

Parking Structure Types

Precast Concrete Structure (not suitable for subterranean)

- Typically fastest construction schedule (made in plant, shipped to site, important to coordinate early with design / construction team)
- Adverse weather has less of an affect
- Typically most cost efficient option and best efficiencies for space (sf / space)

Above Grade Cast-In-Place Structure

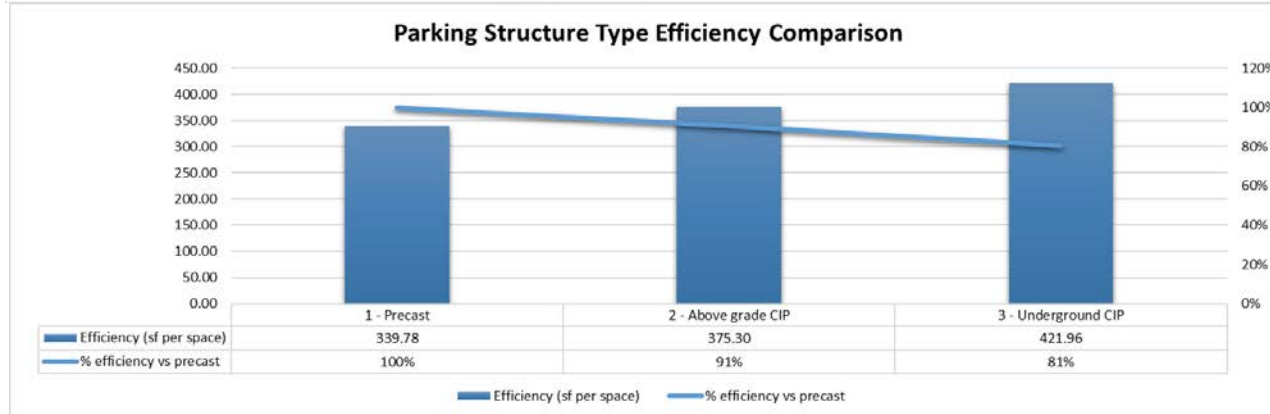
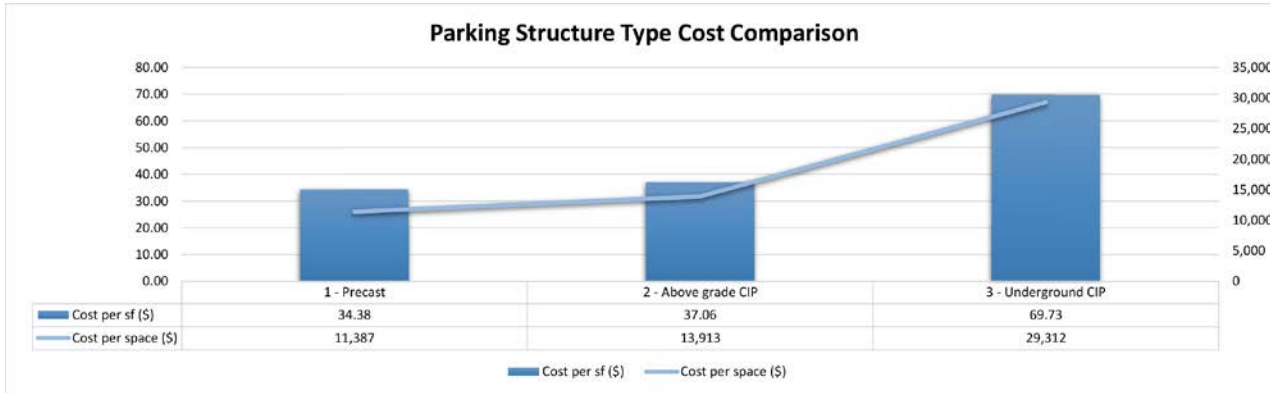
- More flexibility with design and layout (can be more open with better light distribution from beam spacing vs double-tee stems)

Underground Cast-In-Place Structure

- More land available for usages besides parking
- Access control
- Little to no obstruction of views



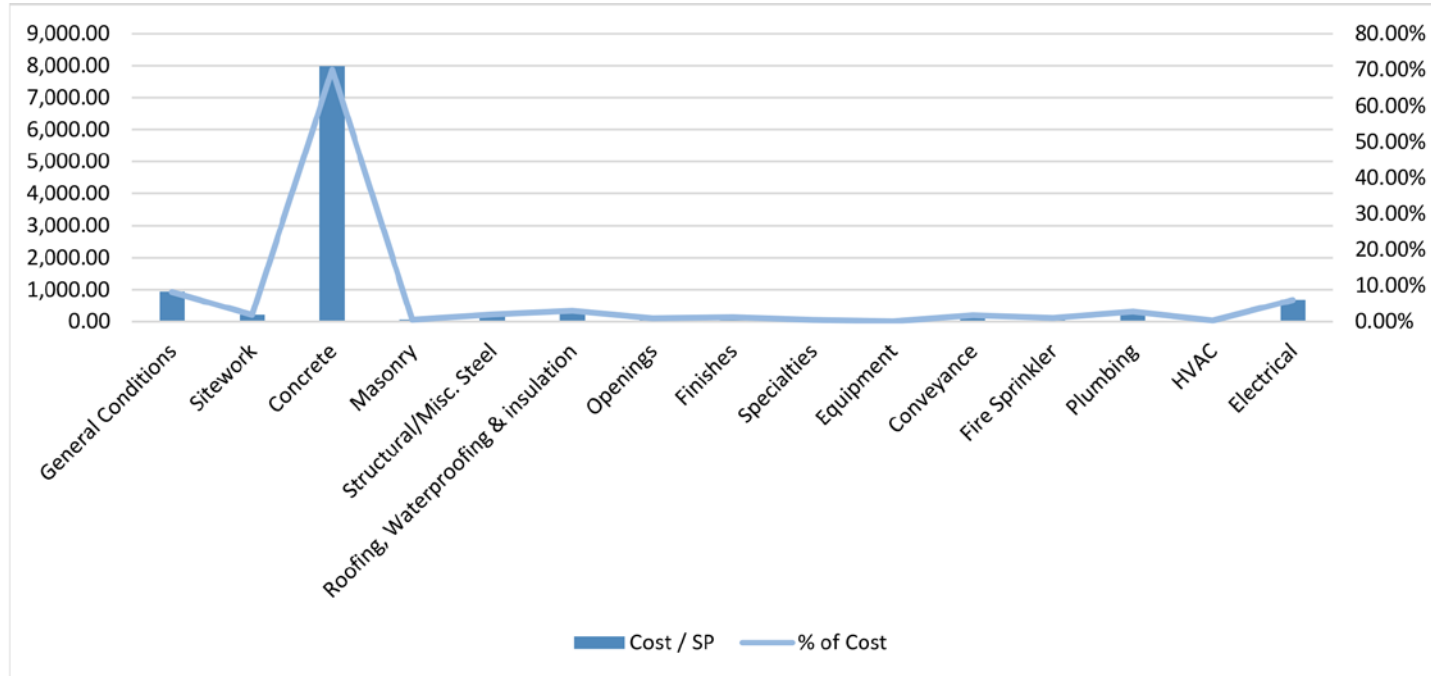
Cost vs. Efficiency



Precast Concrete Structure

	Cost / SF	Cost / SP	% of Cost
General Conditions	2.83	938.05	8.20%
Sitework	0.67	211.37	1.85%
Concrete	24.09	7,984.82	69.98%
Masonry	0.17	59.42	0.53%
Structural/Misc. Steel	0.68	226.73	1.97%
Roofing, Waterproofing & insulation	0.96	321.61	2.95%
Openings	0.32	103.05	0.93%
Finishes	0.40	133.50	1.22%
Specialties	0.17	54.09	0.48%
Equipment	0.02	5.98	0.05%
Conveyance	0.62	200.08	1.74%
Fire Sprinkler	0.35	117.77	1.02%
Plumbing	0.94	312.85	2.73%
HVAC	0.10	33.29	0.30%
Electrical	2.06	684.81	6.05%
Grand Total	34.38	11,387.43	100.00%

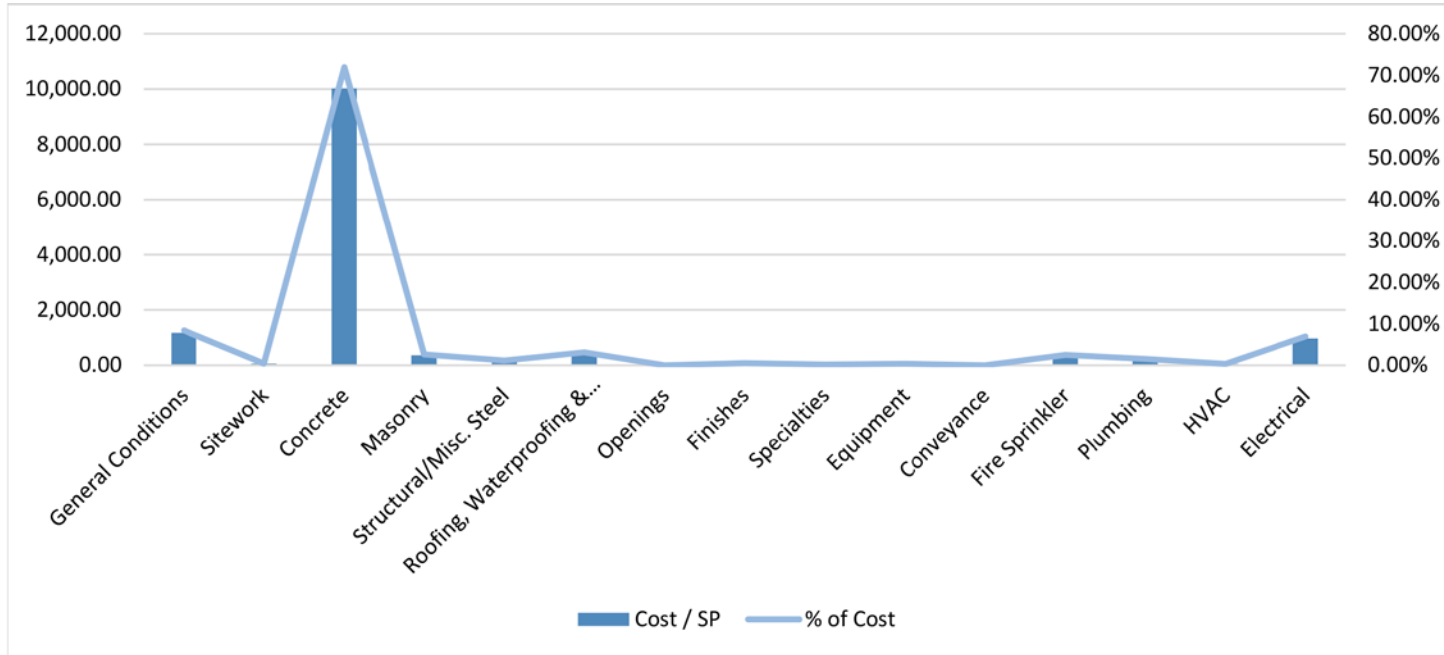
Precast Breakdown



Above Grade Cast-In-Place Structure

	Cost / SF	Cost / SP	% of Cost
General Conditions	3.11	1,166.43	8.40%
Sitework	0.15	57.42	0.41%
Concrete	26.68	10,016.03	71.94%
Masonry	0.95	358.24	2.61%
Structural/Misc. Steel	0.42	157.30	1.13%
Roofing, Waterproofing & Insulation	1.17	441.22	3.13%
Openings	0.00	0.00	0.00%
Finishes	0.20	74.69	0.52%
Specialties	0.07	26.04	0.19%
Equipment	0.13	49.23	0.36%
Conveyance	0.00	0.00	0.00%
Fire Sprinkler	0.92	344.18	2.52%
Plumbing	0.57	212.28	1.53%
HVAC	0.12	46.45	0.33%
Electrical	2.57	963.90	6.94%
Grand Total	37.06	13,913.41	100.00%

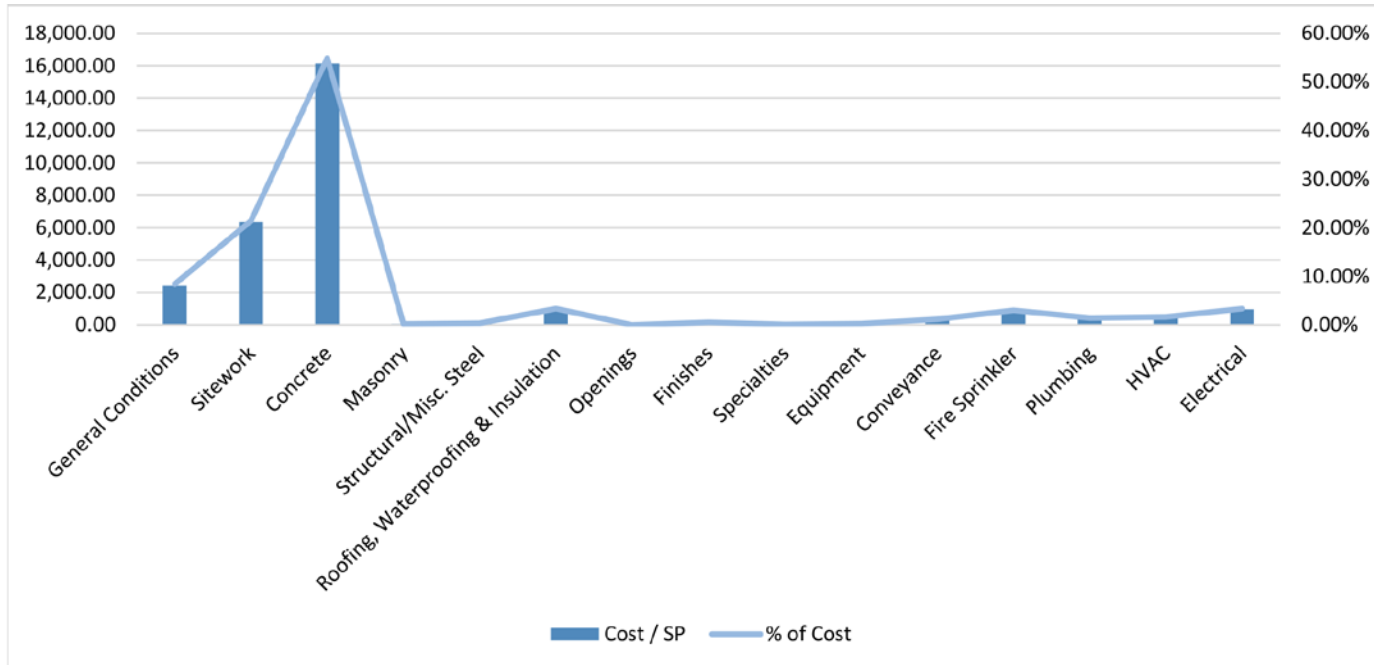
Above Grade Cast-In-Place Breakdown



Underground Cast-In-Place Structure

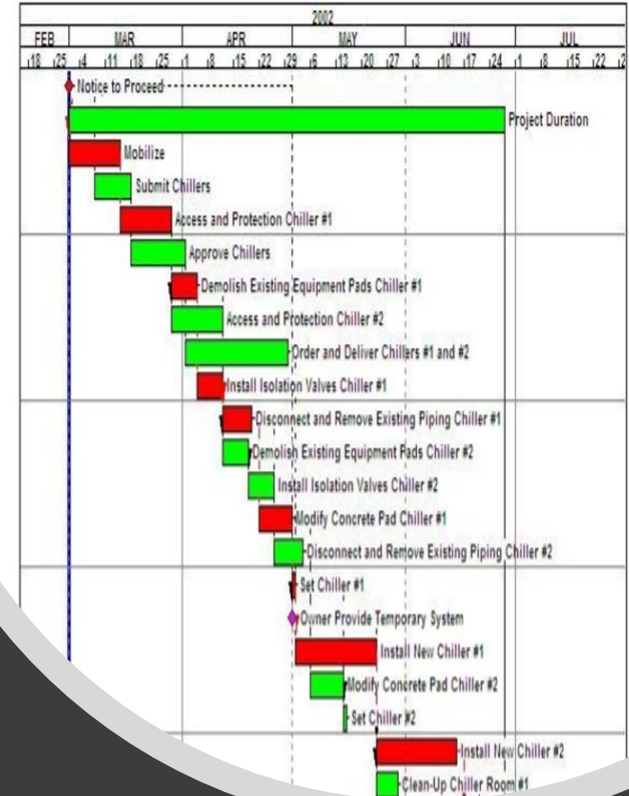
	Cost / SF	Cost / SP	% of Cost
General Conditions	5.76	2,409.42	8.37%
Sitework	15.07	6,356.39	21.41%
Concrete	38.34	16,129.82	54.90%
Masonry	0.13	53.92	0.20%
Structural/Misc. Steel	0.23	97.18	0.35%
Roofing, Waterproofing & Insulation	2.31	968.31	3.33%
Openings	0.00	0.00	0.00%
Finishes	0.36	147.06	0.55%
Specialties	0.07	28.03	0.10%
Equipment	0.18	73.83	0.25%
Conveyance	0.77	313.73	1.18%
Fire Sprinkler	2.08	871.68	2.98%
Plumbing	1.00	422.33	1.42%
HVAC	1.16	489.32	1.63%
Electrical	2.28	951.43	3.33%
Grand Total	69.73	29,312.45	100.00%

Underground Cast-In-Place Breakdown



Precast Advantages

1. Scheduling
 1. Precast allows for processes that typically happen chronologically to happen in parallel.
 2. Precast installation occurs at approximately 25,000 sq. ft. per week regardless of number of levels.



Precast Advantages

2. Risk Reduction
 1. Precast and associated trade work only requires 1, approximately 12 person crew.
 2. Reduced on-site liability.



Precast Advantages

3. Architectural Versatility
 1. Precast can be made to simulate virtually anything.
 2. Can match historic city areas or new areas with specific codes.

