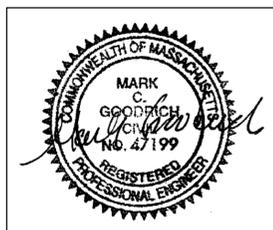


# NORWOOD MEMORIAL AIRPORT

111 ACCESS ROAD, BUILDING 9  
NORWOOD, MASSACHUSETTS 02062

## CONSTRUCT RUNWAY 17 AND RUNWAY 35 EXTENSION (300' X 100' EACH)

**AIP NO. 3-25-0037-xxx-2026**

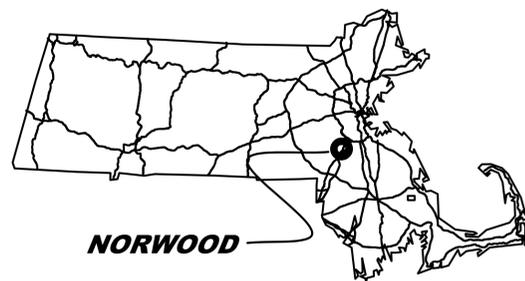


**BID PLANS  
NOT FOR CONSTRUCTION**

**3/23/2026**

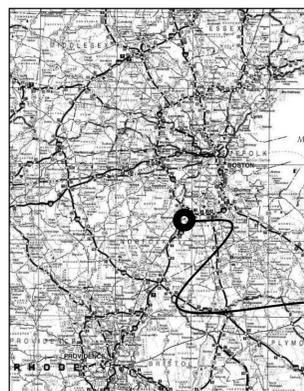
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NORWOOD

VICINITY MAP  
SCALE: NOT TO SCALE



PROJECT LOCATION

LOCUS MAP  
SCALE: NOT TO SCALE

THESE PLANS AND SPECIFICATIONS ARE IN ACCORDANCE WITH CRITERIA IN CURRENT FAA ADVISORY CIRCULARS AS OF MARCH 5, 2025

AIRPORT DESIGN CRITERIA:  
RDC: B-II-NON-PRECISION  
RSA: 150'  
ROFA: 500'  
TDG: 2B



Federal Aviation Administration

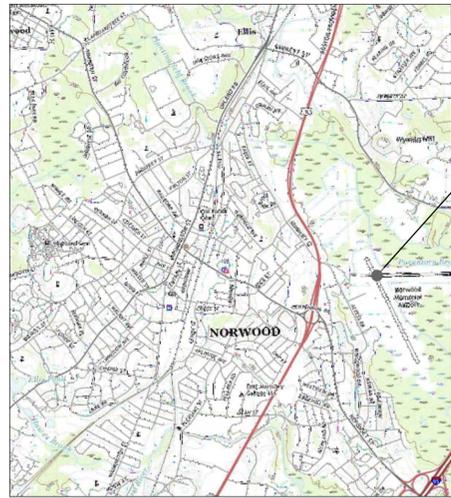


NORWOOD AIRPORT COMMISSION  
TOWN OF NORWOOD, MASSACHUSETTS

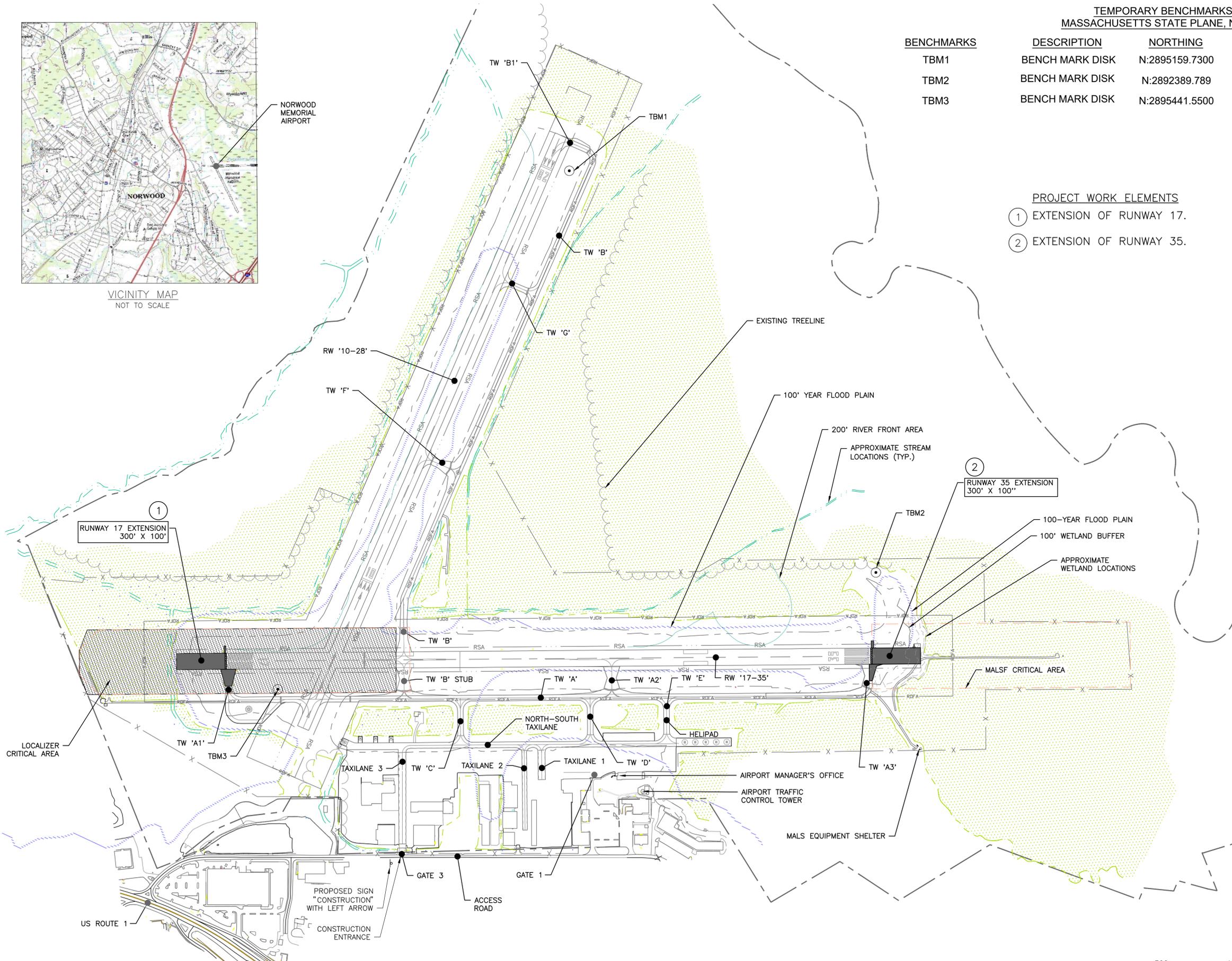
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DRAWN BY: DSP	DATE: MARCH 2026
CHECKED BY: JAA	PROJECT NO.: 329163
PROJECT ENG: MCG	DRAW NO.: G1.1





VICINITY MAP  
NOT TO SCALE



TEMPORARY BENCHMARKS  
MASSACHUSETTS STATE PLANE, NAD 83

BENCHMARKS	DESCRIPTION	NORTHING	EASTING	ELEVATION
TBM1	BENCH MARK DISK	N:2895159.7300	E:747105.8400	44.80
TBM2	BENCH MARK DISK	N:2892389.789	E:745658.540	69.39
TBM3	BENCH MARK DISK	N:2895441.5500	E:743439.0900	46.90

PROJECT WORK ELEMENTS

- ① EXTENSION OF RUNWAY 17.
- ② EXTENSION OF RUNWAY 35.



LEGEND

- EXISTING PAVEMENT EDGE
- - - AIRPORT PROPERTY LINE
- ▨ PROPOSED PAVEMENT
- EXTENSION PAVEMENT REMOVAL
- BENCHMARK AND DESIGNATION
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RVZ — RUNWAY VISIBILITY ZONE
- TOFA — TAXIWAY OBJECT FREE AREA
- RIVERFRONT AREA
- - - 100-YEAR WETLAND BUFFER
- ▨ 100-YEAR FLOOD PLAIN
- ▨ WETLAND
- ~ TREELINE

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BY	CHK'D	DATE	NO.	DESCRIPTION

NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT RUNWAY 17-35  
EXTENSION (600' x 100')

SHEET TITLE

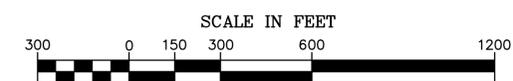
GENERAL PLAN

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER

**G1.3**

SHEET 3 OF 43



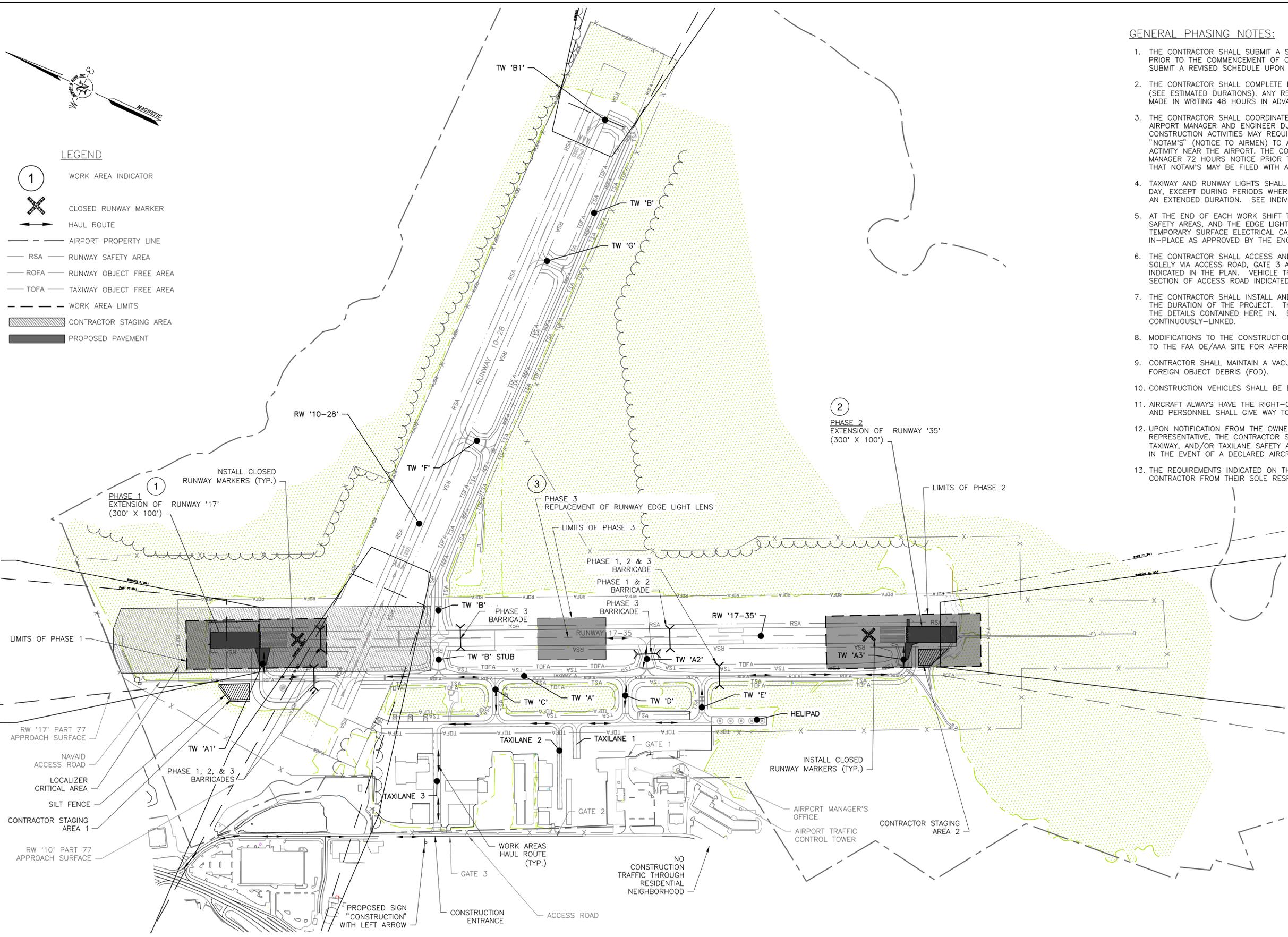
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**LEGEND**

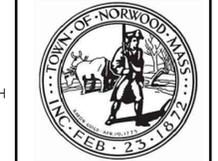
- ① WORK AREA INDICATOR
- CLOSED RUNWAY MARKER
- HAUL ROUTE
- AIRPORT PROPERTY LINE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- WORK AREA LIMITS
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT



**GENERAL PHASING NOTES:**

1. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF WORK TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A REVISED SCHEDULE UPON REQUEST FROM THE ENGINEER.
2. THE CONTRACTOR SHALL COMPLETE EACH PHASE IN THE TIME ALLOTTED (SEE ESTIMATED DURATIONS). ANY REQUESTS FOR EXTENSION SHALL BE MADE IN WRITING 48 HOURS IN ADVANCE.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE AIRPORT MANAGER AND ENGINEER DURING WEEKLY CONSTRUCTION MEETINGS. CONSTRUCTION ACTIVITIES MAY REQUIRE THE AIRPORT MANAGER TO FILE "NOTAM'S" (NOTICE TO AIRMEN) TO ALERT PILOTS OF CONSTRUCTION ACTIVITY NEAR THE AIRPORT. THE CONTRACTOR SHALL GIVE THE AIRPORT MANAGER 72 HOURS NOTICE PRIOR TO ALL CONSTRUCTION ACTIVITIES SO THAT NOTAM'S MAY BE FILED WITH APPROPRIATE NOTICE.
4. TAXIWAY AND RUNWAY LIGHTS SHALL BE OPERATIONAL AT THE END OF EACH DAY, EXCEPT DURING PERIODS WHERE THE RUNWAY REMAINS CLOSED FOR AN EXTENDED DURATION. SEE INDIVIDUAL PHASES.
5. AT THE END OF EACH WORK SHIFT THE CONTRACTOR SHALL RESTORE SAFETY AREAS, AND THE EDGE LIGHT SYSTEMS SHALL BE OPERATIONAL. TEMPORARY SURFACE ELECTRICAL CABLES MAY BE SECURELY ANCHORED IN-PLACE AS APPROVED BY THE ENGINEER.
6. THE CONTRACTOR SHALL ACCESS AND EGRESS THE CONSTRUCTION SITE SOLELY VIA ACCESS ROAD, GATE 3 AND THE CONSTRUCTION HAUL ROUTE INDICATED IN THE PLAN. VEHICLE TRAFFIC SHALL BE LIMITED TO THE SECTION OF ACCESS ROAD INDICATED BY THE HAUL ROUTE ARROWS.
7. THE CONTRACTOR SHALL INSTALL AND MAINTAIN LIGHTED BARRICADES FOR THE DURATION OF THE PROJECT. THE BARRICADES SHALL CONFORM TO THE DETAILS CONTAINED HERE IN. BARRICADES SHALL BE CONTINUOUSLY-LINKED.
8. MODIFICATIONS TO THE CONSTRUCTION SAFETY PLAN MUST BE SUBMITTED TO THE FAA OE/AAA SITE FOR APPROVAL.
9. CONTRACTOR SHALL MAINTAIN A VACUUM TRUCK ON SITE FOR REMOVAL OF FOREIGN OBJECT DEBRIS (FOD).
10. CONSTRUCTION VEHICLES SHALL BE ESCORTED ON AND OFF THE AIRFIELD.
11. AIRCRAFT ALWAYS HAVE THE RIGHT-OF-WAY, AND CONSTRUCTION VEHICLES AND PERSONNEL SHALL GIVE WAY TO AIRCRAFT.
12. UPON NOTIFICATION FROM THE OWNER, ENGINEER, OR OFFICIAL DESIGNATED REPRESENTATIVE, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE RUNWAY, TAXIWAY, AND/OR TAXILANE SAFETY AREAS OF EQUIPMENT AND PERSONNEL IN THE EVENT OF A DECLARED AIRCRAFT EMERGENCY.
13. THE REQUIREMENTS INDICATED ON THIS PLAN DO NOT RELEASE THE CONTRACTOR FROM THEIR SOLE RESPONSIBILITY FOR CONSTRUCTION SAFETY.

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BY	DATE	NO.	DESCRIPTION
CKD			

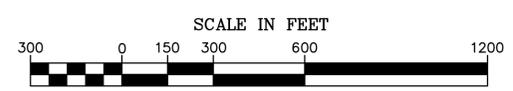
**NORWOOD MEMORIAL AIRPORT**  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
 OVERALL CONSTRUCTION SAFETY AND PHASING PLAN

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

**SHEET NUMBER**  
**S1.0**  
 SHEET 5 OF 43



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## WORK AREA 2

### MAJOR WORK ITEMS

1. INSTALL EPSC MEASURES.
2. REMOVE EXISTING PAVEMENT.
3. REMOVE EXISTING THRESHOLD LIGHTS.
4. INSTALL PAVEMENT, BASE AND SUBBASE MATERIALS.
5. CONSTRUCT MALSF MODIFICATIONS.
6. INSTALL LIGHTING AND PAVEMENT MARKINGS.
7. INSTALL LOAM AND SEED.

### CONSTRUCTION SAFETY GENERAL NOTES:

1. CONTRACTOR SHALL INSTALL LIGHTED BARRICADES AS INDICATED IN THE SAFETY PLAN. BARRICADES SHALL BE LAID END TO END. SEE CSPP BARRICADE DETAILS.
2. CONTRACTOR SHALL SEPARATE CONSTRUCTION AREAS FROM ACTIVE AIRPORT OPERATIONS AREAS WITH BARRICADES AND/OR SNOFENCE, AS IDENTIFIED ON EACH WORK AREA SAFETY PLAN.
3. NO SNOW FENCE OR DEMARCATION FENCE SHALL BE PLACED WITHIN THE RUNWAY SAFETY AREA OR TAXIWAY OBJECT FREE AREA UNLESS THOSE PAVEMENTS ARE CLOSED TO AIRCRAFT.
4. CONSTRUCTION ACTIVITIES MAY REQUIRE VEHICLES TO CROSS AIRPORT PAVEMENTS. CONTRACTOR SHALL MAINTAIN A VACUUM TRUCK ON SITE FOR REMOVING FOREIGN OBJECT DEBRIS (FOD).

### WORK AREA 2 RESTRICTIONS ON CONSTRUCTION

1. CONSTRUCTION ACTIVITIES ARE RESTRICTED TO BETWEEN 7:00 AM AND 7:00 PM MONDAY THROUGH SATURDAY. NO CONSTRUCTION MAY BE PERFORMED ON SUNDAY.

### WORK AREA 2 NOTES:

1. CONSTRUCTION OF WORK AREA 2 INCLUDES:
  - EXTENSION OF RUNWAY '35'
  - WORK AREAS 1, 2 AND 3 SHALL BE WORKED ON CONCURRENTLY.

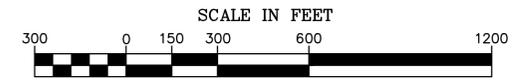
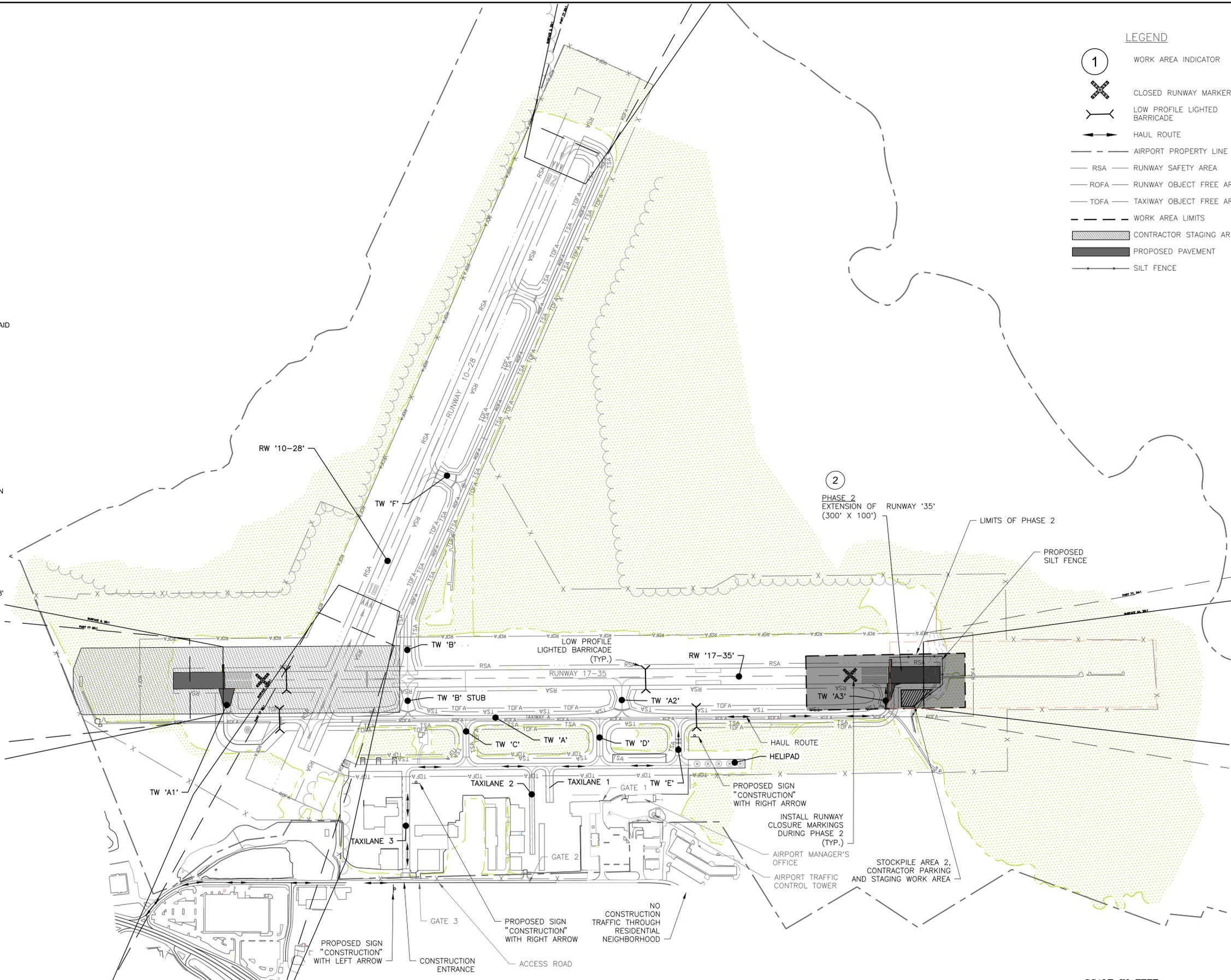
LOCATION: RUNWAY '35' LOCATED OUTSIDE THE RUNWAY '10-28' OBJECT FREE AREA.  
DURATION: 30 DAYS

### AIRPORT AREAS IMPACTED:

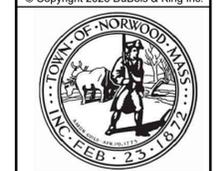
1. RUNWAY '17-35' SHALL BE CLOSED.
2. TAXIWAY 'A3' AND PORTIONS OF EXISTING TAXIWAY 'A' SOUTH OF TAXIWAY 'E' SHALL BE CLOSED FOR THE DURATION OF THIS PHASE.
3. TAXIWAY 'E' WILL REMAIN OPEN AND SHARED BY CONSTRUCTION VEHICLES AS A HAUL ROUTE.
4. APRON: THE EAST SIDE OF APRON BETWEEN TAXILANE '3' AND TAXIWAY 'E' WILL REMAIN OPEN AND SHARED BY CONSTRUCTION VEHICLES AS A HAUL ROUTE.
5. TAXILANE '3' WILL REMAIN OPEN AND SHARED BY CONSTRUCTION VEHICLES AS A HAUL ROUTE.

**LEGEND**

- ① WORK AREA INDICATOR
- ✕ CLOSED RUNWAY MARKER
- LOW PROFILE LIGHTED BARRICADE
- ↔ HAUL ROUTE
- AIRPORT PROPERTY LINE
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- WORK AREA LIMITS
- ▨ CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT
- SILT FENCE



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BY	CHK'D	DATE	DESCRIPTION	NO.

**NORWOOD MEMORIAL AIRPORT**  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
CONSTRUCTION SAFETY & PHASING PLAN - PHASE 2

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

**SHEET NUMBER**  
**S1.2**  
SHEET 7 OF 43

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### WORK AREA 3

- MAJOR WORK ITEMS**
1. REPLACE EXISTING RUNWAY EDGE LIGHT LENSES

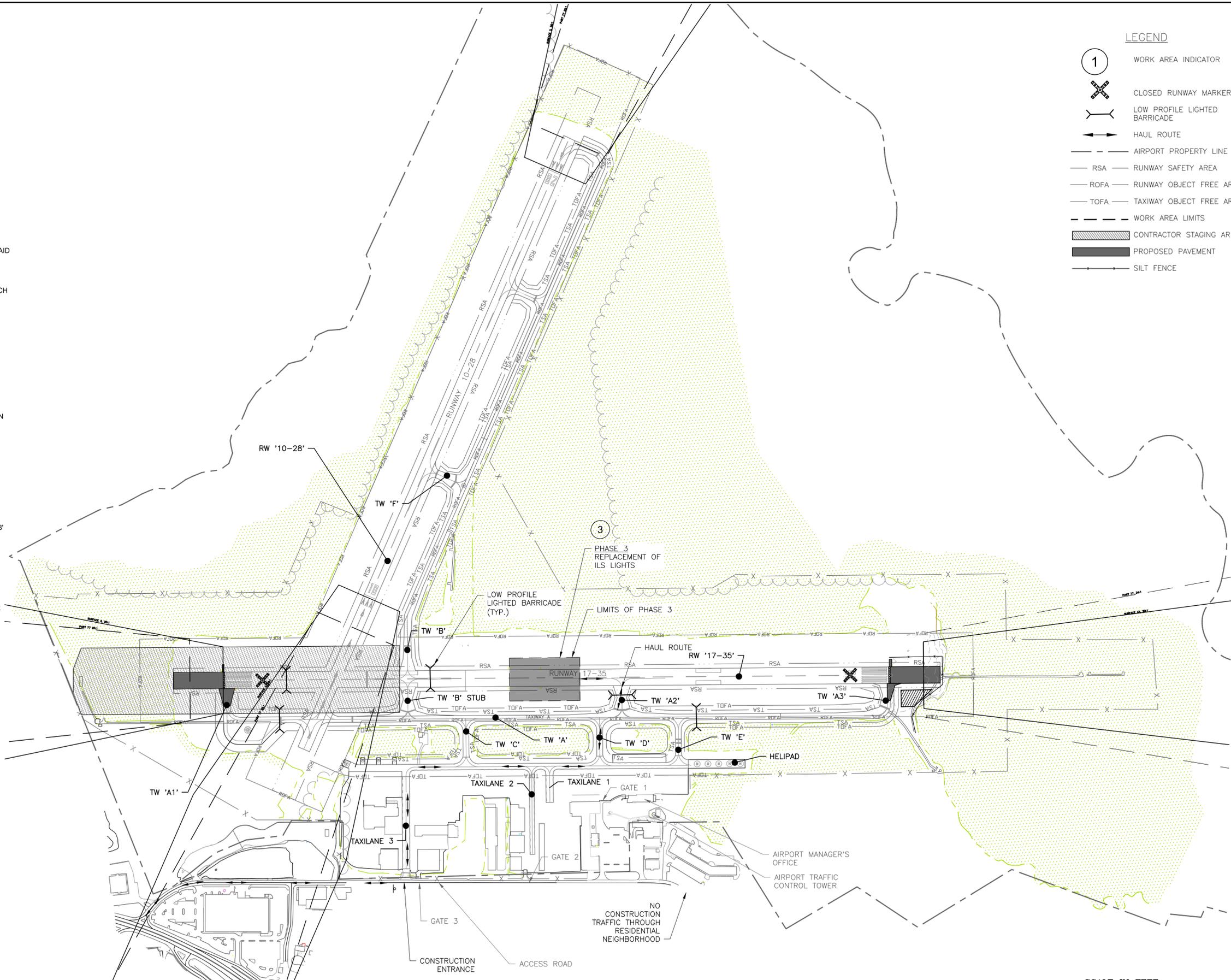
- CONSTRUCTION SAFETY GENERAL NOTES:**
1. CONTRACTOR SHALL INSTALL LIGHTED BARRICADES AS INDICATED IN THE SAFETY PLAN. BARRICADES SHALL BE LAID END TO END. SEE CSCP BARRICADE DETAILS.
  2. CONTRACTOR SHALL SEPARATE CONSTRUCTION AREAS FROM ACTIVE AIRPORT OPERATIONS AREAS WITH BARRICADES AND/OR SNOW FENCE, AS IDENTIFIED ON EACH WORK AREA SAFETY PLAN.
  3. NO SNOW FENCE OR DEMARCATION FENCE SHALL BE PLACED WITHIN THE RUNWAY SAFETY AREA OR TAXIWAY OBJECT FREE AREA UNLESS THOSE PAVEMENTS ARE CLOSED TO AIRCRAFT.
  4. CONSTRUCTION ACTIVITIES MAY REQUIRE VEHICLES TO CROSS AIRPORT PAVEMENTS. CONTRACTOR SHALL MAINTAIN A VACUUM TRUCK ON SITE FOR REMOVING FOREIGN OBJECT DEBRIS (FOD).

- WORK AREA 3 RESTRICTIONS ON CONSTRUCTION**
1. CONSTRUCTION ACTIVITIES ARE RESTRICTED TO BETWEEN 7:00 AM AND 7:00 PM MONDAY THROUGH SATURDAY. NO CONSTRUCTION MAY BE PERFORMED ON SUNDAY.

- WORK AREA 2 NOTES:**
1. CONSTRUCTION OF WORK AREA 3 INCLUDES:
    - REPLACEMENT OF RUNWAY EDGE LIGHT LENSES ON RUNWAY '17-35'
    - WORK AREAS 1, 2 AND 3 SHALL BE WORKED ON CONCURRENTLY.

LOCATION: RUNWAY '35' LOCATED OUTSIDE THE RUNWAY '10-28' OBJECT FREE AREA.  
DURATION: 1 DAYS

- AIRPORT AREAS IMPACTED:**
1. RUNWAY '17-35' SHALL BE CLOSED.
  2. TAXIWAY 'A3', TAXIWAY 'E', AND PORTIONS OF EXISTING TAXIWAY 'A' SOUTH OF TAXIWAY 'E' SHALL BE CLOSED FOR THE DURATION OF THIS PHASE.
  3. TAXIWAY 'D' WILL REMAIN OPEN AND SHARED BY CONSTRUCTION VEHICLES AS A HAUL ROUTE.
  4. TAXIWAY 'A2' SHALL BE USED AS A CONSTRUCTION HAUL ROUTE ONLY AND SHALL BE CLOSED TO ALL AIRPORT TRAFFIC FOR THE DURATION OF THIS PHASE.
  5. APRON: THE EAST SIDE OF APRON BETWEEN TAXILANE '3' AND TAXIWAY 'E' WILL REMAIN OPEN AND SHARED BY CONSTRUCTION VEHICLES AS A HAUL ROUTE.
  6. TAXILANE '3' WILL REMAIN OPEN AND SHARED BY CONSTRUCTION VEHICLES AS A HAUL ROUTE.



**LEGEND**

- ① WORK AREA INDICATOR
- ✕ CLOSED RUNWAY MARKER
- LOW PROFILE LIGHTED BARRICADE
- ↔ HAUL ROUTE
- AIRPORT PROPERTY LINE
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- WORK AREA LIMITS
- ▨ CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT
- SILT FENCE

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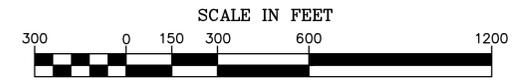
NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')

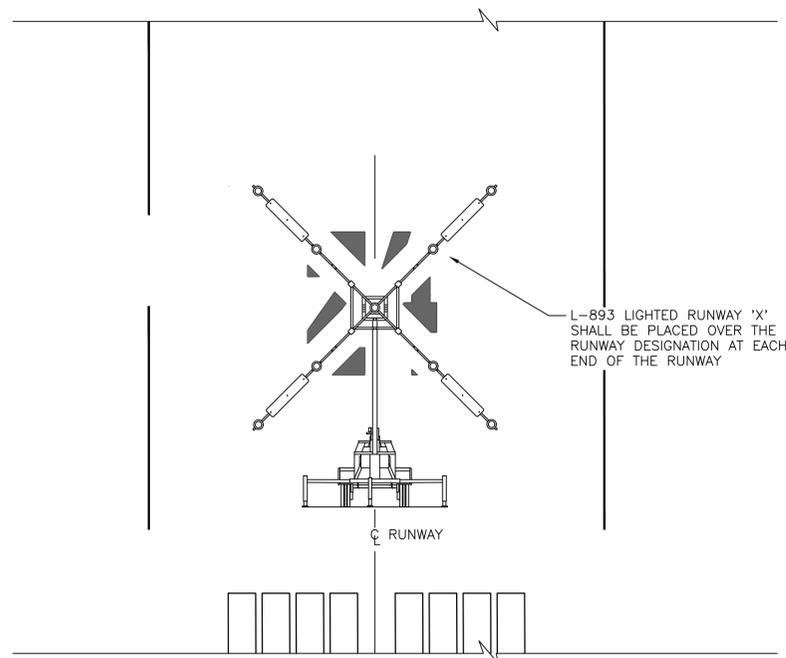
SHEET TITLE  
CONSTRUCTION SAFETY & PHASING PLAN - PHASE 3

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER  
**S1.3**  
SHEET 8 OF 43



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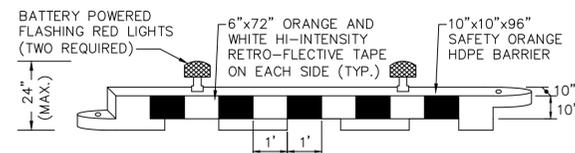


TEMPORARY RUNWAY CLOSURE DETAIL  
NOT TO SCALE

**NOTES:**

1. NO WORK WITHIN THE RUNWAY SAFETY AREA SHALL BE ALLOWED UNTIL THE TEMPORARY RUNWAY CLOSURE MARKINGS HAVE BEEN INSTALLED, ALL RUNWAY LIGHTING AND NAVIGATIONAL POWER IS TURNED OFF AND ALL MEASURES ARE ACCEPTED BY THE ENGINEER.
2. TEMPORARY RUNWAY CLOSURE MARKING IS INTENDED FOR DAYLIGHT HOURS ONLY. ALL MARKINGS TO BE REMOVED AT THE END OF EACH DAY AND ALL RUNWAY LIGHTS AND NAVIGATIONAL EQUIPMENT TO BE RESTORED.
3. RUNWAY X'S ARE LIGHTED L-893 UNITS, AND WILL BE SUPPLIED BY THE AIRPORT.
4. L-893 UNITS ARE POWERED BY A DIESEL GENERATOR. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING FUEL.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TEMPORARY RUNWAY CLOSURE MARKINGS FOR THE DURATION OF HIS WORK. ALL COSTS ASSOCIATED WITH INSTALLING, MAINTAINING AND REMOVING THE TEMPORARY RUNWAY CLOSED MARKINGS SHALL BE INCIDENTAL TO THE PROJECT.

TEMPORARY RUNWAY CLOSURE  
DETAIL  
NOT TO SCALE

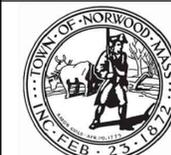


**NOTES:**

1. BARRICADES SHALL BE PLACED END TO END AND PINNED.
2. MAXIMUM SPACES BETWEEN BARRICADES IS 4 FEET.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, MAINTAINING, INSPECTING, REPAIRING, MOVING, AND RELOCATING BARRICADES AS DICTATED BY PROJECT PHASING. THE CONTRACTOR SHALL MAKE FREQUENT INSPECTIONS OF THE BARRICADES AND MAKE PROMPT REPAIRS AS NECESSARY.
4. THERE IS NO PAY ITEM ASSOCIATED WITH LOW PROFILE LIGHTED BARRICADES. THE WORK INVOLVED IN PROVIDING, INSTALLING, OPERATING, AND RELOCATING SHALL BE SUBSIDIARY TO THE PROJECT.

TYPICAL PLASTIC TYPE LOW PROFILE  
LIGHTED BARRICADE DETAIL  
NOT TO SCALE

I:\3\329163 - Norwood Airport Runway 17-35 Extension\Drawings\329163\_PDE\_CSPR\_Det.dwg FEBRUARY 2024



NO.	DATE	DESCRIPTION	BY	CHK'D

NORWOOD  
MEMORIAL  
AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE  
  
SAFETY AREA  
DETAILS

DRAWN BY DSP	DATE MAR. 2026
CHECKED BY JAA	D&K PROJECT # 329163
PROJ. ENG. MCG	D&K ARCHIVE #

SHEET NUMBER  
**S2.1**  
SHEET 9 OF 43





NO.	DATE	DESCRIPTION	BY	CHK'D

**NORWOOD MEMORIAL AIRPORT**  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

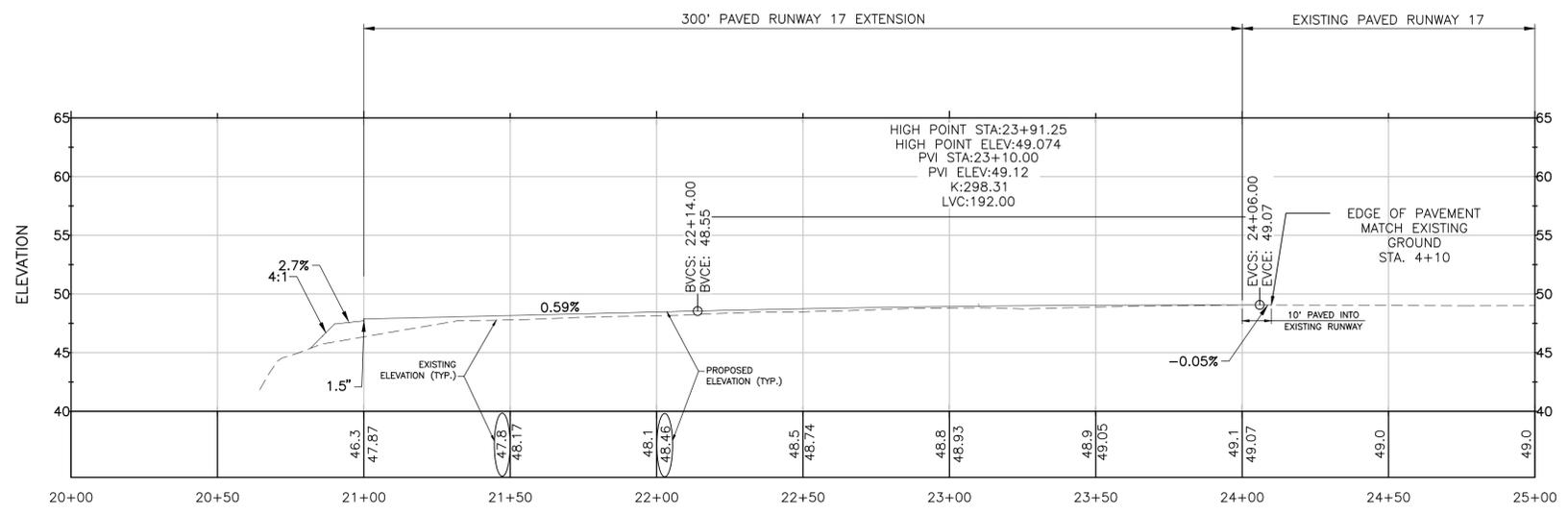
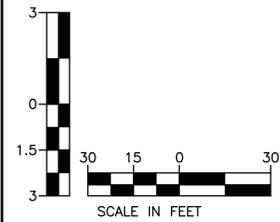
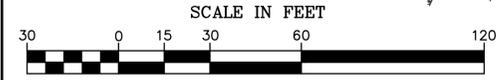
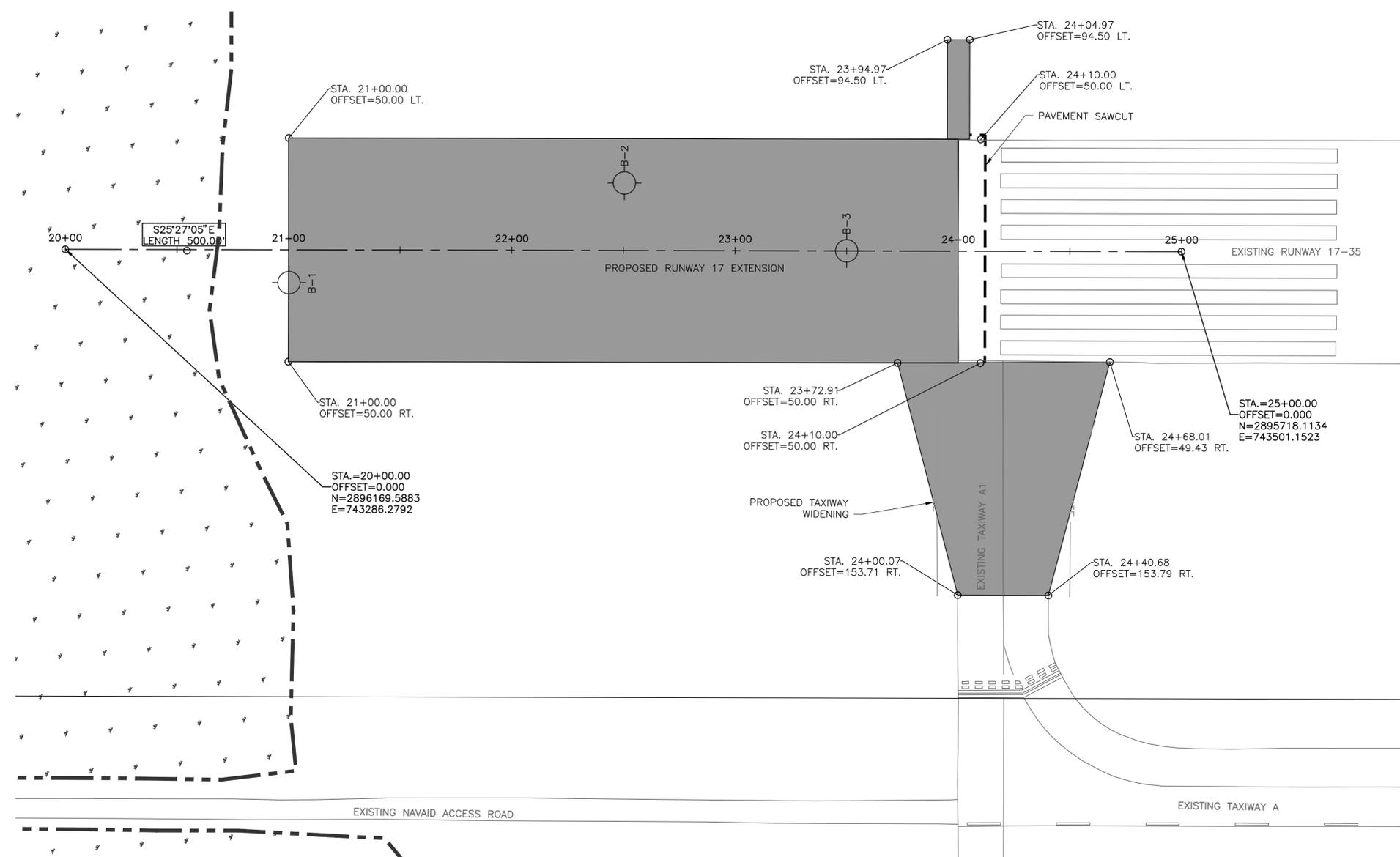
**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
RUNWAY 17 EXTENSION  
CENTERLINE PLAN & PROFILE

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

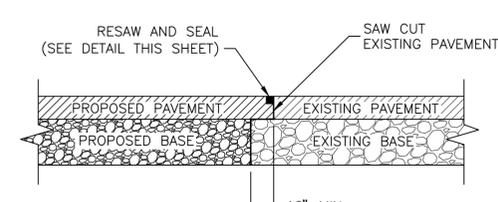
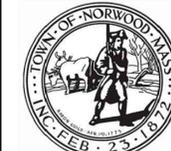
SHEET NUMBER

**C1.1**

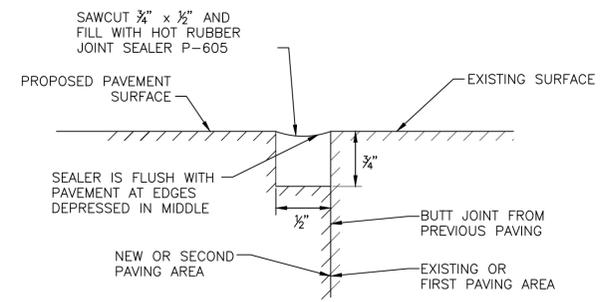


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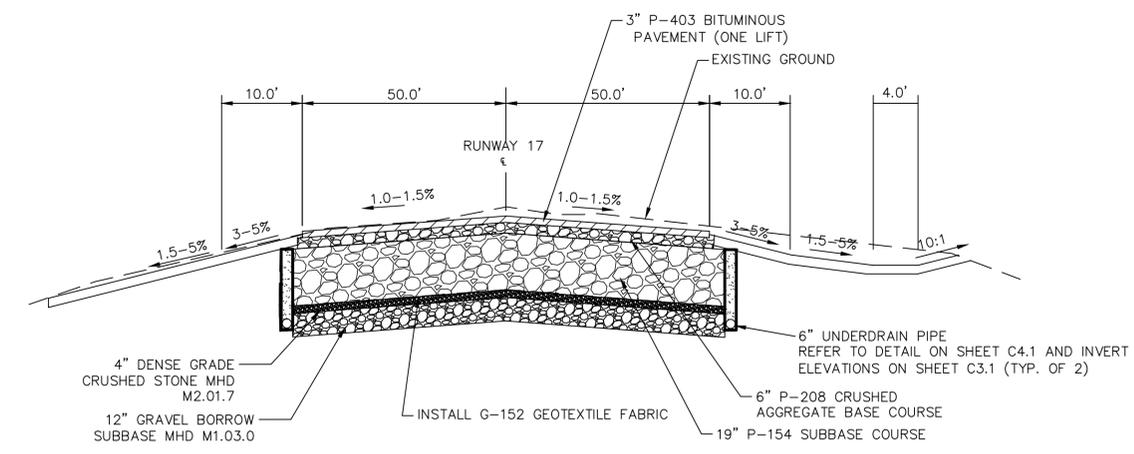




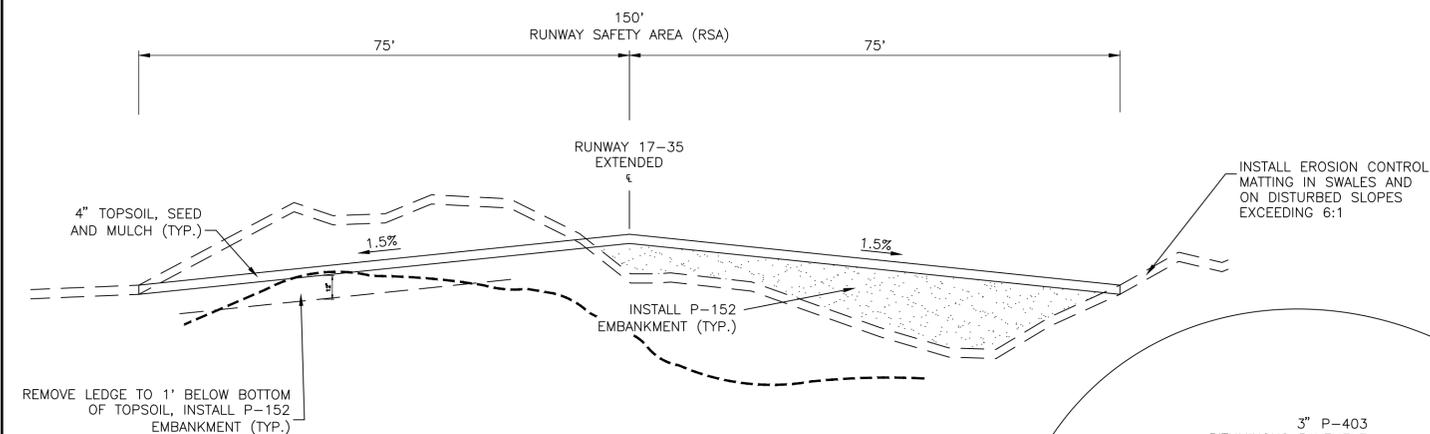
**SAWCUTTING DETAIL**  
NOT TO SCALE



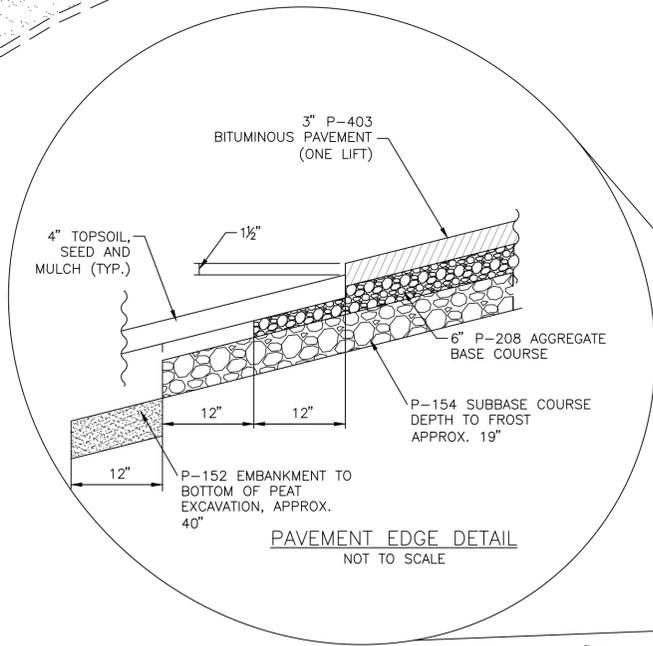
**RESAW AND SEAL DETAIL**  
NOT TO SCALE



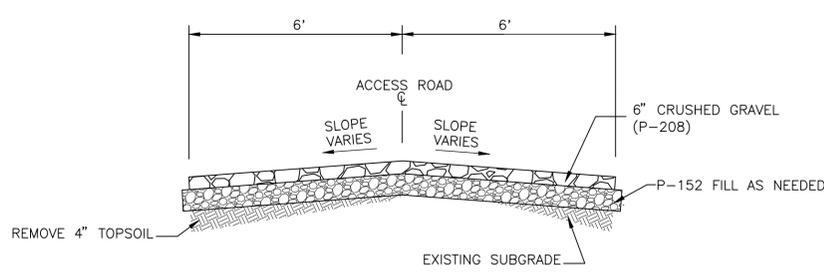
**RW '17' EXTENSION TYPICAL SECTION**  
NOT TO SCALE



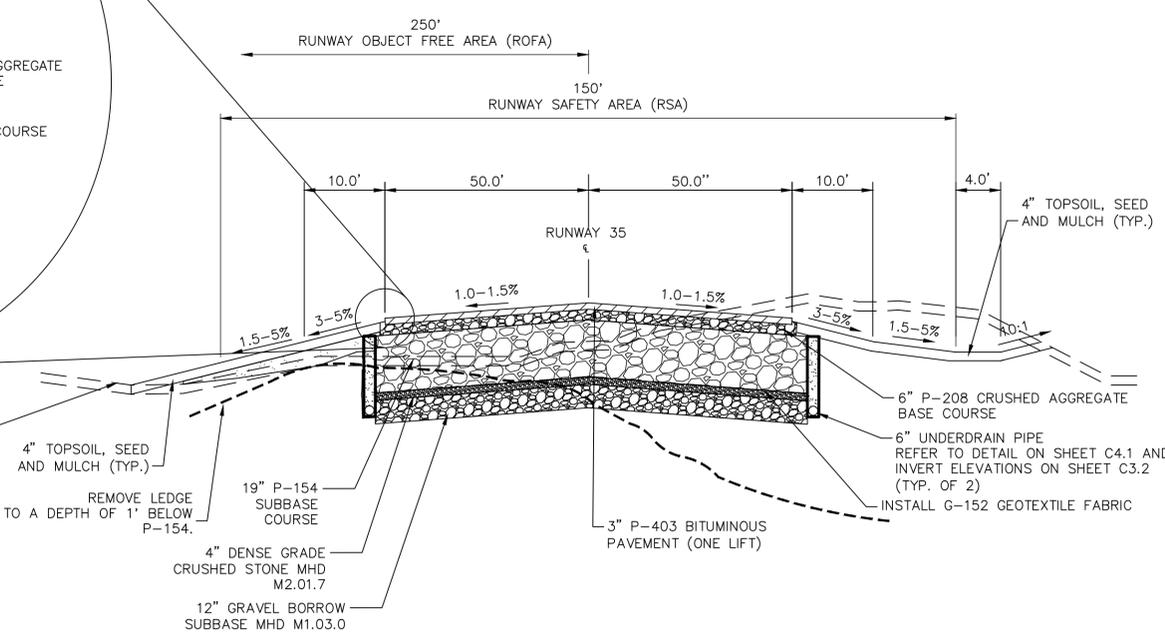
**RUNWAY END SAFETY AREA TYPICAL SECTION**  
NOT TO SCALE



**PAVEMENT EDGE DETAIL**  
NOT TO SCALE



**GRAVEL ACCESS ROAD TYPICAL SECTION**  
NOT TO SCALE



**RUNWAY '35' EXTENSION TYPICAL SECTION**  
NOT TO SCALE

NO.	DATE	DESCRIPTION	BY

**NORWOOD MEMORIAL AIRPORT**  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**TYPICAL SECTIONS**

DRAWN BY	DATE
DSP	MAR. 2026
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JAA	329163
PROJ. ENG.	D&K ARCHIVE #
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SHEET NUMBER

**C2.1**

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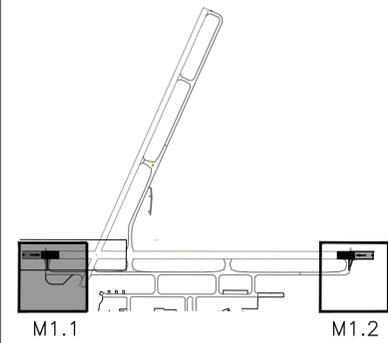
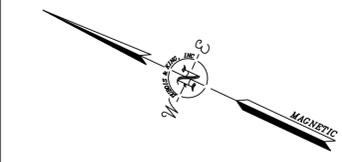
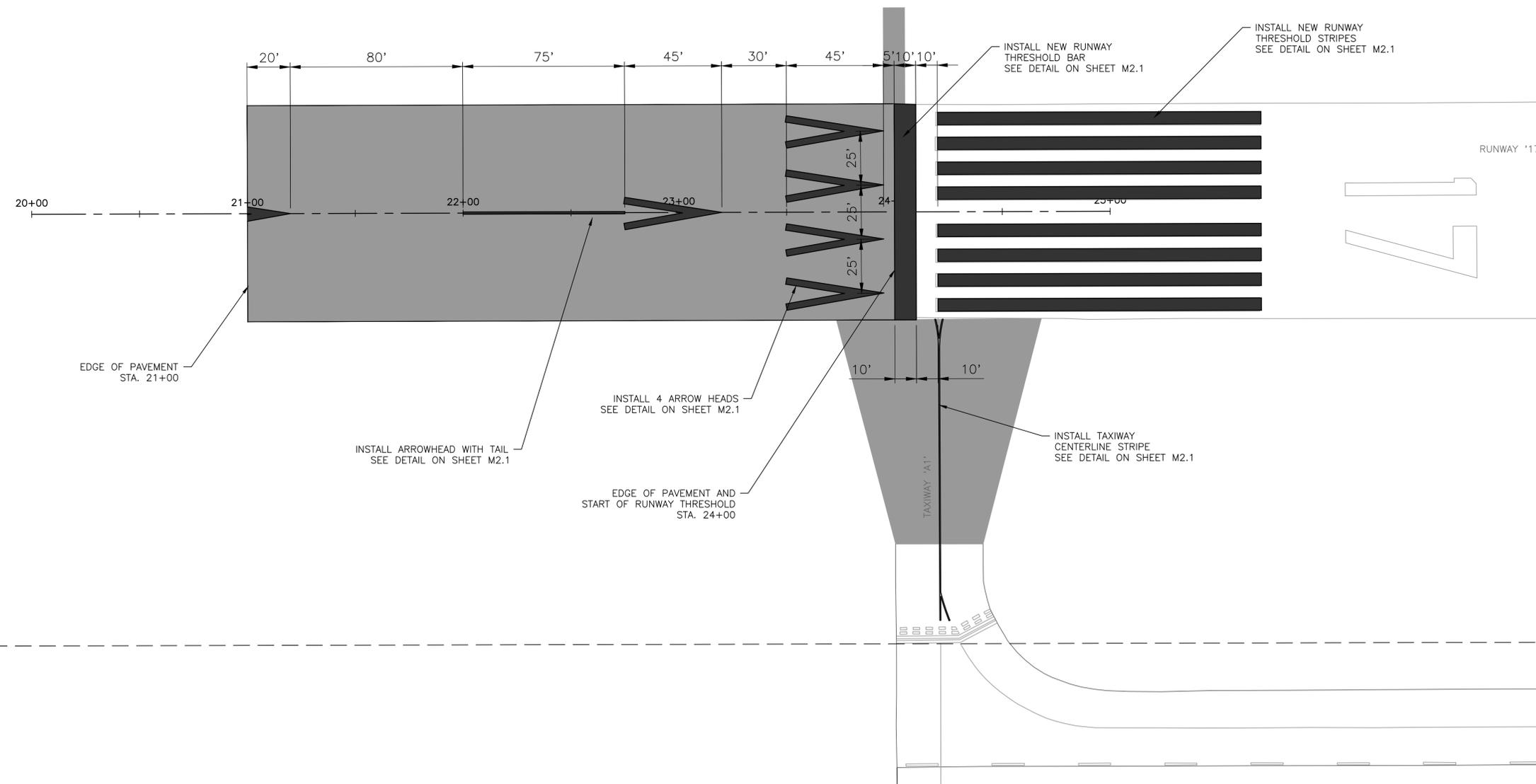








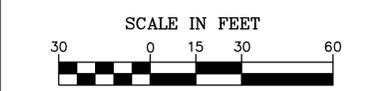
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**LEGEND**

—	EXISTING PAVEMENT EDGE
---	PROPOSED PAVEMENT EXTENSION
- - - -	LOCALIZER CRITICAL AREA

- NOTES:**
- REFER TO "MARKING DETAILS" SHEET FOR MARKING NOTES.
  - REFER TO "DEMOLITION PLAN" SHEETS FOR REMOVAL OF EXISTING MARKINGS.
  - LOCATIONS OF EXISTING MARKINGS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
  - ALL MARKINGS SHALL INCLUDE A 6" BLACK BORDER.
  - TIE INTO EXISTING TAXIWAY CENTERLINE MARKINGS AS ORDERED BY THE ENGINEER.
  - RUNWAY SHALL BE NOTED CLOSED AND RUNWAY CLOSURE MARKERS PLACED AT EITHER END PRIOR TO COMMENCEMENT OF WORK.
  - NO MARKINGS SHALL BE APPLIED UNTIL THE LAYOUT HAS BEEN APPROVED BY THE ENGINEER.
  - EXISTING PAVEMENT SHALL ONLY REQUIRE A SINGLE APPLICATION AT A RATE OF 100%.
  - GLASS SPHERES SHALL BE APPLIED TO ALL MARKINGS EXCEPT BLACK FOR BOTH INITIAL AND FINAL APPLICATIONS



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NO.	DATE	DESCRIPTION	BY	CHK'D

**NORWOOD MEMORIAL AIRPORT**  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

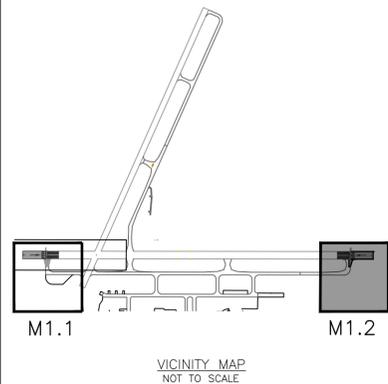
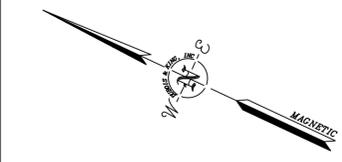
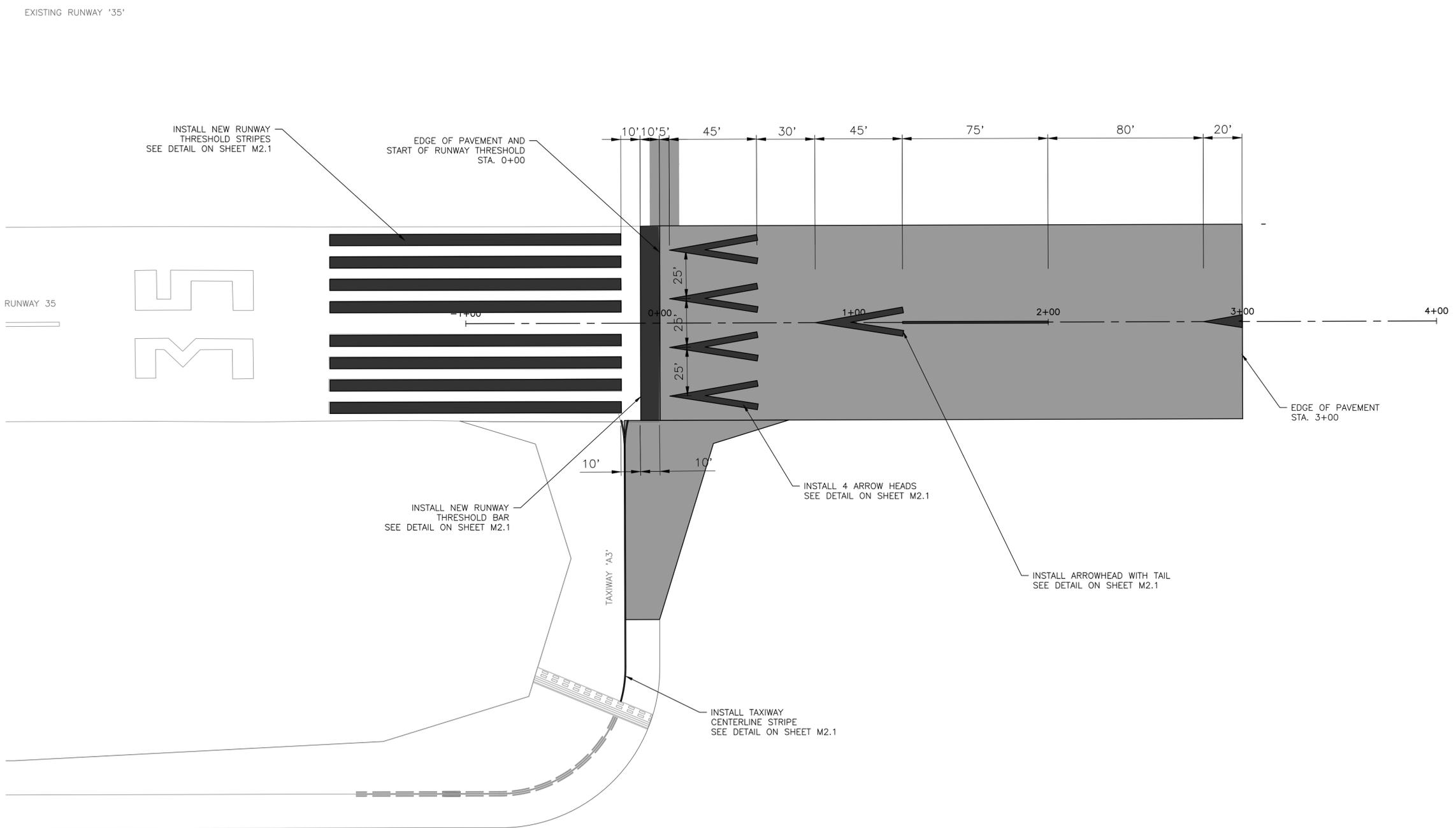
**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
 RUNWAY 17  
 EXTENSION MARKING PLAN

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
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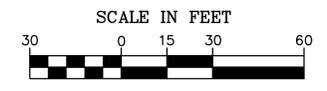
**SHEET NUMBER**  
**M1.1**  
 SHEET 18 OF 43

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**NOTES:**

1. REFER TO "MARKING DETAILS" SHEET FOR MARKING NOTES.
2. REFER TO "DEMOLITION PLAN" SHEETS FOR REMOVAL OF EXISTING MARKINGS.
3. LOCATIONS OF EXISTING MARKINGS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
4. ALL MARKINGS SHALL INCLUDE A 6" BLACK BORDER.
5. TIE INTO EXISTING TAXIWAY CENTERLINE MARKINGS AS ORDERED BY THE ENGINEER.
6. RUNWAY SHALL BE NOTED CLOSED AND RUNWAY CLOSURE MARKERS PLACED AT EITHER END PRIOR TO COMMENCEMENT OF WORK.
7. NO MARKINGS SHALL BE APPLIED UNTIL THE LAYOUT HAS BEEN APPROVED BY THE ENGINEER.
8. EXISTING PAVEMENT SHALL ONLY REQUIRE A SINGLE APPLICATION AT A RATE OF 100%.
9. GLASS SPHERES SHALL BE APPLIED TO ALL MARKINGS EXCEPT BLACK FOR BOTH INITIAL AND FINAL APPLICATIONS



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NO.	DATE	DESCRIPTION	BY

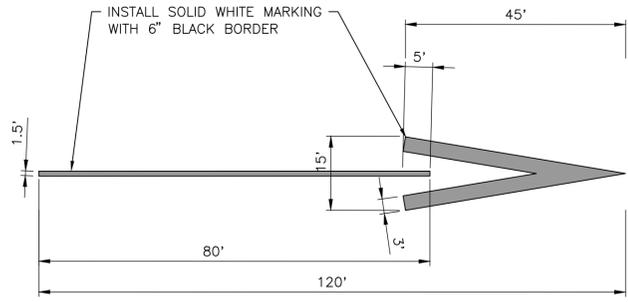
**NORWOOD MEMORIAL AIRPORT**  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

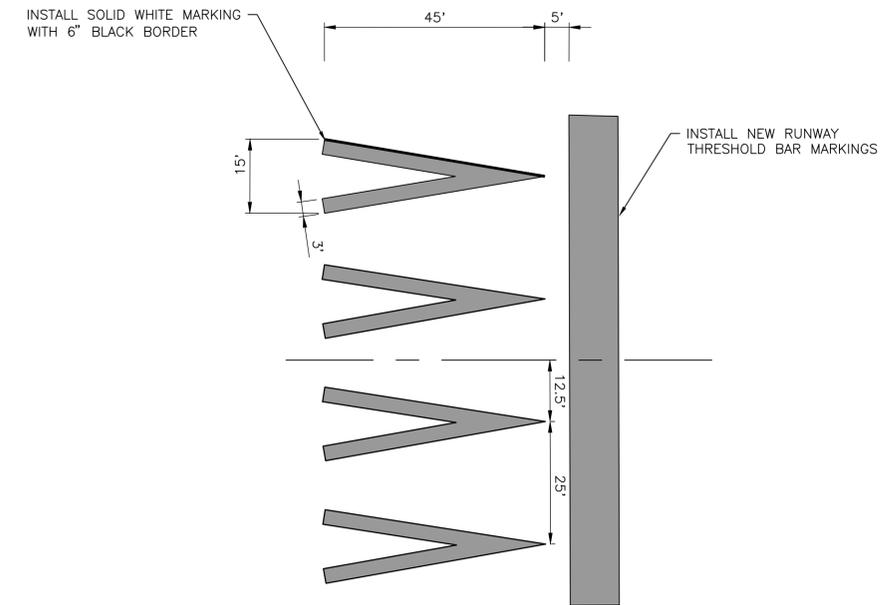
**SHEET TITLE**  
 RUNWAY 35  
 EXTENSION MARKING  
 PLAN

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CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

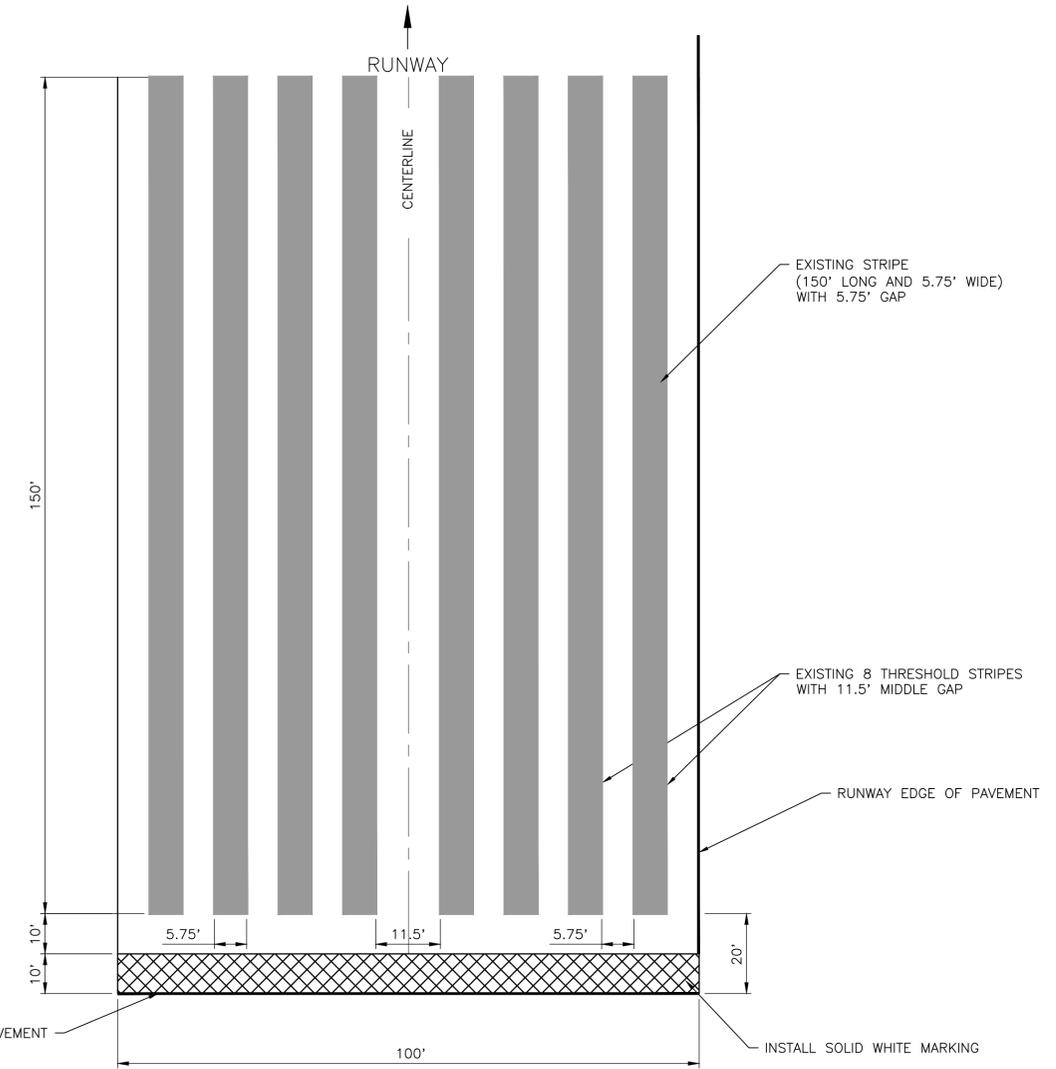
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 M1.2  
 SHEET 19 OF 43



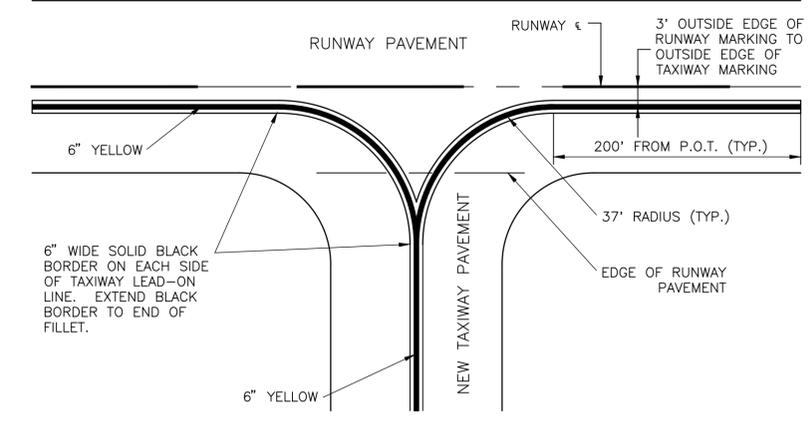
ARROWHEAD WITH TAIL DETAIL  
NOT TO SCALE



ARROWHEAD WITH RUNWAY THRESHOLD BAR DETAIL  
NOT TO SCALE



DISPLACE THRESHOLD BAR DETAIL  
NOT TO SCALE



TAXIWAY CENTERLINE STRIPING DETAIL  
NOT TO SCALE

- NOTES:
- ALL TAXIWAY CENTERLINE MARKINGS TO BE SOLID YELLOW.
  - TAXIWAY CENTERLINE STRIPING TO BE 6" WIDE, PAINTED AVIATION YELLOW (REFLECTORIZED).
  - NEW 6" TAXIWAY CENTERLINE MARKING TO BE ACCOMPANIED BY NEW 6" WIDE BLACK MARKING ON EACH SIDE.
  - PAINT SHALL NOT BE APPLIED UNTIL THE SURFACE HAS BEEN PROPERLY CLEANED ACCORDING TO SPECIFICATIONS.

- PAVEMENT MARKING NOTES:
- RUNWAY SHALL BE NOTED CLOSED AND RUNWAY CLOSURE MARKERS PLACED AT EITHER END PRIOR TO COMMENCEMENT OF WORK.
  - NO MARKINGS SHALL BE APPLIED UNTIL THE LAYOUT HAS BEEN APPROVED BY THE ENGINEER.
  - EXISTING PAVEMENT SHALL ONLY REQUIRE A SINGLE APPLICATION AT A RATE OF 100%.
  - GLASS SPHERES SHALL BE APPLIED TO ALL MARKINGS EXCEPT BLACK FOR BOTH INITIAL AND FINAL APPLICATIONS
  - ALL RUNWAY MARKINGS SHALL BE WHITE AND ENHANCED WITH A SOLID 6" BLACK BORDER.

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DESCRIPTION:   
DATE:   
NO.:

NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')

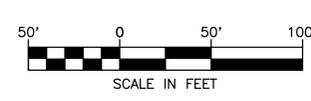
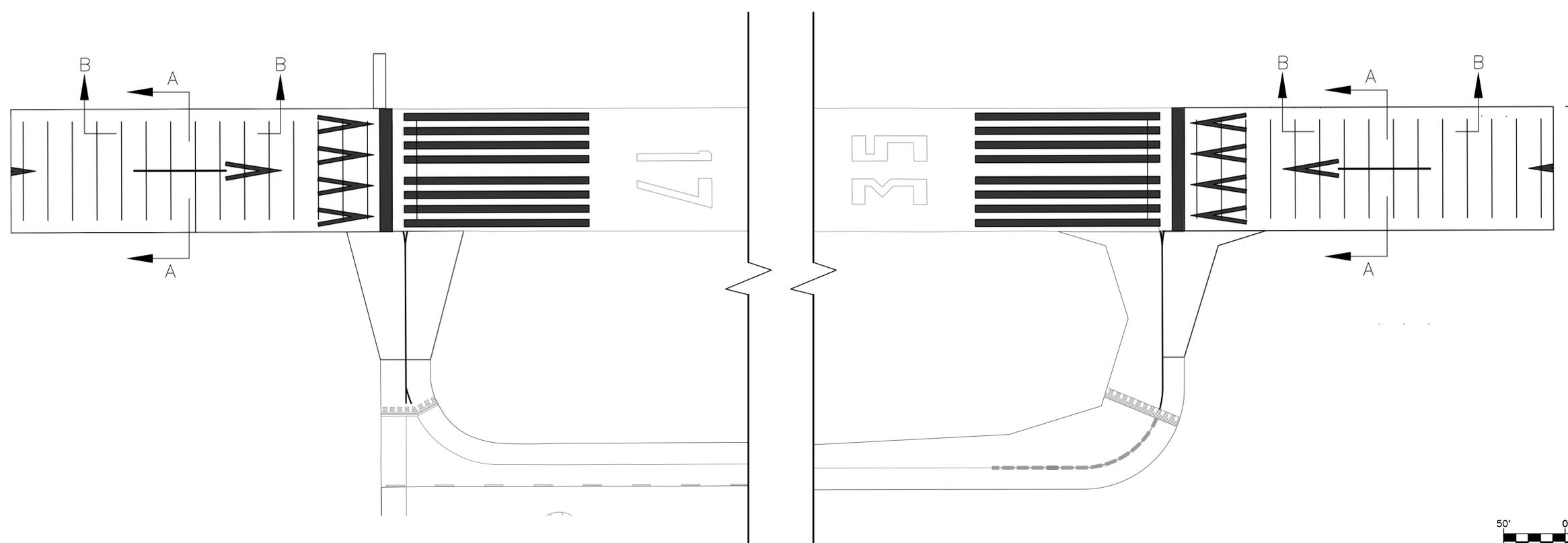
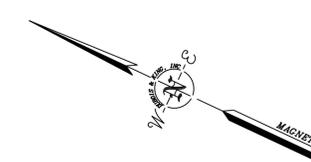
SHEET TITLE  
MARKING DETAILS

DRAWN BY DSP	DATE MAR. 2026
CHECKED BY JAA	D&K PROJECT # 329163
PROJ. ENG. MCG	D&K ARCHIVE #

SHEET NUMBER  
**M2.1**

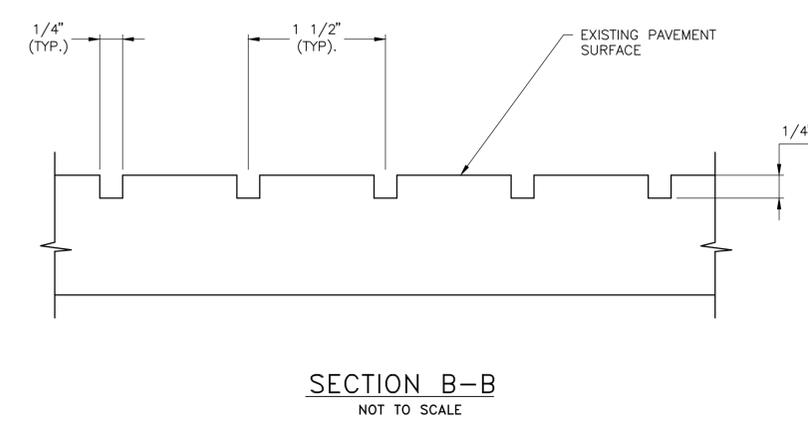
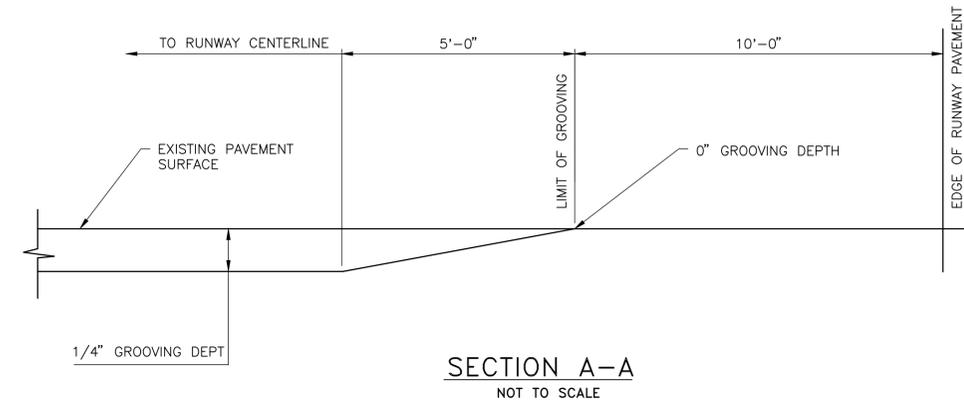
SHEET 20 OF 43

I:\329163 - Norwood Airport Runway 17-35 Extension\Drawings\229163\_PDE\_MarkDet.dwg FEBRUARY 2024



I:\3\329163 - Norwood Airport Runway 17-35 Extension\Drawings\329163\_PDE\_GroovingPlan.dwg | FEBRUARY, 2024

- NOTES:**
1. THE CONTRACTOR SHALL EXERCISE CARE TO PREVENT GROOVING RESIDUE FROM ENTERING THE RUNWAY AND TAXIWAY LIGHTS AND THE EXISTING DRAINAGE SYSTEM. SILTATION CONTROL MEASURES (SILT FENCE, COMPOST FILTER TUBES) ARE REQUIRED.
  2. GROOVING RESIDUE AND DEBRIS SHALL BE FLUSHED FROM RUNWAY SURFACE CONTINUOUSLY DURING GROOVING OPERATIONS AND ALL GROOVING RESIDUE AND DEBRIS SHALL BE COLLECTED, TRANSPORTED AND DISPOSED OF OFF AIRPORT PROPERTY.
  3. GROOVING OPERATIONS SHALL BE CONDUCTED PRIOR TO RUNWAY PAINTING OPERATIONS.
  4. THE CONTRACTOR SHALL ESTABLISH SUFFICIENT CONTROL POINTS ALONG THE RUNWAY TO ENSURE PROPER GROOVE ALIGNMENT, AS DIRECTED BY THE ENGINEER.
  5. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN GROOVING NEAR IN PAVEMENT LIGHT FIXTURES AND SUBSURFACE WIRING. GROOVES SHOULD BE SAWS NO CLOSER THAN 6 INCHES AND NO MORE THAN 18 INCHES FROM IN PAVEMENT LIGHT FIXTURES.



BY	CK'D								
DESCRIPTION									
DATE									
NO.									

NORWOOD  
MEMORIAL  
AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE  
RUNWAY 17-35  
EXTENSION  
GROOVING PLAN

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

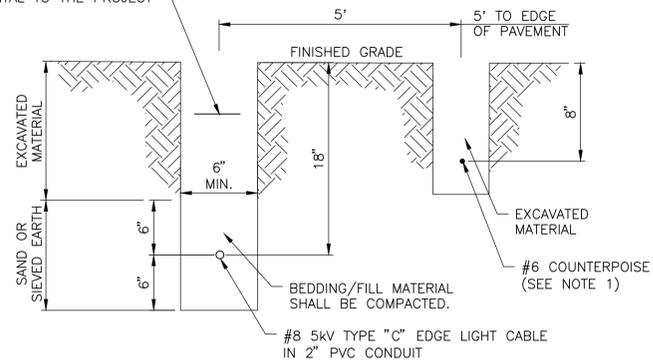
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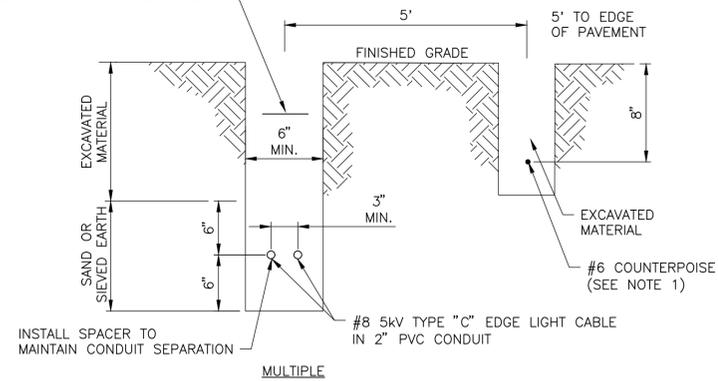


INSTALL AN APPROVED RED PLASTIC, DETECTABLE, MAGNETIC, 4" WIDE TAPE 6" TO 8" BELOW FINISHED GRADE. COST TO BE INCIDENTAL TO THE PROJECT



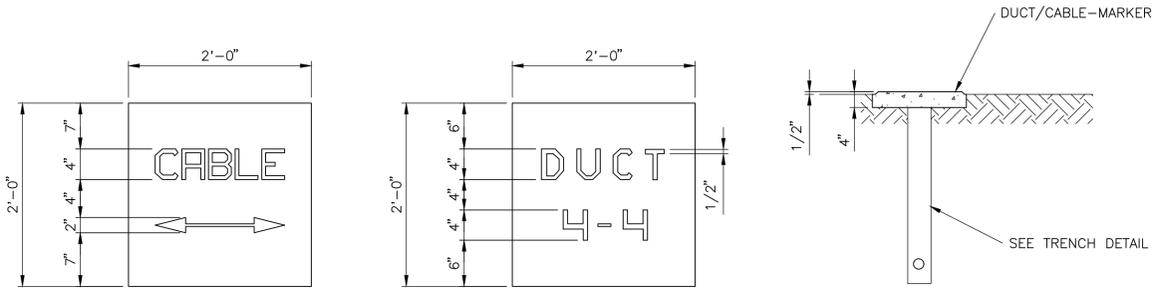
NOTES:  
1. CONTRACTOR MAY NOT PLOW CABLE.

INSTALL AN APPROVED RED PLASTIC, DETECTABLE, MAGNETIC, 4" WIDE TAPE 6" TO 8" BELOW FINISHED GRADE. COST TO BE INCIDENTAL TO THE PROJECT



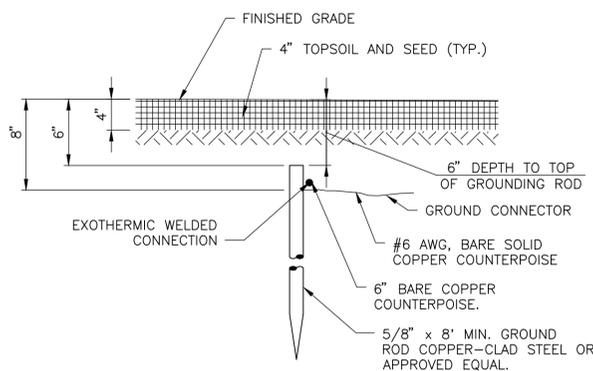
INSTALL SPACER TO MAINTAIN CONDUIT SEPARATION

**DIRECT BURIED CABLE TRENCH**  
NOT TO SCALE



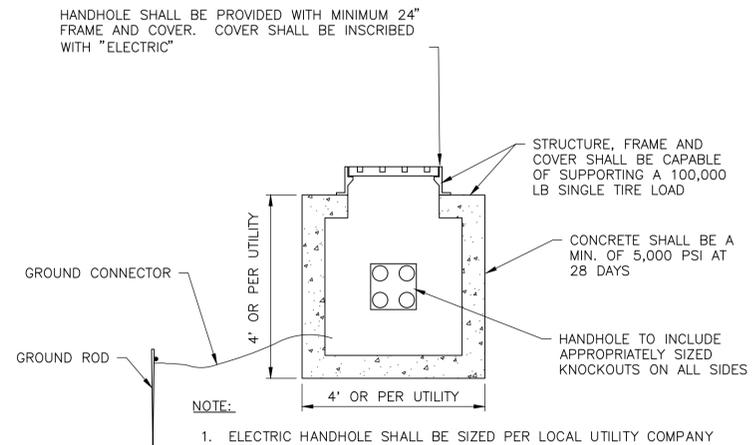
NOTES:  
1. EDGES OF EXPOSED CONCRETE SHALL BE CHAMFERED 1/4"  
2. LETTERS SHALL BE 1/2" WIDE AND IMPRESSED 1/4" INTO CONCRETE  
3. LETTERS SHALL BE 3" WIDE AND 4" TALL  
4. CABLE MARKERS SHALL BE SPACED AT A MAXIMUM OF 200' WITH ADDITIONAL MARKERS AT EACH CHANGE OF DIRECTION

**TYPICAL CABLE/DUCT-MARKER**  
NOT TO SCALE



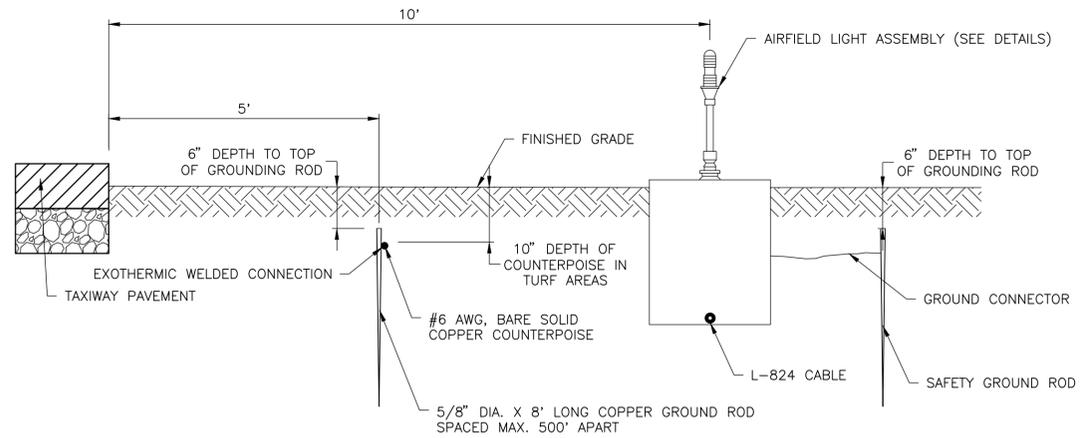
**COUNTERPOISE GROUND ROD INSTALLATION**  
RUNWAY AND TAXIWAY EDGE ONLY  
NOT TO SCALE

NOTES:  
1. LOCATION OF COUNTERPOISE GROUND RODS SHALL BE MAXIMUM 500' APART.  
2. THE RESISTANCE TO GROUND OF THE GROUND ROD SHALL NOT EXCEED 25 OHMS.  
3. COST OF GROUND RODS IS INCIDENTAL TO THE INSTALLATION OF COUNTERPOISE WIRE.  
4. SEE DETAIL ON SHEET L4-1 FOR MALS GROUNDING REQUIREMENTS.



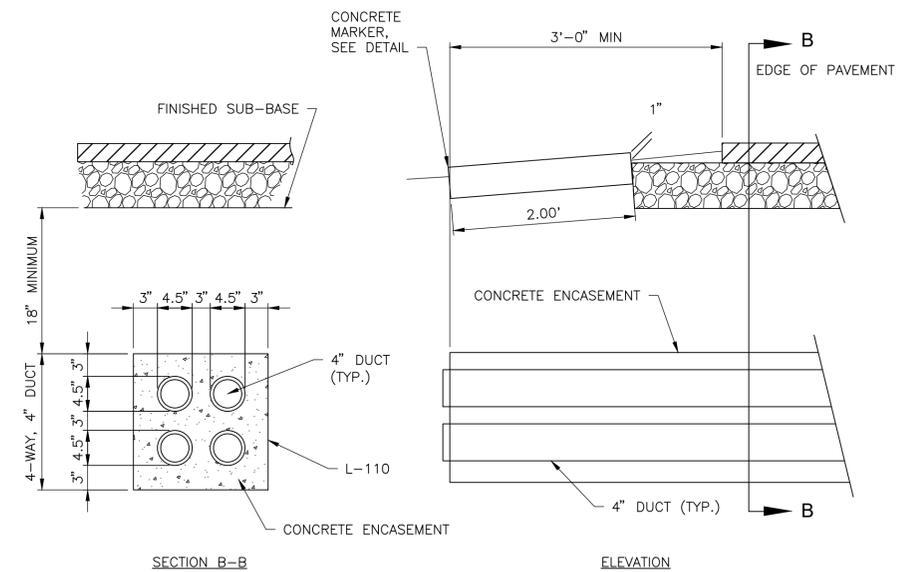
NOTE:  
1. ELECTRIC HANDHOLE SHALL BE SIZED PER LOCAL UTILITY COMPANY REQUIREMENTS

**ELECTRIC HANDHOLE DETAIL**  
NOT TO SCALE



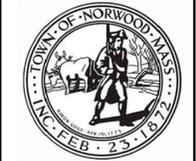
NOTES:  
1. INSTALL GROUND RODS AT MAXIMUM 500' SPACING  
2. USE GROUNDROD TO TERMINATE THE COUNTERPOISE AT EACH END OF DUCTS  
3. THE COST OF GROUNDRODS IS INCIDENTAL TO THE ASSOCIATED ITEMS  
4. THE NUMBER OF GROUND RODS IS SITE SPECIFIC AND MAY VARY DEPENDING ON SOIL RESISTIVITY

**COUNTERPOISE INSTALLATION**  
NOT TO SCALE



NOTES:  
1. SLOPE DUCTS 3"/100' FOR DRAINAGE.  
2. PROVIDE FULL NYLON PULL WIRES.  
3. DUCT SHALL CONNECT TO ELECTRIC HANDHOLES.

**DUCT (4-WAY) AND CONCRETE MARKER**  
NOT TO SCALE



BY	CK'D								
DESCRIPTION									
DATE									
NO.									

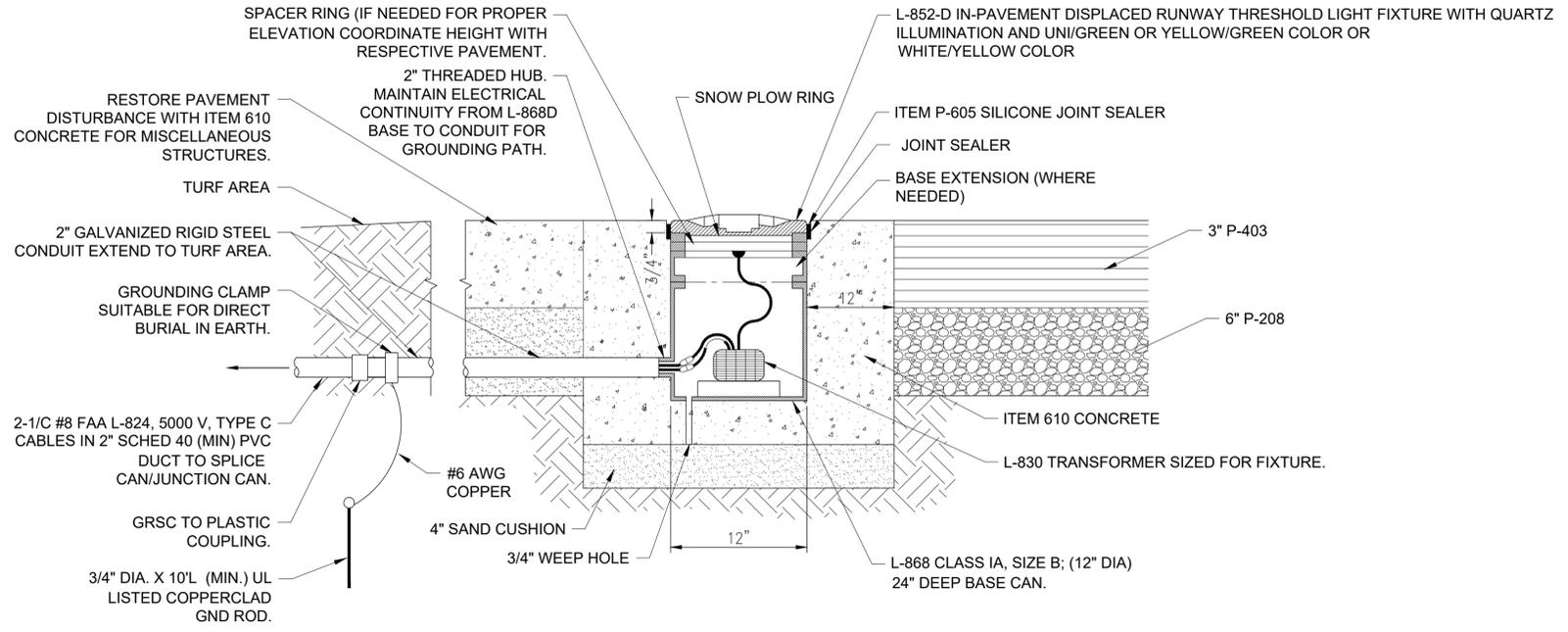
**NORWOOD MEMORIAL AIRPORT**  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
LIGHTING & ELECTRICAL DETAILS (1 OF 2)

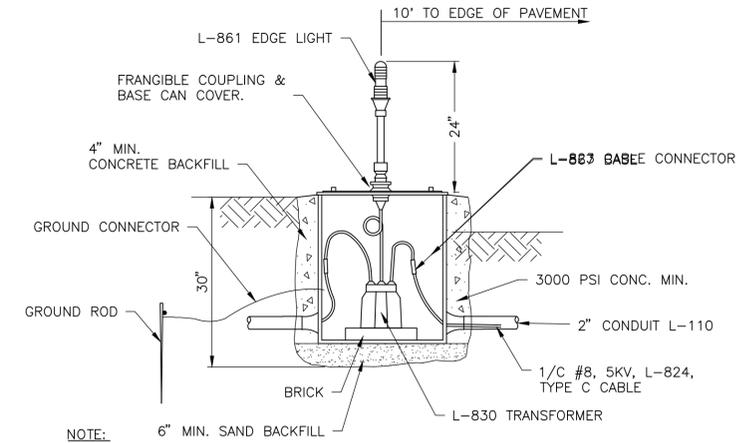
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DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

**SHEET NUMBER**  
**L2.1**



**MEDIUM INTENSITY IN-PAVEMENT RUNWAY LIGHT**  
NOT TO SCALE

NOTE:  
1. MEDIUM INTENSITY IN-PAVEMENT RUNWAY LIGHT SHALL BE AN L-852D QUARTZ IN-PAVEMENT LIGHT WHITE/WHITE COLOR OR UNI/GREEN OR YELLOW/GREEN LENS COLOR.



NOTE:  
1. THE TOLERANCE FOR LATERAL SPACING IS 1".  
2. IN ACCORDANCE WITH AC 150/5340-30J, LIGHT FIXTURES SHALL BE BONDED TO THE LIGHT BASE INTERNAL LUG VIA A NO. 8 AWG STRANDED COPPER WIRE RATED FOR 600V WITH GREEN XHHW, THWN-2 OR OTHER SUITABLE INSULATION, OR A BRAIDED GROUND STRAP OF EQUIVALENT RATING. THE BONDING CONDUCTOR LENGTH MUST BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE.

**BASE MOUNTED EDGE LIGHT FIXTURE**  
NOT TO SCALE



NO.	DATE	DESCRIPTION	BY	CHK'D

NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')

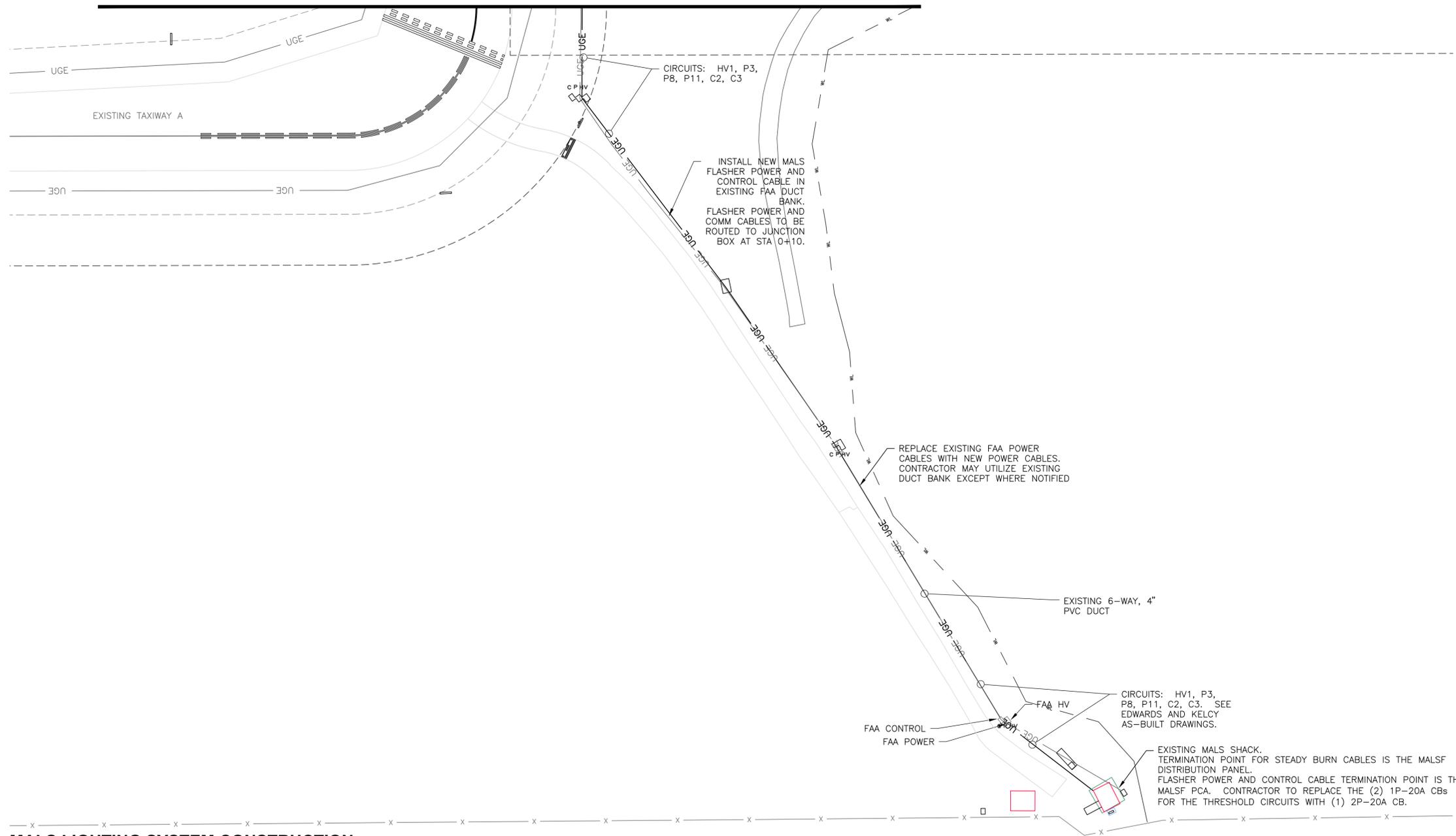
SHEET TITLE  
LIGHTING & ELECTRICAL  
DETAILS (2 OF 2)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER  
**L2.2**

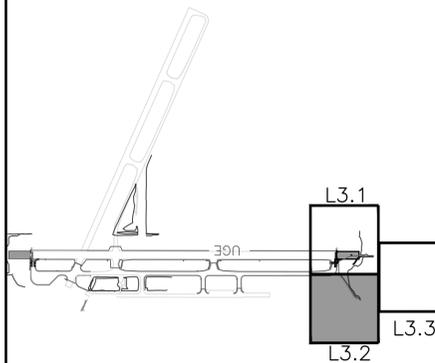


MATCHLINE SEE SHEET L3.1



**MALS LIGHTING SYSTEM CONSTRUCTION NOTES:**

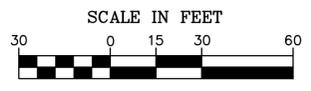
1. CONTRACTOR SHALL COORDINATE WITH FAA TECH OPS PRIOR TO AND DURING THE REPLACEMENT OF THE MALS LIGHTS AND CABLES.
2. CONTRACTOR TO REMOVE EXISTING MALS LIGHTS AT STATIONS 0+10 AND 2+00.
3. ALL OTHER MALS LIGHTS TO REMAIN AS IS.
4. CONTRACTOR TO REMOVE EXISTING MALS CABLES AND DUCT LOCATED UNDER PROPOSED PAVEMENTS.
5. CONTRACTOR TO INSTALL NEW DUCT LOCATED OUTSIDE PAVEMENT LIMITS.
6. CONTRACTOR TO REMOVE AND REPLACE POWER CABLES TO ALL MALS LIGHTS, INCLUDING NEW IN-PAVEMENT LIGHTS AND EXISTING MALS LIGHTS.
7. CONTRACTOR TO CONNECT NEW MALS POWER CABLE FOR STEADY BURN LIGHTS TO THE MALS DISTRIBUTION PANEL. FLASHER POWER AND CONTROL CABLE TERMINATION POINT IS THE MALS PCA. REPLACE THE (2) 1P-20A CB'S FOR THE THRESHOLD CIRCUITS WITH (1) 2P - 20A CB.
8. CONTRACTOR TO RETURN ALL LAMP HOLDERS FROM THRESHOLD LIGHTS AND STATION 2+00 TO THE SSC FOR SALVAGE.
9. ALL TESTS TO CABLES, EQUIPMENT AND EARTH ELECTRODE SYSTEMS MUST BE PERFORMED IN THE PRESENCE OF THE COR OR RE. TESTS CONDUCTED WITHOUT THE COR OR RE PRESENT WILL BE REJECTED. CONTRACTOR MUST PERFORM INSULATION RESISTANCE TESTS ON ALL WIRES INSTALLED. CONTROL CABLE MUST BE TESTED PER FAA ORDER 6000.204, CHAPTER 3, PARAGRAPH 10, SECTIONS A, B AND C. POWER CABLE MUST BE TESTED PER FAA ORDER 6950.22A, CHAPTER 3, PARAGRAPHS 3-2, 3-4 AND 3-5 AS APPLICABLE. THE CORRECT TESTING VOLTAGE MUST BE SELECTED USING THE GUIDANCE PROVIDED IN THE ORDER S TO PREVENT DAMAGE TO CABLE INSULATION.
10. ALL LIGHT FIXTURES, TRANSFORMERS, WIRING ETC. TO BE CONTRACTOR FURNISHED AND INSTALLED.



**LEGEND**

- PROPOSED PAVEMENT EDGE
- EXISTING PAVEMENT EDGE
- PROPOSED UNDERGROUND POWER AND COUNTERPOISE
- EXISTING UNDERGROUND POWER AND COUNTERPOISE
- PROPOSED ELECTRICAL HANDHOLE
- PROPOSED STAKE MOUNTED RW EDGE LIGHT
- EXISTING STAKE MOUNTED RW EDGE LIGHT

- NOTES:**
1. ALL UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. ADDITIONAL UNDERGROUND UTILITIES OTHER THAN THOSE SHOWN ON THESE DRAWINGS MAY EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MARKING THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION. HAND DIGGING SHALL BE PERFORMED AS NECESSARY TO AVOID DAMAGE TO UTILITIES. THE CONTRACTOR SHALL CONTACT DIGSAFE TEL. 888-DIGSAFE(344-7233). FOR ASSISTANCE IN LOCATING UTILITIES PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
  2. REFER TO DEMOLITION PLANS FOR REMOVAL OF EXISTING ELECTRICAL ITEMS.
  3. EXTEND DUCT BANK 5 FEET PAST EDGE OF PAVEMENT.
  4. AT BASES REFERENCING THIS NOTE, CORE DRILL INTO EXISTING BASE AND INSTALL PROPOSED CONDUIT.



**DuBois & King inc.**  
 ENGINEERING • PLANNING •  
 MANAGEMENT • DEVELOPMENT  
 10 CORPORATE DR., SUITE 210  
 BEDFORD, NH 03110  
 TEL: (603) 444-6578  
 FAX: (603) 483-7101  
 www.dubois-king.com  
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NO.	DATE	DESCRIPTION	BY

**NORWOOD MEMORIAL AIRPORT**  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
 MALS MODIFICATION PLAN (2 OF 3)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

**SHEET NUMBER**  
**L3.2**  
 SHEET 28 OF 43



NO.	DATE	DESCRIPTION	BY	CHK'D

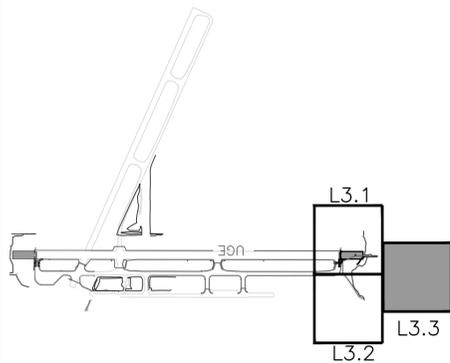
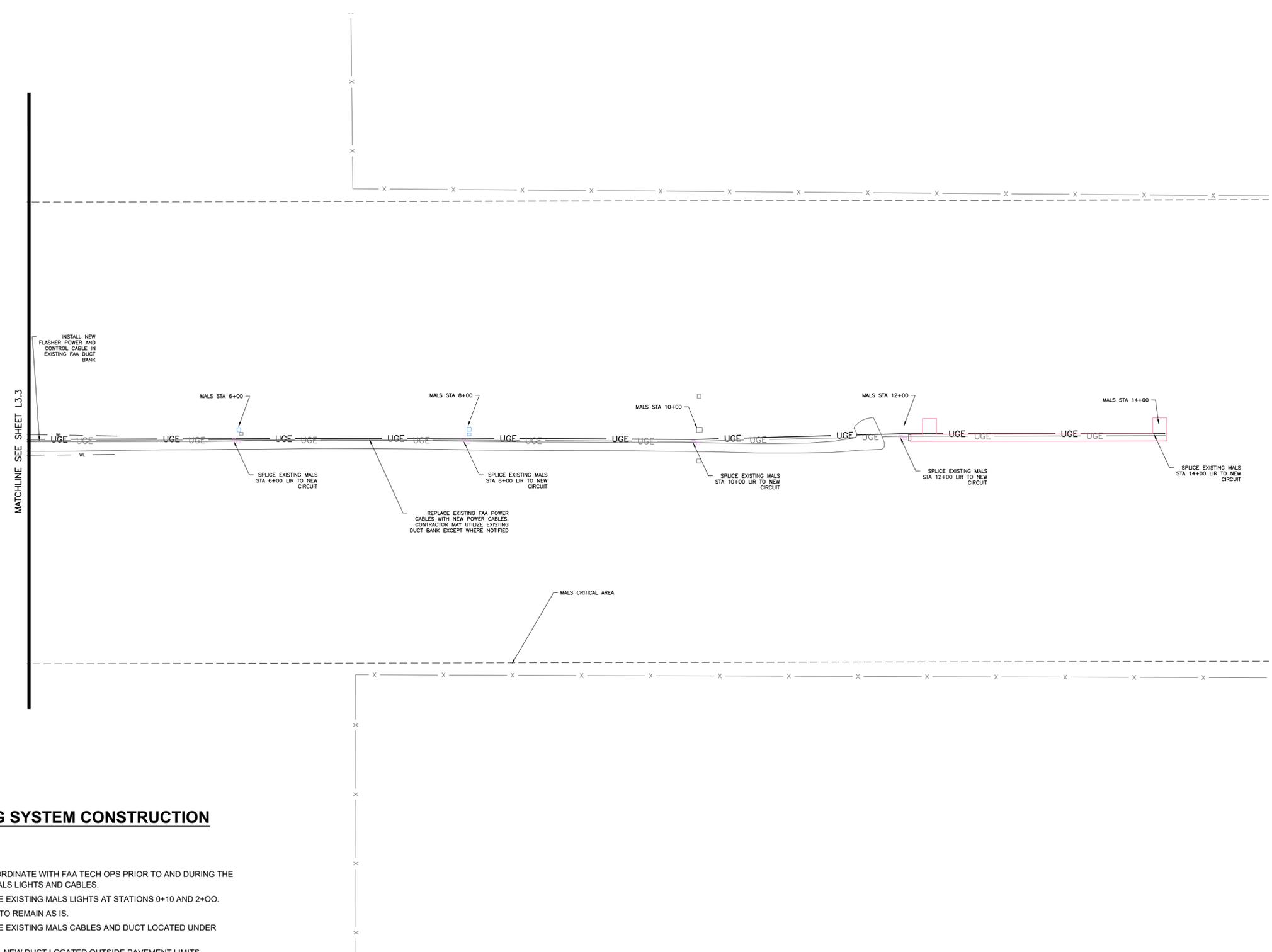
**NORWOOD MEMORIAL AIRPORT**  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
**MALS MODIFICATION PLAN (3 OF 3)**

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

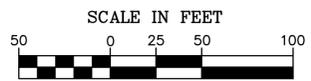
**SHEET NUMBER**  
**L3.3**  
SHEET 29 OF 43



**LEGEND**

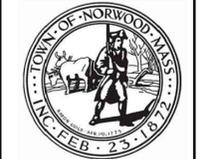
- PROPOSED PAVEMENT EDGE
- - - EXISTING PAVEMENT EDGE
- UGE — PROPOSED UNDERGROUND POWER AND COUNTERPOISE
- - - UGE - - - EXISTING UNDERGROUND POWER AND COUNTERPOISE
- [EHH] — [EHH] PROPOSED ELECTRICAL HANDHOLE
- ⊗ PROPOSED STAKE MOUNTED RW EDGE LIGHT
- ⊗ EXISTING STAKE MOUNTED RW EDGE LIGHT

- NOTES:**
- ALL UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. ADDITIONAL UNDERGROUND UTILITIES OTHER THAN THOSE SHOWN ON THESE DRAWINGS MAY EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MARKING THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION. HAND DIGGING SHALL BE PERFORMED AS NECESSARY TO AVOID DAMAGE TO UTILITIES. THE CONTRACTOR SHALL CONTACT DIGSAFE TEL. 888-DIGSAFE(344-7233). FOR ASSISTANCE IN LOCATING UTILITIES PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
  - REFER TO DEMOLITION PLANS FOR REMOVAL OF EXISTING ELECTRICAL ITEMS.
  - EXTEND DUCT BANK 5 FEET PAST EDGE OF PAVEMENT.
  - AT BASES REFERENCING THIS NOTE, CORE DRILL INTO EXISTING BASE AND INSTALL PROPOSED CONDUIT.



**MALS LIGHTING SYSTEM CONSTRUCTION NOTES:**

- CONTRACTOR SHALL COORDINATE WITH FAA TECH OPS PRIOR TO AND DURING THE REPLACEMENT OF THE MALS LIGHTS AND CABLES.
- CONTRACTOR TO REMOVE EXISTING MALS LIGHTS AT STATIONS 0+10 AND 2+00.
- ALL OTHER MALS LIGHTS TO REMAIN AS IS.
- CONTRACTOR TO REMOVE EXISTING MALS CABLES AND DUCT LOCATED UNDER PROPOSED PAVEMENTS.
- CONTRACTOR TO INSTALL NEW DUCT LOCATED OUTSIDE PAVEMENT LIMITS.
- CONTRACTOR TO REMOVE AND REPLACE POWER CABLES TO ALL MALS LIGHTS, INCLUDING NEW IN-PAVEMENT LIGHTS AND EXISTING MALS LIGHTS.
- CONTRACTOR TO CONNECT NEW MALS POWER CABLE FOR STEADY BURN LIGHTS TO THE MALS DISTRIBUTION PANEL. FLASHER POWER AND CONTROL CABLE TERMINATION POINT IS THE MALS PCA. REPLACE THE (2) 1P-20A CB'S FOR THE THRESHOLD CIRCUITS WITH (1) 2P - 20A CB.
- CONTRACTOR TO RETURN ALL LAMP HOLDERS FROM THRESHOLD LIGHTS AND STATION 2 TO THE SSC FOR SALVAGE.
- ALL TESTS TO CABLES, EQUIPMENT AND EARTH ELECTRODE SYSTEMS MUST BE PERFORMED IN THE PRESENCE OF THE COR OR RE. TESTS CONDUCTED WITHOUT THE COR OR RE PRESENT WILL BE REJECTED. CONTRACTOR MUST PERFORM INSULATION RESISTANCE TESTS ON ALL WIRES INSTALLED. CONTROL CABLE MUST BE TESTED PER FAA ORDER 6000.204, CHAPTER 3, PARAGRAPH 10, SECTIONS A, B AND C. POWER CABLE MUST BE TESTED PER FAA ORDER 6950.22A, CHAPTER 3, PARAGRAPHS 3-2, 3-4 AND 3-5 AS APPLICABLE. THE CORRECT TESTING VOLTAGE MUST BE SELECTED USING THE GUIDANCE PROVIDED IN THE ORDER S TO PREVENT DAMAGE TO CABLE INSULATION.
- ALL LIGHT FIXTURES, TRANSFORMERS, WIRING ETC. TO BE CONTRACTOR FURNISHED AND INSTALLED.



BY: CKD

DESCRIPTION

DATE

NO.

DATE

NO.

NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE

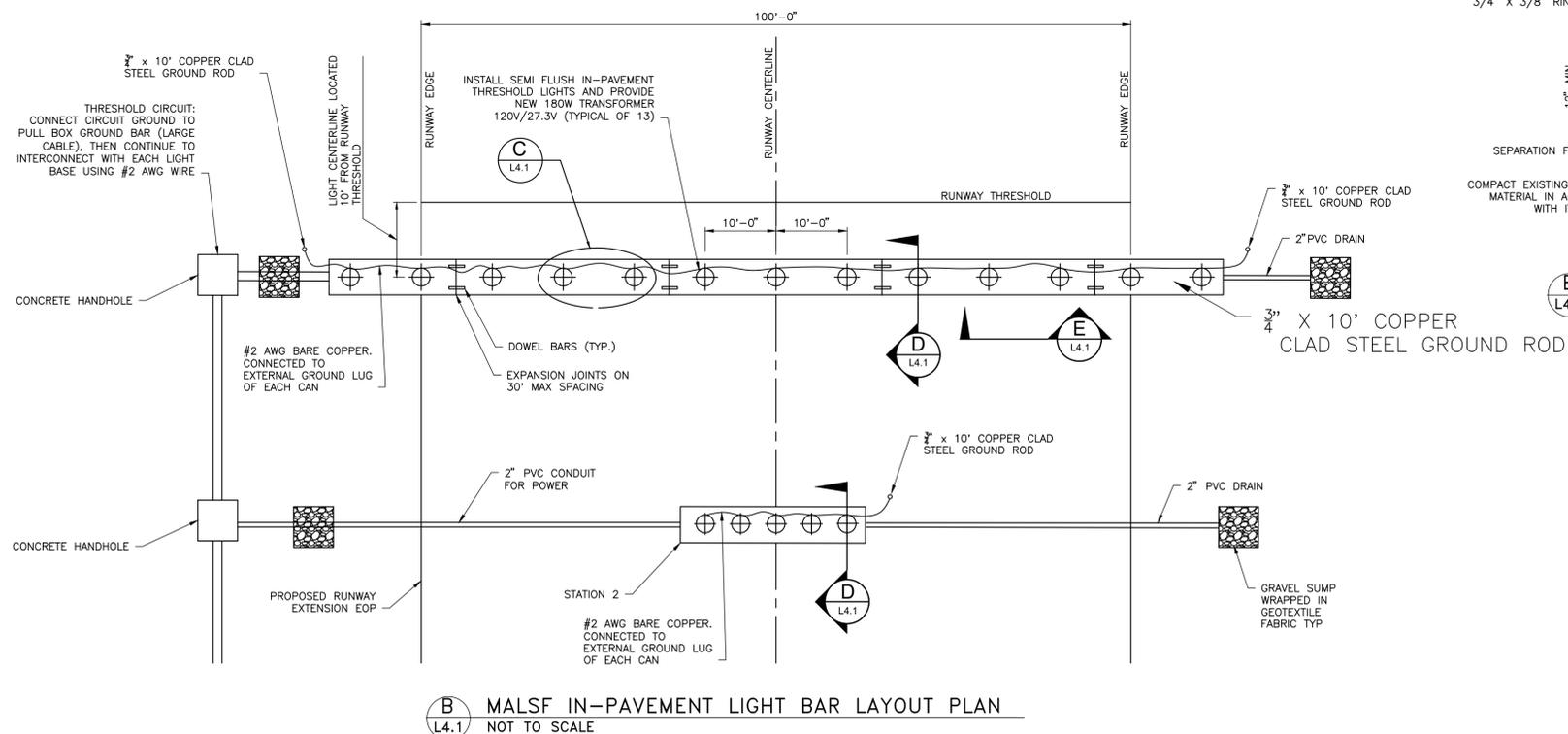
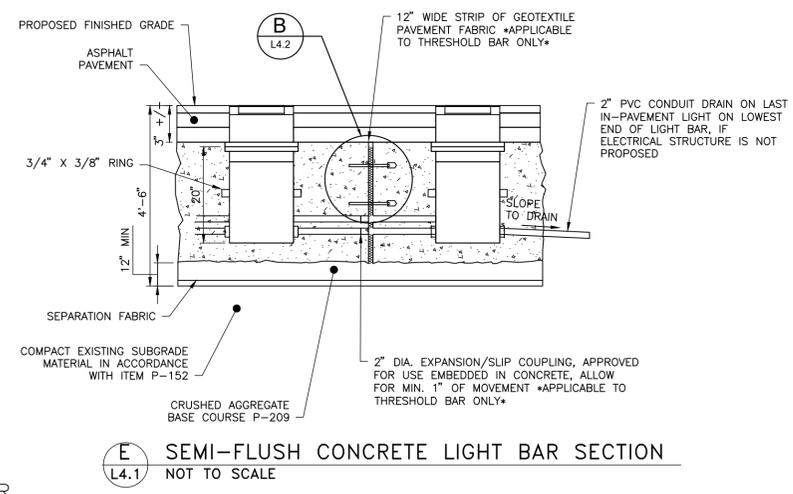
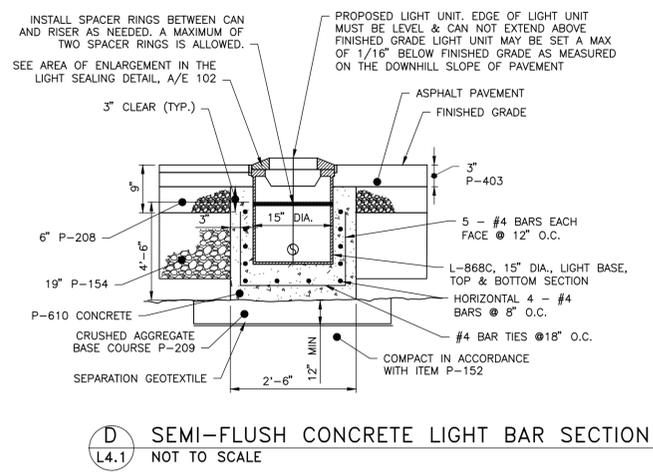
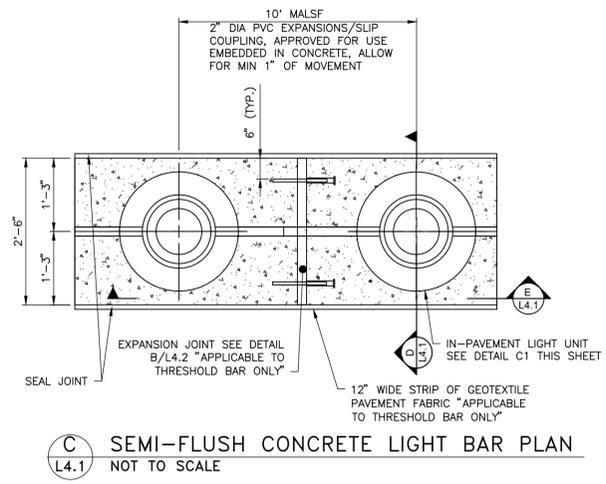
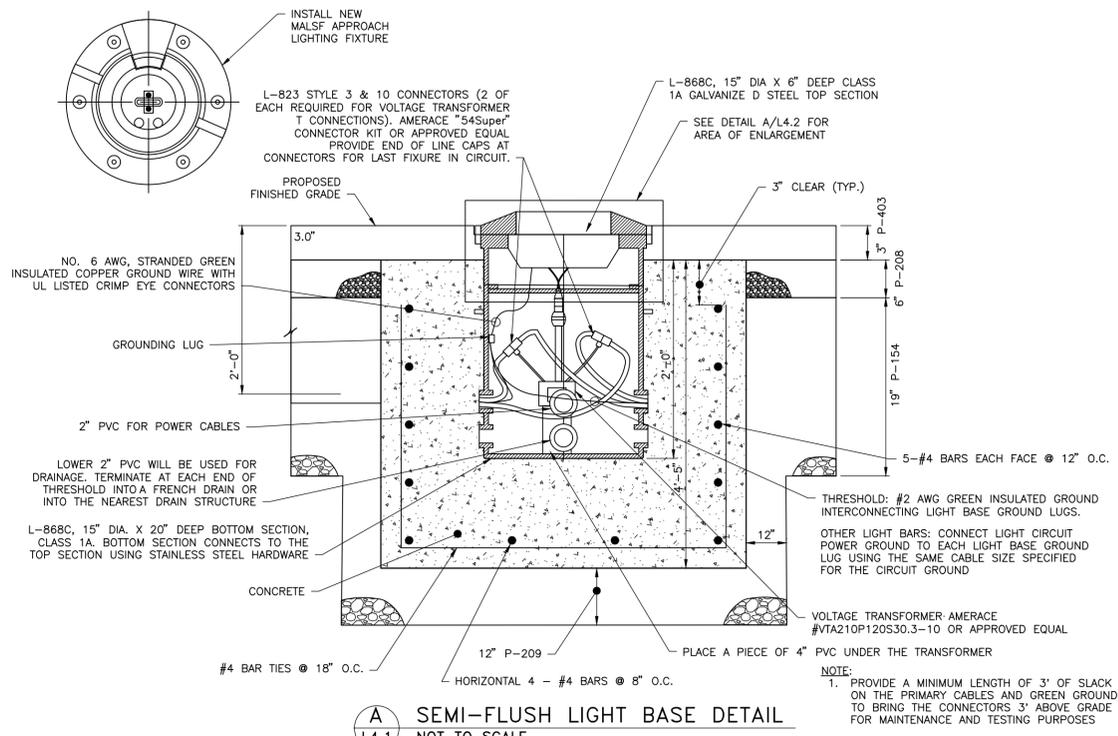
MALS  
DETAILS (1 OF 3)

DRAWN BY: DSP  
CHECKED BY: JAA  
PROJ. ENG.: MCG

DATE: MAR. 2026  
D&K PROJECT #: 329163  
D&K ARCHIVE #

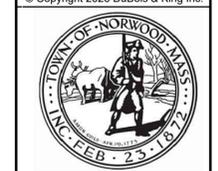
SHEET NUMBER  
**L4.1**

SHEET 30 OF 43



I:\3\329163 - Norwood Airport Runway 17-35 Extension\Drawings\329163\_FDE\_MalsDet.dwg FEBRUARY, 2024





NO.	DATE	DESCRIPTION	BY

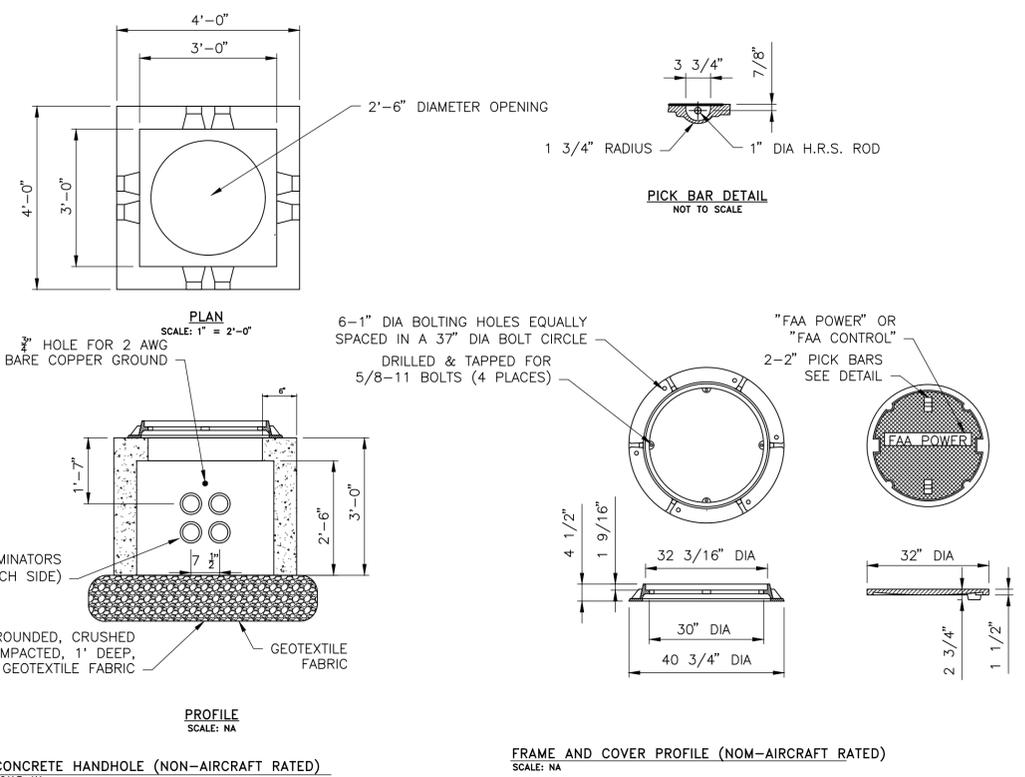
**NORWOOD MEMORIAL AIRPORT**  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

**CONSTRUCT RUNWAY 17-35 EXTENSION (600' x 100')**

**SHEET TITLE**  
 MALS  
 MODIFICATION  
 DETAILS (3 OF 3)

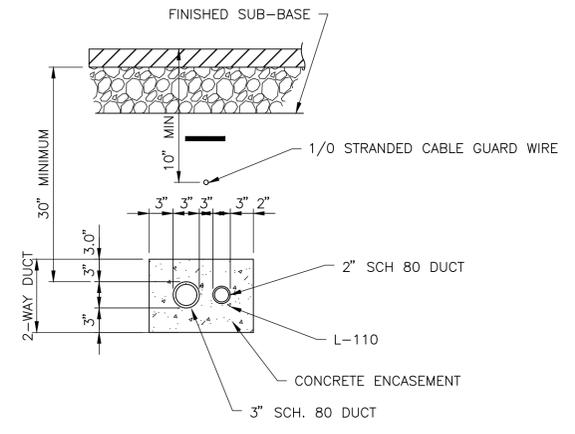
DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

**SHEET NUMBER**  
**L4.3**  
 SHEET 32 OF 43



- NON-AIRCRAFT RATED HANDHOLE NOTES:**
1. CONCRETE COMPRESSIVE STRENGTH - 5000 PSI.
  2. STEEL REINFORCEMENT - ASTM 615, GRADE 60, 1" MINIMUM COVER.
  3. MINIMUM DESIGN LOAD - MEET OR EXCEED AASHTO HS20-44 DESIGN LOAD OF 20,000 LBS.
  4. IRON HANDHOLE FRAME MUST BE EAST JORDAN HEAVY DUTY MODEL V1420 OR APPROVED EQUAL. FRAME MUST BE MECHANICALLY FASTENED TO THE HANDHOLE.
  5. IRON HANDHOLE COVER MUST BE EAST JORDAN HEAVY DUTY MODEL 1480A OR APPROVED EQUAL.
  6. A PULLEYE MUST BE PROVIDED ON EACH WALL.
  7. INSTALL A CRUSHED STONE SUMP UNDER ALL HANDHOLES.
  8. AFTER INSTALLATION OF CONDUITS THROUGH KNOCKOUTS, GROUT AROUND CONDUIT.
  9. CABLE SLACK MUST BE LOOPED SEVERAL TIMES AND HUNG ON NON-METALLIC CABLE RACKS IN ALL HANDHOLES.
  10. INSTALL ONE 3/4", 10' LONG GROUND ROD AT EACH HANDHOLE OR SET OF ADJACENT HANDHOLES. BOND THIS GROUND ROD TO EITHER THE GRSC OR THE 1/0 AWG BARE COPPER GUARD WIRE OVER ANY PVC CONDUIT.
  11. HANDHOLE MAY BE LOCATED OUTSIDE THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA).
  12. DETAILS OF ALL DESIGN CALCULATIONS, SHOWING PRE-CAST STRUCTURE DIMENSIONS, REINFORCEMENT SIZE AND LOCATION INSERTS, BOLT HOLES, SLAB, WALL AND ROOF OPENINGS, MUST BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MASSACHUSETTS AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
  13. CONCRETE HANDHOLE DETAIL SHOWN IS ADAPTED FROM SHEA CONCRETE, HANDHOLE 36X36 H-20, PRODUCT ID HH-333H.

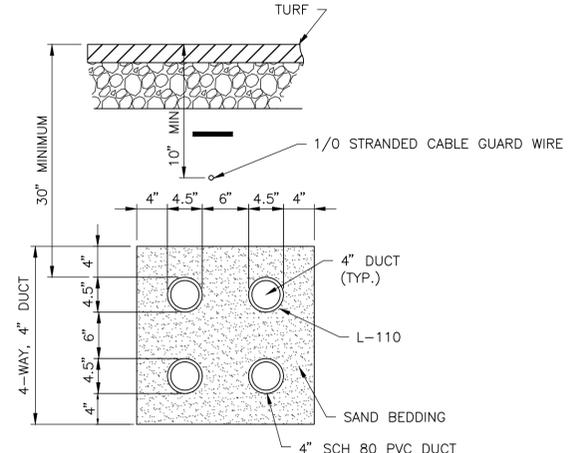
**MALSR CONCRETE ENCASED DUCT (1-WAY)**  
 NOT TO SCALE



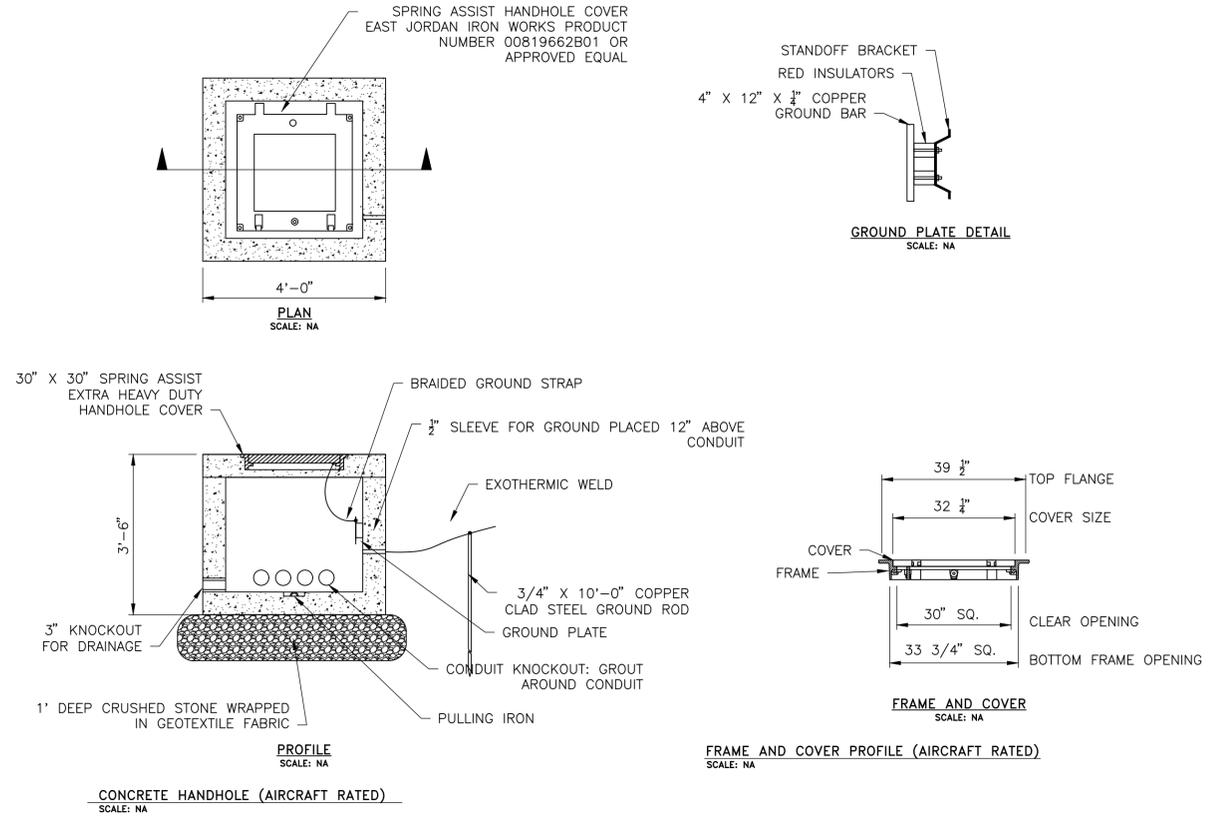
- AIRCRAFT RATED HANDHOLE NOTES:**
1. CONCRETE COMPRESSIVE STRENGTH - 5000 PSI.
  2. STEEL REINFORCEMENT - ASTM 615, GRADE 60, 1" MINIMUM COVER.
  3. MINIMUM DESIGN LOAD - MEET OR EXCEED AIRCRAFT DESIGN LOADING OF 200,000 LBS DUAL WHEEL LOADING.
  4. CAST IRON FRAME MUST BE MECHANICALLY FASTENED TO THE HANDHOLE.
  5. A PULLEYE MUST BE PROVIDED ON EACH WALL.
  6. INSTALL A CRUSHED STONE SUMP UNDER ALL HANDHOLES.
  7. AFTER INSTALLATION OF CONDUITS THROUGH KNOCKOUTS, GROUT AROUND CONDUIT.
  8. CABLE SLACK MUST BE LOOPED SEVERAL TIMES AND HUNG ON NON-METALLIC CABLE RACKS IN ALL HANDHOLES.
  9. INSTALL ONE 3/4", 10' LONG GROUND ROD AT EACH HANDHOLE OR SET OF ADJACENT HANDHOLES. BOND THIS GROUND ROD TO EITHER THE GRSC OR THE 1/0 AWG BARE COPPER GUARD WIRE OVER ANY PVC CONDUIT.
  10. HANDHOLE MAY BE LOCATED INSIDE THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA).
  11. DETAILS OF ALL DESIGN CALCULATIONS, SHOWING PRE-CAST STRUCTURE DIMENSIONS, REINFORCEMENT SIZE AND LOCATION INSERTS, BOLT HOLES, SLAB, WALL AND ROOF OPENINGS, MUST BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MASSACHUSETTS AND SUBMITTED TO THE ENGINEER FOR APPROVAL.

- NOTES:**
1. SLOPE DUCTS 3"/100' FOR DRAINAGE.
  2. PROVIDE FULL NYLON PULL WIRES.
  3. DUCT SHALL CONNECT TO ELECTRIC HANDHOLES.
  4. DO NOT USE SEALANT WITH THE DUCT BANK SYSTEM.
  5. DO NOT USE EXPANDING FOAM SEALANTS.
  6. FURNISH DETECTABLE UNDERGROUND WARNING TAPE. ALUMINUM BACKED, 0.005 INCH THICK. RED BACKGROUND COLOR. "CAUTION BURIED ELECTRIC LINE BELOW".
  7. 3" WIDE TAPE FOR 18" DEPTHS.
  8. 6" WIDE TAPE FOR 24" DEPTHS.
  9. COMPACT BACKFILL IN 6" LIFTS TO 95% OF MAX DENSITY.
  10. PROVIDE 6" MINIMUM CLEAR DISTANCE BETWEEN POWER AND CONTROL OR SIGNAL CONDUITS.
  11. ALL HANDHOLES MUST BE IDENTIFIED WITH THE APPROPRIATE INFORMATION ON A 1/8" MINIMUM THICK BRASS PLATE FASTENED TO THE COVER WITH A MINIMUM OF TWO 10-32 BRASS SCREWS.
  12. FOR INSTALLATION OF GUARD WIRE AND GROUND ROD SPACING, REFER TO SHEET G003, SECTION ELECTRICAL GROUNDING, NOTE 10
  13. THE CONTRACTOR MUST INSTALL DETECTABLE UNDERGROUND WARNING TAPE READING "CAUTION BURIED ELECTRICAL LINE BELOW" FOR UNDERGROUND CONDUIT. LETTERING SHALL BE BLACK ON RED BACKGROUND COLOR, TAPE WIDTH MUST BE THE FOLLOWING 3" WIDE TAPE UP TO 18" DEPTH AND 6" WIDE TAPE FOR DEPTHS BELOW 18".
  - 14.

**MALSR DUCT (2-WAY)**  
 NOT TO SCALE



**MALSR DUCT (4-WAY)**  
 NOT TO SCALE



- GENERAL NOTES:**
1. INSTALL ONE FOOT OF CRUSHED STONE WRAPPED IN GEOTEXTILE FABRIC UNDER ALL HANDHOLES.
  2. HANDHOLES MUST HAVE A MINIMUM OF FOUR (4) KNOCKOUTS ON EACH WALL. INCREASE THE NUMBER OF KNOCKOUTS IF NEEDED.
  3. AFTER INSTALLATION OF CONDUITS THROUGH KNOCKOUTS, GROUT AROUND CONDUIT.
  4. CABLES MUST BE LOOPED AT LEAST ONE FULL LOOP INSIDE ALL HANDHOLES ON NON-METALLIC SADDLED CABLE RACKS. UNDERGROUND DEVICES INC, RACK ARM MODEL# 4.9HDS WITH STANCHION MODEL# CR24-B, OR APPROVED EQUAL.
  5. CABLES MUST BE CLEARLY TAGGED IN EACH HANDHOLE.
  6. ALL METALLIC CONDUITS ENTERING HANDHOLES SHALL BE TERMINATED WITH A GROUNDING BUSHING. CONNECT GROUNDING BUSHING TO THE 4/0 BARE COPPER GROUND RING WITH #6 GREEN INSULATED GROUND WIRE.



BY	ICKD
DESCRIPTION	
DATE	
NO.	

NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

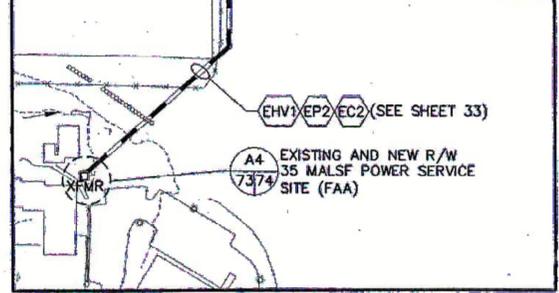
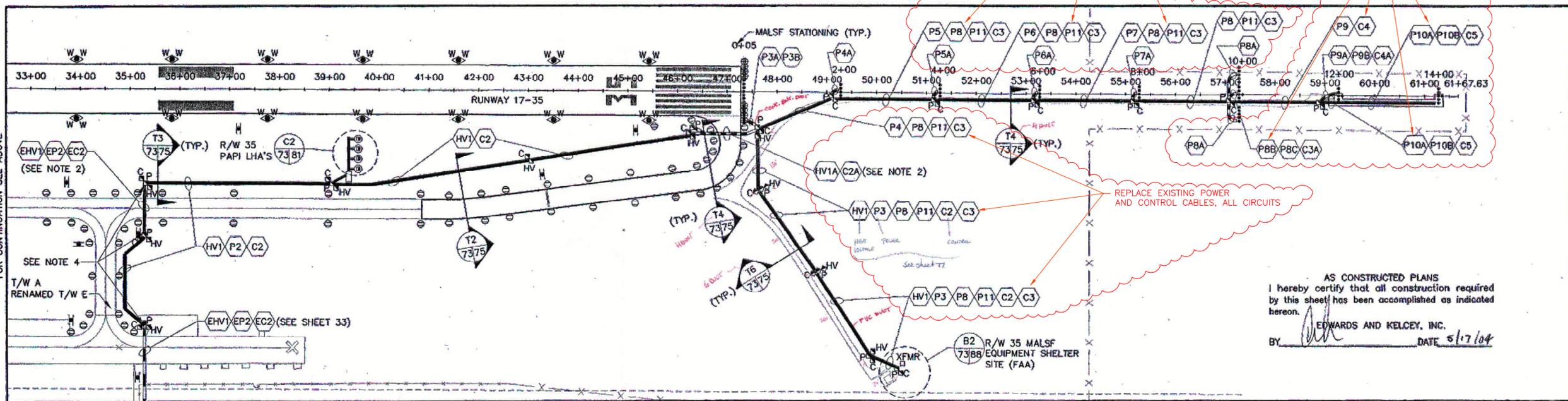
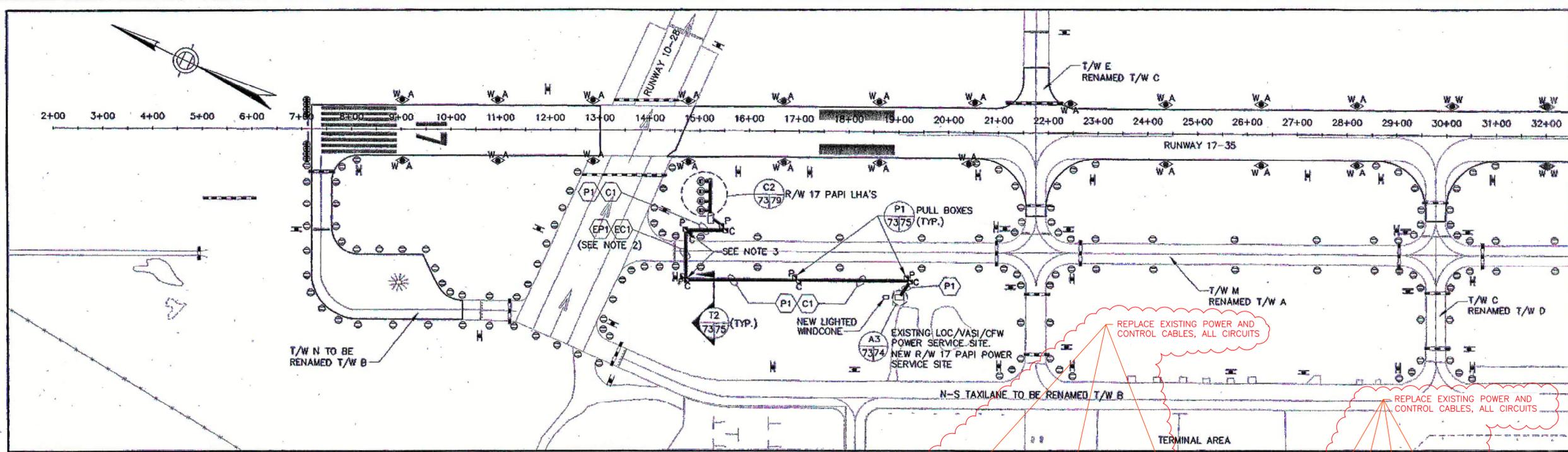
CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE  
MALS ELECTRICAL  
MODIFICATIONS (1  
OF 9)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	DBK PROJECT #
JAA	329163
PROJ. ENG.	DBK ARCHIVE #
MCG	

SHEET NUMBER

**L5.1**



**A2** RUNWAY 17 PAPI, RUNWAY 35 PAPI AND  
RUNWAY 35 MALSF SITE UTILITY PLAN  
SCALE: 1"= 100'

- LEGEND:**
- HIGH VOLTAGE (ABOVE 600 VOLTS) POWER PULL BOX (FAA)
  - LOW VOLTAGE (BELOW 600 VOLTS) POWER PULL BOX (FAA)
  - CONTROL/DATA PULL BOX (FAA)
  - POWER SERVICE TRANSFORMER (FAA)
  - SCHEDULE 40 PVC CONDUIT BURIED IN EARTH

- NOTES:**
1. FAA DUCT BANK MAY SHARE COMMON TRENCHES WITH AIRPORT CABLE PROVIDED SEPARATION OF CONDUCTORS IS MAINTAINED IN ACCORDANCE WITH FAA-C-1391B, "INSTALLATION AND SPLICING OF UNDERGROUND CABLES."
  2. FOR AIRPORT ELECTRICAL PLANS, SEE SHEETS 32 AND 36.
  3. THE NEW 2 WAY-4" SCH. 40 PVC DUCTS TO EXISTING 2 WAY-4" CONCRETE ENCASED DUCT BANK.
  4. THE NEW 3 WAY-4" SCH. 40 PVC TO EXISTING 3 WAY-4" CONCRETE ENCASED DUCT BANK. INSTALLED (1) CONDUIT INTO EACH NEW HANDHOLE.

AS CONSTRUCTED PLANS  
I hereby certify that all construction required  
by this sheet has been accomplished as indicated  
hereon.  
BY *[Signature]* EDWARDS AND KELCEY, INC. DATE 5/17/04

SUBMITTED BY:  
EDWARDS AND KELCEY



NO.	REVISIONS	BY	APP.	DATE
1	AS-CONSTRUCTED	BCC	CAS	11/02

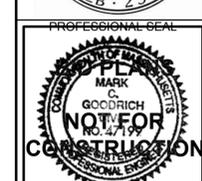
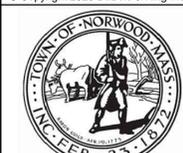
TOWN OF NORWOOD  
AIP NO. 3-25-0037-18

NORWOOD MEMORIAL AIRPORT  
NORWOOD, MASSACHUSETTS

**PAPI/MALSF SITE UTILITY PLAN**

**Edwards and Kelcey**

DESIGNED CAS DATE 03/02 SCALE: AS SHOWN  
DRAWN BCC DATE 03/02 DRAWING NO.  
CHECKED CAS DATE 03/02 SHEET NO. 33 OF 101



BY	CKD
DESCRIPTION	
DATE	
NO.	

NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE

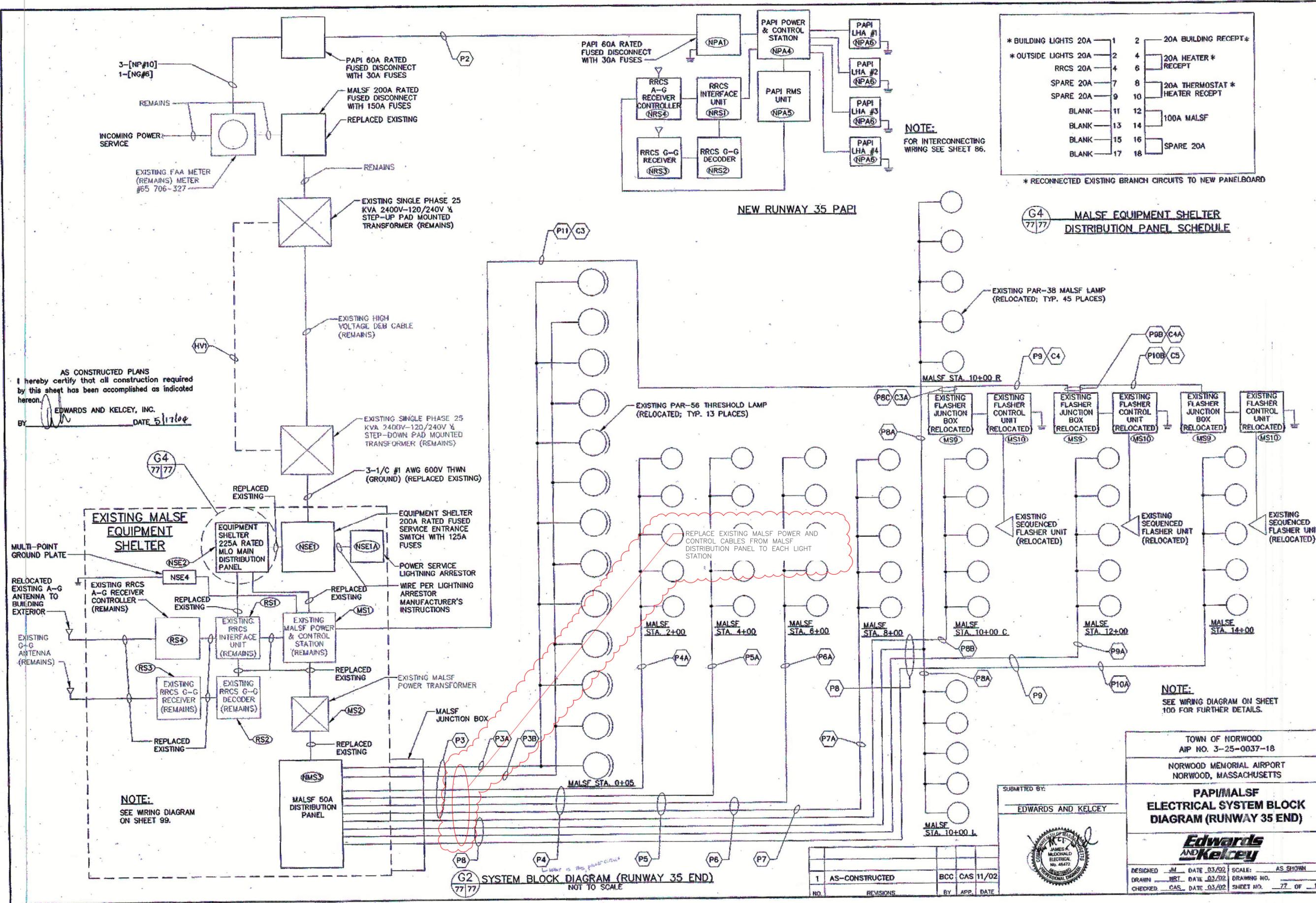
MALS ELECTRICAL  
MODIFICATIONS (2  
OF 9)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER

**L5.2**

SHEET 34 OF 43



**\* BUILDING LIGHTS 20A**

1	20A BUILDING RECEPT*
2	20A HEATER * RECEPT
4	20A THERMOSTAT * HEATER RECEPT
6	100A MALSF
7	SPARE 20A
8	SPARE 20A
9	SPARE 20A
10	SPARE 20A
11	SPARE 20A
12	SPARE 20A
13	SPARE 20A
14	SPARE 20A
15	SPARE 20A
16	SPARE 20A
17	SPARE 20A
18	SPARE 20A

**\* RECONNECTED EXISTING BRANCH CIRCUITS TO NEW PANELBOARD**

**NOTE:**  
FOR INTERCONNECTING  
WIRING SEE SHEET 86.

**G4 77/77 MALSF EQUIPMENT SHELTER  
DISTRIBUTION PANEL SCHEDULE**

**G2 77/77 SYSTEM BLOCK DIAGRAM (RUNWAY 35 END)  
NOT TO SCALE**

AS CONSTRUCTED PLANS  
I hereby certify that all construction required  
by this sheet has been accomplished as indicated  
hereon.  
BY EDWARDS AND KELCEY, INC. DATE 5/1/2026

**NOTE:**  
SEE WIRING DIAGRAM  
ON SHEET 99.

**NOTE:**  
SEE WIRING DIAGRAM ON SHEET  
100 FOR FURTHER DETAILS.

NO.	REVISIONS	BY	APP.	DATE
1	AS-CONSTRUCTED	BCC	CAS	11/02

SUBMITTED BY:  
**EDWARDS AND KELCEY**



TOWN OF NORWOOD  
AIP NO. 3-25-0037-18  
NORWOOD MEMORIAL AIRPORT  
NORWOOD, MASSACHUSETTS

**PAPI/MALSF  
ELECTRICAL SYSTEM BLOCK  
DIAGRAM (RUNWAY 35 END)**



DESIGNED	JM	DATE	03/02	SCALE:	AS SHOWN
DRAWN	NRT	DATE	03/02	DRAWING NO.	
CHECKED	CAS	DATE	03/02	SHEET NO.	77 OF 101





BY	CKD
DESCRIPTION	
DATE	
NO.	

NORWOOD MEMORIAL AIRPORT  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

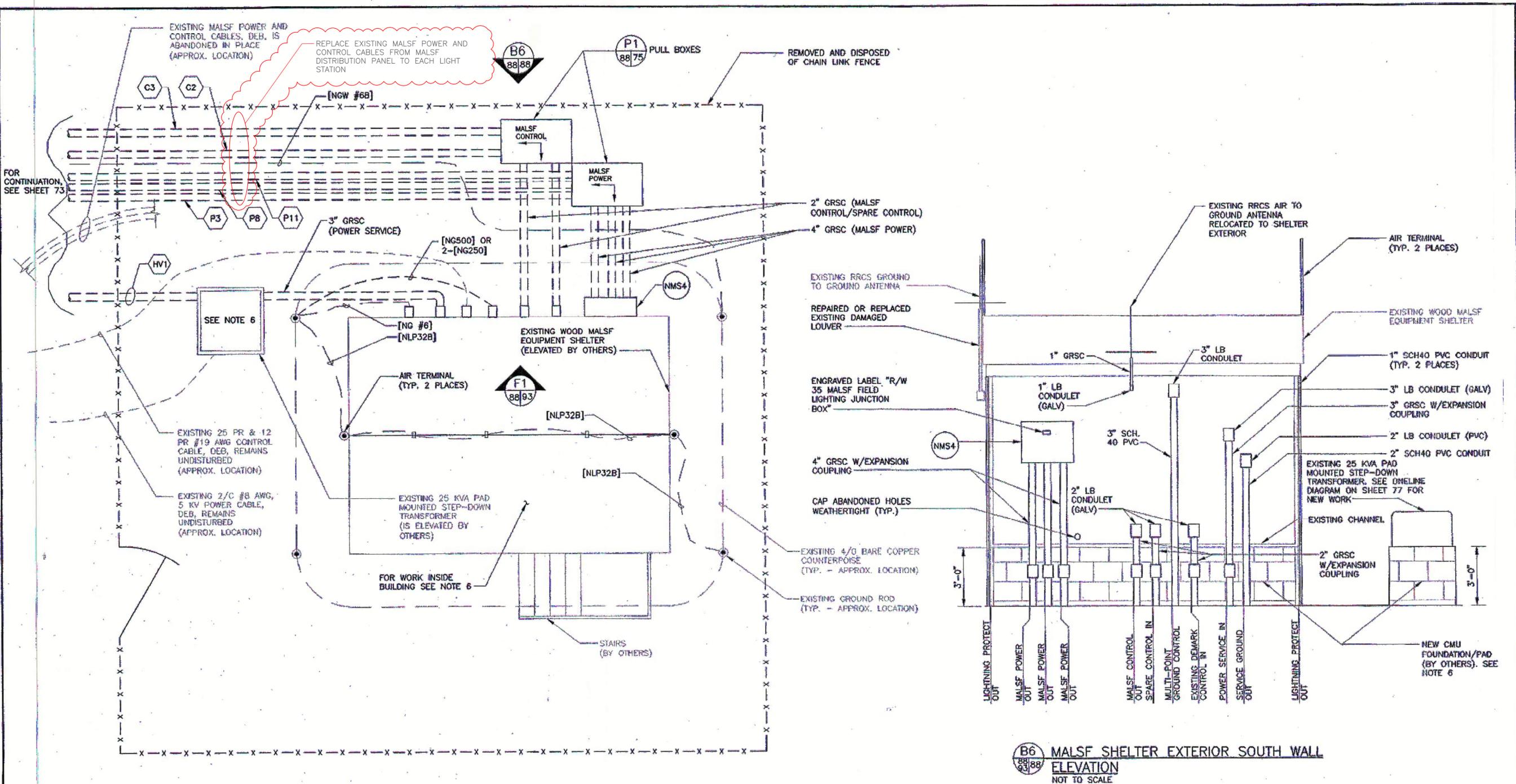
CONSTRUCT  
 RUNWAY 17-35  
 EXTENSION  
 (600' x 100')

SHEET TITLE  
 MALS ELECTRICAL  
 MODIFICATIONS (4  
 OF 9)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER

**L5.4**



**B6** MALS SHELTER EXTERIOR SOUTH WALL  
**ELEVATION**  
 NOT TO SCALE

**B2** MALSF SHELTER SITE PLAN  
 NOT TO SCALE

- NOTES:**
- FIELD LIGHTING JUNCTION BOX IS A 30"x30"x8" NEMA 4X RATED, WITH LOCKABLE HINGED COVER.
  - LIGHTNING AIR TERMINALS ARE 24 INCHES LONG, 5/8 INCH DIAMETER, COPPER WITH "BLUNT TIP". AIR TERMINALS ARE SECURELY MOUNTED USING APPROVED SUPPORT STRUCTURES. TOP OF AIR TERMINALS ARE ABOVE ALL ANTENNAS. DOWN CONDUCTOR [NLDG32] BETWEEN AIR TERMINALS AND TO RRCS ANTENNAS ON ROOF ARE SECURED TO EXTERIOR OF GRSC USING APPROVED STRAPS.
  - CONDUIT LOCATIONS SHOWN ARE APPROXIMATE. FIELD DETERMINE ACTUAL LOCATIONS.
  - FIELD LOCATE AND USE CAUTION IN THE VICINITY OF EXISTING DIRECT EARTH BURIED (DEB) HIGH VOLTAGE POWER SERVICE CABLE AND CONTROL/DEMARC CABLE.
  - EXISTING SHELTER AND PAD MOUNTED TRANSFORMER HAVE BEEN ELEVATED ONTO NEW FOUNDATIONS/PADS BY OTHERS. THE SITE CONTRACTOR DID REWIRE ALL EQUIPMENT AS REQUIRED TO ACCOMMODATE THE NEW ELEVATIONS. COORDINATED SHELTER AND TRANSFORMER WORK WITH SHELTER CONTRACTOR AND THE FAA.
  - CONTRACTOR COORDINATED INSTALLATION OF NEW CONDUITS INTO EXISTING TRANSFORMER WITH INSTALLATION OF TRANSFORMER FOUNDATION (BY OTHERS).

**MALSF EQUIPMENT**  
**NMS4** - MALSF FIELD LIGHTING JUNCTION BOX. SEE NOTE 1.

AS CONSTRUCTED PLANS  
 I hereby certify that all construction required by this sheet has been accomplished as indicated hereon.  
 BY: *[Signature]* EDWARDS AND KELCEY, INC.  
 DATE: 5/17/04

1	AS-CONSTRUCTED	BCC	CAS	11/02
NO.	REVISIONS	BY	APP.	DATE

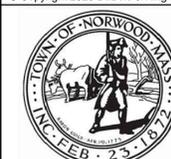
SUBMITTED BY:  
**EDWARDS AND KELCEY**



FAA DRAWING NE-D-27748-C003  
 TOWN OF NORWOOD  
 AIP NO. 3-25-0037-18  
 NORWOOD MEMORIAL AIRPORT  
 NORWOOD, MASSACHUSETTS  
 MEDIUM INTENSITY APPROACH LIGHT SYSTEM  
 SEQUENCED FLASHING LIGHTS (MALSF) RUNWAY 35  
**EQUIPMENT SHELTER SITE PLAN**

**Edwards and Kelcey**

DESIGNED: JAA DATE: 03/02 SCALE: AS SHOWN  
 DRAWN: HRT DATE: 03/02 DRAWING NO.  
 CHECKED: CAS DATE: 03/02 SHEET NO. 08 OF 101



BY	OKD
DESCRIPTION	
DATE	
NO.	

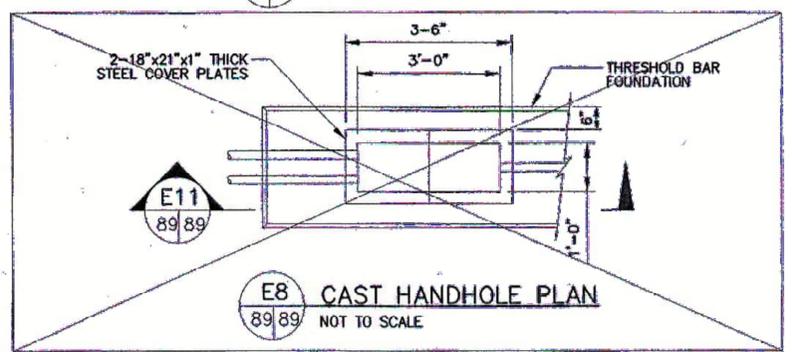
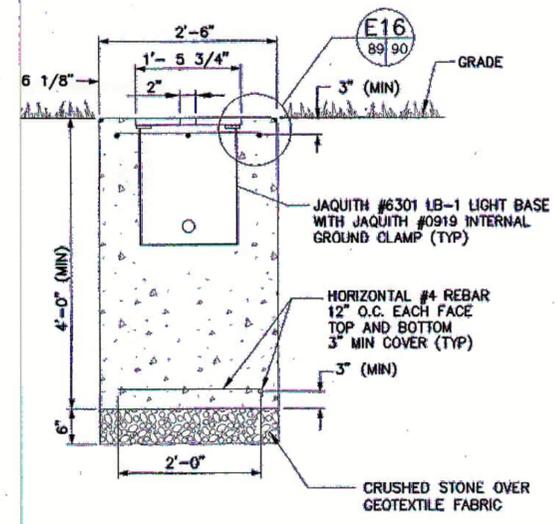
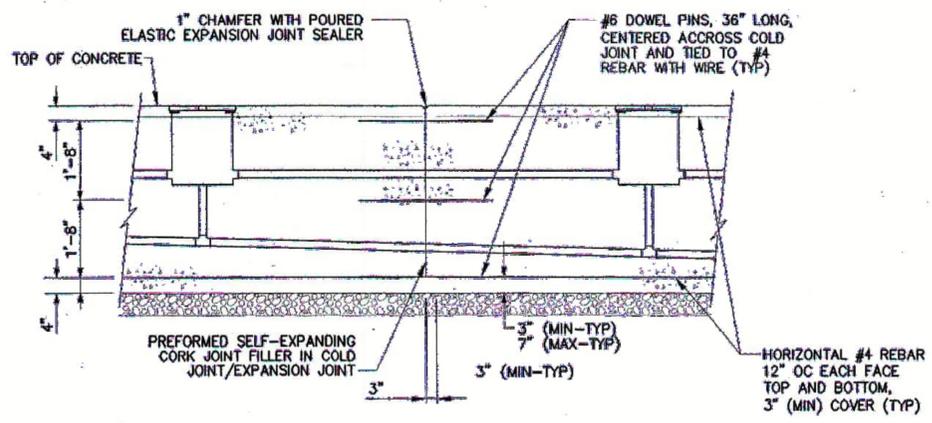
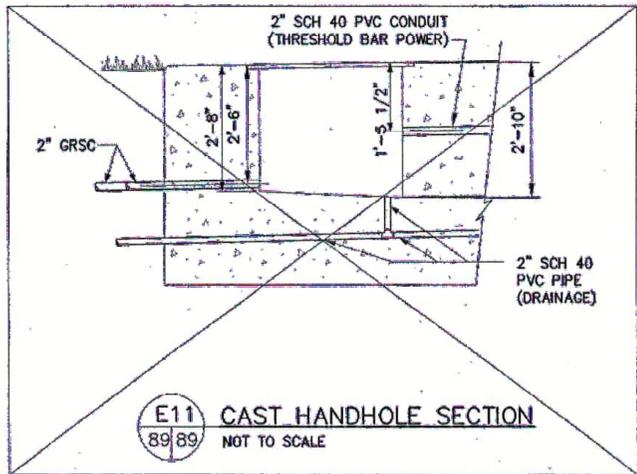
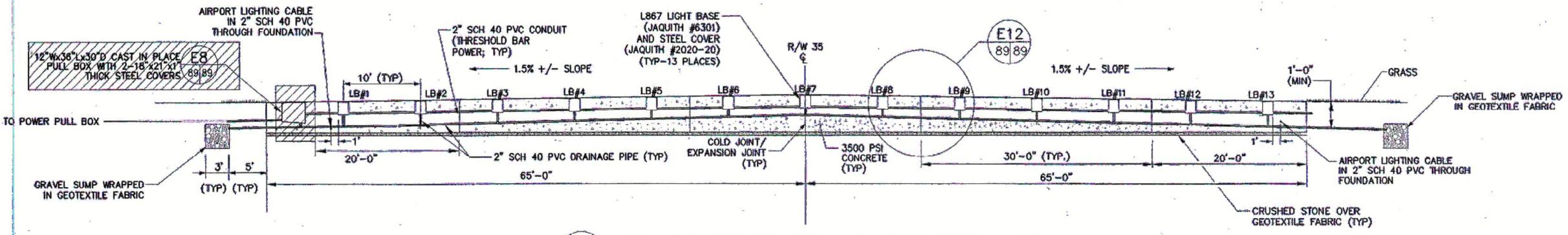
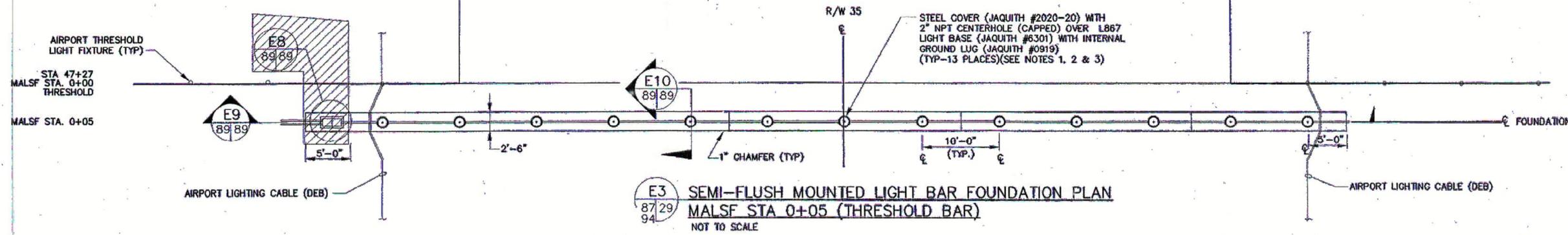
NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE  
MALS ELECTRICAL MODIFICATIONS (5 OF 9)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER  
**L5.5**  
SHEET 37 OF 43



**NOTES**

1. LIGHT BASE COVERS ARE JAQUITH #2020-20 WITH 2 INCH NPT CENTER HOLE. HOLE REMAINED CAPPED PRIOR TO LIGHT FIXTURE INSTALLATION.
2. USED ANTI-SEIZE COMPOUND ON ALL LIGHT BASE COVER BOLTS.
3. ALL LIGHT BASES HAVE 1 1/4" INCH STEEL COVERS SECURED IN PLACE PRIOR TO RE-OPENING THE RUNWAY TO AIR TRAFFIC OPERATIONS.

AS CONSTRUCTED PLANS  
I hereby certify that all construction required  
by this sheet has been accomplished as indicated  
hereon.  
EDWARDS AND KELCEY, INC.  
DATE 5/17/04

SUBMITTED BY:  
EDWARDS AND KELCEY



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1	AS-CONSTRUCTED	BCC	CAS	11/02

TOWN OF NORWOOD  
AIP NO. 3-25-0037-18  
NORWOOD MEMORIAL AIRPORT  
NORWOOD, MASSACHUSETTS  
MEDIUM INTENSITY APPROACH LIGHT SYSTEM WITH  
SEQUENCED FLASHING LIGHTS (MALSF), RUNWAY 35  
**FOUNDATION DESIGN THRESHOLD  
BAR (STA 0+05)**  
**Edwards  
and  
Kelcey**  
DESIGNED JH DATE 03/02 SCALE AS SHOWN  
DRAWN NRT DATE 03/02 DRAWING NO.  
CHECKED CAS DATE 03/02 SHEET NO. 89 OF 101



BY	OKD
DESCRIPTION	
DATE	
NO.	

NORWOOD  
MEMORIAL  
AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

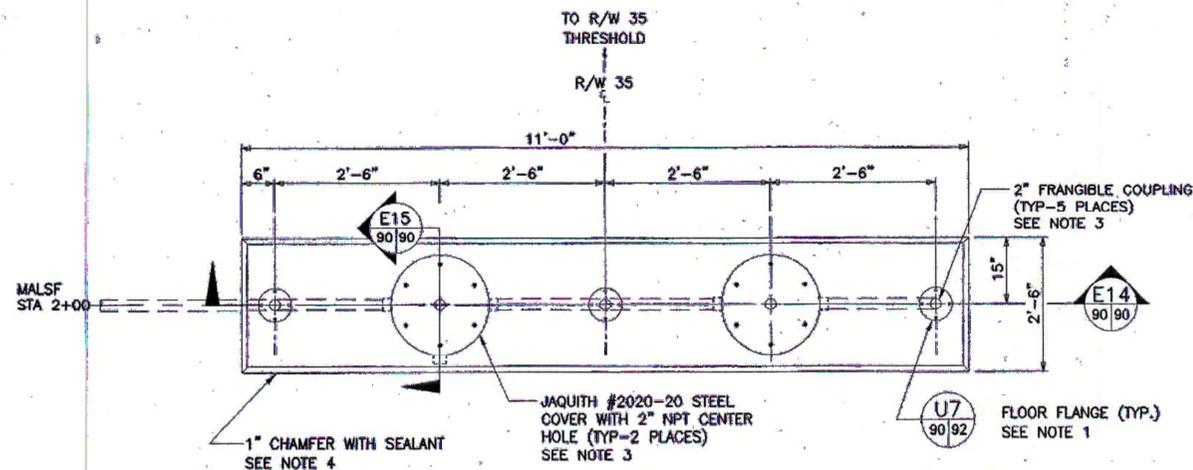
CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE  
MALS ELECTRICAL  
MODIFICATIONS (6  
OF 9)

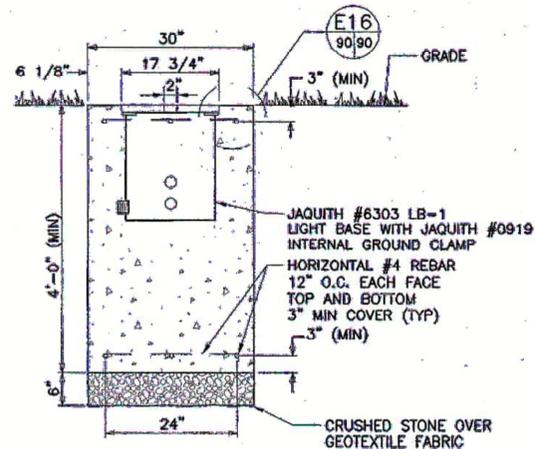
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DSP	MAR. 2026
CHECKED BY	DBK PROJECT #
JAA	329163
PROJ. ENG.	DBK ARCHIVE #
MCG	

SHEET NUMBER

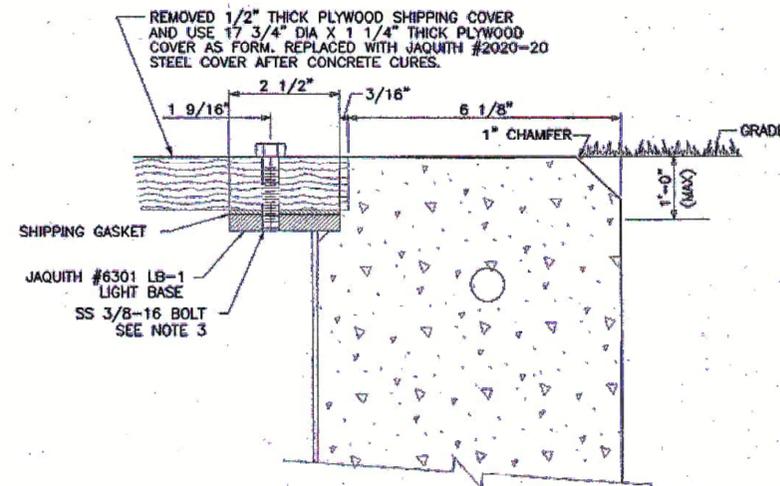
**L5.6**



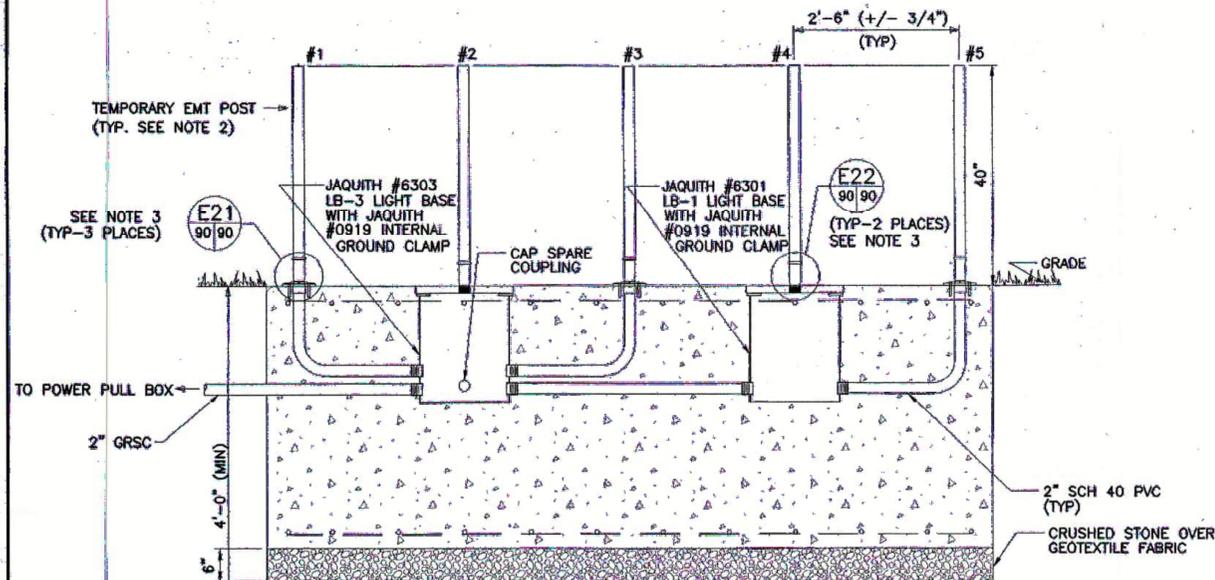
**E4** FRANGIBLE LIGHT BAR FOUNDATION PLAN  
MALS STATION 2+00  
SCALE: 3/4"=1'-0"



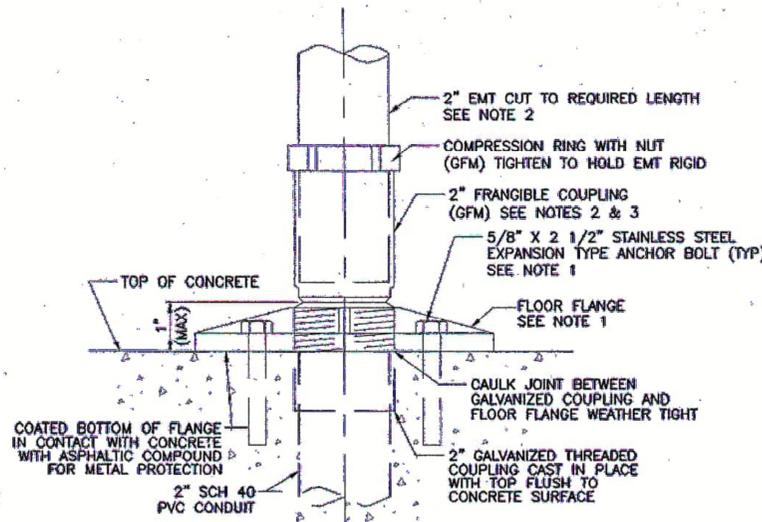
**E15** FOUNDATION SECTION  
SCALE: 3/4"=1'-0"



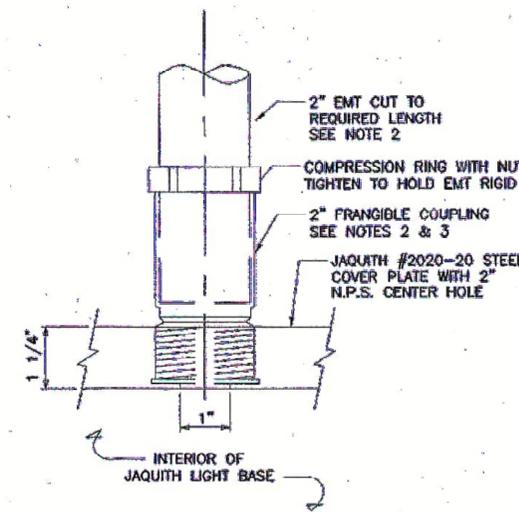
**E16** LIGHT BASE & FOUNDATION DETAIL  
(HALF SIZE)



**E14** FRANGIBLE LIGHT BAR FOUNDATION  
SCALE: 3/4"=1'-0"



**E21** FLOOR FLANGE/FRANGIBLE COUPLING INTERFACE  
(LIGHT FIXTURE #1, #3, & #5)  
NOT TO SCALE



**E22** LIGHT BASE COVER/FRANGIBLE COUPLING INTERFACE  
(LIGHT FIXTURE #2 & #4)  
NOT TO SCALE

**NOTES:**

- FLOOR FLANGES ARE COATED WITH AN ASPHALTIC COMPOUND ON BOTTOM. USED APPROVED STAINLESS STEEL EXPANSION ANCHOR BOLTS TO SECURE FLOOR FLANGE TO FOUNDATION.
- INSTALLED FRANGIBLE COUPLINGS AND 40 INCH HIGH EMT POSTS. PRIOR TO CASTING FOUNDATION TO ASSURE PROPER ALIGNMENT AND SPACING OF EACH LIGHT FIXTURE. ALL POSTS ARE PLUMB, LEVEL, AND SPACED 2 FT, 6 INCHES (+/- 3/4 INCH), CENTER TO CENTER, AT TOP. POSTS WHICH ARE CAST OUTSIDE OF THIS TOLERANCE MAY RESULT IN REJECTION AND REPLACEMENT OF THE FOUNDATION AT THE CONTRACTOR'S EXPENSE. UPON COMPLETION OF THE FOUNDATION, REMOVED COUPLINGS AND EMT AND TEMPORARILY CAP EXPOSED CONDUIT ENTRANCES UNTIL LIGHT FIXTURE INSTALLATION.
- DID APPLY ANTI-SEIZE COMPOUND ON ALL LIGHT BASE COVER BOLTS AND ALL FRANGIBLE COUPLINGS. BUFFED EMT WITH SANDPAPER AND APPLIED ANTI-SEIZE COMPOUND PRIOR TO INSERTING INTO FRANGIBLE COUPLING.

AS CONSTRUCTED PLANS  
I hereby certify that all construction required  
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BY: *[Signature]* DATE: 5/17/04

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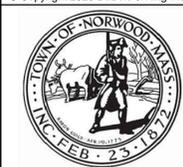
SUBMITTED BY:  
EDWARDS AND KELCEY



FAA DRAWING NO. NE-D-27748-S003  
TOWN OF NORWOOD  
AIP NO. 3-25-0037-18  
NORWOOD MEMORIAL AIRPORT  
NORWOOD, MASSACHUSETTS

MEDIUM INTENSITY APPROACH LIGHT SYSTEM WITH  
SEQUENCED FLASHING LIGHTS (MALS), RUNWAY 35  
FOUNDATION DESIGN - FRANGIBLE  
LIGHT BAR (STA. 2+00)

**Edwards and Kelcey**  
DESIGNED: JIM DATE: 03/02 SCALE: AS SHOWN  
DRAWN: DJ DATE: 03/02 DRAWING NO.  
CHECKED: JM DATE: 03/02 SHEET NO. 90 OF 101



NO.	DATE	DESCRIPTION	BY

NORWOOD MEMORIAL AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

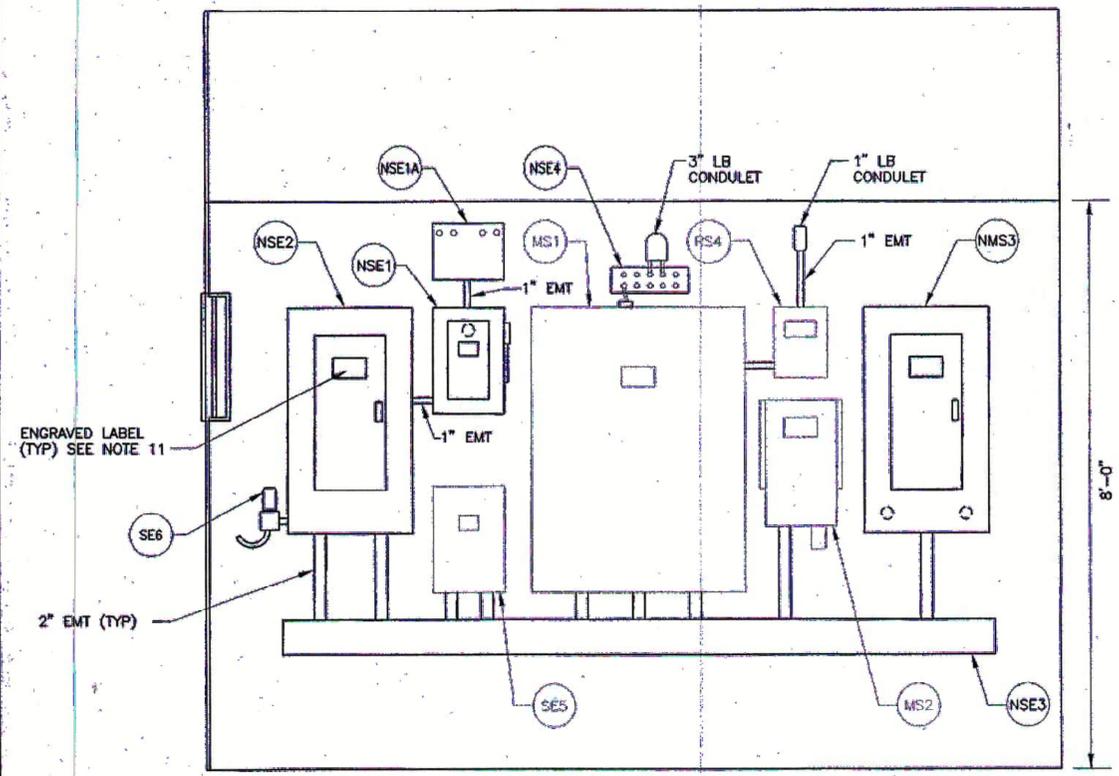
CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE  
MALS ELECTRICAL  
MODIFICATIONS (7  
OF 9)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER

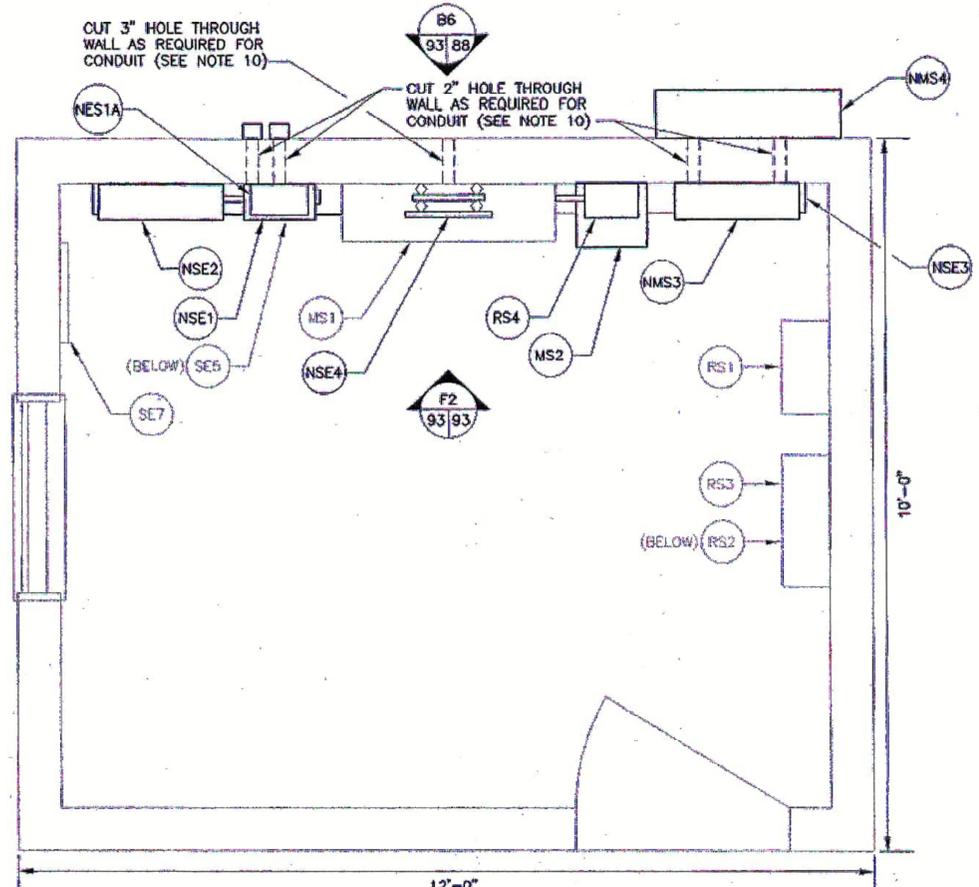
**L5.7**



**F2**  
93|93  
MALSF SHELTER INTERIOR SOUTH WALL ELEVATION  
NOT TO SCALE

ENGRAVED LABEL  
(TYP) SEE NOTE 11

2" EMT (TYP)



**F1**  
88|93  
EXISTING MALSF EQUIPMENT SHELTER INTERIOR PLAN  
NOT TO SCALE

**NOTES:**

- NEW SHELTER SERVICE ENTRANCE SWITCH IS HEAVY DUTY 200 AMP RATED, SINGLE PHASE, 120V/240V, FUSIBLE; GE # TH3224, WITH 100 AMP TD FUSES. LIGHTNING ARRESTOR IS PROTECTION CORPORATION (LPC) #20206-7. WIRED PER MANUFACTURER'S INSTRUCTIONS.
- SHELTER DISTRIBUTION PANEL IS 225 AMP RATED, SINGLE PHASE, 120V/240V, MAIN LUG ONLY; GE #AQF1182MB, WITH ENCLOSURE, GE#AB37, AND SURFACE MOUNT FRONT, GE # AF37S.
- SHELTER WIREWAY IS 6" X 6" X 10'-0" NEMA 1 SQUARE DUCT WITH REMOVABLE COVER
- SHELTER MULTI-POINT GROUND PLATE IS A 12"x4"x1/4" COPPER BAR WITH ROUNDED CORNERS AND 6 ROWS OF 3-3/716" DIAMETER HOLES SPACED 2" HORIZONTALLY AND 1" VERTICALLY. PLATE WAS MOUNTED ON 600V INSULATORS WHICH WAS MOUNTED TO THE WALL WITH MOUNTING BRACKETS. A 16"x8"x3/16" CLEAR PLEXIGLASS COVER WITH ROUNDED CORNERS WAS MOUNTED IN FRONT OF THE GROUND PLATE USING ADDITIONAL 600V INSULATORS. LABEL PLEXIGLASS COVER, "ELECTRONIC MULTI-POINT GROUND SYSTEM", USING 1" BLACK LETTERS. GROUND CONDUCTORS WERE ATTACHED TO THE GROUND PLATE USING DOUBLE LUGS (TWO HOLES EACH).
- MALS FIELD DISTRIBUTION PANEL IS 100 AMP RATED, SINGLE PHASE, 120V/240V, 60 A MAIN BREAKER; GE #AQF1181AB, WITH ENCLOSURE, GE#AB31, AND SURFACE MOUNT FRONT, GE # AF31S.
- REMOVED AND DISPOSED OF EXISTING SHELTER SERVICE ENTRANCE SWITCH (AND SURGE PROTECTOR), EXISTING SHELTER DISTRIBUTION PANEL, EXISTING MALS FIELD LIGHTING PANEL, AND EXISTING WIREWAY.
- EXISTING SHELTER DEMARC BOX AND EXISTING THERMOSTAT MAY REQUIRE RELOCATION TO ALLOW FOR NEW SHELTER DISTRIBUTION PANEL INSTALLATION. RELOCATED OTHER ENCLOSURES AS WELL IF REQUIRED.
- ALL EXISTING SHELTER POWER AND CONTROL/COMMUNICATIONS REWIRING REQUIRED FOR NEW SERVICE ENTRANCE SWITCH, DISTRIBUTION PANEL AND/OR NEW WIREWAY INSTALLATION WERE COMPLETED AS REQUIRED. COORDINATED ALL CONTROL AND COMMUNICATION TERMINATIONS WITH THE FAA.
- ALL WIRING BETWEEN MALSF EQUIPMENT COMPONENTS WAS REPLACED WITH NEW WIRING MATCHING EXISTING. DISPOSE OF OLD WIRING.
- FIELD CUT THROUGH SHELTER WALL AS REQUIRED FOR NEW CONDUIT PENETRATIONS. PENETRATIONS WERE SEALED AROUND CONDUIT WEATHERTIGHT.
- NEW ENGRAVED LABELS WERE ADHERED TO THE FACE COVER OF EACH EXISTING AND NEW ENCLOSURE. EACH LABEL READS, "R/W 35 MALSF" FOLLOWED BY THE DESCRIPTION OF THE ENCLOSURE (I.E. "SHELTER DISTRIBUTION PANEL"). LABELS ARE 2 INCHES BY 4 INCHES, BLACK LETTERING ON WHITE BACKGROUND (STAPLES ITEM #94102, STYLE 10, OR EQUAL).
- SHELTER IS ELEVATED ONTO A HIGHER FOUNDATION AT PRESENT LOCATION, BY OTHERS, DURING THE MALSF SHUTDOWN PERIOD. COORDINATED INTERIOR AND EXTERIOR SHELTER WORK WITH SHELTER CONTRACTOR AND THE FAA.

**NEW SHELTER EQUIPMENT**

- (NSE1) SHELTER POWER SERVICE ENTRANCE SWITCH (SEE NOTE 1)
- (NSE1A) POWER SERVICE LIGHTNING ARRESTOR (SEE NOTE 1)
- (NSE2) SHELTER DISTRIBUTION PANEL (SEE NOTE 2)
- (NSE3) WIREWAY (SEE NOTE 3)
- (NSE4) MULTI-POINT GROUND PLATE WITH PLEXIGLASS COVER (SEE NOTE 4)

**EXISTING SHELTER EQUIPMENT (TO REMAIN)**

- (SE5) SHELTER DEMARC BOX (RELOCATED AS REQUIRED)
- (SE6) SHELTER THERMOSTAT (RELOCATED AS REQUIRED)
- (SE7) SHELTER HEATER UNIT

**NEW MALSF EQUIPMENT**

- (NMS3) MALS FIELD LIGHTING DISTRIBUTION PANEL (SEE NOTE 5)
- (NMS4) MALS FIELD LIGHTING JUNCTION BOX

**EXISTING MALSF EQUIPMENT**

- (MS1) MALSF CONTROL CABINET (MULTI-ELECTRIC)
- (MS2) MALSF POWER TRANSFORMER (MULTI-ELECTRIC)

**EXISTING RRCS EQUIPMENT (TO REMAIN)**

- (RS1) RRCS INTERFACE UNIT (AVW ELECTRONIC SYSTEMS)
- (RS2) RRCS GROUND TO GROUND (G-G) DECODER (SONICRAFT)
- (RS3) RRCS GROUND TO GROUND (G-G) RECEIVER (SONICRAFT)
- (RS4) RRCS AIR TO GROUND RECEIVER/CONTROLLER (CONTROL INDUSTRIES)

AS CONSTRUCTED PLANS  
I hereby certify that all construction required  
by this sheet has been accomplished as indicated  
hereon.  
EDWARDS AND KELCEY, INC.  
DATE 5/17/04

SUBMITTED BY:  
EDWARDS AND KELCEY



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1	AS-CONSTRUCTED	BCC	CAS	11/02

TOWN OF NORWOOD  
AIP NO. 3-25-0037-18

NORWOOD MEMORIAL AIRPORT  
NORWOOD, MASSACHUSETTS

MEDIUM INTENSITY APPROACH LIGHT SYSTEM WITH  
SEQUENCED FLASHING LIGHTS (MALSF), RUNWAY 35  
EQUIPMENT SHELTER INTERIOR

**Edwards  
and Kelcey**

DESIGNED JM DATE 03/02 SCALE AS SHOWN  
DRAWN NRT DATE 03/02 DRAWING NO.  
CHECKED CAS DATE 03/02 SHEET NO. 95 OF 101



BY	CKD
DESCRIPTION	
DATE	
NO.	

NORWOOD MEMORIAL AIRPORT  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

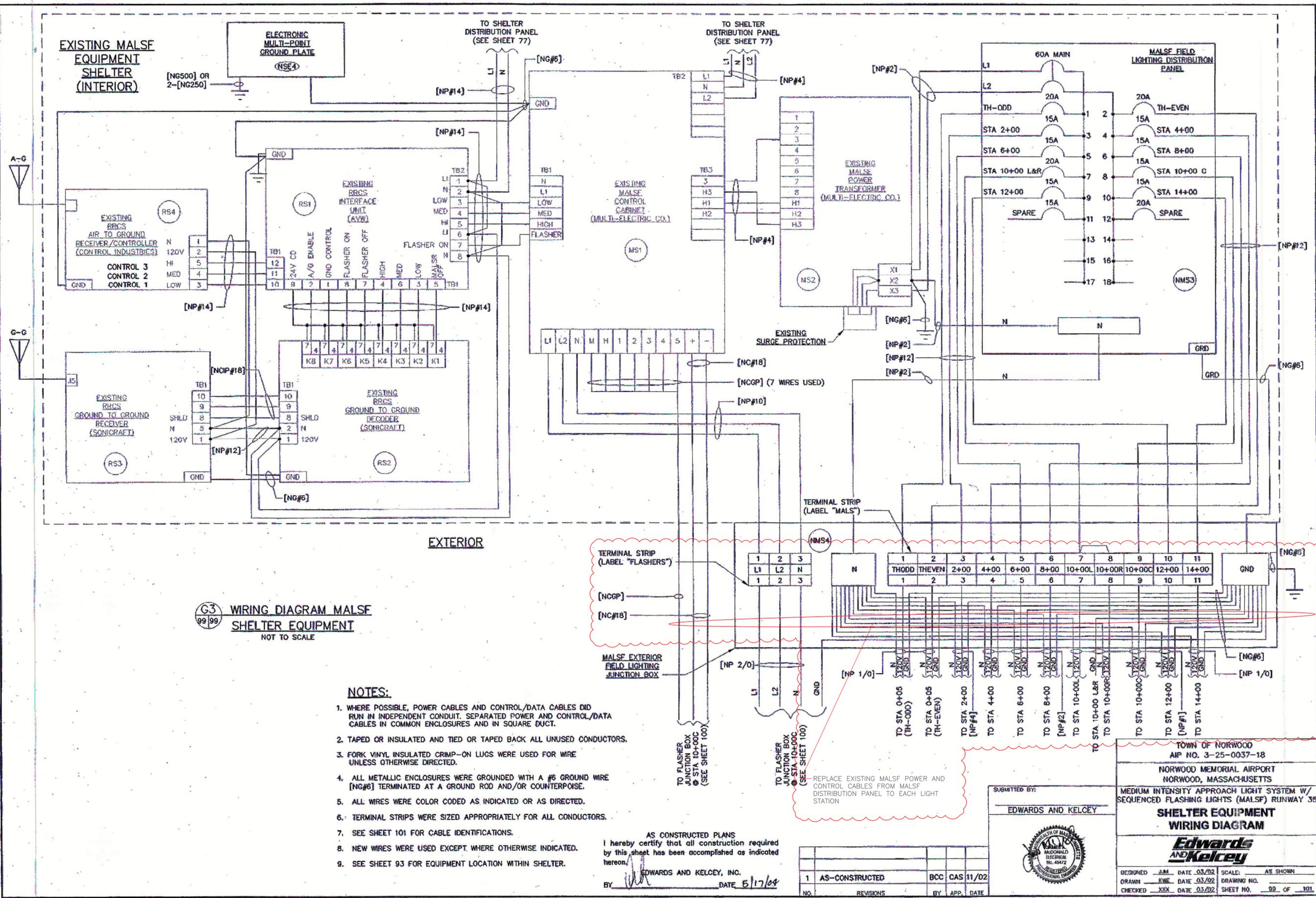
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 RUNWAY 17-35  
 EXTENSION  
 (600' x 100')

SHEET TITLE  
 MALS ELECTRICAL  
 MODIFICATIONS (8  
 OF 9)

DRAWN BY	DATE
DSP	MAR. 2026
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JAA	329163
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MCG	

SHEET NUMBER

**L5.8**



**G3** WIRING DIAGRAM MALS SHELTER EQUIPMENT  
 99/99 NOT TO SCALE

- NOTES:**
- WHERE POSSIBLE, POWER CABLES AND CONTROL/DATA CABLES DID RUN IN INDEPENDENT CONDUIT. SEPARATED POWER AND CONTROL/DATA CABLES IN COMMON ENCLOSURES AND IN SQUARE DUCT.
  - TAPED OR INSULATED AND TIED OR TAPED BACK ALL UNUSED CONDUCTORS.
  - FORK VINYL INSULATED CRIMP-ON LUGS WERE USED FOR WIRE UNLESS OTHERWISE DIRECTED.
  - ALL METALLIC ENCLOSURES WERE GROUNDED WITH A #6 GROUND WIRE [NG#6] TERMINATED AT A GROUND ROD AND/OR COUNTERPOISE.
  - ALL WIRES WERE COLOR CODED AS INDICATED OR AS DIRECTED.
  - TERMINAL STRIPS WERE SIZED APPROPRIATELY FOR ALL CONDUCTORS.
  - SEE SHEET 101 FOR CABLE IDENTIFICATIONS.
  - NEW WIRES WERE USED EXCEPT WHERE OTHERWISE INDICATED.
  - SEE SHEET 93 FOR EQUIPMENT LOCATION WITHIN SHELTER.

AS CONSTRUCTED PLANS  
 I hereby certify that all construction required by this sheet has been accomplished as indicated hereon.  
 EDWARDS AND KELCEY, INC.  
 BY: [Signature] DATE: 5/17/04

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 EDWARDS AND KELCEY



TOWN OF NORWOOD  
 AIP NO. 3-25-0037-18  
 NORWOOD MEMORIAL AIRPORT  
 NORWOOD, MASSACHUSETTS  
 MEDIUM INTENSITY APPROACH LIGHT SYSTEM W/  
 SEQUENCED FLASHING LIGHTS (MALS) RUNWAY 35  
**SHELTER EQUIPMENT  
 WIRING DIAGRAM**  
**Edwards  
 and Kelcey**  
 DESIGNED: JAM DATE: 03/02 SCALE: AS SHOWN  
 DRAWN: KNE DATE: 03/02 DRAWING NO.  
 CHECKED: XXX DATE: 03/02 SHEET NO. 99 OF 101



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DATE	
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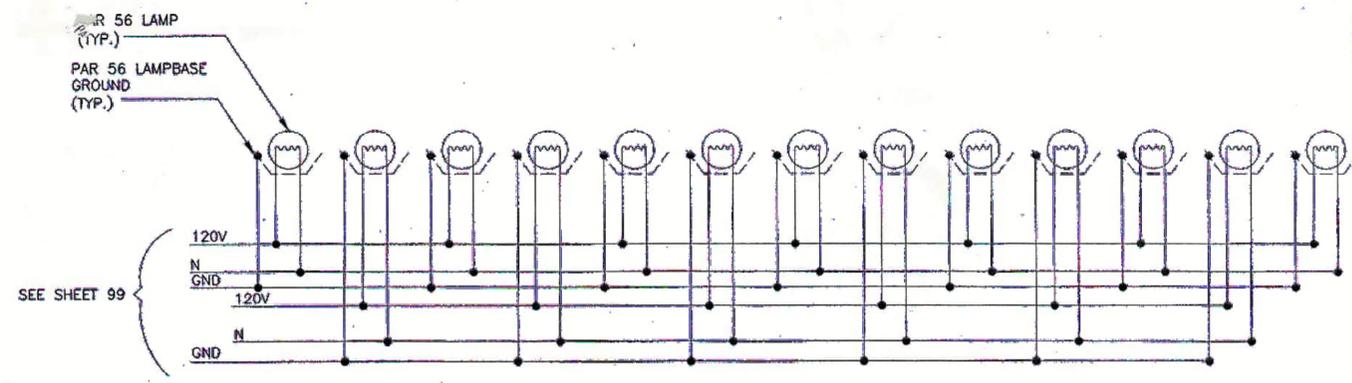
NORWOOD MEMORIAL AIRPORT  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

CONSTRUCT  
 RUNWAY 17-35  
 EXTENSION  
 (600' x 100')

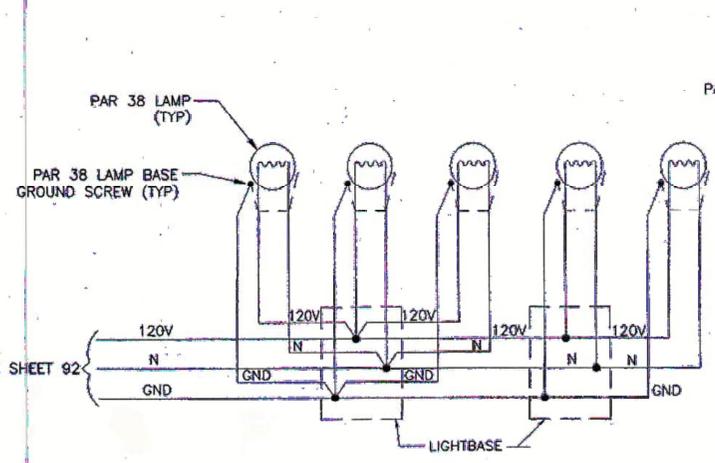
SHEET TITLE  
 MALS ELECTRICAL  
 MODIFICATIONS (9  
 OF 9)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
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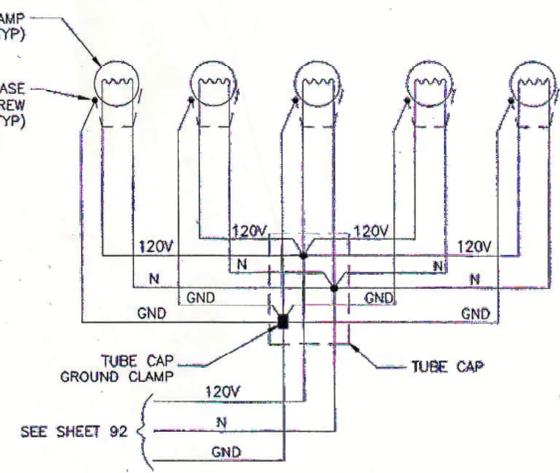
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 SHEET 41 OF 43



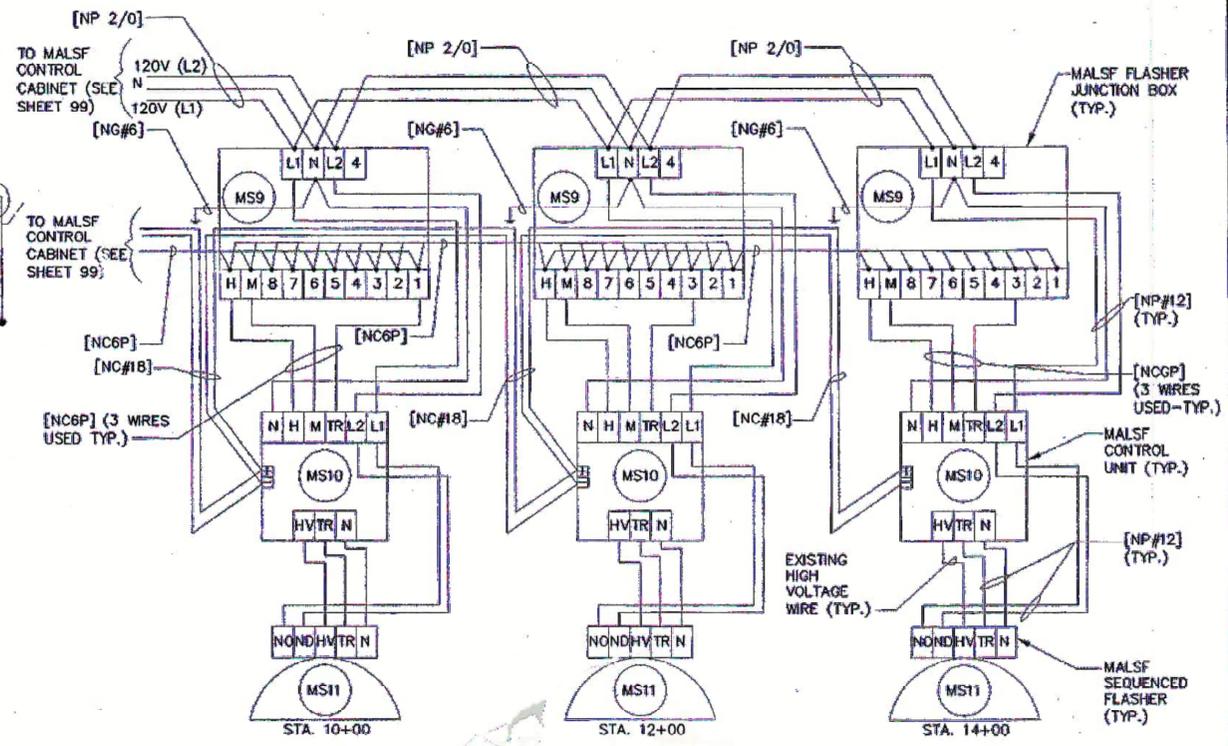
**G5** WIRING DIAGRAM IN-PAVEMENT THRESHOLD LIGHT BAR MALS STA 0+05  
 NOT TO SCALE



**G6** WIRING DIAGRAM FRANGIBLE MALS LIGHT BAR MALS STA 2+00  
 NOT TO SCALE



**G7** WIRING DIAGRAM LIR TOWER MALS LIGHT BAR MALS STA 4+00, 6+00, 8+00, 12+00, 14+00  
 NOT TO SCALE



**G4** WIRING DIAGRAM SEQUENCED FLASHERS MALS STA 10+00, 12+00, 14+00  
 NOT TO SCALE

- NOTES:**
- WHERE POSSIBLE, POWER CABLES AND CONTROL/DATA CABLES DID RUN IN INDEPENDENT CONDUIT. SEPARATED POWER AND CONTROL/DATA CABLES IN COMMON ENCLOSURES AND IN SQUARE DUCT.
  - TAPED OR INSULATED AND TIED OR TAPED BACK ALL UNUSED CONDUCTORS.
  - FORK VINYL INSULATED CRIMP ON LUGS WAS USED FOR WIRE TERMINATIONS UNLESS OTHERWISE DIRECTED.
  - ALL METALLIC ENCLOSURES WERE GROUNDED WITH A #6 GROUND WIRE [NG#6] TERMINATED AT A GROUND ROD AND/OR COUNTERPOISE.
  - ALL WIRES WERE COLOR CODED AS INDICATED OR AS DIRECTED.
  - TERMINAL STRIPS WERE SIZED APPROPRIATELY FOR ALL CONDUCTORS.
  - SEE SHEET 101 FOR CABLE IDENTIFICATION.

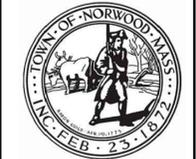
AS CONSTRUCTED PLANS  
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 EDWARDS AND KELCEY, INC.  
 BY *[Signature]* DATE 5/17/04

NO.	REVISIONS	BY	APP.	DATE
1	AS-CONSTRUCTED	BCC	CAS	11/02

SUBMITTED BY:  
 EDWARDS AND KELCEY



FAA DRAWING NE-D-27748-E003  
 TOWN OF NORWOOD  
 AIP NO. 3-25-0037-18  
 NORWOOD MEMORIAL AIRPORT  
 NORWOOD, MASSACHUSETTS  
 MEDIUM INTENSITY APPROACH LIGHT SYSTEM WITH SEQUENCED FLASHING LIGHTS (MALS), RUNWAY 35  
**LIGHT STATION WIRING DIAGRAMS**  
**Edwards and Kelcey**  
 DESIGNED JIM DATE 03/02 SCALE: AS SHOWN  
 DRAWN HRT DATE 03/02 DRAWING NO.  
 CHECKED CAS DATE 03/02 SHEET NO. 100 OF 101



NO.	DATE	DESCRIPTION	BY	CK'D

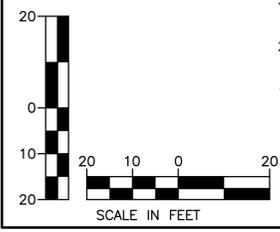
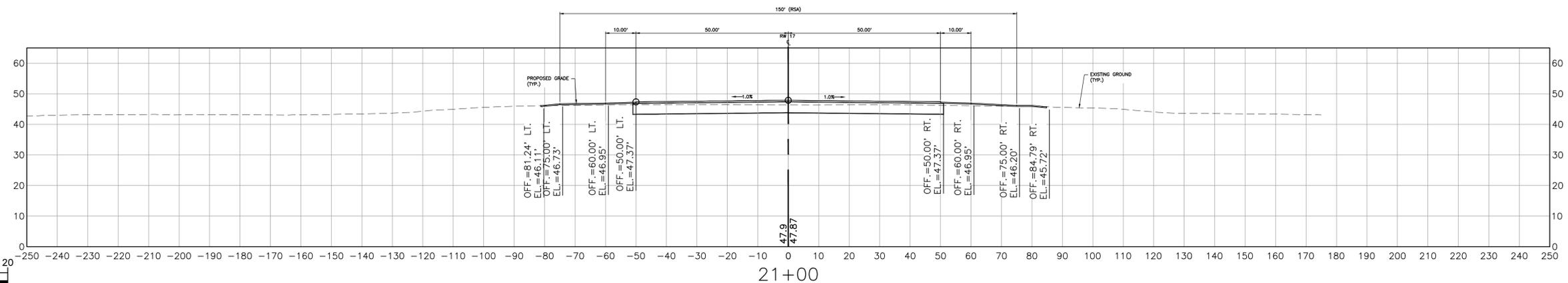
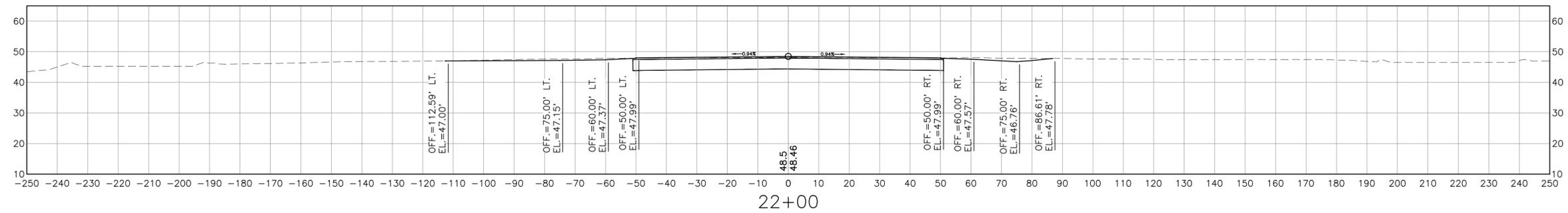
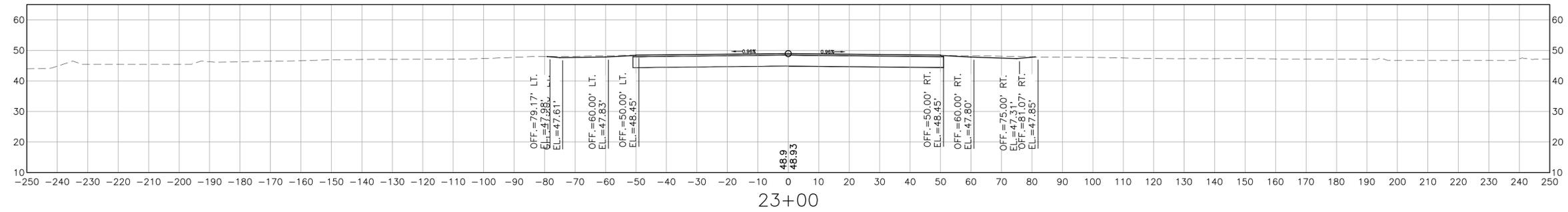
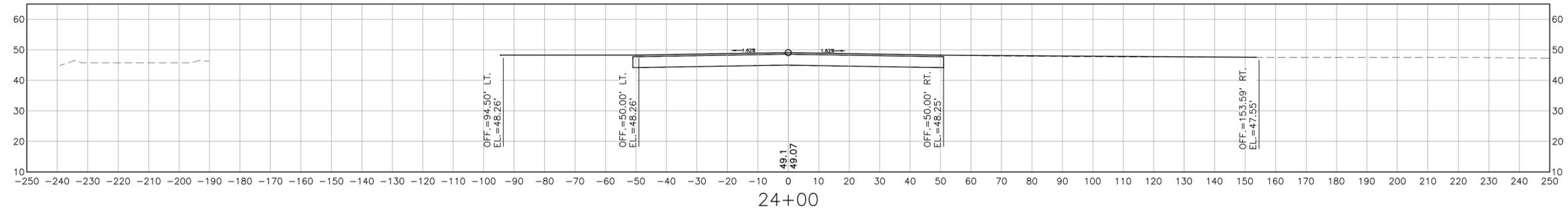
NORWOOD  
MEMORIAL  
AIRPORT  
111 ACCESS ROAD  
BUILDING #9  
NORWOOD, MA

CONSTRUCT  
RUNWAY 17-35  
EXTENSION  
(600' x 100')

SHEET TITLE  
RUNWAY 17  
CROSS SECTIONS  
(1 OF 2)

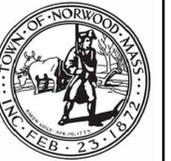
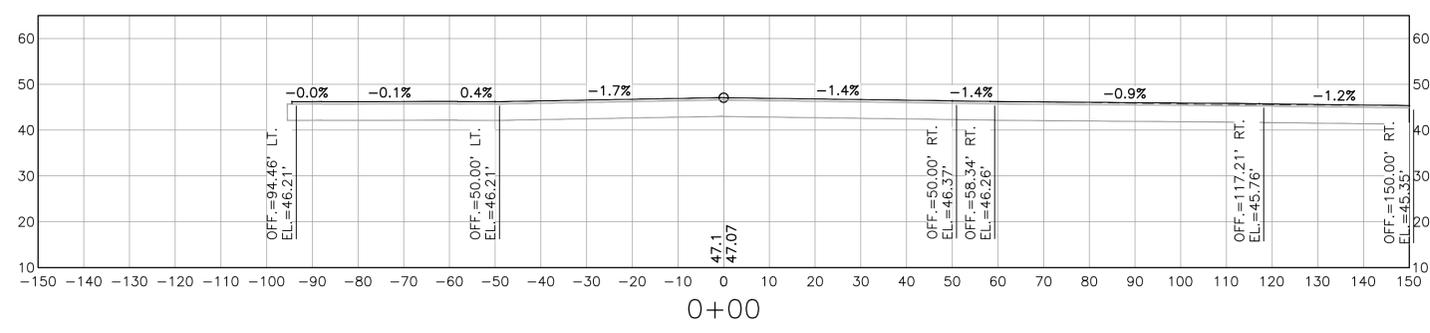
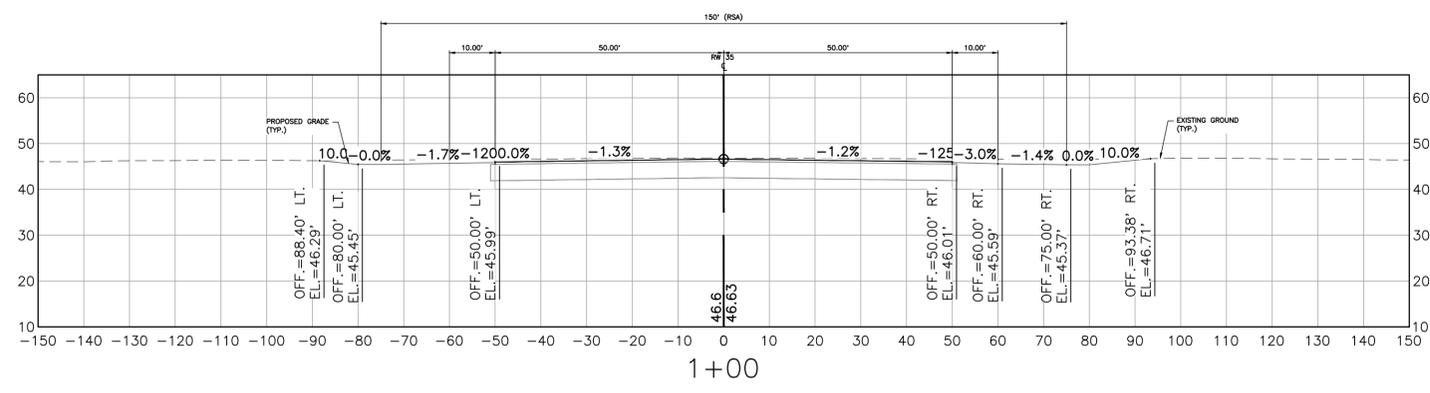
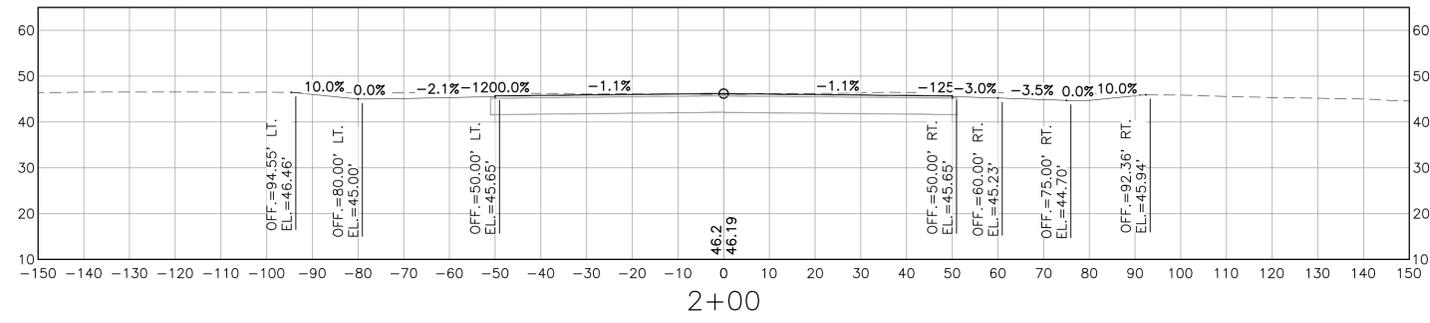
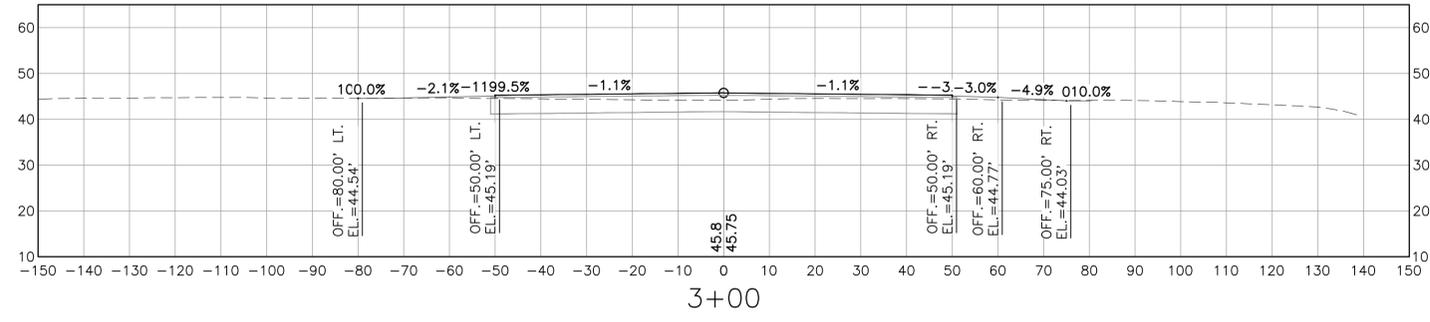
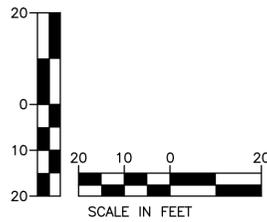
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CHECKED BY JAA	D&K PROJECT # 329163
PROJ. ENG. MCG	D&K ARCHIVE #

SHEET NUMBER  
**X1.1**  
SHEET 42 OF 43



I:\329163 - Norwood Airport Runway 17-35 Extension\Drawings\229163\_FDE\_XSec.dwg FEBRUARY 2024

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NO.	DATE	DESCRIPTION	BY	CK'D

NORWOOD  
 MEMORIAL  
 AIRPORT  
 111 ACCESS ROAD  
 BUILDING #9  
 NORWOOD, MA

CONSTRUCT  
 RUNWAY 17-35  
 EXTENSION  
 (600' x 100')

SHEET TITLE  
 RUNWAY 35  
 CROSS SECTIONS  
 (2 OF 2)

DRAWN BY	DATE
DSP	MAR. 2026
CHECKED BY	D&K PROJECT #
JAA	329163
PROJ. ENG.	D&K ARCHIVE #
MCG	

SHEET NUMBER  
**X1.2**  
 SHEET 43 OF 43