

GOD'S RIVER BAND OF INDIANS
BY-LAW NO. 4

Being a by-law to Regulate Construction

WHEREAS paragraphs 81(1) (g), (h), (q) and (r) of the Indian Act, empower the Council of a Band of Indians to make by-laws to divide the Reserve or a portion thereof into zones, to prohibit the construction of any class of building within such a zone, to regulate construction of buildings, in respect to any matter ancillary to the exercise of these powers, and to impose a penalty for a violation of a by-law;

AND WHEREAS by Provincial Order in Council No. 677, dated June 18, 1986 the Province of Manitoba did transfer to Canada certain lands for the use and benefit of the God's River Band of Indians;

AND WHEREAS the said transfer was subject to the condition, among others, that Canada and the band shall ensure that improvements on the said lands shall comply with zoning criteria for airports;

NOW THEREFORE the Council of the God's River Band of Indians at a duly convened meeting hereby enacts as a by-law thereof as follows:

1. In this by-law:
"zone" means those tracts of land referred to and defined in Provincial Order in Council No. 677, dated June 18, 1986 of the Province of Manitoba and set apart by Her majesty as a reserve for the use and benefit of the God's River Band of Indians and generally known as the God's River Indian Reserve No. 86A.
2. No person shall construct or maintain any building, structure or other improvement within the zone which does not conform to the requirements of the REFERENCE GUIDE TO AERODROME STANDARDS (SMALL AERODROMES), as attached or as amended from time to time, respecting buildings and construction of buildings within the vicinity of an airport.
3. Any person who violates any of the provisions of this by-law shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding one thousand dollars or to imprisonment for a term not exceeding thirty days or to both a fine and imprisonment.

Approved and passed at a duly convened meeting of the Council of the God's River Band of Indians held on the 18th day of AUGUST, 1988 as evidenced by the signatures below being those of a majority of the councillors of the band present at the meeting.


Chief


Councillor

Councillor


Councillor

Councillor

Councillor

REFERENCE GUIDE TO AERODROME STANDARDS

(SMALL AERODROMES)

GENERAL

This information package is intended to assist you in planning the construction of a land aerodrome for VFR operations. It also includes guidelines to be considered if future airport upgrading leading to CERTIFICATION is anticipated.

Topics of discussion include airport certification, physical characteristics, obstacle clearance limits, lighting and marking standards.

AERODROME CERTIFICATION/REGISTRATION

Certification

A certified aerodrome is one that is subject to inspection and must be operated in accordance with an aerodrome operations manual. Certification is applicable only to aerodromes that are:

- a) located within the built up area of any city, town or other settlement, and
- b) any land aerodrome used by an air carrier,
 - (i) as a main base of operations for a passenger carrying commercial air service,
 - (ii) as a main base of operations for student pilot flight training operations, or
 - (iii) as a point-of-call for passenger carrying commercial air service other than a charter or contract commercial air service.

Registration

On application, and provision of information respecting the location, marking, lighting, use and operation of an aerodrome, it may be registered and published in the Canada Flight Supplement.

AERODROME PHYSICAL CHARACTERISTICS

Runway Orientation

When only one runway is proposed it should be orientated to take maximum advantage of the prevailing wind. Local terrain features can influence wind patterns, however winds in this region tend to favour a northwest-southeast runway orientation. Alignment with built-up areas should be avoided if possible or provision of at least a two (2) mile buffer should be planned. Takeoff and landing paths directly over built up areas will likely prompt complaints from inhabitants.

Runway Surface

The runway may be grass, clay, gravel or hard surfaced, capable of supporting the weight of any aircraft likely to make use of the aerodrome. Allowances may be made for spring breakup, at which time a runway may be temporarily closed or restricted for use to certain aircraft types. For winter operations, snow must be cleared or compacted.

A runway should be constructed to have a maximum end-to-end slope of 2½% (2½ ft. per 100) with no abrupt changes. For drainage purposes the runway should be crowned with 2% slopes down to the runway edges. Care should be taken to avoid areas where water pooling could create soft spots or ice patches that will hamper aircraft directional control.

Runway Dimensions

Runway length (including stopway and clearway if provided) should be adequate to meet the operational requirements for the aircraft intended. Expansion possibilities should be considered.

It is recommended that a minimum width be 75 feet, although a 50 ft. width (Code 1 - Figure 1) would be acceptable for use by small aircraft in a non-training situation.

Graded Area

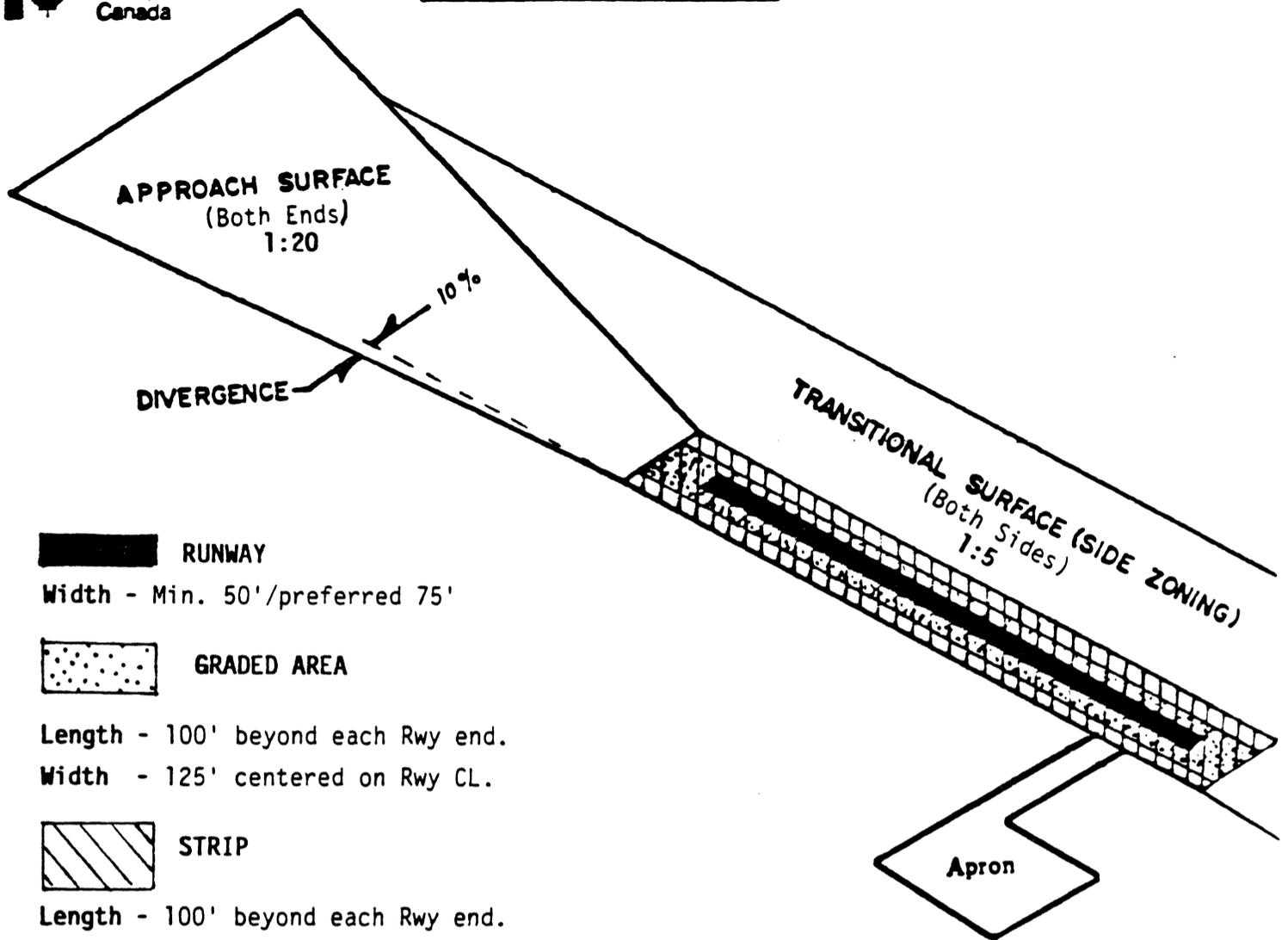
The runway must be surrounded by a graded area or shoulders to prevent major damage to an aircraft in the event it leaves the side or end of the runway. The dimensions of the graded area vary with the code (Figures 1 & 2) and should be prepared in a manner consistent with the type of aircraft utilizing the aerodrome.

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MINIMUM STANDARDS - AIRPORTS



CODE 1 RWY LESS THAN 2650'



RUNWAY

Width - Min. 50'/preferred 75'



GRADED AREA

Length - 100' beyond each Rwy end.
Width - 125' centered on Rwy CL.



STRIP

Length - 100' beyond each Rwy end.
Width - 200' centered on Rwy CL.

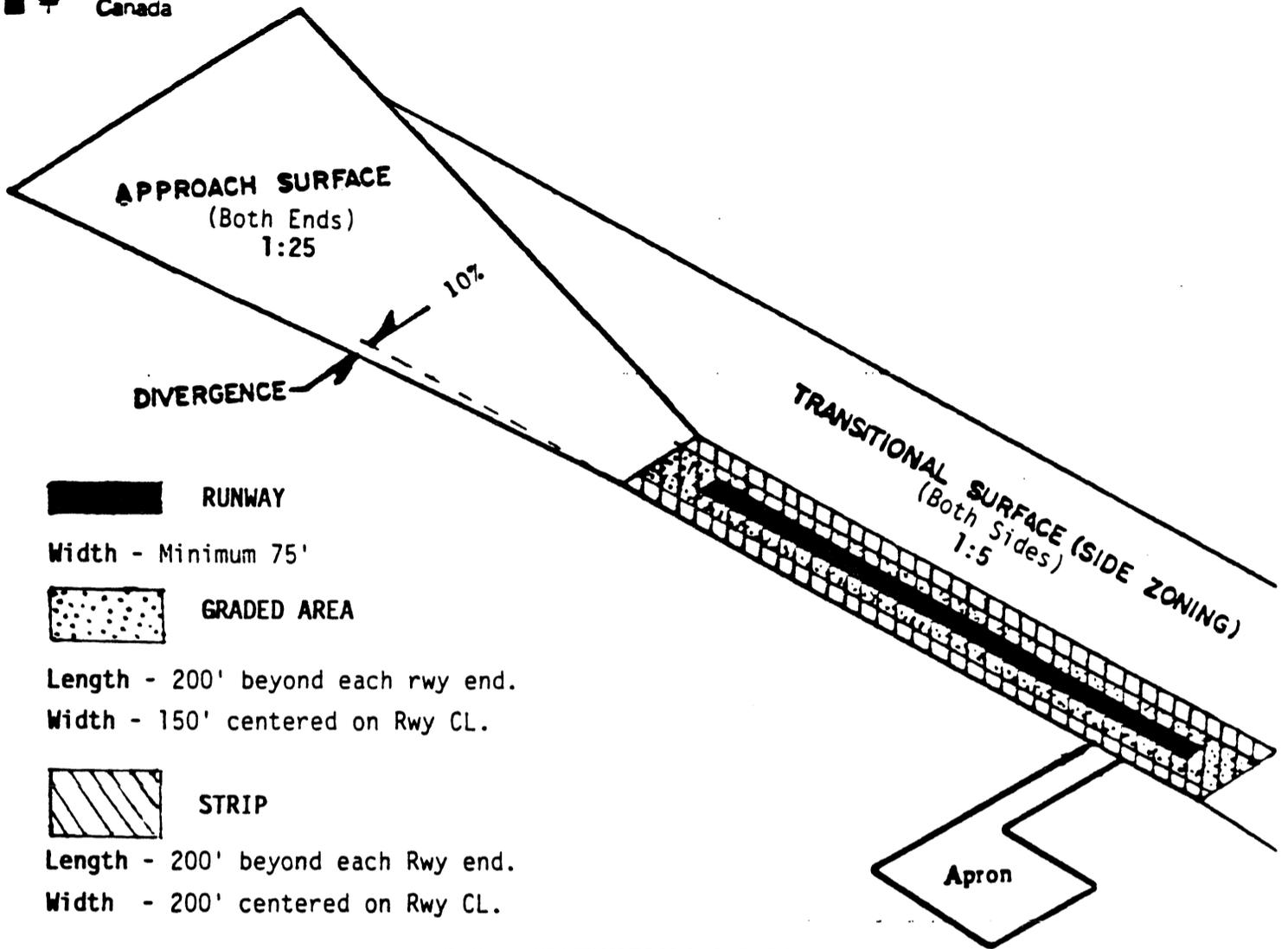
NOTES - OBSTRUCTIONS AND ZONING

- | | |
|---|--|
| <p>1. No obstruction permitted to penetrate approach or transitional sfc.</p> <p>2. Roads are considered to be obstructions at 14' above road sfc.</p> <p>3. Railroads are considered to be obstructions at 20' above R.R. sfc.</p> | <p>4. Hangars, light standards, etc., and aircraft perched on apron must not penetrate transitional sfc.</p> <p>5. Transitional zoning may vary with strip width.</p> <p>300' strip 1:4
400' strip 1:3
500' strip vertical</p> |
|---|--|

Figure 1

MINIMUM STANDARDS - AIRPORTS

CODE 2 Rwy Between 2650' - 3999'



 **RUNWAY**

Width - Minimum 75'

 **GRADED AREA**

Length - 200' beyond each rwy end.

Width - 150' centered on Rwy CL.

 **STRIP**

Length - 200' beyond each Rwy end.

Width - 200' centered on Rwy CL.

NOTES - OBSTRUCTIONS AND ZONING

- | | |
|---|--|
| <p>1. No obstruction permitted to penetrate approach or transitional sfc.</p> <p>2. Roads are considered to be obstructions at 14' above road sfc.</p> <p>3. Railroads are considered to be obstructions at 20' above RR SFC.</p> | <p>4. Hangars, light standards, etc., and aircraft on apron must not penetrate transitional sfc.</p> <p>5. Transitional zoning may vary with strip width.
 300' strip 1:4
 400' strip 1:3
 500' strip vertical</p> |
|---|--|

Figure 2

OBSTACLE CLEARANCE LIMITS

In addition to the actual runway and graded areas, certain standards of **obstacle free airspace** on and around the aerodrome must be provided to allow safe aircraft operation.

Strip

At ground level the runway must be surrounded by a cleared levelled area (**strip or strip area**) in which no obstacles protrude above the runway surface elevation. This elongated rectangular shaped area is the equivalent of a highway right-of-way (Figures 1 & 2).

Obstacle Clearance Surfaces

Obstacle clearance surfaces (approach & transitional) are imaginary surfaces rising from the edges of the strip to a height of 150 ft. above the aerodrome, then running level to a distance of two miles radius from the aerodrome centre.

"Approach" surfaces extend from both ends of the strip and diverge at 10% (1 ft. every 10 ft.) from each side to provide a fairly shallow obstacle free area for landing and takeoff. The approach surface angle varies with runway codes (Figures 1 & 2).

"Transitional" surfaces rise more steeply from the sides of the strip and approach surfaces to provide for safe overflight at low heights, i.e., during a missed landing. The transitional slope is normally; 1:5 (i.e., max. ht. of an obstacle at 20 ft. from strip edge is 4 ft.). Under certain conditions this slope may be steepened, (See Figure 1 & 2 note 5.).

Penetration of these obstacle limit surfaces may jeopardize certification of an aerodrome. To protect obstacle surfaces, land purchases or agreements/caveats against building obstacles by neighboring land owners may be considered.

LIGHTING

Aerodromes intended for night use shall meet the following lighting guidelines. (Figure 4)

Runway Edge

Lights shall be placed along the full length of each side at a distance of 5 ft. from the RWY, with a distance between lights no greater than 200 ft. **Colour** shall be white with an average **intensity** of 20 candelas and have symmetrical light distribution.

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Threshold/End

Three lights, spaced symmetrically, shall be placed on each side of the centreline (CL) with the inner lights being 25 ft. from RWY CL and the outer lights shall be in line with the RWY edge lighting.

Colour shall be bicolour green/red with red in the direction of the RWY and green in the direction of the approach area.

Intensity should be approximately 6 candelas.

Taxiway Edge

Placement should be in straight lines as close to the edge as practicable and not in excess of 200 ft. apart. **Colour** shall be blue with **intensity** of .4 candelas.

Windsock

External (4 x 150 watts) or internal lights are recommended for night operations.

MARKING STANDARDS

Runway Markers

Runway markers for non hard surfaced RWYS should be made of breakable material (Figure 3). They are to be situated 5 ft. outside the RWY edge and spaced uniformly along the RWY length at a preferred spacing of 200' but in no case more than 300'. RWY ends are marked with an additional marker on each side at a further distance of 5 ft. outwards of the last marker. **Colour** of markers shall be international orange or international orange and white for certified aerodromes and international orange and white.

Aprons/Taxiways

Aprons and taxiways can be marked with blue coloured markers.

MISCELLANEOUS

Windsock

Certified aerodromes shall have a windsock clearly visible from the apron and all points in the traffic pattern.

Fire Extinguisher/First Aid Kit

At least 60 lbs. of dry chemical fire retardent should be available at the aerodrome. Several extinguishers are recommended, with one being kept in the refuelling area.

An industrial type first aid kit is recommended.

ADDITIONAL INFORMATION

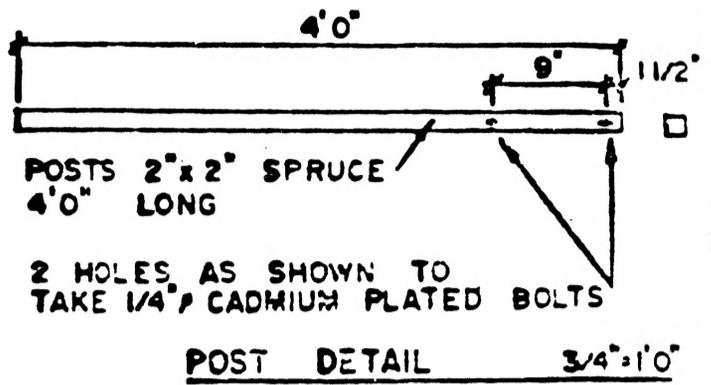
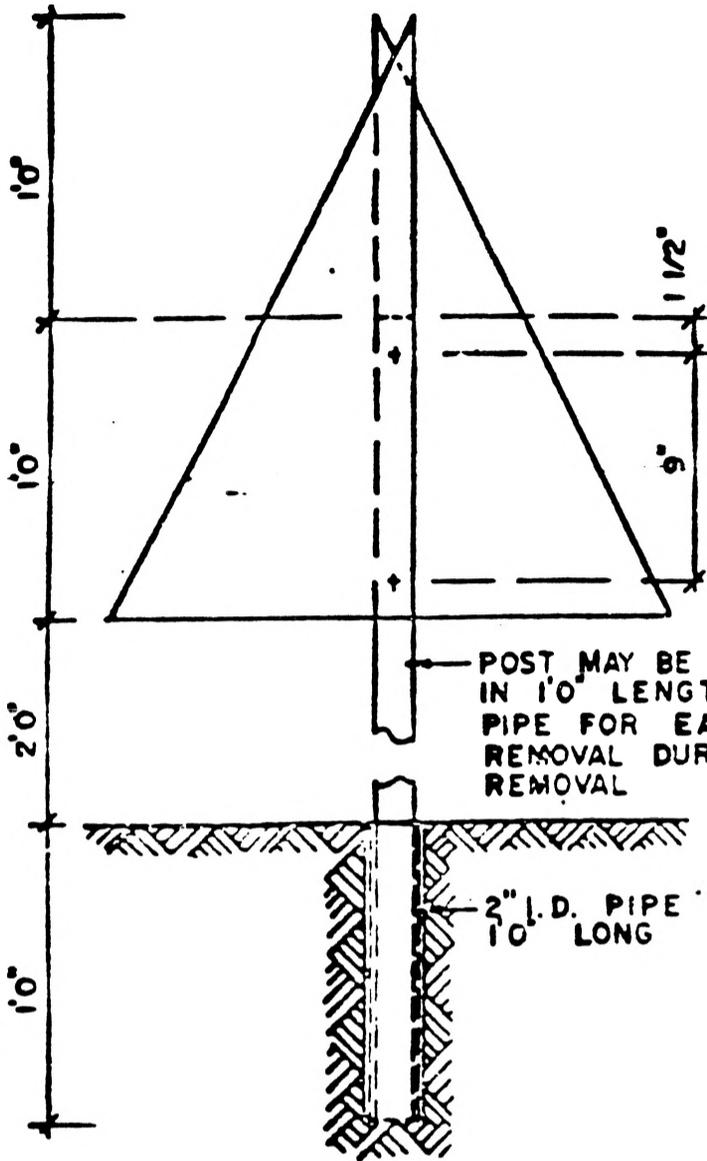
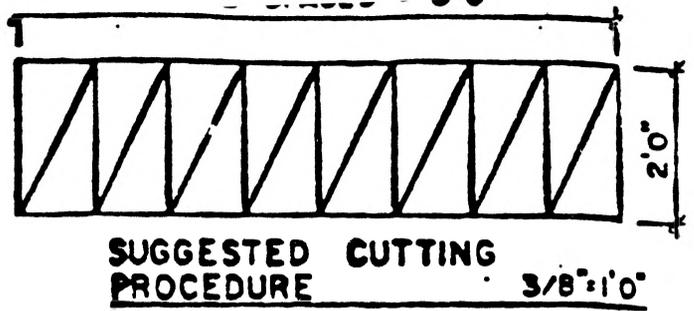
The summary of information provided in this package is not meant to be a comprehensive listing of all standards and it is subject to change. For more detailed and current information please contact the following office:

Mailing: Transport Canada
 Air Navigation
 Standards & Procedures
 P. O. Box 8550
 Winnipeg, Manitoba
 R3C 0P6

Phone (204) 983-4334

Attachments:

- Figure 1 - Code 1 rwy layout
- Figure 2 - Code 2 rwy layout
- Figure 3 - Rwy markers
- Figure 4 - Lighting layout.



CHARACTERISTICS

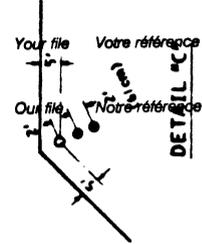
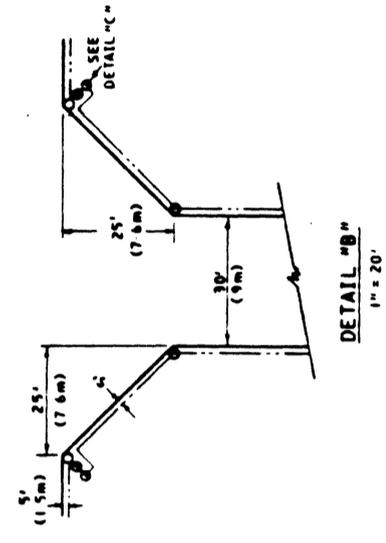
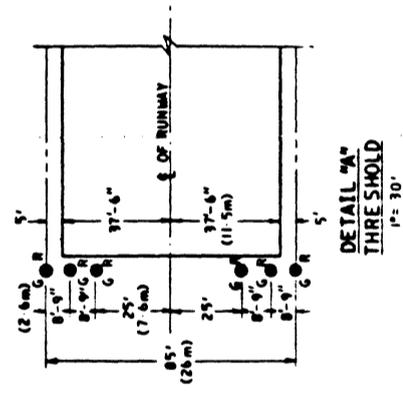
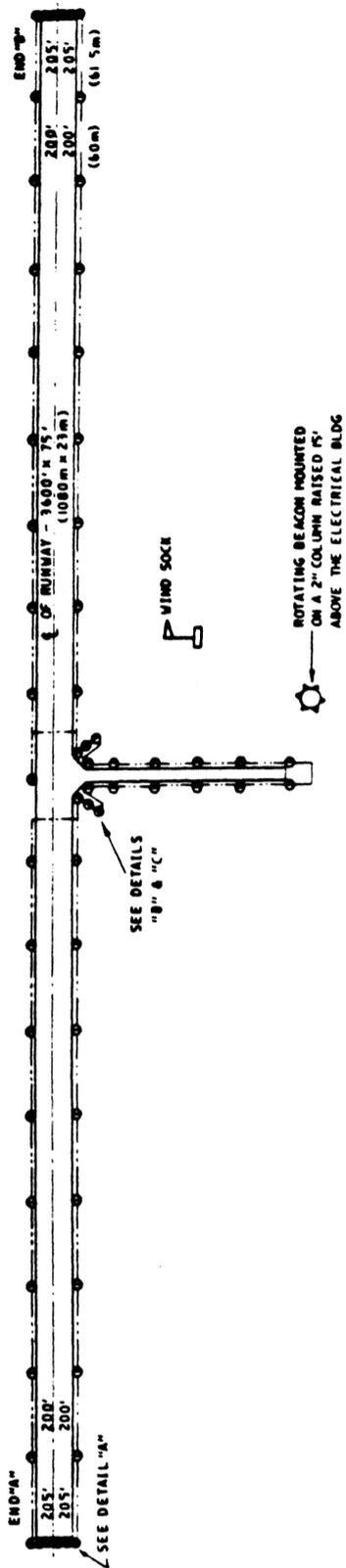
1. PLACE MARKERS ALONG THE EDGES, THE FULL LENGTH OF THE RUNWAY INTO PARALLEL STRAIGHT LINES. EQUIDISTANT FROM THE CENTRELINE, APPROX. 5' TO 6' OFFSET FROM RUNWAY EDGE.
2. MARKERS TO BE UNIFORMLY SPACED AT INTERVALS OF 200' AT 90° TO THE CENTRELINE.

ELEVATION OF ASSEMBLY 1 1/2" x 1'0"

MATERIAL LIST FOR 1 UNIT:

POST: 2" x 2" SPRUCE 4'0" LONG (1 REQ'D)
 WINGS: 1/4" PLYWOOD (2 REQ'D)
 BOLTS: 1/4" x 2 3/4" CADMIUM PLATED CARRIAGE BOLTS C/W CADMIUM WING NUTS. (2 REQ'D)

Figure 3



- LEGEND - FOR SIMPLE LIGHTING SYSTEM ONLY
- - L.I. RUNWAY EDGE LIGHT - WHITE
 - - L.I. TAXIWAY " " - BLUE
 - - L.I. THRESHOLD " " - GREEN/RED

AIRPORT LIGHTING
SMALL AIRPORT
SIMPLE LIGHTING SYSTEM

Figure 4