

**STREET LIGHT NOTES:**

**CONCRETE BASES**

CARE SHOULD BE TAKEN WHERE CONCRETE BASES, DRAINAGE STRUCTURES OR UTILITIES ARE CLOSE TOGETHER.

**POLES, ANCHOR BASES AND ARMS**

ALL NEW STREET LIGHT POLES AND LUMINAIRE ARMS ARE TO BE ALUMINUM IN ACCORDANCE WITH SUBSECTION 753.01 (B).

STREET LIGHT POLES, AS INDICATED ON THE PLANS, SHALL HAVE A BREAKAWAY DEVICE (TRANSFORMER BASE) BETWEEN THE POLE BASE AND THE CONCRETE BASE.

THE TRANSFORMER BASE SHALL HAVE A 1/8" THICK PREFORMED FABRIC BEARING PAD OR A COATING OF ALUMINUM IMPREGNATED CAULKING COMPOUND PLACED BETWEEN THE TOP OF THE CONCRETE POLE BASE AND THE BOTTOM OF THE ALUMINUM TRANSFORMER BASE.

SEE STANDARD SHEET E-180B FOR CONCRETE BASE DETAILS AND OTHER STREET LIGHTING DETAILS.

ALL LIGHT POLES AND ARMS SHALL BE FLAT BLACK. (SEE SPECIAL PROVISIONS FOR MORE INFORMATION)

FINAL BASE ELEVATION (BOTTOM OF BASE PLATE) TO BE SET 1 1/2" (+/- 1/2") ABOVE CURB ELEVATION. OFFSET TO FACE OF POLE FROM CURB TO BE BETWEEN 2' AND 2'-2".

**LUMINAIRES**

LIGHT DISTRIBUTION IS BASED UPON LIGHTING LUMINAIRE, WITH CUT-OFF OPTICS, ALUMINUM HOUSING, PHOTOELECTRIC CONTROL, FILTERED OPTICAL ASSEMBLY, MEDIUM CUT-OFF DISTRIBUTION AND REGULATOR BALLAST FOR APPROPRIATE VOLTAGE. GENERAL ELECTRIC M-250A2 LUMINAIRE, PHOTOELECTRIC DATA 35-177285 WITH 120 VOLT OR 240 VOLT, 150 WATT HIGH PRESSURE SODIUM LAMP IN SOCKET POSITION 1 1/2 B. FIXTURE SHALL BE MOUNTED ON A 33 FOOT HIGH ALUMINUM POLE WITH A 8 FOOT OR 12 FOOT ARM ON A TRUSS-TYPE SUPPORT ARM, AS SPECIFIED IN THE PLANS.

FOR DETAILS, SEE STANDARD SHEET E-180A.

**PHOTO CELLS**

PHOTO CELLS SHALL BE STANDARD OR HEAVY DUTY GAP TYPE WITH A WORKING VOLTAGE OF 105 TO 258 VOLTS, INSTANT RESPONSE, BALLAST RATING OF 1800 VA, TUNGSTEN RATING OF 100 WATTS, AND A 1-INCH CELL SIZE.

**CONDUIT**

INSTALL CONDUIT, SIZE, TYPE AND LOCATION AS PER THE PLAN.

**CONDUIT SLEEVE**

MINIMUM WALL THICKNESS FOR RIGID PLASTIC PIPE SLEEVES SHALL BE 1/35TH THE DIAMETER. ALL CONDUIT RUNS UNDER ROADWAY SHALL BE INSTALLED IN RIGID PLASTIC SLEEVES.

**WIRING**

INSTALL ALL WIRING, SIZE AND TYPE AS PER PLAN. ALL WIRING TO HAVE A TYPE XHHW INSULATION OR EQUIVALENT. USE #10 COPPER WIRES BETWEEN THE TRANSFORMER BASE AND THE LUMINAIRE. USE #6 AWG FOR THE CONTINUOUS GROUND FEED.

ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

**GROUNDING**

ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR, RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUND CONDUCTOR.

**CONNECTIONS**

MULTIPOINT CONNECTORS, WITH A MINIMUM OF 4 PORTS, SHALL BE USED FOR CONNECTIONS. THESE SHALL BE OF A TYPE TO ALLOW WIRE DISCONNECTION WHILE THE CIRCUITS HOT. NO LUG-TYPE CONNECTIONS WITH ELECTRICAL TAPE ARE ALLOWED.

**PULLBOXES**

INSTALL PULLBOXES, SIZE AND LOCATION AS PER THE PLAN. FOR DETAILS SEE STANDARD SHEET E-173.

**GENERAL**

THE LOAD ON EACH BRANCH OF A THREE WIRE CIRCUIT SHALL BE AS BALANCED AS POSSIBLE, LOAD TO NEUTRAL.

THE LAST CONCRETE POLE BASE AT THE END OF EACH CIRCUIT SHALL HAVE A CONDUIT SWEEP WITH CAP INSTALLED FOR FUTURE USE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY ELECTRICAL PERMITS.

IN ADDITION TO METAL POLE TAGS, AN ADHESIVE TAG WITH THE POLE NUMBER SHALL BE PROVIDED ON EACH POLE. THE TAG SHALL BE MOUNTED 5 FEET ABOVE THE GROUND AND SHALL FACE THE ROAD. THE TAG SHALL HAVE A BLACK BACKGROUND WITH WHITE LETTERS.

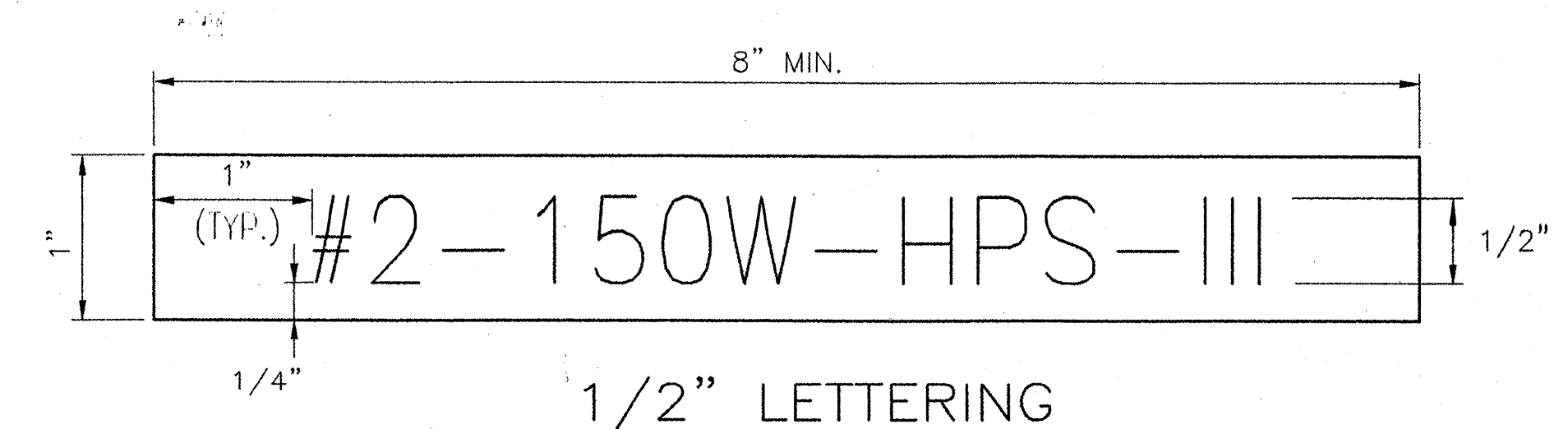
**POWER STANCHIONS**

POWER STANCHION OPTION #3, AS SHOWN ON STANDARD SHEET E-175 SHALL BE USED. TWO GROUNDING RODS SHALL BE PROVIDED (WITH A MINIMUM OF 6' SEPARATION) AS PER VERMONT UTILITY ELECTRICITY SERVICING REQUIREMENTS, DRAWING #204.

DISCONNECT BREAKERS FOR ROUTE 7 CORRIDOR LIGHTS WILL BE PROVIDED ON STANCHIONS AT EACH OF THE SIGNALIZED INTERSECTIONS. NOTE THAT CORRIDOR LIGHTING IS DESIGNATED BY POLES MARKED "SB", AND INTERSECTION LIGHTING IS MARKED BY POLES MARKED "V", OR ON MAST ARM POLES. THE CORRIDOR LIGHTING WILL NOT BE METERED. THE STANCHION, AND ALL METERS, DISCONNECTS, WIRING, ETC. AT EACH INTERSECTION, WILL BE PAID UNDER ITEM 678.15, AND NO ADDITIONAL PAYMENT WILL BE MADE FOR INCLUSION OF THE LIGHTING DISCONNECT AS DESCRIBED HERE.

**ELECTRICAL PERMIT**

THE CONTRACTOR SHALL PLACE ELECTRICAL PERMITS AND BILLING IN HIS NAME (NOT THAT OF THE STATE OR THE MUNICIPALITY) UNLESS PRIOR WRITTEN PERMISSION IS GRANTED BY THE ENGINEER. FAILURE TO COMPLY WILL RESULT IN NON-ACCEPTANCE OF THE FACILITIES OR DELAY TO THE 30-DAY TEST PERIOD IN THE CASE OF SIGNALS, UNTIL THE SITUATION IS REMEDIED.



LEGEND: BLACK OR WHITE (NON-REFL.) - STAMPED PRIOR TO PRINTING/PAINTING

BACKGROUND: NATURAL ALUMINUM OR FLAT BLACK SURFACE. SAME AS POLE FINISH.

**NOTES:**

1. THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED, SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH THE MINIMUM THICKNESS OF 0.100 INCHES.
4. THE TAG SHALL BE ATTACHED TO THE POLE ABOVE THE HANDHOLE, 6" MAXIMUM. IF THE POLE HAS A TRANSFORMER BASE, ATTACH TAG TO COVER.

**DETAILS FOR TAGS ATTACHED TO STREET LIGHT POLES**

**THE CONTRACTOR SHALL PERFORM THE FOLLOWING WORK:**

1. PERFORM AN INSTALLTION TEST ON ALL CONDUCTORS EXCEPT THE GROUND CONDUCTOR (INCLUDING NEUTRAL, DISCONNECT FROM GROUND BEFORE TESTING). PERFORM A RESISTANCE TO GROUND TEST AT SPECIFIED GROUNDS, SEE VERMONT STANDARD SPECIFICATIONS 679.08. FURNISH THE TRAFFIC DESIGN SECTION, VIA THE RESIDENT ENGINEER, THE READING OBTAINED FROM THE ABOVE TESTS.
2. AT EACH STREET LIGHT POLE LOCATION, INSTALL A CONCRETE POLE BASE, STAINLESS STEEL ANCHOR BOLTS, NUTS AND WASHERS (FLAT AND LOCK) ALUMINUM POLE, LUMINAIRE ARM, LUMINAIRE, BREAKAWAY FEATURE, WIRING, WATERPROOF DISCONNECT KITS AND CONDUIT SWEEPS.
3. INSTALL METAL TAGS ON THE LIGHT POLES WITH THE INFORMATION AS NOTED AND DETAILED ON THE PLANS.
4. INSTALL PADLOCKS (MASTER PADLOCK #3320) ON ALL RAINIGHT CABINETS.
5. INSTALL A RAINIGHT CABINET WITH METER SOCKET, MAIN DISCONNECT AND INDIVIDUAL CIRCUIT BREAKERS, THE CABINET TO BE INSTALLED ON A STANCHION AS PER PLAN. INSTALL POLE RISER CONDUIT, WEATHERHEAD OR CONDULATOR AND ALL NECESSARY WIRING AND HARDWARE.

**WORK TO BE PERFORMED BY THE LOCAL UTILITY COMPANY:**

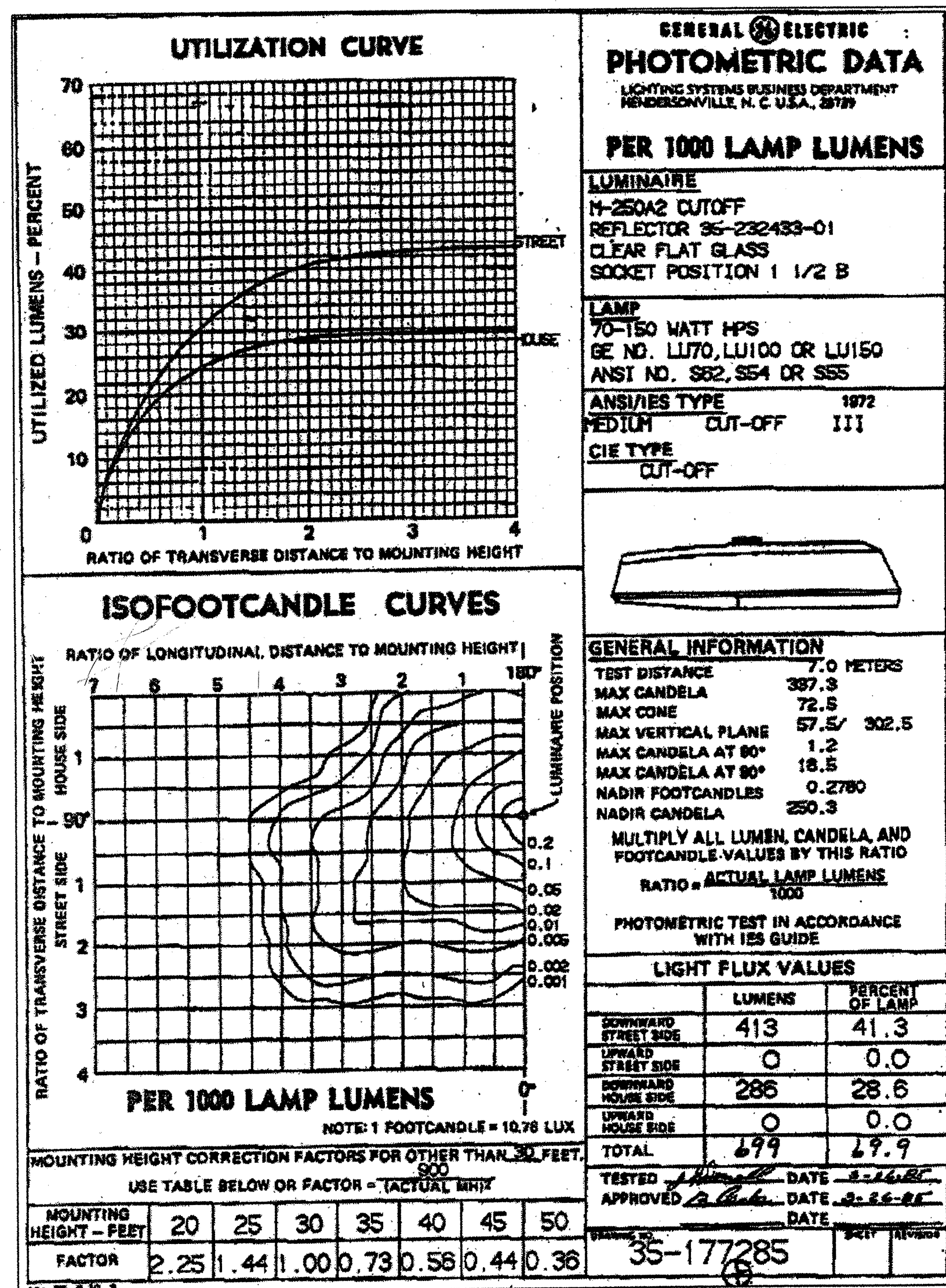
PROVIDE FOR A 120/240 VOLT, 100 AMPERE, (MIN.) SINGLE PHASE, 3 WIRE DISTRIBUTION SYSTEM AT LOCATIONS AS SHOWN ON PLANS.

SHELburnE - SOUTH BURLINGTON

SURVEYED BY V.S.C. INC. DATE \_\_\_\_\_  
DRAWN BY E.A.A. INC. DATE \_\_\_\_\_  
TRACED BY E.A.A. INC. DATE \_\_\_\_\_

PROJECT NH-EGC-019-4(28)  
LIGHTING DRAWING NO. 1  
SHEET NO. 137 OF 283

4/4/03



THE ABOVE PHOTOMETRIC DATA DRAWING WAS USED FOR DESIGN PURPOSES ON THIS PROJECT. OTHER MANUFACTURER'S PRODUCTS MAY BE SUBSTITUTED IF THE INSTALLED LUMINAIRE LIGHT UTILIZATION AND MINIMUM FOOTCANDLES ON THE ROADWAY, SHOULDER AND SIDEWALK ARE AT LEAST AS GREAT AS THAT INDICATED BY THE ABOVE PHOTOMETRIC.

DATUM  
VERTICAL NGVD 1929  
HORIZONTAL NAD 1927