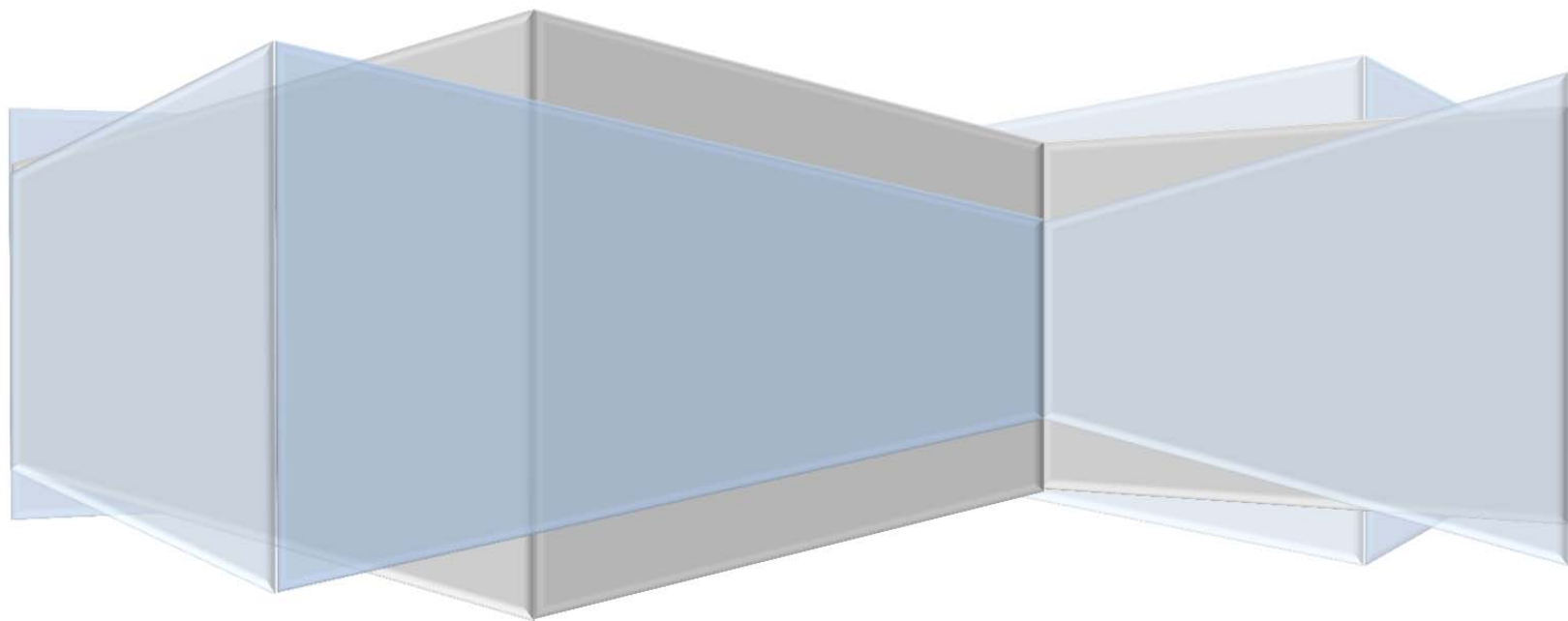# Digital Submittal Requirements

GIS Division

City of Fremont - Digital Submittal Requirements

The City of Fremont uses Geographic Information Systems (GIS) to store and manage any data connected to a location within Fremont. The City's GIS division is responsible for the assignment of Street Names and Addresses. For Address Assignment, to optimize digital technology, Fremont is now requiring the submission of Computer Aided Design (CAD) files. These files will allow for improved accuracy and a reduction in handling and redundancy of data while enhancing the response time of Addressing projects for the applicant.

IMPORTANT NOTE: Not all sections may apply to your project. Only provide information required by GIS for addressing and/or by the Fire Department for Fire Site Plan requirements.

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1 - General CAD Standards

- Digital files are to be submitted in AutoCAD version 2004 or higher and in "DWG" file format
- All AutoCAD "DWG" files are to be submitted in NAD83 CA State Plane Coordinate System (Zone III)
    - Each drawing shall contain at least 2 survey control points
        - To view City survey control points for your project area, please visit the City of Fremont Public GIS website at http://egis.fremont.gov/apps/public
- Digital files will be uploaded to the City's FTP site, this information will be provided to applicant during application process
- All coincident points on external boundary will have the same coordinate values
- All digital line work must be geometrically correct, topologically clean without slivers, dangles, undershoots or inappropriate breaks. Polygon features drawn as polylines must properly close without gaps.
- Each AutoCAD "DWG" file shall be prepared in Model space and UCS must be set to "World" then "Plan"
- No additional "Layout" tabs for plan sheets shall exist other than "Model"
- No drawing information should be placed on layer "0"
- Layer names, colors and linetypes are predefined in the master AutoCAD DWG file called "*City of Fremont GIS AutoCAD Layers and Blocks.dwg*"
- Blocks are predefined in the master AutoCAD DWG file called "*City of Fremont GIS AutoCAD Layers and Blocks.dwg*"
- XREF's are not allowed in the final AutoCAD DWG file delivery to the City
- No additional Layers and Blocks unless otherwise specified in the master AutoCAD DWG file called "*City of Fremont GIS AutoCAD Layers and Blocks.dwg*" are to exist in the final AutoCAD DWG file delivery to the City
- All Layers and Blocks Drawing entities will never be permanently set to a color that differs from the layer they are on, that is to say color will always be "BYLAYER".
- No blocks shall be "exploded"
- The standard text font shall be "Simplex"
- All drawing units shall be English
- Drawings submitted which do not meet these specifications will be returned to the consultant for correction and re-submittal.

2 - Type of Drawings and Naming Convention

- Each Development is required to submit at least one Site Plan following the naming convention defined below
- If there is more than 1 Floor in a building, each floor plan is to have its own AutoCAD drawing following the naming convention defined below
    - o For floor plan information, show only the wall outlines of the interior and exterior of the buildings along with stairs, elevators, and doorways. Specific details of items like appliances, cabinets and fixtures are not desired.

AA–AAAA_BBBBB_CCCCC.dwg		
AA–AAAA = SP Number	Provided by City	7 characters
BBBBB = Tract Number	Lead with a 0 if Tract is less than 10000	5 characters
CCCCC = Map Product Code	See example below	5 characters

Examples of AutoCAD drawing filenames…

Plan	Map Product Code	AutoCAD Drawing filename
Site Plan	SPLAN	66–0185_07986_SPLAN.dwg
Floor 1	FP–01	66–0185_07986_FP–01.dwg
Floor 2	FP–02	66–0185_07986_FP–02.dwg
Basement	FP–B1	66–0185_07986_FP–B1.dwg
Garage	FP–G1	66–0185_07986_FP–G1.dwg
Roof	FP–RF	66–0185_07986_FP–RF.dwg
Attic	FP–AT	66–0185_07986_FP–AT.dwg

3 - AutoCAD Layer and Block Definition

- The AutoCAD DWG file must follow the standard Layer and Block scheme as defined on the Excel spreadsheet called "*City of Fremont GIS AutoCAD Requirements.xls*" on the tab called "*AutoCAD Layers and Blocks*". Please refer to this document to determine the Layers and Blocks for your project. **Not all Layers and Blocks may be required. For example, Fire Site Plan (aka Emergency Response Plan) Layers and Blocks are ONLY to be included if required by the City of Fremont Fire Department.**
- All point features shall be stored as "Blocks"
- All Blocks are to be inserted on the corresponding layer as defined on the Excel spreadsheet called "*City of Fremont GIS AutoCAD Requirements.xls*" on the tab called "*AutoCAD Layers and Blocks*"
- Users are encouraged to use attributes in blocks. It is efficient in the long run to include attribute data.
- All Blocks shall contain attribute(s) described in the tables below:
    - Use only valid values as defined for each block
- *Red = default attribute value*

4 - Addressing Blocks

4-1. Access (Main) – Block Attribute Information

Block	Building Name	Floor	Access ID	Access To
ACCESS–MAIN	0	0	0	0
				Building
				Driveway
				Unit

4-2. Address – Block Attribute Information

- Developer shall only populate the following*: "Lot Number", "Building Name", "Floor" and "Address Type"*
  - o   If feature is in Right-of-Way then only populate *"Address Type"*
- City of Fremont shall populate the remaining attributes

Block	Address Number	Street Name	Unit	*Lot Number*	*Building Name*	*Floor*	*Address Type*
ADDRESS	0	0	0	0	0	0	0
							Building
							Common Area
							Condo
							Parcel
							Unit

4-3. Address for Utilities – Block Attribute Information

- Developer shall only populate the following*: "Lot Number", "Building Name", "Floor" and "Address Type"*
  - o   If feature is in Right-of-Way then only populate *"Address Type"*
- City of Fremont shall populate the remaining attributes

Block	Address Number	Street Name	Unit	*Lot Number*	*Building Name*	*Floor*	*Address Type*
ADDRESS-UTILITY	0	0	0	0	0	0	0
							Electrical Meter
							Irrigation Meter
							Sign
							Traffic Signal Cabinet

4-4. Benchmark – Block Attribute Information

Block	Name
BENCHMARK	0

4-5. Building – Block Attribute Information

Block	Building Name	Total Floors
BUILDING	0	0

4-6. Hydrant – Block Attribute Information

Block	Hydrant Owner
HYDRANT	0
	Public
	Private

4-7. Monument – Block Attribute Information

Block	Name
MONUMENT	0

4-8. Mile Marker – Block Attribute Information

Block	Mile
MILEMARKER	0

5 - Fire Site Plan (aka Emergency Response Plan) Blocks

- **Fire Site Plan Layers and Blocks are ONLY to be included if required by the City of Fremont Fire Department**

5-1. Fire Access (Entry) – Block Attribute Information

Block	Building Name	Floor	Access ID	Access To
ACCESS–ENTRY	0	0	0	0
				Attic
				CPD (Cross Passage Door)
				Elevator
				Fire Access
				Floor
				FRSD (Fire Rated Separation Door)
				Garage
				Roof
				Stair

5-2. Fire Access (Gate) Features – Block Attribute Information

Block	Building Name	Access ID	Access Type
ACCESS-GATE	0	0	0
			Vehicle
			Pedestrian
			Personnel

5-3. Fire Common Areas – Block Attribute Information

The values listed in the Area Name column are only examples. Please use an appropriate name based on your project.

Block	Building Name	Floor	Area Name
COMMON-AREA	0	0	0
			Café
			Courtyard
			Electrical Termination
			Elevator Mechanical
			Emergency Battery
			Fire Command Center
			Fitness
			Kitchen
			Laundry
			Leasing Office
			Mailroom
			Maintenance
			Manager's Office
			Mechanical
			Meeting
			Office
			Pond
			Pool
			Pool Equipment
			Public Assembly
			Restroom
			Sauna
			Spa
			Storage
			Trash
			Work Room

5-4. Fire HAZMAT – Block Attribute Information

Block	Building Name	Floor	Red	Blue	Yellow	White	Name
HAZMAT	0	0	0	0	0	0	0

5-5. Fire Miscellaneous Features – Block Attribute Information

Block	Building Name	Floor
BACKFLOW	0	0
EQ–AED	0	0
EQ–FIREPUMP	0	0
EQ–RAS	0	0
FAN/FAN EXHAUST	0	0
GEN–DIESEL	0	0
HELIPAD	0	0
KNOX–BOX	0	0
KNOX–PADLOCK	0	0
PANEL–ANNUN	0	0
PANEL–EVAC	0	0
PANEL–FAC	0	0
TANK–LIQGAS–PROP	0	0
TANK–WATER	0	0
VALVE–IV	0	0
VALVE–PIV	0	0
VALVE–SV	0	0

5-6. Fire Room Utility– Block Attribute Information

Block	Building Name	Floor	Utilities
ROOM-UTILITY	0	0	0
			Combo
			Electric
			Gas
			Solar
			Water
			UPS

5-7. Fire Sprinkler – Block Attribute Information

Block	Building Name	Floor	Sprinkler Type
SPRINKLER	0	0	0
			Combo
			Dry
			Main Riser
			Wet

5-8. Fire Sprinkler Zone – Block Attribute Information

Block	Building Name	Floor	Zone
SPRINKLER-ZONE	0	0	0

5-9. Fire Standpipe – Block Attribute Information

Block	Building Name	Floor	Standpipe Type
STANDPIPE	0	0	0
			Combo
			Dry
			Wet

5-10.   Fire Utility – Block Attribute Information

Block	Building Name	Floor	Utility Type	Utility Control
UTILITY	0	0	0	0
			Electric	Meter/Shutoff
			Gas	Meter
			Solar	Main Shutoff
			Water	Shutoff

6 – Digital Submittal Review Process

The submitted AutoCAD drawing will be reviewed to determine if it complies with the standards outlined in this document. If it does not, a resubmittal will be requested until the drawing meets the Digital Submittal Requirements. Please note that non-compliance may affect building permit issuance and/or issuance of Certificate of Occupancy (when the project requires a Fire Site Plan).

The following outlines the items being reviewed in the drawing.

General CAD Standards
- Does this project require multiple AutoCAD drawings?
- Was AutoCAD drawing delivered in version 2004 or higher?
- Was AutoCAD drawing delivered in the proper file naming standard?
- Was AutoCAD drawing delivered in NAD 83 State Plane California Coordinate System (Zone III)?
- Was AutoCAD drawing delivered in a local coordinate system?
- Does AutoCAD drawing contain the minimum City survey control points?
- Does AutoCAD drawing contain XREFs?
- Are Fire Site Plan (aka Emergency Response Plan) layers and blocks required?
- Does AutoCAD drawing pass Section 1 requirements?

Layering scheme
- Does AutoCAD drawing contain City layers?
- Does AutoCAD drawing contain extraneous layers?
- Were all City required features placed on the correct layer?
- Does AutoCAD drawing contain features on layer 0?
- Does AutoCAD drawing pass Section 3 requirements?

Blocks and Attribution
- Does AutoCAD drawing contain City blocks?
- Does AutoCAD drawing contain City blocks with attribution?
- Were all AutoCAD City blocks attributed correctly?
- Does AutoCAD drawing contain any extraneous blocks?
- Were all AutoCAD blocks placed on the correct layer?
- Does AutoCAD drawing pass Sections 4 and 5 requirements?

7 – Document Revisions

Date	Revision	By
6/21/2013	Digital Submission Requirements initial release	CKF & JLL
10/16/2014	Added Digital Submission Review Process as Section 6	RW & JLL
10/16/2014	Document Revisions Section has been changed to Section 7	JLL
10/16/2014	Added "(aka Emergency Response Plan)" to "Fire Site Plan Blocks" Section title	JLL
10/16/2014	Added missing block attribute info for SPRINKLER_ZONE Section 5.8	JLL
02/26/2015	Added UCS setting to **1 – General CAD Standards,** modified **3 – AutoCAD Layer and Block Definition** and modified **6 – Digital Submittal Review Process**	JLL
11/10/2015	Minor revisions	CKF and JLL
4/27/2016	Minor revisions	JLL