Chapter 18
Drafting and Design Requirements

Design Specifications & Requirements Manual

October 2003
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City of London
Design Specifications and Requirements Manual

The design information contained in this manual is intended to provide guidance beyond legislative and standard design practices for use in the City of London (the City). There will be site specific situations where the design will depart from these practices as it is not possible nor is it the intention of the City to anticipate every situation. The City intends to review and revise the Manual from time to time. The City also acknowledges that other references such as the ‘Standard Contract Documents for Municipal Construction Projects’ are to be used in conjunction with this manual. The 2012 update of this manual incorporates design information from the City’s former ‘Subdivision & Development Guide Manual’ to provide consistent and current design information for development projects.

The City of London maintains its right to accept or refuse any design submissions and requires an acceptable design for any given circumstance.

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18 Drafting and Design Requirements

Except where identified as a specific requirement pertaining to subdivision or site plan, all drafting and design requirements noted herein are required for development submissions.

18.1. Basic Drawing Requirements

Drawings are to contain the following details:

a) A list of “Construction Notes for Engineering Drawings”. Note, all required reports associated with the design and as per Council Conditions, Approval Authority Conditions and Ontario Municipal Boards Conditions are to be listed onto the details drawings;

b) A general list of most common standards used [Ontario Provincial Standard Drawings (OPSD) & City of London]; and

c) A typical road and sewer trench cross-section detail identifying road, boulevard, sidewalk, curb & gutter, subdrains, watermain, forcemain sanitary & storm sewers, trench zones/slopes, bedding, together with all applicable dimensions and construction notes for the above.

18.1.1. Transportation Drawing Requirements

a) Road Plan Profiles

Road plan profiles are required for all roads constructed within or in conjunction with a plan of subdivision. As well, additional road profiles are required as follows:

60m Road Plan Profile of Adjoining Existing Street:

To ensure proper drainage is maintained and/or evaluated a profile extending into the existing subdivision is required.

120m Road Plan Profile of Adjoining Future Street:

To review future alignment extensions of existing ground and proposed finished ground.

b) Typical Road Cross-section Detail

A typical road cross-section detail, identifying recommended pavement structure and subgrade information (minimum to City of London standards, and as recommended by a Geotechnical Engineer) is required in conjunction with the
typical sewer trench cross-section detail. Curb & gutter cross-sections to be incorporated into the typical combined road and sewer trench cross-section detail.

c) Driveway Locations (Subdivision Specific)

Driveway locations are to be identified where non-standard cul-de-sacs and curves in the roads are designed, adjacent to walkways, CICBs and the last lot on dead end streets.

d) Cul-de-sac Roads (Subdivision Specific)

- **General:** Minimum curb & gutter road grade around a cul-de-sac is 0.5%, and maximum road grade within the cul-de-sac is 3%.
- **Residential:** As per City of London Drawing Standard SR-5.0.
- **Industrial:** As per City of London Drawing Standard SR-5.1

e) Ultimate Road Profile

To achieve proper road design parameters on future/proposed major road networks. Limitations and designs are to be reviewed and accepted by Transportation Division.

**Note:** Existing abutting road plan & profiles are required for the full frontage of subdivision.

### 18.1.2. Sewer Design

a) Connections to Future Subdivisions

Sanitary and Storm sewers are to be extended to the edge of the subdivision limit for future servicing connections.

**Note:** All active sewers/stubs require a maintenance hole. If sewer/stub is not active, then maintenance hole is not required.

b) Plan & Profile Details

A plan & profile drawing is required for all sewer designs. A typical sewer trench cross-section and details are also required. This may be done in conjunction with the road cross section, if applicable and required when.

- For poured maintenance holes
- Unusual benching configurations within the maintenance holes

**Note:** Trench construction to be in accordance with the latest specifications regarding trench widths (Occupational Health and Safety Act – Regulation 213/91).
c) Steep Grades of Sewers

**Note:** Anchoring or concrete encased sewers are required for steep grades and/or velocities.

d) Consultants shall provide a table demonstrating adequate crossing clearances between services (sanitary/storm/water) on the engineering drawings for site plan applications or when otherwise requested by the City. All crossings clearances shall be in accordance with City standards, to the satisfaction of the City. The table shall generally conform to the example as provided below:

**Example of sewer crossing chart**

<table>
<thead>
<tr>
<th>CID</th>
<th>Pipe Under</th>
<th>Elev.</th>
<th>Pipe Over</th>
<th>Elev.</th>
<th>Clearance required (m)</th>
<th>Clearance provided (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>300 STM</td>
<td>XXX.XXX</td>
<td>50 WM</td>
<td>XXX.XXX</td>
<td>0.XX</td>
<td>0.XXX</td>
</tr>
<tr>
<td>C2</td>
<td>300 SAN</td>
<td>XXX.XXX</td>
<td>200 STM</td>
<td>XXX.XXX</td>
<td>0.XX</td>
<td>0.XXX</td>
</tr>
<tr>
<td>C3</td>
<td>100 WM</td>
<td>XXX.XXX</td>
<td>600 STM</td>
<td>XXX.XXX</td>
<td>0.XX</td>
<td>0.XXX</td>
</tr>
</tbody>
</table>

**18.1.3. General**

a) Drafting Standards

All capital and subdivision drawings and calculations are to be completed in metric units and shall adhere to the City of London’s Engineering Record Drawings - Drafting Standards (Revised February 2018) and templates (including title blocks, font sizes, and linetypes). Drawings submitted as part of the review process prior to record drawings, to be shown in colour. Refer to section 18.11, Standard Drawings for Drafting and Design for examples.

b) Layout Information

For all fire hydrants, maintenance holes, catch basins, etc., layout information is required or alternatively a note indicating the use of UTM Coordinates.

c) Temporary Measures

Temporary measures (i.e. DICB, ditches, maintenance holes, turning circles, grading, barricades, easements, etc.) may apply to some designs depending on the planning and future connections of the development, and where applicable, these guidelines are to be adhered to, unless otherwise approved by the City Engineer.

d) Example Drawings

Refer to section 18.11, Standard Drawings for Drafting and Design

**Note:** Details for the above should be provided on all pertinent drawings.
18.1.4. Urban Forestry

The following are to be shown on plan and profile drawings on existing streets and on the Tree Planting plan for new streets, as required by Urban Forestry:

a) Tree planting;

b) Tree preservation; and

c) Tree removal.

18.1.5. Parks Planning & Design Division

The following are to be shown on lot grading plans, tree preservation plans and/or detail drawings within lots/blocks and open space areas, as required by Parks Planning & Design Division:

a) Tree planting;

b) Tree preservation;

c) Tree removal;

d) Park grading;

e) Pedestrian system;

f) Park design; and

g) Landscaping plan.

18.1.6. Other Nonstandard Drawing Requirements

For more complex requirements, details drawings are required for the following:
<table>
<thead>
<tr>
<th>Design Elements</th>
<th>Drawing Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater Management Details and Notes</td>
<td>• Longitudinal and lateral cross-sections of the stormwater management pond and sediment forebay and details;</td>
</tr>
<tr>
<td></td>
<td>• Inlet/outlet cross-section and details;</td>
</tr>
<tr>
<td></td>
<td>• Perforated riser cross-section and details;</td>
</tr>
<tr>
<td></td>
<td>• Maintenance/pedestrian access cross-section and details;</td>
</tr>
<tr>
<td></td>
<td>• Outlet swale/ditch plan &amp; profile and cross-section details;</td>
</tr>
<tr>
<td></td>
<td>• Orifice plate cross-section and details;</td>
</tr>
<tr>
<td></td>
<td>• 100-year &amp; 250-year flood elevations</td>
</tr>
<tr>
<td>Poured Maintenance Hole Chambers</td>
<td>• Plan &amp; profile; and</td>
</tr>
<tr>
<td></td>
<td>• Frequent cross-sections and details</td>
</tr>
<tr>
<td>Noise Barrier Wall Details and Notes</td>
<td>• Typical profile view of noise barrier wall and footings;</td>
</tr>
<tr>
<td></td>
<td>• Cross-section view of noise barrier wall and footings;</td>
</tr>
<tr>
<td></td>
<td>• Cross-section view of brick pillars and footings; and</td>
</tr>
<tr>
<td></td>
<td>• Cross-section view of wood posts and footings</td>
</tr>
<tr>
<td>Noise Barrier Berms</td>
<td>• Plan &amp; profile; and</td>
</tr>
<tr>
<td></td>
<td>• Frequent cross-sections, details and notes.</td>
</tr>
<tr>
<td>Retaining Wall Details and Notes</td>
<td>• Typical profile view of retaining wall and footings;</td>
</tr>
<tr>
<td></td>
<td>• Profile required for relatively high (1.0m or greater) and long retaining walls; and</td>
</tr>
<tr>
<td></td>
<td>• Cross-section views of retaining wall.</td>
</tr>
<tr>
<td>Headwall Details</td>
<td>• A plan &amp; profile detail is required for all headwall designs together with all pertinent details.</td>
</tr>
<tr>
<td>Traffic Calming Measures Details and Notes</td>
<td>• Plan &amp; cross-section views of type of traffic calming measures and details; and</td>
</tr>
<tr>
<td></td>
<td>• Curb cross-section details.</td>
</tr>
<tr>
<td>Access Roads Details and Notes</td>
<td>• Plan &amp; profile of access road; and</td>
</tr>
<tr>
<td></td>
<td>• Cross-section view of access road and details.</td>
</tr>
<tr>
<td>Abutting an existing or proposed major road</td>
<td>• Required where the common property line of the proposed development plan abuts an existing or proposed major road, as per City of London Standard “Grading Along Major Roads” (See Chapter 9 Figure 9.1.).</td>
</tr>
<tr>
<td>Construction Roads</td>
<td>• Plan &amp; profile of construction road; and</td>
</tr>
<tr>
<td></td>
<td>• Cross-section view of construction road.</td>
</tr>
<tr>
<td>Pedestrian Pathway Systems Details and Notes</td>
<td>• Plan &amp; profile drawing and details; and</td>
</tr>
<tr>
<td></td>
<td>• Cross-section view of pedestrian pathway systems.</td>
</tr>
<tr>
<td>Erosion &amp; Sediment Control Measures</td>
<td>• Plan &amp; profile of attenuation and sedimentation measures (i.e., basins, check dams, etc.); and</td>
</tr>
<tr>
<td></td>
<td>• Cross-section of all pertinent measures</td>
</tr>
<tr>
<td>Other Non-standard Works or Services</td>
<td>• Plan &amp; profile; and</td>
</tr>
<tr>
<td></td>
<td>• Cross-section details; as required by the City Engineer.</td>
</tr>
</tbody>
</table>
18.2. Other Agency Approvals

18.2.1. Utilities Coordinating Committee (U.C.C.)

a) Works on Existing Assumed Streets:
   U.C.C. is to be advised about all works on existing assumed streets other than lateral connections.

b) Non-Standard Service Locations:
   U.C.C. approval is to be obtained for all proposed services which are to be constructed in non-standard locations on new or existing streets.

c) Sub-Standard Boulevard Widths and/or Non-Standard Road Widths:
   Consultant is to notify all utilities regarding sub-standard boulevard widths, non-standard R.O.W. widths and utility easements required adjacent to sub-standard boulevards through U.C.C.

18.2.2. Board of Education

Board of Education approval is required for all services which are constructed on their lands. As well their approval is required for proposed services to a proposed/existing school block.

18.2.3. Conservation Authority

Review and approval from the local conservation authority is required, prior to the construction, of works, services and Erosion & Sediment Control measures within floodplain areas and in or adjacent to open watercourses, ravines and natural areas under the jurisdiction of the local conservation authority.

18.3. Temporary Measure Design Requirements

18.3.1. Temporary Turning Circles (Subdivision Specific)

Temporary turning circles are required if no intersecting street is within 45.0m of a dead end street as per City of London Drawing Standard SR-5.2.

18.3.2. Dead-End Street (Subdivision Specific)

If a temporary turning circle is not warranted, then a dead-end barricade is required, as per OPSD-973.130.
Note: A driveway for maintenance vehicles must be provided on the last lot of the dead-end street, but not adjacent to the development limit. Sufficient snow storage area must be provided at the end of a dead-end street without a temporary turning circle.

18.3.3. Work on Existing City Streets

When proposed works from a development are to extend and/or be constructed on existing City Streets, the following is required:

a) limits of construction;
b) sawcut/milling/steep milled joint;
c) backfill & compaction specifications; and
d) restoration details.

Note: Steeped milled joint is required for all proposed road widenings, and where proposed asphalt designs meet existing asphalt designs, as per City of London Drawing Standard SR-13.1.

18.4. Erosion Measures

See Chapter 6 Section 6.5.8, Erosion Measures. For temporary sediment and erosion control measures, see Chapter 10 – Erosion and Sediment Control for details.

18.5. Planning Related Design Requirements

18.5.1. Road Geometrics / Design

a) Road Widening

Where a development abuts an existing City street, road widening may be required for future or present improvements to these streets. The City’s Official Plan Transportation Map and the City of London’s Zoning By-law Z-1 classifies roads throughout the City as Rapid Transit Boulevard, Urban Thorough, Civic Boulevard, Urban Thoroughfare/Civic Boulevard in Primary Transit Area, Main Street, Rural Thoroughfare or Neighbourhood Connector. All other roads are considered to be Neighbourhood Streets.

b) 0.3 metre Reserves (Blocks)

0.3 meter reserves along block frontages and at the rear and/or flankage of lots which are adjacent to major roads, where applicable (outside of right-of-way) and are also required at the dead end of proposed road networks which abut future proposed road networks and where roads in a subdivision abut lands outside the subdivision.
18.5.2. Minimum Lot Frontages

In most cases the zoning by-law adequately satisfies requirements for minimum frontages for single-family and semi-detached lots. However, where bends in streets occur or on cul-de-sacs, lots must be designed such that when side lot lines are projected to the fronting curb, an adequate frontage is provided at the curb line to avoid conflicting driveway locations. These minimum frontages at the curb line are as follows:

- Single-family, 6.7m
- Semi-detached, 9.0m

18.5.3. Noise Barrier Walls General

Noise barrier walls are required for residential developments which back onto or flank major roads, or as otherwise required in accordance with the draft plan of subdivision conditions and City practices.

All noise barrier wall designs are to comply with the accepted Noise report and meet the minimum requirements and specifications of the Ministry of Transportation noise barrier wall guidelines (MTO Environmental Guide for Noise).

Note: Noise barrier walls for uses other than along major roads are to comply with Ministry of the Environment “Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning (NPC-300)” (Aug 2013, or as otherwise amended) requirements and approved by Development Services.

18.5.4. Noise Study/Report

Required when the proposed subdivision or development is situated within certain design setbacks from a Provincial Highway or Railway, as per the Ministry of the Environment “Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning (NPC-300)” (Aug 2013) and/or as indicated in the draft plan conditions and/or subdivision agreement, all approved by Development Services.

All recommendations and details from noise barrier wall studies/reports are to be reflected on the servicing drawings.

18.5.5. Noise Wall Location

Major Roads:

a) Masonry/Concrete:

Wall, posts and brick pillars are to be located on City property within the proposed 0.3m reserve and maintained by the City.
b) Wooden:  
Wall, posts and brick pillars are to be located entirely on private property and maintained by the owner.

c) Other Situations:  
Locations as per the approved Noise Study (i.e. berms/walls adjacent to railways, etc.).

18.5.6. Minimum Height

2.4m above ultimate centerline road profile design or as required by an accepted Noise Study.

18.5.7. Material Density

Ministry of Environment Criteria - Minimum surface density of 20 kg/sq.m (4lbs/sq.ft).

18.5.8. Materials

a) Masonry/Concrete:  
Constructed of a concrete material with a surface density of 20kg/sq.m. (4lbs/sq.ft.). Previously accepted masonry/concrete walls: Durisol and bricked.

b) Wooden:  
Constructed of a wood material with a surface density of 20kg/sq.m. (4lbs/sq.ft). Previously accepted wooden walls: Western Red Cedar, Red Wood and Yellow Cyprus.

18.5.9. Noise Wall/Retaining Wall Combined

Where the property line along the road undulates requiring the use of retaining walls, the standard 2.4m wall can be reduced to a minimum of 1.1m wall in hill sections.  
**Note:** the overall combined noise wall and retaining wall height, must be 2.4m above the ultimate centerline road profile design or as required in the accepted Noise Study.

18.5.10. Site Lines

Site lines to be maintained in accordance with Section 4.24 of Zoning By-Law Z-1.
18.5.11. Return End Walls

Required at the end of all proposed noise barrier walls which terminate at an abutting property which does not have an existing noise barrier wall present or where an opening is required (e.g. at a walkway).

18.5.12. Gaps/Holes

To be free of any holes or gaps within and at the bottom of all proposed noise barrier walls.

18.5.13. Drainage

Proper surface drainage to and away from the noise barrier wall is required for all proposed designs.

18.5.14. Overland Flow Routes Through Noise Barrier Walls

In exceptional situations, an adequately designed opening in the wall is required to allow overland flow route to pass through the wall, in conjunction with a toe wall or berm behind the opening in the wall to provide a supplemental noise attenuation measures at the opening.

18.5.15. Details

A typical profile view of the noise wall/footings is required together with cross-sections and details for any pertinent brick pillars/footings and wooden posts/footings, which are to comply with the Ontario Building Code.

18.6. Storm Culvert

Refer to Chapter 6 Section 6.5.5 – Storm Culverts for details

18.7. Storm Channels

Refer to Chapter 6 Section 6.5.6 – Storm Channels for details

18.8. Storm Ditches

Refer to Chapter 6 Section 6.5.7 – Storm Ditches for details
18.9. **Narrow Lot Servicing**

In cases where the [Zoning By-law](#) permits for narrow freehold lots (e.g., Residential R4 Zone), the minimum frontage shall be 6.7 metres.

18.9.1. **Narrow Lot Servicing Standard**

The Narrow Lot Servicing Standards [Figure 18.1](#), is intended, primarily, for use with street townhomes and shall be considered an applicable servicing strategy where the following criteria has been met:

- Dwelling and lot frontage are parallel to the property line and along a straight segment of the road.
- Narrow Lot Servicing Standard detail has been included within the drawing set.
- Drawings show each individual service to each narrow lot within the site.
- Setbacks are in accordance with current applicable zoning by-laws and are dimensioned on the drawings.
- All overland flow routes, rear-yard catch basin leads, utilities, hydrants, streetlights, etc. are adequately accommodated and will not be impacted by future excavation of the individual services (e.g., maintenance/repair).

18.9.2. **Site Plan Requirements**

If undertaking narrow lot servicing through the Subdivision process for lots that are subject to Site Plan Approval, the applicant shall initiate the Site Plan Application process prior to subdivision drawing acceptance to ensure that unit configurations are not required to change.

18.9.3. **Deviations**

Any deviation from the Narrow Lot Servicing Standard above will be subject to further examination through the drawing review process for adherence to all applicable standards.

18.10. **Site Alteration Applications**

The following information is provided to assist designers in preparing drawings to be submitted in conjunction with Site Alteration applications.
18.10.1. Environmental Protection Measures

- Indicate the location of all Environmental Protection Areas, as defined in the by-law, located on or adjacent to the site, and delineated with appropriate fencing.
- Show the location of all trees and shrubs, including the species, size of caliper, and any protection measures required in accordance with an accepted Tree Protection Plan.
- Refer to Chapter 12, Tree Planting and Protection Guidelines.
- Show any buffers or setbacks required in accordance with an accepted Environmental Impact Study, and include a box note on all drawings stating, “No materials are to be placed within the buffer.”

18.10.2. Grading & Earthworks

- Show the proposed rough grade elevations of the site.
- Show all lotting details in zero line weight (ghost lines) if using the subdivision draft plan as the underlying plan.
- Indicate the location of all cut/fill areas.
- Where fill is involved, provide a description of the proposed fill.
- Where fill is involved, provide the proposed final elevations and drainage system to be used upon completion of the filling operation.
- Indicate the location and dimensions of all proposed land disturbing activities, including construction access road(s).
- Indicate the location and dimensions of all temporary soil or dirt stockpiles.

18.10.3. Drainage and Stormwater Management

- Indicate the location and dimensions of any existing and proposed stormwater drainage systems associated with the rough grading and natural drainage patterns on and within a minimum of thirty 30 metres beyond the site boundary.
- Indicate directions of existing, interim, and proposed (post-earthworks) overland flow routes.
- Include provisions for specific controls in locations where flows exit the site (e.g., rock check dams, sediment basins, etc.).
- Areas where future LIDs are proposed should be protected and isolated during construction using applicable fencing/barriers.
- Refer to Chapter 6, Stormwater Management Requirements.
18.10.4. Erosion & Sediment Controls

- Indicate the location, dimensions, design details and maintenance provisions for all dust suppressant, and erosion and sediment control measures necessary to meet the requirements of the City Engineer.
- Refer to Chapter 10, Erosion and Sediment Control.

18.10.5. Conservation Authority Lands

Acceptance of Site Alterations plans by the City of London does not include any lands regulated by the local Conservation Authority. Where the scope of the proposed site alteration works include or are directly adjacent to regulated lands, the following shall be included on all drawings:

- A boxed note shall be provided stating “Site Alteration acceptance by the City of London excludes Conservation Authority lands. Any proposed works shown within Conservation Authority regulated lands are subject to Section 28 approval.”
- Limit of the regulated lands shall be clearly labeled and delineated.
- The regulated lands shall be shaded/hatched to be visually distinct.

18.11. Standard Drawings for Drafting and Design
Figure 18.1 Narrow Lot Servicing (SW-7)

SW-7.1 NARROW LOT SERVICING

NOTES:
1. MINIMUM LOT FRONTAGE TO BE 30 M.
2. BUILDING FOUNDATIONS NOT TO BE GREATER THAN 600 M².
3. THE DESIGNER MUST HAVE CONSIDERATION FOR UTILITIES, HYDRANTS, STREETLIGHTS, STREET TREES, OVERLAND FLOW, ETC. WHEN ESTABLISHING THE NUMBER OF CONSECUTIVE UNITS IN A BLOCK.
4. WATER SERVICE LOCATIONS ARE TO ADHERE TO CITY STANDARDS AS SET OUT IN SECTION 7.9.7 OF THE DESIGN SPECIFICATIONS AND REQUIREMENTS MANUAL, WHERE THE BUILDING FACE IS NOT PARALLEL TO THE ROADWAY, SERVICES SHALL FOLLOW MUNICIPAL STANDARDS WITHIN ROW.
5. WHEN CONNECTING TO / CROSSING AN EXISTING WATERMAIN, WATERMAIN SHUT DOWN, REMEDATION MEASURES, OR REPLACEMENT MAY BE REQUIRED DEPENDING ON EXISTING WATERMAIN CONDITIONS AS WELL AS THE DENSITY OF CONNECTIONS / CROSSINGS.
6. EXTERNAL BUILDING SETBACKS TO REFLECT CURRENT APPLICABLE ZONING BY-LAWS.
7. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
8. ALL REAR LOT DRAWSATION AND MAJOR OVERLAND FLOW CONVEYANCE ROUTERS TO BE NOTED WITHIN EACH BLOCK. ON-SITE SWM CONTROLS TO PROMOTE INFILTRATION TO BE CONSIDERED.
9. COLOR CODING FOR SANITARY AND STORM PDCS AS PER SCD 410.07.14

The Corporation of the City of London
Design Specifications & Requirements Manual
Updated: January 2024
Figure 18.3a Area Plans and Design Sheets (Master Plan of Services)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.3b Area Plans and Design Sheets (Storm Area Plan)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.3c Area Plans and Design Sheets (Storm Design Sheet)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.3d Area Plans and Design Sheets (Sanitary Area Plan)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.3e Area Plans and Design Sheets (Sanitary Design Sheet)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City's full design standards and requirements.
Figure 18.3f Area Plans and Design Sheets (Water Distribution Plan)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.4b Grading Plan (Sheet 2)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.5a Plan and Profile (Sheet 1)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.5b Plan and Profile (Sheet 2)

Note: This drawing has been provided as an example to convey typical drafting layout information to designers. Refer to the appropriate sections of this manual for the City’s full design standards and requirements.
Figure 18.6 Park Plan