



INFRASTRUCTURE

STORAGE



OPTIMAL FACILITY LAYOUT

An agency's facility layout can be extremely important to the efficiency and safety of the agency, its employees, and its vendors. Efficiencies can be realized in several different areas. For a facility to be filled to its entire capacity a conveyor system should be considered. Conveyor systems fill the facility from the highest point, and it can be filled completely. This is unachievable when the material is simply pushed inside the facility. Not only is this the optimum way to fill the facility it is also a much safer way. Facilities should be designed to receive material, store the material, and then distribute the material. The optimal layout allows delivery without the interruption of distribution.

It is also important that a flow pattern is established for the facility. Once again, the optimal layout allows for delivery, with no opposing traffic, and does not interrupt loading of material for plows entering or leaving the facility. Additional considerations need to be given to, level surfaces to load and unload, fueling equipment, liquid storage, liquid filling, snow clearing of the lot, runoff, runoff retention and employee parking.

The type and size of the storage facility will depend upon the agencies needs and budget. It should hold 100% of the yard's seasonal needs. It is important in the layout to consider runoff and ensure it is contained at the site. If a new facility is to be constructed, consideration should be given to the future needs of the agency and the possibility of making the facility a shared site with other agencies.

The storage facility must be able to be filled completely to optimize its usage. It must provide for efficient loading and unloading. It must be safe for vendors and employees so flow patterns with no opposing traffic are critical. It should be well lit and have level loading areas. Good housekeeping around the whole facility is vital.





The numbers: facilities that are filled using conveyor systems can be filled completely utilizing their total capacity. Efficient flow patterns will allow for vendors to dispense their loads quickly and leave the facility. It will also not interrupt the distribution of material to the agency's vehicles. A well-designed flow pattern will also enhance the safety for everyone using the facility.

The Alternatives: agencies that are unable to fill their facilities using some type of a conveyor system will not be able to optimize the full storage capacity of the facility. An inefficient flow pattern can mean delays in receiving and distribution of the materials due to conflicts. Employee and vendor safety may be compromised when these conflicts occur.



The needs: Many facilities are preexisting and while some retrofitting is possible, they may be very difficult to change flow patterns and existing facilities. Some efficiency can be improved by adding or renting a conveyor system. When any new facility is constructed, consideration should be given to all the best practices listed above.

