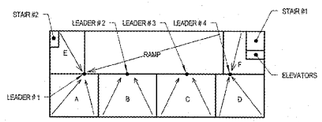


TOP LEVEL DRAINAGE AREAS

LEADER SIZING CALCULATION

BUILDING DIMENSIONS:

LENGTH: 308 FT.
WIDTH: 124 FT.
HEIGHT/LEVEL: 11.34 FT.
PARAPET: 4.5 FT.

		LEADER SIZE	
		VERTICAL	HORIZ.
STAIR 1 =	490 FT²	3"	4"
ELEV. =	210 FT²	3"	4"
STAIR 2 =	220 FT²	3"	4"
AREA A =	5174 FT²	4"	6"
AREA B =	4535 FT²	4"	6"
AREA C =	4535 FT²	4"	6"
AREA D =	5169 FT²	4"	6"
AREA E =	4342 FT²	4"	6"
RAMP =	4866 FT²	4"	6"

STORM DRAIN PIPING SIZING

		1/8"	1/4"
LEADER # 1	23241 FT²	10"	12"
LEADER # 2 =	4657 FT²	4"	6"
LEADER # 3	8657 FT²	6"	8"
LEADER # 4	8634 FT²	8"	8"

MEMPHIS, TENNESSEE 100 YEAR 60 MIN. PRECIPITATION: 3.7 IN

HORIZONTAL LEADER CAPACITY - TABLE 1106.3 (1% SLOPE):

3" @ 3.7"/HR = 822 FT²
4" @ 3.7"/HR = 1800 FT²
5" @ 3.7"/HR = 3340 FT²
6" @ 3.7"/HR = 5350 FT²
8" @ 3.7"/HR = 11500 FT²
10" @ 3.7"/HR = 20700 FT²
12" @ 3.7"/HR = 33300 FT²
15" @ 3.7"/HR = 58500 FT²

VERTICAL LEADER CAPACITY - TABLE 1106.2 (1):

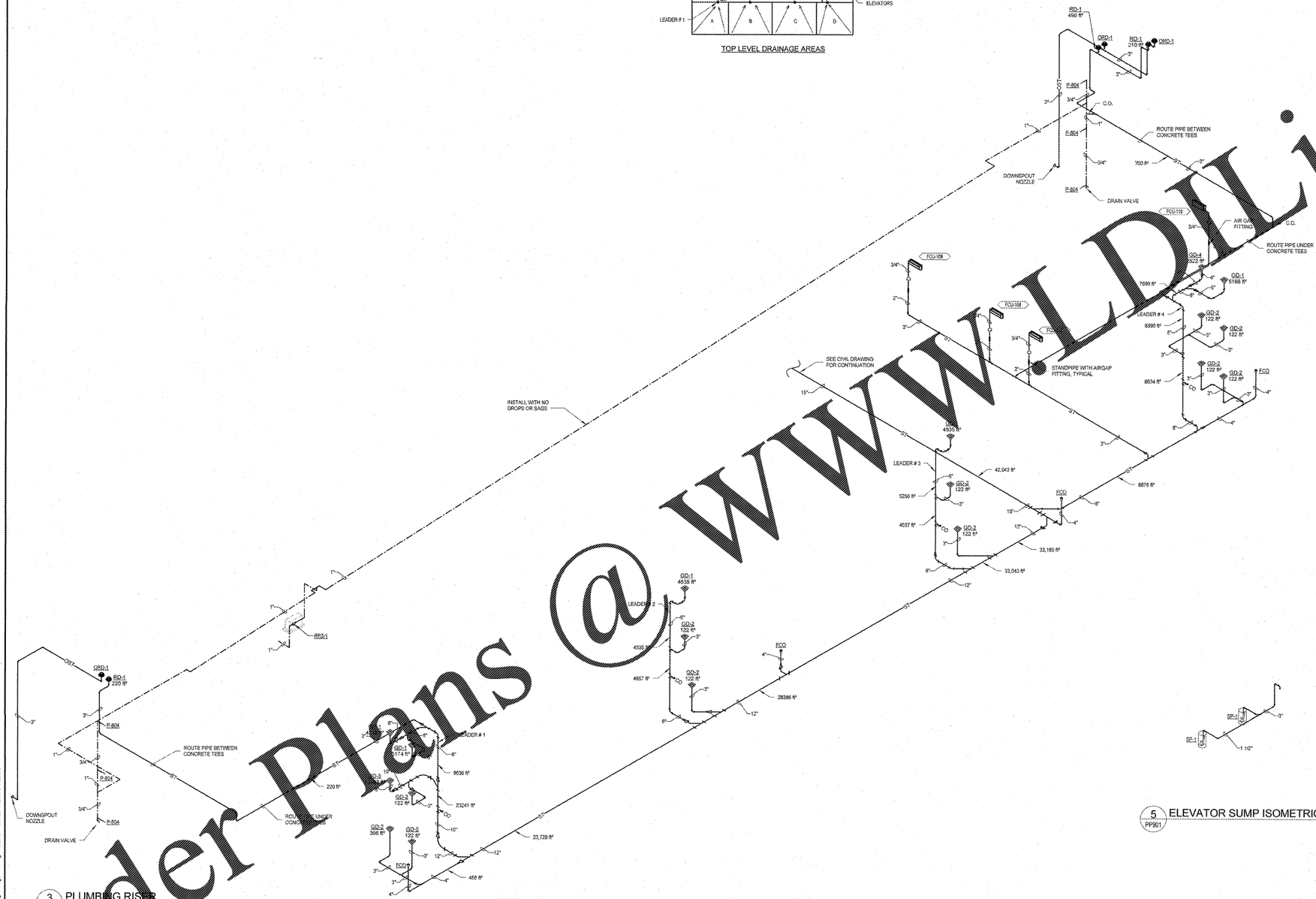
3" @ 3.7"/HR = 2300 FT²
4" @ 3.7"/HR = 4600 FT²
5" @ 3.7"/HR = 8650 FT²
6" @ 3.7"/HR = 12900 FT²
8" @ 3.7"/HR = 29000 FT²

WALL HYDRANT WATER PRESSURE DROP TABLE

STARTING POINT: 60 PSI
PRESSURE DROP PER 100': 4 PSI
VERTICAL PRESSURE DROP (PSI/FT): 0.431 PSI

	FEET	P.D. (PSI)
LONGEST RUN	275	11
HIGHEST FIXTURE	36	15.52
TOTAL PRESSURE DROP		26.52

INITIAL PRESSURE 60 PSI - 26.52 PSI P.D. = 36.48 PSI AVAILABLE AT HIGHEST FIXTURE



3 PP901 PLUMBING RISER

5 PP901 ELEVATOR SUMP ISOMETRIC

Order Plans @ WWW.LDILine.com

Revisions:	Date

VA U.S. Department of Veterans Affairs
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BID SET

Drawing Title: PLUMBING RISERS	Project Title: CONSTRUCT PARKING GARAGE ON WEST LOT	Project Number: 15.1067	OFFICE OF FACILITIES MANAGEMENT
		Building Number:	
Approved for Design Concept: FACILITY MANAGEMENT DIVISION MANAGER	Location: MEMPHIS, TN	Drawing Number: PP901	VA Project Number: 614-319
	Date: 11/14/2016 / Checked By: DJR / Drawn By: ORD		VA U.S. Department of Veterans Affairs