

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND

# BUILDING PERMIT

This is to certify that SHIPYARD BREWING COMPANY

Located At 127 FORE

Job ID: 2011-03-580-ALTCOMM

CBL: 020 - - C - 009 - 001 - - - -

has permission to New Grain Silo 16' x 16' x 30'

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

  
Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY.  
PENALTY FOR REMOVING THIS CAR**



# PORTLAND MAINE

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Director of Planning and Urban Development  
Penny St. Louis

Job ID: 2011-03-580-ALTCOMM

Located At: 127 FORE

CBL: 020 - - C - 009 - 001 - - - -

## **Conditions of Approval:**

### **Fire**

Installation shall comply with City Code Chapter 10.

### **Building**

1. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm HVAC systems, heating appliances, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
2. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.

Special inspection reports, performed by a structural engineer, shall be submitted to this office for the anchorage of the silo to the slab. A final special inspection report must be submitted to this office stating the installation is in compliance with the approved plan.



## BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

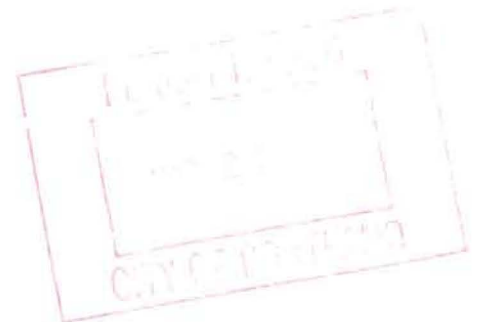
or email: [buildinginspections@portlandmaine.gov](mailto:buildinginspections@portlandmaine.gov)

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
  - **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
  - **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**
1. Footing / setback inspections required.
  2. Rebar inspections required.
  3. Final inspection required.

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUOPIED.



**City of Portland, Maine - Building or Use Permit Application**

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716



Job No: 2011-03-580-ALTCOMM	Date Applied: 3/11/2011	CBL: 020 - - C - 009 - 001 - - - - -	
Location of Construction: 86 NEWBURY STREET	Owner Name: BREWING COMPANY SHIPYARD	Owner Address: 86 NEWBURY ST PORTLAND, ME - MAINE 04102	Phone:
Business Name: SHIPYARD BREWING	Contractor Name:	Contractor Address:	Phone:
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG - Building	Zone: B-5b
Past Use: Shipyard Brewing	Proposed Use: Same: Shipyard Brewing - to add New grain silo 16' x 16' x 30'	Cost of Work: 42000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: S-2 Type: SB
		Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Proposed Project Description: 86 Newbury St - new grain silo		Pedestrian Activities District (P.A.D.)	

Permit Taken By: Lannie	<b>Zoning Approval</b>		
<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.</p>	<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan exemption # 2011-202 applied for <input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM Date: <i>3/16/11</i>	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in Dist or Landmark <input type="checkbox"/> Does not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:
	<b>CERTIFICATION</b>		

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHON

# Fire conditions

Installation shall comply with City Code Chapter 10.


Wait for Planning  
exemption sign-off  
before issuing permit

3/27/14  
received partial  
granted exemption  
with permit.  
66

**Job Summary Report**  
**Job ID: 2011-03-580-ALTCOMM**

Report generated on Mar 11, 2011 2:47:07 PM

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<b>Job Type:</b>	Adds/Alter Commercial	<b>Job Description:</b>	86 Newbury 	<b>Job Year:</b>	2011
<b>Building Job Status Code:</b>	In Review	<b>Pin Value:</b>	857	<b>Tenant Name:</b>	
<b>Job Application Date:</b>		<b>Public Building Flag:</b>	N	<b>Tenant Number:</b>	
<b>Estimated Value:</b>	42,000	<b>Square Footage:</b>			
<b>Related Parties:</b>		BREWING SHIPYARD		Property Owner	

**Job Charges**

Fee Code Description	Charge Amount	Permit Charge Adjustment	Net Charge Amount	Payment Date	Receipt Number	Payment Amount	Payment Adjustment Amount	Net Payment Amount	Outstanding Balance
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**Location ID: 3064**

**Location Details**

Alternate Id	Parcel Number	Census Tract	GIS X	GIS Y	GIS Z	GIS Reference	Longitude	Latitude
S22309	020 C 009 001		M				-70.248411	43.661642

Location Type	Subdivision Code	Subdivision Sub Code	Related Persons	Address(es)
1				127 FORE STREET WEST

Location Use Code	Variance Code	Use Zone Code	Fire Zone Code	Inside Outside Code	District Code	General Location Code	Inspection Area Code	Jurisdiction Code
MANUFACTURING & CONSTRUCT		NOT APPLICABLE	B510				DISTRICT 2	EAST END

**Structure Details**

**Structure: Shipyard Brewing Company**

**Occupancy Type Code:**

Structure Type Code	Structure Status Type	Square Footage	Estimated Value	Address
Industrial Building	0			127 FORE STREET WEST

Longitude	Latitude	GIS X	GIS Y	GIS Z	GIS Reference
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User Defined Property Value

**Permit #: 20111819**

**Permit Data**

Location Id	Structure Description	Permit Status	Permit Description	Issue Date	Reissue Date	Expiration Date
3064	Shipyard Brewing Company	Initialized	New Grain Silo 16' x 16' x 30'			

*Unmole*

*In Que*

**Job Summary Report**  
**Job ID: 2011-03-580-ALTCOMM**

Report generated on Mar 11, 2011 2:47:07 PM

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**Inspection Details**

Inspection Id	Inspection Type	Inspection Result Status	Inspection Status Date	Scheduled Start Timestamp	Result Status Date	Final Inspection Flag
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**Fees Details**

Fee Code Description	Charge Amount	Permit Charge Adjustment	Permit Charge Adj Remark	Payment Date	Receipt Number	Payment Amount	Payment Adjustment Amount	Payment Adj Comment
Job Valuation Fees	\$440.00							



# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>86 Newbury St.</u>		
Total Square Footage of Proposed Structure/Area <u>256 sqft</u>	Square Footage of Lot <u>1.9 acres 82,764 sqft</u>	
Tax Assessor's Chart, Block & Lot Chart# <u>20</u> Block# <u>C</u> Lot# <u>9</u>	Applicant *must be owner, Lessee or Buyer* Name <u>Shipyard Brewing Co.</u> Address <u>86 Newbury St</u> City, State & Zip <u>Portland Me. 07101</u>	Telephone: <u>1207-761-0807</u>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>42,000</u> C of O Fee: \$ _____ Total Fee: \$ <u>440</u>
Current legal use (i.e. single family) <u>Brewing</u> If vacant, what was the previous use? Proposed Specific use: <u>Grain Silo</u> Is property part of a subdivision? <u>No</u> If yes, please name _____ Project description: <u>New Grain Silo 16x16x30.</u>		
Contractor's name: _____ Address: _____ City, State & Zip _____ Telephone: _____ Who should we contact when the permit is ready: <u>Shipyard Brewing Co</u> Telephone: <u>207 761-0807</u> Mailing address: _____ <u>Et 7113</u>		

RECEIVED

MAR 11 2011

Dept. of Building Inspections  
City of Portland Maine

553 Ch

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: Paul J. Henry Date: 3-10-11

This is not a permit; you may not commence ANY work until the permit is issue

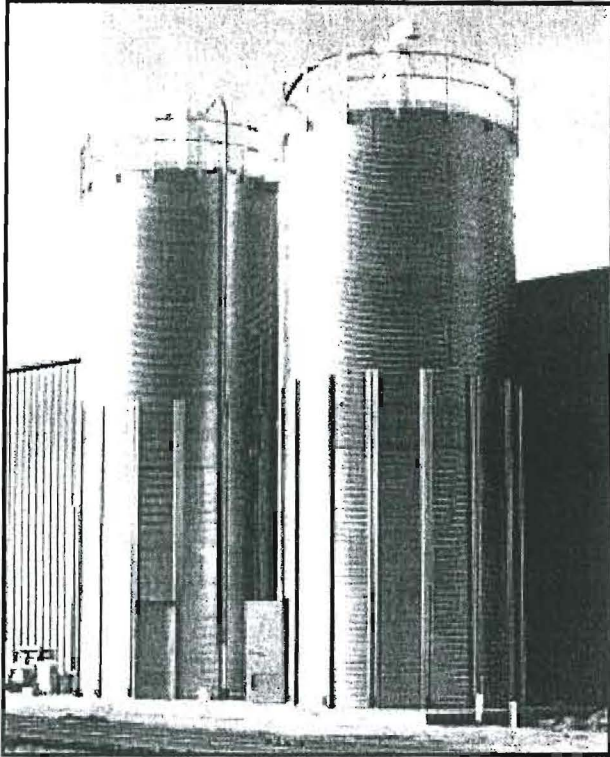
Applied for - Exemption -





# INDUSTRIAL STORAGE

## SKIRTED STORAGE SILOS



### Efficiently utilize your plant's storage space

Large or small, few industrial operations can afford to use expensive plant floor space for storing large quantities of raw materials that could be economically stored outside in large silos. Using a BROCK® bulk storage system lets you use your building for productive manufacturing rather than storage. It also allows you to buy in larger, money-saving quantities.

BROCK's broad line of bolted-steel, skirted, hopper-bottom silos offers you the capacities and features you need today—in a silo that will allow you to grow into tomorrow.

Our skirted silos offer you:

- ◆ Skirted hopper area and a walk-through door that also can be locked to limit access to the silo's contents and conveying equipment.
- ◆ Sturdy, low-profile (10° slope) roof with 22-inch (56-cm) fill opening and 12-inch (30-cm) discharge opening with 16- x 16-inch (41- x 41-cm) universal flange.
- ◆ Roof-top perimeter guard rail and toe board.
- ◆ Unique optional silo ladder with safety cage, lockable door and crosswalk designed to meet OSHA specifications
- ◆ Choice of 45° or 60° center draw unloading hoppers.
- ◆ Optional manholes, pressure relief valves, and view windows

### SKIRTED STORAGE SILOS

DIAMETER	MODEL NUMBER	APPROXIMATE CAPACITY				HEIGHT TO LID	
		MAXIMUM		USABLE W/30° ANGLE OF REPOSE			
		Cu. Ft.	M <sup>3</sup>	Cu. Ft.	M <sup>3</sup>	FEET	METERS
9 Ft. (2.7m) Diameter	S45-00932	439	12	385	11	15.1	4.6
	S45-00933	608	17	554	16	17.8	5.4
	S45-00934	777	22	723	20	20.4	6.2
45° Hopper 3-Ring Skirt	S45-00935	946	27	892	25	23.1	7.0
	S45-00936	1,115	32	1,061	30	25.8	7.9
9 Ft. (2.7m) Diameter	S45-00902	514	15	460	13	17.8	5.4
	S45-00903	684	19	630	18	20.4	6.2
	S45-00904	854	24	800	23	23.1	7.0
60° Hopper 4-Ring Skirt	S45-00905	1,019	29	965	27	25.8	7.9
	S45-00906	1,189	34	1,135	32	28.4	8.7
12 Ft. (3.7m) Diameter	S45-01232	803	23	662	19	14.8	4.5
	S45-01233	1,102	31	961	27	17.2	5.2
	S45-01234	1,400	40	1,259	36	20.1	6.1
	S45-01235	1,698	48	1,557	44	22.8	6.9
45° Hopper 3-Ring Skirt	S45-01236	1,997	57	1,856	53	25.5	7.8
	S45-01237	2,295	65	2,154	61	28.1	8.6
12 Ft. (3.7m) Diameter	S45-01202	966	27	825	23	20.1	6.1
	S45-01203	1,265	36	1,124	32	22.8	6.9
	S45-01204	1,563	44	1,422	40	25.5	7.8
60° Hopper 5-Ring Skirt	S45-01205	1,861	53	1,720	49	28.1	8.6
	S45-01206	2,160	61	2,019	57	30.6	9.3
15 Ft. (4.6m) Diameter	S45-01532	1,386	39	1,096	31	17.8	5.4
	S45-01533	1,854	52	1,564	44	20.4	6.2
	S45-01534	2,323	66	2,033	58	23.1	7.0
	S45-01535	2,792	79	2,502	71	25.8	7.9
45° Hopper 4-Ring Skirt	S45-01536	3,261	92	2,971	84	28.4	8.7
	S45-01537	3,730	106	3,440	97	31.1	9.5
	S45-01538	4,199	119	3,909	111	33.8	10.3
15 Ft. (4.6m) Diameter	S45-01502	1,743	49	1,444	41	23.1	7.0
	S45-01503	2,200	62	1,910	54	25.8	7.9
	S45-01504	2,666	75	2,376	67	28.4	8.7
	S45-01505	3,132	89	2,842	80	31.1	9.5
60° Hopper 6-Ring Skirt	S45-01506	3,599	102	3,309	94	33.8	10.3
	S45-01507	4,065	115	3,775	107	36.4	11.1
18 Ft. (5.5m) Diameter	S45-01832	2,120	60	1,600	45	18.0	5.5
	S45-01833	2,791	79	2,271	64	20.6	6.3
	S45-01834	3,463	98	2,943	83	23.3	7.1
	S45-01835	4,134	117	3,614	102	26.0	7.9
45° Hopper 4-Ring Skirt	S45-01836	4,805	136	4,285	121	28.6	8.7
	S45-01837	5,476	155	4,956	140	31.3	9.5
	S45-01838	6,148	174	5,628	159	34.0	10.4



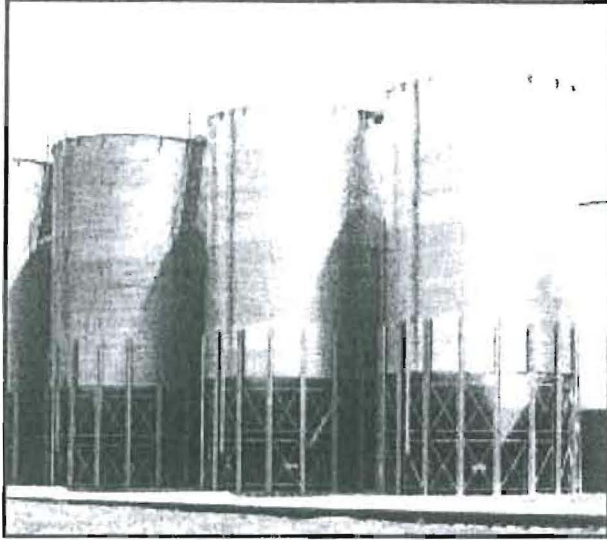
A Division of CTB, Inc.  
 Milford, IN • Kansas City, MO • Frankfort, IN  
 Phone: 574-658-4191 • Fax: 574-658-4133  
 E-Mail: brock@brockmfg.com • Internet: www.brockmfg.com  
 International inquiries call: 1-574-658-9323

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 Dept. of Building Inspections  
 City of Portland Maine



# INDUSTRIAL STORAGE

## UNSKIRTED STORAGE SILOS



### Economical storage for outside or in-plant use

Whether you need outside or in-plant bulk storage, BROCK offers a versatile line of economical bolted-steel hopper-bottom silos.

These economical silos offer you:

- ◆ Sturdy, low-profile (10° slope) roof with 22-inch (56-cm) fill opening and 12-inch (30-cm) discharge opening with 16- x 16-inch (41- x 41-cm) universal flange.
- ◆ Roof-top perimeter guard rail and toe board.
- ◆ Unique optional silo ladder with safety cage, lockable door and crosswalk designed to meet OSHA specifications.

Also check out BROCK's line of FLEX-AUGER<sup>®</sup> Plus flexible auger conveying systems to reduce labor and energy costs.

- ◆ Move raw materials from a storage silo or surge tank to a processing station.
- ◆ Move by-products from inside your plant to a storage silo.
- ◆ Four models of FLEX-AUGER Plus augers are available to fit your needs.

UNSKIRTED STORAGE SILOS							
DIAMETER	MODEL NUMBER	APPROXIMATE CAPACITY				HEIGHT TO LID	
		MAXIMUM		USABLE W/30° ANGLE OF REPOSE		FEET	METERS
		Cu. Ft.	M <sup>3</sup>	Cu. Ft.	M <sup>3</sup>		
6 Ft. Dia. 60° Polyethylene	16-P1000	34.6	1	N/A	N/A	6.9	2.1
	16-P6000	67.5	2	N/A	N/A	8.8	2.7
6 Ft. (1.8m) Diameter 60° Hopper	C45-00601	124	4	113	3	10.2	3.1
	C45-00602	199	6	188	5	12.8	3.9
	C45-00603	273	8	262	7	15.5	4.7
	C45-00604	348	10	337	10	18.2	5.5
	C45-00605	423	12	412	12	20.8	6.3
	C45-00606	497	14	486	14	23.5	7.2
	C45-00932	439	12	385	11	13.0	4.0
	C45-00933	608	17	554	16	15.8	4.8
9 Ft. (2.7m) Diameter 45° Hopper	C45-00934	777	22	723	20	18.5	5.6
	C45-00935	946	27	892	25	21.2	6.5
	C45-00936	1,115	32	1,061	30	23.8	7.3
	C45-00937	1,284	36	1,230	35	26.4	8.0
	C45-00938	1,453	41	1,399	40	29.0	8.8
	C45-00939	1,622	46	1,568	44	31.7	9.7
	C45-009310	1,791	51	1,737	49	34.3	10.5
	C45-009311	1,960	56	1,906	54	37.0	11.3
9 Ft. (2.7m) Diameter 60° Hopper	C45-00902	514	15	460	13	16.0	4.9
	C45-00903	684	19	630	18	18.6	5.7
	C45-00904	854	24	800	23	21.3	6.5
	C45-00905	1,019	29	965	27	24.0	7.3
	C45-00906	1,189	34	1,135	32	26.6	8.1
	C45-00907	1,359	38	1,305	37	29.3	8.9
	C45-00908	1,529	43	1,475	42	31.9	9.7
	C45-00909	1,699	48	1,645	47	34.6	10.5
12 Ft. (3.7m) Diameter 45° Hopper	C45-009010	1,869	53	1,815	51	37.3	11.4
	C45-01232	803	23	662	19	14.9	4.5
	C45-01233	1,102	31	961	27	17.6	5.4
	C45-01234	1,400	40	1,259	36	20.3	6.2
	C45-01235	1,698	48	1,557	44	22.9	7.0
	C45-01236	1,997	57	1,856	53	25.6	7.8
	C45-01237	2,295	65	2,154	61	28.3	8.6
	C45-01238	2,593	73	2,452	69	31.0	9.4
C45-01239	2,892	82	2,751	78	33.6	10.2	

UNSKIRTED STORAGE SILOS							
DIAMETER	MODEL NUMBER	APPROXIMATE CAPACITY				HEIGHT TO LID	
		MAXIMUM		USABLE W/30° ANGLE OF REPOSE		FEET	METERS
		Cu. Ft.	M <sup>3</sup>	Cu. Ft.	M <sup>3</sup>		
12 FT. Cont.	C45-012310	3,190	90	3,049	86	36.3	11.1
	C45-012311	3,489	99	3,348	95	39.0	11.9
12 FT. (3.7m) Diameter 60° Hopper	C45-01202	966	27	825	23	18.8	5.7
	C45-01203	1,265	36	1,124	32	21.5	6.6
	C45-01204	1,563	44	1,422	40	24.1	7.3
	C45-01205	1,861	53	1,720	49	26.8	8.2
	C45-01206	2,160	61	2,019	57	29.5	9.0
	C45-01207	2,459	70	2,318	66	32.2	9.8
	C45-01208	2,758	78	2,617	74	34.8	10.6
	C45-01209	3,057	87	2,916	83	37.5	11.4
	C45-012010	3,356	95	3,215	91	40.2	12.3
	C45-012011	3,655	103	3,514	100	42.9	13.1
15 FT. (4.6m) Diameter 45° Hopper	C45-01532	1,386	39	1,096	31	16.7	5.1
	C45-01533	1,854	52	1,564	44	19.3	5.9
	C45-01534	2,323	66	2,033	58	22.0	6.7
	C45-01535	2,792	79	2,502	71	24.7	7.5
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	C45-01538	4,199	119	3,909	111	32.7	10.0
	C45-01539	4,668	132	4,378	124	35.4	10.8
15 FT. (4.6m) Diameter 60° Hopper	C45-01502	1,734	49	1,444	41	21.6	6.6
	C45-01503	2,200	62	1,910	54	24.3	7.4
	C45-01504	2,666	75	2,376	67	26.9	8.2
	C45-01505	3,132	89	2,842	80	29.6	9.0
	C45-01506	3,599	102	3,309	94	32.3	9.8
	C45-01507	4,065	115	3,775	107	34.9	10.6
	C45-01508	4,531	128	4,241	120	37.6	11.5
	C45-01832	2,120	60	1,600	45	19.0	5.8
18 FT. (5.5m) Diameter 45° Hopper	C45-01833	2,791	79	2,271	64	21.7	6.6
	C45-01834	3,463	98	2,943	83	24.3	7.4
	C45-01835	4,134	117	3,614	102	27.0	8.2
	C45-01836	4,805	136	4,285	121	29.7	9.1
	C45-01837	5,476	155	4,956	140	32.4	9.9
	C45-01838	6,148	174	5,628	159	35.0	10.7
	C45-01839	6,820	193	6,300	178	37.3	11.4

Tank — 6600# net

106600# gross

**FOUNDATIONS**



FOUNDATIONS shall be placed on soil of bearing capacity of at least 3000 psf (pounds per square foot) (14 647 kg/m<sup>2</sup>) or special modifications of foundations must be considered. If questions arise contact a qualified soil engineer

FOUNDATIONS should be smooth and level to within 1/4" (6.4)

CONCRETE IN FOOTINGS shall have a minimum compressive strength,  $f_c=3000$  psi (pounds per square inch) (20 684 kPa) at 28 days.

FOUNDATIONS shall be appropriately designed for local soil and frost depth conditions. Sizes given are adequate for resisting 1.5 times the overturning due to a 90 m.p.h. (145 km/h) wind acting on 0.6 times the area of bin and seismic zone 1

CONCRETE REINFORCING STEEL shall have a minimum yield strength of 33,000 psi (227 527 kPa).

**STANDARD ANCHORING**

A 5/8" X 8" X 2" Bolt (Part No. 39-20075)\* is available from Brock Manufacturing. Bolts must be embedded 6-1/2" (165).



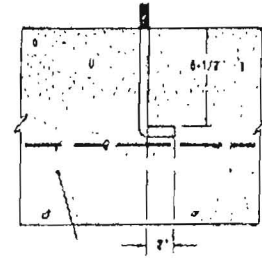
**CAUTION - Measure between opposite Anchors to be sure they are equal distance apart before securing. Failure to do so may cause damage to the Bin.**

\*The following bins use 5/8" X 13" Gr 5 Heavy Hex Head Bolt, embedded 11" (279), with Heavy Nut and Heavy Washer These are included in the parts kit.

9' (2 743) 45° 11-ring bins

9' (2 743) 60° 7-ring bins

6 X 6 10/10 WWF (WWF=Welded Wire Fabric) should be placed at one-half the depth of the concrete.



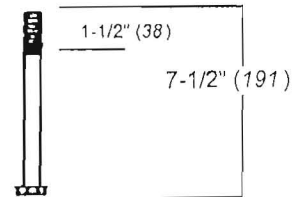
**ALTERNATE ANCHORING (not for 9' (2 743) 60° 7-ring bins)**

1. A 5/8" x 9" Heavy Hex Gr. 2 Bolt embedded to a depth of 7-1/2" (191).
2. HILTI® Kwik-Bolt II 3/4" x 6-1/2" or equivalent. Each Bolt must have a minimum embedment of 4-3/4" (121).
3. HILTI® HVA Adhesive anchor 5/8" X 6-1/2" Gr 2 or equivalent. Each Bolt must have a minimum embedment of 5" (127).



**CAUTION - Layout locations and install anchors before setting the bin to insure proper location. Failure to do so may cause damage to the bin.**

**Do NOT use Legs as a template to drill because bin may not be round.**



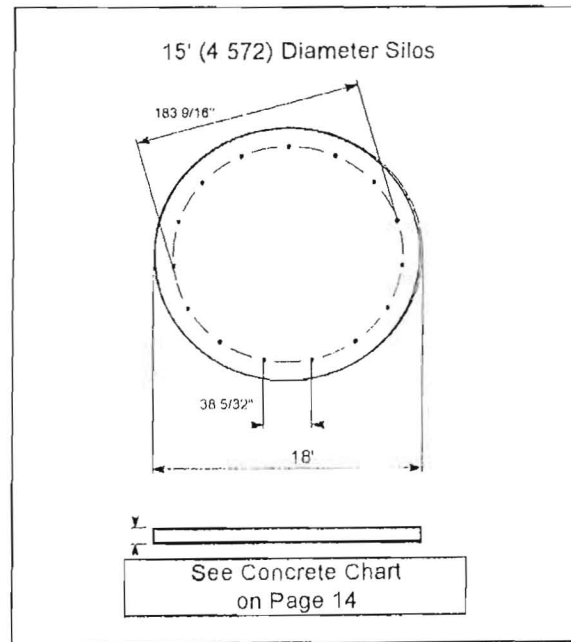
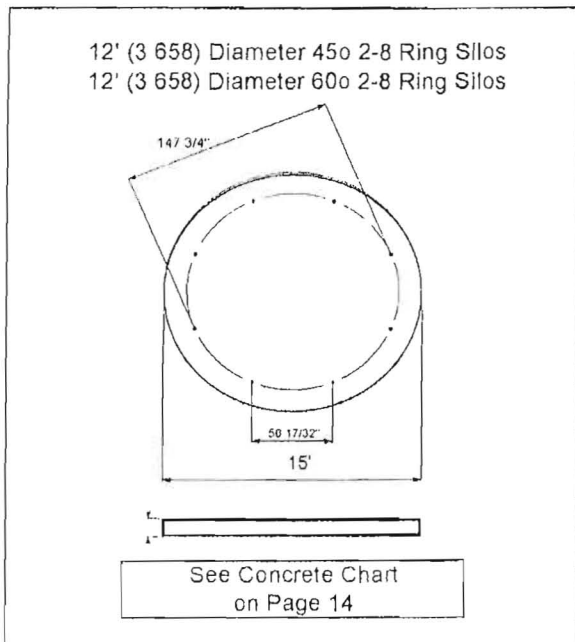
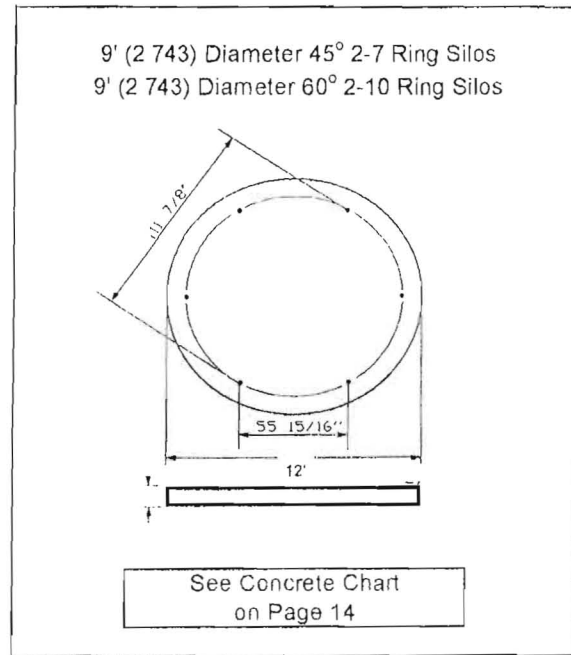
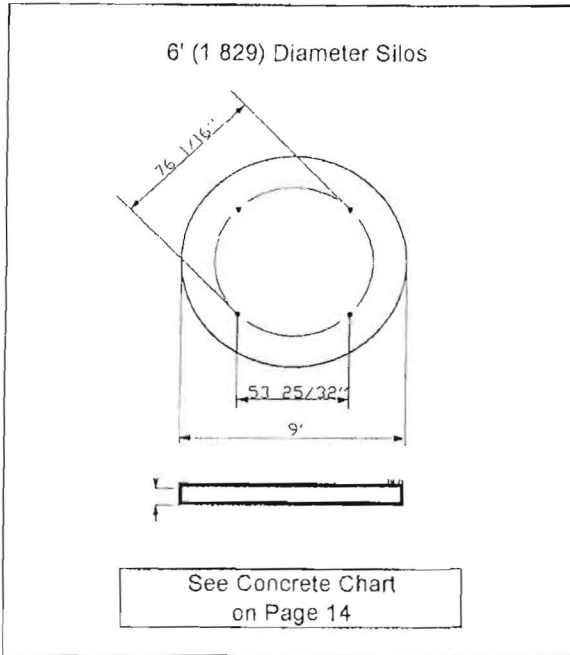
HILTI® KWIK-BOLT II



HILTI® HVA Adhesive Anchor and Capsule

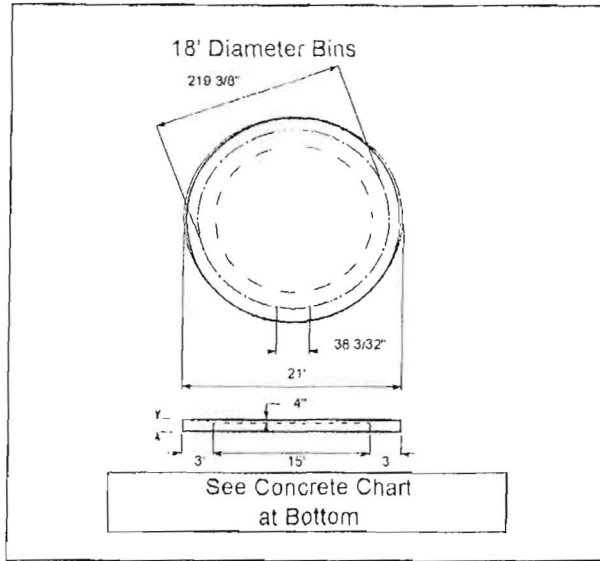
### FOUNDATIONS

#### Anchor Bolt and Concrete Specifications



## FOUNDATIONS

### Anchor Bolt and Concrete Specifications



Model Found Size	6' 9' Dia		9' 12' Dia.		12' 15' Dia.		15' 18' Dia		18' 21' OS Dia. 15' IS Dia.		
	Thickness (inches)	Volume (cu Yds)	Thickness (inches)	Volume (cu Yds)	Thickness (inches)	Volume (cu Yds)	Thickness (inches)	Volume (cu. Yds)	Outside Thickness (inches)	Inside Thickness (inches)	Volume (cu. Yds)
1	8"	1.6	8"	2.8	9"	4.9					
2	8"	1.6	9"	3.1	10"	5.5	10"	7.9	10"	4"	7.4
3	8"	1.6	10"	3.5	11"	6.0	10"	7.9	11"	4"	7.9
4	9"	1.8	10"	3.5	12"	6.5	11"	8.6	11"	4"	7.9
5	10"	2.0	11"	3.8	12"	6.5	11"	8.6	12"	4"	8.5
6	12"	2.4	12"	4.2	13"	7.1	12"	9.4	12"	4"	8.5
7	14"	2.7	12"	4.2	14"	7.6	12"	9.4	13"	4"	9.0
8	16"	3.1	13"	4.5	14"	7.6	13"	10.2	14"	4"	9.5
9			15"	5.2	14"	7.6	13"	10.2	14"	4"	9.5
10			17"	5.9	14"	7.6	13"	10.2			
11			17"	5.9	16"	8.7					

Multiply cu. yds. by 764 554 to convert to cu. meters

Multiply ft. or ' by 304.8 to convert to millimeters.

Multiply in. or " by 25.4 to convert to millimeters.

Add 10% for wasted concrete.



# Administrative Authorization Application

Portland, Maine

Planning and Urban Development Department, Planning Division

PROJECT NAME: Grain Silo (127 Fore St.)

PROJECT ADDRESS: 86 Newbury Street CHART/BLOCK/LOT: 20-C-9

APPLICATION FEE: \_\_\_\_\_ (\$50.00)

PROJECT DESCRIPTION: (Please Attach Sketch/Plan of the Proposal/Development)

### CONTACT INFORMATION:

#### OWNER/APPLICANT

Name: Shipyards Brewing Co  
Address: 86 Newbury St

Work #: 1207 761-0807  
Cell #: 1207 756-3581  
Fax #: 1207 775-5567  
Home #: \_\_\_\_\_  
E-mail: phendry@shipyards.com

#### CONSULTANT/AGENT

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Work #: \_\_\_\_\_  
Cell #: \_\_\_\_\_  
Fax #: \_\_\_\_\_  
Home #: \_\_\_\_\_  
E-mail: \_\_\_\_\_

### Criteria for an Administrative Authorizations: (see section 14-523(4) on pg. 2 of this appl.)

- a) Is the proposal within existing structures?
- b) Are there any new buildings, additions, or demolitions?
- c) Is the footprint increase less than 500 sq ft?
- d) Are the structures less than 10 feet high?
- e) Are the structures less than 10 feet wide?
- f) Do the structures have a roof height of less than 10 feet?
- g) Is there any signage?
- h) Is there any lighting?
- i) Are there any parking spaces?
- j) Does the proposal require any special permits?
- k) Are there any other conditions?
- l) Are there any other conditions?
- m) Is an environmental impact study required?
- n) Are there any other conditions?

*Yayle - this is a new admin. auth.*

### Applicant's Assessment Planning Division Y(yes), N(no), N/A

Y(yes), N(no), N/A	Y(yes), N(no), N/A
<u>N</u>	<u>N</u>
<u>N</u>	<u>N</u>
<u>Y</u>	<u>Y</u>
<u>N</u>	<u>N</u>
<u>Y</u>	<u>Y</u>
<u>N</u>	<u>N</u> - Inaren 8 silo, yes
<u>N</u>	<u>N</u>
<u>N</u>	<u>N</u>
<u>Y</u>	<u>N</u> see condition
<u>Y</u>	<u>Y</u>
<u>N</u>	<u>N</u>
<u>N</u>	<u>N/A</u>
<u>N</u>	<u>N</u>

Signature of Paul D. Thurl

Date: 3/11/11

**Planning Division Use Only**

Authorization Granted  Partial Exemption  Exemption Denied

Condition: *Revise the site plan to show location and screening of dumpster to be relocated.* WBA 3-18-11

**Standard Condition of Approval:** The applicant shall obtain all required City Permits, including building permits from the Inspection Division (Room 315, City Hall (874-8703)) prior to the start of any construction.

**IMPORTANT NOTICE TO APPLICANT:** The granting of an Administrative Authorization to exempt a development from site plan review does not exempt this proposal from other approvals or permits, nor is it an authorization for construction. You should first check with the Building Inspections Office, Room 315, City Hall (207)874-8703, to determine what other City permits, such as a building permit, will be required.

**PROVISION OF PORTLAND CITY CODE  
14-523 (SITE PLAN ORDINANCE)  
RE: Administrative Authorization**

**Sec. 14-523 (b). Applicability**

No person shall undertake any development identified in Section 14-523 without obtaining a site plan improvement permit under this article. (c) Administrative Authorization. Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meets the standards below, as demonstrated by the applicant.

1. The proposed development will be located within existing structures, and there will be no new buildings, demolitions, or building additions other than those permitted by subsection b of this section;
2. Any building addition shall have a new building footprint expansion of less than five hundred (500) square feet;
3. The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;
4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the public works authority, with granite curb with at least four (4) inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;
5. The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;
6. There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;
7. There are no evident deficiencies in existing screening from adjoining properties; and
8. Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the public right-of-way.
9. There are no current zoning violations;
10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and
11. There is no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.

- a. **Filing the Application.** An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards 1-11 of Section 14-423 (b)1. **The application must be accompanied by an application fee of \$50.**
- b. **Review.** Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.
- c. **Decision.** If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards a and b of Section 14-523 (b) (1) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a full review by the Planning Board or Planning Authority according to the standards of Section 14-526.

## Administrative Authorization

**Grain Silo; 86 Newbury Street; Shipyard Brewing Co.**

**Criteria for an Administrative Authorizations:**  
(See Section 14-523 (4) on page 2 of this application)

**Applicant's Assessment**  
Y(yes), N(no), N/A

**Planning Division**  
Use Only

a) Is the proposal within existing structures?	No	No
b) Are there any new buildings, additions, or demolitions?	No	No
c) Is the footprint increase less than 500 sq. ft.?	Yes	Yes
d) Are there any new curb cuts, driveways or parking areas?	No	No
e) Are the curbs and sidewalks in sound condition?	Yes	Yes
f) Do the curbs and sidewalks comply with ADA?	No	No
g) Is there any additional parking?	No	No
h) Is there an increase in traffic?	No	No
i) Are there any known stormwater problems?	No	No
j) Does sufficient property screening exist?	Yes	No
k) Are there adequate utilities?	Yes	Yes
l) Are there any zoning violations?	No	No
m) Is an emergency generator located to minimize noise?		n/a
n) Are there any noise, vibration, glare, fumes or other impacts?	No	No

A partial exemption was granted by William Needelman, Senior Planner on 3-18-11 with the following condition:

1. Revise the site plan to show location and screening of the dumpster to be relocated.

### Standard Condition of Approval

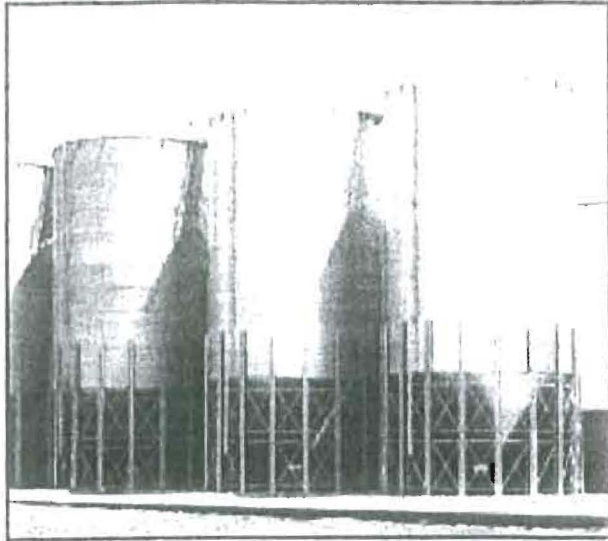
The applicant shall obtain all required City Permits, including building permits from the Inspection Division (Rm. 315, City Hall (874-8703) prior to the start of any construction.





# INDUSTRIAL STORAGE

## UNSKIRTED STORAGE SILOS



### Economical storage for outside or in-plant use

Whether you need outside or in-plant bulk storage, BROCK offers a versatile line of economical bolted steel hopper-bottom silos.

These economical silos offer you:

- ◆ Sturdy, low-profile (10° slope) roof with 22-inch (56 cm) fill opening and 12-inch (30-cm) discharge opening with 16- x 16-inch (41- x 41-cm) universal flange.
  - ◆ Roof-top perimeter guard rail and toe board.
  - ◆ Unique optional silo ladder with safety cage, lockable door and crosswalk designed to meet OSHA specifications
- Also check out BROCK's line of FLEX-AUGER® Plus flexible auger conveying systems to reduce labor and energy costs
- ◆ Move raw materials from a storage silo or surge tank to a processing station.
  - ◆ Move by-products from inside your plant to a storage silo.
  - ◆ Four models of FLEX-AUGER Plus augers are available to fit your needs

UNSKIRTED STORAGE SILOS							
DIAMETER	MODEL NUMBER	APPROXIMATE CAPACITY				HEIGHT TO LID	
		MAXIMUM		USABLE W/30° ANGLE OF REPOSE		FEET	METERS
		Cu. Ft.	M <sup>3</sup>	Cu. Ft.	M <sup>3</sup>		
6 Ft. Dia. 60° Polyethylene	16-P1000	34.6	1	N/A	N/A	6.9	2.1
	16-P6000	67.5	2	N/A	N/A	8.8	2.7
6 Ft. (1.8m) Diameter 60° Hopper	C45-00601	124	4	113	3	10.2	3.1
	C45-00602	199	6	188	5	12.8	3.9
	C45-00603	273	8	262	7	15.5	4.7
	C45-00604	348	10	337	10	18.2	5.5
	C45-00605	423	12	412	12	20.6	6.3
	C45-00606	497	14	486	14	23.5	7.2
	C45-00932	439	12	385	11	13.0	4.0
	C45-00933	608	17	554	16	15.8	4.8
	C45-00934	777	22	723	20	18.5	5.6
	C45-00935	946	27	892	25	21.2	6.5
9 Ft. (2.7m) Diameter 45° Hopper	C45-00936	1,115	32	1,061	30	23.8	7.3
	C45-00937	1,284	36	1,230	35	26.4	8.0
	C45-00938	1,453	41	1,399	40	29.0	8.8
	C45-00939	1,622	46	1,568	44	31.7	9.7
	C45-009310	1,791	51	1,737	49	34.3	10.5
	C45-009311	1,960	56	1,906	54	37.0	11.3
	C45-00902	514	15	460	13	16.0	4.9
	C45-00903	684	19	630	18	18.6	5.7
9 Ft. (2.7m) Diameter 60° Hopper	C45-00904	854	24	800	23	21.3	6.5
	C45-00905	1,019	29	965	27	24.0	7.3
	C45-00906	1,189	34	1,135	32	26.6	8.1
	C45-00907	1,359	38	1,305	37	29.3	8.9
	C45-00908	1,529	43	1,475	42	31.9	9.7
	C45-00909	1,699	48	1,645	47	34.6	10.5
	C45-00910	1,869	53	1,815	51	37.3	11.4
	C45-01232	803	23	662	19	14.9	4.5
	C45-01233	1,102	31	961	27	17.6	5.4
	C45-01234	1,400	40	1,259	36	20.3	6.2
12 Ft. (3.7m) Diameter 45° Hopper	C45-01235	1,698	48	1,557	44	22.9	7.0
	C45-01236	1,997	57	1,856	53	25.6	7.8
	C45-01237	2,295	65	2,154	61	28.3	8.6
	C45-01238	2,593	73	2,452	69	31.0	9.4
	C45-01239	2,892	82	2,751	78	33.6	10.2

UNSKIRTED STORAGE SILOS							
DIAMETER	MODEL NUMBER	APPROXIMATE CAPACITY				HEIGHT TO LID	
		MAXIMUM		USABLE W/30° ANGLE OF REPOSE		FEET	METERS
		Cu. Ft.	M <sup>3</sup>	Cu. Ft.	M <sup>3</sup>		
12 FT. Conl.	C45-012310	3,190	90	3,049	86	36.3	11.1
	C45-012311	3,489	99	3,348	95	39.0	11.9
	C45-01202	966	27	825	23	18.8	5.7
12 FT. (3.7m) Diameter 60° Hopper	C45-01203	1,265	36	1,124	32	21.5	6.6
	C45-01204	1,563	44	1,422	40	24.1	7.3
	C45-01205	1,861	53	1,720	49	26.8	8.2
	C45-01206	2,160	61	2,019	57	29.5	9.0
	C45-01207	2,459	70	2,318	66	32.2	9.8
	C45-01208	2,758	78	2,617	74	34.8	10.6
	C45-01209	3,057	87	2,916	83	37.5	11.4
	C45-01210	3,356	95	3,215	91	40.2	12.3
15 FT. (4.6m) Diameter 45° Hopper	C45-012011	3,655	103	3,514	100	42.9	13.1
	C45-01532	1,386	39	1,096	31	16.7	5.1
	C45-01533	1,854	52	1,564	44	19.3	5.9
	C45-01534	2,323	66	2,033	58	22.0	6.7
	C45-01535	2,792	79	2,502	71	24.7	7.5
	C45-01536	3,261	92	2,971	84	27.3	8.3
	C45-01537	3,730	106	3,440	97	30.0	9.1
	C45-01538	4,199	119	3,909	111	32.7	10.0
	C45-01539	4,668	132	4,378	124	35.4	10.8
	C45-01502	1,734	49	1,444	41	21.6	6.6
15 FT. (4.6m) Diameter 60° Hopper	C45-01503	2,200	62	1,910	54	24.3	7.4
	C45-01504	2,666	75	2,376	67	26.9	8.2
	C45-01505	3,132	89	2,842	80	29.6	9.0
	C45-01506	3,599	102	3,309	94	32.3	9.8
	C45-01507	4,065	115	3,775	107	34.9	10.6
	C45-01508	4,531	128	4,241	120	37.6	11.5
	C45-01832	2,120	60	1,600	45	19.0	5.8
	C45-01833	2,791	79	2,271	64	21.7	6.6
18 FT. (5.5m) Diameter 45° Hopper	C45-01834	3,463	98	2,943	83	24.3	7.4
	C45-01835	4,134	117	3,614	102	27.0	8.2
	C45-01836	4,805	136	4,285	121	29.7	9.1
	C45-01837	5,476	155	4,956	140	32.4	9.9
	C45-01838	6,148	174	5,628	159	35.0	10.7
	C45-01839	6,820	193	6,300	178	37.3	11.4

Tank — 6600# net

106600# gross

**FOUNDATIONS**



FOUNDATIONS shall be placed on soil of bearing capacity of at least 3000 psf (pounds per square foot) (14 647 kg/m<sup>2</sup>) or special modifications of foundations must be considered. If questions arise, contact a qualified soil engineer

FOUNDATIONS should be smooth and level to within 1/4" (6.4).

CONCRETE IN FOOTINGS shall have a minimum compressive strength,  $f_c' = 3000$  psi (pounds per square inch) (20 684 kPa) at 28 days.

FOUNDATIONS shall be appropriately designed for local soil and frost depth conditions. Sizes given are adequate for resisting 1.5 times the overturning due to a 90 m.p.h. (145 km/h) wind acting on 0.6 times the area of bin and seismic zone 1

CONCRETE REINFORCING STEEL shall have a minimum yield strength of 33,000 psi (227 527 kPa).

**STANDARD ANCHORING**

A 5/8" X 8" X 2" Bolt (Part No. 39-20075)\* is available from Brock Manufacturing. Bolts must be embedded 6-1/2" (165)

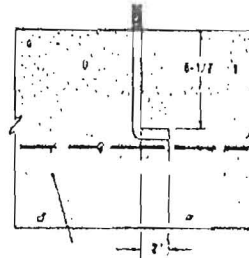


**CAUTION - Measure between opposite Anchors to be sure they are equal distance apart before securing. Failure to do so may cause damage to the Bin.**

\*The following bins use 5/8" X 13" Gr 5 Heavy Hex Head Bolt, embedded 11" (279), with Heavy Nut and Heavy Washer These are included in the parts kit.

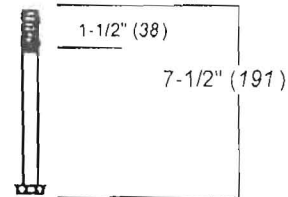
- 9' (2 743) 45° 11-ring bins
- 9' (2 743) 60° 7-ring bins

6 X 6 10/10 WWF (WWF=Welded Wire Fabric) should be placed at one-half the depth of the concrete.



**ALTERNATE ANCHORING (not for 9' (2 743) 60° 7-ring bins)**

1. A 5/8" x 9" Heavy Hex Gr 2 Bolt embedded to a depth of 7-1/2" (191).
2. HILTI® Kwik-Bolt II 3/4" x 6-1/2" or equivalent. Each Bolt must have a minimum embedment of 4-3/4" (121).
3. HILTI® HVA Adhesive anchor 5/8" X 6-1/2" Gr 2 or equivalent. Each Bolt must have a minimum embedment of 5" (127).



**CAUTION - Layout locations and install anchors before setting the bin to insure proper location. Failure to do so may cause damage to the bin.**



HILTI® KWIK-BOLT II

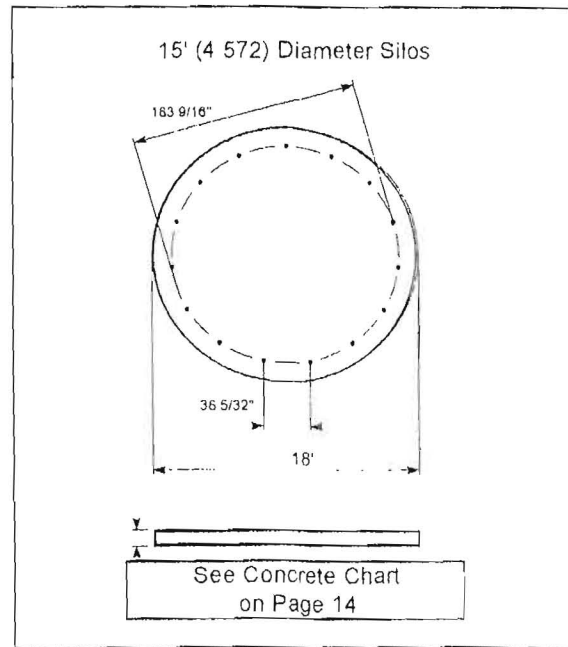
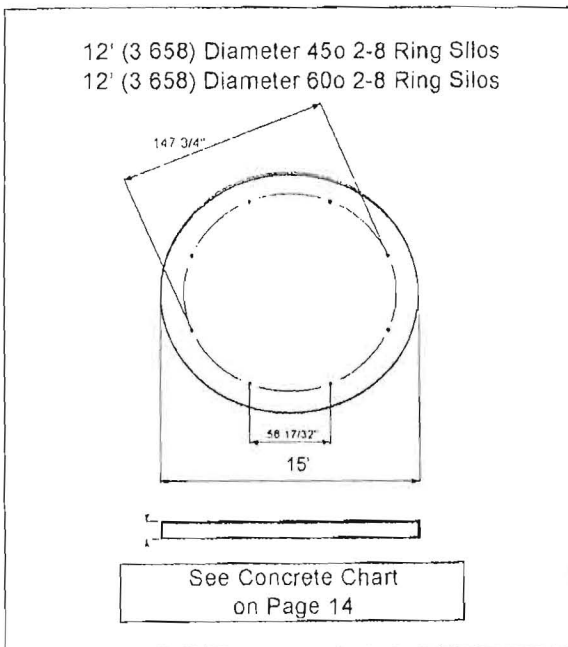
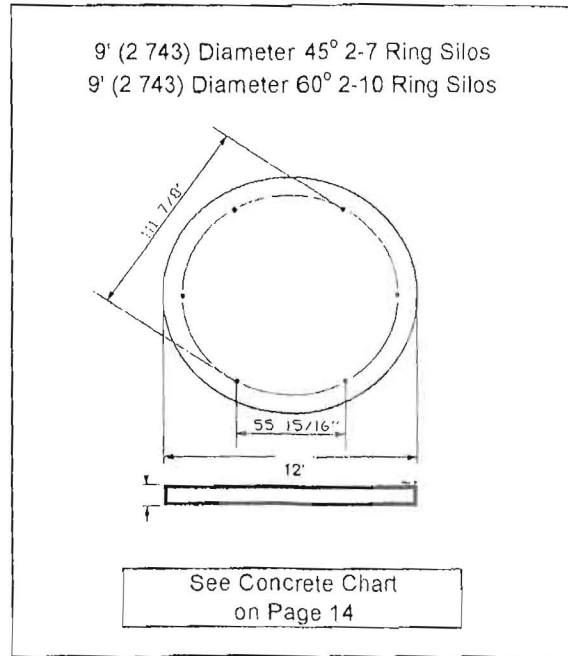
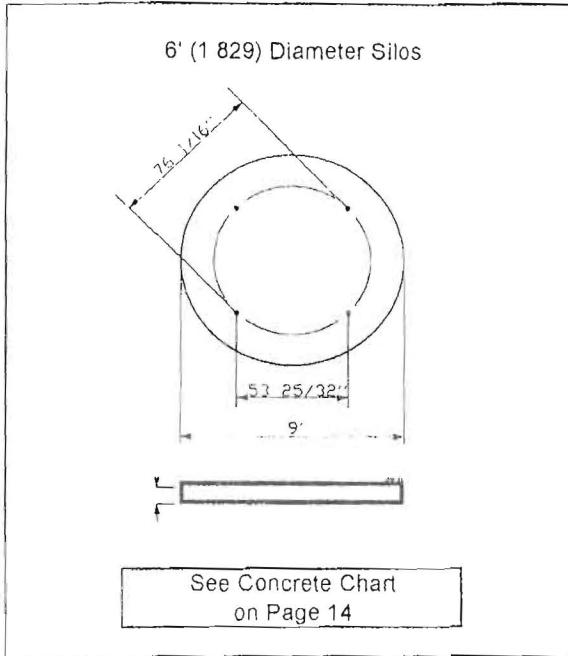


HILTI® HVA Adhesive Anchor and Capsule

**Do NOT use Legs as a template to drill because bin may not be round.**

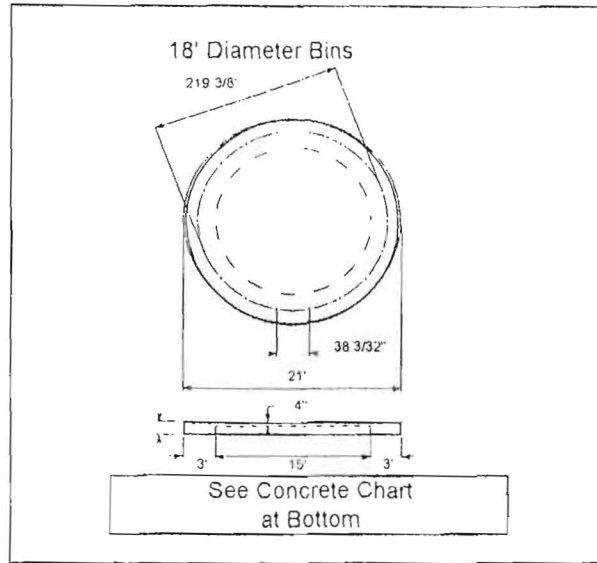
### FOUNDATIONS

#### Anchor Bolt and Concrete Specifications



## FOUNDATIONS

### Anchor Bolt and Concrete Specifications



Model Found Size	6' 9' Dia.		9' 12' Dia		12' 15' Dia		15' 18' Dia.		18' 21' OS Dia 15' IS Dia		
	Thickness (inches)	Volume (cu. Yds)	Thickness (Inches)	Volume (cu Yds)	Thickness (inches)	Volume (cu Yds)	Thickness (inches)	Volume (cu Yds)	Outside Thickness (Inches)	Inside Thickness (inches)	Volume (cu Yds)
1	8"	1.6	8"	2.8	9"	4.9					
2	8"	1.6	9"	3.1	10"	5.5	10"	7.9	10"	4"	7.4
3	8"	1.6	10"	3.5	11"	6.0	10"	7.9	11"	4"	7.9
4	9"	1.8	10"	3.5	12"	6.5	11"	8.6	11"	4"	7.9
5	10"	2.0	11"	3.8	12"	6.5	11"	8.6	12"	4"	8.5
6	12"	2.4	12"	4.2	13"	7.1	12"	9.4	12"	4"	8.5
7	14"	2.7	12"	4.2	14"	7.6	12"	9.4	13"	4"	9.0
8	16"	3.1	13"	4.5	14"	7.6	13"	10.2	14"	4"	9.5
9			15"	5.2	14"	7.6	13"	10.2	14"	4"	9.5
10			17"	5.9	14"	7.6	13"	10.2			
11			17"	5.9	16"	8.7					

Multiply cu. yds. by .764 554 to convert to cu. meters.

Multiply ft. or ' by 304.8 to convert to millimeters

Multiply in or " by 25.4 to convert to millimeters.

Add 10% for wasted concrete.



ANY DISCREPANCIES BETWEEN THE ABOVE LISTED CODES AND THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.

3. ALL WORK SHALL BE PERFORMED BY PERSONS QUALIFIED IN THEIR TRADE AND LICENSED TO PRACTICE SUCH TRADE IN THE STATE IN WHICH THE PROJECT IS LOCATED.
4. ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS SHALL BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR (G.C.) AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THE AFFECTED PART OF WORK.
5. SILO SHALL BE ANCHORED TO THE SLAB AS SPECIFIED IN REFERENCE 1.

**FOUNDATION NOTES**

1. NO GEOTECHNICAL REPORT WAS CONDUCTED FOR THIS PLAN. A SOIL BEARING PRESSURE WAS ASSUMED TO BE 3,000 PSF.
2. BACKFILL FOR FOOTINGS AND WALLS SHALL BE FREE DRAINING GRANULAR MATERIAL.
3. FOOTINGS SHALL BE PLACED ON NATURAL UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL. LEDGE, LARGE ROCKS AND SOFT AREAS OR UNDESIRABLE MATERIAL BELOW FOOTINGS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL. FOOTINGS IN EXCAVATIONS OF LEDGE SHALL BE PLACED ON A MINIMUM OF 2' OF STRUCTURAL FILL.
4. STRUCTURAL FILL SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED TO A MINIMUM 95% MODIFIED PROCTOR PER ASTM D1557. STRUCTURAL FILL SHALL BE A CLEAN, WELL GRADED SAND AND GRAVEL MIXTURE MEETING THE FOLLOWING GRADATION:

SCREEN OR SIEVE SIZE	PERCENT PASSING
6 INCHES	100
3 INCHES	70 - 100
NO. 4	35 - 70
NO. 40	5 - 35
NO. 200	0 - 5

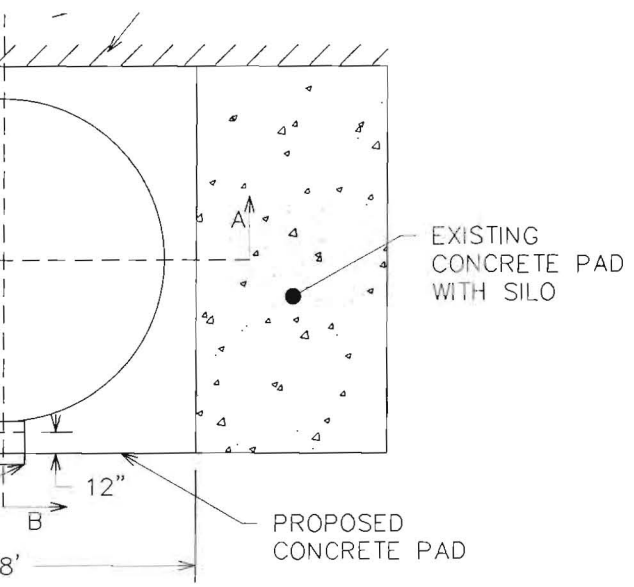
5. FOOTINGS SHALL NOT BE PLACED ON FROZEN GROUND AND AND EXCAVATIONS SHALL BE FREE OF WATER.
6. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 48" BELOW FINISH EXTERIOR GRADE.
7. FOOTING AND WALL ELEVATIONS ARE BASED ON A TOP OF SLAB ELEVATION OF 0'-0"

**CONCRETE NOTES**

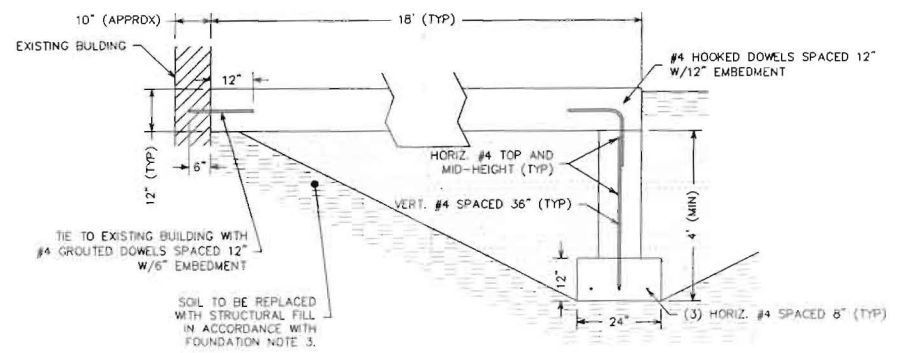
1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318-99.
2. FOOTING AND FROST WALL CONCRETE IS TO HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI (MINIMUM). EXTERIOR SLABS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI (MINIMUM). ALL SLABS TO BE REINFORCED WITH SYNTHETIC FIBER MESH, CONFORMING TO THE REQUIREMENTS OF ASTM C 116/C116M.
3. CONCRETE IS TO BE PROTECTED FROM FREEZING AND PLACED ABOVE 40 DEGREES (F) FOR A MINIMUM OF 72 HOURS.
4. ALL CURED CONCRETE EXPOSED TO WEATHER WILL HAVE 5% TO 7% AIR ENTRAINING AGENTS.
5. NEW BILLET STEEL ASTM A615 GRADE 60 SHALL BE USED FOR ALL REINFORCING BARS.
6. THE PLACEMENT OF ALL REINFORCING BARS AND DETAILING SHALL BE FOUND IN THE LATEST ACI PUBLICATION.
7. ACCESSORIES SHALL BE PROVIDED TO SUPPORT REINFORCING BARS AT PLACEMENTS SHOWN IN THE DRAWINGS.
8. REINFORCING BARS SHALL HAVE MINIMUM COVER AS FOLLOWS:  
 CONCRETE CAST AGAINST EARTH: 3"  
 CONCRETE EXPOSED TO EARTH OR WEATHER:  
 2" (#6 BARS OR LARGER)  
 1 1/2" (#5 BARS OR SMALLER)  
 INTERIOR CONCRETE: 1 1/2"
9. ALL CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4 INCHES

**REFERENCES**

1. "BROCK INDUSTRIAL STORAGE - UNSKIRTED STORAGE SILOS" BROCHURE #BR-1981/0405, BY BROCK, A DIVISION OF CTB, INC., MILFORD, IN - KANSAS CITY, MO - FRANKFORT, IN. WWW.BROCKMFG.COM.



**AD FOR SILO  
(FOR LOCATION)**



**SECTION B-B: FROST WALL AND FOOTING**

1/2" = 1'

SILO PAD PLAN  
SHIPYARD BREWERY  
PORTLAND, MAINE

FOR: SEA DOG REALTY  
86 NEWBURY STREET  
PORTLAND, MAINE 04101

ATTAR ENGINEERING, INC.