

LAYOUT & MECHANIZATION SCHEMATIC

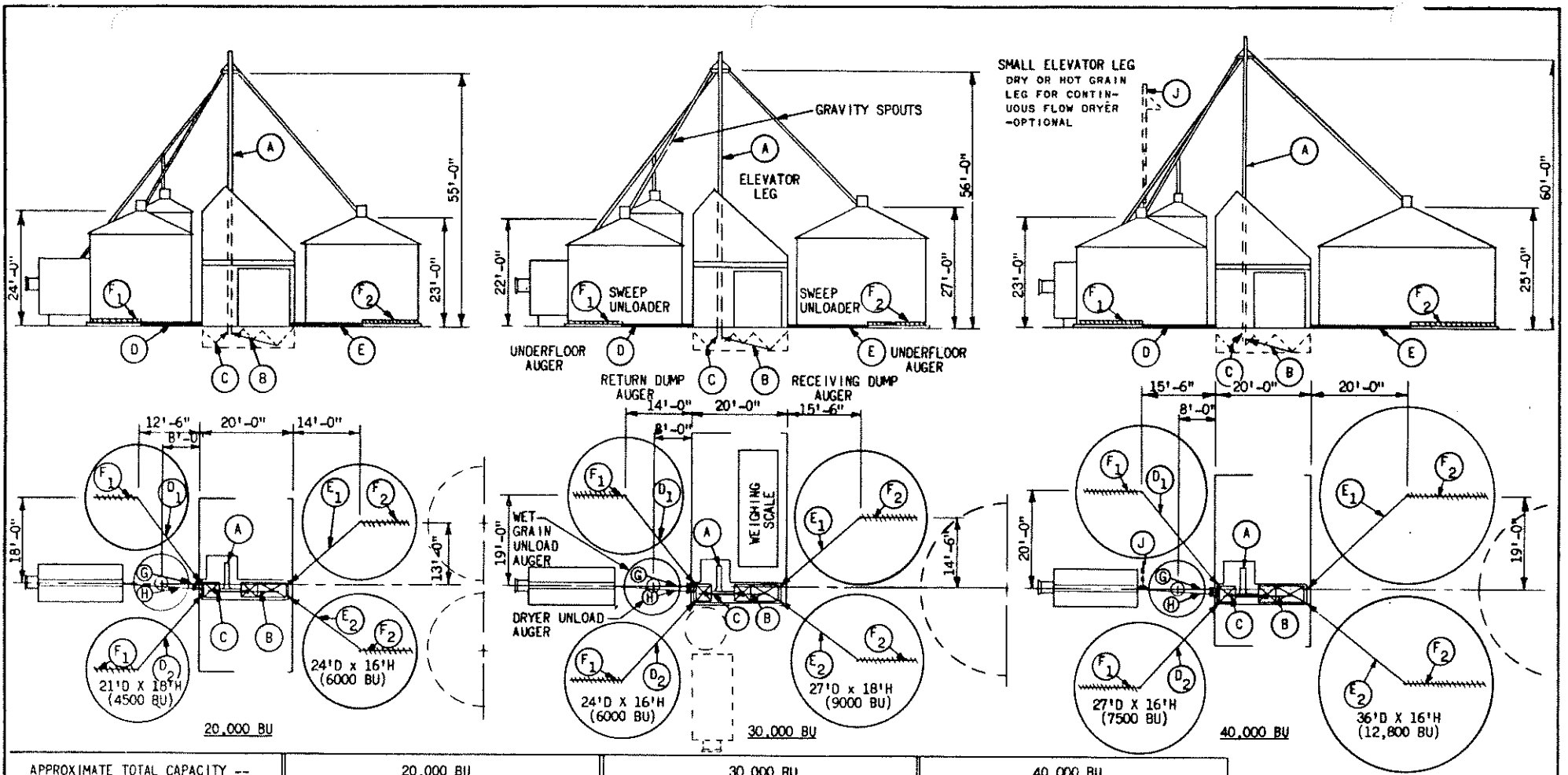
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MMPS 7329^h

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS		
STATE OF FLORIDA		
UNIVERSITY OF FLORIDA AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING		
GRAIN-FEED HANDLING CENTER POLE TYPE CONSTRUCTION		
IND. '69	6081	SHEET 1 OF 9
EXT. AGR. ENGINEER — GAINESVILLE, FLORIDA		



GRAIN HANDLING EQUIPMENT	20,000 BU 1000-1200 BU/HR FLOW RATE				30,000 BU 1500-2000 BU/HR FLOW RATE				40,000 BU 2500-3000 BU/HR FLOW RATE						
	CODE	LENGTH OR HEIGHT	SIZE	ESTIMATED CAPACITY BU/HR	HP	CODE	LENGTH OR HEIGHT	SIZE	ESTIMATED CAPACITY BU/HR	HP	CODE	LENGTH OR HEIGHT	SIZE	ESTIMATED CAPACITY BU/HR	HP
ELEVATOR LEG	A	55'	7x5"	1000-1200	2-3	A	56'	8x5 OR 9x5"	1500-2000	3-5	A	60'	9x6"	2500-3000	7½
GRAVITY SPOUTS			6"					6"					8"		
RECEIVING DUMP AUGER	B	11'	8"	1200(WET)	2-3	B	11'	10"		3-5	B	11'	12" OR 14"		3-5
RETURN DUMP AUGER	C	4'	8"	1200(WET)	1	C	4'	10"		1	C	4'	12"		1½
UNDERFLOOR AUGER	D ₁	23'	6"	1000-1200	2	D ₁	24'	6"	1500	3	D ₁	26'	8"	2500	5
UNDERFLOOR AUGER	D ₂	21'	6"	1000-1200	2	D ₂	22'	6"	1500	3	D ₂	24'	8"	2500	5
UNDERFLOOR AUGER	E ₁	20'	6"	1000-1200	2	E ₁	22'	6"	1500	3	E ₁	30'	8"	2500	5
UNDERFLOOR AUGER	E ₂	18'	6"	1000-1200	2	E ₂	20'	6"	1500	3	E ₂	28'	8"	2500	5
SWEEP UNLOADERS	F ₁	10'	4" OR 6"	1000	1½	F ₁	11½'	6"	1000-1200	1	F ₁	13'	6"	1000-1200	1½
SWEEP UNLOADERS	F ₂	11½'	4" OR 6"	1000	1½	F ₂	13'	6"	1000-1200	1½	F ₂	17½'	6"	1000-1200	2
WET GRAIN UNLOAD AUGER	G	10'	8"	1000-1200	1½	G	10'	10"	1500-2000 (WET)	2-3	G	10'	12"		2
DRYER UNLOAD AUGER	H	18'	6"	1000-1200	1½-2	H	18'	6" OR 8"	1500 OR 2000	2 OR 3	H	18'	8"	2500	3
SMALL ELEVATOR LEG (FOR CONT. FLOW DRYER)	J	45'	(SEE RIGHT)			J	44'	(SEE RIGHT)			J	48'	4x6"	500-700	1

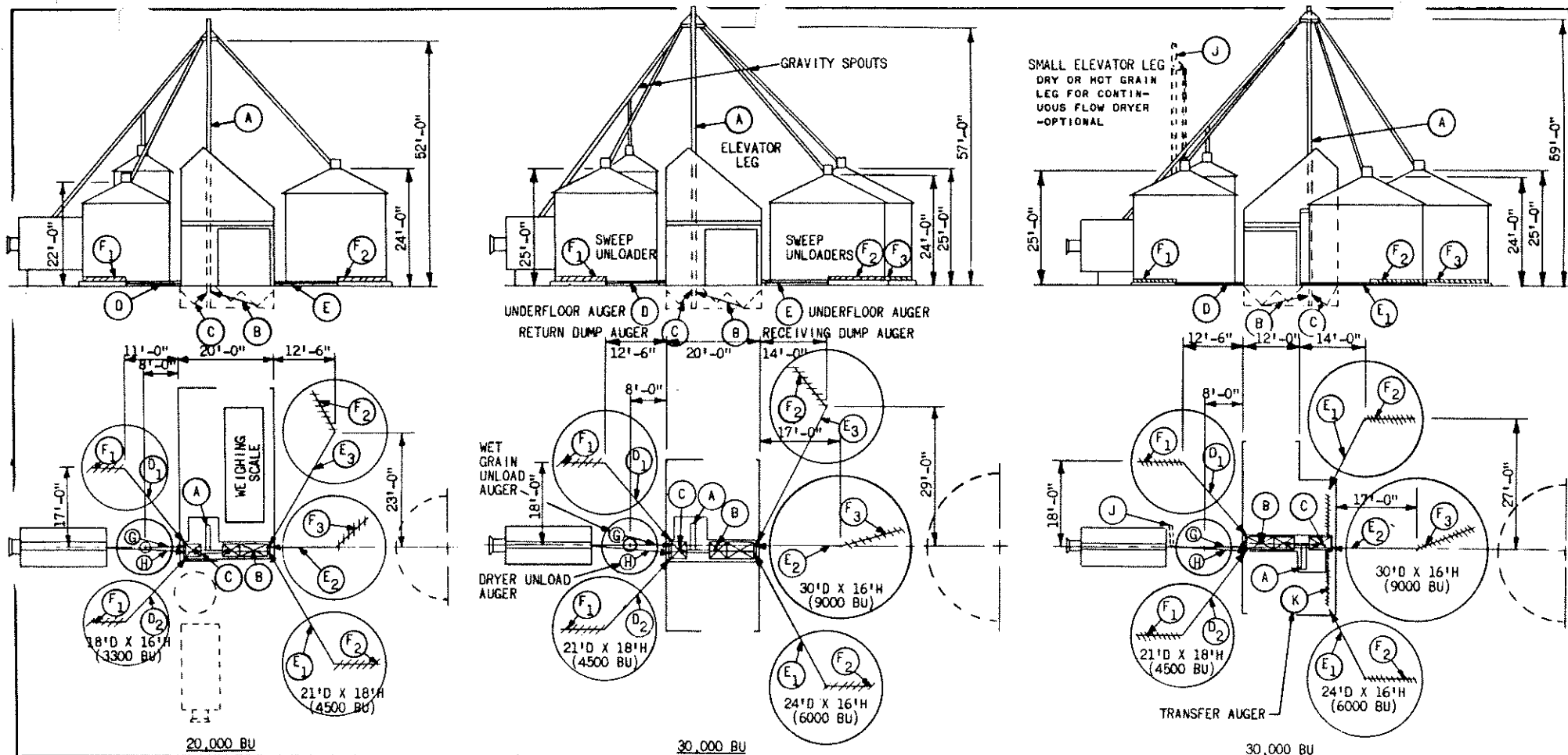
- HANDLING FLOW RATES ILLUSTRATED ARE WORKABLE COMBINATIONS AND NOT LIMITED TO EACH SPECIFIC FACILITY.
- AUGER INTAKE EXPOSURE MATCHED TO CAPACITY—MINIMUM EXPOSURE = AUGER DIA.; MAXIMUM EXPOSURE 2'±. ADDITIONAL EXPOSURE INCREASES HORSEPOWER NOT CAPACITY.
- SWEEP UNLOADER CAPACITIES GIVEN FOR UNITS WITH GRAIN SHIELDS BEHIND AUGER.
- FLAT STORAGE STRUCTURES CAN BE SUBSTITUTED FOR BIN ON RIGHT SIDE OF LAYOUT. DOTTED BINS SHOWN FOR FUTURE EXPANSION ARE INTERCHANGABLE FOR ALL LAYOUTS.

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GRAIN-FEED HANDLING CENTER
 POLE TYPE CONSTRUCTION

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EXT. AGR. ENGINEER — GAINESVILLE, FLORIDA



APPROXIMATE TOTAL CAPACITY-- ALTERNATIVE HANDLING RATES--	20,000 BU 1000-1200 BU/HR FLOW RATE					30,000 BU 2500-3000 BU/HR FLOW RATE					30,000 BU 2500-3000 BU/HR FLOW RATE				
	CODE	LENGTH OR HEIGHT	SIZE	ESTIMATED CAPACITY BU/HR	HP	CODE	LENGTH OR HEIGHT	SIZE	ESTIMATED CAPACITY BU/HR	HP	CODE	LENGTH OR HEIGHT	SIZE	ESTIMATED CAPACITY BU/HR	HP
ELEVATOR LEG	A	52'	7x5"	1000-1200	2-3	A	57'	9x6"	2500-3000	7½	A	59'	9x6"	2500-3000	7½
GRAVITY SPOUTS			6"					8"					8"		
RECEIVING DUMP AUGER	B	11'	8"	1200(WET)	2-3	B	11'	12"OR 14"		3-5	B	11'	12"OR 14"		3-5
RETURN DUMP AUGER	C	4'	8"	1200(WET)	1	C	4'	12"		1½	C	4'	12"		1½
UNDERFLOOR AUGER	D ₁	20'	6"	1000-1200	2	D ₁	22'	8"	2500	3	D ₁	22'	8"	2500	3
UNDERFLOOR AUGER	D ₂	22'	6"	1000-1200	2	D ₂	24'	8"	2500	3	D ₂	24'	8"	2500	3
UNDERFLOOR AUGER	E ₁	29'	6"	1000-1200	3	E ₁	31'	8"	2500	5	E ₁	16'	8"	2500	3
UNDERFLOOR AUGER	E ₂	14'	6"	1000-1200	1½	E ₂	19'	8"	2500	3	E ₂	20'	8"	2500	3
UNDERFLOOR AUGER	E ₃	27'	6"	1000-1200	3	E ₃	29'	8"	2500	5	(K)	14'	8"-10"	2500	2
SWEEP UNLOADERS	F ₁	8½'	4"		3/4	F ₁	10'	6"	1000-1200	1	F ₁	10'	6"	1000-1200	1
SWEEP UNLOADERS	F ₂	10'	6"	1000	1	F ₂	11½'	6"	1000-1200	1	F ₂	11½'	6"	1000-1200	1
SWEEP UNLOADERS	F ₃	10'	6"	1000	1	F ₃	14½'	6"	1000-1200	1½	F ₃	14½'	6"	1000-1200	1½
WET GRAIN UNLOAD AUGER	G	8'	8"	1200(WET)	1½	G	8'	10"	1500-2000	2-3	G	10'	12"		
DRYER UNLOAD AUGER	H	14'	6"	1000-1200	1½	H	14'	8"	2500	3	H	18'	8"	2500	3
SMALL ELEVATOR LEG (FOR CONT. FLOW DRYER)	J	34'	(SEE RIGHT)			J	38'	(SEE RIGHT)			J	45'	4x6"	500-700	1

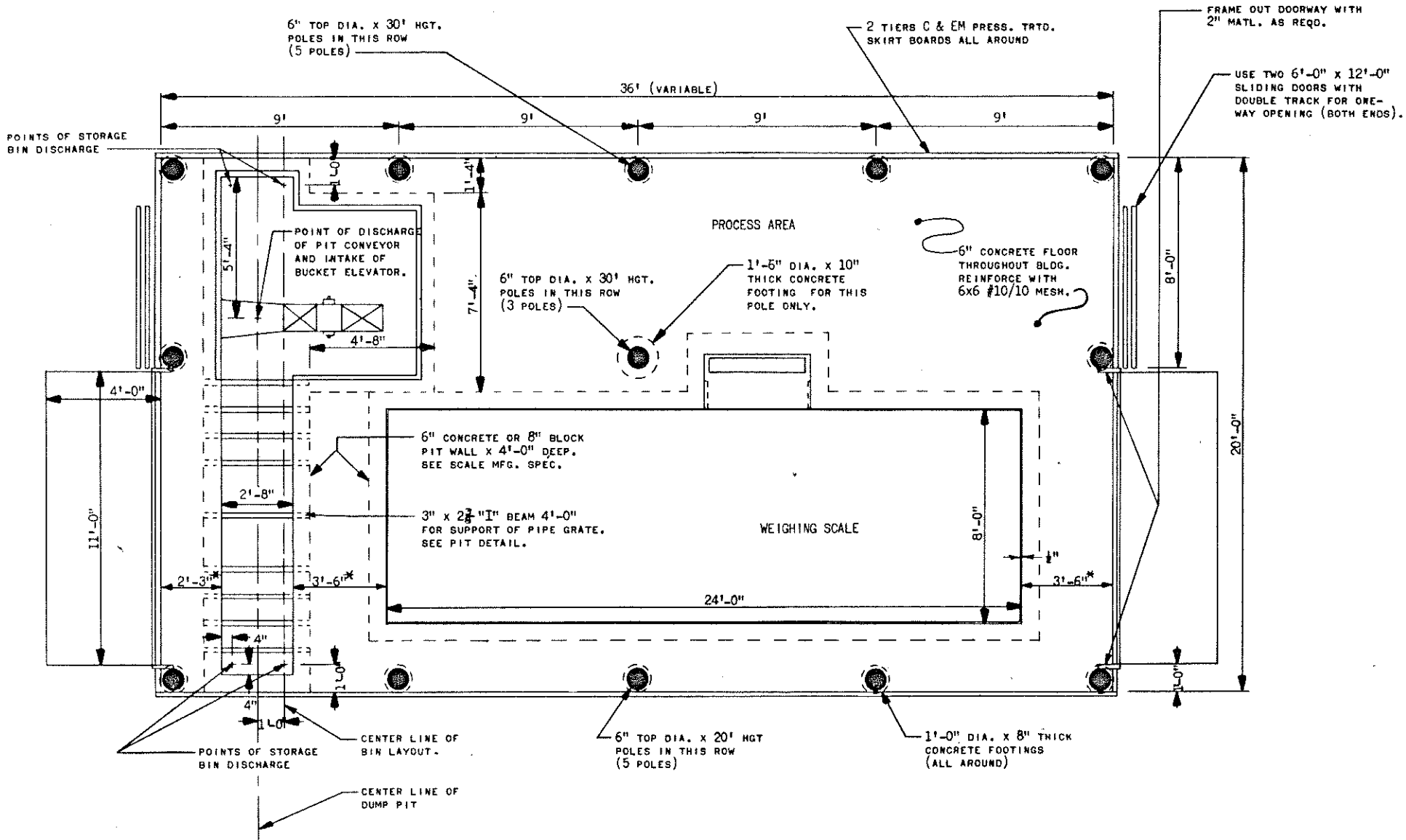
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- SWEEP UNLOADER CAPACITIES GIVEN FOR UNITS WITH GRAIN SHIELDS BEHIND AUGER.
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**GRAIN-FEED HANDLING CENTER
POLE TYPE CONSTRUCTION**

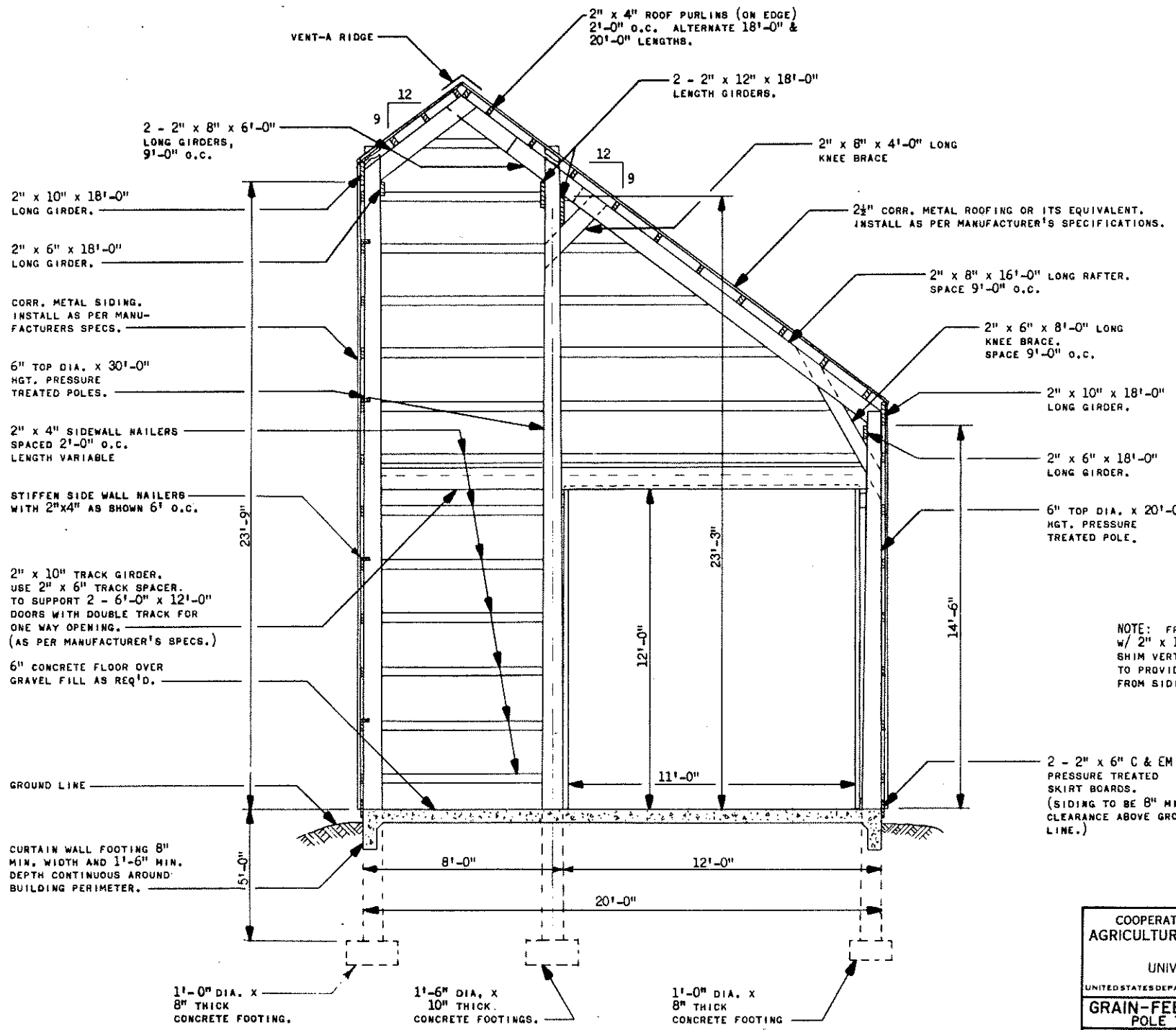
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EXT. AGR. ENGINEER - GAINESVILLE, FLORIDA			



FLOOR & FOUNDATION PLAN

*NOTE: 4'-0" CLEARANCE IS MORE DESIRABLE TO REDUCE SNOW AND GRAIN FLOW PATTERNS. INCREASE BUILDING LENGTH TO ACCOMPLISH.

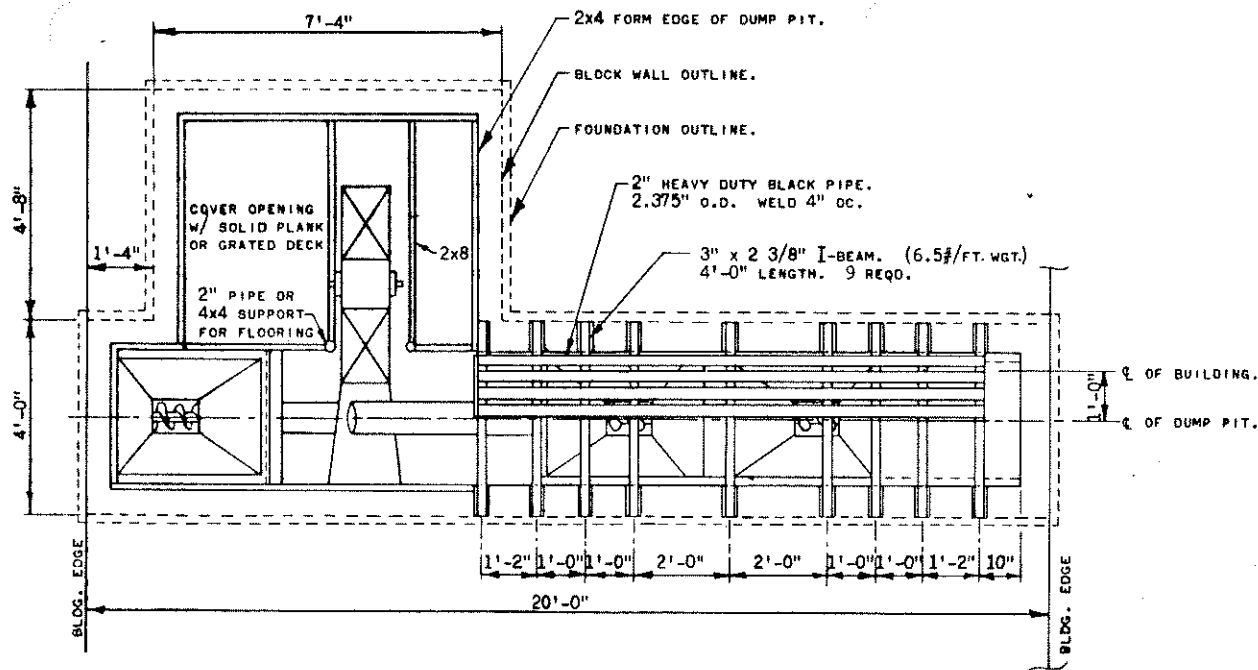
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EXT. AGR. ENGINEER -- GAINESVILLE, FLORIDA		



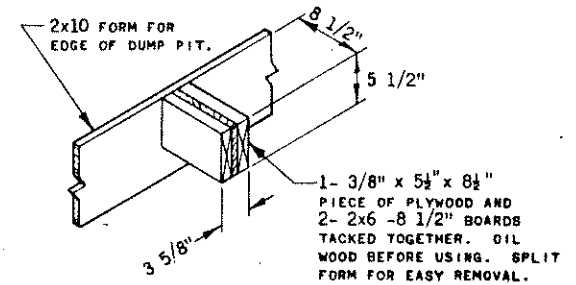
NOTE: FRAME OUT DOOR OPENING w/ 2" x 10" x 12'-0" LONG BOARDS. SHIM VERTICAL AS REQ'D. SET TO PROVIDE DOOR CLEARANCE FROM SIDING.

TYPICAL SECTION VIEW

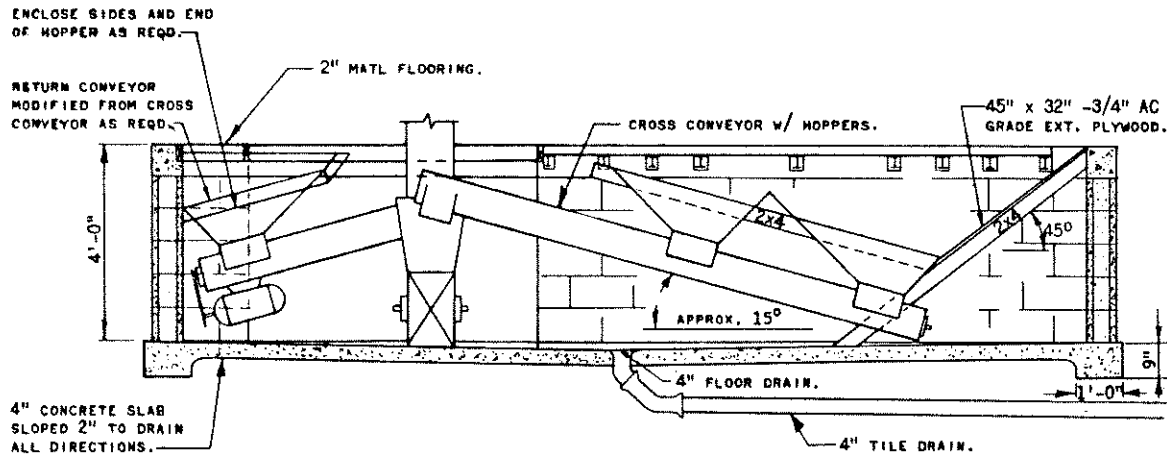
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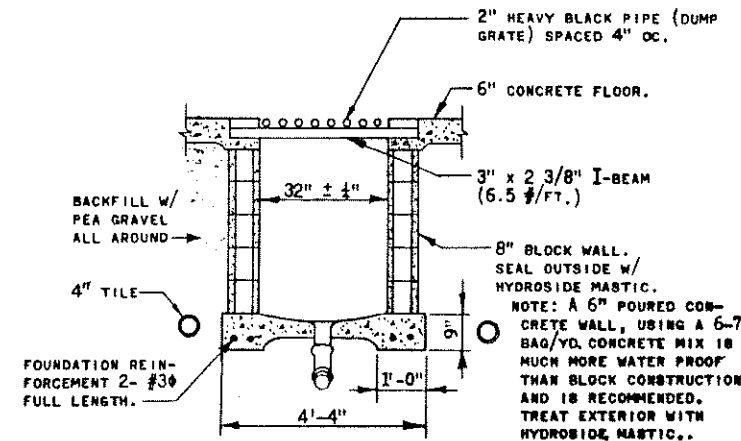
PLAN VIEW



I-BEAM NOTCH FORMING DETAIL

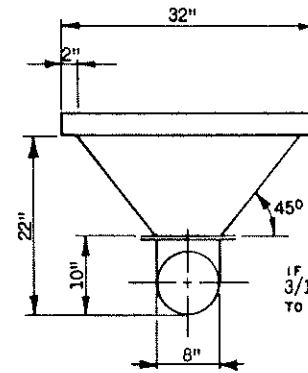
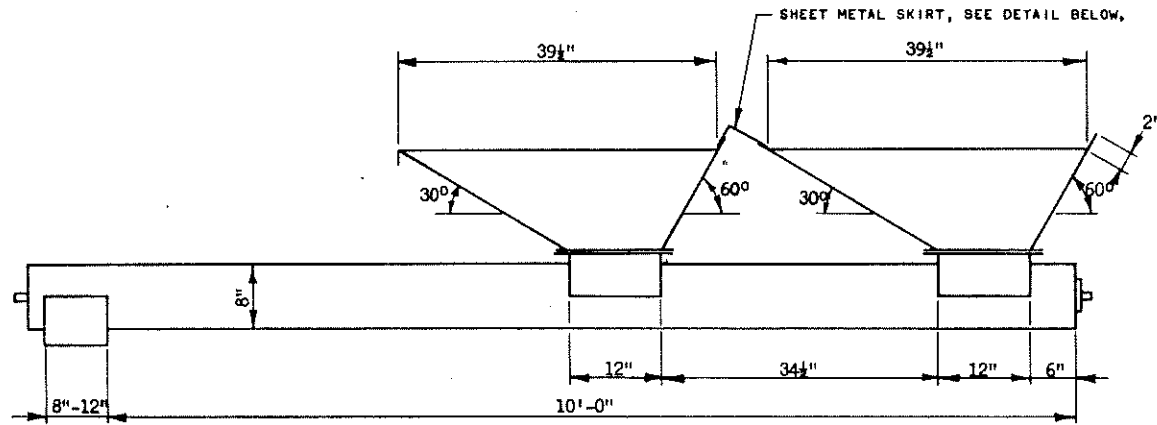
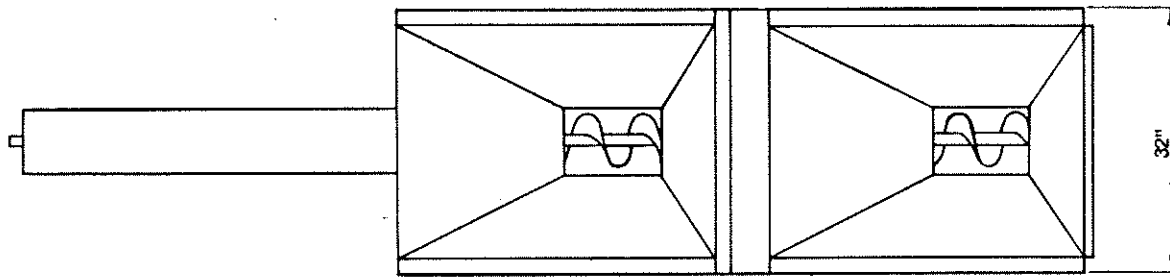


ELEVATION VIEW

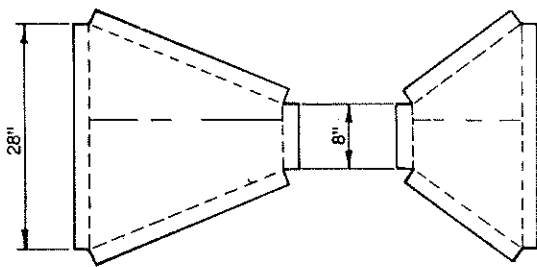


END SECTION OF DUMP PIT

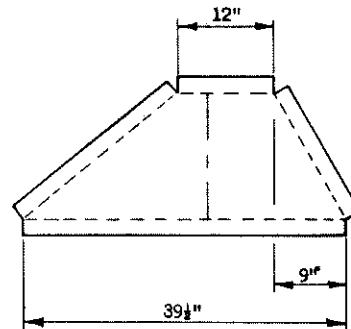
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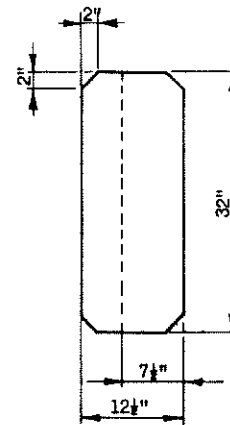
IF SLIDE IS DESIRED, USE 3/16" x 3/4" BAR STOCK TO SPACE EACH SIDE.



HOPPER END PANELS



HOPPER SIDE PANELS



SKIRT BETWEEN HOPPERS

NOTE: ALL FLANGES ARE DRAWN 2", BUT MAY BE MODIFIED TO EASE FABRICATION. 16 GAGE STEEL IS SUGGESTED. MODIFICATIONS MAY BE NECESSARY TO ADAPT TO A PARTICULAR SCREW CONVEYOR.

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