

## ADDENDUM 2 – REVISED

### **CITY OF GALT UTILITIES ATTRIBUTES & MAPPING FORMAT**

Addendum 2 provides details of requirements outlined in Section 3, Item 16 of the City of Galt's Improvement Standards and Required Notes.

The Developer/Contractor shall provide a Geographic Information System (GIS) that shall contain comprehensive attribute data for all utilities to be transferred to the City. The information shall be provided in AN ESRI ARCGIS GEODATABASE CONTAINING FEATURE CLASSES. These items shall include all (water distribution systems, storm water collection systems, wastewater collection systems, and streetlight systems) utilities features associated with the subject Development. The grid coordinate datum used for All maps and exhibits shall be California State Plane, Zone II, North American Horizontal Datum of 1983 (NAD 83), National Geodetic Vertical Datum of 1929 (NGVD 29) grid projection.

#### **SUMMARY OF UTILITY SYSTEMS COMPONENT FEATURES**

##### **Water (Distribution) System Features**

Valve (Subtypes: Gate, Butterfly, Blow-off, Air release)  
 Fitting (Subtypes: Tee, Cross, Cap, Coupling, Reducer, Saddle, Sleeve, Wye)  
 Ell (elbow)  
 Fire Hydrant Assembly  
 Pipeline section (Subtype: Distribution main, Transmission main, Sample station, Interconnect, Bypass)  
 Reservoir  
 Well

##### **Stormwater Collection System (Storm Drain):**

Inlet Point (Drop Inlet - DI)  
 Lateral Line (Pipe segment to DI)  
 Lift Station (Pumping Station)  
 Manhole (Subtype: Standard Manhole, Drop Manhole)  
 Open ditch  
 Discharge point (Outfall)  
 Gravity Main (main collector pipeline section)

##### **Sewage Collection System (sanitary sewer):**

Manhole (Subtype: Standard Manhole, Drop Manhole)  
 Gravity Main (Main collector pipeline section)  
 Pressurized Main (Force main)  
 Valve (Gate, Air Release)  
 Lift station (Pumping station)  
 Cleanout Structure (Cleanout)

##### **Streetlight System:**

Type A Streetlight (arterial and collector streets - cobra arm)  
 Type B Streetlight (local streets – upright)  
 Type C Streetlight (special, usually decorative)  
 Service Point (electrical panel providing power to the street light circuit)  
 Junction Box (place where two or three circuit line sections are joined)  
 Circuit line (conduit & wire sections connecting streetlights, junction boxes, and/or service point)

Just as each of these utilities contains different features, the attribute data to be collected for each feature varies somewhat as well. Generally, each feature contains the following types of attributes. The actual listing of fields, including those that are required to be filled in, are noted in the detailed tables at the end of this addendum:

- An Object Identifier – This unique I.D. field is required by the software and is automatically assigned
- A Facility Identifier (I.D.) - This field will have the same number (= to) the Legacy ID
- A Legacy Identifier (I.D.) – This is the City's unique identifier for utilities. The identifier contains information useful to the City (helps describe the asset)
- Line attributes - Pipe (or connector) line segments have attached fixed/point attributes such as manholes or valves
- Point attributes - These fixed attributes such as manholes or valves include X and Y location coordinates along with surface elevation and depth information
- Depths of up to four inlet pipes and outlet pipe attached to fixed points are included where these apply
- Elevation (Surface or street grade elevation)
- Date installed – (Approximate month & year)
- Installed value of item – Use unit cost (per foot, each, etc.).
- Current date – (Month-year)
- Current value of item - Use unit cost (per foot, each, etc.).
- Location of item – This is the descriptive location, including street and cross street.
- Material (primary composition of item, i.e., pvc, ductile iron, concrete, etc. – Default is usually specified (see detailed tables at end of addendum).
- Miscellaneous – This usually includes name of subdivision, may include further description, maintenance performed, etc.
- Condition date - This is the date (month-year) inspected to determine item's condition. For new installations the Condition date is the same as the Date installed.
- Condition - This is the relative value relating to the item's condition (either new, excellent, good, fair, or poor) – default value is new
- Warranty Date - This is the expiration date (month-year) of the item's warranty (usually one year following item's acceptance).

A specific listing of attributes for each type of feature is included in the attached tables at the end of this addendum.

A few fields are automatically filled in by ARC GIS, so those fields are not shown in the tables.

The Legacy I.D. field (or City's identifier), shall be assigned. This I.D. field contains useful information about the attribute. Each I.D. number is 11 characters in length. The I.D. for each attribute is assigned in increments of 10. Note the sample I.D. explanation for a storm drain drop inlet:

In this case, the assigned I.D. = SDDIC060010.

SD = storm drain

DI = drop inlet

C06 = the number of the City's atlas page number where the item is located (There are 12 atlas pages, numbered C02-C13)

0010 = the 4 digit number given to this particular attribute. The order of the next assigned attribute number would be 0020.

Regarding the 4 digit number assigned, for our purposes the highest possible number is 9990. The developer/contractor will be assigned a range of numbers to use for all attribute I.D.s for the development. Generally except for very large developments, a range of 1000 will be assigned, i.e. 4010 to 4990. This range will permit 100 numbers to be assigned of a particular feature. The same range will apply to I.D.s for all attributes. If you have not been assigned a range of numbers, or if you are not sure what your particular development has been assigned, contact the Galt Public Works technical staff.

The developer/contractor must submit the data graphically both and in tabular data form in a Geographic Information System, or G.I.S, using E.S.R.I. ARC GIS.

The requirements of this Addendum are technical in nature and the developer/contractor likely will need the assistance of a GIS specialist in order to meet these specifications. If you have questions regarding the requirements of this Addendum, contact the City of Galt Public Works technical staff at: telephone (209) 366-7260.

### **TABLES DETAILING UTILITY SYSTEMS FEATURES, SUBTYPES, AND FIELDS**

Note:

- Use standard set of engineering symbols for water, sewer, storm, and streetlight graphic representations. For each utility, submit point and line symbols legend along with mapped samples of each utility type to the City for review and approval prior to GIS map submittals.
- Water line sections must enter perpendicularly into fittings, valves, or other point features. Where more than one line enters the point features, the lines shall enter at 90 degrees or 180 degrees of the other lines.
- For all line segments of all utilities, for gradual curves in streets, draw the lines as parallel to the appropriate street centerline. Where streets make a sharp angle, include the appropriate fitting. For example, a 90 degree ell would be included at a right angle turn in a street. At that same right angle turn, storm and sewer manholes would certainly be included for their respective utilities. If uncertain how the graphics should be presented, submit a sample first for City's review and approval.

Refer to the Tables that follow.

**WaterFeaturesGalt:**

FEATURE CLASS	SUB TYPE	FEATURE CLASS FIELDS	REQUIRED DATA? (Y, N)	COMMENTS Note: Provide drop-down selections where appropriate.
<b>WSystem Valve</b>	WGate	FacilityID	Y	Same as LegacyID
	WBlowoffAssemble	LegacyID	Y	City's Unique Identifier
	WAirReleaseValve	WAVA_LAYER	Y	WA_VALVE
	WButterfly	WAVA_X	Y	
		WAVA_Y	Y	
		SubType	Y	Refer to SubType column, this table – Default is WGate
		Elevation	Y	Street grade
		WAVA_DEPTH	Y	4' (default), Other (enter depth in ft)
		Diameter	Y	8" (default), 12", 6", Other (enter diam In inches)
		InstallDate	Y	Approximate month & year
		WAVA_DATE_CURRE	Y	Current month & year
		WAVA_INSTL_VALUE	N	
		WAVA_CURRE_VALUE	N	
		Location	Y	Street and cross street
		WAVA_MAT	Y	DI (default), CI, Steel, Stainless, CU, Brass, PVC, Other (enter material)DI (default), Other (enter material)
		WAVA_REF	Y	Subtype Reference (ID) #
		WAVA_MISC	Y	Subdivision name
	<b>WFitting</b>	WCap	FacilityID	Y
WCoupling		LegacyID	Y	City's Unique Identifier
WCross		WATE_LAYER	Y	WA_VALVE
WReducer		WATE_X	Y	
WSaddle		WATE_Y	Y	
WSleeve		SubType	Y	Refer to SubType column, this table – Default is WTee
		WTee	Elevation	Y
WWye		WATE_DEPTH	Y	4' (default), Other (enter depth in ft)
		Diameter	Y	8" (default), 12", 6", Other (enter diam In inches)
		InstallDate	Y	Approximate month & year
		WATE_DATE_CURRE	Y	Current month & year
		WATE_INSTL_VALUE	N	
		WATE_CURRE_VALUE	N	
		Location	Y	Street and cross street
		WATE_MAT	Y	DI (default), CI, Steel, Stainless, CU, Brass, PVC, Other (enter material)
		WATE_REF	N	Subtype Reference (ID) #

		WATE_MISC	Y	Subdivision name
		ConditionDate	Y	Approximate month & year
		Condition	Y	New (default), Good, Fair, Poor
		WarrantyDate	N	
		Water Type	N	Drinking
		LifeCycleStatus	Y	Active (default), inactive
<b>W</b> Hydrant	N/A	FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		WAFH_LAYER	Y	FIRE HYDRANT
		WAFH_X	Y	
		WAFH_Y	Y	
		SubType	N	
		Elevation	Y	Street grade
		BarrelDiameter	N	
		InstallDate	Y	Approximate month & year
		WAFH_DATE_CURRE	Y	Current month & year
		WAFH_INSTL_VALUE	N	
		WAFH_CURRE_VALUE	N	
		Location	Y	Street and cross street
		WAFH_MAT	Y	Steamer (default), wharf
		WAFH_MISC	Y	Subdivision name
		ConditionDate	Y	
		Condition	Y	New (default), Good, Fair, Poor
		WarrantyDate	N	
		Water Type	N	Drinking
		LifeCycleStatus	Y	Active (default), inactive
<b>W</b> PressurizedM ain	WBypass	FacilityID	Y	Same as LegacyID
	WDistributionMain	LegacyID	Y	City's Unique Identifier
	WInterconnect	WAPI_LAYER	Y	WaterPipe
	WSamplingStation	WAPI_DEPTH		Depth from grade to top of pipe
	WTransmission Main	SubType	Y	Refer to SubType column, this table - WDistributionMain is default
		WAPI_VA1	Y	LegacyID of Connected valve 1 (If exists)
		WAPI_VA2	Y	Connected valve 2 (If exists)
		WAPI_TEE1	Y	Connected tee 1(If exists)
		WAPI_TEE2	Y	Connected tee2(If exists)
		WAPI_CROS1	Y	Connected cross 1(If exists)
		WAPI_CROS2	Y	Connected cross 2(If exists)
		WAPI_ELL1	Y	Connected ell 1(If exists)
		WAPI_ELL2	Y	Connected ell 2(If exists)
		WAPI_REDU	Y	Connected reducer(If exists)
		WAPI_AV	Y	Connected air valve(If exists)
		WAPI_SAM_STA	Y	Connected sampling station(If exists)
		WAPI_BO	Y	Connected blow-off(If exists)
		WAPI_FH1	Y	Connected fire hyd run 1(If exists)
		WAPI_FH2	Y	Connected fire hyd run 2(If exists)
		WAPI_WELL	Y	Connected well (If exists)
		WAPI_RES	Y	Connected reservoir(If exists)
		NominalDiameter	Y	8" (default), 12", 6", Other (enter diam In inches)
		RecordedLength	N	Measured length
		InstallDate	Y	Approximate month & year

		WAPI_DATE_CURRE	Y	Current month & year
		WAPI_INSTAL_VALUE	N	
		WAPI_CURRE_VALUE	N	
		Location	Y	Street and cross street
		Material	Y	PVC (default), DI, Steel, CI, CU, Brass, CML, ACP
		WAPI_MISC	Y	Subdivision name
		ConditionDate	Y	
		Condition	Y	New (default), Good, Fair, Poor
		WarrantyDate	N	
		Water Type	N	Drinking
		LifeCycleStatus	Y	Active (default), inactive
<b>WEII</b>	N/A	FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		WAEL_LAYER	Y	WATER ELL
		WAEL_X	Y	
		WAEL_Y	Y	
		WAEL_ELEV	Y	Street grade elevation, ft. (estimated)
		WAEL_DEPTH	Y	4' (default), Other (enter depth in ft)
		WAEL_SIZE	Y	8" (default), 12", 6", Other (enter diam In inches)
		WAEL_DATE_INSTAL	Y	Approximate month & year
		WAEL_DATE_CURRE	Y	Current month & year
		WAEL_INSTL_VALUE	N	
		WAEL_CURRE_VALUE	N	
		WAEL_LOC	Y	Street and cross street
		WAEL_MAT	Y	DI (default), CI, Steel, Stainless, CU, Brass, PVC, Other (enter material)
		WAEL_MISC	Y	Subdivision name, Angle of ell (e.g. 45 degees)
		WAEL_CONDI_DATE	Y	Approximate month & year
		WAEL_CONDITION	Y	New (default), Good, Fair, Poor
		WAEL_WARR_DATE	N	
		Water Type	N	Drinking
		LifeCycleStatus	Y	Active (default), inactive
<b>WWell</b>	N/A	FacilityID	Y	Same as LegacyID
		WAVE_LEGACY_ID	Y	City's Unique Identifier
		WAVE_LAYER	Y	WATER WELL
		WAVE_X	Y	
		WAVE_Y	Y	
		WAVE_ELEV	Y	Well head (surface) elevation, ft.
		WAVE_DEPTH	Y	Pumping water level elevation, ft.
		WAVE_SIZE	Y	12"(default), 10", 8", 16", Other (enter diam inches of output pipe)
		WAVE_MOTOR_HP	Y	Well pump horsepower
		WAVE_GPM	Y	Gallons per minute pumping rate
		WAVE_STANDBY_HP	Y	Emergency generator horsepower
		WAVE_DATE_INSTAL	Y	Approximate month & year
		WAVE_DATE_CURRE	Y	Same, for new installations
		WAVE_INSTL_VALUE	Y	Design & construction cost
		WAVE_CURRE_VALUE	Y	Same, if new
		WAVE_MAINT	Y	List type of maintenance If

				performed
		WAVE_LOC	Y	Street and cross street
		WAVE_MAT	Y	Type: Vertical Turbine, Submersible, Other
		WAVE_MISC	Y	Subdivision name
		WAVE_CONDI_DATE	Y	Approximate month & year
		WAVE_CONDITION	Y	New (default), Good, Fair, Poor
		WAVE_WARR_DATE	Y	
		Water Type	N	Drinking
		LifeCycleStatus	Y	Active (default), inactive
<b>WReservoir</b>	N/A	FacilityID	Y	Same as LegacyID
		WARV_LEGACY_ID	Y	City's Unique Identifier
		WARV_LAYER	Y	WATER RESERVOIR
		WARV_X	Y	
		WARV_Y	Y	
		WARV_ELEV	Y	Well head (surface) elevation, ft.
		WARV_CAPACITY	Y	Reservoir size - capacity in gallons
		WARV_MOTOR_HP	Y	In-line pumps horsepower
		WARV_GPM	Y	Gallons per minute pumping rate
		WARV_STANDBY_HP	Y	Emergency generator horsepower
		WARV_DATE_INSTAL	Y	Approximate month & year
		WARV_DATE_CURRE	Y	Same, for new installations
		WARV_INSTL_VALUE	Y	Design & construction cost
		WARV_CURRE_VALUE	Y	Same, if new
		WARV_MAINT	Y	List type of maintenance if performed
		WARV_LOC	Y	Street and cross street
		WARV_MAT	Y	Steel (default), concrete, other
		WARV_MISC	Y	Subdivision name
		WARV_CONDI_DATE	Y	Approximate month & year
		WARV_CONDITION	Y	New (default), Good, Fair, Poor
		WARV_WARR_DATE	Y	
		Water Type	N	Drinking
		LifeCycleStatus	Y	Active (default), inactive
<b>WGravityMain</b>	Raw Water Line	No requirement		
<b>WLateralLine</b>	N/A	No requirement		
<b>WMeter</b>	N/A	No requirement		

**SewerFeaturesGalt**

FEATURE CLASS	SUB TYPE	FEATURE CLASS FIELDS	REQUIRED DATA? (Y, N)	COMMENTS
<b>SGravitymain</b>	SCollector (All others NA)	FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		SSPI_LAYER	Y	SS PIPE
		SSPI_DEPTH	Y	Depth from grade to flowline
		SSPI_UP_MH	Y	Give Upstream MH LegacyID
		SSPI_DN_MH	Y	Give Downstream MH LegacyID
		SSPI_CO	Y	Give attached Cleanout LegacyID
		NominalSize	Y	8" (default), 6", 4", 10", 12", Other (pipe diameter in inches)
		RecordedLength	Y	Measured length
		DesignFlow	N	
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	Y	SCollector (no others permitted)
		ConditionDate	Y	Same, if new
		Condition	Y	New (default), Good, Fair, Poor
		SSPI_INSTAL_VALUE	N	
		SSPI_CURRE_VALUE	N	
		Location	Y	Street and cross street
		Material	Y	SDR 26 (default), VCP, PVC, ABS, DI, Steel, O-berg, Other
		WarrantyDate	N	
		InstallContractor	Y	
		SSPI_MISC	Y	Subdivision name
UpstreamInvert	Y	Flowline at MH or CO		
DownstreamInvert	Y	Flowline at MH or CO		
Slope	N			
Water Type	N	Sewer		
LifeCycleStatus	Y	Active (default), inactive		
<b>SPressurizedMain</b>	SForce (all others NA)	FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		SSFM_LAYER	Y	SForce (only subtype permitted)
		Depth	Y	Depth from grade to top of pipe
		SSFM_UP_MH	Y	Give Upstream MH LegacyID
		SSFM_DN_MH	Y	Give Downstream MH LegacyID
		SSFM_VA	Y	Give attached Valve LegacyID
		SSFM_CO	Y	Give attached Cleanout LegacyID
		Diameter	Y	12" (default), 14", 6", 4", 10", 12", Other (pipe diameter in inches)
		RecordedLength	Y	Measured length
		DesignFlow	N	
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	Y	SForce (Only subtype permitted)
		ConditionDate	Y	Same, if new
		Condition	Y	New (default), Good, Fair, Poor
		SSFM_INSTAL_VALUE	N	
		SSFM_CURRE_VALUE	N	
		Location	Y	Street and cross street
		Material	Y	PVC, DI, Steel, Other
		WarrantyDate	N	
		InstallContractor	Y	
SSFM_MISC	Y	Subdivision name		



		Water Type	N	Sewer
		LifeCycleStatus	Y	Active (default), inactive
<b>SManhole</b>	SStandardManhole	FacilityID	Y	Same as LegacyID
	SDropManhole	LegacyID	Y	City's Unique Identifier
		SSMH_LAYER	Y	Sewer Manhole
		SSMH_X	Y	
		SSMH_Y	Y	
		Elevation	Y	Elevation in ft. of MH rim
		SSMH_INDEPTH1	Y	Invert flowline elevation of pipe inlet
		SSMH_INDEPTH2	Y	Invert flowline elevation of pipe inlet
		SSMH_INDEPTH3	Y	Invert flowline elevation of pipe inlet
		SSMH_INDEPTH4	Y	Invert flowline elevation of pipe inlet
		SSMH_OUTDEPTH	Y	Invert flowline elevation of pipe outlet
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	Y	SStandardManhole (default)
		SSMH_DATE_CURRE	Y	Current month & year
		ConditionDate	Y	Same, if new
		Condition	Y	New (default), Good, Fair, Poor
		SSMH_INSTAL_VALUE	N	
		SSMH_CURRE_VALUE	N	
		Location	Y	Street and cross street
		Material	Y	Steel Reinf. Concrete (default), Other
		Depth	Y	Depth from MH rim to floor of MH
		SSMH_WIDTH	Y	48" (default), 72", Other
		Access Diameter	Y	24" (default), 30", 36", Other
		SSMH_LADDER	N	
		SSMH_MISC	Y	Subdivision name
		WarrantyDate	N	
		Water Type	N	Sewer
		LifeCycleStatus	Y	Active (default), inactive
<b>SCleanoutStructure</b>	SCleanout	FacilityID	Y	Same as LegacyID
(for sewer mains, only)	(all others NA)	LegacyID	Y	City's Unique Identifier
		SSCO_LAYER	Y	Sewer Cleanout
		SSCO_X	Y	
		SSCO_Y	Y	
		Elevation	Y	Elevation in ft. at MH rim
		SSCO_DEPTH1_FL	Y	Invert flowline elevation of pipe
		SSCO_DEPTH2_FL	Y	Invert flowline elevation of pipe 2
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	Y	SCleanout (only subtype permitted)
		SSCO_DATE_CURRE		Current month & year
		ConditionDate	Y	Same, if new
		Condition	Y	New (default), Good, Fair, Poor
		SSCO_INSTAL_VALUE	N	
		SSCO_CURRE_VALUE	N	
		Location	Y	Street and cross street
		SSCO_MAT	Y	Steel Reinf. Concrete (default),

				Other
		SSCO_MISC	Y	Subdivision name
		WarrantyDate	N	
		Water Type	N	Sewer
		LifeCycleStatus	Y	Active (default), inactive
<b>SSystemValve</b>	SGate	FacilityID	Y	Same as LegacyID
	SAir	LegacyID	Y	City's Unique Identifier
	(all others NA)	Location	Y	Street and cross street
		InstallDate	Y	Est. Month & Year of Installation
		LifeCycleStatus	Y	Active
		Sub Type	Y	SGate (default), SAir
		WarrantyDate	N	
		Water Type	N	Sewer
		Condition	Y	New (default), Good, Fair, Poor
		ConditionDate	Y	Same, if new
		Elevation	Y	Rim Elevation in Feet
		Diameter	N	12" (default), 14", 6", 4", 10", 12", Other (pipe diameter in inches)
		Bypass Valve	N	
		SSVA_LAYER	Y	Sewer Gate Valve
		SSVA_X	Y	
		SSVA_Y	Y	
		SSVA_DEPTH	Y	Depth from valve rim to top of pipe
		SSVA_INSTL_VALUE	N	
		SSVA_CURRENT_VALU E	N	Active (default), inactive
		SSVA_MAT		DI (default), CI, Steel, Stainless, CU, Brass, PVC, Other (enter material)
		SSVA_REF		Subtype Reference (ID) #
		SSVA_MISC		Subdivision name
<b>SLiftStation</b>	SPumpStation	FacilityID	Y	Same as LegacyID
	(all others NA)	LegacyID	Y	City's Unique Identifier
		Location	Y	Street & cross street
		InstallDate	Y	Est. month & year
		Sub Type	Y	SPumpStation (only subtype allowed)
		WarrantyDate	N	
		Condition	Y	New (default), Good, Fair, Poor
		ConditionDate	Y	Same, if new
		SSLS_LAYER	Y	Sewer LiftStation
		SSLS_X	Y	
		SSLS_Y	Y	
		SSLS_ELEV	Y	Elevation in ft. of station rim
		SSLS_INDEPTH1	Y	Invert flowline elevation of pipe inlet
		SSLS_INDEPTH2	Y	Invert flowline elevation of pipe inlet
		SSLS_INDEPTH3	Y	Invert flowline elevation of pipe inlet
		SSLS_INDEPTH4	Y	Invert flowline elevation of pipe inlet
		SSLS_OUTDEPTH	Y	Invert flowline elevation of pipe outlet
		SSLS_MOTOR_HP		Pumping HP
		SSLS_CFS		Pump flow in cubic feet per

				second
		SSLS_STANDBY_HP		Emergency generator HP
		SSLS_INSTAL_VALUE	Y	Station design & construction cost
		SSLS_CURRE_VALUE	Y	Same, if new
		SSLS_DATE_CURRE	Y	Current month & year
		SSLS_MAINT	Y	Major maintenance work performed
		SSLS_DESC	Y	Describe lift station, force mains
		SSLS_MISC	Y	Name of Subdivision
		Water Type	N	Sewer
		LifeCycleStatus	Y	Active (default), inactive
<b>SFitting</b>	SBend	No requirement		
	SCap			
	SCoupling			
	SReducer			
	SWye			
<b>SLateralLine</b>		No requirement		
<b>SLateralPoint</b>		No requirement		

**StormFeaturesGalt**

FEATURE CLASS	SUB TYPE	FEATURE CLASS FIELDS	REQUIRED DATA? (Y, N)	COMMENTS
<b>DManhole</b>	DStandardManhole	FacilityID	Y	Same as LegacyID
	DDropManhole	LegacyID	Y	City's Unique Identifier
		SDMH_LAYER	Y	Storm Manhole
		SDMH_X	Y	
		SDMH_Y	Y	
		Elevation	Y	Elevation in ft. of MH rim
		SDMH_INDEPTH1	Y	Invert flowline elevation of pipe inlet
		SDMH_INDEPTH2	Y	Invert flowline elevation of pipe inlet
		SDMH_INDEPTH3	Y	Invert flowline elevation of pipe inlet
		SDMH_INDEPTH4	Y	Invert flowline elevation of pipe inlet
		SDMH_OUTDEPTH	Y	Invert flowline elevation of pipe outlet
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	Y	DStandardManhole (default)
		SDMH_DATE_CURRE	Y	Current month & year
		SDMH_INSTAL_VALUE	N	
		SDMH_CURRE_VALUE	N	
		Location	Y	Street and cross street
		SDMH_MAT	Y	Steel Reinf. Concrete (default), Other
		Access Diameter	Y	24" (default), 30", 36", Other
		SDMH_WIDTH	Y	48" (default), 72", Other
		SDMH_MISC	Y	Subdivision name
		SDMH_CONDI_DATE	Y	Same, if new
		SDMH_CONDITION	Y	New (default), Good, Fair, Poor
		Depth	Y	Depth from MH rim to floor of MH
		WarrantyDate	N	
		SDMH_LADDER	N	
		Water Type	N	Storm
		LifeCycleStatus	Y	Active (default), inactive
		FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		SDDI_LAYER	Y	SD_DROPINLET
<b>DInletPoint</b>	None	SDDI_X	Y	
		SDDI_Y	Y	
		Elevation	Y	Elevation in ft. of gutter inlet
		SDDI_INDEPTH1	Y	Invert flowline elevation of pipe inlet
		SDDI_INDEPTH2	Y	Invert flowline elevation of pipe inlet
		SDDI_OUTDEPTH	Y	Invert flowline elevation of pipe outlet
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	N	NA
		SDDI_DATE_CURRE	Y	Current month & year
		SDDI_INSTAL_VALUE	N	
		SDDI_CURRE_VALUE	N	
		Location	Y	Street and cross street

		SDDI_MAT	Y	Steel Reinf. Concrete (default), Other
		SDDI_WIDTH	Y	48" (default), 72", Other
		SDDI_MISC	Y	Subdivision name
		SDDI_CONDI_DATE	Y	Same, if new
		SDDI_CONDITION	Y	New (default), Good, Fair, Poor
		SDDI_DEPTH	Y	Depth from DI rim to floor of DI
		WarrantyDate	N	
		Water Type	N	Storm
		LifeCycleStatus	Y	Active (default), inactive
<b>DDischargePoint</b>	None	FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		SDOF_LAYER	Y	SD OUTFALL
		SDOF_X	Y	
		SDOF_Y	Y	
		Elevation	Y	Top of structure elevation in ft.
		NominalDiameter	Y	Diameter of opening in inches (same as pipe)
		SDOF_INV_ELEV	Y	Invert flowline elevation of pipe outlet
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	N	NA
		SDOF_DATE_CURRE	Y	Current month & year
		SDOF_INSTAL_VALUE	N	
		SDOF_CURRE_VALUE	N	
		Location	Y	Street and cross street
		SDOF_MAT	Y	Steel Reinf. Concrete (default), Other
		SDOF_MISC	Y	Subdivision name
		SDOF_CONDI_DATE	Y	Same, if new
		SDOF_CONDITION	Y	New (default), Good, Fair, Poor
		SDOF_DEPTH	Y	Depth - top of structure to flowline
		WarrantyDate	N	
		Water Type	N	Storm
		LifeCycleStatus	Y	Active (default), inactive
<b>DLiftStation</b>	DPumpStation (all others NA)	FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		Location	Y	Street & cross street
		InstallDate	Y	Est. month & year
		Sub Type	Y	DPumpStation (only subtype allowed)
		SDLS_LAYER	Y	SD LiftStation
		SDLS_X	Y	
		SDLS_Y	Y	
		SDLS_ELEV	Y	Elevation in ft. of station rim
		SDLS_INDEPTH1	Y	Invert flowline elevation of pipe inlet
		SDLS_INDEPTH2	Y	Invert flowline elevation of pipe inlet
		SDLS_INDEPTH3	Y	Invert flowline elevation of pipe inlet
		SDLS_INDEPTH4	Y	Invert flowline elevation of pipe inlet
		SDLS_OUTDEPTH	Y	Invert flowline elevation of pipe outlet

		SDLS_MOTOR_HP		Pumping HP
		SDLS_CFS		Pump flow in cubic feet per second
		SDLS_STANDBY_HP		Emergency generator HP
		SDLS_INSTAL_VALUE	Y	Station design & construction cost
		SDLS_CURRE_VALUE	Y	Same, if new
		SDLS_DATE_CURRE	Y	Current month & year
		SDLS_MAINT	Y	Major maintenance work performed
		SDLS_MAT	Y	Reinforced Concrete (default), Other
		SDLS_DESC	Y	Describe lift station, force mains
		SDLS_MISC	Y	Name of Subdivision
		SDLS_CONDITION	Y	New (default), Good, Fair, Poor
		SDLS_CONDI_DATE	Y	Same, if new
		SDLS_DEPTH	Y	From rim of structure to floor, in ft.
		SDLS_WIDTH	Y	Wet Well diameter, ft.
		SDLS_WARR_DATE	N	
		Water Type	N	Storm
		LifeCycleStatus	Y	Active (default), inactive
<b>DGravityMain</b>	D Collector (All others NA)	FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		SDPI_LAYER	Y	SD PIPE
		SDPI_DEPTH	Y	Depth from grade to flowline
		SDPI_UP_MH	Y	Give Upstream MH LegacyID
		SDPI_DN_MH	Y	Give Downstream MH LegacyID
		SDPI_OF	Y	Give attached Outfall LegacyID
		NominalSize	Y	12" (default), 8", 10", 15", 18", 24", 36", Other (pipe diameter in inches)
		RecordedLength	Y	Measured length
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	Y	D Collector (no others permitted)
		SDPI_CONDI_DATE	Y	Same, if new
		SDPI_CONDITION	Y	New (default), Good, Fair, Poor
		SDPI_INSTAL_VALUE	N	
		SDPI_CURRE_VALUE	N	
		SDPI_DATE_CURRE	Y	Current month & year
		Location	Y	Street and cross street
		Material	Y	SDR 35 (default), RCP, HDPE, PVC, Other
		WarrantyDate	N	
		SDPI_MISC	Y	Subdivision name
		UpstreamInvert	Y	Flowline at MH or OF
		DownstreamInvert	Y	Flowline at MH or OF
		Slope	N	
		Water Type	N	Storm
		LifeCycleStatus	Y	Active (default), inactive
<b>DLateralLine</b>		FacilityID	Y	Same as LegacyID
		LegacyID	Y	City's Unique Identifier
		SDLA_LAYER	Y	SD LATERAL LINE
		SDLA_DEPTH	Y	Depth from grade to flowline
		SDLA_DI1	Y	Give Upstream DI LegacyID
		SDLA_DI2	Y	Give Downstream DI LegacyID
		SDLA_DN_MH	Y	Give Downstream MH LegacyID
		Diameter	Y	12" (default), 8", 10", 15", Other

		RecordedLength	Y	(pipe diameter in inches) Measured length
		InstallDate	Y	Est. Month & Year of Installation
		Subtype	Y	D Collector (no others permitted)
		SDLA_CONDI_DATE	Y	Same, if new
		SDLA_CONDITION	Y	New (default), Good, Fair, Poor
		SDLA_INSTAL_VALUE	N	
		SDLA_CURRE_VALUE	N	
		SDLA_DATE_CURRE	Y	Current month & year
		Location	Y	Street and cross street
		Material	Y	SDR 35 (default), RCP, HDPE, PVC, Other
		WarrantyDate	N	
		SDLA_MISC	Y	Subdivision name
		Water Type	N	Storm
		LifeCycleStatus	Y	Active (default), inactive
<b>DOpenDitch</b>		FacilityID	Y	Same as LegacyID
(Note:SDOD,_not SDLA		LegacyID	Y	City's Unique Identifier
		SDOD_LAYER	Y	SD OPEN DITCH
		SDOD_DEPTH	Y	Depth from grade to flowline
		SDOD_UP_DI1	Y	Give Upstream Inlet LegacyID
		SDOD_DN_DI2	Y	Give Downstream Inlet LegacyID
		SDOD_OF	Y	Give attached Outfall LegacyID
		SDOD_WIDTH	Y	Width of ditch in feet
		SDOD_LENGTH	Y	Measured length
		SDOD_DATE_INSTAL	Y	Est. Month & Year of Installation
		Subtype	N	NA
		SDOD_CONDI_DATE	Y	Same, if new
		SDOD_CONDITION	Y	New (default), Good, Fair, Poor
		SDOD_INSTAL_VALUE	N	
		SDOD_CURRE_VALUE	N	
		SDOD_DATE_CURRE	Y	Current month & year
		SDLA_LOC	Y	Street and cross street
		SDLA_WARR_DATE	N	
		SDOD_MISC	Y	Subdivision name
		Water Type	N	Storm
		LifeCycleStatus	Y	Active (default), inactive
<b>DFitting</b>	DBend	No requirement		
	DCap			
	DReducer			
	DWye			
<b>DSystemValve</b>		No requirement		
<b>DPressurizedMain</b>		No requirement		
<b>DStorageBasin</b>	Detention basin	No requirement		
	(All others NA)			

**StreetlightFeaturesGalt**

FEATURE CLASS	SUB TYPE	FEATURE CLASS FIELDS	REQUIRED DATA? (Y, N)	COMMENTS
<b>SL_JUNCTION_BOX</b>		FACILITYID	Y	Same as LegacyID
		SLJB_LEGACY_ID	Y	City's Unique Identifier
		SLJB_LAYER	Y	Streetlight Junction Box
		SLJB_X	Y	
		SLJB_Y	Y	
		SLJB_ELEV	Y	Box lid elevation
		SLJB_DATE_INSTAL	Y	Est. Month & year of Installation
		SLJB_DATE_CURRE	Y	Current month & year
		SLJB_INSTAL_VALUE	N	
		SLJB_CURRE_VALUE	N	
		SLJB_LOC	Y	Street & cross street
		SLJB_NODE_ID	N	
		SLJB_MISC	Y	Subdivision name
		SLJB_CONDI_DATE	Y	
	SLJB_CONDITION	Y		
	SLJB_WARR_DATE	N		
<b>SL_SERVICE_POINT</b>		FACILITYID	Y	Same as LegacyID
		SLSP_LEGACY_ID	Y	City's Unique Identifier
		SLSP_LAYER	Y	Streetlight Service Point
		SLSP_X	Y	
		SLSP_Y	Y	
		SLSP_ELEV	Y	Box lid elevation
		SLSP_DATE_INSTAL	Y	Est. Month & year of Installation
		SLSP_DATE_CURRE	Y	Current month & year
		SLSP_INSTAL_VALUE	N	
		SLSP_CURRE_VALUE	N	
		SLSP_LOC	Y	Street & cross street
		SLSP_MISC	Y	Subdivision name
		SLSP_CONDI_DATE	Y	
		SLSP_CONDITION	Y	
	SLSP_WARR_DATE	N		
<b>SL_TYPE_A</b>		FACILITYID	Y	Same as LegacyID
		SLTA_LEGACY_ID	Y	City's Unique Identifier
		SLTA_LAYER	Y	Type A Streetlight
		SLTA_X	Y	
		SLTA_Y	Y	
		SLTA_ELEV	Y	Box lid elevation
		SLTA_DATE_INSTAL	Y	Est. Month & year of Installation
		SLTA_DATE_CURRE	Y	Current month & year
		SLTA_INSTAL_VALUE	N	
		SLTA_CURRE_VALUE	N	
		SLTA_LOC	Y	Street & cross street
		SLTA_NODE_ID	N	
		SLTA_MISC	Y	Subdivision name
		SLTA_CONDI_DATE	Y	
	SLTA_CONDITION	Y		
	SLTA_WARR_DATE	N		
<b>SL_TYPE_B</b>		FACILITYID	Y	Same as LegacyID



		SLTB_LEGACY_ID	Y	City's Unique Identifier
		SLTB_LAYER	Y	Type B Streetlight
		SLTB_X	Y	
		SLTB_Y	Y	
		SLTB_ELEV	Y	Box lid elevation
		SLTB_DATE_INSTAL	Y	Est. Month & year of Installation
		SLTB_DATE_CURRE	Y	Current month & year
		SLTB_INSTAL_VALUE	N	
		SLTB_CURRE_VALUE	N	
		SLTB_LOC	Y	Street & cross street
		SLTB_NODE_ID	N	
		SLTB_MISC	Y	Subdivision name
		SLTB_CONDI_DATE	Y	
		SLTB_CONDITION	Y	
		SLTB_WARR_DATE	N	
<b>SL_TYPE_C</b>		FACILITYID	Y	Same as LegacyID
		SLTC_LEGACY_ID	Y	City's Unique Identifier
		SLTC_LAYER	Y	Type C Streetlight
		SLTC_X	Y	
		SLTC_Y	Y	
		SLTC_ELEV	Y	Box lid elevation
		SLTC_DATE_INSTAL	Y	Est. Month & year of Installation
		SLTC_DATE_CURRE	Y	Current month & year
		SLTC_INSTAL_VALUE	N	
		SLTC_CURRE_VALUE	N	
		SLTC_LOC	Y	Street & cross street
		SLTC_NODE_ID	N	
		SLTC_MISC	Y	Subdivision name
		SLTC_CONDI_DATE	Y	
		SLTC_CONDITION	Y	
		SLTC_WARR_DATE	N	
<b>SL_CIRCUIT</b>		FACILITYID	Y	Same as LegacyID
		SLCI_LEGACY_ID	Y	City's Unique Identifier
		SLCI_LAYER	Y	Streetlight Circuit
		SLCI_DEPTH	Y	Depth to conduit from surface grade
		SLCI_SL1	Y	Attached streetlight Legacy ID
		SLCI_SL2	Y	Attached streetlight Legacy ID
		SLCI_JB1	Y	Attached junction box Legacy ID
		SLCI_JB2	Y	Attached junction box Legacy ID
		SLCI_SP	Y	Attached service point Legacy ID
		SLCI_LENGTH	Y	Measured length
		SLCI_DATE_INSTAL	Y	Est. Month & year of Installation
		SLCI_DATE_CURRE	Y	Current month & year
		SLCI_INSTAL_VALUE	N	
		SLCI_CURRE_VALUE	N	
		SLCI_LOC	Y	Street & cross street
		SLCI_MISC	Y	Subdivision name
		SLCI_CONDI_DATE	Y	
		SLCI_CONDITION	Y	
		SLCI_WARR_DATE	N	