

NOTE:

1. This plan set shows details for a four (4) Primary Bin unit. The plan set is to be adapted for _____ Primary Bins and _____ Storage Bins. See sheet 6 of 6 for estimated quantities.
2. Each Primary Bin shall have a gate. For clarity only one gate is shown in the perspective view.

The following Construction Specifications are incorporated by reference:

- AR-21 Excavation
- AR-23C Earthfill Class C
- AR-31 Concrete for Major Structures
- AR-32 Structure Concrete
- AR-34 Steel Reinforcement
- AR-81 Metal Fabrication
- AR-83 Timber Fabrication

*The full text of the Construction Specifications can be found on the web at http://www.ar.nrcs.usda.gov/technical/engineering_construction_specs.html

I certify that the composter was built according to this set of drawings:

Contractor/Landowner

This composter meets NRCS Standards and Specifications

NRCS Representative

Perspective View



**Know what's below.
Call before you dig.**

No. of Primary Bins	* Total Length Ft.-In.	Composting and Storage Area - Sq. Ft.	Area of Concrete Ramps - Sq.Ft.
2	31'-8"	554	498
3	42'-1"	736	633
4	52'-6"	919	769
5	62'-11"	1101	904
6	73'-4"	1283	1044
7	83'-9"	1466	1175
8	94'-2"	1648	1311
* Includes one 10' wide storage bin.			AR-ENG-415 Rev. 11-2010

Date _____
Designed _____
Drawn _____
Checked _____
Approved _____

MORTALITY COMPOST FACILITY

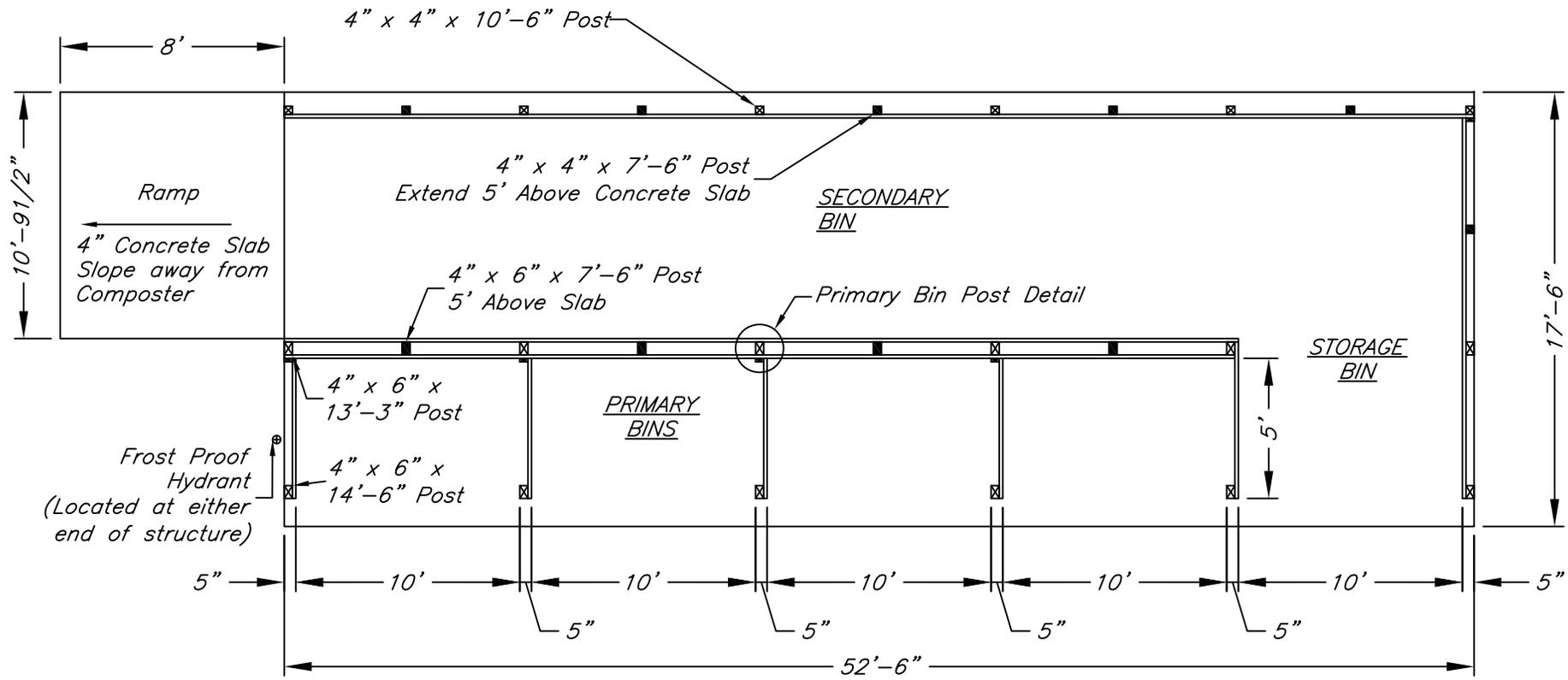
10' Wide Bins

Customer: _____



File No. _____

Drawing No.
AR-ENG-415
Rev. 11-2010



Plan View

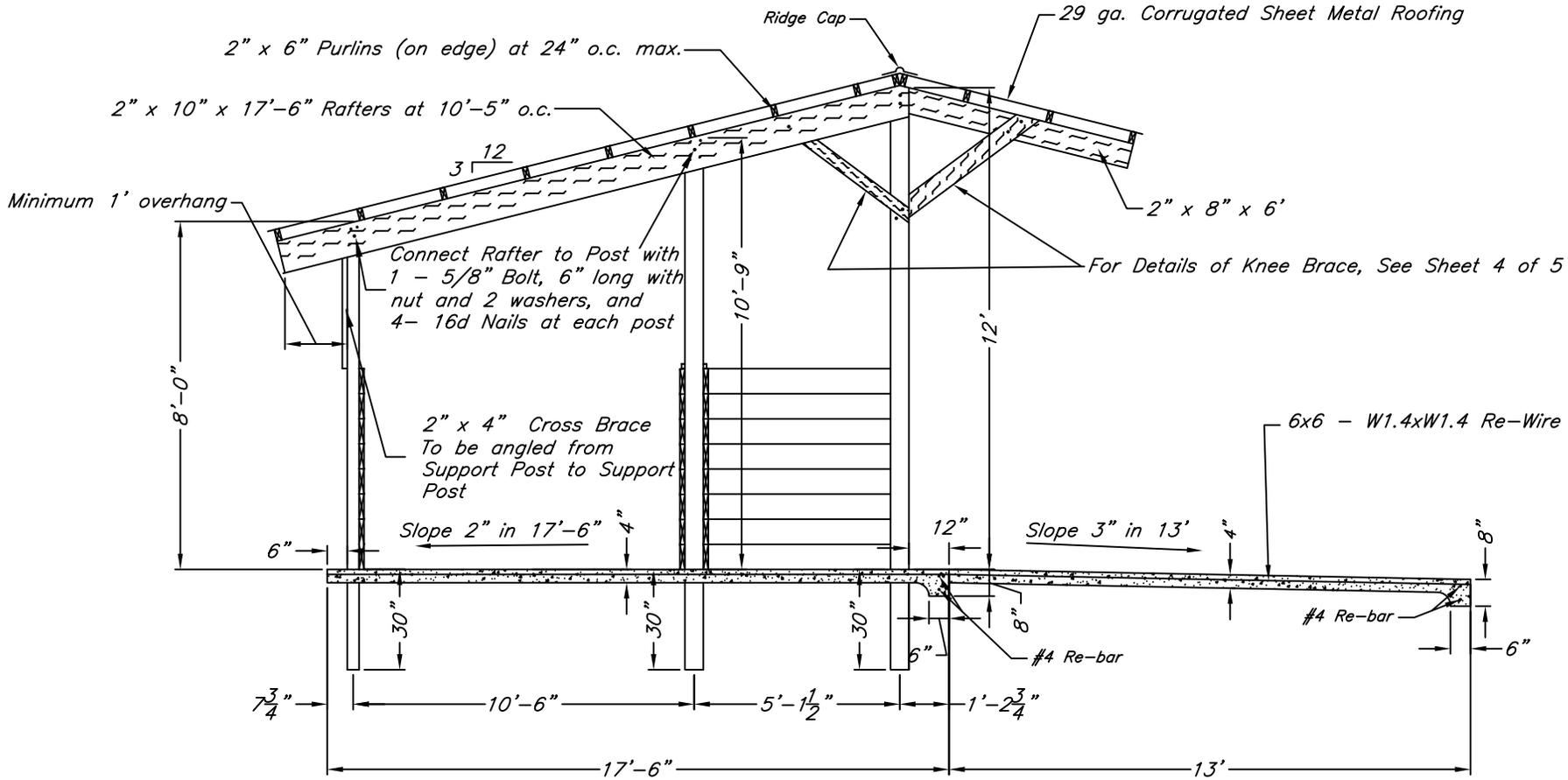
NOTES:

1. Treated lumber (0.4 lbs. per cu. ft.) is to be used for all lumber except rafters, purlins, knee braces, and cross braces. All lumber is to be #2 Southern Yellow Pine.
2. Planks are to be 2" x 8" treated lumber of variable lengths to result in staggered joint locations.
3. Attach each purlin to each rafter with a manufactured framing anchor. Where Purlin joints are needed, they are to overlap 18" above a rafter.
4. Roofing material is to be attached to each purlin using fasteners and fastener spacing recommended by the roofing manufacturer. The contractor shall provide a copy of the manufacturers fastening recommendations prior to final inspection.
5. Double wall between secondary bin and primary bins will have a 2" x 8" cap.
6. Frost-proof hydrant is required UNLESS there is an alternative water source (such as a hydrant) available within 150'.
7. If Storage Bin is not needed, a wall will be required at one end of secondary bin.

Date	Designed	Drawn	Checked	Approved

MORTALITY COMPOST FACILITY
 10' Wide Bins
 Customer: _____

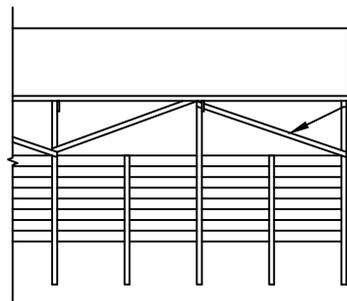




Cross Section View

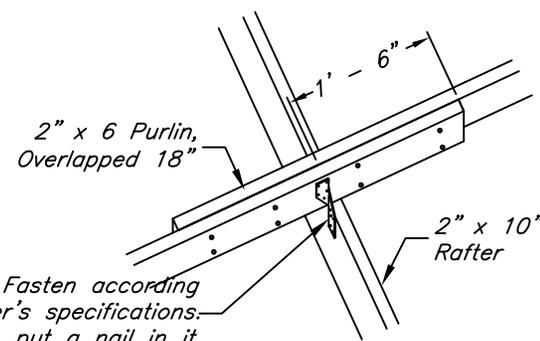
NOTES:

1. Concrete is to have a 28 day strength of 3,000 psi.
2. Fiber reinforced concrete can be used in lieu of conventional concrete and reinforcing wire.
3. Thickened concrete edge is to be placed on all edges of concrete slab that will be receiving oncoming vehicular traffic.
4. Construction and/or sawcut contraction joints are to have a maximum spacing of 13'.



Back View
Not to Scale

2" x 4" Cross Brace
To be angled from
Support Post to Support
Post



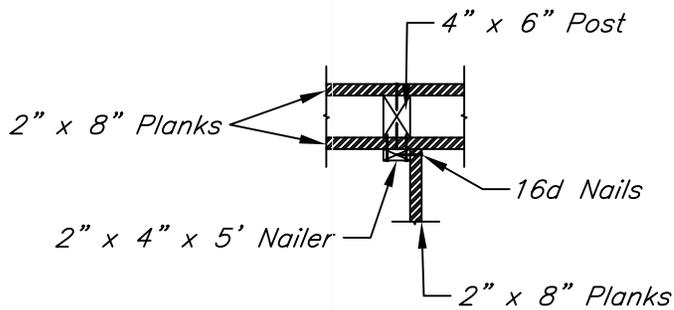
Hurricane Tie. Fasten according
to manufacturer's specifications.
If there is a hole, put a nail in it.

Purlin to Rafter Detail
Not to Scale

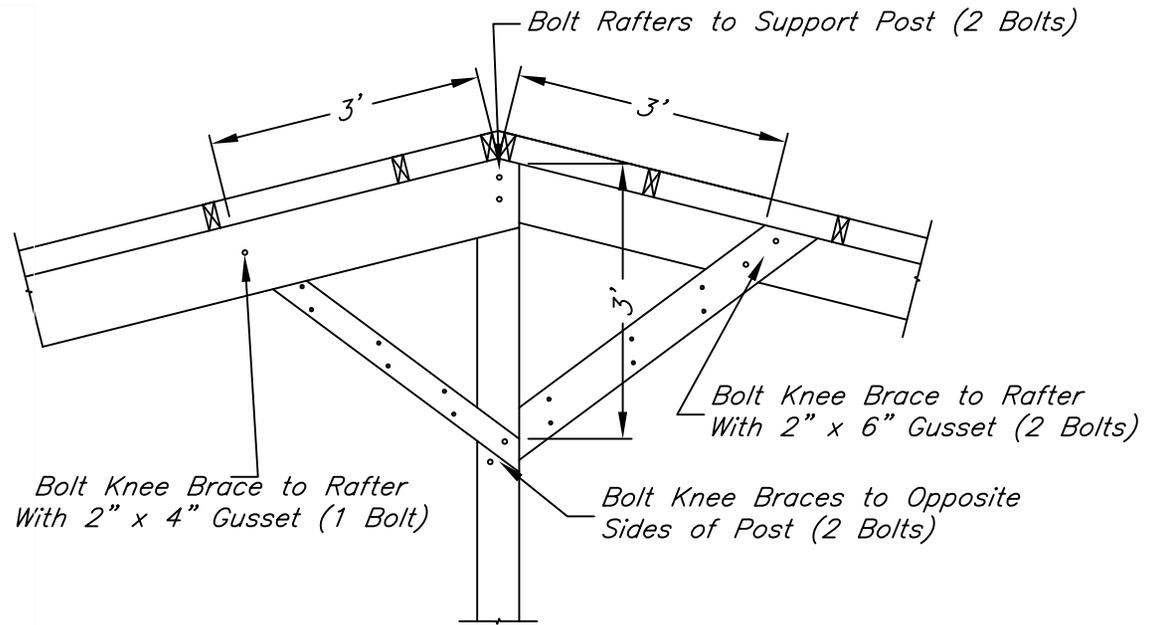
Date	Designed	Drawn	Checked	Approved

MORTALITY COMPOST FACILITY
10' Wide Bins
Customer: _____

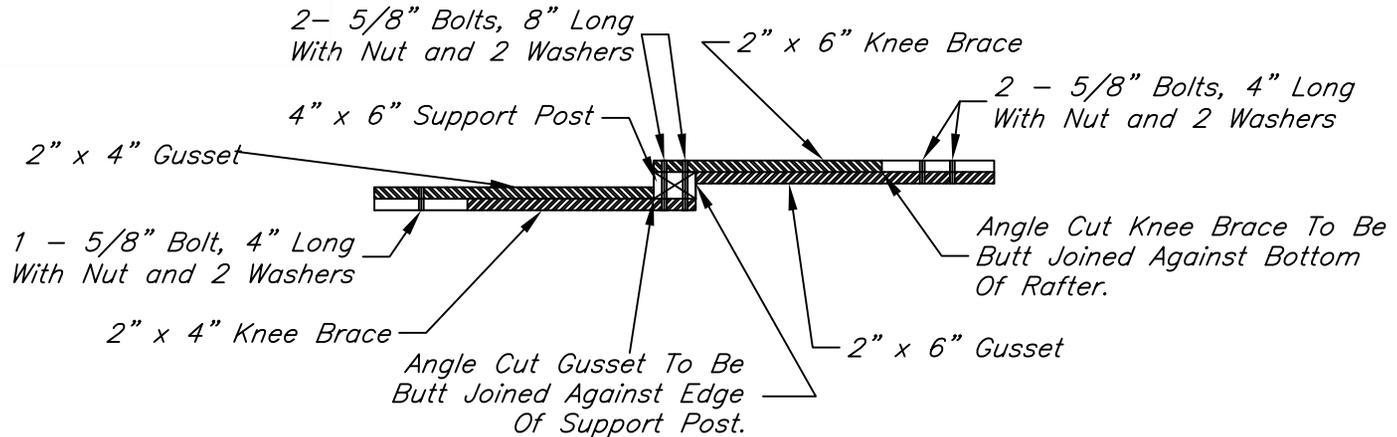




PRIMARY BIN POST DETAIL



KNEE BRACE DETAIL



PLAN VIEW - KNEE BRACE

Notes:

1. All bolts shall be $\frac{5}{8}$ " diameter with washers at both ends.
2. All 16d nails shall be Ring Shank.
3. Nail gusset and knee brace together. Use a minimum of six (6) 16d nails, clinched.

Date	Designed	Drawn	Checked	Approved

MORTALITY COMPOST FACILITY
10' Wide Bins

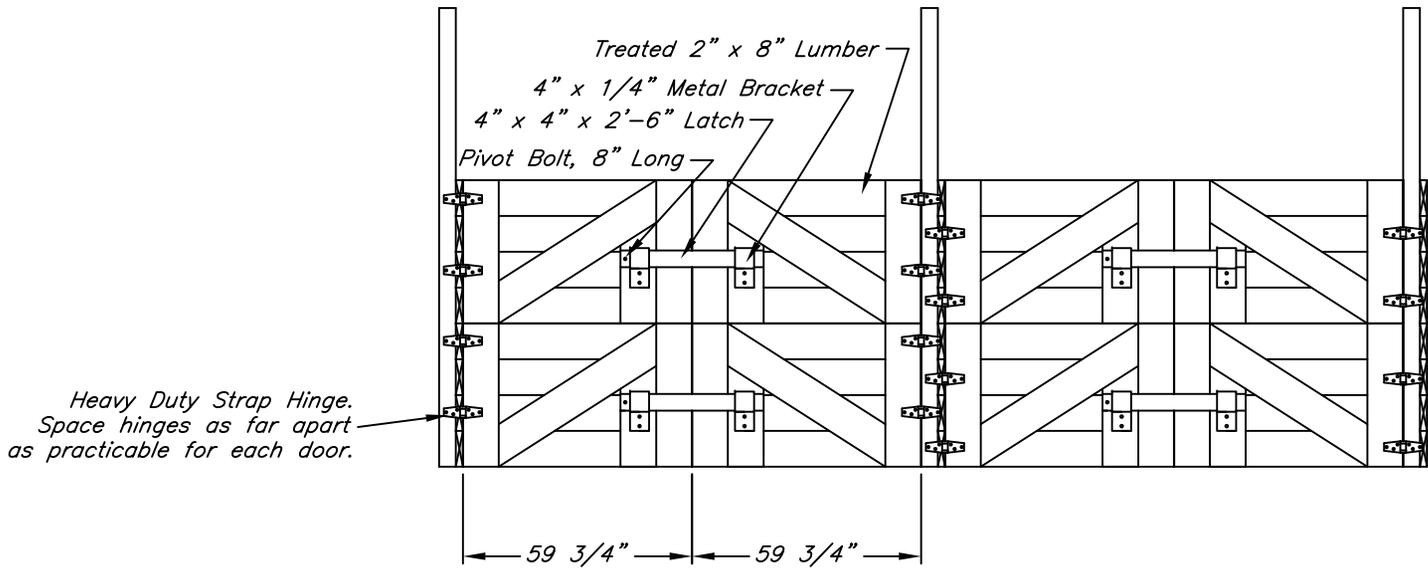
Customer: _____



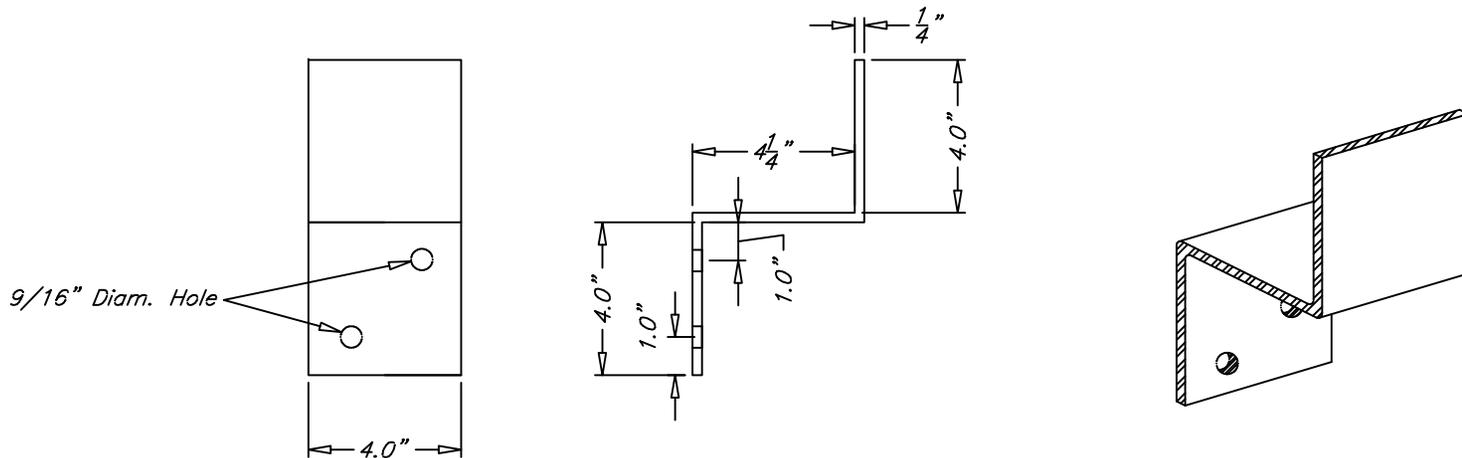
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Sheet 4 of 6



GATE DETAIL



NOTE: Attach Metal Bracket with 2 - 1/2" x 4" Bolts with nut and flat washers.

BRACKET DETAIL

Designated	Drawn	Checked	Approved

MORTALITY COMPOST FACILITY
 10' Wide Bins
 Customer: _____



Composter Without Storage Area

	Number of Primary Cells								**
	2	3	4	5	6	7	8		
Length	21'-3"	31'-8"	42'-1"	52'-6"	62'-11"	73'-4"	83'-9"	10'-5"	
CONCRETE, Cu. Yd. (Includes Ramp and Apron)	9.4	13.5	17.5	21.6	25.6	29.7	33.7	4.1	
CONCRETE REINFORCEMENT									
6X6-W1.4xW1.4 wire mesh, sq.ft.	719	1033	1348	1662	1976	2290	2605	314	
#4 Reinforcing Bar, Lin. Ft.	124	166	208	249	291	332	374	42	
TREATED LUMBER									
POSTS									
4"x6"x 14'-6" (Middle)	3	4	5	6	7	8	9	1	
4"x6"x 13'-3" (Front)	3	4	5	6	7	8	9	1	
4"x4"x 10'-6" (Back)	3	4	5	6	7	8	9	1	
4"x6"x 7'-6" (Middle)	2	3	4	5	6	7	8	1	
4"x4"x 7'-6" (Back)	2	3	4	5	6	7	8	1	
2"x8" PLANKING									
5'-0" (Bins)	24	32	40	48	56	64	72	8	
16'-0" (No Endwall)	0	0	0	0	0	0	0	0	
Additional Lin. Ft. (back of Prim. and Sec. bins)	510	760	1010	1260	1510	1760	2010	250	
Nails									
2"x4"x 5'-0"	3	4	5	6	7	8	9	1	
Cap (between secondary and primary)									
2"x8"x 10'-1 1/2"	2	3	4	5	6	7	8	1	
DOORS									
2"x8"x 10' Treated	22	33	44	55	66	77	88	11	
2"x8"x 10' Treated	4	6	8	10	12	14	16	2	
4"x4"x 5'	2	3	4	5	6	7	8	1	
4" Heavy Duty Strap Hinge	16	24	32	40	48	56	64	8	
4" x 1/2" Metal Bracket	8	12	16	20	24	28	32	4	
1/2" x 4" Metal Bolts	16	24	32	40	48	56	64	8	
1/2" x 8" Bolts	4	6	8	10	12	14	16	2	
NON-TREATED LUMBER									
2"x10"x 17'-6" (Back Rafter)	3	4	5	6	7	8	9	1	
2"x6"x 6'-0" (Front Rafter)	3	4	5	6	7	8	9	1	
2"x6"x 4'-0" (Gusset)	6	8	10	12	14	16	18	2	
2"x4"x 3'-6" (Knee Brace)	6	8	10	12	14	16	18	2	
2"x4"x 10'-5 1/4" (Cross Brace)	2	3	4	5	6	7	8	1	
PURLINS									
2"x6"x 12'	28	42	56	70	84	98	112	14	
ROOFING MATERIAL - sq.ft.	500	745	989	1234	1479	1724	1969	245	
BOLTS - 5/8" Diam.									
4" Length	9	12	15	18	21	24	27	3	
6" Length	6	8	10	12	14	16	18	2	
8" Length	12	16	20	24	28	32	36	4	
Washers - 5/8" Diam.	42	56	70	84	98	112	126	14	
Framing Anchors	39	52	65	78	91	104	117	13	

** Additional material for each added bin.

Composter With Storage Area

	Number of Primary Cells								**
	2	3	4	5	6	7	8		
Length	31'-8"	42'-1"	52'-6"	62'-11"	73'-4"	83'-9"	94'-2"	10'-5"	
CONCRETE, Cu. Yd.	13.8	17.5	21.6	25.6	29.7	33.7	37.8	4.1	
CONCRETE REINFORCEMENT									
6X6-W1.4xW1.4 wire mesh, sq.ft.	1033	1348	1662	1976	2290	2605	2919	314	
#4 Reinforcing Bar, Lin. Ft.	166	208	249	291	333	374	416	42	
TREATED LUMBER									
POSTS									
4"x6"x 14'-6" (Middle)	4	5	6	7	8	9	10	1	
4"x6"x 13'-3" (Front)	4	5	6	7	8	9	10	1	
4"x4"x 10'-6" (Back)	4	5	6	7	8	9	10	1	
4"x6"x 7'-6" (Middle)	2	3	4	5	6	7	8	1	
4"x4"x 7'-6" (Back)	4	5	6	7	8	9	10	1	
2"x8" PLANKING									
5'-0" (Bins)	24	32	40	48	56	64	72	8	
16'-0" (Endwall)	8	8	8	8	8	8	8	0	
Additional Lin. Ft. (back of Prim. and Sec. bins)	594	844	1094	1344	1594	1844	2094	250	
Nails									
2"x4"x 5'-0"	4	5	6	7	8	9	10	1	
Cap (between secondary and primary)									
2"x8"x 10'-1 1/2"	2	3	4	5	6	7	8	1	
DOORS									
2"x8"x 10' Treated	22	33	44	55	66	77	88	11	
2"x8"x 10' Treated	4	6	8	10	12	14	16	2	
4"x4"x 5'	2	3	4	5	6	7	8	1	
4" Heavy Duty Strap Hinge	16	24	32	40	48	56	64	8	
4" x 1/2" Metal Bracket	8	12	16	20	24	28	32	4	
1/2" x 4" Metal Bolts	16	24	32	40	48	56	64	8	
1/2" x 8" Bolts	4	6	8	10	12	14	16	2	
NON-TREATED LUMBER									
2"x10"x 17'-6" (Back Rafter)	4	5	6	7	8	9	10	1	
2"x6"x 6'-0" (Front Rafter)	4	5	6	7	8	9	10	1	
2"x6"x 4'-0" (Gusset)	8	10	12	14	16	18	20	2	
2"x4"x 3'-6" (Knee Brace)	8	10	12	14	16	18	20	2	
2"x4"x 10'-5 1/4" (Cross Brace)	3	4	5	6	7	8	9	1	
PURLINS									
2"x6"x 12'	42	56	70	84	98	112	126	14	
ROOFING MATERIAL - sq.ft.	745	989	1234	1479	1724	1969	2213	245	
BOLTS - 5/8" Diam.									
4" Length	12	15	18	21	24	27	30	3	
6" Length	8	10	12	14	16	18	20	2	
8" Length	16	20	24	28	32	36	40	4	
Washers - 5/8" Diam.	56	70	84	98	112	126	140	14	
Framing Anchors	52	65	78	91	104	117	130	13	

Date _____
 Designed _____
 Drawn _____
 Checked _____
 Approved _____

MORTALITY COMPOST FACILITY
 10' Wide Bins
 Customer: _____

