



# Huntsville, Alabama

308 Fountain Circle  
Huntsville, AL 35801

## Cover Memo

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**Meeting Type:** City Council Regular Meeting **Meeting Date:** 7/27/2023

**File ID:** TMP-3143

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**Department:** Engineering

**Subject:**

**Type of Action:** Approval/Action

Resolution authorizing the Mayor to enter into an Agreement between Alabama Department of Transportation and the City of Huntsville, Alabama for the Installation, Operation and Maintenance of Traffic Control Signals for Huntsville Northern Bypass, ALDOT Project No. CRSA-PE10(917).

Resolution No.

**Finance Information:**

**Account Number:** N/A

**City Cost Amount:** N/A

**Total Cost:** N/A

**Special Circumstances:**

**Grant Funded:** N/A

**Grant Title - CFDA or granting Agency:** N/A

**Resolution #:** N/A

**Location: (list below)**

**Address:** N/A

**District:** District 1 ☐ District 2 ☐ District 3 ☐ District 4 ☐ District 5 ☐

**Additional Comments:**

Agreement between the City of Huntsville and ALDOT for the installation and maintenance of a new traffic signal at the intersection of Mt. Lebanon Rd. and Huntsville Northern Bypass.

## RESOLUTION NO. 23-

**BE IT RESOLVED** by the City Council of the City of Huntsville, Alabama, that the Mayor be, and is hereby authorized, to enter into an Agreement between Alabama Department of Transportation and the City of Huntsville, Alabama for the Installation, Operation and Maintenance of Traffic Control Signals for Huntsville Northern Bypass, ALDOT Project No. CRSA-PE10(917), on behalf of the City of Huntsville, a municipal corporation in the State of Alabama, which said Agreement is substantially in words and figures similar to that document attached hereto and identified as "Resolution authorizing the Mayor to enter into an Agreement between Alabama Department of Transportation and the City of Huntsville, Alabama for the Installation, Operation and Maintenance of Traffic Control Signals for Huntsville Northern Bypass, ALDOT Project No. CRSA-PE10(917)," consisting of a total of fourteen (14) pages, and the date of July 27, 2023, appearing on the margin of the first page, together with the signature of the President or President Pro Tem of the City Council, and an executed copy of said document being permanently kept on file in the Office of the City Clerk of the City of Huntsville, Alabama.

**ADOPTED** this the 27th day of July, 2023.

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President of the City Council of  
the City of Huntsville, Alabama

**APPROVED** this the 27th day of July, 2023.

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Mayor of the City of Huntsville,  
Alabama

Region Tracking Number: \_\_\_\_\_ Project Number: CRSA-PE10(917)

Region: NR - Guntersville County: MADISON

**STATE OF ALABAMA** acting by and through the  
**ALABAMA DEPARTMENT OF TRANSPORTATION: AGREEMENT for the**  
**INSTALLATION and/or OPERATION and/or MAINTENANCE OF TRAFFIC CONTROL SIGNALS and/or**  
**ROADWAY LIGHTING**

This Agreement, in accordance with resolution number \_\_\_\_\_ dated (or minutes dated) \_\_\_\_\_ attached hereto and made part of this Agreement, is made and entered into by and between the Alabama Department of Transportation (herein referred to as STATE) and the City of Huntsville (herein referred to as **MAINTAINING AGENCY**) for the accomplishment of the following work as hereinafter indicated by the alphabetic letter of "X" marked in the check-boxes below, to wit:

	(A) New Installation	(B) Equipment Upgrade	(C) Complete Removal	(D) Operation	(E) Maintenance
Traffic Control Signal:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Intersection Flashing Signal/Beacon:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roadway Lighting:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The accomplishment of the work indicated by the alphabetic letter of "X" marked in the check-box(es) above and hereinafter signified by the use of the corresponding alphabetic letter A, B, C, D, and/or E as applicable, will be at the following location(s): {Example: AL-3/US-31 @ Main Street [A, D, & E] denotes the installation, operation, and maintenance of the equipment installed} **NOTE** – if more space is needed, please use continuation sheets.

Huntsville Northern Bypass / Mt. Lebanon Road - Traffic Control Signal [A, D, & E]

- For the purposes of this Agreement, "equipment and/or associated hardware" shall refer to the equipment and/or associated hardware used to install, upgrade, maintain, and/or operate traffic control signals, intersection flashing signals/beacons, roadway lighting, and/or other as specified in the chart above.
- In the event the work to be accomplished above is identified by (A) and/or (B), the ☐ STATE ☒ MAINTAINING AGENCY will furnish and the ☐ STATE ☒ MAINTAINING AGENCY will install the equipment and/or associated

hardware utilized in the accomplishment of the work. In the event the STATE contributes funds to the work and the MAINTAINING AGENCY will be credited or debited for under-runs or overruns respectively, the "**Exhibit O**" is attached to and made part of this Agreement.

3. The equipment and/or associated hardware shall be installed in accordance with the applicable portions of the:
  - A. Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), current ALDOT approved edition.
  - B. State of Alabama Project Details and Special and Standard Highway Drawings, current year version.
  - C. National Electrical Code, current edition.
  - D. Alabama Department of Transportation (ALDOT) Standard Specifications for Highway Construction, current edition and applicable special provisions.
  - E. Code of Alabama, 1975 (as Amended) with specific reference to:
    - (1) §23-1-113, Municipal Connecting Link Roads – Stipulations and Conditions [specifically sub-paragraphs (6) and (7)].
    - (2) §32-5A-32, Traffic – Control signal legend.
    - (3) §32-5A-33, Pedestrian – Control signals.
    - (4) §32-5A-34, Flashing signals.
    - (5) §32-5A-35, Lane – Direction – Control signals.
4. The STATE shall determine the quantity of the equipment and/or associated hardware to be utilized in the accomplishment of the work identified by (A) and/or (B) above. In the event the MAINTAINING AGENCY furnishes the equipment and/or associated hardware to be utilized in the accomplishment of the work identified by (A) and/or (B) above, the MAINTAINING AGENCY shall ascertain that the type and quality of the equipment and/or associated hardware is in accordance with the STATE's Materials, Sources, and Devices with Special Acceptance Requirements (APL) as maintained by the STATE's Bureau of Materials and Tests.
5. It is the sole responsibility of the MAINTAINING AGENCY to locate and/or relocate any and all utilities in conflict with the installation, upgrade, and/or maintenance of equipment and associated hardware prior to commencing work to install, upgrade, and/or maintain equipment and associated hardware. The MAINTAINING AGENCY will locate and/or relocate such utilities in accordance with all applicable Federal and State laws, regulations, and procedures. Associated utility costs will be at the sole expense of the MAINTAINING AGENCY. In the event utilities are damaged during the installation, upgrade, and/or maintenance of equipment and associated hardware due to failure of the MAINTAINING AGENCY to relocate and/or relocate such utilities, the MAINTAINING AGENCY shall be responsible for providing the funding to pay for any and all associated costs to repair the utilities.
6. Title to any and all equipment and/or associated hardware furnished by the STATE shall remain in the STATE and the STATE is deemed to be the sole owner of such equipment and/or hardware.
7. The equipment and/or associated hardware shall be operated and maintained at the sole expense of the MAINTAINING AGENCY. The MAINTAINING AGENCY agrees to provide electrical energy on a continuing basis as required, beginning at the time of the initial electrical service connection during the construction of the system. The MAINTAINING AGENCY agrees further to maintain the equipment and/or associated hardware in a good state of repair at all times, as required in

accordance with the applicable documents: Manual on Uniform Traffic Control Devices for Streets and Highways and the Alabama Department of Transportation Standard Specifications for Highway Construction and applicable special provisions. Any traffic control signal equipment and/or associated hardware must also be maintained in accordance with any traffic signal operating plan of the STATE which is in effect at the applicable time of the maintenance. If a malfunction of the equipment and/or associated hardware should ever occur, the MAINTAINING AGENCY shall make or cause to be made any repairs immediately. If a malfunction presents a potential hazard to the motoring public and the MAINTAINING AGENCY is unable to repair the equipment and/or associated hardware in a timely manner as determined by the STATE, the MAINTAINING AGENCY agrees that the STATE reserves the right to and may repair the equipment and/or associated hardware, and invoice the MAINTAINING AGENCY for all costs incurred. The MAINTAINING AGENCY agrees to pay the STATE all such costs incurred by the STATE promptly upon receipt of the invoice from the STATE.

- 7a. In instances where ALDOT maintains a fiber-optic trunk line that is used in conjunction with a closed-loop signal system, the MAINTAINING AGENCY shall maintain the fiber-optic cable from the splice point in the trunk line out to the traffic control equipment.
- 8a. Installation requests made by the MAINTAINING AGENCY and identified on page one as “(A) New Installation” with “Traffic Control Signal” marked must follow the Traffic Signal Warrant and Justification procedure as identified in the Alabama Department of Transportation Traffic Signal Design Guide and Timing Manual, latest edition. For any warrant study/analysis which does not satisfy a traffic signal warrant or warrants, the MAINTAINING AGENCY agrees to accept any and all responsibility for any damage or injury that may be caused by or related to the installation, location, operation, sequencing, and/or maintenance of the equipment and/or associated hardware and shall defend, indemnify, and hold harmless the State of Alabama, the Alabama Department of Transportation, and its agents, servants, employees, in their official or individual capacities and/or facilities from and against all claims, damages, losses and expenses, including but not limited to attorney’s fees, arising out of or resulting from the installation, operation, and maintenance of the equipment and/or associated hardware, or any claim, damage, loss, or expense to the person or property caused. A copy of the warrant study/analysis shall be attached to and made part of this Agreement.
- 8b. Check one:

The ☒ CITY (Incorporated Municipality)

Subject to the limitations on damages applicable to municipal corporations under Alabama Code § 11-47-190(1975), the CITY shall indemnify and hold harmless the State of Alabama, the Alabama Department of Transportation, its officers, officials, agents, servants, and employees from and against (1) claims, damages, losses, and expenses, including but not limited to attorney’s fees arising out of, connected with, resulting from, or related to the work performed by the CITY, or its officers, employees, contracts, agents or assigns (2) the provision of any services or expenditure of funds required, authorized, or undertaken by the CITY pursuant to the terms of this Agreement, or (3) any damage, loss, expense, bodily injury, or death, or injury or destruction or tangible property (other than the work itself), including loss of use therefrom, and including but not limited

to attorney's fees, caused by the willful, negligent, careless, or unskillful acts of the CITY, its agents, servants, representatives, or employees, or the misuse, misappropriation, misapplication, or misexpenditure of any source of funding, compensation, or reimbursement by the CITY, its agents, servants, representatives, or employees, or anyone for whose acts the CITY may be liable.

The ☐ COUNTY (County Government or Agency)

The COUNTY shall be responsible at all times for all of the work performed under this agreement and, as provided in Alabama Code § 11-93-2(1975), the COUNTY shall indemnify and hold harmless the State of Alabama, the Alabama Department of Transportation, its officers, officials, agents, servants, and employees.

For all claims not subject to Alabama Code § 11-93-2(1975), the COUNTY shall indemnify and hold harmless the State of Alabama, the Alabama Department of Transportation, its officers, officials, agents, servants, and employees from and against any and all damages, claims, loss, liabilities, attorney's fees or expense whatsoever, or any amount paid in compromise thereof arising out of, connected with, or related to (1) work performed under this Agreement, (2) the provision of any services or expenditure of funds required, authorized, or undertaken by the COUNTY pursuant to the terms of this Agreement, or (3) misuse, misappropriation, misapplication, or misexpenditure of any source of funding, compensation or reimbursement by the COUNTY, its officers, officials, agents, servants, and employees.

The term "hold harmless" includes the obligation of the MAINTAINING AGENCY to pay damages on behalf of the State of Alabama, the Alabama Department of Transportation, and its agents, servants, and/or employees.

9. Complete removal of the equipment and/or associated hardware, hereinabove identified by (C), will be at the sole expense of the ☐ STATE ☐ MAINTAINING AGENCY.
10. The STATE reserves the right to demand the removal of the equipment and/or associated hardware should the STATE determine that the signal is no longer required or deem its condition or operation hazardous. Further, the STATE shall have the right to remove the equipment and/or associated hardware should the MAINTAINING AGENCY fail to do so upon demand by the STATE. The MAINTAINING AGENCY agrees to reimburse the STATE for its costs associated with the removal. Any equipment and/or associated hardware which is deemed by the STATE to be non-uniform or obsolete will be removed and disposed of by the MAINTAINING AGENCY. None of the non-uniform or obsolete equipment and/or associated hardware which has been removed shall be reused on the STATE highway system.
11. If future traffic conditions require changes and/or adjustments to said equipment and/or associated hardware (other than ordinary timing), the MAINTAINING AGENCY shall obtain the approval of the STATE before such changes are implemented and the STATE shall make a determination on whether a new Agreement is required to be submitted for the UPGRADING, OPERATION, and MAINTENANCE of the new equipment and/or associated hardware. All such changes shall be at the sole cost and expense of the MAINTAINING AGENCY.

12. At such time as a warrant study is conducted on an existing signalized intersection and the results differ from the previous warrant study conducted at that signalized intersection, a new Agreement for Installation and/or Operation and/or Maintenance of Traffic Control Signals and/or Roadway Lighting shall be executed with the MAINTAINING AGENCY.

13. In the event Federal funds are utilized in the accomplishment of the work hereinbefore described, "**Exhibit M**" is attached to and made a part of this Agreement.

14. FUNDS SHALL NOT BE CONSTITUTED AS A DEBT

It is agreed that the terms and commitments contained herein shall not be construed as a debt of the State of Alabama in violation of Article 11, Section 213 of the Constitution of Alabama, 1901, as amended by Amendment Number 26. It is further agreed that if any provision of this Agreement shall contravene any statute or Constitutional Provision or Amendment, then the conflicting provision in this Agreement shall be deemed null and void.

For any and all disputes arising under the terms of this Agreement, the parties hereto agree, in compliance with the recommendations of the Governor and Attorney General, when considering settlement of such disputes, to utilize appropriate forms of non-binding alternative dispute resolution including, but not limited to, mediation by and through the Attorney General's Office of Administrative Hearings or where appropriate, private mediators.

15. The type and number of signal & pedestrian heads per intersection or roadway lighting hardware are as follows: {Example: 5 – 3 sec, 12", red ball, yellow/green left arrow. OPTION: If plans are available to convey information below, just enter "**SEE ATTACHED PLANS**".} **NOTE** – If more space is needed, please use continuation sheets.

SEE ATTACHED PLANS - CRSA-PE10 (917)

TYPE OF SIGNAL		CONTROLLER	
<input checked="" type="checkbox"/> Traffic Control	<input type="checkbox"/> Pedestrian Control	Make:	Model #:
<input type="checkbox"/> Flashing	<input type="checkbox"/> Lane Control	<input type="checkbox"/> Fixed Time	<input type="checkbox"/> Two Phase
<input type="checkbox"/> School Flasher	<input type="checkbox"/> Railroad Crossing	<input type="checkbox"/> Semi Actuated	<input type="checkbox"/> Four Phase
<input type="checkbox"/> Other: _____		<input type="checkbox"/> Full Actuated	<input type="checkbox"/> Eight Phase
_____		<input type="checkbox"/> Other: _____	
_____		SYSTEM <input type="checkbox"/> YES <input type="checkbox"/> NO	

16. In the event the work to be accomplished is identified by (A), (B), and/or (C) and [1] in part or wholly constitutes an interconnected, coordinated, fixed time relationship, signal control operation between two or more intersections (herein referred to as a SYSTEM and hereinabove indicated by the SYSTEM check-box for YES marked in the controller box above), [2] is located within the limits of a SYSTEM, or [3] is within close proximity as to adjoin a SYSTEM, the ☐ STATE ☐ MAINTAINING AGENCY shall substantiate the work identified by (A), (B), and/or (C) to be SYSTEM compatible.
17. By entering into this agreement, the MAINTAINING AGENCY is not an agent of the State, its officers, employees, agents or assigns. The MAINTAINING AGENCY is an independent entity from the State and nothing in this agreement creates an agency relationship between the parties.
18. By signing this contract, the contracting parties affirm, for the duration of this agreement, that they will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of this agreement and shall be responsible for all damages resulting there from.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK. SIGNATURE PAGE TO FOLLOW.



IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by those officers, officials, and persons thereunto duly authorized, and the Agreement is deemed to be dated and to be effective on the date stated hereinafter as the date of the approval of the Region Engineer.

(Seal of MAINTAINING AGENCY)

\_\_\_\_\_  
Legal Name of MAINTAINING AGENCY

Attest: \_\_\_\_\_  
(Seal or notary signature)

By: \_\_\_\_\_  
Authorized Signature for MAINTAINING AGENCY

Agreement Recommended for approval:

By: \_\_\_\_\_  
Area Traffic Engineer Signature

**STATE OF ALABAMA acting by and through the ALABAMA DEPARTMENT OF TRANSPORTATION**

The within and foregoing Agreement is hereby approved on this \_\_\_\_\_ day  
of \_\_\_\_\_, 20\_\_\_\_\_.

APPROVED:

RECORDED:

By: \_\_\_\_\_  
Region Engineer Signature

By: \_\_\_\_\_  
State Traffic Engineer Signature

Date: \_\_\_\_\_  
(Added to Archive)

Region Tracking Number: \_\_\_\_\_ Project Number: CRSA-PE10 (917)  
Region: NR - Guntersville ☐ County: MADISON

7/18/90

EXHIBIT M

**CERTIFICATION**

This certification is applicable to the instrument to which it is attached whether attached directly or indirectly with other attachments to such instrument.

The prospective participant/recipient, by causing the signing of and the submission of this Federal contract, grant, loan, cooperative agreement, or other instrument as might be applicable under Section 1352, Title 31, U.S. Code, and the person signing same for and on behalf of the prospective participant/recipient each respectively certify that to the best of the knowledge and belief of the prospective participant or recipient and of the person signing for and on behalf of the prospective participant/recipient, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the prospective participant/recipient or the person signing on behalf of the prospective participant/recipient as mentioned above, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or other instrument as might be applicable under Section 1352, Title 31, U.S. Code, the prospective participant/recipient shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant/recipient also agrees by submitting this Federal contract, grant, loan, cooperative agreement or other instrument as might be applicable under Section 1352, Title 31, U.S. Code, that the prospective participant/recipient shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub-recipients shall certify and disclose accordingly.

Region Tracking Number: \_\_\_\_\_ Project Number: CRSA-PE10 (917)  
Region: NR - Guntersville ☐ County: MADISON

3/31/2000

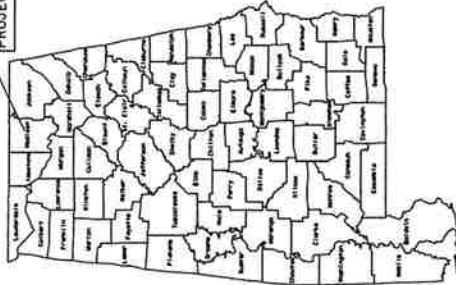
EXHIBIT O

**CERTIFICATION**

FUNDING RATIO FOR THE INSTALLATION OF TRAFFIC CONTROL SIGNALS  
AND/OR ROADWAY LIGHTING

The Alabama Department of Transportation (hereinafter referred to as the STATE) and the City of Huntsville (hereinafter referred to as the MAINTAINING AGENCY) wishes to install a traffic control signal and/or roadway lighting at Huntsville Northern Bypass. This installation requires participation by the STATE and the MAINTAINING AGENCY in funding the installation cost. The total estimated cost to install the traffic control signal and/or roadway lighting is \_\_\_\_\_ with \_\_\_\_\_ percent funded by the STATE and \_\_\_\_\_ percent funded by the MAINTAINING AGENCY. In the event the final installation cost is less than the total estimated cost, the STATE and the OWNER will share in the cost under-run at the above-mentioned funding ratio and, therefore, the STATE will refund to the MAINTAINING AGENCY 0 percent of the under-run. In the event the final installation cost exceeds the total estimated cost, the STATE and the MAINTAINING AGENCY will share in the cost over-run at the above-mentioned funding ratio and, therefore, the MAINTAINING AGENCY will submit a check to the STATE for 0 percent of the cost over-run.

PROJECT LOCATION



# ALABAMA DEPARTMENT OF TRANSPORTATION

**PLANS OF PROPOSED PROJECT NUMBER**  
NHF-STPAAF-4514(252)  
HUNTSVILLE NORTHERN BYPASS  
FROM 1.2 MILES EAST OF CR-86 (PULASKI PIKE)  
TO 1500' EAST OF SR-1 (US HIGHWAY 431)  
GRADE, DRAIN, BASE, PAVE, SIGNALS,  
BRIDGE CULVERTS, AND BRIDGE CULVERT REMOVAL  
MADISON COUNTY

Existing Bridges (Culvert/Remove)

INDEX	STA TO	STA	LENGTH	BIN
1	288+22.51	288+44.98	22.47	4371

TOTAL EFFECT NONE

Required Bridge (Culvert+)	INDEX	STA TO	STA	LENGTH	BIN	SKEW
1	CD-8' x6'	287+09.09	287+29.99	20.90	21711	37°30'40" LT AH (EBR)
2	CD-8' x6'	287+09.09	287+29.99		21713	37°30'40" LT AH (WBR)
3	CT-8' x5'	355+50.11	356+22.67	32.56	21714	39°49'54" LT AH (EBR) 35° TSHP 2S
4	CT-8' x5'	355+50.11	356+22.67		21712	39°49'54" LT AH (WBR)
TOTAL EFFECT (EB ONLY)			53.46			

Equations & Exceptions

NONE

	FEET	MILES
Total Stationing of Project	18203.07	
Equations & Exceptions	0.00	
Net Length of Project	18203.07	3.447
Net Length of Bridges	53.46	0.010
Net Length of Roadways	18149.61	3.437

STATE	REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.	LAST SHEET NO.
AL	NHF-STPAAF-4514(252)	2023	1	585

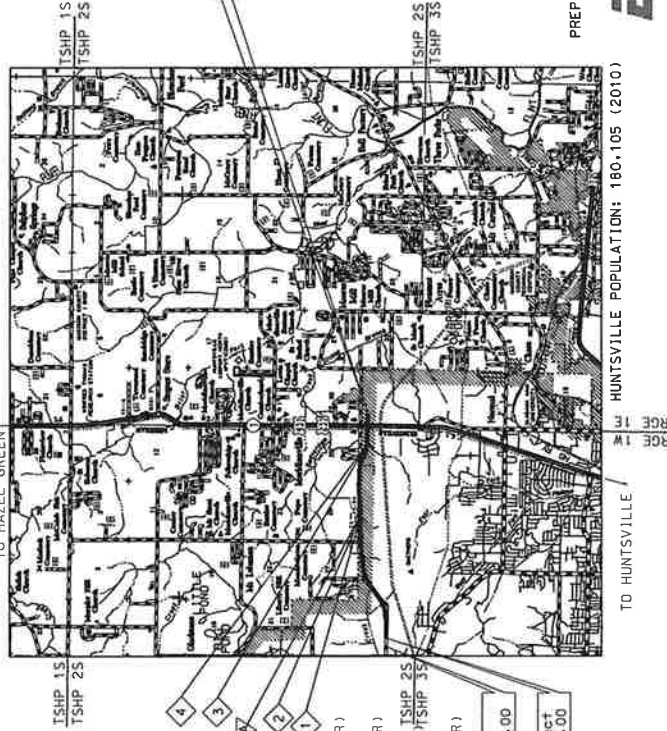
Preliminary Project No. 4321 STWM 10054597-2  
Code No.

Design Designation

ADT (2022)	10,292
ADT (2042)	15,865
K	10%
D	63%
TDRV	3%
TADT	4%
V (Design Speed)	55 MPH
Min. Stopping Sight Dist.	495'

These plans have been prepared to conform with the Alabama Department of Transportation Standard Specifications for Highway Construction, 2022 Edition.

TO HAZEL GREEN



TO HUNTSVILLE

HUNTSVILLE POPULATION: 180,105 (2010)

PREPARED BY:

**BARGE**  
DESIGN SOLUTIONS

200 Church Avenue, Suite 400 Huntsville, Alabama 35891  
Phone (256) 834-1188 Fax (256) 834-1188



BARGE SHEETS ONLY



REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.
STPHV-UR14	2023	2F

TRAFFIC SIGNAL PLAN NOTES

IN THE EVENT CONFLICTS OCCUR BETWEEN THE PROJECT TRAFFIC SIGNAL NOTES AND THE MUTCD, THE MUTCD WILL GOVERN.

NOTES THAT APPLY TO THIS PROJECT.

500. WHEN THE CONTROLLER IS IN THE FLASHING MODE, THE VEHICULAR SIGNAL HEADS SHALL FLASH YELLOW ON THE MAIN STREET, RED ON ALL CROSS STREETS, AND RED ON PROTECTED LEFT TURN.
501. ALL EXISTING TRAFFIC CONTROL EQUIPMENT WHICH IS THE PROPERTY OF THE STATE INCLUDING SIGNAL HEADS, CONTROLLERS, POLES, AND MISCELLANEOUS HARDWARE SHALL BE REMOVED UPON COMPLETION OF THE NEW TRAFFIC CONTROL UNIT (TEMPORARY OR PERMANENT) AND STORED TO COMPLY WITH SECTION 720.03 OF THE STANDARD SPECIFICATIONS. THE SAME SHALL BE DELIVERED TO THE ALABAMA DEPARTMENT OF TRANSPORTATION AS DIRECTED BY THE ENGINEER.
502. ALL EXISTING TRAFFIC CONTROL EQUIPMENT WHICH IS THE PROPERTY OF THE CITY OF HUNTSVILLE INCLUDING SIGNAL HEADS, CONTROLLERS, POLES, AND MISCELLANEOUS HARDWARE SHALL BE REMOVED UPON COMPLETION OF THE NEW TRAFFIC CONTROL UNIT (TEMPORARY OR PERMANENT) AND STORED TO COMPLY WITH SECTION 720.03 OF THE STANDARD SPECIFICATIONS. THE SAME SHALL BE DELIVERED TO THE ALABAMA DEPARTMENT OF TRANSPORTATION AS DIRECTED BY THE ENGINEER.
503. THE LOCATION OF THE POWER SOURCE AS SHOWN IN THE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF THE POWER SOURCE AND THE SHORTEST ROUTE TO SERVE THE TRAFFIC SIGNAL CONTROLLER CABINET AND LUMINAIRES.
504. AS WORK BEGINS RELATED TO OR AFFECTING THE SIGNAL(S) WITHIN THE CONSTRUCTION LIMITS, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY OF ALL EXISTING, TEMPORARY, AND REQUIRED SIGNAL(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUAL OPERATION AND MAINTENANCE OF THE SIGNAL(S) THROUGHOUT THE CONSTRUCTION PERIOD. THE SIGNAL(S) IS ACCEPTED BY THE ALABAMA DEPARTMENT OF TRANSPORTATION.
505. THE CONTRACTOR SHALL INSTALL TEMPORARY SIGNAL(S) AS REQUIRED BY THE TEMPORARY TRAFFIC SIGNAL PLAN LAYOUT OR THE TRAFFIC CONTROL PLANS. WHEN TEMPORARY SIGNAL(S) ARE NOT REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING AND ADJUSTING THE EXISTING AND/OR REQUIRED SIGNAL(S) SO THAT ALL LANE SHIFTS, CLOSURES, AND ANY OTHER CHANGES TO THE ROADWAY DURING CONSTRUCTION ARE CONTROLLED BY THE EXISTING AND/OR REQUIRED SIGNAL(S).
506. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES TO LOCATE ALL OVERHEAD AND UNDERGROUND UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY COMPANY AND THE ENGINEER. THE CONTRACTOR SHALL BEAR ALL COST TO REPAIR ANY AND ALL DAMAGES TO THE UTILITIES CAUSED BY THE CONTRACTOR.
507. THE ALABAMA DEPARTMENT OF TRANSPORTATION RESERVES THE RIGHT TO RESPOND TO TRAFFIC CONTROL UNIT(S) MALFUNCTIONS IN AN EMERGENCY OR NATURAL DISASTER. IN DOING SO THE CONTRACTOR'S LIABILITY AND RESPONSIBILITY RELATED TO MAINTAINING THE TRAFFIC UNIT(S) OR SYSTEM REMAINS IN EFFECT.
508. THE CONTRACTOR SHALL HAVE THE APPROVAL OF THE ENGINEER PRIOR TO THE REMOVAL OF ANY EXISTING TRAFFIC CONTROL UNIT. THE CONTRACTOR SHALL NOT REMOVE AN EXISTING TRAFFIC CONTROL UNIT UNTIL THE REQUIRED TRAFFIC CONTROL UNIT IS INSTALLED AND COMPLETELY OPERATIONAL.
509. EACH REQUIRED TRAFFIC SIGNAL STRAIN POLE AND MAST ARM POLE MAY VARY IN LENGTH AND SIZE. THE CONTRACTOR SHALL ASCERTAIN THAT THE POLE HEIGHTS ARE SUFFICIENT TO PROVIDE THE REQUIRED VEHICULAR TRAFFIC SIGNAL CLEARANCE. EXTENSIONS FOR MOUNTING SIGNALS SHALL BE PROVIDED WHEN NECESSARY.
510. EACH MAST ARM MAY VARY IN LENGTH. THE CONTRACTOR SHALL ASCERTAIN THAT ALL ARM LENGTHS ARE SUFFICIENT SO THAT EACH VEHICULAR SIGNAL HEAD POSITION CONFORMS TO THE MUTCD.
511. THE TRAFFIC SIGNAL POLE LOCATION(S) AS SHOWN IN THE PLANS IS(ARE) APPROXIMATE. THE CONTRACTOR SHALL CORROBORATE THE POLE LOCATION(S) WITH THE ENGINEER. THE CONTRACTOR SHALL ASCERTAIN THAT THE FINAL POLE LOCATION(S) PROVIDE FOR THE VEHICULAR TRAFFIC SIGNAL HEADS TO MEET THE DISTANCE REQUIREMENTS TO THE STOP LINE AS REQUIRED BY THE MUTCD. WHEN PEDESTRIAN SIGNAL HEADS AND/OR PEDESTRIAN CROSSWALKS ARE INVOLVED THE SAME SIZED POLE LOCATION(S) SHALL ALSO CONFORM TO THE RELATIVE SECTIONS OF THE MUTCD.
512. THE CONTRACTOR SHALL LOCATE EACH REQUIRED AND RELOCATED VEHICULAR TRAFFIC SIGNAL HEAD ON THE SPAN WIRE OR MAST ARM SO THAT EACH HEAD IS LOCATED IN THE APPROACH LANE FOR WHICH IT APPLIES. LOCATION OF SIGNAL HEADS SHALL CONFORM TO THE MUTCD.
513. THE TRAFFIC SIGNAL STRAIN POLE LOCATION(S) AS SHOWN IN THE PLANS IS(ARE) APPROXIMATE. THE ENGINEER SHALL APPROVE ALL FOUNDATION LOCATIONS PRIOR TO THE CONTRACTOR EXCAVATING FOR EACH FOUNDATION.
514. BALANCE ADJUSTERS SHALL BE INSTALLED ON TRAFFIC SIGNAL HEADS FOR PROPER AIM. THE CONTRACTOR SHALL ALIGN THE SIGNAL HEADS IN ACCORDANCE WITH THE MUTCD AND TO THE SATISFACTION OF THE ENGINEER.
515. A 12 INCH DRIP COIL WITH 3 LOOPS SHALL BE PROVIDED TO THE RIGHTS OF EACH VEHICULAR TRAFFIC SIGNAL HEAD. A DRIP LOOP SHALL BE FORMED SO THAT WATER CANNOT ENTER THE ENTRANCE CLAMP. THE WIRE SHALL ENTER THE CLAMP FROM THE BOTTOM OF THE DRIP LOOP.
516. WHEN PVC CONDUIT IS USED FROM THE CONTROLLER TO THE STEEL STRAIN POLE OR MAST ARM POLE, THE CONTRACTOR SHALL BOND THE CONTROLLER TO THE POLE WITH A #8-10 BONDING CABLE.
517. MARKING/WARNING TAPE SHALL BE BURIED OVER CONDUIT. THE TAPE SHALL BE 4 INCH POLYETHYLENE, RED IN COLOR WITH BLACK LETTERING.
518. WHEN EXISTING LOOP WIRE AND VEHICLE LOOP DETECTORS ARE TO BE RETAINED AND REUSED, OR RELOCATED IN A NEW CONTROLLER CABINET, THE CONTRACTOR SHALL ASCERTAIN THE MANUFACTURER AND MODEL NUMBER OF EACH EXISTING DETECTOR AMPLIFIER AND PROVIDE A NEW WIRING HARNESS COMPLETELY WIRED IN THE CONTROLLER CABINET FOR EACH EXISTING DETECTOR AMPLIFIER.
519. WHEN SYSTEM TUNINGS ARE NOT INCLUDED IN THE PLANS FOR TIME BASE OR CLOSED LOOP SYSTEMS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HIRE A LICENSED PROFESSIONAL ENGINEER TO CALCULATE SYSTEM TUNINGS. THE COST OF CALCULATING SYSTEM TUNINGS SHALL BE A SUBSIDIARY OBLIGATION OF 730C.
520. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HIRE A LICENSED PROFESSIONAL ENGINEER TO INPUT THE TUNINGS AND FINE TUNE THE TUNINGS. THE COST OF INPUTTING AND FINE TUNING TUNINGS SHALL BE A SUBSIDIARY OBLIGATION OF 730C.
521. THE J AREA TRAFFIC ENGINEER / CITY TRAFFIC ENGINEER / COUNTY TRAFFIC ENGINEER SHALL BE RESPONSIBLE FOR INPUTTING AND FINE TUNING THE TUNINGS.
522. WHEN EXISTING SPAN WIRE THAT IS TO BE RETAINED HAS SAGGED, THE CONTRACTOR SHALL ADJUST THE SPAN WIRE SO THAT SIGNAL HEADS COMPLY WITH THE CLEARANCE SHOWN ON THE STANDARD DETAIL DRAWING.
523. A NOTICE OF INTENT FOR NPDES PERMIT COVERAGE HAS BEEN FILED WITH ADEM FOR THIS PROJECT. A COPY OF THE CONSTRUCTION BEST MANAGEMENT PRACTICES PLAN (CBMP) IS AVAILABLE THROUGH OFFICE ENGINEER PRIOR TO BIDDING.
524. THE CONTRACTOR SHALL PROVIDE A SET OF AS-BUILT PLANS TO THE AREA TRAFFIC ENGINEER AND THE CITY OF HUNTSVILLE.



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RESPONSIBLE PE: RICHARD L. CAUDLE, P.E.	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION	REVISION	02/15/2022	SHEET TITLE	ROUTE
DATE: APRIL 27, 2023	DATE:	DATE:	OE				TRAFFIC SIGNAL PLAN NOTES	HUNTSVILLE NORTHERN BYPASS





# TRAFFIC SIGNAL AND ITS LEGEND

REFERENCE PROJECT NO.		FISCAL YEAR	SHEET NO.
STPHV-LR14		2023	81
ELECTRICAL BOXES		MISCELLANEOUS EQUIPMENT	
<div>EXISTING</div> <div>REQUIRED</div> <div>METALLIC PULL BOX</div> <div>FIBER OPTIC COMBOBOX TYPE F1</div> <div>FIBER OPTIC COMBOBOX TYPE F2</div> <div>TRAFFIC SIGNAL JUNCTION BOX TYPE S1</div> <div>TRAFFIC SIGNAL JUNCTION BOX TYPE S2</div> <div>TRAFFIC SIGNAL JUNCTION BOX TYPE S3</div> <div>CABLE IN CONDUIT</div> <div>FIBER OPTIC CABLE (IN CONDUIT UNDERGROUND)</div> <div>FIBER OPTIC CABLE (IN CONDUIT UNDERGROUND WITH CONCRETE)</div> <div>FIBER OPTIC CABLE (IN CONDUIT (BRIDGE ATTACHED))</div> <div>FIBER OPTIC CABLE (AERIAL INSTALLATION)</div> <div>INTERCONNECT CABLE IN CONDUIT</div> <div>INTERCONNECT CABLE (AERIAL INSTALLATION)</div> <div>CONDUIT</div> <div>ENCASEMENT</div> <div>OVERHEAD ELECTRIC</div> <div>BURIED ELECTRIC</div> <div>VEHICULAR DETECTORS</div> <div>EXISTING</div> <div>REQUIRED</div> <div>PRESENCE LOOP DETECTOR</div> <div>QUADRUPOLE LOOP DETECTOR</div> <div>6' x 6' LOOP DETECTOR</div> <div>VEHICLE DETECTION CAMERA</div> <div>DETECTION ZONE</div> <div>RADAR DETECTION UNIT</div> <div>RADAR DETECTION UNIT (ADVANCE)</div> <div>RADAR DETECTION UNIT (PRESENSE)</div> <div>MAGNETOMETER (SENSOR)</div> <div>MAGNETOMETER (REPEATER POLE)</div> <div>CABINETS</div> <div>EXISTING</div> <div>REQUIRED</div> <div>CABINET</div> <div>CCTV CAMERA, FIXED</div> <div>CCTV CAMERA, PTZ</div>		<div>EXISTING</div> <div>REQUIRED</div> <div>TRAFFIC SIGNAL HEAD</div> <div>TRAFFIC SIGNAL HEAD WITH BACKPLATE</div> <div>PEDESTRIAN SIGNAL HEAD</div> <div>8 FOOT PEDESTAL POLE AND PEDESTRIAN SIGNAL HEAD</div> <div>PEDESTAL MOUNTED FLASHING WARNING SIGNAL WITH SIGN</div> <div>PEDESTAL MOUNTED ILLUMINATED SCHOOL ZONE SIGN</div> <div>PUSH BUTTON ASSEMBLY</div> <div>SPAN/MASTARM MOUNTED SIGN</div> <div>OMNI DIRECTIONAL ANTENNA</div> <div>DIRECTIONAL ANTENNA</div> <div>EMERGENCY VEHICLE PREEMPTION SENSOR</div> <div>BLANKOUT MESSAGE SIGN</div> <div>TRAFFIC CONTROL CENTER</div> <div>HIGHWAY ADVISORY RADIO</div> <div>HUB BUILDING</div> <div>DYNAMIC MESSAGE SIGN (OVERHEAD)</div> <div>DYNAMIC MESSAGE SIGN (ROADSIDE)</div> <div>DYNAMIC MESSAGE SIGN (CANTILEVER)</div> <div>DIGITAL RADIO</div> <div>REPEATER</div> <div>(NOTE: @ INDICATES SIGNAL HEAD NUMBER)</div> <div>POLES</div> <div>EXISTING</div> <div>REQUIRED</div> <div>METAL POLE OR AS SPECIFIED ON PLANS</div> <div>CONCRETE POLE</div> <div>METAL MASTARM POLE</div> <div>CLASS 3 WOOD SERVICE POLE WITH DISCONNECT</div> <div>WOOD POLE</div> <div>DOWN GUY</div> <div>LUMINAIRE</div>	
ABBREVIATIONS		NOT TO SCALE	
AMERICAN WIRE GAUGE		TRAFFIC SIGNAL AND ITS LEGEND	
CLOSED CIRCUIT TELEVISION		ROUTE	
CONDUIT		HUNTSVILLE	
CURB AND GUTTER		NORTHERN	
DYNAMIC MESSAGE SIGN		BYPASS	
EASTBOUND ROADWAY		TRAFFIC SIGNAL AND ITS LEGEND	
EMERGENCY VEHICLE PREEMPTION		NOT TO SCALE	
END ANCHOR		SHEET TITLE	
FLASHING BEACON		TRAFFIC SIGNAL AND ITS LEGEND	
GALVANIZED RIGID CONDUIT		NOT TO SCALE	
GUARDRAIL		SHEET NO.	
HIGH DENSITY POLYETHYLENE		81	
HIGHWAY ADVISORY RADIO		R20220708	
INDIVIDUAL LOWERING DEVICE		R20220708	
INTELLIGENT TRANSPORTATION SYSTEM(S)		R20220708	
JUNCTION BOX		R20220708	
LEFT		R20220708	
LIGHT EMITTING DIODE		R20220708	
LIGHT POLE		R20220708	
LUMINAIRE		R20220708	
MILEPOST		R20220708	
NORTHBOUND ROADWAY		R20220708	
NON-METALLIC CONDUIT		R20220708	
PAN TILT ZOOM		R20220708	
PRIMARY FIBER DISTRIBUTION UNIT		R20220708	
PROPERTY LINE		R20220708	
PUBLIC ACCESS CAMERA		R20220708	
PULL BOX		R20220708	
RADIUS		R20220708	
RAILROAD		R20220708	
RIGHT		R20220708	
RIGHT OF WAY		R20220708	
ROADWAY		R20220708	
SECONDARY FIBER DISTRIBUTION UNIT		R20220708	
SCHOOL		R20220708	
SOUTHBOUND ROADWAY		R20220708	
STANDARD DRAWING		R20220708	
STATION		R20220708	
TRAFFIC CONTROL CENTER		R20220708	
TRAFFIC SIGNAL OPERATING PLAN		R20220708	
TRANSPORTATION MANAGEMENT CENTER		R20220708	
TURNOUT		R20220708	
VEHICLE DETECTION CAMERA		R20220708	
WESTBOUND ROADWAY		R20220708	

[illegible]

REFLECTOR	REFLECTOR NO.	STYFH-WR14	2023	82
154	154	154	154	154

REQUIRED SIGNAL HEADS

REQUIRED SIGNALS

R10-25

LEFT NO  
GREEN  
ARROW  
ONLY

30" x 35"

SIGNAL PHASING DIAGRAM






1 2 3 4 5 6 7 8

OMIT

OMIT

OMIT

OMIT

SIGNAL PHASING DIAGRAM			
1		2	
4		3	OMIT
5	OMIT	6	
8	OMIT	7	

PHASE	MOVEMENT	MIN GRN	PASSAGE	SUGGESTED LOCAL TIMINGS						RECALL	NON LOCK	DELAY
				YELLOW	ALL RED	MAX GR 1	MAX GR 2	MIN	YES			
1	EB LT	4	20	3.2	5.1	15	15			NO		3
2	WB THRU	20	21	4.7	1.1	60	60			YES		
4	SB	6	20	4.7	5.0	50	50			NO		3
6	EB THRU	20	21	4.7	1.1	60	60			YES		

[illegible]

1. GENERAL TRAFFIC SIGNAL NOTES:
2. STANDARD SIGNAL OPERATING PLAN NO. 27 SHALL BE USED.
3. PAVEMENT MARKINGS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY UNLESS OTHERWISE NOTED.
4. BASE MAP INFORMATION WAS PROVIDED BY BARCE DESIGN SOLUTIONS.
5. REQUIRED TRAFFIC SIGNAL HEADS USED AT THIS INTERSECTION SHALL HAVE BLACK HOUSINGS.
6. CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO (2) UNIFORMED POLICE OFFICERS TO DIRECT TRAFFIC AT INTERSECTION ANY TIME THE TRAFFIC SIGNAL IS NOT IN STOP-&-GO OPERATION. ACTIVITY SHALL BE AND PRIORITY OF PATIENTS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT. CONTRACTOR SHALL MAINTAIN TO BE COMPARABLE WITH THE CITY'S CENTRAL TRAFFIC MANAGEMENT SOFTWARE.
7. THE CONTRACTOR IS TO ENSURE THAT AN MSA LEVEL II TRAFFIC SIGNAL TECHNICIAN SHALL BE ON SITE DURING ALL SIGNAL CONSTRUCTION ACTIVITIES.
8. THE RADAR DETECTION SYSTEM SHALL BE WAVETRONIX.