

STATE OF VERMONT
AGENCY OF TRANSPORTATION



CONTRACT PLANS

THESE PLANS DO NOT REFLECT
CHANGES MADE ON THE PROJECT.

INDEX OF SHEETS

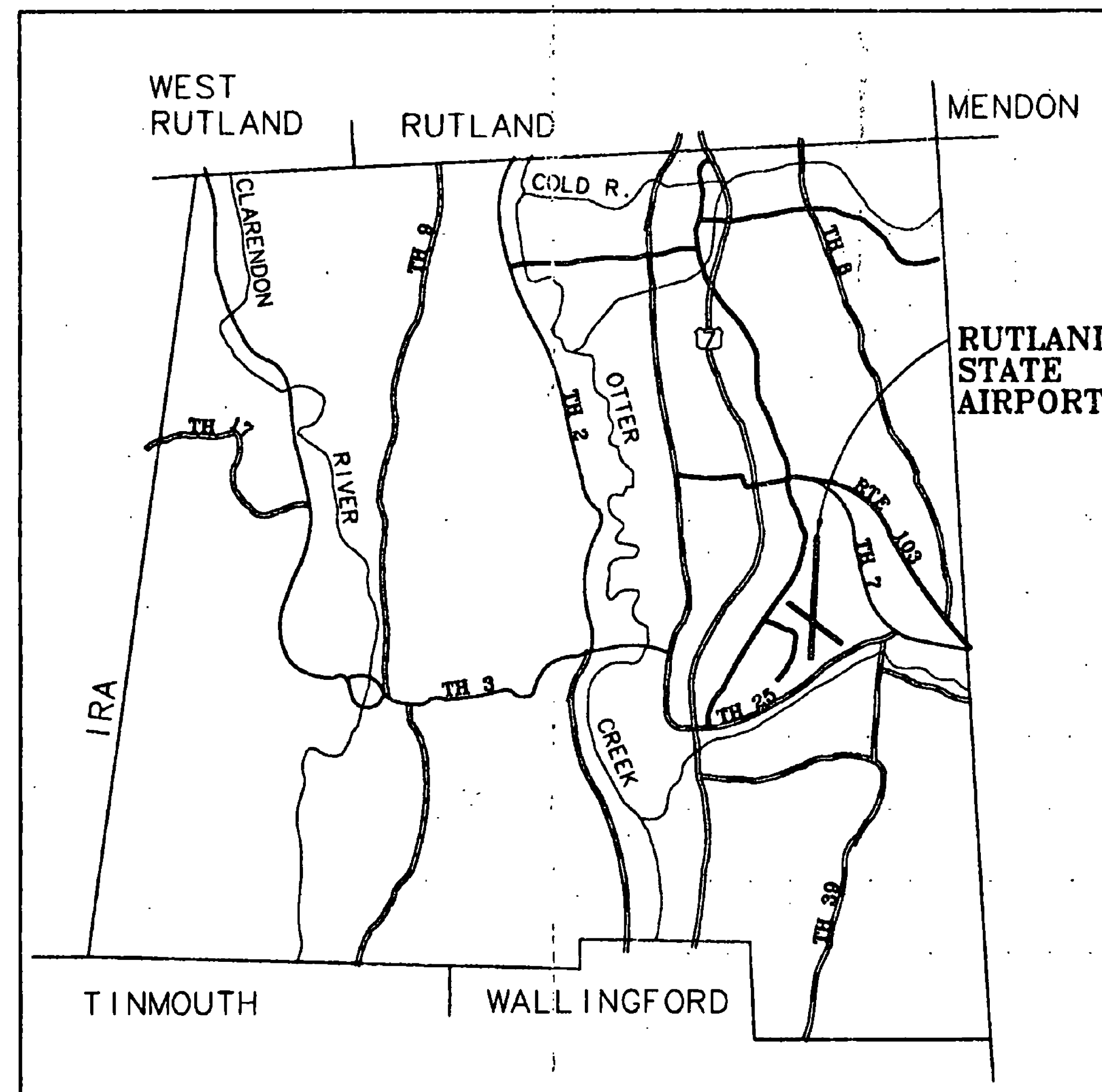
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STANDARDS
AP-2 06/01/94
AP-3 06/01/94
AP-10 06/01/94

TABLE OF QUANTITIES		
ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY
N/A	LOCALIZER SITE WORK	1 LUMP SUM
L-170	UTILITY COST ALLOWANCE	1 LUMP SUM
635.10	MOBILIZATION	1 LUMP SUM

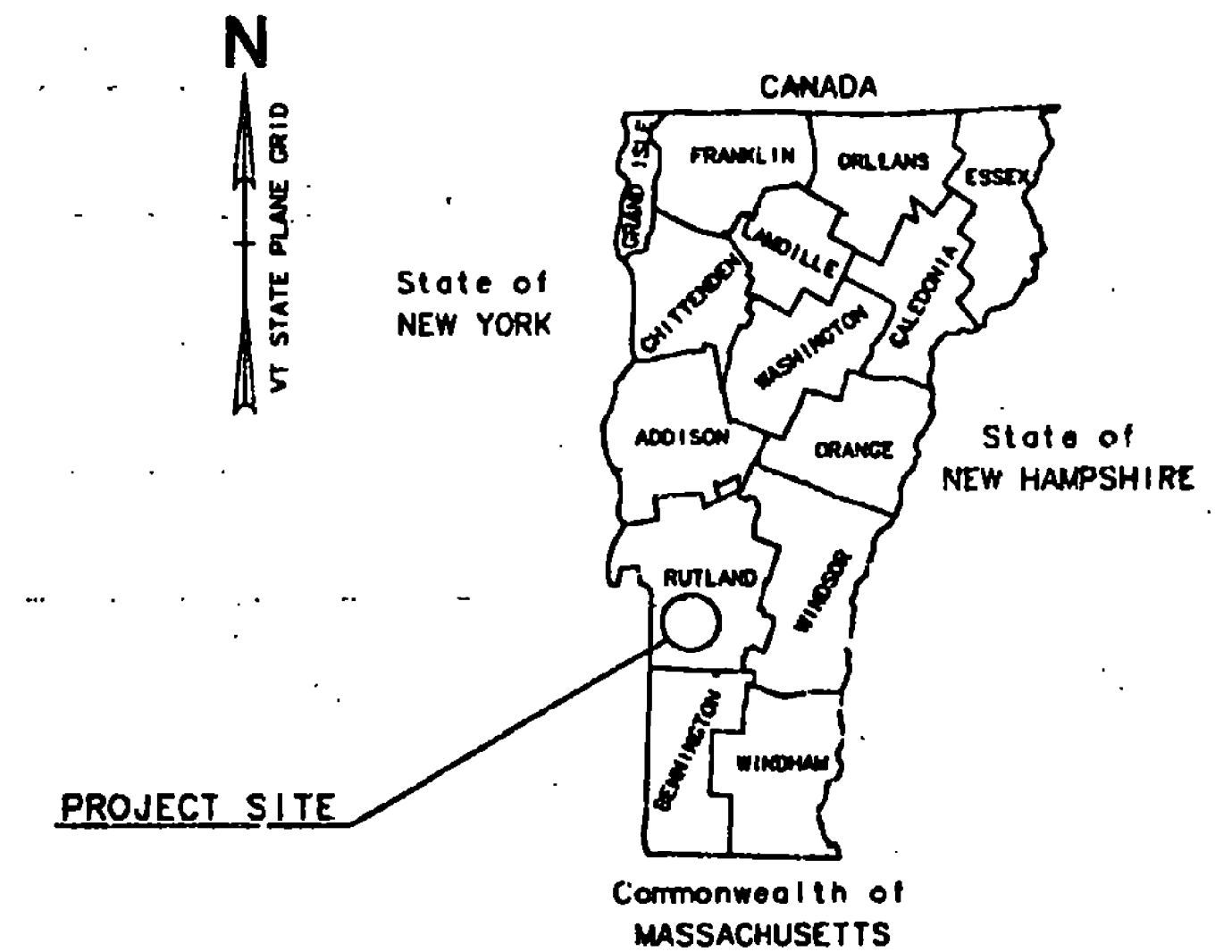
PROPOSED IMPROVEMENTS
RUTLAND STATE AIRPORT
CLARENDON, VERMONT
AIP NO. 3-50-0015-10
E.A. 043111

TO INCLUDE: LOCALIZER SITE PREPARATION



LOCATION MAP

APPROXIMATE SCALE : 1" = 1 MILE



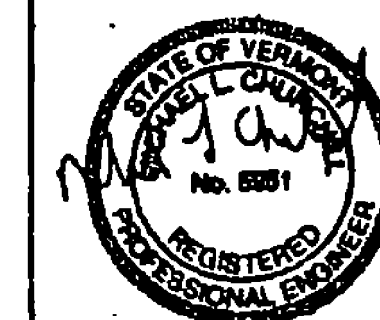
Date: JUN 03 1997
The Belden Company, Inc.
Contractor
Signature: [Signature]
Vice President
Signature: [Signature]
Secretary of Transportation's Signature

A.A.I.A. OF 1982 SECTION 509(d) ASSURANCES

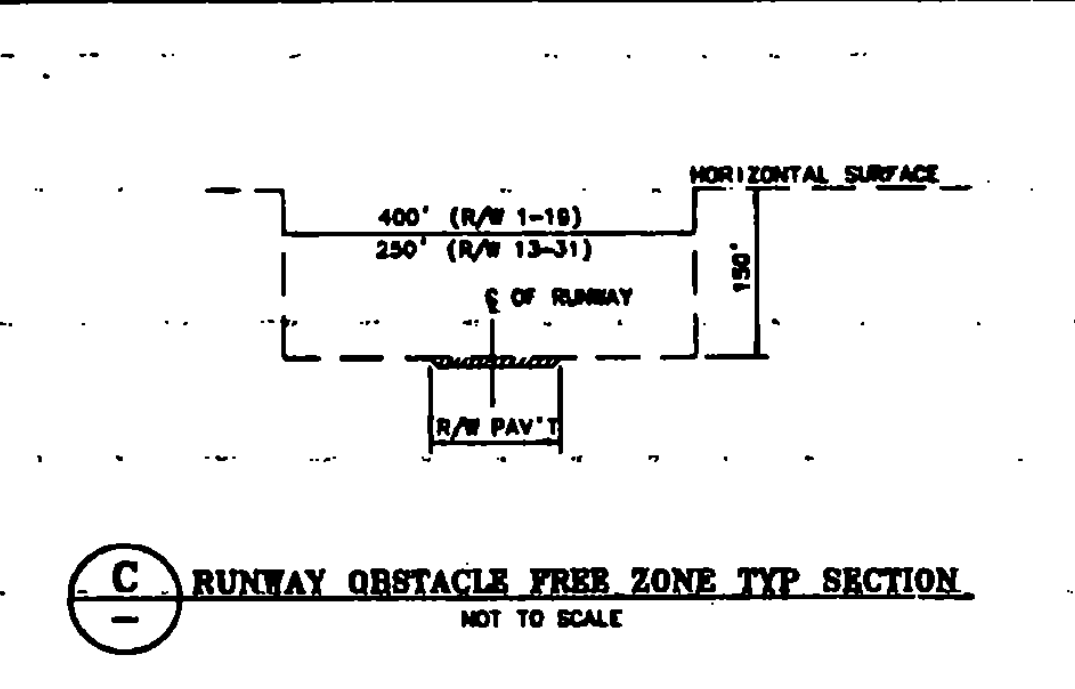
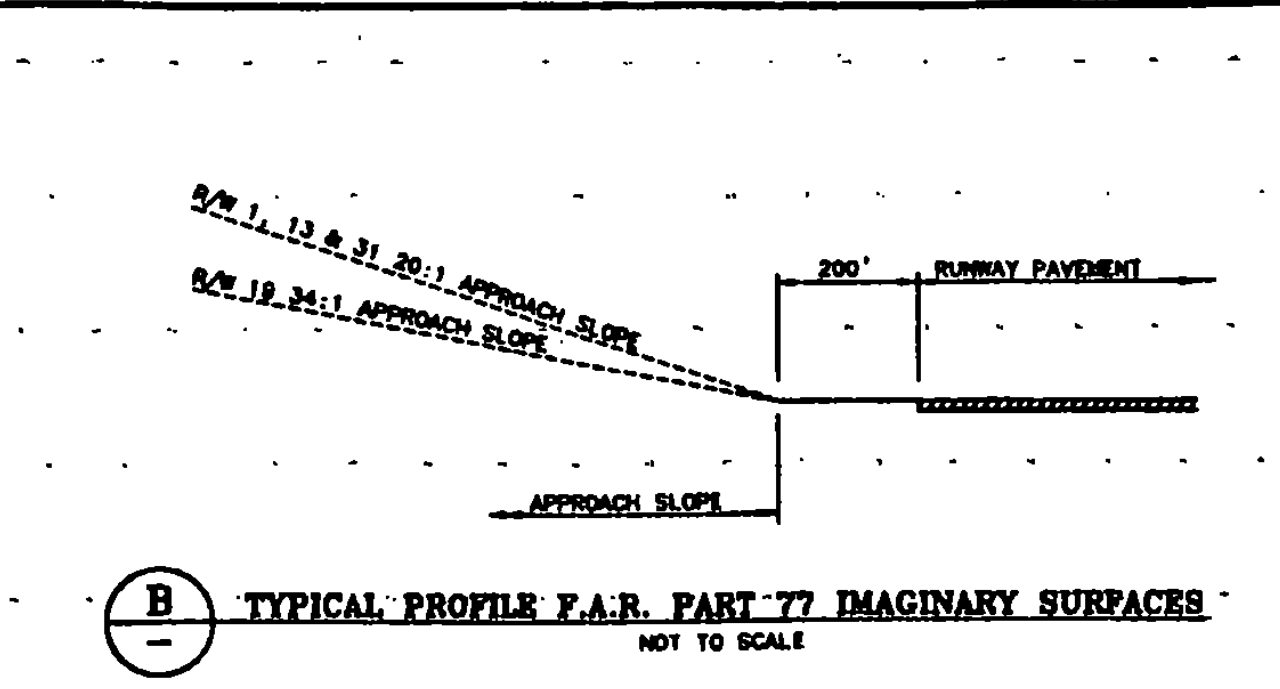
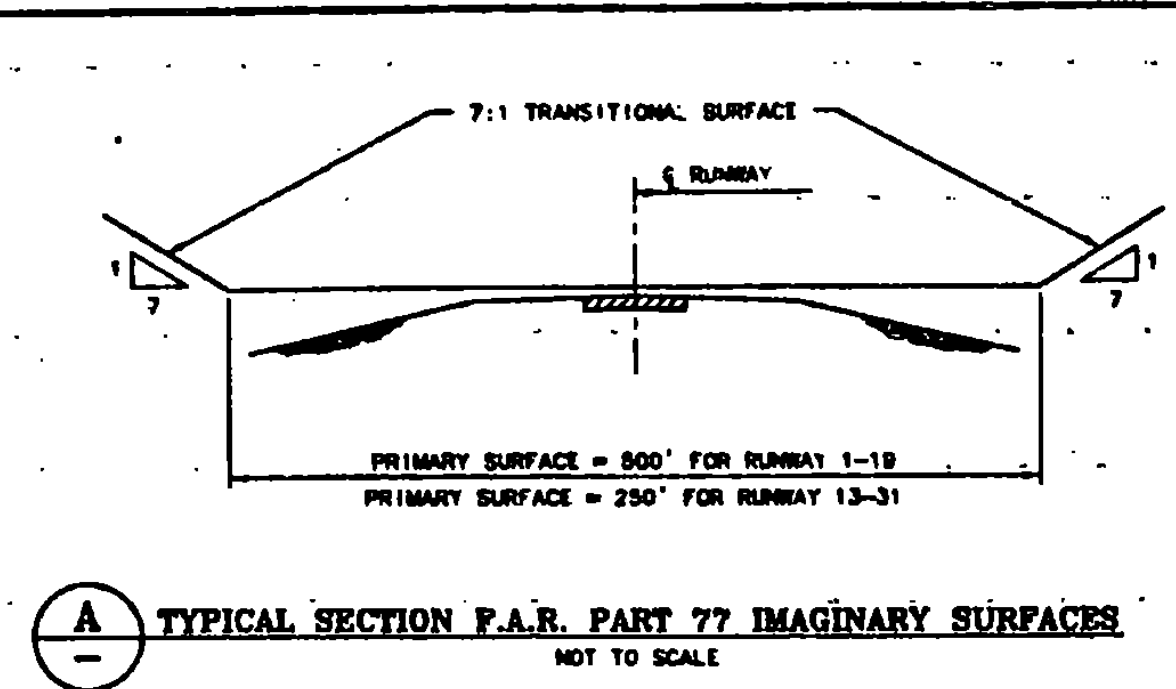
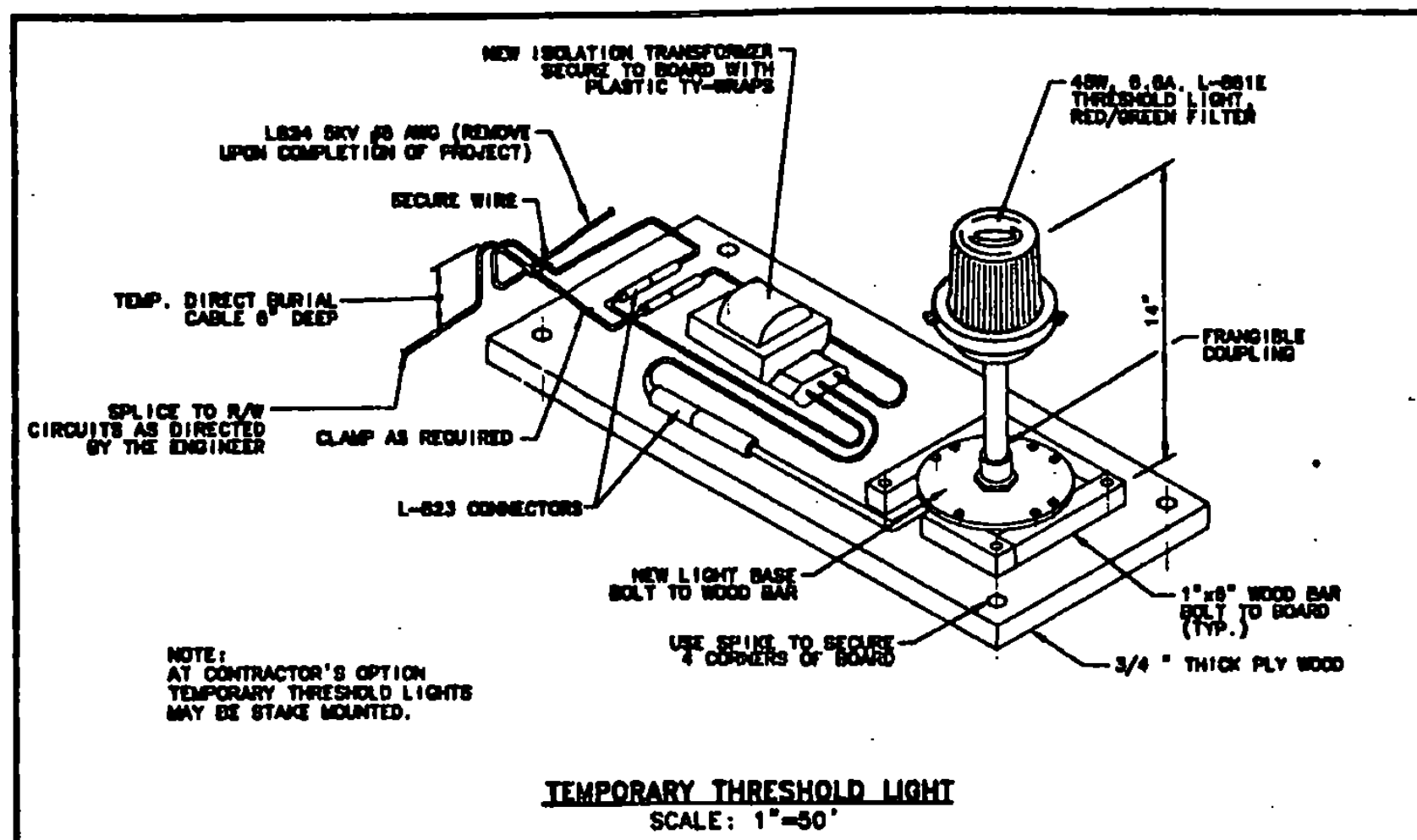
IN COMPLIANCE WITH THE AIRPORT AND AIRWAYS IMPROVEMENT ACT OF 1982, SECTION 509 (d) AND THE SPONSOR'S CERTIFICATION, DATED [Date], THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT FAA STANDARDS IDENTIFIED IN F.A.R. PART 152. ANY DEVIATION FROM THE FAA STANDARD WERE APPROVED IN A LETTER BY THE FAA, DATED AUGUST 13, 1995, AND ARE DISCUSSED IN THE ENGINEERING REPORT ACCOMPANYING THESE PLANS.

DESIGN ENGINEER

DATE

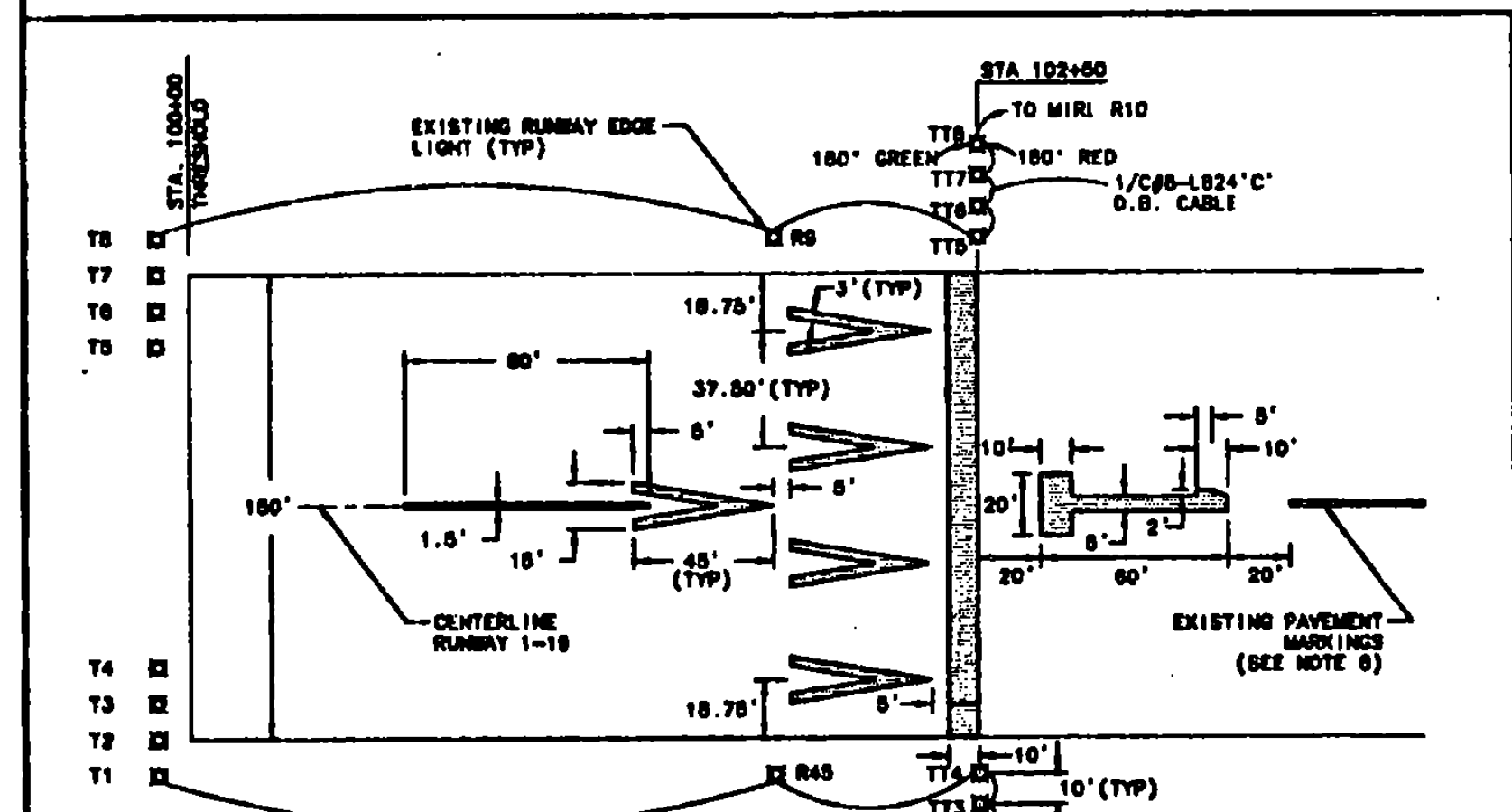


UNO Greiner, Inc.
STATE OF VERMONT
APPROVED: [Signature] DATE: 4-18-97
DIRECTOR OF RAIL, AIR, & PUBLIC TRANSPORTATION
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
APPROVED: [Signature] DATE: [Date]
CHIEF, AIRPORTS DIVISION

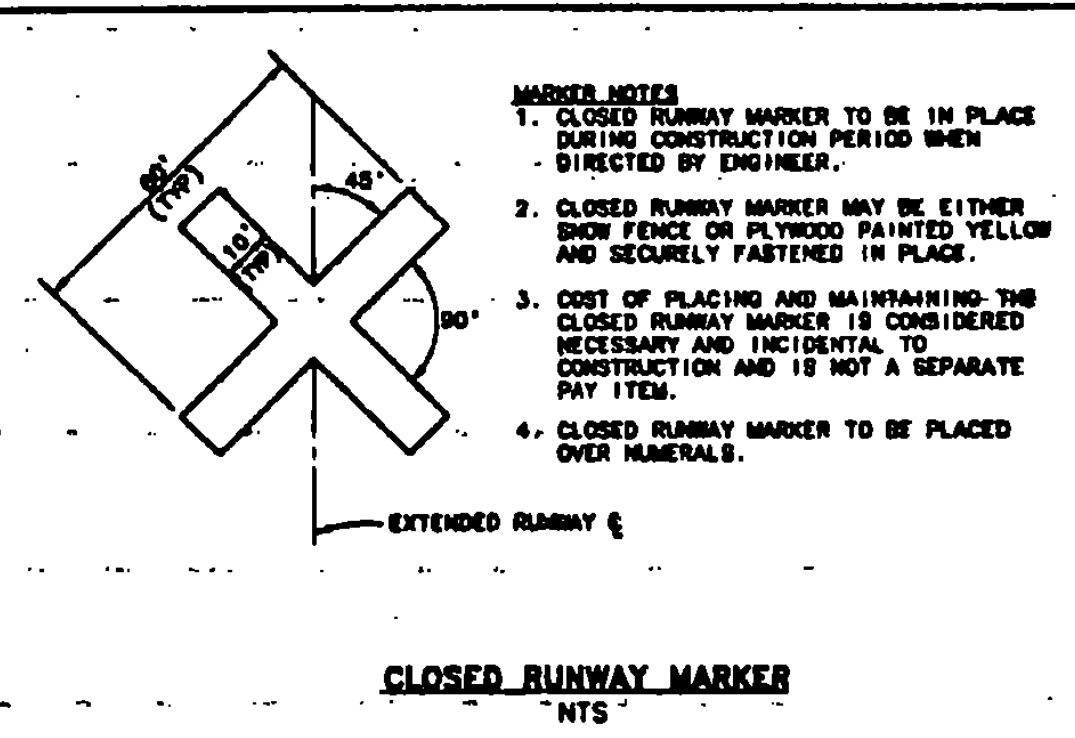
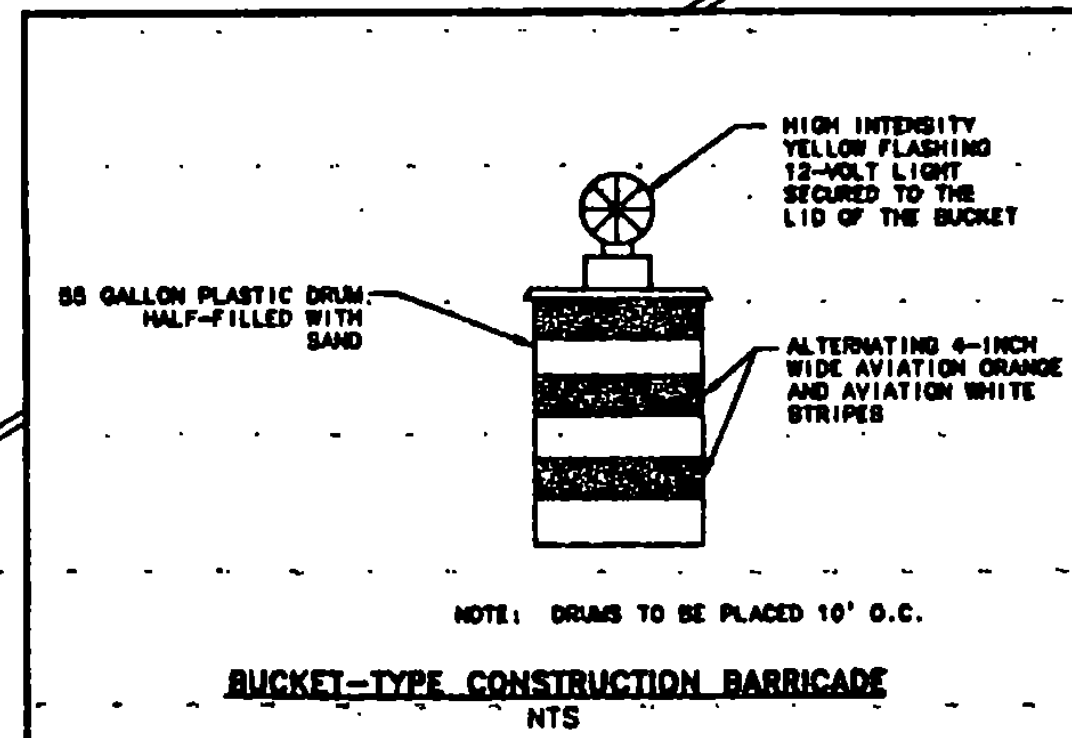
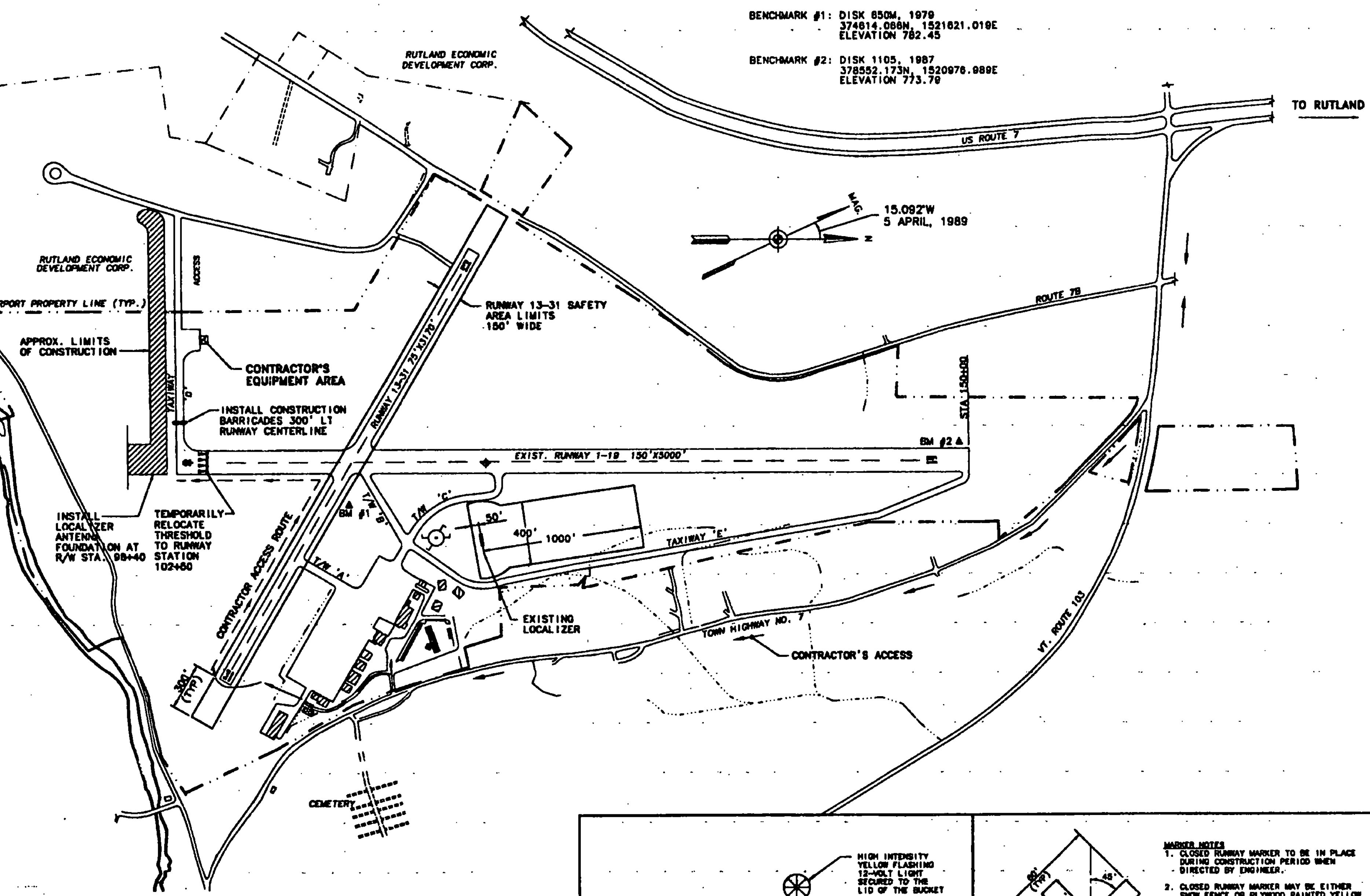


GENERAL NOTES:

- CONTRACTOR'S MAIN ACCESS TO SITE TO BE FROM TOWN HIGHWAY NO. 7.
- CONTRACTOR TO PROVIDE FLAGPERSON AT HAUL / ACCESS ROUTE CROSSING OF RUNWAY 13 SAFETY AREA, WHEN RUNWAY 13-31 IS OPERATIONAL.
- FLAGPERSON TO CONTROL ACCESS WITHIN RUNWAY 13-31 SAFETY AREA. NO GROUND VEHICLE TRAFFIC WILL BE ALLOWED TO ENTER RUNWAY SAFETY AREA WHEN AIR CRAFT ARE APPROACHING OR DEPARTING RUNWAY 13-31.
- FLAGPERSON SHALL MONITOR AN AERONAUTICAL RADIO CAPABLE OF TRANSMITTING AND RECEIVING ON RUTLAND UNICOM FREQUENCY 122.8 MHz.
- HAUL ROUTE TO BE GRADED AND RETURNED TO TURF UPON COMPLETION OF PROJECT.
- PHASING OF CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL COORDINATE ALL RUNWAY CLOSURES WITH THE AIRPORT MANAGER.
 - CONTRACTOR MAY INSTALL TEMPORARY THRESHOLD LIGHTING WHILE RUNWAY IS ACTIVE. HOWEVER, WHEN AIRCRAFT ARE UTILIZING THE RUNWAY, THE CONTRACTOR SHALL REMOVE HIS EQUIPMENT AND MEN FROM THE RUNWAY SAFETY AREA.
 - WHEN THE CONTRACTOR IS PREPARED TO CONNECT THE ELECTRICAL CIRCUITRY AND INSTALL THE THRESHOLD MARKINGS, HE SHALL CLOSE RUNWAY 1-19 WITH RUNWAY CLOSED MARKERS. THIS WORK SHALL BE DONE WITHIN 12 HOUR PERIOD, BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. AT THE END OF THIS TIME PERIOD THE RUNWAY SHALL BE REOPENED TO AIRCRAFT ACTIVITY.
 - INSTALL LOCALIZER ANTENNA AND SHELTER FOUNDATION AND OTHER RELATED INFRASTRUCTURE WORK.
 - AT COMPLETION OF INFRASTRUCTURE WORK, THE CONTRACTOR SHALL REMOVE THE TEMPORARY THRESHOLD AND MARKINGS. RUNWAY 1-19 SHALL BE CLOSED WITH RUNWAY CLOSED MARKERS, AND REMOVAL OF THE RELOCATED THRESHOLD EQUIPMENT AND MARKINGS, AND INSTALLATION OF ORIGINAL MARKINGS SHALL BE ACCOMPLISHED. THIS WORK SHALL BE DONE WITHIN 12 HOUR PERIOD, BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. AT THE END OF THIS TIME PERIOD THE RUNWAY SHALL BE REOPENED TO AIRCRAFT ACTIVITY.



- NOTES:**
- ALL MARKINGS TO BE PAINTED WHITE.
 - EIGHT (8) TEMPORARY MEDIUM INTENSITY RUNWAY THRESHOLD LIGHTS (CONFORMING TO FAA SPECIFICATIONS L-801E) TO BE INSTALLED AS SHOWN.
 - TEMPORARY THRESHOLD LIGHTS: TT1 - TT8.
 - COORDINATE PLACING TEMPORARY THRESHOLD WITH AIRPORT MANAGEMENT.
 - DISCONNECT WIRLS T1 THRU R8 AND R48. PROVIDE WATERPROOF SPLICE. CONNECT TO EXISTING HOME CABLES.
 - REMOVE EXISTING PAINT WHICH CONFLICTS WITH TEMPORARY PAINT BY SANDBLAST OR WATER BLAST TO THE SATISFACTION OF THE ENGINEER.
 - UPON COMPLETION OF WORK, REMOVE ALL TEMPORARY THRESHOLD LIGHTING AND MARKING, AND RESTORE ORIGINAL THRESHOLD AND RUNWAY LIGHTING AND MARKING TO THE SATISFACTION OF THE ENGINEER. TURN OVER LIGHT FIXTURE AND TRANSFORMERS TO MAINT.



URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

REV.	DATE	DESCRIPTION

Designed by: Bob
Checked by: [Signature]
Drawn by: [Signature]
Scale: HOR. - 1" = 400'
VERT. - N/A

Date: 04/08/87

Sheet 2 of 8

Job No. 115712-01
Job No. 74812-00

GENERAL CONSTRUCTION AND SAFETY NOTES

GENERAL NOTES

1. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS AND ANY RULES, REGULATIONS, STANDARDS OR SPECIFICATIONS REFERENCED THEREIN. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE VERMONT AGENCY OF TRANSPORTATION (VAOT), AND THE FEDERAL AVIATION ADMINISTRATION (FAA).
2. THE PROJECT IS TO BE COMPLETED IN CONFORMANCE WITH THESE "CONSTRUCTION PHASING PLANS AND NOTES," AS CONTAINED IN THE PLANS, AND SHALL BE CONSTRUCTED IN A TIMELY MANNER IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED PROJECT SCHEDULE. THE SCHEDULE SHALL PROVIDE FOR COMPLETION OF THE PHASES AS SHOWN ON THE PLANS AND DESCRIBED IN THE CONTRACT SPECIFICATIONS.
3. THE CONTRACTOR IS EXPECTED TO MEET COMPLETION OF CRITICAL PORTIONS OF THE PROJECT AND OPEN THOSE SEGMENTS TO TRAFFIC BY THE SPECIFIED TIMES AND TO COMPLETE THE ENTIRE PROJECT ON TIME.
4. RUTLAND STATE AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF ALL WORK WITH THE AIRPORT MANAGER & THE PROJECT RESIDENT ENGINEER IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.
5. CONSTRUCTION AND MAINTENANCE OPERATIONS BY OTHERS MAY OCCUR CONCURRENTLY AND AT TIMES IN THE VICINITY OF CONSTRUCTION ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS AND COOPERATE WITH MAINTENANCE CREWS AND OTHER CONTRACTORS WORKING ON THE AIRPORT.
6. ACCESS TO THE SITE - THE CONTRACTOR'S ACCESS POINTS TO THE SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL VEHICLES AND PERSONNEL WHO ENTER THROUGH THESE ACCESS POINTS. THE CONTRACTOR SHALL MAINTAIN A SECURITY GUARD AT EACH GATE BEING USED AT ALL TIMES WHILE CONSTRUCTION IS UNDERWAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL ACCESS POINTS BEING USED AT THE END OF EACH CONSTRUCTION DAY OR WHEN ACCESS POINTS ARE UNATTENDED.
7. HAUL ROUTES - APPROXIMATE LOCATION OF HAUL ROUTES ON THE AIRPORT SITE ARE SHOWN ON THE PHASING PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE OR TOWN HIGHWAYS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE BEFORE AND AFTER CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE ENGINEER. FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCING THE WORK. EXISTING ACCESS ROADS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES.
8. CONTRACTOR'S STAGING AREAS - AN AREA WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE. THIS AREA IS SHOWN ON THE GENERAL PROJECT LAYOUT. THE CONTRACTOR'S STAGING AREA SHALL BE GRADED, TOPSOILED, SEEDED, AND MULCHED UPON COMPLETION OF USE, AT THE CONTRACTOR'S EXPENSE.
9. DISPOSAL AREA - WASTE AREAS WILL BE MADE AVAILABLE FOR THE DISPOSAL OF THE CONTRACTOR'S SPOIL MATERIALS. THE MANNER IN WHICH MATERIALS ARE PLACED IN EMBANKMENTS SHALL BE AS SPECIFIED AND APPROVED BY THE ENGINEER. WASTE MATERIALS INCLUDE THOSE ITEMS WHICH ARE A DIRECT RESULT OF CONSTRUCTION. TRASH (I.E. CUPS, CANS, ETC.) SHALL BE DISPOSED OF THROUGH PROPER SANITARY METHODS.
10. SAFETY - THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE MANNER AS SPECIFIED IN THE SECTION TITLED, "SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.
11. PROTECTION OF AND REPAIR OF DAMAGE TO EXISTING CABLES - LOCATION OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF CABLES DAMAGED DUE TO CONTRACTOR'S OPERATIONS MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE AT THE CONTRACTOR'S EXPENSE. WHEN FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF AN FAA REPRESENTATIVE. THE FAA MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
12. EXISTING AIRFIELD LIGHTING SYSTEMS - INTERRUPTION OF EXISTING AIRFIELD LIGHTING SYSTEMS NOT INCLUDED IN THIS PROJECT SHALL NOT BE PERMITTED. ALL AIRFIELD LIGHTING CIRCUITS AFFECTED BY THIS PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR DURING OPERATIONAL PERIODS IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR AS DIRECTED BY THE ENGINEER.
13. CONSTRUCTION LIMITS - ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. CONSTRUCTION, STORAGE AND STOCKPILING LIMITS ARE FURTHER DEFINED IN THE SECTION TITLED, "SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.

14. PORTABLE FLOODLIGHTING - THE CONTRACTOR SHALL PROVIDE PORTABLE FLOODLIGHTING WHEN REQUIRED FOR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL PROVIDE SUFFICIENT UNITS SO THAT ALL WORK AREAS ARE ILLUMINATED TO A LEVEL OF 5 HORIZONTAL FOOT CANDLES. THE LIGHTING LEVELS SHALL BE CALCULATED AND MEASURED IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE ILLUMINATION ENGINEERING SOCIETY.
15. THE CONTRACTOR SHALL OBTAIN ALL THE PERMITS AND LICENSES REQUIRED FOR HIS PROJECT WORK ON THE PROJECT AT HIS OWN EXPENSE.
16. EXISTING TOPOGRAPHIC FIELD SURVEYS FOR THIS PROJECT AREA WERE PERFORMED BY LITTLE RIVER SURVEY CO. IN 1995 & 1997.
17. THE HORIZONTAL CONTROL ON THIS PROJECT IS TIED TO THE 1983 AND 1988 NATIONAL GEODETIC HORIZONTAL AND VERTICAL DATUM, RESPECTIVELY.

SAFETY REQUIREMENTS DURING CONSTRUCTION

- (A) FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULARS (AC), ORDERS AND FEDERAL AVIATION REGULATIONS (FAR).

THE FOLLOWING PUBLICATIONS CONTAIN DEFINITIONS/DESCRIPTIONS OF CRITICAL AIRPORT OPERATING AREAS. THE AREAS DEFINED BELOW PERTAIN TO AIRFIELD SAFETY REQUIREMENTS AND ARE REFERENCED THROUGHOUT THE CONTRACT DOCUMENTS. COPIES OF THESE PUBLICATIONS ARE AVAILABLE THROUGH THE FAA OR CAN BE ORDERED BY MAIL FROM:

U.S. DEPARTMENT OF TRANSPORTATION
SUBSEQUENT DISTRIBUTION OFFICE
ARMORE EAST BUSINESS CENTER
3341 Q 75TH AVE.
LANDOVER, MD. 20785

AND CAN BE REVIEWED AT THE OFFICES OF THE VERMONT AGENCY OF TRANSPORTATION, RAIL, AIR AND PUBLIC TRANSPORTATION DIVISION, NATIONAL LIFE BUILDING, MONTPELIER, VERMONT.

- (1) AC 150/5370-2, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", CURRENT EDITION.
- (2) FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE, CURRENT EDITION.
- (3) AC 150/5300-13, "AIRPORT DESIGN", CURRENT EDITION, ESTABLISHES DESIGN, OPERATIONAL, AND MAINTENANCE STANDARDS FOR AIRPORTS. STANDARD TERMS USED IN THE CONTRACT PLANS AND SPECIFICATIONS ARE DEFINED BELOW:
 - (a) RUNWAY PROTECTION ZONE (RPZ): A TRAPEZOIDAL AREA CENTERED ON THE RUNWAY BEGINNING AT A POINT 200 FEET BEYOND THE END OF THE AREA USABLE FOR TAKEOFF OR LANDING. THE RPZ IS SHOWN ON THE GENERAL PROJECT LAYOUT PLAN.
 - (b) OBJECT FREE AREA (OFA): A TWO DIMENSIONAL GROUND AREA SURROUNDING RUNWAYS, TAXIWAYS, AND TAXILANES WHICH IS CLEAR OF OBJECTS EXCEPT FOR OBJECTS WHOSE LOCATION IS FIXED BY FUNCTION.
 - (c) SAFETY AREA - THE SURFACE ADJACENT TO RUNWAYS, TAXIWAYS, AND TAXILANES OVER WHICH AIRCRAFT SHOULD, IN DRY WEATHER, BE ABLE TO CROSS AT NORMAL SPEEDS WITHOUT INCURRING SIGNIFICANT DAMAGE. A SAFETY AREA IS GRADED, DRAINED AND COMPACTED. IT IS FREE OF ANY HOLES, TRENCHES, BUMPS OR OTHER SIGNIFICANT SURFACE VARIATIONS OR OBJECTS OTHER THAN THOSE WHICH MUST BE THERE BECAUSE OF THEIR ESSENTIAL AERONAUTICAL FUNCTION. THE SAFETY AREA REQUIRES THE CAPABILITY OF SUPPORTING MAINTENANCE VEHICLES AND AIRCRAFT RESCUE AND FIRE FIGHTING VEHICLES UNDER NORMAL (DRY) CONDITIONS.

(B) GENERAL SAFETY REQUIREMENTS

- (1) THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO RUTLAND STATE AIRPORT AND SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES FOR SAFETY SPECIFIED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SAFETY DEVICES AS REQUIRED FOR THE PROTECTION OF HIS PERSONNEL.
- (2) PROTECTION OF ALL PERSONS SHALL BE PROVIDED THROUGHOUT THE PROGRESS OF THE WORK. THE WORK SHALL PROCEED IN SUCH A MANNER AS TO PROVIDE SAFE CONDITIONS FOR ALL WORKERS AND AGENCY PERSONNEL. THE SEQUENCE OF OPERATION SHALL BE SUCH THAT MAXIMUM PROTECTION IS AFFORDED TO INSURE THAT PERSONNEL AND WORKERS IN THE WORK AREA ARE NOT SUBJECT TO ANY DANGEROUS CONDITIONS.

(C) CONSTRUCTION AND FACILITIES MAINTENANCE

- (1) THE FOLLOWING ARE CONSIDERED SAFETY PROBLEMS AND/OR HAZARDS:
 - (a) TRENCHES, HOLES, OR EXCAVATION ON OR ADJACENT TO ANY OPEN RUNWAY OR IN RUNWAY OR TAXIWAY SAFETY AREAS.
 - (b) UNMARKED/UNLIGHTED HOLES OR EXCAVATION IN ANY APRON, OPEN TAXIWAY, OPEN TAXILANE, OR RELATED SAFETY AREA.
 - (c) MOUNDS OR PILES OF EARTH, CONSTRUCTION MATERIALS, TEMPORARY STRUCTURES, OR OTHER OBJECTS IN THE VICINITY OF ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY, APPROACH, OR DEPARTURE AREA.
 - (d) VEHICLES OR EQUIPMENT, WHETHER OPERATING OR IDLE, ON ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY, APPROACH, OR DEPARTURE AREA.
 - (e) VEHICLES, EQUIPMENT, EXCAVATION, STOCKPILES, OR OTHER MATERIALS WHICH COULD INTERFERE WITH ELECTRONIC SIGNALS FROM RADIOS OR ELECTRONIC NAVIGATIONAL AIDS (NAVAIDS).
- (2) PAVEMENT DROP-OFFS - LIPS (EITHER PERMANENT OR TEMPORARY, WHICH COULD CAUSE DAMAGE TO AIRCRAFT IF CROSSED AT NORMAL OPERATING SPEEDS. THE NORMAL MAXIMUM DROP-OFF OR LIP IS 1-1/2 INCHES.
- (3) UNMARKED UTILITY, NAVAID, WEATHER SERVICE, RUNWAY LIGHTING, OR OTHER POWER OR SIGNAL CABLES THAT COULD BE DAMAGED DURING CONSTRUCTION.
- (4) OBJECTS, WHETHER OR NOT MARKED OR FLAGGED, OR ACTIVITIES ANYWHERE ON OR IN THE VICINITY OF THE AIRPORT WHICH COULD BE DISTRACTING, CONFUSING, OR ALARMING TO PILOTS DURING AIRCRAFT OPERATIONS.
- (5) UNFLAGGED/UNLIGHTED LOW VISIBILITY ITEMS SUCH AS TALL CRANES, DRILLS, AND THE LIKE ANYWHERE IN THE VICINITY OF ACTIVE RUNWAYS, OR IN ANY APPROACH OR DEPARTURE AREA.
- (6) MISLEADING OR MALFUNCTIONING OBSTRUCTION LIGHTS OR UNLIGHTED/UNMARKED OBSTRUCTIONS IN THE APPROACH TO ANY ACTIVE RUNWAY.
- (7) WATER, SNOW, DIRT, DEBRIS, OR OTHER TRANSIENT ACCUMULATION WHICH TEMPORARILY OBSCURES PAVEMENT MARKINGS OR PAVEMENT EDGES, OR DEROGATES VISIBILITY OF RUNWAY/TAXIWAY MARKINGS OR LIGHTING.
- (8) INADEQUATE OR IMPROPER METHODS OF MARKING, BARRICADING, AND LIGHTING OF TEMPORARILY CLOSED PORTIONS OF THE AIRPORT OPERATIONS AREA.
- (9) TRASH OR OTHER MATERIALS WITH FOREIGN OBJECT DAMAGE (FOD) POTENTIAL, WHETHER ON RUNWAYS, TAXIWAYS, OR APRONS; OR IN RELATED SAFETY AREAS.
- (10) INADEQUATE BARRICADING OR OTHER MARKING WHICH IS PLACED TO SEPARATE CONSTRUCTION OR MAINTENANCE AREAS FROM OPEN AIRCRAFT OPERATING AREAS.
- (11) FAILURE TO CONTROL UNAUTHORIZED VEHICLE AND HUMAN ACCESS TO ACTIVE AIRCRAFT OPERATING AREAS.
- (12) FAILURE TO MAINTAIN RADIO COMMUNICATION BETWEEN CONSTRUCTION/MAINTENANCE VEHICLES AND RUTLAND UNICOM.
- (13) CONSTRUCTION/MAINTENANCE ACTIVITIES OR MATERIALS WHICH COULD HAMPER THE RESPONSE OF AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) EQUIPMENT FROM REACHING ALL AIRCRAFT OR ANY PART OF THE RUNWAY/TAXIWAY SYSTEM, RUNWAY APPROACH AND DEPARTURE AREAS AND AIRCRAFT PARKING LOCATIONS.
- (14) BIRD ATTRACTANTS ON AIRPORT SUCH AS: EDIBLES (FOOD SCRAPS, ETC.), MISCELLANEOUS TRASH, OR PONDED WATER.

- (2) THE CONTRACTOR SHALL CONDUCT ACTIVITIES SO AS NOT TO VIOLATE ANY SAFETY STANDARDS CONTAINED HEREIN. THE CONTRACTOR SHALL INSPECT ALL CONSTRUCTION AND STORAGE AREAS AS OFTEN AS NECESSARY AND PROMPTLY TAKE ALL STEPS NECESSARY TO PREVENT/REMEDY ANY UNSAFE OR POTENTIALLY UNSAFE CONDITIONS OR ACTIVITIES DISCOVERED.
- (3) THE VAOT WILL BE RESPONSIBLE FOR ISSUING APPROPRIATE NOTICE TO AIRMEN (NOTAM) CONCERNING CONSTRUCTION ACTIVITY ON THE AIRFIELD.

(D) MOTORIZED VEHICLES

THIS PROJECT INCLUDES WORK WITHIN THE AIRCRAFT OPERATIONS AREA (AOA). ALL PERMITTED VEHICLES SHALL BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. ALL VEHICLES OPERATING WITHIN THE AIRFIELD BOUNDARY SHALL BE IDENTIFIED WITH A SIGN ON EACH SIDE OF THE VEHICLE BEARING THE CONTRACTOR'S NAME IN 12-INCH MINIMUM LETTER HEIGHT.

VEHICLES MAKING ONLY OCCASIONAL VISITS TO THE JOB SITE ARE EXEMPT FROM THE IDENTIFICATION REQUIREMENTS CONTAINED HEREIN ABOVE PROVIDED THAT THEY ARE ESCORTED INTO, THROUGH, AND OUT OF THE AIRPORT AREA BY A PROPERLY IDENTIFIED VEHICLE.

(E) RADIO COMMUNICATIONS

RADIO COMMUNICATIONS ARE REQUIRED BETWEEN THE CONTRACTOR'S REPRESENTATIVE AND RUTLAND UNICOM. RADIO CONTACT IS REQUIRED AT ALL TIMES WHILE THE CONTRACTOR HAS PERSONNEL AND EQUIPMENT ON THE PROJECT SITE AND WHILE THEY ARE IN AN ACTIVE AIR OPERATIONS AREA (AOA) OF THE AIRPORT. RADIOS SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE CAPABLE OF TRANSMITTING AND RECEIVING AT A GROUND CONTROL FREQUENCY OF 122.8 MHZ. THIS FREQUENCY IS TO BE UTILIZED WHEN CROSSING ACTIVE FACILITIES. SUFFICIENT RADIOS SHALL BE ON SITE AND OPERATING AT ALL TIMES SO THAT INSTRUCTIONS OR COMMUNICATIONS MAY BE DISPATCHED TO ALL CREWS AND/OR EQUIPMENT WORKING IN AN ACTIVE AOA.

(F) DEBRIS

DEBRIS, WASTE, AND LOOSE MATERIAL (INCLUDING DUST AND DIRT) CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEAR OR PROPELLERS, OR BEING INGESTED IN JET ENGINES, SHALL NOT BE ALLOWED ON ACTIVE AIRCRAFT MOVEMENT AREAS OR ADJACENT GRASSED AREAS. MATERIALS OBSERVED TO BE WITHIN THESE AREAS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO HAVE A SWEEPING MACHINE AND OPERATOR ON SITE AND READY AT ALL TIMES DURING CONSTRUCTION ACTIVITY. WHERE TRAVEL ON OR ACROSS RUNWAYS, RAMP AREAS, TAXIWAYS, OR AIRCRAFT APRONS IS REQUIRED, THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL AND EQUIPMENT TO KEEP SUCH SURFACES CLEAR OF DEBRIS.

(G) FLAGMEN

IN ACCORDANCE WITH THE SPECIFICATIONS, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, FURNISH FLAGMEN AS NECESSARY TO CONTROL HIS TRAFFIC (UNLESS OTHERWISE DIRECTED BY THE ENGINEER).

ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO CROSS ACTIVE RUNWAYS, RUNWAY SAFETY AREAS, TAXIWAYS AND APRONS SHALL DO SO UNDER THE DIRECT CONTROL OF A COMPETENT FLAGMAN WHO IS IN DIRECT RADIO CONTACT WITH GROUND CONTROL. ALL AIRCRAFT TRAFFIC ON RUNWAYS, TAXIWAYS, AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. AT NO TIME SHALL THE CONTRACTOR'S VEHICLES OR PERSONNEL BE ALLOWED TO ENTER OR CROSS ACTIVE RUNWAYS OR CLEAR ZONES WITHOUT PROPER AUTHORIZATION.

(H) MISCELLANEOUS

- (1) OPEN FLAME, WELDING OR TORCH CUTTING OPERATIONS ARE PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS HAVE BEEN TAKEN AND THE PROCEDURE PREVIOUSLY APPROVED BY THE ENGINEER.
 - (2) EQUIPMENT AND STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS.
 - (3) THE CONTRACTOR SHALL PROVIDE BUCKET TYPE CONSTRUCTION BARRICADES WITH FLASHING YELLOW LIGHTS AS SHOWN ON THE DRAWINGS TO DELINEATE THE WORK AREAS WHEN CLOSED TO AIRPORT TRAFFIC. OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL LOCATED IN THE AOA SHALL BE PROMINENTLY MARKED WITH ORANGE FLAGS AND LIGHTED BY APPROVED LIGHT UNITS DURING HOURS OF LIMITED VISIBILITY AND DARKNESS.
 - (4) ALL MATERIALS AND EQUIPMENT WHEN NOT IN USE SHALL BE PLACED IN APPROVED AREAS WHERE THEY WILL NOT CONSTITUTE A HAZARD TO AIRCRAFT OPERATIONS AND NOT PENETRATE CLEARANCE SURFACES. EQUIPMENT SHALL BE PARKED AT THE STAGING AREA WHEN NOT IN USE.
 - (5) MAXIMUM EQUIPMENT HEIGHT SHALL NOT EXCEED 15 FEET UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.
 - (6) UPON COMPLETION OF ANY STAGE/PHASE OF WORK, THE ENGINEER WILL ARRANGE A PHYSICAL INSPECTION OF THE AREA WITH AIRPORT OPERATIONS PERSONNEL PRIOR TO OPENING ANY PORTION OF A RUNWAY, RAMP AREA OR AIRPORT ROADWAY THAT HAS BEEN CLOSED FOR WORK OR USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR.
 - (7) ENTRANCE TO THE AIRFIELD IS SUBJECT TO SECURITY REGULATIONS. ALL PERSONNEL ENTERING THE AIRFIELD MUST OBTAIN AND DISPLAY SECURITY IDENTIFICATION BADGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL OF HIS EMPLOYEES WHO HAVE UNESCORTED ACCESS TO THE AIRFIELD, HAVE HAD A BACKGROUND CHECK PERFORMED ON THEM DATING BACK FIVE (5) YEARS VERIFYING REPRESENTATIONS MADE BY THE EMPLOYEE RELATING TO EMPLOYMENT.
 - (8) THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A CURRENT LIST OF ALL EMPLOYEES WORKING ON THE AIRPORT. THE LIST SHALL BE MAINTAINED CURRENT BY THE CONTRACTOR AND APPLIED TO ALL SUBCONTRACTORS.
 - (9) EXCEPT FOR EMERGENCIES, ALL CONTACT WITH AIRPORT PERSONNEL SHALL BE MADE THROUGH THE RESIDENT ENGINEER. FOR EMERGENCIES INVOLVING SAFETY (INJURIES, FIRES, SECURITY BREACHES, ETC.) THE CONTRACTOR SHALL MAKE DIRECT CONTACT WITH AIRPORT OPERATIONS FOLLOWED BY NOTIFICATION TO THE RESIDENT ENGINEER AS SOON AS POSSIBLE.
 - (10) THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL INCLUDING THE PROJECT SUPERINTENDENT, WHO MAY BE CONTACTED IN AN EMERGENCY. PERSONNEL SHALL BE ON CALL 24 HOURS PER DAY FOR MAINTAINING AIRPORT HAZARD LIGHTING AND BARRICADES.
 - (11) IN ACCORDANCE WITH THE SPECIFICATIONS, FEDERAL WAGE RATES SHALL BE POSTED OUTSIDE THE SITE FIELD OFFICE IN A WEATHERPROOF ENCLOSURE.
- ## (I) UTILITIES
- (1) UNDERGROUND UTILITIES: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TO BE ONLY ESTIMATED LOCATIONS. ALL UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT ANY UTILITY IS DAMAGED THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR INCURRED COSTS OF REPAIRS.
 - (2) UTILITIES NOTIFICATION: AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER, AND THE OWNER OF EACH UNDERGROUND UTILITY FACILITY AFFECTED.
 - (3) THE FOLLOWING IS A LIST OF COMPANIES WITH POSSIBLE UTILITIES WITHIN THE CONSTRUCTION LIMITS.

UTILITY	
DIGSAFE	1-800-225-4977
CIPS	1-800-848-2877



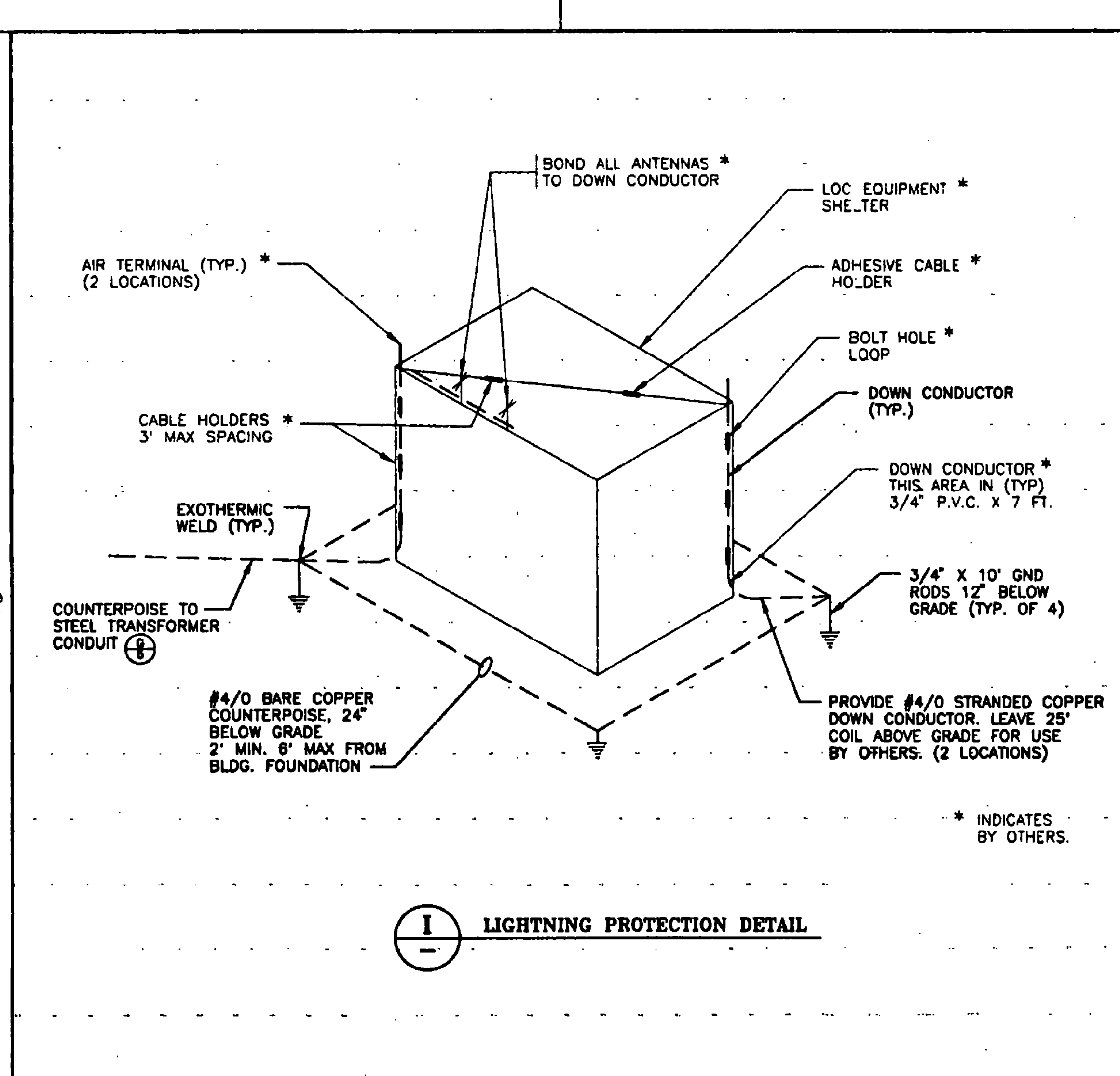
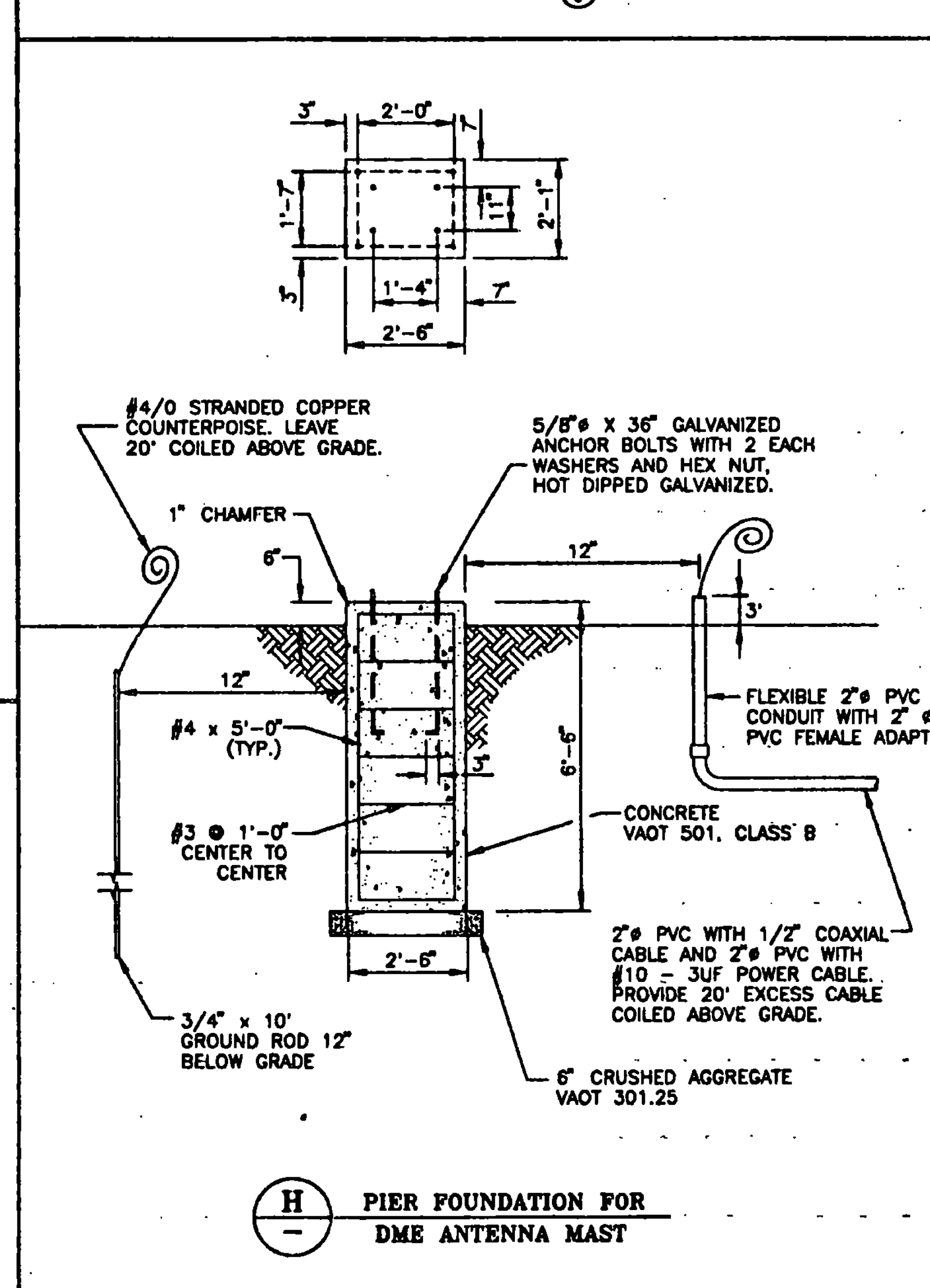
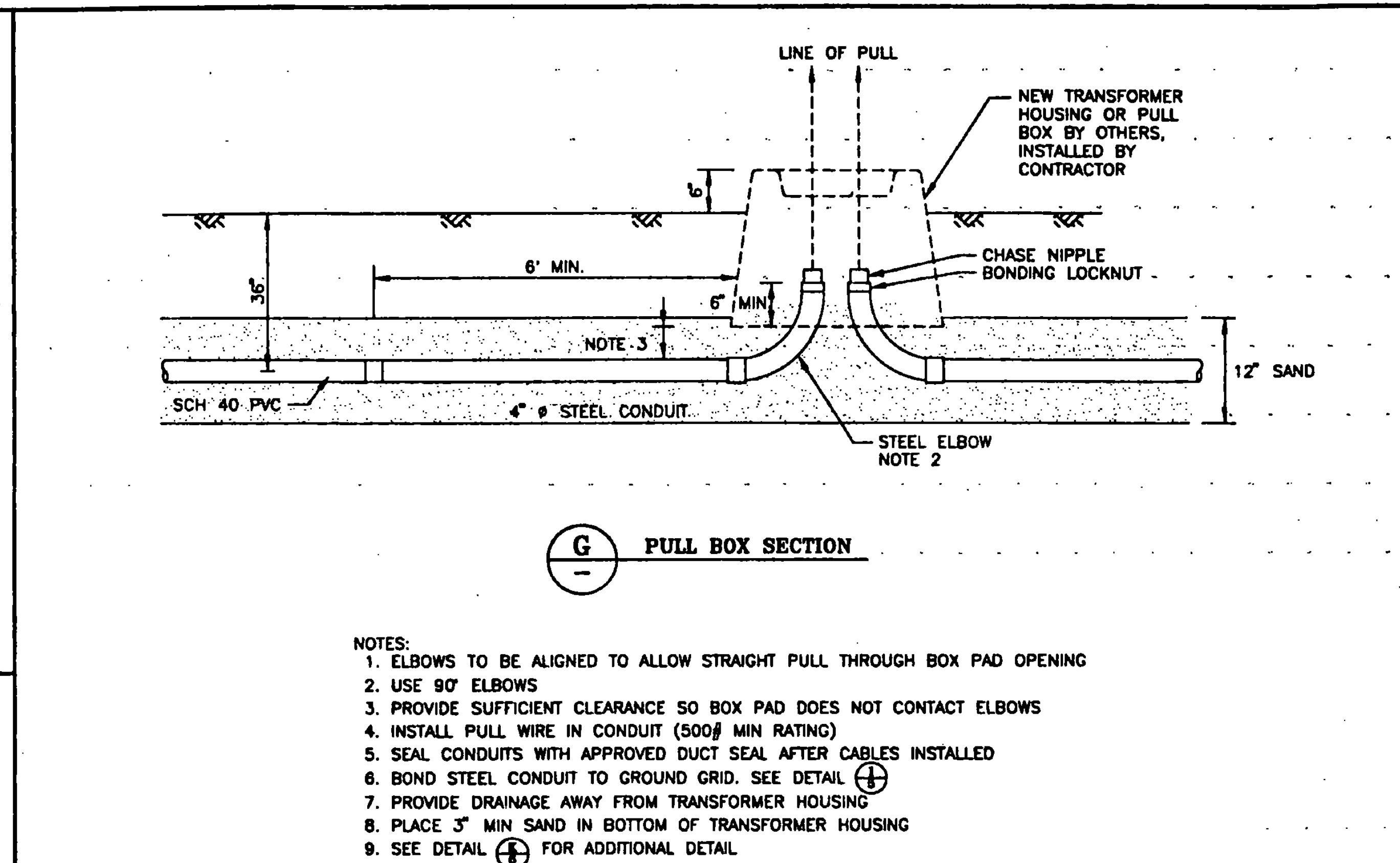
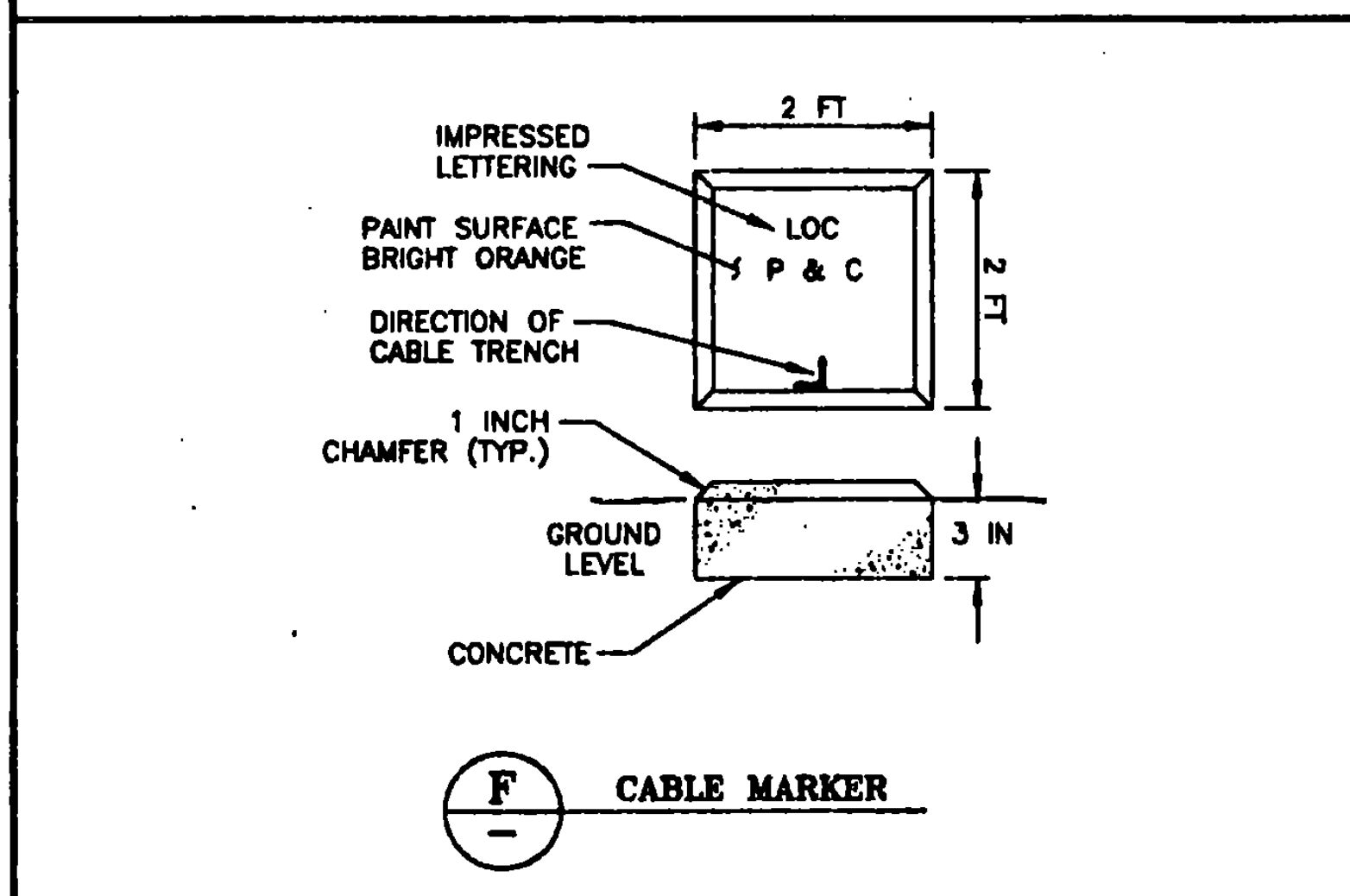
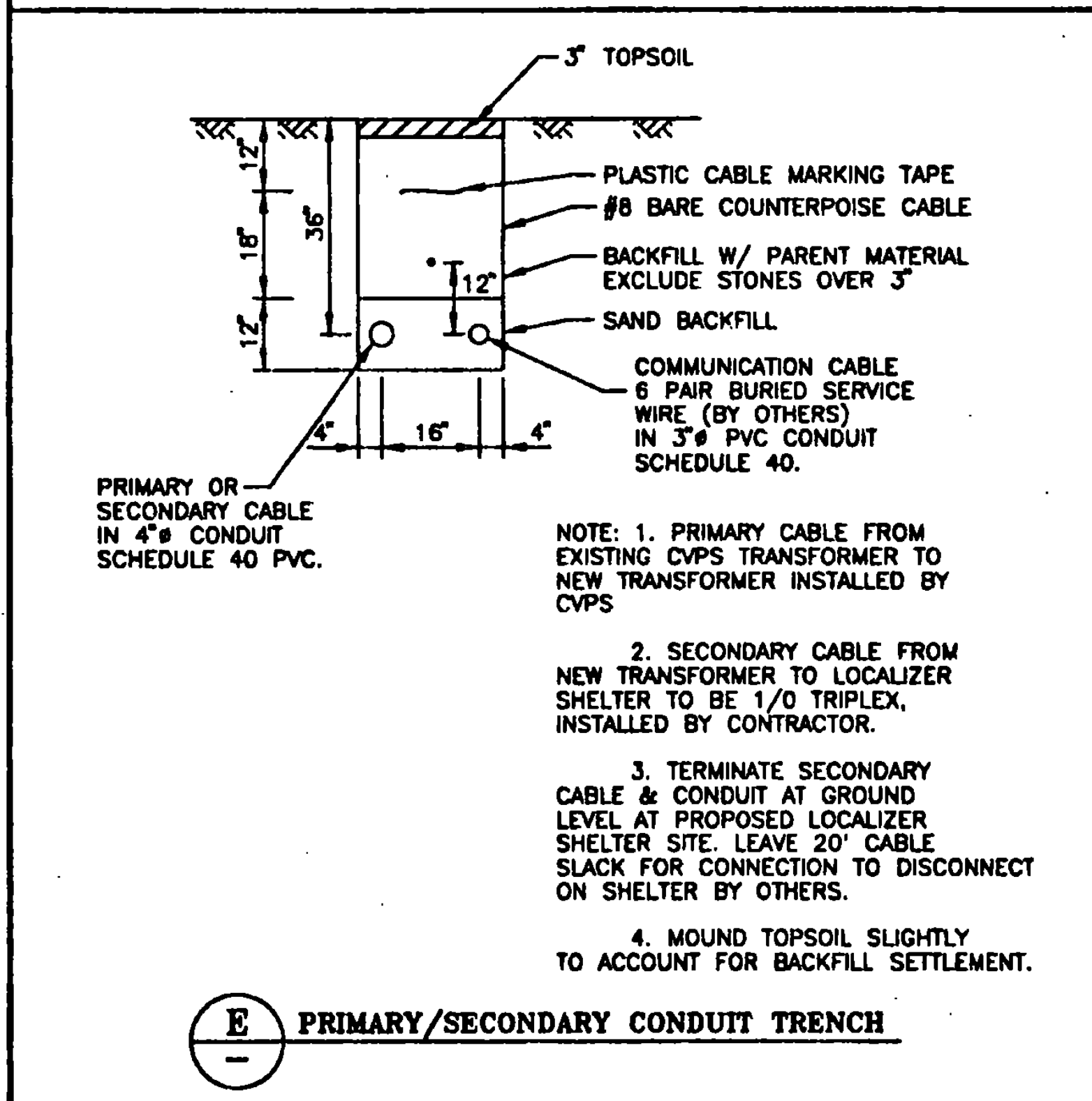
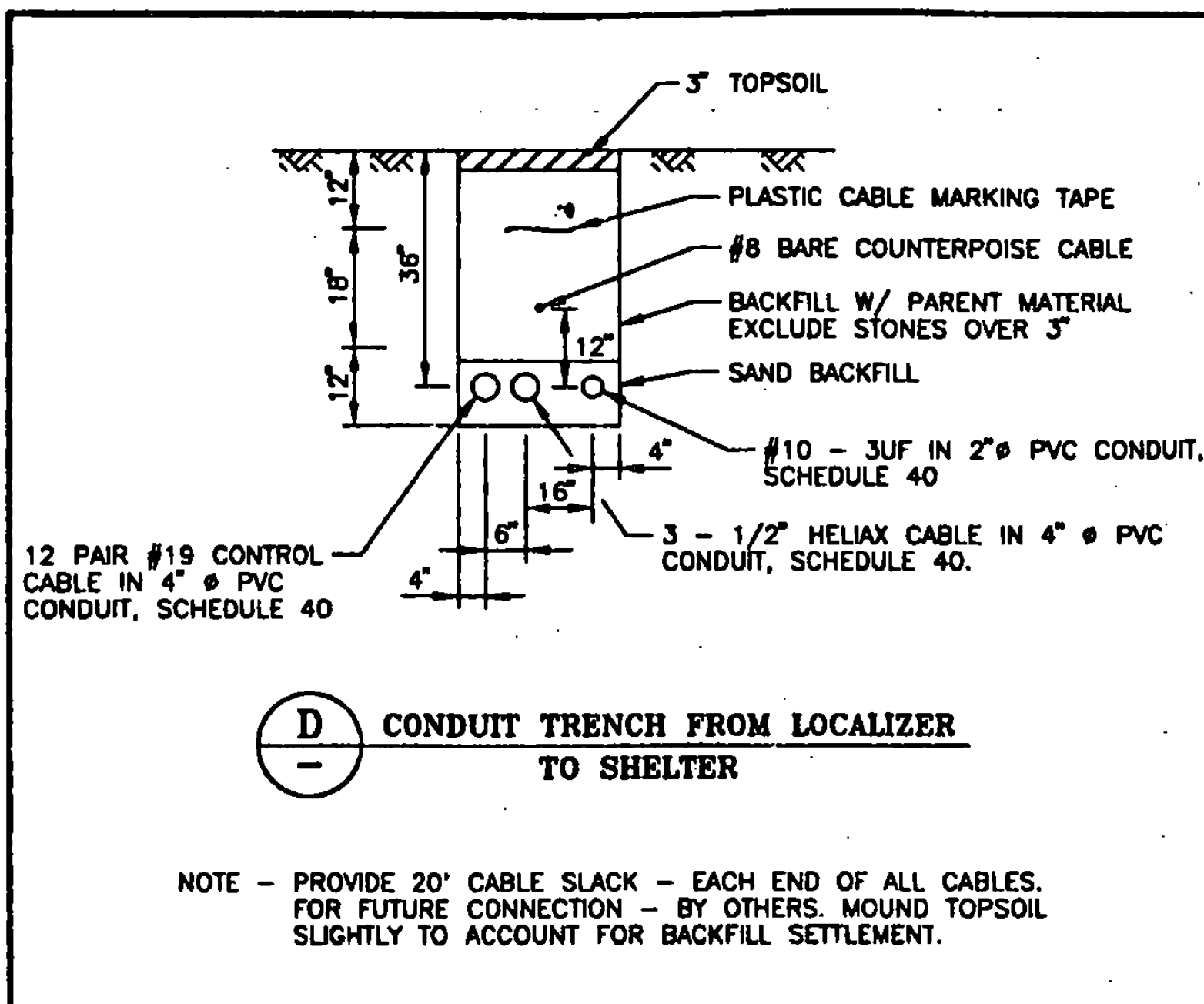
DESIGNER	FILE NO. 15/MT/12/03/00
DATE	
REV.	

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

DESIGNED BY:	DATE:
DRAWN BY:	DATE:
CHECKED BY:	DATE:
APPROVED BY:	DATE:

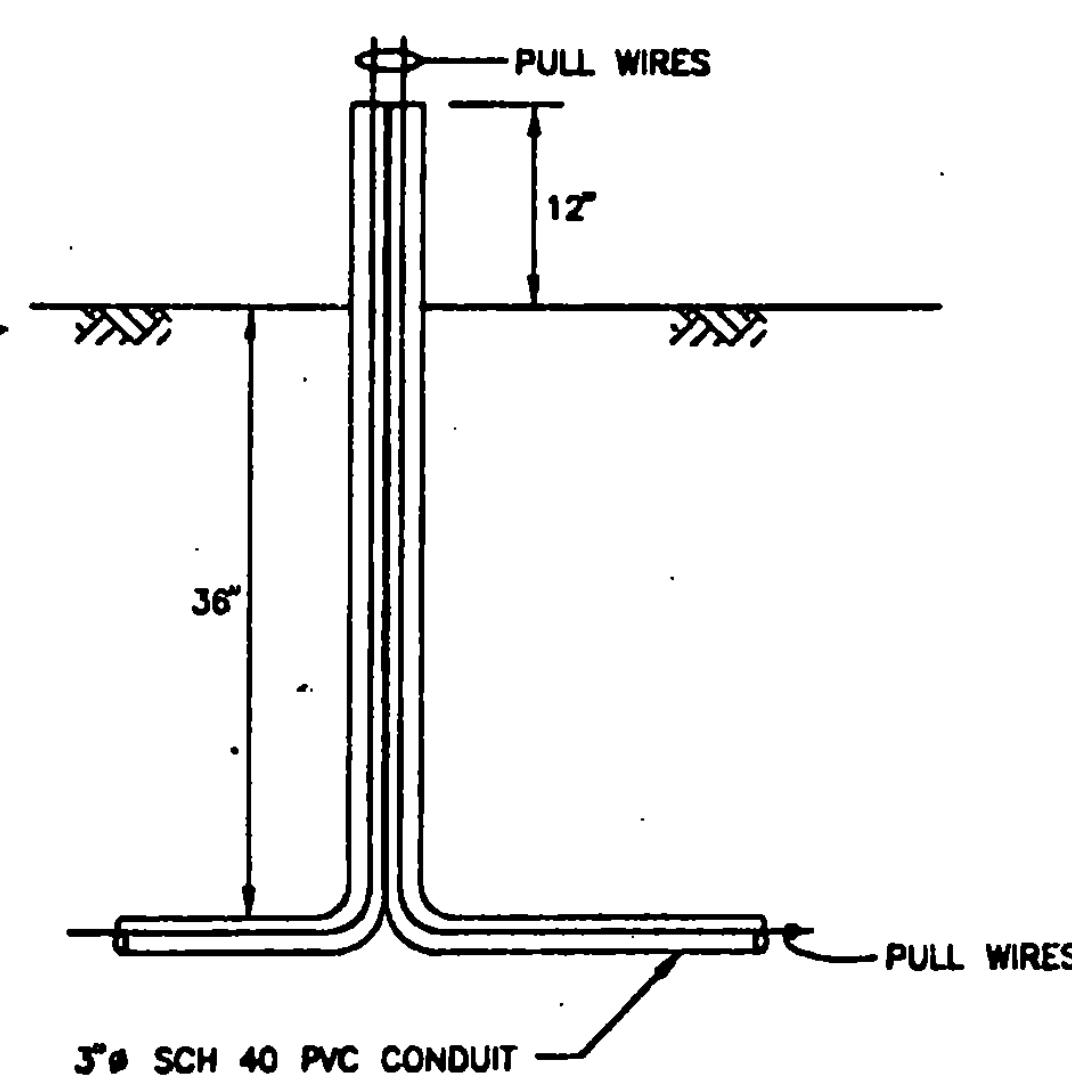
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Sheet:	3 OF 3
Sheet No:	3



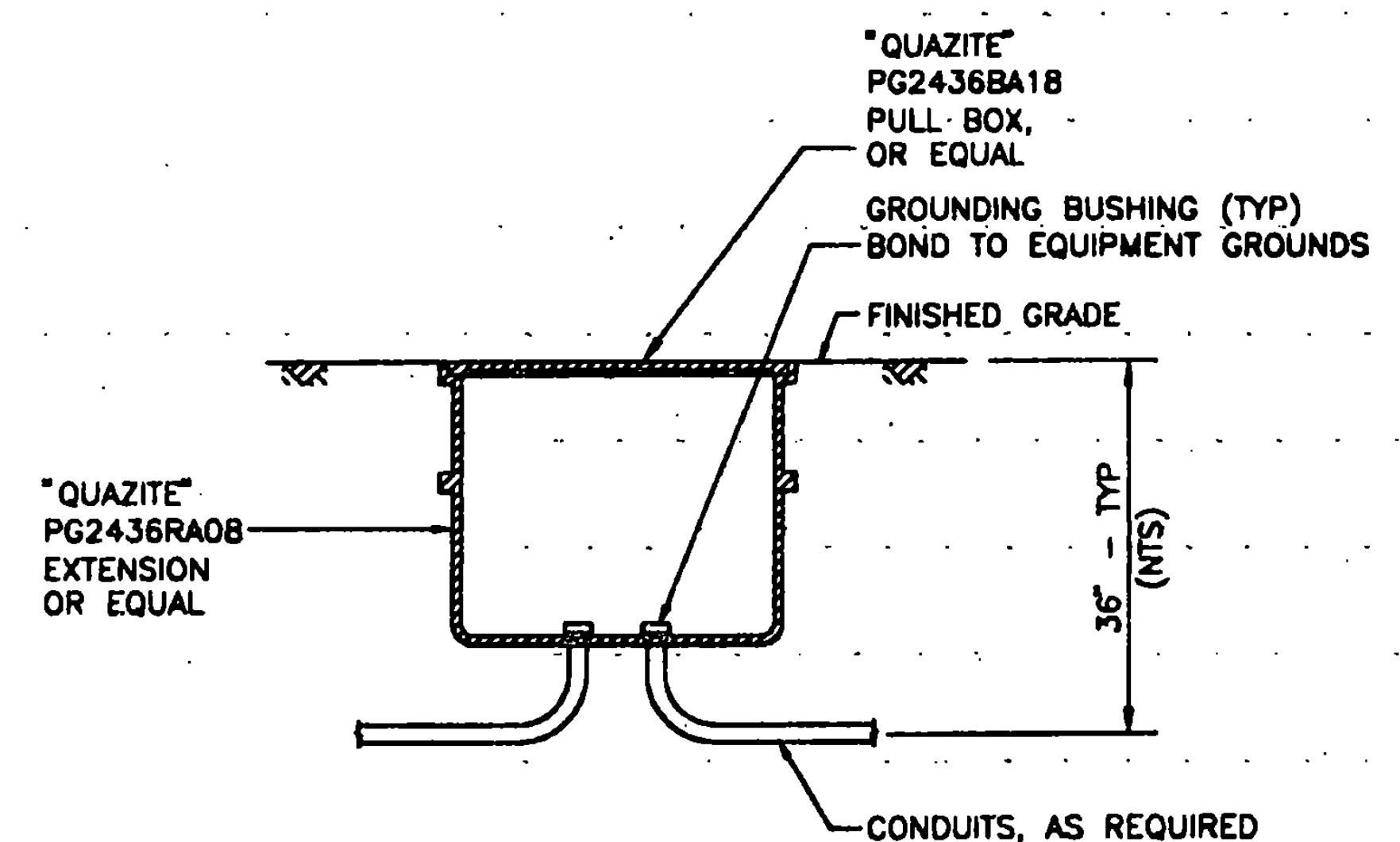
GENERAL NOTES

1. ALL DISTURBED AREAS TO BE REGRADED, TOPSOILED (3" MIN.) LIMED, FERTILIZED, AND MULCHED.
2. CRUSHED AGGREGATE TO CONFORM TO VAOT SPECIFICATION 301.25
3. INSTALLATION OF UNDERGROUND CONDUIT AND COMMUNICATIONS CABLES TO CONFORM TO REQUIREMENTS OF THE LOCAL UTILITY (CVPS) & TELEPHONE Co. (NYNEX).

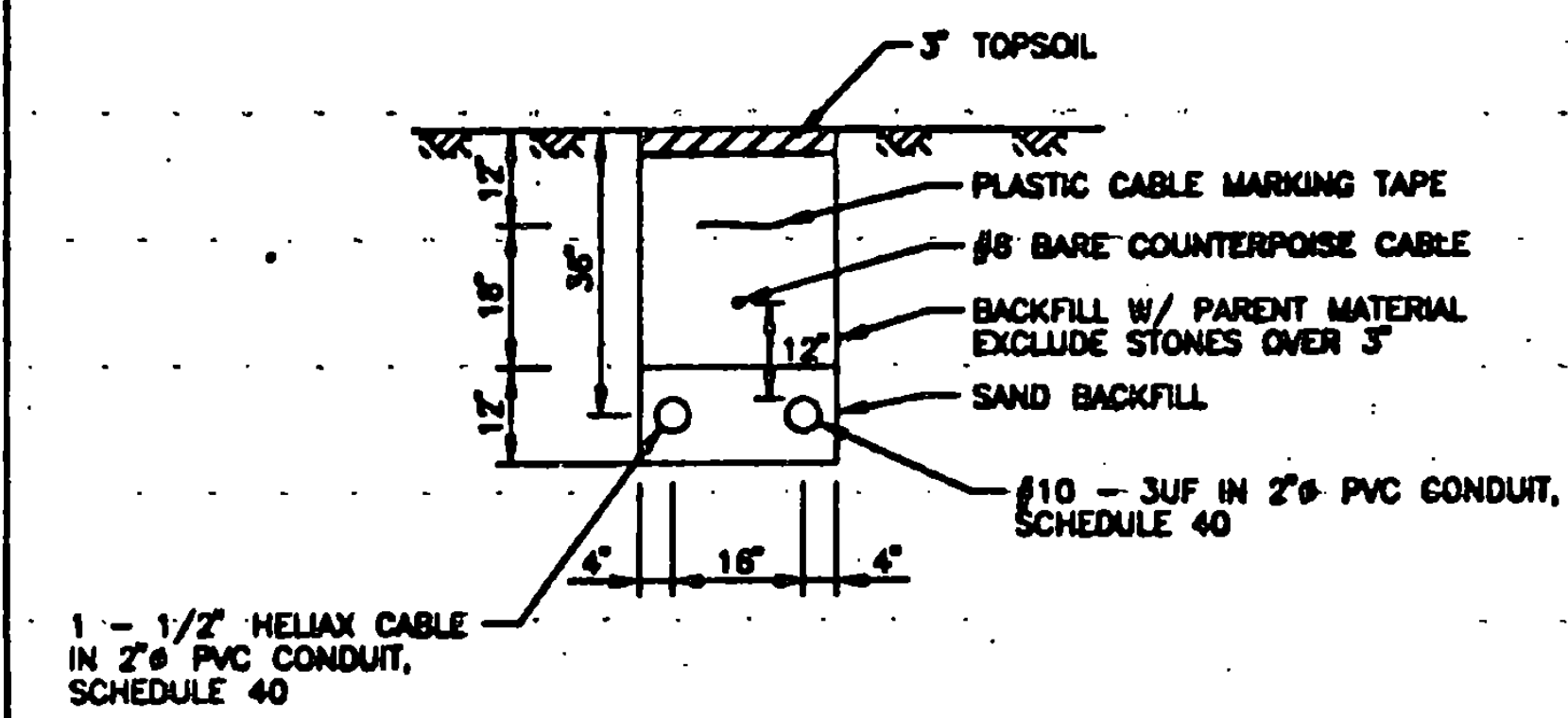
DESCRIPTION LOCALIZER SITE DETAILS	REV. DATE 1 11/1/79
Job No. 11-11/1/79	
File No. 11-11/1/79	
3 MARCUS BOULEVARD ALBANY, NEW YORK	
5	



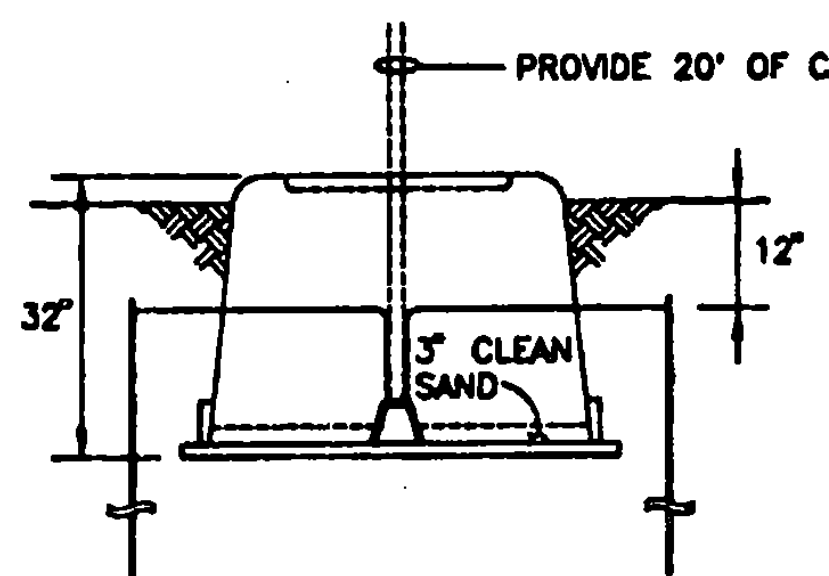
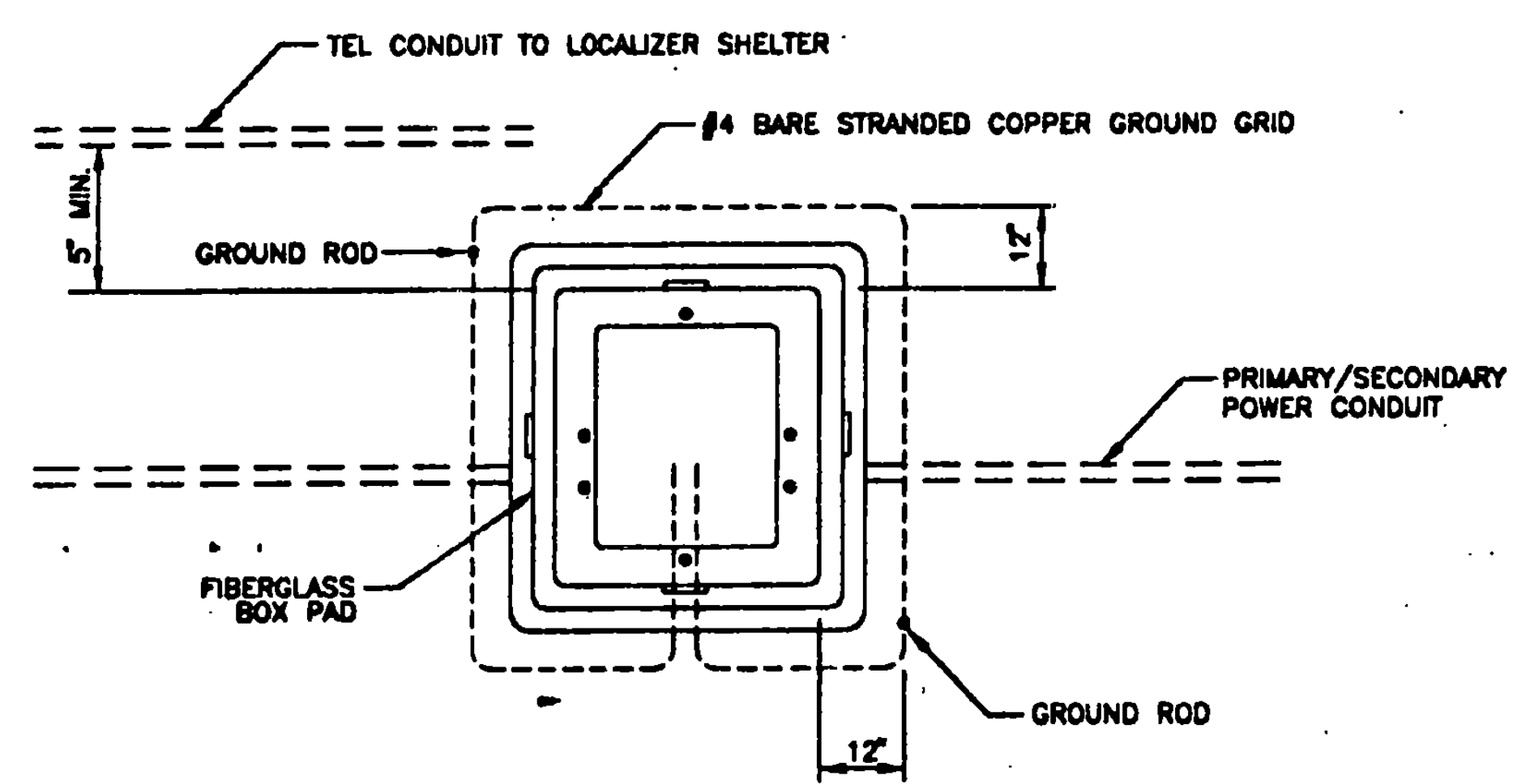
J TELEPHONE STUB-UP
SCALE: NONE



**O POWER & COMMUNICATION
HANDHOLE DETAIL**
SCALE: 1"=1'-0"

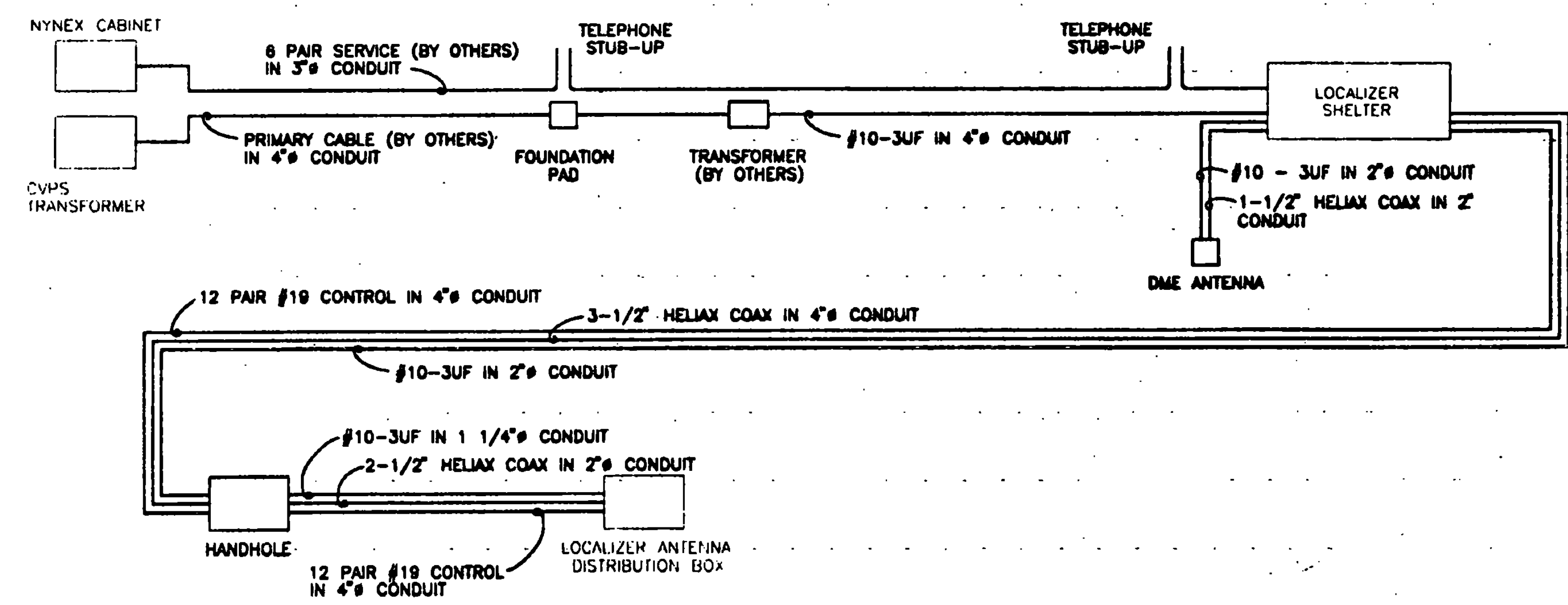


P CONDUIT TRENCH FROM DME TO SHELTER
SCALE: NONE

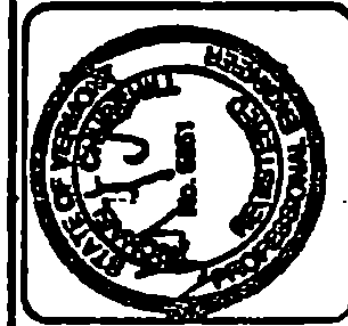


K PULL BOX DETAILS
SCALE: NONE

NOTE:
PULL BOX PROVIDED BY CVPS,
INSTALLED BY CONTRACTOR. ALL
GROUNDING WORK PROVIDED BY
CONTRACTOR. PROVIDED 5' MIN.
HORIZONTAL CLEARANCE BETWEEN
PULL BOX AND NEW TELEPHONE
CONDUIT ADJACENT TO PULL BOX.



Q WIRING DIAGRAM
SCALE: NONE



REV.	DATE	DESCRIPTION	FILE NO.
1	04/08/97	REVISION	100-100000000

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

LOCALIZER SITE DETAILS

URS Greiner, Inc.
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ALBANY, NEW YORK

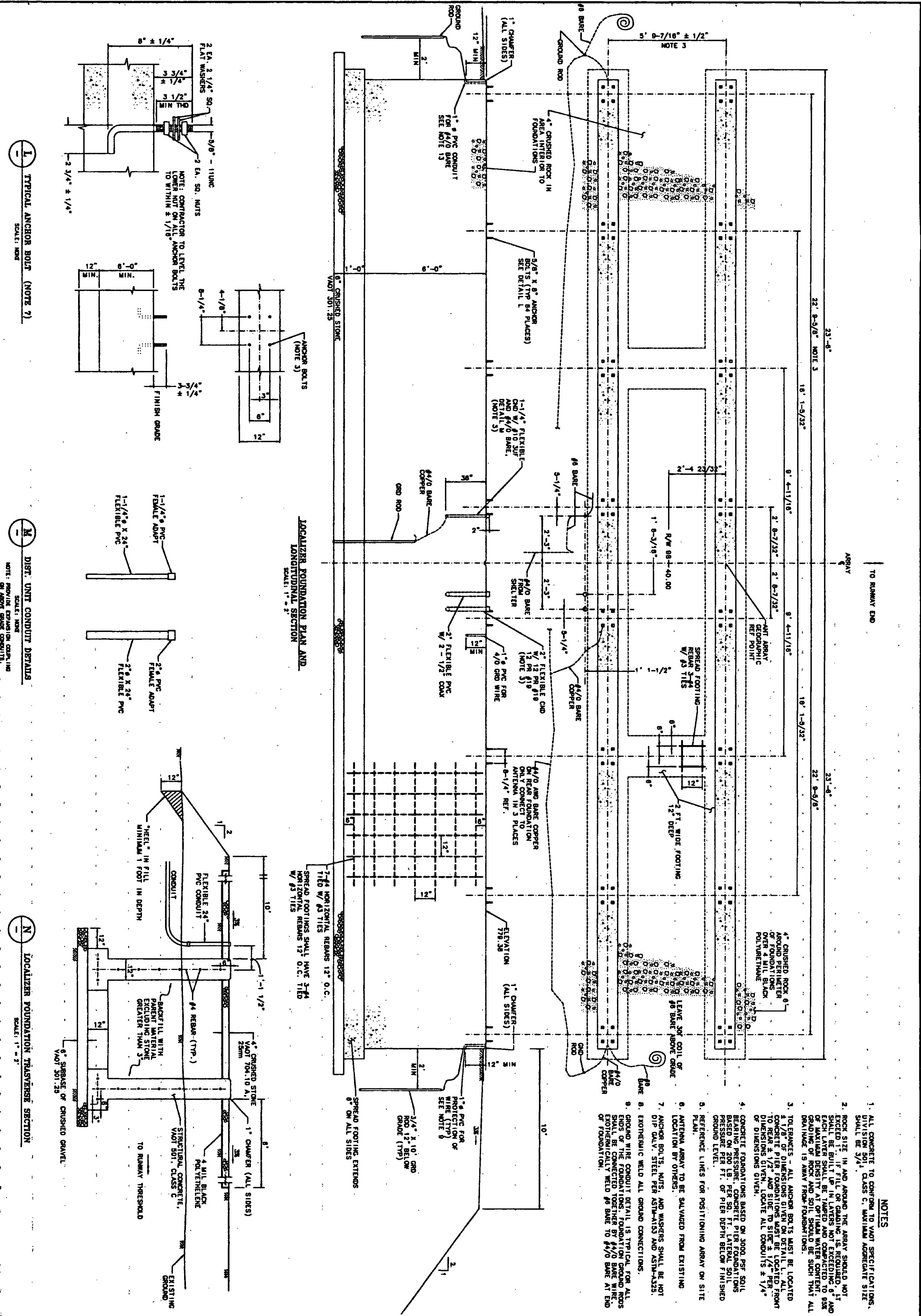
Designed by:	04/08/97
Drawn by:	04/08/97
Checked by:	04/08/97
Approved by:	04/08/97

Scale: NONE

Date: 04/08/97

Sheet 6 of 6

Sheet No.



URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

LOCALIZER FOUNDATION DETAILS

REV.	DATE	DESCRIPTION
1	10/1/77	ISSUED FOR PERMIT
2	10/1/77	ISSUED FOR PERMIT
3	10/1/77	ISSUED FOR PERMIT
4	10/1/77	ISSUED FOR PERMIT
5	10/1/77	ISSUED FOR PERMIT
6	10/1/77	ISSUED FOR PERMIT
7	10/1/77	ISSUED FOR PERMIT
8	10/1/77	ISSUED FOR PERMIT
9	10/1/77	ISSUED FOR PERMIT
10	10/1/77	ISSUED FOR PERMIT

Drawn by: J. M. Greiner
Checked by: J. M. Greiner
Approved by: J. M. Greiner

Scale: 1" = 1'-0"

Sheet No. 7 of 8

1. ALL CONCRETE TO BE PLACED IN ONE LIFT.

2. ALL CONCRETE TO BE PLACED IN ONE LIFT.

3. ALL CONCRETE TO BE PLACED IN ONE LIFT.

4. ALL CONCRETE TO BE PLACED IN ONE LIFT.

5. ALL CONCRETE TO BE PLACED IN ONE LIFT.

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1. ALL CONCRETE TO BE PLACED IN ONE LIFT.

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10. ALL CONCRETE TO BE PLACED IN ONE LIFT.



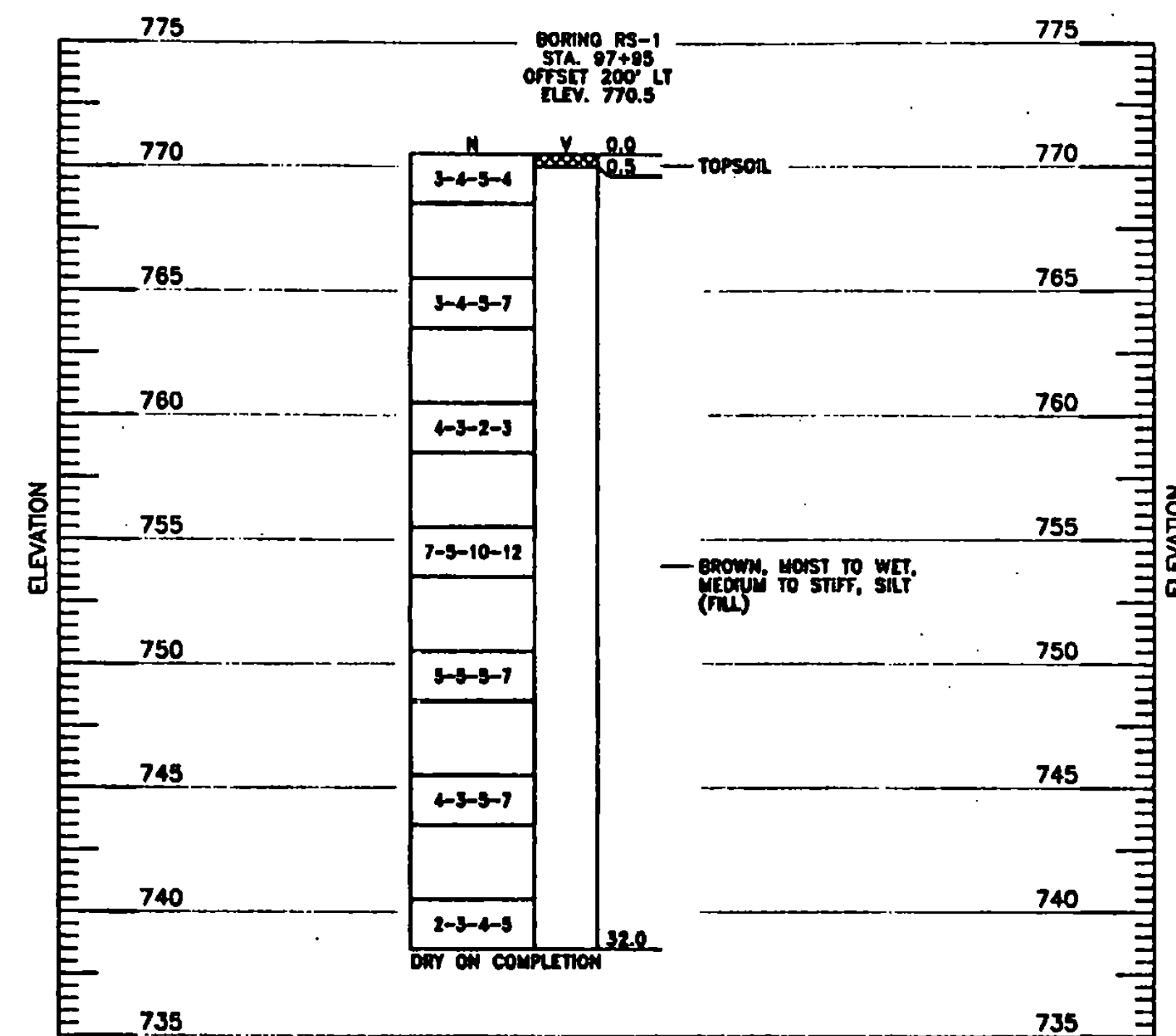
- RECEIVING-WATERS: -
MILL RIVER, OTTERCREEK.



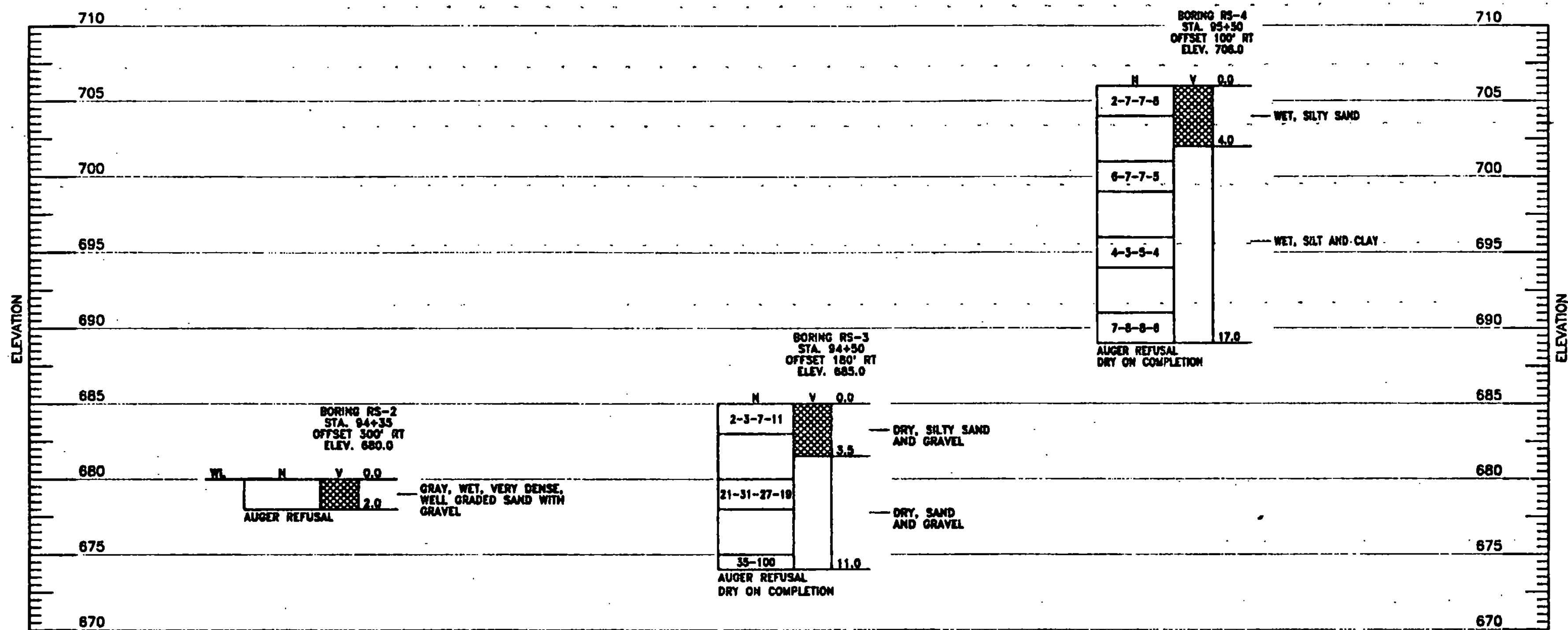
1. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND SHALL HAVE THEM INSPECTED BY THE ENGINEER PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES. MINOR SEDIMENT ADJUSTMENTS MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT POND OR OTHER WATER RESOURCE OR REMOVED PRIOR TO APPROVAL BY THE ENGINEER. THE CONTRACTOR MUST OBTAIN PRIOR APPROVAL FOR CHANGES TO THE SEDIMENT CONTROL PLAN AND/OR SEQUENCE OF CONSTRUCTION.
 2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED.
 3. THE CONTRACTOR SHALL APPLY SEED AND MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES OF MATERIALS. (1) CALICINE STRUTHERS SHALL BE USED FOR SEEDING ACTIVITIES HAVE CEASED IN THE AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION, AND TO RESEED SOIL AS NECESSARY. SEEDING SHALL BE PROVIDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS ESTABLISHED.
 4. THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED IN CONFORMANCE WITH THE VEHICLE MAINTENANCE FOR SOIL EROSION AND SEDIMENT CONTROL ON CONSTRUCTION SITES AS PUBLISHED BY THE VT. GEOLOGICAL SURVEY.
 5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE STABILIZED OR REMOVED TO PREVENT FURTHER EROSION.
 6. EROSION CONTROL DEVICES REMOVED DURING GRADING OPERATIONS SHALL BE PUT BACK IN PLACE AT THE END OF THE DAY OR DURING INCLEMENT WEATHER AS DIRECTED BY THE ENGINEER.
 7. NO SOIL, ROCK, DEBRIS, OR ANY OTHER MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER RESOURCE OR INTO SUCH PROXIMITY THAT IT MAY BE WASHED INTO A WATER RESOURCE. UNLESS SUCH DUMPING OR PLACING IS AUTHORIZED BY THE ENGINEER AND, WHEN APPLICABLE, THE U.S. ARMY CORPS OF ENGINEERS, FOR SUCH PURPOSES AS, BUT NOT LIMITED TO, THE CONSTRUCTION OF BRIDGES, CULVERTS, AND EROSION CONTROL STRUCTURES.
 8. PERMANENT SEEDING SHALL BE DONE BETWEEN APRIL 30 AND SEPTEMBER 30. IF SEEDING IS DONE AT OTHER TIMES, IT SHALL BE CLASSIFIED AS "TEMPORARY SEEDING". PERMANENT SEED SHALL CONFORM TO THE SEEDING MIXTURE STATED IN THE SPECIFICATIONS. TEMPORARY AND PERMANENT SEEDING SHALL CONSIST OF FERTILIZING, WATERING, AND SEEDING PLACED AT RATES IN ACCORDANCE WITH THE SPECIFICATIONS. PERMANENT SEEDING AND MULCHING SHALL BE PAID FOR UNDER 881.15 AND 881.16. TEMPORARY SEED, MULCH, AND FERTILIZER SHALL BE PAID FOR UNDER 881.15. NO PAYMENT WILL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.
 9. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE PREVENTED BY DRAINAGE FLOWERS, OR BY DRAINAGE FLOWERS TRAVELING THE SLOPES OR BY INSTALLING PROTECTIVE DEVICES TO LOWER THE WATER DOWNSLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. PROTECTIVE METHODS MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
 10. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS IN UNPAVED AREAS SHALL BE STABILIZED AND PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC OR PRIVATE ROADWAYS.
 11. IF PUBLIC OR PRIVATE ROADWAYS DO ACCUMULATE DEBRIS, THE CONTRACTOR SHALL USE A POWER BROOM TO REMOVE THE SEDIMENT TO THE SATISFACTION OF THE ENGINEER.
 12. SALVAGED TOPSOIL WILL BE PLACED ON WELL DRAINED LAND AWAY FROM STREAMS AND WITH APPROVED EROSION CONTROL MEASURES. THE CONTRACTOR WILL PROVIDE AN ADEQUATE QUANTITY OF SILT FENCE TO CONTROL THE PERIMETER OF THE STOCKPILE. IN CONSULTATION WITH THE APPROVAL OF THE ENGINEER, MAY CONSTRUCT AN EARTH DIKE IN LIEU OF SILT FENCE.
 13. ALL DISTURBED AREAS SHALL BE COVERED WITH 3 INCHES OF TOPSOIL, FERTILIZER, LIME, PERMANENT SEEDING AND MULCH SHALL BE APPLIED AT THE FOLLOWING RATES:

FERTILIZER	10-20-10	500 LBS/ACRE
LIME		2 TONS/ACRE
SEED		2 TONS/ACRE
<u>TYPE</u>	<u>5. WEIGHT</u>	<u>RATE</u>
CREEPING RED FESCUE	54% -	20 LBS/ACRE
REDTOP	5%	2 LBS/ACRE
CROWN VETCH	41%	18 LBS/ACRE
MULCH		2 TONS/ACRE

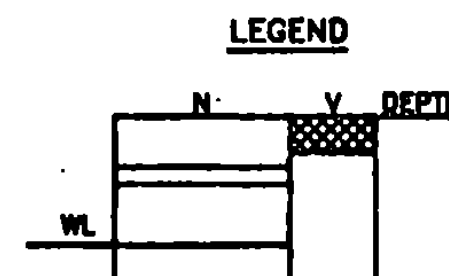
Designed by: G. FALCO	Date: 02/04/97
Drawn by: M. MCALLA	02/04/97
Checked by: S. KELLER	
Approved by: M. L. C.	04/09/97
Scale: HOR. - NONE VERT. - NONE	
Date: 04/09/97	
Sheet 8 Of 8	
Sheet No: 8	



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



NOTE:

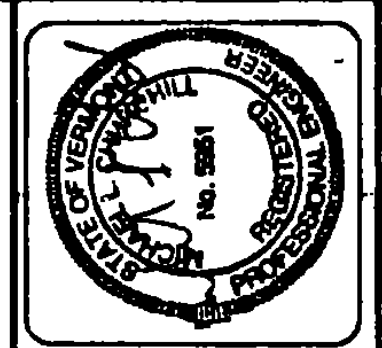
1.) BORINGS AND DRIVE TESTS WERE TAKEN IN NOVEMBER 1995, BY GREEN MOUNTAIN BORING.

2.) N - BLOWS PER 6 INCH INCREMENT OF PENETRATION OF SAMPLING SPOON OR PENETRATION IN INCHES FOR THE INDICATED BLOWS OF A 140 LB. HAMMER FALLING 30". WHERE ROCK IS ENCOUNTERED, PERCENT CORE RECOVERY IS SHOWN. R.Q.D. IS SHOWN IN PARENTHESES.

THE ROCK QUALITY DESIGNATION (R.Q.D.) IS BASED ON A MODIFIED CORE RECOVERY PROCEDURE WHICH, IN TURN, IS BASED INDIRECTLY ON THE NUMBER OF FRACTURES (EXCEPT THOSE DUE DIRECTLY TO DRILLING OPERATIONS) AND THE AMOUNT OF SOFTENING OR ALTERATION IN THE ROCK MASS AS OBSERVED IN THE ROCK CORES FROM A DRILL HOLE. INSTEAD OF COUNTING THE FRACTURES, AN INDIRECT MEASURE IS OBTAINED BY SUMMING THE TOTAL LENGTH OF CORE RECOVERED BY COUNTING ONLY THOSE PIECES OF HARD AND SOUND CORE WHICH ARE 4 INCHES OR GREATER IN LENGTH. THE RATIO OF THIS MODIFIED CORE RECOVERY LENGTH TO THE TOTAL CORE RUN LENGTH IS KNOWN AS THE R.Q.D.

V - ALTERNATE SHADING INDICATES EXTENT OF SOIL OR ROCK LAYERS.

WL - WATER LEVEL READING AT COMPLETION OF BORING.



REV.	DATE	DESCRIPTION

Job No. 740712.00
File No. 11/00/2700-01

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

BORING LOGS

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ALBANY, NEW YORK

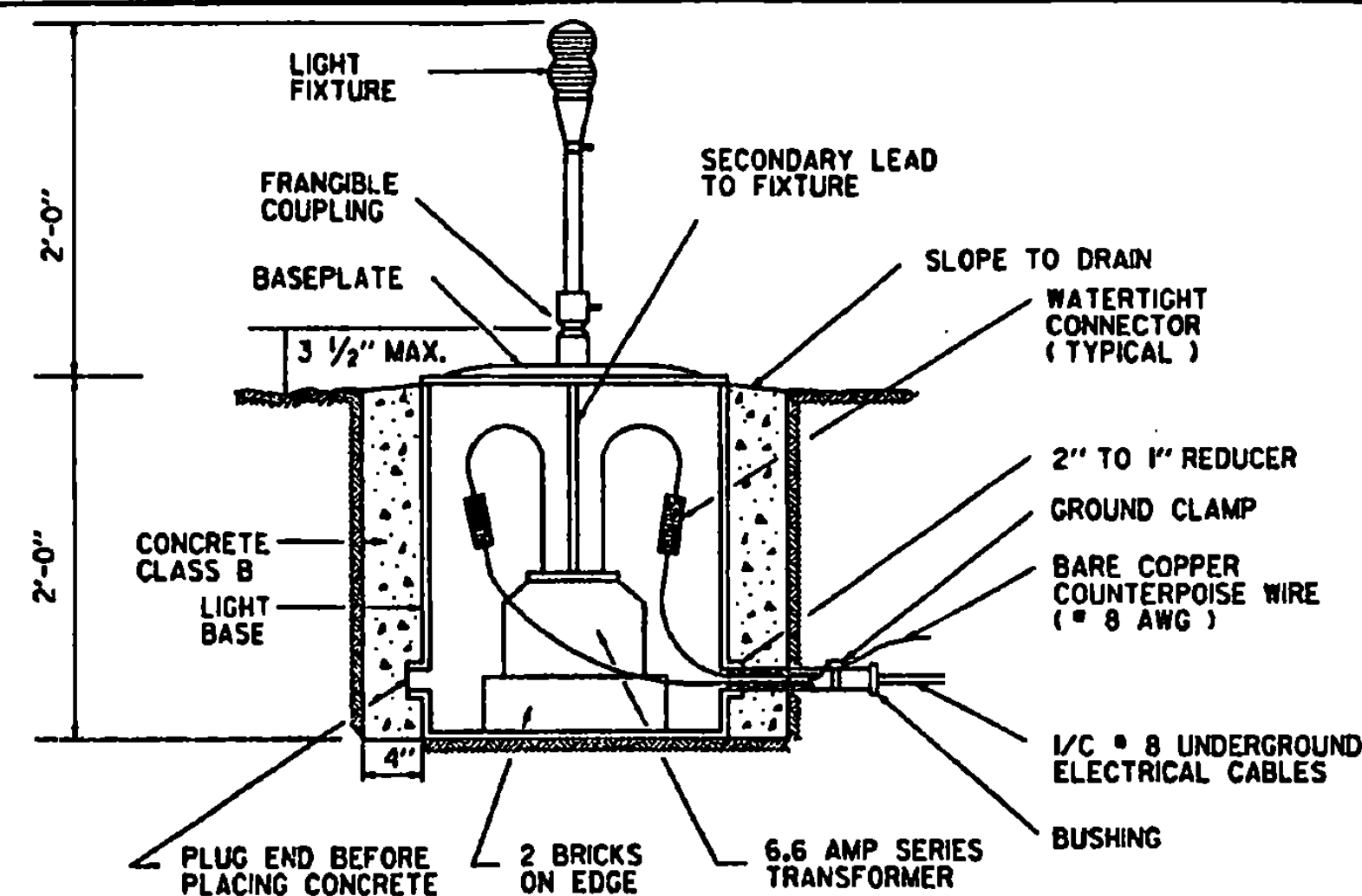
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VERT. - 1"=10'

Date: 04/08/97

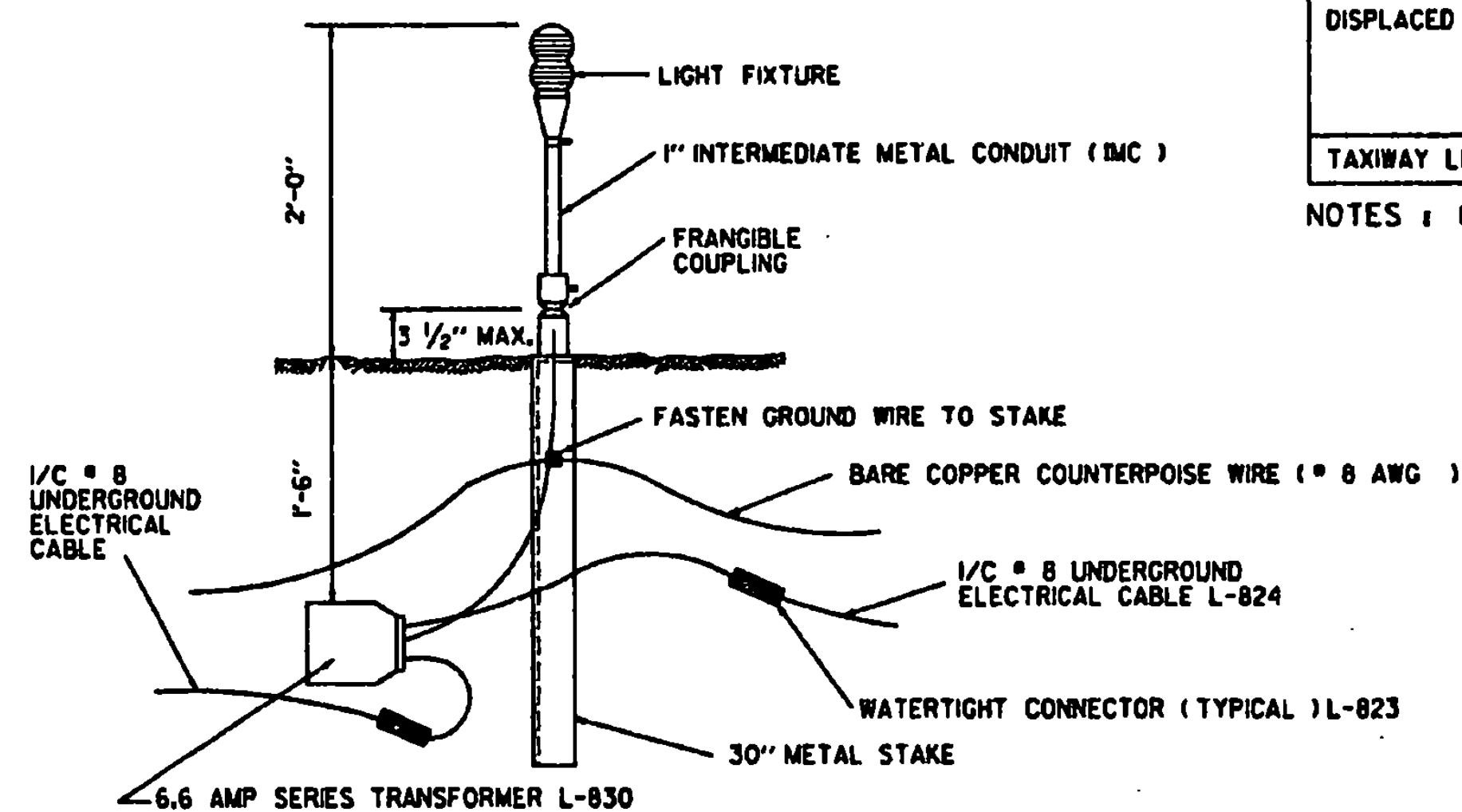
Sheet 1 of 1

Sheet No. 9



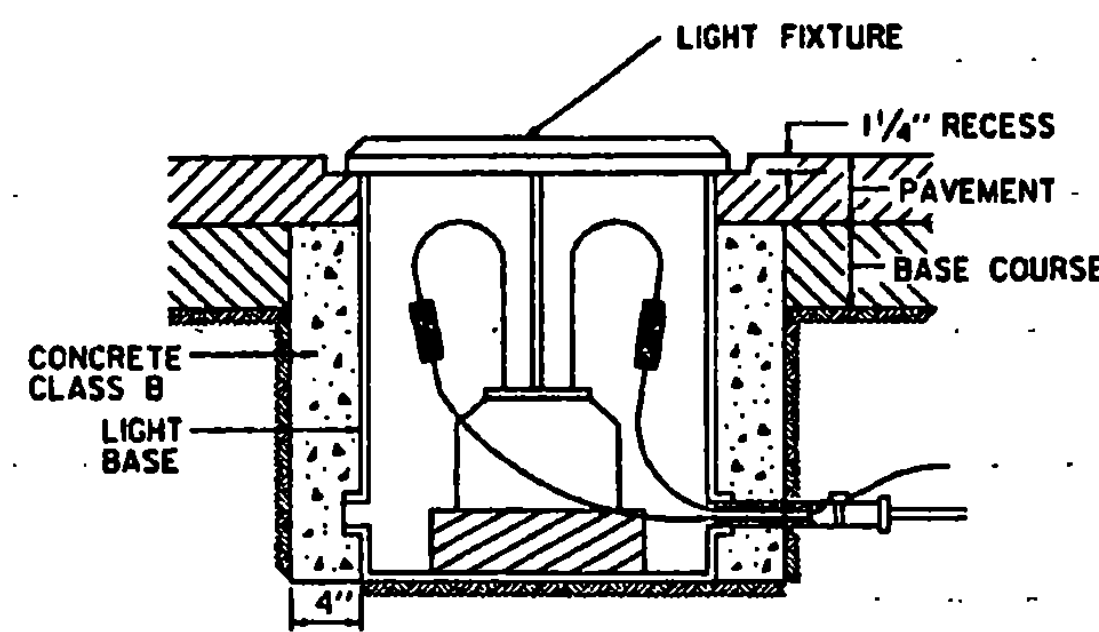
- NOTES :
1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
 2. SEAL END OF CONDUIT (DUCT SEAL)
 3. PROVIDE 1/2" PER FT. PITCH ON ALL CONDUITS

BASE MOUNTED UNIT
ELEVATED LIGHT
NO SCALE



- NOTES :
1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
 2. 30" METAL STAKE SHALL BE MADE OF GALVANIZED STEEL ANGLE 2" x 2" x 7/8" WITH A SUITABLE TAPPED FITTING BOLTED AT THE TOP TO RECEIVE THE FRANGIBLE COUPLING.

STAKE MOUNTED UNIT
ELEVATED LIGHT
NO SCALE



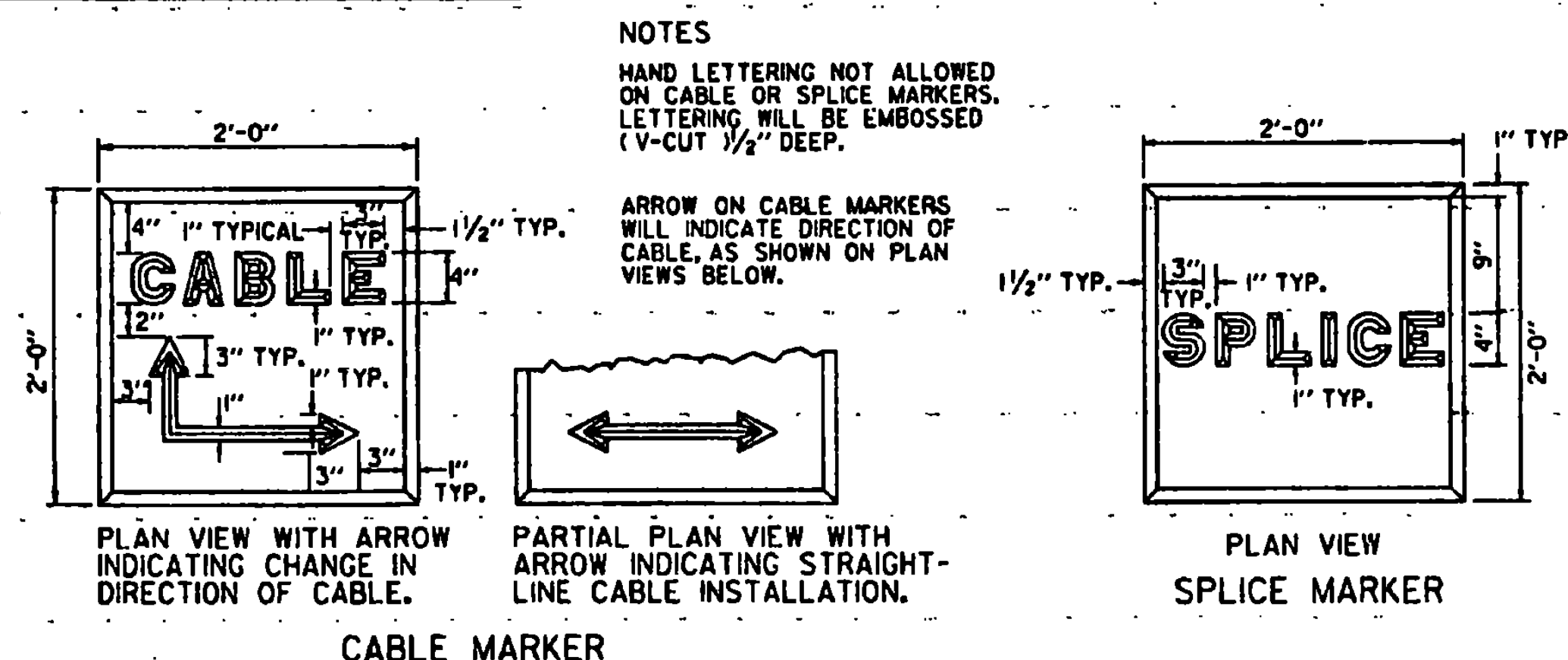
NOTE : FOR ALL OTHER DETAILS, SEE BASE MOUNTED UNIT FOR ELEVATED LIGHT.

BASE MOUNTED UNIT
SEMI-FLUSH LIGHT
NO SCALE

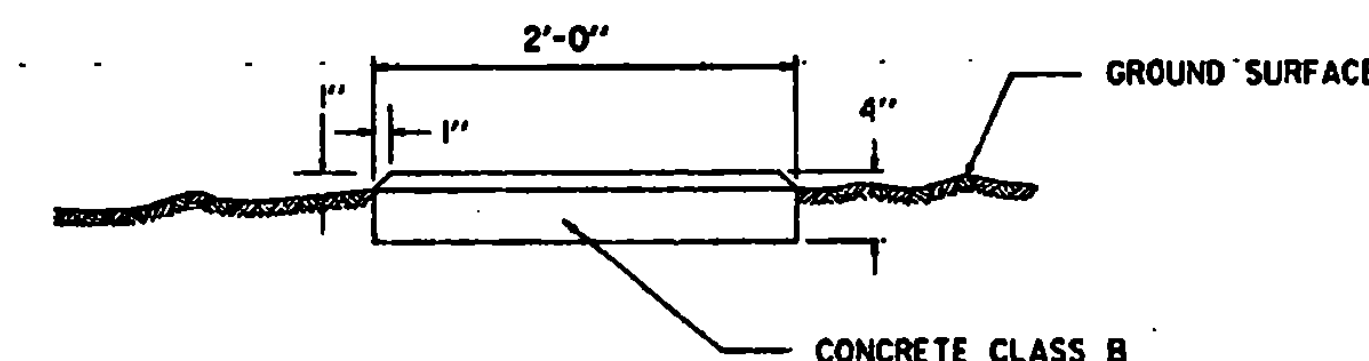
LIGHT LOCATION	LAMP		LENS
	MEDIUM INTENSITY	HIGH INTENSITY	
RUNWAY EDGE LIGHT	6.6A, 30W	6.6A, 15-20W	360° CLEAR 180° CLEAR/180° YELLOW
RUNWAY THRESHOLD LIGHT	6.6A, 45W	6.6A, 15-20W	180° RED/180° GREEN
DISPLACED THRESHOLD LIGHT	6.6A, 30/45W	6.6A, 15-20W	360° RED
			180° RED/180° CLEAR 180° OBSCURED/180° GREEN 180° CLEAR/180° GREEN
TAXIWAY LIGHT	6.6A, 30W		360° BLUE

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

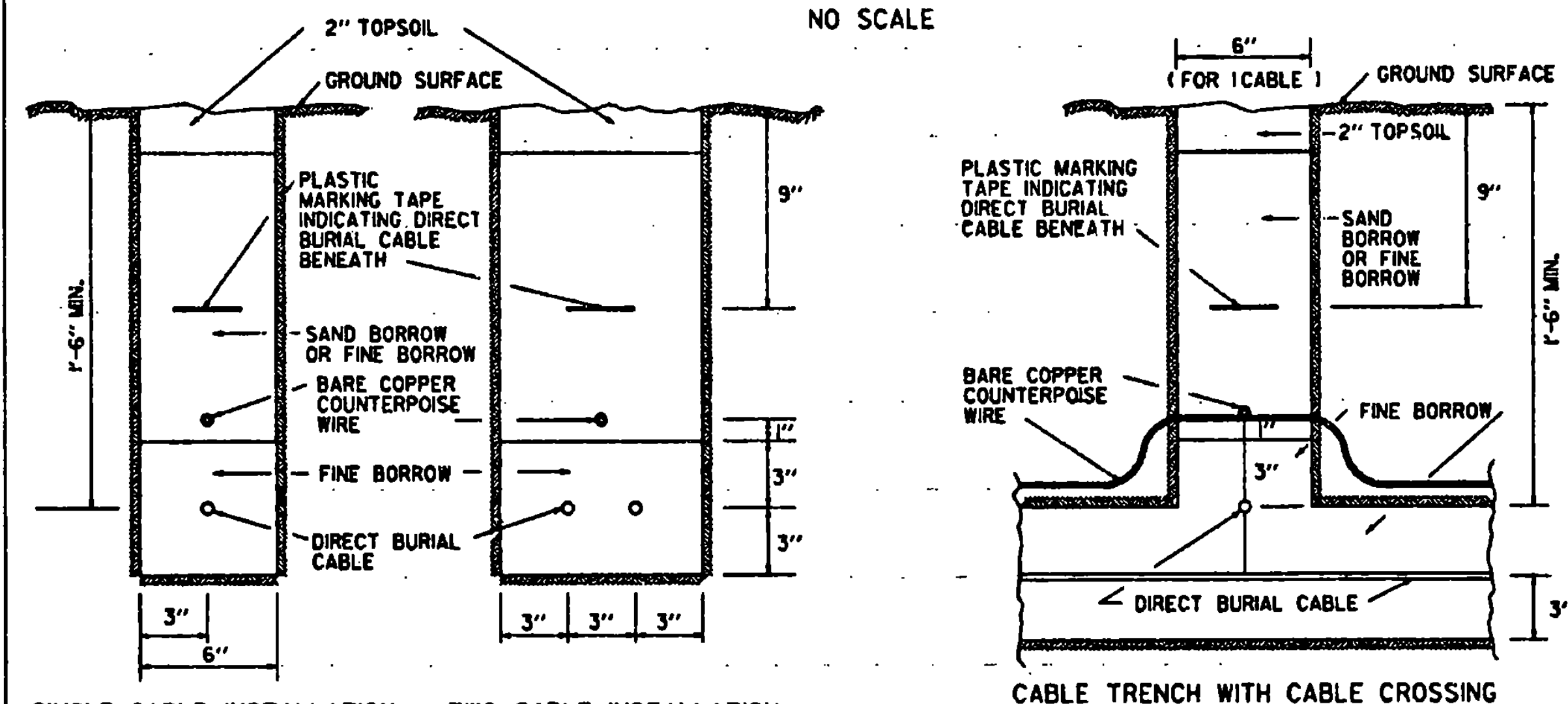
NOTE : AIRPORT LIGHT BASES SHOULD BE CONSTRUCTED TO FAA SPECIFICATIONS. SEE CURRENT ADVISORY CIRCULAR.



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
MAR. 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.
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

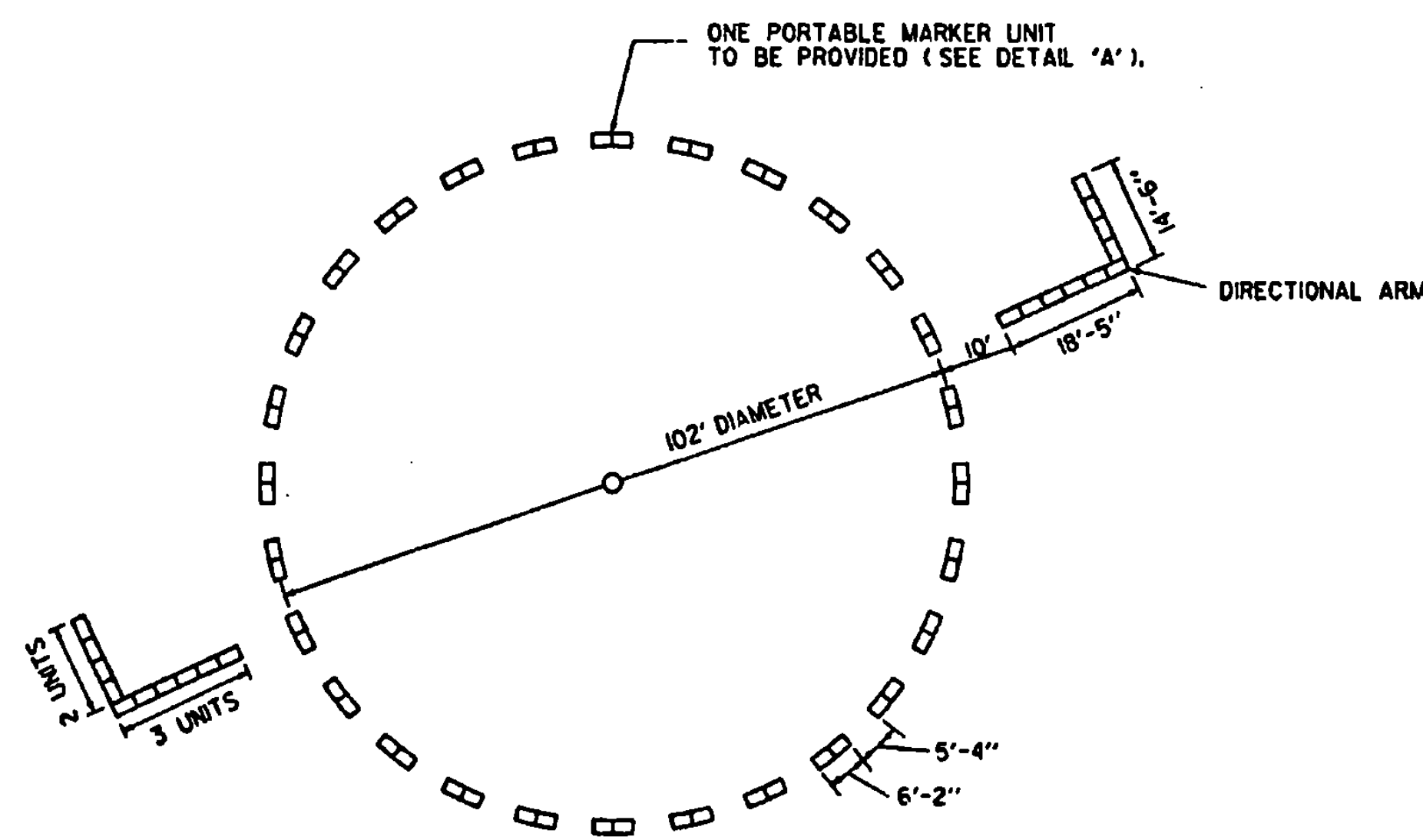
LIGHTING & ELECTRICAL DETAILS



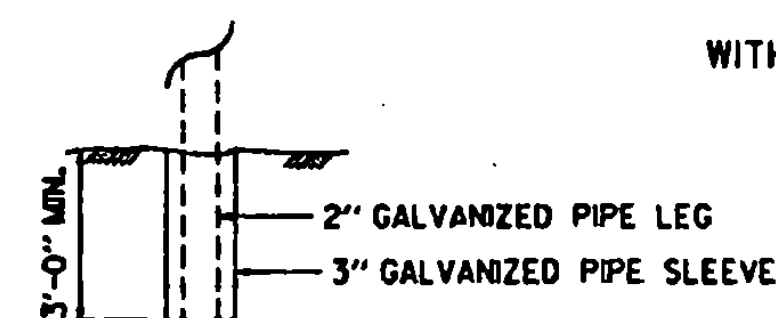
STANDARD
AP-2

NOTES

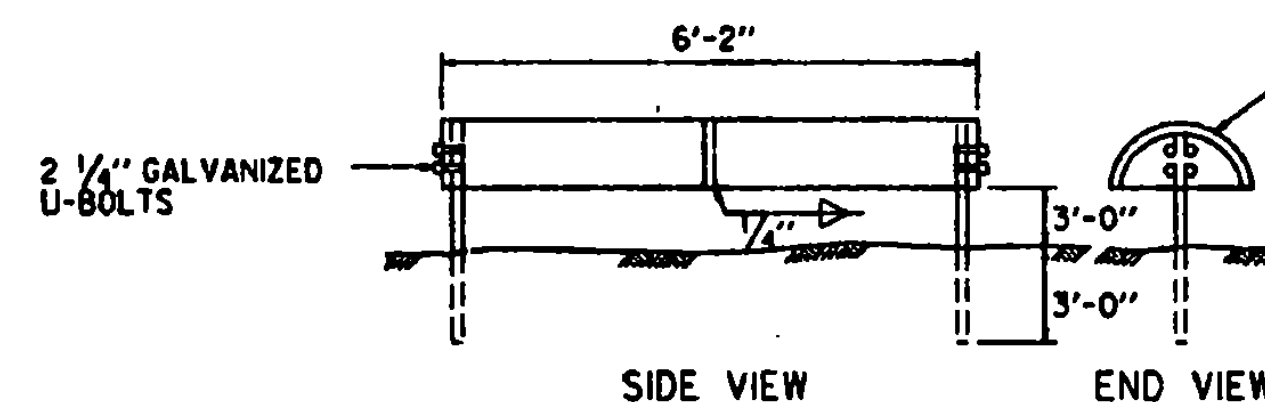
1. THE LOCATION OF THE PORTABLE MARKER UNIT SHALL BE AS ORDERED BY THE ENGINEER.
2. DIRECTIONAL ARMS ARE INSTALLED ONLY ON AIRPORTS WITH A NON-STANDARD TRAFFIC PATTERN (RIGHT-HAND PATTERN). WHEN INSTALLED, DIRECTIONAL ARMS WILL BE MAGNETICALLY ORIENTED TO THE RUNWAY AND WILL SHOW TRAFFIC PATTERN ON EACH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



SEGMENTED CIRCLE LAYOUT
WITH DIRECTIONAL ARMS



LEG DETAIL FOR PORTABLE MARKER UNIT
DETAIL 'A'

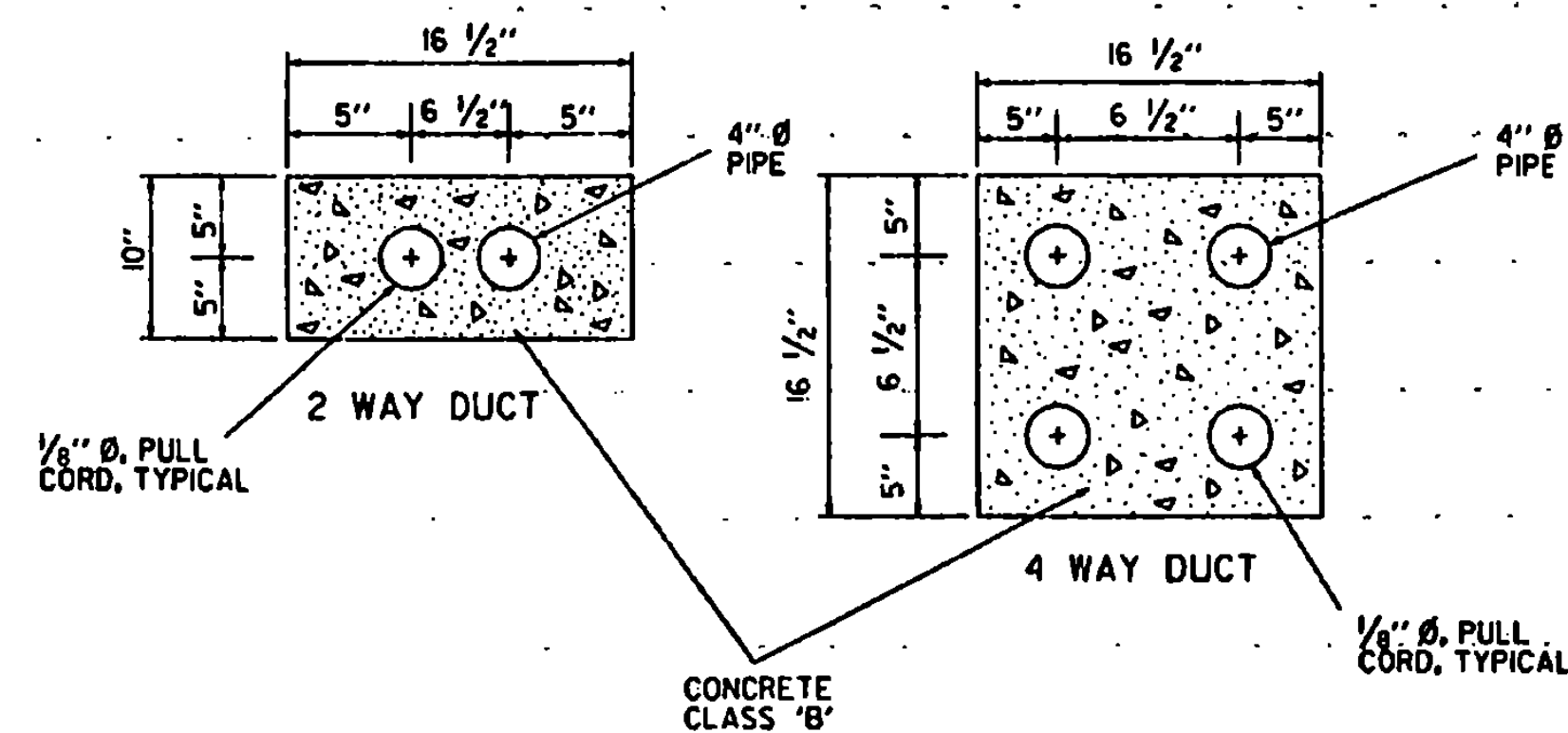


SEGMENTED CIRCLE MARKER UNIT

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

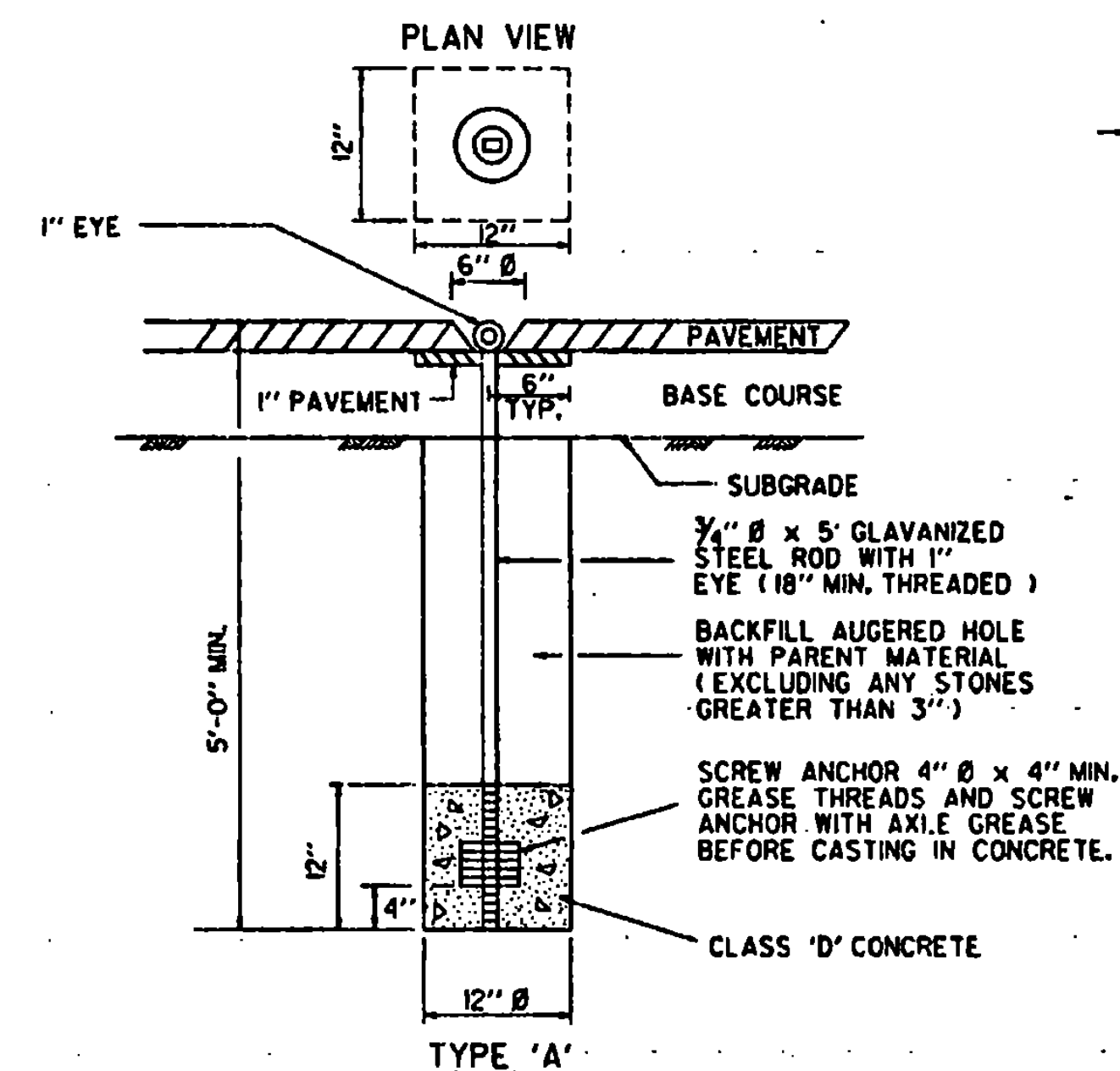
PORTABLE UNIT HAS LEGS OF 2" Ø GALVANIZED PIPE. STATIONARY UNITS HAVE LEGS OF 2" Ø GALVANIZED PIPE OR 1 1/2" x 3/8" L (GALV.).

SECTION A-A

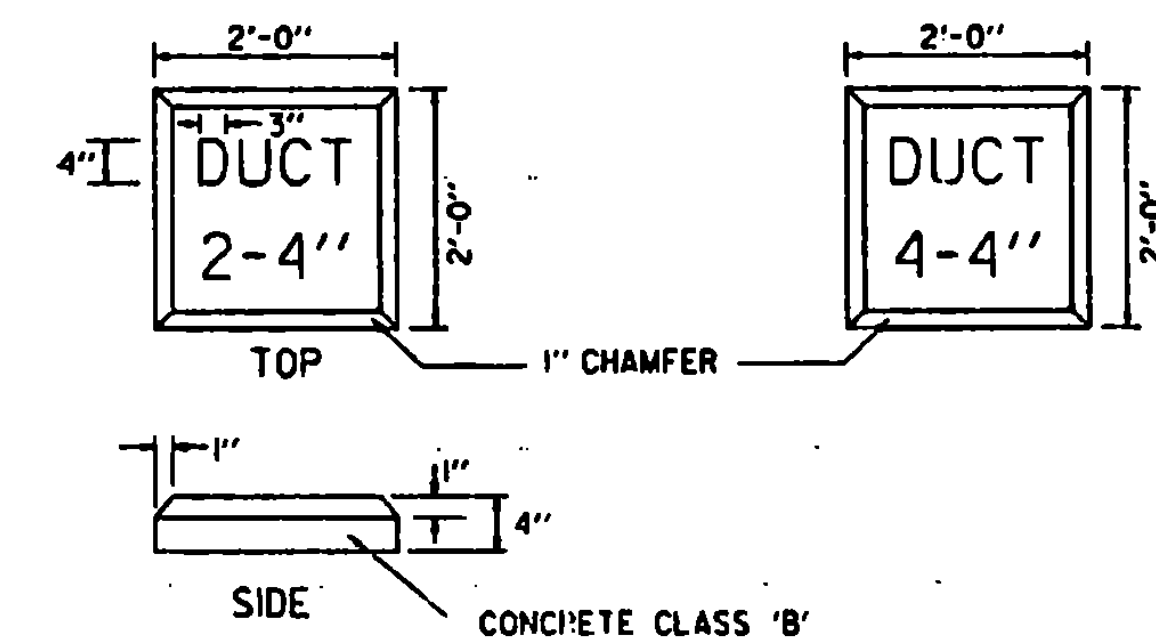
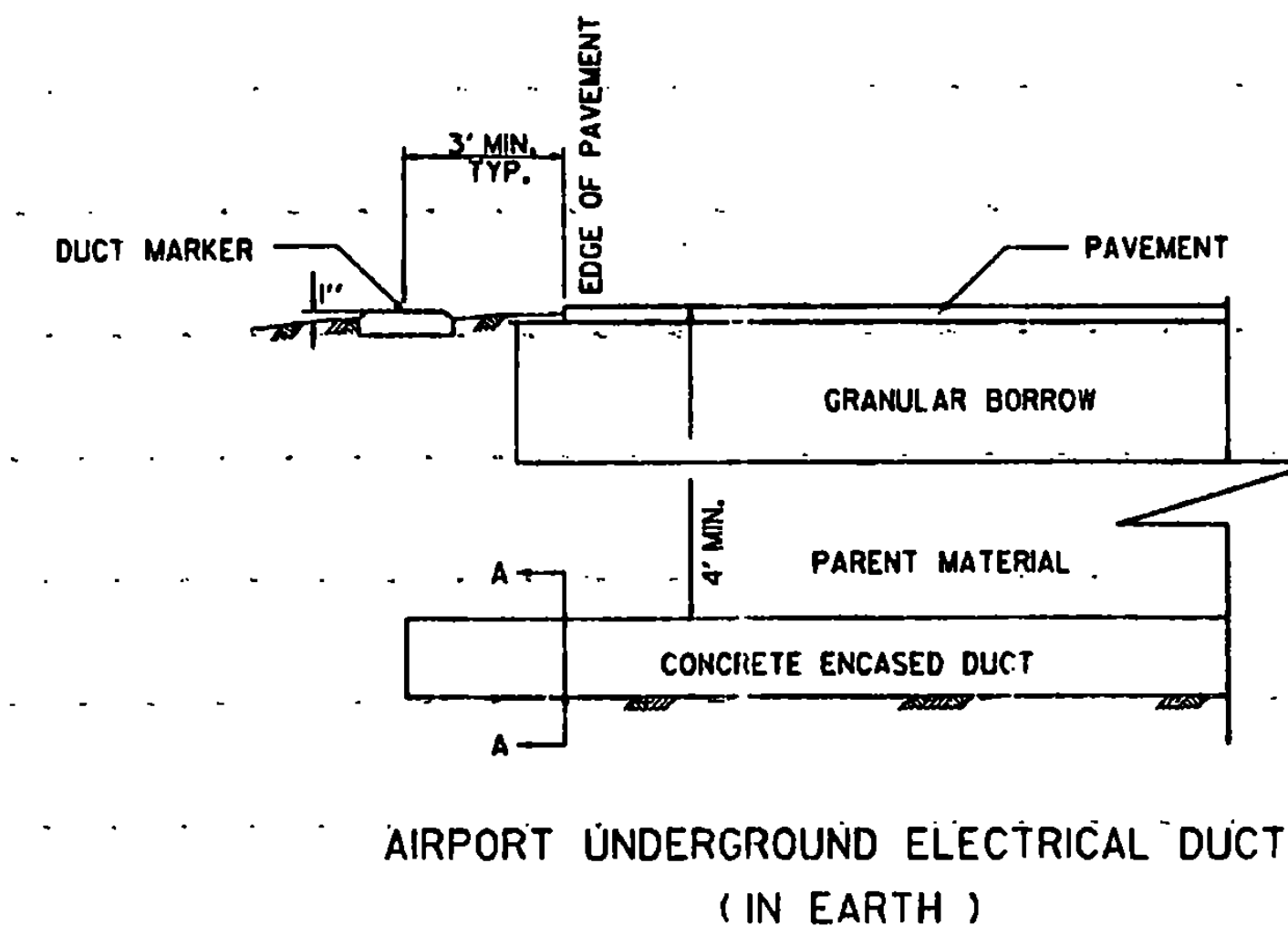


ALL DUCTS, EXCEPT STEEL CONDUIT, INSTALLED UNDER RUNWAYS, TAXIWAYS, APRONS, AND OTHER PAVED AREAS SHALL BE ENCASED IN A CONCRETE ENVELOPE

SEE STANDARD AP-2 FOR DIRECT BURIAL CABLE DETAILS.

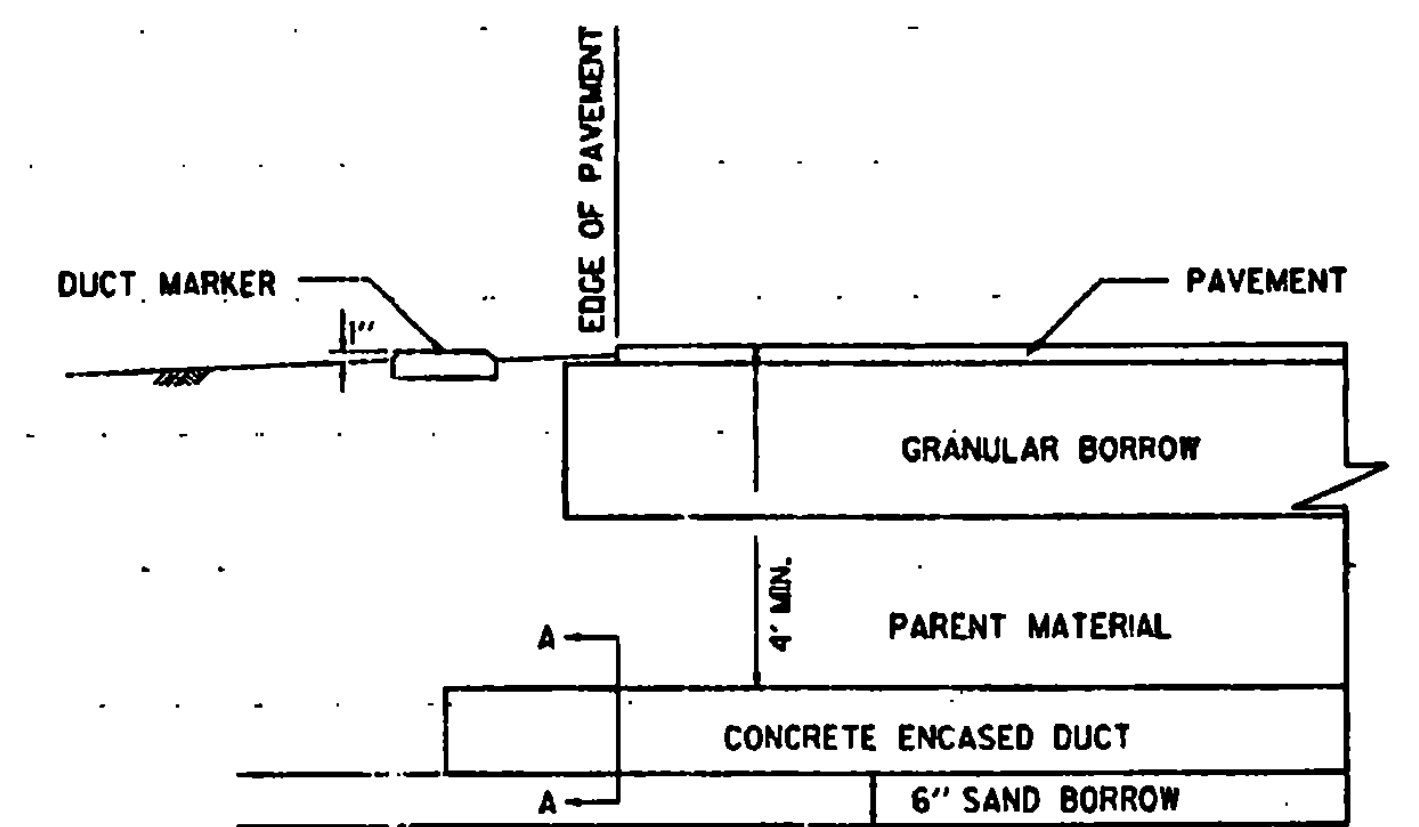


AIRCRAFT TIE DOWN ANCHOR



DUCT MARKERS

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



REVISIONS AND CORRECTIONS

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

APPROVED

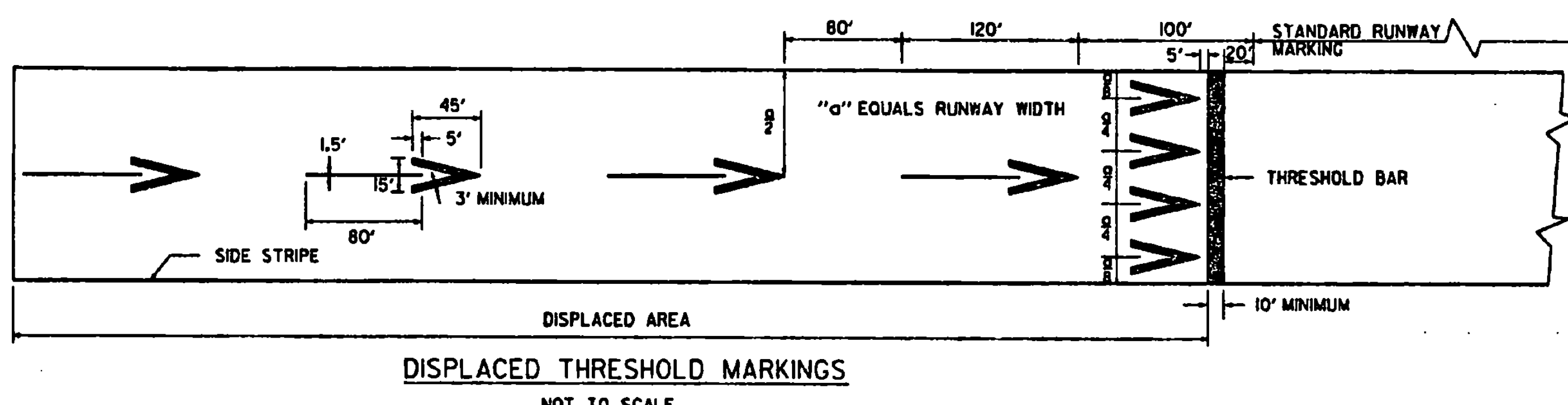
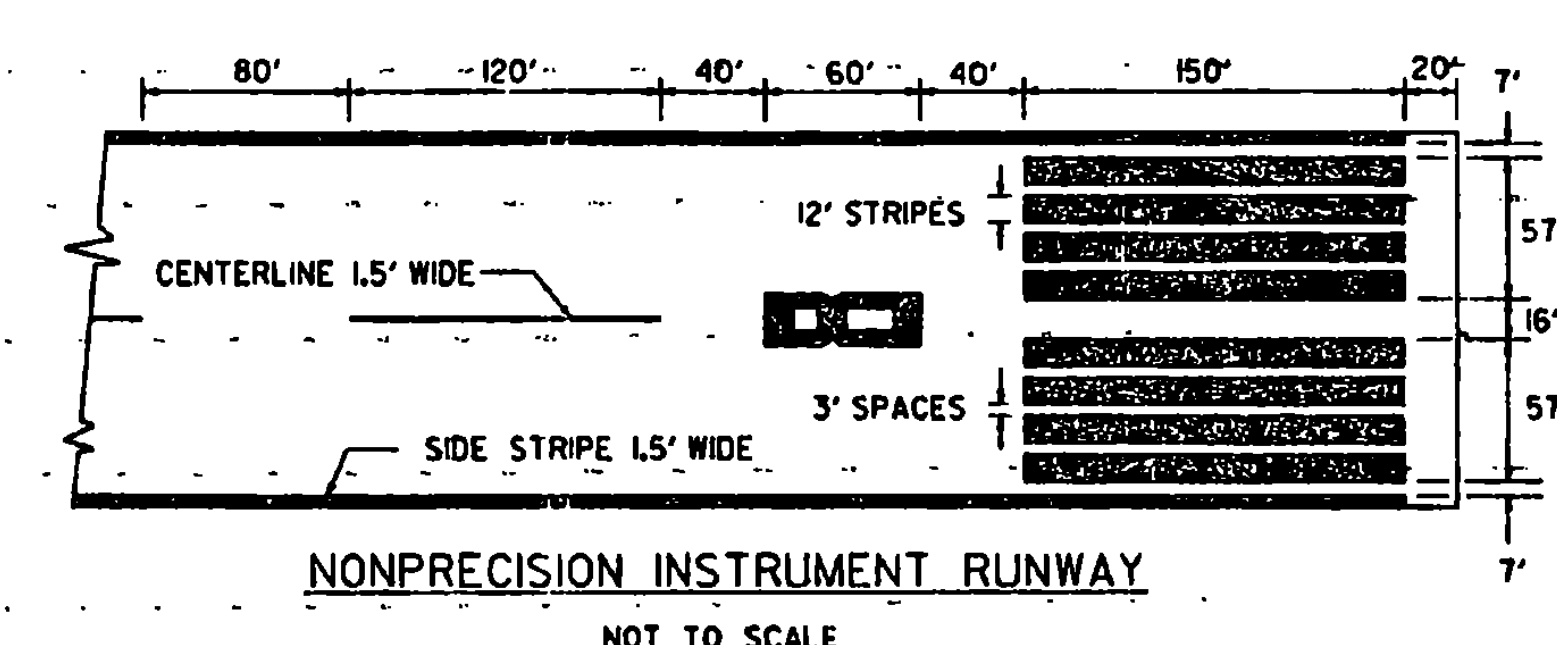
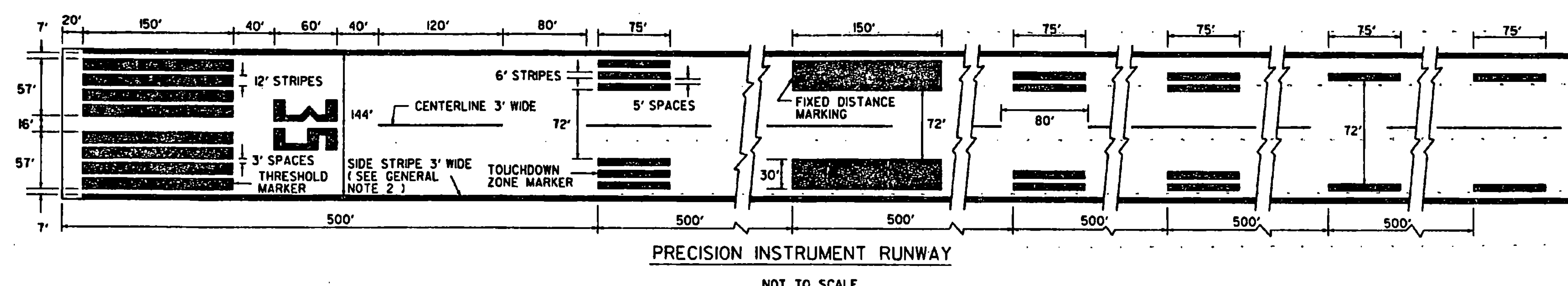
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

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

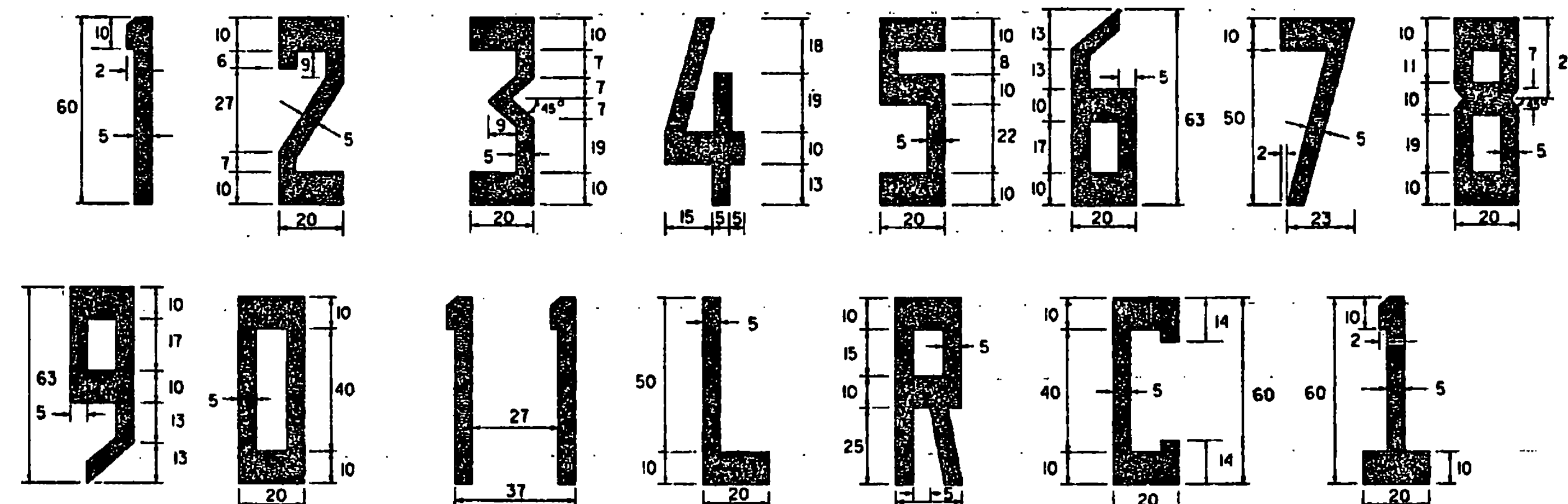
MISCELLANEOUS AIRPORT DETAILS



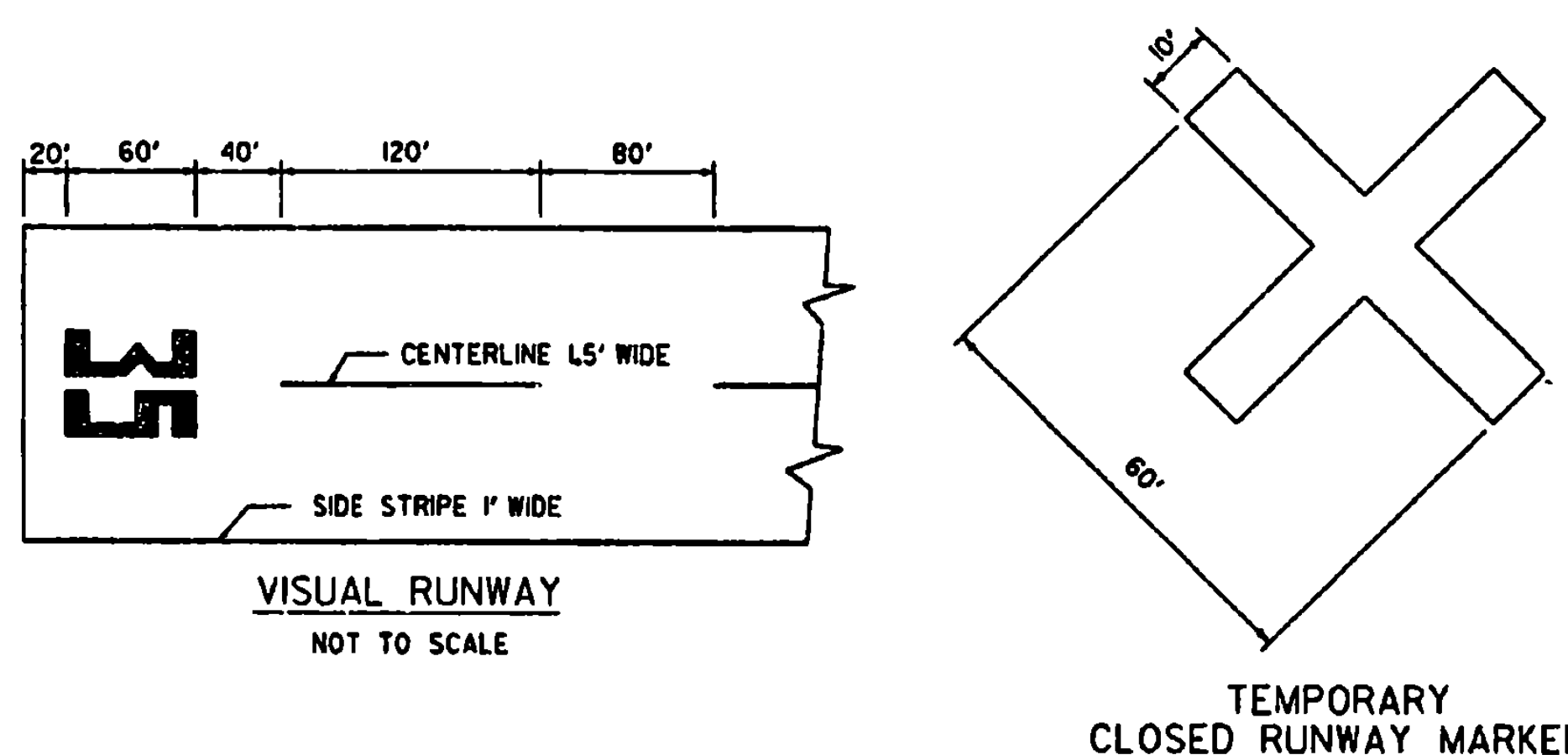
STANDARD
AP-3



- 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.



- TEMPORARY CLOSED RUNWAY MARKER NOTES :**
1. MARKERS TO BE YELLOW PLYWOOD OR SNOW FENCE.
 2. MARKERS TO BE SUBSIDIARY TO OTHER PAVEMENT MARKINGS.
 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.

- 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 (4" TO 6").

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

REVISIONS AND CORRECTIONS

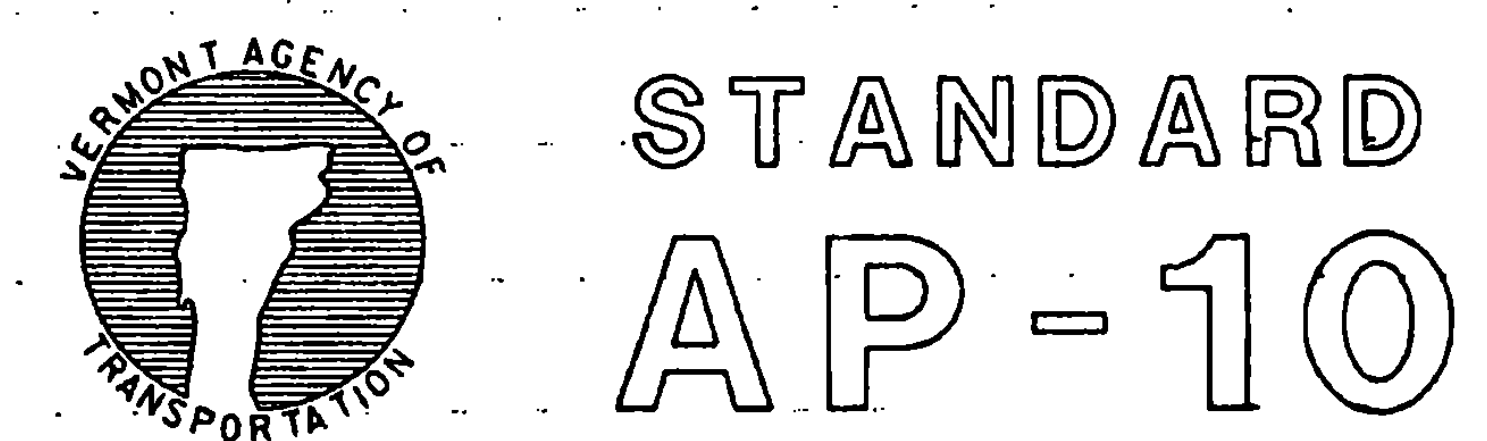
JUNE 29, 1982 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

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

[Signature]
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

RUNWAY MARKING DETAILS



STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENTS RUTLAND STATE AIRPORT CLARENDON, VERMONT AIP NO. 3-50-0015-11 E.A. 043111

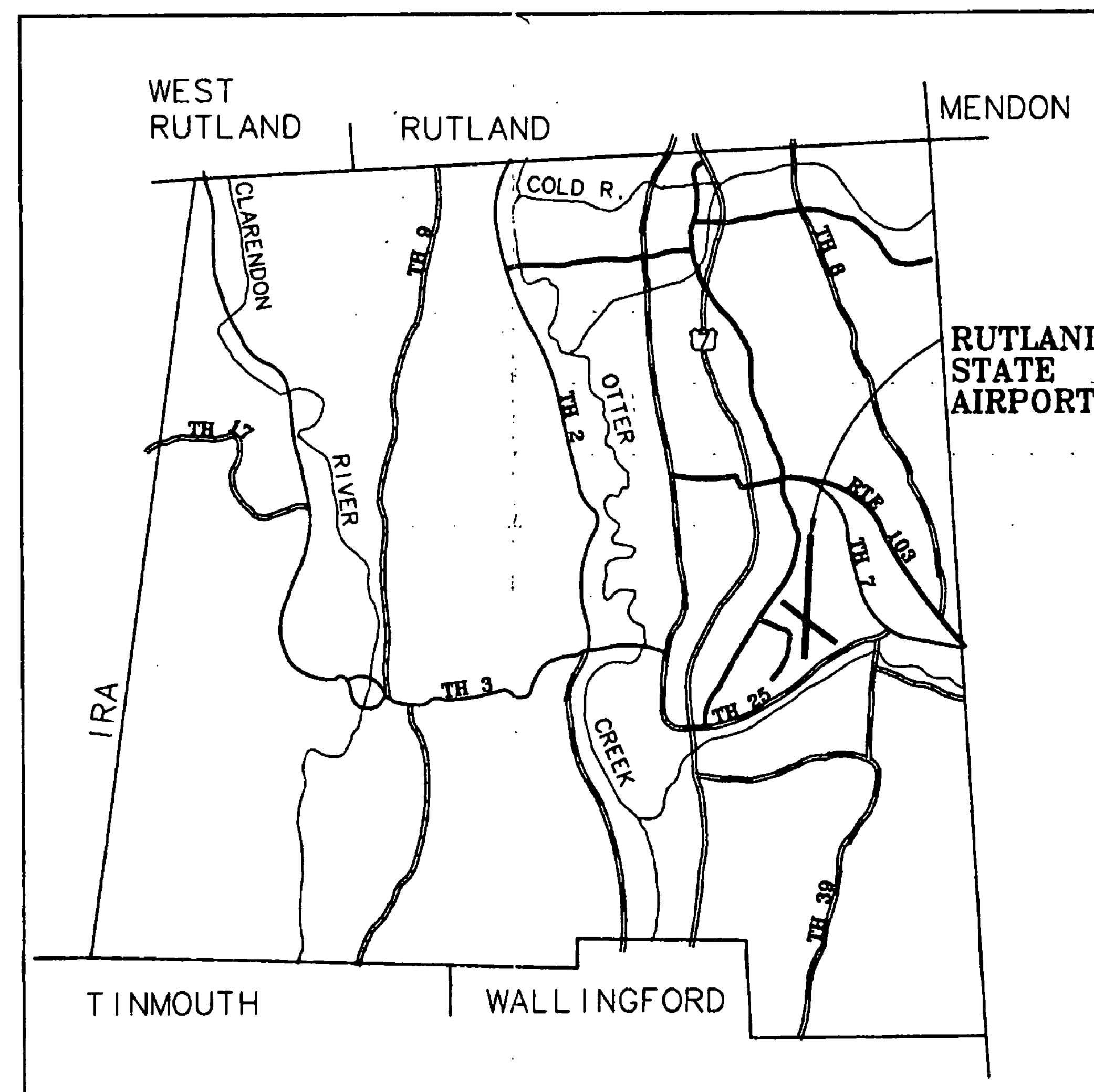
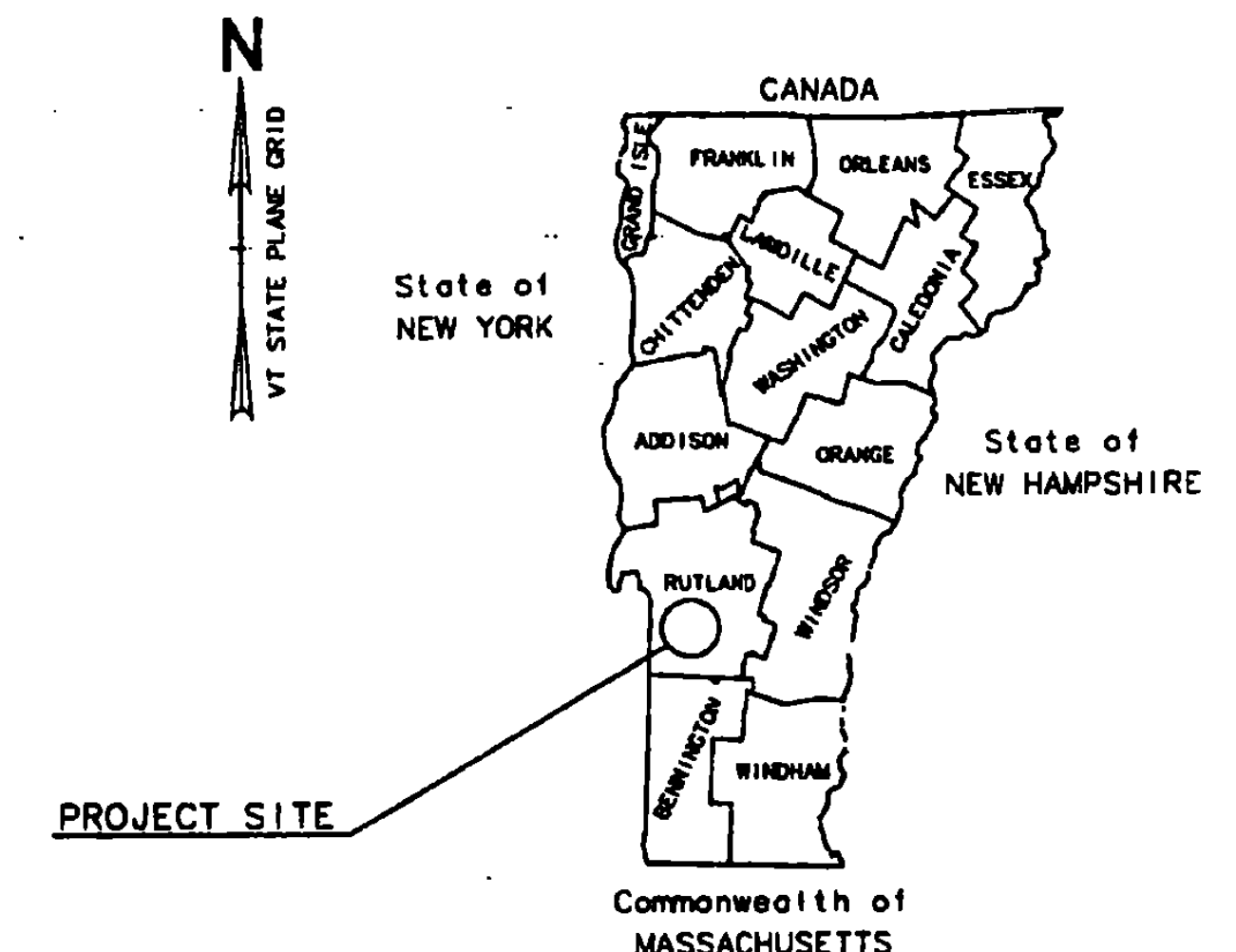
TO INCLUDE: REHABILITATE, LIGHT & MARK RUNWAY 1-19 (100'x5000') &
RELOCATE LOCALIZER AND SHELTER

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 QUANTITY SUMMARY
- 3A&3B DRAINAGE SUMMARY
- 4 GENERAL PROJECT LAYOUT
- 5 GENERAL CONSTRUCTION AND SAFETY NOTES
- 6 PHASING PLAN, NOTES
- 7-9 TYPICAL SECTIONS AND DETAILS
- 10-12 RUNWAY 1-19 PROFILE
- 13 TAXIWAY C,D,E & RUNWAY 13-13 PROFILE
- 14-18 PAVING PLANS AND GEOMETRIC LAYOUT
- 19-23 GRADING & DRAINAGE PLANS
- 24 DRAINAGE DETAILS
- 25 EROSION CONTROL DETAILS
- 26 PAVEMENT MARKING PLAN
- 27-30 RUNWAY LIGHTING PLANS
- 31-33 RUNWAY LIGHTING DETAILS
- 34 VASI MOUNTING DETAILS
- 35-41 ODALS DETAILS
- 42-44 BORING LOGS
- 45 LOCALIZER/DME BUILDING RELOCATION
- 46-57 RUNWAY 1-19 CROSS SECTIONS
- 58-59 TAXIWAY D X-SECTIONS
- 60-65 LOCALIZER REFERENCE DRAWINGS

VAOT STANDARD DRAWINGS

- AP-3 DUCT AND DUCT MARKER DETAILS
- AP-10 RUNWAY MARKING DETAILS
- AP-11 TAXIWAY MARKING DETAILS
- B-5 EMBANKMENTS ON EARTH SLOPE
- D-2 REINFORCED CONCRETE HEADWALL
- D-8 REINFORCED CONCRETE DROP INLET W/ GRATE
- D-11 CAST IRON GRATE-TYPE A
- D-16 ENERGY DISSIPATOR FOR CULVERTS
- E-100 CONSTRUCTION APPROACH SIGNS
- E-121 STANDARD SIGN PLACEMENT



LOCATION MAP

APPROXIMATE SCALE : 1" = 1 MILE

Date **JUL 01 1997**
J. P. McDonald Inc
James McDonald
President
John Leach
Secretary of Transportation

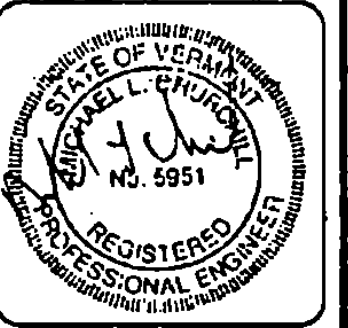
A.A.I.A. OF 1982 SECTION 509(d) ASSURANCES
 IN COMPLIANCE WITH THE AIRPORT AND AIRWAYS IMPROVEMENT ACT OF 1982, SECTION 509 (d) AND THE SPONSOR'S CERTIFICATION, DATED 5/5/97 THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT FAA STANDARDS IDENTIFIED IN F.A.R. PART 152. ANY DEVIATION FROM THE FAA STANDARD WERE APPROVED IN A LETTER BY THE FAA, DATED 5/5/97 AND ARE DISCUSSED IN THE ENGINEERING REPORT ACCOMPANYING THESE PLANS.
John Leach 5/5/97
 DESIGN ENGINEER DATE

URS Greiner, Inc.
 STATE OF VERMONT
 APPROVED John Leach DATE 5-12-97
 DIRECTOR OF RAIL, AIR, & PUBLIC TRANSPORTATION
 DEPARTMENT OF TRANSPORTATION
 FEDERAL AVIATION ADMINISTRATION
 APPROVED John Leach DATE 5-12-97
 CHIEF, AIRPORT DIVISION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES				
QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
12	EA	CLEARING - LARGE TREES	201.16	
112,000	CY	COMMON EXCAVATION	203.15	
250	CY	SOLID ROCK EXCAVATION	203.16	
23,000	CY	GRANULAR BORROW	203.32	
23,000	SY	FINE GRADE	203.40	
7,000	CY	TRENCH EXCAVATION OF EARTH	204.20	
100	CY	TRENCH EXCAVATION OF ROCK	204.21	
4,000	SY	COLD PLANING	210.10	
350	CY	SUBBASE OF GRAVEL, COURSE GRADED	301.25	
70	CY	SUBBASE OF GRAVEL, FINE GRADED	301.26	
180	TON	BITUMINOUS CONCRETE PAVEMENT	406.25	
13,000	TON	BIT. CONCRETE PAVEMENT (P-401) (P658-34)	406.25 MOD. 1	
500	LF	JOINT SEALER, HOT POURED	524.11	
8,500	LF	CRACK REPAIR, TYPE I (P605)	524.11 MOD. 1	
7,000	LF	CRACK REPAIR, TYPE II (P605)	524.11 MOD. 2	
2,000	LF	CRACK REPAIR, TYPE III (P605)	524.11 MOD. 3	
1	EA	RELOCATE LOCALIZER	529.20 MOD.	
1,300	LF	15" CSP, 0.079"	601.0011	
675	LF	15" RCP, CLASS IV	601.0811	
5	EA	15" CSP, END SECTION	601.6010	
1	EA	15" RCP, END SECTION	601.6810	
9	EA	CONCRETE D1/CB W/ CAST IRON FRAME & GRATE	604.10	
10	EA	CHANGE ELEVATION OF D.I./C.B.	604.40	
9,200	LF	6" UNDERDRAIN	605.10	
500	LF	6" UNDERDRAIN CARRIER PIPE	605.20	
38	EA	UNDERDRAIN FLUSHING BASINS	605.95	
24	HOURL	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	
100	MGAL	DUST CONTROL WITH WATER	609.10	
40	CY	STONE FILL, TYPE II	613.11	
1,150	LF	3" PVC SEWER PIPE	628.35	
1	LS	TRANSFER TO NEW SYSTEM - SANTARY SEWER	628.42	
1	LS	FIELD OFFICE - ENGINEERS	631.10	
1	LS	MOBILIZATION	635.10	
56,000	LF	6" WHITE LINE (P620)	646.20 MOD. 1	
3,600	LF	6" YELLOW LINE (P620)	646.21 MOD. 1	
2	EA	SYMBOL (1) (P620)	646.30 MOD. 1	
1	EA	SYMBOL (9) (P620)	646.30 MOD. 2	
24,000	LF	6" TEMPORARY WHITE LINE (P620)	646.60 MOD. 1	
3,000	LF	6" TEMPORARY YELLOW LINE (P620)	646.61 MOD. 1	
4	EA	TEMPORARY SYMBOL (1) (P620)	646.70 MOD. 1	
2	EA	TEMPORARY SYMBOL (9) (P620)	646.70 MOD. 2	
2,000	SF	REMOVAL OF EXIST. PAV'T MARKING (P621)	646.82	
20,000	SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	
10,000	SY	GEOTEXTILE FOR UNDERDRAIN TRENCH	649.41	
600	SY	GEOTEXTILE FOR SILT FENCE	649.51	
2,900	LB	SEED	651.15	
24,000	LB	FERTILIZER	651.18	
95	TON	AGRICULTURAL LIMESTONE	651.20	
500	EA	HAY BALES FOR EROSION CONTROL	651.26	
95	TON	MULCH	651.25	
12,600	CY	TOPSOIL (2")	651.35	
500	SY	EROSION MATTING	654.10	
1	EA	RELOCATE ODALS #1R & #1L (L-125)	678.16 MOD. 1	
1	EA	RELOCATE ODALS UNIT #3 (L-102)	678.17 MOD. 1	
1	EA	RELOCATE ODALS UNIT #20 (L-102)	678.17 MOD. 2	
23,500	LF	2" DIA. PVC ELECTRICAL CONDUIT (L-110)	678.21 MOD. 1	
1	EA	TOWER FOR ODALS UNIT #3 (L-103)	679.45 MOD. 1	
1	EA	TOWER FOR ODALS UNIT #20 (L-103)	679.45 MOD. 2	
6,100	CY	CRUSHED AGGREGATE BASE COURSE (P-209)	854.04	
16,000	LF	CABLE TRENCH (L-108)	864.04	
29,000	LF	1/C #8, 600 OR 5000V, L-824C (L-108)	864.05	
7,000	LF	1/C #4, 600V, L-824C (L-108)	864.05 MOD. 2	
2,500	LF	6 PAIR #19 CONTROL CABLE (L-108)	864.05 MOD. 3	
16,500	LF	#8 OR #6 COUNTERPOISE (L-108)	864.06 MOD. 1	
1	LS	INSTALLATION OF VAULT EQUIPMENT (L-109)	864.07	
180	LF	4 WAY x 4" DIA. UG ELECTRICAL DUCT (L-110)	864.09	
69	EA	MIRLS, BASE MOUNTED (L-125)	864.10	
3	EA	MIRLS, BASE MOUNTED, IN PAV'T (L-125)	864.10 MOD. 1	
13	EA	MIRLS, BASE MOUNTED (L-125)	864.11	
1	EA	RELOCATE VASI-4 (L-125)	864.12 MOD. 1	
1	EA	TEMPORARY THRESHOLD (L-125 & P-620)	864.15 MOD. 1	
20	EA	RELOCATE AIRFIELD SIGNS (L-125)	864.14 MOD. 1	
1	LS	TESTING EQUIPMENT - CONCRETE	631.16	
1	LS	TESTING EQUIPMENT - BITUMINOUS	631.17	
1	LS	FIELD OFFICE- TELEPHONE (N.A.B.T.)	631.25	

EARTH WORK SUMMARY			
LOCATION	TOTAL EXCAVATION	TOTAL EMBANKMENT	
TAXIWAY "D"	3,950 cy	5,572 cy	
RUNWAY 1-19			
-STA. 98+50 - 111+50	18,736		
-STA. 111+50 - 157+40	183,551	87,265	
SUBTOTALS	106,237	92,837	
RNDG. (4%)	5,763	13,762	FACTORED FILL (15%)
TOTALS	112,000	106,762	
	cy	cy	



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

QUANTITY SUMMARY

UPS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: G D'AMICO	Date: 2/3/7
Drawn by: M ESCALLA	3/3/7
Checked by: G D'AMICO	5/3/3/7
Approved by: M CHURCHILL	5/3/3/7

Scale: HOR. - NONE
VERT. - NONE

Date: 5/5/07

Sheet 2 Of 69

Sheet No

STATE OF VERMONT
MICHAEL C. CHERRY
JAN 19 1981

3A

Sheet No.

Sheet 3 of 32

Date: 5/8/97

Scale: 1"=40'

Designed by: Dagle
G 04/90
 Drawn by: W MODALA 3/97
 Checked by: G 04/97
 Approved by: W 04/97

URS Greiner, Inc.

 3 MARCUS BOULEVARD
 ALBANY, NEW YORK

RUTLAND STATE AIRPORT
 CLARENDON, VERMONT

 DRAINAGE SUMMARY

REV.	DATE	DESCRIPTION

Job No. 740722.00

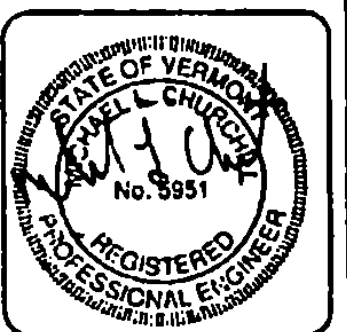
File No. 1/740722/UR-01



DRAINAGE QUANTITY SHEET

CULVERTS AND STORM DRAINS							
LOCATION		SIZE & TYPE	LENGTH	FLOW LINE		TRENCH EXCAVATION CY	REMARKS
BEGIN	END			INLET	OUTLET		
D1 100	300' LT 116+55	15" CSP	100'	778.00	777.50	45	15" MES W/ STONE FILL, TYPE II @ OUTLET
D1 101	430' LT 100+80	15" RSP	230'	777.0±	784.20	100	15" ES W/ STONE FILL, TYPE II @ OUTLET
D1 102	D1 103	15" CSP	225'	777.80	775.90	140	
D1 103	CB 104	15" RCP	295'	775.80	774.00	220	
D1 105	150' RT 155+93	15" CSP	90'	755.80	728.0	35	15" MES W/ STONE FILL, TYPE II @ OUTLET
D1 106	188' LT 155+93	15" CSP	80'	775.80	738.0	45	15" MES W/ STONE FILL, TYPE II @ OUTLET
CB 107	CB 108	15" CSP	340'	778.0	774.6	230	
CB 108	CB 109	15" CSP	335'	774.55	771.80	225	
202' LT 121+40	202' LT 121+88	15" CSP	48'	782.34	782.28	N.A.	15" MES @ INLET & OUTLET
						1040 cy	SUBTOTAL
UNDERDRAIN							
LOCATION		SIZE & TYPE	LENGTH	FLOW LINE		TRENCH EXCAVATION CY	REMARKS
BEGIN	END			INLET	OUTLET		
M32	78' RT 100+72	6" UD	220 LF		774.7	163	
FB1	55' RT 102+80	6" UD	250 LF	776.02		185	
FB2	55' RT 105+30	6" UD	250 LF	776.84		185	
FB3	55' RT 107+80	6" UD	250 LF	777.23		185	
FB4	55' RT 109+55	6" UD	175 LF	777.94		130	
FB5	55' RT 112+88	6" UD		778.68			
FB6	55' RT 114+80	6" UD	170 LF	779.12		128	
FB7	55' RT 117+10	6" UD	250 LF	779.54		185	
FB8	55' RT 119+80	6" UD	250 LF	780.06		185	
FB9	55' RT 121+00	6" UD	380 LF	781.34		266	
FB10	55' RT 124+60	6" UD	250 LF	780.67		50	
FB11	55' RT 127+10	6" UD	250 LF	780.24		50	
FB12	55' RT 129+80	6" UD	250 LF	779.80		50	
FB13	55' RT 132+10	6" UD	250 LF	778.64		50	
FB14	55' RT 134+80	6" UD	250 LF	777.43		50	
FB15	55' RT 137+10	6" UD	250 LF	776.21		50	
FB16	55' RT 139+80	6" UD	250 LF	774.99		50	
FB17	55' RT 142+10	6" UD	250 LF	773.77		185	
FB18	55' RT 144+60	6" UD	250 LF	772.50		185	
FB19	55' RT 147+10	6" UD	175 LF	771.20		130	
M75B	81' RT 148+75			770.20			
140' RT 150+00				771.3			CONNECT TO EXISTING PVC UNDERDRAIN
						2275 cy	SUBTOTAL

LOCATION		SIZE & TYPE	LENGTH	FLOW LINE		TRENCH EXCAVATION CY	REMARKS
BEGIN	END			INLET	OUTLET		
	150' RT 151+80	6" UD	150 LF		757.50	104	OUTLET TO DAYLIGHT, STONE FILL, TYPE II @ OUTLET
M33	79' LT 100+74				774.70		
FB20	55' LT 102+80	6" UD	220 LF	776.02		163	
FB21	55' LT 105+30	6" UD	250 LF	776.64		185	
FB22	55' LT 107+80	6" UD	250 LF	777.23		185	
FB23	55' LT 110+20	6" UD	240 LF	778.09		177	
FB24	55' LT 112+68	6" UD	194 LF	779.10		144	
FB25	55' LT 114+60	6" UD	250 LF	779.00		185	
FB26	55' LT 117+10	6" UD	250 LF	779.54		185	
FB27	55' LT 119+80	6" UD	250 LF	780.06		185	
FB28	55' LT 122+10	6" UD	250 LF	780.55		185	
FB29	55' LT 124+60	6" UD	250 LF	780.86		50	
FB30	55' LT 127+10	6" UD	250 LF	780.63		50	
FB31	55' LT 129+80	6" UD	250 LF	779.81		50	
FB32	55' LT 132+10	6" UD	250 LF	778.64		50	
FB33	55' LT 134+80	6" UD	250 LF	777.43		50	
FB34	55' LT 137+10	6" UD	250 LF	776.21		50	
FB35	55' LT 139+80	6" UD	250 LF	774.99		50	
FB36	55' LT 142+10	6" UD	250 LF	773.77		185	
FB37	55' LT 144+60	6" UD	250 LF	772.50		185	
FB38	55' LT 147+10	6" UD	281 LF	771.20		208	
M73	78' LT 149+91			769.50			
FB25	55' LT 114+80	6" CARRIER	240 LF		779.00	112	
D1 100	202' LT 116+50			778.00			
FB5	55' RT 112+88	6" CARRIER	155 LF			115	
D1 102	202' LT 113+48			778.0			
						2853 cy	SUBTOTAL
TOTALS						-6168	TOTAL
15" CSP			1280 LF			332	RNDG
15" RCP			550 LF			6500 cy	TOTAL
6" UD			9200 LF				
6" CARRIER PIPE			400 LF				
15" RCP ES			1 EA.				
15" CSP			5 EA.				



RUTLAND STATE AIRPORT
CLASSROOM, VERMONT

DRAINAGE SUMMARY

URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: Date: 2/77
Drawn by: 2/77
Checked by: 2/77
Approved by: 2/77

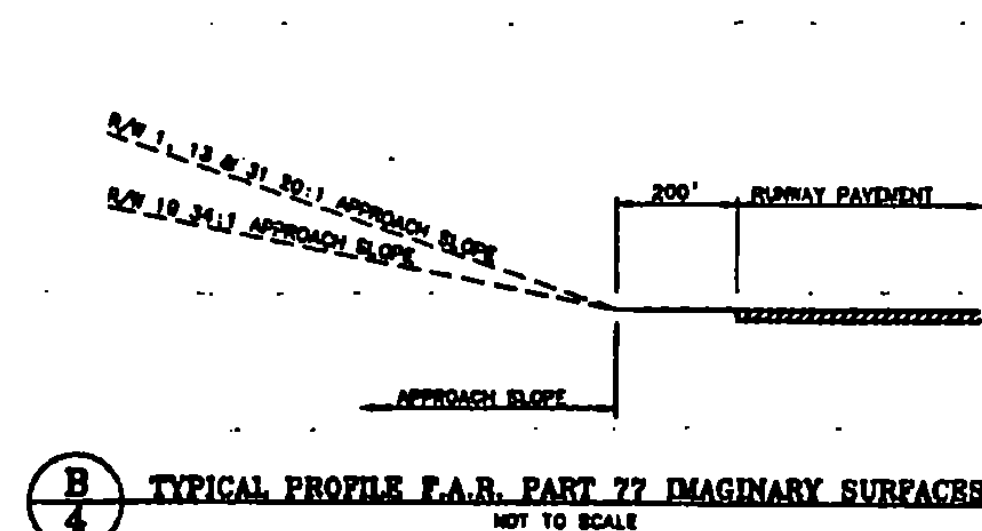
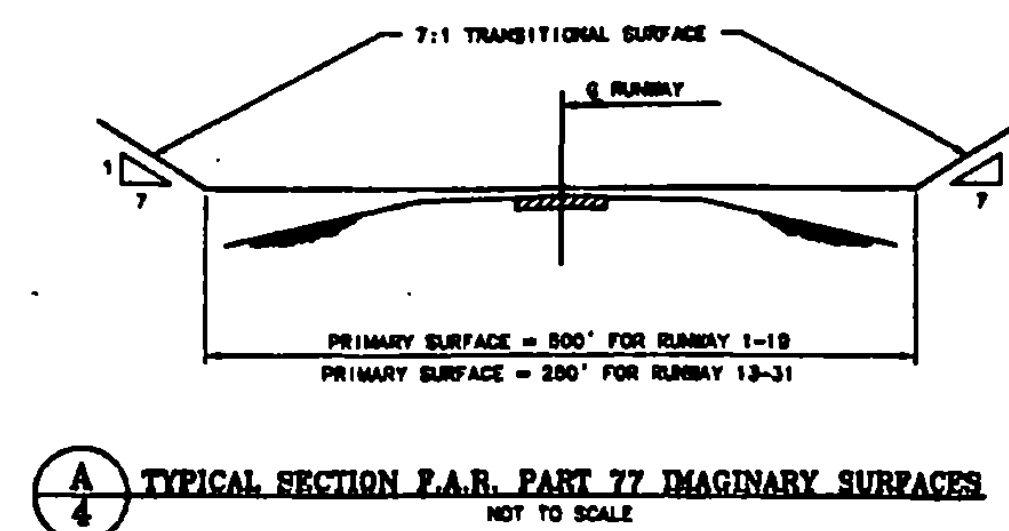
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Date: 9/9/77

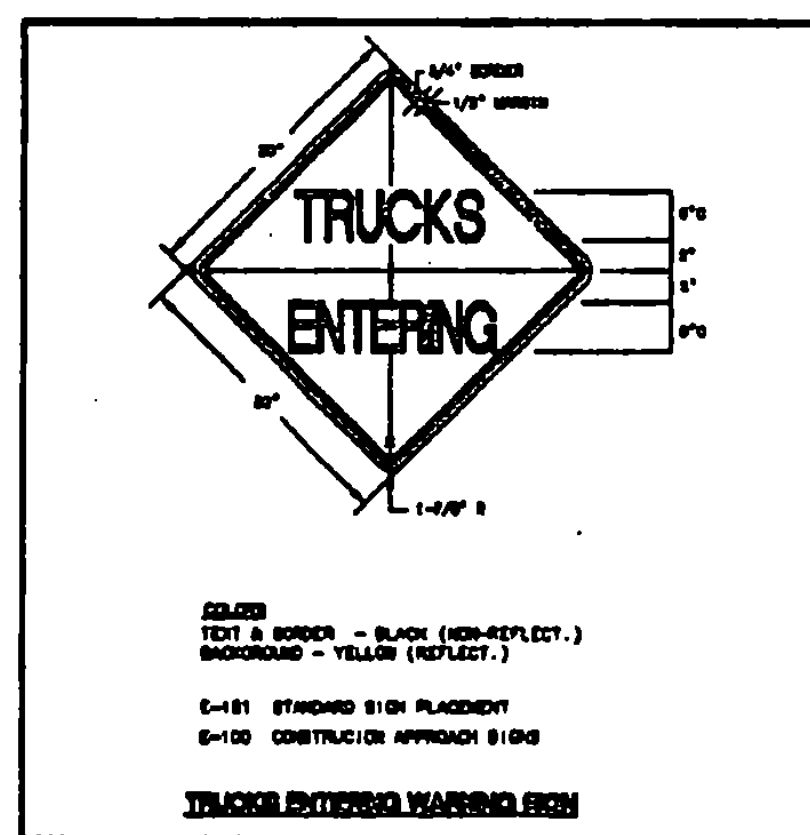
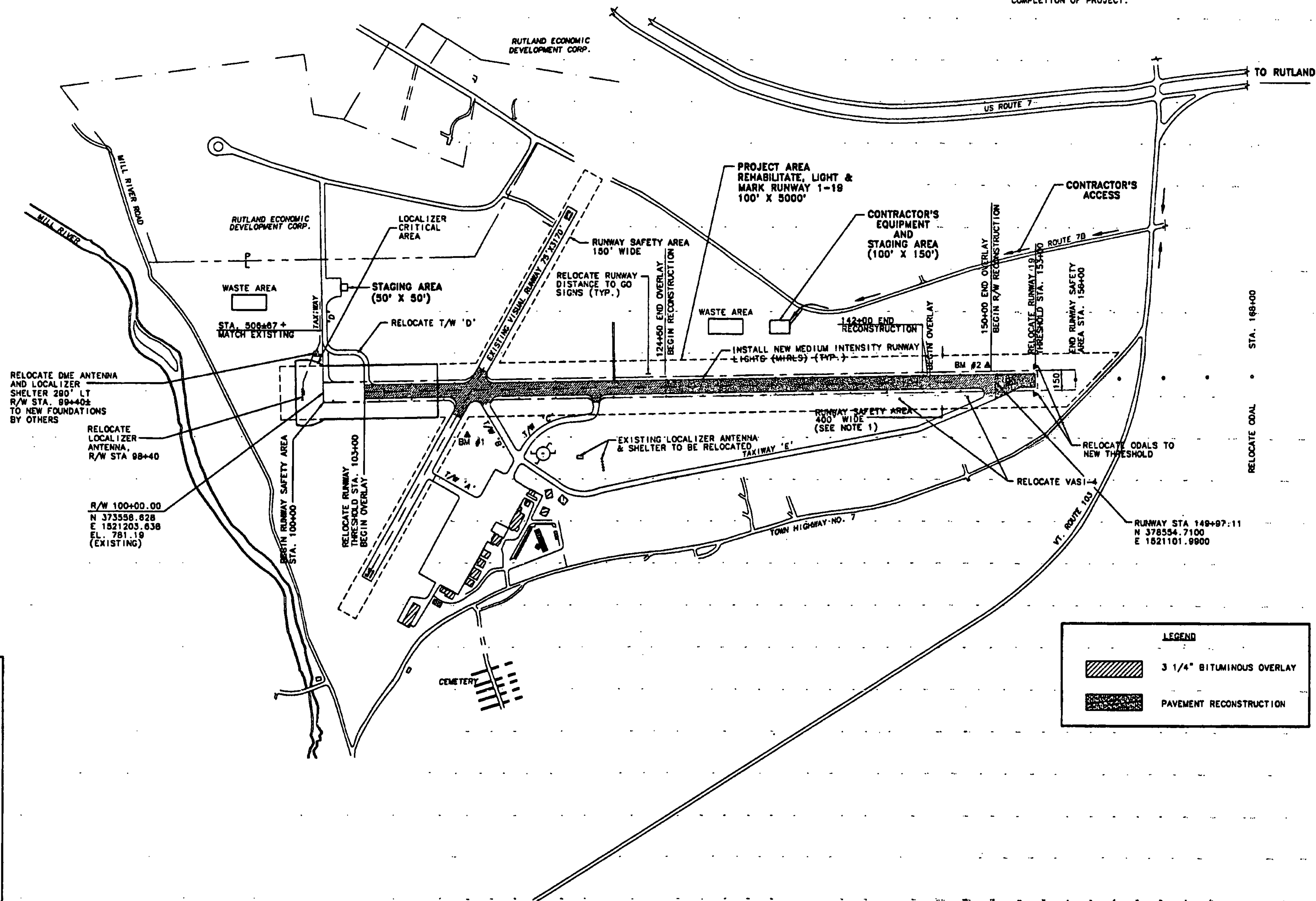
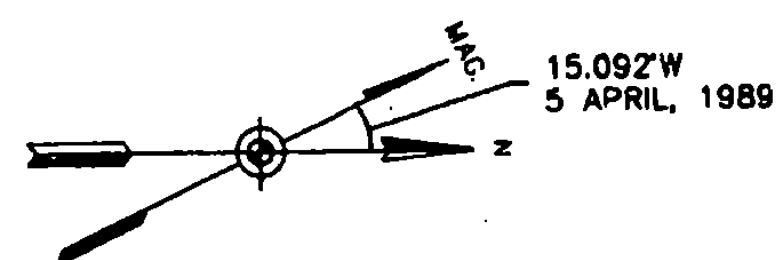
Sheet 3 of 85

Sheet No.

38

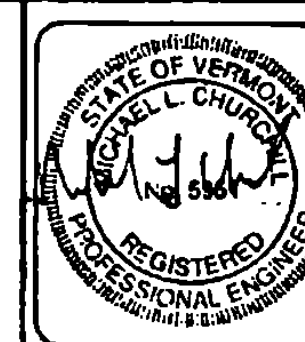


- NOTES:
1. RUNWAY 1-19 SAFETY AREA IS 150' WIDE WHEN OPERATING RUNWAY LENGTH IS LESS THAN 5000'. 400' WIDE WHEN OPERATIONAL LENGTH IS 5000'.
 2. SEE PHASING PLAN SHEET 8.
 3. TWO (2) TRUCK ENTERING SIGNS TO BE PLACED APPROXIMATELY 150' AND 75' FROM THE CONTRACTOR'S ENTRANCE - IN ORDER FOR SIGNS TO BE PLACED AT LEAST 6' OFF RUNWAY EDGE OF PAVEMENT.
 4. BENCHMARK #1: DISK 850M, 1978
374614.086N, 1521821.019E
ELEVATION 782.45
 5. BENCHMARK #2: DISK 1105, 1987
378952.173N, 1520978.989E
ELEVATION 773.78
 6. WASTE AREAS TO BE LOCATED AS DIRECTED BY THE ENGINEER OUTSIDE RUNWAY SAFETY AREAS AND F.A.R. PART 77 IMAGINARY SURFACES. AVOID WETLAND AREAS. WASTE AREAS TO BE GRADED SEED AND FERTILIZED UPON COMPLETION OF PROJECT.



A horizontal scale bar with alternating black and white segments. The text "SCALE IN FEET" is centered above the bar. Below the bar, the numbers "800", "400", "0", and "80" are marked from left to right, indicating distances in feet.

AIP 3-50-0015-11



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

GENERAL PROJECT LAYOUT

URS Greiner, Inc.

**MARCUS BOULEVARD
ALBANY, NEW YORK**

Designed by:	Date
G D'AMICO	2/97
Drawn by:	
M MOCILLA	3/97
Checked by:	
G D'AMICO	5/9/97
Approved by:	

Scale: HOR. - 1" = 40'
VERT. - N/A

Date: 8/8/97

Sheet 4 01 85

Sheet No.

GENERAL CONSTRUCTION AND SAFETY NOTES

GENERAL NOTES

- THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS AND ANY RULES, REGULATIONS, STANDARDS OR SPECIFICATIONS REFERENCED THEREIN. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE VERMONT AGENCY OF TRANSPORTATION (VAOT), AND THE FEDERAL AVIATION ADMINISTRATION (FAA).
- THE PROJECT IS TO BE COMPLETED IN CONFORMANCE WITH THE "CONSTRUCTION PHASING PLANS AND NOTES," AS CONTAINED IN THE PLANS, AND SHALL BE CONSTRUCTED IN A TIMELY MANNER IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED PROJECT SCHEDULE. THE SCHEDULE SHALL PROVIDE FOR COMPLETION OF THE PHASES AS SHOWN ON THE PLANS AND DESCRIBED IN THE CONTRACT SPECIFICATIONS.
- THE CONTRACTOR IS EXPECTED TO MEET COMPLETION OF CRITICAL PORTIONS OF THE PROJECT AND OPEN THOSE SEGMENTS TO TRAFFIC BY THE SPECIFIED TIMES AND TO COMPLETE THE ENTIRE PROJECT ON TIME.
- RUTLAND STATE AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF ALL WORK WITH THE AIRPORT MANAGER & THE PROJECT RESIDENT ENGINEER IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.
- CONSTRUCTION AND MAINTENANCE OPERATIONS BY OTHERS MAY OCCUR CONCURRENTLY AND AT TIMES IN THE VICINITY OF CONSTRUCTION ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS AND COOPERATE WITH MAINTENANCE CREWS AND OTHER CONTRACTORS WORKING ON THE AIRPORT.
- ACCESS TO THE SITE - THE CONTRACTOR'S ACCESS POINTS TO THE SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL VEHICLES AND PERSONNEL WHO ENTER THROUGH THESE ACCESS POINTS. THE CONTRACTOR SHALL MAINTAIN A SECURITY GUARD AT EACH GATE BEING USED AT ALL TIMES WHILE CONSTRUCTION IS UNDERWAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL ACCESS POINTS BEING USED AT THE END OF EACH CONSTRUCTION DAY OR WHEN ACCESS POINTS ARE UNATTENDED.
- HAUL ROUTES - APPROXIMATE LOCATION OF HAUL ROUTES ON THE AIRPORT SITE ARE SHOWN ON THE PHASING PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE OR TOWN HIGHWAYS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. BEFORE AND AFTER CONSTRUCTION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE ENGINEER. FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCING THE WORK. EXISTING ACCESS ROADS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES.
- CONTRACTOR'S STAGING AREAS - AN AREA WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE. THIS AREA IS SHOWN ON THE GENERAL PROJECT LAYOUT. THE CONTRACTOR'S STAGING AREA SHALL BE GRADED, TOPSOILED, SEEDING, AND MULCHED UPON COMPLETION OF USE, AT THE CONTRACTOR'S EXPENSE.
- DISPOSAL AREA - WASTE AREAS WILL BE MADE AVAILABLE FOR THE DISPOSAL OF THE CONTRACTOR'S SPOIL MATERIALS. THE MANNER IN WHICH MATERIALS ARE PLACED IN EMBANKMENTS SHALL BE AS SPECIFIED AND APPROVED BY THE ENGINEER. WASTE MATERIALS INCLUDE THOSE ITEMS WHICH ARE A DIRECT RESULT OF CONSTRUCTION, TRASH (I.E. CUPS, CANS, ETC.) SHALL BE DISPOSED OF THROUGH PROPER SANITARY METHODS.
- SAFETY - THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE MANNER AS SPECIFIED IN THE SECTION TITLED, "SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.
- PROTECTION OF AND REPAIR OF DAMAGE TO EXISTING CABLES - LOCATION OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF CABLES DAMAGED DUE TO CONTRACTOR'S OPERATIONS MUST BE STARTED IMMEDIATELY AND COMPLETED AS SOON AS POSSIBLE. UNTIL COMPLETED, ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE AT THE CONTRACTOR'S EXPENSE. WHEN FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF AN FAA REPRESENTATIVE. THE FAA MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
- EXISTING AIRFIELD LIGHTING SYSTEMS - INTERRUPTION OF EXISTING AIRFIELD LIGHTING SYSTEMS NOT INCLUDED IN THIS PROJECT SHALL NOT BE PERMITTED. ALL AIRFIELD LIGHTING CIRCUITS AFFECTED BY THIS PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR DURING OPERATIONAL PERIODS IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR AS DIRECTED BY THE ENGINEER.
- CONSTRUCTION LIMITS - ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. CONSTRUCTION, STORAGE AND STOCKPILING LIMITS ARE FURTHER DEFINED IN THE SECTION TITLED, "SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.

- PORTABLE FLOODLIGHTING - THE CONTRACTOR SHALL PROVIDE PORTABLE FLOODLIGHTING WHEN REQUIRED FOR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL PROVIDE SUFFICIENT UNITS SO THAT ALL WORK AREAS ARE ILLUMINATED TO A LEVEL OF 5 HORIZONTAL FOOT CANDLES. THE LIGHTING LEVELS SHALL BE CALCULATED AND MEASURED IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE ILLUMINATION ENGINEERING SOCIETY.
- THE CONTRACTOR SHALL OBTAIN ALL THE PERMITS AND LICENSES REQUIRED FOR THE PROJECT WORK AT HIS OWN EXPENSE.
- EXISTING TOPOGRAPHIC FIELD SURVEYS FOR THIS PROJECT AREA WERE PERFORMED BY LITTLE RIVER SURVEY CO. IN 1995.
- THE HORIZONTAL CONTROL ON THIS PROJECT IS TIED TO THE 1985 AND 1988 NATIONAL GEODETIC HORIZONTAL AND VERTICAL DATUM, RESPECTIVELY.

SAFETY REQUIREMENTS DURING CONSTRUCTION

- (A) FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULARS (AC) ORDERS AND FEDERAL AVIATION REGULATIONS (FAR).

THE FOLLOWING PUBLICATIONS CONTAIN DEFINITIONS/DESCRIPTIONS OF CRITICAL AIRPORT OPERATING AREAS. THE AREAS DEFINED BELOW PERTAIN TO AIRFIELD SAFETY REQUIREMENTS AND ARE REFERENCED THROUGHOUT THE CONTRACT DOCUMENTS. COPIES OF THESE PUBLICATIONS ARE AVAILABLE THROUGH THE FAA OR CAN BE ORDERED BY MAIL FROM:

U.S. DEPARTMENT OF TRANSPORTATION
SUBSEQUENT DISTRIBUTION OFFICE
ARDMORE EAST BUSINESS CENTER
3341 Q 75TH AVE.
LANDOVER, MD. 20785

AND CAN BE REVIEWED AT THE OFFICES OF THE VERMONT AGENCY OF TRANSPORTATION.

- AC 150/5370-2, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", CURRENT EDITION.
- FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE", CURRENT EDITION.
- AC 150/5300-13, "AIRPORT DESIGN", CURRENT EDITION. STANDARDS FOR AIRPORTS, STANDARD TERMS USED IN THE CONTRACT PLANS AND SPECIFICATIONS ARE DEFINED BELOW:
 - OBSTACLE FREE ZONE (OFZ) - A VOLUME OF SPACE WHICH IS FREE OF ALL FIXED OBJECTS AND CLEAR OF VEHICLES IN THE VICINITY OF AN AIRPLANE CONDUCTING AN APPROACH, MISSED APPROACH, LANDING, TAKEOFF, OR DEPARTURE. AN OFZ TYPICAL SECTION IS SHOWN ON THE GENERAL PROJECT LAYOUT PLAN.
 - RUNWAY PROTECTION ZONE (RPZ): A TRAPEZOIDAL AREA CENTERED ON THE RUNWAY BEGINNING AT A POINT 200 FEET BEYOND THE END OF THE AREA USABLE FOR TAKEOFF OR LANDING.
 - OBJECT FREE AREA (OFA): A TWO DIMENSIONAL GROUND AREA SURROUNDING RUNWAYS, TAXIWAYS, AND TAXILANES WHICH IS CLEAR OF OBJECTS EXCEPT FOR OBJECTS WHOSE LOCATION IS FIXED BY FUNCTION.
 - SAFETY AREA - THE SURFACE ADJACENT TO RUNWAYS, TAXIWAYS, AND TAXILANES OVER WHICH AIRCRAFT SHOULD, IN DRY WEATHER, BE ABLE TO CROSS AT NORMAL SPEEDS WITHOUT INCURRING SIGNIFICANT DAMAGE. A SAFETY AREA IS GRADED, DRAINAGE AND COMPACTED. IT IS FREE OF ANY HOLES, TRENCHES, BUMPS OR OTHER SIGNIFICANT SURFACE VARIATIONS OR OBJECTS OTHER THAN THOSE WHICH MUST BE THERE BECAUSE OF THEIR ESSENTIAL AERONAUTICAL FUNCTION. THE SAFETY AREA REQUIRES THE CAPABILITY OF SUPPORTING MAINTENANCE VEHICLES AND AIRCRAFT RESCUE AND FIRE FIGHTING VEHICLES UNDER NORMAL (DRY) CONDITIONS.

(B) GENERAL SAFETY REQUIREMENTS

- THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO RUTLAND STATE AIRPORT AND SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES FOR SAFETY SPECIFIED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SAFETY DEVICES AS REQUIRED FOR THE PROTECTION OF HIS PERSONNEL.
- PROTECTION OF ALL PERSONS SHALL BE PROVIDED THROUGHOUT THE PROGRESS OF THE WORK. THE WORK SHALL PROCEED IN SUCH A MANNER AS TO PROVIDE SAFE CONDITIONS FOR ALL WORKERS AND AGENCY PERSONNEL. THE SEQUENCE OF OPERATION SHALL BE SUCH THAT MAXIMUM PROTECTION IS AFFORDED TO INSURE THAT PERSONNEL AND WORKERS IN THE WORK AREA ARE NOT SUBJECT TO ANY DANGEROUS CONDITIONS.

- DURING PERFORMANCE OF THIS CONTRACT, THE AIRPORT RUNWAYS, TAXIWAYS, AND AIRCRAFT PARKING APRONS SHALL REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE. ALL AIRCRAFT TRAFFIC ON THESE AREAS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. THE OWNER RESERVES THE RIGHT TO ORDER THE CONTRACTOR AT ANY TIME TO VACATE ANY AREA NECESSARY TO MAINTAIN SAFE AIRCRAFT OPERATIONS. USE OF AREAS NEAR THE CONTRACTOR'S WORK WILL BE CONTROLLED TO MINIMIZE DISTURBANCE TO THE CONTRACTOR'S OPERATION. THE CONTRACTOR SHALL NOT ALLOW EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, OR ANY OTHER UNAUTHORIZED PERSON TO ENTER OR REMAIN IN ANY AIRPORT AREA WHICH WOULD BE HAZARDOUS TO PERSONS OR TO AIRCRAFT OPERATIONS.

- ALL WORK TO BE PERFORMED WHICH IS CLOSE TO AN ACTIVE RUNWAY, TAXIWAY OR APRON SHALL BE PERFORMED WHEN THE RUNWAY, TAXIWAY OR APRON IS NOT IN USE. SUCH WORK SHALL BE ACCOMPLISHED ONLY WITH PRIOR PERMISSION FROM THE ENGINEER AND AIRPORT MANAGER. REQUESTED CLOSINGS SHALL BE DIRECTED TO THE ENGINEER AT LEAST 48 HOURS IN ADVANCE.

CONSTRUCTION AND FACILITIES MAINTENANCE

- THE FOLLOWING ARE CONSIDERED SAFETY PROBLEMS AND/OR HAZARDS:

- TRENCHES, HOLES, OR EXCAVATION ON OR ADJACENT TO ANY OPEN RUNWAY OR IN RUNWAY OR TAXIWAY SAFETY AREAS.
- UNMARKED/UNLIGHTED HOLES OR EXCAVATION IN ANY APRON, OPEN TAXIWAY, OPEN TAXILANE, OR RELATED SAFETY AREA.
- MOUNDS OR PILES OF EARTH, CONSTRUCTION MATERIALS, TEMPORARY STRUCTURES, OR OTHER OBJECTS IN THE VICINITY OF ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY, APPROACH, OR DEPARTURE AREA.
- VEHICLES OR EQUIPMENT, WHETHER OPERATING OR IDLE, ON ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY, APPROACH, OR DEPARTURE AREA.
- VEHICLES, EQUIPMENT, EXCAVATION, STOCKPILES, OR OTHER MATERIAL WHICH COULD INTERFERE WITH ELECTRONIC SIGNALS FROM RADIOS OR ELECTRONIC NAVIGATIONAL AIDS (NAVAIDS).
- PAVEMENT DROP-OFFS - LIPS (EITHER PERMANENT OR TEMPORARY, WHICH COULD CAUSE DAMAGE TO AIRCRAFT IF CROSSED AT NORMAL OPERATING SPEEDS. THE NORMAL MAXIMUM DROP-OFF OR LIP IS 1-1/2 INCHES.
- UNMARKED UTILITY, NAVAID, WEATHER SERVICE, RUNWAY LIGHTING, OR OTHER POWER OR SIGNAL CABLES THAT COULD BE DAMAGED DURING CONSTRUCTION.
- OBJECTS, WHETHER OR NOT MARKED OR FLAGGED, OR ACTIVITIES ANYWHERE ON OR IN THE VICINITY OF THE AIRPORT WHICH COULD BE DISTRACTING, CONFUSING, OR ALARMING TO PILOTS DURING AIRCRAFT OPERATIONS.
- UNFLAGGED/UNLIGHTED LOW VISIBILITY ITEMS SUCH AS TALL CRANES, DRILLS, AND THE LIKE ANYWHERE IN THE VICINITY OF ACTIVE RUNWAYS, OR IN ANY APPROACH OR DEPARTURE AREA.
- MISLEADING OR MALFUNCTIONING OBSTRUCTION LIGHTS OR UNLIGHTED/UNMARKED OBSTRUCTIONS IN THE APPROACH TO ANY ACTIVE RUNWAY.
- WATER, SNOW, DIRT, DEBRIS, OR OTHER TRANSIENT ACCUMULATION WHICH TEMPORARILY OBSCURES PAVEMENT MARKINGS OR PAVEMENT EDGES, OR DEGRADATES VISIBILITY OF RUNWAY/TAXIWAY MARKINGS OR LIGHTING.
- INADEQUATE OR IMPROPER METHODS OF MARKING, BARRICADING, AND LIGHTING OF TEMPORARILY CLOSED PORTIONS OF THE AIRPORT OPERATIONS AREA.
- TRASH OR OTHER MATERIALS WITH FOREIGN OBJECT DAMAGE (FOD) POTENTIAL, WHETHER ON RUNWAYS, TAXIWAYS, OR APRONS; OR IN RELATED SAFETY AREAS.
- INADEQUATE BARRICADING OR OTHER MARKING WHICH IS PLACED TO SEPARATE CONSTRUCTION OR MAINTENANCE AREAS FROM OPEN AIRCRAFT OPERATING AREAS.
- FAILURE TO CONTROL UNAUTHORIZED VEHICLE AND HUMAN ACCESS TO ACTIVE AIRCRAFT OPERATING AREAS.
- FAILURE TO MAINTAIN RADIO COMMUNICATION BETWEEN CONSTRUCTION/MAINTENANCE VEHICLES AND RUTLAND UNICOM.
- CONSTRUCTION/MAINTENANCE ACTIVITIES OR MATERIALS WHICH COULD HAMPER THE RESPONSE OF AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) EQUIPMENT FROM REACHING ALL AIRCRAFT OR ANY PART OF THE RUNWAY/TAXIWAY SYSTEM, RUNWAY APPROACH AND DEPARTURE AREAS AND AIRCRAFT PARKING LOCATIONS.
- BIRD ATTRACTANTS ON AIRPORT SUCH AS: EDIBLES (FOOD SCRAPS, ETC.), MISCELLANEOUS TRASH, OR PONDED WATER.

- THE CONTRACTOR SHALL CONDUCT ACTIVITIES SO AS NOT TO VIOLATE ANY SAFETY STANDARDS CONTAINED HEREIN. THE CONTRACTOR SHALL INSPECT ALL CONSTRUCTION AND STORAGE AREAS AS OFTEN AS NECESSARY AND PROMPTLY TAKE ALL STEPS NECESSARY TO PREVENT/REMEDY ANY UNSAFE OR POTENTIALLY UNSAFE CONDITIONS OR ACTIVITIES DISCOVERED.

- THE VAOT WILL BE RESPONSIBLE FOR ISSUING APPROPRIATE NOTICE TO AIRMEN (NOTAM) CONCERNING CONSTRUCTION ACTIVITY ON THE AIRFIELD.

(D) MOTORIZED VEHICLES

THIS PROJECT INCLUDES WORK WITHIN THE AIRCRAFT OPERATIONS AREA (AOA). ALL PERMITTED VEHICLES SHALL BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. ALL VEHICLES OPERATING WITHIN THE AIRFIELD BOUNDARY SHALL BE IDENTIFIED WITH A SIGN ON EACH SIDE OF THE VEHICLE BEARING THE CONTRACTOR'S NAME IN 12-INCH MINIMUM LETTER HEIGHT.

VEHICLES MAKING ONLY OCCASIONAL VISITS TO THE JOB SITE ARE EXEMPT FROM THE IDENTIFICATION REQUIREMENTS CONTAINED HEREIN ABOVE PROVIDED THAT THEY ARE ESCORTED INTO, THROUGH, AND OUT OF THE AIRPORT AREA BY A PROPERLY IDENTIFIED VEHICLE.

(E) RADIO COMMUNICATIONS

RADIO COMMUNICATIONS ARE REQUIRED BETWEEN THE CONTRACTOR'S REPRESENTATIVE AND RUTLAND UNICOM. RADIO CONTACT IS REQUIRED AT ALL TIMES WHILE THE CONTRACTOR HAS PERSONNEL AND EQUIPMENT ON THE PROJECT SITE AND WHILE THEY ARE IN AN ACTIVE AIR OPERATIONS AREA (AOA) OF THE AIRPORT. RADIOS SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE CAPABLE OF TRANSMITTING AND RECEIVING AT A GROUND CONTROL FREQUENCY OF 122.8 MHZ. THIS FREQUENCY IS TO BE UTILIZED WHEN CROSSING ACTIVE FACILITIES. SUFFICIENT RADIOS SHALL BE ON SITE AND OPERATING AT ALL TIMES SO THAT INSTRUCTIONS OR COMMUNICATIONS MAY BE DISPATCHED TO ALL CREWS AND/OR EQUIPMENT WORKING IN AN ACTIVE AOA.

(F) DEBRIS

DEBRIS, WASTE, AND LOOSE MATERIAL (INCLUDING DUST AND DIRT) CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEAR OR PROPELLERS, OR BEING INGESTED IN JET ENGINES, SHALL NOT BE ALLOWED ON ACTIVE AIRCRAFT MOVEMENT AREAS OR ADJACENT GRASSED AREAS. MATERIALS OBSERVED TO BE WITHIN THESE AREAS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO HAVE A SWEEPING MACHINE AND OPERATOR ON SITE AND READY AT ALL TIMES DURING CONSTRUCTION ACTIVITY. WHERE TRAVEL ON OR ACROSS RUNWAYS, RAMP AREAS, TAXIWAYS, OR AIRCRAFT APRONS IS REQUIRED, THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL AND EQUIPMENT TO KEEP SUCH SURFACES CLEAR OF DEBRIS.

(G) FLAGMEN

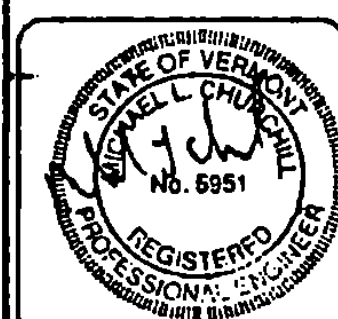
IN ACCORDANCE WITH THE SPECIFICATIONS, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, FURNISH FLAGMEN AS NECESSARY TO CONTROL HIS TRAFFIC (UNLESS OTHERWISE DIRECTED BY THE ENGINEER).

ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO CROSS ACTIVE RUNWAYS, RUNWAY SAFETY AREAS, TAXIWAYS AND APRONS SHALL DO SO UNDER THE DIRECT CONTROL OF A COMPETENT FLAGMAN WHO IS IN DIRECT RADIO CONTACT WITH GROUND CONTROL. ALL AIRCRAFT TRAFFIC ON RUNWAYS, TAXIWAYS, AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. AT NO TIME SHALL THE CONTRACTOR'S VEHICLES OR PERSONNEL BE ALLOWED TO ENTER OR CROSS ACTIVE RUNWAYS OR CLEAR ZONES WITHOUT PROPER AUTHORIZATION.

(H) MISCELLANEOUS

- OPEN FLAME, WELDING OR TORCH CUTTING OPERATIONS ARE PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS HAVE BEEN TAKEN AND THE PROCEDURE PREVIOUSLY APPROVED BY THE ENGINEER.
- EQUIPMENT AND STOCKPILED MATERIAL SHALL BE CONSTRAINED IN-A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS.
- THE CONTRACTOR SHALL PROVIDE BUCKET TYPE CONSTRUCTION BARRICADES WITH FLASHING YELLOW LIGHTS AS SHOWN ON THE DRAWINGS TO DELINEATE THE WORK AREAS WHEN CLOSED TO AIRCRAFT TRAFFIC. OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL LOCATED IN THE AOA SHALL BE PROMINENTLY MARKED WITH ORANGE FLAGS AND LIGHTED BY APPROVED LIGHT UNITS DURING HOURS OF LIMITED VISIBILITY AND DARKNESS.
- ALL MATERIALS AND EQUIPMENT WHEN NOT IN USE SHALL BE PLACED IN APPROVED AREAS WHERE THEY WILL NOT CONSTITUTE A HAZARD TO AIRCRAFT OPERATIONS AND NOT PENETRATE CLEARANCE SURFACES. EQUIPMENT SHALL BE PARKED AT THE STAGING AREA WHEN NOT IN USE.
- MAXIMUM EQUIPMENT HEIGHT SHALL NOT EXCEED 15 FEET UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.
- UPON COMPLETION OF ANY STAGE/PHASE OF WORK, THE ENGINEER WILL ARRANGE A PHYSICAL INSPECTION OF THE AREA WITH AIRPORT OPERATIONS PERSONNEL PRIOR TO OPENING ANY PORTION OF A RUNWAY, RAMP AREA OR AIRPORT ROADWAY THAT HAS BEEN CLOSED FOR WORK OR USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR.
- ENTRANCE TO THE AIRFIELD IS SUBJECT TO SECURITY REGULATIONS. ALL PERSONNEL ENTERING THE AIRFIELD MUST OBTAIN AND DISPLAY SECURITY IDENTIFICATION BADGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL OF HIS EMPLOYEES WHO HAVE UNSCORTED ACCESS TO THE AIRFIELD, HAVE HAD A BACKGROUND CHECK PERFORMED ON THEM DATING BACK FIVE (5) YEARS VERIFYING REPRESENTATIONS MADE BY THE EMPLOYEE RELATING TO EMPLOYMENT.
- THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A CURRENT LIST OF ALL EMPLOYEES WORKING ON THE AIRPORT. THE LIST SHALL BE MAINTAINED CURRENT BY THE CONTRACTOR AND APPLIES TO ALL SUBCONTRACTORS.
- EXCEPT FOR EMERGENCIES, ALL CONTACT WITH AIRPORT PERSONNEL SHALL BE MADE THROUGH THE RESIDENT ENGINEER. FOR EMERGENCIES INVOLVING SAFETY (INJURIES, FIRES, SECURITY BREACHES, ETC.) THE CONTRACTOR SHALL MAKE DIRECT CONTACT WITH AIRPORT OPERATIONS FOLLOWED BY NOTIFICATION TO THE RESIDENT ENGINEER AS SOON AS POSSIBLE.
- THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL, INCLUDING THE PROJECT SUPERINTENDENT, WHO MAY BE CONTACTED IN AN EMERGENCY. PERSONNEL SHALL BE ON CALL 24 HOURS PER DAY FOR MAINTAINING AIRPORT HAZARD LIGHTING AND BARRICADES.
- IN ACCORDANCE WITH THE SPECIFICATIONS, FEDERAL WAGE RATES SHALL BE POSTED OUTSIDE THE SITE FIELD OFFICE IN A WEATHERPROOF ENCLOSURE.
- UTILITIES
 - UNDERGROUND UTILITIES: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TO BE ONLY ESTIMATED LOCATIONS. ALL UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT ANY UTILITY IS DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR INCURRED COSTS OF REPAIRS.
 - UTILITIES NOTIFICATION: AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER, AND THE OWNER OF EACH UNDERGROUND UTILITY FACILITY AFFECTED.
 - THE FOLLOWING IS A LIST OF COMPANIES WITH POSSIBLE UTILITIES WITHIN THE CONSTRUCTION LIMITS.

UTILITY	
DIGSAFE	1-800-225-4877
CVPS	1-800-649-2877



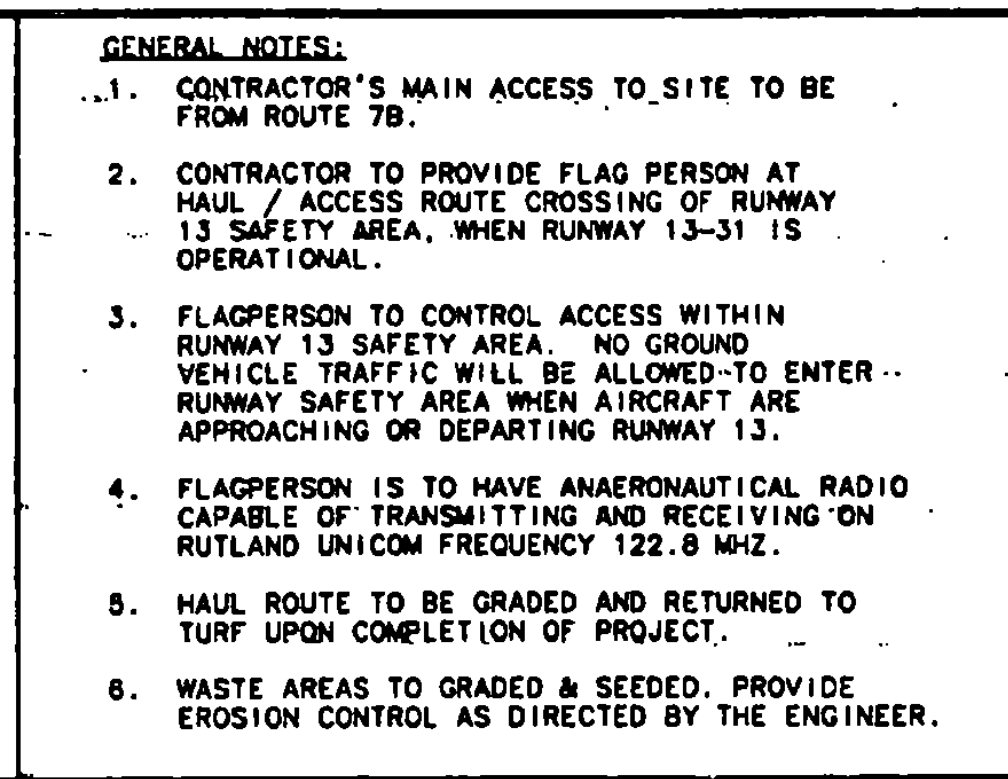
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DESCRIPTION
DATE
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Job No.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

GENERAL CONSTRUCTION &
SAFETY NOTES

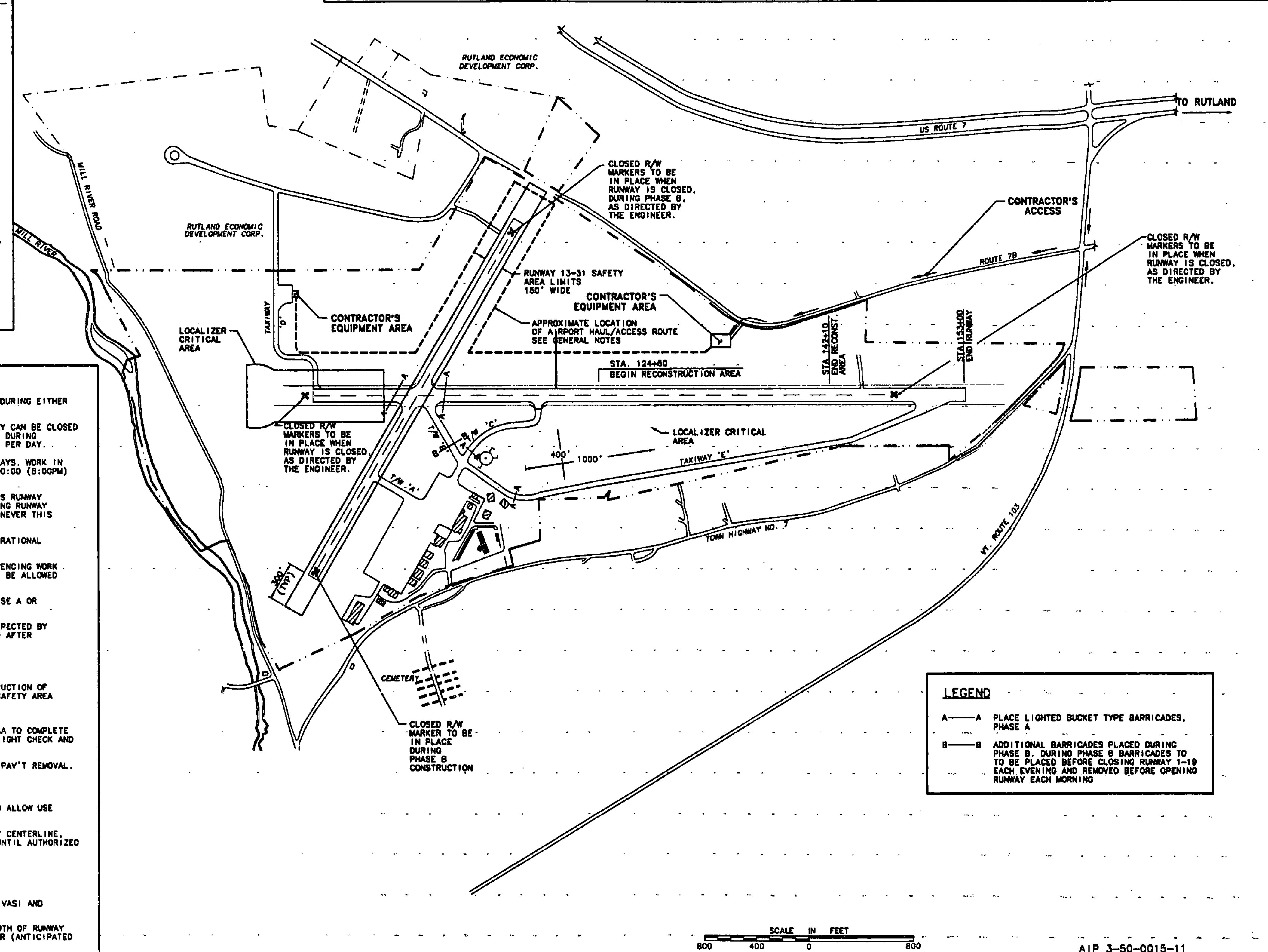
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: 6/1/00	Drawn by: 11/20/01	Checked by: 6/1/00	Approved by: 11/20/01
Scale: HOR - N/A	VERT. - N/A	Date: 5/5/07	Sheet 8 Of 85
Sheet No. 8			



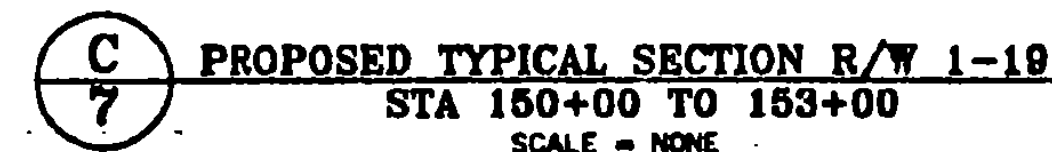
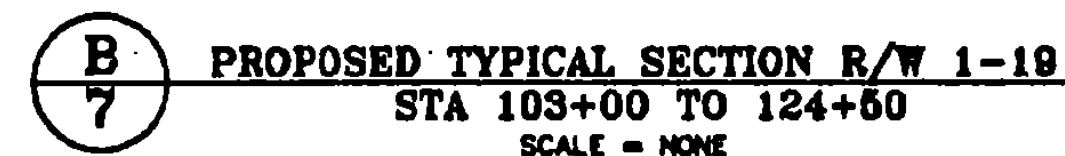
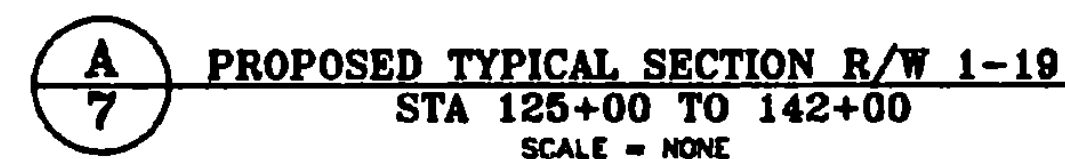
- TEMPORARY RELOCATED THRESHOLD DETAIL (ITEM 1-100)**
SCALE: 1"=50'

1. OVERLAY RUNWAY 1-18. TAPER OVERLAY AT THE END OF EACH DAY'S WORK TO ALLOW USE BY AIR TRAFFIC.
2. COMPLETE WORK IN RUNWAY SAFETY AREAS, 200' LEFT AND RIGHT OF RUNWAY CENTERLINE, AND IN SAFETY AREA OVERRUNS. WORK SOUTH OF R/W 13-31 CANNOT BEGIN UNTIL AUTHORIZED BY THE ENGINEER, AFTER LOCALIZER FLIGHT CHECK.
3. COMPLETE DRAINAGE WORK.
4. COMPLETE TAXIWAY D.
5. INSTALL/RELOCATE RUNWAY LIGHTING AND SIGNAGE RELOCATIONS, RELOCATE VASI AND ODALS.
6. NO SIGNIFICANT EXCAVATION OR GRADING ACTIVITIES WILL BE ALLOWED SOUTH OF RUNWAY INTERSECTION UNTIL FAA COMPLETES FLIGHT CHECK OF RELOCATED LOCALIZER (ANTICIPATED WITHIN TWO (2) WEEKS OF START OF PHASE B WORK).



A—A PLACE LIGHTED BUCKET TYPE BARRICADES, PHASE A

B—B ADDITIONAL BARRICADES PLACED DURING PHASE B. DURING PHASE B BARRICADES TO TO BE PLACED BEFORE CLOSING RUNWAY 1-19 EACH EVENING AND REMOVED BEFORE OPENING RUNWAY EACH MORNING



NOTES: 1. PRIOR TO PLACING NEW BITUMINOUS CONCRETE PAVEMENT OVERLAY, PAVEMENT CRACKS TO BE SEALED OR REPAIRED, AS FOLLOWS:

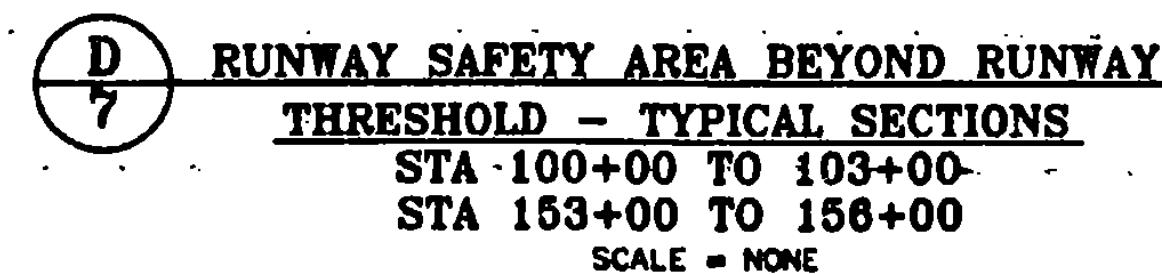
TYPE 1 CRACK REPAIR: CRACKS LESS THAN 3/4" IN WIDTH TO BE
ROUTED AND SEALED WITH HOT POURED JOINT SEALING FILLER. PAVEMENT
TO BE MADE UNDER ITEM 524.11 MOD. 1, TYPE 1 CRACK REPAIR (P-605).

TYPE 11 CRACK REPAIR: CRACKS BETWEEN 3/4" AND 1 1/4" IN WIDTH TO BE ROUTED SEALED WITH HOT POURED JOINT SEALING FILLER. PRIOR TO PLACING OVERLAY CRACKS BETWEEN 1/2" AND 1 1/4" SHALL BE COVERED WITH A PAVEMENT REINFORCEMENT MATERIAL SUCH AS "PAVE-PREP" TM OR APPROVED EQUAL. PAYMENT TO BE MADE UNDER ITEM 524.11 MOD. 2 (P-805)

TYPE III CRACK REPAIR: CRACKS OVER 1 1/4" IN WIDTH TO BE CUT OUT. EXISTING BIT. CONC. PAVEMENT (8") ON EITHER SIDE OF THE CRACK TO BE REMOVED, BASE MATERIAL RE-COMPACTED, AND NEW BITUMINOUS CONCRETE PAVEMENT (CONFORMING TO ITEM 408.25 MOD. 1 P-401) REPLACED. PAYMENT TO BE MADE UNDER ITEM 524.11, MOD. 3 (P-805)

2. DETERMINATION OF USE OF TYPE I, TYPE II, OR TYPE III CRACK REPAIR WILL BE AS DIRECTED BY THE ENGINEER.

3. CRACK SURVEY IN DEC. 1998 REVEALED APPROXIMATELY 17,000 LF OF CRACKS WHICH NEEDED REPAIR. APPROXIMATELY 10% TYPE III, APPROXIMATELY 50% TYPE II AND APPROXIMATELY 40% TYPE I.



* WHERE SHOWN ON PLANS OR AS ORDERED BY THE ENGINEER

1. SUBGRADE UNDER AREAS TO BE PAVED TO BE COMPACTED TO 100% DENSITY AS PER AASHTO T-180.
2. BITUMINOUS TACK COAT (EMULSIFIED ASPHALT, RS-1) TO BE APPLIED BETWEEN LIFTS OF BITUMINOUS CONCRETE PAVEMENT AT A RATE OF 0.01 TO 0.03 GAL / SY WHEN DIRECTED BY THE ENGINEER. (NOT A SEPARATE PAY ITEM.)

3. REMOVAL OF EXISTING MANHOLES AND DROP INLETS, TO BE PAID UNDER ITEM 203.16 SOLID ROCK EXCAVATION. (3 CY PER EACH UNIT REMOVED). -EXISTING DRAINAGE LINES TO BE ABANDONED IN PLACE; PIPES TO BE PLUGGED EACH END WITH CONCRETE BEFORE BACKFILLING. PAYMENT TO BE SUBSIDIARY TO REMOVAL OF MANHOLES AND DROP INLETS.

4. EXISTING BITUMINOUS PAVEMENT 50'-75' EACH SIDE OF CENTERLINE TO BE REMOVED. PAYMENT TO BE MADE UNDER ITEM 203.15, COMMON EXCAVATION. AREA TO BE GRADED, TOPSOILED AND SEEDDED.

5. ALL EXCAVATION TO BE PAID FOR UNDER ITEM 203.15;
COMMON EXCAVATION OR 203.16 SOLID ROCK EXCAVATION.

8. SEED, ITEM 851.15 TO BE APPLIED AS DIRECTED BY ENGINEER.

% WT	LBS / A	NAME	PUR %	GERM
3.33	2	CROWN VETCH	97	75
50.00	30	CREeping RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
16.67	10	PERR. RYE GRASS (VAR. PENNINE)	93	83
8.34	5	ALFALFA (VAR. SARANAG)	99	85
8.33	5	BIROSCOT TREFOIL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	83
100.00	80			

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS WEED SEED.

FERTILIZER, ITEM 851.18, FORMULA 10-20-10 TO BE USED
WITH SEED. ITEM 851.15, APPLIED AT THE RATE IF 500 LBS / ACRE.

AGRICULTURAL LIMESTONE, ITEM 651.20, TO BE APPLIED AT RATE OF 2 TONS / ACRE OR AS DIRECTED BY ENGINEER.

MAY MULCH, ITEM 851.25, TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS / ACRE.

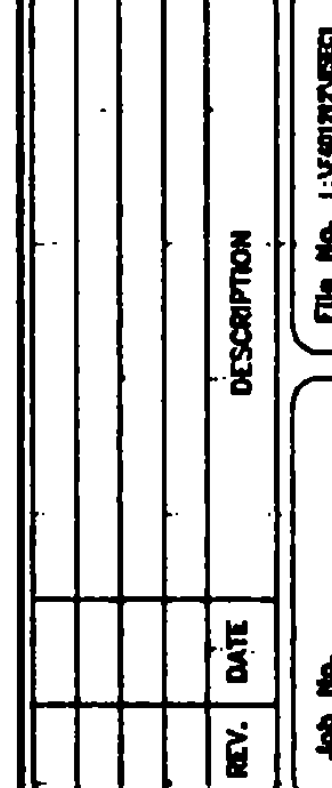
TOPSOIL, ITEM 651.35, TO BE USED WITH SEED, ITEM 651.15, AS DIRECTED BY THE ENGINEER.

ALLOWABLE THICKNESS TOLERANCES:

SUBGRADE	± 1"
CONTROLLED MATERIAL	± 1"
PAVEMENT	± 3/16"
BASE COURSE	± 1/2"

7. BITUMINOUS CONCRETE PAVEMENT DESIGN BASED ON PERFORMANCE GRADED ASPHALT - USE PG 58-34 IN ACCORDANCE WITH AASHTO DESIGNATION MP1.

8. MINIMUM OVERLAY DEPTH IS 2 INCHES - MILL EXISTING PAVEMENT GRADED ASPHALT - WHEN NECESSARY TO ACHIEVE MINIMUM THICKNESS.



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TYPICAL SECTIONS & DETAILS

URS Grobner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: G D'AMICO	Date 2/87
Drawn by: M MOCILLA	3/87
Checked by: G D'AMICO	3/8/87
Approved by:	

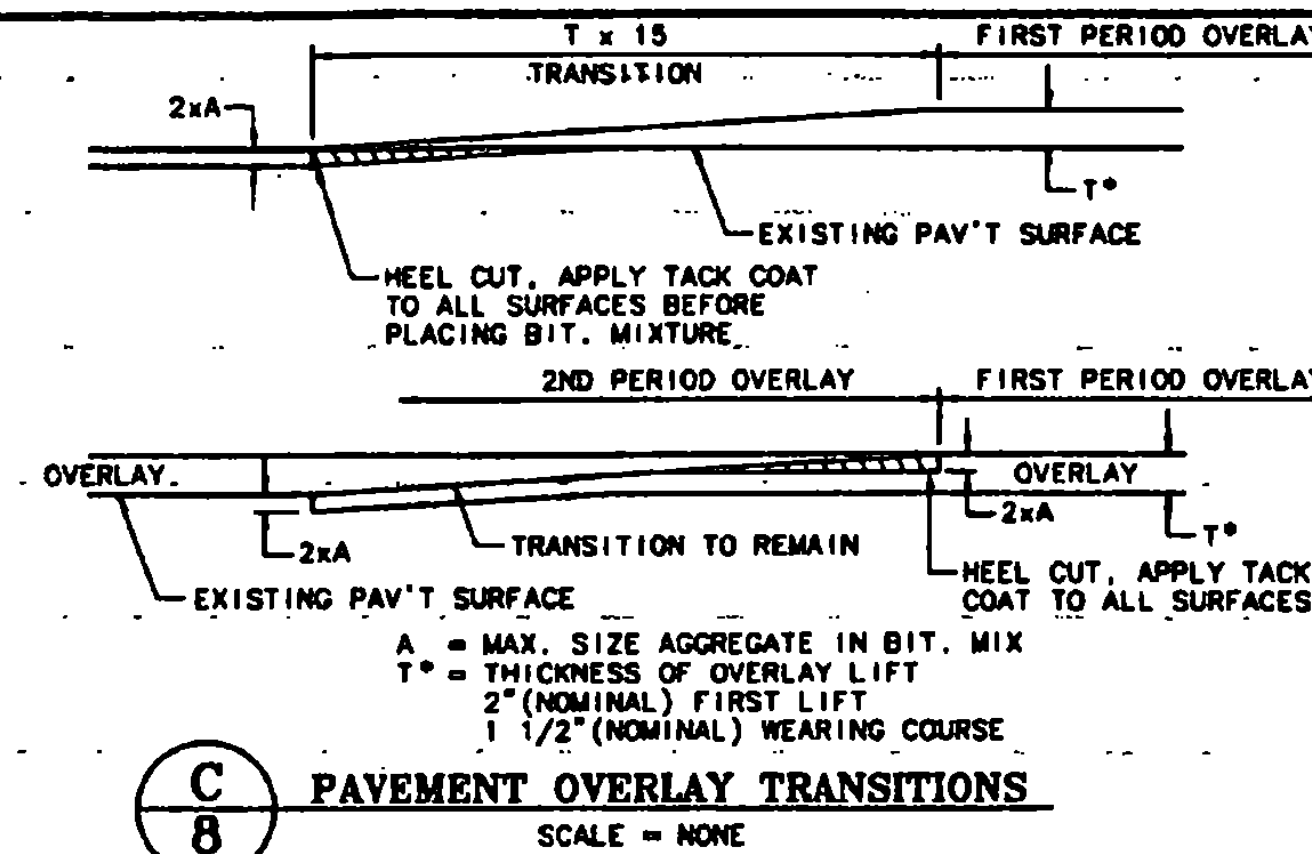
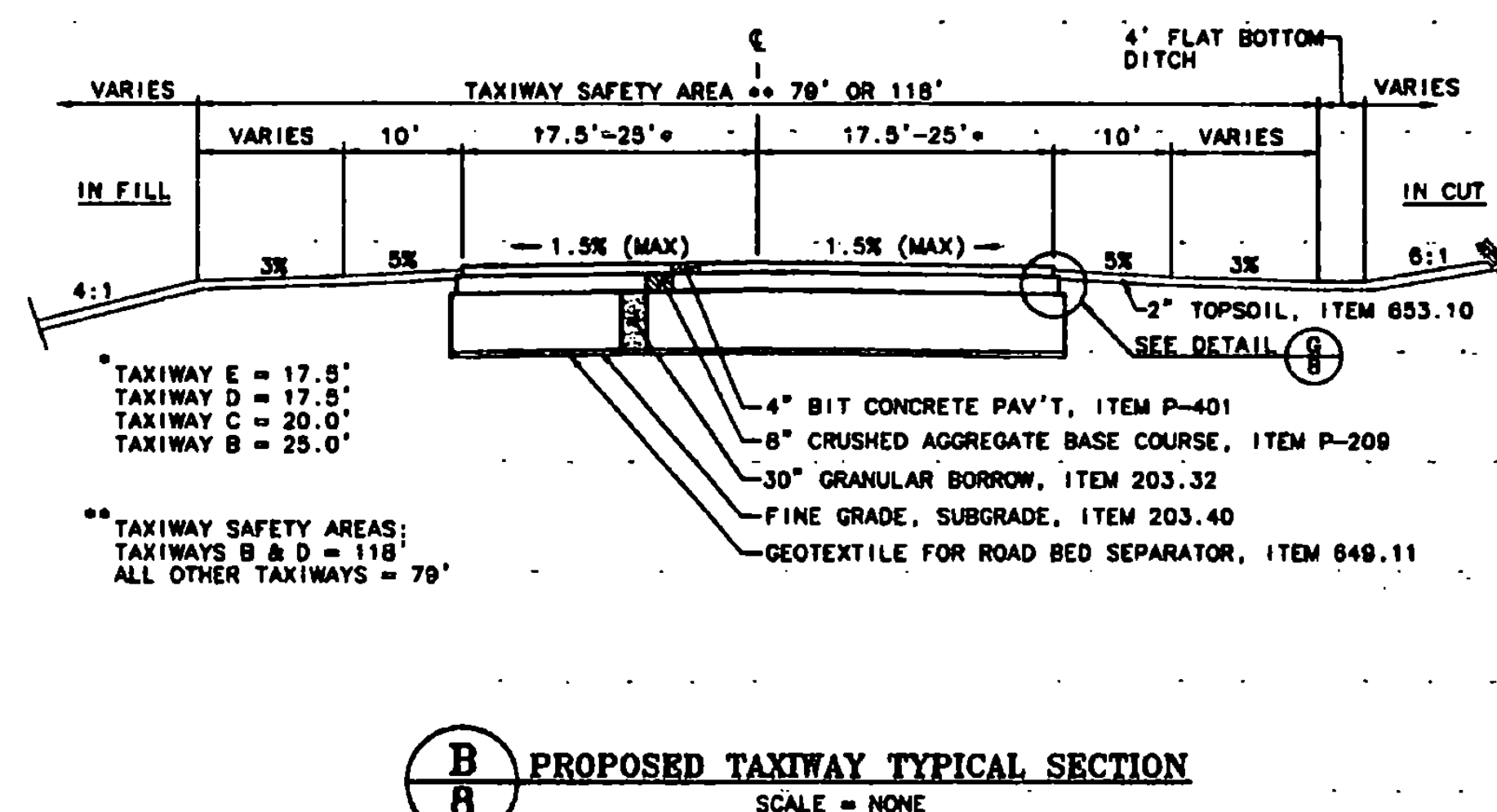
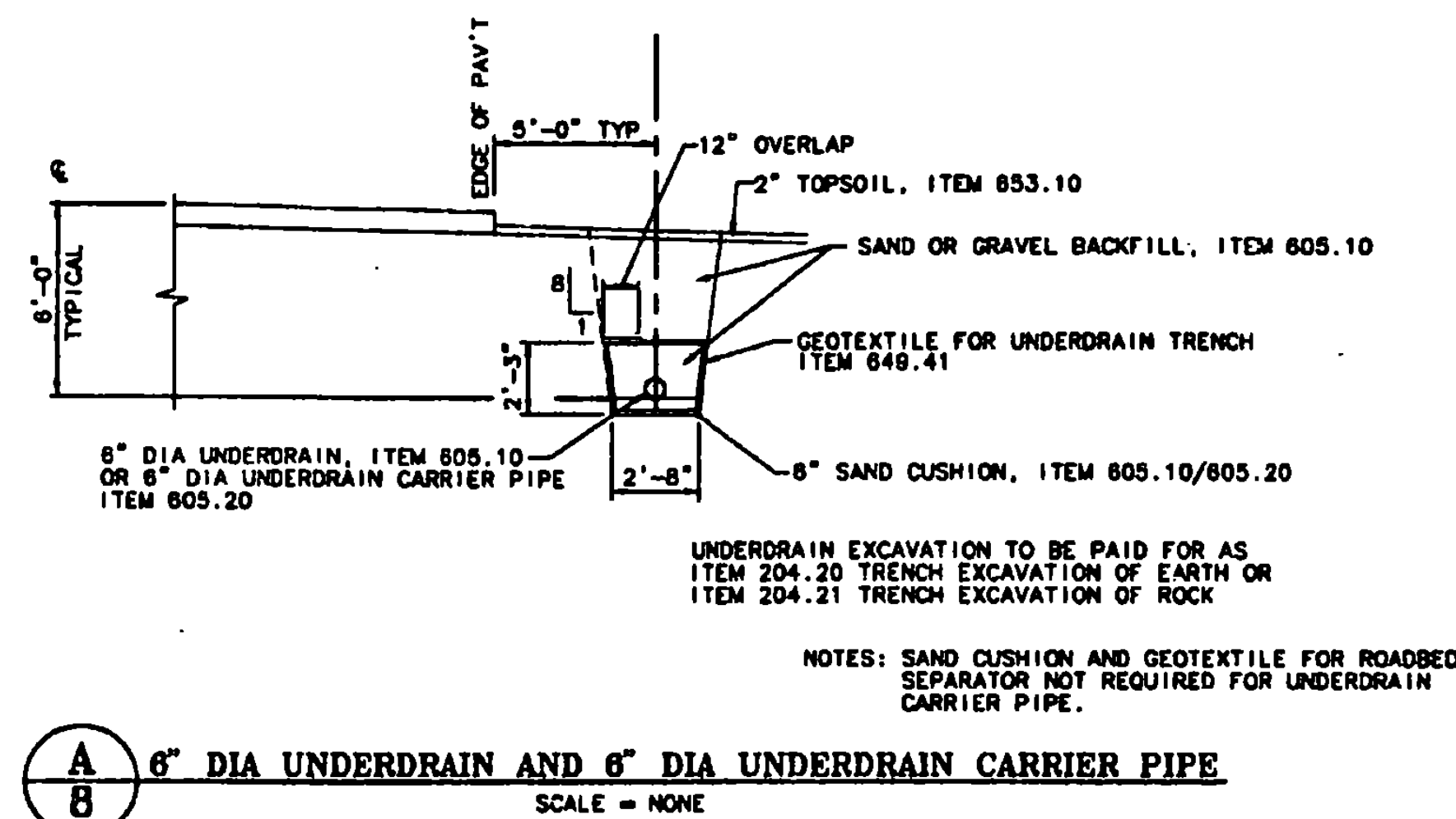
Scale: HS = AS NOTED
VS = AS NOTED

Date: 8/8/97 --

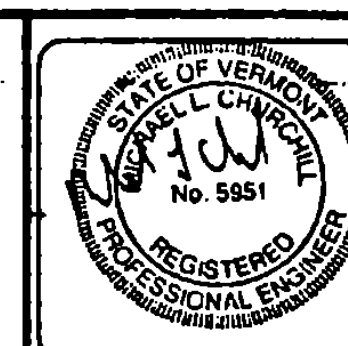
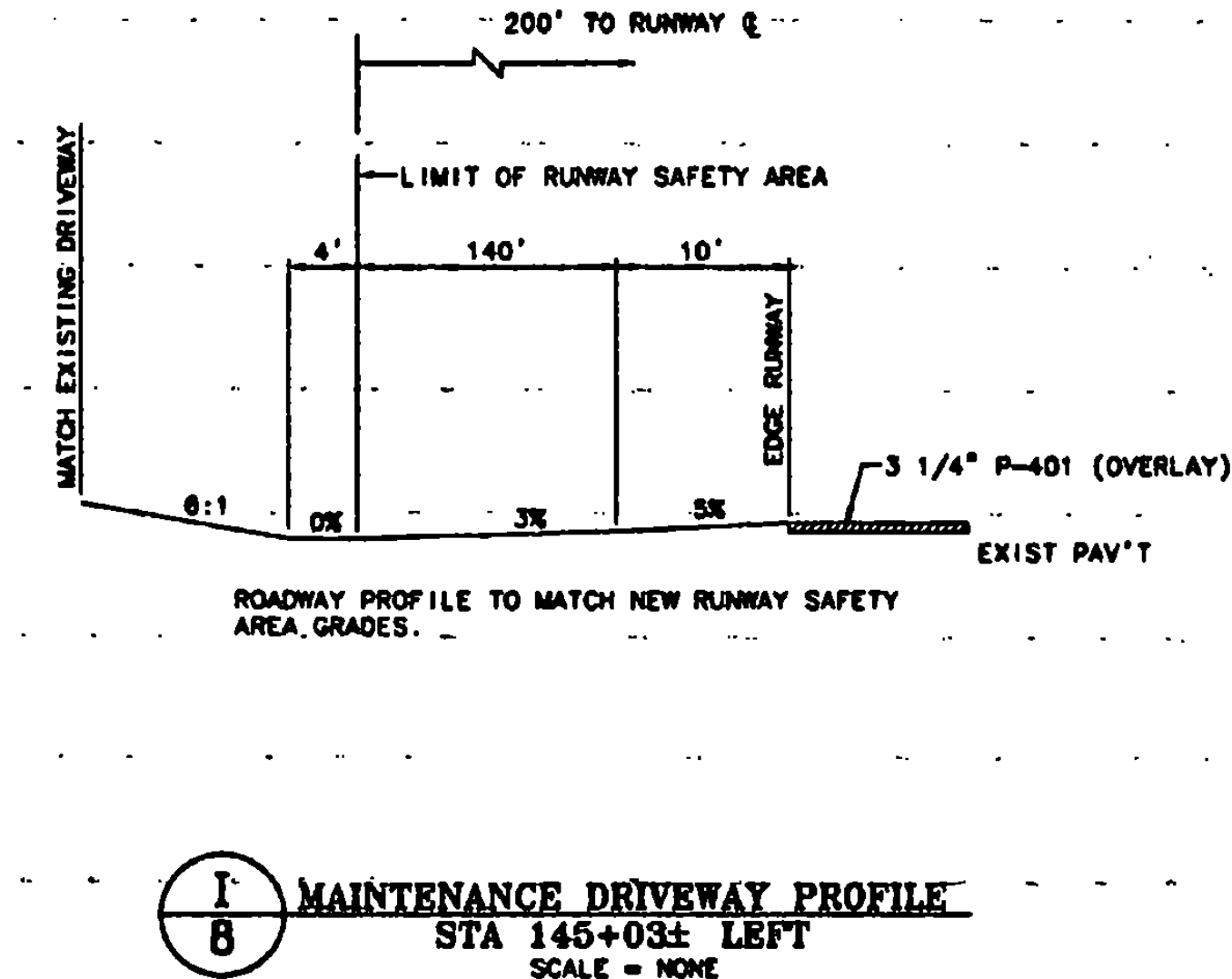
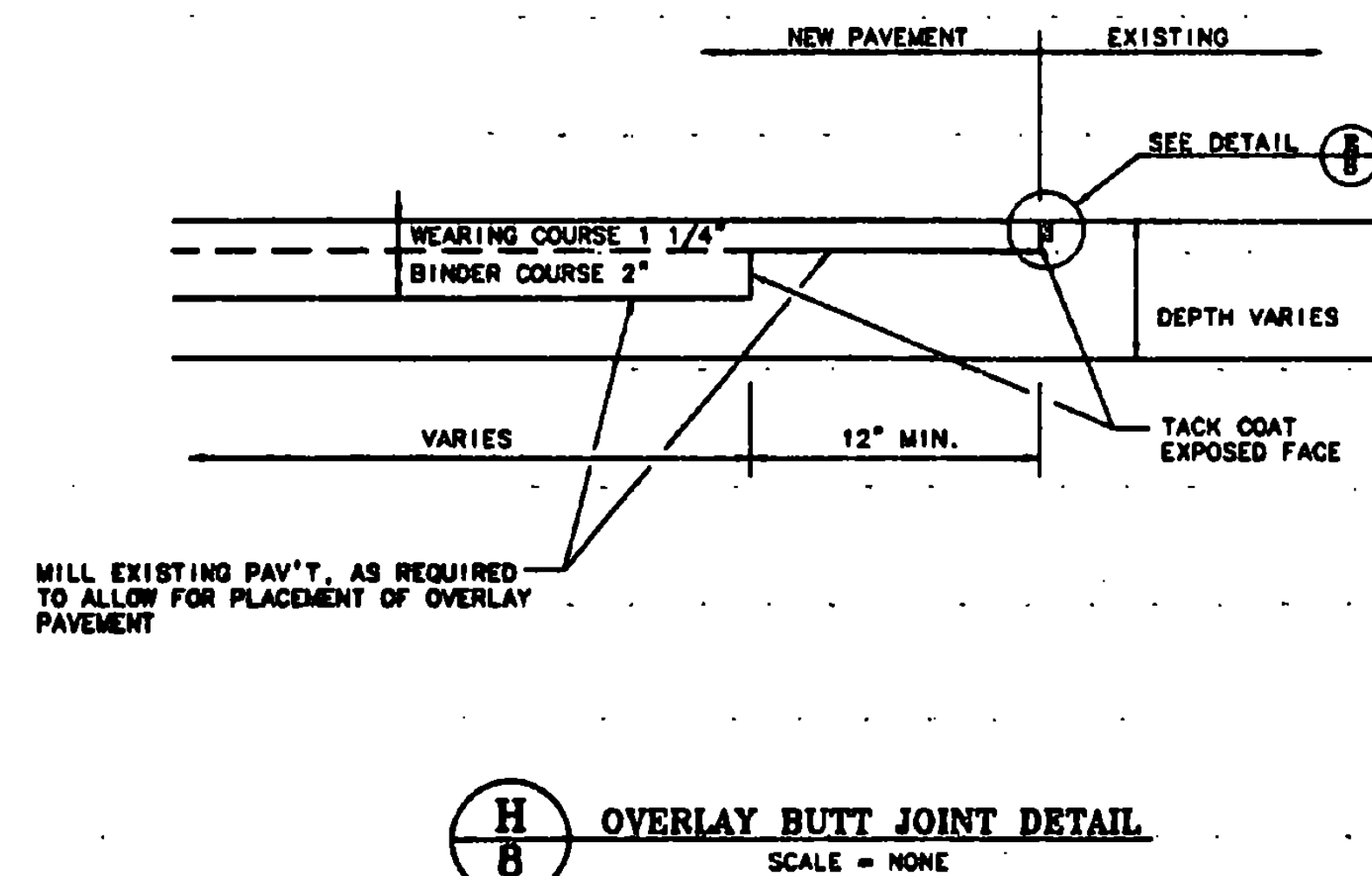
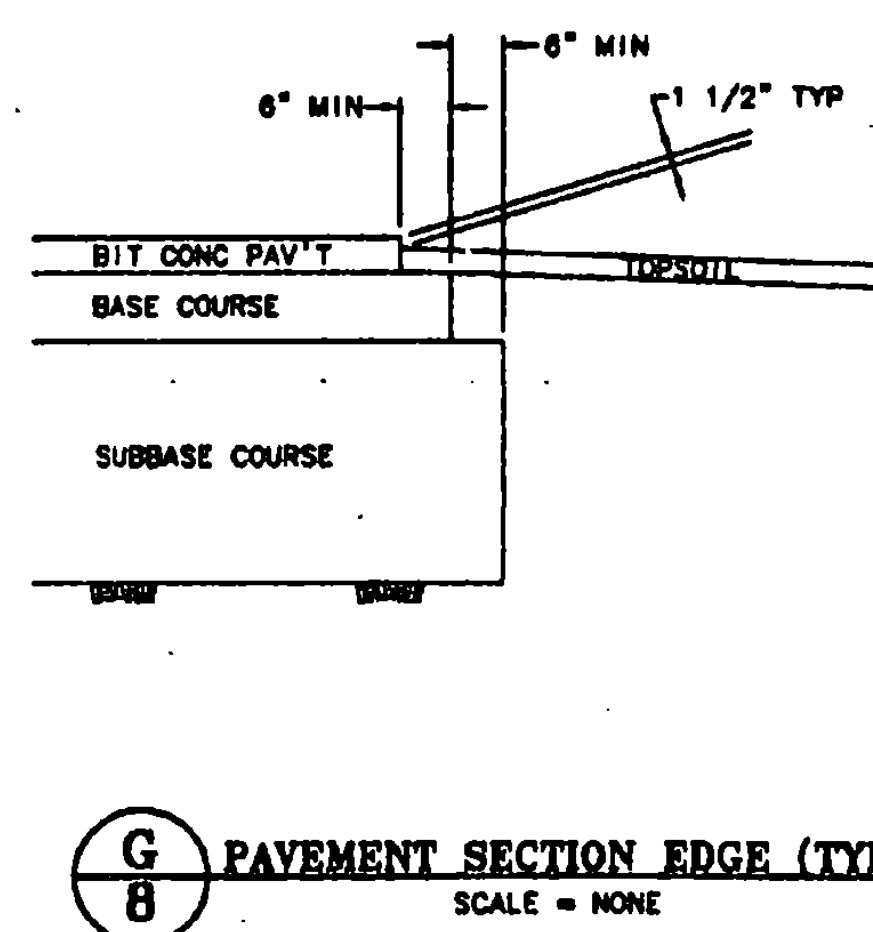
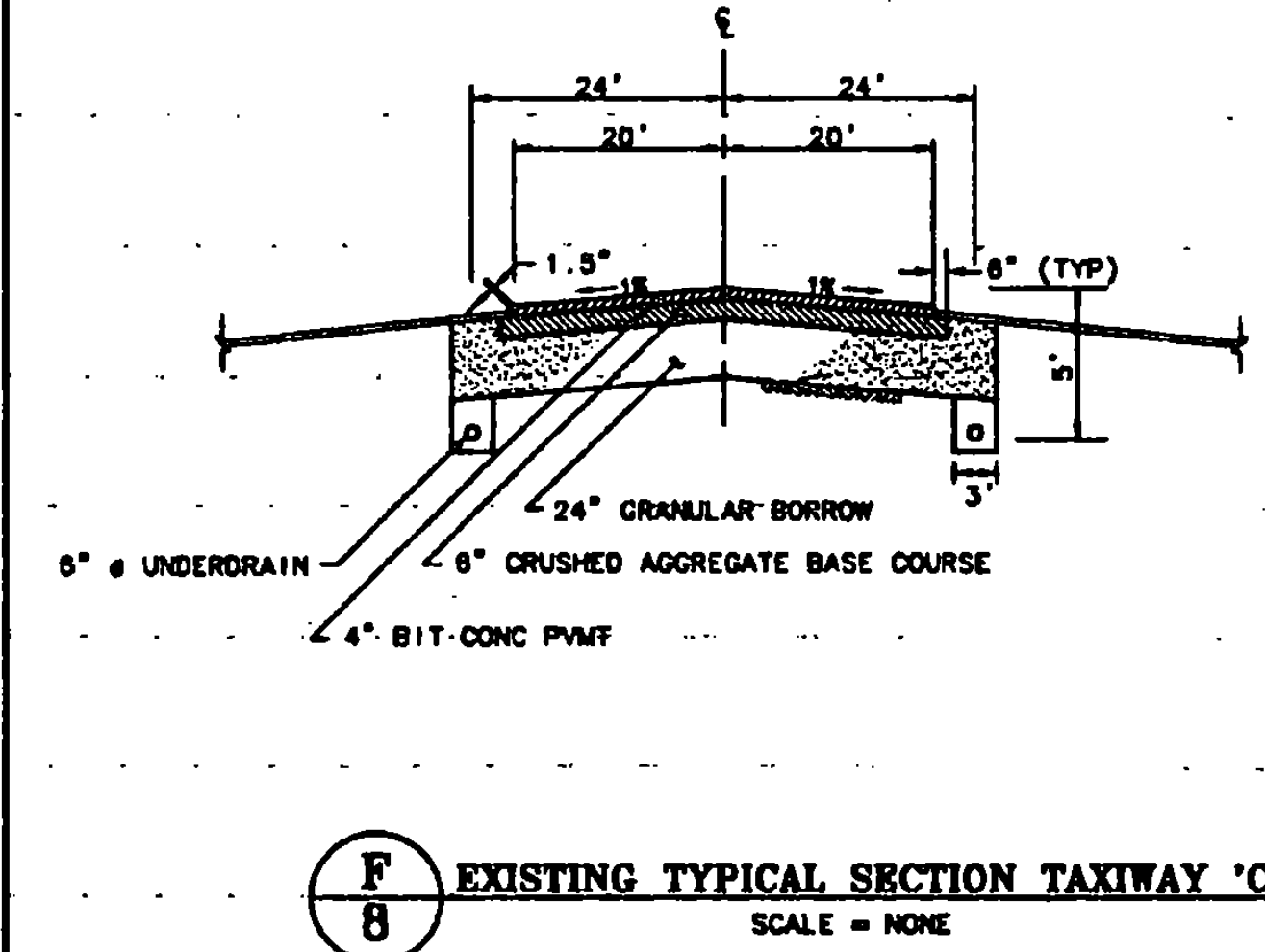
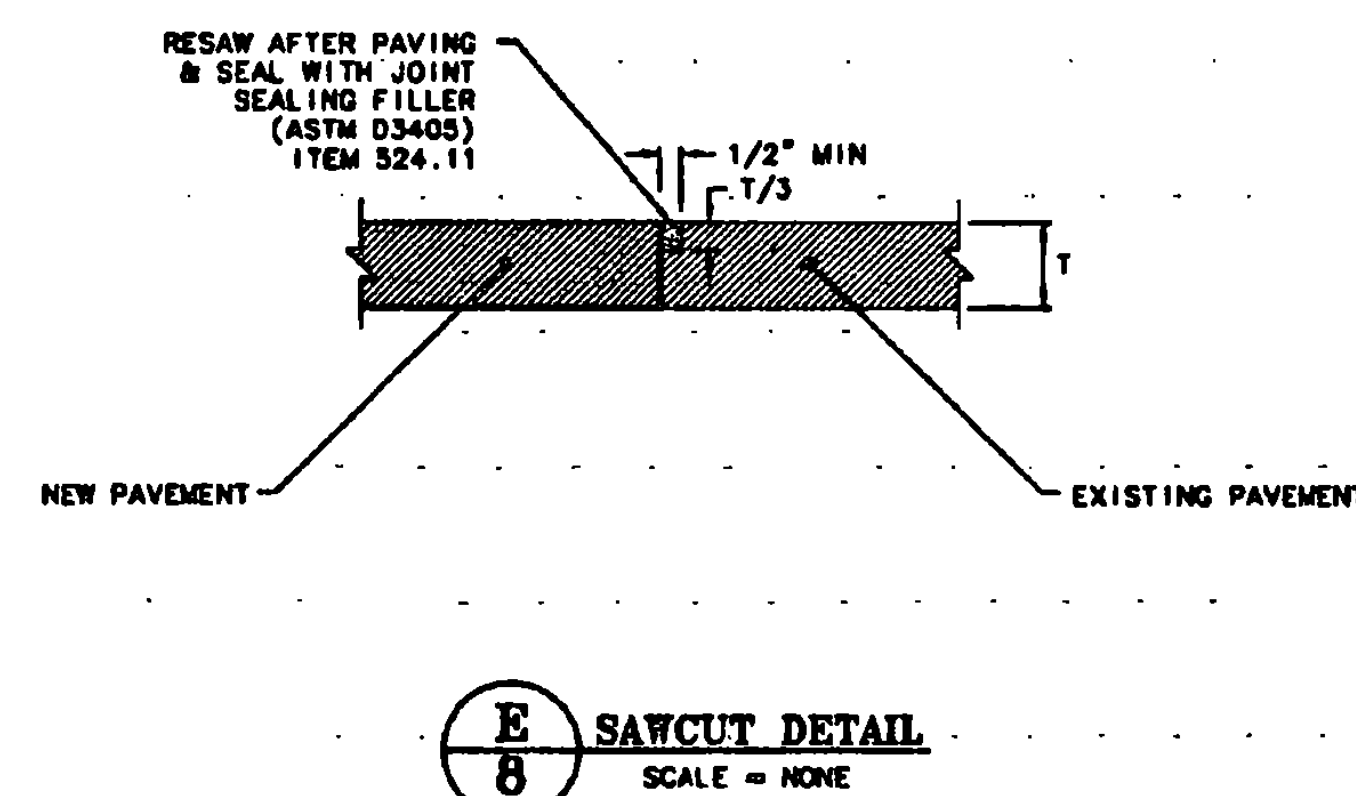
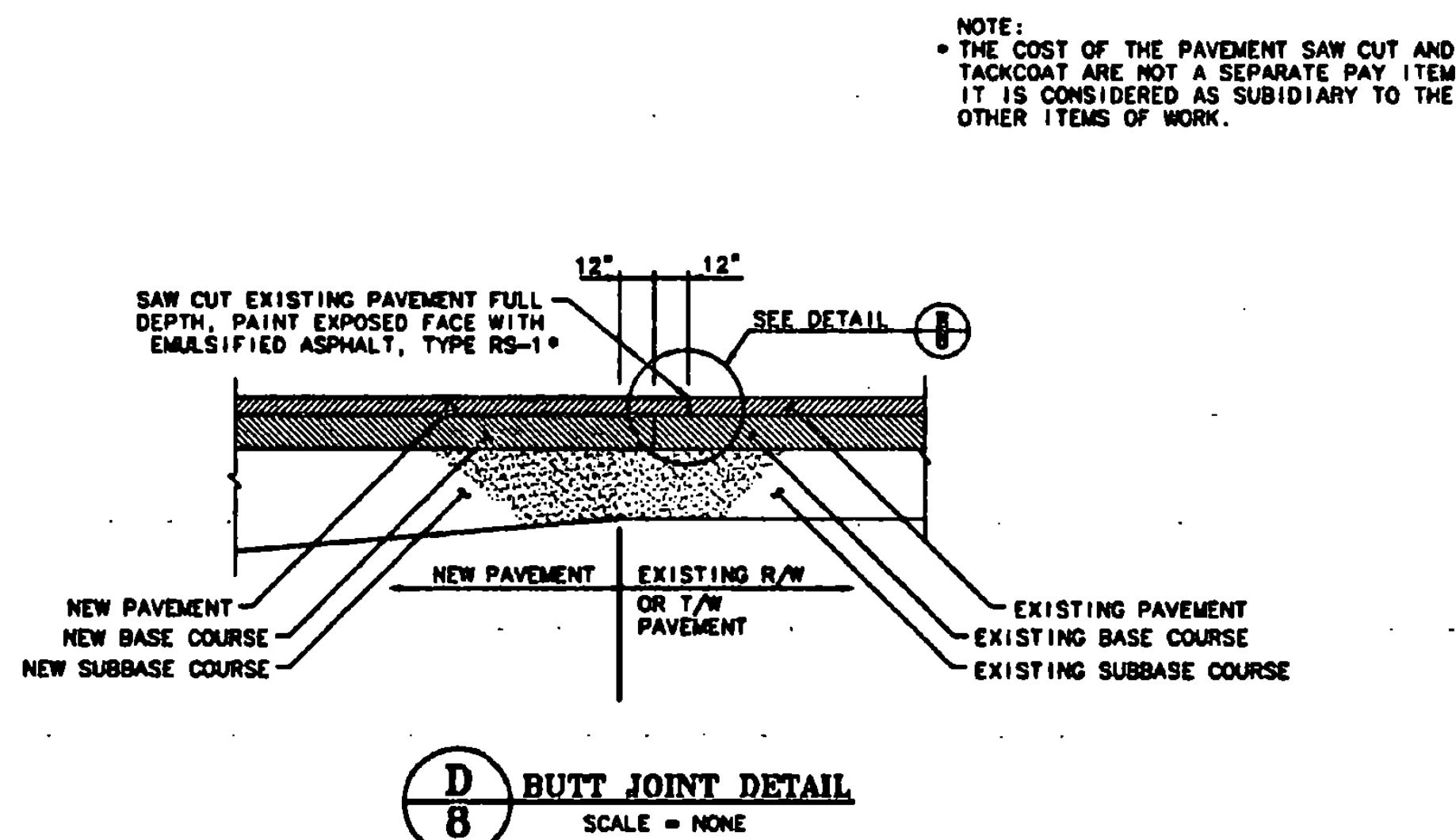
Sheet 7 Of 68

Sheet No.

•



1. OVERLAY OPERATION TO PROCEED FROM SOUTH TO NORTH
2. OVERLAY TO BE COMPLETED FULL WIDTH OF RUNWAY ON EACH EVENINGS WORK.
3. PLACEMENT OF PAVEMENT OVERLAY TO TERMINATE EACH NIGHT TO ALLOW SUFFICIENT TIME FOR PLACEMENT OF TEMPORARY MARKING AND CLEANUP PRIOR TO RE-OPENING THE RUNWAY.
4. AT THE END OF EACH NIGHT'S WORK, TRANSITION RAMPS TO BE CONSTRUCTED TO PROVIDE TRANSITION FROM COMPLETED COURSE OF THE OVERLAY TO THE EXISTING PAVEMENT.



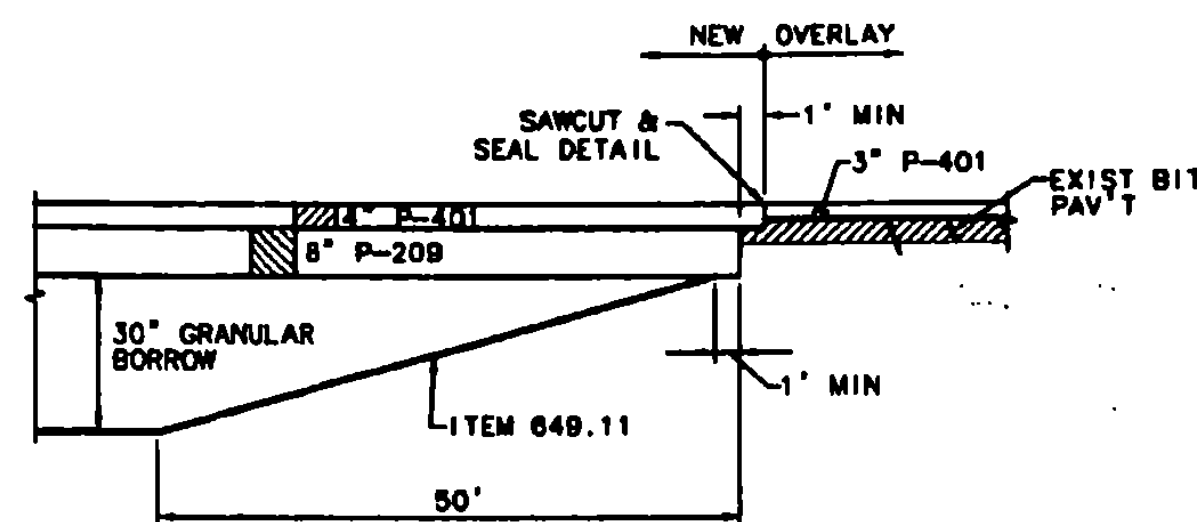
REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

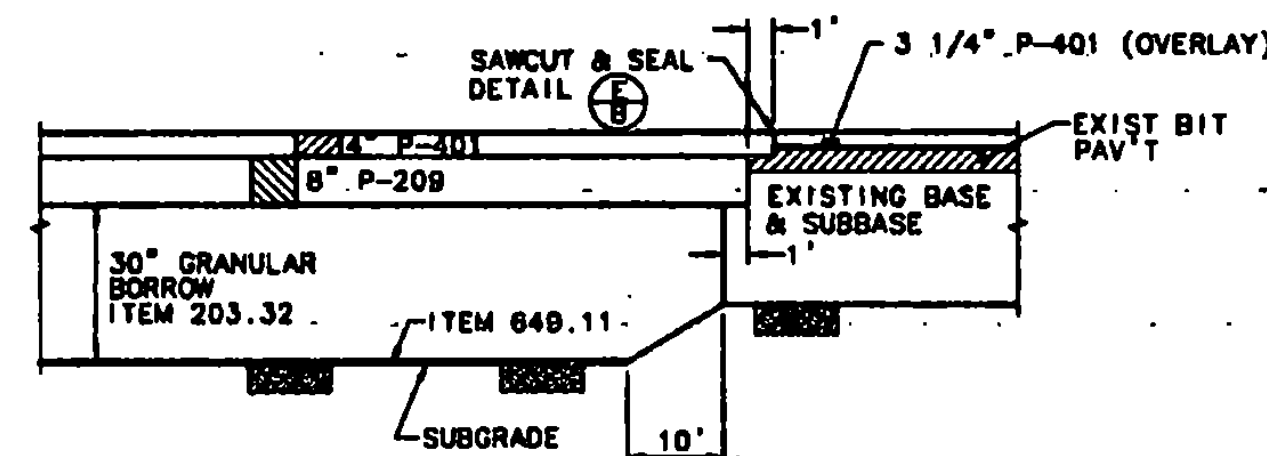
TYPICAL SECTIONS & DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

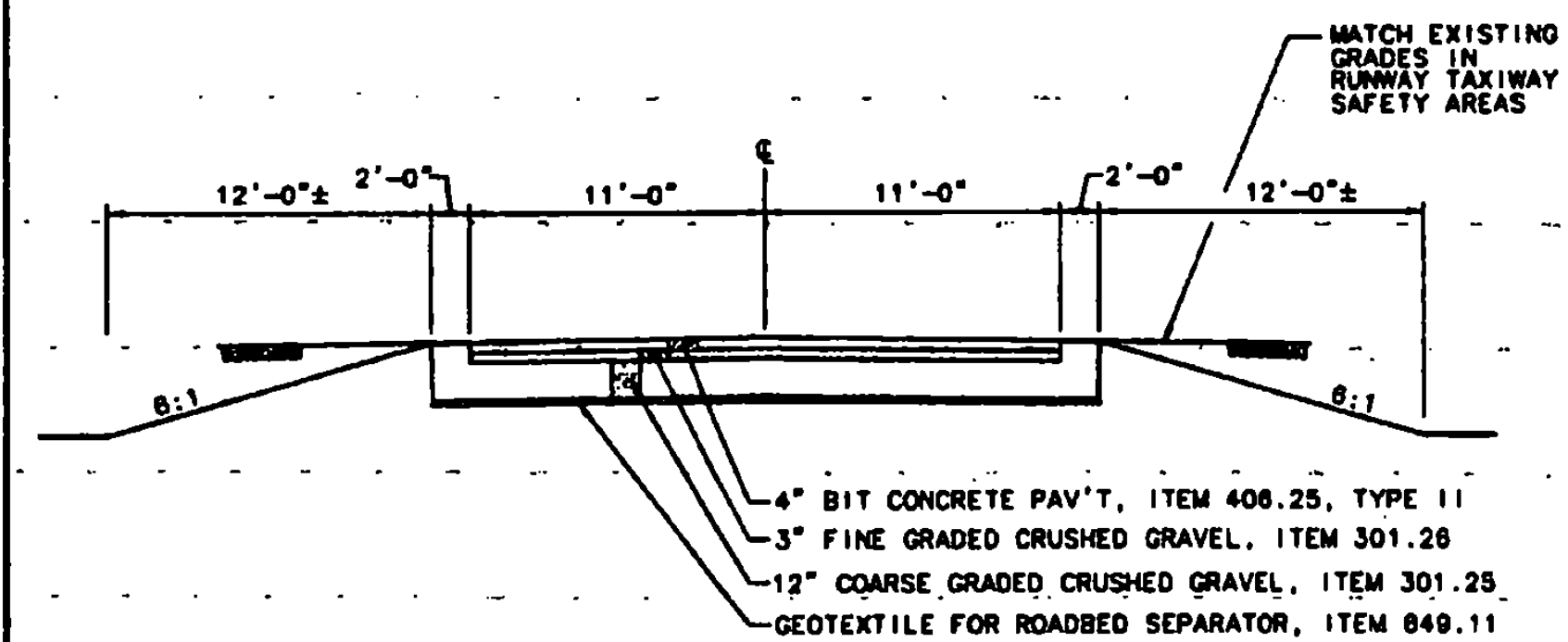
Designed by: 3/97	Drawn by: 3/97	Checked by: 3/97	Approved by: 3/97
Scale: AS NOTED	Scale: AS NOTED	Scale: AS NOTED	Scale: AS NOTED
Date: 3/97	Sheet: 8 of 88	Sheet No:	8



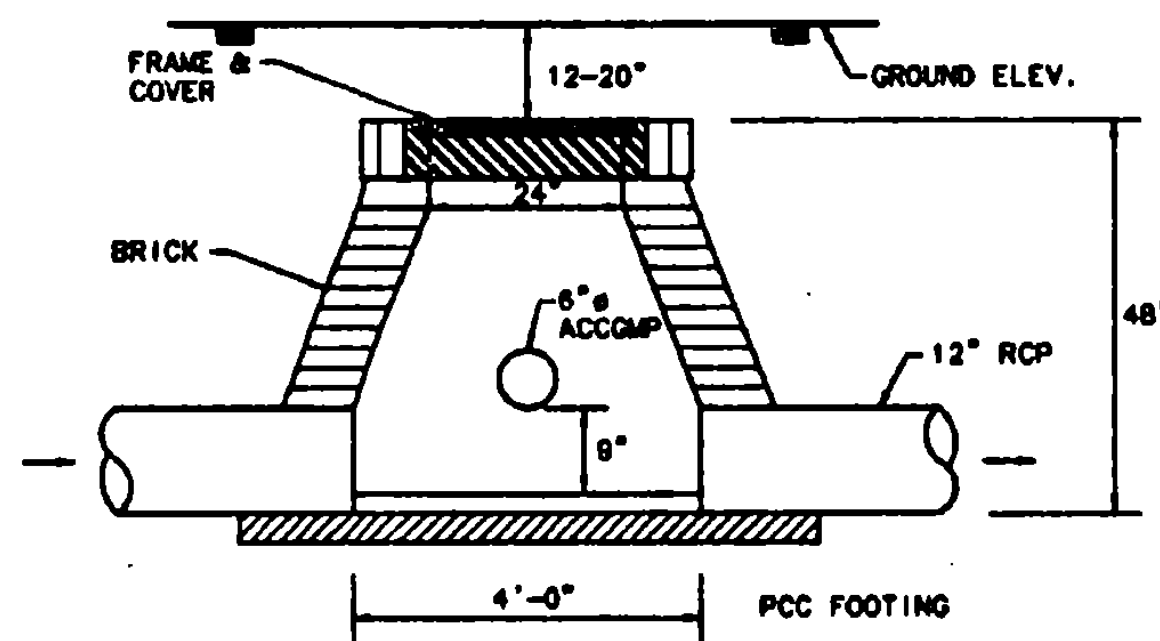
C
9 **PROPOSED SUBGRADE TRANSITION**
R/W STA 124+50 TO 125+00
T/W D STA 501+00 TO 500+50
SCALE = NONE



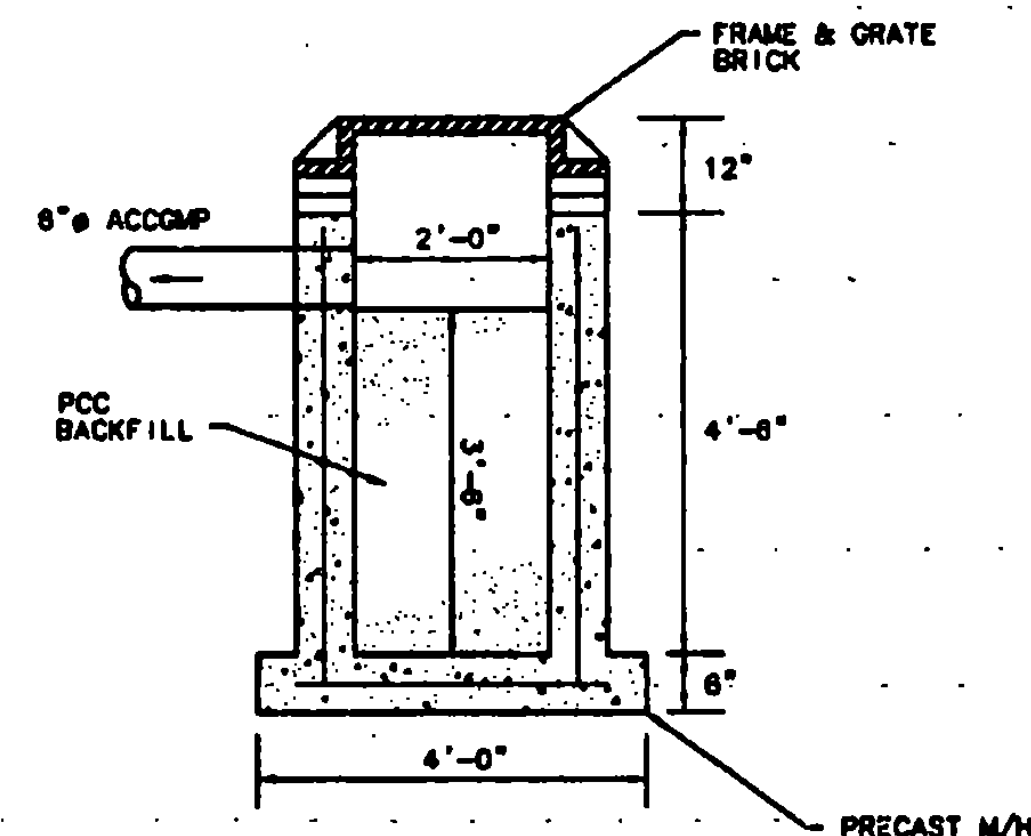
D
9 **PROPOSED SUBGRADE TRANSITION**
STA 142+00 TO 142+10
STA 149+90 TO 150+00
SCALE = NONE



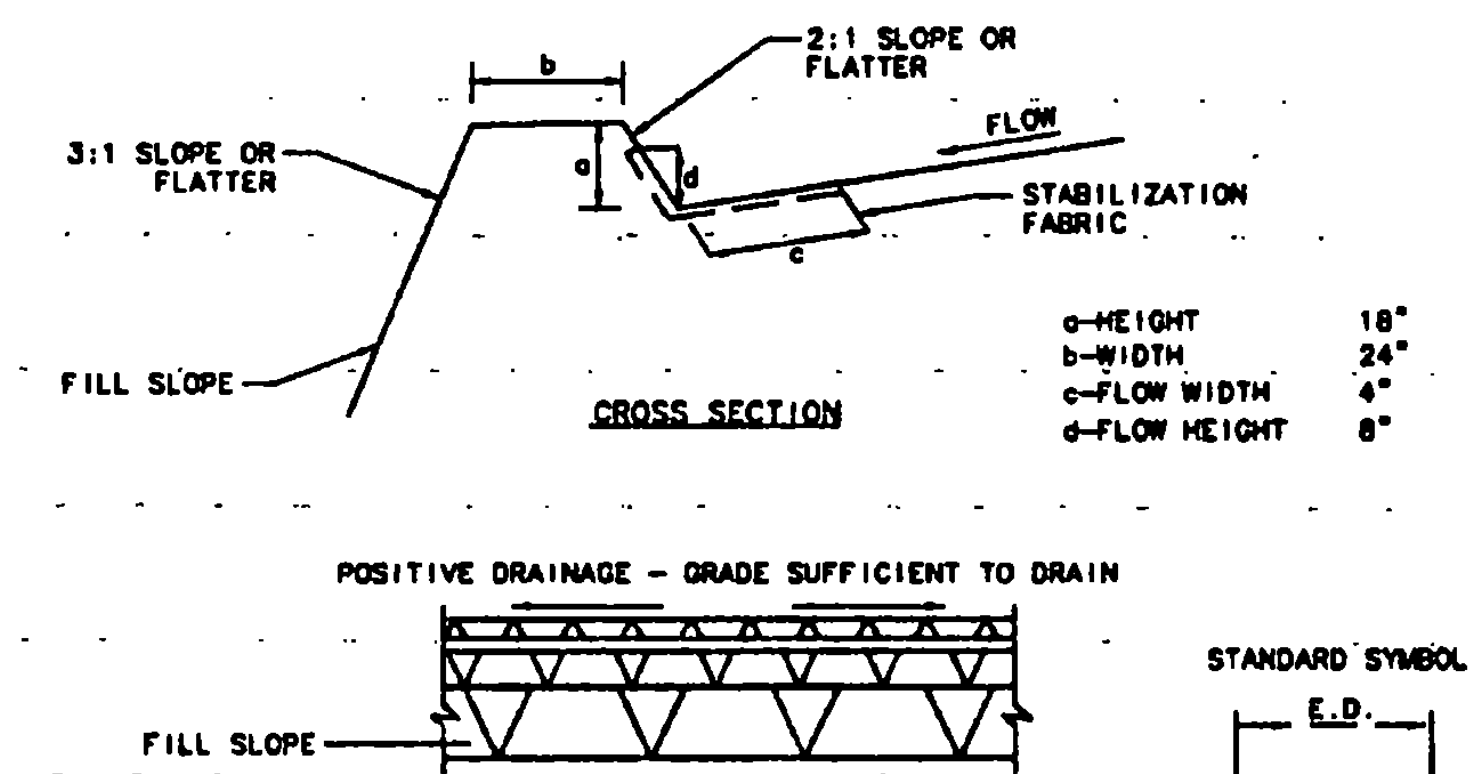
E
9 **TYPICAL DRIVEWAY SECTION**
(DRIVE AT 508+80± RT IS 10' WIDE)
(DRIVE AT 121+60± LT REMAINS 11' WIDE)
SCALE = NONE



F
9 **EXISTING MANHOLE DETAIL**
TYPICAL
SCALE = NONE

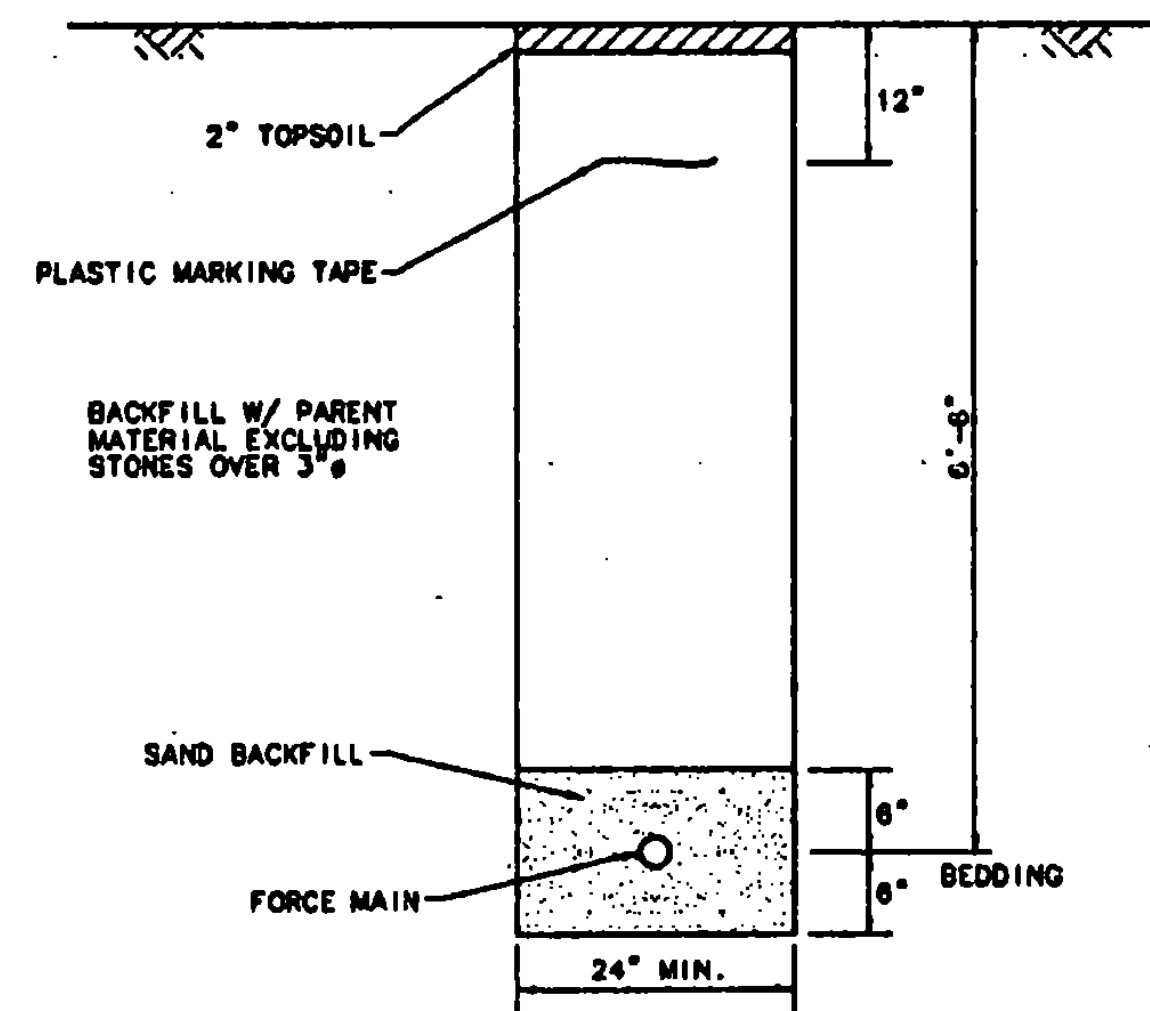


G
9 **EXISTING DROP INLETS DETAIL**
TYPICAL
SCALE = NONE



1. BERMS SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. TOP MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER
3. BERMS TO BE CONSTRUCTED ALONG TOP OF SLOPE OUTSIDE - RUNWAY SAFETY AREA OVERRUNS.

I
9 **EARTH BERM**
SCALE = NONE



J
9 **TRENCH DETAIL**
SCALE = NONE



REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TYPICAL SECTIONS & DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

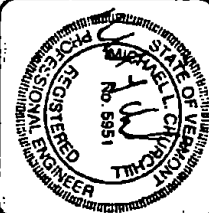
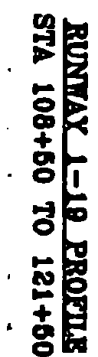
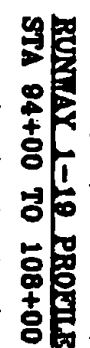
Designed by:	Date:
Drawn by:	Date:
Checked by:	Date:
Approved by:	Date:

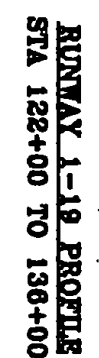
Scale: AS SHOWN

Date: 5/5/97

Sheet 11 of 65

Sheet No

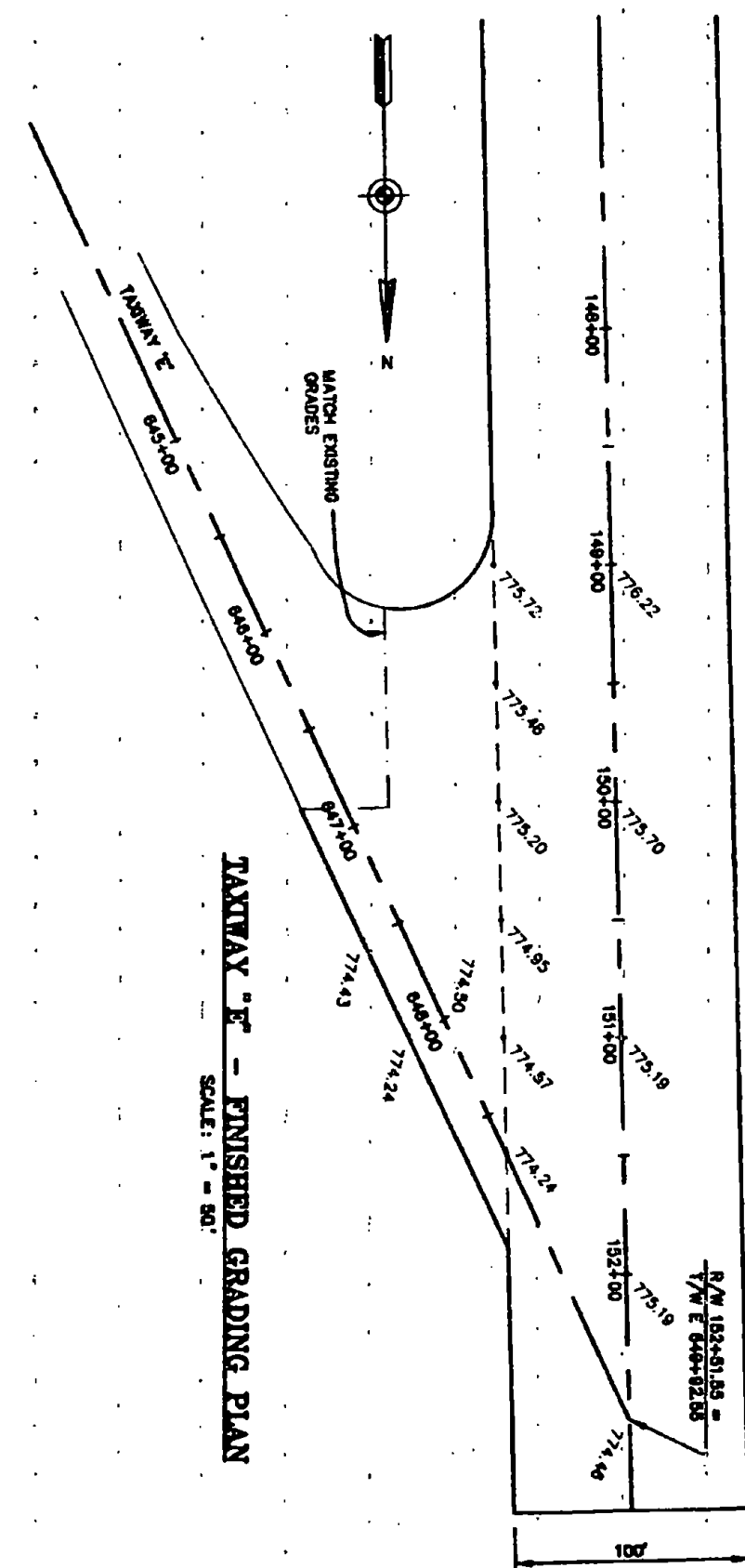
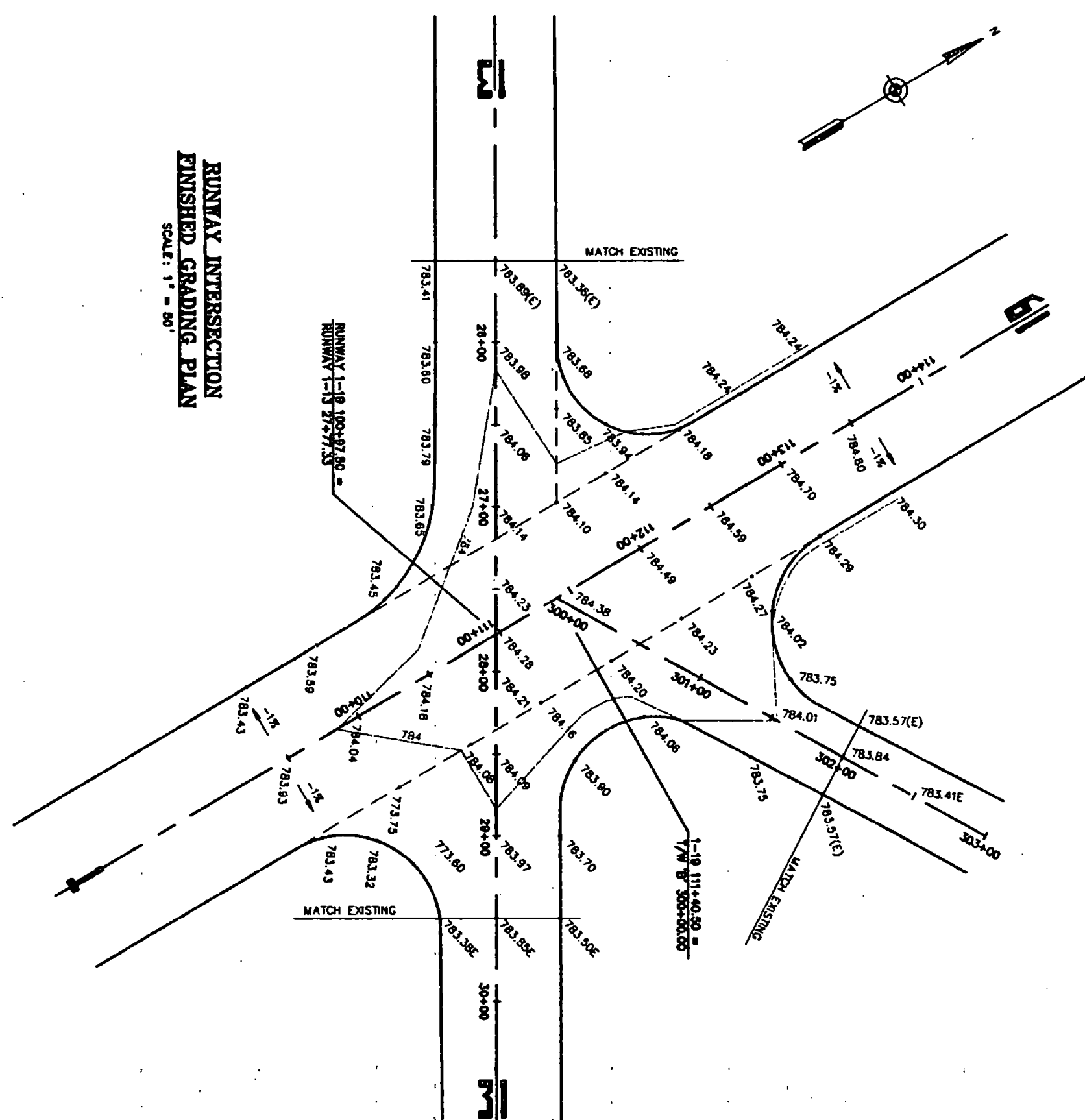
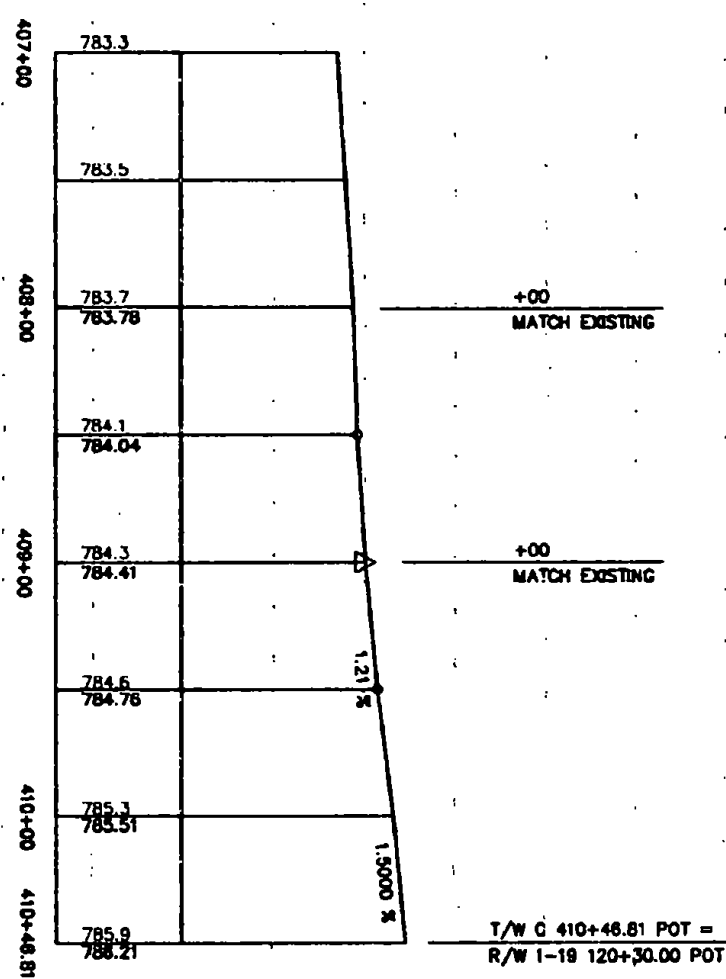
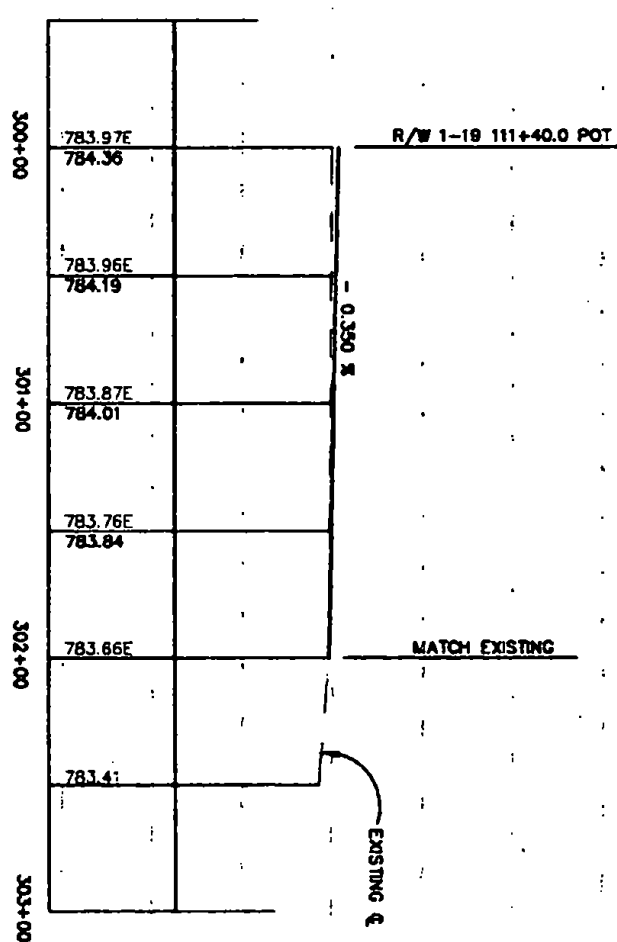
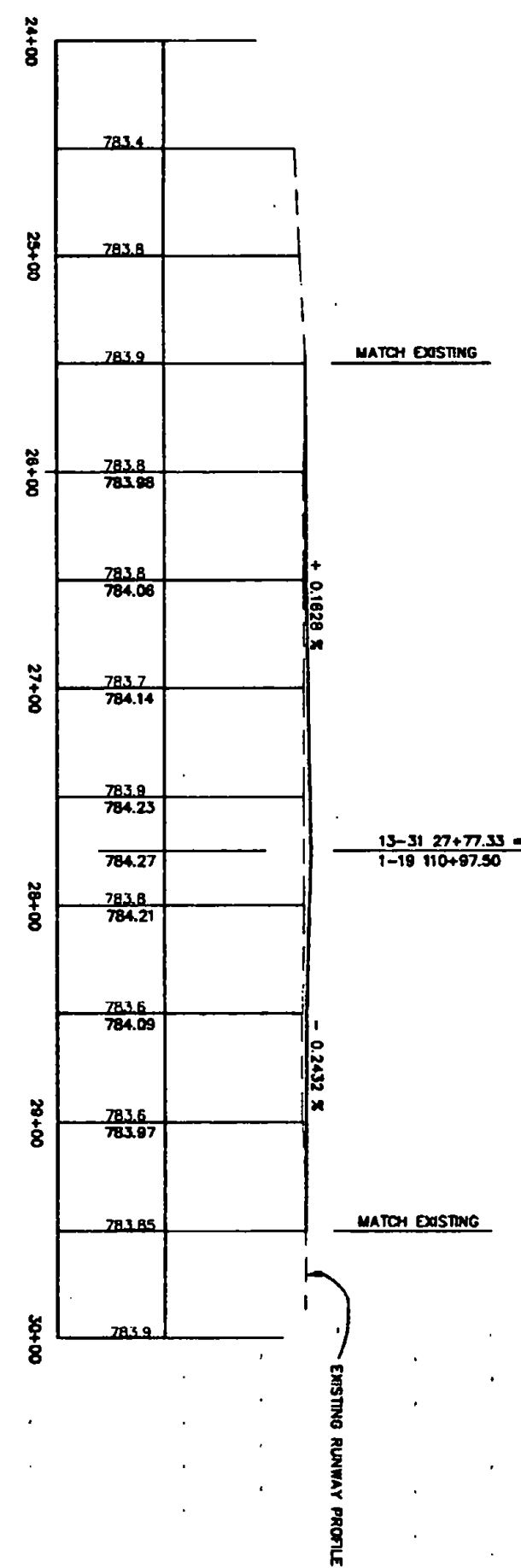




URS Greiner, Inc.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

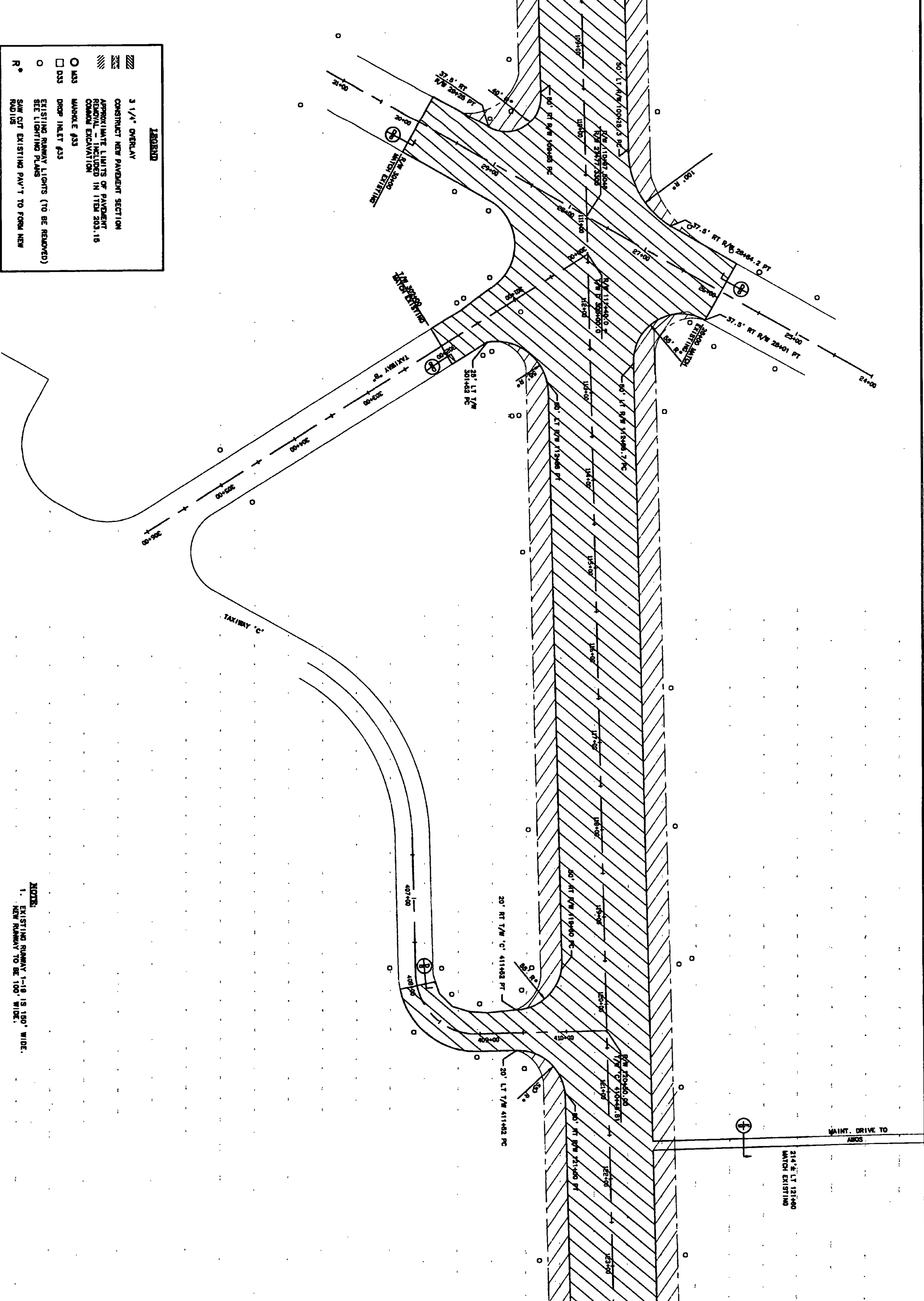
RUNWAY 1-19 PROFILE



MATCH LINE SHEET 14

MATCH LINE SHEET 16

- LEGEND**
- 3 1/4" OVERLAY
 - CONSTRUCT NEW PAVEMENT SECTION
 - APPROXIMATE LIMITS OF PAVEMENT
 - CONSTRUCTED IN 1980 AND 1981
 - UNPAVED AREA
 - PROPOSED INLET
 - EXISTING RUNWAY LIGHTS (TO BE REMOVED)
 - SEE LIGHTING PLANS
 - SEE EXISTING PAVING TO FORM NEW
 - MODIS



ALP 3-50-0012-11

Sheet No. 2	Designed by: C. O'NEILL 3/97	RUTLAND STATE AIRPORT CLARENDON, VERMONT	REV. DATE DESCRIPTION	Job No. 140112.03	File No. 140112.03
	Checked by: C. O'NEILL 3/97				
Drawn by: M. BODALL 3/97	Approved by: M. BODALL 3/97	PAVING PLAN & GEOMETRIC LAYOUT			
Scale: 1" = 100'					
URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK					

MATCH LINE SHEET 15

12+450 END OVERLAY
BESTIR RUNWAY RECONSTRUCTION

MATCH LINE SHEET 17

LEGEND	
	3 1/4" OVERLAY
	CONTRACT NEW PAVING SECTION
	APPROXIMATE LIMITS OF PAVING
	PROPOSED - INCLINED IN 1750 203.16
	MANHOLE P23
	SHOULDER P23
	EXISTING MANHOLE LIGHTS (TO BE REMOVED)
	EXISTING MANHOLE LIGHTS (TO BE REMOVED)
	SHOULDER EXISTING PAV'T TO FORM NEW
	SHOULDER

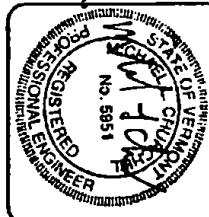
NOTES:
1. EXISTING RUNWAY 1-18 IS 180' WIDE.
NEW RUNWAY TO BE 100' WIDE.

URS Grohner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT
PAVING PLAN &
GEOMETRIC LAYOUT

REV.	DATE	DESCRIPTION

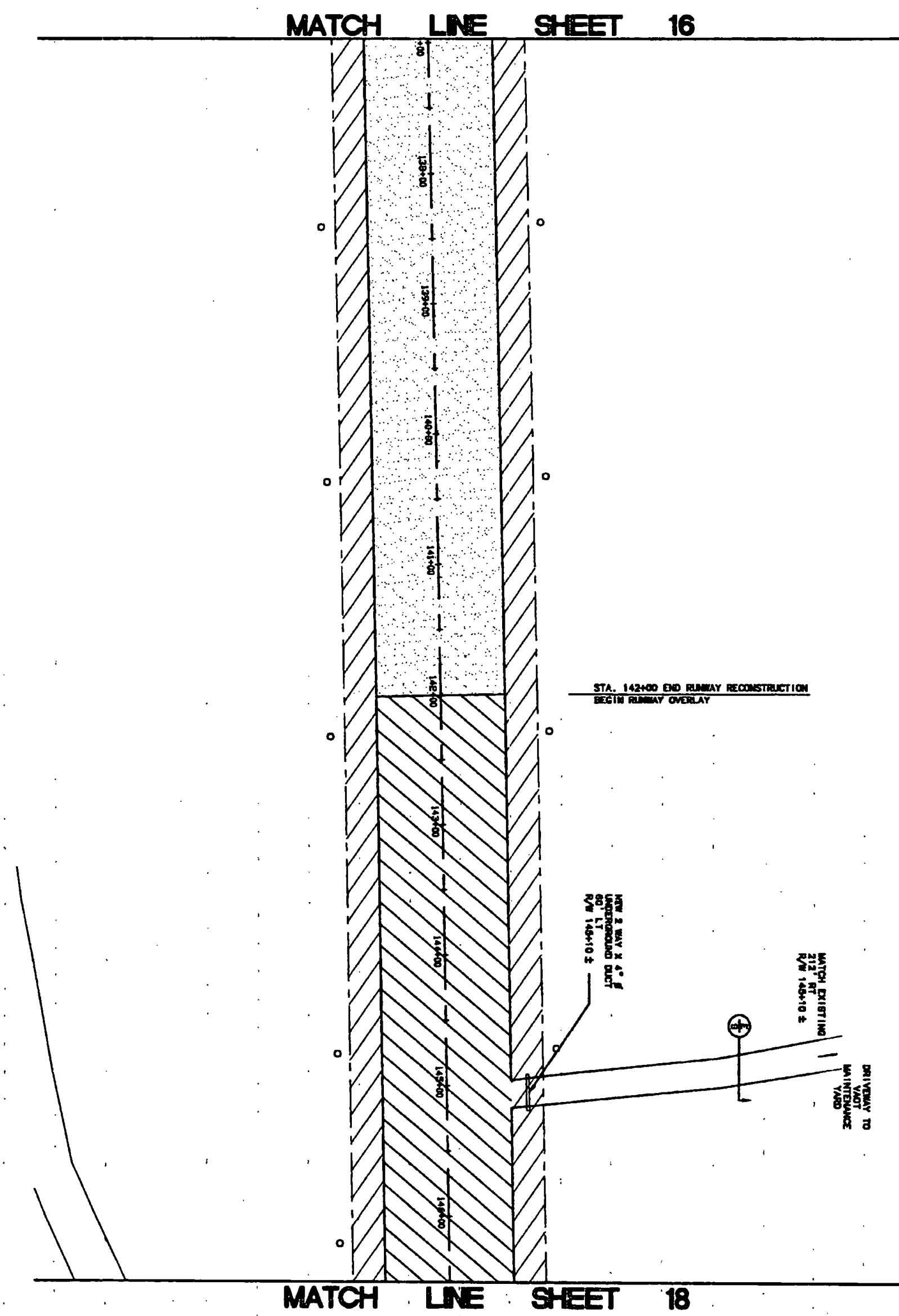
Job No. 100121.00 File No. 1-V0121200-0001



LEGEND

	3 1/4" OVERLAY
	CONSTRUCT NEW PAVEMENT SECTION
	APPROXIMATE LIMITS OF PAVEMENT REMOVAL - INCLUDED IN ITEM 203.19 CANTERED DEDUCTION
	MAINTENANCE PASS
☒ 4033	DROP INLET PASS
☐ 033	EXISTING ROADWAY LIGHTS (TO BE REMOVED) SEE LIGHTING PLANS
☐ R*	SAW CUT EXISTING PAV'T TO FORM NEW RAILWAYS

NOTE:
1. EXISTING RUNWAY 1-19 IS 160' WIDE.
NEW RUNWAY TO BE 100' WIDE.



MATCH LINE SHEET 16

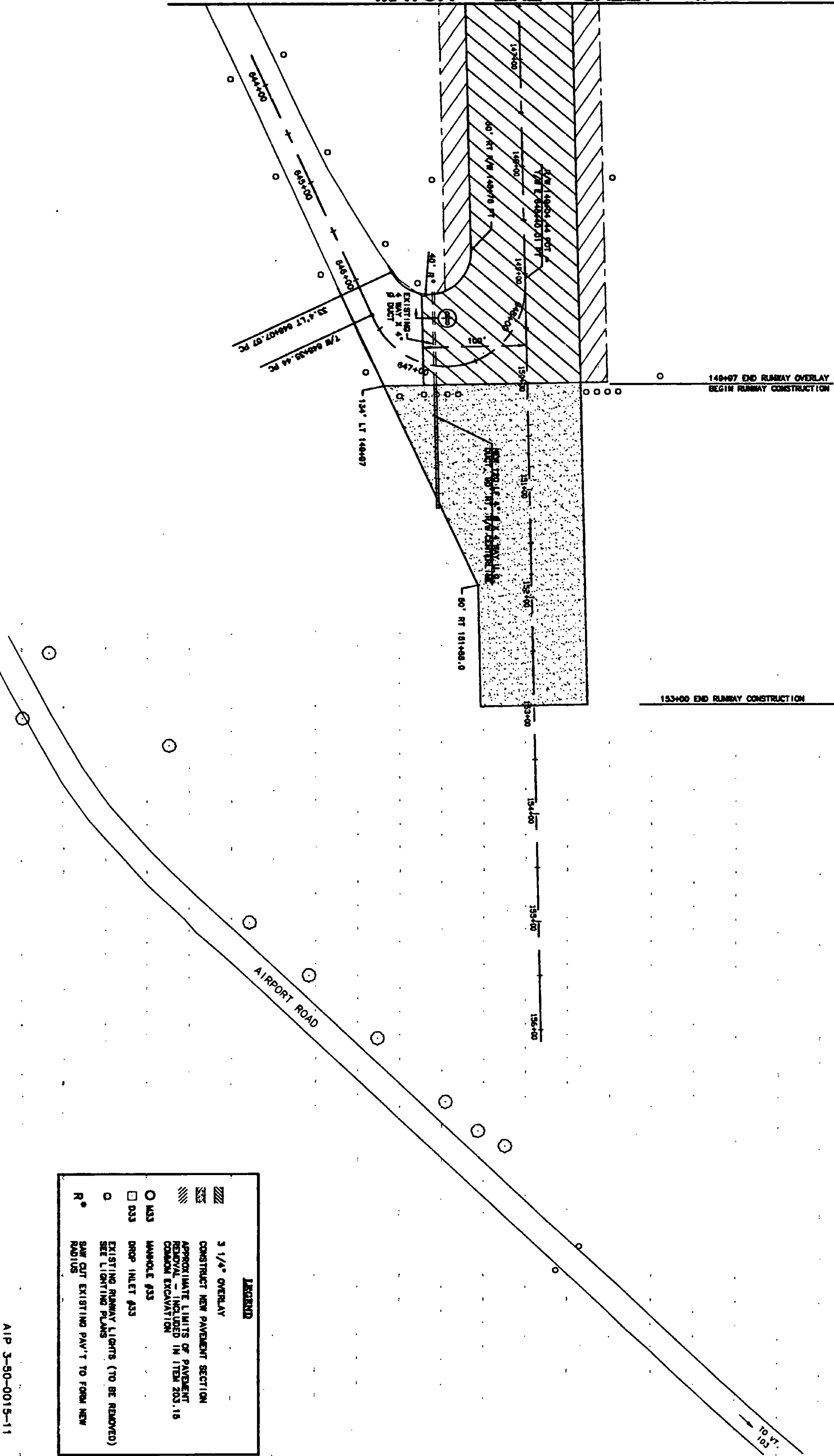
MATCH LINE SHEET 18

AIP 3-50-0015-11

Sheet No. 7	Designed by: Dyle C 17 MARCO 5/87	URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	RUTLAND STATE AIRPORT CLARENDON, VERMONT	Job No. FA0212.00	File No. 1:FA0212(00)-002A
	Drawn by: M. MCCALLA 5/87				
Check 17 of 68	Checked by: C 17 MARCO 5/87/87	PAVING PLAN & GEOMETRIC LAYOUT			
Date: 5/8/87	Approved by: M. CHERRILL 5/8/87				
Scale: 1" = 40'					
Sheet 17 of 68					

NOTES:
1. EXISTING RUNWAY 1-18 IS 150' WIDE.
2. NEW RUNWAY TO BE 150' WIDE.

MATCH LINE SHEET 17



AIP 3-50-0015-11

Sheet No.
18

Designed by:
C. V. HARRIS
3/97

Drawn by:
M. MICALLA
3/97

Checked by:
C. V. HARRIS
5/9/97

Approved by:
M. CHANDLER
5/9/97

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

**PAVING PLAN &
GEOMETRIC LAYOUT**

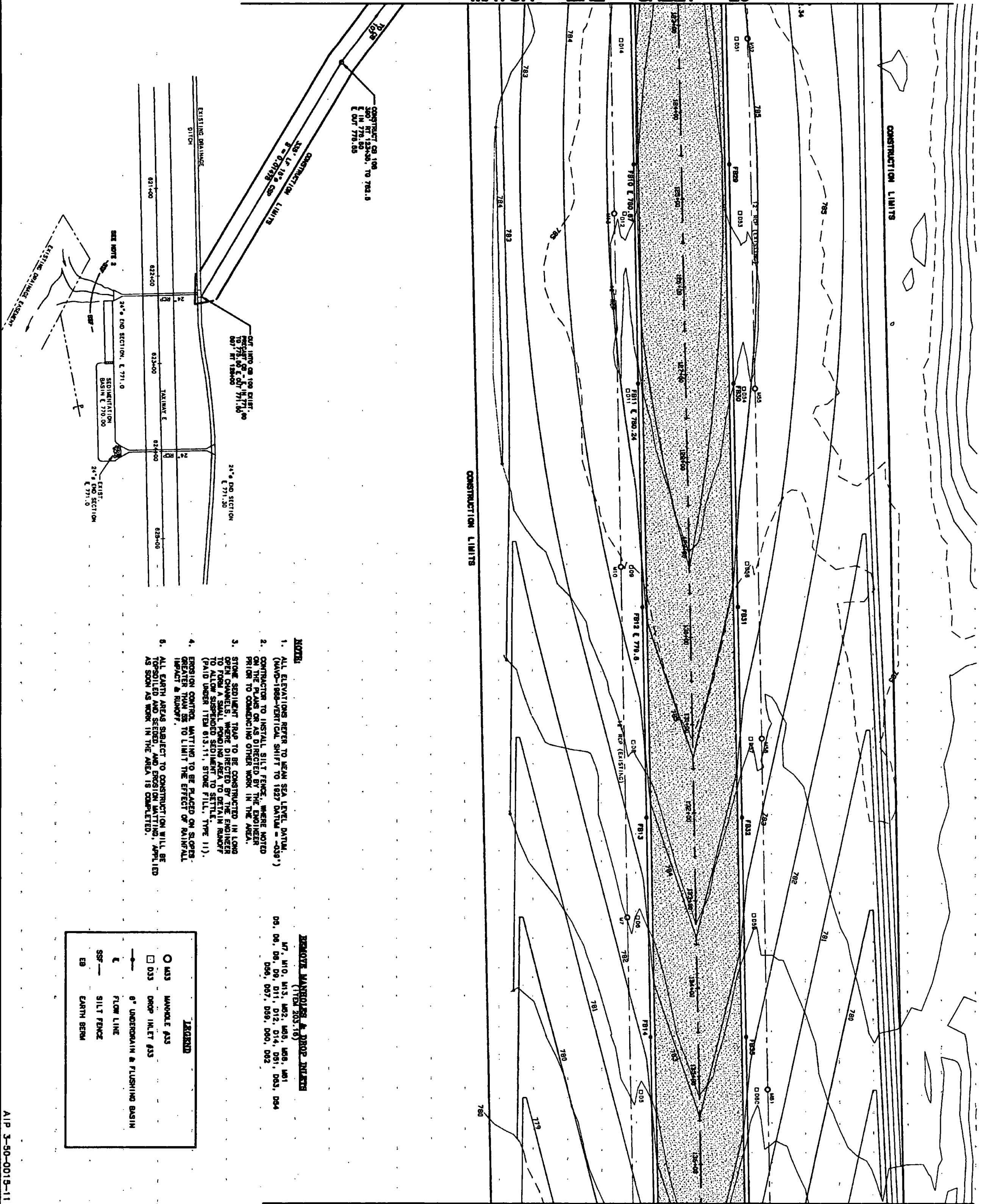
REV.	DATE	DESCRIPTION

Job No. 9401212.00

File No. 11V401212P-0001

MATCH LINE SHEET 20

MATCH LINE SHEET 22



URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

GRADING AND DRAINAGE PLAN

REV.	DATE	DESCRIPTION

Job No. 1101212-00

File No. 1101212-00-002

Designed by: DWH
07/00

Drawn by: M. MICHAEL
3/07

Checked by: D. MICHAEL
07/07

Approved by: M. MICHAEL
07/07

Sheet No. 1 of 1

Sheet 12 of 12

Sheet 21 of 21

Scale: 1" = 40'

Scale: 1" = 40'

Scale: 1" = 40'

Drawn by: DWH

Checked by: M. MICHAEL

Approved by: M. MICHAEL

Job No. 1101212-00

File No. 1101212-00-002

URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

AIP 3-50-0019-11

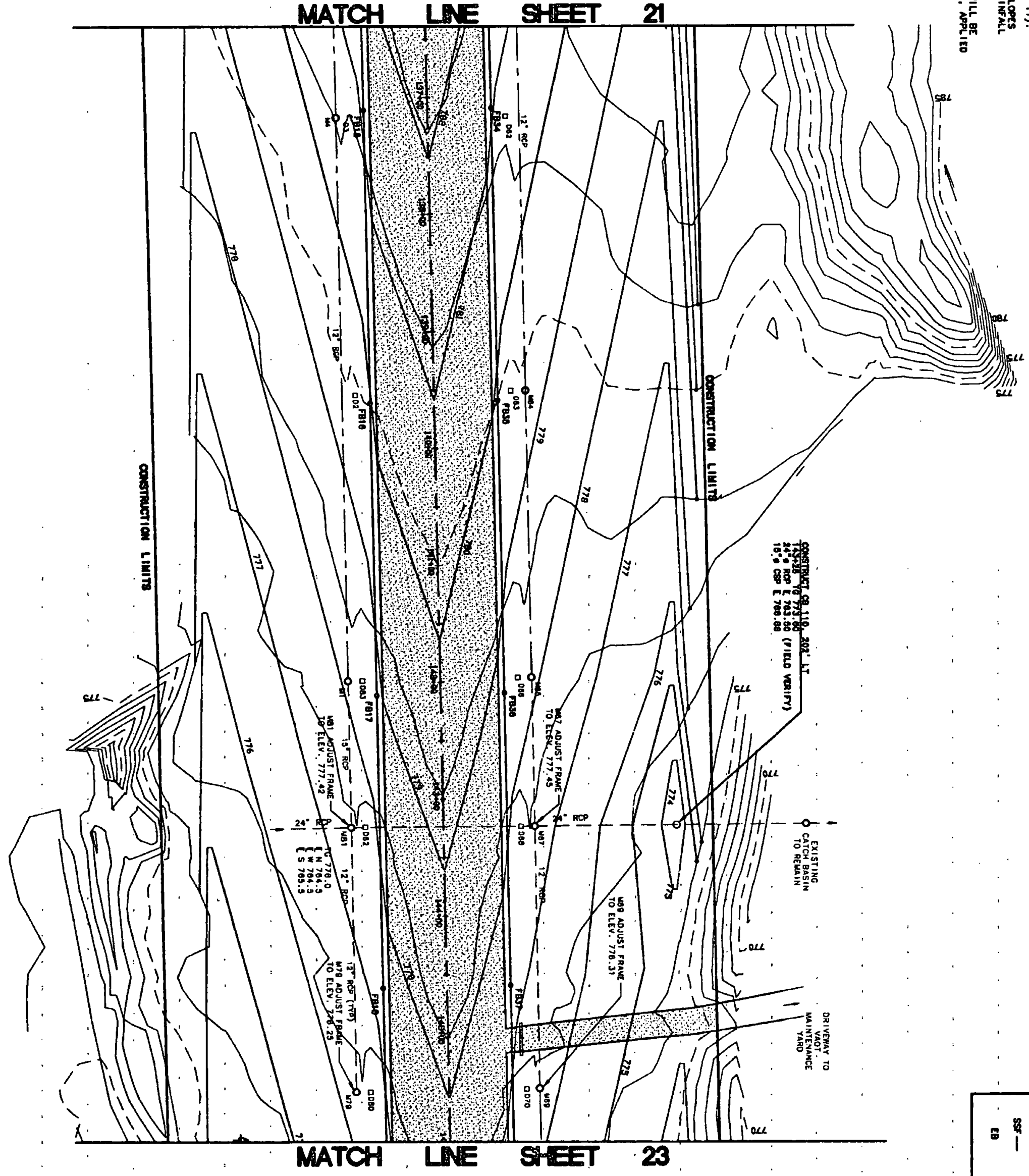
- NOTES:**
1. ALL ELEVATIONS REFER TO MEAN SEA LEVEL DATUM. (NAD-1983-VERTICAL SHIFT TO 1927 DATUM = -0.9')
 2. CONSTRUCTION TO BE COMPLETED BY 10/1/97. WORK SHALL BE COMPLETED BY 10/1/97. WORK SHALL BE COMPLETED BY 10/1/97.
 3. STONE SOILMENT SHALL BE COMPLETED BY 10/1/97. WORK SHALL BE COMPLETED BY 10/1/97.
 4. STONE SOILMENT SHALL BE COMPLETED BY 10/1/97. WORK SHALL BE COMPLETED BY 10/1/97.
 5. ALL EARTH AREAS SUBJECT TO CONSTRUCTION WILL BE AS SOON AS WORK IN THE AREA IS COMPLETED. APPLICABLE

REMARKS: MATERIALS A FORD BRIDGE
M1, M4, M64, M65, M75
02, 03, 042, 043, 045, 046, 070
047, 048, 078, 081

GRADING & DRAINAGE PLAN
M1, M4, M64, M65, M75
02, 03, 042, 043, 045, 046, 070
047, 048, 078, 081

LEGEND

- M15 MONUMENT 433
- 10' DROP INLET 433
- 6" UNDERDRAIN & FLOWING BASIN
- 6" FLOW LINE
- 6" SILENT FENCE
- 6" EARTH BERM



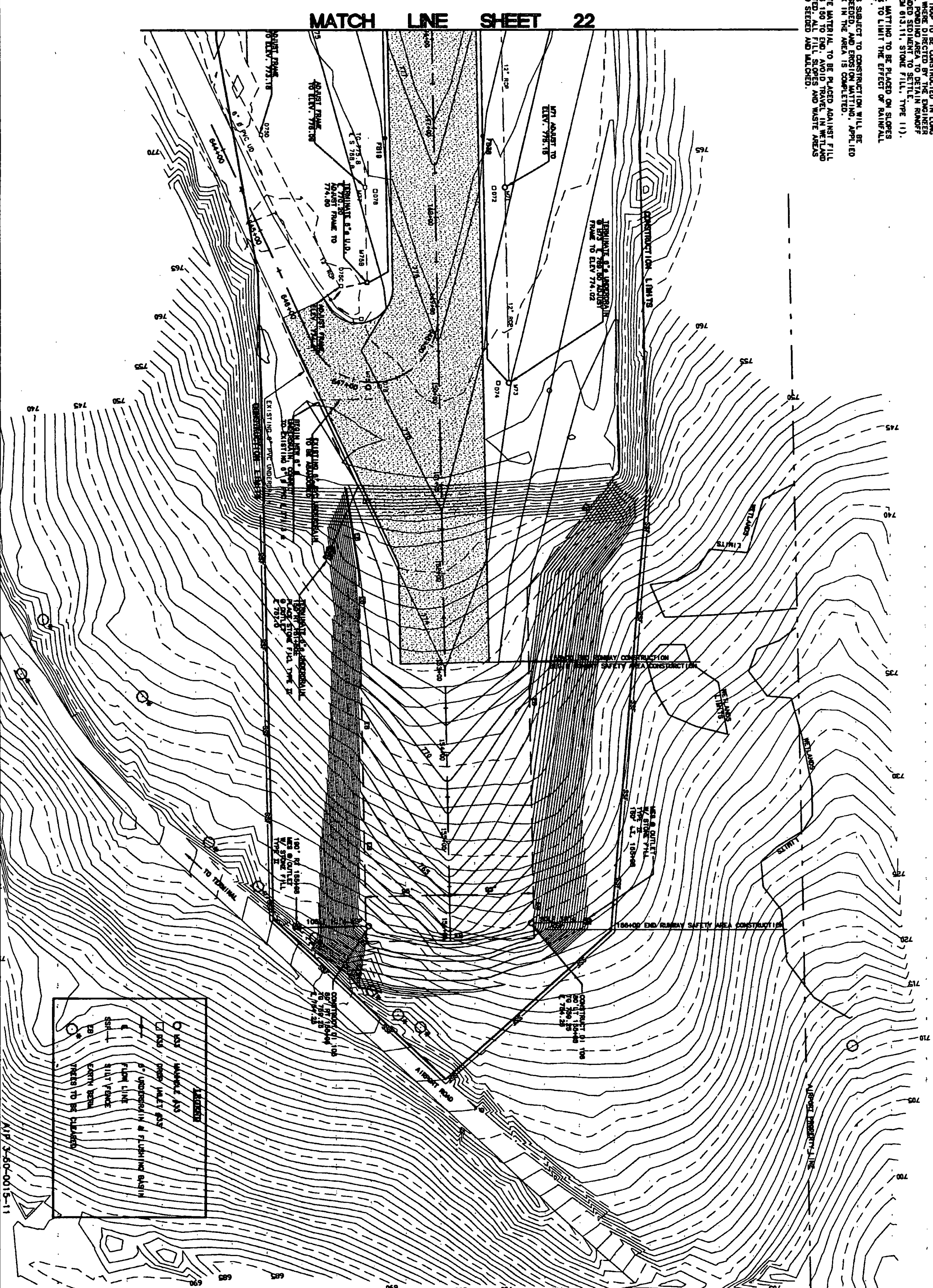
- NOTES
1. EXISTING GRADE TO BE MAINTAINED (UNLESS OTHERWISE NOTED)
 2. CONSTRUCTION TO BE IN ACCORD WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AS ADOPTED BY THE VERMONT LEGISLATURE
 3. STONE SEDIMENT ROAD TO BE CONSTRUCTED IN ACCORD WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AS ADOPTED BY THE VERMONT LEGISLATURE
 4. EXISTING GRADE TO BE MAINTAINED (UNLESS OTHERWISE NOTED)
 5. ALL EARTH WORK SUBJECT TO CONSTRUCTION WILL BE TO BE COMPLETED WITHIN THE SPECIFIED TIME FRAME
 6. ADDITIONAL WORK TO BE DONE TO BE PLACED IN THE FIELD TO BE DETERMINED BY THE FIELD ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1	07/2, 07/9, 07/9	

CHANGE REVISION OF EXISTING AND NEW

NO.	DATE	DESCRIPTION
1	07/2, 07/9, 07/9	



23

Designed by: DWH
C. D. WARD
2/77

Drawn by: R. W. WARD
5/77

Checked by: C. D. WARD
5/77

Approved by: R. W. WARD
5/77

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

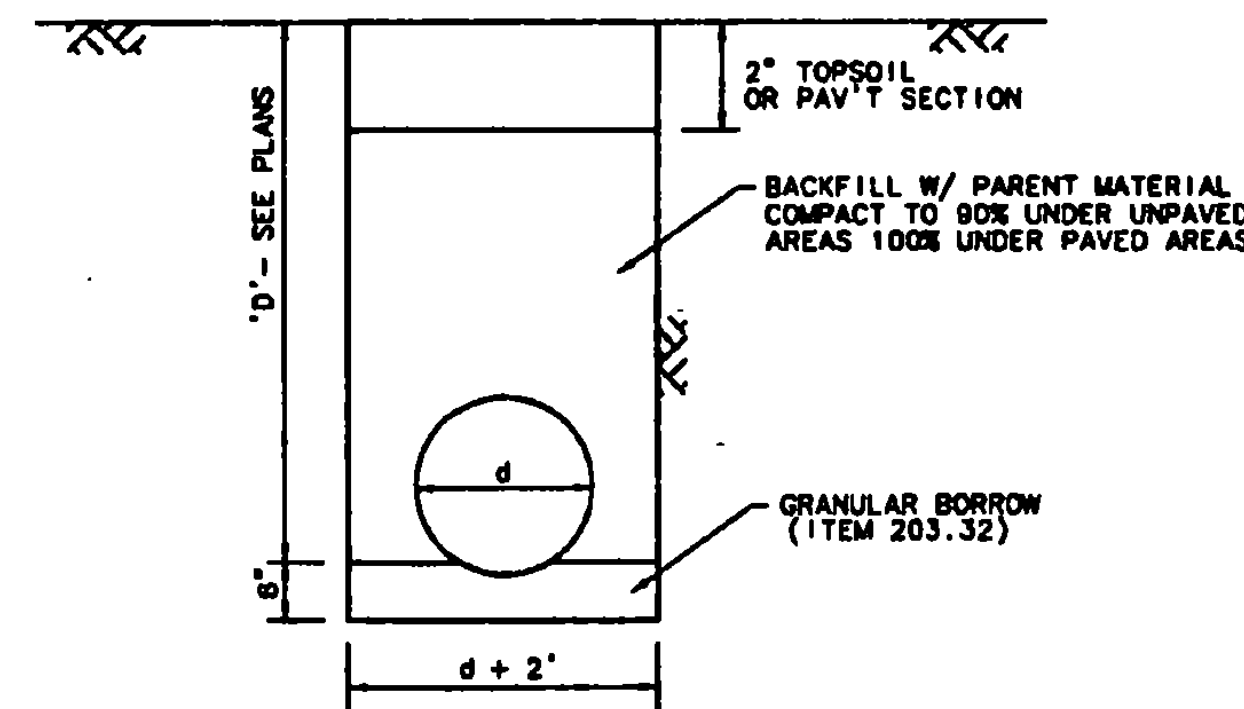
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

GRADING AND DRAINAGE PLAN

REV.	DATE	DESCRIPTION
1	07/2, 07/9, 07/9	

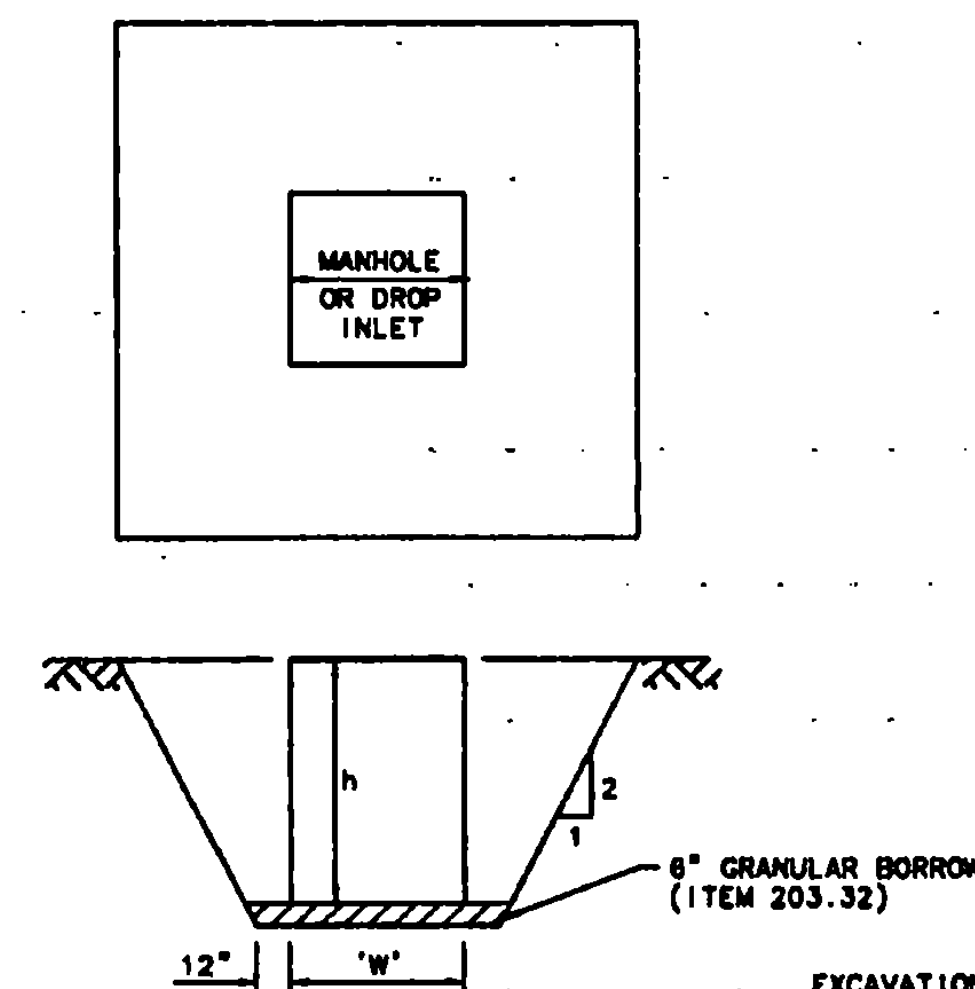
Job No. 1981212.00

File No. 1981212.00



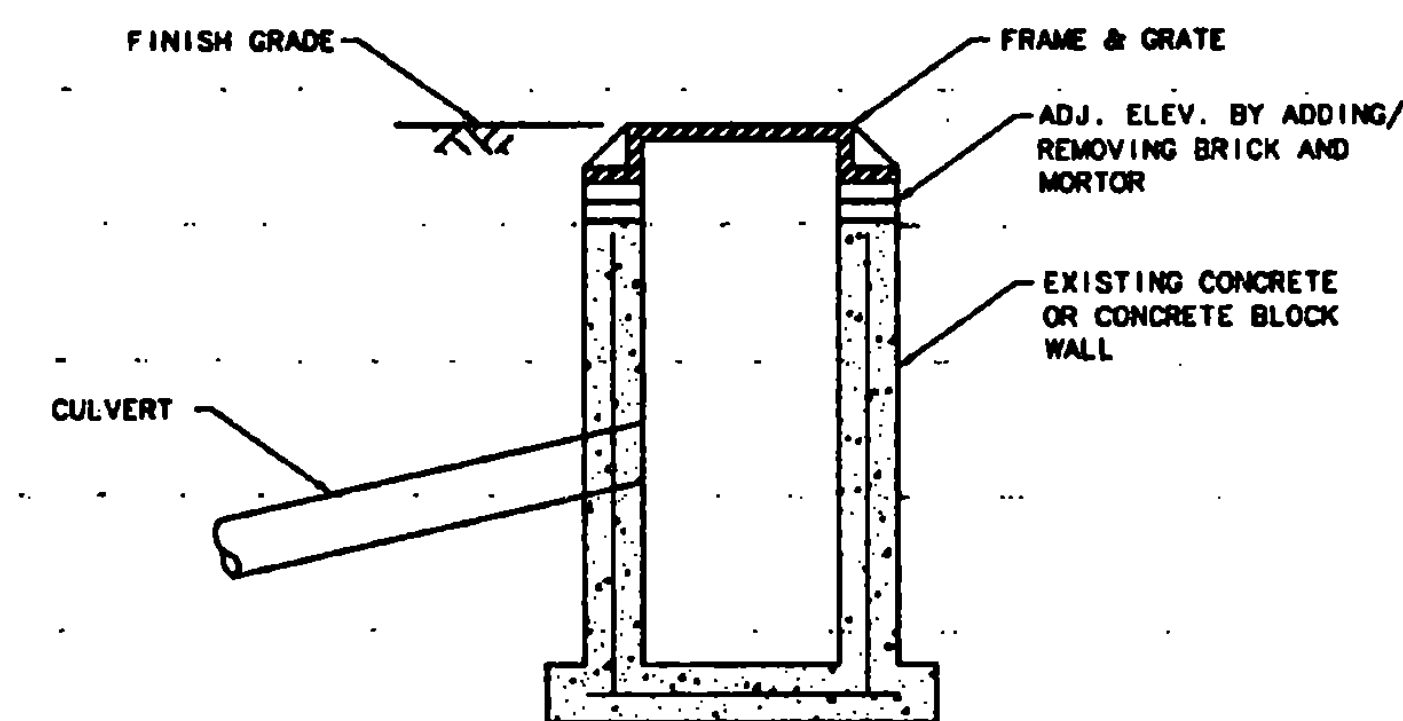
EXCAVATION TO BE PAID UNDER ITEM 204.20
TRENCH EXCAVATION OF EARTH OR ITEM 204.21
EXCAVATION OF ROCK

A
24 **CULVERT IN TRENCH - TYPICAL**
SCALE = NONE

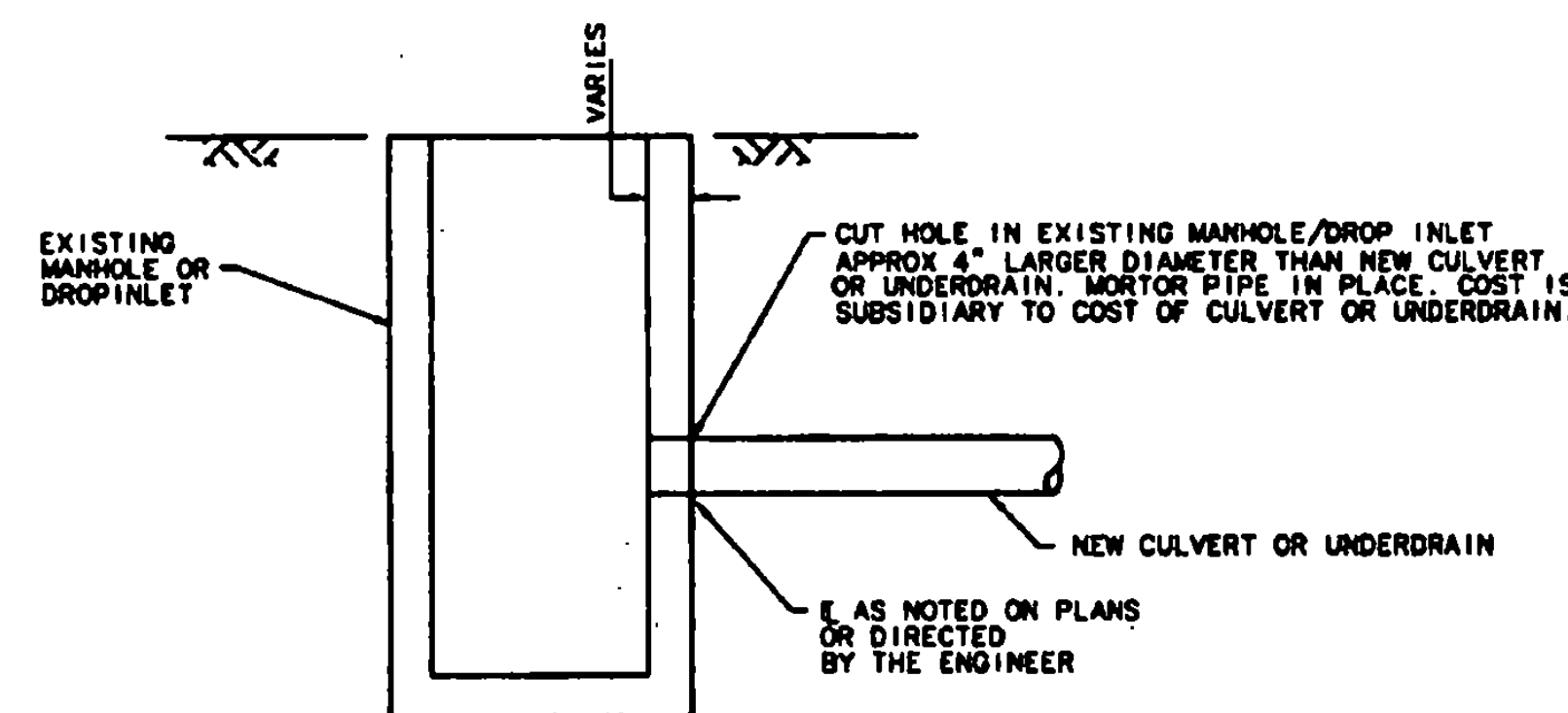


EXCAVATION TO BE PAID UNDER
ITEM 203.15 COMMON EXCAVATION OR
ITEM 203.16 ROCK EXCAVATION

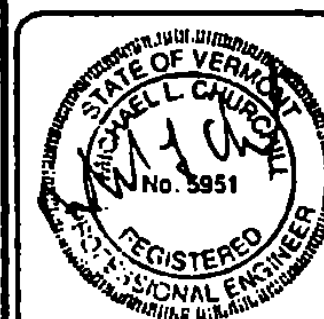
B
24 **DROP INLET/MANHOLE PLACEMENT
(TYPICAL)**
SCALE = NONE



C
24 **CHANGE ELEVATION OF MANHOLE
OR DROP INLET**
SCALE = NONE



D
24 **CULVERT/UNDERDRAIN INSTALLATION IN
EXISTING MANHOLE OR DROP INLET**
SCALE = NONE



REV.	DATE	DESCRIPTION

Job No. 114012130-00

Job No. 114012130-00

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

DRAINAGE DETAILS

URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: C. D. MCO	2/97	Drawn by: M. MCO	3/97	Checked by: C. D. MCO	5/97	Approved by: M. MCO	5/97
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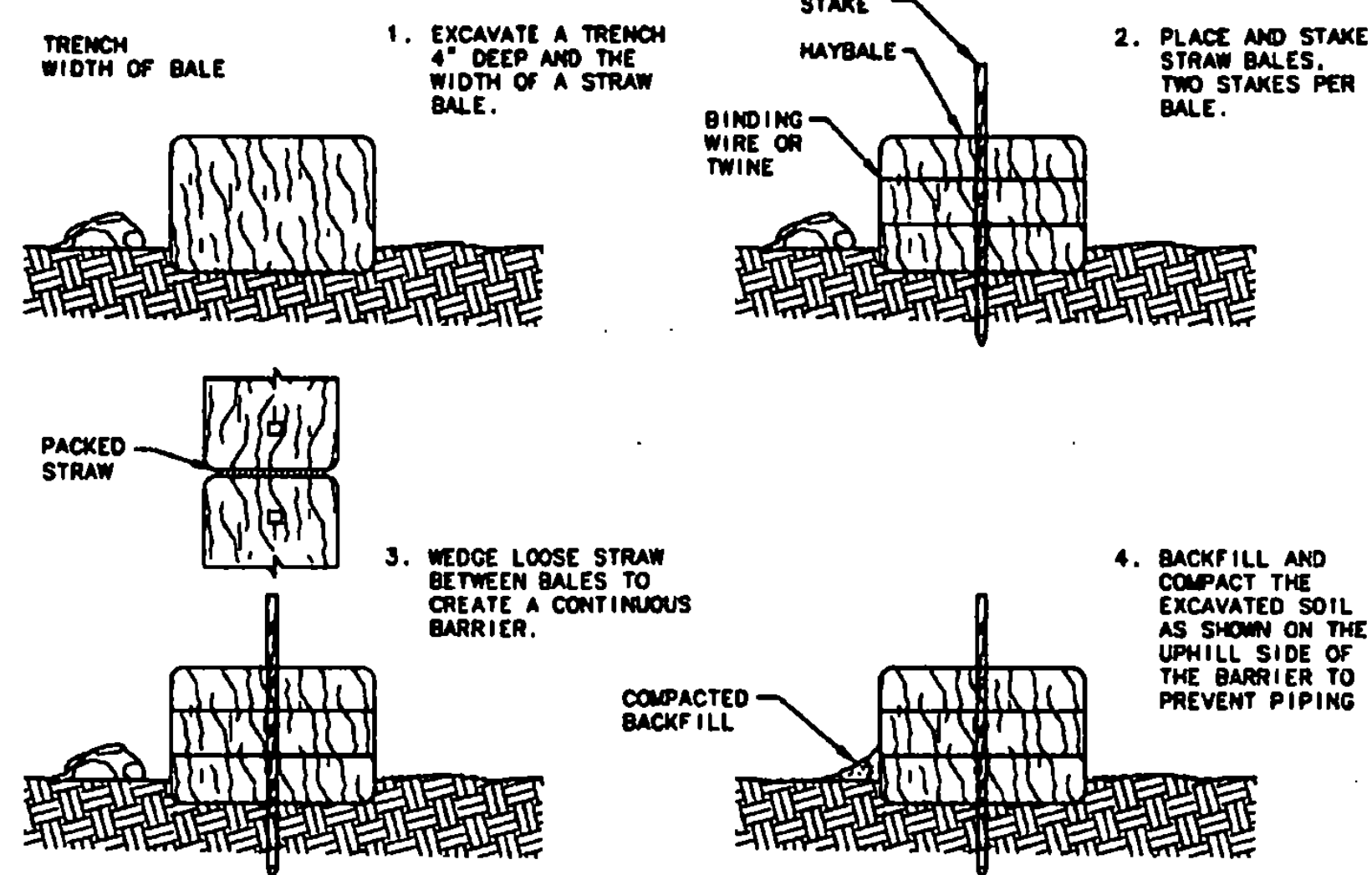
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1/4" = 1' AS SHOWN

Date: 5/97

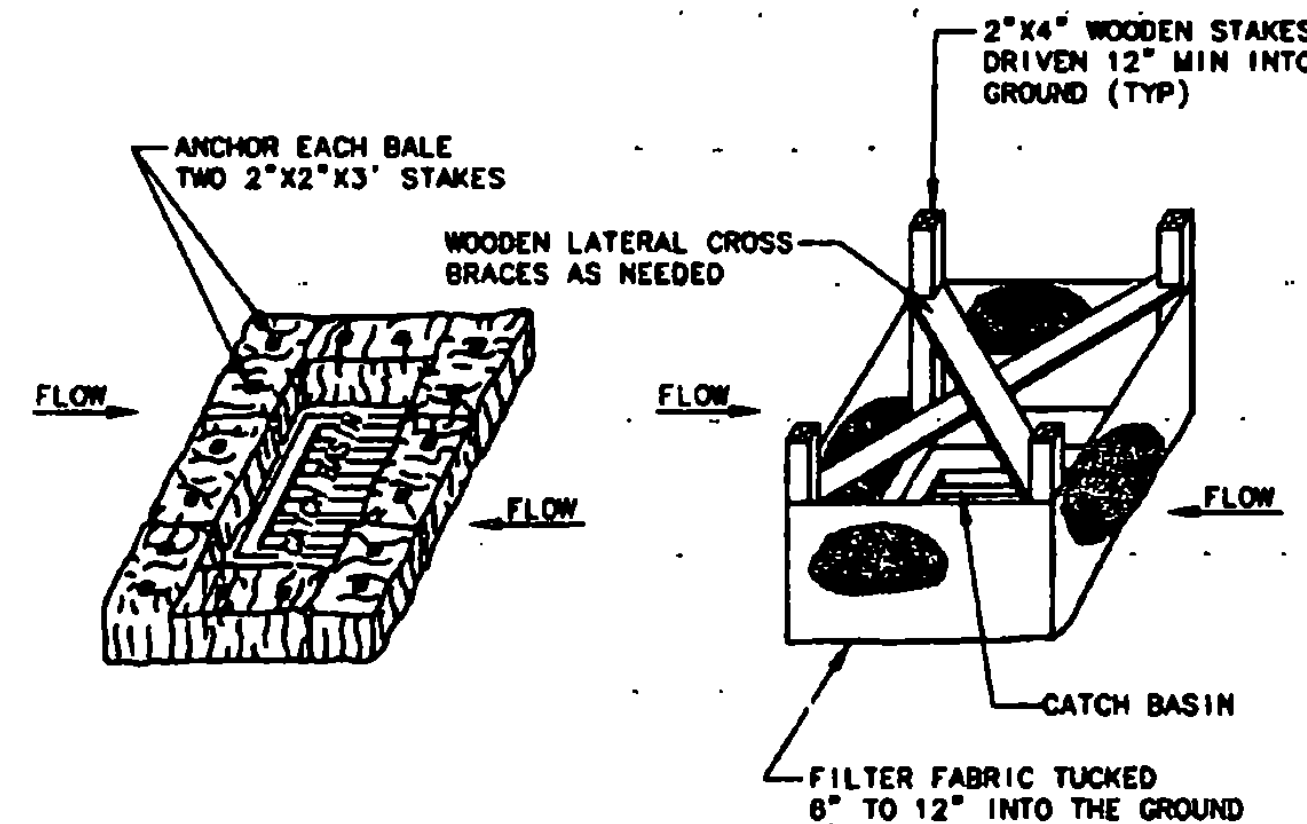
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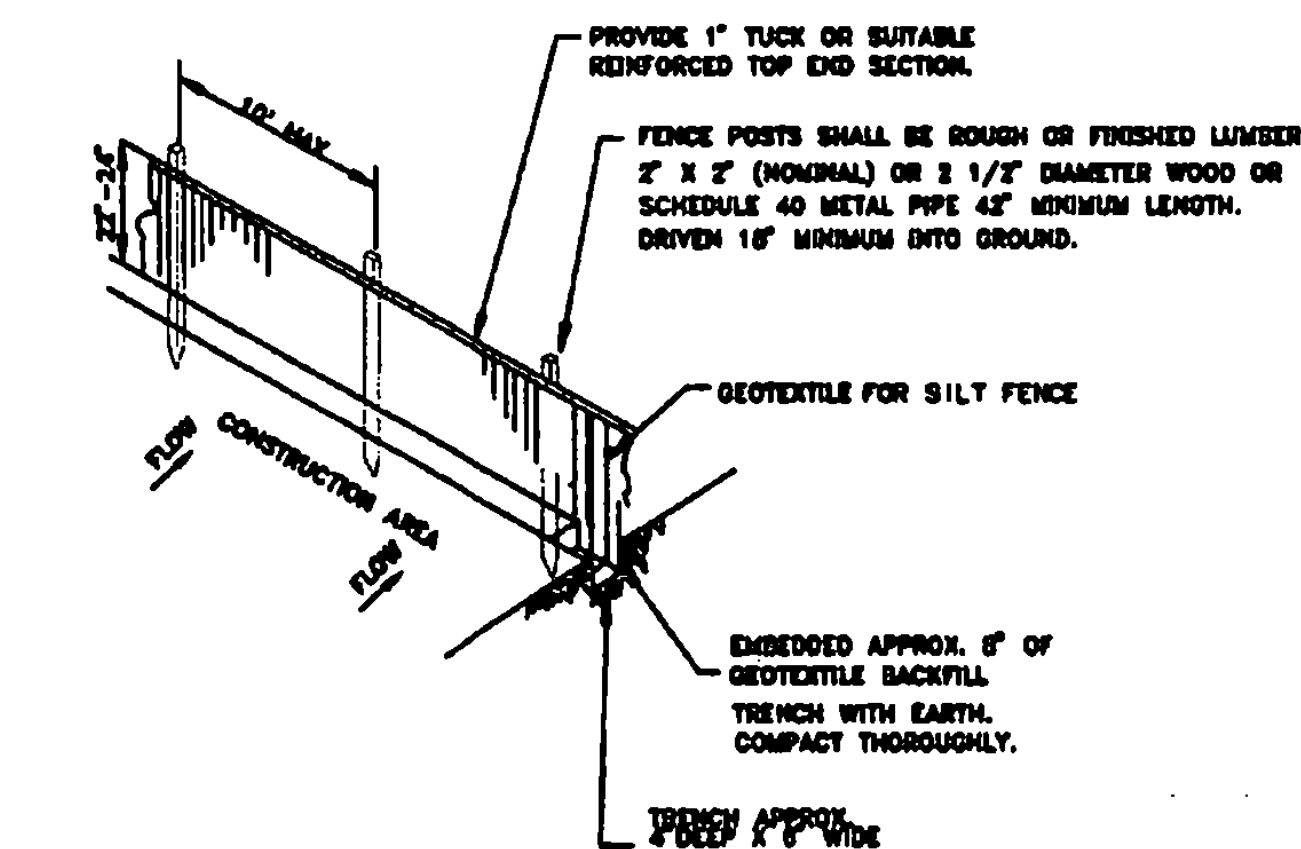


SEDIMENTATION BARRIER - HAYBALE
ITEM 65L26



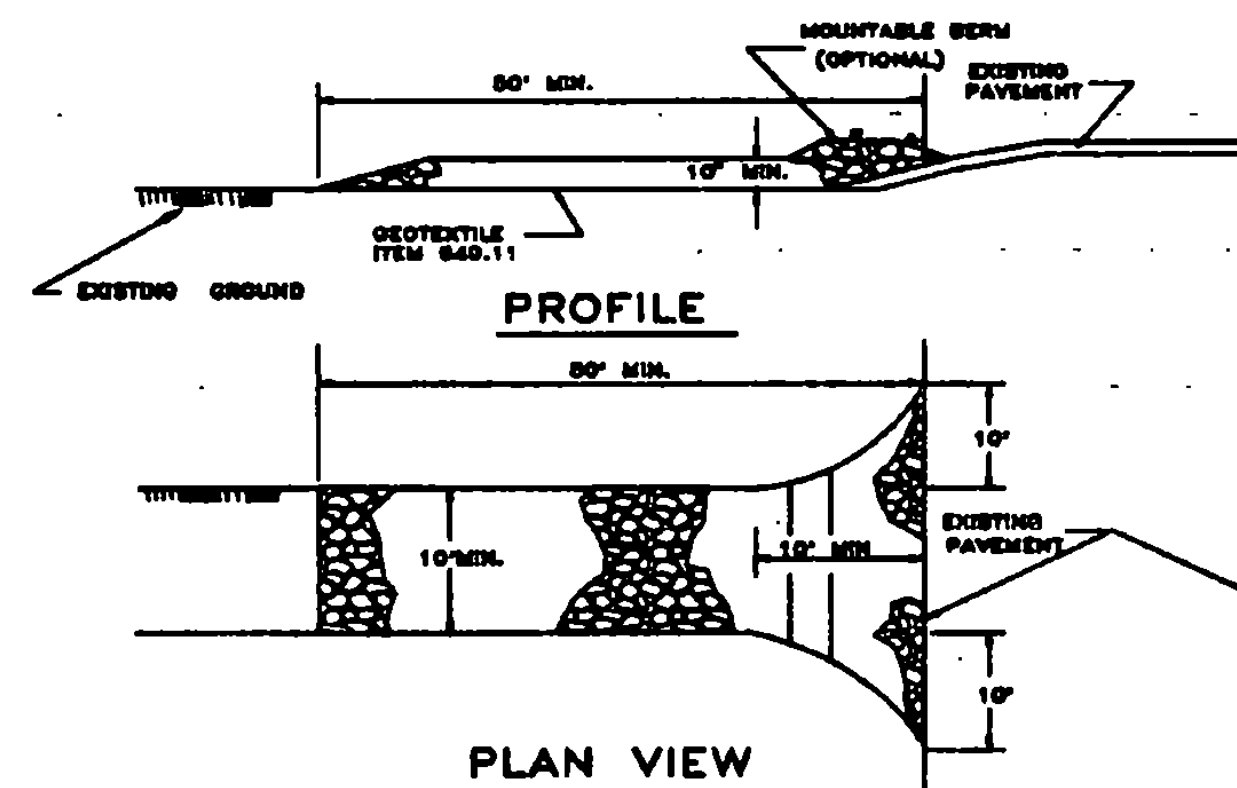
HAY BALE INSTALLATION
ITEM 65L26

**SEDIMENTATION CONTROL
INLET PROTECTION**



- NOTE:**
1. GEOTEXTILE FABRIC TO BE FASTENED SECURELY TO FENCE POST BY USE OF WIRE TIES, 3 FASTENERS PER POST.
 2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3' (MIN.).
 3. TO BE PLACED AT LOCATIONS SHOWN ON PLANS OR AS PLAN VIEW SYMBOL ORDERED BY THE ENGINEER.

SLOPE SILT FENCE (S.S.F.)
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE - SUBBASE OF CRUSHED AGGREGATE, COURSE GRADED ITEM 801.25.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 60 FEET.
3. THICKNESS - NOT LESS THAN TEN (10) INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED UNDER THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 8:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AFTER HEAVY USE AND/OR RAIN.
9. THIS ENTRANCE WILL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS AND/OR WHERE ORDERED BY THE ENGINEER.
10. THE LOCATION AND NUMBER OF STABILIZED CONSTRUCTION ENTRANCES WILL BE APPROVED BY THE ENGINEER.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

EROSION AND SEDIMENT CONTROL NOTES

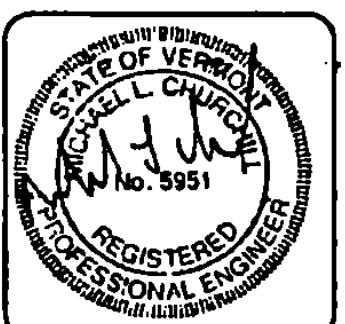
1. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE AND SHALL HAVE THEM INSPECTED BY THE ENGINEER PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENTS MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE ENGINEER. THE CONTRACTOR MUST OBTAIN PRIOR APPROVAL FOR CHANGES TO THE SEDIMENT CONTROL PLAN AND/OR SEQUENCE OF CONSTRUCTION.
2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY REMOVED.
3. THE CONTRACTOR SHALL APPLY SEED AND MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES WITHIN FOURTEEN (14) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED IN THE AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. PERMANENT SOIL STABILIZATION SHALL BE PROVIDED WITHIN SEVEN (7) DAYS OF ESTABLISHMENT OF FINAL GRADE.
4. THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED IN CONFORMANCE WITH THE VERMONT HANDBOOK FOR SOIL EROSION AND SEDIMENT CONTROL ON CONSTRUCTION SITES AS PUBLISHED BY THE VT. GEOLOGICAL SURVEY.
5. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES, IF REQUIRED, TO THE VT AGENCY OF TRANSPORTATION.
6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE STABILIZED OR REMOVED TO PREVENT FURTHER EROSION.
7. EROSION CONTROL DEVICES REMOVED DURING GRADING OPERATIONS SHALL BE PUT BACK IN PLACE AT THE END OF THE DAY OR DURING INCLEMENT WEATHER AS DIRECTED BY THE ENGINEER.
8. STREAMS INCLUDING BED AND BANKS SHALL BE RESTABILIZED IMMEDIATELY AFTER CHANNEL WORK IS COMPLETED, INTERRUPTED, OR STOPPED.
9. NO SOIL, ROCK, DEBRIS, OR ANY OTHER MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER COURSE OR INTO SUCH PROXIMITY THAT IT MAY READILY SLOUGH, SLIP, OR ERODE INTO A WATER COURSE UNLESS SUCH DUMPING OR PLACING IS AUTHORIZED BY THE ENGINEER AND, WHEN APPLICABLE, THE U.S. ARMY CORPS OF ENGINEERS, FOR SUCH PURPOSES AS BUT NOT LIMITED TO, CONSTRUCTION OF BRIDGES, CULVERTS, AND EROSION CONTROL STRUCTURES.
10. PERMANENT SEEDING SHALL BE DONE BETWEEN APRIL 30 AND SEPTEMBER 15. IF SEEDING IS DONE AT OTHER TIMES, IT SHALL BE CLASSIFIED AS TEMPORARY SEEDING. PERMANENT SEED SHALL CONFORM TO THE SEEDING MIXTURE STATED ON SHEET 7. TEMPORARY AND PERMANENT SEEDING SHALL CONSIST OF FERTILIZING, WATERING AND SEEDING PLACED AT RATES IN ACCORDANCE WITH THE SPECIFICATIONS. PERMANENT SEEDING AND MULCHING SHALL BE PAID FOR UNDER 851.15 AND 851.25 RESPECTIVELY. TEMPORARY SEED, MULCH, AND FERTILIZER FOR EROSION AND SEDIMENT CONTROL SHALL BE PLACED IN ACCORDANCE WITH THE SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR TEMPORARY SEEDING OR MULCHING.
11. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS TRAVERSING THE SLOPES BY INSTALLING PROTECTIVE DEVICES TO LOWER THE WATER DOWNSLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. PROTECTIVE METHODS MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
12. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS IN UNPAVED AREAS SHALL BE STABILIZED AND PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC OR PRIVATE ROADWAYS.
13. IF ROADWAYS ACCUMULATE DEBRIS, THE CONTRACTOR SHALL USE A POWER BROOM TO REMOVE THE SEDIMENT TO THE SATISFACTION OF THE ENGINEER.
14. SALVAGED TOPSOIL WILL BE PLACED ON WELL DRAINED LAND AWAY FROM STREAMS IN ACCORDANCE WITH APPROVED EROSION AND SEDIMENT CONTROL MEASURES. IT SHALL BE PLACED IN NEAT PILES. THE CONTRACTOR WILL PROVIDE AN ADEQUATE QUANTITY OF SILT FENCE TO CONTROL THE PERIMETER OF THE STOCKPILE. THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, MAY CONSTRUCT AN EARTH DIKE IN LIEU OF SILT FENCE.

SITE DATA

PROJECT DESCRIPTION:
AIRPORT DEVELOPMENT TO INCLUDE PAVING, CLEARING AND GRUBBING, EARTHWORK, STORM DRAINAGE, AND UTILITIES.

TOTAL SITE AREA:
AREA WITHIN LIMITS OF WORK APPROX. 45 ACRES.

EXISTING SOIL TYPES:
-BROWN SILTY SAND WITH TRACES OF GRAVEL
-APPROXIMATELY 3\"/>



REV.	DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

**SEDIMENTATION / EROSION
CONTROL DETAILS**

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: c. franco	Drawn by: m. mcgilla	Checked by: c. franco	Approved by: m. mcgilla
2/97	3/97	3/97	3/97

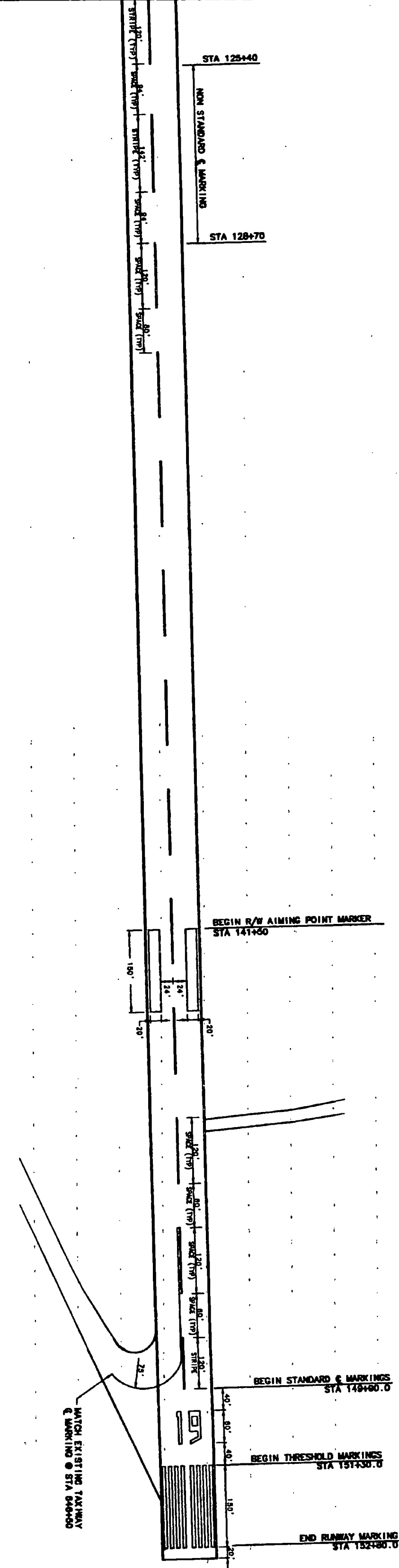
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Date: 3/9/97

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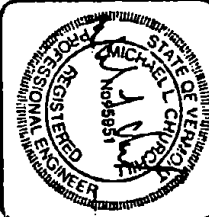
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MATCH LINE SHEET



MARTINIS NOTES

1. RABBIT, CENTRAL, THE, HADDOCK'S, EDGE STRIPING AND AROUND POINT, TO BE WHITE (CONTRASTIVE).
2. TAXIDERMIC EXPRESSION, AND KID, LINES TO BE YELLOW.
3. TO BE STAINED, (ALTERNATE OF STAINED, (A) SPANISH), DIRECTION, SOME OF THE STAINING TO GO DOWN, TO THE RIGHT, AND SOME OF THE STAINING TO GO UP, TO THE LEFT, TO BE STAINED.
4. BROWN, EDGE STRIPS TO BE CONTINUED ON BOTH SIDES, TO BE STAINED.
5. SET, TWO MORE STAINED BROWNERS, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 8

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Designed by: Dyle
C O'NEAL 2/97

Drawn by:
M MCALLA 3/97

Checked by:
C O'NEAL 5/5/97

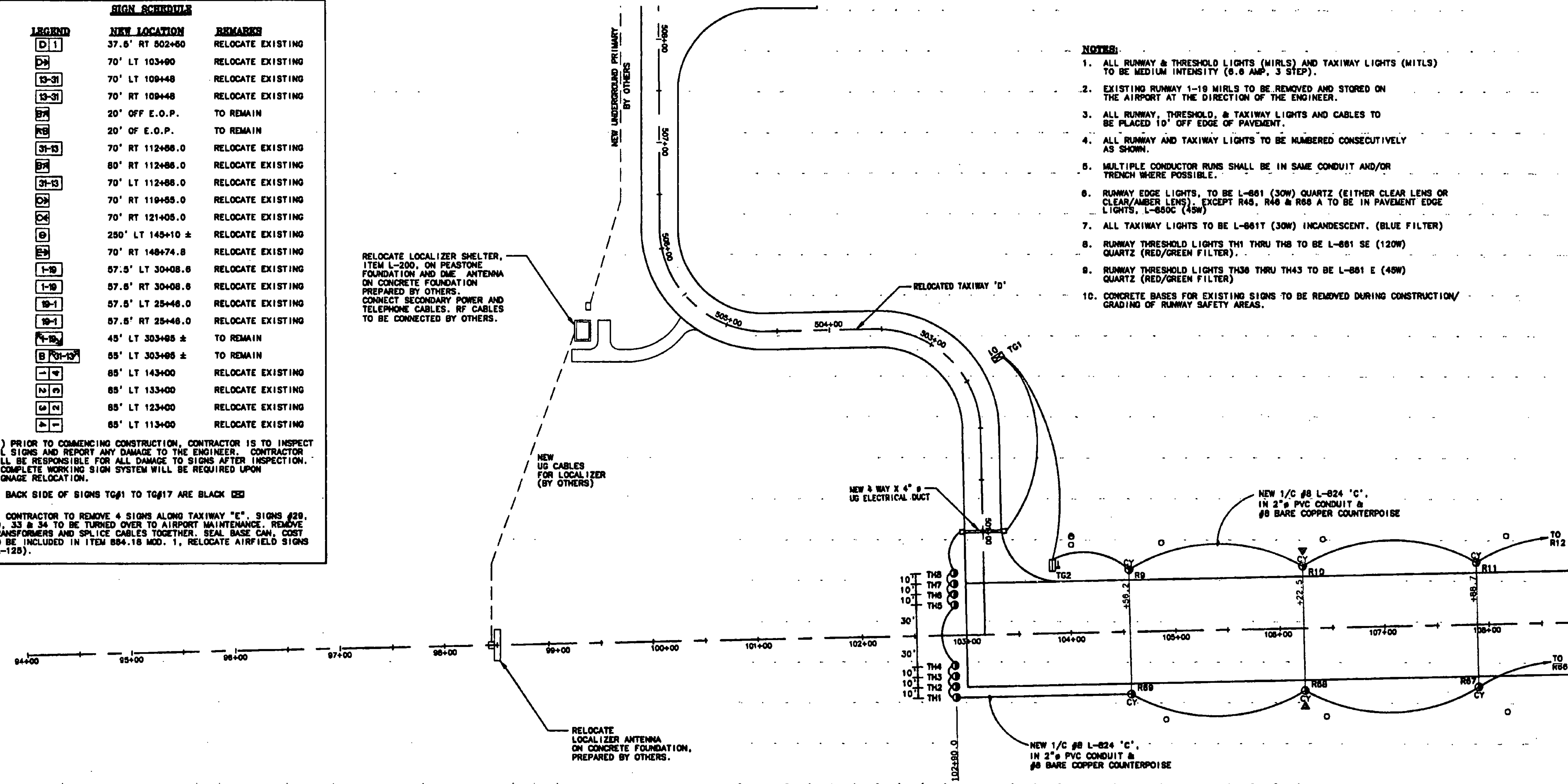
Approved by:
M CHURCHILL 5/5/97

SIGN SCHEDULE			
SIGN	LEGEND	NEW LOCATION	REMARKS
TO #1	D-1	37.5' RT 802+80	RELOCATE EXISTING
TO #2	D-2	70' LT 103+00	RELOCATE EXISTING
TO #3	D-3	70' LT 109+48	RELOCATE EXISTING
TO #4	D-4	70' RT 109+48	RELOCATE EXISTING
TO #5	D-5	20' OFF E.O.P.	TO REMAIN
TO #6	D-6	20' OF E.O.P.	TO REMAIN
TO #7	D-7	70' RT 112+86.0	RELOCATE EXISTING
TO #8	D-8	80' RT 112+86.0	RELOCATE EXISTING
TO #9	D-9	70' LT 112+86.0	RELOCATE EXISTING
TO #10	D-10	70' RT 119+55.0	RELOCATE EXISTING
TO #11	D-11	70' RT 121+05.0	RELOCATE EXISTING
TO #12	D-12	250' LT 145+10 ±	RELOCATE EXISTING
TO #13	D-13	70' RT 148+74.8	RELOCATE EXISTING
TO #14	D-14	57.5' LT 30+08.8	RELOCATE EXISTING
TO #14A	D-14A	57.5' RT 30+08.8	RELOCATE EXISTING
TO #15	D-15	57.5' LT 25+48.0	RELOCATE EXISTING
TO #15A	D-15A	57.5' RT 25+48.0	RELOCATE EXISTING
TO #16	D-16	45' LT 303+85 ±	TO REMAIN
TO #17	D-17	55' LT 303+85 ±	TO REMAIN
DM #1	D-18	85' LT 143+00	RELOCATE EXISTING
DM #2	D-19	85' LT 133+00	RELOCATE EXISTING
DM #3	D-20	85' LT 123+00	RELOCATE EXISTING
DM #4	D-21	85' LT 113+00	RELOCATE EXISTING

NOTE: (1) PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR IS TO INSPECT ALL SIGNS AND REPORT ANY DAMAGE TO THE ENGINEER. CONTRACTOR WILL BE RESPONSIBLE FOR ALL DAMAGE TO SIGNS AFTER INSPECTION. A COMPLETE WORKING SIGN SYSTEM WILL BE REQUIRED UPON SIGNAGE RELOCATION.

(2) BACK SIDE OF SIGNS TO #1 TO TO #17 ARE BLACK (B)

(3) CONTRACTOR TO REMOVE 4 SIGNS ALONG TAXIWAY "E". SIGNS #29, 30, 33 & 34 TO BE TURNED OVER TO AIRPORT MAINTENANCE. REMOVE TRANSFORMERS AND SPLICE CABLES TOGETHER. SEAL BASE CAN. COST TO BE INCLUDED IN ITEM 684.18 MOD. 1, RELOCATE AIRFIELD SIGNS (L-128).



- LEGEND**
- EXISTING RUNWAY AND TAXIWAY LIGHTS
 - EXISTING TAXIWAY SIGNS
 - NEW THRESHOLD LIGHTS (180° GREEN / 180° RED LENS)
 - NEW TAXIWAY LIGHTS (BLUE FILTER)
 - NEW RUNWAY LIGHTS (CLEAR LENS)
 - NEW RUNWAY LIGHTS (180° CLEAR / 180° AMBER LENS)
 - TO #1: RELOCATED TAXIWAY SIGN
 - UNDERGROUND CONCRETE ENCASED DUCT & MARKERS
 - ▲ 6/8" x 8' COPPERCLAD GROUND ROD
 - RELOCATED ODALS

- NOTES:**
- ALL RUNWAY & THRESHOLD LIGHTS (MIRLS) AND TAXIWAY LIGHTS (MITLS) TO BE MEDIUM INTENSITY (0.6 AMP, 3 STEP).
 - EXISTING RUNWAY 1-18 MIRLS TO BE REMOVED AND STORED ON THE AIRPORT AT THE DIRECTION OF THE ENGINEER.
 - ALL RUNWAY, THRESHOLD, & TAXIWAY LIGHTS AND CABLES TO BE PLACED 10' OFF EDGE OF PAVEMENT.
 - ALL RUNWAY AND TAXIWAY LIGHTS TO BE NUMBERED CONSECUTIVELY AS SHOWN.
 - MULTIPLE CONDUCTOR RUNS SHALL BE IN SAME CONDUIT AND/OR TRENCH WHERE POSSIBLE.
 - RUNWAY EDGE LIGHTS, TO BE L-861 (30W) QUARTZ (EITHER CLEAR LENS OR CLEAR/AMBER LENS), EXCEPT R45, R46 & R68 A TO BE IN PAVEMENT EDGE LIGHTS, L-860C (45W).
 - ALL TAXIWAY LIGHTS TO BE L-861T (30W) INCANDESCENT, (BLUE FILTER).
 - RUNWAY THRESHOLD LIGHTS TH1 THRU TH8 TO BE L-861 SE (120W) QUARTZ (RED/GREEN FILTER).
 - RUNWAY THRESHOLD LIGHTS TH38 THRU TH43 TO BE L-861 E (45W) QUARTZ (RED/GREEN FILTER).
 - CONCRETE BASES FOR EXISTING SIGNS TO BE REMOVED DURING CONSTRUCTION/ GRADING OF RUNWAY SAFETY AREAS.

MATCH LINE SHEET 28

REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

URB Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: *[Signature]* Date: 5/2/97

Drawn by: M. SODALA Date: 5/9/97

Checked by: C. VANDERBEEK Date: 5/9/97

Approved by: M. CHURCHILL Date: 5/9/97

Scale: HOR - 1" = 50'
VERT - NONE

Date: 5/5/97

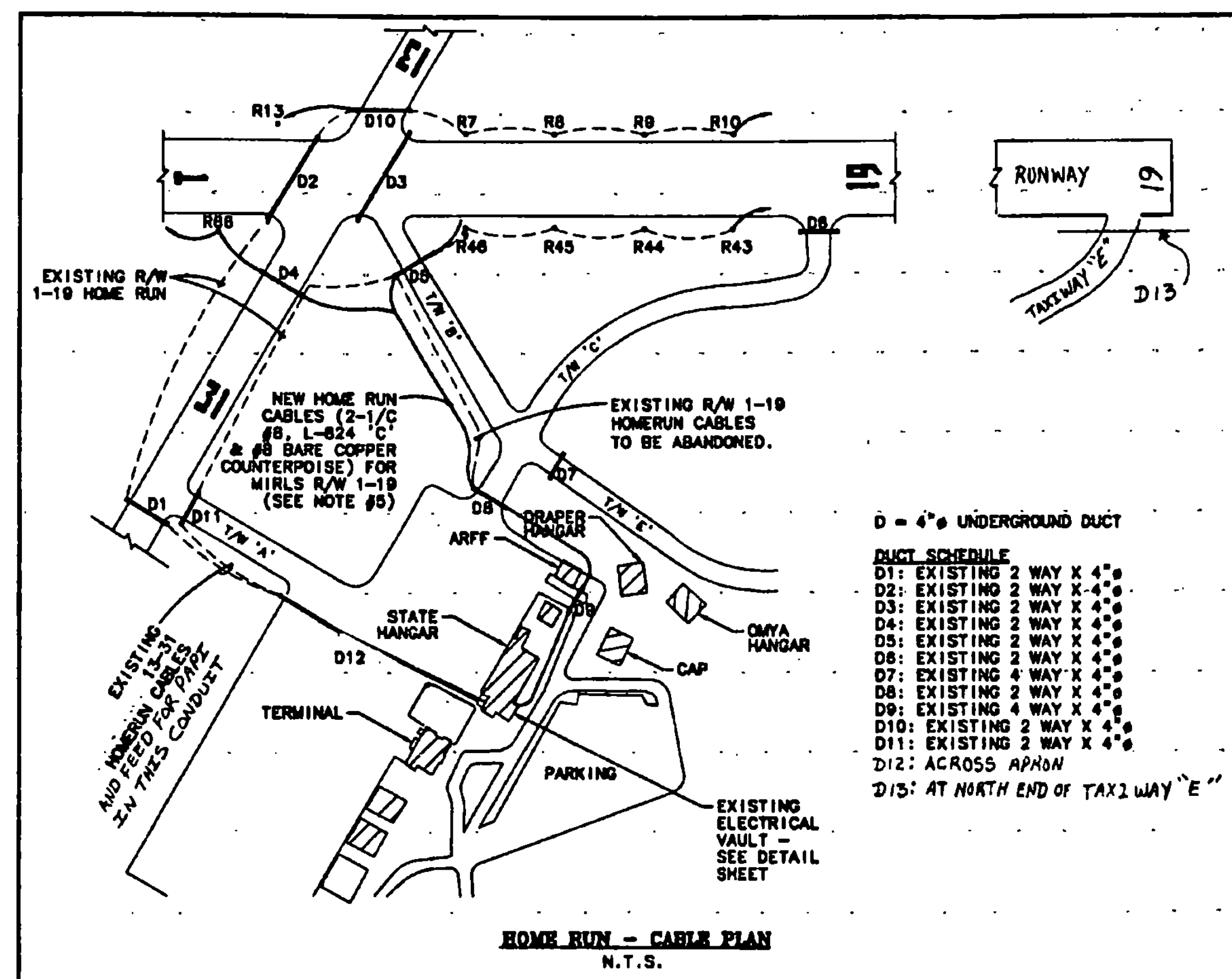
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Sheet No. **27**

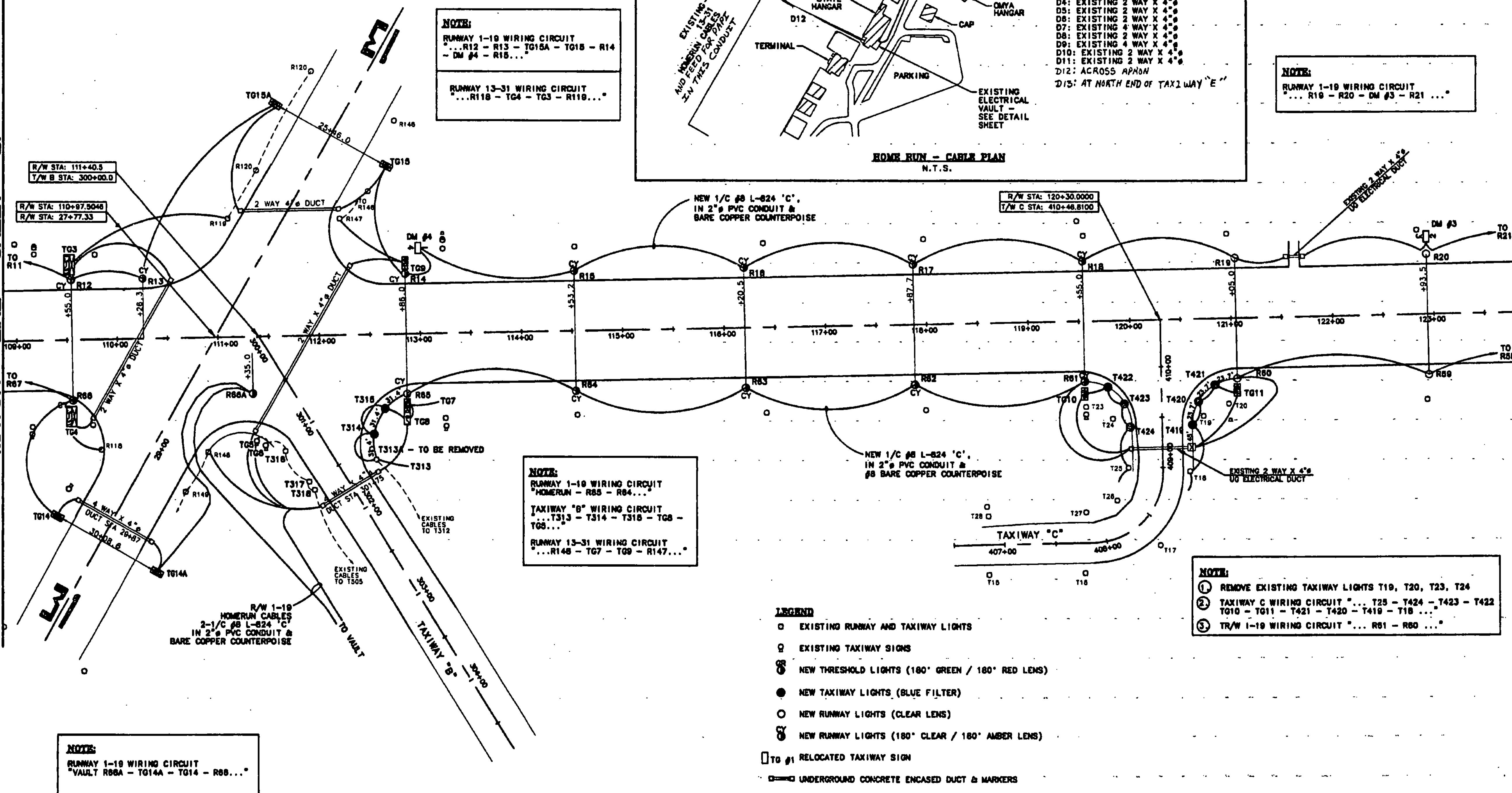
1. ALL RUNWAY & THRESHOLD LIGHTS (MIRLS) AND TAXIWAY LIGHTS (MITLS) TO BE MEDIUM INTENSITY (6.6 AMP, 3 STEP).
2. EXISTING RUNWAY 1-18 MIRLS INCLUDING BASE AND CONDUIT (TO THE EXTENT POSSIBLE) TO BE REMOVED AND STORED ON THE AIRPORT AT THE AIRPORT AT THE DIRECTION OF THE ENGINEER.
3. ALL RUNWAY, THRESHOLD, & TAXIWAY LIGHTS AND CABLES TO BE PLACED 10' OFF EDGE OF PAVEMENT.
4. ALL RUNWAY AND TAXIWAY LIGHTS TO BE NUMBERED CONSECUTIVELY AS SHOWN.
5. MULTIPLE CONDUCTOR RUNS SHALL BE IN SAME CONDUIT AND/OR TRENCH WHERE POSSIBLE.
6. RUNWAY EDGE LIGHTS, TO BE L-861 (30W) QUARTZ (EITHER CLEAR LENS OR CLEAR/AMBER LENS). EXCEPT R45, R46 & R88 A TO BE IN PAVEMENT EDGE LIGHTS, L-880C (45W)
7. ALL TAXIWAY LIGHTS TO BE L-6617 (30W) INCANDESCENT. (BLUE FILTER)
8. RUNWAY THRESHOLD LIGHTS TH1 THRU TH8 TO BE L-861 SE (120W) QUARTZ (RED/GREEN FILTER).
9. RUNWAY THRESHOLD LIGHTS TH9 THRU TH43 TO BE L-861 E (45W) QUARTZ (RED/GREEN FILTER)
10. CONCRETE BASES FOR EXISTING SIGNS TO BE REMOVED DURING CONSTRUCTION/ GRADING OF RUNWAY SAFETY AREAS.
11. R #118, #119, #147, #148 TO REMAIN IN PLACE.

RUNWAY 13-31 WIRING CIRCUIT
"...R118 - TG4 - TG3 - R119..."

RUNWAY 1-19 WIRING CIRCUIT
"... R19 - R20 - DM #3 - R21 ..."



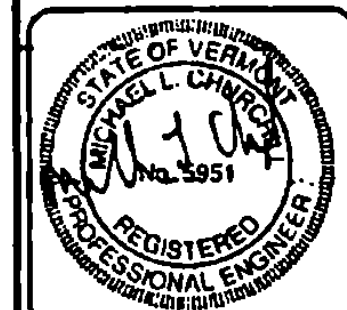
MATCH LINE SHEET 27



MATCH LINE SHEET 29

- EXISTING RUNWAY AND TAXIWAY LIGHTS
- EXISTING TAXIWAY SIGNS
- 8" NEW THRESHOLD LIGHTS (180° GREEN / 180° RED LENS)
- NEW TAXIWAY LIGHTS (BLUE FILTER)
- NEW RUNWAY LIGHTS (CLEAR LENS)
- 5" NEW RUNWAY LIGHTS (180° CLEAR / 180° AMBER LENS)
- 7' TO 8' RELOCATED TAXIWAY SIGN
- UNDERGROUND CONCRETE ENCASED DUCT & MARKERS
- ▲ 5/8" x 8" COPPERCLAD GROUND ROD
- RELOCATED COALS

- ① REMOVE EXISTING TAXIWAY LIGHTS T10, T20, T23, T24
- ② TAXIWAY C WIRING CIRCUIT "... T25 - T24 - T423 - T422
T010 - T011 - T421 - T420 - T419 - T18 ..."
- ③ TR/W I-19 WIRING CIRCUIT "... R01 - R00 ..."



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY LIGHTING PLAN

URS Cremer, Inc.

**MARCUS BOULEVARD
ALBANY, NEW YORK**

Designed by: C D'ASCO	Date: 2/97
Drawn by: M MCCALLA	3/97
Checked by: C D'ASCO	5/5/97
Approved by:	

Scale: HOR. - 1" = 50'
VERT. - NONE

Date: 8/5/97

Sheet 22 Of 63

Sheet No

28

MATCH LINE SHEET 29

NOTES:

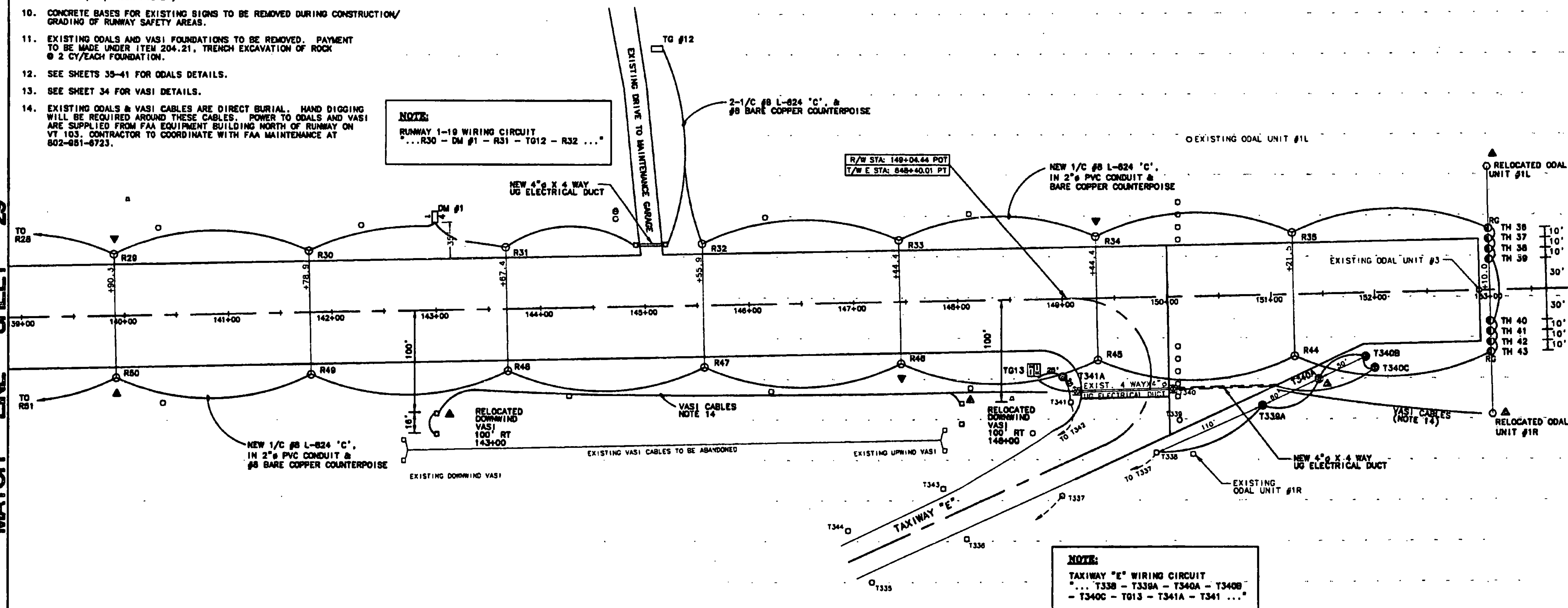
- ALL RUNWAY & THRESHOLD LIGHTS (MIRLS) AND TAXIWAY LIGHTS (MITLS) TO BE MEDIUM INTENSITY (0.6 AMP, 3 STEP).
- EXISTING RUNWAY 1-10 MIRLS TO BE REMOVED AND STORED ON THE AIRPORT AT THE DIRECTION OF THE ENGINEER.
- ALL RUNWAY, THRESHOLD, & TAXIWAY LIGHTS AND CABLES TO BE PLACED 10' OFF EDGE OF PAVEMENT.
- ALL RUNWAY AND TAXIWAY LIGHTS TO BE NUMBERED CONSECUTIVELY AS SHOWN.
- MULTIPLE CONDUCTOR RUNS SHALL BE IN SAME CONDUIT AND/OR TRENCH WHERE POSSIBLE.
- RUNWAY EDGE LIGHTS, TO BE L-881 (30W) QUARTZ (EITHER CLEAR LENS OR CLEAR/AMBER LENS). EXCEPT R45, R46 & R88 A TO BE IN PAVEMENT EDGE LIGHTS, L-880C (45W).
- ALL TAXIWAY LIGHTS TO BE L-881T (30W) INCANDESCENT, (BLUE FILTER).
- RUNWAY THRESHOLD LIGHTS TH1 THRU TH8 TO BE L-881 SE (120W) QUARTZ (RED/GREEN FILTER).
- RUNWAY THRESHOLD LIGHTS TH30 THRU TH43 TO BE L-881 E (45W) QUARTZ (RED/GREEN FILTER).
- CONCRETE BASES FOR EXISTING SIGNS TO BE REMOVED DURING CONSTRUCTION/ GRADING OF RUNWAY SAFETY AREAS.
- EXISTING ODALS AND VASI FOUNDATIONS TO BE REMOVED. PAYMENT TO BE MADE UNDER ITEM 204.21, TRENCH EXCAVATION OF ROCK @ 2 CY/EACH FOUNDATION.
- SEE SHEETS 35-41 FOR ODAL DETAILS.
- SEE SHEET 34 FOR VASI DETAILS.
- EXISTING ODALS & VASI CABLES ARE DIRECT BURIAL. HAND DIGGING WILL BE REQUIRED AROUND THESE CABLES. POWER TO ODALS AND VASI ARE SUPPLIED FROM FAA EQUIPMENT BUILDING NORTH OF RUNWAY ON VT 103. CONTRACTOR TO COORDINATE WITH FAA MAINTENANCE AT 802-881-6723.

NOTE:

RUNWAY 1-10 WIRING CIRCUIT
...R30 - DM #1 - R31 - TG12 - R32 ...

ODALS SCHEDULE

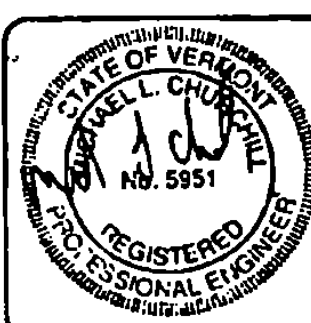
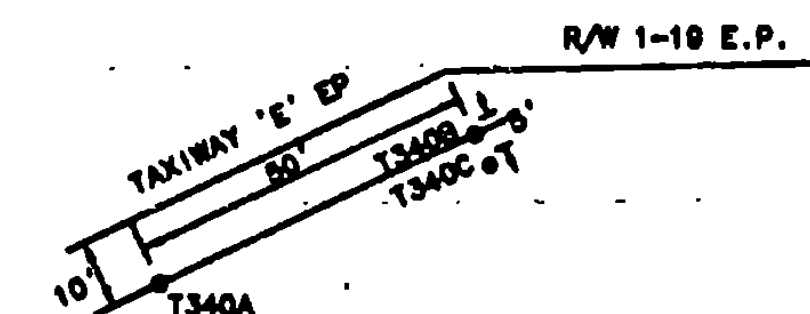
UNIT #	EXISTING LOCATION	REMARKS
R	150' RT 150+20±	RELOCATE TO 125' RT 153+10
1L	150' LT 150+20±	RELOCATE TO 125' LT 153+10
2	€ 153+00±	REMOVE EXISTING ODAL & TOWER
3	€ 156+00	MODIFY TOWER AND L.I.R MAST. TO ELEVATION 772.0. RE-USE ODAL UNIT #3.
20	€ 168+00±	INSTALL NEW TUBULAR STEEL TOWER AND L.I.R MAST. RE-USE ODAL UNIT #2.



LEGEND

- EXISTING RUNWAY AND TAXIWAY LIGHTS
- EXISTING TAXIWAY SIGNS
- NEW THRESHOLD LIGHTS (180° GREEN / 180° RED LENS)
- NEW TAXIWAY LIGHTS (BLUE FILTER)
- NEW RUNWAY LIGHTS (CLEAR LENS)
- NEW RUNWAY LIGHTS (180° CLEAR / 180° AMBER LENS)
- TO #1 RELOCATED TAXIWAY SIGN
- UNDERGROUND CONCRETE ENCASED DUCT & MARKERS
- ▲ 5/8" x 6" COPPERCLAD GROUND ROD
- RELOCATED ODALS

RUNWAY/TAXIWAY INTERSECTION



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY LIGHTING PLANS

J. J. G. & S. Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: J. J. G. & S. Inc.
Drawn by: J. J. G. & S. Inc.
Checked by: J. J. G. & S. Inc.
Approved by: J. J. G. & S. Inc.

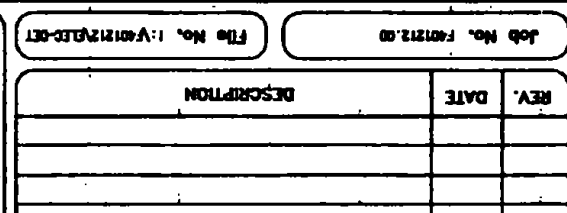
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VERT. - NONE

Date: 5/5/97

Sheet 30 Of 85

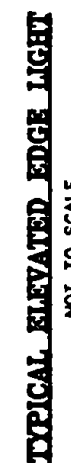
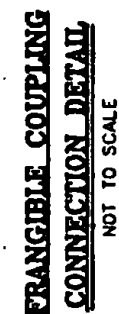
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30



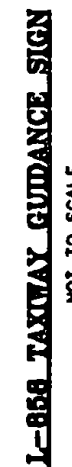
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

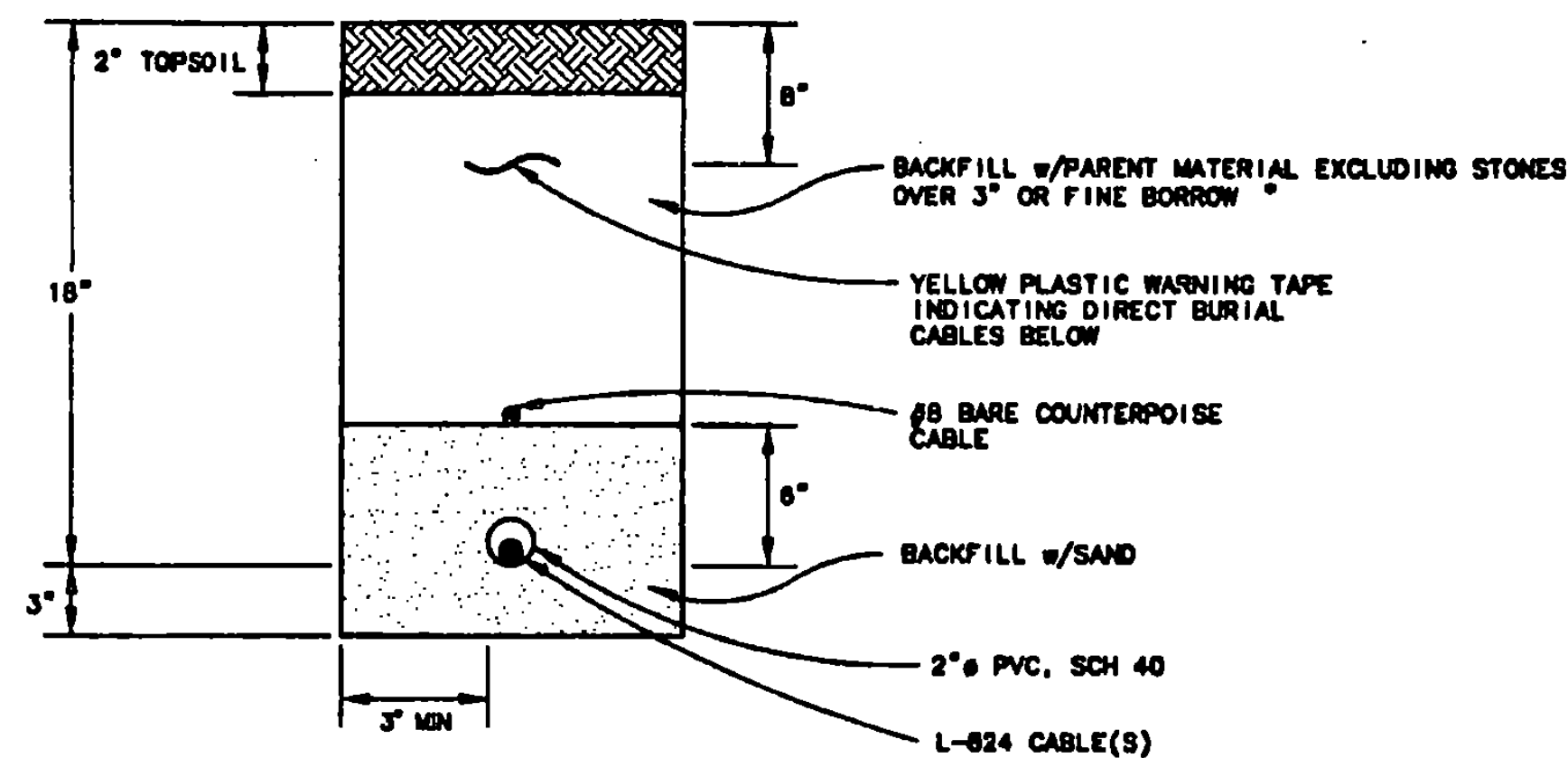
AIP 3-50-0015-11



NOTE:

1. 2" PVC DRAIN TO BE PLACED IN BASE CANS 1, TH 8, R13, R06, R14, T314, T424, R46, R55, TH43. DRAIN 2" PVC TO NEAREST DRAINAGE STRUCTURE OR FLUSHING BASIN OR AS DIRECTED BY THE ENGINEER. COST TO BE INCLUDED UNDER ITEM 678.21, MOD 1, 2" PVC.

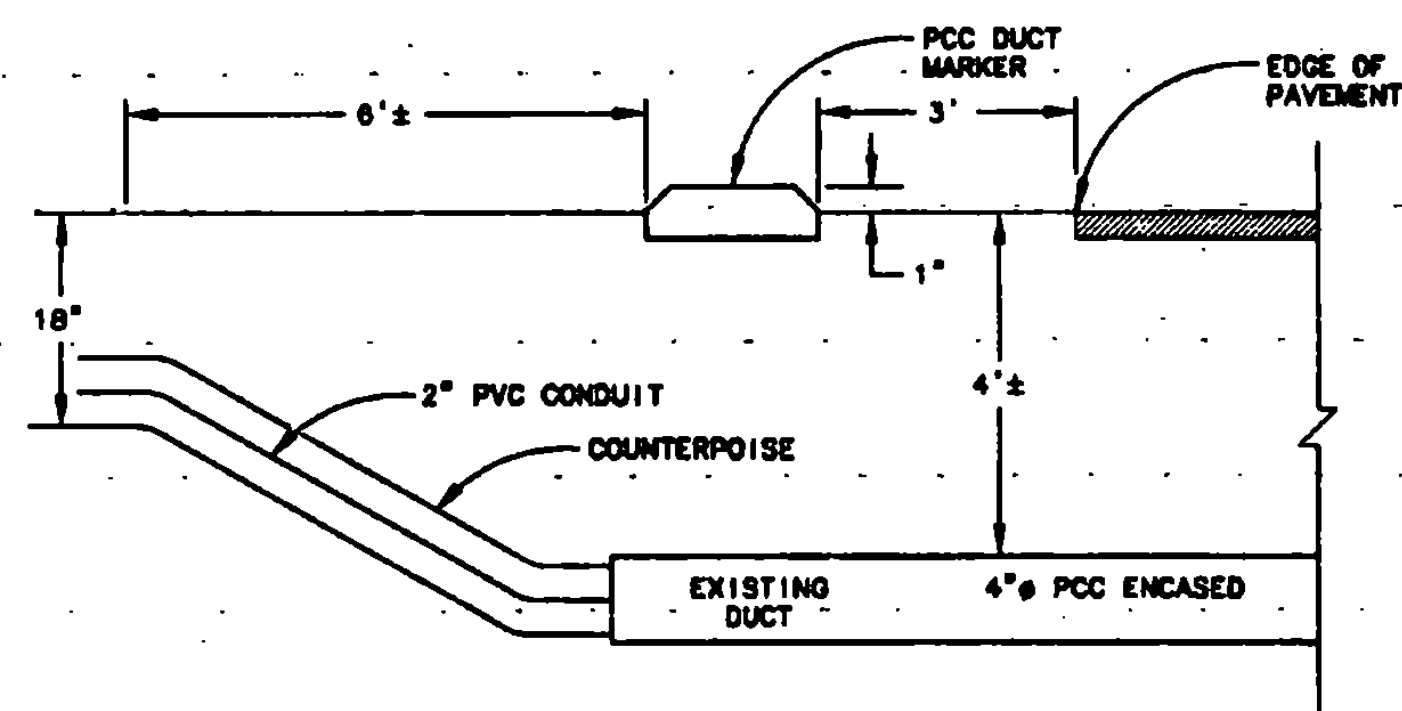




NOTE:
ADDITIONAL CONDUITS MAY BE
PLACED IN SAME TRENCH @ 3"
SPACING. MAX. NUMBER OF
CABLES / CONDUIT PER N.E.C.

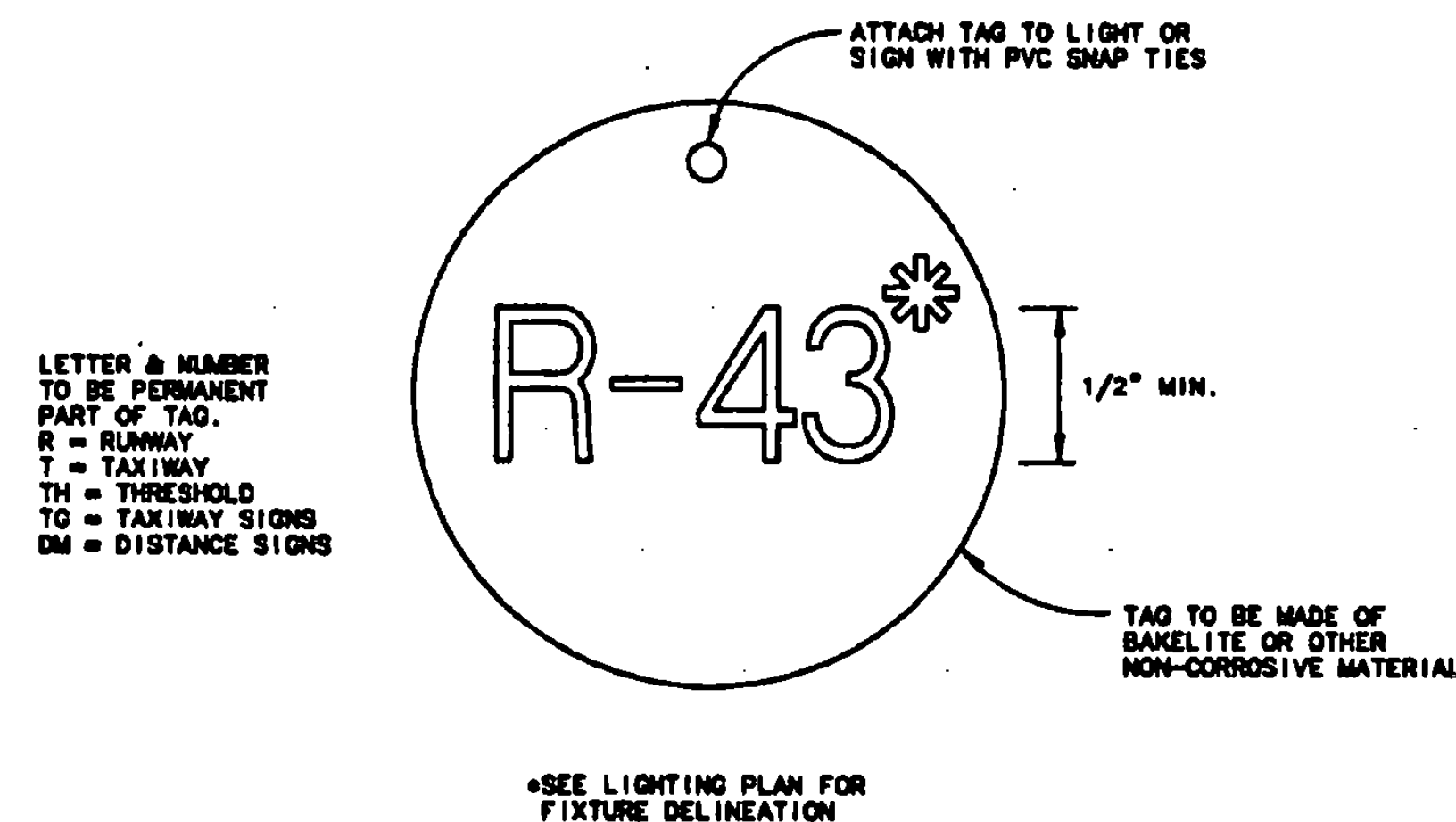
*FINE BORROW-MATERIAL REASONABLY FREE FROM
LOAM, CLAY OR ORGANIC MATERIAL,
MAXIMUM SIZE = 1/2"

CONDUIT TRENCH DETAIL (TYP)
NOT TO SCALE

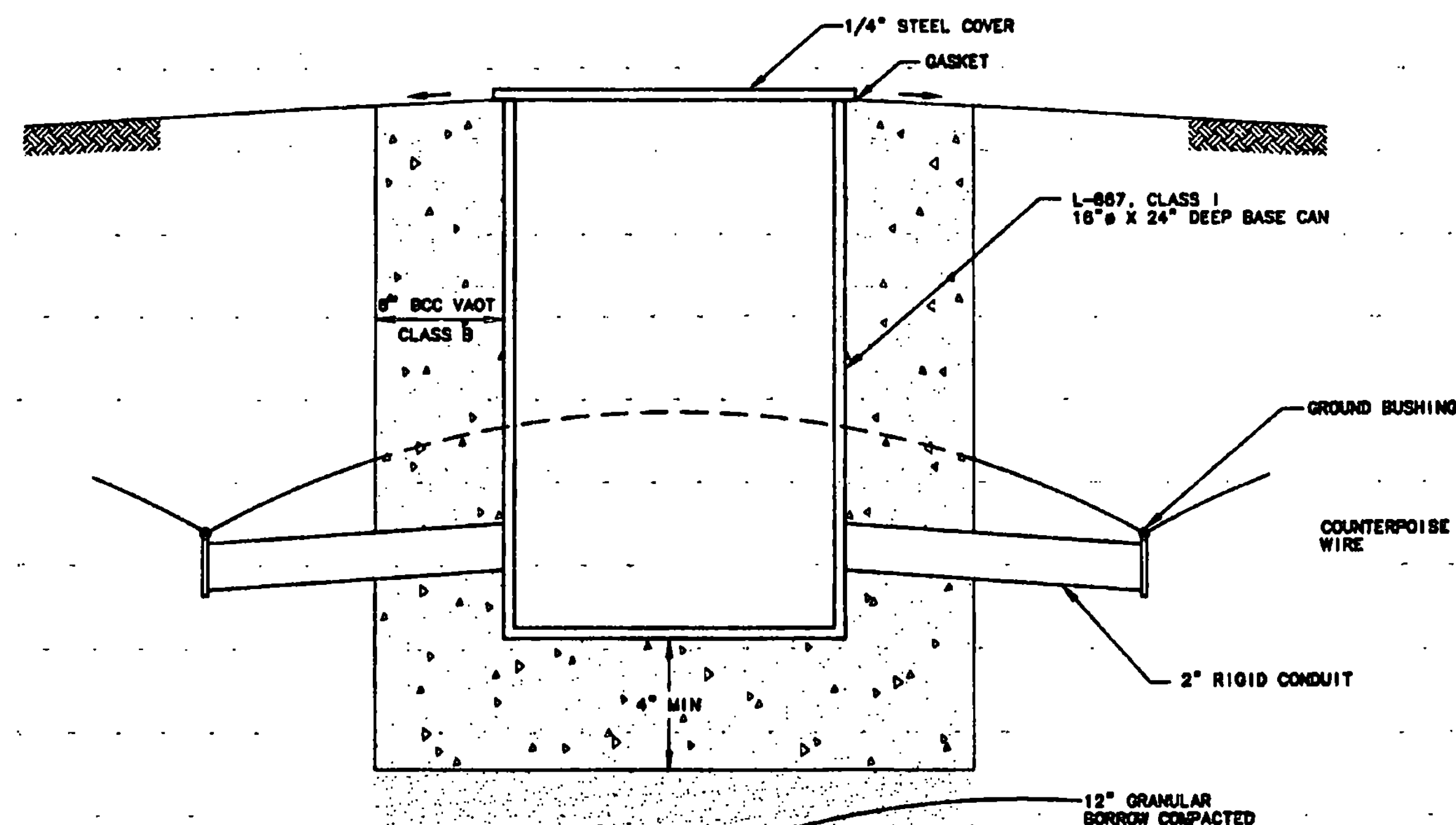


- NOTE:
1. PLACE 2" PVC CONDUIT & COUNTERPOISE
IN EXISTING 4" PCC ENCASED DUCT.
FULL LENGTH. USE EXISTING SPARE
(EMPTY) DUCT IF AVAILABLE.
2. HAND EXCAVATE AROUND EXISTING DUCT.
EXISTING CABLES MAY BE DIRECT BURIAL.
3. REPLACE EXISTING PCC DUCT MARKERS,
AS SHOWN.

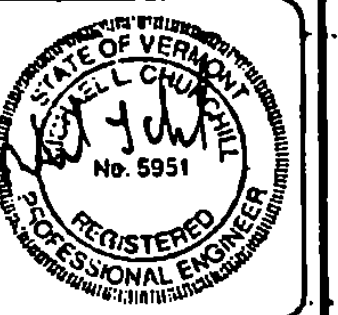
CONDUIT/DUCT DETAIL (TYP)
NOT TO SCALE



FIXTURE IDENTIFICATION TAG (TYP)
NOT TO SCALE



ELECTRICAL HANDHOLE (TYP)
NOT TO SCALE



REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY LIGHTING DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

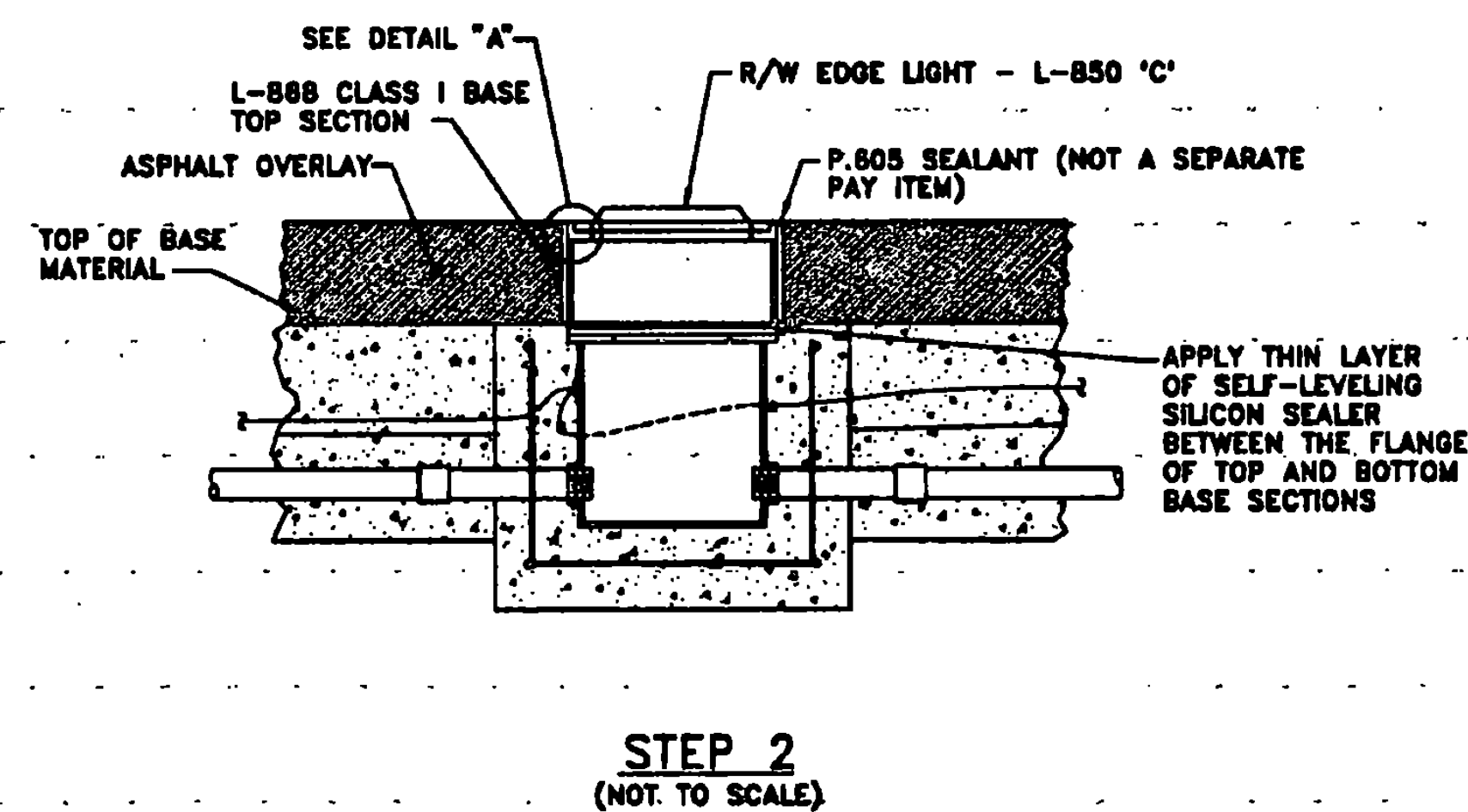
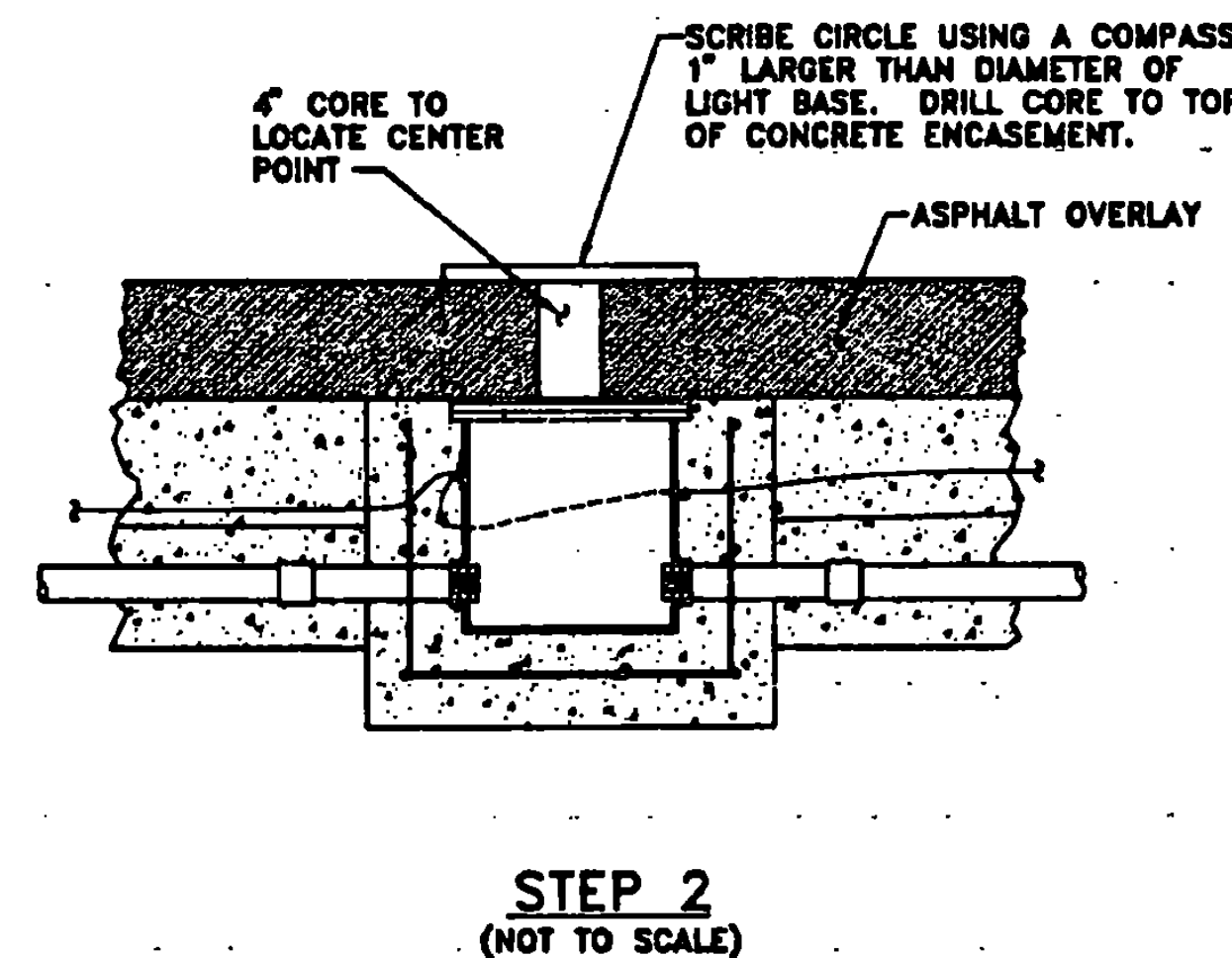
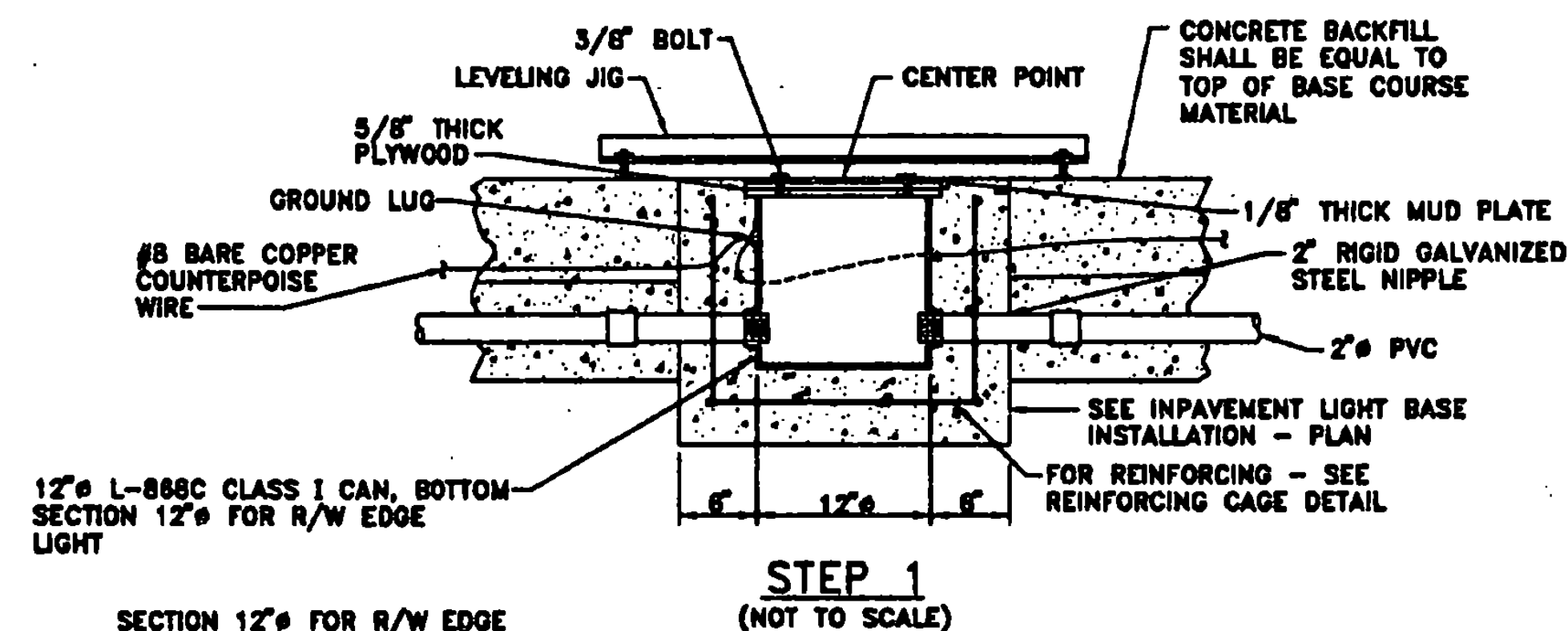
Designed by: C. D. Maco	Drawn by: M. McCalla	Checked by: C. D. Maco	Approved by: M. McCalla
Date: 2/97	Date: 3/97	Date: 5/97	Date: 5/97

Scale: HS = N/A
VS = N/A

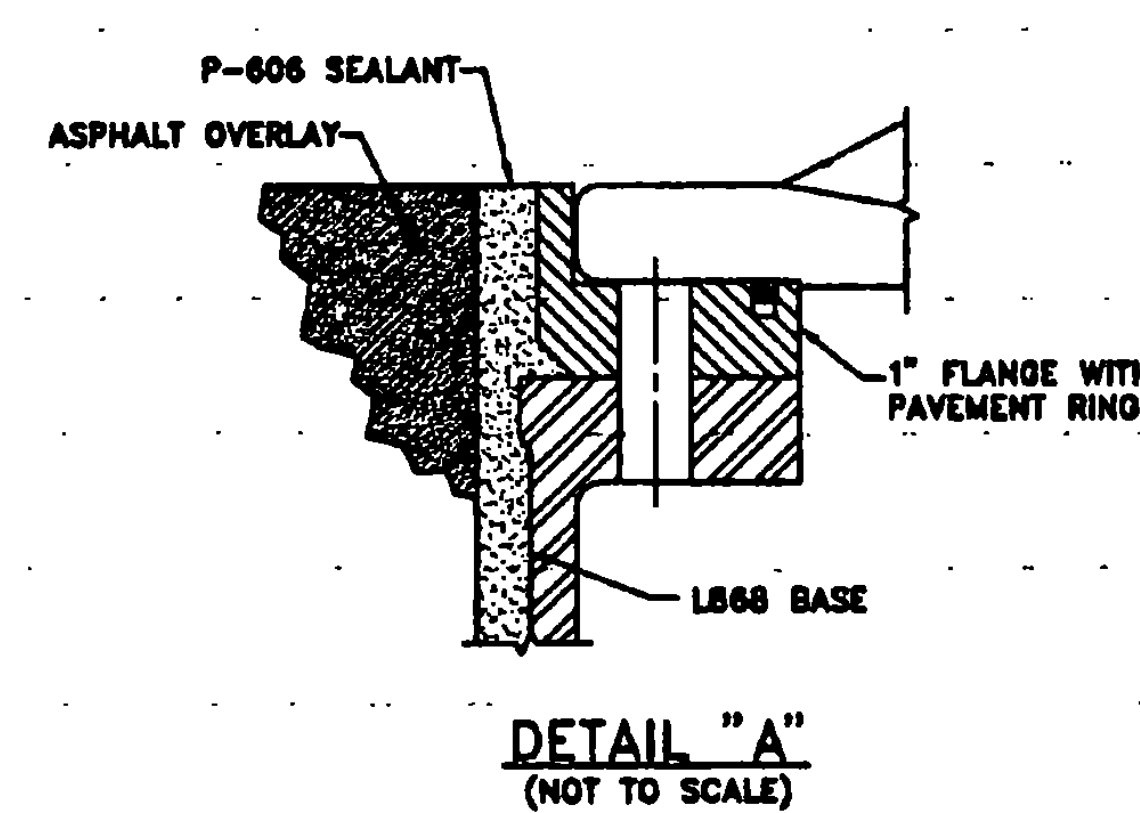
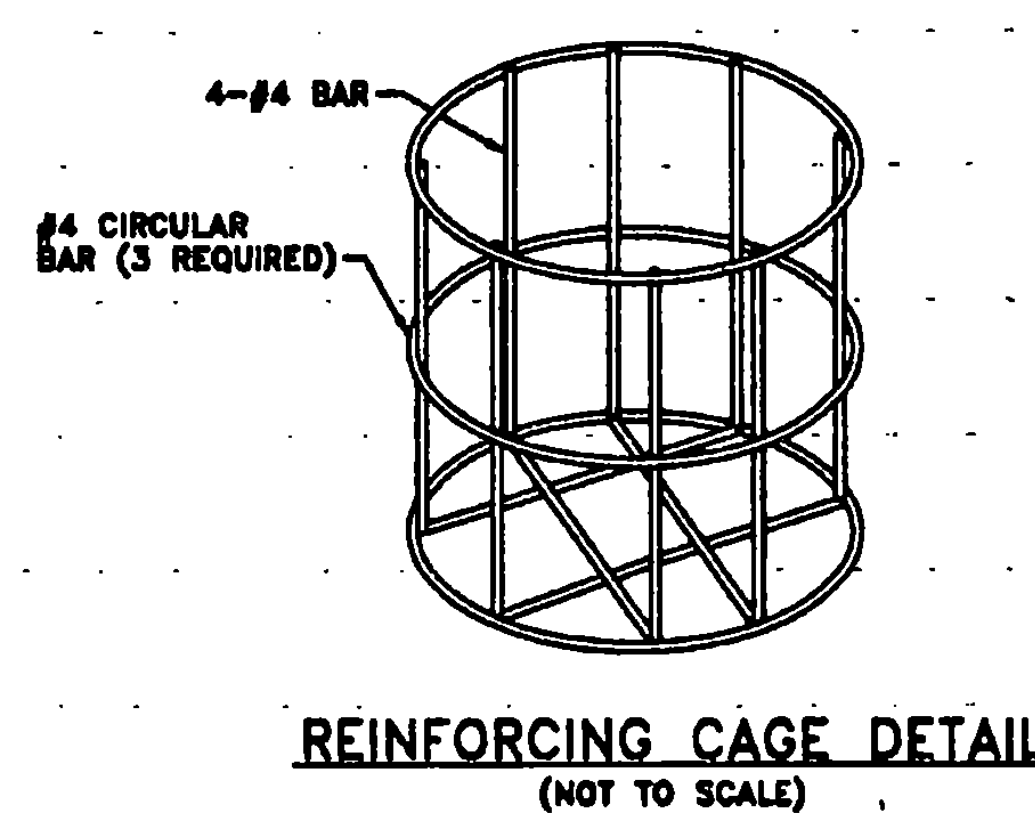
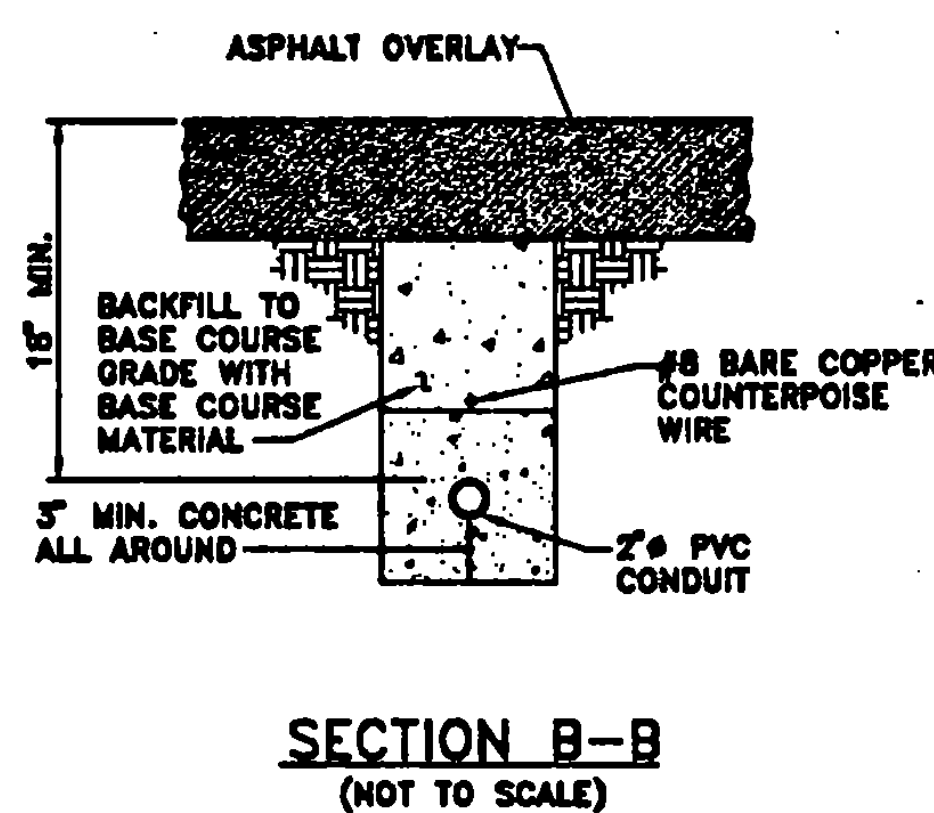
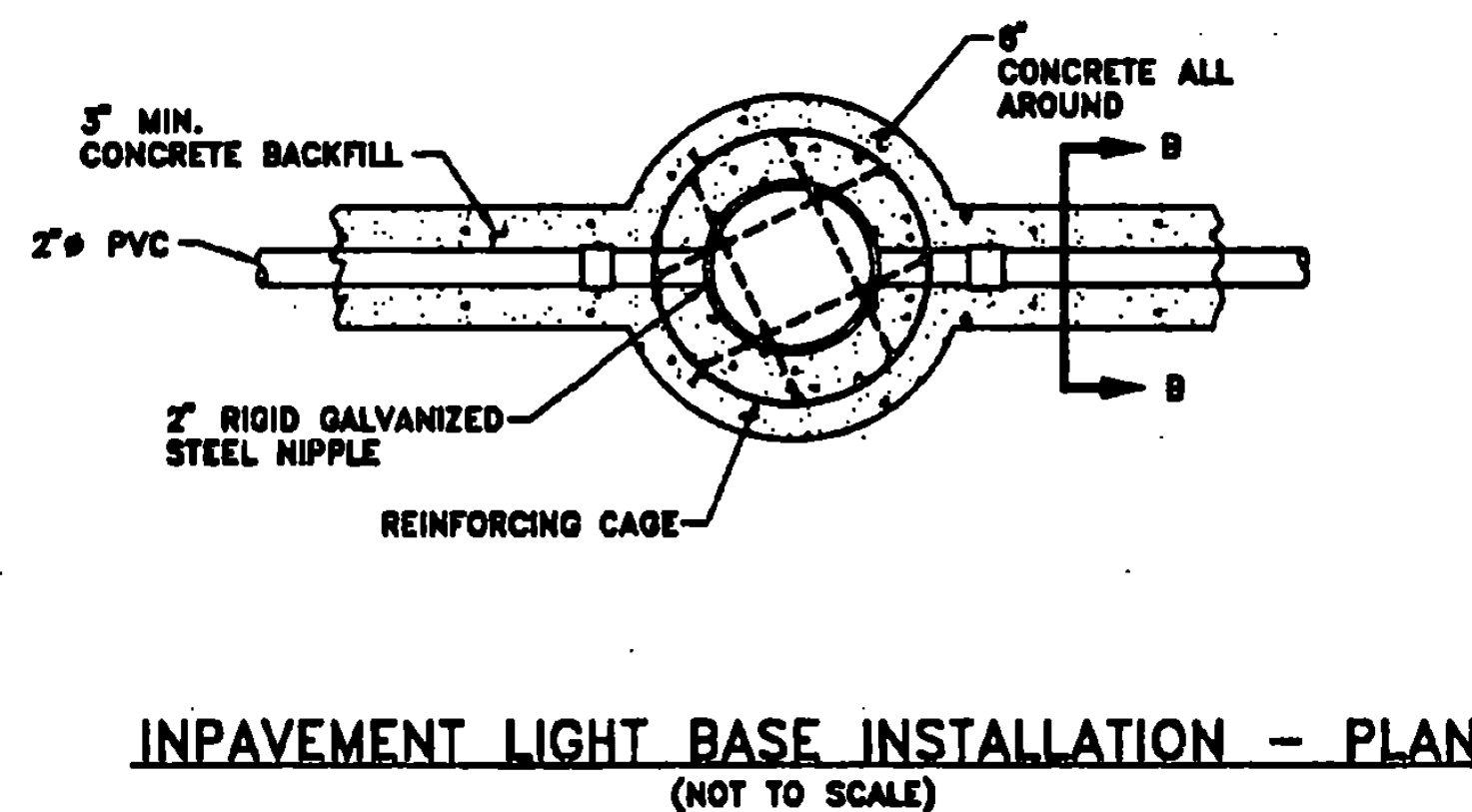
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Sheet 32 Of 88

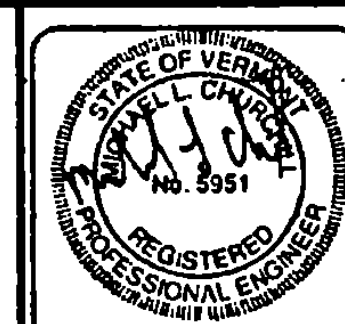
Sheet No.
32



- GENERAL NOTES:**
1. VIBRATE CONCRETE BACKFILL TO ENSURE THERE ARE NO VOIDS.
 2. CONCRETE TO CONFORM TO VDOT SPECIFICATIONS SECTION 501, CLASS B, 3/4\" MAX SIZE AGGREGATE
 3. PRIOR TO ASPHALT PAVING, COVER MUD PLATE WITH A SHINGLE OR ANOTHER THIN ARTICLE WHEN TACK COAT IS APPLIED PRIOR TO PAVING. BEFORE PAVING COMMENCES, REMOVE SHINGLE AND LIGHTLY WIPE DOWN MUD PLATE WITH VEGETABLE OIL.
 4. TIGHTEN ALL BOLTS TO THE TORQUE SPECIFIED BY THE MANUFACTURER. DO NOT REUSE SHIPPING BOLTS TO INSTALL COVERS.



INSTALLATION OF IN PAVEMENT LIGHTING (L-850-C)



REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY LIGHTING DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

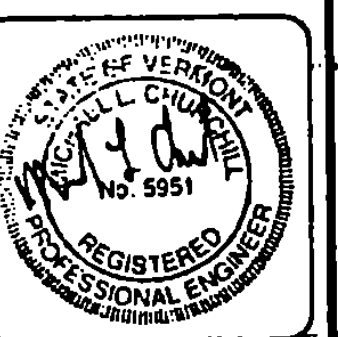
Designed by: C. D. MICO	Date: 2/87
Drawn by: M. MULLA	Date: 3/87
Checked by: C. D. MICO	Date: 5/8/87
Approved by: R. COLEMAN	Date: 5/8/87

Scale: HS = N/A
VS = N/A

Date: 5/8/87

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Sheet No
33



REV.	DATE	DESCRIPTION

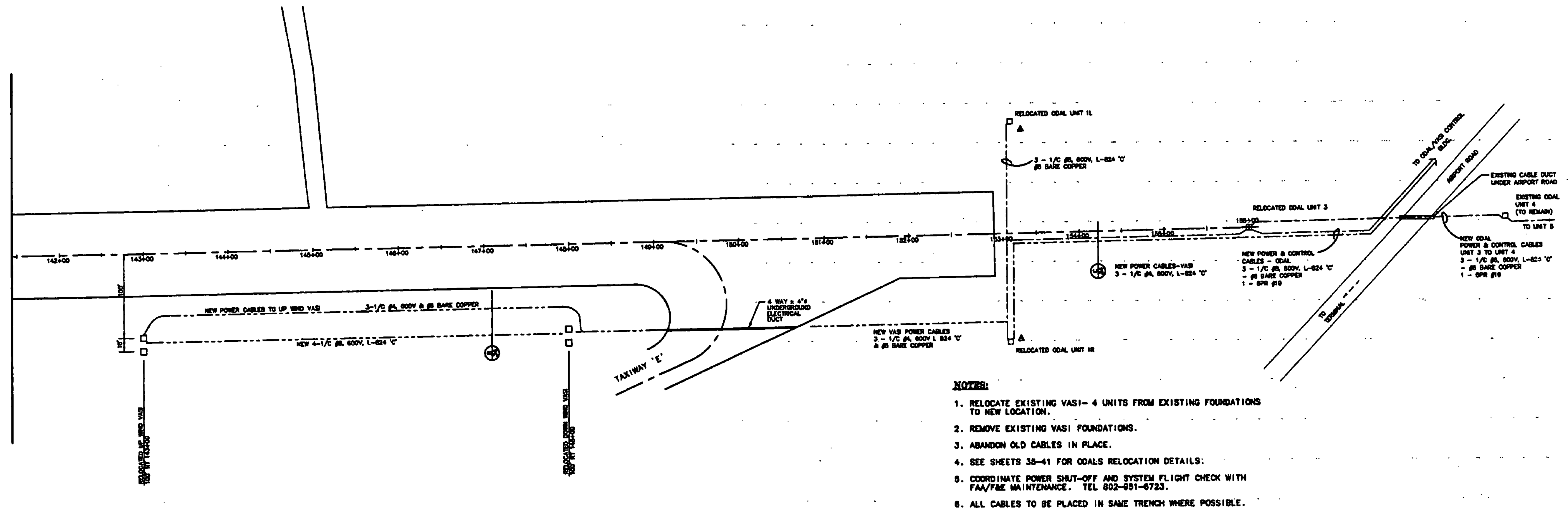
Job No. 1401118-00
File No. 1401118-00

**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

**ELECTRICAL PLANS
VASI MOUNTING DETAILS**

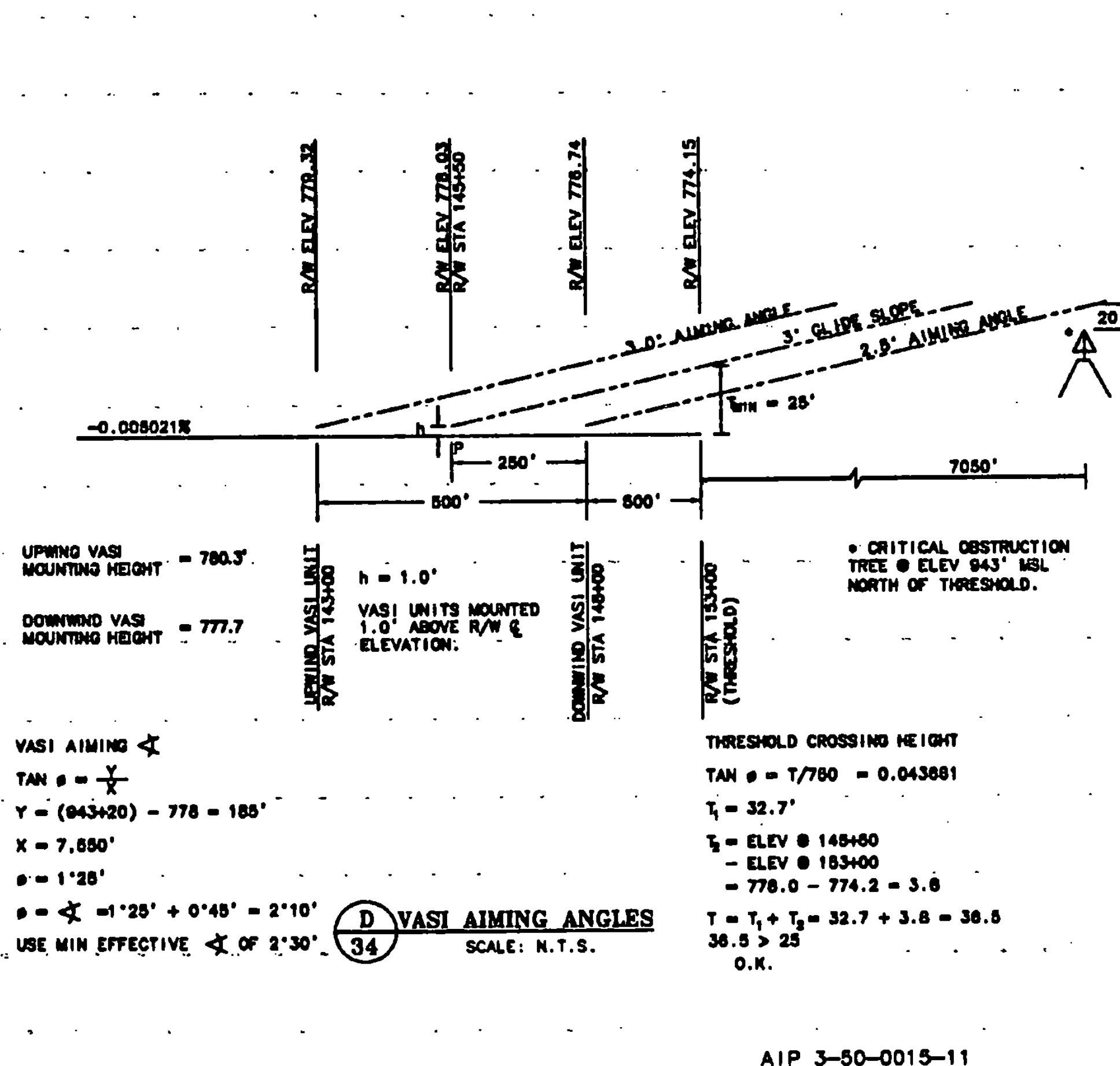
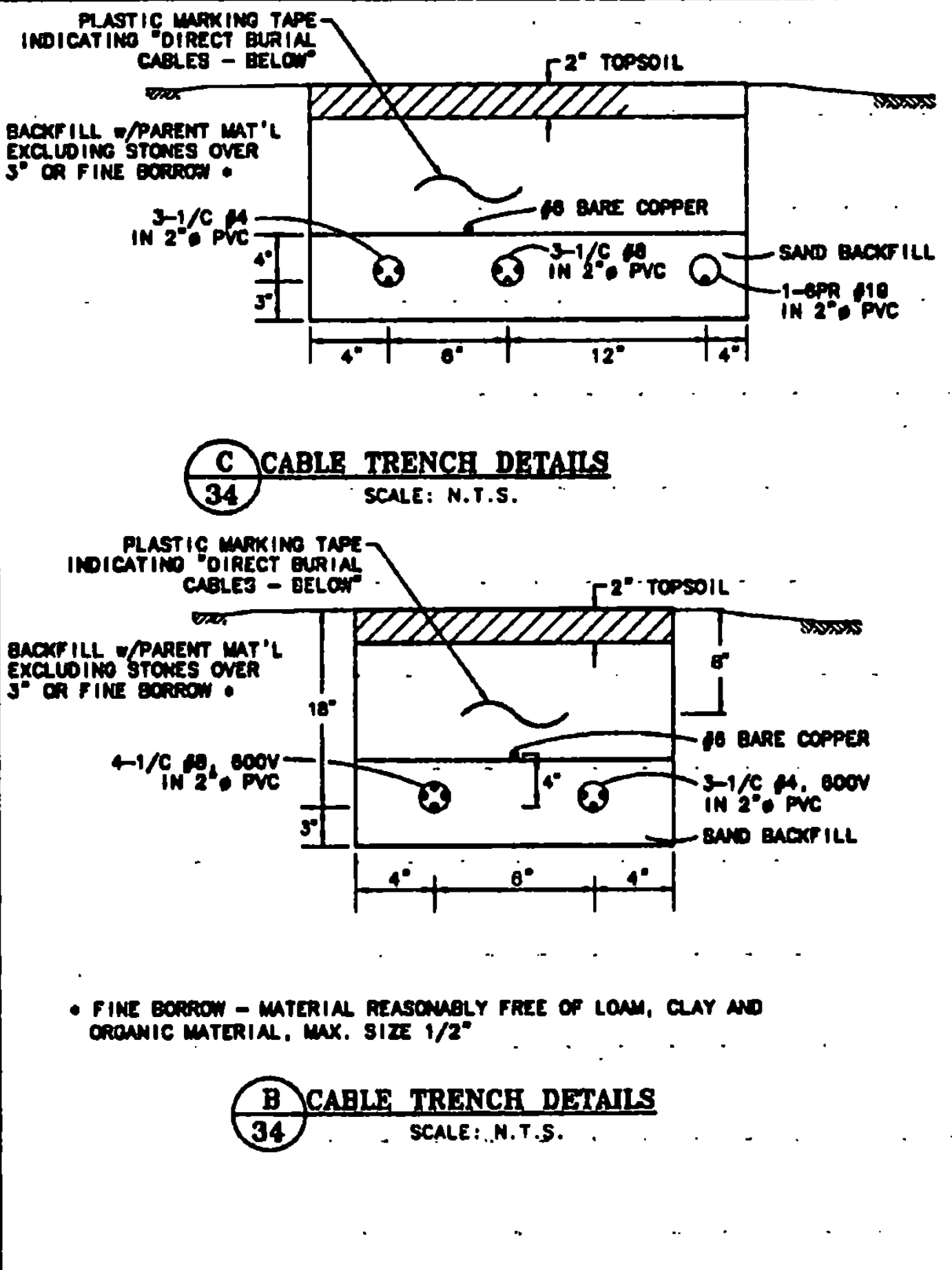
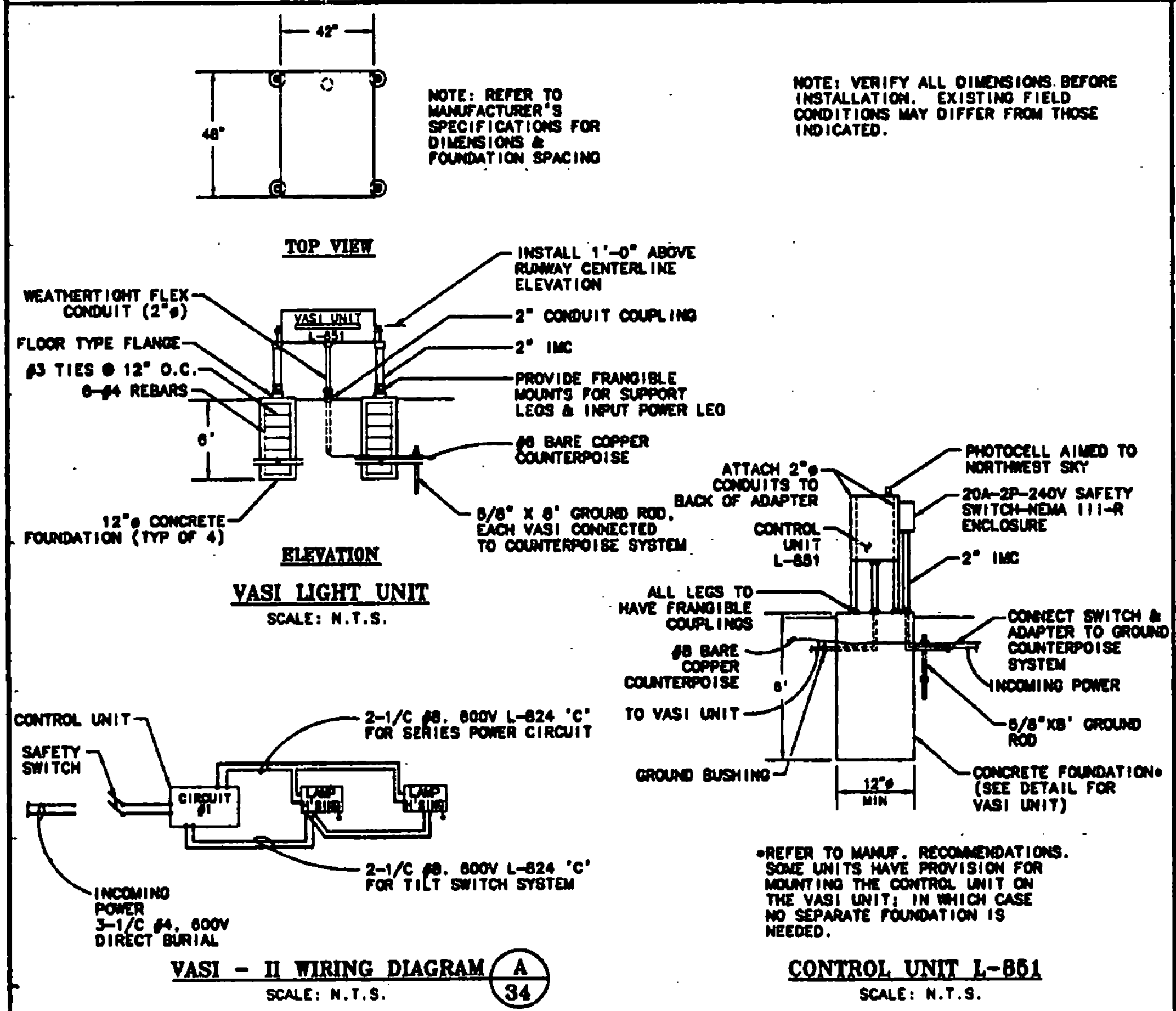
Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

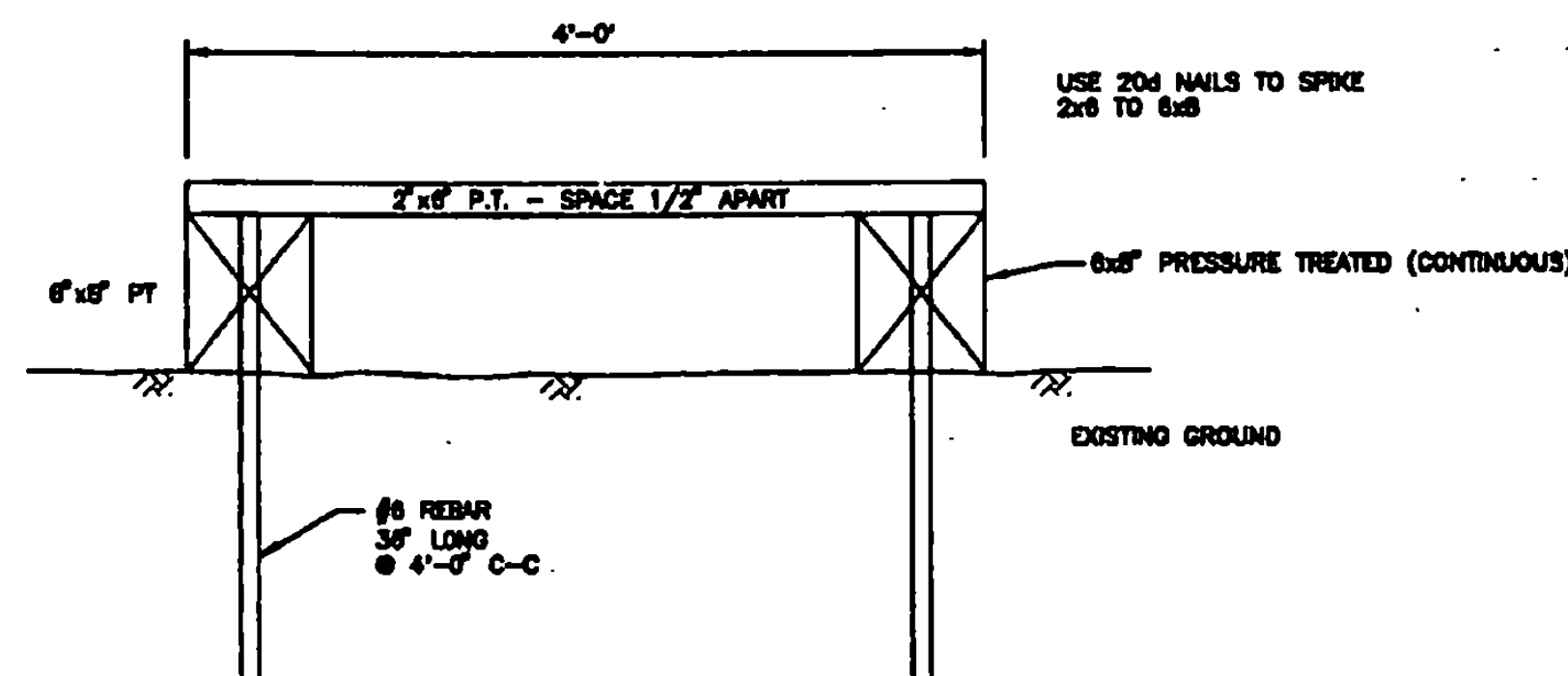
Designed by: C. U. Macdonald	Date: 2/7/71
Drawn by: B. S. Macdonald	Date: 3/7/71
Checked by: C. U. Macdonald	Date: 5/9/71
Approved by: B. S. Macdonald	Date: 5/9/71
Social: HOR - AS NOTED VERT. - NONE	
Date: 5/9/71	
Sheet 34 Of 66	
Sheet No. 34	



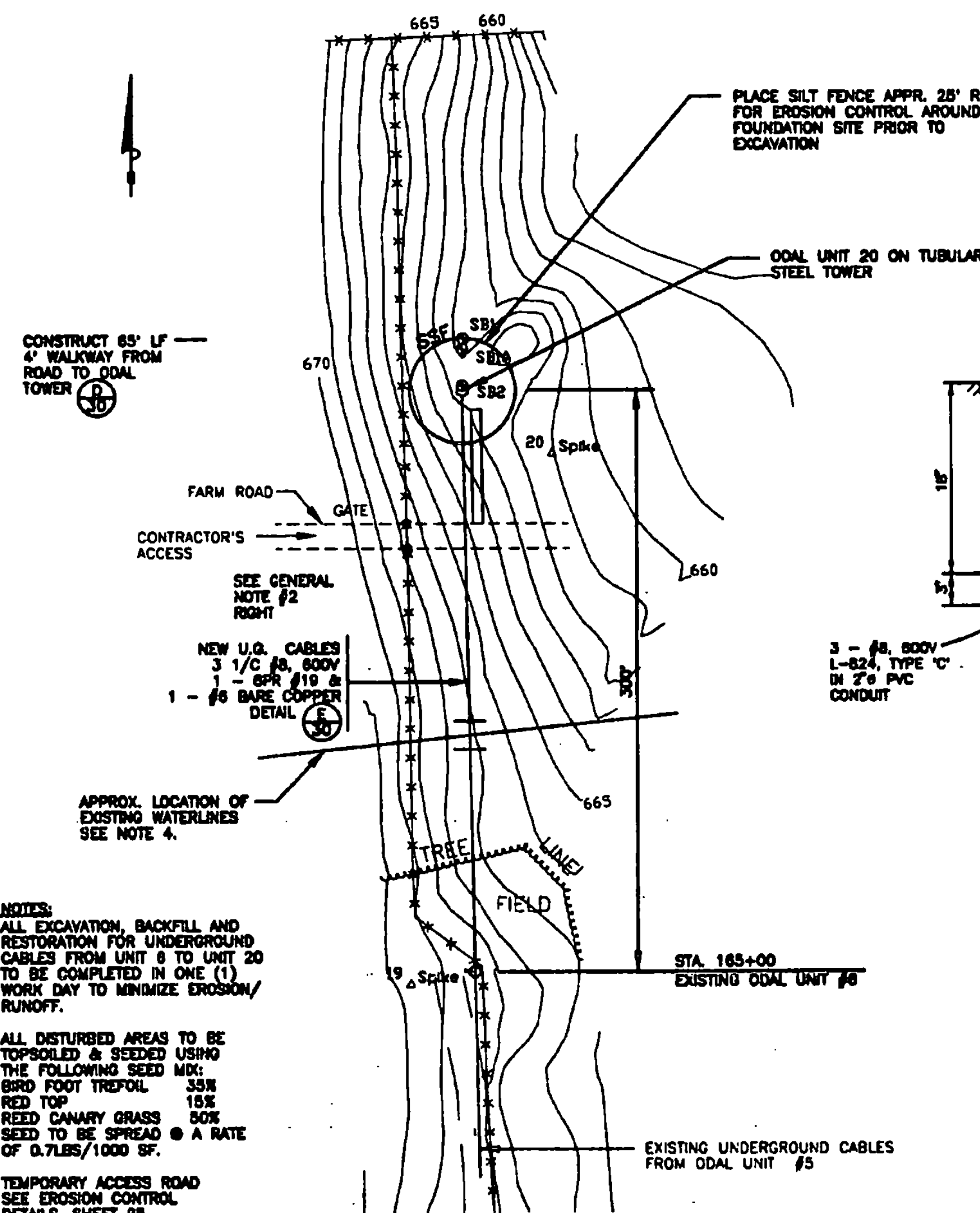
- NOTES:**
1. RELOCATE EXISTING VASI- 4 UNITS FROM EXISTING FOUNDATIONS TO NEW LOCATION.
 2. REMOVE EXISTING VASI FOUNDATIONS.
 3. ABANDON OLD CABLES IN PLACE.
 4. SEE SHEETS 35-41 FOR ODALS RELOCATION DETAILS.
 5. COORDINATE POWER SHUT-OFF AND SYSTEM FLIGHT CHECK WITH FAA/FAE MAINTENANCE. TEL 802-851-6723.
 6. ALL CABLES TO BE PLACED IN SAME TRENCH WHERE POSSIBLE.

ODAL & VASI - CABLES
SCALE: 1"=60'

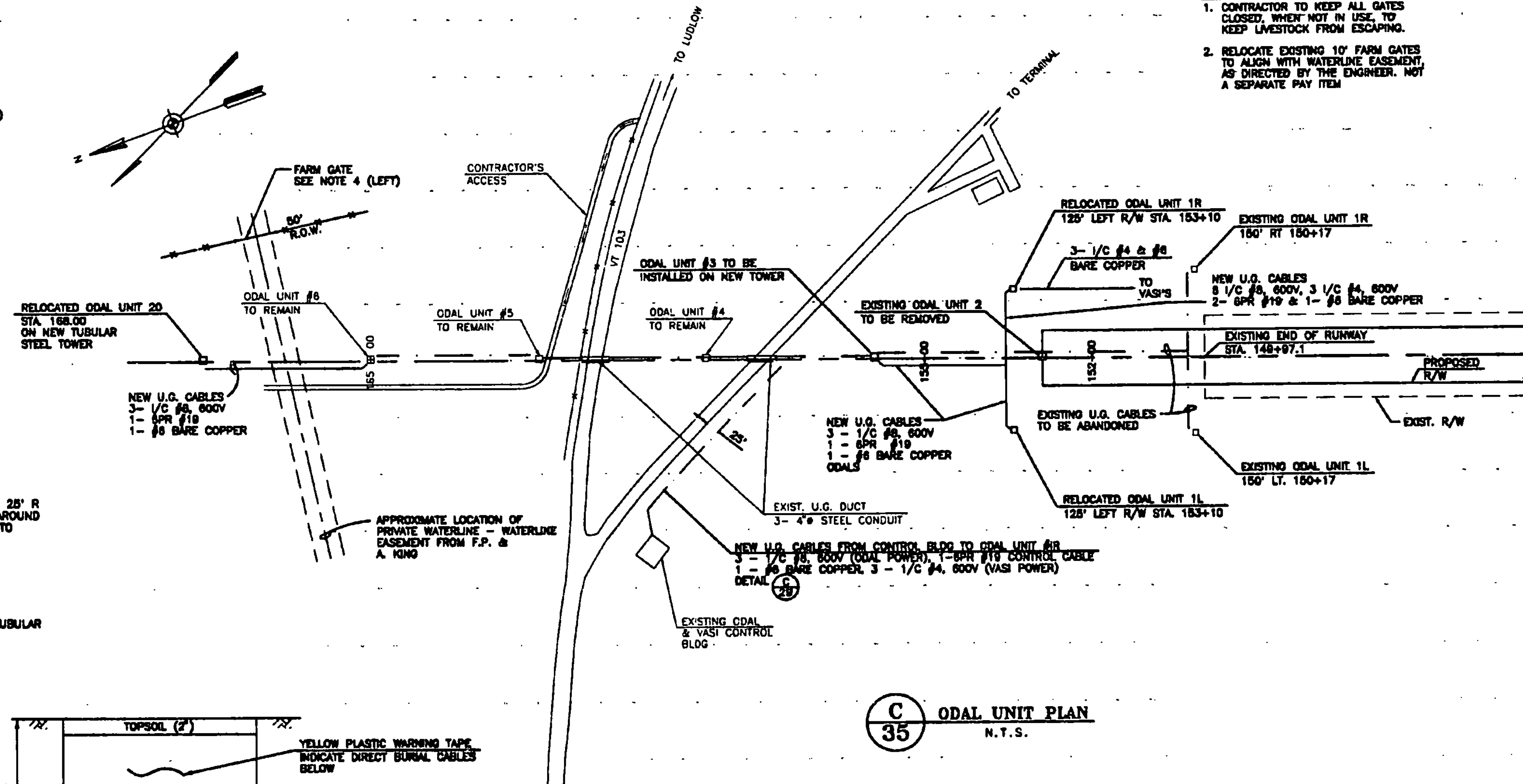




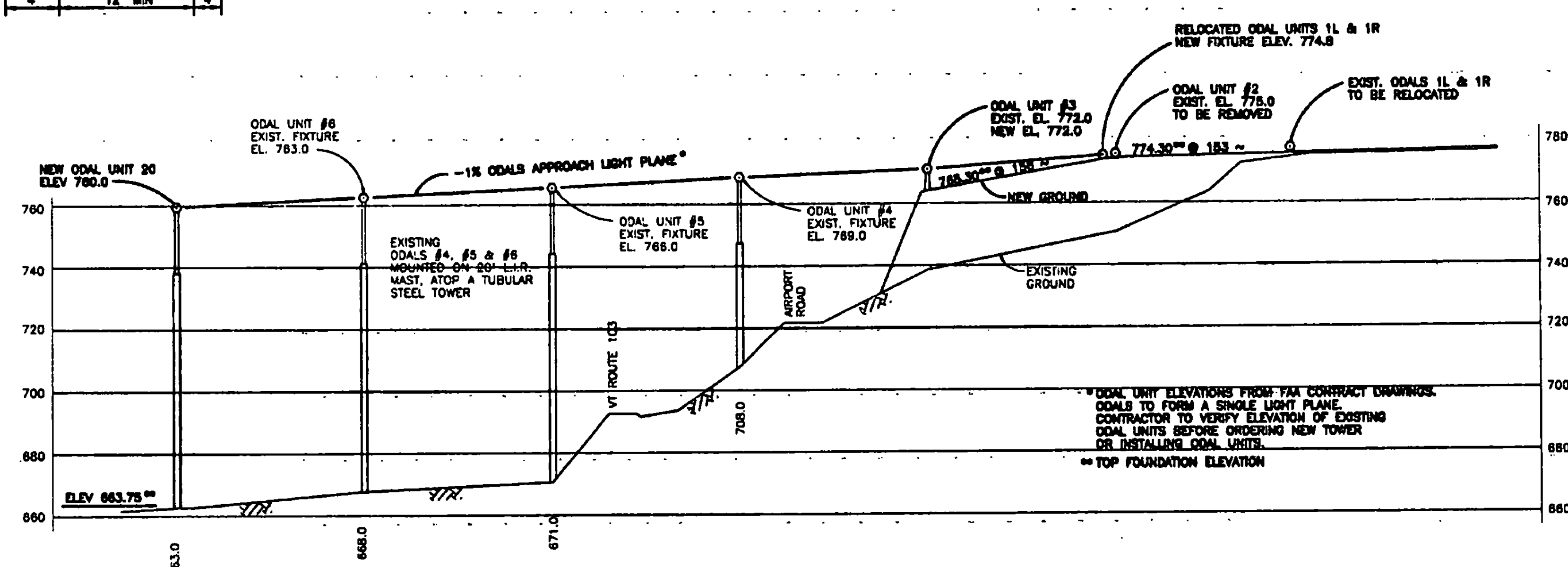
D 35 WALKWAY DETAIL
N.T.S.



A 35 ODAL UNIT 20
SCALE: 1" = 50'

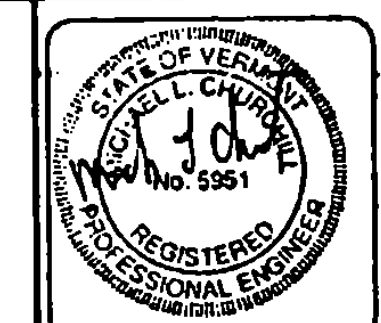


C 35 ODAL UNIT PLAN
N.T.S.



B 35 ODAL TOWERS - PROFILE
N.T.S.

- GENERAL NOTES:**
1. CONTRACTOR TO KEEP ALL GATES CLOSED, WHEN NOT IN USE, TO KEEP LIVESTOCK FROM ESCAPING.
 2. RELOCATE EXISTING 10' FARM GATES TO ALIGN WITH WATERLINE EASEMENT, AS DIRECTED BY THE ENGINEER. NOT A SEPARATE PAY ITEM.



REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

ODALS - PLAN & PROFILE

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

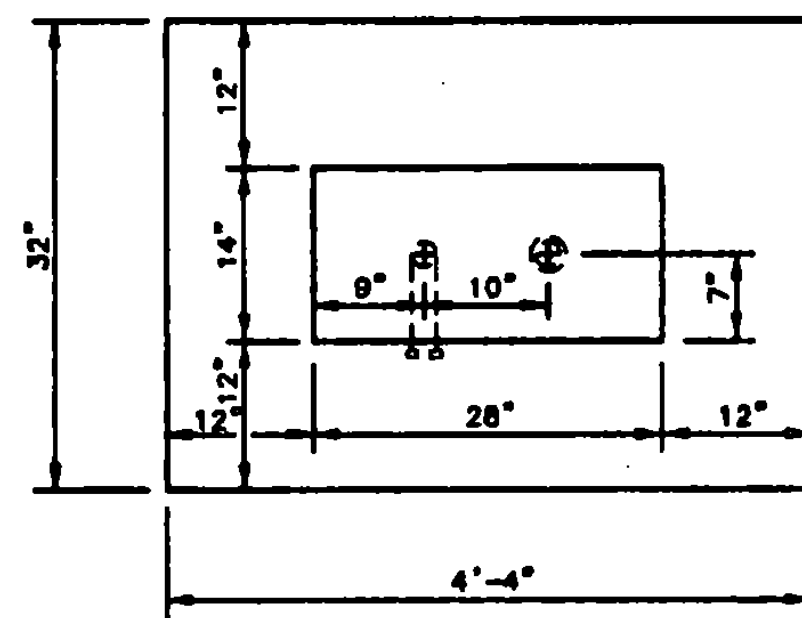
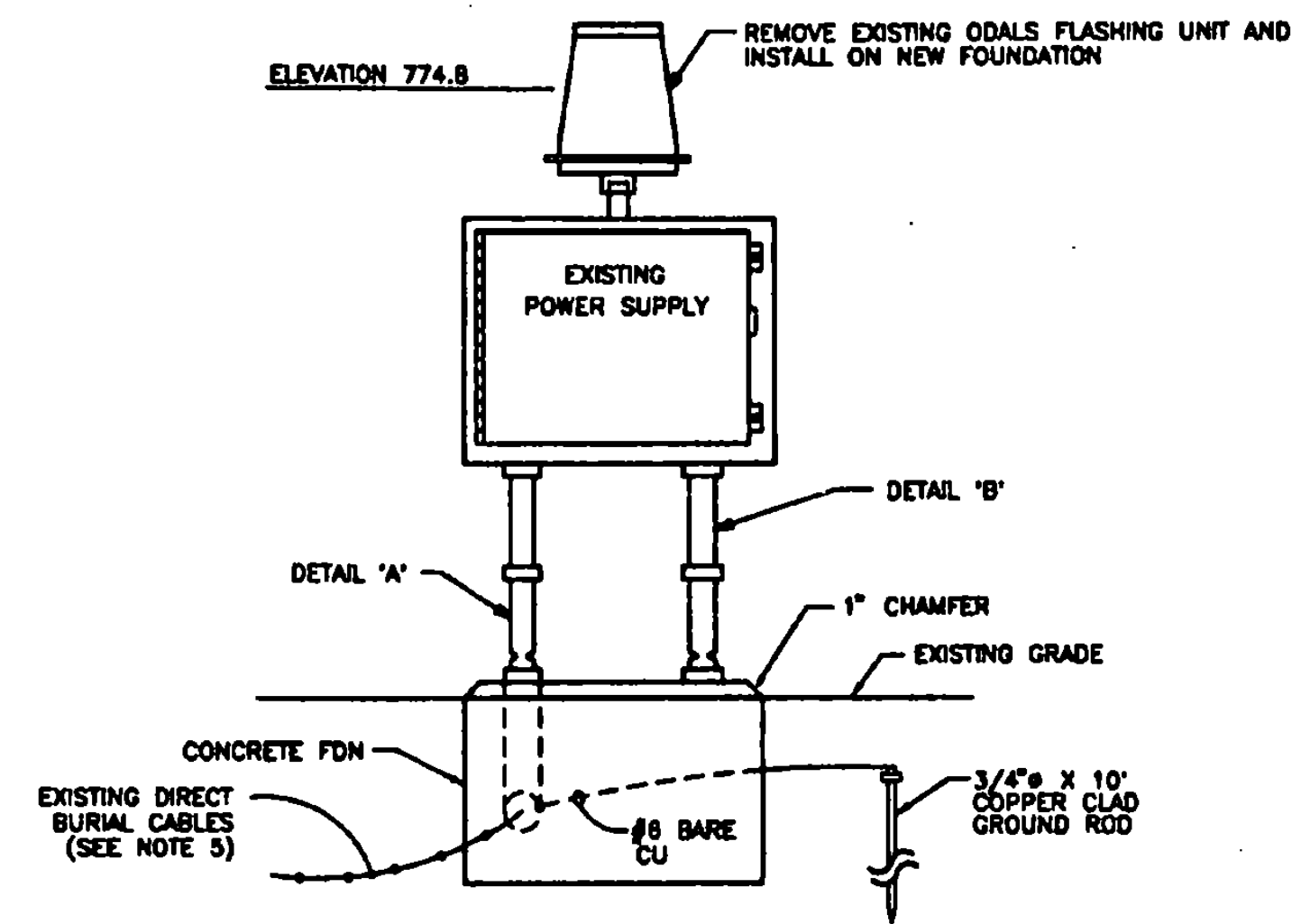
Designed by: C. D'Amico	Drawn by: M. Boudreau	Checked by: C. D'Amico	Approved by: M. Chaboud
2/07	3/07	5/07	5/07

Scale: HOR. - 1" = 100'
VERT. - 1" = 20'

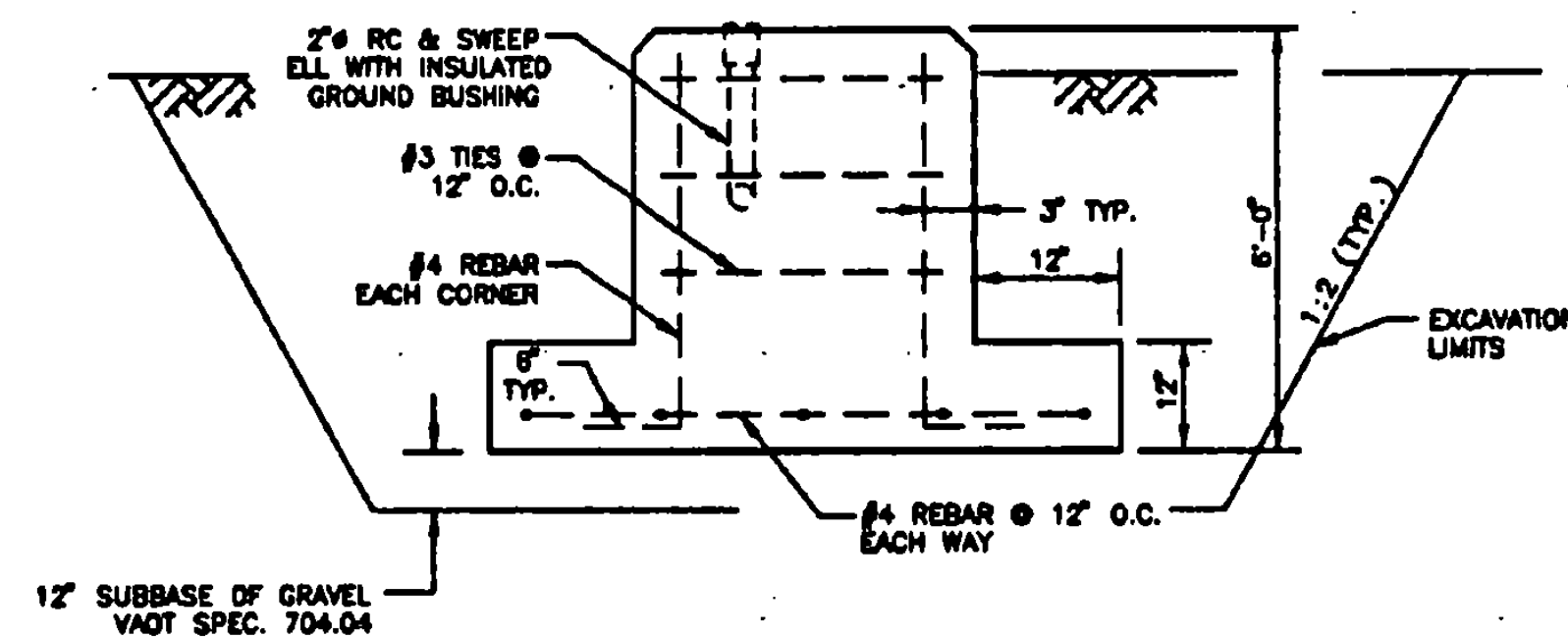
Date: 5/9/07

Sheet 35 of 35

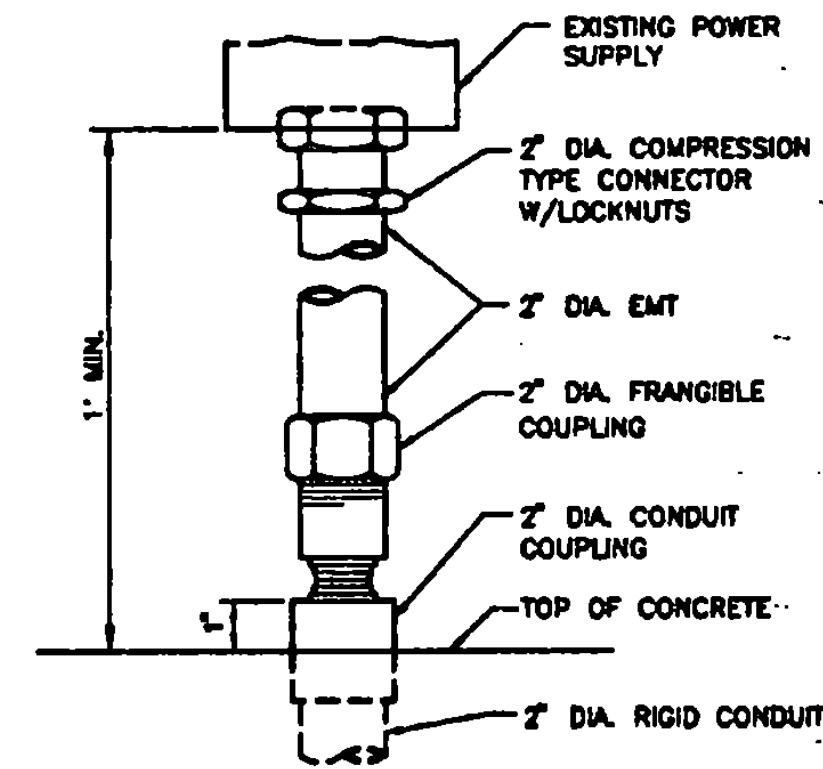
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35



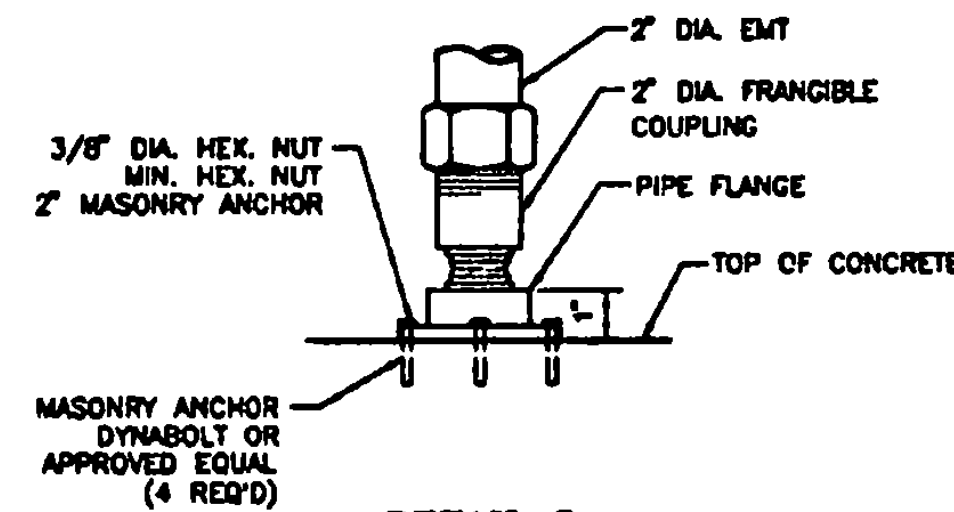
DETAIL 2



DETAIL 3



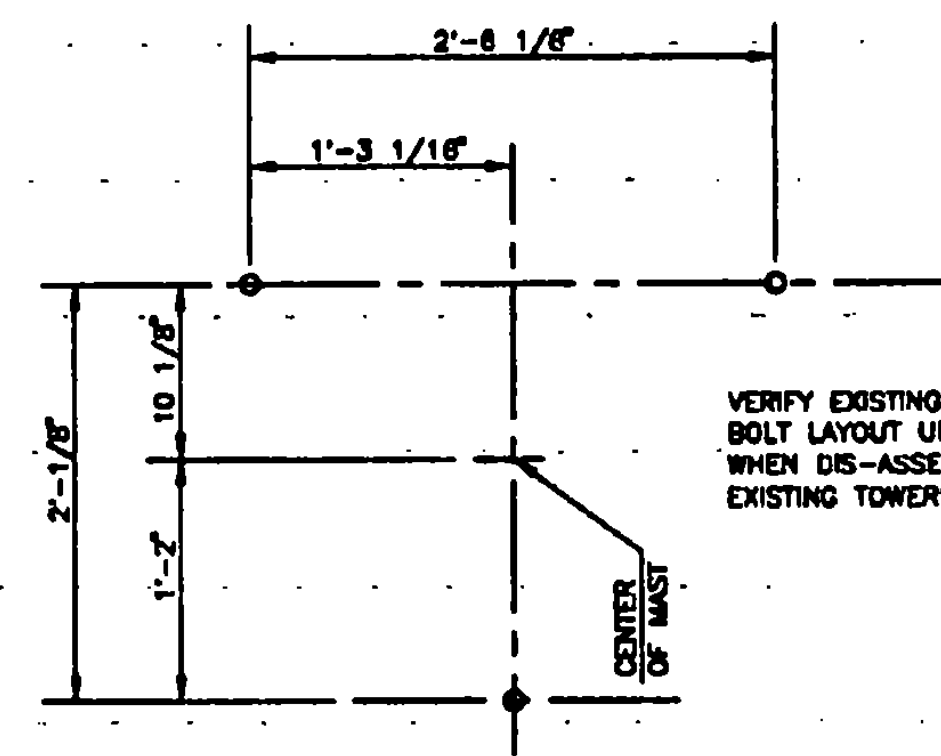
DETAIL 4



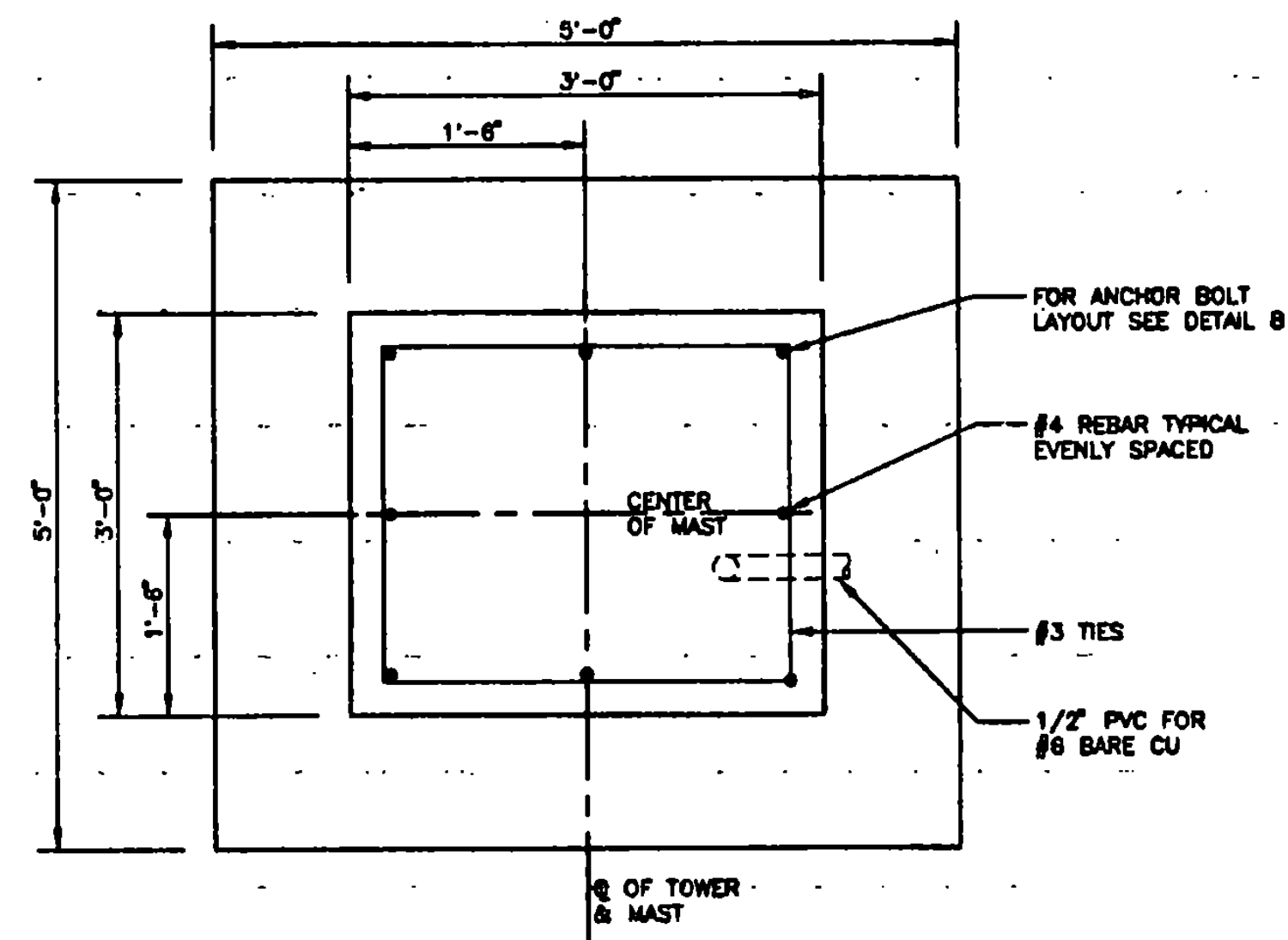
DETAIL 5

ODALS FOUNDATION DETAILS
ODALS UNITS #1R & #1L
125' LT & RT OF STA. 153+20

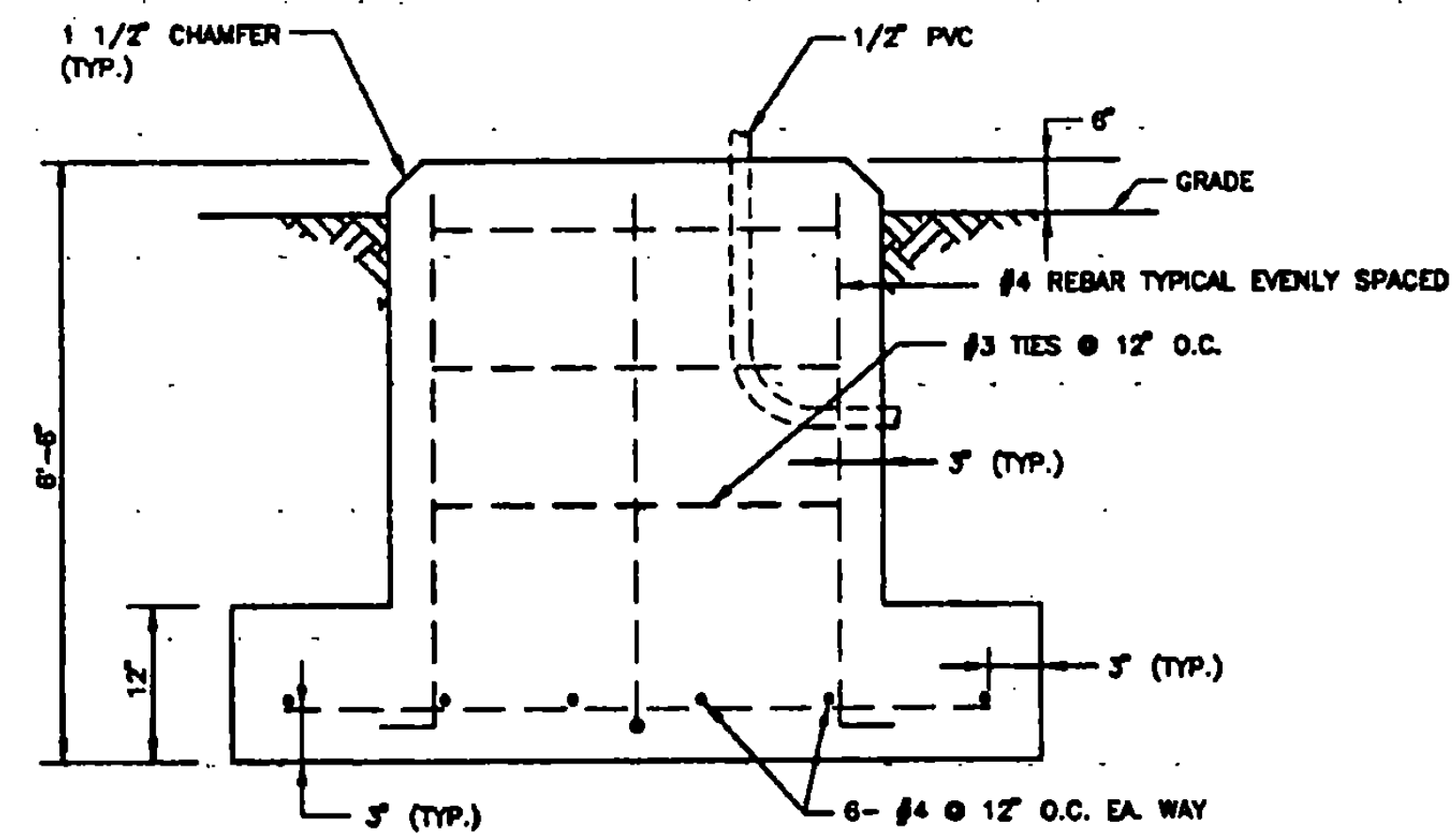
- NOTES:**
- EXISTING FOUNDATIONS UNITS #2 & #3 TO BE ABANDONED IN PLACE.
 - ODALS ELECTRICAL CABLES TO BE RE-ROUTED TO NEW LOCATION.
 - EXISTING ODALS UNITS TO BE REMOVED FROM EXISTING FOUNDATIONS AND PLACED ON NEW FOUNDATIONS.
 - ALL CONCRETE TO BE CLASS B, CONFORMING TO SECTION 501. STRUCTURAL CONCRETE, VAOT SPECIFICATIONS.
 - EXISTING UNDERGROUND (DIRECT BURIAL CABLES) 3-1/2\"/>
 - USE ANTI-SEIZE COMPOUND ON ALL THREADS.
 - ALL ANCHOR BOLTS, NUTS & WASHERS SHALL BE HOT DIP GALVANIZED PER ASTM - 13 & ASTM - 325.



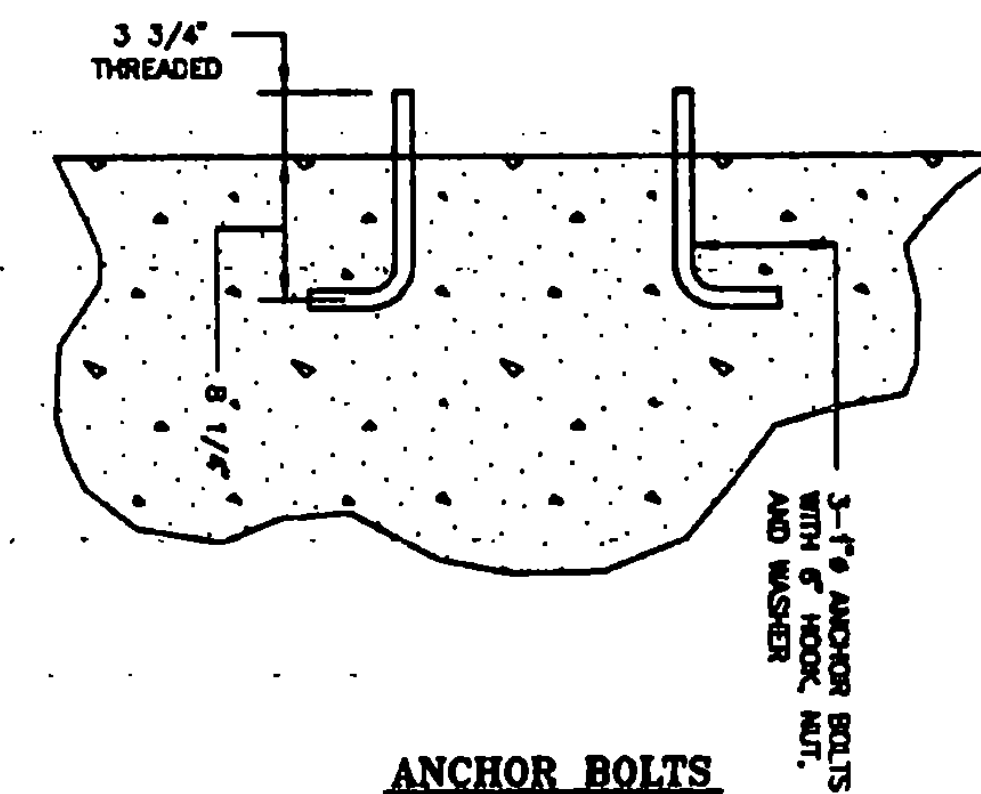
ANCHOR BOLT PLAN
DETAIL 8



DETAIL 6



DETAIL 7



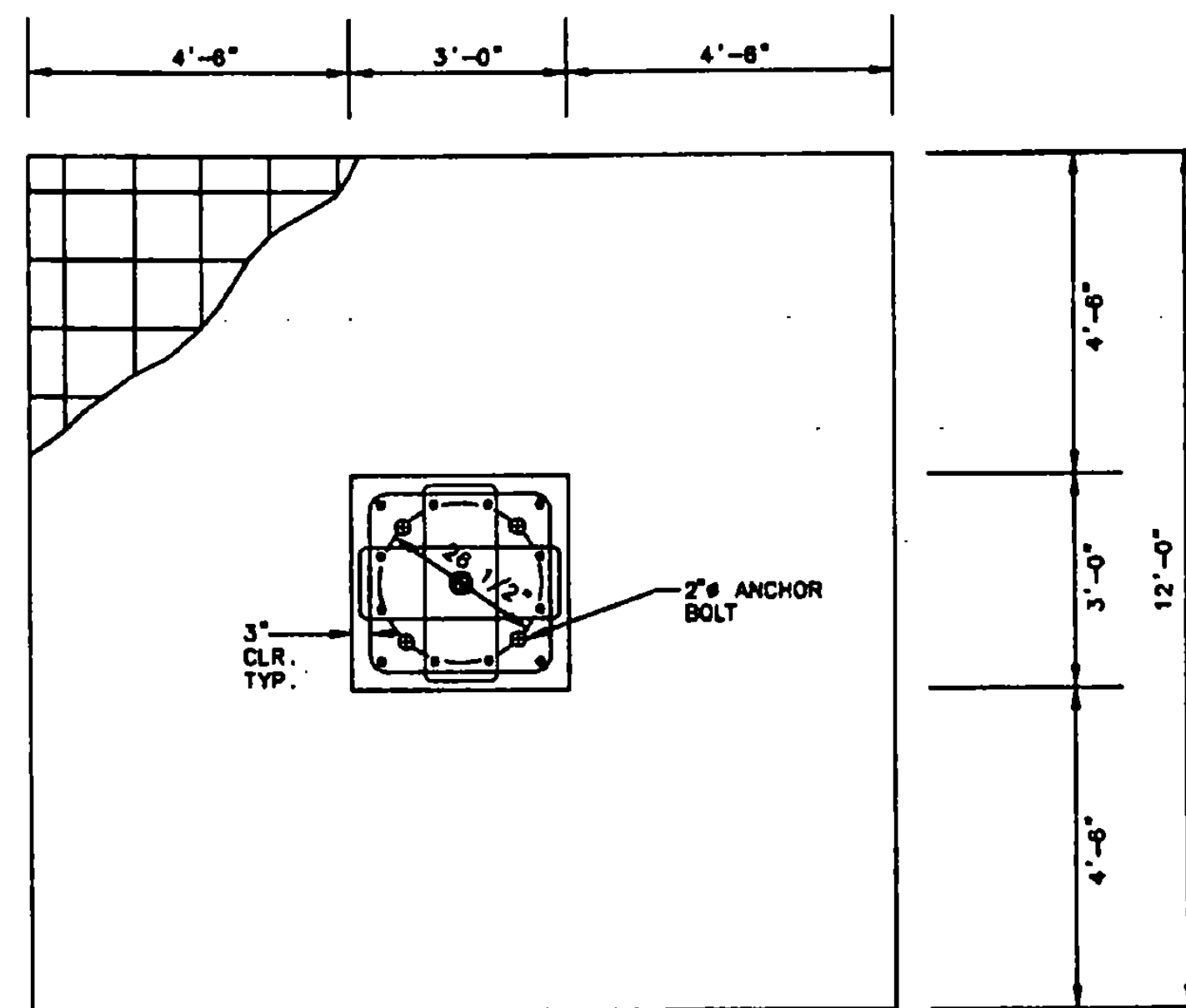
ANCHOR BOLTS
DETAIL 9

ODALS FOUNDATION DETAILS
UNIT #3
STATION 156+00

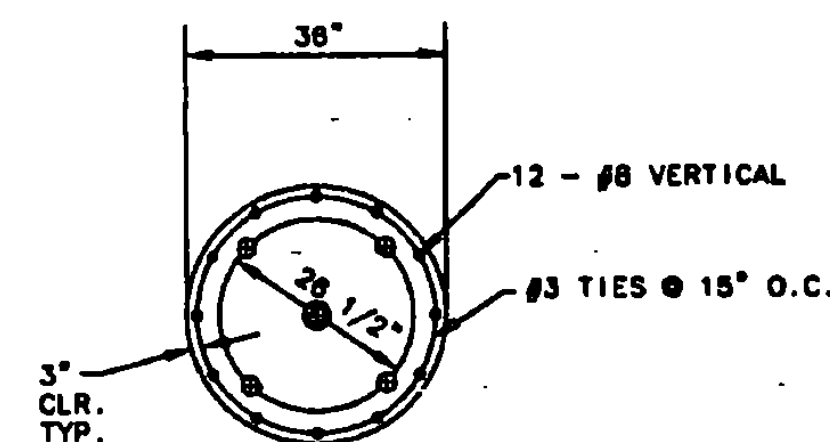
RUTLAND STATE AIRPORT CLARENDON, VERMONT		ODALS FOUNDATION DETAILS	
REV.	DATE	DESCRIPTION	FILE NO. 156-156-156-156

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: 2/97	Drawn by: 3/97	Checked by: 5/97	Approved by: 5/97
Scale: AS SHOWN			
Date: 5/97			
Sheet 36 Of 65			
Sheet No. 36			



PLAN



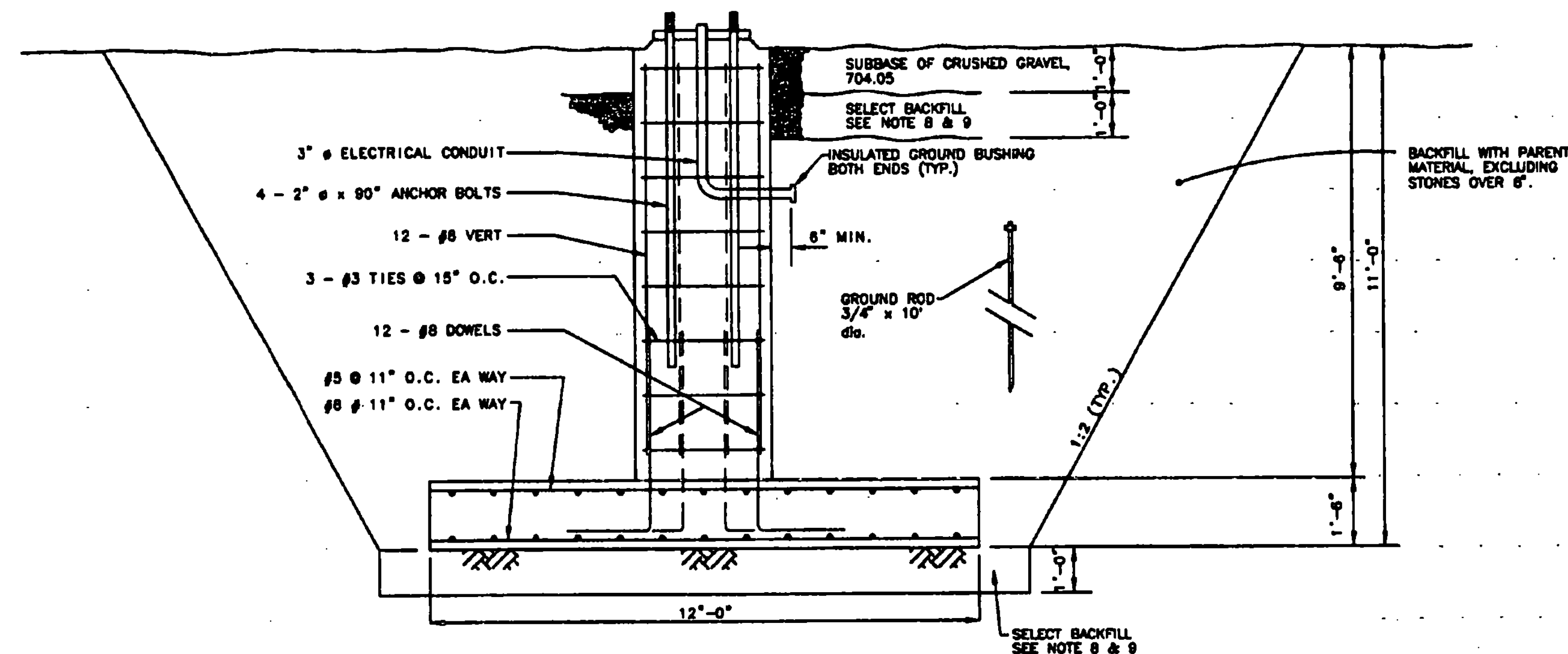
36" DIA. FOUNDATION PIER

NOTE:
A 36" DIAMETER PIER MAY BE USED, AT THE CONTRACTOR'S OPTION, IN LIEU OF THE SQUARE PIER.

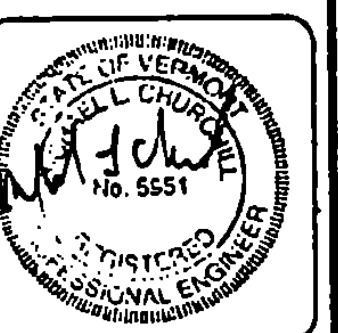
FOUNDATION NOTES

1. CONCRETE TO CONFORM TO VAOT SPECIFICATIONS SECTION 501 - STRUCTURE CONCRETE, CLASS A.
2. REINFORCING STEEL TO CONFORM TO VAOT SPECIFICATIONS SECTION 507 - REINFORCING STEEL. STEEL TO BE ASTM A615, GRADE 60, EXCEPT STIRRUPS AND TIES TO BE GRADE 40.
3. REINFORCEMENT SHALL BE TIED SECURELY IN PLACE BEFORE PLACING CONCRETE USING APPROVED CHAIRS AND SPACERS. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER. USE PLASTIC TIPPED ACCESSORIES IN CONCRETE EXPOSED TO WEATHER, WATER OR VIEW.
4. THE CONTRACTOR SHALL INSTALL ALL ANCHORS, BOLTS, PLATES, NAILERS, SLOTS, CHASES, PIPE SLEEVES, ETC., AS REQUIRED BY OTHER TRADES. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREEDS AND FORMS.
5. FOOTINGS SHALL REST ON SUITABLE UNDISTURBED SOIL OR COMPACTED GRANULAR FILL HAVING A MINIMUM BEARING CAPACITY OF 3000 PSF. THE ENGINEER SHALL BE NOTED PROMPTLY OF ANY WEAK STRATA, WATER CONDITIONS OR OTHER POOR BEARING CONDITIONS.
6. UNLESS OTHERWISE NOTED, ALL FOOTINGS AND PIERS SHALL BE CENTERED UNDER SUPPORT MEMBERS.
7. CONCRETE TEMPERATURES DURING THE FIRST SEVEN DAYS SHALL BE MAINTAINED BETWEEN 50 F AND 90 F. RAPID DRYING MUST BE PREVENTED. ALL SURFACES SHALL BE KEPT CONTINUOUSLY MOIST FOR A MINIMUM OF SEVEN DAYS.
8. BACKFILLING AGAINST PIERS SHALL BE DONE BY PLACING LEVEL LAYERS ALL AROUND THE PIER. PIERS MUST BE AT LEAST SEVEN DAYS OLD BEFORE BACKFILLING.
9. SELECT BACKFILL SHALL:
 - A. CONFORM TO VAOT 704.04.
 - B. BE PLACED IN MAXIMUM 8" LEVEL LIFTS AND COMPACTED TO 90 % MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557.
10. CONTRACTOR TO DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND BRACING NECESSARY TO COMPLETE THE CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT AND DEWATER THE SITE TO FACILITATE CONSTRUCTION AND SAFE WORKING CONDITIONS.
12. SHOP DRAWINGS PREPARED IN ACCORDANCE WITH ACI STANDARDS WILL BE REQUIRED FROM THE CONTRACTOR FOR REINFORCING STEEL PRIOR TO CONSTRUCTION.
13. DESIGN LOADS:

MOMENT = 228 K-FT.
VERTICAL SHEAR = 6256 LBS.
HORIZONTAL SHEAR = 4360 LBS.



SECTION



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

ODALS TOWER FOUNDATION DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: 2/97
Drawn by: 3/97
Checked by: 5/97
Approved by: 5/97

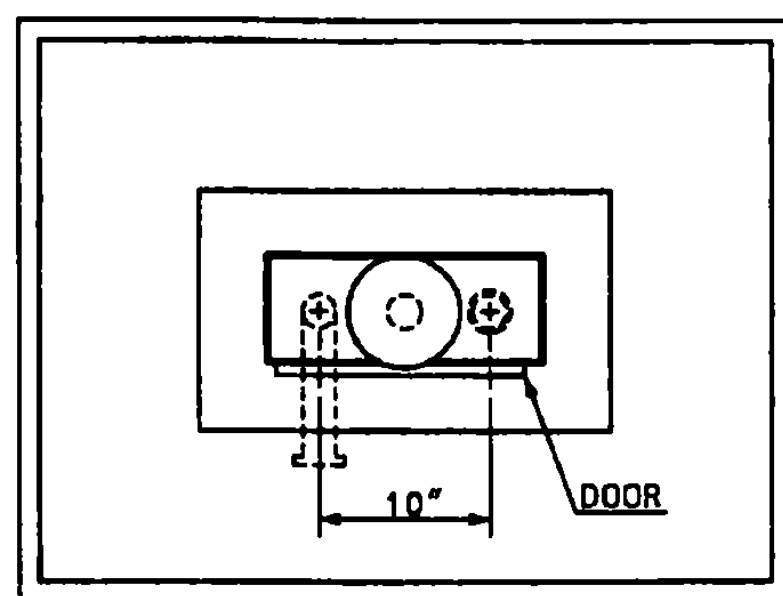
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Date: 5/5/97

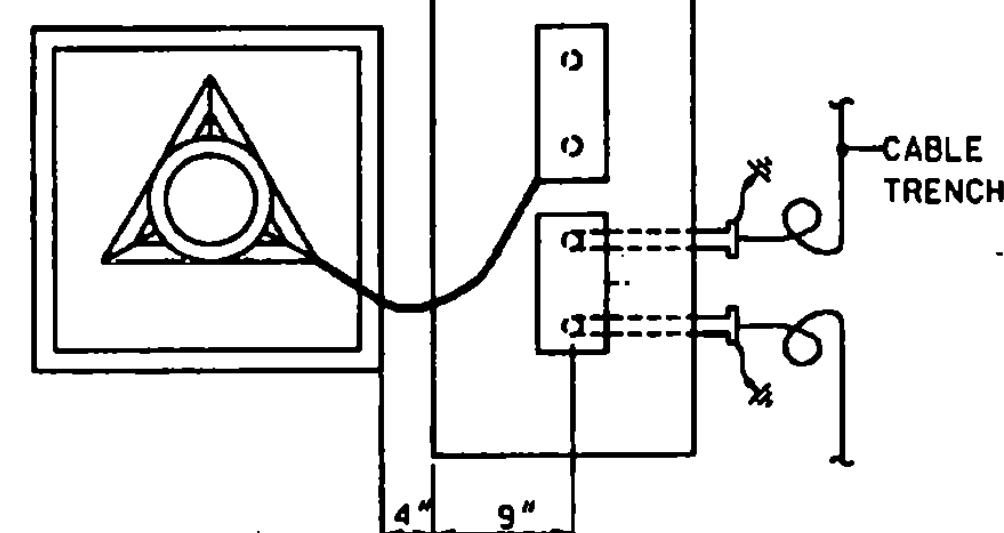
Sheet 37 Of 65

Sheet No

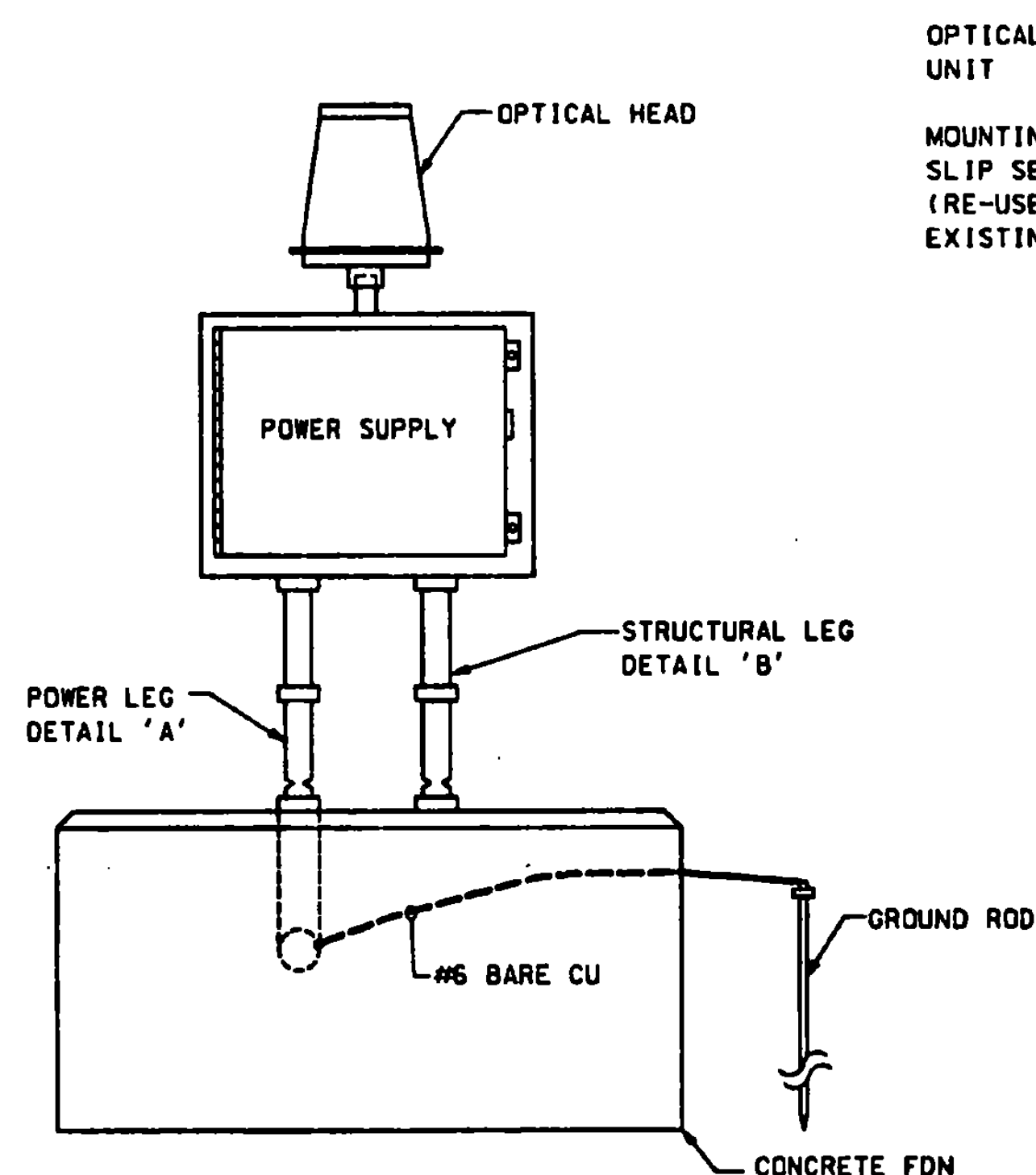
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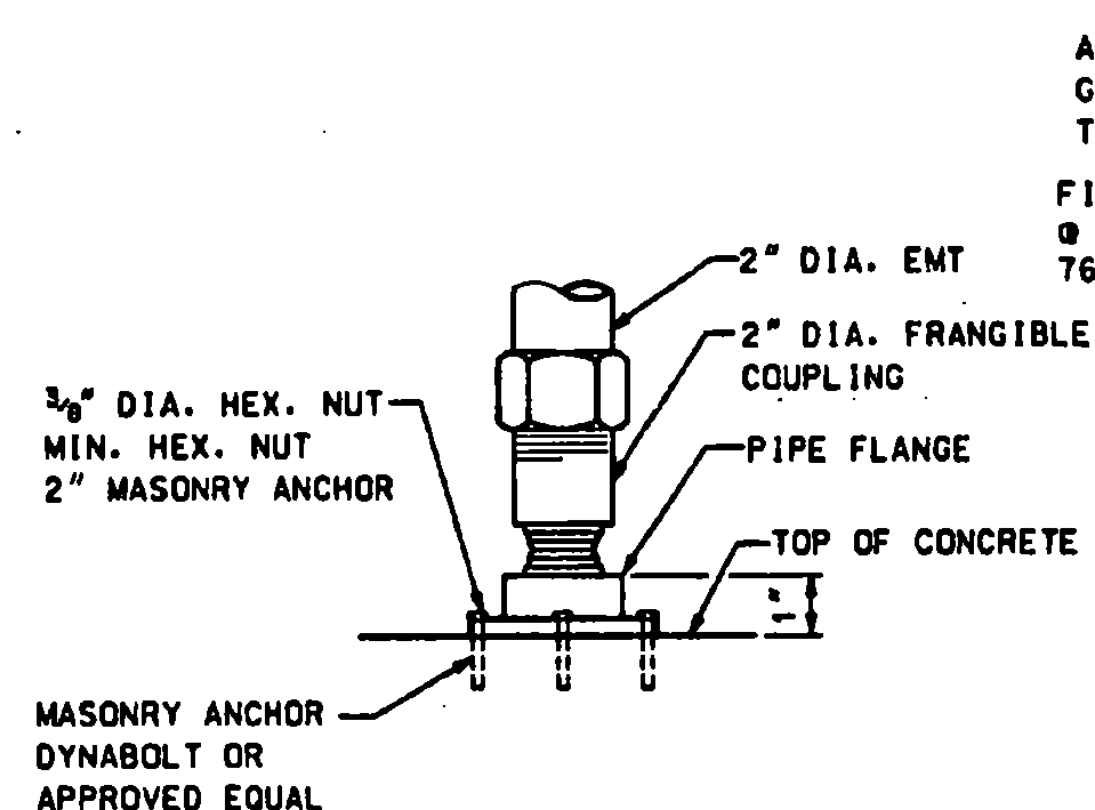
PLAN
N.T.S.



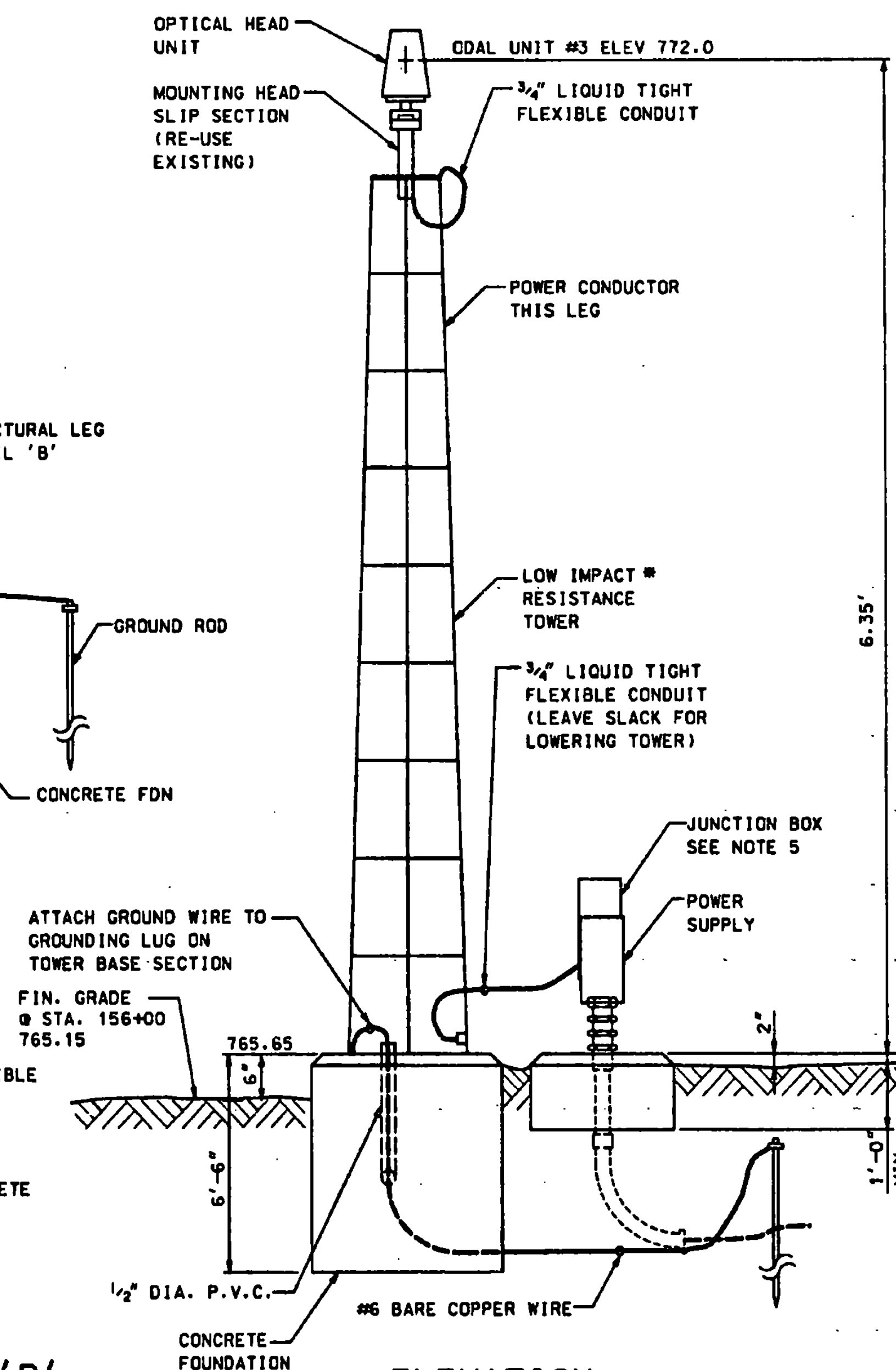
PLAN
N.T.S.



ELEVATION
ODALS UNIT 1R & 1L
N.T.S.

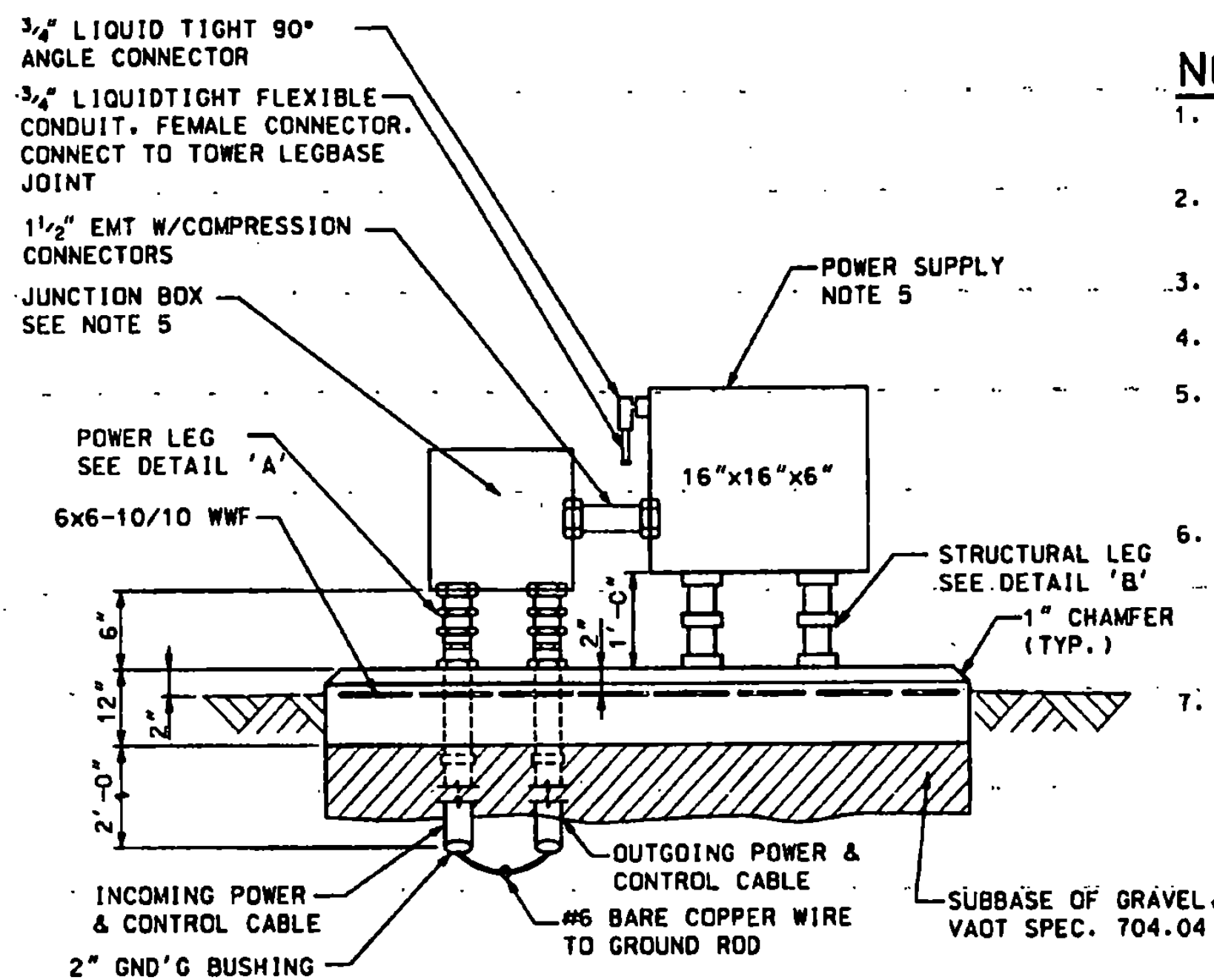


STRUCTURAL LEG-DETAIL 'B'
N.T.S.

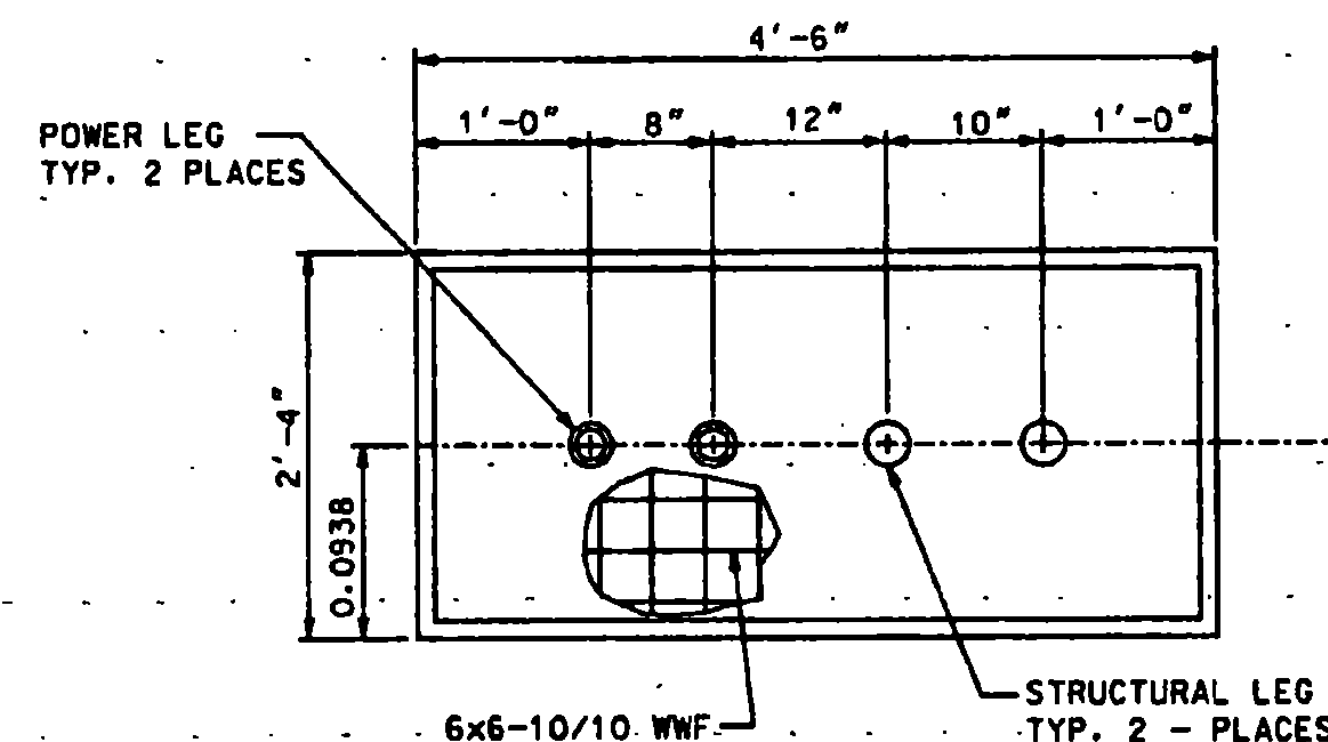


ELEVATION
N.T.S.

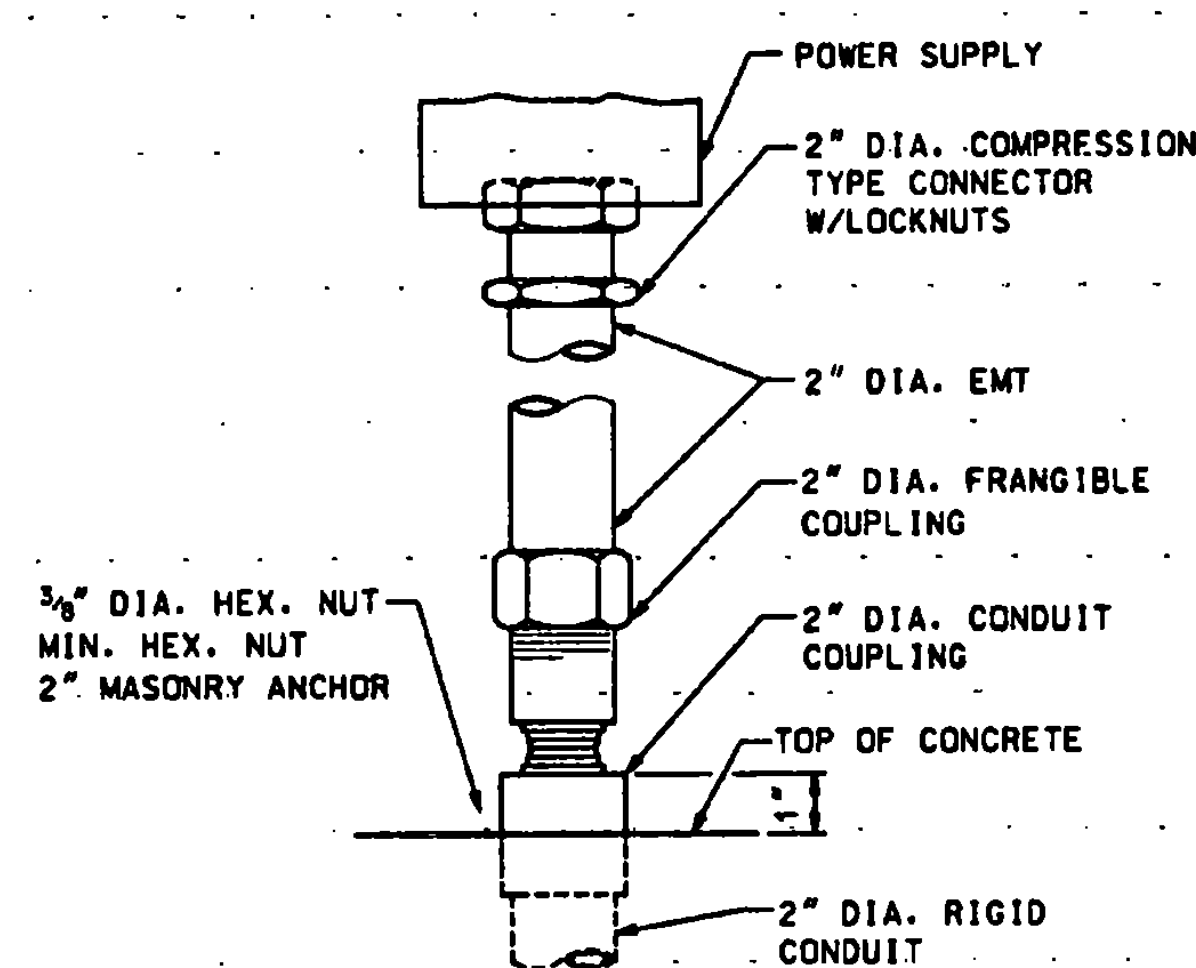
ODAL UNIT #3
* REUSE EXISTING TOWER-
ADJUST TO HEIGHT



ELEVATION
N.T.S.



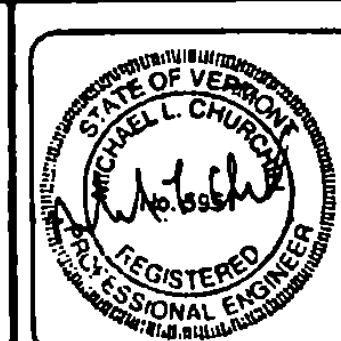
PLAN
EQUIPMENT PAD FOUNDATION DETAILS



STRUCTURAL LEG-DETAIL 'A'
N.T.S.

NOTES:

1. REFER TO FACILITY LAYOUT PLAN FOR LIGHT FIXTURE ELEVATIONS.
2. REFER TO SHEET 35' FOR TOP ELEVATION OF CONCRETE FOUNDATION.
3. REFER TO CABLE LAYOUT PLAN FOR ROUTING.
4. USE ANTI-SEIZE COMPOUND ON ALL PIPE THREADS.
5. RELOCATE ALL EXISTING EQUIPMENT. RE-USE TO THE EXISTENT POSSIBLE. CONTRACTOR TO SUPPLY NEW PCC FOUNDATIONS AND ALL CONDUIT, FITTINGS, CABLES, ETC.
6. CONTRACTOR TO INSPECT ALL EQUIPMENT PRIOR TO RELOCATING. EXISTING DAMAGE TO BE NOTED. CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING OR REPAIRING ALL DAMAGE CAUSED BY HIS FORCES DURING RELOCATION & RE-INSTALLATION.
7. CONTRACTOR TO VERIFY NEW ODAL UNIT ELEVATION AND TOWER HEIGHT PRIOR TO INSTALLATION.



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

ODALS - FLASHER MOUNTING
DETAILS

URS Greiner, Inc
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: J.M.
Drawn by: M. McALLA
Checked by: J.M.
Approved by: J.M.

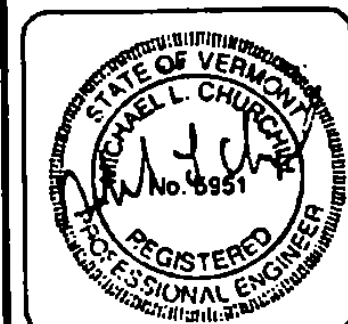
Scale: N.T.S.

Date: 5/2/97

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Sheet No

38



REV.	DATE	DESCRIPTION

File No. P-1142/0000
Job No. P-1142/00

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

ODALS UNIT #20
WIRING AND EQUIPMENT MOUNTING

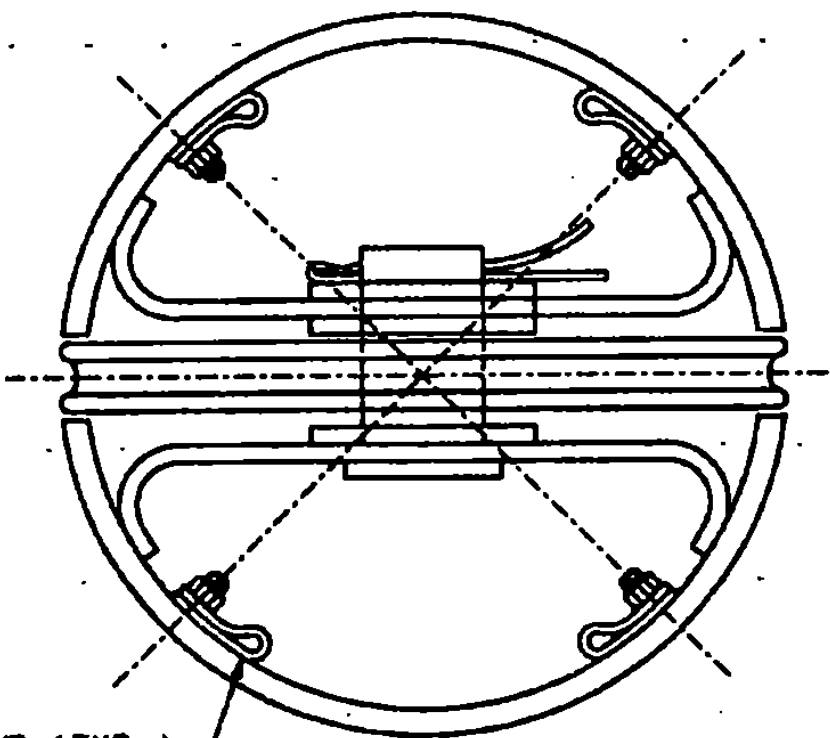
URS Greiner, Inc
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: JRG
Checked by: M. J. Greiner
Approved by: M. J. Greiner

Scale: N.T.S.
Date: 5/8/97
Sheet 39 of 65
Sheet No
39

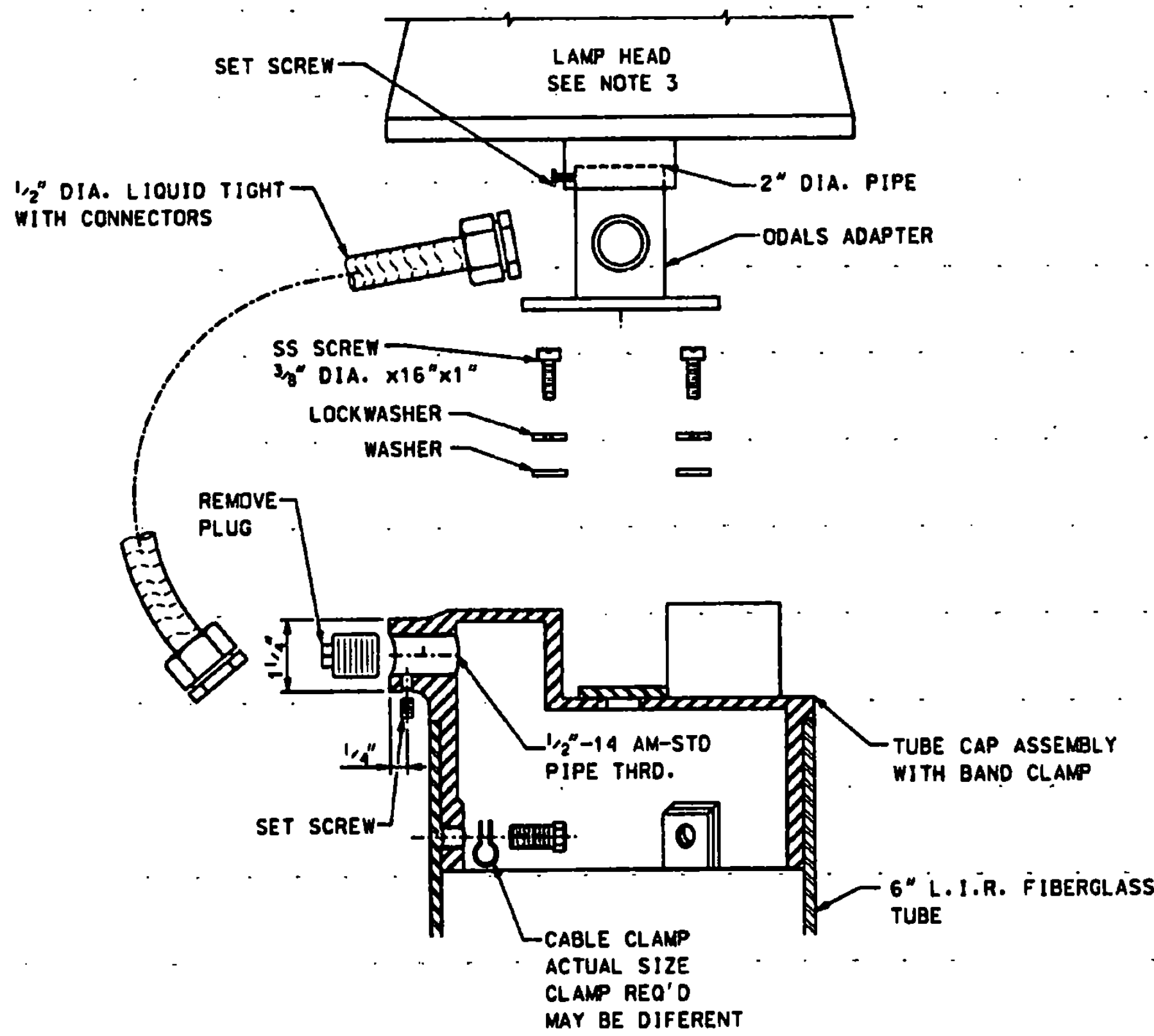
NOTES:

1. MAKE ALL TERMINATIONS IN HANDHOLE USING WIRE NUTS OR BURNDY CONNECTORS AND LEAVE 3' OF SLACK. TAG ALL CONTROL CABLES IN HANDHOLES OR JUNCTION BOXES. SHALL BE TAGGED AS TO ORIGIN OR DESTINATION AND COLOR CODED (POWER) OR NUMBERED (CONTROL).
2. TIE CABLE HARNESS EVERY 3' TO TOWER OR GUIDE CAGE FROM CONTROL BOX TO BOTTOM OF CAGE USING BLACK WEATHER RESISTANT CABLE TIES TYPE PLT. FROM BOTTOM OF GUIDE CAGE TO LIR TUBE LEAVE LOOSE. SEE DETAIL 'A' FOR CONNECTION AT LIR TUBE.
3. FOR LAMP HEAD LEVELING PROCEDURE SEE MANUFACTURE INSTRUCTION MANUAL (TI G350.47).
4. HIGH MAST TOWER FOR ODAL UNIT 20 ONLY.

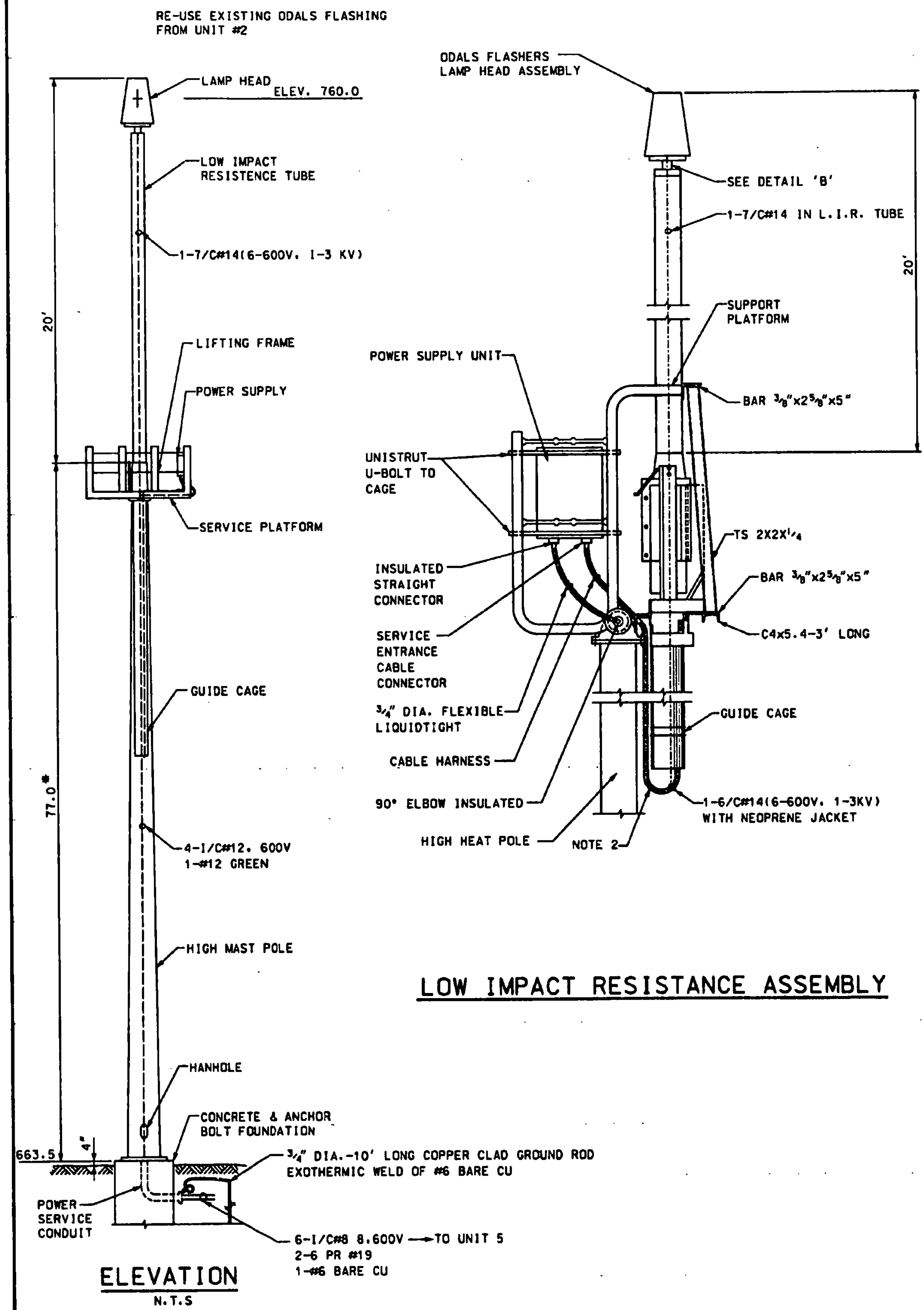


CABLE CLAMP (TYP.)
ACTUAL SIZE CLAMP REQ'D
MAY BE DIFFERENT

DETAIL 'A'
N.T.S.

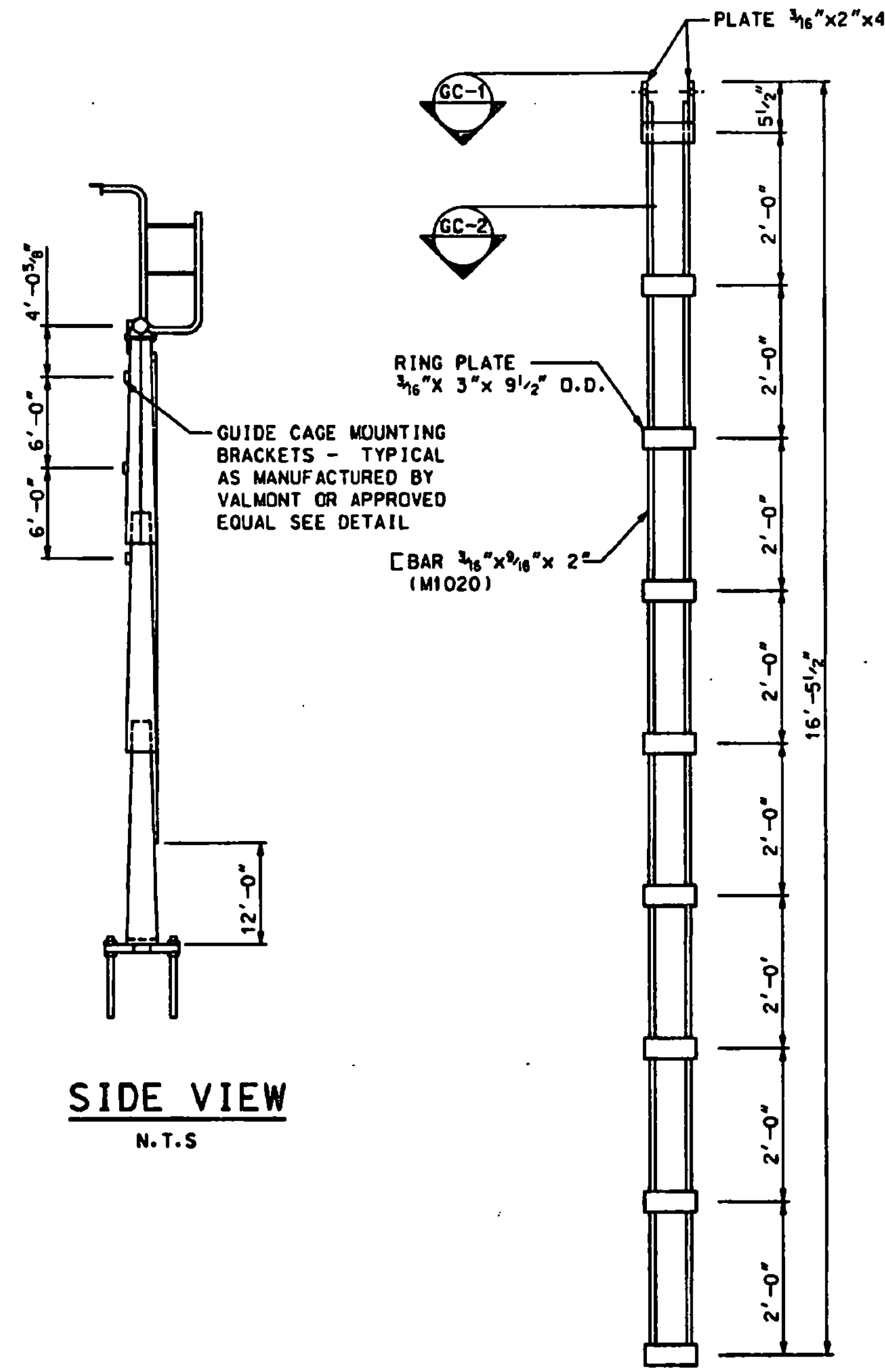


DETAIL 'B'
N.T.S.



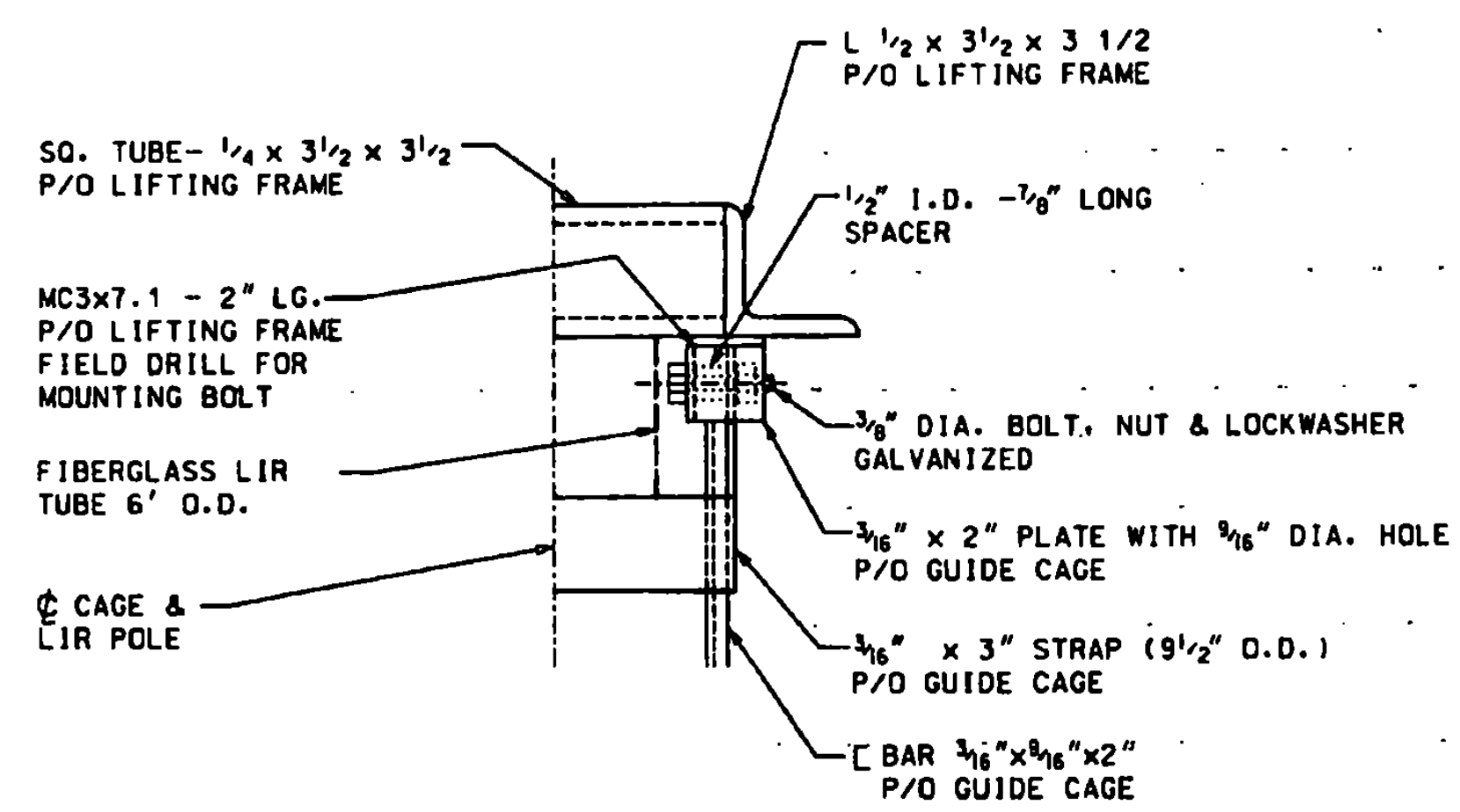
LOW IMPACT RESISTANCE ASSEMBLY

* CONTRACTOR TO VERIFY ELEVATIONS
SEE NOTES SHEET 30

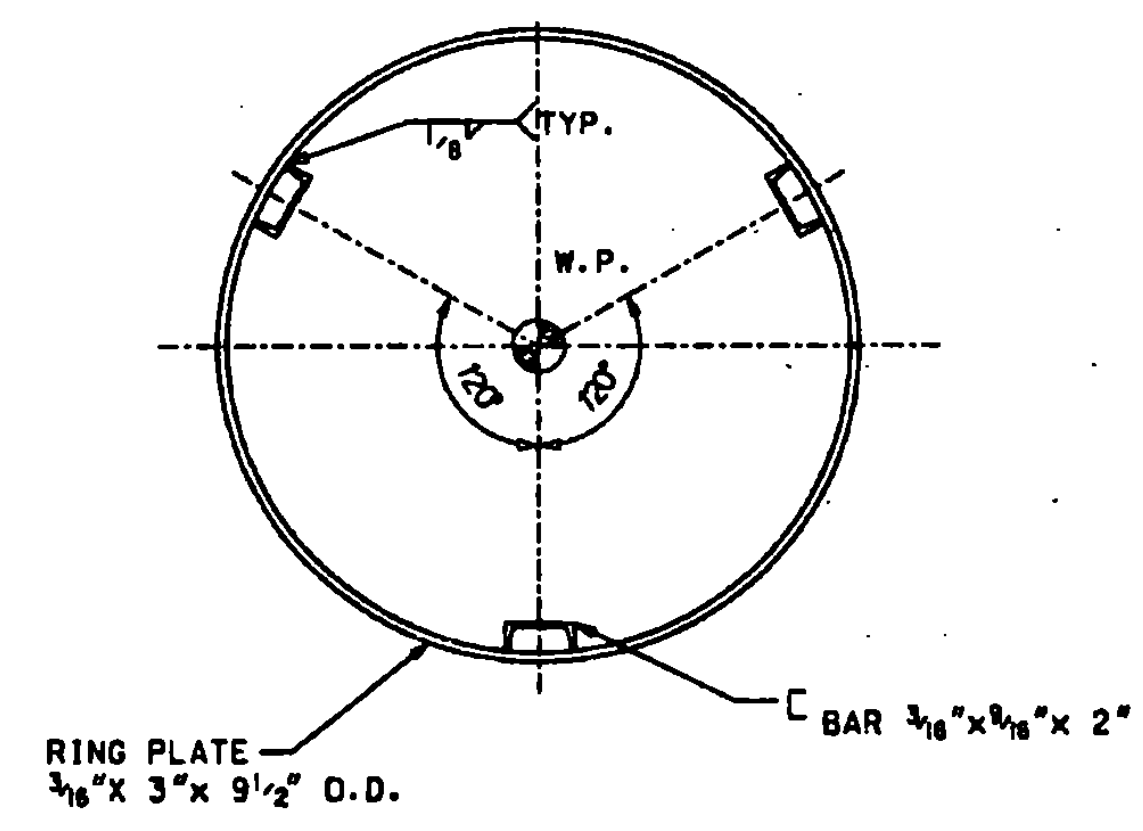


SIDE VIEW
N.T.S

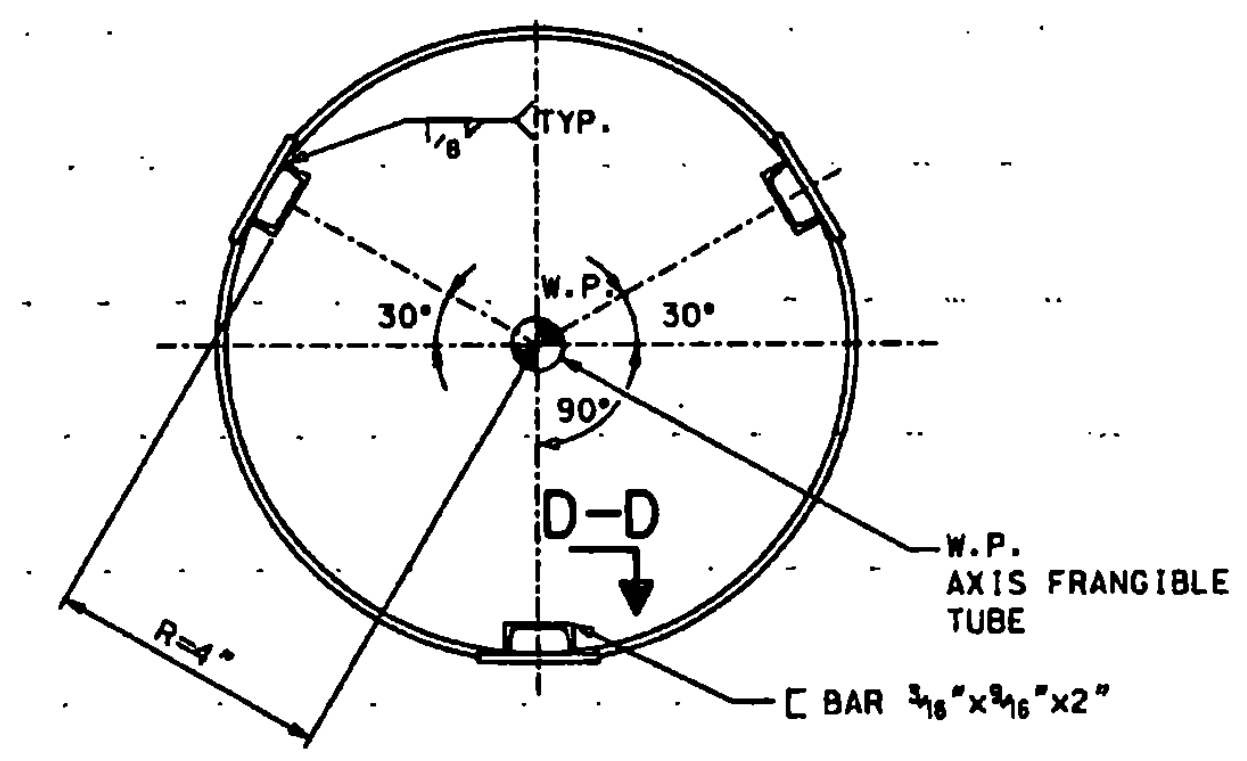
GUIDE CAGE
N.T.S



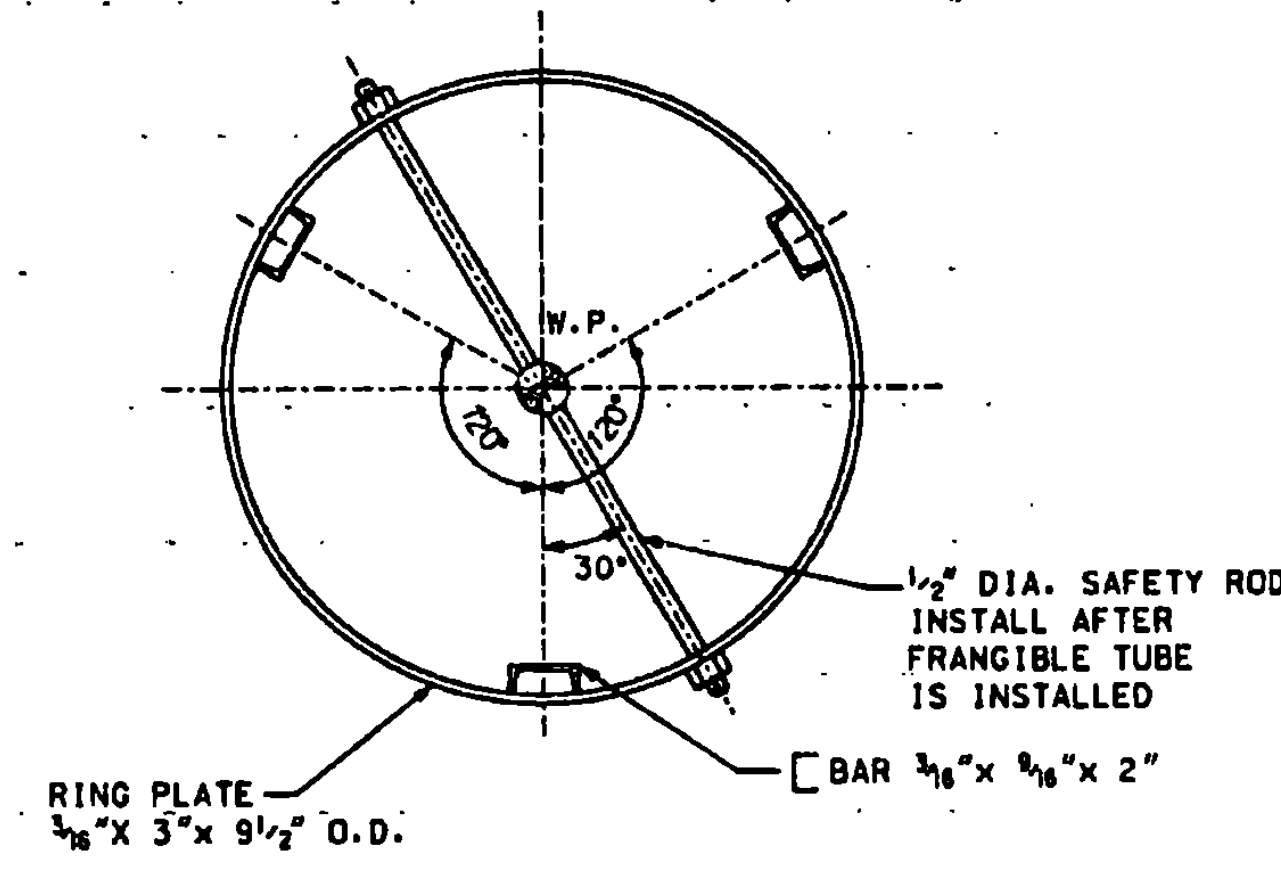
GUIDE CAGE MOUNTING DETAIL
SCALE: 3" = 1'-0"



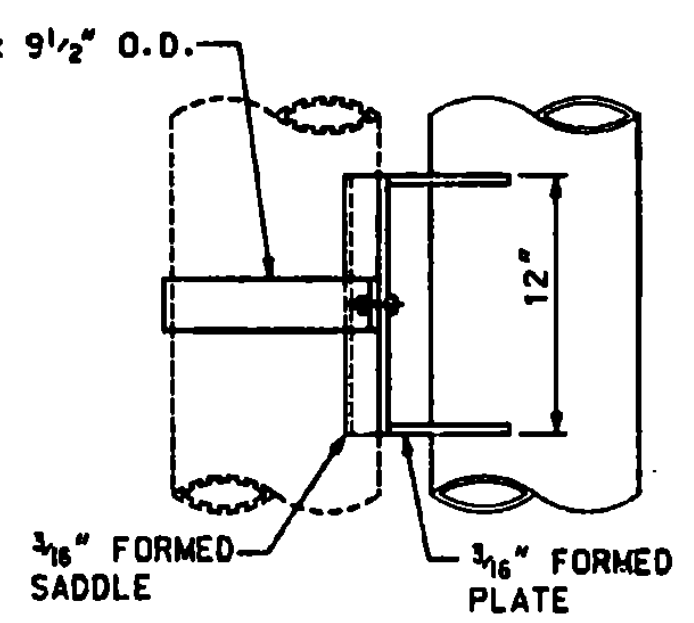
SECTION GC-2
N.T.S



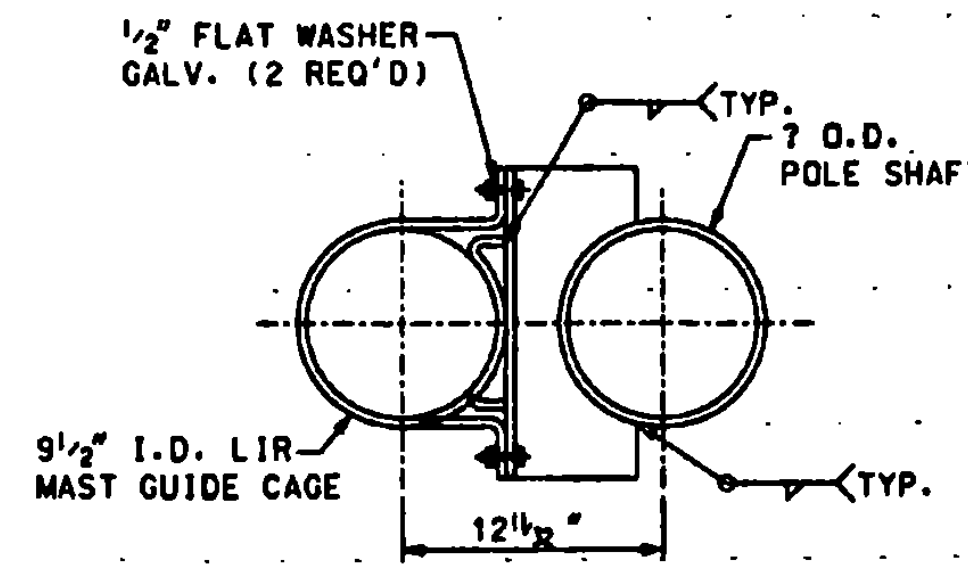
SECTION GC-1
N.T.S



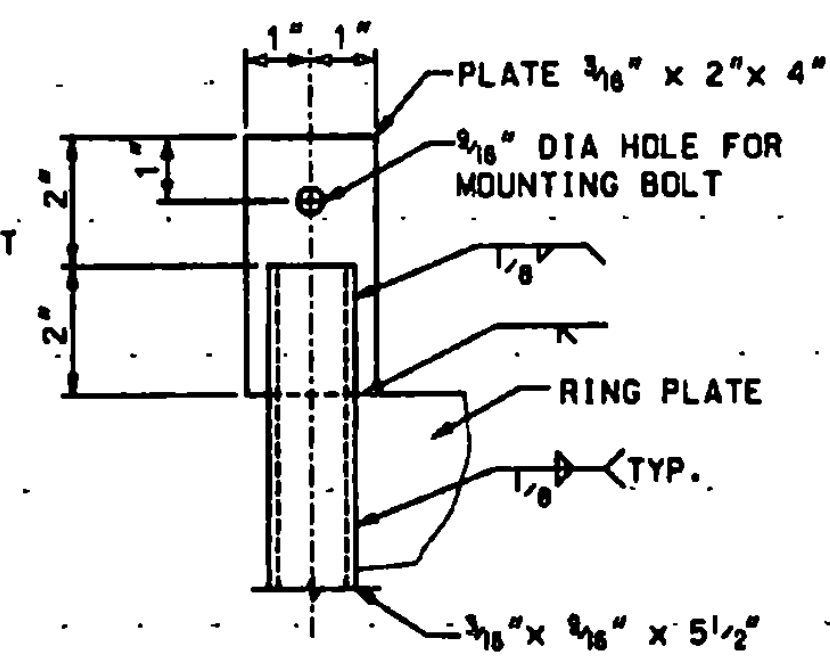
SECTION GC-1
N.T.S



SIDE VIEW

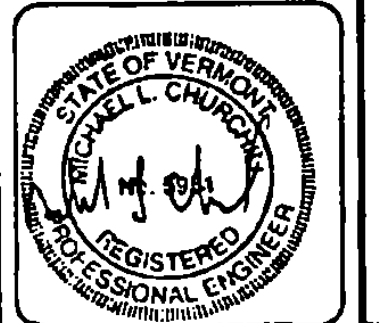


TOP VIEW



SECTION D-D
N.T.S

GUIDE CAGE MOUNTING BRACKET
N.T.S



REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

ODALS UNIT #6
L.I.R. GUIDE CAGE DETAILS

URS Greiner, Inc
3 MARCUS BOULEVARD
ALBANY, NEW YORK

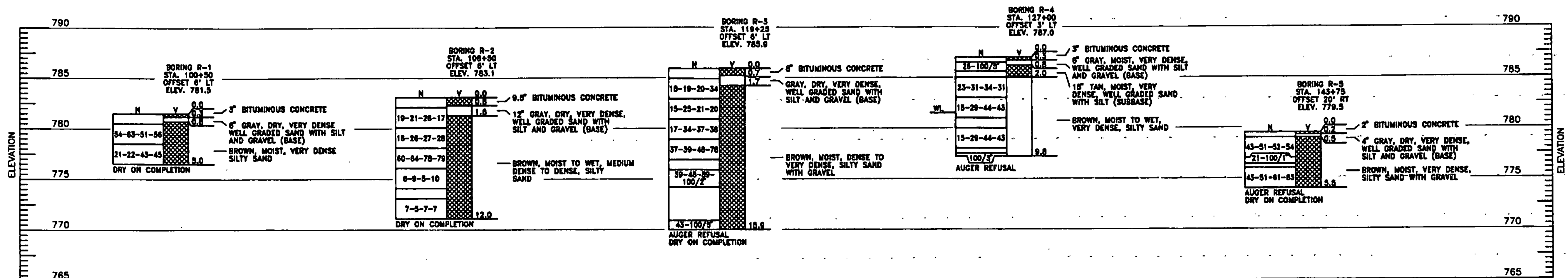
Designed By: C.P. MICO 2/97	Drawn By: M. MICHA 3/97	Checked By: C.P. MICO 5/97	Approved By: M. CHURCHILL 5/97
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Scale: AS NOTED

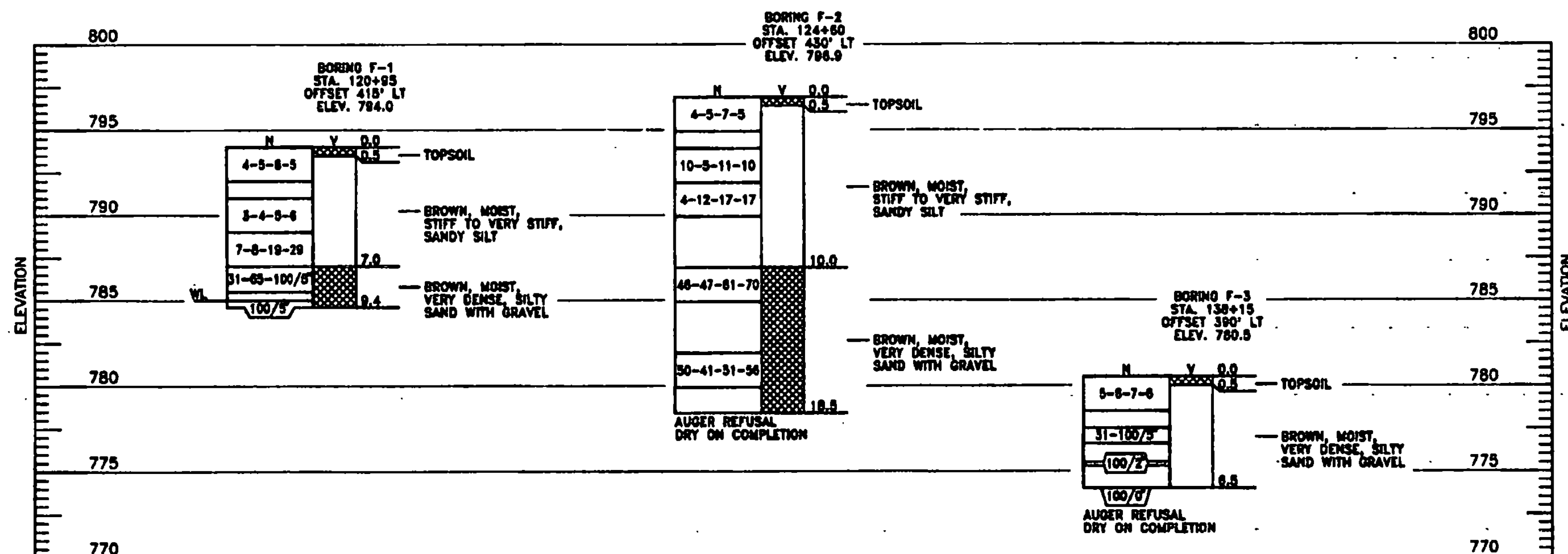
Date: 5/5/97

Sheet 40 Of 63

Sheet No
40



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN

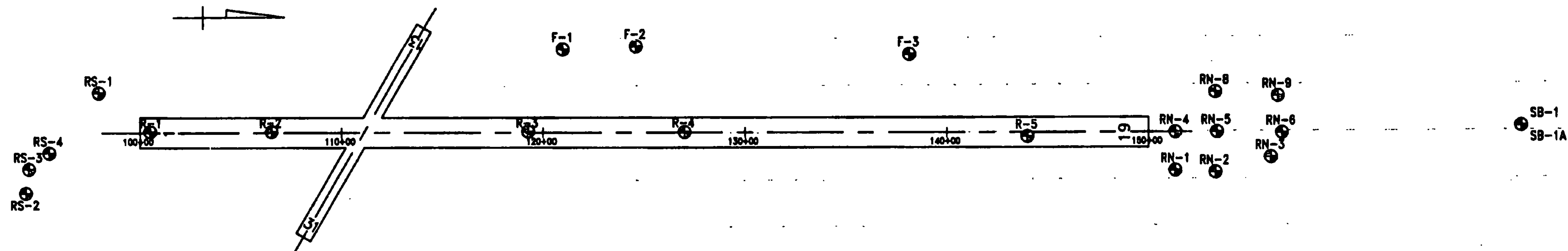
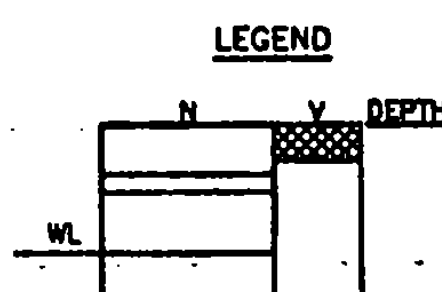
NOTE:

- BORINGS AND DRIVE TESTS WERE TAKEN IN NOVEMBER 1995, AND JAN 97 BY GREEN MOUNTAIN BORING.
- N-BLOWS PER 8 INCH INCREMENT OF PENETRATION OF SAMPLING SPOON OR PENETRATION IN INCHES FOR THE INDICATED BLOWS OF A 140 LB. HAMMER FALLING 30". WHERE ROCK IS ENCOUNTERED, PERCENT CORE RECOVERY IS SHOWN. R.Q.D. IS SHOWN IN PARENTHESES.

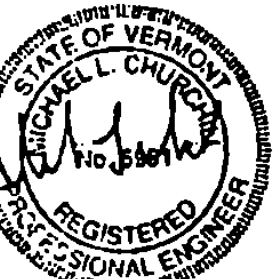
THE ROCK QUALITY DESIGNATION (R.Q.D.) IS BASED ON A MODIFIED CORE RECOVERY PROCEDURE WHICH, IN TURN, IS BASED INDIRECTLY ON THE NUMBER OF FRACTURES (EXCEPT THOSE DUE DIRECTLY TO DRILLING OPERATIONS) AND THE AMOUNT OF SOFTENING OR ALTERATION IN THE ROCK MASS AS OBSERVED IN THE ROCK CORES FROM A DRILL HOLE. INSTEAD OF COUNTING THE FRACTURES, AN INDIRECT MEASURE IS OBTAINED BY SUMMING THE TOTAL LENGTH OF CORE RECOVERED BY COUNTING ONLY THOSE PIECES OF HARD AND SOUND CORE WHICH ARE 4 INCHES OR GREATER IN LENGTH. THE RATIO OF THIS MODIFIED CORE RECOVERY LENGTH TO THE TOTAL CORE RUN LENGTH IS KNOWN AS THE R.Q.D.

V-ALTERNATE SHADING INDICATES EXTENT OF SOIL OR ROCK LAYERS.

WL-WATER LEVEL READING AT COMPLETION OF BORING.



BORINGS AND DRIVE TESTS LOCATION PLAN
SCALE: 1" = 300'



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

DESIGNED BY: [Signature]

DRAWN BY: [Signature]

CHECKED BY: [Signature]

APPROVED BY: [Signature]

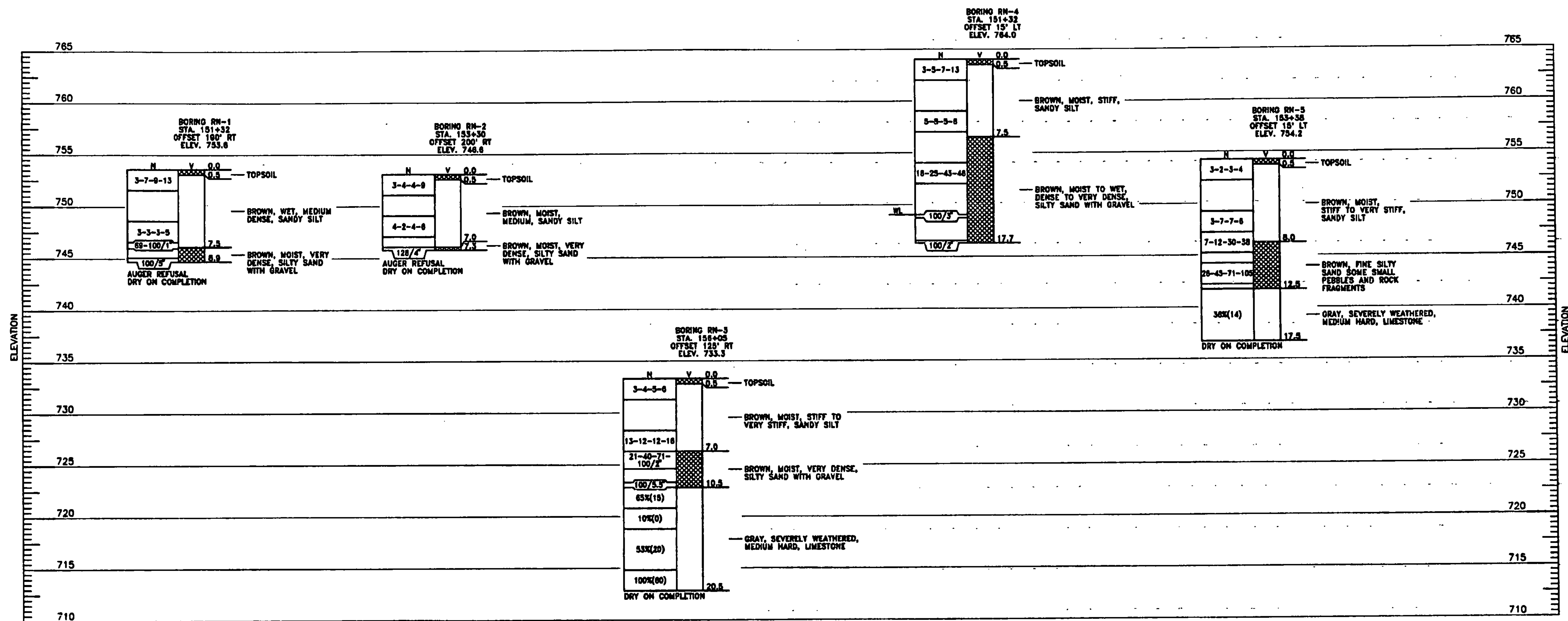
DATE: 5/9/97

SHEET 42 OF 55

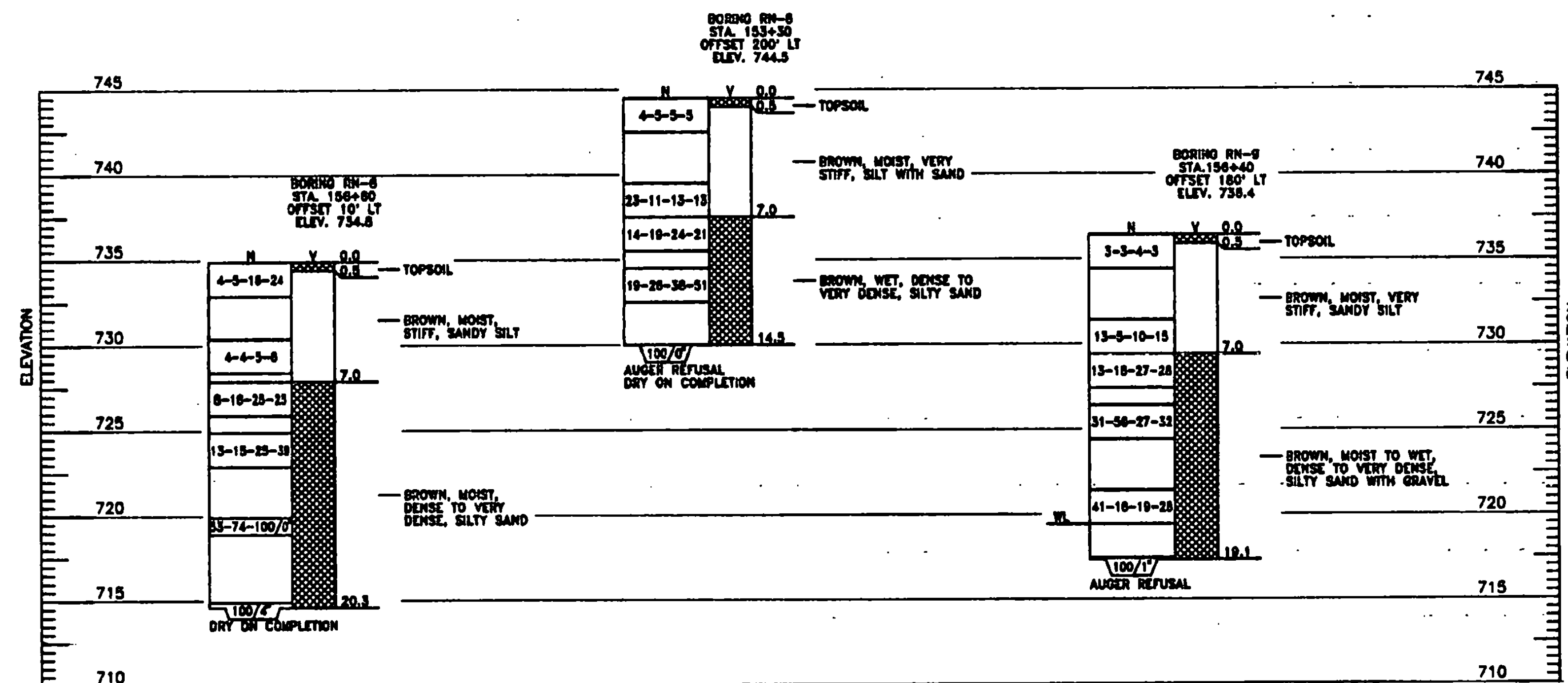
SHEET NO. 42

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

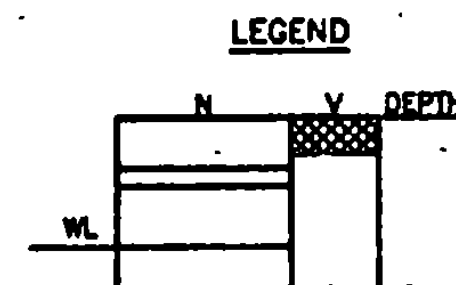
BORING LOGS



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN

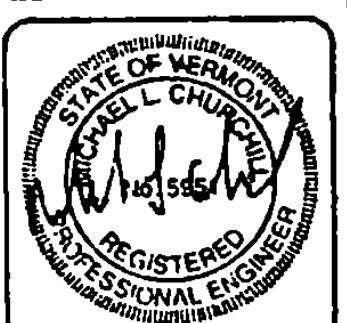


NOTE:

- BORINGS AND DRIVE TESTS WERE TAKEN IN NOVEMBER 1995, BY GREEN MOUNTAIN BORING.
- N-BLOWS PER 8 INCH INCREMENT OF PENETRATION OF SAMPLING SPOON OR PENETRATION IN INCHES FOR THE INDICATED BLOWS OF A 140 LB. HAMMER FALLING 30". WHERE ROCK IS ENCOUNTERED, PERCENT CORE RECOVERY IS SHOWN, R.Q.D. IS SHOWN IN PARENTHESES.

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V-ALTERNATE SHADING INDICATES EXTENT OF SOIL OR ROCK LAYERS.
WL-WATER LEVEL READING AT COMPLETION OF BORING.



REV.	DATE	DESCRIPTION

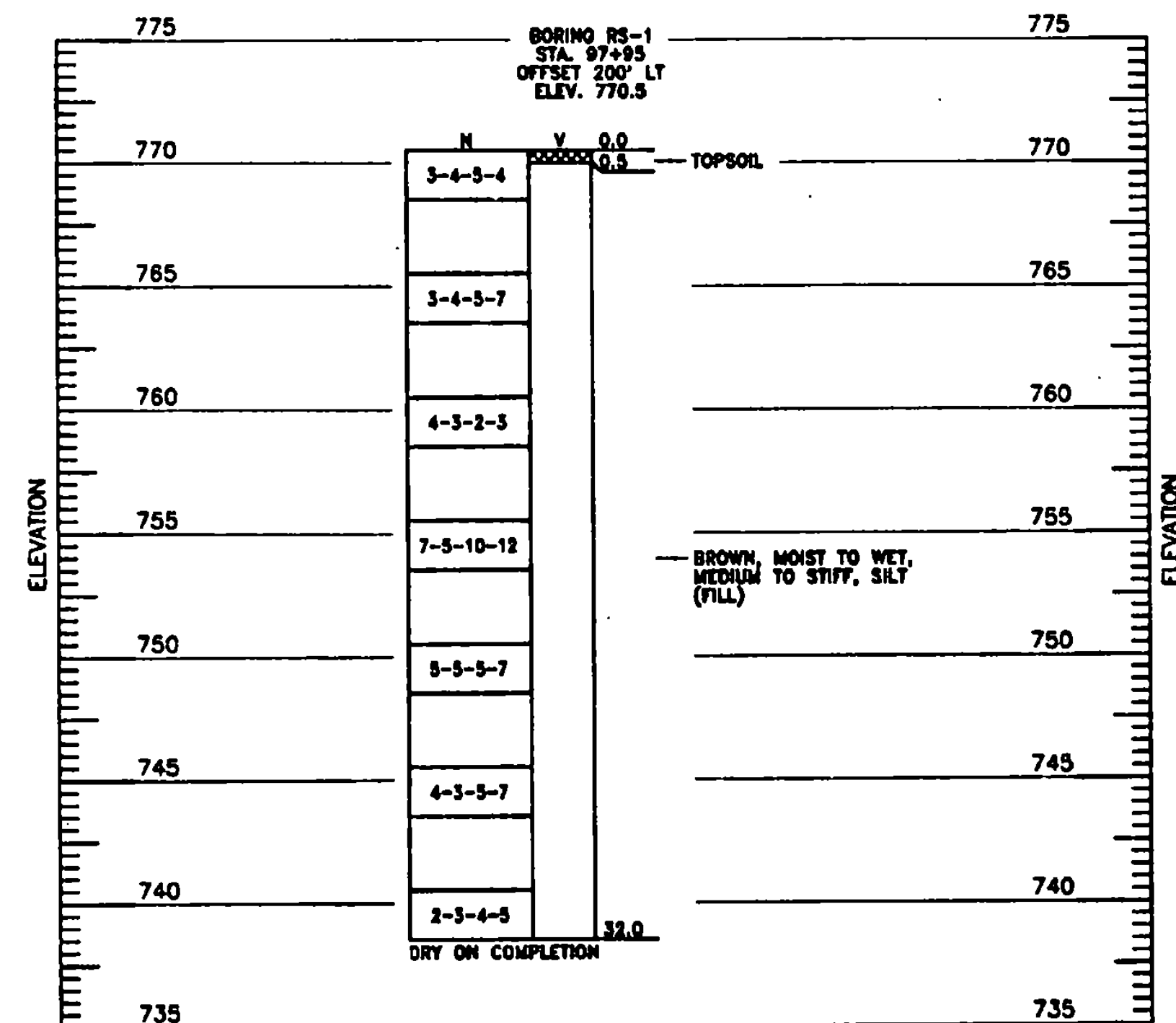
Job No. 11-V-001148-00
File No. 11-V-001148-00

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

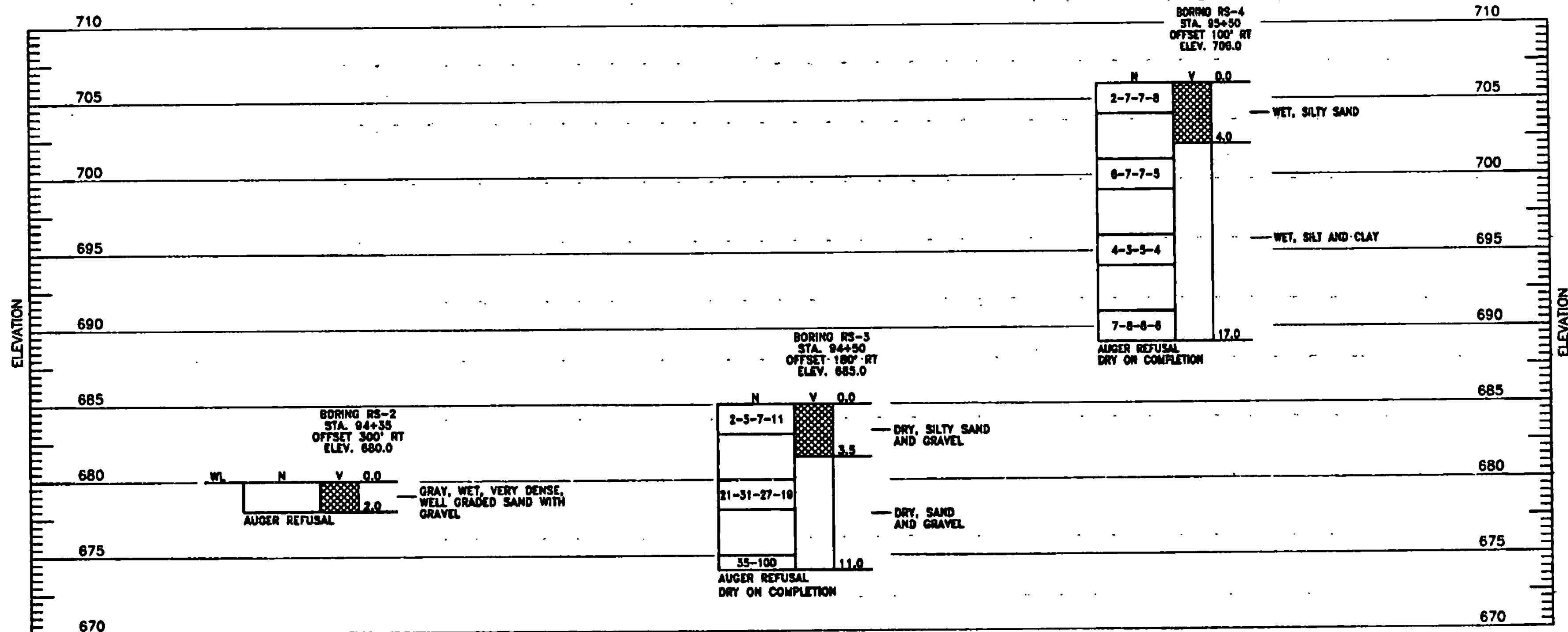
BORING LOGS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

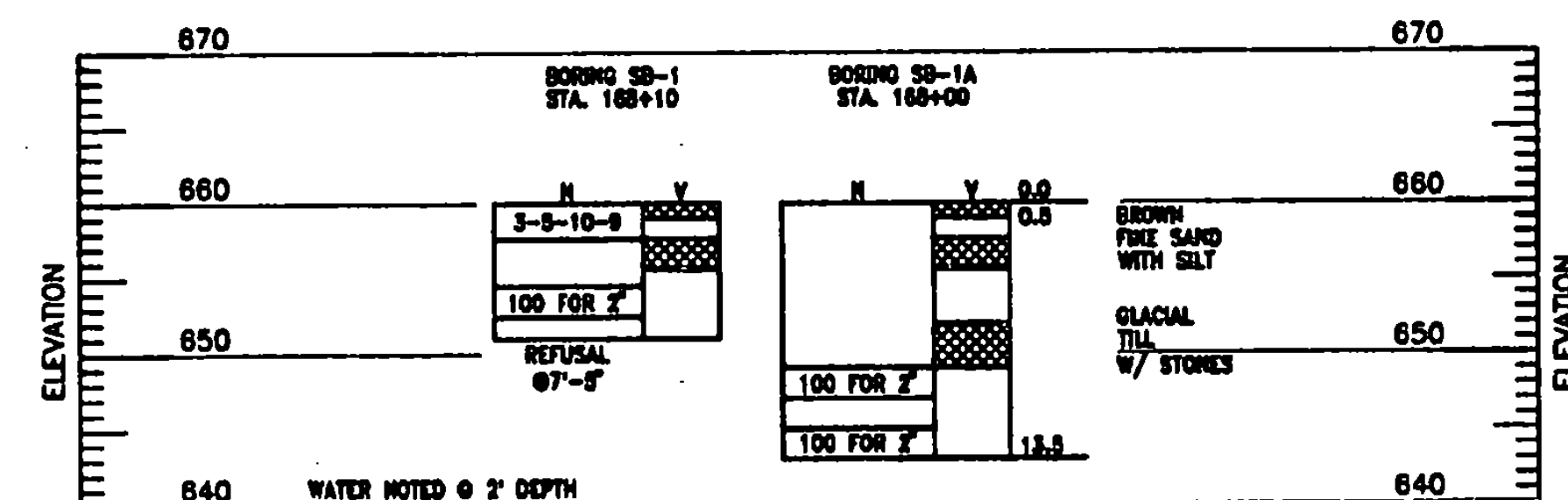
Designed by: *WLC*
Checked by: *WLC*
Drawn by: *WLC*
Scale: HOR. - AS SHOWN
VERT. - NONE
Date: 8/5/97
Sheet 43 OF 80
Sheet No. **43**



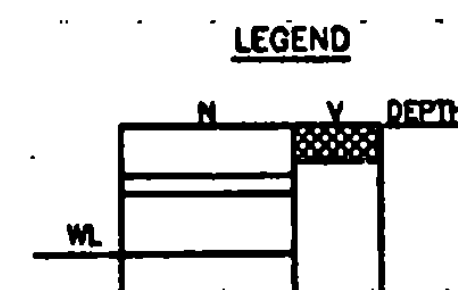
BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN

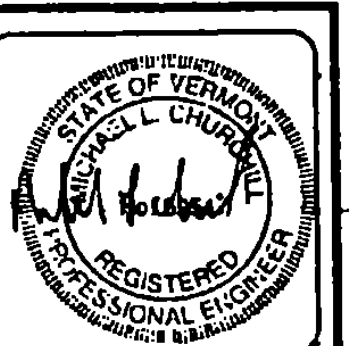


NOTE:
1.) BORINGS AND DRIVE TESTS WERE TAKEN IN NOVEMBER 1995, BY GREEN MOUNTAIN BORING.

2.) N-BLOWS PER 6 INCH INCREMENT OF PENETRATION OF SAMPLING SPOON OR PENETRATION IN INCHES FOR THE INDICATED BLOWS OF A 140 LB. HAMMER FALLING 30". WHERE ROCK IS ENCOUNTERED, PERCENT CORE RECOVERY IS SHOWN. R.Q.D. IS SHOWN IN PARENTHESES.

THE ROCK QUALITY DESIGNATION (R.Q.D.) IS BASED ON A MODIFIED CORE RECOVERY PROCEDURE WHICH, IN TURN, IS BASED INDIRECTLY ON THE NUMBER OF FRACTURES (EXCEPT THOSE DUE DIRECTLY TO DRILLING OPERATIONS) AND THE AMOUNT OF SOFTENING OR ALTERATION IN THE ROCK MASS AS OBSERVED IN THE ROCK CORES FROM A DRILL HOLE. INSTEAD OF COUNTING THE FRACTURES, AN INDIRECT MEASURE IS OBTAINED BY SUMMING THE TOTAL LENGTH OF CORE RECOVERED BY COUNTING ONLY THOSE PIECES OF HARD AND SOUND CORE WHICH ARE 4 INCHES OR GREATER IN LENGTH. THE RATIO OF THIS MODIFIED CORE RECOVERY LENGTH TO THE TOTAL CORE RUN LENGTH IS KNOWN AS THE R.Q.D.

V-ALTERNATE SHADING INDICATES EXTENT OF SOIL OR ROCK LAYERS.
WL-WATER LEVEL READING AT COMPLETION OF BORING.



REV.	DATE	DESCRIPTION	FILE NO.
1	12/15/97	ADDED	11/14/1998-08

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

BORING LOGS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

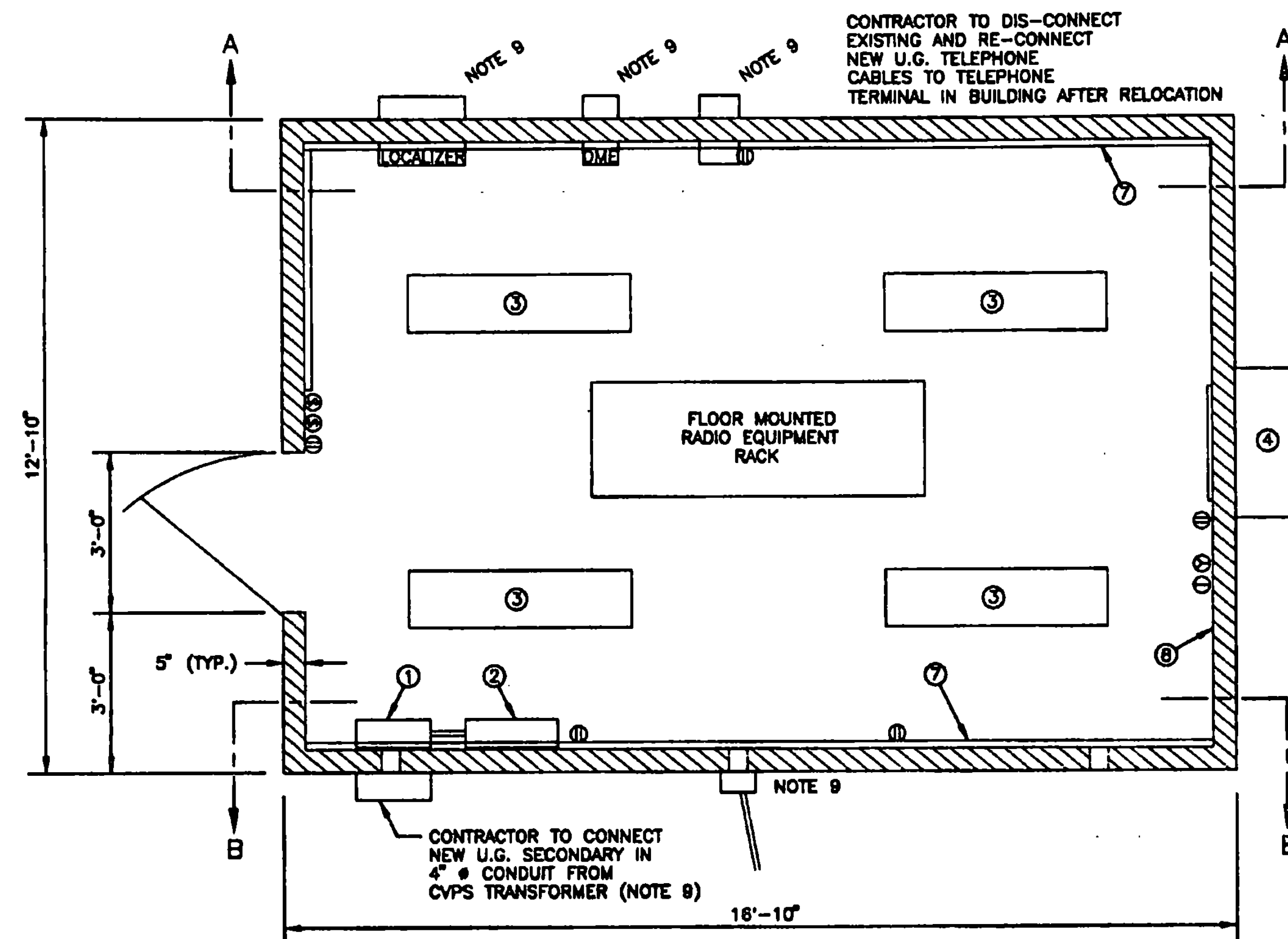
Designed by: C. Franco	Date: 6/15/97	Drawn by: M. McCALLA	Date: 6/15/97	Checked by: C. Franco	Date: 6/15/97	Approved by: M. McCALLA	Date: 6/15/97
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Scale: HOR. - AS SHOWN
VERT. - NONE

Date: 6/15/97

Sheet 44 Of 83

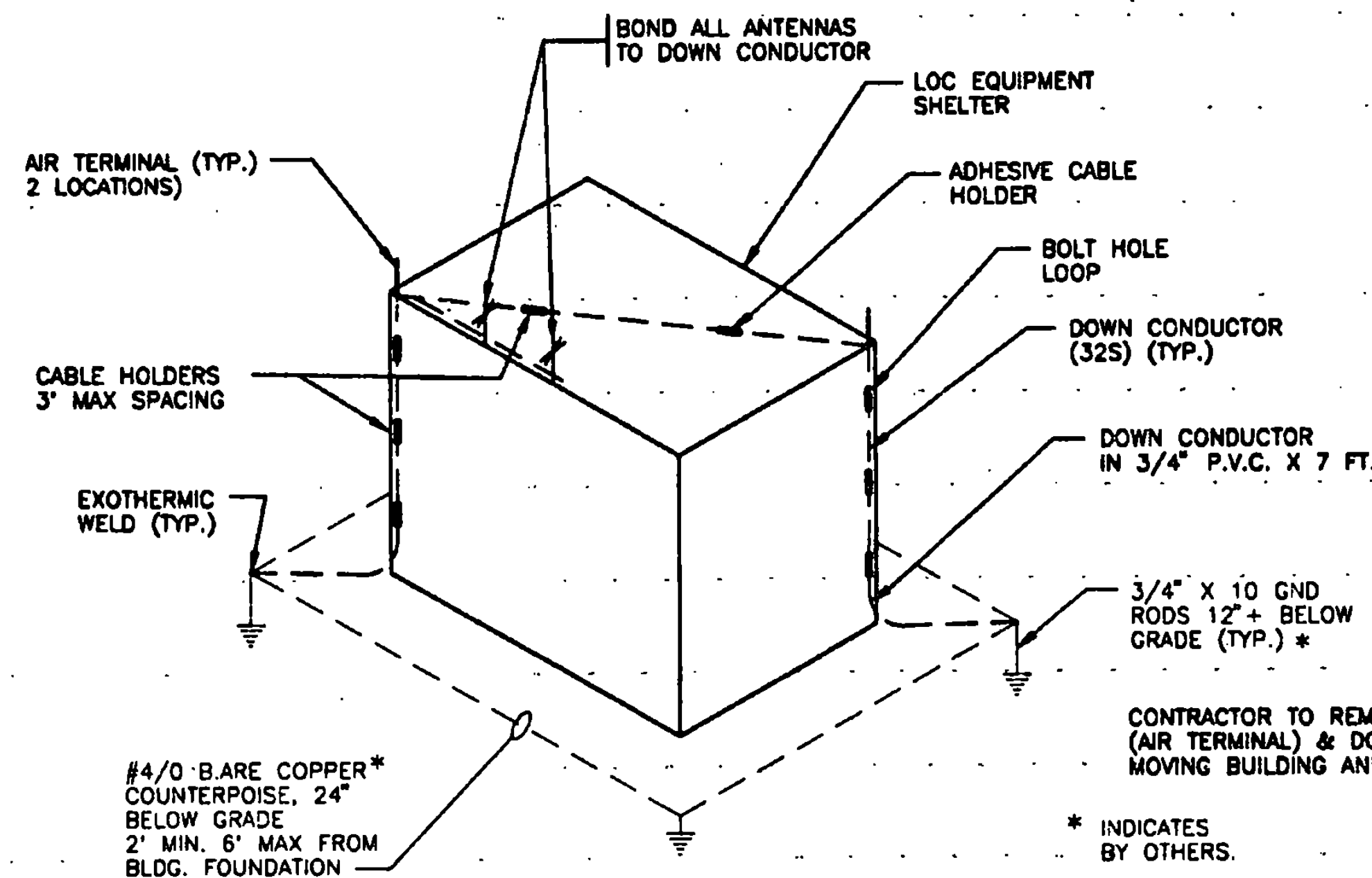
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44



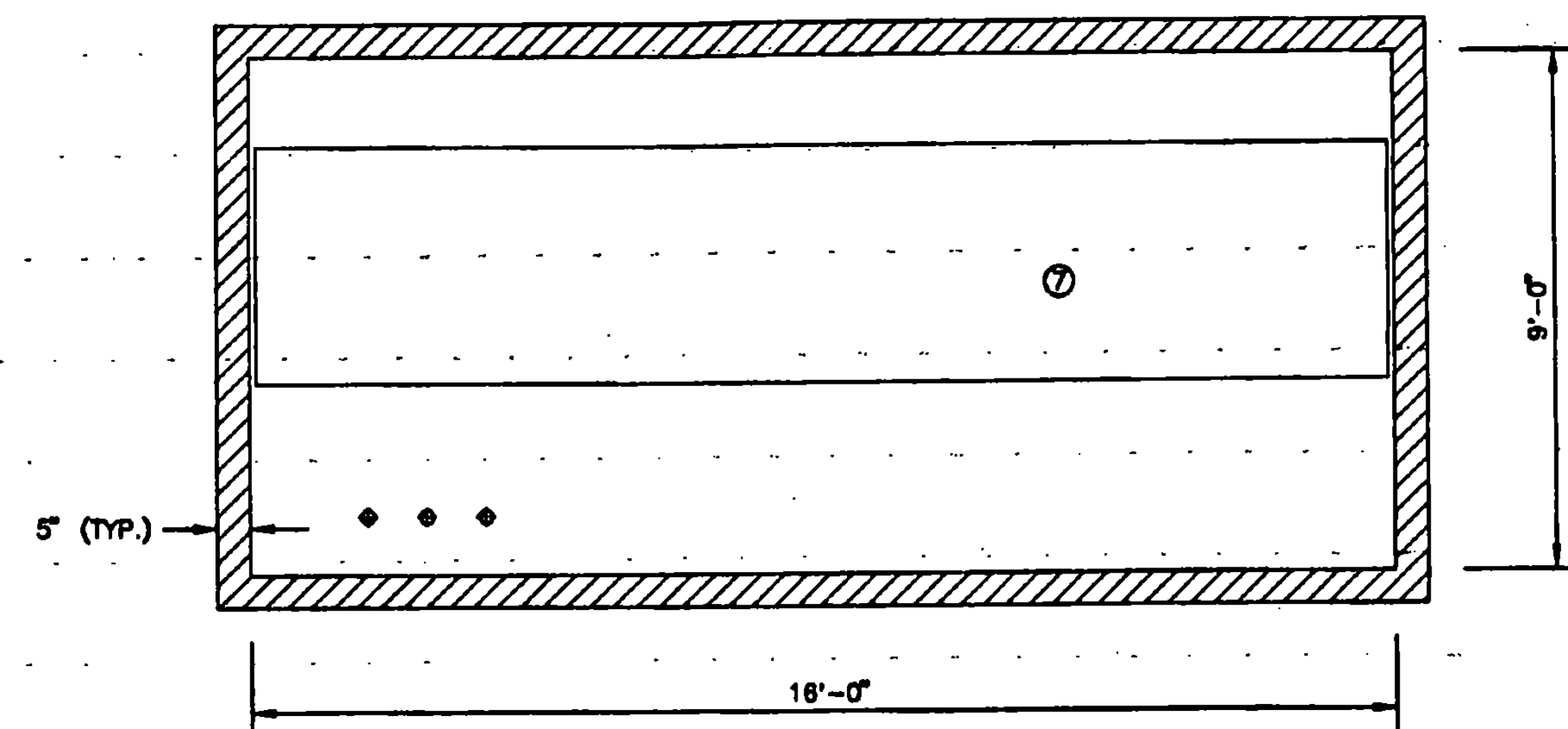
EXISTING LOCALIZER BLDG. EQUIPMENT LAYOUT
SCALE: NONE

NOTES:

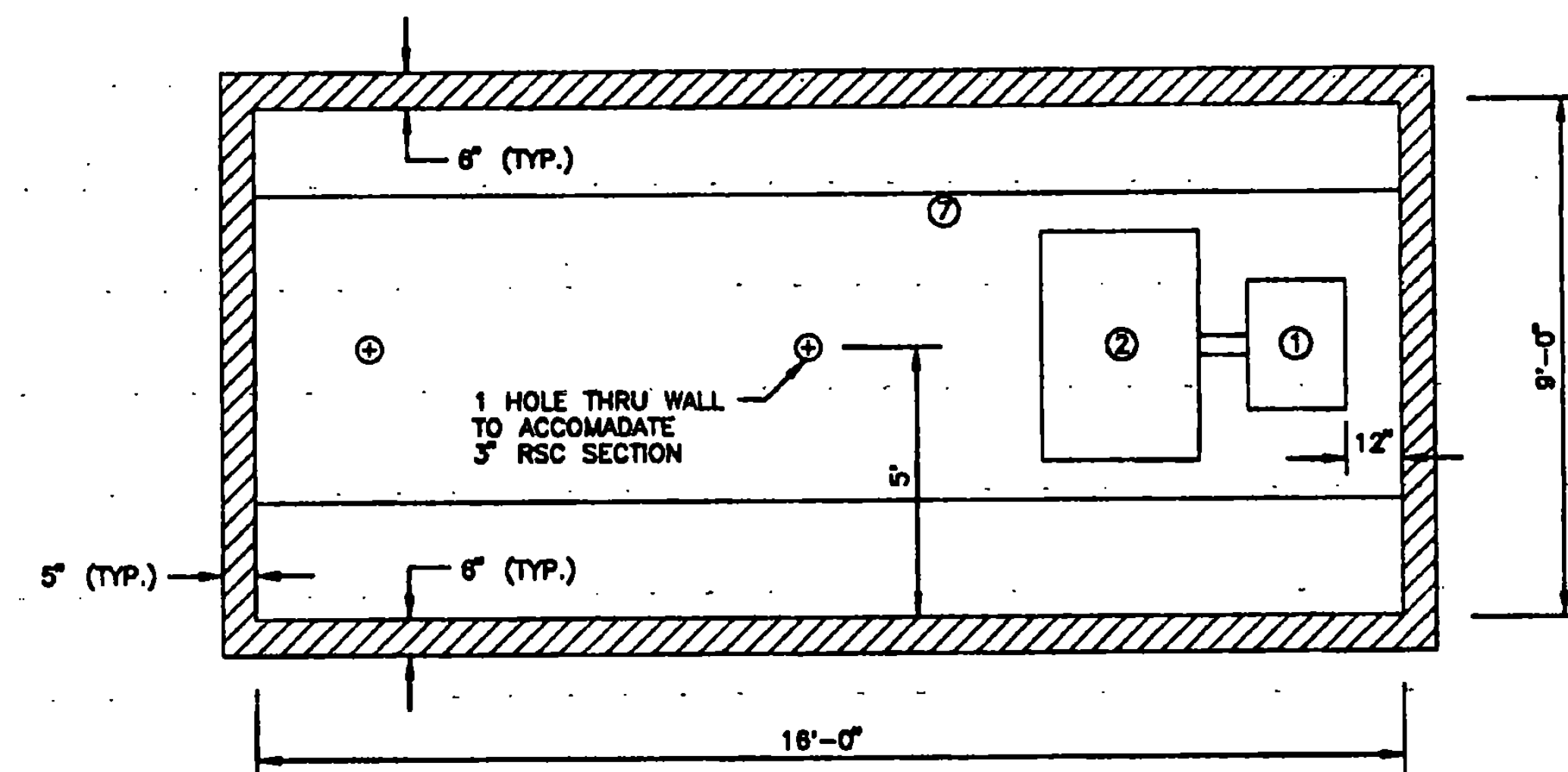
1. NEMA 1 ENCLOSURE, FUSED 2 POLE, SOLID NEUTRAL, DEAD FRONT, 400 AMP DISCONNECT SWITCH.
2. NEMA 1 ENCLOSURE, 1 PHASE, 3-WIRE, S/N, 120/240 VOLT, 400 AMP MAIN BREAKER WITH NEUTRAL ALL BOLT ON BREAKERS.
3. FLUORESCENT LIGHT FIXTURE.
4. AIR CONDITIONER - WALL MOUNTED.
5. EXTERIOR DOOR.
6. HEAVY DUTY, WEATHER PROOF, EXTERIOR WALL LIGHT MOUNTED ABOVE DOOR.
7. 3/4 IN. PLYWOOD BOLTED TO WALL.
8. PAINTED DRYWALL INTERIOR.
9. EXISTING SHELTER IS A PRE-CAST CONCRETE UNIT COMPLETE WITH WALLS, FLOOR & CEILING EXISTING BUILDING ON A PEASTONE BASE. CONTRACTOR TO DISCONNECT ALL CABLES & CONDUIT AT EXISTING LOCATION BEFORE RELOCATING SHELTER.
10. ALL LOOSE MATERIALS TO BE PACKAGED AND MOVED SEPARATELY. SECURE ALL EQUIPMENT PRIOR TO RELOCATING SHELTER. REMOVE ROOF MOUNTED ANTENNAS.
11. BUILDING/SHELTER TO BE LIFTED AND TRANSPORTED TO NEW SITE AS A COMPLETE UNIT.
12. BUILDING/SHELTER TO BE POSITIONED AT NEW LOCATION AS SHOWN ON SITE PLAN OR AS DIRECTED BY THE ENGINEER. CONNECT NEW CABLES AND CONDUITS AT NEW SITE. NEW CABLES AND CONDUITS BY OTHERS. COORDINATE TELEPHONE AND POWER CABLES WITH LOCAL PHONE AND UTILITY COMPANIES. COORDINATE FAA CABLE CONNECTIONS WITH FAA/F&E CONTACT JAMES CAULFIELD, ☎ (617) 238-7462.
13. CONTRACTOR TO REMOVE ELECTRICAL CABLING, & PEASTONE FOUNDATION FROM EXISTING SITE. CONTRACTOR TO REMOVE EXISTING FOUNDATION FOR LOCALIZER & DME. AREA TO BE REGRADED, TOPSOILED AND SEEDED. COST OF THIS WORK TO BE INCLUDED IN COST OF ITEM 529.20 MOD 1.



LIGHTNING PROTECTION DETAILS
SCALE: NONE



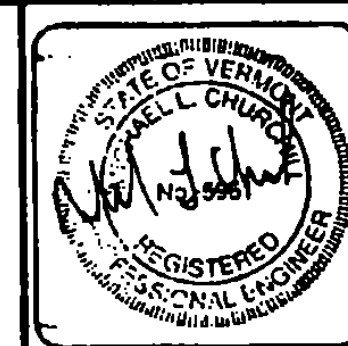
SECTION "A-A"
SCALE: NONE



SECTION "B-B"
SCALE: NONE

LEGEND

- ③ LIGHT SWITCH, 4'-6" ABOVE FLOOR
- ① DUPLEX RECEPTICLE, 4' ABOVE FLOOR
- ⑦ 240 VOLT RECEPTICLE, 4' ABOVE FLOOR
- ① 240 VOLT LINE THERMOSTAT



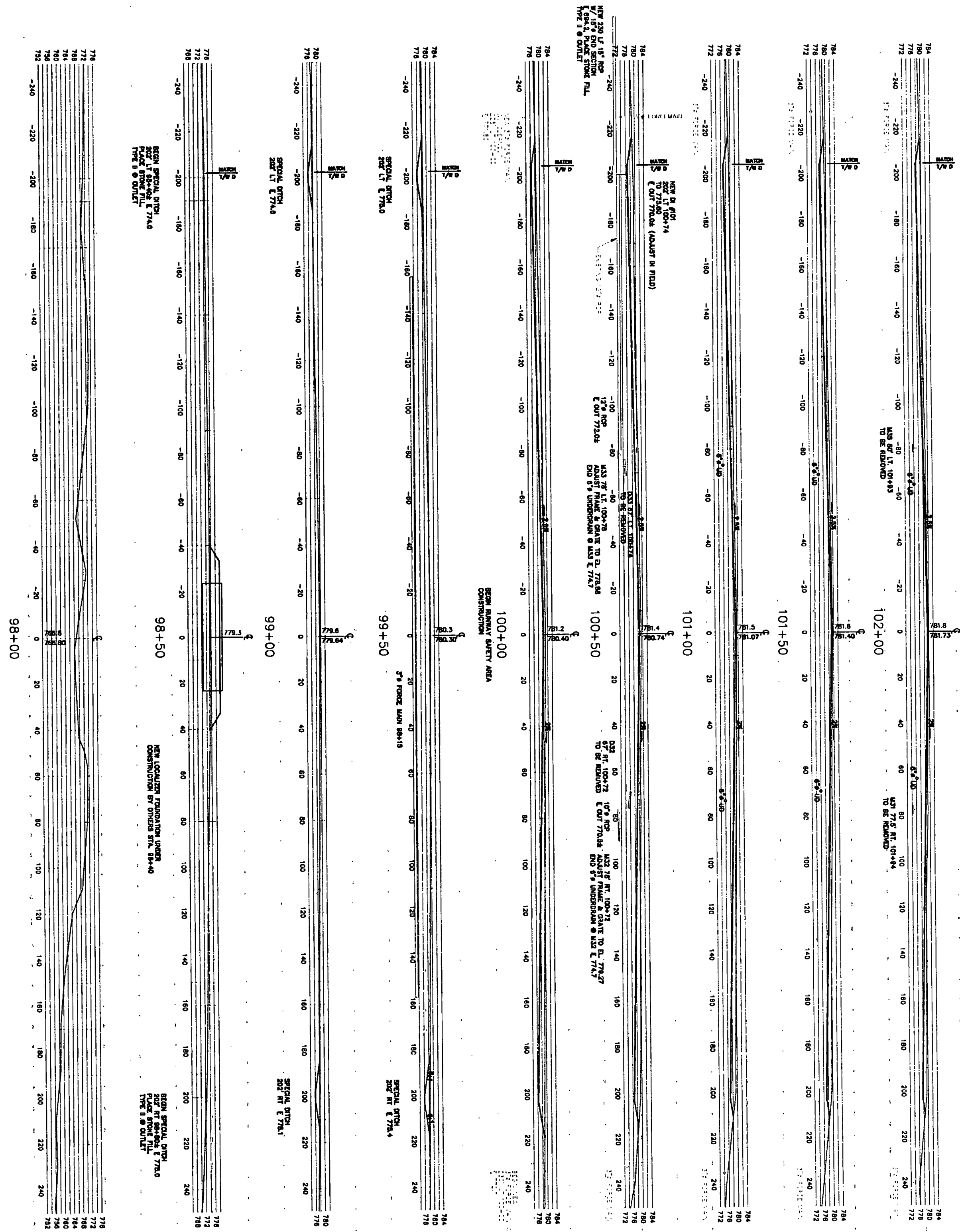
REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

LOCALIZER/DME RUNWAY 19
POWER AND CONTROL BUILDING

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: C. D'AMICO 2/87	Drawn by: M. MCALLA 3/87	Checked by: C. D'AMICO 5/87	Approved by: M. GARDNER 5/87
Scale: HOR. - 1" = 4'			
Scale: VERT. - 1" = 4'			
Date: 5/8/87			
Sheet 45 of 63			
Sheet No. 45			



ALP 3-50-0015-11

URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY CROSS SECTIONS

REV.	DATE	DESCRIPTION

Job No. 102+00

File No. 102+00-102+00

Designed by: Dyle
C. D. M. 2/97

Drawn by: M. M. 2/97

Checked by: C. D. M. 2/97

Approved by: M. M. 2/97

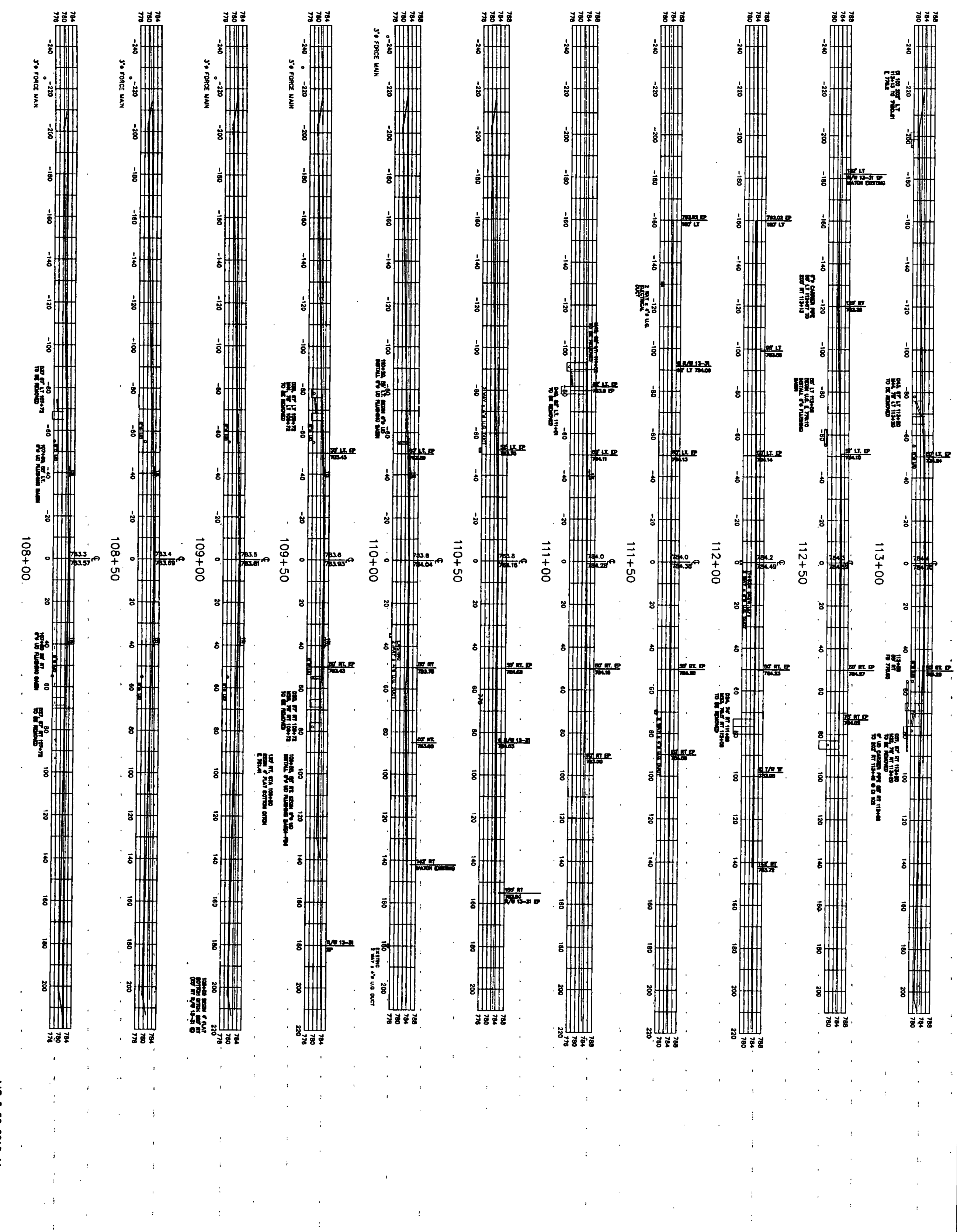
Sheet No. 45

Scale: 1" = 100'

Scale: 1" = 100'

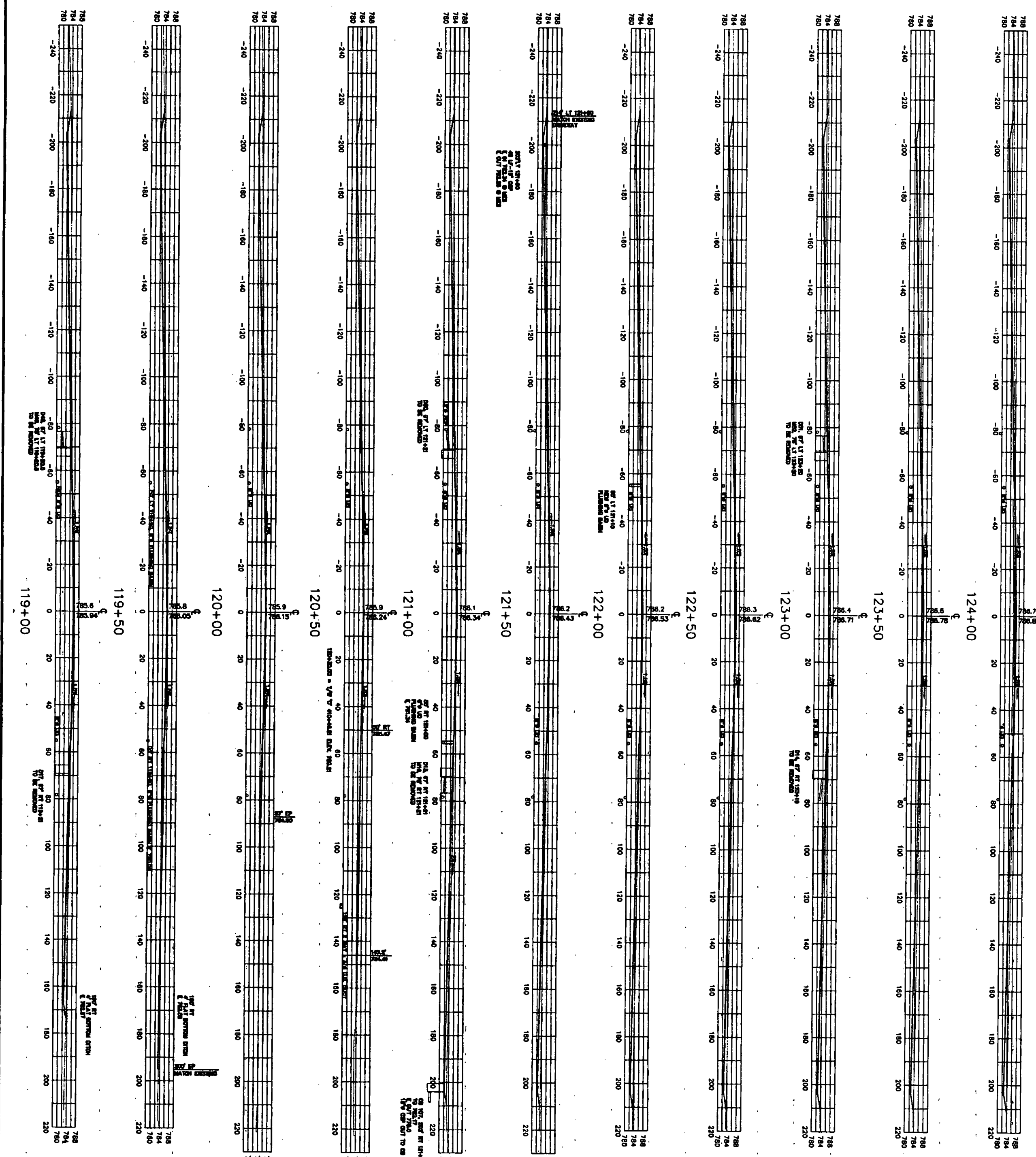


Sheet No. 47	Designed by: Date	URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	RUTLAND STATE AIRPORT CLARENDON, VERMONT		
	Drawn by: 5/17/07				
Checked by: 5/17/07	Approved by: 5/17/07		RUNWAY CROSS SECTIONS	REV. DATE	DESCRIPTION
Job No. 07-010	File No. 47-010-01-02				





4



AIP 3-50-0015-11

URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: **G. Frank** Date: **3/97**

Checked by: **G. Frank** Date: **3/97**

Approved by: **G. Frank** Date: **3/97**

REV.

DATE

DESCRIPTION

Job No. **PR0125**

File No. **AF0125(02-0)**

Seal

Stamp

Seal

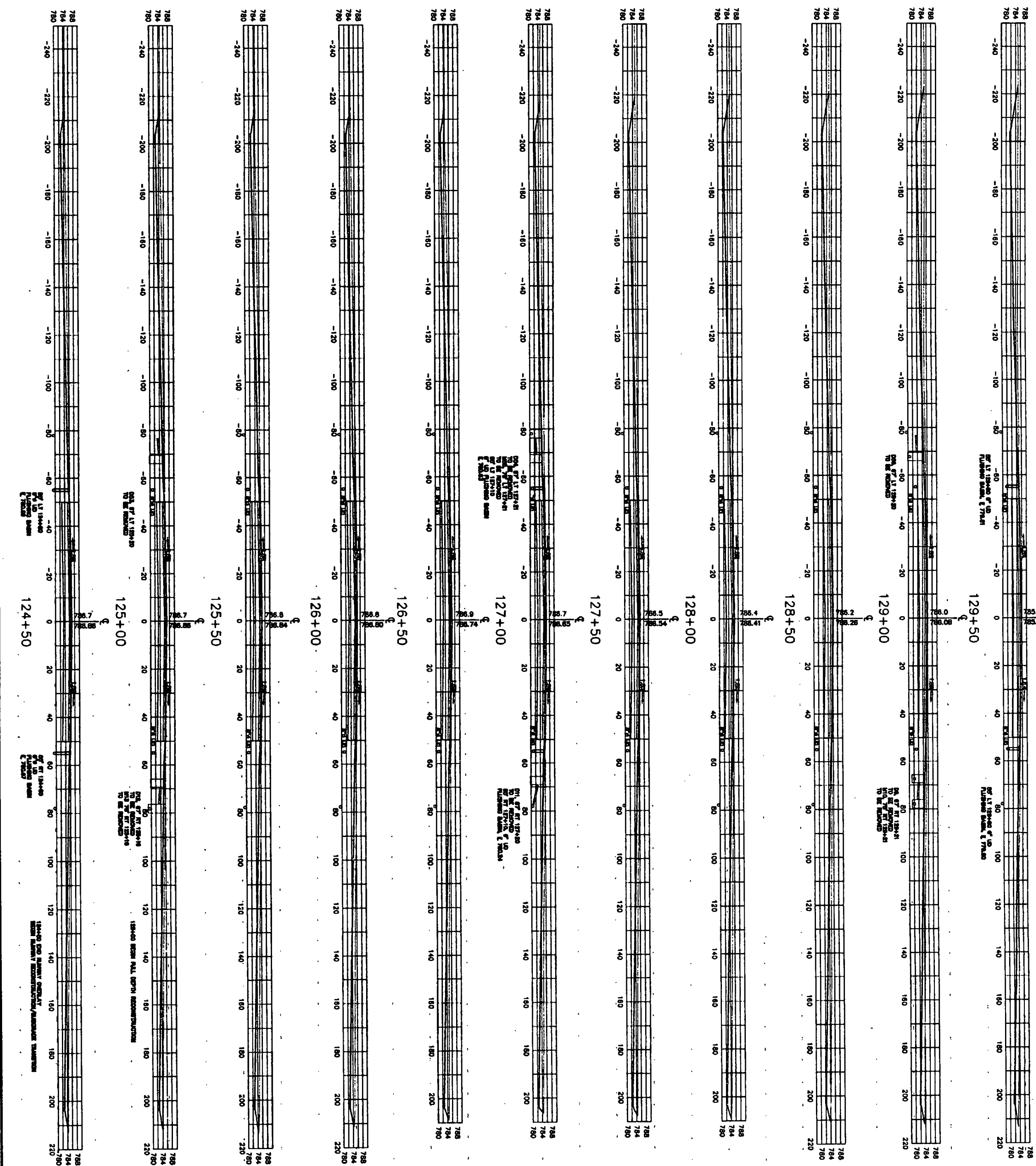
Stamp

Seal

Stamp

Seal

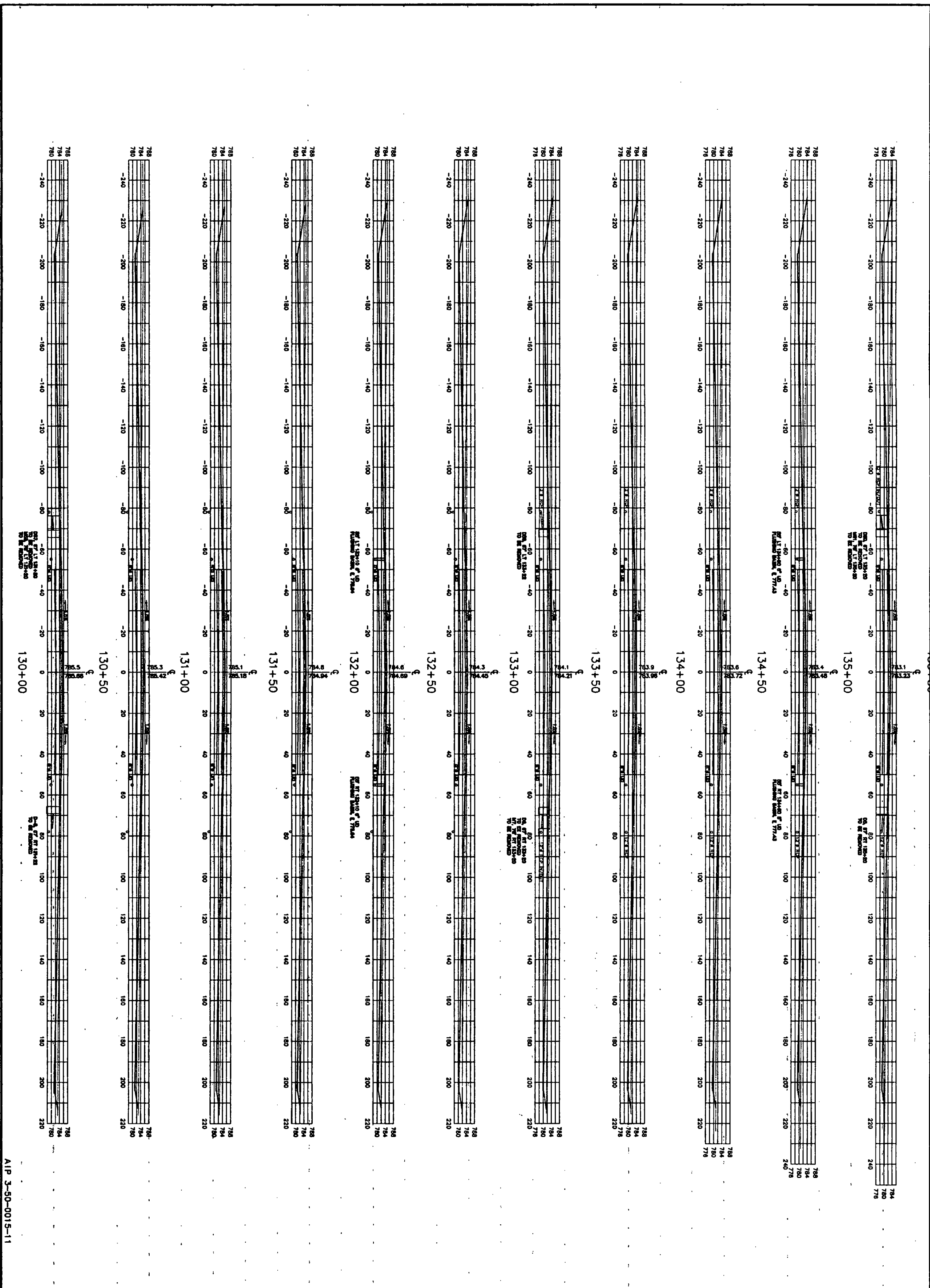
Stamp



ARP 3-50-0015-11

Designed by: Date o'neko 2/77		RUTLAND STATE AIRPORT CLARENDON, VERMONT		REV. DATE DESCRIPTION		
Drawn by: M. MICHA 3/77		RUNWAY CROSS SECTIONS		Job No. File No.		
Checked by: o'neko 5/5/77						
Approved by: M. MICHA 5/5/77						
Scale: 1" = 40'						
Sheet 6 of 6						
Sheet No. 6						

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK



Sheet No. 52

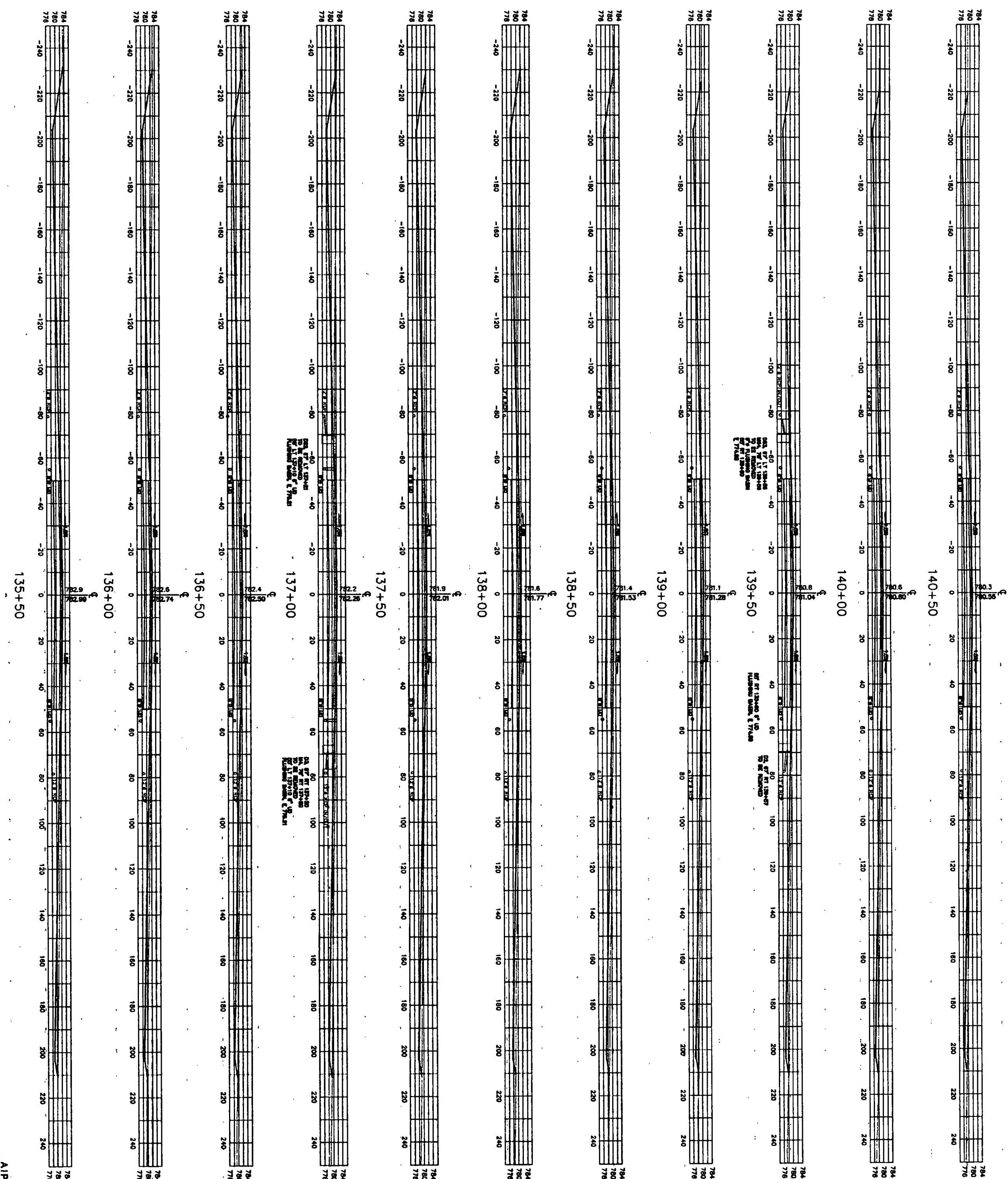
Drawn by: C. V. AMICO
Checked by: C. V. AMICO
Approved by: C. V. AMICO

Designed by: C. V. AMICO
Date: 2/97
Scale: 1" = 20'

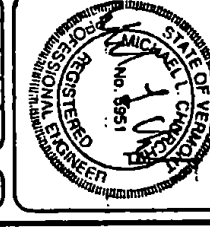
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT
RUNWAY CROSS SECTIONS

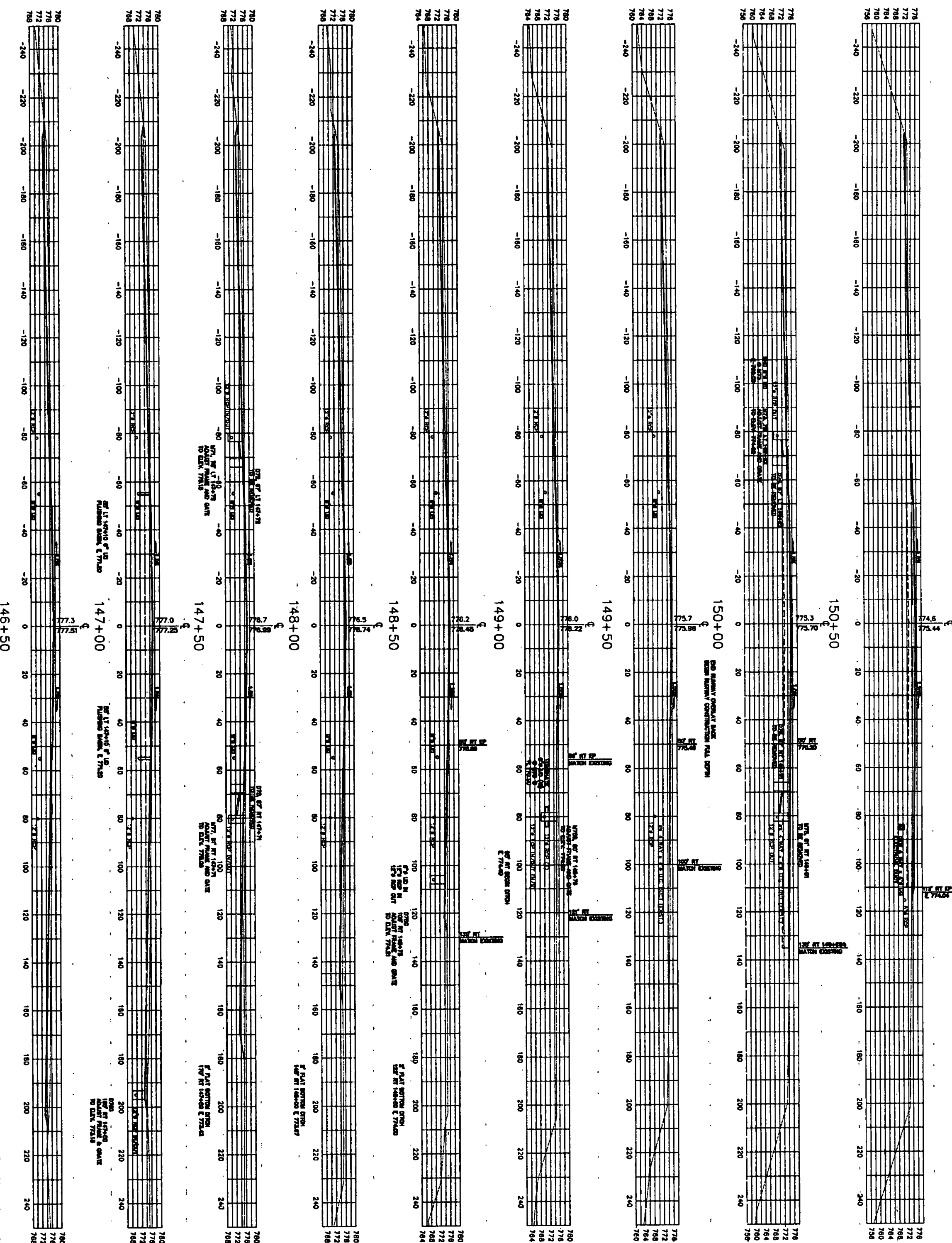
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File No. 97000000-01



AIP 5-50-0015-11

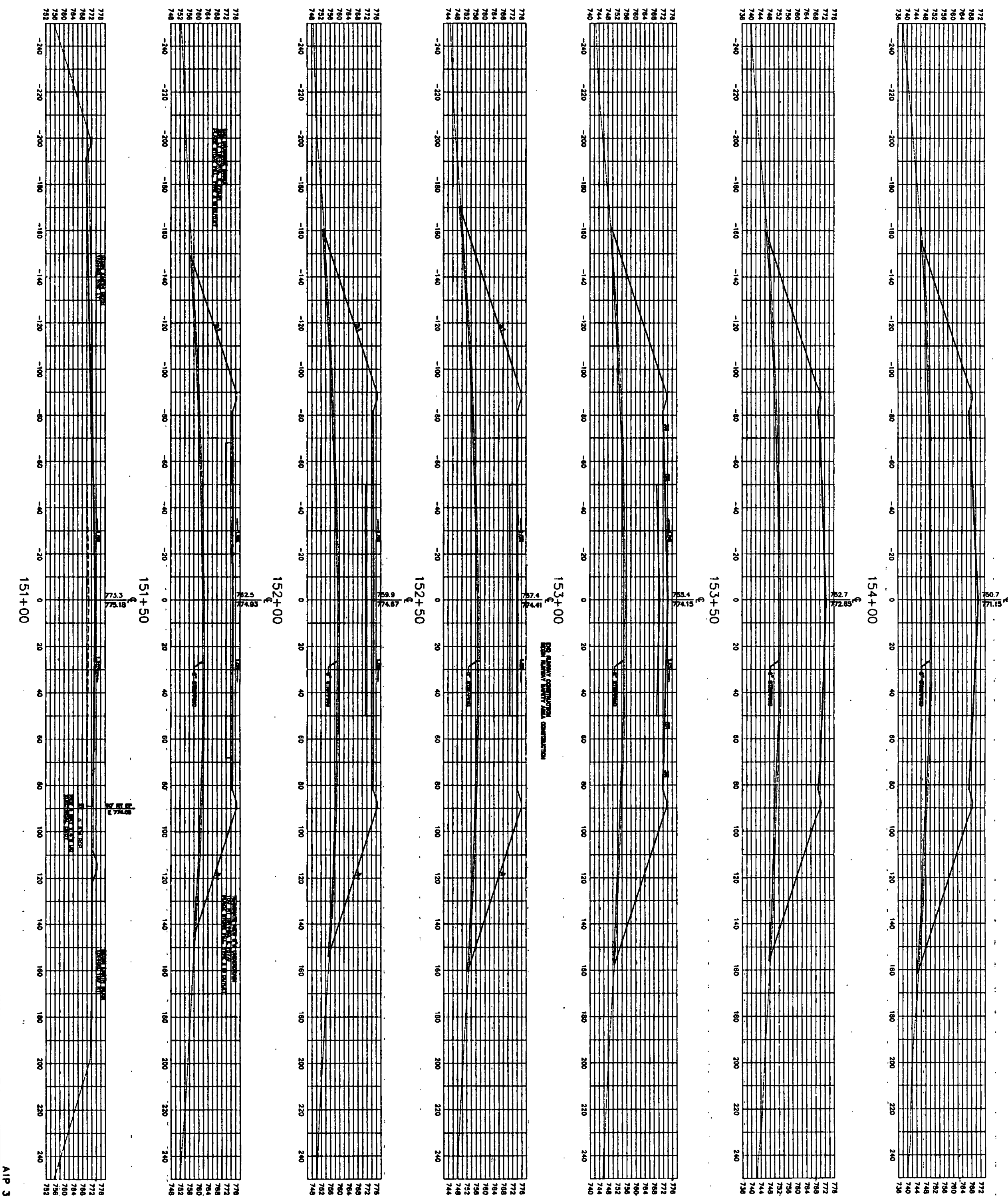
Sheet No 53	Designed by G. W. M. CO. 2/97	
	Drawn by M. MICALLA 2/97	
	Checked by G. W. M. CO. 2/97	
	Approved by G. W. M. CO. 2/97	
URS Greiner, Inc. 3 MARCUS BOULEYARD ALBANY, NEW YORK		
RUTLAND STATE AIRPORT CLARENDON, VERMONT		
RUNWAY CROSS SECTIONS		
REV. DATE DESCRIPTION		
Job No. 00000000		
File No. 00000000		

54



ALP 3-50-0015-11

Designed by: Dale 6/1/80			RUTLAND STATE AIRPORT CLARENDON, VERMONT
Drawn by: M. W. W. W. 6/1/80			
Checked by: C. W. W. W. 6/1/80			
Approved by: M. W. W. W. 6/1/80			
URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK		RUNWAY CROSS SECTIONS	
Sheet No. 55		Job No. 150-0015-11	



Sheet No. 58

Scale: 1" = 40'

Drawn by: JAV/AV
Checked by: G. C. HARRIS
Approved by: H. C. HARRIS

Designed by: Detm
Checked by: G. C. HARRIS

Drawn by: JAV/AV
Checked by: G. C. HARRIS

Approved by: H. C. HARRIS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

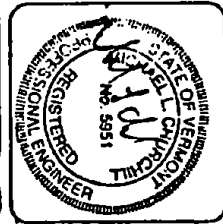
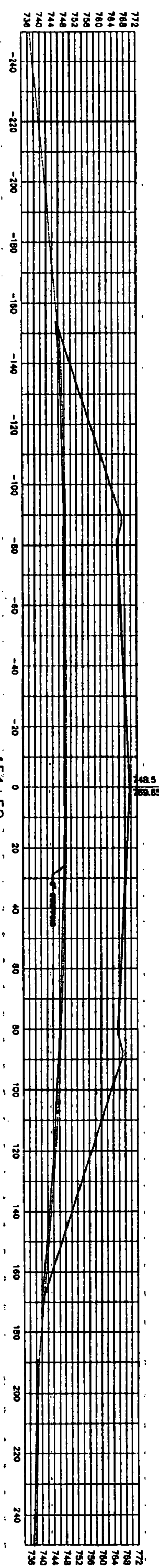
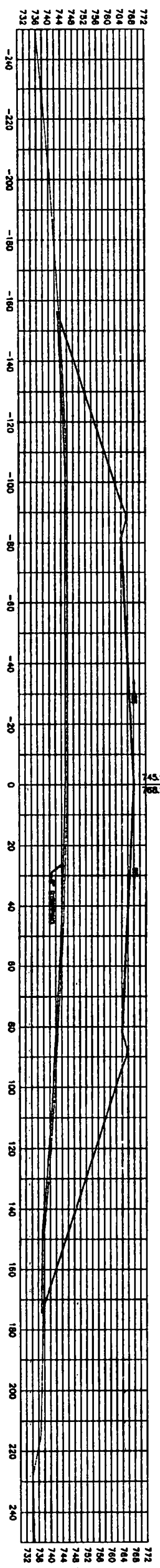
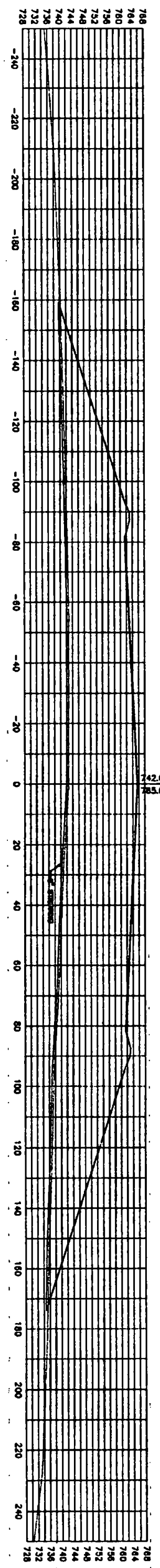
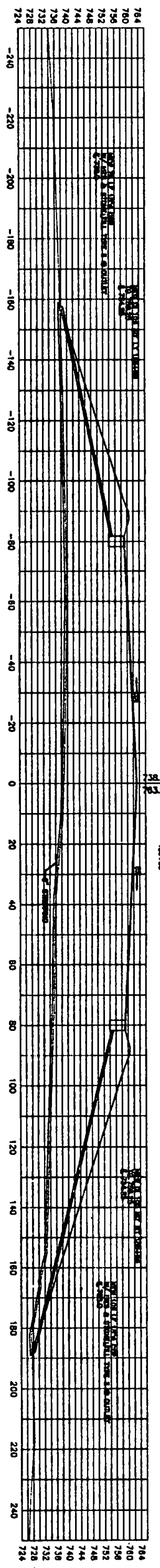
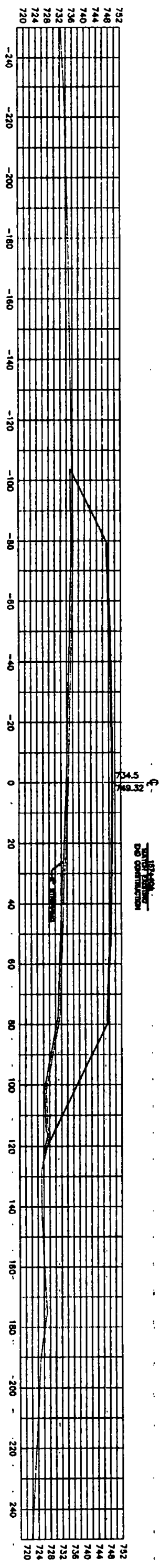
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY CROSS SECTIONS

REV.	DATE	DESCRIPTION
1		

Job No. 151-151-15
File No. 151-151-15

ALP 3-50-0015-11



REV.	DATE	DESCRIPTION
1	12/31/10	154+50
2	12/31/10	155+00
3	12/31/10	155+50
4	12/31/10	156+00
5	12/31/10	156+50

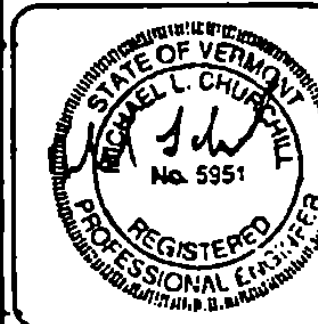
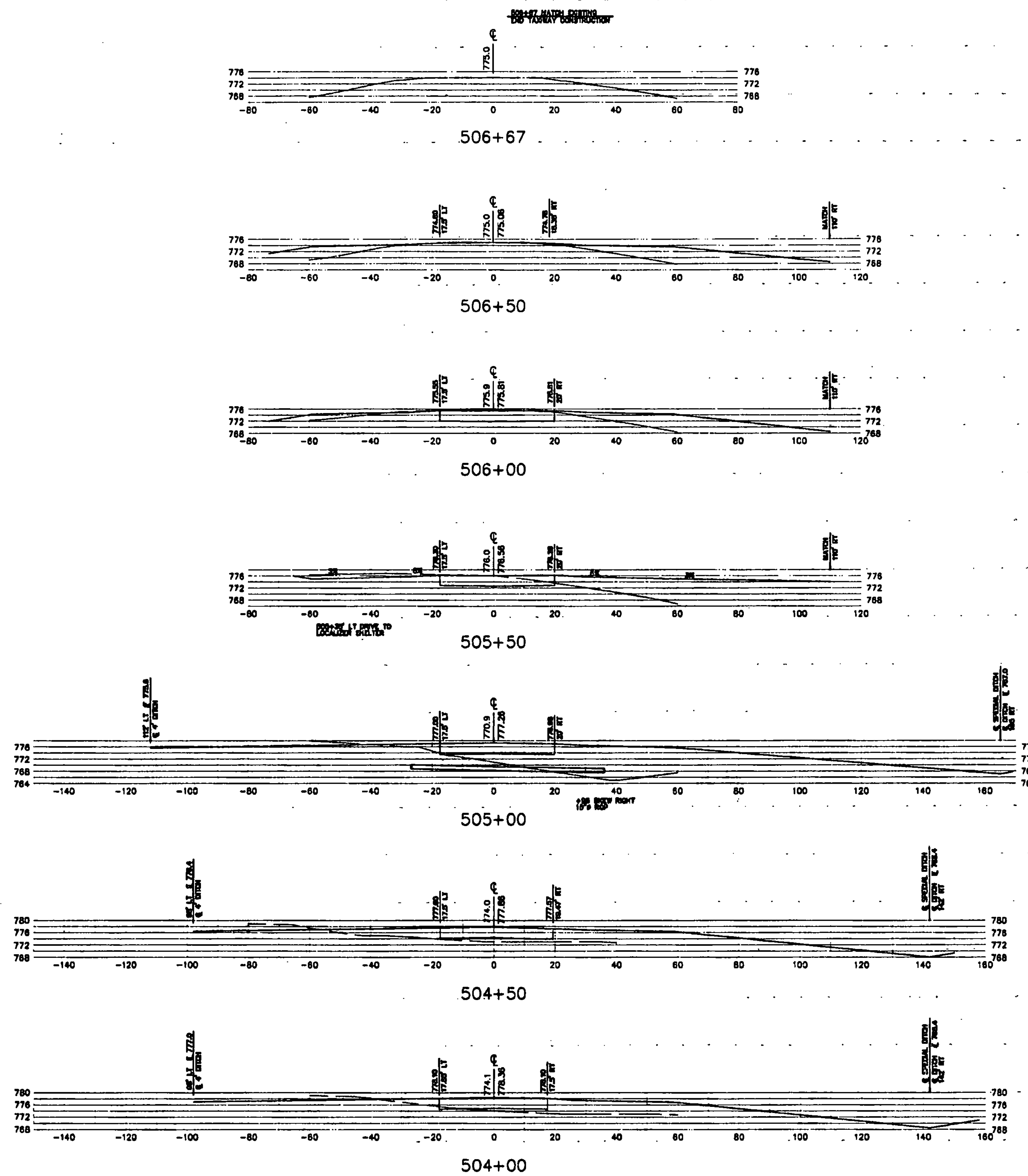
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY CROSS SECTIONS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: URS Date: 2/07	Checked by: URS Date: 5/9/07
Drawn by: URS Date: 5/9/07	Approved by: URS Date: 5/9/07
Sheet No. 57	

88



REV.	DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXIWAY CROSS SECTIONS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

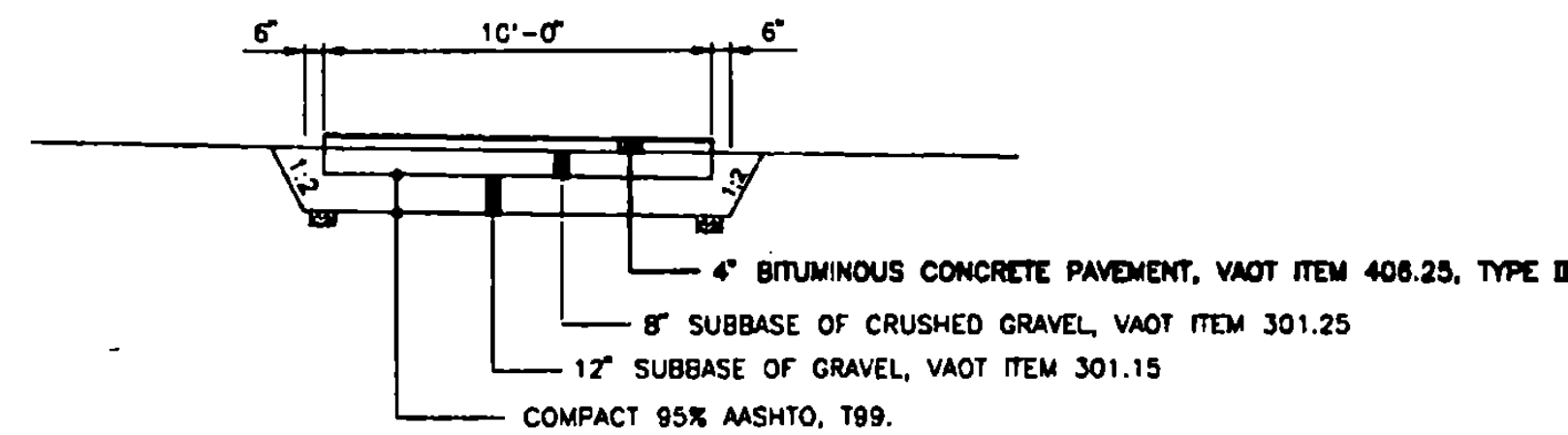
Designed by: C. P. Macdonald	Date: 2/97
Drawn by: M. J. Macdonald	Date: 3/97
Checked by: C. P. Macdonald	Date: 5/97
Approved by: Macdonald	Date: 5/97

Scale: HOR. - 1" = 20'
VERT. - 1" = 20'

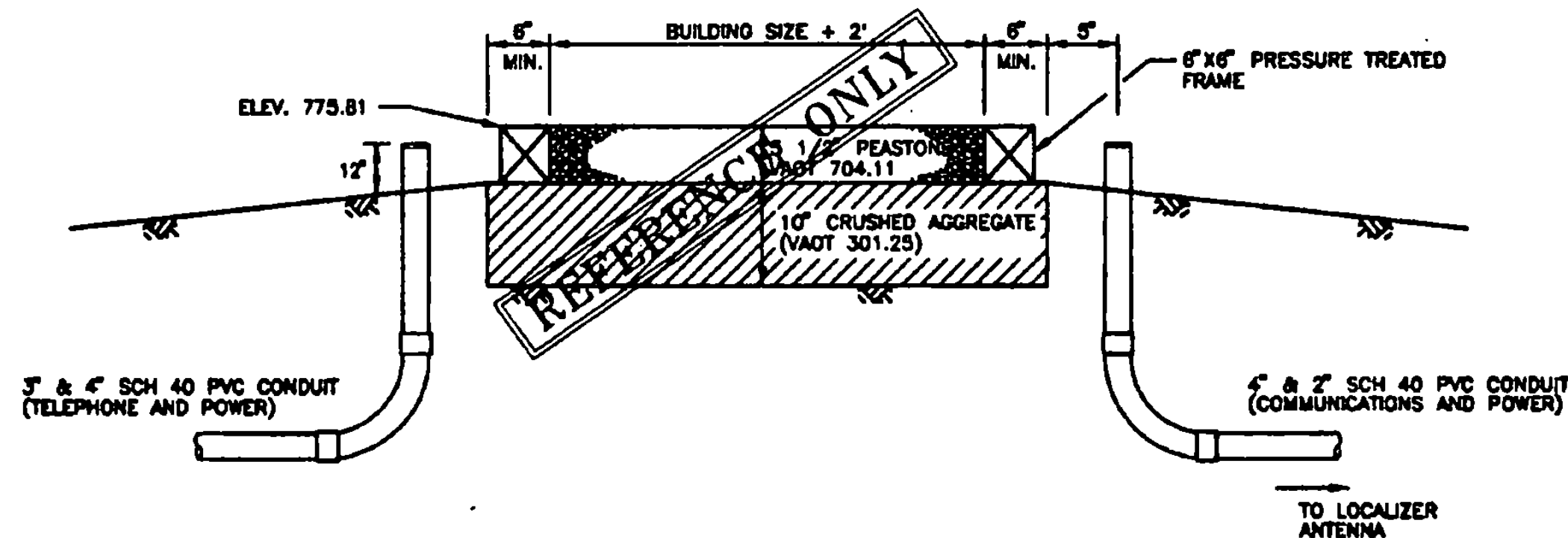
Date: 5/9/97

Sheet 58 Of 58

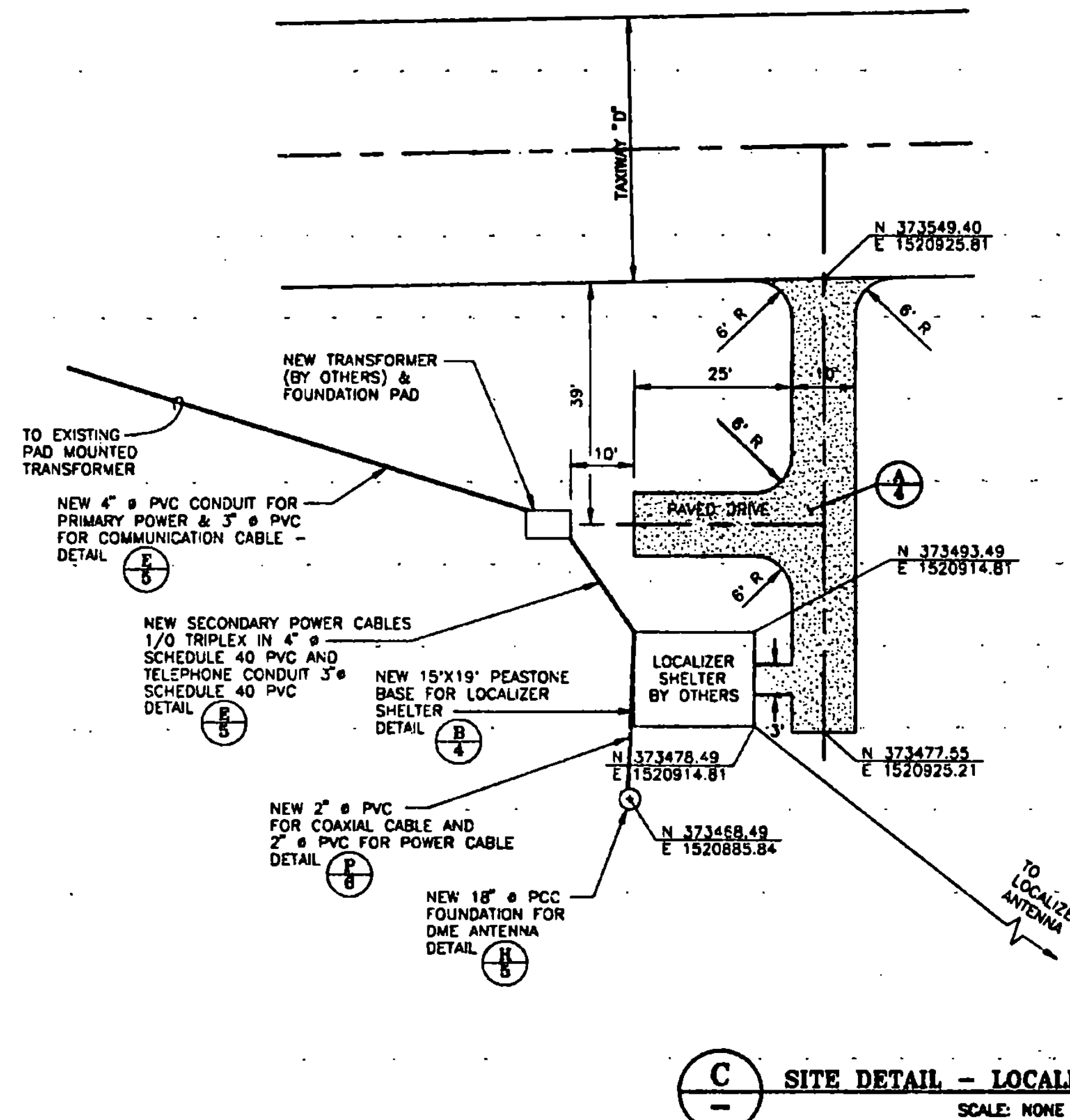
Sheet No
58



A GRAVEL DRIVE
SCALE: NONE



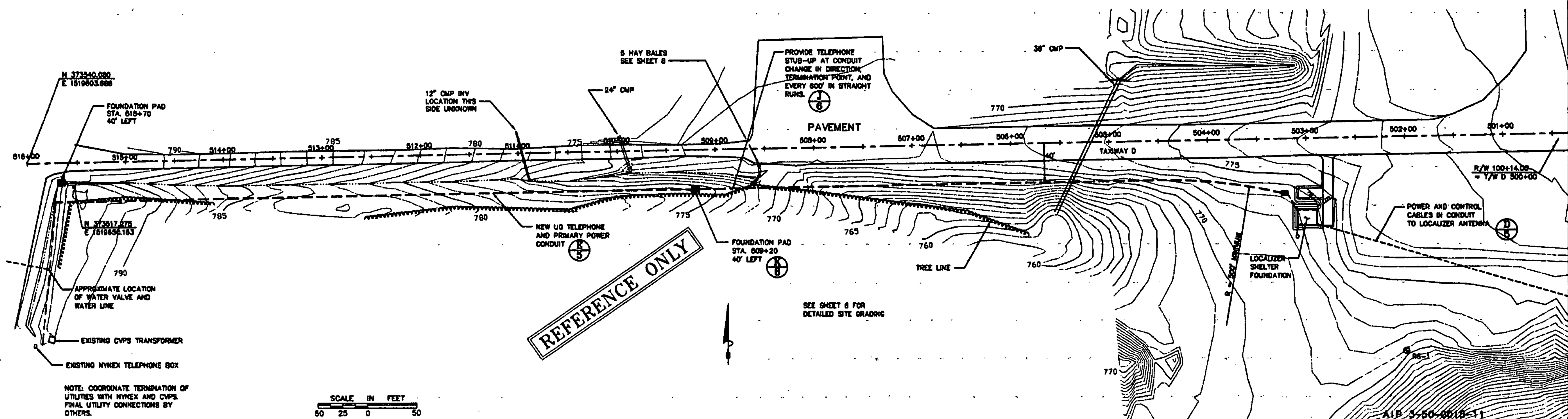
B LOCALIZER SHELTER FOUNDATION
SCALE: NONE



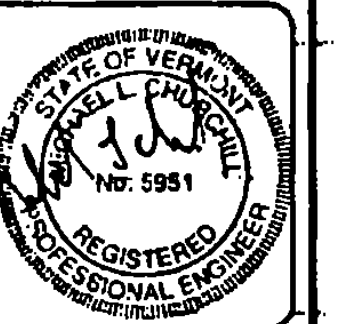
C SITE DETAIL - LOCALIZER SHELTER
SCALE: NONE

- NOTES:
1. CONTRACTOR TO RELOCATE EXISTING LOCALIZER SHELTER ONTO EXISTING PEASTONE FOUNDATION IN ACCORDANCE WITH SPECIFICATION SECTION L-200.
 2. CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTIONS AT TRANSFORMER TO SECONDARY POWER CABLES, FROM SECONDARY POWER CABLES TO THE POWER PANEL INSIDE THE LOCALIZER SHELTER, AND FROM THE POWER PANEL TO THE LOCALIZER ANTENNA ARRAY.
 3. CONTRACTOR TO MAKE FINAL COMMUNICATIONS (TELEPHONE) CONNECTIONS FROM TELEPHONE CABINET ADJACENT TO LOCALIZER SHELTER TO THE CONTROL INTERFACE BOX MOUNTED ON EXTERIOR OF BUILDING.
 4. FAA TO MAKE ALL COAXIAL CABLE CONNECTIONS.
 5. CONTRACTOR TO EXTEND SHELTER DRIVEWAY AS SHOWN ON SHEET 14. CONTRACTOR TO PAVE SHELTER DRIVEWAY.

- NOTES:
1. SITE PREPARATION: EXCAVATE TOPSOIL TO GOOD BEARING SOIL. COMPACT SUBGRADE, AND CRUSHED AGGREGATE TO 95% AASHTO T99.
 2. PEASTONE LAYER TO BE LEVEL.
 3. SHELTER RELOCATION BY OTHERS.
 4. SEE DETAIL (C) FOR BUILDING GROUNDING DETAILS.



SCALE IN FEET
50 25 0 50



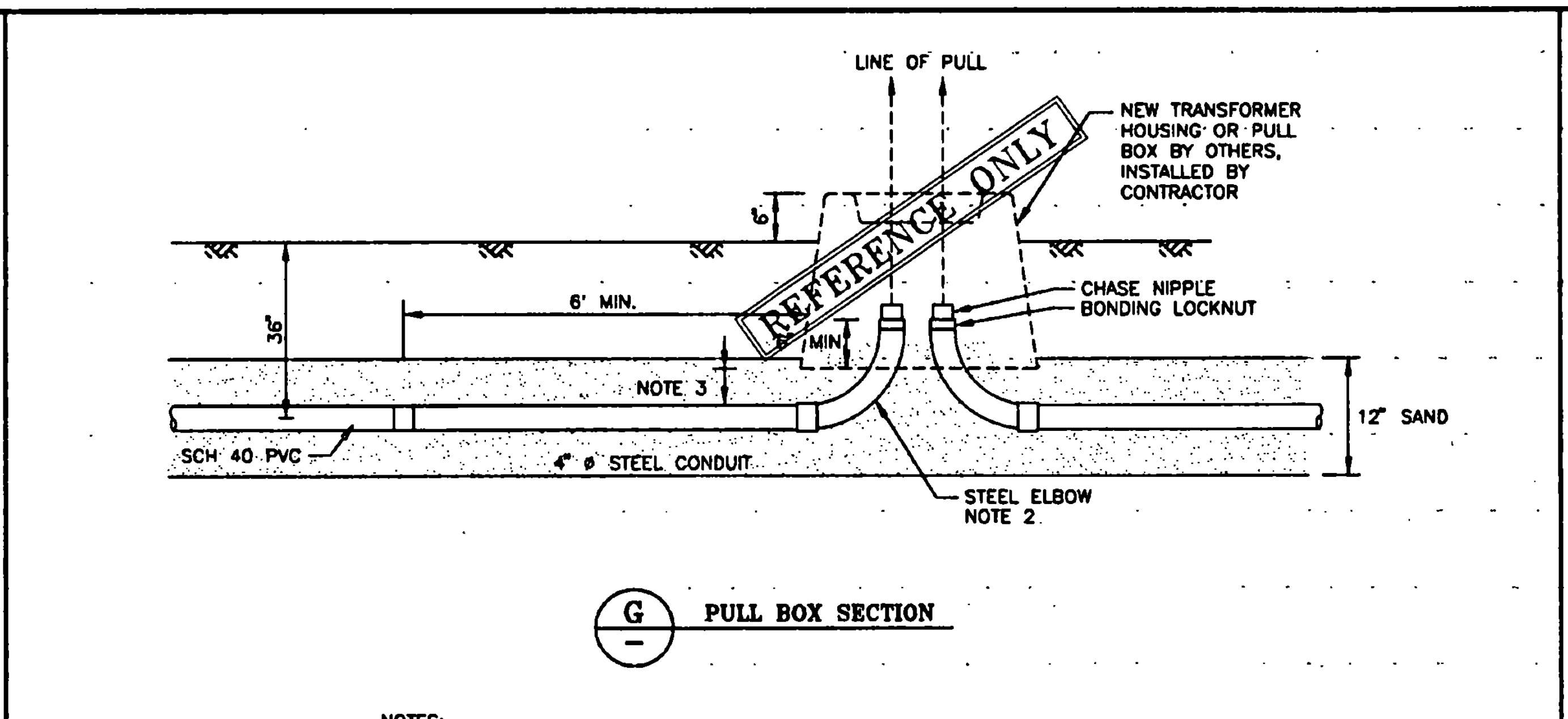
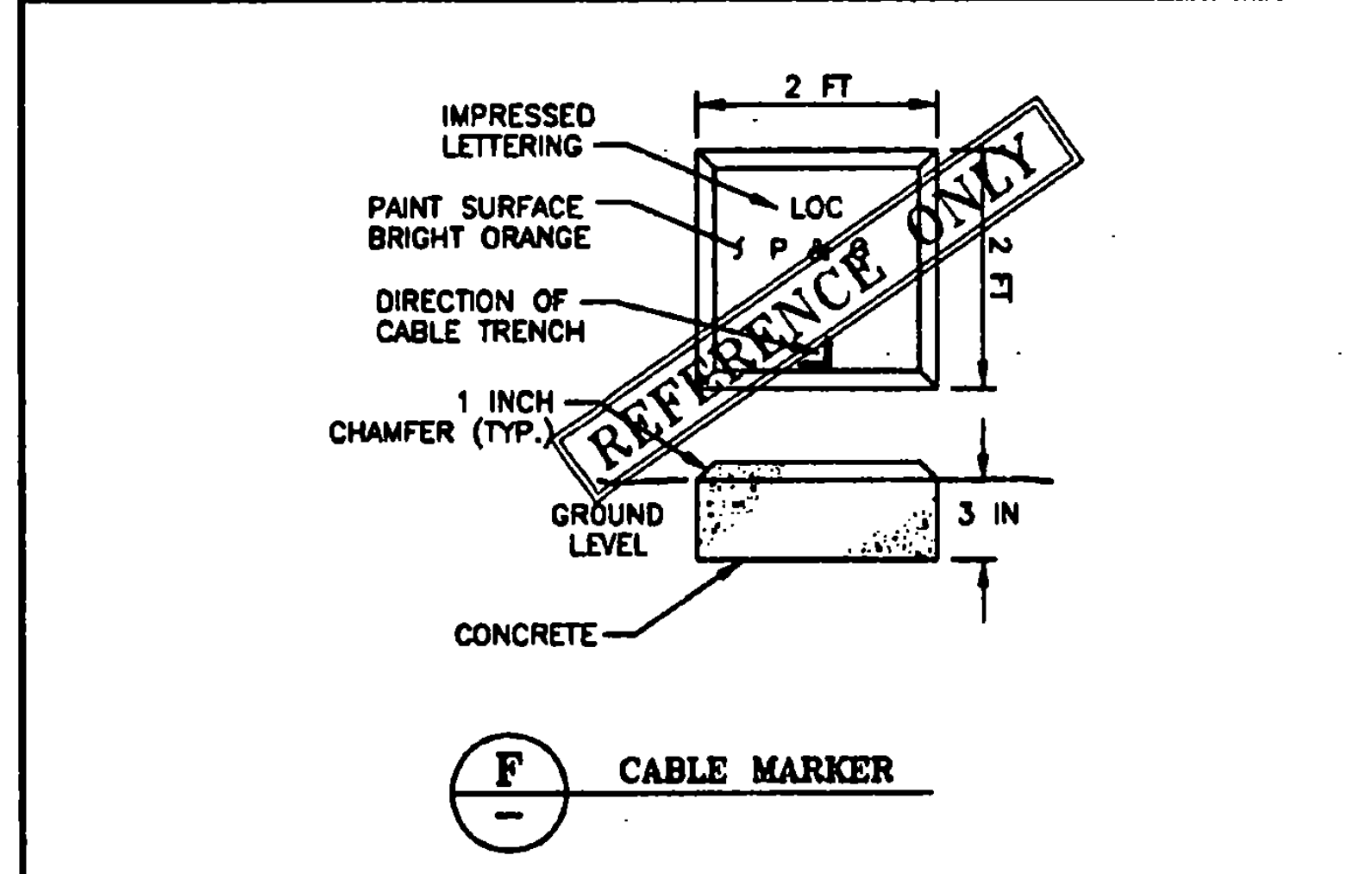
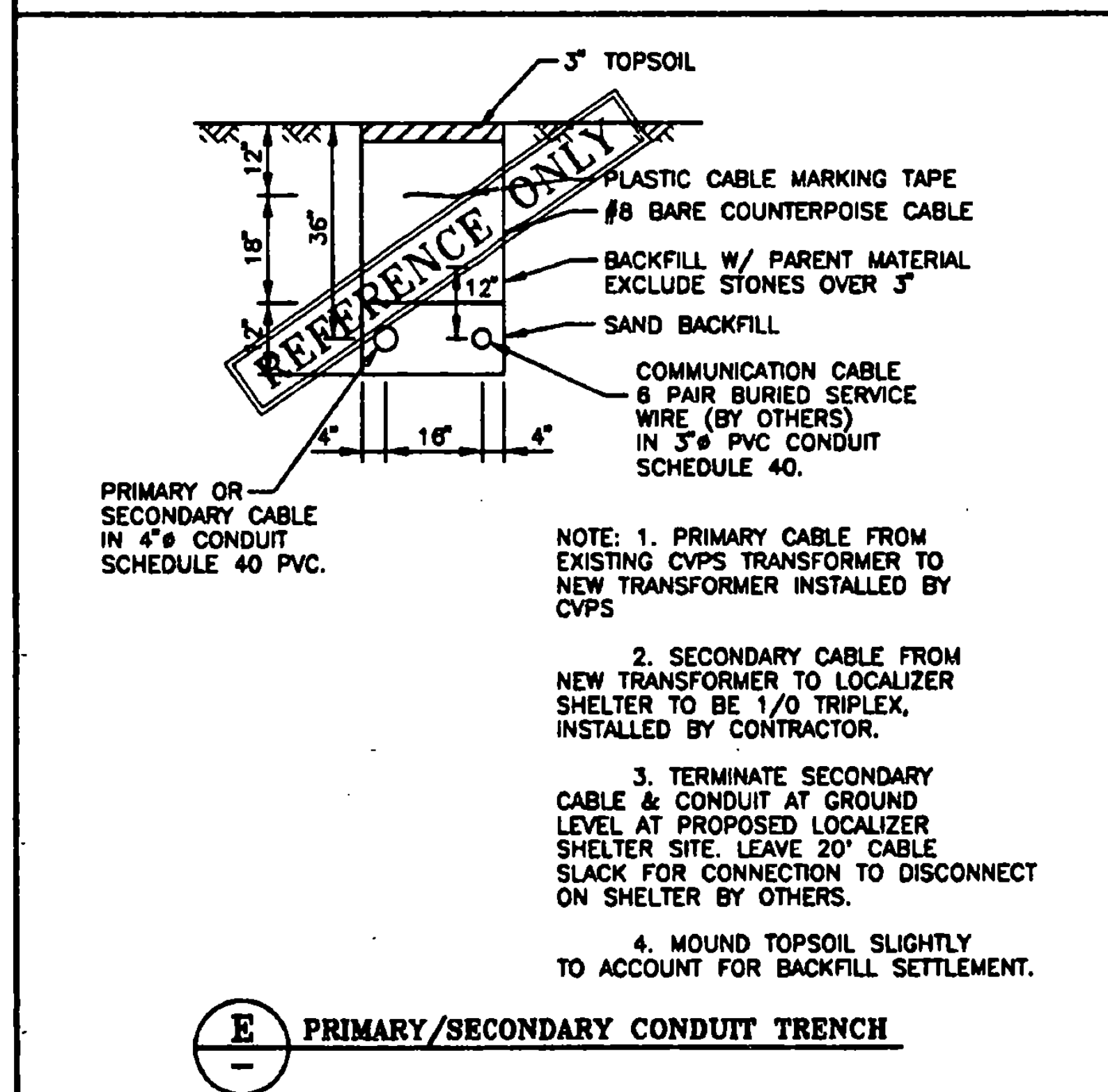
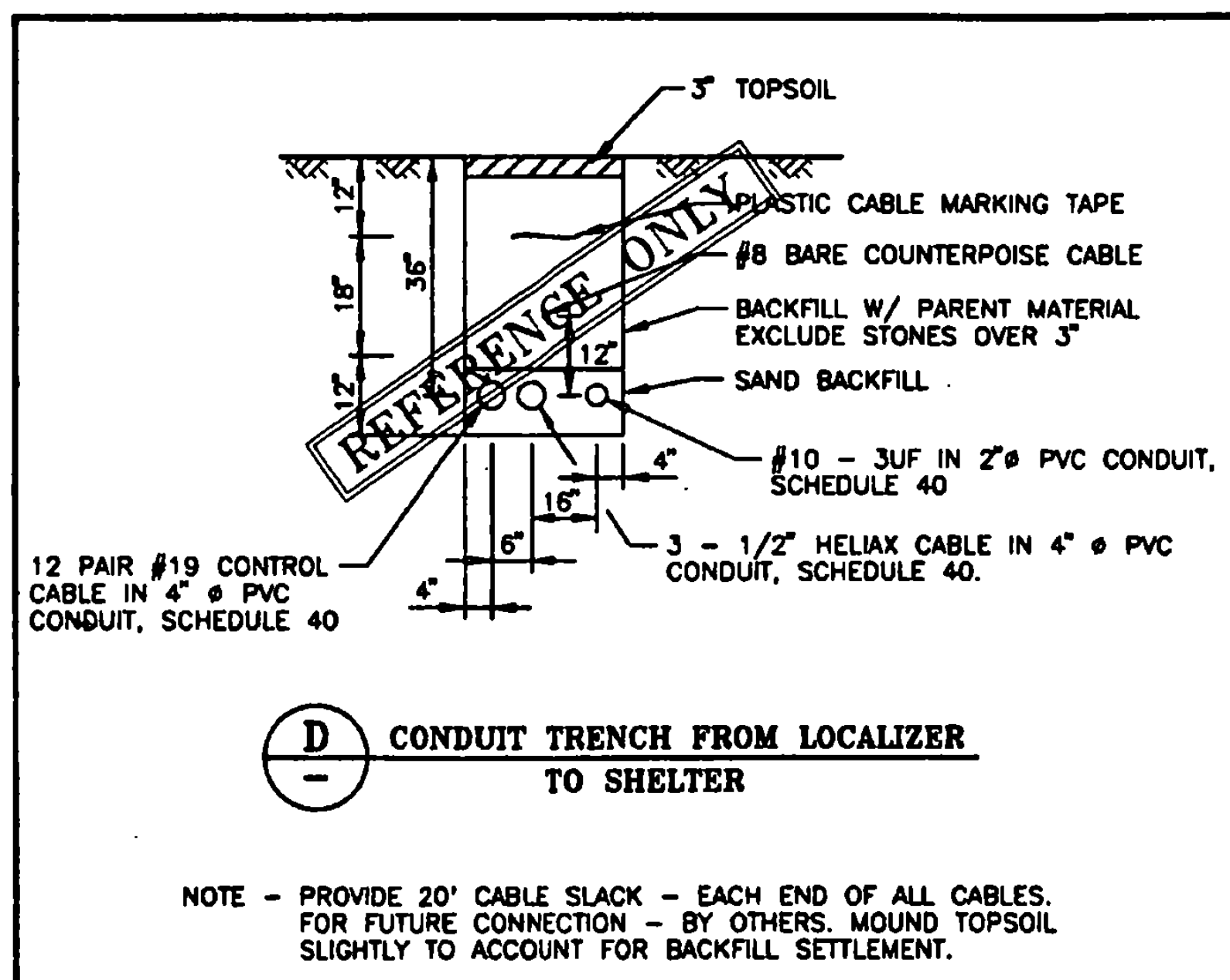
REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

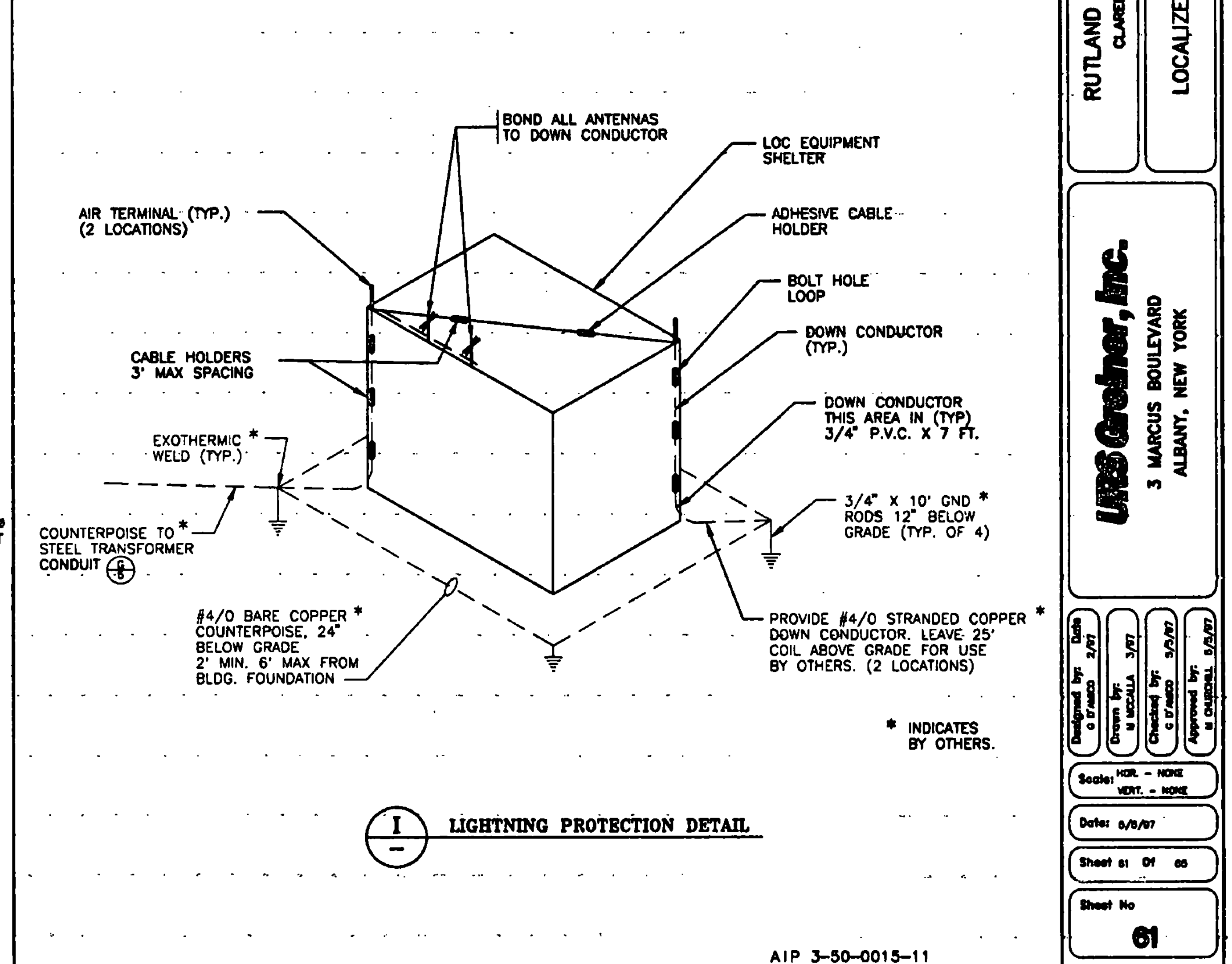
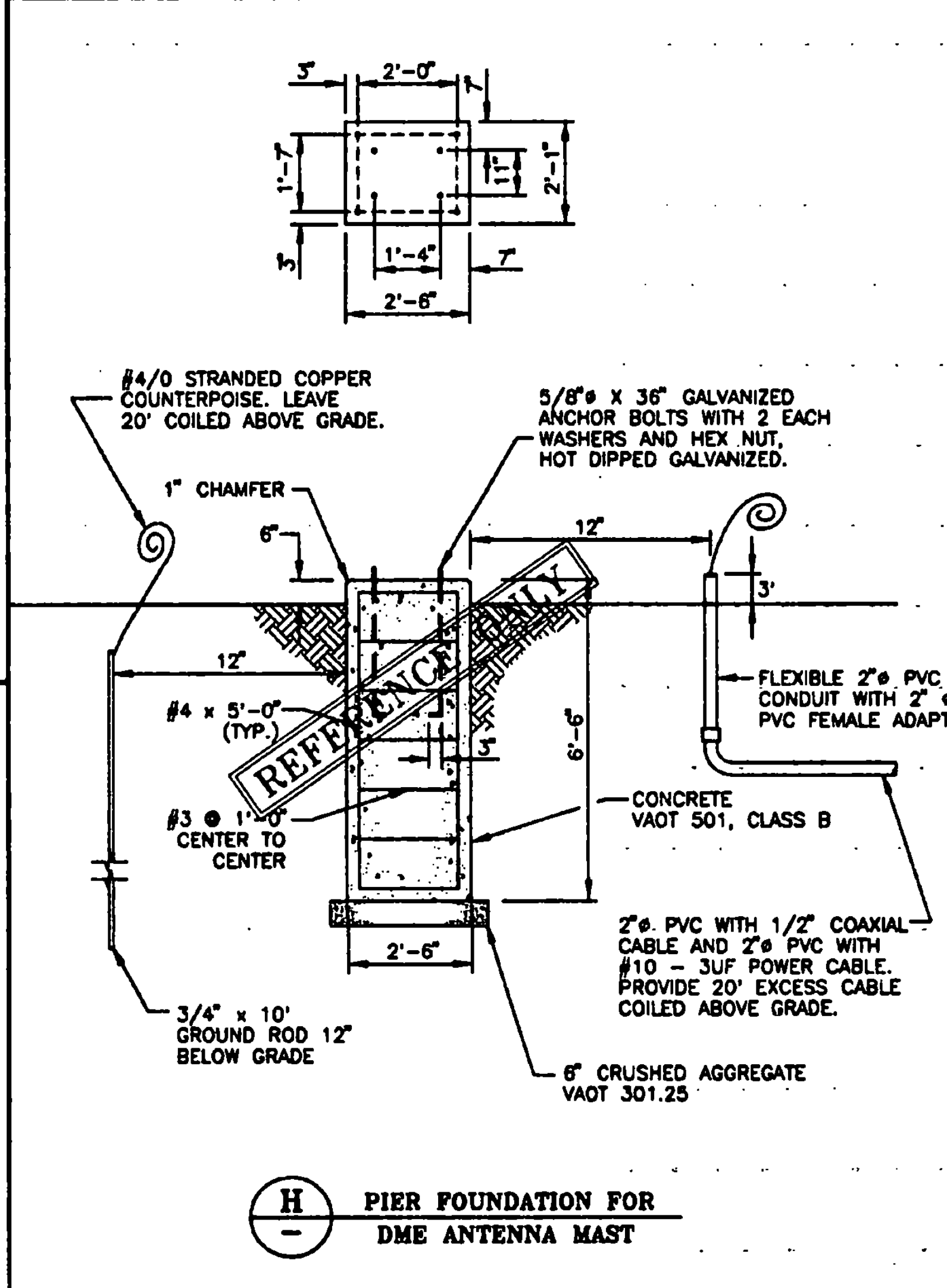
LOCALIZER RELOCATION - SITE PLAN

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: O. D'AMICO	Date: 2/97
Drawn by: M. MCALLA	3/97
Checked by: O. D'AMICO	5/97
Approved by: M. CHAPMAN	5/97
Scale: HOR. - 1" = 50'	
VERT. - NONE	
Date: 5/97	
Sheet 60 OF 65	
Sheet No. 60	



- NOTES:
1. ELBOWS TO BE ALIGNED TO ALLOW STRAIGHT PULL THROUGH BOX PAD OPENING
 2. USE 90° ELBOWS
 3. PROVIDE SUFFICIENT CLEARANCE SO BOX PAD DOES NOT CONTACT ELBOWS
 4. INSTALL PULL WIRE IN CONDUIT (500# MIN RATING)
 5. SEAL CONDUITS WITH APPROVED DUCT SEAL AFTER CABLES INSTALLED
 6. BOND STEEL CONDUIT TO GROUND GRID. SEE DETAIL ④
 7. PROVIDE DRAINAGE AWAY FROM TRANSFORMER HOUSING
 8. PLACE 3" MIN SAND IN BOTTOM OF TRANSFORMER HOUSING
 9. SEE DETAIL ④ FOR ADDITIONAL DETAIL



- GENERAL NOTES**
1. ALL DISTURBED AREAS TO BE REGRADED, TOPSOILED (3" MIN), LIMED, FERTILIZED, AND MULCHED.
 2. CRUSHED AGGREGATE TO CONFORM TO SPECIFICATION 301.25
 3. INSTALLATION OF UNDERGROUND CONDUIT AND COMMUNICATIONS CABLES TO CONFORM TO REQUIREMENTS OF THE LOCAL UTILITY (CVPS) & TELEPHONE Co. (NYNEX).

STATE OF VERMONT
L. C. GARDNER
REGISTERED PROFESSIONAL ENGINEER
No. 5951

REV.	DATE

Job No. 11-Ver-100-1
File No. 11-Ver-100-1

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

LOCALIZER SITE DETAILS

URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

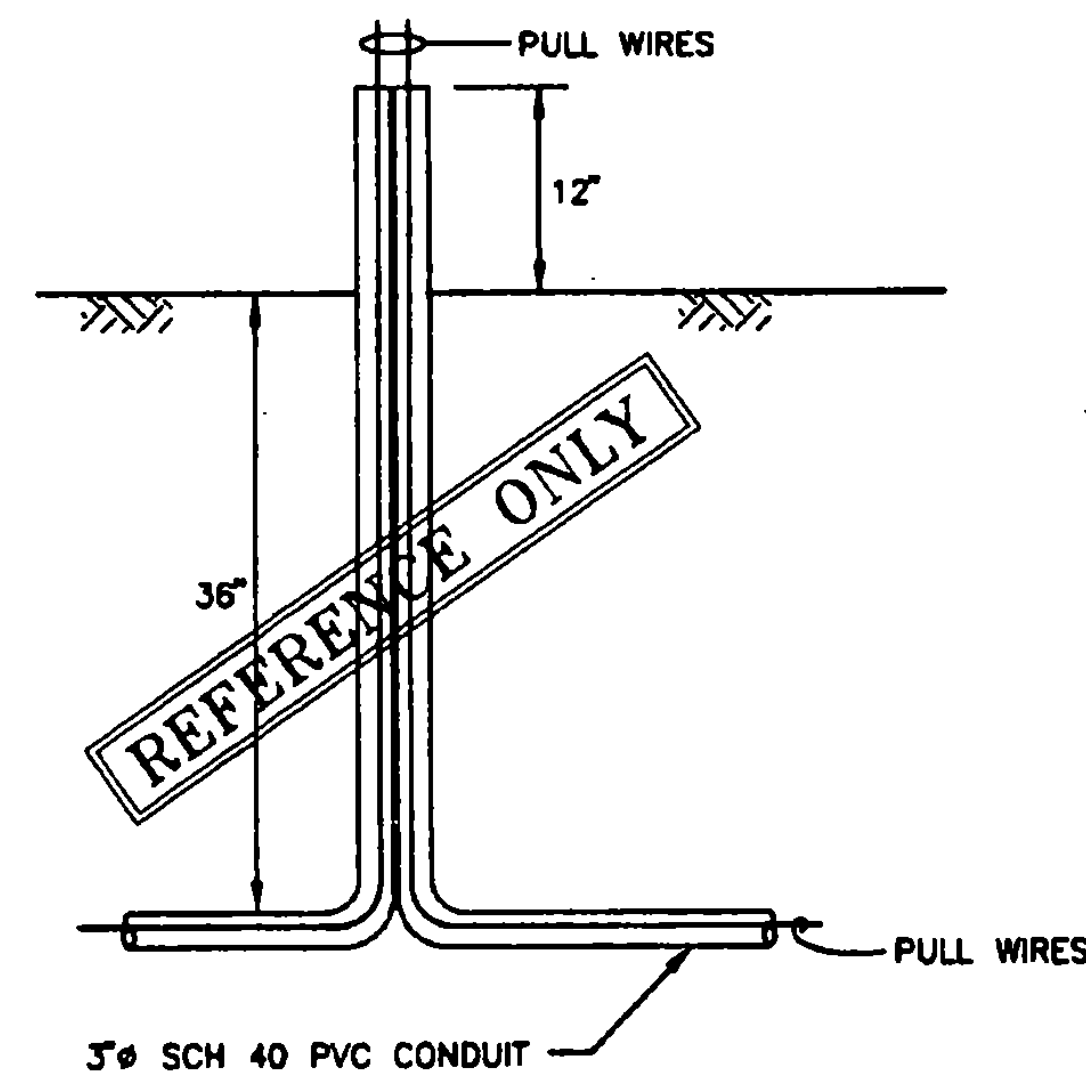
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	2/97		3/97		5/97
					5/97
					5/97

Scale: HOR. - NONE
VERT. - NONE

Date: 5/9/97

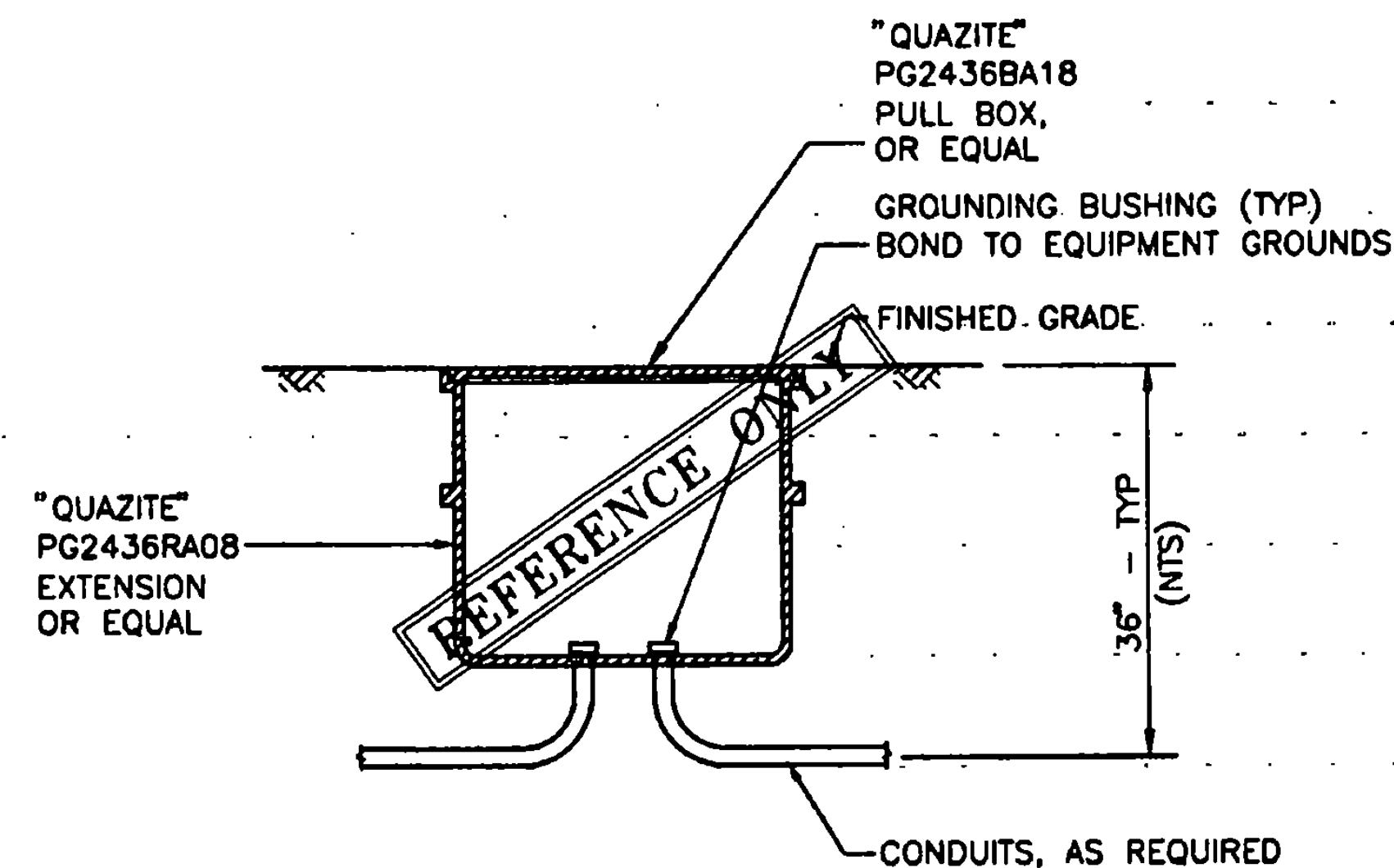
Sheet 01 of 05

Sheet No. **01**



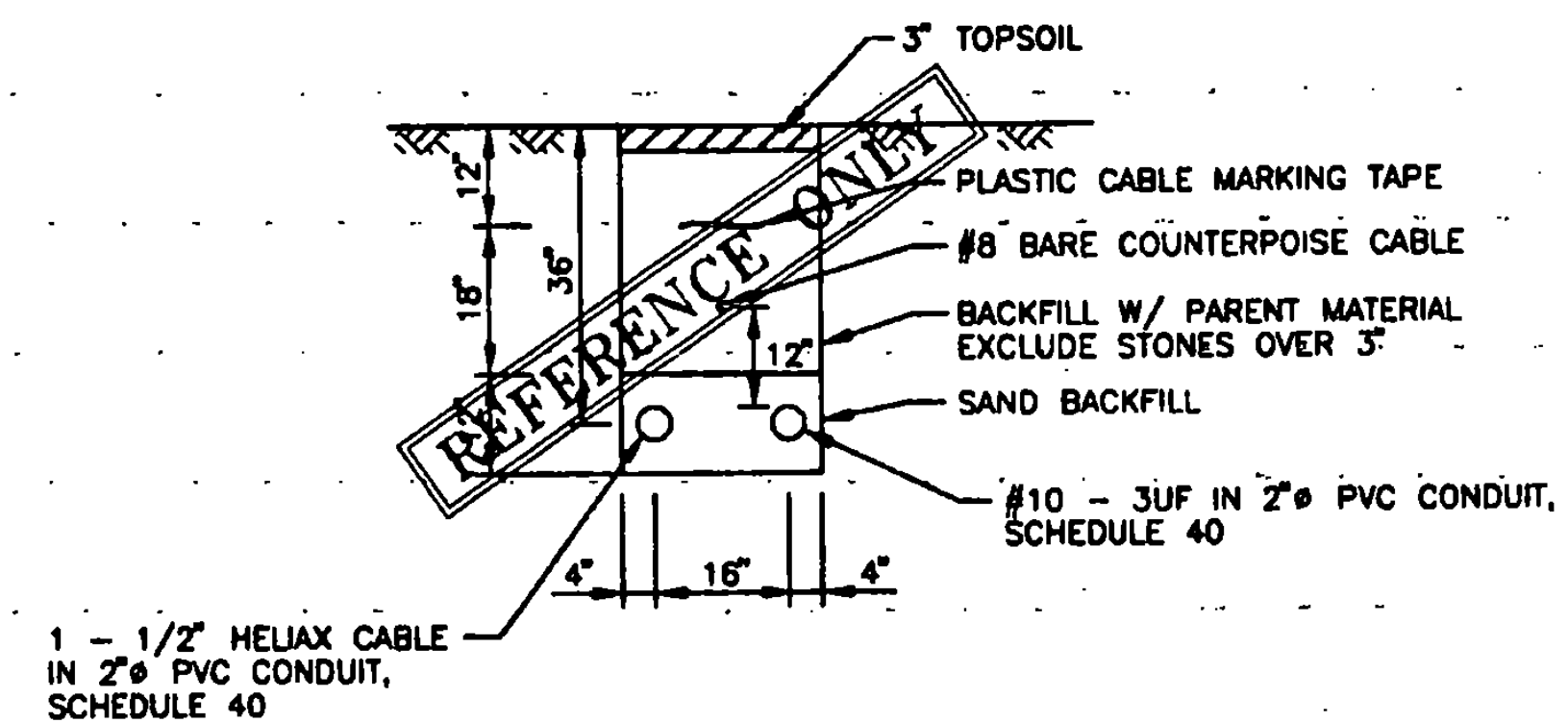
J TELEPHONE STUB-UP
SCALE: NONE

NOTE:
SEAL CONDUIT WITH APPROVED
DUCT SEAL AFTER PULL WIRES
ARE INSTALLED.

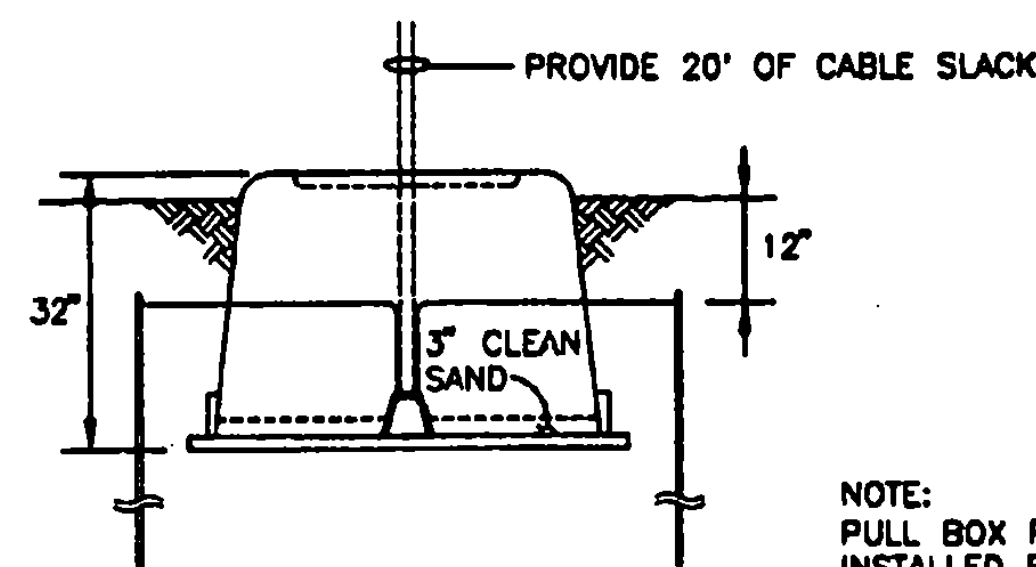
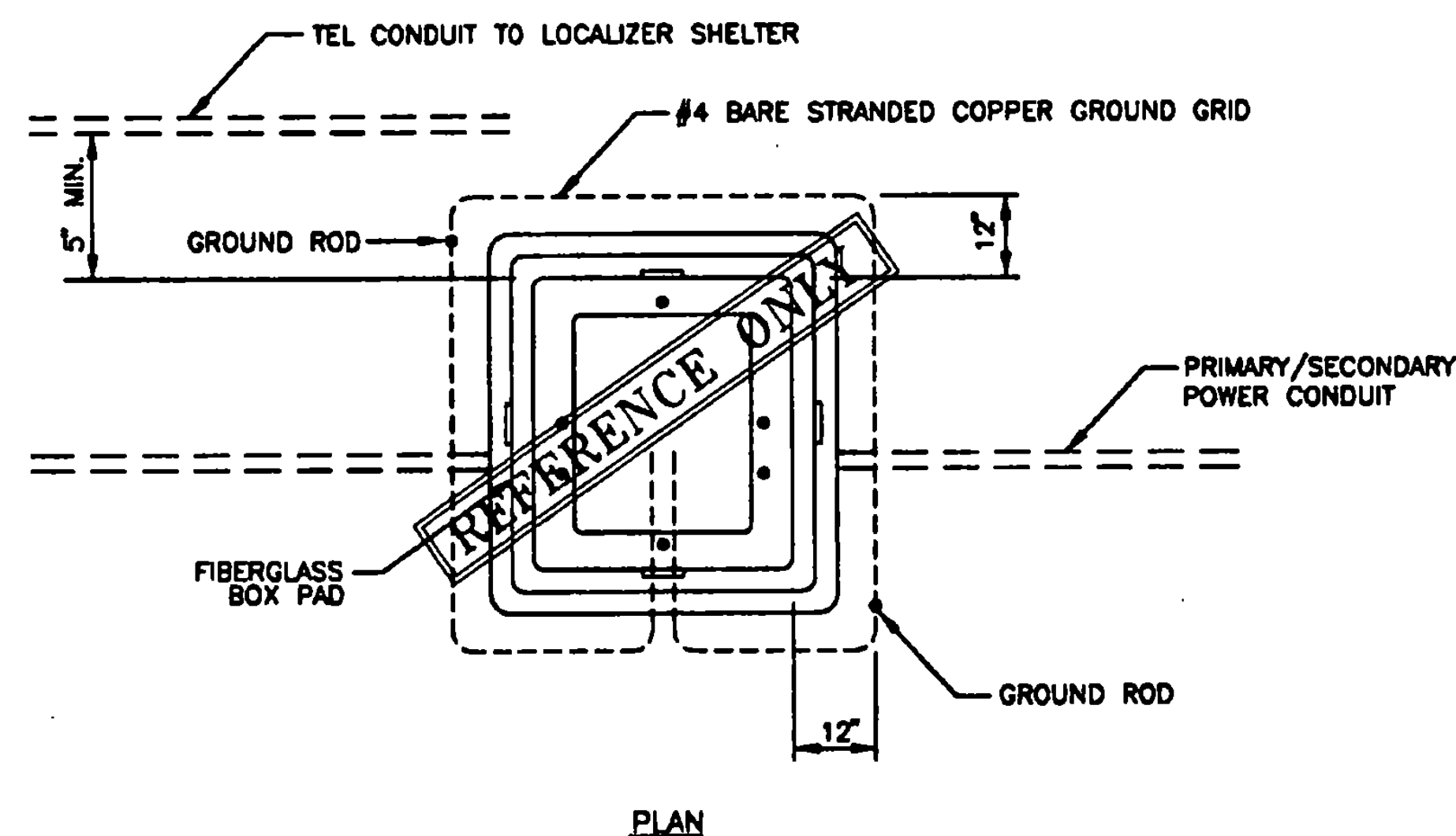


NOTE:
PROVIDE LOOPS IN HANDHOLES WHERE
NO SPLICES OCCUR. TERMINATE SPARE
COAXIAL CABLE IN HANDHOLE WITH 10
FEET OF EXTRA CABLE COILED AND TAPED.

**O POWER & COMMUNICATION
HANDHOLE DETAIL**
SCALE: 1"=1'-0"

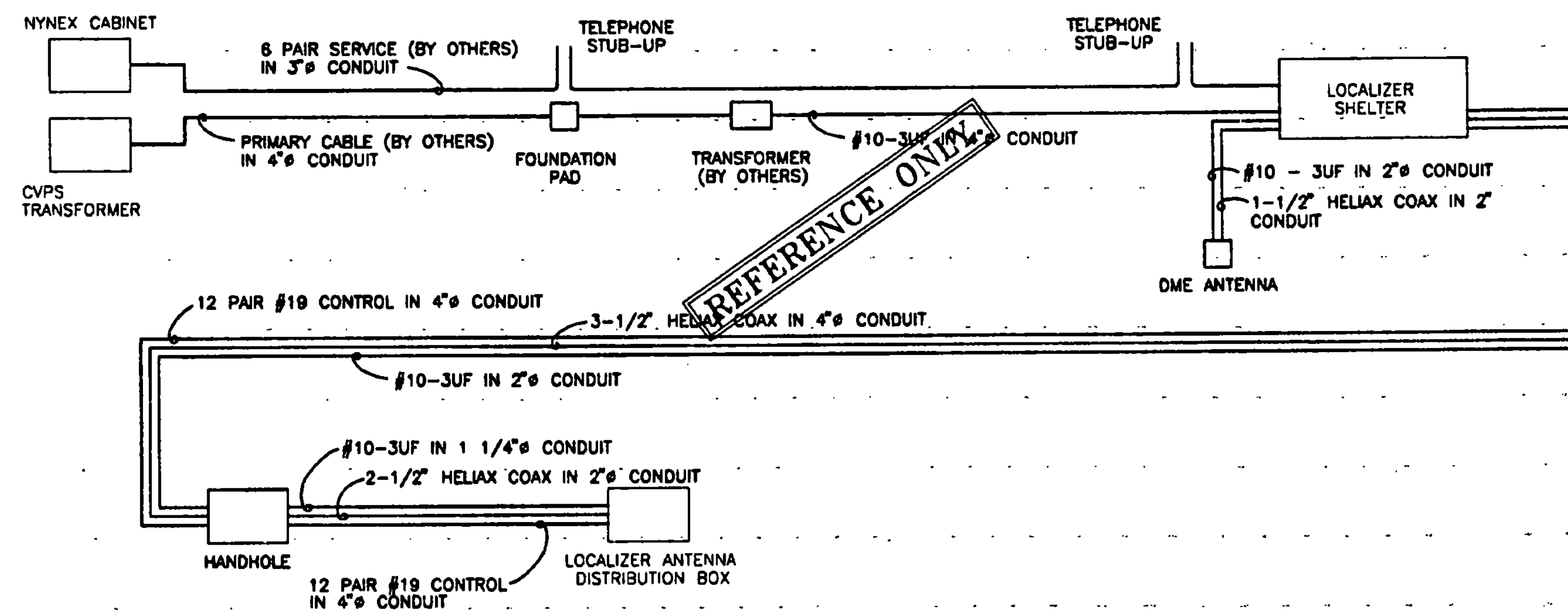


P CONDUIT TRENCH FROM DME TO SHELTER
SCALE: NONE



K PULL BOX DETAILS
SCALE: NONE

NOTE:
PULL BOX PROVIDED BY CVPS,
INSTALLED BY CONTRACTOR. ALL
GROUNDING WORK PROVIDED BY
CONTRACTOR. PROVIDED 8' MIN.
HORIZONTAL CLEARANCE BETWEEN
PULL BOX AND NEW TELEPHONE
CONDUIT ADJACENT TO PULL BOX.



Q WIRING DIAGRAM
SCALE: NONE



REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

LOCALIZER SITE DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by:	Date:
Drawn by:	3/97
Checked by:	5/97
Approved by:	5/97

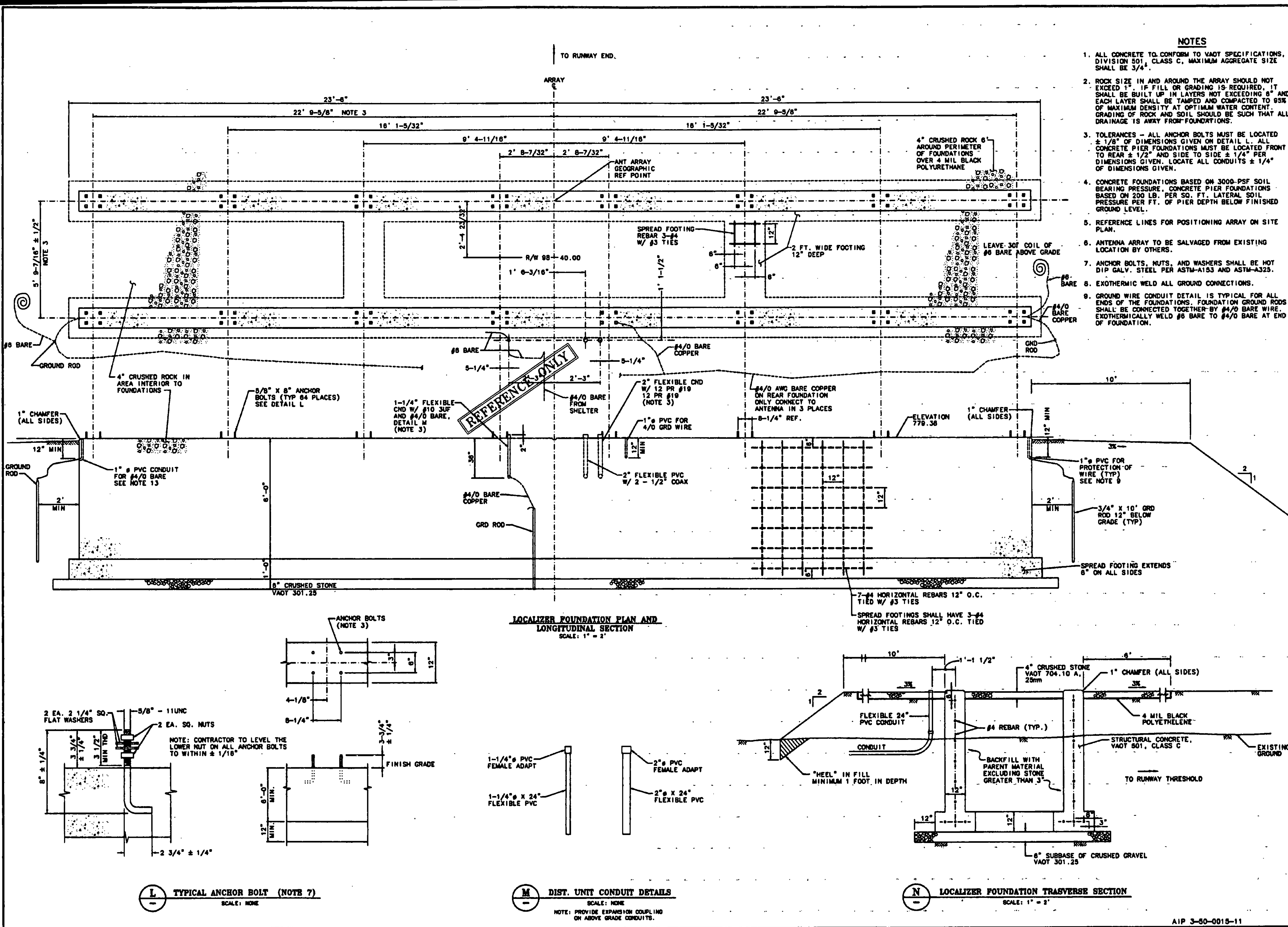
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Date: 5/97

Sheet 62 Of 68

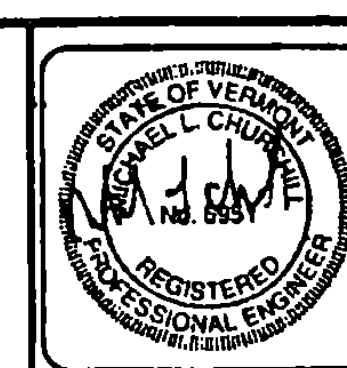
Sheet No

62



NOTES

1. ALL CONCRETE TO CONFORM TO VDOT SPECIFICATIONS, DIVISION 501, CLASS C, MAXIMUM AGGREGATE SIZE SHALL BE 3/4".
2. ROCK SIZE IN AND AROUND THE ARRAY SHOULD NOT EXCEED 1". IF FILL OR GRADING IS REQUIRED, IT SHALL BE BUILT UP IN LAYERS NOT EXCEEDING 8" AND EACH LAYER SHALL BE TAMPED AND COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM WATER CONTENT. GRADING OF ROCK AND SOIL SHOULD BE SUCH THAT ALL DRAINAGE IS AWAY FROM FOUNDATIONS.
3. TOLERANCES - ALL ANCHOR BOLTS MUST BE LOCATED $\pm 1/8"$ OF DIMENSIONS GIVEN ON DETAIL L. ALL CONCRETE PIER FOUNDATIONS MUST BE LOCATED FRONT TO REAR $\pm 1/2"$ AND SIDE TO SIDE $\pm 1/4"$ PER DIMENSIONS GIVEN. LOCATE ALL CONDUITS $\pm 1/4"$ OF DIMENSIONS GIVEN.
4. CONCRETE FOUNDATIONS BASED ON 3000-PSF SOIL BEARING PRESSURE. CONCRETE PIER FOUNDATIONS BASED ON 200 LB. PER SQ. FT. LATERAL SOIL PRESSURE PER FT. OF PIER DEPTH BELOW FINISHED GROUND LEVEL.
5. REFERENCE LINES FOR POSITIONING ARRAY ON SITE PLAN.
6. ANTENNA ARRAY TO BE SALVAGED FROM EXISTING LOCATION BY OTHERS.
7. ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE HOT DIP GALV. STEEL PER ASTM-A153 AND ASTM-A325.
8. EXOTHERMIC WELD ALL GROUND CONNECTIONS.
9. GROUND WIRE CONDUIT DETAIL IS TYPICAL FOR ALL ENDS OF THE FOUNDATIONS. FOUNDATION GROUND RODS SHALL BE CONNECTED TOGETHER BY #4/0 BARE WIRE, EXOTHERMICALLY WELD #6 BARE TO #4/0 BARE AT END OF FOUNDATION.



REV.	DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

LOCALIZER FOUNDATION DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by:	Code:
Drawn by:	2/87
Checked by:	3/87
Approved by:	5/87
Scale:	NOR. NONE
Date:	5/87
Sheet	63 Of 68
Sheet No.	63



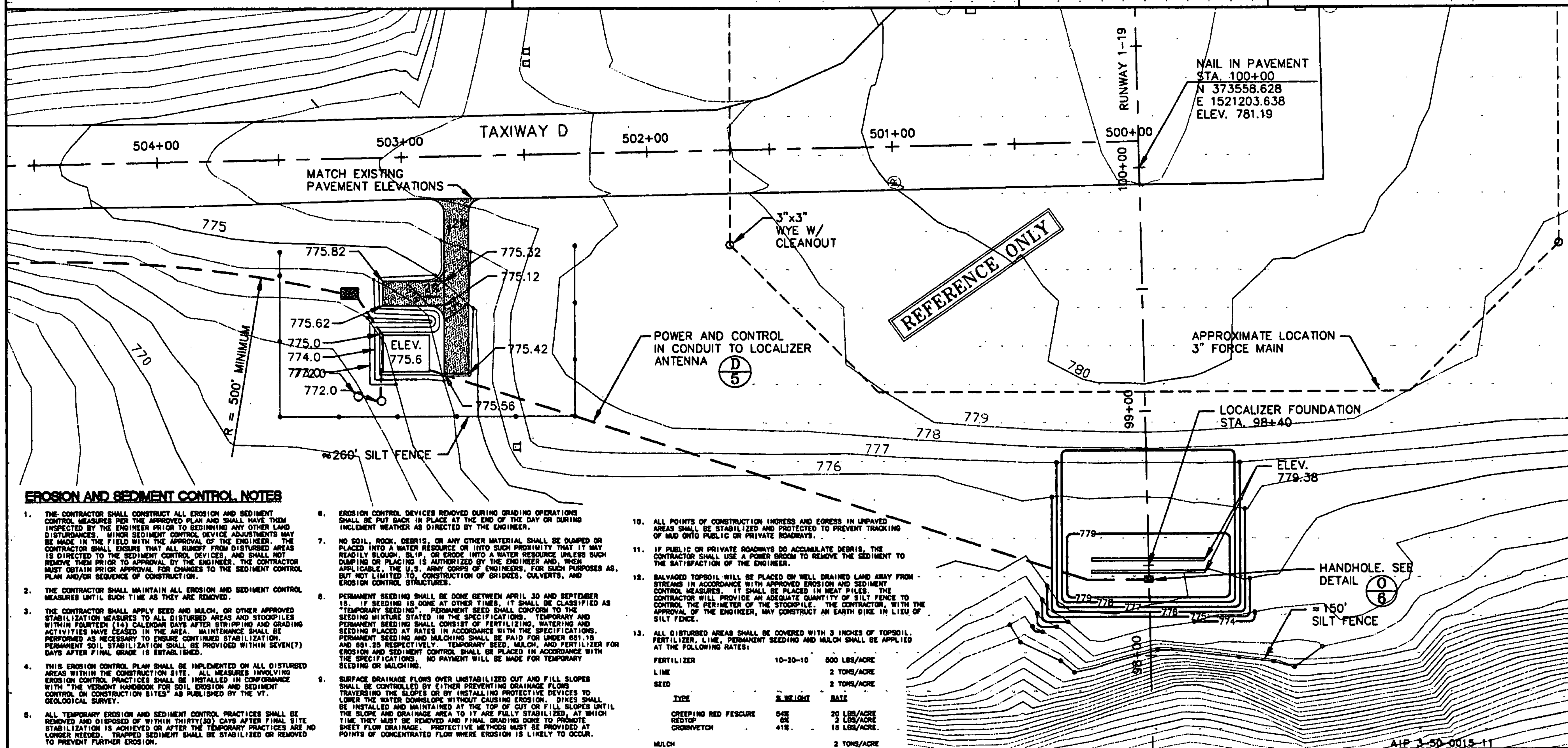
SITE DATA

PROJECT DESCRIPTION:
AIRPORT DEVELOPMENT TO INCLUDE EARTHWORK, STORM DRAINAGE, AND
UTILITIES.

TOTAL SITE AREA:
AREA WITHIN LIMITS OF WORK APPROXIMATELY 1 ACRE.

EXISTING SOIL TYPES:
- BROWN SILTY SAND WITH TRACES OF GRAVEL.
- APPROXIMATELY 3' OF TOPSOIL.
- INFORMATION OBTAINED FROM BORINGS DRILLED BY GREEN MOUNTAIN BORINGS DURING NOVEMBER 1990.

SCHEDULE:
CONSTRUCTION TO COMMENCE JUNE 1987, AND TO BE COMPLETED AUGUST, 1987,
WITH THE IMPLEMENTATION OF EROSION CONTROL MEASURES TO BE THE FIRST
PHASES OF ACTIVITY AND TO CONTINUE THROUGHOUT PROGRESS OF PROJECT.

RECEIVING WATERS:
MILL RIVER, OTTERCREEK.[illegible]

**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

URS Grohner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: Date
G. W. MCGO 2/8/87

Drawn by: 3/87
M. MCALLA

Checked by: 5/8/87
G. W. MCGO

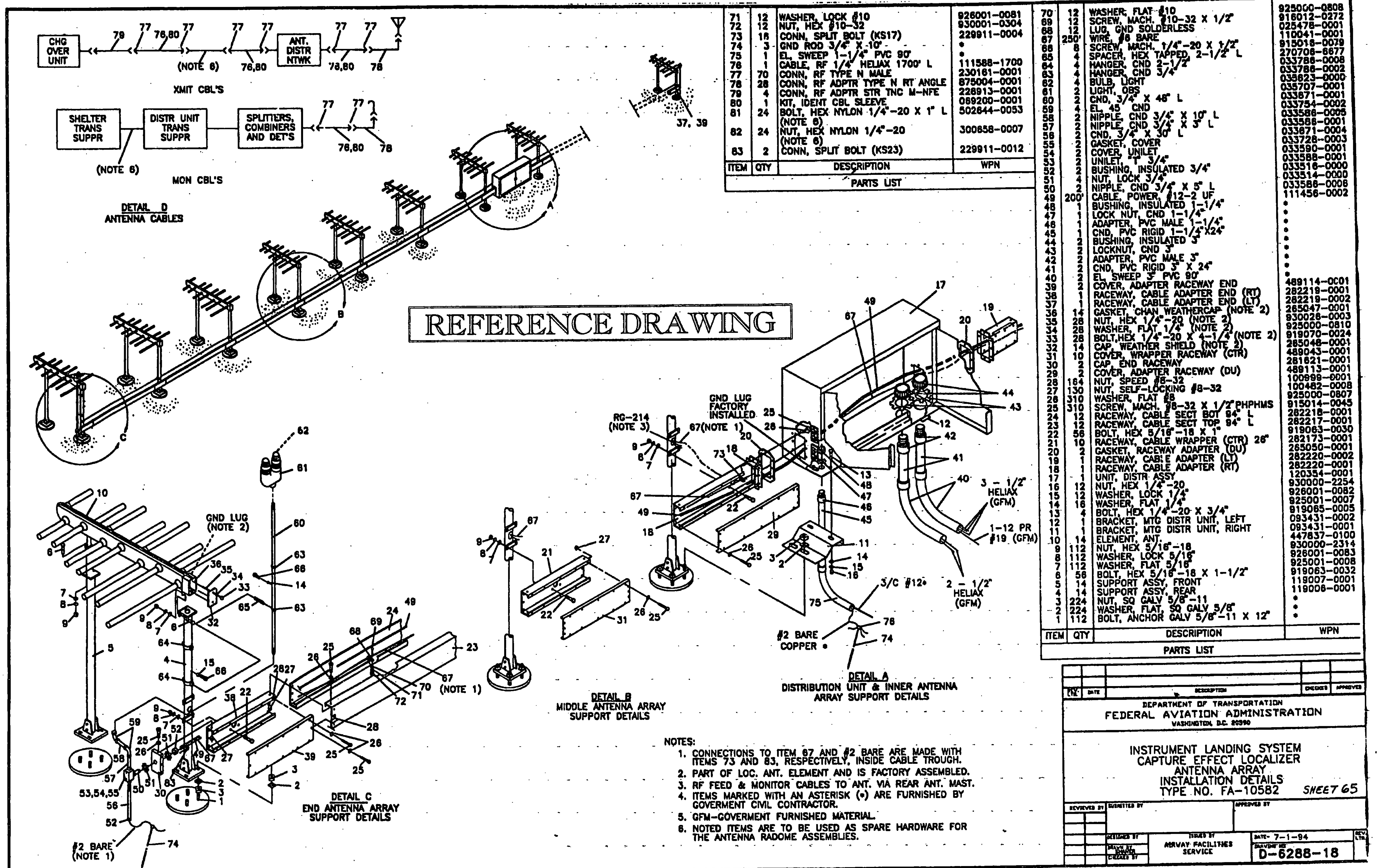
Approved by: 5/8/87
M. MCALLA

Scale: HOR. - NONE
VERT. - NONE

Date: 5/8/87

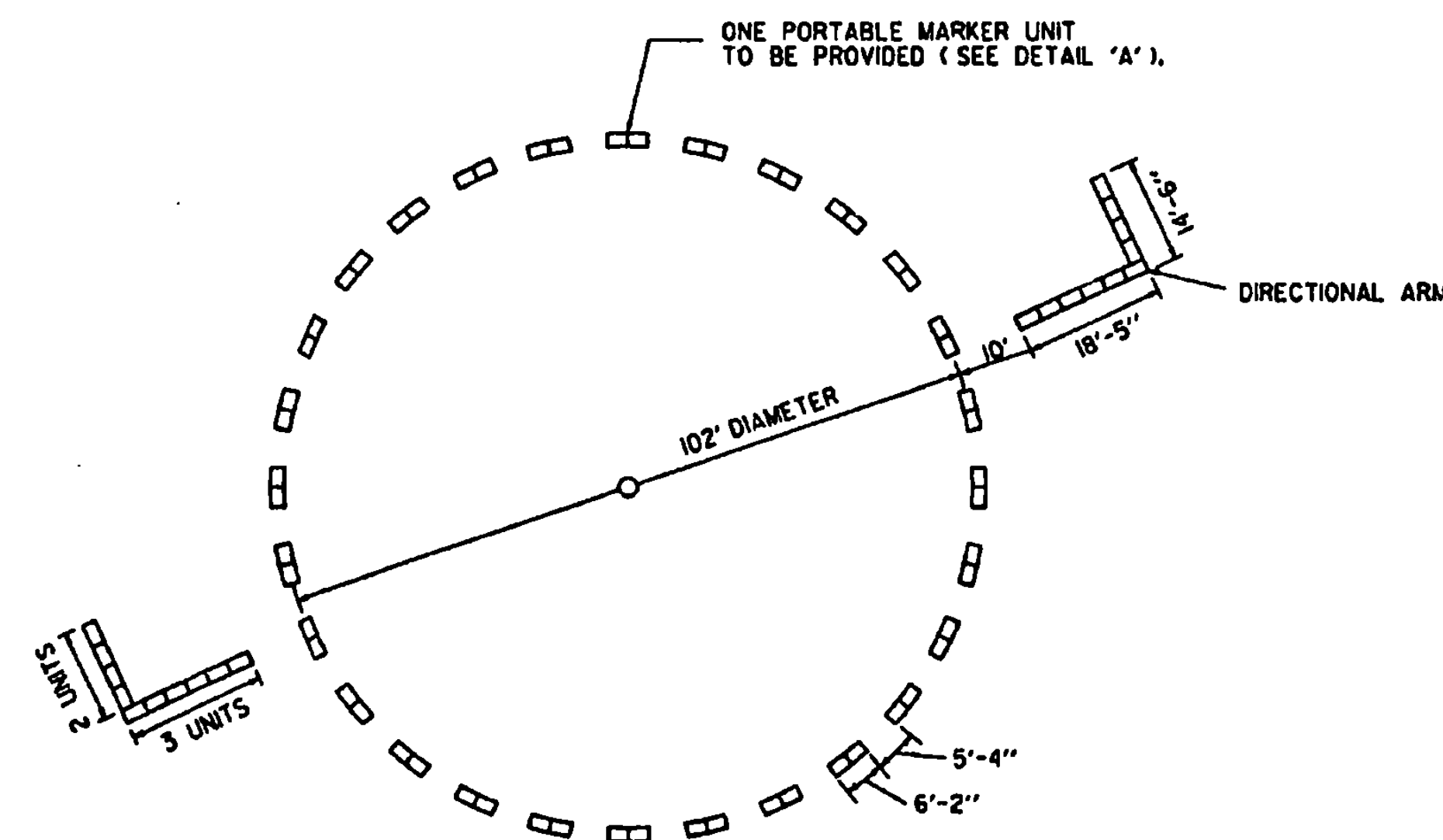
Sheet 04 Of 08

Sheet No
64

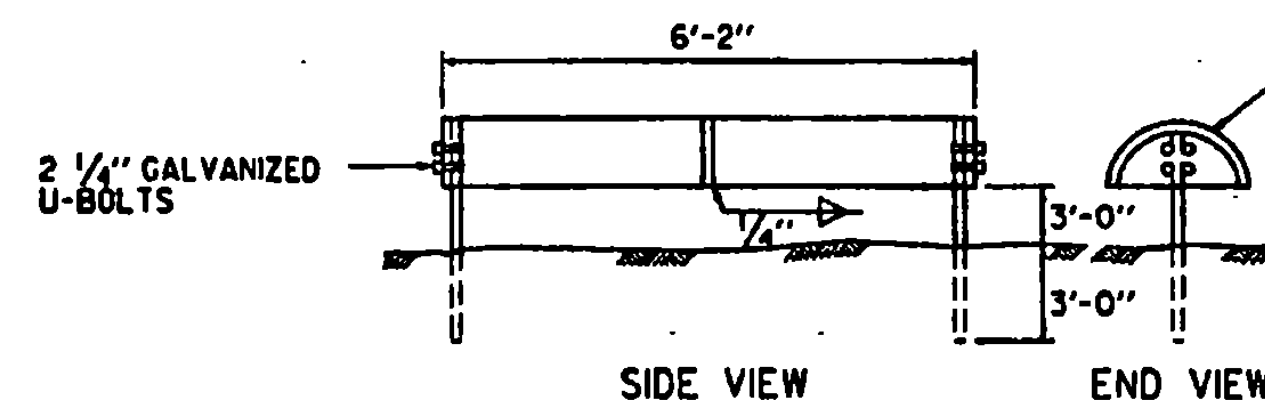
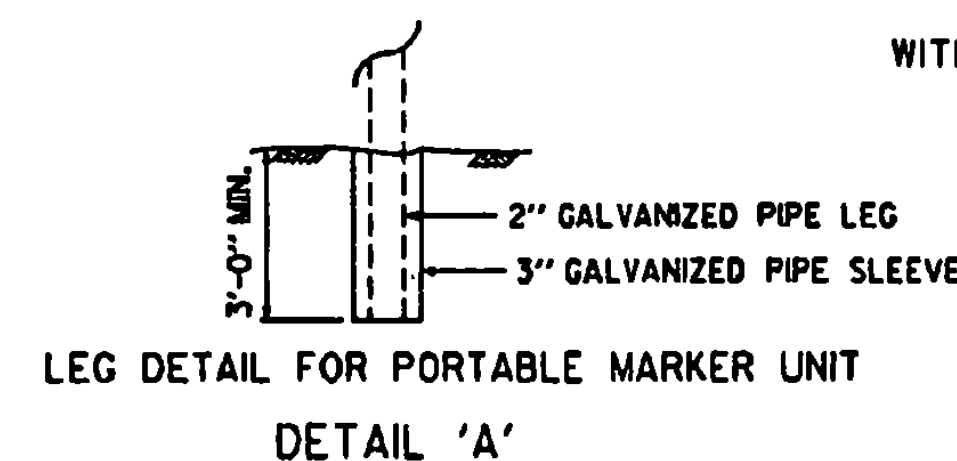


NOTES

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

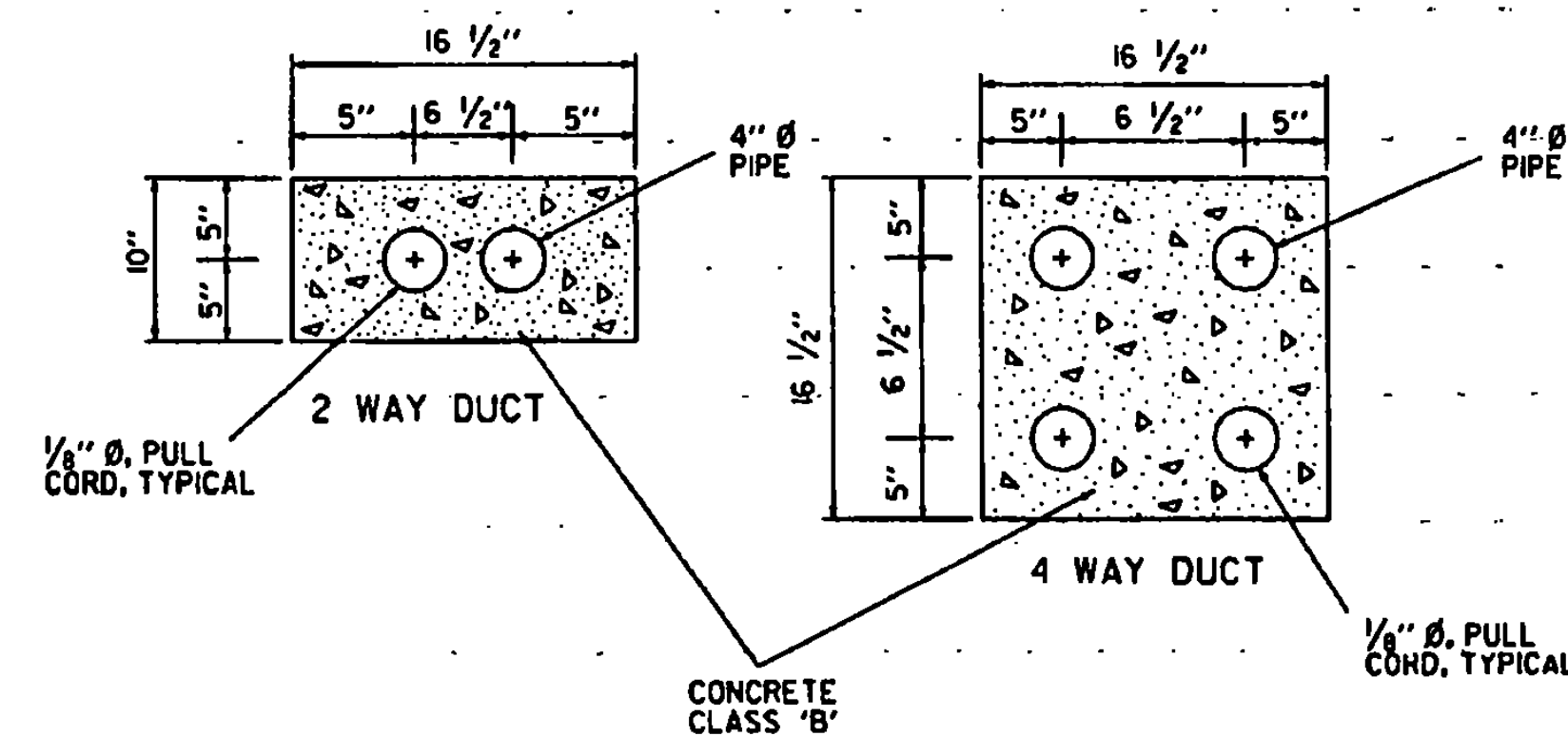


SEGMENTED CIRCLE MARKER UNIT

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

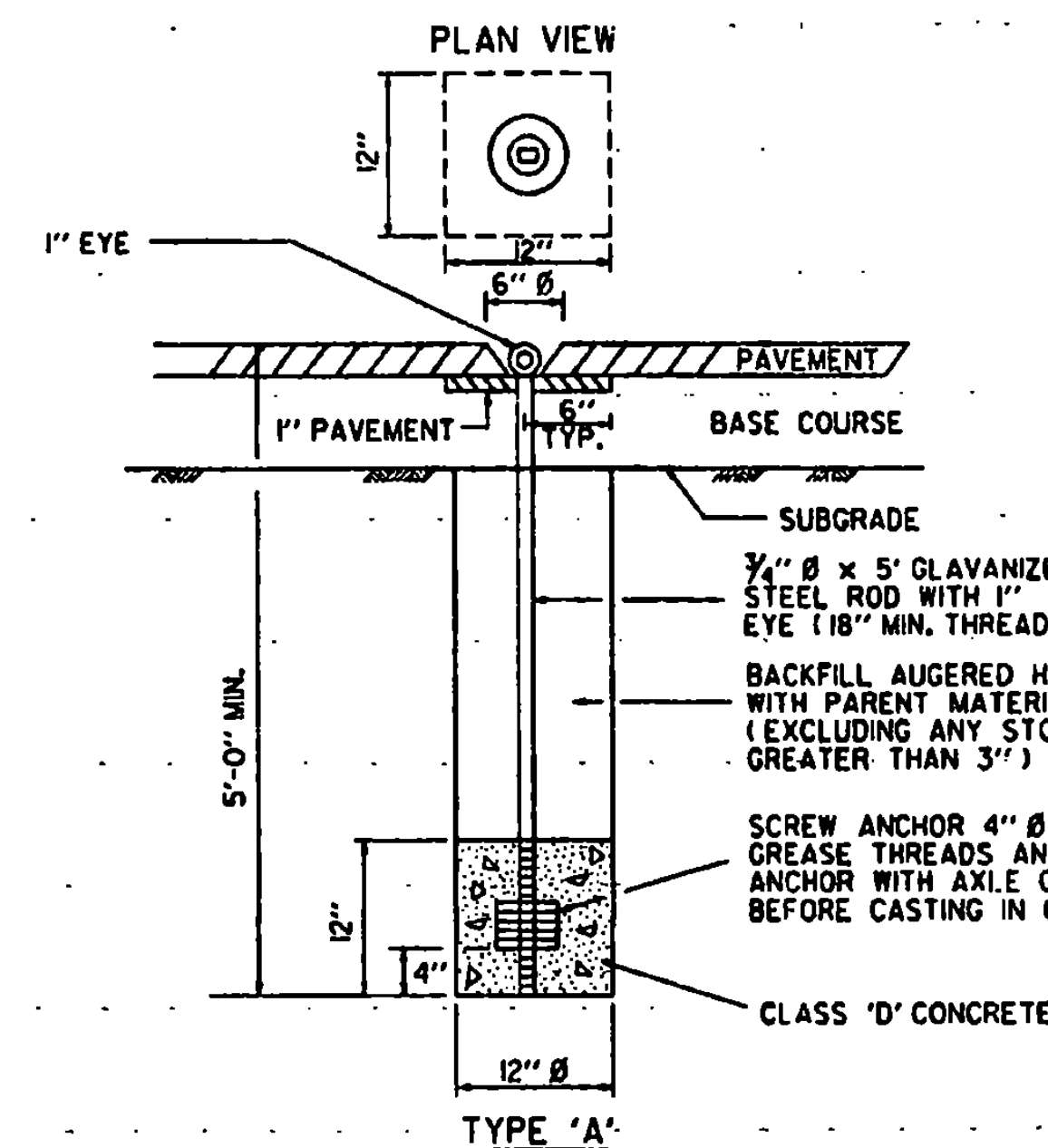
PORTABLE UNIT HAS LEGS OF 2" Ø GALVANIZED PIPE. STATIONARY UNITS HAVE LEGS OF 2" Ø GALVANIZED PIPE OR 1 1/2" x 3/8" L (GALV.).

SECTION A-A

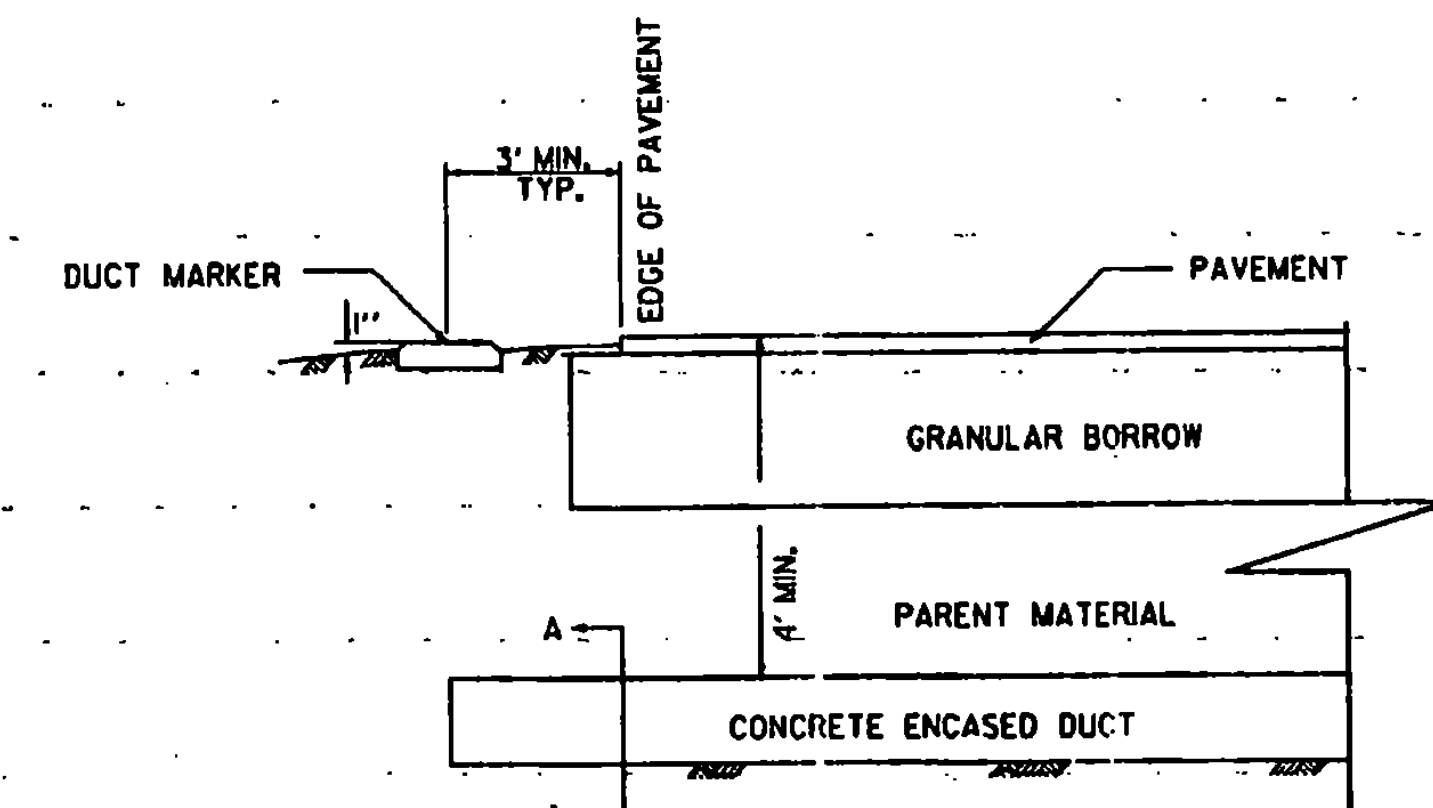


ALL DUCTS, EXCEPT STEEL CONDUIT, INSTALLED UNDER RUNWAYS, TAXIWAYS, APRONS, AND OTHER PAVED AREAS SHALL BE ENCASED IN A CONCRETE ENVELOPE

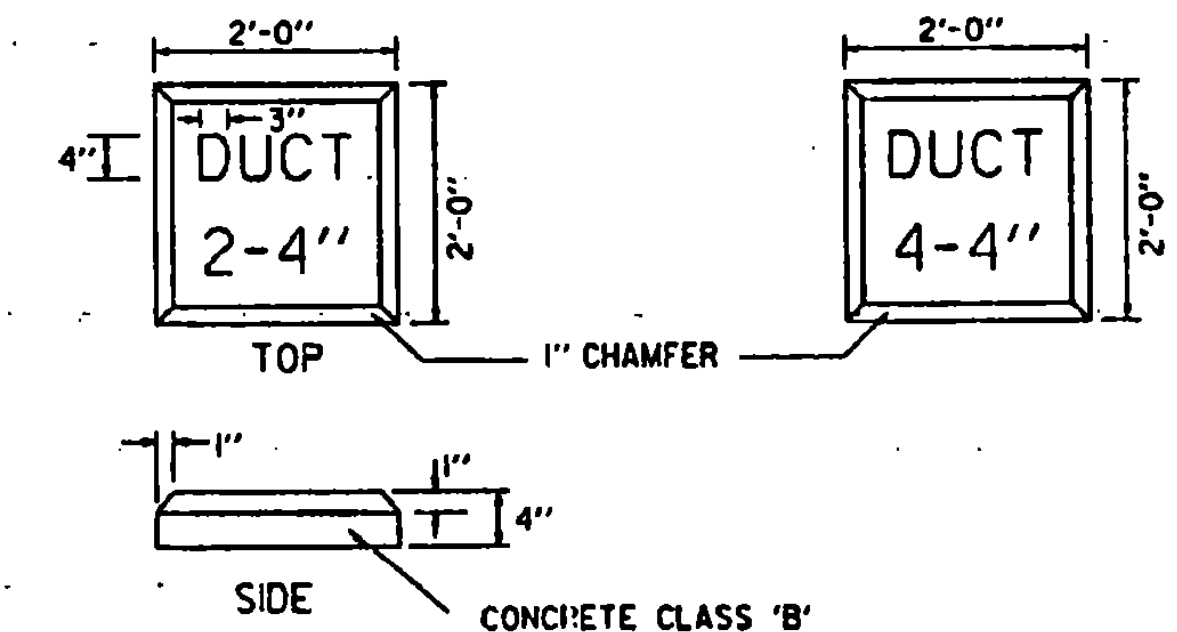
SEE STANDARD AP-2 FOR DIRECT BURIAL CABLE DETAILS.



AIRCRAFT TIE DOWN ANCHOR

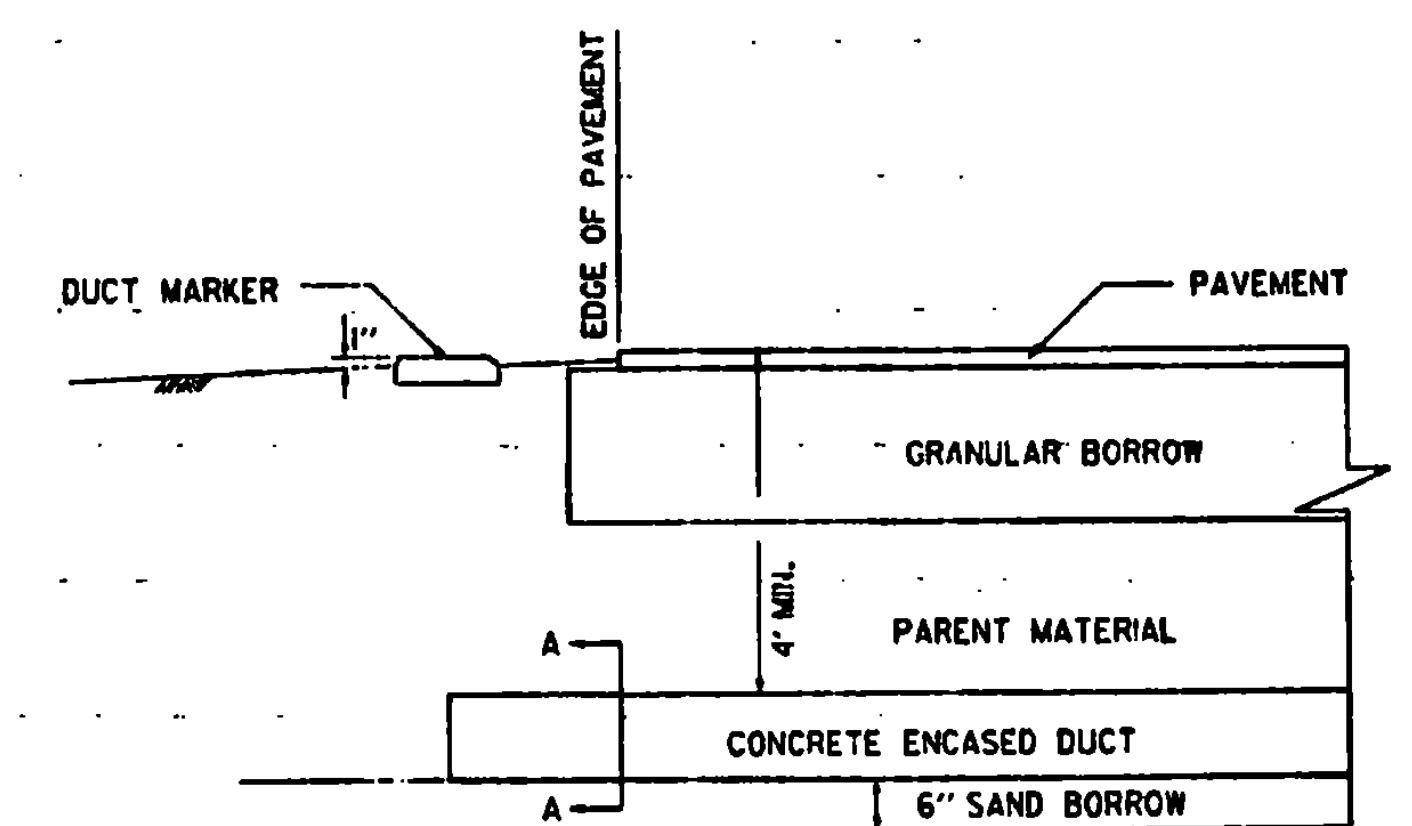


AIRPORT UNDERGROUND ELECTRICAL DUCT
(IN EARTH)



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
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

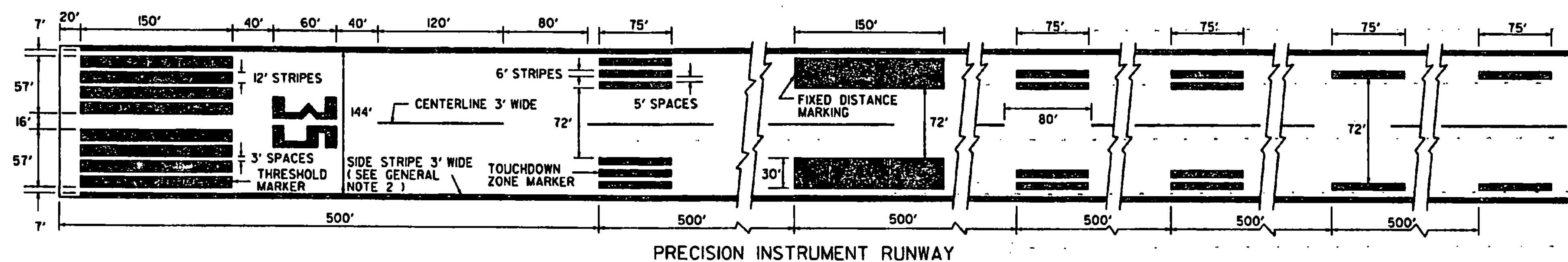
APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION
FINAL APPROVAL PENDING.

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

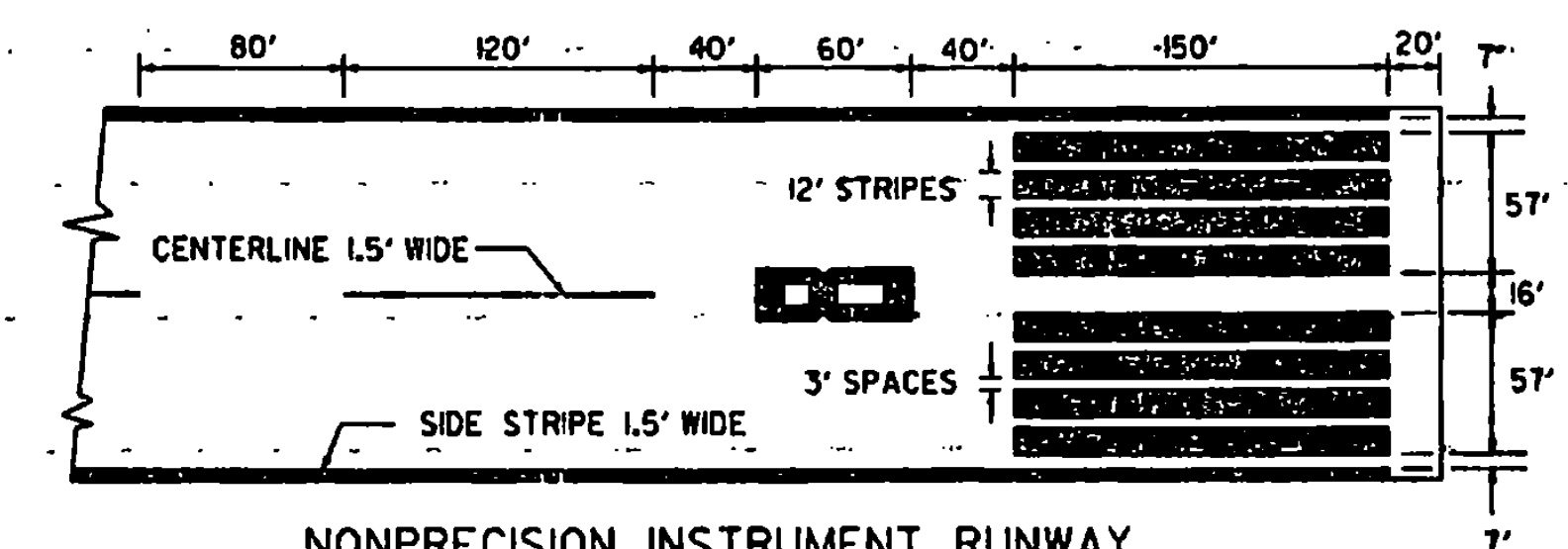
MISCELLANEOUS AIRPORT DETAILS



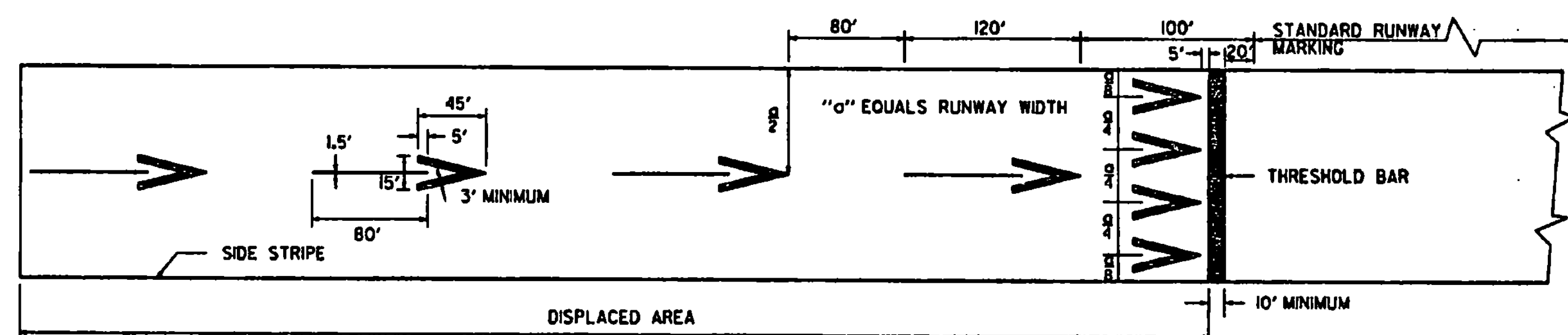
STANDARD
AP-3



PRECISION INSTRUMENT RUNWAY
NOT TO SCALE



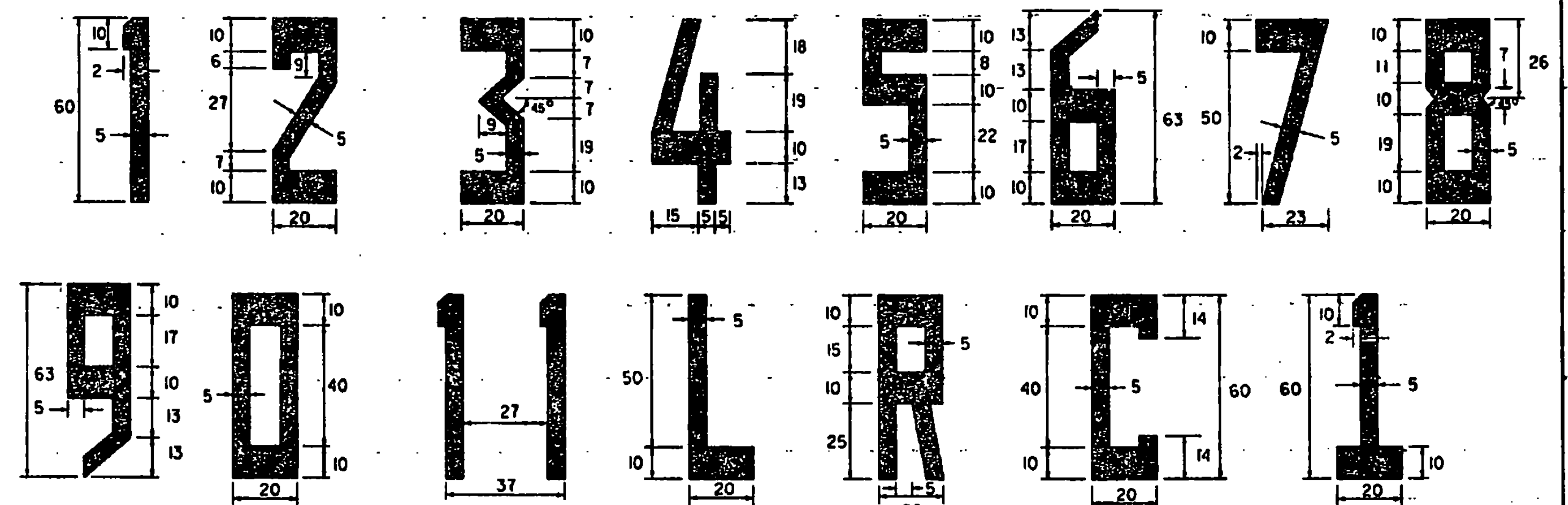
NONPRECISION INSTRUMENT RUNWAY
NOT TO SCALE



DISPLACED THRESHOLD MARKINGS
NOT TO SCALE

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.



RUNWAY NUMERALS AND LETTERS

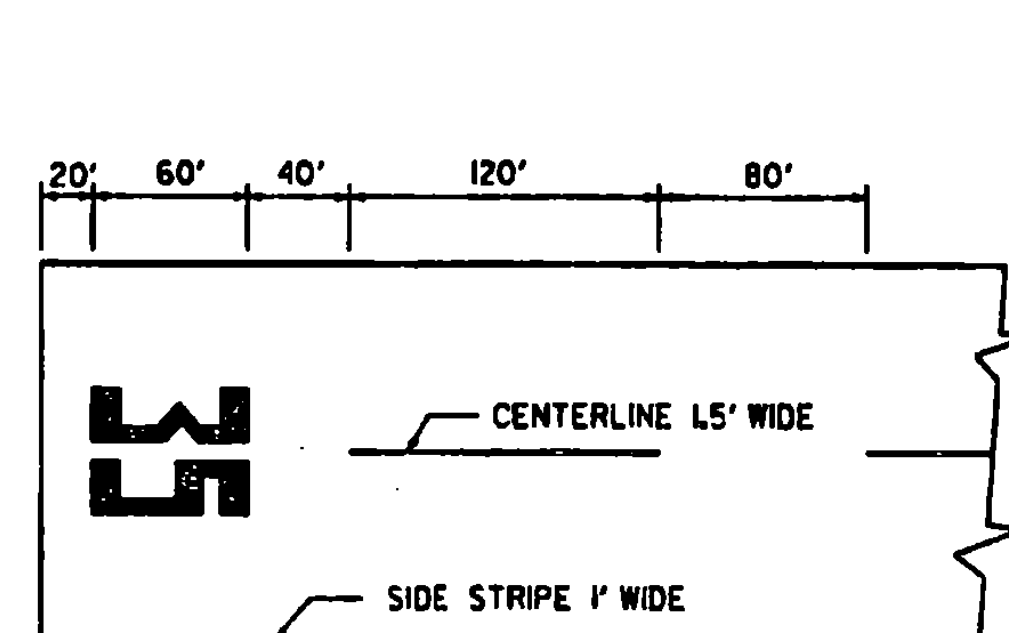
NOTES

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.

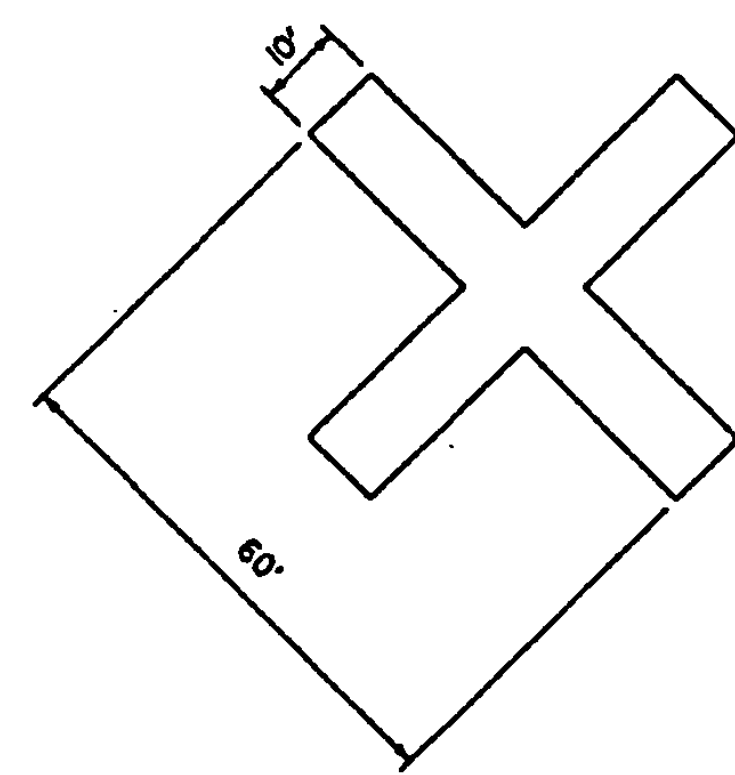
GENERAL NOTES

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 (4" TO 6").

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



VISUAL RUNWAY
NOT TO SCALE



TEMPORARY
CLOSED RUNWAY MARKER

- TEMPORARY
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 THE RUNWAY ENDS AS APPLICABLE.
 4. MARKERS TO BE ANCHORED TO THE SATISFACTION OF THE ENGINEER.

REVISIONS AND CORRECTIONS

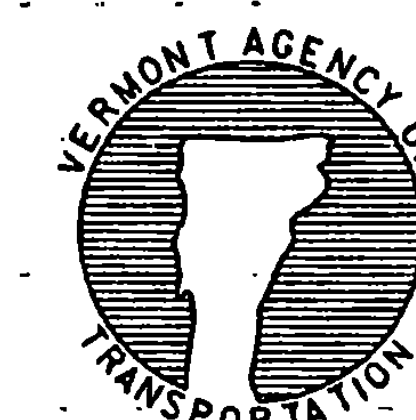
JUNE 29, 1982 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURE.

APPROVED

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

[Signature]
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

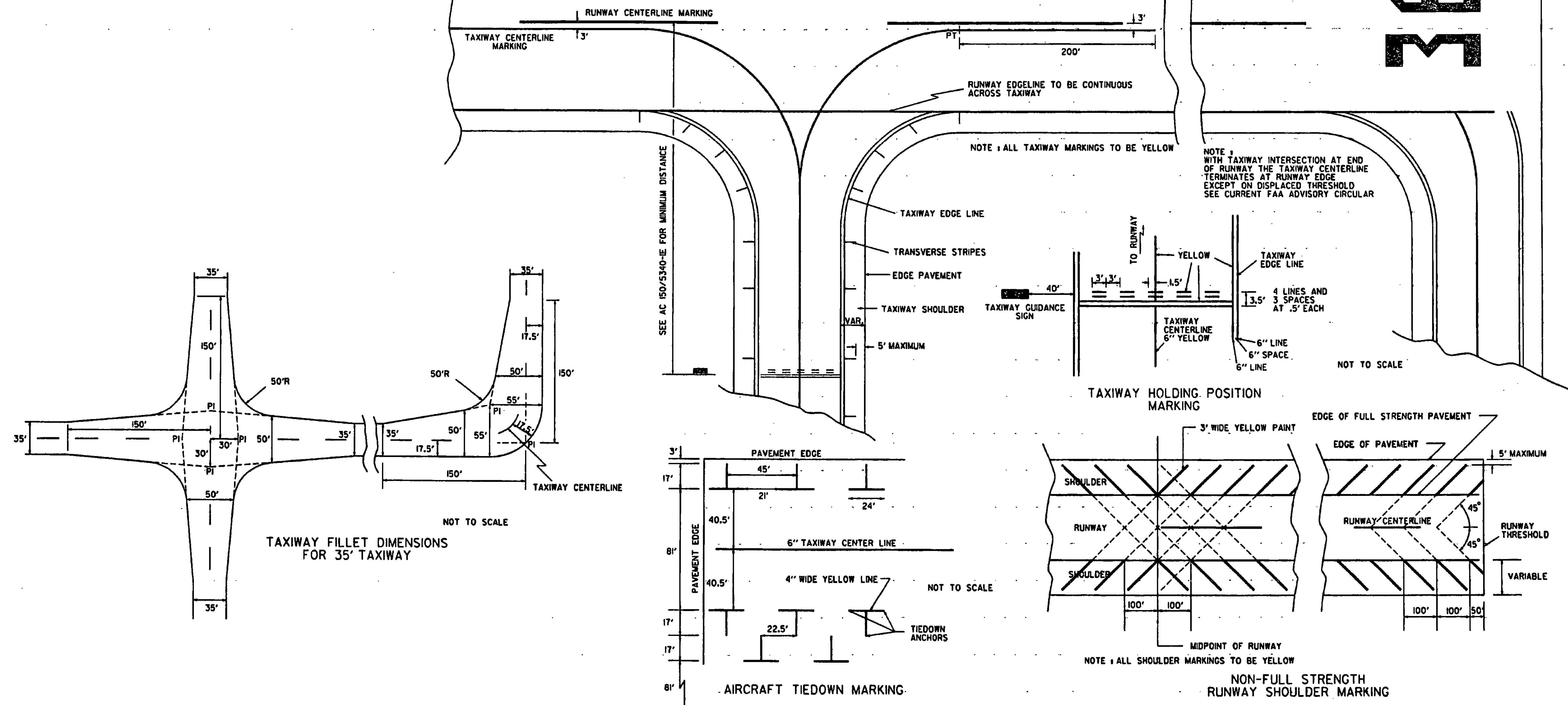
RUNWAY MARKING DETAILS



STANDARD
AP-10

NOTE :
ON LIGHT COLORED PAVEMENTS THE CONTRAST OF THE MARKINGS IS
TO BE INCREASED BY OUTLINING ALL MARKINGS WITH A 6" BLACK BORDER.

SEE STANDARD AP-10 FOR RUNWAY MARKING DETAILS



REVISIONS AND CORRECTIONS

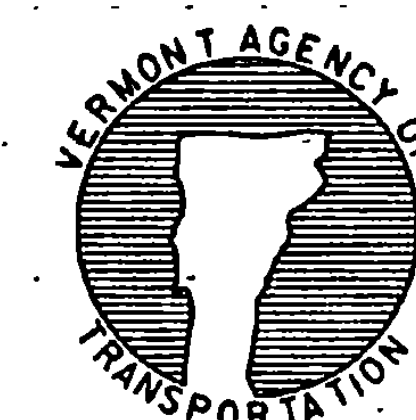
MAR. 1, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURE.

APPROVED

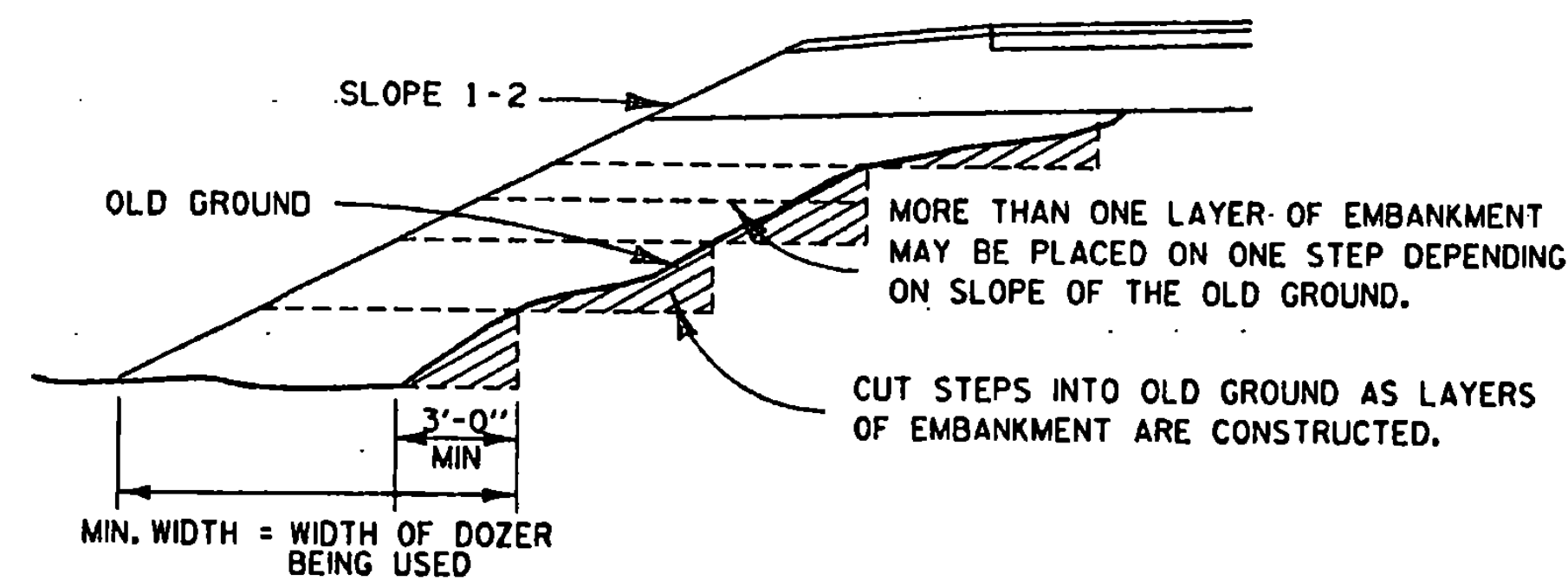
APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION,
FRAA FINAL APPROVAL PENDING.

[Signature]
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

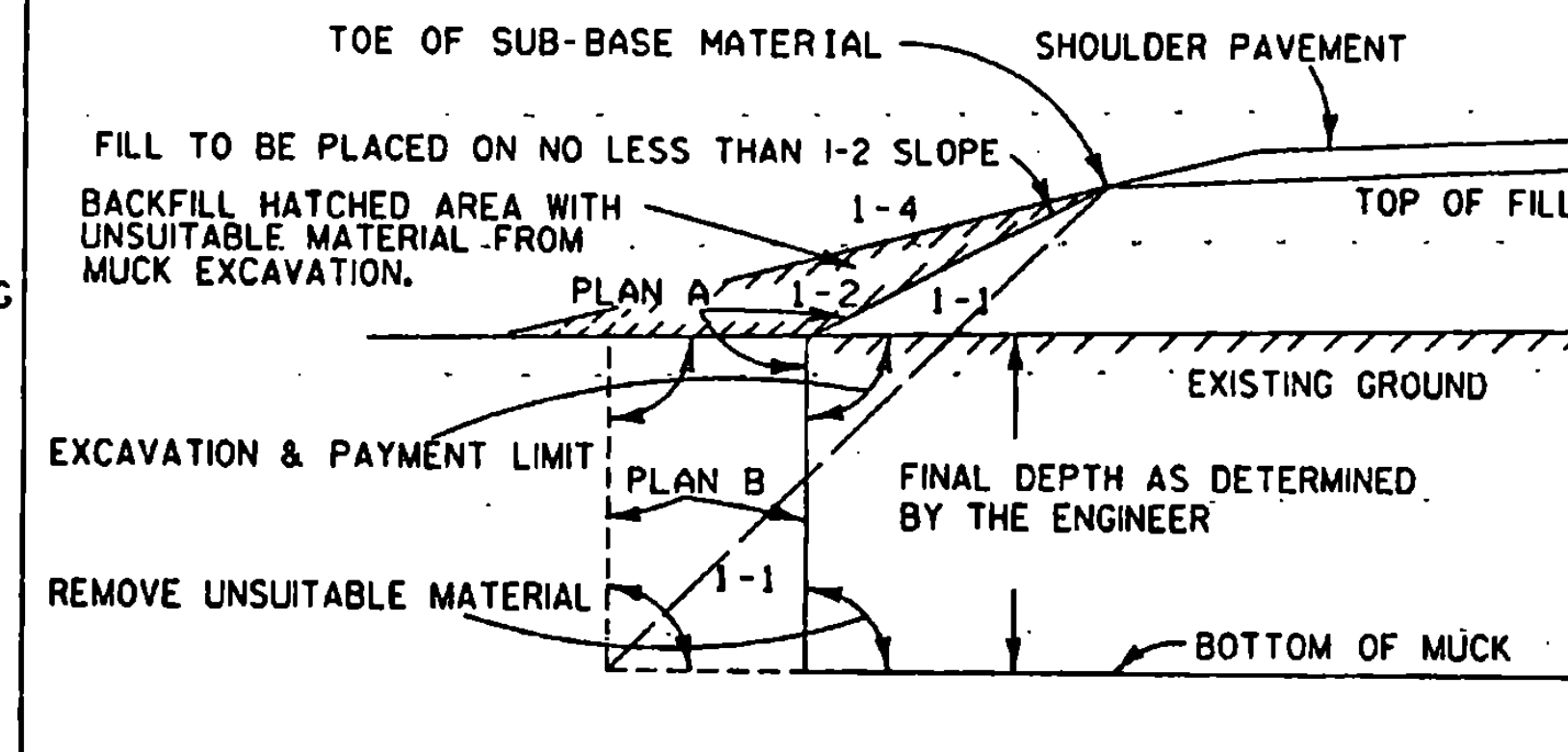
TAXIWAY AND APRON
MARKING DETAILS



STANDARD
AP-11

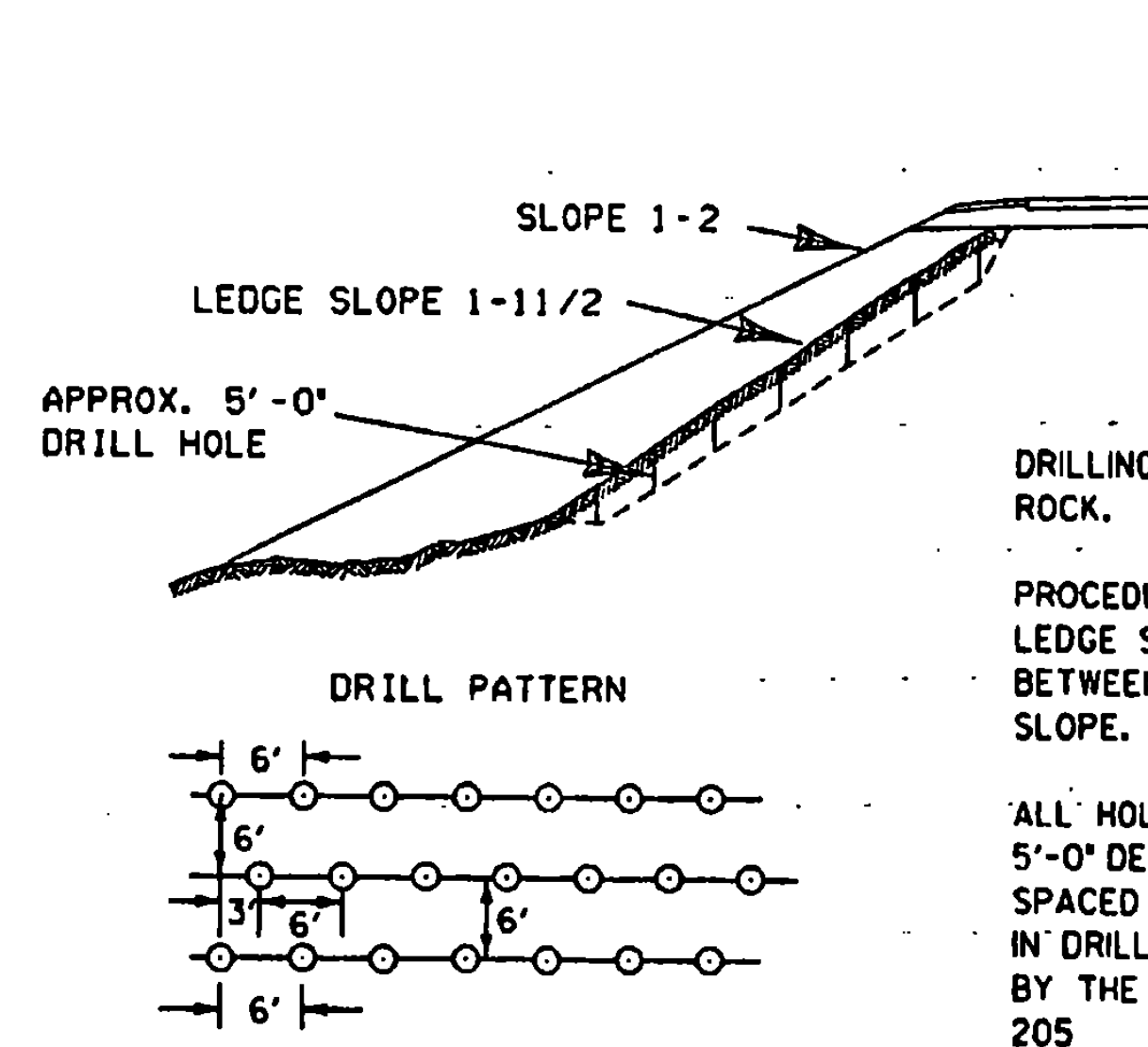


METHOD FOR CONSTRUCTING AN EMBANKMENT ON EARTH SLOPE

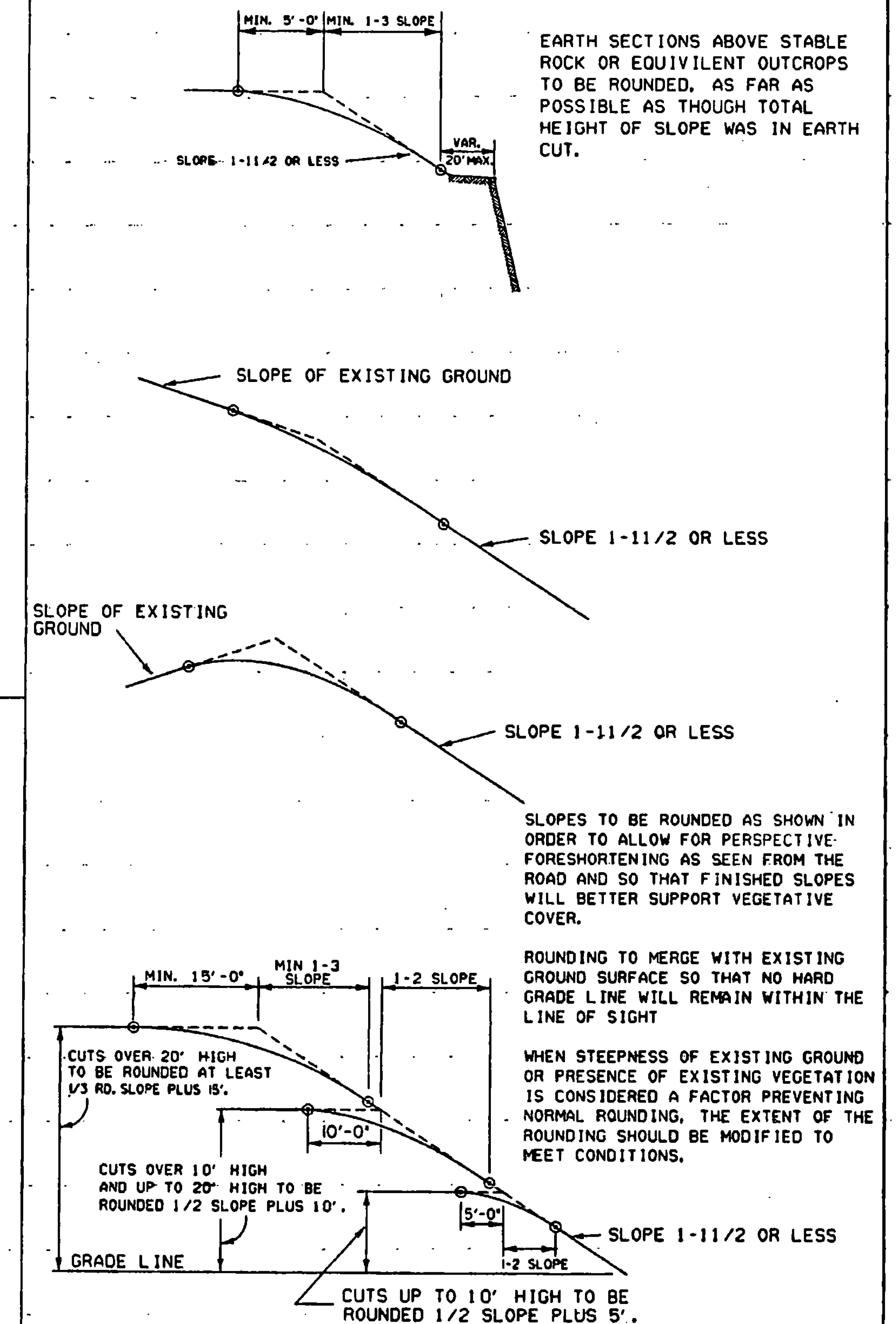


GENERAL NOTES:
THE MUCK OR UNSUITABLE MATERIAL SHALL BE EXCAVATED TO THE NEAT LINES SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.
EXCAVATION AND PAYMENT LIMIT WILL BE DETERMINED FROM EITHER PLAN 'A' OR PLAN 'B', WHICHEVER PRODUCES THE GREATER WIDTH IN A GIVEN MUCK AREA.
BACKFILL MATERIAL MUST MEET THE REQUIREMENTS SET FORTH UNDER MUCK EXCAVATION, SECTION 203

TYPICAL NEAT PAY LINES FOR MUCK EXCAVATION



A METHOD FOR PREPARING LEDGE SLOPE BEFORE CONSTRUCTING AN EMBANKMENT



TYPICAL SLOPE ROUNDING

REVISIONS AND CORRECTIONS

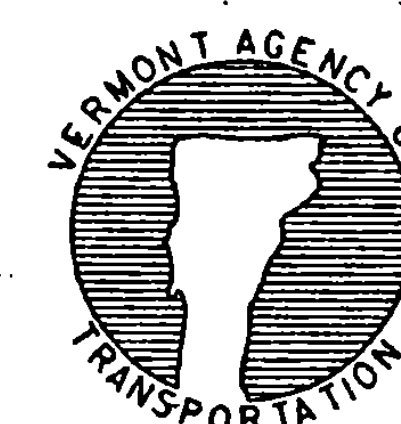
DEC. 6, 1971 - ORIGINAL APPROVAL DATE
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

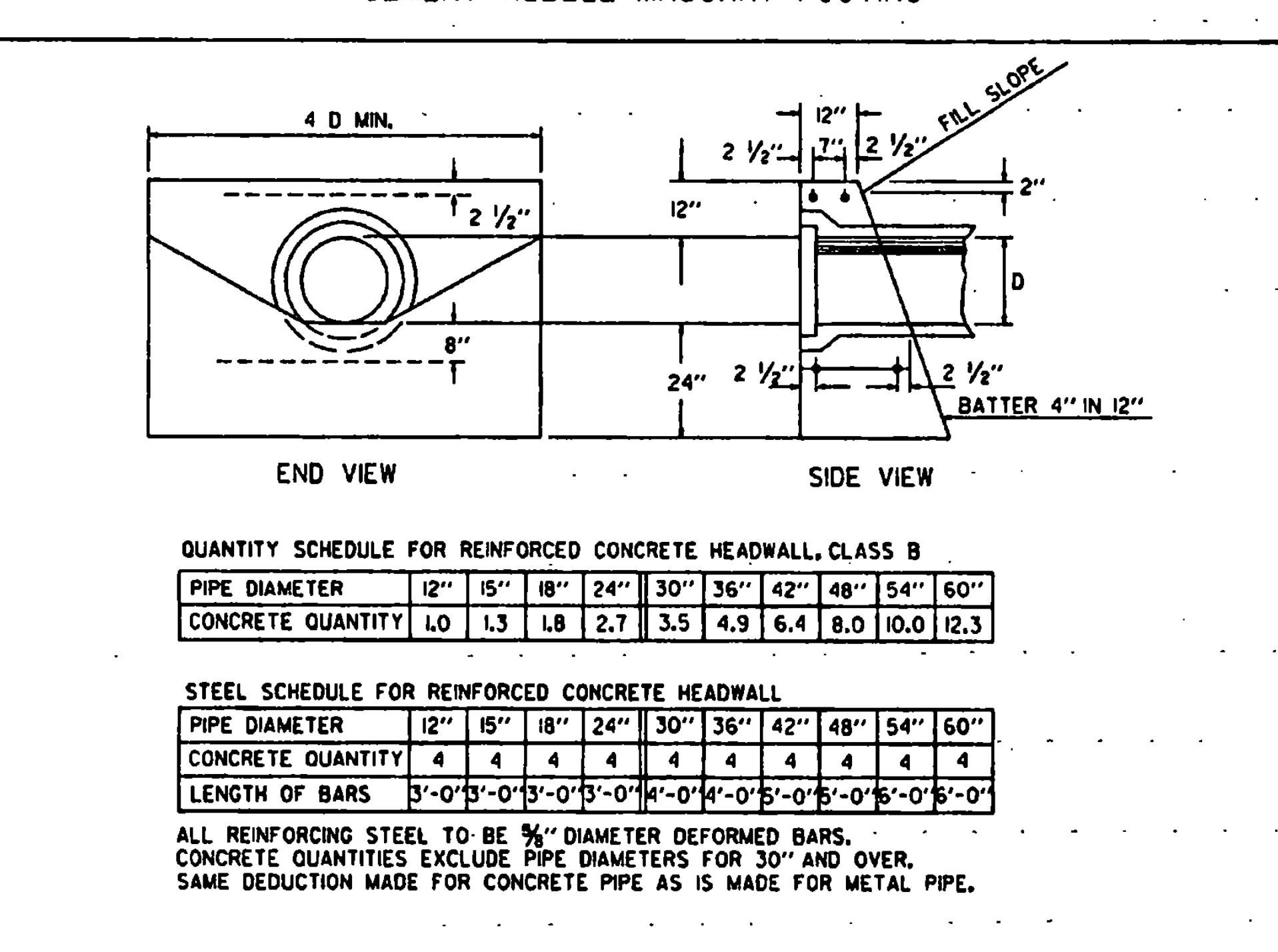
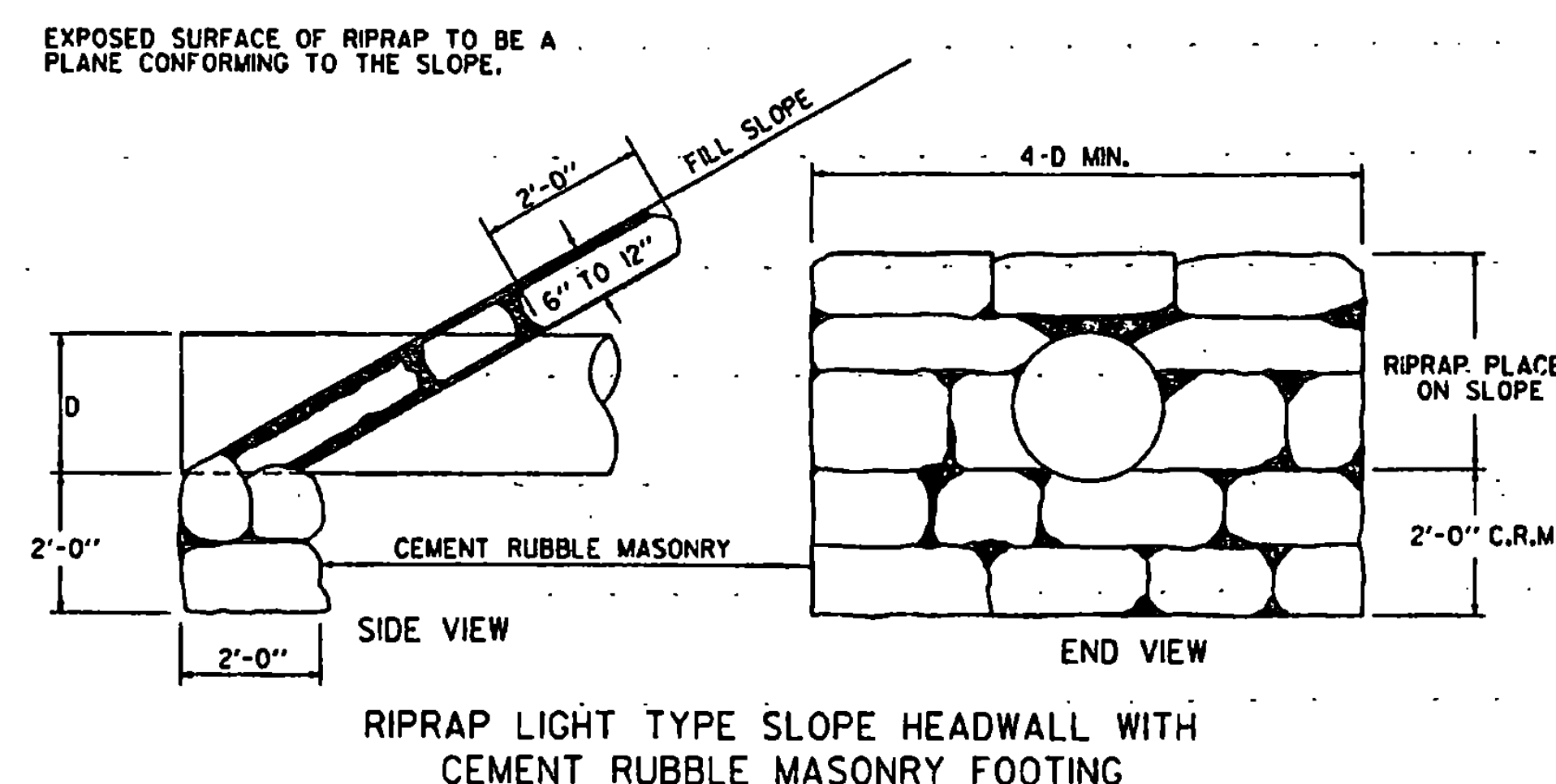
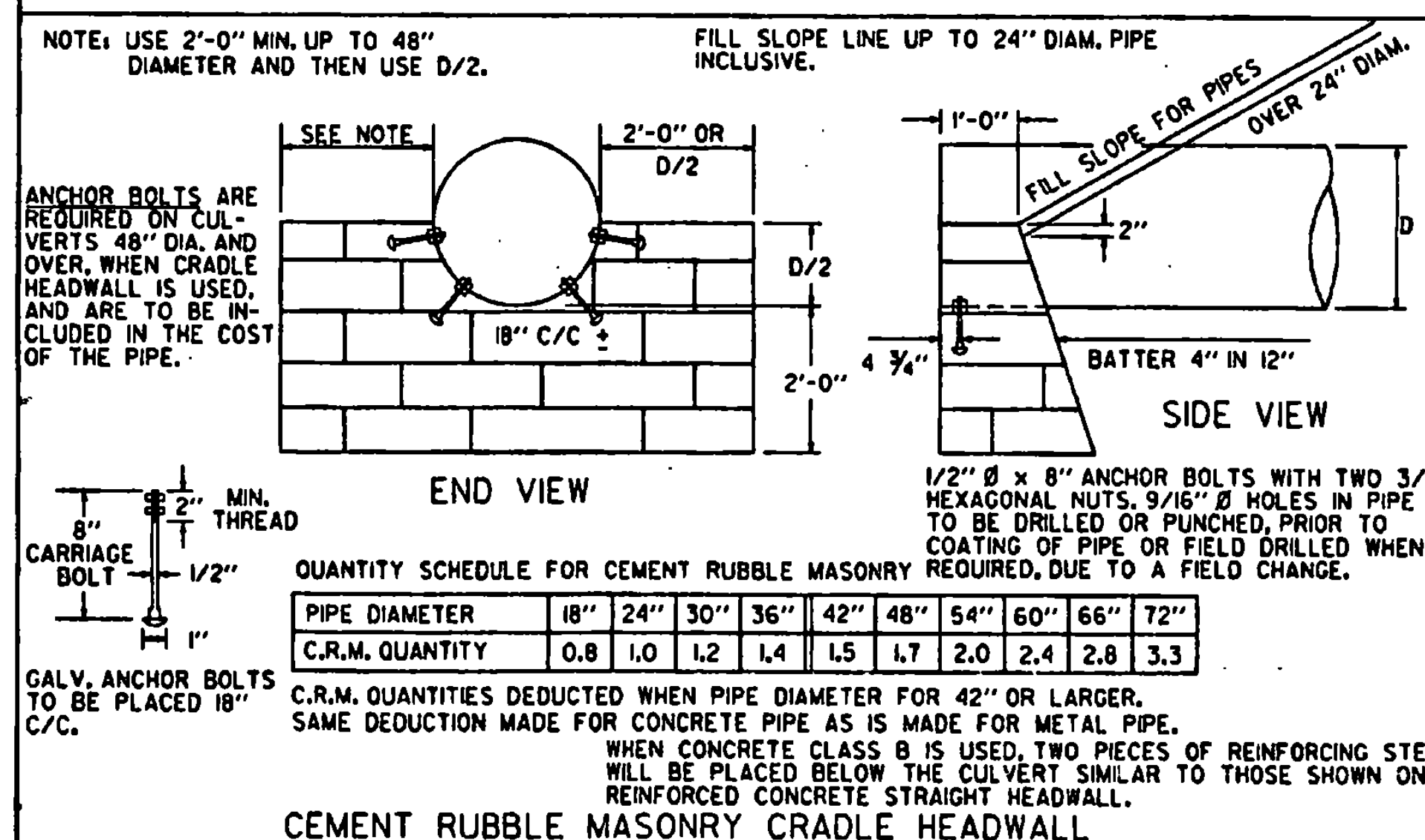
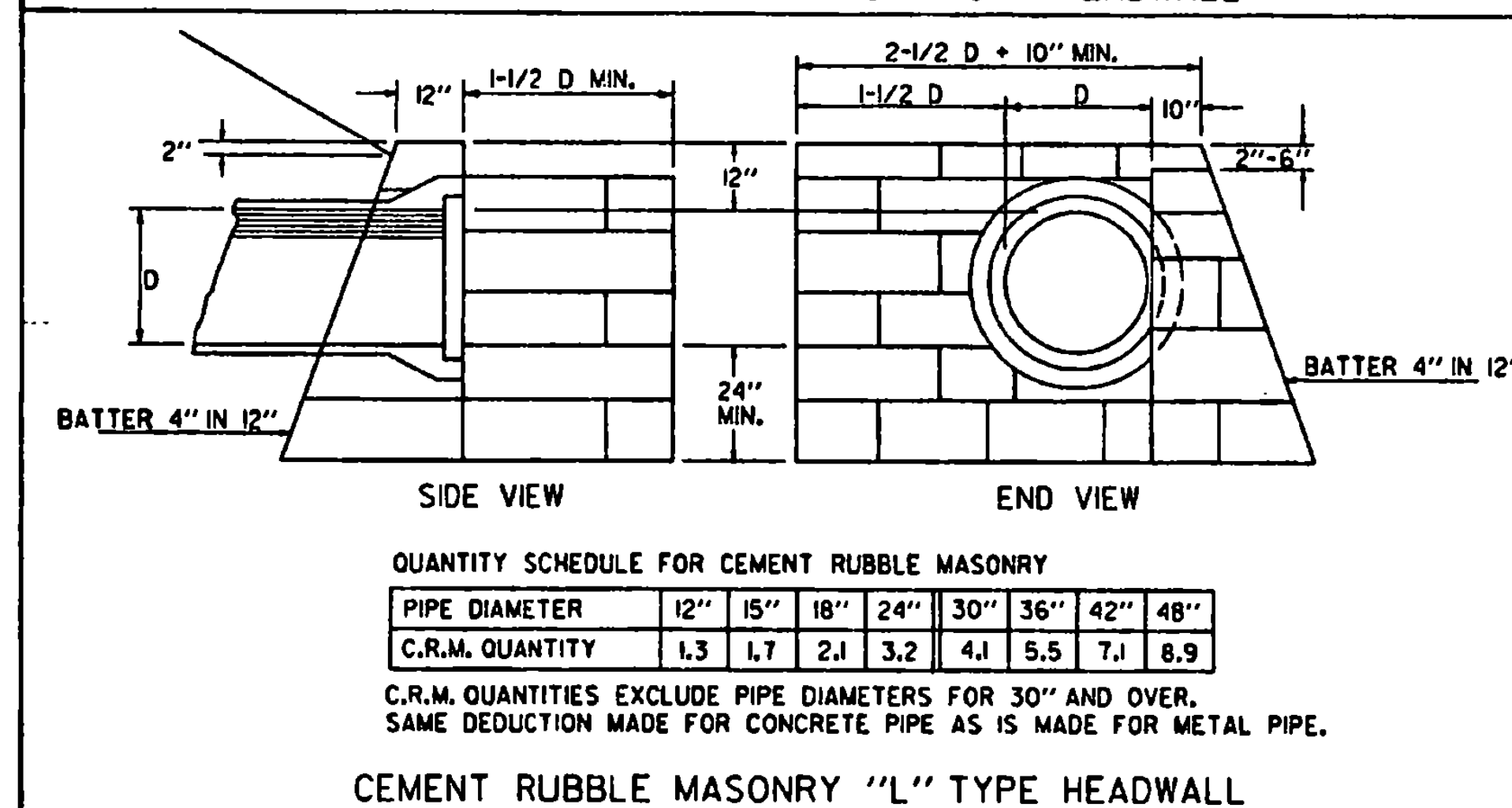
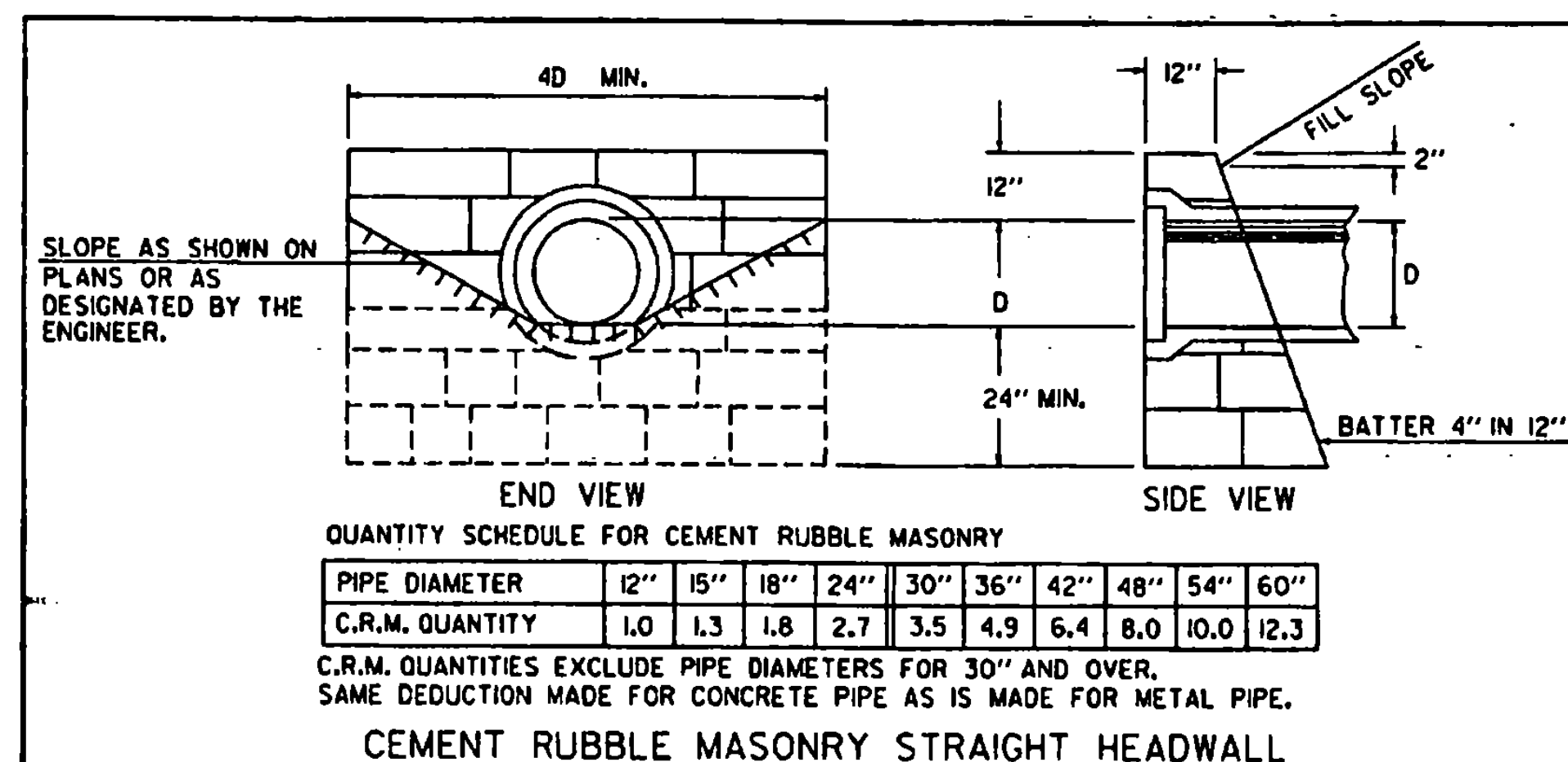
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION, FINAL APPROVAL PENDING.

Stephen D. McCall, P.E.
DIRECTOR OF ENGINEERING
Robert M. Murphy, P.E.
DESIGN ENGINEER

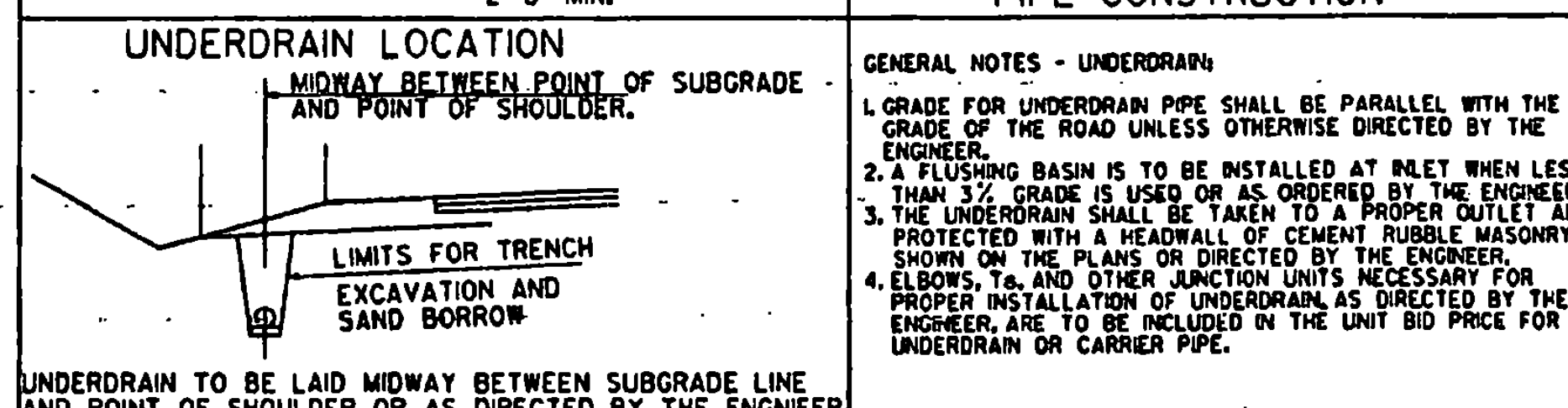
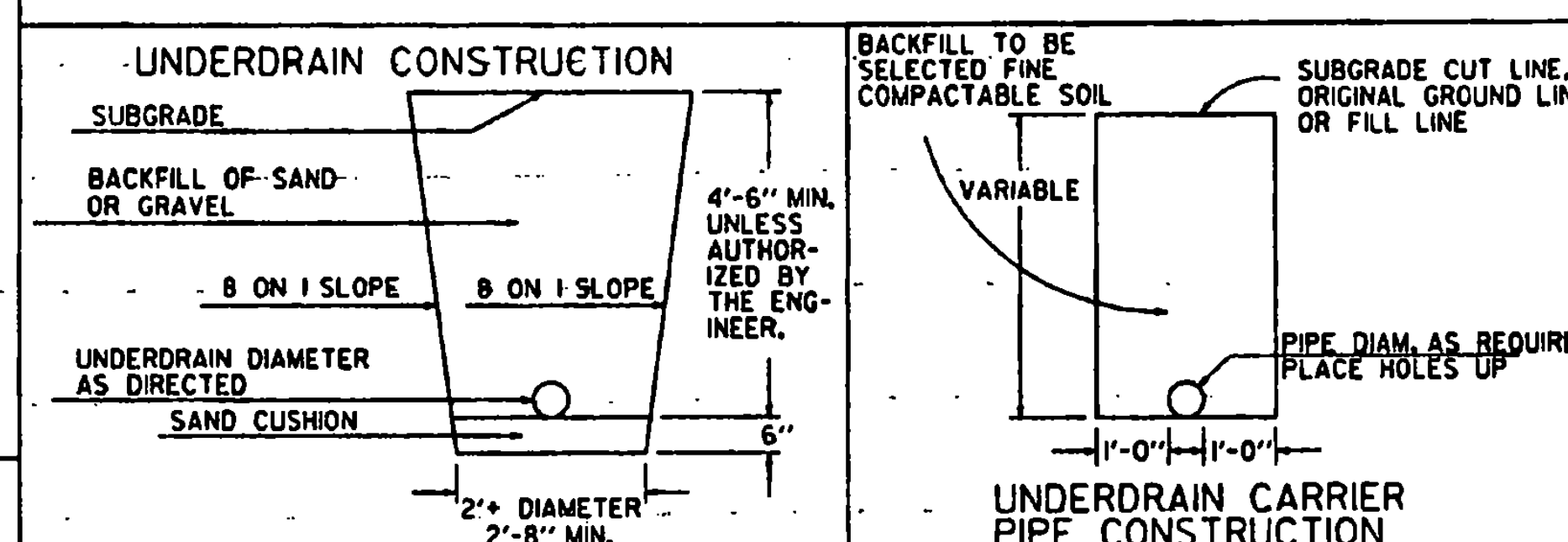
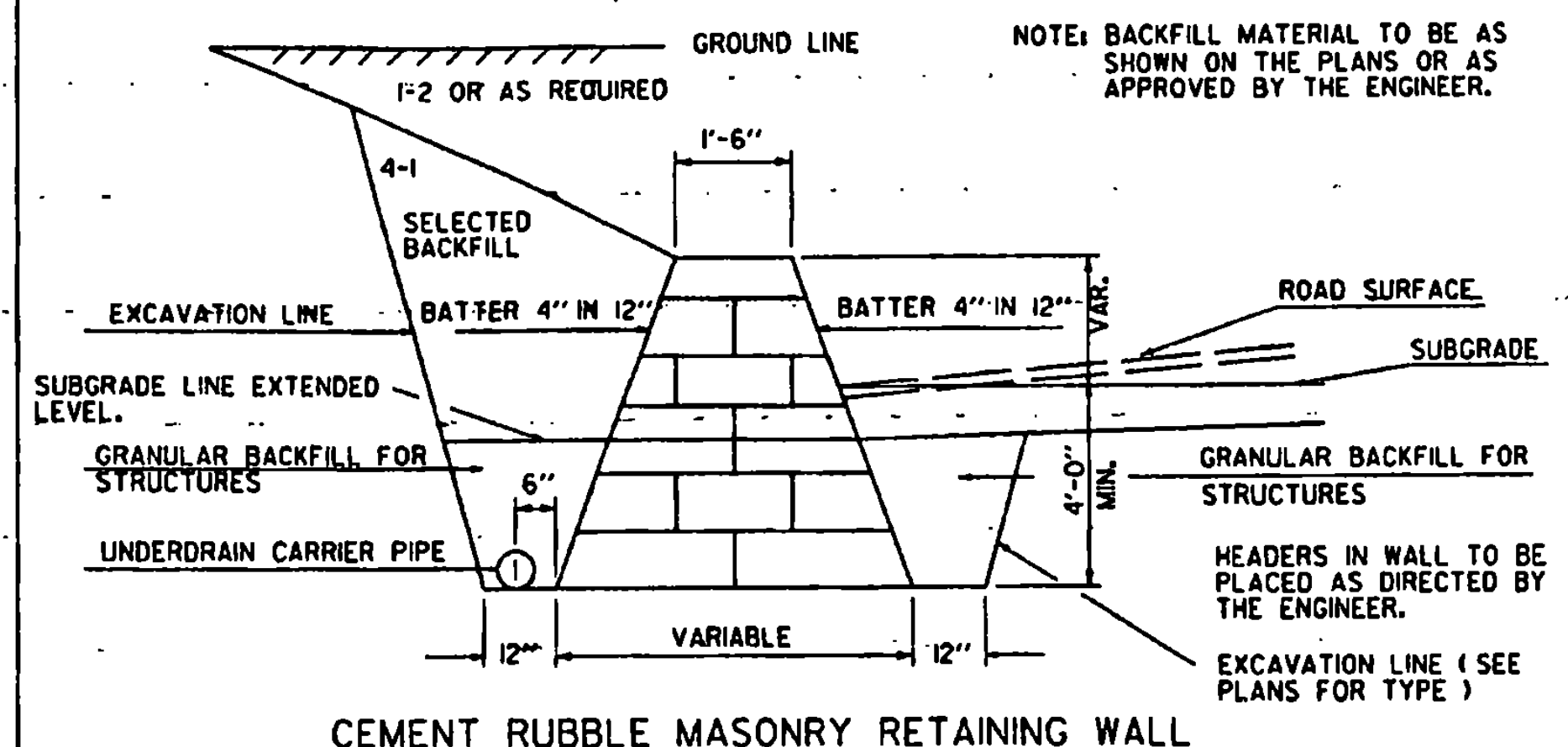
EMBANKMENT ON EARTH SLOPE
EMBANKMENT ON ROCK SLOPE
MUCK EXCAVATION
TYPICAL SLOPE ROUNDING



STANDARD
B-5



- GENERAL NOTES - HEADWALLS:
1. THE HEIGHT OF HEADWALLS ON DRIVEWAY PIPES IS TO BE REDUCED TO 6" ABOVE THE TOP OF PIPE.
 2. BELL AND SPIGOT PIPE IS TO BE LAID WITH THE BELL UPSTREAM.
 3. HEADWALL QUANTITIES, FOR THE SAME TYPE HEADWALLS ON PIPES OF EQUAL DIAMETER, ARE THE SAME FOR BOTH CONCRETE AND METAL PIPE. LENGTH OF HEADWALLS ARE BASED ON INSIDE DIAMETER OF PIPES.
 4. THE NECESSITY OF CONSTRUCTING A FLOOR AT THE ENTRANCE TO AN L TYPE HEADWALL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER AND ANY INSTALLATION THEREOF SHALL BE AT HIS DIRECTION.



REVISIONS AND CORRECTIONS

DEC. 6, 1971 - ORIGINAL APPROVAL DATE

MAR. 8, 1972 - CHANGED ANCHOR BOLTS FROM 10" L TO 8" CARRIAGE

DEC. 16, 1976 - NOTE ADDED ON REINFORCING STEEL FOR CRADLE HEADWALLS

OCT. 30, 1985 - REVISED TO CONFORM TO 1986 SPECIFICATIONS

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

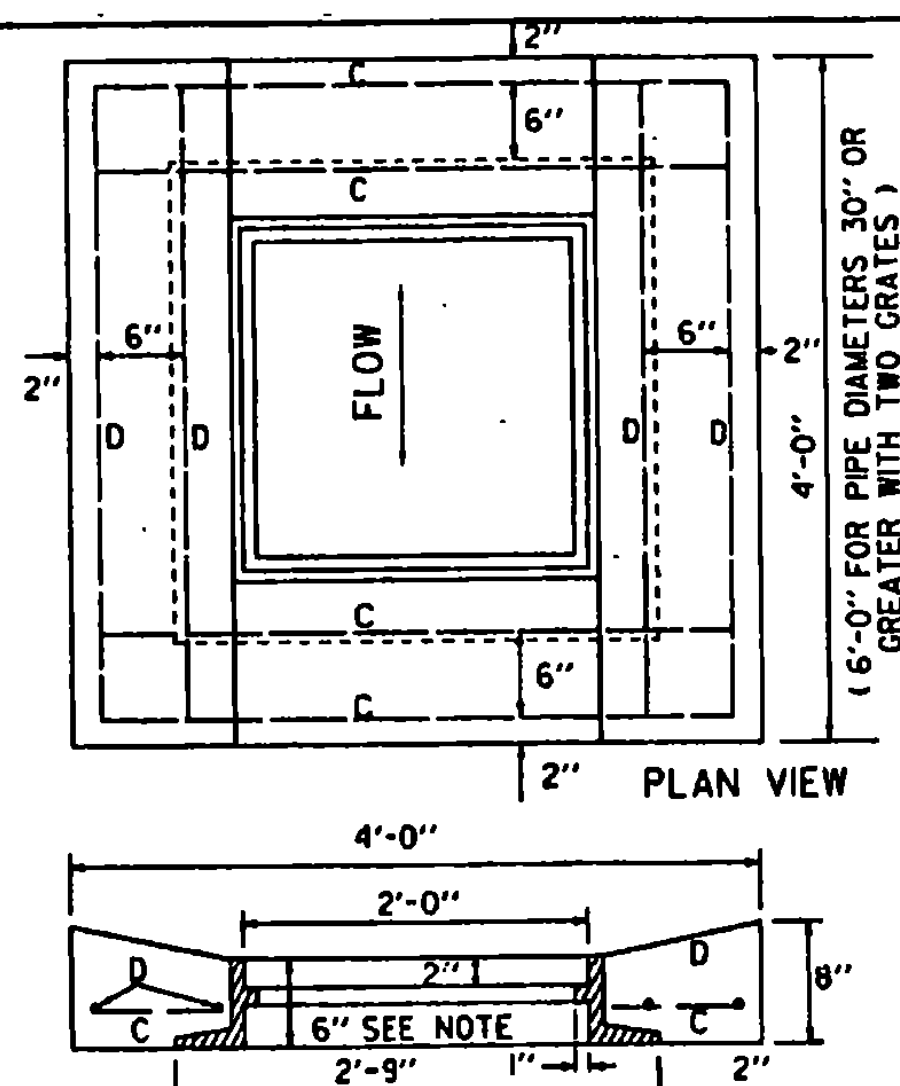
APPROVED

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

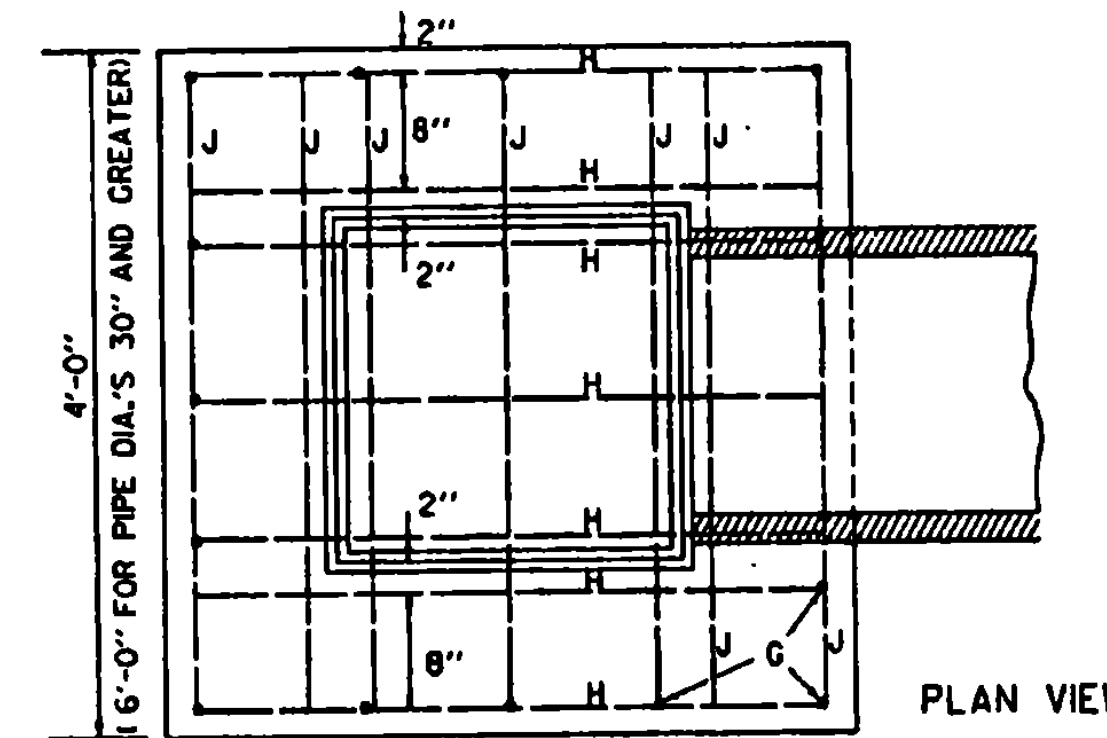
Director of Engineering

DESIGN ENGINEER

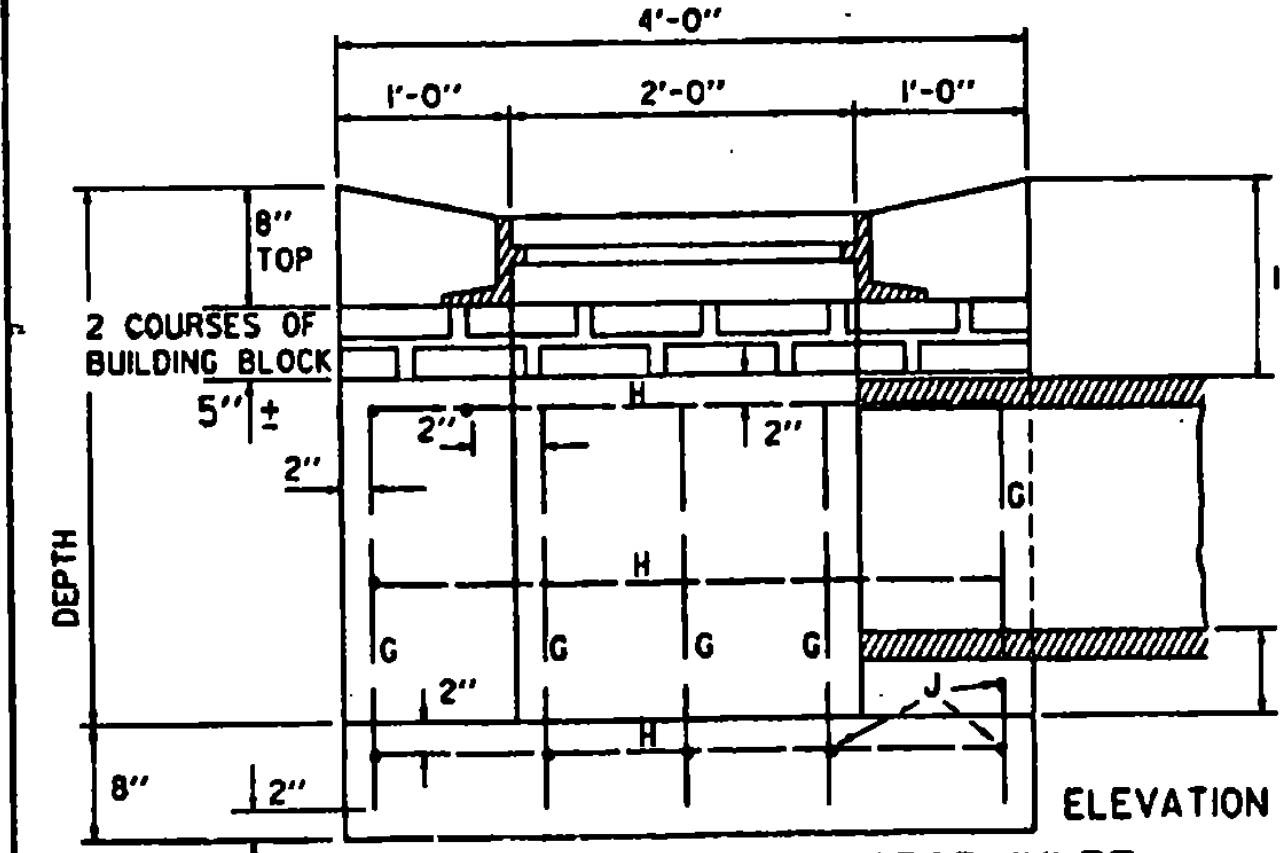
CEMENT RUBBLE MASONRY HEADWALLS & RETAINING WALL RIPRAP LIGHT TYPE SLOPE HEADWALL REINFORCED CONCRETE HEADWALL UNDERDRAIN & CARRIER PIPE CONSTRUCTION DETAILS



NOTE: FRAME SHOWN IS FOR TYPE A GRATE, SEE SHEET D-11 FOR TYPE B GRATE AND FRAME, SEE SHEET D-16 (EXCEPT THE FRAME DEPTH DIMENSION SHALL BE 6"). TOP FOR REINFORCED CONCRETE DROP INLET FOR USE IN DITCHES



2" - TYPE A -



REINFORCED CONCRETE DROP INLET FOR USE IN DITCHES

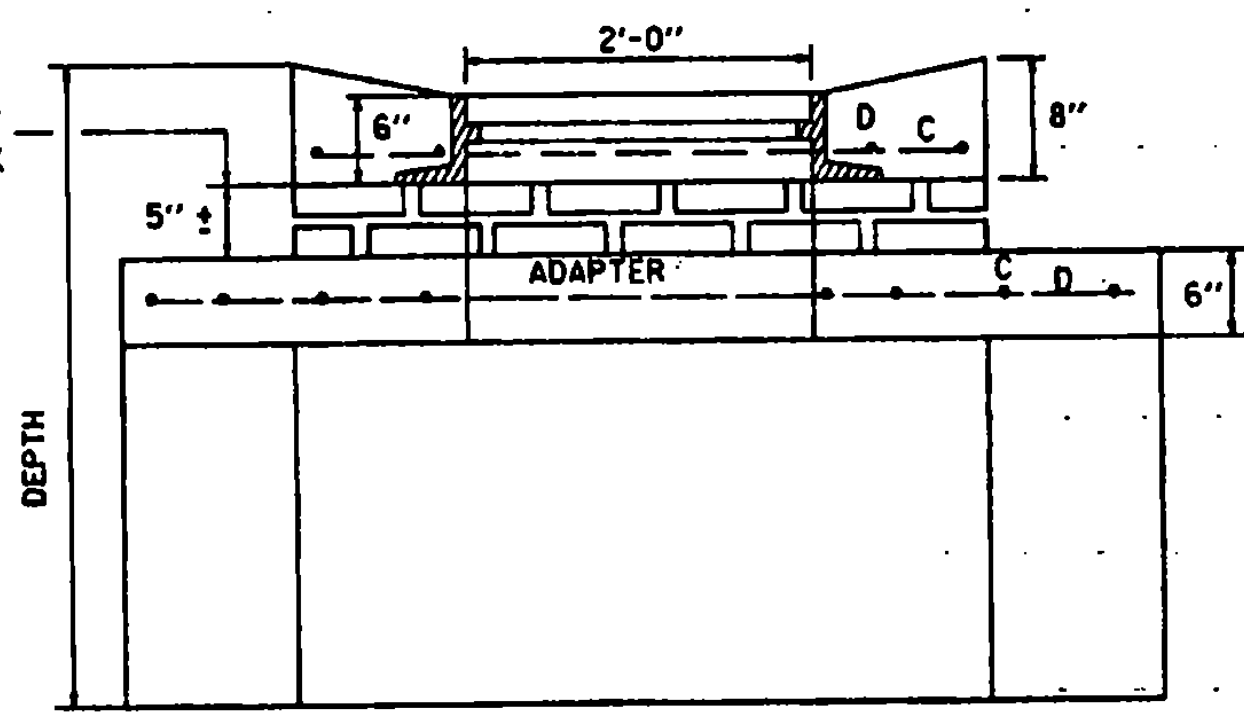
STEEL SCHEDULE											
4'x4' DROP INLET TYPE A						4'x6' DROP INLET WITH TWO GRATES TYPE B					
DEPTH	G	LENGTH	H	J	LENGTH	G	LENGTH	H	J	LENGTH	DEPTH
3'-0"	15	2'-3"	22	3'-8"	8	3'-8"					3'-0"
3'-6"	15	2'-9"	22	3'-8"	8	3'-8"					3'-6"
4'-0"	15	3'-3"	29	3'-8"	8	3'-8"	17	3'-3"	19	3'-8"	10
4'-6"	15	3'-9"	29	3'-8"	8	3'-8"	17	3'-9"	19	3'-8"	10
5'-0"	15	4'-3"	35	3'-8"	8	3'-8"	17	4'-3"	23	3'-8"	13
5'-6"	15	4'-9"	35	3'-8"	8	3'-8"	17	4'-9"	23	3'-8"	13
6'-0"	15	5'-3"	41	3'-8"	8	3'-8"	17	5'-3"	27	3'-8"	15
6'-6"	15	5'-9"	41	3'-8"	8	3'-8"	17	5'-9"	27	3'-8"	15
7'-0"	15	6'-3"	47	3'-8"	8	3'-8"	17	6'-3"	31	3'-8"	17
7'-6"	15	6'-9"	47	3'-8"	8	3'-8"	17	6'-9"	31	3'-8"	17
8'-0"	15	7'-3"	53	3'-8"	8	3'-8"	17	7'-3"	39	3'-8"	19

STEEL AND CONCRETE QUANTITIES											
4'x4' DROP INLET TYPE A						4'x6' DROP INLET WITH ONE GRATE TYPE D					
DEPTH	CONC. C.Y.	STEEL LBS	CONC. C.Y.	STEEL LBS	CONC. C.Y.	STEEL LBS	DEPTH	CONC. C.Y.	STEEL LBS	CONC. C.Y.	STEEL LBS
3'-0"	1.7	150					3'-0"				
3'-6"	1.9	158					3'-6"				
4'-0"	2.1	193	2.7	228			4'-0"	2.8	244		
4'-6"	2.3	200	3.0	237	2.9	237	4'-6"	3.1	252	3.0	252
5'-0"	2.6	231	3.3	279	3.2	279	5'-0"	3.4	294	3.3	294
5'-6"	2.8	239	3.6	288	3.5	288	5'-6"	3.7	303	3.6	303
6'-0"	3.0	270	3.9	324	3.8	324	6'-0"	4.0	339	3.9	339
6'-6"	3.2	278	4.2	348	4.1	348	6'-6"	4.3	363	4.2	363
7'-0"	3.5	308	4.5	384	4.4	384	7'-0"	4.6	399	4.5	399
7'-6"	3.7	316	4.8	393	4.7	393	7'-6"	4.9	408	4.8	408
8'-0"	3.9	347	5.1	429	5.0	429	8'-0"	5.2	444	5.1	444

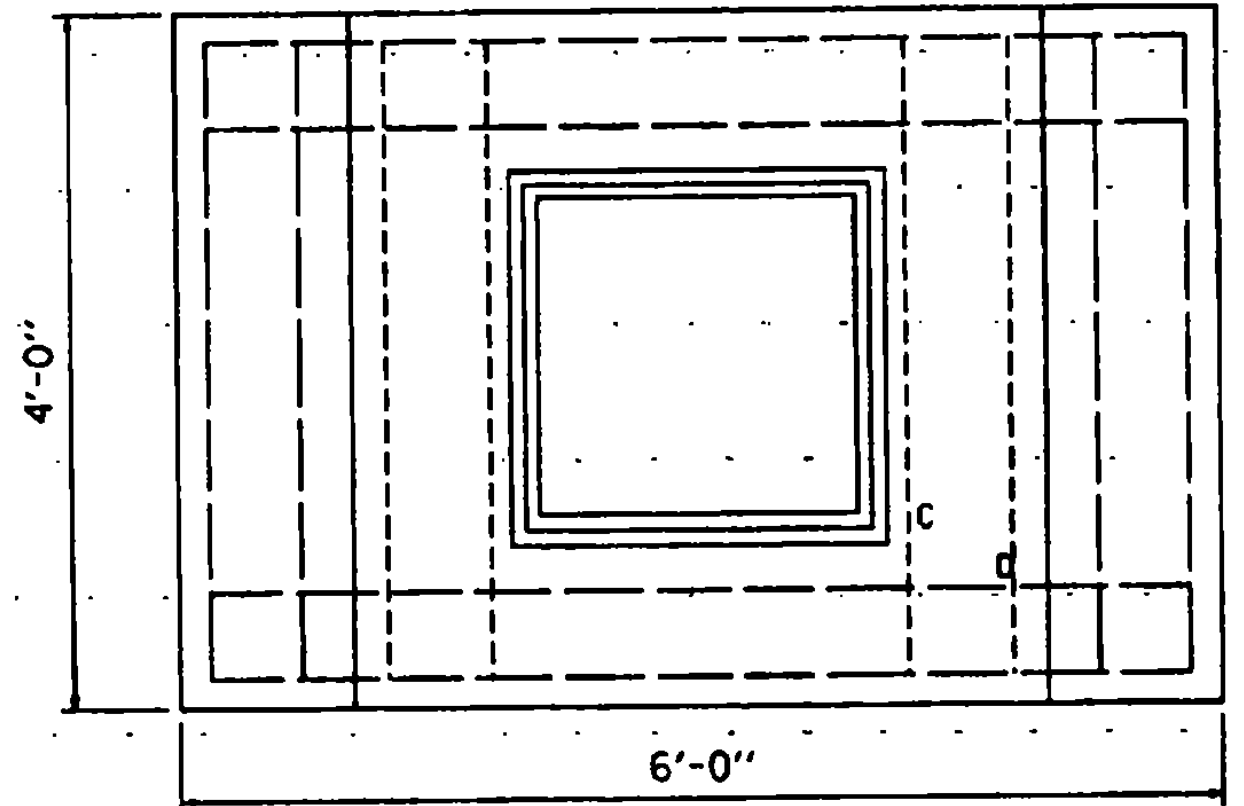
FOR 2nd 30" PIPE DEDUCT 0.18 C.Y. FOR 2nd 36" PIPE DEDUCT 0.26 C.Y. FOR 2nd 42" PIPE DEDUCT 0.36 C.Y. OR 0.18 FOR 1 PIPE FOR 2nd 48" PIPE DEDUCT 0.47 C.Y. OR 0.24 FOR 1 PIPE

ALL REINFORCING STEEL TO BE NO. 5 DEFORMED BARS, EVENLY SPACED WITH A MAXIMUM SPACING OF 12" C/C.
ALL STEEL TO HAVE 2 INCH MIN. COVER.
DROP INLET TO BE CONSTRUCTED IN ACCORDANCE WITH STRUCTURAL CONCRETE, SECTION 501.
GRATES TO CONFORM TO DROP INLETS, CATCH BASINS, AND MANHOLES, SECTION 604.
FURNISHING AND LAYING OF BRICKS FOR ADJUSTING ELEVATION OF GRATE SHALL BE INCLUDED IN UNIT BID PRICE FOR CONCRETE, CLASS B, PAY ITEM 501.25, AND THEIR VOLUME TO BE INCLUDED IN THE FINAL QUANTITIES.
MORTAR, TYPE II, TO BE USED AS JOINT FILLER AND LAYING OF BRICK.
FOR PIPES OF 30" OR MORE IN DIAMETER, ALLOWANCE SHALL BE MADE FOR THE OPENING IN COMPUTING CONCRETE VOLUMES. THIS DEDUCTION WILL BE BASED ON THE RATED DIAMETER OF THE PIPE USED, WITH THE SAME DEDUCTION FOR CONCRETE AND METAL PIPE. ABOVE TABLES INDICATE DEDUCTION FOR ONE PIPE.

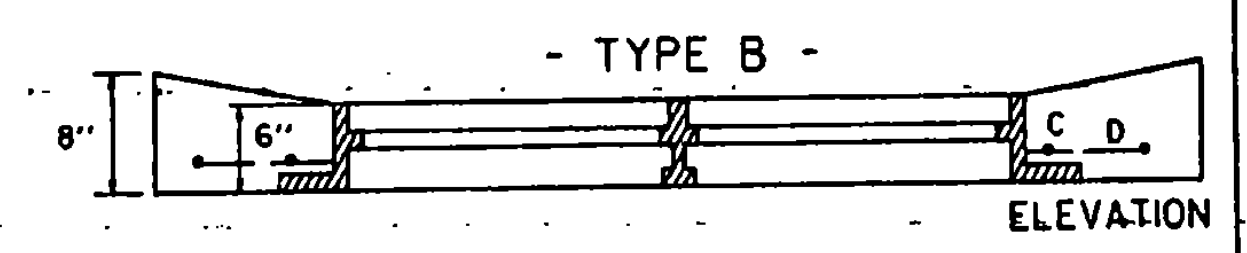
- TYPE D -



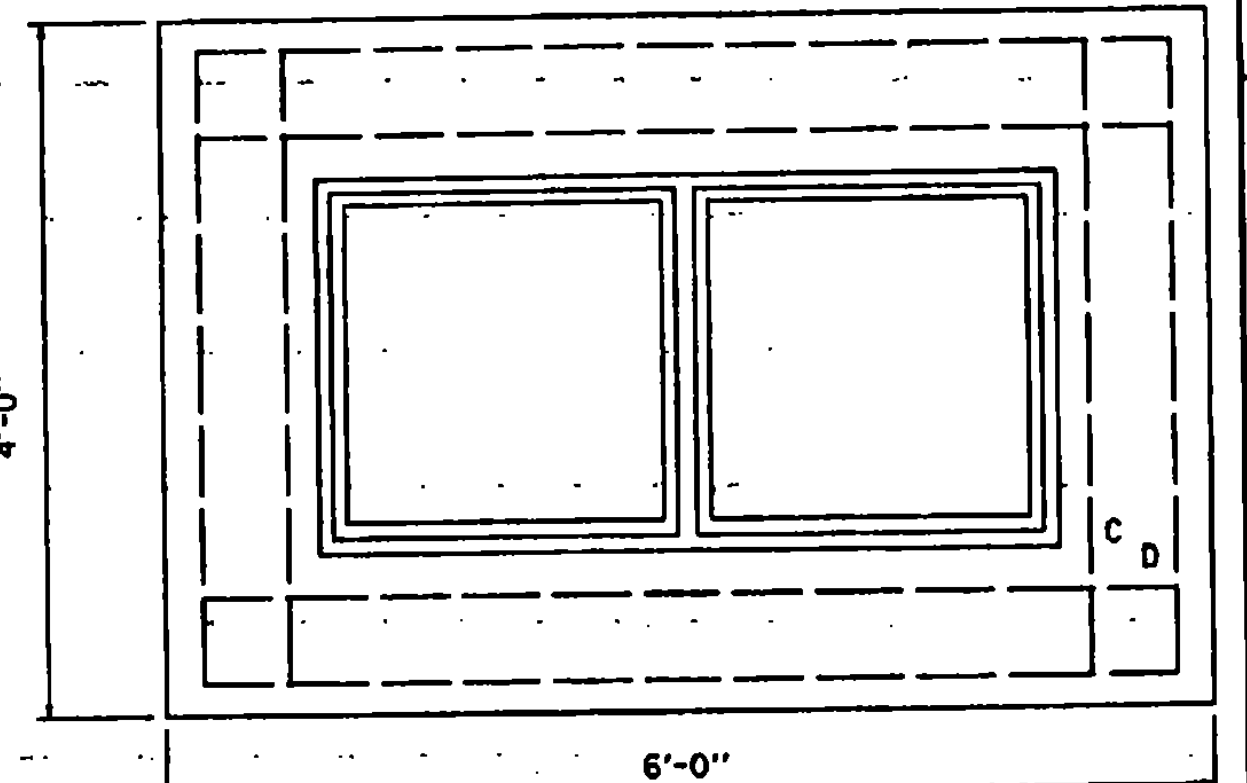
4'x6' DROP INLET WITH 4'x4' TOP TOP WITH ONE CAST IRON GRATE



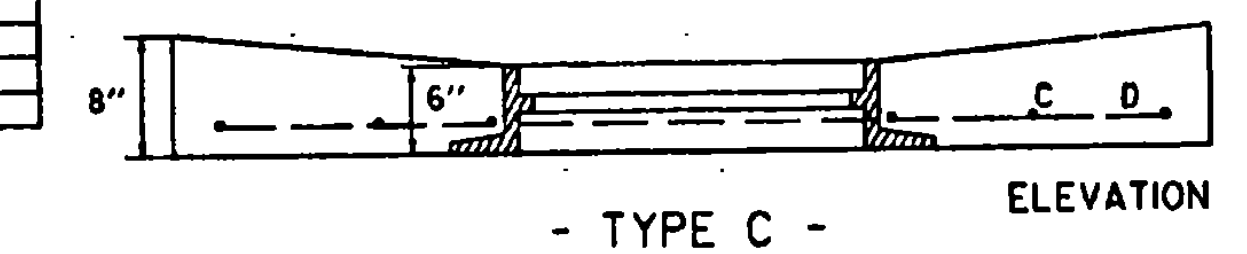
TOP AND ADAPTER PLAN VIEW



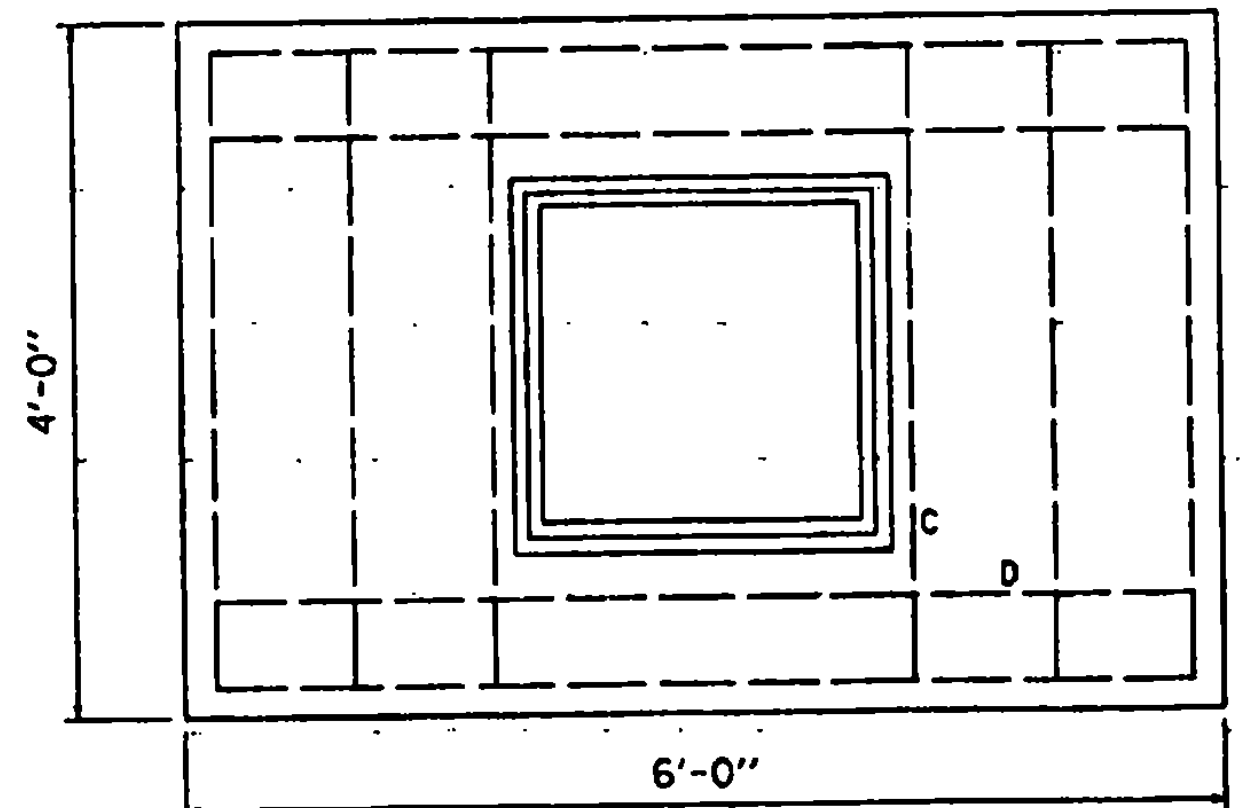
- TYPE B -



4'x6' DROP INLET TOP WITH TWO CAST IRON GRATES



- TYPE C -



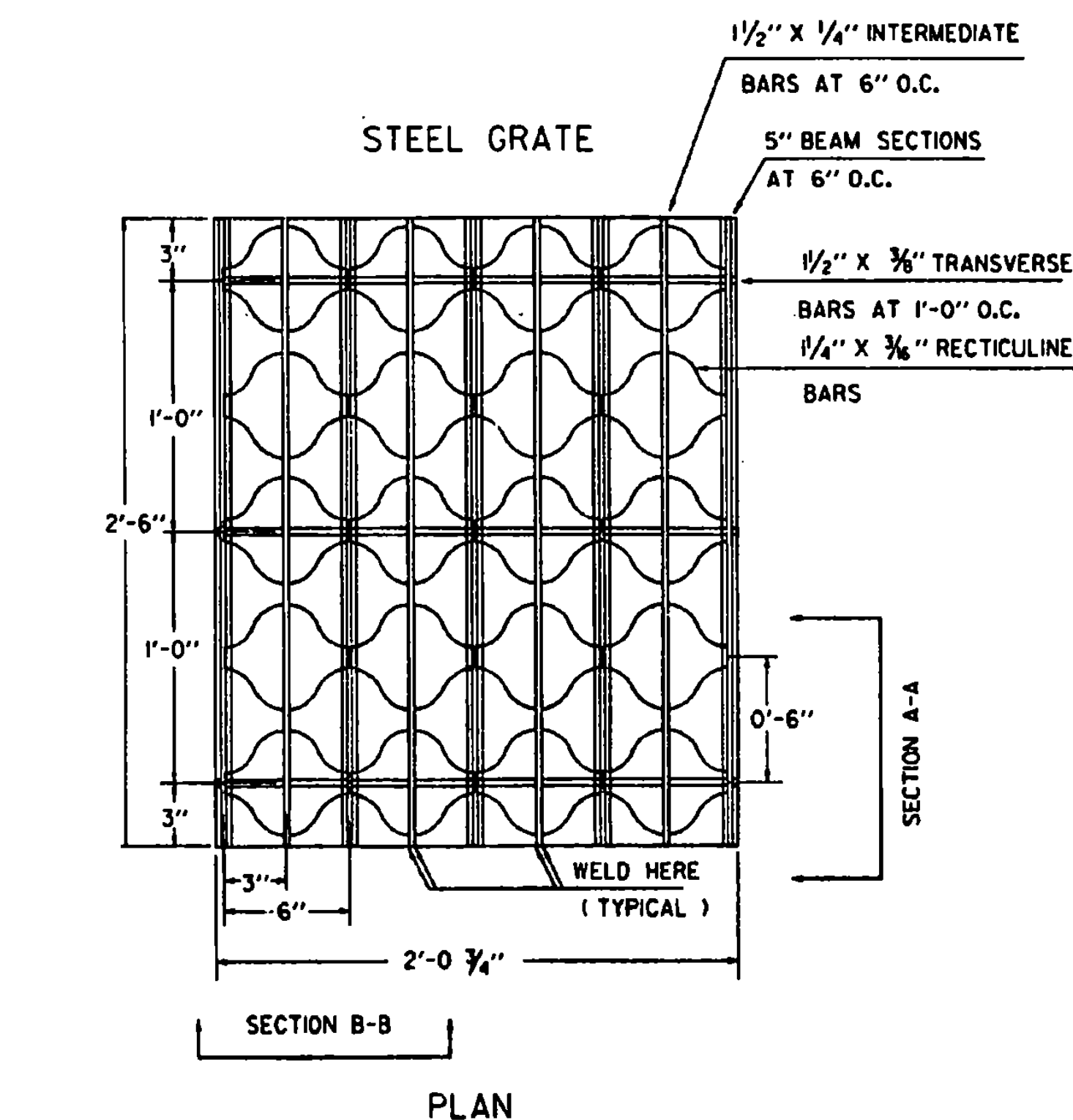
4'x6' DROP INLET TOP WITH ONE CAST IRON GRATE

REVISIONS AND CORRECTIONS
APR. 4, 1973 - ORIGINAL APPROVAL
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION FROM FINAL APPROVAL PENDING.
James H. McArthur, Jr.
DIRECTOR OF ENGINEERING
John D. Murphy, PE
DESIGN ENGINEER

REINFORCED CONCRETE DROP INLET WITH GRATE FOR USE IN DITCHES

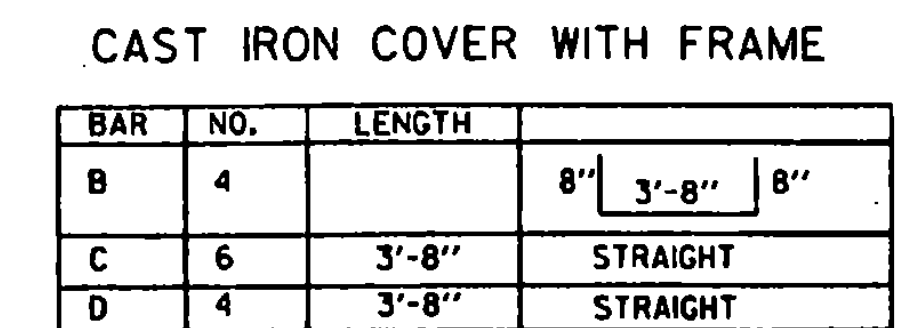
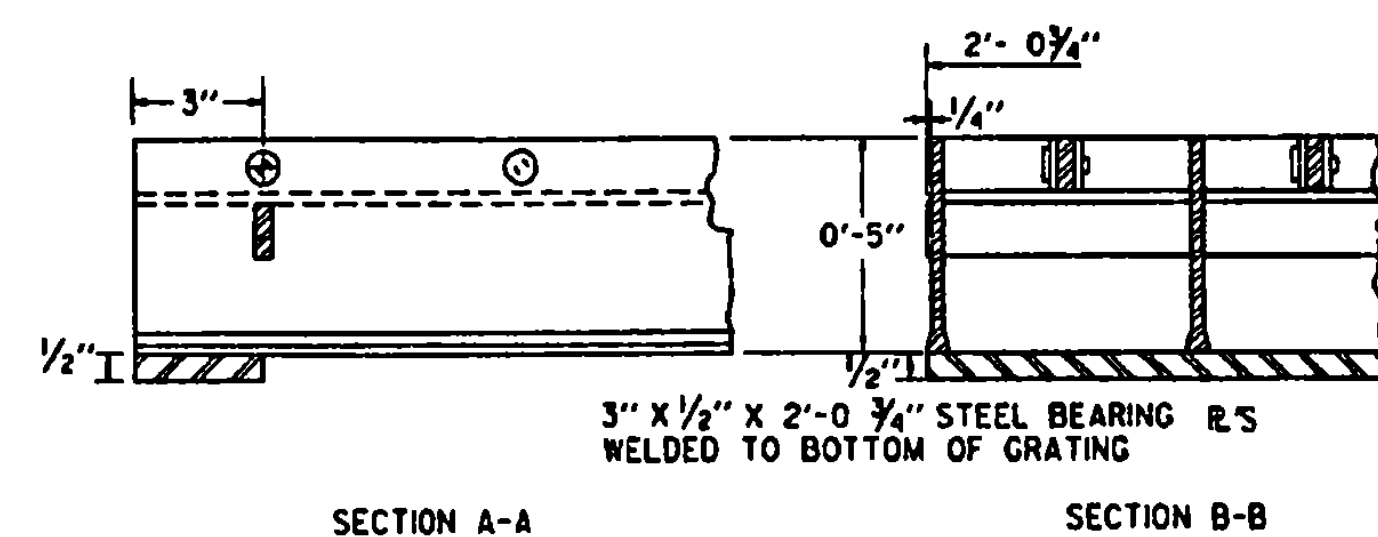
VERMONT AGENCY OF TRANSPORTATION
STANDARD
D-6



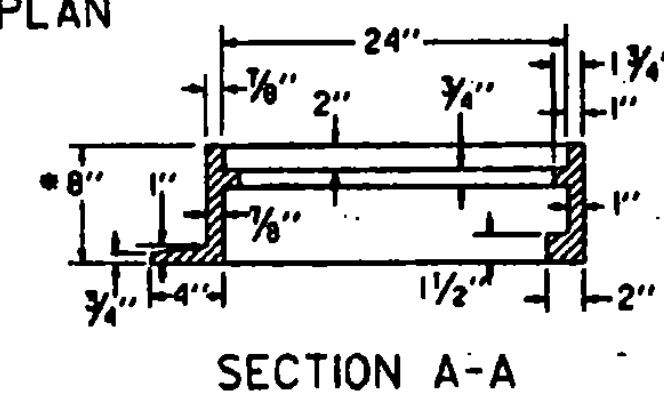
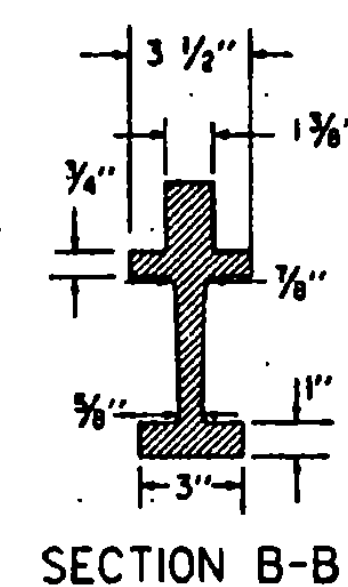
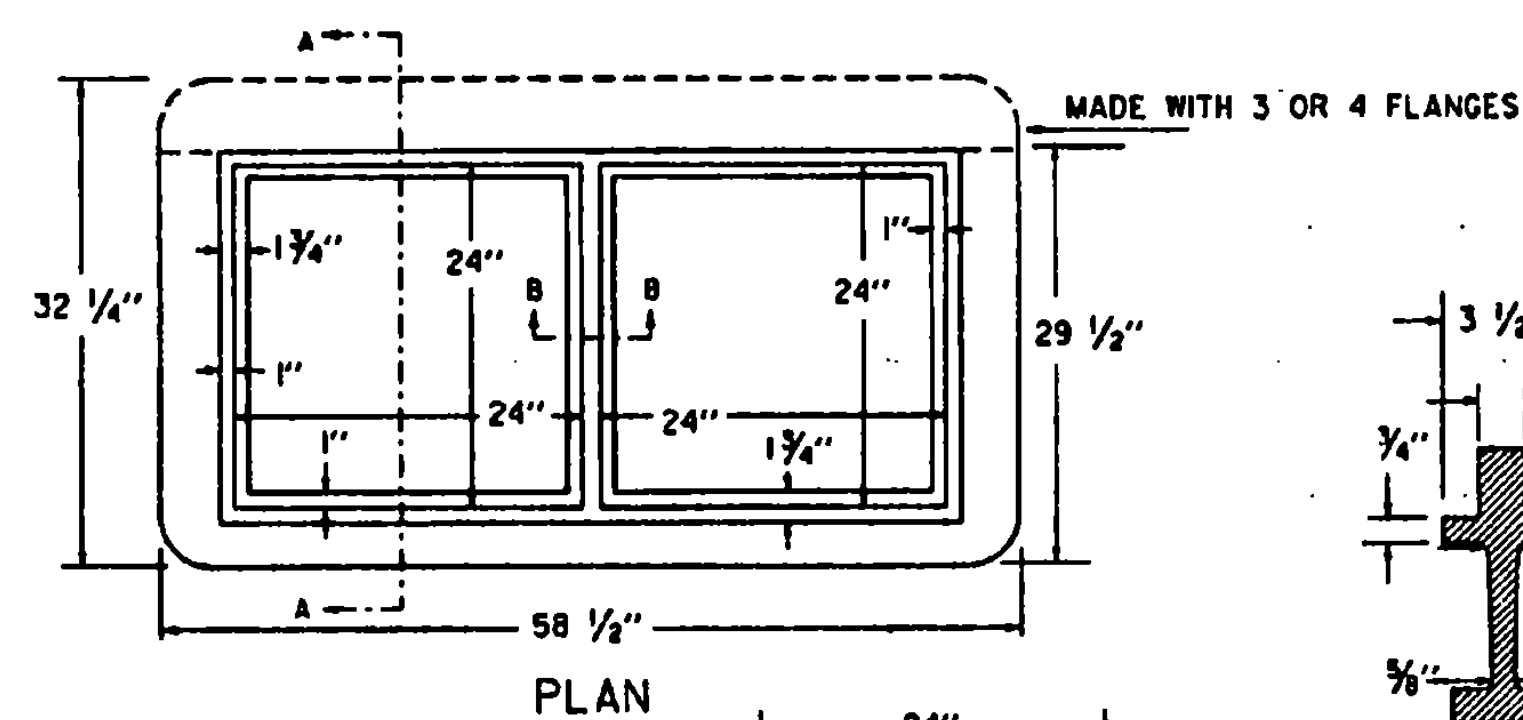
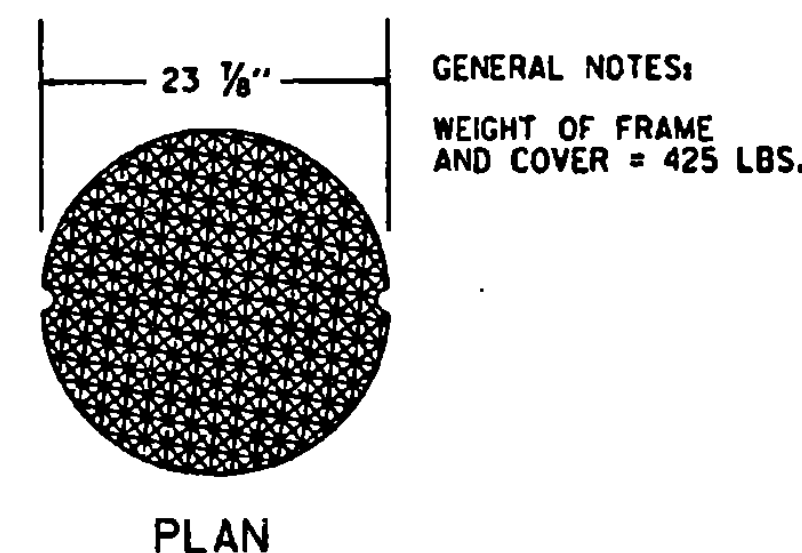
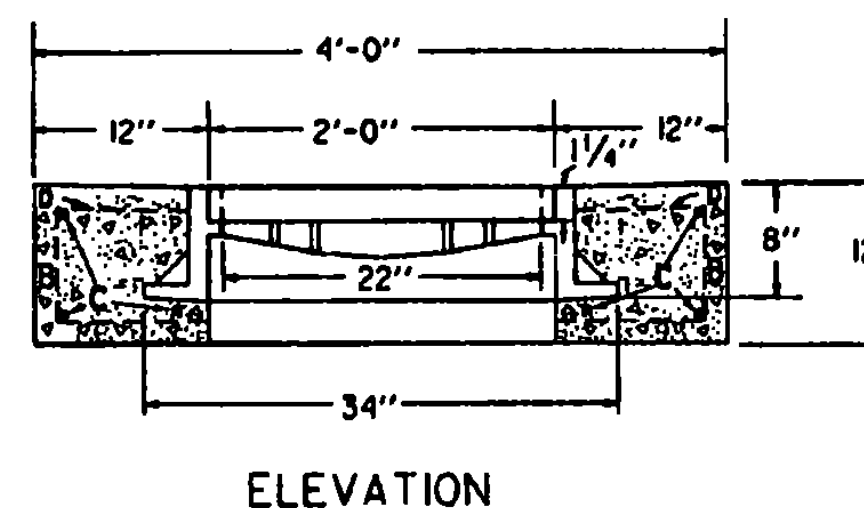
GRATE SIZE SINGLE 24 $\frac{3}{4}$ " X 30"
DOUBLE 24 $\frac{3}{4}$ " X 54"

WEIGHT 95 LBS OR MORE
GRATES SHALL BE CAPABLE OF SUPPORTING H-20 (32,000 LB.
AXLE LOAD) INCLUDING 30% IMPACT.

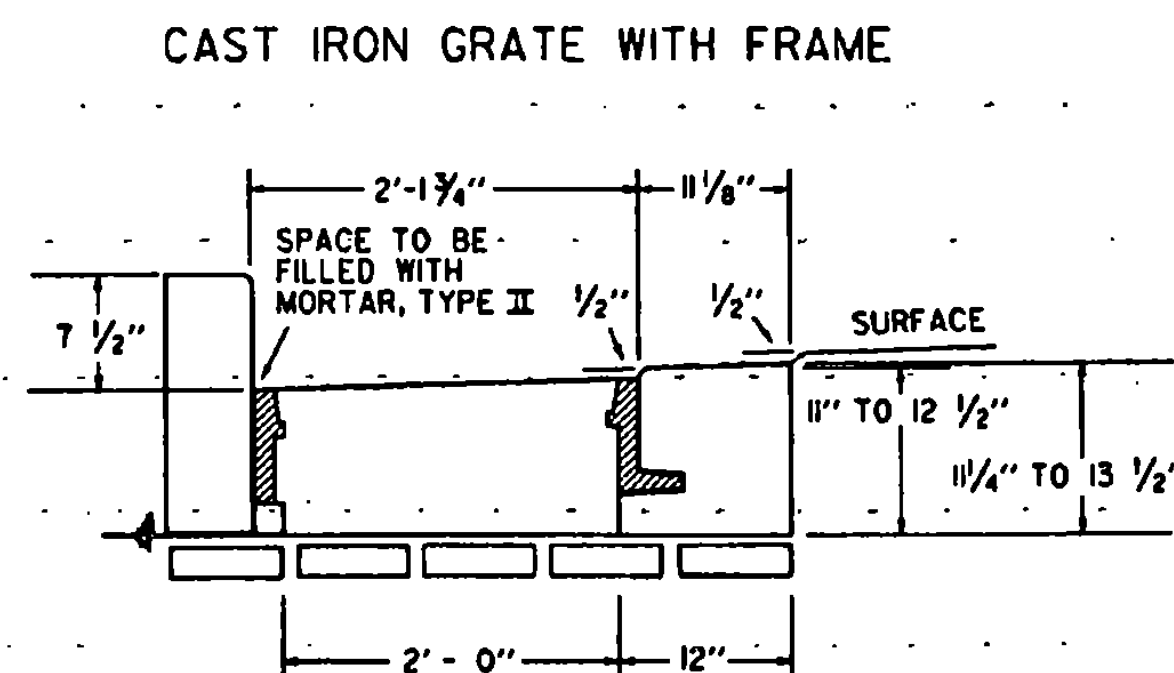
UNIT STRESSES (LBS PER SQ. IN.)	18,000	20,000
MAIN BAR PARALLEL TO TRAFFIC H-20	49"	53"
MAIN BAR PERPENDICULAR TO TRAFFIC H-20	39"	42"



ALL REINFORCING STEEL TO BE No. 5 DEFORMED BARS

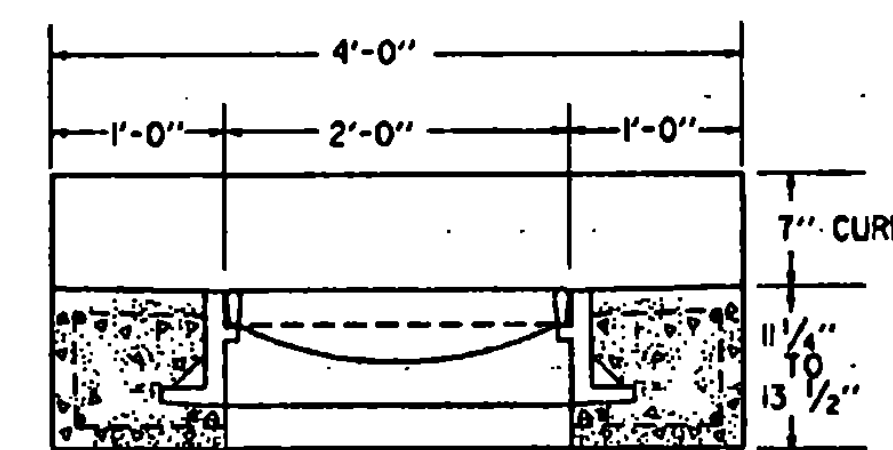


RECTANGULAR CAST IRON FRAME FOR TWO 24"
SQUARE CAST IRON GRATES



ELEVATION OF REINFORCED CONCRETE DROP INLET
WITH VERTICAL GRANITE CURB AND 3' FLANGE
CAST IRON FRAME FOR CAST IRON GRATE

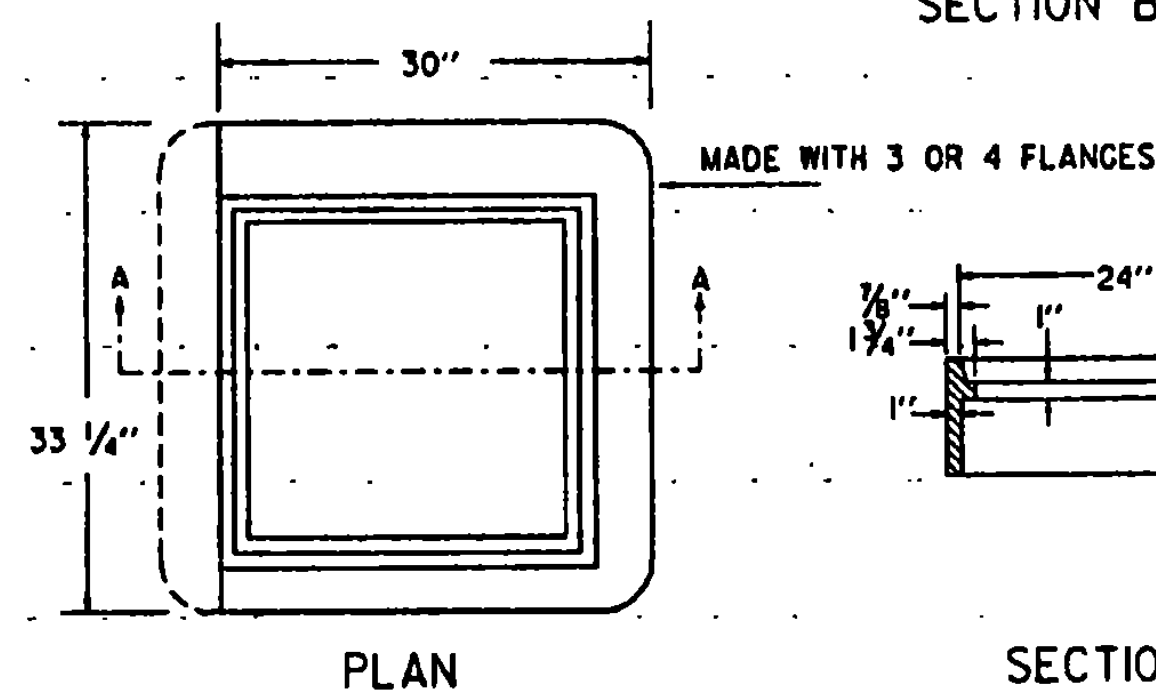
SEE STANDARD D-9 FOR CONCRETE VOLUME, REINFORCING
STEEL SCHEDULE, AND CURB JOINT DETAIL.



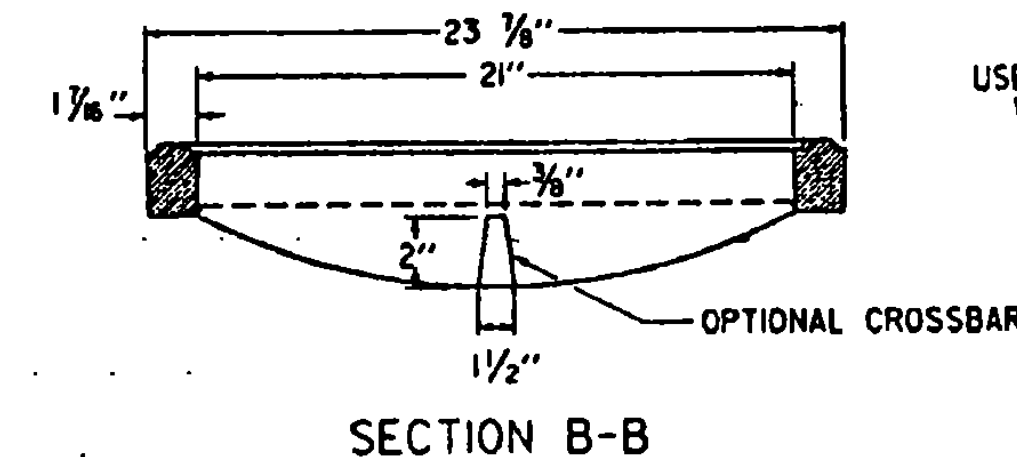
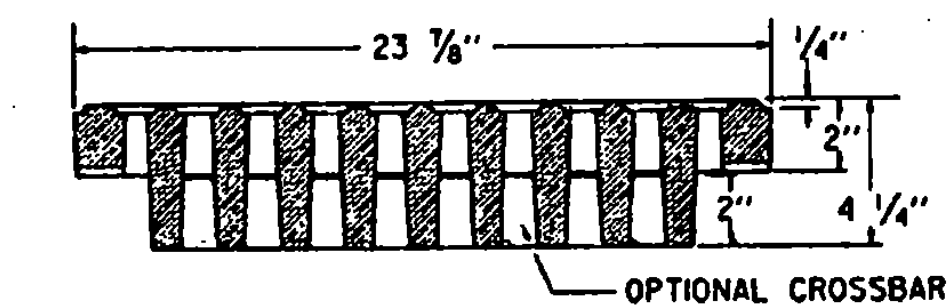
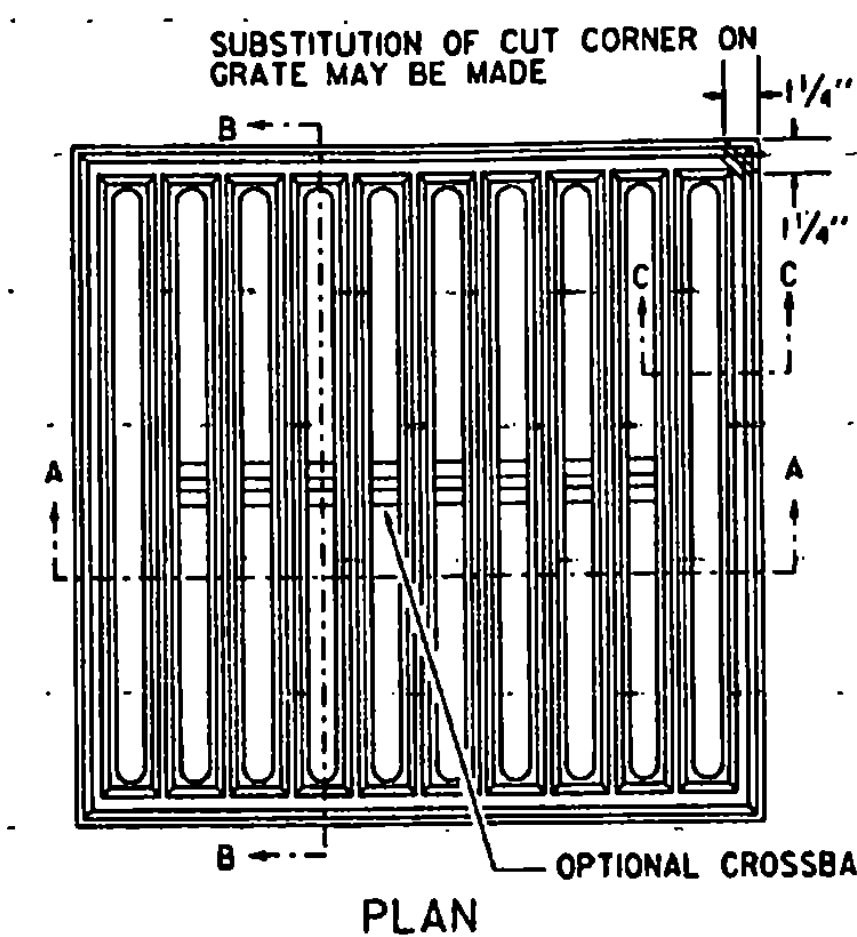
ELEVATION

WEIGHT OF 3 FLANGED FRAME AND GRATE

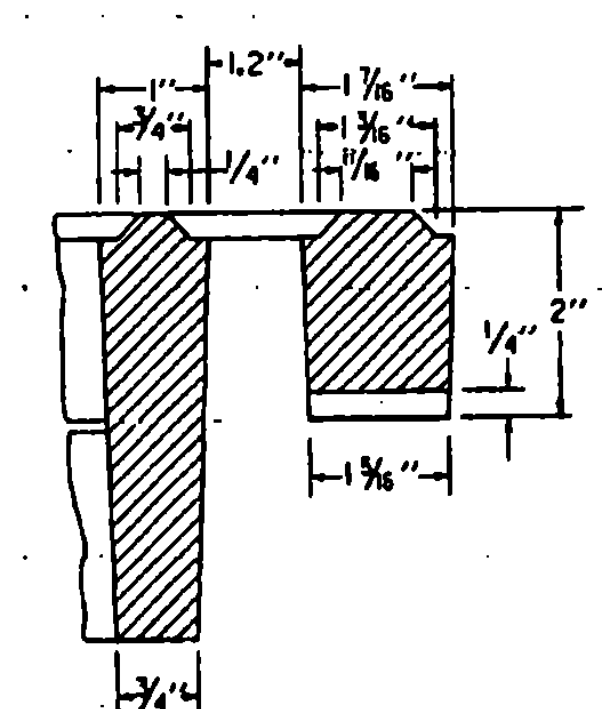
GRATE	220 LBS
FRAME	260 LBS
TOTAL	<u>480 LBS</u>



SQUARE CAST IRON FRAME FOR CAST IRON GRATE
TYPE A



USE OF THE TYPE A GRATE IS PROHIBITED
WHERE BICYCLE TRAFFIC IS EXPECTED



THIS FRAME TO BE PLACED IN DROP
INLET TOP BEFORE CONCRETE IS POURED.

4 FLANGES UNLESS OTHERWISE INDICATED. FRAMES TO BE FURNISHED WITH 3 FLANGES WHEN USED IN CONJUNCTION WITH CURB OR AS DIRECTED BY THE ENGINEER.

REVISIONS AND CORRECTIONS

DEC. 6, 1971	- ORIGINAL APPROVAL
APR. 25, 1972	- CAST IRON COVER CHANGED FROM SQUARE TO CIRCULAR
SEPT. 4, 1980	- OPTIONAL CROSSBAR ADDED TO A GRATE; NOTE ADDED TO A GRATE FRAME DETAIL
AUG. 25, 1981	- NOTE ADDED RESTRICTING USE OF TYPE A GRATE
JUNE 1, 1994	- REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

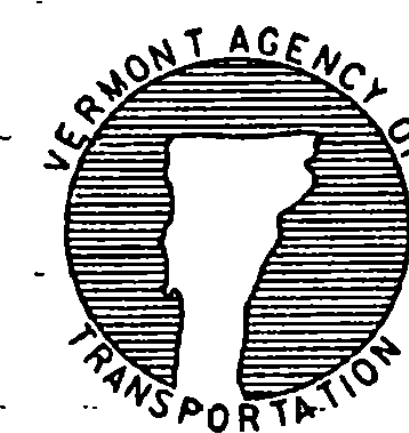
APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION.
FHWA FINAL APPROVAL PENDING.

Gordon S. MacArthur, P.E.
DIRECTOR OF ENGINEERING

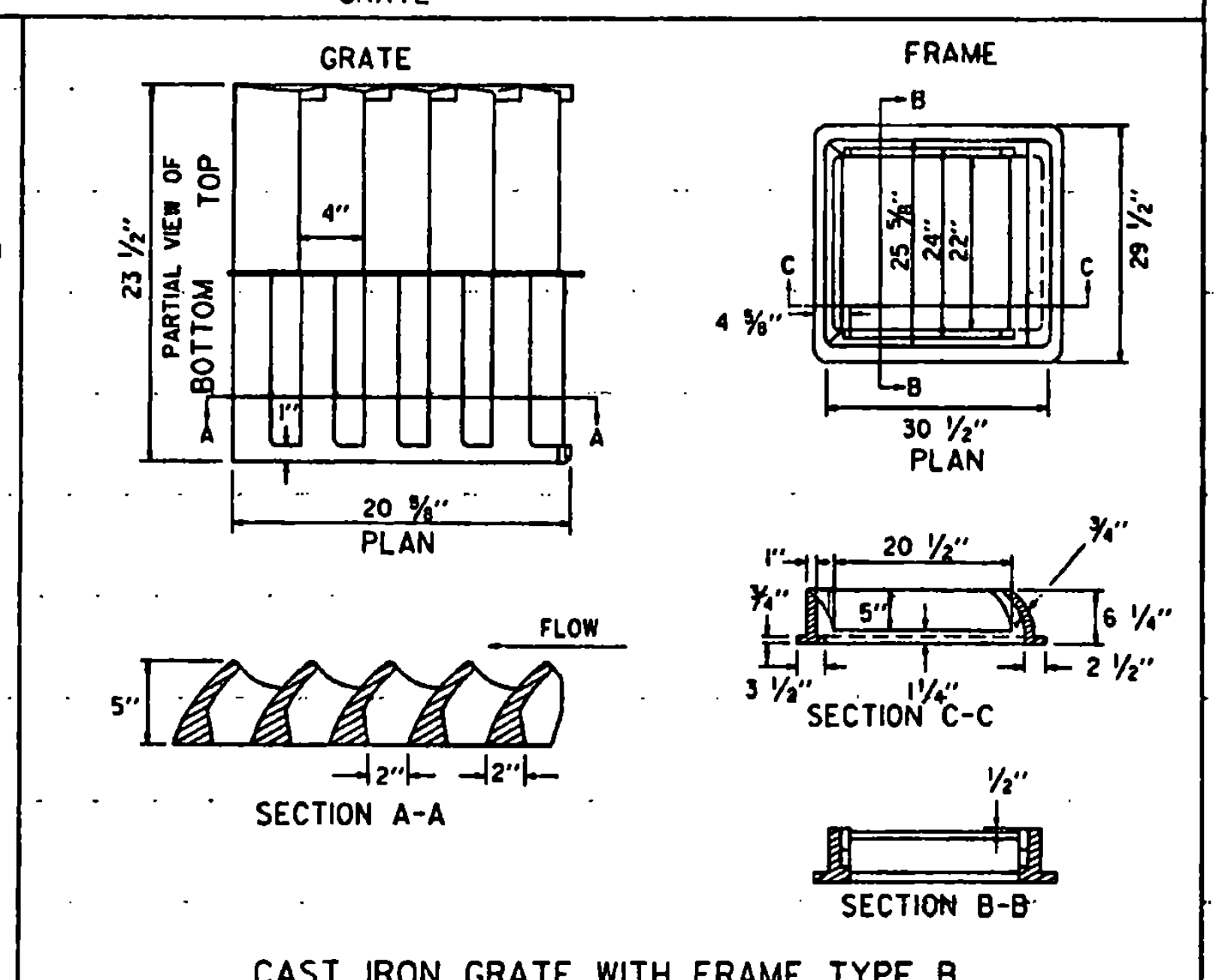
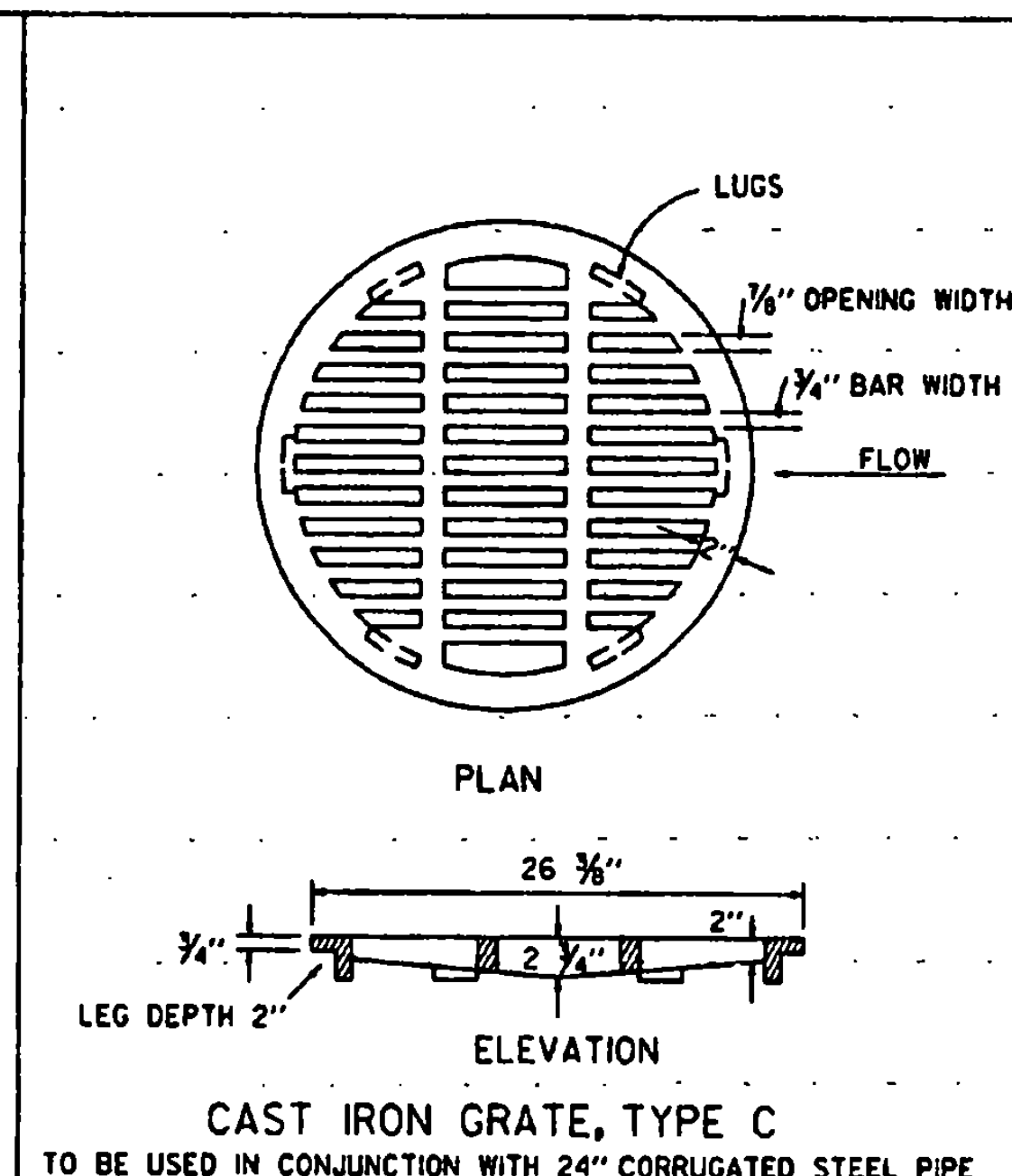
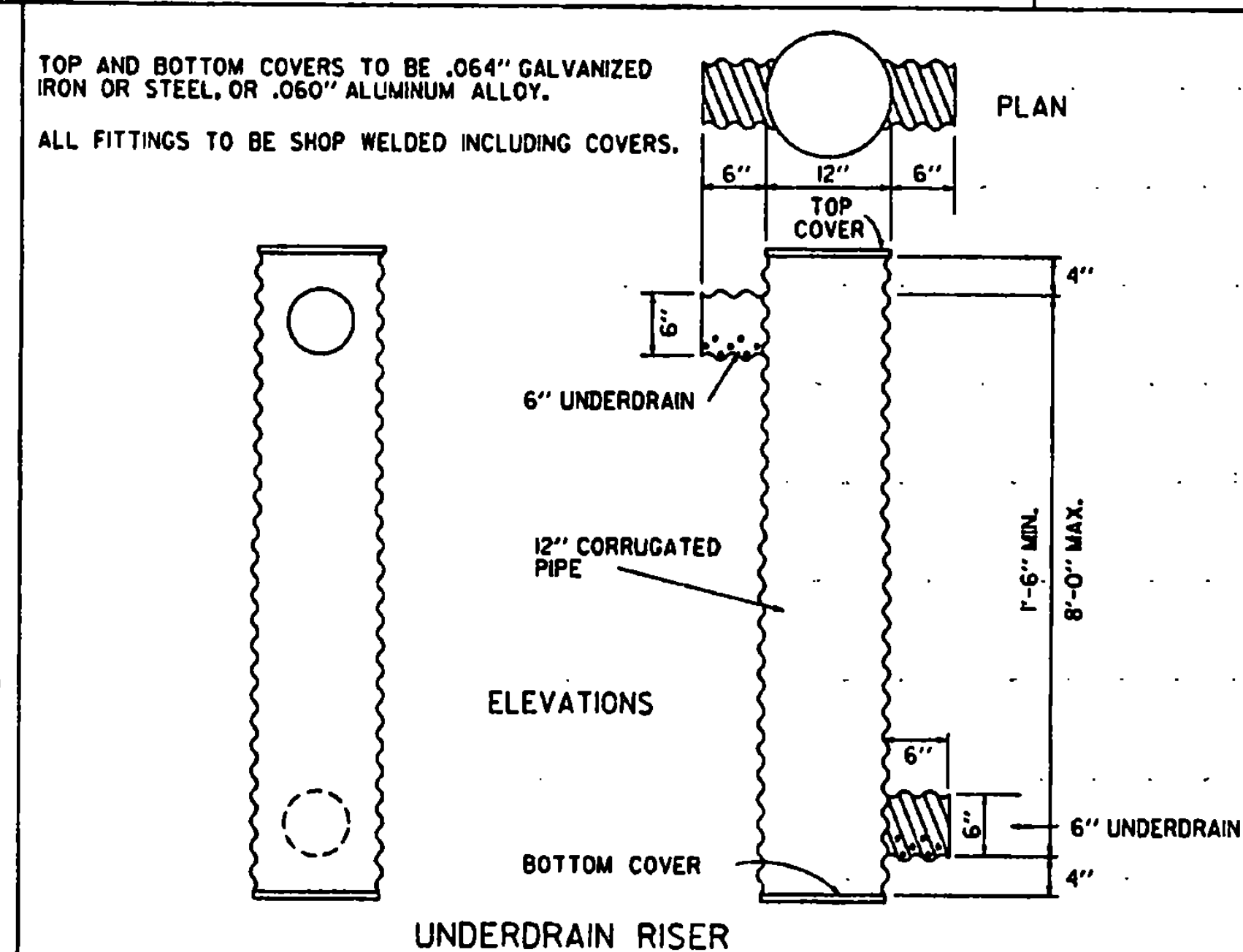
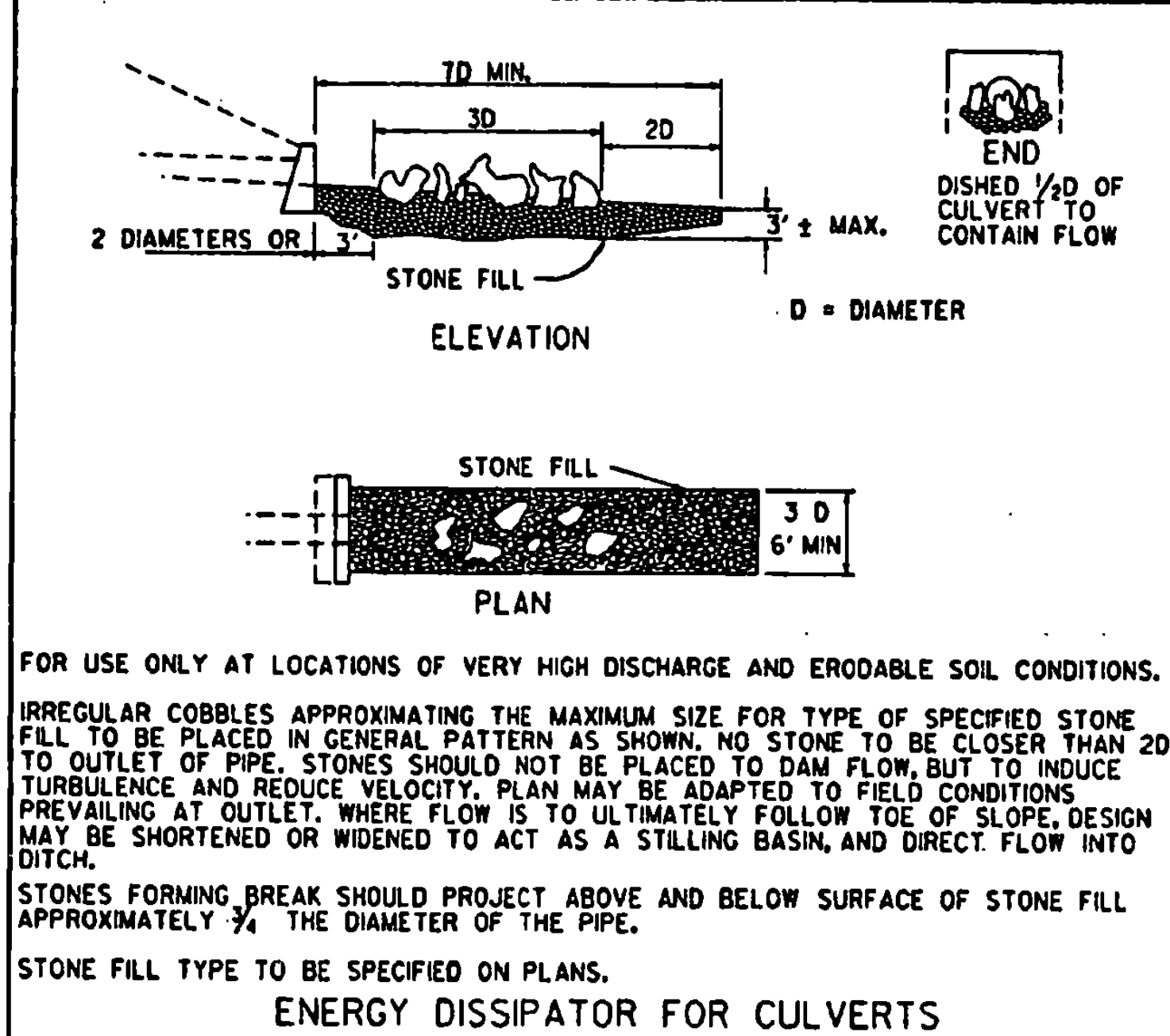
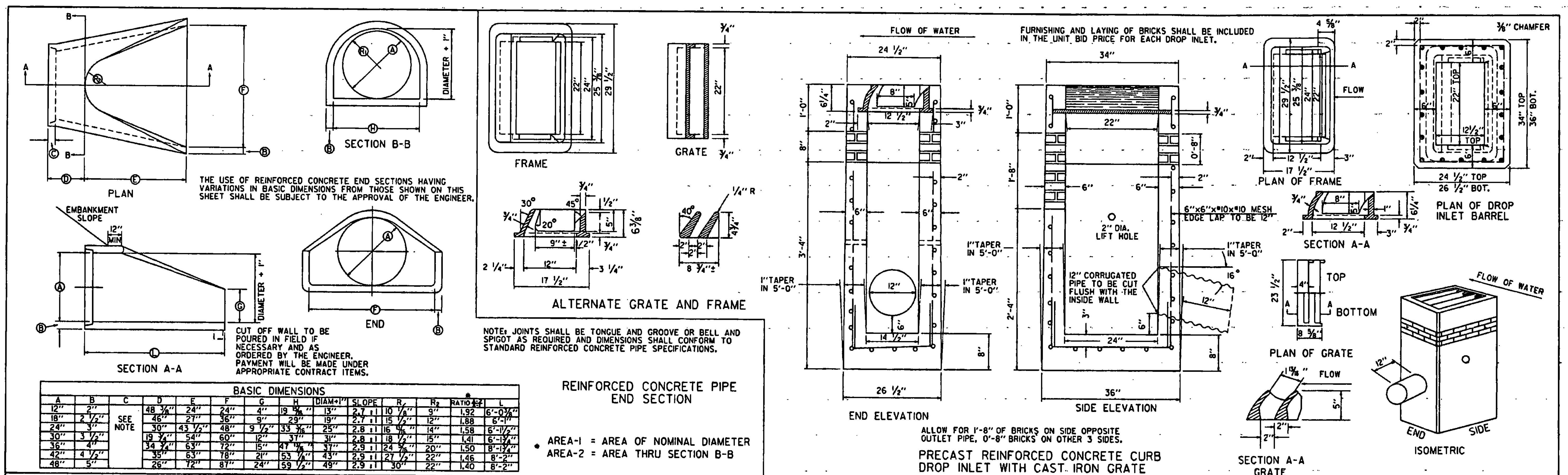
Robert M. Murphy, PE
DESIGN ENGINEER

DESIGN ENGINEER

STEEL GRATE
CAST IRON GRATE TYPE A
CAST IRON COVER



STANDARD D-11



REVISIONS AND CORRECTIONS

DEC. 8, 1971 - ORIGINAL APPROVAL

NOV. 14, 1972 - RCP END SECTION DIMENSION VARIANCE NOTE ADDED

OCT. 30, 1985 - REVISED TO CONFORM WITH 1986 SPECIFICATIONS

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

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

Stephen J. MacArthur, P.E.
DIRECTOR OF ENGINEERING

John M. Murphy, P.E.
DESIGN ENGINEER

PRECAST REINFORCED CONCRETE CURB DROP INLET WITH CAST IRON GRATE

CAST IRON GRATE, TYPE B

CAST IRON GRATE, TYPE C

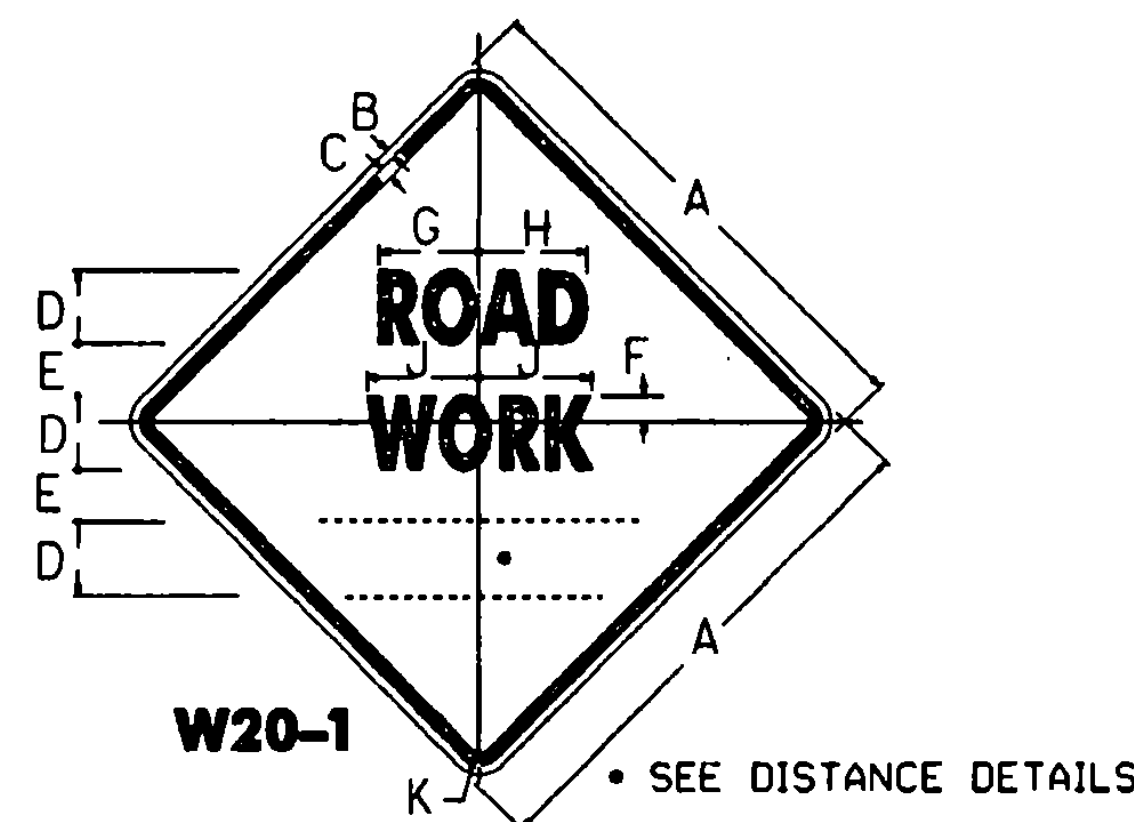
UNDERDRAIN RISER

REINFORCED CONCRETE PIPE END SECTION

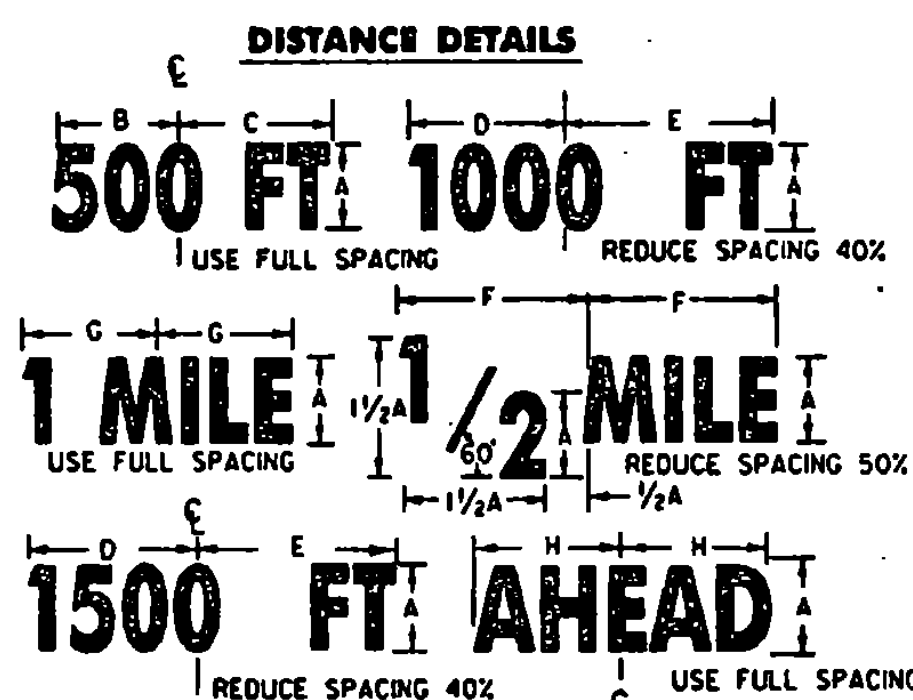
ENERGY DISSIPATOR FOR CULVERT

VERMONT AGENCY OF TRANSPORTATION

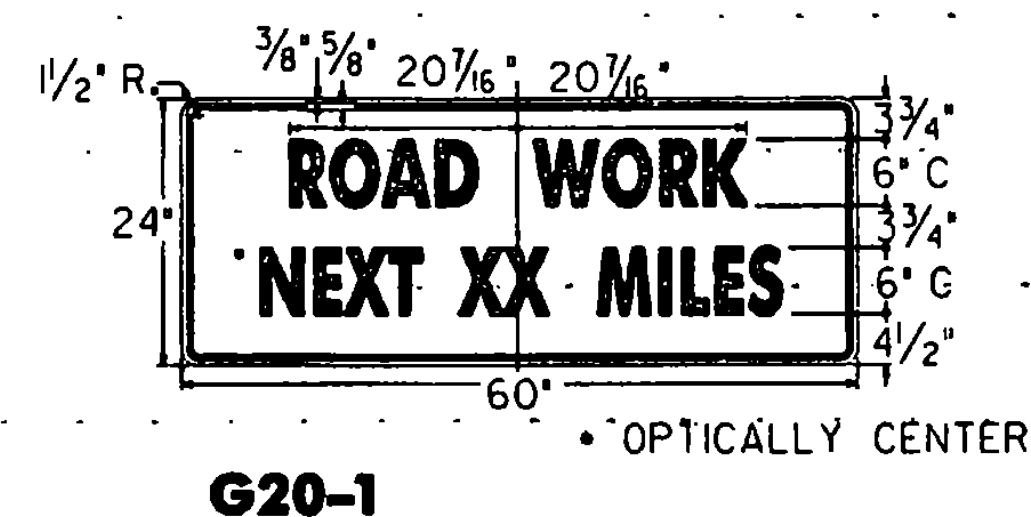
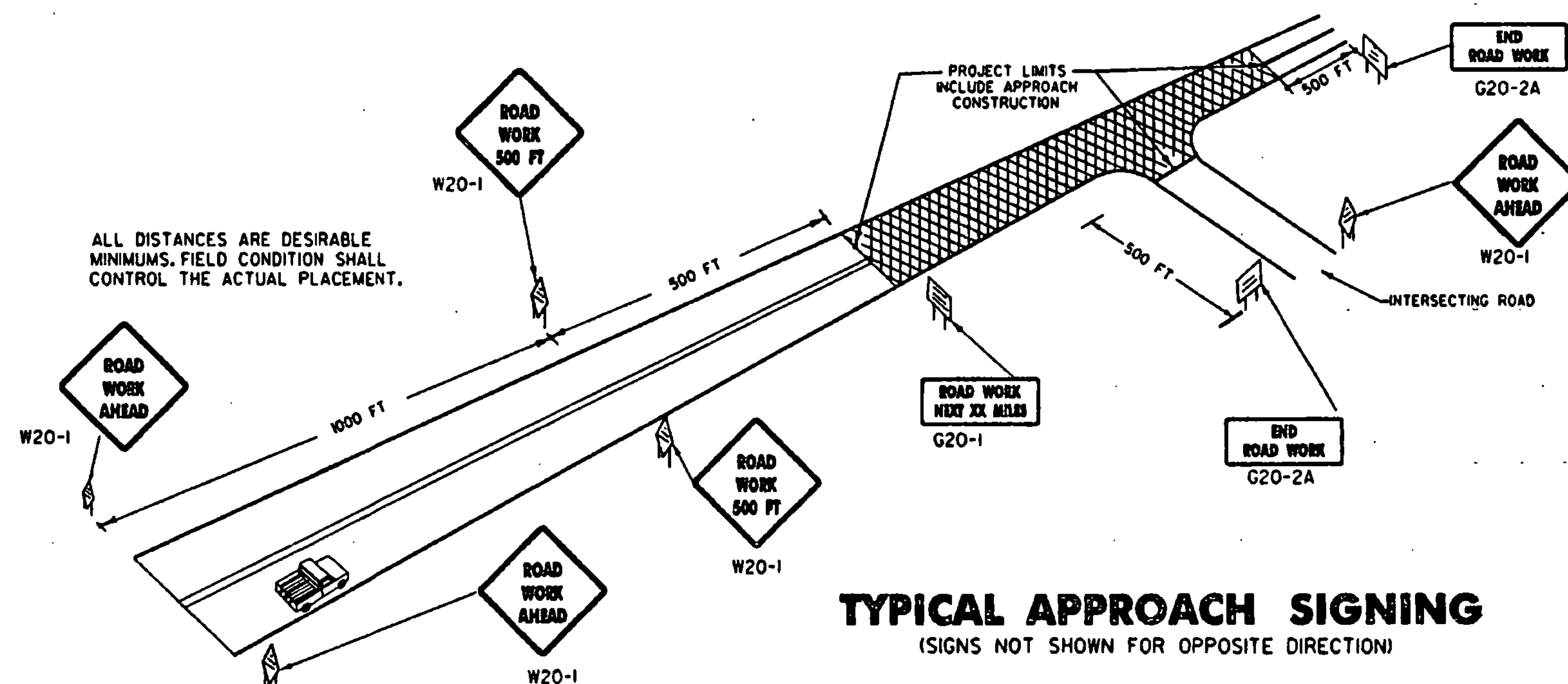
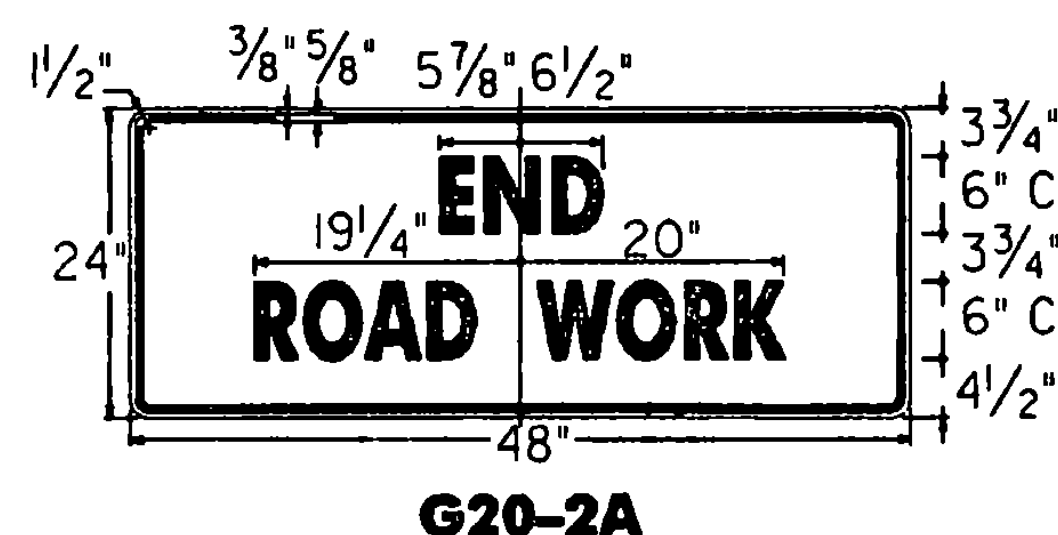
STANDARD D-16



SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	K
MIN.	30	1/2	3/4	40	2 1/2	2 1/2	6 3/4	7	7 3/4	1 1/2
STD.	36	3/4	1	50	3 1/2	3 1/2	8 3/4	8 3/4	9	2 1/4
SPECIAL	48	1 1/4	1 1/2	70	4 1/2	4 1/2	11 3/4	12 3/4	12 3/4	3



DIMENSIONS (INCHES)							
A	B	C	D	E	F	G	H
4D	8 1/4	8 3/4	8 1/2	9	9	7 3/4	8 3/4
5D	10 1/4	10 3/4	10 1/2	11 1/4	11 1/4	9 3/4	10 3/4
7D	14 1/4	15 3/4	14 1/2	15 3/4	15 3/4	13 3/4	15 1/2



G20-1

THIS SIGN TO BE USED WHEN PROJECT LENGTH EXCEEDS 2 MILES OR AS REQUESTED BY THE RESIDENT ENGINEER. SHOW MILEAGE TO NEAREST 1/4 MILE USING FRACTIONS, NOT DECIMALS. HAND LETTERING OF MILEAGE WILL NOT BE ALLOWED.

NOTES

THE SIGNS SHOWN ON THIS SHEET ARE INTENDED FOR USE IN PROVIDING ADVANCE WARNING AND INFORMATION ON CONSTRUCTION PROJECTS OVER WHICH TRAFFIC WILL BE MAINTAINED. WHEN ADDITIONAL APPROACH SIGNS OR OTHER TYPES OF ADVANCE SIGNING OR CONTROL ARE NECESSARY, THE PLANS AND/OR THE SPECIFICATIONS FOR THAT PROJECT WILL GIVE THE DETAILS OF THE SIGNS AND DEVICES REQUIRED. FOR ON-PROJECT CONSTRUCTION SIGNS, REFER TO APPROPRIATE STANDARD SHEETS.

APPLICATION OF STANDARDS

SINCE IT IS NOT POSSIBLE TO PRESCRIBE DETAILED STANDARDS OF APPLICATION FOR ALL OF THE SITUATIONS THAT MAY CONCEIVABLY ARISE ON A CONSTRUCTION PROJECT, REFERENCE SHALL BE MADE TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR THE PRINCIPLES, PROCEDURES, AND STANDARDS THAT WILL BE REQUIRED IN CONNECTION WITH ADVANCED WARNING AND ON-PROJECT CONSTRUCTION SIGNS AND BARRICADES. THE SIGNS SHOWN IN E-101 AND E-102 REPRESENT A SAMPLE OF THOSE MORE COMMONLY USED.

LOCATION

THE SIGNS SHALL BE LOCATED AS DETAILED ON THIS SHEET OR AS OTHERWISE SHOWN ON THE PLANS. THEY SHALL APPEAR AT EACH END OF THE HIGHWAY UNDER CONSTRUCTION AND ON ALL INTERSECTING PUBLIC HIGHWAYS. THE EXACT PLACEMENT OF ANY SIGN WILL DEPEND UPON THE ALIGNMENT INTENDED TO INDICATE THE SEQUENCE TO BE FOLLOWED, AND THE APPROXIMATE SPACING TO BE OBSERVED. THE ENGINEER SHALL DETERMINE THE EXACT LOCATIONS.

DESIGN

LETTERS, DIGITS, ARROWS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE "STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND DESIGNS PRESCRIBED IN THE STANDARD HIGHWAY SIGNS AS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ADOPTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMIN.

MATERIAL

THE SIGN BASE MATERIAL USED FOR THE SIGNS ON THIS SHEET MAY BE ANY OF THE FOLLOWING, WITH MINIMUM THICKNESS AS NOTED.

FLAT SHEET ALUMINUM	0.125 INCHES
HIGH DENSITY OVERLAYERED PLYWOOD	5/8 INCHES
GALVANIZED SHEET STEEL	12 GAUGE

REFLECTORIZATION

ALL REFLECTORIZED MATERIAL SHALL CONSIST OF TYPE 11B OR TYPE 111 SHEETING.

COLORS

THE COLORS SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. COLORS SHOWN ON THIS SHEET CONSIST OF BLACK TEXT AND BORDER ON A REFLECTORIZED ORANGE BACKGROUND.

INSTALLATION

THE SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES. DURING PERIODS OF INACTIVITY, OR UPON COMPLETION OF THE WORK, SIGNS MAY BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER ON POSTS SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST 7 FEET ABOVE THE EDGE OF PAVEMENT, AND THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST 6 FEET OUTSIDE THE SHOULDER POINT, 4 FEET OUTSIDE GUARD RAIL, OR 2 FEET OUTSIDE CURBING, OR SIDEWALK. THE INSTALLATION OF SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER. IN URBAN AREAS, THE BOTTOM OF THE SIGN SHALL BE AT LEAST 7 FEET ABOVE THE SIDEWALK.

NOTES CONT.

MAINTENANCE

SIGNS SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION SATISFACTORY TO THE ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO APPROACHING TRAFFIC AT ALL TIMES. THEY SHALL BE KEPT PLUMB AND LEVEL AND ALWAYS PRESENT A NEAT APPEARANCE. DAMAGED, DEFACED, OR DIRTY SIGNS SHALL BE REPAIRED, CLEANED OR REPLACED AS ORDERED BY THE ENGINEER.

GENERAL

THE COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING ALL CONSTRUCTION APPROACH SIGNS WILL BE CONSIDERED SUBSIDIARY WORK PERTAINING TO THE PROJECT AS A WHOLE AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR VARIOUS ITEMS INVOLVED IN THE CONTRACT. DURING ALL PHASES OF CONSTRUCTION THE REQUIREMENTS SET FORTH IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL BE MET. WHEN THE PROJECT IS CLOSED DOWN FOR TEMPORARY PERIODS THE SIGNS SHALL BE COVERED IN A WORKMANLIKE MANNER.

SIGN COVERS

SIGN COVERS SHALL CONSIST OF A PANEL PAINTED FLAT BLACK, THE SAME SIZE AS THE SIGN IT COVERS. THE PANEL SHALL BE OF WOOD, PLYWOOD, HARDBOARD OR ANY MATERIAL SATISFACTORY TO THE ENGINEER. NO MATERIAL WILL BE APPROVED THAT WILL DETERIORATE BY EXPOSURE TO THE WEATHER DURING THE PROJECT. MOUNTING OF THE PANEL SHALL BE DONE IN SUCH A WAY AS NOT TO DAMAGE THE SIGN FACE MATERIAL.

CONTRACTORS SHALL COORDINATE THEIR SIGNING ACTIVITIES WITH OTHER CONTRACTORS WITHIN THE PROJECT LIMITS, AS DIRECTED BY THE REGIONAL CONSTRUCTION ENGINEER.

SIGN POSTS

WHERE CONSTRUCTION SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARD RAIL OR OTHER APPROVED TRAFFIC BARRIERS, THE POSTS ON WHICH THE SIGNS ARE MOUNTED SHALL BE YIELDING METAL POSTS AS DESIGNATED IN THE E SERIES OF STANDARD DRAWINGS OR YIELDING WOODEN POSTS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

WOODEN POSTS ARE ACCEPTABLE FOR USE WITH CONSTRUCTION SIGNS. THESE POSTS SHALL HAVE A UNIFORM CROSS-SECTION AND SHALL BE MADE FROM GRADE 2, AIR-DRYED SOUTHERN YELLOW PINE OR ANOTHER EQUIVALENT SOFTWOOD. AN ACCEPTABLE EQUIVALENT SOFTWOOD SHALL HAVE AN EXTREME FIBER IN BENDING "FDB" DESIGN VALUE NOT TO EXCEED 1400 PSI AND HORIZONTAL SHEAR "FVH" DESIGN VALUE NOT TO EXCEED 90 PSI SPECIFICATION "DESIGN VALUES FOR WOOD CONSTRUCTION" AND RELATED SUPPLEMENT, DATED 1986.

AS ESTABLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION IN THEIR NATIONAL DESIGN THE FOLLOWING ARE CONSIDERED TO BE ACCEPTABLE WOODEN POSTS:

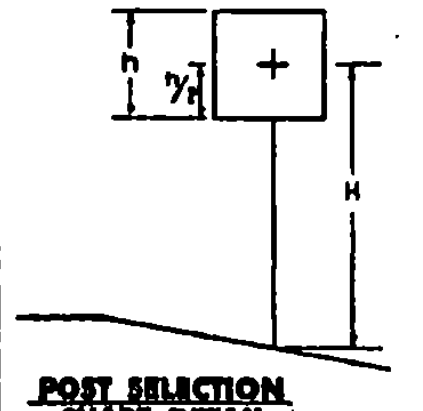
- 4' X 4' (ACTUAL DIMENSIONS ARE 3.5' X 3.5')
 - ACCEPTABLE FOR SINGLE OR DUAL POSTS INSTALLATION WITH NO MODIFICATIONS.
- 4' X 6' (ACTUAL DIMENSIONS ARE 3.5' X 5.5')
 - ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 1 1/2" DIAMETER HOLES, ONE AT 4' AND THE OTHER 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.
- 6' X 6' (ACTUAL DIMENSIONS ARE 5.5' X 5.5')
 - ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 2" DIAMETER HOLES, ONE AT 4' AND THE OTHER AT 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO ROADWAY CENTERLINE.
- 6' X 8' (ACTUAL DIMENSIONS ARE 5.5' X 7.5')
 - ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 3" DIAMETER HOLES, ONE AT 4' AND THE OTHER AT 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.

ADDITIONAL DESIGN CRITERIA

THE LONGER DIMENSION OF THE POST(S), SUCH AS THE 6' DIMENSION OF THE 4' X 6' POST, SHALL BE PLACED PARALLEL TO THE ROADWAY CENTERLINE. ALL WOODEN POSTS SHALL HAVE AN EMBEDMENT DEPTH OF 4 FEET. NO CROSS-BRACING OR BACK-BRACING TO KEEP THE POSTS PLUMB WILL BE ALLOWED. CONCRETE FOUNDATIONS, COLLARS, OR SOIL BEARING PLATES ARE NOT PERMITTED. CONSTRUCTION SIGNS SHALL BE PLACED ON TWO OR MORE POSTS WHEN ANY OF THE FOLLOWING CONDITIONS GOVERN:

- THE SIGN WIDTH (HORIZONTAL DIMENSIONS FOR DIAMOND SHAPED SIGNS) EXCEEDS 3 1/2 FEET.
- THE EXPOSED SIGN AREA OF ANY SINGLE SIGN OR ASSEMBLY EXCEEDS 12 1/2 SQ. FEET.
- THE SV OF A SINGLE POST IS EXCEEDED. (SEE THE POST SELECTION CHART BELOW).

WOOD POST SELECTION CHART		
SIGN AREA (FT ²) X HEIGHT (FT) < SV (SELECTION VALUE)		
POST SIZE	SV	DESIGN CRITERIA
4' X 4'	64	WIND SPEED = 60 MPH (10-YEAR MEAN OCCURENCE INTERVAL)
4' X 6'	147	WIND PRESSURE = 13 psf
6' X 6'	216	ALLOWABLE BENDING STRESS
6' X 8'	389	



OTHER STDS. REQUIRED:

REVISIONS AND CORRECTIONS

MAY 26, 1989 - DATE OF ORIGINAL ISSUE
OCT 21, 1992 - REVISED WOOD POST REQUIREMENTS, ADDED SIGN DETAILS, & REVISED TITLE BLOCK
AUG 08, 1995 - MINOR NOTE REVISIONS
JAN 06, 1997 - MINOR NOTE AND DIMENSION REVISIONS

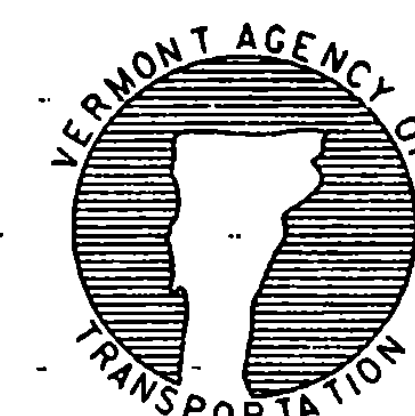
APPROVED

[Signature]
DIRECTOR OF ENGINEERING

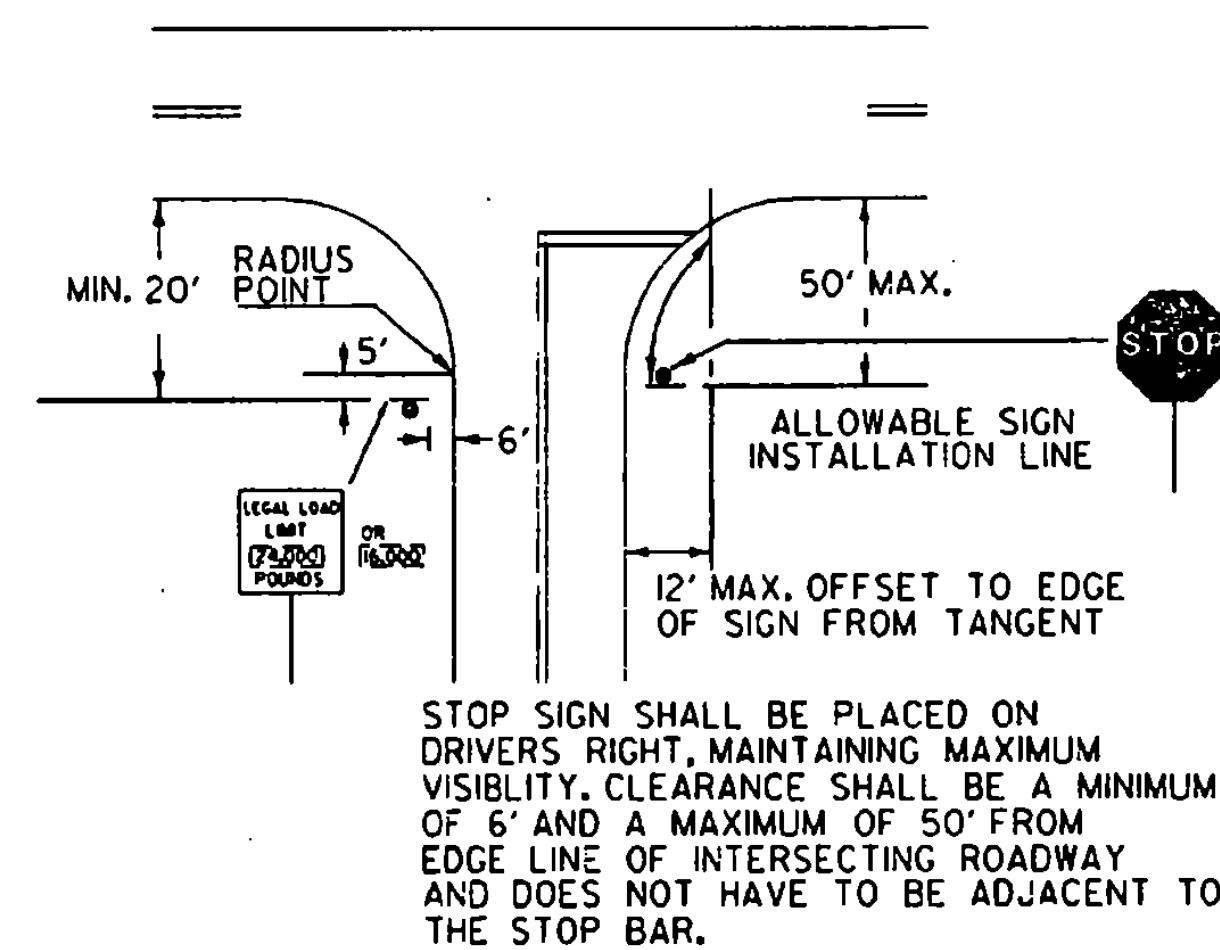
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DIRECTOR OF CONSTRUCTION AND MAINTENANCE

CONSTRUCTION APPROACH SIGNS

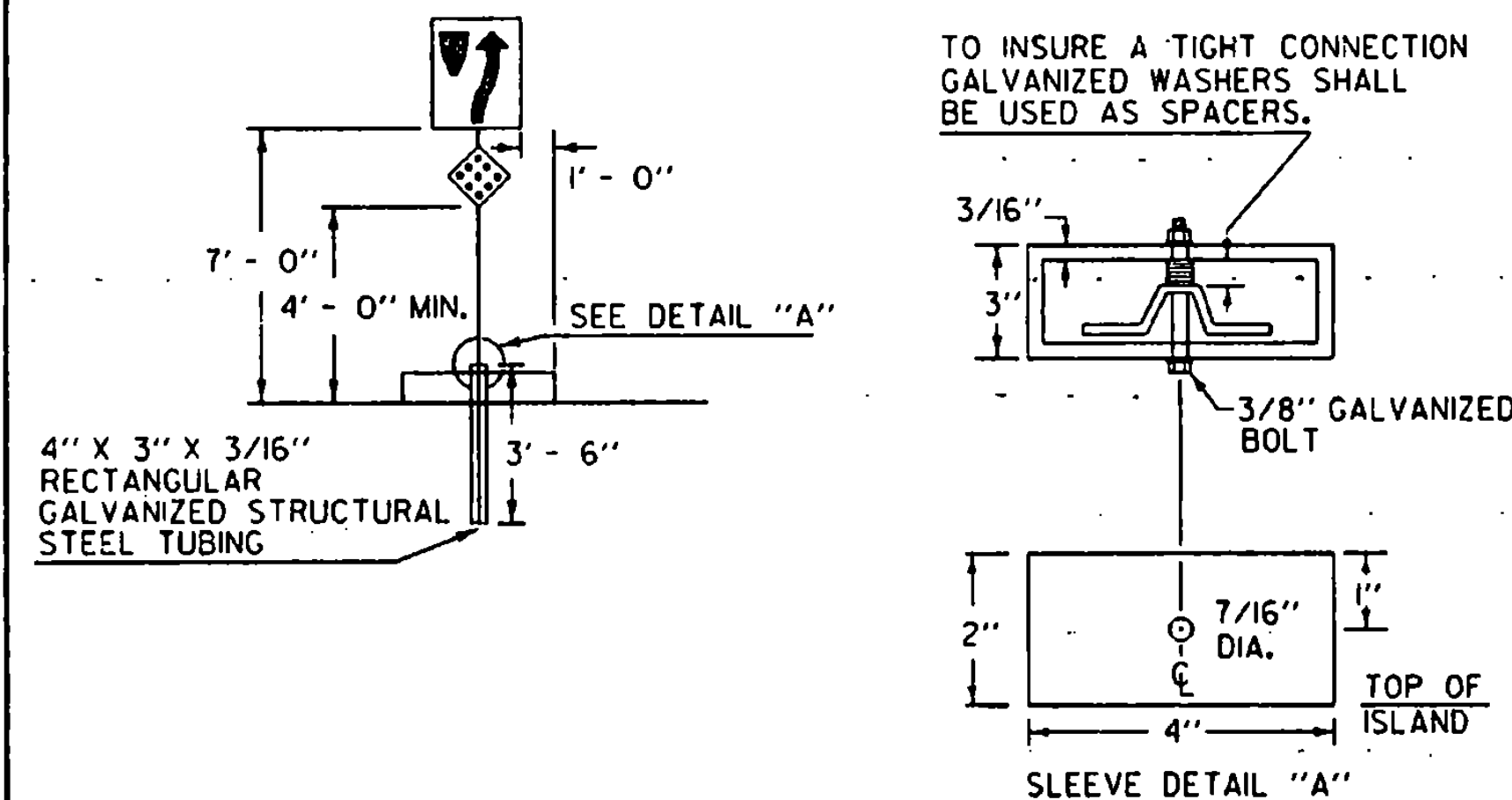
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STANDARD
E-100

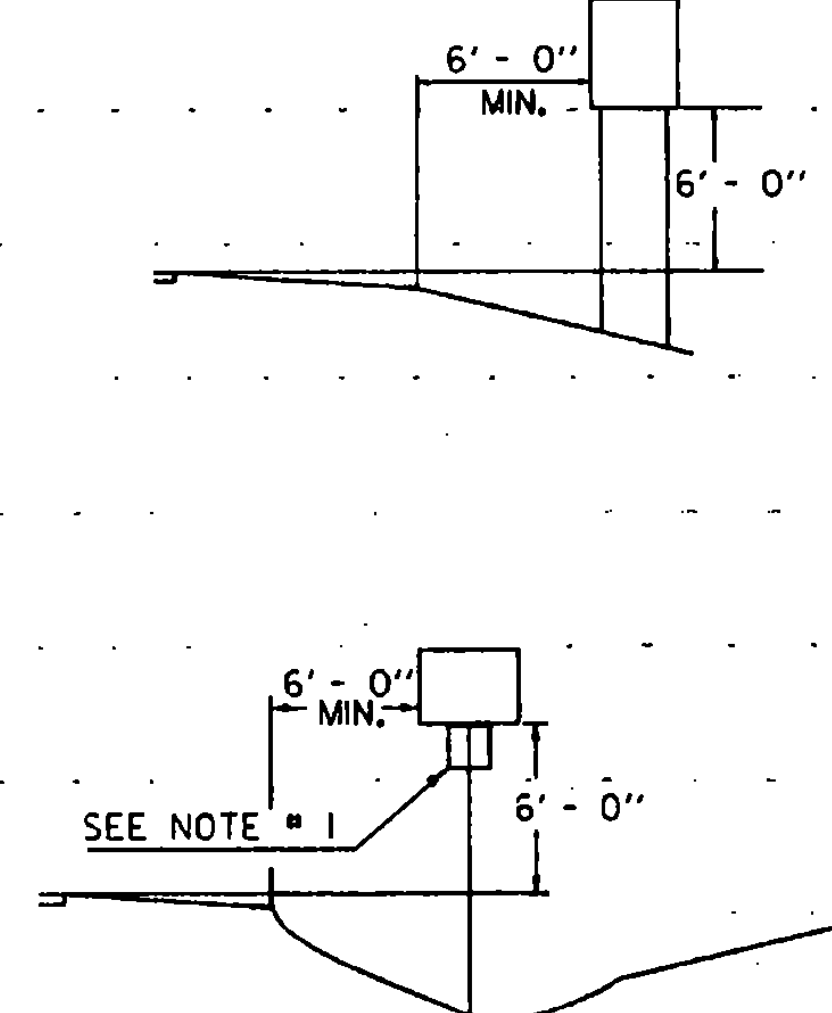


LEGAL LOAD LIMIT AND STOP SIGNS AT INTERSECTIONS WITH TOWN HIGHWAYS

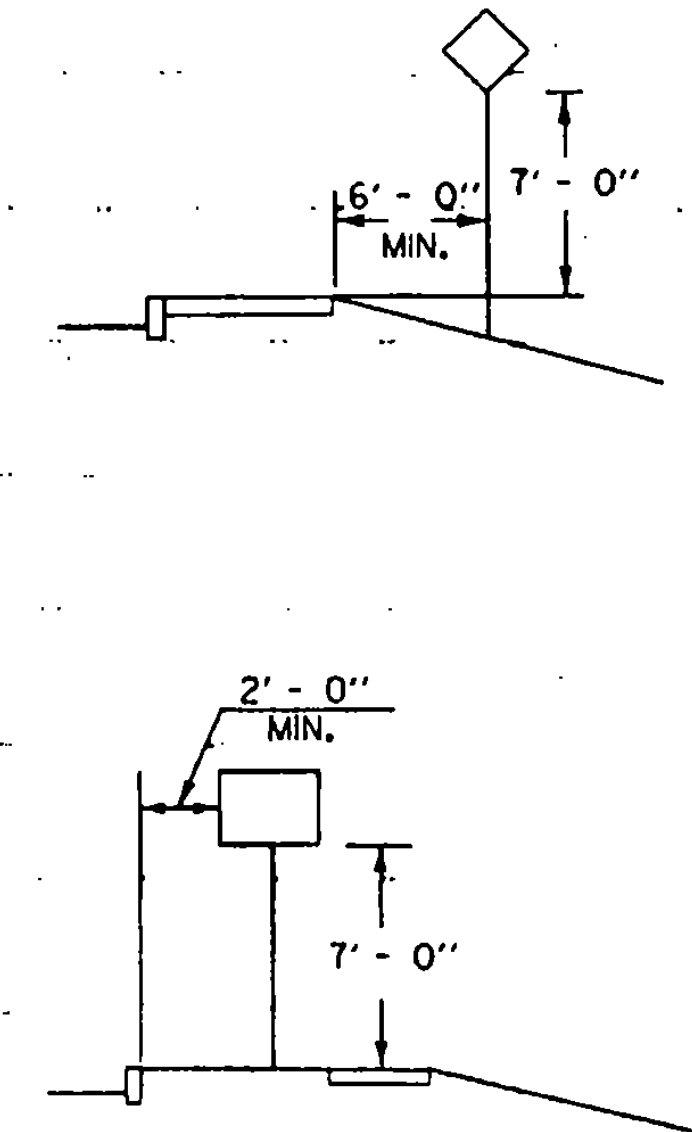
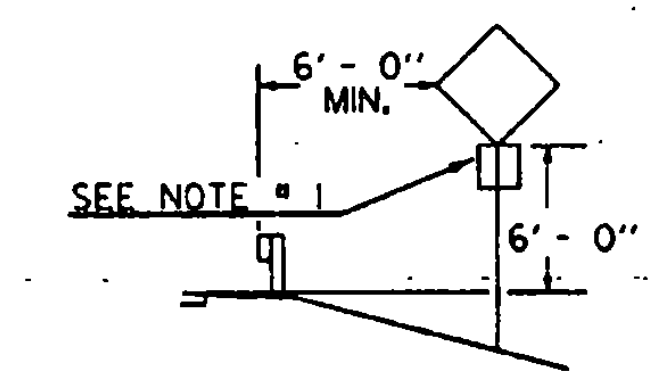


SIGNS ON MEDIAN ISLANDS IN THE LINE OF TRAFFIC

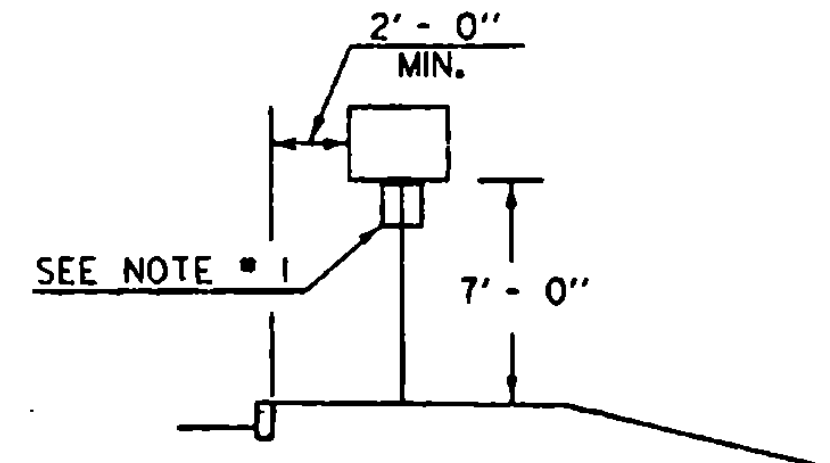
INCREASE VERTICAL CLEARANCE TO 7' IN AREAS OF FREQUENT ROADSIDE PARKING OR PEDESTRIAN ACTIVITY



RURAL



IF SUFFICIENT CLEARANCE IS NOT AVAILABLE BETWEEN CURB AND SIDEWALK MOUNT SIGN BEHIND SIDEWALK AS SHOWN AT TOP. CHECK FOR ADEQUATE R.O.W..



URBAN

- NOTES:**
1. IN BOTH RURAL AND URBAN LOCATIONS, IF A SECONDARY SIGN IS MOUNTED BELOW ANOTHER SIGN, THE MINIMUM CLEARANCE MAY BE REDUCED BY ONE FOOT.
 2. IN RURAL AREAS WITH NO OR MINIMAL SHOULDER, THE LATERAL CLEARANCE TO THE EDGE OF A SIGN SHOULD BE A MINIMUM OF 12' FROM THE EDGE OF THE TRAVELED WAY.
 3. ALSO SEE OTHER STANDARD SHEETS FOR MOUNTING CLEARANCE AND SPACING OF DESTINATION AND ROUTE MARKER ASSEMBLIES AND TOWN LINE SIGNS.
- POST REFERENCE:
-REFER TO THE DETAILS ON THE APPROPRIATE STANDARD DRAWING FOR INFORMATION CONCERNING THE PROPER MOUNTING OF SIGNS ON APPROPRIATE POSTS.

OTHER STDS. E-160 E-161 E-162 E-163 E-164 REQUIRED:

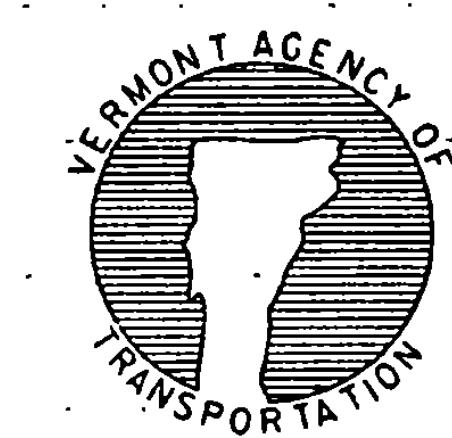
REVISIONS AND CORRECTIONS
JAN. 23, 1995 - DATE OF ORIGINAL ISSUE
AUG. 08, 1995 - VARIOUS MINOR NOTE REVISIONS

APPROVED

Samuel D. McArthur
DIRECTOR OF ENGINEERING

David A. Bass
TRAFFIC AND SAFETY ENGINEER

STANDARD SIGN PLACEMENT CONVENTIONAL ROAD



**STANDARD
E-121**

/traf/std/stdel21.dgn : stdel21.i