

**CHAPTER 20 – PUBLIC IMPROVEMENTS OPINION OF COSTS
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CHAPTER 20 – PUBLIC IMPROVEMENTS OPINION OF COSTS

20.1 GENERAL

This chapter defines units for certain construction items used in the Opinion of Costs required with the submittal of Construction Plans. These costs will be the basis of the surety amount to be provided by the Developer. The unit costs represent what the Local Entities would expect to pay for similar projects. The purpose is to cover the cost of the project in case the Local Entity is for any reason forced to take over constructing the project.

The Opinion of Costs shall be prepared and stamped by a Professional Engineer. The Opinion of Costs shall be broken down by the categories shown herein and shall provide the public improvement name, units of measure, unit cost, quantity included in the project, and total cost of each item and grand total. The Opinion of Cost shall be itemized by phase.

20.2 UNITS AND COSTS

The units presented here are intended to assist the Developer in providing consistent units and quantities for review by the Local Entities. The Local Entity will approve unit costs used to determine the Opinion of Costs. There may be additional items that are not shown. The Developer should show each of those items, with their units, unit prices, quantities, and item cost. Separate summaries shall be provided for phases when applicable. In addition, separate summaries shall be provided for adjacent, on-site and off-site public improvements.

20.2.1 Erosion Control

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Stockpile Topsoil	CY			
Straw Bales	Each			
Inlet Protection	Each			
Silt Fence	Lineal Feet			
Sediment Trap	Each			
Vehicle Tracking Pad	Each			

20.2.2 Street Improvements

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Clearing and Grubbing	Lump Sum			
Removal of Structures and Obstructions	Each			
Subgrade Preparation	SY			
Excavation	CY			
Borrow	CY			
Fill	CY			
Rock Excavation	CY			

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Filter Material	CY
Lime Treatment	SY
Asphalt Patching	TONS
Asphalt Pavement	TONS
Base Course	TONS
Concrete Pavement	SY-IN
Geotextile	SY
Riprap	CY
Survey Monuments	Each
Adjust Manholes	Each
Adjust Valves	Each
Adjust Monuments	Each
Median Cover Material (Concrete)	SY

20.2.3 Structures

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Bridge Structure	Each			
Culverts	Each			
Guardrail	LF			
Railing(Pedestrian)	LF			
Railing (Traffic)	LF			
Headwalls	Each			

20.2.4 Pedestrian and Bikeway Facilities

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Sidewalk Grading	SY			
4-inch Thick Sidewalk	SY			
6-inch Thick Sidewalk	SY			
Directional Curb Ramp	SY			
Corner Curb Ramp	SY			
Mid Block Ramp	SY			
Concrete Bikeway	SY			
Sidewalk Chase	Each			
Curb and Gutter Grading	LF			
Curb and Gutter – Type II	LF			
Curb and Gutter – Type I	LF			
Glue-down Curb	LF			

20.2.5 Street Lighting – Local and Minor Collector Streets in Loveland (City Limits Only)

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Standard Pedestrian Light	Each			
Standard Street Light	Each			

20.2.6 Traffic Signals, Signing and Striping

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Standard Street Signs	Each			
Standard Sign Posts	Each			
Standard Regulatory Signs	Each			
Standard Speed Limit Signs	Each			
Latex Paint (4 inches)	LF			
Latex Paint (8 inches)	LF			
Latex Paint (12 inches)	LF			
Latex Paint (18 inches)	LF			
Latex Paint (24 inches)	LF			
Epoxy Pavement Marking (4 inches)	LF			
Epoxy Pavement Marking (8 inches)	LF			
Epoxy Pavement Marking (12 inches)	LF			
Epoxy Pavement Marking (18 inches)	LF			
Epoxy Pavement Marking (24 inches)	LF			
Preformed Tape for Symbols & Crosswalks	LF			
Preformed Thermoplastic	SF			
Traffic Signals	EA			

20.2.7 Work Zone Traffic Control

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Traffic Control	LS			

20.2.8 Storm Drainage Facilities

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Grading	SY			

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Inlets	EA
Manholes	EA
Pipe (Material Type - Size)	LF
Trickle Channel (width)	LF

20.2.9 Water

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Main (including main fittings, main valves, temp. blow-offs, standard bedding, thrust restraint)	LF			
Main Testing & Disinfection	LS			
Fire Hydrant Assembly, Complete	EA			
Special Valves (not main, fire hydrant)	EA			
Meter Services/Pits ¾"-1" (including saddle, corp stop, service line, curb stop, yoke, meter pit)	EA			
Meter Services/Vaults 1 ½" – 8" (including saddle/fitting, corp or valve, service line, curb stop or valve, meter set, meter)	EA			
Steel Casing	LF			
Special Vaults	EA			
Special Lowering/Crossings	EA			
Special Tie-In/Connection	EA			
Blow-offs/Permanent/Complete	EA			
Air-Vacs/Complete	EA			
Special Bedding	CY			
Asphalt Repair & Removal	SY			
Site Restoration & Reveg.	LS			
Traffic Control	LS			
Erosion Control	LS			
Other	LS/LF/EA			

20.2.10 Sanitary Sewer

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Main (including standard bedding)	LF			
Manhole	EA			
Main & Manhole Testing	LS			
Services/Complete	EA			
Steel Casing	LF			
Special Vaults	EA			
Special Tie-In/Connection	EA			
Special Bedding	CY			
Asphalt Repair & Removal	SY			
Site Restoration & Reveg.	LS			
Traffic Control	LS			
Erosion Control	LS			
Other	LS/LF/EA			

20.2.11 Removals and Repair

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
Asphalt Patching	SY			
Concrete Sidewalk R & R	SY			
Concrete Curbwalk R & R	LF			
Milling	SY			
Asphalt Removal	SY			

20.2.12 Construction Surveying/Staking

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
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20.2.13 Material Testing

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
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20.2.14 Record Drawings

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
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20.2.15 Construction Management

<u>Public Improvement Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Item Cost</u>
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20.3 FINANCIAL CONTINGENCY

The total amount of the financial security for public improvements must also include a 15 percent contingency for projects in Loveland (GMA and city limits) per **Section 24.3, Surety, Insurance, and Security Requirements.**