This chapter presents a series of case study developments that illustrate how the Downtown Ann Arbor Design Guidelines combine to promote the city’s site planning, massing and architectural objectives. Each case study demonstrates how the design guidelines included within Chapters 2 and 3 would be applied within different zoning and physical contexts for various building types. It is important to note that each case study provides one example of an appropriate response to the Design Guidelines. However, a range of other, flexible, design responses could also be appropriate.

Understanding Context
The case studies presented in this chapter respond to an existing context defined by past planning efforts, current regulations, historic resources and the existing physical framework of downtown streets and lots while also seeking to demonstrate positive growth and change.

Downtown Planning Context. As described in the Introduction to the Downtown Ann Arbor Design Guidelines, visions for downtown have been expressed in several planning documents for the area. The 1988 Downtown Plan and the 2006 Vision and Policy Framework for Downtown are both relevant documents which provide some context for downtown planning objectives.

The Vision and Policy Framework for Downtown Ann Arbor, includes overall goals for downtown with a focus on diversifying uses and increasing densities (particularly residential uses) in a way that improves pedestrian friendliness and supports the use of transit. The case studies demonstrate several examples of how to meet these overall planning objectives.

Historic Resources Context. Ann Arbor has a strong history and tradition of protecting historic buildings and neighborhoods. The Guidelines complement preservation objectives and design review process. The case studies assume that new investment respects historic resources as an important part of the future, even as the vision for downtown includes increasing densities.
Illustrative Case Studies Map
The case studies are presented within a map of blocks and streets designed to illustrate typical relationships found downtown and in adjacent residential neighborhoods. Although the map shown below is based on downtown's existing conditions including block size, street width and typical existing building dimensions, it does not show actual streets and blocks within downtown Ann Arbor and the case studies illustrated do not represent proposals for any specific site.

The map identifies “opportunity sites” such as existing surface parking lots, vacant sites or under utilized properties that demonstrate commercial, traditional neighborhood and interface contexts for the case studies. The context shown on the map also illustrates design issues facing downtown, such as:

- Growing and intensifying mixed-use storefront districts
- Pedestrian continuity between activity areas
- A diverse range of site configurations and sizes
- Scale relationships to existing historic buildings and neighborhoods
- A variety of design character contexts

Opportunity sites are locations most likely to develop including parking lots, vacant sites or under utilized properties.
Illustrative Map Zoning Assumptions. The illustrative case study context map assumes the zoning criteria established through the Ann Arbor Discovering Downtown (A2D2) process. This includes regulations for:

- Density and height (how big and how tall)
- Massing (the shape of buildings)
- Frontage (a building’s relationship to the street)

**Core Area**

The Core Area provides the greatest density and is assumed to have an urban character.

The Interface Area is transitional in scale and character between downtown and traditional neighborhoods.

**Overlay Districts**

S Districts have storefronts and streetwalls.

R Districts have site and massing standards that reflect the characteristics of existing traditional residential neighborhoods.

**Frontage Standards**

Primary Frontages are shopping streets with buildings set at the sidewalk edge.

Secondary Frontages allow residential and commercial uses with small setbacks.

Front Yard Frontages require a front setback.
Building Types

Ann Arbor’s Downtown Design Guidelines provide examples of how they would shape investment in a variety of site contexts and densities. These examples demonstrate how site planning and building designs respond to their context making downtown neighborhoods more walkable, social and aesthetically pleasing.

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Commercial Mixed-use Building Types
Commercial mixed-use buildings have retail or storefront uses on the ground floor and office uses on upper floors. This could include high-rise office development in the commercial core of downtown; mid-rise professional office buildings; or smaller neighborhood-scale shopfront buildings.

12-Story Office Tower, Primary Frontage

This case study office tower assumes the project has an entire half block. Only larger sites will support development of tall buildings with 400% to 700% FARs. The tower placement should consider impacts on sun access to open space, spacing between towers, views to and from the building, and services.

Office Towers
The Core Area allows up to a 400% FAR for development. With premiums, this can be increased. On a 120'x240' half block, this would result in towers from five to 12 stories.

Design Issues:
• Bulky, squat building proportions
• Street-level scale much larger than traditional storefront pattern
• Location of office lobby
• Services for building
• Tower location

Design Response:
• Vertical articulation to break bulk into narrower, better proportioned elements (see: Ch.2 Sec. 9)
• Vertical articulation and bay spacing of streetwall reflecting traditional scale of blockfront (see: Ch.2 Sec. 9)
• Corner orientation for stores, mid-block for office lobby
• Alley access for parking and services (see: Ch.2 Sec. 6 and 7)

Massing standards and guidelines provide flexibility to shape and position of towers. They can be shifted towards corners, stepped back, or U or L shaped as long as the tower maintains the definition of the streetwall.
Mid-Rise Professional Buildings
Mid-rise professional buildings are developed to support smaller tenants or single users. Mid-rise office buildings are two to four-stories with ground floor commercial uses. These would include retail as ground floor use on downtown's primary frontage streets.

Design Issues:
- Streetwall buildings
- Street-level scale can be larger than traditional storefront pattern
- Location of office lobby
- Design of storefronts
- Services for building
- Corner vs. mid-block location

Neighborhood Shopfront Buildings
In the residential neighborhoods, there may be opportunities to develop shopfront buildings two to three-stories in height on small infill parcels in or adjacent to storefront districts or at corner locations. These would have one to two ground floor tenants and small office users on the upper floors. Parking would be off-site.

Design Issues:
- Storefront buildings
- Fitting into existing line of shops or in residential context
- Location of office lobby
- Design of storefronts
- Services for building
- Corner vs. mid-block location

Design Response:
- Vertical articulation and bay spacing of streetwall reflecting traditional scale of blockfront. (See: Ch.2 Sec. 9)
- Corner orientation for stores, mid-block for office lobby.
- Alley or side street access for parking and services. (See: Ch.2 Sec. 6 and 7)

Four-Story Commercial Mixed-use, Primary Frontage

Design Response:
- Bay spacing and storefront design of streetwall reflecting traditional scale of blockfront (see: Ch.2 Sec. 9 and 10)
- Corner orientation for stores, mid-block for upper story lobbies
- Alley access for services (see: Ch.2 Sec. 6 and 7)
Residential Mixed-use Building Types
The second type of building examined as a case study is the residential mixed-use type. These types of buildings include commercial and residential uses. In the downtown core this could include taller buildings with ground floor retail with some combination of commercial office, hotel, rental or ownership residential uses above. In interface or neighborhood settings, residential mixed-use development could include mid-rise (2+ stories) residential development with commercial uses on the ground floor.

15-Story Residential Mixed-use, Primary Frontage

Residential Mixed-use Tower Buildings
The Vision and Policy Framework encourages development of high-density residential buildings in downtown. The zoning provides premiums (up to a 900% FAR) for including housing that could result in buildings up to 20 stories.

Design Issues:
- Bulky, slab-like building proportions
- Street-level scale much larger than traditional storefront pattern
- Location of residential lobby
- Services for building
- Parking design and location (on-site)
- Corner orientation
- Balcony design

Design Response:
- Vertical articulation to break bulk into narrower, better proportioned elements (see: Ch.2 Sec. 9)
- Vertical articulation and bay spacing of streetwall reflecting traditional scale of blockfront (see: Ch.2 Sec. 9)
- Corner orientation for stores, mid-block on secondary streets for residential lobby
- Alley access for parking and services (see: Ch.2 Sec. 6 and 7)
- Integrating balcony and deck design into building massing (see: Ch.2 Sec. 9)
Mid-rise Residential Mixed-use Shopfront Buildings

Mid-rise (three to four stories) mixed-use residential buildings are projects that would fit into a streetwall block on sites at least a quarter block in size (120’x120’). They would have rental or ownership units and some on-site parking.

Design Issues:
- Streetwall buildings larger than traditional commercial buildings
- Street-level scale larger than traditional storefront pattern
- Location of residential lobby
- Services for building
- Parking design and location (on-site)
- Corner orientation
- Balcony design

Design Response:
- Vertical articulation and bay spacing of streetwall reflecting traditional scale of blockfront (see: Ch.2 Sec. 9)
- Corner orientation for stores, mid-block on secondary streets for residential lobby
- Alley access for parking and services (see: Ch.2 Sec. 6 and 7)
- Integrating balcony and deck design into building massing

These two case studies illustrate some potential variations of mid-rise residential mixed-use projects. The top case study is a six-story building with four levels of residential over two levels of commercial uses in a two-story context. The streetwall aligns with adjacent buildings and then steps back to an articulated four-story top. The lower case study has three levels of residential over retail and fits into a three or four-story streetwall. It has a strong corner-oriented design feature. Both case studies have active and transparent ground floors, integrate balconies into the facade design, and hide parking under the building.
Urban Residential Building Types
Urban residential buildings include multi-story buildings with shared corridors and elevators. These include rental apartments, condominiums, live-work lofts or other types of units. These residential-only projects could NOT be located on shopping streets that require ground floor commercial uses.

Three-story Apartment Building, Secondary Frontage

Three-story Apartment Building, Front Yard Frontage

Design Issues:
• Parking and site planning
• Simple, repetitive building plans
• Low maintenance materials and landscaping
• Security-driven design
• Materials
• Unit orientation
• Common space design/social purpose

Design Response:
• Hide parking, access off alley
• Break-up massing, express individual units, bays (see: Ch.2 Sec. 9)
• Focus use of design flourishes and quality materials (see: Ch.2 Sec. 15)
• Eyes-on-the-street security
• Street-oriented ground floor units, porch and stoop design.
• Common and private space central feature, orientation and visual access (see: Ch.2 Sec. 5)
• Balcony design integral to massing/architectural concepts
Condominium Flats
Condominiums in secure corridor/elevator buildings that are purely residential developments have many of the same design issues as apartments but with greater opportunity for quality due to market expectations and larger construction budgets. Generally, parking is secure and on-site (with some exceptions) and budgets allow for quality materials and landscaping of common areas. Emphasis on the individual design of units and incentives for adding greater variety to the design generally appeals to the market.

Design Issues:
• Parking (near units) and site planning (parking under building–dead edge)
• Variety, choice in units
• Security-driven design
• Materials, quality, low maintenance
• Unit orientation, sense of community
• Common space design/social purpose

Design Response:
• Hide parking, access off alley
• Break-up massing, express individual units, bays (see: Ch.2 Sec. 9)
• Focus use of design flourishes and quality materials (see: Ch.2 Sec. 15)
• Eyes-on-the-street security
• Street-oriented ground floor units, porch and stoop design
• Common and private space central feature, orientation and visual access (see: Ch.2 Sec. 5)
• Balcony design integral to massing/architectural concepts

Four-Story Residential Flats, Secondary Frontage

1. Residential lobby
2. Shared stoop
3. Side yard setback at R-Massing District
4. Service alley/parking access

Parapet roof forms
Unit bays expressed/stepped
Stoops and shallow yards for ground floor units

Gabled roof forms
Unit bays expressed/stepped

Four-Story Residential Flats, Front Yard Frontage

1. Residential lobby
2. Shared porch
3. Side yard setback at R-Massing District
4. Service alley/parking access

These case studies are of residential flat buildings located adjacent to a R Massing District requiring a side yard setback and offset at the streetwall. The top version is a parapet building on a (Secondary Frontage) block with stoops. This could be a site between a commercial block and traditional residential building. The lower version is the same building with residential roof forms and porches (Residential Frontage) potentially more in character in a traditional residential setting.
Neighborhood Residential Building Types
Neighborhood residential development includes projects on smaller lots within a traditional neighborhood context. This could include small apartment buildings, townhouses/rowhouses, duplex/triplex/four-plexes, or infill single family.

Three-Story Townhouses, Front Yard Frontage

Step down roof next to existing residential

Two-story streetwall and single-story porch elements

1. Residential porches
2. Shared alley access to parking court
3. Passage pedestrian entry from street

Three-Story Townhouses, Alley Frontage

Gabled roof forms reflecting individual units

Two-story streetwall

1. Residential alley stoops
2. Shared alley access to parking court
3. Passage pedestrian entry from street

Zero step entries are also possible in these scenarios.

Townhouses/Rowhouses
Townhouses can provide an ownership building type that delivers market and financially feasible projects at the scale of traditional neighborhoods. They are flexible format buildings that can be inserted on small parcels, take advantage of alley access (even as a front door to the units) and provide a variety of unit types.

Design Issues:
• Parking in/under unit
• Driveways and garage doors
• Variety, choice in units, repetitive
• Materials, quality, low maintenance
• Unit orientation, sense of community
• Private space design/social orientation
• Roof and massing in traditional neighborhood

Design Response:
• Tuck-under parking, access from alley or side street with shared driveway
• Express individual units, bays in module of neighborhood buildings (see: Ch.2 Sec. 9)
• Focus use of design flourishes and quality materials
• Eyes-on-the-street security, street-oriented units
• Common and private space central feature, orientation and visual access (see: Ch.2 Sec. 5)
• Porch design integral to massing/architectural concepts
Duplex/Tri-plex/Four-plex
Developing multiple attached units with independent entries on a single parcel provides an opportunity to increase density at a scale compatible with the neighborhood. Either as ownership or rental housing, doubling-up or tripling-up on lots is a common method of infill development. Parking access and unit orientation are important considerations for design and site planning.

Design Issues:
• Parking access and garage orientation
• Street pedestrian access
• Privacy
• Massing/scale within a traditional single-family block

Design Response:
• Shared parking access
• Internal parking courts/alley
• Street-oriented units
• Porches and private yards
• Expressing individual units/buildings as module of neighborhood housing

Mid-Block Duplex, Alley Access

Corner Lot Duplex, Shared Drive Side Street Access

These two case studies illustrate ways of “doubling up” on existing single lots with duplex buildings. The top case study is a mid-block lot with alley access. The lower case study is a corner lot with side street access from a shared driveway. Both duplex case studies have street-oriented units with porches and two-story streetwalls with upper stories tucked under the rafters as half stories to reduce their visual height in relation to the two-story context.
Other Urban Building Types
Many more types of development opportunities will exist in downtown Ann Arbor in the future. These could include a continuation of Ann Arbor's successful track record of adaptive reuse of existing buildings, additional institutional and public facilities, and development of parking structures.

Adaptive Reuse
Adaptive reuse of existing commercial, industrial and residential structures is a common activity in downtown Ann Arbor. Adaptive reuse could also be combined with new construction where the development combination and the uniqueness of the design make each aspect more interesting and feasible.

Institutional
New institutional projects such as city facilities, libraries and churches, have unique programs and site contexts. It is important for the design of these projects to fulfill similar neighborhood-building and social objectives as private sector development. These types of buildings are also often viewed “in-the-round” requiring serious architectural design solutions for each elevation.
Parking Structures
Downtown Ann Arbor has a variety of parking structures. With one exception, the garages have been built as stand-alone structures and have not included ground floor commercial uses, office or residential liner buildings or wraps. Downtown Ann Arbor’s small historic blocks make it difficult to line parking garages with other uses; however, this is still the preferred strategy.

Lofts/live-work
The market demand and economic development opportunities for live-work is a growing trend. Live-work is land use and unit type discussion, rather than a building type. It can be located in lower or ground floor units in apartment and condo flat buildings providing an accessible street-oriented use. They can be included in townhouse development on higher traffic streets and as alley units in a variety of building types. Lofts/live-work is also highly appropriate for adaptive reuse of high-bay spaces in commercial and industrial buildings.