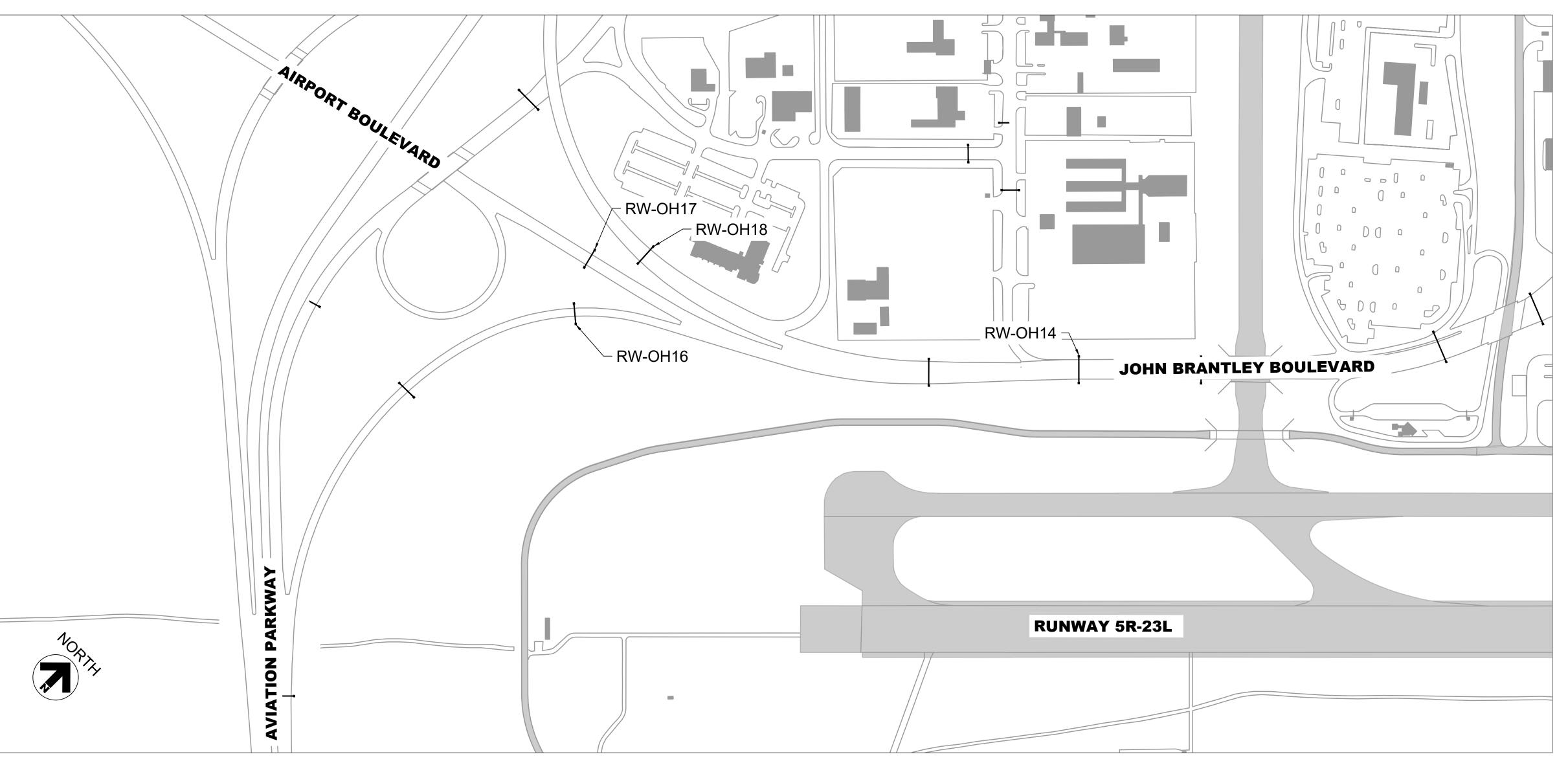
# RALEIGH-DURHAM INTERNATIONAL AIRPORT

RALEIGH, NORTH CAROLINA

# ROADWAY SIGNS - AIRLINE NAMES INSTALLATION PACKAGE

**RS&H PROJECT NUMBER: 1051-0068-002** 







RALEIGH-DURHAM AIRPORT AUTHORITY BIDDING DOCUMENTS
APRIL 2024

DRAWINGS PREPARED BY:



RS&H ARCHITECTS-ENGINEERS-PLANNERS, INC.

8521 SIX FORKS ROAD, SUITE 400 RALEIGH, NC 27615 PH (919) 926-4100 www.rsandh.com NC LICENSE NOS. 50073 \* F-0493 \* C-28

SHEET NUMBER	SHEET NAME
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G02.01	CONTRACTOR STAGING AREA
G03.01	PROJECT KEYMAP
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C01.02	TRAFFIC CONTROL - RW-OH14 PHASE 1B
C01.03	TRAFFIC CONTROL - RW-OH14 PHASE 1C (1 OF 3)
C01.04	TRAFFIC CONTROL - RW-OH14 PHASE 1C (2 OF 3)
C01.05	TRAFFIC CONTROL - RW-OH14 PHASE 1C (3 OF 3)
C01.06	TRAFFIC CONTROL - RW-OH16 PHASE 2 (1 OF 2)
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C05.01	OVERHEAD SIGN PANEL LAYOUTS
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C07.01	OVERHEAD SIGN 14 GEOTECHNICAL BORINGS 1
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GR1.01	SIGN LOCATION PLAN
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S-001	STRUCTURAL NOTES
S-100	OH-14 FOUNDATION LAYOUT
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S-102	OH-14 TERMINAL 2 WAY FINDING SIGN SUPPORT DETAILS
S-103	OH-16 WAY FINDING SIGN DETAILS
S-104	OH-17 WAY FINDING SIGN DETAILS
S-105	OH-18 WAY FINDING SIGN DETAILS

Docusign Envelope ID: 6E3C975D-4239-4769-9520-19EA21D8F82A

THIS PROJECT SHALL BE BID AS A LUMP SUM. ALL ITEMS DEPICTED IN CONTRACT DOCUMENTS, INCLUDING SHEET PLANS AND SPECIFICATIONS. SHALL BE INCLUDED IN THE LUMP SUM BID PRICE.

### CONTRACTOR'S SAFETY AND SECURITY REQUIREMENTS

#### **SAFETY**

- 1. THE TERM "CONTRACTOR" MEANS THE PRIME CONTRACTOR, HIS/HER SUBCONTRACTORS, SUPPLIERS, MATERIAL, EMPLOYEES, AND OTHERS WHO WILL PERFORM SERVICES FOR OR IN CONJUNCTION WITH THE PRIME CONTRACTOR. THE TERM "AIRPORT" OR "AUTHORITY" MEANS THE RALEIGH-DURHAM AIRPORT AUTHORITY AND AUTHORIZED REPRESENTATIVES OF THE AUTHORITY, AIRPORT MAINTENANCE PERSONNEL, OR AIRPORT OPERATIONS PERSONNEL. THE TERM "CONSTRUCTION PROJECT MANAGER" OR "RDUAA CPM" REFERS TO THE INDIVIDUAL REPRESENTING THE AIRPORT IN THE FIELD.
- 2. THE CONTRACTOR SHALL ACQUAINT THEIR SUPERVISORS AND EMPLOYEES OF THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO RALEIGH-DURHAM INTERNATIONAL AIRPORT (RDU) AND SHALL CONDUCT THE CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE REQUIREMENTS AND GUIDELINES ON SAFETY AS SPECIFIED IN SAFETY NOTE 3. CONTRACTOR SHALL SUBMIT A SAFETY PLAN TO THE AIRPORT WHICH WILL BE MONITORED ACCORDINGLY. CONSTRUCTION SHALL NOT COMMENCE UNTIL THIS PLAN IS APPROVED BY THE AIRPORT.
- 3. CONSTRUCTION DURING THE PROJECT MAY BE HALTED AT ANY TIME BY THE AUTHORITY, RDUAA CPM, OR ENGINEER IF IT IS DETERMINED TO BE IN THE BEST INTEREST OF AIRPORT OPERATIONS OR SAFETY. THE CONTRACTOR MAY BE DIRECTED TO REMOVE EQUIPMENT IF NECESSARY. NECESSARY EXTENSIONS IN CONTRACT TIME MAY BE GRANTED OR A STOP WORK ORDER WILL BE ISSUED DUE TO THESE DELAYS. HOWEVER, THERE WILL BE NO ADJUSTMENTS IN CONTRACT AMOUNT DUE TO THESE DELAYS.
- 4. THE CONTRACTOR SHALL PREPARE SAFETY PLANS SPECIFIC TO 1) DAYTIME AND NIGHTTIME CONSTRUCTION OPERATIONS, AS WELL AS A 2) CONTINGENCY PLAN TO ADDRESS CASES OF ABNORMAL FAILURES OR UNEXPECTED DISASTERS.

#### **SECURITY**

- 1. IT IS INTENDED THAT THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE AIRPORT SECURITY PLAN AND WITH THE SECURITY REQUIREMENTS SPECIFIED WITHIN THE CONTRACT SPECIAL CONDITIONS. ALL REQUIREMENTS SPECIFIED HEREIN SHALL BE USED AS SUPPLEMENT TO THE SPECIAL CONDITIONS. THE CONTRACTOR SHALL DESIGNATE TO THE RDUAA CPM AND AIRPORT, IN WRITING, THE NAME OF HIS "CONTRACTOR SECURITY & SAFETY OFFICER (CSSO)." THE CSSO SHALL REPRESENT THE CONTRACTOR ON THE SECURITY AND SAFETY REQUIREMENTS FOR THE CONTRACT. THE CSSO SHALL PROVIDE TELEPHONE NUMBERS WHICH ALLOW THE RDUAA CPM AND/OR THE AIRPORT THE ABILITY TO CONTACT THE CSSO 24 HOURS A DAY.
- 2. THE CSSO SHALL BE RESPONSIBLE FOR BRIEFING ALL CONTRACTOR PERSONNEL ON SECURITY REQUIREMENTS. ALL NEW CONTRACTOR EMPLOYEES SHALL BE BRIEFED ON SECURITY REQUIREMENTS PRIOR TO WORKING IN THE CONSTRUCTION AREA.
- 3. CONTRACTOR EMPLOYEE VEHICLES SHALL BE RESTRICTED TO THE CONTRACTOR'S EMPLOYEE PARKING AREA. SEE SHEET G02.01 FOR CONTRACTOR EMPLOYEE PARKING LOCATIONS.

#### **GENERAL CONSTRUCTION NOTES**

- 1. UNLESS OTHERWISE DIRECTED IN THE CONTRACT DOCUMENTS, ALL COSTS ASSOCIATED WITH THE REQUIREMENTS, CONDITIONS, ACTIONS, ACTIVITIES, ETC. REFERENCED IN THESE PLANS AND SPECIFICATIONS SHALL BE INCLUDED AS DIRECT OR INCIDENTAL COSTS IN THE BID PRICE SUBMITTED BY THE CONTRACTOR.
- 2. GEOTECHNICAL INVESTIGATION WAS PERFORMED BY:

S&ME. INC. 3201 SPRING FOREST ROAD RALEIGH, NC 27616 (919-469-4800)

SURVEY CONTROL INFORMATION (WHERE AVAILABLE) PROVIDED BY:

WETHERILL ENGINEERING, INC. 1223 JONES FRANKLIN ROAD RALEIGH, NC 27606 (919-851-8077)

- 3. PRIOR TO PERFORMING ANY EXCAVATION IN THE VICINITY OF ANY LIGHT OR CIRCUIT, THE CONTRACTOR SHALL IDENTIFY, VERIFY IN COORDINATION WITH THE UTILITY OWNER THE APPROPRIATE CONNECTIONS THAT WILL NEED TO BE OPERATED TO ISOLATE THE POTENTIAL IMPACTED CIRCUIT, AND HAVE SPLICE KITS APPROPRIATE TO REPAIR THE IMPACTED CIRCUITS. ALL UTILITIES WITHIN THE WORK AREA MUST BE LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS THAT ARE PERTINENT TO THIS PROJECT. UNLESS OTHERWISE DIRECTED, THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO OBTAIN AND PAY ALL COSTS ASSOCIATED WITH PERMITS AND/OR LICENSES REQUIRED TO ACCOMPLISH THIS WORK. ALL APPLICABLE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 5. THE RDUAA CPM SHALL BE NOTIFIED IN WRITING OF ANY EXISTING CONDITIONS THAT VARY FROM THOSE SHOWN ON THE DRAWINGS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE DRAWINGS WITHOUT WRITTEN APPROVAL OF THE RDUAA CPM
- 6. PRIOR TO ANY CONSTRUCTION, A PRE-CONSTRUCTION MEETING WITH THE AIRPORT, THE RDUAA CPM, AND ANY OTHER AFFECTED AGENCY OR STAKEHOLDER IS REQUIRED.
- 7. EMERGENCY OPERATIONS SHALL HAVE RIGHT-OF-WAY OVER ALL CONTRACTOR'S OPERATIONS AT ALL TIMES.
- 8. THE CONTRACTOR SHALL MAINTAIN SAFE VEHICULAR MOBILITY. NO ROADWAY LANES WILL BE BLOCKED OR UNDULY RESTRICTED UNLESS SHOWN ON THE PLANS OR APPROVED BY THE RDUAA CPM.
- 9. THE AIRPORT OR RDUAA CPM MAY PERFORM WORK WITH ITS' OWN FORCES OR THOSE OF ANOTHER CONTRACTOR. IN THE EVENT THAT CONFLICTS IN SCHEDULING OR ACCESS OCCUR BETWEEN CONTRACTORS OR BETWEEN THE RDUAA CPM AND CONTRACTOR, THE RDUAA CPM SHALL BE THE SOLE JUDGE IN RESOLVING THE CONFLICT AND THE RDUAA CPM'S DECISION SHALL BE FINAL.
- 10. NO OPEN TOP DUMPSTERS ARE ALLOWED IN THE PROJECT AREA OR IN STAGING AREAS. (MUST BE COVERED)
- 11. SHOP DRAWINGS FOR ALL MATERIALS TO BE USED ON THE PROJECT SHALL BE REVIEWED AND APPROVED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION OR INSTALLATION. ALL MATERIALS SHALL BE RELEASED FOR CONSTRUCTION OR INSTALLATION BY THE ENGINEER.
- 12. THE CONTRACTOR SHALL SCHEDULE INSPECTIONS, SAMPLING, TESTS, ETC. ASSOCIATED WITH THE QUALITY CONTROL TEST PROGRAM IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS AND SPECIAL CONDITIONS.
- 13. ALL EXISTING FACILITIES SHALL BE PROTECTED UNLESS SPECIFIED OTHERWISE. EXISTING ITEMS DISTURBED BY THE CONTRACTOR'S ACTIONS OR ACTIVITIES AS WELL AS BY OTHERS, IF IMPROPERLY PROTECTED, MARKED, ETC. SHALL BE RESTORED TO THE SATISFACTION OF THE RDUAA CPM TO ORIGINAL CONDITION WITHIN THE TIME FRAME DETERMINED BY THE RDUAA CPM AT NO ADDITIONAL EXPENSE TO THE AIRPORT. ALL CONSEQUENTIAL RESTORATIONS AND CORRECTIONS ASSOCIATED WITH THIS ITEM SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE AIRPORT.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEGAL OFFSITE DISPOSAL OF ALL CONSTRUCTION MATERIALS THAT ARE NOT TO BE KEPT BY THE AIRPORT. THE AIRPORT SHALL BE OFFERED THE EXISTING SIGN PANELS AND ASSOCIATED PARTS. IF THE AIRPORT DOES NOT WISH TO KEEP THEM, THE CONTRACTOR SHALL DISPOSE OF THEM.



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RALEIGH-DURHAM **INTERNATIONAL AIRPORT** 

RALEIGH, NC

**ROADWAY SIGNS -**AIRLINE NAMES **INSTALLATION PACKAGE** 

**ENGINEER'S SEAL** RTH CAROLINA ROFESSIONA 048840 10/3/2024

> **NOT RELEASED FOR** CONSTRUCTION **CONSULTANTS**

. FNGINEER.

WOHN HOLME

**REVISIONS** DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH

DRAWN BY: MEO DESIGNED BY: JLH **AEP PROJECT NUMBER** 

1051-0068-002 (C) 2024 RS&H, INC. SHEET TITLE

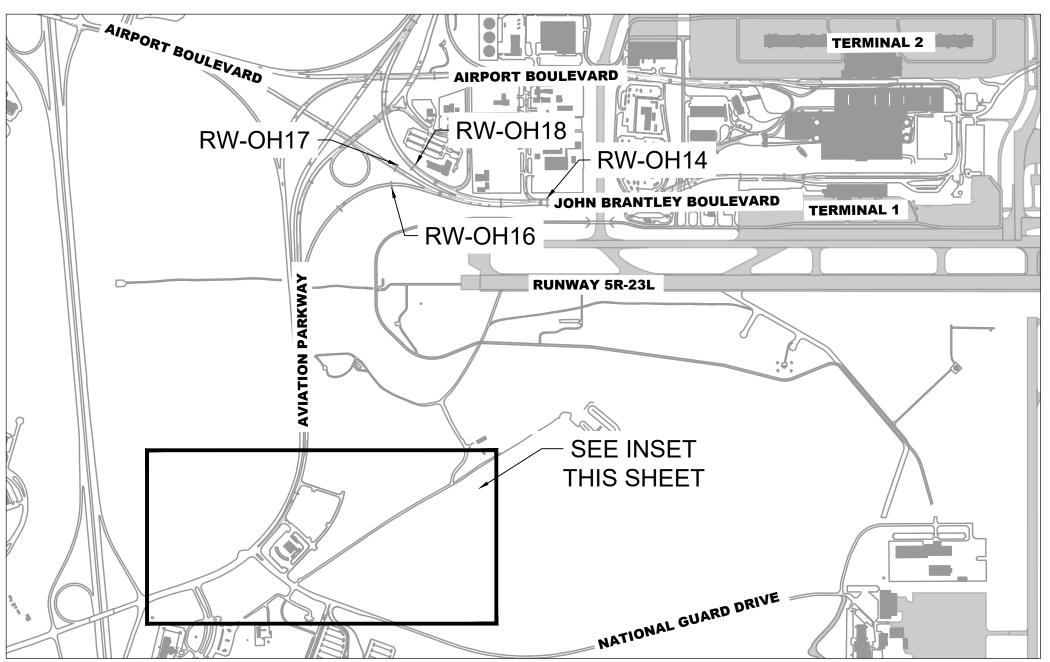
**INDEX OF SHEETS AND PROJECT NOTES** 

**SHEET NUMBER** 

G01.01

**BIDDING DOCUMENTS** 

Plotted on: 9/30/2024 2:43 PM Plotted by: Zych, Kaitlyn Drawing: C:\pw work\rsh pw\pw user\d0483920\G01.00.dwg



**KEYMAP** G02.01 SCALE: 1" = 1000'

NATIONAL GUARD DRIVE

CONTRACTOR PARKING, STAGING,

AND LAYDOWN AREA

CONTRACTOR SHALL RETURN SITE TO ORIGINAL CONDITION UPON CONSTRUCTION COMPLETION IF NECESSARY AND DETERMINED BY THE

RDUAA CPM. 2. STAGING AND PARKING AREA IS SUBJECT TO CHANGE BASED. OWNER SHALL PROVIDE NOTICE TO THE CONTRACTOR IF THE STAGING AREA IS TO BE RELOCATED.

> **REVISIONS** DESCRIPTION DATE DATE ISSUED: APRIL 16, 2024

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RALEIGH-DURHAM INTERNATIONAL AIRPORT

RALEIGH, NC

**ROADWAY SIGNS -**AIRLINE NAMES

**INSTALLATION PACKAGE** 

**ENGINEER'S SEAL** 

048840

WHOLMES

NOT RELEASED FOR CONSTRUCTION

CONSULTANTS

WGINEER 10/3/2024

REVIEWED BY: JLH DRAWN BY:

AEP PROJECT NUMBER

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CONTRACTOR **STAGING AREA** 

SHEET NUMBER

Plotted on: 9/30/2024 2:44 PM

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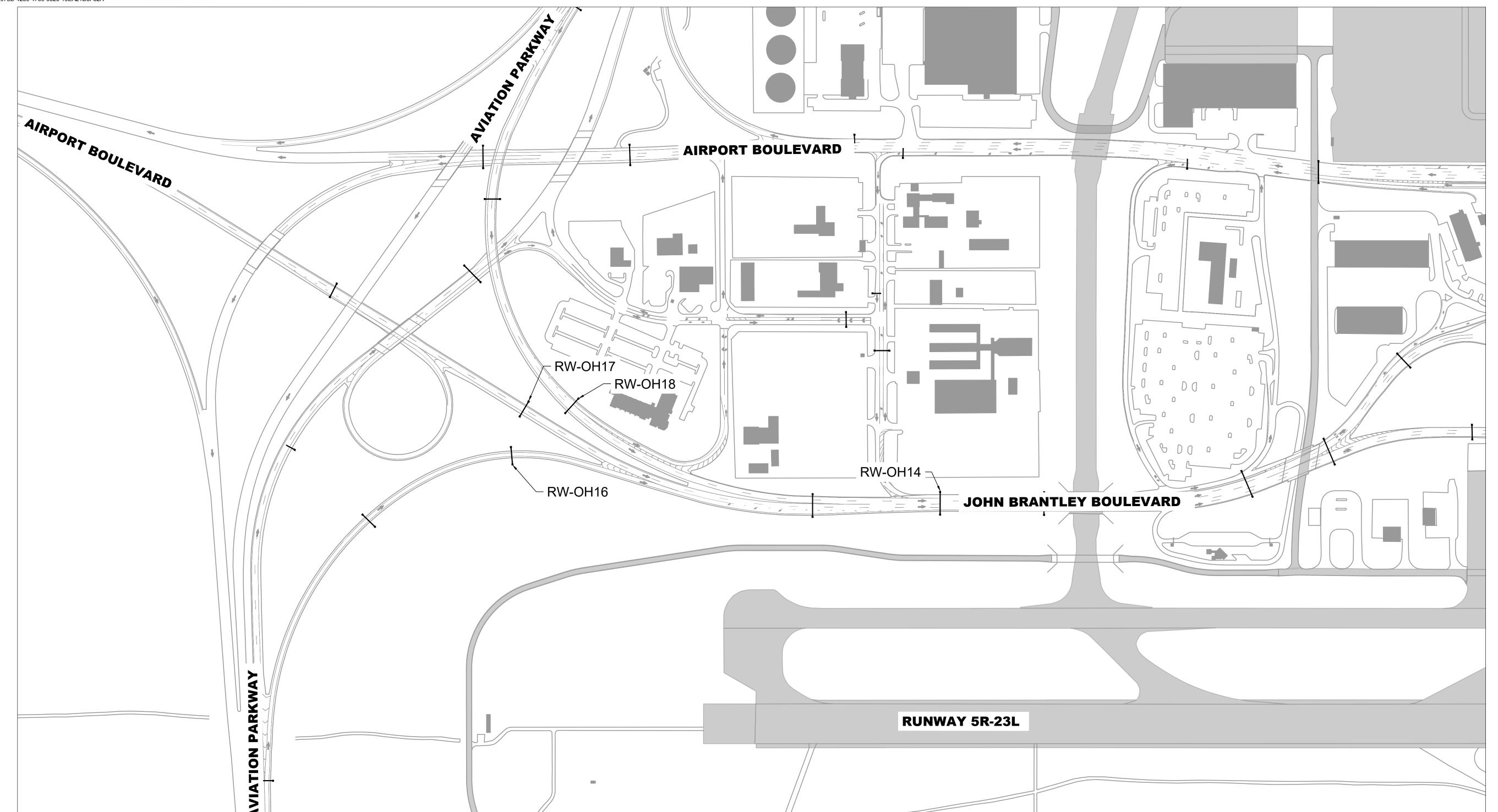
**G02.01** 

**BIDDING DOCUMENTS** 

STAGING AND PARKING AREA G02.01 SCALE: 1" = 150'



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# CONSTRUCTION SEQUENCE

	DAY 1															DAY 50
	1S	1U	2S	2U	3S	3U	4S	4U	5S	5U	6S	6U	7S	7U	8S	8U
OH 14 - 1A						-CUR	ING-									
OH 14 - 1B								-CUR	ING-							
OH 14 - 1C																
OH 16 - 2																
OH 17 - 3																
OH 18 - 4																

- 1. CONTRACTOR SHALL BE ISSUED ADMINISTRATIVE NTP TO MOBILIZE AND PREPARE FOR FIRST WEEKEND OF WORK.
- 2. CONSTRUCTION NTP SHALL BE ISSUED AS FIRST SATURDAY WHERE WORK COMMENCES.
- 3. OH 17 AND OH 18 ARE CONSIDERED TO BE FLOATING PHASES AND CAN BE COMPLETED AT ANY TIME.
- 4. OH 14 AND OH 16 ARE DEPICTED TO BE SEQUENTIAL AS THEY SHARE SIMILAR CLOSURES. OH 16 CAN BE CONSIDERED FLOATING BY THE CONTRACTOR IF PREFERRED.

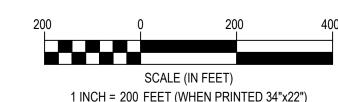
	TRAFFIC CON	NTROL PLANS	
INCLUDED OVERHEAD SIGNS	DURATION	ALLOWABLE SHIFT FOR CONSTRUCTION	TRAFFIC CONTROL PLAN SHEETS
RW-OH14 - PHASE 1A	4	SAT./SUN. DAY, 9AM-3:30PM	C01.01
RW-OH14 - PHASE 1B	4	SAT./SUN. DAY, 9AM-3:30PM	C01.02
RW-OH14 - PHASE 1C	1	SAT./SUN. NIGHT, 11PM-3:30AM	C01.03, C01.04, C01.05
RW-OH16 - PHASE 2	1	SAT./SUN. NIGHT, 11PM-3:30AM	C01.06, C01.07
RW-OH17 - PHASE 3	1	SAT./SUN. NIGHT, 11PM-3:30AM	C01.08
RW-OH18 - PHASE 4	1	SAT./SUN. DAY, 9AM-3:30PM	C01.09

1. TOTAL CONTRACT TIME ALLOWED SHALL BE 50 CALENDAR DAYS WHICH SHALL INCLUDE ALL CONCRETE CURING TIMES ASSOCIATED

WITH THE WORK.

#### **NOTES**

- 1. SEE SHEET C02.01 FOR GENERAL TRAFFIC CONTROL NOTES.
- 2. SEE SHEETS C03.01-C04.03 FOR RELATED TRAFFIC CONTROL NOTES AND DETAILS. ALL TRAFFIC CONTROL DEVICES MUST CONFORM TO MUTCD STANDARDS AND THE 2024 NCDOT ROADWAY STANDARDS MANUAL.
- 3. AREAS AND PHASES TO BE COMPLETED IN THE SEQUENCE SHOWN ON THE PLANS.
- 4. ALL MOBILIZATION, WORK, AND CLEAN UP EFFORTS MUST TAKE PLACE WITHIN THE SHOWN SHIFT DURATIONS EXCEPT FOR TRAFFIC CONTROL DEVICES, WHICH CAN BEGIN BEING PLACED ON ROADSIDES UP TO ONE HOUR BEFORE THE SHIFT TIME PRESCRIBED. NO ROADWAYS SHALL BE CLOSED OUTSIDE OF THE PRESCRIBED WORK SHIFTS.
- 5. ALL TRAFFIC CONTROL DEVICES MUST BE REMOVED PRIOR TO REOPENING TO TRAFFIC AND SHALL BE COMPLETED DURING THE PRESCRIBED SHIFT FOR CONSTRUCTION. ROADWAYS SHALL BE CONSIDERED CLOSED UNTIL TRAFFIC CONTROL DEVICES HAVE BEEN REMOVED OR RELOCATED TO ROADSIDES.
- 6. AFTER TRAFFIC CONTROL DEVICES ARE INSTALLED, CONTRACTOR SHALL NOT BEGIN WORK UNTIL THE DEVICES ARE INSPECTED AND ACCEPTED BY THE RDUAA CPM. CPM RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES OR RELOCATION OF MEASURES AT NO ADDITIONAL COST TO THE OWNER.
- 7. AT THE END OF EACH SHIFT, THE CONTRACTOR MUST HAVE REPLACED ALL SIGNS AND LIGHTING THAT WERE REMOVED PRIOR TO REOPENING TRAFFIC. IF THE PANEL IS NOT REPLACED BY THE END OF THE CONSTRUCTION SHIFT, THE CONTRACTOR SHALL KEEP THE AREA CLOSED UNTIL IT IS COMPLETED, UNLESS OTHERWISE DIRECTED BY THE RDUAA CPM OR RDUAA.
- 8. DURATIONS SHOWN ARE THE NUMBER OF SHIFTS ALLOTTED FOR EACH AREA TO BE COMPLETED IN. THE SHIFT DURATION IS SHOWN IN THE "ALLOWABLE SHIFT FOR CONSTRUCTION" COLUMN FOR EACH AREA.
- 9. IN SOME AREAS, THE CONTRACTOR MAY BE ABLE TO EXTEND THE SHIFT DURATIONS OR WORK ON NIGHTS NOT LISTED. THE CONTRACTOR SHALL COORDINATE THESE REQUESTS WITH THE RDUAA CPM. THE CONTRACTOR CAN SUGGEST ALTERNATIVE PHASING DURATIONS AND SUBMIT TO THE RDUAA CPM AND ENGINEER FOR REVIEW AND APPROVAL. REQUESTS FOR PHASING CHANGES ARE NOT GUARANTEED. REQUESTS SHALL BE MADE 14 DAYS IN ADVANCE OF THE EXPECTED WORK.
- 10. THE CONTRACTOR SHALL PROVIDE A WORK SEQUENCE AND PHASING PROPOSAL FOR THE PROJECT, INCLUDING WHICH SIGNS ARE INTENDED TO BE INSTALLED AND WHEN THIS WORK SHALL OCCUR FOR APPROVAL.





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**RALEIGH-DURHAM INTERNATIONAL AIRPORT** 

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 

> **ENGINEER'S SEAL** WGINEER. NOT RELEASED FOR CONSTRUCTION

**REVISIONS** DESCRIPTION

DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH DRAWN BY: MEO

DESIGNED BY: JLH **AEP PROJECT NUMBER** 

1051-0068-002 (C) 2024 RS&H, INC. SHEET TITLE

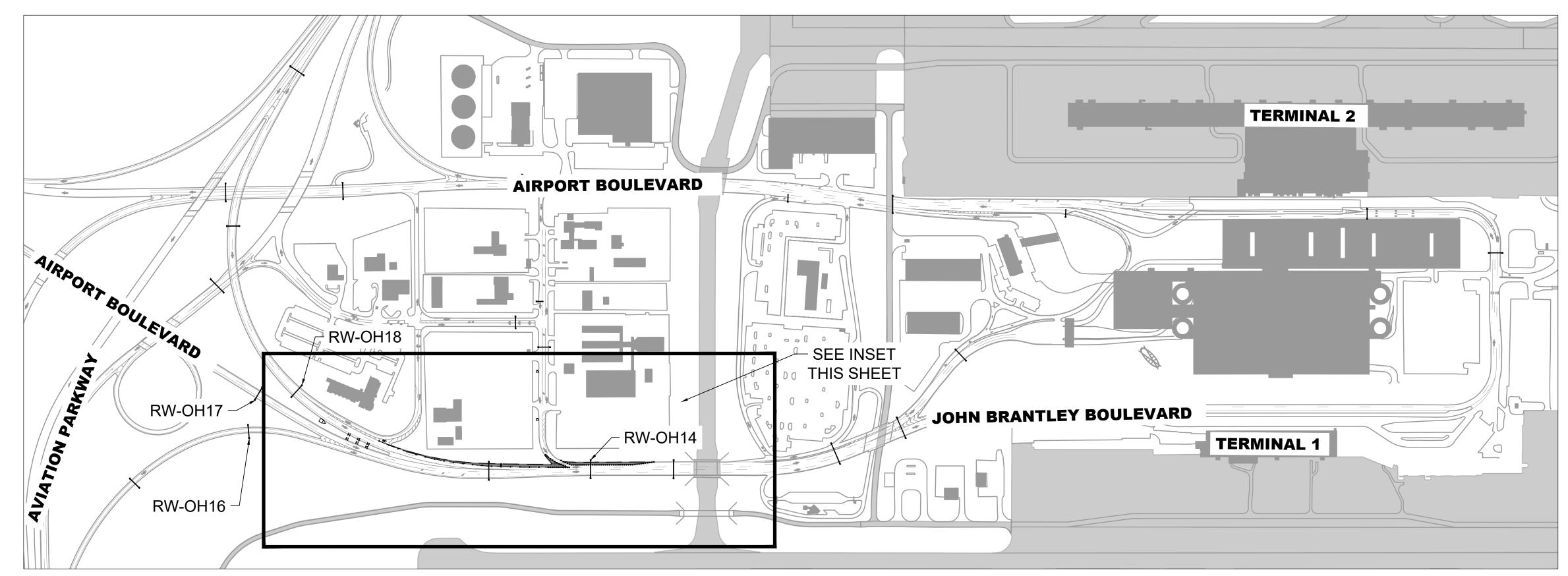
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SHEET NUMBER

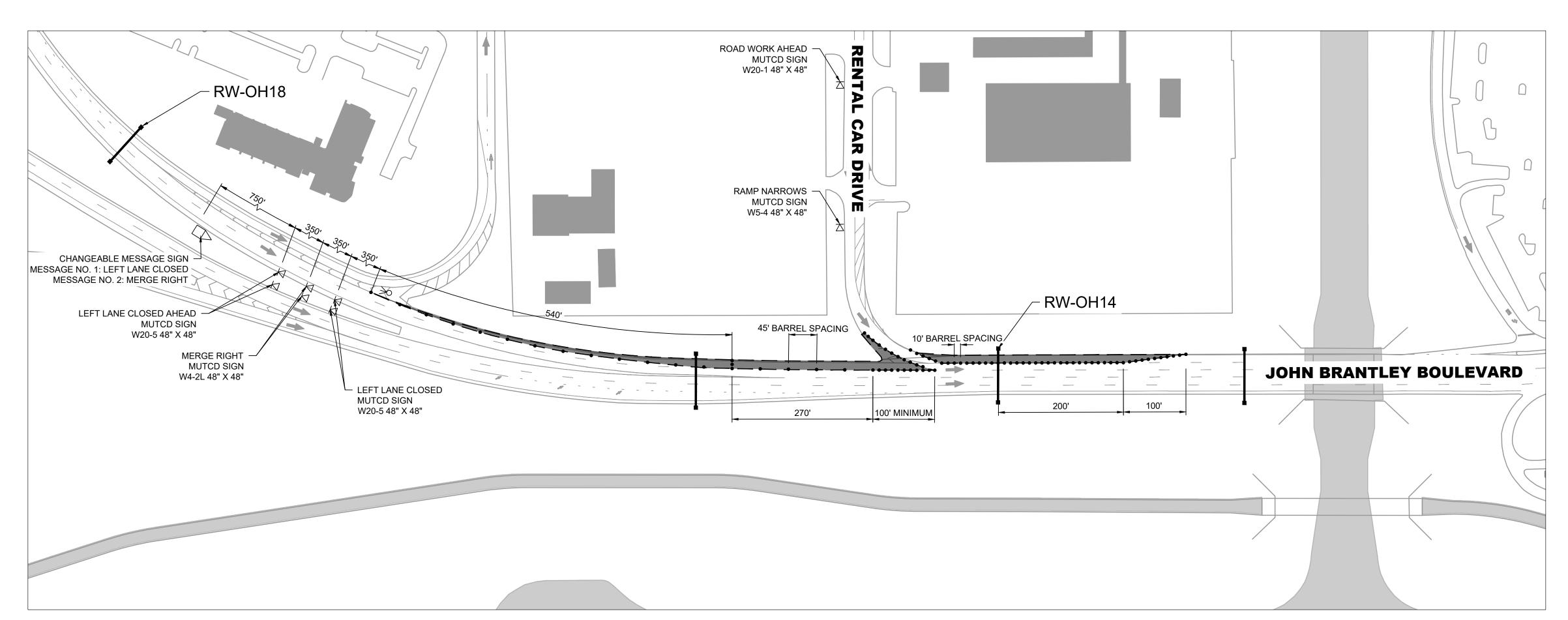
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**DOCUMENTS** Plotted by: Zych, Kaitlyn Plotted on: 9/30/2024 2:44 PM

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## **KEYMAP** C01.01/ SCALE: 1" = 300'



#### **LEGEND**

DRUM

CLOSED WORK AREA



DETOUR ROUTE

PORTABLE SIGN FLASHING ARROW BOARD

TRUCK MOUNTED ATTENUATOR CHANGEABLE MESSAGE SIGN

BARRICADE



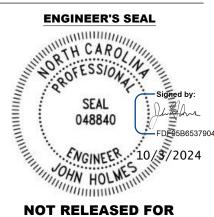
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RALEIGH-DURHAM **INTERNATIONAL AIRPORT** 

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 



NOT RELEASED FOR CONSTRUCTION

**CONSULTANTS** 

- 1. THIS TRAFFIC CONTROL PLAN IS FOR THE INSTALLATION OF THE STRUCTURAL BRACING ON THE WESTERN SIDE OF THE SIGN.
- 2. WORK SHALL ONLY BE COMPLETED ON ONE SIDE OF THE SIGN AT A TIME.

**NOTES** 

- 3. STRUCTURAL BRACES SHALL BE INSTALLED AND ACCEPTED PRIOR TO INSTALLING THE NEW SIGN PANEL. THIS IS INCLUSIVE OF TIME FOR CURING OF CONCRETE AND TESTING. CURING TIME IS NOT INCLUDED IN PHASE DURATION.
- 4. SEE NCDOT DETAIL 1101.02 SHEET 10 OF 19 FOR RIGHT LANE CLOSURES THRU ENTRANCE RAMPS.
- 5. SEE NCDOT DETAIL 1101.02 SHEET 3 OF 19 FOR DIVIDED MULTI-LANE ROADWAY - 1 LANE CLOSED (FOR ROADWAYS < 60 MPH).
- 6. ALL CONSTRUCTION TRAFFIC CONTROL SHALL FOLLOW NCDOT STANDARDS UNLESS OTHERWISE DEPICTED OR APPROVED BY THE RDUAA CPM.
- 7. LOCATIONS DEPICTED FOR TRAFFIC CONTROL DEVICES ARE NOT TO SCALE. REFER TO STATED DIMENSIONS WHERE APPLICABLE.
- 8. CONTRACTOR SHALL HAVE PRESCRIBED DURATION TO PERFORM THE WORK DEPICTED.
- 9. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM PRIOR TO CLOSURE OF WORK AREA.
- 10. THE CONTRACTOR SHALL NOT PROCEED WITH SIGN INSTALLATION UNTIL ALL STRUCTURAL MODIFICATIONS ARE ACCEPTED BY THE RDUAA CPM.

**REVISIONS** 

DESCRIPTION DATE DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH

DRAWN BY: MEO

DESIGNED BY: JLH **AEP PROJECT NUMBER** 1051-0068-002 (C) 2024 RS&H, INC.

> SHEET TITLE **TRAFFIC**

**CONTROL** -**RW-OH14** PHASE 1A

SHEET NUMBER

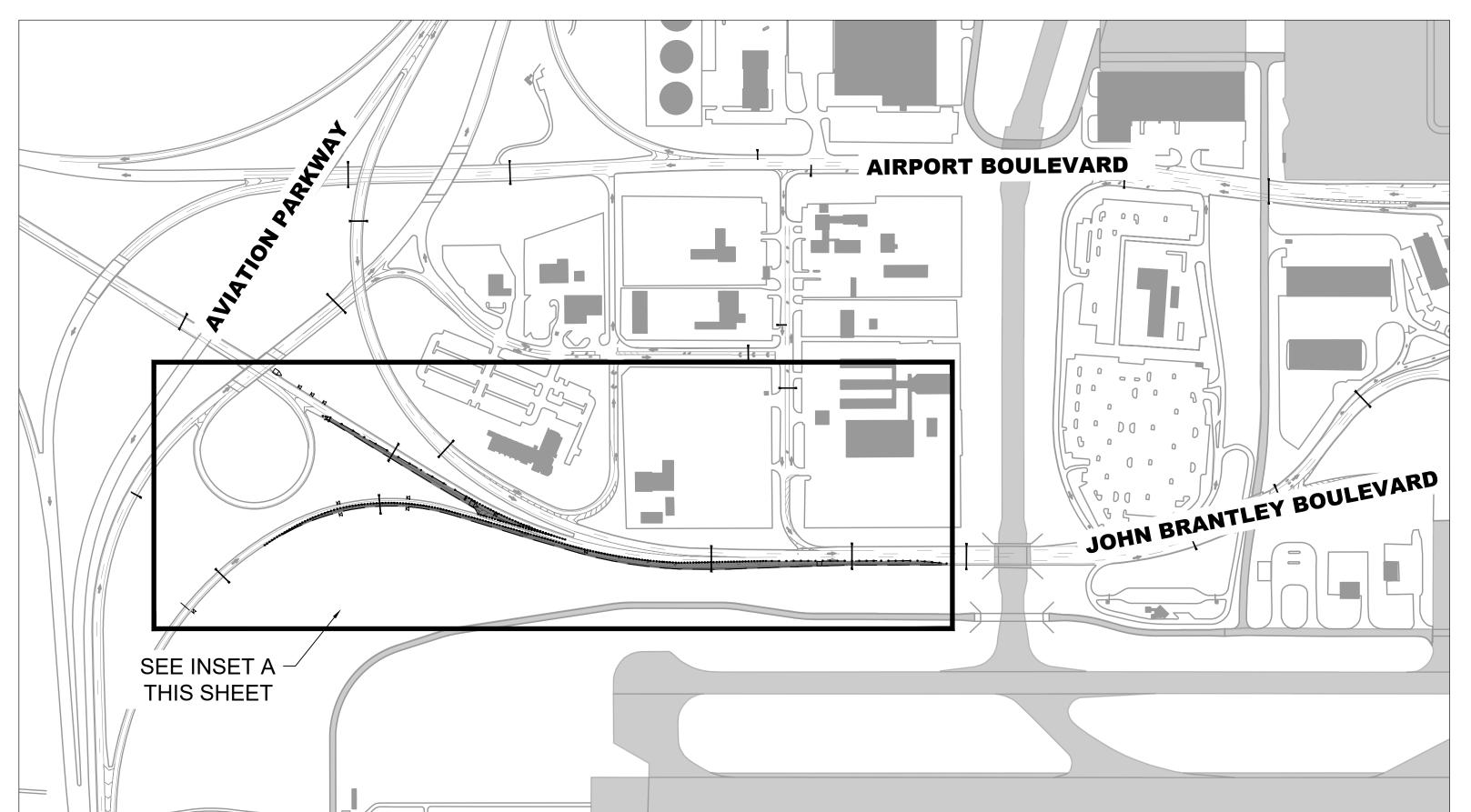
C01.01

**BIDDING** 

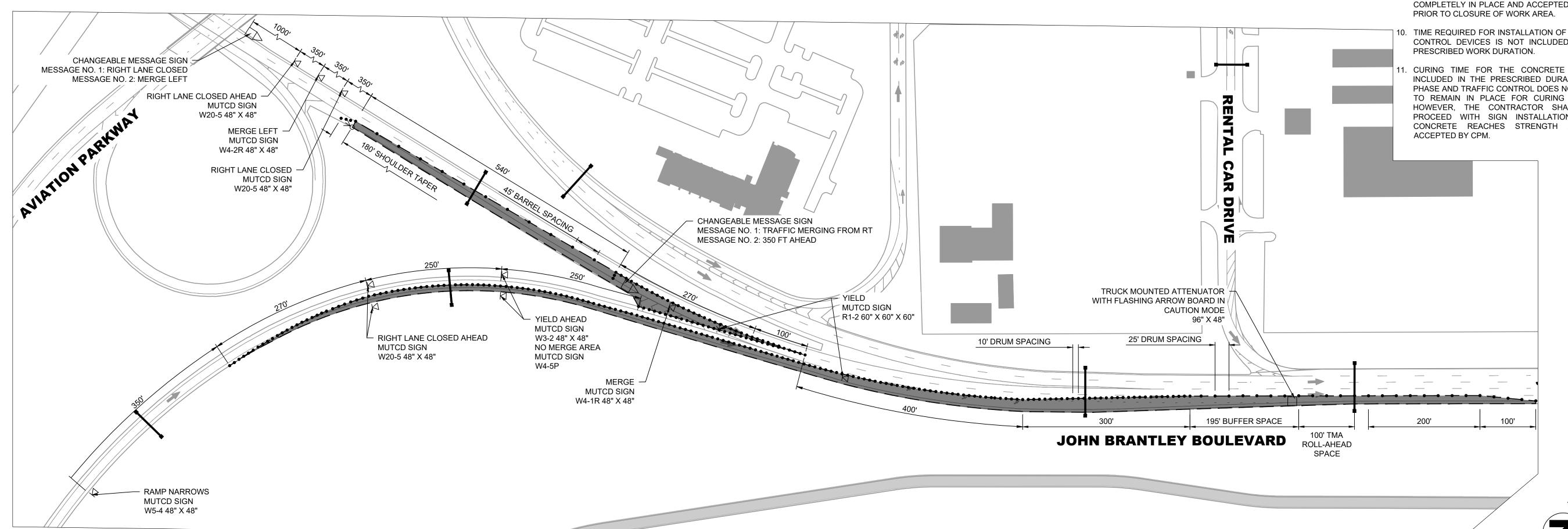
**DOCUMENTS** Plotted on: 9/30/2024 2:40 PM Plotted by: Zych, Kaitlyn

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INSET  $\sqrt{C01.0}$ 1/ SCALE: 1" = 100'



**KEYMAP** C01.02 SCALE: 1" = 300'





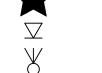
### **LEGEND**

CLOSED WORK AREA



DRUM **DETOUR ROUTE** 

BARRICADE



PORTABLE SIGN



FLASHING ARROW BOARD

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED ATTENUATOR

### **NOTES**

- 1. THIS TRAFFIC CONTROL PLAN IS FOR THE INSTALLATION OF THE STRUCTURAL BRACING ON THE EASTERN SIDE OF THE SIGN.
- 2. WORK SHALL ONLY BE COMPLETED ON ONE SIDE OF THE SIGN AT A TIME.
- 3. STRUCTURAL BRACES SHALL BE INSTALLED AND ACCEPTED PRIOR TO INSTALLING THE NEW SIGN PANEL. THIS IS INCLUSIVE OF TIME FOR CURING OF CONCRETE AND TESTING. CURING TIME IS NOT INCLUDED IN PHASE DURATION.
- 4. SEE NCDOT DETAIL 1101.02 SHEET 3 OF 19 FOR DIVIDED MULTI-LANE ROADWAY - 1 LANE CLOSED (FOR ROADWAYS < 60 MPH).
- 5. SEE NCDOT DETAIL 1101.02 SHEET 10 OF 19 FOR RIGHT LANE CLOSURES THRU ENTRANCE RAMPS.
- 6. ALL CONSTRUCTION TRAFFIC CONTROL SHALL FOLLOW NCDOT STANDARDS UNLESS OTHERWISE DEPICTED OR APPROVED BY THE RDUAA CPM.
- 7. LOCATIONS DEPICTED FOR TRAFFIC CONTROL DEVICES ARE NOT TO SCALE. REFER TO STATED DIMENSIONS WHERE APPLICABLE.
- 8. CONTRACTOR SHALL HAVE PRESCRIBED DURATION TO PERFORM THE WORK DEPICTED.
- 9. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM
- 10. TIME REQUIRED FOR INSTALLATION OF TRAFFIC CONTROL DEVICES IS NOT INCLUDED IN THE
- CURING TIME FOR THE CONCRETE IS NOT INCLUDED IN THE PRESCRIBED DURATION OF PHASE AND TRAFFIC CONTROL DOES NOT NEED TO REMAIN IN PLACE FOR CURING PERIOD; HOWEVER, THE CONTRACTOR SHALL NOT PROCEED WITH SIGN INSTALLATION UNTIL CONCRETE REACHES STRENGTH AND IS

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RALEIGH-DURHAM **INTERNATIONAL AIRPORT** 

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 

> **ENGINEER'S SEAL** ORTH CAROLIN \*OFESSION 048840 OHN HOLME 10/3 2024

NOT RELEASED FOR CONSTRUCTION **CONSULTANTS** 

**REVISIONS** DESCRIPTION DATE DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH DRAWN BY: MEO DESIGNED BY: JLH

> **TRAFFIC CONTROL** -RW-OH14 PHASE 1B

**AEP PROJECT NUMBER** 

1051-0068-002 (C) 2024 RS&H, INC.

SHEET TITLE

SHEET NUMBER

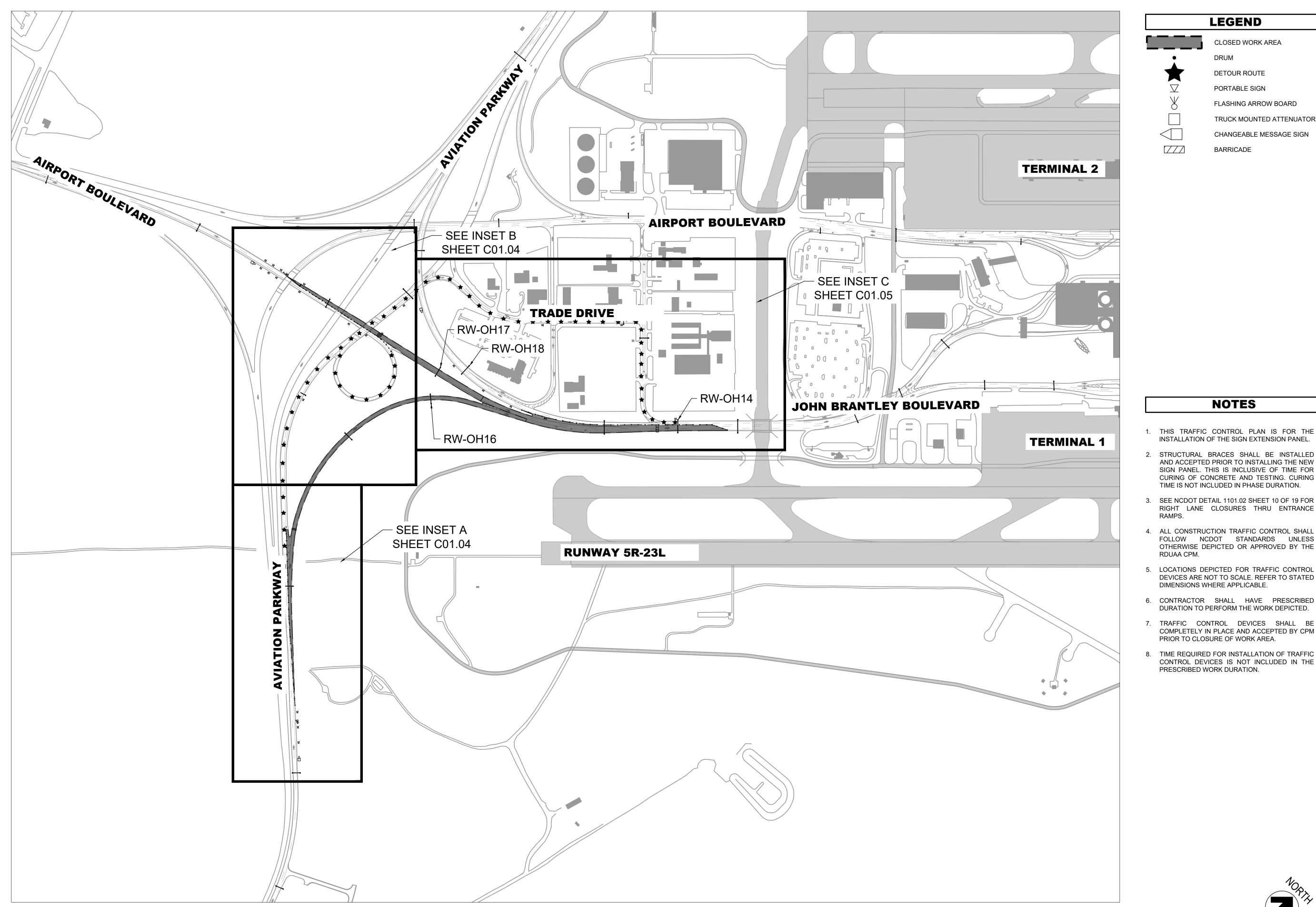
C01.02

**BIDDING DOCUMENTS** 

Plotted by: Zych, Kaitlyn Plotted on: 9/30/2024 2:40 PM Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C01.00.dwg

**KEYMAP** 

C01.03 SCALE: 1" = 300'





DRUM

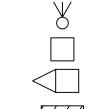
CLOSED WORK AREA



DETOUR ROUTE



PORTABLE SIGN FLASHING ARROW BOARD



CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED ATTENUATOR

BARRICADE



RSSH

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RALEIGH-DURHAM **INTERNATIONAL AIRPORT** 

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 

> **ENGINEER'S SEAL** 048840 \* NGINEER .: WOHN HOLMES

NOT RELEASED FOR CONSTRUCTION **CONSULTANTS** 

**REVISIONS** 

DESCRIPTION DATE

DURATION TO PERFORM THE WORK DEPICTED. 7. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM

**NOTES** 

INSTALLATION OF THE SIGN EXTENSION PANEL.

AND ACCEPTED PRIOR TO INSTALLING THE NEW SIGN PANEL. THIS IS INCLUSIVE OF TIME FOR CURING OF CONCRETE AND TESTING. CURING TIME IS NOT INCLUDED IN PHASE DURATION.

RIGHT LANE CLOSURES THRU ENTRANCE

FOLLOW NCDOT STANDARDS UNLESS

OTHERWISE DEPICTED OR APPROVED BY THE

DEVICES ARE NOT TO SCALE. REFER TO STATED

DIMENSIONS WHERE APPLICABLE.

PRIOR TO CLOSURE OF WORK AREA.

RAMPS.

RDUAA CPM.

8. TIME REQUIRED FOR INSTALLATION OF TRAFFIC CONTROL DEVICES IS NOT INCLUDED IN THE PRESCRIBED WORK DURATION.

DATE ISSUED: APRIL 16, 2024

REVIEWED BY: JLH DRAWN BY: MEO

DESIGNED BY: JLH **AEP PROJECT NUMBER** 

1051-0068-002 © 2024 RS&H, INC. SHEET TITLE

**TRAFFIC CONTROL** -**RW-OH14** PHASE 1C

(1 OF 3)

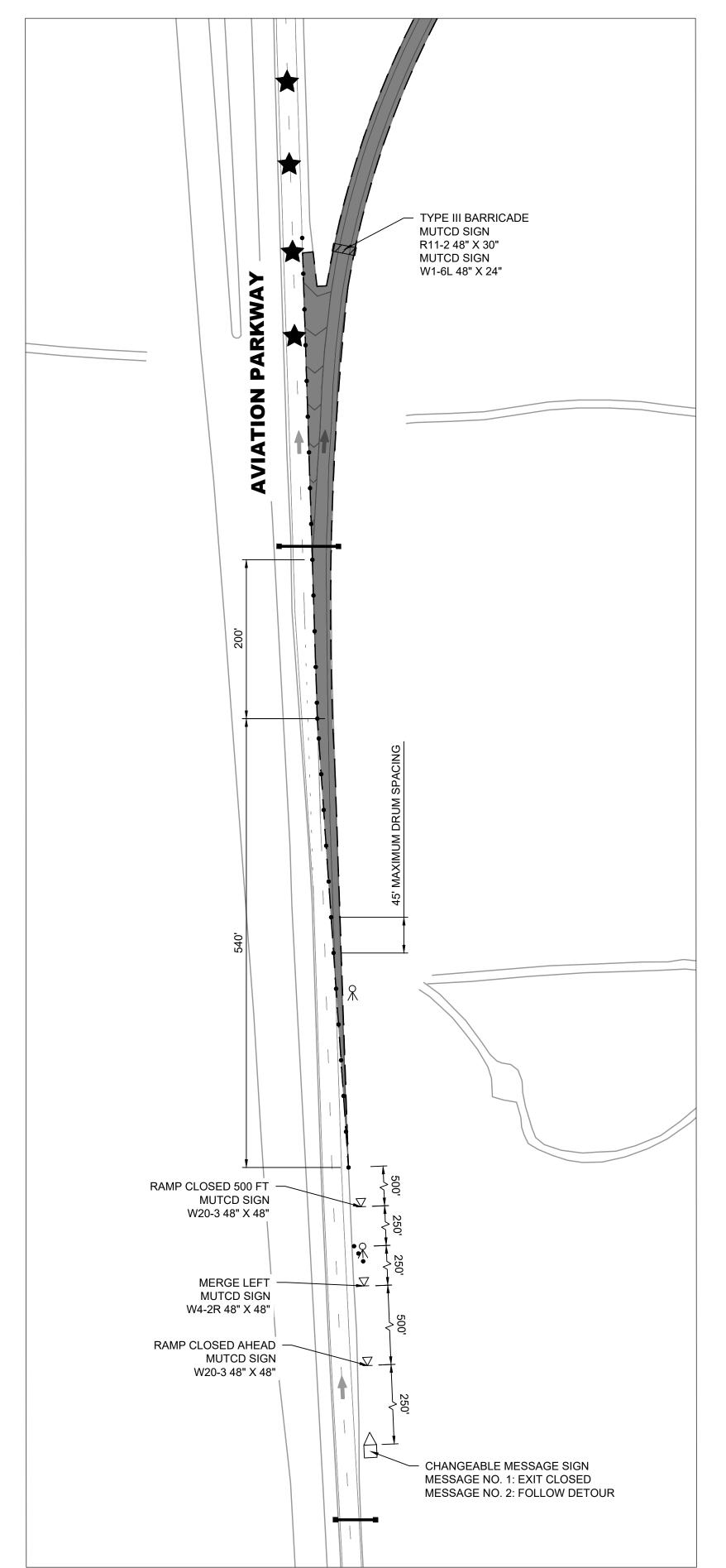
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**BIDDING** 

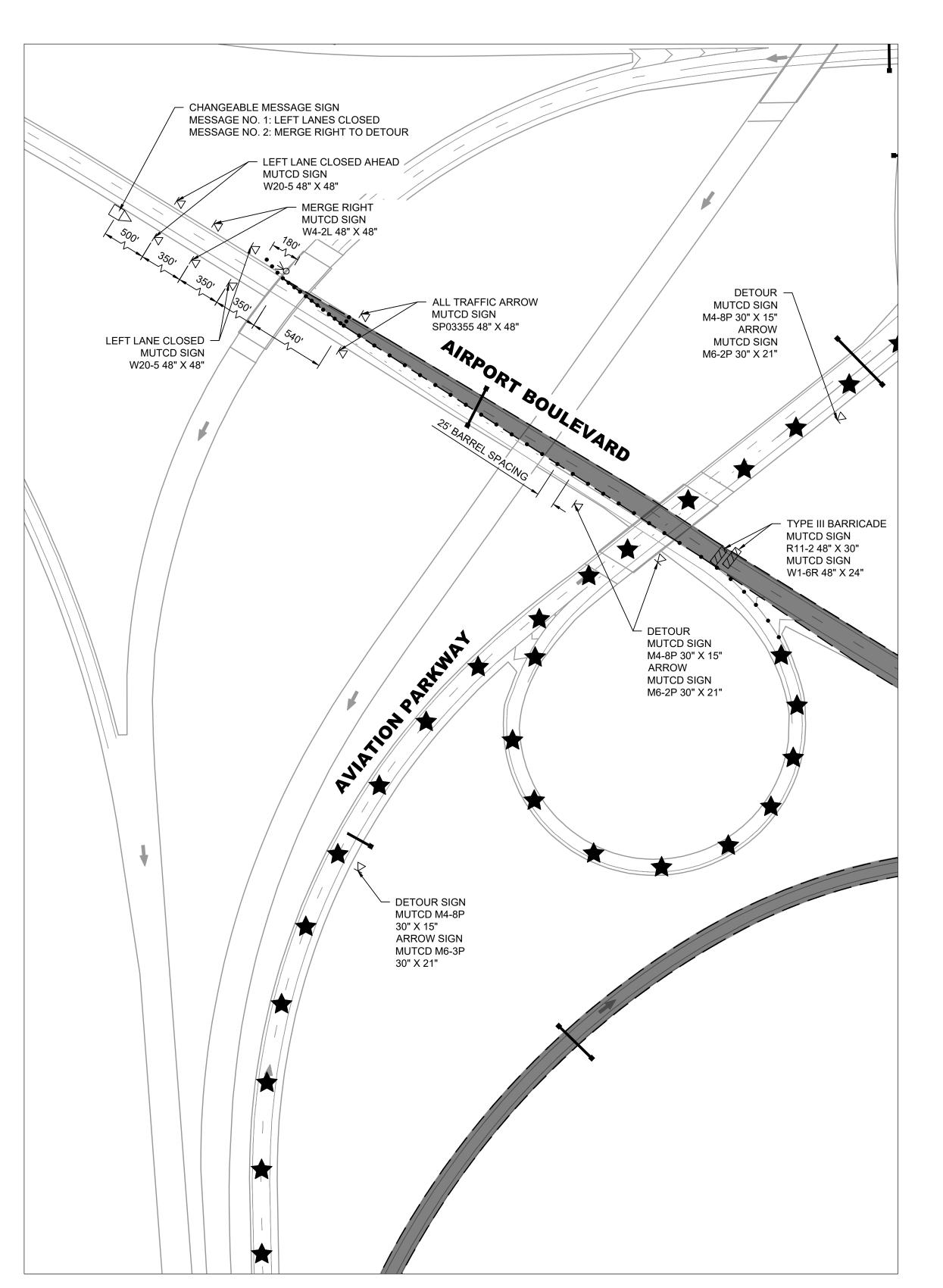
C01.03

**DOCUMENTS** Plotted on: 9/30/2024 2:40 PM

Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C01.00.dwg







## **INSET B** C01.04 SCALE: 1" = 100"

#### **LEGEND**

DRUM

CLOSED WORK AREA



DETOUR ROUTE

PORTABLE SIGN FLASHING ARROW BOARD

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED ATTENUATOR

BARRICADE



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RALEIGH-DURHAM INTERNATIONAL AIRPORT

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 



**CONSULTANTS** 

1. THIS TRAFFIC CONTROL PLAN IS FOR THE INSTALLATION OF THE SIGN EXTENSION PANEL.

**NOTES** 

2. STRUCTURAL BRACES SHALL BE INSTALLED AND ACCEPTED PRIOR TO INSTALLING THE NEW SIGN PANEL. THIS IS INCLUSIVE OF TIME FOR CURING OF CONCRETE AND TESTING. CURING TIME IS NOT INCLUDED IN PHASE DURATION.

3. SEE NCDOT DETAIL 1101.02 SHEET 10 OF 19 FOR RIGHT LANE CLOSURES THRU ENTRANCE RAMPS.

4. ALL CONSTRUCTION TRAFFIC CONTROL SHALL FOLLOW NCDOT STANDARDS UNLESS OTHERWISE DEPICTED OR APPROVED BY THE RDUAA CPM.

5. LOCATIONS DEPICTED FOR TRAFFIC CONTROL DEVICES ARE NOT TO SCALE. REFER TO STATED DIMENSIONS WHERE APPLICABLE.

6. CONTRACTOR SHALL HAVE PRESCRIBED DURATION TO PERFORM THE WORK DEPICTED.

7. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM PRIOR TO CLOSURE OF WORK AREA.

8. TIME REQUIRED FOR INSTALLATION OF TRAFFIC CONTROL DEVICES IS NOT INCLUDED IN THE PRESCRIBED WORK DURATION.

**REVISIONS** DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH

DRAWN BY: MEO DESIGNED BY: JLH

> **AEP PROJECT NUMBER** 1051-0068-002 © 2024 RS&H, INC.

SHEET TITLE **TRAFFIC CONTROL** -

**RW-OH14** PHASE 1C (2 OF 3)

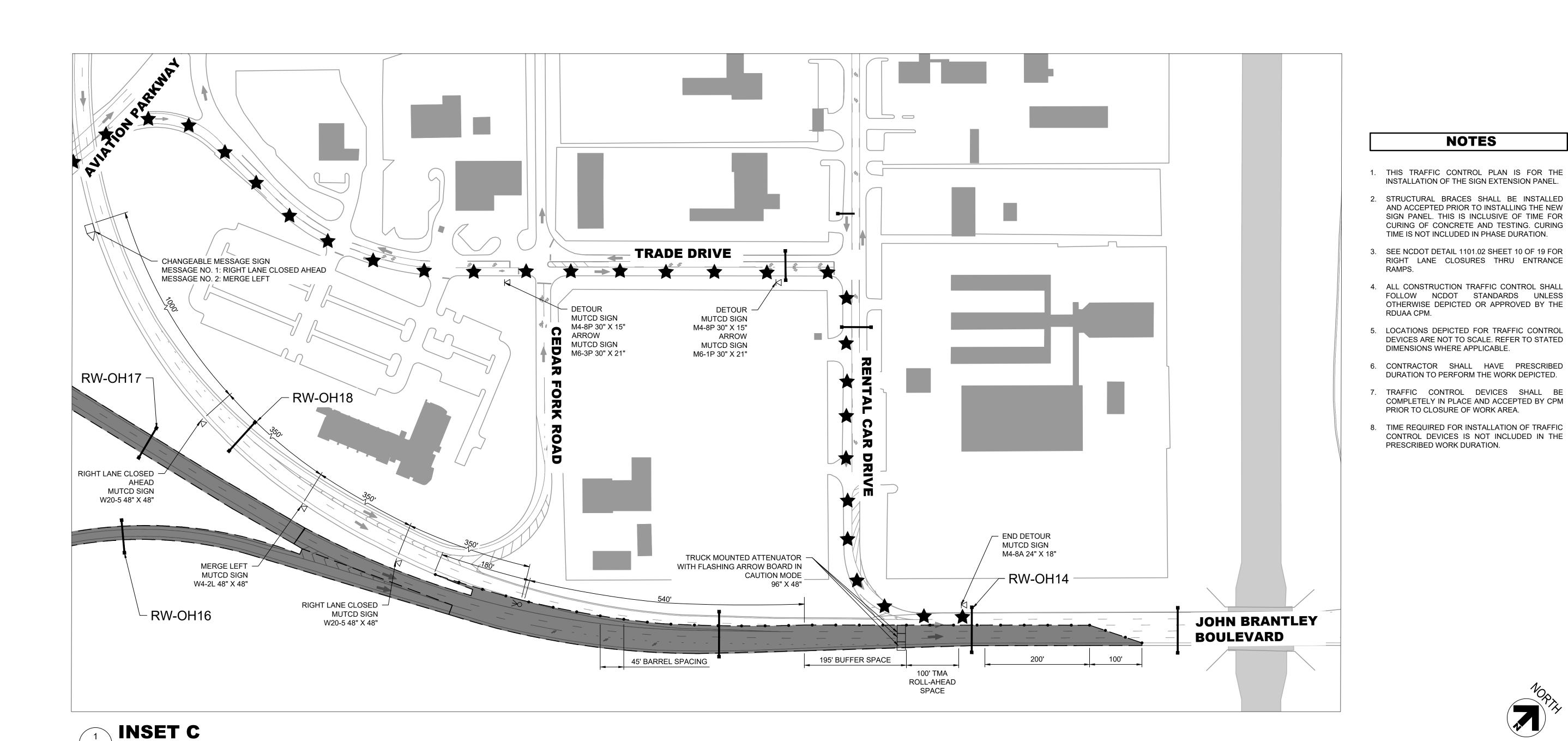
> SHEET NUMBER C01.04

**BIDDING DOCUMENTS** 

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Plotted by: Zych, Kaitlyn Plotted on: 9/30/2024 2:41 PM

C01.05/ SCALE: 1" = 100'



#### **LEGEND**

DRUM

CLOSED WORK AREA



**DETOUR ROUTE** 

**NOTES** 



PORTABLE SIGN FLASHING ARROW BOARD

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED ATTENUATOR

BARRICADE



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RALEIGH, NC

**ROADWAY SIGNS -**AIRLINE NAMES **INSTALLATION PACKAGE** 



NOT RELEASED FOR CONSTRUCTION CONSULTANTS

**REVISIONS** DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024

REVIEWED BY: JLH DRAWN BY: MEO DESIGNED BY: JLH

**AEP PROJECT NUMBER** 1051-0068-002 © 2024 RS&H, INC. SHEET TITLE

**TRAFFIC CONTROL** -**RW-OH14** PHASE 1C

SHEET NUMBER

Plotted on: 9/30/2024 2:41 PM

Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C01.00.dwg

(3 OF 3)

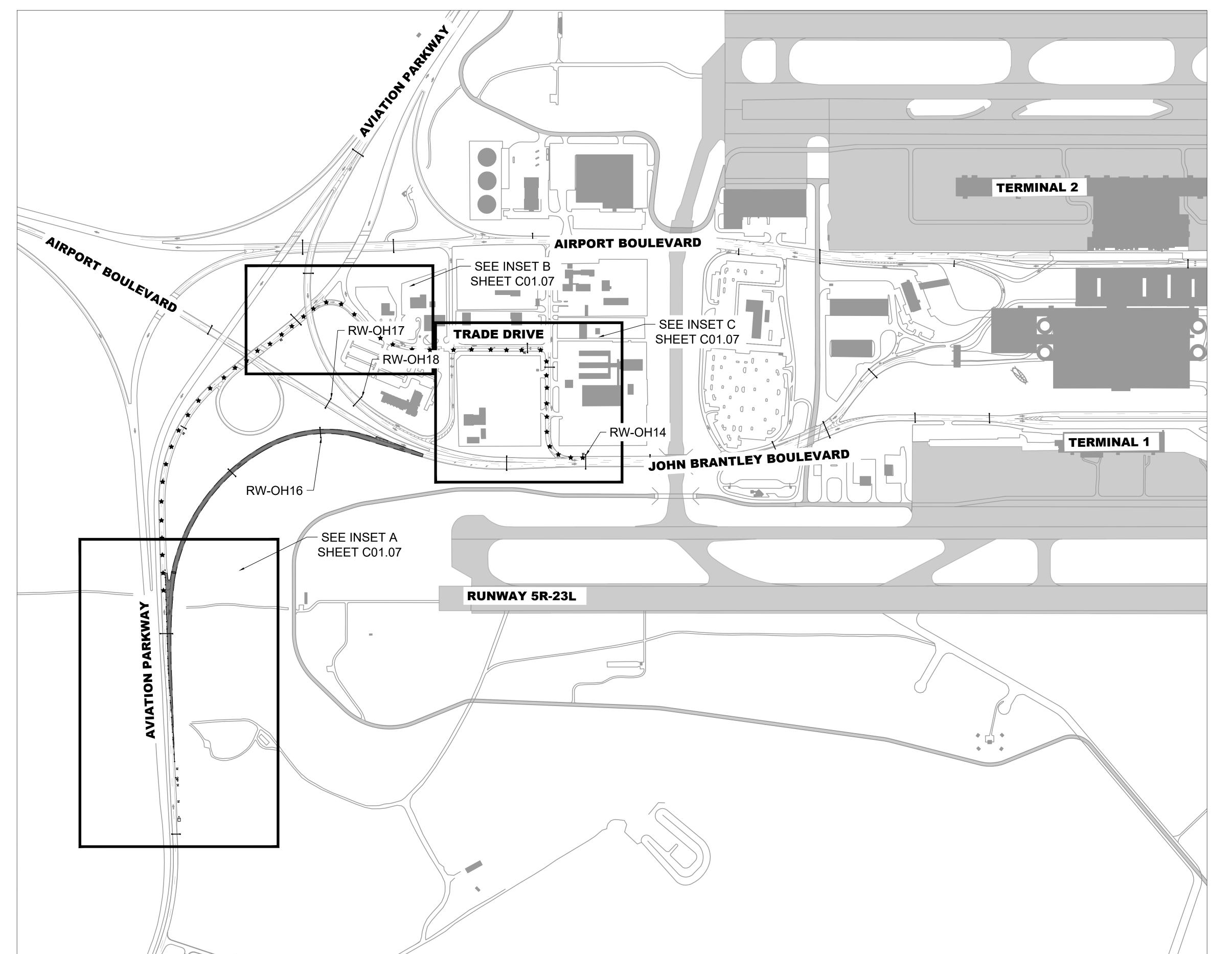
C01.05

Plotted by: Zych, Kaitlyn

**BIDDING DOCUMENTS** 

**KEYMAP** 

C01.06 SCALE: 1" = 300'



### **LEGEND**

CLOSED WORK AREA



DETOUR ROUTE

DRUM

PORTABLE SIGN FLASHING ARROW BOARD

TRUCK MOUNTED ATTENUATOR CHANGEABLE MESSAGE SIGN

BARRICADE

# RSSH

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**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 



NOT RELEASED FOR CONSTRUCTION

**CONSULTANTS** 

3. LOCATIONS DEPICTED FOR TRAFFIC CONTROL

DEVICES ARE NOT TO SCALE. REFER TO STATED DIMENSIONS WHERE APPLICABLE.

**NOTES** 

1. SEE NCDOT DETAIL 1101.02 SHEET 12 OF 19

2. ALL CONSTRUCTION TRAFFIC CONTROL SHALL

FOLLOW NCDOT STANDARDS UNLESS OTHERWISE DEPICTED OR APPROVED BY THE

FOR CLOSURE OF OFF-RAMPS.

RDUAA CPM.

4. CONTRACTOR SHALL HAVE PRESCRIBED DURATION TO PERFORM THE WORK DEPICTED.

5. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM PRIOR TO CLOSURE OF WORK AREA.

6. TIME REQUIRED FOR INSTALLATION OF TRAFFIC CONTROL DEVICES IS NOT INCLUDED IN THE PRESCRIBED WORK DURATION.

**REVISIONS** 

DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024

REVIEWED BY: JLH DRAWN BY: MEO

DESIGNED BY: JLH

AEP PROJECT NUMBER 1051-0068-002

SHEET TITLE

**TRAFFIC CONTROL** -**RW-OH16** PHASE 2

SHEET NUMBER

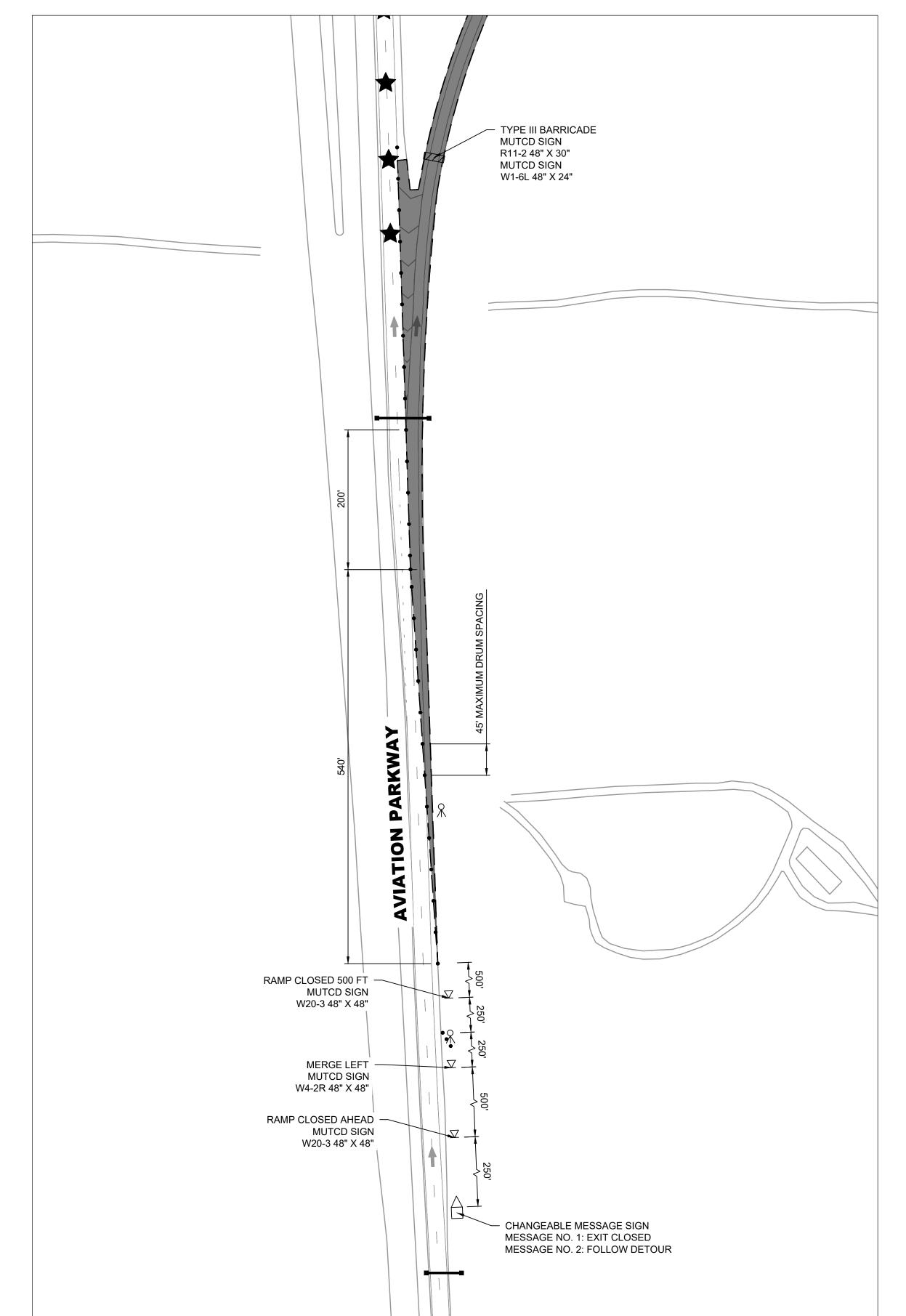
(1 OF 2)

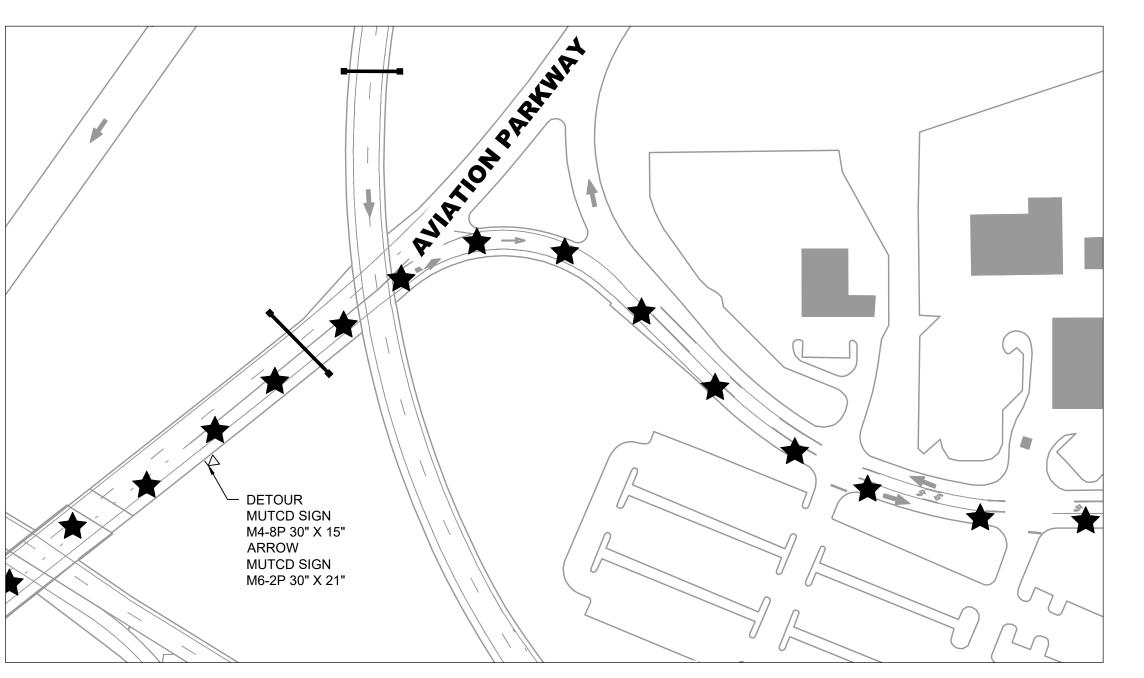
C01.06

**BIDDING DOCUMENTS** 

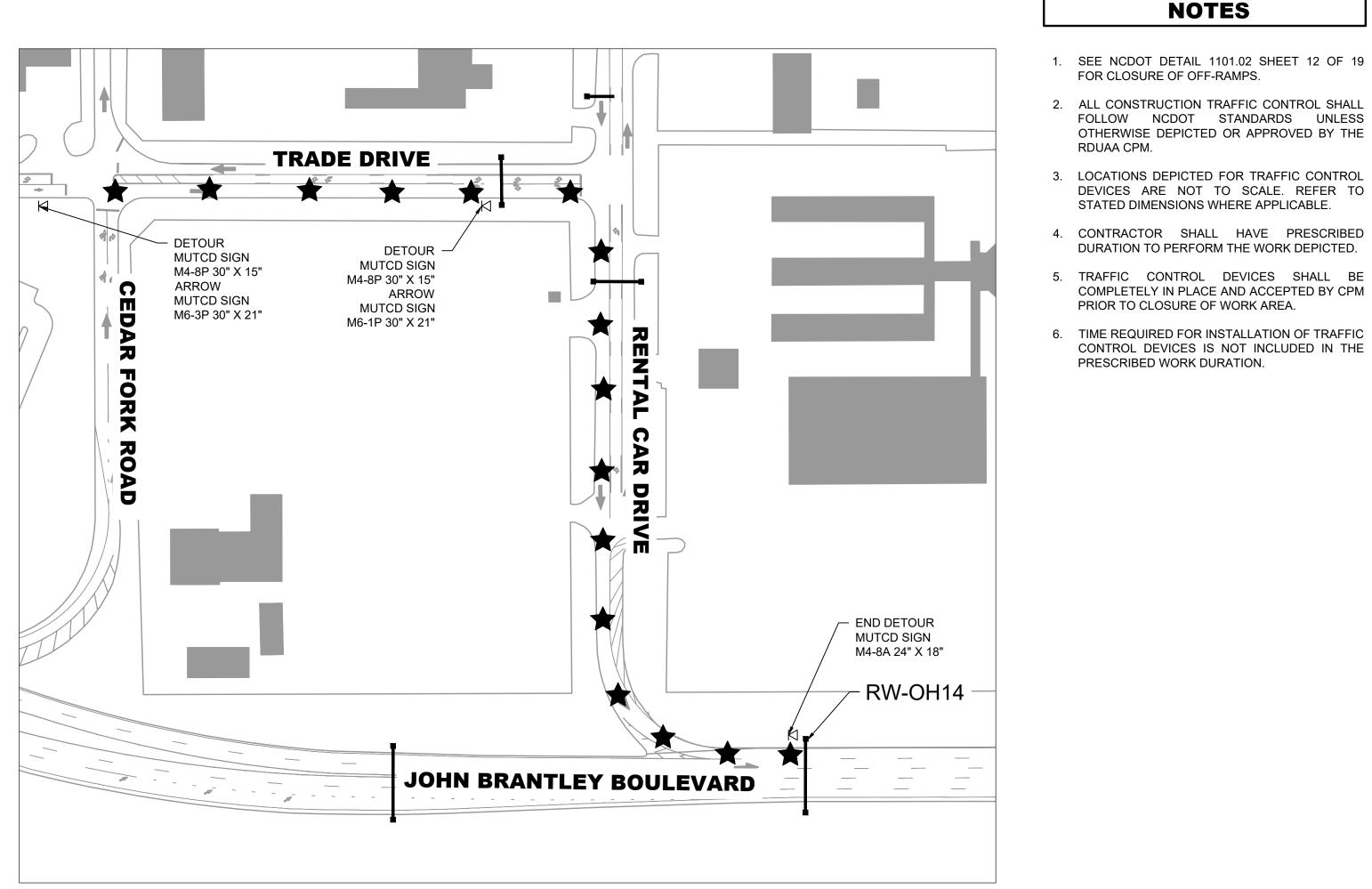
Plotted on: 9/30/2024 2:41 PM

Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C01.00.dwg











### **LEGEND**

# DRUM

CLOSED WORK AREA



DETOUR ROUTE

PORTABLE SIGN FLASHING ARROW BOARD

TRUCK MOUNTED ATTENUATOR

CHANGEABLE MESSAGE SIGN BARRICADE



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NOT RELEASED FOR CONSTRUCTION

CONSULTANTS

2. ALL CONSTRUCTION TRAFFIC CONTROL SHALL FOLLOW NCDOT STANDARDS UNLESS OTHERWISE DEPICTED OR APPROVED BY THE

RDUAA CPM. 3. LOCATIONS DEPICTED FOR TRAFFIC CONTROL DEVICES ARE NOT TO SCALE. REFER TO STATED DIMENSIONS WHERE APPLICABLE.

**NOTES** 

FOR CLOSURE OF OFF-RAMPS.

4. CONTRACTOR SHALL HAVE PRESCRIBED DURATION TO PERFORM THE WORK DEPICTED.

5. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM

6. TIME REQUIRED FOR INSTALLATION OF TRAFFIC CONTROL DEVICES IS NOT INCLUDED IN THE PRESCRIBED WORK DURATION.

PRIOR TO CLOSURE OF WORK AREA.

**REVISIONS** DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH DRAWN BY: MEO

DESIGNED BY: JLH AEP PROJECT NUMBER

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SHEET TITLE

**TRAFFIC CONTROL** -

**RW-0H16** PHASE 2 (2 OF 2)

SHEET NUMBER

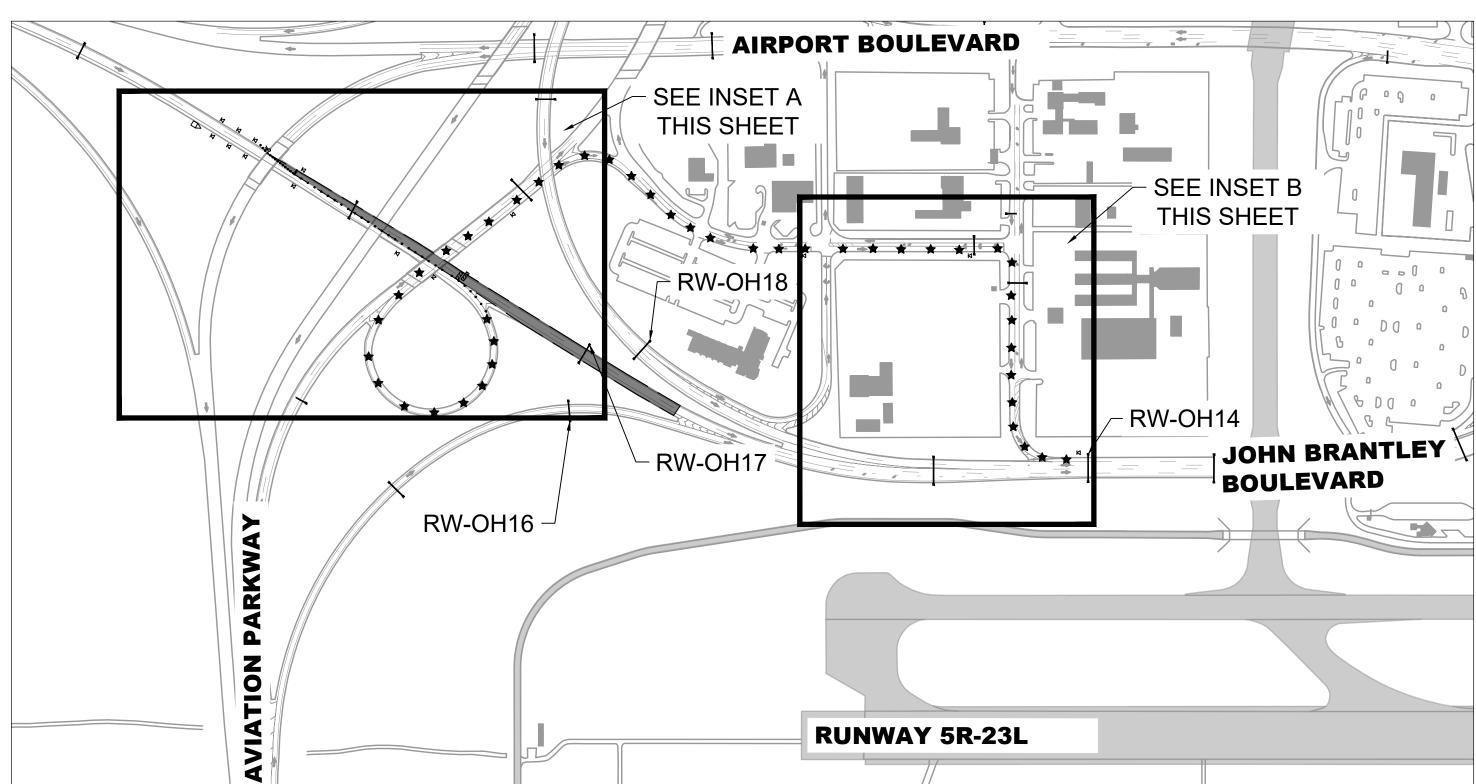
C01.07

**BIDDING** 

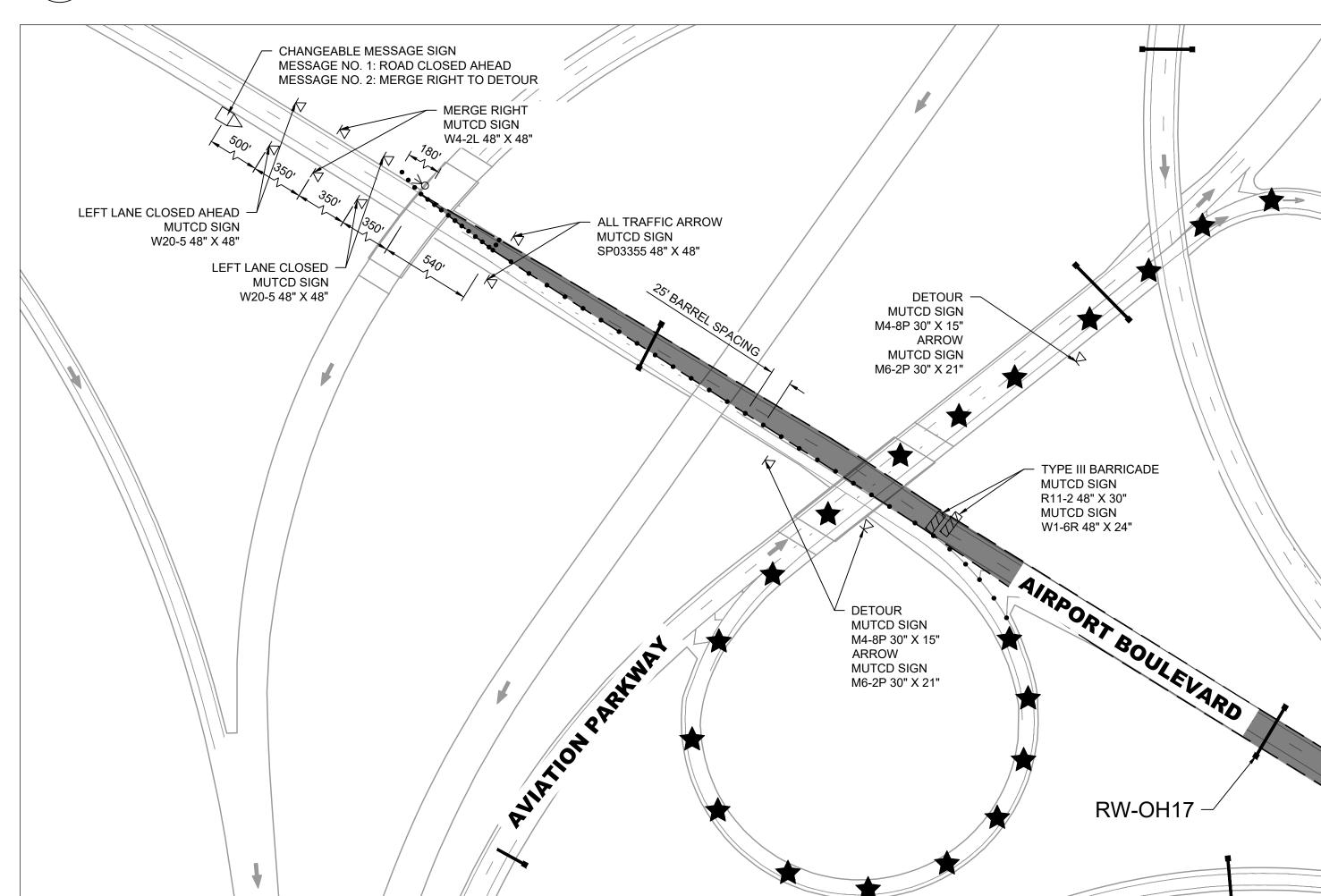
Plotted by: Zych, Kaitlyn Plotted on: 9/30/2024 2:41 PM Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C01.00.dwg

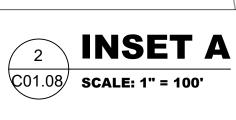
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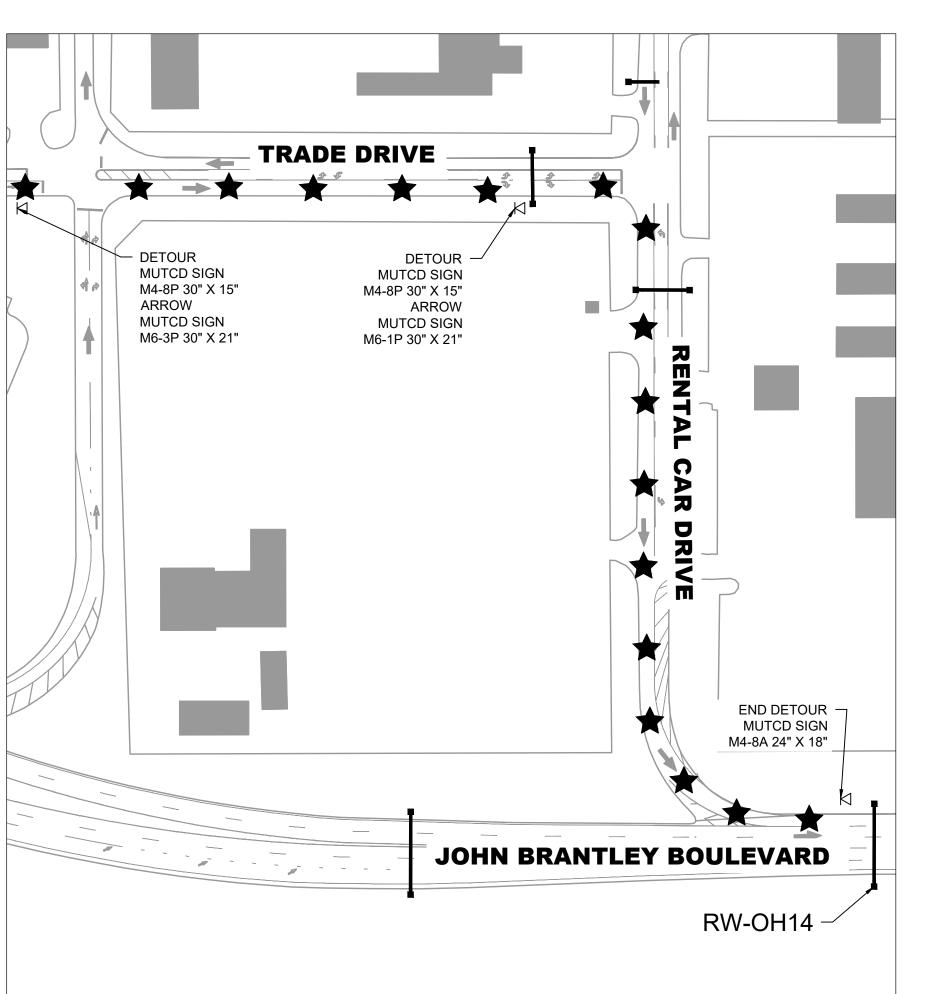
**INSET A** C01.07 SCALE: 1" = 100'



## **KEYMAP** C01.08/ SCALE: 1" = 300"







# **INSET B** C01.08 SCALE: 1" = 100"

## **LEGEND**

CLOSED WORK AREA DRUM

DETOUR ROUTE

PORTABLE SIGN

BARRICADE

FLASHING ARROW BOARD

TRUCK MOUNTED ATTENUATOR CHANGEABLE MESSAGE SIGN

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 

RALEIGH-DURHAM

**INTERNATIONAL AIRPORT** 

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**ENGINEER'S SEAL** 048840 WGINEER 10/3/2024 WHOLMES

NOT RELEASED FOR CONSTRUCTION **CONSULTANTS** 

1. SEE NCDOT DETAIL 1101.02 SHEET 3 OF 19 FOR DIVIDED MULTI-LANE ROADWAY - 1 LANE CLOSED (FOR ROADWAYS < 60 MPH).

**NOTES** 

- 2. SEE NCDOT DETAIL 1101.03 SHEET 7 OF 9 FOR TRAFFIC DETOURED VIA INTERCHANGE RAMP.
- 3. ALL CONSTRUCTION TRAFFIC CONTROL SHALL FOLLOW NCDOT STANDARDS UNLESS OTHERWISE DEPICTED OR APPROVED BY THE RDUAA CPM.
- 4. LOCATIONS DEPICTED FOR TRAFFIC CONTROL DEVICES ARE NOT TO SCALE. REFER TO STATED DIMENSIONS WHERE APPLICABLE.
- 5. CONTRACTOR SHALL HAVE PRESCRIBED DURATION TO PERFORM THE WORK DEPICTED.
- 6. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM PRIOR TO CLOSURE OF WORK AREA.
- 7. TIME REQUIRED FOR INSTALLATION OF TRAFFIC CONTROL DEVICES IS NOT INCLUDED IN THE PRESCRIBED WORK DURATION.

DESCRIPTION

**REVISIONS** 

DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH

DRAWN BY: MEO DESIGNED BY: JLH

> **AEP PROJECT NUMBER** 1051-0068-002 (C) 2024 RS&H, INC. SHEET TITLE

**TRAFFIC CONTROL** -**RW-OH17** PHASE 3

SHEET NUMBER

**BIDDING DOCUMENTS** 

C01.08

Plotted on: 9/30/2024 2:41 PM Plotted by: Zych, Kaitlyn Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C01.00.dwg

**KEYMAP** 

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 2: MERGE LEFT

RIGHT LANE CLOSED AHEAD

MERGE LEFT MUTCD SIGN

MUTCD SIGN

W20-5 48" X 48"

W4-2R 48" X 48"

RIGHT LANE CLOSED

MUTCD SIGN

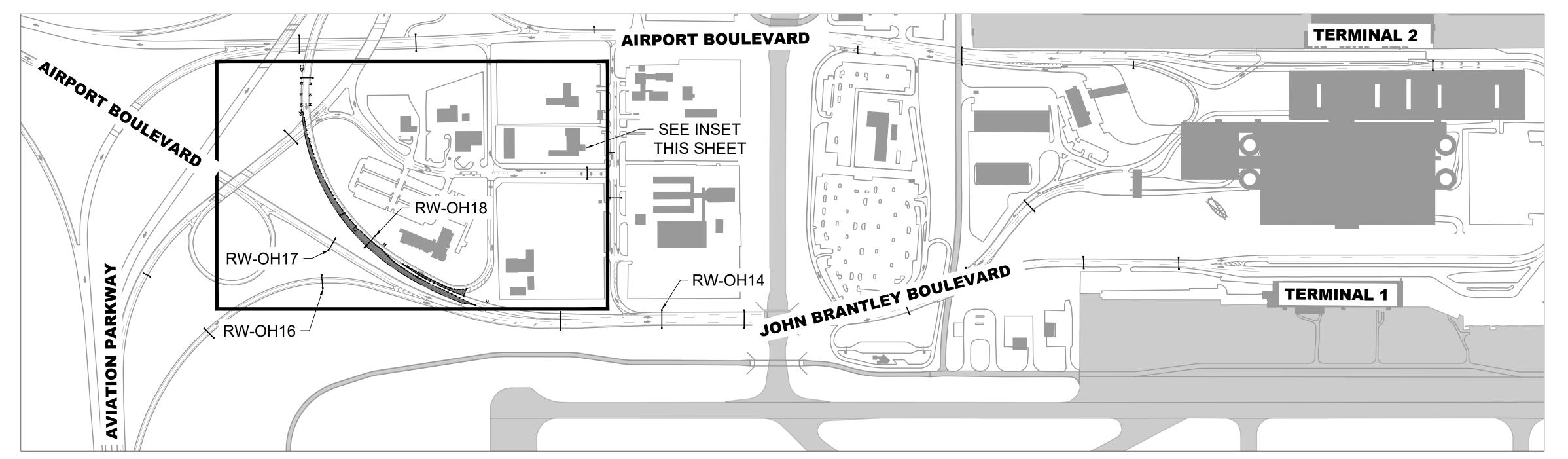
AIRPORT BOULEVARD

RW-OH17

W20-5 48" X 48"

MESSAGE NO. 1: RIGHT LANES CLOSED

C01.09/ SCALE: 1" = 300'



TRADE DRIVE

END ROAD WORK MUTCD SIGN

G20-2A 48" X 24"

TRUCK MOUNTED ATTENUATOR

EXIT GORE -MUTCD SIGN E5-1 48" X 42"

RW-OH16

RW-OH18

THRU TRAFFIC MERGE RIGHT

MUTCD SIGN <sup>4</sup> W4-7R 48" X 48"

- 1. SEE NCDOT DETAIL 1101.02 SHEET 3 OF 19 FOR DIVIDED MULTI-LANE ROADWAY - 1 LANE
- 2. SEE NCDOT DETAIL 1101.02 SHEET 11 OF 19 FOR RIGHT LANE CLOSURES THRU EXIT RAMPS.
- 3. ALL CONSTRUCTION TRAFFIC CONTROL SHALL FOLLOW NCDOT STANDARDS UNLESS OTHERWISE DEPICTED OR APPROVED BY THE
- 4. LOCATIONS DEPICTED FOR TRAFFIC CONTROL DEVICES ARE NOT TO SCALE. REFER TO STATED DIMENSIONS WHERE APPLICABLE.
- 5. CONTRACTOR SHALL HAVE PRESCRIBED DURATION TO PERFORM THE WORK DEPICTED.
- 6. TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY IN PLACE AND ACCEPTED BY CPM
- 7. TIME REQUIRED FOR INSTALLATION OF TRAFFIC CONTROL DEVICES IS NOT INCLUDED IN THE PRESCRIBED WORK DURATION.

# **NOTES**

**LEGEND** 

DRUM

CLOSED WORK AREA

DETOUR ROUTE

PORTABLE SIGN

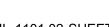
BARRICADE

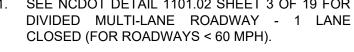
FLASHING ARROW BOARD

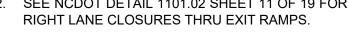
TRUCK MOUNTED ATTENUATOR

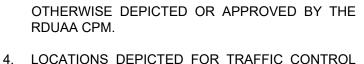
CHANGEABLE MESSAGE SIGN

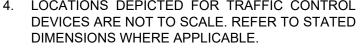
- CLOSED (FOR ROADWAYS < 60 MPH).











PRIOR TO CLOSURE OF WORK AREA.





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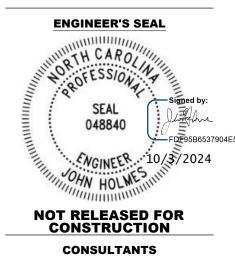


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RALEIGH-DURHAM INTERNATIONAL AIRPORT

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 



**REVISIONS** 

NO.	DESCRIPTION	DATE

REVIEWED BY: JLH

DRAWN BY: MEO DESIGNED BY: JLH **AEP PROJECT NUMBER** 

1051-0068-002 (C) 2024 RS&H, INC. SHEET TITLE

**TRAFFIC CONTROL** -**RW-OH18** PHASE 4

SHEET NUMBER

**BIDDING DOCUMENTS** 

Plotted on: 9/30/2024 2:41 PM

Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C01.00.dwg

C01.09

INSET  $\boxed{\text{C01.09}}$  SCALE: 1" = 100' Docusign Envelope ID: 6E3C975D-4239-4769-9520-19EA21D8F82A

#### **GENERAL TRAFFIC CONTROL NOTES**

#### **MAINTENANCE OF TRAFFIC**

- CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER OR RDUAA CPM.
- 2. THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER OR RDUAA CPM.

#### **GENERAL NOTES**

- 1. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN TRAFFIC WITHIN THE LIMITS OF THE PROJECT, INCLUDING ALL EXISTING ROADS AND DRIVEWAYS WHICH CROSS OR INTERSECT THE PROJECT AND ARE WITHIN THE PROJECT LIMITS, AND ACCESS ROADS CONSTRUCTED BY HIM/HER AS REQUIRED BY THE CONTRACT, UNLESS OTHERWISE PROVIDED ON THE PLANS. TRAFFIC SHALL BE MAINTAINED FROM THE TIME THE CONTRACTOR BEGINS WORK ON THE PROJECT SITE UNTIL FINAL ACCEPTANCE OF THE PROJECT WORK, INCLUDING ANY PERIODS DURING WHICH THE CONTRACTOR'S OPERATIONS ARE SUSPENDED. THE CONTRACTOR SHALL CONDUCT HIS/HER WORK IN A MANNER WHICH WILL CREATE A MINIMUM AMOUNT OF INCONVENIENCE TO TRAFFIC.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING IN A SAFE, PASSABLE, AND CONVENIENT CONDITION, SUCH PART OR PARTS OF EXISTING ROADS AS ARE BEING USED BY HIM/HER TO MAINTAIN LOCAL OR THROUGH TRAFFIC WITHIN THE LIMITS OF THE PROJECT FROM THE TIME THE CONTRACTOR BEGINS WORK ON THE PROJECT UNTIL FINAL ACCEPTANCE OF THE WORK.
- 3. SIGNING, BARRIERS, BARRICADES, LIGHTING, TRAFFIC CONTROL DEVICES, AND TRAFFIC CONTROL OPERATIONS USED IN MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE EDITION IN EFFECT ON THE DATE OF ADVERTISEMENT OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES. ANY TRAFFIC CONTROL DEVICES UTILIZED SHALL BE APPROVED BY THE ENGINEER. CERTAIN TRAFFIC CONTROL ITEMS ARE ADDRESSED ON THE PLANS.
- 4. ANY TRAFFIC CONTROL FEATURES REQUIRED IN THIS PROJECT SHALL BE PAID FOR UNDER THE LUMP SUM PROJECT COST. THE CONTRACTOR SHALL MAKE HIS/HER OWN ASSESSMENT OF THE VARIOUS SITUATIONS THAT MAY OCCUR DURING THE PROJECT WHEREBY THE SAFETY OF THE PUBLIC IS AN ISSUE AND CONSIDER THEM IN THEIR LUMP SUM BID. THE ENGINEER AND RDUAA CPM RESERVE THE RIGHT TO DIRECT THE CONTRACTOR TO SUPPLY ADDITIONAL SIGNING AND/OR WARNING DEVICES AT ANY TIME DURING THE PROJECT, IF REQUIRED TO ENSURE PUBLIC SAFETY. NO ADDITIONAL PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR ANY TRAFFIC CONTROL DEVICES THAT ARE REQUIRED BY THE ENGINEER OR RDUAA CPM. THE ENGINEER OR RDUAA CPM MAY HALT WORK UNTIL TRAFFIC CONTROL PROBLEMS HAVE BEEN ADDRESSED TO HIS/HER SATISFACTION.

## TRAFFIC CONTROL SUPERVISION

- 1. THE CONTRACTOR SHALL DESIGNATE ONE INDIVIDUAL WHO WILL HAVE COMPLETE CHARGE OF THE CONTRACTOR'S TRAFFIC CONTROL PROGRAM ON THE PROJECT AS HIS/HER PROJECT TRAFFIC CONTROL SUPERVISOR. THIS INDIVIDUAL SHALL BE GIVEN FULL AUTHORITY BY THE CONTRACTOR TO TAKE SUCH ACTION AS MAY BE NECESSARY TO ENSURE THAT TRAFFIC IS MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT. HE/SHE SHALL WORK WITH THE RDUAA CPM SO THAT THE CPM IS INFORMED OF ALL DETAILS CONCERNING THE CONTRACTOR'S TRAFFIC CONTROL PROGRAM. THE CONTRACTOR'S TRAFFIC CONTROL SUPERVISOR OR HIS/HER DESIGNATED REPRESENTATIVE SHALL BE ON CALL AT ALL TIMES AND SHALL MAKE ANY NECESSARY CHANGES IN TRAFFIC CONTROL OPERATIONS. THE CONTRACTOR SHALL SUBMIT THE TRAFFIC CONTROL PROGRAM AND THE NAME OF THE PROPOSED TRAFFIC CONTROL SUPERVISOR TO THE ENGINEER WITHIN (14) CALENDAR DAYS OF START OF WORK.
- 2. ALL TRAFFIC CONTROL PLANS ARE SUBJECT TO THE ENGINEER'S APPROVAL. THE ENGINEER AND THE RDUAA CPM HAS THE AUTHORITY TO MODIFY THE TRAFFIC CONTROL DURING ANY OPERATION.

#### TRAFFIC CONTROL THROUGH THE PROJECT

- 1. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN ALL NECESSARY BARRIERS, BARRICADES, SUITABLE AND SUFFICIENT WARNING LIGHTS, DANGER SIGNALS, AND SIGNS; SHALL PROVIDE A SUFFICIENT NUMBER OF FLAGMEN TO DIRECT THE TRAFFIC; AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF THE WORK AND THE SAFETY OF THE PUBLIC.
- 2. ALL BARRIERS, BARRICADES, AND OBSTRUCTIONS OR HAZARDOUS CONDITIONS SHALL BE ILLUMINATED AS NECESSARY TO PROVIDE FOR SAFE TRAFFIC CONDITIONS.
- 3. WARNING AND CAUTION SIGNS SHALL BE POSTED THROUGHOUT THE LENGTH OF ANY PORTION OF THE PROJECT WHERE TRAFFIC FLOW IS RESTRICTED.
- 4. UNLESS OTHERWISE PERMITTED BY THE ENGINEER, SIGNS, MARKERS, BARRIERS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE TEMPORARILY REMOVED OR ALTERED BY THE CONTRACTOR AT TIMES WHEN CONSTRUCTION OPERATIONS ARE NOT UNDERWAY AND THE CONDITION OF THE ROADWAY BEING USED BY TRAFFIC DOES NOT PRESENT A HAZARD. SUCH TRAFFIC CONTROL DEVICES SHALL BE REPLACED BY THE CONTRACTOR PRIOR TO THE RESUMPTION OF CONSTRUCTION OPERATIONS.
- 5. ADVISORY SPEED LIMIT SIGNS USED BY THE CONTRACTOR SHALL BE POSTED ONLY WHEN AND WHERE REDUCED SPEEDS ARE WARRANTED, AND SUCH REDUCED SPEEDS SHALL BE THE MAXIMUM SPEEDS WHICH ARE REASONABLE UNDER THE PREVAILING CONDITIONS.
- 6. THE CONTRACTOR SHALL PROVIDE CONTINUOUS, SAFE ACCESS TO ALL PROPERTIES, BOTH PUBLIC AND PRIVATE, ALONG THE PROJECT IN ALL CASES WHERE SUCH ACCESS WILL BE PROVIDED BY THE COMPLETED FACILITY AND SHALL CONDUCT HIS/HER OPERATIONS IN SUCH A MANNER THAT INCONVENIENCE TO THE PROPERTY OWNERS WILL BE HELD TO A MINIMUM.

#### **ONE-WAY TRAFFIC**

1. TWO-WAY TRAFFIC IS TO BE MAINTAINED AT ALL TIMES ON ANY ROADWAYS WHERE TWO-WAY TRAFFIC IS THE NORMAL OPERATIONS, UNLESS OTHERWISE PROVIDED FOR ON THE PLANS OR PERMITTED BY THE ENGINEER. WHERE ONE-WAY TRAFFIC IS PERMITTED, TRAFFIC SHALL BE PERIODICALLY ALTERED IN EACH DIRECTION BY FLAGMEN OR APPROVED TRAFFIC CONTROL DEVICES AND ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO MINIMIZE EXCESSIVE DELAY TO AIRPORT TRAFFIC. THE CONTRACTOR MAY BE REQUIRED TO USE A PILOT CAR TO GUIDE AND DIRECT ONE-WAY TRAFFIC IF DIRECTED BY THE ENGINEER OR RDUAA CPM. THE DISTANCE ALONG THE PROJECT THROUGH WHICH ONE-WAY TRAFFIC WILL BE PERMITTED SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

#### **CONSTRUCTION WHILE MAINTAINING TRAFFIC**

1. WHEN WORK IS TO BE PERFORMED WHILE MAINTAINING TRAFFIC, THE CONTRACTOR SHALL SCHEDULE AND PERFORM THE WORK SO AS TO CREATE THE LEAST SAFETY HAZARD TO TRAFFIC. AT EACH LOCATION WHERE WORK IS STARTED THAT CREATES A SAFETY HAZARD, IT SHALL BE CONTINUED UNTIL COMPLETED TO THE EXTENT THAT THE SAFETY HAZARD IS ELIMINATED. IF THE WORK IS NOT PURSUED IN A CONTINUOUS MANNER, THE ENGINEER OR RDUAA CPM MAY STOP WORK ON THE PROJECT UNTIL THE EXISTING SAFETY HAZARDS ARE ELIMINATED.

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- 1. REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER OR RDUAA CPM.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FEET OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK ARE IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- 3. WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FEET OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK ARE IS PROTECTED BY BARRIER OR GUARDRAIL.
- 4. WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FEET OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK ARE IS PROTECTED BY BARRIER OR GUARDRAIL.
- 5. WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER OR RDUAA CPM. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- 6. INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FEET FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN 3 DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- 7. PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- 8. PROVIDE SIGNING AND DEVICES REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- 9. COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- 10. COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR
- 11. ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC

### TRAFFIC CONTROL DEVICES

IS NOT IN OPERATION.

PATTERN.

- 1. WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FEET ON-CENTER IN RADII, AND 3 FEET OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES), AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- 2. PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- 3. PLACE ADDITIONAL SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FOOT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

#### **SIGNING**

 ANY WAYFINDING SIGNS AND LIGHTING REMOVED SHALL BE REPLACED BY THE END OF THE DESIGNATED SHIFTS. UNDER NO CONDITIONS SHALL A SIGN AND ITS ASSOCIATED LIGHTING NOT BE IN PLACE PRIOR TO THE REOPENING OF TRAFFIC.

#### **NIGHT WORK**

- 1. THE CONTRACTOR IS REQUIRED TO CONDUCT CONSTRUCTION OPERATIONS AT NIGHT WHERE MAJOR TRAFFIC DELAYS OR LANE CLOSURES ARE NECESSARY OR AS DIRECTED BY THE ENGINEER OR RDUAA CPM.
- 2. WHEN THE CONTRACTOR IS REQUIRED TO PERFORM CONSTRUCTION ACTIVITIES AT NIGHT, HE/SHE SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE TEMPORARY CONSTRUCTION LIGHTS TO ILLUMINATE NIGHT WORK AREAS DURING HOURS OF DARKNESS. THE EQUIPMENT USED FOR LIGHTING SHALL PROVIDE A SUFFICIENT AMOUNT OF LIGHT TO ILLUMINATE THE WORKING AREAS SATISFACTORILY FOR CONSTRUCTION AND INSPECTION. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL LIGHTING UNITS, AS DIRECTED BY THE ENGINEER OR RDUAA CPM. NO NIGHT WORK INVOLVING TRAFFIC SHIFTS AND/OR CLOSURES MAY PROCEED UNTIL THE ENGINEER HAS INSPECTED THE TRAFFIC CONTROL AND GIVEN THE CONTRACTOR NOTIFICATION TO PROCEED.
- 3. LIGHTS SHALL BE ANGLED DOWNWARDS. ANY LIGHTING THAT MAY AFFECT AIRPORT OPERATIONS MUST BE COORDINATED WITH AND APPROVED BY THE RDUAA CPM.



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RALEIGH, NC

ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE

ENGINEER'S SEAL



CONSTRUCTION

REVISIONS

NO. DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024

DESIGNED BY: JLH

AEP PROJECT NUMBER

REVIEWED BY: JLH

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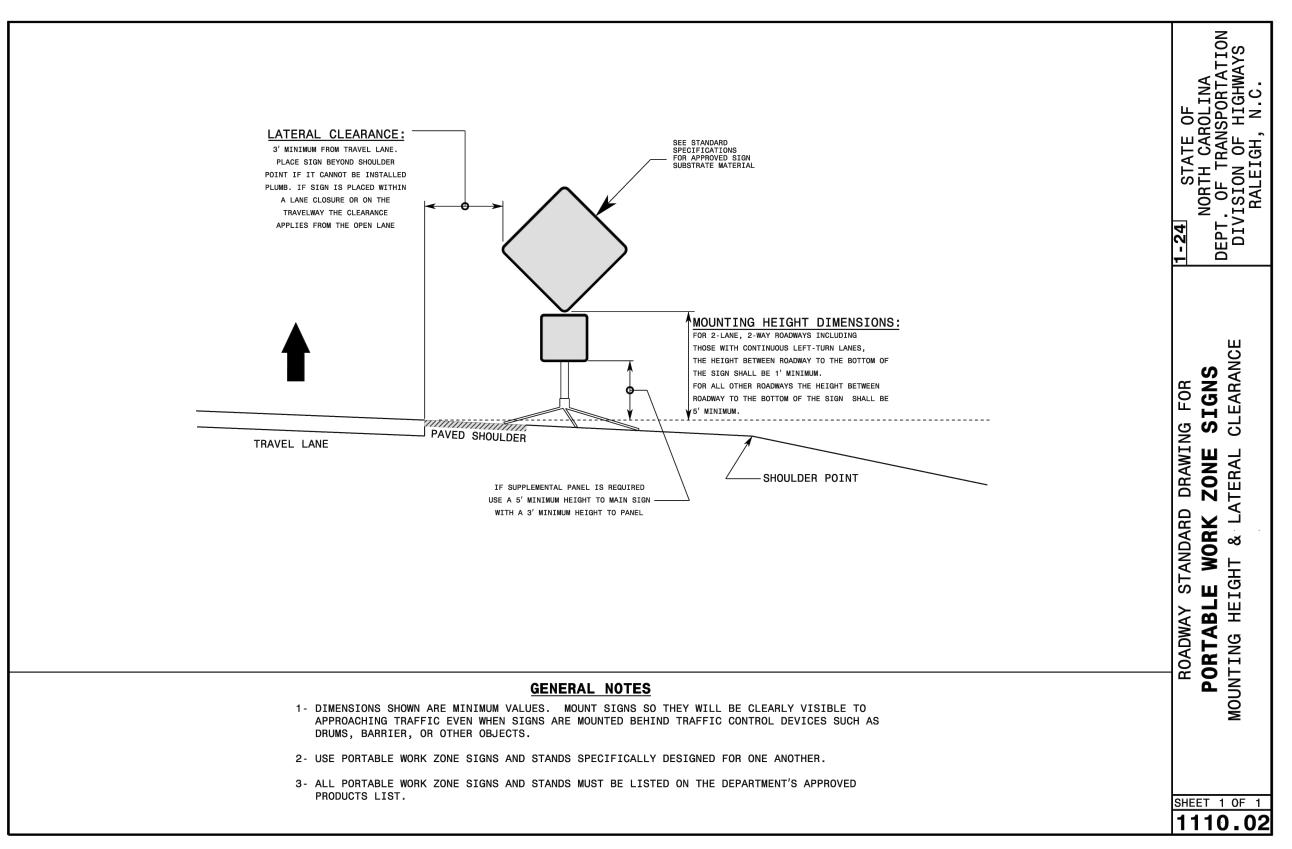
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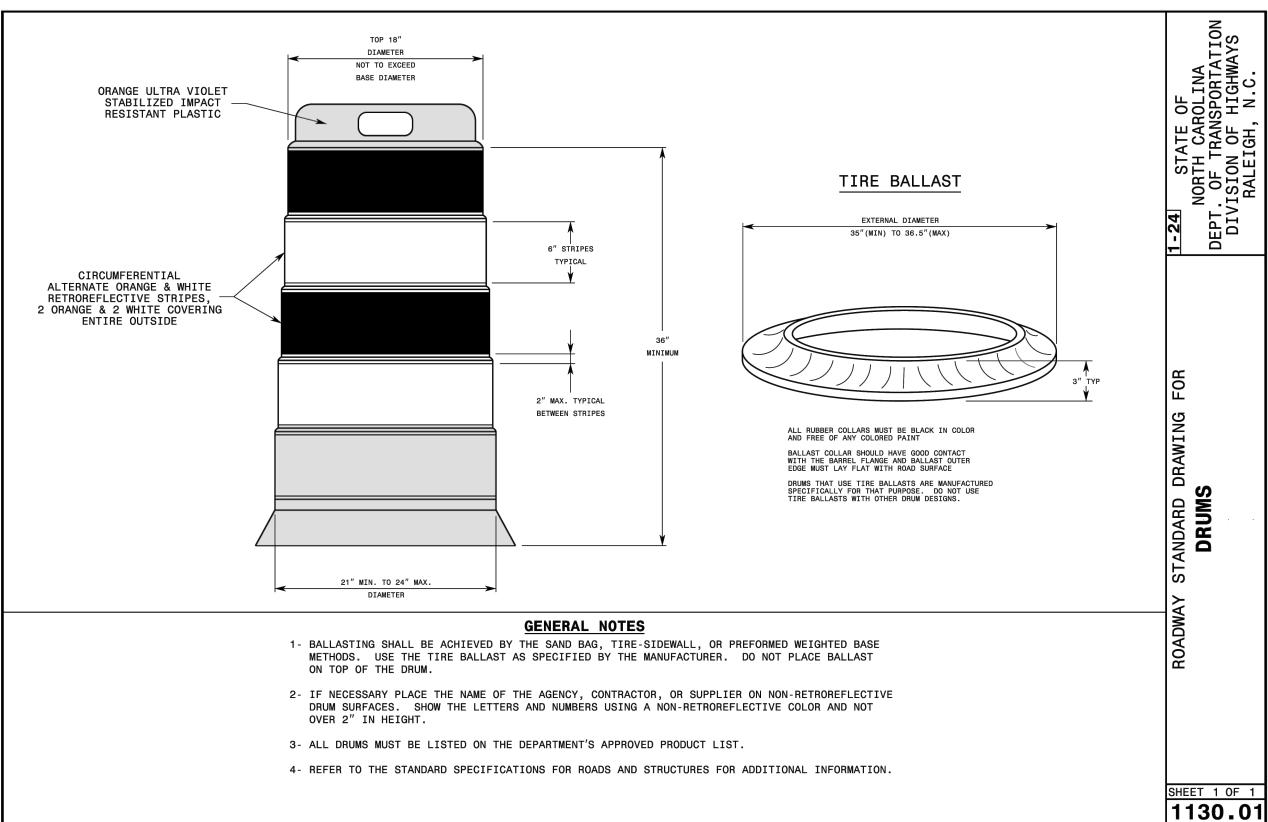
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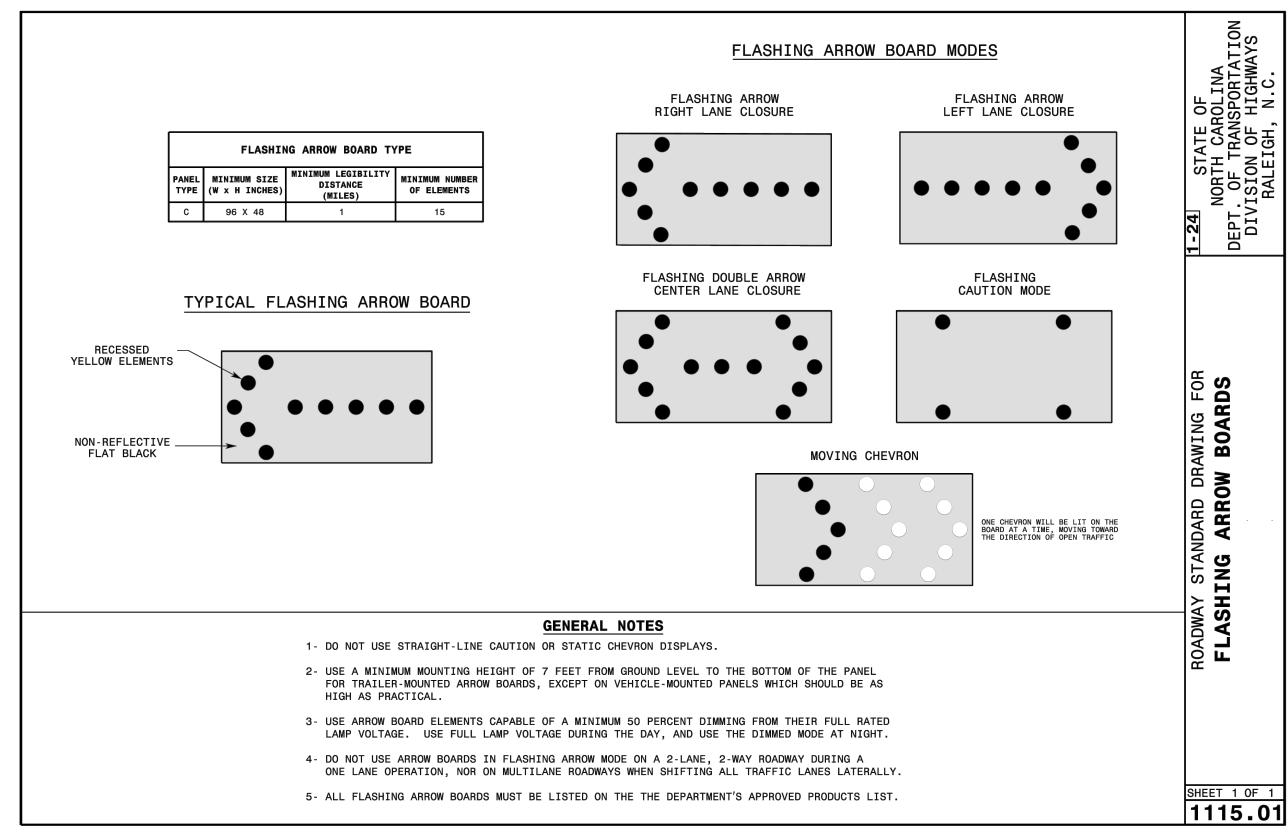
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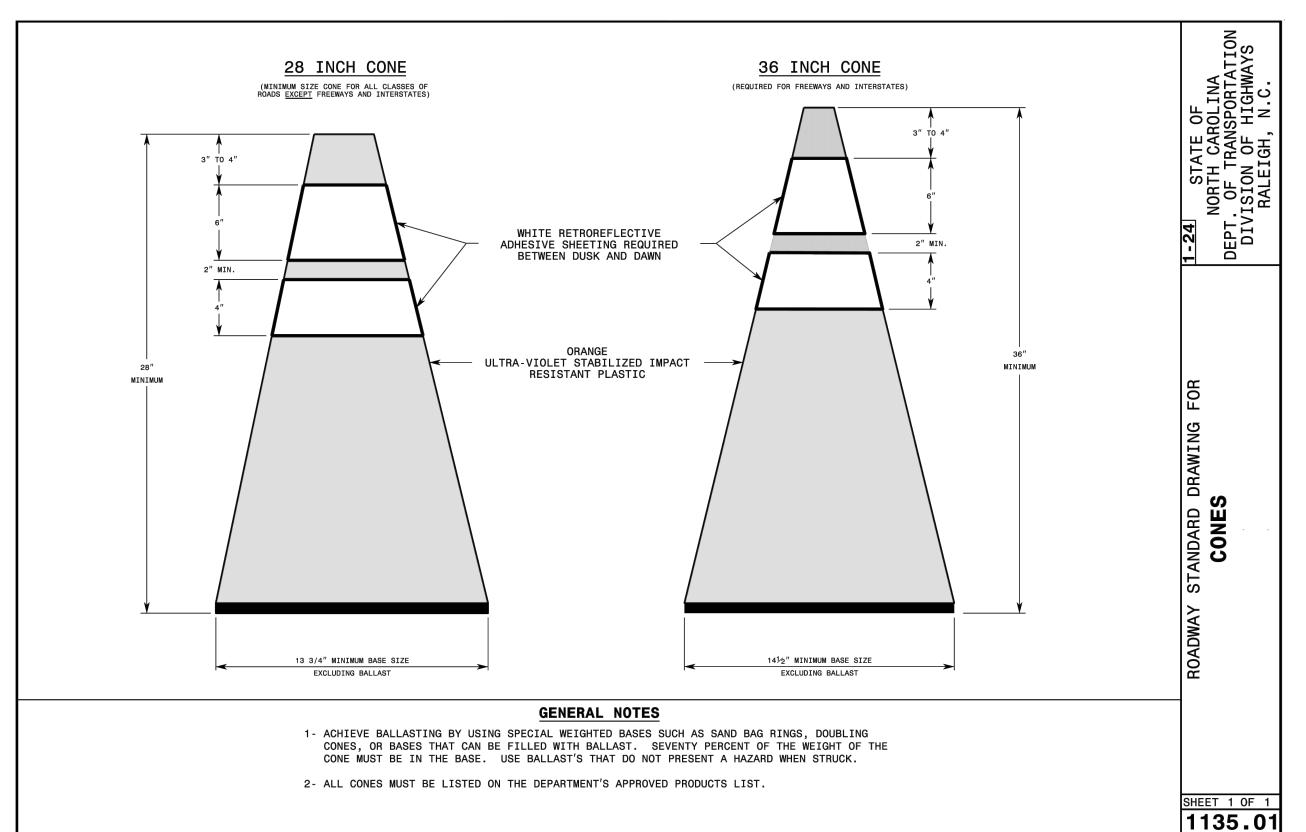
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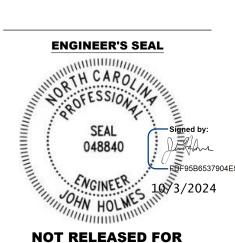




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CONSTRUCTION CONSULTANTS

REVISIONS

NO. DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024

REVIEWED BY: JLH

DRAWN BY: MEO

DESIGNED BY: JLH

TRAFFIC
CONTROL
DEVICE DETAILS
(SHEET 1 OF 3)

**AEP PROJECT NUMBER** 

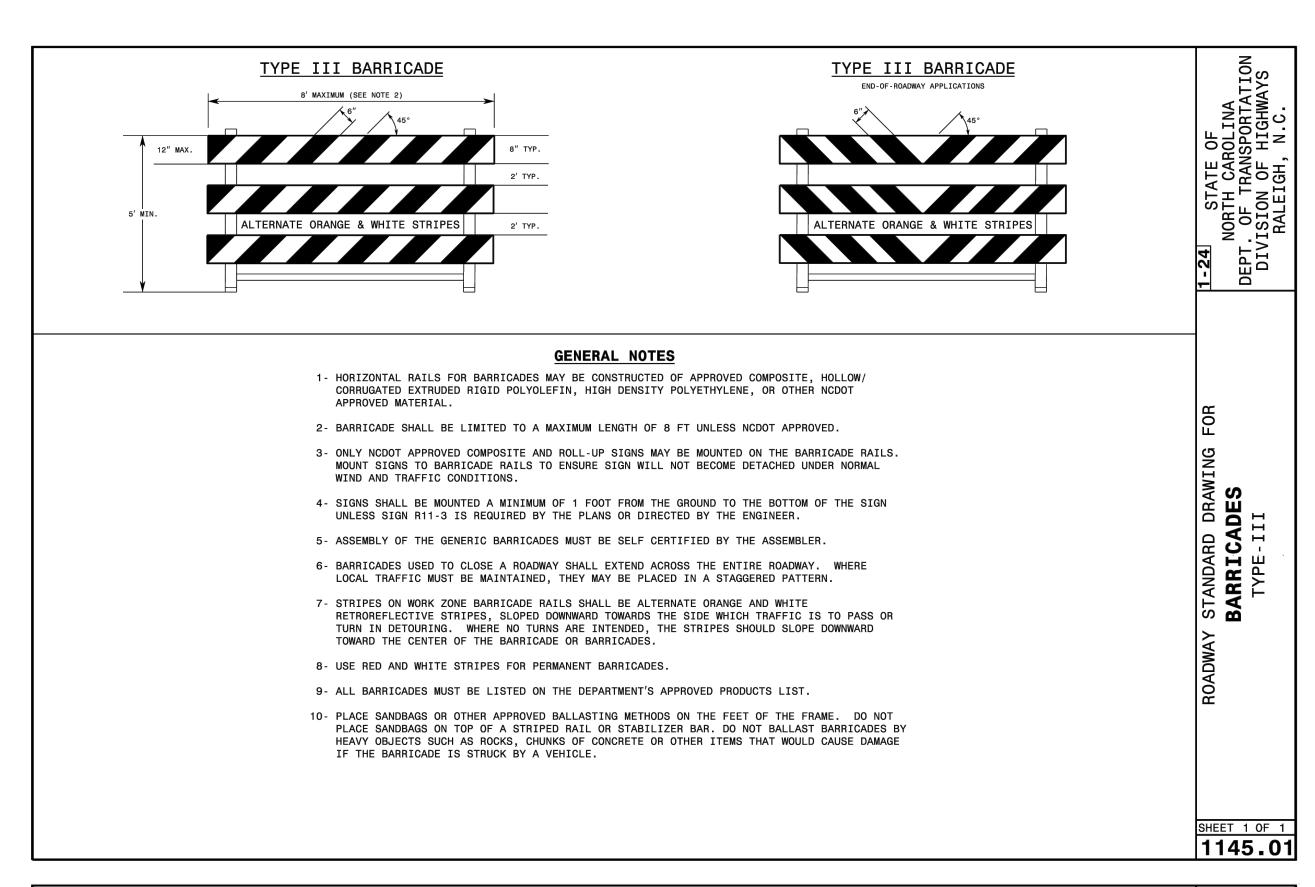
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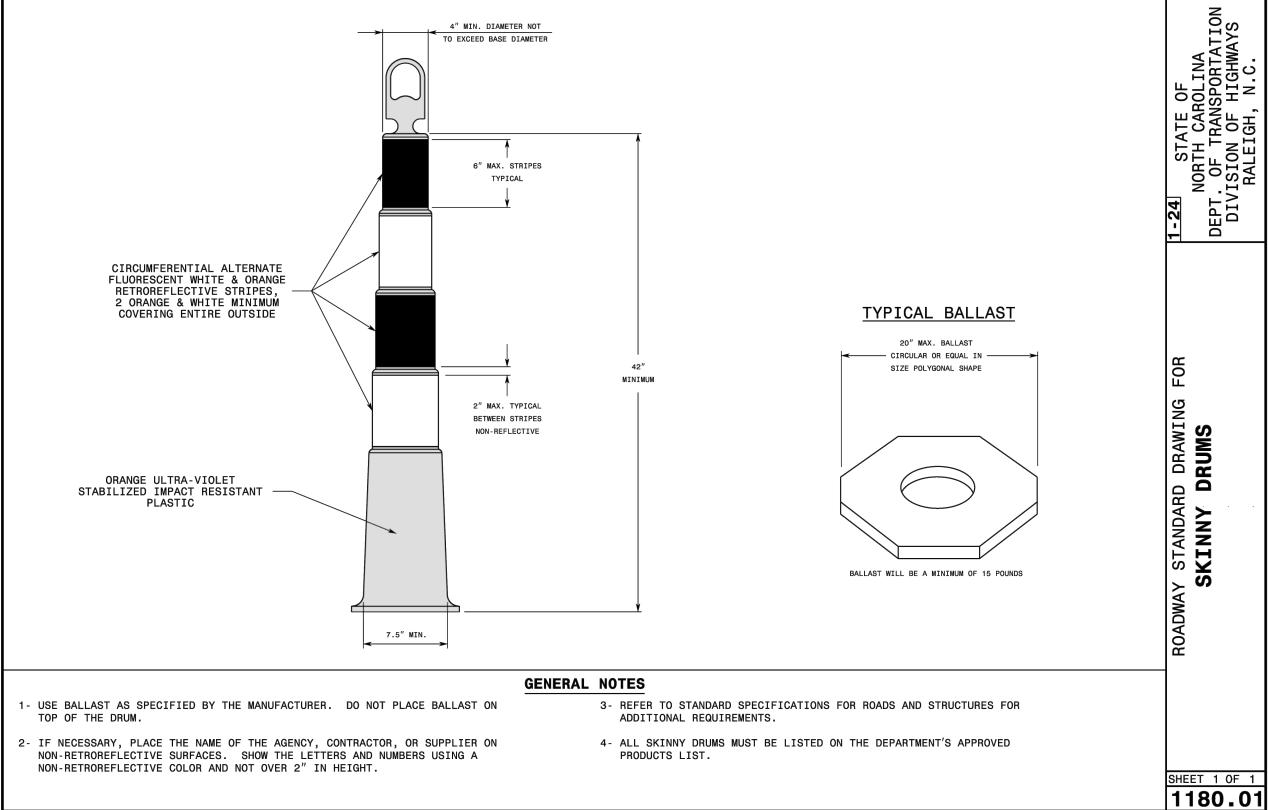
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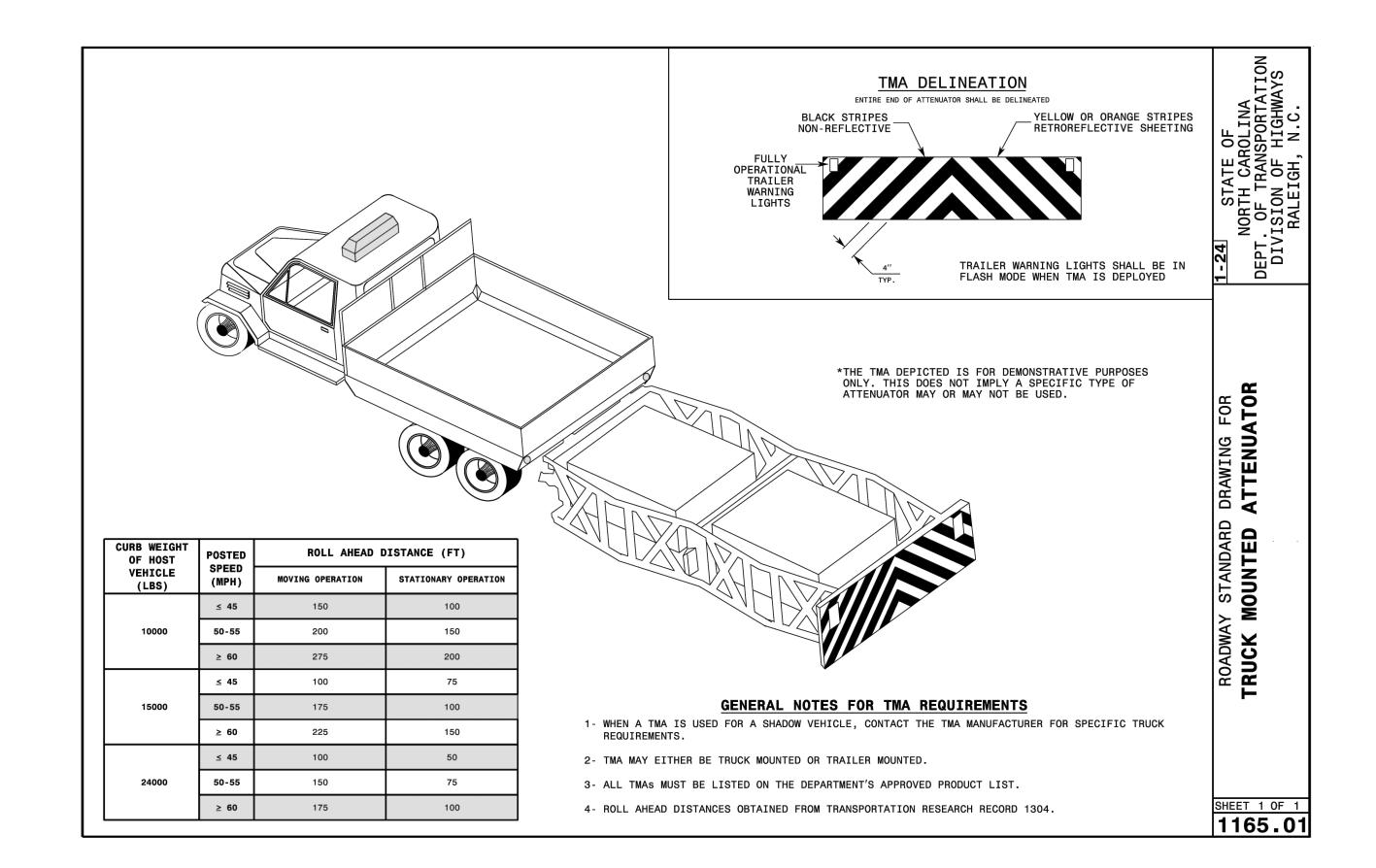
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DATE IS	SSUED:	APRIL 16,	2024
REVIEW	VED BY:	JLH	

REVIEWED BY: JLH

DRAWN BY: MEO

DESIGNED BY: ILL

DESIGNED BY: JLH

AEP PROJECT NUMBER

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TRAFFIC
CONTROL
DEVICE DETAILS
(SHEET 2 OF 3)

SHEET NUMBER

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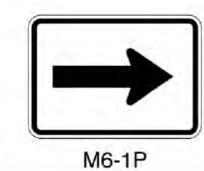












































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TRAFFIC CONTROL DEVICE DETAILS (SHEET 3 OF 3)

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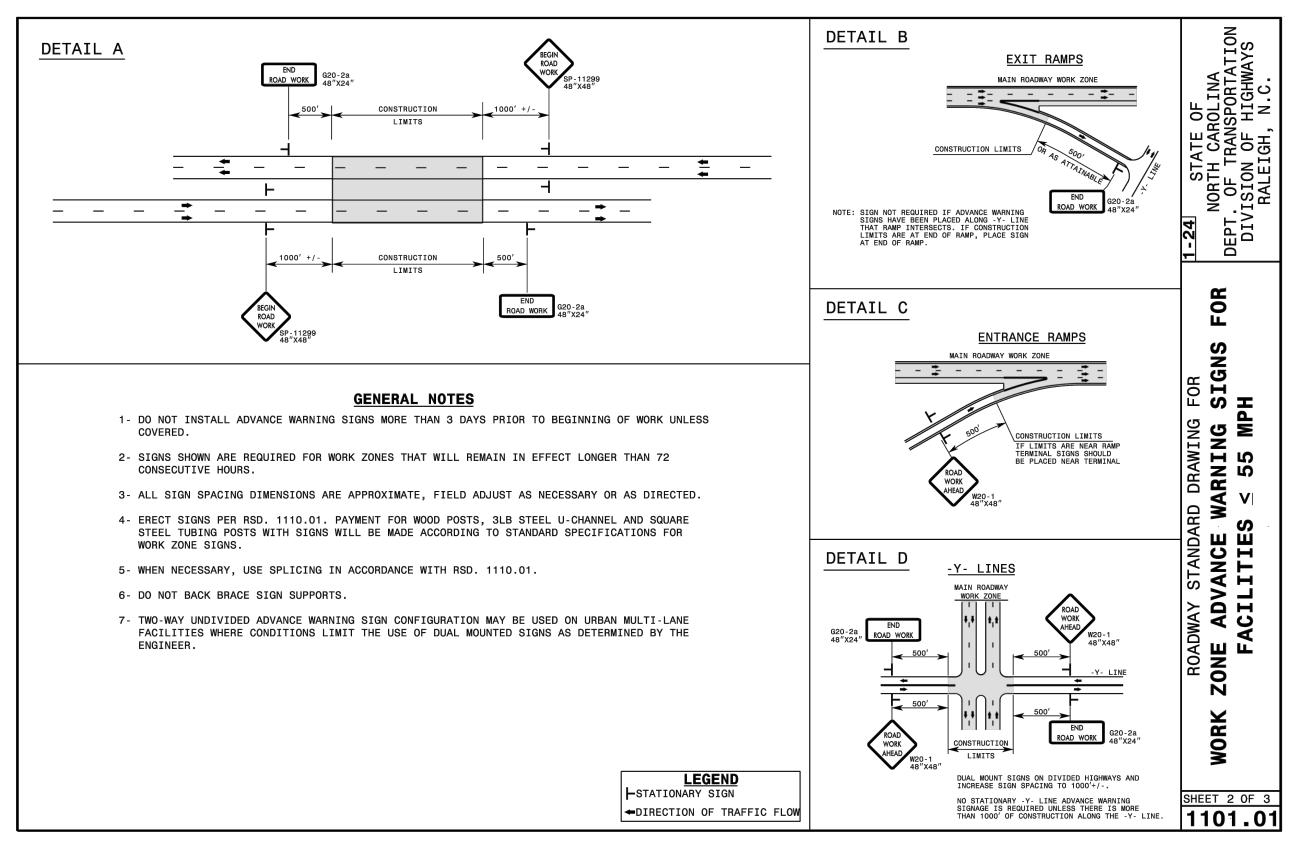
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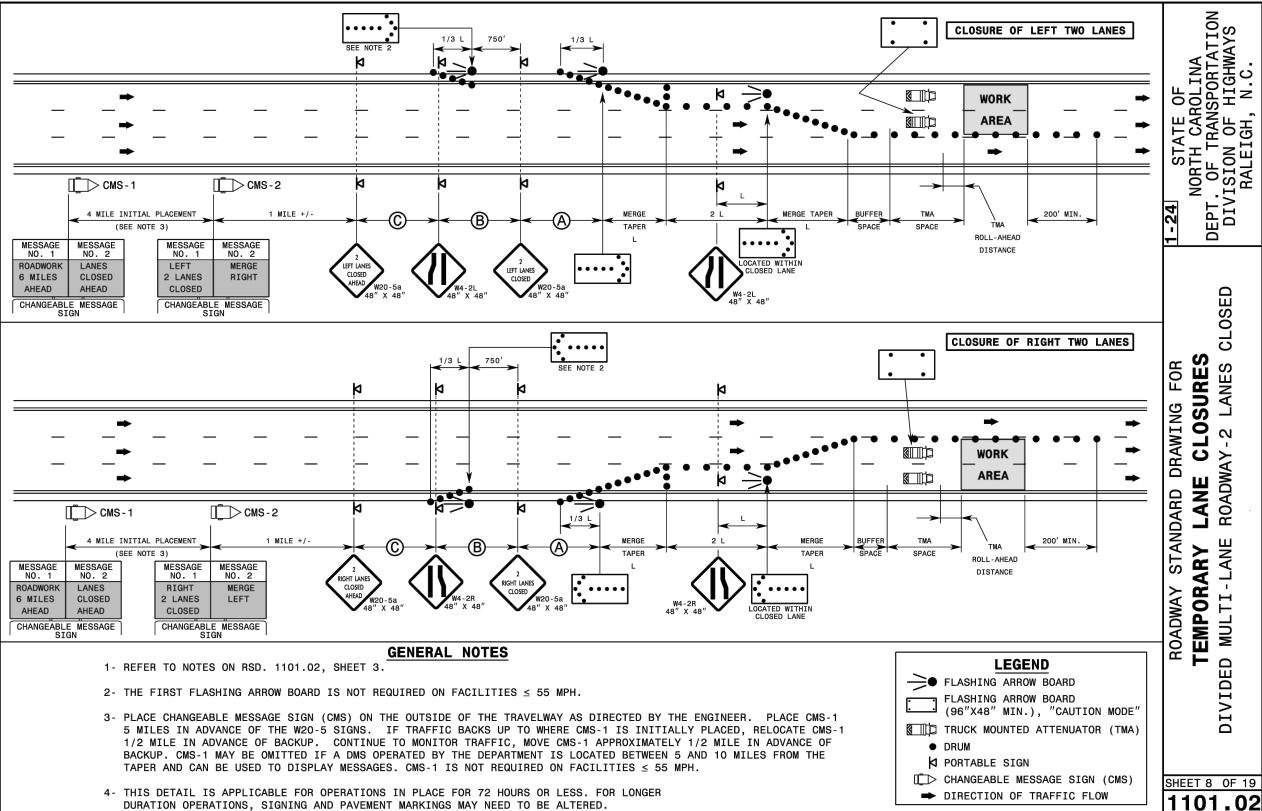
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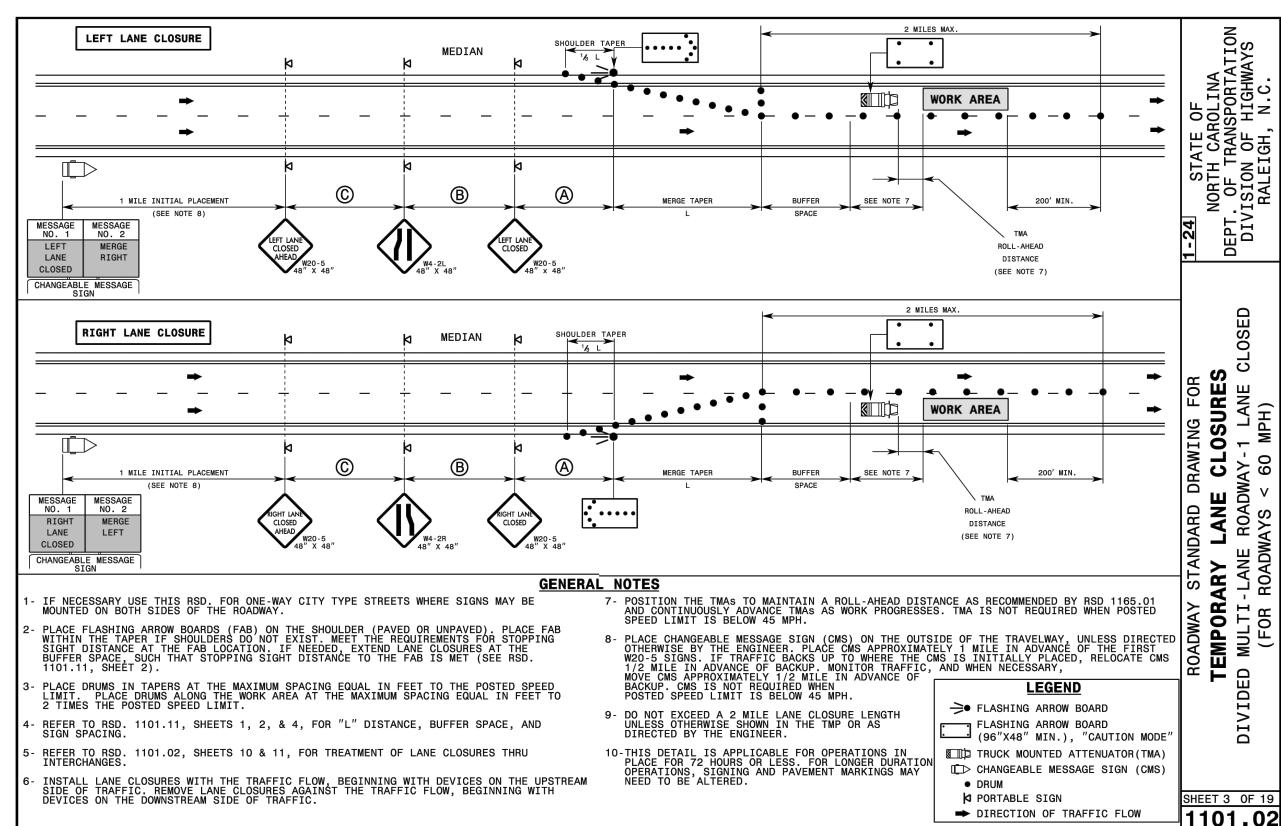
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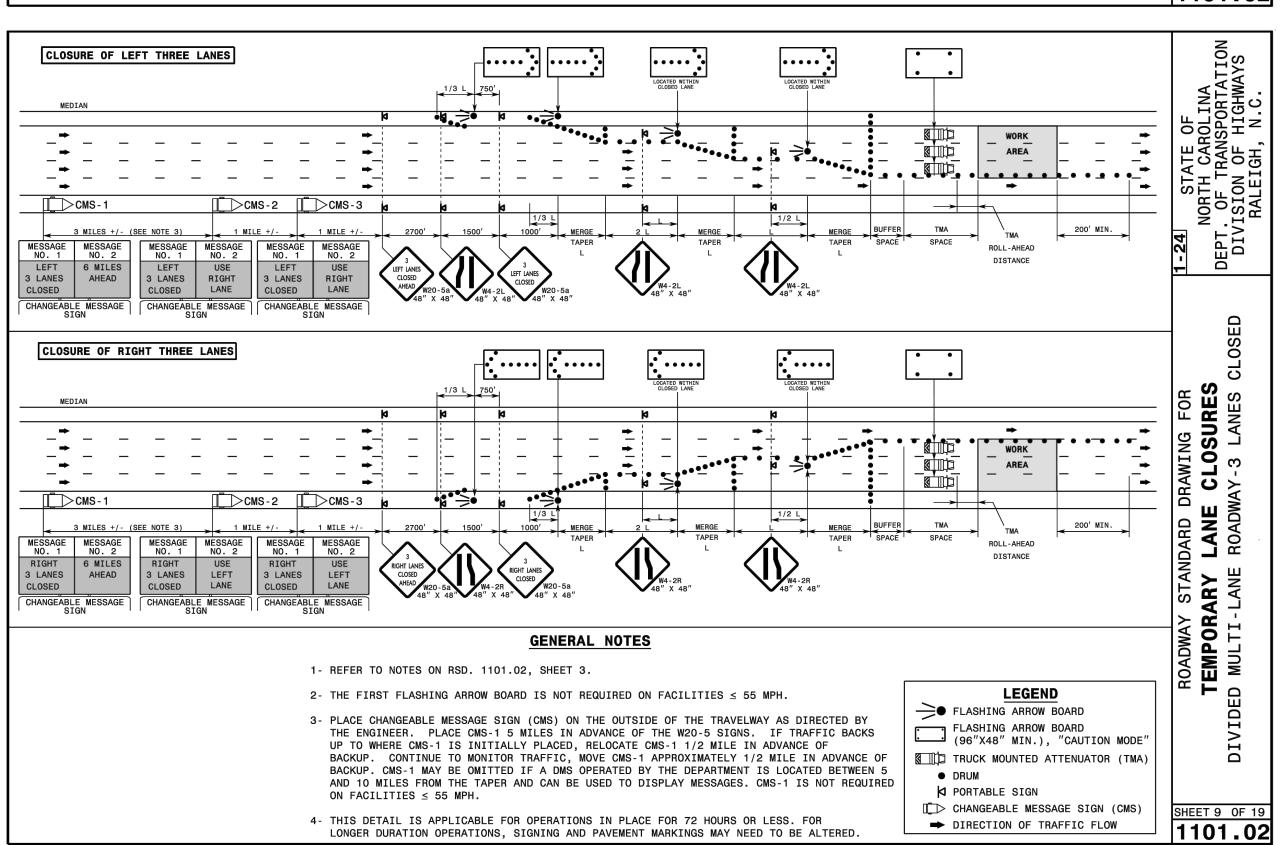
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DESIGNED BY: JLH

GENERAL TRAFFIC CONTROL DETAILS (SHEET 1 OF 3)

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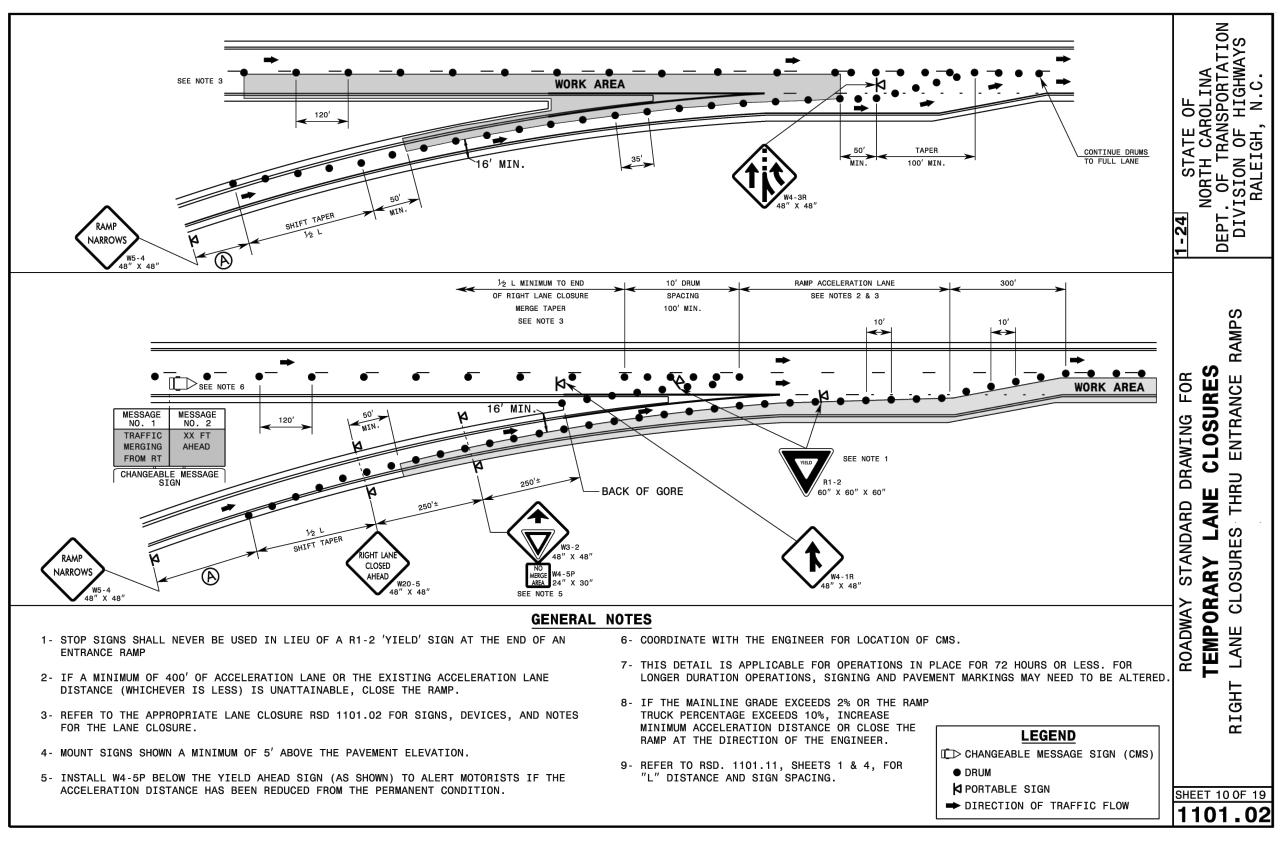
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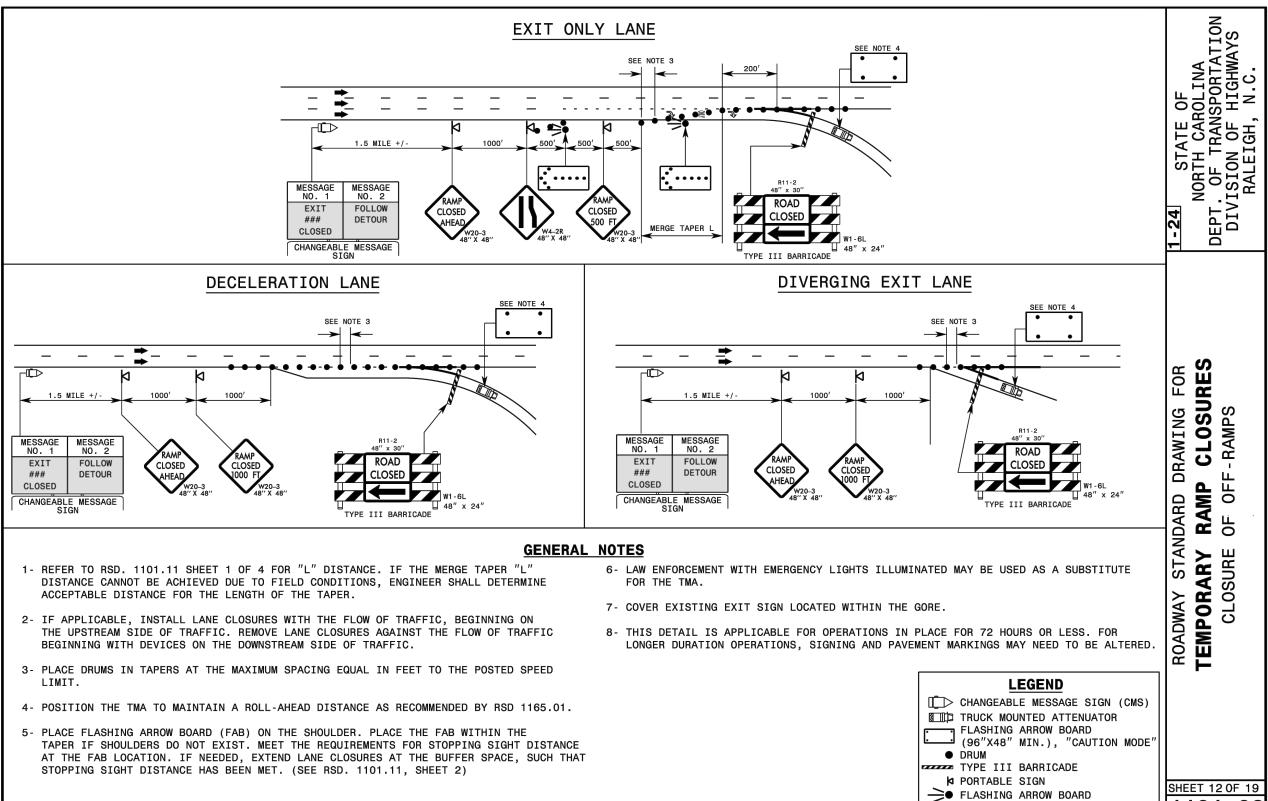
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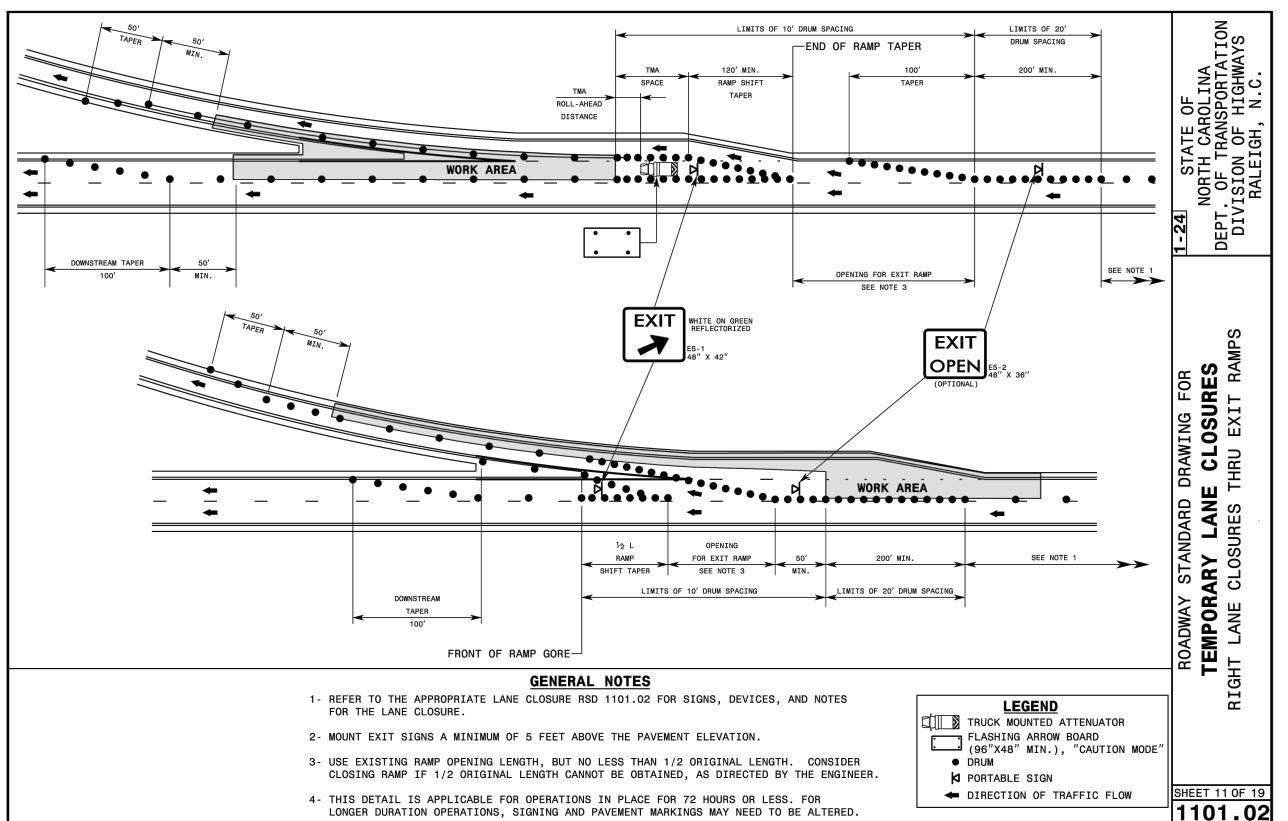
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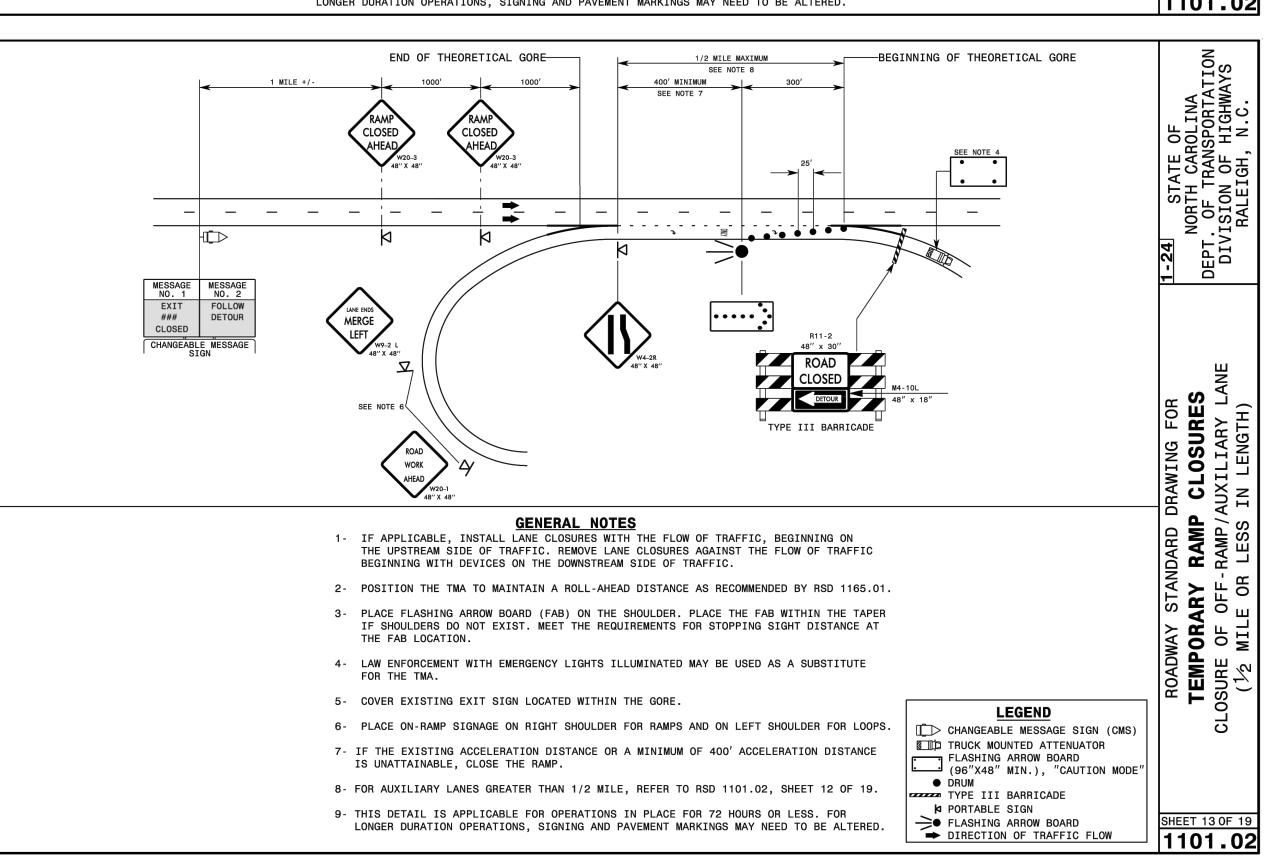




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→ DIRECTION OF TRAFFIC FLOW







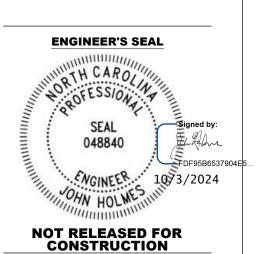
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GENERAL TRAFFIC CONTROL DETAILS (SHEET 2 OF 3)

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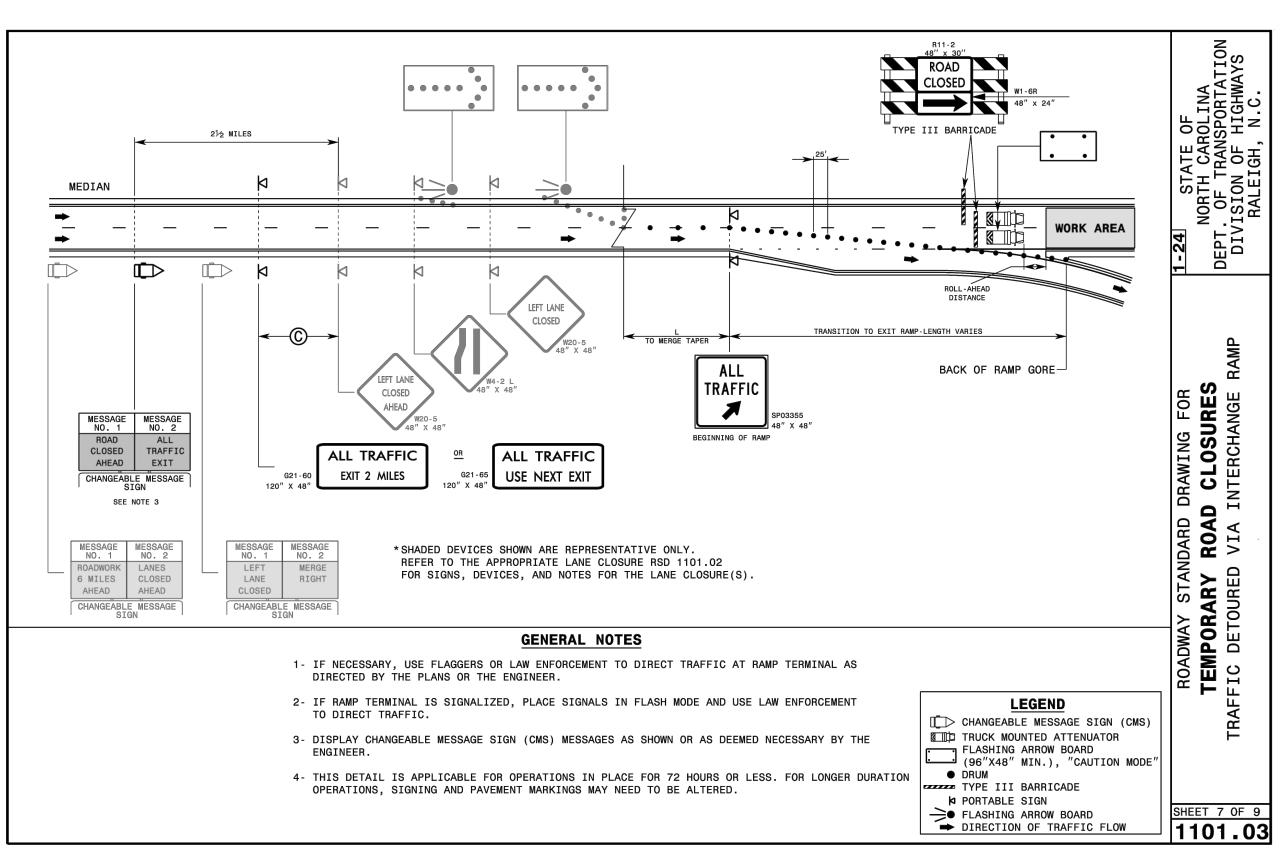
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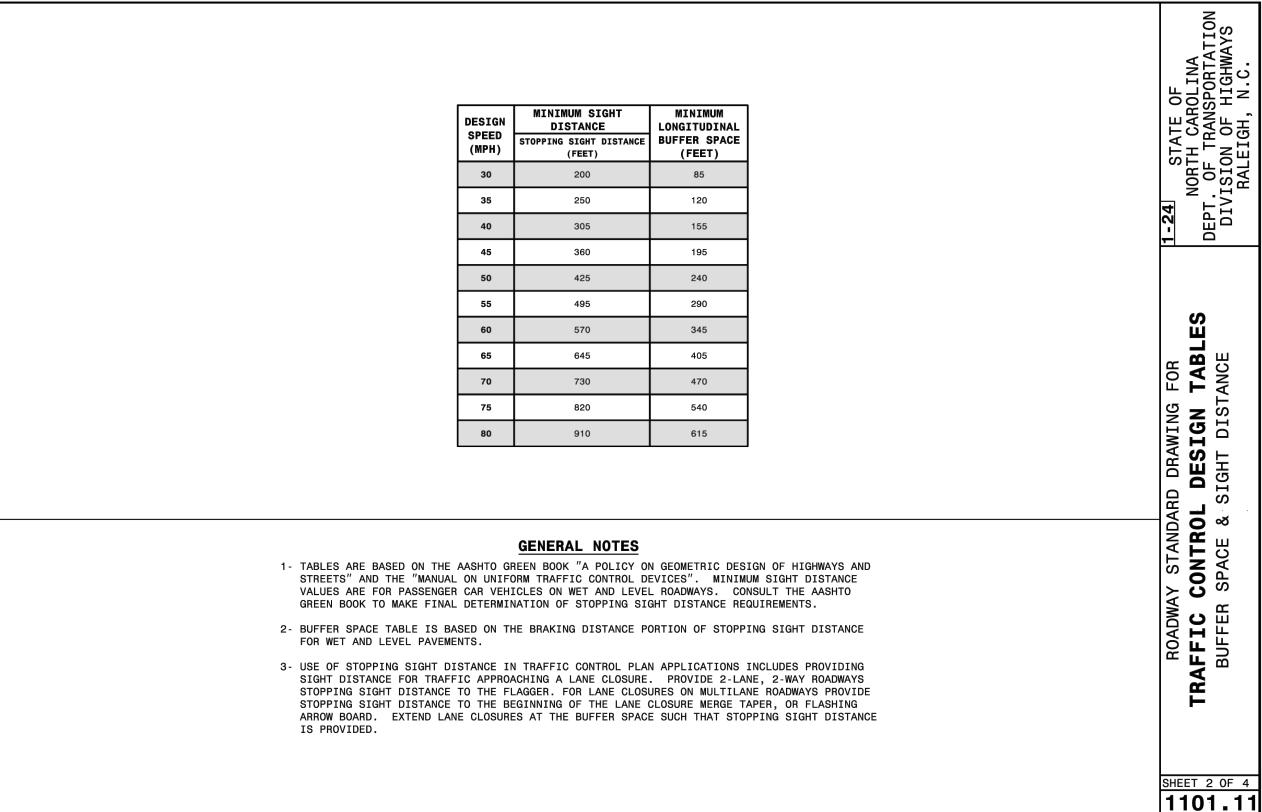
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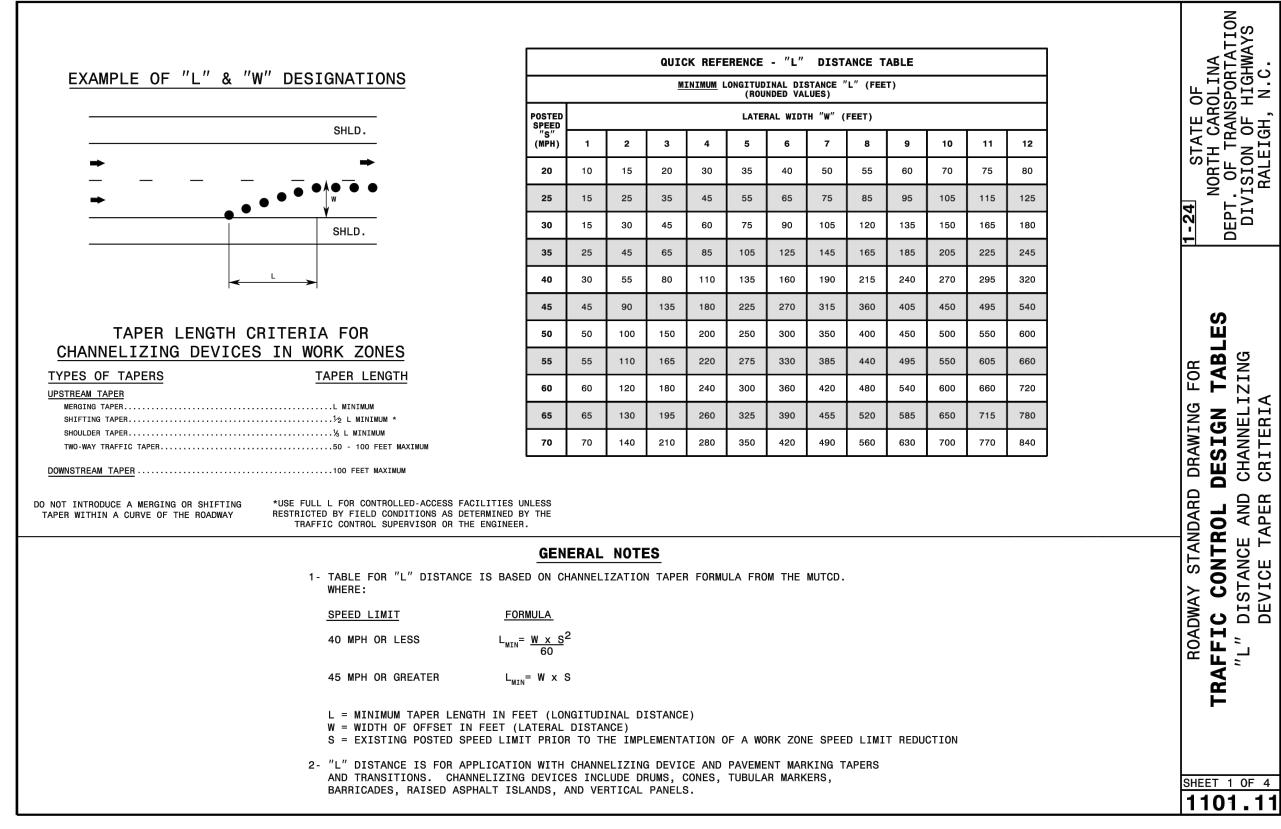
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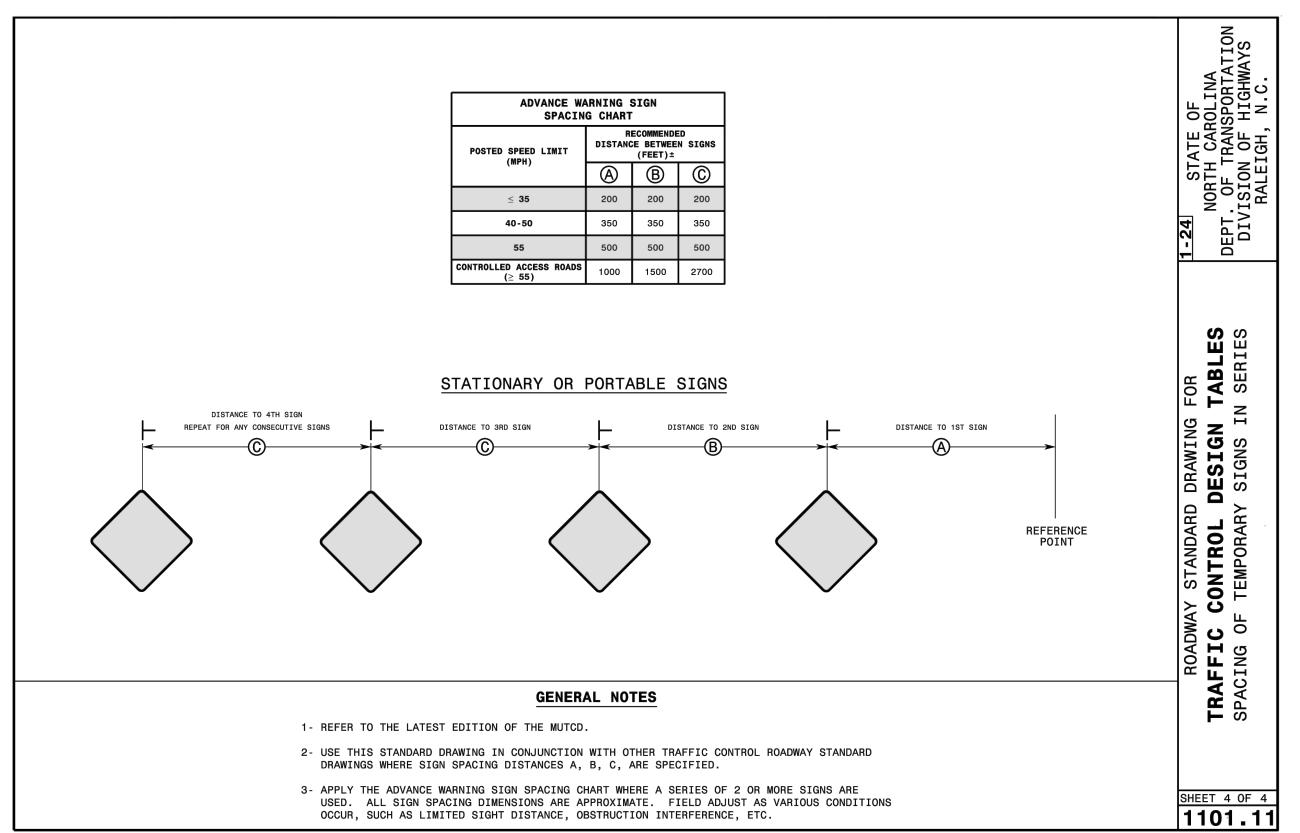
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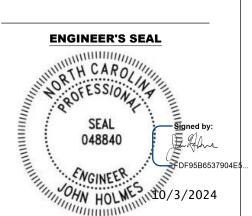




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CONSTRUCTION

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GENERAL TRAFFIC CONTROL DETAILS (SHEET 3 OF 3)

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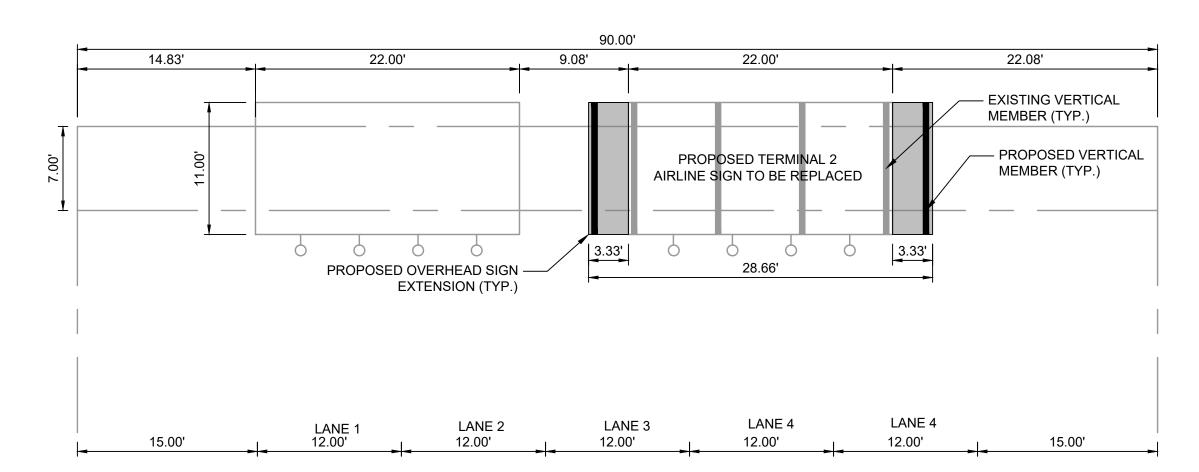
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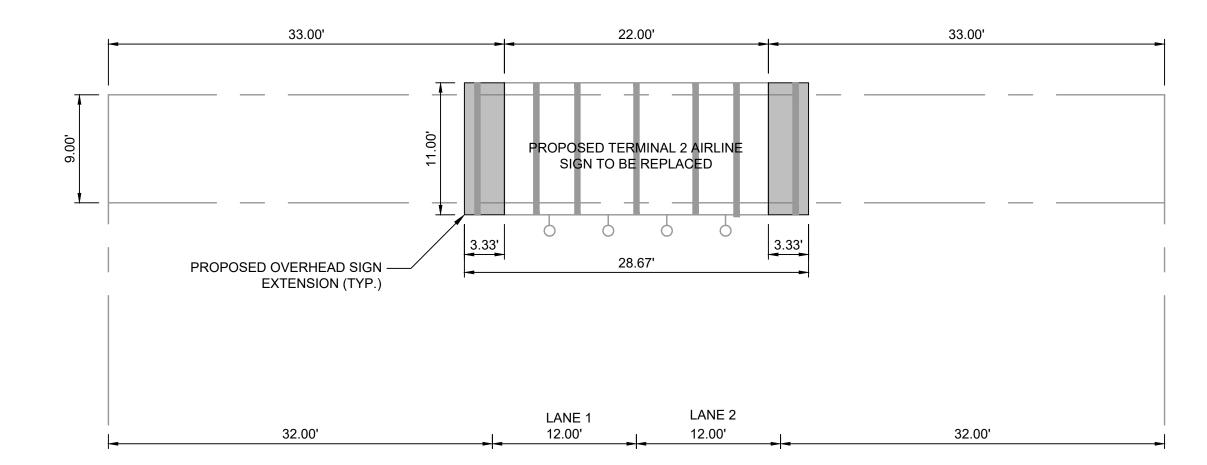
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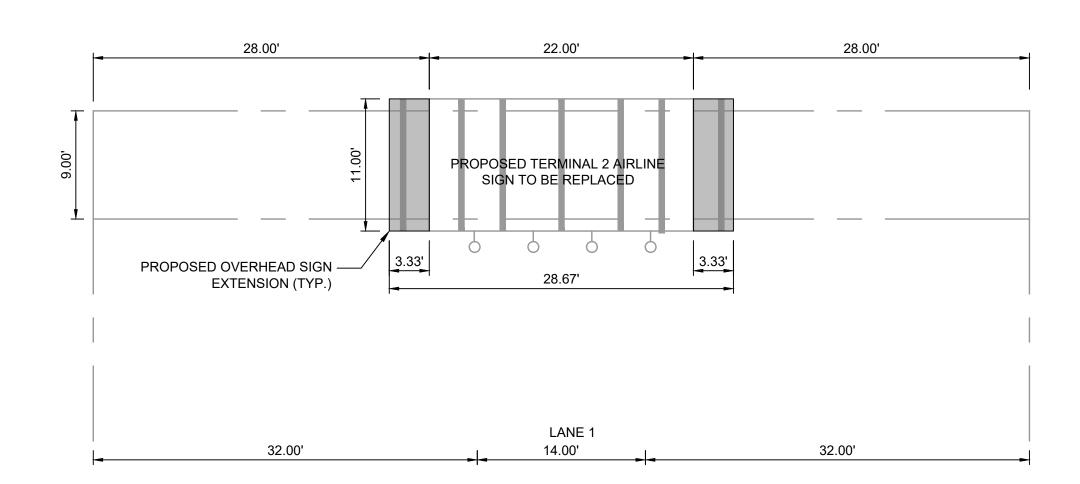
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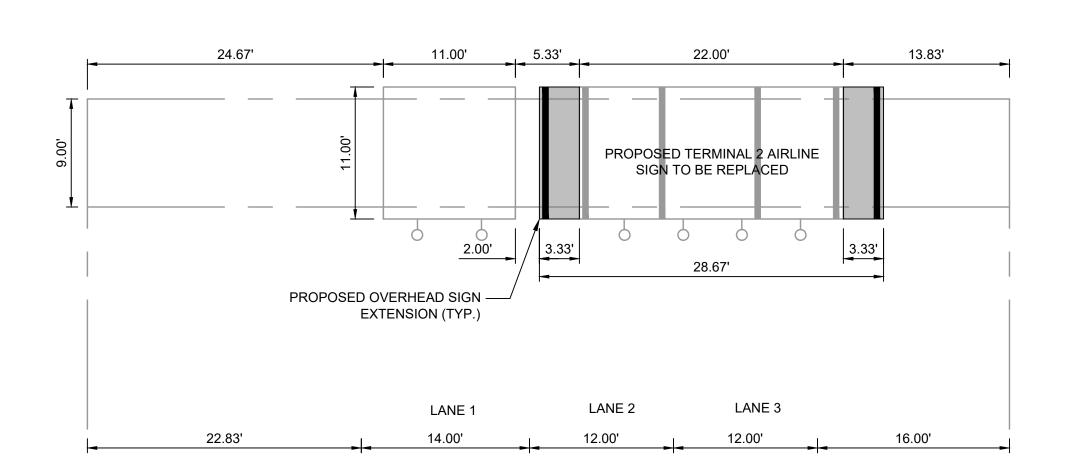
# OVERHEAD SIGN RW-0H14 C05.01 NTS



# OVERHEAD SIGN RW-0H17 C05.01 NTS



# OVERHEAD SIGN RW-0H16 C05.01 NTS



# OVERHEAD SIGN RW-0H18 C05.01 NTS

#### **LEGEND**

----- EXISTING STRUCTURAL MEMBER

EXISTING SIGN

PROPOSED SIGN EXTENSION

EXISTING VERTICAL MEMBER

EXISTING LIGHTING

PROPOSED VERTICAL MEMBER



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ENGINEER'S SEAL

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048840

NOT RELEASED FOR CONSTRUCTION

**CONSULTANTS** 

 CONTRACTOR SHALL FIELD MEASURE VERTICAL CLEARANCES OF EACH SIGN PRIOR TO CONSTRUCTION AND ADJUST VERTICAL ATTACHMENT OF PANELS TO MAINTAIN ALL EXISTING VERTICAL CLEARANCES.

**NOTES** 

2. CONTRACTOR SHALL FIELD VERIFY ALL SIGN LOCATIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IN WRITING IF IT DIFFERS FROM WHAT IS SHOWN IN THE PLANS.

3. CONTRACTOR SHALL FIELD VERIFY ALL VERTICAL SUPPORTS FOR EACH SIGN TO CONFIRM PROPOSED PANEL LOCATION MATCHES WHAT IS DEPICTED IN THE PLANS. IF NOT, THE CONTRACTOR SHALL PROVIDE FIELD MEASURES OF THE EXISTING SIGN(S) TO THE ENGINEER VIA RFI AT NO ADDITIONAL COST TO THE OWNER.

4. NOTE THAT OVERHEAD SIGNS ARE CUSTOM EXISTING SIGN STRUCTURES THAT DO NOT CONFORM TO STANDARD NCDOT OVERHEAD SIGN CONSTRUCTION METHODS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION.

5. VERTICAL SUPPORTS ARE DEPICTED BASED ON AVAILABLE RECORD DRAWINGS AND ARE FOR APPROXIMATE REFERENCE ONLY. CONTRACTORS SHALL NOTE DIFFERENCES AND, IN ALL CASES, MEET THE REQUIRED SPACING FOR VERTICAL MEMBERS AS DETAILS IN THE STRUCTURAL DRAWINGS.

6. CONTRACTOR SHALL CONFIRM NUMBER OF NEW MEMBERS NEEDED DURING BIDDING PROCESS AND PRIOR TO ORDERING.

RE\	/ISIONS	
NO.	DESCRIPTION	DATE
-		

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DRAWN BY: MEO

DESIGNED BY: JLH

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DATE ISSUED: APRIL 16, 2024

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SHEET TITLE

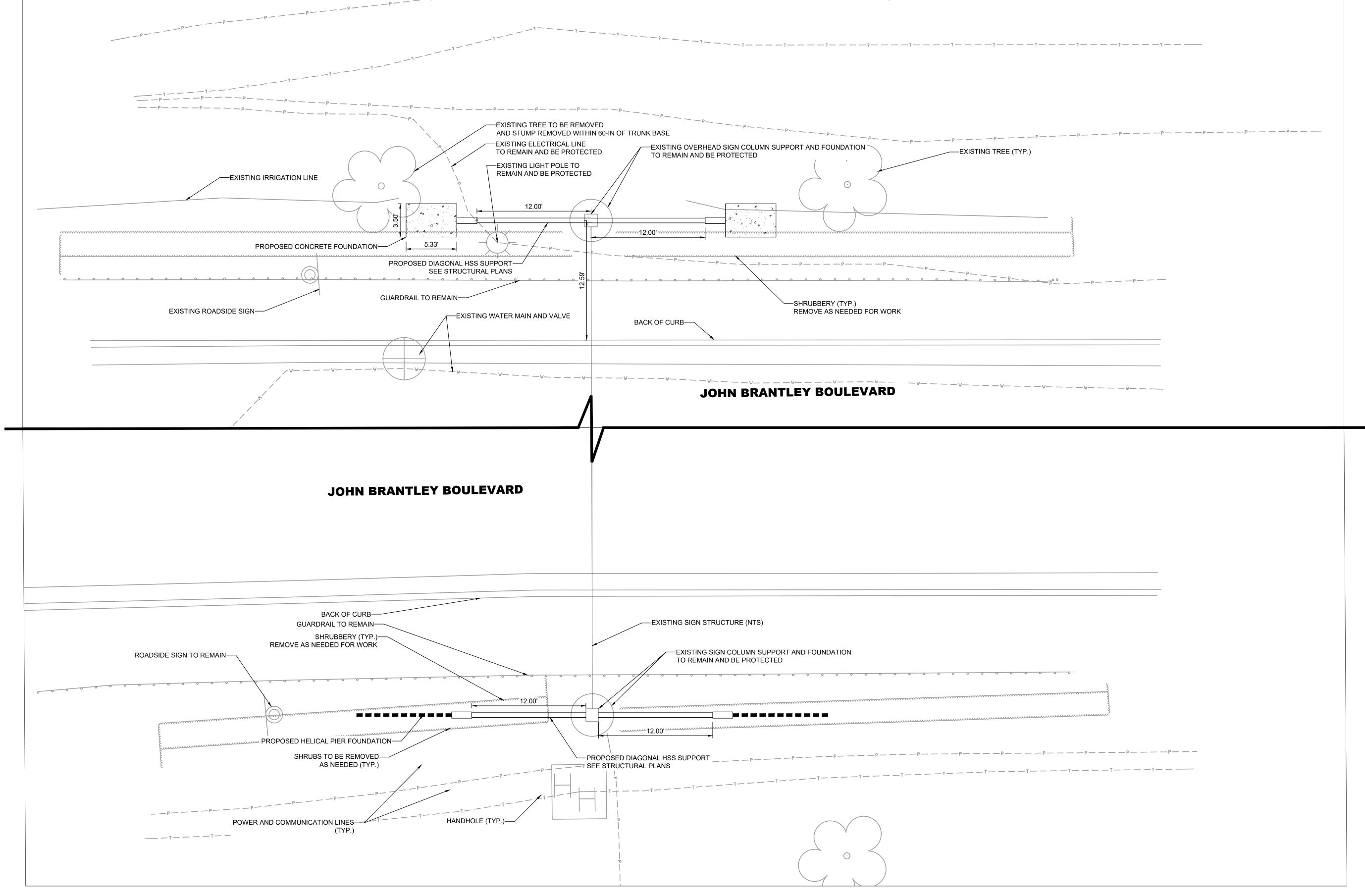
OVERHEAD SIGN PANEL LAYOUTS

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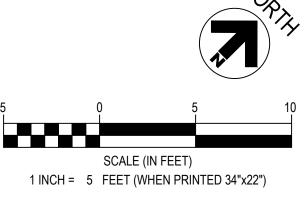


NOTES:

1. UTILITIES DEPICTED ARE APPROXIMATE AND SHALL BE FIELD LOCATED PRIOR TO ANY WORK COMMENCING.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL UTILITY REPAIRS CAUSED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

3. EXACT LOCATION OF IRRIGATION LINES ARE NOT KNOWN. IF DAMAGED DURING CONSTRUCTION, CONTRACTOR SHALL BE PREPARED TO CAP AND/OR RECONNECT IRRIGATION LINES AT THE DIRECTION OF THE CPM. THE CONTRACTOR SHALL INCLUDE THIS EFFORT IN THE BID PRICING.





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RALEIGH, NC

ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE

ENGINEER'S SEAL

THE CAROL

Signed by:

SEAL

Signed by:

WGINEE 10/3/2024

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REVISIONS

NO. DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024

REVIEWED BY: JLH

DRAWN BY: MEO

OVERHEAD SIGN 14 SITE PLAN

**AEP PROJECT NUMBER** 

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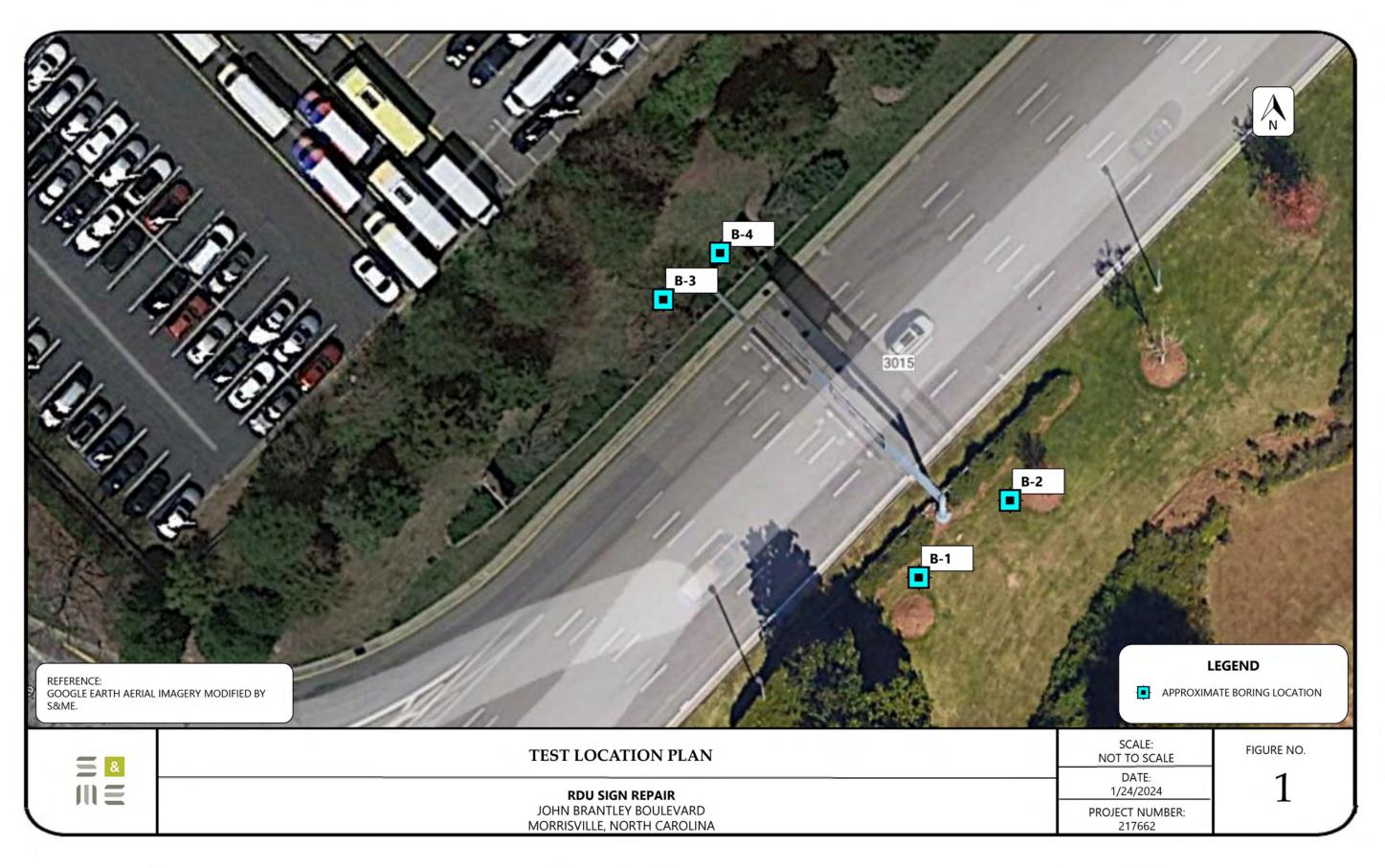
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-		0.0					CUTY CAR	UD (CMA) III I		-						-
-		8.0			Ы			ND (SM), medium dense, gray to medium grained, moist	8-11-							
7					SS-4 (18 ir				N = 1	26		•				
10					[	"				ŀ						372
4										-						-
_																
-		12.0		1786			PWR, sar silt,moist	npled as brown gray, sandy								
_				3			3111,1110131	•	15-44-5	50/2"						
-				SS	SS-5				N = 50						•	-
15 —				17777	∐ (14 ir	(۱										367
-				3												
-	Cave at															1
- 17.0 f	teet		IGM	DIVI						-						-
_				30%						-						-
_					⊠ ss-e				50/4 N = 50						•	
7				00000	(4 in	)			N = 50	0/4						
20 —				300						-						362
-				136						-						-
GROUNDWAT	ΓER			DATE			PTH	REMARKS								
ATD	$\nabla$					1	т)								&	
ND OF DRILLIN		01/22/	/2024				Not	encountered, hole caved @ 17'								
AFTER DRILLING	•															

GROUNDWATER DEPTHS ARE NOT EXACT AND MAY VARY SUBSTANTIALLY FROM THOSE INDICATED. ATD = AT TIME OF DRILLING LL=Liquid Limit, PL = Plastic Limit, NMC = Natural Moisture Content, PPV = Pocket Penetrometer (tsf), PTV = Pocket Torvane (tsf), AR = Auger Refusal, IGM = Intermediate Geomaterial

Second   Property																	
DATE DRILLED: 01/22/2024   SERVIND: 382 ft   DATUM: NAVD88   DATUM: NAVD8   DATUM: NAVD88   DATUM: NAVD88   DATUM: NAVD8   DATUM: NAVD88   DATUM: NAVD8   DATUM: N	PROJECT:										В	ORII					
DRILLER:   T   Shearin   BORING DEPTH: 24.0 ft					S												
DRILLER: T Shearin  MARIMER TYPE: Automatic hammer  CLOSURE: CUITING With Hole Closure Device  DRILLING METHOD: 3.1/4" HSA  LOGGED BY: Anthony Marzulls  MATERIAL DESCRIPTION  MATERIAL DESCRIPTION  PROJECT CORDINATE SYSTEM - World Geodetic System Lengths / Lamide (Most Br)  TOTAL STANDARD PRATERIATION TISS DATA  SST. (\$1 in)  PWR, sampled as brown gray, sandy silt, moist  SSO/1"  A 50/1"  N = 5	DATE DRILLED:	01/22	/2024				ELEVA	TION	<b>I:</b> 382 ft		NOTES:					tion sho	uld be
Columbia	DRILL RIG: C	ME 550					DATUI	M: N	AVD88								
Deficiency   Company   C	DRILLER: T S	nearin					BORIN	NG DI	<b>EPTH:</b> 24.0 ft								
SAMPLING METHOD: SS   PROJECT COORDINATE SYSTEM - World Geodetic system Longitude / Listrude (WSS 94)	HAMMER TYP	E: Auto	matic	ham	mer		CLOSU	JRE:	Cuttings with Hole Closure Dev	ice							
Note				HSA	١		LOGG	ED B		CVCT							
PWR, sampled as brown gray, sandy silt, moist  24.0   24.0   24.0   24.0   24.0   25.    (1 in)    PWR, sampled as brown gray, sandy silt, moist    So/1"   N = 50/1"   N = 5			55	dentifier	PHIC				·	BLOV	w count			PENETRA	ATION TI		
PWR, sampled as brown gray, sandy silt, moist  24.0   24.0   24.0   24.0   24.0   25.    (1 in)    PWR, sampled as brown gray, sandy silt, moist    So/1"   N = 50/1"   N = 5	DE (fe			rigin/I	GRA	(RECOVE	ERY)						0 4	⊢ PL-	LL	400	ELEV
SROUNDWATER   DATE   DATE   DETTIL   REMARKS   Not encountered, hale cased @ 17:				ō									0 4	0 60	80	100	<b>-</b> ∤
30 - 24.0   Service   Serv				Σ													
Service   Serv	-			9	DIVI											•	] -
30- 35- 35- 40- 40- 40- 40- 40- 40- 40- 40- 40- 40	_		24.0			(1 in	) [	Boreh	ole terminated at 24.0 feet	/ N=	= 50/1"						1 1
GROUNDWATER   DATE   PEPTH   REMARKS   ATD   STORY   S	25 —																357
GROUNDWATER   DATE   PEPTH   REMARKS   ATD   STORY   S	-																
GROUNDWATER   DATE   PEPTH   REMARKS   ATD   STORY   S	_																
GROUNDWATER   DATE   PEPTH   REMARKS   ATD   STORY   S	_																
GROUNDWATER   DATE   PEPTH   REMARKS   ATD   STORY   S	-																-
GROUNDWATER   DATE   PEPTH   REMARKS   ATD   STORY   S	_																] ]
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ATD         ▼         Image: Control of the control of																	┥ ┪
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ATD         ▼         Image: Control of the control of																	
ATD	GROUNDWAT	ER			DATE				REMARKS								
END OF DRILLING   O1/22/2024 Not encountered, hole caved @ 17'  AFTER DRILLING   O1/22/2024 Not encountered, hole caved @ 17'							(F	1)								&	l
AFTER DRILLING  AFTER DRILLING  AFTER DRILLING			01/22,	/2024					Not encountered, hole caved @ 17'						4 = 1		
													-				
			1										_				-

GROUNDWATER DEPTHS ARE NOT EXACT AND MAY VARY SUBSTANTIALLY FROM THOSE INDICATED. ATD = AT TIME OF DRILLING LL=Liquid Limit, PL = Plastic Limit, NMC = Natural Moisture Content, PPV = Pocket Penetrometer (tsf), PTV = Pocket Torvane (tsf), AR = Auger Refusal, IGM = Intermediate Geomaterial

PROJECT:					J Sign Repa rrisville, N		ı	BORII	NG LOC			
				S&ME Pro	ject No.	217662	<u> </u>			t 1 of 2		
DATE DRILLED	: 01/22/	/2024		E	LEVATIO	<b>N:</b> 382 ft	NOTES			on and ele	vation shou e	ld be
DRILL RIG: C	ME 550				DATUM: N	NAVD88		0011		p p · o · · · · · · · · ·		
DRILLER: TS	hearin			E	ORING D	<b>EPTH:</b> 24.0 ft						
HAMMER TYP	E: Auto	matic	hamme	r (	CLOSURE:	Cuttings with Hole Closure Devi	ice					
DRILLING MET			HSA	L	OGGED B	Y: Anthony Marzulla	LATITU		35.86753		GITUDE: -	
SAMPLING ME	ETHOD:	SS				PROJECT COORDINATE	SYSTEM - W	orld Geo	detic Syste	m Longitud	le / Latitude (	WGS 84)
DEPTH (feet)	NOTES		Origin/Identifier	SAMPLE N	I	MATERIAL DESCRIPTION	BLOW COUNT DATA (SPT N-value)		Δ C H	NETRATION  % Fines NMC PLLL 60 80	<b>TEST DATA</b> 0 100	ELEVATION
0			silta	shle	TOPS	OIL, 4"						382
-		0.3		SS-1	SAND	Y SILT (ML), very stiff, gray red,	4-6-13 N = 19					
_				(18 in)	)							1
-							5-8-10					
_				SS-2			N = 18	•				1
5 —			_	(18 in)	)							377
]		5.5	Residuum		SAND	Y SILT (ML), stiff, gray red, moist	5-6-7					-
			Resi	SS-3 (18 in)	,		N = 13	•				-
_		8.0			SAND	Y SILT (ML), very stiff, gray red,	_					-
_					moist		6-8-10 N = 18					-
10				SS-4 (18 in)	)							372
-												0.2
_												
_		12.0		26	PWR,	sampled as brown gray, sandy silt,	-					-
-			30	23	moist	:						-
_	Cave at			SS-5			9-28-50/5" N = 50/5"					-
14.5 f	ieet		MD D	(18 in)	)							367
-			18	17								
7				16								1
_		17.0		11		SAND (SM), dense, gray red, fine to	-					1
4					medi	um grained, moist						-
_			шn	M			35-24-14 N = 38					-
20 —			Residuum	SS-6 (18 in)	,							362
_			R									302
=			******									1
GROUNDWAT	rer		DAT	F	DEPTH	REMARKS		1				
ATD			DAI	_	(FT)	KLIMAKA			-		8	
END OF DRILLING		01/22/	2024			Not encountered, hole caved @ 14.5'						
AFTER DRILLING	<b>T</b>								1	11	IE	

GROUNDWATER DEPTHS ARE NOT EXACT AND MAY VARY SUBSTANTIALLY FROM THOSE INDICATED. ATD = AT TIME OF DRILLING LL=Liquid Limit, PL = Plastic Limit, NMC = Natural Moisture Content, PPV = Pocket Penetrometer (tsf), PTV = Pocket Torvane (tsf), AR = Auger Refusal, IGM = Intermediate Geomaterial

BORING LOG: B-2

			S	&ME Projec	t No.	217662				Sheet .	2 of 2	2		
DATE DRILLED: 01	/22/2024	4		ELE	VATIO	<b>N:</b> 382 ft		NOTES:		location ered app			n shou	ld be
DRILL RIG: CME	550			DAT	UM: N	NAVD88			CONSIG	егей арр	TOXIIIIa	ie.		
DRILLER: T Shea	rin			вог	RING D	<b>EPTH:</b> 24.0 ft								
HAMMER TYPE: A	utomatic	c ham	nmer	CLO	SURE:	Cuttings with Hole Closure Devi	ce							
DRILLING METHO		" HSA	١	LOG	GED E	Y: Anthony Marzulla		LATITUD		867539				78.79749
SAMPLING METH	OD: SS			I		PROJECT COORDINATE	SYST	EM - Wo	rld Geode <sup>.</sup>	tic System	Longitu	de / La	atitude (	WGS 84)
DEPTH (feet)	OTES	Origin/Identifier	GRAPHIC	SAMPLE NO. (RECOVERY)		MATERIAL DESCRIPTION	[	V COUNT DATA N-value)	STANDA 20	0 M H	Fines		100	ELEVATION
	22.0		1)2126		1	sampled as brown gray, sandy silt,								
4		ΜĐ	300		moist		_							-
1	24.0			⊠ SS-7 (3 in)			1	0/3" : 50/3"					•	-
-	24.0			(5111)	Borel	nole terminated at 24.0 feet								0.53
25 —														357
_														1
_											-			-
-														
30 —														352
_														-
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7														
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				<u> </u>	DEPTH									
GROUNDWATER			DATE		(FT)	REMARKS							0	
ATD END OF DRILLING	<b>▼</b> 01/2:	2/2024	ļ			Not encountered, hole caved @ 14.5'							&	
AFTER DRILLING	<b>T</b>	,				,					41	1		
AFTER DRILLING	•										Щ			

GROUNDWATER DEPTHS ARE NOT EXACT AND MAY VARY SUBSTANTIALLY FROM THOSE INDICATED. ATD = AT TIME OF DRILLING LL=Liquid Limit, PL = Plastic Limit, NMC = Natural Moisture Content, PPV = Pocket Penetrometer (tsf), PTV = Pocket Torvane (tsf), AR = Auger Refusal, IGM = Intermediate Geomaterial



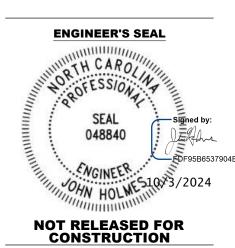
8521 SIX FORKS ROAD SUITE 400 RALEIGH, NC 27615 919-926-4100 www.rsandh.com NC LICENSE NOS. 50073 \* F-0493 \* C-28



RALEIGH-DURHAM INTERNATIONAL AIRPORT

RALEIGH, NC

**ROADWAY SIGNS -**AIRLINE NAMES **INSTALLATION PACKAGE** 



CONSULTANTS

**REVISIONS** DESCRIPTION DATE DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JLH DRAWN BY: MEO DESIGNED BY: JLH

**OVERHEAD** SIGN 14 **GEOTECHNICAL BORINGS 1** 

**AEP PROJECT NUMBER** 1051-0068-002 © 2024 RS&H, INC. SHEET TITLE

SHEET NUMBER

C07.01 **BIDDING** 

**DOCUMENTS** 

Plotted on: 9/30/2024 2:54 PM Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C07.01.dwg

PROJEC	CT:						U Sign				В	ORII	NG L	OG:	B-3		
						N ME Pr&	lorrisvill	-					Sh	eet 1	of 1		
DATE DR	RILLED: 01,	/22/	2024			SHILL FT	T		: 384 ft		NOTES:		ing loc	ation a	and elev		should be
	G: CME!								AVD88		_	con	sidere	d appr	oximate	e.	
	: T Shear								EPTH: 7.5 ft								
				h a na													
	R TYPE: A								Cuttings with Hole Closure De f: Anthony Marzulla	vice	LATITUD	E:	35.867	7695	LONG	ITUDE	: -78.79
	NG METHO			113/	`		1000		PROJECT COORDINAT	E SYST	EM - Wor	ld Geo	detic S	ystem L	ongitud.	e / Latit	ude (WGS 8
DEPTH (feet)	NC	OTES		Origin/Identifier	GRAPHIC	SAMPLE (RECOV			MATERIAL DESCRIPTION		W COUNT DATA 「N-value)			∆ % ○ N ⊢ Pi	RATION Fines MC LLL 60 80		
0 —					ale ale	:	-	TOPSO	DIL, 5"								
_			0.5	wnn			9		/ SILT (ML), stiff, brown orange,		3-5-6 N = 11						
_	-			Residuum		SS-1 (18 i						•					
_	Hole Cave	at	3.0		3	SS-:		PWR, moist	sampled as brown gray, sandy silt,	- 1	7-50/2" = 50/2"					•	
- 5-	4.5 feet			5		(8 ir				IN	= 50/2						
_	-			IGM		⊠ SS-3	3				50/3"					•	
	Auger refu at 7.5 feet					(3 ir					= 50/3" 50/0"						
_			7.5			SS-4 (0 ir	1/1	Boreh	ole terminated at 7.5 feet		= 50/0"					1	
_	_																
10 — –	-																
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	<u> </u>									<u> </u>			<u> </u>				
GROUN	DWATER				DATE			PTH T)	REMARKS								
TD	DILLENC	$\nabla$	01/2-	/202									]				&
ND OF DI		<u> </u>	01/22	/2024					Not encountered, hole caved @ 4.5'				-		411	-	
AFTER DRI		<b>T</b>											$\exists$			E	

GROUNDWATER DEPTHS ARE NOT EXACT AND MAY VARY SUBSTANTIALLY FROM THOSE INDICATED. ATD = AT TIME OF DRILLING LL=Liquid Limit, PL = Plastic Limit, NMC = Natural Moisture Content, PPV = Pocket Penetrometer (tsf), PTV = Pocket Torvane (tsf), AR = Auger Refusal, IGM = Intermediate Geomaterial

PROJECT:							ign Repa isville, N			В	ORIN	IG LO	OG: B	-4		
					S	могг ME Proje&						She	et 1 d	of 1		
ATE DRILL	<b>ED:</b> 01/2	2/:	2024					<b>N:</b> 384 ft	N	OTES:		ng loca	ation an	d eleva	tion shou	ıld be
RILL RIG:						DA	TUM:	NAVD88			cons	iderec	l approx	imate.		
RILLER:								<b>EPTH:</b> 6.0 ft								
AMMER T			oatic	ham	mer			Cuttings with Hole Closure De	evice							
RILLING M								Y: Anthony Marzulla		TITUDI	: 3	5.867	737	LONGI	TUDE:	-78.79777
AMPLING				1157	•		UULD L	PROJECT COORDINA	TE SYSTEN	<b>/I -</b> Worl	d Geod	detic Sy	stem Loi	ngitude .	/ Latitude	(WGS 84)
DEPTH (feet)	NOT	ES		Origin/Identifier	GRAPHIC	SAMPLE NO (RECOVERY		MATERIAL DESCRIPTION	BLOW C DAT (SPT N-	ГА	STAN 20		△ % Fin	nes C -LL	EST DATA	ELEVATION
0				0	alk alk		TORG	Ou cl				1	00		100	384
		1	0.5	Residuum		SS-1 (18 in)	SANE	OIL, 6" DY LEAN CLAY (CL), stiff, orange n, moist	4-4 N =		•					
	ole Cave at 5 feet		3.0	IGM		SS-2 (6 in)	PWR, mois	sampled as brown, sandy clay,	50/ N = 5						•	
	ger refusa 6.0 feet		6.0			SS-3 (0 in)	Borel	nole terminated at 6.0 feet	50/ N = 50						•	379
-										- -						- ·
10 —										-						374
-																- - -
- - 15 - -																369
- - - -																
-																
20 — — — —																364 -
ROUNDW	/ΔTFR	T			DATE		DEPTH	REMARK	· · · · · · · · · · · · · · · · · · ·							
TD ND OF DRILI	3	Z V	01/22/				(FT)	Not encountered, hole caved @ 4.5'							&	
FTER DRILLI	NG '	v										1		4 II h		1

GROUNDWATER DEPTHS ARE NOT EXACT AND MAY VARY SUBSTANTIALLY FROM THOSE INDICATED. ATD = AT TIME OF DRILLING LL=Liquid Limit, PL = Plastic Limit, NMC = Natural Moisture Content, PPV = Pocket Penetrometer (tsf), PTV = Pocket Torvane (tsf), AR = Auger Refusal, IGM = Intermediate Geomaterial



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# RALEIGH-DURHAM INTERNATIONAL AIRPORT

RALEIGH, NC

#### ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE





CONSTRUCTION

REVISIONS
NO. DESCRIPTION DATE

DATE ISSUED: APRIL 16, 2024

REVIEWED BY: JLH

DRAWN BY: MEO

DESIGNED BY: JLH

AEP PROJECT NUMBER

1051-0068-002
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OVERHEAD
SIGN 14

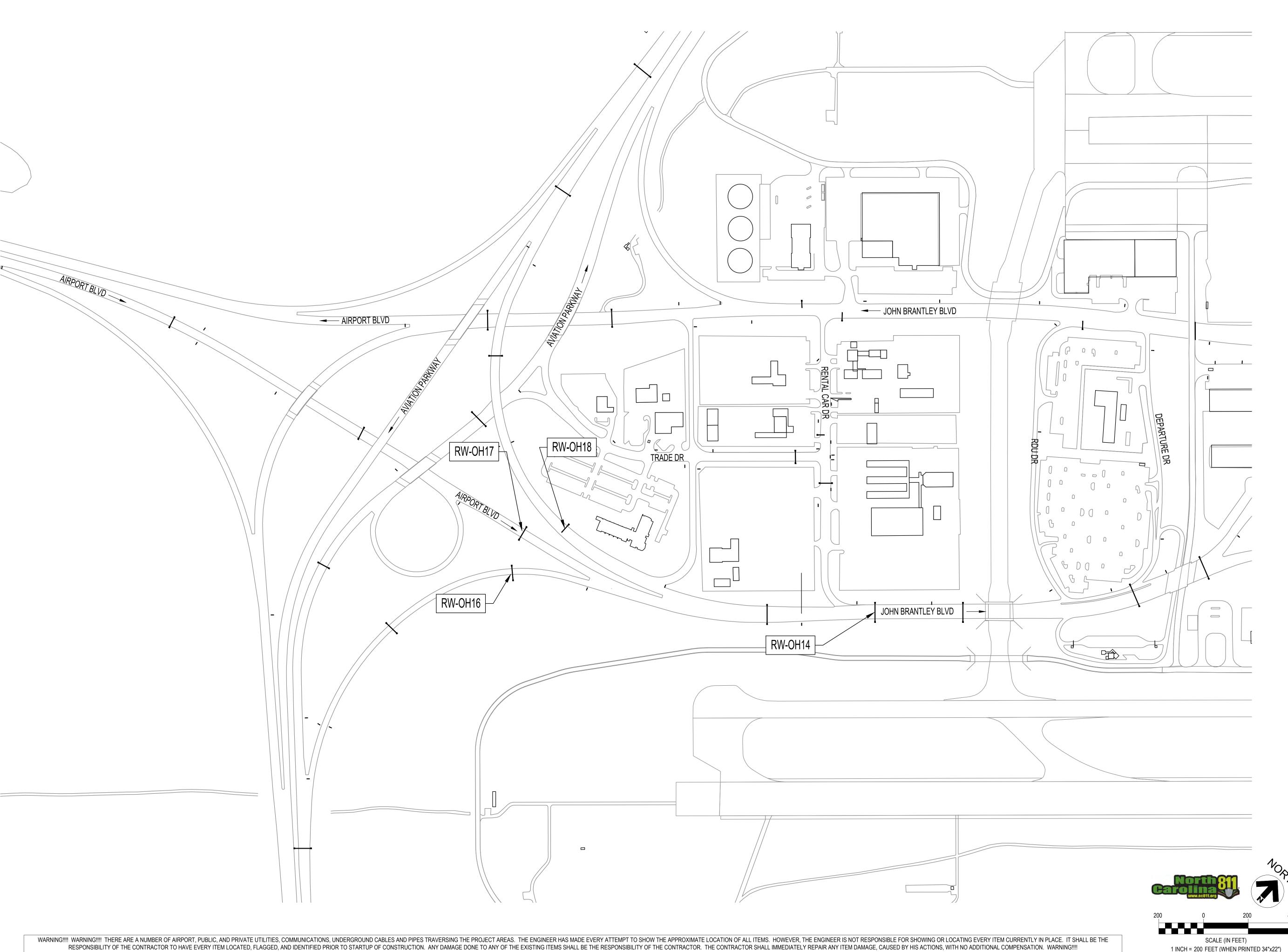
OVERHEAD
SIGN 14
GEOTECHNICAL
BORINGS 2

SHEET NUMBER

C07.02

BIDDING DOCUMENTS

Plotted on: 9/30/2024 2:54 PM Plotted by: Zych, k
Drawing: C:\pw\_work\rsh\_pw\pw\_user\d0483920\C07.01.dwg



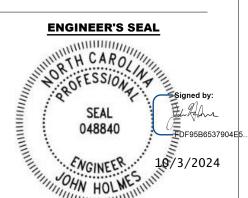




**RALEIGH-DURHAM INTERNATIONAL AIRPORT** 

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 



NOT RELEASED FOR CONSTRUCTION

Apple Derign, Inc. 3739 National Drive, Suite 228 Raleigh, NC 27612

REVISIONS			
NO.	DESCRIPTION	DATE	

DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JDH

DRAWN BY: JLH DESIGNED BY: ADI

AEP PROJECT NUMBER 1051-0068-002 © 2024 RS&H, INC. SHEET TITLE

SIGN LOCATION **PLAN** 

SHEET NUMBER

**GR1.01** 

1 INCH = 200 FEET (WHEN PRINTED 34"x22")

**BIDDING DOCUMENTS** Plotted on: 4/5/2024 11:22 AM

Drawing: T:\Apple Designs\Customers\RDU\Sub-Project Folder\23 - RDU Alrline Name Changes\Plan.dwg



MESSAGE LAYOUT - SIGN TYPE C - T2 AIRLINE LISTINGS

SCALE: 3/8" = 1'

WARNING!!!! WARNING!!!! THERE ARE A NUMBER OF AIRPORT, PUBLIC, AND PRIVATE UTILITIES, COMMUNICATIONS, UNDERGROUND CABLES AND PIPES TRAVERSING THE ENGINEER IS NOT RESPONSIBLE FOR SHOWING OR LOCATING EVERY ITEM CURRENTLY IN PLACE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EVERY ITEM LOCATED, FLAGGED, AND IDENTIFIED PRIOR TO STARTUP OF CONSTRUCTION. WARNING!!!!

## PROJECT NOTES

#### **GENERAL NOTES**

1. THESE DRAWINGS ARE PROVIDED FOR A SPECIFIC DESIGN INTENT ONLY. THE SIGN CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ANCHORAGES, ALL ELECTRICAL FIXTURES AND REQUIRED CONNECTIONS INTO EXISTING CIRCUITS, AND WILL SUBMIT SHOP DRAWINGS, AND DETAILS FOR REVIEW. ANY PRODUCTS OR METHODS SPECIFIED MAY BE SUBSTITUTED WITH EQUAL SO LONG AS THE OVERALL DIMENSIONS, APPEARANCE, AND FUNCTIONALITY OF THE DESIGN IS RETAINED.



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RALEIGH-DURHAM INTERNATIONAL AIRPORT

RALEIGH, NC

ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE

ENGINEER'S SEAL

THE CAROL

AND

Strong by

Strong by

NOT RELEASED FOR CONSTRUCTION

048840

HOLME 10/8/2024

3739 National Drive, Suite 228
Raleigh, NC 27612

**REVISIONS** 

NO. DESCRIPTION

DRAWN BY:		JH	
DATE ISSUED: REVIEWED BY:		APRIL 16,	2024
			_

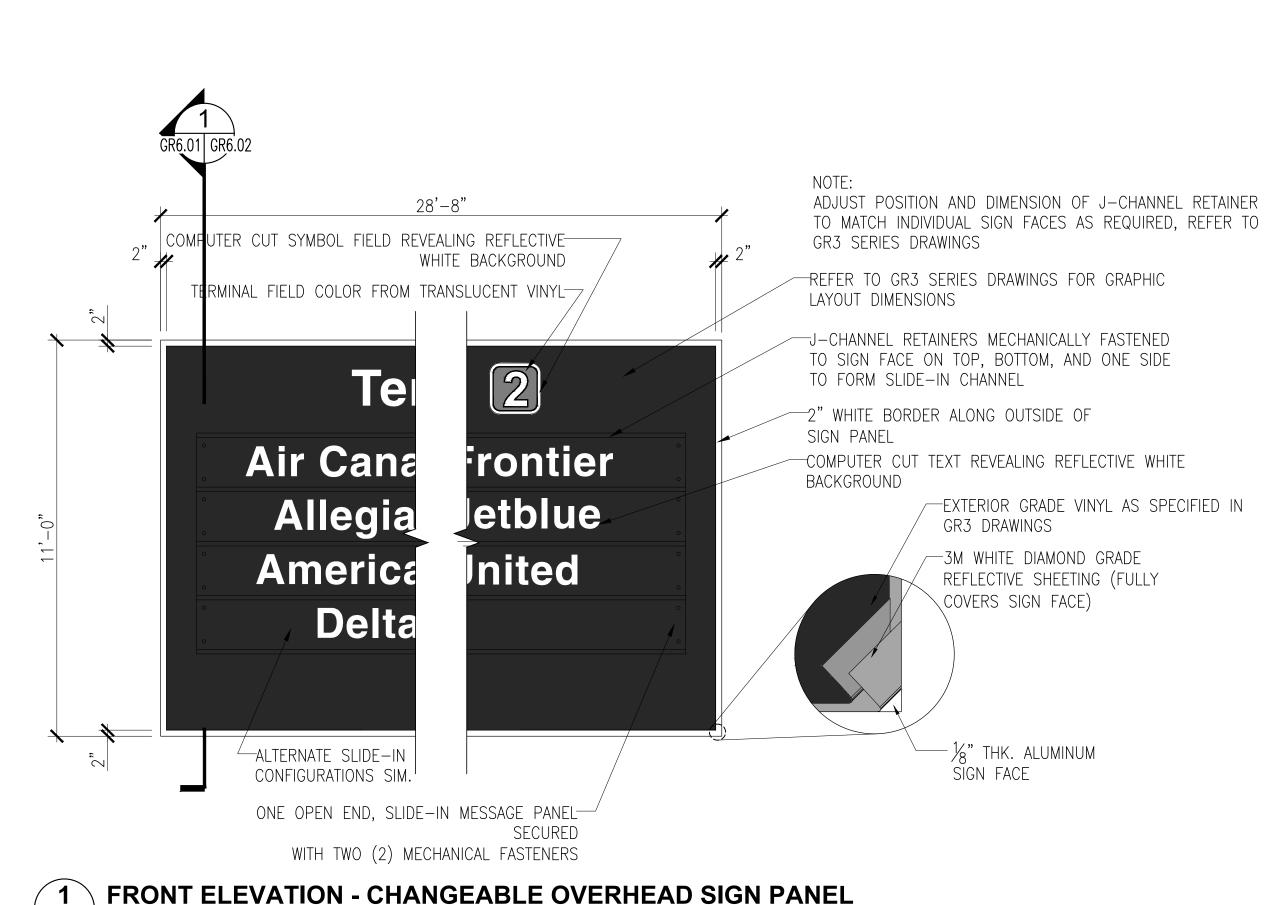
AEP PROJECT NUMBER 1051-0068-002

**MESSAGE LAYOUT** 

SHEET NUMBER

GR3.01

BIDDING DOCUMENTS



28'-8" ALL EXTRUDED ALUMINUM PANELS TO HAVE SIDE MOULDING 12" DOT SIGN EXTRUSION,  $\frac{1}{8}$ " THK. MIN. 6063-T6 ALUMINUM (ATSM B221) J-CHANNEL RETAINERS MECHANICALLY FASTENED TO SIGN FACE ON TOP, BOTTOM, AND ONE SIDE TO FORM SLIDE-IN CHANNEL, J-CHANNELS FASTENED THROUGH 1/8" SIGN FACE AND ALUMINUM EXTRUSION -SIGN EXTRUSIONS SECURED TO VERTICAL SUPPORTS WITH ALUMINUM POST CLIP 356-T6 (ASTM B26) USE POST CLIPS TO ATTACH MULTIPLE DOT SIGN EXTRUSIONS TO SUPPORTS, ONE CLIP ON EITHER SIDE -ALUMINUM EXTRUSIONS TO BE BOLTED AT 1'-6" O.C. MAX WITH LONG HD HEX BOLT  $\# \ \%$ " - 16 6262-T9 ALUMINUM (ASTM B211), HEX NUT AND WASHER -EXISTING I-BEAM  $\frac{1}{8}$ " THK. MIN. 6063-T65 ALUMINUM PANEL WITH VINYL GRAPHICS ADHERED TO FRONT FACE OF SIGN EXTRUSION ASSEMBLY ALL SPACING DIMENSIONS ARE MAXIMUM SPACING UNLESS OTHERWISE NOTED. ADJUST POSITION AND DIMENSION OF J-CHANNEL RETAINER TO MATCH INDIVIDUAL SIGN FACES AS REQUIRED, REFER TO GR3 SERIES DRAWINGS

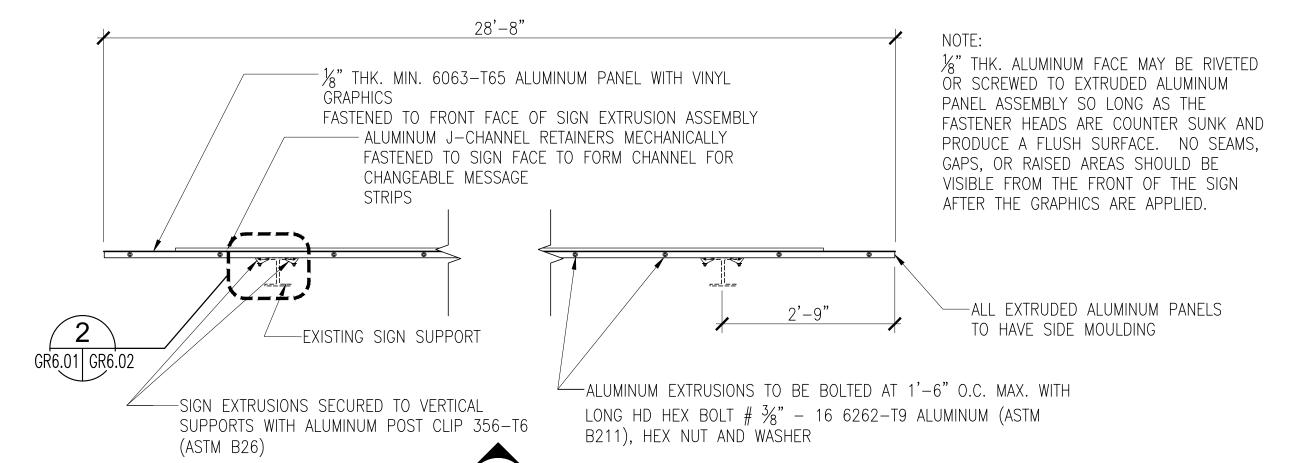
# **GENERAL NOTES**

**REAR ELEVATION - CHANGEABLE OVERHEAD SIGN PANEL** 

- 1. THESE DRAWINGS ARE PROVIDED FOR A SPECIFIC DESIGN INTENT ONLY. THE SIGN CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEERING AND INTERNAL CONSTRUCTION OF ALL SIGNS. ANY PRODUCTS OR METHODS SPECIFIED MAY BE SUBSTITUTED WITH EQUAL SO LONG AS THE OVERALL DIMENSIONS, APPEARANCE, AND FUNCTIONALITY OF THE DESIGN IS RETAINED.
- 2. ALL WHITE AREAS OF SIGNS TO BE PRODUCED FROM 3M DIAMOND GRADE #4090. THE ASSEMBLY OF ALL 3M GRAPHIC COMPONENTS IS TO BE PERFORMED TO PROVIDE THE MAXIMUM POSSIBLE WARRANTY FROM THE MANUFACTURER.

#### SIGN FABRICATION NOTES

THESE DRAWINGS HAVE BEEN DEVELOPED BASED ON INFORMATION FOR EXISTING CONDITIONS SHOWN ON AVAILABLE AS-BUILT DRAWINGS AND FROM LIMITED SITE OBSERVATIONS. THE INTENT OF THIS WORK IS TO UTILIZE ANY EXISTING STRUCTURAL FEATURES (FOUNDATIONS, POSTS, ETC.) WHERE IDENTIFIED.



ENLARGED PLAN - OVERHEAD SIGN PANEL SCALE: 3/4" = 1'-0"

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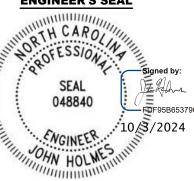


RALEIGH-DURHAM **INTERNATIONAL AIRPORT** 

RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 

**ENGINEER'S SEAL** 



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Co Apple Derigns, Inc. 3739 National Drive, Suite 228 Raleigh, NC 27612

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DESCRIPTION	DAT

DATE ISSUED: APRIL 16, 2024 REVIEWED BY: JDH

DRAWN BY: JLH DESIGNED BY: ADI **AEP PROJECT NUMBER** 

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SIGN **FABRICATION DETAILS** SIGN TYPE C

SHEET NUMBER

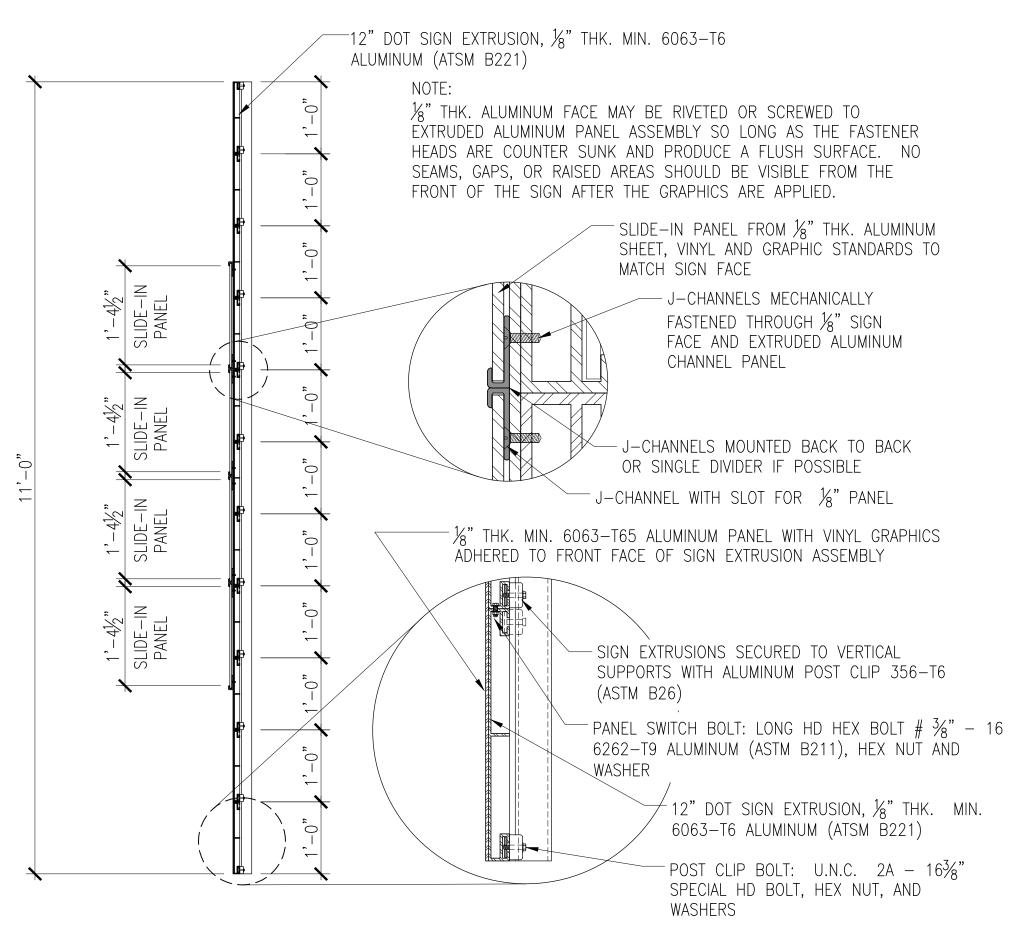
**GR6.01** 

BIDDING

WARNING!!! WARNING!!!! THERE ARE A NUMBER OF AIRPORT, PUBLIC, AND PRIVATE UTILITIES, COMMUNICATIONS, UNDERGROUND CABLES AND PIPES TRAVERSING THE ENGINEER HAS MADE EVERY ATTEMPT TO SHOW THE APPROXIMATE LOCATION OF ALL ITEMS. HOWEVER, THE ENGINEER HAS MADE EVERY ATTEMPT TO SHOW THE APPROXIMATE LOCATION OF ALL ITEMS. HOWEVER, THE ENGINEER HAS MADE EVERY ATTEMPT TO SHOW THE APPROXIMATE LOCATION OF ALL ITEMS. HOWEVER, THE ENGINEER HAS MADE EVERY ATTEMPT TO SHOW THE APPROXIMATE LOCATION OF ALL ITEMS. RESPONSIBILITY OF THE CONTRACTOR TO HAVE EVERY ITEM LOCATED, FLAGGED, AND IDENTIFIED PRIOR TO STARTUP OF CONSTRUCTION. ANY DAMAGE DONE TO ANY OF THE EXISTING ITEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY ITEM DAMAGE, CAUSED BY HIS ACTIONS, WITH NO ADDITIONAL COMPENSATION. WARNING!!!

**DOCUMENTS** 

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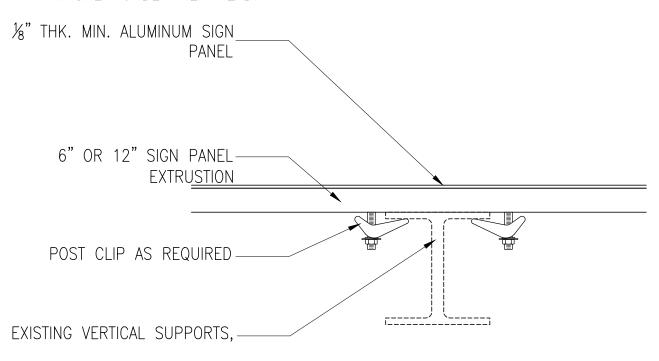


### VERTICAL SECTION THROUGH CHANGEABLE OVERHEAD SIGN PANEL

GR6.01 GR6.02 SCALE: 3/4" = 1'-0"

## NOTES:

- 1. INSTALL TWO POST CLIPS AT EACH JUNCTION OF EXTRUSIONS AND VERTICAL SUPPORT. ONE ON UPPER EXTRUSION AND ON ON LOWER EXTRUSION WHERE EXTRUSION JOIN ONE ANOTHER.
- 2. INSTALL 3/8" X 31/2", CADMIUM PLATED HEX HEAD BOLT WITH FLAT AND LOCK WASHER UNDER NUT. INSTALL ONE FLAT WASHER UNDER HEX HEAD.



# ENLARGED DETAIL @ VERTICAL SUPPORT



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SIGN **FABRICATION DETAILS SECTIONS** 

SHEET NUMBER

**GR6.02** 

**BIDDING DOCUMENTS** 

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- 1. ALL WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE NORTH CAROLINA STATE BUILDING CODE (2018), 2013 AASHTO STRUCTURAL SUPPORTS FOR HIGHWAYS SIGNS, LUMINARIES, AND TRAFFIC SIGNALS (6TH EDITION WITH 2022 INTERIM REVISIONS), THE ACI BUILDING CODE (318), THE AISC CODE, THE AWS CODE, OSHA, AND ALL APPLICABLE ASTM STANDARDS. IN CASE OF CONFLICT THE MOST STRINGENT REQUIREMENT SHALL GOVERN.
- 2. CONSTRUCTION METHODS, PROCEDURES AND SEQUENCES ARE THE CONTRACTOR'S RESPONSIBILITY AND THE CONTRACTOR SHALL TAKE ALL THE NECESSARY MEANS TO MAINTAIN AND PROTECT THE STRUCTURAL INTEGRITY OF ALL CONSTRUCTION AT ALL STAGES.
- 3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH FABRICATION AND CONSTRUCTION.
- 4. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING AGAINST WIND AND CONSTRUCTION LOADS THROUGHOUT THE WORK. THE STRUCTURE AS INDICATED IS DESIGNED AS A COMPLETE ASSEMBLAGE. TEMPORARY ERECTION OR CONSTRUCTION LOADS AND OR CONSTRUCTION SEQUENCE HAVE NOT BEEN INCLUDED IN THE DESIGN OF THIS STRUCTURE. THE CONTRACTOR SHALL STORE MATERIALS AND CONSTRUCT THE BUILDING IN A MANNER THAT WILL NOT OVERSTRESS THE BUILDING STRUCTURE.
- 5. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
- 6. CONSULT THE CIVIL DRAWINGS FOR VERIFICATION OR LOCATION AND DIMENSIONS OF INSERTS, OPENINGS, SLEEVES, DRIPS, DEPRESSIONS. REGLETS, CONDUIT, UTILITIES, AND OTHER PROJECT REQUIREMENTS.
- 7. REPRODUCTION NOTE: THE USE OR REPRODUCTION OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT. AND OBLIGATES HIM TO ANY JOB EXPENSE. REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREIN, IN ADDITION, ALL REFERENCES TO ALPHA & OMEGA GROUP, INCLUDING ALL PROFESSIONAL SEALS ARE TO BE REMOVED IF THESE CONTRACT DRAWINGS ARE TO BE USED AS SHOP DRAWINGS.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN OF THE HELICAL PILES TO ACHIEVE DESIGN CAPACITY. SUBMIT SEALED DESIGN CALCULATIONS TO ENGINEER.

## **DESIGN LOADS:**

1. GOVERNING CODE IS THE 2013 AASHTO STRUCTURAL SUPPORTS FOR HIGHWAYS SIGNS, LUMINARIES, AND TRAFFIC SIGNALS (6TH EDITION WITH 2022 INTERIM REVISIONS).

2. SEISMIC LOADS: **RISK CATEGORY:** 0.15 0.067 0.095 0.17

3. WIND LOADS: 1700 YR WIND SPEED: 122 MPH IMPORTANCE FACTOR: 1.0 WIND EXPOSURE:

### **MATERIALS:**

WALL BACKFILL WITHIN FAILURE WEDGE: SELECT BACKFILL

CONCRETE 28 DAY COMPRESSIVE STRENGTH: F'c = 3,000 PSIFOOTINGS

CONCRETE SLUMP - 5" MAXIMUM AIR CONTENT:

MUD SILL: LEAN CONCRETE F'c = 2,500 PSI

ASTM A615 GRADE 60 REINFORCING STEEL:

# **DESIGN PARAMETERS:**

SOIL ALLOWABLE BEARING PRESSURE - 6000 PSF (PWR) Kp SOIL = 2.5Kp PWR = 4.0UNIT WEIGHT OF SOIL = 130 PCF UNIT WEIGHT OF PWR = 140 PCF FRICTION FACTOR ( $\phi$ ) = 0.50

- 1. ALL CONCRETE WORK SHALL COMPLY WITH THE SPECIFICATIONS. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE: ACI 318 AND SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS: ACI 301.
- 2. THE CONTRACTOR ALONE SHALL BE FULLY RESPONSIBLE FOR THE DESIGN. STRENGTH. SAFETY AND ADEQUACY OF ALL FORMWORK. SHORING, BRACING AND ALL METHODS OF CONSTRUCTION: AND FOR STRENGTH, SLUMP, CONSISTENCY, FINISH AND GENERAL QUALITY OF THE CONCRETE USED IN THE WORK.
- 3. THE CONTRACTOR MAY PROCEED WITH FORM WORK CONSTRUCTION. INSTALLATION OF EMBEDDED ITEMS AND REINFORCEMENT, BUT SHALL NOT PLACE CONCRETE INTO OR AROUND SUCH ITEMS UNTIL THE INDEPENDENT TESTING LABORATORY RETAINED BY THE OWNER HAS INSPECTED AND APPROVED THE REINFORCING AND THE ENGINEER HAS OBSERVED THE FORMWORK AND REINFORCING OR DECLINED TO
- 4. OBSERVATION, MONITORING AND TESTING SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE QUALITY CONTROL, MATERIALS AND WORKMANSHIP ENSURING THAT HIS WORK WILL CONFORM TO THE PROJECT REQUIREMENTS.
- 5. ALL CONSTRUCTION JOINTS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE. ADDITIONAL JOINTS TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILED ON THE SHOP DRAWINGS FOR REVIEW.
- 6. WHERE CONTINUOUS (CONT.) BARS ARE INDICATED THEY SHALL BE CONTINUOUS AROUND CORNERS, DOWELED INTO INTERSECTING BEAMS, FOOTINGS OR WALLS, LAPPED AT NECESSARY SPLICES AND HOOKED AT DISCONTINUOUS ENDS.
- 7. ALL REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER:
- SIDES AND BOTTOMS OF FOOTINGS : CONCRETE EXPOSED TO WEATHER OR EARTH: 2"
- 8. ALL REINFORCING BAR DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES: ACI 315.
- 9. ALL REINFORCING SHALL BE HELD RIGIDLY AND ACCURATELY IN PLACE.
- 10. LAP CONTINUOUS UNSCHEDULED REINFORCING BARS 30 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- 11. REINFORCING STEEL SHALL NOT BE BENT AFTER BEING PARTIALLY EMBEDDED IN HARDENED CONCRETE.
- 12. BARS SHALL BE COLD BENT AND SHALL NOT BE HEATED FOR ANY REASON.
- 13. REINFORCING BARS SHALL NOT BE WELDED.
- 14. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" U.N.O.
- 15. AIR ENTRAINMENT: 5 TO 7 %. REQUIRED AT ALL EXPOSED CONCRETE.

## **FOUNDATIONS:**

- 1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT PROVIDED BY S&ME, DATED 2/21/2024. S&ME PROJECT NUMBER
- 2. IT IS ASSUMED THAT THE SPREAD FOOTINGS WILL BE CONSTRUCTED ON AND SUPPORTED BY PARTIALLY WEATHERED ROCK (PWR).
- 3. THE INDEPENDENT TESTING LABORATORY RETAINED BY THE OWNER SHALL INSPECT AND ACCEPT ALL BEARING SURFACES BEFORE FORM WORK OR REINFORCING IS PLACED.
- 4. REMOVE THE FOLLOWING MATERIALS FROM BENEATH THE BUILDING AREA: (1) TOPSOIL, VEGETATION, WALK & PAVING; (2) UNSUITABLE EXISTING FILL AND LARGE ROCK FRAGMENTS; (3) SOILS OF INADEQUATE BEARING QUALITY.
- PROVIDE SHORING. SHEETING AND/OR BRACING OF EXCAVATIONS AS REQUIRED TO ASSURE COMPLETE SAFETY AGAINST COLLAPSE OF EARTH AT SIDES OF EXCAVATIONS. ALTERNATIVELY, LAY BACK EXCAVATIONS TO A SLOPE, AS SPECIFIED BY OSHA.
- 6. ALL EXCAVATIONS SHALL BE ADEQUATELY DEWATERED BEFORE PLACEMENT OF CONCRETE, NO CONCRETE OR CONCRETE FILL SHALL BE PLACED IN STANDING WATER. ANY WATER ACCUMULATION EXCEEDING 1 INCH SHALL BE PUMPED OUT.
- 7. EXCAVATION FOR FOOTING SHALL BE NEAT. PLACE CONCRETE IMMEDIATELY AFTER EXCAVATION AND INSPECTION.
- 8. CONTRACTOR SHALL VERIFY THE ELEVATION AND LOCATION OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS TO USE EXTREME CAUTION WHEN EXCAVATING IN THIS AREA. ANY "KNOWN" UTILITY LINES DAMAGED WILL BE REPLACED AT CONTRACTORS EXPENSE. ANY "UNKNOWN" UTILITY LINES ENCOUNTERED WHEN EXCAVATING IN THIS AREA WILL CEASE ALL EXCAVATION ACTIVITY UNTIL THE ARCHITECT AND OWNER ARE NOTIFIED AND INSTRUCTIONS ARE PROVIDED ON HOW TO PROCEED.



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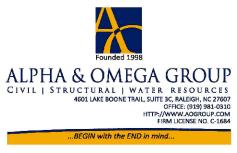
RALEIGH, NC

**ROADWAY SIGNS -AIRLINE NAMES INSTALLATION PACKAGE** 

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NOTES

**AEP PROJECT NUMBER** 

**REVIEWED BY:** 

**DESIGNED BY:** 

DRAWN BY:

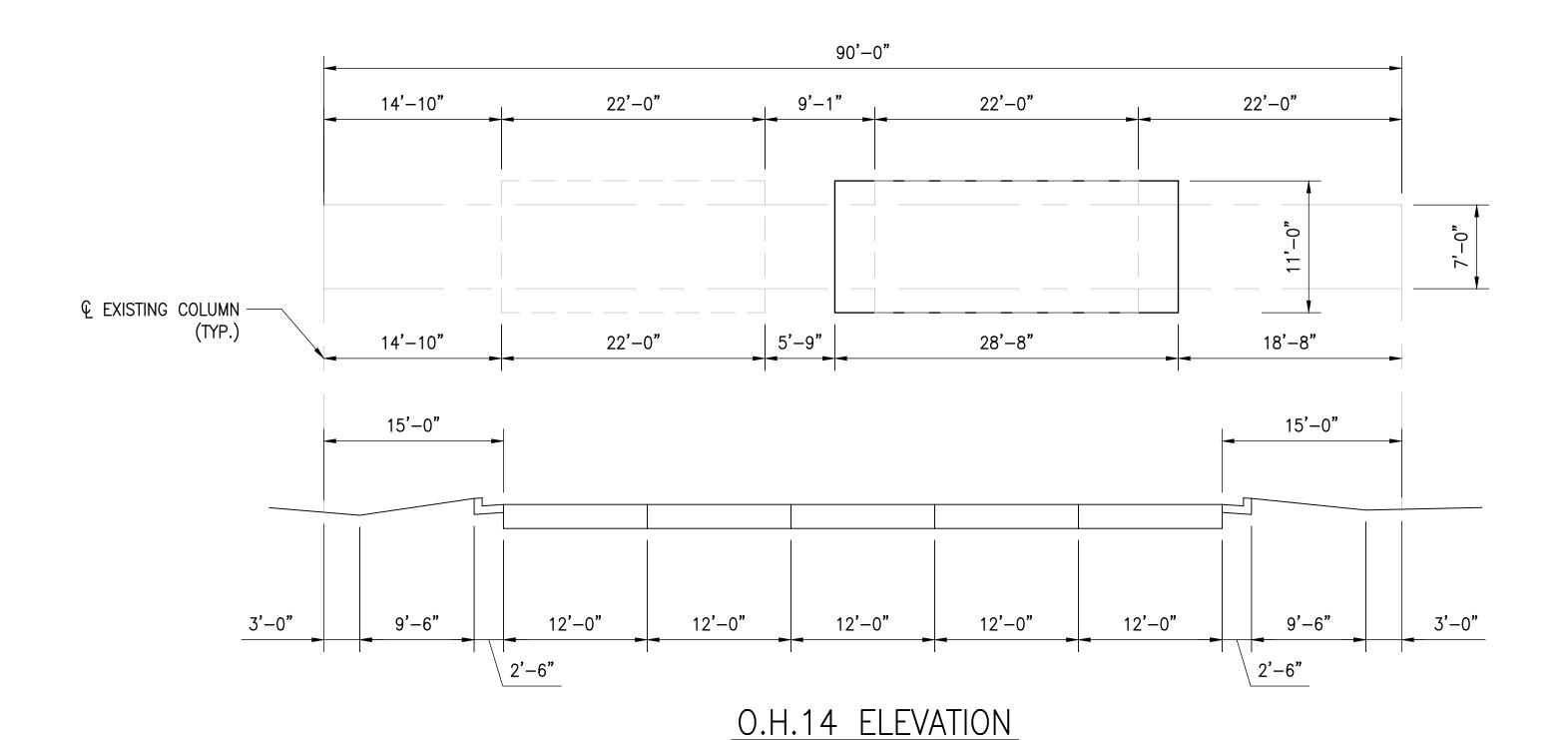
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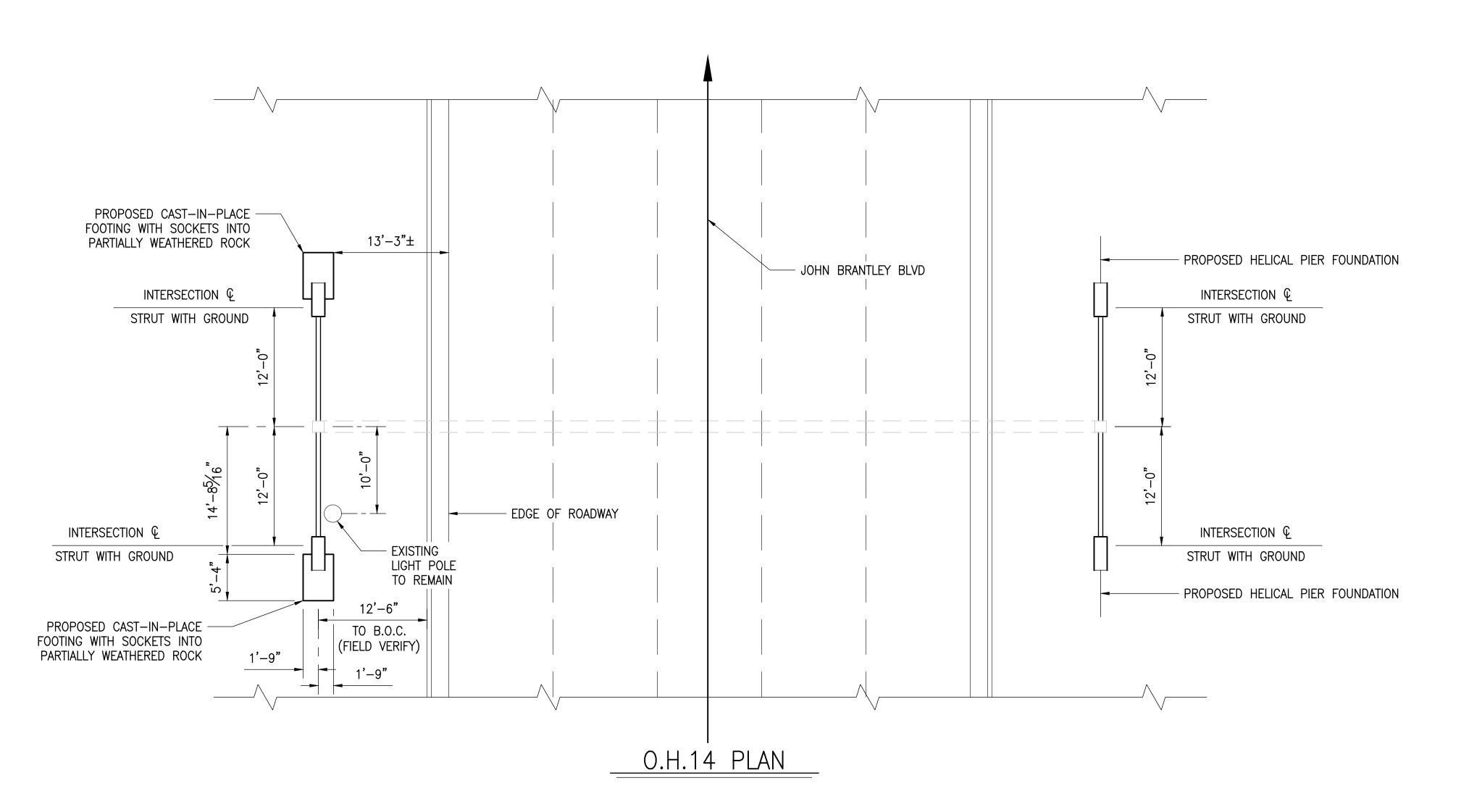
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Plotted by: Dana Shaut

**BIDDING DOCUMENTS** 













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PLAN PREPARED BY:

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ALPHA & OMEGA GROUP

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OFFICE: (919) 931-0310
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NO. DESCRIPTION DATE

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	TLI
DATE ISSUED: APRIL 16, 2024	

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OH-14 FOUNDATION LAYOUT

SHEET NUMBER
S-100

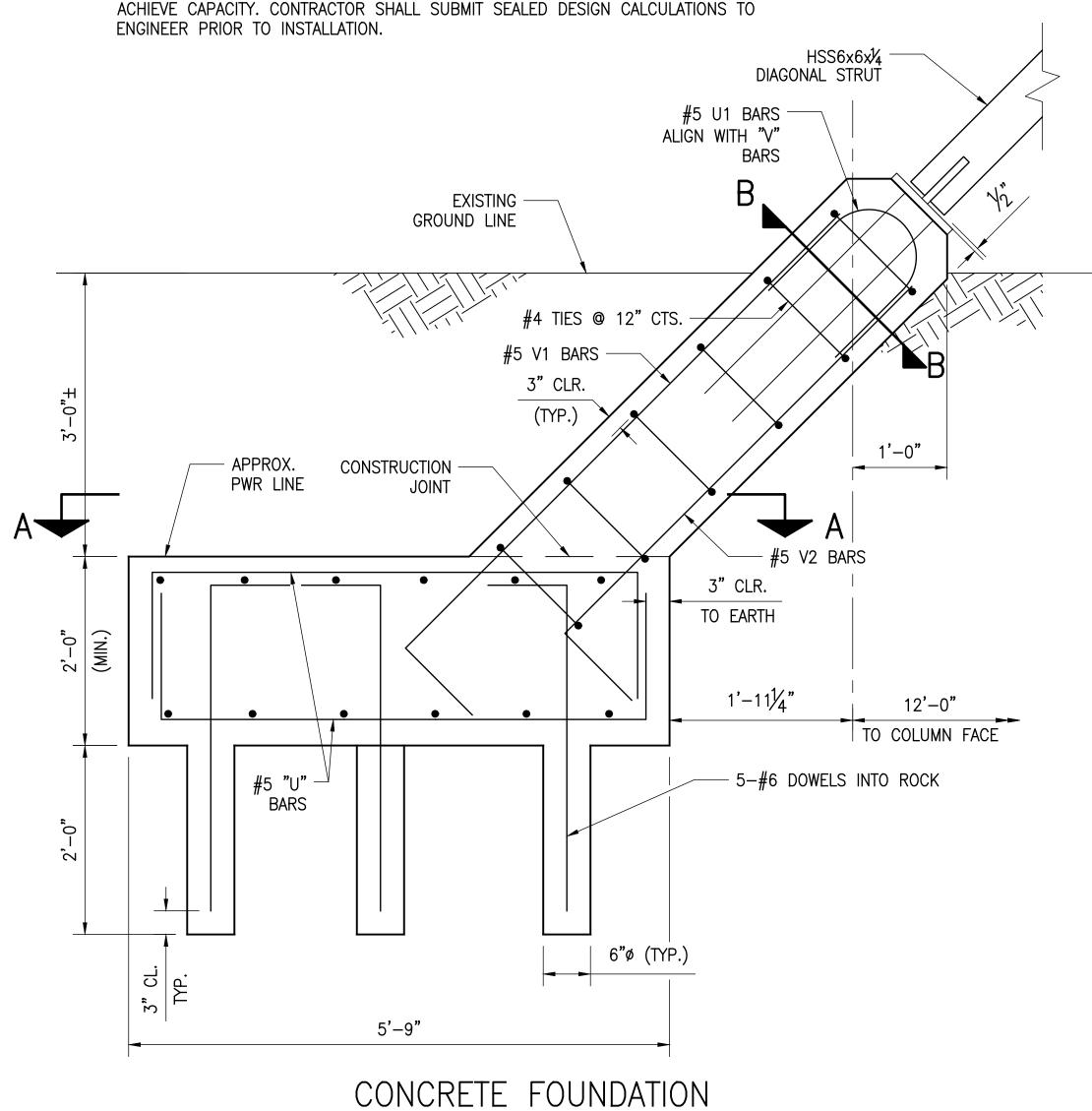
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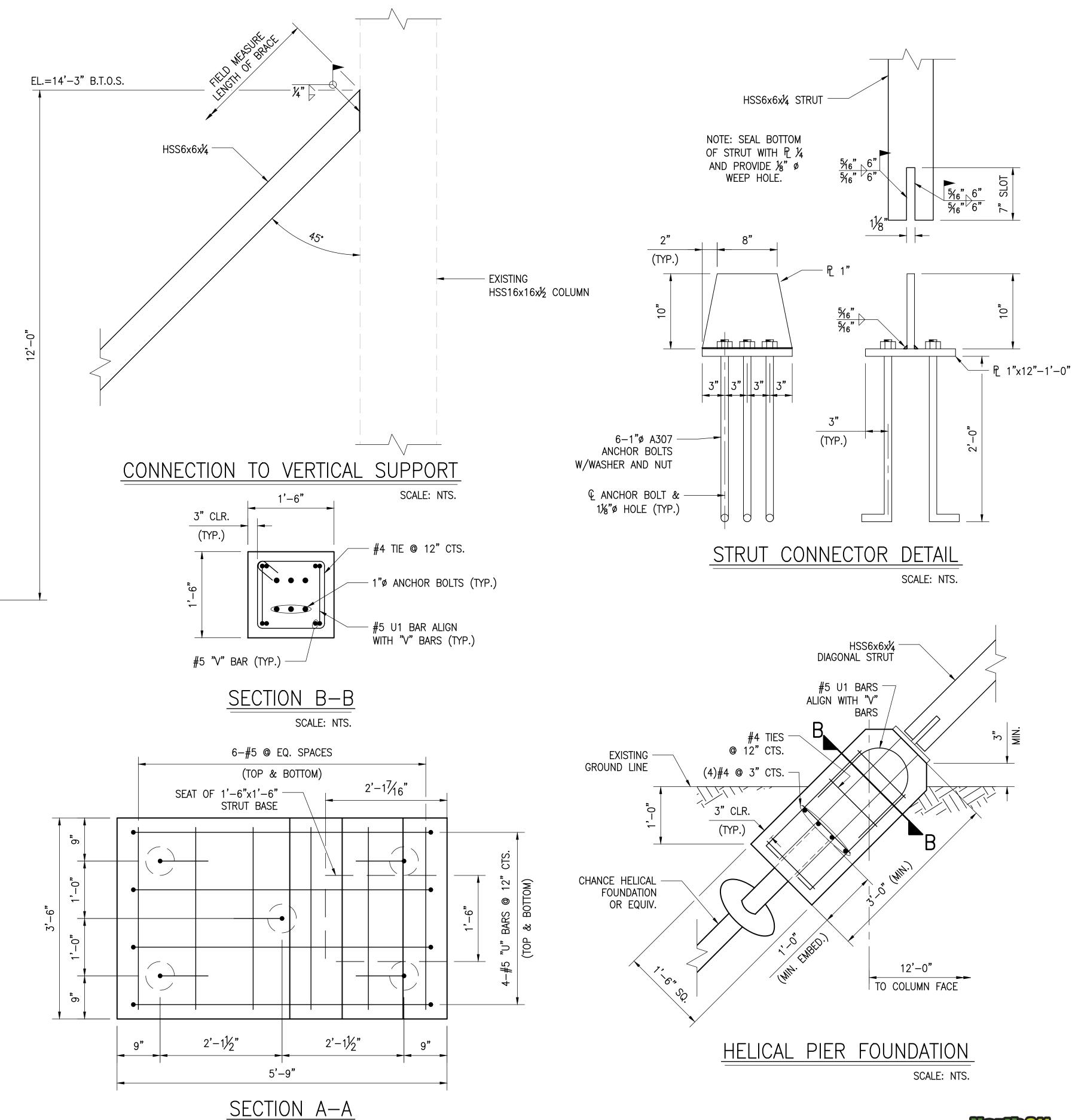
Plotted by: Dana Shaut

## **NOTES:**

- 1. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
- 2. ALL CAST-IN-PLACE CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI WITH 5-7% AIR ENTRAINMENT.
- 3. THE BOTTOM OF THE FOOTINGS ARE POURED INTO PARTIALLY WEATHERED ROCK. CONTRACTOR SHALL ADJUST THE THICKNESS OF THE FOOTING AS REQUIRED.
- 4. HELICAL FOUNDATIONS SHALL BE 'CHANCE' OR EQUIV WITH A TOTAL ULTIMATE CAPACITY OF 85KIP EACH IN COMPRESSION.
- 5. ALL STEEL PLATES AND "W" SHAPES ARE ASTM GRADE A36 WITH Fy=36KSI. ALL STEEL HSS SECTIONS ARE ASTM A500 GRADE C.
- 6. ALL BOLTS SHALL BE ASTM A325 HDG FOR SIGN ATTACHMENT.
- 7. ALL MILD STEEL SHALL BE PAINTED TO MATCH EXISTING.
- 8. ALL WELDS SHALL BE DONE IN ACCORDANCE WITH AWS D1.1
- 9. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCIES.
- 10. PRIOR TO ANY WELDING BEING PERFORMED, THE CONTRACTOR SHALL GRIND PAINT OFF OF THE COLUMNS IN THE AREAS NECESSARY FOR WELDING THE STEEL STRUTS. REPAINT STEEL COLUMNS AND STRUTS AFTER INSTALLATION WITH MATCHING PAINT COLOR AND SYSTEM.
- 11. HOLES CORED INTO PWR FOR REBAR DOWELS SHALL BE A MINIMUM OF 2'-0" INTO THE ROCK.
- 12. IF THE ACTUAL DEPTH TO THE PWR IS GREATER THAN THE ASSUMED BOTTOM OF FOOTING, THE DIFFERENCE MAY BE FILLED WITH 3000 PSI CONCRETE.
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF HELICAL PILES THAT ACHIEVE CAPACITY. CONTRACTOR SHALL SUBMIT SEALED DESIGN CALCULATIONS TO ENGINEER PRIOR TO INSTALLATION.



SCALE: NTS.





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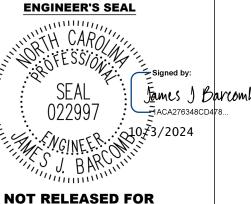


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**ROADWAY SIGNS -AIRLINE NAMES** 

**INSTALLATION PACKAGE** 



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> OH-14 TERMINAL 2 **WAY FINDING SIGN FOUNDATIONS**

> > SHEET NUMBER

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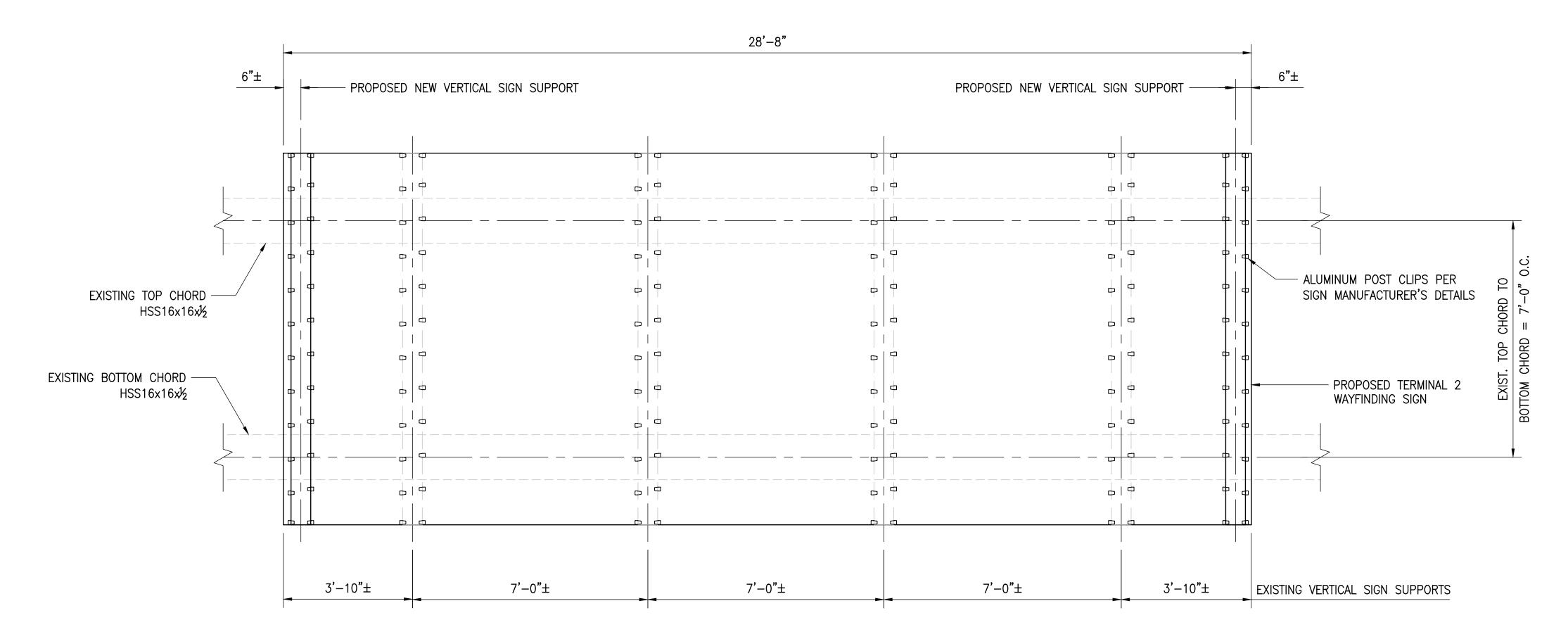
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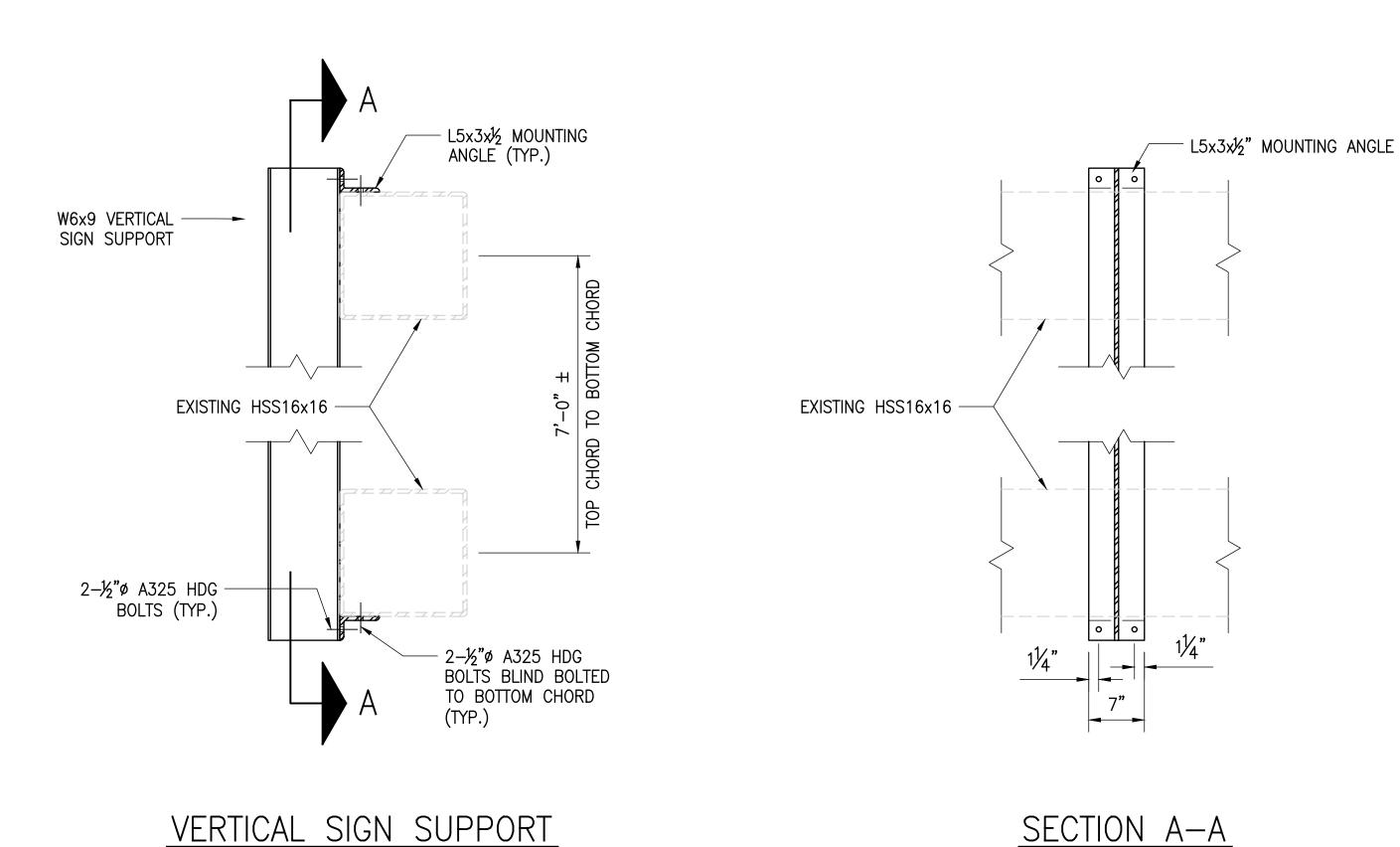
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SCALE: NTS.



# OH-14 SIGN SUPPORT LAYOUT

NOTE: PROPOSED SIGN SHALL BE ATTACHED TO BOTH EXISTING AND PROPOSED VERTICAL SUPPORTS.







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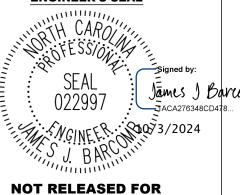


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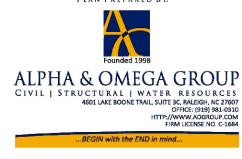
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PLAN PREPARED BY:



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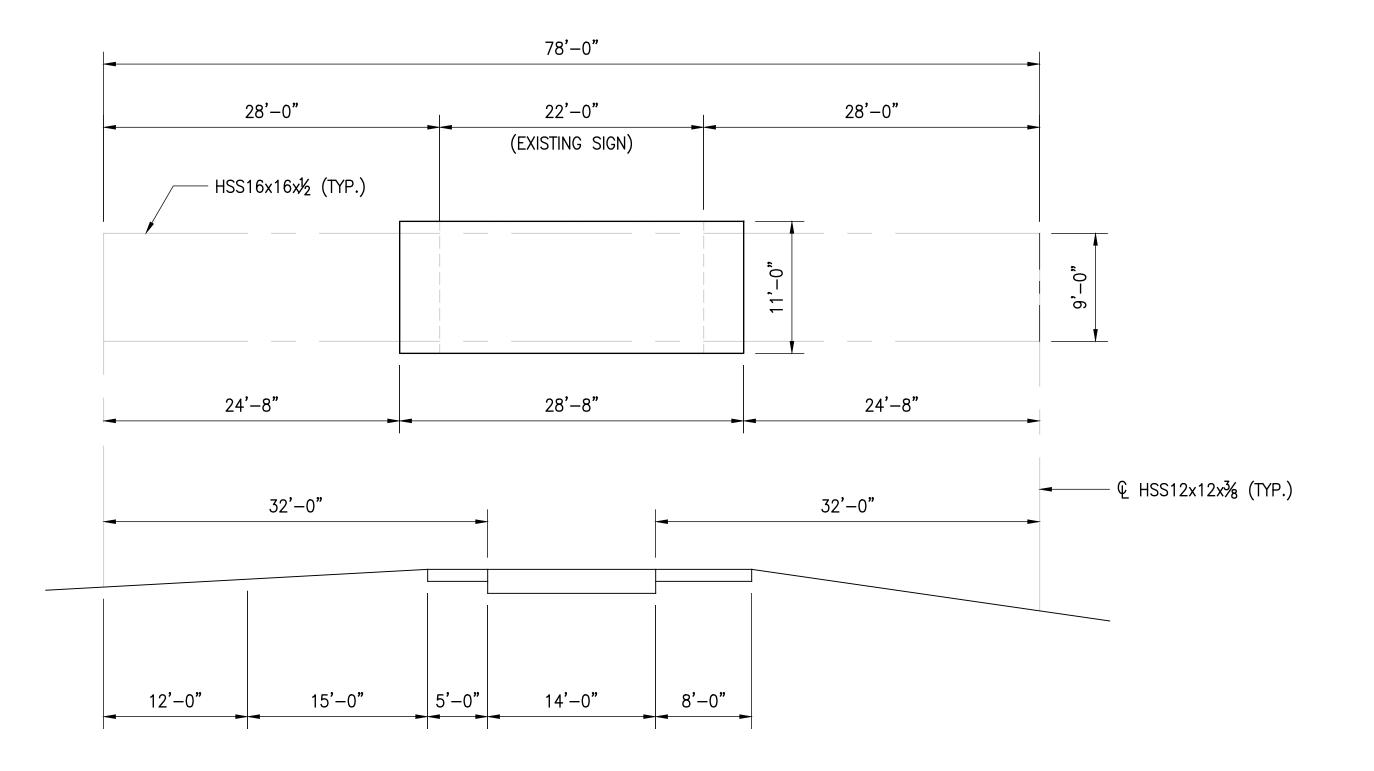
OH-14 TERMINAL 2
WAY FINDING SIGN
SUPPORT DETAILS

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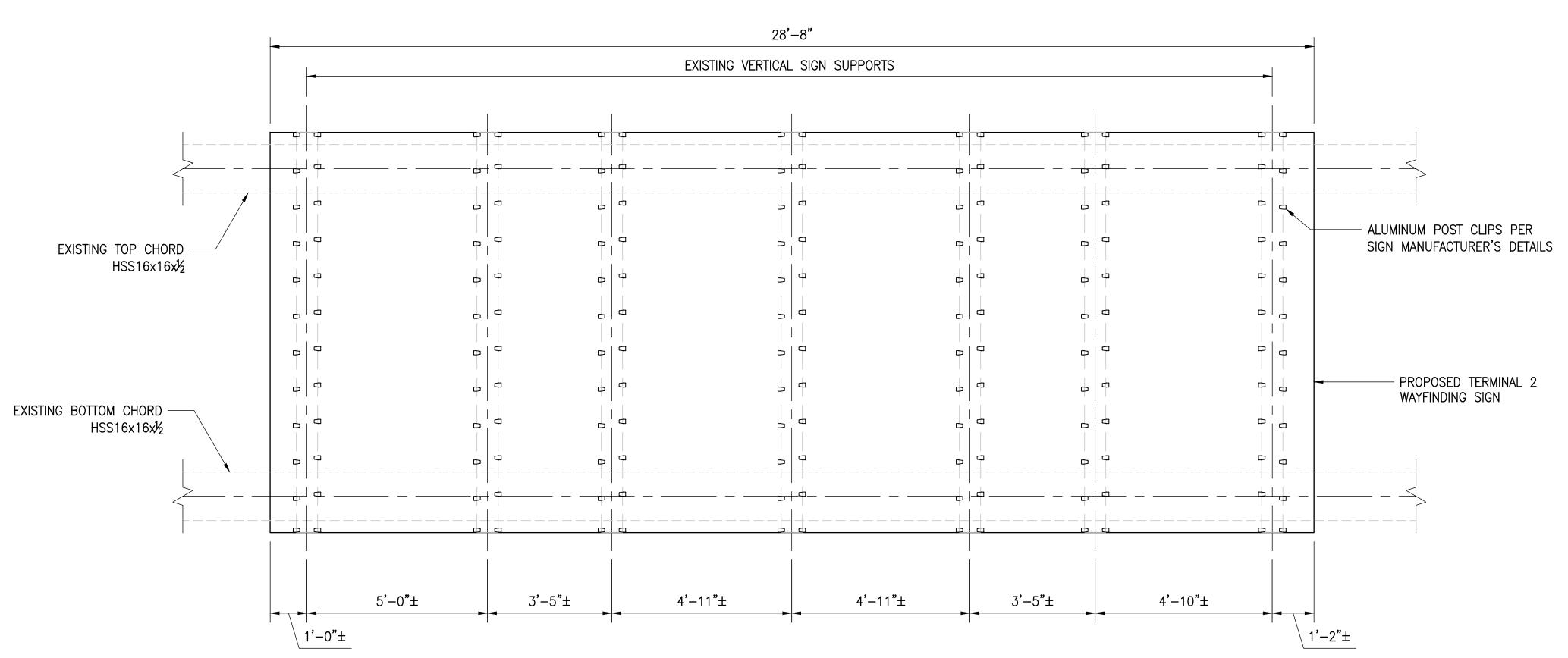
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# O.H.16 ELEVATION



OH-16 SIGN SUPPORT LAYOUT





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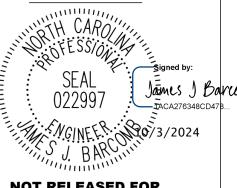


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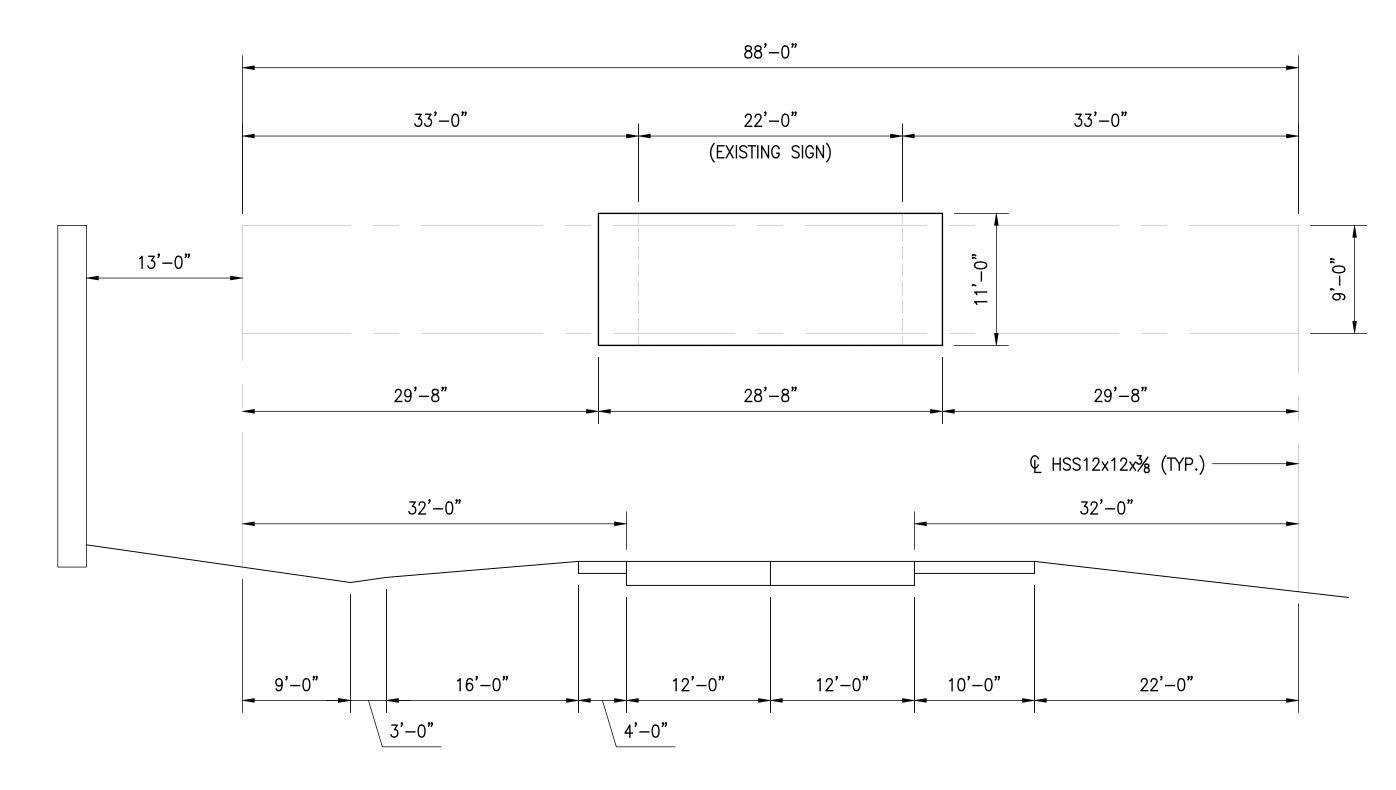
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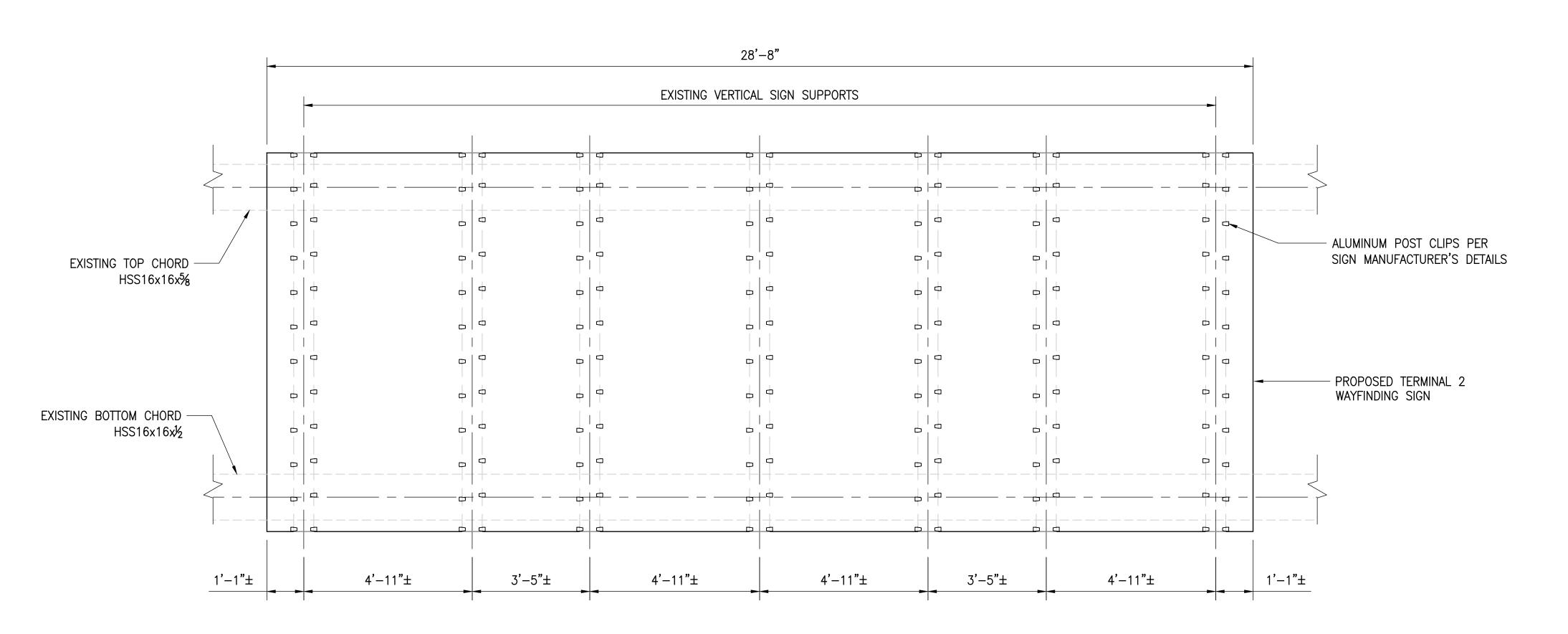
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**DRAWN BY:** 



O.H.17 ELEVATION



OH-17 SIGN SUPPORT LAYOUT





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SHEET TITLE **OH-17 WAY** 

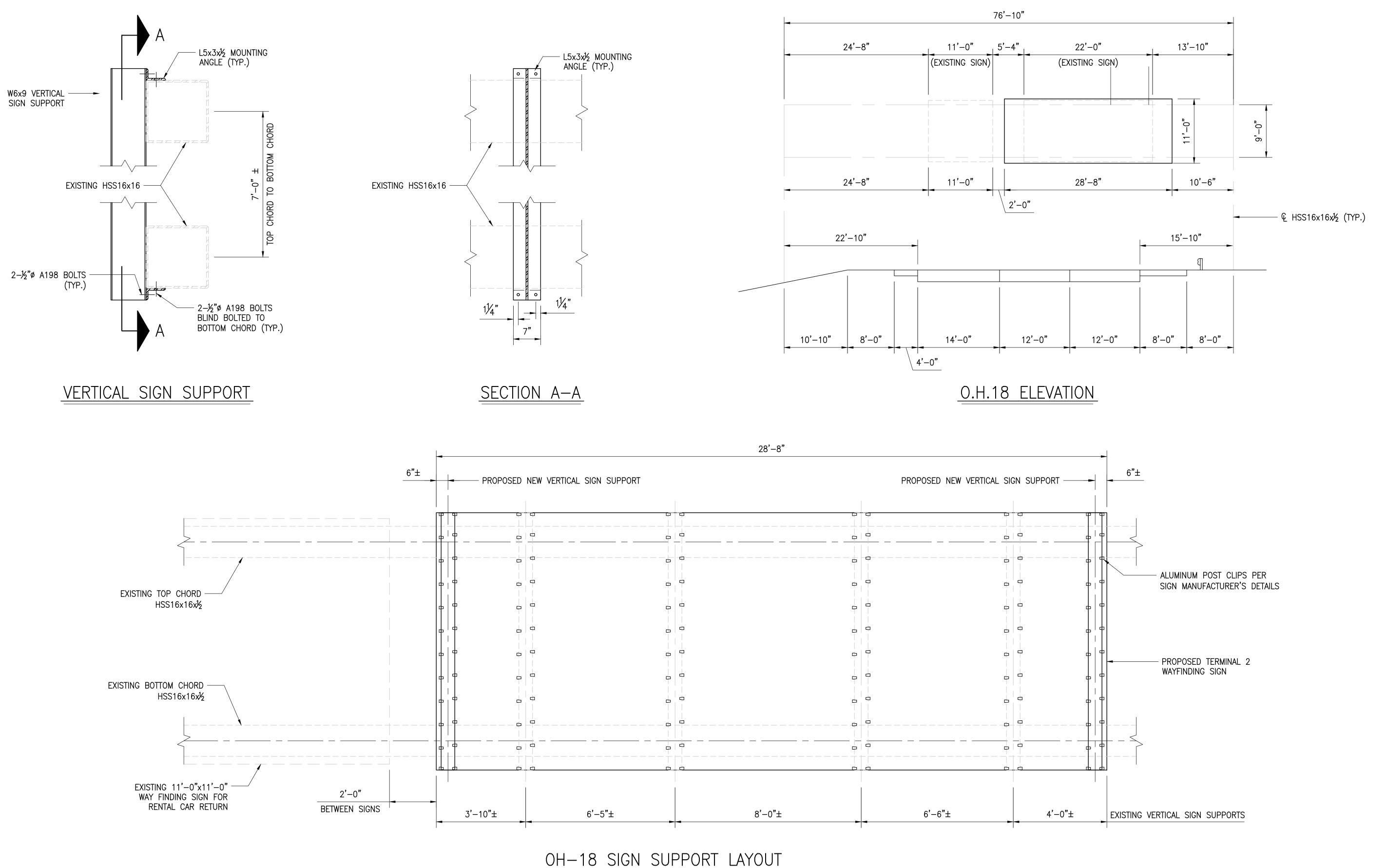
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> OH-18 WAY FINDING SIGN DETAILS

> > SHEET NUMBER
> > S-105

BIDDING DOCUMENTS

Drawing: B:\Projects\2023\_000\2023\_062 - RDU Overhead Sign Analysis\dwg\Alpha\_Active\2023.0 RDU OSH.dwg

Plotted by: Dana Shaut