BIF Plumming list:

* L-1: in description says max flow 0.5 GPM in compliance with energy policy act of 1992 and asme/ansi standard A112.18.1M
* L-2: same as above
* L-3: same
* SHV-1: in accessories says “max flow to be 2.0 gpm to meet low flow req of the project leed req and to meet compliance with energy policy act of 1992 and asme/ansi standard A112.18.1M
* SK-1: in description says max flow 0.5 GPM in compliance with energy policy act of 1992 and asme/ansi standard A112.18.1M
* UR-1 & UR-2: urinals only says the flow rates nothing on low flow

Vet Med Loop Pic:

1. 350- Vet Med Basic Sciences Building
2. 352- Veterinary Medicine Chiller plant
3. #118280 Electrical Distribution Center
4. 292- Veterinary Teaching Hospital
5. 287- Clinical Skills Learning Center

Energy Data Excel Venders

* Chilled Water
* Electric
* Gas
* Propane (1 Building-0188-Fred Turner Stdent Services Bldg)
* Sanitary Sewer
* Steam
* Water

Energy Data Excel: Buildings with Chiller Plant Vender Data (BID-BNAME)

|  |  |
| --- | --- |
| 0001 | Davenport Hall |
| 0003 | McKinley Health Center |
| 0004 | Harding Band Building |
| 0006 | Armory |
| 0007 | Foellinger Auditorium |
| 0008 | Agricultural Engr Sciences Bldg |
| 0010 | Chemistry Annex |
| 0012 | Noyes Laboratory of Chemistry |
| 0013 | Talbot Laboratory |
| 0015 | Engineering Hall |
| 0017 | Advanced Computation Bldg |
| 0023 | Illini Union |
| 0024 | Newmark Civil Engineering Building |
| 0025 | Harker Hall |
| 0026 | Altgeld Hall |
| 0027 | Lincoln Hall |
| 0029 | Mechanical Engineering Laboratory |
| 0032 | Natural History Building |
| 0034 | Materials Science and Eng Bldg |
| 0037 | Everitt Elec & Comp Engr Lab |
| 0039 | Music Building |
| 0041 | Library |
| 0042 | Transportation Building |
| 0043 | Gregory Hall |
| 0044 | English Building |
| 0046 | Henry Administration Building |
| 0052 | Krannert Center for Performing Arts |
| 0054 | David Kinley Hall |
| 0058 | Huff Hall |
| 0059 | RICHARD D. AND ANNE MARIE IRWIN DOCTORAL STUDY HAL |
| 0060 | Smith Memorial Hall |
| 0061 | University High School |
| 0064 | Freer Hall |
| 0066 | Seitz Materials Research Lab |
| 0067 | Loomis Laboratory of Physics |
| 0069 | Mumford Hall |
| 0070 | Chemical & Life Sciences Laboratory |
| 0071 | Student Services Arcade Building |
| 0072 | Memorial Stadium |
| 0076 | Psychology Laboratory |
| 0087 | Clark Hall |
| 0094 | Alice Campbell Alumni Center |
| 0095 | Superconductivity Center |
| 0099 | Undergraduate Library |
| 0105 | Pennsylvania Lounge Building |
| 0112 | Mechanical Engineering Building |
| 0115 | Evans Hall |
| 0116 | Roger Adams Laboratory |
| 0118 | Activities & Recreation Center |
| 0124 | National Soybean Research Center |
| 0126 | Levis Faculty Center |
| 0138 | Burrill Hall |
| 0142 | Allen Residence Hall |
| 0148 | Coordinated Science Laboratory |
| 0152 | Civil Engineering Hydrosystems Lab |
| 0156 | Law Building |
| 0158 | Bevier Hall |
| 0159 | Wohlers Hall |
| 0160 | Education Building |
| 0165 | Animal Sciences Laboratory |
| 0166 | State Farm Center |
| 0169 | Burnsides Research Laboratory |
| 0172 | Foreign Languages Building |
| 0174 | Engineering Sciences Building |
| 0188 | Fred Turner Student Services Bldg |
| 0192 | Medical Sciences Building |
| 0197 | Turner Hall |
| 0198 | Physical Plant Service Building |
| 0206 | Illinois Sustainable Technology Center |
| 0209 | Speech and Hearing Clinic |
| 0210 | Digital Computer Laboratory |
| 0218 | School of Labor and Employment Relations |
| 0219 | Art and Design Building |
| 0220 | Krannert Art Museum |
| 0228 | Beckman Institute |
| 0232 | North Campus Chiller Plant |
| 0237 | Micro and Nanotechnology Laboratory |
| 0242 | Morrill Hall |
| 0272 | Wardall Hall - ISRH - Women's Bldg |
| 0276 | Library Air Conditioning Center |
| 0287 | Clinical Skills Learning Center |
| 0291 | Sherman Hall - Single Grad Housing |
| 0292 | Veterinary Teaching Hospital |
| 0295 | Trelease Hall - FARH - Women's Bldg |
| 0296 | Oglesby Hall - FARH - Men's Bldg |
| 0297 | Food Service Building - FARH |
| 0321 | Natural Resource Studies Annex |
| 0324 | Grainger Engineering Library |
| 0331 | Library and Information Science Bldg |
| 0336 | Madigan Laboratory, Edward R |
| 0350 | Vet Med Basic Sciences Building |
| 0352 | Veterinary Medicine Chiller Plant |
| 0364 | Campus Recreation Center - East |
| 0369 | International Studies Building |
| 0373 | Spurlock Museum |
| 0377 | ACES Library, Info. & Alumni Center |
| 0378 | Admissions and Records Building |
| 0381 | Irwin Academic Service Center |
| 0401 | Animal Science Air Conditioning Ctr |
| 0409 | Electrical and Computer Engineering |
| 0563 | Siebel Center for Computer Science |
| 0564 | Nat Center for Supercomp Appl |
| 1071 | Early Child Development Lab |
| 1080 | Institute for Genomic Biology |
| 1093 | Aerodynamics Research Laboratory |
| 1094 | North Campus Parking Deck |
| 1133 | Christopher Hall |
| 1206 | Business Instructional Facility |
| 1214 | Conference Center |
| 1244 | National Petascale Computing Facility |
| 1247 | Ikenberry Dining Hall |
| 1248 | Timothy J. Nugent Hall |
| 1249 | Wassaja Hall |
| 1252 | Bousfield Hall |
| 1494 | Center for Wounded Veterans in Higher Education |

CHP Utilities Master Plan (UMP) Cont

* Buildings in Isolation Mode:
	+ Oak Street Chiller Plant - Physical Plant Services Building (PPSB), future connection to Housing Food Stores.
	+ North Campus Chiller Plant - Microelectronics Laboratory, Beckman Institute, Computerand Systems Research Laboratory, Civil Engineering Hydrosystems Laboratory,Newmark Civil Engineering Building, Digital Computer Laboratory, future Electrical andComputer Engineering Laboratory.
	+ Library Air Conditioning Center - Main Library
	+ Chem Life Sciences Plant - Chem Life Science Building
	+ Animal Sciences Plant - Animal Sciences Building, Madigan Laboratory, Turner Hall,ACES Library
* Central loop is feed by all but vet med
* Each plant can isolate itself from the loop and feed select buildings

Questions for Kent:

1. Differences in buildings on the chilled water loop from the excel billing and the UMP? Which buildings are actually on it? Is the Excel missing buildings or is the UMP have old buildings? check
2. Where is the appendix for UMP to see data used to calculate efficiencies? good
3. Is there a list of building with removed low flow fixtures?
4. Best way to determine which buildings have low flow fixtures?
5. Have you been trying to minimize water consumption in Abbot, chiller plants, and buildings? How?
6. Is there a list with all the buildings in the chilled water loop and which plant supplies them?
7. Why is only some of the chiller plants’ electricity metered?
8. Vet met glycol consumption metered? Chilled water produced meter
9. How many OTC do we have and where?

Run water to waste instead of chemically treating
water station and refrigeration
air conditioning use cooling water and sending to waste
soybean lab running water
paul autoclaves running for cooling
Niel silver

Water Audit Rough Plan:

* Look at recorded water data for building to see trend
* Compare billed water to incoming water metered
* Compare Incoming water metered to waste water
* Walk through to find visible leaks in piping, toilets, and sinks
	+ Dye test in water to help see leaks
* Create water fixture inventory list
	+ Brand
	+ Model
	+ Type of fixture
* Check every fixture’s volume of water or flow rate to determine if low flow or inefficient
	+ Flow meteres
	+ Flow bags
	+ flushmeters
* Prioritize buildings with the most OTC and inefficient water fixtures
* Create a list of buildings with low flow fixtures removed
* Compare to national averages

Create plan checklist for a high schooler to perform