

Tap-In Plan - Requirements Checklist

Project Name: _____

PWSA Project No.: _____

PWSA Reviewer: _____

This checklist shall be completed by the PWSA Reviewer during review of the Tap-in Plan.

General Information

- Existing PWSA infrastructure is labeled, as follows:
 - Sewer Mains: Nominal Diameter, Material, Combined/Sanitary/Storm
 - Example: 15" RCP Combined Sewer (PWSA); 8" PVC Sanitary Sewer (PWSA)
 - Manholes: Manhole I.D.
 - Example: MH053E011 (PWSA)
 - Drainage Structures: Drainage Structure I.D.
 - Example: CB052P001 (PWSA); IN052N002 (PWSA)
 - Water Main: Nominal Diameter, Material, Type
 - Example: 8" DIP Water (PWSA)
 - Fire Hydrant: Fire Hydrant I.D.
 - Example: FH C188 (PWSA)
- Existing non-PWSA utilities are labeled with the nominal diameter and material
- Existing and proposed facilities not owned by a utility company shall be marked as "Private"
- Construction details with PWSA title block
- Private services constructed within improved surfaces shall be located within the public frontage of the property, and shall not cross over adjoining property lines
- Parcel ID, owner, address
- PWSA Approval Block on every sheet in accordance with the Template Detail
- PWSA Approval Block should be marked the same way on each sheet and represent the entire plan set
- Peak Daily Flow Demands Table in accordance with the Template Detail
- Graphic Scale
- Pennsylvania One Call Serial Number
- General Location Map
- North Arrow
- Plan Preparer's Contact Information

- Non-City Street Owners are clearly defined (e.g. County, PennDOT, Private, etc.)
- If applicable, the Applicant shall provide the date which the DEP approved the SFPM
- For revisions to previously approved Tap-in Plans, the Applicant shall provide:
 - Revision cloud around every revision
 - Revision Triangle
 - Date
 - Brief Description on the purpose of the revision

Sewer Connection(s)

- N/A - This Section does not apply to this Project*
- Connections are at the sewer main, not a manhole
- Sewer laterals are designed for the use of a single user
- For single connections, the storm and sanitary laterals shall be combined within 5-feet of sewer main per ST-5
- Storm lateral shall be straight through, with sanitary wye in
- Sewer taps within 6-feet of manhole are prohibited
- Cored sewer connections shall be limited to PVC, Reinforced Concrete and CIPP sewer mains
- Confirm the Applicant CCTV'd the sewers discussed at the predevelopment meeting
- Applicant submitted CCTV and Summary Reports
- Confirm the CCTV and Summary Report includes the PWSA Manhole ID Numbers
- The stationing on the Tap-in Plan shall correspond to the CCTV
- Require the Applicant connect to existing wyes, when available
- Confirm existing wye is in adequate condition for use
- Wye locations shall be provided for both sides of sewer main, not just the wyes which face the development
- Wyes shall be stationed per CCTV and marked as active or capped
- If required, submit work order in Sprymobile for O&M issues
- If required, coordinate with the respective PWSA Project Manager for repair work
- Connections to sewer main which has been lined with a cured-in place pipe (CIPP), the connection shall per the following order of preference:
 - Re-use an existing connection point that was re-instated after lining
 - Open-cut excavation to identify and re-use existing wye which was not previously re-instated
 - Cored connection per ST-3 or ST-4
 - Cut-in wye followed by installation of a point liner

Water Connection(s)

- N/A – This Section does not apply to this Project*
- Size-on-size tapping is prohibited, and will require cut-in tee
- For cut-in tees, notify the Applicant that a Waterline Shut Permit shall be separately required
- Domestic meter crocks shall be located in non-load bearing location
- Location of existing/proposed meter(s) are indicated
- Tapping at location of existing service shall be prohibited

- Service lines shall adhere to the following:

Service Line Diameter	Connection Fee	Shut-off Assembly
< 1"	1"	Curb Stop + Curb Box
1.5"	4"	Gate Valve + MEG Box
2"	4"	Gate Valve + MEG Box
4"	4"	Gate Valve + MEG Box
6"	6"	Gate Valve + MEG Box
8"	8"	Gate Valve + MEG Box
10"	10"	Gate Valve + MEG Box

- Re-use of existing services up to and including 1-inch diameter shall require the following note: "The PWSA conditionally approves the re-use of existing services, as indicated on the Tap-in Plan, provided the service is either copper or PEX, and the volume-time flow test confirms flows in excess of 5 gallons per minute. Failure to comply with the aforementioned conditions shall require a formal revision to the Tap-in Plan."
- Location and account number for existing meter(s)
- Stationing of waterline per existing landmark (e.g. building line, property line, manhole)
- Location of existing and proposed valves
- Minimum 24-inch separation between taps, preferably 60-inches
- Concrete blocking required for 4-inch taps and larger
- MEG Box required for all gate valves
- The curb stop and curb box shall be located per Detail WS-5NT, as follows:
 - Street main: Located within 12" from curb face
 - Sidewalk main: Located within 12" of sidewalk edge or property line, as directed
 - If "sidewalk" is staircase, the curb stop and curb box shall be located in street
- Confirm that every connection to our water main is metered
- If applicable, the meter crock shall be located within 36" of property line
- Fire Hydrant ID (shall be provided by Reviewer in markup)
- Confirm there is not more than 50-feet of service line between the meter and water main
- Plan indicates that gate valves are "right-turn to open"
- Hydrant Flow Test required for connections larger than one-inch AND all fire suppression systems
- Hydrant Flow Test Results Table per the Template Detail
- The minimum diameter for a shared fire/domestic service shall be 1.5-inches
- The proposed meters are tabulated within the Peak Operating Water Demands Table, per the Template Detail
- Require usage of Meter I.D. symbology for complicated water connections

- Confirm meter size is adequately sized for the Peak Operating Water Demands, as follows:

Positive Displacement Meters			
<i>Neptune - T10</i>		<i>Badger - Recordall</i>	
Meter Size, inch	Normal Operating Range, gpm	Meter Size, inch	Normal Operating Range, gpm
5/8	1/2 to 20	1.5	2.5 to 120
5/8 x 3/4	1/2 to 20	2	2.5 to 170
3/4	3/4 to 30		
1	1 to 50		
1.5	2 to 100		
2	2.5 to 160		

Compound Meters		Magnetic Meters	
<i>Sensus - OMNI</i>		<i>Sensus - iPERL</i>	
Meter Size, inch	Normal Operating Range, gpm	Meter Size, inch	Normal Operating Range, gpm
3	1 to 500	5/8	0.18 to 25*
4	1.5 to 1,000	3/4	0.18 to 35*
6	3 to 2,000	1	0.4 to 55*
8	4 to 2,700		
10	5 to 4,000		

* Capable of accommodating larger flow rates with decreased accuracy and increased headloss. Refer Applicant to the technical memo from Sensus.

Fire Connection(s)

- N/A – This Section does not apply to this Project*
- Sprinkler System Design Information Table per the Template Detail
- Hydrant Flow Test is required if there is a fire suppression system
- Hydrant Flow Test Results Table per the Template Detail
- Information on Hydrant Flow Test Results Table shall match HYD permit form on file
- Hydrant Flow Test Results shall be less than two (2) years old
- Sprinkler System Peak Pressure Demand \leq Static Pressure at Pressure Hydrant
- Peak Flow Demand \leq Flow Observed at Flow Hydrant
- For Multi-Purpose Sprinkler Systems: Peak Flow Demand = Sprinkler System Peak Flow Demand + Domestic System Peak Flow Demand
 - For Separate Sprinkler Systems: Peak Flow Demand = Sprinkler System Peak Flow Demand
- Additional requirements for 13d sprinkler systems:

- Sprinkler System Peak Flow Demand \leq 36 gpm
- Backflow prevention device shall be located in the structure
- Multi-purpose systems shall require magnetic meter (Refer to Technical Memo)

Construction Details

- Notify the Applicant that the Construction Details are available in AutoCAD file format, if required.

Typical Construction Details (Check all that apply):

- WS-CTT - Cut-In Tee and Tapping Tee
- WS-RDF1 – Residential Domestic and Fire Service Connection for Multi-Purpose System
- WS-RDF2 – Residential Domestic and Fire Service Connection for Stand Alone System
- WS-STL – Typical Water Tap Service Termination for 4" and Larger Connection
- WS-ST5 – Typical Water Tap Service Termination for 2" and Smaller Connection
- WVB – Valve Box (Medium Extension Gate Box)
- LTTPC – Pipe Sewer and Lateral Terminations
- SLT1 – Termination Sewer Lateral
- SSC-1 – Manhole/Pipe Sewer Cored Wye Connection
- ST-2 – Sewer Tap to Existing Sewer Wye
- ST-3 – Sewer Tap Tee Connection to Existing Sewer Main (Inserta Tee)
- ST-5 – Separated House Lateral One Connection to Main
- ST-6 – Separated House Lateral Wye Connection to Main
- ST-7 – Cut-In Wye Pipe Transition
- WCB-1 – 3" Curb Service Box
- WMV – Meter Vault for 3" and Larger
- WMBV – Meter Vault for 3" and Larger with Bypass
- WS-3 – Concrete Blocking For Pressure Pipe
- WS-5 – Water Service Line Reconnection to Existing Service
- WS-5CDI – Domestic Service Internal Meter Setting for Commercial and Multi-Family
- WS-5FPLH – Typical Plumbing Schematic for Low Hazard Fire Protection Services
- WS-5MPC – Commercial Service for External Setting 1 1/2" to 2" Meter
- WS-5MPR – Residential Domestic Service for External Setting (5/8" to 1" Meter)
- WS-5MPRPZ – Domestic Service External Meter Setting for Commercial and Multi-Family
- WS-5MS – Domestic Meter Setting Specification for Indoor Residential 5/8" to 1" Meter
- WS-5NT – Water Service Line for 1" and 1 1/2" New Installation
- WS-5NT2 – Water Service Line for 2" New Installation
- WS-5NT3 – Water Service Line Installation of Tracer Wire on PEX Service Line
- WS-RDI – Domestic Service Internal Meter Setting for Residential and Low Hazard
- WS-A – Service Connection 4" Through 8"
- WS-B – Trench Requirements for 4" Through 8" Live Water Tap
- WS-C – Trench Requirements for 1" Through 2" Water Service Tap

- WS-C1 – Single Service Connection (4" and Larger)
- WS-C1V – Commercial and Multi-Family Water Service Connection for Fire and Domestic with Vault
- WS-C2 – Separate Domestic and Fire Service Connection (4" and Larger)