

Creating Stepless Entrances in Multifamily Housing



As land values soar, the population ages, family sizes shrink, and a desire to live closer to amenities increases, the country is moving away from traditional suburbs. Land planners are designing medium-density landscapes with apartments, condominiums, two-story townhouses, and single- and two-family houses. Many of these entrances are reached via stairs to an elevated front porch.

Raised porches overlooking the surrounding neighborhood are often considered a primary mechanism for creating a successful community. From the protection of one's porch, impromptu conversations may occur leading to reestablished community health and safety. However, porches with steps pose a significant physical barrier to many neighborhood residents. This *Tech Sheet* presents solutions that allow porches *and* offer easy access into the house via a stepless entrance.

What is a stepless entrance? A shallow path, preferably no steeper than 1:20 but not more than 1:12 (8.33%), leading to a minimum 3-foot wide entry door and a threshold no higher than 1/2 inch, beveled.

Advantages of a Stepless Entrance. Step-free entrances benefit most people under a wide variety of circumstances, e.g., moving furniture, rolling luggage, or pushing a stroller. Many health conditions and disabilities make using stairs difficult or impossible. Balance and stamina limitations or the use of a wheelchair can make a step-free route of travel essential to any home. The demographic shift toward an aging and more diverse population makes such a universal feature more important than ever.

Tech Sheet

Design Concepts. Smaller-scaled multiunit housing projects often pose unique challenges to the creation of stepless entrances. Builders, architects and developers are often deterred by the misconception that the desirable raised front porch makes a stepless entrance impossible. Additionally, this type of housing often escapes local, state, and federal design provisions that might require accessible entrances and interiors.

Yet small multistory homes can be designed with stepless entrances and interiors with enhanced usability. Upper floors or basements may not necessarily be reached without using stairs, but the first floor can have a more usable kitchen, bathroom, and sleeping accommodations. It is also possible to design for the later addition of stair lifts or even elevators, greatly reducing costs of these future modifications.

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This information provided by
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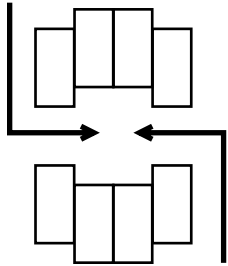
level entries at all patios

patio fences help maintain privacy

front entrance may have steps from grade

existing grade level

earth fill and landscaping



Raised alleyway runs along back of buildings creating a central access point from parking to all dwelling units.

RAISED SHARED ALLEYWAY

accessible parking and access aisle

accessible route extends to all entrances

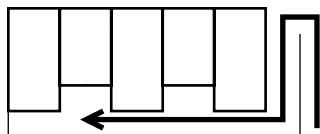
building foundation serves as retaining wall for earth fill used to elevate alleyway

shared raised boardwalk is aesthetically and functionally integrated into the building design

sloped walkway combined with conventional ramp minimizes steep slopes and visually intrusive railings

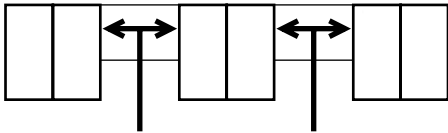
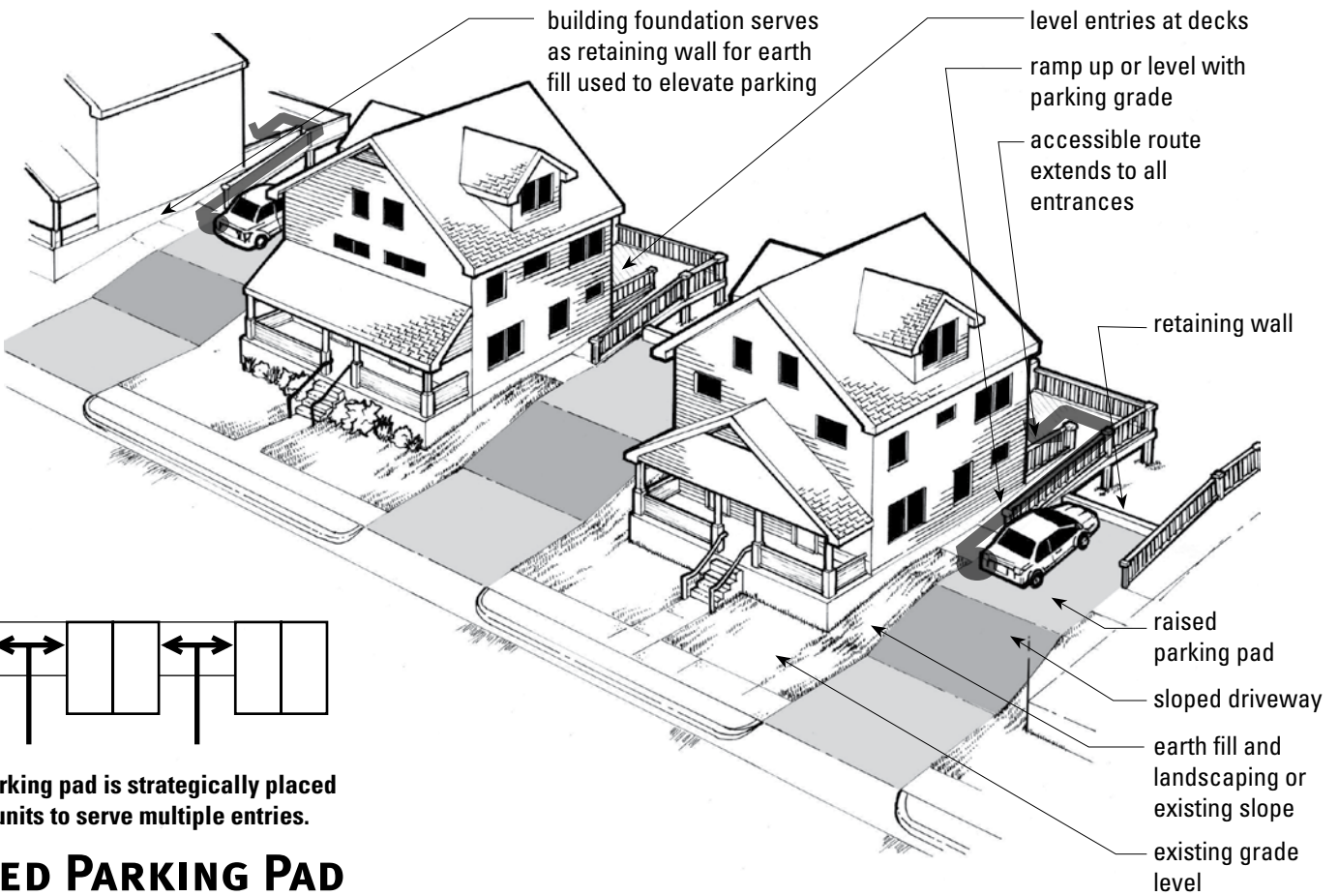
design features, such as fountains, sitting areas, and planters, provide opportunities for integrated transitions between level changes along the accessible route

accessible route extends to all entrances



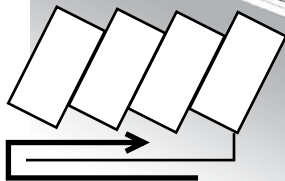
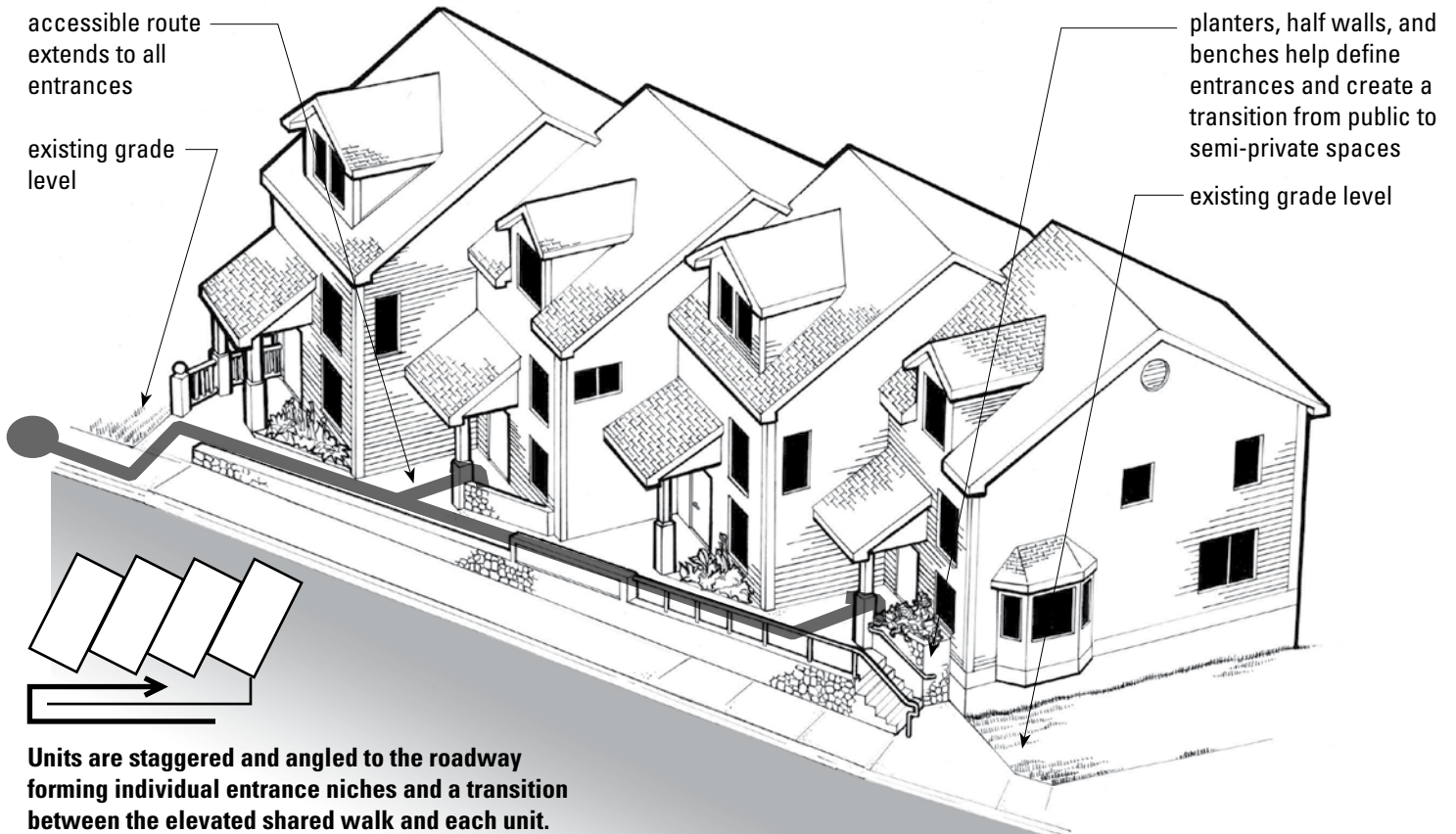
Shared raised boardwalk can be combined with building offsets to maintain public to private transitions.

SHARED BOARDWALK



Raised parking pad is strategically placed between units to serve multiple entries.

RAISED PARKING PAD



Units are staggered and angled to the roadway forming individual entrance niches and a transition between the elevated shared walk and each unit.

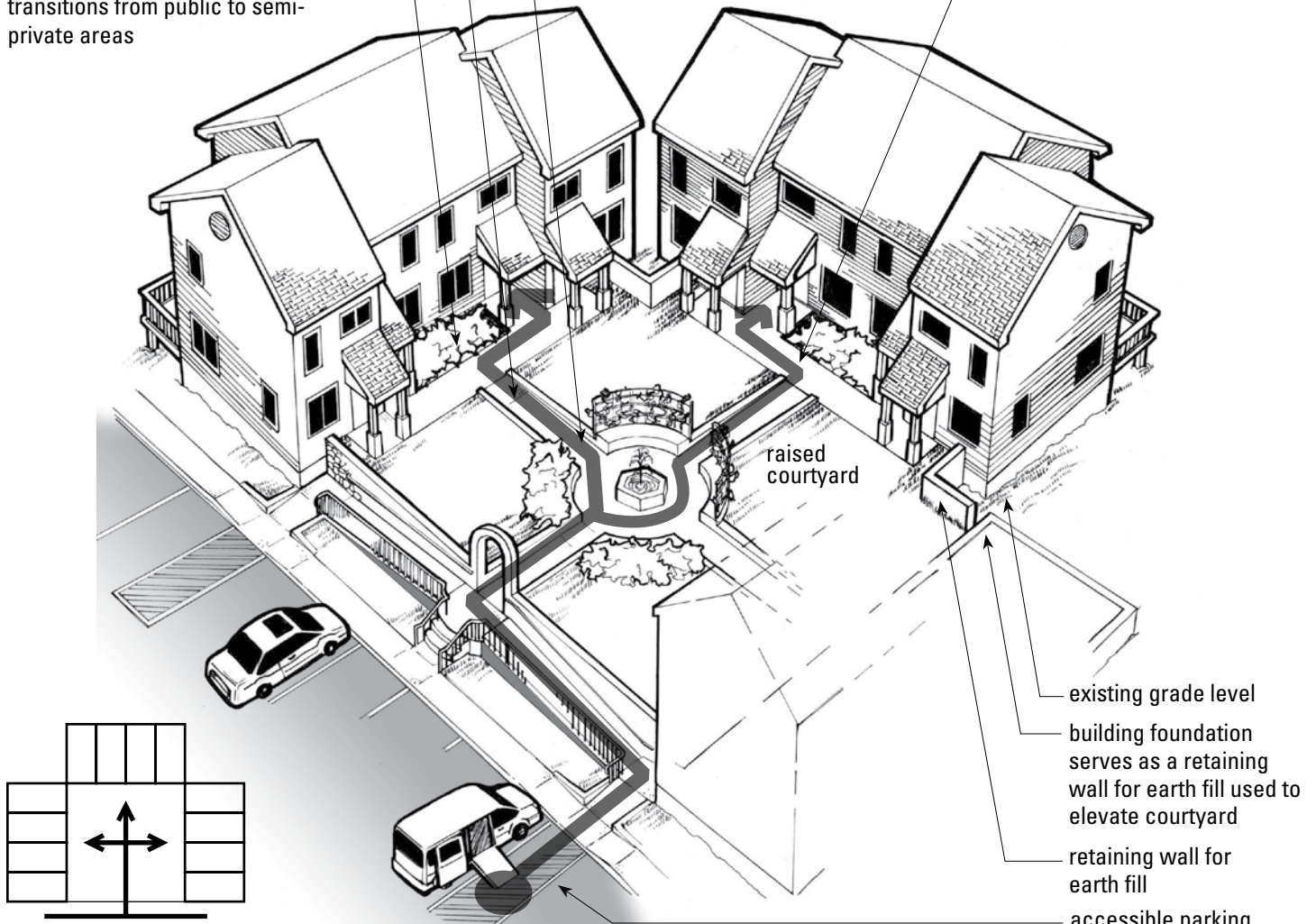
SHARED WALKWAY

sloped walkway segments incorporated throughout to minimize long visually intrusive ramp runs

building offsets and planting areas help define entrances and create transitions from public to semi-private areas

throughout the site, design features such as fountains, sitting areas, and plantings provide opportunities for integrated transitions between level changes

accessible route extends to all entrances from courtyard



The raised courtyard incorporates a continuous accessible pathway usable by all as the primary route to dwelling unit entrances.

RAISED CENTRAL COURTYARD

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This *Tech Sheet* illustrates five different site and entrance solutions that can be adapted to a variety of housing types and site conditions. Grading can be used to advantage by creating raised parking areas, shared raised alleyways, and other methods that include combining earthwork and wood structures.

Emphasized are ways to integrate routes of travel using raised shared porches, gently sloping walks, and plantings. Most of the concepts shown provide the grade elevation often desired, combined with straightforward accessible routes to the dwelling unit.

In instances where significant grade changes are traversed using vehicles, care should be taken to ensure that, as much as possible, people arriving by pedestrian routes can reach dwelling unit entrances without having to negotiate a steep grade.

While generally a good idea, planning for a route that enters from the front may not always be feasible. When studying these examples, consider all possible access points – front, rear, and side.