

STORMWATER DETAILS OF INSTRUCTION FOR SUBMITTING AS BUILT DATA

The two main files are from the actual Gamble PH2 submission so you can see how the typical unit data and excel outputs are generated.

The junction nodes (Curb Inlets, Junction Boxes, Flared End Section, End of Pipe, etc...) should be collected and the raw ASCII or cvs file sent in (FILE 1)

The excel data template file will have specific information about both point and line features used to represent the drainage system as built (FILE 2)

In this excel data template file there are two main tabs, the Junction and Linear tabs that should be filled out like in the example. In the Data Entry Template there are drop downs on some of the fields like Junction Type that you can select default values for.

There are FROM (upstream) and TO (downstream) Junction ID fields in the Linear tab that relate directly back to the Junction ID in the Junction tab that should represent water flow.

Say CI-11 is upstream of CI-12...

The Junction IDs of the two points would be CI-11 and CI-12

The linear feature may be ST-11 so the FROM value for this record would be CI-11 and the TO record would be CI-12

With these two tabs related to each other in this fashion we can be sure the linear features are connected to the correct junction features and represent correct flow direction for system modeling.

FROM Junction ID	TO Junction ID	Linear ID	Linear Type	Quantity	Round Pipe Size
CI-11	CI-12	ST-11	Culvert	1	24

Junction ID	Junction Type	Northing	Easting	Box Type	Material
CI-12	Box	151423.7180000	1186706.0810000	CURB INLET	Concrete
CI-11	Box	151422.1740000	1186669.4570000	CURB INLET	Concrete

The two critical files we need:

- The raw file from the unit used in field data collection
- The excel data entry template file (This example has been renamed to the PROJECT name, GAMBLE PH 2 AS-BUILTS.xlsx)
 - The two main sheets typical for data entry are **Junction_Data_Entry** and **Linear_Data_Entry**

Local Disk (C:) > aaaRequestedBy > 4aaaNewStormWaterDataIntake > Gamble_PH2

Name	Date modified	Type	Size
GamblePH2_ASBUILTS_New_Adjusted.gdb	6/23/2023 4:54 AM	File folder	
GamblePH2_ASBUILTS_Remove.gdb	6/23/2023 4:54 AM	File folder	
GAMBLE PH 2 AS-BUILTS.xlsx	1/12/2023 12:28 PM	Microsoft Excel W...	24 KB
GAMBLE PH 2 PNEZD FILE.csv	1/12/2023 1:23 PM	Microsoft Excel C...	1 KB
GAMBLE_PH2_UNIT_FILE.cpg	1/25/2023 9:09 AM	CPG File	1 KB
GAMBLE_PH2_UNIT_FILE.dbf	1/25/2023 9:09 AM	DBF File	4 KB
GAMBLE_PH2_UNIT_FILE.prj	1/25/2023 9:09 AM	PRJ File	1 KB
GAMBLE_PH2_UNIT_FILE.sbn	1/25/2023 9:09 AM	SBN File	1 KB
GAMBLE_PH2_UNIT_FILE.sbx	1/25/2023 9:09 AM	SBX File	1 KB
GAMBLE_PH2_UNIT_FILE.shp	1/25/2023 9:09 AM	SHP File	1 KB
GAMBLE_PH2_UNIT_FILE.shx	1/25/2023 9:09 AM	SHX File	1 KB
GAMBLE_PH2_UNIT_FILE.zip	1/25/2023 9:10 AM	zip Archive	3 KB

RAW DATA FILE FROM THE DATA COLLECTOR

We use the coordinates to map the JUNCTION POINTS and use the notes field to label these points in our GIS system.

These descriptive NOTES should match JUNCTION IDs entered into the **Junction_Data_Entry** tab in the data entry template

PNTid	Y	X	ELEV	NOTES
135	151422.174	1186669.457	516.668	CI-11 FL ELEV 511.22
136	151423.718	1186706.081	516.635	CI-12 FL ELEV 513.35
137	151325.453	1186667.698	510.867	CI-10 FL ELEV 505.39
138	151211.928	1186665.185	510.212	CI-7 FL ELEV 504.36
139	151211.718	1186702.044	510.221	CI-6 FL ELEV 503.8
140	151205.443	1186736.737	503.264	FES-2 FL
141	151090.444	1186663.736	516.192	CI-8 FL ELEV 509.29
142	150997.857	1186662.137	522.544	CI-9 FL ELEV 518.77
143	150576.048	1186657.01	526.897	CI-5 FL ELEV 523.33
144	150584.67	1186693.178	526.709	CI-4 FL ELEV 522.25
145	150588.055	1186705.148	521.102	FES-1 FL

EXAMPLE OF THE EXCEL DATA ENTRY TABLE (**Junction_Data_Entry TAB** aka DRAINAGE POINT FEATURES)

The JUNCTION IDs in the excel data entry template should match point information in the NOTES field from the data collector file.

Junction ID	Junction Type	Northing	Easting	Box Type	Material	Curb Inlet Wing	Head-wall Wing	Flared End?	Trash Rack?	Manhole?	Access Type	Access Diam.	Throat Width	Throat Height	Throat Area	Inlet Dimensions	Grate Size	T E
CI-12	Box	151423.7180000	1186706.0810000	CURB INLET	Concrete	1				Y	Lid	24"	7.6	6	3.8			
CI-11	Box	151422.1740000	1186669.4570000	CURB INLET	Concrete	0				Y	Lid	24"	4	6	2			
CI-10	Box	151325.4530000	1186667.6980000	CURB INLET	Concrete	1				Y	Lid	24"	7.6	6	3.8			
CI-7	Box	151211.9280000	1186665.1850000	CURB INLET	Concrete	2				Y	Lid	24"	12	6	6			
CI-6	Box	151211.7180000	1186702.0440000	CURB INLET	Concrete	2				Y	Lid	24"	11.8	6	5.9			
FES-2	End of Pipe	151205.4430000	1186736.7370000		Concrete			Y										
CI-8	Box	151090.4440000	1186663.7360000	CURB INLET	Concrete	1				Y	Lid	24"	7	6	3.5			
CI-9	Box	150997.8570000	1186662.1370000	CURB INLET	Concrete	1				Y	Lid	24"	7.5	6	3.75			
CI-5	Box	150576.0480000	1186657.0100000	CURB INLET	Concrete	2				Y	Lid	24"	11.5	6	5.75			
CI-4	Box	150584.6700000	1186693.1780000	CURB INLET	Concrete	2				Y	Lid	24'	10	6	5			
FES-1	End of Pipe	150588.0550000	1186705.1480000		Concrete			Y										

Inlet Size	Top Elev.	Outlet Invert	Inlet 1 Invert	Inlet 2 Invert	Inlet 3 Invert	Inlet 4 Invert	Box Depth	Owner	Date of Information	Installation Date	As-built File Name	Junction Comments / Notes
	516.64	513.36	513.41				3.28	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	516.67	511.17	513.77	511.27			5.45	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	510.87	505.34	505.44				5.48	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	510.21	504.31	505.06	504.41			5.85	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	510.22	503.75	503.85				6.42	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
		503.26						Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	516.19	509.24	511.49				6.9	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	522.54	518.77					3.77	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	526.9	523.27					3.57	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
	526.71	522.2	522.3				4.46	Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	
		521.1						Little Rock	08/31/22		GAMBLE RD KANIS TO ARTHUR	

- When a drainage point feature has multiple Inlets data for the first Inlet counting clockwise from the Outlet should be entered into the **Inlet 1 Invert** field
- The second inlet data should be entered into the **Inlet 2 Invert** field, the 3rd into the **Inlet 3 Invert** field and the 4th into the **Inlet 4 Invert** field
- Any feature that has more than 4 inlets additional like fields may be added to the spreadsheet with appropriate headings
 - **Inlet 5 Invert, Inlet 6 Invert,** and so on.

EXAMPLE OF THE EXCEL DATA ENTRY TABLE (**Linear_Data_Entry TAB** aka DRAINAGE LINE FEATURES)

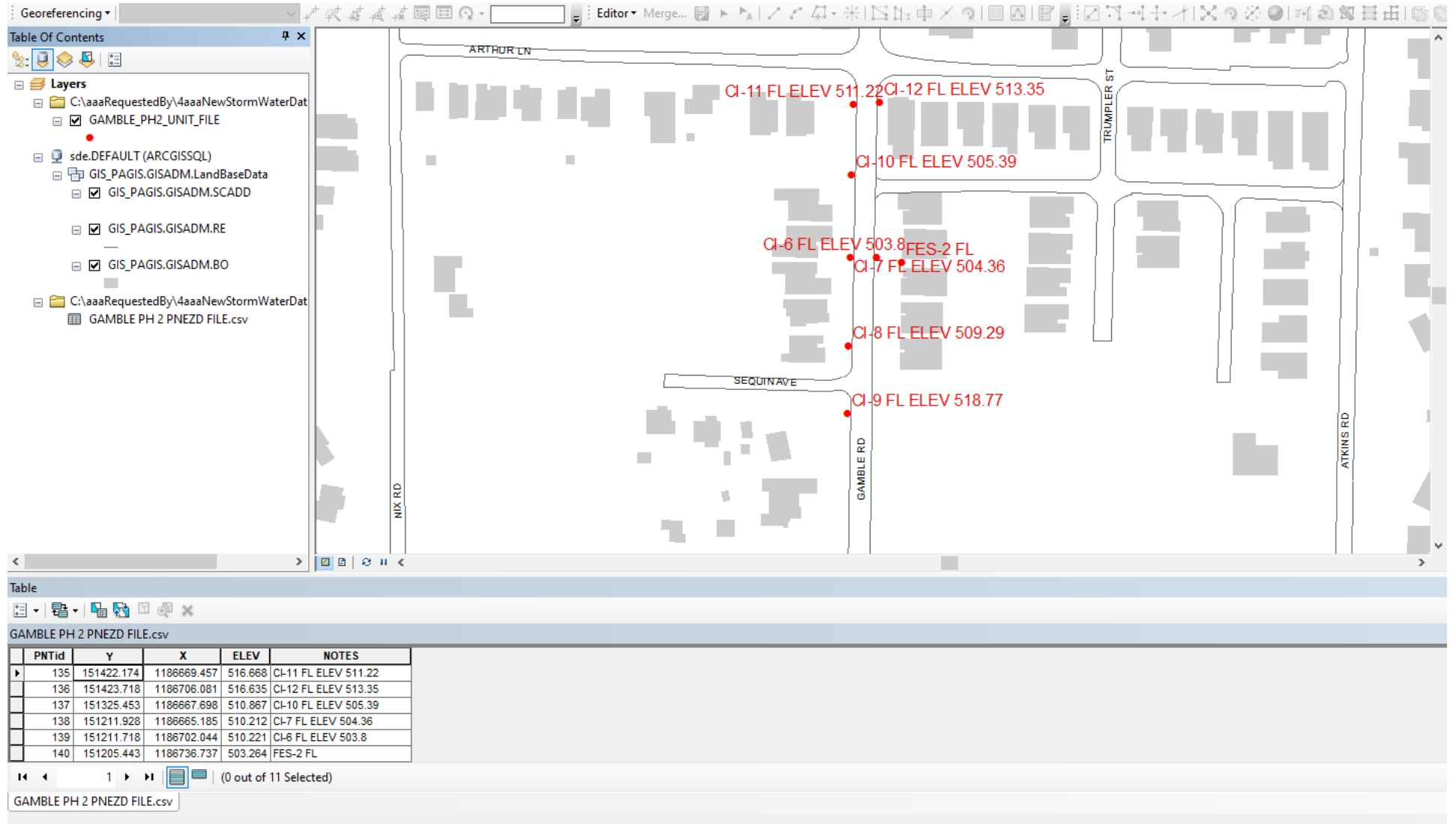
- Linear ID – Identifies the pipe or linear drainage feature
- FROM Junction ID – Junction ID of the **upstream** node in the system
- TO Junction ID – Junction ID of the **downstream** node in the system

FROM Junction ID	TO Junction ID	Linear ID	Linear Type	Quantity	Round Pipe Size	Irregular Pipe Size	Cross Section Shape	Material	Length	Depth	Top Width
CI-11	CI-12	ST-11	Culvert	1	24		Circular	Reinforced Concrete Pipe	36		
CI-10	CI-11	ST-10	Culvert	1	24		Circular	Reinforced Concrete Pipe	96		
CI-7	CI-10	ST-9	Culvert	1	24		Circular	Reinforced Concrete Pipe	113		
CI-6	CI-7	ST-6	Culvert	1	30		Circular	Reinforced Concrete Pipe	36		
FES-2	CI-6	ST-5	Culvert	1	30		Circular	Reinforced Concrete Pipe	35		
CI-8	CI-7	ST-7	Culvert	1	18		Circular	Reinforced Concrete Pipe	121		
CI-9	CI-8	ST-8	Culvert	1	18		Circular	Reinforced Concrete Pipe	92		
CI-4	CI-5	ST-4	Culvert	1	18		Circular	Reinforced Concrete Pipe	37		
FES-1	CI-4	ST-3	Culvert	1	18		Circular	Reinforced Concrete Pipe	12		

Top Width	Bottom Width	Upstream Invert	Downstream Invert	Slope	Date of Information	Owner	Installation Date	As-built File Name	Linear Comments / Notes
		513.36	511.27	5.8	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		511.17	505.44	5.9	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		505.34	504.41	0.8	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		504.31	503.85	1.3	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		503.75	503.26	1.4	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		509.24	505.06	3.5	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		518.77	511.49	7.9	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		523.27	522.3	2.6	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	
		522.2	521.1	9.2	08/31/22	Little Rock		GAMBLE RD KANIS TO ARTHUR	

EXAMPLE OF THE RAW POINT FILE FROM THE DATA COLLECTOR ADDED TO OUR GIS DATA

The labels are from the NOTES / ID of features collected



EXAMPLE OF LINEAR DATA ADDED TO THE POINTS IN OUR GIS DATA

Using the data from the Data Entry Template for both **Junction_Data_Entry** and **Linear_Data_Entry** tabs along with the points generated from the data collector file we create a complete drainage data set that we then push to the Storm water GIS Data Layer.

