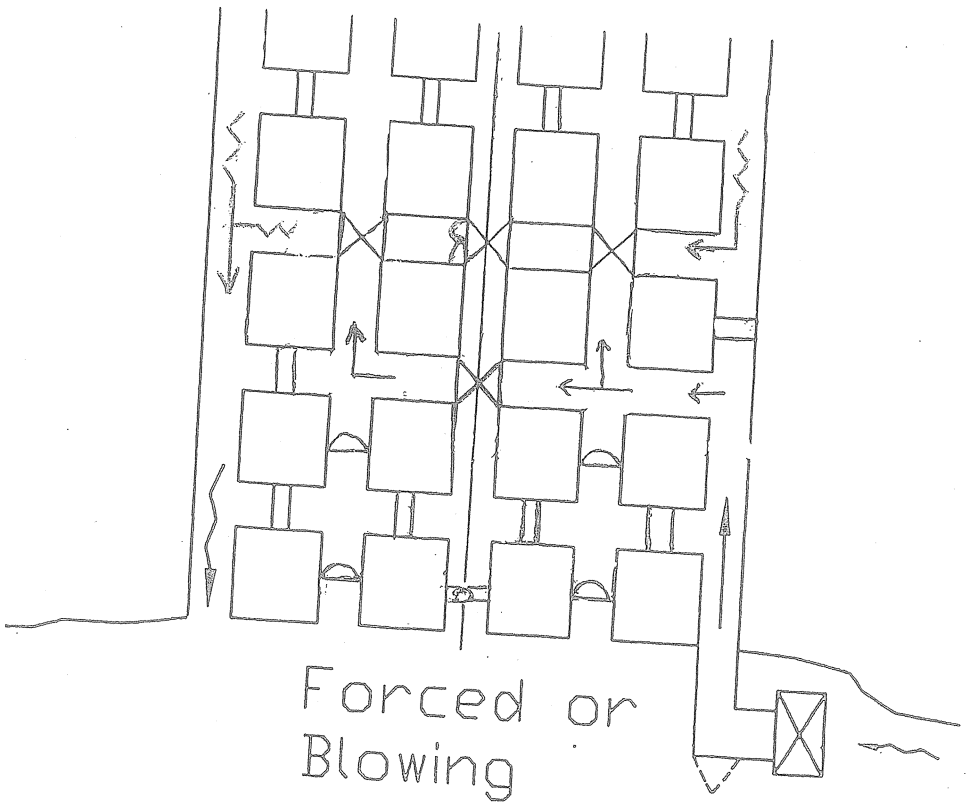
FAN REQUIREMENTS

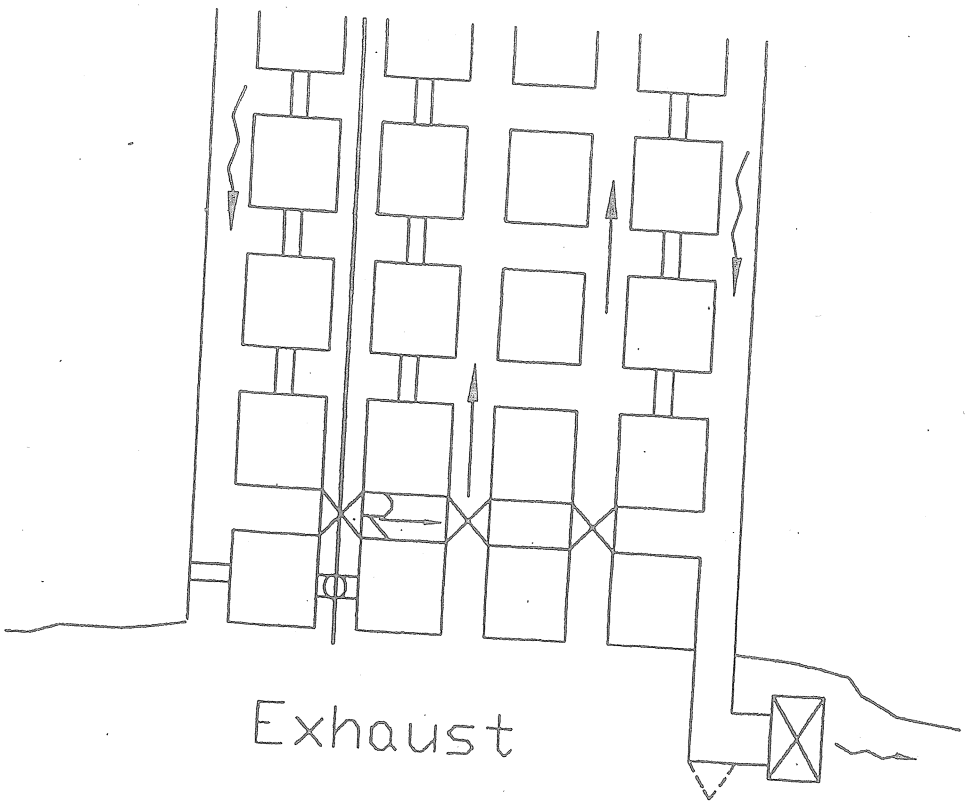
The following Fan Requirements are listed in 22A-2-3 of the West Virginia State Mining Laws. These requirements are for all Main Fans.

1. All main fans shall be located on the Surface.
2. All main fans shall be enclosed in Fireproof Housings.
3. All main fans shall be offset a minimum of 15 feet from the nearest mine opening.
4. All main fans shall be equipped with Fireproof Air Ducts.
5. All main fans shall be equipped with Explosion Doors or a Weak Wall.
6. All main fans shall be operated from an Independent Power Circuit.
7. All main fans shall be equipped with a Pressure Recording Gauge or a Water Gauge.
8. All main fans shall be Inspected Daily by a Certified Electrician or a Qualified Person and a Permanent Record kept.
9. All main fans shall be equipped with a Warning Device to signal an interruption to the fan.

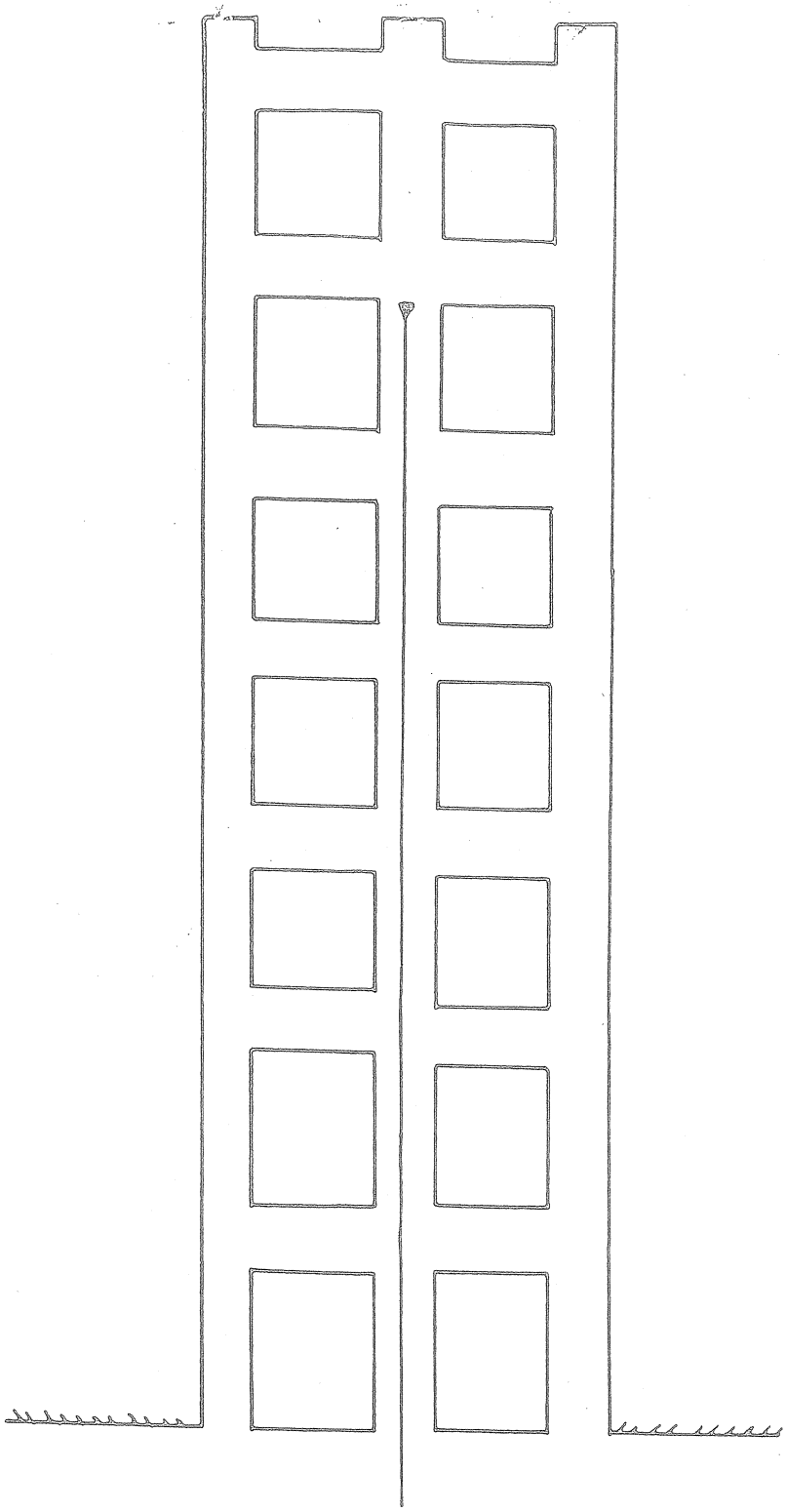
Portal Area



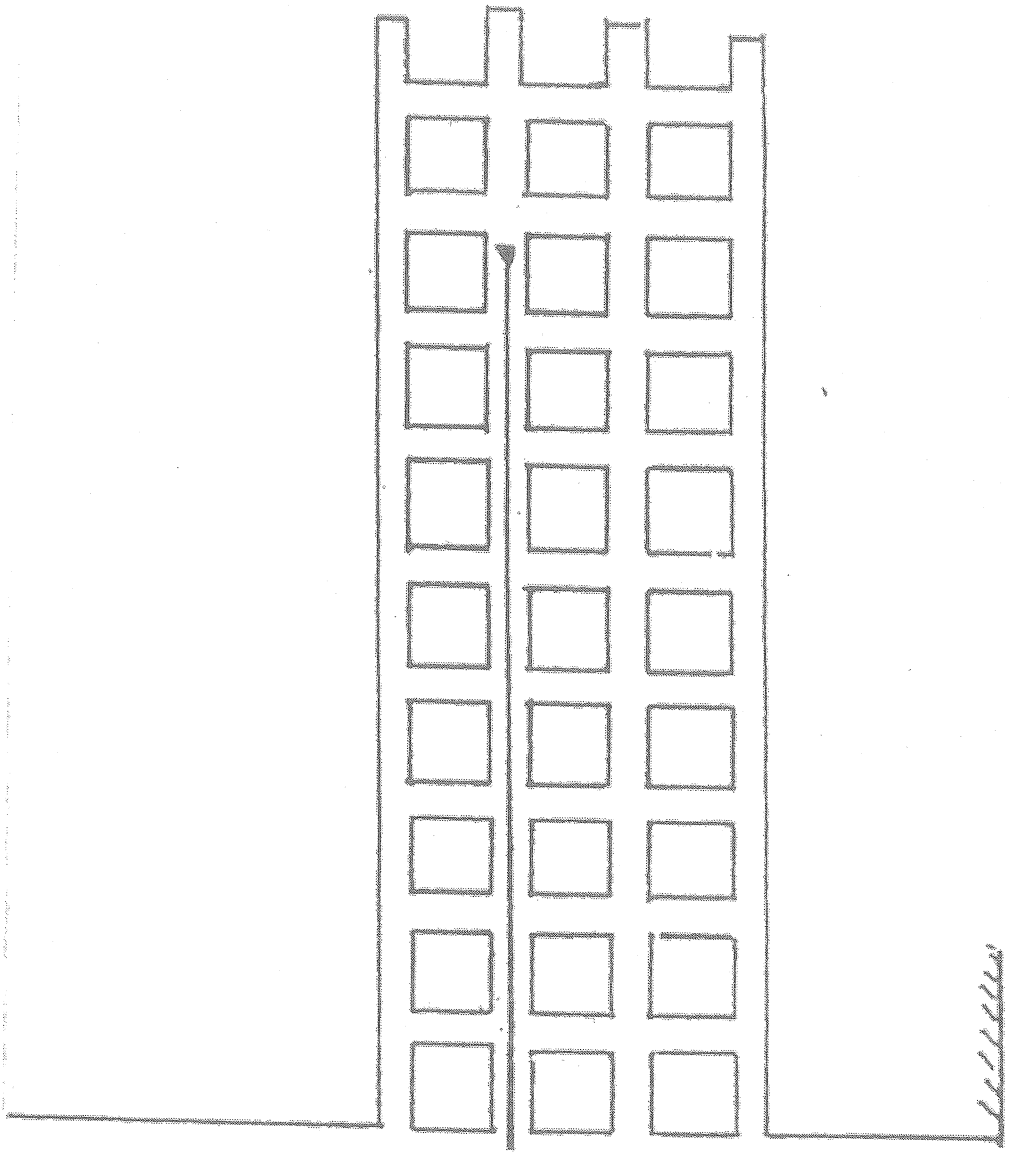
Forced or
Blowing

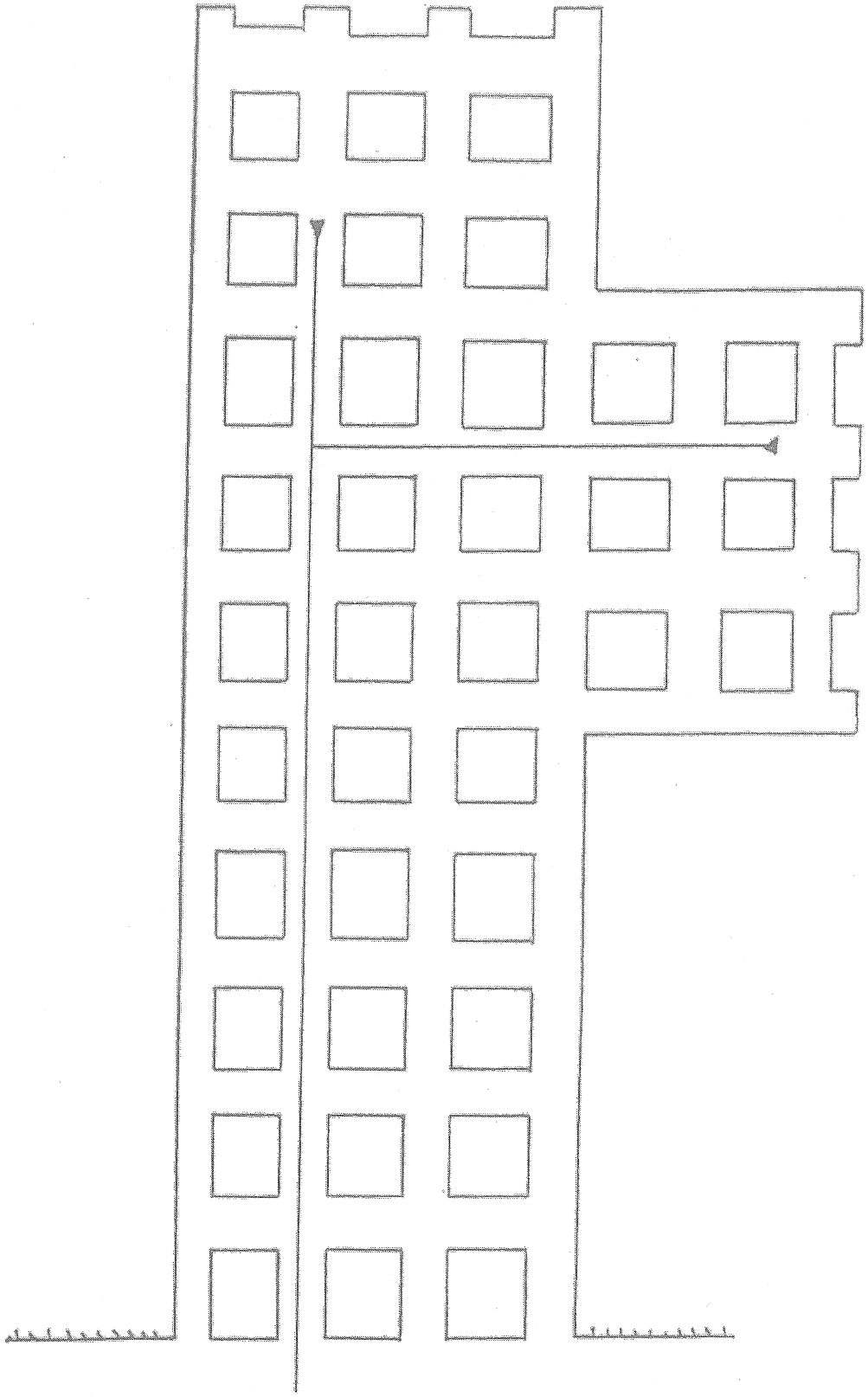


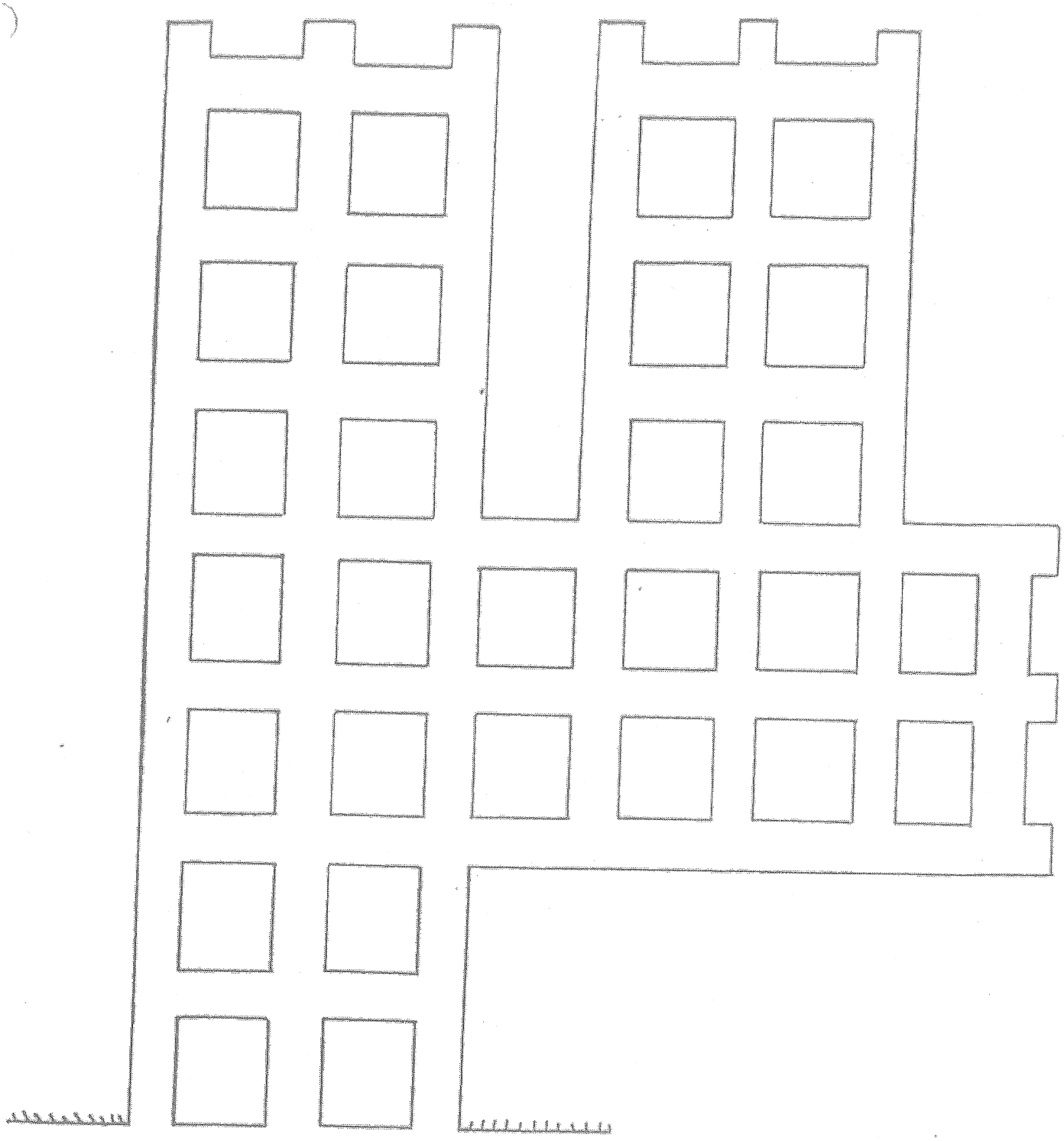
Exhaust

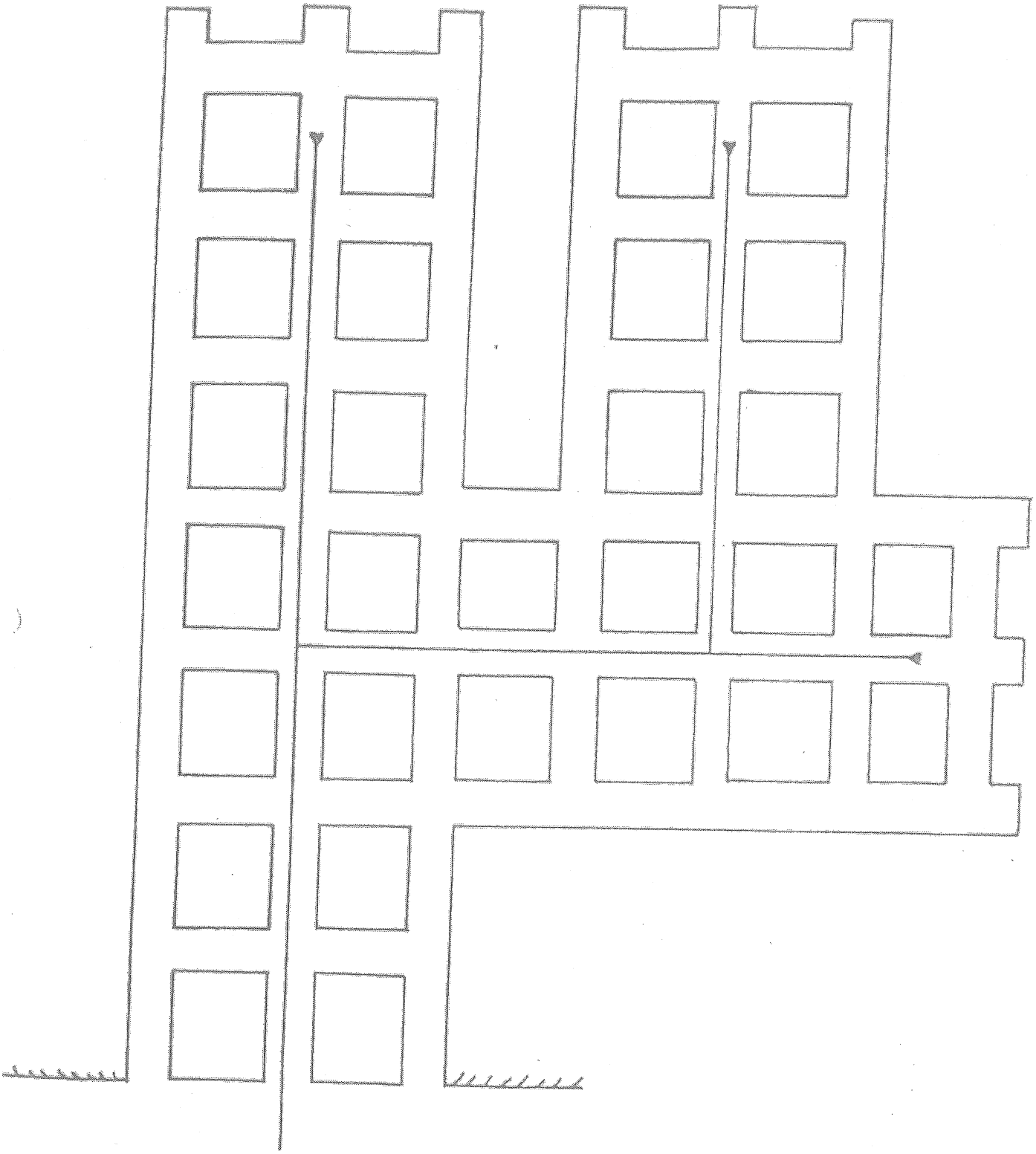


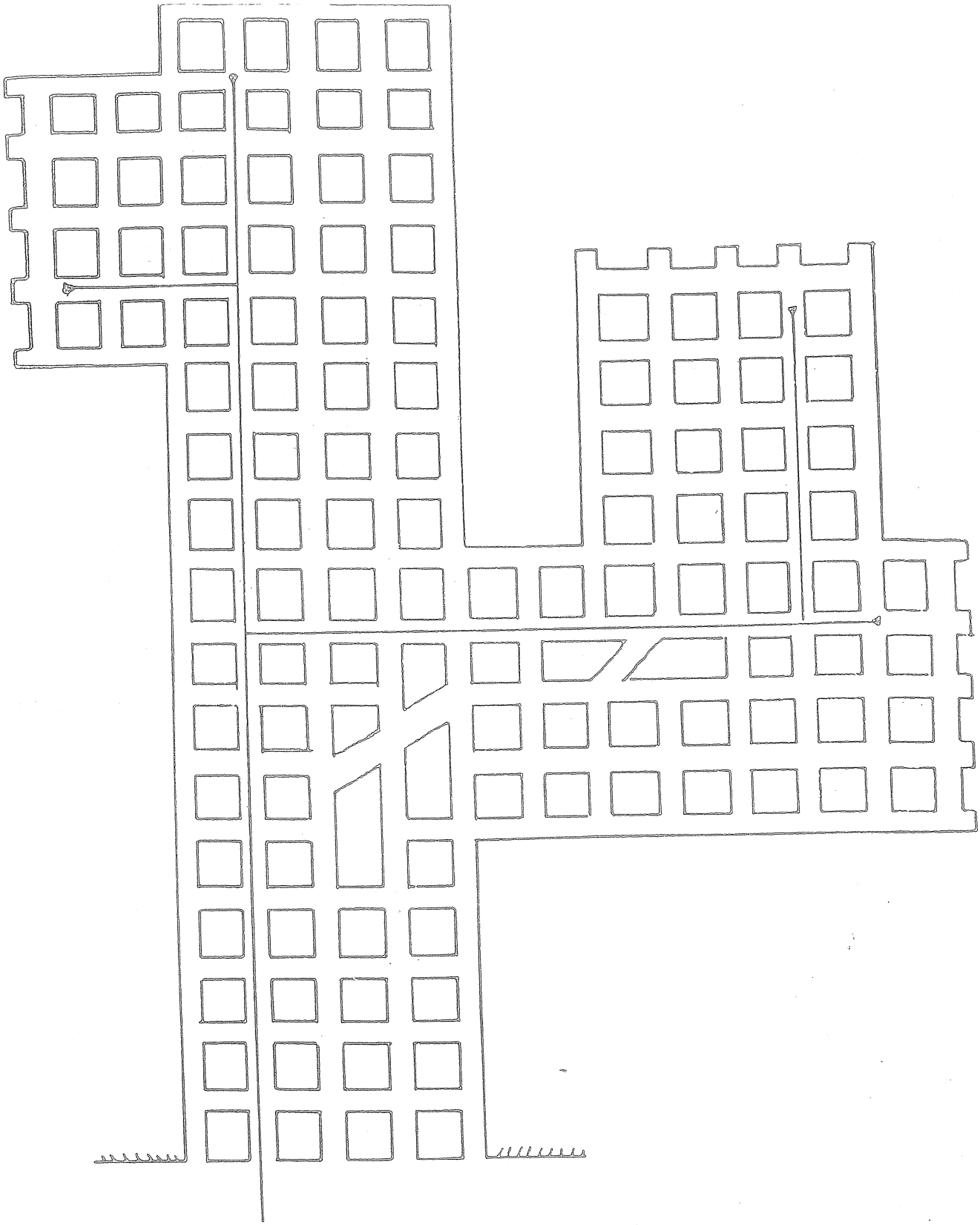
Jim Kincaid



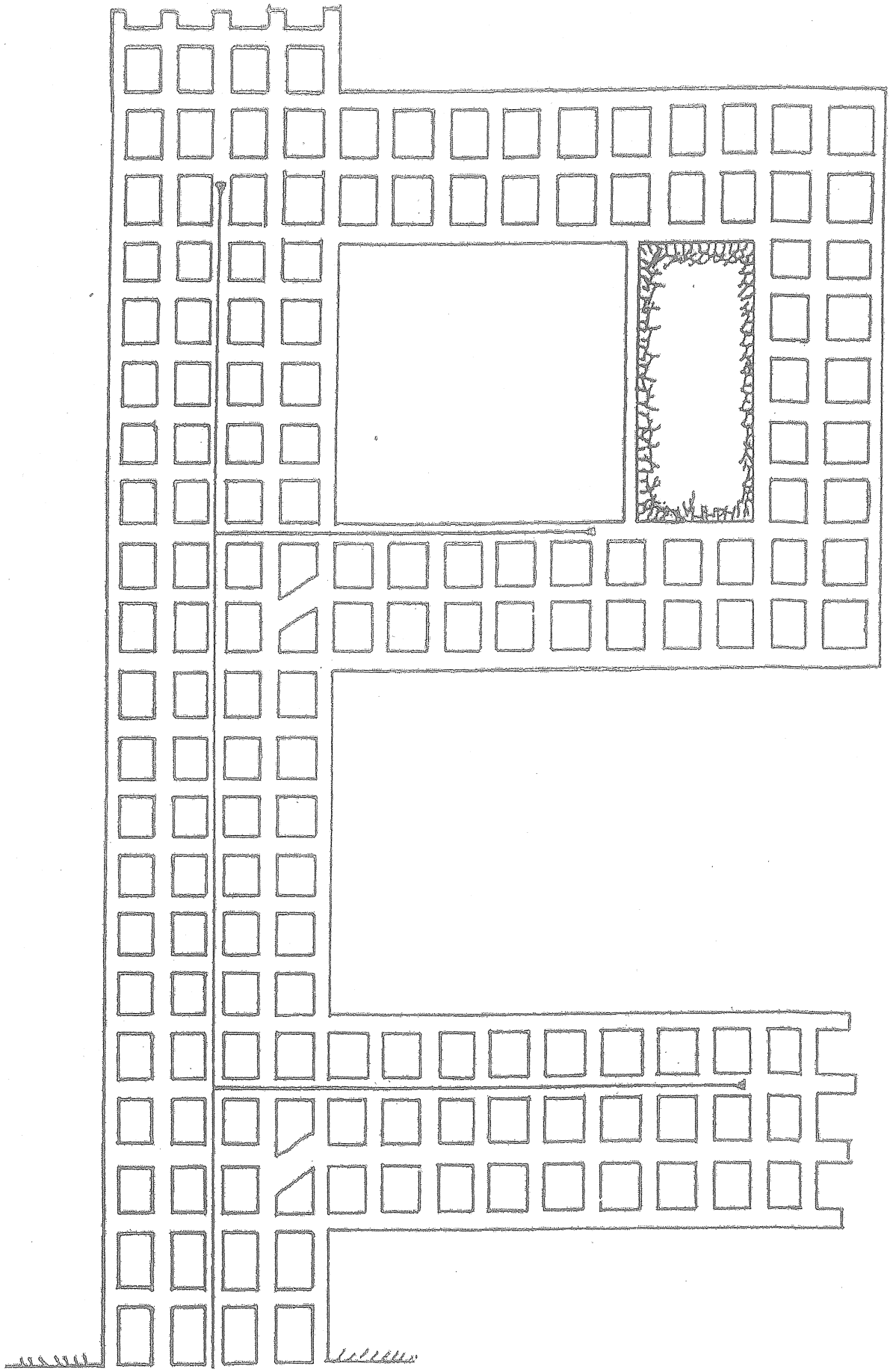


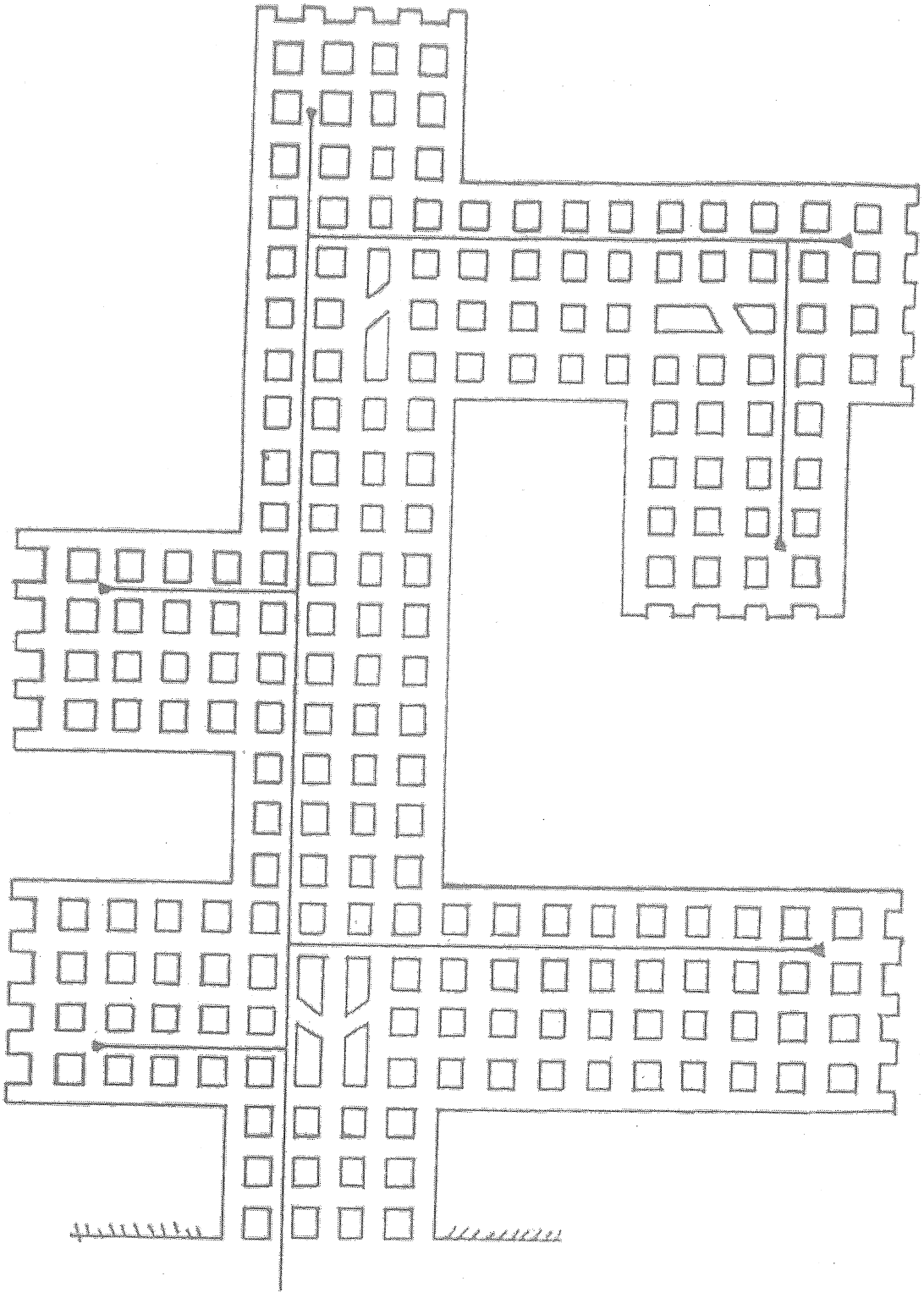




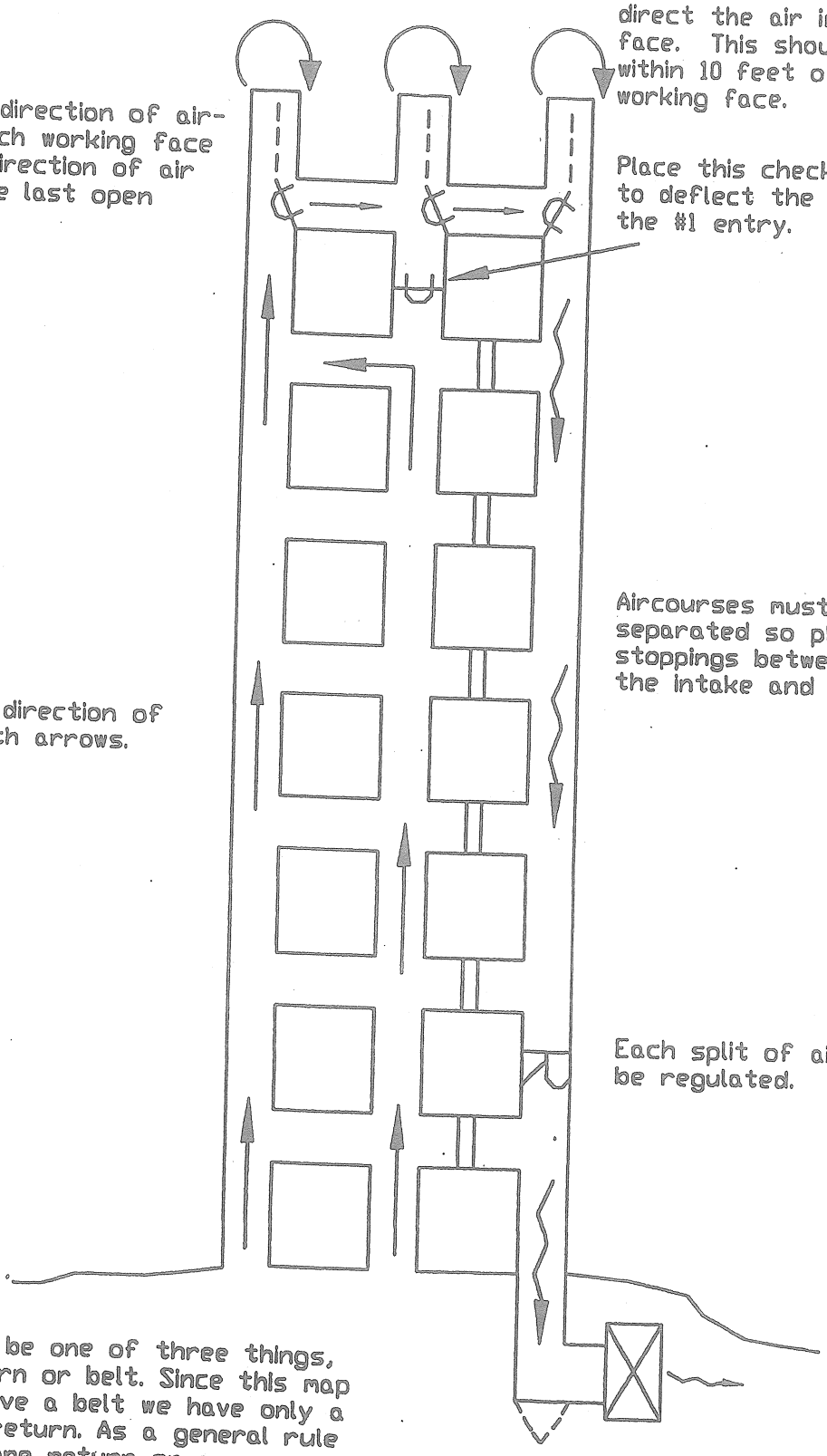


Jim Kincaid





Use sweep ventilation



Use a line curtain to direct the air into the face. This should be within 10 feet of the working face.

Show the direction of air-flow in each working face and the direction of air flow in the last open crosscut.

Place this check curtain to deflect the air into the #1 entry.

Aircourses must be separated so place stoppings between the intake and return.

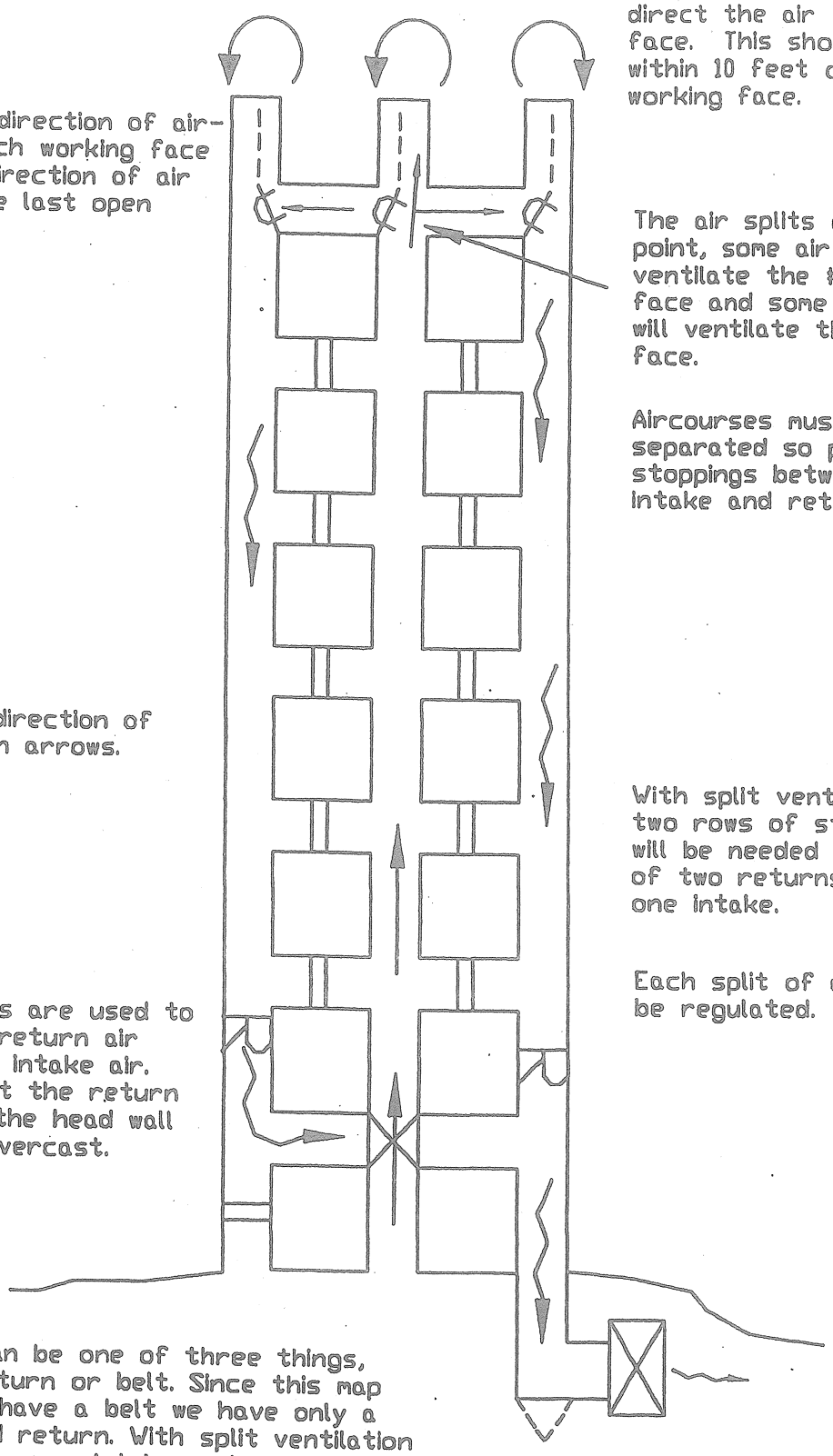
Show the direction of airflow with arrows.

Each split of air must be regulated.

Entries can be one of three things, intake, return or belt. Since this map does not have a belt we have only a intake and return. As a general rule we will use one return on a map so we have two intakes and one return on this map.

Set the fan in the entry that you want to make the return. Do not let the fan touch the outcrop line.

Use split ventilation



Use a line curtain to direct the air into the face. This should be within 10 feet of the working face.

Show the direction of air-flow in each working face and the direction of air flow in the last open crosscut.

The air splits at this point, some air will ventilate the #1 and #2 face and some air will ventilate the #3 face.

Aircourses must be separated so place stoppings between the intake and return.

Show the direction of airflow with arrows.

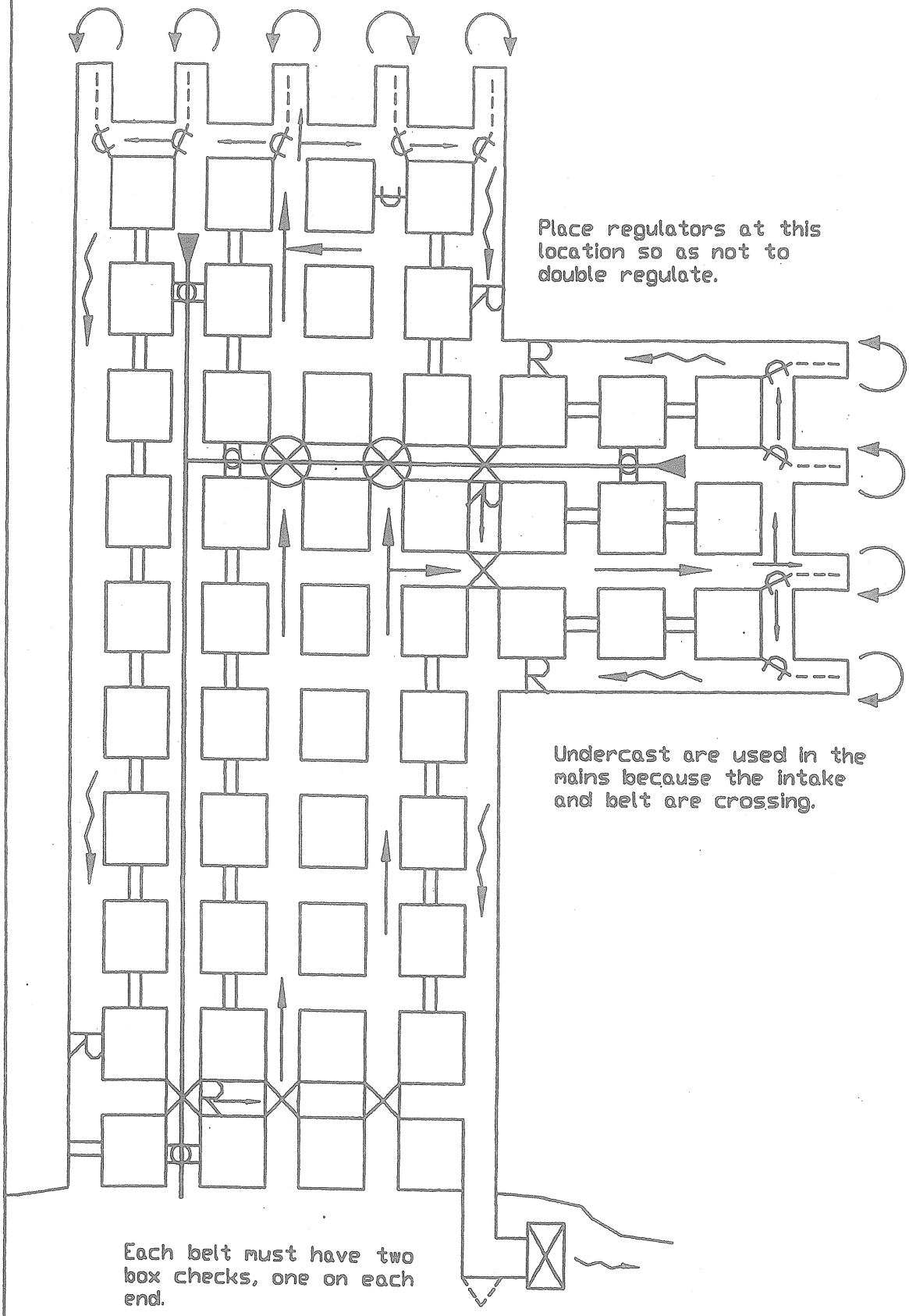
With split ventilation two rows of stoppings will be needed because of two returns and one intake.

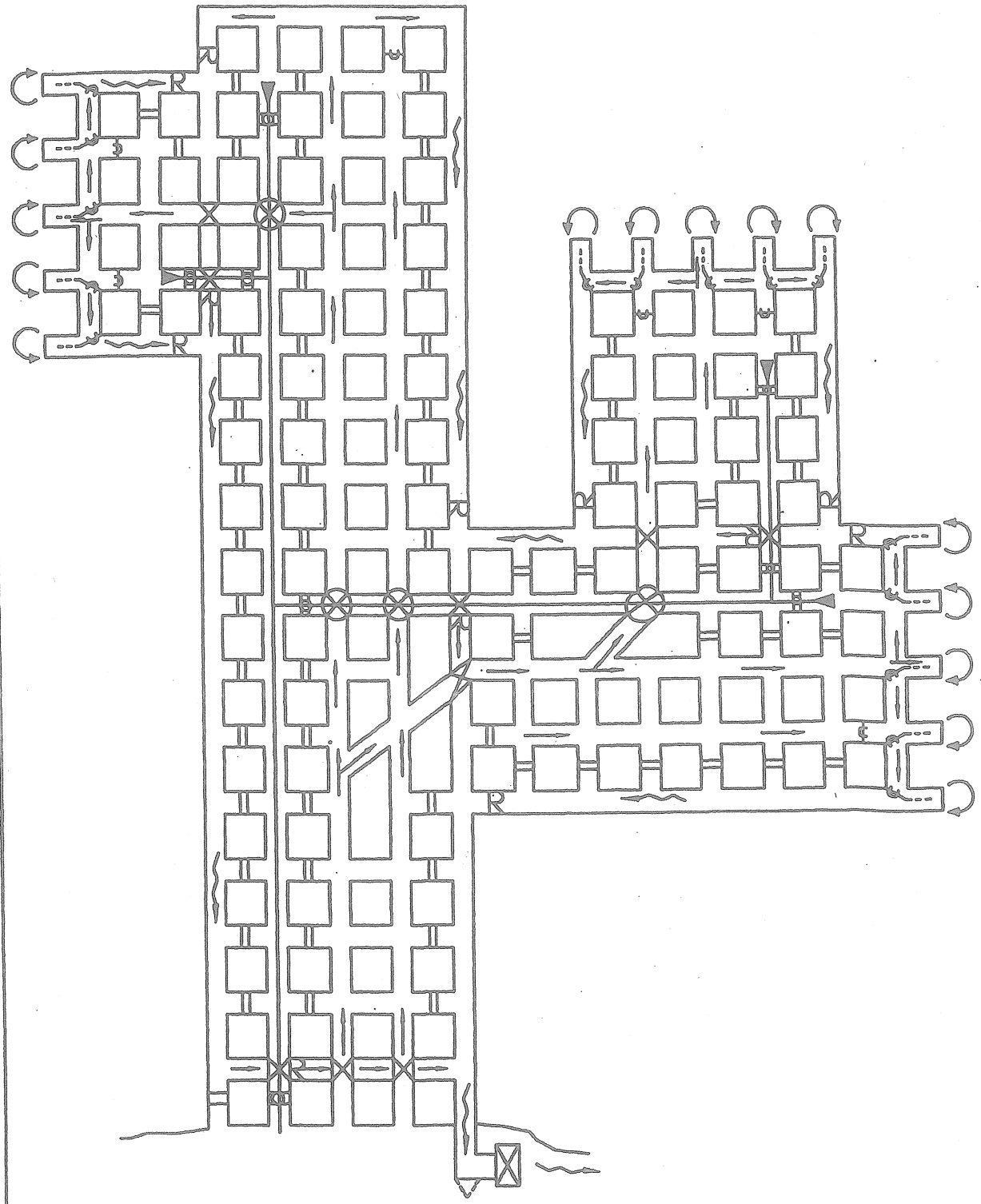
Each split of air must be regulated.

Overcasts are used to get the return air over the intake air. Note that the return air hits the head wall of the overcast.

Entries can be one of three things, intake, return or belt. Since this map does not have a belt we have only a intake and return. With split ventilation we will have one intake and two returns.

Set the fan in the entry that you want to make the return. Do not let the fan touch the outcrop line.


Place regulators at this location so as not to double regulate.
Undercast are used in the mains because the intake and belt are crossing.
Each belt must have two box checks, one on each end.

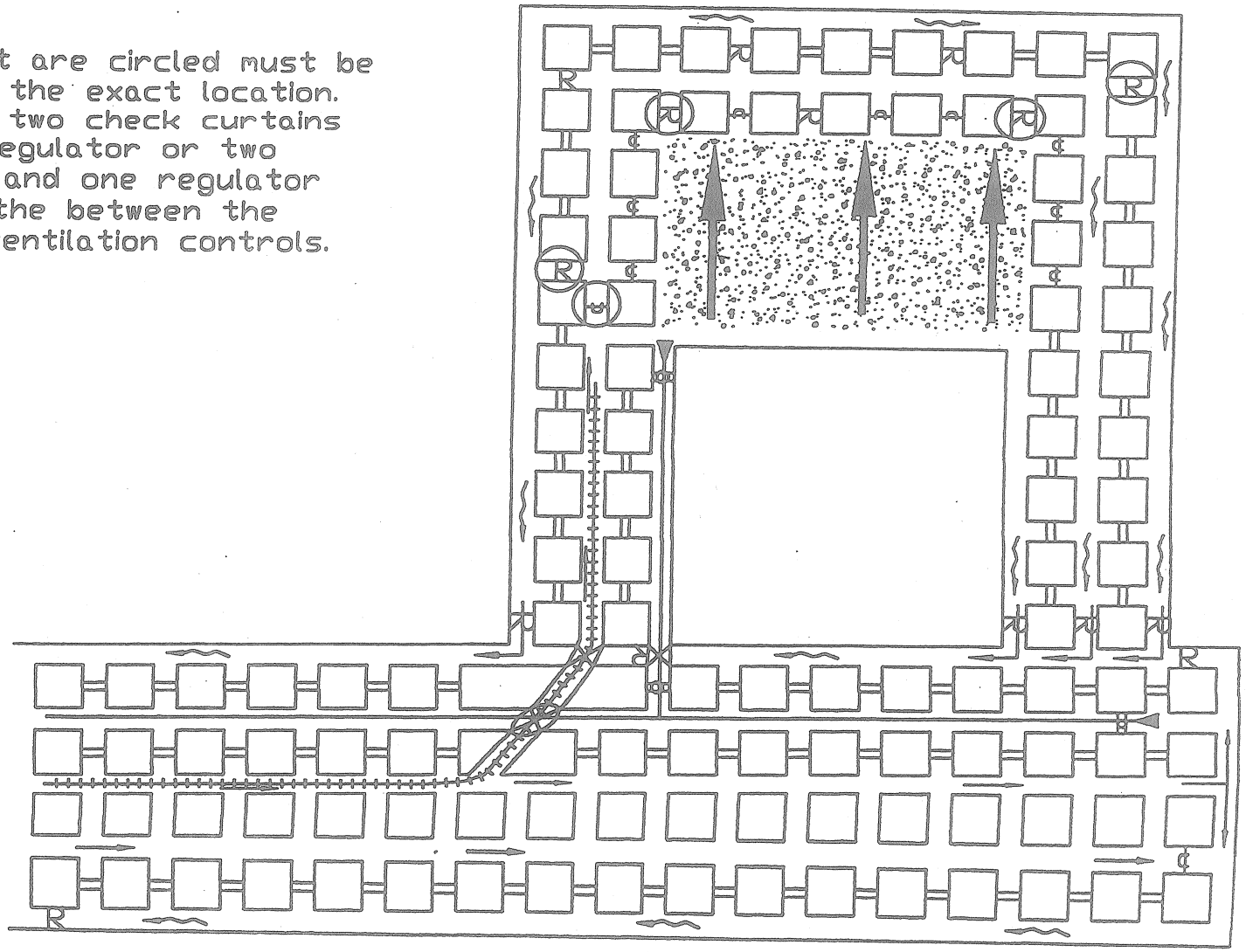
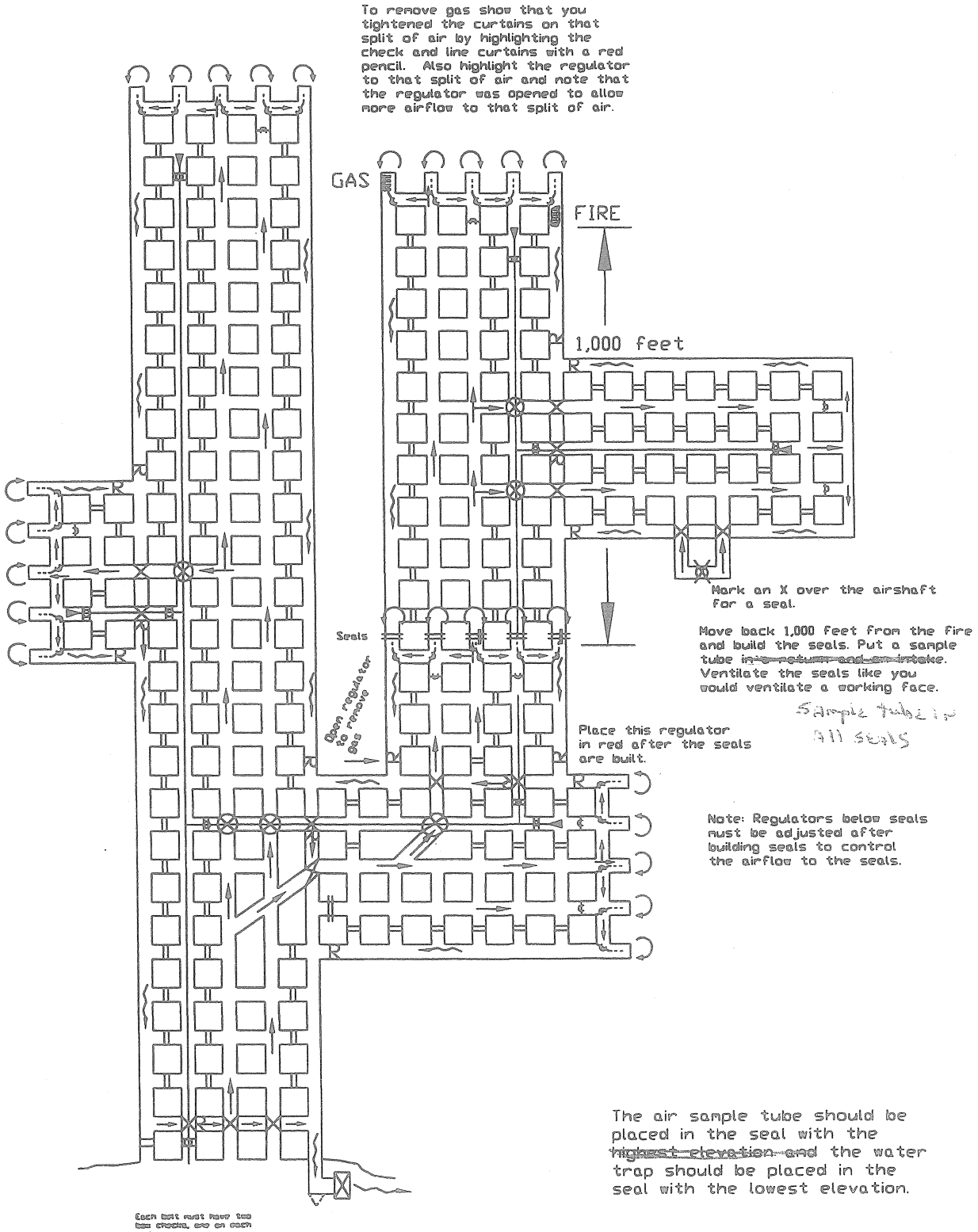


Pillar Line Ventilation

Items that are circled must be placed at the exact location. Alternate one regulator and one curtain to fill in between the required ventilation controls. If required use two curtains in a row but never two regulators in a row.

Longwall Ventilation

Items that are circled must be placed at the exact location. Alternate two check curtains and one regulator or two stoppings and one regulator to fill in the between the required ventilation controls.



Mine Fire and Gas Map