



**CITY OF FAIRHOPE
CITY COUNCIL WORK SESSION AGENDA**

**Monday, October 14, 2024 - 4:30 PM
City Council Chamber**

Council Members

Kevin G. Boone
Jack Burrell
Jimmy Conyers
Corey Martin
Jay Robinson

1. Discussion of Alabama Department of Transportation: Agreement for the Installation and/or Operation and/or Maintenance of Traffic Control Signals and/or Roadway Lighting - Richard Johnson
2. Parking Authority Presentation
3. Impact Fee Study Presentation
4. Committee Updates
5. Department Head Updates

Next City Council Work Session, Monday, October 28, 2024, 4:30 p.m. - City Council Chambers



CITY OF FAIRHOPE
AGENDA MEMORANDUM

Item ID: 2024-707

FROM:	RICHARD JOHNSON – CITY ENGINEER
SUBJECT:	Discussion of Alabama Department of Transportation: Agreement for the Installation and/or Operation and/or Maintenance of Traffic Control Signals and/or Roadway Lighting
AGENDA DATE:	October 14, 2024

RECOMMENDED ACTION:

Discussion

BACKGROUND INFORMATION:

Traffic Signal Agreements: SR-181 at Firethorne, SR-181 at Harvest Green, and SR-181 at Rockwell.

BUDGET IMPACT/FUNDING SOURCE:

GRANT:

LEGAL IMPACT:

FOLLOW UP IMPLEMENTATION:

Region Tracking Number: _____ Project Number: _____

Region: _____ County: _____

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 _____ (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:	☐	☐	☐	☐	☐
Intersection Flashing Signal/Beacon:	☐	☐	☐	☐	☐
Roadway Lighting:	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐

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.

- 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.
- 7a. 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.

- 7b. 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" or (B) "Equipment Upgrade" 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.

TYPE OF SIGNAL		CONTROLLER	
☐ Traffic Control	☐ Pedestrian Control	Make:	Model #:
☐ Flashing	☐ Lane Control	☐ Fixed Time	☐ Two Phase
☐ School Flasher	☐ Railroad Crossing	☐ Semi Actuated	☐ Four Phase
☐ Other: _____		☐ Full Actuated	☐ Eight Phase
_____		☐ Other: _____	
_____		SYSTEM ☐ YES ☐ 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

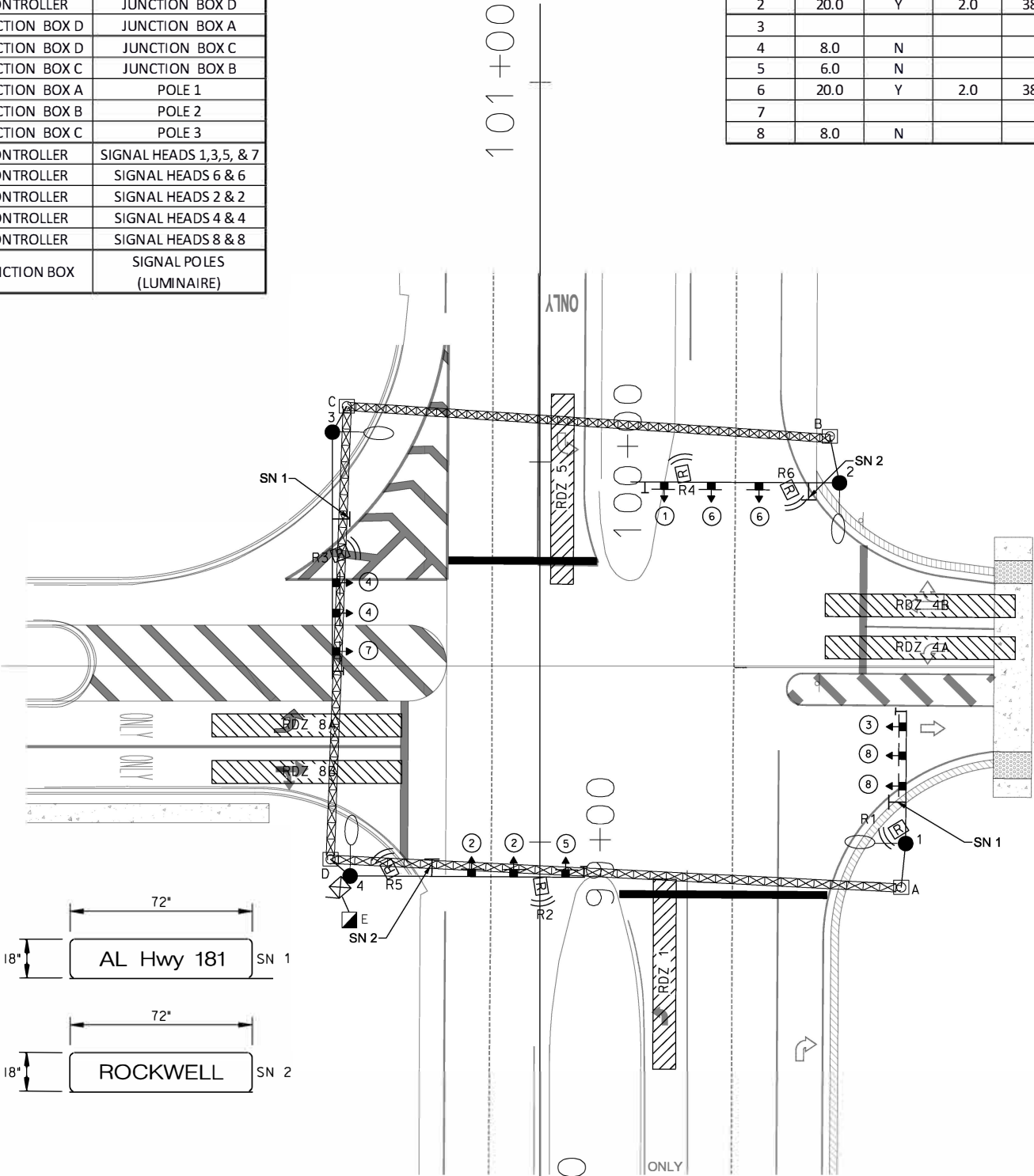
Date: _____
(Added to Archive)

TRAFFIC SIGNAL PLAN - US HWY 181 & ROCKWELL

CONDUIT AND CONDUCTOR SCHEDULE			
CONDUIT	CONDUCTOR	FROM	TO
1-2"	1-3c/No. 6 AWG	DISCONNECT	CONTROLLER
1-2"	1-3c/No. 8 AWG	DISCONNECT	JUNCTION BOX D
2-2"		CONTROLLER	JUNCTION BOX D
2-2" IN 6" ENCASEMENT		JUNCTION BOX D	JUNCTION BOX A
2-2" IN 6" ENCASEMENT		JUNCTION BOX D	JUNCTION BOX C
2-2" IN 6" ENCASEMENT		JUNCTION BOX C	JUNCTION BOX B
2-2"		JUNCTION BOX A	POLE 1
2-2"		JUNCTION BOX B	POLE 2
2-2"		JUNCTION BOX C	POLE 3
	8cNo. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 1,3,5, & 7
	4cNo. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 6 & 6
	4cNo. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 2 & 2
	4cNo. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 4 & 4
	4cNo. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 8 & 8
	1-3c/No. 8 AWG	JUNCTION BOX	SIGNAL POLES (LUMINAIRE)

RECOMMENDED TIMINGS (all timings in seconds)																
Phase	Min Initial	Density Active	Added Initial	Max Initial	TTR	TBR	Min Gap	Passage	Yellow	All Red	Max I	Max II	Walk	FDW	Recall	Non Lock
1	6.0	N						2.0	5.4	1.2	15.0					
2	20.0	Y	2.0	38.0	15.0	15.0	2.5	5.0	5.4	1.2	45.0				Min	
3																
4	8.0	N						2.0	4.0	2.5	28.0					Y
5	6.0	N						2.0	5.4	1.2	15.0					Y
6	20.0	Y	2.0	38.0	15.0	15.0	2.5	5.0	5.4	1.2	45.0				Min	
7																
8	8.0	N						2.0	4.0	2.5	28.0					Y

- NOTES:
1. TRAFFIC MARKINGS SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. LOCATION OF UTILITY POWER SOURCE TO BE DETERMINED AT TIME OF CONSTRUCTION.
 3. ALL SIGNAL HEAD PLACEMENT SHALL BE IN ACCORDANCE WITH THE MUTCD, 2009 EDITION.
 4. SIGNAL HOUSING TO BE BLACK FACE, BLACK BODY.
 5. TRAFFIC SIGNAL CONTROLLER MUST BE ECONOLITE COBALT WITH THE LATEST EOS FIRMWARE.
 6. TRAFFIC SIGNAL MONITOR MUST ETHERNET CAPABLE.
 7. TRAFFIC SIGNAL CABINET MUST BE NEMA T52 TYPE 1-POLE MOUNT.
 8. TRAFFIC SIGNAL RADAR DETECTION MUST BE WAVETRONIX AND APPROVED BY AREA TRAFFIC ENGINEER.
 9. TRAFFIC SIGNAL FOUNDATIONS SHALL FOLLOW T.S.D. 730-4. DIAMETER AND DEPTH ARE SHOWN IN SUPPORTING STRUCTURES CHART.
 10. USE OF A SINGLE RADAR UNIT FOR MULTIPLE APPROACHES MUST BE APPROVED IN ADVANCE BY THE REGION SIGNAL SYSTEMS ENGINEER.
 11. ROUTER (CISCO IRI101-K9 WITH P-LTEAP18-GL CELLULAR MODULE) TO BE SUPPLIED TO ALDOT SW REGION FOR CONFIGURATION.
 12. LOCATION OF RADAR UNITS IS APPROXIMATE. MOUNTING LOCATION TO BE DETERMINED BY MANUFACTURER.

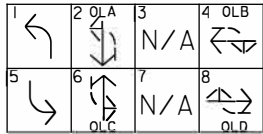


Estimated Equipment and Material Schedule	
240 Volt Power Source w/ Wood Pole	
R10-12 Sign with Hardware	
R3-7R Sign with Post & Hardware	
Backplates w/ Reflective Strip & Hardware	
Mounting Hardware For Signs	
#14AWG Signal Cable, IMSA 20-1	
Miscellaneous Hardware	

Detector Chart						
Zone	Unit	Phase	Size	Type	Delay	Setback Distance
1	R1	1	6 X 50	Presence	-	2'
2A*	R4	2	6 X 6	Pulse	-	405'
2B*	R4	2	6 X 6	Pulse	-	405'
4A	R6	4	6 X 50	Presence	5	2'
4B	R6	4	6 X 50	Presence	5	2'
5	R3	5	6 X 50	Presence	-	2'
6A*	R2	6	6 X 6	Pulse	-	405'
6B*	R2	6	6 X 6	Pulse	-	405'
8A	R5	8	6 X 50	Presence	5	2'
8B	R5	8	6 X 50	Presence	5	2'

* NOT SHOWN ON PLANS

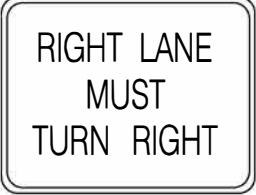
Supporting Structures							
Traffic Signal Pole							
Pole Number	Pole Length	Arm Length	Luminaire Arm	Foundation Size	Street Name Sign(s)	STATION	OFFSET
	(FT)	(FT)	(FT)				
1	37	35	12	36" X 12'	AL Hwy 181	99+00	100' RT
2	28	55	12	48" X 14'	Rockwell	99+94.5	78.9' RT
3	37	65	12	48" X 14'	AL Hwy 181	100+08.3	50.8' LT
4	28	65	12	48" X 14'	Rockwell	98+91.5	46.2' LT



REQUIRED SIGNAL HEADS		
1,5	3,7	2,4,6,8



R10-12
30" X 36"



R3-7R
36" X 36"

Region Tracking Number: _____ Project Number: _____

Region: _____ County: _____

STATE OF ALABAMA *acting by and through the*
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Roadway Lighting:	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐

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.

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- 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.

TYPE OF SIGNAL		CONTROLLER	
☐ Traffic Control	☐ Pedestrian Control	Make:	Model #:
☐ Flashing	☐ Lane Control	☐ Fixed Time	☐ Two Phase
☐ School Flasher	☐ Railroad Crossing	☐ Semi Actuated	☐ Four Phase
☐ Other: _____		☐ Full Actuated	☐ Eight Phase
_____		☐ Other: _____	
_____		SYSTEM ☐ YES ☐ 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)

TRAFFIC SIGNAL PLAN - US HWY 181 & THRESHING BLVD.

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NS-17257	2022	4

CONDUIT AND CONDUCTOR SCHEDULE			
CONDUIT	CONDUCTOR	FROM	TO
1-2"	1-3c/No. 6 AWG	DISCONNECT	CONTROLLER
2-2"		CONTROLLER	JUNCTION BOX C
2-2" IN 6" ENCASEMENT		JUNCTION BOX A	JUNCTION BOX B
2-2" IN 6" ENCASEMENT		JUNCTION BOX A	JUNCTION BOX D
2-2" IN 6" ENCASEMENT		JUNCTION BOX C	JUNCTION BOX D
2-2"		JUNCTION BOX B	POLE 2
2-2"		JUNCTION BOX C	POLE 3
2-2"		JUNCTION BOX D	POLE 4
	8cNo. 14 AWG IM SA 20-1	CONTROLLER	SIGNAL HEADS 1 & 5
	4cNo. 14 AWG IM SA 20-1	CONTROLLER	SIGNAL HEADS 6 & 6
	4cNo. 14 AWG IM SA 20-1	CONTROLLER	SIGNAL HEADS 2 & 2
	4cNo. 14 AWG IM SA 20-1	CONTROLLER	SIGNAL HEADS 4 & 4
	4cNo. 14 AWG IM SA 20-1	CONTROLLER	SIGNAL HEADS 3 & 3

RECOMMENDED TIMINGS (all timings in seconds)																
Phase	Min Initial	Density Active	Added Initial	Max Initial	TTR	TBR	Min Gap	Passage	Yellow	All Red	Max I	Max II	Leading Flash	Walk	FDW	Recall
1	6.0	N						2	5.4	1.2	15.0					
2	20.0	Y	2.0	38.0	15.0	15.0	2.5	5.0	5.4	1.2	45.0		7			Min
3	8.0	N						2.0	4.0	2.5	28.0					Y
4	8.0	N						2.0	4.0	2.5	28.0					Y
5	6.0	N						2.0	5.4	1.2	15.0					Y
6	20.0	Y	2.0	38.0	15.0	15.0	2.5	5.0	5.4	1.2	45.0		7			Min
7																
8																

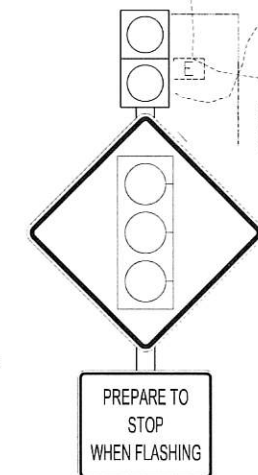
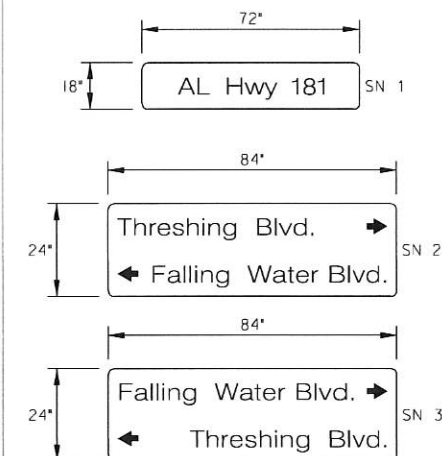
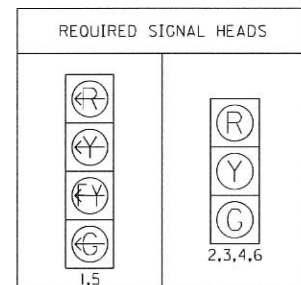
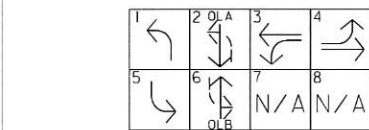
NOTES:
1. TRAFFIC MARKINGS SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. LOCATION OF UTILITY POWER SOURCE TO BE DETERMINED AT TIME OF CONSTRUCTION.
3. ALL SIGNAL HEAD PLACEMENT SHALL BE IN ACCORDANCE WITH THE MUTCD, 2009 EDITION.
4. SIGNAL HOUSING TO BE BLACK FACE, YELLOW BODY.
5. TRAFFIC SIGNAL CONTROLLER MUST BE ECONOLITE COBALT WITH THE LATEST EOS FIRMWARE.
6. TRAFFIC SIGNAL MONITOR MUST BE ETHERNET CAPABLE.
7. TRAFFIC SIGNAL CABINET MUST BE NEMA TS2 TYPE 1-POLE MOUNT.
8. TRAFFIC SIGNAL RADAR DETECTION MUST BE WAVETRONIX AND APPROVED BY AREA TRAFFIC ENGINEER.
9. TRAFFIC SIGNAL FOUNDATIONS SHALL FOLLOW T.S.D. 730-4. DIAMETER AND DEPTH ARE SHOWN IN SUPPORTING STRUCTURES CHART.
10. IN LIEU OF A HARDWIRE CONNECTION BETWEEN CONTROLLER CABINET AND ADVANCED WARNING SIGNS, A WIRELESS CONNECTION SHALL BE MADE WITH A SIMREX CORPORATION DATAOVER SS I/O CONTROL PLATFORM.

Detector Chart						
Zone	Unit	Phase	Size	Type	Delay	Setback Distance
1	R4	1	6 X 50	Presence	-	5'
2A*	R2	2	6 X 6	Pulse	-	405'
2B*	R2	2	6 X 6	Pulse	-	405'
3A	R3	3	6 X 50	Presence	5	5'
3B	R3	3	6 X 6	Presence	5	5'
4A	R1	4	6 X 50	Presence	5	5'
4B	R1	4	6 X 6	Presence	5	5'
5	R5	5	6 X 50	Presence	-	5'
6A*	R6	6	6 X 6	Pulse	-	405'
6B*	R6	6	6 X 6	Pulse	-	405'

* NOT SHOWN ON PLANS

Estimated Equipment and Material Schedule	
240 Volt Power Source w/ Wood Pole	
R10-12 Sign with Hardware	
W3-3 Sign with Post & Hardware	
Backplates w/ Reflective Strip & Hardware	
Mounting Hardware For Signs	
#14AWG Signal Cable, IMSA 20-1	
Miscellaneous Hardware	

Supporting Structures							
Traffic Signal Pole							
Pole Number	Pole Length (FT)	Arm Length (FT)	Foundation	Luminaire Arm (FT)	Street Name Sign(s)	STATION	OFFSET
1	37	30	36" x 12'	12	AL Hwy 181	98+91.68	66.5' RT
2	37	55	48" x 14'	12	Falling Water Blvd./ Threshing Blvd.	99+95.84	58.8' RT
3	28	60	48" x 14'	N/A	AL Hwy 181	100+01.09	74.3' LT
4	28	60	48" x 14'	N/A	Falling Water Blvd./ Threshing Blvd.	98+83.12	70.9' LT



W3-3
30" X 30"
SPECIAL
30" X 24"
INSTALL 700' FROM STOP
BAR ON NB & SB APPROACHES
SEE T.S.D.-730-7

R10-12
30" X 36"

PLAN SUBMITTAL

TERRACORE DEVELOPMENT SERVICES

US HWY 181 & HARVEST GREEN SIGNAL DESIGN

HORIZ



SCALE
(FEET)

SHEET TITLE

TRAFFIC SIGNAL PLAN
US HWY 181 & THRESHING BLVD.

ROUTE

Region Tracking Number: _____ Project Number: _____

Region: _____ County: _____

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 _____ (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:	☐	☐	☐	☐	☐
Intersection Flashing Signal/Beacon:	☐	☐	☐	☐	☐
Roadway Lighting:	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐

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.

- 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.
- 7a. 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.

- 7b. 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" or (B) "Equipment Upgrade" 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.

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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.

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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.
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☐ School Flasher	☐ Railroad Crossing	☐ Semi Actuated	☐ Four Phase
☐ Other: _____		☐ Full Actuated	☐ Eight Phase
_____		☐ Other: _____	
_____		SYSTEM ☐ YES ☐ NO	

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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)

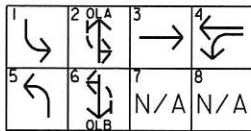
TRAFFIC SIGNAL PLAN - AL HWY 181 & NARROWLEAF BLVD

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NS-16434	2021	4

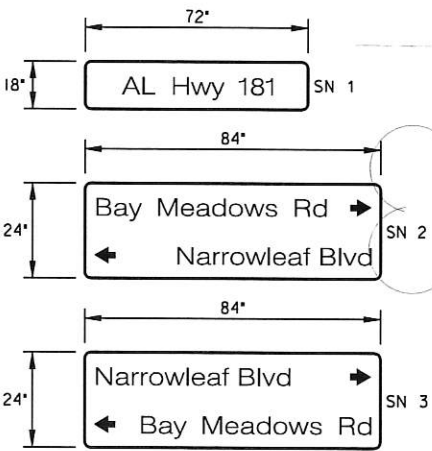
RECOMMENDED TIMINGS (all timings in seconds)																
Phase	Min Initial	Density Active	Added Initial	Max Initial	TTR	TB R	Min Gap	Passage	Yellow	All Red	Max I	Max II	Walk	FDW	Recall	Non Lock
1	6.0	N						2.0	4.7	1.5	15.0					Y
2	15.0	Y	2.0	28.0	15.0	15.0	2.5	4.3	4.7	1.5	45.0				Min	
3	8.0	N						2.0	4.0	1.6	28.0					Y
4	8.0	N						2.0	4.0	1.6	28.0					Y
5	6.0	N						2.0	4.7	1.5	15.0					Y
6	15.0	Y	2.0	28.0	15.0	15.0	2.5	4.3	4.7	1.5	45.0				Min	
7																
8																

CONDUIT AND CONDUCTOR SCHEDULE			
CONDUIT	CONDUCTOR	FROM	TO
1-2"	1-3c/No. 6 AWG	DISCONNECT	CONTROLLER
2-2"		CONTROLLER	JUNCTION BOX A
2-2" IN 6" ENCASEMENT		JUNCTION BOX A	JUNCTION BOX B
2-2" IN 6" ENCASEMENT		JUNCTION BOX A	JUNCTION BOX D
2-2" IN 6" ENCASEMENT		JUNCTION BOX C	JUNCTION BOX D
2-2"		JUNCTION BOX B	POLE 2
2-2"		JUNCTION BOX C	POLE 3
2-2"		JUNCTION BOX D	POLE 4
	7c/No. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 1 & 5
	4c/No. 14 AWG IMSA 20-1	SIGNAL HEAD 5	SIGNAL HEADS 6 & 6
	4c/No. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 2 & 2
	4c/No. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 4 & 4
	4c/No. 14 AWG IMSA 20-1	CONTROLLER	SIGNAL HEADS 3A, 3, & 3

- NOTES:
1. TRAFFIC MARKINGS SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. LOCATION OF UTILITY POWER SOURCE TO BE DETERMINED AT TIME OF CONSTRUCTION.
 3. ALL SIGNAL HEAD PLACEMENT SHALL BE IN ACCORDANCE WITH THE MUTCD, 2009 EDITION.
 4. USE TRAFFIC SIGNAL OPERATING PLAN NO. FYA.
 5. SIGNAL HOUSING TO BE BLACK FACE, YELLOW BODY.
 6. TRAFFIC SIGNAL CONTROLLER MUST BE ECONOLITE COBALT WITH THE LATEST EOS FIRMWARE.
 7. TRAFFIC SIGNAL MONITOR MUST BE ETHERNET CAPABLE.
 8. TRAFFIC SIGNAL CABINET MUST BE NEMA 152 TYPE 1-POLE MOUNT.
 9. TRAFFIC SIGNAL RADAR DETECTION MUST BE WAVETRONIX AND APPROVED BY AREA TRAFFIC ENGINEER.
 10. TRAFFIC SIGNAL FOUNDATIONS SHALL FOLLOW T.S.D. 730-4 48" DIAMETER AND 10' DEPTH.



REQUIRED SIGNAL HEADS		
1,5	2,3,4,6	3A



R10-12
30" X 36"

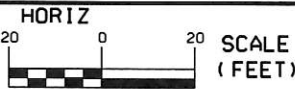
Detector Chart						
Zone	Unit	Phase	Size	Type	Delay	Setback Distance
1 *	R5	1	6X50	Presence	-	5'
2	R4	2	6X6	Pulse	-	285'
3a	R3	3	6X50	Presence	-	5'
3b	R3	3	6X50	Presence	5	5'
4	R1	4	6X50	Presence	5	5'
5	R6	5	6X50	Presence	-	5'
6 *	R2	6	6X6	Pulse	-	285'

* NOT SHOWN ON PLANS

Estimated Equipment and Material Schedule	
240 Volt Power Source w/ Wood Pole	
R10-12 Sign with Hardware	
Backplates w/ Reflective Strip & Hardware	
Mounting Hardware For Signs	
#14AWG Signal Cable, IMSA 20-1	
Miscellaneous Hardware	
Street Name Signs	

Supporting Structures						
Traffic Signal Pole						
Pole Number	Pole Length (FT)	Arm Length (FT)	Luminaire Arm (FT)	Street Name Sign(s)	STATION	OFFSET
1	37	35	12	AL Hwy 181	99+60	55' RT
2	37	35	12	Narrowleaf Blvd --> <-- Bay Meadows Rd	100+60	40' RT
3	28	30	N/A	Bay Meadows Rd --> <-- Narrowleaf Blvd	100+40	40' LT
4	28	35	N/A	AL Hwy 181	99+66	30' LT

PLAN SUBMITTAL
TERRACORE DEVELOPMENT SERVICES
HWY 181 & NARROWLEAF BLVD INTERSECTION SIGNAL DESIGN



SHEET TITLE
TRAFFIC SIGNAL PLAN
US HWY 181 & NARROWLEAF BLVD
ROUTE



CITY OF FAIRHOPE
AGENDA MEMORANDUM

Item ID: 2024-708

FROM:	Jenny Opal Wilson, Assistant City Clerk
SUBJECT:	Parking Authority City Council Presentation
AGENDA DATE:	October 14, 2024

RECOMMENDED ACTION:

Present Presentation

BACKGROUND INFORMATION:

BUDGET IMPACT/FUNDING SOURCE:

GRANT:

LEGAL IMPACT:

FOLLOW UP IMPLEMENTATION:

Parking Authority City Council Presentation





Fairhope Parking Authority Key Initiatives

Create and Promote the “Arts Alley Parking” Brand

- Safe, clean, and accessible
- Use “Arts Alley Parking” instead of “parking garage”

Strengthen Relationships with Downtown Merchants

- Parking Authority members will visit downtown merchants individually to keep them updated on our initiatives including the City Shuttle, the parking study, loading zones, and encouraging parking in the Arts Alley Parking for employees and customers
- Merchants will give Arts Alley Parking postcards to customers
- Postcards will also be available in the Welcome Center

Public Relations Efforts

- Work closely with the City of Fairhope to develop & implement public relations strategies
- Social media plan to promote Arts Alley Parking and all parking lots
- Article in *City Sketches* newsletter featuring results of our parking study; upcoming plans to improve Arts Alley Parking with quarterly cleanings and staining; explanation about Arts Alley Parking alleviating traffic by those who continuously circle; nice pictures of Arts Alley Parking
- Expanding city holiday events to include Arts Alley Parking such as Christmas, Easter (egg hunt), Halloween (trick or treating), and Mardi Gras
- Using temporary digital signage on Fairhope Avenue and Section Street to promote Arts Alley Parking

Enhancing the City Shuttle Service

- Prescribed stops between the Police Station and Civic Center crosswalks, Library, K1 area, and the Arts Alley Parking
- Signage at each stop that highlights the “Arts Alley Parking” brand
- Revitalizing golf cart shuttles with custom wrap from the Arts Alley Parking artwork

Future, Long-Term Initiatives

- One-way streets
- Delivery Unloading Zones
 - Push for optimal times
 - Enforcement

Appendix

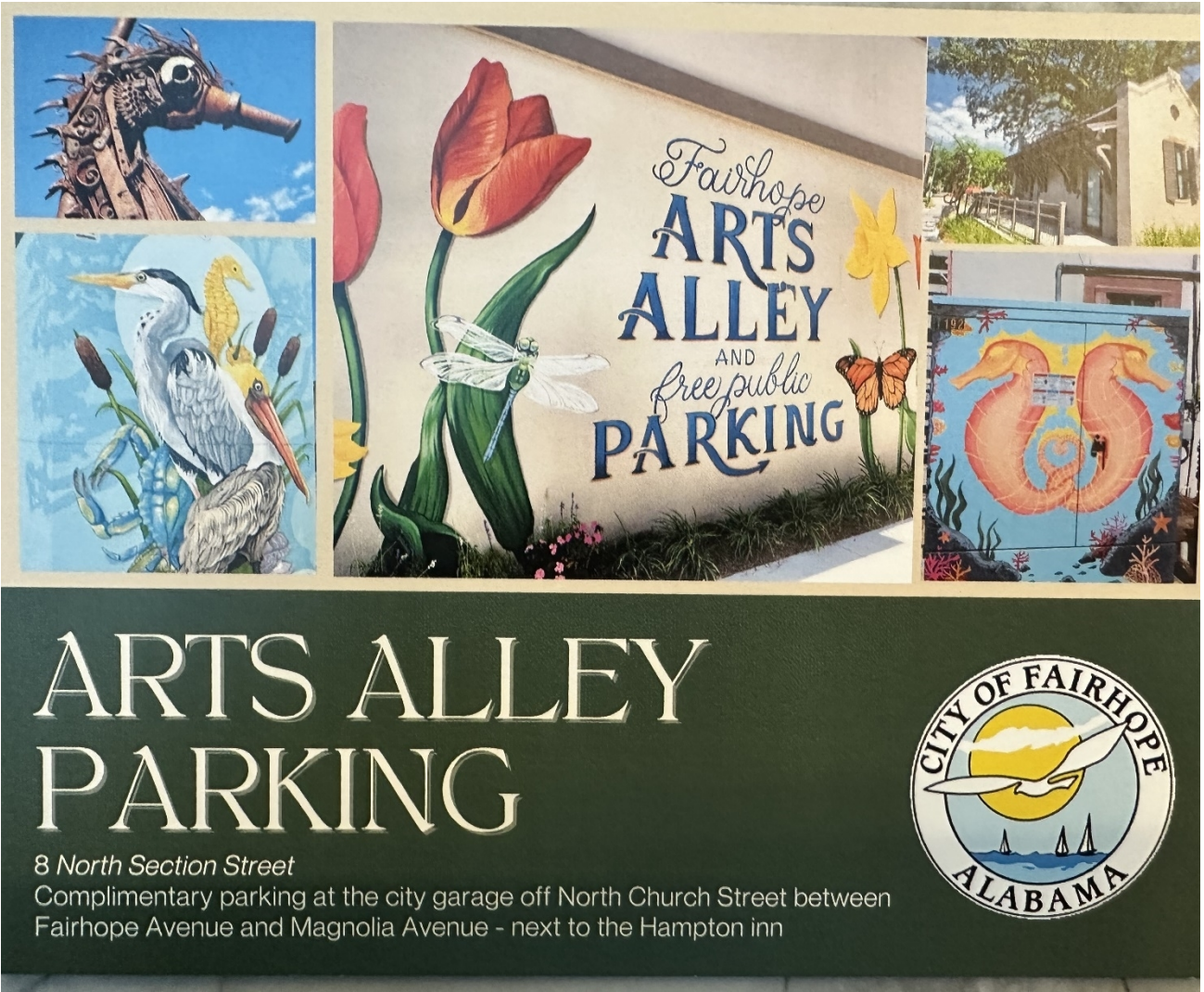




Arts Alley Parking Analysis Summary

- The objective of the study is to determine how often the parking garage is utilized. The committee wanted to determine the number of open parking spaces that are open for people to park in.
- The survey was conducted from May 9-June 1 and June 17-July 31, 2024. A total of 108 surveys were completed.
- There are 90 hotel designated parking spaces and 150 for the general public (we did not include handicap and electric vehicle charging station parking spots).
- The committee counted all open spots during the survey. The hotel open parking spots were separated from general parking open spots.
- The surveys were conducted Monday through Saturday (we excluded Sundays because the downtown area is not that busy as many businesses are closed).
- Survey times were 11:00 am, 2:00 pm, 4:00 pm and 7pm
- Survey Summary Findings:
 - In May, 74% of the **hotel** parking spots were open for parking, equating to **66** spaces available to park in
 - In June and July, 70% of the **hotel** parking spots were open for parking, equating to **63** spaces available to park in
 - In May, 43% of the **general** parking spots were open for parking, equating to **65** spaces available to park
 - In June and July, 41% of the **general** parking spots were open for parking, equating to **62** spaces available to park in
- Survey finding by day of week:
 - For the **hotel**, there were an average of 67 spots open on Monday, 62 on Tuesday, Wednesday and Friday, 65 on Thursday and 64 on Saturday
 - For the **general** public parking spots, there were 75 spots open on Monday, 66 on Tuesday, 57 on Wednesday, 60 on Thursday, 54 on Friday and 63 on Saturday
- In conclusion, our committee believes the parking garage has plenty of parking spots available for the general public to park in. At any given time there are approximately **65** general open parking spaces. The hotel also has about **65** open parking spaces.

Public Parking Post Card Overview Front/Back



**The City of Fairhope provides
FREE public parking spots in the
new Arts Alley:**

- Centrally located
- Covered parking
- Public restrooms

**FREE SHUTTLE SERVICE
251-850-6348**

10 a.m. to 4 p.m. Monday to Saturday

To utilize the shuttle service, meet the shuttle at the restroom facility/transit hub and simply dial 251-850-6348 for a ride. The driver will transport you to your downtown destination.

The shuttle service caters to the Central Business District.

A map of downtown Fairhope, Alabama, showing the location of Arts Alley. The map highlights the area between North Church Street and North Section Street, and between Fairhope Avenue and Magnolia Avenue. Key landmarks like the Hampton Inn, Fairhope Museum, and Fairhope Public Library are marked.A photograph of a white shuttle vehicle with a canopy, parked in a lot. The vehicle has a sign on the side that reads "Fairhope Shuttle Service".



CITY OF FAIRHOPE
AGENDA MEMORANDUM

Item ID: 2024-708

FROM:	Erik Cortinas, Building Official
SUBJECT:	Impact Fee Study Update
AGENDA DATE:	October 14, 2024

RECOMMENDED ACTION:

Present Presentation

BACKGROUND INFORMATION:

BUDGET IMPACT/FUNDING SOURCE:

GRANT:

LEGAL IMPACT:

FOLLOW UP IMPLEMENTATION:

Impact Fee Study Update

Fairhope, Alabama
October 14, 2024

Bethesda, MD | 301.320.6900

TischlerBise.com

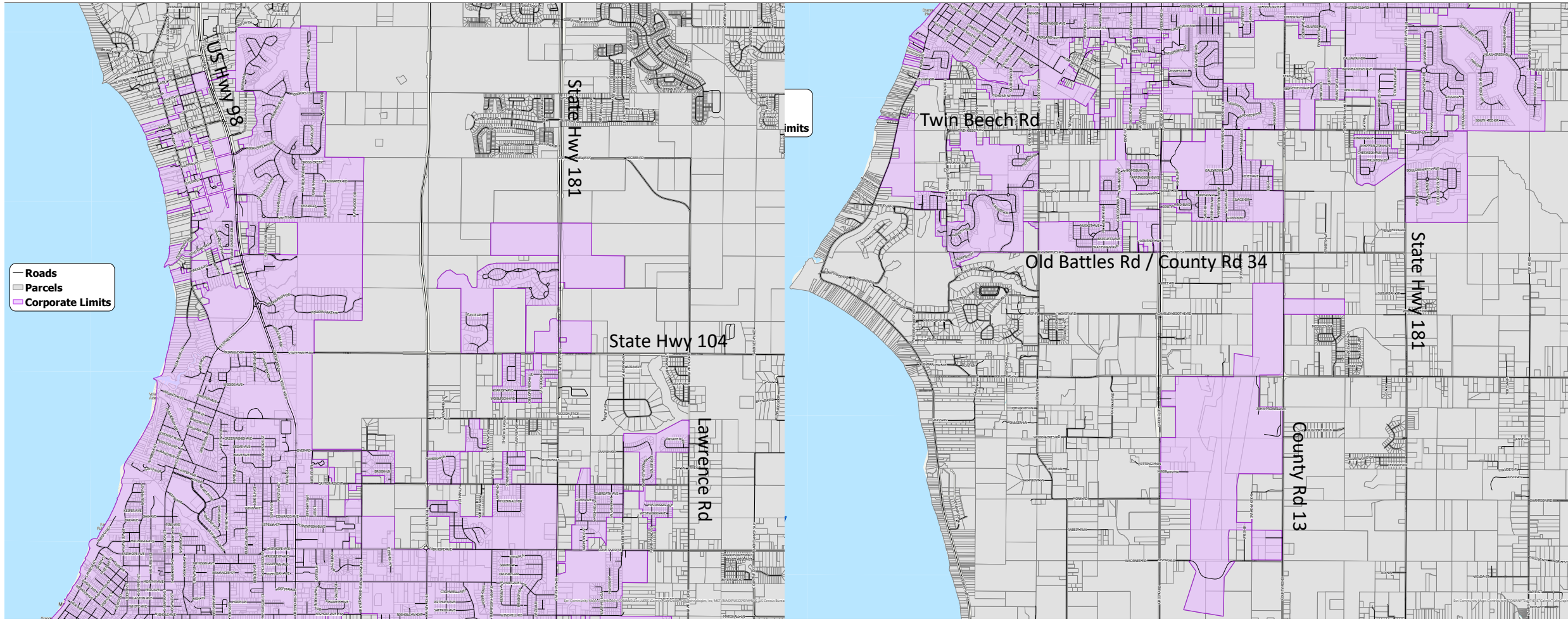
- **Impact Fee Basics**
- **Land Use Assumptions**
- **Impact Fee Components**
 - Fire
 - Parks and Recreation
 - Police
 - Transportation
- **Fee Summary**

- One-time payment for growth-related infrastructure, usually collected when building permits are issued
- Can't be used for operations, maintenance, or replacement
- Level of service (LOS) may not exceed what is provided to existing development
- Three requirements
 - **Need**
 - Growth
 - Infrastructure (system improvements, not project-level improvements)
 - **Benefit**
 - Short range expenditures
 - Geographic service areas and/or benefit districts
 - **Proportionate** to demand

- **Cost Recovery Approach (Past)**
 - Future development is “buying in” to the cost the community has already incurred to provide growth-related capacity
 - Common in communities approaching buildout
- **Incremental Expansion Approach (Present)**
 - Formula-based approach based on existing levels of service
 - Fee based on current cost to replicate existing levels of service (i.e., replacement cost)
- **Plan-Based Approach (Future)**
 - Usually reflects an adopted CIP or master plan
 - Growth-related costs are more refined

- **Site specific**
 - Developer constructs a capital facility included in fee calculations
- **Debt service**
 - Avoid double payment due to existing or future bonds
- **Dedicated revenues**
 - Property tax, local option sales tax, gas tax, etc.

Fairhope will collect impact fees within the city limits.



The analysis uses American Community Survey (ACS) data to convert population projections to housing units.

Housing Type	Persons	Households	Persons per Household	Housing Units	Persons per Housing Unit	Housing Mix	Vacancy Rate
Single-Family Units ¹	20,178	7,189	2.81	7,875	2.56	85.1%	8.70%
Multi-Family Units ²	1,470	830	1.77	1,379	1.07	14.9%	39.80%
Total	21,648	8,019	2.70	9,254	2.34	100.0%	13.30%

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

1. Includes detached and attached (i.e. townhouses)

2. Includes dwellings in structures with two or more units, mobile homes, and boats, RVs, vans etc.

Nonresidential Employment Density Factors

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The analysis converts projected employment to nonresidential floor area using factors published by the Institute of Transportation Engineers (ITE).

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit ¹	Wkdy Trip Ends Per Employee ¹	Emp Per Dmd Unit	Square Feet Per Emp
110	Light Industrial	1,000 Sq Ft	4.87	3.10	1.57	637
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
254	Assisted Living	bed	2.60	4.24	0.61	na
320	Motel	room	3.35	25.17	0.13	na
520	Elementary School	student	2.27	22.50	0.10	na
530	High School	student	4.11	8.86	0.46	na
540	Community College	student	1.15	14.61	0.08	na
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
620	Nursing Home	bed	3.06	3.31	0.92	na
710	General Office (average size)	1,000 Sq Ft	10.84	3.33	3.26	307
715	Single Tenant Office	1,000 Sq Ft	13.07	3.85	3.39	295
730	Government Office	1,000 Sq Ft	22.59	7.45	3.03	330
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	Shopping Center (average size)	1,000 Sq Ft	37.01	17.42	2.12	471

1. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Development Projections

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Residential projections based on recent population growth.

Nonresidential projections based on existing ratio of jobs to population.

Fairhope, Alabama	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10-Year Increase
	Base Year	1	2	3	4	5	6	7	8	9	10	
Population												
Resident	23,998	24,505	25,012	25,519	26,026	26,533	27,040	27,547	28,054	28,561	29,068	5,070
Lodging	993	1,008	1,023	1,038	1,053	1,068	1,083	1,098	1,113	1,128	1,143	150
Peak Population	24,991	25,513	26,035	26,557	27,079	27,601	28,123	28,645	29,167	29,689	30,211	5,220
Housing Units												
Single Family	9,231	9,415	9,600	9,784	9,969	10,154	10,338	10,523	10,707	10,892	11,077	1,846
Multi-Family	1,617	1,649	1,681	1,713	1,746	1,778	1,810	1,842	1,874	1,906	1,939	322
Total	10,847	11,064	11,281	11,498	11,715	11,931	12,148	12,365	12,582	12,798	13,015	2,168
Lodging Rooms	662	672	682	692	702	712	722	732	742	752	762	100
Employment												
Industrial	823	840	858	875	893	910	927	945	962	979	997	174
Commercial/Retail	2,171	2,217	2,263	2,309	2,354	2,400	2,446	2,492	2,538	2,584	2,630	459
Office/Institutional	5,987	6,113	6,240	6,366	6,493	6,619	6,746	6,872	6,999	7,125	7,252	1,265
Total	8,981	9,171	9,360	9,550	9,740	9,930	10,119	10,309	10,499	10,689	10,878	1,897
Nonres. Floor Area (x1,000)												
Industrial	524	535	546	557	569	580	591	602	613	624	635	111
Commercial/Retail	1,023	1,044	1,066	1,087	1,109	1,131	1,152	1,174	1,195	1,217	1,239	216
Office/Institutional	1,838	1,877	1,916	1,955	1,993	2,032	2,071	2,110	2,149	2,187	2,226	388
Total	3,385	3,456	3,528	3,599	3,671	3,742	3,814	3,885	3,957	4,028	4,100	715



- **Service Area: Citywide**
- **Fee Components**
 - Facilities: Incremental
 - Apparatus: Incremental
- **10-Year Demand**
 - Facilities: 3,417 square feet, \$1.7 million
 - Apparatus: 2.4 units, \$800k

Proposed Fire Fees

DRAFT

Comparison of 2018 to 2024

Fee Component	Cost per Person	Cost per Trip
Fire Facilities	\$235.64	\$102.53
Fire Apparatus	\$109.81	\$47.78
Impact Fee Report	\$4.16	\$2.42
Total	\$349.61	\$152.73

Residential Fees per Unit				
Development Type	Persons per Housing Unit ¹	Proposed Fees	Current Fees	Increase / (Decrease)
Single Family	2.56	\$895	\$879	\$16
Multi-Family	1.07	\$374	\$600	(\$226)

Nonresidential Fees per 1,000 Square Feet				
Development Type	Vehicle Trips per 1,000 Sq Ft ¹	Proposed Fees	Current Fees	Increase / (Decrease)
Industrial	2.44	\$373	\$292	\$81
Commercial/Retail	12.21	\$1,865	\$1,467	\$398
Office/Institutional	5.42	\$828	\$574	\$254
Lodging (per room)	1.68	\$257	\$197	\$60

1. See Land Use Assumptions

Component	Unit	2018	2024	% Change
Level of Service / Unit Cost				
Facilities	square foot	22,901	22,901	0%
Facilities	square foot	\$325	\$500	54%
Apparatus	unit	23	16	-30%
Apparatus	unit	\$207,370	\$333,494	61%
Proportionate Share				
Residential		70%	64%	-9%
Nonresidential		30%	36%	22%
Cost per Demand Unit				
Residential	person	\$378.51	\$349.61	-8%
Nonresidential	trip	\$117.79	\$152.73	30%
Demand Factor				
Single Family	PPHU	2.32	2.56	10%
Multi-Family	PPHU	1.58	1.07	-32%
Industrial	Trips / KSF	2.48	2.44	-2%
Commercial/Retail	Trips / KSF	12.46	12.21	-2%
Office/Institutional	Trips / KSF	4.87	5.42	11%
Lodging	Trips / Room	1.68	1.68	0%



- **Service Area: Citywide**
- **Fee Components**
 - Recreation Facilities: Incremental
 - Park Amenities: Incremental
- **10-Year Demand**
 - Recreation Facilities: 9,546 square feet, \$4.8 million
 - Park Amenities: 19 units, \$1.8 million

Proposed Parks and Recreation Fees

DRAFT

Comparison of 2018 to 2024

Fee Component	Cost per Person
Recreation Facilities	\$914.33
Park Amenities	\$340.97
Impact Fee Report	\$5.52
Total	\$1,260.82

Residential Fees per Unit				
Development Type	Persons per Housing Unit ¹	Proposed Fees	Current Fees	Increase / (Decrease)
Single Family	2.56	\$3,228	\$2,998	\$230
Multi-Family	1.07	\$1,349	\$2,044	(\$695)
Lodging (per room)	1.50	\$1,891	\$1,932	(\$41)

1. See Land Use Assumptions

Component	Unit	2018	2024	% Change
Level of Service / Unit Cost				
Rec Facilities	square foot	45,700	45,700	0%
Rec Facilities	square foot	\$343	\$500	46%
Amenities	unit	82	89	9%
Amenities	unit	\$66,767	\$95,743	43%
Land (removed)	acre	213.75	N/A	N/A
Land (removed)	acre	\$48,721	N/A	N/A
Cost per Demand Unit				
Residential	person	\$1,290.40	\$1,260.82	-2%
Demand Factor				
Single Family	PPHU	2.32	2.56	10%
Multi-Family	PPHU	1.58	1.07	-32%
Lodging	Occ. / Room	1.50	1.50	0%

- **Service Area: Citywide**
- **Fee Components**
 - Facilities: Incremental
 - Vehicles: Incremental
 - Equipment: Incremental
- **10-Year Demand**
 - Facilities: 6,200 square feet, \$3.1 million
 - Vehicles: 8 units, \$529k
 - Equipment: 2 units, \$65k

Proposed Police Fees

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Comparison of 2018 to 2024

Fee Component	Cost per Person	Cost per Trip
Police Facilities	\$439.60	\$172.91
Police Vehicles	\$75.09	\$29.53
Police Equipment	\$9.27	\$3.65
Impact Fee Report	\$4.52	\$1.78
Total	\$528.48	\$207.87

Residential Fees per Unit				
Development Type	Persons per Housing Unit ¹	Proposed Fees	Current Fees	Increase / (Decrease)
Single Family	2.56	\$1,353	\$742	\$611
Multi-Family	1.07	\$565	\$506	\$59

Nonresidential Fees per 1,000 Square Feet				
Development Type	Vehicle Trips per 1,000 Sq Ft ¹	Proposed Fees	Current Fees	Increase / (Decrease)
Industrial	2.44	\$507	\$238	\$269
Commercial/Retail	12.21	\$2,538	\$1,195	\$1,343
Office/Institutional	5.42	\$1,127	\$467	\$660
Lodging (per room)	1.68	\$349	\$161	\$188

1. See Land Use Assumptions

Component	Unit	2018	2024	% Change
Level of Service / Unit Cost				
Facilities	square foot	26,104	29,304	12%
Facilities	square foot	\$315	\$500	59%
Vehicles	unit	47	37	-21%
Vehicles	unit	\$36,617	\$67,641	85%
Equipment (new)	unit	N/A	10	N/A
Equipment (new)	unit	N/A	\$30,910	N/A
Proportionate Share				
Residential		70%	72%	2%
Nonresidential		30%	28%	-5%
Cost per Demand Unit				
Residential	person	\$319.47	\$528.48	65%
Nonresidential	trip	\$95.91	\$207.87	117%
Demand Factor				
Single Family	PPHU	2.32	2.56	10%
Multi-Family	PPHU	1.58	1.07	-32%
Industrial	Trips / KSF	2.48	2.44	-2%
Commercial/Retail	Trips / KSF	12.46	12.21	-2%
Office/Institutional	Trips / KSF	4.87	5.42	11%
Lodging	Trips / Room	1.68	1.68	0%

- **Service Area: Citywide**
- **Fee Components**
 - Capacity Improvements: Incremental
 - Resurfacing Improvements: Plan-Based
- **10-Year Demand**
 - Capacity Improvements: 10.2 lane miles, \$10.2 million
 - Resurfacing Improvements:
 - Growth: 1.7 lane miles, \$250k
 - Existing: 8.3 lane miles, \$1.25 million
 - Total: 10.0 lane miles, \$1.5 million

Proposed Transportation Fees

DRAFT

Comparison of 2018 to 2024

Fee Component	Cost per Trip
Capacity Improvements	\$618.76
Resurfacing Improvements	\$15.43
Impact Fee Report	\$3.08
Total	\$637.27

Residential Fees per Unit				
Development Type	AWVT per Unit ¹	Proposed Fees	Current Fees	Increase / (Decrease)
Single Family	5.90	\$3,761	\$1,211	\$2,550
Multi-Family	1.61	\$1,023	\$563	\$460

Nonresidential Fees per 1,000 Square Feet				
Development Type	AWVT per 1,000 Sq Ft ¹	Proposed Fees	Current Fees	Increase / (Decrease)
Industrial	2.44	\$1,552	\$562	\$990
Commercial/Retail	12.21	\$7,783	\$2,826	\$4,957
Office/Institutional	5.42	\$3,454	\$1,104	\$2,350
Lodging (per room)	1.68	\$1,067	\$379	\$688

1. See Land Use Assumptions

Component	Unit	2018	2024	% Change
Level of Service / Unit Cost				
Capacity (cost)	trip	\$171.36	\$618.76	261%
Capacity (cost)	year	\$510,500	\$1,016,328	99%
Resurfacing (cost)	trip	\$37.18	\$15.43	-58%
Resurfacing (cost)	year	\$415,000	\$150,000	-64%
Cost per Demand Unit				
All Development	trip	\$226.85	\$637.27	181%
Demand Factor				
Single Family	Trips / Unit	5.33	5.90	11%
Multi-Family	Trips / Unit	2.48	1.61	-35%
Industrial	Trips / KSF	2.48	2.44	-2%
Commercial/Retail	Trips / KSF	12.46	12.21	-2%
Office/Institutional	Trips / KSF	4.87	5.42	11%
Lodging	Trips / Room	1.68	1.68	0%

Fee Summary

DRAFT

Proposed Fees

Residential Fees per Unit							
Development Type	Fire	Parks and Recreation	Police	Transportation	Proposed Fees	Current Fees	Increase / (Decrease)
Single Family	\$895	\$3,228	\$1,353	\$3,761	\$9,237	\$5,830	\$3,407
Multi-Family	\$374	\$1,349	\$565	\$1,023	\$3,311	\$3,713	(\$402)

Nonresidential Fees per 1,000 Square Feet							
Development Type	Fire	Parks and Recreation	Police	Transportation	Proposed Fees	Current Fees	Increase / (Decrease)
Industrial	\$373	\$0	\$507	\$1,552	\$2,432	\$1,092	\$1,340
Commercial/Retail	\$1,865	\$0	\$2,538	\$7,783	\$12,186	\$5,488	\$6,698
Office/Institutional	\$828	\$0	\$1,127	\$3,454	\$5,409	\$2,145	\$3,264
Lodging (per room)	\$257	\$1,891	\$349	\$1,067	\$3,564	\$2,669	\$895

Increase / (Decrease)

Residential Fees per Unit					
Development Type	Fire	Parks and Recreation	Police	Transportation	Increase / (Decrease)
Single Family	\$16	\$230	\$611	\$2,550	\$3,407
Multi-Family	(\$226)	(\$695)	\$59	\$460	(\$402)

Nonresidential Fees per 1,000 Square Feet					
Development Type	Fire	Parks and Recreation	Police	Transportation	Increase / (Decrease)
Industrial	\$81	\$0	\$269	\$990	\$1,340
Commercial/Retail	\$398	\$0	\$1,343	\$4,957	\$6,698
Office/Institutional	\$254	\$0	\$660	\$2,350	\$3,264
Lodging (per room)	\$60	(\$41)	\$188	\$688	\$895



Questions?