

Roads 2.0 –
the next generation in local transportation





What's Inside **Roads 2.0**

What's 2.0?

It's yesterday's innovations, optimized for today.

It's when the early adopters evolve into seasoned practitioners.

It's progressive and dynamic. 2.0 is where you want to be.

With Roads 2.0, MacKay Sposito is taking local transportation projects to a new level of sustainability, usability and cost-effectiveness. In this version, your streets are transformed into multi-functional facilities with features and assets that maximize your return on investment. Simple, streamlined designs deliver optimal solutions to meet and exceed your project goals.



Mackay Sposito

Roads 2.0

1. Complete Streets

Designing the entire right-of-way for the benefit of all modes of transport and with thoughtful consideration of surrounding uses

2. Low Impact Development

Stormwater solutions that prioritize conservation and use onsite natural solutions to maintain water quality

1. Complete Streets

2. Low Impact Development

3. Roundabouts

4. Public Involvement

3. Roundabouts

Innovative roundabout design solutions that increase intersection efficiency and safety and decrease long-term O&M costs

4. Public Involvement

Facilitating the involvement and education of those who would be impacted or would benefit from transportation improvements

5. Advocacy

Raising public awareness of the importance of our transportation infrastructure and tackling the challenges related to transportation funding



1. Complete Streets – Roads for All

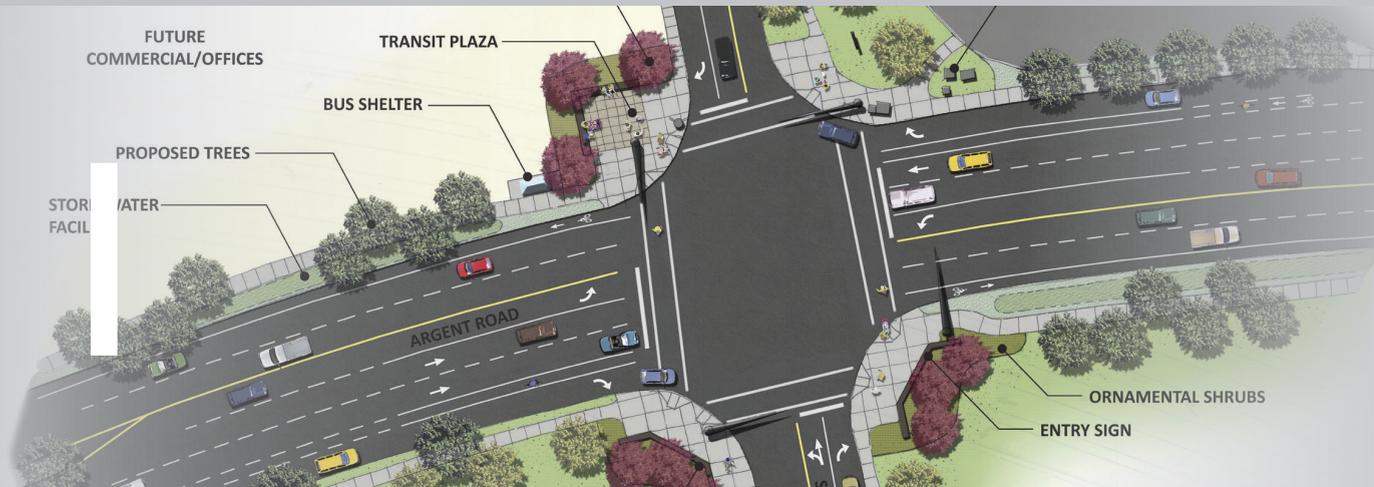
A roadway expansion transformed into a community development

In Roads 2.0, roads belong to everyone. MacKay Sposito's Complete Streets approach to transportation projects not only makes roadways safer for vehicles, it also transforms them into multi-modal facilities that are welcoming and accessible to pedestrians, cyclists and transit riders. Complete Street features include bike lanes, bus pullouts, upgraded sidewalks and pedestrian crossings, median islands, and curb extensions. Aesthetic streetscape enhancements and sustainable drainage solutions are also part of the solution. Combined, these elements have the ability to revitalize an area by promoting increased economic activity and improving overall quality of life.

EXAMPLE: Argent road: A Complete Streets Approach

As plans were being made for the expansion of the Argent Road corridor in Pasco, WA, MacKay Sposito and the City recognized the opportunity to reap benefits beyond increased safety and reduced traffic congestion. The 3.5-mile street provides access to an airport, college and business park but most of the adjacent land is vacant and ripe for development. Given its significant location, MacKay Sposito and the City employed a Complete Streets approach to the planning and design, with the goal of turning the roadway into a showcase

for people entering the community. A well-vegetated, pedestrian friendly streetscape design enhances the area's aesthetics. Low-Impact Development stormwater solutions improve water quality and promote continued sustainability. New connections to the nearby interstate and reconfigured access points provide improved traffic flow and spur economic development. Thanks to a creative and holistic approach, a roadway expansion was transformed into a community development that continues to reap benefits.



2. Low-Impact Development – Go Local!

The green movement has taught us that our richest resources are often the ones that are nearest.

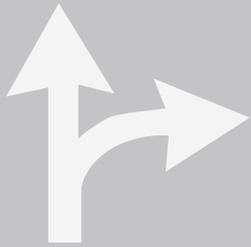
With Roads 2.0, Low-Impact Development (LID) is local to its core. By simulating an area's natural hydrology, stormwater runoff can be managed on-site using infiltration, filtering and storage facilities that reduce environmental impacts and improve water quality. Often times, these solutions can be achieved at lower life-cycle costs than traditional means of directing runoff to detention ponds or streams. Rain gardens, roadway swales, cisterns and pervious pavement are just a few of the local solutions we can use to provide you the sustainability that your community can take pride in.

EXAMPLE: A Roadway Project That Improves Water Quality

The Boones Ferry Road improvement project in Wilsonville, OR is a shining example of how one green solution can lead to another. Along with reconstructing the roadway and stormwater systems, the Master Plan for this historic section of downtown called for enhanced streetscape aesthetics to promote increased pedestrian traffic to stores and restaurants. The MacKay Sposito team responded to this need by using a Low-Impact Development (LID) solution that directs portions of the surface runoff to storm water planters. The soft plantings not only provide a pleasing contrast to the surrounding hardscape, but also serve to divert runoff and treat it directly on-site. The use of pervious concrete pavers to construct the parallel parking spaces also allows for on-site infiltration and treatment of stormwater.



3. Roundabouts – A Safe, Comfortable Ride



Roundabouts have been around for decades in their current iteration, and for centuries in their most basic form.

Although slow to catch on, in Roads 2.0, the roundabout is a preferred solution. The reasons are many. By allowing for a constant flow of traffic, roundabouts reduce congestion, while also reducing fuel consumption and air emissions from idling vehicles. Roundabouts have proven to reduce accident frequency and severity by calming traffic. They are more cost-effective to construct and provide landscaping opportunities to improve the site's aesthetics. In short, roundabouts eliminate an intersection's rough edges, resulting in a safe, comfortable ride.

EXAMPLE: Overcoming Topography for the Hildebrand Roundabout

The roundabout on Hildebrand Boulevard in Kennewick, WA does everything you expect a roundabout to do: it reduces congestion, improves safety, and serves as a welcoming gateway to a new commercial development. Getting it designed and constructed, however, was quite a bit more challenging than the typical roundabout. The project

area featured steep cross-slopes, which were addressed by performing detailed grading analysis and 3-D grading models. Using this information, the designers at MacKay Sposito refined the design and the result is a roundabout with smooth transitions that provide safe travels in all weather conditions.

4. Public Involvement – The Word on the Street

We understand that stakeholder buy-in is essential for success, especially when tax dollars are involved.

With Roads 2.0, you'll never release a transportation project on an unsuspecting public. Our outreach team will take to the street and make sure the benefits of your project are fully communicated and understood. We'll get the feedback needed to fine-tune the approach and design. When it's time to finally break ground on your project, the community will welcome it as a sign of progress and a worthwhile investment.

EXAMPLE: Winning Public Approval in Kennewick



While safer roadways are always a welcome improvement, construction zones and obstructed accessways are not welcome sights. That's why the outreach team from MacKay Sposito took to the street in 2013, visiting personally with over 300 business owners and tenants who will be impacted by major improvements to a busy 5.4-mile stretch of Clearwater Avenue in Kennewick, WA. That's a lot of leg work, but the efforts paid off. Questions were answered, concerns allayed and ideas for mitigating impact were generated. The comprehensive outreach program also included open houses, city council presentations, media outreach, a project branding campaign and over two dozen public meetings. The people who travel and work along Clearwater Avenue won't be surprised by those construction zones, but they will be looking forward to less congestion, safer travel and increased economic development.

OPEN HOUSE

5. Advocacy – A Critical Deliverable

First-rate plans, technical expertise and innovative solutions are essential components of a successful project, but steering a project from concept to completion requires much more.



In today's economy, you need a consultant who can navigate the competitive funding environment. You need a champion who can strongly state your case to decision-makers, rate-payers and stakeholders. In short, you need someone who believes in your project as much as you do. At MacKay Sposito, our Roads 2.0 team will fully invest their talents and determination until every roadblock has been cleared. We make advocacy a critical deliverable.

Roads 2.0 Services

- Civil Engineering Design
- Landscaping Architecture
- Land Surveying
- Construction Management/Inspection
- Public Facilitation/Community Involvement

Roads 2.0 Areas of Expertise

- Accessibility/Pedestrian/Multi-Modal Design
- Roundabout Design
- Urban Design
- Low-Impact Development
- Public Involvement

Roads 2.0 -
You've arrived at your destination.

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