H	MNST	LAND			Landfill Gas/Methane
H	MNST	NOIS			Noise
H	MNST	SOIL			Soil Gas
H	MNST	SWTR			Surface Water

POLL - POLLUTION AREA

Discipline	Major	Minor 1	Minor 2	Status	Description
H	POLL				Pollution Area
H	POLL	CNCR			Polluted Area of Concern
H	POLL	IDEN			Tags & Annotation
H	POLL	ORIG			Point of Pollution Origin
H	POLL	POTN			Potential Spill, Emission, or Release Source

SAMP - SAMPLE POINTS

Discipline	Major	Minor 1	Minor 2	Status	Description
H	SAMP				Sample Points
H	SAMP	AIRS			Air
H	SAMP	BIOL			Biological
H	SAMP	BLDG			Building Material Samples
			ASB~		Asbestos
			LEAD		Lead
			PCB~		Polychlorinated Biphenyl
H	SAMP	GWTR			Ground Water
H	SAMP	IDEN			Tags & Annotation
H	SAMP	MAGN			Magnetometer Location Points
H	SAMP	SEDI			Sediment
H	SAMP	SOIL			Soils
H	SAMP	SOLI			Solid Material
H	SAMP	SWTR			Surface Water
H	SAMP	WAST			Waste

STOR - STORAGE FACILITIES

Discipline	Major	Minor 1	Minor 2	Status	Description
H	STOR				HazMat Storage
H	STOR	HAZM			Hazardous Materials
H	STOR	HAZW			Hazardous Waste
H	STOR	IDEN			Tags & Annotation

WELL - WELLS

Discipline	Major	Minor 1	Minor 2	Status	Description
H	WELL				Wells
H	WELL	IDEN			Tags & Annotation
H	WELL	INJN			Injection
H	WELL	XTRA			Extraction

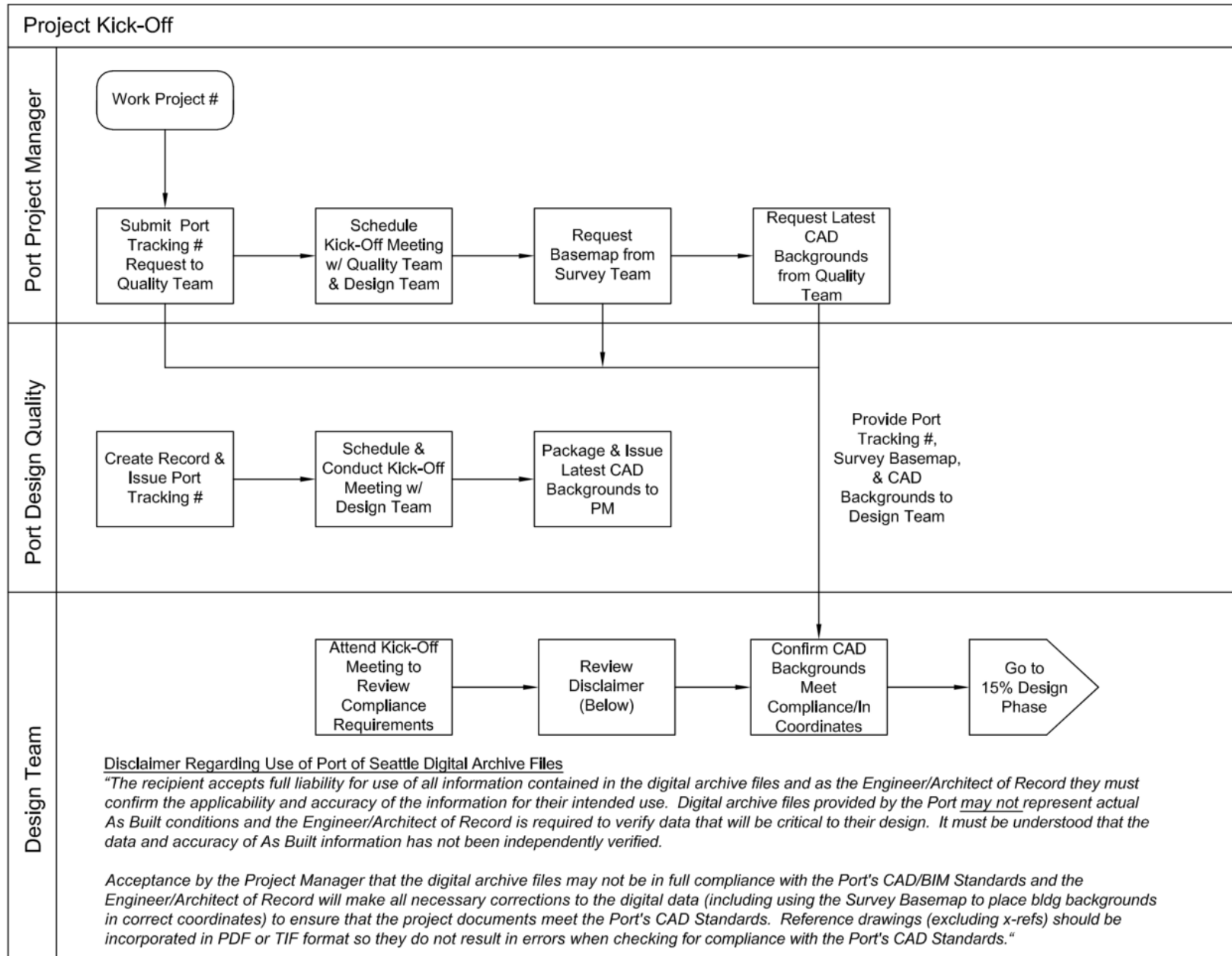
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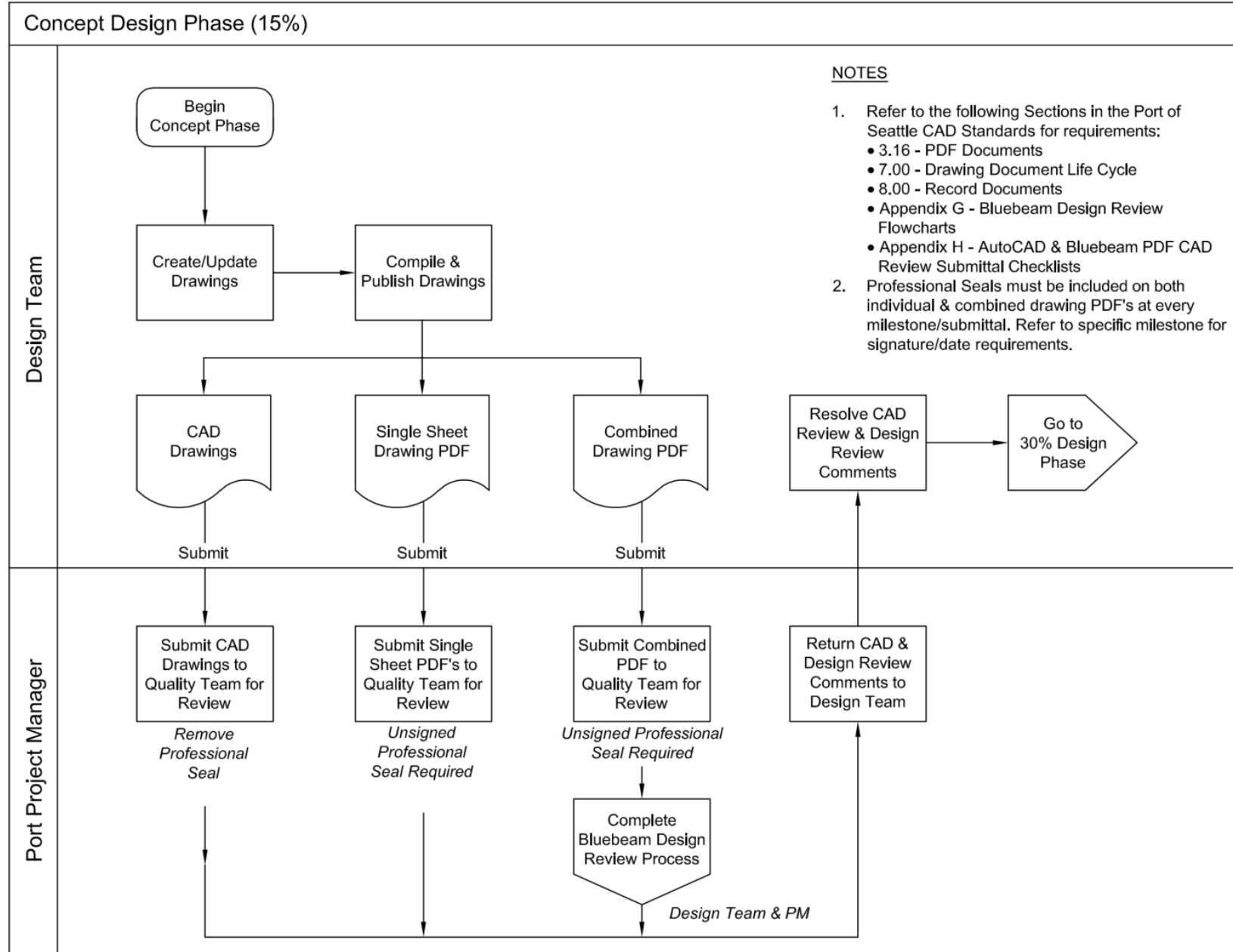
QA/QC Design Submittal Deliverable Flowcharts

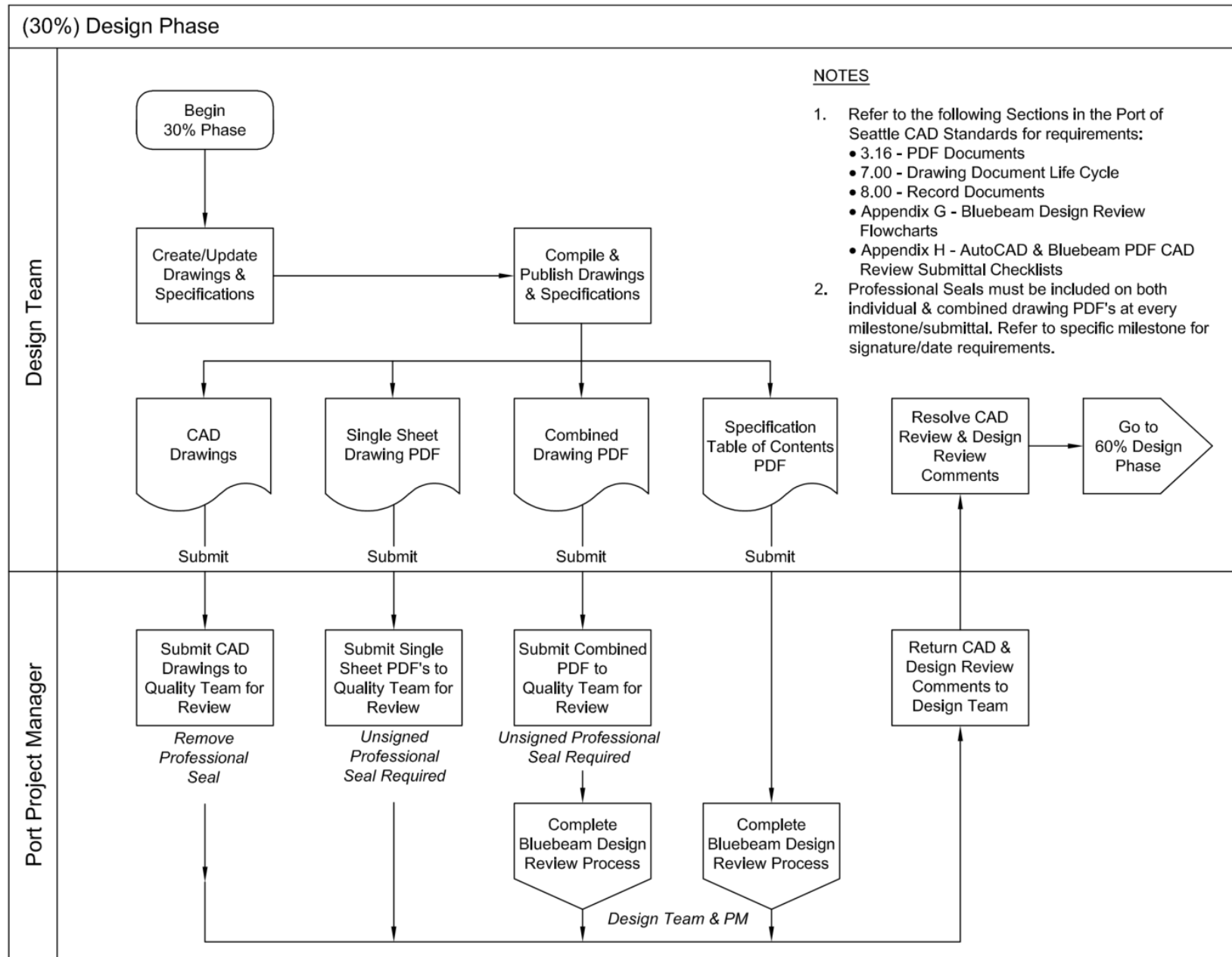
Design/QC Phase Deliverables

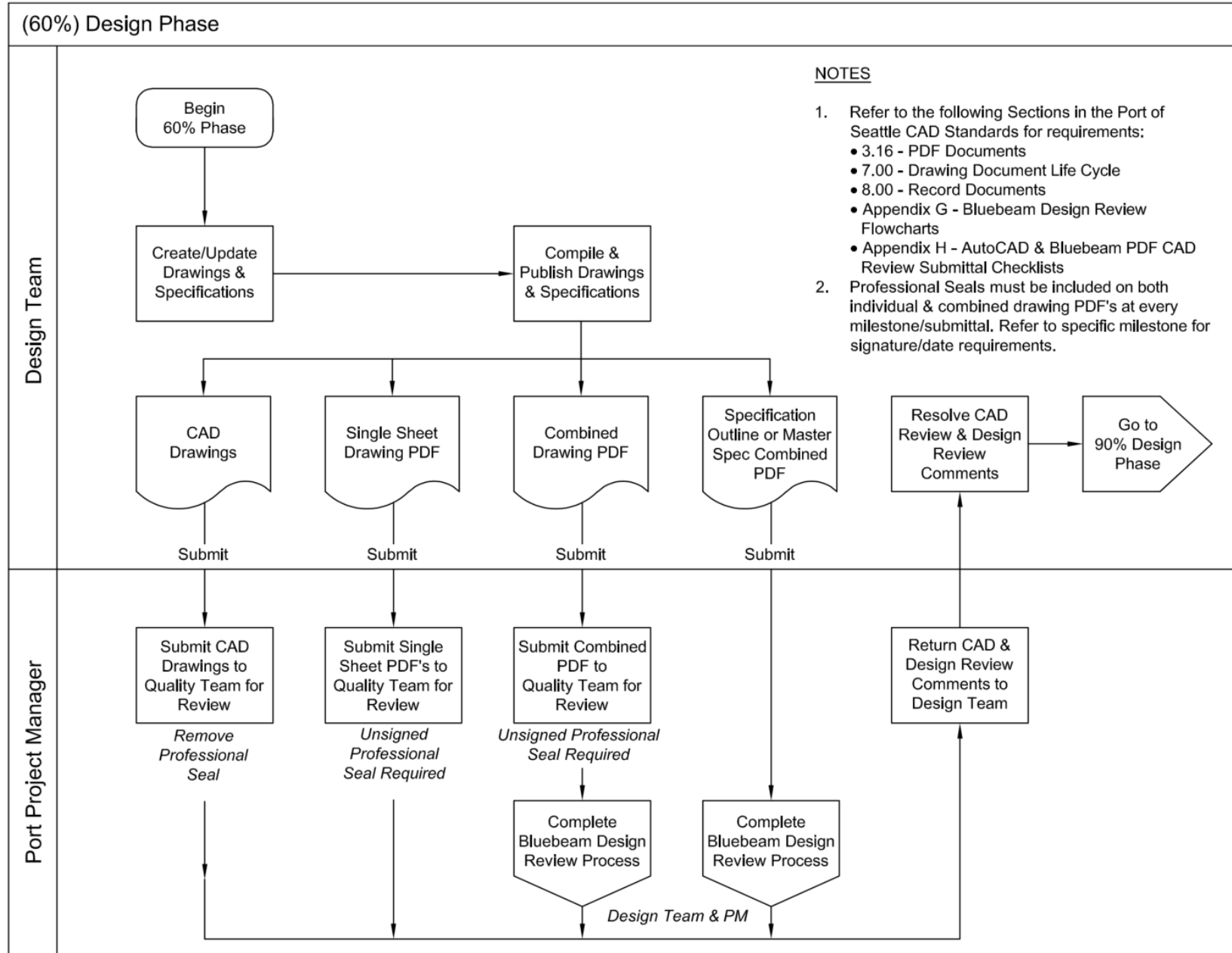
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Project Kick-Off			
			Submit request for Port Project Tracking #
		CAD staff attend CAD Kick-Off	Schedule CAD Kick-Off Meeting with Quality Team and Design Team
			Request Basemap/Backgrounds from Survey Team
			Request building Baseplans from Quality Team
		Review Disclaimer/Responsibilities	Provide Port Tracking #, Survey Basemaps & Backgrounds, and building Baseplans to Design Team
Concept (15%) Design Review			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review
	PDF	Individual sheet files <i>Unsigned Professional Seal required</i>	Send to Quality Team for Compliance Review
		Combined project drawings <i>Unsigned Professional Seal required</i>	Send to Quality Team/Complete Bluebeam Design Review process
Specifications	Word	None required	N/A
	PDF	None required	N/A
30% Design Review			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review
	PDF	Individual sheet files <i>Unsigned Professional Seal required</i>	Send to Quality Team for Compliance Review
		Combined project drawings <i>Unsigned Professional Seal required</i>	Send to Quality Team/Complete Bluebeam Design Review process
Specifications	Word	None required	N/A
	PDF	Table of Contents	Complete Bluebeam Design Review process
60% Design Review			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review
	PDF	Individual sheet files <i>Unsigned Professional Seal required</i>	Send to Quality Team for Compliance Review
		Combined project drawings <i>Unsigned Professional Seal required</i>	Send to Quality Team/Complete Bluebeam Design Review process
Specifications	Word	None required	N/A
	PDF	Outline or Master Specs	Complete Bluebeam Design Review process
90% Design Review			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review
	PDF	Individual sheet files <i>Unsigned Professional Seal required</i>	Send to Quality Team for Compliance Review
		Combined project drawings <i>Unsigned Professional Seal required</i>	Send to Quality Team/Complete Bluebeam Design Review process
Specifications	Word	Individual section files	Complete Design Review process (optional)
	PDF	Combined specification file	Complete Bluebeam Design Review process
Building Permit Submittal			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review/Archival
	PDF	Individual permit sheet files <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Compliance Review/Archival
		Combined permit drawings <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Compliance Review/Archival
			Submit to Building Department/Authority Having Jurisdiction
Specifications	Word	N/A	N/A
	PDF	Combined specification file <i>with signed Certification of Specifications</i>	Send to Quality Team for Archival Submit to Building Department/Authority Having Jurisdiction
100% Design Review (Standalone - Not Combined with Permit)			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review
	PDF	Individual sheet files <i>Unsigned Professional Seal required</i>	Send to Quality Team for Compliance Review
		Combined project drawings <i>Unsigned Professional Seal required</i>	Send to Quality Team/Complete Bluebeam Design Review process Send to CPO for review
Specifications	Word	Individual section files	Complete Bluebeam Design Review process (optional) Send to CPO for review
	PDF	Combined specification file	Complete Design Review process Send to CPO for review

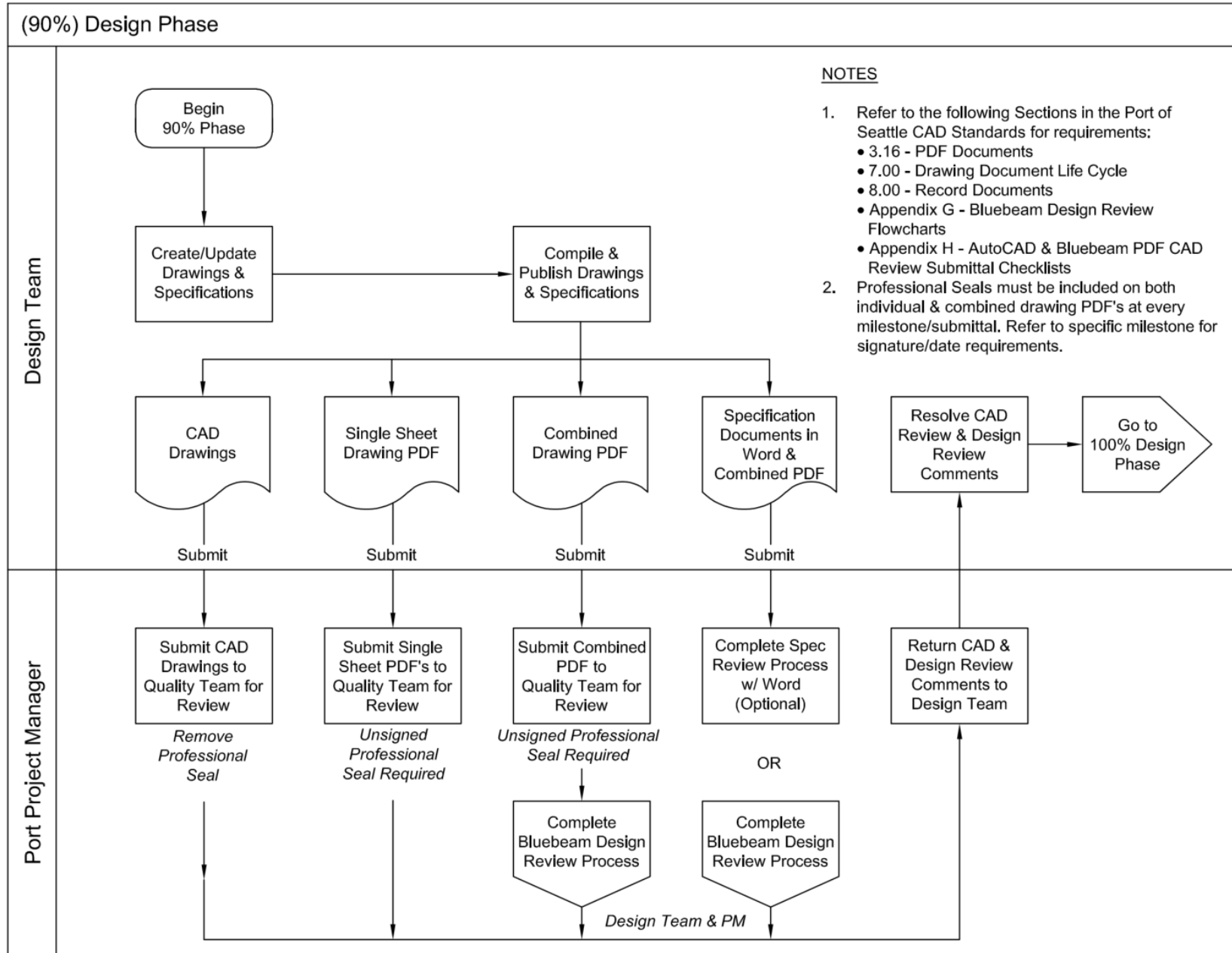
		A/E Deliverable	PM Task
BID Phase			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review
	PDF	Individual sheet files <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Compliance Review Send to CPO for Bid
		Combined project drawings <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Compliance Review Send to project delivery team for construction use Send to CPO for reference
Specifications	Word	Individual section files with <i>signed Certification of Specifications PDF</i>	Send to CPO for Bid
	PDF	Combined specification file <i>with signed Certification of Specifications</i>	Send to Quality Team for archival Send to project delivery team for construction use
Conformed Set/IFC (Bid Addenda)			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Compliance Review and Archival
	PDF	Individual sheet files <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Compliance Review and Archival Send to CPO for Bid
		Combined project drawings <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Compliance Review and Archival Send to project delivery team for construction use
Specifications	Word	Individual section files with <i>signed Certification of Specifications PDF</i>	Send to CPO for Bid
	PDF	Combined specification file <i>with signed Certification of Specifications</i>	Send to Quality Team for Archival Send to project delivery team for construction use
AS Built/Record Drawings			
Drawings	CAD	Individual sheet files <i>Professional Seal removed</i>	Send to Quality Team for Final Compliance Review
	PDF	Individual sheet files <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Final Compliance Review
		Combined project drawings <i>Signed/Dated Professional Seal required</i>	Send to Quality Team for Final Compliance Review
	As Created	General Contractor/Construction Redlines	Send to Quality Team for Archival
	As Created	Shop Drawings	Send to Quality Team for Archival
Specifications	PDF	Combined specification file <i>with signed Certification of Specifications</i>	Send to Quality Team for Archival
Calculations	Native	Project calculations	Send to Quality Team for Archival
O&M	PDF	Combined O&M file	Send to Quality Team for Archival

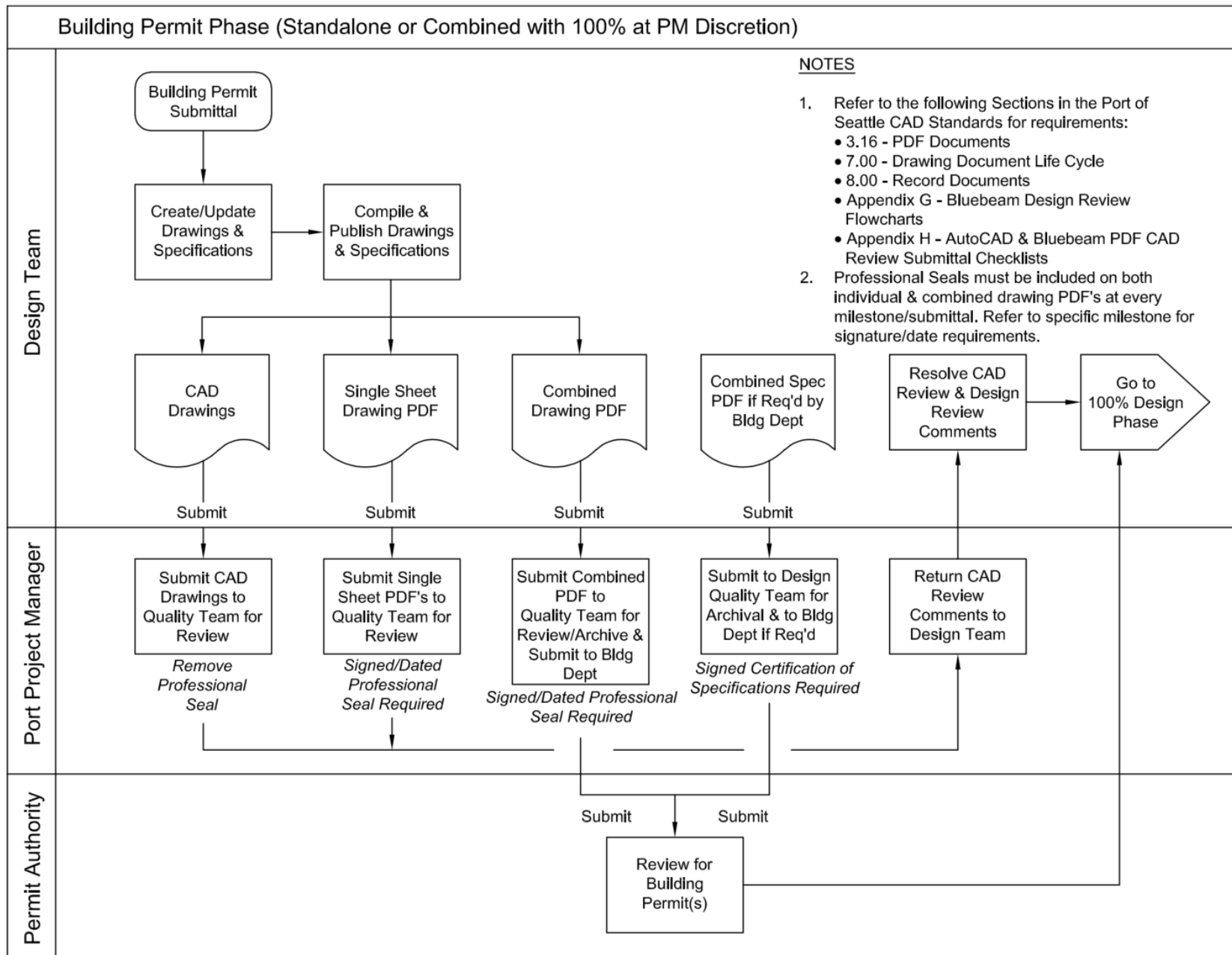


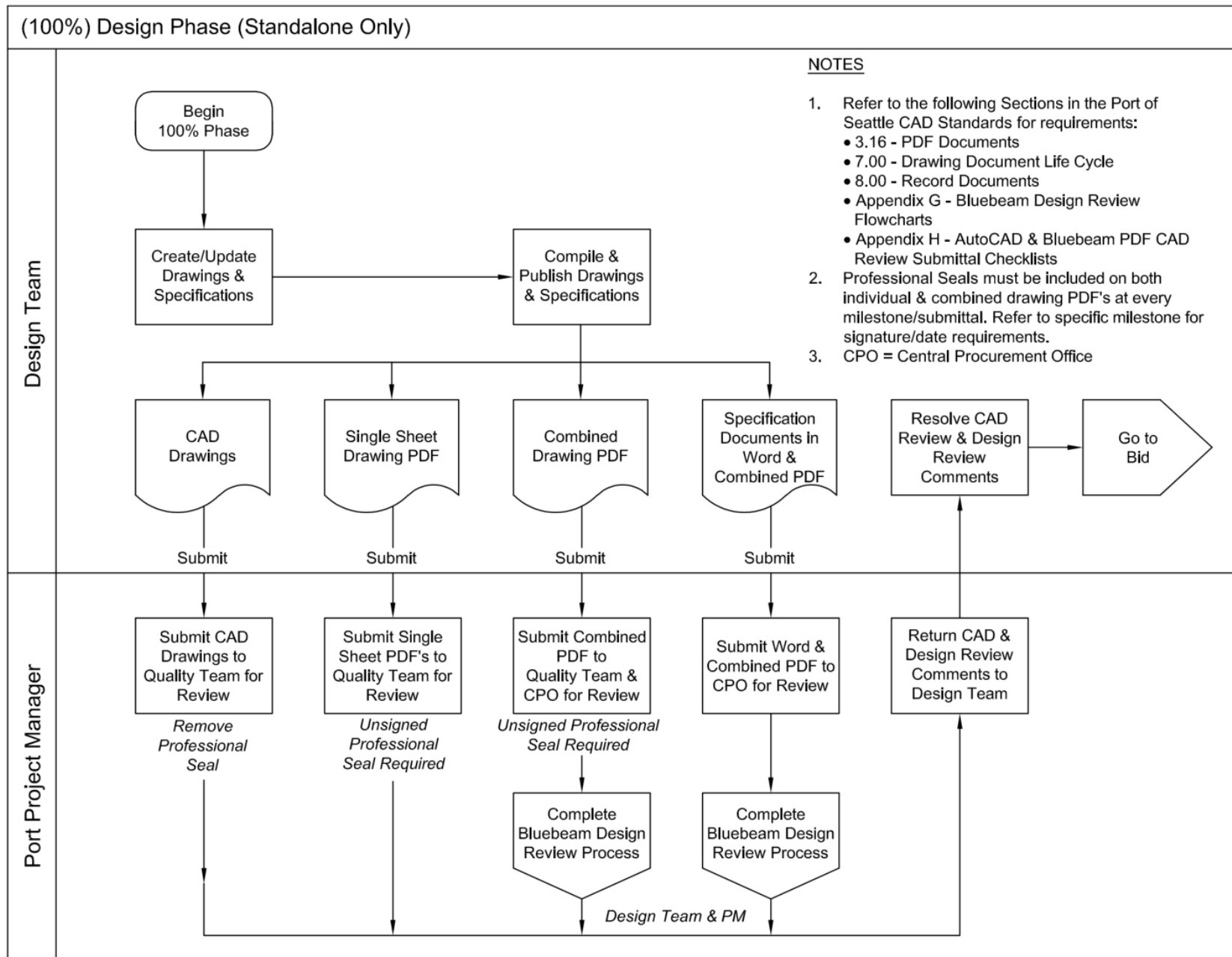


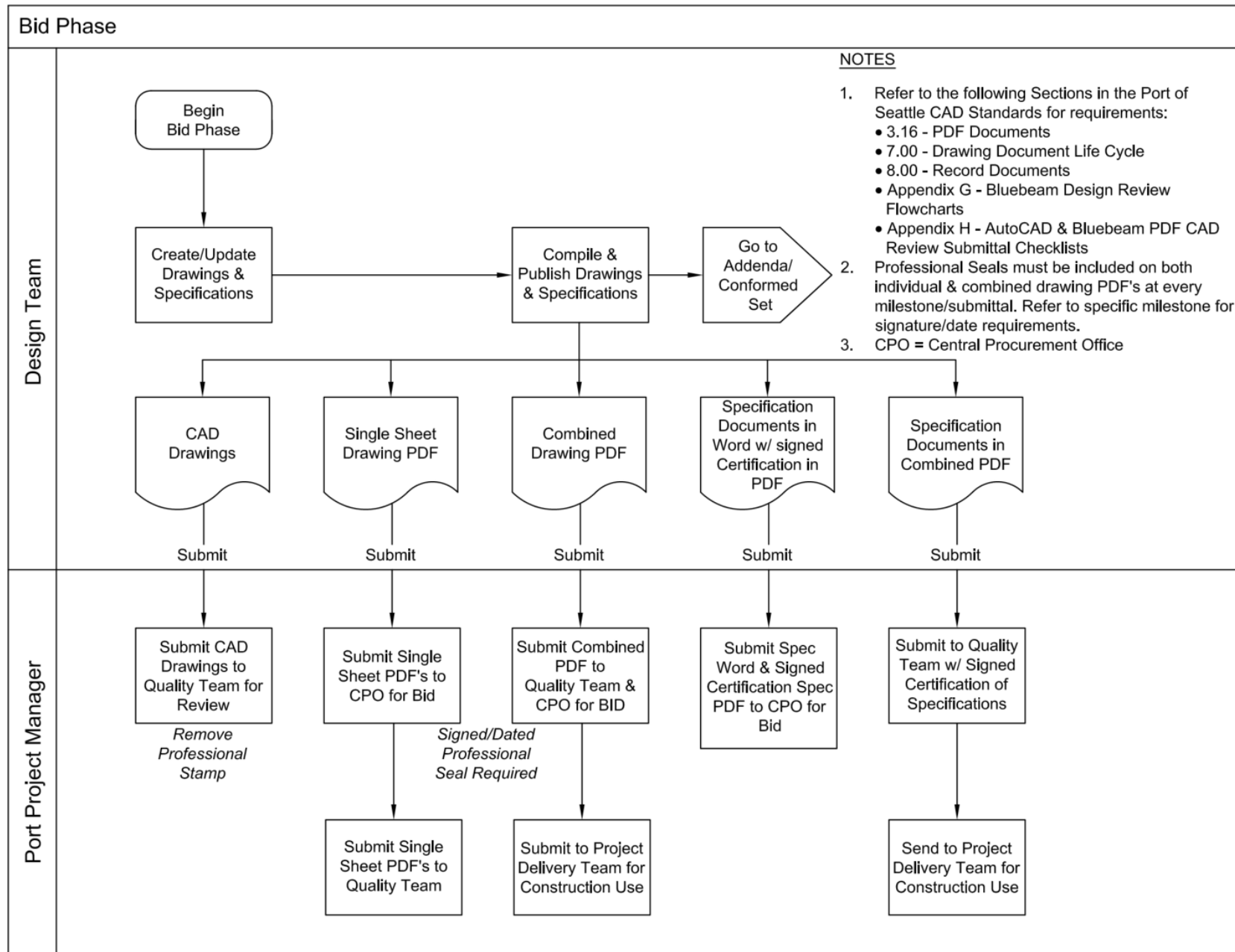


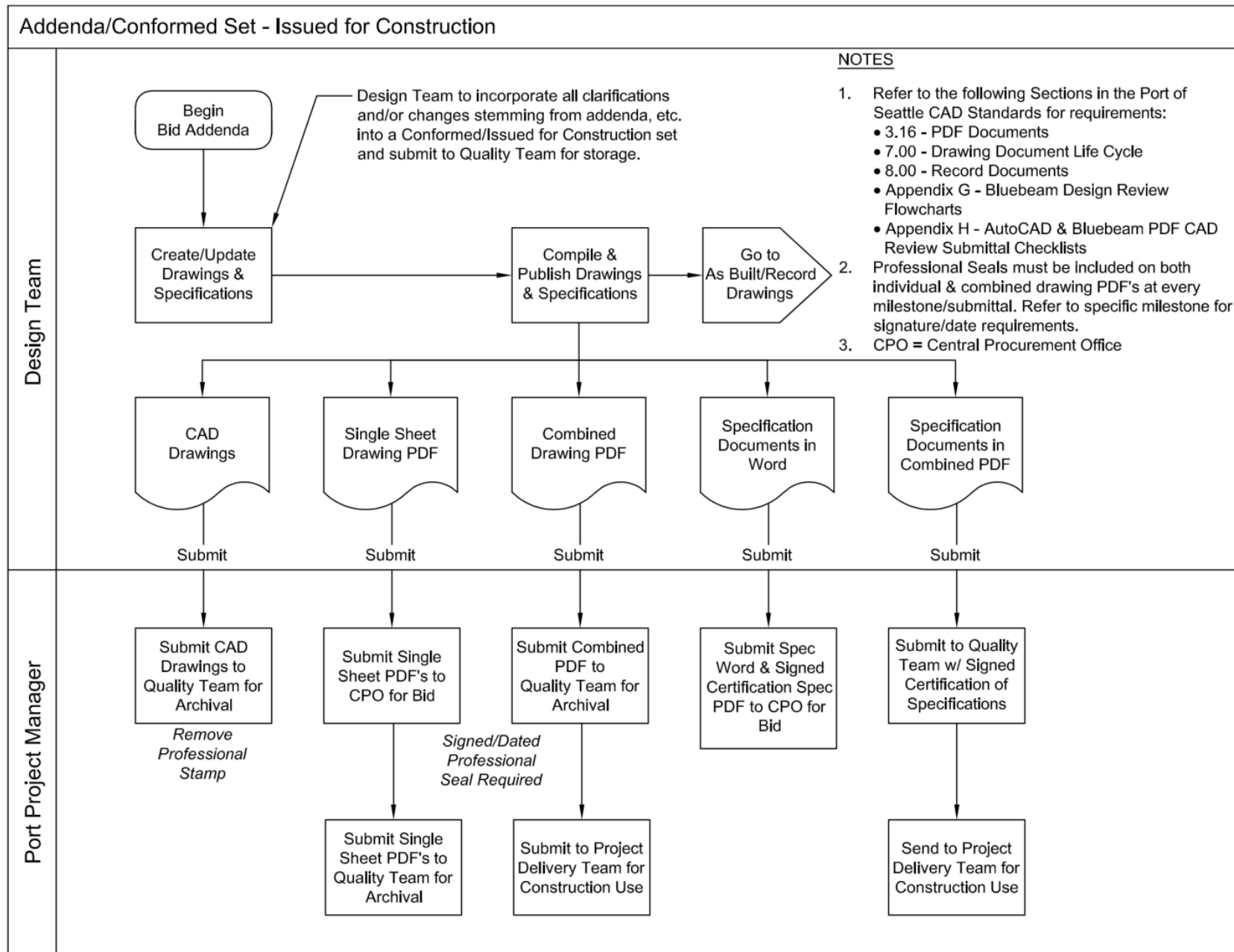


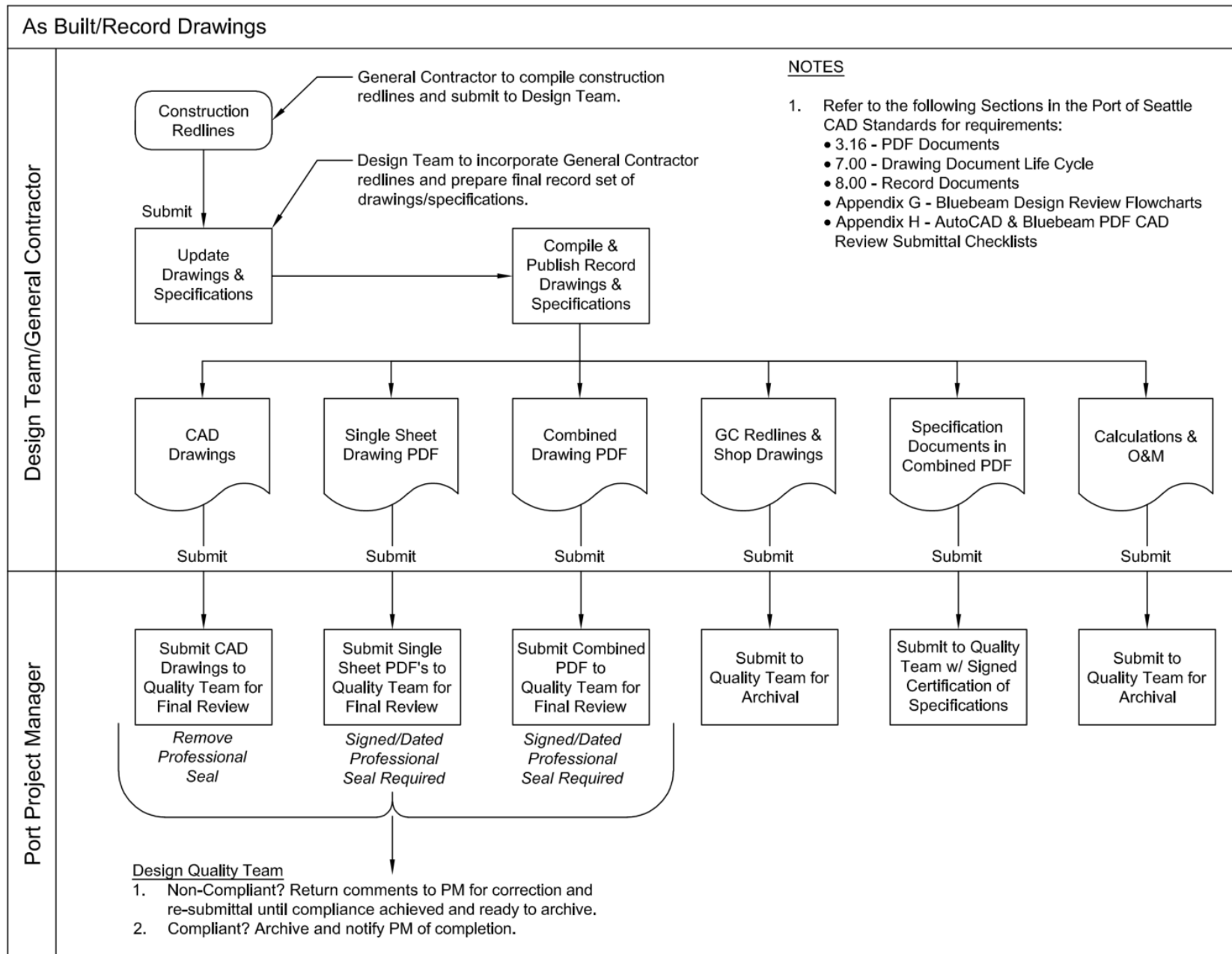




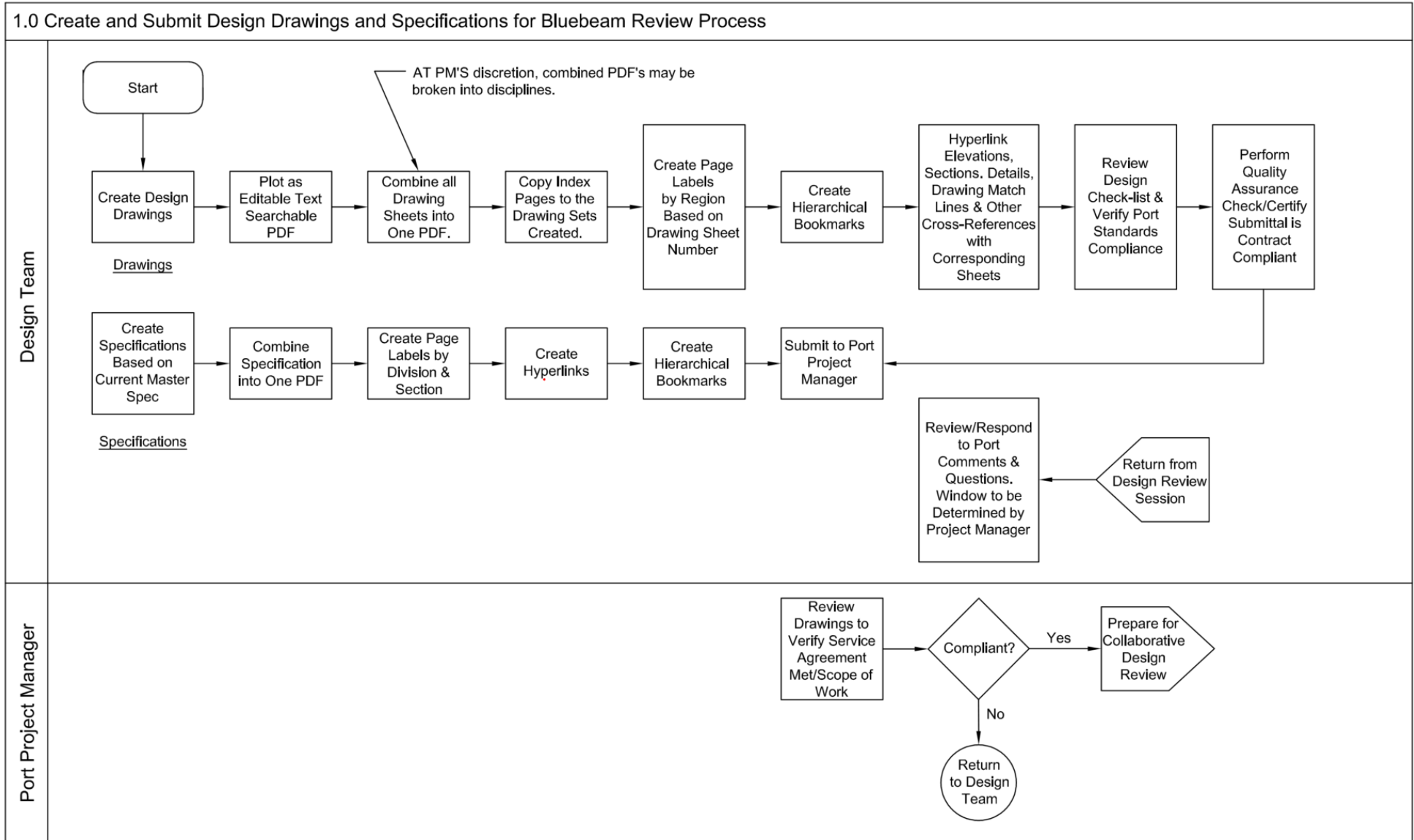


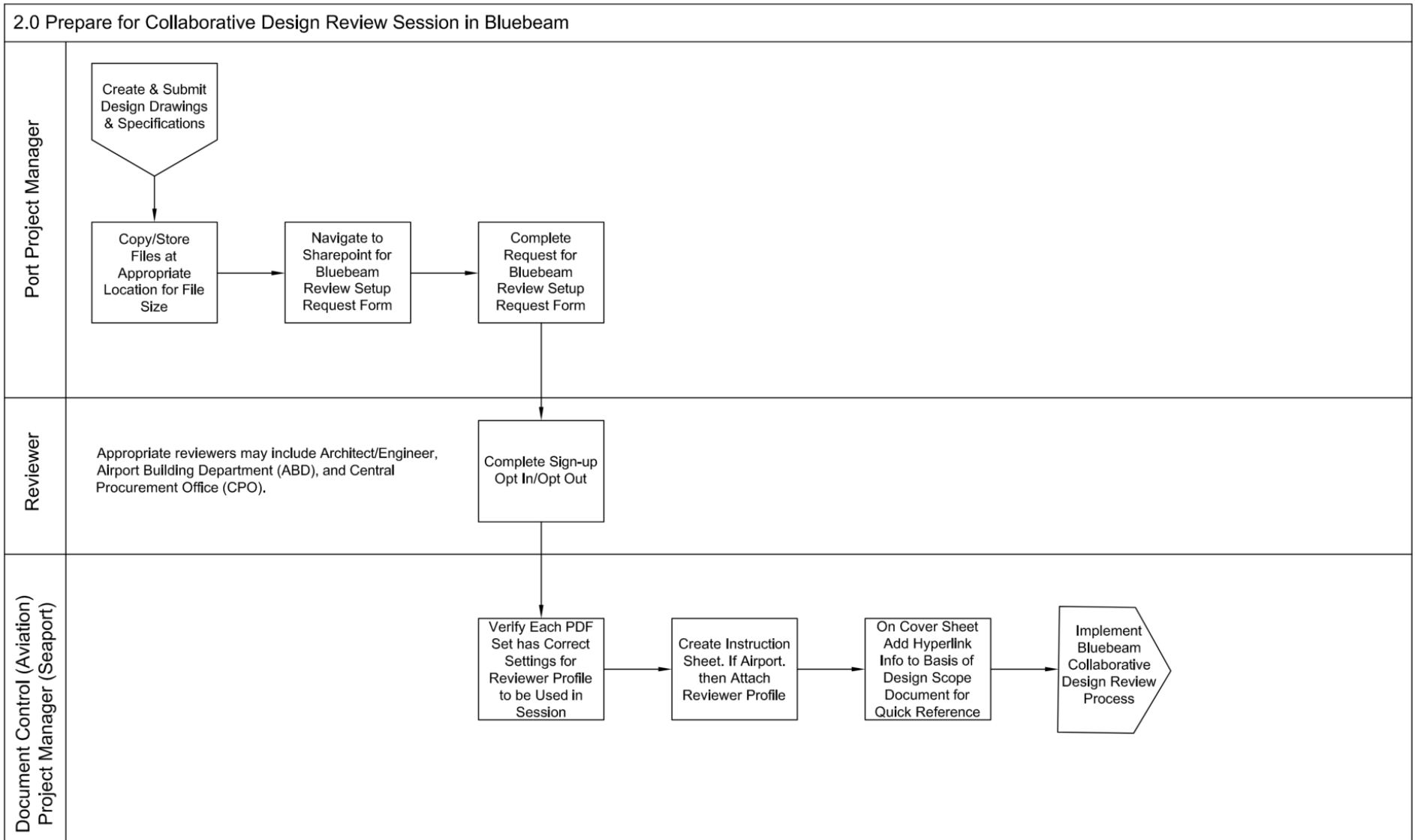


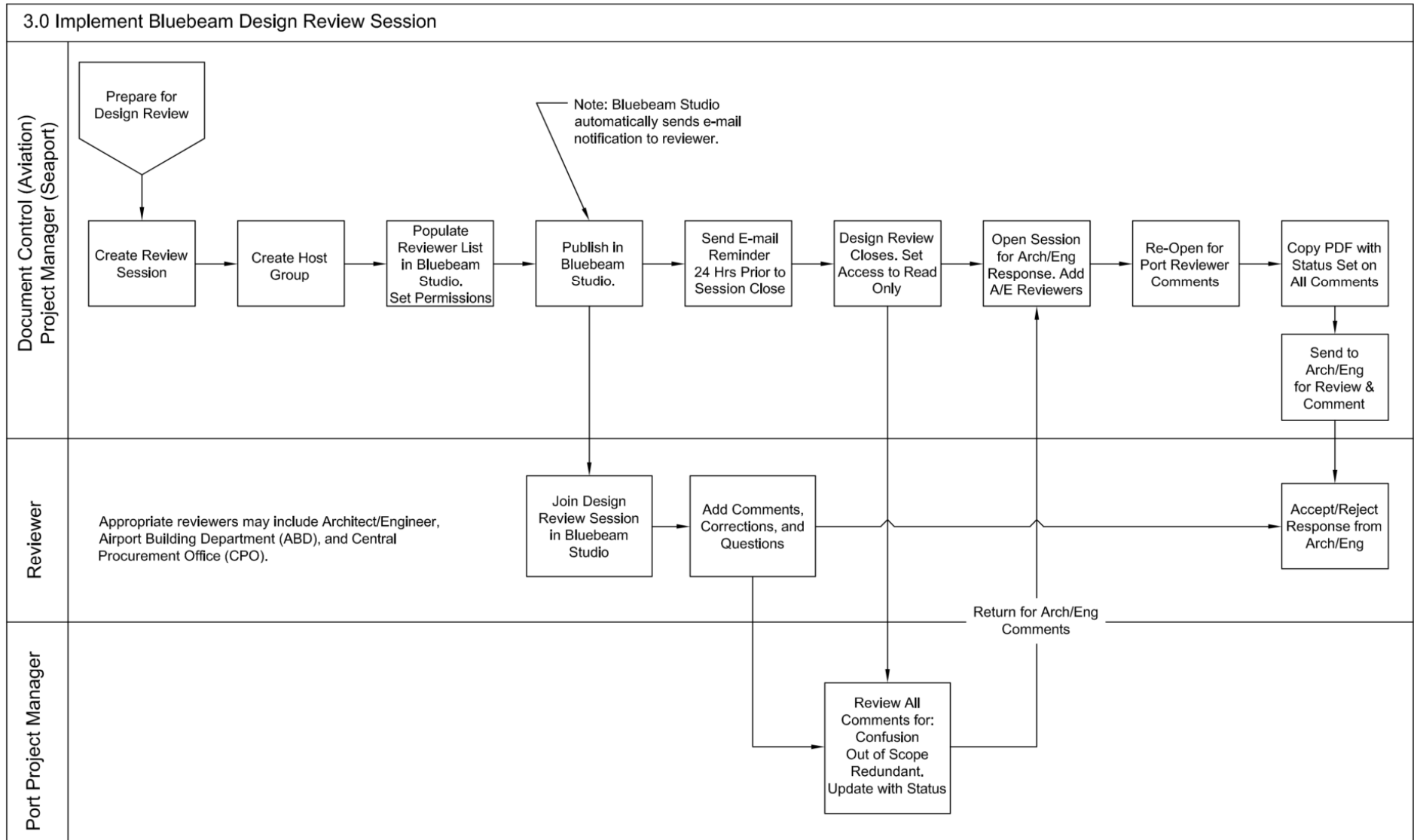




Appendix F Bluebeam Design Review Flowcharts







Appendix G

AutoCAD & Bluebeam

PDF Submittals

Checklists

AUTOCAD AND PDF CHECKLISTS FOR SUBMITTALS

AUTOCAD Checklist (See PDF Below)			
PREPARER		QUALITY CONTROL REPRESENTATIVE	
Y <input type="checkbox"/>	N <input type="checkbox"/>	Has there been a required Port of Seattle CAD Kick-Off Meeting for this project with the Port Design Services Quality team?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
SUBMITTAL DOCUMENTS			
Y <input type="checkbox"/>	N <input type="checkbox"/>	Is this submittal in conformance with the Port of Seattle CAD Standards 2025 Edition?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
Y <input type="checkbox"/>	N <input type="checkbox"/>	Is each submitted AutoCAD sheet listed in the Sheet Index? Are all sheets listed in the index submitted unless noted otherwise?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
Y <input type="checkbox"/>	N <input type="checkbox"/>	Do the Sheet Numbers and Sheet Titles in each title block match those listed in the Sheet index?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
Y <input type="checkbox"/>	N <input type="checkbox"/>	Are both PDF and AutoCAD files included with this submittal?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
Y <input type="checkbox"/>	N <input type="checkbox"/>	Have all CAD drawing files been saved in an AutoCAD format compatible with AutoCAD 2024 software?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
Y <input type="checkbox"/>	N <input type="checkbox"/>	Is the complete AutoCAD submittal provided in one folder for all disciplines, including all referenced files (DWG, JPG, PDF, etc.) and CTB files?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
Y <input type="checkbox"/>	N <input type="checkbox"/>	Have all comments in previous Port of Seattle CAD Reviews been resolved?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>
NAMING			
Y <input type="checkbox"/>	N <input type="checkbox"/>	Does this submittal follow Port of Seattle Sheet Numbering convention?	<div style="display: flex; justify-content: space-between;"> Verified <input type="checkbox"/> Not Verified <input type="checkbox"/> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Comments (Optional):</div>







AUTOCAD AND PDF CHECKLISTS FOR SUBMITTALS





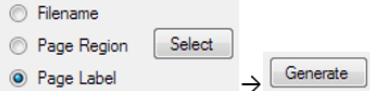
Y <input type="checkbox"/>	N <input type="checkbox"/>	Are the sheet file names made per the Port of Seattle protocol?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
Y <input type="checkbox"/>	N <input type="checkbox"/>	Do the Paper Space Layout Tab and Title Block Sheet Number match?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
LOCATION REFERENCE				
Y <input type="checkbox"/>	N <input type="checkbox"/>	Is all Model Space plan work located in the required Port of Seattle coordinate system, origin and orientation?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
Y <input type="checkbox"/>	N <input type="checkbox"/>	Are all Model Space plans using a Port of Seattle approved building grid base file?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
DRAWING FORMAT AND PROTOCOL				
Y <input type="checkbox"/>	N <input type="checkbox"/>	Are the Cover Sheet and Sheet Index using the templates provided by the Port of Seattle?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
Y <input type="checkbox"/>	N <input type="checkbox"/>	Does this submittal use a title block from the Port of Seattle AutoCAD Resource Library 2025?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
Y <input type="checkbox"/>	N <input type="checkbox"/>	Are the x-referenced files (DWG, JPG, PDF, etc.) successfully attaching, and is each applied onto a dedicated xref layer, as an overlay, with the 'No Path' option selected?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
Y <input type="checkbox"/>	N <input type="checkbox"/>	Are all layers consistent with the Port of Seattle Layering Protocol?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	
Y <input type="checkbox"/>	N <input type="checkbox"/>	Are all view titles using Port of Seattle Standard View Title Blocks?	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
			Comments (Optional):	

Name:	
Date:	

Name:	
Date:	

PDF Checklist (See AUTOCAD Above)

PREPARER	QUALITY CONTROL REPRESENTATIVE	
BLUEBEAM REVIEW PDF's		
At the discretion of the Port PM, files may be broken into disciplines, multi-discipline volumes, or other grouping (typically for large projects)		
<input type="checkbox"/> Submit individual sheet PDFs, full-size pages, black & white <u>only</u> (color plots will not be accepted). Document size must match size of full-size printed hardcopy (e.g., standard Port of Seattle 22"x34" electronic pages).	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
	Comments (Optional):	
<input type="checkbox"/> Submit single combined PDF for entire package, full-size pages.	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
	Comments (Optional):	
OTHER BLUEBEAM PDF SUBMISSION REQUIREMENTS		
<input type="checkbox"/> Create bookmarks for each page, with bookmark title to match sheet number (e.g. C-201) <i>Recommendation: Batch-create bookmarks by area, selecting sheet number area on the drawing file</i> <ol style="list-style-type: none"> 1. Left pane → Bookmarks  2. Highlight and then delete all existing Bookmarks 3. Create Bookmarks  → Page Region → Select sheet number on typical sheet 	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
	Comments (Optional):	
<input type="checkbox"/> Create hierarchical bookmarks for each discipline (e.g. "Civil", under which C-100, C-200, and C-201 would fall) <i>Recommendation: Create New Bookmark at front of each discipline, then move individual pages' bookmarks under the parent discipline bookmark</i> <ol style="list-style-type: none"> 1. Left pane → Bookmarks  2. Add Bookmark  for discipline 3. Drag individual sheet bookmarks under the discipline bookmark as a group: <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"> <div></div> <div>Mechanical</div> <div>M-101</div> <div>M-102</div> </div> <div style="margin: 0 10px;">→</div> <div style="border: 1px solid black; padding: 5px;"> <div></div> <div>Mechanical</div> <div style="margin-left: 20px;">M-102</div> <div style="margin-left: 20px;">M-101</div> </div> </div>	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
	Comments (Optional):	

<input type="checkbox"/> Ensure page labels match sheet numbers (e.g., C-201) <i>Recommendation: Create bookmarks first, then use batch page label “by bookmarks”</i>	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
<ol style="list-style-type: none"> 1. Verify Bookmarks exist for each page, matching sheet number. 2. Left pane → Thumbnails  3. Create Page Labels  → Bookmarks 	Comments (Optional):	
<input type="checkbox"/> Provide links between callouts and pages referenced.	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
<p><i>Recommendation: OCR (Optical Character Recognition) document only if needed, then batch create new links. These functions only available in Bluebeam Complete (Extreme).</i></p> <ol style="list-style-type: none"> 1. “Document” ribbon → OCR  → Okay 2. “File” ribbon → Batch → Link → New  <ol style="list-style-type: none"> 3. Add Open Files → Next 4. Page Label → Generate  <ol style="list-style-type: none"> 6. Run 	Comments (Optional):	
<input type="checkbox"/> Use PDF format that is text-searchable, including all blocks, notes, labels, model space areas, paper space areas, etc. <i>Recommendations:</i> <ul style="list-style-type: none"> <input type="checkbox"/> Use Autodesk DWG-to-PDF driver when creating PDFs <input type="checkbox"/> Do not flatten PDFs <input type="checkbox"/> When searching, select “Search Markups” in search options in Bluebeam. Alternatively, use OCR. <input type="checkbox"/> If a hardcopy is signed & scanned, use OCR (or submit copy w/o signature, originated with PDF driver) 	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>

Embed all drawing fonts in PDF file.	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
	Comments (Optional):	
Verify that files are unlocked. <i>(i.e., pages can be split out, added, etc. No ability to edit text or images in drawings is required.)</i>	Verified <input type="checkbox"/>	Not Verified <input type="checkbox"/>
	Comments (Optional):	

Name:	
Date:	

Name:	
Date:	

Appendix H

Change Control, Forms, & Contact Information

Change Control/Requests for Variance

The Port of Seattle understands and anticipates that the CAD Standards manual will require periodic updates. Internal staff and external consultants may submit requests for changes to these standards, including clarifications, additions, or deletions. Requests to add layers shall follow the layer naming conventions specified in the latest version of the United States National CAD Standard (NCS). Proposed changes will be reviewed internally by the Design Quality team and will not be implemented until approved. The published CAD standards in place at the start of a project are what the design team will be responsible for adhering to and will be defined by the assigned CAD Standards Review Technician during the required CAD Kick-Off meeting.

Requests for deviations or exceptions applicable to a specific project shall require the submission of the CAD Standards Request for Variance form. Requests should be submitted to DesignQuality@portseattle.com. Do not proceed with adoption of a variance prior to receiving an approved/denied response from the Design Quality team.

As requests to modify the standards arise, a CAD Standards Change Control form shall be completed and submitted to DesignQuality@portseattle.com.

These forms are available in the Port of Seattle AutoCAD Resource Library.

Defining a process and using a standard request form to consider all requests provides a consistent means to evaluate variance and change requests. The process allows the Port of Seattle to accumulate data on both adopted and rejected variances and changes to aid in future standards maintenance.

Adopted changes shall be appended to this document to record the document evolution and change history. Rejected change requests shall be archived to accumulate a change request history for consistent evaluation of future requests and consistent rejection reasoning.

Contact and Support Information

The Port of Seattle recognizes the importance of continued CAD standard development and welcomes your questions and comments.

Design Technology Quality Team
DesignQuality@portseattle.org

Design Technology Quality Manager
Chris Rouse-Riley
206-747-3808
rouse-riley.c@portseattle.org

Port of Seattle Design Services
Attn: Design Quality Team
P.O. Box 1209
Seattle, WA 98111



Design Quality Team
P.O. Box 1209
Seattle, WA 98111-1209
www.portseattle.org

CAD STANDARDS REQUEST FOR VARIANCE

Submit form & attachments to: DesignQuality@portseattle.org

Date of Request:	
Project Title:	
Work Project (WP) #:	
Port Tracking (PTN) #:	
Requested By:	
Company/Org:	
Telephone:	
E-mail:	
Standards Version:	2025 ▼
Section/Sub-section:	

Description of Proposed Variance (*Attach additional sheets or provide data electronically as needed*):

Rationale (*Provide as much detail as possible to support the request. Attach additional sheets as needed*):

INTERNAL REVIEW

Reviewer:	
Date of Review:	
Decision:	Approved: <input type="checkbox"/> Denied: <input type="checkbox"/>

Comments:

Reviewer Signature: _____

Quality Manager Signature: _____



Design Quality Team
P.O. Box 1209
Seattle, WA 98111-1209
www.portseattle.org

CAD STANDARDS CHANGE CONTROL REQUEST FORM

Submit form & attachments to: DesignQuality@portseattle.org

DISCLAIMER

By making this submission you, the submitter, agrees that no contractual relationship is established between you and the Port of Seattle. If your material is incorporated into this Standard, you will not be compensated. In addition, if the material which you have submitted on this form is protected by any copyright, patent, trademark, or other proprietary right, then you are granting the Port of Seattle a non-exclusive, royalty-free, perpetual and fully transferrable license to use the materials in connection with this standard.

Date of Request:	
Requested By:	
Company/Org:	
Telephone:	
E-mail:	
Section/Sub-section:	

Change Description (*Provide data electronically as applicable*):

INTERNAL REVIEW

Date of Review:	
Decision:	Approved: <input type="checkbox"/> Denied: <input type="checkbox"/>
Comments:	
Quality Manager Signature:	



Design Quality Team
P.O. Box 1209
Seattle, WA 98111-1209

www.portseattle.org

DIGITAL ARCHIVE FILE REQUEST

Submit form to: DesignQuality@portseattle.org

All fields in each section are required. Incomplete forms will be returned to requester

The use of and digital files from the archive is strictly governed by the "Port of Seattle Archive Files Disclaimer"

****Please allow 48 hours for processing****

CURRENT/ACTIVE PROJECT INFORMATION

Active project that the requested archive files are intended to inform. This information is required and necessary for project record documentation and time coding. If no WP# exists, please enter class/subclass where you would like the time charged.

Project Title:	
Work Project (WP) #:	
Port Tracking (PTN) #:	
Class/Org (if no WP#):	
Subclass (if no WP#):	
Requested By:	
E-mail:	
Port Project Manager:	

REQUESTED ARCHIVE PROJECT INFORMATION

Project files that are being requested from the digital archives.

Project Title(s):	
Work Project (WP)#(s):	
CAD Sheet #(s):	
PDF Sheet #(s):	

DESIGN QUALITY TEAM USE ONLY

Attach "Port of Seattle Digital Archive Files Disclaimer" to response. File this form and response in the EDMS project record.

Name:	
Date of Response:	
File Status:	Available: <input type="checkbox"/> Unavailable: <input type="checkbox"/> Partial: <input type="checkbox"/>
Comments:	



Design Quality Team
P.O. Box 1209
Seattle, WA 98111-1209
DesignQuality@portseattle.org
www.portseattle.org

PORT OF SEATTLE ARCHIVE FILES DISCLAIMER

The use of any digital files (including but not limited to CAD files, PDF's, 3D model files, and other digital formats) provided by the Port of Seattle (either from the Port of Seattle's Engineering Document Management System (EDMS) or any other location/method) to inform new design is strictly governed by the following disclaimer:

*"The recipient accepts full liability for use of all information contained in the digital files provided by the Port and as the Engineer/Architect/Designer of Record they must confirm the applicability and accuracy of the information for their intended use. Digital files provided by the Port may not represent actual As Built conditions and the Engineer/Architect/Designer of Record is **required** to verify data that will be critical to their design. It must be understood that the data and accuracy of As Built information has not been independently verified.*

*Acceptance by the Project Manager serves as acknowledgment that the digital files may not be in full compliance with the Port's CAD and/or BIM Standards and the Engineer/Architect/Designer of Record will make **all necessary corrections** to the digital data to ensure that the project documents meet the Port's CAD and/or BIM Standards. Reference drawings (excluding x-refs) should be incorporated in PDF or TIF format, so they do not result in errors when checking for compliance with the Port's CAD/BIM Standards."*

Requesting and then downloading the files provided by the Port of Seattle Design Quality team serves as acknowledgement of the above conditions.

For assistance and/or clarification, please direct queries to the Port of Seattle Design Quality team: DesignQuality@portseattle.org



Design Quality Team
P.O. Box 1209
Seattle, WA 98111-1209
www.portseattle.org

CAD KICKOFF MEETING REQUEST FORM

Submit form to: DesignQuality@portseattle.org

All fields in each section are required. Incomplete forms will be returned to requester

PORT PROJECT INFORMATION

This information is required and necessary for project record documentation and time coding.

Project Title:	
Work Project (WP) #:	
Port Tracking (PTN) #:	
Port Project Manager:	
E-Mail:	

PREFERRED MEETING DATES & TIMES

Please plan for a minimum of 1 week out from date of request

Date/Time #1:	
Date/Time #2:	
Date/Time #3:	
Date/Time #4:	
Date/Time #5:	

ATTENDEES NAMES & E-MAIL

At a minimum, CAD/Design teams & CAD managers (internal & external) should attend. The Port PM or a representative should attend for awareness of protocol & concepts to ensure understanding of submittal and compliance review requirements. (Enter names/e-mails in box below)

--

DESIGN QUALITY TEAM USE ONLY

Schedule meeting with project team. File this form and response in the EDMS project record.

Name:	<select name>
Date Scheduled:	
Comments:	



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P.O. Box 1209
Seattle, WA 98111-1209

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PROJECT TRACKING (PTN) # REQUEST FORM

Submit form to: DesignQuality@portseattle.org

All fields in each section are required. Incomplete forms will be returned to requester

Please allow 48 hours for processing.

PORT PROJECT INFORMATION

This information is required and necessary for project record creation, documentation, and time coding.

Project Title:		
Division (Airport/Seaport):	<select one>	
Project Type (Select One):	<select one>	
Work Project (WP) #:		
Master Contract (MC) #:		
Port Project Manager (Last, First):		
Port Engineer (Last, First):		
Consultant(s):		
Estimated Date of Construction:		

PROJECT DESCRIPTION

Please provide a brief description of scope/intent of project.

DESIGN QUALITY TEAM USE ONLY

Complete the below and file this form and response correspondence in the EDMS project record.

Name:	<select one>	
Assigned PTN#:		
Date Issued:		



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P.O. Box 1209
Seattle, WA 98111-1209

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CAD/BIM COMPLIANCE REVIEW SUBMISSION INTAKE FORM

Submit form to: DesignQuality@portseattle.org

1. Complete form, all fields are required. An incomplete form will be returned to submitter.
2. Package files for submission. Reference provided standard and note the below reminders.
3. Please include a link to the file package in the form below (Network, Sharepoint, Autodesk Construction Cloud).
4. A member of the Quality Team will reach out to discuss response time frame.

SUBMISSION PACKAGE REQUIREMENTS

CAD PROJECT SUBMITTALS:

- All CAD and CAD support files, all disciplines, in **ONE FOLDER**, no sub-folders allowed.
- Combined PDF of all drawing sheets in exact order of set assembly (printed to full size).
- Individual PDF sheets of each drawing sheet (printed to full size).
- File names for drawing sheets and their matching PDF should be identical:

STIA2601A-101.dwg <-> STIA2601A-101.pdf (no sub-discipline designator used)
or
STIA2601AD101.dwg <-> STIA2601AD101.pdf (sub-discipline designator in use)

BIM PROJECT SUBMITTALS:

- PDF & file naming requirements are the same as CAD above. BIM project milestone submittals must be submitted in Autodesk Construction Cloud via the specific requirements outlined in the project's Digital Project Execution Plan (DPxP). Include this form with Submittal Transmittal. Any questions or requests for assistance should be directed to the Port's BIM Quality Team at CollabDesignTech@portseattle.org.

PORT PROJECT INFORMATION

This information is required and necessary for project record documentation and tracking.

Project Title (of record in EDMS):	
Project Tracking Number (PTN#):	
Work Project (WP) #:	
Master Contract (MC) #:	
Port Project Manager (Last, First):	
Port Construction Manager (Last, First):	
Submitter Name (Last, First):	
Date of Submission:	
Milestone of Submission:	<select milestone> ▼
Preferred Response Date:	
Next Milestone (if <100%):	<select next milestone> ▼
Contract Close Date (if >100%):	
CAD or BIM?	<select type> ▼
# of DWG Sheet Files:	
# of Individual PDF Files:	
# of Combined PDF Files:	
Link to Submission Package Files:	

Right-click on blue box > select "edit action" > paste link in hyper-link box > click OK



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Tel: 787-3000

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APPROVED VARIANCES

Please list any exemptions to the CAD or BIM standards that were approved by the Port of Seattle's Design Quality team.

--

DESIGN QUALITY TEAM USE ONLY

Complete the below and file this form and response correspondence in the EDMS project record.

Review Status:	<div><select status></div>	<div>▼</div>	
Reviewer Name:	<div><select reviewer></div>	<div>▼</div>	
Action Requested:	<div><select action (if any)></div>	<div>▼</div>	
Target Response Date:			
Date Review Completed:			

AS BUILT/RECORD DRAWING SUBMISSIONS ONLY

Ready to Archive:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Archive Complete:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> PDF ONLY
Redlines Received:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Final O&M's Received:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Final Guide Spec Received:	<input type="checkbox"/> YES <input type="checkbox"/> NO

Reviewer Comments:	
--------------------	--

End of Appendices.