PRELIMINARY DESIGN REPORT

Project Name: _____

SUMMARY OF DESIGN DATA FOR PROJECT

(Refer to F.A.C. 62-555.320 and 62-555.520)

A. General

System PWS Identification Number, Name, Owner, and Type

System PWS Identification Number (if existing system): _____
System Name: _____
System Address: _____
System Owner: _____

System Type: ☐ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive

System Service Area

Nature and Extent of Existing Service Area and Design/Projected Service Area. Include length, diameters, and type of distribution pipe and associated appurtenances: _____

Present Population Served by System and Present Water Demands

Present Population Served Directly (excluding all regulated consecutive public water systems): _____
Present Total Population Served (including all consecutive public water systems): _____
Present Per Capita Annual Average Day Water Demand(ADD): _____
Present Annual Average Day (ADD) Water Demand: _____
Present Maximum Day Water Demand: _____
Present Peak Hour Water Demand: _____
Present Peak Instantaneous Demand: _____

Will existing raw water sources and collection facilities (including raw water pumping facilities) be altered under this project, or are new raw water sources or collection facilities (including raw water pumping facilities) proposed under this project? _____

(Please attach all well and pump information, and include profile drawing. Refer to F.A.C. 62-555.312 and 315.)

Will existing treatment facilities (including in-plant and finished water pumping facilities) be altered under this project, or are new treatment facilities (including in-plant and finished water pumping facilities) proposed under this project? _____

(Please attach all plans, design calculations and cut sheets. Refer to F.A.C. 62-555.320.)

Will existing plant or distribution system finished water storage facilities be altered under this project, or are new plant or distribution system finished water storage facilities proposed under this project? _____

Will existing distribution facilities (including booster pumping facilities) be altered or extended under this project, or are new distribution facilities (including booster pumping facilities, conflict manholes) proposed under this project? _____

Will this project be constructed, and clearance applications applied for, in "phases? _____

Will construction of water mains that will remain dry following completion of construction be proposed under this project?__

Design/Projected Annual Average and Maximum Day Water Demands for Proposed Altered/New Facilities Under this Project

A = Type of Unit	*B = Number* **of Units**	*C = Population per Unit*	*D = Total Population (Columns B x C)*	*E = Per Capita Average Day Water Demand*	*F = Total Average Day Water Demand (Columns D x E)*	*G = Total Maximum Day Water Demand*
Single-Family Home						
Mobile Home						
Apartment						
*Commercial, Institutional, or Industrial Facility**						
Total						

Description of Commercial, Institutional, and Industrial Facilities: _____

B. Proposed Altered/New Distribution Facilities (including storage and booster pumping facilities)

Will any proposed altered/new distribution facilities under this project create a "new system" as described under subsection 62-555.525(1), F.A.C.? _____

Design/Projected Average Daily Water Demand (ADD) for Proposed Altered/New Distribution Facilities Under this Project and Basis of Design/Projection: _____

Explanation of Method Used to Estimate Maximum Day Water Demand (if no historical data, use 2*ADD): _____

Explanation of Method Used to Estimate Peak Hour Water Demand (if no historical data, use 4.5*ADD): _____

Explanation of Method Used to Estimate Peak Instantaneous Water Demand (if no historical data, use 10*ADD, ACOE Curve Figure 4-1, or dist. model): _____

Required storage per 62-555.320(19): _____ gallons

Design/Projected Fire Demand Plus Coincident Draft (usually maximum day water demand) for Proposed Altered/New Distribution Facilities Under this Project and Basis of Design/Projection: _____

Operating Pressure Range in psi for Proposed Altered/New Distribution Facilities Under this Project: _____

Will any proposed altered/new distribution facilities under this project connect previously separate public water systems that have separate water supply sources? _____ If yes, provide the names of the systems proposed to be interconnected and explain the purpose of each proposed interconnection: _____

Will any proposed altered/new distribution facilities under this project be installed in areas of ground water for which there is existing documentation of the presence of low-molecular-weight petroleum products or organic solvents at concentrations exceeding ground water standards? _____ If yes, describe the nature and extent of such areas: ___

C. Information About Compliance with Design and Construction Requirements

1. If this project is being designed to comply with the following requirements, initial before the requirements. If any of the following requirements do not apply to this project or if this project includes exceptions to any of the following requirements as allowed by rule, mark "NA" before the requirements and complete Part II.C.2 below. *RSWW=Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

_____ a. This project is being designed to keep existing water mains and service lines in operation during construction or to minimize interruption of water service during construction. *[RSWW* 1.3.a; exceptions allowed under FAC 62-555.330]

_____ b. All pipe, pipe fittings, pipe joint packing and jointing materials, valves, fire hydrants, and meters installed under this project will conform to applicable American Water Works Association (AWWA) standards. [FAC 62-555.320(21)(b), *RSWW* 8.0, and AWWA standards as incorporated into FAC 62-555.330; exceptions allowed under FAC 62-555.320(21)(c)]

_____ c. All public water system components, excluding fire hydrants, that will be installed under this project and that will come into contact with drinking water will conform to NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C., or other applicable standards, regulations, or requirements referenced in paragraph 62-555.320(3)(b). F.A.C. [FAC 62-555.320(3)(b); exceptions allowed under FAC 62-555.320(3)(d)]

_____ d. All pipe and pipe fittings installed under this project will contain no more than 8.0% lead, and any solder or flux used in this project will contain no more than 0.2% lead. [FAC 62-555.322]

_____ e. All pipe and pipe fittings installed under this project will be color coded or marked in accordance with subparagraph 62-555.320(21)(b)3, F.A.C., using blue as a predominant color. (Underground plastic pipe will be solid-wall blue pipe, will have a co-extruded blue external skin, or will be white or black pipe with blue stripes incorporated into, or applied to, the pipe wall; and underground metal or concrete pipe will have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe will have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint will be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipe with an internal diameter of 24 inches or greater, tape or paint will be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Aboveground pipe will be painted blue or will be color coded or marked like underground pipe.) [FAC 62-555.320(21)(b)3]

_____ f. All new or altered water mains included in this project are sized after a hydraulic analysis based on flow demands and pressure requirements. ATTACH A HYDRAULIC ANALYSIS JUSTIFYING THE SIZE OF ANY NEW OR ALTERED WATER MAINS WITH AN INSIDE DIAMETER OF LESS THAN THREE INCHES. [FAC 62-555.320(21)(b) and RSWW 8.1]

_____ g. The inside diameter of new or altered water mains that are included in this project and that are being designed to provide fire protection and serve fire hydrants will be at least six inches. [FAC 62-555.320(21)(b) and RSWW 8.1.2]

_____ h. New or altered water mains that are included in this project and are not being designed to carry fire flows do not have fire hydrants connected to them. [FAC 62-555.320(21)(b) and *RSWW* 8.1.5]

_____ i. This project is being designed to minimize dead-end water mains by making appropriate tie-ins where practical. [FAC 62-555.320(21)(b) and *RSWW* 8.1.6.a]

_____ j. New or altered dead-end water mains included in this project will be provided with a fire or flushing hydrant or blow-off for flushing purposes. [FAC 62-555.320(21)(b) and *RSWW* 8.1.6.b]

_____ k. Sufficient valves will be provided on new or altered water mains included in this project so that inconvenience and sanitary hazards will be minimized during repairs. [FAC 62-555.320(21)(b) and *RSWW* 8.2]

_____ l. New or altered fire hydrant leads included in this project will have an inside diameter of at least six inches and will include an auxiliary valve. [FAC 62-555.320(21)(b) and *RSWW* 8.3.3]

Not allowed in _____ m. All fire hydrants that will be installed under this project and that will have unplugged, underground drains will be located at least three feet from any existing or proposed storm sewer, stormwater force main, pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., or vacuum-type sanitary sewer; at least six feet from any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-10, F.A.C.; and at least ten feet from any existing or proposed "on-site sewage treatment and disposal system." [FAC 62-555.314(4)]

_____ n. At high points where air can accumulate in new or altered water mains included in this project, provisions will be made to remove the air by means of air relief valves, and automatic air relief valves will not be used in situations where flooding of the valve manhole or chamber may occur. [FAC 62-555.320(21)(b) and RSWW 8.4.1]

_____ o. The open end of the air relief pipe from all automatic air relief valves installed under this project will be extended to at least one foot above grade and will be provided with a screened, downward-facing elbow. [FAC 62-555.320(21)(b) and *RSWW* 8.4.2)]

_____ p. New or altered chambers, pits, or manholes that contain valves, blow-offs, meters, or other such water distribution system appurtenances and that are included in this project will not be connected directly to any sanitary or storm sewer, and blow-offs or air relief valves installed under this project will not be connected directly to any sanitary or storm sewer. [FAC 62-555.320(21)(b) and *RSWW* 8.4.3]

_____ q. New or altered water mains included in this project will be installed in accordance with applicable AWWA standards or in accordance with manufacturers' recommended procedures. [FAC 62-555.320(21)(b), *RSWW* 8.5.1, and AWWA standards as incorporated into FAC 62-555.330]

_____ r. A continuous and uniform bedding will be provided in trenches for underground pipe installed under this project; backfill material will be tamped in layers around underground pipe installed under this project and to a sufficient height above the pipe to adequately support and protect the pipe; and unsuitably sized stones (as described in applicable AWWA standards or manufacturers' recommended installation procedures) found in trenches will be removed for a depth of at least six inches below the bottom of underground pipe installed under this project. [FAC 62-555.320(21)(b) and RSWW 8.5.2)]

_____ s. All water main tees, bends, plugs, and hydrants installed under this project will be provided with thrust blocks or restrained joints to prevent movement. [FAC 62-555.320(21)(b) and *RSWW* 8.5.4]

_____ t. New or altered water mains that are included in this project and that will be constructed of asbestos-cement or polyvinyl chloride pipe will be pressure and leakage tested in accordance with AWWA Standard C603 or C605, respectively, as incorporated into Rule 62-555.330, F.A.C., and all other new or altered water mains included in this project will be pressure and leakage tested in accordance with AWWA Standard C600 as incorporated into Rule 62-555.330. [FAC 62-555.320(21)(b)1 and AWWA standards as incorporated into [FAC 62-555.330]

_____ u. New or altered water mains, including fire hydrant leads and including service lines that will be under the control of a public water system and that have an inside diameter of three inches or greater, will be disinfected and bacteriologically evaluated in accordance with Rule 62-555.340, F.A.C. [FAC 62-555.320(21)(b)2 and FAC 62-555.340]

_____ v. New or altered water mains that are included in this project and that will be installed in areas where there are known aggressive soil conditions will be protected through use of corrosion-resistant water main materials, through encasement of the water mains in polyethylene, or through provision of cathodic protection. [FAC 62-555.320(21)(b) and RSWW 8.5.7.d]

_____ w. New or relocated, underground water mains included in this project will be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed vacuum-type sanitary sewer, storm sewer, stormwater force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.; a horizontal distance of at least six feet between the outside of the water main and the outside of any existing or proposed gravity-type sanitary sewer (or a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed gravity-type sanitary sewer <u>if the bottom of the water main will be laid at least six inches above the top of the sewer</u>); a horizontal distance of at least six feet between the outside of the water main and the outside of any existing or proposed pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.; and a horizontal distance of at least ten feet between the outside of the water main and all parts of any existing or proposed "on-site sewage treatment and disposal system." [FAC 62-555.314(1); exceptions allowed under FAC 62-555.314(5)]

_____ x. New or relocated, underground water mains that are included in this project and that will cross any existing or proposed gravity- or vacuum-type sanitary sewer or storm sewer will be laid so the outside of the water main is at least six inches above the other pipeline or at least 12 inches below the other pipeline; and new or relocated, underground water mains that are included in this project and that will cross any existing or proposed pressure-type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water will be laid so the outside of the water main is at least 12 inches above or below the other pipeline. [FAC 62-555.314(2); exceptions allowed under FAC 62-555.314(5)]

_____ y. At the utility crossings described in Part II.C.1.w above, one full length of water main pipe will be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline <u>or</u> the pipes will be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, storm sewers, stormwater force mains, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under Part III or Chapter 62-610, F.A.C. [FAC 62-555.314(2); exceptions allowed under FAC 62-555.314(5)]

_____ z. New or altered water mains that are included in this project and that will cross above surface water will be adequately supported and anchored, protected from damage and freezing, and accessible for repair or replacement. [FAC 62-555.320(21)(b) and RSWW 8.7.1]

_____ aa. New or altered water mains that are included in this project and will cross under surface water will have a minimum cover of two feet. [FAC 62-555.320(21)(b) and RSWW 8.7.2]

_____ bb. New or altered water mains that are included in this project and that will cross under surface water courses greater than 15 feet in width will have flexible or restrained, watertight pipe joints and will include valves at both ends of the water crossing so the underwater main can be isolated for testing and repair; the aforementioned isolation valves will be easily accessible and will <u>not</u> be subject to flooding; the isolation valve closest to the water supply source will be a in manhole; and permanent taps will be provided on each side of the isolation valve within the manhole to allow for insertion of a small meter to determine leakage from the underwater main and to allow for sampling of water from the underwater main. [FAC 62-555.320(21)(b) and RSWW 8.7.2]

_____ cc. This project is being designed to include proper backflow protection at those new or altered service connections where backflow protection is required or recommended under Rule 62-555.360, F.A.C., or in *Recommended*

Practice for Backflow Prevention and Cross-Connection Control, AWWA Manual M14, as incorporated into Rule 62-555.330, F.A.C.; or the public water system that will own this project after it is placed into operation has a cross-connection control program requiring water customers to install proper backflow protection at those service connections where backflow protection is required or recommended under Rule 62-555.360, F.A.C., or in AWWA Manual M14. [FAC 62-555.360 and AWWA Manual M14 as incorporated into FAC 62-555.330]

_____ dd. Neither stream condensate, cooling water from engine jackets, nor water used in conjunction with heat exchangers will be returned to the new or altered water mains included in this project. [FAC 62-555.320(21)(b) and RSWW 8.8.2]

Explanation for Requirements Marked "NA" in Part C Above, Including Justification, Documentation, Assurances, and/or Alternatives as Required by Rule for Exceptions to Requirements:

I completed this notice, and the information provided is true and accurate to the best of my knowledge and belief.

Signature, Seal, and Date of Professional Engineer (PE) or Signature and Date of Other Person in Responsible Charge of Designing Project:*	Signature, Seal, and Date of Professional Engineer (PE) or Signature and Date of Other Person in Responsible Charge of Designing Project:*
Printed/Typed Name:	Printed/Typed Name:
License Number of PE or License Number or Title of Other Person in Responsible Charge of Designing Project:*	License Number of PE or License Number or Title of Other Person in Responsible Charge of Designing Project:*
Portion of Preliminary Design Report for Which Responsible: **All portions**	Portion of Preliminary Design Report for Which Responsible

**Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more PEs licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, this notice shall be completed, signed, sealed, and dated by the PE(s) in responsible charge.*