

STREET WORKS PROPOSALS RELATING TO DEVELOPMENT WORKS

Submission Requirements for DG and CG Stage

The following requirements are designed to assist QPs in ensuring that sufficient detail is included in the submission. LTA approval subject to compliance with design requirements. LTA reserves the right to reject incomplete submissions.

DG stage	CG Stage
<ul style="list-style-type: none"> • Site Plan [Part B & C] • Supplemental details [Part D] • Floor, Section and Elevation Plans • Topographical Plan • Longitudinal and Cross Section Plans [COP 5.13/ 5.14] (developments where road realignment is impacted/ changed) 	<ul style="list-style-type: none"> • Site Plan [Part B & C] • Supplemental details [Part D] • Detailed Plan [Part E] • Traffic Plan [Part B & F] • Design Calculations (for major road and commuter structures, tall slopes and retaining structures) • Utility Services Plan [COP 5.5] • Coordinated Utility Plan [COP 5.6]

No	Item	Requirement	Submission Stage	Included in Submission?
A		General (DG / CG Stage)		
A1	Title	To include the project title, drawing title and project and drawing reference number.	DG / CG	
A2	Name and Endorsement	To include QP endorsement. To include the full name of the design firm, contractor, client, as well as personnel who developed, checked & approved the drawing.	DG / CG	
A3	Scale	Drawings to be A3 / A1 size. <ul style="list-style-type: none"> • Site/ Traffic Plan: 1:100, 1:500, or 1:1000 • Details/ Cross Section: 1:20, 1:10, or 1:5 • Key Plan: 1:20,000, 1:10,000, or 1:5,000 	DG / CG	
A4	Key Plan	To include key plan showing location of accesses, key public transport (PT) nodes and surrounding road network.	DG / CG	
A5	Compass & Coordinates	To include north arrow / compass rose and reference coordinates.	DG / CG	
A6	Legend	To include legend.	DG / CG	
A7	RRL	To indicate the road reserve line (RRL).	DG / CG	
A8	Street Reserve Plot	To include the plot number, boundary and land area for plots affected by RRL.	DG / CG	
A9	Road Name and Category	To indicate road name and road category.	DG / CG	
A10	Maintenance	To indicate the maintenance owner.	DG / CG	
A11	Project scope	To indicate the extent of works to be carried out under this submission.	DG / CG	
A12	SDRE	To provide reference table to the Standard Design for Road Elements (SDRE) drawing(s).	DG / CG	
A13	Changelog	To describe changes in resubmission annex.	DG / CG	

No	Item	Requirement	Submission Stage	Included in Submission?
B		General details to be included in Site Plan (DG/CG stage) & Traffic Plan (CG stage)		
B1	Kerb	To indicate the kerb alignment.	DG / CG	
B2	Paths	To indicate alignment, clear width, gradient, turning radius, and the type of path.	DG / CG	
B3	Pedestrian/ Cyclist Access	To indicate location, clear width, gradient & turning radius.	DG / CG	
B4	Vehicular Access	To indicate location, clear width, gradient, turning kerb radius and configuration.	DG / CG	
B5	Gantry	To indicate the location of gantry, drop barriers, and/or holding bays.	DG / CG	
B6	Commuter Facilities	To indicate location, clear width, setbacks, headroom, roof gradient, fall direction, column setting out or commuter facilities. (ie. covered linkway, taxi stand, POB, underpass)	DG / CG	
B7	Bus Stop	To indicate location, dimensions, headroom, roof gradient, fall direction and bus stop pole.	DG / CG	
B8	Road Facilities	To indicate location and dimensions (width, angle, radius) of road facilities (ie. u-turn/right turn, kerb cut, humps, lanes, medians, islands)	DG / CG	
B9	Barriers, Railings & Walls	To indicate the railings, bollards, safety barriers and vehicle restraint systems, including buffer / setbacks.	DG / CG	
B10	Crossings	To indicate the location, width and length of all crossings including signalised, zebra, kerb cut ramp, etc.	DG / CG	
B11	Structures	To indicate location, dimensions and outline (to scale) of road structures (ie. vehicular bridge, POB, underpass, box culvert, retaining wall) and columns.	DG / CG	
B12	Roadside Equipment	To indicate roadside equipment such as street lighting, electrical box, fire hydrant, totem, etc to scale.	DG / CG	
B13	Levels	To indicate path, landing, platform and access point levels.	DG / CG	
B14	Tactile	To show tactile tiles & indicate contrasting colour bands.	DG / CG	

No	Item	Requirement	Submission Stage	Included in Submission?
C		Site Plan (DG / CG Stage) – Internal works details may also be shown on floor plan(s).		
C1	Colour Code	The colour for all proposed, existing to be retained and existing to be removed should be in magenta, cyan and yellow respectively.	DG / CG	
C2	Sightlines	To indicate the line-of-sight triangle & stopping sight distance at all accesses and corners	DG / CG	
C3	Features at Access and Corners	To show to scale the gate, fence, door, walls, columns, totems, meter compartment, etc at accesses and corners, including material, visual permeability and height of features.	DG / CG	
C4	Circulation / Covered Walkways	To indicate clear width for key pedestrian/ cyclist circulation routes and covered walkways. To mark primary accessway routes to nearby transport nodes, bicycle parking and end-of-trip facilities.	DG / CG	
C5	PUDO	To include the location, number and type of PUDO bays, queue length, width and kerb alignment at PUDO point.	DG / CG	
C6	Loading/ Unloading	To include the location, layout and dimensions of loading/unloading bay	DG / CG	
C7	Parking	To indicate the location, dimensions and numbering of parking lots and location of EV chargers. To provide parking provision table.	DG / CG	
C8	Internal Driveway / Parking Aisle	To indicate width, turning radius, ramp gradient, headroom clearance and traffic markings.	DG / CG	
C9	Bicycle Parking	To indicate the location, dimensions (parking & circulation space), type of bicycle parking, and number each lot. To provide bicycle parking provision table.	DG / CG	
C10	End of Trip Facilities	To indicate location, type of End of Trip (EOT) facilities, number each facility and provide EOT facilities provision table (where required)	DG / CG	
C11	Wayfinding	To indicate decision making zones, placement and type of signage (where required)	DG / CG	
C12	Drainage	To include the alignment, invert level of drain, location and type of grating, sumps.	DG / CG	
C13	DIC	To show drop inlet chambers (DIC).	DG / CG	
C14	Man-hole	To show manholes.	DG / CG	
C15	Trees	To indicate the trees to be retained and removed, TPZ barriers, and provide tree table.	DG / CG	

No	Item	Requirement	Submission Stage	Included in Submission?
D		Separate drawings supplementing plans		
D1	Section / Interfacing Details	To provide section and interfacing details for pedestrian and vehicular accesses, commuter facilities, drainage, slopes, road structures, barriers, railings & handrails.	DG / CG	
D2	Swept Path	<ul style="list-style-type: none"> To provide swept path of the largest vehicle envisioned to use each access, key movement & junction (all movements at each phase). To show the lane where the vehicle is turning in/out from To overlay on site plan (DG stage) or traffic plan (CG stage) 	DG / CG	
E		Detailed Plans (CG stage)		
E1	Materials and Finishes	To indicate the materials, finishes, coatings, durability, waterproofing class and waterproofing details of all road and commuter facilities. To provide warranty details (if applicable)	CG	
E2	Structural Details	To include structural, interfacing, connection and foundation details.	CG	
E3	Bridges & POBs	To include articulation and bearing details, railings, guardrails and drainage.	CG	
E4	Pedestrian & Vehicular Underpass	To include waterproofing details, interfacing detail with basement/underground structures, overburden, internal drainage, summit and low point, water catchment area.	CG	
E5	Slope	To include slope sections, and include slope protection, slope permeability & water management features.	CG	
E6	Deep Foundations	To indicate location, dimensions, socketing and debonding of deep foundation elements (DFEs). To provide DFE schedule.	CG	
E7	Borehole	To provide borehole location & borelog data.	CG	
E6	Bus Stop	To indicate the seating, bollards, bus information display; bus pole; back panel; panel, signage & seat details; bus bay box; elec. pipe for advertisement panel & lighting.	CG	
E7	Taxi Shelter/ Taxi Stand	To indicate the seating, bollards, access aisle taxi pole, taxi information panel.	CG	
E8	Vertical Circulation (Stairs / Lifts / Ramp)	To provide architectural details; plan, elevation and section drawings, showing riser, tread, contrasting colour, run length, tactile tiles etc. Annotate dimensions and finishes.	CG	

No	Item	Requirement	Submission Stage	Included in Submission?
F		Traffic Plan (CG Stage)		
F1	Colour Code	The colour for all proposed, existing and removal of road signs / markings / lines should be in red, black and yellow respectively.	CG	
F2	Gazetting Table	To include a gazetting table	CG	
F3	Road and path marking	<ul style="list-style-type: none"> To indicate road and path markings to scale as per the colour code above. This includes relevant lane types, word markings, arrow markings, yellow box, bus zone box, etc. Where applicable, to define their type with reference made to the latest SDRE. 	CG	
F4	Directional Signs	To indicate the position, type, orientation and content of the directional signs.	CG	
F5	Traffic and Path Signs	<ul style="list-style-type: none"> To indicate all traffic and path signs as per the colour code above. This includes stop, give way, keep left, pass either side, speed limit sign, pedestrian crossing prohibition, stay on track, etc. To define their type with reference made to the latest SDRE. 	CG	
F6	Turning Radius	To indicate turning radius of junctions, movements, accesses, corners, etc	CG	
F7	Signal Aspects	<ul style="list-style-type: none"> To include existing, proposed and removed traffic light poles and signal type (e.g. RAG, RTGA, LTGA) per SDRE. To indicate flashing beacons, advance warning lights, etc 	CG	
F8	Signal Phasing	To include the traffic phases, movements, and indicate if AM/PM adopt different phasing.	CG	
F9	Traffic Management Measures	<p>To reflect all associated elements of the traffic management measures. Ie.</p> <ol style="list-style-type: none"> Speed Regulating Measures: including Humps, Bus Friendly Humps, Speed Regulating Strips Special Zones: including School Zones, Friendly Streets, Silver Zones. Other measures, eg, lane merging, lanes flaring, acceleration & deceleration lane etc. 	CG	