



Landscape Services

Safety Standard Operating Procedure

(Revised 1/2023)

Bumper block installation

This Standard Operating Procedure coverings installing bumper blocks in campus parking lots. As with any equipment or tools, the most basic premise for safe operation is reading and adhering to the manufacturer's instructions and warnings. This SSOP is not a substitute for the owner's manual produced by the manufacturer.

Schedule- TBD upon needs of the campus and project scheduling.

PPE Required- Safety Glasses, ear plugs, long pants, closed toed shoes, high vis safety vest, hard hat when working around lifting equipment, barricades/ cones, warning signage.

Safety Requirements- Follow all Silica control guidelines, Setup barricades around work site with signage indicating area is closed off. Make sure to not block ADA access points. Water hoses and extension cords must be kept orderly to prevent a trip hazard.

Safety Hazards: Vehicle and pedestrian traffic, Underground and overhead Utilities, lifting, bending, overhead objects, dust, noise, sharp objects, blind spots, equipment malfunction, pinch points, hot or cold temperatures, and inclement weather.

Tools/ materials- 8-pound sledgehammer, 2-pound shop hammer, 100' tape measure, 25' tape measure, ground paint, skid steer with forks, ½"x 18" rebar pins (2 per block), battery powered hammer drill with ½" concrete bit, rock bar/ pry bar.

Standard locations- Bumper blocks are placed in several locations throughout campus. They are used to identify the edge of gravel parking lots. To protect signage in front of parking spaces. To keep vehicle hangover on sidewalks and ADA access.

Laying out a parking lot- First thing you must know what size a parking spot must be. There are a few things to look for when setting up a parking spot

1. Total size of the lot
 - You need to know how wide the entire lot is and width.
 - What is the customer wanting?
 - What angle do the parking spaces need to be?
2. Parking spaces
 - 9 foot wide by 18 foot long.

3. Drive lane width
 - Minimum of 18-foot-wide driving lane

Once you have this information you can begin to layout the parking spots.

Straight parking spots

1. Pull string line across lot indicating the vehicle side of the bumper blocks.
2. Measure out and mark end lines for each spot. Parking spaces are 9' wide and 18' long.
3. Measure bumper blocks and measure for center line of block.
4. Using a skid steer with forks. Set each block on the line markings.
5. Use ½" rebar 18" in length for pins,
6. Concrete, asphalt, or hard surface pin driving- use 1/2" drill bit on hammer drill Follow silica protocols.
7. Measure height of bumper block, then drill down the remaining difference into hard surface.
8. Align pin through bumper block hole. Use 4-pound sledgehammer to drive pins into hole until top of pin is flush with the top of the block.
9. Caution- Make sure your footing is secure and watch your surroundings when driving the pins.
10. Soil or gravel pin driving- Align blocks, align pins in holes of the bumper blocks, use 4-pound sledgehammer and drive the pin in until flush with the top of the bumper block.
11. End blocks- We use parking blocks on the end of areas painted yellow with no parking. This is to signify that no parking is allowed beyond this point.
12. Set end blocks parallel with parking space along the 9' mark. Two blocks spaced evenly to make the 18' long space.
13. Corner blocks- Blocks are set like end blocks painted in yellow with no parking.
14. Clean up area when finished. If you made ruts in the gravel areas, rake them out smooth.

Diagonal parking spaces

1. Pull string line across where back of block would be.
2. Measure out parking spaces to 9' in width
3. Measure and mark bumper block centered in spot. (Blocks come in different lengths. Measure first.)
4. Measure on the side of block that moves towards the center of lot 3'. Mark block location.
5. Measure and make sure you have 18' wide driving lane. Angle of blocks may need to be adjusted.
6. Set block using skid steer with forks.
7. Use ½" rebar 18" in length for pins,
8. Concrete, asphalt, or hard surface pin driving- use 1/2" drill bit on hammer drill Follow silica protocols.
9. Measure height of bumper block, then drill down the remaining difference into hard surface.
10. Align pin through bumper block hole. Use 4-pound sledgehammer to drive pins into hole until top of pin is flush with the top of the block.
11. Caution- Make sure your footing is secure and watch your surroundings when driving the pins.
12. Soil or gravel pin driving- Align blocks, align pins in holes of the bumper blocks, use 4-pound sledgehammer and drive the pin in until flush with the top of the bumper block.
13. End blocks- We use parking blocks on the end of areas painted yellow with no parking. This is to signify that no parking is allowed beyond this point.

14. Set end blocks parallel with parking space along the 9' mark. Two blocks spaced evenly to make the 18' long space.
15. Corner blocks- Blocks are set like end blocks painted in yellow with no parking.
16. Clean up area when finished. If you made ruts in the gravel areas, rake them out smooth.