



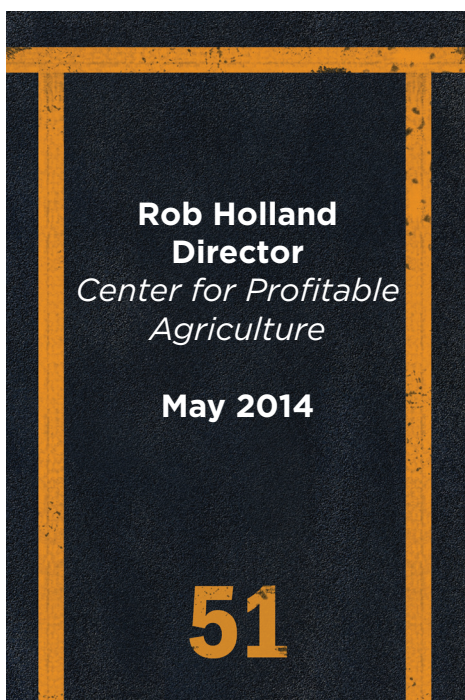
# Estimating the Number of Parking Spaces Per Acre

Farm families that are preparing for on-farm direct marketing and agritourism ventures must often make provisions for customer parking. If a 5-acre field will be dedicated to customer parking, how many individual parking spaces will be available? The answer “it depends” certainly applies here. Some of the most important factors that will contribute to the number of parking spaces that will be available on an acre of land include:

- Size of each parking space
- Size and design of driving and turning lanes
- Layout and topography of the land
- Other factors such as handicap-accessible parking and surface of the lot/field

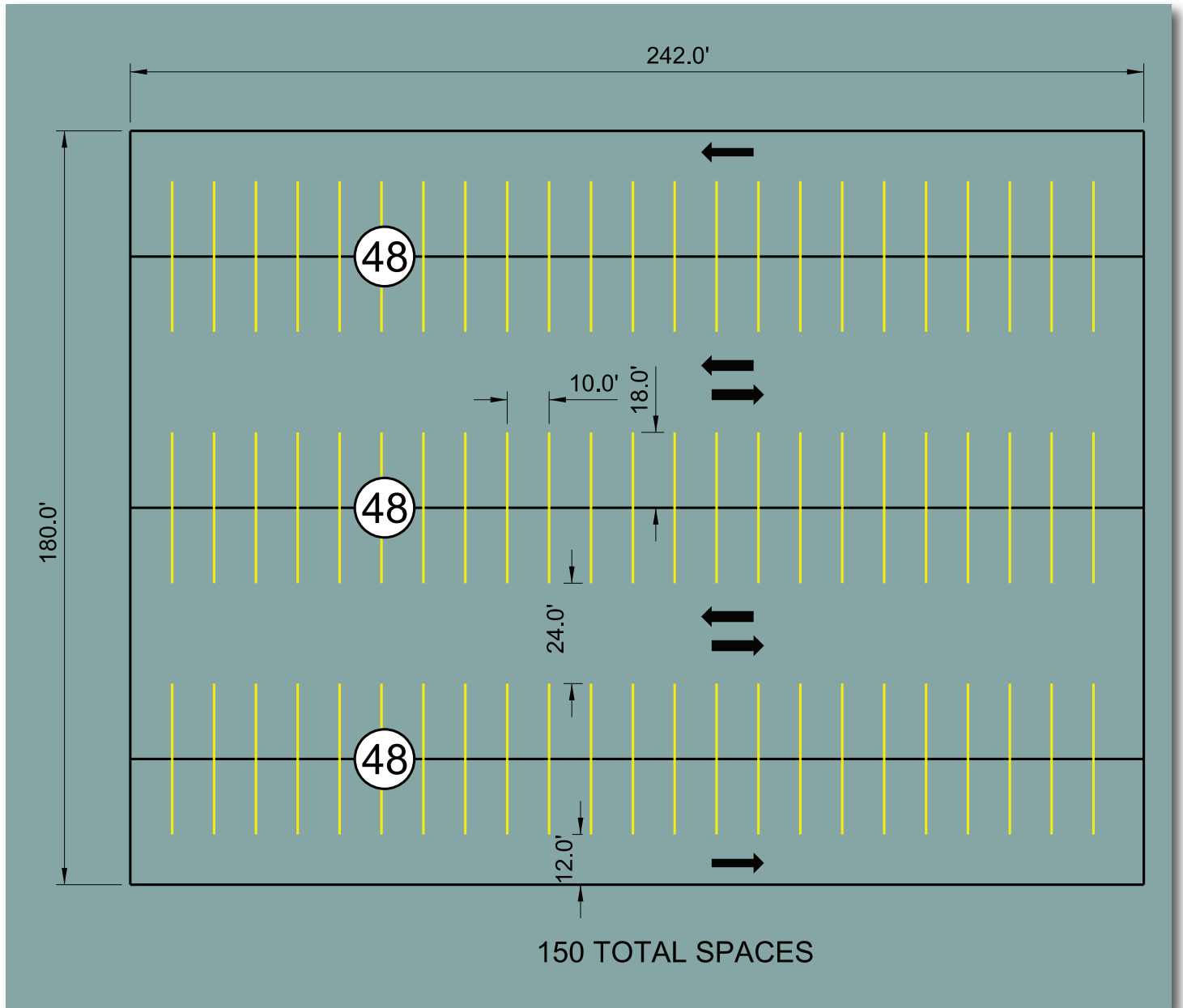
Some parking lots contain uniform-size parking spaces. That is, every parking space is the exact same size. Other parking areas will contain various-size spaces. For farm retail parking lots, it is advisable to consider various size parking spaces to accommodate a variety of vehicles. A 2-door economy car will require less parking space than a 4-door, 2-ton, dual-wheel pickup truck. In addition, farm retail operations that target tourists should consider parking and turning requirements for buses and RVs.

While there is probably not a standard-sized parking space, many parking lots are designed with parking spaces that are 10 feet by 18 feet (180 square feet). While



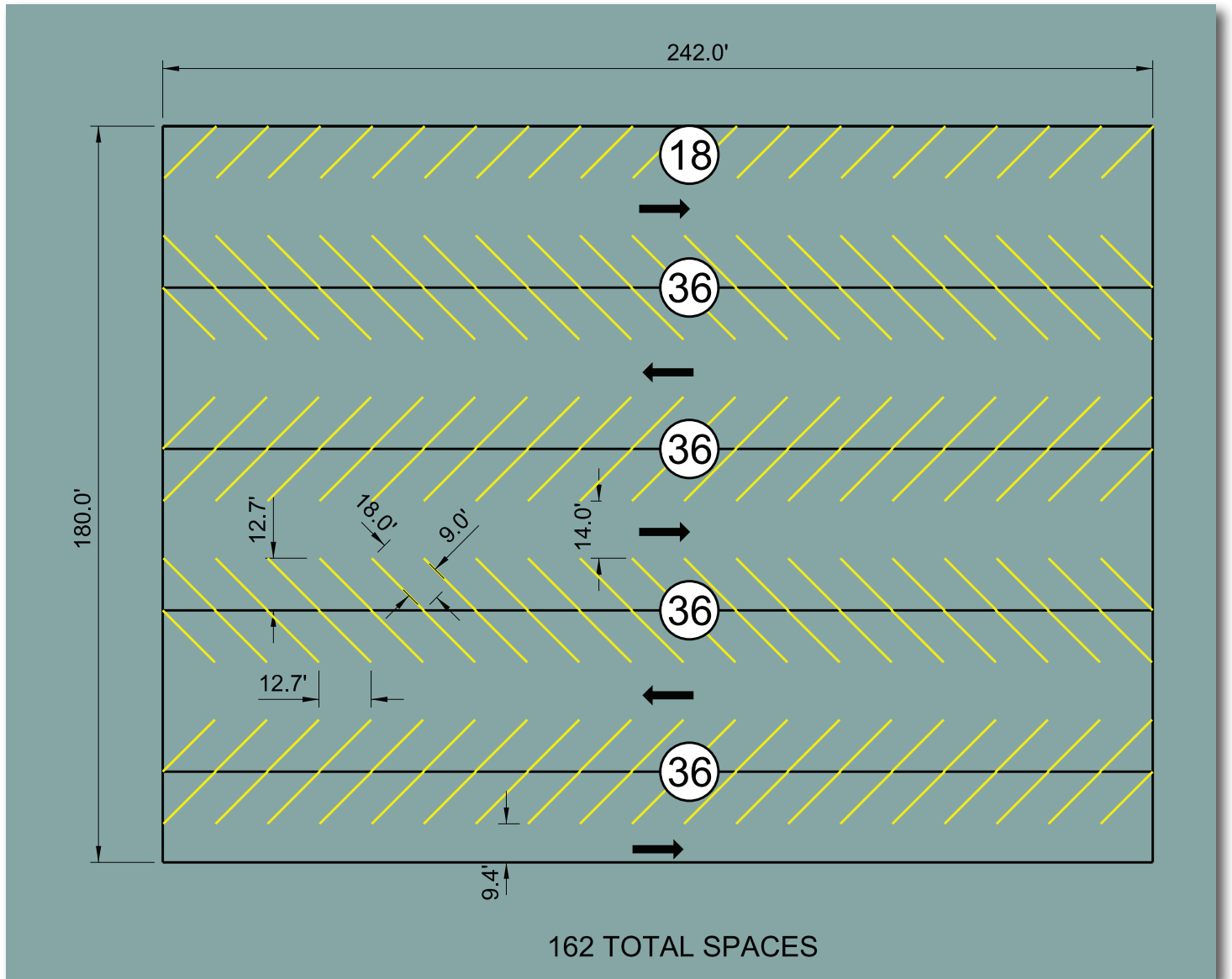
each acre of land contains 43,560 square feet, a simple mathematical computation shows if each parking space requires 180 square feet, 1 acre of land would accommodate 242 parking spaces. Of course, this assumes no turning lanes and each parking space is right next to each other.

If a field that is 180 feet by 242 feet (approximately 1 acre) is designed with six rows of parking spaces with each parking space being approximately 10 feet by 18 feet and the traffic lanes are 24 feet wide, approximately 150 spaces can be designed. As shown in Figure 1, there are three pairs of parking rows, each containing 48 spaces. The one-way traffic lanes are 12 feet wide and the two-way traffic lanes are 18 feet wide.



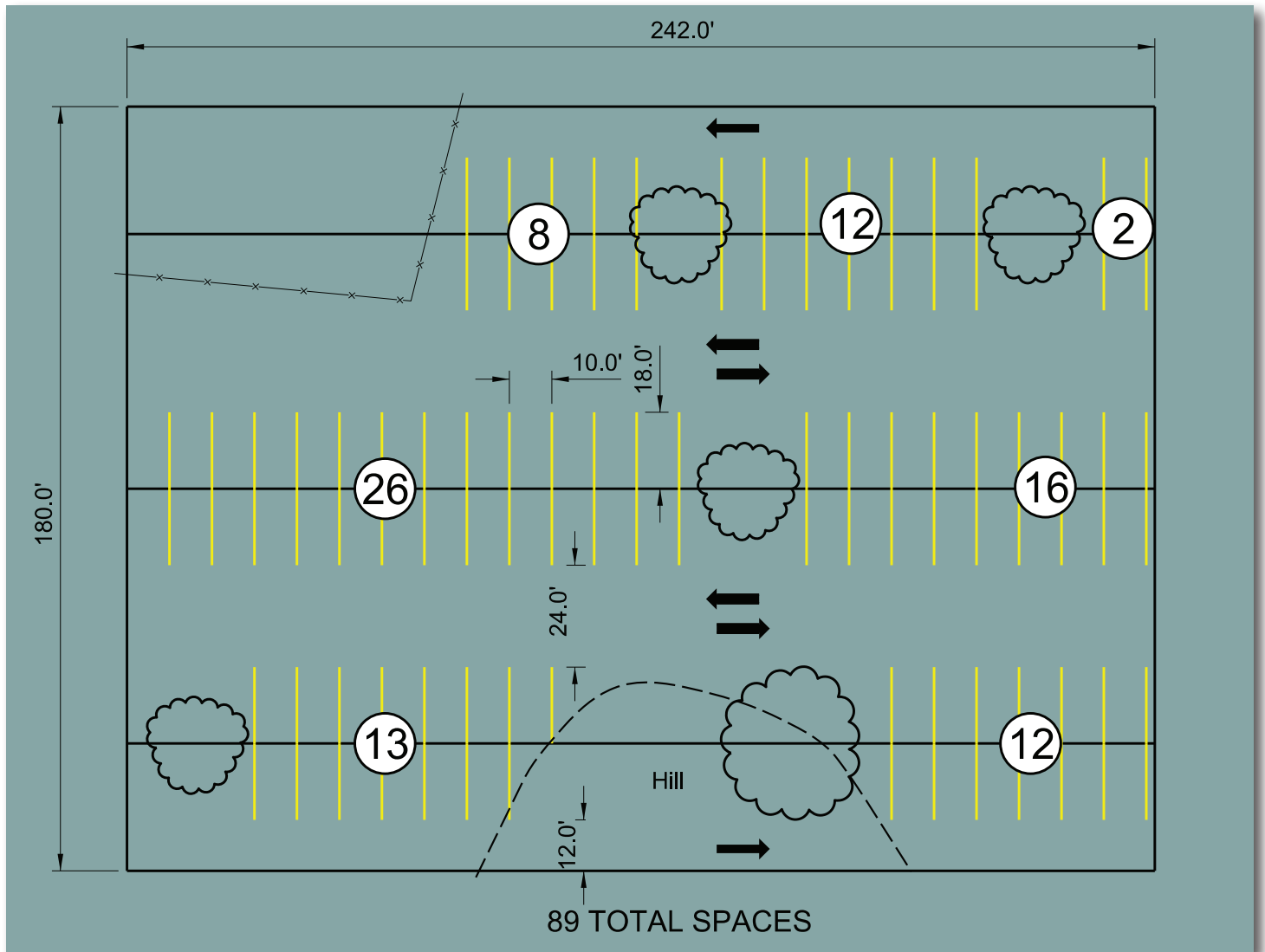
**Figure 1. Example design for 150 parking spaces per acre with 10' by 18' spaces.**

If parking spaces are angled, the width of the individual parking spaces are reduced to 9 feet and the width of the one-way traffic lanes are reduced, resulting in approximately 162 spaces per acre. See Figure 2 for a diagram. While angled parking spaces and one-way traffic lanes allow for more spaces per acre, the actual open ends of each parking space will be greater than 9 feet (the open end of 9-foot-wide parking spaces will actually be 12.7 feet wide). In addition, signage and enforcement for one-way traffic lanes can be more burdensome to the landowner.



**Figure 2. Example design for 162 parking spaces per acre with 9' by 18' angled spaces and one-way traffic lanes.**

Many fields used for parking are not flat, not perfectly square and do not accommodate lined parking spaces. Accounting for these and other imperfections in farm fields that are often used for customer parking, many on-farm marketers often estimate that they can park between 80 and 100 automobiles per acre. See Figure 3 for a diagram.



**Figure 3. Example design for 89 parking spaces per acre with 10' by 18' spaces showing various farm-field obstacles.**