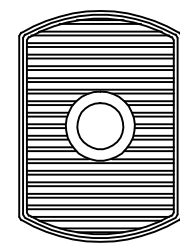


WATER HARVESTING
SYSTEM

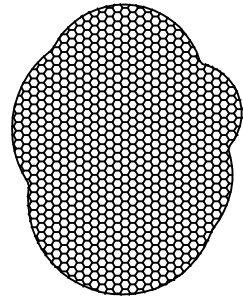


GRAF system underground water storage tank. Each at 1,700 US Gallons. Each array of 12 will store 20,400 Gallon of water for use as potable and non-potable water. Total of two arrays is 40,800 US Gallons.



RainXchange Aquablox (D-Raintank) for storage of non-potable water to be used with water fountains, irrigation systems, flushing toilets. Each box of 26.5" L x 16" W x 17.5" H stores 32 gallons. Total boxes in all arrays is 1752 boxes for total water reserve of 56,064 US Gallons.

GRAY WATER
RECYCLING SYSTEM



Greywater Recycling System consists of two separate systems to process water from building.

1. Greywater enters sand-filter system located under deck for initial processing.
2. second stage processing of greywater is pumped to planter bed throughout the north lot section. All green sections of north lot are interconnected with irrigation pipes to allow dissipation of graywater.

RUN OFF & WATER
MANAGEMENT

- A. A 12" french drain pipe system carries water run-off from southeast section of handicap parking to the north section where it is emptied into fountains through connection buried piping.
- B. All concrete shall be LEED certified pervious concrete to allow draining of rain and run-off into the ground and water harvesting systems.
- C. Walkways are part of the RainXchange system that allows drainage of rain into the modular storage reservoirs located below fountains.
- D. Rain run-off from building roofs are

directed into the RainXchange system. Fountains located on the Roof will receive water from the RainXchange system via return pumps and piping. The entire model consisting of Graf and RainXchange systems should provide for complete water harvesting of rain and greywater making the building able to sustain independent water usage from the city 90 percent of the time.



The
Velvet Freeze Project

9150 E 41st Terrace
Kansas City, MO 64133
816-276-1400

THIS DRAWING MAY NOT BE
REPRODUCED WITHOUT THE
EXPRESSED WRITTEN CONSENT OF
THE VELVET FREEZE PROJECT

THIS PROJECT REPRESENTS THE
WORK FOR ITT TECHNICAL 2010
DRAFTING & DESIGN CAPSTONE

AARON SMITH DAVID HOLDING
JOEY WRINKLE MONE CA LANIER

STAMP

PROJECT NAME

THE
VELVET FREEZE
506 E. 31st ST.
KC, MO 64109

DRAWN BY: _____
CHECKED BY: _____
DATE: _____
PRINTED: _____

REV NO.	REV NAME	DESCRIPTION

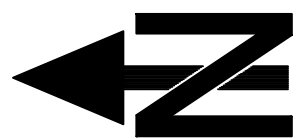
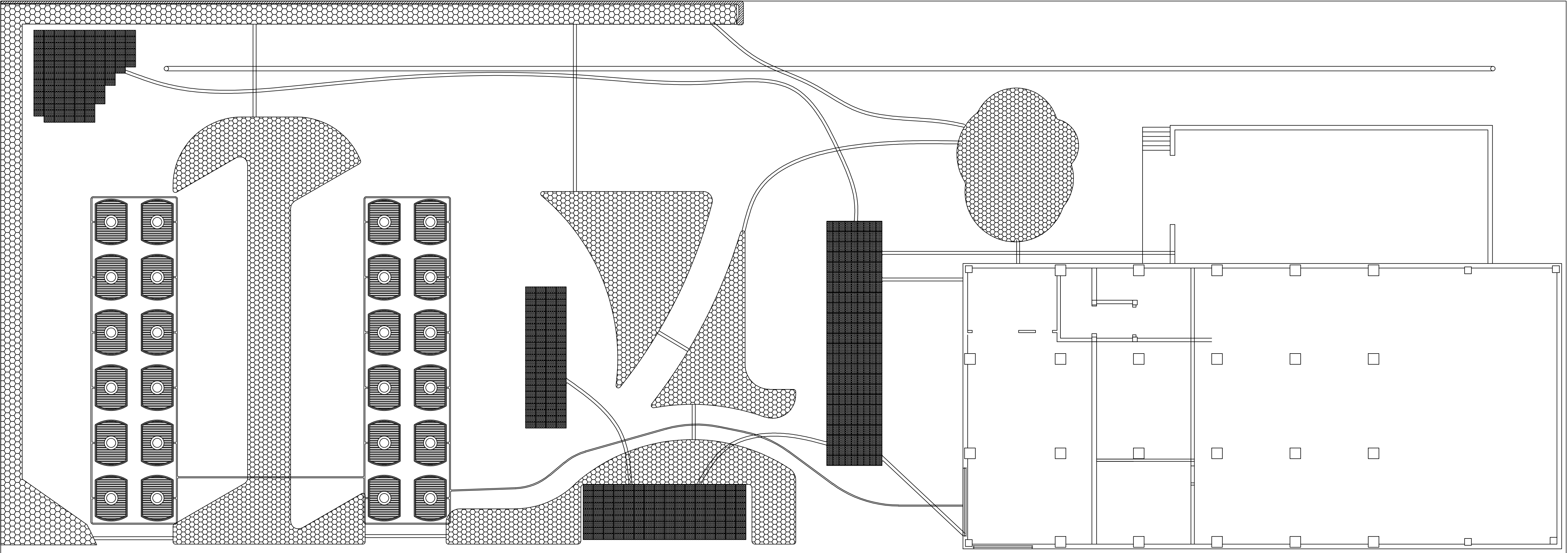
DRAWING NAME

WATER
HARVESTING

DRAWING NUMBER

C-03

OF



WATER HARVESTING