**DSG BASIS OF DESIGN**

**WATER**

TYPE OF MAIN (TRANSMISSION, FEEDER, DISTRIBUTION)

DESIGN FLOW RATE: [FLOW VELOCITY:]

TYPICAL PRESSURE: [PRESSURE ZONE(S):]

WORKING PRESSURE: [SURGE PRESSURE:]

**PIPE MATERIALS**

(TYPE, Lining, coating, joints, pressure class, minimum slope, buoyancy safety factor, minimum cover, roads, non-roadway)

**PIPING (TIE-IN), CONSTRUCTION TO CONSTRUCTION, STEEL REFLECTION LIMIT) BEDDING COMPACTED: [ ]

(Roadway, non-roadway, bedding constant, modulus of soil reaction (E) appurtenances)

**ISOLATION VALVES, BLOW-OFFS/Drains, LINE valves, air-vacuum and air-release valves, valve unit settings for control valves, design criteria for all valves**

MANWAYS: [ ]

**BASIS OF HVAC DESIGN:** [ ]

**BASIS OF PROCESS CONTROL:** [ ]

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

**WASTEWATER**

**BASE AREA (SF):** [BASE FLOW RATE:]

**DESIGN STORM FOR CONVEYANCE:** [MAXIMUM FLOW RATE:]

**PEAKING FACTORS:** [ ]

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

**STORM DRAINAGE**

**BASE AREA (SF):** [DESIGN STORM FOR CONVEYANCE:]

**BASE FLOW RATE (CF):** [FLOW RATE (CF):]

**PEAKING FACTORS:** [ ]

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

**STORM WATER CODE COMPLIANCE**

**TYPE OF PROJECT (ROADWAY, TRAIL, SIDEWALK, PARCEL):**

**BASIN (LISTED CREEK, NON-LISTED CREEK, COMBINED, RECEIVING WATER, WETLAND):**

**FLOW CONTROL STANDARD (PASTURE, FOREST, PEAK CONTROL):**

**AREA MITIGATED BY FLOW CONTROL (SF):**

**FLOW CONTROL VOLUME (CF):** [TYPE OF FO:]

**GS STORMWATER:**

**AREA MITIGATED BY WS TREATMENT (SF):**

**BASE WS FACILITY:**

**WS VOLUME/FLOW RATE:**

**ENHANCED WS FACILITY:**

**OIL CONTROL FACILITY:**

**BIORETENTION TYPE (CELL, CASCADE) TOP AREA (SF):**

**BOTTOM AREA (SF):** [LANDSCAPED AREA (SF):]

**MATERIAL TYPE (GRASS, PLANTED):**

**PONDING DEPTH (INCHES):**

**DEPTH OF BIORETENTION SOIL (INCHES):**

**NATIVE SOIL INFILTRATION RATE (IN/HR):**

**PLANTING DATE:**

**PERMEABLE PAVEMENT TYPE (FACILITY, SURFACE):**

**MATERIAL:**

**NATIVE SOIL INFILTRATION RATE (IN/HR):**

**PAVEMENT AREA (SF):**

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

**STRUCTURAL**

**SOILS:** [LATERAL LOADING PRESSURE:]

**VERTICAL LOADING PRESSURE:**

**WIND LOADING:**

**SEISMIC CATEGORICAL CODE AND EDITION:**

**BRIDGE OR VAULT LOADING IN TRAFFIC BEARING AREAS:**

H-20: [ ]

H-25: [ ]

H-50: [ ]

OTHER: [ ]

**ALLOWABLE FLOOR LOADING:**

**DOES THE LOADING VARY? WHERE/WHY:**

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

**CATHODIC PROTECTION**

**LENGTH OF PIPE PROTECTED:**

**WHAT WAS PROBLEM? HERE/WHY:**

**EXISTING COATING CONDITION/ASSUMPTIONS:**

**ASSUMED CURRENT REQUIREMENTS:**

**AMPS REQUIRED**

**LIFE EXPECTANCY:**

**POTENTIAL PROFILE:**

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

**ELECTRICAL**

**SYSTEM VOLTAGE:**

**PHASE AVAILABLE FAULT CURRENT:**

**A TOTAL CONNECTED LOAD:**

**FUTURE CAPACITY REQUIRED:**

**SPARE REQUIREMENT:**

**LARGEST MOTOR SIZE:**

**HP**

**EQUIPMENT REDUNDANCY LOAD:**

**COINCIDENT NON-COINCIDENT HAZARDOUS CLASSIFIED LOCATION:**

**CLASS DIVISION GROUP:**

**EMERGENCY POWER REQUIREMENT:**

**EMERGENCY POWER SYSTEM:**

**LEGALLY REQUIRED STANDBY POWER SYSTEM:**

**OPTIONAL STANDBY POWER SYSTEM:**

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

**PUMP STATIONS**

**PUMP OPERATING CONDITIONS:**

**NUMBER OF PUMPS (PROVIDE INFO FOR EACH PUMP):**

**SIZE OF PUMP (RANGE OF GPM):**

**PUMP INFILL TYPE:**

**MAXIMUM SIZING:**

**SPEED:**

**ECONOMY:**

**CONFIGURATION:**

**TYPE OF STATION (EJECTOR, SUBMERSIBLE, DRYWELL, WET WELLS, BOOSTER, WELL, STORAGE FACILITY, OTHER):**

**PUMP SET POINTS:**

**PRIMARY POWER SOURCE:**

**BACKUP POWER SOURCE:**

**NSFAR:**

**UTILITY POWER:**

**PHASE:**

**FORCE MAIN: SIZE:**

**TYPE:**

**LENGTH:**

**STATUTE HEAD ELEVATION:**

**FT.**

**PRESSURE ZONE:**

**SERVICE AREA (WELL ONLY, SANITARY ONLY, COMBINED):**

**WET WELL STORAGE:**

**HR:**

**MANUFACTURER'S PUMP CURVE, SYSTEM CURVE**

**PROJECT SPECIFIC/SPECIAL INFORMATION:** [ ]

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**Seattle Public Utilities Design Standards and Guidelines**

**Basis of Design Plan Sheet**

**Seattle Public Utilities**

**City of Seattle**

**Ray Naffziger, Director**