

Utility Sidewalk

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- Manufacture Concrete Sidewalks Year-Round Off-Site For Greater Economy
- Fabricate in a Sidewalk Factory for Lower Cost
 - Constant Environment Year Round for Top Quality Control
 - Put Low-Cost Abandoned Property into Constructive Use
- Fabricate in Home Garage for Lowest Cost
 - Existing Property: No Real Estate Acquisition & Tax Burden
 - No Work-Commuting Expense
 - Constant Environment & Quality
 - Nice Construction Family Business



- Easy Fabrication Process
 - Pour Concrete Into Long-Lasting Galvanized, Primed Steel Reinforcement Trays With or Without Rebar
 - Apply Concrete Seal Under Controlled Conditions for Greater Durability
 - Omit Expansion Strips: Leave Small Gap Between Sections When Setting In Place

Utility Sidewalk Saves Production Expense

- Estimate Worksite Savings of Home Fabrication
 - Plant: No Lease, No Mortgage, No Tax for Pre-Existing Garage Space
 - Equipment: Cement Mixer (\$2,000), Work Table (\$500), Crane (\$250)
 - Labor: Pay Yourself
 - Overhead: Manage Yourself
 - Family Income Estimate: \$50,000



- Estimate Material Savings wrt Standard Sidewalk = 50% (About \$12-\$24 per Lineal Foot)
 - 4" Thick All-Concrete Sidewalk Costs \$6-\$12 per Square Foot Installed
 - 4' Wide All-Concrete Sidewalk Costs \$24-\$48 per Lineal Foot Installed
 - Total Thickness Savings Using Utility Sidewalk 25%
 - Total Concrete Savings Using Utility Sidewalk 45%
 - Steel is 50X More Expensive Than Concrete on a Volumetric Basis
 - Permanent Steel Formwork is Only 1.5% of Composite Product
- Dual Curb Increases Utility Sidewalk Cost 10% (Inside & Outside Curbs Needed to Anchor Utility Sidewalk)
 - Single Concrete Curbs are \$8-\$19 per Lineal Foot and Have 4"- 8" Reveals
 - Dual Curbs Run \$16-\$38 per Lineal Foot or \$8-\$19 per Revealed Square foot
 - Half of the Curb Reveal Serves as Walkway (Trims 12" Width From Total Sidewalk Width Specification)
 - Dual Curbs Raise Cost of 48" Wide Sidewalk About 10%

Utility Sidewalk Saves Production Expense

- Install Utility Sidewalk Sections Over Utility Trench
 - Bridges Underground Utilities
 - Underground Utilities Need Not Be Buried or Dug Up
 - Concrete Need Not Be Jack-Hammered for Utility Access
- Sidewalk Sections Lift for Utility Install/Repair Access
- Utility Installation/Repair Cost Far Less
- Utility Lines Can Be Labeled for Quick, Sure Identification
- Pre-Manufactured Bridge Sidewalks Deteriorate Less
- Pre-Manufactured Sidewalks Last Longer
- Underground Utilities Are More Storm Resistant Than Overhead Utilities
- Underground Utilities Create No Pole Hazards for Drivers
- Benefit: Underground Utilities Improve Neighborhood Aesthetics

Utility Sidewalk Saves Maintenance Expense

- Utility Space Under Sidewalk Can Be Heated or Lit
 - Light Shines Through Expansion Gaps for Night Walking Safety
 - Utility Space Can Be Kept Dry
 - Design is Sealed From Rats, Snakes, Other Such Pests
 - Sonic Transducers Within Utility Space Can Drive Away Roaches, Ants, Similar Invasive Pests
- Curb Support Rails Are Set Deeper Than Typical Concrete Walks for Greater Sidewalk Stability
- Sidewalks Can Be Any Reasonable Width
- Some Utilities Can Be Arrayed in Thermally Insulated Channel
- Some Utilities Can Be Arrayed in Loose Gravel or Sand
- With Modern Tools, It Is Easier & Safer To Go Underground Than Overhead Utility Poles



Utility Sidewalk Cross-Section View



- Excavating The Utility Trench Can Be a One-Time Expense for the Utility Company or Served Resident
 - Since Utilities Are Not Buried, There Is Never Need To Fill or Re-Excavate The Trench Way . . . It Remains Open, But Covered By the Liftable Bridging Sidewalk.
- Automated Trenchers Can Dig 2' Depth at 15' Per Minute
- Typical Narrow Trench Cost: \$3 \$11 Per Lineal foot
- Automated Trenching Equipment Can Be Expensive to Own (\$25,000).
- Contractors Might Find Renting to be Cost Minimizing (\$100 per Day).

Automated Trenching



 Appearance Possible with Quality-Controlled Utility Sidewalk



 Appearance of a Weather-Heaved-And-Broken, Un-Reinforced, Poured-On-Site, Under-Thickness Sidewalk



Which Path Into The Future Do You Want To Take?

- Northern Sidewalks & Roadways Must Be Re-Paved & Repaired Every Decade
 - Snow-Frost-Ice-Rain Heaving, Break-Up, Potholes, Salt, Flooding, Landslides
 - Removal for Increasing Level of Utility Installation & Repair
 - Gas Lines, Water Lines, Sewage Lines, Electrical Conduit, Cable TV, Internet, Phone Lines
- Because More Utilities are Under Roadways Than Under Sidewalks, Highly Expensive Road Surfaces Are Damaged More Often Than Sidewalks to Effect Utility Installations & Repair.
- Channeling Utilities Under Sidewalks Spares Roadway Damage AND Sidewalk Damage & Repair, Vastly Increasing Service Life.
- The Utility Sidewalk Reconfiguration Expense More Than Pays For Itself.
- The Utility Sidewalk Is An Investment That Yields Long-Term Dividends in Utility Line Integrity, Roadway Lifetime, Sidewalk Lifetime, Urban Peace & Safety, Neighborhood Aesthetics, Walking Safety, Driving Comfort.

Utility Sidewalk Use Savings