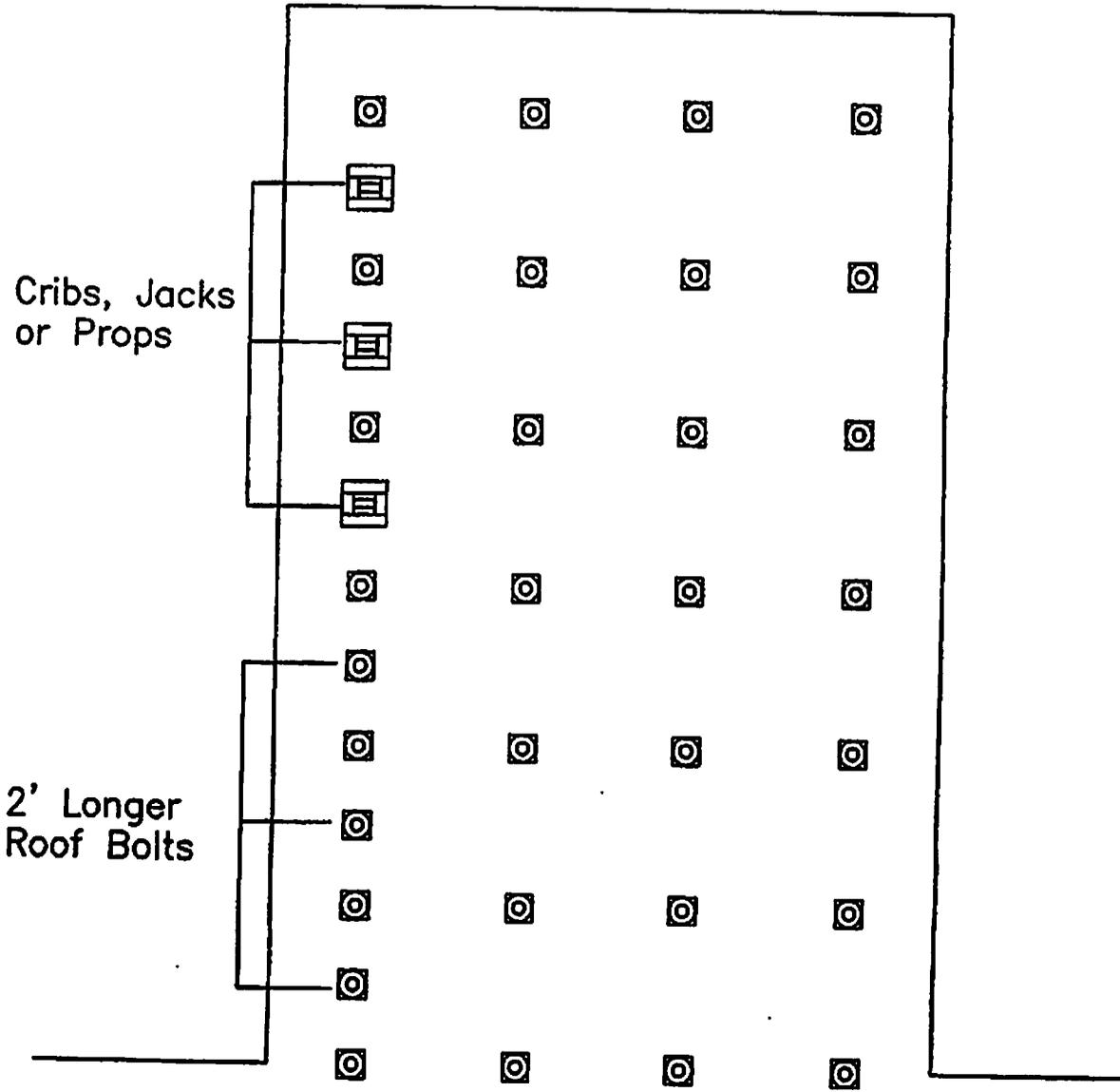


Entry Widths

Sketch #7



Cribs, Jacks
or Props

2' Longer
Roof Bolts

SCALE 1"=5'

LEGEND

⊗ ROOF BOLT

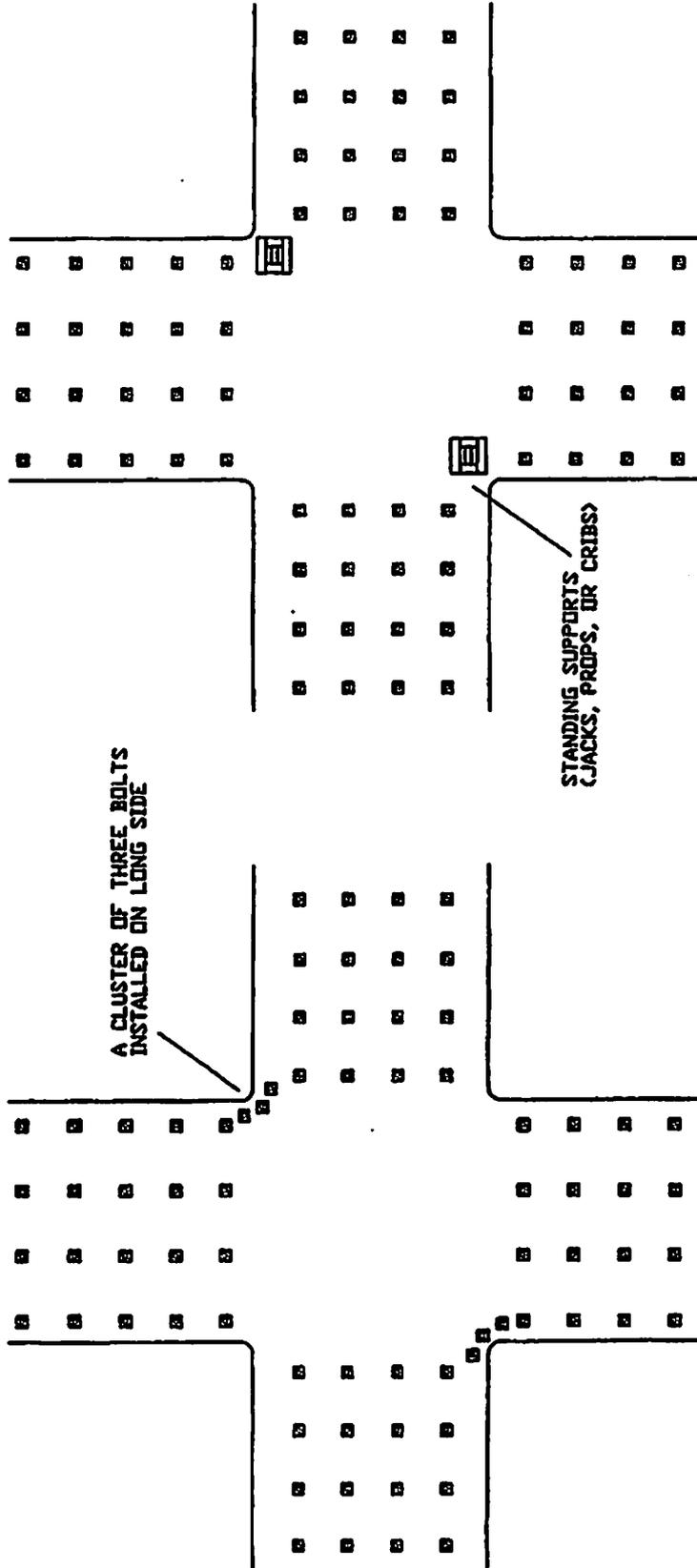
▢ CRIB

Intersection Widths

Sketch #8

UP TO 2'

> 2'

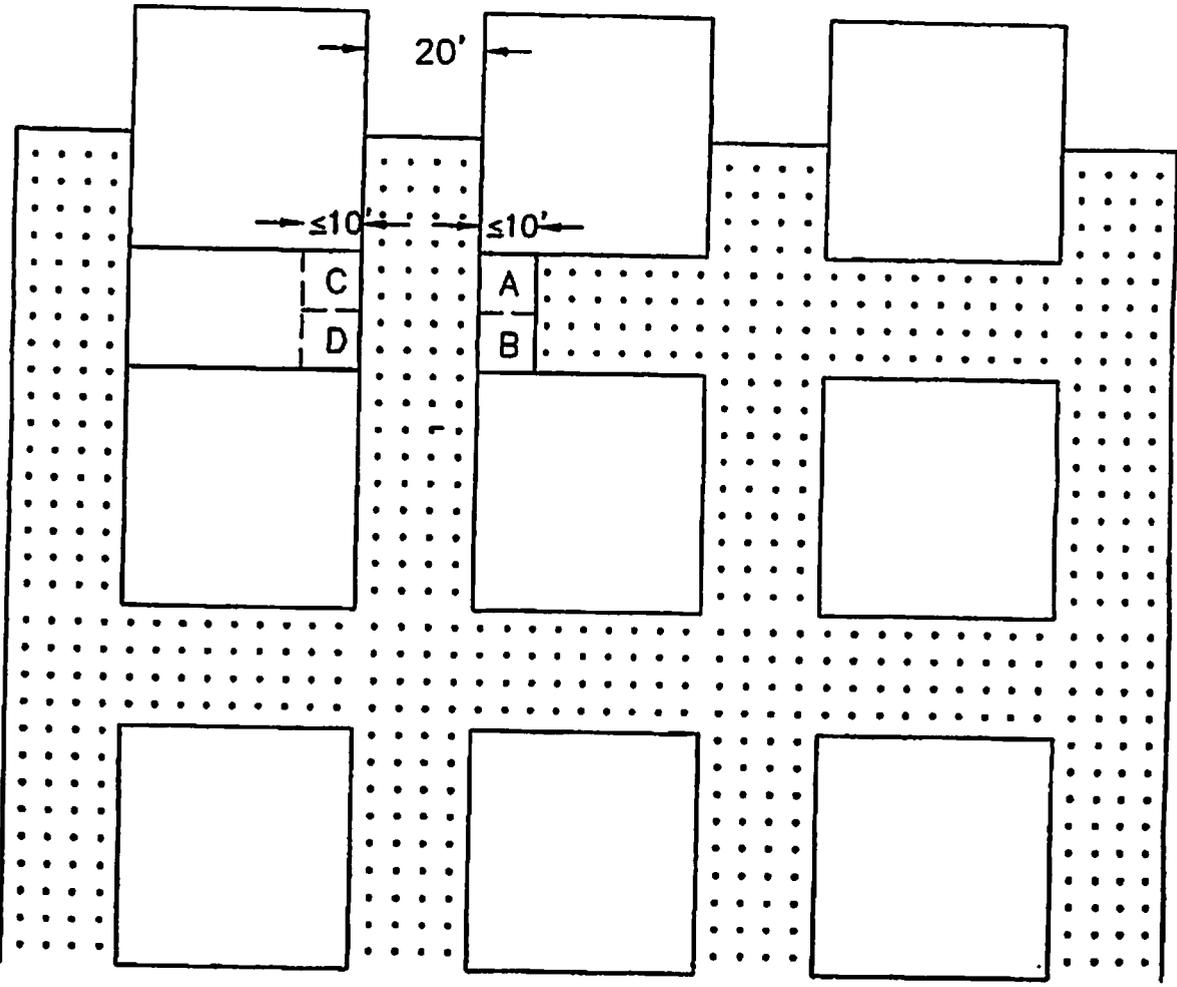


A CLUSTER OF THREE BOLTS
INSTALLED ON LONG SIDE

STANDING SUPPORTS
(JACKS, PROPS, OR CRIBS)

LEGEND
☐ ROOF BOLT
▣ CRIB

Sketch #9



LEGEND:

- Roof Bolt

SCALE 1"=30'

In this sequence, cuts A,B will hole through and the miner machine will advance across the entry or room and notch an additional 10 feet (Cuts C and D) for the next crosscut. All cuts will then be bolted.

Perimeter Mining Roof Control Plan

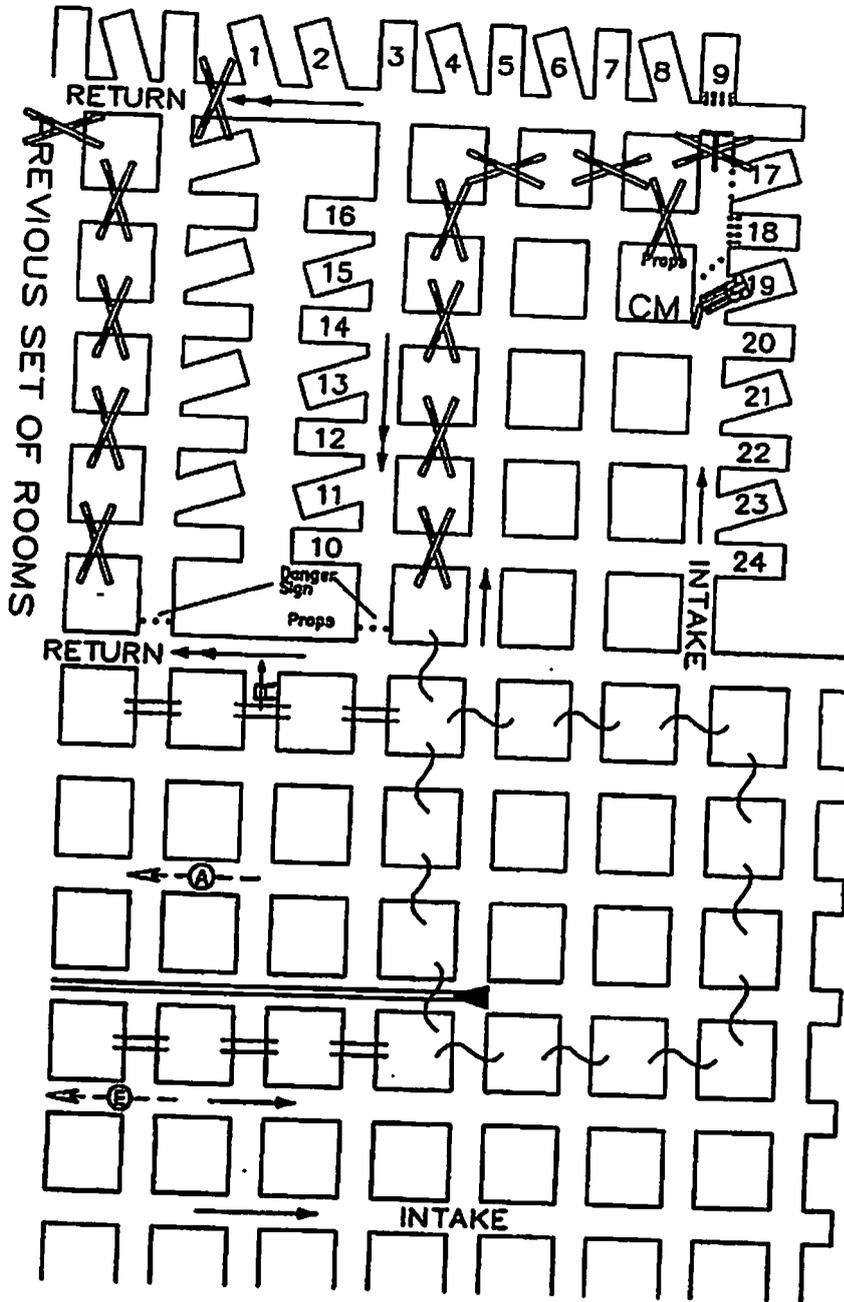
1. This plan can be seen on sketches on pages 20-24.
2. The minimum width of fenders between successive cuts and pillar edges will be as shown on pages 22 and 24.
3. The maximum width of a perimeter cut will be 20 feet.
4. The maximum depth of a perimeter cut will be 40 feet.
5. If a perimeter cut inadvertently holes into the preceding cut, the miner machine will immediately stop and pull out of this cut and proceed to the next cut.
6. Between each set of rooms the perimeter cuts will have a minimum of 30 feet of solid coal.
7. Three temporary post or jacks will be set before mining starts. After the cut is completed, the posts or jacks will be removed remotely by tying off a rope to the miner in order to reuse the posts or jacks for the next cut.
8. Notches may be developed into the barrier up to 40 feet deep from the last row of bolts.
9. Cuts will be done according to the sequence of the sketches.
10. All perimeter cuts will left unbolted and each cut will be dangered out with wood or plastic waterline, placed outby the affected intersection in the shape of an "X".
11. Reflective or colored tape will be used and tied onto the "X".
12. No other work or travel will be done in the intersection after the perimeter cut is complete.
13. Some perimeter cuts may not be done due to adverse mining conditions.
14. Once a set of rooms has been completed and no need for personnel to be inside them, the barricades will be removed and re-established at the mouth of the rooms where the Danger sign and props are.

Special Notes:

1. Temporary barricades will be used so there is no way a miner could accidentally walk in the perimeter cut area during the mining or examining process.
2. As shown on sketches 10 and 11, additional support will be provided for the safety of the examiner prior to the return being holed through. This additional support will be provided by 2 rows of bolts in cuts 9 and 18, and a row of posts, timbers, or jacks at the mouth of cut 17, prior to cutting cut 18. Cut 17 will only be 30 feet in depth from the last roof bolt.
3. As shown on sketch 13, additional support will be provided for the safety of the examiner prior to the return being holed through. This additional support will be provided by 2 rows of bolts in cuts 7 and 9 and a row of posts, timbers, or jacks in cut 8, prior to cutting cut 9. Cuts 8 and 10 will only be 30 feet in depth from the last roof bolt when our projections are on 65 foot centers. If centers are greater than 65 foot, cuts 8 and 10 will be 40 feet from the last complete row of roof bolts.

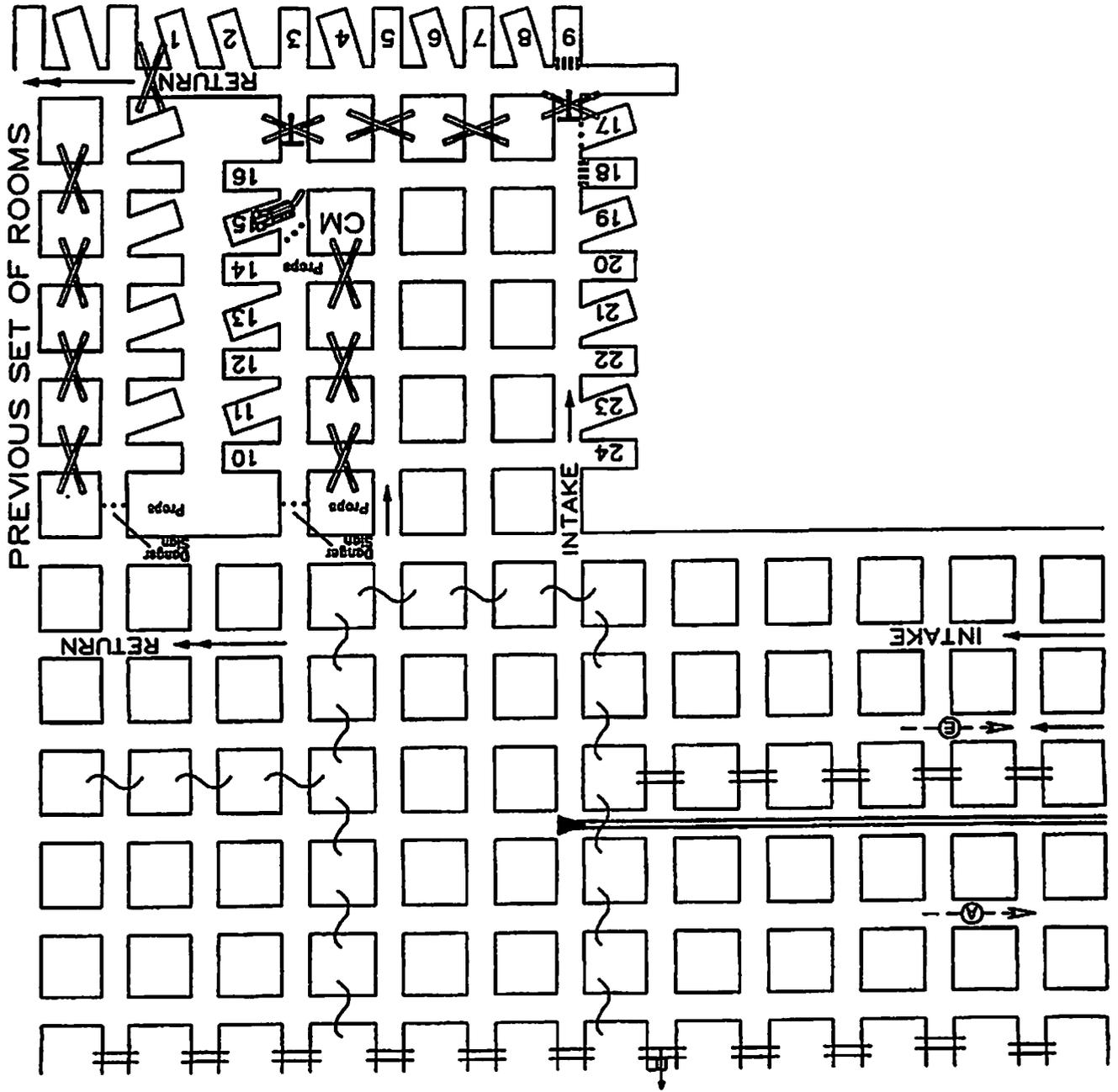
SKETCH NO. 10 APPENDIX-A; P. 5

PERIMETER MINING SEQUENCE OF ROOMS



Legend			
	Regulator		Props
	Intake		Curtain
	Return		Stopping
	Belt Tail		Primary Escapeway
			Alternate Escapeway
			Barricade
			Temporary Barricade
			Additional bolts for examination

SKETCH NO. 11 APPENDIX-A, P. 6
 PERIMETER MINING SEQUENCE OF ROOMS



Legend

	Barricade		Primary Escapeway		Regulator
	Temporary Barricade		Alternate Escapeway		Intake
	Additional bolts for examination		Stopping		Return
	Barricade		Curtain		Ball Tail

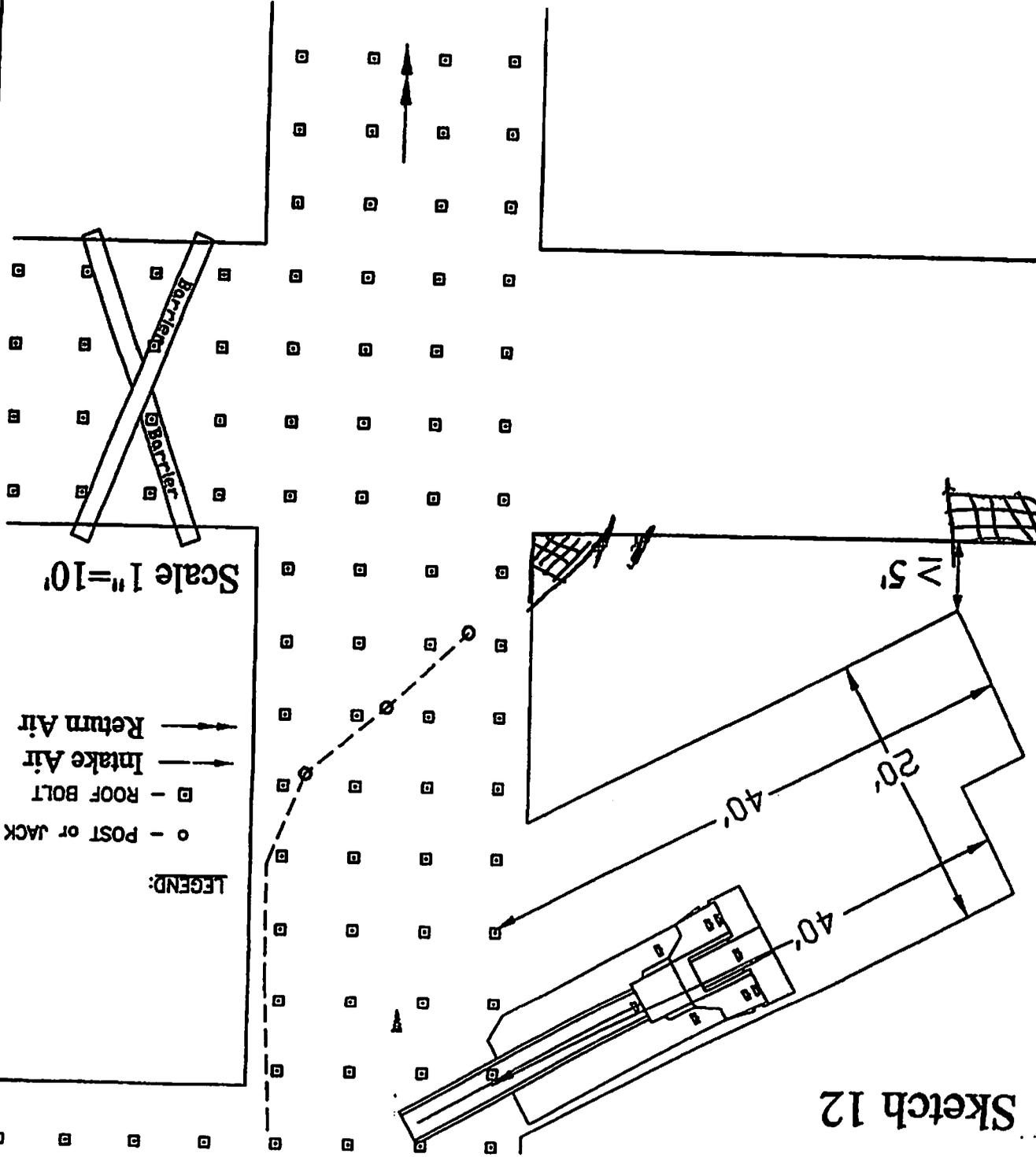
Perimeter Mining Cuts

Sketch 12

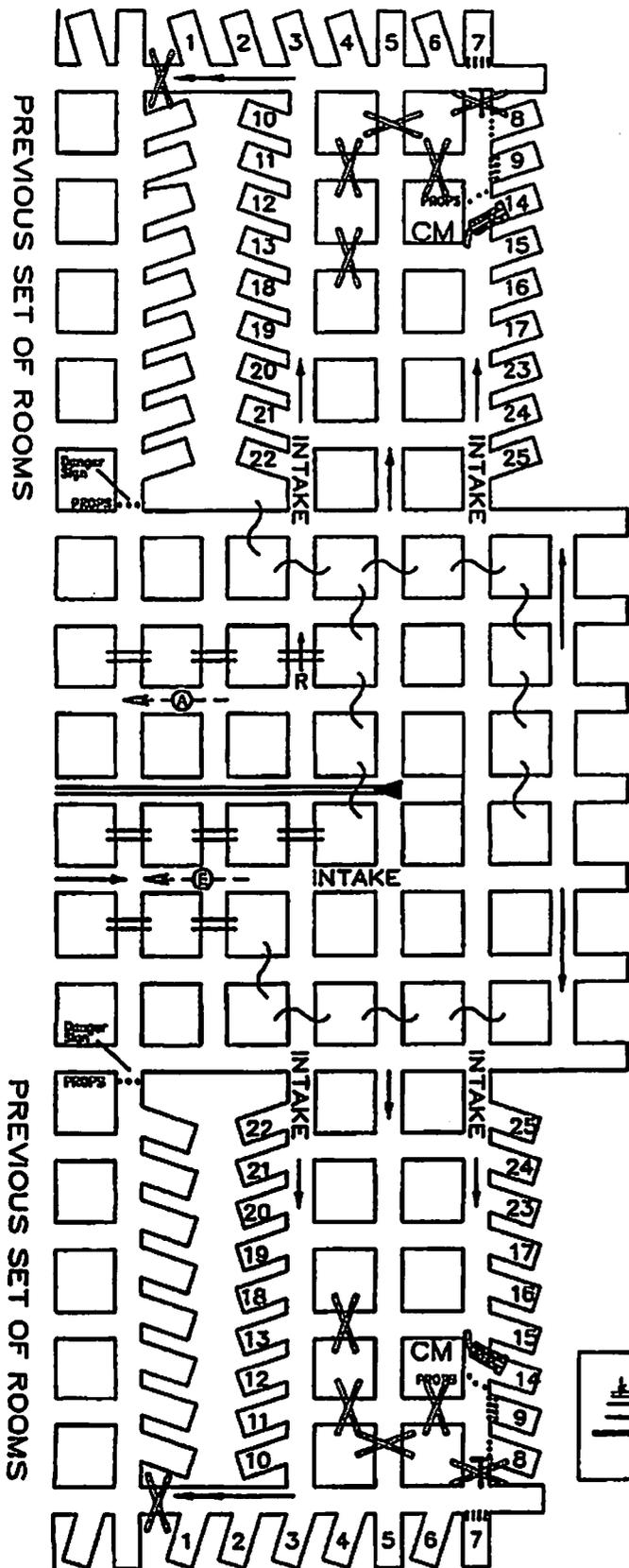
LEGEND:

- - POST or JACK
- - ROOF BOLT
- Intake Air
- Return Air

Scale 1"=10'



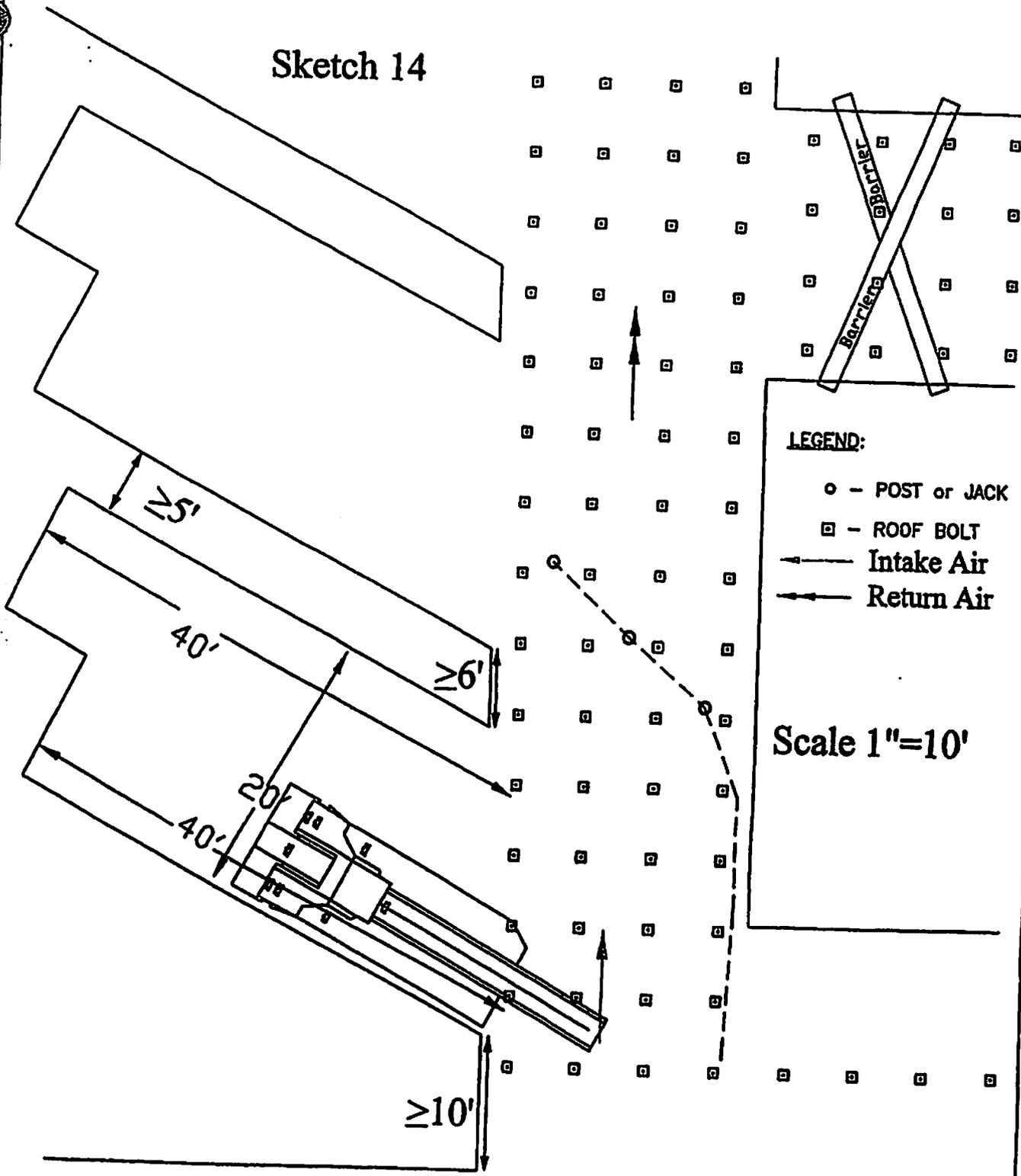
SKETCH NO. 13 APPENDIX-A; P. 8
 TYPICAL VENTILATION SYSTEM FOR FISHTAIL DEVELOPMENT
 PERIMETER CUTS BEGIN



Legend			
	Register		Prop
	Duct		Single Duct
	Return Duct		Primary Exhaust
	Air To		Alternate Exhaust
	Barbed Tapestry Barbed		Additional hole for application

Perimeter Mining Cuts Plan Fishtail

Sketch 14



Entry