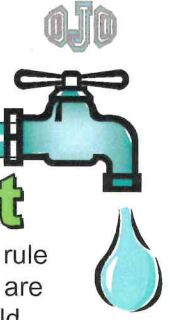


# The Mulvaney Pipeline



## The value of a comfortable environment

A well-controlled environment can mean a contented and efficient workforce. There is one over-riding rule that governs the successful air conditioning of office premises: it has to make the staff feel so comfortable that they are unaware of it. If the workplace environment is unpleasantly drafty or stuffy — or just that little bit too warm or too cold, the average worker will, whether consciously or otherwise, soon find a very good reason for seeking more congenial surroundings. They will leave their desks to go for a stroll, have a coffee or a smoke...or just a chat with a colleague, thus compounding the loss of staff efficiency! On the other hand, an office that is nice to be in, being neither stuffy nor drafty, pleasantly warm in winter and cool in summer can do impressive things for business efficiency.

The fact is that all the other initiatives introduced to boost staff morale can only work if the working environment is right. It is air conditioning/heating, along with lighting and decor, which can ensure that "right" environment. Of course, the system chosen must be fit for the purpose, there is no point in spending a fortune on the top-of-the-range option if the potential payback is such that the capital cost will never be recouped. Similarly, it is important to take energy efficiency into account, so as to ensure that the running costs of the system will not account for more than the profit which can be generated by increased efficiency.

It is essential, therefore, to ensure that the system is designed, installed and subsequently maintained by someone who understands what is required, is familiar with all the options available, is prepared to operate within budget, and can make an informed estimate of future running costs. Whatever system is specified, its subsequent control will, of course, be key to its effectiveness and cost efficiency.

The very first mechanical services in buildings were all heating systems which had virtually no controls whatsoever. Fuel was cheap in those days and, in any case, our Victorian and Edwardian forebears had very low expectations of comfort. Remember Scrooge and Bob Cratchet counting the lumps of coal in the office grate? Indeed, even as recently as the 1940s, nothing more sophisticated than manual control was typically used.

Electro-mechanical and pneumatic controls were eventually introduced, in order to offer an element of automation. Then, in the late 1960s, electronics began to take over. A parallel application of electronics, of course, took place in computers. Although, at first, computer electronics and building services electronics ploughed separate tracks, it was clear that, sooner or later, someone would try to bring them together, which eventually happened. The result is simple, inexpensive, intelligent controls that can be programmed to meet very precise and infinitely variable requirements.

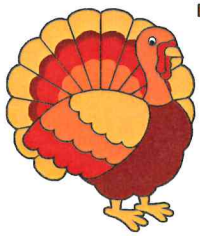


## Trenches Can Kill

Trench digging is one of the oldest types of construction work documented in history. Prior to World War II, trenches were dug by hand. As workers dug trenches deeper, the sides of the trench had to be shored, or supported, to keep the walls of the trench from collapsing. Following the war, innovations were made in cable backhoes, and trench digging disappeared as an established profession. By the 1950's, hydraulically-actuated backhoes were developed, making it possible to rapidly dig very deep trenches. As a result of backhoe innovations, and because there were no workers inside the trenches during digging, trench walls were no longer shored.

All trenches have what is known as a stand-up time. The stand-up time is the time that elapses from the time the trench is dug until the trench walls start collapsing. Stand-up time is dependent on many factors, including soil type, water content, trench depth, weather conditions, and whether or not the soil has been previously disturbed. Stand-up times can be as short as zero seconds or as long as several months, and are difficult to predict. Before trenches are dug, someone can take soil samples as a means of estimating stand-up time; however, soil conditions can be dramatically disparate only a few feet from where the soil sample was taken.

After a trench is dug, workers go down into the trench, performing whatever work is necessary, such as laying pipe or telephone lines, welding pipe, or installing valves. If the walls of the trench are not supported, there is the possibility that the walls will collapse and trap the workers in the trench. Historically, there have been between 100 and 300 people killed in the United States every year due to trench collapses. The state of Texas usually leads the nation in this statistic. Barring gross negligence, the families are not allowed to sue in Texas, where about 10-15% of the annual fatalities occur. Since the use of trench boxes was made mandatory, fatal accidents attributed to trench collapse has dropped 90%.



## Thanksgiving Day 2004

Nov. 26, 1789. President Washington proclaimed Thanksgiving Day. Did you know that: 50% of Americans say they put stuffing inside the bird, while 50% cook it on the side. 20% of all cranberries that are eaten are eaten at Thanksgiving. Over 40 million green bean casseroles will be served on Thanksgiving Day.

### CENSUS NUMBERS

- 280 Million - Number of turkeys raised annually in the US
- 580 Million - Pounds of cranberries grown annually in the US
- 1.4 Billion - Pounds of sweet potatoes grown annually.
- 850 Million - Pounds of pumpkin grown in the US annually.
- 13.6 Pounds - Per person annual consumption of turkey.



## Annual Holiday Season Sales



- \$1 billion spent on live Christmas trees.
- \$1 billion on decorations imported from China
- \$14 billion on mail order catalog gift sales
- \$11 billion on e-commerce internet gift sales.
- \$¾ billion on stuffed animal imports from China



## Same Place.. Different Name!



The City of Danbury recently renamed West Kenosia Avenue, Christopher Columbus Avenue in honor of Christopher Columbus. The new street signs were unveiled during the Columbus Day celebration.

Over the coming year, our mailing address will be transitioned to 4 Christopher Columbus Avenue. Both street addresses will be accurate and acceptable for a year, after which the new street name will become official.

## You too can WIN!

Just un-jumble the following letters to form the correct WORD or PHRASE to WIN

**b o a t c e v p l u s h e h l m c u r s o r**

e-mail or FAX your answer to our office. If more than one correct entry is received, a winner will be selected at random.

If sending in an answer by e-mail please be sure to put "Newsletter Contest" in the subject line of the message.

## Correct answers from last time

### 2nd Quarter

(ANSWER: Summer Vacation)

Sapienza Family - Sapienza & Lessig

Emily Belardinelli - Bethel Schools

Leo Dunn - Construction Services

Al DiVenticenti - Garcia & Milas

Diane Baker - Hines

Sue Stout - Pipefitters Local 777

Bel Forte - Charles Beckman Swanson Architects

Kay Balun - Global Positioning Group

Thomas Orzech - Nestle

### 3rd Quarter

(ANSWER: Shadow)

Bel Forte - Charles Beckman Swanson Architects

Sapienza Family - Sapienza & Lessig

Sue Stout - Pipefitters Local 777

We apologize for the contest winner mix-up last quarter.

[www.MulvaneyMechanical.com](http://www.MulvaneyMechanical.com)



Everyone at Mulvaney Mechanical & Properties  
wishes you and yours  
A very Happy Holiday Season



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