CENTERLINE OF MAINLINE RAILROAD TRACKS

CENTERLINE OF ICC #5 SIDING

RCRBD
Record Set

RAILROAD LEASE
#17336

PROPERTY LINE

36'-4 5/16"

EXISTING SILO

EXISTING BUILDING

EXISTING SILO

EXISTING SILO

EXISTING SILO

EXISTING SILO

EXISTING SILO

EXISTING SILO

177'-1"

PIZZA OVEN
DETACHED ENCLOSURE

20'-4 1/2"

EXISTING SCALES

EXISTING BUILDING

EXISTING SILO

EXISTING SILO

EXISTING SILO

PROPERTY LINE

PROPERTY LINE

SALT SHED

LINCOLN AVENUE

1 A1.0 SITE PLAN
1/8"=1'-0"

Axial Arts

PO Box 774292
Steamboat Springs, CO 80477
Tel 970.276.7295
Kevin@AxialArts.com
Wendy@AxialArts.com

STATE OF COLORADO
WENDY LAND
20360
6.4.2019
LICENSED ARCHITECT

STAMP

HAYDEN GRAIN GRANARY

LINCOLN AVENUE

HAYDEN, COLORADO

ISSUED FOR:

No.	Date	Remarks
A	02/27/2019	SCHEMATIC DESIGN
B	03/06/2019	KITCHEN RENO- PROGRESS
C	03/13/2019	P. OVEN/KITCHEN-PROGRESS
D	3/18/2019	P. OVEN/KITCHEN PRE. REVIEW
E	3/25/2019	P. OVEN/KITCHEN PRE-SUBMITTAL
F	4/23/2019	PERMIT SET REVIEW
G	5/12/2019	KITCHEN/P.OVEN BLDG PERMIT
	6/4/2019	BLDG. PERMIT REVISIONS

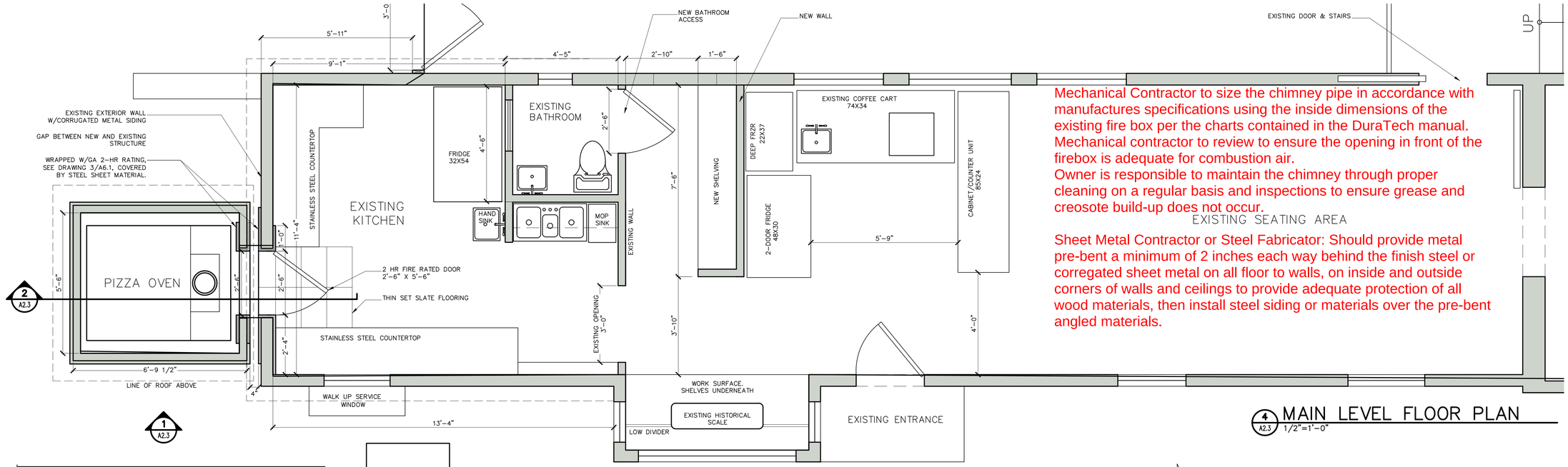
PROJECT NO: *1988*
PHASE: *CD*
DRAWN BY: **AxA**
CHECKED BY: **AxA**

SITE PLAN-WEST COURTYARD

SHEET NAME

A1.0

SHEET NUMBER



Mechanical Contractor to size the chimney pipe in accordance with manufactures specifications using the inside dimensions of the existing fire box per the charts contained in the DuraTech manual. Mechanical contractor to review to ensure the opening in front of the firebox is adequate for combustion air.
Owner is responsible to maintain the chimney through proper cleaning on a regular basis and inspections to ensure grease and creosote build-up does not occur.

Sheet Metal Contractor or Steel Fabricator: Should provide metal pre-bent a minimum of 2 inches each way behind the finish steel or corregated sheet metal on all floor to walls, on inside and outside corners of walls and ceilings to provide adequate protection of all wood materials, then install steel siding or materials over the pre-bent angled materials.

4 A2.3 MAIN LEVEL FLOOR PLAN
1/2"=1'-0"

GA FILE NO. WP 4135	GENERIC	2 HOUR FIRE	40 to 44 STC SOUND

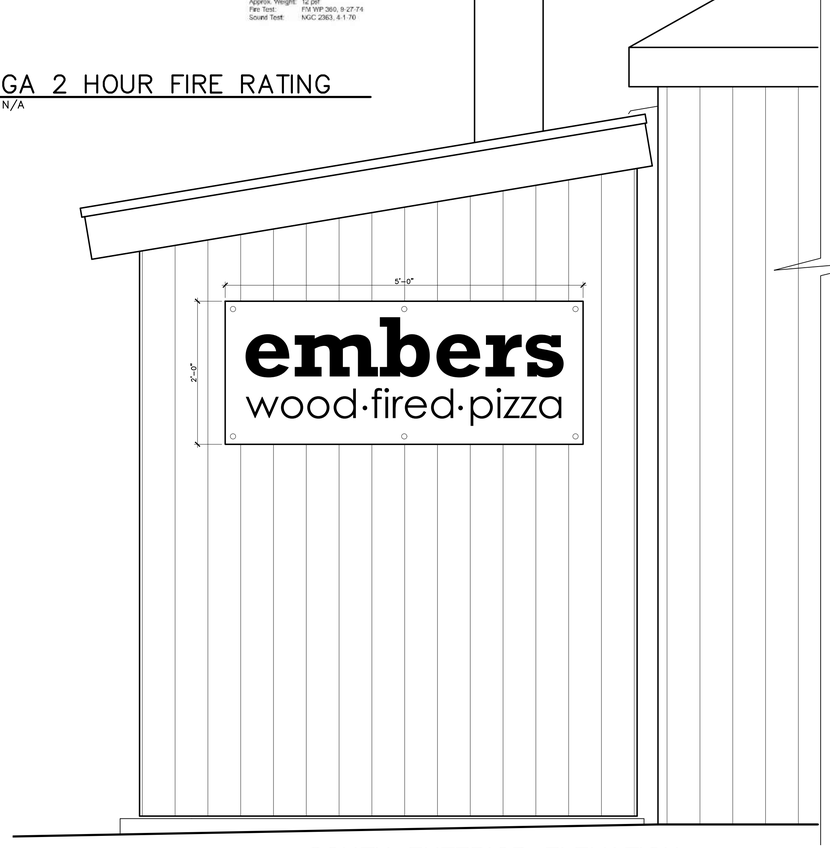
GYPSUM WALLBOARD, WOOD STUDS

Base layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles to each side of 2 x 4 wood studs 24" o.c. with 6d coated nails, 1⅞" long, 0.085" shank, ¼" heads, 24" o.c. **Face** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles to each side with 8d coated nails, 2⅜" long, 0.100" shank, ¼" heads, 8" o.c.

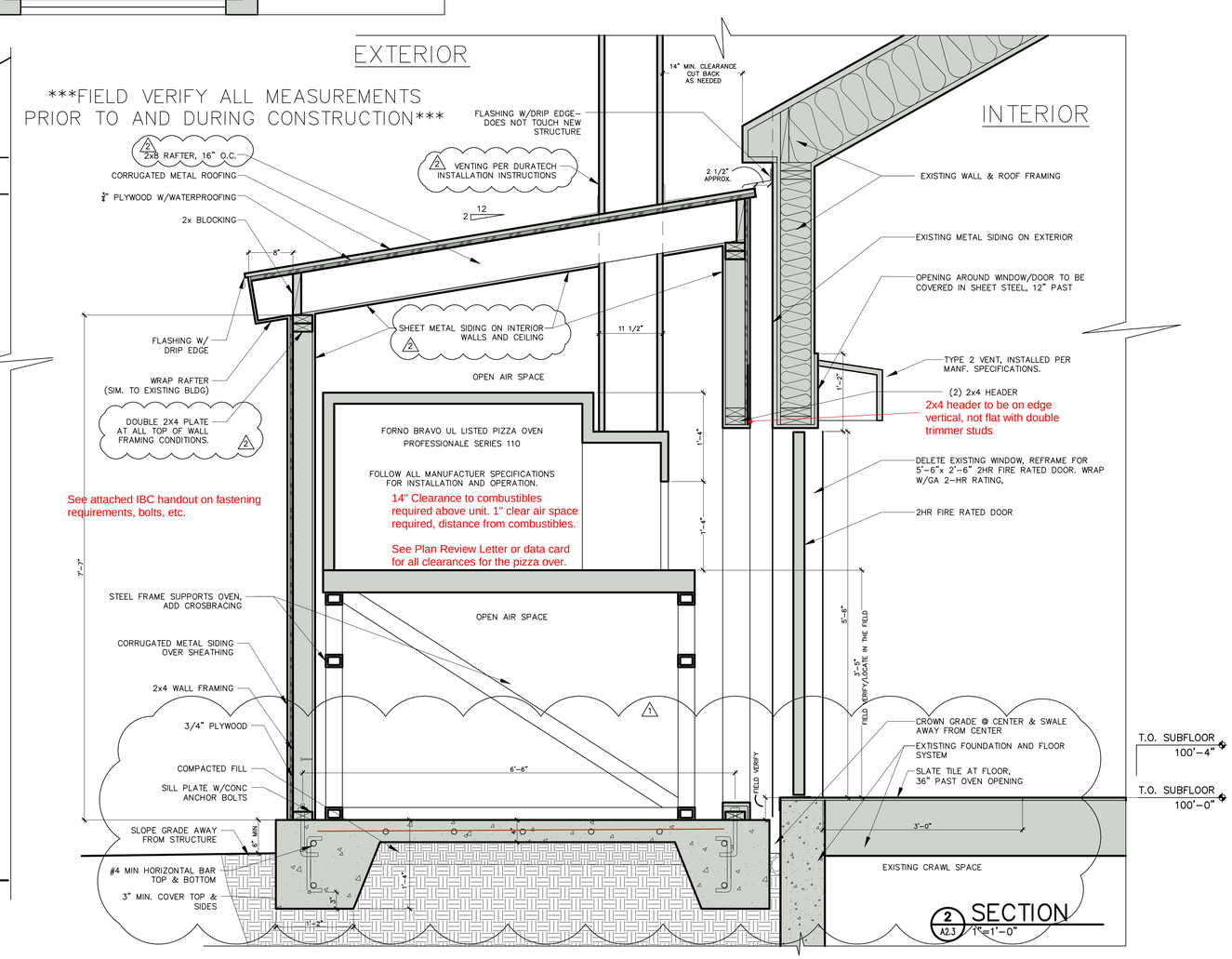
Joints staggered 24" each layer and side. Sound tested with studs 16" o.c. and with nails for **base** layer spaced 8" o.c. **(LOAD-BEARING)**

Thickness: 6⅛"
Approx. Weight: 12 psf
Fire Test: FM WP 360, 9-27-74
Sound Test: NGC 2363, 4-1-70

3 A2.3 GA 2 HOUR FIRE RATING
N/A



1 A2.3 SOUTH EXTERIOR ELEVATION
1"=1'-0"



2 A2.3 SECTION
1"=1'-0"

Axial Arts
PO Box 774292
Steamboat Springs, CO 80477
Tel 970.276.7295
Kevin@AxialArts.com
Wendy@AxialArts.com

STATE OF COLORADO — WENDY LUND — 20360 — 6.4.2019 — LICENSED ARCHITECT

STAMP

RCRBD
Record Set

HAYDEN GRANARY
LINCOLN AVENUE
HAYDEN, COLORADO

ISSUED FOR:

No.	Date	Remarks
A	02/27/2019	SCHEMATIC DESIGN
B	03/06/2019	KITCHEN RENO- PROGRESS
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E	3/25/2019	P. OVEN/KITCHEN PRE-SUBMITTAL
F	4/23/2019	PERMIT SET REVIEW
G	5/12/2019	KITCHEN/P OVEN BLDG PERMIT
1	6/4/2019	BLDG. PERMIT REVISIONS

PROJECT NO: *1988*
PHASE: *CD*
DRAWN BY: **AxA**
CHECKED BY: **AxA**

KITCHEN/ PIZZA OVEN DETAILS
SHEET NAME

A2.3
SHEET NUMBER

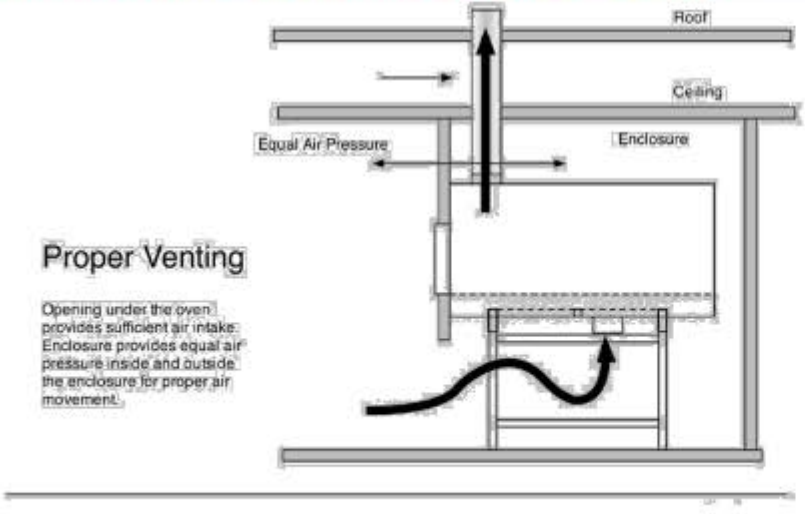
RCRBD Record Set

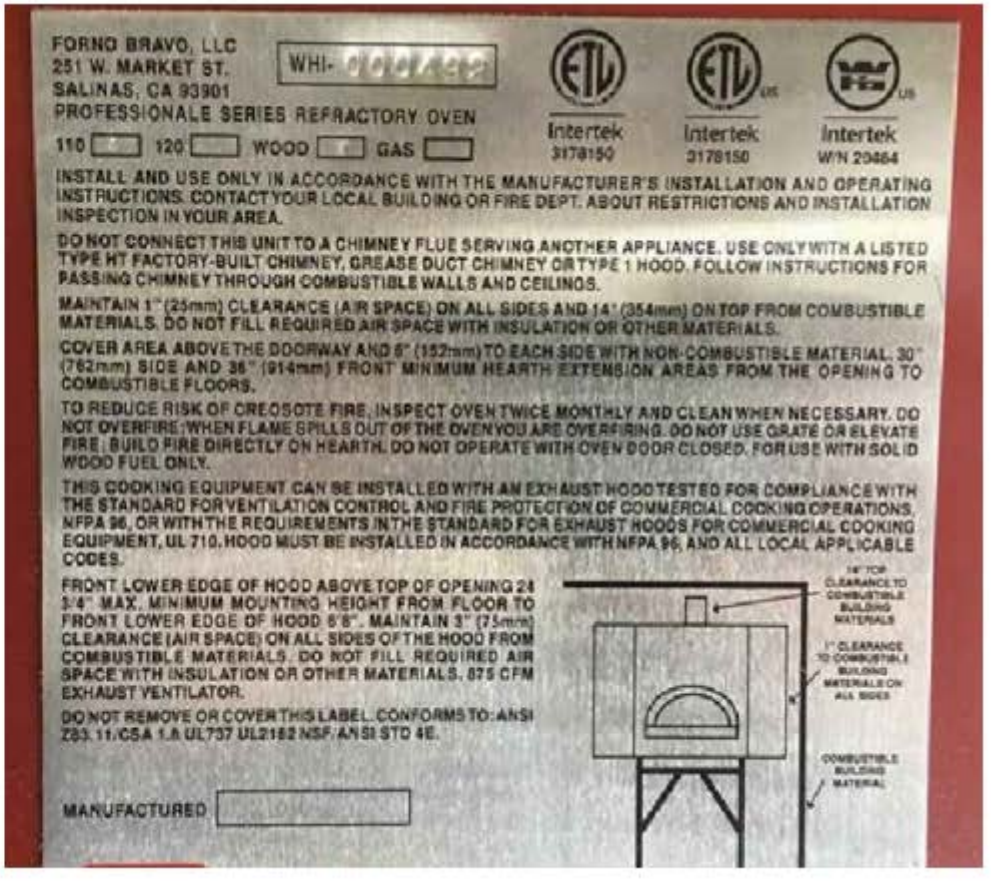
FORNO BRAVO
THE WORLD'S FINEST PIZZA OVENS

Installation and Operating Manual

Commercial Ovens

Professionale, Roma, Modena2G, Napoli Ovens





FORNO BRAVO, LLC
251 W. MARKET ST.
SALINAS, CA 93901
PROFESSIONALE SERIES REFRACTORY OVEN

WHI- [redacted]

110 [ ] 120 [ ] WOOD [ ] GAS [ ]

Intertek 3178150 | Intertek 3178150 | Intertek WIN 20464

INSTALL AND USE ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS. CONTACT YOUR LOCAL BUILDING OR FIRE DEPT. ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE. USE ONLY WITH A LISTED TYPE HT FACTORY-BUILT CHIMNEY, GREASE DUCT CHIMNEY OR TYPE 1 HOOD. FOLLOW INSTRUCTIONS FOR PASSING CHIMNEY THROUGH COMBUSTIBLE WALLS AND CEILINGS.

MAINTAIN 1" (25mm) CLEARANCE (AIR SPACE) ON ALL SIDES AND 14" (354mm) ON TOP FROM COMBUSTIBLE MATERIALS. DO NOT FILL REQUIRED AIR SPACE WITH INSULATION OR OTHER MATERIALS.

COVER AREA ABOVE THE DOORWAY AND 6" (152mm) TO EACH SIDE WITH NON-COMBUSTIBLE MATERIAL. 30" (762mm) SIDE AND 36" (914mm) FRONT MINIMUM HEARTH EXTENSION AREAS FROM THE OPENING TO COMBUSTIBLE FLOORS.

TO REDUCE RISK OF CREOSOTE FIRE, INSPECT OVEN TWICE MONTHLY AND CLEAN WHEN NECESSARY. DO NOT OVERFIRE; WHEN FLAME SPILLS OUT OF THE OVEN YOU ARE OVERFIRING. DO NOT USE GRATE OR ELEVATE FIRE; BUILD FIRE DIRECTLY ON HEARTH. DO NOT OPERATE WITH OVEN DOOR CLOSED. FOR USE WITH SOLID WOOD FUEL ONLY.

THIS COOKING EQUIPMENT CAN BE INSTALLED WITH AN EXHAUST HOOD TESTED FOR COMPLIANCE WITH THE STANDARD FOR VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS, NFPA 96, OR WITH THE REQUIREMENTS IN THE STANDARD FOR EXHAUST HOODS FOR COMMERCIAL COOKING EQUIPMENT, UL 710. HOOD MUST BE INSTALLED IN ACCORDANCE WITH NFPA 96, AND ALL LOCAL APPLICABLE CODES.

FRONT LOWER EDGE OF HOOD ABOVE TOP OF OPENING 24 1/4" MAX. MINIMUM MOUNTING HEIGHT FROM FLOOR TO FRONT LOWER EDGE OF HOOD 6'6". MAINTAIN 3" (75mm) CLEARANCE (AIR SPACE) ON ALL SIDES OF THE HOOD FROM COMBUSTIBLE MATERIALS. DO NOT FILL REQUIRED AIR SPACE WITH INSULATION OR OTHER MATERIALS. 875 CFM EXHAUST VENTILATOR.

DO NOT REMOVE OR COVER THIS LABEL. CONFORMS TO: ANSI Z83.11/CSA 1.8 UL737 UL2162 NSF/ANSI STD 4E.

MANUFACTURED [redacted]

Date: 06/05/2019

Subject Property Address: 198 E. Lincoln Avenue
PIN: 143900001
Permit Number: TB-19-348
To: Wendy Lind
Axial arts

Design information:
Occupancy Classification: B-Occupancy & S-2
Character and Use: Business Café & Vacant S-2: This project is a small unconditioned building being constructed to house a wood fired pizza oven.
Number of Stories: 2
Type of Construction: Type VB
Occupant Load: 49
Fire Sprinklers: None

Dear Wendy

The following items below will require additional information or a re-submittal prior to the Permit being Approved and Issued. Please feel free to contact us by phone or email with any questions or concerns.

1. This building is viewed as a B-Occupancy for the purposes of selecting the most restrictive use in accordance with 2015 IBC Section 705.3 Exception 1. This allows the applicant and RCRBD to view this as one Building on the Same Lot, as long as it meets the intent allowed by Section 503.1.2 and tables 506.4 and 506.2. for Type VB Construction B-Occupancy. This allows maximum of 2-stories and 9000 total square feet of building. Applicant/Owner to confirm the building meets these requirements with the addition of the new building being constructed. This allowance then provides you the ability to have the openings in the exterior walls between buildings. **Applicant Response: The existing building--including new addition--as a total 6,878 total square feet, and thus meet the requirements.**

2. The plans will either need to have the Professionals Stamp applied to them, or send me a letter stating you are responsible for the plans with your stamp on the letter. **Applicant Response: Architect's stamp is applied to drawings.**

3. Applicant Owner must submit a set of plans on explaining the type of vent pipe and system to be installed to the existing pizza oven, the information provided on the data card has been added below. Please review with the owner and their Mechanical Contractor to provide us back detailed information on the vent system to be installed, once received we can complete our review. **Applicant Response: See attached Duravent manufacturer specifcations re: vent installation.**

   Pizza Oven Specifications Typed Out:

   - Install and use only in accordance with the manufactures installation an operation instructions contact your local Building or Fire Department about restrictions and installation inspection in your area.
   - Do not connect this unit to a Chimney Flue serving another appliance use only with a listed type HT Factory-built chimney, grease duct chimney or type 1 hood follow instructions for passing chimney through combustible walls and ceilings.
   - Maintain a 1" clearance (Air Space) on all sides and 14" on top from combustible materials do not fill required air space with insulation or other materials.
   - Cover area above the doorway and 6" to each side with non-combustible material. 30" side and 38" front minimum hearth extensions areas from the opening to combustible floors.
   - To reduce risk of creosote fire, inspect, over twice monthly and clean when necessary. Do not over fire, when flame spills out of the oven you are over-firing. Do not use grate or elevate fire, build fire directly on hearth D not operate with oven door closed, for use with solid wood fuel only.
   - ❖ This cooking equipment can be installed with an exhaust hood tested for compliance with the standard for ventilation control and fire protection of commercial cooking operations NFPA 96, or with the requirements in the standard for exhaust hoods for commercial cooking equipment UL 710, hood must be installed in accordance with NFPA 96 and all local applicable codes.
   - Front lower edge of hood above top of opening 24 ¾" max.
   - Minimum mounting height from floor to front lower edge of hood 6'8".
   - Maintain 3" clearance (Air Space) on all sides of the hood from combustible materials.
   - Do not fill required air space with insulation or other materials.
   - 875 CFM exhaust ventilator.

4. All exterior walls should have double 2x4 top plates installed at the top of the walls, please confirm you agree and I will add this to the plan set. **Applicant Response: There will be a double 2x4 top plate at the top all walls, as shown on plans.**

5. The manufactures specifications are simply asking for clearance to combustibles, and not specifically requesting a 2-Hour Rated Wall. I wanted to suggest potentially looking into cover

the walls with steel versus constructing a 2-hour assembly out of drywall, as this may be easier and still meet the requirements of the manufactures specifications. Please review and provide me with a call to discuss this option. **Applicant Response: The existing exterior granary walls are currently covered in galvanized metal sheeting. The interior and exterior walls and ceiling of the addition are to be covered with metal sheet panels as well**.

6. The Building Department would prefer to see all interior portions of the addition room to be covered with a minimum of ½"gypsum board, or steel siding on the three walls and ceiling area surrounding the wood stove, as this eliminates any fire risk from embers or other hazards by providing this extra level of protection. Please call to discuss with questions. **Applicant Response: The existing exterior granary walls are currently covered in galvanized metal sheeting. The interior and exterior walls and ceiling of the addition are to be covered with metal sheet panels as well.**

✓**Items noted below do not require a response or comment back during the Plan Review in order for us to approve this permit. The Items below are required and will be checked by field inspectors or will need to be submitted to the Building Department. Please take time to review these items in advance of starting any work to ensure your project is ready for inspection.**

7. 2308.3.1 Foundation plates or sills. Foundation plates or sills resting on concrete or masonry foundations shall comply with Section 2304.3.1. Foundation plates or sills shall be bolted or anchored to the foundation with not less than 1/2-inch-diameter (12.7 mm) steel bolts or approved anchors spaced to provide equivalent anchorage as the steel bolts. Bolts shall be embedded at least 7 inches (178 mm) into concrete or masonry. Bolts shall be spaced not more than 6 feet (1829 mm) on center and there shall be not less than two bolts or anchor straps per piece with one bolt or anchor strap located not more than 12 inches (305 mm) or less than 4 inches (102 mm) from each end of each piece. A properly sized nut and washer shall be tightened on each bolt to the plate.

8. Exterior Wall Sheeting/Rafter to Top Plate/Blocking between Rafters Connections and Fastening Requirements will be inspected in accordance with IBC Table 2304.1 Attached to this letter.

9. The 2-2x4 headers in the new door opening has been marked up, the headers must be turned on edge vertically to support the roof load.

10. Separate Electrical Plumbing Permits must be applied for and obtained prior to any work being done within these trades. Note Electrical and Plumbing trades are protected by the State, Licensed Contractors must apply and perform this work on all Commercial Properties, and additionally their employees working on these projects must be registered or licensed with the State of Colorado and work directly under Licensed Individual managing the project.

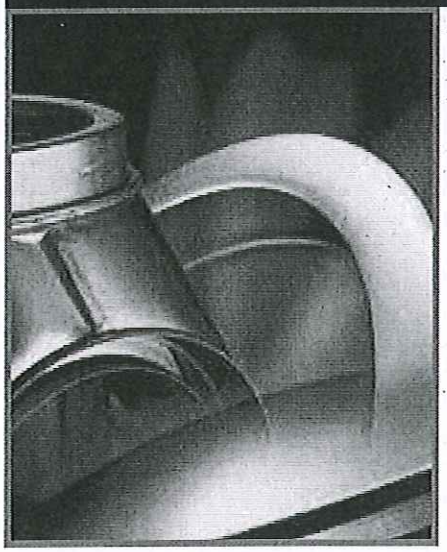
- On Residential Properties owners are allowed to apply for the permit and perform their own Electrical and Plumbing work if this is their primary residence and they sign and complete our Home Owner Agreement form.

11. Separate Mechanical Permits must be applied for and obtained prior to any work being done within this trade. Mechanical Contractors must be registered and approved by the Routt County Regional Building Department.
12. Frost Protection not needed in accordance with IBC Section 1809.5 Exceptions: This is viewed as a Risk Category 1 due to minor use of storage and not intended for human use, as staff will not be physically entering the building but rather accessing the pizza oven from the doorway.

13. See comments on plans with rebar pattern, splices, and turn-down footing being installed on all four sides, this will be field inspected.

Reviewed by: Todd Carr Date: 06-05-2019

Installation Instructions



RCRBD
Record Set

All-Fuel Chimney System
5" to 8" diameter

DURATECH

DuraVent
Member of M&G Group

TABLE 2304.10.1
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Roof		
1. Blocking between ceiling joists, rafters or trusses to top plate or other framing below	3-8d common ($2^1/_2$" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown	Each end, toenail
Blocking between rafters or truss not at the wall top plate, to rafter or truss	2-8d common ($2^1/_2$" × 0.131") 2-3" × 0.131" nails 2-3" 14 gage staples	Each end, toenail
	2-16 d common ($3^1/_2$" × 0.162") 3-3" × 0.131" nails 3-3" 14 gage staples	End nail
Flat blocking to truss and web filler	16d common ($3^1/_2$" × 0.162") @ 6" o.c. 3" × 0.131" nails @ 6" o.c. 3" × 14 gage staples @ 6" o.c	Face nail
2. Ceiling joists to top plate	3-8d common ($2^1/_2$" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown	Each joist, toenail
3. Ceiling joist not attached to parallel rafter, laps over partitions (no thrust) (see Section 2308.7.3.1, Table 2308.7.3.1)	3-16d common ($3^1/_2$" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails; or 4-3" 14 gage staples, $^7/_{16}$" crown	Face nail
4. Ceiling joist attached to parallel rafter (heel joint) (see Section 2308.7.3.1, Table 2308.7.3.1)	Per Table 2308.7.3.1	Face nail
5. Collar tie to rafter	3-10d common (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails; or 4-3" 14 gage staples, $^7/_{16}$" crown	Face nail
6. Rafter or roof truss to top plate (See Section 2308.7.5, Table 2308.7.5)	3-10 common (3" × 0.148"); or 3-16d box ($3^1/_2$" × 0.135"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131 nails; or 4-3" 14 gage staples, $^7/_{16}$" crown	Toenail[c]
7. Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam	2-16d common ($3^1/_2$" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown; or	End nail
	3-10d common ($3^1/_2$" × 0.148"); or 3-16d box ($3^1/_2$" × 0.135"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails; or 4-3" 14 gage staples, $^7/_{16}$" crown	Toenail

(continued)

TABLE 2304.10.1—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Wall		
8. Stud to stud (not at braced wall panels)	16d common ($3^1/_2$" × 0.162");	24" o.c. face nail
	10d box (3" × 0.128"); or 3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown	16" o.c. face nail
9. Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d common ($3^1/_2$" × 0.162"); or	16" o.c. face nail
	16d box ($3^1/_2$" × 0.135"); or	12" o.c. face nail
	3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown	12" o.c. face nail
10. Built-up header (2" to 2" header)	16d common ($3^1/_2$" × 0.162"); or	16" o.c. each edge, face nail
	16d box ($3^1/_2$" × 0.135")	12" o.c. each edge, face nail
11. Continuous header to stud	4-8d common ($2^1/_2$" × 0.131"); or 4-10d box (3" × 0.128")	Toenail
12. Top plate to top plate	16d common ($3^1/_2$" × 0.162"); or	16" o.c. face nail
	10d box (3" × 0.128"); or 3" × 0.131" nails; or 3" 14 gage staples, $^7/_{16}$" crown	12" o.c. face nail
13. Top plate to top plate, at end joints	8-16d common ($3^1/_2$" × 0.162"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails; or 12-3" 14 gage staples, $^7/_{16}$" crown	Each side of end joint, face nail (minimum 24" lap splice length each side of end joint)
14. Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common ($3^1/_2$" × 0.162"); or	16" o.c. face nail
	16d box ($3^1/_2$" × 0.135"); or 3" × 0.131" nails; or 3" 14 gage staples, $^7/_{16}$" crown	12" o.c. face nail
15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	2-16d common ($3^1/_2$" × 0.162"); or 3-16d box ($3^1/_2$" × 0.135"); or 4-3" × 0.131" nails; or 4-3" 14 gage staples, $^7/_{16}$" crown	16" o.c. face nail
16. Stud to top or bottom plate	4-8d common ($2^1/_2$" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails; or 4-3" 14 gage staples, $^7/_{16}$" crown; or	Toenail
	2-16d common ($3^1/_2$" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown	End nail
17. Top or bottom plate to stud	2-16d common ($3^1/_2$" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown	End nail
18. Top plates, laps at corners and intersections	2-16d common ($3^1/_2$" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, $^7/_{16}$" crown	Face nail

(continued)

TABLE 2304.10.1—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Wall		
19. 1″ brace to each stud and plate	2-8d common ($2^1/_2$″ × 0.131″); or 2-10d box (3″ × 0.128″); or 2-3″ × 0.131″ nails; or 2-3″ 14 gage staples, $^7/_{16}$″ crown	Face nail
20. 1″ × 6″ sheathing to each bearing	2-8d common ($2^1/_2$″ × 0.131″); or 2-10d box (3″ × 0.128″)	Face nail
21. 1″ × 8″ and wider sheathing to each bearing	3-8d common ($2^1/_2$″ × 0.131″); or 3-10d box (3″ × 0.128″)	Face nail
Floor		
22. Joist to sill, top plate, or girder	3-8d common ($2^1/_2$″ × 0.131″); or floor 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, $^7/_{16}$″ crown	Toenail
23. Rim joist, band joist, or blocking to top plate, sill or other framing below	8d common ($2^1/_2$″ × 0.131″); or 10d box (3″ × 0.128″); or 3″ × 0.131″ nails; or 3″ 14 gage staples, $^7/_{16}$″ crown	6" o.c., toenail
24. 1″ × 6″ subfloor or less to each joist	2-8d common ($2^1/_2$″ × 0.131″); or 2-10d box (3″ × 0.128″)	Face nail
25. 2″ subfloor to joist or girder	2-16d common ($3^1/_2$″ × 0.162″)	Face nail
26. 2″ planks (plank & beam – floor & roof)	2-16d common ($3^1/_2$″ × 0.162″)	Each bearing, face nail
27. Built-up girders and beams, 2″ lumber layers	20d common (4″ × 0.192″)	32" o.c., face nail at top and bottom staggered on opposite sides
	10d box (3″ × 0.128″); or 3″ × 0.131″ nails; or 3″ 14 gage staples, $^7/_{16}$″ crown	24" o.c. face nail at top and bottom staggered on opposite sides
	And: 2-20d common (4″ × 0.192″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, $^7/_{16}$″ crown	Ends and at each splice, face nail
28. Ledger strip supporting joists or rafters	3-16d common ($3^1/_2$″ × 0.162″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, $^7/_{16}$″ crown	Each joist or rafter, face nail
29. Joist to band joist or rim joist	3-16d common ($3^1/_2$″ × 0.162″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, $^7/_{16}$″ crown	End nail
30. Bridging or blocking to joist, rafter or truss	2-8d common ($2^1/_2$″ × 0.131″); or 2-10d box (3″ × 0.128″); or 2-3″ × 0.131″ nails; or 2-3″ 14 gage staples, $^7/_{16}$″ crown	Each end, toenail

(continued)

TABLE 2304.10.1—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION	
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing[a]			
		Edges (inches)	Intermediate supports (inches)
31. $^3/_8$" – $^1/_2$"	6d common or deformed (2" × 0.113") (subfloor and wall)	6	12
	8d box or deformed ($2^1/_2$" × 0.113") (roof)	6	12
	$2^3/_8$" × 0.113" nail (subfloor and wall)	6	12
	$1^3/_4$" 16 gage staple, $^7/_{16}$" crown (subfloor and wall)	4	8
	$2^3/_8$" × 0.113" nail (roof)	4	8
	$1^3/_4$" 16 gage staple, $^7/_{16}$" crown (roof)	3	6
32. $^{19}/_{32}$" – $^3/_4$"	8d common ($2^1/_2$" × 0.131"); or 6d deformed (2" × 0.113")	6	12
	$2^3/_8$" × 0.113" nail; or 2" 16 gage staple, $^7/_{16}$" crown	4	8
33. $^7/_8$" – $1^1/_4$"	10d common (3" × 0.148"); or 8d deformed ($2^1/_2$" × 0.131")	6	12
Other exterior wall sheathing			
34. $^1/_2$" fiberboard sheathing[b]	$1^1/_2$" galvanized roofing nail ($^7/_{16}$" head diameter); or $1^1/_4$" 16 gage staple with $^7/_{16}$" or 1" crown	3	6
35. $^{25}/_{32}$" fiberboard sheathing[b]	$1^3/_4$" galvanized roofing nail ($^7/_{16}$" diameter head); or $1^1/_2$" 16 gage staple with $^7/_{16}$" or 1" crown	3	6
Wood structural panels, combination subfloor underlayment to framing			
36. $^3/_4$" and less	8d common ($2^1/_2$" × 0.131"); or 6d deformed (2" × 0.113")	6	12
37. $^7/_8$" – 1"	8d common ($2^1/_2$" × 0.131"); or 8d deformed ($2^1/_2$" × 0.131")	6	12
38. $1^1/_8$" – $1^1/_4$"	10d common (3" × 0.148"); or 8d deformed ($2^1/_2$" × 0.131")	6	12
Panel siding to framing			
39. $^1/_2$" or less	6d corrosion-resistant siding ($1^7/_8$" × 0.106"); or 6d corrosion-resistant casing (2" × 0.099")	6	12
40. $^5/_8$"	8d corrosion-resistant siding ($2^3/_8$" × 0.128"); or 8d corrosion-resistant casing ($2^1/_2$" × 0.113")	6	12

(continued)

TABLE 2304.10.1—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION	
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing[a]			
		Edges (inches)	Intermediate supports (inches)
Interior paneling			
41. $^1/_4$"	4d casing ($1^1/_2$" × 0.080"); or 4d finish ($1^1/_2$" × 0.072")	6	12
42. $^3/_8$"	6d casing (2" × 0.099"); or 6d finish (Panel supports at 24 inches)	6	12

For SI: 1 inch = 25.4 mm.

a. Nails spaced at 6 inches at intermediate supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.

b. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).

c. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafter shall be permitted to be reduced by one nail.

2304.11.5 Roof decks. Where supported by a wall, roof decks shall be anchored to walls to resist uplift forces determined in accordance with Chapter 16. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof.

2304.12 Protection against decay and termites. Wood shall be protected from decay and termites in accordance with the applicable provisions of Sections 2304.12.1 through 2304.12.7.

2304.12.1 Locations requiring water-borne preservatives or naturally durable wood. Wood used above ground in the locations specified in Sections 2304.12.1.1 through 2304.12.1.5, 2304.12.3 and 2304.12.5 shall be naturally durable wood or *preservative-treated wood* using water-borne preservatives, in accordance with AWPA U1 for above-ground use.

2304.12.1.1 Joists, girders and subfloor. Wood joists or wood structural floors that are closer than 18 inches (457 mm) or wood girders that are closer than 12 inches (305 mm) to the exposed ground in crawl spaces or unexcavated areas located within the perimeter of the building foundation shall be of naturally durable or *preservative-treated wood.*

2304.12.1.2 Wood supported by exterior foundation walls. Wood framing members, including wood sheathing, that are in contact with exterior foundation walls and are less than 8 inches (203 mm) from exposed earth shall be of naturally durable or *preservative-treated wood.*

2304.12.1.3 Exterior walls below grade. Wood framing members and furring strips in direct contact with the interior of exterior masonry or concrete walls below grade shall be of naturally durable or *preservative-treated wood.*

2304.12.1.4 Sleepers and sills. Sleepers and sills on a concrete or masonry slab that is in direct contact with earth shall be of naturally durable or *preservative-treated wood.*

2304.12.1.5 Wood siding. Clearance between wood siding and earth on the exterior of a building shall not be less than 6 inches (152 mm) or less than 2 inches (51 mm) vertical from concrete steps, porch slabs, patio slabs and similar horizontal surfaces exposed to the weather except where siding, sheathing and wall framing are of naturally durable or *preservative-treated wood.*

2304.12.2 Other locations. Wood used in the locations specified in Sections 2304.12.2.1 through 2304.12.2.5 shall be naturally durable wood or *preservative-treated* wood in accordance with AWPA U1. *Preservative-treated* wood used in interior locations shall be protected with two coats of urethane, shellac, latex epoxy or varnish unless water-borne preservatives are used. Prior to application of the protective finish, the wood shall be dried in accordance with the manufacturer's recommendations.

2304.12.2.1 Girder ends. The ends of wood girders entering exterior masonry or concrete walls shall be provided with a $^1/_2$-inch (12.7 mm) airspace on top, sides and end, unless naturally durable or *preservative-treated wood* is used.

2304.12.2.2 Posts or columns. Posts or columns supporting permanent structures and supported by a concrete or masonry slab or footing that is in direct contact with the earth shall be of naturally durable or *preservative-treated wood.*

Exception: Posts or columns that are not exposed to the weather, are supported by concrete piers or metal pedestals projected at least 1 inch (25 mm) above the slab or deck and 8 inches (152 mm) above exposed earth and are separated by an impervious moisture barrier.

2304.12.2.3 Supporting member for permanent appurtenances. Naturally durable or *preservative-treated wood* shall be utilized for those portions of wood members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances where such members are