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A. <u>Sidewalks</u>

Zoning Code Requirements

§ 135-256, E, 6

A. Sidewalks

- 1. Sidewalks shall be provided parallel to the street right-of-way. If a new street is proposed that divides the subject property, or the developer owns an adjacent lot across an existing street from the subject property, sidewalks shall be constructed on both sides of the street.
- 2. All sidewalks that provide access to storefronts shall be at least eight feet in width; all other sidewalks shall be a minimum width of five feet in width. Outdoor seating for cafes should be limited to patios or plazas or otherwise situated that a four-foot clearance width on sidewalks will be provided.
- 3. All sidewalks shall be constructed of either brick, stone, precast ornamental concrete pavers, poured-in-place concrete, or patterned poured concrete.
- 4. When constructed of poured-in-place concrete, control joints shall be provided at intervals no greater than 36 inches. All concrete sidewalk surfaces shall be divided across their width into at least two sections formed by control joints. The primary surface of concrete shall have a broom finish and an area two inches in width, parallel to the control joints, shall have a smooth-troweled



A. Sidewalks

Description

Sidewalks separated from the roadway are the preferred accommodation for pedestrians. Sidewalks provide many benefits including safety, mobility, and healthier communities.

In addition to reducing walking along roadway crashes, sidewalks reduce other pedestrian crashes. Roadways without sidewalks are more than twice as likely to have pedestrian crashes as sites with sidewalks on both sides of the street. By providing sidewalks on both sides of the street, numerous mid-block crossing crashes can be eliminated.

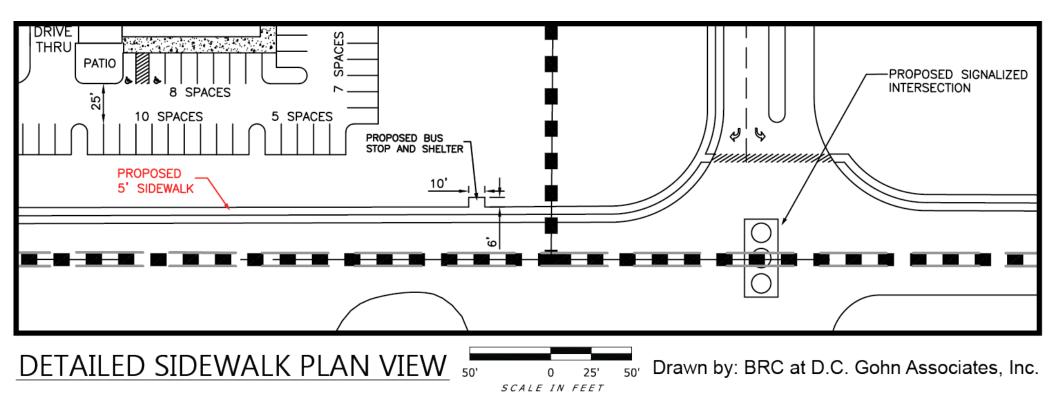
By providing facilities that are more comfortable, we can increase the number of trips made by walking, particularly in areas with mixed land uses. Moreover, we can better serve our local populations. Many people cannot drive a car and rely on walking and public transit for transportation. Children, older adults, and people with disabilities are a substantial portion of the population — up to 37 percent in some states. Other people might choose to walk if they had better accommodations. Providing sidewalks, widened paved shoulders, or stabilized shoulders — particularly when providing access to transit and schools — can increase the transportation options for these individuals. Additionally, by moving pedestrians off the travel lanes, motorists' operations are improved and capacity is increased.

Research also indicates that people will walk for recreational purposes if a facility is provided. Recreational walking is one of the easiest ways to get the recommended allotment of exercise each day.



A. <u>Sidewalks</u>

Details





A. Sidewalks

Examples





Just an example, not exact look



Zoning Code Requirements

§ 135-256, E, 6

- B. Planting strips. Planting strips shall be provided parallel to the street right-of-way between the required concrete curb and sidewalk. Planting strips shall be a minimum of five feet wide and shall include a variety of seasonal plantings and street trees in accordance with the following requirements:
 - 1. Street trees shall be provided at regular intervals along the street right-of-way, including any internal streets and access drives to the development.
 - 2. One street tree shall be provided for every 50 linear feet of lot frontage abutting each side of a right-of-way.
 - 3. Street trees, at the time of planting, shall be no less than three to 3 1/2 inches in caliper and shall be in accordance with the latest edition of the American Standard for Nursery Stock of the American Association of Nurserymen.
 - 4. All street trees shall be one of the following species or cultivars:
 - a. Acer rubrum Red Maple.
 - b. Acer Saccharum "Green Mountain" Green Mountain Sugar Maple.
 - c. Acer Saccharum "Legacy" Legacy Sugar Maple.
 - d. Fraxinus pennsylvanica "Newport" Newport Green Ash.
 - e. Fraxinus pennsylvanica "Patmore" Patmore Green Ash.
 - f. Gleditsia tricanthos inermis Thornless Common Honeylocust.
 - g. Platanus x acerifolia London Planetree.
 - h. Quercus imbricaria Shingle Oak.
 - i. Quercus phellos Willow Oak.
 - j. Quercus rubra Northern Red Oak.
 - k. Tilia codata Littleleaf Linden.
 - 1. Tilia tomentosa Silver Linden.
 - m. Ulmus parvifolia Lacebark Elm.
 - n. Zelkova serrata Japanese Zelkova.



Description

Planting strips encourage, enhance and soften the street-scape, to provide a buffer between vehicles and pedestrians.

Traffic calming—and driver calming

Trees and plants help with safe road design. They're proven to slow average driving speeds. A row of trees can also provide a clear distinction between pedestrian zones and drive lanes, creating a visual wall that helps keep drivers on the roadway. Trees also impact the lives of drivers, even those just passing through an area.

Physical health

Trees create walk appeal. Where space is beautiful and safe, people are more likely to be active, including walking or riding a bicycle. In this way, trees encourage healthy lifestyles.

Mental health

Several studies show that tree canopy creates lower rates of psychological distress. People are happier and less likely to have depression when connected to nature. This lower stress is evident in decreases in blood pressure and cortisol.

Beauty

Healthy trees are aesthetically pleasing. They create variations in color, texture, and height in the visual landscape. Their beauty can also be a tourist draw. Trees also help promote regional biodiversity. Birds, butterflies, squirrels, chipmunks, and other local fauna require the habitat and sanctuary provided by trees.



Details







Street Trees



Gleditsia tricanthos inermis -Thornless Common Honeylocust



Acer Rubrum - Red Maple



Zelkova serrata - Japanese Zelkova



Acer saccharum 'Green Mountain' -Green Mountain Sugar Maple



Platanus x acerifolia - London Planetree



Other Trees



Cornus florida - Flowering Dogwood



Nyssa sylvatica - Black Gum



Carpinus caroliniana - American Hornbeam



Cercis canadensis - Eastern Redbud



Shrubs



Ilex crenata 'Compacta' -Compact Japanese Holly



Ilex glabra - Inkberry Holly



Ilex crenata 'Steeds' -Steeds Japanese Holly



Rosa 'Radrazz' - 'Knock Out' Rose



Rhododendron x. PJM - PJM Rhododdendron



C. Curbs

Zoning Code Requirements

§ 135-256, E, 6

C. Curbs.

- 1. Concrete curbs shall be provided along the edge of a street cartway. If a new or existing street divides the development tract, concrete curbs shall be provided on both sides of the road.
- 2. All curbs shall be in accordance with Township specifications.



C. Curbs

Description

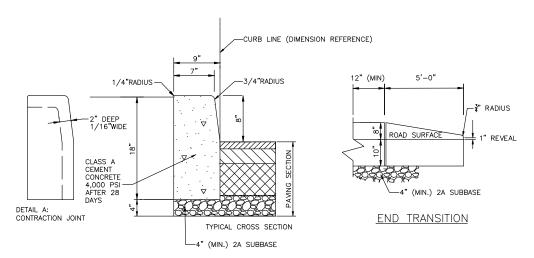
A road curb is an edge where a raised sidewalk meets the roadway or a street. The origin of curbs can be traced back to the 18th century when curbs were primarily constructed for aesthetic appeal. However, gradually as they began to be used as a safety measure, city planners began incorporating the construction of curbs to manage road traffic and pedestrians effectively.

Curbs serve different purposes to pedestrians and drivers. Firstly, they enable the separation of road and roadside, both for walkers and drivers. For drivers, this serves as a driving and parking guideline. For walkers, it serves as a safe area to walk. They assist in channeling motor vehicle traffic and making drivers aware of the pedestrians, making for an effective safety measure, especially in cities like Toronto, which are full of vehicles and pedestrians. From a structural point of view, curbs provide support to the pavement edge making it safer and easier, promoting accessibility. However, it's said that a high-speed vehicle that hits a curb is likely to turn towards the sidewalk rather than the opposite. This is why curbs are not present on high-speed roads or rural roads. In colder and rainy cities, curbs help to direct the flow of rainwater and snow towards drains, which allows the roads to decongest water. And, there is an underlying aesthetic reason as curbs make the road appear more fine finished.

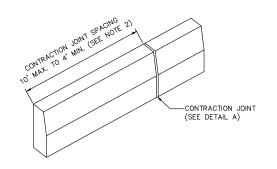


C. Curbs

Details



TYPICAL CROSS SECTION



CONSTRUCTION NOTES:

- 1. MATERIALS AND CONSTRUCTION SHALL MEET THE
- REQUIREMENTS OF PUBLICATION 408, SECTION 630.

 2. PLACE 3/4 INCH PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
- SPACERS/JOINTS SHOULD BE ASPHALT, NOT
- CARDBOARD FILLER.
 ALL VERTICAL CURBING SHALL BE MACHINE—FORMED.
 THE REQUIRED HEIGHT FOR HAND—FORMED CURB IS
- 5. EXPANSIONS JOINTS ARE REQUIRED EVERY 60 FEET AND 10 FEET ON EITHER SIDE OF STRUCTURES, IN ADDITION TO ON EITHER SIDE OF STRUCTURES AND AT THE END OF EACH DAY'S WORK.

PROPOSED CURBING WILL BE INSTALLED ALONG THE ROAD IMPROVEMENTS ALONG ROUTE 230 AND CLOVERLEAF ROAD IN ACCORDANCE WITH THE DESIGN INCENTIVES.

8" PLAIN CONCRETE CURB DETAIL

Drawn by: BRC at D.C. Gohn Associates, Inc.



C. <u>Curbs</u>

Examples







D. Pedestrian Crosswalks

Zoning Code Requirements

§ 135-256, E, 6

- D. Pedestrian Crosswalks.
 - 1. Pedestrian crosswalks shall be provided at the following locations:
 - a. All new street intersections.
 - b. At any location where a bicycle path, walking trail or other pedestrian way crosses a street, access drive or other vehicular way.
 - 2. Pedestrian crosswalks shall be no less than six feet in width.
 - 3. Pedestrian crosswalks shall conform to PennDOT specifications.
 - 4. If the pedestrian crosswalk is at an intersection controlled by a traffic signal, pedestrian signals shall be installed and maintained to help ensure pedestrian safety.



D. <u>Pedestrian Crosswalks</u>

Description

Crosswalks can be a significant way to improve pedestrian safety and make it easier to cross the roadway. Walking is an important means of transportation, and pedestrians should be able to use the system safely and without unreasonable delay. Why is it important to mark crosswalks appropriately? Although pedestrian-vehicle crashes are relatively rare, the risk of injury is high — and at speeds of 30 mph or more, severe injury is almost a certainty. Crosswalks are typically found at:

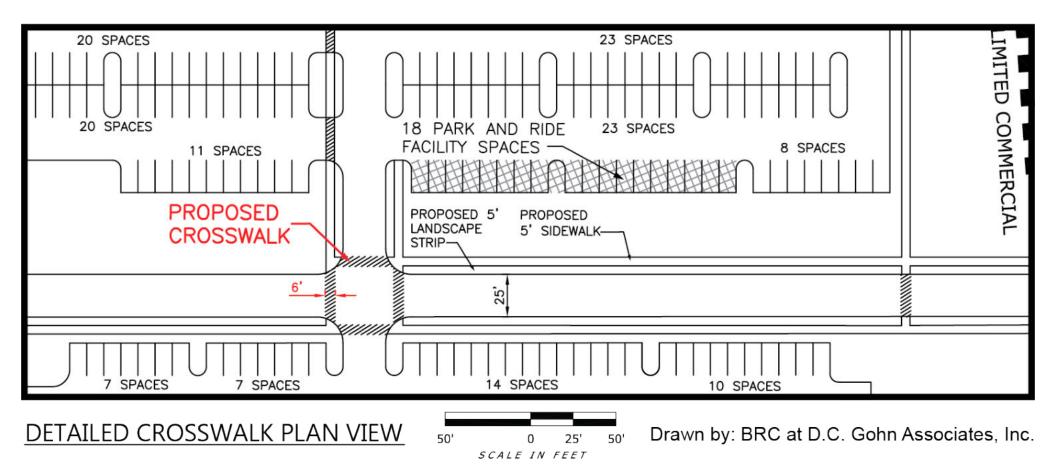
- Traffic signals and stop signs. Marked crosswalks are used to direct pedestrians to the proper crossing location and prevent motor vehicle traffic from blocking the pedestrian path.
- School Zones. At unannounced locations, marked crosswalks are used to designate the safest locations for school children to cross.

Crosswalks are marked at other uncontrolled locations (where neither stop signs nor signals are in place) when studies show that the number of lanes, traffic volume, pedestrians, and speeds make the use of marked crosswalks desirable for pedestrian safety and mobility.



D. <u>Pedestrian Crosswalks</u>

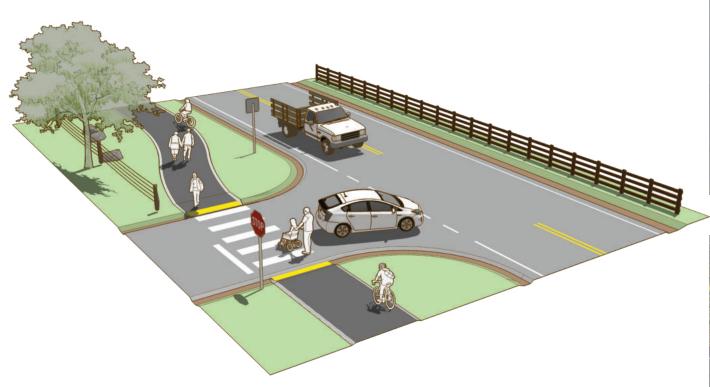
Details





D. <u>Pedestrian Crosswalks</u>

Examples









Zoning Code Requirements

§ 135-256, E, 6

- E. Pedestrian-scaled, ornamental streetlights along new streets and accessways.
 - 1. Pedestrian-scaled, ornamental streetlights shall be provided at regular intervals along both sides of any internal street, access drive and pedestrian walkways within the proposed development.
 - 2. One pedestrian-scaled, ornamental streetlight shall be provided for every 100 to 150 linear feet of parcel frontage abutting each side of a right-of-way.
 - 3. Pedestrian-scaled, ornamental streetlights, when installed, shall be no taller than 20 feet measured from the mounting surface to the top of the fixture.
 - 4. Pedestrian-scaled, ornamental streetlights, when installed, shall be at least 12 feet in height measured from the mounting surface to the top of the fixture.
 - 5. Pedestrian-scaled, ornamental streetlights fixtures shall be Spring City Electrical Manufacturing Company, Villa model, or approved equal.
 - 6. Pedestrian-scaled, ornamental streetlights shall have a matte black finish.



Description

A street light or street lamp is a raised source of light often mounted on a lamp column or pole either on the side of the road or within the median, or suspended on a wire above the road to provide illumination. Street lighting can provide safety benefits at midblock and intersection locations and can also improve safety for pedestrians, particularly at crossing points.

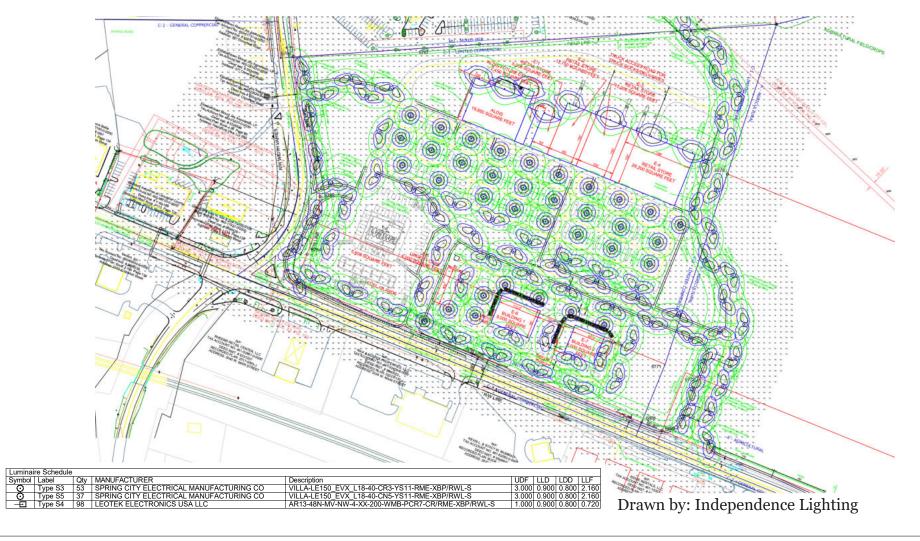
The addition of midblock street lighting increases safety by making road features such as road alignment, curbs, footpaths, street furniture, surface condition, other road users, and objects that may be on the road visible to both vehicular and pedestrian traffic.

Providing street lighting at intersection locations can reduce night-time crashes by making the intersection features visible to both vehicular and pedestrian traffic. Lighting intersections can also aid navigation and helps drivers to see the intersecting road, turning vehicles, traffic queues, and other road users. It is recommended that at least one luminaire should be provided on each of the intersecting roads to help traffic approaching from the side roads identify the intersection.

Improving the lighting at pedestrian crossings will help to make both the crossing and the pedestrians using the crossing, visible to approaching motorists. The addition of street lights at pedestrian crossing locations may also assist pedestrians to locate safe crossing points and detect potential night-time hazards. This treatment has shown to reduce the number of pedestrian crashes, and improved lighting can also help to discourage street crime.

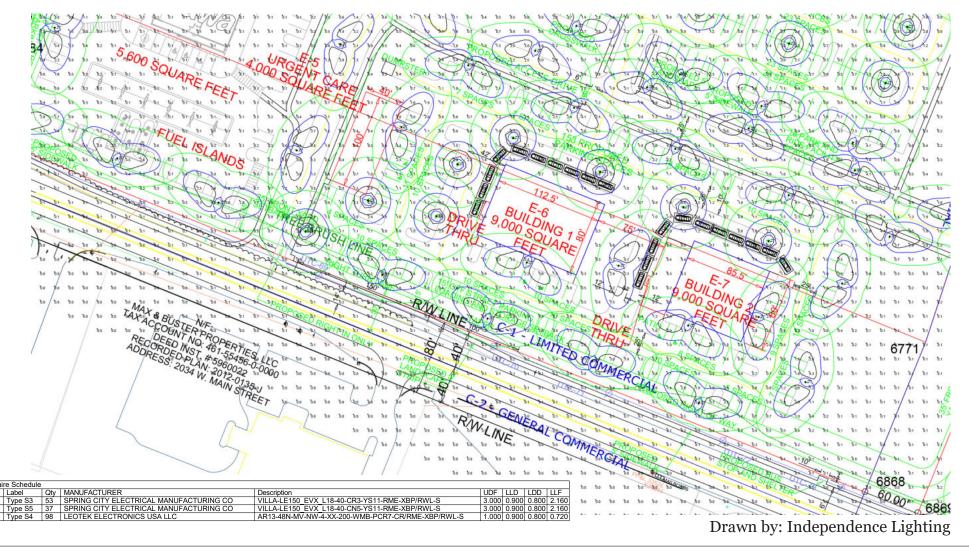


Lighting Plan



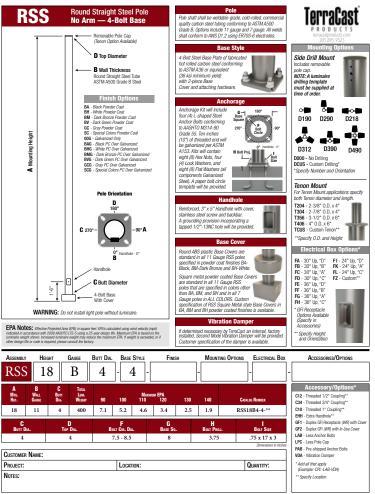


Zoomed Plan

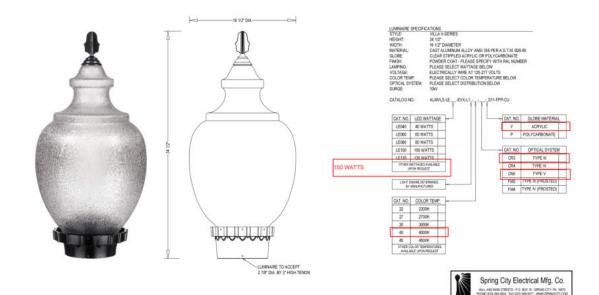




Fixtures







Spring City Electrical Manufacturing Co - Globe

Zoning Code Requirements

§ 135-256, E, 6

F. Benches shall be provided along all streets and pedestrian walkways that are adjacent to storefronts and are intended to increase pedestrian activity and enhance the character of the town center development. One bench shall be provided for every 200 feet of linear street or pedestrian way that provides access to storefronts in the development. Benches need not be evenly distributed throughout the development.



Description

Benches are a decorative and useful addition to any outdoor area, whether it's outside your business or in a community area. Benches come in an array of designs to fit various spaces and needs. There are many considerations when looking into commercial benches for your space.

Benches give your customers or patrons a place to sit while they're waiting for someone, or just to relax and enjoy the outdoors. These products make a space more inviting and encourage people to congregate there. Add one to a bus stop, in front of your business or organization, and in downtown or public areas. They are perfect additions to areas where people do a lot of walking, such as an outdoor shopping center or a community garden.

They offer so much more than a place to just sit down. Benches allow people of all abilities and ages to spend more time outdoors, boosting physical and mental health and connecting them to their community through shared public spaces. Adding benches to commercial districts and city squares allow generations to intermingle, both young families and seniors can participate in a shared public space regardless of age or mobility loss, either through disability or temporary injury. As our population ages, benches will become even more important to help break increasingly daunting trips to the grocery store or to other retail spaces into smaller, more manageable journeys.



Zoomed Landscape Plan





Drawn by: Wes Beers at Seidel Planning & Design

Examples







G. <u>Building Setbacks</u>

Zoning Code Requirements

§ 135-256, E, 6

G. Building setbacks from streets. Building walls that front along an internal street or access drive of the development may be permitted to front against the edge of the street or access drive as long as the minimum separation distance between building walls on both sides of the street is 65 feet.



G. Building Setbacks

Description

Property setbacks help everyone live comfortably. Consider them the breathing space of a space. If you've ever envisioned building your dream home, odds are you never pictured it right on the property line. That's because whether you realize it or not, you're used to the invisible property setbacks that exist around most dwellings.

Property setbacks can be anything from the space in your front yard and the distance between the sidewalk and your property line, to the side area between houses. There are even setbacks measured in the size of a parking spot to ensure each car has "breathing room" to open and close its doors.

Better services – having space between houses and streets, etc., ensures that in the case of a fire or other emergencies, a first responder vehicle can get to you in a pinch.

Better lighting – A no-brainer, but property setbacks ensure that you have plenty of space around your dwelling to bring in natural light and better visual access.

Better landscape – Even in big city buildings, you'll see a green space with shrubbery or a fountain in front of your doctor's office. This makes the space more inviting and give a sense of ease. So the next time you admire the beautiful landscape in front of that office building, thank a property setback for that.

Property setbacks help ensure buildings don't fall over on each other in case of a natural disaster, like an earthquake or fire. They encourage outdoor activities in public areas and help keep the sanity of society by giving people enough room to roam.



G. Building Setbacks

Details

Brian R. Cooley at D.C. Gohn Associates, Inc.

THIS SECTION OF THE DESIGN INCENTIVES IS MET. THE PLAN DOES NOT HAVE THIS DESIGN CRITERIA AS THERE ARE NO BUILDINGS ON BOTH SIDES OF A STREET, DIRECTLY ACROSS FROM EACH OTHER.

THE SITE PLAN MEETS THE REQUIREMENT THAT BUILDING WALLS THAT FRONT ALONG AN INTERNAL STREET OR ACCESS DRIVE OF THE DEVELOPMENT MAY BE PERMITTED TO FRONT AGAINST THE EDGE OF THE STREET OR ACCESS DRIVE AS LONG AS THE MINIMUM SEPARATION DISTANCE BETWEEN BUILDING WALLS ON BOTH SIDES OF THE STREET IS 65 FEET.



Resources

• D.C. Gohn Associates, Inc

- Brian R. Cooley- Civil Engineer
- Mount Joy, PA
- www.dcgohn.com
- **•** 717-653-5308

• Hex 9 Archietects

- Joe Turnowchyk- Architect
- Lititz, PA
- www.hex9architects.com
- 717-442-9034

• Independence Lighting

- Kyler Lazor- Lighting Engineer
- Exton, PA
- www.independencelighting.com
- **484-883-5933**

Pennmark Management Company

- Plymouth Meeting, PA
- www.pennmarkproperties.com
- **•** 610-272-6500

Seidel Planning & Design

- Wes Beers- Landscape Archiect
- Pottstown, PA
- www.seidelplanning.com
- **•** 610-323-8752

South Central Transit Authority

- Lauri Ahlskog- Manager of Transit Planning & Compliance
- Lancaster, PA
- www.sctapa.com
- **•** 717-947-7294

