

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK
CITY OF PORTLAND

Please Read
 Application And
 Notes, If Any,
 Attached

BU...TION

PERMIT

Permit Number: 081349

This is to certify that KATZ JAMES & CHARLOTTE KASSA a Crosby Contr

has permission to replace existing deck & Rails & fix rubber if needed

AT 99 SILVER ST #501 City ID 029-0001501

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

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lath or other used-in. 2 NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

PERMIT ISSUED

OTHER REQUIRED APPROVALS

Fire Dept. Crosby 5/4/09

Health Dept.

Appeal Board

Other

CITY OF PORTLAND

Department Name

Jeanne Boule 5/4/09
 Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 08-1349	Issue Date:	CBL: 029 0001501
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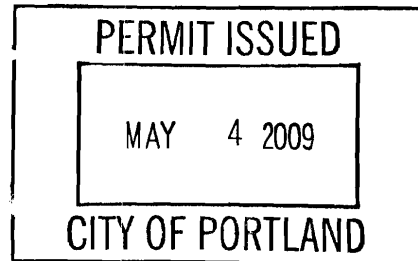
Location of Construction: 99 SILVER ST #501	Owner Name: KATZ JAMES & CHARLOTTE K	Owner Address: 99 SILVER ST # 5-1	Phone:
Business Name:	Contractor Name: Ryan Crosby Construction	Contractor Address: 4 Cranberry Lane Saco	Phone 2074232160
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	Zone: B-3

Past Use: Commercial / Multi-unit condo #501	Proposed Use: Commercial / Multi-unit condo #501 - replace existing deck & Rails and fix rubber if needed	Permit Fee: \$220.00	Cost of Work: \$20,000.00	CEO District: 1
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: R-2 Type: SB IBC-2003	

Proposed Project Description: replace existing deck & Rails and fix rubber if needed	Signature: <i>Crosby</i>	Signature: <i>AMB 5/4/09</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature: _____ Date: _____		

Permit Taken By: Idobson	Date Applied For: 10/22/2008	Zoning Approval
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<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>8/10/23/09</i>	Zoning Appeal <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: _____	Historic Preservation <i>to D.A.</i> <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input checked="" type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>11/19/08 STA</i>
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CERTIFICATION

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 application 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	PHONE

BUILDING PERMIT INSPECTION PROCEDURES

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

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.


Framing inspection prior to completion of decking

Final inspection required at completion of work.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.


CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.



Signature of Applicant/Designee

5/4/09

Date



Signature of Inspections Official

5/4/09

Date

City of Portland, Maine - Building or Use Permit

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

Permit No: 08-1349	Date Applied For: 10/22/2008	CBL: 029 0001501
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Location of Construction: 99 SILVER ST #501	Owner Name: KATZ JAMES & CHARLOTTE K	Owner Address: 99 SILVER ST # 5-1	Phone:
Business Name:	Contractor Name: Ryan Crosby Construction	Contractor Address: 4 Cranberry Lane Saco	Phone (207) 423-2160
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	

Proposed Use: Commercial / Multi-unit condo #501 - replace existing deck & Rails and fix rubber if needed	Proposed Project Description: replace existing deck & Rails and fix rubber if needed
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Dept: Historic	Status: Approved with Conditions	Reviewer: Scott Hanson	Approval Date: 11/19/2008
Note:			Ok to Issue: <input checked="" type="checkbox"/>
1) New iron railing design submitted 11/13 is approved.			
Dept: Zoning	Status: Approved with Conditions	Reviewer: Marge Schmuckal	Approval Date: 10/23/2008
Note:			Ok to Issue: <input checked="" type="checkbox"/>
1) ANY exterior work requires a separate review and approval thru Historic Preservation. This property is located within an Historic District.			
2) This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. Without special approvals.			
3) This property shall remain a thirty-seven.(37) residential condominium building. Any change of use shall require a separate permit application for review and approval.			
4) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.			
Dept: Building	Status: Approved with Conditions	Reviewer: Jeanine Bourke	Approval Date: 05/04/2009
Note:			Ok to Issue: <input checked="" type="checkbox"/>
1) Your guardrail system installed around your deck must meet the loading requirements of section 1607.7.1 of the IBC 2003 Building Code.			
2) Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.			
Dept: Fire	Status: Approved	Reviewer: Capt Greg Cass	Approval Date: 11/19/2008
Note:			Ok to Issue: <input checked="" type="checkbox"/>

Comments:
11/4/2008-sth: Contractor is waiting for owner to decide what material and design they want for the deck railings, he will submit additional information when they decide. He understands that HP cannot sign off until we know what we're signing off on.
11/19/2008-gg: received permit from historic as of 11/19/08. /gg
11/25/2008-jmb: Left voicemsg for Ryan C. For details on approved wrought iron style railing from historic, at 5" oc it may not meet the < 4" spacing requirement. Also need fastening and structural integrity details.

Location of Construction: 99 SILVER ST #501	Owner Name: KATZ JAMES & CHARLOTTE K	Owner Address: 99 SILVER ST # 5-1	Phone:
Business Name:	Contractor Name: Ryan Crosby Construction	Contractor Address: 4 Cranberry Lane Saco	Phone (207) 423-2160
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	

1/26/2009-jmb: Have not received response from November, spoke with Ryan C., he is no longer involved with the project and gave me Brian w/Emerald Management # 329-0427. Spoke with Brian, he thought it was approved, so he will come in and submit required details within a couple days.

3/30/2009-jmb: Brian from Emerald Mngmt came in to address the changes for this permit. Instead of replacing the deck, they want to replace the rubber membrane, lay down a mat and use patio blocks. They want to do the rail in wood. They will submit details for approval, I gave them Scott H. # for historic approval as this railing was formerly wrought iron.

5/4/2009-jmb: Rodney Baxter came in and submitted the plans and specs for a black metal railing system as historic is requiring this. They will also rebuild the existing wood deck, not use patio blocks, ok to issue.



General Building Permit Application

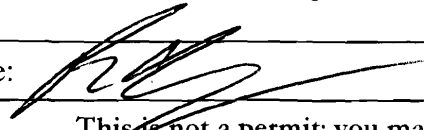
If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>99 Silver St. Portland</u>		
Total Square Footage of Proposed Structure/Area <u>620 sq. ft.</u>	Square Footage of Lot <u>8000</u>	Number of Stories <u>5</u>
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Applicant * must be owner, Lessee or Buyer * Name <u>JAMES KATZ</u> Address <u>99 Silver St.</u> City, State & Zip <u>Portland ME</u>	Telephone: <u>423-2160</u>
Lessee/DBA (If Applicable) <u>OCT 22</u>	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>20,000</u> C of O Fee: \$ _____ Total Fee: \$ _____
Current legal use (i.e. single family) <u>single family</u> Number of Residential Units <u>4</u> If vacant, what was the previous use? <u>N/A</u> Proposed Specific use: <u>Deck</u> Is property part of a subdivision? <u>NO</u> If yes, please name _____ Project description: <u>replace Existing Deck & Rails and Fix Rubber if needed</u>		
Contractor's name: <u>RYAN CROSBY CONSTRUCTION</u>		
Address: <u>4 CRANBERRY LANE</u>		
City, State & Zip <u>SACO ME 04072</u>		Telephone: <u>423-2160</u>
Who should we contact when the permit is ready: <u>RYAN CROSBY</u>		Telephone: <u>571-4389</u>
Mailing address: <u>4 CRANBERRY LANE SACO ME 04072</u>		

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, 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:  Date: Oct 22, 2008

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

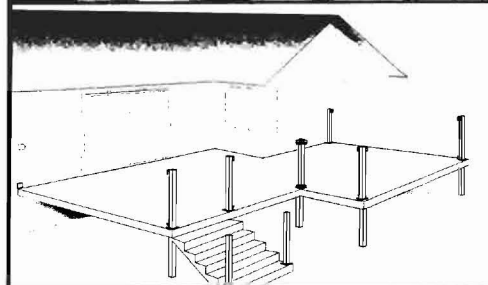
easy² install

Aluminum Glass Panel
or Picket Railing

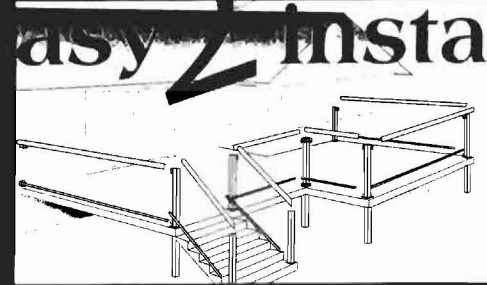
Classic RAILING



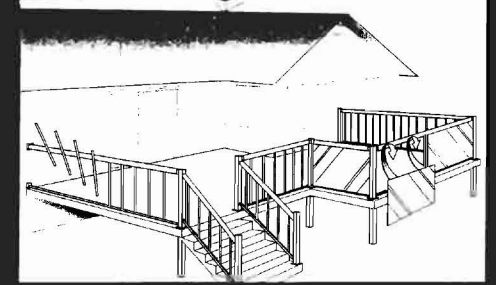
- No necesita mantenimiento
- Aluminio Inoxidable
- Páneles de Cristal
- La última capa de pintura en polvo



Set Posts/
Fijar postes



Cut & Attach Rails/
Cortar y sujetar Barandilla



Slide in Glass or Snap in Pickets/
Deslizar Cristales o barandas de encaje a presión

1. Set your Posts or Wall Brackets. Posts are standard 42" height.

1. Fije sus postes o soportes de pared. Los postes son de 42" de altura estándar.

Note: when pickets are used, rails should not exceed 8 ft. without post or brace. When using glass panels, post spacing should not exceed 6 ft. (braces are recommended at each post) Glass panels require black gasket and rubber spacer blocks.

2. Select and cut the lengths of Rails needed. Standard Rail lengths are 6', 8', 10', & 12'.

2. Seleccione y corte las longitudes de la barandilla necesarias. Las longitudes estándar de las barandillas son 6', 8', 10', 12'.

Note: Al usar barandas, las barandillas no deben exceder 8 pies sin poste o refuerzo. Al usar el cristal el espacio del poste no debe exceder 6 pies (los refuerzos se recomiendan en cada poste). La aplicación del cristal requiere junta negra de GVL y bloques de aislamiento de caucho.

3. Choice of Straight or Wide Pickets or Glass Panels or any Combination. Glass panels come in widths of 24" to 66" in 3" Increments.

3. Opción de barandas rectas u onduladas o de páneles de cristal o de cualquier otra combinación. Los páneles de cristal vienen en anchuras de 24" a 66" en incrementos de 3".

TOOLS REQUIRED/HERRAMIENTAS REQUERIDAS

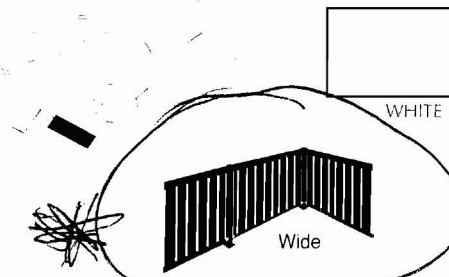
- Drill with 3/8" hex Bit
- #2 Square Drive Bit
- Hacksaw or Mitre saw
- Tape Measure
- Rubber Mallet
- Level

AVAILABLE IN 4 COLORS/DISPONIBLE EN 4 COLORES

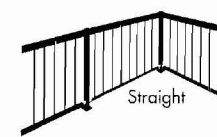
COLORS MAY VARY SLIGHTLY



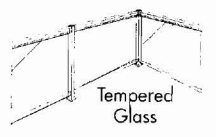
3 STYLES/3 ESTILOS



Wide



Straight



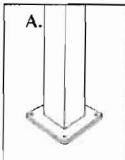
Tempered
Glass

Date: _____ Classic Customer: _____ P.O.#: _____
 Market: _____ Store#: _____ Glass Wide Straight
 Contact: _____ Phone: _____ Fax: _____

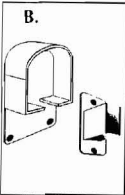
Project Planner

Scale: 1/4" = 1'0"

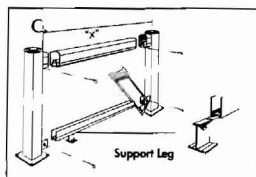
A. Determine position of all posts. Pre-drill Pilot Holes and secure loosely with only one fastener. Use #14 x 2 1/2" Lag screws or stainless steel screws.



B. Install wall brackets as shown if required. Measure up from floor 42-1/8" to the top of upper bracket sleeve and 4 3/4" to the top of bottom bracket sleeve and secure with screws or lags.

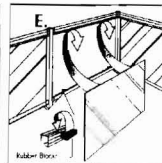
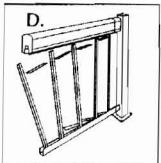


C. Measure distance between posts ("x"). Mark both top and bottom rail and cut to required length. Cut top rail 1/2" shorter than bottom rail. (*Note: Install support leg in bottom rail every 48"). Install bottom rail in bottom bracket attached to posts. Set top rail in post brackets. Attach both top and bottom rails to brackets with #10 x 3/4" self tapping or stainless steel screws as shown. Drill 3/16" holes through bottom rail every 24" for water drainage. Level all posts and secure with remaining lag screws.



D. Picket Installation

Start against one post, snap a spacer onto top and bottom rails using rubber mallet. Insert picket and tap it tight to spacer. Repeat until you have 3-4 pickets remaining. Install remaining pickets as a group, spread out and snap in remaining spacers. Cut last spacer to fit, using hacksaw. (Option) Snap first spacer in centre of top & bottom and work outwards for equal end spacing.



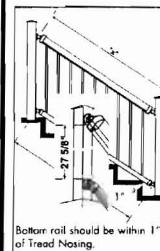
E. Tempered Glass Installation

Discard clear PVC liner from top and bottom rails, replace with black gasket. Place rubber blocks in bottom rail only, 2-4 blocks per panel. Glass then slides up into top rail and down into bottom rail and rests on rubber blocks.

E. Instalación del Cristal

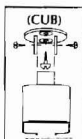
Descartar el trazador de líneas claro del PVC de las barandillas superiores e inferiores, reemplazar con juntas negras. Poner bloques de caucho en la barandilla inferior solamente, 2-4 bloques por panel. El Cristal se desliza dentro de la barandilla superior y abajo dentro de la barandilla inferior y se posa sobre los bloques de caucho.

CLASSIC UNIVERSAL ANGLE BRACKET (CUB) FOR STAIR & ANGLE APPLICATIONS/ Soportes de ángulo universal para cualquier clase de escaleras.



Bottom rail should be within 1" of Tread Nosing.
INSTALL BOTTOM RAIL FIRST AND WORK UP.

Classic Universal Angle Brackets accommodate any stair, angle or incline. Mount top and bottom posts at desired locations on step treads. Mount CUB Brackets to posts while maintaining 27 5/8" between round backing plates. Use #10 x 3/4" self-tapping or stainless steel screws. Measure and cut top and bottom rails as shown ("x"). Install pickets and spacers, as per illustration.



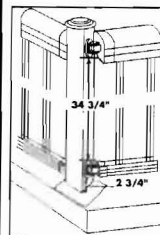
Note: Location of top & bottom posts on stair treads will determine overall height of top rail. Top rail height shall not be less than 34" or greater than 38" above tread nosing.

Soportes de ángulo universal acomodan cualquier clase de escaleras, ángulo o inclinación. Montar poste superior e inferior en la posición deseada en los escalones. Ajustar soportes CUB a los postes manteniendo 27 5/8" entre las placas de refuerzo redondas. Usar #10 por 3/4 de cinta adhesiva o tornillos inoxidables de acero. Mida y corte la baranda superior e inferior como indicado. Instalar barandillas y espaciarlas como en la ilustración.



Nota: La posición de los postes superiores e inferiores en los escalones determinará la altura de la baranda superior. La altura de la baranda superior no debe ser menor de 34" o más de 38" por encima del escalón.

CUSTOM POST/ANGLE APPLICATION USING CLASSIC UNIVERSAL ANGLE BRACKET/ Postes a la medida/Aplicaciones en Ángulo usando Soportes de Ángulo Universal

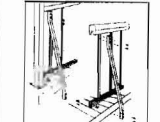
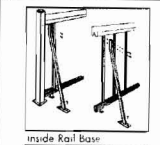


Measure up from post base plate 2 3/4" to bottom of round backing plate. Attach to post.

Maintain 34 3/4" between backing plates. Attach top round plate as indicated using #10 X 3/4" self drilling or stainless steel screws.

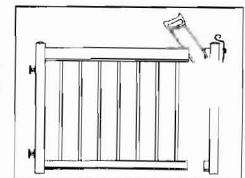
Mida para arriba desde la placa del poste 2 3/4" hasta la placa redonda de refuerzo. Ajustar al poste. Mantener 34 3/4" entre las placas de refuerzo. Ajustar placa redonda superior como indicado usando tornillos de acero inoxidable del No. 10 3/4".

GATE INSTALLATION/ Instalación de la puerta



Outside Rail Base
Can be attached to post or picket as required

Gate fits 48" wide opening. For smaller openings, cut top and bottom rails of gate to desired size before assembling, allowing 2" for hinges and 2" for latch.



La abertura ancha de la verja mide 48". Para aberturas pequeñas, corte lo de arriba y abajo de las tablas de la verja para el tamaño deseado antes de armarla, dejando 2" para la bisagra y 2" para el pазador.



[Image Gallery](#) | [Products](#) | [Installation Guide](#) | [About Us](#) | [Contact Us](#)

Specifications

ALUMINUM MATERIALS

- All aluminum rail parts are tempered
- Classic Top Rail - wall thickness 2.00 mm using 6065 T5 alloys
- Classic Bottom Rail - wall thickness 1.65 mm using 6060 T5 alloys
- Classic Posts - wall thickness 1.90 mm using 6063 T54 alloys

PAINT

- All Classic Railing is powder coated with a durable polyester finish
- Coating is applied to a minimum of 1.3 mm to 1.8 mm thickness

GLASS

Clear tempered glass products are warranted to meet:

1. The quality and strength requirements of ASTM C 1048 and the safety requirements of CPSC 18 and C (categories 1 and 11)

ALUMINUM

Our products are constructed of 100% high strength aluminum and will meet or exceed national building code

PAINT

Classic superior powder coating finish allows for maximum durability in all climates and will not rust, fade, peel

COLORS

White is the classic standard stocking color. Black, grey and architectural teal are also available at no extra cost. 15 working days for delivery of color.

STANDARD HEIGHTS

Classic standard railings are 42" in height to meet national building code standards.

DELIVERY

For classic and standard color white allow approximately 7 working days. Other colors allow approximately 15 working days. Note: Delivery may vary during peak seasons.

ESTIMATING

Although we do encourage our dealers to familiarize themselves with estimating their packages, we are available anytime if required. Simply fax to our dealer the applicable information and we will provide you with a cost estimate within 24 hours.

GLASS

Clear tempered glass panels are in stock in widths from 24" to 66", in 3" increments.

FREIGHT

Classic Railing shipments are prepared FOB destination on orders exceeding \$4,000.00.

WARRANTY

Classic Railing is guaranteed by Classic Railing 20 Year Limited Warranty.

Copyright © 2001-2003 Classic Railings. All Rights Reserved.

Regal
Aluminum Products

.....
2840 West Valley Hwy N
Unit 102, Auburn, WA 98001
Phone 800-819-4344
Fax 604-952-4206

FAX

To: The Home Depot - 2401 **Fax** 207-822-4802

Attn: Nicole **Phone:**

From: Anu Verma **Date:** 06-April-09

Re: Engineering Specs **Pages:** 10

Urgent For Review Please Comment Please Reply Please Recycle

Here are the specs as requested.

Please do not hesitate to call our customer service at 800 364 5245 if you require any further information.

Thanks

Anu Verma

.....

The Intertek logo consists of the word "Intertek" in a white, sans-serif font, centered within a solid black rounded rectangular background.

REPORT NUMBER: 3134212COQ-004
ORIGINAL ISSUE DATE: February 20 , 2009

EVALUATION CENTER

Intertek Testing Services NA Ltd.
1500 Brigantine Drive
Coquitlam, B.C, V3K 7C1

RENDERED TO

Regal Aluminum Products Inc.
102-2840 West Valley Highway, N
Auburn WA, 98001
United States

PRODUCT EVALUATED:

Classic Handrail and Guardrail Glass and Picket Sections,
Regal Handrail and Guardrail Glass and Picket Sections

EVALUATION PROPERTY: Structural Tests

Report of testing for compliance with the applicable requirements of the following criteria: ICC Evaluation Service, Inc. AC 273, Acceptance Criteria for Handrails and Guards, approved February 2008

TEST REPORT

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Regal Aluminum Products Inc.
Report No. 3134212COQ-004

February 20, 2009
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2 Introduction

Intertek Testing Services NA (Intertek) has conducted testing for Regal Aluminum Products Inc., on Regal and Classic Railing Products, to evaluate structural performance. Testing was conducted in accordance with ICC Evaluation Service, Inc. AC 273, *Acceptance Criteria for Handrails and Guards, approved February 2008* (ICC-ES AC 273). The connection of the railing system to the structure was not evaluated. The testing was conducted at Intertek Testing Services Ltd., Building T52-8, 1201 Guiqiao Rd, Jinqiao Development Zone, Pudong, Shanghai, China, 201206. This evaluation began on May 14, 2008 and was completed on September 10, 2008.

3 Test Samples

3.1. SAMPLE SELECTION

Samples were randomly selected on February 22, 2008 and July 8, 2008 by Intertek representative John Qiao and Craig Lawson respectively. The samples were received at the Evaluation Center on April 28, 2008 and July 30, 2008 respectively...

The subject test specimens were traceable samples selected from the manufacturer's facility. Intertek selected the specimens and has verified the composition, manufacturing techniques and quality assurance procedures.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

Three production samples of each guardrail system were prepared for testing. The guardrail system components were summarized in Table 1 below.

Component	Material	
Bottom Bracket	A6061-T6 15°±1°aluminum	
Bottom Rail		
Base Plate		
Post		
Top Bracket		
Top Rail		
Spacer		
Pickets		
UAB Classic Top Bracket		YL102 aluminum
UAB Clam Back		
UAB Regal Top Bracket		
UAB Bottom Bracket		
Screws	A1018 steel	
Glass	Tempered Glass	
Glass Track	Poly-Vinyl Chloride (PVC)	

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4 Testing and Evaluation Methods

4.1. CONDITIONING

The samples were tested in ambient conditions. No specific conditioning parameters were required before testing.

4.2. GENERAL (Clause 4.2.1)

One complete railing system, consisting of two posts, was tested at maximum spacing and in the worst-case scenario. The test specimen was loaded at a rate to achieve the specified loads between 10 seconds and 5 minutes. The specified test loads were held for one minute before the load was released.

4.3. IN-FILL LOAD TEST (Clause 4.2.2)

A load consisting of 125 lbf was applied over 1 sq. ft. (0.0929 m²) normal to the in-fill in a worst-case scenario, including standard picket, wide picket, and basket picket. The factored load included a safety factor of 2.5 for general and 4 for glass, as detailed in section 1714.3.1 and section 2407.1.1 of the 2006 International Building Code (IBC). After release of the load, the system was examined for any evidence of disengagement of any component and visible cracks in any component.

4.4. UNIFORM LOAD TEST (Clause 4.2.3)

The top rail of the system was subjected to a single test where a uniform load of 125 lbf/ft was applied in a downward direction and at an angle of 45° from the horizontal. The factored load included a safety factor of 2.5, as detailed in section 1714.3.1 of the IBC. The load was applied using quarter point loads calculated to impose an equivalent moment to the uniform load specified. After release of the load, the system was examined for any evidence of disengagements of any component and visible cracks in any component.

4.5. CONCENTRATED LOAD TEST (Clause 4.2.4)

Two separate tests were conducted where the proof load of 500 lbf was applied horizontally to the top-rail at mid-span and directly adjacent to the post to evaluate the connection capacity. The factored load included a safety factor of 2.5, as detailed in section 1714.3.1 of the IBC. After release of the load, the system was examined for any evidence of disengagements of any component and visible cracks in any component. When the applied load reached 200 lbf, the deflection at the point of loading was recorded as per clause 4.2.4.a and 4.2.4.b of ICC-ES AC 273.

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5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

The product test results are shown in Table 2-12 below. Test data sheets and photographs can be found in Appendix A and B respectively.

Table 2. Test Results of Classic 8 ft Standard Picket Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	125 held for 1 minute	125 held for 1 minute	Pass
45° Uniform Load, lbf	1000 held for 1 minute	1000 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

Table 3. Test Results of Classic 6 ft Standard Glass Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	200 held for 1 minute	200 held for 1 minute	Pass
45° Uniform Load, lbf	750 held for 1 minute	750 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

Table 4. Test Results of Regal 8 ft Standard Picket Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	125 held for 1 minute	125 held for 1 minute	Pass
45° Uniform Load, lbf	1000 held for 1 minute	1000 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

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Table 5. Test Results of Regal 6 ft Standard Glass Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	200 held for 1 minute	200 held for 1 minute	Pass
45° Uniform Load, lbf	750 held for 1 minute	750 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

Table 6. Test Results of Classic 6 ft Stair Picket Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	125 held for 1 minute	125 held for 1 minute	Pass
45° Uniform Load, lbf	750 held for 1 minute	750 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

Table 7. Test Results of Classic 6 ft Stair Glass Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	200 held for 1 minute	200 held for 1 minute	Pass
45° Uniform Load, lbf	750 held for 1 minute	750 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

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Table 8. Test Results of Regal 6 ft Stair Picket Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	125 held for 1 minute	125 held for 1 minute	Pass
45° Uniform Load, lbf	750 held for 1 minute	750 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

Table 9. Test Results of Regal 6 ft Stair Glass Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	200 held for 1 minute	200 held for 1 minute	Pass
45° Uniform Load, lbf	750 held for 1 minute	750 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

Table 10. Test Results of Classic 8 ft Angle Picket Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	125 held for 1 minute	125 held for 1 minute	Pass
45° Uniform Load, lbf	1000 held for 1 minute	1000 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

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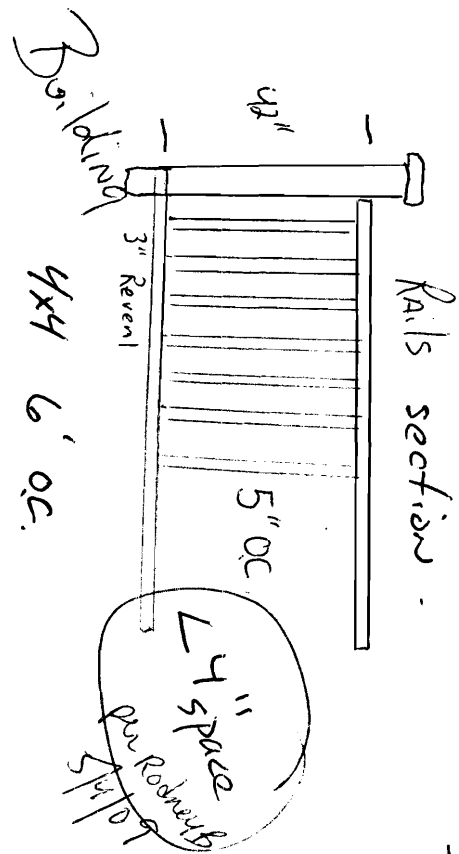
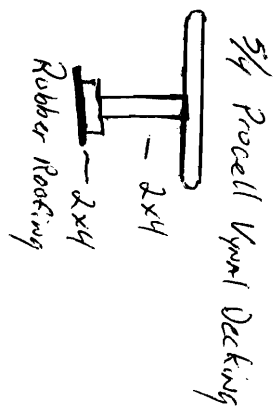
Table 11. Test Results of Regal 6 ft Angle Picket Section			
Test Description	Test Result	Requirement	Pass/Fail
In-fill Load, lbf	125 held for 1 minute	125 held for 1 minute	Pass
45° Uniform Load, lbf	750 held for 1 minute	750 held for 1 minute	Pass
Midspan Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass
Top of Post Concentrated Load, lbf	500 held for 1 minute	500 held for 1 minute	Pass

Table 12. Test Results of Picket for In-fill load			
Picket Type	Test Result	Requirement	Pass/Fail
Standard	125 held for 1 minute	125 held for 1 minute	Pass
Wide	125 held for 1 minute	125 held for 1 minute	Pass
Basket	125 held for 1 minute	125 held for 1 minute	Pass

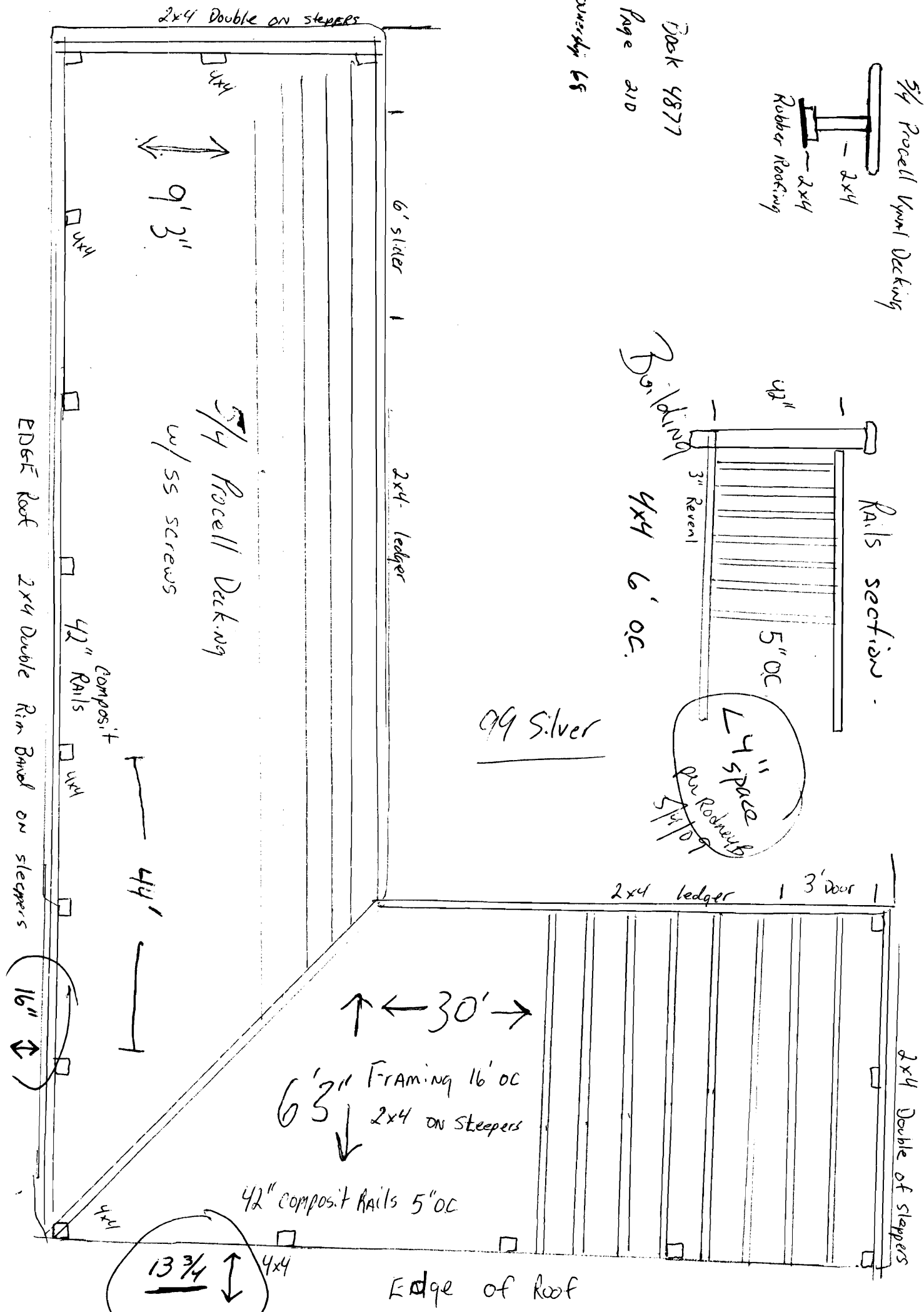
FRAMING

99 Silver St.

Rubber Roof



Task 4877
Page 210
Overall 68



APPROVED DESIGN
DESIGN FOR 99 SILVER ST.
SUBMITTED 11/13.



Deck

Fastened to building
weather coated screws

Built in 6'x6' sections
fastened to each
other for easy

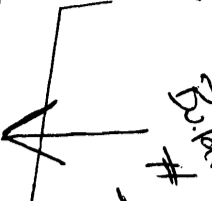
removal/repair

Jim B

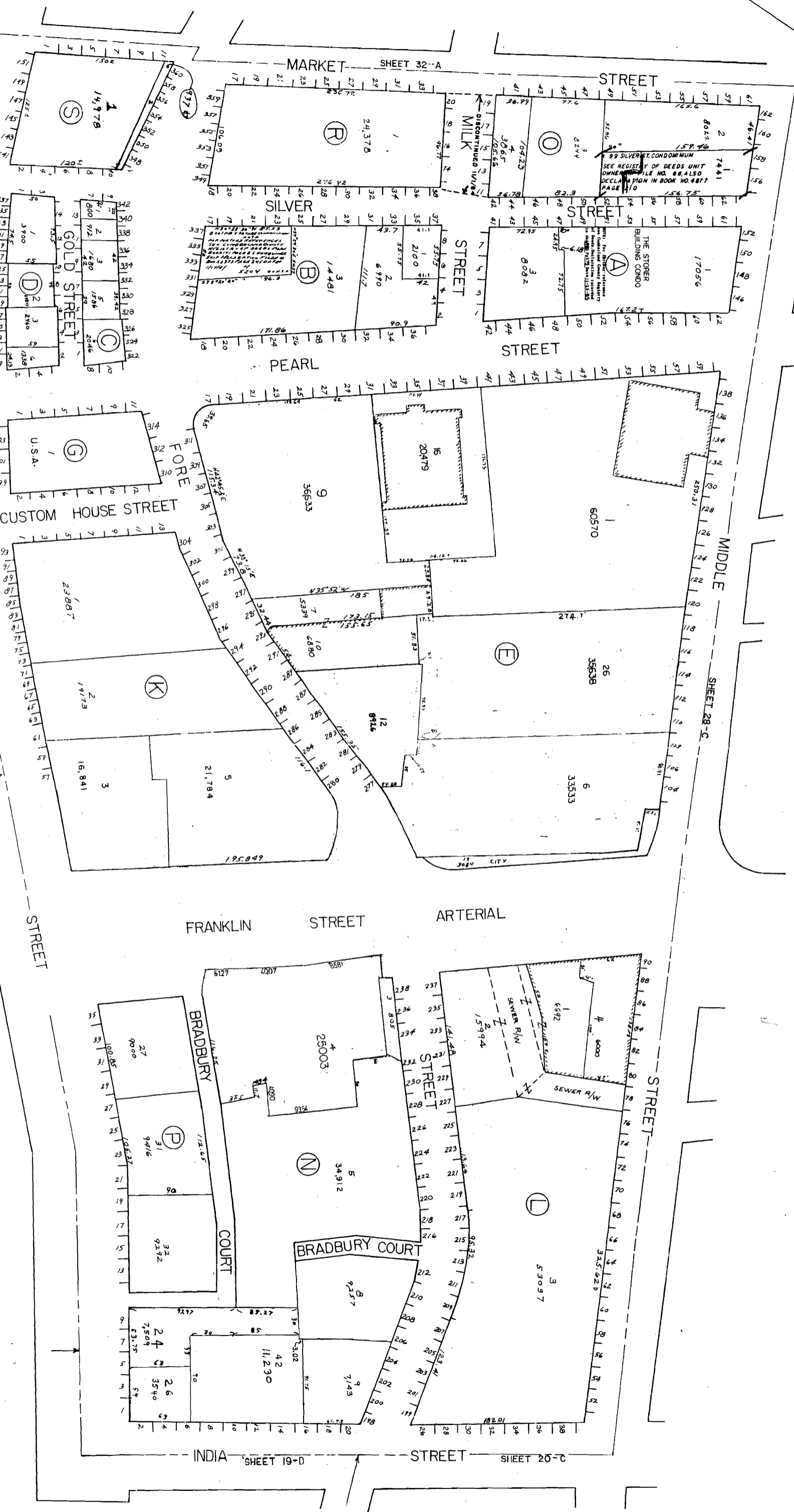
5/4/09



23
156
50
180



23
156
50
180



COMMERCIAL

FRANKLIN STREET ARTERIAL

CITY OF PORTLAND
ASSESSORS PLAN
SCALE 1"=50' ±

No 29