



4 GRADE
AUTOMOBILE SALES & SERVICE BUILDING
METAL – STEEL FRAME SERVICE AREA & BRICK/BLOCK – STEEL FRAME SALES AREA

SPECIFICATIONS – AUTOMOBILE SALES & SERVICE BUILDINGS

These buildings are designed for the sales and service of automobile and/or associated equipment. Automobile and Implement Dealerships fall into this category.

Foundation Reinforced concrete or equivalent.

Basement No basement is base.

Exterior Walls Use proper schedule. Note: Showroom includes extensive plate glass. (Overhead doors must be added for.) 14' showrooms and 16' high service building.

Roof Flat or gable. Rubber membrane or equivalent. Metal structures will have metal panel on steel frame pitched roofs.

Floors 6" reinforced concrete floors. Commercial grade carpeting in office and asphalt tile or equivalent in showroom and sales area only.

Interior Finish Painted interior in service building. Showroom and sales area has drywall on wood stud walls, and partitions. Ceilings are acoustical tile or equivalent.

Heating & Air Conditioning Service area: Good suspended unit heaters or radiant (vacuum gas) heating. Air circulation and exhaust system. Showroom and sales area: Forced hot air heating and roof unit air conditioning or equivalent.

Plumbing Adequate plumbing throughout.

Wiring Pipe conduit wiring. Good lighting with numerous outlets.

Structural Use proper schedule.



3 + 10 GRADE
EIFS ON MASONRY-STEEL AUTOMOBILE SALES & SERVICE BUILDING



5 GRADE
AUTOMOBILE SALES & SERVICE BUILDING
C.BLK.-STEEL AUTOMOBILE SALES & SERVICE BUILDING

AUTOMOBILE SHOWROOM AND SALES OFFICE BUILDING

Exterior Walls	Framing	1,000	1,250	1,500	2,000	2,500	3,000	4,000	5,000	6,000	8,000	10,000 or Larger	Add for Bsmt
		(Square Feet of Area)											
Metal	Steel	\$84.90	\$80.80	\$77.60	\$74.00	\$70.10	\$67.40	\$64.20	\$62.00	\$59.60	\$57.00	\$55.10	\$23.00
C Blk	Wood	90.20	85.90	82.60	78.80	75.00	72.50	69.50	67.40	65.60	63.20	61.40	15.00
C Blk	Steel	94.10	89.80	86.50	82.70	79.20	77.00	74.50	72.90	71.10	69.00	67.60	23.00
Brick Veneer	Wood	95.50	90.50	86.80	82.50	78.20	75.40	72.00	69.70	67.70	65.00	63.00	15.00
Brick Veneer	Steel	99.40	94.40	90.70	86.40	82.40	80.00	77.00	75.20	73.20	70.80	69.20	23.00
Brick on Blk	Wood	106.40	100.10	95.40	89.90	84.80	81.50	77.30	74.40	72.00	68.70	66.40	15.00
Brick on Blk	Steel	110.30	104.00	99.30	93.80	89.00	86.00	82.30	79.90	77.50	74.50	72.60	23.00
Brick on Blk	R'Conc.	112.40	106.10	101.40	96.00	91.20	88.20	84.50	81.90	79.50	76.60	74.60	26.00
Glass	Steel	181.50	165.50	153.80	140.00	130.40	124.10	115.10	109.20	104.30	97.90	93.90	23.00
Conc. Tilt-up	Steel	106.90	101.00	96.60	91.50	87.00	84.20	80.60	78.40	76.20	73.40	71.60	23.00
Conc. Tilt-up	R'Conc.	109.10	103.20	98.80	93.70	89.10	86.40	82.80	80.50	78.20	75.50	73.60	26.00
R'Concrete	R'Conc.	100.60	95.70	92.10	87.90	84.00	81.60	78.80	76.80	74.90	72.60	70.90	26.00
EIFS on Masonry	Wood	103.10	97.20	92.80	87.70	82.80	79.70	75.70	72.90	70.70	67.60	65.40	15.00
EIFS on Masonry	Steel	107.00	101.10	96.70	91.60	87.00	84.20	80.70	78.40	76.20	73.40	71.60	23.00
EIFS	Wood	96.40	91.40	87.50	83.10	78.80	75.90	72.50	70.10	68.10	65.40	63.30	15.00
EIFS	Steel	100.70	95.60	91.70	87.20	83.20	80.70	77.60	75.70	73.70	71.30	69.60	23.00

MAIN AREA ADJUSTMENTS

Basement Finish (Offices)	(+)								\$29.00	-	\$43.00	P.S.F.
Sprinkler System	(+)										2.25	P.S.F.
Office Mezzanine	(+)								53.00	-	69.00	P.S.F.
Open Wood Storage Mezzanine	(+)								7.50	-	11.50	P.S.F.
Open Steel Storage Mezzanine	(+)								22.00	-	32.00	P.S.F.
Overhead Door (Manual)	(+)										14.50	P.S.F.S.A.
Overhead Door (Motorized)	(+)										22.00	P.S.F.S.A.
Metal Liner in Metal-Steel Building	(+)										2.70	P.S.F.S.A.
No Exhaust System (Service Area)	(-)										2.60	P.S.F.
No Ceiling Finish (Showroom Area)	(-)										2.25	P.S.F.
No Floor Finish (Showroom Area)	(-)										2.00	P.S.F.
No Air Conditioning (Showroom Area)	(-)										5.60	P.S.F.

OTHER AREA ADJUSTMENTS

Canopy	(+)								12.00	-	18.00	P.S.F.
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Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)

AUTOMOBILE SERVICE BUILDING

Exterior Walls	Framing	5,000	6,000	7,000	8,000	10,000	12,000	15,000	20,000	30,000	40,000	50,000 or Larger
		(Square Feet of Area)										
Metal	Steel	\$39.40	\$37.20	\$36.30	\$35.60	\$35.00	\$34.40	\$33.70	\$33.10	\$31.80	\$31.20	\$30.70
C Blk	Wood	45.00	43.60	42.60	41.80	40.70	40.00	39.30	38.60	37.20	36.60	36.00
C Blk	Steel	50.50	49.10	48.10	47.30	46.20	45.50	44.80	44.10	42.70	42.10	41.50
Brick on Blk	Wood	56.70	53.90	52.00	50.50	48.50	47.10	45.80	44.40	41.70	40.60	39.50
Brick on Blk	Steel	62.20	59.40	57.50	56.00	54.00	52.60	51.30	49.90	47.20	46.10	45.00
Brick on Blk	R'Conc.	64.20	61.50	59.60	58.10	56.10	54.70	53.30	52.00	49.30	48.10	47.10
Conc. Tilt-up	Steel	59.80	57.40	55.60	54.30	52.50	51.20	50.00	48.80	46.30	45.30	44.30
Conc. Tilt-up	R'Conc.	61.90	59.40	57.70	56.40	54.50	53.30	52.00	50.80	48.40	47.30	46.40
R'Concrete	R'Conc.	55.70	53.90	52.70	51.70	50.40	49.50	48.60	47.70	45.90	45.20	44.50
EIFS on Masonry	Wood	54.40	51.90	50.20	48.80	47.00	45.80	44.50	43.30	40.80	39.80	38.90
EIFS on Masonry	Steel	59.90	57.40	55.70	54.30	52.50	51.30	50.00	48.80	46.30	45.30	44.40



4 GRADE
DECORATIVE CONCRETE BLOCK – STEEL FRAME AUTOMOBILE REPAIR SHOP

SPECIFICATIONS – AUTOMOBILE REPAIR SHOPS

These buildings are designed for the sales and service of automobiles and associated equipment (tires, mufflers, transmissions, oil changes, etc.) Buildings in this category include muffler shops, quick lube facilities, etc.

Foundation Reinforced concrete or equivalent.

Basement No basement is base.

Exterior Walls Use proper schedule. Glass store front. 16' high buildings. (Overhead doors must be added for.)

Roof Flat, rubber membrane or equivalent. Metal buildings will have metal panels on steel frame pitched roofs.

Floors 6" reinforced concrete floors. Commercial grade tile in sales area.

Interior Finish Painted interior in service area. Sales area has drywall or equivalent walls and acoustical tile ceiling or equivalent.

Heating & Air Conditioning Service area has vacuum gas or suspended unit heaters. Forced hot air, and air conditioning in sales area.

Plumbing Adequate plumbing.

Wiring Pipe conduit wiring. Good lighting with numerous outlets.

Structural Use proper schedule.



3 GRADE
BRICK/BLOCK-STEEL AUTOMOBILE REPAIR SHOP



4 + 5 GRADE
DECORATIVE CONCRETE BLOCK-STEEL AUTOMOBILE REPAIR SHOP



4 - 5 GRADE
FRAME AUTOMOBILE REPAIR SHOP



5 GRADE
CONCRETE BLOCK-STEEL AUTOMOBILE REPAIR SHOP

AUTOMOBILE REPAIR SHOPS

Exterior Walls	Framing	750	1,000	1,500	2,000	2,500	3,000	4,000	5,000	6,000	8,000	10,000
		or Less										or Larger
(Square Feet of Area)												
Frame	Wood	\$78.10	\$70.50	\$62.30	\$57.80	\$54.60	\$52.50	\$49.80	\$47.60	\$46.60	\$45.30	\$44.50
C Blk	Wood	80.90	73.00	64.40	59.50	56.20	53.90	51.10	48.80	47.70	46.30	45.50
C Blk	Steel	86.40	78.50	69.90	65.00	61.70	59.40	56.60	54.30	53.20	51.80	51.00
Decorative C Blk	Wood	84.00	75.70	66.60	61.40	57.90	55.50	52.60	50.00	48.90	47.40	46.50
Decorative C Blk	Steel	89.50	81.20	72.10	66.90	63.40	61.00	58.10	55.50	54.40	52.90	52.00
EIFS on Masonry	Wood	103.80	93.40	81.10	73.60	69.00	65.90	62.10	58.20	56.50	54.50	53.30
EIFS on Masonry	Steel	109.30	98.90	86.60	79.10	74.50	71.40	67.60	63.70	62.00	60.00	58.80
Brick on Blk	Wood	109.40	98.30	85.10	77.00	72.10	68.80	64.70	60.40	58.70	56.50	55.20
Brick on Blk	Steel	114.90	103.80	90.60	82.50	77.60	74.30	70.20	65.90	64.20	62.00	60.70
Brick on Blk	R'Conc.	117.00	105.80	92.70	84.60	79.60	76.40	72.30	68.00	66.20	64.10	62.80
Conc. Tilt-up	Steel	109.20	98.70	86.50	79.00	74.40	71.40	67.50	63.60	62.00	60.00	58.80
Conc. Tilt-up	R'Conc.	111.30	100.80	88.50	81.10	76.50	73.40	69.60	65.70	64.00	62.00	60.80
R'Concrete	R'Conc.	96.10	87.40	77.50	71.80	68.00	65.50	62.40	59.50	58.20	56.60	55.70
Metal	Steel	76.20	68.30	59.70	54.80	51.50	49.20	46.40	44.10	43.00	41.60	40.80

MAIN AREA ADJUSTMENTS

		Price Range		Typical	
Basement	(+)			\$26.00	P.S.F.
Interior Office (Includes Heating & AC)	(+)	\$36.50	- \$42.50	39.50	P.S.F.
Sprinkler System	(+)	1.50	- 3.00	2.25	P.S.F.
Office Mezzanine	(+)	53.00	- 69.00	61.00	P.S.F.
Open Wood Storage Mezzanine	(+)	7.50	- 11.50	9.50	P.S.F.
Open Steel Storage Mezzanine	(+)	22.00	- 32.00	27.00	P.S.F.
Overhead Door (Manual)	(+)	12.00	- 17.00	14.50	P.S.F.S.A.
Overhead Door (Motorized)	(+)	17.50	- 26.50	22.00	P.S.F.S.A.
Metal Liner in Metal-Steel Building	(+)	2.25	- 3.15	2.70	P.S.F.S.A.
Recessed Work Pits	(+)	45.00	- 65.00	55.00	P.S.F.
No Exhaust System	(-)	2.00	- 3.20	2.60	P.S.F.

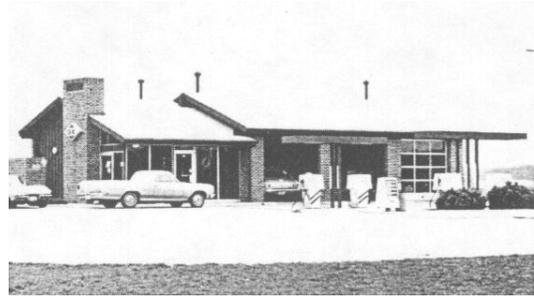
OTHER AREA ADJUSTMENTS

Canopy	(+)	12.00	- 18.00	15.00	P.S.F.
Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)					

STATIONS WITH BAYS



2 GRADE



2 GRADE



3 GRADE



3 GRADE



4 GRADE



4 GRADE



5 GRADE



5 GRADE

NO BAY STATIONS



2 GRADE



3 GRADE



3 GRADE



4 GRADE



4 GRADE



5 GRADE

SERVICE STATIONS
(With Service Bays)

BASE COST

Enameled Steel or Brick	\$86.00	P.S.F.
Concrete Block	64.00	P.S.F.
Add - Enameled Steel on Block Buildings	175.00	P.L.F.

Note: Above cost is for a basic Service Station. The price includes overhead doors and a small sales area with limited finish.

NO BAY STATIONS

Generally constructed of brick, metal panel or concrete block with an abundance of plate glass. Good heating and lighting. Two toilet rooms.

<u>SIZE</u>	<u>BASE COST</u>
100	\$180.00
150	140.00
200	121.00
250	112.00
300	108.00
350	101.00
400	98.00
450	93.00

Note: Structures over 500 S.F should be priced as Convenience Stores.

OTHER ADJUSTMENTS

		<u>Price Range</u>	<u>Typical</u>	
Lighted Canopies -	Wood Frame	\$9.5 - \$14.50	\$12.00	P.S.F.
	Steel	16.0 - 24.00	20.00	P.S.F.
	Concrete	17.0 - 25.00	21.00	P.S.F.

Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)

ACCRUED DEPRECIATION GUIDE FOR SERVICE STATIONS

<u>Age</u>	<u>Percent</u>	<u>Age</u>	<u>Percent</u>
1	5	9	28
2	8	10	31
3	11	11	34
4	14	12	37
5	17	13	40
6	20	14	43
7	23	15	46
8	25	16	50
		Over 16 years old is by observation.	

Note: This service station depreciation guide includes physical deterioration and functional obsolescence. Any station having received modernization should be depreciated by observation. Generally such face liftings are designed more to remove obsolescence than to correct a physical deficiency.



4 GRADE
METAL-FRAME CAR WASH BUILDING

SPECIFICATIONS – CAR WASH

Foundation Reinforced concrete footings and foundation walls. (None for pole buildings.)

Exterior Walls Use proper schedule.

Roof Flat, rubber membrane roofing. Pitched roofs will have asphalt shingles. (Deck varies with construction.)
Metal buildings have metal roof.

Floor Concrete floor with floor drainage system.

Interior Finish Painted interior, concrete block partitions or equivalent. Approximately 10% of full service type have interior office and sales area.

Heating In-floor hot water heat.

Lighting Pipe conduit wiring, minimal lighting fixtures, power wiring for equipment.

Plumbing Service station type and self service type include rough plumbing only. Toilet rooms and hot water tank included in full service type.



4
EIFS ON MASONRY CAR WASH BUILDING
(FULL SERVICE TYPE)



3
BRK/BLOCK-STL CAR WASH BUILDING
(FULL SERVICE TYPE)



4
DECORATIVE C'BLK-STL CAR WASH BLDG
(DRIVE-THRU TYPE)



3
EIFS ON MASONRY CAR WASH BLDG
(DRIVE-THRU TYPE)



5
C'BLK-FRAME CAR WASH BUILDING
(SELF-SERVICE TYPE)



3
BRICK-FRAME CAR WASH BLDG
(SELF-SERVICE TYPE)

CAR WASH

FULL SERVICE TYPE

		2,000	2,500	3,000	4,000	5,000	7,500	10,000	12,500	15,000 or Larger
Exterior Walls	Framing	(Square Feet of Area)								
Metal	Wood	\$65.90	\$63.60	\$59.60	\$56.80	\$53.20	\$49.50	\$48.40	\$47.80	\$47.30
Metal	Steel	75.20	72.60	67.90	64.60	60.40	56.00	54.80	54.00	53.50
C Blk	Wood	76.70	74.20	69.50	66.30	62.10	57.80	56.60	55.80	55.30
C Blk	Steel	82.20	79.70	75.00	71.80	67.60	63.30	62.10	61.30	60.80
Decorative C Blk	Wood	78.70	76.00	71.10	67.70	63.30	58.80	57.50	56.70	56.20
Decorative C Blk	Steel	84.20	81.50	76.60	73.20	68.80	64.30	63.00	62.20	61.70
Decorative C Blk	R'Conc.	86.20	83.60	78.70	75.30	70.90	66.30	65.00	64.30	63.80
Brick	Wood	95.00	91.60	84.60	80.00	73.60	67.10	65.30	64.20	63.50
Brick	Steel	100.50	97.10	90.10	85.50	79.10	72.60	70.80	69.70	69.00
Brick	R'Conc.	102.60	99.10	92.20	87.50	81.20	74.60	72.80	71.70	71.00
Conc. Tilt-up	Steel	96.70	93.50	87.00	82.60	76.70	70.70	69.00	67.90	67.30
Conc. Tilt-up	R'Conc.	98.80	95.50	89.00	84.70	78.80	72.70	71.00	70.00	69.30
EIFS on Masonry	Wood	91.30	88.00	81.60	77.20	71.30	65.20	63.50	62.50	61.80
EIFS on Masonry	Steel	96.80	93.50	87.10	82.70	76.80	70.70	69.00	68.00	67.30

MAIN AREA ADJUSTMENTS

Overhead Door (Manual)	(+)	\$14.50	P.S.F.S.A.
Overhead Door (Motorized)	(+)	22.00	P.S.F.S.A.
Motorized Bi-Fold Door	(+)	21.50	P.S.F.S.A.
No In-Floor Heat	(-)	5.50	P.S.F.
Add for Suspended Gas Unit Heat	(+)	1.80	P.S.F.
No interior Office or Lounge	(-)	4.00	P.S.F.
No Toilet Rooms	(-)	2,600.00	Flat

DRIVE-THRU CAR WASH (Service Station Type)

		500	600	750	1,000	1,250	1,500 or Larger
Exterior Walls	Framing	(Square Feet of Area)					
Metal	Steel	\$110.40	\$99.70	\$88.90	\$83.50	\$76.60	\$77.80
C Blk	Wood	109.30	98.60	87.90	82.50	75.70	76.80
C Blk	Steel	110.10	99.40	88.70	83.30	76.50	77.60
Decorative C Blk	Wood	113.20	102.00	90.90	85.10	77.90	79.00
Decorative C Blk	Steel	114.00	102.80	91.70	85.90	78.70	79.80
Decorative C Blk	R'Conc.	116.20	105.10	93.90	88.20	80.90	82.00
Brick	Wood	145.80	130.50	115.20	106.90	96.60	96.60
Brick	Steel	146.60	131.30	116.00	107.70	97.40	97.40
Brick	R'Conc.	148.90	133.60	118.30	109.90	99.60	99.60
Conc. Tilt-up	Steel	139.00	124.70	110.40	102.60	93.00	93.30
Conc. Tilt-up	R'Conc.	141.30	126.90	112.60	104.90	95.30	95.50
EIFS on Masonry	Wood	138.40	124.00	109.70	101.90	92.30	92.60
EIFS on Masonry	Steel	139.20	124.80	110.50	102.70	93.10	93.40

MAIN AREA ADJUSTMENTS

Overhead Door (Manual)	(+)	\$14.50	P.S.F.S.A.
Overhead Door (Motorized)	(+)	22.00	P.S.F.S.A.
Motorized Bi-Fold Door	(+)	21.50	P.S.F.S.A.
No In-Floor Heat	(-)	5.50	P.S.F.
Add for Suspended Gas Unit Heat	(+)	1.80	P.S.F.

CAR WASH (Continued)

SELF-SERVICE TYPE

		<u>750</u>	<u>1,200</u>	<u>1,750</u>	<u>2,250</u>	<u>3,000</u>	<u>4,000</u>	<u>5,000</u> or Larger
Exterior Walls	Framing							
				(Square Feet of Area)				
Metal	Pole	\$59.90	\$55.20	\$51.20	\$49.20	\$46.90	\$45.70	\$44.90
Metal	Wood	66.70	60.60	55.90	53.50	50.90	49.30	48.40
Metal	Steel	77.00	69.60	64.20	61.50	58.60	56.60	55.50
C Blk	Wood	76.30	68.70	63.30	60.50	57.60	55.60	54.50
C Blk	Steel	77.10	69.50	64.10	61.30	58.40	56.40	55.30
Decorative C Blk	Wood	78.70	70.60	64.90	62.00	59.00	56.90	55.70
Decorative C Blk	Steel	79.50	71.40	65.70	62.80	59.80	57.70	56.50
Decorative C Blk	R'Conc.	81.80	73.70	68.00	65.10	62.10	59.90	58.80
Brick	Wood	98.90	86.60	78.80	74.90	70.90	67.70	66.10
Brick	Steel	99.70	87.40	79.60	75.70	71.70	68.50	66.90
Brick	R'Conc.	101.90	89.70	81.80	77.90	74.00	70.70	69.10
Conc. Tilt-up	Steel	94.70	83.50	76.20	72.50	68.80	65.80	64.40
Conc. Tilt-up	R'Conc.	97.00	85.80	78.50	74.80	71.10	68.10	66.60
EIFS on Masonry	Steel	94.90	83.60	76.30	72.60	68.90	65.90	64.40

Note: Deduct one whole grade (4 grade to a 5 grade, etc.) for structures with open bays.

MAIN AREA ADJUSTMENTS

Overhead Door (Manual)	(+)						\$14.50	P.S.F.S.A.
Overhead Door (Motorized)	(+)						22.00	P.S.F.S.A.
No In-Floor Heat	(-)						5.50	P.S.F.
Add for Suspended Gas Unit Heat	(+)						1.80	P.S.F.

OTHER AREA ADJUSTMENTS

Canopy	(+)				\$16.00	-	32.00	P.S.F.
Exterior Wash Floor	(+)				6.00	-	8.00	P.S.F.
Vacuum Station	(+)				1,500.00		2,500.00	Each

Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)

EQUIPMENT - Continuous Flow Conveyor Type

	<u>30' Long</u>	<u>50' Long</u>	<u>75' Long</u>	<u>100' Long</u>	<u>125' Long</u>	<u>150' Long</u>	<u>Add for Dryer</u>
Low	\$55,000	\$95,000	\$135,000	\$164,000	\$195,000	\$230,000	\$18,000
Average	82,000	125,000	175,000	212,000	247,500	290,000	25,000
High	109,000	155,000	215,000	260,000	300,000	350,000	32,000

EQUIPMENT - Service Station Automatic Wash Type

<u>Brush Type</u>	<u>Touchless</u>	<u>Add for Dryer</u>
\$80,000	\$100,000	\$20,000

EQUIPMENT - Hand Operated Self-Service Type

<u>1 Bay</u>	<u>2 Bay</u>	<u>3 Bay</u>	<u>4 Bay</u>	<u>5 Bay</u>	<u>6 Bay</u>	<u>Each Additional Bay</u>
\$25,000	\$37,500	\$50,000	\$62,500	\$75,000	\$87,500	\$12,500

Car wash equipment may not be assessable pursuant to Iowa Code section 427A.1(6).

Depreciation: This type of property usually depreciates at a faster than normal rate. The following guides should be used unless extensive remodeling has occurred.

Structure	2½% - 3½%	per year to 65%
Equipment (Continuous Flow Type)	8% - 12%	per year to 70%
Equipment (Service Station Type)	18% - 22%	per year to 70%
Equipment (Hand Operated Type)	5% - 7%	per year to 70%



4 GRADE
CONCRETE BLOCK – STEEL FRAME WAREHOUSE BUILDING

SPECIFICATIONS – WAREHOUSE BUILDINGS

Foundation Reinforced concrete or equivalent.

Basement No basement is base.

Exterior Walls Use proper schedule, 16' high first floor, 12' high uppers.

Roof Rubber membrane roofing or equivalent. (Roof deck varies with type of structure.)

Floors 6" reinforced concrete at grade. Uppers (and buildings with basement) will vary with type of structure.

Floor Coverings No covering is base.

Interior Finish No interior finish is base. Minimal cheap partitioning, if any.

Heating Minimal perimeter type heating or suspended unit heaters.

Plumbing Minimum plumbing.

Wiring Flexible cable or equivalent. Adequate lighting fixtures.

Structural Use proper schedule.



3 GRADE
CONCRETE BLOCK WAREHOUSE BUILDING



5 GRADE
CONCRETE BLOCK WAREHOUSE BUILDING

WAREHOUSE BUILDINGS

Exterior Walls	Framing	1,500	2,000	2,500	3,000	4,000	5,000	7,000	10,000	15,000	20,000	25,000	30,000	40,000	50,000	75,000	100,000	150,000	200,000	Add for	Height
		or Less	(Square Feet of Area)																		
Frame	Wood	\$47.50	\$44.50	\$42.60	\$41.50	\$37.90	\$35.70	\$33.60	\$31.50	\$30.30	\$29.40	\$29.00	\$28.50	\$27.90	\$27.50	\$27.00	\$26.70	\$26.40	\$26.20	\$15.00	\$0.58
Uppers		26.30	24.60	23.50	22.80	20.80	19.50	18.40	17.10	16.40	15.80	15.50	15.30	14.90	14.70	14.30	14.10	13.90	13.80		0.58
C Blk or Tile	Wood	51.00	47.80	45.60	44.40	40.20	37.80	35.30	32.80	31.40	30.40	29.80	29.30	28.60	28.20	27.40	27.10	26.70	26.60	15.00	0.60
Uppers		26.90	25.10	24.00	23.30	21.10	19.90	18.60	17.30	16.60	16.00	15.70	15.40	15.00	14.80	14.40	14.20	14.00	13.90		0.60
C Blk or Tile	Steel	56.50	53.30	51.10	49.90	45.70	43.30	40.80	38.30	36.90	35.90	35.30	34.80	34.10	33.70	32.90	32.60	32.20	32.10	23.00	1.07
Uppers		39.60	36.70	34.90	33.70	31.00	29.30	27.70	26.10	25.40	24.60	24.10	23.90	23.40	23.20	22.70	22.50	22.20	22.10		1.07
Brick on Blk	Wood	71.80	66.60	63.20	61.20	53.80	49.40	45.20	40.60	37.90	35.90	34.90	33.80	32.50	31.70	30.30	29.60	28.90	28.60	15.00	1.01
Uppers		39.90	37.00	35.00	33.90	29.70	27.20	24.80	22.20	20.70	19.50	18.80	18.30	17.40	17.00	16.20	15.80	15.40	15.10		1.01
Brick on Blk	Steel	77.30	72.10	68.70	66.70	59.30	54.90	50.70	46.10	43.40	41.40	40.40	39.30	38.00	37.20	35.80	35.10	34.40	34.10	23.00	1.48
Uppers		52.70	48.60	45.90	44.30	39.50	36.70	33.90	31.00	29.50	28.10	27.30	26.80	25.80	25.40	24.50	24.10	23.60	23.40		1.48
Brick on Blk	R'Conc.	79.30	74.20	70.80	68.80	61.40	57.00	52.70	48.10	45.40	43.50	42.50	41.40	40.00	39.20	37.90	37.20	36.50	36.20	26.00	1.46
Uppers		54.80	51.10	48.60	47.10	42.50	39.80	37.10	34.30	32.80	31.40	30.70	30.20	29.20	28.80	27.90	27.50	27.00	26.80		1.46
R'Concrete	R'Conc.	64.20	60.40	57.90	56.50	51.50	48.50	45.50	42.50	40.70	39.40	38.80	38.10	37.20	36.60	35.80	35.30	34.90	34.70	26.00	1.17
Uppers		45.60	42.70	40.80	39.60	36.50	34.60	32.70	30.80	29.90	28.90	28.50	28.10	27.50	27.20	26.70	26.40	26.10	25.90		1.17
Conc. Tilt-up	Steel	73.20	68.40	65.20	63.40	56.60	52.60	48.70	44.50	42.10	40.30	39.40	38.40	37.20	36.50	35.20	34.60	34.00	33.70	23.00	1.43
Uppers		51.00	47.10	44.50	43.00	38.50	35.80	33.10	30.40	28.90	27.60	26.90	26.40	25.50	25.10	24.30	23.90	23.40	23.20		1.43
Conc. Tilt-up	R'Conc.	75.20	70.40	67.30	65.40	58.70	54.60	50.80	46.60	44.10	42.40	41.40	40.50	39.20	38.50	37.30	36.70	36.10	35.80	26.00	1.41
Uppers		53.20	49.50	47.20	45.80	41.40	38.80	36.30	33.60	32.20	31.00	30.30	29.80	28.90	28.50	27.70	27.30	26.90	26.60		1.41

Base prices are based on 16' high first floors and 12' high uppers. Add/deduct for each 1' variation from base height.

MAIN AREA ADJUSTMENTS

		Price Range		Typical	
Dock Level Floor	(+)	\$1.80	- \$2.80	\$2.30	P.S.F.
Sprinkler System	(+)	1.50	- 3.00	2.25	P.S.F.
No Plumbing	(-)			0.75	P.S.F.
No Heating	(-)			1.80	P.S.F.
Internal Office (with Heating Only)	(+)	31.00	- 37.00	34.00	P.S.F.
Internal Office (with Heating & Air Cond.)	(+)	36.50	- 42.50	39.50	P.S.F.
External Office	(+)	75.00	- 105.00	90.00	P.S.F.
Open Wood Storage Mezzanine	(+)	7.50	- 11.50	9.50	P.S.F.
Open Steel Storage Mezzanine	(+)	22.00	- 32.00	27.00	P.S.F.
Office Mezzanine	(+)	53.00	- 69.00	61.00	P.S.F.
Overhead Doors (Manual)	(+)	12.00	- 17.00	14.50	P.S.F.S.A.
Overhead Doors (Motorized)	(+)	17.50	- 26.50	22.00	P.S.F.S.A.
Elevators	(See "Analyzed Unit Cost")				

OTHER AREA ADJUSTMENTS

Loading Docks	(+)	13.00	- 19.50	16.25	P.S.F.
Overhead Dock Door Seals	(+)	850.00	- 1,250.00	1,050.00	Each
Automatic Dock Levelers	(See "Analyzed Unit Cost")				
Paving & Yard Lighting	(See "Commercial and Industrial Schedule Short Form" — Page 5-13)				



4 GRADE
METAL-STEEL FRAME TRANSIT WAREHOUSE

SPECIFICATIONS – TRANSIT WAREHOUSE BUILDINGS

These structures are designed as long and narrow warehouse structures. These dock level facilities will have numerous overhead doors on each side.

Foundation Reinforced concrete or equivalent.

Basement No basement is base.

Exterior Walls Use proper schedule, 12' high sidewalls.

Roof Flat - rubber membrane or equivalent, pitched roofs with asphalt shingles. (Roof deck varies with type of structure.) Metal buildings will have a pitched metal roof.

Floors 6" reinforced concrete at dock level.

Floor Coverings No covering is base.

Interior Finish No interior finish is base. Minimal cheap partitioning, if any.

Heating Vacuum gas radiant heat or equivalent.

Plumbing Minimum plumbing.

Wiring Flexible cable or equivalent. Adequate lighting fixtures.

Structural Use proper schedule.

TRANSIT WAREHOUSE BUILDINGS

Exterior Walls	Framing	3,000	4,000	5,000	6,000	7,500	10,000	12,500	15,000	Add for
		or Less								
		(Square Feet of Area)								
Frame	Wood	\$43.00	\$39.40	\$37.80	\$36.80	\$36.30	\$35.30	\$35.00	\$34.70	\$15.00
C Blk or Tile	Wood	45.70	41.70	39.70	38.60	38.00	36.90	36.50	36.20	15.00
C Blk or Tile	Steel	51.20	47.20	45.20	44.10	43.50	42.40	42.00	41.70	23.00
Brick on Blk	Wood	57.70	51.30	48.00	46.40	45.30	43.80	43.10	42.60	15.00
Brick on Blk	Steel	63.20	56.80	53.50	51.90	50.80	49.30	48.60	48.10	23.00
Brick on Blk	R'Conc.	65.20	58.90	55.50	54.00	52.90	51.30	50.60	50.20	26.00
R'Concrete	R'Conc.	56.80	52.10	49.70	48.50	47.70	46.40	46.00	45.70	26.00
Conc. Tilt-up	Steel	61.60	55.60	52.40	50.90	49.90	48.40	47.70	47.30	23.00
Conc. Tilt-up	R'Conc.	63.70	57.60	54.50	53.00	51.90	50.40	49.80	49.40	26.00
Metal	Steel	39.50	35.70	34.00	32.90	32.30	31.30	30.90	30.70	23.00

MAIN AREA ADJUSTMENTS

		Price Range		Typical	
Sprinkler System	(+)	\$1.50	- \$3.00	\$2.25	P.S.F.
No Plumbing	(-)			0.75	P.S.F.
No Heating	(-)			2.25	P.S.F.
Internal Office (with Heating Only)	(+)	31.00	- 37.00	34.00	P.S.F.
Internal Office (with Heating & Air Cond.)	(+)	36.50	- 42.50	39.50	P.S.F.
External Office	(+)	75.00	- 105.00	90.00	P.S.F.
Open Wood Storage Mezzanine	(+)	7.50	- 11.50	9.50	P.S.F.
Open Steel Storage Mezzanine	(+)	22.00	- 32.00	27.00	P.S.F.
Office Mezzanine	(+)	53.00	- 69.00	61.00	P.S.F.
Overhead Doors (Manual)	(+)	12.00	- 17.00	14.50	P.S.F.S.A.
Overhead Doors (Motorized)	(+)	17.50	- 26.50	22.00	P.S.F.S.A.

OTHER AREA ADJUSTMENTS

Loading Docks	(+)	13.00	- 19.50	16.25	P.S.F.
Overhead Dock Door Seals	(+)	850.00	- 1,250.00	1,050.00	Each
Automatic Dock Levelers	(See "Analyzed Unit Cost")				

Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)



4 GRADE
METAL-LIGHT STEEL FRAME MINI-STORAGE BUILDING

SPECIFICATIONS – MINI-STORAGE BUILDING

Foundation None (floating slab).

Exterior Walls Use proper schedule. 9' high side walls.

Roof Roof deck varies, condensation insulation included.

Floors 4" concrete with wire reinforcing.

Interior Finish None (see Main Area Adjustments to add for partitioning).

Heating & Air Conditioning None.

Plumbing None.

Electrical None.

Structural Light framing only (load bearing exterior walls).



3 GRADE
REINFORCED CONCRETE MINI-STORAGE BUILDING



4 GRADE
METAL-POLE MINI-STORAGE BUILDING

MINI-STORAGE BUILDINGS

Exterior Walls	Framing	1,000	1,500	2,000	2,500	3,000	4,000	5,000	6,000	8,000	10,000 or Larger	Height Adjustment
		(Square Feet of Area)										
Metal	Pole	\$11.20	\$10.90	\$10.70	\$10.50	\$10.30	\$9.80	\$9.60	\$9.50	\$9.40	\$9.40	\$0.24
Metal	Light Stl	14.90	14.50	14.20	13.90	13.60	12.90	12.60	12.40	12.20	12.20	0.37
Frame w/Asph Shingle Roof	Wood	16.30	15.70	15.40	15.00	14.60	13.70	13.30	13.00	12.90	12.80	0.47
Frame w/Metal/ Frame Roof	Wood	14.10	13.50	13.20	12.80	12.40	11.50	11.10	10.80	10.70	10.60	0.47
C Blk w/Asph Shingle Roof	Wood	17.30	16.70	16.30	15.80	15.30	14.20	13.80	13.50	13.30	13.20	0.56
C Blk w/Metal/ Frame Roof	Wood	15.10	14.50	14.10	13.60	13.10	12.00	11.60	11.30	11.10	11.00	0.56
R'Concrete	Steel	23.40	22.50	22.10	21.30	20.60	19.20	18.60	18.10	17.90	17.80	0.76
R'Concrete	R'Conc.	25.30	24.40	24.00	23.20	22.50	21.10	20.50	20.00	19.80	19.70	0.76
Brick	Wood	26.20	24.70	23.90	22.60	21.60	19.20	18.20	17.50	17.10	16.90	1.25
Brick	Steel	29.60	28.10	27.40	26.10	25.00	22.70	21.70	20.90	20.60	20.30	1.25
Brick	R'Conc.	31.50	30.00	29.30	28.00	26.90	24.60	23.60	22.80	22.50	22.20	1.25

Base prices are based on 9' high structures. Add/deduct for each 1' variation from base height.

MAIN AREA ADJUSTMENTS

Add for Partitioning			
Plywood/Wood Stud	(+)		\$17.00 P.L.F.
Metal	(+)		25.00 P.L.F.
Wire/Wood Stud	(+)		14.50 P.L.F.
4" Concrete Block	(+)		47.70 P.L.F.
Add for Roll Doors -			
25 S.F.S.A. or Less	(+)		16.00 P.S.F.S.A.
26-50 S.F.S.A.	(+)		12.25 P.S.F.S.A.
51 S.F.S.A. Or More	(+)		8.75 P.S.F.S.A.
Add for Electricity	(+)		1.50 P.S.F.
Add for Exterior Lighting Only	(+)		0.50 P.S.F.
Add for Suspended Unit Space Heat	(+)		1.80 P.S.F.

GRADING GUIDE

3 Grade - Building with heavy gauge siding and roof, high quality materials and workmanship or buildings with a 4' foundation.

4 Grade - Average quality materials and workmanship. No 4' foundation.

5 Grade - Buildings with light gauge siding and roof, low quality materials and workmanship.

COMMERCIAL HOOP STRUCTURES

- Walls & Roof - Translucent multi fabric cover.
- Framing - Galvanized tube truss system.
- Foundation - None (pony wall prices include a trench foundation).
- Insulation - None.
- Floor - None.
- Heating - None.
- Plumbing - None.
- Electrical - None.
- Openings - One set of sliding doors.



S.F. of Bldg.	Width							
	Price Per Square Foot							
	Single Pipe Truss			Double Pipe Truss				
	35'-37'	42'	50'-60'	70'-80'	90'-100'	110'-120'	130'-140'	
1,000	\$4.94	—	—	—	—	—	—	
1,250	4.80	\$6.17	—	—	—	—	—	
1,500	4.71	6.00	\$7.02	—	—	—	—	
1,750	4.63	5.85	6.84	—	—	—	—	
2,000	4.58	5.75	6.72	\$7.89	—	—	—	
2,250	4.53	5.67	6.63	7.79	—	—	—	
2,500	4.49	5.63	6.57	7.73	—	—	—	
2,750	4.44	5.58	6.53	7.67	—	—	—	
3,000	4.41	5.55	6.50	7.62	—	—	—	
3,500	4.37	5.49	6.44	7.55	—	—	—	
4,000	4.35	5.45	6.38	7.49	—	—	—	
5,000	4.35	5.37	6.29	7.38	—	—	—	
6,000	4.35	5.31	6.21	7.29	—	—	—	
7,000	4.35	5.27	6.17	7.23	—	—	—	
8,000	4.35	5.25	6.14	7.20	\$11.53	—	—	
9,000	4.35	5.24	6.12	7.17	11.38	\$11.98	—	
10,000	—	5.22	6.11	7.16	11.23	11.82	\$12.60	
12,000	—	—	6.09	7.14	11.08	11.66	12.42	
15,000	—	—	6.08	7.13	10.93	11.51	12.25	
20,000	—	—	6.08	7.12	10.79	11.36	12.08	
25,000	—	—	—	7.11	10.65	11.21	11.91	
30,000	—	—	—	7.11	10.51	11.06	11.74	
40,000	—	—	—	—	10.21	10.75	11.58	
50,000	—	—	—	—	9.92	10.44	11.42	
60,000	—	—	—	—	9.61	10.12	11.26	
Add for enclosed ends (per end)	990	1,300	1,600	2,200	2,800	4,600	6,360	

ADJUSTMENT TO BASE

4" Concrete Floor	(+)	\$3.85	P.S.F.
6" Concrete Floor	(+)	4.70	P.S.F.
Electric	(+)	0.45	P.S.F.
Water	(+)	0.40	P.S.F.
Metal or Wood/Pole Pony Wall, 4' high	(+)	23.75	P.L.F.
Metal or Wood/Pole Pony Wall, 6' high	(+)	34.00	P.L.F.
Metal or Wood/Pole Pony Wall, 8' high	(+)	44.00	P.L.F.
Reinforced Concrete Pony Wall, 4' high	(+)	52.00	P.L.F.
Reinforced Concrete Pony Wall, 6' high	(+)	75.60	P.L.F.
Reinforced Concrete Pony Wall, 8' high	(+)	98.80	P.L.F.
Overhead Door (Manual)	(+)	14.50	P.S.F.S.A.
Overhead Door (Motorized)	(+)	22.00	P.S.F.S.A.
Entrance Door	(+)	\$500.00 - 700.00	Each



4 GRADE
CONCRETE BLOCK – STEEL FRAME LIGHT MANUFACTURING BUILDING

SPECIFICATIONS – LIGHT MANUFACTURING BUILDINGS

This schedule is to be used only on light, independent type machine shops, fabricating shops, etc.

Foundation Reinforced concrete or equivalent.

Basement No basement is base.

Exterior Walls Use proper schedule, 16' high first floor, 12' high uppers.

Roof Rubber membrane roofing or equivalent. (Roof deck varies with type of structure.)

Floors 6" reinforced concrete at grade. Uppers (and buildings with basement) vary by structure.

Floor Coverings No covering is base.

Interior Finish No interior finish is base. Minimal cheap partitioning, if any.

Heating Adequate heating.

Plumbing Adequate plumbing.

Wiring Pipe conduit wiring with metal halide light fixtures or equivalent.

Structural Use proper schedule.



3 GRADE
CONCRETE BLOCK-STEEL LIGHT MANUFACTURING BUILDING



5 GRADE
CONCRETE BLOCK-FRAME LIGHT MANUFACTURING BUILDING

LIGHT MANUFACTURING BUILDINGS

Exterior Walls	Framing	1,500	2,000	2,500	3,000	4,000	5,000	7,000	10,000	15,000	20,000	25,000	30,000	40,000	50,000	75,000	100,000	150,000	200,000	Add for	Height
		or Less																			Bsmt
C Blk or Tile	Wood	\$55.50	\$51.90	\$49.50	\$48.10	\$43.70	\$41.10	\$38.90	\$36.60	\$35.20	\$34.20	\$33.60	\$33.00	\$32.30	\$31.90	\$31.20	\$30.80	\$30.50	\$30.30	\$15.00	\$0.60
Uppers		32.70	30.00	28.40	27.30	24.70	23.40	22.20	20.90	20.20	19.50	19.20	18.90	18.50	18.30	17.90	17.70	17.50	17.40		0.60
C Blk or Tile	Steel	61.00	57.40	55.00	53.60	49.20	46.60	44.40	42.10	40.70	39.70	39.10	38.50	37.80	37.40	36.70	36.30	36.00	35.80	23.00	1.07
Uppers		44.70	41.10	38.80	37.40	34.30	32.70	31.10	29.50	28.80	28.00	27.60	27.40	26.90	26.60	26.20	26.00	25.70	25.60		1.07
Brick	Wood	76.30	70.70	67.10	64.90	57.30	52.80	48.70	44.40	41.70	39.70	38.70	37.60	36.20	35.40	34.00	33.40	32.70	32.30	15.00	1.01
Uppers		45.70	41.90	39.40	37.90	33.30	30.80	28.40	25.80	24.20	23.00	22.40	21.80	21.00	20.50	19.70	19.30	18.90	18.70		1.01
Brick	Steel	81.80	76.20	72.60	70.40	62.80	58.30	54.20	49.90	47.20	45.20	44.20	43.10	41.70	40.90	39.50	38.90	38.20	37.80	23.00	1.48
Uppers		57.80	53.00	49.90	48.00	42.90	40.00	37.30	34.40	32.90	31.50	30.80	30.20	29.30	28.80	28.00	27.50	27.10	26.80		1.48
Brick	R'Conc.	83.80	78.30	74.60	72.50	64.90	60.30	56.30	51.90	49.20	47.20	46.20	45.10	43.80	43.00	41.60	40.90	40.20	39.90	26.00	1.46
Uppers		60.70	56.00	53.00	51.20	46.10	43.40	40.70	37.80	36.30	34.90	34.20	33.70	32.80	32.30	31.40	31.00	30.60	30.30		1.46
R'Concrete	R'Conc.	68.70	64.50	61.80	60.20	54.90	51.80	49.10	46.30	44.50	43.20	42.50	41.80	40.90	40.40	39.50	39.10	38.60	38.40	26.00	1.17
Uppers		51.50	47.60	45.20	43.70	40.10	38.20	36.30	34.40	33.40	32.50	32.00	31.70	31.00	30.70	30.20	29.90	29.60	29.40		1.17
Conc. Tilt-up	Steel	77.60	72.50	69.10	67.10	60.10	55.90	52.30	48.30	45.90	44.10	43.20	42.20	40.90	40.20	39.00	38.40	37.70	37.40	23.00	1.43
Uppers		56.10	51.40	48.50	46.60	41.80	39.10	36.50	33.80	32.40	31.10	30.40	29.90	29.00	28.60	27.70	27.30	26.90	26.70		1.43
Conc. Tilt-up	R'Conc.	79.70	74.50	71.10	69.10	62.20	58.00	54.30	50.40	47.90	46.10	45.20	44.20	43.00	42.30	41.00	40.40	39.80	39.50	26.00	1.41
Uppers		59.00	54.50	51.60	49.80	45.00	42.40	39.90	37.20	35.80	34.50	33.80	33.30	32.40	32.00	31.20	30.80	30.40	30.20		1.41
Frame	Wood	51.90	48.60	46.50	45.20	41.40	39.10	37.20	35.30	34.10	33.20	32.70	32.30	31.70	31.30	30.70	30.40	30.10	29.90	15.00	0.58
Uppers		32.10	29.50	27.90	26.90	24.40	23.10	21.90	20.70	20.00	19.40	19.10	18.80	18.40	18.20	17.80	17.60	17.40	17.30		0.58
2" Enameled Insulate																					
Sandwich Panels	Steel	65.10	61.10	58.40	56.90	51.90	48.90	46.30	43.60	42.00	40.70	40.10	39.40	38.60	38.10	37.20	36.80	36.40	36.20	23.00	1.19
Metal	Steel	49.30	45.80	43.50	42.10	38.00	35.50	32.50	30.90	29.60	28.70	28.20	27.60	27.00	26.60	25.90	25.60	25.30	25.10	23.00	1.09

Base prices are based on 16' high first floors and 12' high uppers. Add/deduct for each 1' variation from base height.

MAIN AREA ADJUSTMENTS

		Price Range		Typical	
Sprinkler System	(+)	\$1.80	- \$2.70	\$2.25	P.S.F.
No Plumbing	(-)			1.70	P.S.F.
No Heating	(-)			2.25	P.S.F.
Overhead Doors (Manual)	(+)	12.00	- 17.00	14.50	P.S.F.S.A.
Overhead Doors (Motorized)	(+)	17.50	- 26.50	22.00	P.S.F.S.A.
Internal Offices (With Heating Only)	(+)	31.00	- 37.00	34.00	P.S.F.
Internal Offices (With Heating & Air Cond.)	(+)	36.50	- 42.50	39.50	P.S.F.
External Offices	(+)	75.00	- 105.00	90.00	P.S.F.
Dock Level Floor	(+)	1.80	- 2.80	2.30	P.S.F.
Open Wood Storage Mezzanine	(+)	7.50	- 11.50	9.50	P.S.F.
Open Steel Storage Mezzanine	(+)	22.00	- 32.00	27.00	P.S.F.
Office Mezzanine	(+)	53.00	- 69.00	61.00	P.S.F.
Add for Metal Liner	(+)	2.25	- 3.15	2.70	P.S.F.S.A.
Elevators	(See "Analyzed Unit Cost")				

OTHER AREA ADJUSTMENTS

Loading Docks	(+)	13.00	- 19.50	16.25	P.S.F.
Overhead Dock Door Seals	(+)	850.00	- 1,250.00	1,050.00	Each
Automatic Dock Levelers	(See "Analyzed Unit Cost")				
Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)					



4 GRADE
CONCRETE BLOCK – STEEL FRAME HEAVY MANUFACTURING BUILDING

SPECIFICATIONS – HEAVY MANUFACTURING BUILDINGS

This schedule varies from light manufacturing in that these buildings will have more electrical service and heavier framing. These structures may also exhibit heavier floor weight loads.

Foundation Reinforced concrete or equivalent.

Basement No basement is base.

Exterior Walls Use proper schedule, 16' high first floor, 12' high uppers.

Roof Rubber membrane roofing or equivalent. (Roof deck varies with type of structure.)

Floors 6" reinforced concrete at grade. Uppers (and buildings with basement) vary by structure.

Floor Coverings No covering is base.

Interior Finish No interior finish is base. Minimal cheap partitioning, if any.

Heating Adequate heating.

Plumbing Adequate plumbing.

Wiring Extensive electrical service, pipe conduit wiring with metal halide light fixtures or equivalent.

Structural Use proper schedule, heavy framing assumed.

HEAVY MANUFACTURING BUILDINGS

Exterior Walls	Framing	1,500	2,000	2,500	3,000	4,000	5,000	7,000	10,000	15,000	20,000	25,000	30,000	40,000	50,000	75,000	100,000	150,000	200,000	Add for	Height
		or Less																			Bsmt
		(Square Feet of Area)																			
C Blk or Tile	Wood	\$64.40	\$60.70	\$58.40	\$56.90	\$52.60	\$49.90	\$47.70	\$45.50	\$44.00	\$43.00	\$42.50	\$41.90	\$41.20	\$40.80	\$40.00	\$39.70	\$39.30	\$39.10	\$15.00	\$0.60
Uppers		41.50	38.90	37.20	36.20	33.60	32.30	31.00	29.70	29.00	28.40	28.00	27.80	27.40	27.10	26.70	26.50	26.30	26.20		0.60
C Blk or Tile	Steel	73.40	69.80	67.40	66.00	61.60	59.00	56.80	54.50	53.10	52.10	51.50	50.90	50.20	49.80	49.10	48.70	48.40	48.20	23.00	1.07
Uppers		57.90	54.10	51.70	50.20	47.00	45.30	43.70	42.00	41.30	40.50	40.10	39.90	39.30	39.10	38.60	38.40	38.10	38.00		1.07
Brick on Blk	Wood	85.10	79.60	75.90	73.80	66.20	61.60	57.60	53.20	50.50	48.50	47.50	46.40	45.10	44.30	42.90	42.20	41.50	41.20	15.00	1.01
Uppers		54.60	50.80	48.30	46.80	42.20	39.60	37.20	34.60	33.10	31.90	31.20	30.60	29.80	29.30	28.50	28.10	27.70	27.50		1.01
Brick on Blk	Steel	94.20	88.60	85.00	82.80	75.20	70.70	66.60	62.30	59.60	57.60	56.60	55.50	54.10	53.30	51.90	51.30	50.60	50.20	23.00	1.48
Uppers		70.90	65.90	62.70	60.80	55.50	52.70	49.80	46.90	45.40	44.00	43.30	42.70	41.80	41.30	40.40	40.00	39.50	39.30		1.48
Brick on Blk	R'Conc.	96.10	90.50	86.90	84.70	77.10	72.60	68.50	64.20	61.50	59.50	58.50	57.40	56.00	55.20	53.80	53.20	52.50	52.10	26.00	1.46
Uppers		72.90	68.30	65.30	63.40	58.40	55.60	52.90	50.10	48.50	47.20	46.50	45.90	45.00	44.60	43.70	43.30	42.80	42.60		1.46
R'Concrete	R'Conc.	80.90	76.80	74.10	72.40	67.20	64.00	61.30	58.50	56.70	55.40	54.80	54.10	53.20	52.60	51.80	51.30	50.90	50.60	26.00	1.17
Uppers		63.70	59.90	57.50	55.90	52.30	50.40	48.50	46.60	45.70	44.70	44.20	43.90	43.30	43.00	42.40	42.10	41.80	41.70		1.17
Conc. Tilt-up	Steel	90.00	84.90	81.50	79.50	72.50	68.30	64.70	60.70	58.30	56.50	55.60	54.60	53.30	52.60	51.40	50.80	50.10	49.80	23.00	1.43
Uppers		69.30	64.40	61.30	59.40	54.50	51.70	49.10	46.30	44.90	43.60	42.80	42.40	41.50	41.00	40.20	39.80	39.30	39.10		1.43
Conc. Tilt-up	R'Conc.	91.90	86.80	83.40	81.40	74.40	70.20	66.60	62.60	60.20	58.40	57.50	56.50	55.20	54.50	53.30	52.70	52.00	51.70	26.00	1.41
Uppers		71.30	66.70	63.90	62.10	57.30	54.70	52.10	49.40	48.00	46.80	46.10	45.60	44.70	44.30	43.50	43.10	42.60	42.40		1.41
Frame	Wood	60.80	57.50	55.30	54.00	50.20	47.90	46.00	44.10	42.90	42.00	41.60	41.10	40.50	40.10	39.50	39.20	38.90	38.80	15.00	0.58
Uppers		41.00	38.40	36.70	35.70	33.20	32.00	30.80	29.50	28.80	28.20	27.90	27.70	27.30	27.00	26.70	26.50	26.30	26.20		0.58
2" Enameled Insulated Sandwich Panels	Steel	77.50	73.50	70.80	69.30	64.30	61.30	58.70	56.00	54.40	53.10	52.50	51.80	51.00	50.50	49.60	49.20	48.80	48.60	23.00	1.19
Metal	Steel	56.10	52.50	50.30	48.90	44.80	42.30	39.30	37.70	36.40	35.40	34.90	34.40	33.70	33.30	32.70	32.40	32.00	31.90	23.00	1.09

Base prices are based on 16' high first floors and 12' high uppers. Add/deduct for each 1' variation from base height.

MAIN AREA ADJUSTMENTS

		Price Range		Typical	
Sprinkler System	(+)	\$1.80	- \$2.70	\$2.25	P.S.F.
No Heating	(-)			4.00	P.S.F.
Overhead Doors (Manual)	(+)	12.00	- 17.00	14.50	P.S.F.S.A.
Overhead Doors (Motorized)	(+)	17.50	- 26.50	22.00	P.S.F.S.A.
Internal Offices (with Heating Only)	(+)	31.00	- 37.00	34.00	P.S.F.
Internal Offices (with Heating & Air Cond.)	(+)	36.50	- 42.50	39.50	P.S.F.
External Offices	(+)	75.00	- 105.00	90.00	P.S.F.
Dock Level Floor	(+)	1.80	- 2.80	2.30	P.S.F.
Open Wood Storage Mezzanine	(+)	7.50	- 11.50	9.50	P.S.F.
Open Steel Storage Mezzanine	(+)	22.00	- 32.00	27.00	P.S.F.
Office Mezzanine	(+)	53.00	- 69.00	61.00	P.S.F.
Add for Metal Liner	(+)	2.25	- 3.15	2.70	P.S.F.S.A.
Elevators	(See "Analyzed Unit Cost")				
Craneways	(See "Analyzed Unit Cost")				

OTHER AREA ADJUSTMENTS

Loading Docks	(+)	13.00	- 19.50	16.25	P.S.F.
Overhead Dock Door Seals	(+)	850.00	- 1,250.00	1,050.00	Each
Automatic Dock Levelers	(See "Analyzed Unit Cost")				

Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)



4 GRADE
REINFORCED CONCRETE – REINFORCED CONCRETE FRAME PARKING STRUCTURE

SPECIFICATIONS - PARKING STRUCTURES

Foundation Heavy reinforced concrete or equivalent.

Basement No basement is base.

Exterior Walls Use proper schedule, partial concrete walls only.

Roof No roof - upper floor will be an open parking area.

Floors Concrete topping on reinforced concrete double “Ts” or hollow core planks.

Floor Coverings No covering is base.

Interior Finish No interior finish is base.

Heating No heat is base.

Plumbing No plumbing is base.

Wiring Pipe conduit wiring with explosion proof incandescent lighting or equivalent.

Structural Use proper schedule.



**3 GRADE
PARKING STRUCTURE**

PARKING STRUCTURES

		<u>7,500</u>	<u>10,000</u>	<u>15,000</u>	<u>20,000</u>	<u>30,000</u>	<u>40,000</u>	<u>50,000</u>
<u>Exterior Walls</u>	<u>Framing</u>	(Square Feet of Area)						
R'Concrete	R'Conc.	\$13.00	\$12.20	\$11.30	\$10.90	\$10.10	\$9.70	\$9.40
Uppers		32.20	31.50	30.80	30.50	30.00	29.70	29.50
R'Concrete	Steel	13.00	12.20	11.30	10.90	10.10	9.70	9.40
Uppers		31.50	30.80	30.10	29.80	29.40	29.00	28.80

MAIN AREA ADJUSTMENTS

		<u>Price Range</u>		<u>Typical</u>	
Sprinkler System	(+)	\$2.00	-	\$3.50	\$2.75 P.S.F.
Plumbing	(+)				0.50 P.S.F.
Office with Air Conditioning	(+)	60.00	-	90.00	75.00 P.S.F.
Overhead Doors (Manual)	(+)	12.00	-	17.50	14.50 P.S.F.S.A.
Overhead Doors (Motorized)	(+)	17.50	-	26.50	22.00 P.S.F.S.A.
Elevators	(See "Analyzed Unit Cost")				
Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)					

Note: Each parking level is counted as one story. Add an additional floor for basement levels.

BASE PRICES
METAL WAREHOUSE TYPE BUILDINGS

Costs in this section are based on a typical metal building used for storage or light manufacturing.

The assessor/appraiser should be aware that basic metal buildings may vary considerably in cost due to such factors as steel gauge and framing density. If the subject building varies considerably in either quality or design, it may be necessary to refer to the "Analyzed Unit Cost" section or appropriate pre-computed section.

Note: Wall, roof and framing cost are based on per square foot of surface area.

	Width			
	18' - 50'	51' - 99'	100' and Over	
Wall, Roof and Framing - Steel Frame	\$8.00	\$7.50	\$7.75	P.S.F.S.A.
Wall, Roof and Framing - Wood Frame	4.25	4.45	4.65	P.S.F.S.A.
Roll Insulation	0.80	0.80	0.80	P.S.F.S.A.
1/2" Rigid Condensation Insulation Board	1.10	1.10	1.10	P.S.F.S.A.
Reinforced Concrete Foundation	46.20	46.20	46.20	P.L.F.
4" Reinforced Concrete Floors at Grade	3.85	3.85	3.85	P.S.F.
6" Reinforced Concrete Floors at Grade	4.70	4.70	4.70	P.S.F.
6" Reinforced Concrete Floors at Dock Level	7.00	7.00	7.00	P.S.F.
Sprinklers	2.25	2.25	2.25	P.S.F.
Heating (Unit Type)	1.80	1.80	1.80	P.S.F.
Vacuum Gas	2.25	2.25	2.25	P.S.F.
Hot Water - In-Floor Heating	5.50	5.50	5.50	P.S.F.
Electric - Warehouse (Lighting Only)	1.50	1.50	1.50	P.S.F.
Electric - Warehouse	2.50	2.50	2.50	P.S.F.
Electric - Light Industrial	5.00	5.00	5.00	P.S.F.
Interior Metal Liner	2.70	2.70	2.70	P.S.F.S.A.
Interior Wood Liner	1.10	1.10	1.10	P.S.F.S.A.
Gutters and Downspouts	5.20	5.20	5.20	P.L.F.
Manual Overhead Door	14.50	14.50	14.50	P.S.F.S.A.
Motor Driven Overhead Door	22.00	22.00	22.00	P.S.F.S.A.
Plumbing	(See "Analyzed Unit Cost")			Per Fixture
Internal Office (All Spans)	31.00	—	37.00	P.S.F.
Internal Office with Central Air (All Spans)	36.50	—	42.50	P.S.F.

MAIN AREA ADJUSTMENTS

Loading Docks	\$13.00	-	\$19.50	P.S.F.
Dock Levelers (See "Analyzed Unit Cost")				
Entrance Doors	500.00	-	700.00	Each
Windows	300.00	-	400.00	Each

OTHER AREA ADJUSTMENTS

Chain Link Fence (See "Analyzed Unit Cost")				
Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)				

EXAMPLE
(50' Width x 100' x 14' High Steel Frame Building)

Walls 300' perimeter x 14' high	\$4,200		
Roof 50' x 100'	5,000		
Insulation	9,200	Surface Feet @ \$8.00 =	\$73,600
Foundation 300' perimeter x 46.20		Surface Feet @ 0.80 =	7,360
6" Floor	4.70		= 13,860
Electrical	2.50		
Heating	1.80		
	9.00	x 5,000 S.F. =	45,000
Two 10' x 14' Manual Overhead Doors		280 Surface Feet @ 14.50 =	4,060
2 Toilet Room + Rough Plumbing + 1 HW Tank		(See "Analyzed Unit Cost")	7,150
300 S.F. Internal Office With Air Conditioning @ \$39.50			= 11,850
TOTAL COST			= 162,880

Note: See following pages for Metal Building Pre-computed Schedules.



METAL WAREHOUSE



GALVANIZED METAL
QUONSET WAREHOUSE



METAL OFFICE BUILDING



METAL OFFICE BUILDING



METAL RETAIL STORE



METAL RETAIL STORE

PRE-COMPUTED
METAL WAREHOUSE BUILDINGS

The following pre-computed schedules for metal warehouse buildings have been incorporated to serve as a guide to the assessor/appraiser. Because of the wide variation in quality and use of metal buildings, it will often be necessary to adjust this schedule to fit the subject property. This schedule is for moderate to light storage with the following specifications:

- Walls & Roof - Average gauge
- Framing - Use proper schedule
- Insulation - Wall and roof insulation
- Foundation - 6" reinforced concrete foundation for steel frame and wood frame. No foundation for pole building.
- Floor - Reinforced concrete at grade
- Heating - Minimal suspended gas unit heaters
- Electrical - Average warehouse electrical
- Openings - One entrance door

For additions and deductions see page 6-116.

		<u>Height</u>						
		<u>Rigid Steel Framed</u>						
Width	10'	12'	14'	16'	18'	20'	*Each Additional 1' in Height	
20'	\$38.70	\$41.30	\$44.00	\$46.60	\$49.20	\$51.90	\$1.82	
40'	28.10	29.40	30.70	32.00	33.30	34.70	1.16	
60'	23.80	24.70	25.50	26.30	27.20	28.00	0.92	
80'	22.20	22.80	23.40	24.10	24.70	25.30	0.81	
100'	21.50	22.00	22.60	23.10	23.60	24.10	0.76	
120'	20.90	21.30	21.70	22.10	22.60	23.00	0.71	
140'	20.40	20.80	21.10	21.50	21.90	22.20	0.68	
160'	20.00	20.40	20.70	21.00	21.30	21.60	0.66	
180'	19.80	20.00	20.30	20.60	20.90	21.20	0.64	
200'	19.50	19.80	20.00	20.30	20.60	20.80	0.63	

		<u>Milled Wood Framed</u>						
Width	10'	12'	14'	16'	18'	20'	*Each Additional 1' in Height	
20'	\$29.30	\$30.80	\$32.30	\$33.90	\$35.40	\$36.90	\$0.95	
40'	21.50	22.20	23.00	23.80	24.50	25.30	0.57	
60'	19.30	19.80	20.30	20.80	21.40	21.90	0.45	
80'	18.00	18.40	18.80	19.20	19.60	20.00	0.39	
100'	17.50	17.80	18.20	18.50	18.80	19.10	0.35	
120'	17.00	17.30	17.50	17.80	18.10	18.40	0.33	
140'	16.60	16.90	17.10	17.30	17.60	17.80	0.31	
160'	16.30	16.60	16.80	17.00	17.20	17.40	0.29	
180'	16.10	16.30	16.50	16.70	16.90	17.00	0.28	
200'	16.00	16.10	16.30	16.50	16.60	16.80	0.27	

		<u>Pole Framed</u>						
Width	10'	12'	14'	16'	18'	20'	*Each Additional 1' in Height	
20'	\$22.40	\$23.90	\$25.40	\$26.90	\$28.40	\$30.00	\$0.95	
40'	18.00	18.80	19.50	20.30	21.10	21.80	0.57	
60'	17.00	17.50	18.00	18.50	19.10	19.60	0.45	
80'	16.30	16.70	17.10	17.40	17.80	18.20	0.39	
100'	16.10	16.40	16.80	17.10	17.40	17.80	0.35	
120'	15.80	16.10	16.40	16.70	16.90	17.20	0.33	
140'	15.60	15.90	16.10	16.30	16.60	16.80	0.31	
160'	15.50	15.70	15.90	16.10	16.30	16.50	0.29	
180'	15.40	15.50	15.70	15.90	16.10	16.30	0.28	
200'	15.30	15.40	15.60	15.80	15.90	16.10	0.27	

*Height adjustment includes additional framing cost of buildings exceeding 20' high.

PRE-COMPUTED
METAL LIGHT INDUSTRIAL BUILDINGS

The following pre-computed schedules for metal light industrial buildings have been incorporated to serve as a guide to the assessor/appraiser. Because of the wide variation in quality and use of metal buildings, it will often be necessary to adjust this schedule to fit the subject property. This schedule is for moderate to light industrial uses with the following specifications:

- Walls & Roof - Average gauge
- Framing - Use proper schedule
- Insulation - Wall and roof insulation
- Foundation - 6" reinforced concrete foundation for steel frame and wood frame. No foundation for pole building.
- Floor - 6" reinforced concrete at grade
- Heating - Vacuum gas heating or equivalent
- Electrical - Average light industrial electrical
- Openings - One entrance door

For additions and deductions see page 6-116.

Height

Rigid Steel Framed

Width	10'	12'	14'	16'	18'	20'	*Each Additional 1' in Height
20'	\$41.60	\$44.30	\$46.90	\$49.60	\$52.20	\$54.80	\$1.82
40'	31.00	32.30	33.60	35.00	36.30	37.60	1.16
60'	26.80	27.60	28.50	29.30	30.10	30.90	0.92
80'	25.10	25.80	26.40	27.00	27.60	28.30	0.81
100'	24.50	25.00	25.50	26.00	26.50	27.00	0.76
120'	23.80	24.20	24.70	25.10	25.50	26.00	0.71
140'	23.30	23.70	24.10	24.40	24.80	25.20	0.68
160'	23.00	23.30	23.60	23.90	24.30	24.60	0.66
180'	22.70	23.00	23.30	23.60	23.80	24.10	0.64
200'	22.50	22.70	23.00	23.30	23.50	23.80	0.63

Milled Wood Framed

Width	10'	12'	14'	16'	18'	20'	*Each Additional 1' in Height
20'	\$32.30	\$33.80	\$35.30	\$36.80	\$38.30	\$39.80	\$0.95
40'	24.40	25.20	26.00	26.70	27.50	28.20	0.57
60'	22.20	22.70	23.30	23.80	24.30	24.80	0.45
80'	20.90	21.30	21.70	22.10	22.50	22.90	0.39
100'	20.50	20.80	21.10	21.40	21.80	22.10	0.35
120'	19.90	20.20	20.50	20.80	21.00	21.30	0.33
140'	19.60	19.80	20.00	20.30	20.50	20.70	0.31
160'	19.30	19.50	19.70	19.90	20.10	20.30	0.29
180'	19.10	19.30	19.50	19.60	19.80	20.00	0.28
200'	18.90	19.10	19.20	19.40	19.60	19.70	0.27

Pole Framed

Width	10'	12'	14'	16'	18'	20'	*Each Additional 1' in Height
20'	\$25.30	\$26.80	\$28.40	\$29.90	\$31.40	\$32.90	\$0.95
40'	21.00	21.70	22.50	23.20	24.00	24.80	0.57
60'	19.90	20.40	21.00	21.50	22.00	22.50	0.45
80'	19.20	19.60	20.00	20.40	20.80	21.20	0.39
100'	19.10	19.40	19.70	20.00	20.40	20.70	0.35
120'	18.80	19.10	19.30	19.60	19.90	20.10	0.33
140'	18.60	18.80	19.10	19.30	19.50	19.80	0.31
160'	18.40	18.60	18.80	19.00	19.30	19.50	0.29
180'	18.30	18.50	18.70	18.90	19.00	19.20	0.28
200'	18.20	18.40	18.60	18.70	18.90	19.00	0.27

*Height adjustment includes additional framing cost of buildings exceeding 20' high.

QUONSET BUILDINGS

- Walls & Roof - Galvanized metal.
- Framing - Light steel or wood.
- Insulation - None.
- Foundation - Reinforced concrete foundation.
- Floor - 6" reinforced concrete at grade
- Heating - None.
- Plumbing - None.
- Electrical - None.
- Openings - One set of sliding doors.

Length	Width				
	30'	40'	50'	60'	70'
30'	\$20.90	—	—	—	—
40'	19.30	\$19.30	—	—	—
50'	18.30	18.20	\$18.40	—	—
60'	17.70	17.50	17.50	\$17.80	—
70'	17.20	16.90	16.90	17.10	\$17.40
80'	16.90	16.50	16.50	16.60	16.80
90'	16.60	16.20	16.10	16.20	16.30
100'	16.40	15.90	15.80	15.80	16.00
120'	16.10	15.60	15.40	15.40	15.40
140'	15.80	15.30	15.10	15.00	15.00
160'	15.70	15.10	14.80	14.70	14.70
180'	—	14.90	14.70	14.50	14.50
200'	—	14.80	14.50	14.40	14.30
220'	—	14.70	14.40	14.20	14.20
240'	—	14.60	14.30	14.10	14.10
260'	—	—	14.20	14.00	13.90
280'	—	—	14.10	14.00	13.90
300' or longer	—	—	14.10	13.90	13.80

MAIN AREA ADJUSTMENTS

Insulation	(+)	\$1.10	P.S.F. of Floor Area
Dirt Floor Only	(-)	4.70	P.S.F.
Heating (Unit Type)	(+)	1.80	P.S.F.
Electrical - Warehouse Type	(+)	2.50	P.S.F.
Light Manufacturing Type	(+)	5.00	P.S.F.
Manual Overhead Doors	(+)	14.50	P.S.F.S.A.
Motorized Overhead Doors	(+)	22.00	P.S.F.S.A.
Entrance Doors	(+)	600.00	Each
Steel Sliding Doors	(+)	900.00	Per Pair
Internal Office	(+)	\$31.00 - 37.00	P.S.F.
Galvanized Metal Liner	(+)	2.40	P.S.F.S.A.
Wood or Compo Interior Liner	(+)	1.10	P.S.F.S.A.

OTHER AREA ADJUSTMENTS

Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)

METAL OFFICE BUILDING

The following is to be used as a guide to metal buildings completely finished into office space with the following specifications:

Walls, roof, foundation, floor & insulation	Same as warehouse, 10' high
Interior finish of exterior walls	Drywall or equivalent
Ceiling	Suspended acoustical panels
Floor covering	50% commercial grade carpet & 50% asphalt tile or equivalent
Partitions	Drywall/wood stud
Lighting	Normal office lighting
Heating and Air Conditioning	Combination F.H.A.
Plumbing	Adequate
Openings	Adequate entry doors, windows - 10' c/c average
Decorative front	Brick, glass, etc.

BASE CONSTRUCTION

Exterior Walls	Framing	Building Width					Add for Bsmt
		20'	40'	60'	80'	100'	
Metal	Steel	\$93.50	\$69.70	\$62.30	\$59.20	\$57.70	\$23.00
Metal	Wood	84.10	63.10	57.70	55.00	53.70	15.00
Metal	Pole	77.20	59.70	55.40	53.30	52.30	N/A

MAIN AREA ADJUSTMENTS

Sprinkler System	(+)	\$2.25	P.S.F.
No Air Conditioning	(-)	5.60	P.S.F.
No Decorative Front	(-)	2%	
No Floor Finish	(-)	2.75	P.S.F.

OTHER AREA ADJUSTMENTS

Canopy	(+)	\$8.00 - 12.00	P.S.F.
Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)			

METAL RETAIL STORE BUILDINGS

Metal buildings used for retail stores are finished in various degrees. Many of these buildings have the front half finished and the rear half is storage area. However, the storage area is usually better constructed than the average "warehouse" having better lighting, heating, etc. This pre-computed schedule is based on this premise.

SPECIFICATIONS

	<u>Storage Area</u>	<u>Finished Area</u>
Walls, roof, foundation, floor & insulation	-----Same as warehouse, 12' high-----	
Interior finish of exterior walls	None	Drywall or panel
Ceiling	Celotex or equivalent	Acoustic panels
Floor Covering	None	Asphalt Tile
Partitions	None	Drywall/wood studs
Lighting	-----Fluorescent-----	
Heating & Air Conditioning	Heating only	Comb. F.H.A. & AC
Plumbing	Adequate	
Openings	Adequate entry doors - Minimal windows	
Decorative front	-----Brick, glass, etc.-----	

<u>Exterior Walls</u>	<u>Framing</u>	<u>Building Width</u>										<u>Add for Bsmt</u>
		<u>20'</u>	<u>40'</u>	<u>60'</u>	<u>80'</u>	<u>100'</u>	<u>120'</u>	<u>140'</u>	<u>160'</u>	<u>180'</u>	<u>200'</u>	
Metal	Steel											
1/4 of Sales Area		\$65.50	\$40.70	\$33.00	\$30.10	\$28.90	\$27.80	\$27.10	\$26.50	\$26.10	\$25.70	\$23.00
1/2 of Sales Area		71.50	46.10	38.20	35.30	34.00	32.90	32.10	31.60	31.10	30.70	23.00
3/4 of Sales Area		77.50	49.30	41.20	38.20	36.80	35.70	34.90	34.30	33.90	33.50	23.00
Full Sales Area		83.80	57.30	48.90	45.80	44.40	43.20	42.30	41.70	41.20	40.80	23.00
Metal	Wood											
1/4 of Sales Area		55.00	33.60	28.10	25.70	24.70	23.80	23.20	22.70	22.30	22.10	15.00
1/2 of Sales Area		61.00	39.00	33.30	30.90	29.80	28.90	28.20	27.80	27.40	27.10	15.00
3/4 of Sales Area		67.00	42.10	36.30	33.80	32.60	31.70	31.00	30.50	30.20	29.80	15.00
Full Sales Area		73.30	50.10	44.00	41.40	40.20	39.10	38.40	37.90	37.50	37.20	15.00
Metal	Pole											
1/4 of Sales Area		48.00	30.10	25.80	24.00	23.30	22.60	22.20	21.80	21.60	21.40	N/A
1/2 of Sales Area		54.00	35.60	31.00	29.20	28.40	27.70	27.30	26.90	26.60	26.40	N/A
3/4 of Sales Area		60.00	38.70	34.00	32.00	31.20	30.50	30.00	29.60	29.40	29.10	N/A
Full Sales Area		66.40	46.70	41.70	39.60	38.80	38.00	37.40	37.00	36.70	36.50	N/A

MAIN AREA ADJUSTMENTS

Sprinkler System	(+)	\$2.25	P.S.F.
No Air Conditioning (Included in Finished Area Only)	(-)	5.60	P.S.F.
No Ceiling Finish (Finished Area Only)	(-)	2.25	P.S.F.
No Floor Finish (Finished Area Only)	(-)	2.00	P.S.F.

OTHER AREA ADJUSTMENTS

Canopy	(+)	\$8.00 - 12.00	P.S.F.
Paving & Yard Lighting (See "Commercial and Industrial Schedule Short Form" — Page 5-13)			

GOLF COURSES

Determining factors for golf course improvement values include the quality and/or quantity of topographic design, watering and drainage systems, fairways, greens and tees. Also of importance are lakes, streams, roads, paths and walkways.

Actual golf course construction costs may vary considerably, even for relatively equivalent courses, due to special problems which may arise because of poor terrain, natural barricades or lack of local expertise.

DESIGN GRADE DESCRIPTIONS

E-10 thru E+200 Grade Courses: These courses will be built to all USGA specifications. These are excellent quality championship courses. The complex contouring and bunkering of both fairways and greens make these courses very attractive, both competitively and aesthetically. These courses will exhibit high slope ratings and a large amount of total course acreage.

1-10 thru 1+10 Grade Courses: These courses are generally found in conjunction with a private club. They resemble an E Grade course in many ways but their landscaping and playing areas will be less lavish and complex.

2-10 thru 2+10 Grade Courses: These courses exhibit far more simplicity than does the 1 Grade or E Grade courses. Generally the terrain is less variable, the tees and greens are smaller, the landscaping, however attractive, is less extreme. These courses will still have bunkers, ponds, etc. but they will be less lavish in design.

3-10 thru 3+10 Grade Courses: These represent the simplest of regulation par 70 or better golf courses. They are relatively flat, lack contour or bunkers and have small tees and greens. The landscaping is appropriately not extensive. These courses are designed for the average or novice golfer. The better quality municipal courses will fall under this category.

4-10 thru 4+10 Grade Courses: These courses exhibit shorter fairways and smaller tees and greens than do regulation courses. Lower quality municipal courses fall into this category. Typically, these courses will have no bunkers, or low quality bunkers, the tees and greens will typically not be elevated.

5-10 thru 5+10 Grade Courses: Par 3 and better quality pitch and put courses are good examples of this grade. These courses are quite simple in design and offer little more than a casual pastime to the not too serious golfer.

6-30 thru 6+10 Grade Courses: Low quality pitch, and put courses fall into this category. These courses are of low quality and design. It is possible for these courses to have sand greens. They lack contour and are rarely attractive to the experienced golfer.

Below is a chart to provide additional assistance in determining the proper grade of golf courses.

<u>Design</u>	<u>E</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Greens/Tees	Excellent	Excellent	Elevated	Sometimes Elevated	At Grade	At Grade	At Grade
Aesthetics	Excellent	Very Good	Good	Average	Simple	Limited	Poor
Sprinkler - Greens	Automatic	Automatic	Automatic	Varies	Varies	Manual	No
Tees	Automatic	Automatic	Automatic	Varies	Manual	Varies	No
Fairway	Automatic	Automatic	Automatic	Varies	Varies	No	No
Bunkers	Excellent	Very Good	Good	Simple	Varies	No	No
Slope Rating (18 Holes)	129 or Greater	127-136	120-130	110-122	85-115	85 or less	Not Rated
Yardage From Champion Tees (18 Holes-Approx. Only)	7,150 or Greater	7,000-7,300	6,750-7,000	6,200-6,800	5,000-6,500	5,000 or less	5,000 or less
Graded Cost Per Hole @ 100% Manual Level	115,500-384,450	93,500-110,550	76,450-90,200	61,600-74,250	49,500-60,500	39,600-48,950	24,750-39,050

Base Cost Per Hole
\$55,000

Base cost is for a 4 grade golf course. The cost for all other golf courses should be determined by applying the appropriate grade multiplier to the base price.

Golf course greens and sprinklers must be replaced periodically and therefore, are entitled to depreciation. Because of the non-depreciable items (fairways, landscaping, etc.) it is recommended that depreciation does not exceed 40%.

MANUFACTURED HOME PARKS

The general procedure for valuing manufactured home parks is to arrive at a cost per space by considering the relative quantity and quality of the following components: grading (normal topographic conditions), street paving, curbs, patios, walks, pads or runners, parking paving, sewer, water, electric systems, etc.

MANUFACTURED HOME PARK GRADE INDICATORS

Grade:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Site Preparation	Excellent	Good +	Good	Fair	Fair	Poor
Conc. or Asph. Street	Yes	Yes	Yes	Yes	Varies	No
Curbs	Yes	Yes	Varies	No	No	No
Patios or Walks	Yes	Yes	Yes	Varies	Varies	No
Parking Aprons	Yes	Yes	Varies	Varies	No	No
Pads or Runners	Runners	Runners	Varies	Pads	Pads	No
Sewage and Water	Excellent	Good +	Good	Fair	Fair	Poor
Underground Utilities	Yes	Yes	Varies	Varies	No	No
Landscaping	Good	Good	Varies	Fair	Fair -	Poor
Accommodations for all size trailers	Yes	Yes	Varies	Varies	No	No

COST PER SPACE

	<u>10</u>	<u>20</u>	<u>30</u>	<u>50</u>	<u>75</u>	<u>100</u>	<u>125</u>	<u>150</u>	<u>200</u>
	(Number of Spaces)								
Base Price									
(4 Grade)	\$7,400	\$7,100	\$7,000	\$6,800	\$6,700	\$6,500	\$6,400	\$6,200	\$6,000

Note: Grades 5 and 6 may also be used for transient recreational facilities.

No sewer - Deduct \$425/space

No water - Deduct \$375/space

All other improvements such as recreation buildings, community buildings, administration buildings, swimming pools, laundry and common bathroom buildings, and fencing should be priced from appropriate schedule.

SPECIFICATIONS - GREENHOUSES

Foundation Concrete or concrete block. Foundation wall extends approximately 2' above ground level.

Walls Glazed glass walls extending 3' to 5' above foundation wall. (Grade 3 greenhouse will usually have aluminum or galvanized steel framing for glass.)

Roof Glazed glass roof, gable (same as walls).

Floor No floor is base.

Heating No heating is base.

Wiring Adequate wiring and lighting.

Plumbing Water service to building is base.

Sprinkler No sprinkler or humidifier is base.

GREENHOUSES

	<u>100</u>	<u>150</u>	<u>200</u>	<u>250</u>	<u>300</u>	<u>400</u>	<u>500</u>	<u>600</u>	<u>750</u>	<u>1,000</u>	<u>1,250</u>	<u>1,500</u>
	(Square Feet of Area)											
GRADE 4	\$35.20	\$33.60	\$32.60	\$31.30	\$30.20	\$27.40	\$24.90	\$24.10	\$23.90	\$21.90	\$21.50	\$21.30
Polyethylene "Hoop Houses"	12.60	12.20	11.70	11.30	10.90	9.90	9.00	8.70	8.60	7.80	7.70	7.50
												100,000
	<u>2,000</u>	<u>2,500</u>	<u>3,000</u>	<u>4,000</u>	<u>6,000</u>	<u>10,000</u>	<u>20,000</u>	<u>30,000</u>	<u>40,000</u>	<u>50,000</u>	<u>75,000</u>	<u>or Larger</u>
	(Square Feet of Area)											
GRADE 4	\$20.00	\$19.60	\$19.10	\$18.90	\$18.30	\$15.40	\$13.60	\$12.80	\$11.90	\$11.00	\$10.20	\$9.40
Polyethylene "Hoop Houses"	7.30	7.10	7.00	6.80	6.50	5.50	4.90	4.60	4.40	3.90	3.60	3.30

Fiberglass Greenhouse or Polycarbonate - use 80% of above cost (not including Hoop Houses).

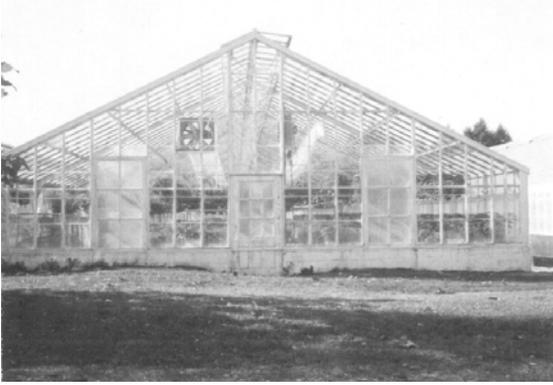
Semi-Circular Structures - use 75% of above cost (not including Hoop Houses).

MAIN AREA ADJUSTMENTS

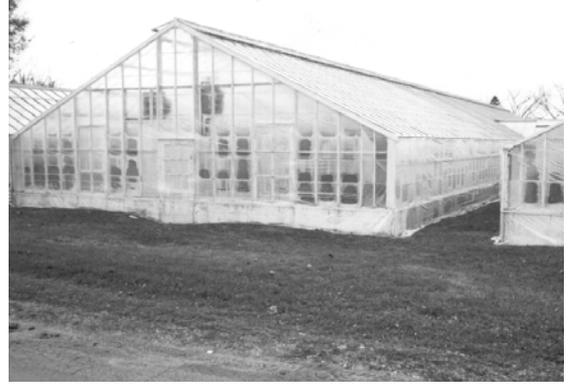
		<u>Grade 4</u>	<u>Hoop Houses</u>
Humidifier	(+)	\$1.50	\$1.25
No Electrical	(-)	1.15	0.70
Hot Water or Steam Heating	(+)	4.00	3.35
Unit Heating	(+)	1.50	1.15
Add for Duct Distribution	(+)	0.90	0.60
Concrete Floor	(+)	3.15	2.80
Asphalt Floor	(+)	2.00	1.55
Built-In Benches	(+)	2.50	2.00
Watering System	(+)	0.25	0.20

Depreciation: Use 2½ to 3½% per year to 65%.

GREENHOUSE PICTURE GUIDE



GRADE 3



GRADE 3



GRADE 4



GRADE 5

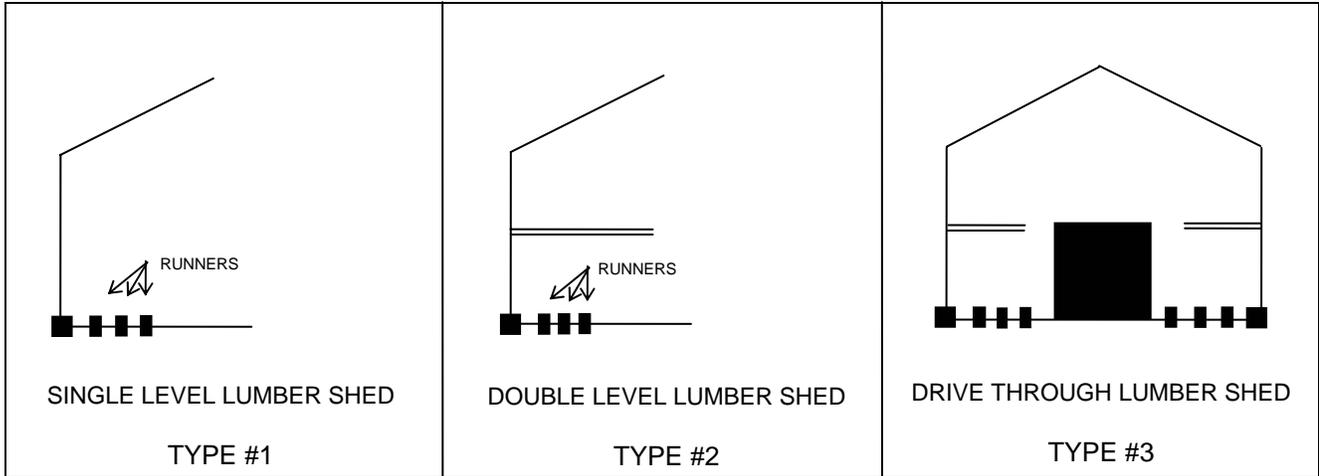


GRADE 5



POLYETHYLENE "HOOP HOUSE"

LUMBER STORAGE SHEDS



TYPE NO. 1

SINGLE LEVEL LUMBER SHED

Shallow concrete foundation wall (no footings), metal or single siding walls on three sides (front is open), metal or roll roofing on wood sheathing roof. Concrete, creosoted timber or concrete block runners. No heating, lighting or plumbing.

Range per Square Foot ----- \$7.80 - 9.40

TYPE NO. 2

DOUBLE LEVEL LUMBER SHED

Shallow concrete foundation wall (no footings), metal or single siding walls on three sides (front is open), metal or roll roofing on wood sheathing roof. Concrete, creosoted timber or concrete block runners. Second level is single wood planking on timber framing.

Range per Square Foot ----- \$11.15 - 13.60

TYPE NO. 3

DRIVE-THROUGH LUMBER SHED

Concrete foundation wall, metal or single siding walls, slide doors both ends, metal roll roofing or light shingles on wood sheathing roof. Concrete runners or light concrete in storage areas and regular concrete in drive-through area. Second level is single wood planking on timber framing. Minimal lighting, no heating or plumbing.

Range per Square Foot ----- \$18.00 - 22.00

BILLBOARDS

Cost Per Square Foot of Advertising Surface Area Per Face

	<u>0-349</u>	<u>350-399</u>	<u>400-499</u>	<u>500-699</u>	<u>700 or Larger</u>
<u>Wood Pole Construction</u>					
Single Face	\$14.50	\$14.00	\$14.00	\$15.00	\$15.50
Back To Back	9.25	9.00	9.00	9.50	9.75
Stacked or Side By Side	14.50	14.00	14.00	15.00	15.50
Side by Side/Back to Back or Stacked/Back to Back	9.25	9.00	9.00	9.50	9.75
<u>Steel I-Beam Construction</u>					
Single Face	34.50	33.00	30.00	26.00	23.50
Back To Back	21.25	20.50	19.00	17.00	15.75
Stacked or Side By Side	34.50	33.00	30.00	26.00	23.50
Side by Side/Back to Back or Stacked/Back to Back	21.25	20.50	19.00	17.00	15.75
<u>Steel Monopole Center Mount Construction</u> (Single Pole Mounted In Center of Structure)					
Single Face	40.50	38.50	39.50	61.50	50.00
Back To Back	24.25	23.25	23.75	34.75	29.00
Stacked or Side By Side	28.25	27.00	27.75	45.50	37.75
Side by Side/Back to Back or Stacked/Back to Back	36.25	35.00	35.75	53.50	45.75
<u>Steel Monopole Flag Mount Construction</u> (Single Pole Mounted To The Side of Structure)					
Single Face	46.50	44.25	45.40	70.70	57.50
Back To Back	28.00	26.75	27.25	40.00	33.25
Stacked or Side By Side	32.50	31.00	32.00	52.25	43.50
Side by Side/Back to Back or Stacked/Back to Back	41.75	40.25	41.00	61.50	52.50
<u>Building Mounted (Roof Top)</u>					
Single Face	30.00	28.50	27.50	25.50	24.50
Back To Back	19.00	18.25	17.75	16.75	16.25
<u>Building Side Mount</u>					
Single Face or Side by Side	13.00	12.00	11.00	10.00	9.00
<u>Add for Lighting (P.S.F.S.A.)</u>					
Single Face	10.00	9.25	8.30	6.70	5.20
2 Faces	5.75	5.50	5.25	5.00	4.00
3 Faces	4.50	4.25	4.00	3.75	3.50
4 Faces	4.00	3.75	3.50	3.25	3.00
*Add for Permanent Work Platform (P.L.F.)	20.00	20.00	20.00	20.00	20.00

Billboard prices assume 35' high (ground level to bottom of billboard advertising surface). For billboards higher than 35' adjust as follows:

35' to 45' high	Add 15%
46' to 55' high	Add 25%
56' to 85' high	Add 50%
86' or higher	Add 75%

*Permanent work platform is a horizontal walking area at the base of the sign face used when work is being performed on the sign.

BILLBOARDS (Continued)

PRICING EXAMPLES

12' x 25' single face steel I beam billboard:
300 S.F.S.A. x 34.50 = \$10,350

12' x 25' back to back steel I beam billboard:
300 S.F.S.A. x 21.25 = 6,375 x 2 faces = \$12,750

Two 12' x 25' side by side steel I beam billboards:
300 S.F.S.A. x 34.50 = 10,350 x 2 faces = \$20,700

Stacked/back to back steel I beam billboards, four 12' x 25' faces:
300 S.F.S.A. x 21.25 = 6,375 x 4 faces = \$25,500

Two 12' x 25' side by side steel I beam billboards with one 12' x 50' back metal face:
300 S.F.S.A. x 21.25 = 6,375 x 2 faces = \$12,750
600 S.F.S.A. x 17.00 = 6,375
\$19,125



WOOD POLE BILLBOARD
SINGLE FACE



STEEL I-BEAM BILLBOARD
STACKED FACE



STL MONOPOLE CENTER MOUNT BILLBOARD
SIDE BY SIDE/BACK TO BACK FACE



STL MONOPOLE FLAG MOUNT BILLBOARD
BACK TO BACK FACE



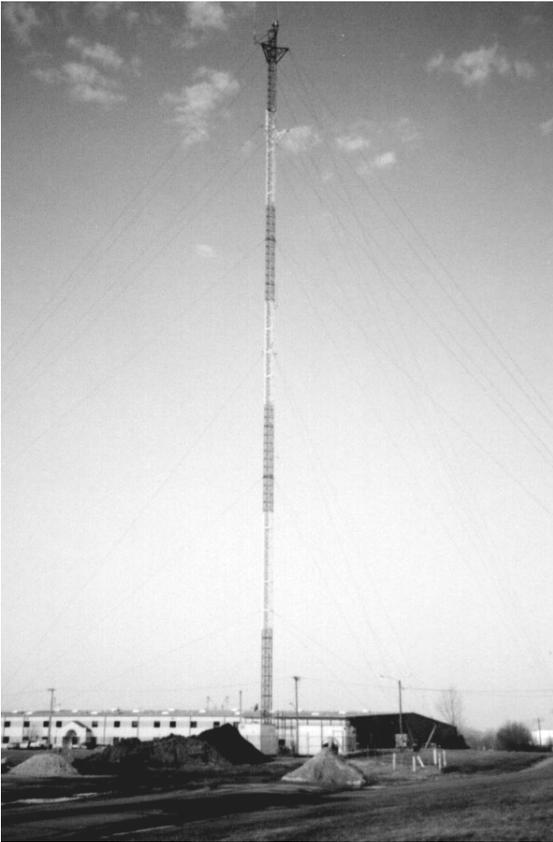
BUILDING MOUNTED BILLBOARD
SINGLE FACE



BUILDING SIDE MOUNT BILLBOARD
SIDE BY SIDE FACE



SELF SUPPORTING TOWER
(WITH R'CONC EQUIPMENT BUILDING)



GUYED TOWER



MONOPOLE TOWER
(MOUNTED WITH DISHES)

TOWERS

Each tower is unique in that it is designed for a specific weight load, wind factor, soil condition, icing conditions, etc. Whenever possible actual construction costs including materials, delivery, labor, taxes, permits, etc. should be gathered to assist the assessor/appraiser in developing a replacement cost.

The following guide for towers is based on normal construction conditions. Actual cost can vary significantly. Costs include footings, platforms, paint, lighting (if over 200'), etc.

TOWERS (P.L.F. of Height)

Height	<u>Light Designed Load</u> (A.M. Radio, VHF Bands, Ham Radio, Public Service Bands, etc.)		<u>Heavy Designed Load</u> (Television, Microwave, Cellular, etc.)	
	<u>Guyed</u>	<u>Self-Supporting or Monopole</u>	<u>Guyed</u>	<u>Self-Supporting or Monopole</u>
50'	\$150	\$200	\$300	\$400
75'	200	250	325	500
100'	250	300	350	600
150'	250	350	380	700
200'	300	450	410	900
250'	300	500	450	1,000
300'	300	550	500	1,100
350'	300	600	550	1,200
400'	300	700	600	1,400
500'	300	800	660	1,500
600'	300	800	730	1,600
800'	300	800	810	—
1,000'	300	800	900	—
1,200'	300	800	1,000	—
1,500' or Taller	300	800	1,100	—

Depreciation: Due to maintenance mandates, towers in use would not normally depreciate beyond 40%. If additional depreciation is needed, it is by observation.

TOWER EQUIPMENT (installed)

	<u>Price Range</u>	<u>Typical</u>	
Antennas	\$800.00 - \$1,400.00	\$1,100.00	Each
Small Dishes Mounted on Towers	1,200.00 - 3,600.00	2,400.00	Each
Coaxial Cable - 1/4"	2.50 - 3.50	3.00	P.L.F.
1/2"	3.75 - 4.75	4.25	P.L.F.
7/8"	6.50 - 8.50	7.65	P.L.F.
1 1/4"	10.50 - 14.30	12.40	P.L.F.
1 5/8"	13.75 - 18.85	16.30	P.L.F.
2 1/4"	19.50 - 26.70	23.10	P.L.F.

SATELLITE AND MICROWAVE DISHES

	<u>Price Range</u>	<u>Typical</u>
Price Per Meter of Diameter	\$1,000.00 - \$1,600.00	\$1,300.00
Price Per Foot of Diameter	320.00 - 480.00	400.00

EQUIPMENT BUILDINGS

<u>Type of Construction</u>	<u>Price Range</u>	<u>Typical</u>
Frame or Metal Frame	\$60.00 - \$100.00	\$80.00
Cement Block	75.00 - 125.00	100.00
Reinforced Concrete Panels	125.00 - 275.00	200.00



CRIBBED ELEVATOR
WITH CRIBBED ANNEX



CONCRETE ELEVATOR
WITH CONCRETE ANNEX



4 GRADE
FERTILIZER BUILDING



4 GRADE
DOME FERTILIZER BUILDING



CONCRETE DOME
FERTILIZER BUILDING



STEEL GRAIN BINS



CRIBBED FEED MILL
WITH DISTRIBUTION FLOOR



METAL FEED MILL
WITH NO DISTRIBUTION FLOOR



R'CONC. FEED MILL
WITH DISTRIBUTION FLOOR



R'CONC. FEED MILL
WITH NO DISTRIBUTION FLOOR



HOPPER BINS



5 + 10 GRADE
FLAT GRAIN STORAGE

GRAIN ELEVATORS

CRIBBED

Concrete or equal foundation or pad, 2 x 4 to 2 x 8 cribbing, walls and bin partitions, corrugated metal exterior covering, frame and metal head house and roof, timber framing, timber or steel bin bottoms, 1 leg, 1 manlift, small load-out scales, ladders, head and spouting, electric, augers or belt conveyor from dump to leg. Annex has minimum of conveying equipment. Pit and normal center or side truck drive included.

CONCRETE

Concrete foundation or pad. 5" to 7" concrete slip form constructed tanks, concrete bins over drive, concrete head house and roof, reinforced concrete frame, concrete or steel bin bottoms, 1 leg, 1 manlift, head and spouting, electric, auger or belt conveyor from dump to leg, overhead conveyor in galley. Storage tanks have minimum of conveying equipment. Pit and normal center or side truck drive included.

<u>Bu. Cap.</u>	<u>Elevator Cost/Bu.</u>	<u>Annex Cost/Bu.</u>	<u>Balloon Annex Cost/Bu.</u>	<u>Bu. Cap.</u>	<u>Elevator w/Hd Hse Cost/Bu.</u>	<u>Elevator No Hd Hse Cost/Bu.</u>	<u>Stg. Tank w/Bsmt Cost/Bu.</u>	<u>Stg. Tank Tunnel Only Cost/Bu.</u>
7,500	\$10.90	\$6.95	\$4.42	50,000	\$8.50	\$6.90	\$4.10	\$3.64
10,000	9.90	6.30	4.06	75,000	7.80	6.35	3.72	3.38
15,000	8.50	5.35	3.48	100,000	7.45	6.05	3.57	3.21
20,000	7.55	4.80	3.12	150,000	6.60	5.42	3.33	3.04
25,000	7.30	4.55	2.90	200,000	6.05	4.96	3.16	2.88
30,000	6.90	4.25	2.77	250,000	5.60	4.57	3.00	2.70
35,000	6.65	4.07	2.68	300,000	5.35	4.34	2.87	2.60
40,000	6.30	3.93	2.60	400,000	5.10	4.18	2.73	2.50
45,000	5.95	3.71	2.47	500,000	4.95	4.03	2.60	2.37
50,000	5.70	3.52	2.35	600,000	4.65	3.88	2.53	2.29
60,000	5.45	3.42	2.26	700,000	4.50	3.72	2.42	2.20
70,000	5.05	3.30	2.18	800,000	4.35	3.57	2.34	2.14
80,000	4.85	3.17	2.09	900,000	4.25	3.49	2.25	2.09
100,000	4.50	2.96	1.96	1,000,000	4.10	3.41	2.17	2.05
120,000	4.20	2.83	1.87	2,000,000	3.50	2.90	1.84	1.74
140,000	4.00	2.64	1.75					
200,000	3.55	2.52	1.62					
250,000	3.20	2.35	1.49					

These costs are for average construction and based on grain handling and gathering type units.

Annex with straight storage unit (no bin dividers) and having large capacities, generally will cost 10% to 15% less per bushel.

Use 2 to 2½% per year average depreciation to 50% - observed depreciation thereafter.

SUPPLEMENTAL EQUIPMENT

	<u>Price Range</u>		<u>Typical</u>	
Concrete Canopies	\$17.00	- \$25.00	\$21.00	P.S.F.
Frame Canopies	9.50	- 14.50	12.00	P.S.F.
Enclosed Drive - Pole Frame	16.00	- 24.00	20.00	P.S.F.
Enclosed Drive - Wood Frame	20.00	- 32.00	26.00	P.S.F.
Enclosed Drive - Steel Frame	33.00	- 50.00	41.50	P.S.F.
Dump Pits	5,400.00	- 13,200.00	9,300.00	Each
Steel Roll Doors	16.00	- 26.00	21.00	P.S.F.S.A.
Electric Operated (Steel Roll Doors)	850.00	- 1,450.00	1,150.00	Add Each
Truck Lifts - Concrete & Steel Platform - Hydraulic Type	80,000.00	- 180,000.00	130,000.00	Each

GRAIN ELEVATORS (Continued)

GRAIN DRYERS - Continuous Flow (Each)

	Price Range		Typical
300 bushel per hour rated capacity	\$36,000	- \$54,000	\$45,000
400 bushel per hour rated capacity	45,000	- 66,000	55,500
500 bushel per hour rated capacity	54,000	- 78,000	66,000
600 bushel per hour rated capacity	63,000	- 90,000	76,500
700 bushel per hour rated capacity	75,000	- 102,000	88,500
800 bushel per hour rated capacity	87,000	- 114,000	100,500
900 bushel per hour rated capacity	97,500	- 124,500	111,000
1,000 bushel per hour rated capacity	108,000	- 135,000	121,500
1,200 bushel per hour rated capacity	126,000	- 156,000	141,000
1,500 bushel per hour rated capacity	147,000	- 183,000	165,000
2,000 bushel per hour rated capacity	180,000	- 225,000	202,500
2,500 bushel per hour rated capacity	213,000	- 267,000	240,000
3,000 bushel per hour rated capacity	246,000	- 306,000	276,000
3,500 bushel per hour rated capacity	276,000	- 345,000	310,500
4,000 bushel per hour rated capacity	306,000	- 381,000	343,500
5,000 bushel per hour rated capacity	360,000	- 447,000	403,500
7,500 bushel per hour rated capacity	420,000	- 540,000	480,000

Depreciation guide for dryers: 7% per year to 70%. Add for legs, spouting and head.

BUCKET CONVEYORS (Legs) (P.L.F. of Height)

Bushels Per Hour	Height								
	20'	40'	60'	80'	100'	120'	140'	160'	180' +
400	\$410	\$285	\$260	\$240	\$220	—	—	—	—
500	450	320	280	260	240	—	—	—	—
600	470	330	285	265	250	—	—	—	—
800	500	350	290	280	265	—	—	—	—
1,000	520	360	305	285	270	\$265	—	—	—
1,500	650	420	345	310	305	300	\$295	—	—
2,000	680	500	400	350	345	330	325	—	—
2,500	790	505	410	360	350	340	330	—	—
3,000	855	530	430	370	360	350	345	\$340	—
3,500	865	545	465	385	380	365	350	345	—
4,000	970	605	485	430	390	370	360	350	—
5,000	1,080	675	540	470	425	400	380	365	\$355
6,000	1,400	875	690	610	555	520	490	470	460
7,000	1,440	905	720	615	575	530	500	490	475
8,000	1,455	910	730	625	580	540	520	500	485
9,000	1,470	915	735	650	590	560	525	510	500
10,000	1,560	970	780	695	625	605	570	540	515
15,000	—	—	805	720	640	620	610	580	575
20,000	—	—	920	860	820	755	735	720	710
30,000	—	—	—	1,040	1,000	935	930	895	880
40,000	—	—	—	1,220	1,175	1,115	1,100	1,070	1,055
50,000	—	—	—	1,400	1,350	1,300	1,280	1,240	1,230

	Price Range		Typical	
Leg Towers (Add)	\$350	-	\$500	\$425 P.L.F.

GRAIN ELEVATORS (Continued)

DISTRIBUTORS (Head)

Size & Type	12 Spouts		18 Spouts		24 Spouts		26 Spouts		30 Spouts	
	Manual	Auto								
8" Single	\$5,520	\$14,760	\$7,200	\$16,800	\$8,760	\$18,720	\$9,480	\$19,560	\$10,440	\$20,760
8" Double	9,240	27,600	12,000	31,200	14,400	34,440	15,600	35,880	17,400	38,280
8" Triple	—	—	—	—	22,200	52,200	23,520	53,880	26,160	57,360
12" Single	7,680	16,920	10,560	20,160	13,560	23,520	14,520	24,600	16,440	26,760
12" Double	12,840	31,200	17,760	36,960	22,680	42,720	24,360	44,640	27,600	48,480
12" Triple	—	—	—	—	34,080	64,080	36,480	66,840	41,280	72,480
14" Single	9,600	18,840	13,320	22,920	17,040	27,000	18,480	28,560	23,640	33,960
14" Double	15,840	34,200	22,200	41,400	28,800	48,840	30,960	51,240	39,960	60,840
14" Triple	—	—	—	—	43,200	73,200	46,440	76,800	59,760	90,960

DRAG CONVEYORS (Complete with Drive & Motor)

Note: Drag conveyors can be priced by either "bushel per hour" or "belt size".

Bushels Per Hour	Belt Size	Length (Price P.L.F.)			
		50'	100'	150'	200'
2,500	8"	\$370	\$295	\$270	\$250
5,500	12"	445	350	325	300
8,000	16"	480	400	395	365
12,000	20"	540	450	465	425
17,000	24"	630	520	510	500
22,000	30"	730	600	590	580
30,000	36"	835	680	670	660
40,000	42"	935	775	765	755
50,000	48"	1,045	865	855	845
60,000	54"	1,160	960	950	940

AUGERS (P.L.F.)

Horizontal augers complete with trough, drive unit, motor and mountings. Prices are for average quality construction. Add 20% for heavy duty type.

Diameter					
8"	9"	10"	12"	14"	16"
\$285	\$305	\$310	\$330	\$425	\$480

ADDITIONS TO DRAG CONVEYORS AND AUGERS

Add to conveyors/augers for elevated superstructures	\$45.00	-	\$120.00	P.L.F.
Add for catwalk	45.00	-	60.00	P.L.F.

PNEUMATIC CONVEYING SYSTEMS

Cost per bin	\$6,000	-	\$10,000
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Use low range for systems comprised of more than three small bins (less than 100,000 bushel capacity).
Use high range for systems servicing less than three small bins or for systems servicing large bins (greater than 100,000 bushel capacity).

Depreciation for bucket conveyors, distributors, drag conveyors and augers: 4% per year to 70% or by observation.

FERTILIZER BUILDINGS

Foundation Reinforced concrete.

Walls Wood frame walls on wood studs, 15' high average. Walls in fertilizer storage areas are cribbed (or equivalent) plywood liner. The height of the domed structures is approximately 1/2 the building width. Concrete dome structures have concrete walls.

Floor 6" reinforced concrete.

Roof Asphalt shingles on plywood supported by wood rafters and trusses. Concrete roof on concrete dome structures.

Bin Partitions Plywood on wood cribbing (or equivalent) approximately 14' high with framing 12" c/c. No partitioning in domed structures.

Electric Pipe conduit wiring with explosion proof incandescent lighting. No interior lighting in dome structures.

Area	Price Per S.F.		
	Frame	Framed Dome	Concrete Dome
2,000	\$47.00	\$51.00	\$63.75
3,000	\$42.75	\$47.00	\$58.75
4,000	\$39.25	\$43.75	\$54.50
5,000	\$37.00	\$42.00	\$52.50
6,000	\$35.75	\$41.00	\$51.25
7,000	\$35.25	\$40.50	\$50.50
9,000	\$34.75	\$40.25	\$50.00
12,000	\$34.25	\$40.00	\$49.75
15,000	\$33.50	\$39.75	\$49.50
18,000	\$33.00	\$39.50	\$49.25
25,000	\$32.50	\$39.25	\$49.00
35,000	\$32.00	\$39.00	\$48.75

ADJUSTMENTS

Interior Offices	(+)	\$36.50	-	\$42.50	P.S.F.
Exterior Offices	(+)	68.50	-	74.50	P.S.F.

FEED MILLS

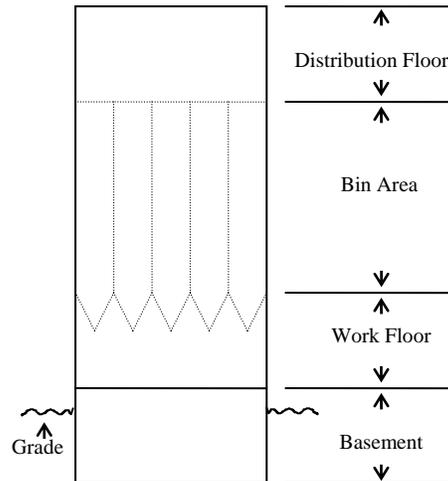
Feed mills are to be priced on a per cubic foot basis. Work floors, distribution floors, truck loading and unloading areas are all included in the cubic foot price. Add for warehouses separately. Due to design, size of bins and capacity, prices may vary by 20%.

Cubic Feet	Cribbed	Metal With Distribution Floor	Metal With No Distribution Floor	R'Conc. With Distribution Floor	R'Conc. With No Distribution Floor
20,000 or Less	\$5.50	\$5.95	\$7.10	\$7.85	\$9.45
20,001 to 40,000	5.35	5.75	6.80	7.55	9.15
40,001 to 60,000	5.20	5.60	6.65	7.40	8.90
60,001 to 80,000	5.15	5.50	6.60	7.30	8.75
80,001 to 100,000	5.10	5.45	6.55	7.25	8.70
100,001 to 125,000	5.00	5.35	6.45	7.20	8.65
125,001 to 150,000	4.95	5.30	6.40	7.10	8.55
150,001 or More	4.95	5.30	6.40	7.05	8.50

Add for scales, dump pits, manlifts, bucket conveyors (legs) and distributors (heads) separately.

ADD FOR BASEMENT

Depth of Basement	P.S.F.
8'	\$27.50
10'	31.50
12'	35.50
14'	39.50
16'	43.50
18'	47.50
20'	51.50



OTHER AREA ADJUSTMENTS

	Price Range	Typical	
Interior Office	\$36.50 - \$42.50	\$39.50	P.S.F.
Loading Docks	13.00 - 19.50	16.25	P.S.F.
Manlift	350.00 - 550.00	450.00	Per Foot of Rise
Scales			See page 6-139
Dump Pits			See page 6-134
Bucket Conveyors (Legs)			See page 6-135
Distributors (Heads)			See page 6-136

SCALES

TRUCK SCALES

The following truck scale costs include cost of pit (if applicable), lever, indicating mechanism, dial read-out, card printer, and normal freight and installation charges.

Weight	Platform Size	Typical Cost	
		With Pit	Pitless
20 Ton (Single Axle)	12' x 10'	\$31,600	\$25,300
20 Ton	24' x 10'	33,400	26,700
20 Ton	34' x 10'	35,700	28,600
30 Ton	24' x 10'	34,800	27,800
30 Ton	34' x 10'	37,200	29,800
50 Ton	50' x 10'	62,100	49,700
50 Ton	60' x 10'	67,700	55,400
50 Ton	70' x 10'	75,400	60,300
60 Ton	50' x 10'	63,800	51,000
60 Ton	60' x 10'	69,300	55,400
60 Ton	70' x 10'	76,900	61,500
60 Ton	80' x 10'	85,200	68,200
80 Ton	60' x 10'	70,700	56,600
80 Ton	70' x 10'	78,400	62,700
80 Ton	80' x 10'	86,900	69,500
100/120 Ton	60' x 10'	74,400	59,500
100/120 Ton	70' x 10'	82,100	65,700
100/120 Ton	80' x 10'	90,700	72,600

Add \$1,500 for 11' Wide, \$3,000 for 12' Wide and \$17,500 for 14' Wide Scales

RAILROAD SCALES (Digital)

Weight	Platform Length	Typical Cost
200 Ton	60'	\$240,000
200 Ton	70'	264,000
300 Ton	60'	252,000
300 Ton	70'	276,000

PAVING (P.S.F.)

	Price Range	Typical
Asphalt Paving	\$1.50 - \$2.50	\$2.00
Asphalt Paving with Curbs	2.10 - 3.20	2.65
Concrete Paving	2.25 - 3.75	3.00
Concrete Paving with Curbs	2.90 - 4.40	3.65

RAILROAD SPURS (P.L.F.)

	Price Range	Typical
90#	\$100.00 - \$120.00	\$110.00
100#	105.00 - 125.00	115.00
115#	115.00 - 135.00	125.00
130#	120.00 - 140.00	130.00

Use high price if under 500 L.F., use low price if above 1,500 L.F. Use low price if constructed with used rail.

	Price Range	Typical
90# Turnout	\$24,000 - \$36,000	\$30,000
100# Turnout	26,000 - 40,000	33,000
115# Turnout	28,000 - 42,000	35,000
130# Turnout	30,000 - 46,000	38,000
Bumpers (Each)	2,300 - 7,000	3,000

STEEL GRAIN BINS

Height	Diameter							
	Storage 15'	Dryer 15'	Storage 18'	Dryer 18'	Storage 21'	Dryer 21'	Storage 24'	Dryer 24'
10'	\$3,900	\$12,700	\$5,100	\$14,300	\$6,500	\$16,300	\$7,600	\$18,100
12'	4,700	13,500	6,100	15,300	7,800	17,600	9,200	19,600
15'	5,900	14,600	7,600	16,900	9,800	19,600	11,500	21,900
17'	6,700	15,400	8,600	17,900	11,100	20,900	13,000	23,500
20'	7,900	16,600	10,200	19,400	13,100	22,800	15,300	25,700
22'	8,600	17,400	11,200	20,400	14,400	24,100	16,800	27,300
25'	9,800	18,600	12,700	21,900	16,400	26,100	19,100	29,500
27'	10,600	19,400	13,700	23,000	17,700	27,400	20,600	31,100
30'	11,800	20,500	15,300	24,500	19,600	29,400	22,900	33,400
32'	12,600	21,300	16,300	25,500	20,900	30,700	24,400	34,900
35'	13,700	22,500	17,800	27,000	22,900	32,700	26,700	37,200
37'	14,500	23,300	18,800	28,000	24,200	34,000	28,200	38,700
40'	15,700	24,500	20,300	29,600	26,200	35,900	30,500	41,000
42'	—	—	21,400	30,600	27,500	37,200	32,100	42,500
45'	—	—	22,900	32,100	29,400	39,200	34,300	44,800
47'	—	—	23,900	33,100	30,700	40,500	35,900	46,300
50'	—	—	—	—	32,700	42,500	38,200	48,600
52'	—	—	—	—	34,000	43,800	39,700	50,100
55'	—	—	—	—	36,000	45,700	42,000	52,400
Add for each Add'l 1' in height	390	390	500	500	650	650	760	760

Equipment (+)

Aeration Floor	900	Base	1,200	Base	1,700	Base	2,200	Base
Vertical Auger	1,600	Base	1,600	Base	1,600	Base	1,600	Base
Electric Spreader	700	Base	700	Base	700	Base	800	Base
Power Sweep	2,100	Base	2,300	Base	2,300	Base	2,400	Base
Unloading System	1,200	Base	1,200	Base	1,200	Base	1,200	Base
Incline Auger	1,000	Base	1,000	Base	1,000	Base	1,000	Base
Stir-A-Tor	3,100	3,100	3,600	3,600	4,100	4,100	4,600	4,600

Note: 5 grade bins constructed with light gauge panels. 4 grade average quality bins. Bins with heavy gauge steel (and/or stiffeners) and heavy raised foundations should be given up to a 3 grade.

FANS & DRYERS

(Complete with exhaust & auxiliary equipment)

	Fan	Fan with Heater or Dryer Unit
3/4 HP	\$650	—
1 HP	725	—
1½ HP	825	—
3 HP	1,225	—
5 HP	1,550	\$2,750
7½ HP	1,750	3,100
10 HP	1,975	3,450
15 HP	2,650	4,475
20 HP	3,525	5,400
25 HP	3,775	5,775
30 HP	4,775	6,300
40 HP	5,500	7,100
50 HP	6,400	8,100

STEEL GRAIN BINS (Continued)

Height	Diameter					
	Storage 27'	Dryer 27'	Storage 30'	Dryer 30'	Storage 33'	Dryer 33'
10'	\$9,300	\$20,800	\$11,000	\$23,200	\$12,900	\$26,100
12'	11,000	22,500	13,000	25,200	15,100	28,300
15'	13,600	25,100	16,000	28,200	18,500	31,700
17'	15,300	26,900	18,000	30,300	20,800	33,900
20'	17,900	29,400	21,000	33,300	24,100	37,300
22'	19,600	31,200	23,000	35,300	26,400	39,500
25'	22,200	33,800	26,100	38,300	29,700	42,900
27'	23,900	35,500	28,100	40,300	32,000	45,100
30'	26,500	38,100	31,100	43,300	35,300	48,500
32'	28,200	39,800	33,100	45,300	37,600	50,700
35'	30,800	42,400	36,100	48,300	40,900	54,100
37'	32,600	44,100	38,100	50,400	43,200	56,400
40'	35,100	46,700	41,100	53,400	46,500	59,700
42'	36,900	48,400	43,100	55,400	48,800	62,000
45'	39,500	51,000	46,200	58,400	52,200	65,300
47'	41,200	52,700	48,200	60,400	54,400	67,600
50'	43,800	55,300	51,200	63,400	57,800	70,900
52'	45,500	57,000	53,200	65,400	60,000	73,200
55'	48,100	59,600	56,200	68,400	63,400	76,600
Add for each Add'l 1' in height	850	850	990	990	1,120	1,120
<u>Equipment (+)</u>						
Aeration Floor	2,800	Base	3,400	Base	4,200	Base
Vertical Auger	1,600	Base	1,600	Base	1,600	Base
Electric Spreader	900	Base	900	Base	900	Base
Power Sweep	2,700	Base	2,700	Base	2,800	Base
Unloading System	1,200	Base	1,200	Base	1,300	Base
Incline Auger	1,100	Base	1,100	Base	1,100	Base
Stir-A-Tor	4,700	4,700	5,100	5,100	5,500	5,500

Note: 5 grade bins constructed with light gauge panels. 4 grade average quality bins. Bins with heavy gauge steel (and/or stiffeners) and heavy raised foundations should be given up to a 3 grade.

These are average prices constructed by contractor, complete with foundation, ladder, load-out door and top cap. Dryer bins are complete with foundation, aeration floor, ladder, load-out door, sweep auger, vertical auger, and electric spreader. Add for fans, dryers and stir-a-tor.

These prices may vary as much as 20% due to quality, manufacturer and purchased in large quantities or off season.

For larger bins, price unloading equipment from page 6-136.

STEEL GRAIN BINS (Continued)

Height	Diameter							
	Storage 36'	Dryer 36'	Storage 39'	Storage 42'	Storage 48'	Storage 54'	Storage 60'	Storage 66'
21'	\$30,200	\$44,300	\$34,100	\$37,500	\$47,000	\$63,700	\$80,300	\$91,100
22'	31,500	45,600	35,500	39,200	49,000	66,200	83,400	94,900
24'	34,100	48,200	38,300	42,500	53,000	71,300	89,400	102,300
26'	36,600	50,700	41,100	45,900	57,000	76,400	95,500	109,700
29'	40,300	54,400	45,400	51,000	63,200	84,000	104,600	120,900
32'	44,200	58,300	49,600	56,000	69,300	91,600	113,800	132,100
35'	47,900	62,000	53,800	60,900	75,300	99,200	122,900	143,200
37'	50,500	64,600	56,600	64,300	79,400	104,300	129,000	150,700
40'	54,300	68,400	60,800	69,400	85,600	111,900	138,100	161,800
42'	56,900	71,000	63,600	72,700	89,600	117,000	144,300	169,300
45'	60,600	74,700	67,900	77,800	95,600	124,600	153,500	180,400
48'	64,500	78,600	72,100	82,800	101,700	132,200	162,600	191,600
50'	67,000	81,100	74,900	86,200	105,700	137,300	168,600	199,000
53'	70,800	84,900	79,100	91,100	111,900	144,900	177,800	210,000
55'	73,300	87,400	81,800	94,600	115,900	149,900	183,800	217,500
58'	77,200	91,300	86,000	99,500	122,000	157,600	193,000	228,600
63'	83,400	97,500	93,200	107,900	132,100	170,200	208,200	247,200
66'	87,300	101,400	97,300	113,000	138,300	177,900	217,300	258,400
70'	92,400	106,500	102,900	119,700	146,300	188,000	229,600	273,300
74'	—	—	—	126,300	154,400	198,100	241,600	288,100
77'	—	—	—	131,400	160,600	205,800	250,800	299,300
81'	—	—	—	138,100	168,600	215,900	263,000	314,200
Add for each Add'l 1' in height	1,270	1,270	1,410	1,670	2,030	2,540	3,040	3,720
<u>Equipment (+)</u>								
Aeration Floor	5,000	Base	5,700	6,700	8,500	10,700	13,200	16,000
Vertical Auger	1,600	Base	—	—	—	—	—	—
Electric Spreader	900	Base	900	900	900	—	—	—
Power Sweep	3,200	Base	4,500	5,300	6,000	7,200	8,000	8,800
Unloading System	1,300	Base	—	—	—	—	—	—
Incline Auger	1,100	Base	—	—	—	—	—	—
Stir-A-Tor	6,000	6,000	6,500	7,000	8,500	9,500	10,500	11,700

Note: 5 grade bins constructed with light gauge panels. 4 grade average quality bins. Bins with heavy gauge steel (and/or stiffeners) and heavy raised foundations should be given up to a 3 grade.

These are average prices constructed by contractor, complete with foundation, ladder, load-out door and top cap. Dryer bins are complete with foundation, aeration floor, ladder, load-out door, sweep auger, vertical auger, and electric spreader. Add for fans, dryers and stir-a-tor.

These prices may vary as much as 20% due to quality, manufacturer and purchased in large quantities or off season.

For larger bins price unloading equipment from page 6-136.

STEEL GRAIN BINS (Continued)

Height	Diameter						
	Storage 72'	Storage 75'	Storage 78'	Storage 84'	Storage 90'	Storage 96'	Storage 105'
21'	—	—	—	—	—	—	—
22'	—	—	—	—	—	—	—
24'	—	—	—	—	—	—	—
26'	—	—	—	—	—	—	—
29'	—	—	—	—	—	—	—
32'	\$153,800	\$165,200	\$177,600	\$203,700	\$232,500	\$264,100	\$315,700
35'	167,200	180,000	193,600	222,100	253,400	287,500	343,000
37'	176,200	189,900	204,100	234,400	267,400	303,000	361,200
40'	189,900	204,800	220,100	252,700	288,100	326,400	388,400
42'	198,900	214,500	230,800	265,100	302,100	341,900	406,600
45'	212,400	229,400	246,800	283,300	323,000	365,300	433,700
48'	225,800	244,100	262,700	301,800	343,900	388,700	461,000
50'	234,800	254,000	273,300	314,000	357,900	404,200	479,100
53'	248,500	268,800	289,200	332,500	378,700	427,600	506,400
55'	257,500	278,700	299,900	344,700	392,600	443,300	524,500
58'	270,900	293,400	315,700	363,000	413,500	466,600	551,800
63'	293,600	318,100	342,400	393,700	448,300	505,600	597,200
66'	307,100	332,900	358,400	412,100	469,200	528,900	624,300
70'	325,000	352,600	379,600	436,600	497,100	560,000	660,800
74'	343,000	372,300	400,800	461,100	525,000	591,200	697,000
77'	356,700	387,200	416,800	479,600	545,800	614,600	724,300
81'	374,600	406,900	438,000	504,100	573,700	645,700	760,600
Add for each Add'l 1' in height	4,510	4,930	5,320	6,140	6,960	7,780	9,080
<u>Equipment (+)</u>							
Aeration Floor	18,900	20,500	22,200	25,700	29,600	33,600	40,300
Vertical Auger	—	—	—	—	—	—	—
Electric Spreader	—	—	—	—	—	—	—
Power Sweep	9,600	10,100	10,900	11,600	12,400	13,200	14,500
Unloading System	—	—	—	—	—	—	—
Incline Auger	—	—	—	—	—	—	—
Stir-A-Tor	12,600	13,300	13,800	14,800	15,900	16,900	18,500

Note: 5 grade bins constructed with light gauge panels. 4 grade average quality bins. Bins with heavy gauge steel (and/or stiffeners) and heavy raised foundations should be given up to a 3 grade.

These are average prices constructed by contractor, complete with foundation, ladder, load-out door and top cap. Dryer bins are complete with foundation, aeration floor, ladder, load-out door, sweep auger, vertical auger, and electric spreader. Add for fans, dryers and stir-a-tor.

These prices may vary as much as 20% due to quality, manufacturer and purchased in large quantities or off season.

For larger bins price unloading equipment from page 6-136.

HOPPER BINS (COMMERCIAL)

Size		Capacity		Price		Size		Capacity		Price	
DIA	x Sidewall Height	BU.	Tons	Bolted Steel	Welded Steel	DIA	x Sidewall Height	BU.	Tons	Bolted Steel	Welded Steel
6'	x 3'	100	2.5	\$1,440	—	16'	x 15'	3,254	81.4	—	\$16,030
6'	x 5'	178	4.5	1,660	\$2,990	16'	x 17'	3,607	90.2	—	16,850
6'	x 8'	250	6.3	1,780	3,440	16'	x 20'	4,119	103.0	—	18,110
6'	x 10'	298	7.5	—	3,800	16'	x 25'	4,973	124.3	—	20,820
6'	x 11'	322	8.1	1,950	—	16'	x 30'	5,828	145.7	—	24,090
6'	x 12'	346	8.7	—	3,960	18'	x 11'	4,080	102.0	\$17,370	—
7'	x 3'	140	3.5	1,750	—	18'	x 13'	4,860	121.5	18,200	—
7'	x 5'	220	5.5	1,980	—	18'	x 16'	5,635	140.9	19,070	—
7'	x 8'	300	7.5	2,230	—	18'	x 19'	6,415	160.4	19,910	—
7'	x 11'	380	9.5	2,460	—	18'	x 21'	7,190	179.8	20,700	—
7'	x 13'	465	11.6	2,900	—	18'	x 24'	7,970	199.3	21,770	—
7'	x 16'	550	13.8	3,140	—	18'	x 27'	8,754	218.8	22,870	—
8'	x 5'	351	8.8	—	4,020	18'	x 29'	9,525	238.1	24,100	—
8'	x 8'	479	12.0	—	4,610	18'	x 32'	10,305	257.6	25,800	—
8'	x 10'	564	14.1	—	5,000	18'	x 35'	11,180	279.5	27,680	—
8'	x 12'	765	19.1	—	5,260	18'	x 37'	11,860	296.5	29,550	—
9'	x 5'	390	9.8	2,780	—	21'	x 11'	5,695	142.4	21,230	—
9'	x 8'	629	15.7	3,110	5,020	21'	x 13'	6,755	168.9	22,140	—
9'	x 10'	737	18.4	—	5,540	21'	x 16'	7,810	195.3	22,980	—
9'	x 11'	791	19.8	3,420	—	21'	x 19'	8,870	221.8	24,000	—
9'	x 12'	845	21.1	—	6,030	21'	x 21'	9,930	248.3	24,930	—
9'	x 13'	899	22.5	3,810	—	21'	x 24'	10,985	274.6	26,100	—
9'	x 15'	953	23.8	—	6,520	21'	x 27'	12,045	301.1	27,630	—
9'	x 16'	1,007	25.2	4,410	—	21'	x 29'	13,105	327.6	28,930	—
10'	x 10'	938	23.5	—	6,430	21'	x 32'	14,165	354.1	30,850	—
10'	x 12'	1,025	25.6	—	7,120	21'	x 35'	15,220	380.5	33,000	—
10'	x 15'	1,271	31.8	—	7,880	21'	x 37'	16,280	407.0	35,120	—
12'	x 5'	776	19.4	5,970	7,200	24'	x 11'	7,785	194.6	25,960	—
12'	x 8'	1,064	26.6	6,450	7,800	24'	x 13'	9,165	229.1	27,040	—
12'	x 10'	1,256	31.4	—	8,260	24'	x 16'	10,545	263.6	28,100	—
12'	x 11'	1,352	33.8	7,080	—	24'	x 19'	11,930	298.3	29,290	—
12'	x 12'	1,448	36.2	—	8,710	24'	x 21'	13,310	332.8	30,530	—
12'	x 13'	1,540	38.5	8,090	—	24'	x 24'	14,695	367.4	32,400	—
12'	x 15'	1,737	43.4	—	9,740	24'	x 27'	16,075	401.9	33,660	—
12'	x 16'	1,830	45.8	8,740	—	24'	x 29'	17,455	436.4	35,750	—
12'	x 17'	1,930	48.3	—	10,470	24'	x 32'	18,840	471.0	38,100	—
12'	x 19'	2,120	53.0	9,500	—	24'	x 35'	20,220	505.5	40,430	—
12'	x 20'	2,218	55.5	—	11,310	24'	x 37'	21,600	540.0	42,750	—
12'	x 25'	2,699	67.5	—	13,180	27'	x 11'	9,890	247.3	37,440	—
13.5'	x 10'	1,637	40.9	—	10,570	27'	x 13'	11,640	291.0	38,760	—
13.5'	x 12'	1,881	47.0	—	11,340	27'	x 16'	13,390	334.8	40,170	—
13.5'	x 15'	2,246	56.2	—	12,340	27'	x 19'	15,140	378.5	41,770	—
13.5'	x 17'	2,489	62.2	—	13,620	27'	x 21'	16,895	422.4	43,270	—
13.5'	x 20'	2,854	71.4	—	14,540	27'	x 24'	18,645	466.1	45,470	—
13.5'	x 25'	3,462	86.6	—	15,870	27'	x 27'	20,395	509.9	47,660	—
13.5'	x 28'	3,872	96.8	—	16,970	27'	x 29'	22,145	553.6	49,770	—
13.5'	x 30'	4,071	101.8	—	17,820	27'	x 32'	23,895	597.4	52,840	—
15'	x 5'	1,340	33.5	9,440	—	27'	x 35'	25,650	641.3	54,950	—
15'	x 8'	1,735	43.4	10,100	—	27'	x 37'	27,400	685.0	58,750	—
15'	x 11'	2,715	67.9	12,400	—	30'	x 11'	12,615	315.4	44,750	—
15'	x 13'	3,255	81.4	13,930	—	30'	x 13'	14,775	369.4	46,340	—
15'	x 16'	3,790	94.8	14,530	—	30'	x 16'	16,940	423.5	47,930	—
15'	x 19'	4,330	108.3	15,350	—	30'	x 19'	19,105	477.6	49,690	—
15'	x 21'	4,870	121.8	16,030	—	30'	x 21'	21,270	531.8	52,160	—
15'	x 24'	5,410	135.3	16,890	—	30'	x 24'	23,435	585.9	53,800	—
15'	x 27'	5,945	148.6	17,830	—	30'	x 27'	25,595	639.9	56,370	—
15'	x 29'	6,485	162.1	18,840	—	30'	x 29'	27,760	694.0	59,940	—
15'	x 32'	7,025	175.6	19,870	—	30'	x 32'	29,925	748.1	62,750	—
15'	x 35'	7,560	189.0	21,380	—	30'	x 35'	32,090	802.3	66,650	—
16'	x 10'	2,410	60.3	—	13,860	30'	x 37'	34,255	856.4	70,120	—
16'	x 12'	2,751	68.8	—	14,370						

Price unloading equipment from page 6-136.

Note: These are typical prices constructed by contractor, complete with steel supports, concrete piers or pads, roof, manway and ladder. Center draw. Price, bushel, and ton capacities may differ by 20% due to different degree of slope to the hopper bottoms.

STEEL BUILDING FLAT GRAIN STORAGE

Concrete walls and footings, concrete slab floor with vapor seal, sand and natural base, steel panel walls, gable steel roof with rigid steel frame, one door, electric. These buildings are specially designed and built for the storage of grain.

Size	Height						
	14'	16'	18'	20'	22'	24'	28'
	(Price Per S.F.)						
40 x 40	\$33.70	\$35.30	\$36.90	\$38.50	\$40.10	\$41.70	\$44.90
40 x 100	27.20	28.35	29.45	30.60	31.70	32.85	35.05
40 x 200	25.05	26.05	27.00	27.95	28.90	29.85	31.80
60 x 60	26.55	27.65	28.70	29.80	30.85	31.90	34.05
60 x 100	23.75	24.60	25.45	26.30	27.15	28.00	29.70
60 x 200	21.60	22.30	23.00	23.70	24.40	25.10	26.50
100 x 100	20.95	21.60	22.25	22.90	23.55	24.15	25.45
100 x 200	18.90	19.35	19.85	20.30	20.80	21.30	22.25
100 x 300	18.20	18.60	19.05	19.45	19.90	20.30	21.15
160 x 200	17.35	17.70	18.05	18.40	18.75	19.15	19.85
160 x 300	16.65	16.95	17.25	17.55	17.85	18.15	18.80
240 x 350	15.70	15.80	16.05	16.25	16.50	16.70	17.15

Note: Above prices are for buildings with enameled steel wall panels. If buildings are galvanized steel, use grade 5+10.

TEMPORARY GRAIN STORAGE BUNK



	Price Range	Typical	
Reinforced precast concrete panel walls	\$7.50 - \$11.10	\$9.30	P.S.F.S.A.
Metal bunker walls	8.25 - 12.25	10.25	P.S.F.S.A.
Silage bunker floor (4" wire reinforced concrete floor)	3.10 - 4.60	3.85	P.S.F.
Concrete temporary storage base (6" - 12")	4.70 - 6.70	5.70	P.S.F.
Asphalt temporary storage base	3.05 - 4.55	3.80	P.S.F.
Crushed rock temporary storage base	1.50 - 2.00	1.75	P.S.F.
Underground Concrete Conveyor tunnels - 4' x 4'	93.00 - 139.00	116.00	P.L.F.
6' x 6'	135.00 - 195.00	165.00	P.L.F.
8' x 8'	175.00 - 255.00	215.00	P.L.F.
*Aeration Tower	150,000 - 250,000	200,000	Each
Fill Conveyors & Catwalks			(See Page 6-136)
Fans			(See Page 6-140)

*Includes tower, lift ring, distribution box, skirt, and winches. (Does not include tarp.)

WIND TURBINES



MONOPOLE TOWER



LATTICE TOWER

Each wind turbine is unique in that it is engineered for a specific weight load, wind factor, soil condition, icing conditions, etc. Reported construction costs of wind turbines will many times include extended maintenance agreements. It is important for the assessor/appraiser to determine the actual construction costs from the cost of the maintenance agreement. Costs include a turbine, generator, inverter, etc. Costs do not include battery backup. Tower costs include foundation, tower, and erection.

Rated Capacity (Kilowatts)	Turbine/Blades, Etc. (Price per KW)		Add for Towers (Price per Foot of Height to HUB, Includes Foundation)	
	Base Cost	Add for each additional Kilowatt	Monopole Tower	Lattice or Guyed Tower
1	\$4,400.00	+ \$4,000.00	\$125.00	\$85.00
5	20,400.00	+ 3,300.00	200.00	140.00
10	36,900.00	+ 2,750.00	250.00	175.00
15	50,650.00	+ 2,550.00	350.00	245.00
20	63,400.00	+ 2,400.00	400.00	280.00
25	75,400.00	+ 2,300.00	450.00	315.00
30	86,900.00	+ 2,200.00	475.00	330.00
35	97,900.00	+ 2,100.00	500.00	350.00
40	108,400.00	+ 2,000.00	550.00	385.00
45	118,400.00	+ 1,900.00	650.00	450.00
50	127,900.00	+ 1,850.00	850.00	600.00
75	174,150.00	+ 1,800.00	900.00	630.00
100	219,150.00	+ 1,700.00	925.00	650.00
500	899,150.00	+ 1,600.00	950.00	665.00
1,000	1,699,150.00	+ 1,500.00	1,000.00	700.00
1,500	2,449,150.00	+ 1,400.00	1,000.00	700.00

Wind turbines can be located on towers or mounted on existing structures. The turbine should first be priced then the tower pricing should be added if applicable.