

### 3.2.2 Title Block

Consultants to use their own title block. The information to be included, but not limited to, shall be consultant information, logo and engineer stamp; project information, date, City of Hughson project number, sheet number, scale, drawn by, City Use approved by and engineer stamp area, and revision number, date and description.

The sheet number for multi-sheet drawings shall be located in the title block. The drawing title shall include the following:

SHEET TYPE (see Table 2.4 Project Sheets)

STREET/AVENUE/BOULEVARD NAME

STATION NUMBERING

### 3.3 Drawing Scale

For each drawing, a numerical scale ratio used per plan shall be shown by the respective title on all sheets (paper space). All construction plans within one project shall have the same scale. The horizontal scale of the plans are not to exceed 1"=30' and shall have a minimum of 1"=50'. The only exception for the horizontal scale is on the Signal Plan, which can have a scale of 1"=20". The vertical scale of the plans are not to exceed 1"=1' and shall have a minimum of 1"=4'. Scales used shall be standard engineering scales of 1"=30', 1"=40' or 1"=50'. Every sheet shall also include a graphical scale bar that represents the numerical scale and a north arrow pointed to the top or right of the sheet.

#### 3.3.1 Dimensioning and Leaders

Dimension/Leader arrows shall be "closed filled" with a size of 0.1200. All leaders for clearing, construction and landscape plans shall be in paper space (see Table 2.2 File Layout). Dimension lettering in model space shall be arranged to read from the bottom or right hand side of the sheet. Repetition of dimensions in a single sheet shall be avoided.

### 3.4 Hatch

All hatching shall be on one of the hatch layers (see Layer Dictionary - Appendix C). The hatch pattern shall appear and be plotted behind all text, lines, grids, etc. Refer to Table 3.4 Hatch Patterns for approved hatch patterns.

**Table 3.4 Hatch Patterns**

Description	Hatch Pattern	Scale
New AC	Solid Hatch	1
AC to be removed	ANSI 37	10
Details	Earth, Conc, etc.	various

### 3.5 Drawing Aesthetics

The aesthetics of the drawing are an important component of the project. The goal is to have a complete and accurate set of plans that are legible to all involved; Engineer, Contractor, Plan Checker, Inspectors, etc. In order to accomplish this, the following items shall be included on the drawings:

- State Plane coordinate with basis of bearing;
- Bearing on Construction Line;
- Monument with Northing and Easting noted;
- Hatch legend on corresponding sheets;
- Enlarged details of particular areas that require more information than what may fit legibly.

In addition, to maintain legible drawings refer to Table 3.5 Dos and Don'ts.

**Table 3.5 Dos and Don'ts**

<b>Do</b>	<b>Don't</b>
1. One (1) note per a leader.	1. Break leaders or dimension lines.
2. Multiple leaders per a note.	2. Break profile grid vertically.
3. Create a detail of an area that will be overwhelmed with text and information.	3. Place matchlines at odd alignments, i.e. 50+23.
4. Make all note/callout text size uniform in size and style.	4. Place aerials on construction sheets.
5. Align text vertically or horizontally when possible	5. Overlap text, with exception to topography tags and station labels.
6. Keep title block information uniform throughout project.	6. Repeat pipework calculation. Linear feet of pipe shall only reflect the feet illustrated on current sheet.

#### **4.0 Details, Blocks and Profiles**

This section will address the requirements for details, blocks and profiles.

##### **4.1 Details**

Details shall be located on the detail sheet, unless sufficient space is available on the corresponding construction sheet. Include details that pertain to any previous sheets in the order that they appear. With detail one (1) starting on the upper right corner of the sheet and continuing down and to the left. The electronic copy of the City of Hughson "Improvement Standards" shall not be reduced more than 25% of the original size when included on the drawings. Any modified or special details shall be at a reasonable scale that makes the detail legible, including use of linetype and hatch pattern.

##### **4.2 Blocks**

A block in AutoCAD is a group of graphical elements that can be manipulated as a single entity. Examples of typical blocks are manholes, fire hydrants, water valves, etc. The use of such symbols enhances CAD productivity. Any traffic, including striping and signal (i.e. *turn arrows*, *railroad crossing*) standards shall be obtained from Cal-Trans. All utility access points (vaults, boxes) larger than one (1) square foot shall be drawn to scale.

### 4.3 Profiles

Profiles shall be shown on a grid sheet format conforming in scale to the plans. The alignment for plan and profile shall be in line vertically, when possible. Profiles shall not be broken vertically, see Section 3.3 Drawing Scale for appropriate scale. The alignment shall be labeled in increments of 100 feet for plan and profile. Grid lines shall be a minimum of 100 foot increments with lighter (in linetype) lines at 50 foot horizontally and every foot vertically.

## 5.0 Layers

CAD layers (levels) are analogous to overlays in manual drafting systems and serve to separate graphic elements (lines, shapes, and text) according to the feature type they represent. This section addresses layer naming convention and layer assignment. Layer Dictionary - Appendix C consists of a detailed standard layer table.

These layers are also directly linked to the way our drawings are inserted into the City of Hughson's Utility Master Plan. By referring to the color chart, you will notice that specific colors have been assigned unique line weights. This helps insure ease of insertion of submitted AutoCAD drawings into the master plan.

For your convenience, a LISP routine has been created to assist the City's consultants and developers when starting a new drawing. The LISP routine automatically loads the appropriate layers, dimension styles, and text styles for you.

### 5.1 Layer Naming

Layer names consists of distinct data fields separated from one another by a dash, with the exception of the alignment, profile grid and title block (see Layer Dictionary - Appendix C).

Example: **C-ROAD-WALK**

**C = Prefix    Road = General    Walk = Specific**

#### The Prefix

The Layer Manager sorts the layers in alphabetical order by default. Several prefixes are used to help group similar layers together.

- C        Layers with this prefix are proposed civil features. Generally, they are on colors that, when plotted, stand out above existing and future features. C = construction
  
- X        Layers with this prefix are existing civil features. These layers will be faded back by using color 252 so as not to stand out above the proposed features.
  
- F        Layers with this prefix are future civil features and are also faded back similar to the existing features.
  
- D        Layers with this prefix are details of larger sections either of existing features or features to be constructed.

- A Layers with this prefix are used for attributes in paper space relating to title block information, north arrow and legend.
- SV Layers with this prefix are used primarily by surveyors for survey information.

## General

The general description helps to sort the layers into more specific groups. The following is a description of these general layer names:

ANNO	Any text in a drawing is placed on a layer with this general description
BORD	This is used for border information
BDRY	This is used for boundary data. Most commonly used in the creation of site and parcel boundaries, including lot lines.
DETL	Detail information/linework/objects
ESMT	Easement boundary linework
ROAD	Road features including pavements curb and gutter, etc.
SITE	General site features including objects such as buildings, fences, etc.
STRP	Striping features corresponding to Cal-Trans
UTIL	Utility features; storm drain, sanitary sewer, electric, and so on
GRAD	Graded features such as swales, berms, hinge points and toes. Basically any graded feature.

## 6.0 CAD Data Submittal

This section will address how a consultant or developer is to submit a completed improvement project to the City of Hughson, Public Works Department, to include but not be limited to a plotted set of CAD drawings and the electronic version of all necessary CAD files and any supporting files.

### 6.1 CAD Hard Copy

Preliminary plan sets shall be plotted on bond, bound and stapled along the left edge when viewing the plan set. Binding shall be plain white paper with Submittal Title only, no company logo or advertisements (i.e. *95% Submittal*). The preliminary plans shall include a "Preliminary, Not For Construction" stamp. Final plan sets shall be plotted on mylar or polyester and unbound. Each sheet in the final plan set shall include a "plot stamp" in the bottom left corner and orientated vertically. The "plot stamp" shall include the file name, date and time plotted. A letter of transmittal is required with each hard copy plan set, to include the City of Hughson Director of Public Works, consultant Project Manager with contact information, project name, **project number**, and submittal description.

## 6.2 CAD Electronic Format

When submitting electronic files to the City of Hughson, the consultant or developer must submit all files on a CD or a DVD. All AutoCAD files shall be saved as a .dwg in version 2005, and as a .dwf or .pdf file. The files shall be saved as outlined in Table 2.2. A letter of transmittal is required with each submittal, sent to the City of Hughson Director of Public Works, with contact information, project name, **project number**, and submittal description.

## 6.3 CAD Submittal Compliance

Since nearly all layers have been created for you already, the consultant or developer will rarely be required to produce new layers. New layers must be approved by the City prior to their use. Any consultant or developer making revisions, designing, etc. is responsible for using the correct layers

**CAD drawings not submitted in accordance with City of Hughson CAD Submittal Standard and Policy will be subject to a MINIMUM fine of \$800. Changes to incorrectly formatted CAD submittals will be performed by the City with fines in excess of \$800 being charged on a time and materials basis to bring CAD submittals into compliance.** This fine is necessary to ensure compliance and to encourage developers and consultants to follow the City's standards.

## 6.4 Support Files

Any and all support files shall be included with the electronic CAD files. Support files shall include, but not be limited to, external references and data point files. The data point file shall be provided in a .txt version. The consultant or developer shall not change or provide any other text style than what has been previously stated.

## 7.0 Appendices

Appendix A – Project Cover Sheet Sample

Appendix B – Plot Style Table

Appendix C – Layer Dictionary

Appendix A – Insert “PLANS FOR CONSTRUCTION” GRAPHIC

### Appendix B - Plot Style

Object Color		Plot Color	Screening	Lineweight (mm)
Name	Color #			
Red	1	Black	100	0.008
Yellow	2	Black	100	0.015
Green	3	Black	100	0.020
Cyan	4	Black	100	0.025
Blue	5	Black	100	0.030
Magenta	6	Black	100	0.010
White	7	Black	100	0.010
Dark Gray	250	Gray	100	0.010
Med./Dark Gray	251	Gray	100	0.010
Med./Light Gray	252	Gray	100	0.010
Light Gray	253	Gray	100	0.010
Light Gray	254	Gray	100	0.010

Default lineweight = 0.15mm

## Appendix C – Layer Dictionary

The Layer Dictionary - Appendix C present the following:

- A layer name (see Section 5.1 above)
- A brief description
- The presentation graphics associated with each layer

### *CONSTRUCTION LINEWORK LAYERS*

<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
A-BORD	SHEET BORDER IN PAPER SPACE	VARIABLES	CONT
A-BORD-ATT	BORDER ATTRIBUTES	VARIABLES	CONT
A-BORD-NORTH	NORTH ARROW	VARIABLES	CONT
A-BORD-TEXT	TEXT IN PAPER SPACE	VARIABLES	CONT
DAYSTAMP	DAYSTAMP	VARIABLES	CONT
C-ANNO-BEAR	BEARING, DISTANCE	6	CONT
C-ANNO-CURV	CURVE DATA	6	CONT
C-ANNO-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-ANNO-HTCH	HATCH, POCHE	VARIABLES	CONT
C-ANNO-LEAD	CROW'S FOOT	6	CONT
C-ANNO-LNUM	LOT NUMBER	2	CONT
C-ANNO-MTCH	MATCHLINE	5	PHANTOM2
C-ANNO-NAME	STREET NAME, BUILDING NAME	2	CONT
C-ANNO-RADL	RADIAL DATA	6	CONT
C-ANNO-STAT	STATION TEXT, STATION TIC	1	CONT
C-ANNO-STAT-NAME	STATION NAME	1	CONT
C-ANNO-TEXT	GENERAL TEXT	7	CONT
C-ANNO-SYMB	SYMBOL, BLOCK	2	CONT
C-BDRY-CNTR	CENTERLINE	7	CENTER2
C-BDRY-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-BDRY-ELEV	GRADE ELEVATION	7	CONT
C-BDRY-HTCH	HATCH, POCHE	253	CONT

Layer Name	Description	Color	Linetype
C-BDRY-LINE	LOT LINE, PARCEL LINE	2	DASHED2
C-BDRY-LOTS	PROPERTY LOTS	2	CONT
C-BDRY-PROP	PROPERTY LINE	2	CONT
C-BDRY-ROFW	RIGHT OF WAY	3	PHANTOM2
C-BDRY-SECT	SECTION LINE	1	PHANTOM2
C-BDRY-STBK	SETBACK	1	HIDDEN2
C-BDRY-SYMB	SYMBOLS, BLOCKS	2	CONT
C-BDRY-TEXT	BOUNDARY TEXT	7	CONT
C-STRP-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-STRP-FOGG	FOG LINE	4	CONT
C-STRP-HTCH	HATCH, POCHE	VARIABLES	CONT
C-STRP-LANE	LANE STRIPE	4	VARIABLES
C-STRP-MARK	STREET PAINT, MARKING	2	CONT
C-STRP-MISC	MISC.	7	CONT
C-STRP-PARK	PARKING STRIPE	1	CONT
C-STRP-SIGN	STREET SIGN	2	CONT
C-STRP-STRP	STRIPING	3	CONT
C-STRP-SYMB	SYMBOL, BLOCK	2	CONT
C-STRP-TEXT	CHANNELIZATION TEXT	7	CONT
C-ESMT- *	EASEMENT - * USE MODIFIER	6	HIDDEN
C-ESMT-BDRY	EASEMENT BOUNDARY	6	CONT
C-ESMT-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-ESMT-GRAD	EASEMENT GRADE	6	CONT
C-ESMT-HTCH	HATCH, POCHE	VARIABLES	CONT
C-ESMT-ROAD	ROAD EASEMENT	6	CONT
C-ESMT-TEXT	EASEMENT TEXT	7	CONT
C-ESMT-TOPO	EASEMENT TOPO	6	CONT
C-ESMT-UTIL	UTILITY EASEMENT	6	CONT

Layer Name	Description	Color	Linetype
C-GRAD-BERM	BERM	2	CONT
C-GRAD-CULV	CULVERT, DITCH STRUCTURE	2	CONT
C-GRAD-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-GRAD-ELEV	GRADE, SPOT ELEVATION	7	CONT
C-GRAD-FLOW	DRAINAGE FLOW LINE	1	DASHDOT2
C-GRAD-HTCH	HATCH, POCHE	VARIABLES	CONT
C-GRAD-HP	HINGE POINT	2	CONT
C-GRAD-POND	POND BANK, CONTOUR	7	CONT
C-GRAD-SWAL	SWALE, DITCH BANK	2	CONT
C-GRAD-RRAP	DRAINAGE FILTER, RIP RAP	250	CONT
C-GRAD-SYMB	SYMBOL, BLOCK	7	CONT
C-GRAD-TEXT	GRADING TEXT	7	CONT
C-GRAD-TOE	TOE	7	CONT
C-GRAD-VGUT	VALLEY GUTTER	1	CONT
C-GRAD-DESIGN-BW	DESIGN –BACK OF WALK	7	CONT
C-GRAD-DESIGN-DIMN	DESIGN –DIMENSION, TEXT LEADER	7	CONT
C-GRAD-DESIGN-FL	DESIGN –DRAINAGE FLOW LINE	7	CONT
C-GRAD-DESIGN-FTG	DESIGN –FOOTING	7	CONT
C-GRAD-DESIGN-GB	DESIGN –GRADE BREAK	7	CONT
C-GRAD-DESIGN-SD	DESIGN –STORM DRAIN	7	CONT
C-GRAD-DESIGN-SS	DESIGN –SANITARY SEWER	7	CONT
C-GRAD-DESIGN-TEXT	DESIGN -TEXT	7	CONT
C-ROAD-CNTR	STREET CENTERLINE	7	CENTER2
C-ROAD-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-ROAD-DRIV	DRIVEWAY APPROACH	6	CONT
C-ROAD-FL	FLOW LINE OF CURB	1	CONT
C-ROAD-CG	CURB AND GUTTER	6	CONT
C-ROAD-HTCH	HATCH, POCHE	254	CONT

Layer Name	Description	Color	Linetype
C-ROAD-LIP	LIP OF GUTTER	7	DASHED2
C-ROAD-MEDN	MEDIAN CURB	6	CONT
C-ROAD-PAVE	EDGE OF PAVEMENT	2	CONT
C-ROAD-RAMP	ACCESS RAMP	1	CONT
C-ROAD-RW	ROAD RIGHT OF WAY	3	CONT
C-ROAD-SAW	SAWCUT LINE	6	DASHDOT2
C-ROAD-SCOR	PAVMT. SCORING, CONC. PATTERN	1	CONT
C-ROAD-SYMB	SYMBOL, BLOCK	2	CONT
C-ROAD-TC	TOP OF CURB	1	CONT
C-ROAD-TEXT	ROADWAY TEXT	7	CONT
C-ROAD-WALK	SIDEWALK, PATH	6	CONT
C-SITE-BLDG	BUILDING	2	CONT
C-SITE-BOL	BOLLARD	2	CONT
C-SITE-CONC	CONCRETE STRUCTURE	2	CONT
C-SITE-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-SITE-FENC	FENCE	2	FENCELINE1
C-SITE-FTNG	FOOTING	2	CONT
C-SITE-GATE	GATES	2	CONT
C-SITE-HTCH	HATCH, POCHE	VARIABLES	CONT
C-SITE-POST	POST, COLUMN, SUPPORT	2	CONT
C-SITE-RAIL	RAIL ROAD	1	CONT
C-SITE-ROCK	ROCK, GRAVEL, BOULDER	2	CONT
C-SITE-SURF	SITE , MANMADE FEATURE	2	CONT
C-SITE-SYMB	SYMBOL, BLOCK	7	CONT
C-SITE-TEXT	SITE TEXT	7	CONT
C-SITE-TREE	TREES	1	CONT
C-SITE-VEGE	VEGETATION	1	CONT
C-SITE-WALL	ROCK WALL, RETAINING WALL	7	CONT

<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
C-UTIL-CATV	CABLE TV	2	CONT
C-UTIL-CBOX	BOX	2	CONT
C-UTIL-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-UTIL-ELEC	ELECTRIC	2	CONT
C-UTIL-FH	FIRE HYDRANT	5	CONT
C-UTIL-HTCH	HATCH, POCHE	VARIES	CONT
C-UTIL-IRR	IRRIGATION	2	CONT
C-UTIL-NGAS	NATURAL GAS	2	CONT
C-UTIL-PP	POWER POLE	2	CONT
C-UTIL-SD	STORM DRAIN	4	CONT
C-UTIL-SDCB	STORM DRAIN CATCH BASIN	4	CONT
C-UTIL-SDDI	STORM DRAIN INLET	4	CONT
C-UTIL-SDMH	STORM DRAIN MANHOLE	4	CONT
C-UTIL-SS	SANITARY SEWER	3	CONT
C-UTIL-SSMH	SANITARY SEWER MANHOLE	3	CONT
C-UTIL-*-SYMB	SYMBOL, BLOCK	7	CONT
C-UTIL-TANK	TANK	2	CONT
C-UTIL-TELE	TELEPHONE	2	CONT
C-UTIL-TEXT	UTILITY TEXT	7	CONT
C-UTIL-TP	TELEPHONE POLE	2	CONT
C-UTIL-UP	UTILITY POLE	2	CONT
C-UTIL-WATR	WATER	2	CONT
C-UTIL-WELL	WATER WELL	4	CONT
C-UTIL-WM	WATER METER	2	CONT
C-UTIL-WV	WATER VALVE	2	CONT

***DETAIL LINEWORK LAYERS***

<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
D-DETL-1	DETAIL LINE	1	CONT
D-DETL-2	DETAIL LINE	2	CONT
D-DETL-3	DETAIL LINE	3	CONT
D-DETL-4	DETAIL LINE	4	CONT
D-DETL-5	DETAIL LINE	5	CONT
D-DETL-6	DETAIL LINE	6	CONT
D-DETL-7	DETAIL LINE	7	CONT
D-DETL-8	DETAIL LINE (SCREENED)	252	CONT
D-DETL-HIDD	DETAIL LINE (HIDDEN)	7	HIDDEN2
D-DETL-TEXT	DETAIL TEXT	2	CONT
D-DETL-DIMN	DIMENSION, TEXT LEADER	6	CONT
D-DETL-HTCH	HATCH, POCHE	VARIABLES	CONT
D-DETL-SYMB	SYMBOL, BLOCK	7	CONT

***FUTURE LINEWORK LAYERS***

<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
F-ANNO-BEAR	BEARING, DISTANCE	1	CONT
F-ANNO-CURV	CURVE DATA	1	CONT
F-ANNO-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-ANNO-HTCH	HATCH, POCHE	VARIABLES	CONT
F-ANNO-LEAD	CROW'S FOOT	1	CONT
F-ANNO-LNUM	LOT NUMBER	1	CONT
F-ANNO-NAME	STREET NAME, BUILDING NAME	1	CONT
F-ANNO-RADL	RADIAL DATA	1	CONT
F-ANNO-STAT	STATION TEXT, STATION TIC	1	CONT
F-ANNO-STAT-NAME	STATION NAME	1	CONT
F-ANNO-SYMB	SYMBOL, BLOCK	2	CONT
F-ANNO-TEXT	GENERAL TEXT	6	CONT

Layer Name	Description	Color	Linetype
F-BDRY-CNTR	CENTERLINE	1	CENTER2
F-BDRY-DIMN	DIMENSION, TEXT LEADER	6	CONT
F-BDRY-ELEV	GRADE ELEVATION	1	CONT
F-BDRY-HTCH	HATCH, POCHE	VARIES	CONT
F-BDRY-LINE	PROPERTY LINE	1	CONT
F-BDRY-LOTS	PROPERTY LOTS	1	CONT
F-BDRY-PROP	PROPERTY LINE	1	CONT
F-BDRY-ROFW	RIGHT OF WAY	1	CONT
F-BDRY-SECT	SECTION LINE	1	PHANTOM2
F-BDRY-STBK	SETBACK	1	HIDDEN2
F-BDRY-SYMB	SYMBOL, BLOCK	1	CONT
F-BDRY-TEXT	BOUNDARY TEXT	7	CONT
F-ESMT- *	EASEMENT - * USE MODIFIER	1	HIDDEN
F-ESMT-BDRY	EASEMENT BOUNDARY	1	CONT
F-ESMT-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-ESMT-GRAD	EASEMENT GRADE	1	CONT
F-ESMT-HTCH	HATCH, POCHE	VARIES	CONT
F-ESMT-ROAD	ROAD EASEMENT	1	CONT
F-ESMT-TEXT	EASEMENT TEXT	1	CONT
F-ESMT-TOPO	EASEMENT TOPO	1	CONT
F-ESMT-UTIL	UTILITY EASEMENT	1	CONT
F-STRP-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-STRP-FOGG	FOG LINE	1	CONT
F-STRP-HTCH	HATCH, POCHE	VARIES	CONT
F-STRP-LANE	LANE STRIPE	1	VARIES
F-STRP-MARK	STREET PAINT, MARKING	1	CONT
F-STRP-MISC	MISC.	1	CONT
F-STRP-PARK	PARKING STRIPE	1	CONT

Layer Name	Description	Color	Linetype
F-STRP-SIGN	STREET SIGN	1	CONT
F-STRP-STRP	STRIPING	1	CONT
F-STRP-SYMB	SYMBOL, BLOCK	1	CONT
F-STRP-TEXT	CHANNELIZATION TEXT	1	CONT
F-GRAD-BERM	BERM	1	CONT
F-GRAD-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-GRAD-ELEV	GRADE, SPOT ELEVATION	1	CONT
F-GRAD-FLOW	DRAINAGE FLOW LINE	1	DASHDOT2
F-GRAD-HTCH	HATCH, POCHE	VARIABLES	CONT
F-GRAD-HP	HINGE POINT	1	CONT
F-GRAD-POND	POND BANK, CONTOUR	1	CONT
F-GRAD-SWAL	SWALE, DITCH BANK	1	CONT
F-GRAD-RRAP	DRAINAGE FILTER, RIP RAP	250	CONT
F-GRAD-SYMB	SYMBOL, BLOCK	1	CONT
F-GRAD-TEXT	GRADING TEXT	7	CONT
F-GRAD-TOE	TOE	1	CONT
F-GRAD-VGUT	VALLEY GUTTER	1	CONT
F-GRAD-DESIGN-BW	DESIGN –BACK OF WALK	1	CONT
F-GRAD-DESIGN-DIMN	DESIGN –DIMENSION, TEXT LEADER	1	CONT
F-GRAD-DESIGN-FL	DESIGN –DRAINAGE FLOW LINE	1	CONT
F-GRAD-DESIGN-FTG	DESIGN –FOOTING	1	CONT
F-GRAD-DESIGN-GB	DESIGN –GRADE BREAK	1	CONT
F-GRAD-DESIGN-SD	DESIGN –STORM DRAIN	1	CONT
F-GRAD-DESIGN-SS	DESIGN –SANITARY SEWER	1	CONT
F-GRAD-DESIGN-TEXT	DESIGN -TEXT	1	CONT
F-ROAD-CNTR	STREET CENTERLINE	1	CENTER2
F-ROAD-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-ROAD-DRIV	DRIVEWAY APPROACH	1	CONT

Layer Name	Description	Color	Linetype
F-ROAD-FL	FLOW LINE OF CURB	1	CONT
F-ROAD-CG	CURB AND GUTTER	1	CONT
F-ROAD-HTCH	HATCH, POCHE	VARIES	CONT
F-ROAD-LIP	LIP OF GUTTER	1	CONT
F-ROAD-MEDN	MEDIAN CURB	1	CONT
F-ROAD-PAVE	EDGE OF PAVEMENT	1	CONT
F-ROAD-RAMP	ACCESS RAMP	1	CONT
F-ROAD-RW	ROAD RIGHT OF WAY	1	CONT
F-ROAD-SCOR	PAVMT. SCORING, CONC. PATTERN	1	CONT
F-ROAD-SYMB	SYMBOL, BLOCK	1	CONT
F-ROAD-TC	TOP OF CURB	1	CONT
F-ROAD-TEXT	ROADWAY TEXT	1	CONT
F-ROAD-WALK	SIDEWALK, PATH	1	CONT
F-SITE-BLDG	BUILDING	1	CONT
F-SITE-BOL	BOLLARD	1	CONT
F-SITE-CONC	CONCRETE STRUCTURE	1	CONT
F-SITE-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-SITE-FENC	FENCE	1	FENCELINE1
F-SITE-FTNG	FOOTING	1	CONT
F-SITE-GATE	GATES	1	CONT
F-SITE-HTCH	HATCH, POCHE	VARIES	CONT
F-SITE-POST	POST, COLUMN, SUPPORT	1	CONT
F-SITE-RAIL	RAIL ROAD	1	CONT
F-SITE-ROCK	ROCK, GRAVEL, BOULDER	1	CONT
F-SITE-SURF	SITE , MANMADE FEATURE	1	CONT
F-SITE-SYMB	SYMBOL, BLOCK	1	CONT
F-SITE-TEXT	SITE TEXT	1	CONT
F-SITE-TREE	TREES	1	CONT
F-SITE-VEGE	VEGETATION	1	CONT

<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
F-SITE-WALL	ROCK WALL, RETAINING WALL	1	CONT
F-UTIL-CATV	CABLE TV	1	CONT
F-UTIL-CBOX	BOX	1	CONT
F-UTIL-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-UTIL-ELEC	ELECTRIC	1	CONT
F-UTIL-FH	FIRE HYDRANT	1	CONT
F-UTIL-HTCH	HATCH, POCHE	VARIES	CONT
F-UTIL-IRR	IRRIGATION	1	CONT
F-UTIL-NGAS	NATURAL GAS	1	CONT
F-UTIL-PP	POWER POLE	1	CONT
F-UTIL-SD	STORM DRAIN	1	CONT
F-UTIL-SDCB	STORM DRAIN CATCH BASIN	1	CONT
F-UTIL-SDDI	STORM DRAIN INLET	1	CONT
F-UTIL-SDMH	STORM DRAIN MANHOLE	1	CONT
F-UTIL-SS	SANITARY SEWER	1	CONT
F-UTIL-SSMH	SANITARY SEWER MANHOLE	1	CONT
F-UTIL-*-SYMB	SYMBOL, BLOCK	1	CONT
F-UTIL-TANK	TANK	1	CONT
F-UTIL-TELE	TELEPHONE	1	CONT
F-UTIL-TEXT	UTILITY TEXT	1	CONT
F-UTIL-TP	TELEPHONE POLE	1	CONT
F-UTIL-UP	UTILITY POLE	1	CONT
F-UTIL-WATR	WATER	1	CONT
F-UTIL-WELL	WATER WELL	1	CONT
F-UTIL-WM	WATER METER	1	CONT
F-UTIL-WV	WATER VALVE	1	CONT

***SURVEY AND MAPPING LAYERS***

<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
SV-ANNO-BD	BEARINGS, DISTANCES	6	CONT
SV-ANNO-DIMN	DIMENSION, TEXT LEADER	6	CONT
SV-ANNO-TEXT	GENERAL SURVEY/MAPPING TEXT	6	CONT
SV-CTRL	CONTROL POINTS	7	CONT
SV-MONUMENT	MONUMENT SYMBOLS & TEXT	7	CONT
SV-RADIAL	RADIALS TEXT & LEADERS	6	CONT
SV-BDRY-CL	CENTERLINE	7	CENTER2
SV-BDRY-PHAS	PHASE LINE	7	CENTER2
SV-BDRY-DIMN	DIMENSION, TEXT LEADER	6	CONT
SV-BDRY-ELEV	GRADE, SPOT ELEVATION	7	CONT
SV-BDRY-ESLD	LANDSCAPE EASEMENT	3	DASHED
SV-BDRY-ESPU	PUBLIC UTILITIES EASEMENT	3	HIDDEN
SV-BDRY-ESSD	STORM DRAIN EASEMENT	3	HIDDEN
SV-BDRY-ESWR	WATER EASEMENT	3	DASHED
SV-BDRY-HTCH	HATCH, POCHÉ	VARIES	CONT
SV-BDRY-IOD	IRREVOCABLE OFFER OF DEDICATION	2	CONT
SV-BDRY-LINE	LOT LINE, PARCEL LINE	2	CONT
SV-BDRY-LOTS	LOTS	2	CONT
SV-BDRY-PROP	PROPERTY LINE	2	CONT
SV-BDRY-ROW	RIGHT OF WAY	3	PHANTOM2
SV-BDRY-SECT	SECTION LINE	2	PHANTOM2
SV-BDRY-SITE	SYMBOL, BLOCK	2	CONT
SV-BDRY-STBK	SETBACK	1	HIDDEN2
SV-BDRY-SYMB	SYMBOL, BLOCK	2	CONT
SV-BDRY-TEXT	BOUNDARY TEXT	7	CONT

***EXISTING LINEWORK LAYERS***

<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
X-ANNO-BEAR	BEARING, DISTANCE	252	CONT
X-ANNO-CURV	CURVE DATA	252	CONT
X-ANNO-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-ANNO-LEAD	CROW'S FOOT	252	CONT
X-ANNO-LNUM	LOT NUMBER	252	CONT
X-ANNO-NAME	STREET NAME	252	CONT
X-ANNO-HTCH	HATCH, POCHE	253	CONT
X-ANNO-RADL	RADIAL DATA	252	CONT
X-ANNO-STAT	STATION TEXT, STATION TIC	252	CONT
X-ANNO-STAT-NAME	STATION NAME	252	CONT
X-ANNO-SYMB	SYMBOL, BLOCK	252	CONT
X-ANNO-TEXT	GENERAL TEXT	252	CONT
X-STRP-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-STRP-FOGG	FOG LINE	252	CONT
X-STRP-HTCH	HATCH, POCHE	253	CONT
X-STRP-LANE	LANE STRIPE	252	VARIES
X-STRP-MARK	STREET PAINT, MARKING	252	CONT
X-STRP-MISC	MISC.	252	CONT
X-STRP-PARK	PARKING STRIPE	252	CONT
X-STRP-SIGN	STREET SIGN	252	CONT
X-STRP-STRP	STRIPING	252	CONT
X-STRP-SYMB	SYMBOL, BLOCK	252	CONT
X-STRP-TEXT	CHANNELIZATION TEXT	252	CONT
X-BDRY-CNTR	CENTERLINE	252	CENTER2
X-BDRY-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-BDRY-ELEV	GRADE ELEVATION	252	CONT
X-BDRY-HTCH	HATCH, POCHE	253	CONT

Layer Name	Description	Color	Linetype
X-BDRY-LINE	LOT LINE, PARCEL LINE	252	DASHED2
X-BDRY-LOTS	PROPERTY LOTS	252	CONT
X-BDRY-PROP	PROPERTY LINE	252	DASHED2
X-BDRY-ROFW	RIGHT OF WAY	251	DIVIDE2
X-BDRY-SECT	SECTION LINE	1	PHANTOM2
X-BDRY-STBK	SETBACK	252	HIDDEN2
X-BDRY-SYMB	SYMBOLS, BLOCKS	252	CONT
X-BDRY-TEXT	BOUNDARY TEXT	252	CONT
X-ESMT- *	EASEMENT - * USE MODIFIER	252	HIDDEN
X-ESMT-BDRY	EASEMENT BOUNDARY	252	CONT
X-ESMT-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-ESMT-GRAD	EASEMENT GRADE	252	CONT
X-ESMT-HTCH	HATCH, POCHE	253	CONT
X-ESMT-ROAD	ROAD EASEMENT	252	CONT
X-ESMT-TEXT	EASEMENT TEXT	252	CONT
X-ESMT-TOPO	EASEMENT TOPO	252	CONT
X-ESMT-UTIL	UTILITY EASEMENT	252	CONT
X-GRAD-BERM	EARTH BERM	252	CONT
X-GRAD-CMJR	MAJOR CONTOURS	253	CONT
X-GRAD-CMNR	MINOR CONTOURS	251	CONT
X-GRAD-CULV	CULVERT	252	CONT
X-GRAD-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-GRAD-ELEV	GRADE, SPOT ELEVATION	252	CONT
X-GRAD-FLOW	DRAINAGE FLOW LINE	252	DASHDOT2
X-GRAD-HP	HINGE POINT	252	DIVIDE2
X-GRAD-HTCH	HATCH, POCHE	253	CONT
X-GRAD-POND	POND BANK, CONTOURS	252	HIDDEN2
X-GRAD-RRAP	RIP RAP, DRAINAGE FILTER	252	CONT

Layer Name	Description	Color	Linetype
X-GRAD-SWALE	SWALE, DITCH BANK	252	DIVIDE2
X-GRAD-SYMB	SYMBOL, BLOCK	252	CONT
X-GRAD-TEXT	GRADING TEXT	252	CONT
X-GRAD-TOE	TOE	252	DASHDOT2
X-GRAD-VGUT	VALLEY GUTTER	252	CONT
X-ROAD-CNTR	STREET CENTERLINE	252	CENTER2
X-ROAD-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-ROAD-DRIV	DRIVEWAY APPROACH	252	CONT
X-ROAD-FL	FLOW LINE OF CURB	252	CONT
X-ROAD-CG	CURB AND GUTTER	252	CONT
X-ROAD-HTCH	HATCH, POCHE	253	CONT
X-ROAD-LIP	LIP OF GUTTER	252	DASHED2
X-ROAD-MEDN	MEDIAN CURB	252	CONT
X-ROAD-PAVE	EDGE OF PAVEMENT	252	CONT
X-ROAD-RAMP	ACCESS RAMP	252	CONT
X-ROAD-RW	ROAD RIGHT OF WAY	252	CONT
X-ROAD-SCOR	PAVMT. SCORING, CONC. PATTERN	252	CONT
X-ROAD-SYMB	SYMBOL, BLOCK	252	CONT
X-ROAD-TC	TOP OF CURB	252	CONT
X-ROAD-TEXT	ROADWAY TEXT	252	CONT
X-ROAD-WALK	SIDEWALK, PATH	252	CONT
X-SITE-BLDG	BUILDING	252	CONT
X-SITE -BOL	BOLLARD	252	CONT
X-SITE -CONC	CONCRETE STRUCTURES	252	CONT
X-SITE-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-SITE -FENC	FENCE	252	CONT
X-SITE -FTG	FOOTING	252	CONT
X-SITE -GATE	GATES	252	CONT

Layer Name	Description	Color	Linetype
X-SITE -HTCH	HATCH, POCHE	253	CONT
X-SITE -MISC	MISC	252	CONT
X-SITE -POST	POST, COLUMN	252	CONT
X-SITE -RAIL	RAIL ROAD	252	CONT
X-SITE -ROCK	ROCK, GRAVEL	252	CONT
X-SITE-SURF	SITE , MANMADE FEATURE	252	CONT
X-SITE -SYMB	SYMBOL, BLOCK	252	CONT
X-SITE -TEXT	TOPOGRAPHY TEXT	252	CONT
X-SITE -TREE	TREES	253	CONT
X-SITE -VEGE	VEGETATION	253	CONT
X-SITE -WALL	ROCK WALL, RETAINING WALL	252	CONT
X-UTIL-CATV	CABLE TV	252	CONT
X-UTIL-CBOX	BOX	252	CONT
X-UTIL-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-UTIL-ELEC	ELECTRIC	252	CONT
X-UTIL-FH	FIRE HYDRANT	252	CONT
X-UTIL-HTCH	HATCH	253	CONT
X-UTIL-IRR	IRRIGATION	252	CONT
X-UTIL-NGAS	NATURAL GAS	252	CONT
X-UTIL-PP	POWER POLE	252	CONT
X-UTIL-SD	STORM DRAIN	252	CONT
X-UTIL-SDCB	STORM DRAIN CATCH BASIN	252	CONT
X-UTIL-SDDI	STORM DRAIN INLET	252	CONT
X-UTIL-SDMH	STORM DRAIN MANHOLE	252	CONT
X-UTIL-SS	SANITARY SEWER	252	CONT
X-UTIL-SSMH	SANITARY SEWER MANHOLE	252	CONT
X-UTIL- * -SYMB	SYMBOL, BLOCK	252	CONT
	* utility modifier SS, SD, ETC.		
X-UTIL-TANK	TANK	252	CONT

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<b>Layer Name</b>	<b>Description</b>	<b>Color</b>	<b>Linetype</b>
X-UTIL-TELE	TELEPHONE	252	CONT
X-UTIL-TEXT	UTILITY TEXT	252	CONT
X-UTIL-TP	TELEPHONE POLE	252	CONT
X-UTIL-UP	UTILITY POLE	252	CONT
X-UTIL-WATR	WATER LINE	252	CONT
X-UTIL-WELL	WATER WELL	252	CONT
X-UTIL-WM	WATER METER	252	CONT
X-UTIL-WV	WATER VALVE	252	CONT

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