Technical Site Plan Submission Guidelines

1. General

The Technical Site Plan (TSP) standardizes the mobility portion of the Development Permit review for low-density infill submissions to improve review speed, reduce iterations, and ensure uniform presentation. It combines all Mobility requirements into a single, consolidated drawing, providing a clear and efficient reference for reviewers and applicants.

The benefit of the TSP include, but are not limited to:

- Reduced review time through consistent drafting and content.
- Fewer DR iterations due to clarity and completeness.
- Uniform presentation reduces time spent finding information in large sets.
- Supports Mobility Generalists' consistency in applying bylaws/standards.

2. Drafting Standards

Adhere to these drafting standards:

- Prepare a single Technical Site Plan sheet that includes all Mobility requirements. Use a second sheet only if needed for additional cross-sections.
- Use metric units and geodetic datum for all elevations.
- Ensure the sheet meets professional drafting standards: it should be clear, properly scaled, and maintain consistent linework throughout.
- Where changes occur, provide both EXISTING (EX) and PROPOSED (PR) dimensions and elevations. Existing grades and dimension are to be shown in gray, and proposed are to be shown in black.

The TSP must include all required information as outlined in the TSP Template (see link to the template).

3. Architectural Site Plan Required Information

3.1. Reduced Architectural Site Plan

Provide a reduced version of the architectural site plan in the **top left quadrant** of the TSP page. This plan is necessary for reviewing building layout, verifying parking stall requirements, assessing lane setbacks (for garages, carports, or gravel pads), and checking active transportation storage (class 1 bicycle stalls). Be sure to depict the principal building, accessory structures, driveways, walkways, and all setbacks. The plan should also show the locations of cross-sections for adjacent lanes or streets.

The number of cross-sections for boulevards and lanes required can be confirmed on Table 1 below.

Cross-section location	Requirement
Boulevard	Two (2) cross-section per adjacent Street, centered on the walkway connectors to the public sidewalk.
Lane	One (1) cross-section at the center of each proposed garage

Table 1 - Cross-section requirements

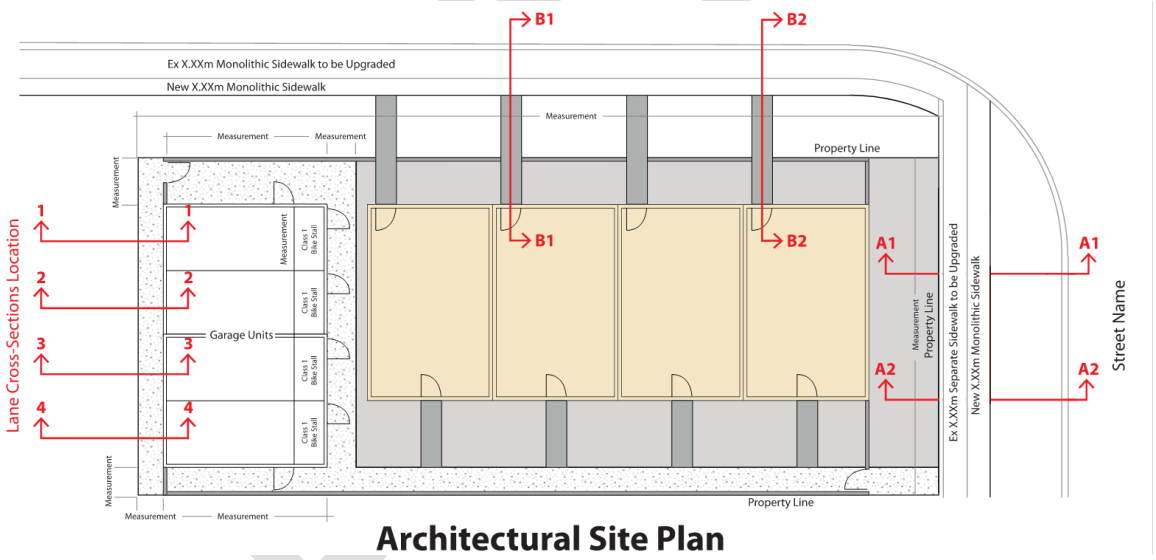

Figure 1 - Reduced Architectural Site Plan Example

3.2. Survey Plan

Provide the Survey Plan directly **beneath the Architectural Site Plan**, ensuring both are at the same scale. The Survey Plan must be prepared by a registered surveyor to verify existing grades within the right-of-way adjacent to the site. Accurate grading is essential for proper drainage integration and alignment with municipal infrastructure. Survey plan must show the curb type adjacent to the development.

The Survey Plan shall include the following information:

1. Boulevard Dimensions:
    - Distance from back of curb to front of sidewalk (for separated sidewalks);
    - Distance from front of sidewalk (or back of curb for monolithic sidewalks) to back of sidewalk;
    - Distance from back of sidewalk to property line.
2. Lane Dimensions:
    - Distance from the development property line to the centerline of the lane;
    - Distance from the centerline of the lane to the property line across the lane;
3. Sidewalk Width:
    - Clearly label sidewalk widths. For monolithic sidewalks, width is measured from back of curb to back of walk, excluding any boulevards. (Refer to Figure 37, 2020 Roads Construction Standards).
4. Surface Material:
    - Label all surface materials, including those for sidewalks, driveway crossings, garage aprons, and boulevards (grass or gravel).
5. Boulevard Geodetic Elevations (every 5-meters) at:
    - Back of curb;
    - Back of sidewalk;
    - Front of sidewalk;
    - Property line;
    - Top and bottom of retaining walls.
6. Lane Geodetic Elevations (every 5-meters) at:
    - Development property line;
    - Lane centerline;
    - Property line across the lane.
7. Street Furniture and Infrastructure:
    - Identify and label all existing curb cuts, driveways, wheelchair ramps, street furniture (e.g., light posts), trees, structures, utility poles, hydrants, storm catch basins, and fences.

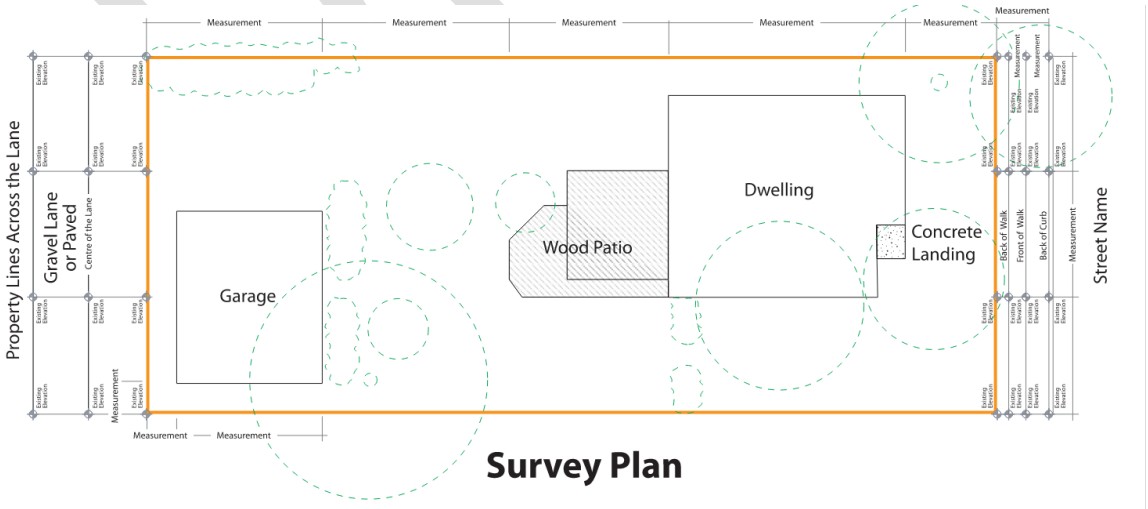

Figure 2 - Survey Plan Example

3.3. Boulevard Cross-sections

Provide boulevard (Street) cross-sections **beneath the Survey Plan** to confirm existing grades and drainage toward the street. If existing boulevard grades do not meet the City of Calgary's 2% standard from curb to property line, adjust only the property line elevation to achieve compliance. Include sidewalk upgrade details, as required by section 4.1, within the cross-section. Cross-sections must show the curb type adjacent to the development.

All boulevard cross-sections shall include the following information:

1. Existing geodetic elevations at:
    - Back of curb;
    - Front of walk (separate walk only);
    - Back of walk;
    - Property line.
2. Proposed elevations (if required to meet boulevard grading standards) at:
    - Front of walk (separate walk only)
    - Back of walk;
    - property line.
3. Existing grades/slopes:
    - From property line to back of walk;
    - From back of walk to front of walk (separate walk only);
    - Front of walk to back of curb (separate walk only);
    - Back of walk to back of curb.
4. Proposed grades/slope (if required to meet boulevard grading standards):
    - From property line to back of walk;
    - From back of walk to front of walk (separate walk only);
    - Front of walk to back of curb (separate walk only);
    - Back of walk to back of curb.
5. Existing Boulevard Dimensions:
    - From property line to back of walk;
    - From back of walk to front of walk (separate walk only);
    - Front of walk to back of curb (separate walk only);
    - Back of walk to back of curb.
6. If new sidewalk is required as per Section 4.1 of this guide, adjust the following dimensions:
    - From back of walk to front of walk (separate walk only);
    - Front of walk to back of curb (separate walk only);
    - Back of walk to back of curb.

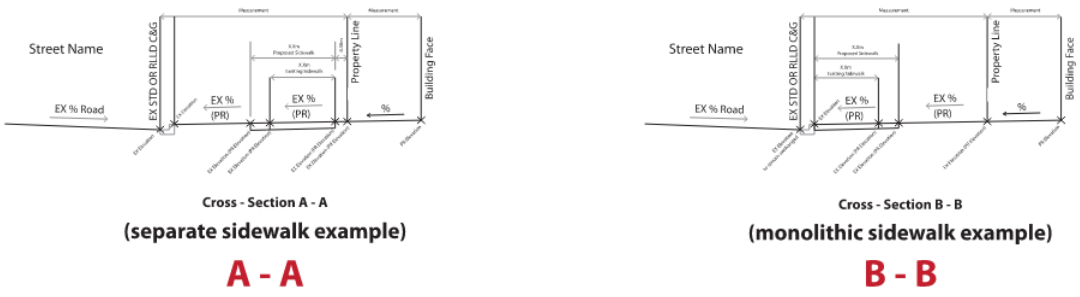

Figure 3 - Boulevard Cross-section examples

3.4. Lane Grading Plan

Include the lane grading plan in the **top right quadrant of the TSP**. Lane grading information is necessary to verify current elevations and how garage aprons and gravel pads from the development connect to them. If the lane does not meet the grading standards outlined in Table 2 below, adjust property line grades so they align with the current requirements. Do not modify centerline grades unless explicitly instructed by Mobility, according to Streets Bylaw 20M88, s.35. Also, make sure that garage setbacks adhere to the Development Permit Requirements specified in section 4.2.

Item	Requirement
Gravel lane	3.5%–5.0%
Paved lane	2.0%

Table 2 - Standard Lane Grade Requirements

The Lane Grading shall include the following information:

1. Existing geodetic elevations (every 5-meters) at:
    - property line
    - lane centerline
    - opposing property line.
2. Proposed elevations at:
    - Garage doors
    - Garage aprons
    - property line (if required)
3. Existing grades/slopes:
    - From property line to centerline of the lane
    - Centerline of the lane to opposing side of the lane
4. Proposed grades/slopes:
    - From garage door to property line
    - From proposed property line to centerline of the lane (if required)
5. Lane Dimensions:
    - Distance from garage door to property line;
    - Distance from the property line to the centerline of the lane;
    - Distance from the centerline of the lane to the property line across the lane

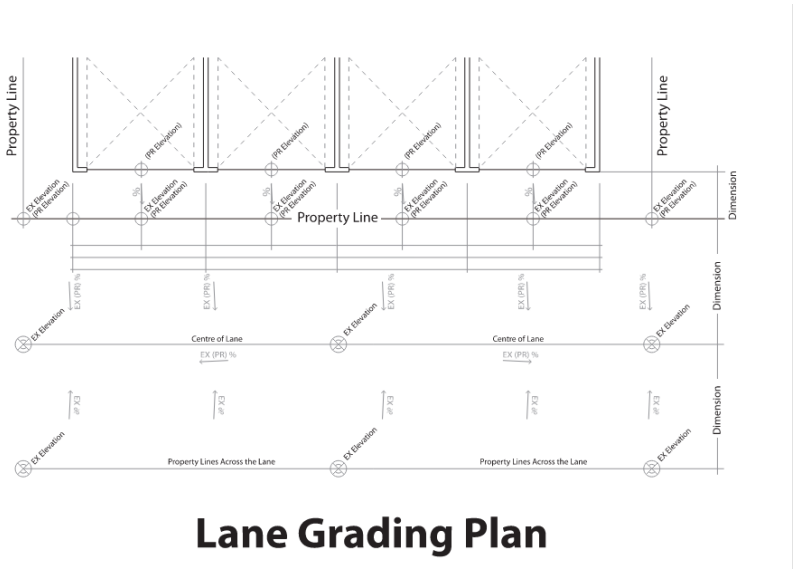

Figure 4 - Lane Grading Plan Example

3.5. Lane Cross-sections

Provide lane cross-sections **beneath the Lane Grading Plan**. The cross-sections are necessary to confirm positive drainage toward the center of the lane and to ensure that garage apron grades fall within the required range of 2–10%. In accordance with Section 3.3, Lane Grading Plan, all lane grades must comply with the specifications outlined in Table 2. A cross-section should be submitted at the center of each proposed garage stall or surface stall.

All lane cross-sections shall include the following information:

7. Existing geodetic elevations at:
    - property line
    - lane centerline
    - opposing property line.
8. Proposed elevations at:
    - Garage doors
    - Garage aprons
    - property line (if required)
9. Existing grades/slopes:
    - From property line to centerline of the lane
    - Centerline of the lane to opposing side of the lane
10. Proposed grades/slopes:
    - From garage door to property line
    - From proposed property line to centerline of the lane (if required)
11. Lane Dimensions:
    - Distance from garage door to property line;
    - Distance from the property line to the centerline of the lane;
    - Distance from the centerline of the lane to the property line across the lane

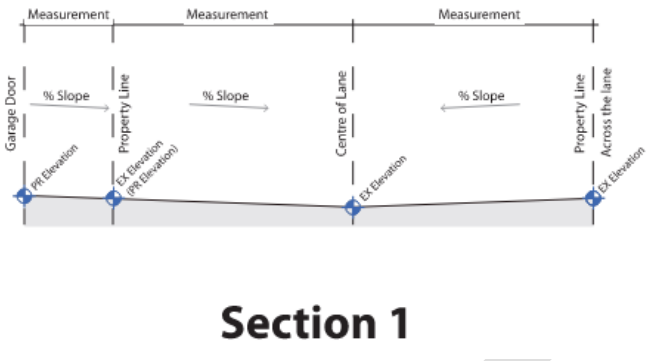

Figure 5 - Lane Cross-sections Example

4. Development Permit Requirements

4.1. Sidewalk Upgrades

Sidewalks play an essential role in fostering inclusive and walkable communities. Should existing sidewalks adjacent to the development parcel fail to comply with the City of Calgary's standard width requirements, as outlined in the 2020 Design Guidelines for Subdivision Services (DGSS), applicants will be responsible for upgrading sidewalks to meet current standards based on road classification, as referenced in Table 3 below. For monolithic sidewalks, the required width shall be measured from the back of curb to the back of walk, pursuant to Roads Construction 2021 Standard Specifications Figure 37, File No. 454.1013.009.

Road Class	Minimum Width
Residential	Separate: 1.5 m | Mono w/ rolled curb: 1.5 m | Mono w/ standard curb: 1.61 m
Collectors/Arterials	Separate: 2.0 m | Mono w/ rolled curb: 2.0 m | Mono w/ standard curb: 2.11 m
Urban/Neighbourhood Boulevards	Minimum 3.0 m

Table 3 - Standard Sidewalk Widths based on Street Classification

If sidewalk upgrades are needed, applicants must indicate these changes in the TSP. The plans should clearly show the following:

1. Indicate the new sidewalk width on both the plans and cross-sections of the boulevard, with a label stating: “Existing sidewalk to be removed and upgraded at the Developer's expense.”
2. Highlight existing sidewalks in gray and new sidewalks in black.
3. Extend sidewalk replacements over adjacent lanes, illustrating transitions—typically 1.5m in length—and marking the boundaries of construction, if necessary.
4. Include and specify dimensions for wheelchair ramps on the plans where applicable.

Constraints and mitigation measures:

Trees: When important trees are retained, maintain the current sidewalk width within their drip lines, transitioning back to standard width outside these areas.
Streetlights: Relocate streetlights that conflict with the required sidewalk width, at the developer’s cost.
Power poles: Flags within 1.0 m of the pole center remain unchanged unless rehabilitation is needed.

4.2. Garage and Parking Stall Setbacks

Private Garages are required to have a minimum setback from rear property line of 0.6 m (LUB 1P2007 s.341(3)). The LUB 1P2007 also requires a 7.2 m aisle for any 90° parking (LUB 1P2007 s.122(1)). In inner-city lanes of 6.10 m width, typical minimum setback for parking pads/garages is 1.10 m; for narrow lanes (~3.10 m), maximum driveway length is 2.5 m to prevent vehicle overhang into the lane.

Item	Minimum/Typical
Garage – side setback	≥ 1.0 m
Garage – rear setback	≥ 0.6 m
90° stall aisle	≥ 7.2 m
Typical lane width 6.10 m	Parking/garage setback ≈ 1.10 m
Narrow lane ≈ 3.10 m	Max driveway length 2.5 m (avoid overhang)

4.3. Existing Driveways / Curb Cuts

For low residential developments with adequate lane access, remove existing driveways/curb cuts during DP review to improve walkability, accessibility, and safety. Show existing curb-cut/driveway and label: "Existing curb-cut/driveway will be removed, and boulevard rehabilitated at the Developer's full expense".

4.4. Class 1 Bicycle Parking (Long-Term / Secure)

Class 1 bicycle parking is intended for long term storage and must be provided in a secure locker or access controlled area. Class 1 facilities should be designed to be secure, convenient, and practical for daily use. As per the Land Use Bylaw, 1.0 class 1 stall is to be provided per unit/suite where a motor vehicle stall is not provided in a private garage.

Plans must clearly show:

1. Location and quantity of all proposed Class 1 stalls.
2. Device/locker type and internal clearances, including stall dimensions and aisle widths. Layouts must avoid sharp turns and conflicts and must provide direct access to stalls.
3. Barrier free access route from the site edge/entrance to the Class 1 facility, including CPTED considerations (visibility) and illumination.
4. Lighting adjacent to bicycle parking areas.

Class 1 bicycle parking must be easily accessible, ideally located at grade outside of dwelling units to eliminate barriers such as stairs and tight spaces, and to ensure convenience and accessibility for all users and bicycle types. The City's draft handbook discourages placing stalls inside secondary suites and prohibits vertical racks, emphasizing horizontal stalls to accommodate a variety of bicycles and attachments without requiring lifting, thereby supporting long-term, confident use.

Appendix A – References & Links

Calgary Land Use Bylaw 1P2007 — Development rules, bicycle parking, lighting, setbacks.
Controlled Streets Bylaw 12M80
Lot Grading Bylaw 32M2004 — On-site grading requirements and drainage standards.
Streets Bylaw 20M88 — Lane/boulevard grading and alterations in ROW (s.35).
Bike Parking Handbook & Bicycle Policy — Design and policy for bicycle facilities.