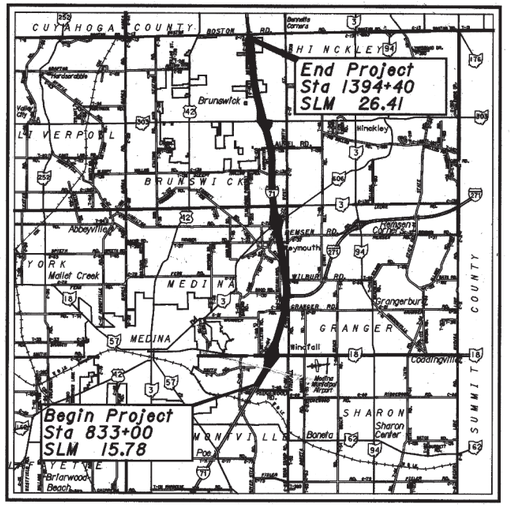
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MED - 71 - 15.78

City of Brunswick
Medina, Granger, Brunswick Hills And Montville Townships
Medina County



LOCATION MAP

LATITUDE: 41° 08′ 38″ LONGITUDE: 81° 47′ 30″

0 1 2 3 4
SCALE IN MILES

N

PORTION TO BE IMPROVED
STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2000)	56,530
DESIGN YEAR ADT (2020)	72,470
DESIGN HOURLY VOLUME (2020)	7,247
DIRECTIONAL DISTRIBUTION	55 %
TRUCKS (24 HOUR B&C)	22 %
DESIGN SPEED	70 MPH
LEGAL SPEEDS	55 MPH and 65 MPH

DESIGN FUNCTIONAL CLASSIFICATION - Interstate Rural/Urban

DESIGN EXCEPTIONS

IR 71 - NONE REQUIRED

	APPRV DATE	SHT
GRANGER RD SSD	12/14/99	408, 409
SHOULDER WIDTH	12/14/99	402

PLAN PREPARED BY:
District One
Ohio Department
of Transportation

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UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS
UNDERGROUND PROTECTION SERVICE
P.O. Box 206
Granville, OH 43023-0206
800-925-0988
(Fax) 740-587-0446

PROJECT DESCRIPTION

Reconstruction of 10.6 miles of IR 71 existing lanes and shoulders including construction of widened inside shoulders from Begin Project to SR 303 and additional lanes from SR 303 to End Project. Also reconstruction of the connection lanes between IR 71 and IR 271. The work shall consist of but is not limited to new pavement and shoulders, new underdrains, rehabilitation or replacement of existing drainage, new guardrail, upgrading of signing, replacement of fencing, lighting at the IR 271, SR 3 and SR 303 interchanges, noise walls, replacement of Rest Area parking Areas, pavement markings and rehabilitation or replacement of structures.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

1997 SPECIFICATIONS

The Standard Specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

I hereby approve the plans and declare that the making of this improvement will not require the closing to traffic of the highway and provisions for the maintenance and safety of the traffic will be as set forth on the plans and estimate.

"Under authority of Section 4511.21, Division (I) of the Revised Code of Ohio, the revised prima facia speed limits as indicated herein are determined to be reasonable andsafe and are hereby established for the duration of this project. The prima facia speed limit or limits hereby established shall become effective when appropriate signs giving notice thereof are erected."

APPROVED James D. Mawhorr
DATE 12-17-99 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE DIRECTOR, DEPARTMENT OF TRANSPORTATION

ENGINEERS SEAL:
STATE OF OHIO
John Wesley Rogers
E-45551
REGISTERED
PROFESSIONAL ENGINEER

For Signing, Pavement Marking, Guardrail, Pavement Calculations & Maintenance of Traffic except at SR 18, Granger Road and IR 271.

SIGNED John W. Rogers
DATE: December 15, 1999

For additional Seal Blocks, See Sheet 2 of 940.

STANDARD CONSTRUCTION DRAWINGS

BP-1.1M	10-28-94	GR-1.1M	10-21-97	CB-1.2M	7-12-95	AS-1-81	09-15-94	TC-22.10M	03-13-97	TC-61.10M	03-31-94	HL-20.22M	03-31-96	MT-95.40M	04-25-94	806	09-09-97	Waterway Permit	
BP-2.1M	04-08-97	GR-1.2M	1-3-96	CB-2.1M	7-12-95	GR-3.5M	10-21-97	TC-22.20M	02-01-94	TC-65.10M	11-01-95	HL-20.23M	03-31-95	MT-97.10M	04-25-94	814	06-02-98	NWP#	DATE:
BP-2.2M	10-21-97	GR-1.3M	11-30-94	CB-2.2M	7-12-95	BR-1M	01-06-99	TC-31.21M	03-31-94	TC-65.11M	11-01-95			MT-98.12M	06-24-93	815	05-30-96	3 & 14	01-28-98
BP-2.3	04-29-99	GR-2.1M	04-14-98	CB-3.1M	7-12-95	BS-1-93	12-19-94	TC-32.10M	03-31-94	TC-65.12M	11-01-95	HL-30.11M	03-31-95	MT-98.13M	06-24-93	816	04-21-97		
BP-2.4M	10-28-94	GR-3.1M	10-21-97	CB-3.2M	7-12-95	CS-1-93	06-30-95	TC-32.11M	03-31-94	TC-71.10M	09-01-93	HL-30.21M	05-01-95	MT-98.14M	06-24-93	825	9-14-99		
BP-2.5M	04-08-97	GR-3.2M	10-21-97	CB-3.4M	7-12-95	EXJ-4-87M	02-18-97	MT-102.10M	01-30-95	TC-72.20M	09-01-93	HL-30.22M	03-31-95	MT-98.15M	06-24-93	842	01-06-99		
BP3.1M	10-28-94	GR-4.1M	11-30-94	HW-2.1M	07-12-95	VPF-1-90M	03-20-95	TC-41.10M	03-31-94	TC-82.10M	11-24-93	HL-30.31M	05-01-95	MT-98.16M	06-24-93	844	01-06-99		
BP-4.1M	10-28-94	GR-4.2M	10-21-97	HW-2.2M	07-12-95	GSD-1-96	02-12-97	TC-41.20M	07-01-94	TC-83.10M	11-24-93	GR-4.3M	10-27-97	MT-98.17M	04-25-94	855	6-30-98	SUPPLEMENTAL	
BP-5.1M	10-28-94	GR-6.1M	1-3-96	I-2.2M	09-06-95	PCB-1-91	07-06-99	TC-41.50M	07-01-94	RM-4.5M	10-21-97	HL-40.10M	03-31-95	MT-98.18M	04-25-94	863	10-12-99	SPECIFICATIONS	
BP-9.1	04-29-99	GR-6.2M	1-3-96	MH-1.1M	10-21-97	SBR-1-99	01-12-99	TC-42.10M	03-31-94	HL-10.11M	05-01-95	HL-50.11M	03-31-95	MT-99.20M	01-30-95	870	08-10-99		
BP-9.2	04-29-99	RM-1.1	04-29-99	MH-1.2M	09-06-95	HW-1.1M	07-12-95	TC-42.20M	03-31-94	HL-10.12M	05-01-95	HL-50.21M	08-31-94	MT-101.60M	04-25-94	899	10-21-98	910	07-28-98
F-1.1M	4-8-97	RM-4.1M	10-21-97	MH-3.1M	09-06-95	TC-7.65M	02-01-94	TC-82.11M	01-19-99	HL-10.13M	05-01-95	HL-60.11M	05-01-95	MT102.20M	01-30-95	880	06-15-99	911	07-10-97
F-2.1M	4-8-97	RM-4.2M	10-21-97	DM-1.1M	10-21-97	TC-12.30M	02-01-94	TC-51.11M	09-30-94	HL-10.31M	03-31-95	HL-60.21M	03-31-95	MT-105.10M	04-25-94	904	05-05-98	954	09-09-97
F-3.1M	4-21-95	RM-4.3M	10-21-97	DM-4.2M	6-30-95	TC-18.26M	02-01-94	TC-51.12M	03-31-94	HL-20.11M	03-31-95	HL-60.31M	03-31-95	MT-105.11M	04-25-94	905	04-01-98	877	4-13-99
F-3.3M	4-21-95	RM-4.4M	10-21-97	DM-4.3	04-29-99	TC-21.10M	12-10-96	TC-52.10M	07-29-94	HL-20.15M	03-31-95	MT-95.31M	04-25-94	MT-95.32M	04-25-94	906	05-05-98	925	9-14-99
F-3.4M	4-8-97	CB-1.1M	7-12-95	DM-4.4	04-29-99	TC-21.20M	12-10-96	TC-52.20M	07-29-94	HL-20.21M	08-31-94	MT-95.30M	04-25-94			887	08-10-99		

FEDERAL PROJECT NO. TE21-G000(267)
PID NO. 7885
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE

MED - 71 - 15.78

LIGHTING GENERAL NOTES

POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

Ohio Edison Company - Distribution	Ohio Edison Company - Transmission
6326 Lake Avenue	76 South Main Street
Elyria, Ohio 44035	Akron, Ohio 44308
440-324-0231	330-384-5180

THIS PROJECT WILL RECEIVE 480 VOLT, THREE WIRE GROUNDED NEUTRAL

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING WORK, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERED TO THE OHIO DEPARTMENT OF TRANSPORTATION. THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF THE EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

CONVENTIONAL LUMINAIRES

STYLE B LUMINAIRES SHALL HAVE SINGLE RATED 480 V, 400 W, INTEGRAL REGULATOR BALLASTS FOR USE WITH HIGH PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M400, WESTINGHOUSE OV-25, ITT AMERICAN 400, OR EQUAL APPROVED BY THE ENGINEER.

UNDERPASS LUMINAIRES

UNDERPASS LUMINAIRES SHALL BE HOLOPHANE "UNDERPASS WALLPACK", WESTINGHOUSE, OR GENERAL ELECTRIC WL-250 UNDERPASS UNIT OR EQUAL APPROVED BY THE ENGINEER, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10-AMPERE FUSE. THE INTEGRAL HIGH PRESSURE SODIUM BALLAST SHALL BE OF A REGULATOR TYPE RATED FOR 480 VOLTS, 100 WATTS.

LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", WESTINGHOUSE "CERAMALUX", SYLVANIA "LUMALUX", OR EQUAL APPROVED BY THE ENGINEER.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO STANDARD DRAWING HL-30.11 FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE THE ENGINEER, AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATIS-FACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET. AN ESTIMATED QUANTITY OF " 1240 LINEAR FEET OF ITEM 603 4" CONDUIT, TYPE E" IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

CONDUIT ON STRUCTURE

EXPANSION FITTINGS FOR CONDUIT ON STRUCTURES SHALL BE OZ TYPE AX, CROUSE-HINDS TYPE XJ-4, APPLETON TYPE XJ-4, OR EQUAL APPROVED BY THE ENGINEER, FOR THE FOLLOWING BRIDGES:

MED-71-2088E
MED-71-2092W

EACH EXPANSION FITTING SHALL HAVE A COPPER EXTERNAL BINDING JUMPER.

HIGH VOLTAGE DIRECT CURRENT TEST

A HIGH VOLTAGE DIRECT CURRENT TEST SHALL BE PERFORMED ON NEW CIRCUITS ONLY. EXISTING CIRCUITS SHALL NOT BE TESTED. THE TEST SHALL NOT BE PERFORMED UNTIL AFTER ALL NEW CONSTRUCTION, SUCH AS GUARDRAIL, FENCE, DELINEATOR POSTS, SIGN SUPPORTS, ETC., IN THE IMMEDIATE VICINITY OF THE LOCATION OF CABLE RUN BEING TESTED, HAS BEEN COMPLETED.

A LUMP SUM PAYMENT FOR THIS TEST HAS BEEN INCLUDED IN THE LIGHTING GENERAL SUMMARY.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH SPECIFICATION 631.08 PARRAGRAPH 3. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEMS BEING LOCKED.

ITEM 625 - SERVICE TO UNDERPASS LIGHTING

THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE, EXCEPT FOR LUMINAIRES AND STRUCTURE GROUNDING, FOR THE UNDERPASS LIGHTING SYSTEM ON A BRIDGE AS SHOWN IN THE PLANS.

THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTINGS, FITTINGS, JUNCTION BOXES, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE, READY FOR USE, THE SERVICE AS DETAILED ON SHEETS 630 & 636 . PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH "ITEM 625 - SERVICE TO UNDERPASS LIGHTING" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE FURNISHED AND CONSIDERED PAID FOR AS PART OF THE ITEM.

ITEM 202-LIGHT POLE REMOVED

THE ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE INCLUDING THE BRACKET ARM(S) AND TRANSFORMER BASE (IF USED). THE CONTRACTOR SHALL TAKE POSSESSION OF THE LIGHT POLE AND DISPOSE OF IT PROPERLY OFF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER EACH ITEM 202 "LIGHT POLE REMOVED."

ITEM 202-LIGHT POLE FOUNDATION REMOVED

THIS ITEM OF WORK WILL CONSIST OF REMOVING AN EXISTING LIGHT POLE FOUNDATION TO A MINIMUM OF ONE FOOT BELOW FINISHED GRADE, BACKFILLING THE RESULTANT DEPRESSION WITH COMPACTED SOIL AND RESTORING THE DISTURBED AREA.

PAYMENT WILL BE MADE FOR EACH ITEM 202 "LIGHT POLE FOUNDATION REMOVED "

ITEM 202-PULLBOX REMOVED

THIS ITEM OF WORK WILL CONSIST OF REMOVING AN EXISTING PULLBOX WHICH SHALL THEN BE PROPERLY DISPOSED OF. THE RESULTANT OPENING SHALL THEN BE BACKFILLED TO GRADE WITH SUITABLE COMPACTED SOIL AND RESTORED TO MATCH SURROUNDING AREA.

PAYMENT WILL BE MADE FOR EACH ITEM 202 "PULLBOX REMOVED."

ITEM 202 POWER SERVICE REMOVED, AS PER PLAN

THIS ITEM OF WORK INCLUDES THE REMOVAL OF THOSE PORTIONS OF THE EXISTING POWER SERVICE NOT BEING REUSED. EXISTING UNDERGROUND CONDUIT AND WIRING MAY BE ABANDONED IN PLACE EXCEPT WHEN NEW WIRING IS TO BE PLACED IN EXISTING CONDUITS OR PULL BOXES. IN THIS LATTER CASE, THE OLD WIRES SHALL BE REMOVED. REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE. ALL DISTURBED AREAS SHALL BE RESTORED AS TO MATCH THE SURROUNDING AREA.

THIS ITEM WILL ALSO COMPENSATE THE CONTRACTOR FOR COORDINATING WITH THE POWER COMPANY TO INSURE THAT THEY DISCONNECT AND REMOVE ANY OF THEIR ITEMS THAT ARE A PART OF THE POWER SERVICE. IT ALSO INCLUDES RETURNING TO THE POWER COMPANY ANY ITEMS BELONGING TO THEM THAT WERE REMOVED BY THE CONTRACTOR, SUCH AS THE THE METER BASE.

PAYMENT WILL BE MADE FOR EACH ITEM "POWER SERVICE REMOVED, AS PER PLAN" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE INSTALLATION IN A SATISFACTORY WORKMAN-LIKE MANNER.

ITEM 202 LUMINAIRE REMOVED

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF AN EXISTING LUMINAIRE.

THE LUMINAIRE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY, OFF OF THE PROJECT SITE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH "ITEM 202 LUMINAIRE REMOVED" AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK SATISFACTORILY.

HIGH MAST LUMINAIRES

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN SECTION 713.21 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS ARE HEREBY WAIVED FOR THIS PROJECT. INSTEAD, THE LUMINAIRES FOR TOWER LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS.

ASYMMETRIC, TYPE I, LUMINAIRES FOR TOWER LIGHTING MAY BE HOLOPHANE "HMST" TEST #36801 OR #36802, OR GENERAL ELECTRIC "HM" TEST #7349, OR COOPER "HMC" TEST #764130.

ASYMMETRIC, TYPE II OR TYPE III, LUMINAIRES FOR TOWER LIGHTING MAY BE HOLOPHANE "HMST" TEST #36648, OR GENERAL ELECTRIC "HM" TEST #7349, OR COOPER "HMC" TEST #764130.

SYMMETRIC, TYPE V, LUMINAIRES FOR TOWER LIGHTING MAY BE HOLOPHANE "HMST" TEST #36383, OR GENERAL ELECTRIC "HM" TEST #6312, OR COOPER "HAL" TEST # 48381.

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE THE DESIGNED POLE LOCATIONS AND THE DESIGNED NUMBER AND TYPE OF FIXTURES PER POLE.

CALCULATED | CHECKED

Lighting General Notes

MED-71-15.78

607
940

REF.FILE *1: REF.FILE *1 LEVELS ON:
REF.FILE *2: REF.FILE *2 LEVELS ON:
REF.FILE *3: REF.FILE *3 LEVELS ON:
REF.FILE *4: REF.FILE *4 LEVELS ON:
FILENAME=I:\000_MELLIN\UKAN\LIGHTING\V-8820LN.dgn
DATE & TIME=09-DEC-1999 16:24
USERNAME=mfox
PROJECT=NONE
LEVELS ON:1-64
PLOT QUEUE:\\OD\PLOT_Ice
RSN TABLE:h:\d0lsd0\pdk\OeaKcross_OCE.pen

GENERAL NOTES

LOW MAST LUMINAIRES

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN SECTION 713.21 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS ARE HEREBY WAIVED FOR THIS PROJECT. INSTEAD, THE LUMINAIRES FOR LOW MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS.

ASYMMETRIC, TYPE II OR TYPE III, LUMINAIRES FOR LOW MAST LIGHTING MAY BE HOLOPHANE "HMST" TEST #36648, OR GENERAL ELECTRIC "HM" TEST #7349, OR COOPER "HMC" TEST #764130.

SYMMETRIC, TYPE V, LUMINAIRES FOR LOW MAST LIGHTING MAY BE HOLOPHANE "HMST" TEST #36383, OR GENERAL ELECTRIC "HM" TEST #6312, OR COOPER "HAL" TEST# 48381.

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE DESIGNED POLE LOCATIONS AND THE TYPE OF FIXTURE PER POLE.

RECONNECTION OF OVERHEAD SIGNS TO NEW LIGHTING CIRCUITS

THE EXISTING LIGHTED SIGNS SHALL BE RECONNECTED TO THE NEW OFF STRUCTURE CANTILEVERED OVERHEAD SIGN SUPPORT LIGHTING CIRCUITS. PAYMENT FOR THIS WORK WILL BE UNDER THE FOLLOWING ITEMS:

DISCONNECTION OF THE SIGN FROM THE EXISTING CIRCUIT SHALL BE PAID BY ITEM SPECIAL – "DISCONNECT EXISTING CIRCUIT".

REMOVAL OF THE EXISTING PULL BOX SHALL BE ITEM 202 – "PULL BOX REMOVED".

REPLACEMENT OF A NEW PULL BOX AT THE SPECIFIED LOCATION SHALL BE PAID UNDER ITEM 625 – "PULL BOX, 18", 713.08".

RECONNECTION OF THE SIGNS TO THE NEW LIGHTING CIRCUIT SHALL BE PROVIDED BY ITEM 625 – "CABLE SPLICE KITS" (2 PER PULL BOX).

ITEM 202 – DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR AT A LIGHT POLE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX.

DISCONNECTION AT A LIGHT POLE SHALL INVOLVE THE REMOVAL OF THAT PART OF THE CABLE THAT IS TO BE ABANDONED FROM THE POLE. THESE ENDS OF THE CONNECTOR KITS FROM WHICH THE ABANDONED CABLE IS REMOVED SHALL BE PLUGGED AND TAPED.

ANY CABLE THAT IS TO BE REUSED IN A PULL BOX OR LIGHT POLE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION. CABLE SPLICE KITS AND CONNECTOR KITS WILL BE PAID FOR RESPECTIVELY UNDER EACH ITEM 625.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202 – "DISCONNECT EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS, AND INCIDENTIALS REQUIRED TO COMPLETE THE WORK.

PORTABLE POWER UNIT

THE CONTRACTOR SHALL SUPPLY A PORTABLE POWER UNIT AS SPECIFIED IN THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS. A QUANTITY OF "1 EACH" OF ITEM 625, "PORTABLE POWER UNIT", IS INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

LIGHT TOWER FOUNDATIONS, AS PER PLAN

IN LIEU OF THE TOP OF FOUNDATION RELATIONSHIP SHOWN IN THE STANDARD DRAWINGS, LIGHT TOWER FOUNDATIONS SHALL EXTEND 6" ABOVE GROUND OR PLATFORM. THE 6" EXTENSION IS INCLUDED IN THE FOUNDATION DEPTH.

ITEM SPECIAL – MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR. IF AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED–DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED–DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS.

SHOULD THE CONTRACTOR DESIRE THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR ADEQUATE TEMPORARY LIGHTING OF THAT PORTION OF THE EXISTING ROADWAY AFFECTED BY THE REMOVAL OF THE EXISTING LIGHTING.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR (4) SETS OF THE TEMPORARY LIGHTING PLAN TO THE DIRECTOR FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATION OF POLES, LENGTH OF BRACKET ARMS, STYLE OF LUMINAIRES, MOUNTING HEIGHT, WIRING METHODS, AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 4:1. MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 27' AND MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20'. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENT AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USE TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NESESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL, AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL – MAINTAINING EXISTING LIGHTING, SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

ADDITIONAL PULL BOXES AND CABLE SPLICING KITS

AN ESTIMATED QUANTITY OF **60** EACH OF ITEM 625 PULL BOX, 713.08, 18" AND A QUANTITY OF **180** EACH OF ITEM 625 CABLE SPLICING KIT ARE PROVIDED AS DIRECTED BY THE ENGINEER. THE LIGHTING PLANS WILL HAVE A "PB**" INDICATING APPROXIMATELY WHERE THE PULL BOXES SHOULD BE PLACED.

ITEM 625 – CONDUIT JACKED OR DRILLED, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING CONDUIT OF THE SIZE OR SIZES INDICATED UNDER EXISTING PAVEMENT AND CONTIGUOUS SHOULDERS BY AN APPROVED METHOD SUCH AS "DRILLING" OR "JACKING".

THE CONTRACTOR SHALL PLACE THE CONDUIT WITH THE LEAST AMOUNT OF DISTURBANCE TO THE EXISTING PAVEMENT, SUBBASE, BERM PAVEMENT, OR SHOULDERS OF THE ROADWAY. ALL PUSH PITS OR ANY NECESSARY EXCAVATIONS SHALL BE BACKFILLED AND RESTORED IN ACCORDANCE WITH 625.01.

MEASUREMENT OF THE CONDUIT SHALL BE THE ACTUAL AMOUNT OF LINEAL FEET INSTALLED UNDER PAVEMENT AND SHOULDERS, MEASURED IN PLACE AS ACCEPTED BY THE ENGINEER. THE UNIT PRICE BID FOR ITEM 625 "CONDUIT JACKED OR DRILLED, AS PER PLAN" SHALL BE FULL COMPENSATION FOR EXCAVATION, DRILLING OR JACKING, BACKFILLING, COMPACTION, RESTORATION, AND ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

LIGHT TOWER LUMINAIRE MOUNTING ARRANGEMENT

LUMINAIRE MOUNTING ARMS FOR TOWER LIGHTING UNITS SHALL BE INSTALLED BY THE POLE MANUFACTURERS SO THAT THE REQUIRED NUMBER OF LUMINAIRES CAN BE INSTALLED ON THE LUMINAIRE MOUNTING RING IN A SYMMETRICAL ARRANGEMENT. WHEN ONLY TWO (2) ARMS ARE REQUIRED THEY SHALL BE POSITIONED SO THE ARMS ARE PARALLEL TO THE CENTERLINE OR BASELINE OF THE PAVEMENT FROM WHICH THE TOWER IS STATIONED.

UNLESS OTHERWISE SPECIFIED IN THE PLANS, ALL LUMINAIRES WITH ASYMMETRIC DISTRIBUTIONS SHALL BE INSTALLED SO THE "ARROW" OR "STREET SIDE" DESIGNATION ON THE OPTICAL ASSEMBLY IS POSTIONED PERPENDICULAR TO THE CENTERLINE OR BASELINE OF THE PAVEMENT FROM WHICH THE TOWER IS STATIONED. ANY OPTICAL ROTATION CALLED FOR WILL BE EXPRESSED AS A CLOCKWISE (CW) OR COUNTERCLOCKWISE (CCW) ANGULAR MEASUREMENT FROM THE NORMAL "ARROW" ORIENTATION.

GLARE SHEILDS, AS PER PLAN

ALL LUMINAIRES MOUNTED AT THE TOWERS LOCATIONS SPECIFIED SHALL HAVE THE 90 DEGREE GLARE SHIELD INSTALLED ON THE HOUSE SIDE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 625 "GLARE SHEIDS, AS PER PLAN".

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ANCHOR BASE FOUNDATIONS

ALL LIGHT POLE FOUNDATIONS DESIGNATED FOR ANCHOR BASE POLES (NOT ALUMINUNM TRANSFORMER BASE POLES) SHALL HAVE THEIR FOUNDATION FORMED SUCH THAT THE TOP OF FOUNDATION SHALL BE 8" TO 12" ABOVE FINISHED GRADE

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Lighting General Notes

MED-71-15.78

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REF-FILE *1; REF-FILE *2; REF-FILE *3; LEVELS ON:
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LOCATION - SHEET NUMBER											ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
GENERAL NOTES		S.R. 18			I.R. 271	S.R. 3	NB REST AREA	S.R. 303								
607	608	611	612	618	613	614	615	616	617	682						
															LIGHTING	
			6	10							202	75300	16	EACH	PULL BOX REMOVED	
			7	42			9				202	75400	58	EACH	LIGHT POLE REMOVED	
			7	42			9				202	75500	58	EACH	LIGHT POLE FOUNDATION REMOVED	
			7	42			9				202	75506	58	EACH	LUMINAIRE REMOVED	
				1							202	75511	1	EACH	POWER SERVICE REMOVED, AS PER PLAN	607
		1			2		1		10		202	75800	14	EACH	DISCONNECT EXISTING CIRCUIT	
			LUMP								202	98000	LUMP		REMOVAL MISC.: EXISTING UNDERPASS LIGHTING SYSTEM	
1,240											603	00400	1,240	LIN FT	4" CONDUIT, TYPE E	
		38				18	18	12	5		625	00500	91	EACH	CONNECTOR KIT, TYPE II	
						18	9	12	5		625	00600	44	EACH	CONNECTOR KIT, TYPE III	
						6					625	01004	6	EACH	CONNECTOR KIT, TYPE VII B	
	180	9	3		16	24	3	4	32		625	01500	271	EACH	CABLE SPLICING KIT	
		1									625	05700	1	EACH	LIGHT POLE, DESIGN A25B40	
						4					625	06300	4	EACH	LIGHT POLE, DESIGN AT12B41.7	
		1				14					625	06400	15	EACH	LIGHT POLE, DESIGN AT15B41.7	
		7									625	06500	7	EACH	LIGHT POLE, DESIGN AT18B41.7	
		2									625	08700	2	EACH	LIGHT POLE, DESIGN A25B50	
		2						12	5		625	09400	19	EACH	LIGHT POLE, DESIGN AT15B51.7	
							9				625	10500	9	EACH	LIGHT POLE, MISC.: DESIGN A30B35	
		1									625	10500	1	EACH	LIGHT POLE, MISC.: DESIGN A30B40	
		2									625	10500	2	EACH	LIGHT POLE, MISC.: DESIGN A25B45	
		2									625	10500	2	EACH	LIGHT POLE, MISC.: DESIGN A30B45	
					5						625	13200	5	EACH	LIGHT TOWER, BBBB100	
					5			2			625	13204	7	EACH	LIGHT TOWER, BBBB110	
								2	2		625	13208	4	EACH	LIGHT TOWER, BBBB120	
								3			625	13400	3	EACH	LIGHT TOWER, BBBBBB100	
					3			3			625	13404	6	EACH	LIGHT TOWER, BBBBBB110	
					1			1			625	13406	2	EACH	LIGHT TOWER, BBBBBB120	
		8				18					625	14100	26	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
		9					9	12	5		625	14200	35	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP	
					14			11	2		625	15201	27	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN	608
	1										625	20000	1	EACH	PORTABLE POWER UNIT	
					3						625	21100	3	EACH	LIGHT TOWER MAINTENANCE PLATFORM, TYPE B	
					2						625	21200	2	EACH	LIGHT TOWER MAINTENANCE PLATFORM, TYPE C	
			551		540	5,070		1,905	1,500		625	23200	9,296	LIN FT	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
			207		1,035						625	23300	1,902	LIN FT	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	
		2,512				3,021	1,260	2,394	1,000		625	23400	10,187	LIN FT	NO. 10 AWG POLE AND BRACKET CABLE	
					1,685	6,490	2,212	7,555	1,780		625	24320	19,722	LIN FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	
		7,185	2,613		5,420						625	24330	15,218	LIN FT	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES	
					110	80					625	25400	190	LIN FT	CONDUIT, 2", 713.04	
			39		165	375		405	490		625	25500	1,474	LIN FT	CONDUIT, 3", 713.04	
		164	559		350	860		400			625	25901	2,333	LIN FT	CONDUIT, JACKED OR DRILLED, AS PER PLAN 3"	608
										2,546	625	25920	2,546	LIN FT	CONDUIT, MISC.: 4" MULTICELL RACEWAY	682
							9				625	26250	9	EACH	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE 2, 200 WATT, 713.11, 240 VOLT	
		14				18					625	26250	32	EACH	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE 2, 200 WATT, HPS, 713.11, 480 VOLT	
		4						12	5		625	26250	21	EACH	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE 3, 310 WATT, HPS, 713.11, 480 VOLT	
					28			16	8		625	26260	52	EACH	LUMINAIRE, HIGH MAST ASYMMETRIC, 400 WATT, HPS, 713.21, 480 VOLT	
					36			42			625	26260	78	EACH	LUMINAIRE, HIGH MAST SYMMETRIC, 400 WATT, HPS, 713.21, 480 VOLT	
					12				12		625	27500	24	EACH	LUMINAIRE, UNDERPASS, HIGH PRESSURE SODIUM, 713.13	

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LIGHTING GENERAL SUMMARY

MED-71-15.78

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REF.FILE #1; REF.FILE #1 LEVELS ON; REF.FILE #2; REF.FILE #2 LEVELS ON;
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LOCATION - SHEET NUMBER											ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
GENERAL NOTES		S.R. 18			I.R. 271	S.R. 3	NB REST AREA	S.R. 303								
607	608	611	612	618	613	614	615	616	617	682						
					28			16	8		625	28001	52	EACH	GLARE SHIELD, AS PER PLAN	608
		6,985	2,673		6910	6,790	2,122	7,540	2,210		625	29002	35,330	LIN FT	TRENCH, 24" DEEP	
	60	5	7		6	7		2	6		625	30700	93	EACH	PULL BOX, 713.08, 18"	
										24	625	30707	24	EACH	PULL BOX, 713.08, 24", AS PER PLAN	683
		18			28	18	9	34	9		625	32000	116	EACH	GROUND ROD	
					3	1			2		625	33000	6	EACH	STRUCTURE GROUNDING SYSTEM	
			2		1	1		2			625	34001	6	EACH	POWER SERVICE, AS PER PLAN	607
					4				4		625	37100	8	EACH	SERVICE TO UNDERPASS LIGHTING	
LUMP											625	38000	LUMP		HIGH VOLTAGE TEST	
	LUMP										SPECIAL	62540000	LUMP		MAINTAIN EXISTING LIGHTING	608

CALCULATED NJ/ CHECKED MLF

LIGHTING GENERAL SUMMARY

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SHEET No.	REFERENCE NO.	ROADWAY	STATION TO STATION From	STATION TO STATION To	SIDE	202 Light Pole Removed	202 Light Pole Foundation Removed	202 Luminaire Removed	202 Disconnect Existing Circuit	202 Pull Box Removed	625 Light Pole, Design AT15B417	625 Light Pole, Design AT15B517	625 Light Pole, Design AT18B417	625 Light Pole, Design A25B40	625 Light Pole, Design A25B45	625 Light Pole, Design A25B50	625 Light Pole, Design A30B40	625 Light Pole, Design A30B45	625 GROUND ROD	625 Connector Kit, Type II	625 Connector Kit, Type III	625 Cable Splicing Kit	625 Luminaire, Conventional, Style 'B' IES Type II, 200 Watt HPS, 480 Volt	625 Luminaire, Conventional, Style 'B' IES Type III, 310 Watt HPS, 480 Volt	625 Light Pole, Foundation, 24" X 8' Deep	625 Light Pole, Foundation, 24" X 10' Deep	625 Pull Box, 713.08, 18"	625 No. 10 AWG Pole and Bracket Cable	625 1½" Duct Cable With 3 NO. 2 AWG 5000 Volt Cables	625 1½" Duct Cable With 3 NO. 4 AWG 5000 Volt Cables	625 NO. 2 AWG 5000 Volt Distribution Cable	625 NO. 4 AWG 5000 Volt Distribution Cable	625 Conduit, 3", 713.04	625 Conduit, Jacked or Drilled, As Per Plan, 3"	625 Trench, 24" Deep
						EACH					EACH								EACH				EACH	EACH	EACH			LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.			LIN.FT.	LIN.FT.
622	AA-5	I.R.-71	863+06		Lt.								1						1	2			1		1			126							
			863+06	865+32																									333						323
622	AA-4	I.R.-71	865+32		Lt.										1				1	2			1			1		150							
			865+32	868+44																									319						309
622	AA-3	I.R.-71	868+44		Lt.										1				1	2			1			1		150							
			868+44	870+75																									234						224
622	PB-AA4	I.R.-71	870+75		Lt.																	3					1								
			870+75 Lt.	870+75 Rt.																														121	
			870+75 Lt.	871+40																									81						71
622	PB-AA5	I.R.-71	870+75		Rt.																	3					1								
622	AA-2	I.R.-71	871+40		Lt.													1	1	2			1			1		160							
			871+40	874+23																									290						280
622	AA-1	I.R.-71	874+23		Lt.													1	1	2			1			1		160							
			874+23	21+00																									906						896
623	AA-0	Ramp 'A'	26+21		Lt.				1																										
			26+21	21+00																2									531						521
623	PB-AA3	Ramp 'A'	21+00		Lt.																													43	
623	Sign #108	SR-18	147+40		Rt.																						1								
623	Sign #108A	SR-18	149+70		Rt.																						1								
627	DC-13	I.R.-71	945+95		Lt.						1								1	2			1		1			120							
			943+17	945+95																									288						278
627	DC-12	I.R.-71	943+17		Lt.								1						1	2			1		1			126							
			940+30	943+17																									297						287
627	DC-11	I.R.-71	940+30		Lt.								1						1	2			1		1			126							
			938+68	940+30																									172						162
627	DC-10	I.R.-71	937+33		Lt.								1						1	2			1		1			126							
			938+68	937+33																									145						135
627	DC-9	I.R.-71	938+68		Rt.								1						1	2			1		1			126							
			935+70	938+68																									310						300
627	DC-8	I.R.-71	935+70		Rt.								1						1	2			1		1			126							
			932+83	935+70																									297						287
627	DC-7	I.R.-71	932+83		Rt.								1						1	2			1		1			126							
			930+05	932+83																									289						279
626	DC-6	I.R.-71	930+05		Rt.												1		1	2			1			1		150							
			912+40	918+20																									595						585
625	DC-5	I.R.-71	912+40		Rt.											1			1	2				1		1		160							
			909+58	912+40																									292						282
625	PB-D0 (Ex)	I.R.-71	909+58		Rt.																	3													
			908+32	909+58																									136						126
625	DC-4	I.R.-71	908+32		Rt.											1			1	2				1		1		160							
			904+44	908+32																									399						389
625	DC-3	I.R.-71	904+44		Rt.							1							1	2				1			1	140							
			900+83	904+44																									371						361
624	DC-2	I.R.-71	900+83		Rt.							1							1	2				1		1		140							
			0+90	900+83																									900						890
624	DC-1	Ramp 'D'	0+90		Rt.									1					1	2			1			1		140							
			0+85	0+90																															
TOTALS CARRIED TO LIGHTING GENERAL SUMMARY									1		1	2	7	1	2	2	1	2	18	38		9	14	4	8	9	5	2512	7185					164	6985

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CALCULATED MLF
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LIGHTING SUB-SUMMARY

MED-71-15.94

611
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SHEET No.	REFERENCE NO.	ROADWAY	STATION TO STATION From	STATION TO STATION To	SIDE	202 Light Pole Removed	202 Light Pole Foundation Removed	202 Luminaire Removed	202 Disconnect Existing Circuit	202 Pull Box Removed	202 Removal of Existing Underpass Lighting System	625	625 Power Service, As Per Plan	625	625	625 GROUND ROD	625 Connector Kit, Type II	625 Connector Kit, Type III	625 Cable Splicing Kit	625 Luminaire, Conventional, Style 'B' IES Type II, 200 Watt HPS, 480 Volt	625 Luminaire, Conventional, Style 'B' IES Type III, 310 Watt HPS, 480 Volt	625 Light Pole, Foundation, 24" X 8' Deep	625 Light Pole, Foundation, 24" X 10' Deep	625 Pull Box, 713.08, 18"	625 No. 10 AWG Pole and Bracket Cable	625 1½" Duct Cable With 3 NO. 2 AWG 5000 Volt Cables	625 1½" Duct Cable With 3 NO. 4 AWG 5000 Volt Cables	625 NO. 2 AWG 5000 Volt Distribution Cable	625 NO. 4 AWG 5000 Volt Distribution Cable	625 Conduit, 3", 713.04	625 Conduit, Jacked or Drilled, As Per Plan, 3"	625 Trench, 24" Deep
						EACH					LUMP		EACH			EACH				EACH	EACH	EACH			LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.			LIN.FT.	LIN.FT.
627	PB-DC-6	I.R.-71	938+68		Lt.																							207			197	
626	PB-DC-4	I.R.-71	927+40		Rt.														3										138	10	108	
626	PB-DC-3	I.R.-71	918+20		Rt.																					932						922
624	PB-DC-1	Ramp 'D'	0+82		Rt.																								144		134	
624	Sign *109	SR-18	152+00		Lt.																			1					110			100
624	Sign *109A	SR-18	154+35		Lt.																											
624	Sign *12A	SR-18	901+00		Lt.																			1					159	29	120	
626	Sign *15	SR-18	918+20		Rt.																			1								
626	Sign *17A	SR-18	927+40		Lt.																			2		274						264
627	Sign *24A	SR-18	945+00		Rt.																			1		634						624
628	Sign *26	SR-18	953+80		Lt.																			1		773						763
622		I.R.-71	865+71		Lt.	1	1	1		1																						
622		I.R.-71	869+01		Lt.	1	1	1		1																						
622		I.R.-71	872+21		Lt.	1	1	1		1																						
624		SR-18	0+68 RAMP 'D'		Rt.					1																						
624		SR-18	0+90 RAMP 'D'		Rt.	1	1	1																								
625		I.R.-71	907+70		Rt.	1	1	1																								
625		I.R.-71	910+65		Rt.	1	1	1																								
625		I.R.-71	914+23		Rt.	1	1	1																								
624		SR-18	149+80	1151+80	Lt.&Rt.					2	LUMP																					
623	CC-A	SR-18	147+44		Rt.								1																			
624	CC-D	Ramp 'D'	0+90		Rt.								1																			
TOTALS CARRIED TO LIGHTING GENERAL SUMMARY						7	7	7		6	LUMP		2						3					7		2613		207	551	39	559	2673

CALCULATED MLF
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LIGHTING SUB-SUMMARY

MED-71-15.94

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PROJECT: NONE

LEVELS ON: 1-64
PLOT QUEUE: \\DOI\PLOT\oce
PEN TABLE: \\DOI\std\DOI\Oce\Cross_OCE.pen

REF.FILE #1 LEVELS ON:
REF.FILE #1 LEVELS ON:
REF.FILE #2 LEVELS ON:
REF.FILE #2 LEVELS ON:

REF.FILE #3 LEVELS ON:
REF.FILE #3 LEVELS ON:
REF.FILE #4 LEVELS ON:
REF.FILE #4 LEVELS ON:

LIGHTING SUB–SUMMARY

QUANTITIES
CALC. BY: AFS DATE: 5/16/94
CHKD. BY: MCB DATE: 6/1/94

SHEET. No.	REF. No.	STATION FROM	STATION TO	SIDE	CABLE SPLICING KIT	LIGHT TOWER FOUNDATION 36" X 25', A.P.P.	LIGHT TOWER MAINTENANCE PLATFORM TYPE–B	LIGHT TOWER MAINTENANCE PLATFORM TYPE–C	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	1.5" DUCT CABLE WITH THREE NO. 2 AWG 5000 V CABLES	1.5" DUCT CABLE WITH THREE NO. 4 AWG 5000 V CABLES	CONDUIT, 3", 713.04	CONDUIT JACKED OR DRILLED 3", AS PER PLAN	TRENCH 24" DEEP	LIGHT TOWER, BBBB100	LIGHT TOWER, BBBB110		LIGHT TOWER, BBBBBB110	LIGHT TOWER, BBBBBB120	LUMINAIRE, ASYMMETRIC 400 W, HPS 713.21, 480 V	LUMINAIRE, SYMMETRIC 400 W, HPS 713.21, 480 V	LUMINAIRE, UNDERPASS, 713.13	PULL BOX, 713.08, 18"	STRUCTURE GROUNDING SYSTEM	GROUND ROD	GLARE SHIELDS, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING	POWER SERVICE AS PER PLAN	DISCONNECT EXISTING CIRCUIT	CONDUIT, 2", 713.04
					625																										202	625
					EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.
I.R.71 AND I.R.271 NEW INSTALLATION																																	
CIRCUIT W																																	
629	CC–K	51+07 GRANGER	964+71 CONN. W.	LT																											1	1	
629		51+07 GRANGER		LT/LT						870			90	200	90																		
629	PB–W1	964+71 CONN. W.		LT	4																				1								
629		964+71 CONN. W.	962+63 CONN. W.	LT								220			210																		
629	WK–1	962+63 CONN. W.		LT		1		1								1					4						2	4					
629		964+71 CONN. W.	968+83 CONN. W.	LT							430				420																		
629	WK–2	968+83 CONN. W.		LT		1	1									1					4						2	4					
629		968+83 CONN. W.	974+13 CONN. W.	LT							540				530																		
629	WK–3	974+13 CONN. W.		LT		1	1										1				4						2	4					
629		974+13 CONN. W.	978+63 CONN. W.	LT/RT							610			50	550																		
629	WK–4	978+63 CONN. W.		RT		1													1				6				2						
629		978+63 CONN. W.	984+38 CONN. W.	RT							510				500																		
629	WK–5	984+38 CONN. W.		RT		1													1				6				2						
629		984+38 CONN. W.	987+73 CONN. W.	RT								310			300																		
630	PB–W2	987+73 CONN. W.		RT	4																				1								
630	UP–W12–10	987+73 CONN. W.	988+53 CONN. W.	RT																				3		1			1				
630		987+73 CONN. W.	989+83 CONN. W.	RT								220			210																		
630	PB–W3	989+83 CONN. W.		RT	1																				1							1	
630	UP–W3–1	989+83 CONN. W.	988+83 CONN. W.	RT																				3		1			1				
630		987+73 CONN. W.	988+13 CONN. W.	RT/LT					270			90	30	50	30																		
630	PB–W4	988+13 CONN. W.		LT	4																				1								
630	UP–W9–7	988+13 CONN. W.	988+93 CONN. W.	LT																				3					1				
630		988+13 CONN. W.	990+13 CONN. W.	LT					270			220			210																		
630	PB–W5	990+13 CONN. W.	990+43 CONN. W.	LT	1							70			60										1								
630	UP–W4–6	990+13 CONN. W.	989+23 CONN. W.	LT																				3					1				
629		988+13 CONN. W.	992+73 I.R.71	LT/LT								555			545																		
629	WK–6	992+73 I.R.71		LT		1		1									1				4						2	4					
CIRCUIT E																																	
629	CC–K	51+07 GRANGER																															
629		51+07 GRANGER	965+63 CONN. E.	LT/RT						165			45		45																		
629	EK–1	965+63 CONN. E.		RT		1										1					4						2	4					
629		965+63 CONN. E.	971+13 CONN. E.	RT							560				550																		
629	EK–2	971+13 CONN. E.		RT		1	1									1					4						2	4					
629		971+13 CONN. E.	974+83 CONN. E.	RT							380				370																		
629	PB–E1	974+83 CONN. E.		RT	2																				1								
629		974+83 CONN. E.	976+63 CONN. E.	RT							190				180																		
629	EK–3	976+63 CONN. E.		RT		1											1				4						2	4					
629		976+63 CONN. E.	982+63 I.R.71	RT/RT							740			50	680																		
629	EK–4	982+63 I.R.71		RT		1													1				6				2						
629		982+63 I.R.71	990+63 CONN. W.	RT/RT							460				450																		
629	EK–7	990+63 CONN. W.		RT		1														1			6				2						
629	EK–8	991+43 CONN. W.		LT		1										1							4				2						
629		982+63 I.R.71	987+68 CONN. E.	RT/LT							565				555																		
629	EK–5	987+68 CONN. E.		LT		1											1						4				2						
629		987+68 CONN. E.	991+63 CONN. E.	LT							435				425																		
629	EK–6	991+63 CONN. E.		LT		1											1						4				2						
STRUCTURE MED–71–2088E NEW INSTALLATION																																	
631		81+55 RAMP B	82+65 RAMP B	RT																						1							110
		SHEET TOTALS			16	14	3	2	540	1035	5420	1685	165	350	6910	5	5		3	1	28	36	12	6	3	28	28	4	1	2	110	

LIGHTING SUB–SUMMARY

CALCULATED

CHECKED

LIGHTING SUB-SUMMARY

MED-71-15.78

FILENAME: t:\pdn_med_jnt\user\gantry\2695u3.dgn
DATE & TIME: 10-DEC-1999 15:00
USERNAME: mfox
PROJECT: NONE

LEVELS ON: 17-64
PLOT QUEUE: \\DOIPLOT\ccs
RGN TABLE: t:\dlib\rgn\dot\cross_DCE.pen

LIGHTING SUB–SUMMARY

QUANTITIES
CALC. BY: AFS DATE: 5/16/94
CHKD. BY: MCB DATE: 6/1/94

SHEET. No.	REF. No.	STATION FROM	STATION TO	SIDE	625 CONNECTOR KIT, TYPE II (EACH)	CONNECTOR KIT, TYPE III (EACH)	CONNECTOR KIT, TYPE VII B (EACH)	CABLE SPICING KIT (EACH)	LIGHT POLE DESIGN, AT12B41.7 (EACH)	LIGHT POLE DESIGN, AT15B41.7 (EACH)	LIGHT POLE FOUNDATION 24"X8' DEEP (EACH)	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE (LIN. FT.)	NO. 10 AWG POLE AND BRACKET CABLE (LIN. FT.)	1.5" DUCT CABLE WITH THREE NO. 4 AWG 5000 V CABLES (LIN. FT.)	CONDUIT, 2", 713.04 (LIN. FT.)	CONDUIT, 3", 713.04 (LIN. FT.)	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3" A.P.P. (LIN. FT.)	TRENCH 24" DEEP (LIN. FT.)	LUMINAIRE, STYLE B, TYPE II 200 W, HPS 713.11, 480V (EACH)	PULLBOX 713.08, 18" (EACH)	GROUND ROD (EACH)	POWER SERVICE AS PER PLAN (EACH)	STRUCTURE GROUNDING SYSTEM (EACH)	GLARE SHIELD AS PER PLAN (EACH)
		I.R.71 AND S.R.3 NEW INSTALLATION																							
		CIRCUIT A																							
631	CC–J	896+55 S.R.3		RT																		1			
		896+55 S.R.3	81+20 RAMP B	RT/LT								330				100		100							
	PB–B1	81+20 RAMP B		LT				4												1					
		81+20 RAMP B	895+60 S.R.3	LT/LT								330					100								
	AJ–1	895+60 S.R.3		LT	1	1				1	1		169.5						1		1				
		81+20 RAMP B	897+15 S.R.3	LT/RT								510				80	80	80							
	AJ–2	897+15 S.R.3		RT	1	1				1	1		169.5						1		1				
		897+15 S.R.3	904+00 S.R.3	RT										695				685							
	PB–A1	904+00 S.R.3		RT				4												1					
		904+00 S.R.3	904+00 S.R.3	RT/LT								330					100								
	AJ–3	904+00 S.R.3		LT	1	1				1	1		169.5						1		1				
		904+00 S.R.3	905+60 S.R.3	RT								510				100	60	100							
631	AJ–4	905+60 S.R.3		RT	1	1				1	1		169.5						1		1				
		CIRCUIT B																							
631	CC–J	896+55 S.R.3		RT																					
		896+55 S.R.3	81+20 RAMP B	RT/LT								330													
	PB–B1	81+20 RAMP B		LT				2																	
		81+20 RAMP B	1087+69 I.R.71	LT/LT										1570				1560							
	BJ–1	1087+69 I.R.71		LT	1	1				1	1		169.5						1		1				
		1087+69 I.R.71	1084+69 I.R.71	LT										310				300							
	BJ–2	1084+69 I.R.71		LT	1	1	2			1	1		169.5						1		1				
		1084+69 I.R.71	1081+69 I.R.71	LT										310				300							
	BJ–3	1081+69 I.R.71		LT	1	1				1	1		169.5						1		1				
		1084+69 I.R.71	1085+34 I.R.71	LT/RT								720					160	70							
	BJ–4	1085+34 I.R.71		RT	1	1				1	1		169.5						1		1				
		1085+34 I.R.71	1090+00 I.R.71	RT										480				470							
	PB–B2	1090+00 I.R.71		RT				4												1					
		1090+00 I.R.71	70+55 RAMP B	RT/RT										200				190							
	BJ–5	70+55 RAMP B		RT	1	1			1		1		162						1		1				
		70+55 RAMP B	72+50 RAMP B	RT										210				200							
	BJ–7	72+50 RAMP B		RT	1	1			1		1		162						1		1				
		72+50 RAMP B	1093+39 I.R.71	RT/RT								240					70								
631	BJ–6	1093+39 I.R.71		RT	1	1				1	1		169.5						1		1				
		CIRCUIT C																							
632	CC–J	896+55 S.R.3		RT																					
		896+55 S.R.3	81+20 RAMP B	RT/LT								330													
	PB–B1	81+20 RAMP B		LT				2																	
		81+20 RAMP B	896+00 S.R.3	LT/LT								330					100								
	PB–C1	896+00 S.R.3		LT				2												1					
		896+00 S.R.3	83+50 RAMP C	LT/LT								840						270							
	PB–C2	83+50 RAMP C		LT				2												1					
		83+50 RAMP C	84+50 RAMP C	LT/LT								270			80			20					1		
	PB–C3	84+50 RAMP C		LT				2												1					
		84+50 RAMP C	93+45 RAMP C	LT										910				900							
	CJ–6	93+45 RAMP C		LT	1	1	2		1		1		162						1		1				
		93+45 RAMP C	1115+24 I.R.71	LT/LT										95		35	50	35							
	CJ–7	1115+24 I.R.71		LT	1	1				1	1		169.5						1		1				
		93+45 RAMP C	95+40 RAMP C	LT										205				195							
	CJ–5	95+40 RAMP C		LT	1	1			1		1		162						1		1				
		95+40 RAMP C	1118+61 I.R.71	LT/LT										200				190							
	PB–C4	1118+61 I.R.71		LT				2												1					
		1118+61 I.R.71	1123+24 I.R.71	LT										475				465							
	CJ–4	1123+24 I.R.71		LT	1	1				1	1		169.5						1		1				
		1123+24 I.R.71	1123+94 I.R.71	LT/RT										210		60	140	60							
	CJ–2	1123+94 I.R.71		RT	1	1	2			1	1		169.5						1		1				
		1123+94 I.R.71	1120+94 I.R.71	RT										310				300							
	CJ–1	1120+94 I.R.71		RT	1	1				1	1		169.5						1		1				
		1123+94 I.R.71	1126+94 I.R.71	RT										310				300							
632	CJ–3	1126+94 I.R.71		RT	1	1				1	1		169.5						1		1				
		SHEET TOTALS			18	18	6	24	4	14	18	5070	3021	6490	80	375	860	6790	18	7	18	1	1		

REF.FILE *1; REF.FILE *1 LEVELS ON;
REF.FILE *2; REF.FILE *2 LEVELS ON;
REF.FILE *3; REF.FILE *3 LEVELS ON;
REF.FILE *4; REF.FILE *4 LEVELS ON;

Sht.-367

FILENAME: h:\pdn_med_jrr\sgnl\lighting\c083\s62.dgn
DATE & TIME: 10-DEC-1999 09:20
USERNAME: rherrion
PROJECT: NONE

LEVELS ON: [1-64]
PLOT QUEUE: \\DDIPLOT\pdx
MDK TABLE: h:\dlsrd\pdn\bea\cross_DCE.pen

CALCULATED
CHECKED

Lighting Sub-Summary

MED-71-15.78

LIGHTING SUB–SUMMARY

REF.FILE *6; REF.FILE *1 LEVELS ON:
REF.FILE *2; REF.FILE *2 LEVELS ON:
REF.FILE *3; REF.FILE *3 LEVELS ON:
REF.FILE *4; REF.FILE *4 LEVELS ON:

SHEET No.	REFERENCE NO.	ROADWAY	STATION TO STATION From	STATION TO STATION To	SIDE	202 Light Pole Removed EACH	202 Light Pole Foundation Removed EACH	202 Luminaire Removed EACH	202 Disconnect Existing Circuit EACH	625 Light Pole, Design A30B35 EACH	625 Luminaire, Conventional, Style "B" IES Type II, 200 Watt HPS, 240 Volt EACH	625 Light Pole, Foundation, 24" X 10' Deep EACH	625 Connector Kit, Type II LIN.FT.	625 Connector Kit, Type III LIN.FT.	625 Cable Splicing Kit EACH	625 No. 10 AWG Pole and Bracket Cable LIN.FT.	625 1½" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES LIN.FT.	625 TRENCH, 24" DEEP LIN.FT.	625	625 GROUND ROD EACH	625	625
633	NB-P1	Ramp NB	91+45		Rt.					1	1	1	2	1		140				1		
	NB-L1	Ramp NB	NB-PB1	NB-P1	Rt.												197	187				
	NB-P2	Ramp NB	94+00		Rt.					1	1	1	2	1		140				1		
	NB-L2	Ramp NB	NB-P1	NB-P2	Rt.												264	254				
	NB-P3	Ramp NB	1220+35		Rt.					1	1	1	2	1		140				1		
	NB-L3	Ramp NB	NB-P2	NB-P3	Rt.												261	251				
	NB-P4	I.R.-71	1222+55		Rt.					1	1	1	2	1		140				1		
	NB-L4	I.R.-71	NB-P3	NB-P4	Rt.												252	242				
	NB-P5	I.R.-71	1224+79		Rt.					1	1	1	2	1		140				1		
	NB-L5	I.R.-71	NB-P4	NB-P5	Rt.												233	223				
	NB-P6	I.R.-71	1227+25		Rt.					1	1	1	2	1		140				1		
	NB-L6	I.R.-71	NB-P5	NB-P6	Rt.												238	228				
	NB-P7	I.R.-71	1229+69		Rt.					1	1	1	2	1		140				1		
	NB-L7	I.R.-71	NB-P6	NB-P7	Rt.												258	248				
	NB-P8	I.R.-71	1232+10		Rt.					1	1	1	2	1		140				1		
	NB-L8	I.R.-71	NB-P7	NB-P8	Rt.												256	246				
	NB-P9	I.R.-71	91+45		Rt.					1	1	1	2	1		140				1		
	NB-L9	I.R.-71	NB-P8	NB-P9	Rt.												253	243				
	NB-PB1	Ramp NB	89+58.50		Rt.				1						3							
	L1	Ramp NB	91+45		Rt.	1	1	1														
	L2	Ramp NB	94+00		Rt.	1	1	1														
	L3	Ramp NB	96+50		Rt.	1	1	1														
	L4	I.R.-71	1220+34		Rt.	1	1	1														
	L5	I.R.-71	1222+54		Rt.	1	1	1														
	L6	I.R.-71	1224+79		Rt.	1	1	1														
	L7	I.R.-71	1227+24		Rt.	1	1	1														
	L8	I.R.-71	1229+69		Rt.	1	1	1														
633	L9	I.R.-71	1232+09		Rt.	1	1	1														
TOTALS CARRIED TO LIGHTING GENERAL SUMMARY						9	9	9	1	9	9	9	18	9	3	1260	2212	2122		9		

CALCULATED MLF
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LIGHTING SUB-SUMMARY

MED-71-15.94

FILENAME: I:\pon_med_71\dgn\lighting\9859sr.dgn
DATE & TIME: 10-DEC-1999 10:03
USERNAME: Sherman
PROJECT: NONE

LEVELS ON: 1-64
PLOT QUEUE: \QQ\PLOT\qqs
<REM TABLE: h:\0\data\bar\DeeCross_DCE.pen

LIGHTING SUB–SUMMARY

QUANTITIES
CALC. BY: AFS DATE: 5/16/94
CHKD. BY: MCB DATE: 6/1/94

SHEET. No.	REF. No.	STATION FROM	STATION TO	SIDE	CONNECTOR KIT, TYPE II	CONNECTOR KIT, TYPE III	CABLE SPICING KIT	LIGHT POLE DESIGN, AT15B51.7	LIGHT POLE FOUNDATION 24"X10' DEEP	LIGHT TOWER FOUNDATION 36"X25' DEEP AS PER PLAN	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1.5" DUCT CABLE WITH THREE NO. 4 AWG 5000 V CABLES	CONDUIT 3", 713.04	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3" A.P.P.	TRENCH 24" DEEP	LIGHT TOWER BBBB110	LIGHT TOWER BBBB120	LIGHT TOWER BBBBBB100	LIGHT TOWER BBBBBB110	LIGHT TOWER BBBBBB120	LUMINAIRE, STYLE B, TYPE III 310 W, HPS 713.11, 480V	LUMINAIRE, ASYMMETRIC 400 W HPS 713.21, 480V	LUMINAIRE, SYMMETRIC 400 W, HPS 713.21, 480V	LUMINAIRE, UNDERPASS, 713.13	PULLBOX 713.08, 18"	GROUND ROD	POWER SERVICE, AS PER PLAN	GLARE SHIELD AS PER PLAN
					625																								
					EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
I.R. 71 AND S.R. 303 NEW INSTALLATION																													
CIRCUIT B																													
634	BM–8	1242+34 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1242+34 I.R. 71	1244+34 I.R. 71	LT									210			200													
	BM–7	1244+34 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1244+34 I.R. 71	1246+34 I.R. 71	LT									210			200													
	BM–6	1246+34 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1246+34 I.R. 71	1248+34 I.R. 71	LT									210			200													
	BM–5	1248+34 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1248+34 I.R. 71	1251+84 I.R. 71	LT									360			350													
	BM–4	1251+84 I.R. 71		LT						1							1						4				2		4
		1251+84 I.R. 71	36+00 RAMP B	LT									560			550													
	BM–3	36+00 RAMP B		LT						1								1					4				2		4
		36+00 RAMP B	42+50 RAMP B	LT/RT									790		50	730													
	BM–2	42+50 RAMP B		RT						1									1					6			2		
		42+50 RAMP B	48+10 S.R. 303	RT/RT									440			430													
	BM–1	48+10 S.R. 303		RT						1									1					6			2		
		48+10 S.R. 303	48+00 S.R. 303	RT							180			50		50													
634	CC–M	48+00 S.R. 303		RT																								1	
CIRCUIT A																													
635	CC–M	48+00 S.R. 303		RT																									
		48+00 S.R. 303	47+87 S.R. 303	RT/LT							975			215	100	215													
	AM–1	47+87 S.R. 303		LT						1										1				6			2		
		47+87 S.R. 303	55+25 RAMP A	LT/RT									530			520													
	AM–2	55+25 RAMP A		RT						1									1					6			2		
		55+25 RAMP A	1280+34 I.R. 71	RT/LT									480		50	420													
	AM–3	1280+34 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1280+34 I.R. 71	1281+67 I.R. 71	LT									150			140													
	PB–A1	1281+67 I.R. 71		LT			2																			1			
		1281+67 I.R. 71	1282+84 I.R. 71	LT									130			120													
	AM–4	1282+84 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1282+84 I.R. 71	1284+84 I.R. 71	LT									210			200													
	AM–5	1284+84 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1284+84 I.R. 71	1286+84 I.R. 71	LT									210			200													
	AM–6	1286+84 I.R. 71		LT	1	1		1	1			199.5										1					1		
		1286+84 I.R. 71	1288+84 I.R. 71	LT									210			200													
635	AM–7	1288+84 I.R. 71		LT	1	1		1	1			199.5										1					1		
CIRCUIT C																													
634	CN–8	1242+84 I.R. 71		RT	1	1		1	1			199.5										1					1		
		1242+84 I.R. 71	1244+84 I.R. 71	RT									210			200													
	CN–7	1244+84 I.R. 71		RT	1	1		1	1			199.5										1					1		
		1244+84 I.R. 71	1246+84 I.R. 71	RT									210			200													
	CN–6	1246+84 I.R. 71		RT	1	1		1	1			199.5										1					1		
		1246+84 I.R. 71	1249+34 I.R. 71	RT									270			260													
	CN–5	1249+34 I.R. 71		RT						1							1						4				2		4
		1249+34 I.R. 71	1254+24 I.R. 71	RT									490			480													
	PB–C1	1254+24 I.R. 71		RT			2																			1			
		1254+24 I.R. 71	1254+84 I.R. 71	RT									70			60													
	CN–4	1254+84 I.R. 71		RT						1								1					4				2		4
		1254+84 I.R. 71	1260+59 I.R. 71	RT									690		50	630													
	CN–3	1260+59 I.R. 71		RT						1										1				6			2		
		1260+59 I.R. 71	36+62, RAMP D	RT/LT									595		50	535													
	CN–2	36+62 RAMP D		LT						1										1				6			2		
		36+62 RAMP D	44+80 RAMP D	LT									320			310													
	CN–1	44+80 RAMP D		LT						1											1			6			2		
		36+62 RAMP D	53+00 S.R. 303	LT/LT							750			140	100	140													
634	CC–N	53+00 S.R. 303		LT																								1	
SHEET TOTALS					12	12	4	12	12	11	1905	2394	7555	405	400	7540	2	2	3	3	1	12	16	42		2	34	2	16

REF.-FILE #1 LEVELS ON:
REF.-FILE #2 LEVELS ON:
REF.-FILE #3 LEVELS ON:
REF.-FILE #4 LEVELS ON:

REF.-FILE #3 LEVELS ON:
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Sht.-368

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DATE & TIME: 10-DEC-1999 10:12
USERNAME: nherman
PROJECT: NONE

LEVELS ON: 1-64
PLOT QUEUE: \\QDIPLOT\pce
PEN TABLE: h:\dgds\pdn\DotsCross.DCE.pen

CALCULATED
CHECKED

Lighting Sub-Summary

MED-71-15.78

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LIGHTING SUB–SUMMARY

QUANTITIES
CALC. BY: AFS DATE: 5/16/94
CHKD. BY: MCB DATE: 6/1/94

SHEET. No.	REF. No.	STATION FROM	STATION TO	SIDE	CONNECTOR KIT, TYPE II	CONNECTOR KIT, TYPE III	CABLE SPICING KIT	LIGHT POLE DESIGN, AT15B51.7	LIGHT POLE FOUNDATION 24"X10' DEEP	LIGHT TOWER FOUNDATION 36"X25' DEEP, AS PER PLAN	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1.5" DUCT CABLE WITH THREE NO. 4 AWG 5000 V CABLES	CONDUIT 3", 713.04	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3"	TRENCH 24" DEEP	LIGHT TOWER BBBB100	LIGHT TOWER BBBB110	LIGHT TOWER BBBB120	LUMINAIRE, STYLE B, TYPE III 310 W, HPS 713.11, 480W	LUMINAIRE, ASYMMETRIC 400 W HPS 713.21, 480V	LUMINAIRE, SYMMETRIC 400 W, HPS 713.21, 480V	LUMINAIRE, UNDERPASS, 713.13	PULLBOX 713.08, 18"	GROUND ROD	SERVICE TO UNDERPASS LIGHTING	GLARE SHIELD AS PER PLAN	STRUCTURE GROUNDING SYSTEM	DISCONNECT EXISTING CIRCUIT
					625																								202
					EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
		I.R. 71 AND S.R. 303 NEW INSTALLATION																											
		CIRCUIT D																											
635	CC–N	53+00 S.R. 303		LT																									
		53+00 S.R. 303	1272+34 I.R. 71	LT/RT							1500			490		490													
	DN–1	1272+34 I.R. 71		RT						1									1		4				2		4		
		1272+34 I.R. 71	1278+64 I.R. 71	RT									640			630													
	DN–2	1278+64 I.R. 71		RT						1									1		4				2		4		
		1278+64 I.R. 71	1281+59 I.R. 71	RT									320			310													
	DN–3	1281+59 I.R. 71		RT	1	1		1	1			200								1					1				
		1281+59 I.R. 71	1283+34 I.R. 71	RT									190			180													
	DN–4	1283+34 I.R. 71		RT	1	1		1	1			200								1					1				
		1283+34 I.R. 71	1285+34 I.R. 71	RT									210			200													
	DN–5	1285+34 I.R. 71		RT	1	1		1	1			200								1					1				
		1285+34 I.R. 71	1287+34 I.R. 71	RT									210			200													
	DN–6	1287+34 I.R. 71		RT	1	1		1	1			200								1					1				
		1287+34 I.R. 71	1289+34 I.R. 71	RT									210			200													
635	DN–7	1289+34 I.R. 71		RT	1	1		1	1			200								1					1				
		REVISIONS TO EXISTING SYSTEM																											
		EXISTING CIRCUIT S																											
636		47+51.33 S.R. 303		RT			2																						1
	PB–S5	49+20 S.R. 303		RT			4																	1					1
	UP–S6–4	49+20 S.R. 303	50+10 S.R. 303	RT																			3			1		1	
	PB–S3	50+10 S.R. 303		RT			2																	1					
	UP–S3–1	50+10 S.R. 303	51+25 S.R. 303	RT																			3			1		1	
	PB–S1	51+25 S.R. 303		RT			2																	1					
		52+56.33 S.R. 303		RT			2																						1
636		54+66.33 S.R. 303		RT			2																						1
		EXISTING CIRCUIT T																											
636		46+16.33 S.R. 303		LT			2																						1
		48+56.33 S.R. 303		LT			2																						1
	PB–T5	48+95 S.R. 303		LT			2																	1					
	UP–T6–4	48+95 S.R. 303	49+90 S.R. 303	LT																			3			1			
	PB–T3	49+90 S.R. 303		LT			2																	1					
	UP–T3–1	49+90 S.R. 303	51+05 S.R. 303	LT																			3			1			
	PB–T1	51+05 S.R. 303		LT			4																	1					1
		51+56.33 S.R. 303		LT			2																						1
		53+66.33 S.R. 303		LT			2																						1
636		55+96.33 S.R. 303		LT			2																						1
		SHEET TOTALS			5	5	32	5	5	2	1500	1000	1780	490		2210			2	5	8		12	6	9	4	8	2	10

Lighting Sub-Summary

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LIGHTING SUB–SUMMARY

QUANTITIES
CALC. BY: AFS DATE: 5/16/94
CHKD. BY: MCB DATE: 6/1/94

SHEET. No.	REF. No.	STATION FROM	STATION TO	SIDE	202 LIGHT POLE REMOVED	LIGHT POLE FOUNDATION, REMOVED	LUMINAIRE REMOVED	PULL BOX REMOVED	POWER SERVICE REMOVED, AS PER PLAN	REMOVAL OF EXISTING UNDERPASS LIGHTING SYSTEM	REMOVAL OF MISCELLANEOUS COMBINATION BRACKET ARM AND LUMINAIRE
					EACH	EACH	EACH	EACH	EACH	LUMP	EACH
		I.R.71 AND I.R.271 REMOVALS									
629		51+07 GRANGER RD.		LT							
629		51+19 GRANGER RD.		LT					1		
629		967+58 CONN. E.		RT	1	1	1				
629		970+58 CONN. E.		RT	1	1	1				
629		972+13 CONN. E.		RT				1			
629		972+13 CONN. W.		RT				1			
629		977+23 CONN. W.		RT	1	1	1				
629		979+23 CONN. W.		RT	1	1	1				
629		981+23 CONN. W.		RT	1	1	1				
629		983+23 CONN. W.		RT	1	1	1				
629		985+23 CONN. W.		RT	1	1	1				
629		987+23 CONN. W.		RT	1	1	1				
629		989+23 CONN. W.		RT	1	1	1				
629		989+83 CONN. W.		RT				1			
629		991+23 CONN. W.		RT	1	1	1				
629		993+63 CONN. W.		RT	1	1	1				
629		972+13 CONN. W.		LT				1			
629		971+23 CONN. W.		LT	1	1	1				
629		969+23 CONN. W.		LT	1	1	1				
629		967+23 CONN. W.		LT	1	1	1				
629		965+23 CONN. W.		LT	1	1	1				
629		963+48 CONN. W.		LT	1	1	1				
629		961+63 CONN. W.		LT	1	1	1				
629		973+23 CONN. W.		LT	1	1	1				
629		975+23 CONN. W.		LT	1	1	1				
629		972+83 CONN. E.		RT	1	1	1				
629		974+53 CONN. E.		RT	1	1	1				
629		976+18 CONN. E.		RT	1	1	1				
629		977+88 CONN. E.		RT				1			
629		977+88 CONN. E.		LT	1	1	1				
629		978+18 CONN. E.		RT	1	1	1				
629		980+18 CONN. E.		RT	1	1	1				
629		982+18 CONN. E.		RT	1	1	1				
629		984+18 CONN. E.		RT	1	1	1				
629		986+18 CONN. E.		RT	1	1	1				
629		988+18 CONN. E.		RT	1	1	1				
629		990+18 CONN. E.		RT	1	1	1				
629		992+18 CONN. E.		RT	1	1	1				
629		993+43 CONN. E.		RT				1			
629		993+43 CONN. E.		LT				1			
629		996+63 CONN. W.		RT	1	1	1				
629		999+43 CONN. W.		LT				1			
629		1000+13 CONN. W.		LT	1	1	1				
		SHEET 629 TOTALS			33	33	33	8	1		
		I.R.71 AND S.R.303 REMOVALS									
636		46+16.33		LT	1	1	1				
636		48+56.33		LT	1	1	1				
636		51+05		LT				1			
636		51+56.33		LT	1	1	1				
636		53+66.33		LT	1	1	1				
636		55+66.33		LT	1	1	1				
636		47+51.33		RT	1	1	1				
636		49+20		RT				1			
636		50+10.33		RT	1	1	1				
636		52+56.33		RT	1	1	1				
636		54+66.33		RT	1	1	1				
		SHEET 636 TOTALS			9	9	9	2			
		SHEET TOTALS			42	42	42	10	1		

Lighting Sub-Summary

MED-71-15.78

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LIGHTING SUB–SUMMARY

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USERNAME: mfox
PROJECT: NONE
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PLOT QUEUE: \\DGNPLOT\pce
PEN-TABLE: I:\Dlsta\Dgn\OpenCross_OC.pen

LIGHTING SUB-SUMMARY

NOTE: 631 ITEMS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEETS 562,563

QUANTITIES
CALC. BY: AFS DATE: 5/16/94
CHKD. BY: MCB DATE: 6/1/94

SHEET. No.	REF. No.	STATION FROM	TO	SIDE	631 SIGN SERVICE	SIGN WIRED		DISCONNECT SWITCH WITH ENCLOSURE, 30 AMP	SWITCH ENCLOSURE MOUNTING BRACKET ASSEMBLY	BALLAST, TYPE CMRI-175-480, REMOTE	BALLAST, TYPE CMRI-175-480, INTEGRAL	BALLAST, TYPE CMRI-250-480, INTEGRAL		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 W LAMP	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 W LAMP						
					EACH	EACH		EACH	EACH	EACH	EACH	EACH		EACH	EACH							
I.R. 71 AND S.R. 18 NEW INSTALLATION																						
623	SIGN-B108A	149+70 S.R. 18		RT	1	1		1	1	1				1								
622	SIGN - 6	870+81 I.R. 71		RT	1	2		1			2	1		2	1							
624	SIGN-D109A	154+35 S.R. 18		LT	1	2		1			1			1								
624	SIGN-D109	151+75 S.R. 18		LT	1	1		1	1	1				1								
I.R. 71 AND I.R. 271 NEW INSTALLATION																						
629	SIGN 30	971+00	IR-71	RT.	1	2		1			4			4								
I.R. 71 AND S.R. 3 NEW INSTALLATION																						
631	SIGN-B52	1084+40 I.R. 71		RT	1	1		1				2			2							
632	SIGN-C60	1124+35 I.R. 71		LT	1	1		1				2			2							
I.R. 71 AND S.R. 303 NEW INSTALLATION																						
634	SIGN-C82	1248+48 I.R. 71		RT	1	1		1				2			2							
635	SIGN-A92	1287+20 I.R. 71		LT	1	1		1				2			2							
I.R. 71 AND S.R. 303 REVISIONS TO EXISTING SYSTEM																						
636	SIGN-T151	51+25 S.R. 303		LT	1	1		1			1			1								
636	SIGN-S150B	49+00 S.R. 303		RT	1	1		1			1			1								
I.R. 71 AND S.R. 18 NEW INSTALLATION (Cont.)																						
624	SIGN 12A	901+00	IR-71	LT.	1	2		1			2	2		2	2							
626	SIGN 17A	927+40	IR-71	LT.	1	2		1			2	3		2	3							
627	SIGN 24A	932+25.30	IR-71	RT.	1	2		1			2	3		2	3							
628	SIGN 26	953+80	IR-71	LT.	1	2		1			2	2		2	2							
SHEET TOTALS					15	22		15	2	2	17	19		19	19							

SIGN LIGHTING SUB-SUMMARY

CALCULATED

CHECKED

MED-71-15.78

619
940

LIGHTING SUB-SUMMARY

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DATE & TIME: 09-DEC-1999 18:18
USERNAME: mfox
PROJECT: NONE

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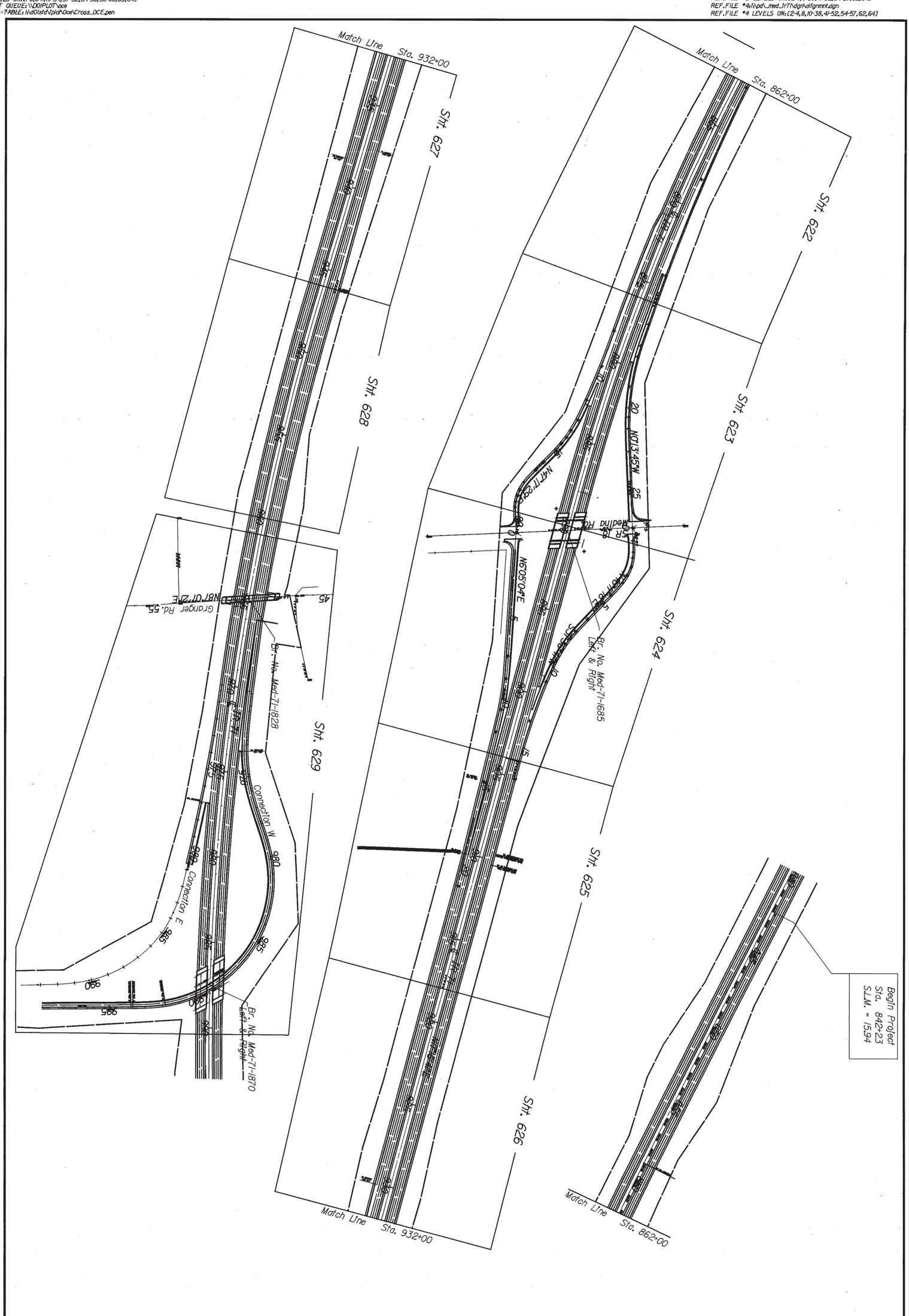


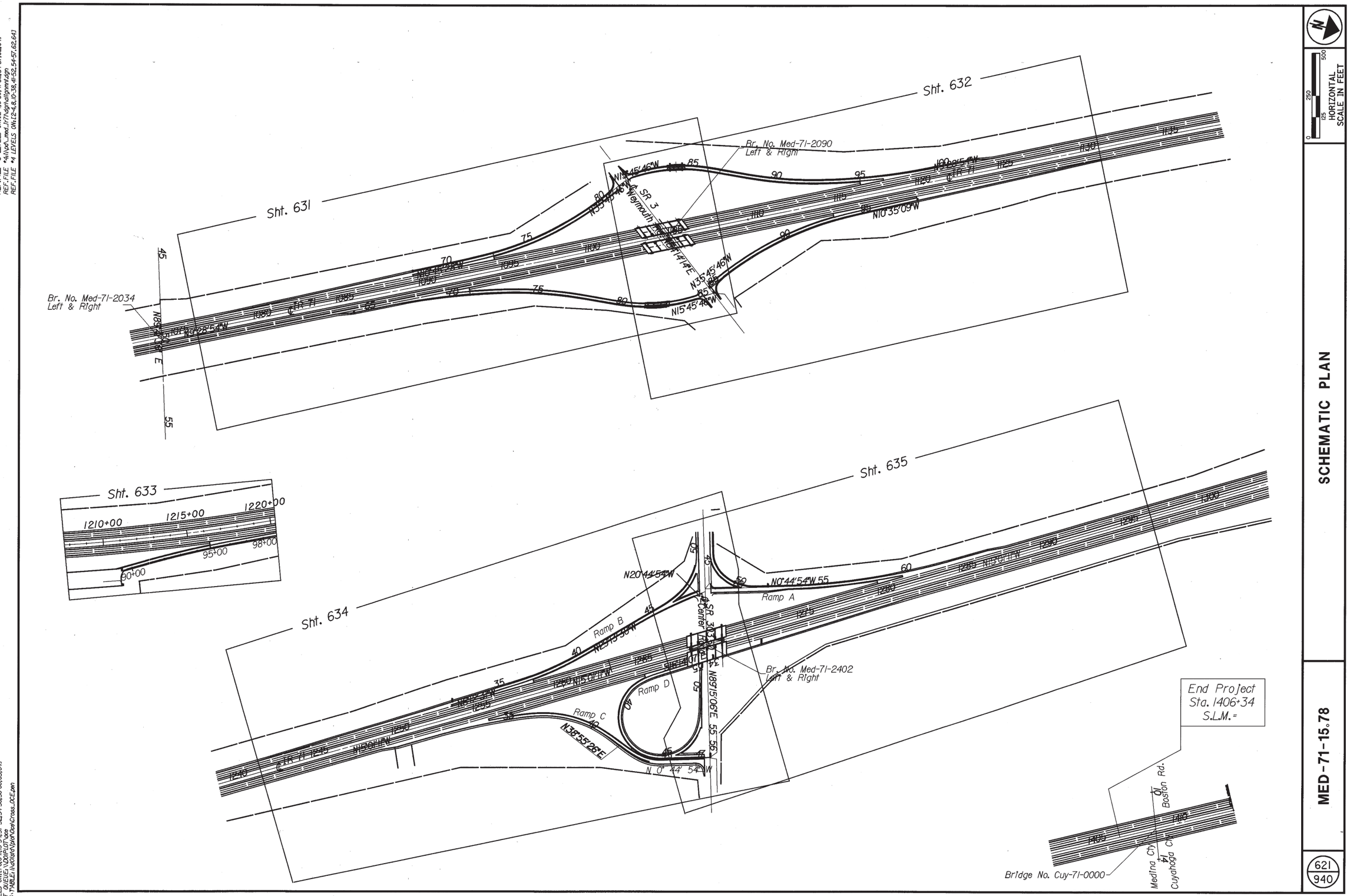
620
940

MED-71-15.78

SCHEMATIC PLAN

0 250
125 500
HORIZONTAL SCALE IN FEET

N



SCHEMATIC PLAN

MED-71-15.78

621
940

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USERNAME:rmfox
PROJECT:NONE

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LIGHTING LEGEND

- EXISTING PULL BOX
- EXISTING PULL BOX TO BE REMOVED
- PULL BOX
- EXISTING SIGN (CANTILEVER TYPE)
- EXISTING CONVENTIONAL LIGHTING
- EXISTING COMBINATION CONVENTIONAL LIGHTING AND TRAFFIC SIGNAL POLE
- CONVENTIONAL 310 W LIGHTING 50' MOUNTING HEIGHT
- HIGH MAST TOWER, ASYMMETRICAL LUMINAIRES
- CONVENTIONAL 200 W LIGHTING, 40' MOUNTING HEIGHT
- HIGH MAST TOWER, SYMMETRICAL LUMINAIRES
- CONVENTIONAL 200 W LIGHTING, 30' MOUNTING HEIGHT
- EXISTING BRIDGE UNDERPASS LIGHTING
- PROPOSED BRIDGE UNDERPASS LIGHTING
- EXISTING CABLE OR CONDUIT
- OVERHEAD SIGN (SPAN TYPE)
- EXISTING OVERHEAD SIGN (SPAN TYPE)
- TRAFFIC LANE
- OVERHEAD SIGN SUPPORT (CANTILEVER TYPE)
- EXISTING SERVICE POLE
- PROPOSED SERVICE POLE
- EXISTING POWER POLE
- EXISTING CONTROL CENTER
- PROPOSED CONTROL CENTER W/ PULL BOX
- EXISTING CONVENTIONAL LIGHTING TO BE REMOVED
- EXISTING POST TOP MOUNTED LUMINARE TO BE REMOVED
- EXISTING CONTROL CENTER TO BE REMOVED
- EXISTING CABLE OR CONDUIT TO BE ABANDONED
- EXISTING SERVICE POLE TO BE REMOVED
- DISTRIBUTION CABLE IN CONDUIT JACKED UNDER PVMT
- DISTRIBUTION CABLE IN CONDUIT
- 1.5" DUCT CABLE SYSTEM W/ 3 NO. 4 AWG 5000V CABLES
- 1.5" DUCT CABLE SYSTEM W/ 3 NO. 2 AWG 5000V CABLES
- 1.5" NO. 4 AWG DUCT CABLE IN 3" CONDUIT JACKED UNDER PVMT
- 1.5" NO. 2 AWG DUCT CABLE IN 3" CONDUIT JACKED UNDER PVMT
- EXISTING BRIDGE MOUNTED SIGN
- PROPOSED BRIDGE MOUNTED SIGN
- CONDUIT STUB
- EXISTING POST TOP MOUNTED LUMINAIRE
- CONDUIT JACKED OR DRILLED

TOWER DESIGNATION AA-1
FIRST LETTER IS THE CIRCUIT DESIGNATION
SECOND LETTER IS THE POWER SERVICE DESIGNATION
THE # IS THE TOWER OR POLE NUMBER ON THE CIRCUIT

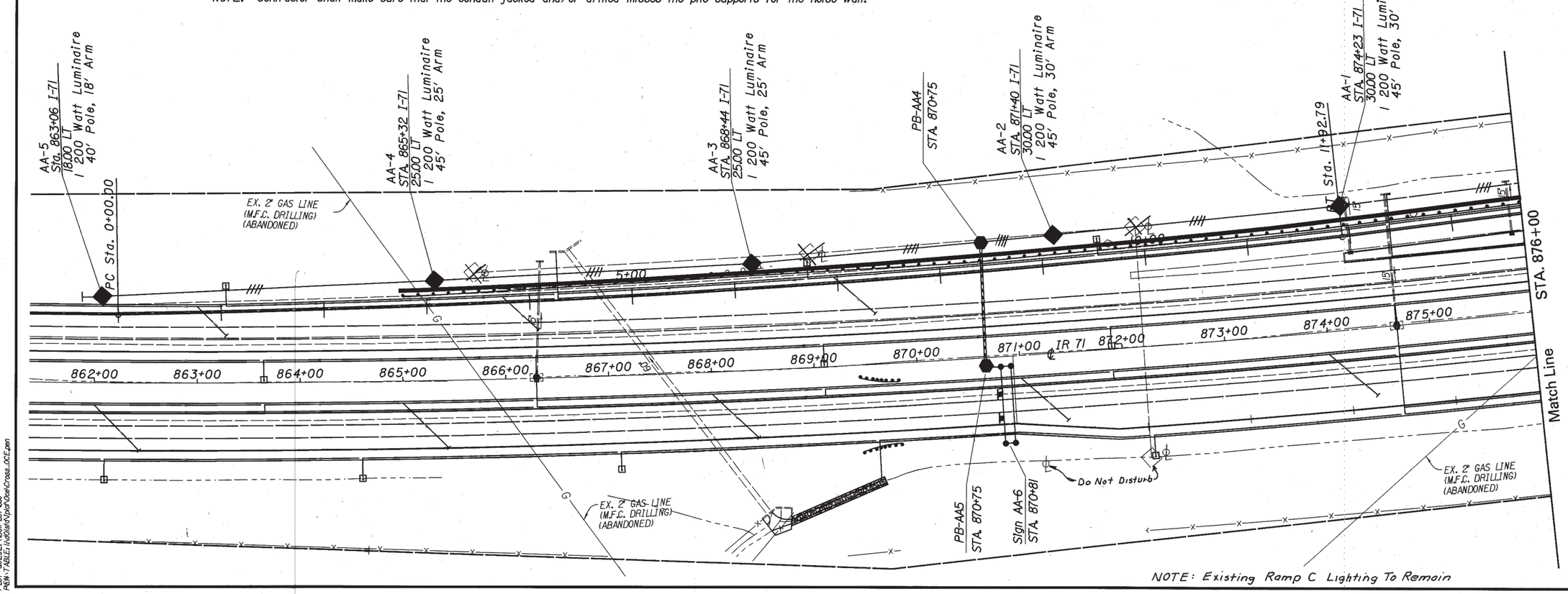
ALL OFFSET DISTANCES SHOWN, LEFT OR RIGHT, ARE MEASURED FROM THE EDGE OF PAVEMENT. *TYPICAL ALL PLAN SHEETS.*

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS

Ohio Edison Company - Distribution
6326 Lake Avenue
Elyria, Ohio 44035
440-324-0231

Ohio Edison Company - Transmission
76 South Main Street
Akron, Ohio 44308
330-384-5180

NOTE: Contractor shall make sure that the conduit jacked and/or drilled misses the pile supports for the noise wall.



HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED
CHECKED

S.R. 18 Interchange
Partial Lighting

MED-71-15.78

622
940

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PROJECT=NONE

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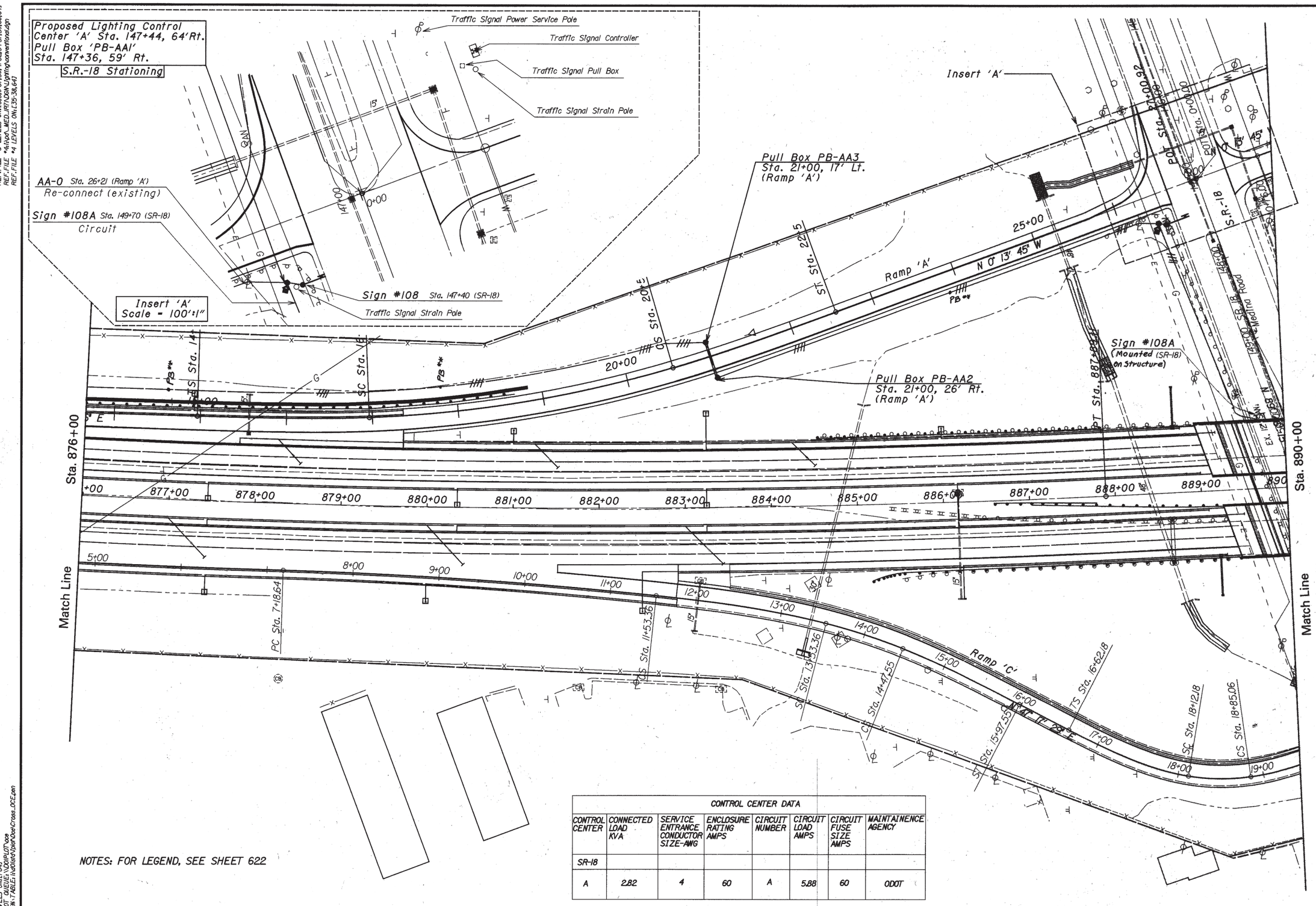


NOTES: FOR LEGEND, SEE SHEET 622

CONTROL CENTER DATA							
CONTROL CENTER	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE-AWG	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	MAINTAINENCE AGENCY
SR-18							
A	2.82	4	60	A	5.88	60	ODOT

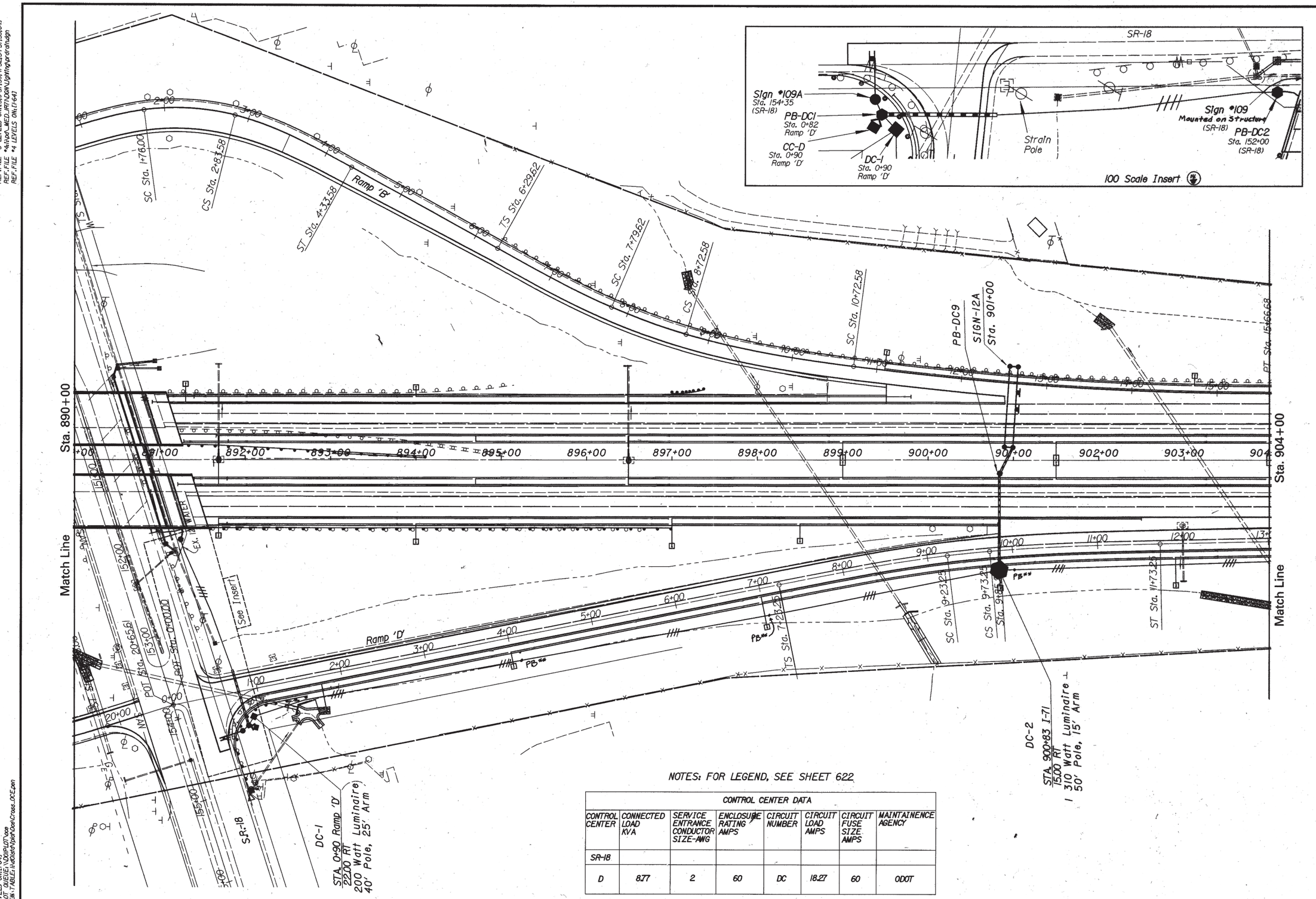
S.R. 18 Interchange Partial Lighting

MED-71-15.78

REF.FILE *1:\ROY_MED_RT\NEW\Lighting\ownerinformation.dgn
REF.FILE *1 LEVELS ON:L35-38,641
REF.FILE *2:\Roy_MED_RT\NEW\Lighting\abc2diamb.dgn
REF.FILE *2 LEVELS ON:L2-4,8-16,18,20-52,54-59,61,62,641
REF.FILE *3:\Roy_MED_RT\NEW\Lighting\alignment.dgn
REF.FILE *3 LEVELS ON:L3,5,9-37,39,41-52,54-57,59,60,641
REF.FILE *4:\Roy_MED_RT\NEW\Lighting\ownerfond.dgn
REF.FILE *4 LEVELS ON:L35-38,641

FILENAME:I:\ROY_MED_RT\NEW\Lighting\18SOLF2.dgn
DATE & TIME:10-DEC-1999 13:19
USERNAME:mfox
PROJECT:NONE

LEVELS ON:L1-641
PLOT QUEUE:\QDOPLOT\oce
PEN TABLE:I:\ODOIS6\Jobs\Oce\Cross_OCE.pen



NOTES: FOR LEGEND, SEE SHEET 622

CONTROL CENTER DATA							
CONTROL CENTER	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE-AWG	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	MAINTAINENCE AGENCY
SR-18							
D	8.77	2	60	DC	18.27	60	ODOT

S.R. 18 Interchange
Partial Lighting

MED-71-15.78

REF-FILE *1 \\ODOT_MED_JRT\USERN\LIGHTING\DARWIN\TONE.dgn
REF-FILE *1 LEVELS ON:L35-38,641
REF-FILE *2 \\ODOT_MED_JRT\ODEN\Lighting\abc2dambd.dgn
REF-FILE *2 LEVELS ON:L2-4,8-16,18,20-52,54-59,61,62,641
REF-FILE *3 \\ODOT_MED_JRT\ODEN\Lighting\dlfpmnt.dgn
REF-FILE *3 LEVELS ON:L3,9-37,39,41-52,54-57,59,641
REF-FILE *4 \\ODOT_MED_JRT\ODEN\Lighting\pdrdrnl.dgn
REF-FILE *4 LEVELS ON:L1-641
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DATE & TIME: 10-DEC-1999 13:09
USERNAME: mfox
PROJECT: NONE
LEVELS ON: L1-641
PLOT QUEUE: \\DOIPLOT\ccx
PEN-TABLE: h:\dlt\dtx\plan\Dale\Cross_DCE.pen

FILENAME: I:\pd_MED_IR71\DGN\Lighting\V885LP4.dgn
DATE & TIME: 10-DEC-1999 13:20
USERNAME: mfox
PROJECT: NONE

LEVELS ON: [1-64]
PLOT QUEUE: \\DOIPLOT\oce
REN TABLE: I:\d01std\plot\Oce\Cross_OCE.pen

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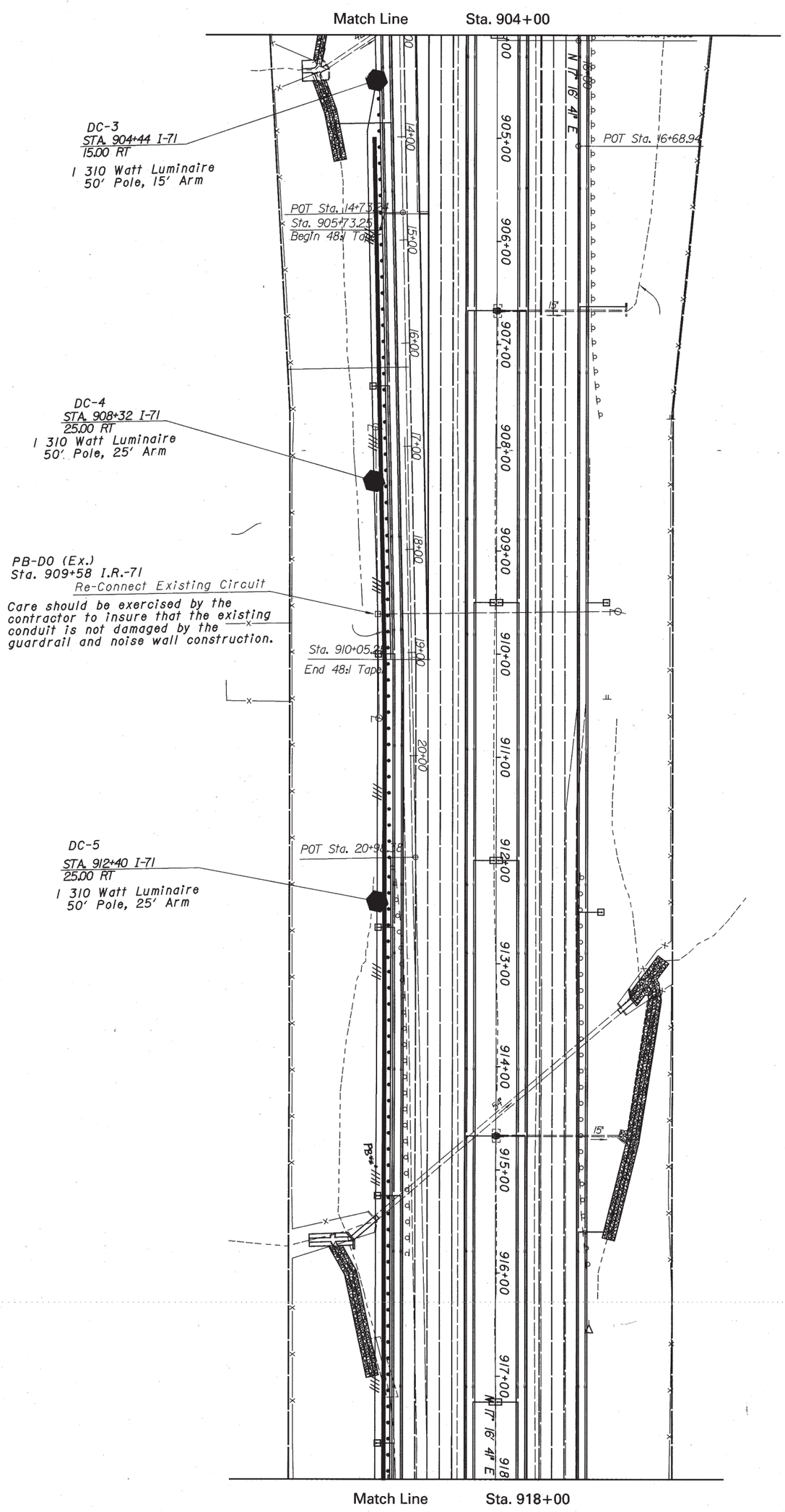
REF.FILE *1 LEVELS ON: [35-38,64]
REF.FILE *2: I:\pd_med_ir71\dgn\abc2dcmb.dgn
REF.FILE *2 LEVELS ON: [2-4,8-16,18,20-52,54-59,61,62,64]

REF.FILE *3: I:\pd_MED_IR71\DGN\Lighting\alignment.dgn
REF.FILE *3 LEVELS ON: [3,5,9-37,39-52,54-57,59,60,64]
REF.FILE *4
REF.FILE *4 LEVELS ON:



NOTES: FOR LEGEND, SEE SHEET 622

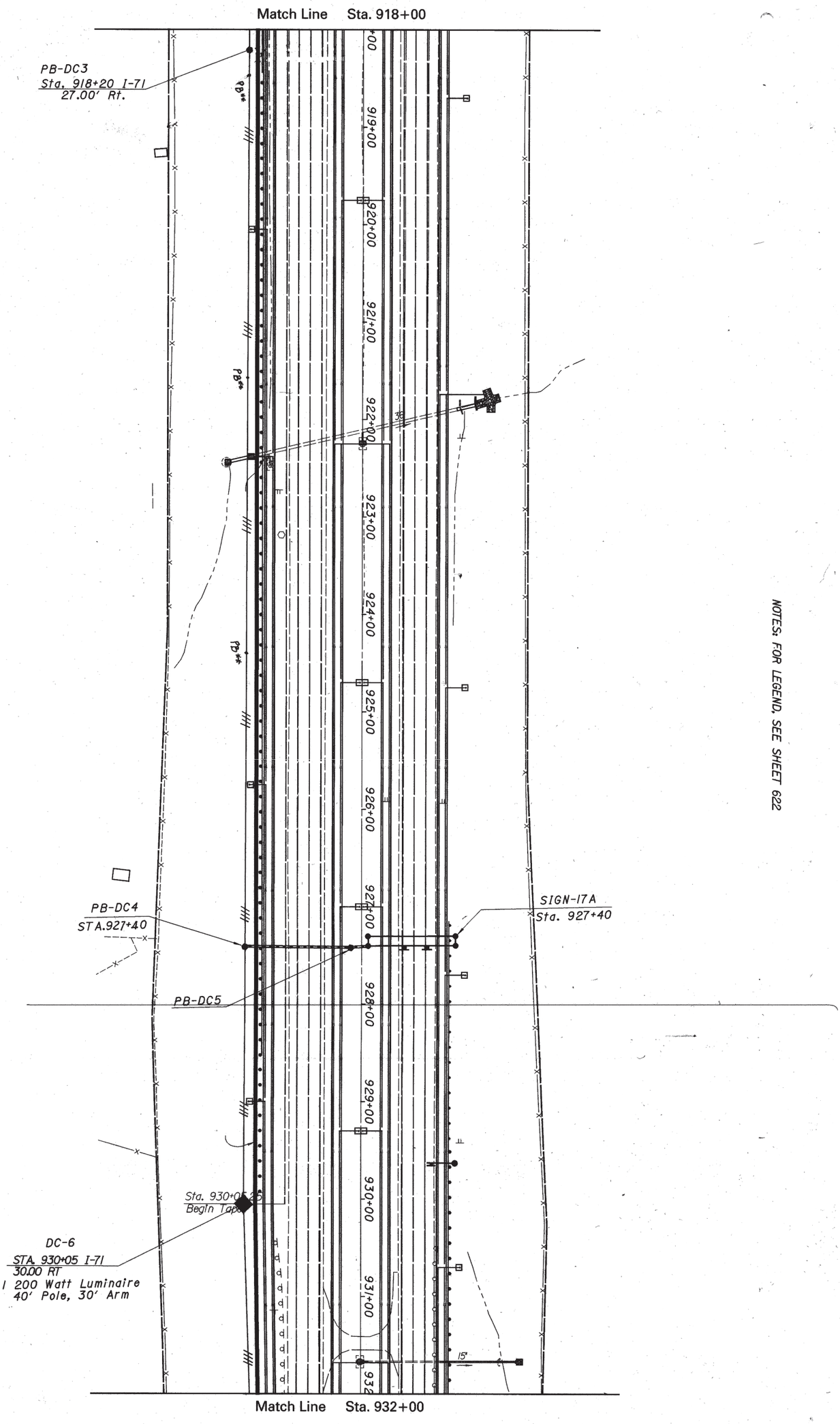
940 / 625	MED-71-15.78	S.R. 18 Interchange Partial Lighting	CALCULATED CHECKED	0 25 50 100 HORIZONTAL SCALE IN FEET

FILENAME: I:\pd_MED_IR71\DGN\Lighting\V8SDLP5.dgn
DATE & TIME: 10-DEC-1999 13:20
USERNAME: mfox
PROJECT: NONE

LEVELS ON: [1-64]
PLOT QUEUE: \\DOIPLOT\oce
REN TABLE: I:\dolsfd\plot\Oce\Cross_OCE.pen

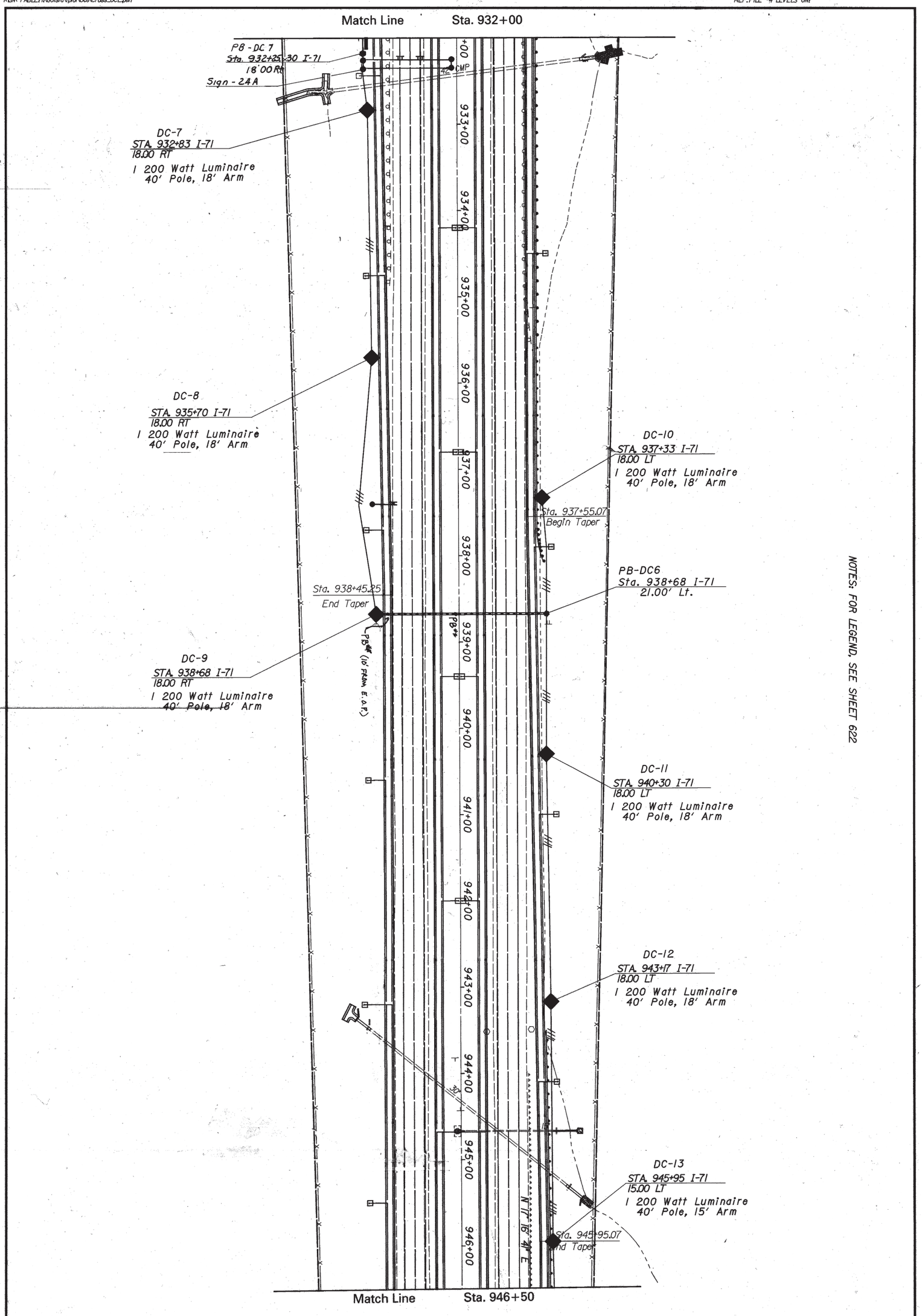
REF.FILE *1: I:\pd_MED_IR71\DGN\Lighting\conventional.dgn
REF.FILE *1 LEVELS ON: [35-38,64]
REF.FILE *2: I:\pd_med_Ir71\dgn\abo2dcmb.dgn
REF.FILE *2 LEVELS ON: [2-4,8-16,18,20-52,54-59,61,62,64]

REF.FILE *3: I:\pd_MED_IR71\DGN\Lighting\allgrnnl.dgn
REF.FILE *3 LEVELS ON: [3,5,9-37,39-52,54-57,59,60,64]
REF.FILE *4:
REF.FILE *4 LEVELS ON:



NOTES: FOR LEGEND, SEE SHEET 622

636 / 640	MED-71-15.78	S.R. 18 Interchange Partial Lighting	CALCULATED CHECKED	0 25 50 100 HORIZONTAL SCALE IN FEET



NOTES: FOR LEGEND, SEE SHEET 622

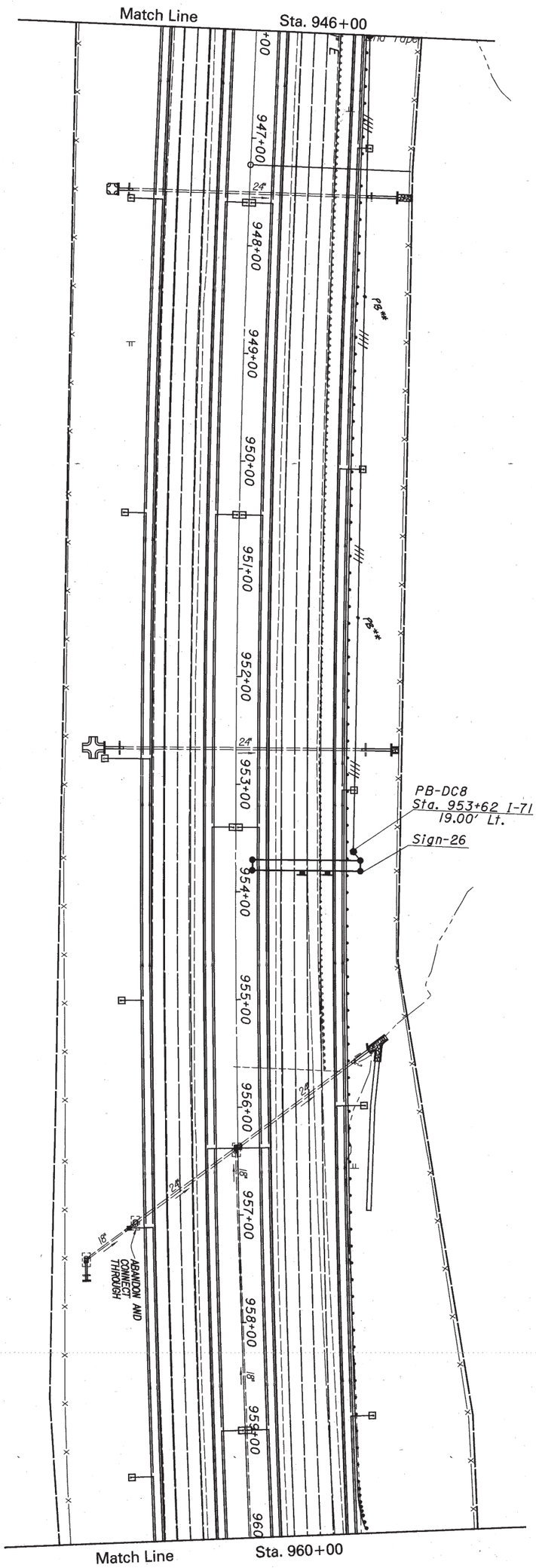
627 / 940	MED-71-15.78	S. R. 18 Interchange Partial Lighting	CALCULATED CHECKED 0 25 50 100 HORIZONTAL SCALE IN FEET

FILENAME: I:\pd_MED_IR71\DGN\Lighting\885LP7.dgn
DATE & TIME: 10-DEC-1999 13:21
USERNAME: mfox
PROJECT: NONE

LEVELS ON: [1-64]
PLOT QUEUE: \\DOIPLOT\oce
REN\ TABLE: I:\dolistd\plot\Oce\Cross_OCE.pen

REF.FILE *1: I:\pd_MED_IR71\DGN\Lighting\conventional.dgn
REF.FILE *1 LEVELS ON: [35,37,38,64]
REF.FILE *2: I:\pd_med_ir71\dgn\abc2dombu.dgn
REF.FILE *2 LEVELS ON: [2-4,8-16,18,20-52,54-59,61,62,64]

REF.FILE *3: I:\pd_MED_IR71\DGN\Lighting\alignmnt.dgn
REF.FILE *3 LEVELS ON: [3,5,9-37,39-52,54-57,59,60,64]
REF.FILE *4:
REF.FILE *4 LEVELS ON:



NOTES: FOR LEGEND, SEE SHEET 622

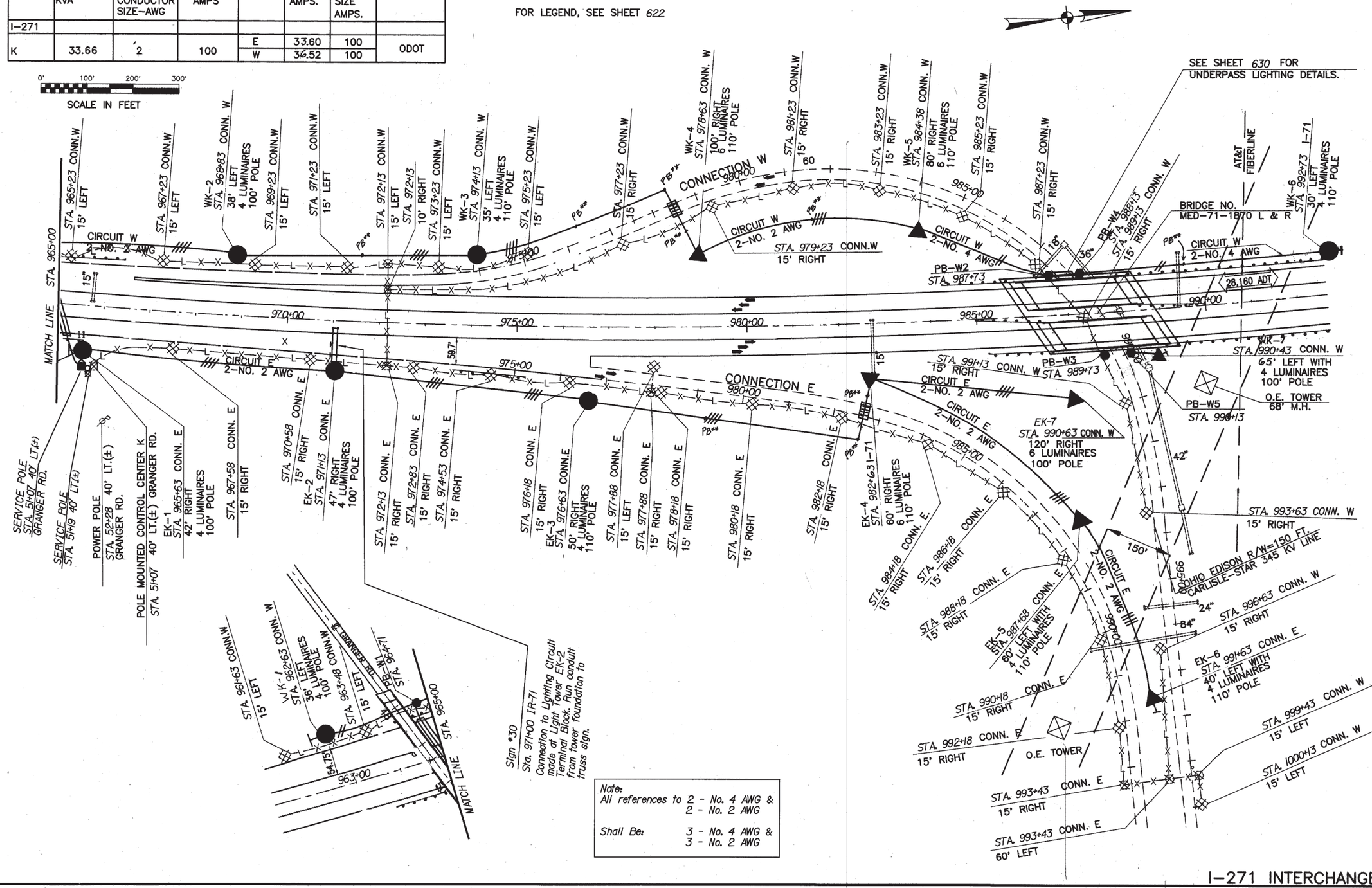
929 / 940	MED-71-15.78	S.R. 18 Interchange Partial Lighting	CALCULATED CHECKED	0 50 25 100 HORIZONTAL SCALE IN FEET

CONTROL CENTER DATA

CONTROL CENTER	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE–AWG	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS.	CIRCUIT FUSE SIZE AMPS.	MAINTAINENCE AGENCY
I–271							
K	33.66	2	100	E	33.60	100	ODOT
				W	36.52	100	

NOTES: EXISTING POLE MOUNTED CONTROL CENTER AND SERVICE POLE AT STA. 51+07 GRANGER RD. SHALL BE REMOVED. A NEW POLE MOUNTED CONTROL CENTER SHALL BE INSTALLED AT THE SAME LOCATION.

FOR LEGEND, SEE SHEET 622



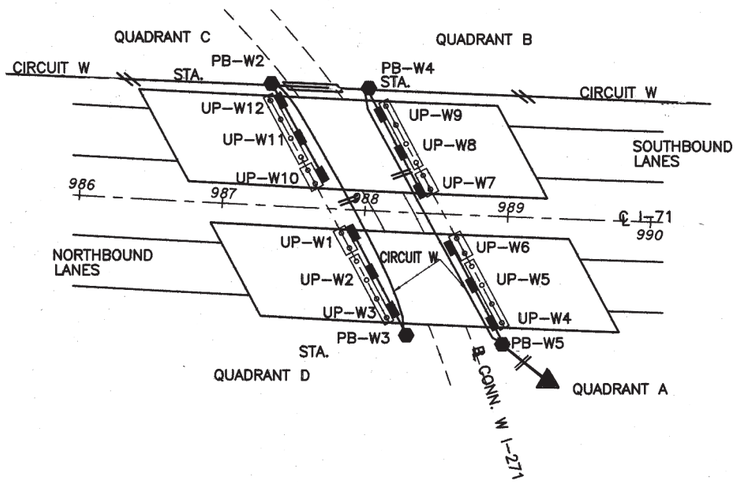
I–271 INTERCHANGE
HIGH MAST LIGHTING

I–271 Interchange
High Mast Lighting

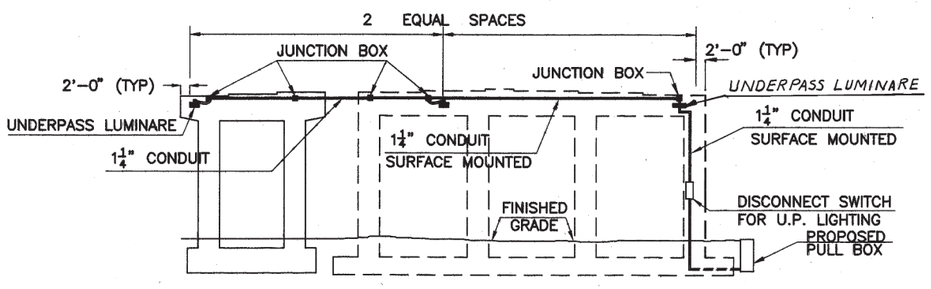
MED–71–15.78

629/940

CALCULATED CHECKED

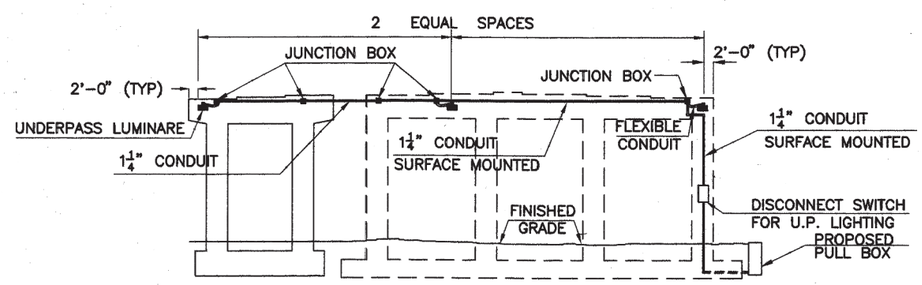


PROPOSED UNDERPASS LIGHTING PLAN



PROPOSED UNDERPASS LIGHTING, QUADRANT D

NOTE: REFER TO STANDARD DRAWING HL-20.31, (5-1-87) FOR DETAILS.



PROPOSED UNDERPASS LIGHTING, QUADRANT C
QUADRANTS A & B SIMILAR

NOTE: REFER TO STANDARD DRAWING HL-20.31, (5-1-87) FOR DETAILS.

NOTES: FOR LEGEND, SEE SHEET 622

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED

CHECKED

I-271 Interchange
Underpass Lighting Details

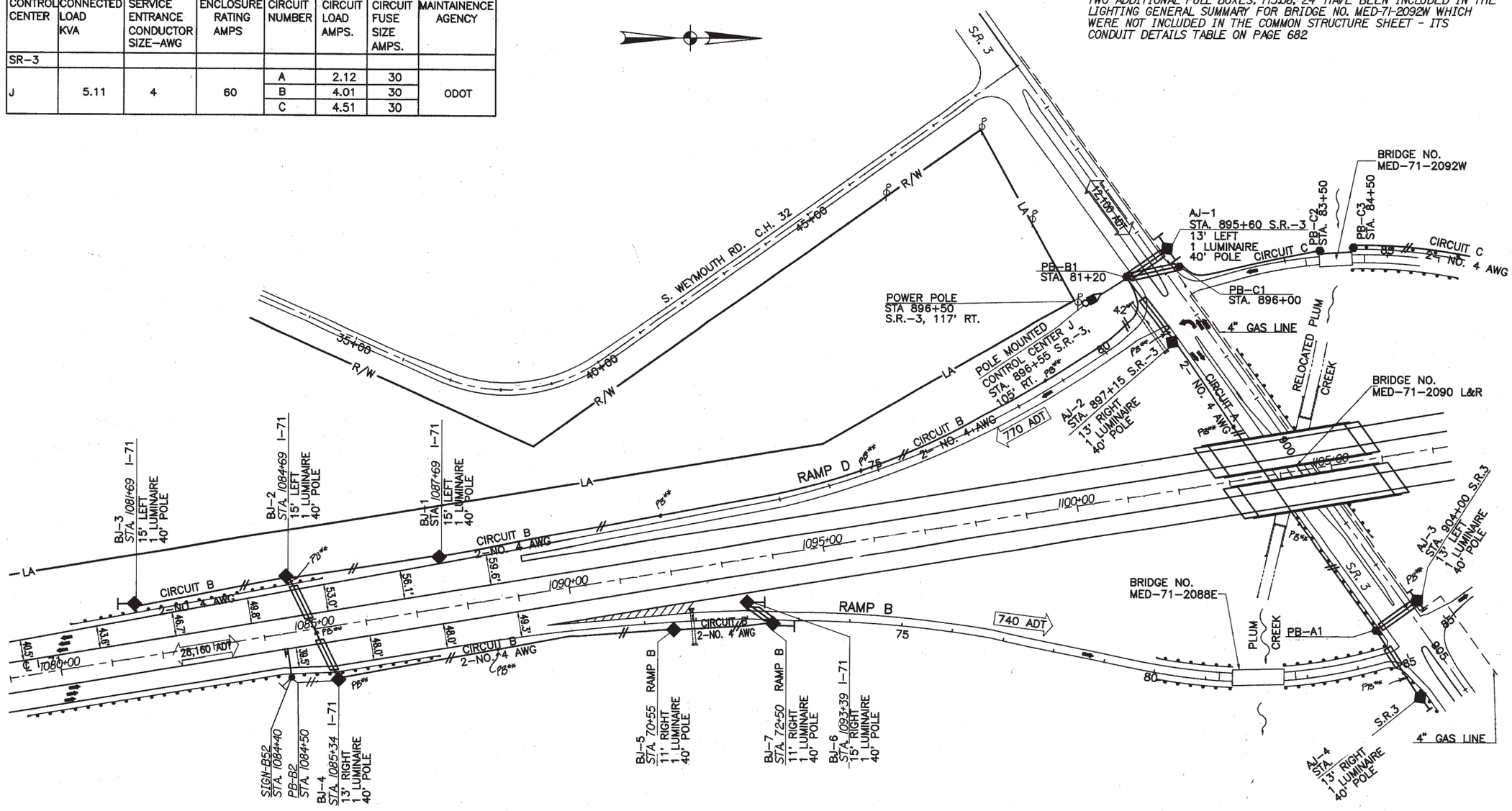
MED-71-15.78

630
940

REF. FILE *1:\100_MELLIN\100\Utgtrg\utgtrg0001.dgn
REF. FILE *1 LEVELS ON: 1,3,9-37,39-52,54-57,59,60,641
REF. FILE *2:
REF. FILE *2 LEVELS ON:
REF. FILE *3:
REF. FILE *3 LEVELS ON:
REF. FILE *4:
REF. FILE *4 LEVELS ON:
FILENAME: I:\100_MELLIN\100\Utgtrg\utgtrg0001.dgn
DATE & TIME: 10-DEC-1999 13:22
USERNAME: mfox
PROJECT: NONE
LEVELS ON: [1-64]
PLOT QUEUE: \\DOIPLOT\oce
PEN TABLE: In0ilsfo\Xpen\Oce\Cross_OCE.pen

CONTROL CENTER DATA							
CONTROL CENTER	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE–AWG	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS.	CIRCUIT FUSE SIZE AMPS.	MAINTAINENCE AGENCY
SR–3							
J	5.11	4	60	A	2.12	30	ODOT
				B	4.01	30	
				C	4.51	30	

NOTE: Structure plans show 2 inch conduit is within the concrete parapet.
The length of the conduit in the concrete parapet is 75.5 feet.
Where the conduit leaves the structure an expansion sleeve should be included.
TWO ADDITIONAL PULL BOXES, 713.08, 24" HAVE BEEN INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR BRIDGE NO. MED-71-2092W WHICH WERE NOT INCLUDED IN THE COMMON STRUCTURE SHEET - ITS CONDUIT DETAILS TABLE ON PAGE 682



Note:
All references to 2 - No. 4 AWG & 2 - No. 2 AWG
Shall Be: 3 - No. 4 AWG & 3 - No. 2 AWG

NOTES: FOR LEGEND, SEE SHEET 622.
2" CONDUIT SHALL BE INSTALLED IN THE RIGHT PARAPET WALL OF BRIDGE NO. MED-71-2088E AND CAPPED AT EACH END OF THE PARAPET. SEE SHEET 682 FOR DETAILS.

0' 100' 200' 300'
SCALE IN FEET

S.R.3 INTERCHANGE
PARTIAL LIGHTING

HORIZONTAL SCALE IN FEET 0 50 100 200

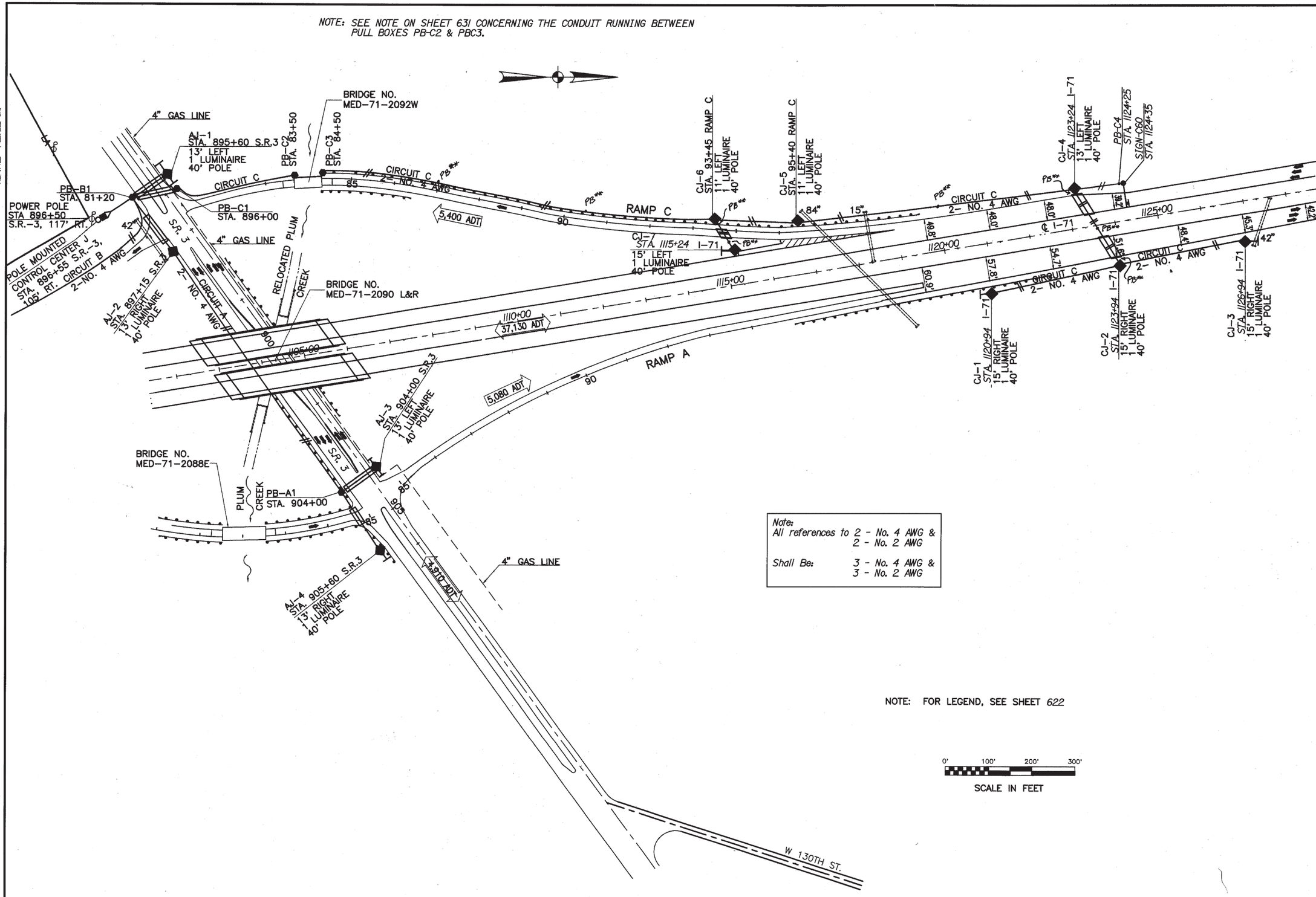
CALCULATED
CHECKED

S.R. 3 Interchange
Partial Lighting

MED-71-15.78

REF.FILE *1\ODOT_DRG_FT\odotprmt.dgn
REF.FILE *1 LEVELS ON:1,5,20,641
REF.FILE *2\Odot_MED_JRT\DGN\Lighting\CONVENTIONAL.DGN
REF.FILE *2 LEVELS ON:1,38,61,641
REF.FILE *3:
REF.FILE *3 LEVELS ON:
REF.FILE *4:
REF.FILE *4 LEVELS ON:
FILENAME:I:\ODOT_MED_JRT\DGN\Lighting\r1880LP-plug.dgn
DATE & TIME:10-DEC-1999 13:22
USERNAME:mfox
PROJECT:NONE
LEVELS ON:1-641
PLOT QUEUE:\QDOPLOT\pce
REM TABLE:I:\Odot\Spdr\Dae\Cross_JCE.pen

NOTE: SEE NOTE ON SHEET 631 CONCERNING THE CONDUIT RUNNING BETWEEN PULL BOXES PB-C2 & PBC3.



Note:
All references to 2 - No. 4 AWG &
2 - No. 2 AWG

Shall Be: 3 - No. 4 AWG &
3 - No. 2 AWG

NOTE: FOR LEGEND, SEE SHEET 622

0' 100' 200' 300'
SCALE IN FEET

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED
CHECKED

S.R. 3 Interchange
Partial Lighting

MED-71-15.78

632
940

S.R.3 INTERCHANGE
PARTIAL LIGHTING

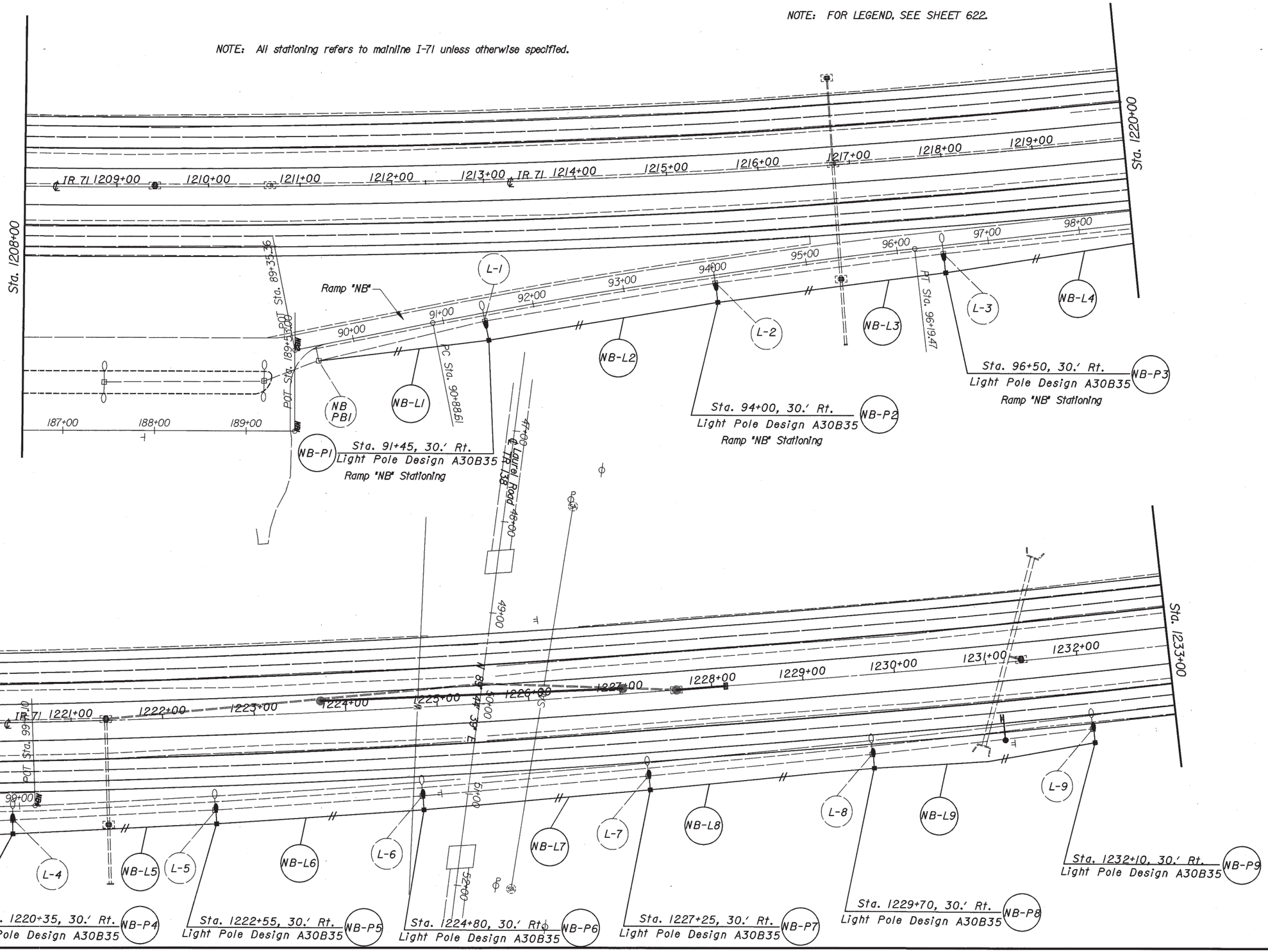
REF.FILE "1:\hpo_med_71\ds\gmnt.dgn
REF.FILE "1 LEVELS ON:13,5,9,37,39-52,54-57,59,60,64]
REF.FILE "2:\hpo_MED_71\DGN\Lighting\conventional.dgn
REF.FILE "2 LEVELS ON:1,37,38,61,64]
REF.FILE "3:\hpo_med_71\dgn\bkcentr.dgn
REF.FILE "3 LEVELS ON:1,15,16,18,21,24,39,55,56,59,64]
REF.FILE "4:
REF.FILE "4 LEVELS ON:

FILE NAME: HPO_MED_71\DGN\Lighting\r80sr-71.dgn
DATE & TIME: 10-DEC-1999 13:23
USERNAME: mfox
PROJECT: NONE

LEVELS ON:[1-64]
PLOT QUEUE: \QO\PLOT\qce
PEN TABLE: \hdot\sign\plot\bw\Cross_DCE.pen

NOTE: FOR LEGEND, SEE SHEET 622.

NOTE: All stationing refers to mainline I-71 unless otherwise specified.



N

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

N.B. Rest Area Lighting Sheet
ENTRANCE RAMP

MED - 71 - 15.78

633
940

REF.FILE *1:\hpo_MED\IR71\DGN\Lighting\ollgnmt.dgn
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REF.FILE *2:\users\jclark\dgn\med71.dgn
REF.FILE *2 LEVELS ON,1-52,54-61,63,641

REF.FILE *3:\hpo_med\IR71\dgn\blkdrtr.dgn
REF.FILE *3 LEVELS ON,1-52,54-641
REF.FILE *4:\hpo_med\IR71\dgn\abc2dtmb.dgn
REF.FILE *4 LEVELS ON,12-212,14,18-35,37-52,54-56,58,59,641

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PROJECT=NONE

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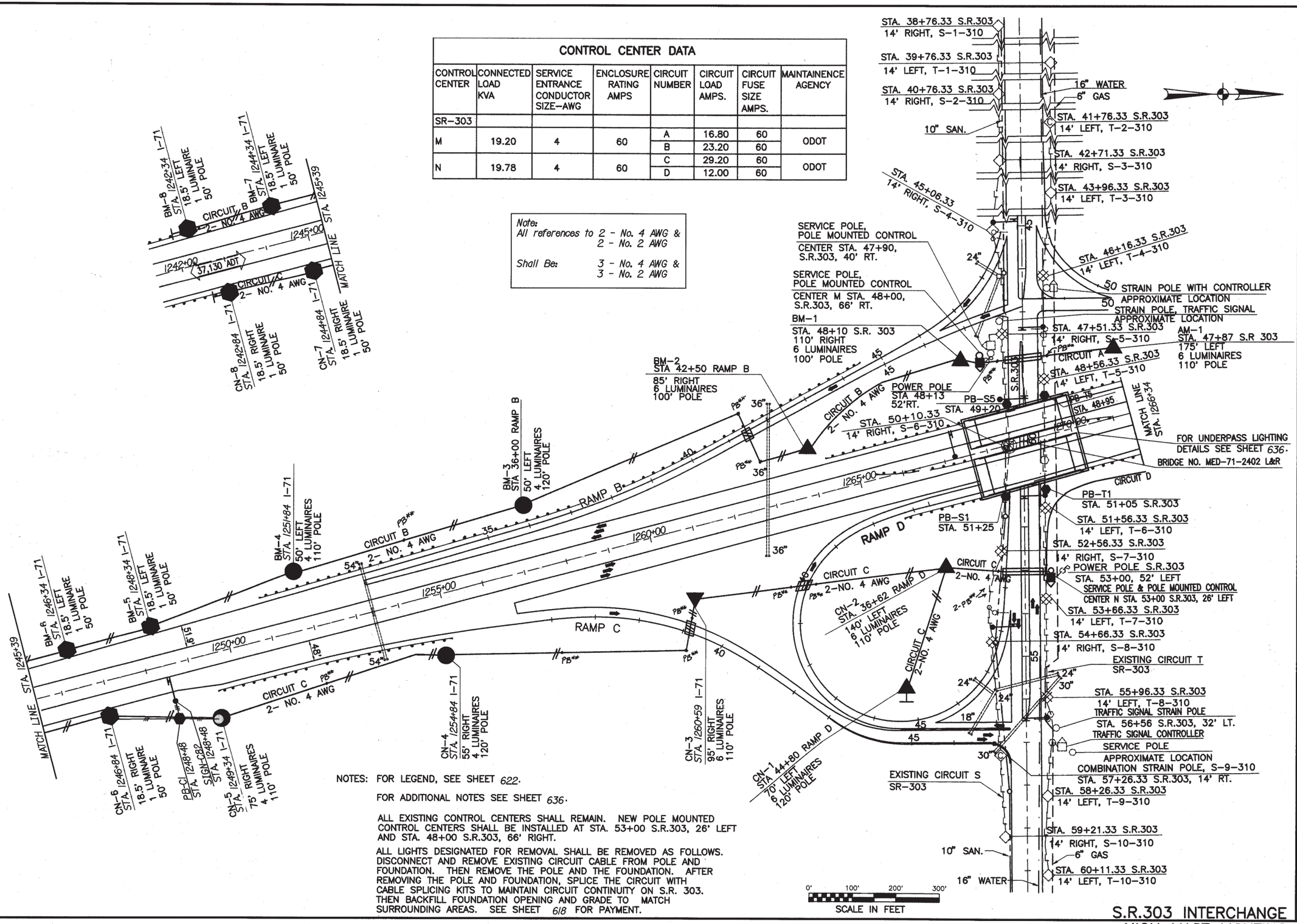
CONTROL CENTER DATA							
CONTROL CENTER	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE--AWG	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS.	CIRCUIT FUSE SIZE AMPS.	MAINTAINENCE AGENCY
SR-303							
M	19.20	4	60	A	16.80	60	ODOT
				B	23.20	60	
N	19.78	4	60	C	29.20	60	ODOT
				D	12.00	60	

Note:
All references to 2 - No. 4 AWG & 2 - No. 2 AWG
Shall Be: 3 - No. 4 AWG & 3 - No. 2 AWG



NOTES: FOR LEGEND, SEE SHEET 622.

FOR ADDITIONAL NOTES SEE SHEET 636.

ALL EXISTING CONTROL CENTERS SHALL REMAIN. NEW POLE MOUNTED CONTROL CENTERS SHALL BE INSTALLED AT STA. 53+00 S.R.303, 26' LEFT AND STA. 48+00 S.R.303, 66' RIGHT.

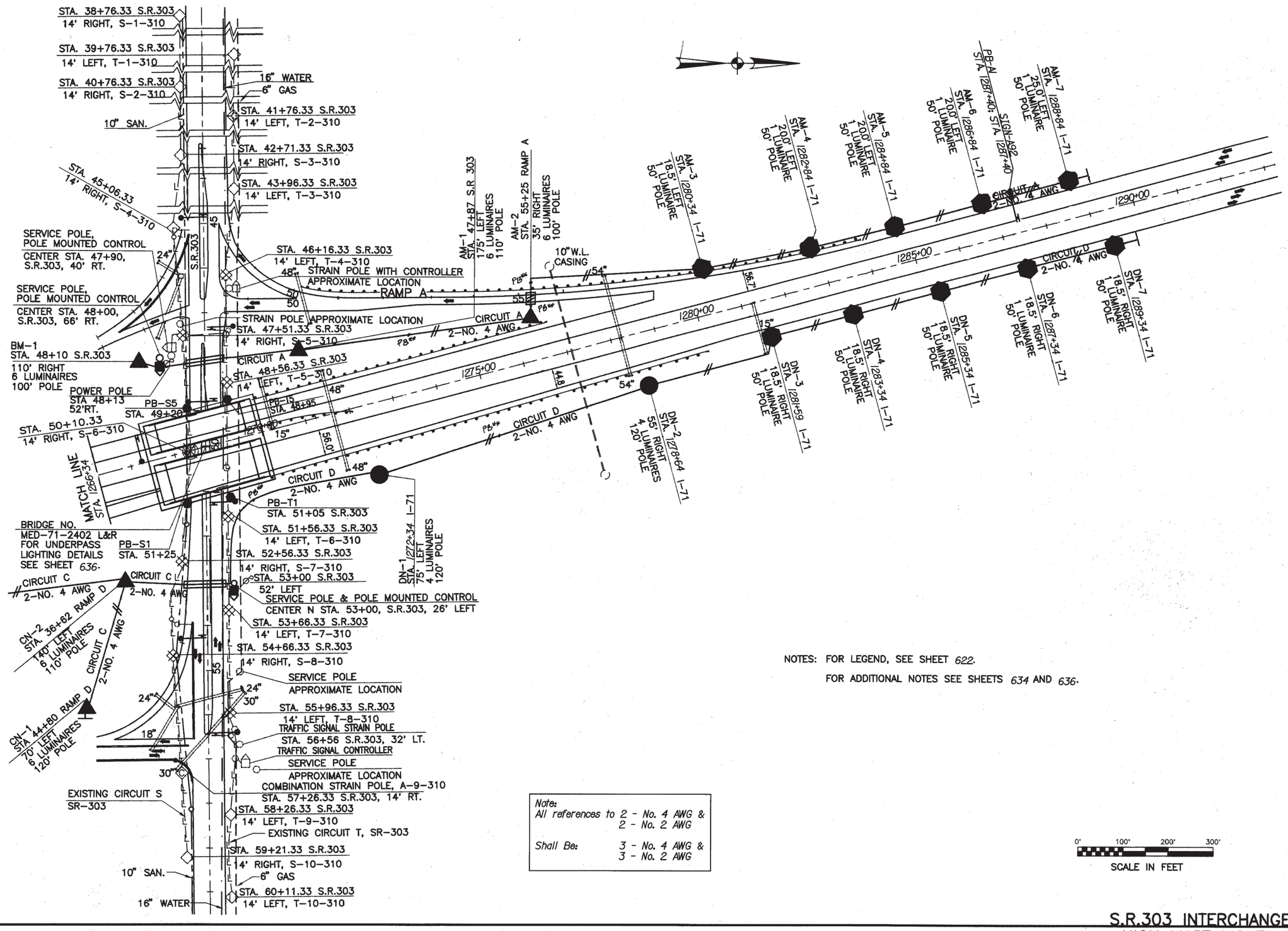
ALL LIGHTS DESIGNATED FOR REMOVAL SHALL BE REMOVED AS FOLLOWS. DISCONNECT AND REMOVE EXISTING CIRCUIT CABLE FROM POLE AND FOUNDATION. THEN REMOVE THE POLE AND THE FOUNDATION. AFTER REMOVING THE POLE AND FOUNDATION, SPLICE THE CIRCUIT WITH CABLE SPLICING KITS TO MAINTAIN CIRCUIT CONTINUITY ON S.R. 303. THEN BACKFILL FOUNDATION OPENING AND GRADE TO MATCH SURROUNDING AREAS. SEE SHEET 618 FOR PAYMENT.

S.R. 303 Interchange
High Mast Lighting

MED-71-15.78

634
940

S.R.303 INTERCHANGE
HIGH MAST LIGHTING



NOTES: FOR LEGEND, SEE SHEET 622.

FOR ADDITIONAL NOTES SEE SHEETS 634 AND 636.

Note:
All references to 2 - No. 4 AWG & 2 - No. 2 AWG
Shall Be: 3 - No. 4 AWG & 3 - No. 2 AWG

0' 100' 200' 300'
SCALE IN FEET

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED
CHECKED

S.R. 303 Interchange
High Mast Lighting

MED-71-15.78

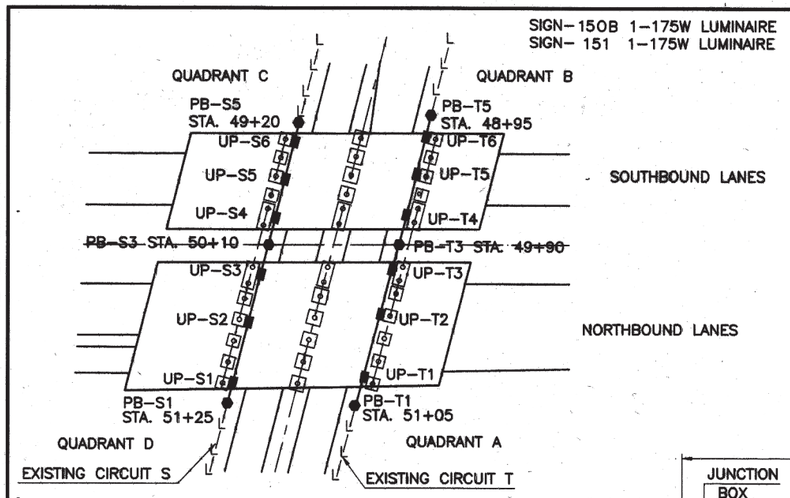
635
940

S.R.303 INTERCHANGE
HIGH MAST LIGHTING

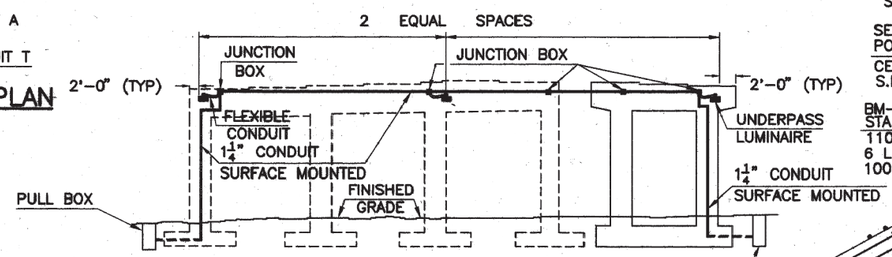
REF.FILE *1\h:\dot_med_71\ndot\gmt\gmt.dgn
REF.FILE *1 LEVELS ON:(3,5,9-37,39-52,54-57,59,60,641)
REF.FILE *2\h:\dot_med_71\dgn\abc2combo.dgn
REF.FILE *2 LEVELS ON:(12-4,8-16,18,20-52,54-59,61,62,641)
REF.FILE *3\h:\dot_med_71\dgn\orard\ndot.dgn
REF.FILE *3 LEVELS ON:(1-641)
REF.FILE *4\h:\dot_med_71\dgn\blnkcnt.dgn
REF.FILE *4 LEVELS ON:(15,16,18,21,24,33,55,56,641)

FILENAME: H:\DOT_MED_71\NDOT\GMT\DOT\MED71-15.DGN
DATE & TIME: 10-DEC-1999 13:25
USERNAME: mfox
PROJECT: NONE

LEVELS ON:(1-641)
PLOT QUEUE: \\DOIPLOT\ocs
REN TABLE: h:\dot\data\plot\OceCross_OCE.pen



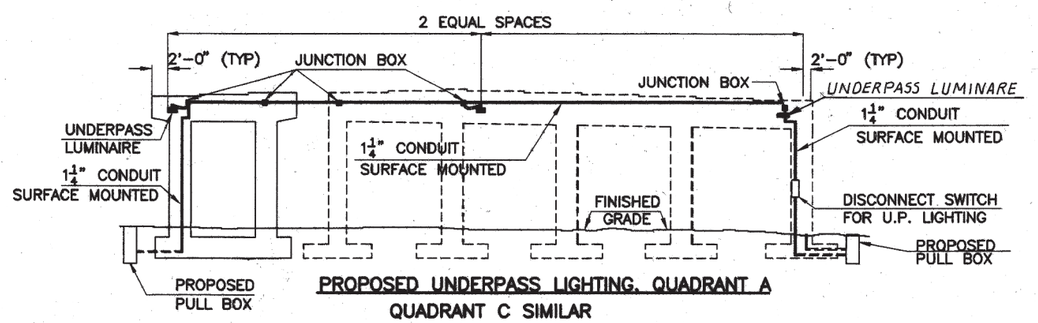
PROPOSED UNDERPASS LIGHTING PLAN



PROPOSED UNDERPASS LIGHTING QUADRANT B
QUADRANT D SIMILAR

NOTE: 1-1/4" CONDUIT TO BRIDGE MOUNTED SIGN SHALL BE MOUNTED TO BOTTOM OF BRIDGE DECK.

Note:	
All references to	2 - No. 4 AWG & 2 - No. 2 AWG
Shall Be:	3 - No. 4 AWG & 3 - No. 2 AWG



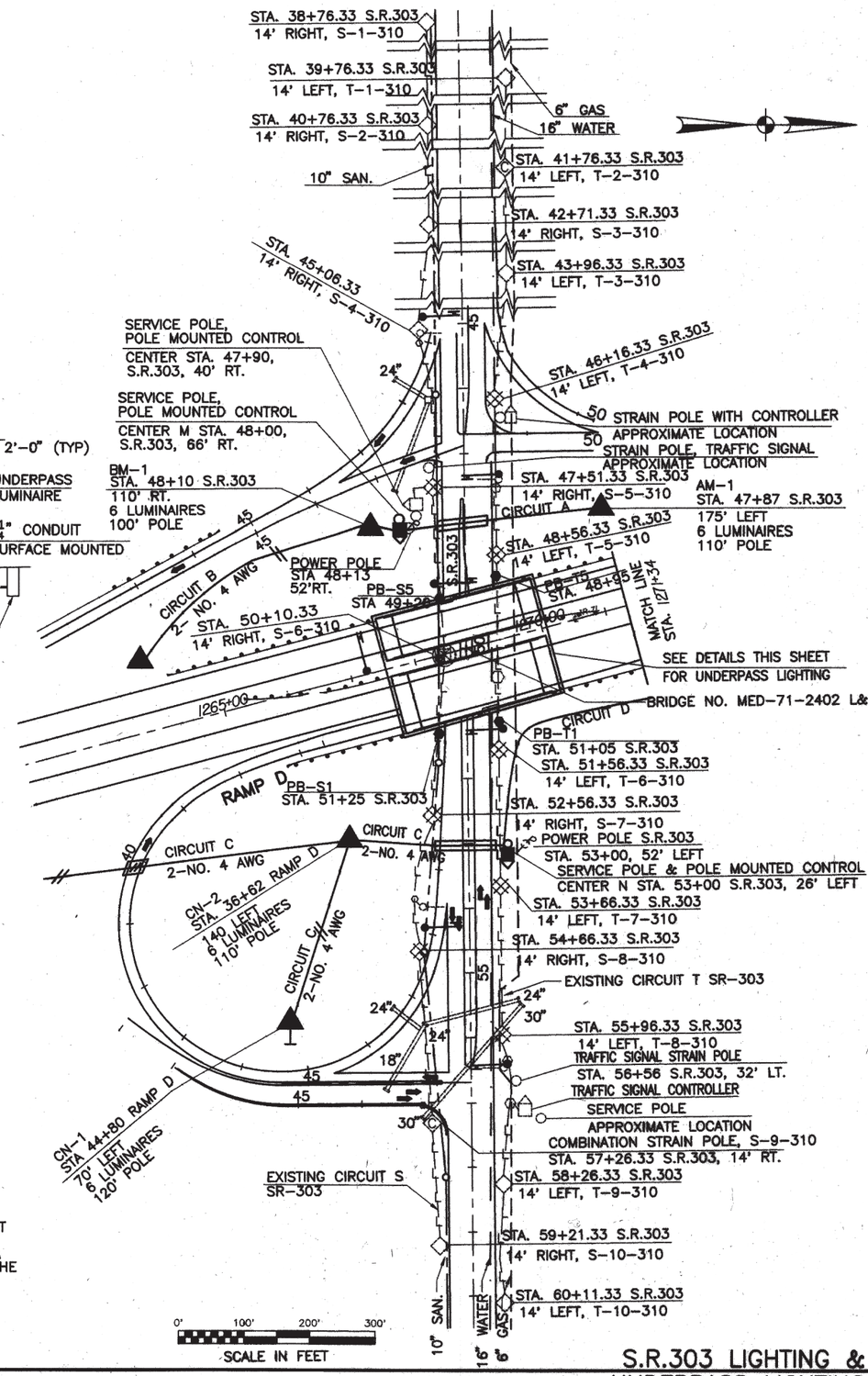
PROPOSED UNDERPASS LIGHTING, QUADRANT A
QUADRANT C SIMILAR

NOTE: S.R. 303 CIRCUITS S AND T SHALL REMAIN IN PLACE AND ALL LIGHTS DESIGNATED FOR REMOVAL SHALL BE REMOVED. THE UNDERPASS LIGHTING WILL BE ADDED TO S.R.303 CIRCUITS S AND T.
ALL LIGHT POLE FOUNDATIONS SHALL BE REMOVED 4 FEET BELOW FINSHED GRADE. PAYMENT SHALL BE INCLUDED WITH ITEM 202, LIGHT POLE FOUNDATION REMOVED AND A ITEM 625, CABLE SPLICING KIT PROVIDED TO COMPLETE THE CIRCUIT.

FOR ADDITIONAL NOTES SEE SHEET 634.

FOR LEGEND SEE SHEET 622.

NOTE: ALL EXISTING SIGN LIGHTING COMPONENTS SHALL BE REMOVED.



HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

S.R. 303 Lighting and Underpass Lighting

MED-71-15.78

636
940

S.R.303 LIGHTING & UNDERPASS LIGHTING

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REF. FILE *2 LEVELS ON: 1,37,38,61,641
REF. FILE *3: LEVELS ON:
REF. FILE *3: LEVELS ON:
REF. FILE *4: LEVELS ON:
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CIRCUIT DIAGRAMS

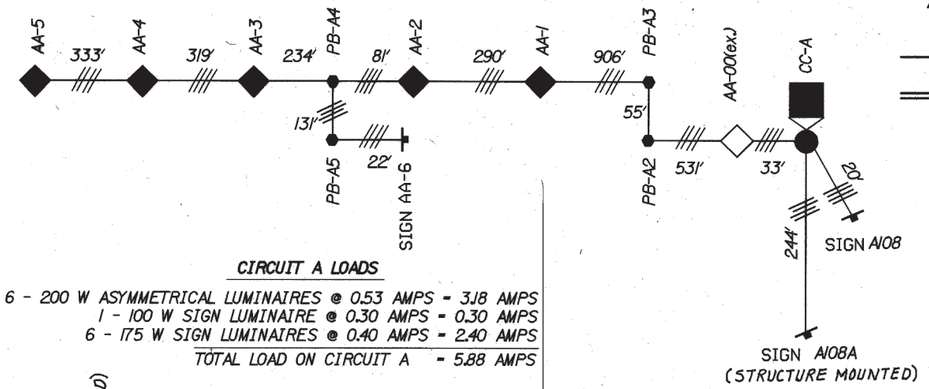
1-1/2" DUCT CABLE W/3 NO. 4 AWG WIRE

1-1/2" DUCT CABLE W/3 NO. 2 AWG WIRE

3 NO. 4 AWG DISTRIBUTION CABLE

3 NO. 2 AWG DISTRIBUTION CABLE

SR-18 CIRCUIT A



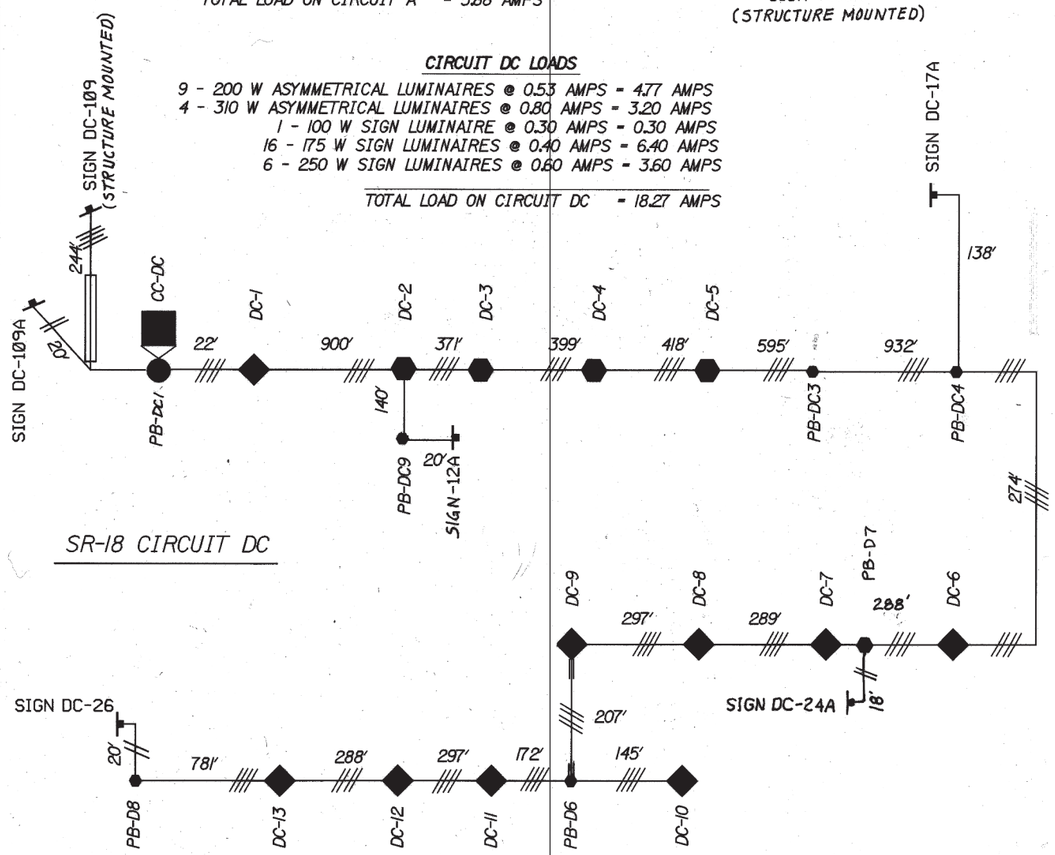
CIRCUIT A LOADS

6 - 200 W ASYMMETRICAL LUMINAIRES @ 0.53 AMPS = 3.18 AMPS
1 - 100 W SIGN LUMINAIRE @ 0.30 AMPS = 0.30 AMPS
6 - 175 W SIGN LUMINAIRES @ 0.40 AMPS = 2.40 AMPS
TOTAL LOAD ON CIRCUIT A = 5.88 AMPS

CIRCUIT DC LOADS

9 - 200 W ASYMMETRICAL LUMINAIRES @ 0.53 AMPS = 4.77 AMPS
4 - 310 W ASYMMETRICAL LUMINAIRES @ 0.80 AMPS = 3.20 AMPS
1 - 100 W SIGN LUMINAIRE @ 0.30 AMPS = 0.30 AMPS
16 - 175 W SIGN LUMINAIRES @ 0.40 AMPS = 6.40 AMPS
6 - 250 W SIGN LUMINAIRES @ 0.60 AMPS = 3.60 AMPS
TOTAL LOAD ON CIRCUIT DC = 18.27 AMPS

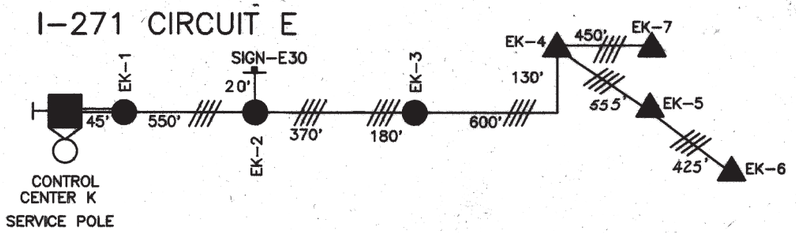
SR-18 CIRCUIT DC



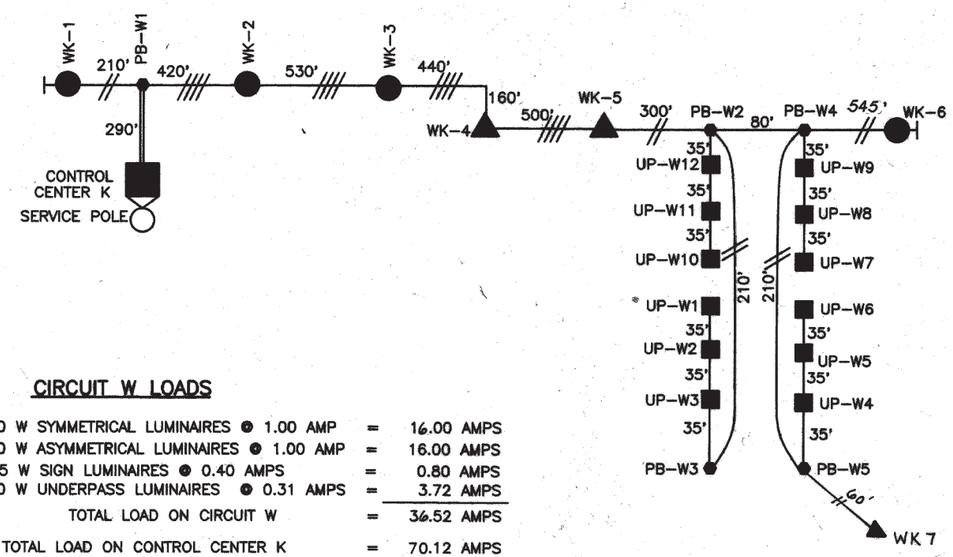
CIRCUIT E LOADS

20 - 400 W SYMMETRICAL LUMINAIRES @ 1.00 AMP = 20.00 AMPS
12 - 400 W ASYMMETRICAL LUMINAIRES @ 1.00 AMP = 12.00 AMPS
4 - 175 W SIGN LUMINAIRES @ 0.40 AMPS = 1.60 AMPS
TOTAL LOAD ON CIRCUIT E = 33.60 AMPS

I-271 CIRCUIT E



I-271 CIRCUIT W



CIRCUIT W LOADS

16 - 400 W SYMMETRICAL LUMINAIRES @ 1.00 AMP = 16.00 AMPS
16 - 400 W ASYMMETRICAL LUMINAIRES @ 1.00 AMP = 16.00 AMPS
2 - 175 W SIGN LUMINAIRES @ 0.40 AMPS = 0.80 AMPS
12 - 100 W UNDERPASS LUMINAIRES @ 0.31 AMPS = 3.72 AMPS
TOTAL LOAD ON CIRCUIT W = 36.52 AMPS

TOTAL LOAD ON CONTROL CENTER K = 70.12 AMPS
OR = 33.66 KVA

NOTES: FOR LEGEND SEE SHEET 622

HORIZONTAL SCALE IN FEET

CALCULATED

CHECKED

SR-18 & I-271 CIRCUIT DIAGRAMS

MED-71-15.78

637
940

I-271
CIRCUIT DIAGRAMS

REF-FILE "6" LEVELS ON:
REF-FILE "1" LEVELS ON:
REF-FILE "2" LEVELS ON:
REF-FILE "3" LEVELS ON:
REF-FILE "3" LEVELS ON:
REF-FILE "4" LEVELS ON:
REF-FILE "4" LEVELS ON:

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USERNAME=mfox
PROJECT=NONE

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CIRCUIT DIAGRAMS

1-1/2" DUCT CABLE W/3 NO. 4 AWG WIRE

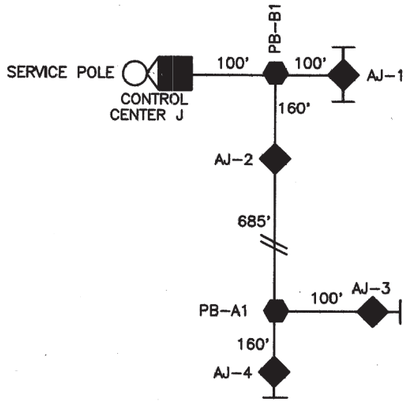
1-1/2" DUCT CABLE W/3 NO. 2 AWG WIRE

3 NO. 4 AWG DISTRIBUTION CABLE

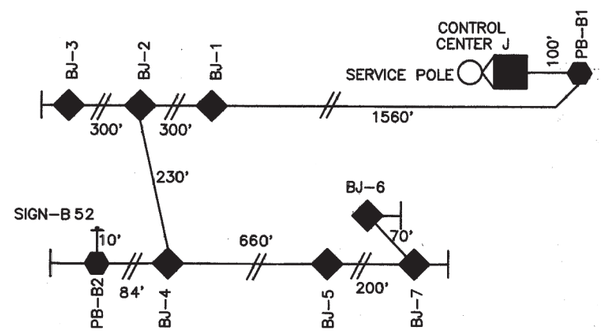
3 NO. 2 AWG DISTRIBUTION CABLE

CIRCUIT A LOADS

4 – 200 W CONVENTIONAL LUMINAIRES @ 0.53 AMPS	= 2.12 AMPS
TOTAL LOAD ON CIRCUIT A	= 2.12 AMPS



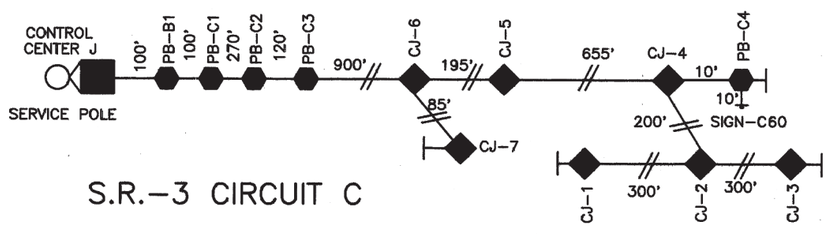
S.R.–3 CIRCUIT A



S.R.–3 CIRCUIT B

CIRCUIT B LOADS

7 – 200 W CONVENTIONAL LUMINAIRES @ 0.53 AMPS	= 3.71 AMPS
1 – 100 W SIGN LUMINAIRE @ 0.30 AMPS	= 0.30 AMPS
TOTAL LOAD ON CIRCUIT B	= 4.01 AMPS



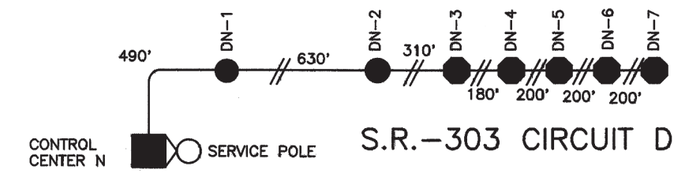
S.R.–3 CIRCUIT C

CIRCUIT C LOADS

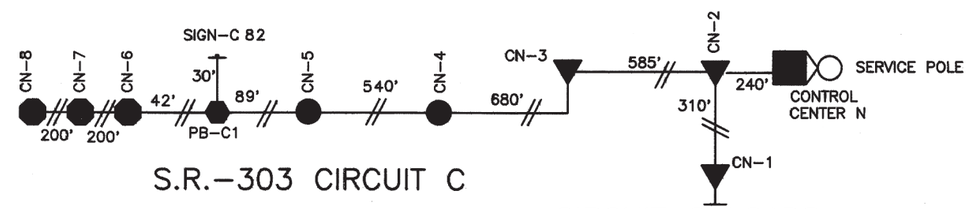
7 – 200 W CONVENTIONAL LUMINAIRES @ 0.53 AMPS	= 3.71 AMPS
2 – 175 W SIGN LUMINAIRES @ 0.40 AMPS	= 0.80 AMPS
TOTAL LOAD ON CIRCUIT C	= 4.51 AMPS
TOTAL LOAD ON CONTROL CENTER J	= 10.64 AMPS
OR	= 5.11 KVA

CIRCUIT D LOADS

5 – 310 W CONVENTIONAL LUMINAIRES @ 0.80 AMPS	= 4.00 AMPS
8 – 400 W ASYMMETRICAL LUMINAIRES @ 1.00 AMP	= 8.00 AMPS
TOTAL LOAD ON CIRCUIT D	= 12.00 AMPS



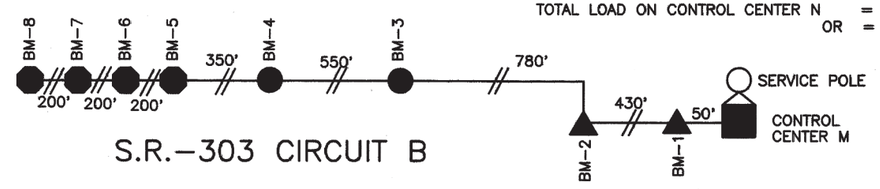
S.R.–303 CIRCUIT D



S.R.–303 CIRCUIT C

CIRCUIT C LOADS

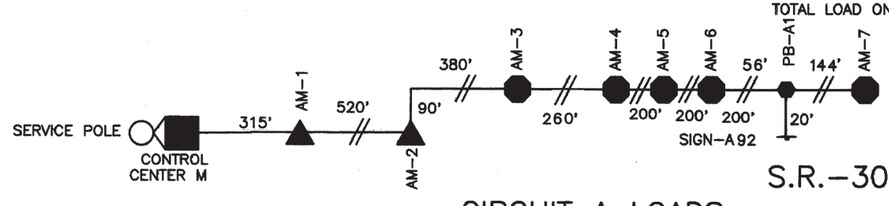
18 – 400 W SYMMETRICAL LUMINAIRES @ 1.00 AMP	= 18.00 AMPS
8 – 400 W ASYMMETRICAL LUMINAIRES @ 1.00 AMP	= 8.00 AMPS
3 – 310 W CONVENTIONAL LUMINAIRES @ 0.80 AMPS	= 2.40 AMPS
2 – 175 W SIGN LUMINAIRES @ 0.40 AMPS	= 0.80 AMPS
TOTAL LOAD ON CIRCUIT C	= 29.20 AMPS
TOTAL LOAD ON CONTROL CENTER N	= 41.20 AMPS
OR	= 19.78 KVA



S.R.–303 CIRCUIT B

CIRCUIT B LOADS

12 – 400 W SYMMETRICAL LUMINAIRES @ 1.00 AMP	= 12.00 AMPS
8 – 400 W ASYMMETRICAL LUMINAIRES @ 1.00 AMP	= 8.00 AMPS
4 – 310 W CONVENTIONAL LUMINAIRES @ 0.80 AMPS	= 3.20 AMPS
TOTAL LOAD ON CIRCUIT B	= 23.20 AMPS



S.R.–303 CIRCUIT A

CIRCUIT A LOADS

12 – 400 W SYMMETRICAL LUMINAIRES @ 1.00 AMP	= 12.00 AMPS
5 – 310 W CONVENTIONAL LUMINAIRES @ 0.80 AMPS	= 4.00 AMPS
2 – 175 W SIGN LUMINAIRES @ 0.40 AMPS	= 0.80 AMPS
TOTAL LOAD ON CIRCUIT A	= 16.80 AMPS
TOTAL LOAD ON CONTROL CENTER M	= 40.00 AMPS
OR	= 19.20 KVA

NOTES: FOR LEGEND SEE SHEET 622

S.R.–3 & S.R.–303

CIRCUIT DIAGRAMS

N

HORIZONTAL SCALE IN FEET

CALCULATED

CHECKED

S.R.-3 & S.R.-303 Circuit Diagram

MED-71-15.78

638
940

REF.FILE *1; LEVELS ON:
REF.FILE *1
REF.FILE *2; LEVELS ON:
REF.FILE *2

REF.FILE *3; LEVELS ON:
REF.FILE *3
REF.FILE *4; LEVELS ON:
REF.FILE *4

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