

RUNWAY AND TAXIWAY TYPICAL SECTIONS

NOTES

1. PAVEMENT DESIGN IS BASED ON FAA ADVISORY CIRCULAR 150/5320-6.

AIRPORT	AVG. FROST PENETRATION	REQUIRED PAVEMENT SECTION FOR FROST PROTECTION	
		FOR 65% FROST PROTECTION (MINIMUM)	FOR 80% FROST PROTECTION (DESIRED)
BENNINGTON	56"	38"	46"
CALEDONIA	72"	47"	58"
E. F. KNAPP	70"	45"	56"
FRANKLIN	70"	45"	56"
MIDDLEBURY	65"	42"	52"
MORRISVILLE-STOWE	72"	47"	58"
NEWPORT	75"	49"	60"
RUTLAND	65"	42"	52"
SPRINGFIELD	60"	39"	48"

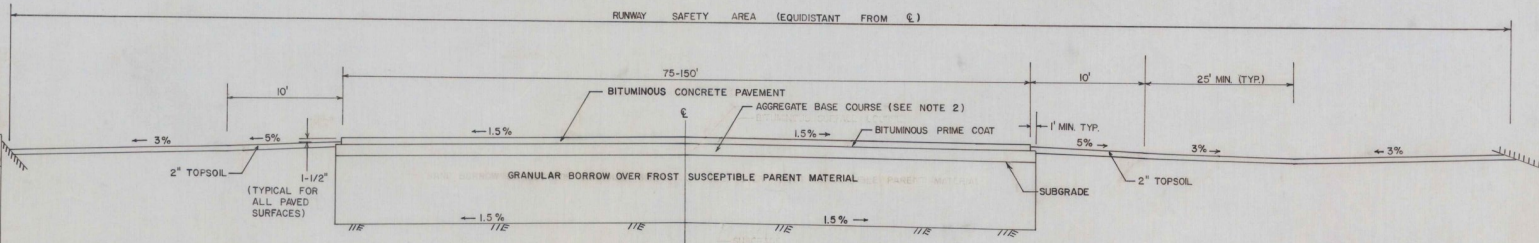
2. FOR RUNWAYS DESIGNED FOR AIRCRAFT WITH GROSS TAKEOFF WEIGHTS GREATER THAN 30,000 POUNDS, USE CRUSHED AGGREGATE BASE COURSE, TYPE II.
FOR RUNWAYS DESIGNED FOR AIRCRAFT WITH GROSS TAKEOFF WEIGHTS BETWEEN 12,500 POUNDS AND 30,000 POUNDS, USE EITHER CRUSHED AGGREGATE BASE COURSE, TYPE I, OR UNCRUSHED AGGREGATE BASE COURSE.

3. FOR UTILITY AIRPORT DESIGN CRITERIA, REFER TO FAA ADVISORY CIRCULAR 150/5300-4A.

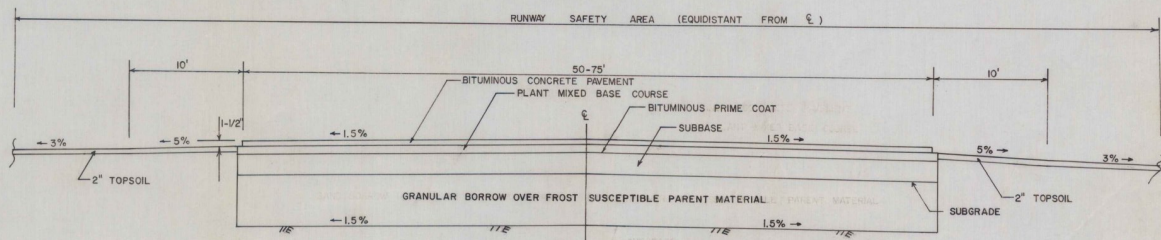
4. FOR BASIC AND GENERAL TRANSPORT AIRPORT DESIGN CRITERIA, REFER TO FAA ADVISORY CIRCULAR 150/5300-6A.

AIRPORT	RUNWAY	RUNWAY CLASSIFICATION	RUNWAY SAFETY AREA
BENNINGTON	13-31	VISUAL-GENERAL UTILITY	150'
CALEDONIA	2-20	NON-PRECISION INSTRUMENT-BASIC UTILITY, STAGE II	120'
E. F. KNAPP	17-35	PRECISION-BASIC TRANSPORT	500'
FRANKLIN	5-23	VISUAL-GENERAL UTILITY	300'
FRANKLIN	1-19	VISUAL-BASIC UTILITY, STAGE II	120'
MIDDLEBURY	1-19	VISUAL-BASIC UTILITY, STAGE II	120'
MORRISVILLE-STOWE	1-19	NON-PRECISION INSTRUMENT-BASIC UTILITY, STAGE I	300'
NEWPORT	18-36	VISUAL-BASIC TRANSPORT	300'
RUTLAND	1-19	NON-PRECISION INSTRUMENT-BASIC TRANSPORT	300'
RUTLAND	1-19	VISUAL-GENERAL UTILITY	150'
SPRINGFIELD	5-23	NON-PRECISION INSTRUMENT-BASIC TRANSPORT	300'
SPRINGFIELD	11-29	VISUAL-GENERAL UTILITY	150'

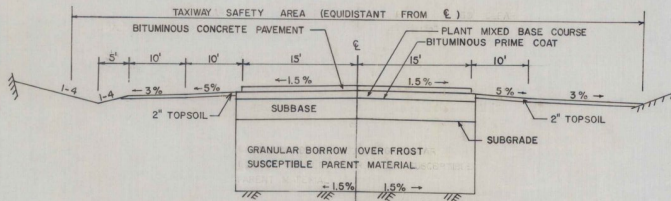
RUNWAY CLASSIFICATION TABLE



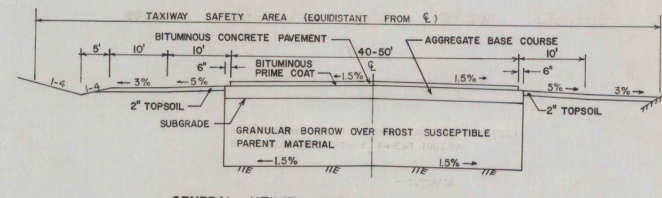
GENERAL UTILITY AND BASIC TRANSPORT RUNWAYS
FOR AIRCRAFT WITH GROSS WEIGHTS BETWEEN 12,500 AND 60,000 POUNDS



BASIC UTILITY RUNWAY - STAGE I AND II
FOR AIRCRAFT WITH GROSS WEIGHTS LESS THAN 12,500 POUNDS



BASIC UTILITY TAXIWAY
FOR AIRCRAFT WITH GROSS WEIGHTS LESS THAN 12,500 POUNDS



GENERAL UTILITY AND BASIC TRANSPORT TAXIWAY
FOR AIRCRAFT WITH GROSS WEIGHTS BETWEEN 12,500 AND 60,000 POUNDS

REVISIONS AND CORRECTIONS
25 MAY 82 - ELIMINATED SAND BORROW AS UNDERCUT MATERIAL

APPROVED: _____ DATE: DEC. 15, 1981
DIR. OF ENGINEERING AND CONSTRUCTION
CHIEF OF DESIGN
SURVEY AND PLANS ENGINEER

STANDARD RUNWAY AND TAXIWAY TYPICALS



STANDARD
AP-1

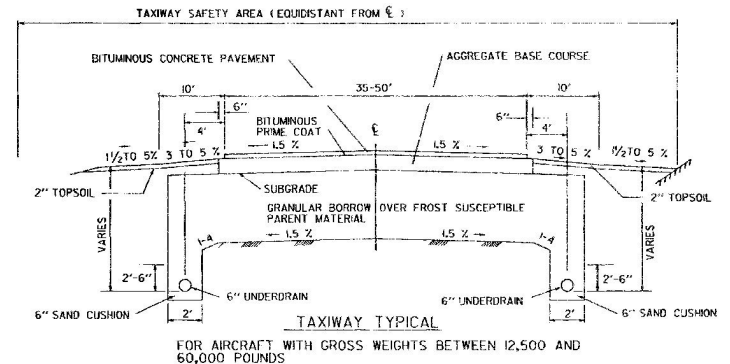
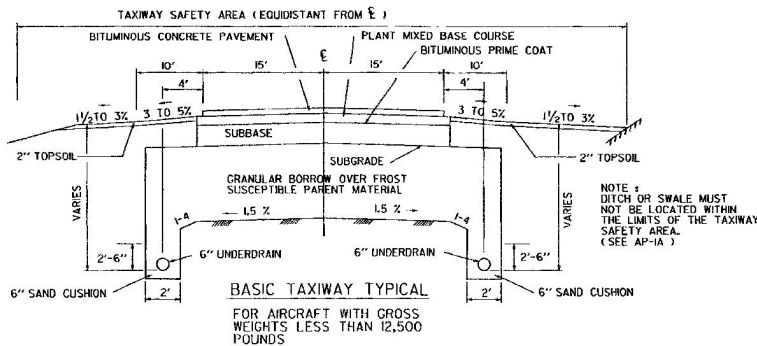
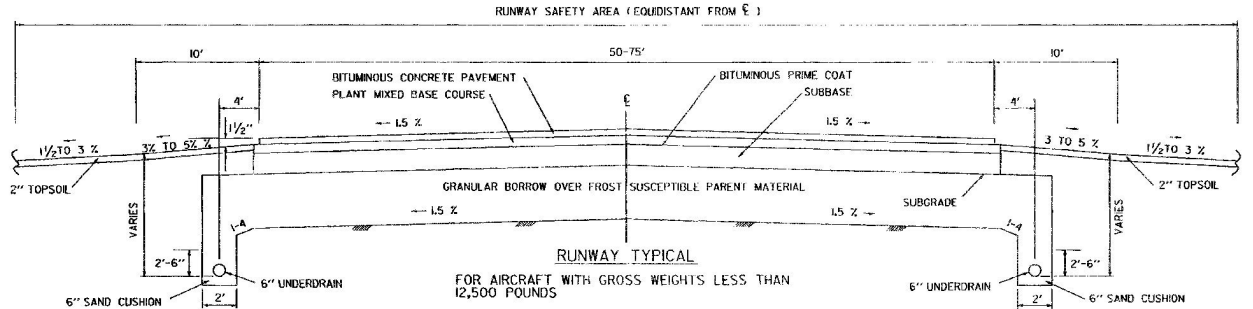
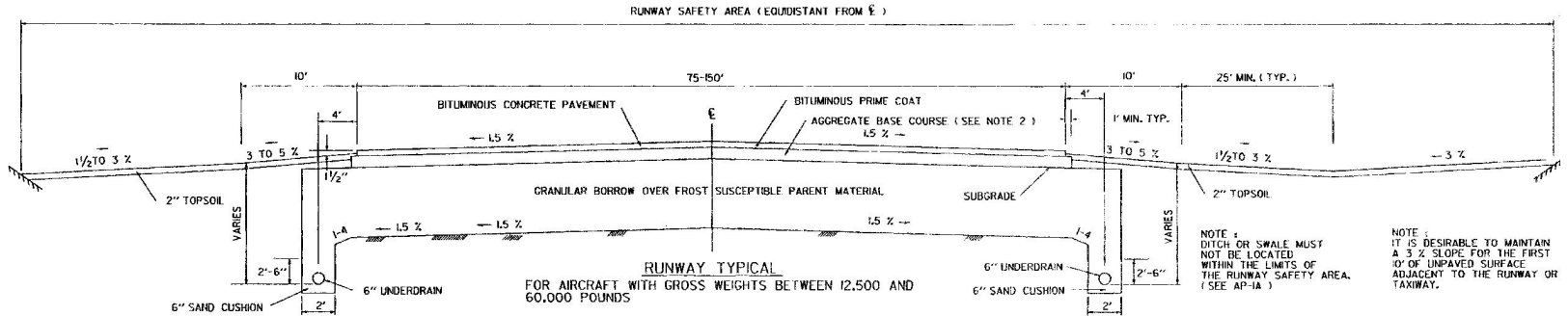
NOTES

1. PAVEMENT DESIGN IS BASED ON CURRENT FAA ADVISORY CIRCULAR .

AIRPORT	AVG. FROST PENETRATION	REQUIRED PAVEMENT SECTION FOR 65% FROST PROTECTION		REQUIRED PAVEMENT SECTION FOR 80% FROST PROTECTION	
		65% (MINIMUM)	80% (DESIRED)	65% (MINIMUM)	80% (DESIRED)
BENNINGTON	58"	38"	46"		
CALEDONIA	72"	47"	58"		
E.F. KNAPP	70"	45"	56"		
FRANKLIN	70"	45"	56"		
MIDDLEBURY	65"	42"	52"		
MORRISVILLE-STOWE	72"	47"	58"		
NEWPORT	75"	49"	60"		
RUTLAND	65"	42"	52"		
HARTNESS	60"	39"	48"		

2. FOR SURFACES DESIGNED FOR AIRCRAFT WITH GROSS TAKEOFF WEIGHTS GREATER THAN 30,000 POUNDS, USE CRUSHED AGGREGATE BASE COURSE, TYPE II. FOR SURFACES DESIGNED FOR AIRCRAFT WITH GROSS TAKEOFF WEIGHTS BETWEEN 12,500 POUNDS AND 30,000 POUNDS, USE EITHER CRUSHED AGGREGATE BASE COURSE, TYPE I OR UNCRUSHED AGGREGATE BASE COURSE.

3. FOR AIRPORT DESIGN GROUP CRITERIA, REFER TO CURRENT FAA ADVISORY CIRCULAR .



REVISIONS AND CORRECTIONS

DE 12, 1981 - ORIGINAL APPROVAL DATE
 MA 7, 5, 1990 - SHEET UPDATED
 JULIE I, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

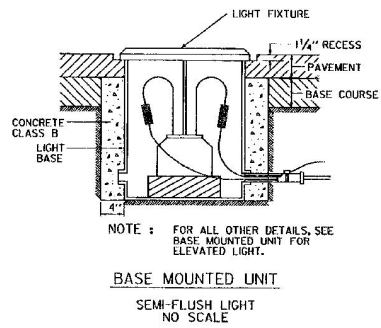
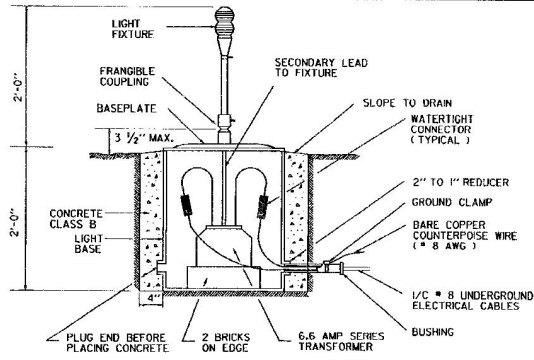
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FINAL APPROVAL PENDING.

 DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

RUNWAY AND TAXIWAY TYPICALS



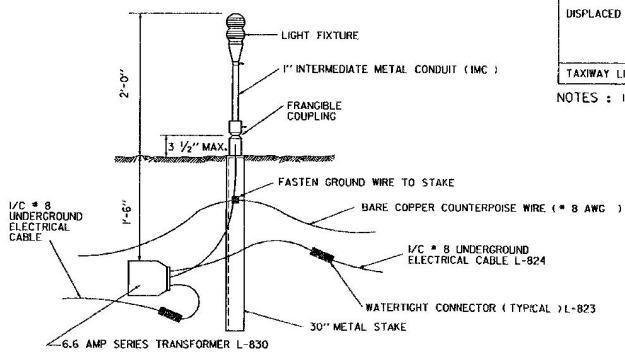
STANDARD
 AP-1



BASE MOUNTED UNIT
SEMI-FLUSH LIGHT
NO SCALE

- NOTES:
1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
 2. SEAL END OF CONDUIT (DUCT SEAL).
 3. PROVIDE 1/2" PER FT. PITCH ON ALL CONDUITS.

BASE MOUNTED UNIT
ELEVATED LIGHT
NO SCALE

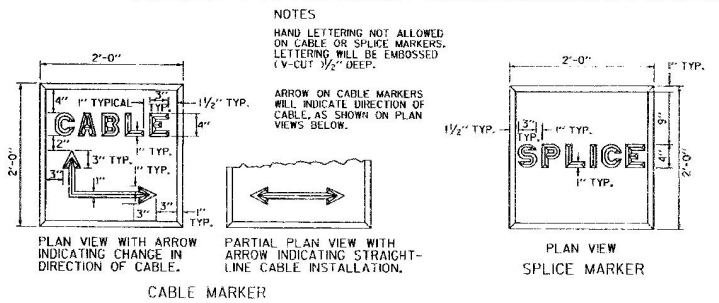


LIGHT LOCATION	LAMP		LENS
	MEDIUM INTENSITY	HIGH INTENSITY	
RUNWAY EDGE LIGHT	6.6A, 30W	6.6A, 150W	360° CLEAR/180° YELLOW
RUNWAY THRESHOLD LIGHT	6.6A, 45W	6.6A, 150W	180° RED/180° GREEN
		6.6A, 150W	360° RED
DISPLACED THRESHOLD LIGHT	6.6A, 30/45W		180° RED/180° CLEAR
			180° OBSCURED/180° GREEN
TAXIWAY LIGHT	6.6A, 30W		180° CLEAR/180° GREEN
			360° BLUE

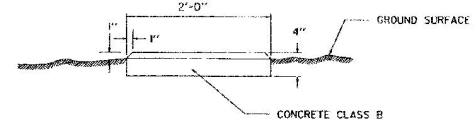
NOTES: 1. SEE PLAN SHEET FOR LENS/LIGHT TYPE.

NOTE: AIRPORT LIGHT BASES SHOULD BE CONSTRUCTED TO FAA SPECIFICATIONS. SEE CURRENT ADVISORY CIRCULAR.

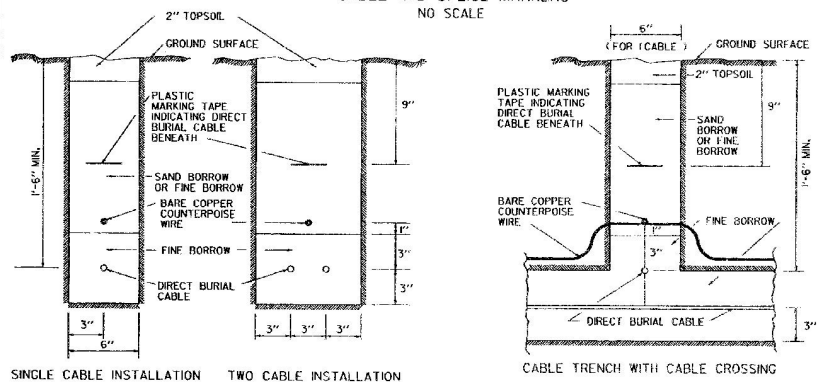
STAKE MOUNTED UNIT
ELEVATED LIGHT
NO SCALE



NOTE: SEE STANDARD AP-3 FOR UNDERGROUND ELECTRICAL DUCT DETAILS.



ELEVATION VIEW (TYPICAL FOR CABLE AND SPLICE MARKERS)
CABLE AND SPLICE MARKERS
NO SCALE



NOTE: FOR MULTIPLE-CABLE INSTALLATIONS, PROVIDE 3" ADDITIONAL TRENCH WIDTH FOR EACH ADDITIONAL CABLE.

NOTE: UNDERGROUND ELECTRICAL CABLE SHOULD BE CONSTRUCTED TO FAA SPECIFICATION. SEE CURRENT ADVISORY CIRCULAR.

UNDERGROUND ELECTRICAL CABLE INSTALLATION
TRENCH DETAILS
(IN EARTH OR ROCK)
NO SCALE

REVISIONS AND CORRECTIONS

DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAY 1, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

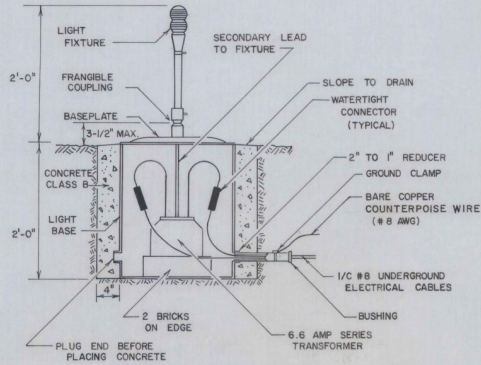
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FINAL APPROVAL PENDING.

[Signature]
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

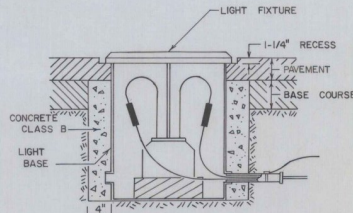
LIGHTING & ELECTRICAL DETAILS



**STANDARD
AP-2**



NOTES: 1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
2. SEAL END OF CONDUIT (DUCT SEAL).
3. PROVIDE 1/2" PER FT. PITCH ON ALL CONDUITS

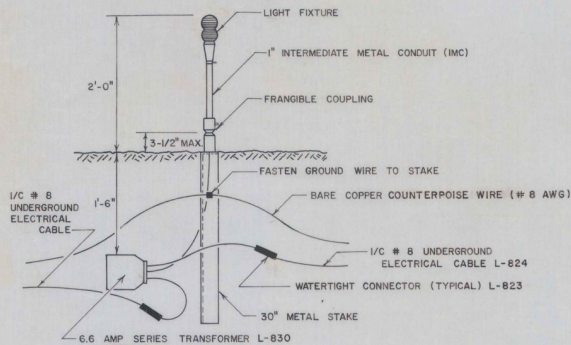


NOTE: FOR ALL OTHER DETAILS, SEE BASE MOUNTED UNIT FOR ELEVATED LIGHT.

BASE MOUNTED UNIT
SEMI-FLUSH LIGHT
NO SCALE

BASE MOUNTED UNIT

ELEVATED LIGHT
NO SCALE



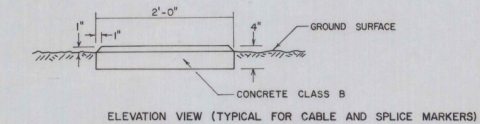
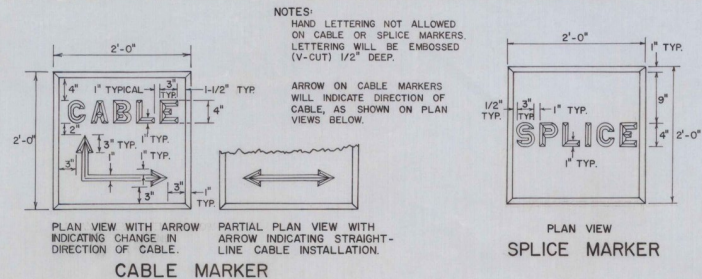
NOTES: 1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
2. 30" METAL STAKE SHALL BE MADE OF GALVANIZED STEEL ANGLE 2"x2"x3/16" WITH A SUITABLE TAPPED FITTING BOLTED AT THE TOP TO RECEIVE THE FRANGIBLE COUPLING.

STAKE MOUNTED UNIT

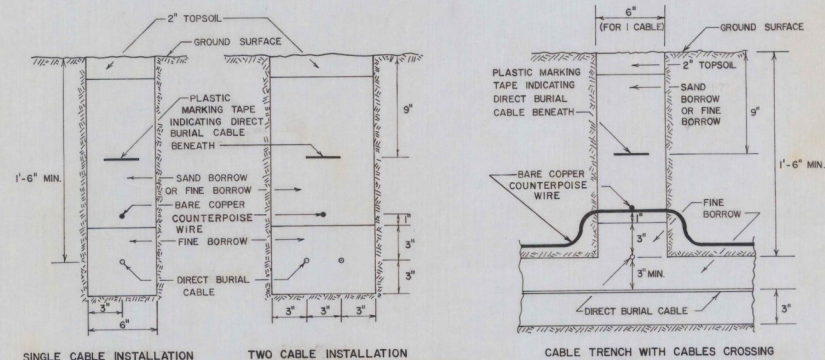
ELEVATED LIGHT
NO SCALE

LIGHT LOCATION	LAMP		LENS
	MEDIUM INTENSITY	HIGH INTENSITY	
RUNWAY EDGE LIGHT	6.6A, 30W	6.6A, 115-120W	360° CLEAR 180° CLEAR/180° YELLOW
RUNWAY THRESHOLD LIGHT	6.6A, 45W	6.6A, 115-120W	180° RED/180° GREEN 360° RED
DISPLACED THRESHOLD LIGHT	6.6A, 30/45W		180° RED/180° CLEAR 180° OBSCURED/180° GREEN 180° CLEAR/180° GREEN
TAXIWAY LIGHT	6.6A, 30W		360° BLUE

NOTES: 1. SEE PLAN SHEET FOR LENS/LIGHT TYPE.



CABLE AND SPlice MARKERS
NO SCALE



NOTE: FOR MULTIPLE-CABLE INSTALLATIONS, PROVIDE 3" ADDITIONAL TRENCH WIDTH FOR EACH ADDITIONAL CABLE.

UNDERGROUND ELECTRICAL CABLE INSTALLATION
TRENCH DETAILS
(IN EARTH OR ROCK)
NO SCALE

REVISIONS AND CORRECTIONS
11/30/82 TAXIWAY GUIDANCE SIGNS DETAIL DELETED, 20 AMP SERIES CIRCUIT REFERENCES DELETED, LENS-LAMP SELECTION TABLE REVISED, OTHER MINOR REVISIONS

APPROVED DEC. 15, 1981 DATE
DIR. OF ENGINEERING AND CONSTRUCTION
CHIEF OF DESIGN
SURVEY AND PLANS ENGINEER

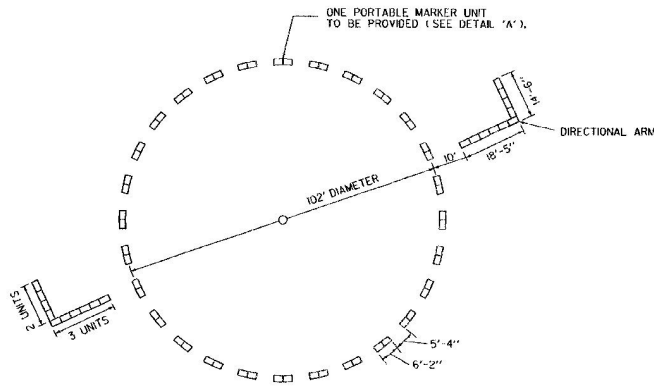
RUNWAY & TAXIWAY LIGHTING
UNDERGROUND ELECTRICAL CABLE INSTALLATION



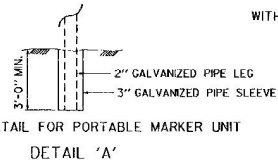
STANDARD
AP-2

NOTES

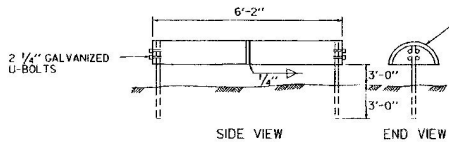
1. THE LOCATION OF THE PORTABLE MARKER UNIT SHALL BE AS ORDERED BY THE ENGINEER.
2. DIRECTIONAL ARMS ARE INSTALLED ONLY ON AIRPORTS WITH A NON-STANDARD TRAFFIC PATTERN (RIGHT-HAND PATTERN). WHEN INSTALLED, DIRECTIONAL ARMS WILL BE MAGNETICALLY ORIENTED TO THE RUNWAY AND WILL SHOW TRAFFIC PATTERN ON EACH RUNWAY.



SEGMENTED CIRCLE LAYOUT WITH DIRECTIONAL ARMS



LEG DETAIL FOR PORTABLE MARKER UNIT
DETAIL 'A'

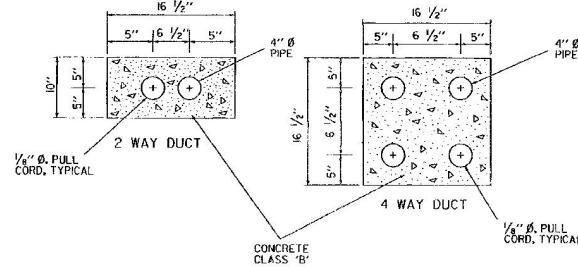


SEGMENTED CIRCLE MARKER UNIT

MARKER UNIT -- STANDARD 55 GALLON METAL DRUM, CUT IN HALF AND WELDED END TO END. MARKER UNITS TO BE PAINTED AVIATION ORANGE.

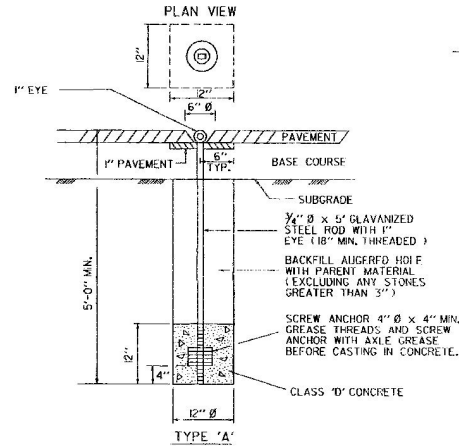
PORTABLE UNIT HAS LEGS OF 2" Ø GALVANIZED PIPE. STATIONARY UNITS HAVE LEGS OF 2" Ø GALVANIZED PIPE OR 1 1/2" x 3/8" L (GALV.).

SECTION A-A

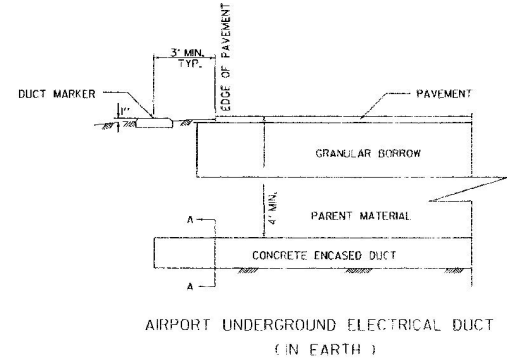


ALL DUCTS, EXCEPT STEEL CONDUIT, INSTALLED UNDER RUNWAYS, TAXIWAYS, APRONS, AND OTHER PAVED AREAS SHALL BE ENCASED IN A CONCRETE ENVELOPE

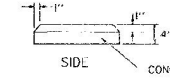
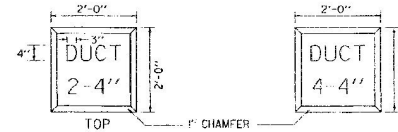
SEE STANDARD AP-2 FOR DIRECT BURIAL CABLE DETAILS.



AIRCRAFT TIE DOWN ANCHOR

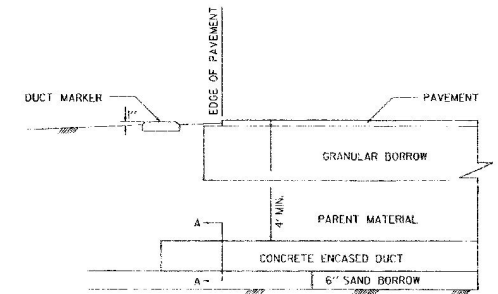


AIRPORT UNDERGROUND ELECTRICAL DUCT (IN EARTH)



DUCT MARKERS

- NOTES**
1. LETTERING ON DUCT MARKERS TO BE EMBOSSED, "V" CUT, 1/2" DEEP.
 2. HAND LETTERING NOT ALLOWED



AIRPORT UNDERGROUND ELECTRICAL DUCT (IN ROCK)

REVISIONS AND CORRECTIONS

- DEC. 15, 1981 - ORIGINAL APPROVAL DATE
- MAY 5, 1990 - SHEET UPDATED
- JULY 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FINAL APPROVAL PENDING.

W.S. [Signature]
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

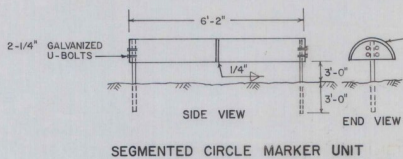
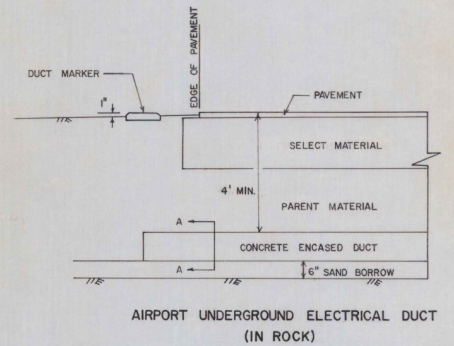
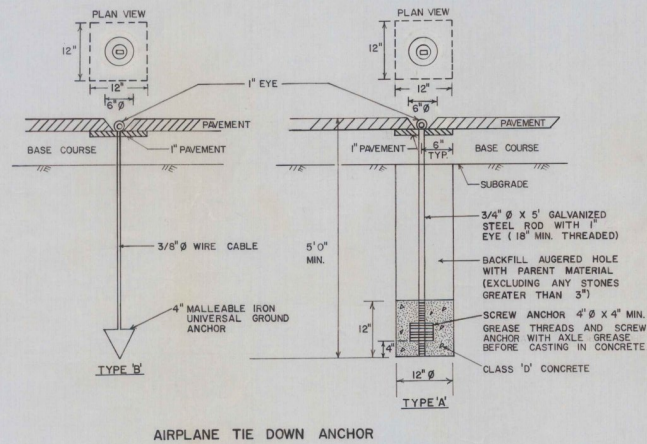
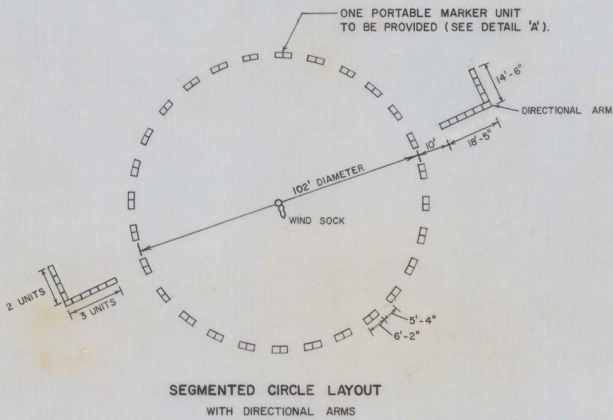
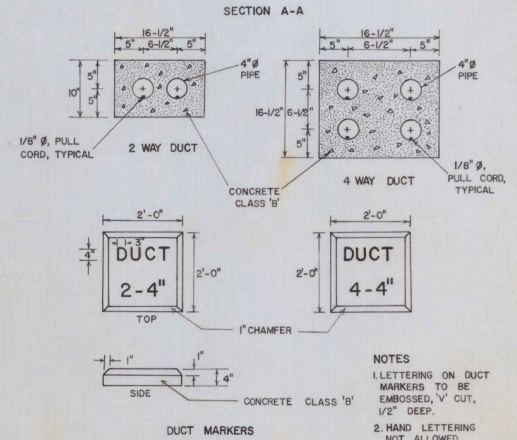
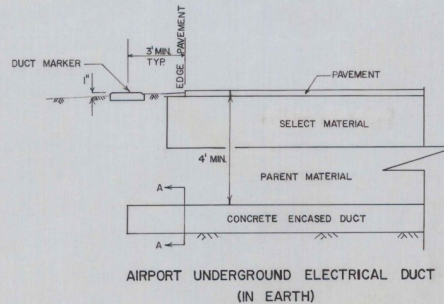
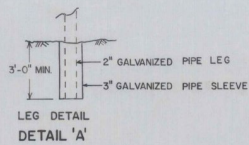
MISCELLANEOUS AIRPORT DETAILS



STANDARD AP-3

NOTES

1. THE LOCATION OF THE PORTABLE MARKER UNIT SHALL BE AS ORDERED BY THE ENGINEER.
2. DIRECTIONAL ARMS ARE INSTALLED ONLY ON AIRPORTS WITH A NON-STANDARD TRAFFIC PATTERN (RIGHT-HAND PATTERN). WHEN INSTALLED, DIRECTIONAL ARMS WILL BE MAGNETICALLY ORIENTED TO THE RUNWAY AND WILL SHOW TRAFFIC PATTERN ON EACH RUNWAY.



MARKER UNIT - STANDARD 55 GALLON METAL DRUM, CUT IN HALF AND WELDED END TO END. MARKER UNITS TO BE PAINTED AVIATION ORANGE.

PORTABLE UNIT HAS LEGS OF 2" Ø GALVANIZED PIPE. STATIONARY UNITS HAVE LEGS OF 2" Ø GALVANIZED PIPE OR 1-1/2" X 3/8" L (GALV.).

REVISIONS AND CORRECTIONS

APPROVED: _____ DATE: DEC. 15, 1981

DIR. OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

SURVEY AND PLANS ENGINEER

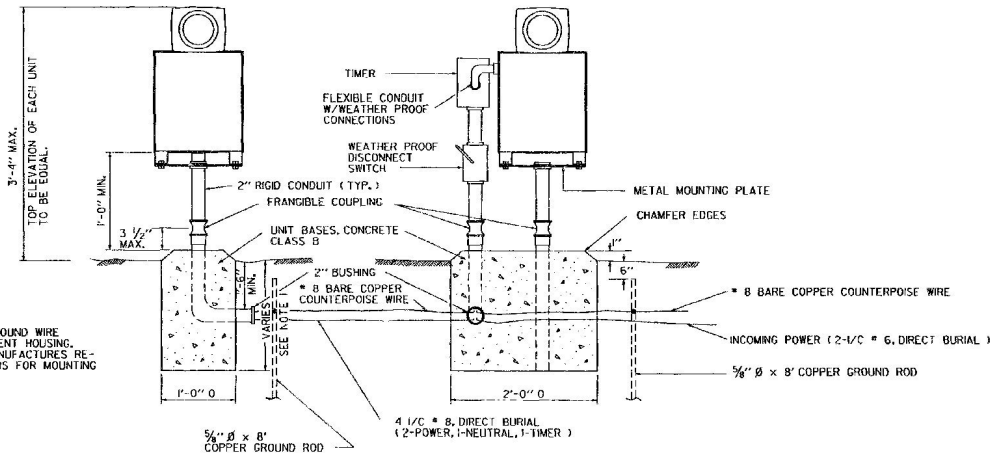
SEGMENTED CIRCLE
DIRECTIONAL ARMS
AIRPLANE TIE DOWN ANCHORS
AIRPORT UNDERGROUND ELECTRICAL DUCT



STANDARD
AP-3

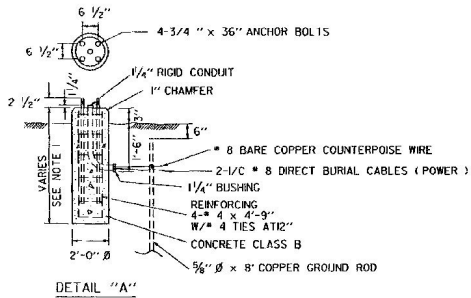
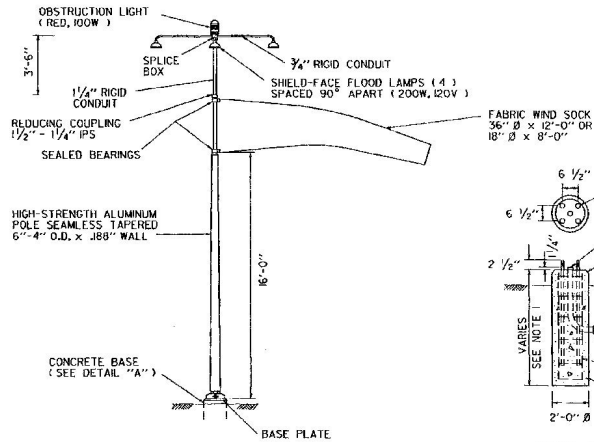
SLAVE UNIT

MASTER UNIT



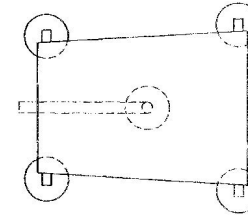
NOTES:
 1. TERMINATE GROUND WIRE INSIDE EQUIPMENT HOUSING. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR MOUNTING REIL UNITS.

RUNWAY END IDENTIFIER LIGHTS (REIL) L-849

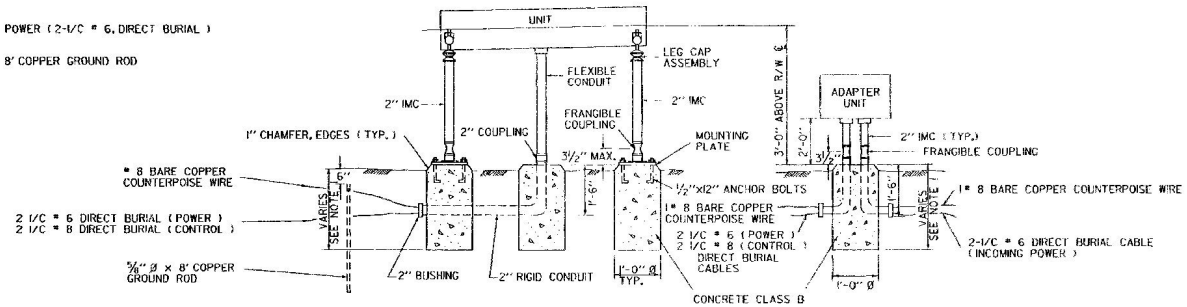


EIGHT FOOT OR TWELVE FOOT ILLUMINATED WIND CONE L-806

PLAN VIEW



NOTES:
 SYSTEM TO INCLUDE 2 OR 4 UNITS, SEE AIRPORT PLAN-LAYOUT SHEET FOR SYSTEM TO BE INSTALLED. ONE ADAPTER UNIT TO BE INSTALLED PER SYSTEM.



PRECISION APPROACH PATH INDICATOR (PAPI)
 L880 (4 LIGHT UNITS)
 L881 (2 LIGHT UNITS)

NOTES:
 1. ALL FOUNDATIONS SHOULD EXTEND ONE (1) FOOT BELOW AVERAGE FROST PENETRATION. (SEE STANDARD AP-1)
 2. TERMINATE COUNTERPOISE WIRES INSIDE EQUIPMENT HOUSING.

REVISIONS AND CORRECTIONS

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. EXTRA FORMAL APPROVAL PENDING.

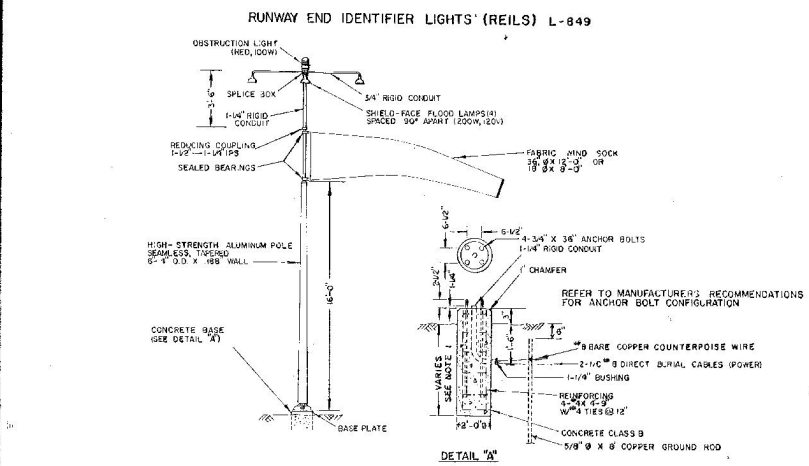
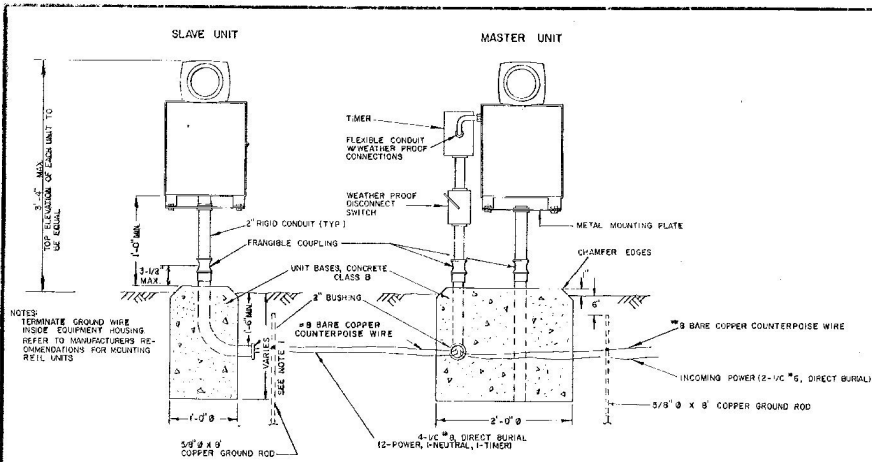
DIRECTOR OF RAIL, MAR AND PUBLIC TRANSPORT

VISUAL APPROACH AIDS

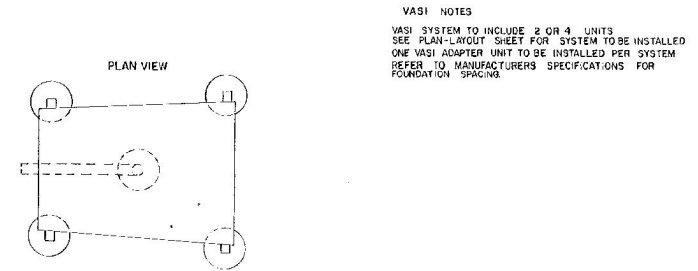


STANDARD
 AP-4

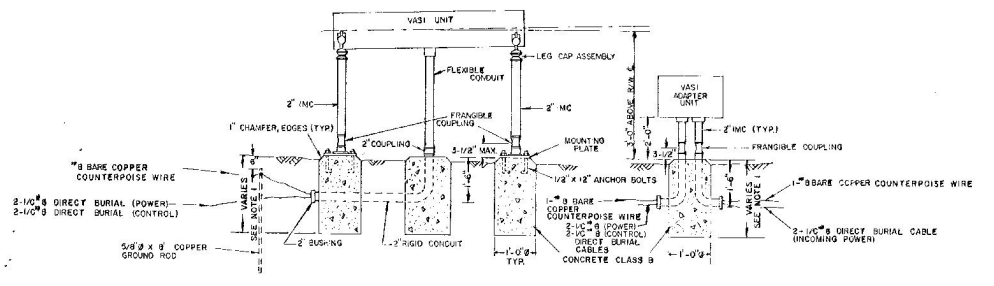
DEC. 15, 1981 - ORIGINAL APPROVAL DATE
 MAR. 5, 1990 - SHEET UPDATED
 JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.



EIGHT FOOT OR TWELVE FOOT ILLUMINATED WIND CONE L-107



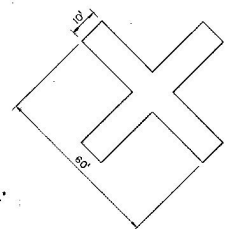
VASI NOTES
 VASI SYSTEM TO INCLUDE 2 OR 4 UNITS
 SEE PLAN-LAYOUT SHEET FOR SYSTEM TO BE INSTALLED
 ONE VASI ADAPTER UNIT TO BE INSTALLED PER SYSTEM
 REFER TO MANUFACTURERS SPECIFICATIONS FOR FOUNDATION SPACING.



VISUAL APPROACH SLOPE INDICATOR (VASI) L-851

NOTES:
 1. ALL FOUNDATIONS SHOULD EXTEND ONE (1) FOOT BELOW AVERAGE FROST PENETRATION.
 2. TERMINATE COUNTERPOISE WIRES INSIDE EQUIPMENT HOUSING.

CLOSED RUNWAY MARKER NOTES:
 1. MARKERS TO BE YELLOW PLYWOOD OR SNOW FENCE.
 2. MARKERS TO BE SUBSIDIARY TO OTHER PAY ITEMS.
 3. MARKERS TO BE PLACED OVER RUNWAY NUMERALS OR OFF RUNWAY ENDS AS APPLICABLE.
 4. MARKERS TO BE ANCHORED TO THE SATISFACTION OF THE ENGINEER.



CLOSED RUNWAY MARKER

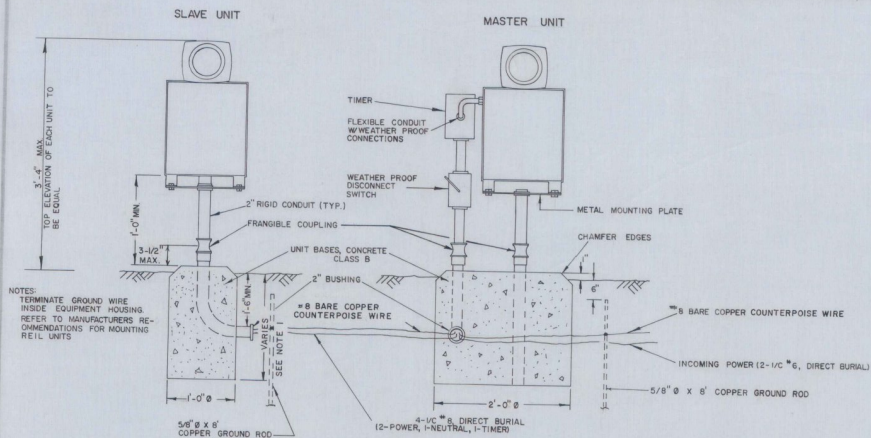
REVISIONS AND CORRECTIONS
 12/1/82 ADDED NOTE 1, OTHER MINOR REVISIONS
 11/30/83 ADDED CLOSED RUNWAY MARKER

APPROVED: **DEC 15, 1981**
 DATE
S.J. Opic
 DIR. OF ENGINEERING AND CONSTRUCTION
Arthur Jones
 CHIEF OF DESIGN
P. G. ...
 SURVEY AND PLANS ENGINEER

**VISUAL APPROACH AIDS
 CLOSED RUNWAY MARKER**

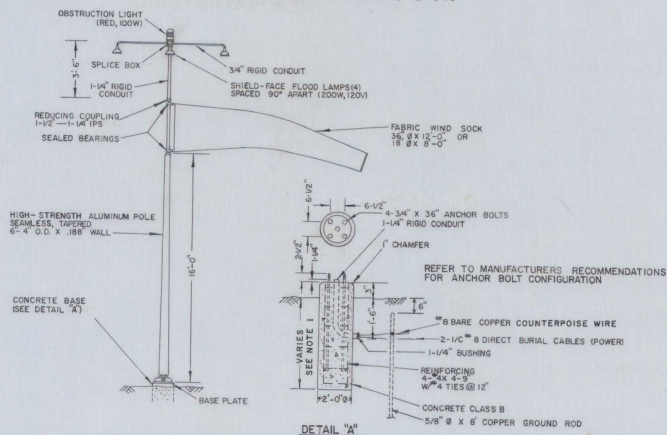


**STANDARD
 AP-4**

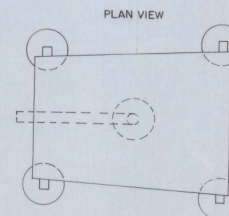


NOTES:
TERMINATE GROUND WIRE
INSIDE EQUIPMENT HOUSING
REFER TO MANUFACTURERS RE-
COMMENDATIONS FOR MOUNTING
REIL UNITS.

RUNWAY END IDENTIFIER LIGHTS (REILS) L-849

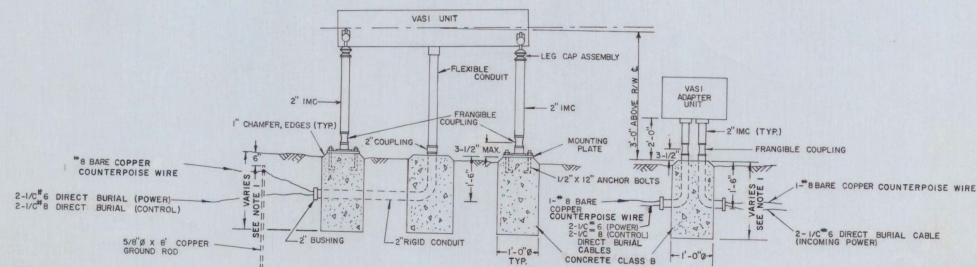


EIGHT FOOT OR TWELVE FOOT ILLUMINATED WIND CONE L-107



VASI NOTES

VASI SYSTEM TO INCLUDE 2 OR 4 UNITS
SEE PLAN-LAYOUT SHEET FOR SYSTEM TO BE INSTALLED
ONE VASI ADAPTER UNIT TO BE INSTALLED PER SYSTEM
REFER TO MANUFACTURERS SPECIFICATIONS FOR
FOUNDATION SPACING.



VISUAL APPROACH SLOPE INDICATOR (VASI) L-851

NOTES:

1. ALL FOUNDATIONS SHOULD EXTEND ONE (1) FOOT BELOW AVERAGE FROST PENETRATION.
2. TERMINATE COUNTERPOISE WIRES INSIDE EQUIPMENT HOUSING.

REVISIONS AND CORRECTIONS
12/1/82
ADDED NOTE 1, OTHER MINOR REVISIONS

APPROVED: _____ DEC. 15, 1981
DATE
S. J. Page
DIR. OF ENGINEERING AND CONSTRUCTION
Arthur J. Jones
CHIEF OF DESIGN
Survey and Plans Engineer

VISUAL APPROACH AIDS
CL



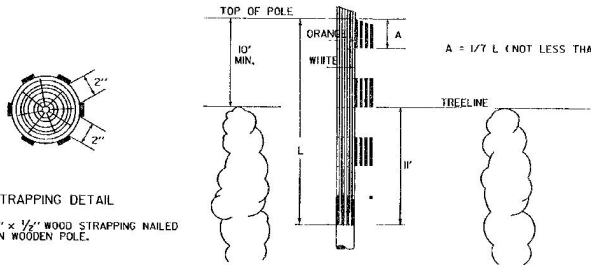
STANDARD
AP-4

TOWER HEIGHT	POLE CLASS
30'	5
40'	5
60'	4
70'	3
80'	2
90' +	1

TOWER STRAPPING AND PAINTING DETAIL

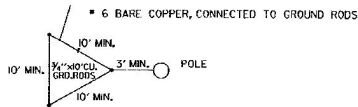
STRAPPING TO BE PAINTED INTERNATIONAL ORANGE AND WHITE

A = 1/7 L (NOT LESS THAN 3'-0")



STRAPPING DETAIL

2" x 1/2" WOOD STRAPPING NAILED ON WOODEN POLE.



TOWER GROUNDING DETAIL
LIGHTNING PROTECTION
(FOR ALL BEACONS)

300mm HAZARD BEACON MOUNTED ON PLATFORM WITH 4 - 3/4" Ø x 8" LONG GALV. STEEL BOLTS EQUIPPED WITH 2" x 2" x 1/4" WASHERS AND LOCK NUTS.

3/4" RIGID STEEL COND. W/2 1/2 NO. 12 RHW

PHOTO-ELECTRIC CONTACT AND MANUAL OVERRIDE SWITCH, MOUNTED ABOVE TREE LINE, NORTH SIDE.

OVERHEAD SECONDARY LEAD FROM TRANSFORMER

17 1/2" MIN. ABOVE GROUND LEVEL

2 SPOOL SERVICE SECONDARY RACK AND INSULATORS; 3/8" THRU-BOLTS AT TOP AND 3/4" x 4" GALV. LAG SCREWS AT BOTTOM

POLE STEPS, GALV. 5/8" x 10" STANDARD POLE STEPS 18" C-C, STAGGERED EACH SIDE, START 8' FROM GROUND ELEV.

NO. 2 BARE COPPER GROUND WIRE IN 1/2" EMT (POWER GROUND)

GROUND ROD 3/4" Ø x 8'

EXIST. GRD.

1'-0"

18" MIN.

8" MIN. LAG

6" MIN. LAG

HAZARD BEACON MOUNTING DETAIL (300 MM)

TAPERED 3/4" Ø x 44" COPPER LIGHTNING ROD

2 4" x 4" x 4'-6" CROSSARMS

3/4" Ø IRON BOLTS W/ 2" x 2" x 1/4" WASHER AND LOCK NUTS.

1" PIPE STRAP 4'-0" O-C AND AT NIPPLE

3/4" Ø 2 - 1/2" x 12 RHW

FLASHER

WEATHER-PROOF, SINGLE-POLE, 30A FUSED SAFETY SWITCH W/PADLOCK AND 2 KEYS *

* TO BE LOCATED 15'-20' FROM GRD. ELEV.

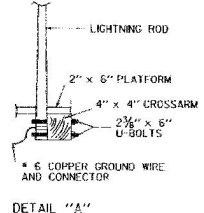
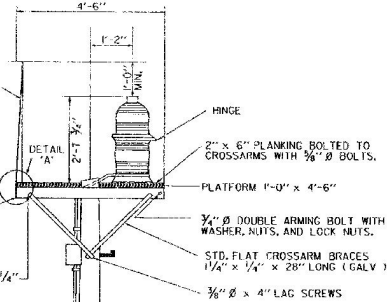
EXIST. GRD.

1'-0"

18" MIN.

8" MIN. LAG

6" MIN. LAG



DETAIL "A"

* 6 BARE STRANDED COPPER GROUND WIRE STAPLED TO TOWER (LIGHTNING PROTECTION) (SEE TOWER GROUNDING DETAIL)

NOTE: 'D/L' APPROXIMATELY 2:1 RATIO.

3" BOLT CLAMP

GUY WIRE, 3/4" Ø 7 STRAND

PORCELAIN INSULATOR

15" MIN.

16" x 16" PLATE ANCHOR IN EARTH EXPANSION TYPE ANCHOR IN LEDGE.

REVISIONS AND CORRECTIONS
DEC 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUN. 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.
[Signature]
DIRECTOR OF RAIL, AIR, AND PUBLIC TRANSIT

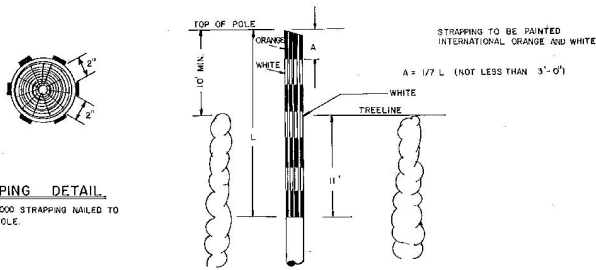
AIRPORT HAZARD BEACON
ON WOODEN TOWER



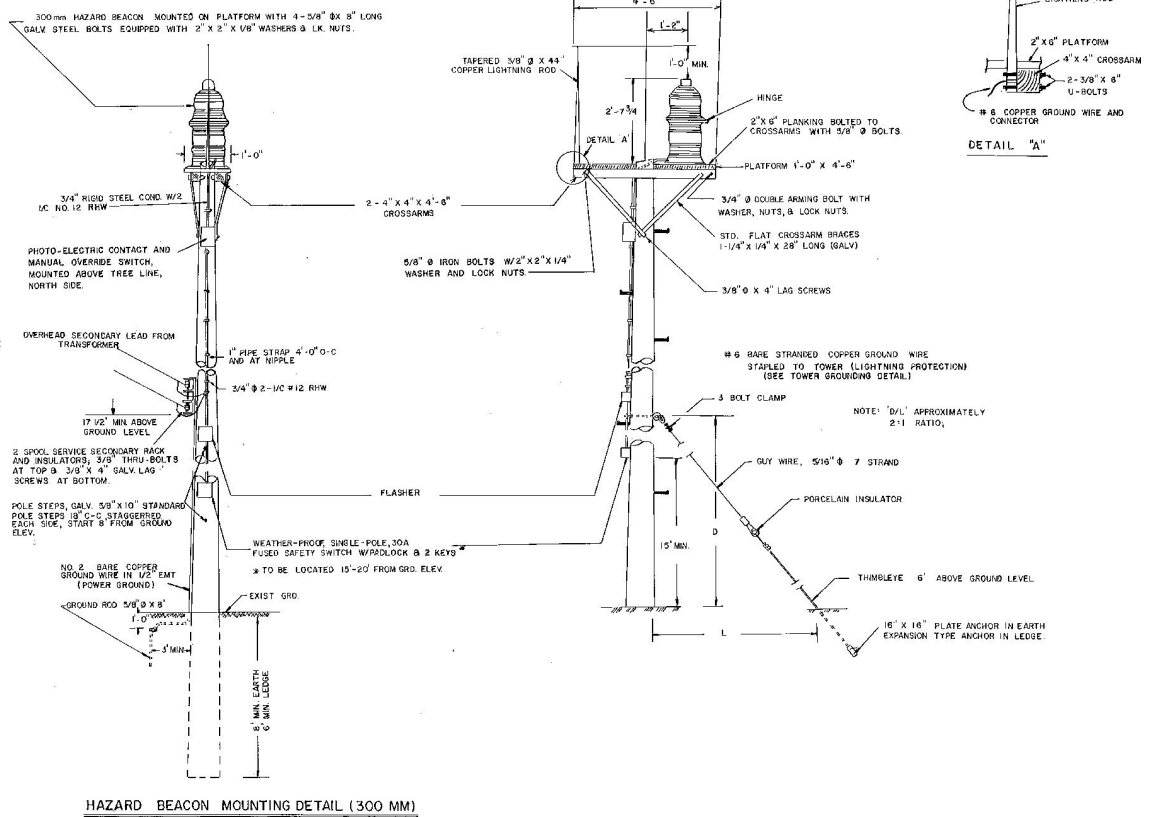
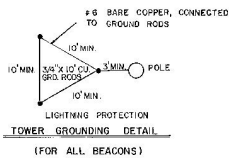
STANDARD
AP-6

TOWER HEIGHT	POLE CLASS
30'	5
40'	5
60'	4
70'	3
80'	2
90'	1

TOWER STRAPPING AND PAINTING DETAIL



STRAPPING DETAIL
2" X 1/2" WOOD STRAPPING NAILED TO WOODEN POLE.



HAZARD BEACON MOUNTING DETAIL (300 MM)

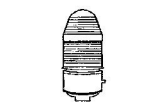
REVISIONS AND CORRECTIONS

APPROVED: DEC 15, 1981
DATE
E. J. Gage
DIRECTOR OF ENGINEERING AND
CONSTRUCTION
Robert Jones
CHIEF OF DESIGN
SURVEY AND PLANS ENGINEER

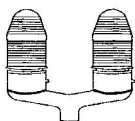
AIRPORT HAZARD BEACON ON WOODEN TOWER



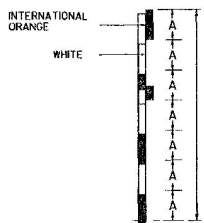
STANDARD
AP-6



SINGLE OBSTRUCTION LIGHT

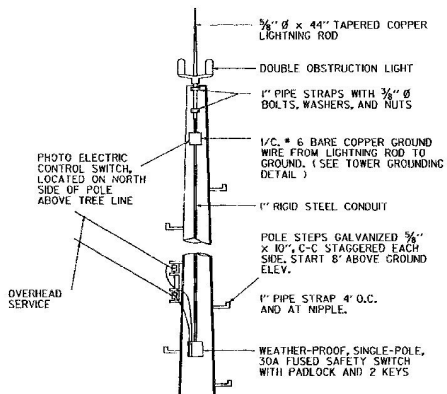


DOUBLE OBSTRUCTION LIGHT



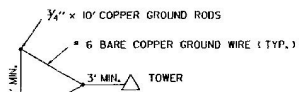
TOWER PAINTING DETAIL

$A = 1/7 L$



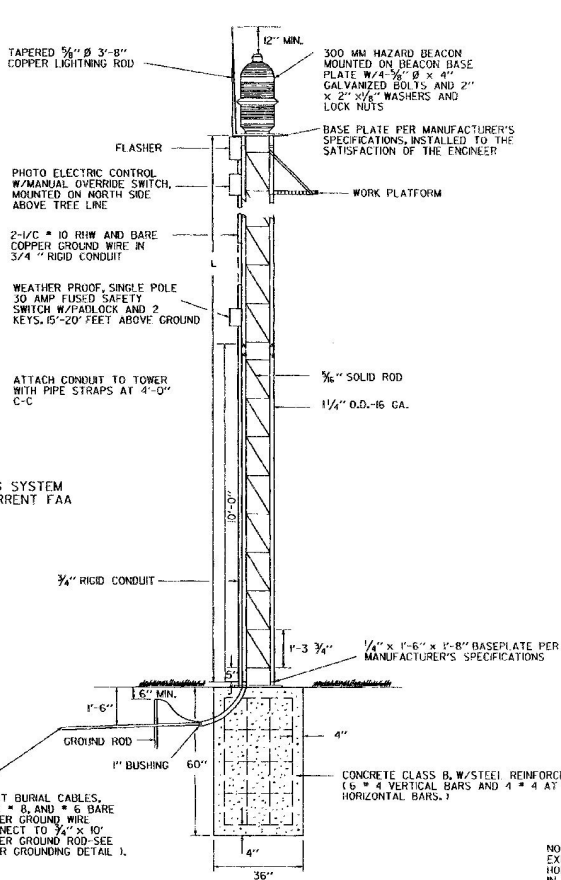
OBSTRUCTION LIGHT TYPICAL
(SHOWN ON WOODEN TOWER)

NOTE: OBSTRUCTION LIGHTING SYSTEM DESIGN BASED ON CURRENT FAA ADVISORY CIRCULAR.



TOWER GROUNDING DETAIL
(LIGHTNING PROTECTION)

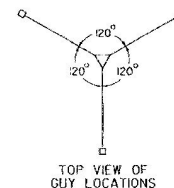
NOTE: USE A SEPARATE GROUND WIRE FROM LIGHTNING ROD TO GROUND (* 6 BARE COPPER).



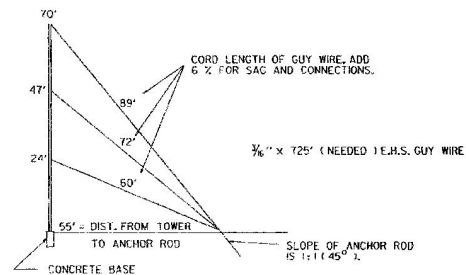
HAZARD BEACON, MOUNTED ON STEEL TOWER

NOTES:

TOWER HEIGHT TO BE AT LEAST 10' ABOVE TREE LINE.



TOP VIEW OF GUY LOCATIONS



GUY WIRE DETAIL

1" = 20'
SHOWN FOR 70' TOWER, REFER TO MANUFACTURER'S RECOMMENDATIONS FOR TOWERS OF OTHER HEIGHTS.

USE WRENCH TYPE SCREW ANCHORS IN GROUND, EXPANSION TYPE IN LEDGE.

NOTE: IN ROCK 3/4" x 3'-0" GALVANIZED STEEL, EXPANSION TYPE ANCHOR BOLTS MAY BE USED. HOLES FOR BOLTS DRILLED IN ROCK AND GROUTED IN PLACE.

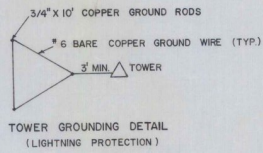
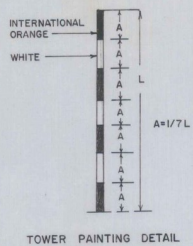
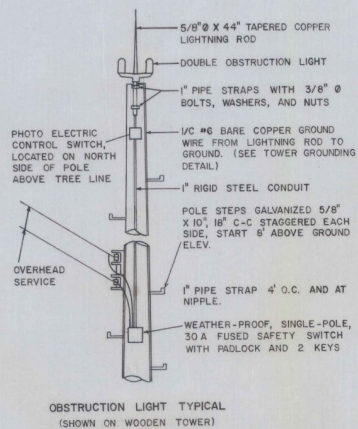
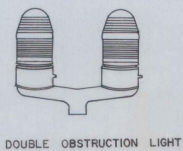
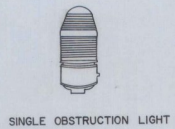
REVISIONS AND CORRECTIONS
DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION, WITH FINAL APPROVAL PENDING.
Lois B...
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

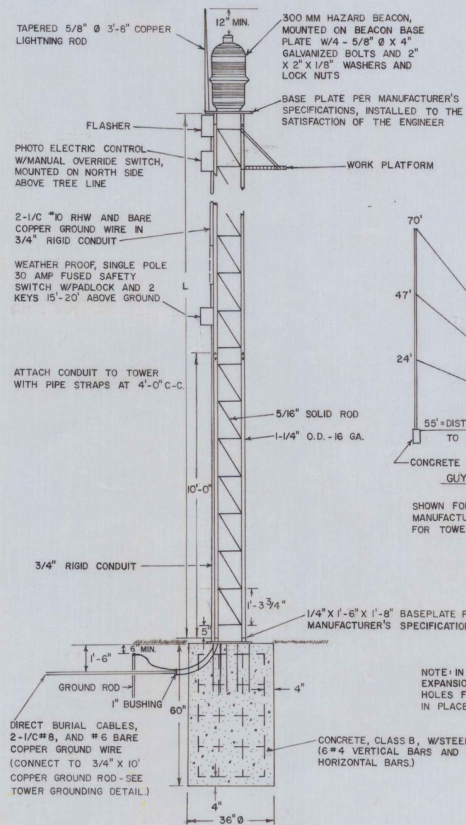
TOWER AND OBSTRUCTION LIGHTS



STANDARD
AP-7

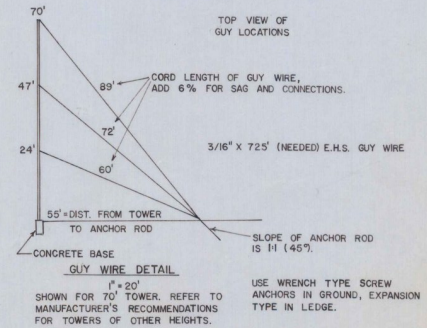
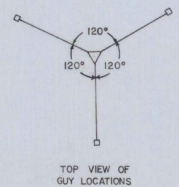


NOTE: USE A SEPARATE GROUND WIRE FROM LIGHTNING ROD TO GROUND (#6 BARE COPPER).



NOTES:

TOWER HEIGHT TO BE AT LEAST 10' ABOVE TREE LINE.



NOTE: IN ROCK 7/8" X 3'-0" GALVANIZED STEEL, EXPANSION TYPE ANCHOR BOLTS MAY BE USED. HOLES FOR BOLTS DRILLED IN ROCK AND GROUDED IN PLACE.

REVISIONS AND CORRECTIONS

APPROVED: *S. J. Page*
 DEC. 15, 1981
 DATE
 DIR. OF ENGINEERING AND CONSTRUCTION
 CHIEF OF DESIGN
 SURVEY AND PLANS ENGINEER

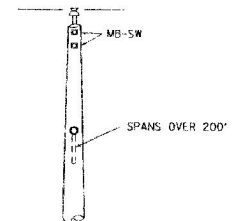
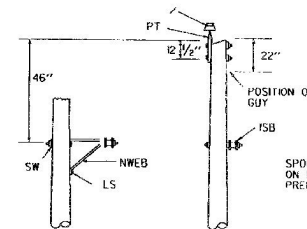
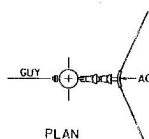
STEEL TOWER AND AIRPORT OBSTRUCTION LIGHTS



STANDARD AP-7

LEGEND

SI	SUSPENSION INSULATOR 4 1/2"
EB	EYE BOLT 3/4"
SW	SQUARE WASHER 2 1/2" x 2 1/2"
DEC	BOLTED DEAD END CLAMP
EN	EYE NUT
I	INSULATOR PIN TYPE
PT	POLE TOP PIN 20"
MB	MACHINE BOLT 3/4"
ISB	INSULATED SPOOL BOLT OR CLEVIS
NWEB	NEUTRAL WIRE EXTENSION BRACKET (SPAN OVER 200')
LS	LAG SCREW 1/2" x 4"
AC	ANGLE CLAMP
IC	INSULATED CLEVIS
AS REQUIRED USE DOUBLE COIL SPRING WASHERS	

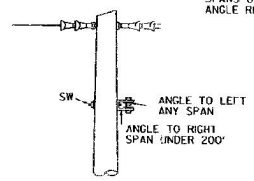
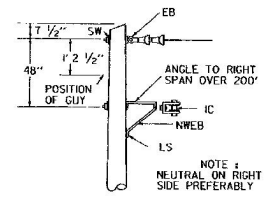
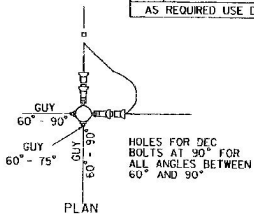
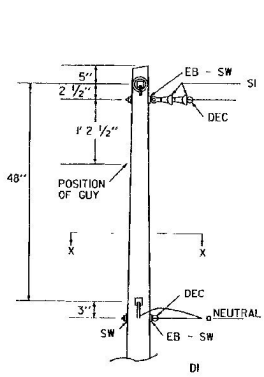


SPOOL OR CLEVIS ON RIGHT SIDE PREFERABLY

NOTE :
 0° - TANGENT POLE USE SPOOL
 1-20° ANGLE POLE USE CLEVIS

NOTE : FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"

NOTE : MAXIMUM ANGLE FOR # 1/0 G201 SAGGED AT 60 % OF ULTIMATE STRENGTH IS 16°



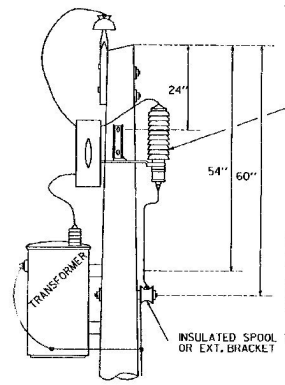
NOTE : NEUTRAL ON RIGHT SIDE PREFERABLY

NOTE : FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"

POLE LENGTH	CLASS	"D" MAX.	"L" MAX.
25'	6	17'	10'
30'	5	22'	11'
35'	5	27'	12.5'
40'	5	32'	12.5'

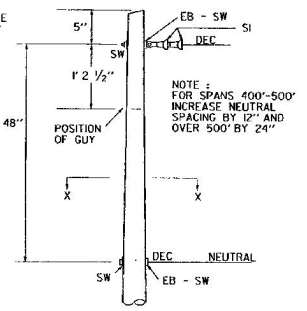
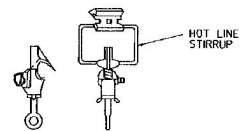
ALL WOOD POLES TO BE PRESSURE TREATED CREOSOTED SOUTHERN YELLOW PINE.

SECTION X-X

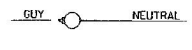
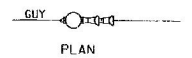


NOTE : MOUNTING HEIGHT FOR ALL SINGLE PHASE POLE MOUNTED TRANSFORMERS IS 54" FROM THE TOP OF THE POLE TO THE TOP TRANSFORMER MOUNTING BOLT.

FIELD CONDITIONS WILL GOVERN THE QUARTER OF THE POLE IN WHICH THE TRANSFORMER IS MOUNTED.

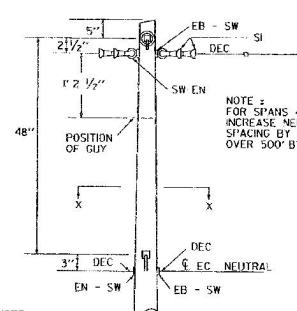


NOTE : FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"



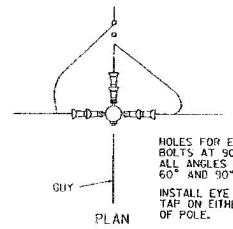
SECTION X-X

POWER LINE AND POLE DETAILS



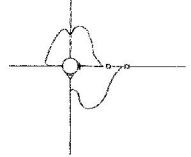
NOTE : FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"

NOTE : USE EXTENSION LINK TO INCREASE SPACING OF DISC INSULATORS FROM POLE, WHEN AVAILABLE.



HOLES FOR EYE BOLTS AT 90° FOR ALL ANGLES BETWEEN 60° AND 90°

INSTALL EYE NUTS FOR TAP ON EITHER QUARTER OF POLE.



SECTION X-X

REVISIONS AND CORRECTIONS

DEC. 15, 1981 - ORIGINAL APPROVAL DATE
 MAY 1, 1990 - SHEET UPDATED
 JULY 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION FROM FINAL APPROVAL PENDING.

W. B. Sullivan
 DIRECTOR OF RAIL AND PUBLIC TRANSIT

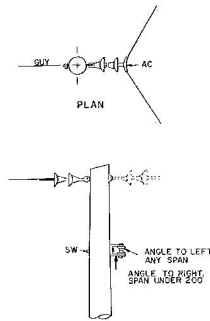
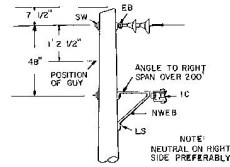
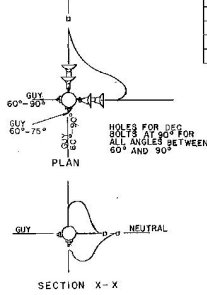
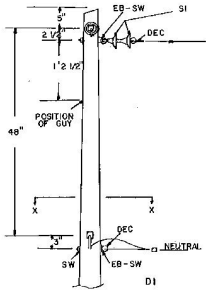
OVERHEAD POWER LINES AND GUYS



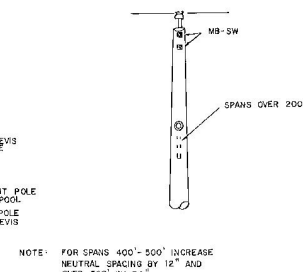
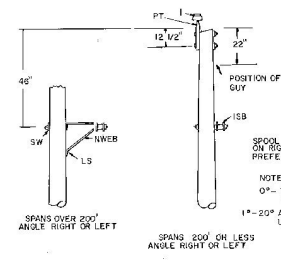
STANDARD AP-8

LEGEND

SI	SUSPENSION INSULATOR 4 1/2"
EB	EYE BOLT 5/8"
SW	SQUARE WASHER 2 1/2" x 2 1/2"
DEC	BOLTED DEAD END CLAMP
EN	EYE NUT
I	INSULATOR PIN TYPE
PT	POLE TOP PIN 20"
MB	MACHINE BOLT 5/8"
ISB	INSULATED SPOOL BOLT OR CLEVIS
NWEG	NEUTRAL WIRE EXTENSION BRACKET (SPAN OVER 200')
LS	LAG SCREW 1/2" x 4"
AC	ANGLE CLAMP
IC	INSULATED CLEVIS
AS	REQUIRED USE DOUBLE COIL SPRING WASHERS



NOTE: FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"



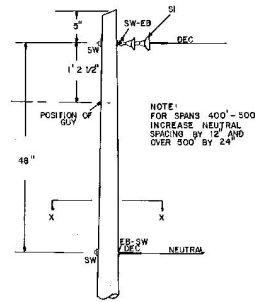
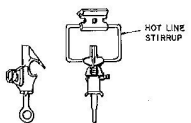
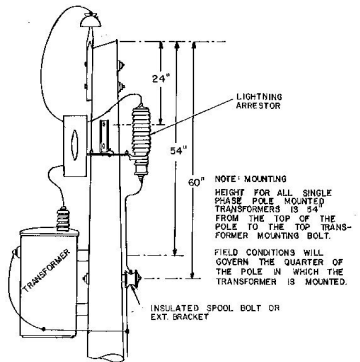
NOTE: FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"

NOTE: MAXIMUM ANGLE FOR #10-6201 SAGGED AT 60% OF ULTIMATE STRENGTH IS 16°

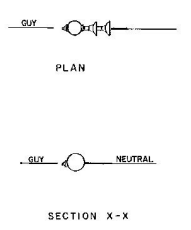
POLE LENGTH	CLASS	D' MAX.	L' MAX.
25'	6	17'	10'
30'	5	22'	11'
35'	5	27'	12.5'
40'	5	32'	12.5'

ALL WOOD POLES TO BE PRESSURE TREATED CROSCOTTED SOUTHERN YELLOW PINE.

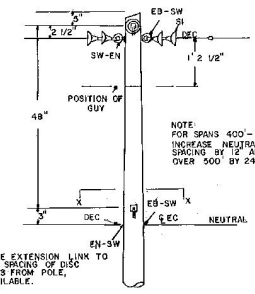
POWER LINE AND POLE DETAILS



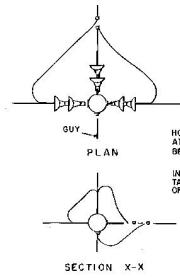
NOTE: FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"



NOTE: USE EXTENSION LINK TO INCREASE SPACING OF ISB INSULATORS FROM POLE, WHEN AVAILABLE.



NOTE: FOR SPANS 400'-500' INCREASE NEUTRAL SPACING BY 12" AND OVER 500' BY 24"



HOLES FOR EYE BOLTS AT 90° FOR ALL ANGLES BETWEEN 60° AND 90°. INSTALL EYE NUTS FOR TAP ON EITHER QUARTER OF POLE.

REVISIONS AND CORRECTIONS

APPROVED: DEC 19, 1993 DATE

DIRECTOR OF ENGINEERING AND CONSTRUCTION
[Signature]
CHIEF OF DESIGN

SURVEY AND PLANS ENGINEER

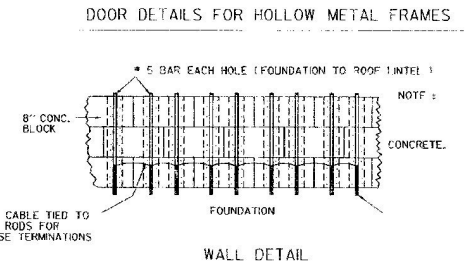
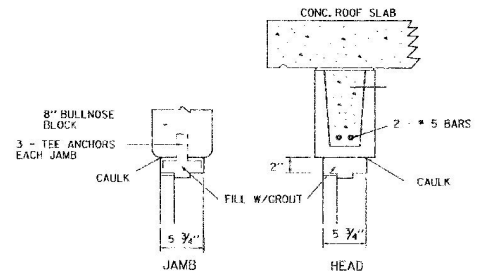
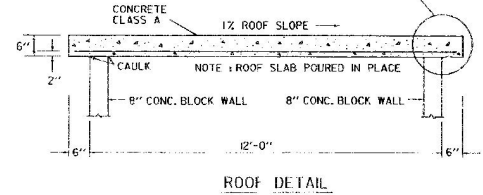
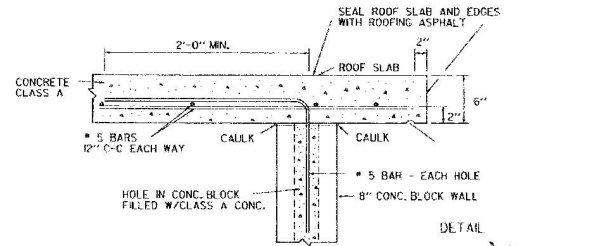
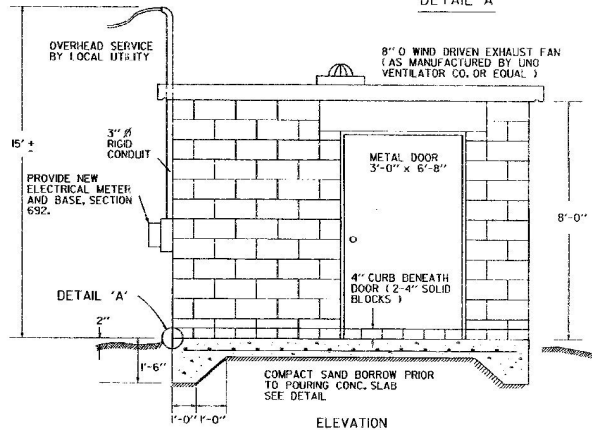
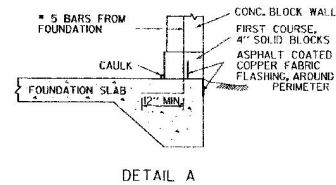
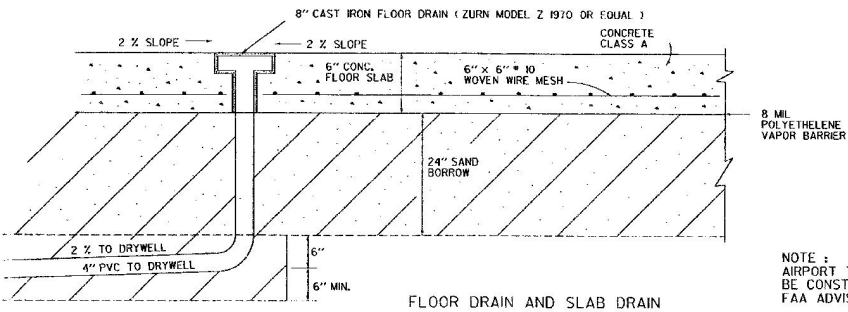
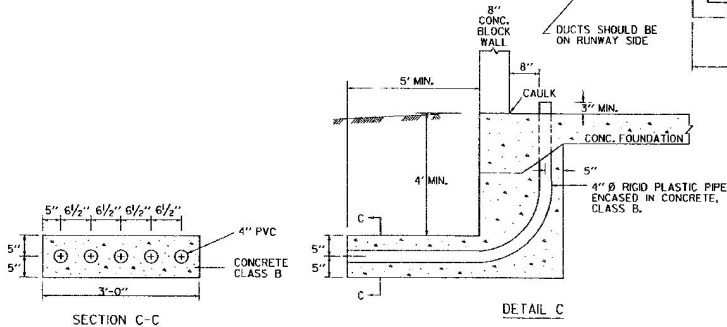
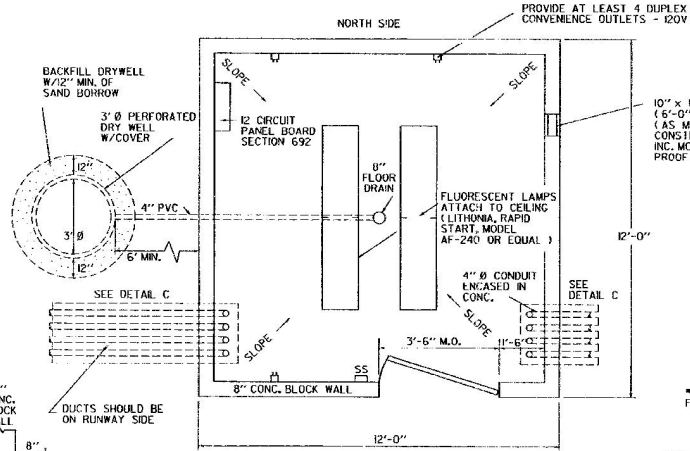
OVERHEAD POWER LINES AND GUYS



STANDARD AP-8

NOTES

- 1 MOUNT CONTACTORS, BOOSTER TRANSFORMERS AND MISC. HARDWARE ON SAME WALL AS NEW 12 CIRCUIT PANEL BOX.
- 2 PROVIDE GROUND BUS BENEATH 12 CIRCUIT PANEL BOX.
- 3 INSTALL ELECTRIC PANEL ON 3/4" PLYWOOD, SET OFF FROM WALL ON 2" x 4" S. ALL WOOD TO BE PAINTED.
- 4 PROVIDE AT LEAST 1/2 ROOF SLOPE (TO EAST).
- 5 FOUNDATION FLOOR TO SLOPE TO CENTER OF VAULT.
- 6 FIRST COURSE OF BLOCKS ON FOUNDATION TO BE TWO 4" SOLID BLOCKS WITH COPPER FABRIC FLASHING BETWEEN - SEE DETAIL A.
- 7 PROVIDE ALUMINUM BIRD AND INSECT SCREEN AT AIR INTAKE ON LOUVER AND EXHAUST VENT.
- 8 CAULK AT ALL METAL TO CONCRETE INTERFACES.
- 9 PROVIDE DOOR BUMPER ON WALL AND STRIKE SIDE OF JAMB.
- 10 ELECTRICAL PANEL BOARD AND METER INCLUDED IN AIRPORT TRANSFORMER VAULT EQUIP.
- 11 CONCRETE BLOCK WALLS AND CONCRETE CEILING SHALL BE SEALED WITH TWO COATS OF APPROVED SEALER, A FINAL COAT OF WHITE PAINT SHALL BE APPLIED OVER THE SEALER.
- 12 ALL CAULKING SHALL BE ASPHALTIC JOINT COMPOUND.



NOTE: AIRPORT TRANSFORMER HOUSING TO BE CONSTRUCTED AS PER CURRENT FAA ADVISORY CIRCULAR.

AIRPORT TRANSFORMER VAULT

REVISIONS AND CORRECTIONS

DEC. 15, 1981 - ORIGINAL APPROVAL DATE
 MAR. 1, 1990 - SHEET UPDATED
 JUN. 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION, FINAL APPROVAL PENDING.

W. J. Bunker
 DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

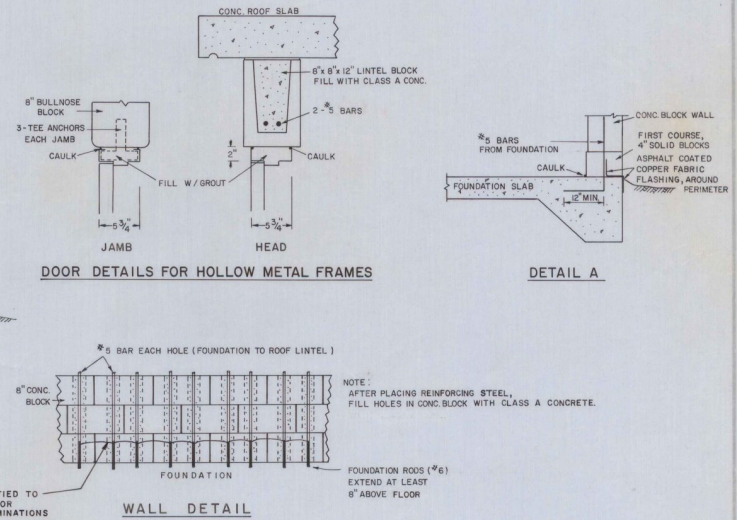
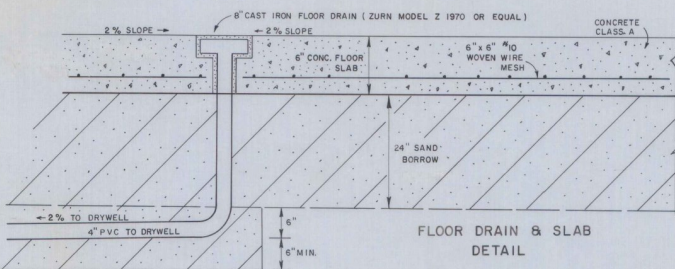
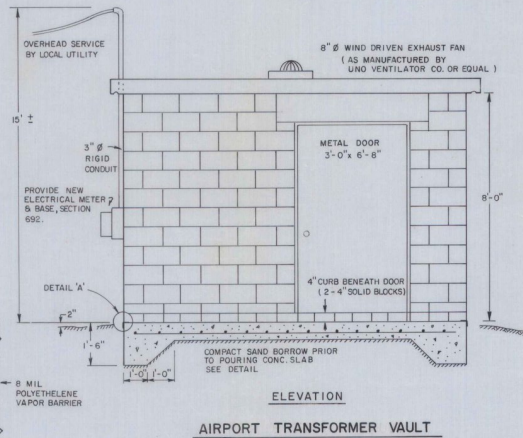
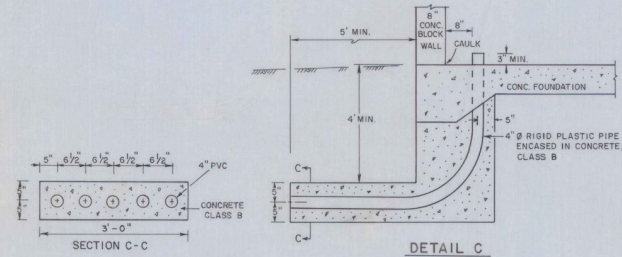
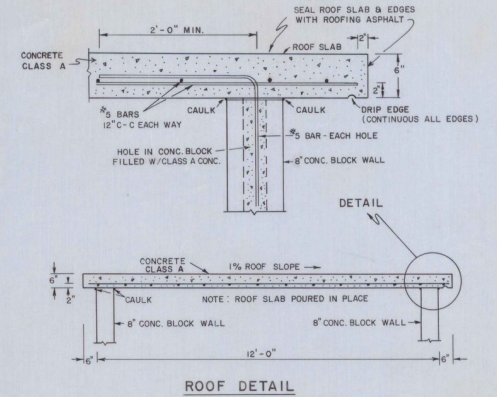
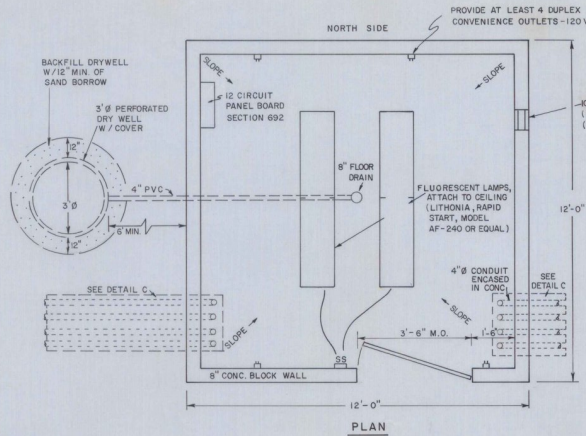
TRANSFORMER VAULT DETAILS



**STANDARD
 AP-9**

NOTES

- 1 MOUNT CONTACTORS, BOOSTER TRANSFORMERS & MISC. HARDWARE ON SAME WALL AS NEW 12 CIRCUIT PANEL BOX.
- 2 PROVIDE GROUND BUS BENEATH 12 CIRCUIT PANEL BOX.
- 3 INSTALL ELECTRIC PANEL ON 3/4" PLYWOOD, SET OFF FROM WALL ON 2"x4"s. ALL WOOD TO BE PAINTED PER SECTION 513.
- 4 PROVIDE AT LEAST 1% ROOF SLOPE (TO EAST).
- 5 FOUNDATION FLOOR TO SLOPE TO CENTER OF VAULT.
- 6 FIRST COURSE OF BLOCKS ON FOUNDATION TO BE TWO 4" SOLID BLOCKS WITH COPPER FABRIC FLASHING BETWEEN - SEE DETAIL A.
- 7 PROVIDE ALUMINUM BIRD AND INSECT SCREEN AT AIR INTAKE ON LOUVER & EXHAUST VENT.
- 8 CAULK AT ALL METAL TO CONCRETE INTERFACES.
- 9 PROVIDE DOOR BUMPER ON WALL AND STRIKE SIDE OF JAMB.
- 10 ELECTRICAL PANEL BOARD & METER INCLUDED IN SECTION 692, AIRPORT TRANSFORMER VAULT EQUIP.
- 11 CONCRETE BLOCK WALLS AND CONCRETE CEILING SHALL BE SEALED WITH TWO COATS OF APPROVED SEALER. A FINAL COAT OF WHITE PAINT SHALL BE APPLIED OVER THE SEALER.
- 12 ALL CAULKING SHALL BE ASPHALTIC JOINT COMPOUND.



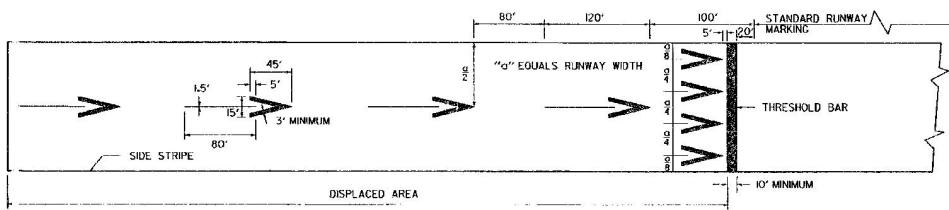
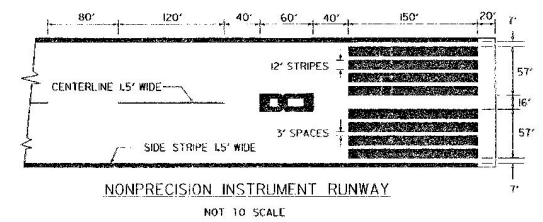
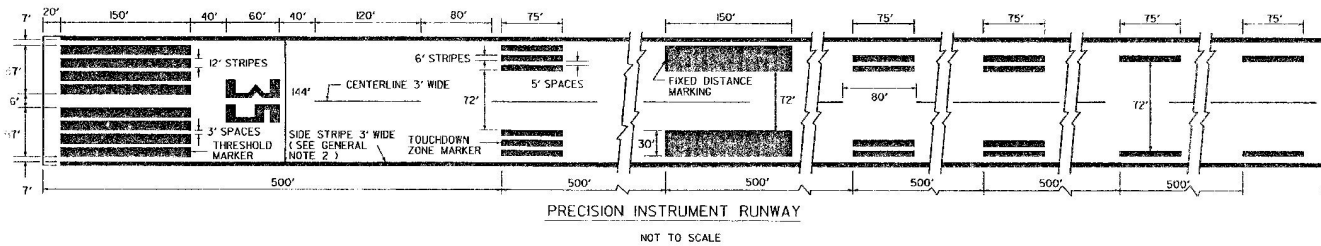
**AIRPORT TRANSFORMER VAULT
AIRPORT TRANSFORMER VAULT EQUIPMENT**



**STANDARD
AP-9**

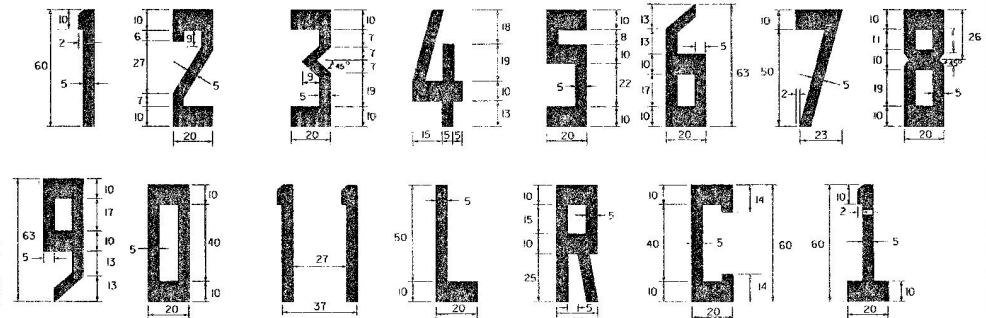
REVISIONS AND CORRECTIONS
12/1/82 ADDED COUNTERPOISE TERMINATION DETAIL

APPROVED: DEC. 15, 1991 DATE
S.J. Gagne
DIR. OF ENGINEERING AND CONSTRUCTION
Arthur Stone
CHIEF OF DESIGN
Survey and Plans Engineer



NOTES

1. FOUR ARROWHEADS ARE PLACED SYMMETRICALLY ACROSS RUNWAY WITH UNIFORM LATERAL SPACING AS INDICATED.
2. ALL MARKINGS IN THE DISPLACED AREA ARE YELLOW EXCEPT THE THRESHOLD BAR WHICH IS WHITE.
3. RUNWAY SIDE STRIPES, WHEN USED ON THE RUNWAY, EXTEND INTO THE DISPLACED AREA.



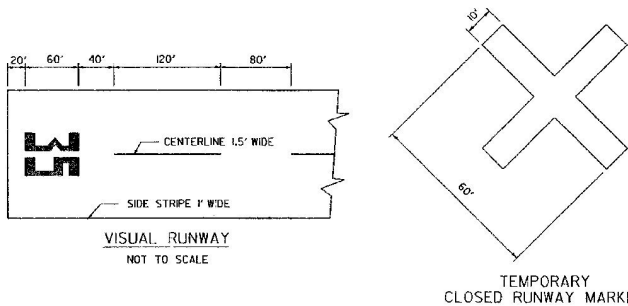
NOTES

1. ALL LETTERS AND NUMERALS, EXCEPT THE NUMBER ELEVEN AS SHOWN, ARE HORIZONTALLY SPACED 15 FEET APART.
2. DIMENSIONS ARE EXPRESSED IN FEET.
3. THE NUMERAL ONE, WHEN USED ALONE, CONTAINS A HORIZONTAL BAR TO DIFFERENTIATE IT FROM THE RUNWAY CENTERLINE MARKING.

GENERAL NOTES

1. ALL RUNWAY MARKINGS ARE WHITE EXCEPT IN THE DISPLACED THRESHOLD AREA AND NON FULL STRENGTH SHOULDER MARKINGS.
2. FOR RUNWAYS LESS THAN 150' IN WIDTH, THE WIDTH OF THE MARKINGS, SPACES BETWEEN MARKINGS, AND DISTANCE OF MARKINGS FROM THE RUNWAY EDGE ARE CHANGED PROPORTIONALLY.
3. ADJUSTMENTS TO THE LENGTH OF THE CENTERLINE STRIPES AND GAPS, WHERE NECESSARY TO ACCOMMODATE THE RUNWAY LENGTH, ARE MADE NEAR THE RUNWAY MIDPOINT.
4. ALL RUNWAY MARKINGS ARE TO BE STRIATED WITH ALL STRIPES AND SPACES EQUAL IN WIDTH (1/4" TO 5/8").

NOTE 1:
MARKING OF RUNWAY SHOULD BE BASED ON FAA SPECIFICATIONS.
SEE CURRENT FAA ADVISORY CIRCULAR.



- TEMPORARY CLOSED RUNWAY MARKER NOTES :**
1. MARKERS TO BE YELLOW PLYWOOD OR SNOW FENCE.
 2. MARKERS TO BE SUBSIDIARY TO OTHER PAVEMENT ITEMS.
 3. MARKERS TO BE PLACED OVER RUNWAY NUMERALS OR OFF THE RUNWAY ENDS AS APPLICABLE.
 4. MARKERS TO BE ANCHORED TO THE SATISFACTION OF THE ENGINEER.

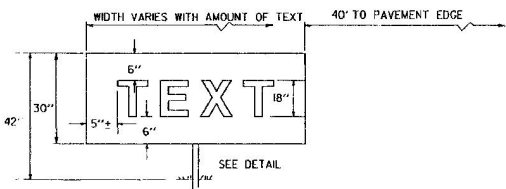
REVISIONS AND CORRECTIONS
JULY 29, 1982 - ORIGINAL APPROVAL DATE
MAY 1, 1990 - SHEET UPDATED
JULY 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION.
FINAL APPROVAL PENDING.
[Signature]
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

RUNWAY MARKING DETAILS

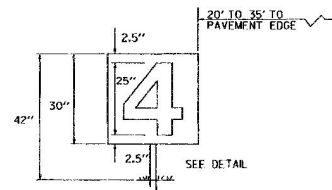
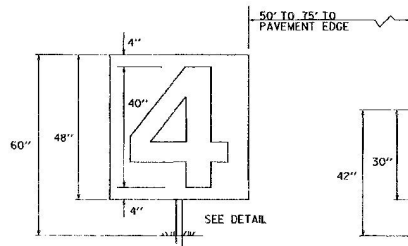


**STANDARD
AP-10**



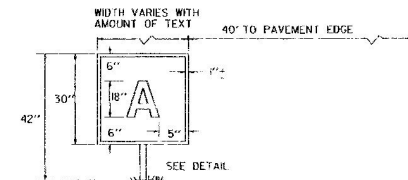
MANDATORY SIGNS

- MANDATORY SIGNS HAVE WHITE INSCRIPTIONS ON A RED BACKGROUND
- SIGNS TO BE LIGHTED WHEN USED ON CERTIFICATED AIRPORTS OR OTHER AIRPORTS HAVING INSTRUMENT OPERATIONS.
- UNLIGHTED, RETROREFLECTIVE SIGNS MAY BE USED AT GENERAL AVIATION AIRPORTS HAVING ONLY VISUAL FLIGHT (VFR) OPERATIONS.



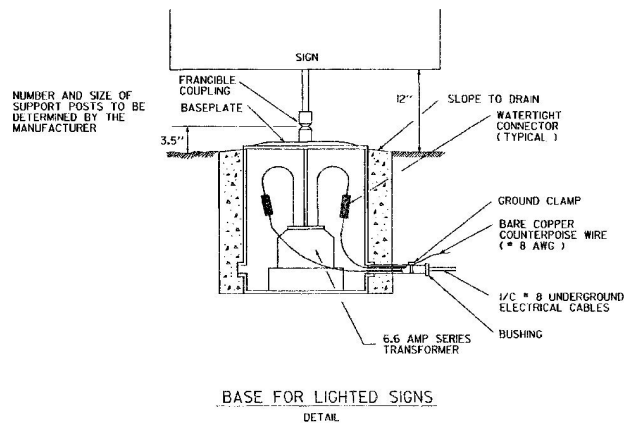
RUNWAY DISTANCE REMAINING SIGNS

- SIGNS HAVE WHITE INSCRIPTIONS ON A BLACK BACKGROUND.
- LARGE SIGNS USED IF PLACED 50 TO 75 FEET FROM PAVEMENT EDGE.
- SMALL SIGNS USED IF PLACED 20 TO 35 FEET FROM PAVEMENT EDGE.
- SIGN SIZE SHOULD BE CONSISTANT ALONG LENGTH OF EACH RUNWAY.
- ONLY LIGHTED SIGNS ARE USED FOR RUNWAY DISTANCE REMAINING SIGNS.
- SIGNS TO BE DOUBLE-SIDED, PREFERABLY LOCATED ON THE LEFT SIDE OF RUNWAY AS VIEWED FROM THE MOST OFTEN USED DIRECTION.

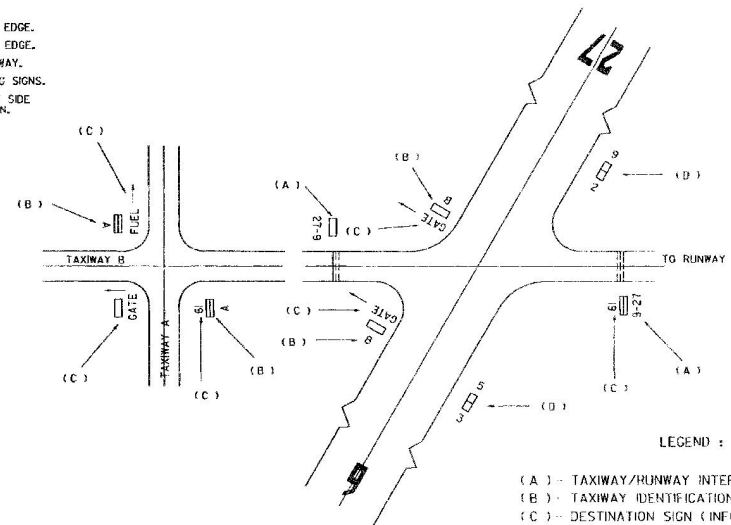


INFORMATION SIGNS

- INFORMATION SIGNS HAVE BLACK INSCRIPTIONS ON A YELLOW BACKGROUND, AND HAVE A BLACK BORDER.



BASE FOR LIGHTED SIGNS
DETAIL



LEGEND :

- (A) - TAXIWAY/RUNWAY INTERSECTION SIGN (MANDATORY TYPE)
- (B) - TAXIWAY IDENTIFICATION SIGN (INFORMATION TYPE)
- (C) - DESTINATION SIGN (INFORMATION TYPE)
- (D) - RUNWAY DISTANCE REMAINING SIGN

TYPICAL SIGN APPLICATIONS

REFER TO CURRENT FAA ADVISORY CIRCULAR .

REVISIONS AND CORRECTIONS

- MAR. 1, 1990 - SHEET UPDATED
- JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

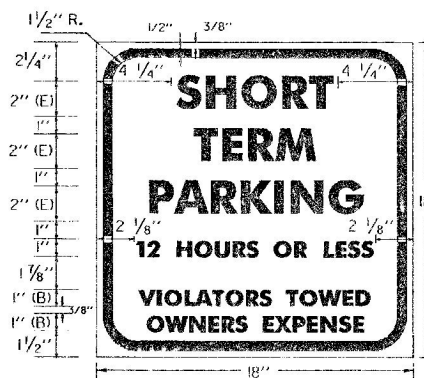
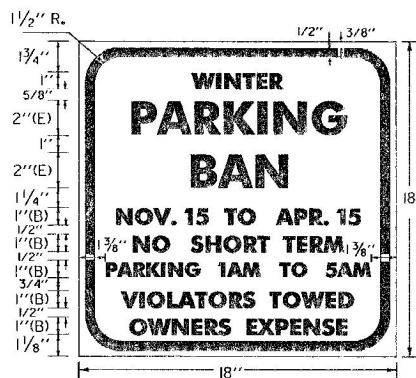
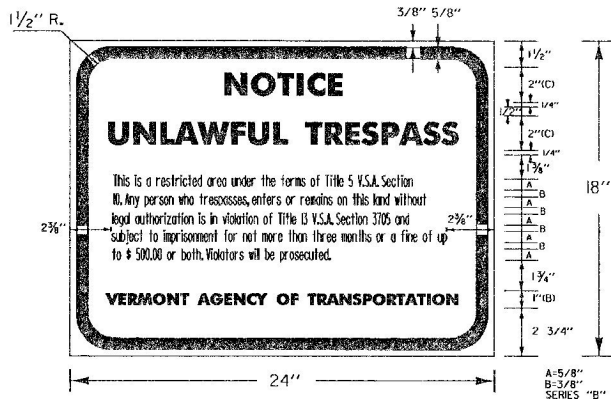
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FINAL APPROVAL PENDING.

W. S. [Signature]
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

SIGN SYSTEMS



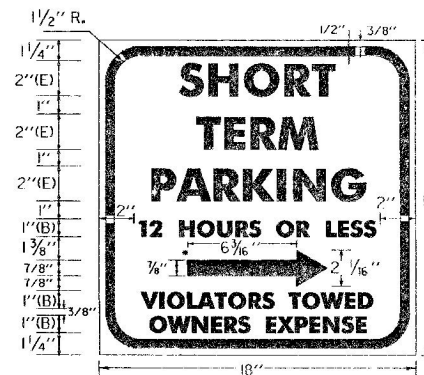
STANDARD
AP-12



COLORS:
THIS WARNING SIGN SHALL HAVE BLACK TEXT ON REFLECTORIZED YELLOW BACKGROUND. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:
THE SIGN BASE MATERIAL USED FOR THE WARNING SIGN SHOWN MAY BE ANY OF THE FOLLOWING, OF THE MINIMUM THICKNESS NOTED.

FLAT SHEET ALUMINUM	18" X 24"	0.080
HIGH DENSITY OVERLAD PLYWOOD	1/2"	16 GAGE
GALVANIZED FLAT SHEET STEEL		



COLORS:
THESE REGULATORY SIGNS SHALL HAVE BLACK TEXT ON REFLECTORIZED WHITE BACKGROUND. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:
THE SIGN BASE MATERIAL USED FOR THE REGULATORY SIGNS SHOWN MAY BE ANY OF THE FOLLOWING, OF THE MINIMUM THICKNESS NOTED.

FLAT SHEET ALUMINUM	18" X 24"	0.080
HIGH DENSITY OVERLAD PLYWOOD	1/2"	16 GAGE
GALVANIZED FLAT SHEET STEEL		

* ARROW TO POINT LEFT OR RIGHT AS REQUIRED

GENERAL NOTES:

1. THE REFLECTIVE MATERIAL SHALL BE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.
2. THE TEXT OF THE SIGNS MAY BE LETTERING FILM SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.
3. TEXT DESIGN:
LETTERS, ARROWS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. SPECIFICATIONS
WARNING SIGNS AND REGULATORY SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

REVISIONS AND CORRECTIONS

MAY 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

APPROVED FOR THIS PROJECT
(AND/OR DESIGN IMPLEMENTATION,
FHWV FINAL APPROVAL PENDING.)
[Signature]
DIRECTOR OF RAILROAD AND PUBLIC TRANSIT

AIRPORT SIGNS



**STANDARD
AP-13**

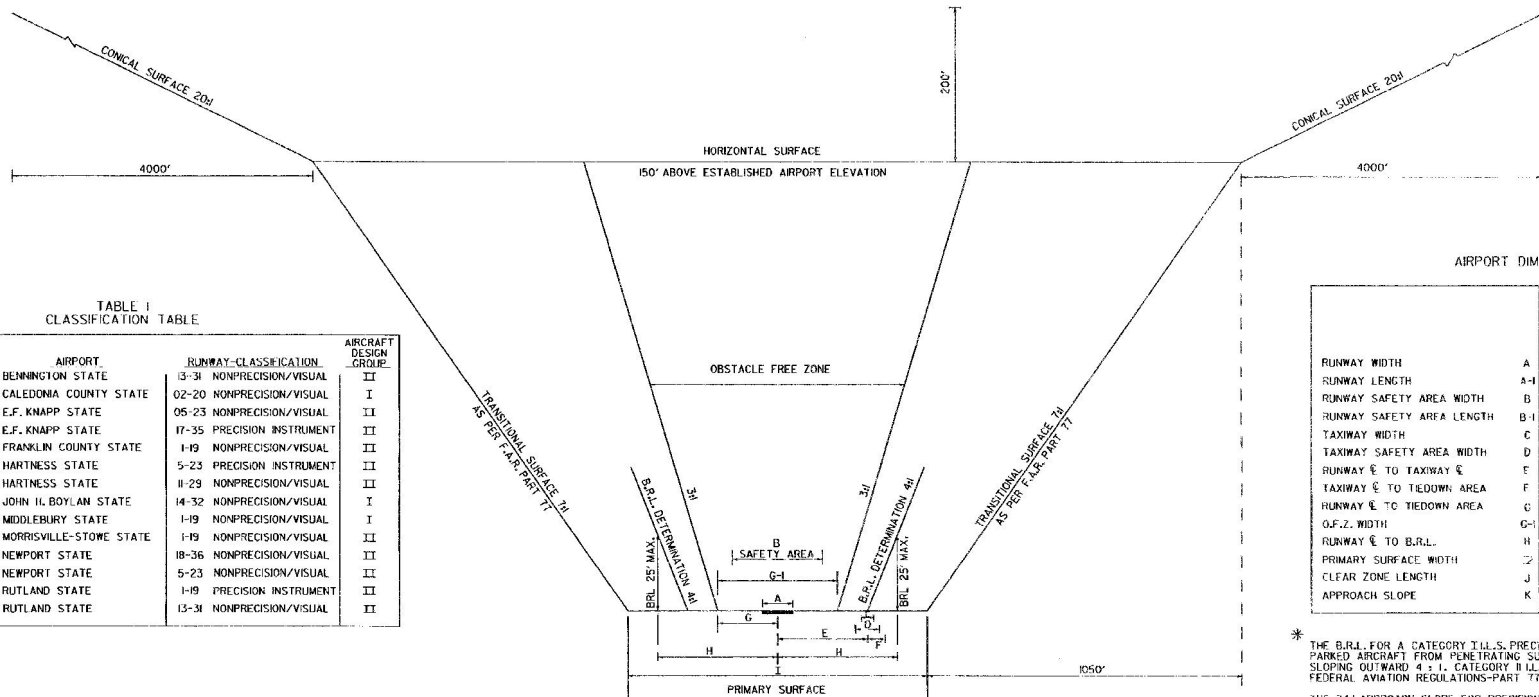


TABLE 1
CLASSIFICATION TABLE

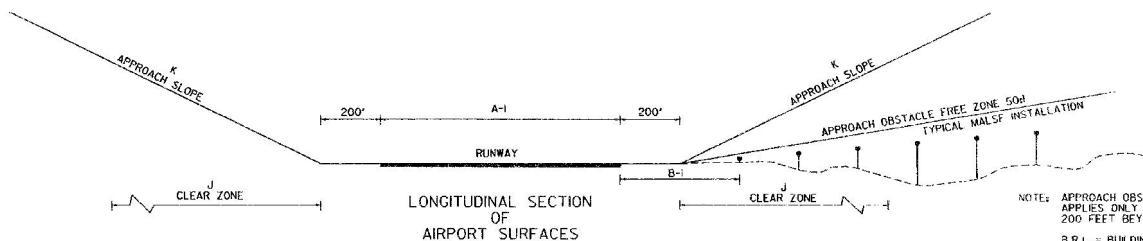
AIRPORT CLASSIFICATION	AIRPORT	RUNWAY CLASSIFICATION	AIRCRAFT DESIGN GROUP
GENERAL UTILITY STAGE I	BENNINGTON STATE	13-31 NONPRECISION/VISUAL	II
BASIC UTILITY STAGE II	CALEDONIA COUNTY STATE	02-20 NONPRECISION/VISUAL	I
GENERAL UTILITY STAGE II	E.F. KNAPP STATE	05-23 NONPRECISION/VISUAL	II
GENERAL UTILITY STAGE II	E.F. KNAPP STATE	17-35 PRECISION INSTRUMENT	II
GENERAL UTILITY STAGE I	FRANKLIN COUNTY STATE	1-19 NONPRECISION/VISUAL	II
GENERAL UTILITY STAGE II	HARTNESS STATE	5-23 PRECISION INSTRUMENT	II
GENERAL UTILITY STAGE II	HARTNESS STATE	11-29 NONPRECISION/VISUAL	II
BASIC UTILITY STAGE I	JOHN H. BOYLAN STATE	14-32 NONPRECISION/VISUAL	I
BASIC UTILITY STAGE II	MIDDLEBURY STATE	1-19 NONPRECISION/VISUAL	II
GENERAL UTILITY STAGE I	MORRISVILLE-STOWE STATE	1-19 NONPRECISION/VISUAL	II
GENERAL UTILITY STAGE II	NEWPORT STATE	18-36 NONPRECISION/VISUAL	II
GENERAL UTILITY STAGE II	NEWPORT STATE	5-23 NONPRECISION/VISUAL	II
GENERAL UTILITY STAGE II	RUTLAND STATE	1-19 PRECISION INSTRUMENT	II
GENERAL UTILITY STAGE II	RUTLAND STATE	13-31 NONPRECISION/VISUAL	II

TABLE 2
AIRPORT DIMENSIONAL STANDARDS

		NONPRECISION VISUAL RUNWAY		PRECISION INSTRUMENT RUNWAY	
		AIRCRAFT DESIGN GROUP I	AIRCRAFT DESIGN GROUP II	AIRCRAFT DESIGN GROUP I	AIRCRAFT DESIGN GROUP II
RUNWAY WIDTH	A	60'	75'	100'	100'
RUNWAY LENGTH	A-1	3200'	3700'	3700'	5000' +
RUNWAY SAFETY AREA WIDTH	B	120'	150'	300'	300'
RUNWAY SAFETY AREA LENGTH	B-1	240'	300'	600'	600'
TAXIWAY WIDTH	D	25'	35'	25'	35'
TAXIWAY SAFETY AREA WIDTH	E	50'	80'	50'	80'
RUNWAY \bar{C} TO TAXIWAY \bar{C}	F	225'	240'	250'	300'
TAXIWAY \bar{C} TO TIEDOWN AREA	F	44'	66'	44'	66'
RUNWAY \bar{C} TO TIEDOWN AREA	G	200'	250'	*	*
O.F.Z. WIDTH	G-1	250'	400'	400'	400'
RUNWAY \bar{C} TO B.R.L.	H	225'	350'	400'	400'
PRIMARY SURFACE WIDTH	J	250'	500'	1000'	1000'
CLEAR ZONE LENGTH	J	1000'	1700'	2500'	2500'
APPROACH SLOPE	K	NP 34 : 1	NP 34 : 1	34 : 1	34 : 1

* THE B.R.L. FOR A CATEGORY I I.L.S. PRECLUDES ANY PART OF A BUILDING, TREE, OR PARKED AIRCRAFT FROM PENETRATING SURFACES ORIGINATING 300' FROM RUNWAY \bar{C} AND SLOPING OUTWARD 4 : 1. CATEGORY II I.L.S. MUST ADHERE TO FEDERAL AVIATION REGULATIONS-PART 77.

THE 3:1 APPROACH SLOPE FOR PRECISION INSTRUMENT RUNWAYS IS A MINIMUM. IT IS DESIRABLE TO ACHIEVE A 50:1 APPROACH.
SEE CURRENT ADVISORY CIRCULARS FOR INDIVIDUAL AIRPORT APPLICATIONS.



NOTE: APPROACH OBSTACLE FREE ZONE IS THE SAME WIDTH AS THE RUNWAY O.F.Z. AND APPLIES ONLY TO RUNWAYS WITH AN APPROACH LIGHTING SYSTEM AND EXTENDS 200 FEET BEYOND THE LAST LIGHT UNIT.

B.R.L. = BUILDING RESTRICTION LINE
M.A.L.S.F. = MEDIUM APPROACH LIGHTING SYSTEM W/FLASHER
O.F.Z. = OBSTACLE FREE ZONE

REFERENCE SOURCE : SEE CURRENT FAA ADVISORY CIRCULAR

REVISIONS AND CORRECTIONS

MAR. 1, 1990 - SHEET UPDATED
JULIE 1, 1994 - REISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURE.

APPROVED

APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION
FINAL FINAL APPROVAL PENDING

[Signature]
DIRECTOR OF RAILROAD AND PUBLIC TRANSIT

DIMENSIONAL STANDARDS



STANDARD
AP-14