## **Development Services**

## From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201 More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY	
Status: Decision Rendered - Reconsideration of ID 20169	
Appeal ID: 20257	Project Address: 1331 NW 17th Ave
Hearing Date: 4/17/19	Appellant Name: Brian Shea
Case No.: M-001	Appellant Phone: 5032394600
Appeal Type: Mechanical	Plans Examiner/Inspector: Thomas Ng
Project Type: commercial	Stories: 7 Occupancy: R-2 Construction Type: Concrete/Wood
Building/Business Name:	Fire Sprinklers: Yes - All
Appeal Involves: Reconsideration of appeal	LUR or Permit Application No.: 17-211931-MT
Plan Submitted Option:pdf[File 1][File 2][File 3][File 4][File 5][File 6][File 7]	Proposed use: Mixed use( retail/parking/residential)

#### APPEAL INFORMATION SHEET

#### Appeal item 1

Code Section	2014 OSMC 504.4
Requires	Appeal 20169 was recently approved with a note to provide 1.5" spacing at the louvers- we
	assume this is in reference to the blade spacing of the louvers. The appeal submitted utilizes a 15
	degree louver blade with .5" blade spacing. The 15 degree louver blade provides drastically more
	free area then an industry standard 50% free area louver with 1.5" blade spacing. We have
	created a summary chart and provided the free area calculations from the manufacturer to
	demonstrate that the louver (ADL-333-500) provides 73% free area with .5" blade spacing. The
	smaller blade spacing also ensures that birds cannot nest in the louver plenums since there is no
	bird/bug screen on the dryer portion of the louver . The ADL-333-500 louver has already been
	coordinated with the architect and exterior design review. We are requesting that in lieu of
	dictating a louver blade spacing in the appeal response since it is only one of the factors that
	determining free area of a louver that the board approve the appeal based on exceeding the
	industry standard 50% free area. The current louver design is providing 73% free area. water
	intrusion is addressed with the exterior wall caps located in the rear of the louver plenum and the
	sloped louver plenum that is drainable.
Proposed Design	See attached info on various louver free areas, blade angle and blade spacing. Proposed design
	is to use the already submitted 15 degree .5" spaced louver blade with 73% free area.
Reason for alternative	Appeal 20169 was recently approved with a note to provide 1.5" spacing at the louvers- we
	assume this is in reference to the blade spacing of the louvers. The appeal submitted utilizes a 15
	degree louver blade with .5" blade spacing. The 15 degree louver blade provides drastically more
	free area then an industry standard 50% free area louver with 1.5" blade spacing. We have





#### Appeals | The City of Portland, Oregon

created a summary chart and provided the free area calculations from the manufacturer to demonstrate that the louver (ADL-333-500) provides 73% free area with .5" blade spacing. The smaller blade spacing also ensures that birds cannot nest in the louver plenums since there is no bird/bug screen on the dryer portion of the louver . The ADL-333-500 louver has already been coordinated with the architect and exterior design review. We are requesting that in lieu of dictating a louver blade spacing in the appeal response since it is only one of the factors that determining free area of a louver that the board approve the appeal based on exceeding the industry standard 50% free area. The current louver design is providing 73% free area. Water intrusion is addressed with the exterior wall caps located in the rear of the louver plenum and the sloped louver plenum that is drainable.

#### APPEAL DECISION

Use of louvers at dryer exhaust termination without secondary lint trap: Denied. Proposal does not provide equivalent Life Safety protection. Appellant may contact John Butler (503 823-7339) with questions.

Pursuant to City Code Chapter 27.02, you may appeal this decision to the Mechanical Code Board of Appeal within 180 calendar days of the date this decision is published. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.



1300 ENTERPRISE ROAD GENEVA, ALABAMA 36340-0580

800-239-4621 FAX 1-800-508-1469

## ADL-333-500



#### STANDARD CONSTRUCTION

- Extruded aluminum; 6063-T5
- Min. size O.D. 4" x 2" (102 x 51)
- Max. size O.D. 72" x 12" (1829 x 305)

#### **OPTIONS**

- □ Clear or anodized finish
- □ Prime coat
- □ Baked Enamel (Kynar 50%)
- □ Pearledized 50 or 70
- 🗌 Kynar 70%

#### Notes:

- 1. Face view for illustration purposes only.
- 2. Dimensions in inches, parenthesis ( ) indicate millimeters





QTY.	ACTU	AL SIZE	VARIATIONS
	A B		
PROJE	ECT		LOCATION
ARCH.	/ENGR.		CONTRACTOR
REPRI	ESENTATIV	Έ	DATE

Spec ADL-333-500-411/Replaces SEQ 2201

ALL STATED SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION.

#### Louver Comparison Schedule

TAG	QTY	MODEL	WIDTH (in)	HEIGHT (in)	AIR FLOW (cfm)	FLOW DIR.	FREE AREA (sq ft)	FREE AREA %	Blade Angle	Blade Spacing	
Type -2a	1	ADL-333-500	20	16	500	Е	1.64	73%	15	.5"	
Туре -2а	1	AEL 42	20	16	500	Е	1.13	51%	42	1"	
Type -2a	1	ELF15J	20	16	500	Е	0.94	42%	45	1.78"	
Type -2a	1	EL-2	20	16	500	E	0.76	35%	37	1.47*	

<b>RUSKIN</b> <sup>®</sup>
RELZELE

CN #	MODEL #	

SHEET\_\_\_\_\_ OF\_\_\_\_\_ CALC. BY\_\_\_\_\_\_

FREE AREA

SUBJECT\_\_\_\_

DATE	
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1300 ENTERPRISE ROAD

GENEVA, ALABAMA 36340-0580

800-239-4621 FAX 1-800-508-1469

www.reliablelouvers.com

## **AEL-42 W/ 186 FRAME**

# PTAC Unit (specify)



#### STANDARD CONSTRUCTION

- Extruded aluminum; 6063-T5
- 42° architectural decorative louver PTAC wall application w/186 frame

#### OPTIONS

- □ Clear or anodized finish
- Prime coat
- □ Baked Enamel (Kynar 50%)
- □ Pearledized 50 or 70
- 🗌 Kynar 70%
- □ .040 (1) aluminum sheet
- .040 (1) aluminum (1 side) with 1" (25) insulation
- .040 (1) aluminum (2 sides) with 2" (51) insulation
- Other blankoff required
- □ Exterior mounting holes as required
- □ See AEL frames for perimeter frame options

#### VARIATIONS

- External drains
  Using drain kits
  - □ Left or □ Right
- Internal drains
  - · No drain holes in rear of louver
  - Drain holes for PTAC emergency over flow
- □ Unit type \_
- □ Model \_\_\_\_\_
- Add'l drain info \_\_\_\_\_\_

#### Notes:

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- 1. Face view for illustration purposes only
- 2. Dimension "E" = bottom of louver to bottom of PTAC cabinet
- 3. Dimensions in inches, parenthesis ( ) indicate millimeters
- \* Dimensions determined by unit, model, and type.

	UNIT MODEL		AC	TUAL SI	ZE		VARIATIONS
TYPE	NO.	Α	В	С	D	Е	
PROJE	СТ						LOCATION
ARCH.	/ENGR.						CONTRACTOR
REPRE	ESENTAT	IVE					DATE

Spec AEL-42/186-411/Replaces SEQ 201



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	UNIT MODEL		AC	TUAL SI	ZE		VARIATIONS
TYPE	NO.	Α	В	С	D	Е	
PROJE	СТ						LOCATION
ARCH.	/ENGR.						CONTRACTOR
REPRE	ESENTAT	IVE					DATE

Spec AEL-42/186-411/Replaces SEQ 201



3900 Dr. Greaves Rd.

Kansas City, MO 64030

(816) 761-7476

•

FAX (816) 765-8955

### ELF15J THIN LINE STATIONARY LOUVER **EXTRUDED ALUMINUM**

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#### STANDARD CONSTRUCTION **FEATURES** FRAME The ELF15J offers: 11/2" (38) deep, 6063T6 extruded alu-• 50% Free Area. minum with .062" (1.6) nominal wall · Published performance ratings based on thickness. Caulking surfaces provided. testing in accordance with AMCA BLADES Publication 511. 6063T6 extruded aluminum with .062" · Aluminum construction for low mainte-(1.6) nominal wall thickness. Blades are nance and high resistance to corrosion. positioned at 45° angle and spaced approximately 17/8" (48) center to cen-. В\* ter. VARIATIONS SCREEN Variations to the basic design of this louver 5/8" x .040" (16 x 1) expanded, flatare available at additional cost. They tened aluminum bird screen in removinclude: able frame. Screen adds approximately · Extended sill. 1/2" (13) to louver depth. · Hinged frame. FINISH · Front or rear security bars. Mill. · Filter racks. **MINIMUM SIZE** · Installation angles. 6"w x 6"h (152 x 152). · A variety of bird and insect screens. **APPROXIMATE SHIPPING WEIGHT** · Selection of finishes: prime coat, baked Δ\* 2.5 lb. per sq. ft. (12.2 kg/m<sup>2</sup>). enamel (modified fluoropolymer), epoxy, MAXIMUM FACTORY ASSEMBLY SIZE Pearledize, Kynar, clear and color ano-Shall be 60 sq. ft. (5.6m<sup>2</sup>) per section, not to exceed 120"w x 72"h (3048 x dize. (Some variation in anodize color consistency is possible.) 1829) or 72"w x 120"h (1829 x 3048). Consult Ruskin for other special require-Louvers larger than the maximum facments tory assembly size will require field assembly of smaller sections. SUPPORTS Louvers may be provided with rear mounted blade supports that increase FRAME CONSTRUCTION overall louver depth depending on louver size, assembly configuration or windload. B А Х 750 Consult Ruskin for additional information. Δ\* R۱ B۱ ∆≯

#### Dimensions in inches, parenthesis ( ) indicate millimeters.

\*Units furnished 1/4" (6) smaller than given opening dimensions.

STANDARD

TAG	QTY.	SI	ZE	FRAME	VARIATIONS				
		A*-WIDE	B*-HIGH						
PROJECT ARCH./ENGR. REPRESENTATIVE					LOCATION CONTRACTOR DATE				

ALL STATED SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION.

750

**INTEGRAL FLANGE** 

### **TYPICAL INSTALLATION DETAILS**



#### SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary type. Louvers shall have a minimum of 50% free area based on a 48" wide x 48" high (1219 x 1219) size. Stationary blades shall be contained within a 1<sup>1</sup>/<sub>2</sub>" (38) frame. Louver components (heads, jambs, sills, blades & mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 20 lbs. per sq. ft. (.96kPa) (equivalent of a 90 mph [145 KPH] wind - specifier may substitute any loading required).



#### PRESSURE DROP

**RUSKIN**<sup>®</sup>

3900 Dr. Greaves Rd. Kansas City, MO 64030 (816) 761-7476 FAX (816) 765-8955 www.ruskin.com Louvers shall be Ruskin Model ELF15J extruded 6063T6 aluminum alloy construction as follows:

Frame: 11/2" (38) deep .062" (1.6) wall thickness.

- Blades: .062" (1.6) nominal wall thickness. Blades are positioned at 45° angle and spaced at approximately 1<sup>7</sup>/<sub>8</sub>" (48) center to center.
- Screen: <sup>5</sup>/8" x .040 (16 x 1) expanded, flattened aluminum in removable frame.

Finish: Select finish specification from Ruskin Finishes Brochure.

Published louver performance data derived from testing in accordance with AMCA 500 for Air Performance must be submitted for approval prior to fabrication and must demonstrate pressure drop equal to or less than the Ruskin model specified.

#### FREE AREA GUIDE

Free Area Guide shows free area in  $\mathrm{ft}^2$  and  $\mathrm{m}^2$  for various sizes of ELF15J.

#### Width - Inches and Meters

	12	18	24	30	36	42	48	54	60
	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
12	0.37	0.58	0.79	1.01	1.22	1.43	1.64	1.85	2.06
0.30	0.03	0.05	0.07	0.09	0.11	0.13	0.15	0.17	0.19
18	0.62	0.98	1.33	1.69	2.04	2.39	2.75	3.10	3.46
0.46	0.06	0.09	0.12	0.16	0.19	0.22	0.26	0.29	0.32
24	0.87	1.37	1.87	2.37	2.86	3.36	3.86	4.36	4.85
0.61	0.08	0.13	0.17	0.22	0.27	0.31	0.36	0.41	0.45
30	1.06	1.66	2.27	2.88	3.48	4.09	4.69	5.30	5.90
0.76	0.10	0.15	0.21	0.27	0.32	0.38	0.44	0.49	0.55
36	1.31	2.06	2.81	3.56	4.30	5.05	5.80	6.55	7.30
0.91	0.12	0.19	0.26	0.33	0.40	0.47	0.54	0.61	0.68
42	1.56	2.45	3.34	4.24	5.13	6.02	6.91	7.80	8.69
1.07	0.06	0.10	0.13	0.17	0.20	0.24	0.27	0.31	0.34
48	1.81	2.85	3.88	4.92	5.95	6.98	8.02	9.05	10.09
1.22	0.17	0.26	0.36	0.46	0.55	0.65	0.75	0.84	0.94
54	2.06	3.24	4.42	5.60	6.77	7.95	9.13	10.31	11.48
1.37	0.19	0.30	0.41	0.52	0.63	0.74	0.85	0.96	1.07
60	2.25	3.53	4.82	6.11	7.39	8.68	9.96	11.25	12.53
1.52	0.21	0.33	0.45	0.57	0.69	0.81	0.93	1.05	1.17

Free area velocity at point of .01 oz./ft.<sup>2</sup>  $(3g/m^2)$  of free area water penetration: 390 fpm (119 m/min).

## SUBMITTAL DATA

## FIXED 2" [ 51mm] LOUVER



**MODEL EL-2** 

## SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary type with downspouts in jambs and mullions. Stationary blades shall be contained within a 2.16" deep frame. Louver components (head, jambs, sills, blades, and mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 20 lbs. per sq. ft. (equivalent of a 90 mph wind). Louver shall be United Enertech Model EL-2.

The louver system should be designed with a resonable safety factor for louver performance. To ensure protection from water carryover, design with a performance level somewhat below maximum desired pressure drop and .01 oz./sq. ft. of water penetration





## Beginning point of WATER PENETRATION for MODEL EL-2 is 524 fpm

free area velocity at .01 oz. of water (penetration)

#### Louver Louver Heiah Width - Inches Heiaht Inches Inches 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120 6 0.03 0.08 0.13 0.18 0.23 0.27 0.32 0.37 0.42 0.47 0.52 0.57 0.62 0.67 0.72 0.77 0.82 0.86 0.91 0.96 12 12 0.07 0.20 0.33 0.46 0.59 0.72 0.84 0.97 1.10 1.23 1.36 1.48 1.61 1.74 1.87 2.00 2.13 2.25 2.38 2.51 6 18 0.19 0.52 0.85 1.19 1.52 1.85 2.18 2.51 2.84 3.17 3.50 3.83 4.16 4.49 4.82 5.16 5.49 5.82 6.15 6.48 18 2.54 8.90 24 0.27 0.72 1.17 1.63 2.08 2.99 3.45 3.90 4.35 4.81 5.26 5.72 6.17 6.63 7.08 7.53 7.99 8.44 24 30 0.35 0.94 1.54 2.13 2.73 3.32 3.92 4.52 5.11 5.71 6.30 6.90 7.49 8.09 8.68 9.28 9.87 10.47 11.06 11.66 30 10.04 10.84 11.64 12.43 14.03 36 0.47 1.26 2.06 2.86 3.66 4.46 5.25 6.05 6.85 7.65 8.44 9.24 13.23 14.83 15.63 36 1 58 2.58 3.58 7.59 17 59 42 0.58 4 59 5.59 6 59 8.59 9 5 9 10 59 11.59 12.59 13 59 14.59 15 59 16 59 18 59 19 59 42 6.50 48 0.68 1.84 3.01 4 17 5.33 7.66 8.82 9.99 11.15 12.31 13.48 14.64 15.80 16.97 18.13 19.29 20.46 21.62 22.78 48 54 0.77 2.10 3.43 4.75 6.08 7.41 8.73 10.06 11.39 12.71 14.04 15.36 16.69 18.02 19.34 20.67 22.00 23.32 24.65 25.98 54 17.25 60 0.87 2.36 3.85 5.34 6.83 8.32 9.81 11.29 12.78 14.27 15.76 18.74 20.23 21.72 23.21 24.70 26.19 27.68 29.17 60 0.92 2.49 4.06 5.64 7.21 8.78 10.36 11.93 13.51 15.08 16.65 18.23 19.80 21.37 22.95 24.52 26.09 27.67 29.24 30.81 66 66 72 1.01 2.75 4.49 6.22 7.96 9.69 11.43 13.17 14.90 16.64 18.38 20.11 21.85 23.59 25.32 27.06 28.80 30.53 32.27 34.00 72 78 1.11 3 01 4.91 6.81 8.71 10.61 12.50 14.40 16.30 18.20 20.10 22.00 23,90 25.80 27.70 29.60 31.50 33 40 35 30 37 20 78 84 1.20 3.27 5.33 7.39 9.45 11.51 13.58 15.64 17.70 19.76 21.83 23.89 25.95 28.01 30.08 32.14 34.20 36.26 38.33 40.39 84 90 1.30 3.52 5.75 7.97 10.20 12.42 14.65 16.87 19.10 21.32 23.55 25.77 27.99 30.22 32.44 34.67 36.89 39.12 41.34 43.57 90 96 1.39 3.78 6.17 8.56 10.95 13.34 15.73 18.12 20.51 22.90 25.28 27.67 30.06 32.45 34.84 37.23 39.62 42.01 44.40 46.79 96 102 1.45 3.94 6.43 8.92 11.41 13.89 16.38 18.87 21.36 23.85 26.34 28.83 31.31 33.80 36.29 38.78 41.27 43.76 46.24 48.73 102 12.34 47.34 108 1.57 4.26 6.95 9.65 15.03 17.72 20.42 23.11 25.80 28.49 31.18 33.88 36.57 39.26 41.95 44.64 50.03 52.72 108 21.95 114 1.69 4.58 7.48 10.37 13.27 16.16 19.06 24.85 27.74 30.63 33.53 36.42 39.32 42.21 45.11 48.00 50.90 53.79 56.69 114 4.90 20.39 26.58 32.78 38.97 45.17 48.26 54.46 120 120 1.81 8.00 11.10 14.20 17.29 23.49 29.68 35.87 42.07 51.36 57.55 60.65

#### EL-2 FREE AREA IN SQ. FT.