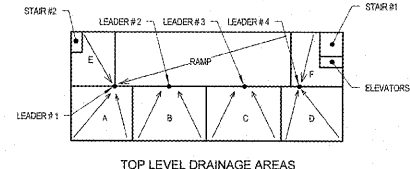


one eighth inch = one foot
 one quarter inch = one foot
 one half inch = one foot
 one inch = one foot
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 twenty eight and one quarter inches = one foot
 twenty eight and one half inches = one foot
 twenty eight and three quarters inches = one foot
 twenty nine inches = one foot
 twenty nine and one eighth inches = one foot
 twenty nine and one quarter inches = one foot
 twenty nine and one half inches = one foot
 twenty nine and three quarters inches = one foot
 thirty inches = one foot



LEADER SIZING CALCULATION

BUILDING DIMENSIONS:
 LENGTH: 308 FT.
 WIDTH: 124 FT.
 HEIGHT LEVEL: 11.34 FT.
 PARAPET: 4.9 FT.

STAR #	LEADER SIZE	VERT. LEADER SIZE	HORIZ. LEADER SIZE
STAR 1 = 490 FT			
ELEV. = 210 FT			
STAR 2 = 220 FT			
AREA A = 5124 FT ²			
AREA B = 4538 FT ²			
AREA C = 4035 FT ²			
AREA D = 3195 FT ²			
AREA E = 4242 FT ²			
RAMP =			
STDR SYSTEM			
LEADER # 1 = 23241 FT ²	12"	12"	
LEADER # 2 = 4657 FT ²	6"	6"	
LEADER # 3 = 4657 FT ²	6"	6"	
LEADER # 4 = 8634 FT ²	8"	8"	

MEMPHIS, TENNESSEE 100 YEAR 60 MIN. PRECIPITATION 3.7 IN
 HORIZONTAL LEADER CAPACITY - TABLE 1109.3 (1% SLOPE):
 3" @ 3.7"HR = 822 FT
 4" @ 3.7"HR = 1600 FT
 6" @ 3.7"HR = 2340 FT
 8" @ 3.7"HR = 3594 FT
 10" @ 3.7"HR = 5100 FT
 12" @ 3.7"HR = 6810 FT
 15" @ 3.7"HR = 9850 FT

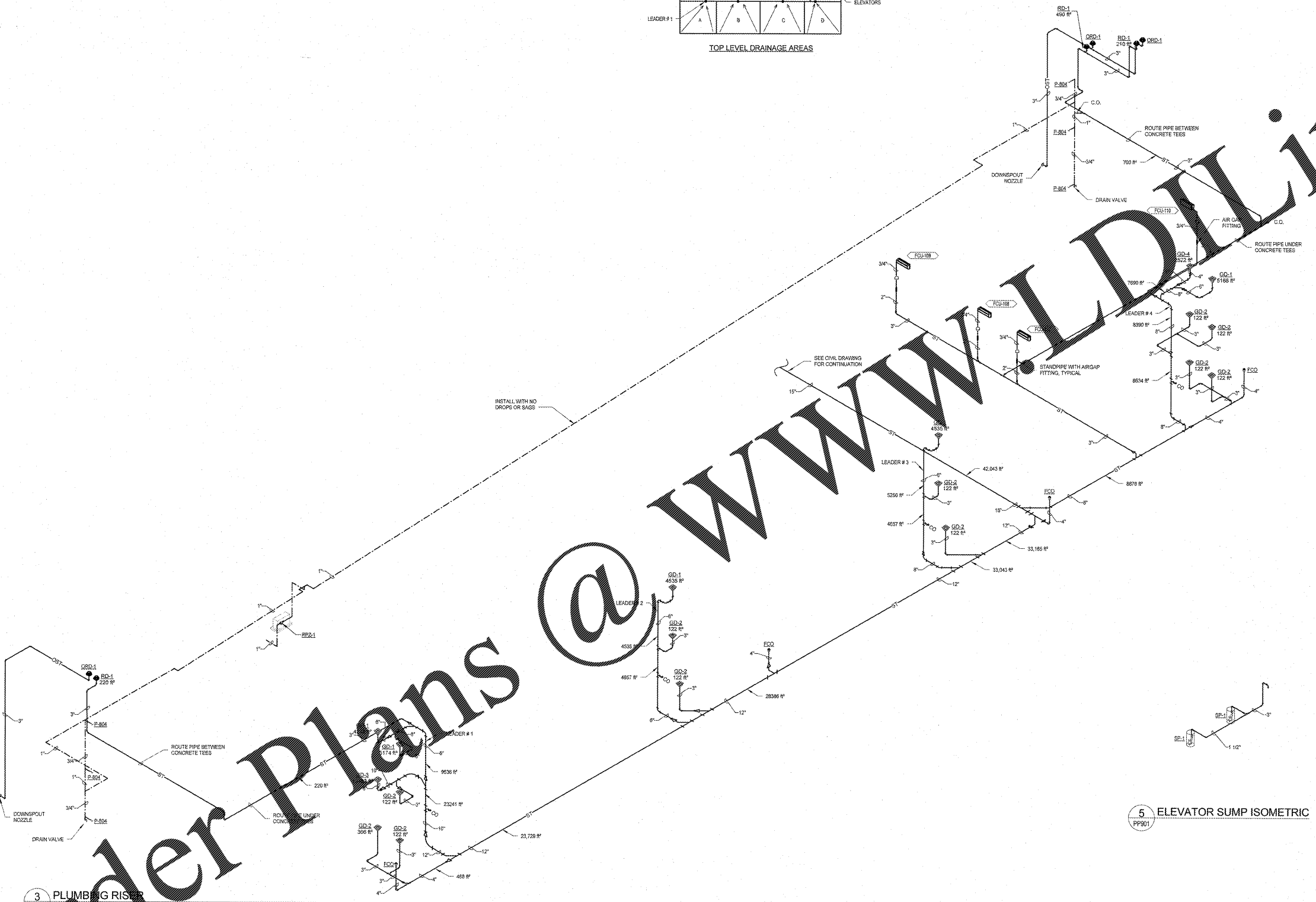
VERTICAL LEADER CAPACITY - TABLE 1109.2 (1%):
 3" @ 3.7"HR = 2300 FT
 4" @ 3.7"HR = 4600 FT
 6" @ 3.7"HR = 6900 FT
 8" @ 3.7"HR = 9200 FT

WALL HYDRANT WATER PRESSURE DROP TABLE

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

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

INITIAL PRESSURE 60 PSI - 26.52 PSI P.D. = 33.48 PSI AVAILABLE AT HIGHEST FIXTURE

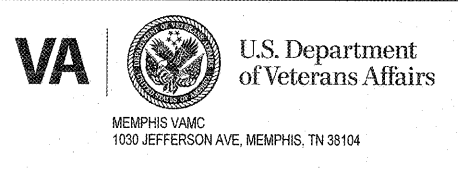


3 PLUMBING RISER
 PPS01

5 ELEVATOR SUMP ISOMETRIC
 PPS01

Revisions:

NO.	DATE	DESCRIPTION



ARCHITECT/ENGINEERS:
 PROJECT LEAD Architect, Structural Engineer, Civil Engineer
GUIDON DESIGN
 905 N. CAPITOL AVE. SUITE 100 INDIANAPOLIS, IN 46204
 317.800.8388 WWW.GUIDONDESIGN.COM
 SUSTAINABLE ARCHITECTURE + ENGINEERING

MEP Engineer APOGEE CONSULTING GROUP
 1151 Kildaire Farm Rd. Suite 120 Cary, NC 27511
 Tele: 919-858-7420

Functional Design CARL WALKER INC.
 3211 Internet Blvd., Suite 220 Frisco, TX 75034
 Tele: 469-777-5143

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