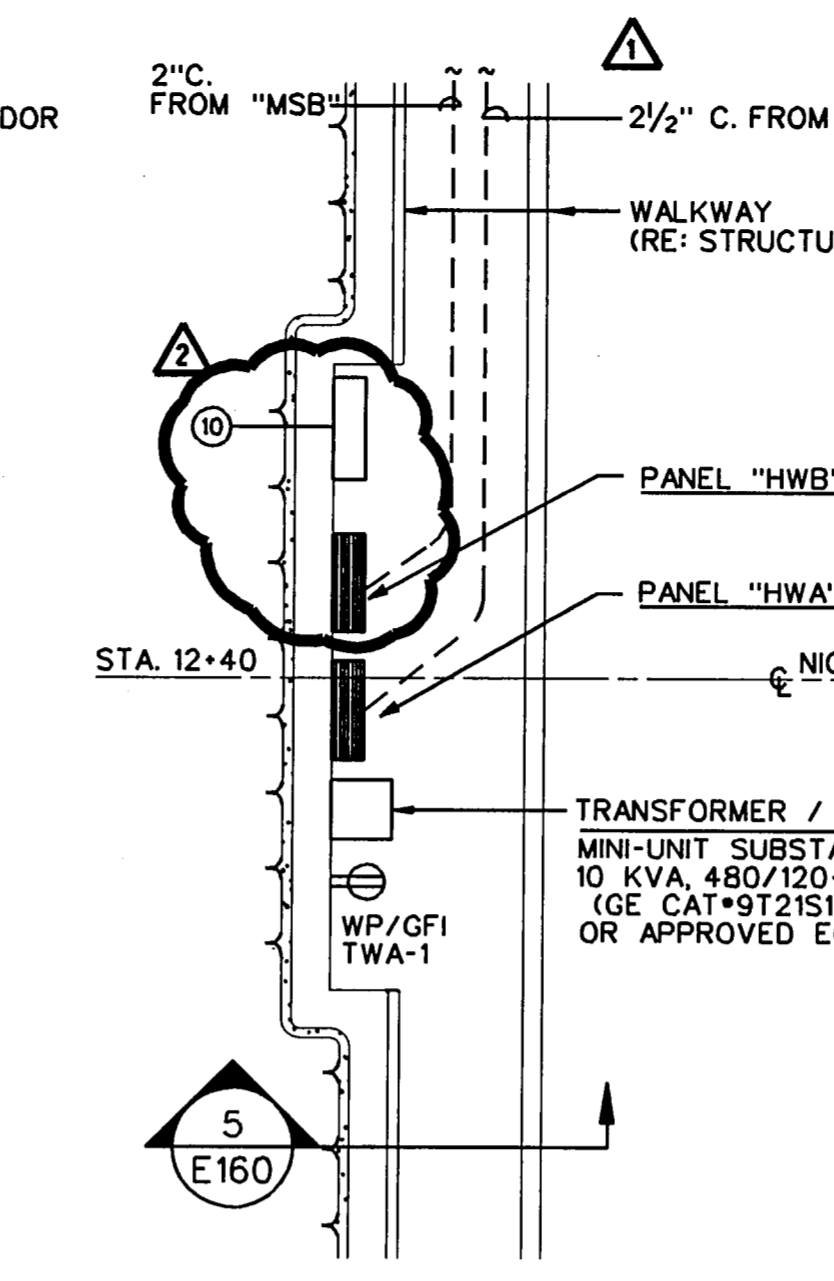
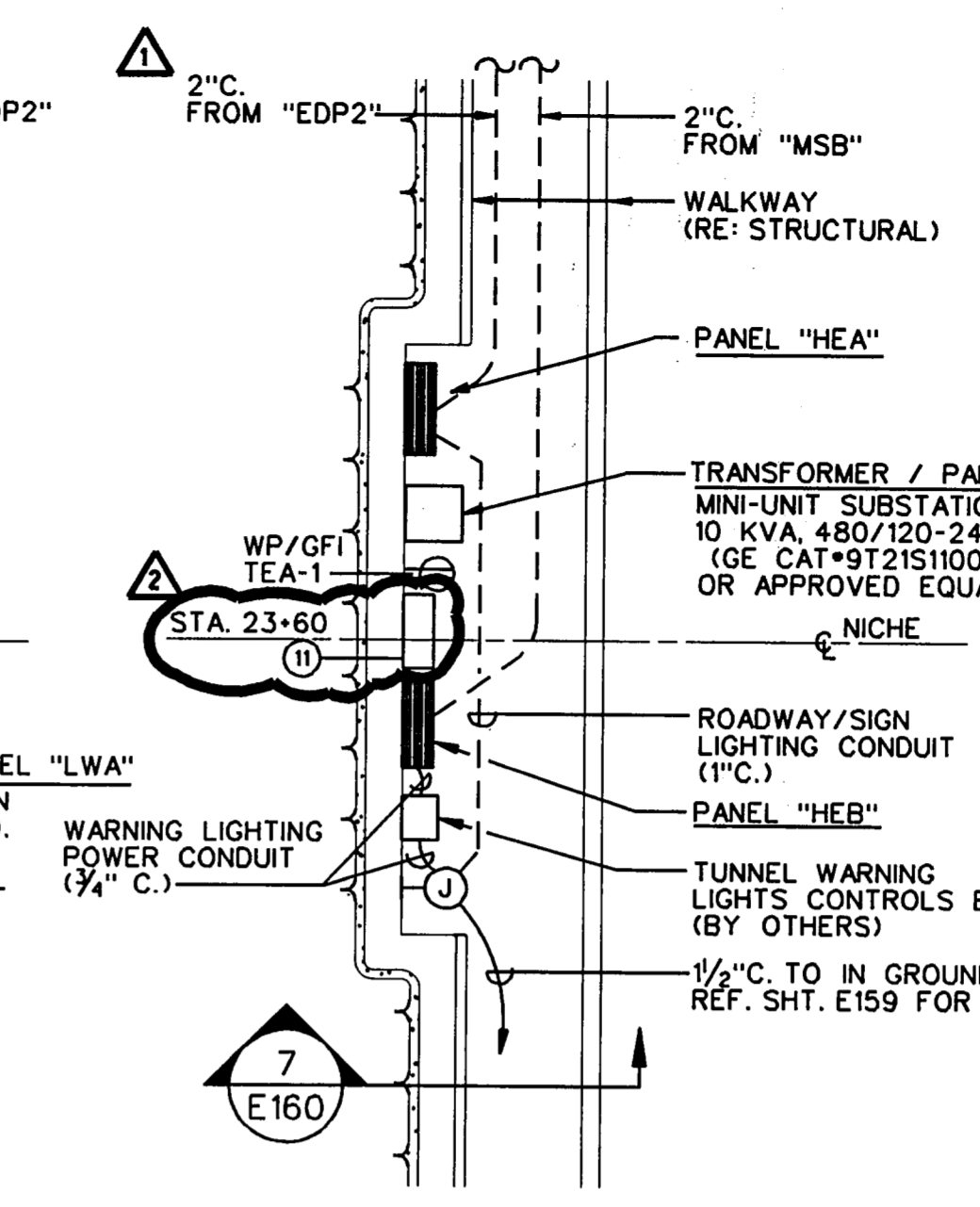


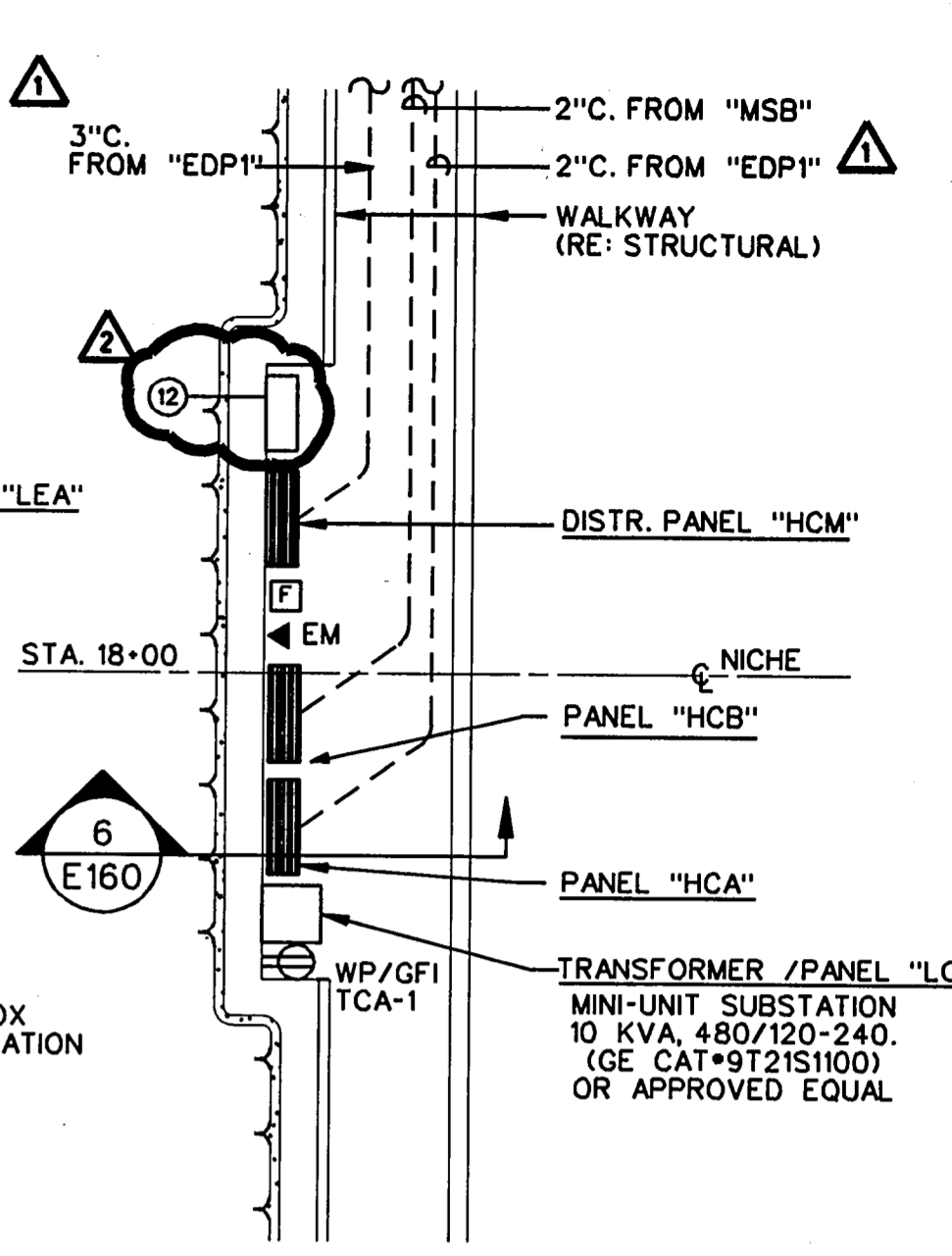
1 ELECTRICAL ROOM - POWER/LIGHTING PLAN
E160 SCALE: 3/4"=1'-0"
NORTH



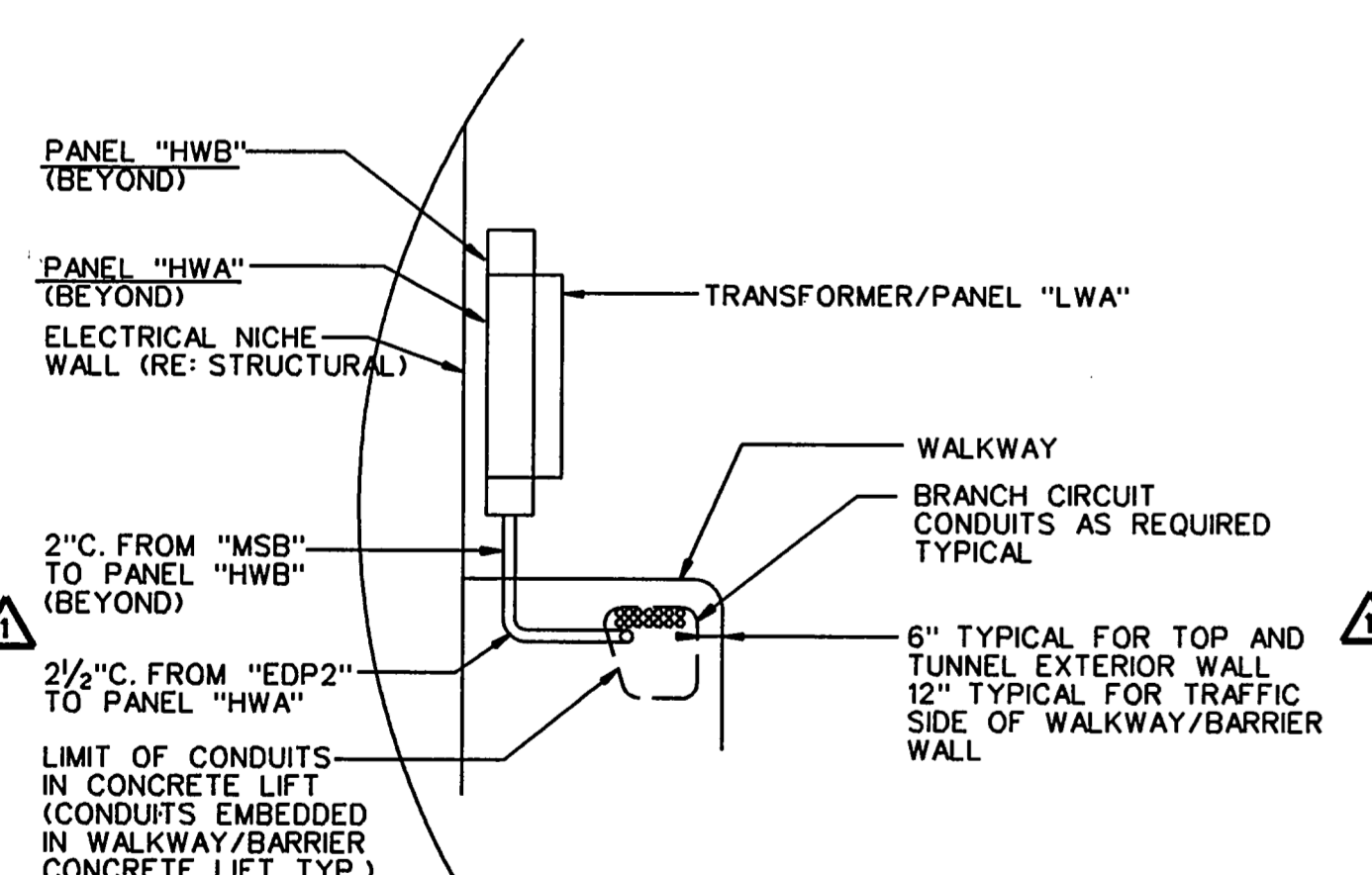
2 WEST ELECTRICAL NICHE "W" PLAN
E160 NO SCALE
NORTH



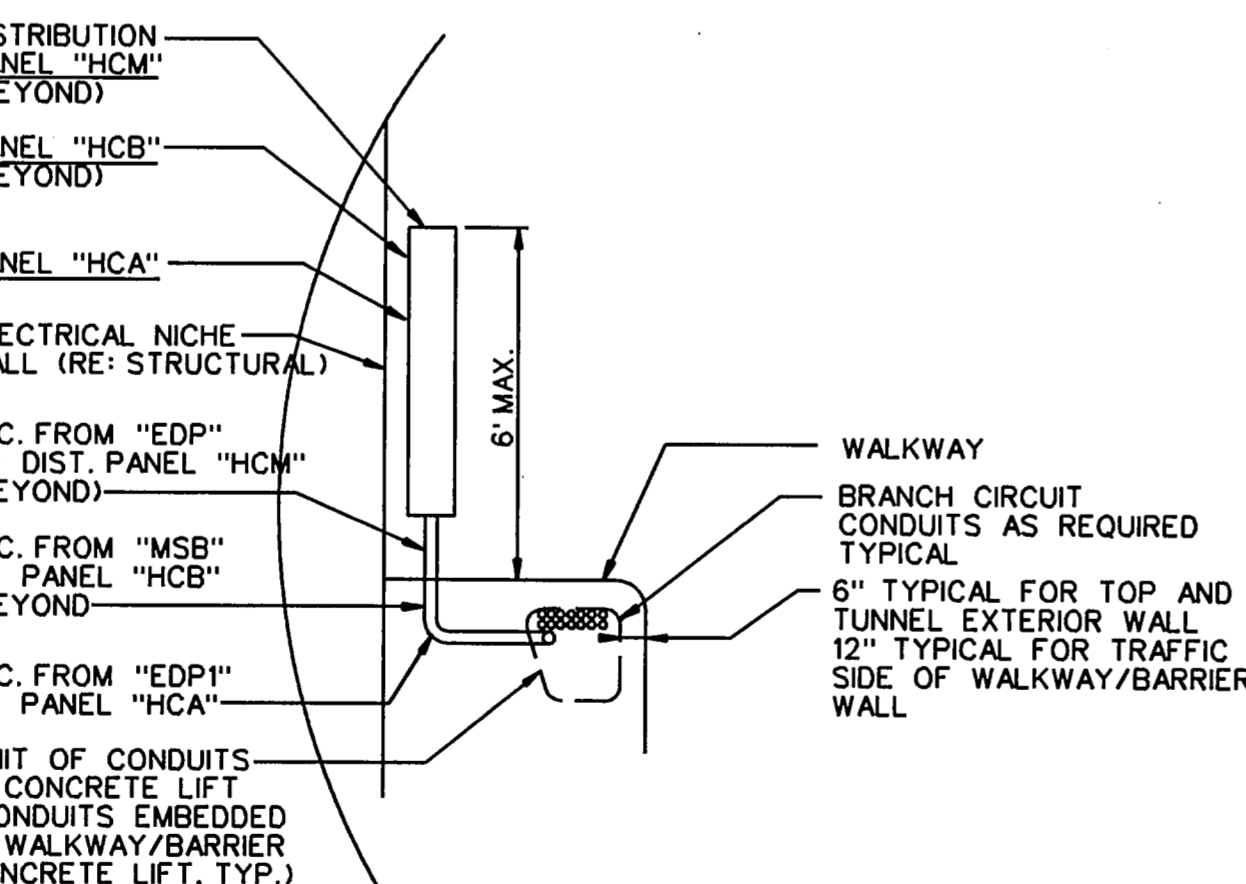
3 EAST ELECTRICAL NICHE "E" PLAN
E160 NO SCALE
NORTH



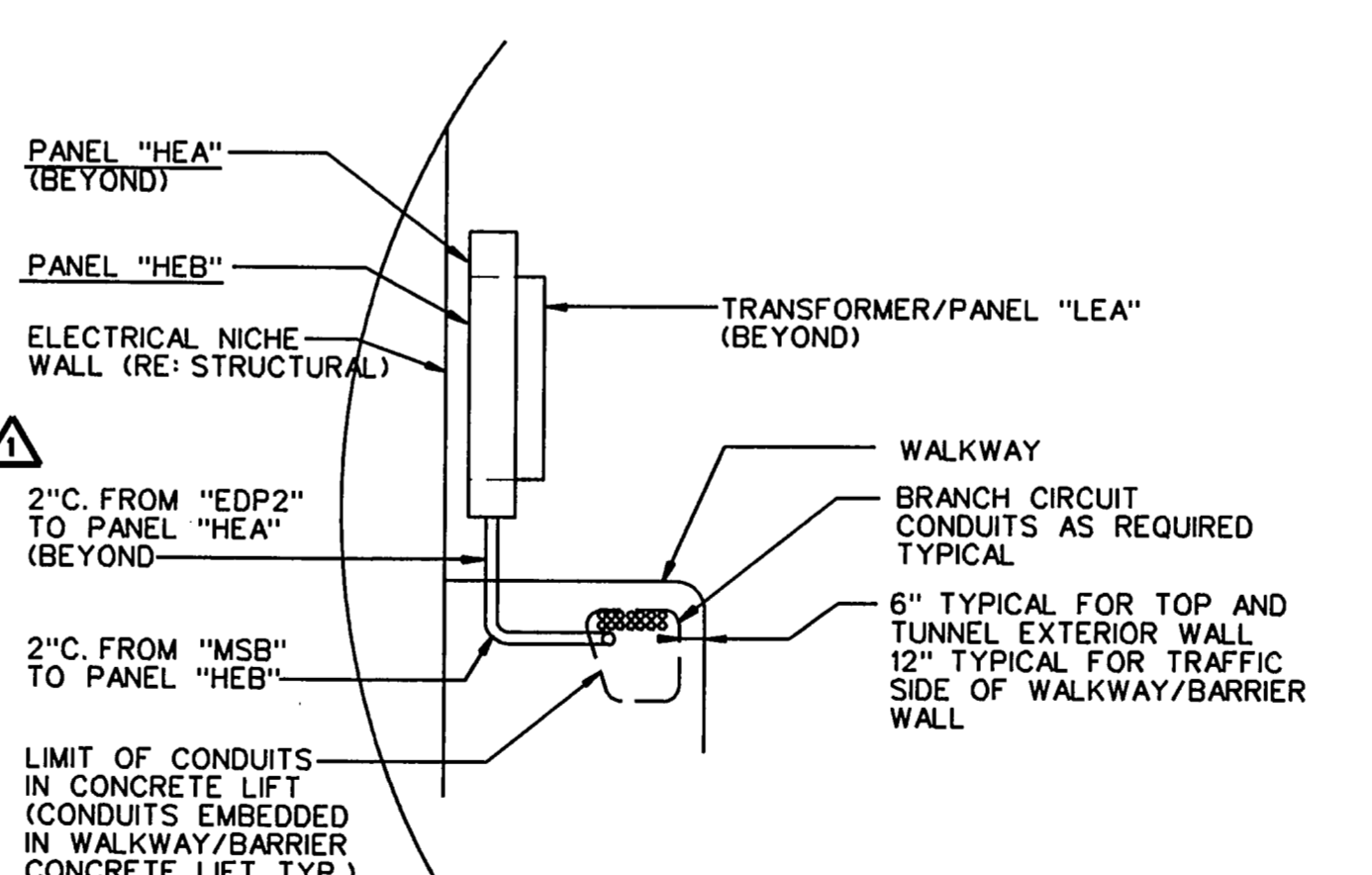
4 CENTER ELECTRICAL NICHE "C" PLAN
E160 NO SCALE
NORTH



5 WEST ELECTRICAL NICHE "W" - SECTION
E160 NO SCALE



6 CENTER ELECTRICAL NICHE "C" - SECTION
E160 NO SCALE



7 EAST ELECTRICAL NICHE "E" - SECTION
E160 NO SCALE

KEY NOTES: ("ELECTRICAL ROOM - POWER/LIGHTING PLAN" ONLY):

- NEW UNDERGROUND DUCT FOR TUNNEL TELEPHONE UTILITIES; HOLD TIGHT TO STRUCTURE BELOW AND EXTEND TO TELEPHONE BACKBOARD VIA STUB-UP TO CEILING ABOVE; SEE SHEET E166A FOR CONTINUATION.
- NEW UNDERGROUND DUCT FOR TUNNEL ELECTRICAL SERVICE TO MAIN SWITCHBOARD 'MSB'; HOLD TIGHT TO STRUCTURE BELOW AND EXTEND TO MAIN SWITCHBOARD 'MSB' VIA STUB-UP; SEE SHEET E166A FOR CONTINUATION.
- NEW UNDERGROUND DUCTS FOR TUNNEL EMERGENCY GENERATORS ELECTRICAL SERVICE TO AUTOMATIC TRANSFER SWITCHES 'ATS'; HOLD TIGHT TO STRUCTURE BELOW AND STUB-UP TO EACH 'ATS'; SEE SHEET E157 FOR CONTINUATION.
- AC-1 LOCATION, COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR; SEE MECHANICAL DRAWINGS FOR FURTHER INFORMATION, AC-1 MOTER STARTER PROVIDED BY EQUIPMENT MANUFACTURER.
- PHOTOELECTRIC CONTROL FOR PANELBOARD CONTACTORS (PANELS "HWA", "HCB" AND "HEB"); SEE "ONE-LINE DISTRIBUTION DIAGRAM", SHEET E161 FOR FURTHER INFORMATION.
- CONDUITS FROM MAIN SWITCHBOARD "MSB" AND EMERG. DIST. PANELS "EDP2" AND "EDP1" TO EQUIPMENT LOCATED IN TUNNEL; REFERENCE LIGHTING AND POWER PLANS, SHEETS E154 THRU E159, DETAIL E161 AND PANEL BOARD SCHEDULES, SHEET E162 AND E163 FOR FURTHER INFORMATION.
- JUNCTION BOX (12" X 12" X 6") EAST PORTAL SERVICES.
- TUNNEL WARNING LIGHT CONTROL BOX (BY OTHERS).
- 36" W X 36" H X 12" D NEMA INTERIOR BACK PLATE LOCKABLE ENCLOSURE WITH INTERIOR BACK PLATE MOUNTED AT 6'-0" A.F.F. LABEL ENCLOSURE AS "TUNNEL SECURITY" AND PROVIDE THE FOLLOWING:
 - 3*12, 1/2" GRD-3/4" C. HOMERUN TO (2) 1P-20A CIRCUIT BREAKER IN EMERGENCY PANELBOARD "LA-7,9" LABEL AS "TUNNEL SECURITY CABINET".
 - (3) 4" CONDUIT WITH (4) 1/4" INNER-DUCTS AND PULL STRINGS TO ADDISON TOLL PLAZA; ONE CONDUIT DEDICATED FOR FIBER OPTICS/COMM ONE FOR SPARE, ONE TO WEST ELECTRICAL NICHE SECURITY CABINET.
 - (2) 2" SPARE CONDUITS TO ADDISON TOLL PLAZA.
 - (3) 1" CONDUITS, ONE TO FIRE ALARM CONTROL CABINET, ONE TO CARBON MONOXIDE CONTROL CABINET, ONE TO CALL BOX CONTROL CABINET.
 - (1) 1" CONDUIT TO SECURITY CAMERA LOCATION, EXTEND CONDUIT TO ADDITIONAL CAMERAS AS REQUIRED BY SECURITY CONSULTANT PROVIDE J-BOXES AS REQUIRED.
- 36" W X 36" H X 12" D NEMA 3R LOCKABLE ENCLOSURE WITH INTERIOR BACK PLATE MOUNTED AT 6'-0" A.F.F. LABEL ENCLOSURE AS "WEST ELECTRICAL NICHE SECURITY CABINET" AND PROVIDE THE FOLLOWING:
 - 3*12, 1/2" GRD-3/4" C. HOMERUN TO (2) 1P-20A CIRCUIT BREAKER IN EMERGENCY PANELBOARD "LA-7,9" LABEL AS "TUNNEL SECURITY CABINET".
 - (1) 4" CONDUIT WITH (4) 1/4" INNER-DUCTS AND PULL STRINGS TO CENTER ELECTRICAL NICHE SECURITY CABINET.
 - (1) 1" CONDUIT WITH PULL STRING TO SECURITY CAMERA LOCATION, EXTEND CONDUIT TO ADDITIONAL CAMERAS AS REQUIRED BY SECURITY CONSULTANT PROVIDE J-BOXES AS REQUIRED.

- 2*10, 1/2" GRD-1" C. HOMERUN TO (1) 1P-20A CIRCUIT BREAKER IN EMERGENCY PANELBOARD "LWA-2" LABEL AS "SECURITY CAMERAS".
- 36" W X 36" H X 12" D NEMA 3R LOCKABLE ENCLOSURE WITH INTERIOR BACK PLATE MOUNTED AT 6'-0" A.F.F. LABEL ENCLOSURE AS "EAST ELECTRICAL NICHE SECURITY CABINET" AND PROVIDE THE FOLLOWING:
 - 2*12, 1/2" GRD-3/4" C. HOMERUN TO (1) 1P-20A CIRCUIT BREAKER IN EMERGENCY PANELBOARD "LEA-2,4", LABEL AS "NICHE SECURITY EQUIPMENT".
 - (1) 4" CONDUIT WITH (4) 1/4" INNER-DUCTS AND PULL STRINGS TO EAST ENTRANCE SECURITY CABINET. REF. SHEET E156 KEY NOTE *1.
 - (1) 1" CONDUIT WITH PULL STRING TO SECURITY CAMERA LOCATION, EXTEND CONDUIT TO ADDITIONAL CAMERAS AS REQUIRED BY SECURITY CONSULTANT PROVIDE J-BOXES AS REQUIRED.
 - 2*10, 1/2" GRD-1" C. HOMERUN TO (1) 1P-20A CIRCUIT BREAKER IN EMERGENCY PANELBOARD "LEA-6", LABEL AS "SECURITY CAMERAS".
- 36" W X 36" H X 12" D NEMA 3R LOCKABLE ENCLOSURE WITH INTERIOR BACK PLATE MOUNTED AT 6'-0" A.F.F. LABEL ENCLOSURE AS "CENTER ELECTRICAL NICHE SECURITY CABINET" AND PROVIDE THE FOLLOWING:
 - 2*12, 1/2" GRD-3/4" C. HOMERUN TO (1) 1P-20A CIRCUIT BREAKER IN EMERGENCY PANELBOARD "LCA-3,5", LABEL AS "NICHE SECURITY EQUIPMENT".
 - (1) 4" CONDUIT WITH PULL STRINGS TO EAST ELECTRICAL NICHE SECURITY CABINET.
 - (1) 1" CONDUIT WITH PULL STRING TO SECURITY CAMERA LOCATION, EXTEND CONDUIT TO ADDITIONAL CAMERAS AS REQUIRED BY SECURITY CONSULTANT PROVIDE J-BOXES AS REQUIRED.
 - 2*10, 1/2" GRD-1" C. HOMERUN TO (1) 1P-20A CIRCUIT BREAKER IN EMERGENCY PANELBOARD "LCA-7", LABEL AS "SECURITY CAMERAS".

CHANGE ORDER		HDR	5-27-98
ADDENDUM No.1		HDR	2-12-97
No.	REVISION	BY	DATE

TEXAS TURNPIKE AUTHORITY
ADDISON AIRPORT TUNNEL

PARTIAL PLANS
FINAL RECORD
DRAWING
Date: 12/25/99

HDR Engineering, Inc.

SECTION XIII

DRAWN: WTD	DATE: 12/05/98	DESIGNED: LR	DATE: 08/28/98
CHECKED: BL	DATE: 08/28/98	SCALE: NONE	

CONTRACT No. DNT-260 SHEET E160 OF 166



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LEOPOLDO F. RIOS, P.E., 58272 ON MAY 14, 1998

FILE: p:\additun\dgn\additue08.dgn DATE: 23-Apr-96 20:01