

# Design Tip: End Bays

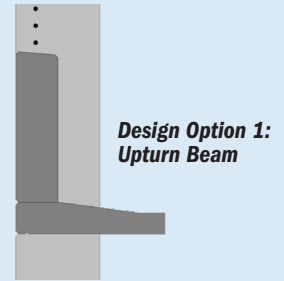
*Choose from two design approaches for these unique bays in a cast-in-place parking structure.*

End bays can be oddly sized to allow the garage to fit the site while keeping the widths of other bays consistent. For efficient parking, the end bay can accommodate straight-in parking while the traffic flow turns behind those parked vehicles (see first graphic). As a result, the turning bay is often the second bay in a garage designed for typical wide bay widths (25-30 feet).

Straight-in parking does not require a wider bay width, allowing the end bay to become the odd-sized bay to fit the site beyond the typical bay spacing. There are two good design approaches to this unique bay.

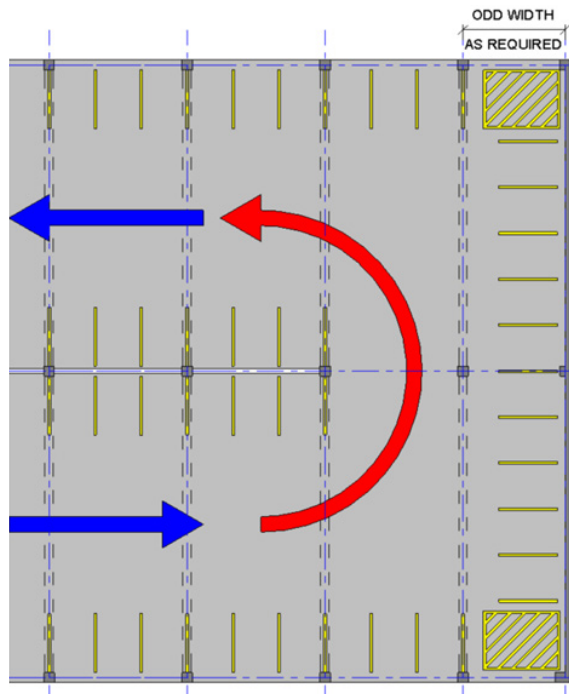
## DESIGN OPTION 1: UPTURN BEAM

One approach is to keep the slab soffit flat to the slab edge and use an upturned post-tensioned edge beam that is poured monolithic with the slab. The edge beam pour should be slightly delayed until the slab pour has set. This prevents the upturned beam pour from flowing beneath the interior beam-side form. The upturned beam also acts as a bumper wall. The outside face should be vertical and flush with the outside face of the columns. This approach allows for variability in end bay widths, provided the widths are at least 3 feet smaller than a typical bay while using standard bay slab soffit form panels to maximize the constructability.



## DESIGN OPTION 2: DOWNTURN BEAM

A secondary but acceptable approach is to use the same sized beam as the typical bay. The beam should have drafted sides, held slightly within the perimeter with a small eyebrow slab extension that aligns with the outside face of the columns. It is recommended that the opposite garage end bay have identical dimensions. This allows the slab soffit form panels to be used for either end.



*The end bay (right) can accommodate straight-in parking while the second bay is often the turning bay.*

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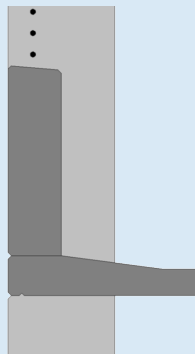
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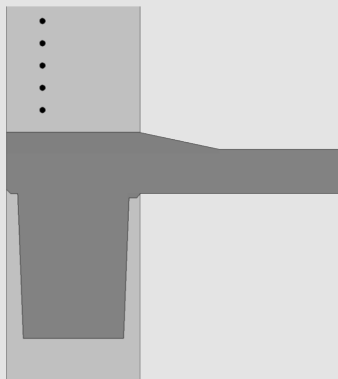
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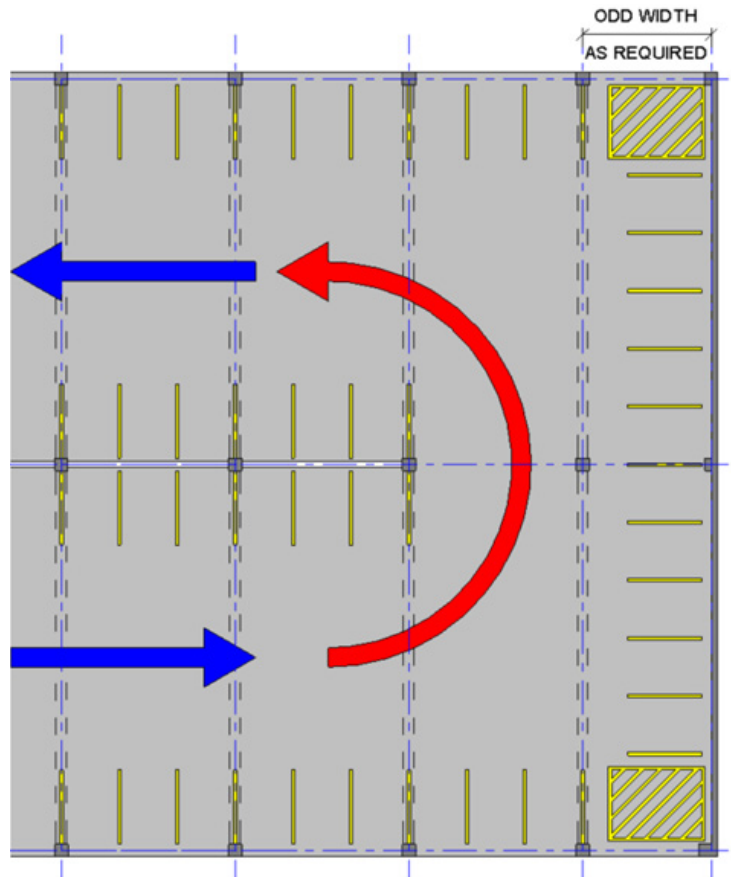
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*Design Option 2:  
Downturn Beam*



*The end bay (right) can accommodate straight-in parking while the second bay is often the turning bay.*