

PRELIMINARY FIRE MAIN EXTENSION EXHIBIT

**TUAZON ENGINEERING**  
FIRE PROTECTION / CODE CONSULTING

4322 NE 7TH STREET  
RENTON, WA 98059  
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FIRE FLOW ANALYSIS : EPT  
DATE: 11/8/2022

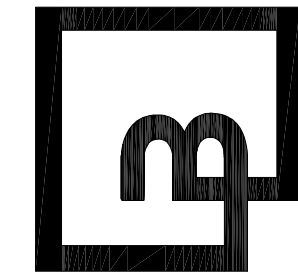
No.	Date	By	Chd.	Appr.	Revision

Title:  
**PRELIMINARY WATER EXTENSION EXHIBIT**

For:  
**BONNEY WATSON  
FUNERAL HOME**

Scale:	Horizontal	Vertical
AS	1"=40'	N/A
Drawn	DTC	
Checked	BHE	
Approved		
Date	11/7/22	

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Job Number  
**20413**

Sheet  
**1** of **1**

26 FT WIDE FIRE LANE WITHIN  
20 FEET OF FIRE HYDRANT  
(SEATAC FIRE CODE 503.2.9)

CAP AND PLUG 10" WA MAIN

NEW FIRE HYDRANT ASSEMBLY

32 LF 8" D.I.  
1 X ELBOW

NEW FIRE HYDRANT  
LOCATED WITHIN 600 FEET OF ALL PORTIONS  
OF EXTERIOR WALL (SEATAC FIRE CODE  
507.8) AND WITHIN 50 FEET OF FDC (11/4/2022  
PRE-APP COMMENTS)

FIRE LINE TO RISER ROOM  
W/ WALL MOUNTED FDC

PROPOSED BUILDING  
FOOTPRINT  
7,232 SF

EXISTING  
BUILDING  
(MASOLEUM)

225 FT MAX DISTANCE FROM FIRE  
HYDRANT TO EXTERIOR WALL

NEW FIRE HYDRANT  
NOT REQUIRED FOR THE PROPOSED  
BUILDING BUT INCLUDED TO IMPROVE  
FIRE FLOW TO EXISTING MASOLEUM  
BUILDING

PROPOSED BUILDING (CELEBRATION OF LIFE PAVILION)  
~7,232 SF / TYPE VB / 1 STO / SPRINKLERED

FIRE FLOW REQUIRED: 1,500 GPM AT 20 PSI PER SEATAC  
FIRE CODE SECTION B105.2 AND TABLE B105.1(2)

FIRE FLOW PROVIDED: 1,500 GPM AT 23 PSI (SEE  
CALCULATIONS)

45' BEND W/  
CONC BLOCKING (TYP.)

NEW PRIVATE FIRE MAIN WATER EXTENSION  
TO SUPPLY FIRE HYDRANTS AND FIRE  
SPRINKLER SYSTEM ONLY

1,141 LF 10" D.I.  
6 X 45 FTGS  
1 X ELBOW  
1 X TEE

75 LF 10" D.I. WATER

108 LF 10" D.I. WATER

10" RPBA IN  
UNDERGROUND VAULT

113 LF 10" D.I. WATER

CONNECT TO EX. 12" WATER  
(LOCATION APPROXIMATE)

WATER SUPPLY AT INTERNATIONAL BLVD (PACIFIC HIGHWAY)  
60.65 PSI STATIC, 2,500 GPM AT 32.59 PSI  
PER HIGHLINE WATER DISTRICT CERTIFICATE OF WATER  
AVAILABILITY DATED 9/16/22

LEGEND

	POWER VAULT		SURVEY MONUMENT (AS NOTED)
	TELEPHONE VAULT		SECTION CORNER (AS NOTED)
	WATER VAULT		FND. SURVEY MARKER (AS NOTED)
	STREET LIGHT		ASPHALT
	YARD LIGHT OR LAMP		CONCRETE
	POWER METER		GRAVEL
	POWER POLE		SANITARY SEWER LINE
	GUY WIRE		STORM DRAINAGE LINE
	TRAFFIC SIGNAL		CHAIN LINK FENCE
	PEDESTRIAN PUSH BUTTON		WOOD FENCE
	JUNCTION BOX (JBOX)		SILT FENCE
	TELEPHONE MANHOLE (TMH)		GUARD RAIL / HAND RAIL
	CATCH BASIN (CB)		WATER VIA PAINTMARKS
	STORM MANHOLE (SDMH)		GAS VIA PAINTMARKS
	SANITARY SEWER MANHOLE (SSMH)		TELEPHONE VIA PAINTMARKS
	SANITARY SEWER CLEANOUT (SSCO)		POWER VIA PAINTMARKS
	GAS METER (GM)		OVERHEAD POWER LINES
	GAS VALVE		EVERGREEN TREE W/SIZE
	WATER VALVE (WV)		DECIDUOUS TREE W/SIZE
	FIRE CONNECTION (FPSP)		
	FIRE HYDRANT (HYD)		
	WATER MANHOLE (WMH)		
	WATER METER (WM)		
	SPRINKLER		
	IRRIGATION BOX (IRR)		
	IRRIGATION VALVE (IRR)		
	SIGN		

NOTE: NOT ALL SYMBOLS WILL APPEAR IN THE DRAWING

**SEATAC FIRE CODE REFERENCES:**  
**(SEATAC MUNICIPAL CODE CHAPTER 13.150, FIRE CODE AMENDMENTS TO 2018 IFC)**

**B105.2 Buildings other than one- and two-family dwellings.** The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1(2).

**Exception:** A reduction in required fire-flow of 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system. The resulting fire-flow shall not be less than 1,500 gallons per minute for the prescribed duration as specified in Table B105.1(2).

**TABLE B105.1(2)**  
**REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2**

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) <sup>b</sup>	FLOW DURATION (hours)
Type IA and IB <sup>a</sup>	Type IIA and IIIA <sup>a</sup>	Type IV and V-A <sup>a</sup>	Type IIB and IIIB <sup>a</sup>	Type V-B <sup>a</sup>		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.

b. Measured at 20 psi residual pressure.