

PARKING LOTS, TRUCK TURNAROUNDS AND YELP: DESIGNING FACILITY ACCESS WITH THE USER IN MIND

The design of your paved parking and truck access matters. Don't make it an afterthought, make it a priority.

Designing the parking lot and truck access for a facility often takes a backseat to the engineering and architecture of the building.

But make no mistake, the parking, trucking and loading areas outside a plant are just as important as the processes occurring inside. A poorly conceived parking area and truck access can lead to unhappy staff, contractors and customers, or possibly even legal liability.

Is this place a pain to get in and out of?

Have you ever Google-mapped your facility and read the social media sidebar reviews? You might be surprised, or even alarmed, at what your delivery drivers are "YELP-ing" about your plant.

Look up a food and beverage manufacturing plant online, and comments and reviews often appear in the sidebar: how hard it is to access; how maneuverability is difficult for long-load vehicles; how this access planning reflects the facility "doesn't have its act together," or worse yet, doesn't care about the safety of delivery vehicle drivers and employees.

Social media allows every person to easily, and publicly, voice their opinion about anything and everything.



Above is a rendering POWER Engineers developed for a food and beverage plant where the loading dock is a significant part of facility operations. The friendlier and more accessible a shipping and receiving area is, the happier the delivery drivers are. The happier the drivers are, the more they deliver. The more they deliver, the more efficient your facility becomes. It's a win-win situation.

To design your parking and truck access areas with the user in mind, consider these factors:

Safety: No one should get hurt.

The number one priority for all food and beverage facilities is safety because pedestrian pathways and access to building entries is critical.

Minimize all possible pedestrian-to-vehicular contact. Truck access should be isolated from staff parking and walking areas.

User-friendly: Make it easy for all types and sizes of vehicles.

Use current practices and design software to ensure easy vehicle access to your facility.

A computer automated design tool can identify and mitigate tight corners or entrances during the development process, instead of during construction. The Vehicle Tracking™ add-on in Autodesk

Civil 3D software can simulate access and turning radii for all types of vehicles.

And always remember to check the current Americans with Disabilities Act Accessibility Guidelines for parking and pedestrian access to your facility.

Consider future uses: Proper planning now saves time and money down the road.

Envision now where buildings could logically expand in the near- and long-term future, and plan accordingly. Being able to keep truck delivery routes and staff parking in service during expansion projects will save you costs and headaches.

Consider using a heavy-duty pavement section in parking areas that may be converted to truck route areas in the future. Not only will your pavement last longer regardless, rework and

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construction traffic problems will be minimized in the future.

Pavement design: Get some soil borings, please!

Well designed and constructed pavement, built on top of the right type of soil, will last longer and cost less to maintain over its lifespan. Bring a geotechnical engineer on board to analyze the subgrade soils of your planned parking area.

The design of pavement sections, and having the right soils underneath the pavement, is important for a solid foundation. Geotechnical experts provide technically sound, site-specific recommendations for paving preparation and earthwork.

Maintenance: Take care of it and it will take care of you.

Sealing cracks in the pavement is not the most glorious of jobs, but it can have incredible impacts on quality and lengthen the design life. Pavement deterioration accelerates towards the end of its useful lifespan, so do all you can to slow the process.

Cracks in the pavement allow water to infiltrate and cause damage from beneath. Climates that have freeze/thaw cycles are especially hard on pavement and concrete. Repair damaged areas to eliminate tripping hazards and possible injury lawsuits.

To sum it up...

Parking lot and trucking access is most likely not the top agenda item for your CEO's weekly board meeting – and while this isn't the most fascinating aspect of the

design process, it is a significant part of a safe and efficient facility.

A comprehensive, wholistic approach to facility design gives just as much focus and attention to the features outside the building, as to the production processes occurring inside.

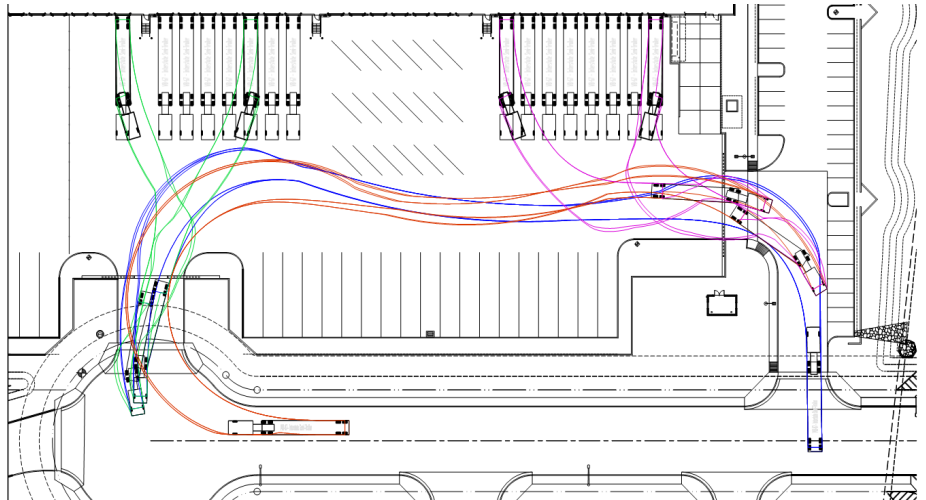
Up front planning and thoughtful consideration of who's using your parking areas and accesses can save you time and money when making future improvements or expansions. And it makes life easier and safer for employees, customers, and delivery drivers.



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About the Author: Todd is a long-time member of the American Society of Civil Engineers (ASCE). He has engineered a variety of site and civil engineering solutions for food and beverage facilities, utilities, commercial businesses, and government facilities.

Todd has designed site-specific solutions for numerous manufacturing plants across the U.S., from the concept stage through design to construction and completion.



Autodesk Vehicle Tracking™ software allows engineers to create simulations that clearly show how long-load vehicles will negotiate turns and curves in the real world.