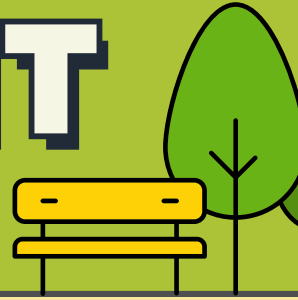




**BILD**<sup>®</sup>  
EDMONTON  
METRO

# FOUNDATIONS OF LAND DEVELOPMENT



**DIRT TO  
DOOR**



# DIRT TO DOOR

**The Dirt to Door Series offers a unique, behind-the-scenes look at what it takes to build thriving communities from the ground up.** Through guided tours and expert-led discussions, participants explore various places across our region learning how community builders create identity, support business retention, and design vibrant, people centered places.

This series also dives deep into the land development process, covering everything from planning and zoning to housing typologies, streetscapes, parks, and other critical infrastructure. It's an immersive experience that connects policy, people and community, showcasing how great neighbourhoods come to life.

## WHAT WE'RE LEARNING TODAY

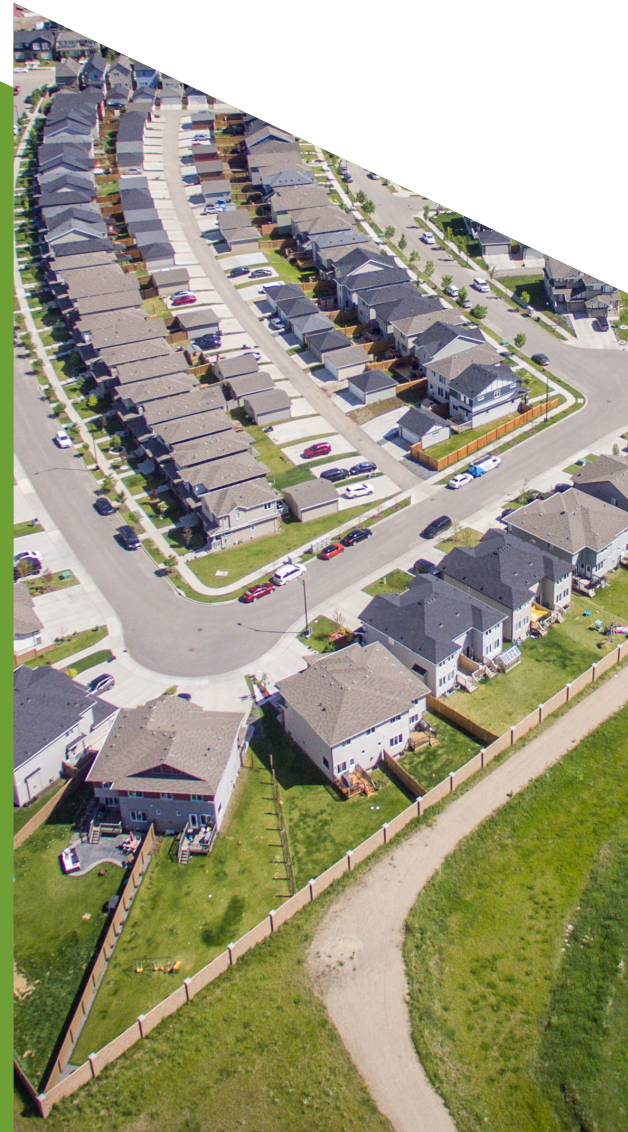
- ▶ Land Acquisition
- ▶ Planning and Zoning
- ▶ Financing Developments
- ▶ Design & Engineering
- ▶ Grading & Underground
- ▶ Water & Drainage
- ▶ Shallow Utilities
- ▶ Surface Infrastructure & Public Realm



BILD Edmonton Metro, or Building Industry and Land Development Edmonton Metro, is the voice and expert resource of the real estate development industry. Our more than 500+ member companies are from all corners of the industry – real estate developers, home builders, renovators, financial and professional service organizations, trade contractors, and manufacturers and suppliers of all types of commercial and home-oriented products.

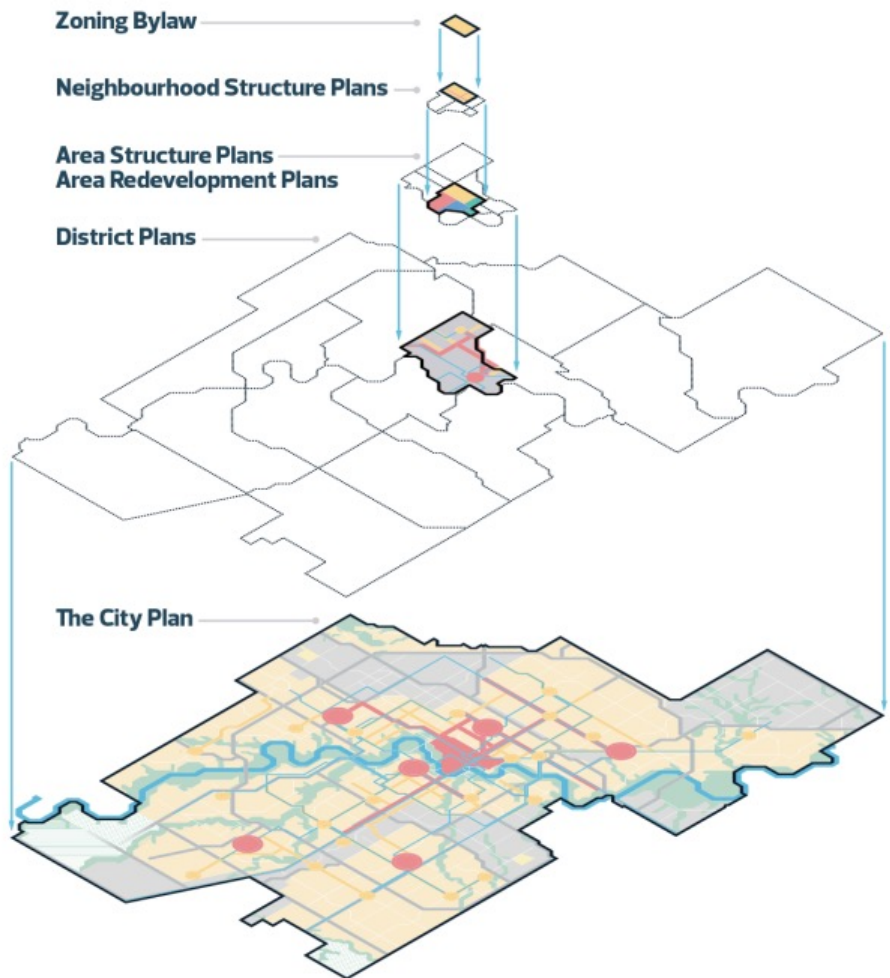
# LAND ACQUISITION

**When acquiring land, developers typically begin by identifying parcels that align with city growth areas, zoning potential, infrastructure availability, and market demand.** In Edmonton, this often means purchasing land within approved growth zones or areas targeted in District Plans and/or other local plans. Developers consider factors such as proximity to transit, schools, utilities, and existing or planned amenities, as well as the regulatory environment (zoning rules, allowable densities, and required contributions for infrastructure or community benefits). The land's topography, environmental constraints (like wetlands or floodplains), and access to servicing also influence decisions. Once acquired, developers work with urban planners, architects, engineers, and often the City of Edmonton to craft a vision for the site — this involves aligning with broader city policies (like The City Plan), addressing community needs, and designing a mix of land uses (e.g., residential, commercial, parks) that supports livability and economic viability. The vision is refined through technical studies, stakeholder engagement, and negotiation with the City, leading to formal applications for rezoning, subdivision, and development approval.



# PLANNING AND ZONING

In Edmonton, city planning unfolds through a multi-layered, collaborative process that defines land uses, urban form, and the roles of both public and private actors.



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At the highest level are strategic plans, including Connect Edmonton and The City Plan, which determine long-term growth goals, preferred land uses, and major urban design priorities to build a resilient, transit-oriented city of 2 million by 2050. Complementary strategies—such as the Green Network or Public Realm guidelines—translate those goals into more detailed approaches to natural systems or civic spaces.

Below that are District Policy and Plans, which cover larger parts of the city and overlay neighbourhood-specific priorities. They map out nodes (transit-oriented centres) and corridors (major streets)—showing where intensified development is encouraged—and guide building scales, infrastructure investments, and where amenities should locate. These policies inform rezoning decisions and infrastructure planning within each district.

At a finer grain, Area or Neighbourhood Structure Plans (ANSPS or NSPs) are created for greenfield communities—typically initiated by developers in collaboration with city planners—and Area Redevelopment Plans (ARPs) are updated in mature neighbourhoods with significant public engagement. These established neighbourhood layouts—roads, parks, schools, utilities, and a mix of housing types (detached, townhouses, multi-unit), as well as commercial or mixed-use areas—tailored to local context and geology.

Urban design principles and frameworks are embedded throughout these layers. The city promotes pedestrian-friendly, climate-responsive, visually

appealing design, demanding high-quality built form in significant locations, and ensuring public space activation, walkability, and sensitivity to Edmonton’s history and natural environment.

Land use selection is aligned through strategic and district planning: higher-density or mixed-use zones are prioritized near transit, corridors, or nodes. Zoning bylaws define what can be built, while district policies and structure plans shape where and how. Recent updates to Edmonton’s zoning code further simplified permitted uses and expanded flexibility — reducing rezoning needs and enabling diverse housing forms citywide.

On the public–private axis, the city provides the policy framework, conducts servicing studies, prepares structure plans or district policy, and funds or phases infrastructure (roads, transit, stormwater, parks). Developers initiate neighbourhood plans, propose land use, build buildings, and pay levies or contribute to shared infrastructure. City planners review proposals, apply district and structure policies, consult the public, and recommend or oppose rezonings. City Council makes the final decisions in public hearings, ensuring accountability and public input throughout.

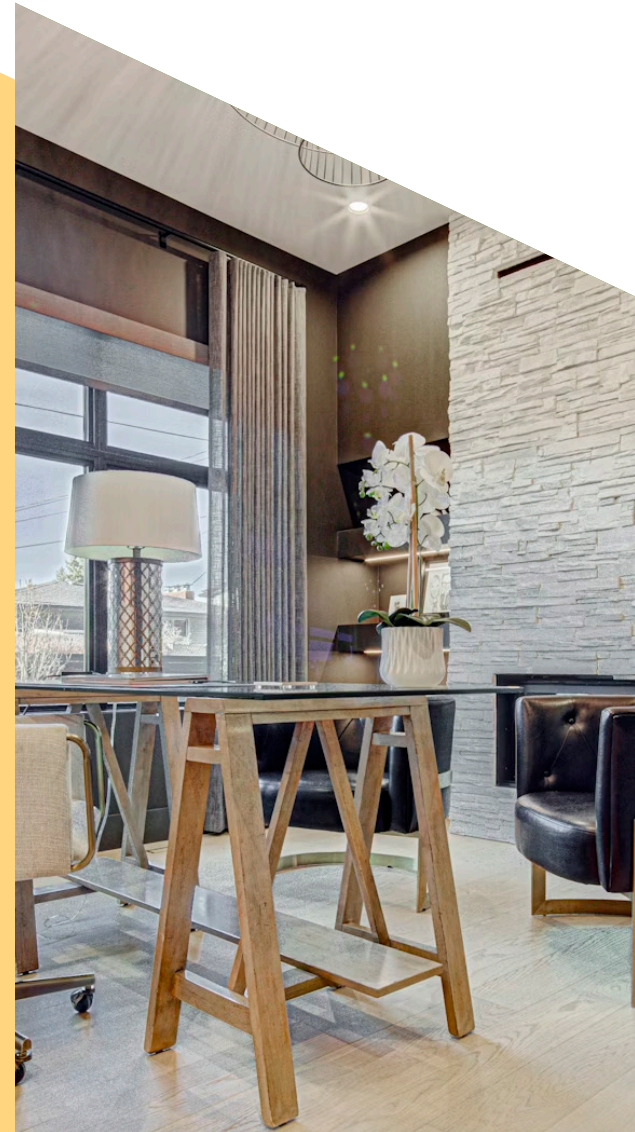
Together, these layers and relations produce city areas that combine varying land uses—and features like open space systems, transit access, sustainable design, and community-serving commercial uses—in ways shaped by both municipal vision and developer investment, with engagement and oversight built into each stage of the process.

# FINANCING DEVELOPMENTS

**Land development financing occupies a distinct position in commercial and residential real estate lending. Unlike income-property mortgages, which are underwritten against stabilized cash flow, land loans are underwritten against a project plan.**

The lender is funding a process rather than an asset, which means approval status, servicing budget, timeline credibility, and exit strategy carry more weight than current income. If you are assembling a site, advancing through rezoning, or funding servicing works ahead of vertical construction, understanding how land development financing is structured will help you approach the right lenders with a well-prepared package.

Land and construction are often grouped, but they are underwritten differently. Construction financing funds vertical building activity on a site that is already entitled and serviced, with lenders drawing comfort from building permits, contractor contracts, and presale commitments. Land financing funds the earlier stages: acquisition, rezoning, subdivision, and servicing. The underlying asset remains raw or partially improved land, and the path to value creation runs through a regulatory and engineering process with its own timeline and approval risk.



# DESIGN & ENGINEERING

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**Designing dirt is not easy feat – design and engineering play a central role in guiding land development from early feasibility through to approved planning frameworks.** At the outset, feasibility analysis evaluates the planning status of a property, identifies regulatory and engineering requirements, and establishes cost forecasts and development timelines. This foundation informs the preparation or review of master plans — such as Area Structure Plans (ASP) or Area Redevelopment Plans (ARP) — which set the overall vision, density, and form of development.

From there, design professionals support land use amendments to align zoning with the intended development, ensuring compliance with requirements related to lot size, building form, transportation, and landscaping. Conceptual design continues through Outline Plans or Conceptual Schemes, where road networks, lot configurations, and servicing strategies are established to maximize land use efficiency while meeting municipal standards. Throughout these stages, community and stakeholder consultation is often integrated to gather input and refine the development vision.

As projects advance, engineering becomes increasingly detailed and implementation focused. Preliminary engineering during the planning phase helps clarify infrastructure needs and cost implications, directly influencing design decisions and project viability. Following subdivision approval, detailed engineering design defines the full scope of infrastructure works and forms part of binding agreements with municipalities. This leads into construction engineering and management, where engineers oversee tendering, monitor construction activities, and administer contracts to ensure compliance with approved plans and municipal requirements.

Beyond construction, design and engineering also support the successful rollout of developments through marketing plans, architectural guidelines, and implementation strategies that maintain consistency and quality within the community. Together, these disciplines ensure that land development projects are not only feasible and compliant but also well-executed and market-ready.

# GRADING & UNDERGROUND

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**Grading and underground servicing are critical steps that physically transform raw land into a site ready for vertical construction.** The process begins with rough grading, where the land is cleared, stripped of topsoil, and reshaped through cut-and-fill operations to achieve the elevations set out in the approved Lot Grading Plan. This stage establishes rough lot grade and road subgrades while ensuring proper drainage patterns, accounting for pipe swell (excess soil material displaced as a result of installing underground infrastructure) is key to ensuring that the site is able to be balanced in the next stages of development.

Once the site has been brought to rough grade, underground deep utilities are installed with a high degree of precision. These systems — including sanitary sewers, storm drainage networks, and water mains — are typically installed at varying depths and must be carefully aligned to ensure proper function, particularly for gravity-fed systems like sewer and stormwater management.

After deep utilities are installed and trenches are backfilled, shallow utilities such as power, natural gas, and telecommunications infrastructure are introduced, often sharing corridor space to optimize efficiency. With all underground services in place, the project progresses to finish grading, which refines the site to its final elevations. This stage ensures that surface drainage flows correctly away from buildings and infrastructure, reducing the risk of water-related issues. Stockpiled topsoil is then redistributed to prepare for landscaping and final surface treatments.

To conclude the process, surveyors typically issue rough and final grade certificates to verify that the constructed grades align with the approved drainage and design plans. Together, grading and underground servicing form the essential groundwork that supports all subsequent development, ensuring both functionality and long-term performance of the site.

# WATER & DRAINAGE

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**Water, sewer, and sanitary systems are critical underground infrastructure that support housing development by ensuring safe drinking water supply, effective wastewater removal, and stormwater management.** Water mains distribute potable water to homes, while sanitary sewers carry wastewater to treatment facilities, and storm sewers manage rain and meltwater to prevent flooding. These networks are typically designed during early planning stages based on land use, density, topography, and flow capacity. Proper grading, pipe sizing, and system connections are essential to ensure long-term functionality.

Key “do’s” include coordinating with utility providers early, following municipal engineering standards, ensuring adequate separation between systems to prevent contamination, and using high-quality materials to reduce maintenance issues. Common “don’ts” include underpreparing for poor ground conditions (which can cause backflow or flooding), underestimating peak loads from higher-density developments, or starting construction before obtaining servicing approvals. Well-designed underground infrastructure not only supports the physical development of housing but also ensures public health, safety, and sustainability over time.



# SHALLOW UTILITIES

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**Gas and electricity typically enter a community development during the servicing phase, after the land has been subdivided and key underground infrastructure like water, sewer, and storm systems are in place.** Utility providers — such as Telecom, EPCOR or ATCO in Edmonton — coordinate with developers to install gas lines and electrical infrastructure, including transformers, underground cables, and connection points to homes and buildings. These services are essential for powering homes, street lighting, and future amenities, and must be planned according to city standards and utility company requirements. They're installed before roads are paved to avoid costly rework and ensure access. Providers assess future load demands, ensure safety clearances, and design systems that can accommodate community growth. Their goal is to deliver safe, reliable energy services to support everyday living, while integrating with the broader municipal infrastructure network.



# SURFACE INFRASTRUCTURE & PUBLIC REALM

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**Surface infrastructure and the public realm represent the visible, functional, and experiential layers of a completed land development, shaping how people move through and interact with a community.**

Surface infrastructure includes roads, lanes, sidewalks, pathways, street lighting, and surface stormwater systems, all designed to support safe transportation, efficient drainage, and long-term durability.

Complementing this, the public realm focuses on livability by integrating parks, school sites, landscaping, and streetscape elements such as benches, lighting, and planters to create attractive, accessible shared spaces. These components are typically implemented after subdivision and require careful scheduling, often taking 9–12 months to complete, along with close coordination with municipal departments and regulatory agencies. Public engagement also plays an important role, particularly during planning and rezoning stages, ensuring that community input helps shape parks, open spaces, and the overall character of the neighbourhood.



