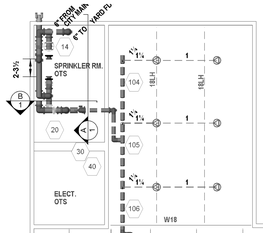


City of Puyallup Fire REVIEWED FOR COMPLIANCE
DDrake
12/11/2024
10:06:31 PM

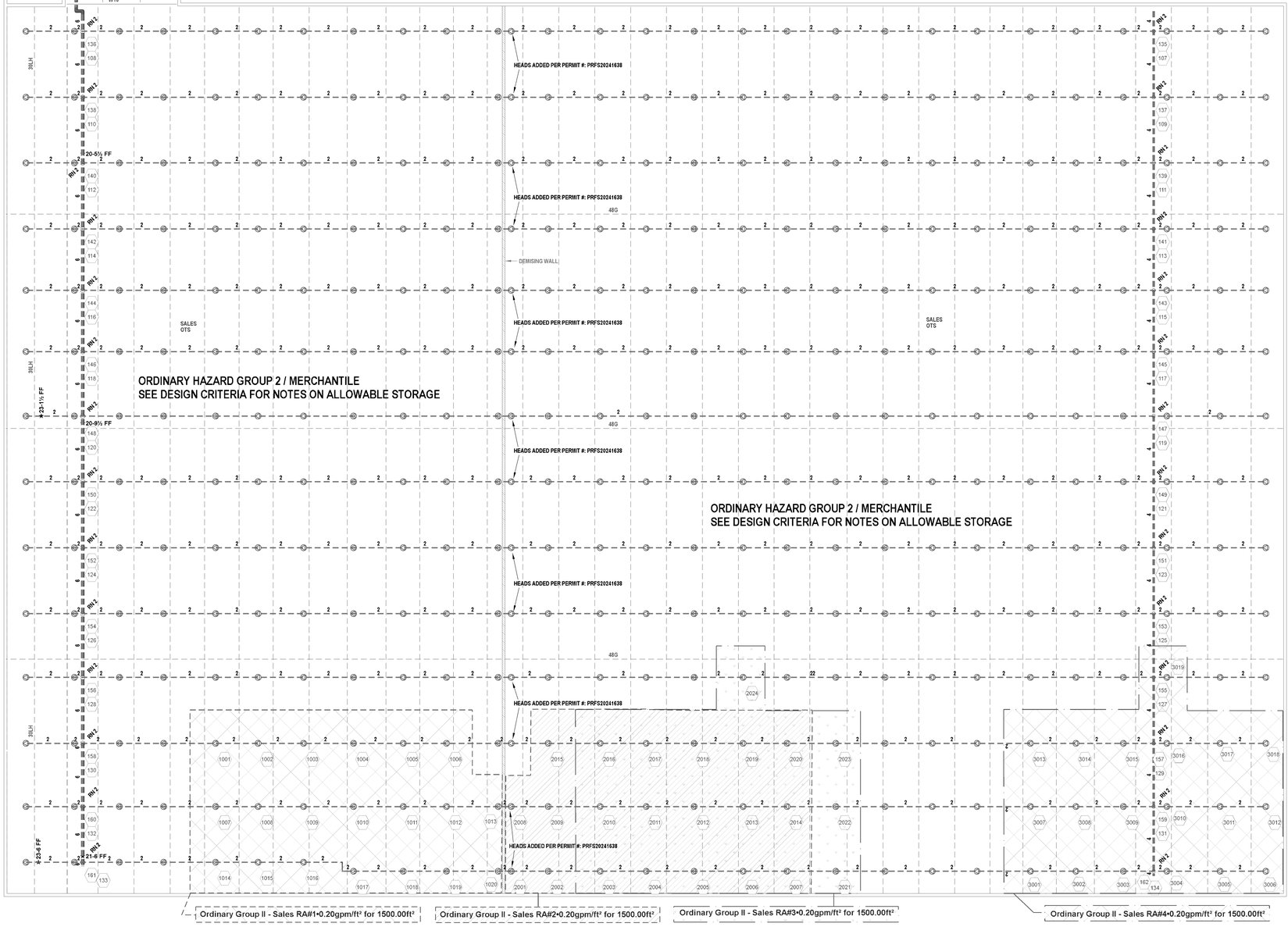
THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

Read Permit Conditions prior to calling for inspection.

City of Puyallup Development & Permitting Services ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



EXISTING FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"

-10 0 10 20 40
SCALE: 1/8" = 1'-0"

SPRINKLER LEGEND:

- = EXISTING PIPE
- = EXISTING PIPE TO BE REMOVED
- = HYDRAULIC NODE TAG

SCOPE OF WORK:

- SURVEY EXISTING FIRE SPRINKLER SYSTEM AND PERFORM HYDRAULIC CALCULATIONS TO DETERMINE IF FIRE PUMP CAN BE REMOVED AND STILL PROVIDE ORDINARY HAZARD GROUP 2 PROTECTION.

CLARIFICATIONS:

- ALL AREAS PROTECTED BY A WET SYSTEM MUST BE MAINTAINED AT A MINIMUM OF 40°F (BY OTHERS) IN ORDER TO PREVENT THE PIPE FROM FREEZING.

EXCLUSIONS:

- WSST
- WATER FLOW INFORMATION FEES

BUILDING INFO:

- PARCEL # = 0419095021
- OWNER: WRI-URS SOUTH HILL LLC, C/O KIMCO REALTY CORPORATION PROPERTY TAX DEPT, 500 N BROADWAY STE 201, JERICHO, NY 11753

GENERAL NOTES:

- ALL MATERIAL AND EQUIPMENT TO BE NEW AND UL AND/OR FM APPROVED.
- JOINING OF PIPE AND FITTINGS, THREADED AND WELDED, SHALL BE IN ACCORDANCE WITH NFPA #13.
- PIPE HANGER AND METHOD OF HANGING TO BE IN ACCORDANCE WITH NFPA #13.
- PIPING SHALL BE IN ACCORDANCE WITH NFPA #13.

DESIGN CRITERIA:

- DESIGN AND TESTING BASED ON NFPA 13 (2019) AND PUYALLUP CODES.
- NEW SALES CRITERIA - MERCHANTILE - OH2 - 0.2 / 1500 SQ. FT., 130 SQ. FT MAX. HEAD SPACING, W/ 15FT MAX. BETWEEN HEADS.MAX. HEAD SPACING.

STORAGE PERMITTED UNDER ORDINARY HAZARD GROUP 2 (PER BELOW AND RIGHT):

>PALLETIZED, SOLID PILED, BIN BOX, OR SHELF STORAGE OF CLASS I - IV COMMODITIES UP TO 12'-0".

>RACK STORAGE AND BACK-TO-BACK SHELF STORAGE ALLOWED OF CLASS I - III COMMODITIES UP TO 12'-0" OR CLASS IV COMMODITIES UP TO 10'-0".

>PALLETIZED, SOLID PILED, BIN BOX, SHELF, RACK, AND BACK-TO-BACK SHELF STORAGE STORAGE OF (CARTONED OR EXPOSED, EXPANDED OR NONEXPANDED) GROUP A PLASTIC COMMODITIES UP TO 5'-0".

>ON FLOOR OR ON RACK AND ON SIDE OR OR ON TREAD STORAGE OF TIRES UP TO 5'-0".

>NO SOLID SHELVING ALLOWED FOR RACK STORAGE IN ABOVE.

[N] 4.3.1.7 Protection Criteria for Miscellaneous and Low-Piled Storage.

[N] 4.3.1.7.1 The protection criteria for miscellaneous and low-piled storage protected by ceiling sprinklers only shall be selected from Table 4.3.1.7.1 and Figure 19.3.3.1.1 in accordance with the density/area method of 19.3.3.2.

3.3.118* **Low-Piled Storage.** Solid-piled, palletized, rack storage, bin box, and shelf storage up to 12 ft (3.7 m) in height.

3.3.199* **Solid Shelving.** Shelving that is fixed in place, slatted, wire mesh, or other type of shelves located within racks. The area of a solid shelf is defined by perimeter aisle or flue space on all four sides or by the placement of loads that block openings that would otherwise serve as the required flue spaces. Solid shelves having an area equal to or less than 20 ft² (1.9 m²) are defined as open racks. Shelves of wire mesh, slats, or other materials more than 50 percent open and where the flue spaces are maintained are defined as open racks.

3.3.201 **Solid-Piled Storage.** Storage of commodities stacked on each other.

3.3.148 **Palletized Storage.** Storage of commodities on pallets or other storage aids that form horizontal spaces between tiers of storage.

3.3.18 **Bin Box Storage.** Storage in five-sided wood, metal, or cardboard boxes with open face on the aisles in which boxes are self-supporting or supported by a structure so designed that little or no horizontal or vertical space exists around boxes.

3.3.188* **Shelf Storage.** Storage on structures up to and including 30 in. (750 mm) deep and separated by aisles at least 30 in. (750 mm) wide.

3.3.12* **Back-to-Back Shelf Storage.** Two solid or perforated shelves up to 30 in. (750 mm) in depth each, not exceeding a total depth of 60 in. (1.5 m), separated by a longitudinal vertical barrier such as plywood, particleboard, sheet metal, or equivalent, with a maximum 0.25 in. (6 mm) diameter penetrations and no longitudinal flue space and a maximum storage height of 15 ft (4.6 m).

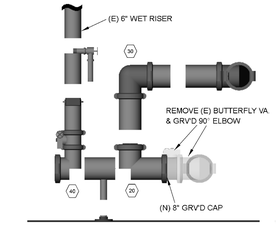
3.3.191* **Single-Row Racks.** Racks that have no longindinal flue space and that have a depth up to 6 ft (1.8 m) with aisles having a width of at least 3.5 ft (1.1 m) between loads on racks.

3.3.56 **Double-Row Racks.** Racks less than or equal to 12 ft (3.7 m) in depth or single-row racks placed back to back having an aggregate depth up to 12 ft (3.7 m), with aisles having an aisle width of at least 3.5 ft (1.1 m) between loads on racks.

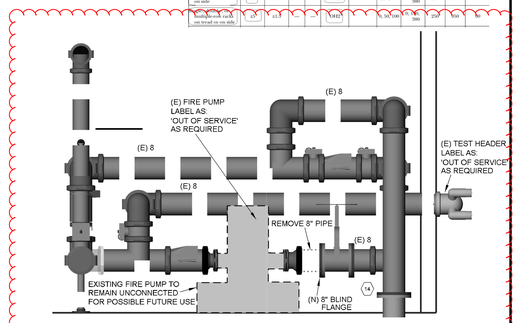
3.3.127 **Multiple-Row Racks.** Racks greater than 12 ft (3.7 m) in depth or single- or double-row racks separated by aisles less than 3.5 ft (1.1 m) wide having an overall width greater than 12 ft (3.7 m).

Table 4.3.1.7.1 Discharge Criteria for Miscellaneous Storage Up to 12 ft (3.7 m) in Height

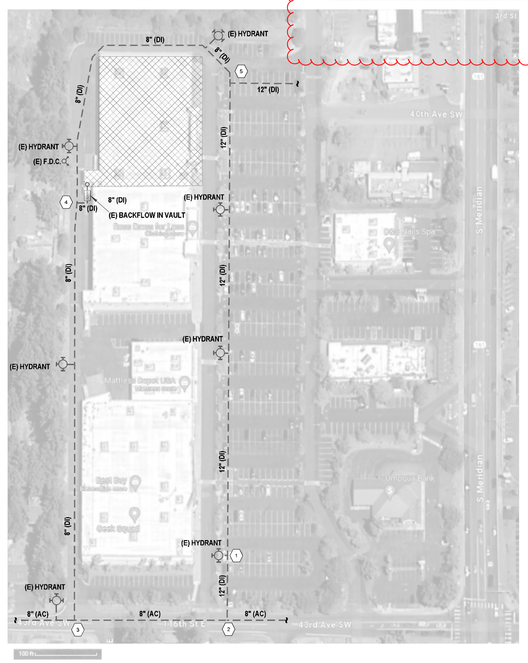
Commodity	Type of Storage	Storage Height ft	Storage Height m	Maximum Ceiling Height ft	Maximum Ceiling Height m	Design Curve Figure 19.3.3.1.1	Note	Inside Hose gpm	Inside Hose L/min	Total Combined Inside and Outside Hose gpm	Total Combined Inside and Outside Hose L/min	Duration (minutes)
Class I to Class IV												
Class I	Solid-piled, palletized, bin box, shelf, single-, double-, multiple-row rack, and back-to-back shelf storage	≤12	≤3.7	—	—	OH1		0, 50, 100	0, 190, 380	250	950	90
Class II		≤10	≤3.0	—	—	OH1		0, 50, 100	0, 190, 380	250	950	90
Class III		>10 to ≤12	>3.0 to ≤3.7	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90
Class IV		≤12	≤3.7	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90
		≤10	≤3.0	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90
Class IV	Palletized, bin box, shelf, and solid-piled	>10 to ≤12	>3.0 to ≤3.7	32	10	OH2		0, 50, 100	0, 190, 380	250	950	90
Group A Plastic Storage												
Cartoned	Nonexpanded and expanded	≤5	≤1.5	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90
		>5 to ≤10	>1.5 to ≤3.0	15	4.6	EH1		0, 50, 100	0, 190, 380	500	1900	120
Exposed	Nonexpanded and expanded	>5 to ≤10	>1.5 to ≤3.0	20	6.1	EH2		0, 50, 100	0, 190, 380	500	1900	120
	Solid-piled, palletized, bin box, shelf, single-, double-, multiple-row rack, and back-to-back shelf storage	≤5	≤1.5	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90
Tire Storage												
Tires	On floor, on side	≤5 to ≤12	>1.5 to ≤3.7	32	10	EH1		0, 50, 100	0, 190, 380	500	1900	120
	On floor, on tread, or on side	≤5	≤1.5	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90
	Rack storage on side on tread or on side	≤5	≤1.5	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90



(E) RISER SECTON 'B'
NTS



(E) RISER SECTON 'A'
NTS



VICINITY MAP
SCALE: 1" = 100'-0"

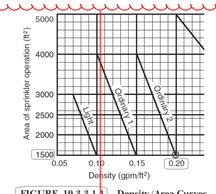


FIGURE 19.3.3.1.1 Density/Area Curves.

FIRE PUMP AND ALL RELATED EUIPMENT REQUIRED TO BE REMOVED ONCE OUT OF SERVICE

Expires DEC 31, 24
WASHINGTON STATE CERTIFICATE OF COMPETENCY FIRE SPRINKLER SYSTEMS
Theodore M. Queen
4930-0205-C Level 3
Archer Construction, Inc.
ARCHEI*219DR
Signature
12-6-24
Date

REVISIONS			WATER SUPPLY		HYDRAULIC DESIGN INFORMATION								HANGER ATTACHMENT		ABBREVIATIONS		SYMBOLS		SPRINKLER SYMBOLS											
DATE	DESCRIPTION	BY	STATIC	40 PSI	AREA	HAZARD CLASSIFICATION	TYPE	DENSITY	AREA SIZE	MAX. SPRINKLER SPACING	HOSE	SYST. DEMAND @ BOR	A	BEAM CLAMP	CL	CENTERLINE OF PIPE	★ FF	(CL) ABOVE FINISHED FLOOR	SYM	MAKE	MODEL	SIN#	TYPE	FINISH	K-FAC.	THREAD	TEMP	CANOPY	QTY
-	-	-	RESIDUAL	38 PSI	SALES	ORDINARY - GROUP II	WET	20 GPM	1,500 SQ. FT.	130 SQ. FT.	250 GPM	619 GPM @ 29.2 PSI	B	SIDE BEAM BRACKET	CTS	CUT TO SUIT	★ BB	(CL) BOTTOM OF BEAM	Ⓔ	EXISTING	RELIABLE	GXLO	SR SSU	BRASS	11.2	3/4"	286°	NA	-
			GPM FLOWING	950 GPM	RA#2								C	EYE SOCKET	FO	FIELD ORDER	★ TB	(CL) TOP OF BEAM											
			DATE & TIME	10/5/2010									D	NUT & PLATE WASHER	IFOW	INSIDE FACE OF WALL	★ TS	(CL) TOP OF STEEL / BOTTOM OF DECK											
			PER: TED HARDMAN										E	KWIK-BOLT	OFOW	OUTSIDE FACE OF WALL		RIGID COUPLING											
			FRUITLAND MUTUAL WATER										F	HDLP	NAS	NO AUTO. SPRINKLERS		FLEXIBLE COUPLING											
			LOCATION: PARKING LOT										G	SAMMY SIDEWINDER	UNO	UNLESS NOTED OTHERWISE													
			BEST BUY										H	SAMMY SUPERSCREW	COJ	CUT ON JOB													
			NOTES: -										J	COACH SCREW ROD															
			-										K	CEILING FLANGE															
													T	TRAPEZE														TOTAL PROJECT SPRINKLERS =	-

ARCHER
WSCL#: ARCHEI*219DR
FIRE SPRINKLER DIVISION
7855 S 206TH STREET, KENT, WA 98032
PHONE 253-872-7222 FAX 253-872-7277

PROJECT:	Powell Ryka Survey 4102 S. Meridian, Ste D Puyallup, WA 98373
CONTRACT W/:	Powell Ryka
CONTACT:	Ryan Brehm
PHONE:	(425) 828-4774

FIRE SPRINKLER PIPING PLAN

PERMIT NO:	-
JOB NO:	S24-028
AUTHORITY:	PUYALLUP
DESIGNER:	Queen
SCALE:	As Noted
DATE:	12/6/24
REVISED / /	
PLOTTED / /	FP 1 OF 1