W.K. (Trey) Hoffman, Chairman
Anne-Marie McMichael, Vice Chair
Jarrad Bourger, Secretary
Jim Autenreith

Nathan Carroll
Brad Jones
Jerry Kent
Lucian Bukowski, Alternate

EST. 1955
SPRING VALLEY
VILLAGE

Notice is Hereby Given of a Regular Meeting of the Planning and Zoning Commission of Spring Valley, Texas, 1025 Campbell Road, Spring Valley Village, Texas, in the Council Chambers, June 9, 2026, beginning at 6:30 PM. For the Purpose of Considering and Acting upon the Following Items of Business:

The meeting agenda and agenda packet are posted online at www.springvalleytx.com.

The video link to this meeting is: https://us02web.zoom.us/j/88432084642

The public toll-free dial-in numbers to participate in the telephonic meeting are 1-346-248-7799 (Houston), 1-253-215-8782 (US), and 1-301-715-8592 (US); enter the Meeting ID: 884 3208 4642 and #.

The public will be permitted to offer public comments as provided by the agenda and as permitted by the presiding officer during the meeting.

1. CALL THE ROLL AND ANNOUNCE A QUORUM IS PRESENT

2. APPROVAL OF MEETING MINUTES

2.1 Approval of Meeting Minutes for Regular Meeting of the Planning and Zoning Commission on April 14, 2026.

2.2 Approval of Meeting Minutes for Regular Meeting of the Planning and Zoning Commission on May 12, 2026.

3. NEW BUSINESS

3.1 **CONDUCT A PUBLIC HEARING CONCERNING:** An ordinance of the City of Spring Valley Village, Texas, amending Exhibit A of Chapter 12, Planning and Zoning, of the Code of Ordinances of the City, by amending Ordinance 2007-25, and creating The Aviary Planned Area Development ("PAD") containing approximately 1.695 acers of land located at 1045 Bingle Road by permitting two (2) two-story retail shell buildings with certain restrictions, regulations, and requirements subject to the provisions contained in this ordinance; providing for severability; providing a savings clause and an effective date; and providing; a penalty in an amount not to exceed $2,000.00 for any violation hereof, with each day constituting a separate offense.

1. Presentation
2. Those In Favor

3. Those Opposed
4. Adjourn Public Hearing

3.2 **CONSIDERATION AND POSSIBLE ACTION CONCERNING:** An ordinance of the City of Spring Valley Village, Texas, amending Exhibit A of Chapter 12, Planning and Zoning, of the Code of Ordinances of the City, by amending Ordinance 2007-25, and creating The Aviary Planned Area Development ("PAD") containing approximately 1.695 acers of land located at 1045 Bingle Road by permitting two (2) two-story retail shell buildings with certain restrictions, regulations, and requirements subject to the provisions contained in this ordinance; providing for severability; providing a savings clause and an effective date; and providing; a penalty in an amount not to exceed $2,000.00 for any violation hereof, with each day constituting a separate offense.

3.3 **CONSIDERATION AND POSSIBLE ACTION CONCERNING:** Election of a Commission Secretary.

4. ADJOURNMENT

I certify that a copy of the June 9, 2026, agenda of items to be considered was posted on or before the 3rd day of June 2026, at 6:30 p.m. pursuant to the Open Meetings Act, Chapter 551 of the Local Government Code.

Attest:

Jasmin Torres, TRMC
City Secretary

CITY OF SPRING VALLEY VILLAGE ★ HARRIS COUNTY, TEXAS ★

In compliance with the Americans with Disabilities Act, this facility is wheelchair accessible and accessible parking spaces are available. To better serve attendees, requests for accommodations or interpretive services should be made 48 hours prior to this meeting. Please contact the City Secretary's office at 713-465-8308, Fax 713-461-7969, or Email Jasmin Torres for further information.

Planning & Zoning Commission Meeting Minutes
City of Spring Valley Village
Tuesday, April 14, 2026

1. The Planning & Zoning Commission meeting was called to order by Chairman Trey Hoffman at 6:30 p.m. in the Council Chambers of City Hall, 1025 Campbell Road, Houston, Texas.

Planning & Zoning Members present at City Hall:

- Trey Hoffman, Chairman
- Brad Jones, member
- Anne-Marie McMichael, Vice Chair
- Jerry Kent, member
- Jarrad Bourger, secretary

A quorum was present.

City Officials present:

- Jasmin Torres, City Secretary
- Philip J. Boedeker, City Attorney
- Jose Gomez, Development Services Manager

2. Approval of meeting minutes for the regular Planning and Zoning meeting on February 10, 2026

Brad Jones made the motion to approve the minutes. Anne-Marie McMichael seconded the motion. The motion carried unanimously.

3. NEW BUSINESS

3.1 CONDUCT A PUBLIC HEARING CONCERNING: AN ORDINANCE OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING CHAPTER 9, SUBDIVISIONS, OF THE CODE OF ORDINANCES, BY AMENDING ARTICLE 9.116 TO ADD DELEGATION OF AUTHORITY RELATING TO THE REVIEW AND APPROVAL OF PLATS; PROVIDING FOR THE INCORPORATION OF PREAMBLE; PROVIDING A PENALTY OF AN AMOUNT NOT TO EXCEED $2,000 FOR EACH DAY OF VIOLATION OF ANY PROVISION HEREOF; AND

PROVIDING A REPEALER CLAUSE, A SEVERABILITY CLAUSE, A SAVINGS CLAUSE, AND AN EFFECTIVE DATE.

Jose Gomez presented proposed amendments to Chapter 9. The public hearing was opened at 6:39 p.m. and closed at 6:40 p.m. with no public comment.

3.2 CONSIDERATION AND POSSIBLE ACTION CONCERNING: AN ORDINANCE OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING CHAPTER 9, SUBDIVISIONS, OF THE CODE OF ORDINANCES, BY AMENDING ARTICLE 9.116 TO ADD DELEGATION OF AUTHORITY RELATING TO THE REVIEW AND APPROVAL OF PLATS; PROVIDING FOR THE INCORPORATION OF PREAMBLE; PROVIDING A PENALTY OF AN AMOUNT NOT TO EXCEED $2,000 FOR EACH DAY OF VIOLATION OF ANY PROVISION HEREOF; AND PROVIDING A REPEALER CLAUSE, A SEVERABILITY CLAUSE, A SAVINGS CLAUSE, AND AN EFFECTIVE DATE.

Jerry Kent made the motion to approve. Brad Jones seconded the motion. The motion carried unanimously.

3.3 CONDUCT A PUBLIC HEARING CONCERNING: AN ORDINANCE OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, PROVIDING FOR THE AMENDMENT OF SECTION 11:01.05. PERMITTED LOCATIONS TO PROVIDE EXCEPTIONS PROVISIONS TO SECTION 11 FENCES, OF CHAPTER 12, PLANNING AND ZONING; PROVIDING FOR SEVERABILITY; AND PROVIDING A PENALTY IN AN AMOUNT NOT TO EXCEED $2,000.00 PER DAY, WITH EACH DAY CONSTITUTING A NEW VIOLATION.

Jose Gomez presented proposed amendments. Public hearing was opened at 6:41 p.m. and closed at 6:43 p.m. with no public comment.

3.4 CONSIDERATION AND POSSIBLE ACTION CONCERNING: AN ORDINANCE OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, PROVIDING FOR THE AMENDMENT OF SECTION 11:01.05. PERMITTED LOCATIONS TO PROVIDE EXCEPTIONS PROVISIONS TO SECTION 11 FENCES, OF CHAPTER 12, PLANNING AND ZONING; PROVIDING FOR SEVERABILITY; AND PROVIDING A PENALTY IN AN AMOUNT NOT TO EXCEED $2,000.00 PER DAY, WITH EACH DAY CONSTITUTING A NEW VIOLATION.

The Commission discussed proposed amendments to Section 11:01.05 regarding fencing exceptions for corner lots on major thoroughfares. The Commission developed an

amendment to the proposed ordinance stating that the fence amendment should be updated to include the requirements of only including homes on corner lots parallel and immediately adjacent to a major thoroughfare (as defined by city ordinance), provided the fence does not violate the sight triangle, and is no closer than 10 feet from the entry street right-of-way line.

Jerry Kent made the motion to approve. Anne-Marie McMichael seconded the motion. The motion carried unanimously.

3.5 CONSIDERATION AND POSSIBLE ACTION CONCERNING: AN ORDINANCE OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS PROVIDING FOR THE REPEAL AND REPLACEMENT OF ARTICLE 3.1000, URBAN FOREST PRESERVATION AND PROTECTION, CHAPTER 3, BUILDINGS & CONSTRUCTION, OF THE CITY'S CODE OF ORDINANCES; PROVIDING FOR A TREE FUND; AND PROVIDING FOR A PENALTY PER DAY WITH EACH DAY CONSTITUTING A NEW VIOLATION.

The Commission conducted a final review of the comprehensive rewrite of Chapter 3, Article 3.1 (Urban Forest Preservation and Protection), developed over multiple meetings. Chairman Hoffman reviewed outstanding edits from prior meeting notes and the Commission worked through final language refinements. The Chairman recommended the city communicate these changes to residents via newsletter or social media.

Brad Jones made the motion to approve the amended tree ordinance as edited and forward to City Council. Jarrad Bourger seconded the motion. The motion carried unanimously.

4. ADJOURNMENT

Jerry Kent made a motion to adjourn. Anne-Marie McMichael seconded the motion. The motion carried unanimously. The meeting was adjourned at 8:01 p.m.

Signed: _____

Trey Hoffman, Chairman

Attest: _____

Jarrad Bourger, Secretary

Planning & Zoning Commission Meeting Minutes
City of Spring Valley Village
Tuesday, May 12, 2026

1. The Planning & Zoning Commission meeting was called to order by Chairman Trey Hoffman at 6:33 p.m. in the Council Chambers of City Hall, 1025 Campbell Road, Houston, Texas.

Planning & Zoning Members present at City Hall:

- Trey Hoffman, Chairman
- Brad Jones, member [arrived at 6:41 p.m.]
- Anne-Marie McMichael, Vice Chair
- Jerry Kent, Member
- Jarrad Bourger, Secretary
- Nathan Carroll, Member
- Jim Autenreith, Member

A quorum was present.

City Officials present:

- Jasmin Torres, City Secretary
- Philip J. Boedeker, City Attorney
- Jose Gomez, Development Services Manager

2. Approval of meeting minutes for the regular Planning and Zoning meeting on April 14, 2026

Approval of the April 14, 2026, minutes was tabled to the June meeting to correct a drafting error.

3. NEW BUSINESS

3.1 DISCUSSION CONCERNING: A proposed Area Development concerning property located at 1045 Bingle (BWPADD)

Keenon Rayner with Identity Architects presented a preliminary plan for a mixed-use development. The plans were discussed with the commission members. Additional

discussion included questions regarding any conversations with Harris County Flood Control, discussions with City staff, City Council, and the Mayor, parking concerns, and any discussions with Grace Chapel Chinese American Houston Church located at 1055 Bingle Road regarding potential shared parking opportunities.

The Commission also discussed ideas for additional hiking and biking connectivity in conjunction with Dolphin's Cove through the Old Voss area, proposed tenants and types of businesses being considered for the development, proposed signage plans, and the possibility of a left-turn lane at the adjacent traffic signal. Concerns were raised regarding traffic flow and traffic patterns in the area, including how the proposed development could impact surrounding streets and intersections. The Commission provided recommendations and discussed potential measures to help alleviate those concerns.

Additional discussion included proposed hours of operation, landscaping concepts and buffering, and overall compatibility of the development with the surrounding area.

4. ADJOURNMENT

Prior to adjournment, Chairman Hoffman acknowledged that this would be the final meeting for Anne-Marie McMichael and thanked her for her decades of service to the City of Spring Valley Village.

Anne-Marie McMichael made a motion to adjourn. Trey Hoffman seconded the motion. The motion carried unanimously. The meeting was adjourned at 7:35 p.m.

Signed: _____

Trey Hoffman, Chairman

Attest: _____

Jarrad Bourger, Secretary

Spring Valley Village Planning and Zoning Commission
Agenda Item Data Sheet

MEETING DATE: June 9, 2026
SUBMITTING STAFF: Jose Gomez, Development Services Manager

SUBJECT:

CONDUCT A PUBLIC HEARING CONCERNING: An ordinance of the City of Spring Valley Village, Texas, amending Exhibit A of Chapter 12, Planning and Zoning, of the Code of Ordinances of the City, by amending Ordinance 2007-25, and creating The Aviary Planned Area Development ("PAD") containing approximately 1.695 acers of land located at 1045 Bingle Road by permitting two (2) two-story retail shell buildings with certain restrictions, regulations, and requirements subject to the provisions contained in this ordinance; providing for severability; providing a savings clause and an effective date; and providing; a penalty in an amount not to exceed $2,000.00 for any violation hereof, with each day constituting a separate offense.

1. Presentation
2. Those In Favor
3. Those Opposed
4. Adjourn Public Hearing

BACKGROUND:

Applicant: Identity Architects
Owner: Bingle Roop3k 001 LLC

Property Location: The property comprises approximately 1.695 acres owned by the applicant and located at 1045 Bingle Road, Houston, Texas, situated west of Bingle Road and north of Interstate Highway 10, and 2.15 acres directly adjacent to the property (east side) owned by the City of Spring Valley Village.

Background: On November 13, 2007, the City Council approved Ordinance No. 2007-25, establishing the Bingle West Planned Area Development District (BWPADD), allowing commercial development. In 2018, Ordinance 2018-17 reduced the size of the PAD to 1045 Bingle by removing 1055 Bingle and 1006,1065 Voss due to a lack of development.

Request: Staff held several meetings with the applicant prior to their pre-application conference with the Planning and Zoning Commission on May 12, 2026. The pre-application conference is a required step that allows the Commission to confer with the applicant and provide guidance and feedback on the proposed project. On April 13, 2026, Identity Architects submitted an application to amend Ordinance No. 2007-25 and establish a Planned Area Development (PAD) (The Aviary) on approximately 3.845 acres, including a city parcel, to permit the construction of a two-story mixed-

use development.

The proposed amendment includes the following:

- Expansion of permitted uses as provided in Exhibit A
    - Other School and Instruction
    - Health care and Social Assistance
    - Arts, Entertainment, and Recreation
    - Accommodation and Food Services
- Increase in the maximum allowable building height
    - Requesting a forty-five (45) feet height limitation from thirty-nine (39) feet.
- Establishment of shared parking standards
    - 50% reduction in required parking.
    - Shared parking to allow businesses with different peak hours to share a single parking spaces.
- Authorization of an additional secondary curb cut/access point
    - Access arrangement is determined by PAD, both located on Bingle Road, as detailed in the site plan in Exhibit B.
- Allowance for the sale of alcoholic beverages
    - Drinking places (Alcoholic Beverages).
- Approval of customized/sign standards
    - To allow for two (2) monument signs, each with a total face area not exceeding one hundred square feet, both adjacent to Bingle Road, located on proposed entry points as shown on the site plan on Exhibit B. All signs shall comply with the City's signage standards, Chapter 12 Planning and Zoning, Section 10 signs.
- Modification of required building setbacks
    - Northern Property Line (Eastern Segment) building setback line shall be five (5) feet.
    - Northern Property Line (Western Segment) building setback line shall be five (5) feet.
    - Western Property Line building setback line shall be fifty (50) feet.
    - Southern Property Line building setback line shall be twenty-five (25) feet.
    - Eastern Property Line building setback shall be zero (0) feet.
    - Eastern Secondary Property line setback shall be twenty-five (25) feet.

Currently, Chapter 12 Planning and Zoning Section Seven 07:02 Building Restrictions 07:02.01 Minimum Required Setbacks requires the following setback

- No building or structure shall be erected within thirty (30) feet of Dwelling District "A."
- All buildings shall be set back thirty (30) feet from frontline properties except where buildings and structures front a Major Thoroughfare, then the building shall be set back forty (40) feet from the property line. Any building shall be setback fifty (50) feet from I-10.

Reviews:

- Utilities/Traffic Study: Engineering consultants are currently reviewing the proposed utility plans and traffic study for compliance and operational functionality.
- Drainage: Drainage plans are under review to ensure adequate stormwater management and proper drainage flow.

Attached are the supporting documents for the Commission for review.

The developer is currently negotiating a licensing agreement with the City for the use of the adjacent city property.

ATTACHMENTS:

ORD -- PAD (Aviary) BWPADD -- 5.29.26 PZ 6.02, Exhibit A -Legal Description, Exhibit B - Application and Docs, Exhibit C -Use Tables, Exhibit D - Traffic Impact Study, Orinance_Differences_Summary PZ, 200 Feet notification radius, PUBLIC NOTICE - Aviary, Zoning Affidavit PAD June 9, Address Labels - Bingle West PADD, Aviary PAD. Public Notice Res

FUNDING:

Amount Available	Account No.	Additional Appropriation Required	Project No.	Amount Budgeted	Account Description

RECOMMENDATION:

No action during the public hearing. The next item is for consideration of the request.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING EXHIBIT A OF CHAPTER 12, PLANNING AND ZONING, OF THE CODE OF ORDINANCES OF THE CITY, EXHIBIT A BEING THE ZONING ORDINANCE OF THE CITY, BY AMENDING ORDINACE 2007-25, AND CREATING THE AVIARY PLANNED AREA DEVELOPMENT ("PAD") CONTAINING APPROXIMATELY 1.695 ACRES OF LAND LOCATED AT 1045 BINGLE ROAD BY PERMITTING TWO (2) TWO-STORY RETAIL SHELL BUILDINGS WITH CERTAIN RESTRICTIONS, REGULATIONS, AND REQUIREMENTS SUBJECT TO THE PROVISIONS CONTAINED IN THIS ORDINANCE; PROVIDING FOR SEVERABILITY; PROVIDING A SAVINGS CLAUSE AND AN EFFECTIVE DATE; AND PROVIDING A PENALTY IN AN AMOUNT NOT TO EXCEED $2,000.00 FOR ANY VIOLATION HEREOF, WITH EACH DAY CONSTITUTING A SEPARATE OFFENSE.

WHEREAS, Bingle Roop3K 001, LLC (the "Owner" and "Applicant"), owns a 1.695 acre tract of land, more or less, being located at 1045 Bingle Road (the "Property") within the corporate limits of the City of Spring Valley Village, Texas, said tract of land being more particularly described in Exhibit "A" attached hereto and made a part hereof for all purposes; and

WHEREAS, the Property is presently zoned Bingle West Planned Area Development District ("BWPADD") pursuant to the City's Zoning Ordinance, as amended; and

WHEREAS, Section 06P:07.07.05 of the City's Code of Ordinances authorizes the City Council, in any ordinance granting approval of a Planned Area Development, to impose more stringent standards or conditions than required in Chapter 12 when necessary for the protection of adjacent properties and the public interest, and, in addition, to waive certain such requirements and conditions when it is demonstrated that

adequate provisions have been made for space, light and air, that the density of development is compatible with surrounding land uses, that pedestrian and vehicular traffic circulation systems are safe and efficient, that the developer will progress in orderly phases, and that public health, safety, and welfare will be protected; and

WHEREAS, the Owner, through its duly authorized representative, has presented an application for the City to approve a Planned Area Development ("PAD") called The Aviary Planned Area Development ("The Aviary PAD") consisting of two (2) two-story retail shell buildings located at the Property, with specific requests for: (i) an expanded list of permitted uses, including medical and health-care uses permitted on the ground floor (which the underlying BWPADD code restricts to upper floors only); (ii) a maximum building height of forty-five (45) feet (which exceeds the thirty-nine (39) foot limit set in Section 06P:07.07.01); (iii) shared parking calculated under the City of Houston's shared-parking percentage distribution, supplemented by ULI Shared Parking standards; (iv) two (2) curb cuts on Bingle Road and the existing access easement through the adjacent City parcel at West Memorial Park Drive, supported by a traffic study; (v) unrestricted on-premises alcohol sales; (vi) signage consistent with the City's standards for properties facing Interstate Highway 10; (vii) site-specific buffer zones and setbacks differing from the configurations prescribed in Section 06P:07.03; (viii) the future, conditional authorization of an enclosed outdoor patio of up to two thousand (2,000) square feet on the adjacent City parcel, contingent upon a separately executed license or use agreement with the City; and (ix) cooperation with a potential future City hike and bike trail; and

WHEREAS, the Planning and Zoning Commission and the City Council have conducted, in the time and manner required by law and the Zoning Ordinance of the City,

a public hearing on the proposed amendments for the 1.695 acre tract located at 1045 Bingle Road; and

WHEREAS, the City Council has considered the report of the Commission; and

WHEREAS, the City Council now deems it appropriate to adopt the amendments and to approve certain changes as an amendment to the City's Zoning Ordinance as provided herein;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, THAT:

Section 1. The facts and matters set forth in the preamble of this Ordinance are hereby found to be true and correct and are incorporated herein for all purposes.

Section 2. The application of the Owner of the 1.695 acre tract located at 1045 Bingle Road (the "Property") for the creation of a Planned Area Development within the Bingle West Planned Area Development District with certain specific amendments is hereby approved subject to the regulations, restrictions, terms and conditions hereinafter set forth.

Section 3. Any changes adopted by this Ordinance are expressly for the use of this Owner as Applicant and are subject to the plans and specifications provided with the application, attached hereto as Exhibit "B." Any modifications or deviations from the plans and specifications so provided, or any change in ownership, shall require a separate and distinct ordinance for approval by the City Council.

Section 4. This Ordinance shall in no manner amend, change, supplement, or revise any provision of any ordinance of the City, save and except the regulations, restrictions, terms and conditions provided for herein. When a conflict exists between the Comprehensive Zoning Ordinance and this Ordinance, this Ordinance shall prevail.

Section 5. The Aviary PAD use authorized and permitted hereby shall be, and is, subject to the following additional limitations, restrictions and covenants:

A. **Compliance with Application and Site Plans.**

The granting of The Aviary PAD shall be, and is hereby, conditioned upon the Property being used and the proposed improvements being located, constructed, and conducted upon the Property in substantial compliance with the application dated April 1, 2026 (the "Application"), including the description of the proposed use, the elevation plan and site plans, that are attached hereto as Exhibit "B" and made a part hereof for all purposes.

B. **Permitted Uses.**

The uses permitted within The Aviary PAD are those identified in the Permitted Use Table attached hereto as Exhibit "C," which augments and, to the extent expressly stated herein, supersedes the Permitted Use Table contained in Section 06P:07.08.05 of the City's Code of Ordinances. Pursuant to the City Council's authority under Section 06P:07.07.05 to waive requirements and conditions of the underlying BWPADD regulations, the restriction contained in Section 06P:07.08.01.02 limiting office and professional/personal service uses to upper

floors only **is expressly waived** as to the health-care and medical uses identified below, which shall be permitted on the ground floor or any upper floor of the buildings within The Aviary PAD.

In addition to the uses already codified in Section 06P:07.08.05 of the City's Code of Ordinances, the following uses shall also be permitted within The Aviary PAD:

Use Description	**NAICS Sector #**	
Other Schools and Instruction	6116	
Dance studios	611610	P
Aerobic dance and exercise instruction	611620	P
Yoga, Pilates, cycle, and similar fitness instruction	611699	P
Child Care Services	6244	
Day care centers, child or infant (including Montessori)	624410	P
Health Care and Social Assistance	62	
Offices of Physicians (except Mental Health Specialists)	621111	P
Offices of Physicians, Mental Health Specialists	621112	P
Offices of Dentists	621210	P
Offices of Chiropractors	621310	P
Offices of Optometrists	621320	P
Offices of Mental Health Practitioners (except Physicians)	621330	P
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	P
Offices of Podiatrists	621391	P

Use Description	NAICS Sector #	
Offices of All Other Miscellaneous Health Practitioners	621399	P
Diagnostic Imaging Centers	621512	P
Home Health Care Services	621610	P
Arts, Entertainment, and Recreation	71	
Amusement Arcades	713120	P
Indoor putting facilities and golf simulators	713990	P
Fitness centers; yoga, Pilates, cycle and similar studios	713940	P
Accommodation and Food Services	72	
Cocktail lounges; drinking places; speakeasies	722410	P
Full-Service Restaurants	722511	P

Floor location. The non-medical uses identified in the table above (dance studios; fitness, yoga, Pilates, cycle and similar instructional and recreational uses; child care; amusement arcades; indoor putting and golf simulators; cocktail lounges, drinking places, speakeasies; and full-service restaurants) shall be permitted on either the first floor or the second floor of the buildings. The health-care and medical uses identified in the table above (NAICS Sector 62, including without limitation Offices of Physicians, Dentists, Chiropractors, Optometrists, Mental Health Practitioners, Physical/Occupational/Speech Therapists and Audiologists, Podiatrists, other miscellaneous Health Practitioners, Diagnostic Imaging Centers, and Home Health Care Services) shall be permitted on the ground floor and on any upper floor without floor-location restriction, notwithstanding Section

06P:07.08.01.02 of the City's Code of Ordinances, which is expressly waived as to such uses pursuant to Section 06P:07.07.05.

Prohibited uses retained. Except as expressly modified by this Ordinance, the categorical prohibitions set forth in Section 06P:07.08.03.02 of the City's Code of Ordinances shall remain in full force and effect within The Aviary PAD, including without limitation the prohibition of drive-up and drive-thru service, outdoor commercial recreational facilities, distribution facilities, warehousing, industrial uses, and the storage or display of vehicles, rental equipment, or vehicle fleets.

C. **Building Height; Setbacks.**

1. **Height limitations.** Notwithstanding Section 06P:07.07.01 of the City's Code of Ordinances, which limits building height within the BWPADD to thirty-nine (39) feet to the top of the parapet, no building or structure within The Aviary PAD shall exceed forty-five (45) feet in height to the top of the parapet, exclusive of such appurtenances as antennae, water cooling towers, and mechanical equipment enclosures, which shall not exceed ten (10) feet in height above the roof and shall be located no closer than ten (10) feet to the building's external wall. The height deviation provided herein is granted pursuant to the City Council's waiver authority under Section 06P:07.07.05.

2. **Setbacks and Buffer Zones.** The setbacks and buffer zones for The Aviary PAD shall be in accordance with the site plan submitted as part of the Application and as further described in this Subsection. To the extent

the following setbacks and buffer-zone configurations differ from the configurations prescribed in Section 06P:07.03 of the City's Code of Ordinances, such differences are expressly approved as deviations granted pursuant to the City Council's waiver authority under Section 06P:07.07.05, in recognition that the Property is bounded by commercial, religious-assembly, and natural watercourse adjacencies for which the standard buffer configurations are not well-suited. In summary, the setbacks and buffer zones shall be as follows:

a. Northern Property Line (Eastern Segment). The building setback line shall be five (5) feet. The buffering shall be a ten (10) foot wall, non-continuous, with integrated landscaping.

b. Northern Property Line (Western Segment). The building setback line shall be five (5) feet. The buffering shall be an eight (8) foot tall wood fence with zero (0) foot landscape setback.

c. Western Property Line. The building setback line shall be fifty (50) feet. The buffering shall be an eight (8) foot tall wood fence with a five (5) foot landscape and parking setback.

d. Southern Property Line. The building setback line shall be twenty-five (25) feet. The buffering shall be a fifteen (15) foot landscape and parking setback with natural vegetation to remain as-is.

e. Eastern Property Line. The building setback line shall be zero (0) feet. The buffering shall be a zero (0) foot landscape setback. The intended use of the adjacent land is a City parcel used for parking.

f. Eastern Secondary Property Line. This is the proposed line between the current City parcel and the Bingle Road right-of-way. The building setback line shall be twenty-five (25) feet. The monument sign setback shall be five (5) feet. The landscape and parking setback along Bingle Road shall be five (5) feet.

D. **Access; Parking.**

1. **Parking.** Pursuant to Section 06P:07.07.03 of the City's Code of Ordinances, The Aviary PAD shall receive a fifty percent (50%) reduction from the minimum parking requirements otherwise applicable. Shared parking is authorized, and the required number of parking spaces shall be determined using the City of Houston's shared-parking percentage distribution as referenced in Section 06P:07.07.03, supplemented as necessary by Shared Parking, Third Edition, published by the Urban Land Institute, the National Parking Association, and the International Council of Shopping Centers. Parking on the Property on any surface other than a paved surface is prohibited.

2. **Access.** Consistent with Section 06P:07.07.02 of the City's Code of Ordinances, access to The Aviary PAD shall be from public streets and no access from Voss Road is authorized. The Property shall be permitted two

(2) curb cuts: (i) the existing access through the adjacent City parcel at West Memorial Park Drive, and (ii) a secondary curb cut along Bingle Road as detailed in the site plan attached as part of Exhibit "B." The secondary curb cut on Bingle Road utilizes an existing median break to encourage traffic distribution and is supported by the traffic study submitted with the Application, which demonstrates that the additional curb cut will not adversely affect traffic flow on Bingle Road and that pedestrian and vehicular traffic circulation systems for The Aviary PAD are safe and efficient. Both curb cuts are subject to all applicable City and, where required, Harris County standards.

3. **Overnight parking.** Overnight parking is prohibited except for tenants' delivery vans or trucks in designated parking spaces only. Signs shall be posted and maintained prohibiting overnight parking.

4. **General hours of operation.** Except as otherwise provided herein, operating hours shall be 6:00 a.m. to 11:00 p.m. Monday through Sunday. Restaurants and cocktail lounges/drinking places shall be permitted to operate from 6:00 a.m. to 12:00 midnight Sunday through Thursday and from 6:00 a.m. to 2:00 a.m. Friday and Saturday.

5. **Initial construction activity.** Construction activity is permitted between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 6:00 p.m. Saturday and Sunday. Emergency maintenance shall be

excluded from these restrictions when delays would cause damage to property or persons or significant interruptions to business activity.

6. **Traffic Study**. A traffic study has been completed as part of this development. That traffic study is attached as Exhibit D and is incorporated as an integral part of this site development. The approval of this Ordinance is conditioned on the accuracy of the traffic study.

E. **Signage.**

1. The Property may have two (2) monument signs, each with a total face area not to exceed one hundred (100) square feet (including base) and a maximum height of twelve (12) feet, located adjacent to Bingle Road as shown on the site plan attached as part of Exhibit "B," with one (1) monument sign at each entry point.

2. All signage shall comply with the City's signage standards in applicable to properties facing Interstate Highway 10 (I-10), as set forth in the Comprehensive Zoning Ordinance in Chapter 12 Section 10 - Signs and as further modified by this Ordinance.

3. The Property may have building wall signage in accordance with the City's sign regulations as set out in Chapter 12, Section 10 - Signs, including illuminated wall signage identifying tenants and uses on the Property.

4. All signage shall comply with the other ordinances of the City applicable to signage, except as expressly modified herein.

F. **Alcohol Sales.**

On-premises sale and consumption of alcoholic beverages shall be permitted without restriction in connection with the permitted uses listed in Exhibit "C," including full-service restaurants and cocktail lounges, drinking places, and speakeasies, subject only to compliance with applicable State of Texas and Texas Alcoholic Beverage Commission ("TABC") requirements and licensing. The City has not adopted, and does not adopt herein, the regulation authorized by Section 109.33 of the Texas Alcoholic Beverage Code prohibiting the sale of alcoholic beverages within three hundred (300) feet of a church, public school, public hospital, or day-care center, and no such proximity-based restriction shall apply to The Aviary PAD.

G. **Future Enclosed Outdoor Patio.**

1. **Conditional authorization.** No outdoor patio is established or permitted on the Property or on the adjacent City parcel by this Ordinance. The right to construct and operate an enclosed outdoor patio shall vest only upon, and shall be contingent upon, the execution of a license or other written use agreement between the Owner and the City of Spring Valley Village governing the Owner's use of a defined area of the adjacent City parcel (the "Licensed Area").

2. **Permitted location and accessory use status.** Upon execution of such license or use agreement, an enclosed outdoor patio shall be a permitted accessory use to a full-service restaurant (NAICS 722511) or to a cocktail

lounge, drinking place, or speakeasy (NAICS 722410) authorized by Exhibit "C," and shall be located within the Licensed Area in a location and configuration approved by the City as part of the license or use agreement. Notwithstanding Section 06P:07.08.03.02 of the City's Code of Ordinances, the categorical prohibition on outdoor commercial recreational facilities shall not apply to an enclosed outdoor patio authorized hereunder, such prohibition being expressly waived as to such patio pursuant to Section 06P:07.07.05.

3. **Enclosure required.** The patio shall be enclosed by walls, railings, decorative fencing, partial roof or canopy, or a combination thereof, in accordance with plans approved by the City as part of the license or use agreement. A patio shall not be permitted without such enclosure.

4. **Maximum size.** The patio shall not exceed two thousand (2,000) square feet in total enclosed area.

5. **Hours of operation.** Notwithstanding the general hours of operation set forth in Subsection D.4 above, the patio shall not operate later than 11:00 p.m. Sunday through Thursday and shall not operate later than 12:00 midnight Friday and Saturday.

6. **Alcohol service.** On-premises sale and consumption of alcoholic beverages shall be permitted on the patio in connection with the permitted accessory restaurant or cocktail lounge use, subject only to compliance with

applicable State of Texas and Texas Alcoholic Beverage Commission requirements and licensing, and consistent with Subsection F above.

7. **Lighting and noise.** The patio and its operation shall comply with the outdoor lighting standards set forth in Subsection I.3 below, including the reduced foot-candle limits applicable to the western side of the Property, and with the noise standards set forth in Subsection L below.

H. **Hike and Bike Trail.**

In the event the City of Spring Valley Village elects to construct a hike and bike trail in the vicinity of the Property, the Owner shall cooperate in good faith with the City and shall permit the future construction of such trail through the Property along a route mutually acceptable to the Owner and the City, subject to reasonable easement terms to be agreed upon at that time. Nothing in this subsection shall obligate the Owner to construct the trail at its own expense.

I. **Landscape/Screening/Lighting.**

1. **Landscaping.** The Owner shall provide landscaping in substantial compliance with the landscape plan included in the Application, which shall reflect a quality and density of plant material commensurate with the character of the surrounding neighborhood. The landscaping and irrigation for the Property shall meet or exceed the requirements of the City's ordinances, including Chapter 16 (Landscaping and Tree Preservation). Mature trees on the Property, including existing oak and cypress specimens

along the Bingle Road frontage, shall be preserved to the maximum extent practicable and incorporated into the final site design. Along the Bingle Road frontage where head-in parking is proposed, the Owner shall install and maintain a continuous evergreen hedge of sufficient height and density at maturity to screen vehicle headlights and bumpers from view from Bingle Road, in a species and configuration approved by the City as part of the landscape plan.

2. **Landscape maintenance.** Landscape maintenance shall be permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 6:00 p.m. Saturday and Sunday.

3. **Outdoor lighting.** Outdoor lighting shall be provided in substantial compliance with the photometric plan included in the Application. No outdoor lighting shall be permitted to directly shine on any adjacent property. Lighting shall be placed and oriented to minimize indirect or reflected lighting onto adjacent properties. Lighting levels in the parking lot shall average no more than eight (8) foot-candles; provided, however, that lighting levels in the parking areas on the western side of the Property, which is adjacent to the planned Dolphin Cove residential PADD, shall average no more than four (4) foot-candles in drive aisles during business hours. Lighting shall be reduced to an average of two (2) foot-candles after operating hours. All lighting shall be “white” metal halide or other color-corrected lighting. Light poles shall not exceed sixteen (16) feet in height

and shall comply with the National Electric Code (current edition adopted by the City). No high-pressure sodium lighting is permitted.

J. **Drainage Systems.**

The Owner shall design and construct storm water drainage improvements in compliance with all applicable City ordinances and in substantial compliance with the Application, as approved by the City's Floodplain Administrator.

K. **Refuse; Building Maintenance; Deliveries.**

1. **Location.** Refuse containers and dumpsters shall be enclosed and located as shown on the site plan attached hereto as part of Exhibit "B."

2. **Pickup.** Refuse/dumpster containers shall only be picked up between 7:00 a.m. and 7:00 p.m. on weekdays and between 9:00 a.m. and 6:00 p.m. on weekends.

3. **Deliveries.** Deliveries are permitted from 7:00 a.m. to 7:00 p.m. Monday through Friday and from 9:00 a.m. to 6:00 p.m. Saturday and Sunday.

L. **Noise.**

All activities shall comply with the ordinances of the City applicable to noise and sounds, except that operating hours may be extended as provided above.

M. **Fire Sprinklers.**

All buildings shall be constructed with fire sprinklers as required by the City's ordinances.

Section 6. Conditional Approval. This Ordinance is conditioned on the approval of an Agreement between the City and the Developer/Owner as to the use of the City Property as described in the site plan, approved Utilities, Drainage, and Traffic Impact Study. Approval of this Ordinance does not approve the use of the City Property. Final approval shall be required for Utilities, Drainage, and functional Traffic Impact Analysis.

Section 7. In the event any section, paragraph, subdivision, clause, phrase, provision, sentence, or part of this Ordinance or the application of the same to any person or circumstance shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Spring Valley Village, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

Section 8. Any person who shall intentionally, knowingly, recklessly, or with criminal negligence violate any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined in an amount not to exceed $2,000.00. Each day of violation shall constitute a separate offense.

Section 9. Attached to this Ordinance are the following documents:

Exhibit A: Legal Description;

Exhibit B: The Application, including documentation; and

Exhibit C: Use Table – All Floors.

Exhibit D: Traffic Study

ADOPTED this _____ day of _____, 2026.

_____

David Dominy, Mayor

City of Spring Valley Village, Texas

ATTEST:

_____

Jasmin Torres, City Secretary

City of Spring Valley Village, Texas

EXHIBIT “A” LEGAL DESCRIPTION

County Clerk Harris County, Texas

RP-2024-35876

EXHIBIT "A"

A TRACT OF LAND CONTAINING 1.7961 ACRES OF LAND OUT OF C.H. BINGLE SUBDIVISION IN THE A.H. OSBURNE SURVEY, HARRIS COUNTY, TEXAS, RECORDED IN VOLUME 998, PAGE 223 OF HARRIS COUNTY DEED RECORDS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BASIS OF BEARING IS THE WEST RIGHT OF WAY LINE OF OLD BINGLE ROAD BEING SOUTH 00 DEGREES 02 MINUTES 52 SECONDS WEST.

BEGINNING AT A POINT AT THE INTERSECTION OF THE EXISTING CENTERLINE OF BRIAR BAYOU AND THE WEST RIGHT-OF-WAY OF OLD BINGLE ROAD;

THENCE ALONG THE CENTERLINE OF SAID BRIAR BAYOU AS OBSERVED THE FOLLOWING EIGHT (8) COURSES:

NORTH 68 DEGREES 02 MINUTES 09 SECONDS WEST, 71.99 FEET TO A POINT;

NORTH 55 DEGREES 16 MINUTES 52 SECONDS WEST, 31.93 FEET TO A POINT;

NORTH 40 DEGREES 10 MINUTES 14 SECONDS WEST, 64.61 FEET TO A POINT;

SOUTH 82 DEGREES 07 MINUTES 45 SECONDS WEST, 53.94 FEET TO A POINT;

NORTH 70 DEGREES 39 MINUTES 50 SECONDS WEST, 53.73 FEET TO A POINT;

NORTH 58 DEGREES 09 MINUTES 04 SECONDS WEST, 34.83 FEET TO A POINT;

NORTH 29 DEGREES 00 MINUTES 22 SECONDS WEST, 67.32 FEET TO A POINT;

NORTH 45 DEGREES 52 MINUTES 24 SECONDS WEST, 85.82 FEET TO A POINT;

THENCE NORTH 00 DEGREES 03 MINUTES 00 SECONDS EAST AT A DISTANCE OF 43.68 FEET PASS A 5/8 INCH
IRON ROD FOUND FOR REFERENCE, AND A TOTAL DISTANCE OF 79.93 FEET TO A 5/8 INCH IRON ROD FOUND FOR THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE SOUTH 87 DEGREES 43 MINUTES 00 SECONDS EAST A DISTANCE OF 363.13 FEET TO A FOUND 1/2 INCH IRON PIPE FOR CORNER, BEING ALSO THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT ALSO LYING IN THE WEST RIGHT OF WAY LINE OF AFOREMENTIONED OLD BINGLE ROAD;

THENCE SOUTH 00 DEGREES 02 MINUTES 52 SECONDS WEST AT A DISTANCE OF 239.82 FEET PASS A 5/8 INCH IRON ROD FOUND FOR REFERENCE, AND A TOTAL DISTANCE OF 307.36 FEET TO THE POINT OF BEGINNING AND CONTAINING 1.7961 ACRES (78,236 SQUARE FEET) OF LAND, MORE OR LESS.

HARRIS CENTRAL APPRAISAL DISTRICT
REAL PROPERTY ACCOUNT INFORMATION
0440340020400

Tax Year: 2026

Print

Owner and Property Information			
Owner Name & Mailing Address:	**BINGLE ROOP3K 001 LLC** **4001 W SAM HOUSTON PKWY N STE 140** **HOUSTON TX 77043-1236**	Legal Description:	**TR 56A** **ABST 610 A H OSBORNE**
		Property Address:	**1045 BINGLE RD** **HOUSTON TX 77055**

State Class Code	Land Use Code	Land Area	Total Living Area	Neighborhood	Neighborhood Group	Market Area	Map Facet	Key Map®
C3 -- Real, Vacant Lots/Tracts (Not in City)	1000 -- Residential Vacant	78,236 SF	0 SF	7813.04	25201	394 -- ISD 25 - Memorial Villages North of I-10	5058B	490D

Value Status Information

Value Status	Shared CAD
All Values Pending	No

Exemptions and Jurisdictions

Exemption Type	Districts	Jurisdictions	Exemption Value	ARB Status	2025 Rate	2026 Rate
None	025	SPRING BRANCH ISD	Pending	Pending	1.023100	
	040	HARRIS COUNTY	Pending	Pending	0.380960	
	041	HARRIS CO FLOOD CNTRL	Pending	Pending	0.049660	
	042	PORT OF HOUSTON AUTHY	Pending	Pending	0.005900	
	043	HARRIS CO HOSP DIST	Pending	Pending	0.187610	
	044	HARRIS CO EDUC DEPT	Pending	Pending	0.004798	
	080	CITY OF SPRING VALLEY	Pending	Pending	0.395000	

Texas law prohibits us from displaying residential photographs, sketches, floor plans, or information indicating the age of a property owner on our website. You can inspect this information or get a copy at **HCAD's information center at 13013 NW Freeway**.

Valuations

Value as of January 1, 2025			Value as of January 1, 2026		
	Market	Appraised		Market	Appraised
Land	1,661,335		Land		
Improvement	11,448		Improvement		
Total	1,672,783	1,672,783	Total	Pending	Pending

Land

Market Value Land												
Line	Description	Site Code	Unit Type	Units	Size Factor	Site Factor	Appr O/R Factor	Appr O/R Reason	Total Adj	Unit Price	Adj Unit Price	Value

1	1000 -- Res Vacant Table Value	SF5	SF	10,000	1.00	1.00	0.55	--	0.55	Pending	Pending	Pending
2	1000 -- Res Vacant Table Value	SF2	SF	10,000	1.00	1.00	0.55	--	0.55	Pending	Pending	Pending
3	1000 -- Res Vacant Table Value	SF3	SF	58,236	1.00	0.50	0.50	--	0.25	Pending	Pending	Pending

Building

Vacant (No Building Data)

EXHIBIT “B” APPLICATION AND DOCUMENTATION

EST. 1955
SPRING VALLEY
VILLAGE

CITY OF SPRING VALLEY VILLAGE

Plat / General Plan Submittal Application

(Please type or print legibly)

Fees: Plat or Replat Application - $500
Specific Use Permit Application - $500
Planned Area Development District (PADD) Application - $7,000
Amendment to Planned Area Development District (PADD) Application - $1,000

Submittal Requirements Checklist:

Fifteen (15) packets, each one shall include all of the items listed below:

- [x] Application
- [x] Letter stating the applicant's reasons for request, the type of request, and other pertinent information
- [x] Letter from property owner
- [x] Proof of ownership
- [ ] Metes and bounds of the site and county slide number of plat (if recorded)
- [x] Scale drawings, on 24" x 36" paper (1" = 100'), blue line/black line copies of plat, re-plat or amending plat, and a vicinity/key map
- [ ] A pdf of the entire packet submitted to secretary@springvalleytx.com

Subdivision / Development Name: The Aviary - 1045 Bingle

Geographical Location: 1045 Bingle Road, Houston, TX 77055
(List specific address, major streets, bayous, creeks, and adjacent subdivisions)

Is the location listed belong to a Homeowner's Assocation (HOA)? Yes / (No) (Circle One)

Name of Homeowner's Assocation: N/A

Have you received approval from the Homeowner's Association? Yes / No (Circle One)

Survey/Abstract No.: A.H. Osbourne Survey , Abstract 610

Reason for Replat or Amending Plat: Bingle West Planned Area Development District

Submittal Type:
- [ ] Preliminary Plat
- [ ] Final Plat
- [ ] Amending Plat
- [ ] Preliminary Replat
- [ ] Final Replat
- [ ] Specific Use Permit
- [ ] Specific Use Permit Amendment

Type of Plat:
- [ ] Single Family Residential
- [ ] Zero Lot Line Patio Homes
- [ ] Planned Area Development District
- [ ] Planned Area Development

X Amendment to Planned Area Development

Plat/PADD Data:

Total Acreage: 1.695 Typical Lot Size: _____

Number Lots: 1 Number of Streets: _____

Numbers and Types of Reserves: 1 Total Acres in Reserve: 1.695

Zoning District: Bingle West Planned Area Development District

Applicant: Identity Architects

Contact Name: Gerard Hillsman

Address: 111 Travis Street, Houston, TX 77002

Phone: 713-595-2164 Fax: _____

Email: ghillsman@identityarchitects.com

Owner: BINGLE ROOP3K 001 LLC

Contact Name: Keenon Rayner

Address: 4001 W Sam Houston Pkwy N Ste 140, Houston, TX 77043

Phone: 713-595-2150 Fax: _____

Email: kr@identityarchitects.com

Engineer or Planner: ALJ Lindsey

Contact Name: Brett Hanrahan

Address: 18635 N Eldridge Pkwy, Suite 200, Tomball, TX 77377

Phone: 281-766-3675 Fax: _____

Email: bhanrahan@aljlindsey.com

Authorization:

My signature below certifies that I am authorized to submit this application and that the information on the application is COMPLETE, TRUE, and CORRECT. **Furthermore, I understand that, in accordance with Chapter 9, Article 9.303 of the Spring Valley Village Code of Ordinances, I am responsible for all engineering fees incurred by the City.**

Gerard Hillsman 4/1/2026

Applicant's Signature **Date**

identity
ARCHITECTS

April 9, 2026

Planning and Zoning Commission
City Council, City of Spring Valley Village
1025 Campbell Road
Houston, Texas 77055

Re: Application for Planned Area Development — The Aviary

1045 Bingle Road; Bingle West Planned Area Development District (BWPADD)

Dear Mayor Vajdos, Members of the Planning and Zoning Commission, and Members of the City Council:

I am Keenon Rayner, founder of Identity Architects. For more than twenty-three years our firm and our integrated partners — Identity Built and Detail Placemakers — have delivered community-centered projects across more than one hundred twenty municipalities. We are pleased to submit this application for **The Aviary**, a two-building, two-story mixed-use development on the 1.695-acre tract at 1045 Bingle Road, within the Bingle West Planned Area Development District.

The Aviary is designed as a neighborhood destination — a mix of retail, restaurant, medical office, and small-format wellness and recreational uses, organized around a courtyard with mature trees and pedestrian-scaled circulation. Engineering is at 60 percent, architectural construction documents are at 40 percent, and surveying and due diligence are complete. We are prepared to commence construction in 2026.

The Specific Requests

This application seeks approval of a PAD that adopts the BWPADD framework with the deviations enumerated below. Each deviation is requested under **Section 06P:07.07.05** of the City's Code of Ordinances, which authorizes the City Council to waive requirements of the underlying BWPADD regulations upon finding that adequate provisions have been made for space, light and air; that the density of development is compatible with surrounding land uses; that pedestrian and vehicular traffic circulation is safe and efficient; that the developer will progress in orderly phases; and that public health, safety, and welfare will be protected. We respectfully submit that the site plan, traffic study, and supporting materials enclosed with this application support each of those findings.

1. **Medical and Health-Care Uses on the Ground Floor.**

   Section 06P:07.08.01.02 currently restricts office and professional/personal service uses to upper floors only within the BWPADD. We request a waiver of this restriction **for medical and health-care uses within NAICS Sector 62** — including offices of physicians, dentists, chiropractors, optometrists,

mental-health practitioners, physical/occupational/speech therapists, podiatrists, other health practitioners, diagnostic imaging centers, and home health-care services — so that these uses may occupy either the ground floor or upper floors. The neighborhood demand for accessible outpatient care is well-documented, and ground-floor medical office is functionally indistinguishable from ground-floor retail in terms of pedestrian activity, parking demand, and visual character.

2. Expanded Permitted-Use List.

In addition to the uses already codified at Section 06P:07.08.05, we request the following uses be permitted on the first or second floor of the buildings: dance studios; aerobic, yoga, Pilates, cycle, and similar fitness instruction (NAICS 6116 and 713940), with no square-footage cap; child care and Montessori day care (624410); amusement arcades (713120); indoor putting facilities and golf simulators (713990, indoor only); cocktail lounges, drinking places, and speakeasies (722410); and full-service restaurants (722511). The categorical prohibitions of Section 06P:07.08.03.02 — including drive-thru service, outdoor commercial recreation, distribution, warehousing, and vehicle storage — remain unaffected by this request.

3. Building Height of 45 Feet.

Section 06P:07.07.01 limits buildings within the BWPADD to thirty-nine (39) feet to top of parapet. We request approval of a forty-five (45) foot maximum to permit generous ground-floor ceiling heights appropriate to retail and restaurant tenants. The average building height under our current design is approximately forty-two (42) feet, with peaks reaching forty-five (45) feet only at limited corner elements. The increase is modest, contained within the building envelope shown on the site plan, and does not create shading or sight-line impacts on adjacent properties.

4. Shared Parking.

Section 06P:07.07.03 already authorizes a fifty-percent (50%) reduction from minimum parking requirements within the BWPADD and directs that shared parking be calculated under the City of Houston's percentage distribution. We propose to apply that methodology and, where helpful, to supplement it with the standards in *Shared Parking, Third Edition* (Urban Land Institute, National Parking Association, and International Council of Shopping Centers) — a widely adopted reference that produces results consistent with the City of Houston model. The mix of retail, medical, restaurant, and evening-leaning entertainment uses generates non-overlapping peak demands, which is precisely the condition shared parking is designed to address.

5. Two Curb Cuts on the Property.

Section 06P:07.07.02 prohibits Voss Road access and otherwise leaves access subject to the Council's approval of the PAD. We request authorization for **two curb cuts**: (i) the existing access easement through the adjacent City parcel at West Memorial Park Drive, and (ii) a secondary curb cut along Bingle Road at the location of an existing median break. The enclosed traffic study demonstrates that the secondary curb cut distributes traffic, reduces queueing, and does not adversely affect Bingle Road traffic flow. Both curb cuts will conform to applicable City and Harris County standards.

6. Unrestricted On-Premises Alcohol Sales.

The Aviary will host full-service restaurants and a cocktail lounge or speakeasy concept. We request that on-premises sale and consumption of alcoholic beverages be permitted without restriction, subject only to State of Texas and Texas Alcoholic Beverage Commission licensing. The City of Spring Valley Village has not adopted the optional three-hundred-foot proximity regulation authorized by Section 109.33 of the Texas Alcoholic Beverage Code, and we respectfully ask the Council to confirm in the ordinance that no such proximity-based restriction will apply to The Aviary.

7. Signage Consistent with I-10-Facing Standards.

Given the Property's setback from Bingle Road, its proximity to Interstate 10, and the proposed two-entry configuration, we request that signage be governed by the City's standards applicable to properties facing I-10. Specifically, we propose two (2) monument signs — one per entry — each not exceeding one hundred (100) square feet of face area and twelve (12) feet in height, with locations shown on the site plan. Building-wall signage would follow the City's standard regulations, including illuminated tenant identification.

8. Site-Specific Setbacks and Buffer Zones.

Section 06P:07.03 prescribes buffer-zone configurations built around a 10-foot wall with a 50-, 25-, or 15-foot vegetative buffer. The Property is bounded by a church (commercial / SUP), a future residential PADD to the west, Briar Branch to the south, and the City parcel to the east. The standard configurations are not well-suited to this set of adjacencies. The site plan submitted with this application sets out property-line-specific setbacks and buffers tailored to each condition — generous landscape buffers and fencing against the future residential PADD, natural vegetation to remain along Briar Branch, and no buffer between commercial uses where none is required. We request the Council's approval of these site-specific configurations as a permitted deviation under Section 06P:07.07.05.

9. Future Enclosed Outdoor Patio (Contingent on City License).

Several restaurant and lounge operators we have spoken with have expressed strong interest in an outdoor dining component. The natural location for such a patio is within the adjacent City parcel, which lies between our buildings and Bingle Road. We are not asking the City to grant any rights to that parcel through this PAD ordinance — the parcel's use will be the subject of a separate license or use agreement to be negotiated with City staff. We are asking only that this Ordinance **reserve the right** for an enclosed outdoor patio on terms that would activate only if and when such a license is executed. Specifically: the patio (i) would be an accessory use to a permitted full-service restaurant or cocktail lounge under Exhibit "C," (ii) would be enclosed by walls, railings, decorative fencing, or partial canopy per plans approved by the City, (iii) would not exceed 2,000 square feet, (iv) would close no later than 11:00 p.m. Sunday through Thursday and midnight Friday and Saturday — tighter than the general operating hours in deference to the future Dolphin Cove residential PADD to the west, and (v) would be subject to the lighting and noise standards otherwise applicable to the PAD. Reserving these terms now rather than through a future ordinance amendment lets the City and the Owner negotiate the license agreement administratively when the time is right, rather than

reopening the public-hearing process. The enclosure requirement distinguishes this use from the categorical prohibition on outdoor commercial recreational facilities in Section 06P:07.08.03.02, which we have asked the Council to expressly waive only as to an enclosed patio of the type described above.

10. **Cooperation with a Future Hike and Bike Trail.**

    If, at any time, the City of Spring Valley Village elects to construct a hike and bike trail in the vicinity of the Property, the Owner will cooperate in good faith and permit construction of such a trail across the Property along a mutually acceptable route, subject to reasonable easement terms. The Owner is not asking the City to require, and is not committing to fund, such a trail — only to keep the door open for future regional connectivity.

Meeting the Findings Required by Section 06P:07.07.05

The deviations requested above are modest, geographically contained, and grounded in the design realities of this specific 1.695-acre site. The enclosed site plan, traffic study, and exhibits demonstrate that:

- adequate provisions have been made for space, light, and air through generous setbacks against the future residential PADD and the courtyard-centered building arrangement;
- the density of development is compatible with surrounding land uses — a church, a future residential PADD, an aquatic center, and a City parking parcel — none of which is sensitive to the scale or use mix proposed;
- pedestrian and vehicular traffic circulation is safe and efficient, as confirmed by the enclosed traffic study and the redundancy of the two-curb-cut configuration;
- the developer will progress in orderly phases, with construction commencing in 2026; and
- public health, safety, and welfare are protected by the retention of all categorical prohibitions in Section 06P:07.08.03.02 and by the design standards reflected in the site plan.

We have invested substantial time and expense in bringing The Aviary to this stage and are prepared to engage constructively with City staff, the Commission, and the Council on any aspect of this application. We respectfully request a recommendation of approval from the Planning and Zoning Commission and adoption of the corresponding ordinance by the City Council.

Thank you for your consideration.

Respectfully,

Keenon Rayner
Architect, Builder, and Developer
Identity Architects | Identity Built | Detail Placemakers

identity
ARCHITECTS

Checklist for Development of PADD Ordinances — The Aviary

1045 Bingle Road; Bingle West Planned Area Development District (BWPADD)

The following responds to the City's *Checklist for Development of PADD Ordinances* in the order in which the items appear on the City's standard checklist. Each item below corresponds to the same-numbered checklist item, addresses how The Aviary application satisfies that item, and references the corresponding exhibit and ordinance section where the City may locate additional detail.

1. Application and Site Plan.

A completed General Plan Submittal Application has been submitted with the required submittal packets and fee. The Site Plan is included as part of Exhibit "B" to the proposed Ordinance and shows the building footprints, parking layout, drives, landscaping, monument signage, and adjacencies. Reference: Ordinance Section 5.A.

2. Architectural Renderings of Proposed Development.

Color architectural renderings of the two proposed two-story retail shell buildings, including the courtyard, mature-tree retention, and Bingle Road frontage, are included in the Application package as part of Exhibit "B." The renderings reflect the materials palette, glazing pattern, and pedestrian-scaled design intent.

3. Number, Size, Height of Building(s).

A two-story shell building is proposed. One continuous roof and balcony connecting two separated floor plates, organized around a central courtyard. Proposed conditioned square footage to be a maximum of 29,000 SF. Reference: Ordinance Section 5.C.1. Maximum building height is forty-five (45) feet to top of parapet, with an average height of approximately forty-two (42) feet across the design. The forty-five (45) foot maximum exceeds the thirty-nine (39) foot limit of Section 06P:07.07.01 and is requested as a deviation under the City Council's waiver authority at Section 06P:07.07.05.

4. Setbacks.

Setbacks are property-line-specific and respond to each adjacency. Northern Property Line (Eastern Segment, adjacent to the church structure): 5 ft building setback with a 10 ft non-continuous wall and integrated landscaping. Northern Property Line (Western Segment, adjacent to church green space): 5 ft building setback with an 8 ft wood fence and 0 ft landscape setback. Western Property Line (adjacent to the future Dolphin Cove residential PADD): 50 ft building setback with an 8 ft wood fence and 5 ft landscape and parking setback. Southern Property Line (across Briar Branch): 25 ft

building setback with a 15 ft landscape and parking setback, natural vegetation to remain. Eastern Property Line (adjacent to the City parcel): 0 ft building and landscape setbacks. Eastern Secondary Property Line (between the City parcel and Bingle Road ROW): 25 ft building setback, 5 ft monument sign setback, and 5 ft landscape and parking setback. These configurations differ from those prescribed in Section 06P:07.03 and are requested as deviations under Section 06P:07.07.05. Reference: Ordinance Section 5.C.2.

5. Elevation Plans.

Building elevations for all exterior faces of the building, showing fenestration, materials, signage band locations, and parapet height, are included in the Application package as part of Exhibit "B." Sight-line studies from adjacent properties are included as supplemental sheets within the same exhibit.

6. Access for the Property, Traffic Impact Study.

Access to the Property is provided by two (2) curb cuts: (i) the existing access easement through the adjacent City parcel at West Memorial Park Drive, and (ii) a secondary curb cut along Bingle Road at the location of an existing median break. A Traffic Impact Study has been prepared and is included in the Application package; it demonstrates that the secondary curb cut distributes traffic, reduces queueing, and does not adversely affect Bingle Road traffic flow. Consistent with Section 06P:07.07.02, no Voss Road access is requested or authorized. Reference: Ordinance Section 5.D.2.

7. Parking Facilities and maintenance thereof; Parking Ratios.

Parking is provided as surface parking on the Property and within the adjacent City parcel under a separately negotiated license, with a fifty-percent (50%) reduction from minimum requirements as authorized by Section 06P:07.07.03. Shared parking is calculated using the City of Houston's shared-parking percentage distribution as referenced in Section 06P:07.07.03, supplemented as appropriate by the Urban Land Institute's Shared Parking, Third Edition. Overnight parking is prohibited except for tenant delivery vehicles in designated spaces. No off-site, on-site, or structured parking other than as shown on the Site Plan is contemplated. Parking-area maintenance is addressed under Ordinance Section 5.K. Reference: Ordinance Section 5.D.1.

8. Adjacent Property Impacts — Sight Lines, Landscape Screening, Noise & Light Spillover.

The Property's adjacencies have been individually addressed in the buffer-zone design under Section 5.C.2 of the Ordinance. Sight-line drawings from the future Dolphin Cove residential PADD to the west and from the church property to the north are included in the Application package. Landscape screening includes generous setbacks against residential adjacencies, a continuous evergreen hedge along the Bingle Road frontage to screen head-in parking, and natural-vegetation retention along Briar Branch to the south. Noise compliance is addressed under Section 5.L of the Ordinance. Outdoor lighting is subject to the foot-candle limits set forth in Section 5.I.3, including a reduced four (4) foot-candle limit on the western side of the Property facing the future residential PADD, with after-hours reduction to two (2) foot-candles.

9. Uses — Permitted, by SUP, by Floor, and Restriction of Outdoor Uses.

Permitted uses are set forth in Exhibit "C" to the Ordinance. Non-medical permitted uses (dance studios, fitness/yoga/Pilates/cycle studios, child care, amusement arcades, indoor putting and golf simulators, cocktail lounges, full-service restaurants) are limited to the first or second floor. Health-care uses within NAICS Sector 62 are permitted on the ground floor and any upper floor; this is a deviation from Section 06P:07.08.01.02 requested under Section 06P:07.07.05. The categorical prohibitions of Section 06P:07.08.03.02 — including drive-up/drive-thru service, outdoor commercial recreational facilities, distribution, warehousing, industrial uses, and outdoor display, storage, or sales of vehicles, rental equipment, or vehicle fleets — are expressly retained. The single proposed deviation from those prohibitions, for a future enclosed outdoor patio of up to 2,000 square feet contingent on a separate City license, is addressed under Ordinance Section 5.G. Reference: Ordinance Sections 5.B, 5.G.

10. Hours of Operation, Construction Activity, & Site Maintenance.

General operating hours are 6:00 a.m. to 11:00 p.m. Sunday through Thursday and 6:00 a.m. to midnight Friday and Saturday for restaurants and cocktail lounges, with the future enclosed outdoor patio closing no later than 11:00 p.m. Sunday through Thursday and midnight Friday and Saturday. Construction activity is permitted from 7:00 a.m. to 7:00 p.m. Monday through Friday and from 9:00 a.m. to 6:00 p.m. Saturday and Sunday, with emergency maintenance excepted. Site maintenance hours follow the construction-activity window. Reference: Ordinance Sections 5.D.4, 5.D.5, 5.G.5, and 5.K.

11. Dumpster Location(s) and Hours of Trash Collection.

Dumpster locations are shown on the Site Plan, enclosed and located in the service area of each building. Refuse pickup is permitted from 7:00 a.m. to 7:00 p.m. on weekdays and from 9:00 a.m. to 6:00 p.m. on weekends. Reference: Ordinance Section 5.K.1–2.

12. Landscaping Plans, Plant Lists, Irrigation Plans and Maintenance Thereof.

A Landscape Plan with plant list is included in the Application package as part of Exhibit "B." The site shall be fully irrigated in compliance with all codes and restrictions. Landscaping meets or exceeds the requirements of Chapter 16 of the City's Code of Ordinances. Existing mature oak and cypress specimens along the Bingle Road frontage are preserved to the maximum extent practicable and integrated into the final site design. A continuous evergreen hedge of sufficient height and density at maturity to screen vehicle headlights and bumpers from view from Bingle Road is provided along the Bingle Road head-in parking area, in a species and configuration to be approved by the City. Landscape maintenance is permitted from 7:00 a.m. to 7:00 p.m. weekdays and 9:00 a.m. to 6:00 p.m. weekends. Reference: Ordinance Section 5.I.1–2.

13. Logistics for Deliveries Including Location & Hours of Operation.

Deliveries are permitted from 7:00 a.m. to 7:00 p.m. Monday through Friday and from 9:00 a.m. to 6:00 p.m. Saturday and Sunday, with delivery routing through the service areas shown on the Site Plan. Reference: Ordinance Section 5.K.3.

14. Signage — Type(s), Location, Sizes.

Two (2) monument signs, one per entry, each not exceeding one hundred (100) square feet of face area (including base) and twelve (12) feet in height, are proposed at the locations shown on the Site Plan. Building wall signage, including illuminated tenant identification, is permitted in accordance with the City's sign regulations applicable to properties facing Interstate Highway 10. Reference: Ordinance Section 5.E.

15. Drainage System Design in Compliance with City's Drainage Criteria Manual.

Storm water drainage improvements have been designed in compliance with the City's Drainage Criteria Manual and all applicable City ordinances, and will be submitted for approval by the City's Floodplain Administrator. Drainage plans are included in the Application package. Reference: Ordinance Section 5.J.

16. Plans for Site Electrical & Other Utility Delivery Systems.

Proposed water, sanitary sewer, storm sewer, electrical, and gas utility connections are shown on the Utility Plan included in the Application package. Utility easements as required by the City and the relevant utility providers are reflected on the Utility Plan.

17. Site Lighting — Landscape, Signage, Accent, Exterior Building & Parking Lot.

A photometric plan is included in the Application package. Outdoor lighting averages no more than eight (8) foot-candles in the parking lot, with a reduced average of four (4) foot-candles in drive aisles on the western side of the Property facing the future Dolphin Cove residential PADD during business hours, and an after-hours average of two (2) foot-candles. All lighting is "white" metal halide or other color-corrected lighting; light poles do not exceed sixteen (16) feet in height; high-pressure sodium lighting is prohibited. Illuminated wall signage for tenant identification is permitted per Section 5.E.3. Reference: Ordinance Section 5.I.3.

identity
ARCHITECTURE

April 1, 2026

City of Spring Valley Village
Office of the City Administrator
1025 Campbell Road
Houston, TX 77055
713-465-8308

Warmest Greetings,

In regards to the Bingle West Planned Area Development District Pad Request for the Aviary 1045 Bingle Project, please see below for the tentative development schedule.

June 9, 2026 – Planning & Zoning Commission Approval

June 23, 2026 – City Council Approval

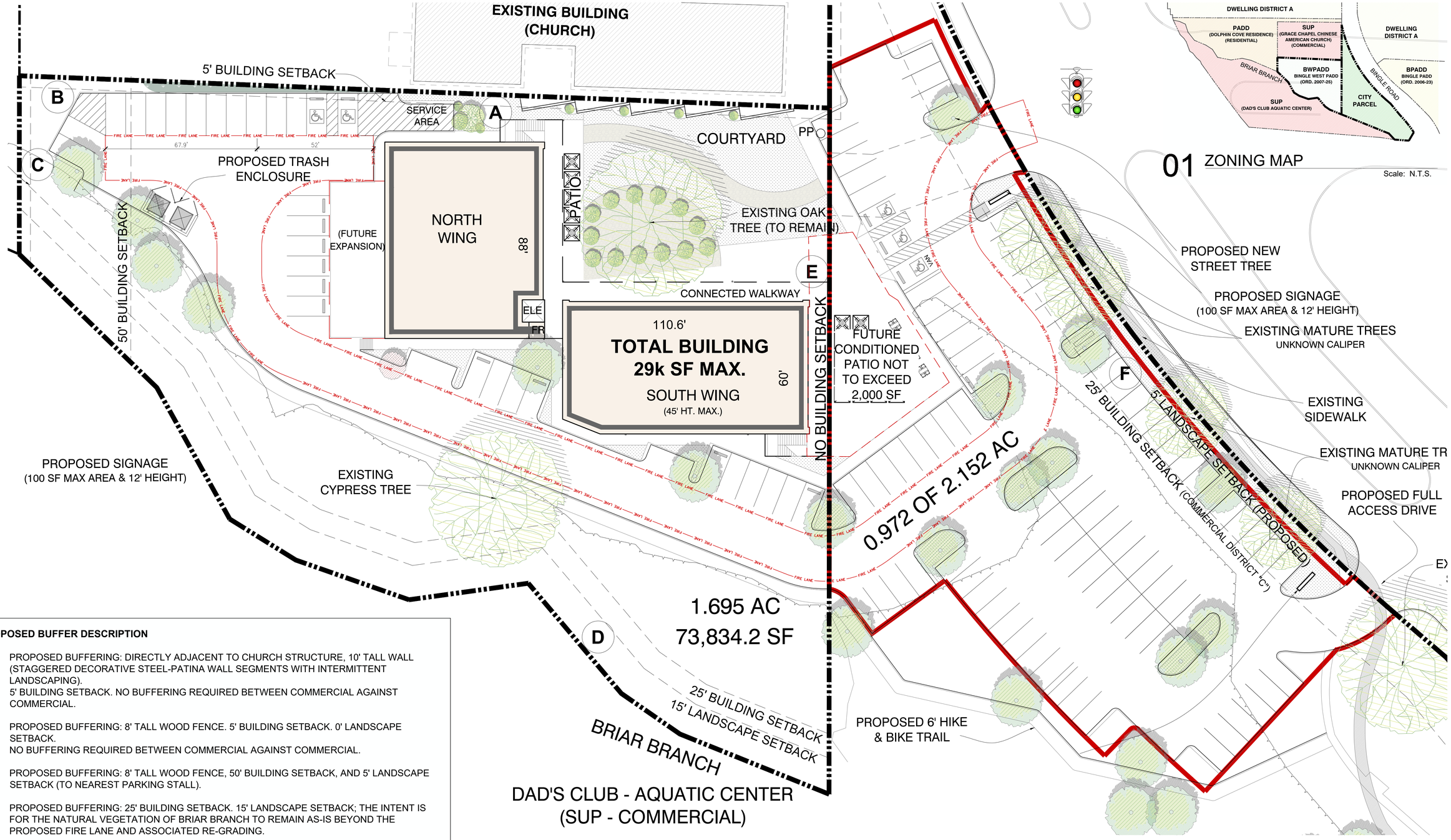
August 2026 – Building Permit Approval

September 2026 – Construction Begins

May 2027 – Construction Completed

September 2027- Tenant Improvements Completed

Thank you.



01 ZONING MAP

Scale: N.T.S.

PROPOSED BUFFER DESCRIPTION

A. PROPOSED BUFFERING: DIRECTLY ADJACENT TO CHURCH STRUCTURE, 10' TALL WALL (STAGGERED DECORATIVE STEEL-PATINA WALL SEGMENTS WITH INTERMITTENT LANDSCAPING).
5' BUILDING SETBACK. NO BUFFERING REQUIRED BETWEEN COMMERCIAL AGAINST COMMERCIAL.

B. PROPOSED BUFFERING: 8' TALL WOOD FENCE. 5' BUILDING SETBACK. 0' LANDSCAPE SETBACK.
NO BUFFERING REQUIRED BETWEEN COMMERCIAL AGAINST COMMERCIAL.

C. PROPOSED BUFFERING: 8' TALL WOOD FENCE, 50' BUILDING SETBACK, AND 5' LANDSCAPE SETBACK (TO NEAREST PARKING STALL).

D. PROPOSED BUFFERING: 25' BUILDING SETBACK. 15' LANDSCAPE SETBACK; THE INTENT IS FOR THE NATURAL VEGETATION OF BRIAR BRANCH TO REMAIN AS-IS BEYOND THE PROPOSED FIRE LANE AND ASSOCIATED RE-GRADING.

E. PROPOSED BUFFERING: 0' BUILDING SETBACK, 0' LANDSCAPE SETBACK.

F. EASTERN SECONDARY PROPERTY LINE. THIS IS THE PROPOSED LINE BETWEEN THE CURRENT CITY PARCEL AND THE BINGLE ROAD RIGHT-OF-WAY. THE BUILDING SETBACK LINE SHALL BE TWENTY-FIVE (25) FEET. THE MONUMENT SIGN SETBACK SHALL BE FIVE (5) FEET. THE LANDSCAPE AND PARKING SETBACK ALONG BINGLE ROAD SHALL BE FIVE (5) FEET.

PRELIMINARY SITE PLAN - PHASE I

May 19, 2026
(COMMERCIAL DEVELOPMENT)
BINGLE ROAD @ WEST MEMORIAL PARK DRIVE
SPRING VALLEY VILLAGE , TX
22099-03_Site.dwg

N

SCALE : 1" = 20'-0"

0 10' 20' 40'

N:\IDA\22099-00_NWQ Bingle I-10\22099-03_NWQ Bingle I-10 SD\200 SD\220 SITE PLANS\22099-03_Site.dwg plotted by Nakia Alomoja on 2026-05-19 at 7:01 PM

SITE PLAN LEGEND

RE: CIVIL DRAWINGS FOR CONTINUATION OF SITE RELATED SCOPE

RE: A031 AND A032 FOR SITE DETAILS

PROPERTY LINE

FIRE LINE, RE: D1/A031

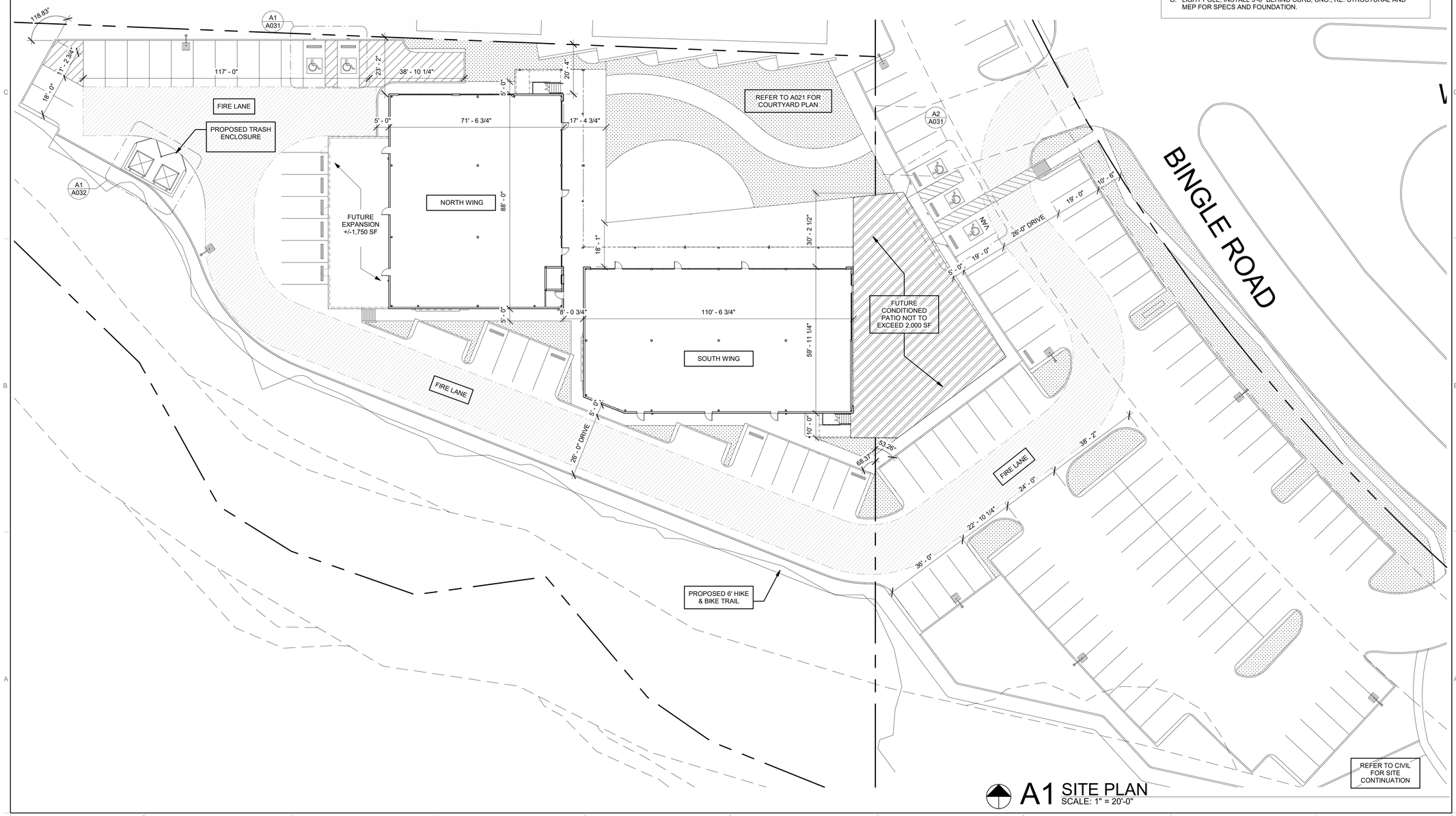
NOT IN SCOPE

LANDSCAPE AREA RE; LANDSCAPE DWGS

LIGHT POLE, RE: A5/A031

GENERAL NOTES

A. CONTRACTOR TO NOTIFY TENANT, A MINIMUM OF TWO (2) WEEKS PRIOR TO SLAB POUR FOR COORDINATION.
B. CONTRACTOR TO PROVIDE FOUNDATION VERIFY EXACT LOCATION; SPECIFICATIONS AND ANCHOR BOLT LAYOUTS WITH INTERIOR PACKAGE, SKIN VENDORS.
C. FIRE HYDRANT WITHIN 400' OF ALL PORTIONS OF THE BUILDING.
D. GENERAL CONTRACTOR SHALL DELIVER A LEVEL AND SMOOTH CONCRETE SLAB FREE OF LEVELING PRODUCTS WITH NOT MORE THAN ONE QUARTER (1/4") VARIATION IN TEN FEET (10'). ALL EXPANSION AND CONTROL JOINTS SHALL BE PROPERLY INSTALLED AND SHALL BE READY TO ACCEPT TENANT'S FLOOR FINISHES. FLOOR SLAB SHALL BE BROOM CLEAN, FREE OF TRASH AND DEBRIS.
E. REVIEW DOCUMENTS, VERIFY DIMENSIONS AND FIELD CONDITIONS, AND CONFIRM THAT WORK IS BUILDABLE AS SHOWN. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK IN QUESTION.
F. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM THE ARCHITECT.
G. PARTITIONS ARE DIMENSIONED FROM FINISH FACE TO FINISH FACE, U.N.O. MAINTAIN DIMENSIONS MARKED CLEAR. ALLOW FOR THE THICKNESS OF FINISHES AS REQUIRED.
H. ALL CONSTRUCTION TO COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES, REGULATIONS, AND CITY ORDINANCES.
I. REFER TO SHEET A601 FOR DOOR/FRAME/HARDWARE TYPES AND SCHEDULES.
J. ALL NEW DOORS TO HAVE TAS COMPLIANT LEVER HARDWARE SETS, U.N.O. REFER TO A601 FOR DOOR/HARDWARE SCHEDULES.
K. CAULK AT JUNCTURE OF INTERIOR FACES OF DOOR FRAMES, VIEW WINDOW FRAMES, EXT. WINDOW FRAMES, CABINET WORK, AND CASEWORK W/ADJACENT MATERIALS EVEN THOUGH JOINT MAY NOT BE VISIBLE.
L. GC TO PROVIDE HM DOORS AND FRAMES, AS NEEDED, ON REAR OF BUILDING; VERIFY WITH OWNER FOR DOOR LOCATIONS PRIOR TO INSTALL.
M. CONCRETE SIDEWALKS, PROVIDE CONTROL JOINTS @ 5'-0" O.C. MAX. AND EXPANSION JOINTS @ 25'-O" O.C. MAX UNLESS INDICATED OTHERWISE ON THE SIDEWALK PLAN.
N. TYPICAL 6" CONCRETE CURB, TYPICAL 18" CONCRETE CURB & LANDING @ ADJACENT LANDSCAPE AREA, RE: CIVIL DRAWINGS.
O. LIGHT POLE, INSTALL 3'-0" BEHIND CURB, UNO., RE: STRUCTURAL AND MEP FOR SPECS AND FOUNDATION.



A1 SITE PLAN
SCALE: 1" = 20'-0"

CERTIFICATION AND SEAL

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF TEXAS AS SIGNIFIED BY MY HAND AND SEAL.

JAMES BRYAN CATER
TEXAS REG: 25719
EXP: 08/31/2026

02/25/2026

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bhanrahan@aljlindsey.com

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O:713-491-8333
SJBriscoe@GarverUSA.com
FIRM # :5713

MEP:
SPECTRUM DESIGN ENGINEERS
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SUGAR LAND, TX 77479
ATTN:STEVEN FREDERICKS
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M:832-766-6076
sfredericks@spectrumde.com

LANDSCAPE:
CMB LANDSCAPE ARCHITECTURE
18135 FM 362
NAVASOTA, TX 77868
ATTN:CHARLES BRIDGES
O:832-428-1209
cbridges@cmblandarch.com

NO.	DATE	REVISION ISSUE
3	02/25/26	ISSUE FOR PERMIT

PROJECT NAME AND ADDRESS:

THE AVIARY

1045 BINGLE RD. HOUSTON, TX 77055

DRAWN: **CQ** CHECKED: **TW**

REFERENCE NUMBER: **22099-07**

TITLE:

SITE PLAN

DRAWING NUMBER:

A001_Opt2

5/19/2026 5:59:00 PM
C:\Users\nalomaja\Documents\22099-07_BINGLE_R24_nalomajaXRSDM.rvt

SHARED PARKING ANALYSIS

Class	Use	Parking Required	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend
II B	MERCANTILE		Midnight to 7AM	7AM to 5PM	5PM to 9PM	9PM to Midnight	Midnight to 7AM	7AM to 5PM	5PM to 9PM	9PM to Midnight
1	Office	20	1	20	6	1	0	2	0	0
	Financial Facility	0	0	0	0	0	0	0	0	0
2	Apartment	0	0	0	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0	0	0	0
3	Clinic (Medical Complex)	0	0	0	0	0	0	0	0	0
	Clinic (Medical or Dental)	0	0	0	0	0	0	0	0	0
	Veterinary Clinic	0	0	0	0	0	0	0	0	0
4	Industrial/Warehouse/ Manufacturing	0	0	0	0	0	0	0	0	0
5	Church	0	0	0	0	0	0	0	0	0
	Day Care	0	0	0	0	0	0	0	0	0
	School	0	0	0	0	0	0	0	0	0
	Library	0	0	0	0	0	0	0	0	0
	Art Gallery	0	0	0	0	0	0	0	0	0
6	Movie Theater	0	0	0	0	0	0	0	0	0
	Bowling Alley	0	0	0	0	0	0	0	0	0
	Gym/Health Spa	16	8	4	16	1.6	1.6	8	1.6	0.8
7	Dessert Shop	0	0	0	0	0	0	0	0	0
	Small Restaurant	0	0	0	0	0	0	0	0	0
	Neighborhood Restaurant	0	0	0	0	0	0	0	0	0
	Restaurant	65	6.5	32.5	48.75	26	9.75	48.75	65	32.5
	Tavern	0	0	0	0	0	0	0	0	0
	Small Bar	0	0	0	0	0	0	0	0	0
	Bar, club or lounge	0	0	0	0	0	0	0	0	0
8	Retail (excluding shopping center)	39	1.95	19.5	29.25	3.9	1.95	39	29.25	3.9
9	Auto Parts and Supply Store	0	0	0	0	0	0	0	0	0
	All Others	0	0	0	0	0	0	0	0	0
	Total	140	17.45	76	100	32.5	13.3	97.75	95.85	37.2
		100								
	Put 1 if this qualifies as a historic building		0	0						
		Total Reduction		0						
PARKING SPACES REQUIRED:		**100**								

PARKING ANALYSIS

TOTAL BUILDING AREA: **27,199** SQ. FT.

SOUTH WING:			**PS REQ'D**
LEVEL 1:	6,469 SF	RESTAURANT (@10 PS/1K)	65
LEVEL 2:	6,469 SF	RETAIL (@4 PS/1K)	26
NORTH WING:			
LEVEL1:	8,009 SF	MEDICAL OFFICE (@2.5 PS/1K)	20
LEVEL 2:	3,126 & 3,126	RETAIL & FITNESS (@4 PS/1K & 5 PS/1K)	29
TOTAL PARKING:			**140 SPACES**

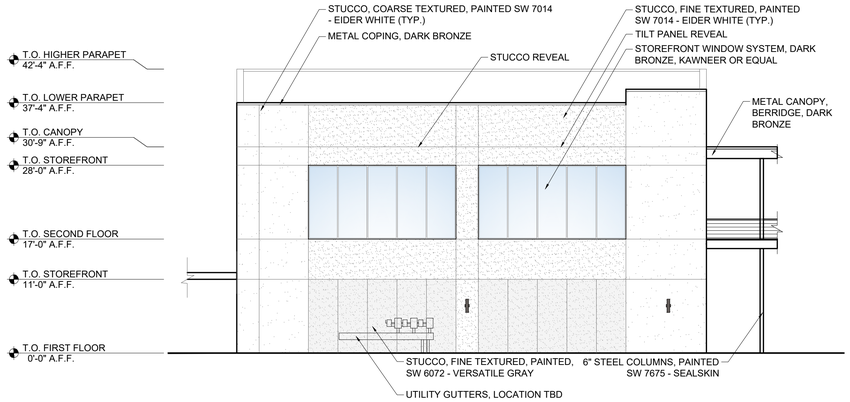
SHARED PARKING REDUCTION ANALYSIS (CoH) **100 SPACES**

TOTAL PARKING PROVIDED: 119 SPACES

ACCESSIBLE PARKING REQUIRED BY CODE = **5** SPACES
ACCESSIBLE PARKING PROVIDED = **5** SPACES (**1** VAN)

22099-04

identity ARCHITECTURE



03 SOUTH ELEVATION (FACING I-10)

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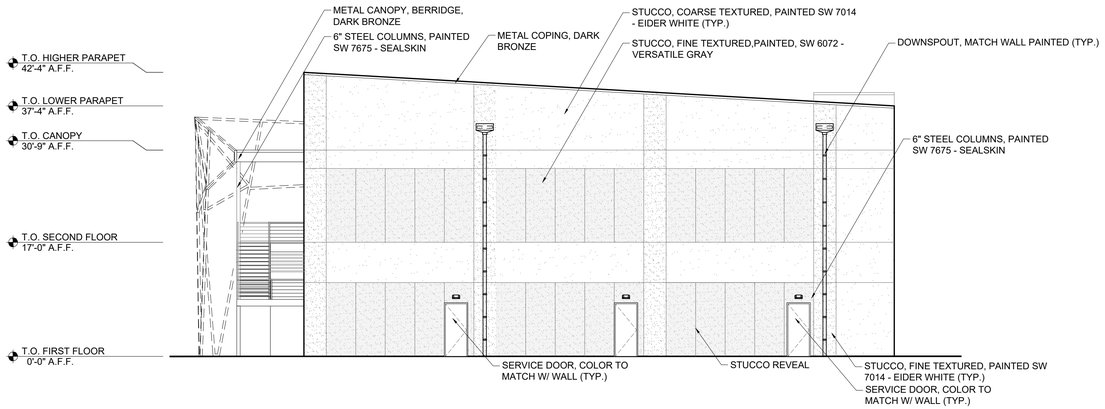

02 WEST ELEVATION

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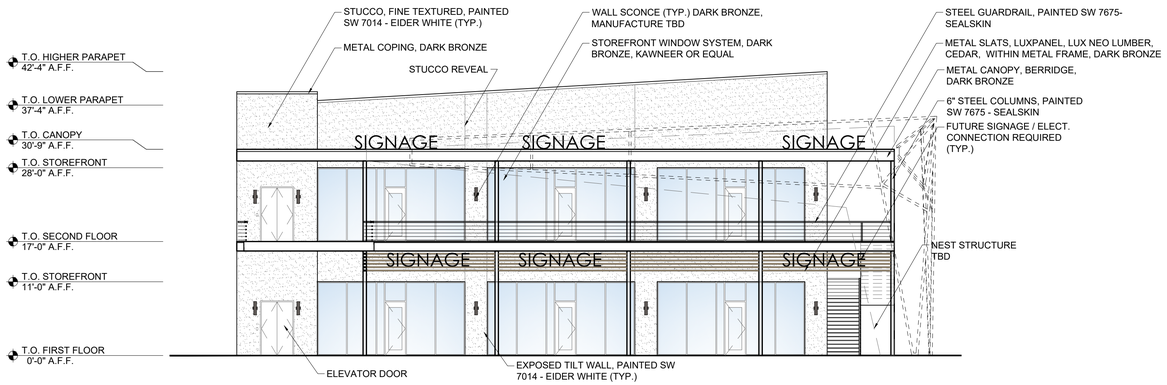

01 EAST ELEVATION (FACING COURTYARD)

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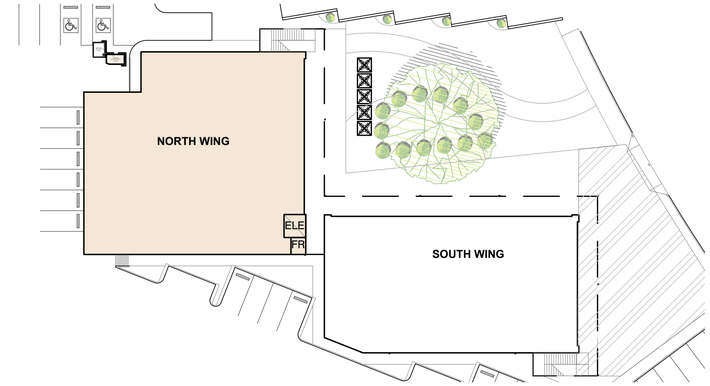
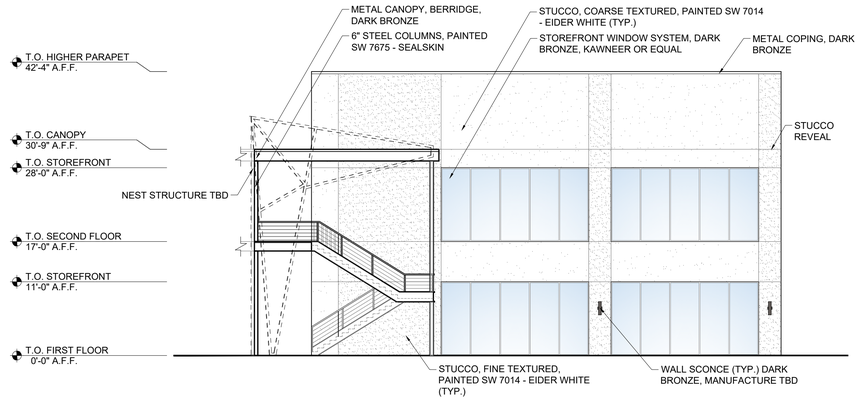


05 KEY PLAN

Scale: NTS



04 NORTH ELEVATION (FACING CHURCH)

Scale: 3/32" = 1'-0"

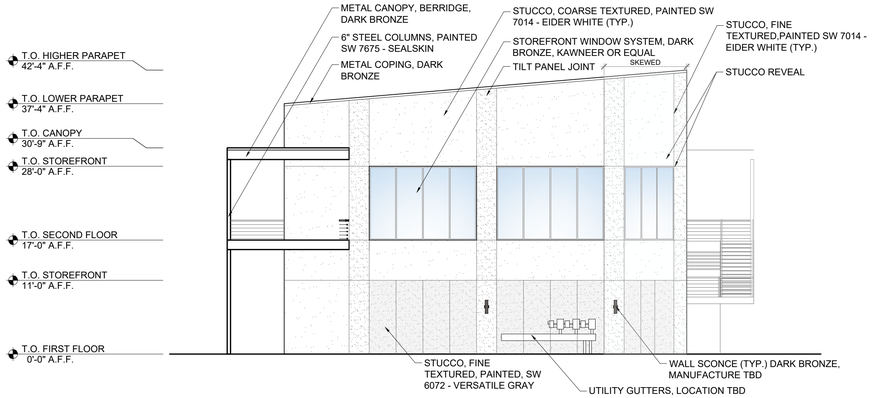
PRELIMINARY ELEVATIONS (NORTH WING)

May 19, 2026
THE AVIARY
1045 BINGLE RD.
HOUSTON, TX 77055
22099-03_ELEV.dwg 6:58 PM

Scale: 3/32" = 1'-0"

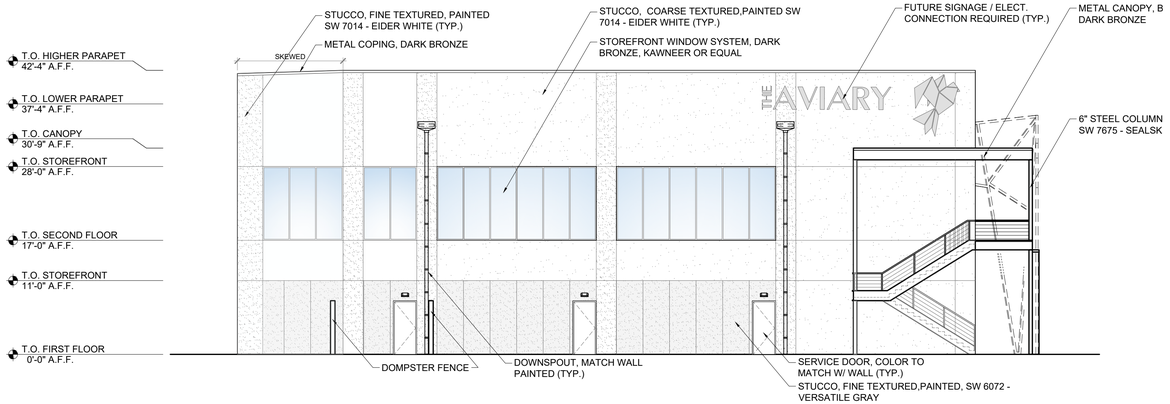
0 5' 10' 20'

N:\DA\22099-00_NWQ Bingle I-10\22099-03_NWQ Bingle I-10 SD\200 SD\250 ELEVATIONS\22099-03_ELEV.dwg plotted by Nakia Alomaja on 2026-05-19 at 6:58 PM



03 WEST ELEVATION

Scale: 3/32" = 1'-0"



02 SOUTH ELEVATION (FACING I-10)

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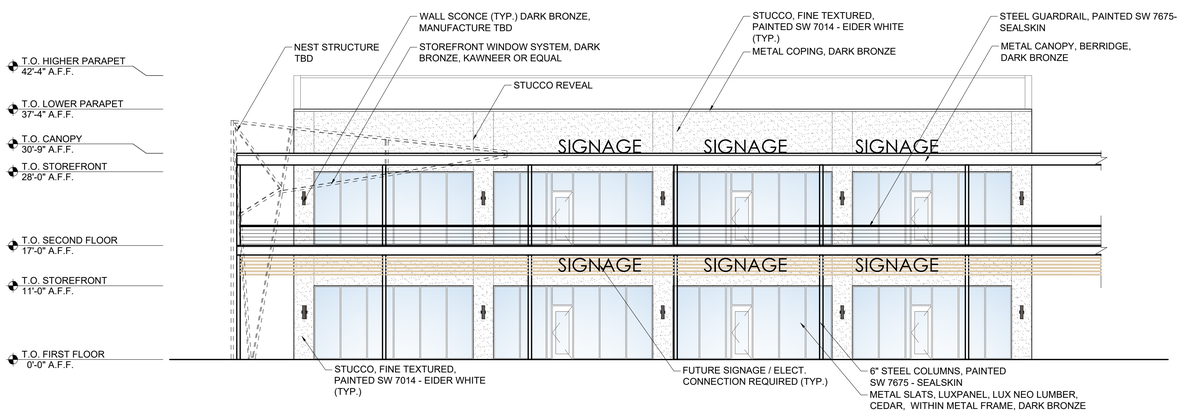
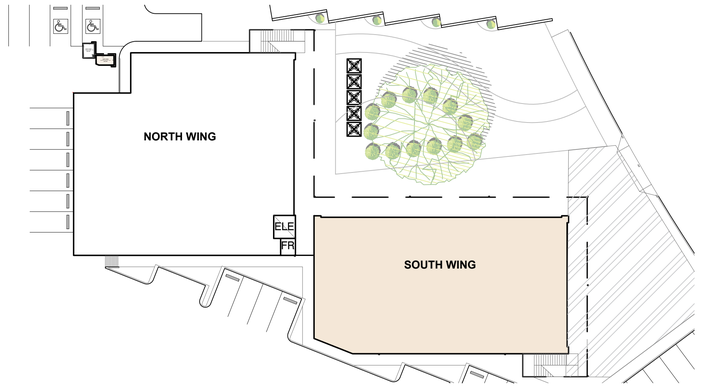


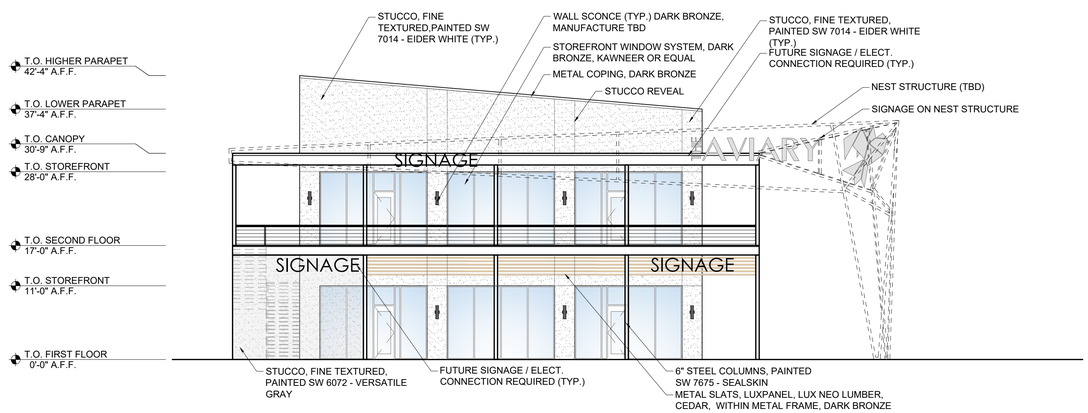
01 NORTH ELEVATION (FACING COURTYARD)

Scale: 3/32" = 1'-0"



05 KEY PLAN

Scale: NTS



04 EAST ELEVATION (FACING BINGLE RD)

Scale: 3/32" = 1'-0"

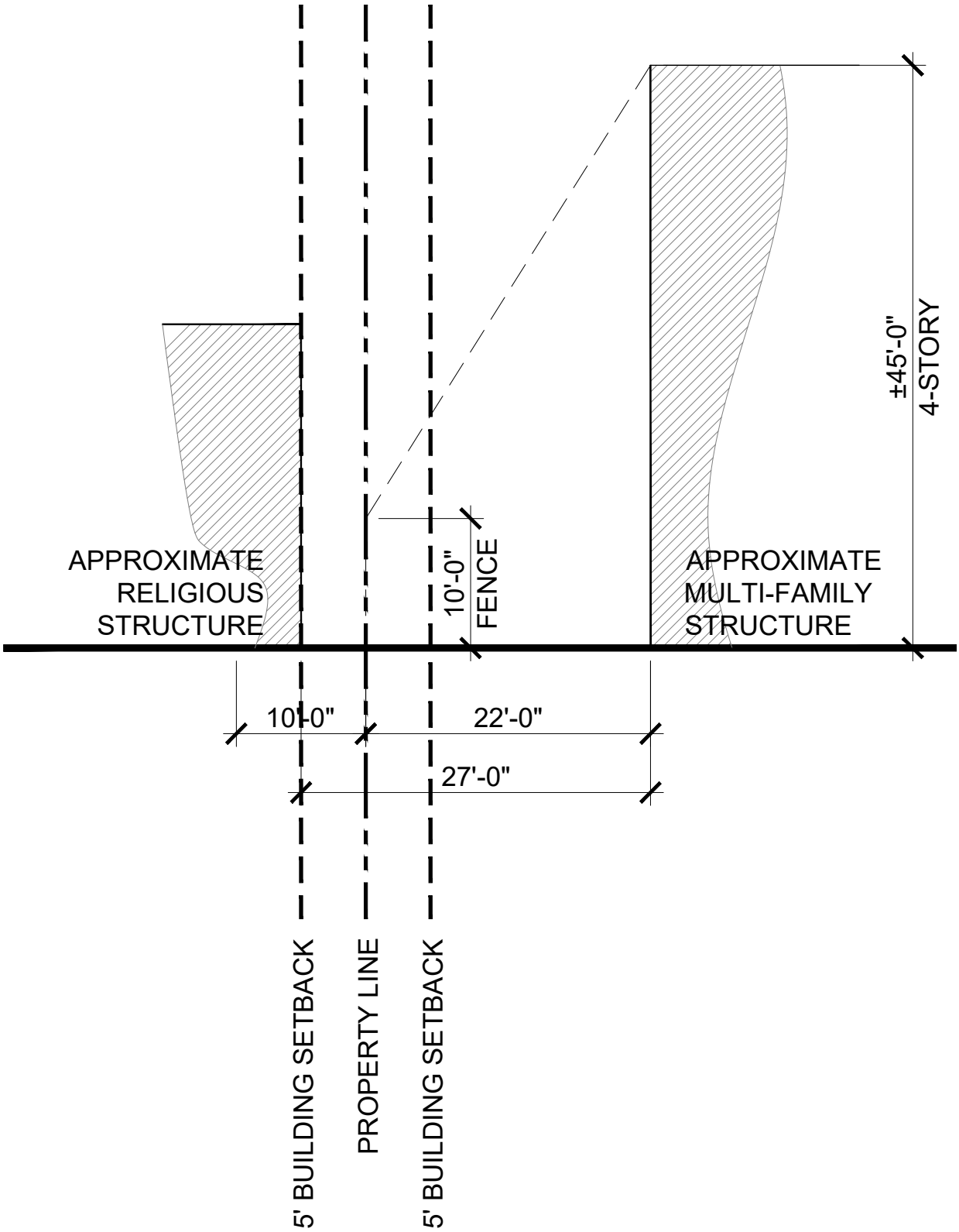
PRELIMINARY ELEVATIONS (SOUTH WING)

May 19, 2026
THE AVIARY
1045 BINGLE RD.
HOUSTON, TX 77055
22099-03_ELEV.dwg 6:54 PM

Scale: 3/32" = 1'-0"

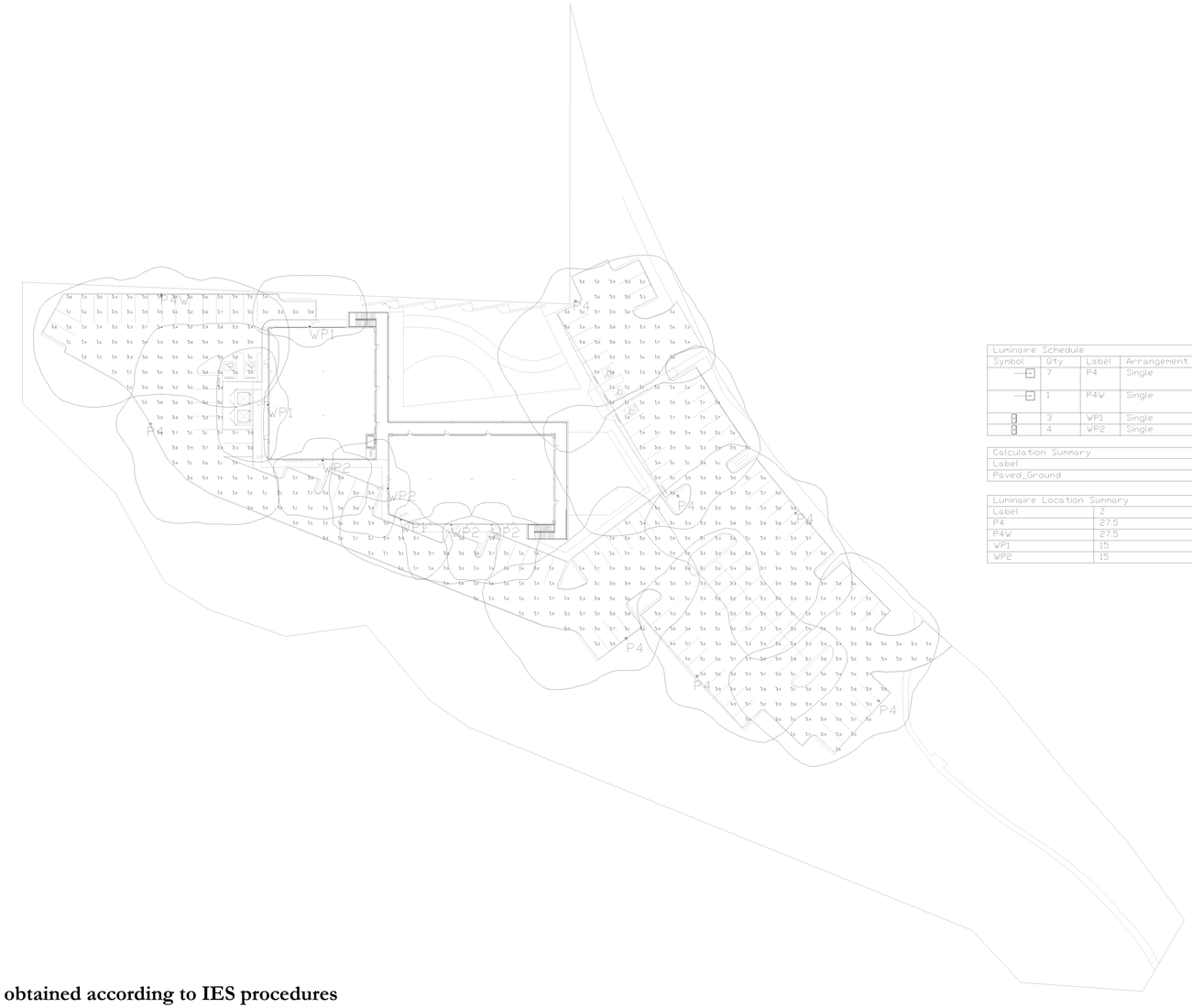
0 5' 10' 20'

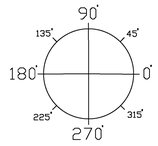
N:\DA\22099-00_NWQ Bingle I-10\22099-03_NWQ Bingle I-10 SD\200 SD\250 ELEVATIONS\22099-03_ELEV.dwg plotted by Nakia Alomaja on 2026-05-19 at 6:54 PM



A HEIGHT DIAGRAM - TYPICAL CONDITION

Scale: 1/8" = 1'-0"





Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	Description
	7	P4	Single	24043	0.950	McGraw Edison GALN-SB4C-740-U-T4FT-HSS
	1	P4W	Single	24460	0.950	McGraw Edison GALN-SB4C-740-U-T4W-HSS
	3	WP1	Single	4942	0.950	McGraw Edison GWC-SAIA-740-U-T4W
	4	WP2	Single	5008	0.950	McGraw Edison GWC-SAIA-740-U-T4FT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Paved_Ground	Illuminance	Fc	2.6	5.8	0.8	3.19	7.25

Luminaire Location Summary	
Label	Z
P4	27.5
P4W	27.5
WP1	15
WP2	15

Peterson, Scharck & Assoc. / David Wagner / 03/12/2026

Luminaire data is obtained according to IES procedures under laboratory conditions. field results may differ from computer model due to many factors, including: ambient temperature, line voltage variations, lamp performnace, installation, reflectances,and other site specific conditions.

DRAWINGS FOR REVIEW ONLY
DO NOT USE AS CONSTRUCTION DOCUMENTS

PETERSON, SCHARCK & ASSOCIATES
LIGHTING & CONTROLS
10855 Tanner Rd. Houston, TX 77041
applications@psalighting.com

PROJECT NAME: The Aviary

CLIENT: XXX

REVISIONS		
#	DATE	DESCRIPTION

DRAWN BY: RL

SCALE: 1 = 1
DATE: 03/12/2026
PLAN # XXX
SHEET # XXX

PHOTOMETRICS ARE FOR REFERENCE ONLY AND ARE PROVIDED BY LIGHTING REP.

STATE OF TEXAS
STEVEN A. FREDERICKS
108587
REGISTERED PROFESSIONAL ENGINEER
02/25/2026

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MECHANICAL•ELECTRICAL•PLUMBING
19 Sierra Oaks Drive Sugar Land, Texas 77479
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Texas Reg. No.: F-20152 SDE Project No.: 125186.00
www.spectrumdesignengineers.com

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LANDSCAPE:
CMB LANDSCAPE ARCHITECTURE
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ATTN:CHARLES BRIDGES
O:832-426-1209
cbridges@cmblandarch.com

NO.	DATE	REVISION ISSUE
	02.25.26	ISSUE FOR PERMIT

PROJECT NAME AND ADDRESS:

THE AVIARY

1045 BINGLE RD.

DRAWN: **MS** CHECKED: **SF**

REFERENCE NUMBER: **22099-07**

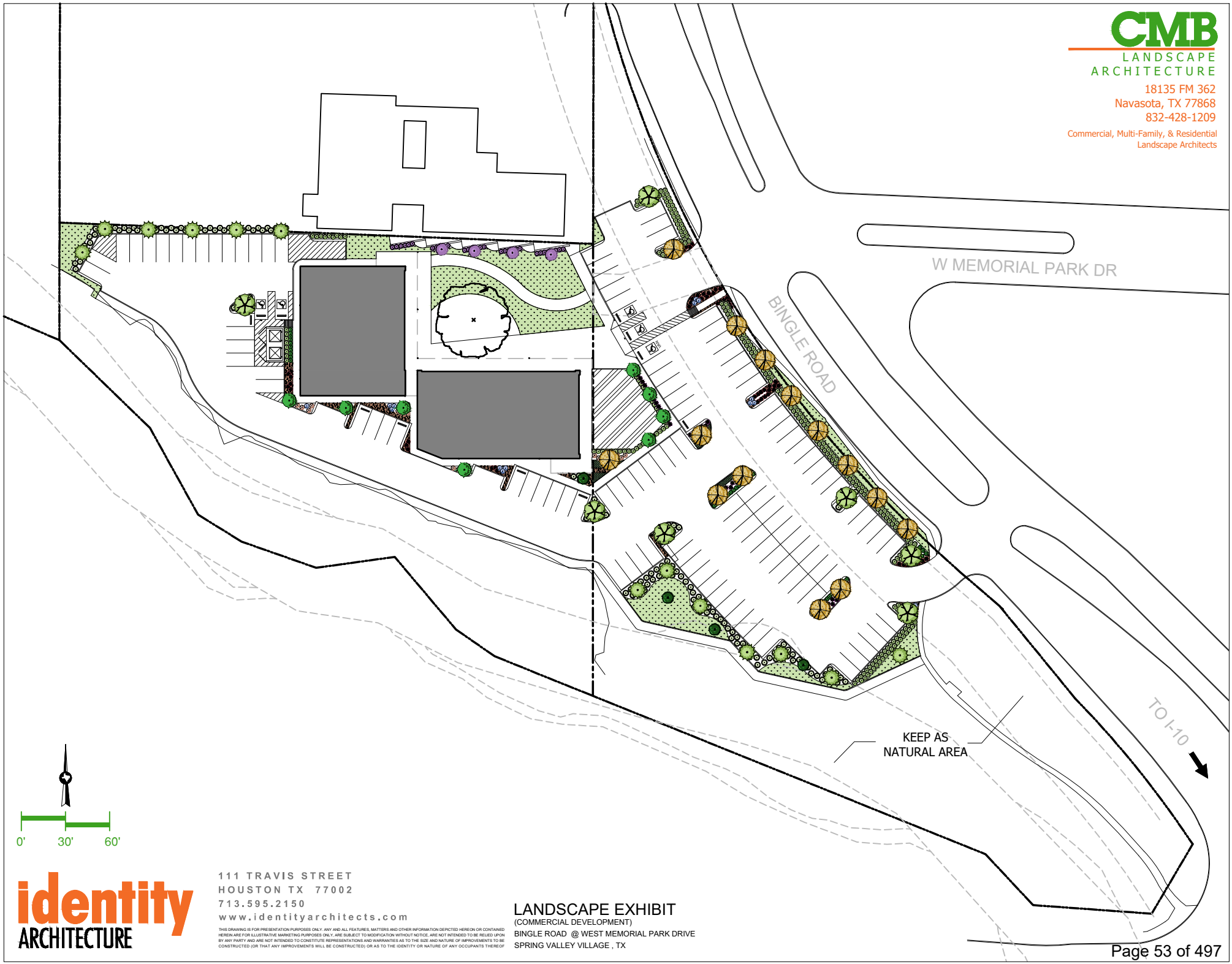
TITLE:

SITE PHOTOMETRICS

DRAWING NUMBER:

E1.00

3/16/2026 10:17:41 AM
C:\Users\Michael Saldana\Documents\125186 IDA NWQ Bingle I-10 Retail MEP Model R24 C_msaldanaKZ3LJ.rvt



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ARCHITECTURE
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Commercial, Multi-Family, & Residential
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LANDSCAPE EXHIBIT

(COMMERCIAL DEVELOPMENT)
BINGLE ROAD @ WEST MEMORIAL PARK DRIVE
SPRING VALLEY VILLAGE , TX

CMB
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ARCHITECTURE
18135 FM 362
Navasota, TX 77868
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Commercial, Multi-Family, & Residential
Landscape Architects

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES					
	4	Chilopsis linearis	Desert Willow 'Bubba'	8` Ht.	2" cal. Container Grown; Texas Native
	4	Ilex vomitoria 'Pride of Houston'	Pride of Houston Yaupon Holly	8` Ht.	45gal, 2.5" Total cal. :Multi-trunk; TREE FORM; Texas Native
	8	Ilex x attenuata 'Eagleston'	Eagleston Holly	8` Ht.	45gal, 2" cal.; TREE FORM; Texas Native Hybrid
	13	Pinus taeda	Loblolly Pine	65 gal.	2" cal. DBH. 12'ht, 6'sprd specimen quality; StraightTrunk, Symmetrical Head Texas Native
	7	Quercus virginiana	Live Oak	65 gal.	2" cal. DBH. 12'ht, 6'sprd specimen quality; StraightTrunk, Symmetrical Head Texas Native
	14	Taxodium mucronatum	Montezuma Cypress	65 gal.	2" cal. DBH. 12'ht, 6'sprd specimen quality; StraightTrunk, Symmetrical Head Texas Native
SHRUBS					
	59	Hesperaloe parviflora	Red Yucca	3 gal.	Texas Native
	51	Ilex vomitoria 'Nana'	Dwarf Yaupon Holly	3 gal.	Texas Native
	31	Leucophyllum frutescens 'Green Cloud'	Green Cloud Texas Sage	3 gal.	Texas Native
	30	Malvaviscus drummondii	Turk's Cap	3 gal.	Texas Native
	53	Moraea iridioides	Butterfly Iris	3 gal.	
	156	Muhlenbergia capillaris 'Gulf Coast'	Gulf Muhly Grass	3 gal.	Texas Native
	310	Myrica cerifera	Wax Myrtle	3 gal.	Texas Native
	16	Yucca recurvifolia	Soft Leaf Yucca	3 gal.	Texas Native
GROUND COVERS					
	8,122 sf	Cynodon dactylon 'Tif 419'	Tif 419 Bermudagrass	SOD	
	100	Trachelospermum asiaticum	Asian Jasmine	1 gal.	

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Desert Willow 'Bubba'
Chilopsis linearis

Eagleston Holly
Ilex x attenuata 'Eagleston'

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Live Oak
Quercus virginiana

Loblolly Pine
Pinus taeda

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Ilex vomitoria 'Pride of Houston'
Pride of Houston Yaupon Holly

Montezuma Cypress
Taxodium mucronatum

TOPOGRAPHIC SURVEY
C0.2

DOLPHIN'S COVE
(R.O.W. WIDTH VARIES)
FND. 5/8" I. ROD
FND. 5/8" I. ROD W/ ALUMINUM CAP
FND. 5/8" I. ROD W/ COBB FENDLEY CAP
① DOLPHIN'S COVE SUBDIVISION FINAL PLAT
F.C. NO. 695410 H.C.M.R.
LOT 3
LOT 9
LOT 10
LOT 11
② CARMEL
F.C. NO. 443026 H.C.M.R.
LOT 12
LOT 13
LOT 18
LOT 7
LOT 8
LOT 9
LOT 6
LOT 5
LOT 4
EXISTING R.O.W.
FND. 1/2" I. ROD W/ PRECISION CAP BRS. S40°05'E, 0.44'
WOODSBOROUGH CIRCLE
(28' R.O.W.)
VOL. 326, PG. 16 H.C.M.R
FND. 1/2" I. ROD
PUMP STATION ESMT. VOL. 326, PG.16 H.C.M.R.
W. MEMORIAL PARK DRIVE
(R.O.W. WIDTH VARIES)
CALLED 1.85 ACRE
GRACE CHAPEL, CHINESE-AMERICAN NEW TESTAMENT MISSIONARY
H.C.C.F. NO. V568780
CALLED 1.658 ACRES
WALLACE AND MARIE DILLARD FAMILY LIMITED PARTNERSHIP, LTD.
H.C.C.F. NO. RP-2022-152249
CALLED 2.0 ACRES
CITY OF SPRING VALLEY, TEXAS
H.C.C.F. NO. L945365
REMAINDER OF CALLED 1.297 ACRES
CITY OF SPRING VALLEY, TEXAS
H.C.C.F. NO. L945366
BINGLE ROAD
(R.O.W. WIDTH VARIES)
FND. 5/8" I. ROD W/ PRE-JEAN CAP
FND. 5/8" I. ROD BRS. S58°17'E, 1.50'
FND. 1/2" I. PIPE BRS. N35°42'E, 1.64'
FND. 5/8" I. ROD
FND. 5/8" I. ROD W/ ALUMINUM CAP
FND. 5/8" I. ROD W/ ALUMINUM CAP
FND. 5/8" I. ROD
FND. 5/8" I. ROD
FND. 5/8" I. ROD

DOLPHIN'S COVE
(R.O.W. VARIES)

1
DOLPHIN'S COVE
SUBDIVISION
FINAL PLAT
F.C. NO. 695410 H.C.M.R.

LOT 3

EX TYPE "A" INLET
TG 68.13(±)
EX 24" ST 63.21(±)(N)
EX 24" FL 63.16(±)(S)

EX 24" STM

EX FIRE HYDRANT

EX TYPE "C" INLET
RIM 67.89(±)
TH 67.20(±)
EX 24" FL 63.39(±)(E)

EX STM MH
RIM 67.89(±)
EX 24" FL 63.06(±)(E)
EX 72" FL 53.53(±)(S)
EX 72" FL 53.41(±)(N)

LOT 7

LOT 8

LOT 9

EX TYPE "A" INLET
TG 67.71(±)
EX 24" ST 62.87(±)(N)
EX 24" FL 59.08(±)(E)

EX SSWR MH
RIM 67.01(±)
EX 8" FL 61.84(±)(W)
EX 12" FL 61.74(±)(S)
EX 12" FL 61.67(±)(N)

WOODSBOROUGH CIRCLE
(CONCRETE)
(28' R.O.W.)

EX STM MH
RIM 67.73(±)
EX 24" FL 58.65(±)(W)
EX 72" FL 53.28(±)(N)
EX 72" FL 53.23(±)(S)

EX 72" STM

EX 24" STM

LOT 6

LOT 5

LOT 4

EX TELEPHONE MH

PUMP STATION FSMT
VOL. 326, PG.16 H.C.M.R.

CALL 1.85 AC.
GRACE CHAPEL CHINESE-AMERICAN NEW TESTAMENT
H.C.C.F. NO. V568780

EX BLDG
10,000+ SQ FT

STA. 1+64.27 LINE A
STA. 0+00.00 LINE B
PROP SSWR MH
RIM = 66.50
PROP 6" FL 60.53 (N)
PROP 6" FL 61.50 (S)
PROP 8" FL 60.53 (E)

PROP 8" SSWR @ 0.50%
IN AUGERED HOLE

STA. 0+00.00. LINE A
PROP CONN. TO EX SSWR
LIFT STATION
EX RIM = 66.75
PROP 8" FL 59.70
EX 12" FL XX.XX

W MEMORIAL PARK DR.
(CONCRETE)
(R.O.W. VARIES)

INSTALL:
2 – 8" 45° BENDS

PROP 6" SSWR

FIRE

SS

PROP 6" SSWR

INSTALL:
1 – STANDARD
FH ASSEMBLY
W/ GATE VALVE

PROP 6"
FIRE LINE

STA. 3+85.69 LINE A
PROP 6" SSWR CONN
PROP. 6" FL 62.75
(REF MEP PLANS
FOR CONTINUATION)

PROP 8"
FIRE LOOP

INSTALL:
1 – 8" X 6" TEE

PROP BLDG
6,254 SQ FT
FF = 67.75

INSTALL:
1 – 8" 250' RADIUS

PROP 8"
FIRE LOOP

CALL 1.658 AC.
WALLACE AND MARIE DILLARD
FAMILY LIMITED PARTNERSHIP, LTD.
H.C.C.F. NO. RP-2022-152249

PROP 6" FIRE LINE
CONN (REF MEP PLANS
FOR CONTINUATION)

PROP BLDG. TO BE SERVED
BY FIRE CONNECTION FROM
ADJACENT BLDG. (REF MEP
PLANS FOR CONNECTION)

PROP BLDG
6,469 SQ FT
FF = 67.75

STA. 1+24.97 LINE A
PROP 6" SSWR CONN
PROP. 6" FL 62.75
(REF MEP PLANS
FOR CONTINUATION)

PROP 2" DOM WL CONN
(REF MEP PLANS FOR
CONTINUATION)

PROP 2" DOM WL CONN
(REF MEP PLANS FOR
CONTINUATION)

INSTALL:
1 – 8" 45° BEND
1 – 8" 22.5° BEND

INSTALL:
1 – 8" X 6" WYE

INSTALL:
1 – 8" 1300°
RADIAL BEND

INSTALL:
1 – 8" 45° BEND
1 – 2" 45° BEND

PROP 8"
FIRE LOOP

PROP 2"
DOM WL

WL

FIRE

SS

PROP 6" SSWR

PROP 8"
FIRE LOOP

PROP 2"
DOM WL

WL

INSTALL:
2 – 8" 45° BENDS
2 – 2" 45° BENDS

PROP 8"
FIRE LOOP

PROP 2"
DOM WL

INSTALL:
1 – 8" X 8" TS&V
1 – 8" X 1" TEE
2 – 8" 45° BENDS
1 – 8" F.R.C.M.A.
1 – 8" X 2" TEE
1 – 8" RPZ BFP
1 – 2" 90° BEND
1 – 2" RPZ BFP
1 – 1" IRR METER
1 – 1" 90° BEND
1 – 1" RPZ BFP W/
CAGE, PLUG, CLAMP
& MARK

BINGLE RD
(CONCRETE)
(R.O.W. VARIES)

EX STM MH
RIM 67.82(±)
EX 72" FL 53.16(±)(N)
EX 72" FL 53.13(±)(SE)

CALLED 2.0 ACRES
CITY OF SPRING VALLEY, TEXAS
H.C.C.F. NO. L945365

EX TYPE "C" INLET
RIM 66.06(±)
TH 65.44(±)
EX 24" FL 60.68(±)(SW)

EX STM MH
RIM 67.30(±)
EX 24" FL 60.12(±)(NE)
EX 72" FL 53.18(±)(NW)
EX 72" FL 53.11(±)(SE)

EX TELEPHONE MH

EX WL (NPW)

PROP 25' X
15' W.M.E.

INSTALL:
1 – 8" X 8" TEE

EX TYPE "A" INLET
TG 65.97(±)
EX 24" ST 63.36(±)(NE)

EX TYPE "D" INLET
RIM 65.10(±)
EX 24" FL 62.50(±)(SW)

EX TYPE "C" INLET
RIM 65.09(±)
TH 64.42(±)
EX 24" FL 68.19(±)(S)

EX STM MH
RIM 65.54(±)
EX 72" FL 53.04(±)(NW)
EX 72" FL 52.91(±)(SE)

EX STM MH
RIM 64.88(±)
EX 24" FL 57.46(±)(N)
EX 24" FL 56.82(±)(W)
EX 72" FL 53.03(±)(NW)
EX 72" FL 52.89(±)(S)

EX TYPE "C" INLET
RIM 65.60(±)
TH 64.65(±)
EX 24" FL 58.14(±)(S)

EX TYPE "C" INLET
RIM 65.36(±)
TH 64.39(±)
EX 24" FL 57.81(±)(NW)
EX 24" FL 57.73(±)(SE)
EX 24" FL 57.65(±)(E)

EX TYPE "C" INLET
RIM 65.62(±)
TH 64.71(±)
EX 24" FL 58.08(±)(NW)

℄ EX BRIAR BAYOU

ZONE X (SHADED)

REGULATORY FLOODWAY

ZONE AE

ZONE X (UNSHADED)

ZONE X (SHADED)

℄ EX BRIAR BAYOU

ZONE AE

ZONE X (SHADED)

ZONE X (UNSHADED)

REGULATORY FLOODWAY

ZONE X (SHADED)

ZONE X (UNSHADED)

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TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST – STOP CALL
TEXAS ONE CALL SYSTEM
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IN HOUSTON
(713)–223–4567

BENCHMARK NOTES

RM 210215
BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
ELEV. 68.31 NAVD88 (2001 ADJUSTMENT)

RM 210255
BRASS DISK LOCATED ON THE EAST WALKWAY OF BRIDGE ON FRIES ROAD, BEING APPROX 0.5 MILES NORTH FROM THE INTERSECTION WITH INTERSTATE 10 (STREAM W140-00-00)
ELEV. 70.83 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-7
SCRIBED "X" ON TOP OF A CURB LOCATED ON THE SOUTHWEST SIDE OF BINGLE ROAD, BEING APPROX 400 FEET NORTHWEST FROM THE INTERSECTION WITH INTERSTATE 10, APPROX 35.9 FEET NORTHEAST FROM A "NO DUMPING OR TRESPASSING" SIGN, AND APPROX 30.1 FEET SOUTHWEST FROM A STORM INLET.
ELEV. 66.74 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-8
SCRIBED "X" ON TOP OF A CURB INLET LOCATED ON THE NORTH SIDE OF INTERSTATE 10 WEST BOUND SERVICE ROAD, BEING THE FIRST INLET WEST FROM THE INTERSECTION WITH BINGLE ROAD.
ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

W/ CLEAN OUT	
SS	PROPOSED SANITARY SEWER
WL	PROPOSED WATER LINE
FIRE	PROPOSED FIRE LINE
	PROPOSED STORM SEWER
	EX. STORM SEWER
WL	EX. WATER LINE
SS	EX. SANITARY SEWER LINE
100	EX. MAJOR CONTOUR
99	EX. MINOR CONTOUR

GENERAL NOTES

1. REFERENCE SANITARY SEWER AND WATER LINE NOTES ON SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFER TO SITE ELECTRICAL PLAN FOR PROPOSED SITE LIGHTING LAYOUT.
3. REFERENCE MEP PLANS FOR CONTINUATION OF SANITARY AND WATER FACILITIES INSIDE BUILDING.
4. ALL CLEANOUTS LOCATED WITHIN CONCRETE PAVEMENT TO BE TRAFFIC RATED.
5. CONTRACTOR TO VERIFY ALL PROPOSED UTILITY CONNECTIONS FOR BOTH LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS OR COMMENCEMENT OF WORK.
6. FIRE LINE IS SHOWN FOR ALIGNMENT AND POINT OF CONNECTION PURPOSES ONLY. ALL FIRE LINES ARE TO BE DESIGNED AND INSTALLED BY A LICENSED RME–U, INCLUDING BUT NOT LIMITED TO MATERIALS, THRUST BLOCKING, APPURTENANCES, ETC..
7. ALL GRAVITY BASED SANITARY SEWER LINES ARE TO BE CONSTRUCTED FROM POINT OF CONNECTION AND WORKED UP IN ELEVATION.

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

NO.	REVISIONS	DATE

ALJLindsey
Civil Engineers
18635 N. Eldridge Pkwy, Suite 200
Tomball, Texas 77377
281.907.4909
FRN F-11526

STATE OF TEXAS
BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
10 MARCH 2026

ALJ PROJECT NO. 022.25.CV.620
DATE: MARCH 2026
SCALE: 1" = 30'
DRAWN BY: SRH
CHECKED BY: BTH

OVERALL UTILITY PLAN

BINGLE ROAD RETAIL
1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C2.0

DOLPHIN'S COVE
(R.O.W. VARIES)

1
DOLPHIN'S COVE
SUBDIVISION
FINAL PLAT
F.C. NO. 695410 H.C.M.R.

LOT 3

EX TYPE "A" INLET
TG 68.13(±)
EX 24" ST 63.21(±)(N)
EX 24" FL 63.16(±)(S)

EX TYPE "A" INLET
TG 67.71(±)
EX 24" ST 62.87(±)(N)
EX 24" FL 59.08(±)(E)

EX FIRE HYDRANT

EX TYPE "C" INLET
RIM 67.89(±)
TH 67.20(±)
EX 24" FL 63.39(±)(E)

EX STM MH
RIM 67.89(±)
EX 24" FL 63.06(±)(E)
EX 72" FL 53.53(±)(S)
EX 72" FL 53.41(±)(N)

EX SSWR MH
RIM 67.01(±)
EX 8" FL 61.84(±)(W)
EX 12" FL 61.74(±)(S)
EX 12" FL 61.67(±)(N)

EX STM MH
RIM 67.73(±)
EX 24" FL 58.65(±)(W)
EX 72" FL 53.28(±)(N)
EX 72" FL 53.23(±)(S)

LOT 7 LOT 8 LOT 9 LOT 6 LOT 5 LOT 4

WOODSBOROUGH CIRCLE
(CONCRETE)
(28' R.O.W.)

EX 24" STM
EX 72" STM

EX TELEPHONE MH

CALL 1.85 AC.
GRACE CHAPEL CHINESE-AMERICAN NEW TESTAMENT
H.C.C.F. NO. V568780

EX BLDG
10,000+ SQ FT

STA. 1+68.99 LINE A
STA. 0+00.00 LINE B
PROP SSWR MH
RIM = 66.50
PROP 6" FL 60.57 (N)
PROP 6" FL 61.54 (S)
PROP 8" FL 60.54 (E)

PROP 8" SSWR @ 0.50%
IN AUGERED HOLE

STA. 0+00.00, LINE A
PROP CONN. TO EX SSWR
LIFT STATION
EX RIM = 66.75
PROP 8" FL 59.70
EX 12" FL XX.XX

W MEMORIAL PARK DR.
(CONCRETE)
(R.O.W. VARIES)

PROP 6" SSWR
@ 1.00%

STA. 3+87.27 LINE A
PROP 6" SSWR CONN
PROP. 6" FL 62.75
(REF MEP PLANS
FOR CONTINUATION)

PROP BLDG
6,254 SQ FT
FF = 67.75

CALL 1.658 AC.
WALLACE AND MARIE DILLARD
FAMILY LIMITED PARTNERSHIP, LTD.
H.C.C.F. NO. RP-2022-152249

PROP BLDG
6,469 SQ FT
FF = 67.75

STA. 1+24.97 LINE B
PROP 6" SSWR CONN
PROP. 6" FL 62.75
(REF MEP PLANS
FOR CONTINUATION)

PROP 6" SSWR
@ 1.00%

BINGLE RD
(CONCRETE)
(R.O.W. VARIES)

EX STM MH
RIM 67.82(±)
EX 72" FL 53.16(±)(N)
EX 72" FL 53.13(±)(SE)

CALLED 2.0 ACRES
CITY OF SPRING VALLEY, TEXAS
H.C.C.F. NO. L945365

EX TYPE "C" INLET
RIM 66.06(±)
TH 65.44(±)
EX 24" FL 60.68(±)(SW)

EX STM MH
RIM 67.30(±)
EX 24" FL 60.12(±)(NE)
EX 72" FL 53.18(±)(NW)
EX 72" FL 53.11(±)(SE)

EX TELEPHONE MH

EX WL (NPV)

EX TYPE "A" INLET
TG 65.97(±)
EX 24" ST 63.36(±)(NE)

EX TYPE "D" INLET
RIM 65.10(±)
EX 24" FL 62.50(±)(SW)

EX STM MH
RIM 65.54(±)
EX 72" FL 53.04(±)(NW)
EX 72" FL 52.91(±)(SE)

EX TYPE "C" INLET
RIM 65.60(±)
TH 64.65(±)
EX 24" FL 58.14(±)(S)

EX TYPE "C" INLET
RIM 65.36(±)
TH 64.39(±)
EX 24" FL 57.81(±)(NW)
EX 24" FL 57.73(±)(SE)
EX 24" FL 57.65(±)(E)

EX TYPE "C" INLET
RIM 65.42(±)
TH 64.71(±)
EX 24" FL 58.08(±)(NW)

ZONE X (SHADED)
REGULATORY FLOODWAY
ZONE AE
ZONE X (SHADED)
ZONE X (UNSHADED)
ZONE X (SHADED)
ZONE AE
REGULATORY FLOODWAY
ZONE X (SHADED)
ZONE X (UNSHADED)

BENCHMARK NOTES

RM 210215
BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
ELEV. 68.31 NAVD88 (2001 ADJUSTMENT)

RM 210255
BRASS DISK LOCATED ON THE EAST WALKWAY OF BRIDGE ON FRIES ROAD, BEING APPROX 0.5 MILES NORTH FROM THE INTERSECTION WITH INTERSTATE 10 (STREAM W140-00-00)
ELEV. 70.83 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-7
SCRIBED "X" ON TOP OF A CURB LOCATED ON THE SOUTHWEST SIDE OF BINGLE ROAD, BEING APPROX 400 FEET NORTHWEST FROM THE INTERSECTION WITH INTERSTATE 10, APPROX 35.9 FEET NORTHEAST FROM A "NO DUMPING OR TRESPASSING" SIGN, AND APPROX 30.1 FEET SOUTHWEST FROM A STORM INLET.
ELEV. 66.74 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-8
SCRIBED "X" ON TOP OF A CURB INLET LOCATED ON THE NORTH SIDE OF INTERSTATE 10 WEST BOUND SERVICE ROAD, BEING THE FIRST INLET WEST FROM THE INTERSECTION WITH BINGLE ROAD.
ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

SS ——— W/ CLEANOUT	PROPOSED SANITARY SEWER
WL	PROPOSED WATER LINE
FIRE	PROPOSED FIRE LINE
	PROPOSED STORM SEWER
①	PROPOSED WATER & SSWR CROSSING
	EX. STORM SEWER
WL	EX. WATER LINE
SS	EX. SANITARY SEWER LINE
100	EX. MAJOR CONTOUR
99	EX. MINOR CONTOUR

SANITARY SEWER NOTES

1. REFERENCE SANITARY SEWER LINE NOTES ON SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFERENCE MEP PLANS FOR CONTINUATION OF SANITARY FACILITIES INSIDE BUILDING.
3. ALL CLEANOUTS LOCATED WITHIN CONCRETE PAVEMENT TO BE TRAFFIC RATED.
4. SANITARY SEWER CLEANOUTS TO BE LOCATED EVERY 90'.
5. ALL WATER & SANITARY SEWER CROSSINGS TO BE INSTALLED PER AHJ & TCEQ REGULATIONS.
6. PRIVATE SANITARY SEWER PIPE MATERIAL SHALL CONFORM TO THE FOLLOWING CRITERIA:
   A. POLYVINYL CHLORIDE (PVC) SCHEDULE 40 TO BE USED FOR PIPE SIZES 6 INCHES AND SMALLER.
   B. STANDARD DIMENSION RATIO (SDR) 35 PVC OR 26 PVC CAN BE USED FOR PIPE SIZES 8 INCHES AND LARGER. SEE NOTE 6 BELOW REGARDING SDR 26 FITTINGS.

UTILITY CONSTRUCTION NOTES

1. CONTRACTOR TO VERIFY ALL PROPOSED UTILITY CONNECTIONS FOR BOTH LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS OR COMMENCEMENT OF WORK.
2. ALL GRAVITY LINES ARE TO BE CONSTRUCTED BEGINNING AT THE LOWEST POINT AND PROGRESSING UPSTREAM. IF CONTRACTOR ELECTS TO PROCEED WITH CONSTRUCTION OF UPSTREAM PORTIONS FIRST, AND ADDITIONAL COSTS ARE INCURRED, NO ADDITIONAL PAY OR CHANGE ORDERS WILL BE APPROVED BY ENGINEER.
3. CONTRACTOR SHALL CORE DRILL TO MAKE OPENING IN EXISTING MANHOLE. OPENING SHALL BE NO MORE THAN 3" AND NO LESS THAN 1" LARGER IN DIAMETER THAN PROPOSED PIPE. PIPE SHALL NOT PROTRUDE MORE THAN 3" PAST INSIDE FACE OF MANHOLE. FILL VOID AROUND PIPE WITH NON-SHRINK WATERPROOF GROUT AND BACKFILL MANHOLE WITH CEMENT-SAND.

GENERAL NOTES

1. REFER TO SITE ELECTRICAL PLAN BY MEP FOR PROPOSED SITE LIGHTING LAYOUT.
2. GRAPHICAL LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT FOR INSTALLATION OF PROPOSED UTILITIES ARE APPROXIMATE. CONTRACTOR TO ENSURE PROPOSED PAVEMENT MEETS LOCAL AHJ REQUIREMENTS, DETAILS, & SPECS.
3. PROPOSED UTILITY WORK WITHIN CITY OF SPRING VALLEY VILLAGE ROW WILL REQUIRE A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLAN IS TO BE PROVIDED BY CONTRACTOR, NO SEPARATE PAY. UNLESS ALREADY PROVIDED IN THIS PLAN SET.

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

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TEXAS ONE CALL PARTICIPANTS REQUEST 72 HOURS NOTICE BEFORE YOU DIG, DRILL OR BLAST – STOP CALL
TEXAS ONE CALL SYSTEM
1-800-344-8377
IN HOUSTON
(713)-223-4567

NO.	REVISIONS	DATE

ALJ Lindsey
Civil Engineers
18635 N. Eldridge Pkwy, Suite 200
Tomball, TX 77377
281.907.4909
FRN F-11526

BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
STATE OF TEXAS
10 MARCH 2026

ALJ PROJECT NO. 022.25.CV.620
DATE: MARCH 2026
SCALE: 1:XX
DRAWN BY: SRH
CHECKED BY: BTH

SANITARY SEWER PLAN

BINGLE ROAD RETAIL
1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C2.1

DOLPHIN'S COVE
(R.O.W. VARIES)

1
DOLPHIN'S COVE
SUBDIVISION
FINAL PLAT
F.C. NO. 695410 H.C.M.R.

LOT 3

EX TYPE "A" INLET
TG 68.13(±)
EX 24" ST 63.21(±)(N)
EX 24" FL 63.16(±)(S)

EX TYPE "A" INLET
TG 67.71(±)
EX 24" ST 62.87(±)(N)
EX 24" FL 59.08(±)(E)

EX FIRE HYDRANT

EX TYPE "C" INLET
RIM 67.89(±)
TH 67.20(±)
EX 24" FL 63.39(±)(E)

EX STM MH
RIM 67.89(±)
EX 24" FL 63.06(±)(E)
EX 72" FL 53.53(±)(S)
EX 72" FL 53.41(±)(N)

EX SSWR MH
RIM 67.01(±)
EX 8" FL 61.84(±)(W)
EX 12" FL 61.74(±)(S)
EX 12" FL 61.67(±)(N)

EX STM MH
RIM 67.73(±)
EX 24" FL 58.65(±)(W)
EX 72" FL 53.28(±)(N)
EX 72" FL 53.23(±)(S)

EX 72" STM
EX 24" STM

LOT 7 | LOT 8 | LOT 9 | LOT 6 | LOT 5 | LOT 4

WOODSBOROUGH CIRCLE
(CONCRETE)
(28' R.O.W.)

EX TELEPHONE MH
PUMP STATION FSMT
VOL. 326, PG.16 H.C.M.R.

CALL 1.85 AC.
GRACE CHAPEL CHINESE-AMERICAN NEW TESTAMENT
H.C.C.F. NO. V568780
EX BLDG
10,000± SQ FT

W MEMORIAL PARK DR.
(CONCRETE)
(R.O.W. VARIES)

BINGLE RD
(CONCRETE)
(R.O.W. VARIES)

CALLED 2.0 ACRES
CITY OF SPRING VALLEY, TEXAS
H.C.C.F. NO. L945365

EX STM MH
RIM 67.82(±)
EX 72" FL 53.16(±)(N)
EX 72" FL 53.13(±)(SE)

EX TYPE "C" INLET
RIM 66.06(±)
TH 65.44(±)
EX 24" FL 60.68(±)(SW)

EX STM MH
RIM 67.30(±)
EX 24" FL 60.12(±)(NE)
EX 72" FL 53.18(±)(NW)
EX 72" FL 53.11(±)(SE)

EX TYPE "D" INLET
RIM 65.10(±)
EX 24" FL 62.50(±)(SW)

EX TYPE "A" INLET
TG 65.97(±)
EX 24" ST 63.36(±)(NE)

EX STM MH
RIM 65.54(±)
EX 72" FL 53.04(±)(NW)
EX 72" FL 52.91(±)(SE)

EX TYPE "C" INLET
RIM 65.60(±)
TH 64.65(±)
EX 24" FL 58.14(±)(S)

EX TYPE "C" INLET
RIM 65.36(±)
TH 64.39(±)
EX 24" FL 57.81(±)(NW)
EX 24" FL 57.73(±)(SE)
EX 24" FL 57.65(±)(E)

EX WL (NFV)

INSTALL:
1 – 8" 11° BEND
2 – 22.5° BENDS

INSTALL:
1 – 6" FH W/ GATE
VALVE ON EXISTING
8" FIRE LINE (NFV)

INSTALL:
2 – 8" 45° BENDS

INSTALL:
1 – STANDARD
FH ASSEMBLY
W/ GATE VALVE

INSTALL:
1 – 8" X 6" TEE

PROP 8"
FIRE LOOP

PROP 6"
FIRE LINE

PROP BLDG
6,254 SQ FT
FF = 67.75

PROP 6" FIRE LINE
CONN (REF MEP PLANS
FOR CONTINUATION)

INSTALL:
1 – 8" 45° BEND
1 – 8" 22.5° BEND

PROP 2" DOM WL CONN
(REF MEP PLANS FOR
CONTINUATION)

PROP 2"
DOM WL

INSTALL:
1 – 8" X 6" WYE

INSTALL:
1 – 8" 130°
RADIAL BEND

CALL 1.658 AC.
WALLACE AND MARIE DILLARD
FAMILY LIMITED PARTNERSHIP, LTD.
H.C.C.F. NO. RP-2022-152249

PROP BLDG. TO BE SERVED
BY FIRE CONNECTION FROM
ADJACENT BLDG. (REF MEP
PLANS FOR CONNECTION)

PROP BLDG
6,469 SQ FT
FF = 67.75

PROP 2" DOM WL CONN
(REF MEP PLANS FOR
CONTINUATION)

INSTALL:
1 – 8" 45° BEND
1 – 2" 45° BEND

INSTALL:
2 – 8" 45° BENDS
2 – 2" 45° BENDS

INSTALL:
1 – 8" X 8" TEE

INSTALL:
1 – "X" X 8" TS&V
1 – 8" X 1" TEE
2 – 8" 45° BENDS
1 – 8" F.R.C.M.A.
1 – 8" X 2" TEE
1 – 8" RPZ BFP
1 – 2" 90° BEND
1 – 2" RPZ BFP
1 – 1" IRR METER
1 – 1" 90° BEND
1 – 1" RPZ BFP W/
CAGE, PLUG, CLAMP
& MARK

PROP 25' X
15' W.M.E.

25'
15'

ZONE X (SHADED)
REGULATORY FLOODWAY
ZONE AE
ZONE X (SHADED)
ZONE X (UNSHADED)
ZONE X (SHADED)
℄ EX BRIAR BAYOU
ZONE AE
REGULATORY FLOODWAY
ZONE X (UNSHADED)

BENCHMARK NOTES

RM 210215
BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
ELEV. 68.31 NAVD88 (2001 ADJUSTMENT)

RM 210255
BRASS DISK LOCATED ON THE EAST WALKWAY OF BRIDGE ON FRIES ROAD, BEING APPROX 0.5 MILES NORTH FROM THE INTERSECTION WITH INTERSTATE 10 (STREAM W140-00-00)
ELEV. 70.83 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-7
SCRIBED "X" ON TOP OF A CURB LOCATED ON THE SOUTHWEST SIDE OF BINGLE ROAD, BEING APPROX 400 FEET NORTHWEST FROM THE INTERSECTION WITH INTERSTATE 10, APPROX 35.9 FEET NORTHEAST FROM A "NO DUMPING OR TRESPASSING" SIGN, AND APPROX 30.1 FEET SOUTHWEST FROM A STORM INLET.
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SCRIBED "X" ON TOP OF A CURB INLET LOCATED ON THE NORTH SIDE OF INTERSTATE 10 WEST BOUND SERVICE ROAD, BEING THE FIRST INLET WEST FROM THE INTERSECTION WITH BINGLE ROAD.
ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

WL	PROPOSED WATER LINE
FIRE	PROPOSED FIRE LINE
SS	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
1	PROPOSED WATER & SSWR CROSSING
	EX. STORM SEWER
WL	EX. WATER LINE
SS	EX. SANITARY SEWER LINE
100	EX. MAJOR CONTOUR
99	EX. MINOR CONTOUR

WATER NOTES

1. REFERENCE WATER LINE NOTES ON SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFERENCE MEP PLANS FOR CONTINUATION OF WATER FACILITIES INSIDE BUILDING.
3. FIRE LINE IS SHOWN FOR ALIGNMENT AND POINT OF CONNECTION PURPOSES ONLY. ALL FIRE LINES ARE TO BE DESIGNED, INSTALLED, AND TESTED BY A LICENSED RME–U PER NFPA REGULATIONS, INCLUDING BUT NOT LIMITED TO SIZE, MATERIALS, THRUST BLOCKING, APPURTENANCES, ETC.
4. ALL UTILITY BOXES LOCATED WITHIN CONCRETE PAVEMENT TO BE TRAFFIC RATED.
5. FITTINGS IDENTIFIED ON THESE PLANS ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. NOT ALL FITTINGS ARE SHOWN OR INDICATED ON THESE PLANS.
6. ALL WATER & SANITARY SEWER CROSSINGS TO BE INSTALLED PER AHJ & TCEQ REGULATIONS.
7. 4" THRU 12" WATER LINES SHALL BE P.V.C. CLASS 150, DR–18, AWWA C–900 AND 1" THRU 3" WATER LINES SHALL BE PVC SCHEDULE 40. 4" THRU 54" D.I.P. WATER LINES SHALL BE AWWA C151 (ANSI A21.51) AND DOUBLE WRAPPED IN 8–MIL POLYETHYLENE. PIPE SHALL BE LINED IN ACCORDANCE WITH AWWA C104 (ANSI A21.4).

UTILITY CONSTRUCTION NOTES

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FRN F-11526

STATE OF TEXAS
BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
10 MARCH 2026

ALJ PROJECT NO. 022.25.CV.620
DATE: MARCH 2026
SCALE: 1:XX
DRAWN BY: SRH
CHECKED BY: BTH

WATER PLAN

BINGLE ROAD RETAIL
1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C2.2

DETENTION VOLUME TO BE PROVIDED IN UNDERGROUND DETENTION SYSTEM: 58,516 CF

CROSSING TABLE						
		FL			FL	CLR
A	24" STM	55.46	16" WTR		60.00	2.54'
B	12" STM	62.56	2" WTR		60.00	2.39'
C	12" STM	62.58	8" WTR		60.00	1.91'
D	6" STM	61.64	8" WTR		60.00	0.97'
E	6" STM	61.47	2" WTR		60.00	1.30'
F	6" STM	61.50	8" WTR		60.00	0.83'
G	6" STM	61.55	8" WTR		60.00	0.88'
H	6" SSWR	62.13	8" WTR		60.00	1.46'
I	6" SSWR	61.48	8" WTR		60.00	0.81'

BENCHMARK NOTES

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BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
ELEV. 68.31 NAVD88 (2001 ADJUSTMENT)

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ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

- D-A / AC / CFS — DRAINAGE AREA NUMBER / ACREAGE (AC) / DRAINAGE AREA FLOW (CFS)
- PROP. DRAINAGE AREA BOUNDARY
- EXISTING OFFSITE DRAINAGE FLOW DIRECTION
- EE — EXTREME EVENT OVERLAND FLOW
- PROPOSED STORM SEWER
- SS — PROPOSED SANITARY SEWER LINE
- WL — PROPOSED WATER LINE
- PROPOSED GRATE INLET
- A — UTILITY CROSSING
- 1 — PROPOSED DOWNSPOUT CONNECTION (REF. ARCHITECTURAL PLANS)
- EX. STORM SEWER
- WL — EX. WATER LINE
- SS — EX. SANITARY SEWER LINE
- 100 — EX. MAJOR CONTOUR
- 99 — EX. MINOR CONTOUR

GENERAL NOTES

1. REFERENCE STORM SEWER NOTES SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFERENCE MEP PLANS FOR EXACT CONTINUATION OF PROPOSED STORM SEWER INSIDE OF BUILDING.
3. FOR TYPE "A" INLET, JUNCTION BOX, TYPE "C" MANHOLE, TYPE "BB" INLET, TRENCH DRAIN, AND BACKFILL DETAILS, SEE SHEET <INSERT>.
4. CONTRACTOR TO VERIFY STORM SEWER CONNECTION FOR LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS OR COMMENCEMENT OF WORK.
5. TOP OF GRATE ELEVATIONS SHOWN ARE FOR REFERENCE ONLY. SEE GRADING ON SHEET C4.0 & C4.1 FOR FINAL TOP OF GRATE ELEVATIONS.
6. ALL GRAVITY STORM LINES TO BE CONSTRUCTED STARTING FROM THE LOWEST POINT.

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STATE OF TEXAS
BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
10 MARCH 2026

ALJ PROJECT NO.	022.25.CV.620
DATE:	MARCH 2026
SCALE:	1:30
DRAWN BY:	SRH
CHECKED BY:	BTH

STORM SEWER PLAN

BINGLE ROAD RETAIL
1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C3.0

Storm Sewer Design Analysis

Bingle Road Retail
Bingle Road & IH-10
Houston, Texas

Design Frequency: 2 years
100-Year Multiplier: 1.00
Downstream 25-year WS ELEV 59.11 feet

Manhole No. From	to	Sta. Up (ft)	Sta. Down (ft)	Drainage Area (acres)	Total Area (acres)	Runoff Coefficient C	DA C * A	Total C * A	Time of Conc. (min)	Intensity I (in/hr)	Drainage Area Flow (cfs)	Total Flow (cfs)	Reach Length (ft)	Diameter (in)	Slope %	Manning's Roughness Coefficient "n"	Design Capacity (cfs)	Design Velocity (ft/sec)	Full Pipe Flow Area (sq ft)	Full Pipe Flow Wetted Perimeter (ft)	Fall (ft)	Drop from Downstream Manhole (ft)	Flowline Elevation Upstream (ft)	Flowline Elevation Downstream (ft)	Minimum Depth Ratio (y/d or y/h)	Minimum W.S. Elev. Downstream (ft)	Actual Depth Ratio y/d or y/h	Actual Flow per Barrel: Actual Velocity (ft/sec)	Actual Flow per Barrel: Area (sq ft)	Actual Flow per Barrel: Wetted Perimeter (ft)	Actual Flow per Barrel: Hydraulic Gradient %	Change in Head (ft)	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream (ft)	Top of Pipe Elevation Upstream (ft)	Top of Pipe Elevation Downstream (ft)	Pvmt / Grate Elevation Upstream (ft)
A2	A1	0+00.00	0+00.00	0.18	0.18	0.80	0.14	0.14	22.39	3.98	0.57	0.57	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00	0.00	0.00														65.85
A1	A0	0+00.00	0+00.00	0.21	0.39	0.80	0.17	0.31	23.47	3.88	0.65	1.21	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00		0.00														65.85
B3	B2	2+21.09	1+11.27	0.25	0.25	0.80	0.20	0.20	22.83	3.94	0.79	0.79	110	12	0.450	0.013	2.4	3.0	0.8	3.1	0.49	0.00	61.91	61.42	0.39	61.81	1.00	1.00	0.79	3.14	0.049	0.05	62.64	62.59	62.91	62.42	66.00
B2	B1	1+11.27	0+41.19	0.13	0.38	0.80	0.10	0.30	23.43	3.88	0.40	1.18	70	12	0.450	0.013	2.4	3.0	0.8	3.1	0.32	0.00	61.42	61.10	0.49	61.59	1.00	1.50	0.79	3.14	0.110	0.08	62.59	62.51	62.42	62.10	66.00
B1	B0	0+41.19	0+00.00	0.19	0.57	0.80	0.15	0.46	24.06	3.83	0.58	1.75	41	18	0.250	0.013	5.3	3.0	1.8	4.7	0.10		61.10	61.00	0.39	61.59	1.00	0.99	1.77	4.71	0.028	0.01	62.51	62.50	62.60	62.50	65.85
C1	C0	0+24.09	0+00.00	0.12	0.12	0.80	0.10	0.10	21.88	4.02	0.39	0.39	24	12	0.450	0.013	2.4	3.0	0.8	3.1	0.11		62.10	61.99	0.27	62.26	1.00	0.49	0.79	3.14	0.012	0.00	62.99	62.99	63.10	62.99	65.10
D5	D4	4+05.17	3+73.20	0.19	0.19	0.80	0.15	0.15	22.46	3.97	0.60	0.60	32	12	0.450	0.013	2.4	3.0	0.8	3.1	0.14	0.00	63.25	63.11	0.34	63.45	0.54	1.43	0.42	1.63	0.094	0.03	63.68	63.65	64.25	64.11	66.25
D4	D3	3+73.20	3+08.15	0.07	0.40	0.80	0.06	0.32	23.51	3.88	0.22	1.24	65	12	0.450	0.013	2.4	3.0	0.8	3.1	0.29	0.50	63.11	62.82	0.51	63.33	0.51	3.16	0.39	1.57	0.485	0.32	63.65	63.33	64.11	63.82	66.25
D3	D2	3+08.15	1+89.64	0.10	0.50	0.80	0.08	0.40	23.85	3.85	0.31	1.54	119	18	0.250	0.013	5.3	3.0	1.8	4.7	0.30	0.00	62.32	62.02	0.37	62.58	0.76	1.07	1.44	3.18	0.025	0.03	63.19	63.16	63.82	63.52	66.00
D2	D1	1+89.64	0+60.74	0.12	0.77	0.80	0.10	0.62	24.56	3.79	0.36	2.34	129	18	0.250	0.013	5.3	3.0	1.8	4.7	0.32	0.50	62.02	61.70	0.46	62.39	0.94	1.37	1.71	3.91	0.043	0.06	63.16	63.11	63.52	63.20	66.15
D1	D0	0+60.74	0+00.00	0.16	0.93	0.80	0.13	0.75	24.88	3.76	0.48	2.81	61	24	0.170	0.013	9.3	3.0	3.1	6.3	0.10		61.20	61.10	0.37	61.84	1.00	0.89	3.14	6.28	0.015	0.01	63.11	63.10	63.20	63.10	66.00
D2A	D2	0+66.70	0+00.00	0.003	0.003	0.80	0.002	0.002	18.60	4.36	0.01	0.01	67	12	0.500	0.013	2.5	3.2	0.8	3.1	0.33		0.33	0.00													
R1	D2	0+01.00	0+00.00	0.15	0.15	0.80	0.12	0.12	22.16	4.00	0.48	0.48	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													
R2	D4	0+01.00	0+00.00	0.14	0.14	0.80	0.11	0.11	22.07	4.00	0.45	0.45	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													

Storm Sewer Design Analysis

Bingle Road Retail
Bingle Road & IH-10
Houston, Texas

Design Frequency: 100 years
100-Year Multiplier: 1.00
Downstream 25-year WS ELEV 59.11 feet

Manhole No. From	to	Sta. Up (ft)	Sta. Down (ft)	Drainage Area (acres)	Total Area (acres)	Runoff Coefficient C	DA C * A	Total C * A	Time of Conc. (min)	Intensity I (in/hr)	Drainage Area Flow (cfs)	Total Flow (cfs)	Reach Length (ft)	Diameter (in)	Slope %	Manning's Roughness Coefficient "n"	Design Capacity (cfs)	Design Velocity (ft/sec)	Full Pipe Flow Area (sq ft)	Full Pipe Flow Wetted Perimeter (ft)	Fall (ft)	Drop from Downstream Manhole (ft)	Flowline Elevation Upstream (ft)	Flowline Elevation Downstream (ft)	Minimum Depth Ratio (y/d or y/h)	Minimum W.S. Elev. Downstream (ft)	Actual Depth Ratio y/d or y/h	Actual Flow per Barrel: Actual Velocity (ft/sec)	Actual Flow per Barrel: Area (sq ft)	Actual Flow per Barrel: Wetted Perimeter (ft)	Actual Flow per Barrel: Hydraulic Gradient %	Change in Head (ft)	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream (ft)	Top of Pipe Elevation Upstream (ft)	Top of Pipe Elevation Downstream (ft)	Pvmt / Grate Elevation Upstream (ft)
A2	A1	0+00.00	0+00.00	0.18	0.18	0.80	0.14	0.14	22.39	9.01	1.30	1.30	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00	0.00	0.00														65.85
A1	A0	0+00.00	0+00.00	0.21	0.39	0.80	0.17	0.31	23.47	8.81	1.48	2.75	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00		0.00														65.85
B3	B2	2+21.09	1+11.27	0.25	0.25	0.80	0.20	0.20	22.83	8.92	1.78	1.78	110	12	0.450	0.013	2.4	3.0	0.8	3.1	0.49	0.00	61.91	61.42	0.64	62.06	1.00	2.27	0.79	3.14	0.251	0.28	63.23	62.96	62.91	62.42	66.00
B2	B1	1+11.27	0+41.19	0.13	0.38	0.80	0.10	0.30	23.43	8.81	0.92	2.68	70	12	0.450	0.013	2.4	3.0	0.8	3.1	0.32	0.00	61.42	61.10	1.00	62.10	1.00	3.41	0.79	3.14	0.565	0.40	62.96	62.56	62.42	62.10	66.00
B1	B0	0+41.19	0+00.00	0.19	0.57	0.80	0.15	0.46	24.06	8.70	1.32	3.97	41	18	0.250	0.013	5.3	3.0	1.8	4.7	0.10		61.10	61.00	0.64	61.96	1.00	2.25	1.77	4.71	0.143	0.06	62.56	62.50	62.60	62.50	65.85
C1	C0	0+24.09	0+00.00	0.12	0.12	0.80	0.10	0.10	21.88	9.11	0.87	0.87	24	12	0.450	0.013	2.4	3.0	0.8	3.1	0.11		62.10	61.99	0.41	62.40	1.00	1.11	0.79	3.14	0.060	0.01	63.00	62.99	63.10	62.99	65.10
D5	D4	4+05.17	3+73.20	0.19	0.19	0.80	0.15	0.15	22.46	9.00	1.37	1.37	32	12	0.450	0.013	2.4	3.0	0.8	3.1	0.14	0.00	63.25	63.11	0.54	63.65	1.00	1.74	0.79	3.14	0.147	0.05	64.27	64.23	64.25	64.11	66.25
D4	D3	3+73.20	3+08.15	0.07	0.40	0.80	0.06	0.32	23.51	8.80	0.49	2.82	65	12	0.450	0.013	2.4	3.0	0.8	3.1	0.29	0.50	63.11	62.82	1.00	63.82	1.00	3.59	0.79	3.14	0.625	0.41	64.23	63.82	64.11	63.82	66.25
D3	D2	3+08.15	1+89.64	0.10	0.50	0.80	0.08	0.40	23.85	8.74	0.70	3.49	119	18	0.250	0.013	5.3	3.0	1.8	4.7	0.30	0.00	62.32	62.02	0.59	62.91	0.94	2.03	1.72	3.97	0.096	0.11	63.55	63.44	63.82	63.52	66.00
D2	D1	1+89.64	0+60.74	0.12	0.77	0.80	0.10	0.62	24.56	8.61	0.83	5.33	129	18	0.250	0.013	5.3	3.0	1.8	4.7	0.32	0.50	62.02	61.70	0.83	62.95	0.97	3.06	1.74	4.11	0.224	0.29	63.44	63.15	63.52	63.20	66.15
D1	D0	0+60.74	0+00.00	0.16	0.93	0.80	0.13	0.75	24.88	8.56	1.10	6.39	61	24	0.170	0.013	9.3	3.0	3.1	6.3	0.10		61.20	61.10	0.60	62.30	1.00	2.03	3.14	6.28	0.080	0.05	63.15	63.10	63.20	63.10	66.00
D2A	D2	0+66.70	0+00.00	0.003	0.003	0.80	0.002	0.002	18.60	9.84	0.02	0.02	67	12	0.500	0.013	2.5	3.2	0.8	3.1	0.33		0.33	0.00													
R1	D2	0+01.00	0+00.00	0.15	0.15	0.80	0.12	0.12	22.16	9.06	1.09	1.09	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													
R2	D4	0+01.00	0+00.00	0.14	0.14	0.80	0.11	0.11	22.07	9.07	1.02	1.02	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST – STOP CALL
TEXAS ONE CALL SYSTEM
1-800-344-8377
IN HOUSTON
(713)-223-4567

NO.	REVISIONS	DATE

ALJ Lindsey
Civil Engineers
18635 N. Eldridge Pkwy, Suite 200
Tomball, TX 77377
281.304.3565
FRN F-11526

STATE OF TEXAS
BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
10 MARCH 2026

ALJ PROJECT NO: 022.25.CV.620
DATE: MARCH 2026
SCALE: 1:XX
DRAWN BY: SRH
CHECKED BY: BTH

STORM SEWER CALCULATIONS

BINGLE ROAD RETAIL

1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C3.1

EXHIBIT “C” USE TABLE -ALL FLOORS

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06P:07:08 Permitted Uses for the BWPADD:

The provisions of this Section 06P:07:08 shall apply only to the Bingle West Planned Area Development District. No use shall be allowed within the BWPADD except as specifically provided in this Section.

.01 Use of Land and Buildings: Buildings, structures, land or premises shall be used only in accordance with the uses specifically permitted for the Bingle West Planned Area Development District, together with such accessory uses as are customarily incidental to that of the primary permitted use. All permitted uses shall be subject to compliance with applicable requirements of the City, this Chapter 12, and all terms and conditions of this ordinance.

.01 Retail Uses: Except as otherwise specifically provided herein, retail uses only shall be permitted on the ground level within the BWPADD. Retail uses may also be located on levels other than the ground level. Permitted retail uses shall include only those identified and described in the permitted use list set forth below.

.02 Office and Professional/Personal Service Uses: Office and professional/personal service uses shall be permitted on upper levels only within the BWPADD, it being specifically provided that no such use shall be permitted on the ground floor of any building. Permitted office and professional/personal service uses shall include only those identified and described in the permitted use list set forth below.

.03 Residential Uses: Notwithstanding 06P:07:08.03 below, detached single family residential dwelling uses shall be permitted within the BWPADD. Provided further, only detached single family residential dwelling uses shall be permitted within one hundred (100) feet of the northern boundary of the BWPADD.

.02 Permitted Uses: Permitted uses in the BWPADD are as shown in the permitted use list set forth in Subsection 06P:08.05 below.

.03 Prohibited Uses: The following uses are specifically prohibited.

.01 Uses Not Listed: Uses not specifically identified as permitted uses in the permitted use list below are not authorized unless a specific use permit is granted therefor by the City Council, following hearing thereon, and a determination that such proposed use is equivalent to a permitted use on the permitted use list.

.02 Categorical Prohibitions: The following uses are hereby found, determined and declared to be inconsistent and detrimental to the use and development of land within the BWPADD as set forth in the comprehensive development plan and as set forth hereinabove, to wit: industrial uses; warehousing and other commercial or private storage other than the storage of inventory or supplies that are clearly subordinate and incidental to a permitted use; distribution facilities; outdoor commercial recreational facilities; any form of drive-up or drive-thru service; theaters or other places of assembly; storage, display or parking of automobiles, trucks, trailers, boats, motorcycles, or other similar devices relating or incidental to their sales, rentals, service, repair or maintenance, or for use for deliveries of any kind; storage or display of rental equipment; the storage or display of a vehicle fleet used for any purpose; any use not specifically authorized in the permitted use list set forth in Subsection 06P:07.08.05 below unless a specific use permit has been issued by the City Council in accordance with Subsection .01 next above.

.04 North American Industry Classification System. The North American Industry Classification System, 1997 Edition, as published by the Office of Management and Budget ("NAICS"), a true and correct copy of which is on file in the office of the City Secretary, is hereby adopted and incorporated herein by reference. The group descriptions and classifications shall control in determining the uses permitted hereunder. An identified

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classification sector or sub-sector in the permitted use list below shall mean and include only that classified use and its subcategories, as described and defined in the NAICS.

.05 Permitted Use List. The uses listed below are permitted in the BWPADD, except as otherwise limited herein. The symbol "P" in the right column means the use is permitted, while the symbol "O" means the use is permitted only for business office purposes. For instance, a manufacturing establishment would not be authorized to use a tract for manufacturing purposes, but the corporate offices for the manufacturing business would be authorized if indicated by the symbol "O."

GROUND OR FIRST FLOOR

Use Description	*NAICS Sector. #*	
Retail Trade	44	
Furniture Stores	442110	P
Floor Covering Stores	442210	P
Window Treatment Stores	442291	P
All Other Home Furnishings Stores	442299	P
Household Appliance Stores	443111	P
Radio, Television, and Other Electronics Stores	443112	P
Computer and Software Stores	443120	P
Camera and Photographic Supplies Stores	443130	P
Home Centers	444110	P
Paint and Wallpaper Stores	444120	P
Hardware Stores	444130	P
Baked Goods Stores	445291	P
Confectionery and Nut Stores	445292	P
All Other Specialty Food Stores	445299	P
Cosmetics, Beauty Supplies, and Perfume Stores	446120	P
Optical Goods Stores	446130	P
Food (Health) Supplement Stores	446191	P
Men's Clothing Stores	448110	P
Women's Clothing Stores	448120	P
Children's and Infants' Clothing Stores	448130	P
Family Clothing Stores	448140	P
Clothing Accessories Stores	448150	P
Shoe Stores	448210	P
Jewelry Stores	448310	P
Luggage and Leather Goods Stores	448320	P
Retail Trade	45	
Sporting Goods Stores	451110	P
Hobby, Toy, and Game Stores	451120	P
Sewing, Needlework, and Piece Goods Stores	451130	P
Musical Instrument and Supplies Stores	451140	P
Book Stores	451211	P
Prerecorded Tape, Compact Disc, and Record Stores	451220	P
Department Stores (except Discount Department Stores)	452111	P
Florists	453110	P

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Office Supplies and Stationery Stores	453210	P
Gift, Novelty, and Souvenir Stores	453220	P
Pet and Pet Supplies Stores	453910	P
Art Dealers	453920	P
Accommodation and Food Services	72	
Full-Service Restaurants	722110	P
Limited-Service Restaurants	722211	P
Snack and Nonalcoholic Beverage Bars	722213	P
Other Services (except Public Administration)	81	
Parking Lots and Garages	812930	P

ABOVE GROUND/FIRST FLOOR

Use Description	*NAICS Sector. #*	
Agriculture, Forestry, Fishing and Hunting	11	O
Mining	21	O
Utilities	22	O
Construction	23	O
Manufacturing	31-33	O
Wholesale Trade	42	O
Retail Trade	44	O
Furniture Stores	442110	P
Floor Covering Stores	442210	P
Window Treatment Stores	442291	P
All Other Home Furnishings Stores	442299	P
Household Appliance Stores	443111	P
Radio, Television, and Other Electronics Stores	443112	P
Computer and Software Stores	443120	P
Camera and Photographic Supplies Stores	443130	P
Home Centers	444110	P
Paint and Wallpaper Stores	444120	P
Hardware Stores	444130	P
Baked Goods Stores	445291	P
Confectionery and Nut Stores	445292	P
All Other Specialty Food Stores	445299	P
Pharmacies and Drug Stores	446110	P
Cosmetics, Beauty Supplies, and Perfume Stores	446120	P
Optical Goods Stores	446130	P
Food (Health) Supplement Stores	446191	P
All Other Health and Personal Care Stores	446199	P
Men's Clothing Stores	448110	P
Women's Clothing Stores	448120	P
Children's and Infants' Clothing Stores	448130	P
Family Clothing Stores	448140	P
Clothing Accessories Stores	448150	P

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Shoe Stores	448210	P
Jewelry Stores	448310	P
Luggage and Leather Goods Stores	448320	P
Retail Trade	45	O
Sporting Goods Stores	451110	P
Hobby, Toy, and Game Stores	451120	P
Sewing, Needlework, and Piece Goods Stores	451130	P
Musical Instrument and Supplies Stores	451140	P
Book Stores	451211	P
Prerecorded Tape, Compact Disc, and Record Stores	451220	P
Department Stores (except Discount Department Stores)	452111	P
Florists	453110	P
Office Supplies and Stationery Stores	453210	P
Gift, Novelty, and Souvenir Stores	453220	P
Pet and Pet Supplies Stores	453910	P
Art Dealers	453920	P
Transportation and Warehousing	48-49	O
Warehousing and Storage	493	O
Information	51	O
Finance and Insurance	52	O
Monetary Authorities - Central Bank	521110	P
Commercial Banking	522110	P
Savings Institutions	522120	P
Credit Unions	522130	P
Other Depository Credit Intermediation	522190	P
Credit Card Issuing	522210	P
Sales Financing	522220	P
Consumer Lending	522291	P
Real Estate Credit	522292	P
International Trade Financing	522293	P
Secondary Market Financing	522294	P
Mortgage and Nonmortgage Loan Brokers	522310	P
Financial Transactions Processing, Reserve, and Clearinghouse Activities	522320	P
Other Activities Related to Credit Intermediation	522390	P
Investment Banking and Securities Dealing	523110	P
Securities Brokerage	523120	P
Commodity Contracts Dealing	523130	P
Commodity Contracts Brokerage	523140	P
Securities and Commodity Exchanges	523210	P
Miscellaneous Intermediation	523910	P
Portfolio Management	523920	P
Investment Advice	523930	P
Trust, Fiduciary, and Custody Activities	523991	P
Miscellaneous Financial Investment Activities	523999	P
Direct Life Insurance Carriers	524113	P
Direct Health and Medical Insurance Carriers	524114	P

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Direct Property and Casualty Insurance Carriers	524126	P
Direct Title Insurance Carriers	524127	P
Other Direct Insurance (except Life, Health, and Medical) Carriers	524128	P
Reinsurance Carriers	524130	P
Insurance Agencies and Brokerages	524210	P
Third Party Administration of Insurance and Pension Funds	524292	P
All Other Insurance Related Activities	524298	P
Pension Funds	525110	P
Health and Welfare Funds	525120	P
Other Insurance Funds	525190	P
Open-End Investment Funds	525910	P
Trusts, Estates, and Agency Accounts	525920	P
Real Estate Investment Trusts	525930	P
Other Financial Vehicles	525990	P
Real Estate and Rental and Leasing	53	O
Lessors of Residential Buildings and Dwellings	531110	P
Lessors of Nonresidential Buildings (except Miniwarehouses)	531120	P
Lessors of Other Real Estate Property	531190	P
Offices of Real Estate Agents and Brokers	531210	P
Residential Property Managers	531311	P
Nonresidential Property Managers	531312	P
Offices of Real Estate Appraisers	531320	P
Other Activities Related to Real Estate	531390	P
Formal Wear and Costume Rental	532220	P
Professional, Scientific, and Technical Services	54	P
Management of Companies and Enterprises	55	P
Administrative and Support and Waste Management and Remediation Services	56	O
Office Administrative Services	561110	P
Professional Employer Organizations	561330	P
Document Preparation Services	561410	P
Telephone Answering Services	561421	P
Private Mail Centers	561431	P
Other Business Service Centers (including Copy Shops)	561439	P
Credit Bureaus	561450	P
Court Reporting and Stenotype Services	561492	P
Travel Agencies	561510	P
Tour Operators	561520	P
Convention and Visitors Bureaus	561591	P
Investigation Services	561611	P
Locksmiths	561622	P
Convention and Trade Show Organizers	561920	P
Educational Services	61	O
Health Care and Social Assistance	62	O
Offices of Physicians (except Mental Health Specialists)	621111	P
Offices of Physicians, Mental Health Specialists	621112	P
Offices of Dentists	621210	P

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Offices of Chiropractors	621310	P
Offices of Optometrists	621320	P
Offices of Mental Health Practitioners (except Physicians)	621330	P
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	P
Offices of Podiatrists	621391	P
Offices of All Other Miscellaneous Health Practitioners	621399	P
Diagnostic Imaging Centers	621512	P
Home Health Care Services	621610	P
Arts, Entertainment, and Recreation	71	O
Accommodation and Food Services	72	O
Full-Service Restaurants	722110	P
Limited-Service Restaurants	722211	P
Snack and Nonalcoholic Beverage Bars	722213	P
Other Services (except Public Administration)	81	O
Barber Shops	812111	P
Beauty Salons	812112	P
Nail Salons	812113	P
Diet and Weight Reducing Centers	812191	P
Parking Lots and Garages	812930	P
Business Associations	813910	P
Professional Organizations	813920	P
Private Households	814110	P
Public Administration	92	O
Executive Offices	921110	P
Legislative Bodies	921120	P
Public Finance Activities	921130	P
Executive and Legislative Offices, Combined	921140	P
Other General Government Support	921190	P
Courts	922110	P
Police Protection	922120	P
Gift, Novelty, and Souvenir Stores	453220	P
Pet and Pet Supplies Stores	453910	P
Art Dealers	453920	P
Transportation and Warehousing	48-49	O
Warehousing and Storage	493	O
Information	51	O
Finance and Insurance	52	O
Monetary Authorities - Central Bank	521110	P
Commercial Banking	522110	P
Savings Institutions	522120	P
Credit Unions	522130	P
Other Depository Credit Intermediation	522190	P
Credit Card Issuing	522210	P
Sales Financing	522220	P
Consumer Lending	522291	P
Real Estate Credit	522292	P

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International Trade Financing	522293	P
Secondary Market Financing	522294	P
Mortgage and Nonmortgage Loan Brokers	522310	P
Financial Transactions Processing, Reserve, and Clearinghouse Activities	522320	P
Other Activities Related to Credit Intermediation	522390	P
Investment Banking and Securities Dealing	523110	P
Securities Brokerage	523120	P
Commodity Contracts Dealing	523130	P
Commodity Contracts Brokerage	523140	P
Securities and Commodity Exchanges	523210	P
Miscellaneous Intermediation	523910	P
Portfolio Management	523920	P
Investment Advice	523930	P
Trust, Fiduciary, and Custody Activities	523991	P
Miscellaneous Financial Investment Activities	523999	P
Direct Life Insurance Carriers	524113	P
Direct Health and Medical Insurance Carriers	524114	P
Direct Property and Casualty Insurance Carriers	524126	P
Direct Title Insurance Carriers	524127	P
Other Direct Insurance (except Life, Health, and Medical) Carriers	524128	P
Reinsurance Carriers	524130	P
Insurance Agencies and Brokerages	524210	P
Third Party Administration of Insurance and Pension Funds	524292	P
All Other Insurance Related Activities	524298	P
Pension Funds	525110	P
Health and Welfare Funds	525120	P
Other Insurance Funds	525190	P
Open-End Investment Funds	525910	P
Trusts, Estates, and Agency Accounts	525920	P
Real Estate Investment Trusts	525930	P
Other Financial Vehicles	525990	P
Real Estate and Rental and Leasing	53	O
Lessors of Residential Buildings and Dwellings	531110	P
Lessors of Nonresidential Buildings (except Miniwarehouses)	531120	P
Lessors of Other Real Estate Property	531190	P
Offices of Real Estate Agents and Brokers	531210	P
Residential Property Managers	531311	P
Nonresidential Property Managers	531312	P
Offices of Real Estate Appraisers	531320	P
Other Activities Related to Real Estate	531390	P
Formal Wear and Costume Rental	532220	P
Professional, Scientific, and Technical Services	54	P
Management of Companies and Enterprises	55	P
Administrative and Support and Waste Management and Remediation Services	56	O
Office Administrative Services	561110	P
Professional Employer Organizations	561330	P

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Document Preparation Services	561410	P
Telephone Answering Services	561421	P
Private Mail Centers	561431	P
Other Business Service Centers (including Copy Shops)	561439	P
Credit Bureaus	561450	P
Court Reporting and Stenotype Services	561492	P
Travel Agencies	561510	P
Tour Operators	561520	P
Convention and Visitors Bureaus	561591	P
Investigation Services	561611	P
Locksmiths	561622	P
Convention and Trade Show Organizers	561920	P
Educational Services	61	O
Health Care and Social Assistance	62	O
Offices of Physicians (except Mental Health Specialists)	621111	P
Offices of Physicians, Mental Health Specialists	621112	P
Offices of Dentists	621210	P
Offices of Chiropractors	621310	P
Offices of Optometrists	621320	P
Offices of Mental Health Practitioners (except Physicians)	621330	P
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	P
Offices of Podiatrists	621391	P
Offices of All Other Miscellaneous Health Practitioners	621399	P
Diagnostic Imaging Centers	621512	P
Home Health Care Services	621610	P
Arts, Entertainment, and Recreation	71	O
Accommodation and Food Services	72	O
Full-Service Restaurants	722110	P
Limited-Service Restaurants	722211	P
Snack and Nonalcoholic Beverage Bars	722213	P
Other Services (except Public Administration)	81	O
Barber Shops	812111	P
Beauty Salons	812112	P
Nail Salons	812113	P
Diet and Weight Reducing Centers	812191	P
Parking Lots and Garages	812930	P
Business Associations	813910	P
Professional Organizations	813920	P
Private Households	814110	P
Public Administration	92	O
Executive Offices	921110	P
Legislative Bodies	921120	P
Public Finance Activities	921130	P
Executive and Legislative Offices, Combined	921140	P
Other General Government Support	921190	P
Courts	922110	P

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Police Protection	922120	P

(Ordinance 2007-25 adopted 11-13-07)

06P:08.05 Permitted Use List:

The uses listed below are permitted in the FPADD and the BPADD (excluding interior Pads 1, 2, and 5), except as otherwise limited herein. Ground floor or first floor only—Up to forty (40) percent of the ground floor of any building(s) within a PAD may be used for any use otherwise permitted above the ground floor (e.g., O_2 or P_2). The symbol "P_1" in the right column means the use is permitted on the ground floor. The symbol "P_2" in the right column means the use is permitted above the ground floor. The symbol "O" means the use is permitted only for business office purposes. For instance, a manufacturing establishment would not be authorized to use a tract for manufacturing purposes, but the corporate offices for the manufacturing business would be authorized above the ground floor if indicated by the symbol "O_2."

Use Description	**NAICS Sector No.**	
Agriculture, Forestry, Fishing and Hunting	11	O_2
Mining, Quarrying, and Oil and Gas Extraction	21	O_2
Utilities	22	O_2
Construction	23	O_2
Manufacturing	31-33	O_2
Wholesale Trade	42	O_2
Retail Trade	44-45	O_2
Furniture and Home Furnishings Stores	442	P_1, P_2
Electronics and Appliance Stores	443	P_1, P_2
Building Material and Garden Equipment and Supplies Dealers	444	P_1, P_2
Supermarkets and Other Grocery (except Convenience) Stores	445110	P_1, P_2
Specialty Food Stores	4452	P_1, P_2
Beer, Wine, and Liquor Stores	445310; provided that (1) such stores contain at least 15,000 square feet enclosed space; and (2) such stores retail other specialized lines of food {NAICS Sector 4452}	P_1, P_2
Health and Personal Care Stores	446	P_1, P_2
Clothing and Clothing Accessories Stores	448	P_1, P_2
Sporting Goods, Hobby, Musical Instrument, and Book Stores	451; but excluding 4511023 {Gun Shops} and 451212 {News Dealers and Newsstands}	P_1, P_2
General Merchandise Stores	452; but excluding 452112 {Discount Department Stores} and 452990 {All Other General Merchandise Stores}	P_1, P_2
Transportation and Warehousing	48-49	O_2
Information	51; but excluding 5121 {Motion Picture and Video Industries}	O_2

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Finance and Insurance	52; but excluding 522390 {Other Activities Related to Credit Intermediation}	P [2]
Real Estate and Rental and Leasing	53	O [2]
Rental and Leasing Services	532; but excluding 5321 {Automotive Equipment Rental and Leasing} and 5323 {General Rental Centers}	P [2]
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	533	P [2]
Professional, Scientific, and Technical Services	54; but excluding 541380 {Testing Laboratories}, 541711 {Research and Development in Biotechnology}, 5419 {Other Professional, Scientific, and Technical Services}, and 54712 {Research and Development in Physical, Engineering, and Life Sciences}	P [2]
Management of Companies and Enterprises	55	P [2]
Administrative and Support Services	56; but excluding 561210 {Facilities Support Services}, 561320 {Temporary Help Services}, 561491 {Repossession Services}, 561612 {Security Guards and Patrol Services}, 561520 {Tour Operators}, 561710 {Exterminating and Pest Control Services}, 5419 {Other Professional, Scientific, and Technical Services}, and 562 {Waste Management and Remediation Services}	P [2]
Educational Services	61	O [2]
Health Care and Social Assistance	62; but excluding 62141 {Family Planning Centers}, 62142 {Outpatient Mental Health and Substance Abuse Centers}, 62221 {Psychiatric and Substance Abuse Hospitals}, 623 {Nursing and Residential Care Facilities}, 624 {Social Assistance}	P [2]
Arts, Entertainment, and Recreation	71; but excluding 711212 {Racetracks}, 713290 {Gambling Industries}, and 713990 {All Other Amusement and Recreation Industries}	O [2]
Accommodation and Food Services	72	O [2]
Full-Service Restaurants	722511	P [1], P [2]
Limited-Services Restaurants	722513	P [1], P [2]
Snack and Nonalcoholic Beverage Bars	722515	P [1], P [2]
Other Services (except Public Administration)	81; but excluding 81299 {All Other Personal Services}	O [2]
Repair and Maintenance	811; but excluding 8111 {Automotive Repair and Maintenance} and 8113 {Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance}	P [2]
Barber Shops	812111	P [2]
Beauty Salons	812112	P [2]
Nail Salons	812113	P [2]

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Diet and Weight Reducing Centers	812191	P [2]
Funeral Homes and Funeral Services	812210	P [2]
Drycleaning and Laundry Services (except Coin-Operated)	812320; except limited to drop stations only	P [2]
Parking Lots and Garages	812930 provided that such use is customarily incidental and accessory to the principal use of the land or to a building or structure on located on the same land as the accessory use	P [1], P [2]
Business Associations	813910	P [2]
Professional Organizations	813920	P [2]
Private Households	814110	P [1], P [2]
Public Administration	92	P [2]

(Ordinance 2005-18 adopted 8-4-05; Ordinance 2012-26 adopted 11-14-12)

EXHIBIT “ D” TRAFFIC IMPACT STUDY

ACE Traffic Engineering, LLC.

Bingle Road Mixed Use Development

Traffic Impact Analysis

Spring Valley Village, Texas

Prepared for:

ALJ Lindsey, LLC
18635 North Eldridge Pkwy, Ste 200
Tomball, TX 77377

May 2026

Bingle Road Mixed Use Development
Traffic Impact Analysis

Spring Valley Village, Texas

Prepared for:

ALJ Lindsey, LLC
18635 North Eldridge Pkwy, Ste 200
Tomball, TX

Prepared by:

ACE Traffic Engineering, LLC

ACE Traffic Engineering, LLC.
10810 Evanfield Ct
Cypress, TX 77433

Executive Summary

This traffic impact assessment is for a proposed mixed use development located in Spring Valley Village, Texas. The site is located on the west side of Bingle Rd at the intersection with W. Memorial Park Dr. The study area intersections include:

1. Bingle Rd @ Winningham Ln
2. Bingle Rd @ W. Memorial Park Dr
3. Bingle Rd @ I-10 Westbound Feeder Rd (WBFR)
4. Voss Rd @ I-10 Eastbound Feeder Rd (EBFR), and
5. Bingle Rd @ the two Site Driveways

The scope and analysis of the proposed development was proposed to and accepted by Public Works Staff. The **Executive Summary Exhibit** shows the boundaries of the study area. The development is planned to be constructed in one phase and is planned to be completed by 2027.

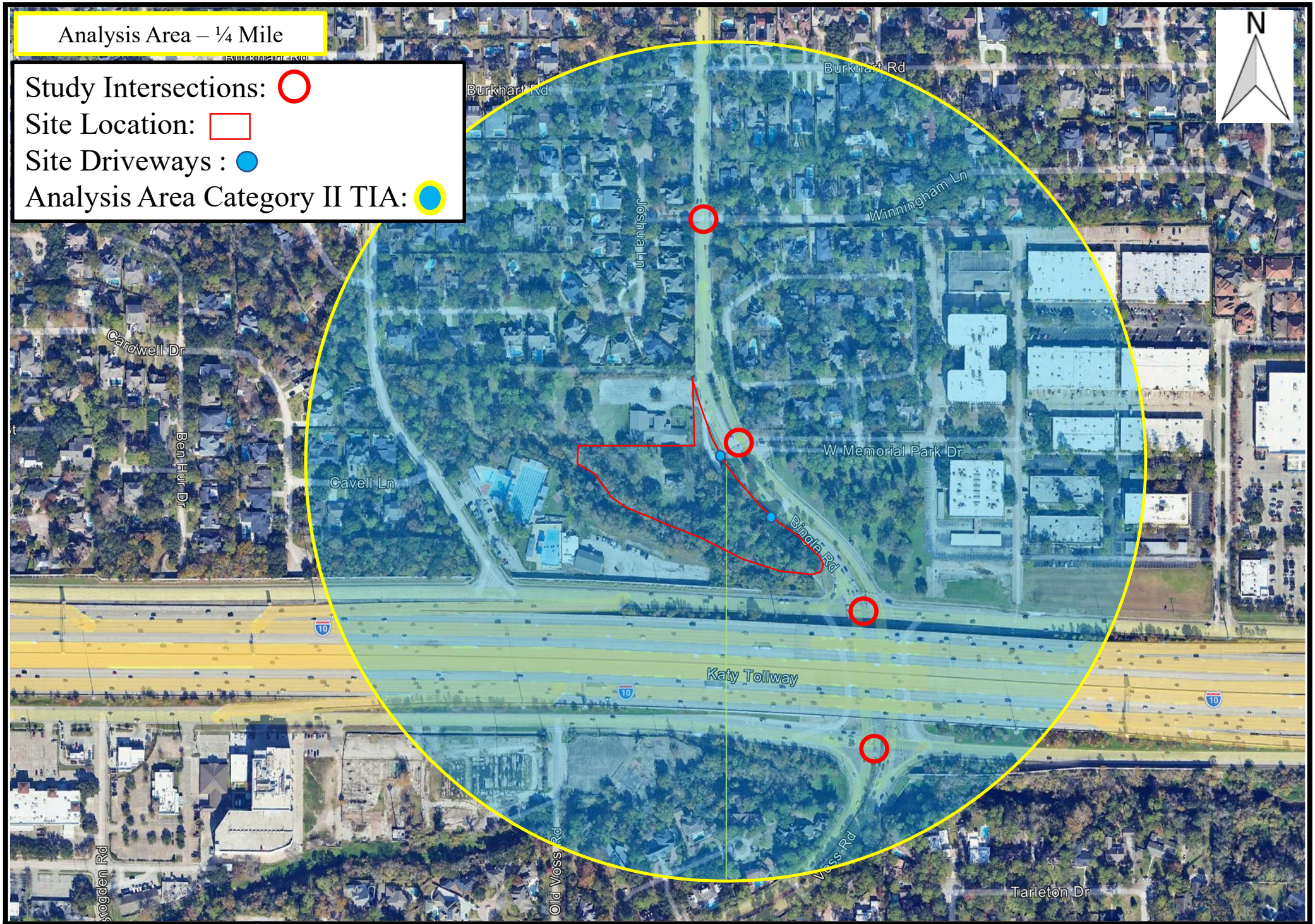
This development will consist of various restaurants, businesses, and medical office space. When completed, the overall development is projected to generate net new trips totaling 66 AM Trips (32 entering; 14 exiting) and 138 PM trips (77 entering; 71 exiting).

Traffic volume data was collected by Ally General Solutions at all study intersections on 5/19/26 and 5/21/26, between 7-9:00AM and 4-6:00PM. The peak hours identified for study within the report were 7:45-8:45AM and 4:30-5:30PM. The LOS results of the 2027 Build Conditions at all intersections remain at LOS D or better when moving from the No-Build to the Build Scenarios. Analyses indicates that vehicles entering the proposed development will not experience any additional notable delay during AM and PM peak hours at the site driveways and the site has sufficient storage on site to accommodate the projected on-site queue lengths.

The analysis of the turning volumes at Driveway 1 determined that a northbound left turn lane is warranted based on the left turn warrant criteria outlined in NCHRP Report 348. This will improve the safety at the intersection of Driveway 1. Queueing Analysis of the existing intersections requires that Driveway 2 function as a right-in-right-out driveway and the existing median opening adjacent to Driveway 2 be closed.

Based on this analysis, the proposed development is projected to have no major impacts to the study intersections. The following mitigations are the responsibility of the developer and should be installed as part of the project.

- Mitigation I: Close the existing median opening that is aligned with Driveway 2 as shown on **Executive Summary Exhibit II**.
- Mitigation II: Install a northbound Left-Turn lane on Bingle Rd at the intersection with Driveway 1 as shown on **Executive Summary Exhibit II**.



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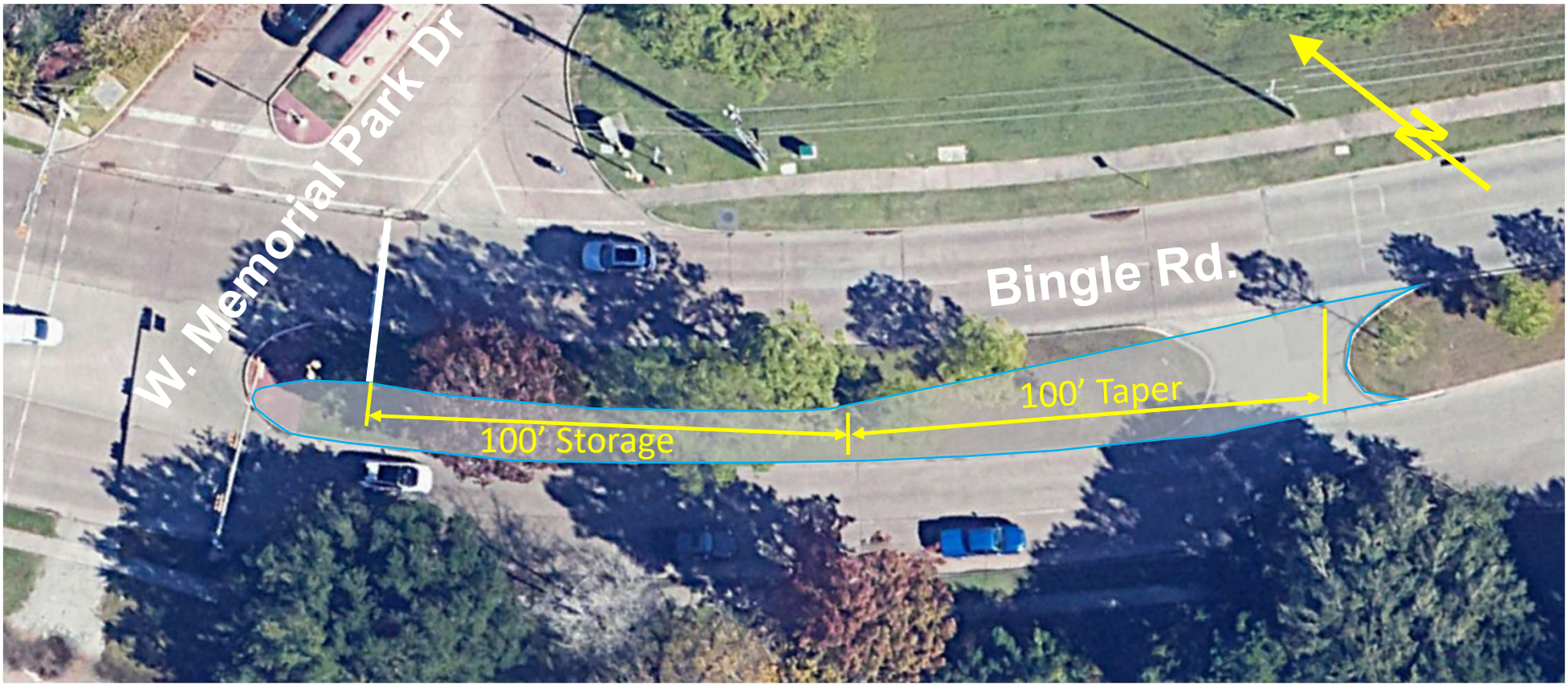
ANALYSIS AREA & STUDY INTERSECTIONS

Executive Summary Exhibit I


W. Memorial Park Dr
Bingle Rd.
N
100’ Storage
100’ Taper

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Traffic Count Volume Data

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NCHRP Report 348

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I. INTRODUCTION

A. PURPOSE

ACE Traffic Engineering, LLC. has been retained by ALJ Lindsey to perform a Traffic Impact Analysis (TIA) for a proposed mixed use development located in Spring Valley Village, Texas. The site is located on the west side of Bingle Rd at the intersection with W memorial Park Dr. The site/vicinity map is shown in **Exhibit 1**

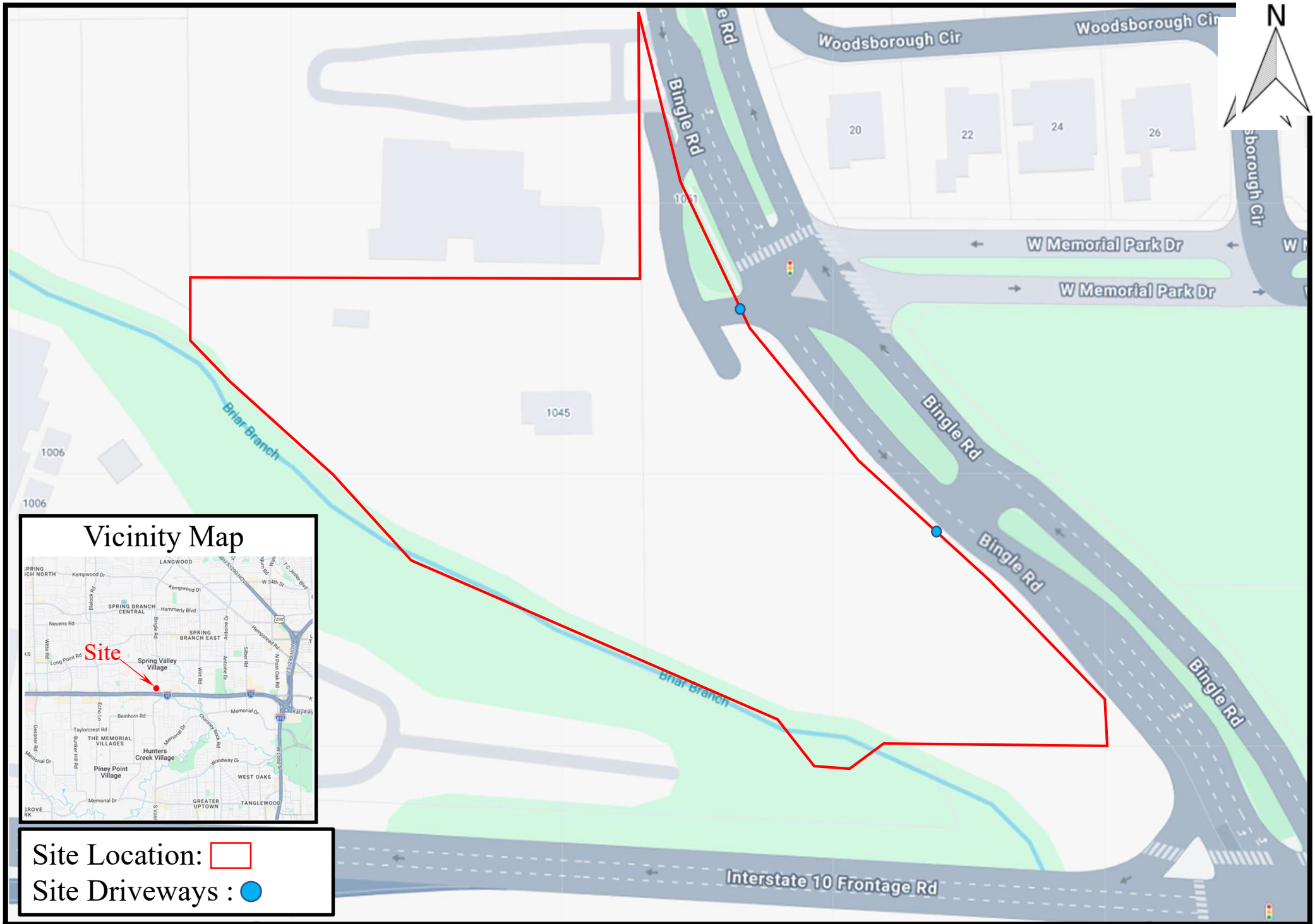
The purpose of this study is to address any potential traffic impacts of the proposed development on roadways and intersections within the study area. Objectives of this study are to determine the existing and future Levels-of-Service (LOS) at various study intersections and to recommend mitigation improvements, if necessary.

B. METHODOLOGY

The traffic evaluation is comprised of three (3) scenarios for which AM and PM peak hour LOS analyses were performed. For both signalized and unsignalized intersections, this analysis was conducted using *Synchro 11*™ software. **Table 1** provides a summary of the assumptions used in this TIA

Table 1 – Analysis Scenario Summary

Scenario	Roadway Conditions	Development Assumptions	Traffic Volumes
Existing Conditions (2026)	Existing Conditions	Existing Conditions	Existing Conditions
No Build Conditions (2027)	Existing Conditions	Existing Conditions	Existing Conditions + 1 year of Background Growth (1.0% Annually)
Build Conditions (2027)	No Build Conditions + Proposed Development Driveways	No Build Conditions + Full Development	No Build Conditions + Site Related Traffic


N
Woodsborough Cir
Bingle Rd
W Memorial Park Dr
Briar Branch
1045
1006
Interstate 10 Frontage Rd
Vicinity Map
Site
Site Location:
Site Driveways :

II. EXISTING AND PROPOSED LAND USE

A. EXISTING DEVELOPMENT

The site currently consists of vacant undeveloped land that will be cleared for the proposed development. There is one existing driveway located at the intersection of Bingle Rd at W. Memorial Park Dr which is the proposed location for Driveway 1.

B. SITE LOCATION / STUDY AREA

The subject site is located on the west side of Bingle Rd, at the intersection with W memorial Park Dr, within the City Limits. The study area analyzed as part of this TIA was developed based on a ¼ mile study area which was agreed to by City staff. The surrounding land uses within the study area consist of mostly of residential, with a few commercial properties. A list of intersections and associated traffic control analyzed within the study area are as described below:

Existing Signalized Intersection:

- Bingle Rd @ W Memorial Park Dr
- Bingle Rd @ Winningham Ln
- Bingle Rd @ I-10 WBFR
- Voss Rd @ I-10 EBFR

Proposed Unsignalized Intersection:

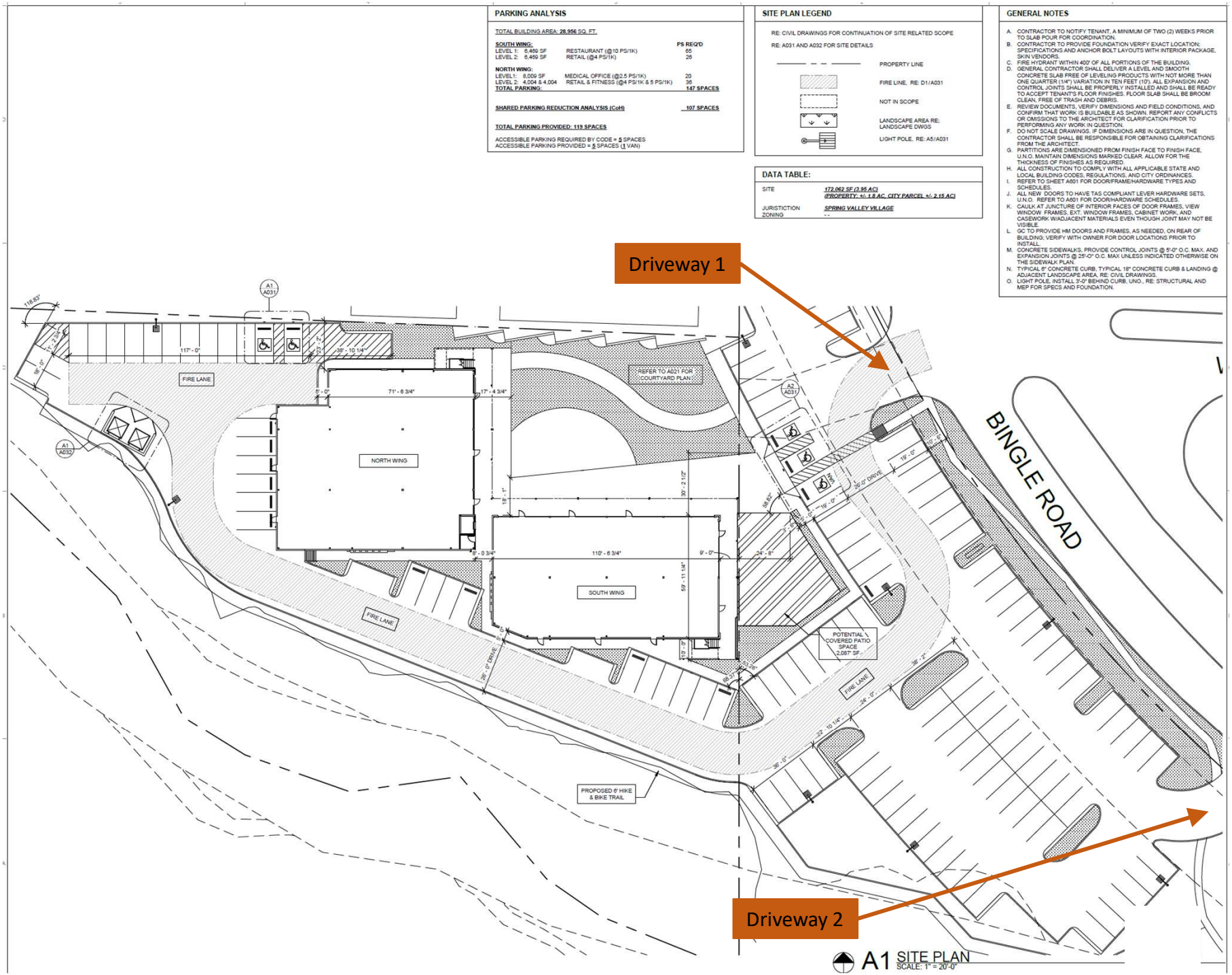
- Bingle Rd @ Site Driveway 2

C. PROPOSED DEVELOPMENT

Based on information provided by ALJ Lindsey, the proposed development will consist of a mixed use development which will be built in one phase. Two driveways are proposed as part of this development. The main access driveway will be the fourth leg of the intersection of Bingle Rd at W. Memorial Park Dr. The secondary driveway will align with the existing median cut along Bingle Rd, just north of I-10. The two site driveways are shown in **Exhibit 2**. Driveway 1 will be full-access and is the main access driveway. Driveway 2 is currently proposed as a full-access driveway (see **Section VI** for further description of proposed driveways). The proposed development is summarized below:

Proposed Development:

- Land Use: Mixed Use
  - Fine Dining Restaurant (931)
  - Strip Retail Plaza (822)
  - Medical Office (720)
  - Health/Fitness Club (492)
  - Fast Casual Restaurant (930)
- Driveways:
  - 2 Proposed Driveways
- Completion Year 2027


PARKING ANALYSIS
TOTAL BUILDING AREA: 28,956 SQ. FT.
SOUTH WING:
LEVEL 1: 6,469 SF RESTAURANT (@10 PS/1K) 65
LEVEL 2: 6,469 SF RETAIL (@4 PS/1K) 26
NORTH WING:
LEVEL 1: 8,009 SF MEDICAL OFFICE (@2.5 PS/1K) 20
LEVEL 2: 4,004 & 4,004 RETAIL & FITNESS (@4 PS/1K & 5 PS/1K) 36
TOTAL PARKING: 147 SPACES
SHARED PARKING REDUCTION ANALYSIS (CoH) 107 SPACES
TOTAL PARKING PROVIDED: 119 SPACES
ACCESSIBLE PARKING REQUIRED BY CODE = 5 SPACES
ACCESSIBLE PARKING PROVIDED = 5 SPACES (1 VAN)
SITE PLAN LEGEND
RE: CIVIL DRAWINGS FOR CONTINUATION OF SITE RELATED SCOPE
RE: A031 AND A032 FOR SITE DETAILS
PROPERTY LINE
FIRE LINE, RE: D1/A031
NOT IN SCOPE
LANDSCAPE AREA RE: LANDSCAPE DWGS
LIGHT POLE, RE: A5/A031
DATA TABLE:
SITE 172,062 SF (3.95 AC) (PROPERTY: +/- 1.8 AC, CITY PARCEL +/- 2.15 AC)
JURISTICTION SPRING VALLEY VILLAGE
ZONING --
GENERAL NOTES
A. CONTRACTOR TO NOTIFY TENANT, A MINIMUM OF TWO (2) WEEKS PRIOR TO SLAB POUR FOR COORDINATION.
B. CONTRACTOR TO PROVIDE FOUNDATION VERIFY EXACT LOCATION; SPECIFICATIONS AND ANCHOR BOLT LAYOUTS WITH INTERIOR PACKAGE, SIGN VENDORS.
C. FIRE HYDRANT WITHIN 400' OF ALL PORTIONS OF THE BUILDING.
D. GENERAL CONTRACTOR SHALL DELIVER A LEVEL AND SMOOTH CONCRETE SLAB FREE OF LEVELING PRODUCTS WITH NOT MORE THAN ONE QUARTER (1/4") VARIATION IN TEN FEET (10'). ALL EXPANSION AND CONTROL JOINTS SHALL BE PROPERLY INSTALLED AND SHALL BE READY TO ACCEPT TENANT'S FLOOR FINISHES. FLOOR SLAB SHALL BE BROOM CLEAN, FREE OF TRASH AND DEBRIS.
E. REVIEW DOCUMENTS, VERIFY DIMENSIONS AND FIELD CONDITIONS, AND CONFIRM THAT WORK IS BUILDABLE AS SHOWN. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK IN QUESTION.
F. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM THE ARCHITECT.
G. PARTITIONS ARE DIMENSIONED FROM FINISH FACE TO FINISH FACE, U.N.O. MAINTAIN DIMENSIONS MARKED CLEAR. ALLOW FOR THE THICKNESS OF FINISHES AS REQUIRED.
H. ALL CONSTRUCTION TO COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES, REGULATIONS, AND CITY ORDINANCES.
I. REFER TO SHEET A601 FOR DOOR/FRAME/HARDWARE TYPES AND SCHEDULES.
J. ALL NEW DOORS TO HAVE TAS COMPLIANT LEVER HARDWARE SETS, U.N.O. REFER TO A601 FOR DOOR/HARDWARE SCHEDULES.
K. CAULK AT JUNCTURE OF INTERIOR FACES OF DOOR FRAMES, VIEW WINDOW FRAMES, EXT. WINDOW FRAMES, CABINET WORK, AND CASEWORK W/ADJACENT MATERIALS EVEN THOUGH JOINT MAY NOT BE VISIBLE.
L. GC TO PROVIDE HM DOORS AND FRAMES, AS NEEDED, ON REAR OF BUILDING; VERIFY WITH OWNER FOR DOOR LOCATIONS PRIOR TO INSTALL.
M. CONCRETE SIDEWALKS: PROVIDE CONTROL JOINTS @ 5'-0" O.C. MAX. AND EXPANSION JOINTS @ 25'-0" O.C. MAX UNLESS INDICATED OTHERWISE ON THE SIDEWALK PLAN.
N. TYPICAL 6" CONCRETE CURB. TYPICAL 18" CONCRETE CURB & LANDING @ ADJACENT LANDSCAPE AREA. RE: CIVIL DRAWINGS.
O. LIGHT POLE, INSTALL 3'-0" BEHIND CURB, UNO., RE: STRUCTURAL AND MEP FOR SPECS AND FOUNDATION.
Driveway 1
Driveway 2
BINGLE ROAD
FIRE LANE
NORTH WING
SOUTH WING
REFER TO A021 FOR COURTYARD PLAN
POTENTIAL COVERED PATIO SPACE 2,087 SF
PROPOSED 8' HIKE & BIKE TRAIL
26'-0" DRIVE
A1 SITE PLAN
SCALE: 1" = 20'-0"

III. ROADWAY SYSTEM

A. EXISTING THOROUGHFARE SYSTEM

The transportation network in the immediate vicinity of the proposed development includes Bingle Rd, Winningham Ln, W Memorial Park Dr, and the I-10 feeder roads. The following is a general description of the major roadways within the study area. **Table 2** provides a summary of the existing roadway characteristics. The existing lane assignments and traffic control devices within the study area are displayed on **Exhibit 3**.

Bingle Rd runs north and south along the east property boundary of the development. It is classified as a Major Thoroughfare. The roadway has a boulevard cross-section with two lanes in each direction, concrete paving with curb and gutters, and sidewalks on both sides. North of W Memorial Park Dr the roadway narrows to four undivided lanes.

Winningham Ln runs east and west and is located to the north of the development. Winningham Ln is local residential street. The roadway has two lanes in each direction, concrete paving with curb and gutters, and no sidewalks. The street flares out at the intersection with Bingle into a boulevard cross-section.

W. Memorial Park Dr runs east and west and is located east of the development. W. Memorial Park Dr. is a local street. The roadway has a boulevard cross-section with two lanes in each direction, concrete paving with curb and gutters, and no sidewalks.

I-10 feeder roads run east and west adjacent to the I-10 main lanes. The feeder roads provide access to and from the ramps to the I-10 main lanes and to other destinations further east and west. Both feeder roads have 3 lanes in each direction but widen at the intersection with Bingle Rd to include additional lanes. They are concrete paved with curb & gutters, and sidewalks.

Table 2 – Existing Roadway Characteristics

Existing Roadway	Pavement Width	Number of Lanes	Lane Width	Median Type	Speed Limit
Bingle Rd	Varies	4	12	Varies	30 MPH
Winningham Ln	26’	2	13’	Undivided	30 MPH
W. Memorial Park Dr	60’	4	12’	Boulevard	30 MPH
I-10 feeder roads.	Varies	3	12’	Undivided	45 MPH

B. EXISTING TRAFFIC VOLUMES

Traffic volume data was collected by Ally General Solutions at all study intersections on 5/19/26 and 5/21/26 between 7-9:00AM and 4-6:00PM. The peak hours identified for study within the report were 7:45-8:45AM and 4:30-5:30PM. The resulting traffic volumes used as existing traffic in this report are shown in **Exhibit 4A** and **Exhibit 4B**. Intersection turning movement counts at each of the study intersections were used to calculate the Peak Hour Factor (PHF) for each turning movement for use in the Synchro Modeling. The PHF is calculated by dividing the hourly volume of the analysis hour by the peak 15-minute flow rate within the analysis hour. This is represented by the following formula:

$$PHF = \frac{Hourly\ Volume}{4 * V_{15}}$$

The PHF for each movement at each intersection are listed in the peak hour traffic count volume data sheets and are provided in the appendix.

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2026 EXISTING LANE ASSIGNMENTS AND TRAFFIC CONTROL

ACE Traffic Engineering, LLC.	2026 EXISTING AM PEAK HOUR VOLUMES	Exhibit 4A Page 90 of 497

ACE
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2026 EXISTING PM PEAK HOUR VOLUMES

Exhibit
4B

IV. ANALYSIS OF EXISTING CONDITIONS

A. LEVEL-OF-SERVICE EVALUATIONS

The evaluation of the existing roadway system consists of AM and PM peak hour level-of-service (LOS) analyses. The purpose of this analysis is to determine if any deficiencies exist within the study network and to establish a baseline condition.

Traffic operations are affected by various geometric factors including roadway type (e.g., divided or undivided), number of lanes, lane widths, and grades. LOS, which is a measure of the degree of congestion, ranges from LOS A (free flowing) to LOS F (a congested, forced flow condition). For intersections operating at LOS D or worse, reasonable efforts must be made to maintain the existing LOS. LOS thresholds for both unsignalized and signalized intersections are presented in **Table 3**.

Table 3 – Level-of-Service Thresholds for Unsignalized and Signalized Intersections

LOS	Control Delay for Unsignalized Intersections (sec/veh)	Control Delay for Signalized Intersections (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: Transportation Research Board. (2010). Highway Capacity Manual. Washington, DC.

For both unsignalized and signalized intersection LOS, if the volume-to-capacity ratio is greater than one, then the intersection/approach LOS is LOS F. LOS D or better is generally deemed as acceptable operations for an urban area.

The following paragraphs (excerpts from the *Highway Capacity Manual 2010*) describe each LOS condition for a signalized intersection

- LOS A describes operations with a control delay of 10 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

- LOS B describes operations with a control delay between 10 and 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

- LOS C describes operations with a control delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length moderate. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersections without stopping.

- LOS D describes operations with a control delay between 35 and 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

- LOS E describes operations with a control delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

- LOS F describes operations with a control delay exceeding 80 seconds per vehicle or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Transportation Research Board. (2010). Highway Capacity Manual. Washington, DC.

Approach delays at the study intersections for the 2026 Existing Conditions are compiled in **Table 4**. This table indicates the LOS results of intersections for the Existing Conditions based on volumes shown in **Exhibit 4A** and **Exhibit 4B**. Existing signal timings for all intersections were used for the analysis.

Table 4 – 2026 Existing Condition Intersection Capacity Analysis by Approach

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
Signalized Intersection					
Bingle Rd @ Winningham Ln	EB Approach	0.3	A	18.4	B
	WB Approach	53.0	D	31.9	C
	NB Approach	2.9	A	2.7	A
	SB Approach	3.3	A	2.3	A
	Intersection	**5.5**	**A**	**3.6**	**A**
Bingle Rd @ W. Memorial Park Dr / Driveway 1	EB Approach	0.0	A	0.0	A
	WB Approach	37.1	D	56.4	E
	NB Approach	6.0	A	11.1	B
	SB Approach	5.8	A	10.7	B
	Intersection	**7.1**	**A**	**17.5**	**B**
Bingle Rd @ I-10 WBFR	WB Approach	35.8	D	37.7	D
	NB Approach	10.1	B	6.9	A
	SB Approach	39.6	D	47.2	D
	Intersection	**28.4**	**C**	**29.9**	**C**
Voss Rd @ I-10 EBFR	EB Approach	39.5	D	36.8	D
	NB Approach	52.4	D	49.4	D
	SB Approach	5.4	A	6.0	A
	Intersection	**33.2**	**C**	**32.7**	**C**

In the 2026 Existing Condition, all signalized intersections within the study area operate at acceptable LOS (LOS D or better) in both AM and PM peak hours.

SimTraffic Analysis reports that the 95% queue length for the southbound approach of Bingle Rd at I-10 WBFR is 435 feet in the AM peak hour and 426 feet in the PM peak hour. Both of these distances surpass and block the existing median opening where Driveway 2 is proposed. Although the median may be clear in the off-peak hours, allowing access at the median for northbound traffic has the potential to create lane blocking during the peak hours.

B. Crash History

A review of the existing crash history at the study intersections was conducted in an attempt to identify any potential conflict movements that may present a safety issue. The search for crash history was conducted using the TxDOT C.R.I.S. Database. The date range for the search was (three years) from 01/01/2023 to 12/05/2025. The results are discussed below and copy of the generated crash reports are provided in the appendix.

- Bingle Rd @ Winningham Ln – This intersection had 2 reported crashes, or less than 1 per year.
- Bingle Rd @ W. Memorial Park Dr – This intersection had 3 crashes, or 1 per year.
- Bingle Rd @ I-10 WBFR – This intersection had 30 total reported crashes, but only had 3 correctable crashes, for an average of 1 per year.
- Voss Rd @ I-10 EBFR – This intersection had 11 total reported crashes, but only had 2 correctable crashes, or less than 1 per year.

Based on the findings of the search for crash history, the subject intersections do not meet the thresholds to warrant additional mitigation based on safety.

V. 2027 NO BUILD CONDITION ANALYSIS

A. Background Traffic Development

To determine background traffic volumes not associated with the proposed development, an annual growth rate was used. A growth rate of 1.0% per year was applied to the 2026 existing traffic volumes to determine the 2027 projected background traffic volumes as they relate to the study area. The resulting volumes are depicted in **Exhibit 5A** and **Exhibit 5B** respectively.

B. Level-of-Service Evaluations

The evaluation of year 2027 No Build Conditions comprised of AM and PM peak hour intersection LOS analyses. The purpose of these analyses was to determine deficiencies that may exist in the projected roadway network as it relates to the 2027 No Build Conditions, and in turn, to establish a baseline condition. Approach delays at the study intersections for the 2027 No Build Conditions are compiled in **Table 5**. This table indicates the LOS results of intersections for the 2027 No Build Conditions based on volumes shown in **Exhibit 5A**, and **Exhibit 5B**. Signal timings, including cycle length and splits, were kept the same as the 2026 Existing Conditions for this analysis.

Table 5 – 2027 No Build Condition Intersection Capacity Analysis by Approach

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
Signalized Intersection					
Bingle Rd @ Winningham Ln	EB Approach	0.3	A	18.4	B
	WB Approach	53.2	D	31.9	C
	NB Approach	2.9	A	2.7	A
	SB Approach	3.3	A	2.3	A
	Intersection	**5.5**	**A**	**3.6**	**A**
Bingle Rd @ W. Memorial Park Dr / Driveway 1	EB Approach	0.0	A	0.0	A
	WB Approach	37.1	D	57.3	E
	NB Approach	6.0	A	11.2	B
	SB Approach	5.7	A	10.7	B
	Intersection	**7.1**	**A**	**17.7**	**B**
Bingle Rd @ I-10 WBFR	WB Approach	36.3	D	38.1	D
	NB Approach	10.2	B	7.0	A
	SB Approach	39.8	D	47.3	D
	Intersection	**28.7**	**C**	**30.1**	**C**
Voss Rd @ I-10 EBFR	EB Approach	39.7	D	37.0	D
	NB Approach	53.4	D	50.7	D
	SB Approach	5.5	A	6.2	A
	Intersection	**33.6**	**C**	**33.3**	**C**

With an increase in vehicle volume background growth on the roadway network, the delay increases at the study intersection. All intersections continue to operate at acceptable level of service (LOS D, or better).

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2027 NO-BUILD AM PEAK HOUR VOLUMES

Exhibit
5A

ACE
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2027 NO-BUILD PM PEAK HOUR VOLUMES

Exhibit
5B

VI. SITE CHARACTERISTICS

A. PROPOSED SITE ACCESS

Based on the current site plan, two driveways are proposed for the development. Both driveways are proposed along Bingle Rd.. The locations and specifications for the driveways are depicted in Exhibit 2 and are described below:

- **Site Driveway 1 –** Driveway 1 forms the fourth leg of the signalized intersection of Bingle Rd. at W. Memorial Park Dr. This driveway will be a full access driveway and is intended to serve as the main access driveway.
- **Site Driveway 2 –** Driveway 2 forms a T-intersection with Bingle Rd. and is aligned with the first median opening north of the I-10 westbound feeder road. This driveway is currently planned as a full-access driveway.

Based on the current site plan and driveways as defined above, **Exhibit 6** displays the lane configurations for the Build Condition.

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FUTURE LANE ASSIGNMENTS AND TRAFFIC CONTROL

Exhibit 6

B. Proposed Site Trip Generation

Traffic projections were prepared for the proposed development based on the trip generation rates found in the *Institute of Transportation Engineers* (ITE) publication entitled *Trip Generation Manual, 12th Edition*. This recognized standard for trip generation is based on actual surveys (traffic counts) of existing developments of various types. The proposed development will consist of a mix of Land Uses. Each proposed land use and the corresponding ITE trip rates used are listed in **Table 6**.

Table 6 – Trip Generation Rates

Land Use	AM Peak		PM Peak		Weekday Total	
	Rate	IN:OUT Split (%)	Rate	IN:OUT Split (%)	Rate	IN:OUT Split (%)
Fine Dining Restaurant (931)	0.41	*80:20	8.10	69:31	79.03	50:50
Strip Retail Plaza (822)	3.93	55:45	6.29	50:50	54.45	50:50
Medical Office Building (720)	3.21	78:22	3.42	30:70	34.03	50:50
Health/Fitness Club (492)	1.79	51:49	3.77	57:43	30.02	50:50
Fast Casual Restaurant (930)	1.58	64:36	14.35	53:47	225.89	50:50

Adjustments were made to the trip generation for pass-by trips and internal capture. **Table 7** summarizes the total number of trips expected to be generated by the proposed development. The trip generation rates in **Table 6** and the total square feet were used to determine the trips generated during the AM and PM peak periods. A copy of the corresponding ITE trip generation sheets and the justification for 40% pass-by for Strip Retail Plaza land use are provided in the appendix.

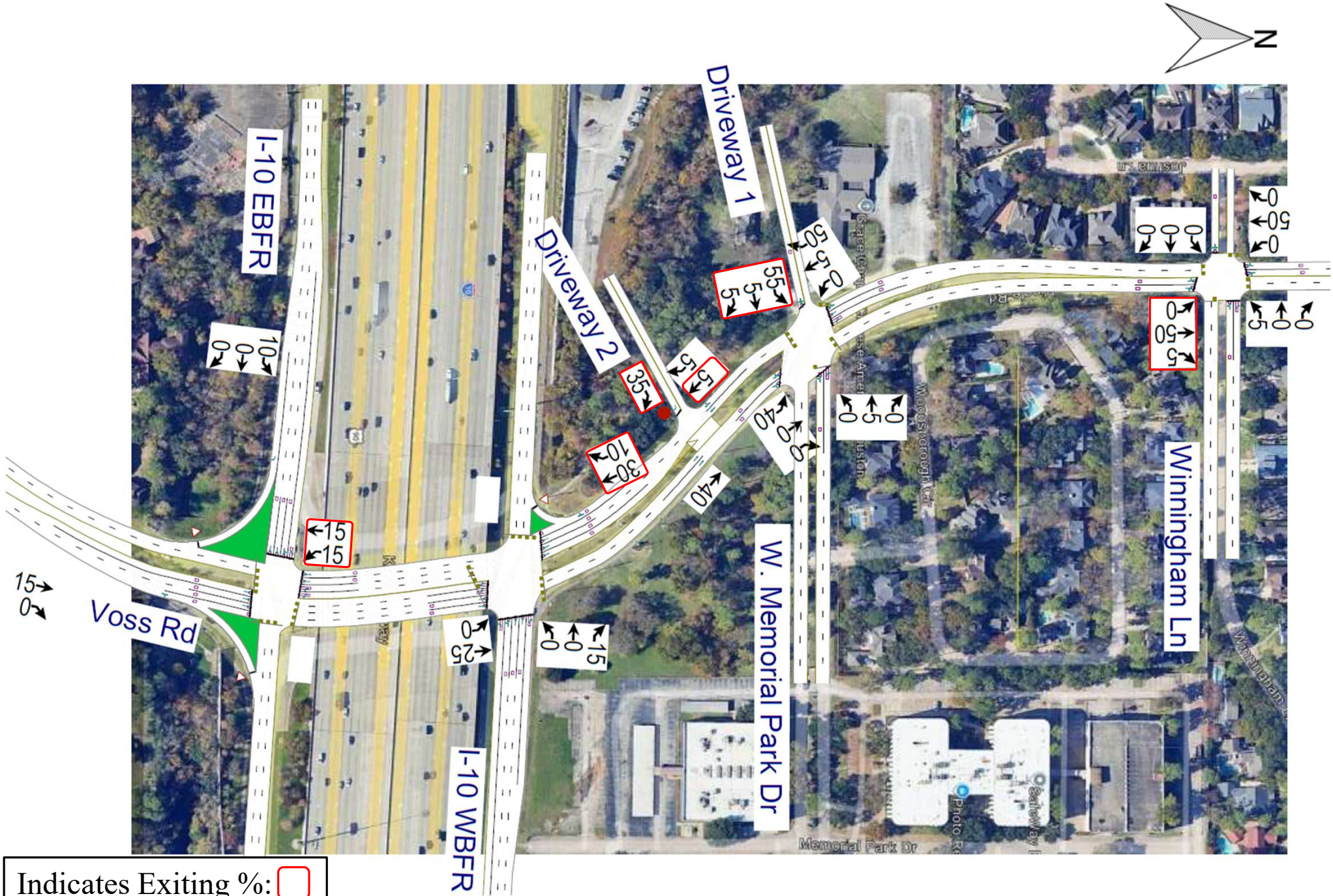
Table 7 – Estimated Trip Generation

Proposed Land Use	Intensity	Units	ITE Code	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
Fine Dining Restaurant	6.470	K-GFA	931	352	2	1	25	36	16	41
Pass-By Reduction	44% per ITE			225	0	0	0	16	7	23
Strip Retail Plaza	3.595	K-GFA	822	196	8	6	14	11	12	23
Pass-By Reduction	40% per ITE			78	3	3	6	4	5	9
Medical Office Building	8.009	K-GFA	720	273	20	6	26	8	19	27
Pass-By Reduction	0%			0	0	0	0	0	0	0
Helth/Fitness Club	3.126	K-GFA	492	94	3	3	6	7	5	12
Pass-By Reduction	0%			0	0	0	0	0	0	0
Fast Casual Restaurant	6.000	K-GFA	930	1,355	6	3	9	46	40	86
Pass-By Reduction	0%			0	0	0	0	0	0	0
Total Trips				2,270	39	19	80	108	92	189
Pass-By Trips				303	3	3	6	20	12	32
10% Internal Capture				227	4	2	8	11	9	19
Net New Trips				1740	32	14	66	77	71	138
= Engineering Judgment				**Daily Total**	**AM Peak**			**PM Peak**		

C. Trip Distribution and Traffic Assignment

The distribution and assignment of site-generated traffic to the study area roadway network were developed to reflect the anticipated local traffic patterns. The distribution and assignment were determined based upon the existing traffic volumes, knowledge of the study area roadway network, and the proposed access locations to and from the site. Two separate peak hour distribution were created, one for the AM peak hour and one for the PM peak hours to reflect the existing distribution of traffic.

Exhibit 7A presents the inbound and outbound directional distribution percentages for the AM peak hour and **Exhibit 7B** presents the inbound and outbound directional distribution percentages for the PM peak hour for the proposed development on the roadway network. **Exhibit 8A** and **Exhibit 8B** present the projected trip assignment (site generated traffic) of the proposed development for the AM and PM peak hours during the 2027 Build Conditions. These volumes are based on the trip information and directional distribution assumptions.



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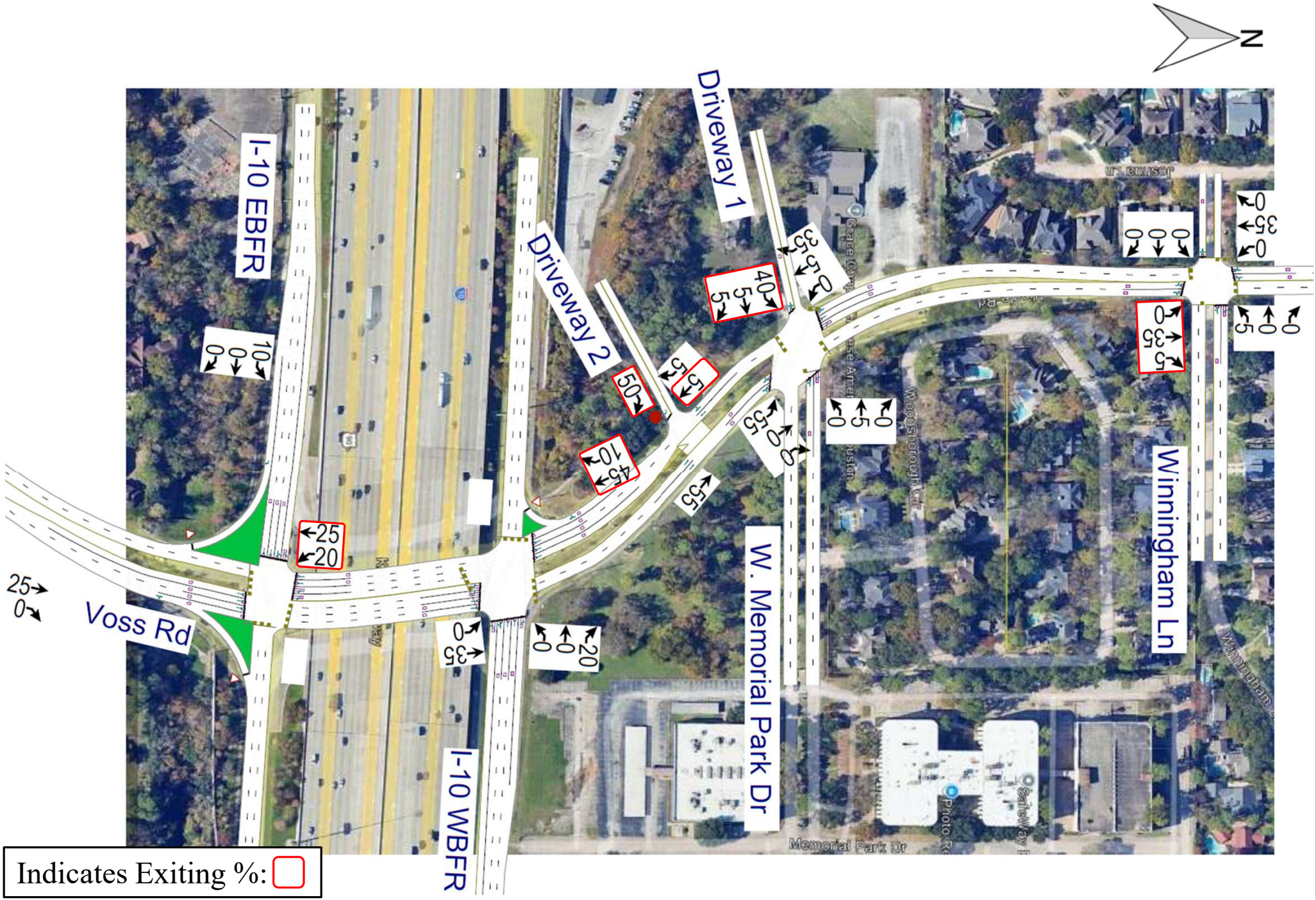
AM PEAK HOUR SITE TRIP DISTRIBUTION PERCENTAGES

Exhibit
7A



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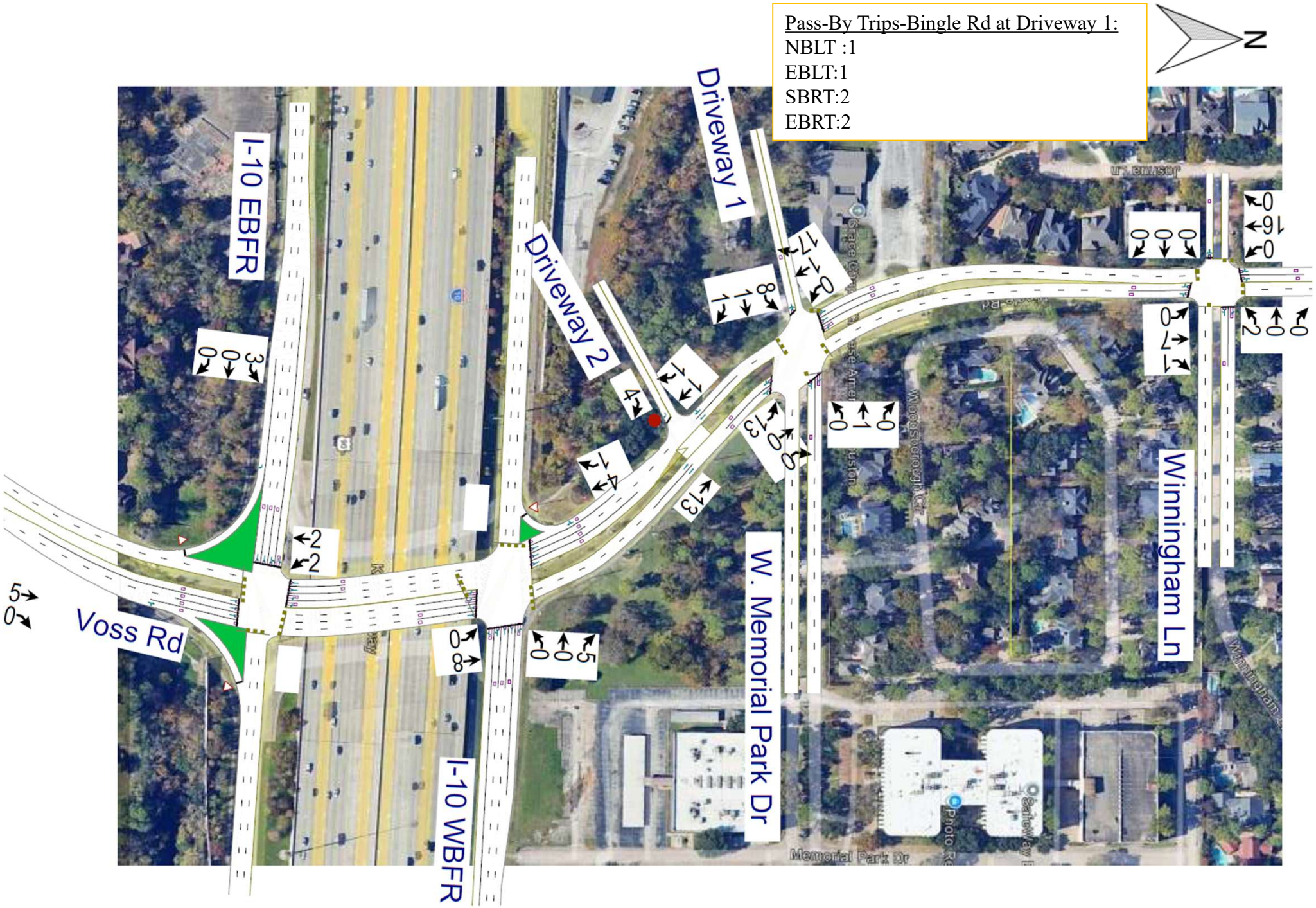
PM PEAK HOUR SITE TRIP DISTRIBUTION PERCENTAGES



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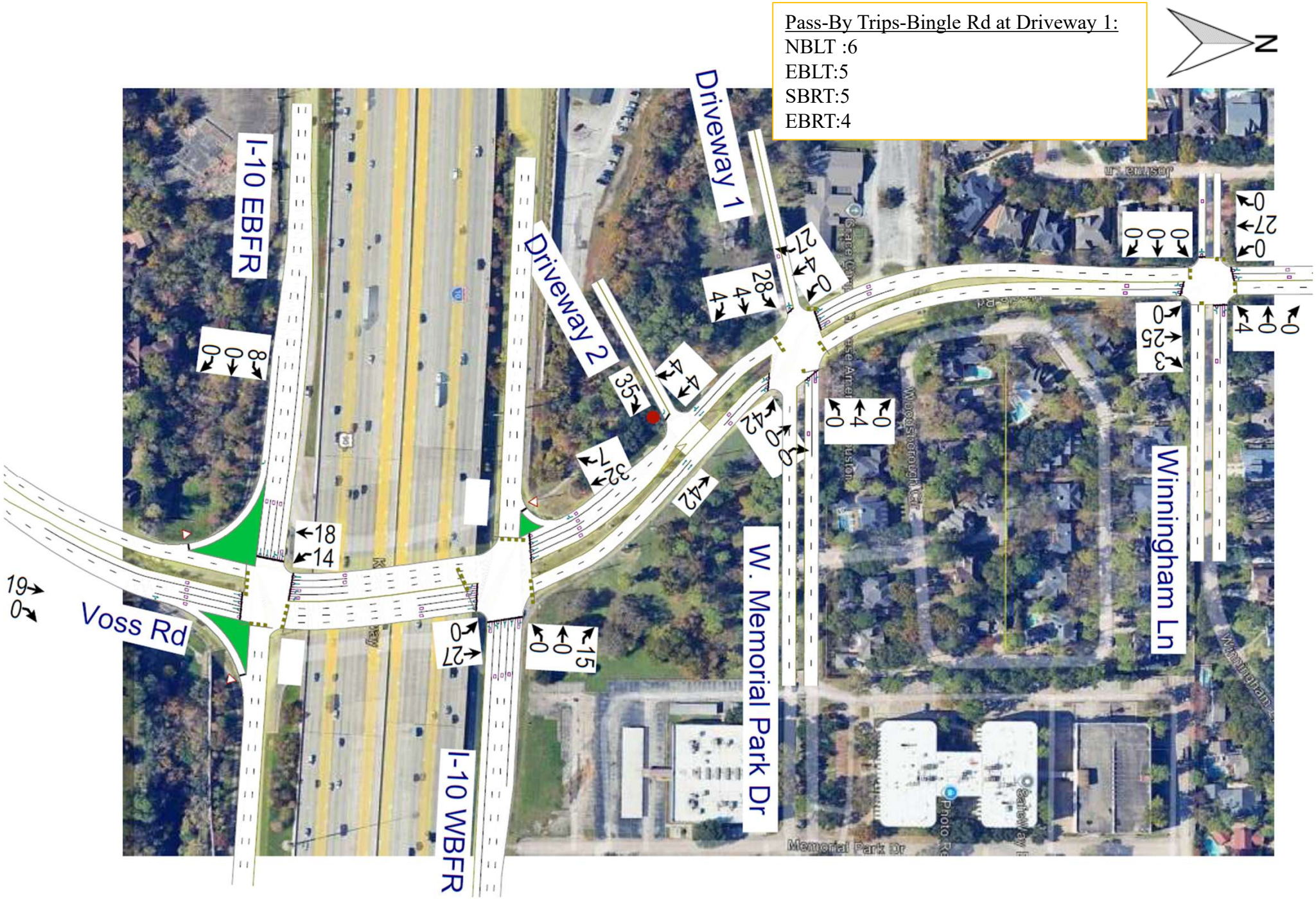
2027 AM PEAK HOUR SITE TRIP ASSIGNMENT VOLUMES

Exhibit
8A


Pass-By Trips-Bingle Rd at Driveway 1:
NBLT :6
EBLT:5
SBRT:5
EBRT:4
N
I-10 EBFR
Driveway 1
Driveway 2
W. Memorial Park Dr
Winningham Ln
Voss Rd
I-10 WBFR
Memorial Park Dr

VII. 2027 BUILD CONDITIONS ANALYSIS

A. Level-of-Service Evaluations

The evaluation of Year 2027 Build Conditions are comprised of AM and PM peak hour intersection LOS analyses. The purpose of this analysis was to determine deficiencies within the study area as a result of the traffic generated by the proposed development. Approach delays at the study intersections for the 2027 Build Conditions are compiled in **Table 8**. This table indicates the LOS results of intersections for the Build Conditions based on volumes shown in **Exhibit 9A** and **Exhibit 9B**. Signal timing, including cycle length and splits, were kept the same as 2026 Existing Conditions for this analysis.

Table 8 – 2027 Build Conditions Intersection Capacity Analysis by Approach

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
Signalized Intersection					
Bingle Rd @ Winningham Ln	EB Approach	0.3	A	18.3	B
	WB Approach	53.4	D	32.5	C
	NB Approach	3.0	A	2.8	A
	SB Approach	3.4	A	2.4	A
	Intersection	**5.6**	**A**	**3.8**	**A**
Bingle Rd @ W. Memorial Park Dr / Driveway 1	EB Approach	41.7	D	31.1	C
	WB Approach	38.1	D	61.0	E
	NB Approach	6.2	A	13.1	B
	SB Approach	5.8	A	10.6	B
	Intersection	**7.5**	**A**	**19.2**	**B**
Bingle Rd @ I-10 WBFR	WB Approach	36.5	D	38.9	D
	NB Approach	10.2	B	7.0	A
	SB Approach	40.0	D	48.1	D
	Intersection	**28.8**	**C**	**30.8**	**C**
Voss Rd @ I-10 EBFR	EB Approach	39.7	D	37.2	D
	NB Approach	53.8	D	54.0	D
	SB Approach	5.6	A	6.2	A
	Intersection	**33.8**	**C**	**34.5**	**C**
Unsignalized Intersections					
Bingle Rd @ Driveway 2	EB Approach	12.6	B	12.8	B
	NB Approach	Free Flow		Free Flow	
	SB Approach	Free Flow		Free Flow	
	Intersection	**0.0**	**A**	**0.2**	**A**

With the added traffic from the proposed development, the delay results of the 2027 Build Conditions are increased from those reported in the corresponding No Build Conditions; however, all intersections, both signalized and unsignalized, remain at LOS D or better in both build scenarios.

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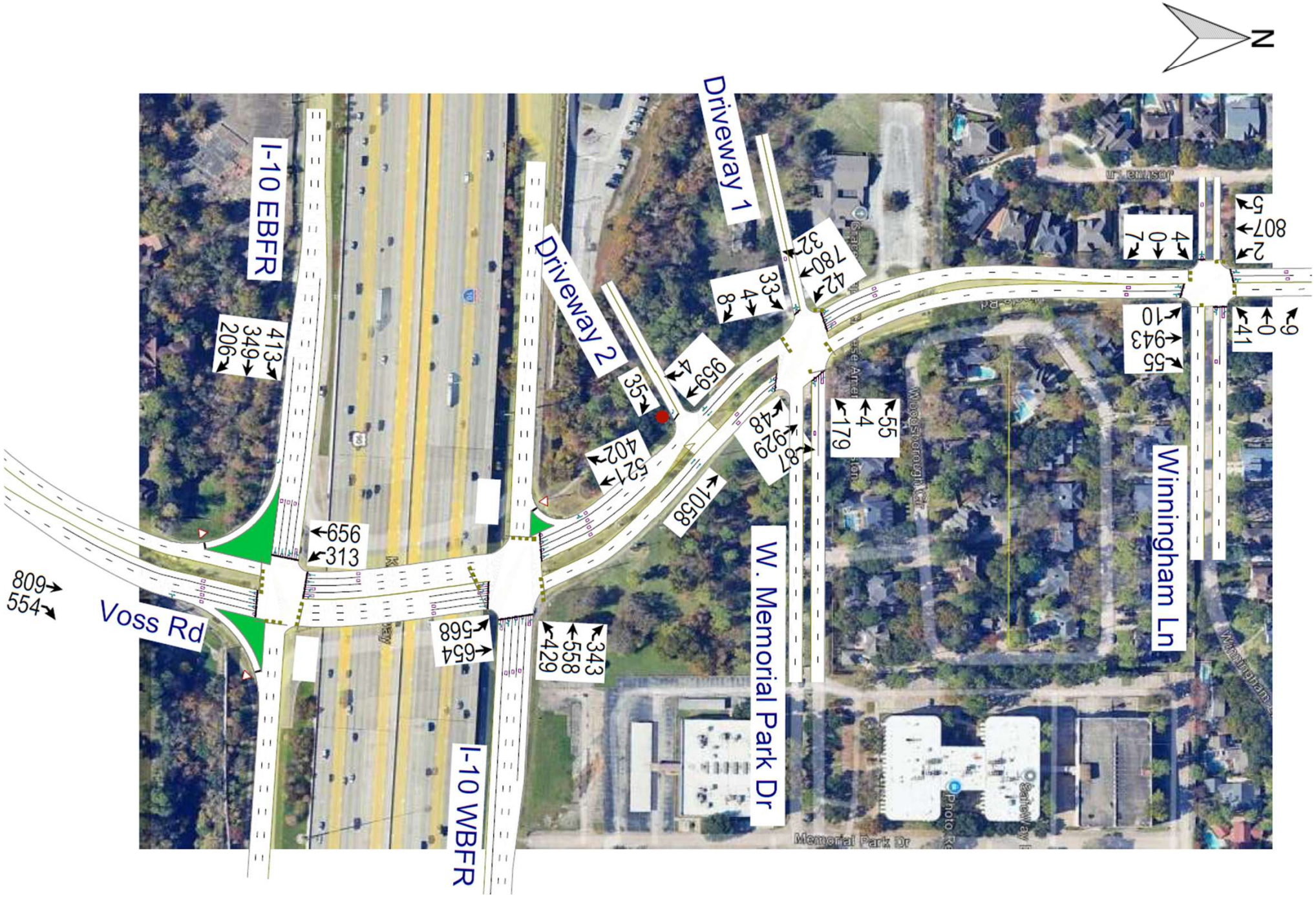
2027 AM PEAK HOUR: SITE + BACKGROUND TRAFFIC VOLUMES

Exhibit
9A



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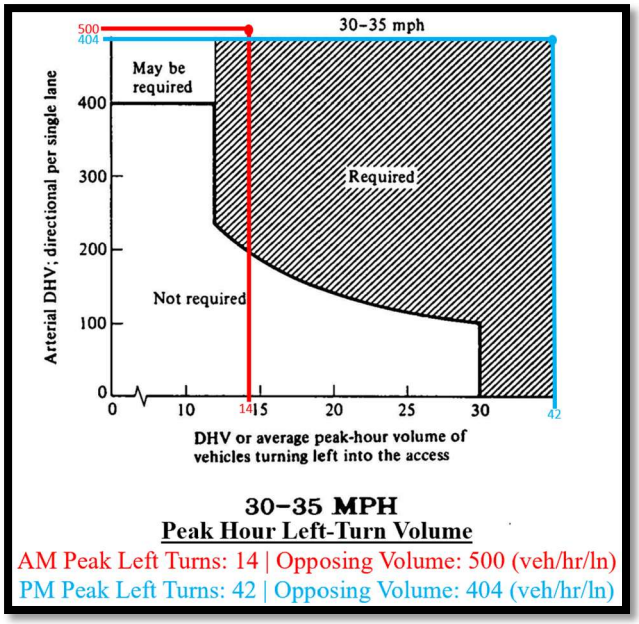
2027 PM PEAK HOUR: SITE + BACKGROUND TRAFFIC VOLUMES

B. Turn Lane Analysis

Left Turn Lanes

The need for a left-turn lane at Driveway 1 was analyzed using the criteria outlined in NCHRP Report 348. This report provides procedures to determine the need for a left turn deceleration lane at a driveway by comparing the advancing and approaching traffic volumes per lane to threshold volumes and the number of left turns at the driveway for various speed limits. This analysis determined that a left-turn lane would be warranted in both the AM and PM peak hours. Figure 1, shown below, illustrates the plotted values of the projected left turns generated by the development and the existing through traffic on the left turn warrant taken from NCHRP Report 348 which is provided in the Appendix.

Figure 1



*Source: *NCHRP Report 348; Access Management Guidelines for Activity Centers. Figure 9-11, Left-turn deceleration lane warrant.*

As illustrated in the warrant graph above, the volumes associated with the development warrant the consideration of a northbound left-turn lane based on the volume projections in the both peak hours.

In addition to the Driveway 1, *SimTraffic* analysis was performed at all of the existing study intersections. Driveway 2 was not considered for a left-turn lane because the existing queue length from southbound vehicle at the intersection of Bingle Rd at I-10 WBFR stacks up past the existing median opening that is aligned with the proposed location of driveway 2. This would cause northbound left-turning vehicles at Driveway 2 to queue back into the northbound through lane. Additionally, the existing median at Driveway 2 will fall within the taper length for the required left turn lane at driveway 1. Based on these geometric limitations and the safety implications, it is recommended that Driveway 2 operate as a right-in/right-out driveway and the existing median be closed.

Right Turn Lanes

TxDOT warrant criteria for the consideration of right-turn deceleration lanes states that for roadways with a speed limit ≤45 MPH right-turn lanes should be considered when right turns exceed 60 turns per hour. The NCHRP Report 348 provides additional guidance for right-turn lane implementation and states, "…Highway Capacity Manual suggests that a separate right-turn lane should be considered when the right-turn volume exceeds 300 vph and the adjacent through lanes also exceed 300 vph per lane." The right-turn volume is 17 in the AM peak hour and 27 in the PM peak hour. The projected volumes do not justify the installation of a dedicated right-turn lane.

C. Pedestrian, Bus, and Bicycle Facilities

Existing sidewalks are provided on both sides of Bingle Rd in the vicinity of the proposed site which provide connection from the I-10 feeder roads to W. Memorial Park Dr, Winningham Ln, and locations further north.

No bus routes exist along Bingle Rd within Spring Valley Village.

No bicycle facilities are currently provided within the study area; however, there are plans to change the cross-section of Bingle Road north of W. Memorial Park Dr to include one lane in each direction with dedicated bicycle lane on each side.

VIII. CONCLUSIONS AND RECOMMENDATIONS

Based on this analysis, the proposed development is projected to have no major impacts to the study intersections. All signalized intersections are projected to remain at acceptable LOS (LOS D, or better) when moving from the No-Build to the Build Scenarios. Analyses indicates that vehicles entering the proposed development will not experience any additional notable delay during AM and PM peak hours at the site driveways and the site has sufficient storage on site to accommodate the projected on-site queue lengths.

The analysis of the turning volumes at Driveway 1 determined that a northbound left turn lane is warranted based on the left turn warrant criteria outlined in NCHRP Report 348. This will improve the safety at the intersection of Driveway 1. Queueing Analysis of the existing intersections requires that Driveway 2 function as a right-in-right-out driveway and the existing median opening adjacent to Driveway 2 be closed.

Based on this analysis, the proposed development is not expected to have any major impacts to the surrounding roadway network. In order to provide a clear and convenient review of the approach delays at the study intersections, **Table 9** illustrates the LOS results of the study intersections for the 2027 No Build, and 2027 Build Scenarios.

Table 9 - All Scenarios - Comparison of Intersection Capacity Analysis

	Delay LOS			
	2027 No Build		2027 Build	
Intersection	**AM**	**PM**	**AM**	**PM**
Signalized Intersection				
Bingle Rd @ Winningham Ln	**A**	**A**	**A**	**A**
Bingle Rd @ W Memorial Park Dr	**A**	**B**	**A**	**B**
Bingle Rd @ I-10 WBFR	**C**	**C**	**C**	**C**
Voss Rd @ I-10 EBFR	**C**	**C**	**C**	**C**
Unsignalized Intersections (Worst Approach)				
Bingle Rd @ Driveway 2			B	B

The following mitigations are the responsibility of the developer and should be installed as part of the project.

- Mitigation I: Close the existing median opening that is aligned with Driveway 2 as shown on **Executive Summary Exhibit II**.
- Mitigation II: Install a northbound Left-Turn lane on Bingle Rd at the intersection with Driveway 1 as shown on **Executive Summary Exhibit II**.

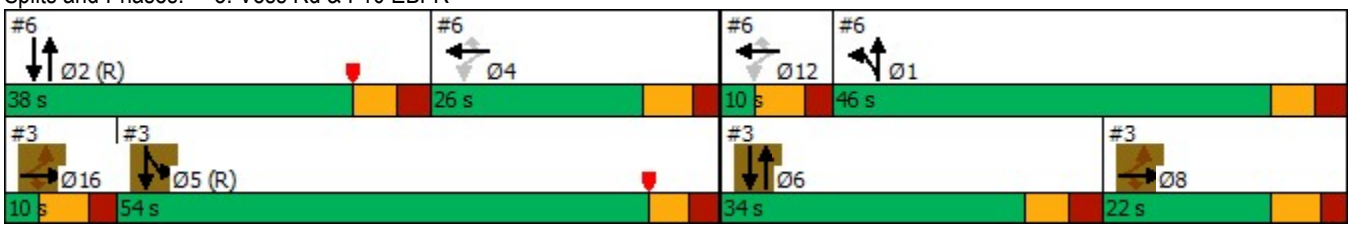
APPENDIX

SYNCHRO OUTPUT
2026 EXISTING CONDITIONS AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	444	281	219	0	0	0	0	669	472	360	711	0
Future Volume (vph)	444	281	219	0	0	0	0	669	472	360	711	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			233					156				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	233	546	233	0	0	0	0	1357	0	414	756	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.3	25.3	25.3					26.9		47.3	81.2	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.73	0.55	0.45					1.26dr		0.31	0.32	
Control Delay	58.6	44.8	8.0					52.4		12.5	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	58.6	44.8	8.0					52.4		12.5	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.5						52.4			5.4	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.93		
Intersection Signal Delay: 33.2	Intersection LOS: C	
Intersection Capacity Utilization 60.8%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

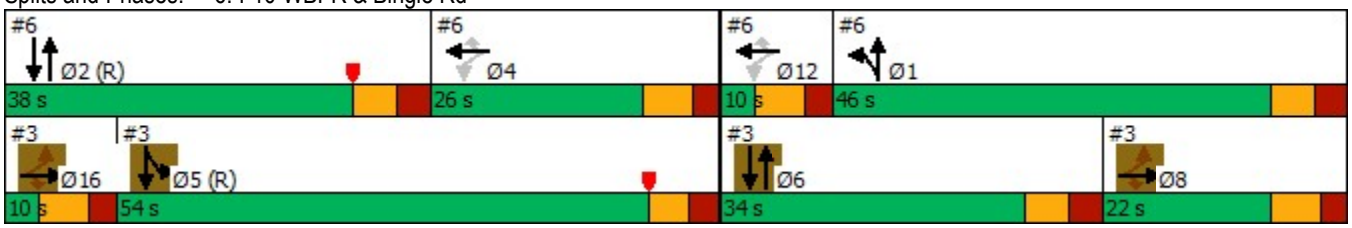
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	502	352	267	505	596	0	0	577	460
Future Volume (vph)	0	0	0	502	352	267	505	596	0	0	577	460
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						285					129	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	285	652	303	549	662	0	0	1155	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.8	30.8	30.8	38.4	75.2			29.8	
Actuated g/C Ratio				0.26	0.26	0.26	0.32	0.63			0.25	
v/c Ratio				0.73	0.54	0.49	0.50	0.30			0.97dr	
Control Delay				53.6	40.7	8.4	19.1	1.1			39.6	
Queue Delay				0.0	0.0	0.0	1.1	0.6			0.0	
Total Delay				53.6	40.7	8.4	20.3	1.7			39.6	
LOS				D	D	A	C	A			D	
Approach Delay					35.8			10.1			39.6	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

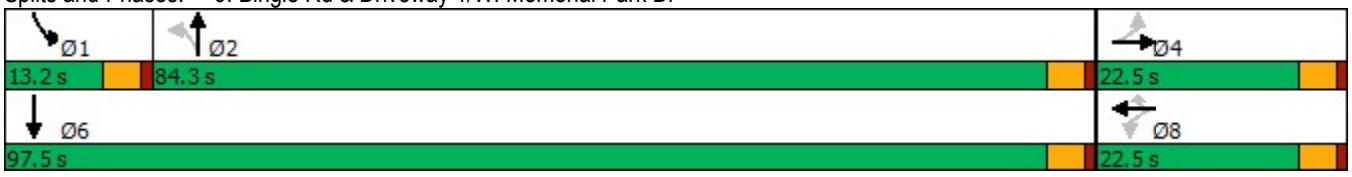
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	29	0	24	1	648	146	46	971	0
Future Volume (vph)	0	0	0	29	0	24	1	648	146	46	971	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3426	0	1770	3539	0
Flt Permitted					0.757			0.955		0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3272	0	1770	3539	0
Satd. Flow (RTOR)						55		60				
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	48	36	0	885	0	64	1055	0
Turn Type				Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					9.1	9.1		80.1		8.7	94.3	
Actuated g/C Ratio					0.08	0.08		0.73		0.08	0.86	
v/c Ratio					0.41	0.20		0.37		0.45	0.35	
Control Delay					58.8	8.3		6.0		60.8	2.4	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					58.8	8.3		6.0		60.8	2.4	
LOS					E	A		A		E	A	
Approach Delay					37.1			6.0			5.8	
Approach LOS					D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

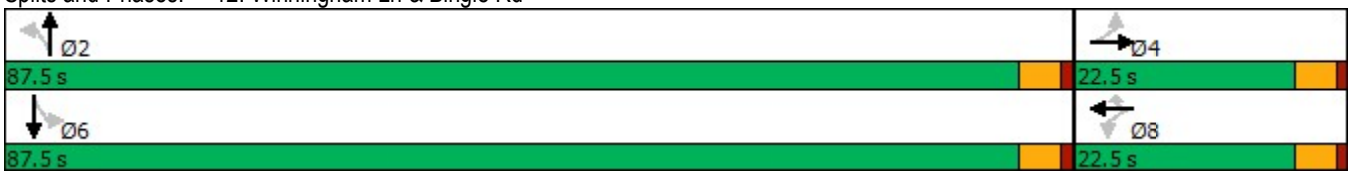
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	65	2	7	2	642	26	2	936	2
Future Volume (vph)	0	0	13	65	2	7	2	642	26	2	936	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		201				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	80	8	0	757	0	0	987	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.3			11.5	11.5		87.1			87.1	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.54	0.04		0.27			0.35	
Control Delay		0.3			57.1	12.0		2.9			3.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.1	12.0		2.9			3.3	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.0			2.9			3.3	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 5.5	Intersection LOS: A
Intersection Capacity Utilization 45.2%	ICU Level of Service A
Analysis Period (min) 15	

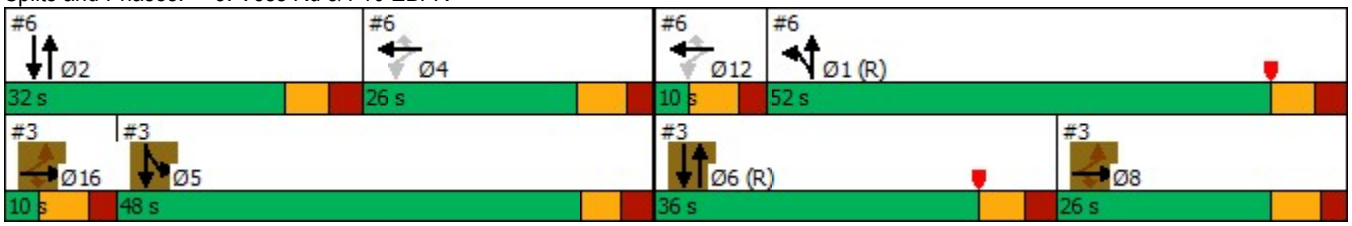
Splits and Phases: 12: Winningham Ln & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	346	204	0	0	0	0	782	549	296	632	0
Future Volume (vph)	401	346	204	0	0	0	0	782	549	296	632	0
Satd. Flow (prot)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.983								0.950		
Satd. Flow (perm)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					138				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	230	653	229	0	0	0	0	1489	0	315	790	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.4		40.4	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.63	0.58	0.42					1.19dr		0.27	0.34	
Control Delay	49.8	42.6	7.3					49.4		15.3	1.5	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.9	
Total Delay	49.8	42.6	7.3					49.4		15.3	2.3	
LOS	D	D	A					D		B	A	
Approach Delay		36.8						49.4			6.0	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.91		
Intersection Signal Delay: 32.7	Intersection LOS: C	
Intersection Capacity Utilization 61.6%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

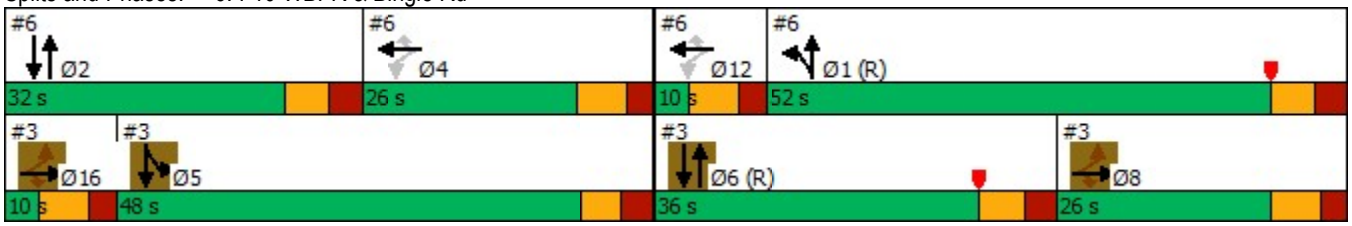
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	425	552	325	562	621	0	0	484	391
Future Volume (vph)	0	0	0	425	552	325	562	621	0	0	484	391
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6030	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6030	0
Satd. Flow (RTOR)						294					99	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	263	809	357	598	647	0	0	1016	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.0	30.0	30.0	45.6	76.0			23.4	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.69	0.68	0.58	0.46	0.29			1.03dr	
Control Delay				51.9	44.3	12.3	11.6	1.0			47.2	
Queue Delay				0.0	0.0	0.0	1.0	0.6			0.0	
Total Delay				51.9	44.3	12.3	12.6	1.5			47.2	
LOS				D	D	B	B	A			D	
Approach Delay					37.7			6.9			47.2	
Approach LOS					D			A			D	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.91		
Intersection Signal Delay: 29.9	Intersection LOS: C	
Intersection Capacity Utilization 61.6%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

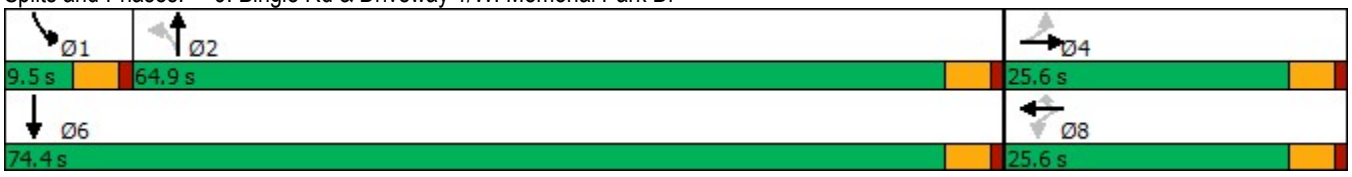
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	177	0	54	0	920	86	42	768	0
Future Volume (vph)	0	0	0	177	0	54	0	920	86	42	768	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3493	0	1770	3539	0
Flt Permitted					0.757					0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3493	0	1770	3539	0
Satd. Flow (RTOR)						79		19				
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	253	79	0	1075	0	56	826	0
Turn Type				Perm	NA	Perm		NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					20.1	20.1		63.1		5.0	70.7	
Actuated g/C Ratio					0.20	0.20		0.63		0.05	0.71	
v/c Ratio					0.89	0.21		0.49		0.64	0.33	
Control Delay					71.2	9.1		11.1		78.2	6.1	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					71.2	9.1		11.1		78.2	6.1	
LOS					E	A		B		E	A	
Approach Delay					56.4			11.1			10.7	
Approach LOS					E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 99.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

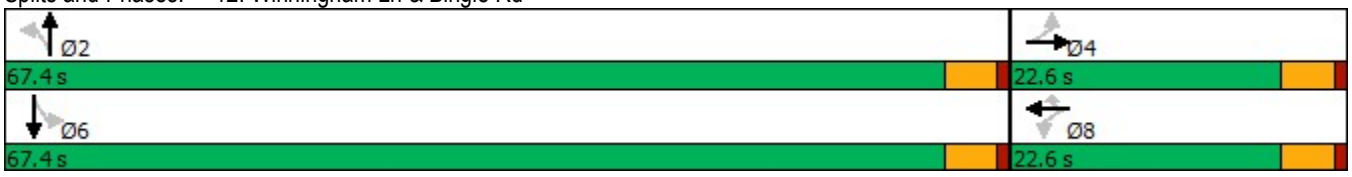
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	37	0	9	10	909	51	2	772	5
Future Volume (vph)	4	0	7	37	0	9	10	909	51	2	772	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3507	0	0	3536	0
Flt Permitted		0.932			0.742			0.927			0.946	
Satd. Flow (perm)	0	1540	0	0	1382	1583	0	3255	0	0	3345	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	44	20	0	1083	0	0	837	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		7.8			8.0	8.0		69.1			69.1	
Actuated g/C Ratio		0.10			0.10	0.10		0.86			0.86	
v/c Ratio		0.14			0.32	0.11		0.38			0.29	
Control Delay		18.4			39.2	15.9		2.7			2.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.4			39.2	15.9		2.7			2.3	
LOS		B			D	B		A			A	
Approach Delay		18.4			31.9			2.7			2.3	
Approach LOS		B			C			A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 3.6	Intersection LOS: A
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd

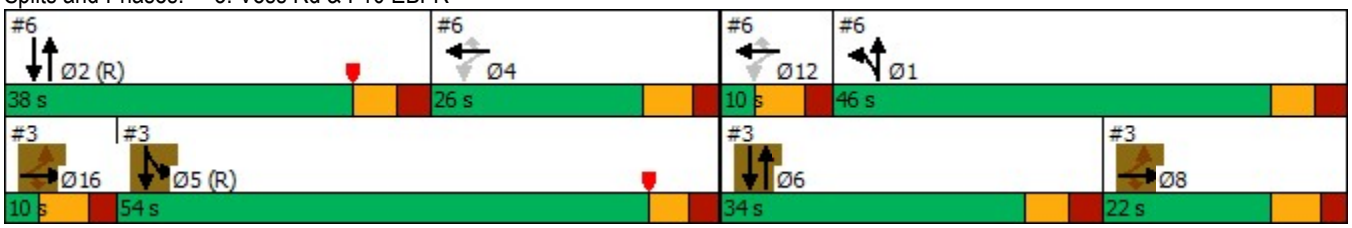


SYNCHRO OUTPUT
2027 NO BUILD CONDITIONS AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	448	284	221	0	0	0	0	676	477	364	718	0
Future Volume (vph)	448	284	221	0	0	0	0	676	477	364	718	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			235					156				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	236	552	235	0	0	0	0	1372	0	418	764	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.4	25.4	25.4					26.9		47.2	81.1	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.73	0.55	0.45					1.27dr		0.31	0.32	
Control Delay	59.0	44.9	8.0					53.4		12.9	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	59.0	44.9	8.0					53.4		12.9	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.7						53.4			5.5	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 33.6	Intersection LOS: C	
Intersection Capacity Utilization 61.2%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

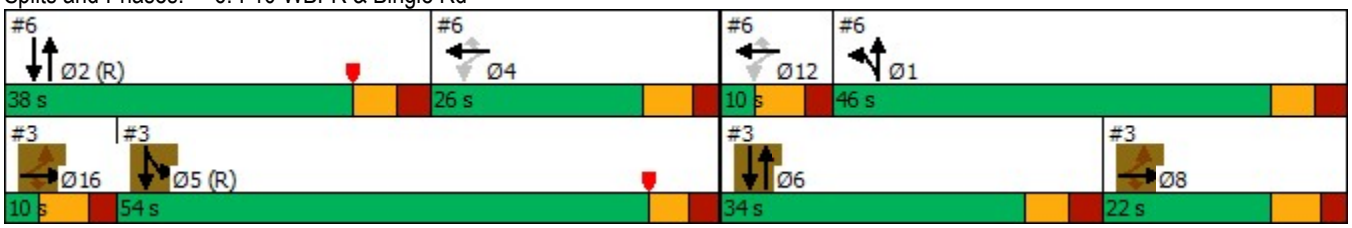
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	507	356	270	510	602	0	0	583	465
Future Volume (vph)	0	0	0	507	356	270	510	602	0	0	583	465
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						281					127	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	288	659	307	554	669	0	0	1167	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.6	30.6	30.6	38.5	75.4			29.9	
Actuated g/C Ratio				0.26	0.26	0.26	0.32	0.63			0.25	
v/c Ratio				0.74	0.55	0.50	0.50	0.30			0.99dr	
Control Delay				54.6	41.0	9.1	19.2	1.1			39.8	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				54.6	41.0	9.1	20.4	1.8			39.8	
LOS				D	D	A	C	A			D	
Approach Delay					36.3			10.2			39.8	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

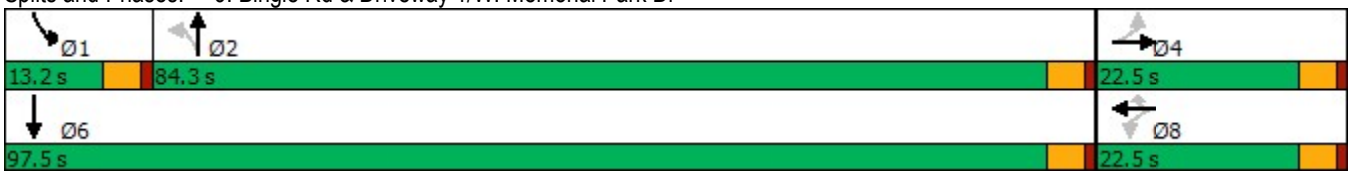
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	29	0	24	1	654	147	46	981	0
Future Volume (vph)	0	0	0	29	0	24	1	654	147	46	981	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3426	0	1770	3539	0
Flt Permitted					0.757			0.955		0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3272	0	1770	3539	0
Satd. Flow (RTOR)						55		60				
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	48	36	0	892	0	64	1066	0
Turn Type				Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					9.1	9.1		80.1		8.7	94.3	
Actuated g/C Ratio					0.08	0.08		0.73		0.08	0.86	
v/c Ratio					0.41	0.20		0.37		0.45	0.35	
Control Delay					58.8	8.3		6.0		60.8	2.4	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					58.8	8.3		6.0		60.8	2.4	
LOS					E	A		A		E	A	
Approach Delay					37.1			6.0			5.7	
Approach LOS					D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

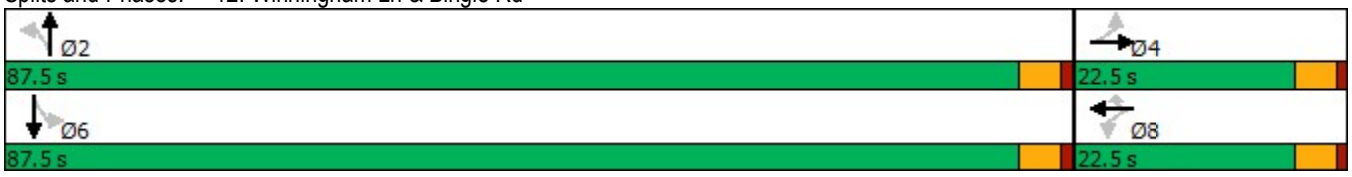
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	66	2	7	2	648	26	2	945	2
Future Volume (vph)	0	0	13	66	2	7	2	648	26	2	945	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		198				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	81	8	0	764	0	0	996	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.3			11.6	11.6		87.0			87.0	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.55	0.04		0.27			0.36	
Control Delay		0.3			57.2	12.0		2.9			3.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.2	12.0		2.9			3.3	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.2			2.9			3.3	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 5.5	Intersection LOS: A
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

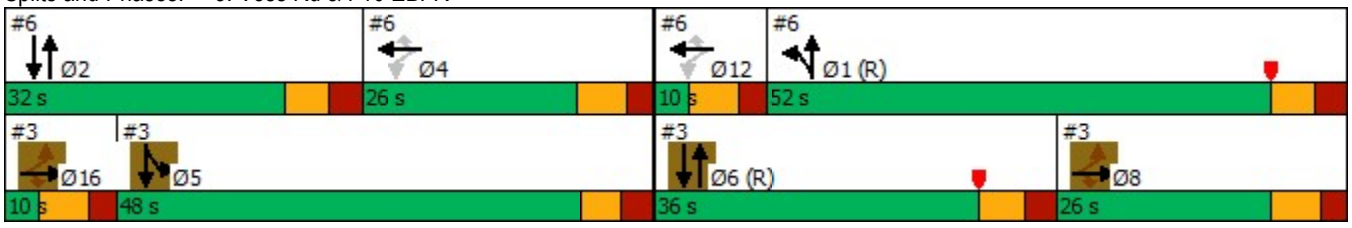
Splits and Phases: 12: Winningham Ln & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	405	349	206	0	0	0	0	790	554	299	638	0
Future Volume (vph)	405	349	206	0	0	0	0	790	554	299	638	0
Satd. Flow (prot)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.983								0.950		
Satd. Flow (perm)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					138				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	233	659	231	0	0	0	0	1504	0	318	798	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.3		40.4	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.64	0.58	0.42					1.21dr		0.27	0.35	
Control Delay	50.1	42.7	7.6					50.7		15.7	1.4	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.9	
Total Delay	50.1	42.7	7.6					50.7		15.7	2.4	
LOS	D	D	A					D		B	A	
Approach Delay		37.0						50.7			6.2	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.93		
Intersection Signal Delay: 33.3	Intersection LOS: C	
Intersection Capacity Utilization 62.1%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

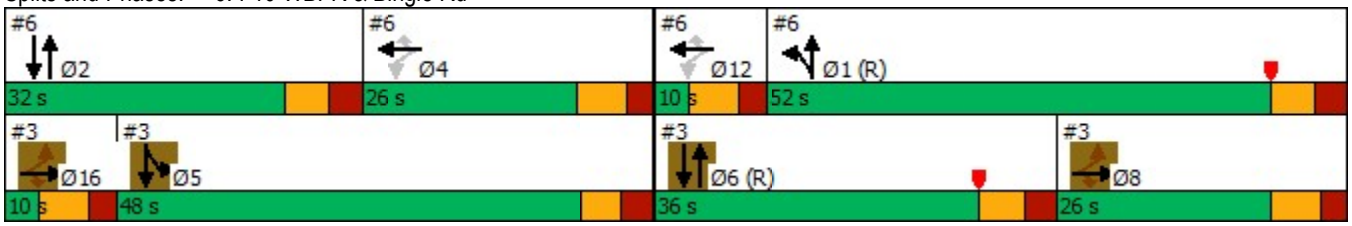
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	558	328	568	627	0	0	489	395
Future Volume (vph)	0	0	0	429	558	328	568	627	0	0	489	395
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6023	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6023	0
Satd. Flow (RTOR)						291					97	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	265	817	360	604	653	0	0	1026	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.0	30.0	30.0	45.3	76.0			23.6	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.70	0.69	0.59	0.47	0.29			1.03dr	
Control Delay				52.2	44.5	12.9	11.8	1.0			47.2	
Queue Delay				0.0	0.0	0.0	1.1	0.6			0.0	
Total Delay				52.2	44.5	12.9	12.9	1.6			47.2	
LOS				D	D	B	B	A			D	
Approach Delay					38.1			7.0			47.3	
Approach LOS					D			A			D	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.93		
Intersection Signal Delay: 30.1	Intersection LOS: C	
Intersection Capacity Utilization 62.1%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

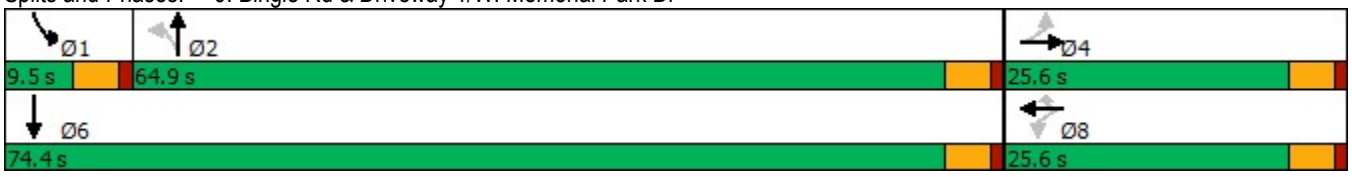
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	179	0	55	0	929	87	42	776	0
Future Volume (vph)	0	0	0	179	0	55	0	929	87	42	776	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3493	0	1770	3539	0
Flt Permitted					0.757					0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3493	0	1770	3539	0
Satd. Flow (RTOR)						81		19				
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	256	81	0	1085	0	56	834	0
Turn Type				Perm	NA	Perm		NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					20.2	20.2		63.0		5.0	70.6	
Actuated g/C Ratio					0.20	0.20		0.63		0.05	0.71	
v/c Ratio					0.90	0.21		0.49		0.64	0.33	
Control Delay					72.5	9.0		11.2		78.2	6.1	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					72.5	9.0		11.2		78.2	6.1	
LOS					E	A		B		E	A	
Approach Delay					57.3			11.2			10.7	
Approach LOS					E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 99.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

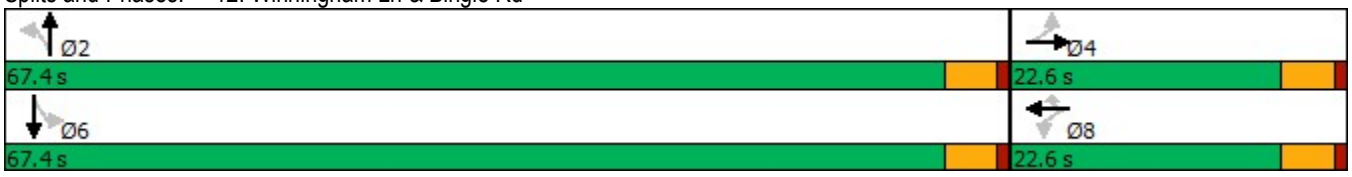
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	37	0	9	10	918	52	2	780	5
Future Volume (vph)	4	0	7	37	0	9	10	918	52	2	780	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3507	0	0	3536	0
Flt Permitted		0.932			0.742			0.927			0.945	
Satd. Flow (perm)	0	1540	0	0	1382	1583	0	3255	0	0	3341	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	44	20	0	1094	0	0	846	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		7.8			8.0	8.0		69.1			69.1	
Actuated g/C Ratio		0.10			0.10	0.10		0.86			0.86	
v/c Ratio		0.14			0.32	0.11		0.39			0.29	
Control Delay		18.4			39.2	15.9		2.7			2.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.4			39.2	15.9		2.7			2.3	
LOS		B			D	B		A			A	
Approach Delay		18.4			31.9			2.7			2.3	
Approach LOS		B			C			A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 3.6	Intersection LOS: A
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd

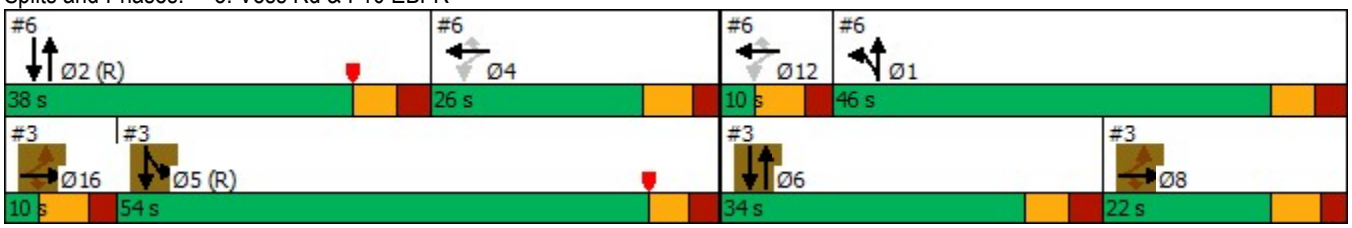


SYNCHRO OUTPUT
2027 BUILD CONDITIONS AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Future Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			235					155				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	554	235	0	0	0	0	1377	0	421	766	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.4	25.4	25.4					27.0		47.1	81.1	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.74	0.56	0.45					1.27dr		0.31	0.32	
Control Delay	59.2	44.9	8.0					53.8		12.9	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	59.2	44.9	8.0					53.8		12.9	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.7						53.8			5.6	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 33.8	Intersection LOS: C	
Intersection Capacity Utilization 61.3%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

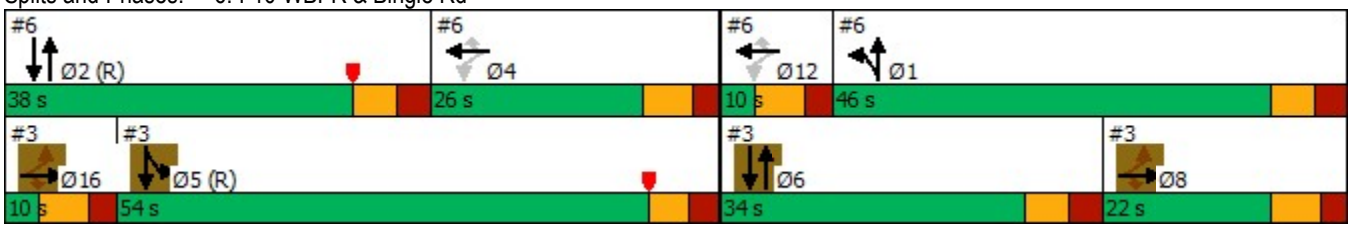
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Future Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						276					127	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	288	659	313	554	678	0	0	1174	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.5	30.5	30.5	38.6	75.5			29.9	
Actuated g/C Ratio				0.25	0.25	0.25	0.32	0.63			0.25	
v/c Ratio				0.75	0.55	0.51	0.50	0.30			0.99dr	
Control Delay				54.7	41.1	10.0	19.2	1.1			40.0	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				54.7	41.1	10.0	20.4	1.8			40.0	
LOS				D	D	B	C	A			D	
Approach Delay					36.5			10.2			40.0	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

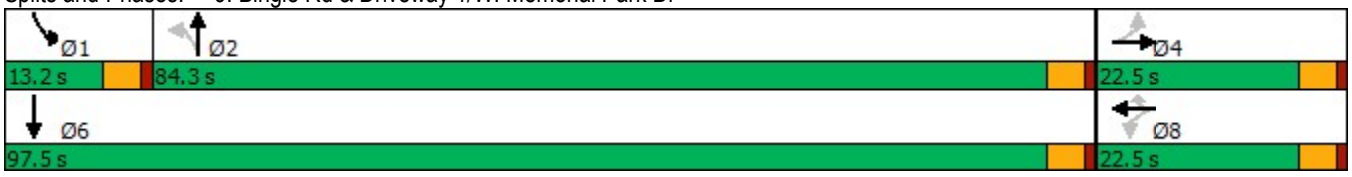
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Future Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Satd. Flow (prot)	0	1747	0	0	1775	1583	0	3426	0	1770	3529	0
Flt Permitted		0.784			0.721			0.926		0.950		
Satd. Flow (perm)	0	1418	0	0	1343	1583	0	3176	0	1770	3529	0
Satd. Flow (RTOR)		3				55		58			5	
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	49	36	0	907	0	64	1088	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)		9.3			9.3	9.3		80.1		8.7	94.3	
Actuated g/C Ratio		0.09			0.09	0.09		0.73		0.08	0.86	
v/c Ratio		0.11			0.43	0.20		0.39		0.45	0.36	
Control Delay		41.7			60.1	8.2		6.2		61.0	2.5	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		41.7			60.1	8.2		6.2		61.0	2.5	
LOS		D			E	A		A		E	A	
Approach Delay		41.7			38.1			6.2			5.8	
Approach LOS		D			D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

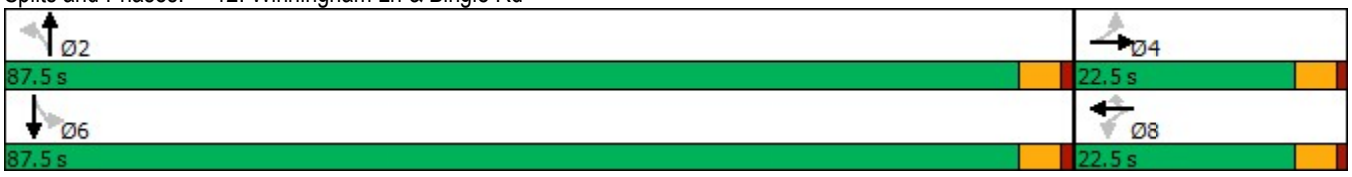
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Future Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		192				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	83	8	0	773	0	0	1013	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.5			11.7	11.7		87.0			87.0	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.55	0.04		0.28			0.36	
Control Delay		0.3			57.4	12.0		3.0			3.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.4	12.0		3.0			3.4	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.4			3.0			3.4	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 46.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	0	4	1011	1	0	815
Future Vol, veh/h	0	4	1011	1	0	815
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	1099	1	0	886

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	550	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	479	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	479	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

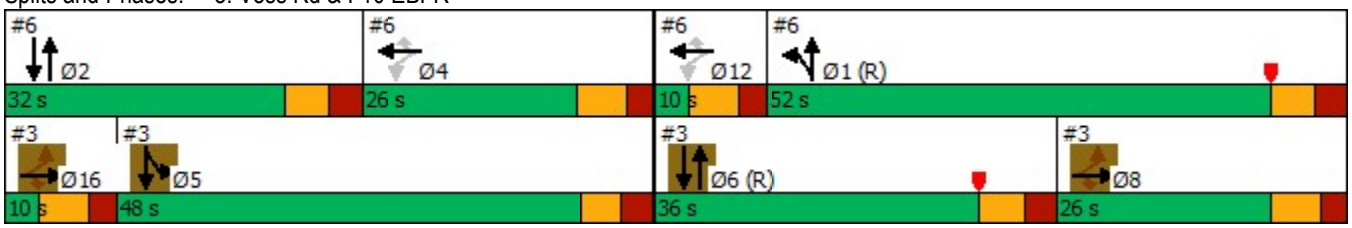
Approach	EB	SE	NW
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	EBLn1	SET	SER
Capacity (veh/h)	-	479	-	-
HCM Lane V/C Ratio	-	0.009	-	-
HCM Control Delay (s)	-	12.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Future Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Satd. Flow (prot)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.982								0.950		
Satd. Flow (perm)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					135				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	664	231	0	0	0	0	1525	0	333	820	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.0		40.7	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.65	0.59	0.42					1.22dr		0.29	0.36	
Control Delay	50.6	42.8	7.6					54.0		15.4	1.4	
Queue Delay	0.0	0.0	0.0					0.0		0.0	1.1	
Total Delay	50.6	42.8	7.6					54.0		15.4	2.5	
LOS	D	D	A					D		B	A	
Approach Delay		37.2						54.0			6.2	
Approach LOS		D						D			A	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 34.5		Intersection LOS: C	
Intersection Capacity Utilization 62.6%		ICU Level of Service B	
Analysis Period (min) 15			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

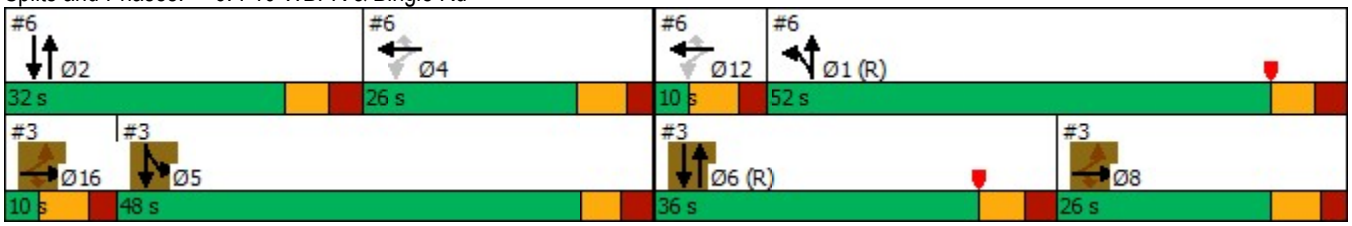
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Future Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Satd. Flow (RTOR)						274					97	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	265	817	377	604	681	0	0	1073	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				29.9	29.9	29.9	45.0	76.1			24.1	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.70	0.69	0.63	0.47	0.30			1.03dr	
Control Delay				52.6	44.7	16.5	11.9	1.0			48.1	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				52.6	44.7	16.5	13.1	1.7			48.1	
LOS				D	D	B	B	A			D	
Approach Delay					38.9			7.0			48.1	
Approach LOS					D			A			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 30.8		Intersection LOS: C	
Intersection Capacity Utilization 62.6%		ICU Level of Service B	
Analysis Period (min) 15			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

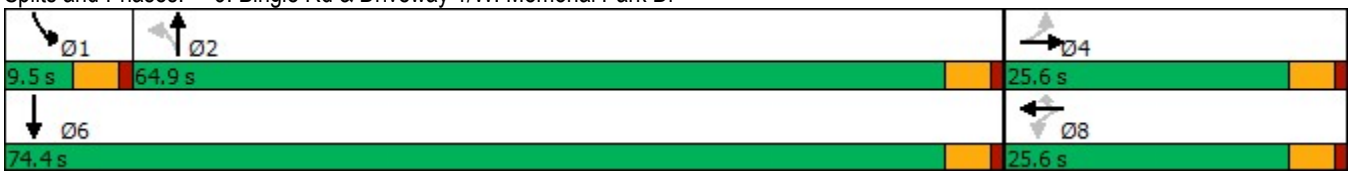
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Future Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Satd. Flow (prot)	0	1753	0	0	1775	1583	0	3486	0	1770	3518	0
Flt Permitted		0.552			0.739			0.862		0.950		
Satd. Flow (perm)	0	1003	0	0	1377	1583	0	3011	0	1770	3518	0
Satd. Flow (RTOR)		9				81		18			10	
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	260	81	0	1137	0	56	874	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)		20.5			20.5	20.5		62.9		5.0	70.5	
Actuated g/C Ratio		0.20			0.20	0.20		0.63		0.05	0.70	
v/c Ratio		0.23			0.92	0.21		0.60		0.64	0.35	
Control Delay		31.1			77.2	9.0		13.1		78.4	6.3	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		31.1			77.2	9.0		13.1		78.4	6.3	
LOS		C			E	A		B		E	A	
Approach Delay		31.1			61.0			13.1			10.6	
Approach LOS		C			E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

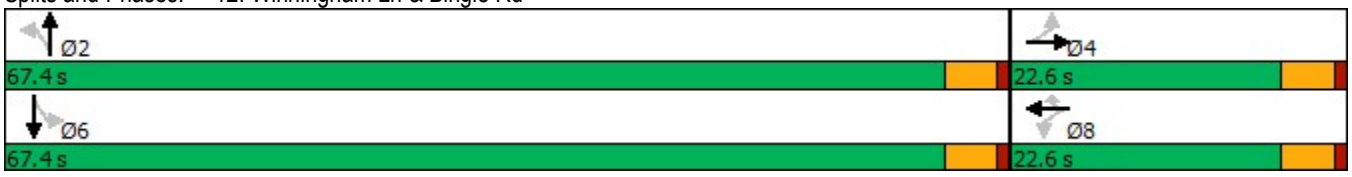
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Future Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3504	0	0	3536	0
Flt Permitted		0.933			0.742			0.927			0.945	
Satd. Flow (perm)	0	1542	0	0	1382	1583	0	3251	0	0	3341	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	49	20	0	1125	0	0	875	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		8.0			8.3	8.3		68.1			68.1	
Actuated g/C Ratio		0.10			0.11	0.11		0.86			0.86	
v/c Ratio		0.14			0.34	0.11		0.40			0.30	
Control Delay		18.3			39.3	15.9		2.8			2.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.3			39.3	15.9		2.8			2.4	
LOS		B			D	B		A			A	
Approach Delay		18.3			32.5			2.8			2.4	
Approach LOS		B			C			A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 3.8	Intersection LOS: A
Intersection Capacity Utilization 47.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd



Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	0	35	959	4	0	1058
Future Vol, veh/h	0	35	959	4	0	1058
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	38	1042	4	0	1150

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	523	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	499	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	499	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	12.8	0	0
HCM LOS	B		

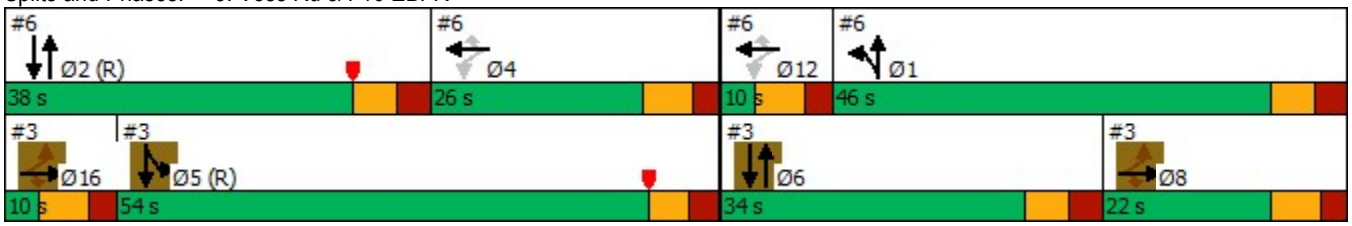
Minor Lane/Major Mvmt	NWT	EBLn1	SET	SER
Capacity (veh/h)	-	499	-	-
HCM Lane V/C Ratio	-	0.076	-	-
HCM Control Delay (s)	-	12.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

SYNCHRO OUTPUT
2027 BUILD CONDITIONS WITH MITIGATIONS
AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Future Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			235					155				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	554	235	0	0	0	0	1377	0	421	766	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.4	25.4	25.4					27.0		47.1	81.1	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.74	0.56	0.45					1.27dr		0.31	0.32	
Control Delay	59.2	44.9	8.0					53.8		12.9	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	59.2	44.9	8.0					53.8		12.9	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.7						53.8			5.6	
Approach LOS		D						D			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

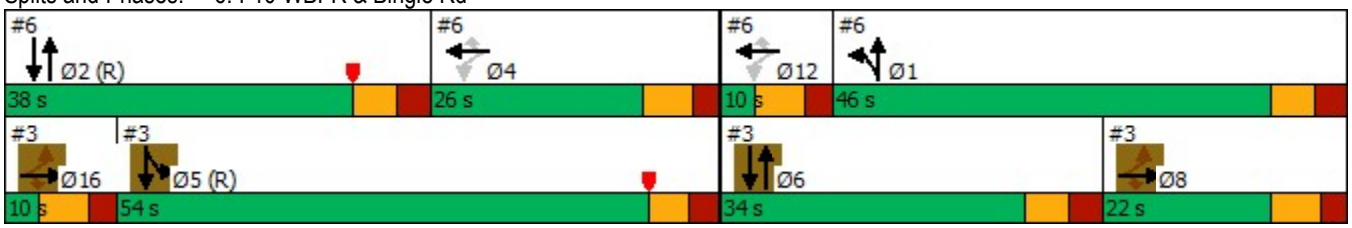
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Future Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						276					127	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	288	659	313	554	678	0	0	1174	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.5	30.5	30.5	38.6	75.5			29.9	
Actuated g/C Ratio				0.25	0.25	0.25	0.32	0.63			0.25	
v/c Ratio				0.75	0.55	0.51	0.50	0.30			0.99dr	
Control Delay				54.7	41.1	10.0	19.2	1.1			40.0	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				54.7	41.1	10.0	20.4	1.8			40.0	
LOS				D	D	B	C	A			D	
Approach Delay					36.5			10.2			40.0	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

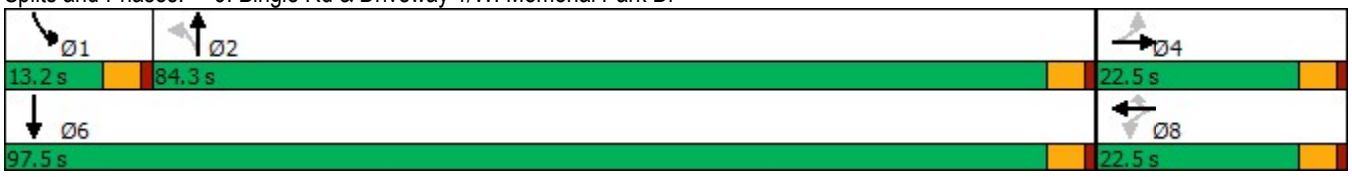
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Future Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Satd. Flow (prot)	0	1747	0	0	1775	1583	1770	3426	0	1770	3529	0
Flt Permitted		0.784			0.721		0.263			0.950		
Satd. Flow (perm)	0	1418	0	0	1343	1583	490	3426	0	1770	3529	0
Satd. Flow (RTOR)		3				55		60			5	
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	49	36	16	891	0	64	1088	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)		9.3			9.3	9.3	80.1	80.1		8.7	94.3	
Actuated g/C Ratio		0.09			0.09	0.09	0.73	0.73		0.08	0.86	
v/c Ratio		0.11			0.43	0.20	0.04	0.35		0.45	0.36	
Control Delay		41.7			60.1	8.2	5.7	5.9		61.0	2.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		41.7			60.1	8.2	5.7	5.9		61.0	2.5	
LOS		D			E	A	A	A		E	A	
Approach Delay		41.7			38.1			5.9			5.8	
Approach LOS		D			D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 50.6%	ICU Level of Service A
Analysis Period (min) 15	

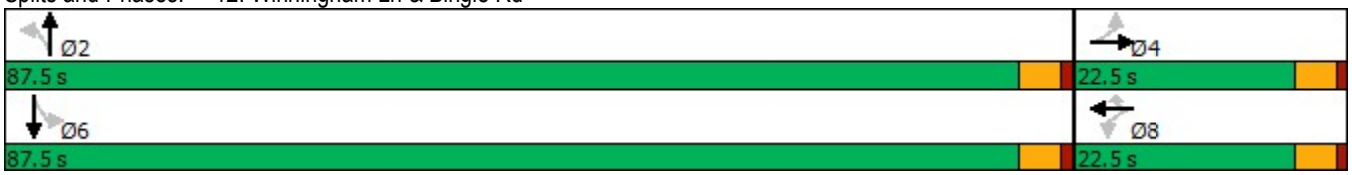
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Future Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		192				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	83	8	0	773	0	0	1013	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.5			11.7	11.7		87.0			87.0	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.55	0.04		0.28			0.36	
Control Delay		0.3			57.4	12.0		3.0			3.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.4	12.0		3.0			3.4	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.4			3.0			3.4	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 46.1%	ICU Level of Service A
Analysis Period (min) 15	

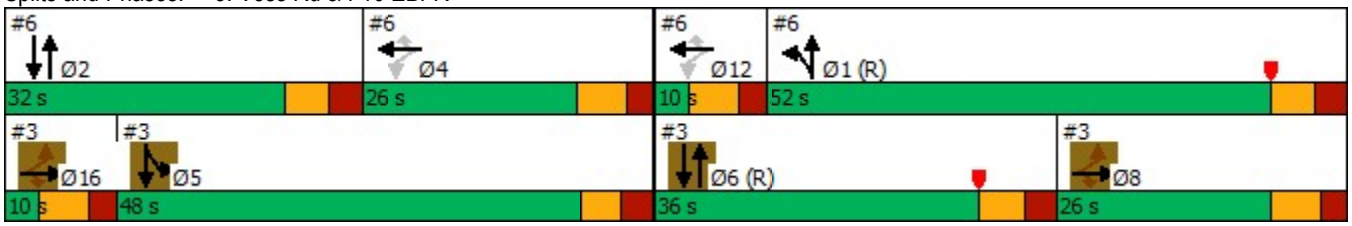
Splits and Phases: 12: Winningham Ln & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Future Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Satd. Flow (prot)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.982								0.950		
Satd. Flow (perm)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					135				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	664	231	0	0	0	0	1525	0	333	820	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.0		40.7	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.65	0.59	0.42					1.22dr		0.29	0.36	
Control Delay	50.6	42.8	7.6					54.0		15.4	1.4	
Queue Delay	0.0	0.0	0.0					0.0		0.0	1.1	
Total Delay	50.6	42.8	7.6					54.0		15.4	2.5	
LOS	D	D	A					D		B	A	
Approach Delay		37.2						54.0			6.2	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.95		
Intersection Signal Delay: 34.5	Intersection LOS: C	
Intersection Capacity Utilization 62.6%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

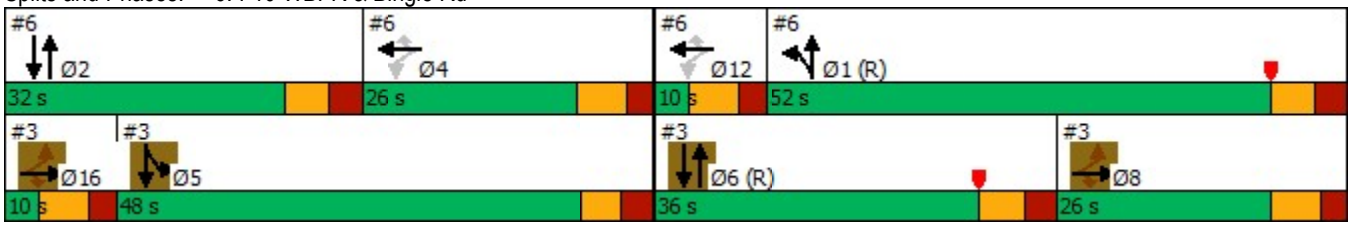
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Future Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Satd. Flow (RTOR)						274					97	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	265	817	377	604	681	0	0	1073	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				29.9	29.9	29.9	45.0	76.1			24.1	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.70	0.69	0.63	0.47	0.30			1.03dr	
Control Delay				52.6	44.7	16.5	11.9	1.0			48.1	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				52.6	44.7	16.5	13.1	1.7			48.1	
LOS				D	D	B	B	A			D	
Approach Delay					38.9			7.0			48.1	
Approach LOS					D			A			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 30.8	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

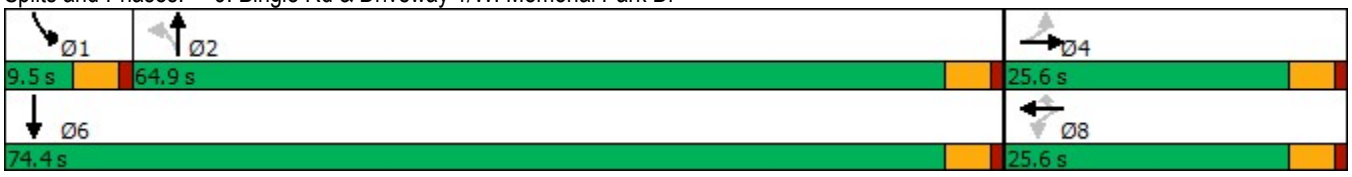
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Future Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Satd. Flow (prot)	0	1753	0	0	1775	1583	1770	3493	0	1770	3518	0
Flt Permitted		0.552			0.739		0.325			0.950		
Satd. Flow (perm)	0	1003	0	0	1377	1583	605	3493	0	1770	3518	0
Satd. Flow (RTOR)		9				81		19			10	
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	260	81	52	1085	0	56	874	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)		20.5			20.5	20.5	62.9	62.9		5.0	70.5	
Actuated g/C Ratio		0.20			0.20	0.20	0.63	0.63		0.05	0.70	
v/c Ratio		0.23			0.92	0.21	0.14	0.49		0.64	0.35	
Control Delay		31.1			77.2	9.0	9.8	11.3		78.4	6.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		31.1			77.2	9.0	9.8	11.3		78.4	6.3	
LOS		C			E	A	A	B		E	A	
Approach Delay		31.1			61.0			11.2			10.6	
Approach LOS		C			E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

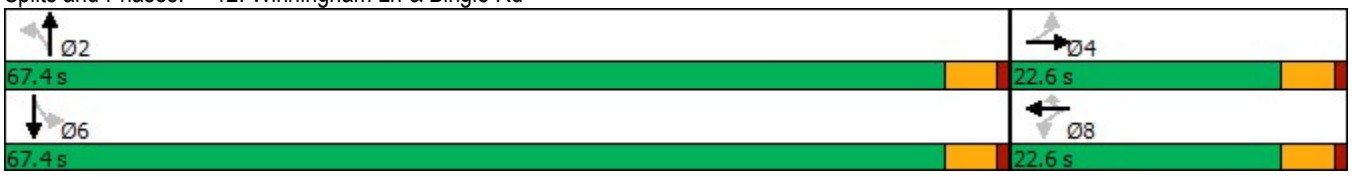
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Future Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3504	0	0	3536	0
Flt Permitted		0.933			0.742			0.927			0.945	
Satd. Flow (perm)	0	1542	0	0	1382	1583	0	3251	0	0	3341	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	49	20	0	1125	0	0	875	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		8.0			8.3	8.3		68.1			68.1	
Actuated g/C Ratio		0.10			0.11	0.11		0.86			0.86	
v/c Ratio		0.14			0.34	0.11		0.40			0.30	
Control Delay		18.3			39.3	15.9		2.8			2.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.3			39.3	15.9		2.8			2.4	
LOS		B			D	B		A			A	
Approach Delay		18.3			32.5			2.8			2.4	
Approach LOS		B			C			A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 3.8	Intersection LOS: A
Intersection Capacity Utilization 47.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd



SIMTRAFFIC OUTPUT
ALL CONDITIONS
QUEUEING REPORT
AM AND PM PEAK

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L	T	T
Maximum Queue (ft)	325	398	280	63	163	245	341	314	48	55	5	8
Average Queue (ft)	225	327	219	23	99	167	198	182	27	31	1	2
95th Queue (ft)	351	435	331	84	204	273	383	371	61	62	11	13
Link Distance (ft)		785	785	785		738	738		315	315	315	315
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	490				350			140				
Storage Blk Time (%)							16	11				
Queuing Penalty (veh)							99	18				

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	T	TR
Maximum Queue (ft)	351	439	355	134	117	72	82	8	113	152	398	282
Average Queue (ft)	246	355	248	45	71	35	42	2	57	95	241	235
95th Queue (ft)	421	503	390	143	139	89	100	15	138	169	435	313
Link Distance (ft)		691	691	691		315	315	315		487	487	
Upstream Blk Time (%)											1	
Queuing Penalty (veh)											3	
Storage Bay Dist (ft)	527				280				222			176
Storage Blk Time (%)		1			0				0	0	10	22
Queuing Penalty (veh)		2			0				0	0	58	32

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LT	LT	TR	L	T	TR
Maximum Queue (ft)	16	74	112	58	50	95
Average Queue (ft)	5	34	67	30	16	43
95th Queue (ft)	22	83	123	74	57	129
Link Distance (ft)	496	487	487		623	623
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				135		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: Winningham Ln & Bingle Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	24	67	23	52	90	49	114
Average Queue (ft)	8	39	8	22	44	21	59
95th Queue (ft)	29	76	28	62	103	55	125
Link Distance (ft)	144	440	440	623	623	189	189
Upstream Blk Time (%)							0
Queuing Penalty (veh)							0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 213

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L	T	T
Maximum Queue (ft)	286	383	297	112	214	360	496	365	44	58	18	2
Average Queue (ft)	209	314	209	38	165	243	323	269	21	27	4	0
95th Queue (ft)	325	402	334	128	270	450	583	445	54	65	22	6
Link Distance (ft)		785	785	785		738	738		315	315	315	315
Upstream Blk Time (%)							1					
Queuing Penalty (veh)							0					
Storage Bay Dist (ft)	490				350			140				
Storage Blk Time (%)						0	23	15				
Queuing Penalty (veh)						1	175	29				

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	T	T
Maximum Queue (ft)	340	460	376	176	134	46	70	10	7	90	237	388
Average Queue (ft)	225	363	287	97	74	27	49	3	2	38	102	212
95th Queue (ft)	406	507	430	225	145	60	86	18	12	103	270	426
Link Distance (ft)		691	691	691		315	315	315	315		487	487
Upstream Blk Time (%)		0									0	1
Queuing Penalty (veh)		0									0	5
Storage Bay Dist (ft)	527				280					222		
Storage Blk Time (%)		1										8
Queuing Penalty (veh)		3										39

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	SB
Directions Served	TR
Maximum Queue (ft)	275
Average Queue (ft)	214
95th Queue (ft)	324
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	176
Storage Blk Time (%)	26
Queuing Penalty (veh)	31

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	TR	L	T	TR
Maximum Queue (ft)	117	11	168	186	62	86	151
Average Queue (ft)	71	3	88	120	34	39	88
95th Queue (ft)	143	19	184	203	80	96	179
Link Distance (ft)	496	496	487	487		623	623
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					135		
Storage Blk Time (%)					0	0	
Queuing Penalty (veh)					2	0	

Intersection: 12: Winningham Ln & Bingle Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	26	48	19	88	98	40	61
Average Queue (ft)	6	24	7	35	48	15	28
95th Queue (ft)	26	57	26	96	113	49	67
Link Distance (ft)	144	440	440	623	623	189	189
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 285

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L
Maximum Queue (ft)	338	420	340	31	175	231	324	366	50	45
Average Queue (ft)	281	342	292	6	95	153	235	256	30	28
95th Queue (ft)	352	421	352	26	210	234	337	369	60	44
Link Distance (ft)		785	785	785		738	738		315	315
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	490				350			140		
Storage Blk Time (%)							22	13		
Queuing Penalty (veh)							142	22		

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	TR
Maximum Queue (ft)	342	356	355	183	85	95	98	91	105	494	288
Average Queue (ft)	265	326	254	89	69	63	65	56	91	300	276
95th Queue (ft)	374	364	345	213	100	106	104	98	110	497	301
Link Distance (ft)		691	691	691		315	315		487	487	
Upstream Blk Time (%)										1	
Queuing Penalty (veh)										6	
Storage Bay Dist (ft)	527				280			222			176
Storage Blk Time (%)										17	42
Queuing Penalty (veh)										105	61

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LT	LT	TR	L	T	TR
Maximum Queue (ft)	18	121	144	64	55	126
Average Queue (ft)	11	56	105	43	21	86
95th Queue (ft)	23	129	143	73	62	164
Link Distance (ft)	496	487	487		623	623
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				135		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: Winningham Ln & Bingle Rd

Movement	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	116	29	173	125	68	204
Average Queue (ft)	76	6	57	68	28	78
95th Queue (ft)	123	25	166	122	64	195
Link Distance (ft)	440	440	623	623	189	189
Upstream Blk Time (%)						3
Queuing Penalty (veh)						0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 336

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L	T
Maximum Queue (ft)	195	339	274	52	204	242	252	322	49	72	29
Average Queue (ft)	139	289	215	32	166	218	185	187	23	32	6
95th Queue (ft)	257	350	292	63	212	249	293	385	50	70	25
Link Distance (ft)		785	785	785		738	738		315	315	315
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	490				350			140			
Storage Blk Time (%)							11	8			
Queuing Penalty (veh)							85	15			

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	T	TR
Maximum Queue (ft)	343	450	414	196	131	30	71	23	65	84	297	281
Average Queue (ft)	187	353	271	82	74	12	47	5	52	63	163	179
95th Queue (ft)	369	474	400	209	129	36	75	20	72	98	284	317
Link Distance (ft)		691	691	691		315	315	315		487	487	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	527				280				222			176
Storage Blk Time (%)											9	15
Queuing Penalty (veh)											44	19

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	TR	L	T	TR
Maximum Queue (ft)	105	30	202	220	63	69	110
Average Queue (ft)	81	6	118	150	39	33	83
95th Queue (ft)	122	26	210	230	65	83	110
Link Distance (ft)	496	496	487	487		623	623
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					135		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: Winningham Ln & Bingle Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	30	48	29	49	56	68	46
Average Queue (ft)	6	16	11	30	28	30	20
95th Queue (ft)	25	49	35	58	68	74	54
Link Distance (ft)	144	440	440	623	623	189	189
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 163

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	L	T	TR	L	T	TR
Maximum Queue (ft)	21	55	5	80	125	65	48	72
Average Queue (ft)	9	18	2	30	80	40	10	34
95th Queue (ft)	25	57	5	76	139	65	42	74
Link Distance (ft)	306	494		125	125		623	623
Upstream Blk Time (%)					1			
Queuing Penalty (veh)					2			
Storage Bay Dist (ft)			100			135		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	21	80	31	56	126	132	64	72	97
Average Queue (ft)	12	47	6	15	66	86	27	33	73
95th Queue (ft)	29	80	26	50	133	132	66	80	105
Link Distance (ft)	306	494	494		125	125		623	623
Upstream Blk Time (%)					1	2			
Queuing Penalty (veh)					6	13			
Storage Bay Dist (ft)				100			135		
Storage Blk Time (%)					2				
Queuing Penalty (veh)					1				

SIGNAL TIMING SHEETS

Installed: 05/29/2019

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Cabinet Settings

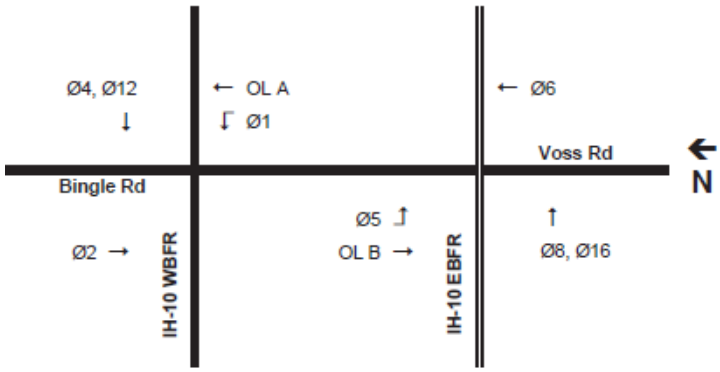
Cabinet Type (MM) 1-1-1

Cabinet Type: TS2-1

Channel	1	2	3	4
BIU Terminal & Facility	X	X		
BIU Detector	X			

Enable SDLC Stop Time: Yes

Latch 3 Critical Errors: No



Load Switch Configuration (MM) 1-1-2

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Channel Type	O	V	O	O	O	V	O	O	O	O	O	O	P	P	P	P
Phase/Overlap	9	2	10	11	12	6	13	14	1	2	0	0	2	4	6	8

Color Check Enable (MM) 1-1-3

Enable Color Check: No

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Red	X	X	X	X	X	X	X	X					X	X	X	X
Yellow	X	X	X	X	X	X	X	X					X	X	X	X
Green	X	X	X	X	X	X	X	X					X	X	X	X

Monitor Programming (MM) 1-1-4

Channel Can Serve With Channel	
Channel 1	**Channel 2**
1	5
1	6
1	7
1	8
1	9
1	10
1	15
1	16
2	5
2	6
2	7
2	8
2	9
2	10
2	13
2	15

Secondary Stations/Tests (MM) 1-1-6

The Cabinet Type does not support this feature.

2	16
3	5
3	6
3	7
3	8
3	10
3	15
3	16
4	5
4	6
4	7
4	8
4	10
4	14
4	15
4	16
5	9
5	10
5	13
5	14
6	9
6	10
6	13
6	14
6	15
7	9
7	13
7	14
8	9
8	13
8	14
8	16
9	10
9	13
9	15
9	16
10	13
10	14
10	15
13	15
13	16
14	15
14	16

Phase and Overlap Descriptions

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Approach	SW	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Communications

Ethernet Port Configuration (MM) 1-2-1

DHCP Enable:	No
Controller IP:	10.54.145.52
Subnet Mask:	255.255.255.0
Default Gateway IP:	10.54.145.1
Server IP:	10.1.70.170

NTCIP (MM) 1-2-5

NTCIP Backup Time (Sec):	0
NTCIP UDP Port:	501
Ethernet Priority:	1
Port 2(C50S) Priority:	4
Port 3A(C21S) Priority:	3
Port 3B(C22S) Priority:	2

Port Configuration (MM) 1-2-2 to 1-2-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	n/a	Auto	Auto
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Duplex - Half or Full	Half	Full	Full
Protocol	NTCIP	NTCIP	NTCIP
Address	0	0	0
Group Address	0	0	0
Dropout Time	10	10	10
Single Flag Enable	Yes	Yes	Yes

Peer to Peer Setup (MM) 1-2-6

Local Port: 503

Peer	Port	IP Address	Timeout	Peer Name
1	503	10.40.36.33	1	

V2I / Connected Veh (MM) 1-2-7

SPAT/MAP Destinations

	IP Address	Port

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Logging / Display

Event Logging (MM) 1-3

Critical RFE's (MMU/TF):	Yes	Access:	Yes
MMU Flash Faults:	Yes	Data Change:	Yes
3 Critical Errors Within 24 Hours:	Yes	Low Battery:	Yes
Non-Critical RFE's (Det/Test):	Yes	Controller Download:	Yes
Detector Errors:	Yes	Power On/Off:	Yes
SCP (TSP/EVP):	Yes	Local Flash Fault:	Yes
Preemption Events:	Yes	Online / Offline:	Yes
Coordination Errors:	Yes	Hi-Res MOE:	15 min

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NTCIP SCP MSG: No

Database (MM) 1-6

Enable Controller/Cabinet Interlock CRC:	No
CRC (16 bit):	A1A2
Enable Automatic Backup to Datakey:	No

Display Options (MM) 1-4

Key Click Enable:	No
Switch to Graphics Mode:	Yes
Trans Mode Pop-Up Disable:	No
Display Mode:	Advanced
LED Mode:	Auto

Sign On (MM) 8-5

Sign On Message Line 1: TEXAS DIAMOND EVALUATION 6/13/19
Sign On Message Line 2: 3/4/STANDARD I10 @ VOSS

Software Modules (MM) 8-7

Application Version: 03.02.02
OS (Boot) Version: 06.11.00

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	30	45	0	35	30	35	0	35	25	25	3	3	25	25	3	3
Max2	40	55	0	45	50	45	0	40	25	25	3	3	25	25	3	3
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	8	0	9	0	9	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 1 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall																
Ped Recall																
Max Recall																
Soft Recall																
No Rest																

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Leading															
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Trailing															
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Double Serve															
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 2 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2-1-3	Max Green Data															
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall																
Ped Recall																
Max Recall																
Soft Recall																
No Rest																

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Leading															
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Trailing															
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Double Serve															
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 3 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	5	5	5	5	5	5	5	3	3	3	3	3	3	3	3
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	10	10	10	10	10	10	10	10	0	3	0	0	3	3	0	0
Max2	40	40	40	40	40	40	40	40	0	3	0	0	3	3	0	0
Max3	40	40	40	40	40	40	40	40	0	3	0	0	3	3	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																

Vehicle Recall															
Ped Recall															
Max Recall															
Soft Recall															
No Rest															

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Leading																
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trailing																
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Double Serve																
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 4 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	3	0	3	0	3	0	3	0	0	0	0	0	0	0	0
Min Green	5	7	0	5	5	7	0	5	5	5	3	3	5	5	3	3
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	1.0	1.0	0.0	2.5	1.0	1.0	0.0	2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	30	45	0	35	30	35	0	35	25	25	3	3	25	25	3	3
Max2	40	55	0	45	50	45	0	40	25	25	3	3	25	25	3	3
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															

Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clear	0	19	0	13	0	14	0	12	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	4.0	4.0	3.0	4.5	3.5	4.0	3.0	4.5	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5
Red Clear	3.0	3.0	1.0	2.5	3.0	3.0	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall	X	X		X	X	X		X								
Ped Recall																
Max Recall																
Soft Recall																
No Rest									X		X	X	X		X	X

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Leading															
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Trailing															
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Double Serve															
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap - A - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase	X	X							X	X						
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - B - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase					X	X							X	X		
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - I - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase	X								X	X						
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - J - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase			X								X					
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - K - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase				X								X				
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																

Inhibit With Green															
Trailing When Exit															
Trailing When Next															
Trailing Phase Allow															
Green When Next															
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap															

Overlap - L - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase					X								X	X		
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - M - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase							X								X	
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																

Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap															

Overlap - N - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase								X								X
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	3
B02	5	0	7	3.0	0.0	3
C03	5	0	7	3.0	0.0	3
D04	5	0	7	3.0	0.0	3
E05	5	0	7	3.0	0.0	3
F06	5	0	7	3.0	0.0	3
G07	5	0	7	3.0	0.0	3
H08	5	0	7	3.0	0.0	3
I09	3	0	7	3.0	0.0	3
J10	3	0	7	3.0	0.0	3
K11	3	0	7	3.0	0.0	3
L12	3	0	7	3.0	0.0	3
M13	3	0	7	3.0	0.0	3
N14	3	0	7	3.0	0.0	3
O15	3	0	7	3.0	0.0	3
P16	3	0	7	3.0	0.0	3

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MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Start / Flash Data (MM) 2-5

Power Start Up

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Start Phase	.	Y	.	.	Y	.	.	.	.	.	.	.	.	.	.	.
Start Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Flash Minimum Time: 6 All Red Time: 6 Sequence Plan: 4

Automatic Flash

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Entry Phase		X			X											
Wig / Wag		X		X		X		X						X		
Phase Color	R	R	R	R	R	R	R	R	.	.	.	.	R	R	R	R
Exit Phase		X			X											
Olp Wig / Wag																
Exit Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Overlap Color	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

Flash Thru CVM: No Cycle Thru Phase: No Exit Flash: W

Mimimum Recall: No Minimum Flash: 8

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Options

Controller Options (MM) 2-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X		X	X	X		X				X				X
Dual Entry	X				X											
Simultaneous Gap																
Lock Phase Next																
Passage After Init																
Guaranteed Passage																
Cond Service From																
Cond Service To																
Non-Actuated I		X				X										
Non-Actuated II				X				X								
Pre-Timed																
Exclusive Ped																
Rest In Walk																
Ped Re-Service																
Flashing Walk																
Ped Clear Thru Yellow																
Ped Clear Thru Red																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Omit																

Unit Red Revert:	2.0
Ped Clear Protect:	Off
MUTCD 3 Seconds Don't Walk:	No
Enable Pre-Timed Mode:	No
Free Input Disables Pre-Timed:	No

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Controller Sequence

Controller Sequence (MM) 2-7-1

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B				B				B		B					
Sequence 1																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	1	2	.	.	3	4	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	.	.	7	8	.	.	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	10	4	.	.	9	3	.	.	2	1	.	.	.	.	.	.
Ring 2	14	8	.	.	13	7	.	.	6	5	.	.	.	.	.	.
Sequence 4																
Ring 1	2	3	4	9	11	12	1	.	.	.	.	.	.	.	.	.
Ring 2	15	16	5	.	6	7	8	13	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																

Ring 1	|	**1**	**2**	**4**	**3**	|	**9**	**10**	**14**	**13**	|	.	.	|	.	.	.	.	.	.
Ring 2	|	**6**	**5**	**8**	**7**	|	**12**	**11**	**16**	**15**	|	.	.	|	.	.	.	.	.	.
Sequence 16																					
Ring 1	|	**2**	**1**	**4**	**3**	|	**10**	**9**	**14**	**13**	|	.	.	|	.	.	.	.	.	.
Ring 2	|	**6**	**5**	**8**	**7**	|	**12**	**11**	**16**	**15**	|	.	.	|	.	.	.	.	.	.

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Serve																

Independent Ring Group: No
Hardware Alternate Sequence Enable: Yes

Backup Prevent (MM) 2-7-2

Coordination Options

Options (MM) 3-1

System Source:	TBC	ECPI Coord:	Yes
Splits In:	Seconds	Offsets In:	Seconds
Transition:	Smooth	Calc Min Cycle Using Ped Time:	No
Dwell / Add Time:	0	Ped Reservice:	No
Delay Coord Wk-LZ:	No	FO Added Ini Green:	No
Offset Reference:	Yellow	Re-sync Count:	0
Local Zero Override:	No		

Auto Perm Min Green (Sec) (MM) 3-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Preempt TSP/SCP Plan and Split

Enable Preempt Filtering & TSP/SCP (MM) 4-2

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

SCP Strategy Plan (MM) 4-3

SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
1	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
4	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
4	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
6	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
6	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
8	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
8	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
9	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
9	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
10	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
10	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
13	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
13	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
15	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
15	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
18	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
18	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
19	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
19	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
21	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
21	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
22	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
23	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
23	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
24	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
24	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
25	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
25	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
26	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
26	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
27	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
27	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
28	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
28	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
29	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
29	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
30	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
30	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
31	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
31	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
32	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
32	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
33	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
33	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
34	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
34	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
35	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
35	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
36	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
36		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
37	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
37	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
38	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
38	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
39	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
39	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
40	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
40	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
41	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
41	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
42	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
42	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
43	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
43	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
44	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
44	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
45	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
45	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
46	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
46	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
47	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
47	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
48	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
48	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
49	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
49	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
50	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
50	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
51		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
51	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
52	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
52	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
53	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
53	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
54	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
54	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
55	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
55	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
56	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
56	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
57	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
57	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
58	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
58	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
59	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
59	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
60	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
60	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
61	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
61	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
62	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
62	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
63	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
63	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
64	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
64	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
65	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
65		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
66	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
66	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
67	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
67	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
68	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
68	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
69	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
69	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
70	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
70	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
71	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
71	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
72	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
72	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
73	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
73	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
74	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
74	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
75	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
75	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
76	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
76	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
77	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
77	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
78	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
78	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
79	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
79	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
80		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
80	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
81	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
81	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
82	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
82	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
83	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
83	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
84	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
84	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
85	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
85	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
86	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
86	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
87	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
87	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
88	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
88	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
89	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
89	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
90	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
90	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
91	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
91	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
92	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
92	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
93	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
93	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
94	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
94		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
95	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
95	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
96	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
96	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
97	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
97	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
98	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
98	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
99	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
99	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
100	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
100	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
101	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
101	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
102	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
102	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
103	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
103	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
104	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
104	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
105	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
105	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
106	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
106	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
107	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
107	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
108	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
108	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
109		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
109	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
110	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
110	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
111	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
111	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
112	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
112	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
113	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
113	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
114	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
114	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
115	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
115	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
116	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
116	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
117	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
117	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
118	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
118	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
119	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
119	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
120	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
120	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

SCP Detector Plan (MM) 4-5

SCP Detector Plan: **1**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **2**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **3**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **4**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **5**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

No Delay In TSP															

SCP Detector Plan: 6

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: 7

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: 8

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Time Base Clock/Calendar

Clock/Calendar Data (MM) 5-1

Manual Event Plan: 0
SYNC Reference Time: 00:00
SYNC Reference: Reference Time
Standard Time From GMT: 0
Day Light Savings: No
Time Reset Input Set Time: 3:30:00

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Time Base Event Plan
Event Plan (MM) 5-2

Event Plan - 1 - Event Type: "Coord"

Cycle Length: 90 Offset Value: 15s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	38	22	0	20	32	28	0	20	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X		X	X	X	

Dwell/Add Time: 0
Timing Plan: 4
Sequence: 4
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 0
Ring Group Offset Disp: 0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	80s	80s	0s	0s

Veh Perm 1: 0 Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 0
SCP Detector Plan: 0
Override Sys: No
Backup Prevent Plan: 0
:

Veh Detector Plan: 4
Veh Det Diag Plan: 0
Ped Det Diag Plan: 0
Det Log: None

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 2 - Event Type: "Coord"

Cycle Length: 120 Offset Value: 45s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	46	38	0	26	54	34	0	22	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X		X	X	X	

Dwell/Add Time: 0
Timing Plan: 4
Sequence: 4
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 0
Ring Group Offset Disp: 0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	110s	110s	0s	0s

Veh Perm 1: 0 Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 0
SCP Detector Plan: 0
Override Sys: No
Backup Prevent Plan: 0
:

Veh Detector Plan: 4
Veh Det Diag Plan: 0
Ped Det Diag Plan: 0
Det Log: None

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 3 - Event Type: "Coord"

Cycle Length: 120 Offset Value: 25s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	52	32	0	26	48	36	0	26	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase																

Dwell/Add Time: 0
Timing Plan: 4
Sequence: 4
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 0
Ring Group Offset Disp: 0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	110s	110s	0s	0s

Veh Perm 1: 0
Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 0
SCP Detector Plan: 0
Override Sys: No
Backup Prevent Plan: 0
:

Veh Detector Plan: 4
Veh Det Diag Plan: 0
Ped Det Diag Plan: 0
Det Log: None

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 4 - Event Type: "Coord"

Cycle Length: 90 Offset Value: 15s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	40	22	0	18	30	32	0	18	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase																

Dwell/Add Time: 0
Timing Plan: 4
Sequence: 4
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 0
Ring Group Offset Disp: 0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	80s	80s	0s	0s

Veh Perm 1: 0 Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 0
Veh Detector Plan: 4
SCP Detector Plan: 0
Veh Det Diag Plan: 0
Override Sys: No
Ped Det Diag Plan: 0
Backup Prevent Plan: 0
Det Log: None
:

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 100 - Event Type: "Coord"

Cycle Length: 80 Offset Value: 0s Actuated Coord: No Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	20	20	0	20	20	20	0	20	0	0	0	2	0	0	0	2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X	X											
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall																
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X	X	X	X	X	X

Dwell/Add Time:	0
Timing Plan:	0
Sequence:	0
Actuated Walk Rest:	No
Phase Reservice:	No
Max Select:	MAXINH
Max Transition:	4
Ring Group Offset Disp:	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Split Sum	60s	60s	0s	0s

Veh Perm 1:	0	Veh Perm 2 Disp:	0
Veh Perm 2:	0		

SCP Strategy Plan:	0	Veh Detector Plan:	0
SCP Detector Plan:	0	Veh Det Diag Plan:	0
Override Sys:	No	Ped Det Diag Plan:	0
Backup Prevent Plan:	0	Det Log:	None
	:		

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Time Base Day Plan/Schedule

Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Event Plan	Start Time
1	1	00:00
2	4	09:00
3	1	22:00

Day Plan #2

Event	Event Plan	Start Time
1	1	00:00
2	2	06:00
3	4	09:00
4	3	15:00
5	4	19:00
6	1	22:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Detectors

Vehicle Detectors (MM) 6-1 and 6-2

Vehicle Detector Descriptions

Veh Detector	Description (detectors with no description are not shown)

Vehicle Detector Plan Number - 1

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1	None	0.0	None	Red/Yellow		Call	0				X			
2	2	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
4	4	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
5	5	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
6	6	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
8	8	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
11	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
12	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
15	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
16	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
17	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
18	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
19	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
20	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
21	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
24	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
25	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
26	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
27	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Vehicle Detector Plan Number - 2

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
2	2	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
4	4	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
5	5	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
6	6	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
8	8	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
9	2	None	0.0	Passage	Red/Yellow	0.0	Call	0							
10	2	None	0.0	Passage	Red/Yellow	0.0	Call	0							
11	4	None	0.0	Passage	Red/Yellow	0.0	Call	0							
12	4	None	0.0	Passage	Red/Yellow	0.0	Call	0							
13	6	None	0.0	Passage	Red/Yellow	0.0	Call	0							
14	6	None	0.0	Passage	Red/Yellow	0.0	Call	0							
15	8	None	0.0	Passage	Red/Yellow	0.0	Call	0							
16	8	None	0.0	Passage	Red/Yellow	0.0	Call	0							
17	1	None	0.0	Passage	Red/Yellow	0.0	Call	0							
18	2	None	0.0	Passage	Red/Yellow	0.0	Call	0							
19	3	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
20	4	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
21	5	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	6	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	7	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
24	8	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
25	2	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			

26	4	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
27	6	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	8	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Vehicle Detector Plan Number - 3

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1 - 9, 10	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
2	2	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
4	4	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
5	5 - 13, 14	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
6	6	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
8	8	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
9	9	None	0.0	Passage	Red/Yellow	0.0	Call	0							

10	10	None	0.0	Passage	Red/Yellow	0.0	Call	0							
11	2	None	0.0	Queue	Red/Yellow	0.2	Call	0							
12	4	None	0.0	Queue	Red/Yellow	0.2	Call	0							
13	13	None	0.0	Passage	Red/Yellow	0.0	Call	0							
14	14	None	0.0	Passage	Red/Yellow	0.0	Call	0							
15	6	None	0.0	Queue	Red/Yellow	0.2	Call	0							
16	8	None	0.0	Queue	Red/Yellow	0.2	Call	0							
17	3	None	0.0	Queue	Red/Yellow	0.2	Call	0							
18	7	None	0.0	Queue	Red/Yellow	0.2	Call	0							
19	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
20	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
21	1	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
24	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
25	5	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
26	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
27	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	9	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	10	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	13	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	14	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Vehicle Detector Plan Number - 4

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1	None	0.0	Passage	Red/Yellow	0.0	Call	9				X			
2	2	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	2.0	Passage	Red/Yellow	0.0	Call	11				X			
4	4	None	0.0	Passage	Red/Yellow	0.0	Call	12				X			
5	5	None	0.0	Passage	Red/Yellow	0.0	Call	13				X			
6	6	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	2.0	Passage	Red/Yellow	0.0	Call	15				X			
8	8	None	0.0	Passage	Red/Yellow	0.0	Call	16				X			
9	9	None	0.0	Passage	Red/Yellow	0.0	Call	9							
10	0	None	0.0	Passage	Red/Yellow	0.0	Call	9							
11	0	None	0.0	Passage	Red/Yellow	0.2	Call	0							
12	0	None	0.0	Passage	Red/Yellow	0.2	Call	12							
13	0	None	0.0	Passage	Red/Yellow	0.0	Call	13							
14	0	None	0.0	Passage	Red/Yellow	0.0	Call	13							
15	0	None	0.0	Passage	Red/Yellow	0.2	Call	0							
16	0	None	0.0	Passage	Red/Yellow	0.2	Call	16							
17	0	None	0.0	Passage	Red/Yellow	0.2	Call	11							
18	0	None	0.0	Passage	Red/Yellow	0.2	Call	15							
19	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
20	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
21	4	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	8	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
24	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
25	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
26	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
27	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Ped Detector Phase Assignment (MM) 6-3

Ped Detector Number	Called Phase																Ped Extend
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	No
2	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	No
3	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	No
4	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	No
5	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	No
6	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	No
7	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	No
8	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	No
9	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	No
10	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	No
11	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	No
12	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	No
13	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	No
14	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	No
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	No
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	No

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

ECPI Log Period: NTCIP Log Length Unit:
TBEP Period: 60 Inches

Speed Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Local Detector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One/Two Detector	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Vehicle Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trap length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enable Log	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

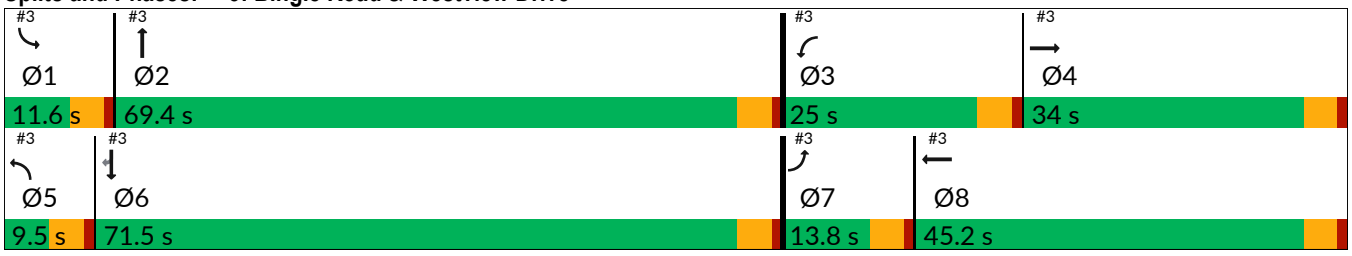
Vehicle Detector Diagnostics (MM) 6-5

Pedestrian Detector Diagnostics (MM) 6-6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	44	210	240	214	40	472	46	811	81
Future Volume (vph)	44	210	240	214	40	472	46	811	81
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.8	34.0	25.0	45.2	9.5	69.4	11.6	71.5	71.5
Total Split (%)	9.9%	24.3%	17.9%	32.3%	6.8%	49.6%	8.3%	51.1%	51.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	8.8	29.5	20.5	43.7	5.0	65.4	6.9	67.1	67.1
Actuated g/C Ratio	0.06	0.21	0.15	0.32	0.04	0.47	0.05	0.49	0.49
v/c Ratio	0.66	1.12	1.09	0.66	0.75	0.82	0.60	1.04	0.18
Control Delay (s/veh)	92.4	128.4	135.0	48.1	122.9	40.7	91.7	77.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.4	128.4	135.0	48.1	122.9	40.7	91.7	77.0	5.9
LOS	F	F	F	D	F	D	F	E	A
Approach Delay (s/veh)		123.5		85.4		45.9		68.6	
Approach LOS		F		F		D		E	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 138.1	
Natural Cycle: 140	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay (s/veh): 75.8	Intersection LOS: E
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Bingle Road & Westview Drive



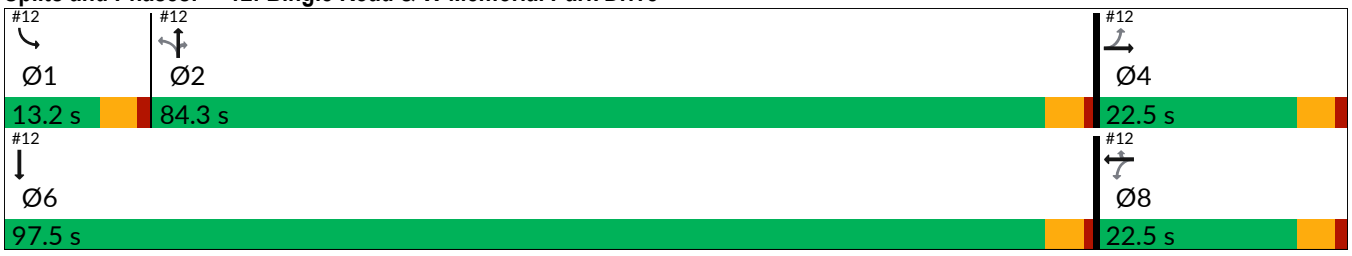
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.8	34.0	25.0	45.2	9.5	69.4	11.6	71.5	71.5
Total Split (%)	9.9%	24.3%	17.9%	32.3%	6.8%	49.6%	8.3%	51.1%	51.1%
Maximum Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Walk Time (s)		7.0		7.0		7.0		7.0	7.0
Flash Don't Walk (s)		11.0		11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0		0		0	0
90th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
90th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
70th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
70th %ile Term Code	Max	Max	Max	Hold	Max	MaxR	Max	MaxR	MaxR
50th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
50th %ile Term Code	Max	Max	Max	Hold	Max	MaxR	Max	MaxR	MaxR
30th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
30th %ile Term Code	Max	Max	Max	Hold	Max	MaxR	Max	MaxR	MaxR
10th %ile Green (s)	0.0	29.5	20.5	54.5	0.0	67.0	0.0	67.0	67.0
10th %ile Term Code	Skip	Max	Max	Hold	Skip	Hold	Skip	MaxR	MaxR

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 138.1
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 140
70th %ile Actuated Cycle: 140
50th %ile Actuated Cycle: 140
30th %ile Actuated Cycle: 140
10th %ile Actuated Cycle: 130.5

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	1	38	1	15	1	694	135	34	1295
Future Volume (vph)	1	1	38	1	15	1	694	135	34	1295
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Prot	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	84.3	84.3	84.3	13.2	97.5
Total Split (%)	18.8%	18.8%	18.8%	18.8%	18.8%	70.3%	70.3%	70.3%	11.0%	81.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Act Effct Green (s)		8.8		8.8	8.8		89.3	89.3	7.7	99.5
Actuated g/C Ratio		0.08		0.08	0.08		0.78	0.78	0.07	0.87
v/c Ratio		0.02		0.40	0.12		0.52	0.16	0.41	0.89
Control Delay (s/veh)		41.3		60.8	1.3		8.2	3.8	61.1	15.7
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	5.1
Total Delay (s/veh)		41.3		60.8	1.3		8.2	3.8	61.1	20.8
LOS		D		E	A		A	A	E	C
Approach Delay (s/veh)		41.3		41.3			7.3			22.1
Approach LOS		D		D			A			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.4	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 16.9	Intersection LOS: B
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 12: Bingle Road & W Memorial Park Drive



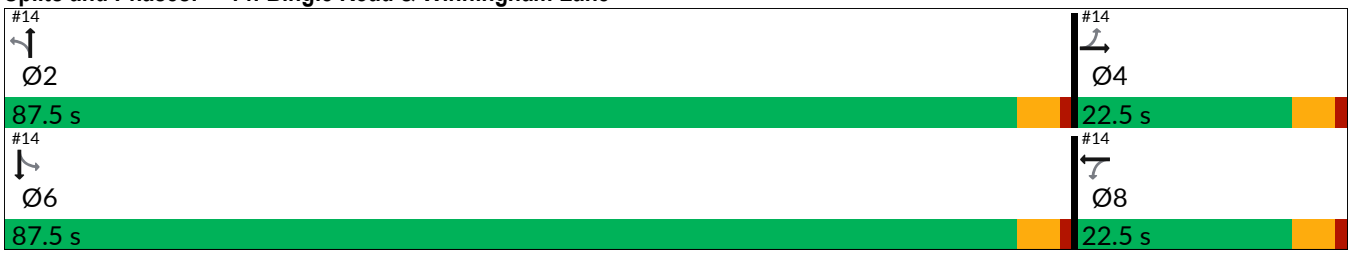
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	84.3	84.3	84.3	13.2	97.5
Total Split (%)	18.8%	18.8%	18.8%	18.8%	18.8%	70.3%	70.3%	70.3%	11.0%	81.3%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	79.8	79.8	79.8	8.7	93.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0
90th %ile Green (s)	12.4	12.4	12.4	12.4	12.4	79.8	79.8	79.8	8.7	93.0
90th %ile Term Code	Hold	Hold	Gap	Gap	Gap	MaxR	MaxR	MaxR	Max	MaxR
70th %ile Green (s)	10.1	10.1	10.1	10.1	10.1	79.8	79.8	79.8	8.7	93.0
70th %ile Term Code	Hold	Hold	Gap	Gap	Gap	MaxR	MaxR	MaxR	Max	MaxR
50th %ile Green (s)	8.7	8.7	8.7	8.7	8.7	82.2	82.2	82.2	8.4	95.1
50th %ile Term Code	Hold	Hold	Gap	Gap	Gap	Dwell	Dwell	Dwell	Gap	Dwell
30th %ile Green (s)	7.4	7.4	7.4	7.4	7.4	91.8	91.8	91.8	7.3	103.6
30th %ile Term Code	Hold	Hold	Gap	Gap	Gap	Dwell	Dwell	Dwell	Gap	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0	108.0	108.0	108.0	0.0	108.0
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip	Dwell	Dwell	Dwell	Skip	Dwell

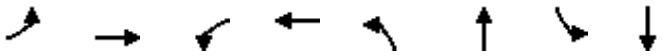
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 114.4
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 114.4
70th %ile Actuated Cycle: 112.1
50th %ile Actuated Cycle: 112.8
30th %ile Actuated Cycle: 120
10th %ile Actuated Cycle: 112.5

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	1	51	1	4	676	2	1280
Future Volume (vph)	1	1	51	1	4	676	2	1280
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	87.5	87.5	87.5	87.5
Total Split (%)	20.5%	20.5%	20.5%	20.5%	79.5%	79.5%	79.5%	79.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		11.7	11.9	11.9	92.1	92.1	92.1	92.1
Actuated g/C Ratio		0.11	0.11	0.11	0.84	0.84	0.84	0.84
v/c Ratio		0.13	0.56	0.06	0.05	0.51	0.01	0.91
Control Delay (s/veh)		24.5	59.8	27.0	4.8	5.0	3.0	20.2
Queue Delay		0.0	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay (s/veh)		24.5	59.8	27.0	4.8	5.6	3.0	20.2
LOS		C	E	C	A	A	A	C
Approach Delay (s/veh)		24.5		55.7		5.6		20.2
Approach LOS		C		E		A		C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 109.7	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 16.7	Intersection LOS: B
Intersection Capacity Utilization 84.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 14: Bingle Road & Winningham Lane





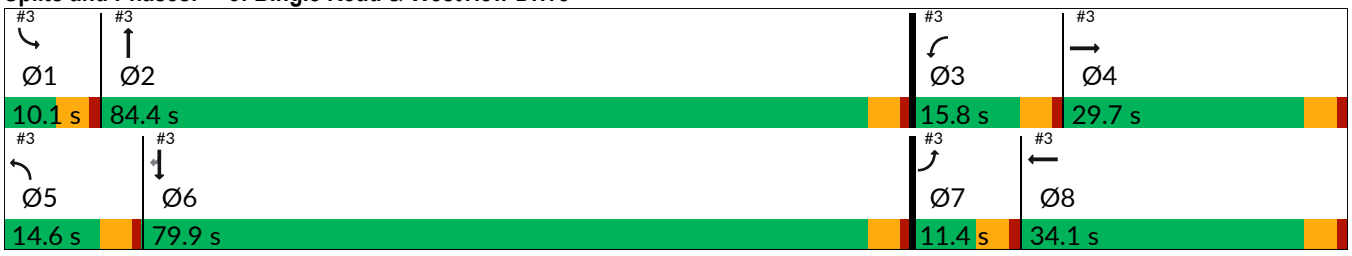
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	87.5	87.5	87.5	87.5
Total Split (%)	20.5%	20.5%	20.5%	20.5%	79.5%	79.5%	79.5%	79.5%
Maximum Green (s)	18.0	18.0	18.0	18.0	83.0	83.0	83.0	83.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	17.0	17.0	17.0	17.0	83.0	83.0	83.0	83.0
90th %ile Term Code	Hold	Hold	Gap	Gap	MaxR	MaxR	MaxR	MaxR
70th %ile Green (s)	13.9	13.9	13.9	13.9	84.7	84.7	84.7	84.7
70th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
50th %ile Green (s)	12.1	12.1	12.1	12.1	91.1	91.1	91.1	91.1
50th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
30th %ile Green (s)	10.1	10.1	10.1	10.1	98.0	98.0	98.0	98.0
30th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	98.0	98.0	98.0	98.0
10th %ile Term Code	Skip	Skip	Skip	Skip	Dwell	Dwell	Dwell	Dwell

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 109.7
Control Type: Actuated-Uncoordinated
90th %ile Actuated Cycle: 109
70th %ile Actuated Cycle: 107.6
50th %ile Actuated Cycle: 112.2
30th %ile Actuated Cycle: 117.1
10th %ile Actuated Cycle: 102.5

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	66	262	123	242	71	853	36	685	62
Future Volume (vph)	66	262	123	242	71	853	36	685	62
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.4	29.7	15.8	34.1	14.6	84.4	10.1	79.9	79.9
Total Split (%)	8.1%	21.2%	11.3%	24.4%	10.4%	60.3%	7.2%	57.1%	57.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	6.9	25.2	11.3	29.6	9.7	79.9	5.6	75.8	75.8
Actuated g/C Ratio	0.05	0.18	0.08	0.21	0.07	0.57	0.04	0.54	0.54
v/c Ratio	0.92	1.08	0.99	1.04	0.72	1.08	0.86	0.77	0.08
Control Delay (s/veh)	141.2	125.3	135.1	108.2	94.6	80.3	138.1	31.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	141.2	125.3	135.1	108.2	94.6	80.3	138.1	31.9	2.3
LOS	F	F	F	F	F	F	F	C	A
Approach Delay (s/veh)		128.2		115.1		81.3		36.7	
Approach LOS		F		F		F		D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Natural Cycle: 140	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay (s/veh): 80.8	Intersection LOS: F
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Bingle Road & Westview Drive



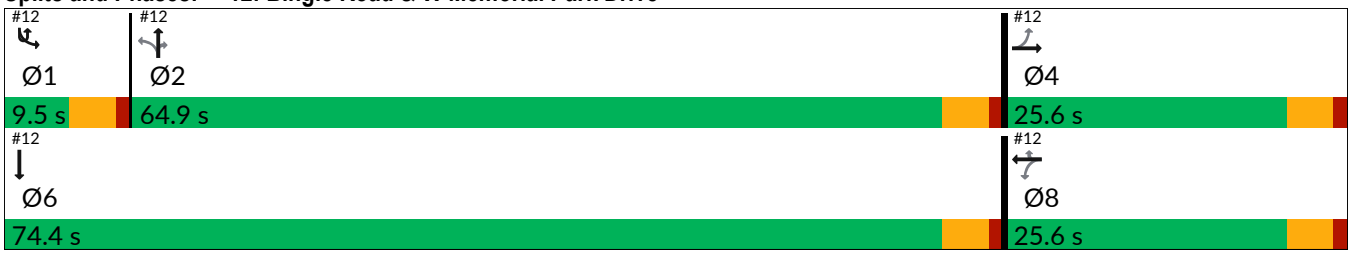
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.4	29.7	15.8	34.1	14.6	84.4	10.1	79.9	79.9
Total Split (%)	8.1%	21.2%	11.3%	24.4%	10.4%	60.3%	7.2%	57.1%	57.1%
Maximum Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Walk Time (s)		7.0		7.0		7.0		7.0	7.0
Flash Don't Walk (s)		11.0		11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0		0		0	0
90th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
90th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
70th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
70th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
50th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
50th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
30th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
30th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
10th %ile Green (s)	6.9	25.2	11.3	29.6	8.0	79.9	5.6	77.5	77.5
10th %ile Term Code	Max	Max	Max	Max	Gap	MaxR	Max	Hold	Hold

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 140
70th %ile Actuated Cycle: 140
50th %ile Actuated Cycle: 140
30th %ile Actuated Cycle: 140
10th %ile Actuated Cycle: 140

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	1	189	1	75	1	1046	100	39	946
Future Volume (vph)	1	1	189	1	75	1	1046	100	39	946
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Prot	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.6	25.6	25.6	25.6	25.6	64.9	64.9	64.9	9.5	74.4
Total Split (%)	25.6%	25.6%	25.6%	25.6%	25.6%	64.9%	64.9%	64.9%	9.5%	74.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Act Effct Green (s)		21.1		21.1	21.1		62.3	62.3	5.0	69.9
Actuated g/C Ratio		0.21		0.21	0.21		0.62	0.62	0.05	0.70
v/c Ratio		0.01		1.01	0.26		0.96	0.12	0.73	0.80
Control Delay (s/veh)		28.0		96.2	8.3		38.3	4.6	89.6	16.3
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	2.9
Total Delay (s/veh)		28.0		96.2	8.3		38.3	4.6	89.6	19.2
LOS		C		F	A		D	A	F	B
Approach Delay (s/veh)		28.0		72.0			35.0			23.3
Approach LOS		C		E			C			C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 100	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay (s/veh): 35.6	Intersection LOS: D
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Bingle Road & W Memorial Park Drive



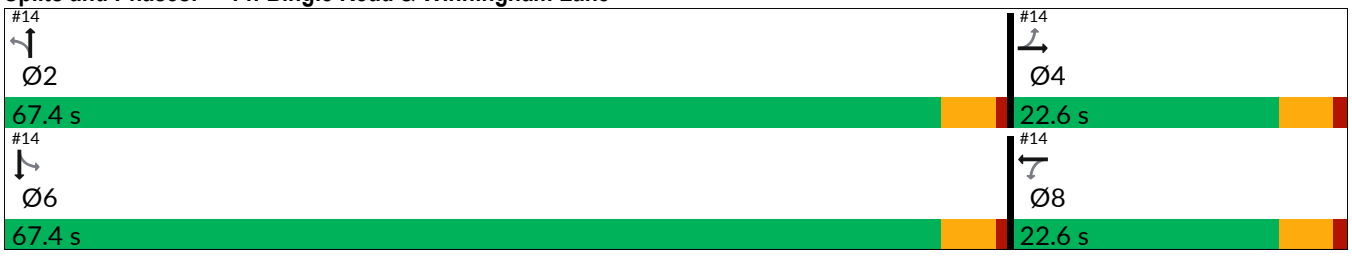
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.6	25.6	25.6	25.6	25.6	64.9	64.9	64.9	9.5	74.4
Total Split (%)	25.6%	25.6%	25.6%	25.6%	25.6%	64.9%	64.9%	64.9%	9.5%	74.4%
Maximum Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0
90th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
90th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
70th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
70th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
50th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
50th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
30th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
30th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
10th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	69.9	69.9	69.9	0.0	69.9
10th %ile Term Code	Hold	Hold	Max	Max	Max	Hold	Hold	Hold	Skip	MaxR

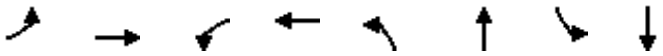
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	1	42	1	10	1162	6	942
Future Volume (vph)	1	1	42	1	10	1162	6	942
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.6	22.6	22.6	22.6	67.4	67.4	67.4	67.4
Total Split (%)	25.1%	25.1%	25.1%	25.1%	74.9%	74.9%	74.9%	74.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		10.0	10.1	10.1	71.7	71.7	71.7	71.7
Actuated g/C Ratio		0.11	0.12	0.12	0.82	0.82	0.82	0.82
v/c Ratio		0.08	0.48	0.14	0.06	0.86	0.06	0.69
Control Delay (s/veh)		23.7	45.3	16.3	3.5	15.7	4.3	8.2
Queue Delay		0.0	0.0	0.0	0.0	2.0	0.0	0.0
Total Delay (s/veh)		23.7	45.3	16.3	3.5	17.8	4.3	8.2
LOS		C	D	B	A	B	A	A
Approach Delay (s/veh)		23.7		37.5		17.6		8.1
Approach LOS		C		D		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 14.5	Intersection LOS: B
Intersection Capacity Utilization 80.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Bingle Road & Winningham Lane





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.6	22.6	22.6	22.6	67.4	67.4	67.4	67.4
Total Split (%)	25.1%	25.1%	25.1%	25.1%	74.9%	74.9%	74.9%	74.9%
Maximum Green (s)	18.1	18.1	18.1	18.1	62.9	62.9	62.9	62.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	14.2	14.2	14.2	14.2	62.9	62.9	62.9	62.9
90th %ile Term Code	Hold	Hold	Gap	Gap	MaxR	MaxR	MaxR	MaxR
70th %ile Green (s)	11.6	11.6	11.6	11.6	63.9	63.9	63.9	63.9
70th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
50th %ile Green (s)	10.2	10.2	10.2	10.2	70.9	70.9	70.9	70.9
50th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
30th %ile Green (s)	8.6	8.6	8.6	8.6	77.9	77.9	77.9	77.9
30th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	77.9	77.9	77.9	77.9
10th %ile Term Code	Skip	Skip	Skip	Skip	Dwell	Dwell	Dwell	Dwell

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 87.7
Control Type: Actuated-Uncoordinated
90th %ile Actuated Cycle: 86.1
70th %ile Actuated Cycle: 84.5
50th %ile Actuated Cycle: 90.1
30th %ile Actuated Cycle: 95.5
10th %ile Actuated Cycle: 82.4

TRAFFIC COUNT VOLUME DATA

Intersection: Bingle Rd @ Winningham Ln

Date 5/19/2026

AM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	1	180	6	0	0	242	1	0	19	0	2	0	0	0	2	0
8:15	0	153	6	0	0	210	0	0	19	1	2	0	0	0	5	0
8:30	0	154	8	0	2	244	0	0	15	0	1	0	0	0	4	0
8:45	1	155	6	0	0	240	1	0	12	1	2	0	0	0	2	0
Peak Hour To	2	642	26	0	2	936	2	0	65	2	7	0	0	0	13	0
PHF	0.50	0.89	0.81	#DIV/0!	0.25	0.96	0.50	#DIV/0!	0.86	0.50	0.88	#DIV/0!	#DIV/0!	#DIV/0!	0.65	#DIV/0!

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	2	642	26	0	2	936	2	0	65	2	7	0	0	0	13	0
No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	2	648	26	0	2	945	2	0	66	2	7	0	0	0	13	0
Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	0	7	1	0	0	16	0	0	2	0	0	0	0	0	0	0
Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	2	655	27	0	2	961	2	0	68	2	7	0	0	0	13	0

PM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---		---	---	---		---	---	---		---	---	---	
4:45	2	250	12	0	0	184	2	0	5	0	0	0	1	0	1	0
5:00	1	214	11	0	2	205	0	0	10	0	5	0	1	0	0	0
5:15	1	224	13	0	0	180	2	0	11	0	2	0	1	0	5	0
5:30	6	221	15	0	0	203	1	0	11	0	2	0	1	0	1	0
Peak Hour To	10	909	51	0	2	772	5	0	37	0	9	0	4	0	7	0
PHF	0.42	0.91	0.85	#DIV/0!	0.25	0.94	0.63	#DIV/0!	0.84	#DIV/0!	0.45	#DIV/0!	1.00	#DIV/0!	0.35	#DIV/0!

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	10	909	51	0	2	772	5	0	37	0	9	0	4	0	7	0
No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	10	918	52	0	2	780	5	0	37	0	9	0	4	0	7	0
Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	0	25	3	0	0	27	0	0	4	0	0	0	0	0	0	0
Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	10	943	55	0	2	807	5	0	41	0	9	0	4	0	7	0

Intersection: Bingle Rd @ W. Memorial Park Dr

Date 5/19/2026

AM

	Northbound				Southbound				Westbound				Eastbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
End Time	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	0	174	30	0	10	244	0	0	7	0	6	0	0	0	0	0
8:15	0	160	38	0	13	221	0	0	12	0	5	0	0	0	0	0
8:30	0	167	31	1	7	263	0	0	7	0	4	0	0	0	0	0
8:45	0	147	47	0	16	243	0	0	3	0	9	0	0	0	0	0
Peak Hour To	0	648	146	1	46	971	0	0	29	0	24	0	0	0	0	0
PHF	#DIV/0!	0.93	0.78	0.25	0.72	0.92	#DIV/0!	#DIV/0!	0.60	#DIV/0!	0.67	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing	Northbound				Southbound				Westbound				Eastbound			
Volumes	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
2026	0	648	146	1	46	971	0	0	29	0	24	0	0	0	0	0
No Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	0	654	147	1	46	981	0	0	29	0	24	0	0	0	0	0
Trip	Northbound				Southbound				Westbound				Eastbound			
Generation	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	13	0	0	0	0	1	17	0	0	1	0	0	8	1	1	0
	Northbound				Southbound				Westbound				Eastbound			
Pass-By	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	1	0	0	0	0	0	2	0	0	0	0	0	1	0	2	0
Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	14	654	147	1	46	982	19	0	29	1	24	0	9	1	3	0

PM

	Northbound				Southbound				Westbound				Eastbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
End Time	---	---	---		---	---	---		---	---	---		---	---	---	
4:45	0	233	22	0	9	175	0	0	43	0	12	0	0	0	0	0
5:00	0	237	21	0	9	199	0	0	26	0	9	0	0	0	0	0
5:15	0	205	24	0	14	188	0	0	63	0	13	0	0	0	0	0
5:30	0	245	19	0	10	206	0	0	45	0	20	0	0	0	0	0
Peak Hour To	0	920	86	0	42	768	0	0	177	0	54	0	0	0	0	0
PHF	#DIV/0!	0.94	0.90	#DIV/0!	0.75	0.93	#DIV/0!	#DIV/0!	0.70	#DIV/0!	0.68	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing	Northbound				Southbound				Westbound				Eastbound			
Volumes	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
2026	0	920	86	0	42	768	0	0	177	0	54	0	0	0	0	0
No Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	0	929	87	0	42	776	0	0	179	0	55	0	0	0	0	0
Trip	Northbound				Southbound				Westbound				Eastbound			
Generation	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	42	0	0	0	0	4	27	0	0	4	0	0	28	4	4	0
	Northbound				Southbound				Westbound				Eastbound			
Pass-By	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	6	0	0	0	0	0	5	0	0	0	0	0	5	0	4	0
Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	48	929	87	0	42	780	32	0	179	4	55	0	33	4	8	0

Intersection: Bingle Rd @ I-10 WBFR

Date 5/21/2026

AM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	135	165	0	0	0	167	121	0	142	91	65	40				
8:15	129	139	0	0	0	137	114	0	128	89	60	33				
8:30	104	150	0	0	0	143	104	0	105	92	76	38				
8:45	137	142	0	0	0	130	121	0	127	80	66	43				
Peak Hour To	505	596	0	0	0	577	460	0	502	352	267	154	0	0	0	0
PHF	0.92	0.90	#DIV/0!	#DIV/0!	#DIV/0!	0.86	0.95	#DIV/0!	0.88	0.96	0.88	0.90	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	505	596	0	0	0	577	460	0	502	352	267	154	

No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	510	602	0	0	0	583	465	0	507	356	270	156	

Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	0	8	0	0	0	4	1	0	0	0	5	0	

Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	510	610	0	0	0	587	466	0	507	356	275	156	

PM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---		---	---	---		---	---	---		---	---	---	
4:45	125	152	0	0	0	90	99	0	80	140	77	35				
5:00	149	152	0	0	0	128	95	0	110	137	89	53				
5:15	142	162	0	0	0	112	101	0	116	148	85	37				
5:30	146	155	0	0	0	154	96	0	119	127	74	47				
Peak Hour To	562	621	0	0	0	484	391	0	425	552	325	172	0	0	0	0
PHF	0.94	0.96	#DIV/0!	#DIV/0!	#DIV/0!	0.79	0.97	#DIV/0!	0.89	0.93	0.91	0.81	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	562	621	0	0	0	484	391	0	425	552	325	172	

No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	568	627	0	0	0	489	395	0	429	558	328	174	

Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	0	27	0	0	0	32	7	0	0	0	15	0	

Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound
	568	654	0	0	0	521	402	0	429	558	343	174	

Intersection: Voss Rd @ I-10 EBFR

Date 5/21/2026

AM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	0	187	152	0	103	189	0	0					117	63	56	38
8:15	0	163	124	0	88	180	0	0					109	72	56	33
8:30	0	143	97	0	87	156	0	0					107	78	49	41
8:45	0	176	99	0	82	186	0	0					111	68	58	51
Peak Hour To	0	669	472	0	360	711	0	0	0	0	0	0	444	281	219	163
PHF	#DIV/0!	0.89	0.78	#DIV/0!	0.87	0.94	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.95	0.90	0.94	0.80

Existing Volumes	Northbound NBL	Northbound NBT	Northbound NBR	Northbound U-Turn	Southbound SBL	Southbound SBT	Southbound SBR	Southbound U-Turn	Westbound	Eastbound EBL	Eastbound EBT	Eastbound EBR	Eastbound U-Turn
2026	0	669	472	0	360	711	0	0		444	281	219	163
No Build Volumes	**Northbound**				**Southbound**				**Westbound**	**Eastbound**			
2027	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**		**EBL**	**EBT**	**EBR**	**U-Turn**
	0	676	477	0	364	718	0	0		448	284	221	165
Trip Generation	Northbound				Southbound				Westbound	Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn		EBL	EBT	EBR	U-Turn
	0	5	0	0	2	2	0	0		3	0	0	0
Build Volumes	**Northbound**				**Southbound**				**Westbound**	**Eastbound**			
2027	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**		**EBL**	**EBT**	**EBR**	**U-Turn**
	0	681	477	0	366	720	0	0		451	284	221	165

PM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---		---	---	---		---	---	---		---	---	---	
4:45	0	179	147	0	67	117	0	0					100	92	46	63
5:00	0	189	139	0	73	170	0	0					96	72	53	76
5:15	0	195	153	0	79	148	0	0					115	105	48	66
5:30	0	219	110	0	77	197	0	0					90	77	57	60
Peak Hour To	0	782	549	0	296	632	0	0	0	0	0	0	401	346	204	265
PHF	#DIV/0!	0.89	0.90	#DIV/0!	0.94	0.80	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.87	0.82	0.89	0.87

Existing Volumes	Northbound NBL	Northbound NBT	Northbound NBR	Northbound U-Turn	Southbound SBL	Southbound SBT	Southbound SBR	Southbound U-Turn	Westbound	Eastbound EBL	Eastbound EBT	Eastbound EBR	Eastbound U-Turn
2026	0	782	549	0	296	632	0	0		401	346	204	265
No Build Volumes	**Northbound**				**Southbound**				**Westbound**	**Eastbound**			
2027	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**		**EBL**	**EBT**	**EBR**	**U-Turn**
	0	790	554	0	299	638	0	0		405	349	206	268
Trip Generation	Northbound				Southbound				Westbound	Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn		EBL	EBT	EBR	U-Turn
	0	19	0	0	14	18	0	0		8	0	0	0
Build Volumes	**Northbound**				**Southbound**				**Westbound**	**Eastbound**			
2027	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**		**EBL**	**EBT**	**EBR**	**U-Turn**
	0	809	554	0	313	656	0	0		413	349	206	268

TxDOT C.R.I.S. Accident Reports

Bingle Rd @ Winningham Ln

All crash data available using this tool represents reportable data collected from Texas Peace Officer's Crash Reports (CR-3) received and processed by the Texas Department of Transportation (Department) as of 05/28/2026. The Department makes no warranty, representation or guaranty as to the content, accuracy, timeliness or completeness of any of the information provided as a result of your query. Any opinions and conclusions resulting from analysis performed on the crash data must be represented as your own and not those of the State of Texas or the Department.

Query Result Counts:
Your query returned a total of 2 Crashes containing 3 Units and 4 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023						
1	19521700	23-15610	5/2/2023	1553	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2024 - No Crashes						
Year 2025						
1	20603834	25-00359	1/3/2025	800	NON INTERSECTION	ONE MOTOR VEHICLE - OTHER

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	2
*Correctable AM Peak 7am-9am	0
*Correctable Mid-Day 9am-4pm	0
*Correctable PM Peak 4pm-6pm	0
*Correctable Night Hours 6pm-7a	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	0	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	0	
Rear End Crashes	1	
One Vehicle, Sideswipe, or Other	1	

Bingle Rd at W. Memorial Park Dr

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Query Result Counts:
Your query returned a total of 3 Crashes containing 5 Units and 7 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023 - No Crashes						
Year 2024						
1	20015015	24-05853	2/7/2024	942	INTERSECTION	ANGLE - ONE STRAIGHT-ONE LEFT TURN
2	20491785	24-51860	11/8/2024	2211	INTERSECTION RELATED	ONE MOTOR VEHICLE - GOING STRAIGHT
Year 2025						
1	20621468	2503467	1/23/2025	1900	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	2
*Correctable AM Peak 7am-9am	0
*Correctable Mid-Day 9am-4pm	1
*Correctable PM Peak 4pm-6pm	0
*Correctable Night Hours 6pm-7a	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	1	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	0	
Rear End Crashes	0	
One Vehicle, Sideswipe, or Other	2	

Bingle Rd at I-10 WBFR

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Query Result Counts:
Your query returned a total of 30 Crashes containing 61 Units and 81 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023						
1	19355284	23-02377	1/26/2023	1032	INTERSECTION RELATED	ONE MOTOR VEHICLE - GOING STRAIGHT
2	19376192	23-04049	2/7/2023	1552	INTERSECTION	SAME DIRECTION - BOTH RIGHT TURN
3	19453522	23-09877	3/22/2023	1658	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
4	19492623	23-13715	4/16/2023	1858	NON INTERSECTION	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
5	19511659	23-14940	4/26/2023	1746	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
6	19591657	23-21666	6/9/2023	1055	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
7	19760111	23-36477	9/17/2023	119	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
8	19826752	23-42141	10/19/2023	1701	NON INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
9	19895233	23-48382	11/29/2023	825	INTERSECTION	ANGLE - BOTH GOING STRAIGHT
10	19895242	23-48484	11/29/2023	1442	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
11	19908237	23-48813	12/1/2023	1208	INTERSECTION	ANGLE - BOTH GOING STRAIGHT
12	19955523	23-0851	12/2/2023	1643	NON INTERSECTION	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
13	19959650	23-0885	12/14/2023	1636	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
14	19938351	23-51993	12/22/2023	1639	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE RIGHT TURN
15	19946907	23-52623	12/27/2023	1649	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2024						
1	19997584	24-0029	1/13/2024	1417	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	20288515	24-32031	7/6/2024	1826	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
3	20428963	24-46427	10/4/2024	1327	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
Year 2025						
1	20607101	25-02109	1/14/2025	733	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	20685270	25-0115	2/25/2025	1455	NON INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
3	20747461	25-14291	3/27/2025	841	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
4	20827172	25-23604	5/20/2025	854	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
5	20835883	25-25021	5/29/2025	1822	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
6	20866157	2506-03878	6/11/2025	1636	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
7	20874177	25-28328	6/20/2025	1840	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
8	20967923	25-37232	8/10/2025	956	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
9	20960711	25-38010	8/14/2025	1624	INTERSECTION	ANGLE - BOTH GOING STRAIGHT
10	21093357	25-50733	10/29/2025	635	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
11	21121087	25-52434	11/7/2025	851	INTERSECTION	SAME DIRECTION - ONE STRAIGHT-ONE RIGHT TURN
12	21171101	25-57831	12/10/2025	1208	INTERSECTION RELATED	SAME DIRECTION - ONE RIGHT TURN-ONE STOPPED

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	27
*Correctable AM Peak 7am-9am	1
*Correctable Mid-Day 9am-4pm	1
*Correctable PM Peak 4pm-6pm	1
*Correctable Night Hours 6pm-7am	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	3	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	0	
Rear End Crashes	12	
One Vehicle, Sideswipe, or Other	15	

Voss Rd at I-10 EBFR

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Query Result Counts:
Your query returned a total of 11 Crashes containing 23 Units and 26 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023						
1	19814370	230293	5/21/2023	1447	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	19735754	230627	8/28/2023	1144	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2024						
1	19966376	24-01187	1/8/2024	2215	NON INTERSECTION	OTHER
2	20020378	24-0089	2/6/2024	1245	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
3	20021828	240094	2/8/2024	856	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
4	20213164	240357	5/17/2024	1127	INTERSECTION	ANGLE - ONE STRAIGHT-ONE LEFT TURN
5	20334473	24-38573	8/13/2024	1730	INTERSECTION	ANGLE - ONE STRAIGHT-ONE RIGHT TURN
6	20415579	24-45535	9/28/2024	1340	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
7	20497460	24-52276	11/11/2024	1541	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2025						
1	20634069	25-0047	1/28/2025	1231	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	21052264	25-46265	10/2/2025	1655	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	9
*Correctable AM Peak 7am-9am	0
*Correctable Mid-Day 9am-4pm	1
*Correctable PM Peak 4pm-6pm	1
*Correctable Night Hours 6pm-7an	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	1	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	1	
Rear End Crashes	5	
One Vehicle, Sideswipe, or Other	4	

ITE TRIP GENERATION SHEETS & PASS-BY JUSTIFICATION

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	931
Land Use	Fine Dining
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	4
Average Pass-By Rate	44%

Pass-By Characteristics for Individual Sites

GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
6.5	Florida	1995	173	62	—	—	38	—	30
8	Florida	1992	168	45	—	—	55	—	30
8.8	Florida	1992	84	44	40	16	56	—	30
12	Kentucky	1993	38	26	36	38	74	4145	2

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	821
Land Use	Shopping Plaza (40 - 150k)
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	15
Average Pass-By Rate	40%

Pass-By Characteristics for Individual Sites

GLA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
45	Florida	1992	844	56	24	20	44	—	30
50	Florida	1992	555	41	41	18	59	—	30
52	Florida	1995	665	42	33	25	58	—	30
53	Florida	1993	162	59	—	—	41	—	30
57.23	Kentucky	1993	247	31	53	16	69	2659	34
60	Florida	1995	1583	40	38	22	60	—	30
69.4	Kentucky	1993	109	25	42	33	75	1559	34
77	Florida	1992	365	46	—	—	54	—	30
78	Florida	1991	702	55	23	22	45	—	30
82	Florida	1992	336	34	—	—	66	—	30
92.857	Kentucky	1993	133	22	50	28	78	3555	34
100.888	Kentucky	1993	281	28	50	22	72	2111	34
121.54	Kentucky	1993	210	53	30	17	47	2636	34
144	New Jersey	1990	176	32	44	24	68	—	24
146.8	Kentucky	1993	—	36	39	25	64	—	34

Justification for Pass-By Trip Reduction Percentage

When the ITE Trip Generation Manual went from the 10th edition to the 11th edition, it split land use 820-Shopping Center into 3 separate land uses:

- 820-Shopping Center (>150ksqft)
- 821-Shopping Plaza (40-150ksqft)
- 822-Strip Retail Plaza (<40ksqft)

The 3rd edition of the ITE Trip Generation Handbook provides pass-by trip percentage for Land use 820 as it relates to the 10th edition of the Trip Generation Manual. The overall pass-by percentage is listed at 34%. If we identify the six smallest developments (shown below) within all the studied developments listed (see attached sheets) we get an **average pass-by percentage of 52%.** Also, if we look at the relationship between the size of the development and the resulting pass-by percentage, we note that as the size of the development decreases, the pass-by percentage increases.

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
9	Kissimmee, FL	1994	107	2:00–6:00 p.m.	66	20	14	34	—	—	TPD Inc.
17	Orlando, FL	1994	196	2:00–6:00 p.m.	66	—	—	34	—	—	TPD Inc.
44	Pr. Georges Co., MD	1982/83	97	4:00–6:00 p.m.	51	—	—	49	—	—	JHK
45	Orlando, FL	1992	844	2:00–6:00 p.m.	56	24	20	44	—	—	TPD Inc.
50	Orlando, FL	1992	555	2:00–6:00 p.m.	41	41	18	59	—	—	TPD Inc.
51	Boca Raton, FL	Dec. 1987	110	4:00–6:00 p.m.	33	34	33	67	—	42,225	Kimley-Horn and Assoc. Inc.

When considering the most recent data sets (Pass-By Tables - Trip Generation Manual 11th Ed.xlsx (live.com)), we see a similar relationship between the size of the development and the pass-by percentage.

- For Sites between 300-900K, the average pass-by percentage is 19%
- For Sites between 150-300K, the average pass-by percentage is 29%
- For Sites between 40-150k, the average pass-by percentage is 40%

Vehicle Pass-By Rates by Land Use		
Source: ITE *Trip Generation Manual*, 11th Edition		
Land Use Code	820	
Land Use	Shopping Center (> 150k)	
Setting	General Urban/Suburban	
Time Period	Weekday PM Peak Period	
# Data Sites	8 Sites with GLA between 150 and 300k	16 Sites with GLA between 300 and 900k
Average Pass-By Rate	29% for Sites with GLA between 150 and 300k	19% for Sites with GLA between 300 and 900k
	Pass-By Characteristics for Individual Sites	

Vehicle Pass-By Rates by Land Use	
Source: ITE *Trip Generation Manual*, 11th Edition	
Land Use Code	821
Land Use	Shopping Plaza (40 - 150k)
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	15
Average Pass-By Rate	40%
	Pass-By Characteristics for Individual Sites

If we assume that the trend **(an increase in 10% pass-by trips for each step down in size)** will continue with each step down in development size, then for retail developments with a **size <40k** (Land Use 822) we would expect to see a pass-by percentage of **approximately 50%.** This assumed 50% Pass-By rate matches the calculated average pass-by percentage above from the data taken from the 3rd edition of the trip generation handbook as it relates to the 10th edition of the ITE Trip Generation Manual.

Based on this data, a pass-by percentage of 50% would be justifiable; however, to be conservative we used a pass-by percentage of 40%. This is 10% less than what the data above justifies, but provides a more conservative percentage to insure we adequately reflect the impact of the development. Based on the data above and engineering judgement, to use a pass-by percentage less than 40% is not representative of real life expectations and contradicts the data above.

NCHRP REPORT 348

National Cooperative Highway Research Program

NCHRP Report 348

Access Management Guidelines for Activity Centers

Transportation Research Board
National Research Council

National Cooperative Highway Research Program

Report 348

Access Management Guidelines for Activity Centers

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TRANSPORTATION RESEARCH BOARD
NATIONAL RESEARCH COUNCIL

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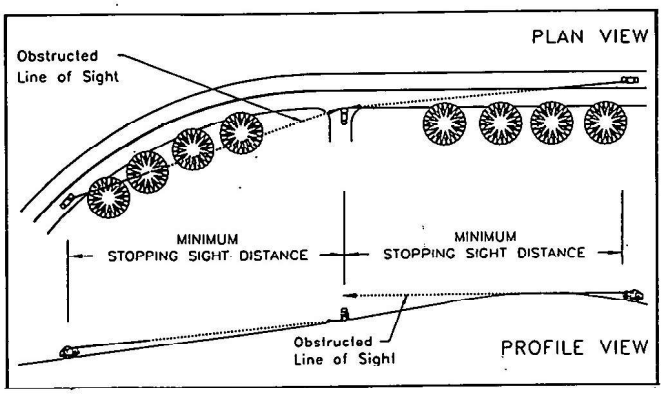


Figure 9-9. Sight distance example.

9.4 SEPARATE TURNING LANES

It may be necessary to construct turning lanes for right or left turns into an access drive for safety or capacity reasons where highway speeds or traffic volumes are high or if there are substantial turning volumes. The purpose of a separate turning lane is to expedite the movement of through traffic, increase intersection capacity, permit the controlled movement of turning traffic, and promote the safety of all traffic. This is accomplished by providing lanes that remove turning vehicles from the through-travel lanes.

The provision of left-turn lanes is essential from both capacity and safety standpoints where left turns would otherwise share the use of a through lane. Shared use of a through lane will dramatically reduce capacity, especially when opposing traffic is heavy. One left turn per signal cycle delays 40 percent of the through vehicles in the shared lane; two turns per cycle delays 60 percent (*3*). Rear-end accidents can be severe on shared lanes.

Right-turn lanes remove the speed differences in the main travel lanes, thereby reducing the frequency and severity of rear-end collisions. They also increase capacity of signalized intersections and may allow more efficient traffic signal phasing.

Table 9-7. Standard stopping sight distances. (Source: American Association of State Highway and Transportation Officials, *A Policy on Geometric Design for Highways and Streets,* 1990)

OPERATING SPEED	Stopping Sight Distances (in feet)						
	STREET GRADE IN PERCENT						
	Upgrades			Level	Downgrades		
	9%	6%	3%	0%	-3%	-6%	-9%
25 mph	140	145	150	150	155	160	165
30 mph	180	190	200	200	210	220	230
35 mph	215	225	235	240	255	270	290
40 mph	270	280	290	300	320	340	370
45 mph		340	350	365	390	420	
50 mph		410	420	440	470	510	
55 mph		460	475	500	540	590	

NOTE: For speeds greater than 35 mph, an average distance between upper and lower operations limits has been used.

Table 9-8. Intersection sight distance triangle.

POSTED SPEED (mph)	Ll (ft.)	Lr2 (ft.)	Lr4 (ft.)
30	270	190	140
35	340	230	165
40	430	280	210
45	540	340	250
50	650	400	300
55	760	460	350

NOTE: Assumes 12 foot wide traffic lanes.
Ll = Clear distance to the left.
Lr2 = Clear distance to the right - 2-lane roadway.
Lr4 = Clear distance to the right - 4-lane roadway.

Warrants

Although turning lanes may be required for some or all access locations to major activity centers, they are not always required for smaller developments. Where there are three or more through lanes in the direction of travel, the requirements for a separate right-turn lane may be dropped. Whether or not a separate turning lane is required at a specific location should be determined by a traffic engineering study. Various guidelines and warrants are suggested to guide this decision.

Left-Turn Lanes—Signalized Intersections. The 1985 "Highway Capacity Manual" recommends that an exclusive left-turn lane be provided at signalized intersections under the following conditions. (1) Where fully protected left-turn phasing is to be provided, an exclusive left-turn lane should be provided. (2) Where space permits use of a left-turn lane, it should be considered where peak-hour left-turn volumes exceed 100 vph. Left-turn lanes may be provided for lower volumes as well, based on the judged need and state or local practice. (Colorado requires by regulation that all new access connections provide a left-turn lane where the peak-hour turn volume exceeds 12 vph.) (3) Where left-turn volumes exceed 300 vph, provision of a double left-turn lane should be considered. (These lanes are essential at access points to major generators to reduce signal time requirements and spillback onto main travel lanes.)

Left-turn lanes also should be provided when delay caused by left-turning vehicles blocking through vehicles would become a problem. When the sum of left-turn and opposing volumes results in unacceptable left-turn delay, the provision of a separate turn lane would not only increase intersection capacity, but would also increase vehicle safety. The provision of left-turn

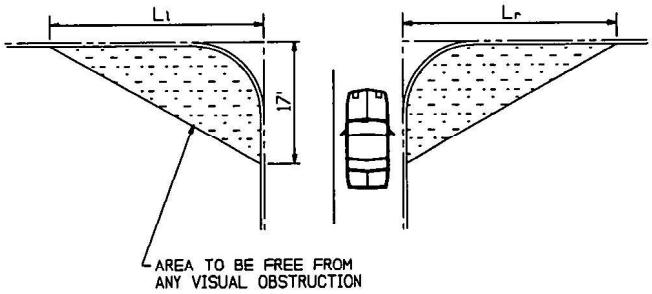


Figure 9-10. Visibility triangle for driveways.

lanes is also specified for certain access categories. In such cases, the lanes should be provided as a matter of policy. Table 9-9 can be used as an additional warrant for providing a separate left-turn lane.

Left-Turn Lanes—Unsignalized Intersection. Several studies have developed criteria for providing separate left-turn lanes at unsignalized intersections. Criteria include cases when the separate lane functions as a deceleration lane and when it becomes a storage lane. Figure 9-11 provides warrants for a left-turn lane, depending on the peak-hour volume on the intersection approach, the peak-hour volume of vehicles turning left, and the operating speed. In most cases, left-turn lanes should be provided where there are more than 12 left turns per peak hour.

Another study compares the percent of left-turning vehicles in the advancing volume against the opposing volume. Table 9-10 is a guide to traffic volumes where separate left-turn lanes should be considered.

Right-Turn Lanes. The 1985 "Highway Capacity Manual" suggests that a separate right-turn lane should be considered when the right-turn volume exceeds 300 vph and the adjacent through lanes also exceed 300 vph per lane. When calculating the adjacent through lane volume, it should be assumed that all through lanes have equal volumes.

The Colorado Department of Transportation recommends providing a separate right-turn deceleration lane, depending on the highway's single lane volume, the volume of right-turning vehicles, and the posted speed of the highway. Figure 9-12 indicates when a separate right-turn lane should be provided. When the design hour volume (DHV) of the single lane highway and the design hour volume of right turns intersect at a point on or above the curve for the posted speed, a separate right-turn lane is required.

Table 9-9. Sum of left turn and opposing volumes during the peak hour necessary to create a left turn delay problem.* (Source: Kenneth R. Agent, "Warrants for Left Turn Lanes," *Transportation Quarterly,* Vol. 37, January 1983)

	Signalized Intersection (4-Lane Highway)		
	CYCLE SPLIT		
Cycle Length	70/30	60/40	50/50
120	950	800	600
90	1,000	850	700
60	1,150	1,000	850

	Signalized Intersection (2-Lane Highway)		
	CYCLE SPLIT		
Cycle Length	70/30	60/40	50/50
120	650	550	400
90	700	600	500
60	750	650	550

	Non-Signalized Intersection	
Delay Criterion	4-Lane Highway	2-Lane Highway
30 Seconds	1,000	900
20 Seconds	900	800

* Assuming a minimum left turn volume such as 50 left turns in the peak hour.

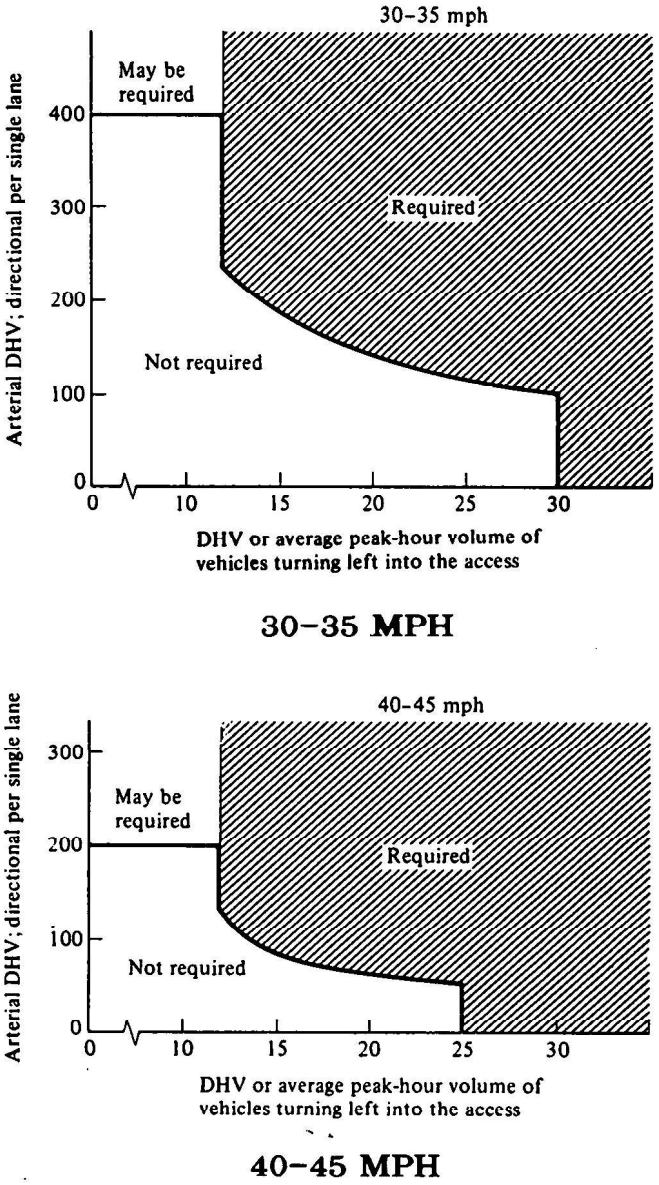


Figure 9-11. Left-turn deceleration lane warrant.

Storage Lengths

The required length of vehicle storage for turning lanes depends on several factors. These include: (1) whether the lane is for left- or right-turning vehicles; (2) the type of traffic control, including the signal timing and cycle length; (3) the number of turning vehicles; and (4) the number of other vehicles on the approach.

Signalized Intersections. Where traffic is to be controlled by a traffic signal, the auxiliary lane ideally should be of sufficient length to (1) store turning vehicles or (2) clear the equivalent lane volume of all other traffic on the approach, whichever is the longest. An equivalent lane volume can be obtained by dividing the sum of other vehicles on the approach by the number of

Table 9-10. Guide for left turn lanes for 2-lane highways. (Source: American Association of State Highway and Transportation Officials, *A Policy on Geometric Design for Highways and Streets*, 1990)

Opposing Volume (Veh./Hr.)	Advancing Volume (vehicles per hour)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
	40-mph Operating Speed			
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340
	50-mph Operating Speed			
800	280	210	165	135
600	350	260	195	170
400	430	320	240	210
200	550	400	300	270
100	615	445	335	295
	60-mph Operating Speed			
800	230	170	125	115
600	290	210	160	140
400	365	270	200	175
200	450	330	250	215
100	505	370	275	240

available lanes. If separate turn lanes are to be provided, the turning volume is assigned to the separate lane and the remaining through or through and right- or left-turning volume is divided by the number of through lanes. This length is necessary to ensure that full use of the separate turn lane will be achieved and that the queue of other vehicles on the approach will not block vehicles from the turn lane.

1. The storage requirements for left-turn lanes should be based upon peak 15-min flow rates. The average number of left turns per cycle can then be multiplied by a factor to account for random variations in arrivals. The length of the lane can be estimated, based on the length of cars, the mix of cars, and other vehicles and arrival rate. This leads to the following formula.

$$L = V\text{K } 25(1 + p)/N_c \qquad (4)$$

where: L = storage length, in feet; V = peak 15-min flow rate expressed in vehicles vph; K = constant to reflect random arrival of vehicles (usually 2); N_c = number of cycles per hour; p = percent of trucks or buses.

Where there are random variations in flow, a factor of 2 is normally applied to the left turns; this implies a failure rate of only 5 percent. However, where volumes increase toward saturation flow, or where movements are controlled by coordinated traffic signal systems, the random arrival factor can be decreased to 1.5.

Figure 9-13 provides a nomograph for the length of a left-turn storage lane at signalized intersections. The 95 percent probability of storing all vehicles uses a "K" value of 2 in the preceding formula. The 90 percent probability value uses a factor of 1.5.

As illustrated, with a left-turn volume of 240 vph, a 70-sec cycle and 10 percent trucks, a storage length of about 260 ft is required for desirable conditions and about 200 ft for a minimum. These storage lengths would accommodate 10 to 11 vehicles for the desirable conditions and about 8 for the minimum. The figure can be used to estimate the storage length (excluding taper) of a double left-turn bay by dividing by 1.8. Thus, for the desirable conditions, a double left-turn bay of about 145 ft (excluding taper) would be required.

2. The storage lengths for right-turn lanes can be obtained by using the "red time" formula. This formula determines the amount of storage space necessary to accommodate vehicles arriving at a signalized intersection during the red phase of the cycle. It is as follows:

$$\text{Storage Length} = \frac{(1 - G/C)\,(\text{volume})\,(1 + \%\ \text{trucks})\,(K)\,(25\ \text{ft/vehicle})}{(\#\ \text{cycles per hour})\,(\#\ \text{traffic lanes})} \qquad (5)$$

where: G = green time, C = cycle length, and K = random arrival factor. (Note that this formula is similar to Formula 3.)

A random arrival factor, K, of 2 should be used where right-turn-on-red is not permitted. Where right-turn-on-red is allowed, a factor of 1.5 could be used to determine the length of storage for right-turning vehicles.

The cycle length chosen to estimate the length of storage lanes should consider the possibility of longer cycle lengths in future years. Where the existing cycle length is less than 90 sec, storage requirements should be based on at least a 90-sec cycle. It is better practice, especially where space is not at a premium, to add an additional 50 to 100 ft to the design initially.

3. Storage lengths at unsignalized intersections can also be determined by considering the left turning volume and the opposing volume. Figure 9-14 gives guidelines for estimating lengths for various storage combinations of traffic volumes.

The nomograph (Figure 9-14) is used by reading horizontally from the opposing traffic volume, V_O, on the vertical axis and reading vertically from the left turn volume, V_L, on the horizontal axis and locating the minimum storage length, S, at the point where the horizontal and vertical lines cross. For example, 100 left-turning vehicles per hour, V_L, with an opposing through volume, V_O, of 950 vph, will require a minimum storage length of about 150 ft.

Total Length of Turn Lanes

A separate turning lane consists of a taper plus a full width auxiliary lane. The design of the turn lanes is based primarily on the speed at which drivers will turn into the lane, the speed to which drivers must reduce in order to turn into the driveway after traversing the deceleration lane, and the amount of vehicular storage that will be required. Other special considerations include the volume of trucks that will use the turning lane and the steepness of an ascending or descending grade.

Although vehicular storage is a principal factor used to establish the full length of the separate turn lane, it may not be the actual determining factor. At off-peak traffic periods on higher

Summary of Differences

Bingle West PAD Ordinance (Original PDF) vs. Aviary PAD Ordinance (Edited Word Document)

Property: 1045 Bingle Road — City of Spring Valley Village, Texas

Overview

The Word document is a **significantly expanded and restructured** revision of the original PDF ordinance. The core deal points (1.695 acres at 1045 Bingle Road, two two-story retail shell buildings, 45-foot height limit, six setback distances, two monument signs at 100 sq ft and 12 ft, two curb cuts, and shared parking) are **preserved unchanged**. The major changes fall into four categories:

- **1. Added statutory citations and waiver authority.** Each deviation from the underlying BWPADD code now expressly cites Section 06P:07.07.05 as the waiver authority and identifies the specific underlying section being waived (e.g., 06P:07.07.01 for the height limit, 06P:07.08.01.02 for the ground-floor medical use, 06P:07.08.03.02 for the patio).
- **2. Substantially expanded permitted use table.** Added the entire NAICS Sector 62 medical/health-care group (physicians, dentists, chiropractors, optometrists, therapists, diagnostic imaging, home health, etc.); added yoga/Pilates/cycle instruction (611699); added speakeasies; added Montessori; and replaced "golf practice ranges" with "indoor putting facilities and golf simulators."
- **3. Filled in placeholder sections and added entirely new operating standards.** The PDF contained empty headings for "Overnight Parking" and "General Hours of Operation"; both now have substantive text. The Word document also adds entirely new sections on Alcohol Sales (F), Future Outdoor Patio (G), Hike & Bike Trail (H), Landscape/Screening/Lighting (I), Drainage (J), Refuse/Deliveries (K), Noise (L), and Fire Sprinklers (M).
- **4. Professional drafting cleanup.** Adds defined terms ("Applicant," "the Application," "Licensed Area"), corrects typos (e.g., "par to of" → "part of"; "zero (o)" → "zero (0)"), reorganizes the caption to meet typical municipal-ordinance form, and adds a complete signature block with the Mayor and City Secretary named.

In the comparison table below, yellow highlight marks the key substantive change or new text. Where a section is entirely new in the Word document, the PDF column simply says "Not present."

Section-by-Section Comparison

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Ordinance Title / Caption	Short title — amends Section 06P:07 and creates a PAD of "approximately 1.695 [acres]" with restrictions, regulations, and requirements. Provides for severability and penalty.	Greatly expanded caption: explicitly amends Exhibit A of Chapter 12 (Zoning Ordinance); names the new PAD "The Aviary Planned Area Development"; specifies two (2) two-story retail shell buildings; adds a savings clause and effective date; and states the penalty as $2,000.00 with each day a separate offense.
WHEREAS #1 — Owner & Property	Identifies Owner as Bingle Roop3K 001, LLC, address 1045 Bingle Road, "1.695 acre tract of land with a legal description of TR 56A ABST 610 A H Osborne."	Owner is also identified as "Applicant". Property is described as 1.695 acres located at 1045 Bingle Road and is "more particularly described in Exhibit “A” attached hereto and made a part hereof" (removes the inline TR 56A ABST 610 A H Osborne reference, replacing it with an Exhibit A reference).

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
WHEREAS — Present Zoning	Not present.	NEW PARAGRAPH ADDED: Confirms the Property is presently zoned BWPADD pursuant to the City's Zoning Ordinance, as amended.
WHEREAS — City Council Authority	Cites Section 06P:07.07.04 as the source of Council authority. Lists factors as space, light and air, and density compatibility with surrounding land uses.	Citation CHANGED to Section 06P:07.07.05. Expanded list of factors: adds "pedestrian and vehicular traffic circulation systems are safe and efficient," "developer will progress in orderly phases," and "public health, safety, and welfare will be protected."
WHEREAS — Project & Specific Requests	Describes the Project as "The Aviary" — two two-story retail shell buildings — with a short bulleted list of requests: • Additional permitted uses • Increased commercial building heights • Shared Parking standards • Secondary curb cut • Alcohol sales • Specific signage • Adjusted setbacks • Bike Trail	Reformatted as a single detailed paragraph with nine (i)–(ix) numbered specific requests, adding substantial detail to each: (i) Expanded permitted uses including medical/health-care on the ground floor — noting the underlying BWPADD code restricts these to upper floors only (ii) Max building height of 45 ft, expressly exceeding the 39 ft limit in Section 06P:07.07.01 (iii) Shared parking under the City of Houston's shared-parking percentage distribution, supplemented by ULI (iv) Two curb cuts on Bingle Road and the existing access easement through the adjacent City parcel at West Memorial Park Drive, supported by a traffic study (v) "Unrestricted" on-premises alcohol sales (vi) Signage consistent with City standards for properties facing Interstate Highway 10 (vii) Site-specific buffer zones and setbacks differing from Section 06P:07.03 (viii) NEW: Future, conditional authorization of an enclosed outdoor patio of up to 2,000 sq ft on the adjacent City parcel, contingent on a separate license/use agreement (ix) Cooperation with a potential future City hike and bike trail
Section 1 — Preamble	Standard language: facts in preamble are found true and correct and incorporated for all purposes.	Substantively the same; minor wording: "of this Ordinance" instead of "to this Ordinance," and adds "hereby" and "herein."
Section 2 — Application Approval	Approves the application for creation of a PAD within the BWPADD with specific amendments, subject to the regulations hereinafter set forth.	Substantively the same; minor wording cleanup ("(the "Property")" instead of "("Property")").

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Section 3 — Plans & Specifications	Changes are expressly for use by this Owner; plans attached as Exhibit A. Modifications, deviations, or ownership change require a separate Ordinance.	Same intent; plans attached as Exhibit “B” (renumbered because Exhibit A is now used for the Legal Description). Minor language polish.
Section 4 — Conflict with Other Ordinances	Standard language: this Ordinance does not amend other provisions; when in conflict with the Comprehensive Zoning Ordinance, this Ordinance prevails.	Substantively the same; minor punctuation/wording changes.
Section 5 — Framing	"The following regulations, restrictions, terms and conditions are established as binding on this Property under this Project. Any reference to existing sections within the City’s Code does not amend those sections universally but is merely added as reference."	Reframed as: "The Aviary PAD use authorized and permitted hereby shall be, and is, subject to the following additional limitations, restrictions and covenants." The "non-universal amendment" sentence has been removed.
Section 5.A — Compliance with Application	Granting of the PAD conditioned upon the Property being used and improvements being constructed in substantial compliance with the application dated April 1, 2026, including description of use, elevation, and site plans.	Same substance and same application date (April 1, 2026). Now references Exhibit “B” (where the plans are attached) and uses the defined term "the Application."
Section 5.B — Permitted Uses Framing	Brief opener: "In addition to the uses already codified in Chapter 12, 06P:07:08.05 Permitted Use List." Then lists uses directly.	Substantially rewritten. Now references Exhibit “C” (Permitted Use Table) which augments and supersedes the table in Section 06P:07.08.05. Expressly waives Section 06P:07.08.01.02 (which limited office/professional uses to upper floors) for health-care and medical uses, allowing them on either ground or upper floors. New "Floor location" subsection and a "Prohibited uses retained" subsection preserving Section 06P:07.08.03.02 prohibitions (drive-thru, outdoor commercial rec, distribution, warehousing, industrial, vehicle storage).
Section 5.B — Use Table Content	Lists: • Dance studios (611610) • Aerobic dance and exercise instruction (611620) • Day care centers, child or infant (624410) • Amusement Arcades (713120) • Fitness centers; yoga, body building studio (713940)	Retains all the above EXCEPT ~~Golf practice ranges~~ is replaced with "Indoor putting facilities and golf simulators" (713990). Adds many new uses: • Yoga, Pilates, cycle, and similar fitness instruction (611699) • Day care now includes "(including Montessori)"

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
	• Golf practice ranges (713990) • Cocktail lounges; drinking places (722410) • Full-Service Restaurants (722511)	• Entire NAICS Sector 62 medical group added: Physicians (621111), Mental Health Specialists (621112), Dentists (621210), Chiropractors (621310), Optometrists (621320), Mental Health Practitioners (621330), Physical/Occupational/Speech Therapists & Audiologists (621340), Podiatrists (621391), Other Health Practitioners (621399), Diagnostic Imaging Centers (621512), Home Health Care Services (621610) • Cocktail lounges now also includes "speakeasies" • Fitness centers now reads "yoga, Pilates, cycle and similar studios"
Section 5.C.1 — Building Height	"No building or structure shall exceed forty-five (45) feet in height exclusive of such appurtenances as antennae, water cooling towers and mechanical equipment enclosures which shall not exceed a ten (10) foot height above the roof and be located no closer than ten (10) feet to the building's external wall."	Same 45-foot limit and same 10-foot appurtenance allowance, but adds "to the top of the parapet" twice and references the underlying limit: "Notwithstanding Section 06P:07.07.01… which limits building height within the BWPADD to thirty-nine (39) feet." Closes with a citation that the deviation is granted under Section 06P:07.07.05 waiver authority.
Section 5.C.2 — Setbacks Framing	"Setbacks and buffer zones shall be in accordance with the Site Plan submitted as par to of [sic] the application."	Same substance but adds an express citation: deviations from Section 06P:07.03 configurations are approved under the Section 06P:07.07.05 waiver authority, "in recognition that the Property is bounded by commercial, religious-assembly, and natural watercourse adjacencies." Typo "par to of" corrected to "part of."
Section 5.C.2.a–f — Individual Setbacks	Northern (Eastern): 5 ft setback; 10 ft wall non-continuous w/ landscaping. Northern (Western): 5 ft setback; 8 ft wood fence; 0 ft landscape. Western: 50 ft setback; 8 ft wood fence; 5 ft landscape/parking. Southern: 25 ft setback; 15 ft landscape/parking; natural vegetation as-is. Eastern: 0 ft setback; 0 ft landscape; adjacent City parcel for parking. Eastern Secondary: 25 ft building setback; 5 ft monument sign; 5 ft landscape/parking along Bingle.	All six setback distances are IDENTICAL to the PDF. Only minor wording cleanups (e.g., "zero (o) foot" typo → "zero (0) foot"; "The intended use for the land adjacent" → "The intended use of the adjacent land").

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Section 5.D.1 — Parking	"The required number of parking spaces shall be determined using Shared Parking, Third Edition, published by the Urban Land Institute, the National Parking Association, and the International Council of Shopping Centers."	Substantially expanded. Adds: "a fifty percent (50%) reduction from the minimum parking requirements" pursuant to Section 06P:07.07.03; primary methodology is now "the City of Houston's shared-parking percentage distribution" with the ULI publication used as a supplement (not the primary source). Adds: "Parking on the Property on any surface other than a paved surface is prohibited."
Section 5.D.2 — Access / Curb Cuts	"A second curb cut as detailed in the Site Plan attached as part of Exhibit A shall be allowed along Bingle Road."	Expanded considerably. Cites Section 06P:07.07.02 and states no access from Voss Road is authorized. The two curb cuts are now: (i) existing access through the adjacent City parcel at West Memorial Park Drive, and (ii) the secondary cut along Bingle Road. Notes the secondary cut "utilizes an existing median break" and is supported by a traffic study showing safe/efficient circulation. Subject to City and Harris County standards.
Section 5.D.3 — Overnight Parking	Listed as a heading only: "3. Overnight Parking" — ~~NO substantive text provided in the PDF.~~	Substantive text now provided: "Overnight parking is prohibited except for tenants' delivery vans or trucks in designated parking spaces only. Signs shall be posted and maintained prohibiting overnight parking."
Section 5.D.4 — General Hours of Operation	Listed as a heading only: "4. General Hours of Operation" — ~~NO substantive text provided in the PDF.~~	Substantive text now provided: General hours 6:00 a.m. to 11:00 p.m. Mon–Sun. Restaurants and cocktail lounges/drinking places: 6:00 a.m. to 12:00 midnight Sun–Thu, and 6:00 a.m. to 2:00 a.m. Fri–Sat.
Section 5.D.5 — Construction Activity	Not present.	NEW SUBSECTION: Construction permitted 7 a.m.–7 p.m. Mon–Fri and 9 a.m.–6 p.m. Sat–Sun. Emergency maintenance excluded from these restrictions.
Section 5.E — Signage	"The Property may have two (2) monument signs each with a total face area of 100 square feet including base and a maximum height of 12 feet adjacent to Bingle Road. The Property may have building wall signage in accordance with City signage regulations. The Monument Signs shall be located according to the Site Plan submitted as part of the application. All signage shall comply with the other ordinances of the City applicable to signage."	Same two monument signs, 100 sq ft face area, 12-foot max height. Now broken into four numbered subsections and adds: (E.1) "one (1) monument sign at each entry point"; (E.2) "All signage shall comply with the City's signage standards applicable to properties facing Interstate Highway 10 (I-10)"; (E.3) "illuminated wall signage identifying tenants and uses on the Property" is allowed.

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Section 5.F — Alcohol Sales	Not present as a stand-alone section. (Alcohol sales were mentioned only in the bulleted WHEREAS list.)	NEW SUBSECTION: On-premises sale and consumption of alcohol "permitted without restriction" for permitted uses (full-service restaurants, cocktail lounges, drinking places, speakeasies), subject only to TABC requirements. Expressly states the City has NOT adopted (and does not adopt) the Section 109.33 Texas Alcoholic Beverage Code rule prohibiting sale within 300 feet of a church, public school, public hospital, or day-care center — so no proximity restriction applies.
Section 5.G — Future Outdoor Patio	Not present.	ENTIRELY NEW SECTION (7 subsections): Conditional authorization for a future enclosed outdoor patio on the adjacent City parcel, contingent on a license/use agreement. G.1 No patio established yet; right vests only upon a separate license/use agreement. G.2 Permitted as an accessory use to restaurant (722511) or cocktail lounge/speakeasy (722410); Section 06P:07.08.03.02 outdoor commercial recreation prohibition waived as to this patio. G.3 Patio must be enclosed by walls, railings, fencing, or partial roof/canopy. G.4 Maximum 2,000 sq ft. G.5 Hours: not later than 11 p.m. Sun–Thu, midnight Fri–Sat. G.6 Alcohol service permitted on patio subject to TABC. G.7 Subject to lighting (I.3) and noise (L) standards.
Section 5.H — Hike & Bike Trail	Listed only as a single line in the WHEREAS bulleted list ("Bike Trail"). ~~No substantive text in the body of the ordinance.~~	NEW STAND-ALONE SUBSECTION with substantive text: If the City elects to construct a hike and bike trail, Owner shall cooperate in good faith and permit construction through the Property along a mutually acceptable route, subject to reasonable easement terms. Owner not obligated to construct at its own expense.
Section 5.I — Landscape / Screening / Lighting	Not present.	ENTIRELY NEW SECTION: I.1 Landscaping per the landscape plan; must meet/exceed Chapter 16. Mature oak and cypress trees along Bingle Road frontage to be preserved. Continuous evergreen hedge required along Bingle Road frontage to screen head-in parking headlights. I.2 Landscape maintenance hours: 7 a.m.–7 p.m. Mon–Fri; 9 a.m.–6 p.m. Sat–Sun.

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
		I.3 Outdoor lighting: parking lot avg no more than 8 foot-candles; western parking areas adjacent to planned Dolphin Cove residential PADD: no more than 4 foot-candles in drive aisles during business hours; reduced to avg 2 foot-candles after hours. "White" metal halide or color-corrected only; light poles max 16 ft; no high-pressure sodium.
Section 5.J — Drainage Systems	Not present.	NEW SUBSECTION: Owner shall design and construct storm-water drainage in compliance with City ordinances and the Application, as approved by the City's Floodplain Administrator.
Section 5.K — Refuse; Building Maintenance; Deliveries	Not present.	NEW SUBSECTION: K.1 Refuse containers and dumpsters must be enclosed and located as shown on the site plan. K.2 Pickup: 7 a.m.–7 p.m. weekdays; 9 a.m.–6 p.m. weekends. K.3 Deliveries: 7 a.m.–7 p.m. Mon–Fri; 9 a.m.–6 p.m. Sat–Sun.
Section 5.L — Noise	Not present.	NEW SUBSECTION: All activities to comply with City noise ordinances, except that operating hours may be extended as provided above.
Section 5.M — Fire Sprinklers	Not present.	NEW SUBSECTION: All buildings shall be constructed with fire sprinklers as required by City ordinances.
Section 6 — Severability	Standard severability clause.	Substantively the same, but contains a duplicated phrase: "notwithstanding the omission of any and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional" — likely an editing artifact that may warrant a cleanup.
Section 7 — Penalty	"Any person who shall violate any provision of this ordinance shall be deemed guilty of a misdemeanor and upon conviction, shall be fined in an amount not to exceed $2,000. Each day of violation shall constitute a separate offense."	Adds the culpable mental states: "intentionally, knowingly, recklessly, or with criminal negligence." Fine cap stated as "$2,000.00" (with decimal). Each-day-separate-offense language retained.
Section 8 — Exhibits	Lists: Exhibit A: Legal Description Exhibit B: Application and documents	Same three exhibits, with cleaner punctuation: Exhibit A: Legal Description; Exhibit B: The Application, including documentations; and

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
	Exhibit C: Use Table : All Floor	Exhibit C: Use Table – All Floors.
Signature Block	Bare placeholder: "PASSED, APPROVED, and ADOPTED this _____ day of _____, 2026. FOR THE CITY"	Replaced with: "ADOPTED this ____ day of _____, 2026" and a full signature block naming Marcus Vajdos, Mayor and Jasmin Torres, City Secretary.

200 Feet notification radius

PUBLIC NOTICE
CITY OF SPRING VALLEY VILLAGE, TEXAS
NOTICE OF PUBLIC HEARING

Notice Is Hereby Given To Hear Comments And Testimony Concerning The Following:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING SECTION 06P:07, BINGLE WEST PLANNED AREA DEVELOPMENT DISTRICT, BY CREATING A PLANNED AREA DEVELOPMENT OF APPROXIMATELY 1.695 ACRE TRACT WITH CERTAIN RESTRICTIONS, REGULATIONS, AND REQUIREMENTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR PENALTY.

The **Planning and Zoning Commission** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 9, 2026
Time: 6:30 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

The **City Council** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 23, 2026
Time: 6:00 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

For additional information regarding these public hearings, please contact the Development Services Manager, Jose Gomez, at (713) 465-8308.

ESTE 1955

SPRING VALLEY

VILLAGE

CITY OF SPRING VALLEY VILLAGE

ZONING SIGNAGE CRITERIA SUBMITTAL PACKET

(Planning & Zoning Commission)

SPRING VALLEY VILLAGE 1025 CAMPBELL ROAD HOUSTON, TEXAS 77055

SPRING VALLEY VILLAGE

COMMERCIAL ZONING CHANGE NOTIFICATION SIGN CRITERIA

A zoning sign is a sign erected on property for which a zoning case has been filed with the City, including, but not limited to, zoning changes, Specific Use Permits, Variances, or Special Exceptions. **The number of signs and the placement of signs shall be determined by the Building Official at the time of submittal.** It is the responsibility of the owner/project representative to contact the Building Department to verify the number and location of signs needed.

Property owners/applicants may use any sign company to meet zoning change sign criteria. To order zoning signs, the applicant should contact a sign company concerning sign creation and installation in the Building Official designated location(s).

IF YOU HAVE ANY QUESTIONS, PLEASE CALL (713) 465-8308.

ADHERE TO THE FOLLOWING INSTRUCTIONS:

SIGNS DESIGN

- The sign shall be constructed in accordance with the City's design standards for zoning signs.
- Signs shall be a minimum of four (4) feet by four (4) feet.
- Must be two (2) sided ten (10) millimeter Coroplast sign or other material of equivalent strength and durability.
- Lettering shall be on both sides of the sign.
- Metal or wood posts shall be used.
- Must include the City of Spring Valley Village official logo with a minimum size of one (1) foot.
- Capital letters on that sign shall be no smaller than three (3) inches tall using the Bold Arial font style.
- The signs shall comply with the layout and dimensions on the attached Zoning Sign Design Diagram.

PLACEMENT

- One (1) sign shall be erected by the applicant adjacent to each street frontage on the property that is the subject of the application and for each two hundred feet (200') of frontage along a street with a maximum of three (3) signs required per street frontage.
- Signs shall be placed in a location on private property and clearly visible from all streets adjacent to the property included in the application.
- Where land does not have frontage on a public street, signs shall be posted on the nearest public street with a notation indicating the location of the land subject to the application.
- Signs shall be no greater than twenty (20) feet from the property line and shall be a minimum of two (2) feet off the ground, unless otherwise directed by the Building Official or his/her designee.
- Signs shall be placed perpendicular to the roadway to ensure they are readable from both sides.
- Signs shall be located so that the lettering is visible and may be clearly read from the street.

PROOF OF POSTING

- The applicant shall erect the sign(s) on the property that is the subject of the application a minimum of fourteen (14) calendar days immediately preceding the date of the public hearing before the Planning & Zoning Commission ("Commission").
- The applicant is responsible for maintaining the sign(s) on the property throughout the entire review process.
- A minimum of seven (7) calendar days prior to the public hearing before the Commission, the applicant shall file an affidavit, on a form provided by the City, with the Building Official verifying that the sign(s) was posted as required.

REMOVAL OF SIGNS

- **The applicant shall be responsible for removing the sign(s) from the property within seven (7) calendar days of the final action on the application by the City of Spring Valley Village.**

Preparer's Name: Gerard Hillsman **Preparer's Signature:**

NOTE: Violations of the sign ordinance will result in fines to the property owner and will delay the requested zoning case. Failure to remove zoning signs per the sign ordinance will result in a citation of $500 per sign/per day until removed.

SPRING VALLEY VILLAGE

AFFIDAVIT OF SIGN POSTING

(Re)Zoning Case No. _____

Date of Planning and Zoning Commission Meeting: June 9, 2026

In accordance with the requirements of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village, Texas, I Gerard Hillsman hereby certify that I have posted or caused to be posted Zoning Change Notification sign(s) on the property subject to zoning change, located at

1045 Bingle Rd, Houston, TX 77055

Said sign(s) meet the specifications of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village. Posting of said signs was accomplished on 5/21/2026 as provided for in Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village. Said signs have been posted in a manner which provides an unobstructed view and which allows clear reading from the public right(s)-of-way along Bingle Rd.

I further certify that this affidavit was filed with the Building Department of the City of Spring Valley Village within the time provisions of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village.

Executed this date: 5/21/26

Printed Name of Applicant or Authorized Representative for Zoning Case No. Gerard Hillsman

Signature of Applicant or Authorized Representative for Zoning Case No. _____

Sworn and subscribed before me on this date: 5/21/26

JASMIN TORRES
My Notary ID # 132390811
Expires March 5, 2028

Notary Public _____

PLEASE NOTE: Failure to post the notification sign(s) on the property by the close of business (4:30 pm) fourteen (14) days prior Planning and Zoning Commission public hearing shall result in the postponement of consideration by the Commission.

STAFF USE ONLY:

Date/Time submitted: 5/21/26 / 4:00 P.M. Verified by: _____

PREPARED BY THE BUILDING DEPARTMENT, CITY OF SPRING VALLEY VILLAGE, 1025 CAMPBELL ROAD, HOUSTON, TEXAS 77055 (713) 465-8308

SPRING VALLEY VILLAGE

AFFIDAVIT OF ZONING CHANGE NOTIFICATION SIGN MAINTENANCE

(Re)Zoning Case No._____

Date of City Council Meeting: June 23

In accordance with the requirements of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village, Texas, I Gerard Hillsman hereby certify that Zoning Change Notification sign(s) have been maintained on the property subject to zoning change, located at

1045 Bingle Rd, Houston, TX 77055

Said sign(s) have been maintained in a manner consistent with the requirements contained in Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village.

I further certify that this affidavit was filed with the Building Department of the City on date _____ within the time provisions of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village.

I understand that I am required to remove said signs within seven (7) calendar days of any final action on the application taken by the City of Spring Valley Village regarding the zoning change.

Executed this date: 5/21/26

Printed Name of Applicant or Authorized Representative for Zoning Case No. Gerard Hillsman

Signature of Applicant or Authorized Representative for Zoning Case No. [signature]

Sworn and subscribed before me on this date: 5/21/26

Notary Public J. Torres

(Seal) JASMIN TORRES
My Notary ID # 132390811
Expires March 5, 2028

PLEASE NOTE: Failure to maintain the signs prior to City Council public hearing may result in postponement of consideration if the applicant has not attempted to replace damaged or missing signs upon notification by Staff.

FOR STAFF USE ONLY:

Date/Time submitted: 5/21/26/4:00 pm Verified by: [signature]

PREPARED BY THE BUILDING DEPARTMENT, CITY OF SPRING VALLEY VILLAGE, 1025 CAMPBELL ROAD, HOUSTON, TEXAS 77055 (713) 465-8308

Current Owner / Resident
1065 Bingle Rd.
Houston, TX 77055

Current Owner / Resident
1110 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
1114 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
1106 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
1118 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
20 Woodsborough Circle
Houston, TX 77055

Current Owner / Resident
22 Woodsborough Circle
Houston, TX 77055

Current Owner / Resident
24 Woodsborough Circle
Houston, TX 77055

Current Owner / Resident
19 Woodsborough Circle
Houston, TX 77055

EST. 1955
SPRING VALLEY
VILLAGE

May 21, 2025

Dear Property Owner:

Notice Is Hereby Given To Hear Comments And Testimony Regarding The Following:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING SECTION 06P:07, BINGLE WEST PLANNED AREA DEVELOPMENT DISTRICT, BY CREATING A PLANNED AREA DEVELOPMENT OF APPROXIMATELY 1.695 ACRE TRACT WITH CERTAIN RESTRICTIONS, REGULATIONS, AND REQUIREMENTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR PENALTY.

The **Planning and Zoning Commission** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 09, 2026
Time: 6:30 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

The **City Council** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 23, 2026
Time: 6:00 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

This notice is being sent to you as current property records indicate that you own property in close proximity to the proposed development of Bingle Road. All interested parties are invited to attend both public hearings and will have the opportunity to be heard. For further information, please contact me at (832) 910-8577 or jgomez@springvalleytx.com.

Sincerely,

Development Service Manager

1025 CAMPBELL ROAD • HOUSTON, TEXAS 77055-7495
(713) 465-8308 • FAX (713) 461-7969 • www.springvalleytx.com

Spring Valley Village Planning and Zoning Commission
Agenda Item Data Sheet

MEETING DATE: June 9, 2026
SUBMITTING STAFF: Jose Gomez, Development Services Manager

SUBJECT:

CONSIDERATION AND POSSIBLE ACTION CONCERNING: An ordinance of the City of Spring Valley Village, Texas, amending Exhibit A of Chapter 12, Planning and Zoning, of the Code of Ordinances of the City, by amending Ordinance 2007-25, and creating The Aviary Planned Area Development ("PAD") containing approximately 1.695 acers of land located at 1045 Bingle Road by permitting two (2) two-story retail shell buildings with certain restrictions, regulations, and requirements subject to the provisions contained in this ordinance; providing for severability; providing a savings clause and an effective date; and providing; a penalty in an amount not to exceed $2,000.00 for any violation hereof, with each day constituting a separate offense.

BACKGROUND:

Applicant: Identity Architects
Owner: Bingle Roop3k 001 LLC

Property Location: The property comprises approximately 1.695 acres owned by the applicant and located at 1045 Bingle Road, Houston, Texas, situated west of Bingle Road and north of Interstate Highway 10, and 2.15 acres directly adjacent to the property (east side) owned by the City of Spring Valley Village.

Background: On November 13, 2007, the City Council approved Ordinance No. 2007-25, establishing the Bingle West Planned Area Development District (BWPADD), allowing commercial development. In 2018, Ordinance 2018-17 reduced the size of the PAD to 1045 Bingle by removing 1055 Bingle and 1006,1065 Voss due to a lack of development.

Request: Staff held several meetings with the applicant prior to their pre-application conference with the Planning and Zoning Commission on May 12, 2026. The pre-application conference is a required step that allows the Commission to confer with the applicant and provide guidance and feedback on the proposed project. On April 13, 2026, Identity Architects submitted an application to amend Ordinance No. 2007-25 and establish a Planned Area Development (PAD) (The Aviary) on approximately 3.845 acres, including a city parcel, to permit the construction of a two-story mixed-use development.

The proposed amendment includes the following:

- Expansion of permitted uses as provided in Exhibit A
    - Other School and Instruction

    - Health care and Social Assistance
    - Arts, Entertainment, and Recreation
    - Accommodation and Food Services
- Increase in the maximum allowable building height
    - Requesting a forty-five (45) feet height limitation from thirty-nine (39) feet.
- Establishment of shared parking standards
    - 50% reduction in required parking.
    - Shared parking to allow businesses with different peak hours to share a single parking spaces.
- Authorization of an additional secondary curb cut/access point
    - Access arrangement is determined by PAD, both located on Bingle Road, as detailed in the site plan in Exhibit B.
- Allowance for the sale of alcoholic beverages
    - Drinking places (Alcoholic Beverages).
- Approval of customized/sign standards
    - To allow for two (2) monument signs, each with a total face area not exceeding one hundred square feet, both adjacent to Bingle Road, located on proposed entry points as shown on the site plan on Exhibit B. All signs shall comply with the City's signage standards, Chapter 12 Planning and Zoning, Section 10 signs.
- Modification of required building setbacks
    - Northern Property Line (Eastern Segment) building setback line shall be five (5) feet.
    - Northern Property Line (Western Segment) building setback line shall be five (5) feet.
    - Western Property Line building setback line shall be fifty (50) feet.
    - Southern Property Line building setback line shall be twenty-five (25) feet.
    - Eastern Property Line building setback shall be zero (0) feet.
    - Eastern Secondary Property line setback shall be twenty-five (25) feet.

Currently, Chapter 12 Planning and Zoning Section Seven 07:02 Building Restrictions 07:02.01 Minimum Required Setbacks requires the following setback

- No building or structure shall be erected within thirty (30) feet of Dwelling District "A."
- All buildings shall be set back thirty (30) feet from frontline properties except where buildings and structures front a Major Thoroughfare, then the building shall be set back forty (40) feet from the property line. Any building shall be setback fifty (50) feet from I-10.

Reviews:

- Utilities/Traffic Study: Engineering consultants are currently reviewing the proposed utility plans and traffic study for compliance and operational functionality.
- Drainage: Drainage plans are under review to ensure adequate stormwater management and proper drainage flow.

Attached are the supporting documents for the Commission for review.

The developer is currently negotiating a licensing agreement with the City for the use of the adjacent city property.

Additionally, final approval and agreement with the traffic study and the completion of any required infrastructure improvements must be completed prior to any building permits being issued.

ATTACHMENTS:

ORD -- PAD (Aviary) BWPADD -- 5.29.26 PZ 6.02, Exhibit A -Legal Description, Exhibit B - Application and Docs, Exhibit C -Use Tables, Exhibit D - Traffic Impact Study, Orinance_Differences_Summary PZ, 200 Feet notification radius, PUBLIC NOTICE - Aviary, Zoning Affidavit PAD June 9, Address Labels - Bingle West PADD, Aviary PAD. Public Notice Res

FUNDING:

Amount Available	Account No.	Additional Appropriation Required	Project No.	Amount Budgeted	Account Description

RECOMMENDATION:

Staff has reviewed the proposed project and recommends approval, though we do express some concerns about unlimited rights to the use of alcoholic beverage drinking places.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING EXHIBIT A OF CHAPTER 12, PLANNING AND ZONING, OF THE CODE OF ORDINANCES OF THE CITY, EXHIBIT A BEING THE ZONING ORDINANCE OF THE CITY, BY AMENDING ORDINACE 2007-25, AND CREATING THE AVIARY PLANNED AREA DEVELOPMENT ("PAD") CONTAINING APPROXIMATELY 1.695 ACRES OF LAND LOCATED AT 1045 BINGLE ROAD BY PERMITTING TWO (2) TWO-STORY RETAIL SHELL BUILDINGS WITH CERTAIN RESTRICTIONS, REGULATIONS, AND REQUIREMENTS SUBJECT TO THE PROVISIONS CONTAINED IN THIS ORDINANCE; PROVIDING FOR SEVERABILITY; PROVIDING A SAVINGS CLAUSE AND AN EFFECTIVE DATE; AND PROVIDING A PENALTY IN AN AMOUNT NOT TO EXCEED $2,000.00 FOR ANY VIOLATION HEREOF, WITH EACH DAY CONSTITUTING A SEPARATE OFFENSE.

WHEREAS, Bingle Roop3K 001, LLC (the "Owner" and "Applicant"), owns a 1.695 acre tract of land, more or less, being located at 1045 Bingle Road (the "Property") within the corporate limits of the City of Spring Valley Village, Texas, said tract of land being more particularly described in Exhibit "A" attached hereto and made a part hereof for all purposes; and

WHEREAS, the Property is presently zoned Bingle West Planned Area Development District ("BWPADD") pursuant to the City's Zoning Ordinance, as amended; and

WHEREAS, Section 06P:07.07.05 of the City's Code of Ordinances authorizes the City Council, in any ordinance granting approval of a Planned Area Development, to impose more stringent standards or conditions than required in Chapter 12 when necessary for the protection of adjacent properties and the public interest, and, in addition, to waive certain such requirements and conditions when it is demonstrated that

adequate provisions have been made for space, light and air, that the density of development is compatible with surrounding land uses, that pedestrian and vehicular traffic circulation systems are safe and efficient, that the developer will progress in orderly phases, and that public health, safety, and welfare will be protected; and

WHEREAS, the Owner, through its duly authorized representative, has presented an application for the City to approve a Planned Area Development ("PAD") called The Aviary Planned Area Development ("The Aviary PAD") consisting of two (2) two-story retail shell buildings located at the Property, with specific requests for: (i) an expanded list of permitted uses, including medical and health-care uses permitted on the ground floor (which the underlying BWPADD code restricts to upper floors only); (ii) a maximum building height of forty-five (45) feet (which exceeds the thirty-nine (39) foot limit set in Section 06P:07.07.01); (iii) shared parking calculated under the City of Houston's shared-parking percentage distribution, supplemented by ULI Shared Parking standards; (iv) two (2) curb cuts on Bingle Road and the existing access easement through the adjacent City parcel at West Memorial Park Drive, supported by a traffic study; (v) unrestricted on-premises alcohol sales; (vi) signage consistent with the City's standards for properties facing Interstate Highway 10; (vii) site-specific buffer zones and setbacks differing from the configurations prescribed in Section 06P:07.03; (viii) the future, conditional authorization of an enclosed outdoor patio of up to two thousand (2,000) square feet on the adjacent City parcel, contingent upon a separately executed license or use agreement with the City; and (ix) cooperation with a potential future City hike and bike trail; and

WHEREAS, the Planning and Zoning Commission and the City Council have conducted, in the time and manner required by law and the Zoning Ordinance of the City,

a public hearing on the proposed amendments for the 1.695 acre tract located at 1045 Bingle Road; and

WHEREAS, the City Council has considered the report of the Commission; and

WHEREAS, the City Council now deems it appropriate to adopt the amendments and to approve certain changes as an amendment to the City's Zoning Ordinance as provided herein;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, THAT:

Section 1. The facts and matters set forth in the preamble of this Ordinance are hereby found to be true and correct and are incorporated herein for all purposes.

Section 2. The application of the Owner of the 1.695 acre tract located at 1045 Bingle Road (the "Property") for the creation of a Planned Area Development within the Bingle West Planned Area Development District with certain specific amendments is hereby approved subject to the regulations, restrictions, terms and conditions hereinafter set forth.

Section 3. Any changes adopted by this Ordinance are expressly for the use of this Owner as Applicant and are subject to the plans and specifications provided with the application, attached hereto as Exhibit "B." Any modifications or deviations from the plans and specifications so provided, or any change in ownership, shall require a separate and distinct ordinance for approval by the City Council.

Section 4. This Ordinance shall in no manner amend, change, supplement, or revise any provision of any ordinance of the City, save and except the regulations, restrictions, terms and conditions provided for herein. When a conflict exists between the Comprehensive Zoning Ordinance and this Ordinance, this Ordinance shall prevail.

Section 5. The Aviary PAD use authorized and permitted hereby shall be, and is, subject to the following additional limitations, restrictions and covenants:

A. **Compliance with Application and Site Plans.**

The granting of The Aviary PAD shall be, and is hereby, conditioned upon the Property being used and the proposed improvements being located, constructed, and conducted upon the Property in substantial compliance with the application dated April 1, 2026 (the "Application"), including the description of the proposed use, the elevation plan and site plans, that are attached hereto as Exhibit "B" and made a part hereof for all purposes.

B. **Permitted Uses.**

The uses permitted within The Aviary PAD are those identified in the Permitted Use Table attached hereto as Exhibit "C," which augments and, to the extent expressly stated herein, supersedes the Permitted Use Table contained in Section 06P:07.08.05 of the City's Code of Ordinances. Pursuant to the City Council's authority under Section 06P:07.07.05 to waive requirements and conditions of the underlying BWPADD regulations, the restriction contained in Section 06P:07.08.01.02 limiting office and professional/personal service uses to upper

floors only **is expressly waived** as to the health-care and medical uses identified below, which shall be permitted on the ground floor or any upper floor of the buildings within The Aviary PAD.

In addition to the uses already codified in Section 06P:07.08.05 of the City's Code of Ordinances, the following uses shall also be permitted within The Aviary PAD:

Use Description	**NAICS Sector #**	
Other Schools and Instruction	6116	
Dance studios	611610	P
Aerobic dance and exercise instruction	611620	P
Yoga, Pilates, cycle, and similar fitness instruction	611699	P
Child Care Services	6244	
Day care centers, child or infant (including Montessori)	624410	P
Health Care and Social Assistance	62	
Offices of Physicians (except Mental Health Specialists)	621111	P
Offices of Physicians, Mental Health Specialists	621112	P
Offices of Dentists	621210	P
Offices of Chiropractors	621310	P
Offices of Optometrists	621320	P
Offices of Mental Health Practitioners (except Physicians)	621330	P
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	P
Offices of Podiatrists	621391	P

Use Description	NAICS Sector #	
Offices of All Other Miscellaneous Health Practitioners	621399	P
Diagnostic Imaging Centers	621512	P
Home Health Care Services	621610	P
Arts, Entertainment, and Recreation	71	
Amusement Arcades	713120	P
Indoor putting facilities and golf simulators	713990	P
Fitness centers; yoga, Pilates, cycle and similar studios	713940	P
Accommodation and Food Services	72	
Cocktail lounges; drinking places; speakeasies	722410	P
Full-Service Restaurants	722511	P

Floor location. The non-medical uses identified in the table above (dance studios; fitness, yoga, Pilates, cycle and similar instructional and recreational uses; child care; amusement arcades; indoor putting and golf simulators; cocktail lounges, drinking places, speakeasies; and full-service restaurants) shall be permitted on either the first floor or the second floor of the buildings. The health-care and medical uses identified in the table above (NAICS Sector 62, including without limitation Offices of Physicians, Dentists, Chiropractors, Optometrists, Mental Health Practitioners, Physical/Occupational/Speech Therapists and Audiologists, Podiatrists, other miscellaneous Health Practitioners, Diagnostic Imaging Centers, and Home Health Care Services) shall be permitted on the ground floor and on any upper floor without floor-location restriction, notwithstanding Section

06P:07.08.01.02 of the City's Code of Ordinances, which is expressly waived as to such uses pursuant to Section 06P:07.07.05.

Prohibited uses retained. Except as expressly modified by this Ordinance, the categorical prohibitions set forth in Section 06P:07.08.03.02 of the City's Code of Ordinances shall remain in full force and effect within The Aviary PAD, including without limitation the prohibition of drive-up and drive-thru service, outdoor commercial recreational facilities, distribution facilities, warehousing, industrial uses, and the storage or display of vehicles, rental equipment, or vehicle fleets.

C. **Building Height; Setbacks.**

1. **Height limitations.** Notwithstanding Section 06P:07.07.01 of the City's Code of Ordinances, which limits building height within the BWPADD to thirty-nine (39) feet to the top of the parapet, no building or structure within The Aviary PAD shall exceed forty-five (45) feet in height to the top of the parapet, exclusive of such appurtenances as antennae, water cooling towers, and mechanical equipment enclosures, which shall not exceed ten (10) feet in height above the roof and shall be located no closer than ten (10) feet to the building's external wall. The height deviation provided herein is granted pursuant to the City Council's waiver authority under Section 06P:07.07.05.

2. **Setbacks and Buffer Zones.** The setbacks and buffer zones for The Aviary PAD shall be in accordance with the site plan submitted as part of the Application and as further described in this Subsection. To the extent

the following setbacks and buffer-zone configurations differ from the configurations prescribed in Section 06P:07.03 of the City's Code of Ordinances, such differences are expressly approved as deviations granted pursuant to the City Council's waiver authority under Section 06P:07.07.05, in recognition that the Property is bounded by commercial, religious-assembly, and natural watercourse adjacencies for which the standard buffer configurations are not well-suited. In summary, the setbacks and buffer zones shall be as follows:

a. Northern Property Line (Eastern Segment). The building setback line shall be five (5) feet. The buffering shall be a ten (10) foot wall, non-continuous, with integrated landscaping.

b. Northern Property Line (Western Segment). The building setback line shall be five (5) feet. The buffering shall be an eight (8) foot tall wood fence with zero (0) foot landscape setback.

c. Western Property Line. The building setback line shall be fifty (50) feet. The buffering shall be an eight (8) foot tall wood fence with a five (5) foot landscape and parking setback.

d. Southern Property Line. The building setback line shall be twenty-five (25) feet. The buffering shall be a fifteen (15) foot landscape and parking setback with natural vegetation to remain as-is.

e. Eastern Property Line. The building setback line shall be zero (0) feet. The buffering shall be a zero (0) foot landscape setback. The intended use of the adjacent land is a City parcel used for parking.

f. Eastern Secondary Property Line. This is the proposed line between the current City parcel and the Bingle Road right-of-way. The building setback line shall be twenty-five (25) feet. The monument sign setback shall be five (5) feet. The landscape and parking setback along Bingle Road shall be five (5) feet.

D. **Access; Parking.**

1. **Parking.** Pursuant to Section 06P:07.07.03 of the City's Code of Ordinances, The Aviary PAD shall receive a fifty percent (50%) reduction from the minimum parking requirements otherwise applicable. Shared parking is authorized, and the required number of parking spaces shall be determined using the City of Houston's shared-parking percentage distribution as referenced in Section 06P:07.07.03, supplemented as necessary by Shared Parking, Third Edition, published by the Urban Land Institute, the National Parking Association, and the International Council of Shopping Centers. Parking on the Property on any surface other than a paved surface is prohibited.

2. **Access.** Consistent with Section 06P:07.07.02 of the City's Code of Ordinances, access to The Aviary PAD shall be from public streets and no access from Voss Road is authorized. The Property shall be permitted two

(2) curb cuts: (i) the existing access through the adjacent City parcel at West Memorial Park Drive, and (ii) a secondary curb cut along Bingle Road as detailed in the site plan attached as part of Exhibit "B." The secondary curb cut on Bingle Road utilizes an existing median break to encourage traffic distribution and is supported by the traffic study submitted with the Application, which demonstrates that the additional curb cut will not adversely affect traffic flow on Bingle Road and that pedestrian and vehicular traffic circulation systems for The Aviary PAD are safe and efficient. Both curb cuts are subject to all applicable City and, where required, Harris County standards.

3. **Overnight parking.** Overnight parking is prohibited except for tenants' delivery vans or trucks in designated parking spaces only. Signs shall be posted and maintained prohibiting overnight parking.

4. **General hours of operation.** Except as otherwise provided herein, operating hours shall be 6:00 a.m. to 11:00 p.m. Monday through Sunday. Restaurants and cocktail lounges/drinking places shall be permitted to operate from 6:00 a.m. to 12:00 midnight Sunday through Thursday and from 6:00 a.m. to 2:00 a.m. Friday and Saturday.

5. **Initial construction activity.** Construction activity is permitted between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 6:00 p.m. Saturday and Sunday. Emergency maintenance shall be

excluded from these restrictions when delays would cause damage to property or persons or significant interruptions to business activity.

6. **Traffic Study**. A traffic study has been completed as part of this development. That traffic study is attached as Exhibit D and is incorporated as an integral part of this site development. The approval of this Ordinance is conditioned on the accuracy of the traffic study.

E. **Signage.**

1. The Property may have two (2) monument signs, each with a total face area not to exceed one hundred (100) square feet (including base) and a maximum height of twelve (12) feet, located adjacent to Bingle Road as shown on the site plan attached as part of Exhibit "B," with one (1) monument sign at each entry point.

2. All signage shall comply with the City's signage standards in applicable to properties facing Interstate Highway 10 (I-10), as set forth in the Comprehensive Zoning Ordinance in Chapter 12 Section 10 - Signs and as further modified by this Ordinance.

3. The Property may have building wall signage in accordance with the City's sign regulations as set out in Chapter 12, Section 10 - Signs, including illuminated wall signage identifying tenants and uses on the Property.

4. All signage shall comply with the other ordinances of the City applicable to signage, except as expressly modified herein.

F. **Alcohol Sales.**

On-premises sale and consumption of alcoholic beverages shall be permitted without restriction in connection with the permitted uses listed in Exhibit "C," including full-service restaurants and cocktail lounges, drinking places, and speakeasies, subject only to compliance with applicable State of Texas and Texas Alcoholic Beverage Commission ("TABC") requirements and licensing. The City has not adopted, and does not adopt herein, the regulation authorized by Section 109.33 of the Texas Alcoholic Beverage Code prohibiting the sale of alcoholic beverages within three hundred (300) feet of a church, public school, public hospital, or day-care center, and no such proximity-based restriction shall apply to The Aviary PAD.

G. **Future Enclosed Outdoor Patio.**

1. **Conditional authorization.** No outdoor patio is established or permitted on the Property or on the adjacent City parcel by this Ordinance. The right to construct and operate an enclosed outdoor patio shall vest only upon, and shall be contingent upon, the execution of a license or other written use agreement between the Owner and the City of Spring Valley Village governing the Owner's use of a defined area of the adjacent City parcel (the "Licensed Area").

2. **Permitted location and accessory use status.** Upon execution of such license or use agreement, an enclosed outdoor patio shall be a permitted accessory use to a full-service restaurant (NAICS 722511) or to a cocktail

lounge, drinking place, or speakeasy (NAICS 722410) authorized by Exhibit "C," and shall be located within the Licensed Area in a location and configuration approved by the City as part of the license or use agreement. Notwithstanding Section 06P:07.08.03.02 of the City's Code of Ordinances, the categorical prohibition on outdoor commercial recreational facilities shall not apply to an enclosed outdoor patio authorized hereunder, such prohibition being expressly waived as to such patio pursuant to Section 06P:07.07.05.

3. **Enclosure required.** The patio shall be enclosed by walls, railings, decorative fencing, partial roof or canopy, or a combination thereof, in accordance with plans approved by the City as part of the license or use agreement. A patio shall not be permitted without such enclosure.

4. **Maximum size.** The patio shall not exceed two thousand (2,000) square feet in total enclosed area.

5. **Hours of operation.** Notwithstanding the general hours of operation set forth in Subsection D.4 above, the patio shall not operate later than 11:00 p.m. Sunday through Thursday and shall not operate later than 12:00 midnight Friday and Saturday.

6. **Alcohol service.** On-premises sale and consumption of alcoholic beverages shall be permitted on the patio in connection with the permitted accessory restaurant or cocktail lounge use, subject only to compliance with

applicable State of Texas and Texas Alcoholic Beverage Commission requirements and licensing, and consistent with Subsection F above.

7. **Lighting and noise.** The patio and its operation shall comply with the outdoor lighting standards set forth in Subsection I.3 below, including the reduced foot-candle limits applicable to the western side of the Property, and with the noise standards set forth in Subsection L below.

H. **Hike and Bike Trail.**

In the event the City of Spring Valley Village elects to construct a hike and bike trail in the vicinity of the Property, the Owner shall cooperate in good faith with the City and shall permit the future construction of such trail through the Property along a route mutually acceptable to the Owner and the City, subject to reasonable easement terms to be agreed upon at that time. Nothing in this subsection shall obligate the Owner to construct the trail at its own expense.

I. **Landscape/Screening/Lighting.**

1. **Landscaping.** The Owner shall provide landscaping in substantial compliance with the landscape plan included in the Application, which shall reflect a quality and density of plant material commensurate with the character of the surrounding neighborhood. The landscaping and irrigation for the Property shall meet or exceed the requirements of the City's ordinances, including Chapter 16 (Landscaping and Tree Preservation). Mature trees on the Property, including existing oak and cypress specimens

along the Bingle Road frontage, shall be preserved to the maximum extent practicable and incorporated into the final site design. Along the Bingle Road frontage where head-in parking is proposed, the Owner shall install and maintain a continuous evergreen hedge of sufficient height and density at maturity to screen vehicle headlights and bumpers from view from Bingle Road, in a species and configuration approved by the City as part of the landscape plan.

2. **Landscape maintenance.** Landscape maintenance shall be permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 6:00 p.m. Saturday and Sunday.

3. **Outdoor lighting.** Outdoor lighting shall be provided in substantial compliance with the photometric plan included in the Application. No outdoor lighting shall be permitted to directly shine on any adjacent property. Lighting shall be placed and oriented to minimize indirect or reflected lighting onto adjacent properties. Lighting levels in the parking lot shall average no more than eight (8) foot-candles; provided, however, that lighting levels in the parking areas on the western side of the Property, which is adjacent to the planned Dolphin Cove residential PADD, shall average no more than four (4) foot-candles in drive aisles during business hours. Lighting shall be reduced to an average of two (2) foot-candles after operating hours. All lighting shall be “white” metal halide or other color-corrected lighting. Light poles shall not exceed sixteen (16) feet in height

and shall comply with the National Electric Code (current edition adopted by the City). No high-pressure sodium lighting is permitted.

J. **Drainage Systems.**

The Owner shall design and construct storm water drainage improvements in compliance with all applicable City ordinances and in substantial compliance with the Application, as approved by the City's Floodplain Administrator.

K. **Refuse; Building Maintenance; Deliveries.**

1. **Location.** Refuse containers and dumpsters shall be enclosed and located as shown on the site plan attached hereto as part of Exhibit "B."

2. **Pickup.** Refuse/dumpster containers shall only be picked up between 7:00 a.m. and 7:00 p.m. on weekdays and between 9:00 a.m. and 6:00 p.m. on weekends.

3. **Deliveries.** Deliveries are permitted from 7:00 a.m. to 7:00 p.m. Monday through Friday and from 9:00 a.m. to 6:00 p.m. Saturday and Sunday.

L. **Noise.**

All activities shall comply with the ordinances of the City applicable to noise and sounds, except that operating hours may be extended as provided above.

M. **Fire Sprinklers.**

All buildings shall be constructed with fire sprinklers as required by the City's ordinances.

Section 6. Conditional Approval. This Ordinance is conditioned on the approval of an Agreement between the City and the Developer/Owner as to the use of the City Property as described in the site plan, approved Utilities, Drainage, and Traffic Impact Study. Approval of this Ordinance does not approve the use of the City Property. Final approval shall be required for Utilities, Drainage, and functional Traffic Impact Analysis.

Section 7. In the event any section, paragraph, subdivision, clause, phrase, provision, sentence, or part of this Ordinance or the application of the same to any person or circumstance shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Spring Valley Village, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

Section 8. Any person who shall intentionally, knowingly, recklessly, or with criminal negligence violate any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined in an amount not to exceed $2,000.00. Each day of violation shall constitute a separate offense.

Section 9. Attached to this Ordinance are the following documents:

Exhibit A: Legal Description;

Exhibit B: The Application, including documentation; and

Exhibit C: Use Table – All Floors.

Exhibit D: Traffic Study

ADOPTED this _____ day of _____, 2026.

_____

David Dominy, Mayor

City of Spring Valley Village, Texas

ATTEST:

_____

Jasmin Torres, City Secretary

City of Spring Valley Village, Texas

EXHIBIT “A” LEGAL DESCRIPTION

EXHIBIT "A"

A TRACT OF LAND CONTAINING 1.7961 ACRES OF LAND OUT OF C.H. BINGLE SUBDIVISION IN THE A.H. OSBURNE SURVEY, HARRIS COUNTY, TEXAS, RECORDED IN VOLUME 998, PAGE 223 OF HARRIS COUNTY DEED RECORDS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BASIS OF BEARING IS THE WEST RIGHT OF WAY LINE OF OLD BINGLE ROAD BEING SOUTH 00 DEGREES 02 MINUTES 52 SECONDS WEST.

BEGINNING AT A POINT AT THE INTERSECTION OF THE EXISTING CENTERLINE OF BRIAR BAYOU AND THE WEST RIGHT-OF-WAY OF OLD BINGLE ROAD;

THENCE ALONG THE CENTERLINE OF SAID BRIAR BAYOU AS OBSERVED THE FOLLOWING EIGHT (8) COURSES:

NORTH 68 DEGREES 02 MINUTES 09 SECONDS WEST, 71.99 FEET TO A POINT;

NORTH 55 DEGREES 16 MINUTES 52 SECONDS WEST, 31.93 FEET TO A POINT;

NORTH 40 DEGREES 10 MINUTES 14 SECONDS WEST, 64.61 FEET TO A POINT;

SOUTH 82 DEGREES 07 MINUTES 45 SECONDS WEST, 53.94 FEET TO A POINT;

NORTH 70 DEGREES 39 MINUTES 50 SECONDS WEST, 53.73 FEET TO A POINT;

NORTH 58 DEGREES 09 MINUTES 04 SECONDS WEST, 34.83 FEET TO A POINT;

NORTH 29 DEGREES 00 MINUTES 22 SECONDS WEST, 67.32 FEET TO A POINT;

NORTH 45 DEGREES 52 MINUTES 24 SECONDS WEST, 85.82 FEET TO A POINT;

THENCE NORTH 00 DEGREES 03 MINUTES 00 SECONDS EAST AT A DISTANCE OF 43.68 FEET PASS A 5/8 INCH
IRON ROD FOUND FOR REFERENCE, AND A TOTAL DISTANCE OF 79.93 FEET TO A 5/8 INCH IRON ROD FOUND FOR THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE SOUTH 87 DEGREES 43 MINUTES 00 SECONDS EAST A DISTANCE OF 363.13 FEET TO A FOUND 1/2 INCH IRON PIPE FOR CORNER, BEING ALSO THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT ALSO LYING IN THE WEST RIGHT OF WAY LINE OF AFOREMENTIONED OLD BINGLE ROAD;

THENCE SOUTH 00 DEGREES 02 MINUTES 52 SECONDS WEST AT A DISTANCE OF 239.82 FEET PASS A 5/8 INCH IRON ROD FOUND FOR REFERENCE, AND A TOTAL DISTANCE OF 307.36 FEET TO THE POINT OF BEGINNING AND CONTAINING 1.7961 ACRES (78,236 SQUARE FEET) OF LAND, MORE OR LESS.

RP-2024-35876

County Clerk Harris County, Texas

HARRIS CENTRAL APPRAISAL DISTRICT
REAL PROPERTY ACCOUNT INFORMATION
0440340020400

Tax Year: 2026

Print

Owner and Property Information			
Owner Name & Mailing Address:	**BINGLE ROOP3K 001 LLC** **4001 W SAM HOUSTON PKWY N STE 140** **HOUSTON TX 77043-1236**	Legal Description:	**TR 56A** **ABST 610 A H OSBORNE**
		Property Address:	**1045 BINGLE RD** **HOUSTON TX 77055**

State Class Code	Land Use Code	Land Area	Total Living Area	Neighborhood	Neighborhood Group	Market Area	Map Facet	Key Map®
C3 -- Real, Vacant Lots/Tracts (Not in City)	1000 -- Residential Vacant	78,236 SF	0 SF	7813.04	25201	394 -- ISD 25 - Memorial Villages North of I-10	5058B	490D

Value Status Information

Value Status	Shared CAD
All Values Pending	No

Exemptions and Jurisdictions

Exemption Type	Districts	Jurisdictions	Exemption Value	ARB Status	2025 Rate	2026 Rate
None	025	SPRING BRANCH ISD	Pending	Pending	1.023100	
	040	HARRIS COUNTY	Pending	Pending	0.380960	
	041	HARRIS CO FLOOD CNTRL	Pending	Pending	0.049660	
	042	PORT OF HOUSTON AUTHY	Pending	Pending	0.005900	
	043	HARRIS CO HOSP DIST	Pending	Pending	0.187610	
	044	HARRIS CO EDUC DEPT	Pending	Pending	0.004798	
	080	CITY OF SPRING VALLEY	Pending	Pending	0.395000	

Texas law prohibits us from displaying residential photographs, sketches, floor plans, or information indicating the age of a property owner on our website. You can inspect this information or get a copy at **HCAD's information center at 13013 NW Freeway**.

Valuations

Value as of January 1, 2025			Value as of January 1, 2026		
	Market	Appraised		Market	Appraised
Land	1,661,335		Land		
Improvement	11,448		Improvement		
Total	1,672,783	1,672,783	Total	Pending	Pending

Land

Market Value Land												
Line	Description	Site Code	Unit Type	Units	Size Factor	Site Factor	Appr O/R Factor	Appr O/R Reason	Total Adj	Unit Price	Adj Unit Price	Value

1	1000 -- Res Vacant Table Value	SF5	SF	10,000	1.00	1.00	0.55	--	0.55	Pending	Pending	Pending
2	1000 -- Res Vacant Table Value	SF2	SF	10,000	1.00	1.00	0.55	--	0.55	Pending	Pending	Pending
3	1000 -- Res Vacant Table Value	SF3	SF	58,236	1.00	0.50	0.50	--	0.25	Pending	Pending	Pending

Building

Vacant (No Building Data)

EXHIBIT “B” APPLICATION AND DOCUMENTATION

EST. 1955
SPRING VALLEY
VILLAGE

CITY OF SPRING VALLEY VILLAGE

Plat / General Plan Submittal Application

(Please type or print legibly)

Fees: Plat or Replat Application - $500
Specific Use Permit Application - $500
Planned Area Development District (PADD) Application - $7,000
Amendment to Planned Area Development District (PADD) Application - $1,000

Submittal Requirements Checklist:

Fifteen (15) packets, each one shall include all of the items listed below:

- [x] Application
- [x] Letter stating the applicant's reasons for request, the type of request, and other pertinent information
- [x] Letter from property owner
- [x] Proof of ownership
- [ ] Metes and bounds of the site and county slide number of plat (if recorded)
- [x] Scale drawings, on 24" x 36" paper (1" = 100'), blue line/black line copies of plat, re-plat or amending plat, and a vicinity/key map
- [ ] A pdf of the entire packet submitted to secretary@springvalleytx.com

Subdivision / Development Name: The Aviary - 1045 Bingle

Geographical Location: 1045 Bingle Road, Houston, TX 77055
(List specific address, major streets, bayous, creeks, and adjacent subdivisions)

Is the location listed belong to a Homeowner's Assocation (HOA)? Yes / (No) (Circle One)

Name of Homeowner's Assocation: N/A

Have you received approval from the Homeowner's Association? Yes / No (Circle One)

Survey/Abstract No.: A.H. Osbourne Survey , Abstract 610

Reason for Replat or Amending Plat: Bingle West Planned Area Development District

Submittal Type:
- [ ] Preliminary Plat
- [ ] Final Plat
- [ ] Amending Plat
- [ ] Preliminary Replat
- [ ] Final Replat
- [ ] Specific Use Permit
- [ ] Specific Use Permit Amendment

Type of Plat:
- [ ] Single Family Residential
- [ ] Zero Lot Line Patio Homes
- [ ] Planned Area Development District
- [ ] Planned Area Development

X Amendment to Planned Area Development

Plat/PADD Data:

Total Acreage: 1.695 Typical Lot Size: _____

Number Lots: 1 Number of Streets: _____

Numbers and Types of Reserves: 1 Total Acres in Reserve: 1.695

Zoning District: Bingle West Planned Area Development District

Applicant: Identity Architects

Contact Name: Gerard Hillsman

Address: 111 Travis Street, Houston, TX 77002

Phone: 713-595-2164 Fax: _____

Email: ghillsman@identityarchitects.com

Owner: BINGLE ROOP3K 001 LLC

Contact Name: Keenon Rayner

Address: 4001 W Sam Houston Pkwy N Ste 140, Houston, TX 77043

Phone: 713-595-2150 Fax: _____

Email: kr@identityarchitects.com

Engineer or Planner: ALJ Lindsey

Contact Name: Brett Hanrahan

Address: 18635 N Eldridge Pkwy, Suite 200, Tomball, TX 77377

Phone: 281-766-3675 Fax: _____

Email: bhanrahan@aljlindsey.com

Authorization:

My signature below certifies that I am authorized to submit this application and that the information on the application is COMPLETE, TRUE, and CORRECT. **Furthermore, I understand that, in accordance with Chapter 9, Article 9.303 of the Spring Valley Village Code of Ordinances, I am responsible for all engineering fees incurred by the City.**

Gerard Hillsman 4/1/2026

Applicant's Signature **Date**

identity
ARCHITECTS

April 9, 2026

Planning and Zoning Commission
City Council, City of Spring Valley Village
1025 Campbell Road
Houston, Texas 77055

Re: Application for Planned Area Development — The Aviary

1045 Bingle Road; Bingle West Planned Area Development District (BWPADD)

Dear Mayor Vajdos, Members of the Planning and Zoning Commission, and Members of the City Council:

I am Keenon Rayner, founder of Identity Architects. For more than twenty-three years our firm and our integrated partners — Identity Built and Detail Placemakers — have delivered community-centered projects across more than one hundred twenty municipalities. We are pleased to submit this application for **The Aviary**, a two-building, two-story mixed-use development on the 1.695-acre tract at 1045 Bingle Road, within the Bingle West Planned Area Development District.

The Aviary is designed as a neighborhood destination — a mix of retail, restaurant, medical office, and small-format wellness and recreational uses, organized around a courtyard with mature trees and pedestrian-scaled circulation. Engineering is at 60 percent, architectural construction documents are at 40 percent, and surveying and due diligence are complete. We are prepared to commence construction in 2026.

The Specific Requests

This application seeks approval of a PAD that adopts the BWPADD framework with the deviations enumerated below. Each deviation is requested under **Section 06P:07.07.05** of the City's Code of Ordinances, which authorizes the City Council to waive requirements of the underlying BWPADD regulations upon finding that adequate provisions have been made for space, light and air; that the density of development is compatible with surrounding land uses; that pedestrian and vehicular traffic circulation is safe and efficient; that the developer will progress in orderly phases; and that public health, safety, and welfare will be protected. We respectfully submit that the site plan, traffic study, and supporting materials enclosed with this application support each of those findings.

1. **Medical and Health-Care Uses on the Ground Floor.**

   Section 06P:07.08.01.02 currently restricts office and professional/personal service uses to upper floors only within the BWPADD. We request a waiver of this restriction **for medical and health-care uses within NAICS Sector 62** — including offices of physicians, dentists, chiropractors, optometrists,

mental-health practitioners, physical/occupational/speech therapists, podiatrists, other health practitioners, diagnostic imaging centers, and home health-care services — so that these uses may occupy either the ground floor or upper floors. The neighborhood demand for accessible outpatient care is well-documented, and ground-floor medical office is functionally indistinguishable from ground-floor retail in terms of pedestrian activity, parking demand, and visual character.

2. Expanded Permitted-Use List.

In addition to the uses already codified at Section 06P:07.08.05, we request the following uses be permitted on the first or second floor of the buildings: dance studios; aerobic, yoga, Pilates, cycle, and similar fitness instruction (NAICS 6116 and 713940), with no square-footage cap; child care and Montessori day care (624410); amusement arcades (713120); indoor putting facilities and golf simulators (713990, indoor only); cocktail lounges, drinking places, and speakeasies (722410); and full-service restaurants (722511). The categorical prohibitions of Section 06P:07.08.03.02 — including drive-thru service, outdoor commercial recreation, distribution, warehousing, and vehicle storage — remain unaffected by this request.

3. Building Height of 45 Feet.

Section 06P:07.07.01 limits buildings within the BWPADD to thirty-nine (39) feet to top of parapet. We request approval of a forty-five (45) foot maximum to permit generous ground-floor ceiling heights appropriate to retail and restaurant tenants. The average building height under our current design is approximately forty-two (42) feet, with peaks reaching forty-five (45) feet only at limited corner elements. The increase is modest, contained within the building envelope shown on the site plan, and does not create shading or sight-line impacts on adjacent properties.

4. Shared Parking.

Section 06P:07.07.03 already authorizes a fifty-percent (50%) reduction from minimum parking requirements within the BWPADD and directs that shared parking be calculated under the City of Houston's percentage distribution. We propose to apply that methodology and, where helpful, to supplement it with the standards in *Shared Parking, Third Edition* (Urban Land Institute, National Parking Association, and International Council of Shopping Centers) — a widely adopted reference that produces results consistent with the City of Houston model. The mix of retail, medical, restaurant, and evening-leaning entertainment uses generates non-overlapping peak demands, which is precisely the condition shared parking is designed to address.

5. Two Curb Cuts on the Property.

Section 06P:07.07.02 prohibits Voss Road access and otherwise leaves access subject to the Council's approval of the PAD. We request authorization for **two curb cuts**: (i) the existing access easement through the adjacent City parcel at West Memorial Park Drive, and (ii) a secondary curb cut along Bingle Road at the location of an existing median break. The enclosed traffic study demonstrates that the secondary curb cut distributes traffic, reduces queueing, and does not adversely affect Bingle Road traffic flow. Both curb cuts will conform to applicable City and Harris County standards.

6. Unrestricted On-Premises Alcohol Sales.

The Aviary will host full-service restaurants and a cocktail lounge or speakeasy concept. We request that on-premises sale and consumption of alcoholic beverages be permitted without restriction, subject only to State of Texas and Texas Alcoholic Beverage Commission licensing. The City of Spring Valley Village has not adopted the optional three-hundred-foot proximity regulation authorized by Section 109.33 of the Texas Alcoholic Beverage Code, and we respectfully ask the Council to confirm in the ordinance that no such proximity-based restriction will apply to The Aviary.

7. Signage Consistent with I-10-Facing Standards.

Given the Property's setback from Bingle Road, its proximity to Interstate 10, and the proposed two-entry configuration, we request that signage be governed by the City's standards applicable to properties facing I-10. Specifically, we propose two (2) monument signs — one per entry — each not exceeding one hundred (100) square feet of face area and twelve (12) feet in height, with locations shown on the site plan. Building-wall signage would follow the City's standard regulations, including illuminated tenant identification.

8. Site-Specific Setbacks and Buffer Zones.

Section 06P:07.03 prescribes buffer-zone configurations built around a 10-foot wall with a 50-, 25-, or 15-foot vegetative buffer. The Property is bounded by a church (commercial / SUP), a future residential PADD to the west, Briar Branch to the south, and the City parcel to the east. The standard configurations are not well-suited to this set of adjacencies. The site plan submitted with this application sets out property-line-specific setbacks and buffers tailored to each condition — generous landscape buffers and fencing against the future residential PADD, natural vegetation to remain along Briar Branch, and no buffer between commercial uses where none is required. We request the Council's approval of these site-specific configurations as a permitted deviation under Section 06P:07.07.05.

9. Future Enclosed Outdoor Patio (Contingent on City License).

Several restaurant and lounge operators we have spoken with have expressed strong interest in an outdoor dining component. The natural location for such a patio is within the adjacent City parcel, which lies between our buildings and Bingle Road. We are not asking the City to grant any rights to that parcel through this PAD ordinance — the parcel's use will be the subject of a separate license or use agreement to be negotiated with City staff. We are asking only that this Ordinance **reserve the right** for an enclosed outdoor patio on terms that would activate only if and when such a license is executed. Specifically: the patio (i) would be an accessory use to a permitted full-service restaurant or cocktail lounge under Exhibit "C," (ii) would be enclosed by walls, railings, decorative fencing, or partial canopy per plans approved by the City, (iii) would not exceed 2,000 square feet, (iv) would close no later than 11:00 p.m. Sunday through Thursday and midnight Friday and Saturday — tighter than the general operating hours in deference to the future Dolphin Cove residential PADD to the west, and (v) would be subject to the lighting and noise standards otherwise applicable to the PAD. Reserving these terms now rather than through a future ordinance amendment lets the City and the Owner negotiate the license agreement administratively when the time is right, rather than

reopening the public-hearing process. The enclosure requirement distinguishes this use from the categorical prohibition on outdoor commercial recreational facilities in Section 06P:07.08.03.02, which we have asked the Council to expressly waive only as to an enclosed patio of the type described above.

10. **Cooperation with a Future Hike and Bike Trail.**

    If, at any time, the City of Spring Valley Village elects to construct a hike and bike trail in the vicinity of the Property, the Owner will cooperate in good faith and permit construction of such a trail across the Property along a mutually acceptable route, subject to reasonable easement terms. The Owner is not asking the City to require, and is not committing to fund, such a trail — only to keep the door open for future regional connectivity.

Meeting the Findings Required by Section 06P:07.07.05

The deviations requested above are modest, geographically contained, and grounded in the design realities of this specific 1.695-acre site. The enclosed site plan, traffic study, and exhibits demonstrate that:

- adequate provisions have been made for space, light, and air through generous setbacks against the future residential PADD and the courtyard-centered building arrangement;
- the density of development is compatible with surrounding land uses — a church, a future residential PADD, an aquatic center, and a City parking parcel — none of which is sensitive to the scale or use mix proposed;
- pedestrian and vehicular traffic circulation is safe and efficient, as confirmed by the enclosed traffic study and the redundancy of the two-curb-cut configuration;
- the developer will progress in orderly phases, with construction commencing in 2026; and
- public health, safety, and welfare are protected by the retention of all categorical prohibitions in Section 06P:07.08.03.02 and by the design standards reflected in the site plan.

We have invested substantial time and expense in bringing The Aviary to this stage and are prepared to engage constructively with City staff, the Commission, and the Council on any aspect of this application. We respectfully request a recommendation of approval from the Planning and Zoning Commission and adoption of the corresponding ordinance by the City Council.

Thank you for your consideration.

Respectfully,

Keenon Rayner
Architect, Builder, and Developer
Identity Architects | Identity Built | Detail Placemakers

identity
ARCHITECTS

Checklist for Development of PADD Ordinances — The Aviary

1045 Bingle Road; Bingle West Planned Area Development District (BWPADD)

The following responds to the City's *Checklist for Development of PADD Ordinances* in the order in which the items appear on the City's standard checklist. Each item below corresponds to the same-numbered checklist item, addresses how The Aviary application satisfies that item, and references the corresponding exhibit and ordinance section where the City may locate additional detail.

1. Application and Site Plan.

A completed General Plan Submittal Application has been submitted with the required submittal packets and fee. The Site Plan is included as part of Exhibit "B" to the proposed Ordinance and shows the building footprints, parking layout, drives, landscaping, monument signage, and adjacencies. Reference: Ordinance Section 5.A.

2. Architectural Renderings of Proposed Development.

Color architectural renderings of the two proposed two-story retail shell buildings, including the courtyard, mature-tree retention, and Bingle Road frontage, are included in the Application package as part of Exhibit "B." The renderings reflect the materials palette, glazing pattern, and pedestrian-scaled design intent.

3. Number, Size, Height of Building(s).

A two-story shell building is proposed. One continuous roof and balcony connecting two separated floor plates, organized around a central courtyard. Proposed conditioned square footage to be a maximum of 29,000 SF. Reference: Ordinance Section 5.C.1. Maximum building height is forty-five (45) feet to top of parapet, with an average height of approximately forty-two (42) feet across the design. The forty-five (45) foot maximum exceeds the thirty-nine (39) foot limit of Section 06P:07.07.01 and is requested as a deviation under the City Council's waiver authority at Section 06P:07.07.05.

4. Setbacks.

Setbacks are property-line-specific and respond to each adjacency. Northern Property Line (Eastern Segment, adjacent to the church structure): 5 ft building setback with a 10 ft non-continuous wall and integrated landscaping. Northern Property Line (Western Segment, adjacent to church green space): 5 ft building setback with an 8 ft wood fence and 0 ft landscape setback. Western Property Line (adjacent to the future Dolphin Cove residential PADD): 50 ft building setback with an 8 ft wood fence and 5 ft landscape and parking setback. Southern Property Line (across Briar Branch): 25 ft

building setback with a 15 ft landscape and parking setback, natural vegetation to remain. Eastern Property Line (adjacent to the City parcel): 0 ft building and landscape setbacks. Eastern Secondary Property Line (between the City parcel and Bingle Road ROW): 25 ft building setback, 5 ft monument sign setback, and 5 ft landscape and parking setback. These configurations differ from those prescribed in Section 06P:07.03 and are requested as deviations under Section 06P:07.07.05. Reference: Ordinance Section 5.C.2.

5. Elevation Plans.

Building elevations for all exterior faces of the building, showing fenestration, materials, signage band locations, and parapet height, are included in the Application package as part of Exhibit "B." Sight-line studies from adjacent properties are included as supplemental sheets within the same exhibit.

6. Access for the Property, Traffic Impact Study.

Access to the Property is provided by two (2) curb cuts: (i) the existing access easement through the adjacent City parcel at West Memorial Park Drive, and (ii) a secondary curb cut along Bingle Road at the location of an existing median break. A Traffic Impact Study has been prepared and is included in the Application package; it demonstrates that the secondary curb cut distributes traffic, reduces queueing, and does not adversely affect Bingle Road traffic flow. Consistent with Section 06P:07.07.02, no Voss Road access is requested or authorized. Reference: Ordinance Section 5.D.2.

7. Parking Facilities and maintenance thereof; Parking Ratios.

Parking is provided as surface parking on the Property and within the adjacent City parcel under a separately negotiated license, with a fifty-percent (50%) reduction from minimum requirements as authorized by Section 06P:07.07.03. Shared parking is calculated using the City of Houston's shared-parking percentage distribution as referenced in Section 06P:07.07.03, supplemented as appropriate by the Urban Land Institute's Shared Parking, Third Edition. Overnight parking is prohibited except for tenant delivery vehicles in designated spaces. No off-site, on-site, or structured parking other than as shown on the Site Plan is contemplated. Parking-area maintenance is addressed under Ordinance Section 5.K. Reference: Ordinance Section 5.D.1.

8. Adjacent Property Impacts — Sight Lines, Landscape Screening, Noise & Light Spillover.

The Property's adjacencies have been individually addressed in the buffer-zone design under Section 5.C.2 of the Ordinance. Sight-line drawings from the future Dolphin Cove residential PADD to the west and from the church property to the north are included in the Application package. Landscape screening includes generous setbacks against residential adjacencies, a continuous evergreen hedge along the Bingle Road frontage to screen head-in parking, and natural-vegetation retention along Briar Branch to the south. Noise compliance is addressed under Section 5.L of the Ordinance. Outdoor lighting is subject to the foot-candle limits set forth in Section 5.I.3, including a reduced four (4) foot-candle limit on the western side of the Property facing the future residential PADD, with after-hours reduction to two (2) foot-candles.

9. Uses — Permitted, by SUP, by Floor, and Restriction of Outdoor Uses.

Permitted uses are set forth in Exhibit "C" to the Ordinance. Non-medical permitted uses (dance studios, fitness/yoga/Pilates/cycle studios, child care, amusement arcades, indoor putting and golf simulators, cocktail lounges, full-service restaurants) are limited to the first or second floor. Health-care uses within NAICS Sector 62 are permitted on the ground floor and any upper floor; this is a deviation from Section 06P:07.08.01.02 requested under Section 06P:07.07.05. The categorical prohibitions of Section 06P:07.08.03.02 — including drive-up/drive-thru service, outdoor commercial recreational facilities, distribution, warehousing, industrial uses, and outdoor display, storage, or sales of vehicles, rental equipment, or vehicle fleets — are expressly retained. The single proposed deviation from those prohibitions, for a future enclosed outdoor patio of up to 2,000 square feet contingent on a separate City license, is addressed under Ordinance Section 5.G. Reference: Ordinance Sections 5.B, 5.G.

10. Hours of Operation, Construction Activity, & Site Maintenance.

General operating hours are 6:00 a.m. to 11:00 p.m. Sunday through Thursday and 6:00 a.m. to midnight Friday and Saturday for restaurants and cocktail lounges, with the future enclosed outdoor patio closing no later than 11:00 p.m. Sunday through Thursday and midnight Friday and Saturday. Construction activity is permitted from 7:00 a.m. to 7:00 p.m. Monday through Friday and from 9:00 a.m. to 6:00 p.m. Saturday and Sunday, with emergency maintenance excepted. Site maintenance hours follow the construction-activity window. Reference: Ordinance Sections 5.D.4, 5.D.5, 5.G.5, and 5.K.

11. Dumpster Location(s) and Hours of Trash Collection.

Dumpster locations are shown on the Site Plan, enclosed and located in the service area of each building. Refuse pickup is permitted from 7:00 a.m. to 7:00 p.m. on weekdays and from 9:00 a.m. to 6:00 p.m. on weekends. Reference: Ordinance Section 5.K.1–2.

12. Landscaping Plans, Plant Lists, Irrigation Plans and Maintenance Thereof.

A Landscape Plan with plant list is included in the Application package as part of Exhibit "B." The site shall be fully irrigated in compliance with all codes and restrictions. Landscaping meets or exceeds the requirements of Chapter 16 of the City's Code of Ordinances. Existing mature oak and cypress specimens along the Bingle Road frontage are preserved to the maximum extent practicable and integrated into the final site design. A continuous evergreen hedge of sufficient height and density at maturity to screen vehicle headlights and bumpers from view from Bingle Road is provided along the Bingle Road head-in parking area, in a species and configuration to be approved by the City. Landscape maintenance is permitted from 7:00 a.m. to 7:00 p.m. weekdays and 9:00 a.m. to 6:00 p.m. weekends. Reference: Ordinance Section 5.I.1–2.

13. Logistics for Deliveries Including Location & Hours of Operation.

Deliveries are permitted from 7:00 a.m. to 7:00 p.m. Monday through Friday and from 9:00 a.m. to 6:00 p.m. Saturday and Sunday, with delivery routing through the service areas shown on the Site Plan. Reference: Ordinance Section 5.K.3.

14. Signage — Type(s), Location, Sizes.

Two (2) monument signs, one per entry, each not exceeding one hundred (100) square feet of face area (including base) and twelve (12) feet in height, are proposed at the locations shown on the Site Plan. Building wall signage, including illuminated tenant identification, is permitted in accordance with the City's sign regulations applicable to properties facing Interstate Highway 10. Reference: Ordinance Section 5.E.

15. Drainage System Design in Compliance with City's Drainage Criteria Manual.

Storm water drainage improvements have been designed in compliance with the City's Drainage Criteria Manual and all applicable City ordinances, and will be submitted for approval by the City's Floodplain Administrator. Drainage plans are included in the Application package. Reference: Ordinance Section 5.J.

16. Plans for Site Electrical & Other Utility Delivery Systems.

Proposed water, sanitary sewer, storm sewer, electrical, and gas utility connections are shown on the Utility Plan included in the Application package. Utility easements as required by the City and the relevant utility providers are reflected on the Utility Plan.

17. Site Lighting — Landscape, Signage, Accent, Exterior Building & Parking Lot.

A photometric plan is included in the Application package. Outdoor lighting averages no more than eight (8) foot-candles in the parking lot, with a reduced average of four (4) foot-candles in drive aisles on the western side of the Property facing the future Dolphin Cove residential PADD during business hours, and an after-hours average of two (2) foot-candles. All lighting is "white" metal halide or other color-corrected lighting; light poles do not exceed sixteen (16) feet in height; high-pressure sodium lighting is prohibited. Illuminated wall signage for tenant identification is permitted per Section 5.E.3. Reference: Ordinance Section 5.I.3.

identity
ARCHITECTURE

April 1, 2026

City of Spring Valley Village
Office of the City Administrator
1025 Campbell Road
Houston, TX 77055
713-465-8308

Warmest Greetings,

In regards to the Bingle West Planned Area Development District Pad Request for the Aviary 1045 Bingle Project, please see below for the tentative development schedule.

June 9, 2026 – Planning & Zoning Commission Approval

June 23, 2026 – City Council Approval

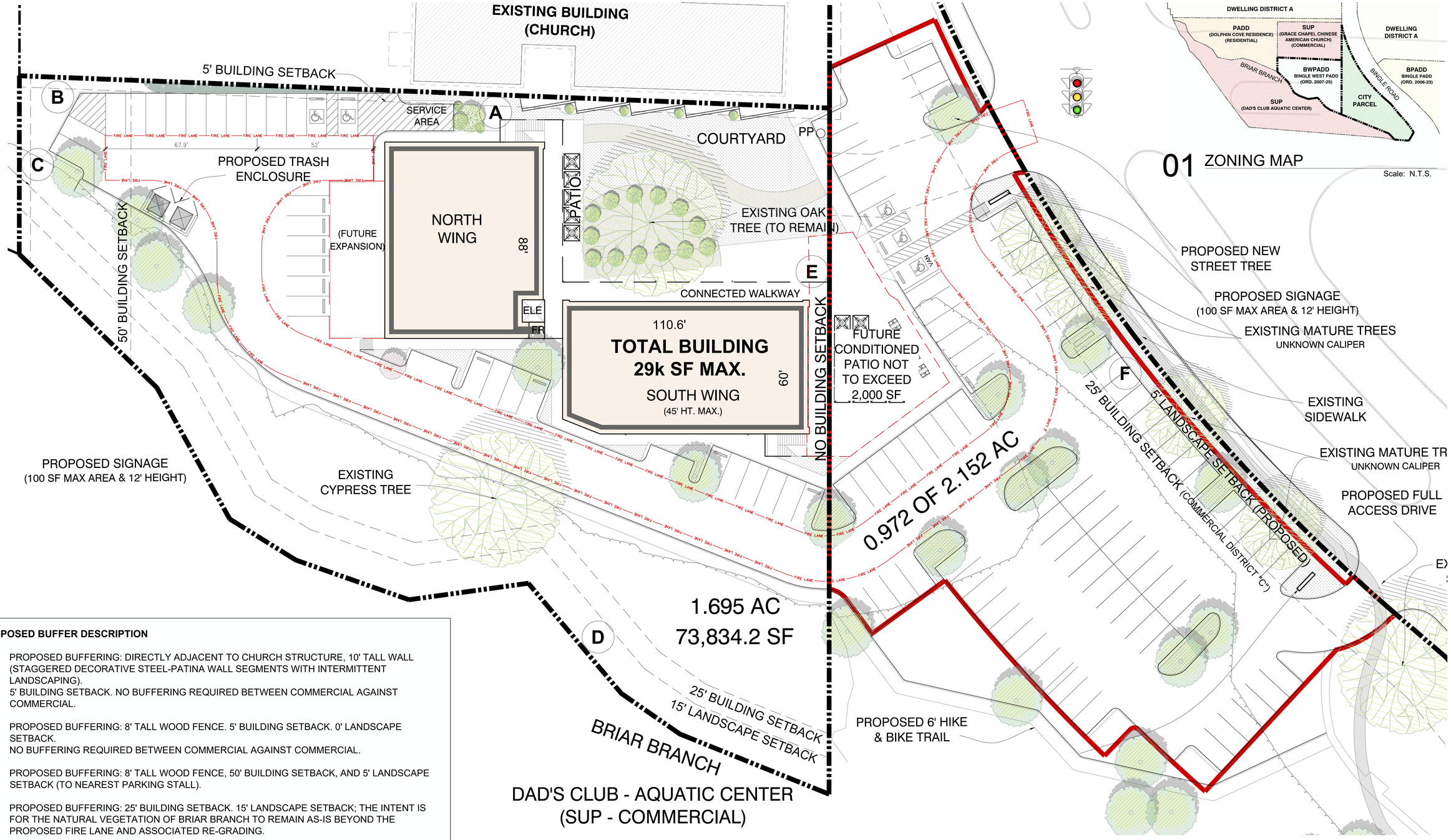
August 2026 – Building Permit Approval

September 2026 – Construction Begins

May 2027 – Construction Completed

September 2027- Tenant Improvements Completed

Thank you.



PROPOSED BUFFER DESCRIPTION

A. PROPOSED BUFFERING: DIRECTLY ADJACENT TO CHURCH STRUCTURE, 10' TALL WALL (STAGGERED DECORATIVE STEEL-PATINA WALL SEGMENTS WITH INTERMITTENT LANDSCAPING).
5' BUILDING SETBACK. NO BUFFERING REQUIRED BETWEEN COMMERCIAL AGAINST COMMERCIAL.

B. PROPOSED BUFFERING: 8' TALL WOOD FENCE. 5' BUILDING SETBACK. 0' LANDSCAPE SETBACK.
NO BUFFERING REQUIRED BETWEEN COMMERCIAL AGAINST COMMERCIAL.

C. PROPOSED BUFFERING: 8' TALL WOOD FENCE, 50' BUILDING SETBACK, AND 5' LANDSCAPE SETBACK (TO NEAREST PARKING STALL).

D. PROPOSED BUFFERING: 25' BUILDING SETBACK. 15' LANDSCAPE SETBACK; THE INTENT IS FOR THE NATURAL VEGETATION OF BRIAR BRANCH TO REMAIN AS-IS BEYOND THE PROPOSED FIRE LANE AND ASSOCIATED RE-GRADING.

E. PROPOSED BUFFERING: 0' BUILDING SETBACK, 0' LANDSCAPE SETBACK.

F. EASTERN SECONDARY PROPERTY LINE. THIS IS THE PROPOSED LINE BETWEEN THE CURRENT CITY PARCEL AND THE BINGLE ROAD RIGHT-OF-WAY. THE BUILDING SETBACK LINE SHALL BE TWENTY-FIVE (25) FEET. THE MONUMENT SIGN SETBACK SHALL BE FIVE (5) FEET. THE LANDSCAPE AND PARKING SETBACK ALONG BINGLE ROAD SHALL BE FIVE (5) FEET.

PRELIMINARY SITE PLAN - PHASE I

May 19, 2026
(COMMERCIAL DEVELOPMENT)
BINGLE ROAD @ WEST MEMORIAL PARK DRIVE
SPRING VALLEY VILLAGE , TX
22099-03_Site.dwg

N

SCALE : 1" = 20'-0"

0 10' 20' 40'

N:\IDA\22099-00_NWQ Bingle I-10\22099-03_NWQ Bingle I-10 SD\200 SD\220 SITE PLANS\22099-03_Site.dwg plotted by Nakia Alomoja on 2026-05-19 at 7:01 PM

SITE PLAN LEGEND

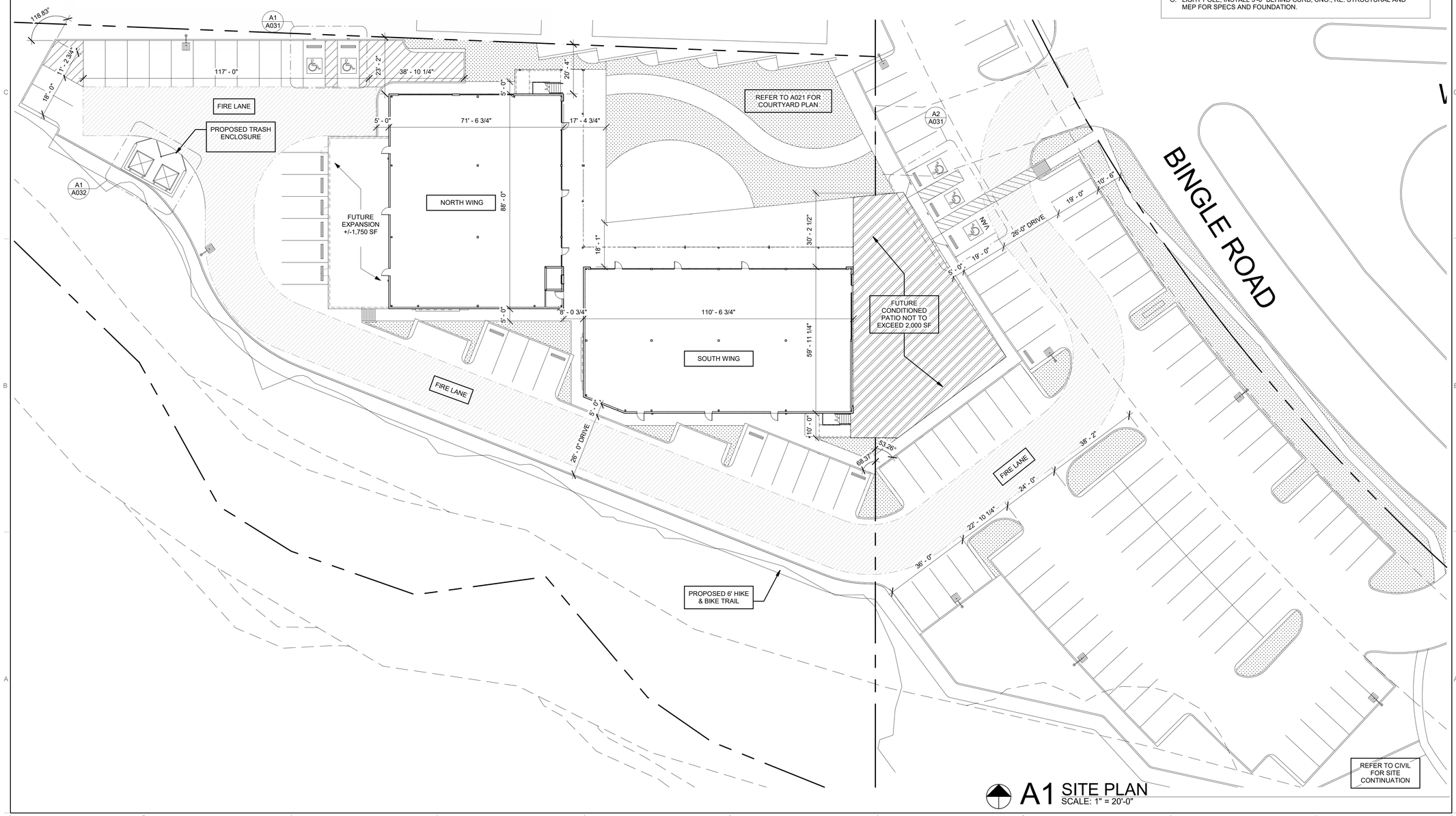
RE: CIVIL DRAWINGS FOR CONTINUATION OF SITE RELATED SCOPE

RE: A031 AND A032 FOR SITE DETAILS

- PROPERTY LINE
- FIRE LINE, RE: D1/A031
- NOT IN SCOPE
- LANDSCAPE AREA RE; LANDSCAPE DWGS
- LIGHT POLE, RE: A5/A031

GENERAL NOTES

A. CONTRACTOR TO NOTIFY TENANT, A MINIMUM OF TWO (2) WEEKS PRIOR TO SLAB POUR FOR COORDINATION.
B. CONTRACTOR TO PROVIDE FOUNDATION VERIFY EXACT LOCATION; SPECIFICATIONS AND ANCHOR BOLT LAYOUTS WITH INTERIOR PACKAGE, SKIN VENDORS.
C. FIRE HYDRANT WITHIN 400' OF ALL PORTIONS OF THE BUILDING.
D. GENERAL CONTRACTOR SHALL DELIVER A LEVEL AND SMOOTH CONCRETE SLAB FREE OF LEVELING PRODUCTS WITH NOT MORE THAN ONE QUARTER (1/4") VARIATION IN TEN FEET (10'). ALL EXPANSION AND CONTROL JOINTS SHALL BE PROPERLY INSTALLED AND SHALL BE READY TO ACCEPT TENANT'S FLOOR FINISHES. FLOOR SLAB SHALL BE BROOM CLEAN, FREE OF TRASH AND DEBRIS.
E. REVIEW DOCUMENTS, VERIFY DIMENSIONS AND FIELD CONDITIONS, AND CONFIRM THAT WORK IS BUILDABLE AS SHOWN. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK IN QUESTION.
F. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM THE ARCHITECT.
G. PARTITIONS ARE DIMENSIONED FROM FINISH FACE TO FINISH FACE, U.N.O. MAINTAIN DIMENSIONS MARKED CLEAR. ALLOW FOR THE THICKNESS OF FINISHES AS REQUIRED.
H. ALL CONSTRUCTION TO COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES, REGULATIONS, AND CITY ORDINANCES.
I. REFER TO SHEET A601 FOR DOOR/FRAME/HARDWARE TYPES AND SCHEDULES.
J. ALL NEW DOORS TO HAVE TAS COMPLIANT LEVER HARDWARE SETS, U.N.O. REFER TO A601 FOR DOOR/HARDWARE SCHEDULES.
K. CAULK AT JUNCTURE OF INTERIOR FACES OF DOOR FRAMES, VIEW WINDOW FRAMES, EXT. WINDOW FRAMES, CABINET WORK, AND CASEWORK W/ADJACENT MATERIALS EVEN THOUGH JOINT MAY NOT BE VISIBLE.
L. GC TO PROVIDE HM DOORS AND FRAMES, AS NEEDED, ON REAR OF BUILDING; VERIFY WITH OWNER FOR DOOR LOCATIONS PRIOR TO INSTALL.
M. CONCRETE SIDEWALKS, PROVIDE CONTROL JOINTS @ 5'-0" O.C. MAX. AND EXPANSION JOINTS @ 25'-O" O.C. MAX UNLESS INDICATED OTHERWISE ON THE SIDEWALK PLAN.
N. TYPICAL 6" CONCRETE CURB, TYPICAL 18" CONCRETE CURB & LANDING @ ADJACENT LANDSCAPE AREA, RE: CIVIL DRAWINGS.
O. LIGHT POLE, INSTALL 3'-0" BEHIND CURB, UNO., RE: STRUCTURAL AND MEP FOR SPECS AND FOUNDATION.



A1 SITE PLAN
SCALE: 1" = 20'-0"

CERTIFICATION AND SEAL

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF TEXAS AS SIGNIFIED BY MY HAND AND SEAL.

JAMES BRYAN CATER
TEXAS REG: 25719
EXP: 08/31/2026

02/25/2026

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ATTN:KEENON RAYNER
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kraynor@identityarchitects.com

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M:281-766-3675
bhanrahan@aljlindsey.com

STRUCTURE:
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ATTN:SARAH BRISCOE
O:713-491-8333
SJBriscoe@GarverUSA.com
FIRM # :5713

MEP:
SPECTRUM DESIGN ENGINEERS
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SUGAR LAND, TX 77479
ATTN:STEVEN FREDERICKS
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M:832-766-6076
sfredericks@spectrumde.com

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CMB LANDSCAPE ARCHITECTURE
18135 FM 362
NAVASOTA, TX 77868
ATTN:CHARLES BRIDGES
O:832-428-1209
cbridges@cmblandarch.com

NO.	DATE	REVISION ISSUE
3	02/25/26	ISSUE FOR PERMIT

PROJECT NAME AND ADDRESS:

THE AVIARY

1045 BINGLE RD. HOUSTON, TX 77055

DRAWN: **CQ** CHECKED: **TW**

REFERENCE NUMBER: **22099-07**

TITLE:

SITE PLAN

DRAWING NUMBER:

A001_Opt2

5/19/2026 5:59:00 PM
C:\Users\nalomaja\Documents\22099-07_BINGLE_R24_nalomajaXRSDM.rvt

SHARED PARKING ANALYSIS

Class	Use	Parking Required	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend
II B	MERCANTILE		Midnight to 7AM	7AM to 5PM	5PM to 9PM	9PM to Midnight	Midnight to 7AM	7AM to 5PM	5PM to 9PM	9PM to Midnight
1	Office	20	1	20	6	1	0	2	0	0
	Financial Facility	0	0	0	0	0	0	0	0	0
2	Apartment	0	0	0	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0	0	0	0
3	Clinic (Medical Complex)	0	0	0	0	0	0	0	0	0
	Clinic (Medical or Dental)	0	0	0	0	0	0	0	0	0
	Veterinary Clinic	0	0	0	0	0	0	0	0	0
4	Industrial/Warehouse/ Manufacturing	0	0	0	0	0	0	0	0	0
5	Church	0	0	0	0	0	0	0	0	0
	Day Care	0	0	0	0	0	0	0	0	0
	School	0	0	0	0	0	0	0	0	0
	Library	0	0	0	0	0	0	0	0	0
	Art Gallery	0	0	0	0	0	0	0	0	0
6	Movie Theater	0	0	0	0	0	0	0	0	0
	Bowling Alley	0	0	0	0	0	0	0	0	0
	Gym/Health Spa	16	8	4	16	1.6	1.6	8	1.6	0.8
7	Dessert Shop	0	0	0	0	0	0	0	0	0
	Small Restaurant	0	0	0	0	0	0	0	0	0
	Neighborhood Restaurant	0	0	0	0	0	0	0	0	0
	Restaurant	65	6.5	32.5	48.75	26	9.75	48.75	65	32.5
	Tavern	0	0	0	0	0	0	0	0	0
	Small Bar	0	0	0	0	0	0	0	0	0
	Bar, club or lounge	0	0	0	0	0	0	0	0	0
8	Retail (excluding shopping center)	39	1.95	19.5	29.25	3.9	1.95	39	29.25	3.9
9	Auto Parts and Supply Store	0	0	0	0	0	0	0	0	0
	All Others	0	0	0	0	0	0	0	0	0
	Total	140	17.45	76	100	32.5	13.3	97.75	95.85	37.2
		100								
	Put 1 if this qualifies as a historic building		0	0						
		Total Reduction		0						
PARKING SPACES REQUIRED:		100								

PARKING ANALYSIS

TOTAL BUILDING AREA: **27,199** SQ. FT.

SOUTH WING:			**PS REQ'D**
LEVEL 1:	6,469 SF	RESTAURANT (@10 PS/1K)	65
LEVEL 2:	6,469 SF	RETAIL (@4 PS/1K)	26

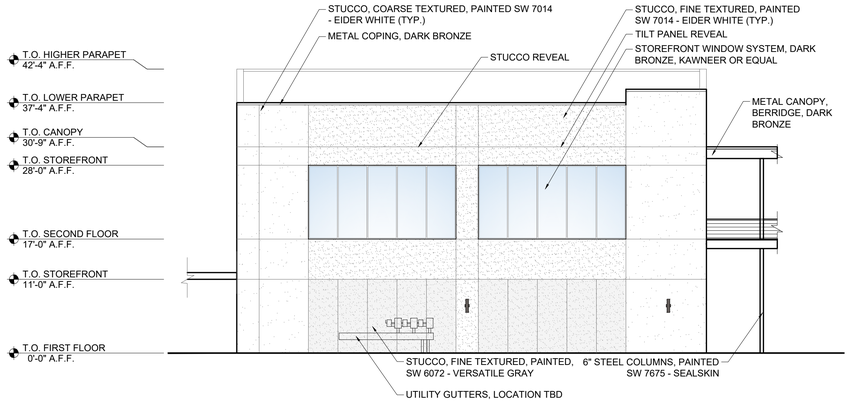
NORTH WING:			
LEVEL1:	8,009 SF	MEDICAL OFFICE (@2.5 PS/1K)	20
LEVEL 2:	3,126 & 3,126	RETAIL & FITNESS (@4 PS/1K & 5 PS/1K)	29
TOTAL PARKING:			**140 SPACES**

SHARED PARKING REDUCTION ANALYSIS (CoH) **100 SPACES**

TOTAL PARKING PROVIDED: 119 SPACES

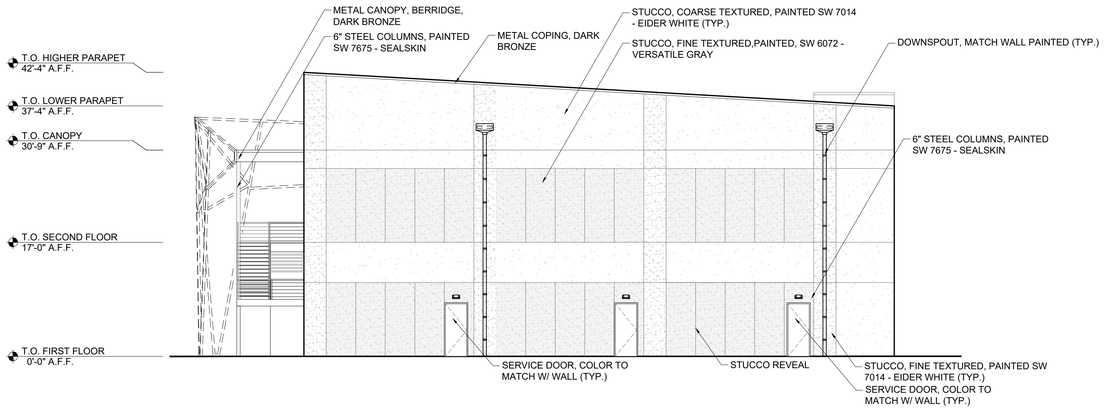
ACCESSIBLE PARKING REQUIRED BY CODE = **5** SPACES
ACCESSIBLE PARKING PROVIDED = **5** SPACES (**1** VAN)

THE AVIARY
THE BURGER BARN
Central Office
Zen Spa
Art Gallery
DENTIX
BARBER
Crema Coffee
CRAFT CLOSET
22099-04
identity
ARCHITECTURE



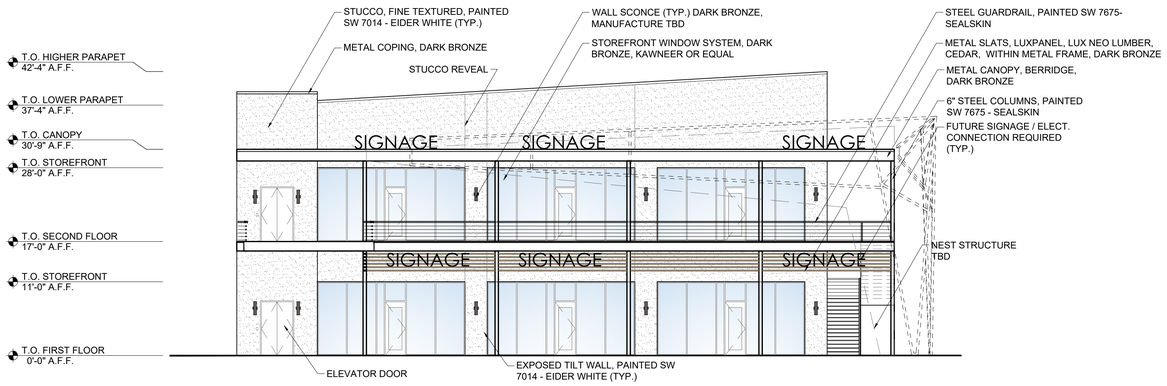
03 SOUTH ELEVATION (FACING I-10)

Scale: 3/32" = 1'-0"



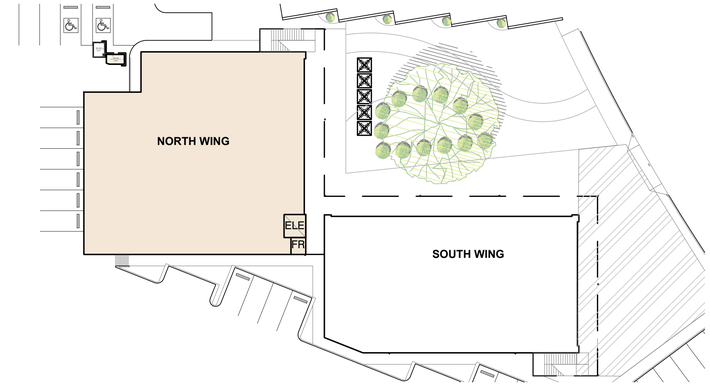
02 WEST ELEVATION

Scale: 3/32" = 1'-0"



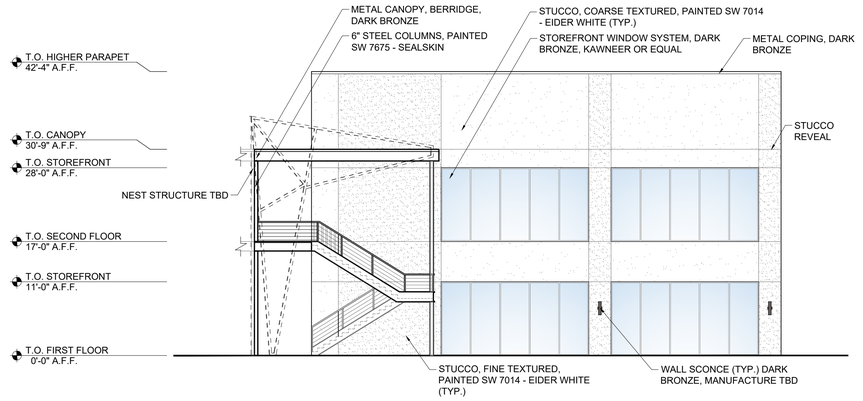
01 EAST ELEVATION (FACING COURTYARD)

Scale: 3/32" = 1'-0"



05 KEY PLAN

Scale: NTS



04 NORTH ELEVATION (FACING CHURCH)

Scale: 3/32" = 1'-0"

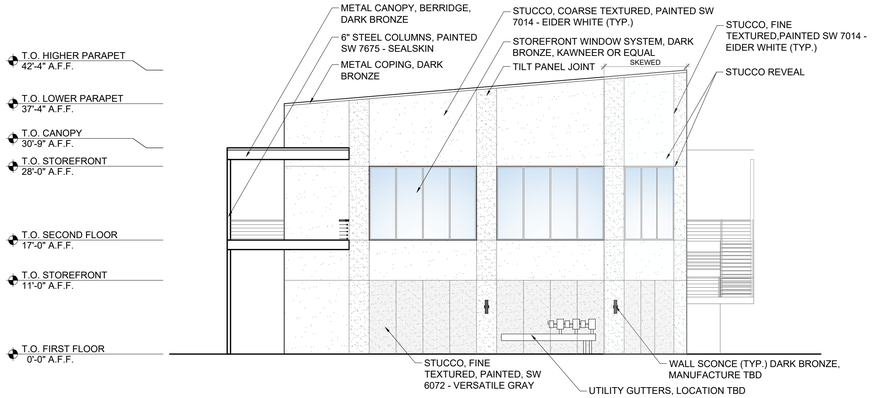
PRELIMINARY ELEVATIONS (NORTH WING)

May 19, 2026
THE AVIARY
1045 BINGLE RD.
HOUSTON, TX 77055
22099-03_ELEV.dwg 6:58 PM

Scale: 3/32" = 1'-0"

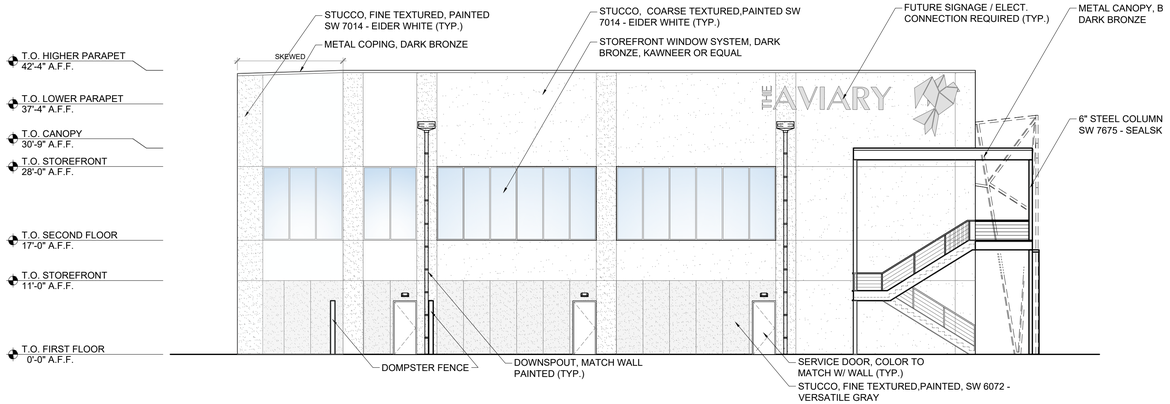
0 5' 10' 20'

N:\DA\22099-00_NWQ Bingle I-10\22099-03_NWQ Bingle I-10 SD\200 SD\250 ELEVATIONS\22099-03_ELEV.dwg plotted by Nakia Alomaja on 2026-05-19 at 6:58 PM



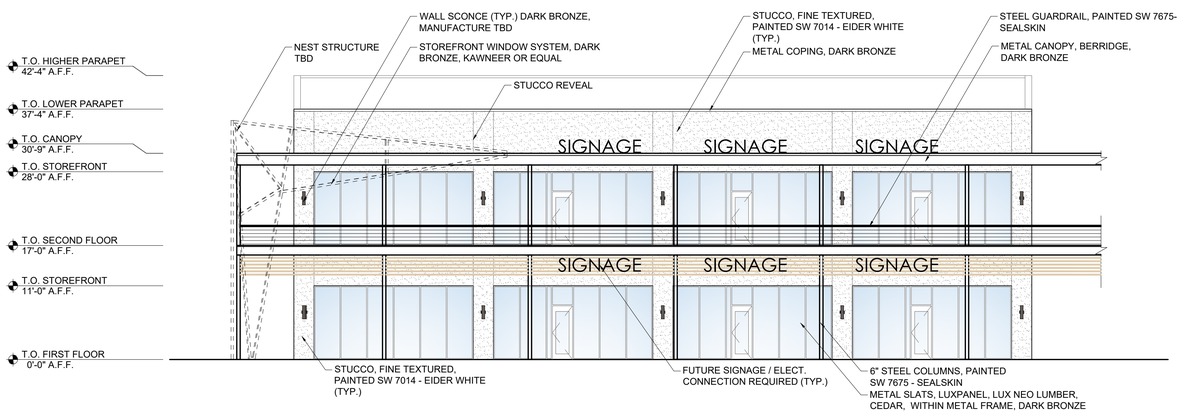
03 WEST ELEVATION

Scale: 3/32" = 1'-0"



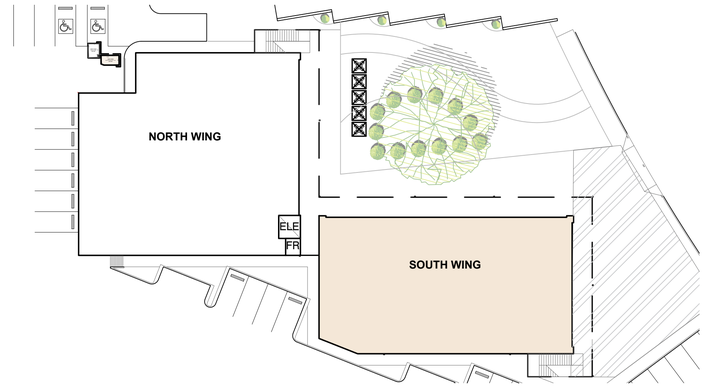
02 SOUTH ELEVATION (FACING I-10)

Scale: 3/32" = 1'-0"



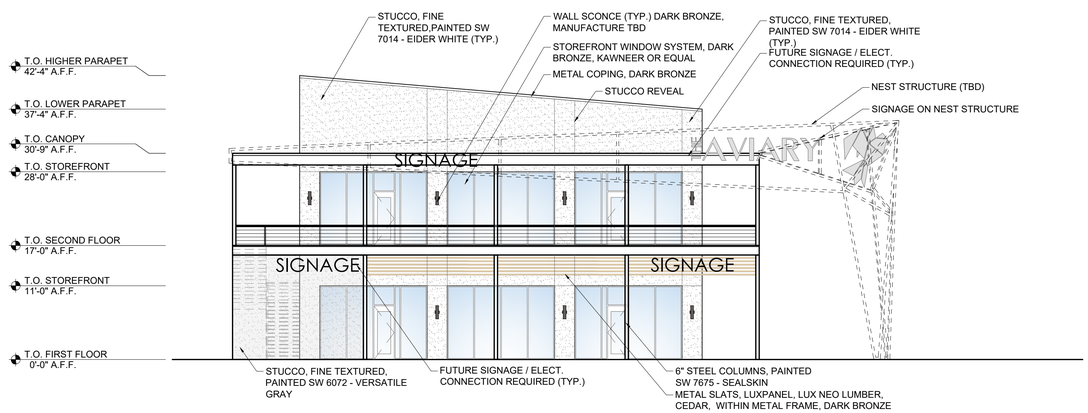
01 NORTH ELEVATION (FACING COURTYARD)

Scale: 3/32" = 1'-0"



05 KEY PLAN

Scale: NTS



04 EAST ELEVATION (FACING BINGLE RD)

Scale: 3/32" = 1'-0"

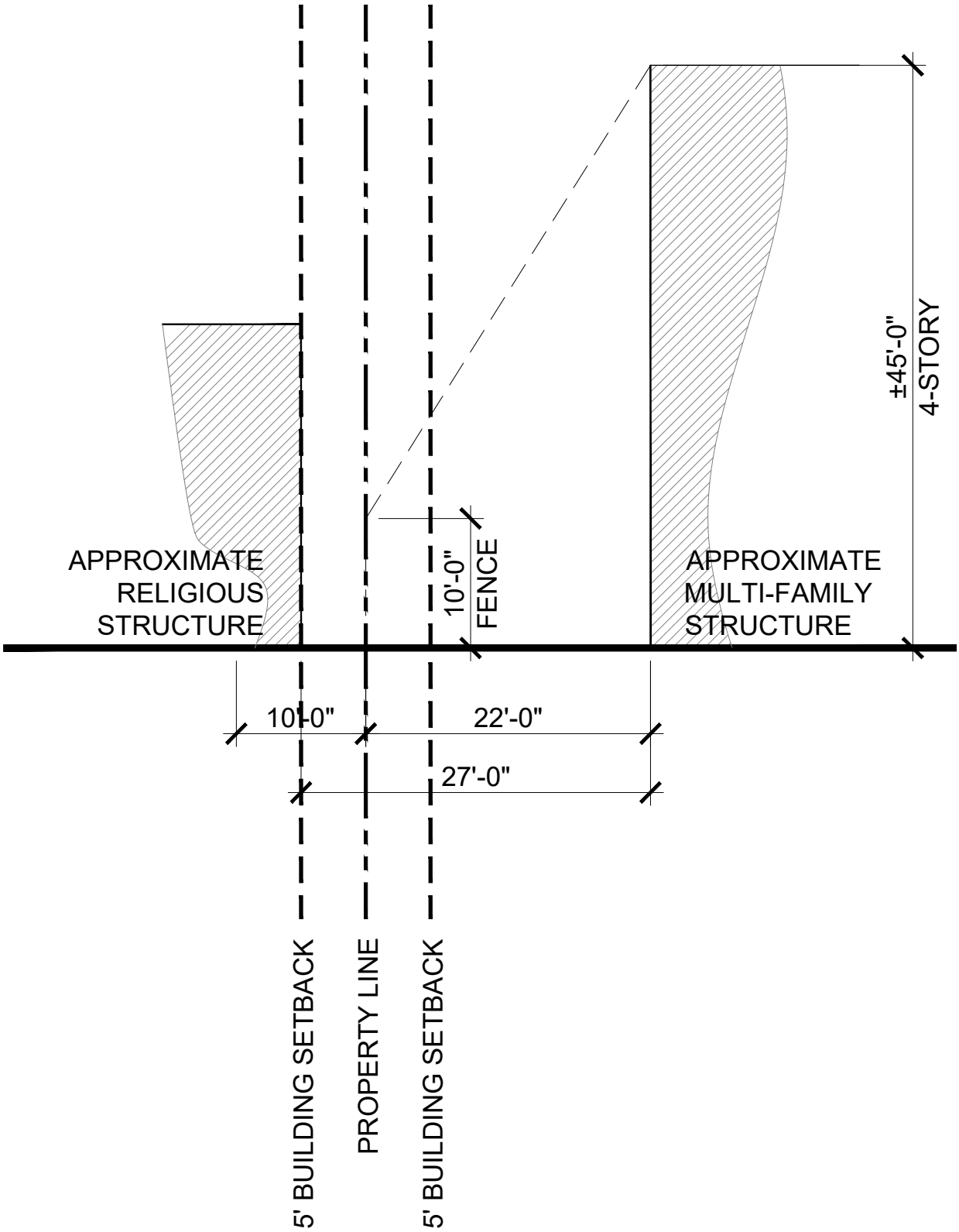
PRELIMINARY ELEVATIONS (SOUTH WING)

May 19, 2026
THE AVIARY
1045 BINGLE RD.
HOUSTON, TX 77055
22099-03_ELEV.dwg 6:54 PM

Scale: 3/32" = 1'-0"

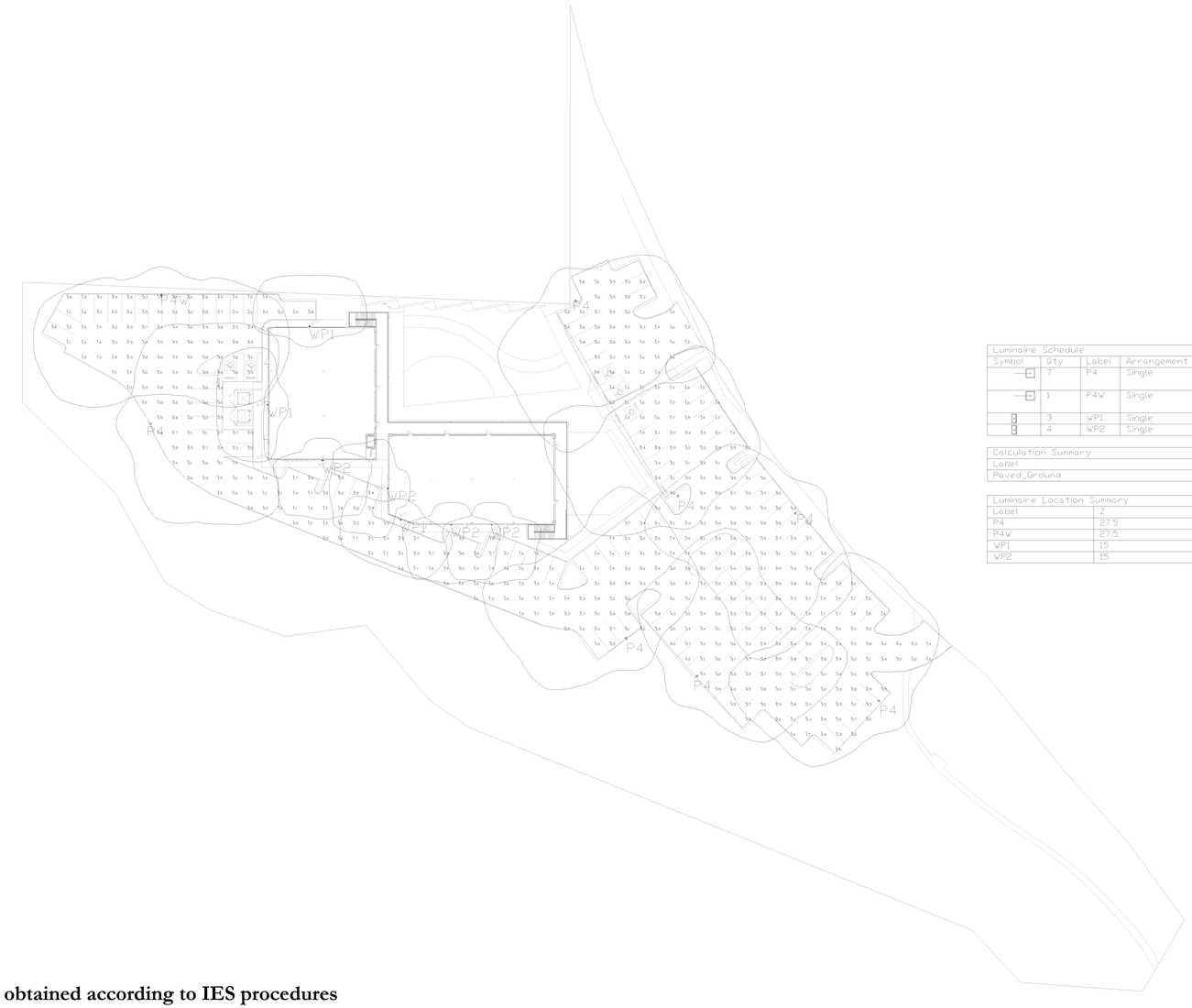
0 5' 10' 20'

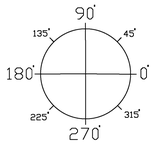
N:\DA\22099-00_NWQ Bingle I-10\22099-03_NWQ Bingle I-10 SD\200 SD\250 ELEVATIONS\22099-03_ELEV.dwg plotted by Nakia Alomaja on 2026-05-19 at 6:54 PM



A HEIGHT DIAGRAM - TYPICAL CONDITION

Scale: 1/8" = 1'-0"





Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	Description
	7	P4	Single	24043	0.950	McGraw Edison GALN-SB4C-740-U-T4FT-HSS
	1	P4W	Single	24460	0.950	McGraw Edison GALN-SB4C-740-U-T4W-HSS
	3	WP1	Single	4942	0.950	McGraw Edison GWC-SAIA-740-U-T4W
	4	WP2	Single	5008	0.950	McGraw Edison GWC-SAIA-740-U-T4FT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Paved_Ground	Illuminance	Fc	2.6	5.8	0.8	3.19	7.25

Luminaire Location Summary	
Label	Z
P4	27.5
P4W	27.5
WP1	15
WP2	15

Peterson, Scharck & Assoc. / David Wagner / 03/12/2026

Luminaire data is obtained according to IES procedures under laboratory conditions. field results may differ from computer model due to many factors, including: ambient temperature, line voltage variations, lamp performnace, installation, reflectances,and other site specific conditions.

DRAWINGS FOR REVIEW ONLY
DO NOT USE AS CONSTRUCTION DOCUMENTS

PETERSON, SCHARCK & ASSOCIATES
LIGHTING & CONTROLS
10855 Tanner Rd. Houston, TX 77041
applications@psalighting.com

PROJECT NAME: The Aviary

CLIENT: XXX

REVISIONS		
#	DATE	DESCRIPTION

DRAWN BY: RL

SCALE: 1 = 1
DATE: 03/12/2026
PLAN # XXX
SHEET # XXX

PHOTOMETRICS ARE FOR REFERENCE ONLY AND ARE PROVIDED BY LIGHTING REP.

STATE OF TEXAS
STEVEN A. FREDERICKS
108587
REGISTERED PROFESSIONAL ENGINEER
02/25/2026

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Tel: (832) 766-6076
Texas Reg. No.: F-20152 SDE Project No.: 125186.00
www.spectrumdesignengineers.com

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ATTN:KEENON RAYNER
O:713-595-2150
krayncr@identityarchitects.com

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ATTN:LESTER JONES
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ljones@aljlindsey.com

STRUCTURE:
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TBD
TBD
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SJBriscoe@GarverUSA.com

MEP:
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M:832-766-6076
sfredericks@spectrumde.com

LANDSCAPE:
CMB LANDSCAPE ARCHITECTURE
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NAVASOTA, TX 77868
ATTN:CHARLES BRIDGES
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cbridges@cmblandarch.com

NO.	DATE	REVISION ISSUE
	02.25.26	ISSUE FOR PERMIT

PROJECT NAME AND ADDRESS:

THE AVIARY

1045 BINGLE RD.

DRAWN: **MS** CHECKED: **SF**

REFERENCE NUMBER: **22099-07**

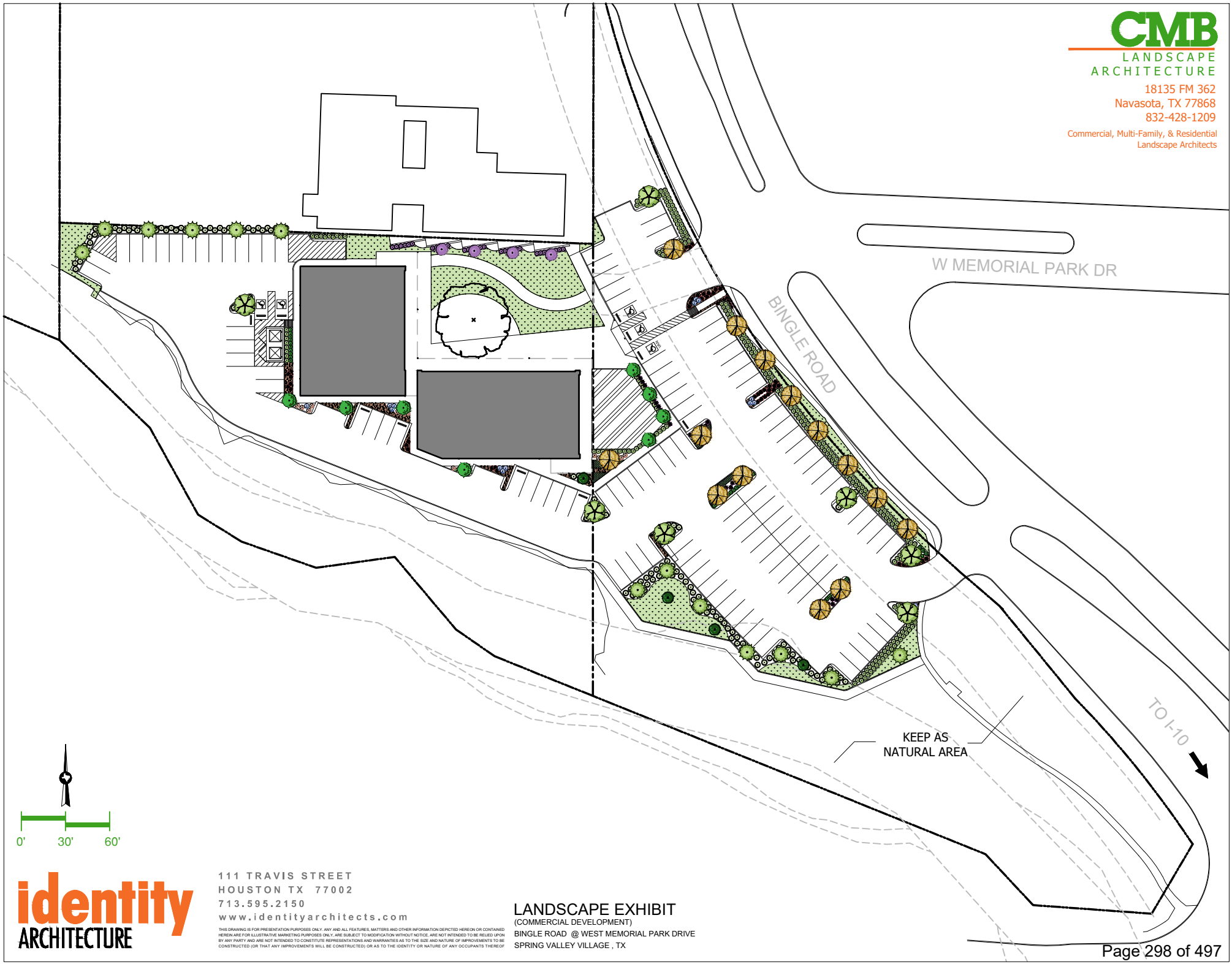
TITLE:

SITE PHOTOMETRICS

DRAWING NUMBER:

E1.00

3/16/2026 10:17:41 AM
C:\Users\Michael Saldana\Documents\125186 IDA NWQ Bingle I-10 Retail MEP Model R24 C_msaldanaKZ3LJ.rvt



CMB
LANDSCAPE
ARCHITECTURE
18135 FM 362
Navasota, TX 77868
832-428-1209
Commercial, Multi-Family, & Residential
Landscape Architects

identity
ARCHITECTURE
111 TRAVIS STREET
HOUSTON TX 77002
713.595.2150
www.identityarchitects.com

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LANDSCAPE EXHIBIT

(COMMERCIAL DEVELOPMENT)
BINGLE ROAD @ WEST MEMORIAL PARK DRIVE
SPRING VALLEY VILLAGE , TX

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Navasota, TX 77868
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PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES					
	4	Chilopsis linearis	Desert Willow 'Bubba'	8` Ht.	2" cal. Container Grown; Texas Native
	4	Ilex vomitoria 'Pride of Houston'	Pride of Houston Yaupon Holly	8` Ht.	45gal, 2.5" Total cal. :Multi-trunk; TREE FORM; Texas Native
	8	Ilex x attenuata 'Eagleston'	Eagleston Holly	8` Ht.	45gal, 2" cal.; TREE FORM; Texas Native Hybrid
	13	Pinus taeda	Loblolly Pine	65 gal.	2" cal. DBH. 12'ht, 6'sprd specimen quality; StraightTrunk, Symmetrical Head Texas Native
	7	Quercus virginiana	Live Oak	65 gal.	2" cal. DBH. 12'ht, 6'sprd specimen quality; StraightTrunk, Symmetrical Head Texas Native
	14	Taxodium mucronatum	Montezuma Cypress	65 gal.	2" cal. DBH. 12'ht, 6'sprd specimen quality; StraightTrunk, Symmetrical Head Texas Native
SHRUBS					
	59	Hesperaloe parviflora	Red Yucca	3 gal.	Texas Native
	51	Ilex vomitoria 'Nana'	Dwarf Yaupon Holly	3 gal.	Texas Native
	31	Leucophyllum frutescens 'Green Cloud'	Green Cloud Texas Sage	3 gal.	Texas Native
	30	Malvaviscus drummondii	Turk's Cap	3 gal.	Texas Native
	53	Moraea iridioides	Butterfly Iris	3 gal.	
	156	Muhlenbergia capillaris 'Gulf Coast'	Gulf Muhly Grass	3 gal.	Texas Native
	310	Myrica cerifera	Wax Myrtle	3 gal.	Texas Native
	16	Yucca recurvifolia	Soft Leaf Yucca	3 gal.	Texas Native
GROUND COVERS					
	8,122 sf	Cynodon dactylon 'Tif 419'	Tif 419 Bermudagrass	SOD	
	100	Trachelospermum asiaticum	Asian Jasmine	1 gal.	

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Desert Willow 'Bubba'
Chilopsis linearis

Eagleston Holly
Ilex x attenuata 'Eagleston'

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Live Oak
Quercus virginiana

Loblolly Pine
Pinus taeda

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Landscape Architects

Ilex vomitoria 'Pride of Houston'
Pride of Houston Yaupon Holly

Montezuma Cypress
Taxodium mucronatum

TOPOGRAPHIC SURVEY
C0.2

NTS

VICINITY MAP
NOT TO SCALE
KEY MAP NO. 490D

LEGEND

AIN	TYPE A INLET
B	BOLLARD
BBIN	TYPE BB INLET
BRS.	BEARS
BS	BRICK SIGN MONUMENT
CIN	TYPE C INLET
CONC.	CONCRETE
EB	ELECTRICAL BOX
ECR	ELECTRICAL CONDUIT RISER
ELEV.	ELEVATION
EM	ELECTRIC METER
EMP	ELECTRIC METER POLE
ESMT.	EASEMENT
FH	FIRE HYDRANT
FL	FLOOD LAMP
FND.	FOUND
FOM	FIBER OPTIC MARKER
FP	FLAG POLE
GXX.XX	GUTTER ELEVATION
H.C.C.F. NO.	HARRIS COUNTY CLERK FILE NUMBER
H.C.M.R.	HARRIS COUNTY MAP RECORDS
I.	IRON
ICV	IRRIGATION CONTROL VALVE
MP	METER POLE
PG.	PAGE
PLM	PIPELINE MARKER
PP	POWER POLE
PPG	POWER POLE WITH GUY
PPT	POWER POLE WITH TRANSFORMER
PPTG	POWER POLE WITH TRANSFORMER AND GUY
R.O.W.	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
SAMH	SANITARY MANHOLE
SAN.	SANITARY
SP	SERVICE POLE
SPG	SERVICE POLE WITH GUY
SQ. FT.	SQUARE FEET
STM.	STORM
STMH	STORM MANHOLE
TBM	TEMPORARY BENCHMARK
TCXX.XX	TOP OF CURB ELEVATION
TH	THROAT
TMH	TELEPHONE MANHOLE
TPED	TELEPHONE PEDESTAL
TSP	TRAFFIC SIGNAL POLE
U.E.	UTILITY EASEMENT
UCB	UNDERGROUND COMMUNICATION BOX
UEB	UNDERGROUND ELECTRICAL BOX
UTB	UNDERGROUND TELEPHONE BOX
VOL.	VOLUME
WIF	WROUGHT IRON FENCE
WM	WATER METER
WV	WATER VALVE
—— E ——	OVERHEAD ELECTRIC

BENCHMARK NOTES

RM 210215
BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
ELEV. 68.31 NAVD88 (2001 ADJUSTMENT)

RM 210255
BRASS DISK LOCATED ON THE EAST WALKWAY OF BRIDGE ON FRIES ROAD, BEING APPROX 0.5 MILES NORTH FROM THE INTERSECTION WITH INTERSTATE 10 (STREAM W140-00-00)
ELEV. 70.83 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-7
SCRIBED "X" ON TOP OF A CURB LOCATED ON THE SOUTHWEST SIDE OF BINGLE ROAD, BEING APPROX 400 FEET NORTHWEST FROM THE INTERSECTION WITH INTERSTATE 10, APPROX 35.9 FEET NORTHEAST FROM A "NO DUMPING OR TRESPASSING" SIGN, AND APPROX 30.1 FEET SOUTHWEST FROM A STORM INLET.
ELEV. 66.74 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-8
SCRIBED "X" ON TOP OF A CURB INLET LOCATED ON THE NORTH SIDE OF INTERSTATE 10 WEST BOUND SERVICE ROAD, BEING THE FIRST INLET WEST FROM THE INTERSECTION WITH BINGLE ROAD.
ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

NOTES

1. BEARING ORIENTATION IS BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE.
2. THE SQUARE FOOTAGE VALUES SHOWN HEREON IS A MATHEMATICAL VALUE CALCULATED FROM THE BOUNDARY DATA SHOWN HEREON AND DOES NOT REPRESENT THE PRECISION OF CLOSURE OF THIS SURVEY OR THE ACCURACY OF CORNER MONUMENTS FOUND OR PLACED.
3. SURVEYED PROPERTY LIES IN UNSHADED ZONE X (AREAS OUTSIDE 0.2% ANNUAL CHANCE FLOOD HAZARD), ZONE X SHADED (0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE), ZONE AE (AREAS WITHOUT A BASE FLOOD ELEVATION), AND ZONE AE REGULATORY FLOODWAY ACCORDING TO FLOOD INSURANCE RATE MAP FOR THE CITY OF SPRING VALLEY, MAP NUMBER 48201C0645L, DATED EFFECTIVE 08/18/2007 AND MAP NUMBER 48201C0665M, DATED EFFECTIVE 06/09/2014.
4. THIS SURVEY WAS MADE WITHOUT THE BENEFIT OF A TITLE REPORT OR TITLE COMMITMENT. SURVEYOR DID NOT ABSTRACT SURVEYED PROPERTY AND THERE MAY BE EASEMENTS, OF RECORD OR NOT THAT AFFECT SURVEYED PROPERTY.
5. VISIBLE IMPROVEMENTS AND UTILITIES WERE LOCATED AT TIME OF SURVEY AND SHOWN HEREON. SUBSURFACE PROBING, EXCAVATION OR EXPLORATION IS BEYOND THE SCOPE OF THIS SURVEY AND WAS NOT CONDUCTED BY SURVEYOR.
6. ALL NATURAL GROUND ELEVATIONS SHOWN HEREON ARE MEASURED TO THE NEAREST TENTH OF A FOOT AND ALL HARD SURFACE ELEVATIONS SHOWN HEREON ARE MEASURED TO THE NEAREST HUNDREDTH OF A FOOT.

I, SEAN CONLEY, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS MANUAL OF PRACTICE REQUIREMENTS FOR A CATEGORY 6, CONDITION I SURVEY.
FIELDWORK WAS COMPLETED ON APRIL 28, 2025.

DATE OF SURVEY: MAY 5, 2025.

STATE OF TEXAS · REGISTERED · SEAN CONLEY · 6739 · PROFESSIONAL · LAND SURVEYOR

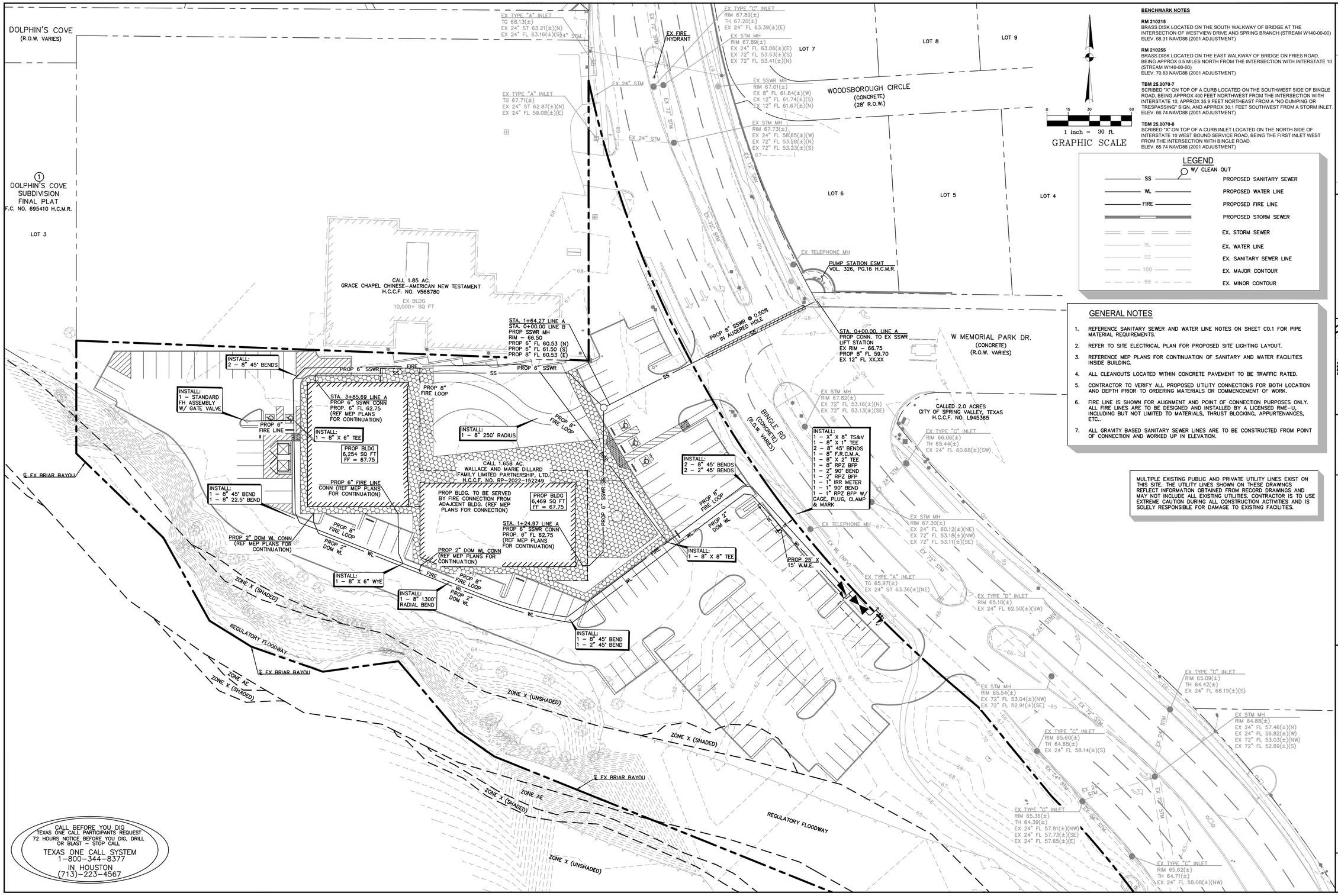
SEAN CONLEY RPLS NO. 6739
SEAN@CONLEYLAND.COM

ADDRESS NOT AVAILABLE

PARTIAL TOPOGRAPHIC SURVEY OF
BINGLE ROAD
SITUATED IN THE
A.H. OSBOURNE SURVEY, ABSTRACT 610
CITY OF SPRING VALLEY
HARRIS COUNTY, TEXAS

CONLEY LAND SERVICES, LLC
18635 NORTH ELDRIDGE PARKWAY, SUITE 101
TOMBALL, TX 77377
TEL. (832) 729-4997
CONLEYLAND.COM
TBPELS FIRM NO. 10194732

SCALE: 1"=40'	JOB NO. 25.0070	DATE: 05/05/2025	FB NO. 57



BENCHMARK NOTES

RM 210215
BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
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BRASS DISK LOCATED ON THE EAST WALKWAY OF BRIDGE ON FRIES ROAD. BEING APPROX 0.5 MILES NORTH FROM THE INTERSECTION WITH INTERSTATE 10 (STREAM W140-00-00)
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ELEV. 66.74 NAVD88 (2001 ADJUSTMENT)

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SCRIBED "X" ON TOP OF A CURB INLET LOCATED ON THE NORTH SIDE OF INTERSTATE 10 WEST BOUND SERVICE ROAD, BEING THE FIRST INLET WEST FROM THE INTERSECTION WITH BINGLE ROAD.
ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

SS (W/ CLEAN OUT)	PROPOSED SANITARY SEWER
WL	PROPOSED WATER LINE
FIRE	PROPOSED FIRE LINE
	PROPOSED STORM SEWER
	EX. STORM SEWER
WL	EX. WATER LINE
SS	EX. SANITARY SEWER LINE
100	EX. MAJOR CONTOUR
99	EX. MINOR CONTOUR

GENERAL NOTES

1. REFERENCE SANITARY SEWER AND WATER LINE NOTES ON SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFER TO SITE ELECTRICAL PLAN FOR PROPOSED SITE LIGHTING LAYOUT.
3. REFERENCE MEP PLANS FOR CONTINUATION OF SANITARY AND WATER FACILITIES INSIDE BUILDING.
4. ALL CLEANOUTS LOCATED WITHIN CONCRETE PAVEMENT TO BE TRAFFIC RATED.
5. CONTRACTOR TO VERIFY ALL PROPOSED UTILITY CONNECTIONS FOR BOTH LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS OR COMMENCEMENT OF WORK.
6. FIRE LINE IS SHOWN FOR ALIGNMENT AND POINT OF CONNECTION PURPOSES ONLY. ALL FIRE LINES ARE TO BE DESIGNED AND INSTALLED BY A LICENSED RME–U, INCLUDING BUT NOT LIMITED TO MATERIALS, THRUST BLOCKING, APPURTENANCES, ETC..
7. ALL GRAVITY BASED SANITARY SEWER LINES ARE TO BE CONSTRUCTED FROM POINT OF CONNECTION AND WORKED UP IN ELEVATION.

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

NO.	REVISIONS	DATE

ALJLindsey
Civil Engineers
18635 N. Eldridge Pkwy, Suite 200
Tomball, Texas 77377
281.251.2063
FRN F-11526

BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
STATE OF TEXAS
10 MARCH 2026

ALJ PROJECT NO. 022.25.CV.620
DATE: MARCH 2026
SCALE: 1" = 30'
DRAWN BY: SRH
CHECKED BY: BTH

OVERALL UTILITY PLAN

BINGLE ROAD RETAIL

1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C2.0

DOLPHIN'S COVE
(R.O.W. VARIES)

1
DOLPHIN'S COVE
SUBDIVISION
FINAL PLAT
F.C. NO. 695410 H.C.M.R.

LOT 3

EX TYPE "A" INLET
TG 68.13(±)
EX 24" ST 63.21(±)(N)
EX 24" FL 63.16(±)(S)

EX TYPE "A" INLET
TG 67.71(±)
EX 24" ST 62.87(±)(N)
EX 24" FL 59.08(±)(E)

EX FIRE HYDRANT

EX TYPE "C" INLET
RIM 67.89(±)
TH 67.20(±)
EX 24" FL 63.39(±)(E)

EX STM MH
RIM 67.89(±)
EX 24" FL 63.06(±)(E)
EX 72" FL 53.53(±)(S)
EX 72" FL 53.41(±)(N)

EX SSWR MH
RIM 67.01(±)
EX 8" FL 61.84(±)(W)
EX 12" FL 61.74(±)(S)
EX 12" FL 61.67(±)(N)

EX STM MH
RIM 67.73(±)
EX 24" FL 58.65(±)(W)
EX 72" FL 53.28(±)(N)
EX 72" FL 53.23(±)(S)

LOT 7 LOT 8 LOT 9 LOT 6 LOT 5 LOT 4

WOODSBOROUGH CIRCLE
(CONCRETE)
(28' R.O.W.)

EX 24" STM
EX 72" STM

EX TELEPHONE MH

CALL 1.85 AC.
GRACE CHAPEL CHINESE-AMERICAN NEW TESTAMENT
H.C.C.F. NO. V568780

EX BLDG
10,000+ SQ FT

STA. 1+68.99 LINE A
STA. 0+00.00 LINE B
PROP SSWR MH
RIM = 66.50
PROP 6" FL 60.57 (N)
PROP 6" FL 61.54 (S)
PROP 8" FL 60.54 (E)

PROP 8" SSWR @ 0.50%
IN AUGERED HOLE

STA. 0+00.00, LINE A
PROP CONN. TO EX SSWR
LIFT STATION
EX RIM = 66.75
PROP 8" FL 59.70
EX 12" FL XX.XX

W MEMORIAL PARK DR.
(CONCRETE)
(R.O.W. VARIES)

PROP 6" SSWR
@ 1.00%

STA. 3+87.27 LINE A
PROP 6" SSWR CONN
PROP. 6" FL 62.75
(REF MEP PLANS
FOR CONTINUATION)

PROP BLDG
6,254 SQ FT
FF = 67.75

CALL 1.658 AC.
WALLACE AND MARIE DILLARD
FAMILY LIMITED PARTNERSHIP, LTD.
H.C.C.F. NO. RP-2022-152249

PROP BLDG
6,469 SQ FT
FF = 67.75

STA. 1+24.97 LINE B
PROP 6" SSWR CONN
PROP. 6" FL 62.75
(REF MEP PLANS
FOR CONTINUATION)

PROP 6" SSWR
@ 1.00%

BINGLE RD
(CONCRETE)
(R.O.W. VARIES)

EX STM MH
RIM 67.82(±)
EX 72" FL 53.16(±)(N)
EX 72" FL 53.13(±)(SE)

CALLED 2.0 ACRES
CITY OF SPRING VALLEY, TEXAS
H.C.C.F. NO. L945365

EX TYPE "C" INLET
RIM 66.06(±)
TH 65.44(±)
EX 24" FL 60.68(±)(SW)

EX STM MH
RIM 67.30(±)
EX 24" FL 60.12(±)(NE)
EX 72" FL 53.18(±)(NW)
EX 72" FL 53.11(±)(SE)

EX TELEPHONE MH

EX WL (NPV)

EX TYPE "A" INLET
TG 65.97(±)
EX 24" ST 63.36(±)(NE)

EX TYPE "D" INLET
RIM 65.10(±)
EX 24" FL 62.50(±)(SW)

EX STM MH
RIM 65.54(±)
EX 72" FL 53.04(±)(NW)
EX 72" FL 52.91(±)(SE)

EX TYPE "C" INLET
RIM 65.60(±)
TH 64.65(±)
EX 24" FL 58.14(±)(S)

EX TYPE "C" INLET
RIM 65.36(±)
TH 64.39(±)
EX 24" FL 57.81(±)(NW)
EX 24" FL 57.73(±)(SE)
EX 24" FL 57.65(±)(E)

EX TYPE "C" INLET
RIM 65.42(±)
TH 64.71(±)
EX 24" FL 58.08(±)(W)

ZONE X (SHADED)
REGULATORY FLOODWAY
ZONE AE
ZONE X (SHADED)
ZONE X (UNSHADED)
ZONE X (SHADED)
ZONE AE
REGULATORY FLOODWAY
ZONE X (SHADED)
ZONE X (UNSHADED)

BENCHMARK NOTES

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BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
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ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

SS (W/ CLEANOUT)	PROPOSED SANITARY SEWER
WL	PROPOSED WATER LINE
FIRE	PROPOSED FIRE LINE
	PROPOSED STORM SEWER
1	PROPOSED WATER & SSWR CROSSING
	EX. STORM SEWER
WL	EX. WATER LINE
SS	EX. SANITARY SEWER LINE
100	EX. MAJOR CONTOUR
99	EX. MINOR CONTOUR

SANITARY SEWER NOTES

1. REFERENCE SANITARY SEWER LINE NOTES ON SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFERENCE MEP PLANS FOR CONTINUATION OF SANITARY FACILITIES INSIDE BUILDING.
3. ALL CLEANOUTS LOCATED WITHIN CONCRETE PAVEMENT TO BE TRAFFIC RATED.
4. SANITARY SEWER CLEANOUTS TO BE LOCATED EVERY 90'.
5. ALL WATER & SANITARY SEWER CROSSINGS TO BE INSTALLED PER AHJ & TCEQ REGULATIONS.
6. PRIVATE SANITARY SEWER PIPE MATERIAL SHALL CONFORM TO THE FOLLOWING CRITERIA:
   A. POLYVINYL CHLORIDE (PVC) SCHEDULE 40 TO BE USED FOR PIPE SIZES 6 INCHES AND SMALLER.
   B. STANDARD DIMENSION RATIO (SDR) 35 PVC OR 26 PVC CAN BE USED FOR PIPE SIZES 8 INCHES AND LARGER. SEE NOTE 6 BELOW REGARDING SDR 26 FITTINGS.

UTILITY CONSTRUCTION NOTES

1. CONTRACTOR TO VERIFY ALL PROPOSED UTILITY CONNECTIONS FOR BOTH LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS OR COMMENCEMENT OF WORK.
2. ALL GRAVITY LINES ARE TO BE CONSTRUCTED BEGINNING AT THE LOWEST POINT AND PROGRESSING UPSTREAM. IF CONTRACTOR ELECTS TO PROCEED WITH CONSTRUCTION OF UPSTREAM PORTIONS FIRST, AND ADDITIONAL COSTS ARE INCURRED, NO ADDITIONAL PAY OR CHANGE ORDERS WILL BE APPROVED BY ENGINEER.
3. CONTRACTOR SHALL CORE DRILL TO MAKE OPENING IN EXISTING MANHOLE. OPENING SHALL BE NO MORE THAN 3" AND NO LESS THAN 1" LARGER IN DIAMETER THAN PROPOSED PIPE. PIPE SHALL NOT PROTRUDE MORE THAN 3" PAST INSIDE FACE OF MANHOLE. FILL VOID AROUND PIPE WITH NON-SHRINK WATERPROOF GROUT AND BACKFILL MANHOLE WITH CEMENT-SAND.

GENERAL NOTES

1. REFER TO SITE ELECTRICAL PLAN BY MEP FOR PROPOSED SITE LIGHTING LAYOUT.
2. GRAPHICAL LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT FOR INSTALLATION OF PROPOSED UTILITIES ARE APPROXIMATE. CONTRACTOR TO ENSURE PROPOSED PAVEMENT MEETS LOCAL AHJ REQUIREMENTS, DETAILS, & SPECS.
3. PROPOSED UTILITY WORK WITHIN CITY OF SPRING VALLEY VILLAGE ROW WILL REQUIRE A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLAN IS TO BE PROVIDED BY CONTRACTOR, NO SEPARATE PAY. UNLESS ALREADY PROVIDED IN THIS PLAN SET.

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CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST 72 HOURS NOTICE BEFORE YOU DIG, DRILL OR BLAST – STOP CALL
TEXAS ONE CALL SYSTEM
1-800-344-8377
IN HOUSTON
(713)-223-4567

NO.	REVISIONS	DATE

ALJ Lindsey
Civil Engineers
18635 N. Eldridge Pkwy, Suite 200
Tomball, TX 77377
281.907.4909
FRN F-11526

BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
STATE OF TEXAS
10 MARCH 2026

ALJ PROJECT NO. 022.25.CV.620
DATE: MARCH 2026
SCALE: 1:XX
DRAWN BY: SRH
CHECKED BY: BTH

SANITARY SEWER PLAN

BINGLE ROAD RETAIL
1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C2.1

DOLPHIN'S COVE
(R.O.W. VARIES)

1
DOLPHIN'S COVE
SUBDIVISION
FINAL PLAT
F.C. NO. 695410 H.C.M.R.

LOT 3

EX TYPE "A" INLET
TG 68.13(±)
EX 24" ST 63.21(±)(N)
EX 24" FL 63.16(±)(S)

EX TYPE "A" INLET
TG 67.71(±)
EX 24" ST 62.87(±)(N)
EX 24" FL 59.08(±)(E)

EX FIRE HYDRANT

EX TYPE "C" INLET
RIM 67.89(±)
TH 67.20(±)
EX 24" FL 63.39(±)(E)

EX STM MH
RIM 67.89(±)
EX 24" FL 63.06(±)(E)
EX 72" FL 53.53(±)(S)
EX 72" FL 53.41(±)(N)

EX SSWR MH
RIM 67.01(±)
EX 8" FL 61.84(±)(W)
EX 12" FL 61.74(±)(S)
EX 12" FL 61.67(±)(N)

EX STM MH
RIM 67.73(±)
EX 24" FL 58.65(±)(W)
EX 72" FL 53.28(±)(N)
EX 72" FL 53.23(±)(S)

EX 72" STM
EX 24" STM

LOT 7 | LOT 8 | LOT 9 | LOT 6 | LOT 5 | LOT 4

WOODSBOROUGH CIRCLE
(CONCRETE)
(28' R.O.W.)

EX TELEPHONE MH

PUMP STATION FSMT
VOL. 326, PG.16 H.C.M.R.

CALL 1.85 AC.
GRACE CHAPEL CHINESE-AMERICAN NEW TESTAMENT
H.C.C.F. NO. V568780

EX BLDG
10,000+ SQ FT

W MEMORIAL PARK DR.
(CONCRETE)
(R.O.W. VARIES)

BINGLE RD
(CONCRETE)
(R.O.W. VARIES)

CALLED 2.0 ACRES
CITY OF SPRING VALLEY, TEXAS
H.C.C.F. NO. L945365

EX STM MH
RIM 67.82(±)
EX 72" FL 53.16(±)(N)
EX 72" FL 53.13(±)(SE)

EX TYPE "C" INLET
RIM 66.06(±)
TH 65.44(±)
EX 24" FL 60.68(±)(SW)

EX STM MH
RIM 67.30(±)
EX 24" FL 60.12(±)(NE)
EX 72" FL 53.18(±)(NW)
EX 72" FL 53.11(±)(SE)

EX TYPE "D" INLET
RIM 65.10(±)
EX 24" FL 62.50(±)(SW)

EX TYPE "A" INLET
TG 65.97(±)
EX 24" ST 63.36(±)(NE)

EX STM MH
RIM 65.54(±)
EX 72" FL 53.04(±)(NW)
EX 72" FL 52.91(±)(SE)

EX TYPE "C" INLET
RIM 65.60(±)
TH 64.65(±)
EX 24" FL 58.14(±)(S)

EX TYPE "C" INLET
RIM 65.36(±)
TH 64.39(±)
EX 24" FL 57.81(±)(NW)
EX 24" FL 57.73(±)(SE)
EX 24" FL 57.65(±)(E)

INSTALL:
1 – 8" 11° BEND
2 – 22.5° BENDS

INSTALL:
1 – 6" FH W/ GATE
VALVE ON EXISTING
6" FIRE LINE (NFV)

INSTALL:
2 – 8" 45° BENDS

INSTALL:
1 – STANDARD
FH ASSEMBLY
W/ GATE VALVE

INSTALL:
1 – 8" X 6" TEE

PROP 8"
FIRE LOOP

PROP 6"
FIRE LINE

PROP BLDG
6,254 SQ FT
FF = 67.75

PROP BLDG
6,469 SQ FT
FF = 67.75

CALL 1.658 AC.
WALLACE AND MARIE DILLARD
FAMILY LIMITED PARTNERSHIP, LTD.
H.C.C.F. NO. RP-2022-152249

PROP BLDG. TO BE SERVED
BY FIRE CONNECTION FROM
ADJACENT BLDG. (REF MEP
PLANS FOR CONNECTION)

PROP 6" FIRE LINE
CONN (REF MEP PLANS
FOR CONTINUATION)

INSTALL:
1 – 8" 45° BEND
1 – 8" 22.5° BEND

PROP 2" DOM WL CONN
(REF MEP PLANS FOR
CONTINUATION)

PROP 2"
DOM WL

INSTALL:
1 – 8" X 6" WYE

INSTALL:
1 – 8" 1300
RADIAL BEND

INSTALL:
1 – 8" 45° BEND
1 – 2" 45° BEND

INSTALL:
2 – 8" 45° BENDS
2 – 2" 45° BENDS

INSTALL:
1 – 8" X 8" TEE

INSTALL:
1 – "X" X 8" TS&V
1 – 8" X 1" TEE
2 – 8" 45° BENDS
1 – 8" F.R.C.M.A.
1 – 8" X 2" TEE
1 – 8" RPZ BFP
1 – 2" 90° BEND
1 – 2" RPZ BFP
1 – 1" IRR METER
1 – 1" 90° BEND
1 – 1" RPZ BFP W/
CAGE, PLUG, CLAMP
& MARK

PROP 25' X
15' W.M.E.

25'
15'

℄ EX BRIAR BAYOU

ZONE X (SHADED)
REGULATORY FLOODWAY
ZONE AE
ZONE X (SHADED)
ZONE X (UNSHADED)
ZONE X (SHADED)
℄ EX BRIAR BAYOU
ZONE AE
REGULATORY FLOODWAY
ZONE X (UNSHADED)

BENCHMARK NOTES

RM 210215
BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
ELEV. 68.31 NAVD88 (2001 ADJUSTMENT)

RM 210255
BRASS DISK LOCATED ON THE EAST WALKWAY OF BRIDGE ON FRIES ROAD, BEING APPROX 0.5 MILES NORTH FROM THE INTERSECTION WITH INTERSTATE 10 (STREAM W140-00-00)
ELEV. 70.83 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-7
SCRIBED "X" ON TOP OF A CURB LOCATED ON THE SOUTHWEST SIDE OF BINGLE ROAD, BEING APPROX 400 FEET NORTHWEST FROM THE INTERSECTION WITH INTERSTATE 10, APPROX 35.9 FEET NORTHEAST FROM A "NO DUMPING OR TRESPASSING" SIGN, AND APPROX 30.1 FEET SOUTHWEST FROM A STORM INLET.
ELEV. 66.74 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-8
SCRIBED "X" ON TOP OF A CURB INLET LOCATED ON THE NORTH SIDE OF INTERSTATE 10 WEST BOUND SERVICE ROAD, BEING THE FIRST INLET WEST FROM THE INTERSECTION WITH BINGLE ROAD.
ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

WL	PROPOSED WATER LINE
FIRE	PROPOSED FIRE LINE
SS	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
1	PROPOSED WATER & SSWR CROSSING
	EX. STORM SEWER
WL	EX. WATER LINE
SS	EX. SANITARY SEWER LINE
100	EX. MAJOR CONTOUR
99	EX. MINOR CONTOUR

WATER NOTES

1. REFERENCE WATER LINE NOTES ON SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFERENCE MEP PLANS FOR CONTINUATION OF WATER FACILITIES INSIDE BUILDING.
3. FIRE LINE IS SHOWN FOR ALIGNMENT AND POINT OF CONNECTION PURPOSES ONLY. ALL FIRE LINES ARE TO BE DESIGNED, INSTALLED, AND TESTED BY A LICENSED RME–U PER NFPA REGULATIONS, INCLUDING BUT NOT LIMITED TO SIZE, MATERIALS, THRUST BLOCKING, APPURTENANCES, ETC.
4. ALL UTILITY BOXES LOCATED WITHIN CONCRETE PAVEMENT TO BE TRAFFIC RATED.
5. FITTINGS IDENTIFIED ON THESE PLANS ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. NOT ALL FITTINGS ARE SHOWN OR INDICATED ON THESE PLANS.
6. ALL WATER & SANITARY SEWER CROSSINGS TO BE INSTALLED PER AHJ & TCEQ REGULATIONS.
7. 4" THRU 12" WATER LINES SHALL BE P.V.C. CLASS 150, DR–18, AWWA C–900 AND 1" THRU 3" WATER LINES SHALL BE PVC SCHEDULE 40. 4" THRU 54" D.I.P. WATER LINES SHALL BE AWWA C151 (ANSI A21.51) AND DOUBLE WRAPPED IN 8–MIL POLYETHYLENE. PIPE SHALL BE LINED IN ACCORDANCE WITH AWWA C104 (ANSI A21.4).

UTILITY CONSTRUCTION NOTES

1. CONTRACTOR TO VERIFY ALL PROPOSED UTILITY CONNECTIONS FOR BOTH LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS OR COMMENCEMENT OF WORK.

GENERAL NOTES

1. REFER TO SITE ELECTRICAL PLAN BY MEP FOR PROPOSED SITE LIGHTING LAYOUT.
2. GRAPHICAL LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT FOR INSTALLATION OF PROPOSED UTILITIES ARE APPROXIMATE. CONTRACTOR TO ENSURE PROPOSED PAVEMENT MEETS LOCAL AHJ REQUIREMENTS, DETAILS, & SPECS.
3. PROPOSED UTILITY WORK WITHIN CITY OF SPRING VALLEY VILLAGE ROW WILL REQUIRE A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLAN IS TO BE PROVIDED BY CONTRACTOR, NO SEPARATE PAY. UNLESS ALREADY PROVIDED IN THIS PLAN SET.

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST 72 HOURS NOTICE BEFORE YOU DIG, DRILL OR BLAST – STOP CALL
TEXAS ONE CALL SYSTEM
1–800–344–8377
IN HOUSTON
(713)–223–4567

NO.	REVISIONS	DATE

ALJ Lindsey
Civil Engineers
18635 N. Eldridge Pkwy, Suite 200
Tomball, TX 77377
281.907.4909
FRN F-11526

STATE OF TEXAS
BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
10 MARCH 2026

ALJ PROJECT NO. 022.25.CV.620
DATE: MARCH 2026
SCALE: 1:XX
DRAWN BY: SRH
CHECKED BY: BTH

WATER PLAN

BINGLE ROAD RETAIL
1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C2.2

DETENTION VOLUME TO BE PROVIDED IN UNDERGROUND DETENTION SYSTEM: 58,516 CF

CROSSING TABLE						
		FL			FL	CLR
A	24" STM	55.46	16" WTR		60.00	2.54'
B	12" STM	62.56	2" WTR		60.00	2.39'
C	12" STM	62.58	8" WTR		60.00	1.91'
D	6" STM	61.64	8" WTR		60.00	0.97'
E	6" STM	61.47	2" WTR		60.00	1.30'
F	6" STM	61.50	8" WTR		60.00	0.83'
G	6" STM	61.55	8" WTR		60.00	0.88'
H	6" SSWR	62.13	8" WTR		60.00	1.46'
I	6" SSWR	61.48	8" WTR		60.00	0.81'

BENCHMARK NOTES

RM 210215
BRASS DISK LOCATED ON THE SOUTH WALKWAY OF BRIDGE AT THE INTERSECTION OF WESTVIEW DRIVE AND SPRING BRANCH (STREAM W140-00-00)
ELEV. 68.31 NAVD88 (2001 ADJUSTMENT)

RM 210255
BRASS DISK LOCATED ON THE EAST WALKWAY OF BRIDGE ON FRIES ROAD, BEING APPROX 0.5 MILES NORTH FROM THE INTERSECTION WITH INTERSTATE 10 (STREAM W140-00-00)
ELEV. 70.83 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-7
SCRIBED "X" ON TOP OF A CURB LOCATED ON THE SOUTHWEST SIDE OF BINGLE ROAD, BEING APPROX 400 FEET NORTHWEST FROM THE INTERSECTION WITH INTERSTATE 10, APPROX 35.9 FEET NORTHEAST FROM A "NO DUMPING OR TRESPASSING" SIGN, AND APPROX 30.1 FEET SOUTHWEST FROM A STORM INLET.
ELEV. 66.74 NAVD88 (2001 ADJUSTMENT)

TBM 25.0070-8
SCRIBED "X" ON TOP OF A CURB INLET LOCATED ON THE NORTH SIDE OF INTERSTATE 10 WEST BOUND SERVICE ROAD, BEING THE FIRST INLET WEST FROM THE INTERSECTION WITH BINGLE ROAD.
ELEV. 65.74 NAVD88 (2001 ADJUSTMENT)

0 15 30 60
1 inch = 30 ft.
GRAPHIC SCALE

LEGEND

- D-A / AC / CFS — DRAINAGE AREA NUMBER / ACREAGE (AC) / DRAINAGE AREA FLOW (CFS)
- PROP. DRAINAGE AREA BOUNDARY
- EXISTING OFFSITE DRAINAGE FLOW DIRECTION
- EE — EXTREME EVENT OVERLAND FLOW
- PROPOSED STORM SEWER
- SS — PROPOSED SANITARY SEWER LINE
- WL — PROPOSED WATER LINE
- PROPOSED GRATE INLET
- A — UTILITY CROSSING
- 1 — PROPOSED DOWNSPOUT CONNECTION (REF. ARCHITECTURAL PLANS)
- EX. STORM SEWER
- WL — EX. WATER LINE
- SS — EX. SANITARY SEWER LINE
- 100 — EX. MAJOR CONTOUR
- 99 — EX. MINOR CONTOUR

GENERAL NOTES

1. REFERENCE STORM SEWER NOTES SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
2. REFERENCE MEP PLANS FOR EXACT CONTINUATION OF PROPOSED STORM SEWER INSIDE OF BUILDING.
3. FOR TYPE "A" INLET, JUNCTION BOX, TYPE "C" MANHOLE, TYPE "BB" INLET, TRENCH DRAIN, AND BACKFILL DETAILS, SEE SHEET <INSERT>.
4. CONTRACTOR TO VERIFY STORM SEWER CONNECTION FOR LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS OR COMMENCEMENT OF WORK.
5. TOP OF GRATE ELEVATIONS SHOWN ARE FOR REFERENCE ONLY. SEE GRADING ON SHEET C4.0 & C4.1 FOR FINAL TOP OF GRATE ELEVATIONS.
6. ALL GRAVITY STORM LINES TO BE CONSTRUCTED STARTING FROM THE LOWEST POINT.

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

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No.	REVISIONS	DATE

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BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
STATE OF TEXAS
10 MARCH 2026

ALJ PROJECT NO. 022.25.CV.620
DATE: MARCH 2026
SCALE: 1:30
DRAWN BY: SRH
CHECKED BY: BTH

STORM SEWER PLAN

BINGLE ROAD RETAIL
1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C3.0

Storm Sewer Design Analysis

Bingle Road Retail
Bingle Road & IH-10
Houston, Texas

Design Frequency: 2 years
100-Year Multiplier: 1.00
Downstream 25-year WS ELEV 59.11 feet

Manhole No. From	to	Sta. Up (ft)	Sta. Down (ft)	Drainage Area (acres)	Total Area (acres)	Runoff Coefficient C	DA C * A	Total C * A	Time of Conc. (min)	Intensity I (in/hr)	Drainage Area Flow (cfs)	Total Flow (cfs)	Reach Length (ft)	Diameter (in)	Slope %	Manning's Roughness Coefficient "n"	Design Capacity (cfs)	Design Velocity (ft/sec)	Full Pipe Flow Area (sq ft)	Full Pipe Flow Wetted Perimeter (ft)	Fall (ft)	Drop from Downstream Manhole (ft)	Flowline Elevation Upstream (ft)	Flowline Elevation Downstream (ft)	Minimum Depth Ratio (y/d or y/h)	Minimum W.S. Elev. Downstream (ft)	Actual Depth Ratio y/d or y/h	Actual Flow per Barrel: Actual Velocity (ft/sec)	Actual Flow per Barrel: Area (sq ft)	Actual Flow per Barrel: Wetted Perimeter (ft)	Actual Flow per Barrel: Hydraulic Gradient %	Change in Head (ft)	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream (ft)	Top of Pipe Elevation Upstream (ft)	Top of Pipe Elevation Downstream (ft)	Pvmt / Grate Elevation Upstream (ft)
A2	A1	0+00.00	0+00.00	0.18	0.18	0.80	0.14	0.14	22.39	3.98	0.57	0.57	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00	0.00	0.00														65.85
A1	A0	0+00.00	0+00.00	0.21	0.39	0.80	0.17	0.31	23.47	3.88	0.65	1.21	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00		0.00														65.85
B3	B2	2+21.09	1+11.27	0.25	0.25	0.80	0.20	0.20	22.83	3.94	0.79	0.79	110	12	0.450	0.013	2.4	3.0	0.8	3.1	0.49	0.00	61.91	61.42	0.39	61.81	1.00	1.00	0.79	3.14	0.049	0.05	62.64	62.59	62.91	62.42	66.00
B2	B1	1+11.27	0+41.19	0.13	0.38	0.80	0.10	0.30	23.43	3.88	0.40	1.18	70	12	0.450	0.013	2.4	3.0	0.8	3.1	0.32	0.00	61.42	61.10	0.49	61.59	1.00	1.50	0.79	3.14	0.110	0.08	62.59	62.51	62.42	62.10	66.00
B1	B0	0+41.19	0+00.00	0.19	0.57	0.80	0.15	0.46	24.06	3.83	0.58	1.75	41	18	0.250	0.013	5.3	3.0	1.8	4.7	0.10		61.10	61.00	0.39	61.59	1.00	0.99	1.77	4.71	0.028	0.01	62.51	62.50	62.60	62.50	65.85
C1	C0	0+24.09	0+00.00	0.12	0.12	0.80	0.10	0.10	21.88	4.02	0.39	0.39	24	12	0.450	0.013	2.4	3.0	0.8	3.1	0.11		62.10	61.99	0.27	62.26	1.00	0.49	0.79	3.14	0.012	0.00	62.99	62.99	63.10	62.99	65.10
D5	D4	4+05.17	3+73.20	0.19	0.19	0.80	0.15	0.15	22.46	3.97	0.60	0.60	32	12	0.450	0.013	2.4	3.0	0.8	3.1	0.14	0.00	63.25	63.11	0.34	63.45	0.54	1.43	0.42	1.63	0.094	0.03	63.68	63.65	64.25	64.11	66.25
D4	D3	3+73.20	3+08.15	0.07	0.40	0.80	0.06	0.32	23.51	3.88	0.22	1.24	65	12	0.450	0.013	2.4	3.0	0.8	3.1	0.29	0.50	63.11	62.82	0.51	63.33	0.51	3.16	0.39	1.57	0.485	0.32	63.65	63.33	64.11	63.82	66.25
D3	D2	3+08.15	1+89.64	0.10	0.50	0.80	0.08	0.40	23.85	3.85	0.31	1.54	119	18	0.250	0.013	5.3	3.0	1.8	4.7	0.30	0.00	62.32	62.02	0.37	62.58	0.76	1.07	1.44	3.18	0.025	0.03	63.19	63.16	63.82	63.52	66.00
D2	D1	1+89.64	0+60.74	0.12	0.77	0.80	0.10	0.62	24.56	3.79	0.36	2.34	129	18	0.250	0.013	5.3	3.0	1.8	4.7	0.32	0.50	62.02	61.70	0.46	62.39	0.94	1.37	1.71	3.91	0.043	0.06	63.16	63.11	63.52	63.20	66.15
D1	D0	0+60.74	0+00.00	0.16	0.93	0.80	0.13	0.75	24.88	3.76	0.48	2.81	61	24	0.170	0.013	9.3	3.0	3.1	6.3	0.10		61.20	61.10	0.37	61.84	1.00	0.89	3.14	6.28	0.015	0.01	63.11	63.10	63.20	63.10	66.00
D2A	D2	0+66.70	0+00.00	0.003	0.003	0.80	0.002	0.002	18.60	4.36	0.01	0.01	67	12	0.500	0.013	2.5	3.2	0.8	3.1	0.33		0.33	0.00													
R1	D2	0+01.00	0+00.00	0.15	0.15	0.80	0.12	0.12	22.16	4.00	0.48	0.48	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													
R2	D4	0+01.00	0+00.00	0.14	0.14	0.80	0.11	0.11	22.07	4.00	0.45	0.45	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													

Storm Sewer Design Analysis

Bingle Road Retail
Bingle Road & IH-10
Houston, Texas

Design Frequency: 100 years
100-Year Multiplier: 1.00
Downstream 25-year WS ELEV 59.11 feet

Manhole No. From	to	Sta. Up (ft)	Sta. Down (ft)	Drainage Area (acres)	Total Area (acres)	Runoff Coefficient C	DA C * A	Total C * A	Time of Conc. (min)	Intensity I (in/hr)	Drainage Area Flow (cfs)	Total Flow (cfs)	Reach Length (ft)	Diameter (in)	Slope %	Manning's Roughness Coefficient "n"	Design Capacity (cfs)	Design Velocity (ft/sec)	Full Pipe Flow Area (sq ft)	Full Pipe Flow Wetted Perimeter (ft)	Fall (ft)	Drop from Downstream Manhole (ft)	Flowline Elevation Upstream (ft)	Flowline Elevation Downstream (ft)	Minimum Depth Ratio (y/d or y/h)	Minimum W.S. Elev. Downstream (ft)	Actual Depth Ratio y/d or y/h	Actual Flow per Barrel: Actual Velocity (ft/sec)	Actual Flow per Barrel: Area (sq ft)	Actual Flow per Barrel: Wetted Perimeter (ft)	Actual Flow per Barrel: Hydraulic Gradient %	Change in Head (ft)	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream (ft)	Top of Pipe Elevation Upstream (ft)	Top of Pipe Elevation Downstream (ft)	Pvmt / Grate Elevation Upstream (ft)
A2	A1	0+00.00	0+00.00	0.18	0.18	0.80	0.14	0.14	22.39	9.01	1.30	1.30	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00	0.00	0.00														65.85
A1	A0	0+00.00	0+00.00	0.21	0.39	0.80	0.17	0.31	23.47	8.81	1.48	2.75	0	12	0.500	0.013	2.5	3.2	0.8	3.1	0.00		0.00														65.85
B3	B2	2+21.09	1+11.27	0.25	0.25	0.80	0.20	0.20	22.83	8.92	1.78	1.78	110	12	0.450	0.013	2.4	3.0	0.8	3.1	0.49	0.00	61.91	61.42	0.64	62.06	1.00	2.27	0.79	3.14	0.251	0.28	63.23	62.96	62.91	62.42	66.00
B2	B1	1+11.27	0+41.19	0.13	0.38	0.80	0.10	0.30	23.43	8.81	0.92	2.68	70	12	0.450	0.013	2.4	3.0	0.8	3.1	0.32	0.00	61.42	61.10	1.00	62.10	1.00	3.41	0.79	3.14	0.565	0.40	62.96	62.56	62.42	62.10	66.00
B1	B0	0+41.19	0+00.00	0.19	0.57	0.80	0.15	0.46	24.06	8.70	1.32	3.97	41	18	0.250	0.013	5.3	3.0	1.8	4.7	0.10		61.10	61.00	0.64	61.96	1.00	2.25	1.77	4.71	0.143	0.06	62.56	62.50	62.60	62.50	65.85
C1	C0	0+24.09	0+00.00	0.12	0.12	0.80	0.10	0.10	21.88	9.11	0.87	0.87	24	12	0.450	0.013	2.4	3.0	0.8	3.1	0.11		62.10	61.99	0.41	62.40	1.00	1.11	0.79	3.14	0.060	0.01	63.00	62.99	63.10	62.99	65.10
D5	D4	4+05.17	3+73.20	0.19	0.19	0.80	0.15	0.15	22.46	9.00	1.37	1.37	32	12	0.450	0.013	2.4	3.0	0.8	3.1	0.14	0.00	63.25	63.11	0.54	63.65	1.00	1.74	0.79	3.14	0.147	0.05	64.27	64.23	64.25	64.11	66.25
D4	D3	3+73.20	3+08.15	0.07	0.40	0.80	0.06	0.32	23.51	8.80	0.49	2.82	65	12	0.450	0.013	2.4	3.0	0.8	3.1	0.29	0.50	63.11	62.82	1.00	63.82	1.00	3.59	0.79	3.14	0.625	0.41	64.23	63.82	64.11	63.82	66.25
D3	D2	3+08.15	1+89.64	0.10	0.50	0.80	0.08	0.40	23.85	8.74	0.70	3.49	119	18	0.250	0.013	5.3	3.0	1.8	4.7	0.30	0.00	62.32	62.02	0.59	62.91	0.94	2.03	1.72	3.97	0.096	0.11	63.55	63.44	63.82	63.52	66.00
D2	D1	1+89.64	0+60.74	0.12	0.77	0.80	0.10	0.62	24.56	8.61	0.83	5.33	129	18	0.250	0.013	5.3	3.0	1.8	4.7	0.32	0.50	62.02	61.70	0.83	62.95	0.97	3.06	1.74	4.11	0.224	0.29	63.44	63.15	63.52	63.20	66.15
D1	D0	0+60.74	0+00.00	0.16	0.93	0.80	0.13	0.75	24.88	8.56	1.10	6.39	61	24	0.170	0.013	9.3	3.0	3.1	6.3	0.10		61.20	61.10	0.60	62.30	1.00	2.03	3.14	6.28	0.080	0.05	63.15	63.10	63.20	63.10	66.00
D2A	D2	0+66.70	0+00.00	0.003	0.003	0.80	0.002	0.002	18.60	9.84	0.02	0.02	67	12	0.500	0.013	2.5	3.2	0.8	3.1	0.33		0.33	0.00													
R1	D2	0+01.00	0+00.00	0.15	0.15	0.80	0.12	0.12	22.16	9.06	1.09	1.09	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													
R2	D4	0+01.00	0+00.00	0.14	0.14	0.80	0.11	0.11	22.07	9.07	1.02	1.02	1	12	0.500	0.013	2.5	3.2	0.8	3.1	0.01		0.01	0.00													

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
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OR BLAST – STOP CALL
TEXAS ONE CALL SYSTEM
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(713)-223-4567

NO. | REVISIONS | DATE

ALJ Lindsey
Civil Engineers
18635 N. Eldridge Pkwy, Suite 200
Tomball, TX 77377
281.304.3565
FRN F-11526

STATE OF TEXAS
BRETT T. HANRAHAN
112908
REGISTERED
PROFESSIONAL ENGINEER
10 MARCH 2026

ALJ PROJECT NO: 022.25.CV.620
DATE: MARCH 2026
SCALE: 1:XX
DRAWN BY: SRH
CHECKED BY: BTH

STORM SEWER CALCULATIONS

BINGLE ROAD RETAIL

1045 BINGLE ROAD
HOUSTON, TEXAS 77055

SHEET
C3.1

EXHIBIT “C” USE TABLE -ALL FLOORS

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06P:07:08 Permitted Uses for the BWPADD:

The provisions of this Section 06P:07:08 shall apply only to the Bingle West Planned Area Development District. No use shall be allowed within the BWPADD except as specifically provided in this Section.

.01 Use of Land and Buildings: Buildings, structures, land or premises shall be used only in accordance with the uses specifically permitted for the Bingle West Planned Area Development District, together with such accessory uses as are customarily incidental to that of the primary permitted use. All permitted uses shall be subject to compliance with applicable requirements of the City, this Chapter 12, and all terms and conditions of this ordinance.

.01 Retail Uses: Except as otherwise specifically provided herein, retail uses only shall be permitted on the ground level within the BWPADD. Retail uses may also be located on levels other than the ground level. Permitted retail uses shall include only those identified and described in the permitted use list set forth below.

.02 Office and Professional/Personal Service Uses: Office and professional/personal service uses shall be permitted on upper levels only within the BWPADD, it being specifically provided that no such use shall be permitted on the ground floor of any building. Permitted office and professional/personal service uses shall include only those identified and described in the permitted use list set forth below.

.03 Residential Uses: Notwithstanding 06P:07:08.03 below, detached single family residential dwelling uses shall be permitted within the BWPADD. Provided further, only detached single family residential dwelling uses shall be permitted within one hundred (100) feet of the northern boundary of the BWPADD.

.02 Permitted Uses: Permitted uses in the BWPADD are as shown in the permitted use list set forth in Subsection 06P:08.05 below.

.03 Prohibited Uses: The following uses are specifically prohibited.

.01 Uses Not Listed: Uses not specifically identified as permitted uses in the permitted use list below are not authorized unless a specific use permit is granted therefor by the City Council, following hearing thereon, and a determination that such proposed use is equivalent to a permitted use on the permitted use list.

.02 Categorical Prohibitions: The following uses are hereby found, determined and declared to be inconsistent and detrimental to the use and development of land within the BWPADD as set forth in the comprehensive development plan and as set forth hereinabove, to wit: industrial uses; warehousing and other commercial or private storage other than the storage of inventory or supplies that are clearly subordinate and incidental to a permitted use; distribution facilities; outdoor commercial recreational facilities; any form of drive-up or drive-thru service; theaters or other places of assembly; storage, display or parking of automobiles, trucks, trailers, boats, motorcycles, or other similar devices relating or incidental to their sales, rentals, service, repair or maintenance, or for use for deliveries of any kind; storage or display of rental equipment; the storage or display of a vehicle fleet used for any purpose; any use not specifically authorized in the permitted use list set forth in Subsection 06P:07.08.05 below unless a specific use permit has been issued by the City Council in accordance with Subsection .01 next above.

.04 North American Industry Classification System. The North American Industry Classification System, 1997 Edition, as published by the Office of Management and Budget ("NAICS"), a true and correct copy of which is on file in the office of the City Secretary, is hereby adopted and incorporated herein by reference. The group descriptions and classifications shall control in determining the uses permitted hereunder. An identified

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classification sector or sub-sector in the permitted use list below shall mean and include only that classified use and its subcategories, as described and defined in the NAICS.

.05 Permitted Use List. The uses listed below are permitted in the BWPADD, except as otherwise limited herein. The symbol "P" in the right column means the use is permitted, while the symbol "O" means the use is permitted only for business office purposes. For instance, a manufacturing establishment would not be authorized to use a tract for manufacturing purposes, but the corporate offices for the manufacturing business would be authorized if indicated by the symbol "O."

GROUND OR FIRST FLOOR

Use Description	*NAICS Sector. #*	
Retail Trade	44	
Furniture Stores	442110	P
Floor Covering Stores	442210	P
Window Treatment Stores	442291	P
All Other Home Furnishings Stores	442299	P
Household Appliance Stores	443111	P
Radio, Television, and Other Electronics Stores	443112	P
Computer and Software Stores	443120	P
Camera and Photographic Supplies Stores	443130	P
Home Centers	444110	P
Paint and Wallpaper Stores	444120	P
Hardware Stores	444130	P
Baked Goods Stores	445291	P
Confectionery and Nut Stores	445292	P
All Other Specialty Food Stores	445299	P
Cosmetics, Beauty Supplies, and Perfume Stores	446120	P
Optical Goods Stores	446130	P
Food (Health) Supplement Stores	446191	P
Men's Clothing Stores	448110	P
Women's Clothing Stores	448120	P
Children's and Infants' Clothing Stores	448130	P
Family Clothing Stores	448140	P
Clothing Accessories Stores	448150	P
Shoe Stores	448210	P
Jewelry Stores	448310	P
Luggage and Leather Goods Stores	448320	P
Retail Trade	45	
Sporting Goods Stores	451110	P
Hobby, Toy, and Game Stores	451120	P
Sewing, Needlework, and Piece Goods Stores	451130	P
Musical Instrument and Supplies Stores	451140	P
Book Stores	451211	P
Prerecorded Tape, Compact Disc, and Record Stores	451220	P
Department Stores (except Discount Department Stores)	452111	P
Florists	453110	P

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Office Supplies and Stationery Stores	453210	P
Gift, Novelty, and Souvenir Stores	453220	P
Pet and Pet Supplies Stores	453910	P
Art Dealers	453920	P
Accommodation and Food Services	72	
Full-Service Restaurants	722110	P
Limited-Service Restaurants	722211	P
Snack and Nonalcoholic Beverage Bars	722213	P
Other Services (except Public Administration)	81	
Parking Lots and Garages	812930	P

ABOVE GROUND/FIRST FLOOR

Use Description	*NAICS Sector. #*	
Agriculture, Forestry, Fishing and Hunting	11	O
Mining	21	O
Utilities	22	O
Construction	23	O
Manufacturing	31-33	O
Wholesale Trade	42	O
Retail Trade	44	O
Furniture Stores	442110	P
Floor Covering Stores	442210	P
Window Treatment Stores	442291	P
All Other Home Furnishings Stores	442299	P
Household Appliance Stores	443111	P
Radio, Television, and Other Electronics Stores	443112	P
Computer and Software Stores	443120	P
Camera and Photographic Supplies Stores	443130	P
Home Centers	444110	P
Paint and Wallpaper Stores	444120	P
Hardware Stores	444130	P
Baked Goods Stores	445291	P
Confectionery and Nut Stores	445292	P
All Other Specialty Food Stores	445299	P
Pharmacies and Drug Stores	446110	P
Cosmetics, Beauty Supplies, and Perfume Stores	446120	P
Optical Goods Stores	446130	P
Food (Health) Supplement Stores	446191	P
All Other Health and Personal Care Stores	446199	P
Men's Clothing Stores	448110	P
Women's Clothing Stores	448120	P
Children's and Infants' Clothing Stores	448130	P
Family Clothing Stores	448140	P
Clothing Accessories Stores	448150	P

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Shoe Stores	448210	P
Jewelry Stores	448310	P
Luggage and Leather Goods Stores	448320	P
Retail Trade	45	O
Sporting Goods Stores	451110	P
Hobby, Toy, and Game Stores	451120	P
Sewing, Needlework, and Piece Goods Stores	451130	P
Musical Instrument and Supplies Stores	451140	P
Book Stores	451211	P
Prerecorded Tape, Compact Disc, and Record Stores	451220	P
Department Stores (except Discount Department Stores)	452111	P
Florists	453110	P
Office Supplies and Stationery Stores	453210	P
Gift, Novelty, and Souvenir Stores	453220	P
Pet and Pet Supplies Stores	453910	P
Art Dealers	453920	P
Transportation and Warehousing	48-49	O
Warehousing and Storage	493	O
Information	51	O
Finance and Insurance	52	O
Monetary Authorities - Central Bank	521110	P
Commercial Banking	522110	P
Savings Institutions	522120	P
Credit Unions	522130	P
Other Depository Credit Intermediation	522190	P
Credit Card Issuing	522210	P
Sales Financing	522220	P
Consumer Lending	522291	P
Real Estate Credit	522292	P
International Trade Financing	522293	P
Secondary Market Financing	522294	P
Mortgage and Nonmortgage Loan Brokers	522310	P
Financial Transactions Processing, Reserve, and Clearinghouse Activities	522320	P
Other Activities Related to Credit Intermediation	522390	P
Investment Banking and Securities Dealing	523110	P
Securities Brokerage	523120	P
Commodity Contracts Dealing	523130	P
Commodity Contracts Brokerage	523140	P
Securities and Commodity Exchanges	523210	P
Miscellaneous Intermediation	523910	P
Portfolio Management	523920	P
Investment Advice	523930	P
Trust, Fiduciary, and Custody Activities	523991	P
Miscellaneous Financial Investment Activities	523999	P
Direct Life Insurance Carriers	524113	P
Direct Health and Medical Insurance Carriers	524114	P

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Direct Property and Casualty Insurance Carriers	524126	P
Direct Title Insurance Carriers	524127	P
Other Direct Insurance (except Life, Health, and Medical) Carriers	524128	P
Reinsurance Carriers	524130	P
Insurance Agencies and Brokerages	524210	P
Third Party Administration of Insurance and Pension Funds	524292	P
All Other Insurance Related Activities	524298	P
Pension Funds	525110	P
Health and Welfare Funds	525120	P
Other Insurance Funds	525190	P
Open-End Investment Funds	525910	P
Trusts, Estates, and Agency Accounts	525920	P
Real Estate Investment Trusts	525930	P
Other Financial Vehicles	525990	P
Real Estate and Rental and Leasing	53	O
Lessors of Residential Buildings and Dwellings	531110	P
Lessors of Nonresidential Buildings (except Miniwarehouses)	531120	P
Lessors of Other Real Estate Property	531190	P
Offices of Real Estate Agents and Brokers	531210	P
Residential Property Managers	531311	P
Nonresidential Property Managers	531312	P
Offices of Real Estate Appraisers	531320	P
Other Activities Related to Real Estate	531390	P
Formal Wear and Costume Rental	532220	P
Professional, Scientific, and Technical Services	54	P
Management of Companies and Enterprises	55	P
Administrative and Support and Waste Management and Remediation Services	56	O
Office Administrative Services	561110	P
Professional Employer Organizations	561330	P
Document Preparation Services	561410	P
Telephone Answering Services	561421	P
Private Mail Centers	561431	P
Other Business Service Centers (including Copy Shops)	561439	P
Credit Bureaus	561450	P
Court Reporting and Stenotype Services	561492	P
Travel Agencies	561510	P
Tour Operators	561520	P
Convention and Visitors Bureaus	561591	P
Investigation Services	561611	P
Locksmiths	561622	P
Convention and Trade Show Organizers	561920	P
Educational Services	61	O
Health Care and Social Assistance	62	O
Offices of Physicians (except Mental Health Specialists)	621111	P
Offices of Physicians, Mental Health Specialists	621112	P
Offices of Dentists	621210	P

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Offices of Chiropractors	621310	P
Offices of Optometrists	621320	P
Offices of Mental Health Practitioners (except Physicians)	621330	P
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	P
Offices of Podiatrists	621391	P
Offices of All Other Miscellaneous Health Practitioners	621399	P
Diagnostic Imaging Centers	621512	P
Home Health Care Services	621610	P
Arts, Entertainment, and Recreation	71	O
Accommodation and Food Services	72	O
Full-Service Restaurants	722110	P
Limited-Service Restaurants	722211	P
Snack and Nonalcoholic Beverage Bars	722213	P
Other Services (except Public Administration)	81	O
Barber Shops	812111	P
Beauty Salons	812112	P
Nail Salons	812113	P
Diet and Weight Reducing Centers	812191	P
Parking Lots and Garages	812930	P
Business Associations	813910	P
Professional Organizations	813920	P
Private Households	814110	P
Public Administration	92	O
Executive Offices	921110	P
Legislative Bodies	921120	P
Public Finance Activities	921130	P
Executive and Legislative Offices, Combined	921140	P
Other General Government Support	921190	P
Courts	922110	P
Police Protection	922120	P
Gift, Novelty, and Souvenir Stores	453220	P
Pet and Pet Supplies Stores	453910	P
Art Dealers	453920	P
Transportation and Warehousing	48-49	O
Warehousing and Storage	493	O
Information	51	O
Finance and Insurance	52	O
Monetary Authorities - Central Bank	521110	P
Commercial Banking	522110	P
Savings Institutions	522120	P
Credit Unions	522130	P
Other Depository Credit Intermediation	522190	P
Credit Card Issuing	522210	P
Sales Financing	522220	P
Consumer Lending	522291	P
Real Estate Credit	522292	P

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International Trade Financing	522293	P
Secondary Market Financing	522294	P
Mortgage and Nonmortgage Loan Brokers	522310	P
Financial Transactions Processing, Reserve, and Clearinghouse Activities	522320	P
Other Activities Related to Credit Intermediation	522390	P
Investment Banking and Securities Dealing	523110	P
Securities Brokerage	523120	P
Commodity Contracts Dealing	523130	P
Commodity Contracts Brokerage	523140	P
Securities and Commodity Exchanges	523210	P
Miscellaneous Intermediation	523910	P
Portfolio Management	523920	P
Investment Advice	523930	P
Trust, Fiduciary, and Custody Activities	523991	P
Miscellaneous Financial Investment Activities	523999	P
Direct Life Insurance Carriers	524113	P
Direct Health and Medical Insurance Carriers	524114	P
Direct Property and Casualty Insurance Carriers	524126	P
Direct Title Insurance Carriers	524127	P
Other Direct Insurance (except Life, Health, and Medical) Carriers	524128	P
Reinsurance Carriers	524130	P
Insurance Agencies and Brokerages	524210	P
Third Party Administration of Insurance and Pension Funds	524292	P
All Other Insurance Related Activities	524298	P
Pension Funds	525110	P
Health and Welfare Funds	525120	P
Other Insurance Funds	525190	P
Open-End Investment Funds	525910	P
Trusts, Estates, and Agency Accounts	525920	P
Real Estate Investment Trusts	525930	P
Other Financial Vehicles	525990	P
Real Estate and Rental and Leasing	53	O
Lessors of Residential Buildings and Dwellings	531110	P
Lessors of Nonresidential Buildings (except Miniwarehouses)	531120	P
Lessors of Other Real Estate Property	531190	P
Offices of Real Estate Agents and Brokers	531210	P
Residential Property Managers	531311	P
Nonresidential Property Managers	531312	P
Offices of Real Estate Appraisers	531320	P
Other Activities Related to Real Estate	531390	P
Formal Wear and Costume Rental	532220	P
Professional, Scientific, and Technical Services	54	P
Management of Companies and Enterprises	55	P
Administrative and Support and Waste Management and Remediation Services	56	O
Office Administrative Services	561110	P
Professional Employer Organizations	561330	P

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Document Preparation Services	561410	P
Telephone Answering Services	561421	P
Private Mail Centers	561431	P
Other Business Service Centers (including Copy Shops)	561439	P
Credit Bureaus	561450	P
Court Reporting and Stenotype Services	561492	P
Travel Agencies	561510	P
Tour Operators	561520	P
Convention and Visitors Bureaus	561591	P
Investigation Services	561611	P
Locksmiths	561622	P
Convention and Trade Show Organizers	561920	P
Educational Services	61	O
Health Care and Social Assistance	62	O
Offices of Physicians (except Mental Health Specialists)	621111	P
Offices of Physicians, Mental Health Specialists	621112	P
Offices of Dentists	621210	P
Offices of Chiropractors	621310	P
Offices of Optometrists	621320	P
Offices of Mental Health Practitioners (except Physicians)	621330	P
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	P
Offices of Podiatrists	621391	P
Offices of All Other Miscellaneous Health Practitioners	621399	P
Diagnostic Imaging Centers	621512	P
Home Health Care Services	621610	P
Arts, Entertainment, and Recreation	71	O
Accommodation and Food Services	72	O
Full-Service Restaurants	722110	P
Limited-Service Restaurants	722211	P
Snack and Nonalcoholic Beverage Bars	722213	P
Other Services (except Public Administration)	81	O
Barber Shops	812111	P
Beauty Salons	812112	P
Nail Salons	812113	P
Diet and Weight Reducing Centers	812191	P
Parking Lots and Garages	812930	P
Business Associations	813910	P
Professional Organizations	813920	P
Private Households	814110	P
Public Administration	92	O
Executive Offices	921110	P
Legislative Bodies	921120	P
Public Finance Activities	921130	P
Executive and Legislative Offices, Combined	921140	P
Other General Government Support	921190	P
Courts	922110	P

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Police Protection	922120	P

(Ordinance 2007-25 adopted 11-13-07)

06P:08.05 Permitted Use List:

The uses listed below are permitted in the FPADD and the BPADD (excluding interior Pads 1, 2, and 5), except as otherwise limited herein. Ground floor or first floor only—Up to forty (40) percent of the ground floor of any building(s) within a PAD may be used for any use otherwise permitted above the ground floor (e.g., O_2 or P_2). The symbol "P_1" in the right column means the use is permitted on the ground floor. The symbol "P_2" in the right column means the use is permitted above the ground floor. The symbol "O" means the use is permitted only for business office purposes. For instance, a manufacturing establishment would not be authorized to use a tract for manufacturing purposes, but the corporate offices for the manufacturing business would be authorized above the ground floor if indicated by the symbol "O_2."

Use Description	**NAICS Sector No.**	
Agriculture, Forestry, Fishing and Hunting	11	O_2
Mining, Quarrying, and Oil and Gas Extraction	21	O_2
Utilities	22	O_2
Construction	23	O_2
Manufacturing	31-33	O_2
Wholesale Trade	42	O_2
Retail Trade	44-45	O_2
Furniture and Home Furnishings Stores	442	P_1, P_2
Electronics and Appliance Stores	443	P_1, P_2
Building Material and Garden Equipment and Supplies Dealers	444	P_1, P_2
Supermarkets and Other Grocery (except Convenience) Stores	445110	P_1, P_2
Specialty Food Stores	4452	P_1, P_2
Beer, Wine, and Liquor Stores	445310; provided that (1) such stores contain at least 15,000 square feet enclosed space; and (2) such stores retail other specialized lines of food {NAICS Sector 4452}	P_1, P_2
Health and Personal Care Stores	446	P_1, P_2
Clothing and Clothing Accessories Stores	448	P_1, P_2
Sporting Goods, Hobby, Musical Instrument, and Book Stores	451; but excluding 4511023 {Gun Shops} and 451212 {News Dealers and Newsstands}	P_1, P_2
General Merchandise Stores	452; but excluding 452112 {Discount Department Stores} and 452990 {All Other General Merchandise Stores}	P_1, P_2
Transportation and Warehousing	48-49	O_2
Information	51; but excluding 5121 {Motion Picture and Video Industries}	O_2

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Finance and Insurance	52; but excluding 522390 {Other Activities Related to Credit Intermediation}	P [2]
Real Estate and Rental and Leasing	53	O [2]
Rental and Leasing Services	532; but excluding 5321 {Automotive Equipment Rental and Leasing} and 5323 {General Rental Centers}	P [2]
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	533	P [2]
Professional, Scientific, and Technical Services	54; but excluding 541380 {Testing Laboratories}, 541711 {Research and Development in Biotechnology}, 5419 {Other Professional, Scientific, and Technical Services}, and 54712 {Research and Development in Physical, Engineering, and Life Sciences}	P [2]
Management of Companies and Enterprises	55	P [2]
Administrative and Support Services	56; but excluding 561210 {Facilities Support Services}, 561320 {Temporary Help Services}, 561491 {Repossession Services}, 561612 {Security Guards and Patrol Services}, 561520 {Tour Operators}, 561710 {Exterminating and Pest Control Services}, 5419 {Other Professional, Scientific, and Technical Services}, and 562 {Waste Management and Remediation Services}	P [2]
Educational Services	61	O [2]
Health Care and Social Assistance	62; but excluding 62141 {Family Planning Centers}, 62142 {Outpatient Mental Health and Substance Abuse Centers}, 62221 {Psychiatric and Substance Abuse Hospitals}, 623 {Nursing and Residential Care Facilities}, 624 {Social Assistance}	P [2]
Arts, Entertainment, and Recreation	71; but excluding 711212 {Racetracks}, 713290 {Gambling Industries}, and 713990 {All Other Amusement and Recreation Industries}	O [2]
Accommodation and Food Services	72	O [2]
Full-Service Restaurants	722511	P [1], P [2]
Limited-Services Restaurants	722513	P [1], P [2]
Snack and Nonalcoholic Beverage Bars	722515	P [1], P [2]
Other Services (except Public Administration)	81; but excluding 81299 {All Other Personal Services}	O [2]
Repair and Maintenance	811; but excluding 8111 {Automotive Repair and Maintenance} and 8113 {Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance}	P [2]
Barber Shops	812111	P [2]
Beauty Salons	812112	P [2]
Nail Salons	812113	P [2]

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Diet and Weight Reducing Centers	812191	P [2]
Funeral Homes and Funeral Services	812210	P [2]
Drycleaning and Laundry Services (except Coin-Operated)	812320; except limited to drop stations only	P [2]
Parking Lots and Garages	812930 provided that such use is customarily incidental and accessory to the principal use of the land or to a building or structure on located on the same land as the accessory use	P [1], P [2]
Business Associations	813910	P [2]
Professional Organizations	813920	P [2]
Private Households	814110	P [1], P [2]
Public Administration	92	P [2]

(Ordinance 2005-18 adopted 8-4-05; Ordinance 2012-26 adopted 11-14-12)

EXHIBIT “ D” TRAFFIC IMPACT STUDY

ACE Traffic Engineering, LLC.

Bingle Road Mixed Use Development

Traffic Impact Analysis

Spring Valley Village, Texas

Prepared for:

ALJ Lindsey, LLC
18635 North Eldridge Pkwy, Ste 200
Tomball, TX 77377

May 2026

Bingle Road Mixed Use Development
Traffic Impact Analysis

Spring Valley Village, Texas

Prepared for:

ALJ Lindsey, LLC
18635 North Eldridge Pkwy, Ste 200
Tomball, TX

Prepared by:

ACE Traffic Engineering, LLC

ACE Traffic Engineering, LLC.
10810 Evanfield Ct
Cypress, TX 77433

Executive Summary

This traffic impact assessment is for a proposed mixed use development located in Spring Valley Village, Texas. The site is located on the west side of Bingle Rd at the intersection with W. Memorial Park Dr. The study area intersections include:

1. Bingle Rd @ Winningham Ln
2. Bingle Rd @ W. Memorial Park Dr
3. Bingle Rd @ I-10 Westbound Feeder Rd (WBFR)
4. Voss Rd @ I-10 Eastbound Feeder Rd (EBFR), and
5. Bingle Rd @ the two Site Driveways

The scope and analysis of the proposed development was proposed to and accepted by Public Works Staff. The **Executive Summary Exhibit** shows the boundaries of the study area. The development is planned to be constructed in one phase and is planned to be completed by 2027.

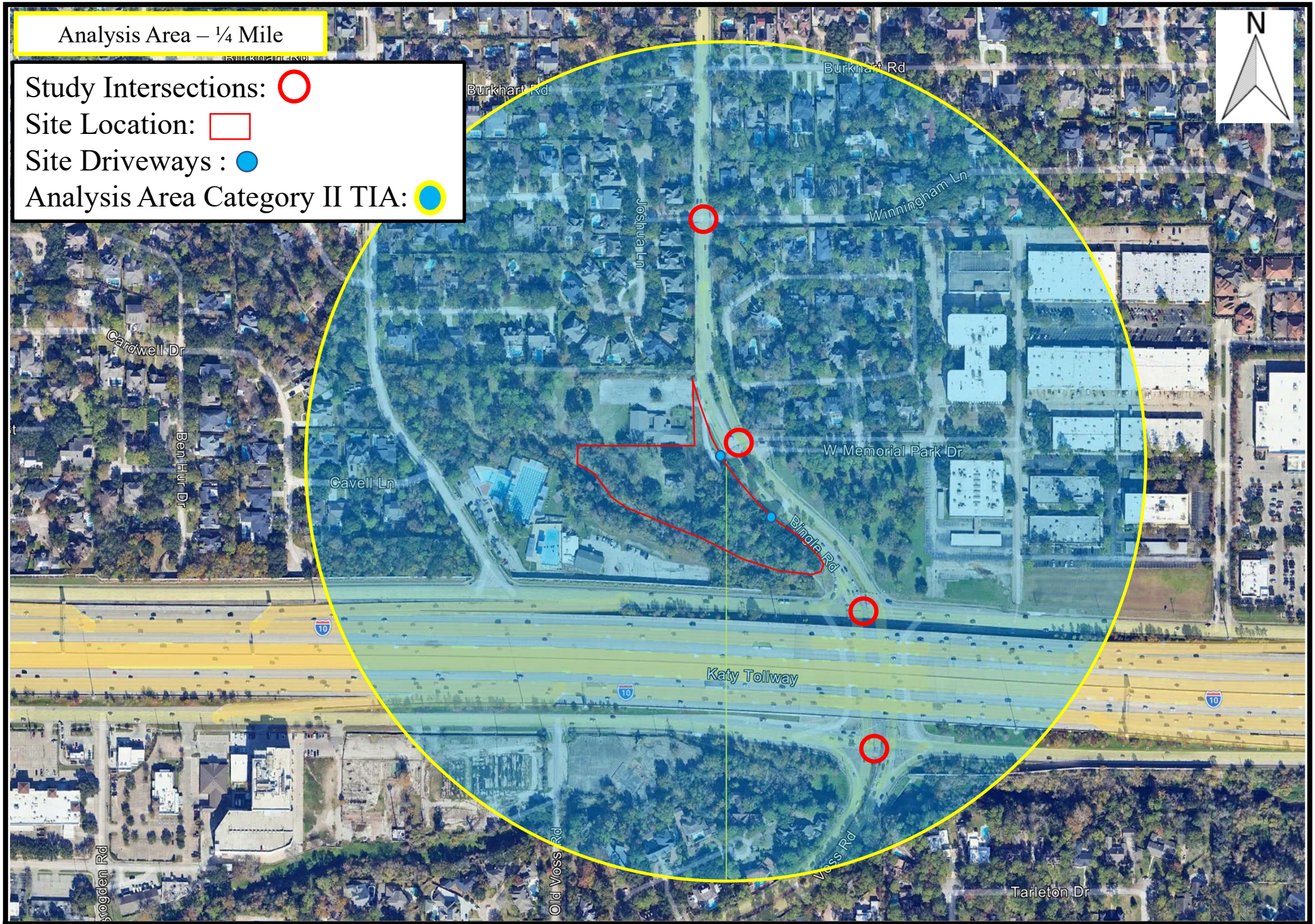
This development will consist of various restaurants, businesses, and medical office space. When completed, the overall development is projected to generate net new trips totaling 66 AM Trips (32 entering; 14 exiting) and 138 PM trips (77 entering; 71 exiting).

Traffic volume data was collected by Ally General Solutions at all study intersections on 5/19/26 and 5/21/26, between 7-9:00AM and 4-6:00PM. The peak hours identified for study within the report were 7:45-8:45AM and 4:30-5:30PM. The LOS results of the 2027 Build Conditions at all intersections remain at LOS D or better when moving from the No-Build to the Build Scenarios. Analyses indicates that vehicles entering the proposed development will not experience any additional notable delay during AM and PM peak hours at the site driveways and the site has sufficient storage on site to accommodate the projected on-site queue lengths.

The analysis of the turning volumes at Driveway 1 determined that a northbound left turn lane is warranted based on the left turn warrant criteria outlined in NCHRP Report 348. This will improve the safety at the intersection of Driveway 1. Queueing Analysis of the existing intersections requires that Driveway 2 function as a right-in-right-out driveway and the existing median opening adjacent to Driveway 2 be closed.

Based on this analysis, the proposed development is projected to have no major impacts to the study intersections. The following mitigations are the responsibility of the developer and should be installed as part of the project.

- Mitigation I: Close the existing median opening that is aligned with Driveway 2 as shown on **Executive Summary Exhibit II**.
- Mitigation II: Install a northbound Left-Turn lane on Bingle Rd at the intersection with Driveway 1 as shown on **Executive Summary Exhibit II**.



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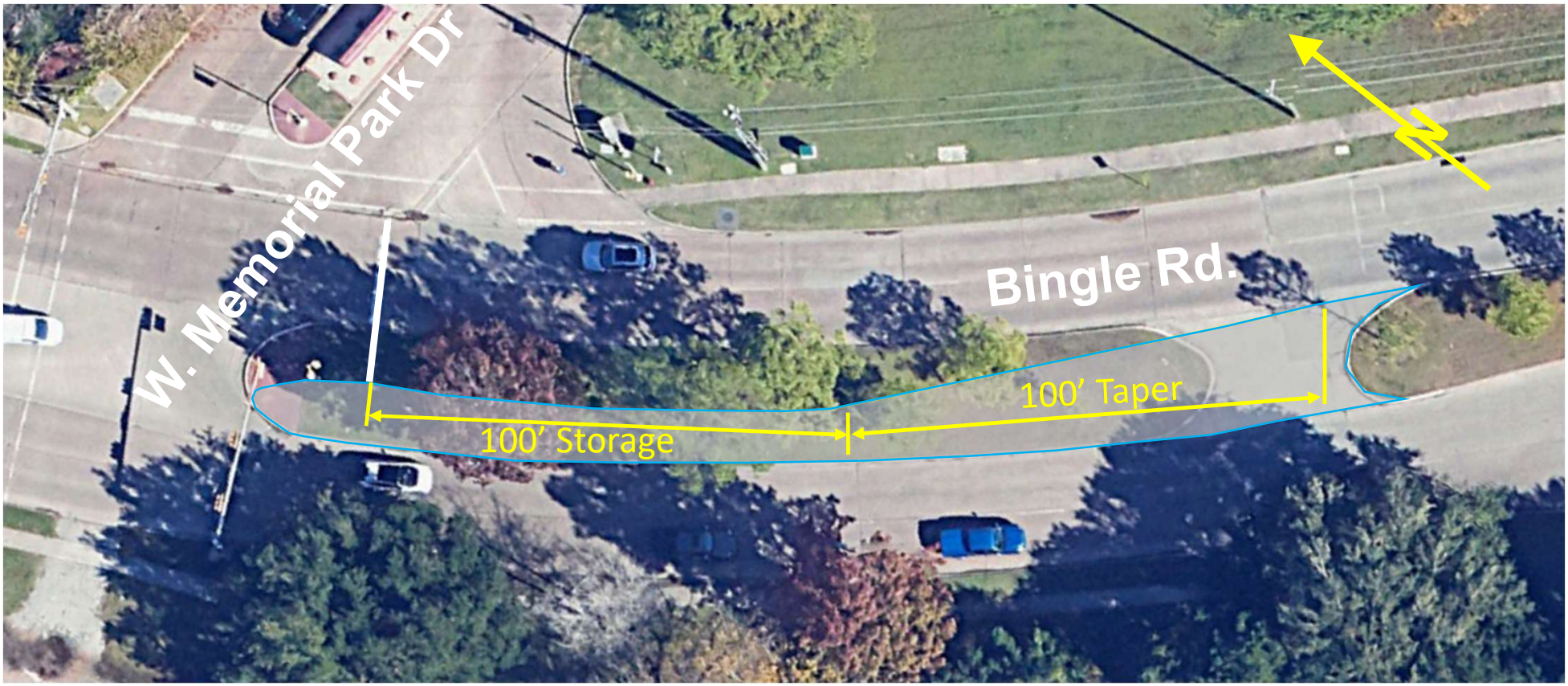
ANALYSIS AREA & STUDY INTERSECTIONS

Executive Summary Exhibit I


W. Memorial Park Dr
Bingle Rd.
N
100’ Storage
100’ Taper

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I. INTRODUCTION

A. PURPOSE

ACE Traffic Engineering, LLC. has been retained by ALJ Lindsey to perform a Traffic Impact Analysis (TIA) for a proposed mixed use development located in Spring Valley Village, Texas. The site is located on the west side of Bingle Rd at the intersection with W memorial Park Dr. The site/vicinity map is shown in **Exhibit 1**

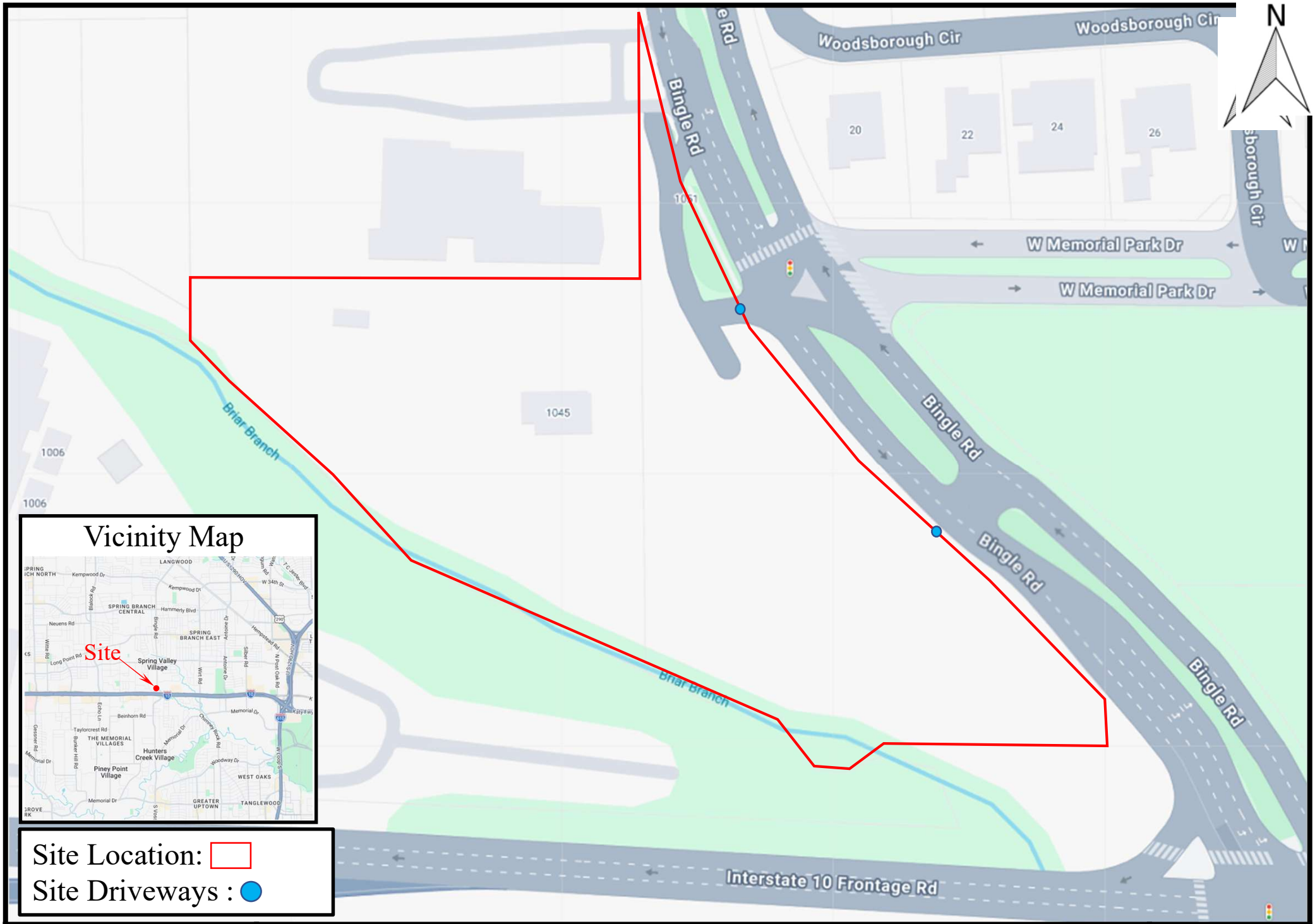
The purpose of this study is to address any potential traffic impacts of the proposed development on roadways and intersections within the study area. Objectives of this study are to determine the existing and future Levels-of-Service (LOS) at various study intersections and to recommend mitigation improvements, if necessary.

B. METHODOLOGY

The traffic evaluation is comprised of three (3) scenarios for which AM and PM peak hour LOS analyses were performed. For both signalized and unsignalized intersections, this analysis was conducted using *Synchro 11*™ software. **Table 1** provides a summary of the assumptions used in this TIA

Table 1 – Analysis Scenario Summary

Scenario	Roadway Conditions	Development Assumptions	Traffic Volumes
Existing Conditions (2026)	Existing Conditions	Existing Conditions	Existing Conditions
No Build Conditions (2027)	Existing Conditions	Existing Conditions	Existing Conditions + 1 year of Background Growth (1.0% Annually)
Build Conditions (2027)	No Build Conditions + Proposed Development Driveways	No Build Conditions + Full Development	No Build Conditions + Site Related Traffic


N
Woodsborough Cir
Bingle Rd
W Memorial Park Dr
Briar Branch
1045
1006
Interstate 10 Frontage Rd
Vicinity Map
Site
Site Location:
Site Driveways :

II. EXISTING AND PROPOSED LAND USE

A. EXISTING DEVELOPMENT

The site currently consists of vacant undeveloped land that will be cleared for the proposed development. There is one existing driveway located at the intersection of Bingle Rd at W. Memorial Park Dr which is the proposed location for Driveway 1.

B. SITE LOCATION / STUDY AREA

The subject site is located on the west side of Bingle Rd, at the intersection with W memorial Park Dr, within the City Limits. The study area analyzed as part of this TIA was developed based on a ¼ mile study area which was agreed to by City staff. The surrounding land uses within the study area consist of mostly of residential, with a few commercial properties. A list of intersections and associated traffic control analyzed within the study area are as described below:

Existing Signalized Intersection:

- Bingle Rd @ W Memorial Park Dr
- Bingle Rd @ Winningham Ln
- Bingle Rd @ I-10 WBFR
- Voss Rd @ I-10 EBFR

Proposed Unsignalized Intersection:

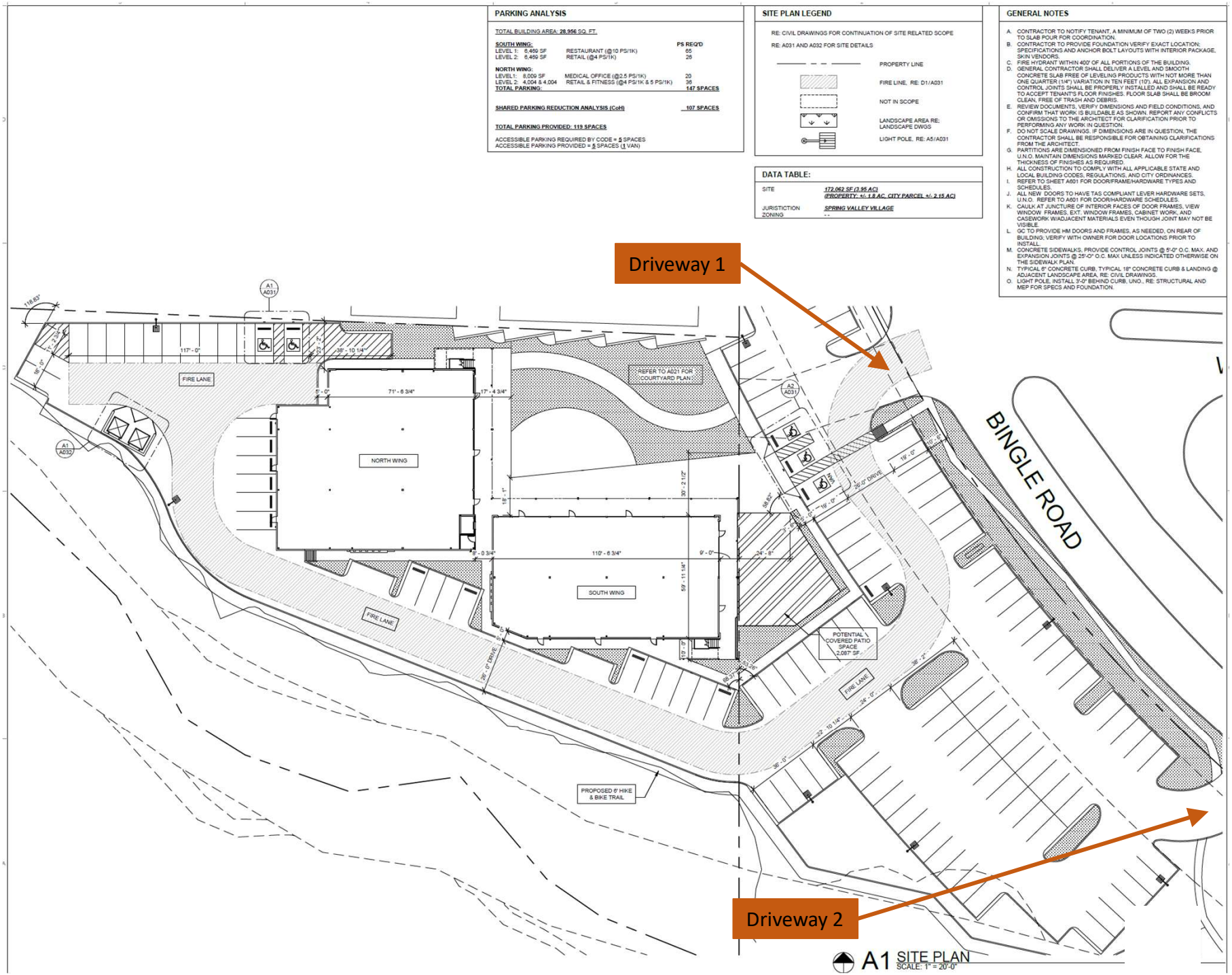
- Bingle Rd @ Site Driveway 2

C. PROPOSED DEVELOPMENT

Based on information provided by ALJ Lindsey, the proposed development will consist of a mixed use development which will be built in one phase. Two driveways are proposed as part of this development. The main access driveway will be the fourth leg of the intersection of Bingle Rd at W. Memorial Park Dr. The secondary driveway will align with the existing median cut along Bingle Rd, just north of I-10. The two site driveways are shown in **Exhibit 2**. Driveway 1 will be full-access and is the main access driveway. Driveway 2 is currently proposed as a full-access driveway (see **Section VI** for further description of proposed driveways). The proposed development is summarized below:

Proposed Development:

- Land Use: Mixed Use
  - Fine Dining Restaurant (931)
  - Strip Retail Plaza (822)
  - Medical Office (720)
  - Health/Fitness Club (492)
  - Fast Casual Restaurant (930)
- Driveways:
  - 2 Proposed Driveways
- Completion Year 2027


PARKING ANALYSIS
TOTAL BUILDING AREA: 28,956 SQ. FT.
SOUTH WING:
LEVEL 1: 6,469 SF RESTAURANT (@10 PS/1K) 65
LEVEL 2: 6,469 SF RETAIL (@4 PS/1K) 26
NORTH WING:
LEVEL 1: 8,009 SF MEDICAL OFFICE (@2.5 PS/1K) 20
LEVEL 2: 4,004 & 4,004 RETAIL & FITNESS (@4 PS/1K & 5 PS/1K) 36
TOTAL PARKING: 147 SPACES
SHARED PARKING REDUCTION ANALYSIS (CoH) 107 SPACES
TOTAL PARKING PROVIDED: 119 SPACES
ACCESSIBLE PARKING REQUIRED BY CODE = 5 SPACES
ACCESSIBLE PARKING PROVIDED = 5 SPACES (1 VAN)
SITE PLAN LEGEND
RE: CIVIL DRAWINGS FOR CONTINUATION OF SITE RELATED SCOPE
RE: A031 AND A032 FOR SITE DETAILS
PROPERTY LINE
FIRE LINE, RE: D1/A031
NOT IN SCOPE
LANDSCAPE AREA RE: LANDSCAPE DWGS
LIGHT POLE, RE: A5/A031
DATA TABLE:
SITE 172,062 SF (3.95 AC) (PROPERTY: +/- 1.8 AC, CITY PARCEL +/- 2.15 AC)
JURISTICTION SPRING VALLEY VILLAGE
ZONING --
GENERAL NOTES
A. CONTRACTOR TO NOTIFY TENANT, A MINIMUM OF TWO (2) WEEKS PRIOR TO SLAB POUR FOR COORDINATION.
B. CONTRACTOR TO PROVIDE FOUNDATION VERIFY EXACT LOCATION; SPECIFICATIONS AND ANCHOR BOLT LAYOUTS WITH INTERIOR PACKAGE, SKIN VENDORS.
C. FIRE HYDRANT WITHIN 400' OF ALL PORTIONS OF THE BUILDING.
D. GENERAL CONTRACTOR SHALL DELIVER A LEVEL AND SMOOTH CONCRETE SLAB FREE OF LEVELING PRODUCTS WITH NOT MORE THAN ONE QUARTER (1/4") VARIATION IN TEN FEET (10'). ALL EXPANSION AND CONTROL JOINTS SHALL BE PROPERLY INSTALLED AND SHALL BE READY TO ACCEPT TENANT'S FLOOR FINISHES. FLOOR SLAB SHALL BE BROOM CLEAN, FREE OF TRASH AND DEBRIS.
E. REVIEW DOCUMENTS, VERIFY DIMENSIONS AND FIELD CONDITIONS, AND CONFIRM THAT WORK IS BUILDABLE AS SHOWN. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK IN QUESTION.
F. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM THE ARCHITECT.
G. PARTITIONS ARE DIMENSIONED FROM FINISH FACE TO FINISH FACE, U.N.O. MAINTAIN DIMENSIONS MARKED CLEAR. ALLOW FOR THE THICKNESS OF FINISHES AS REQUIRED.
H. ALL CONSTRUCTION TO COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES, REGULATIONS, AND CITY ORDINANCES.
I. REFER TO SHEET A601 FOR DOOR/FRAME/HARDWARE TYPES AND SCHEDULES.
J. ALL NEW DOORS TO HAVE TAS COMPLIANT LEVER HARDWARE SETS, U.N.O. REFER TO A601 FOR DOOR/HARDWARE SCHEDULES.
K. CAULK AT JUNCTURE OF INTERIOR FACES OF DOOR FRAMES, VIEW WINDOW FRAMES, EXT. WINDOW FRAMES, CABINET WORK, AND CASEWORK W/ADJACENT MATERIALS EVEN THOUGH JOINT MAY NOT BE VISIBLE.
L. GC TO PROVIDE HM DOORS AND FRAMES, AS NEEDED, ON REAR OF BUILDING; VERIFY WITH OWNER FOR DOOR LOCATIONS PRIOR TO INSTALL.
M. CONCRETE SIDEWALKS: PROVIDE CONTROL JOINTS @ 5'-0" O.C. MAX. AND EXPANSION JOINTS @ 25'-0" O.C. MAX UNLESS INDICATED OTHERWISE ON THE SIDEWALK PLAN.
N. TYPICAL 6" CONCRETE CURB, TYPICAL 18" CONCRETE CURB & LANDING @ ADJACENT LANDSCAPE AREA. RE: CIVIL DRAWINGS.
O. LIGHT POLE, INSTALL 3'-0" BEHIND CURB, UNO., RE: STRUCTURAL AND MEP FOR SPECS AND FOUNDATION.
Driveway 1
Driveway 2
BINGLE ROAD
NORTH WING
SOUTH WING
FIRE LANE
REFER TO A021 FOR COURTYARD PLAN
POTENTIAL COVERED PATIO SPACE 2,087 SF
PROPOSED 8' HIKE & BIKE TRAIL
A1 SITE PLAN
SCALE: 1" = 20'-0"

III. ROADWAY SYSTEM

A. EXISTING THOROUGHFARE SYSTEM

The transportation network in the immediate vicinity of the proposed development includes Bingle Rd, Winningham Ln, W Memorial Park Dr, and the I-10 feeder roads. The following is a general description of the major roadways within the study area. **Table 2** provides a summary of the existing roadway characteristics. The existing lane assignments and traffic control devices within the study area are displayed on **Exhibit 3**.

Bingle Rd runs north and south along the east property boundary of the development. It is classified as a Major Thoroughfare. The roadway has a boulevard cross-section with two lanes in each direction, concrete paving with curb and gutters, and sidewalks on both sides. North of W Memorial Park Dr the roadway narrows to four undivided lanes.

Winningham Ln runs east and west and is located to the north of the development. Winningham Ln is local residential street. The roadway has two lanes in each direction, concrete paving with curb and gutters, and no sidewalks. The street flares out at the intersection with Bingle into a boulevard cross-section.

W. Memorial Park Dr runs east and west and is located east of the development. W. Memorial Park Dr. is a local street. The roadway has a boulevard cross-section with two lanes in each direction, concrete paving with curb and gutters, and no sidewalks.

I-10 feeder roads run east and west adjacent to the I-10 main lanes. The feeder roads provide access to and from the ramps to the I-10 main lanes and to other destinations further east and west. Both feeder roads have 3 lanes in each direction but widen at the intersection with Bingle Rd to include additional lanes. They are concrete paved with curb & gutters, and sidewalks.

Table 2 – Existing Roadway Characteristics

Existing Roadway	Pavement Width	Number of Lanes	Lane Width	Median Type	Speed Limit
Bingle Rd	Varies	4	12	Varies	30 MPH
Winningham Ln	26’	2	13’	Undivided	30 MPH
W. Memorial Park Dr	60’	4	12’	Boulevard	30 MPH
I-10 feeder roads.	Varies	3	12’	Undivided	45 MPH

B. EXISTING TRAFFIC VOLUMES

Traffic volume data was collected by Ally General Solutions at all study intersections on 5/19/26 and 5/21/26 between 7-9:00AM and 4-6:00PM. The peak hours identified for study within the report were 7:45-8:45AM and 4:30-5:30PM. The resulting traffic volumes used as existing traffic in this report are shown in **Exhibit 4A** and **Exhibit 4B**. Intersection turning movement counts at each of the study intersections were used to calculate the Peak Hour Factor (PHF) for each turning movement for use in the Synchro Modeling. The PHF is calculated by dividing the hourly volume of the analysis hour by the peak 15-minute flow rate within the analysis hour. This is represented by the following formula:

$$PHF = \frac{Hourly\ Volume}{4 * V_{15}}$$

The PHF for each movement at each intersection are listed in the peak hour traffic count volume data sheets and are provided in the appendix.

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2026 EXISTING LANE ASSIGNMENTS AND TRAFFIC CONTROL

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2026 EXISTING AM PEAK HOUR VOLUMES

Exhibit
4A

ACE
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2026 EXISTING PM PEAK HOUR VOLUMES

Exhibit
4B

IV. ANALYSIS OF EXISTING CONDITIONS

A. LEVEL-OF-SERVICE EVALUATIONS

The evaluation of the existing roadway system consists of AM and PM peak hour level-of-service (LOS) analyses. The purpose of this analysis is to determine if any deficiencies exist within the study network and to establish a baseline condition.

Traffic operations are affected by various geometric factors including roadway type (e.g., divided or undivided), number of lanes, lane widths, and grades. LOS, which is a measure of the degree of congestion, ranges from LOS A (free flowing) to LOS F (a congested, forced flow condition). For intersections operating at LOS D or worse, reasonable efforts must be made to maintain the existing LOS. LOS thresholds for both unsignalized and signalized intersections are presented in **Table 3**.

Table 3 – Level-of-Service Thresholds for Unsignalized and Signalized Intersections

LOS	Control Delay for Unsignalized Intersections (sec/veh)	Control Delay for Signalized Intersections (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: Transportation Research Board. (2010). Highway Capacity Manual. Washington, DC.

For both unsignalized and signalized intersection LOS, if the volume-to-capacity ratio is greater than one, then the intersection/approach LOS is LOS F. LOS D or better is generally deemed as acceptable operations for an urban area.

The following paragraphs (excerpts from the *Highway Capacity Manual 2010*) describe each LOS condition for a signalized intersection

- LOS A describes operations with a control delay of 10 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

- LOS B describes operations with a control delay between 10 and 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

- LOS C describes operations with a control delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length moderate. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersections without stopping.

- LOS D describes operations with a control delay between 35 and 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

- LOS E describes operations with a control delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

- LOS F describes operations with a control delay exceeding 80 seconds per vehicle or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Transportation Research Board. (2010). Highway Capacity Manual. Washington, DC.

Approach delays at the study intersections for the 2026 Existing Conditions are compiled in **Table 4**. This table indicates the LOS results of intersections for the Existing Conditions based on volumes shown in **Exhibit 4A** and **Exhibit 4B**. Existing signal timings for all intersections were used for the analysis.

Table 4 – 2026 Existing Condition Intersection Capacity Analysis by Approach

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
Signalized Intersection					
Bingle Rd @ Winningham Ln	EB Approach	0.3	A	18.4	B
	WB Approach	53.0	D	31.9	C
	NB Approach	2.9	A	2.7	A
	SB Approach	3.3	A	2.3	A
	Intersection	**5.5**	**A**	**3.6**	**A**
Bingle Rd @ W. Memorial Park Dr / Driveway 1	EB Approach	0.0	A	0.0	A
	WB Approach	37.1	D	56.4	E
	NB Approach	6.0	A	11.1	B
	SB Approach	5.8	A	10.7	B
	Intersection	**7.1**	**A**	**17.5**	**B**
Bingle Rd @ I-10 WBFR	WB Approach	35.8	D	37.7	D
	NB Approach	10.1	B	6.9	A
	SB Approach	39.6	D	47.2	D
	Intersection	**28.4**	**C**	**29.9**	**C**
Voss Rd @ I-10 EBFR	EB Approach	39.5	D	36.8	D
	NB Approach	52.4	D	49.4	D
	SB Approach	5.4	A	6.0	A
	Intersection	**33.2**	**C**	**32.7**	**C**

In the 2026 Existing Condition, all signalized intersections within the study area operate at acceptable LOS (LOS D or better) in both AM and PM peak hours.

SimTraffic Analysis reports that the 95% queue length for the southbound approach of Bingle Rd at I-10 WBFR is 435 feet in the AM peak hour and 426 feet in the PM peak hour. Both of these distances surpass and block the existing median opening where Driveway 2 is proposed. Although the median may be clear in the off-peak hours, allowing access at the median for northbound traffic has the potential to create lane blocking during the peak hours.

B. Crash History

A review of the existing crash history at the study intersections was conducted in an attempt to identify any potential conflict movements that may present a safety issue. The search for crash history was conducted using the TxDOT C.R.I.S. Database. The date range for the search was (three years) from 01/01/2023 to 12/05/2025. The results are discussed below and copy of the generated crash reports are provided in the appendix.

- Bingle Rd @ Winningham Ln – This intersection had 2 reported crashes, or less than 1 per year.
- Bingle Rd @ W. Memorial Park Dr – This intersection had 3 crashes, or 1 per year.
- Bingle Rd @ I-10 WBFR – This intersection had 30 total reported crashes, but only had 3 correctable crashes, for an average of 1 per year.
- Voss Rd @ I-10 EBFR – This intersection had 11 total reported crashes, but only had 2 correctable crashes, or less than 1 per year.

Based on the findings of the search for crash history, the subject intersections do not meet the thresholds to warrant additional mitigation based on safety.

V. 2027 NO BUILD CONDITION ANALYSIS

A. Background Traffic Development

To determine background traffic volumes not associated with the proposed development, an annual growth rate was used. A growth rate of 1.0% per year was applied to the 2026 existing traffic volumes to determine the 2027 projected background traffic volumes as they relate to the study area. The resulting volumes are depicted in **Exhibit 5A** and **Exhibit 5B** respectively.

B. Level-of-Service Evaluations

The evaluation of year 2027 No Build Conditions comprised of AM and PM peak hour intersection LOS analyses. The purpose of these analyses was to determine deficiencies that may exist in the projected roadway network as it relates to the 2027 No Build Conditions, and in turn, to establish a baseline condition. Approach delays at the study intersections for the 2027 No Build Conditions are compiled in **Table 5**. This table indicates the LOS results of intersections for the 2027 No Build Conditions based on volumes shown in **Exhibit 5A**, and **Exhibit 5B**. Signal timings, including cycle length and splits, were kept the same as the 2026 Existing Conditions for this analysis.

Table 5 – 2027 No Build Condition Intersection Capacity Analysis by Approach

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
Signalized Intersection					
Bingle Rd @ Winningham Ln	EB Approach	0.3	A	18.4	B
	WB Approach	53.2	D	31.9	C
	NB Approach	2.9	A	2.7	A
	SB Approach	3.3	A	2.3	A
	Intersection	**5.5**	**A**	**3.6**	**A**
Bingle Rd @ W. Memorial Park Dr / Driveway 1	EB Approach	0.0	A	0.0	A
	WB Approach	37.1	D	57.3	E
	NB Approach	6.0	A	11.2	B
	SB Approach	5.7	A	10.7	B
	Intersection	**7.1**	**A**	**17.7**	**B**
Bingle Rd @ I-10 WBFR	WB Approach	36.3	D	38.1	D
	NB Approach	10.2	B	7.0	A
	SB Approach	39.8	D	47.3	D
	Intersection	**28.7**	**C**	**30.1**	**C**
Voss Rd @ I-10 EBFR	EB Approach	39.7	D	37.0	D
	NB Approach	53.4	D	50.7	D
	SB Approach	5.5	A	6.2	A
	Intersection	**33.6**	**C**	**33.3**	**C**

With an increase in vehicle volume background growth on the roadway network, the delay increases at the study intersection. All intersections continue to operate at acceptable level of service (LOS D, or better).

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2027 NO-BUILD AM PEAK HOUR VOLUMES

Exhibit
5A

ACE
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2027 NO-BUILD PM PEAK HOUR VOLUMES

Exhibit
5B

VI. SITE CHARACTERISTICS

A. PROPOSED SITE ACCESS

Based on the current site plan, two driveways are proposed for the development. Both driveways are proposed along Bingle Rd.. The locations and specifications for the driveways are depicted in Exhibit 2 and are described below:

- **Site Driveway 1 –** Driveway 1 forms the fourth leg of the signalized intersection of Bingle Rd. at W. Memorial Park Dr. This driveway will be a full access driveway and is intended to serve as the main access driveway.
- **Site Driveway 2 –** Driveway 2 forms a T-intersection with Bingle Rd. and is aligned with the first median opening north of the I-10 westbound feeder road. This driveway is currently planned as a full-access driveway.

Based on the current site plan and driveways as defined above, **Exhibit 6** displays the lane configurations for the Build Condition.

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FUTURE LANE ASSIGNMENTS AND TRAFFIC CONTROL

B. Proposed Site Trip Generation

Traffic projections were prepared for the proposed development based on the trip generation rates found in the *Institute of Transportation Engineers* (ITE) publication entitled *Trip Generation Manual, 12th Edition*. This recognized standard for trip generation is based on actual surveys (traffic counts) of existing developments of various types. The proposed development will consist of a mix of Land Uses. Each proposed land use and the corresponding ITE trip rates used are listed in **Table 6**.

Table 6 – Trip Generation Rates

Land Use	AM Peak		PM Peak		Weekday Total	
	Rate	IN:OUT Split (%)	Rate	IN:OUT Split (%)	Rate	IN:OUT Split (%)
Fine Dining Restaurant (931)	0.41	*80:20	8.10	69:31	79.03	50:50
Strip Retail Plaza (822)	3.93	55:45	6.29	50:50	54.45	50:50
Medical Office Building (720)	3.21	78:22	3.42	30:70	34.03	50:50
Health/Fitness Club (492)	1.79	51:49	3.77	57:43	30.02	50:50
Fast Casual Restaurant (930)	1.58	64:36	14.35	53:47	225.89	50:50

Adjustments were made to the trip generation for pass-by trips and internal capture. **Table 7** summarizes the total number of trips expected to be generated by the proposed development. The trip generation rates in **Table 6** and the total square feet were used to determine the trips generated during the AM and PM peak periods. A copy of the corresponding ITE trip generation sheets and the justification for 40% pass-by for Strip Retail Plaza land use are provided in the appendix.

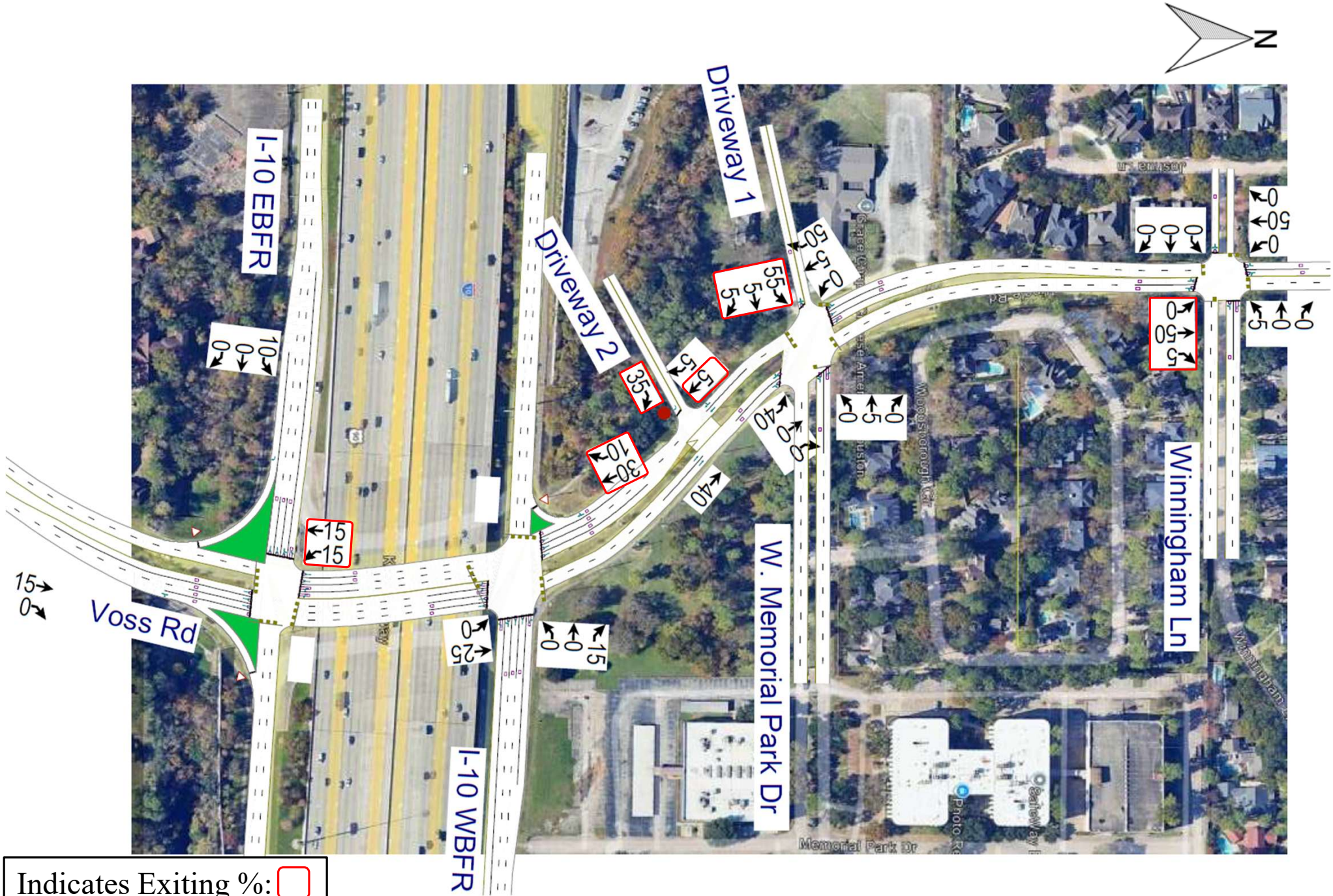
Table 7 – Estimated Trip Generation

Proposed Land Use	Intensity	Units	ITE Code	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
Fine Dining Restaurant	6.470	K-GFA	931	352	2	1	25	36	16	41
Pass-By Reduction	44% per ITE			225	0	0	0	16	7	23
Strip Retail Plaza	3.595	K-GFA	822	196	8	6	14	11	12	23
Pass-By Reduction	40% per ITE			78	3	3	6	4	5	9
Medical Office Building	8.009	K-GFA	720	273	20	6	26	8	19	27
Pass-By Reduction	0%			0	0	0	0	0	0	0
Helth/Fitness Club	3.126	K-GFA	492	94	3	3	6	7	5	12
Pass-By Reduction	0%			0	0	0	0	0	0	0
Fast Casual Restaurant	6.000	K-GFA	930	1,355	6	3	9	46	40	86
Pass-By Reduction	0%			0	0	0	0	0	0	0
Total Trips				2,270	39	19	80	108	92	189
Pass-By Trips				303	3	3	6	20	12	32
10% Internal Capture				227	4	2	8	11	9	19
Net New Trips				1740	32	14	66	77	71	138
= Engineering Judgment				**Daily Total**	**AM Peak**			**PM Peak**		

C. Trip Distribution and Traffic Assignment

The distribution and assignment of site-generated traffic to the study area roadway network were developed to reflect the anticipated local traffic patterns. The distribution and assignment were determined based upon the existing traffic volumes, knowledge of the study area roadway network, and the proposed access locations to and from the site. Two separate peak hour distribution were created, one for the AM peak hour and one for the PM peak hours to reflect the existing distribution of traffic.

Exhibit 7A presents the inbound and outbound directional distribution percentages for the AM peak hour and **Exhibit 7B** presents the inbound and outbound directional distribution percentages for the PM peak hour for the proposed development on the roadway network. **Exhibit 8A** and **Exhibit 8B** present the projected trip assignment (site generated traffic) of the proposed development for the AM and PM peak hours during the 2027 Build Conditions. These volumes are based on the trip information and directional distribution assumptions.



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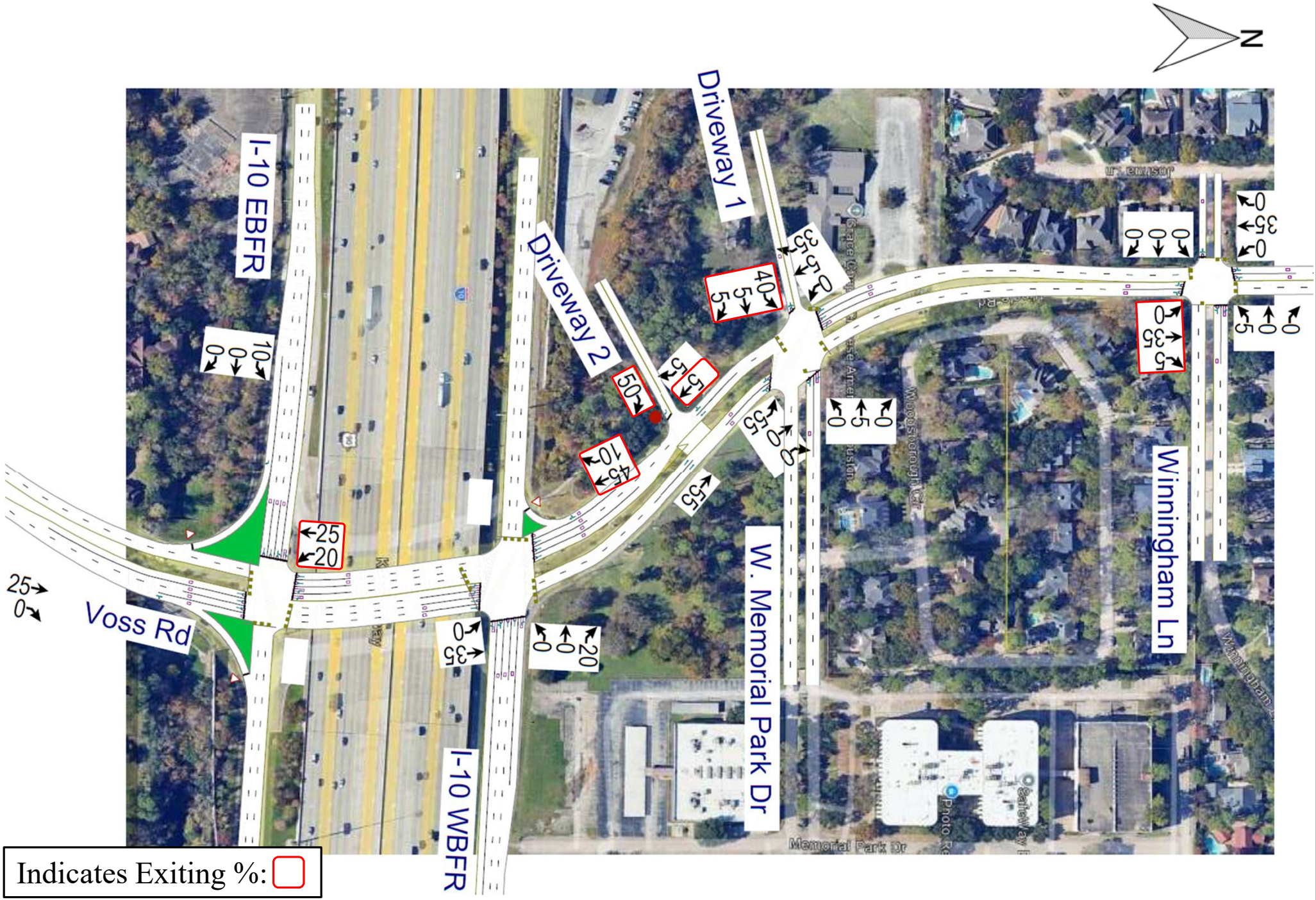
AM PEAK HOUR SITE TRIP DISTRIBUTION PERCENTAGES



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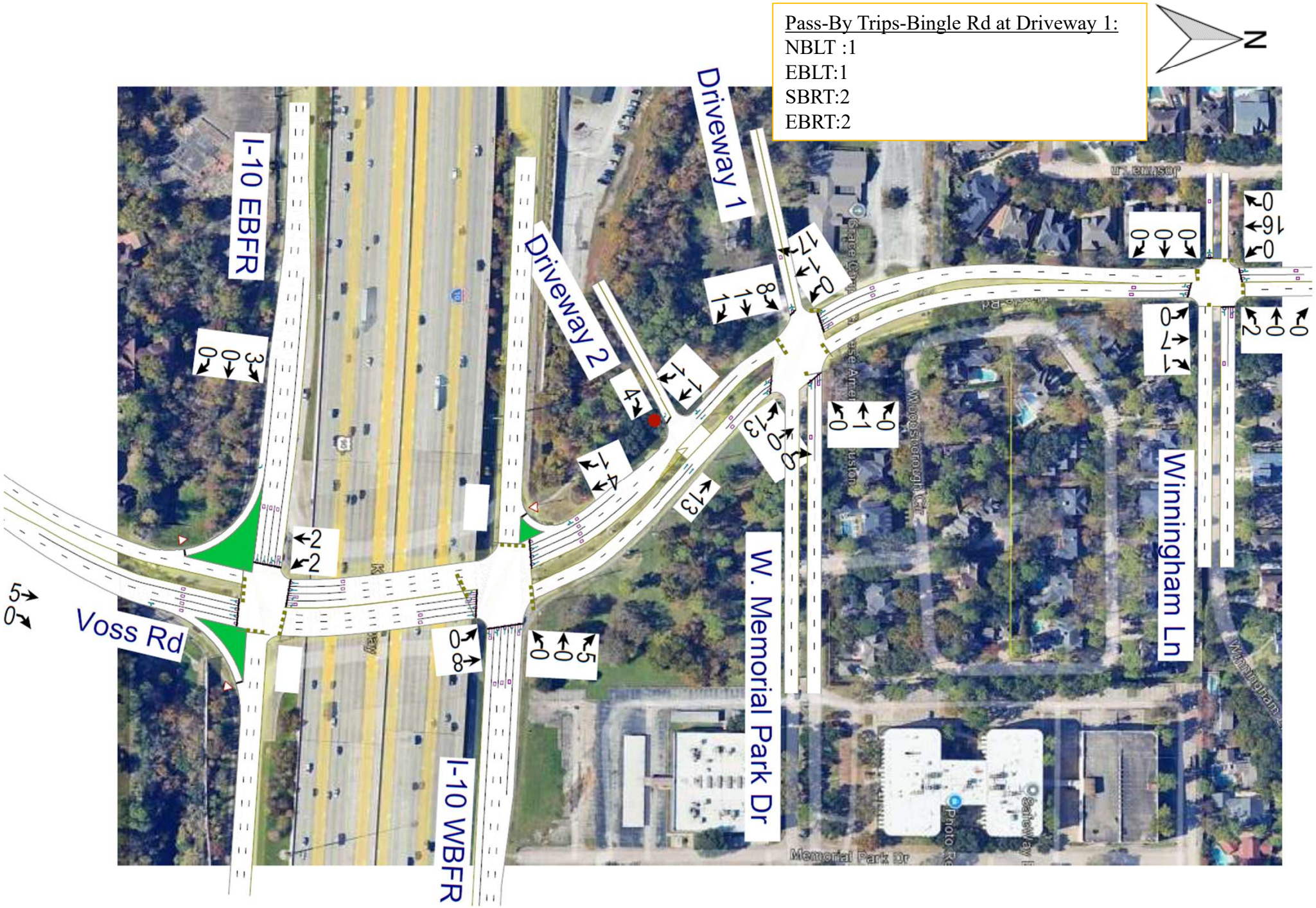
PM PEAK HOUR SITE TRIP DISTRIBUTION PERCENTAGES



ACE
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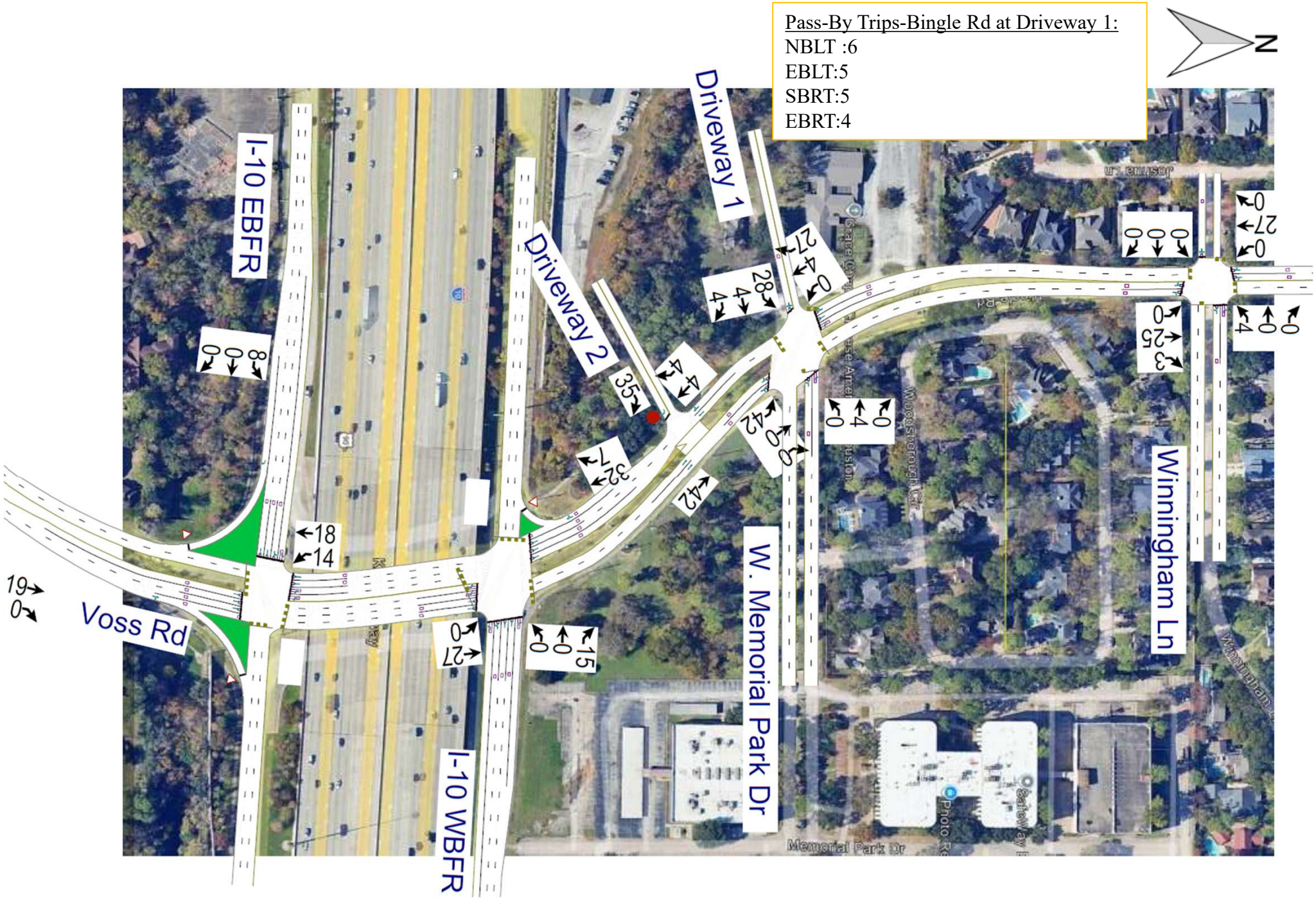
2027 AM PEAK HOUR SITE TRIP ASSIGNMENT VOLUMES


Pass-By Trips-Bingle Rd at Driveway 1:
NBLT :6
EBLT:5
SBRT:5
EBRT:4
N
I-10 EBFR
Driveway 1
Driveway 2
W. Memorial Park Dr
Winningham Ln
Voss Rd
I-10 WBFR
Memorial Park Dr

VII. 2027 BUILD CONDITIONS ANALYSIS

A. Level-of-Service Evaluations

The evaluation of Year 2027 Build Conditions are comprised of AM and PM peak hour intersection LOS analyses. The purpose of this analysis was to determine deficiencies within the study area as a result of the traffic generated by the proposed development. Approach delays at the study intersections for the 2027 Build Conditions are compiled in **Table 8**. This table indicates the LOS results of intersections for the Build Conditions based on volumes shown in **Exhibit 9A** and **Exhibit 9B**. Signal timing, including cycle length and splits, were kept the same as 2026 Existing Conditions for this analysis.

Table 8 – 2027 Build Conditions Intersection Capacity Analysis by Approach

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
Signalized Intersection					
Bingle Rd @ Winningham Ln	EB Approach	0.3	A	18.3	B
	WB Approach	53.4	D	32.5	C
	NB Approach	3.0	A	2.8	A
	SB Approach	3.4	A	2.4	A
	Intersection	**5.6**	**A**	**3.8**	**A**
Bingle Rd @ W. Memorial Park Dr / Driveway 1	EB Approach	41.7	D	31.1	C
	WB Approach	38.1	D	61.0	E
	NB Approach	6.2	A	13.1	B
	SB Approach	5.8	A	10.6	B
	Intersection	**7.5**	**A**	**19.2**	**B**
Bingle Rd @ I-10 WBFR	WB Approach	36.5	D	38.9	D
	NB Approach	10.2	B	7.0	A
	SB Approach	40.0	D	48.1	D
	Intersection	**28.8**	**C**	**30.8**	**C**
Voss Rd @ I-10 EBFR	EB Approach	39.7	D	37.2	D
	NB Approach	53.8	D	54.0	D
	SB Approach	5.6	A	6.2	A
	Intersection	**33.8**	**C**	**34.5**	**C**
Unsignalized Intersections					
Bingle Rd @ Driveway 2	EB Approach	12.6	B	12.8	B
	NB Approach	Free Flow		Free Flow	
	SB Approach	Free Flow		Free Flow	
	Intersection	**0.0**	**A**	**0.2**	**A**

With the added traffic from the proposed development, the delay results of the 2027 Build Conditions are increased from those reported in the corresponding No Build Conditions; however, all intersections, both signalized and unsignalized, remain at LOS D or better in both build scenarios.

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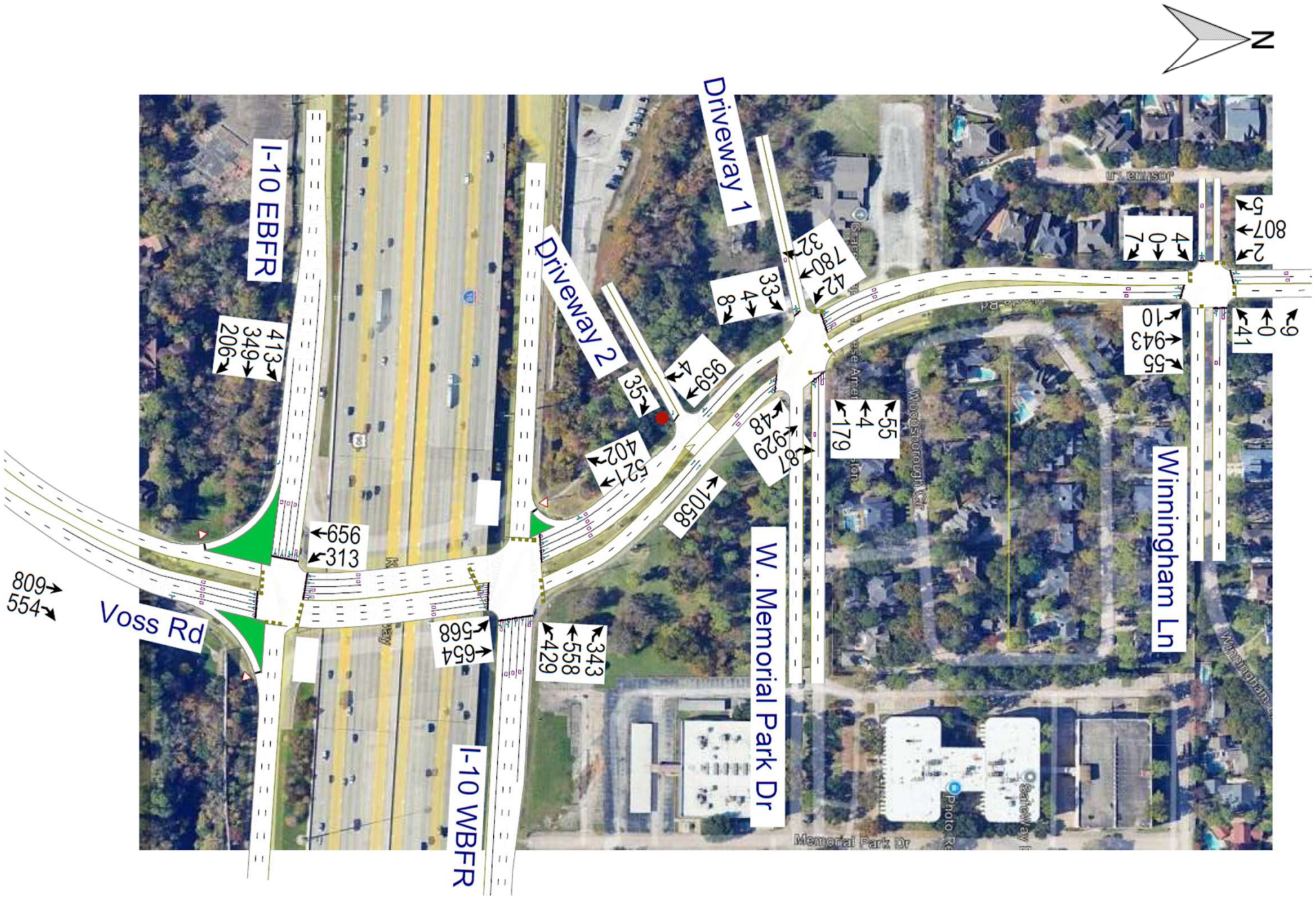
2027 AM PEAK HOUR: SITE + BACKGROUND TRAFFIC VOLUMES

Exhibit
9A



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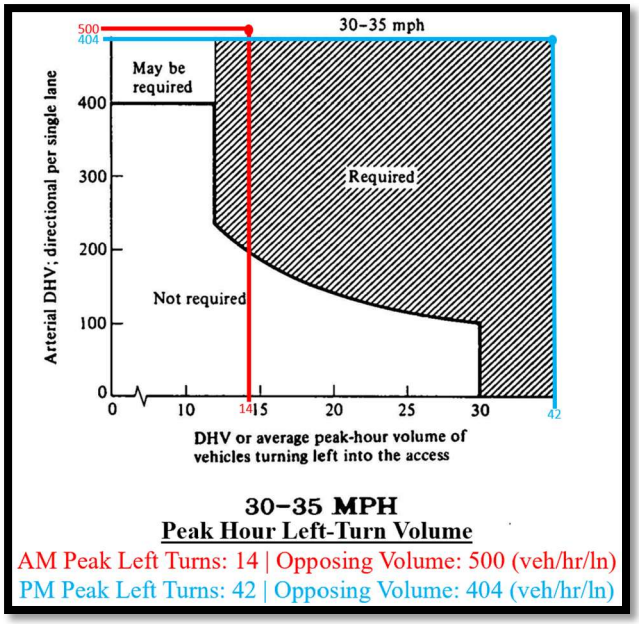
2027 PM PEAK HOUR: SITE + BACKGROUND TRAFFIC VOLUMES

B. Turn Lane Analysis

Left Turn Lanes

The need for a left-turn lane at Driveway 1 was analyzed using the criteria outlined in NCHRP Report 348. This report provides procedures to determine the need for a left turn deceleration lane at a driveway by comparing the advancing and approaching traffic volumes per lane to threshold volumes and the number of left turns at the driveway for various speed limits. This analysis determined that a left-turn lane would be warranted in both the AM and PM peak hours. Figure 1, shown below, illustrates the plotted values of the projected left turns generated by the development and the existing through traffic on the left turn warrant taken from NCHRP Report 348 which is provided in the Appendix.

Figure 1



*Source: *NCHRP Report 348; Access Management Guidelines for Activity Centers. Figure 9-11, Left-turn deceleration lane warrant.*

As illustrated in the warrant graph above, the volumes associated with the development warrant the consideration of a northbound left-turn lane based on the volume projections in the both peak hours.

In addition to the Driveway 1, *SimTraffic* analysis was performed at all of the existing study intersections. Driveway 2 was not considered for a left-turn lane because the existing queue length from southbound vehicle at the intersection of Bingle Rd at I-10 WBFR stacks up past the existing median opening that is aligned with the proposed location of driveway 2. This would cause northbound left-turning vehicles at Driveway 2 to queue back into the northbound through lane. Additionally, the existing median at Driveway 2 will fall within the taper length for the required left turn lane at driveway 1. Based on these geometric limitations and the safety implications, it is recommended that Driveway 2 operate as a right-in/right-out driveway and the existing median be closed.

Right Turn Lanes

TxDOT warrant criteria for the consideration of right-turn deceleration lanes states that for roadways with a speed limit ≤45 MPH right-turn lanes should be considered when right turns exceed 60 turns per hour. The NCHRP Report 348 provides additional guidance for right-turn lane implementation and states, "…Highway Capacity Manual suggests that a separate right-turn lane should be considered when the right-turn volume exceeds 300 vph and the adjacent through lanes also exceed 300 vph per lane." The right-turn volume is 17 in the AM peak hour and 27 in the PM peak hour. The projected volumes do not justify the installation of a dedicated right-turn lane.

C. Pedestrian, Bus, and Bicycle Facilities

Existing sidewalks are provided on both sides of Bingle Rd in the vicinity of the proposed site which provide connection from the I-10 feeder roads to W. Memorial Park Dr, Winningham Ln, and locations further north.

No bus routes exist along Bingle Rd within Spring Valley Village.

No bicycle facilities are currently provided within the study area; however, there are plans to change the cross-section of Bingle Road north of W. Memorial Park Dr to include one lane in each direction with dedicated bicycle lane on each side.

VIII. CONCLUSIONS AND RECOMMENDATIONS

Based on this analysis, the proposed development is projected to have no major impacts to the study intersections. All signalized intersections are projected to remain at acceptable LOS (LOS D, or better) when moving from the No-Build to the Build Scenarios. Analyses indicates that vehicles entering the proposed development will not experience any additional notable delay during AM and PM peak hours at the site driveways and the site has sufficient storage on site to accommodate the projected on-site queue lengths.

The analysis of the turning volumes at Driveway 1 determined that a northbound left turn lane is warranted based on the left turn warrant criteria outlined in NCHRP Report 348. This will improve the safety at the intersection of Driveway 1. Queueing Analysis of the existing intersections requires that Driveway 2 function as a right-in-right-out driveway and the existing median opening adjacent to Driveway 2 be closed.

Based on this analysis, the proposed development is not expected to have any major impacts to the surrounding roadway network. In order to provide a clear and convenient review of the approach delays at the study intersections, **Table 9** illustrates the LOS results of the study intersections for the 2027 No Build, and 2027 Build Scenarios.

Table 9 - All Scenarios - Comparison of Intersection Capacity Analysis

	Delay LOS			
	2027 No Build		2027 Build	
Intersection	**AM**	**PM**	**AM**	**PM**
Signalized Intersection				
Bingle Rd @ Winningham Ln	**A**	**A**	**A**	**A**
Bingle Rd @ W Memorial Park Dr	**A**	**B**	**A**	**B**
Bingle Rd @ I-10 WBFR	**C**	**C**	**C**	**C**
Voss Rd @ I-10 EBFR	**C**	**C**	**C**	**C**
Unsignalized Intersections (Worst Approach)				
Bingle Rd @ Driveway 2			B	B

The following mitigations are the responsibility of the developer and should be installed as part of the project.

- Mitigation I: Close the existing median opening that is aligned with Driveway 2 as shown on **Executive Summary Exhibit II**.
- Mitigation II: Install a northbound Left-Turn lane on Bingle Rd at the intersection with Driveway 1 as shown on **Executive Summary Exhibit II**.

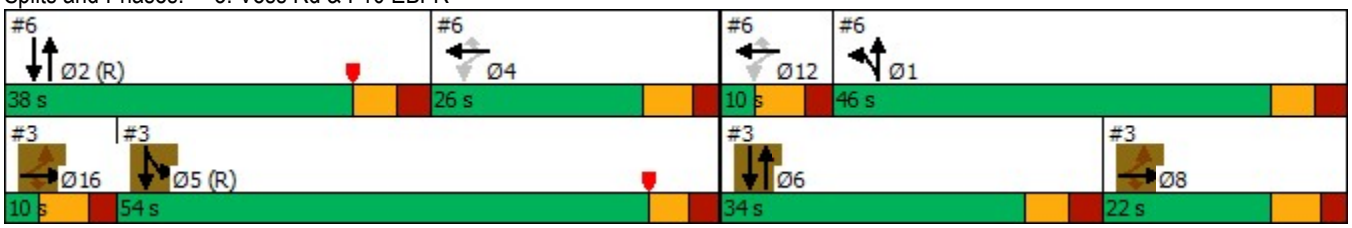
APPENDIX

SYNCHRO OUTPUT
2026 EXISTING CONDITIONS AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	444	281	219	0	0	0	0	669	472	360	711	0
Future Volume (vph)	444	281	219	0	0	0	0	669	472	360	711	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			233					156				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	233	546	233	0	0	0	0	1357	0	414	756	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.3	25.3	25.3					26.9		47.3	81.2	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.73	0.55	0.45					1.26dr		0.31	0.32	
Control Delay	58.6	44.8	8.0					52.4		12.5	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	58.6	44.8	8.0					52.4		12.5	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.5						52.4			5.4	
Approach LOS		D						D			A	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 33.2		Intersection LOS: C	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

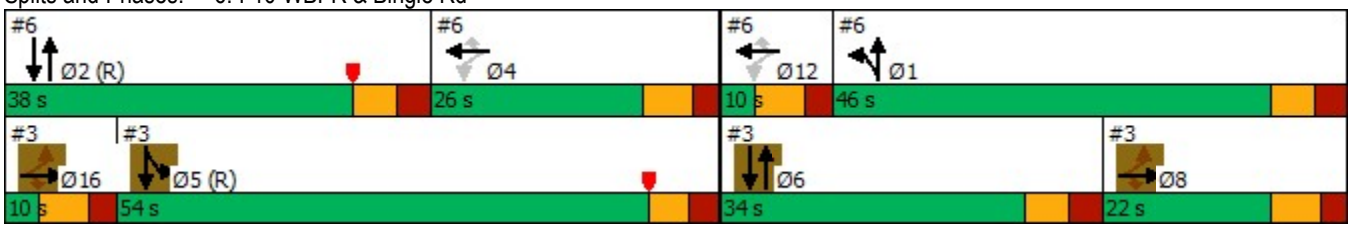
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	502	352	267	505	596	0	0	577	460
Future Volume (vph)	0	0	0	502	352	267	505	596	0	0	577	460
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						285					129	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	285	652	303	549	662	0	0	1155	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.8	30.8	30.8	38.4	75.2			29.8	
Actuated g/C Ratio				0.26	0.26	0.26	0.32	0.63			0.25	
v/c Ratio				0.73	0.54	0.49	0.50	0.30			0.97dr	
Control Delay				53.6	40.7	8.4	19.1	1.1			39.6	
Queue Delay				0.0	0.0	0.0	1.1	0.6			0.0	
Total Delay				53.6	40.7	8.4	20.3	1.7			39.6	
LOS				D	D	A	C	A			D	
Approach Delay					35.8			10.1			39.6	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

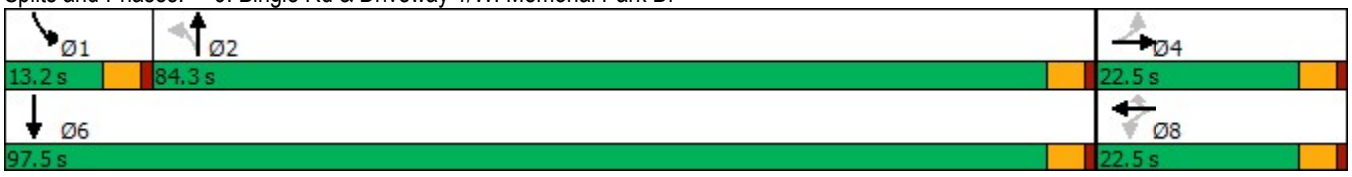
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	29	0	24	1	648	146	46	971	0
Future Volume (vph)	0	0	0	29	0	24	1	648	146	46	971	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3426	0	1770	3539	0
Flt Permitted					0.757			0.955		0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3272	0	1770	3539	0
Satd. Flow (RTOR)						55		60				
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	48	36	0	885	0	64	1055	0
Turn Type				Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					9.1	9.1		80.1		8.7	94.3	
Actuated g/C Ratio					0.08	0.08		0.73		0.08	0.86	
v/c Ratio					0.41	0.20		0.37		0.45	0.35	
Control Delay					58.8	8.3		6.0		60.8	2.4	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					58.8	8.3		6.0		60.8	2.4	
LOS					E	A		A		E	A	
Approach Delay					37.1			6.0			5.8	
Approach LOS					D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

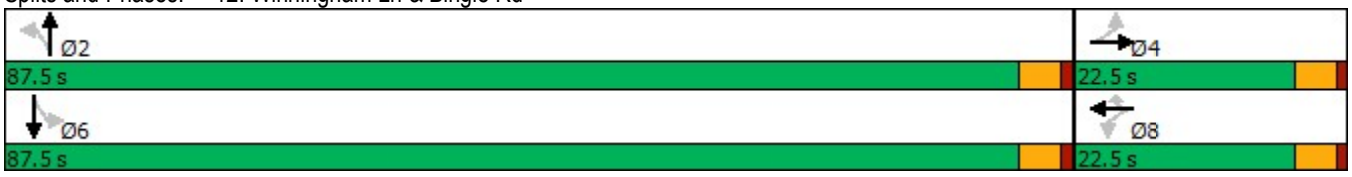
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	65	2	7	2	642	26	2	936	2
Future Volume (vph)	0	0	13	65	2	7	2	642	26	2	936	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		201				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	80	8	0	757	0	0	987	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.3			11.5	11.5		87.1			87.1	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.54	0.04		0.27			0.35	
Control Delay		0.3			57.1	12.0		2.9			3.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.1	12.0		2.9			3.3	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.0			2.9			3.3	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 5.5	Intersection LOS: A
Intersection Capacity Utilization 45.2%	ICU Level of Service A
Analysis Period (min) 15	

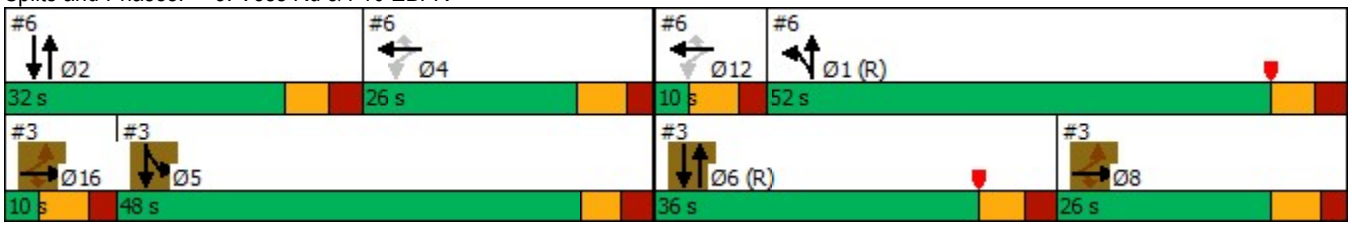
Splits and Phases: 12: Winningham Ln & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	346	204	0	0	0	0	782	549	296	632	0
Future Volume (vph)	401	346	204	0	0	0	0	782	549	296	632	0
Satd. Flow (prot)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.983								0.950		
Satd. Flow (perm)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					138				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	230	653	229	0	0	0	0	1489	0	315	790	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.4		40.4	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.63	0.58	0.42					1.19dr		0.27	0.34	
Control Delay	49.8	42.6	7.3					49.4		15.3	1.5	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.9	
Total Delay	49.8	42.6	7.3					49.4		15.3	2.3	
LOS	D	D	A					D		B	A	
Approach Delay		36.8						49.4			6.0	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.91		
Intersection Signal Delay: 32.7	Intersection LOS: C	
Intersection Capacity Utilization 61.6%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

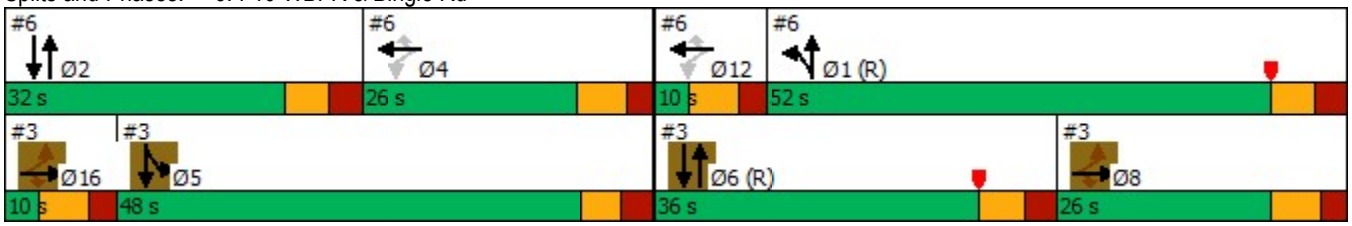
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	425	552	325	562	621	0	0	484	391
Future Volume (vph)	0	0	0	425	552	325	562	621	0	0	484	391
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6030	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6030	0
Satd. Flow (RTOR)						294					99	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	263	809	357	598	647	0	0	1016	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.0	30.0	30.0	45.6	76.0			23.4	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.69	0.68	0.58	0.46	0.29			1.03dr	
Control Delay				51.9	44.3	12.3	11.6	1.0			47.2	
Queue Delay				0.0	0.0	0.0	1.0	0.6			0.0	
Total Delay				51.9	44.3	12.3	12.6	1.5			47.2	
LOS				D	D	B	B	A			D	
Approach Delay					37.7			6.9			47.2	
Approach LOS					D			A			D	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.91		
Intersection Signal Delay: 29.9	Intersection LOS: C	
Intersection Capacity Utilization 61.6%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

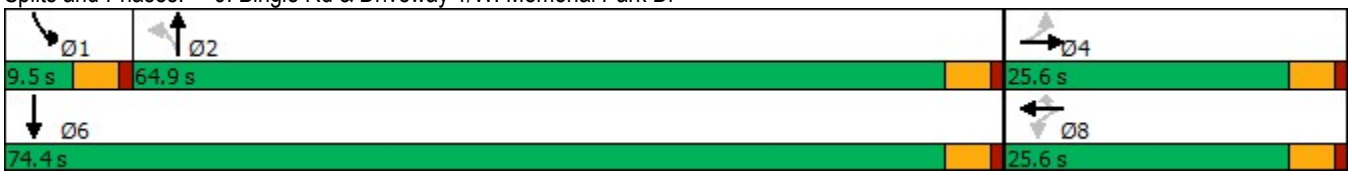
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	177	0	54	0	920	86	42	768	0
Future Volume (vph)	0	0	0	177	0	54	0	920	86	42	768	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3493	0	1770	3539	0
Flt Permitted					0.757					0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3493	0	1770	3539	0
Satd. Flow (RTOR)						79		19				
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	253	79	0	1075	0	56	826	0
Turn Type				Perm	NA	Perm		NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					20.1	20.1		63.1		5.0	70.7	
Actuated g/C Ratio					0.20	0.20		0.63		0.05	0.71	
v/c Ratio					0.89	0.21		0.49		0.64	0.33	
Control Delay					71.2	9.1		11.1		78.2	6.1	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					71.2	9.1		11.1		78.2	6.1	
LOS					E	A		B		E	A	
Approach Delay					56.4			11.1			10.7	
Approach LOS					E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 99.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

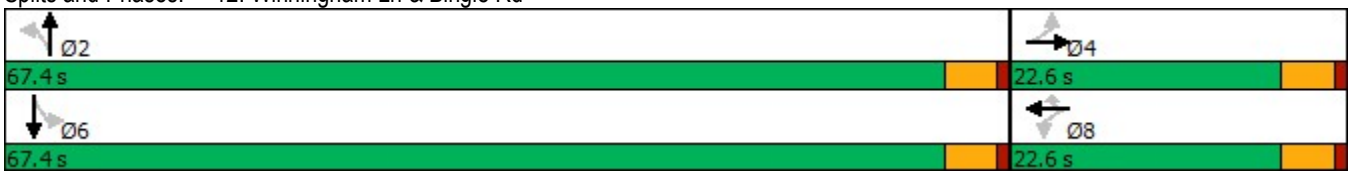
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	37	0	9	10	909	51	2	772	5
Future Volume (vph)	4	0	7	37	0	9	10	909	51	2	772	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3507	0	0	3536	0
Flt Permitted		0.932			0.742			0.927			0.946	
Satd. Flow (perm)	0	1540	0	0	1382	1583	0	3255	0	0	3345	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	44	20	0	1083	0	0	837	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		7.8			8.0	8.0		69.1			69.1	
Actuated g/C Ratio		0.10			0.10	0.10		0.86			0.86	
v/c Ratio		0.14			0.32	0.11		0.38			0.29	
Control Delay		18.4			39.2	15.9		2.7			2.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.4			39.2	15.9		2.7			2.3	
LOS		B			D	B		A			A	
Approach Delay		18.4			31.9			2.7			2.3	
Approach LOS		B			C			A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 3.6	Intersection LOS: A
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd

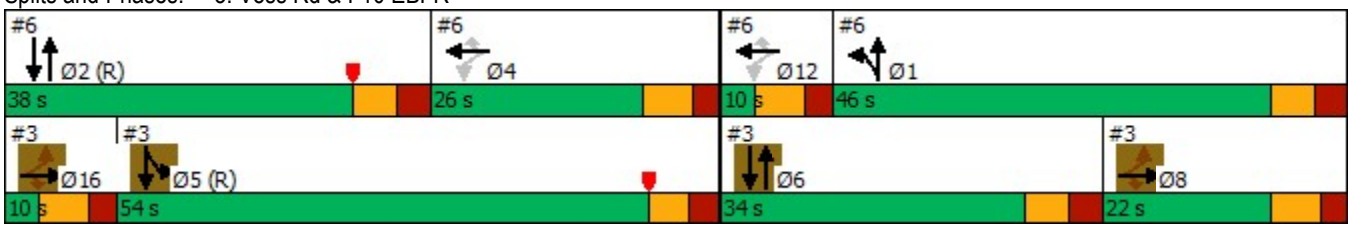


SYNCHRO OUTPUT
2027 NO BUILD CONDITIONS AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	448	284	221	0	0	0	0	676	477	364	718	0
Future Volume (vph)	448	284	221	0	0	0	0	676	477	364	718	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			235					156				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	236	552	235	0	0	0	0	1372	0	418	764	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.4	25.4	25.4					26.9		47.2	81.1	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.73	0.55	0.45					1.27dr		0.31	0.32	
Control Delay	59.0	44.9	8.0					53.4		12.9	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	59.0	44.9	8.0					53.4		12.9	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.7						53.4			5.5	
Approach LOS		D						D			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 33.6	Intersection LOS: C
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

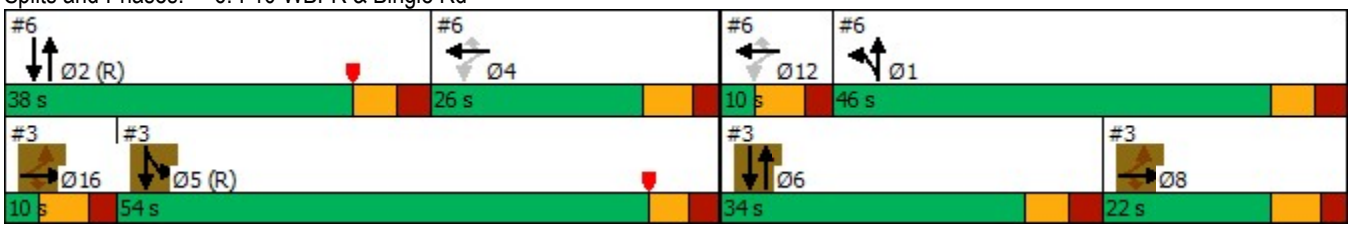
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	507	356	270	510	602	0	0	583	465
Future Volume (vph)	0	0	0	507	356	270	510	602	0	0	583	465
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						281					127	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	288	659	307	554	669	0	0	1167	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.6	30.6	30.6	38.5	75.4			29.9	
Actuated g/C Ratio				0.26	0.26	0.26	0.32	0.63			0.25	
v/c Ratio				0.74	0.55	0.50	0.50	0.30			0.99dr	
Control Delay				54.6	41.0	9.1	19.2	1.1			39.8	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				54.6	41.0	9.1	20.4	1.8			39.8	
LOS				D	D	A	C	A			D	
Approach Delay					36.3			10.2			39.8	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

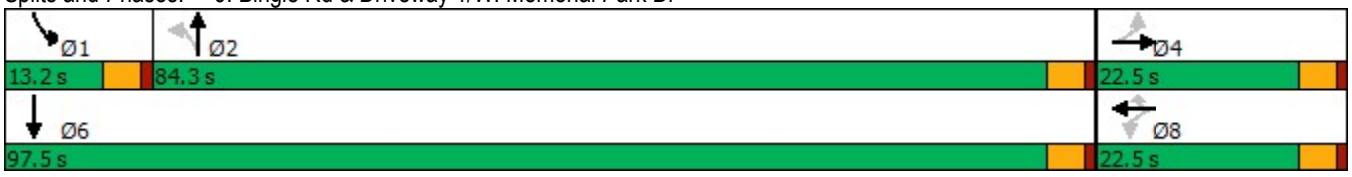
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	29	0	24	1	654	147	46	981	0
Future Volume (vph)	0	0	0	29	0	24	1	654	147	46	981	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3426	0	1770	3539	0
Flt Permitted					0.757			0.955		0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3272	0	1770	3539	0
Satd. Flow (RTOR)						55		60				
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	48	36	0	892	0	64	1066	0
Turn Type				Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					9.1	9.1		80.1		8.7	94.3	
Actuated g/C Ratio					0.08	0.08		0.73		0.08	0.86	
v/c Ratio					0.41	0.20		0.37		0.45	0.35	
Control Delay					58.8	8.3		6.0		60.8	2.4	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					58.8	8.3		6.0		60.8	2.4	
LOS					E	A		A		E	A	
Approach Delay					37.1			6.0			5.7	
Approach LOS					D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

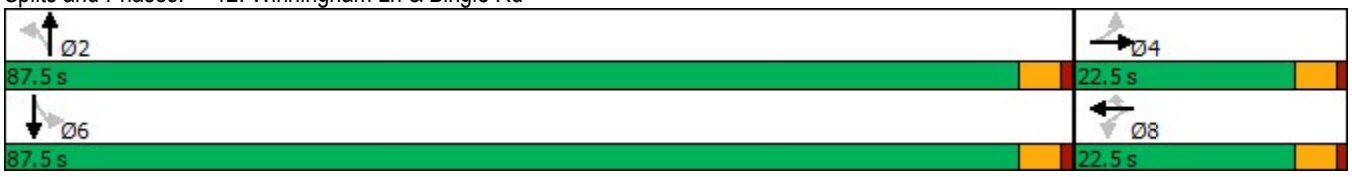
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	66	2	7	2	648	26	2	945	2
Future Volume (vph)	0	0	13	66	2	7	2	648	26	2	945	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		198				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	81	8	0	764	0	0	996	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.3			11.6	11.6		87.0			87.0	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.55	0.04		0.27			0.36	
Control Delay		0.3			57.2	12.0		2.9			3.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.2	12.0		2.9			3.3	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.2			2.9			3.3	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 5.5	Intersection LOS: A
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

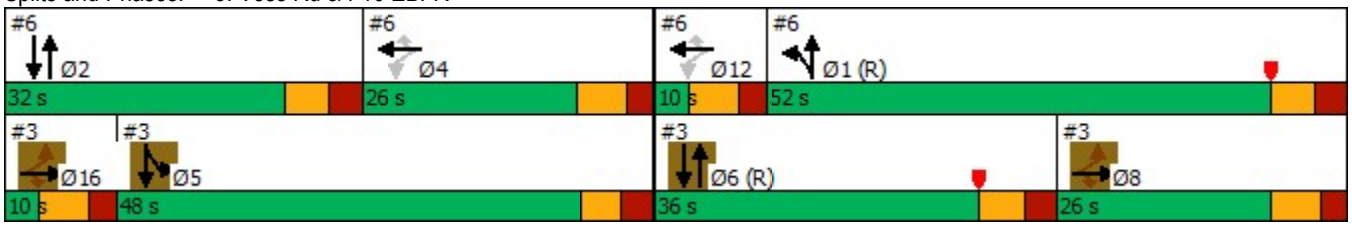
Splits and Phases: 12: Winningham Ln & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	405	349	206	0	0	0	0	790	554	299	638	0
Future Volume (vph)	405	349	206	0	0	0	0	790	554	299	638	0
Satd. Flow (prot)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.983								0.950		
Satd. Flow (perm)	1522	4724	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					138				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	233	659	231	0	0	0	0	1504	0	318	798	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.3		40.4	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.64	0.58	0.42					1.21dr		0.27	0.35	
Control Delay	50.1	42.7	7.6					50.7		15.7	1.4	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.9	
Total Delay	50.1	42.7	7.6					50.7		15.7	2.4	
LOS	D	D	A					D		B	A	
Approach Delay		37.0						50.7			6.2	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.93		
Intersection Signal Delay: 33.3	Intersection LOS: C	
Intersection Capacity Utilization 62.1%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

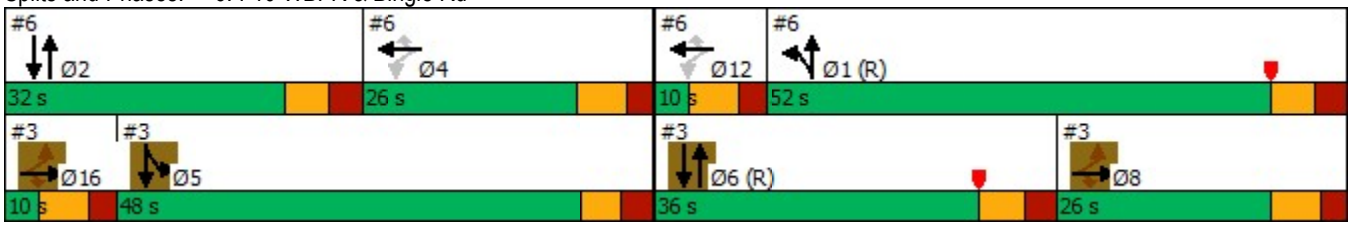
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	558	328	568	627	0	0	489	395
Future Volume (vph)	0	0	0	429	558	328	568	627	0	0	489	395
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6023	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6023	0
Satd. Flow (RTOR)						291					97	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	265	817	360	604	653	0	0	1026	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.0	30.0	30.0	45.3	76.0			23.6	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.70	0.69	0.59	0.47	0.29			1.03dr	
Control Delay				52.2	44.5	12.9	11.8	1.0			47.2	
Queue Delay				0.0	0.0	0.0	1.1	0.6			0.0	
Total Delay				52.2	44.5	12.9	12.9	1.6			47.2	
LOS				D	D	B	B	A			D	
Approach Delay					38.1			7.0			47.3	
Approach LOS					D			A			D	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.93		
Intersection Signal Delay: 30.1	Intersection LOS: C	
Intersection Capacity Utilization 62.1%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

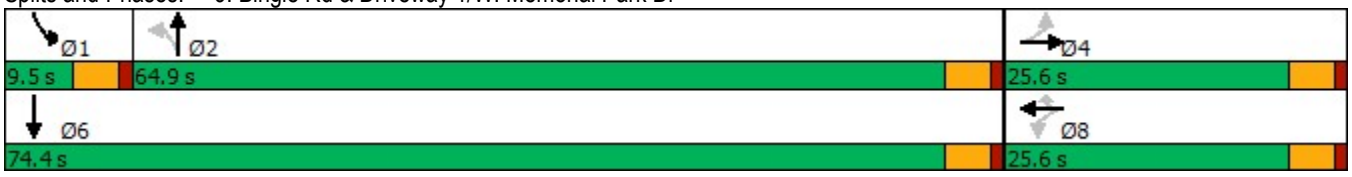
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	179	0	55	0	929	87	42	776	0
Future Volume (vph)	0	0	0	179	0	55	0	929	87	42	776	0
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	3493	0	1770	3539	0
Flt Permitted					0.757					0.950		
Satd. Flow (perm)	0	1863	0	0	1410	1583	0	3493	0	1770	3539	0
Satd. Flow (RTOR)						81		19				
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	256	81	0	1085	0	56	834	0
Turn Type				Perm	NA	Perm		NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)					20.2	20.2		63.0		5.0	70.6	
Actuated g/C Ratio					0.20	0.20		0.63		0.05	0.71	
v/c Ratio					0.90	0.21		0.49		0.64	0.33	
Control Delay					72.5	9.0		11.2		78.2	6.1	
Queue Delay					0.0	0.0		0.0		0.0	0.0	
Total Delay					72.5	9.0		11.2		78.2	6.1	
LOS					E	A		B		E	A	
Approach Delay					57.3			11.2			10.7	
Approach LOS					E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 99.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

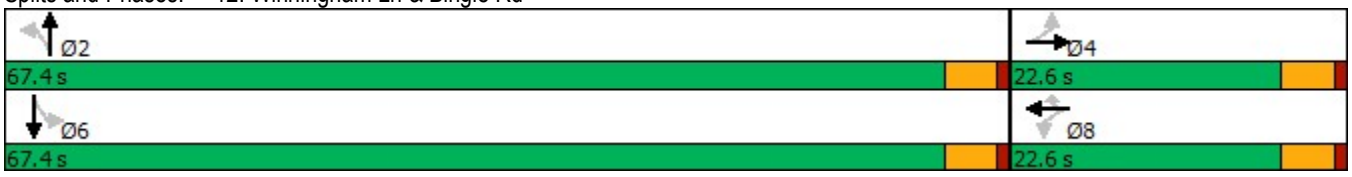
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	37	0	9	10	918	52	2	780	5
Future Volume (vph)	4	0	7	37	0	9	10	918	52	2	780	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3507	0	0	3536	0
Flt Permitted		0.932			0.742			0.927			0.945	
Satd. Flow (perm)	0	1540	0	0	1382	1583	0	3255	0	0	3341	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	44	20	0	1094	0	0	846	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		7.8			8.0	8.0		69.1			69.1	
Actuated g/C Ratio		0.10			0.10	0.10		0.86			0.86	
v/c Ratio		0.14			0.32	0.11		0.39			0.29	
Control Delay		18.4			39.2	15.9		2.7			2.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.4			39.2	15.9		2.7			2.3	
LOS		B			D	B		A			A	
Approach Delay		18.4			31.9			2.7			2.3	
Approach LOS		B			C			A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 3.6	Intersection LOS: A
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd

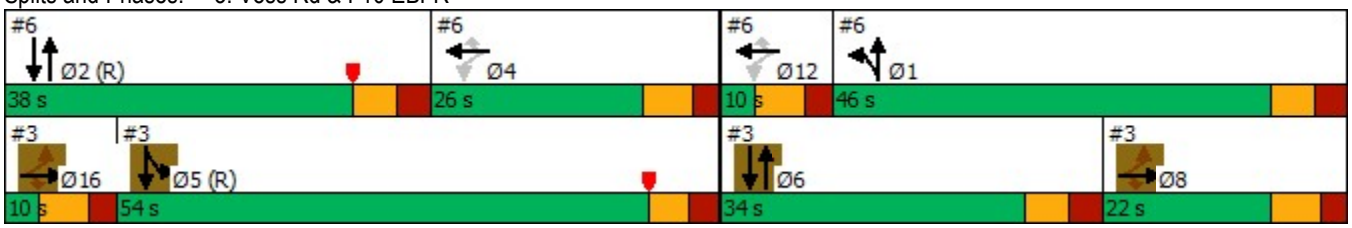


SYNCHRO OUTPUT
2027 BUILD CONDITIONS AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Future Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			235					155				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	554	235	0	0	0	0	1377	0	421	766	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.4	25.4	25.4					27.0		47.1	81.1	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.74	0.56	0.45					1.27dr		0.31	0.32	
Control Delay	59.2	44.9	8.0					53.8		12.9	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	59.2	44.9	8.0					53.8		12.9	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.7						53.8			5.6	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 33.8	Intersection LOS: C	
Intersection Capacity Utilization 61.3%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

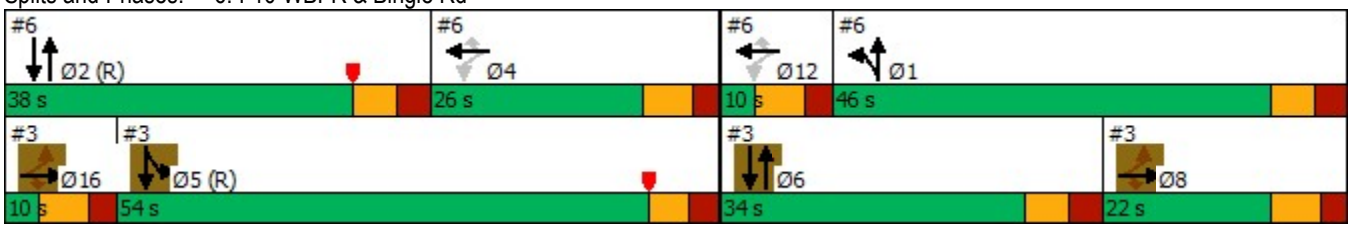
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Future Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						276					127	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	288	659	313	554	678	0	0	1174	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.5	30.5	30.5	38.6	75.5			29.9	
Actuated g/C Ratio				0.25	0.25	0.25	0.32	0.63			0.25	
v/c Ratio				0.75	0.55	0.51	0.50	0.30			0.99dr	
Control Delay				54.7	41.1	10.0	19.2	1.1			40.0	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				54.7	41.1	10.0	20.4	1.8			40.0	
LOS				D	D	B	C	A			D	
Approach Delay					36.5			10.2			40.0	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

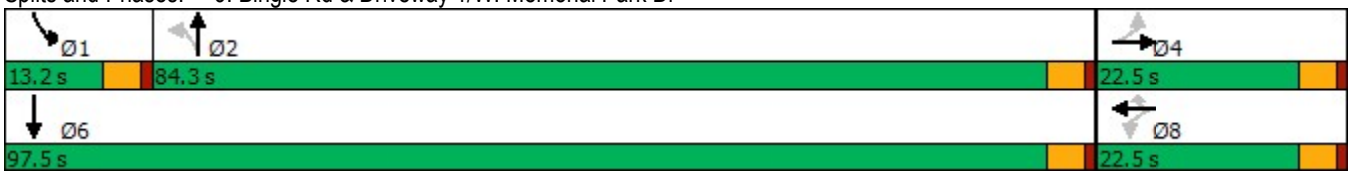
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Future Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Satd. Flow (prot)	0	1747	0	0	1775	1583	0	3426	0	1770	3529	0
Flt Permitted		0.784			0.721			0.926		0.950		
Satd. Flow (perm)	0	1418	0	0	1343	1583	0	3176	0	1770	3529	0
Satd. Flow (RTOR)		3				55		58			5	
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	49	36	0	907	0	64	1088	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)		9.3			9.3	9.3		80.1		8.7	94.3	
Actuated g/C Ratio		0.09			0.09	0.09		0.73		0.08	0.86	
v/c Ratio		0.11			0.43	0.20		0.39		0.45	0.36	
Control Delay		41.7			60.1	8.2		6.2		61.0	2.5	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		41.7			60.1	8.2		6.2		61.0	2.5	
LOS		D			E	A		A		E	A	
Approach Delay		41.7			38.1			6.2			5.8	
Approach LOS		D			D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

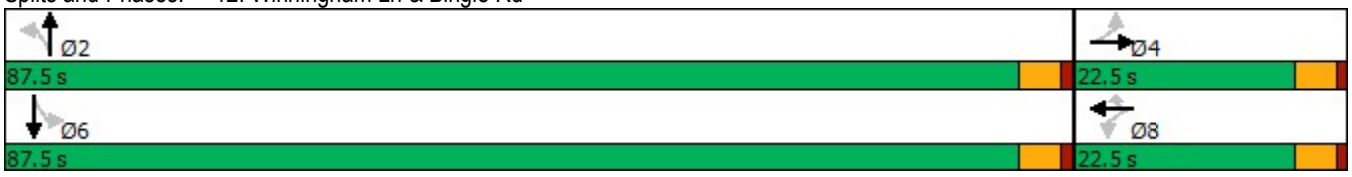
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Future Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		192				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	83	8	0	773	0	0	1013	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.5			11.7	11.7		87.0			87.0	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.55	0.04		0.28			0.36	
Control Delay		0.3			57.4	12.0		3.0			3.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.4	12.0		3.0			3.4	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.4			3.0			3.4	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 46.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	0	4	1011	1	0	815
Future Vol, veh/h	0	4	1011	1	0	815
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	1099	1	0	886

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	550	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	479	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	479	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

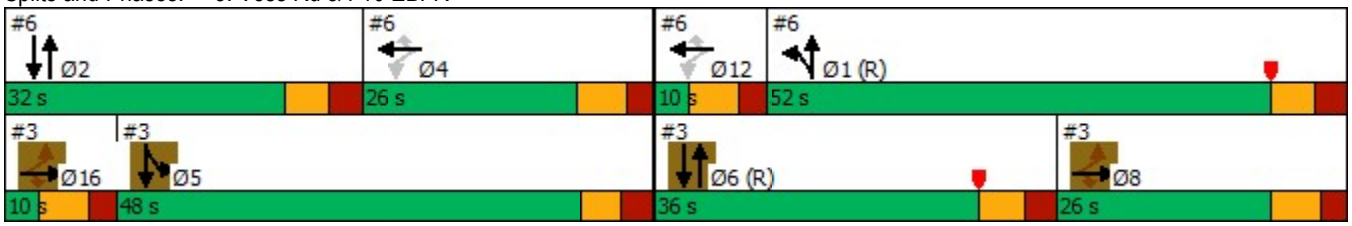
Approach	EB	SE	NW
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	EBLn1	SET	SER
Capacity (veh/h)	-	479	-	-
HCM Lane V/C Ratio	-	0.009	-	-
HCM Control Delay (s)	-	12.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Future Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Satd. Flow (prot)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.982								0.950		
Satd. Flow (perm)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					135				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	664	231	0	0	0	0	1525	0	333	820	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.0		40.7	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.65	0.59	0.42					1.22dr		0.29	0.36	
Control Delay	50.6	42.8	7.6					54.0		15.4	1.4	
Queue Delay	0.0	0.0	0.0					0.0		0.0	1.1	
Total Delay	50.6	42.8	7.6					54.0		15.4	2.5	
LOS	D	D	A					D		B	A	
Approach Delay		37.2						54.0			6.2	
Approach LOS		D						D			A	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 34.5		Intersection LOS: C	
Intersection Capacity Utilization 62.6%		ICU Level of Service B	
Analysis Period (min) 15			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

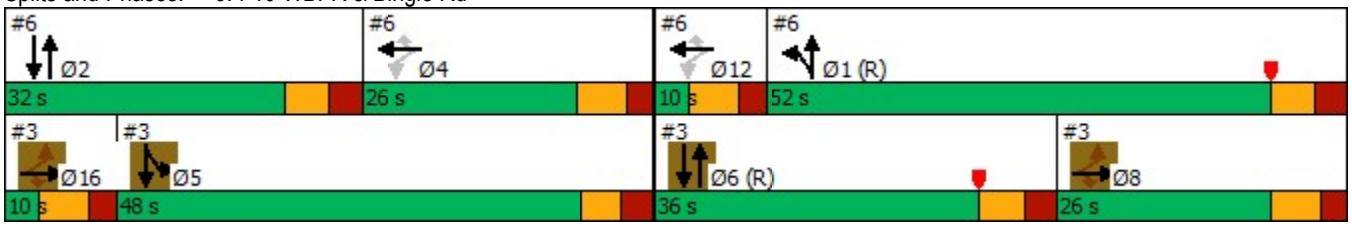
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Future Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Satd. Flow (RTOR)						274					97	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	265	817	377	604	681	0	0	1073	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				29.9	29.9	29.9	45.0	76.1			24.1	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.70	0.69	0.63	0.47	0.30			1.03dr	
Control Delay				52.6	44.7	16.5	11.9	1.0			48.1	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				52.6	44.7	16.5	13.1	1.7			48.1	
LOS				D	D	B	B	A			D	
Approach Delay					38.9			7.0			48.1	
Approach LOS					D			A			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 30.8	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

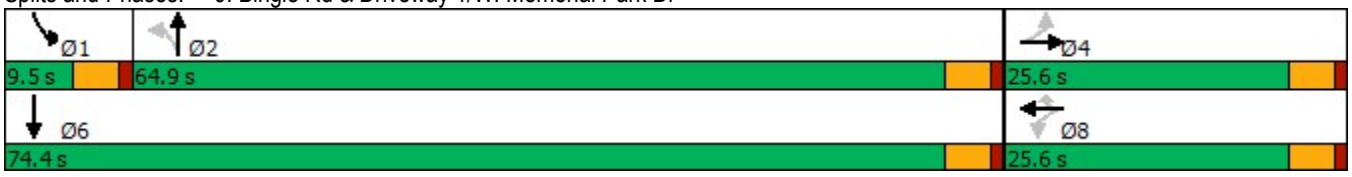
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Future Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Satd. Flow (prot)	0	1753	0	0	1775	1583	0	3486	0	1770	3518	0
Flt Permitted		0.552			0.739			0.862		0.950		
Satd. Flow (perm)	0	1003	0	0	1377	1583	0	3011	0	1770	3518	0
Satd. Flow (RTOR)		9				81		18			10	
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	260	81	0	1137	0	56	874	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5		4.5	4.5	
Act Effct Green (s)		20.5			20.5	20.5		62.9		5.0	70.5	
Actuated g/C Ratio		0.20			0.20	0.20		0.63		0.05	0.70	
v/c Ratio		0.23			0.92	0.21		0.60		0.64	0.35	
Control Delay		31.1			77.2	9.0		13.1		78.4	6.3	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		31.1			77.2	9.0		13.1		78.4	6.3	
LOS		C			E	A		B		E	A	
Approach Delay		31.1			61.0			13.1			10.6	
Approach LOS		C			E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

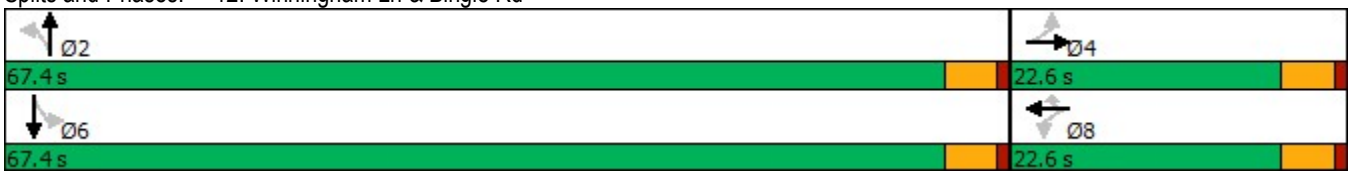
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Future Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3504	0	0	3536	0
Flt Permitted		0.933			0.742			0.927			0.945	
Satd. Flow (perm)	0	1542	0	0	1382	1583	0	3251	0	0	3341	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	49	20	0	1125	0	0	875	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		8.0			8.3	8.3		68.1			68.1	
Actuated g/C Ratio		0.10			0.11	0.11		0.86			0.86	
v/c Ratio		0.14			0.34	0.11		0.40			0.30	
Control Delay		18.3			39.3	15.9		2.8			2.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.3			39.3	15.9		2.8			2.4	
LOS		B			D	B		A			A	
Approach Delay		18.3			32.5			2.8			2.4	
Approach LOS		B			C			A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 3.8	Intersection LOS: A
Intersection Capacity Utilization 47.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Winningham Ln & Bingle Rd



Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	0	35	959	4	0	1058
Future Vol, veh/h	0	35	959	4	0	1058
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	38	1042	4	0	1150

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	523	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	499	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	499	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	12.8	0	0
HCM LOS	B		

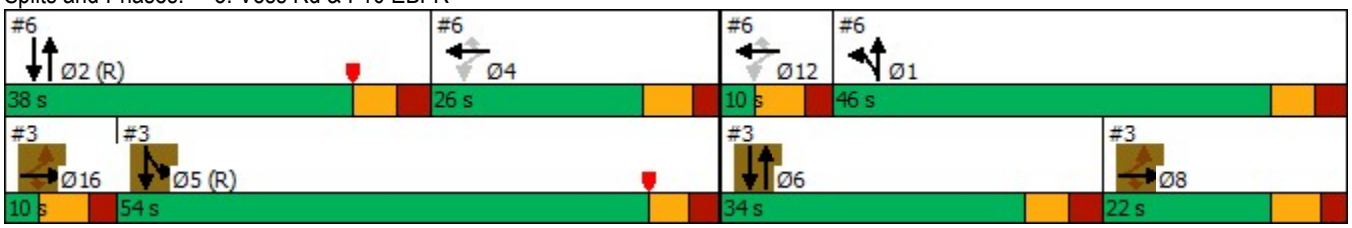
Minor Lane/Major Mvmt	NWT	EBLn1	SET	SER
Capacity (veh/h)	-	499	-	-
HCM Lane V/C Ratio	-	0.076	-	-
HCM Control Delay (s)	-	12.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

SYNCHRO OUTPUT
2027 BUILD CONDITIONS WITH MITIGATIONS
AM AND PM PEAK

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Future Volume (vph)	451	284	221	0	0	0	0	681	477	366	720	0
Satd. Flow (prot)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Flt Permitted	0.950	0.979								0.950		
Satd. Flow (perm)	1522	4705	1583	0	0	0	0	5979	0	3433	3539	0
Satd. Flow (RTOR)			235					155				
Peak Hour Factor	0.95	0.90	0.94	0.92	0.92	0.92	0.92	0.89	0.78	0.87	0.94	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	554	235	0	0	0	0	1377	0	421	766	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								34.0		54.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	25.4	25.4	25.4					27.0		47.1	81.1	
Actuated g/C Ratio	0.21	0.21	0.21					0.22		0.39	0.68	
v/c Ratio	0.74	0.56	0.45					1.27dr		0.31	0.32	
Control Delay	59.2	44.9	8.0					53.8		12.9	1.0	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.5	
Total Delay	59.2	44.9	8.0					53.8		12.9	1.5	
LOS	E	D	A					D		B	A	
Approach Delay		39.7						53.8			5.6	
Approach LOS		D						D			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

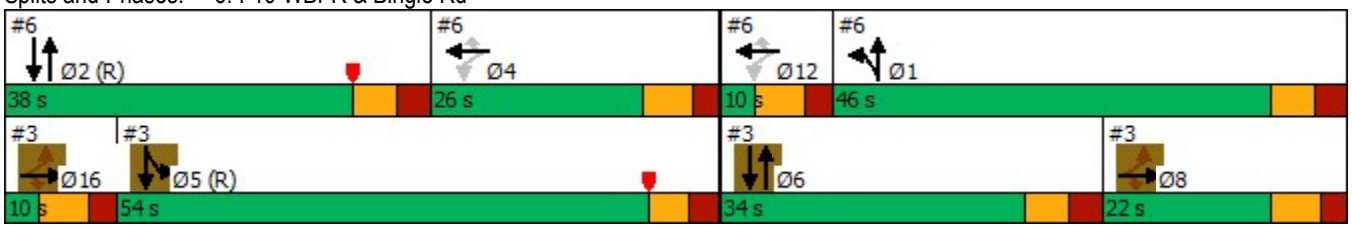
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Future Volume (vph)	0	0	0	507	356	275	510	610	0	0	587	466
Satd. Flow (prot)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Flt Permitted				0.950	0.979		0.950					
Satd. Flow (perm)	0	0	0	1522	4705	1583	3433	3539	0	0	6004	0
Satd. Flow (RTOR)						276					127	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.96	0.88	0.92	0.90	0.92	0.92	0.86	0.95
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	288	659	313	554	678	0	0	1174	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							46.0				38.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				30.5	30.5	30.5	38.6	75.5			29.9	
Actuated g/C Ratio				0.25	0.25	0.25	0.32	0.63			0.25	
v/c Ratio				0.75	0.55	0.51	0.50	0.30			0.99dr	
Control Delay				54.7	41.1	10.0	19.2	1.1			40.0	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				54.7	41.1	10.0	20.4	1.8			40.0	
LOS				D	D	B	C	A			D	
Approach Delay					36.5			10.2			40.0	
Approach LOS					D			B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:NBSB and 5:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

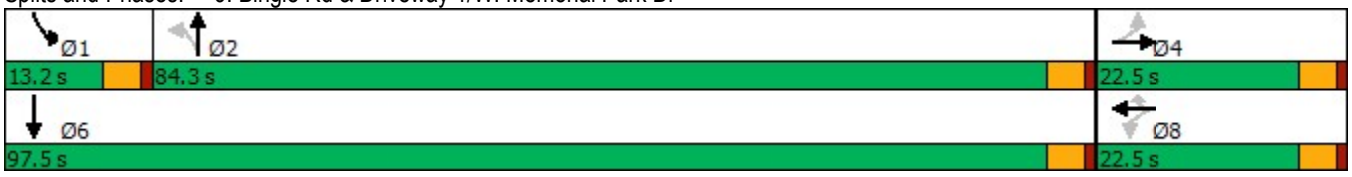
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Future Volume (vph)	9	1	3	29	1	24	15	654	147	46	982	19
Satd. Flow (prot)	0	1747	0	0	1775	1583	1770	3426	0	1770	3529	0
Flt Permitted		0.784			0.721		0.263			0.950		
Satd. Flow (perm)	0	1418	0	0	1343	1583	490	3426	0	1770	3529	0
Satd. Flow (RTOR)		3				55		60			5	
Peak Hour Factor	0.92	0.92	0.92	0.60	0.92	0.67	0.92	0.93	0.78	0.72	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	49	36	16	891	0	64	1088	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	22.5	22.5		22.5	22.5	22.5	84.3	84.3		13.2	97.5	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)		9.3			9.3	9.3	80.1	80.1		8.7	94.3	
Actuated g/C Ratio		0.09			0.09	0.09	0.73	0.73		0.08	0.86	
v/c Ratio		0.11			0.43	0.20	0.04	0.35		0.45	0.36	
Control Delay		41.7			60.1	8.2	5.7	5.9		61.0	2.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		41.7			60.1	8.2	5.7	5.9		61.0	2.5	
LOS		D			E	A	A	A		E	A	
Approach Delay		41.7			38.1			5.9			5.8	
Approach LOS		D			D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 50.6%	ICU Level of Service A
Analysis Period (min) 15	

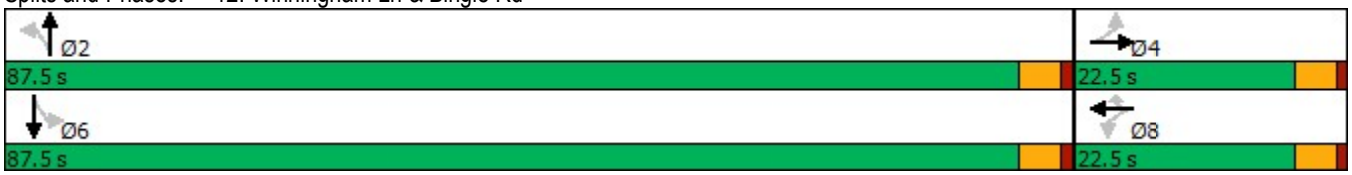
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Future Volume (vph)	0	0	13	68	2	7	2	655	27	2	961	2
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	3518	0	0	3536	0
Flt Permitted					0.722			0.951			0.949	
Satd. Flow (perm)	0	1611	0	0	1345	1583	0	3346	0	0	3355	0
Satd. Flow (RTOR)		192				15		12			1	
Peak Hour Factor	0.92	0.92	0.65	0.86	0.50	0.88	0.50	0.89	0.81	0.25	0.96	0.50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	83	8	0	773	0	0	1013	0
Turn Type		NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.5	22.5		22.5	22.5	22.5	87.5	87.5		87.5	87.5	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		11.5			11.7	11.7		87.0			87.0	
Actuated g/C Ratio		0.11			0.11	0.11		0.83			0.83	
v/c Ratio		0.06			0.55	0.04		0.28			0.36	
Control Delay		0.3			57.4	12.0		3.0			3.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.3			57.4	12.0		3.0			3.4	
LOS		A			E	B		A			A	
Approach Delay		0.3			53.4			3.0			3.4	
Approach LOS		A			D			A			A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 46.1%	ICU Level of Service A
Analysis Period (min) 15	

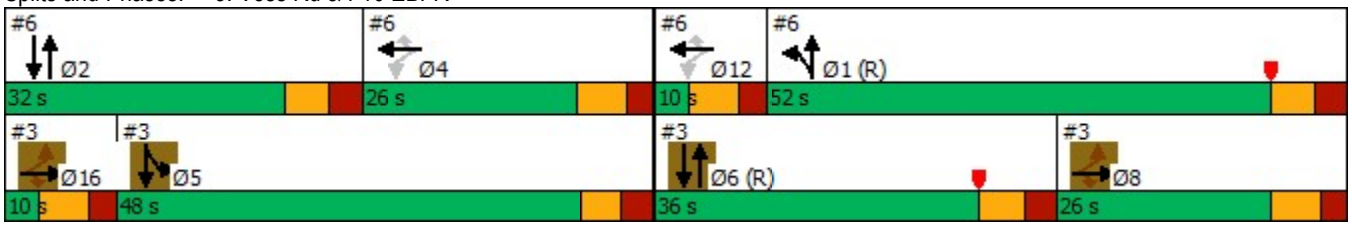
Splits and Phases: 12: Winningham Ln & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Future Volume (vph)	413	349	206	0	0	0	0	809	554	313	656	0
Satd. Flow (prot)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Flt Permitted	0.950	0.982								0.950		
Satd. Flow (perm)	1522	4719	1583	0	0	0	0	6017	0	3433	3539	0
Satd. Flow (RTOR)			227					135				
Peak Hour Factor	0.87	0.82	0.89	0.92	0.92	0.92	0.92	0.89	0.90	0.94	0.80	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	237	664	231	0	0	0	0	1525	0	333	820	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16									
Total Split (s)								36.0		48.0		
Total Lost Time (s)								7.0		6.5		
Act Effct Green (s)	28.7	28.7	28.7					30.0		40.7	77.8	
Actuated g/C Ratio	0.24	0.24	0.24					0.25		0.34	0.65	
v/c Ratio	0.65	0.59	0.42					1.22dr		0.29	0.36	
Control Delay	50.6	42.8	7.6					54.0		15.4	1.4	
Queue Delay	0.0	0.0	0.0					0.0		0.0	1.1	
Total Delay	50.6	42.8	7.6					54.0		15.4	2.5	
LOS	D	D	A					D		B	A	
Approach Delay		37.2						54.0			6.2	
Approach LOS		D						D			A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.95		
Intersection Signal Delay: 34.5	Intersection LOS: C	
Intersection Capacity Utilization 62.6%	ICU Level of Service B	
Analysis Period (min) 15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.		

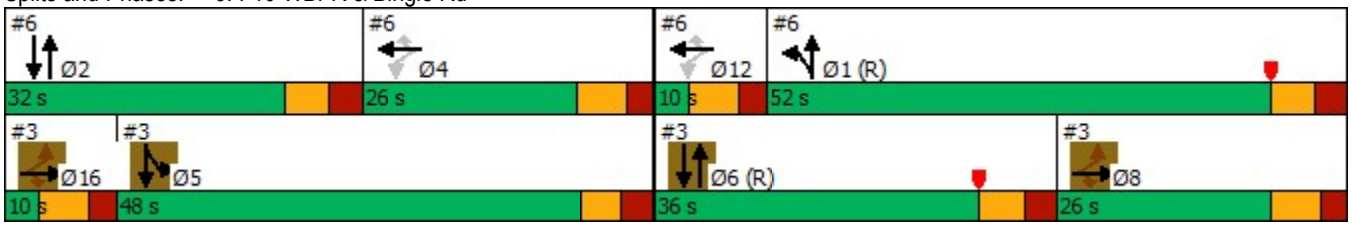
Splits and Phases: 3: Voss Rd & I-10 EBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Future Volume (vph)	0	0	0	429	558	343	568	654	0	0	521	402
Satd. Flow (prot)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Flt Permitted				0.950	0.987		0.950					
Satd. Flow (perm)	0	0	0	1522	4743	1583	3433	3539	0	0	6036	0
Satd. Flow (RTOR)						274					97	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.93	0.91	0.94	0.96	0.92	0.92	0.79	0.97
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	0	0	265	817	377	604	681	0	0	1073	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							52.0				32.0	
Total Lost Time (s)							7.0				7.0	
Act Effct Green (s)				29.9	29.9	29.9	45.0	76.1			24.1	
Actuated g/C Ratio				0.25	0.25	0.25	0.38	0.63			0.20	
v/c Ratio				0.70	0.69	0.63	0.47	0.30			1.03dr	
Control Delay				52.6	44.7	16.5	11.9	1.0			48.1	
Queue Delay				0.0	0.0	0.0	1.2	0.7			0.0	
Total Delay				52.6	44.7	16.5	13.1	1.7			48.1	
LOS				D	D	B	B	A			D	
Approach Delay					38.9			7.0			48.1	
Approach LOS					D			A			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 25 (21%), Referenced to phase 1:NBTL and 6:, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 30.8	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

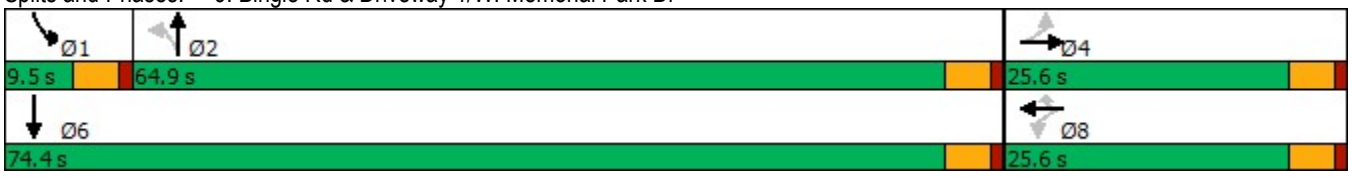
Splits and Phases: 6: I-10 WBFR & Bingle Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Future Volume (vph)	33	4	8	179	4	55	48	929	87	42	780	32
Satd. Flow (prot)	0	1753	0	0	1775	1583	1770	3493	0	1770	3518	0
Flt Permitted		0.552			0.739		0.325			0.950		
Satd. Flow (perm)	0	1003	0	0	1377	1583	605	3493	0	1770	3518	0
Satd. Flow (RTOR)		9				81		19			10	
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.68	0.92	0.94	0.90	0.75	0.93	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	260	81	52	1085	0	56	874	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Total Split (s)	25.6	25.6		25.6	25.6	25.6	64.9	64.9		9.5	74.4	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)		20.5			20.5	20.5	62.9	62.9		5.0	70.5	
Actuated g/C Ratio		0.20			0.20	0.20	0.63	0.63		0.05	0.70	
v/c Ratio		0.23			0.92	0.21	0.14	0.49		0.64	0.35	
Control Delay		31.1			77.2	9.0	9.8	11.3		78.4	6.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		31.1			77.2	9.0	9.8	11.3		78.4	6.3	
LOS		C			E	A	A	B		E	A	
Approach Delay		31.1			61.0			11.2			10.6	
Approach LOS		C			E			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

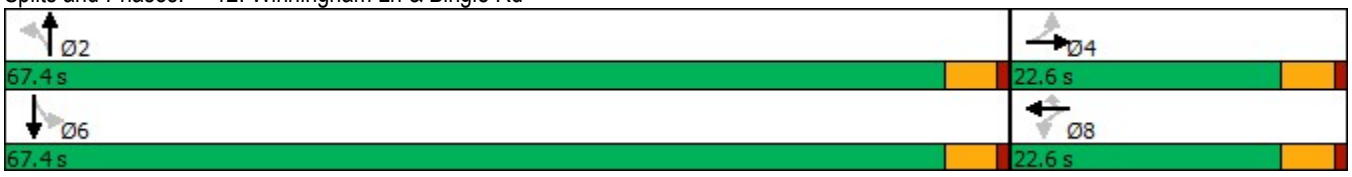
Splits and Phases: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Future Volume (vph)	4	0	7	41	0	9	10	943	55	2	807	5
Satd. Flow (prot)	0	1639	0	0	1770	1583	0	3504	0	0	3536	0
Flt Permitted		0.933			0.742			0.927			0.945	
Satd. Flow (perm)	0	1542	0	0	1382	1583	0	3251	0	0	3341	0
Satd. Flow (RTOR)		20				20		16			2	
Peak Hour Factor	1.00	0.92	0.35	0.84	0.92	0.45	0.42	0.91	0.85	0.25	0.94	0.63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	49	20	0	1125	0	0	875	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	22.6	22.6		22.6	22.6	22.6	67.4	67.4		67.4	67.4	
Total Lost Time (s)		4.5			4.5	4.5		4.5			4.5	
Act Effct Green (s)		8.0			8.3	8.3		68.1			68.1	
Actuated g/C Ratio		0.10			0.11	0.11		0.86			0.86	
v/c Ratio		0.14			0.34	0.11		0.40			0.30	
Control Delay		18.3			39.3	15.9		2.8			2.4	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.3			39.3	15.9		2.8			2.4	
LOS		B			D	B		A			A	
Approach Delay		18.3			32.5			2.8			2.4	
Approach LOS		B			C			A			A	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 79			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 3.8		Intersection LOS: A	
Intersection Capacity Utilization 47.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Winningham Ln & Bingle Rd



SimTraffic Output
All Conditions
Queueing Report
AM and PM Peak

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L	T	T
Maximum Queue (ft)	325	398	280	63	163	245	341	314	48	55	5	8
Average Queue (ft)	225	327	219	23	99	167	198	182	27	31	1	2
95th Queue (ft)	351	435	331	84	204	273	383	371	61	62	11	13
Link Distance (ft)		785	785	785		738	738		315	315	315	315
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	490				350			140				
Storage Blk Time (%)							16	11				
Queuing Penalty (veh)							99	18				

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	T	TR
Maximum Queue (ft)	351	439	355	134	117	72	82	8	113	152	398	282
Average Queue (ft)	246	355	248	45	71	35	42	2	57	95	241	235
95th Queue (ft)	421	503	390	143	139	89	100	15	138	169	435	313
Link Distance (ft)		691	691	691		315	315	315		487	487	
Upstream Blk Time (%)											1	
Queuing Penalty (veh)											3	
Storage Bay Dist (ft)	527				280				222			176
Storage Blk Time (%)		1			0				0	0	10	22
Queuing Penalty (veh)		2			0				0	0	58	32

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LT	LT	TR	L	T	TR
Maximum Queue (ft)	16	74	112	58	50	95
Average Queue (ft)	5	34	67	30	16	43
95th Queue (ft)	22	83	123	74	57	129
Link Distance (ft)	496	487	487		623	623
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				135		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: Winningham Ln & Bingle Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	24	67	23	52	90	49	114
Average Queue (ft)	8	39	8	22	44	21	59
95th Queue (ft)	29	76	28	62	103	55	125
Link Distance (ft)	144	440	440	623	623	189	189
Upstream Blk Time (%)							0
Queuing Penalty (veh)							0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 213

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L	T	T
Maximum Queue (ft)	286	383	297	112	214	360	496	365	44	58	18	2
Average Queue (ft)	209	314	209	38	165	243	323	269	21	27	4	0
95th Queue (ft)	325	402	334	128	270	450	583	445	54	65	22	6
Link Distance (ft)		785	785	785		738	738		315	315	315	315
Upstream Blk Time (%)							1					
Queuing Penalty (veh)							0					
Storage Bay Dist (ft)	490				350			140				
Storage Blk Time (%)						0	23	15				
Queuing Penalty (veh)						1	175	29				

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	T	T
Maximum Queue (ft)	340	460	376	176	134	46	70	10	7	90	237	388
Average Queue (ft)	225	363	287	97	74	27	49	3	2	38	102	212
95th Queue (ft)	406	507	430	225	145	60	86	18	12	103	270	426
Link Distance (ft)		691	691	691		315	315	315	315		487	487
Upstream Blk Time (%)		0									0	1
Queuing Penalty (veh)		0									0	5
Storage Bay Dist (ft)	527				280					222		
Storage Blk Time (%)		1										8
Queuing Penalty (veh)		3										39

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	SB
Directions Served	TR
Maximum Queue (ft)	275
Average Queue (ft)	214
95th Queue (ft)	324
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	176
Storage Blk Time (%)	26
Queuing Penalty (veh)	31

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	TR	L	T	TR
Maximum Queue (ft)	117	11	168	186	62	86	151
Average Queue (ft)	71	3	88	120	34	39	88
95th Queue (ft)	143	19	184	203	80	96	179
Link Distance (ft)	496	496	487	487		623	623
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					135		
Storage Blk Time (%)					0	0	
Queuing Penalty (veh)					2	0	

Intersection: 12: Winningham Ln & Bingle Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	26	48	19	88	98	40	61
Average Queue (ft)	6	24	7	35	48	15	28
95th Queue (ft)	26	57	26	96	113	49	67
Link Distance (ft)	144	440	440	623	623	189	189
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 285

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L
Maximum Queue (ft)	338	420	340	31	175	231	324	366	50	45
Average Queue (ft)	281	342	292	6	95	153	235	256	30	28
95th Queue (ft)	352	421	352	26	210	234	337	369	60	44
Link Distance (ft)		785	785	785		738	738		315	315
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	490				350			140		
Storage Blk Time (%)							22	13		
Queuing Penalty (veh)							142	22		

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	TR
Maximum Queue (ft)	342	356	355	183	85	95	98	91	105	494	288
Average Queue (ft)	265	326	254	89	69	63	65	56	91	300	276
95th Queue (ft)	374	364	345	213	100	106	104	98	110	497	301
Link Distance (ft)		691	691	691		315	315		487	487	
Upstream Blk Time (%)										1	
Queuing Penalty (veh)										6	
Storage Bay Dist (ft)	527				280			222			176
Storage Blk Time (%)										17	42
Queuing Penalty (veh)										105	61

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LT	LT	TR	L	T	TR
Maximum Queue (ft)	18	121	144	64	55	126
Average Queue (ft)	11	56	105	43	21	86
95th Queue (ft)	23	129	143	73	62	164
Link Distance (ft)	496	487	487		623	623
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				135		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: Winningham Ln & Bingle Rd

Movement	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	116	29	173	125	68	204
Average Queue (ft)	76	6	57	68	28	78
95th Queue (ft)	123	25	166	122	64	195
Link Distance (ft)	440	440	623	623	189	189
Upstream Blk Time (%)						3
Queuing Penalty (veh)						0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 336

Intersection: 3: Voss Rd & I-10 EBFR

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	T	T	T	T	T	TR	L	L	T
Maximum Queue (ft)	195	339	274	52	204	242	252	322	49	72	29
Average Queue (ft)	139	289	215	32	166	218	185	187	23	32	6
95th Queue (ft)	257	350	292	63	212	249	293	385	50	70	25
Link Distance (ft)		785	785	785		738	738		315	315	315
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	490				350			140			
Storage Blk Time (%)							11	8			
Queuing Penalty (veh)							85	15			

Intersection: 6: I-10 WBFR & Bingle Rd

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	T	T	R	L	L	T	T	T	T	TR
Maximum Queue (ft)	343	450	414	196	131	30	71	23	65	84	297	281
Average Queue (ft)	187	353	271	82	74	12	47	5	52	63	163	179
95th Queue (ft)	369	474	400	209	129	36	75	20	72	98	284	317
Link Distance (ft)		691	691	691		315	315	315		487	487	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	527				280				222			176
Storage Blk Time (%)											9	15
Queuing Penalty (veh)											44	19

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	TR	L	T	TR
Maximum Queue (ft)	105	30	202	220	63	69	110
Average Queue (ft)	81	6	118	150	39	33	83
95th Queue (ft)	122	26	210	230	65	83	110
Link Distance (ft)	496	496	487	487		623	623
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					135		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: Winningham Ln & Bingle Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	30	48	29	49	56	68	46
Average Queue (ft)	6	16	11	30	28	30	20
95th Queue (ft)	25	49	35	58	68	74	54
Link Distance (ft)	144	440	440	623	623	189	189
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 163

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	L	T	TR	L	T	TR
Maximum Queue (ft)	21	55	5	80	125	65	48	72
Average Queue (ft)	9	18	2	30	80	40	10	34
95th Queue (ft)	25	57	5	76	139	65	42	74
Link Distance (ft)	306	494		125	125		623	623
Upstream Blk Time (%)					1			
Queuing Penalty (veh)					2			
Storage Bay Dist (ft)			100			135		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 9: Bingle Rd & Driveway 1/W. Memorial Park Dr

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	21	80	31	56	126	132	64	72	97
Average Queue (ft)	12	47	6	15	66	86	27	33	73
95th Queue (ft)	29	80	26	50	133	132	66	80	105
Link Distance (ft)	306	494	494		125	125		623	623
Upstream Blk Time (%)					1	2			
Queuing Penalty (veh)					6	13			
Storage Bay Dist (ft)				100			135		
Storage Blk Time (%)					2				
Queuing Penalty (veh)					1				

SIGNAL TIMING SHEETS

Installed: 05/29/2019

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Cabinet Settings

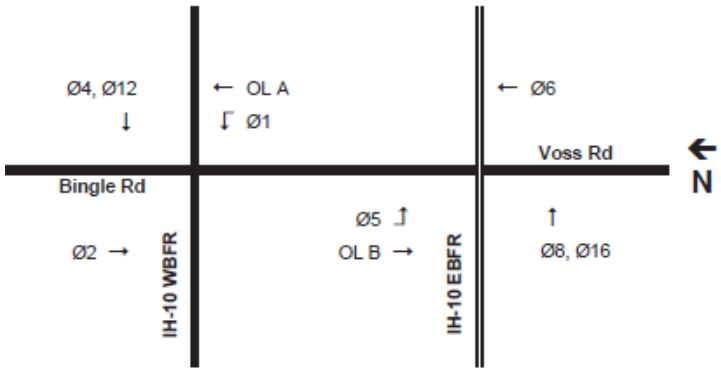
Cabinet Type (MM) 1-1-1

Cabinet Type: TS2-1

Channel	1	2	3	4
BIU Terminal & Facility	X	X		
BIU Detector	X			

Enable SDLC Stop Time: Yes

Latch 3 Critical Errors: No



Load Switch Configuration (MM) 1-1-2

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Channel Type	O	V	O	O	O	V	O	O	O	O	O	O	P	P	P	P
Phase/Overlap	9	2	10	11	12	6	13	14	1	2	0	0	2	4	6	8

Color Check Enable (MM) 1-1-3

Enable Color Check: No

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Red	X	X	X	X	X	X	X	X					X	X	X	X
Yellow	X	X	X	X	X	X	X	X					X	X	X	X
Green	X	X	X	X	X	X	X	X					X	X	X	X

Monitor Programming (MM) 1-1-4

Channel Can Serve With Channel	
Channel 1	**Channel 2**
1	5
1	6
1	7
1	8
1	9
1	10
1	15
1	16
2	5
2	6
2	7
2	8
2	9
2	10
2	13
2	15

Secondary Stations/Tests (MM) 1-1-6

The Cabinet Type does not support this feature.

2	16
3	5
3	6
3	7
3	8
3	10
3	15
3	16
4	5
4	6
4	7
4	8
4	10
4	14
4	15
4	16
5	9
5	10
5	13
5	14
6	9
6	10
6	13
6	14
6	15
7	9
7	13
7	14
8	9
8	13
8	14
8	16
9	10
9	13
9	15
9	16
10	13
10	14
10	15
13	15
13	16
14	15
14	16

Phase and Overlap Descriptions

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Approach	SW	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Communications

Ethernet Port Configuration (MM) 1-2-1

DHCP Enable:	No
Controller IP:	10.54.145.52
Subnet Mask:	255.255.255.0
Default Gateway IP:	10.54.145.1
Server IP:	10.1.70.170

NTCIP (MM) 1-2-5

NTCIP Backup Time (Sec):	0
NTCIP UDP Port:	501
Ethernet Priority:	1
Port 2(C50S) Priority:	4
Port 3A(C21S) Priority:	3
Port 3B(C22S) Priority:	2

Port Configuration (MM) 1-2-2 to 1-2-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	n/a	Auto	Auto
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Duplex - Half or Full	Half	Full	Full
Protocol	NTCIP	NTCIP	NTCIP
Address	0	0	0
Group Address	0	0	0
Dropout Time	10	10	10
Single Flag Enable	Yes	Yes	Yes

Peer to Peer Setup (MM) 1-2-6

Local Port: 503

Peer	Port	IP Address	Timeout	Peer Name
1	503	10.40.36.33	1	

V2I / Connected Veh (MM) 1-2-7

SPAT/MAP Destinations

	IP Address	Port

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Logging / Display

Event Logging (MM) 1-3

Critical RFE's (MMU/TF):	Yes	Access:	Yes
MMU Flash Faults:	Yes	Data Change:	Yes
3 Critical Errors Within 24 Hours:	Yes	Low Battery:	Yes
Non-Critical RFE's (Det/Test):	Yes	Controller Download:	Yes
Detector Errors:	Yes	Power On/Off:	Yes
SCP (TSP/EVP):	Yes	Local Flash Fault:	Yes
Preemption Events:	Yes	Online / Offline:	Yes
Coordination Errors:	Yes	Hi-Res MOE:	15 min

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NTCIP SCP MSG: No

Database (MM) 1-6

Enable Controller/Cabinet Interlock CRC:	No
CRC (16 bit):	A1A2
Enable Automatic Backup to Datakey:	No

Display Options (MM) 1-4

Key Click Enable:	No
Switch to Graphics Mode:	Yes
Trans Mode Pop-Up Disable:	No
Display Mode:	Advanced
LED Mode:	Auto

Sign On (MM) 8-5

Sign On Message Line 1: TEXAS DIAMOND EVALUATION 6/13/19
Sign On Message Line 2: 3/4/STANDARD I10 @ VOSS

Software Modules (MM) 8-7

Application Version: 03.02.02
OS (Boot) Version: 06.11.00

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ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	30	45	0	35	30	35	0	35	25	25	3	3	25	25	3	3
Max2	40	55	0	45	50	45	0	40	25	25	3	3	25	25	3	3
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	8	0	9	0	9	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 1 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall																
Ped Recall																
Max Recall																
Soft Recall																
No Rest																

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Leading															
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Trailing															
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Double Serve															
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 2 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2-1-3	Max Green Data															
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall																
Ped Recall																
Max Recall																
Soft Recall																
No Rest																

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Leading															
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Trailing															
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Double Serve															
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 3 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	5	5	5	5	5	5	5	3	3	3	3	3	3	3	3
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	10	10	10	10	10	10	10	10	0	3	0	0	3	3	0	0
Max2	40	40	40	40	40	40	40	40	0	3	0	0	3	3	0	0
Max3	40	40	40	40	40	40	40	40	0	3	0	0	3	3	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																

Vehicle Recall															
Ped Recall															
Max Recall															
Soft Recall															
No Rest															

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Leading																
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trailing																
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Double Serve																
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 4 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	3	0	3	0	3	0	3	0	0	0	0	0	0	0	0
Min Green	5	7	0	5	5	7	0	5	5	5	3	3	5	5	3	3
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	1.0	1.0	0.0	2.5	1.0	1.0	0.0	2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	30	45	0	35	30	35	0	35	25	25	3	3	25	25	3	3
Max2	40	55	0	45	50	45	0	40	25	25	3	3	25	25	3	3
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															

Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clear	0	19	0	13	0	14	0	12	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	4.0	4.0	3.0	4.5	3.5	4.0	3.0	4.5	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5
Red Clear	3.0	3.0	1.0	2.5	3.0	3.0	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4 - ""Continued

Phase Recall (MM) 2-1-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall	X	X		X	X	X		X								
Ped Recall																
Max Recall																
Soft Recall																
No Rest									X		X	X	X		X	X

Overlap (MM) 2-1-7

Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Leading															
Adv. Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv. Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay FYA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Trailing															
Lag Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Outputs (MM) 2-1-8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Double Serve															
Dbl Serv Ph.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap - A - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase	X	X							X	X						
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - B - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase					X	X							X	X		
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - I - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase	X								X	X						
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - J - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase			X								X					
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - K - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase				X								X				
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																

Inhibit With Green															
Trailing When Exit															
Trailing When Next															
Trailing Phase Allow															
Green When Next															
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap															

Overlap - L - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase					X								X	X		
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Overlap - M - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase							X								X	
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																

Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap															

Overlap - N - Type - Overlap

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Included Phase								X								X
Protected Phase																
Inhibit with Ped																
Inhibit With Phase																
Inhibit With Green																
Trailing When Exit																
Trailing When Next																
Trailing Phase Allow																
Green When Next																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inhibit With Overlap																

Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	3
B02	5	0	7	3.0	0.0	3
C03	5	0	7	3.0	0.0	3
D04	5	0	7	3.0	0.0	3
E05	5	0	7	3.0	0.0	3
F06	5	0	7	3.0	0.0	3
G07	5	0	7	3.0	0.0	3
H08	5	0	7	3.0	0.0	3
I09	3	0	7	3.0	0.0	3
J10	3	0	7	3.0	0.0	3
K11	3	0	7	3.0	0.0	3
L12	3	0	7	3.0	0.0	3
M13	3	0	7	3.0	0.0	3
N14	3	0	7	3.0	0.0	3
O15	3	0	7	3.0	0.0	3
P16	3	0	7	3.0	0.0	3

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MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Start / Flash Data (MM) 2-5

Power Start Up

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Start Phase	.	Y	.	.	Y	.	.	.	.	.	.	.	.	.	.	.
Start Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Flash Minimum Time: 6 All Red Time: 6 Sequence Plan: 4

Automatic Flash

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Entry Phase		X			X											
Wig / Wag		X		X		X		X						X		
Phase Color	R	R	R	R	R	R	R	R	.	.	.	.	R	R	R	R
Exit Phase		X			X											
Olp Wig / Wag																
Exit Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Overlap Color	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

Flash Thru CVM: No Cycle Thru Phase: No Exit Flash: W

Mimimum Recall: No Minimum Flash: 8

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MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Controller Options

Controller Options (MM) 2-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X		X	X	X		X				X				X
Dual Entry	X				X											
Simultaneous Gap																
Lock Phase Next																
Passage After Init																
Guaranteed Passage																
Cond Service From																
Cond Service To																
Non-Actuated I		X				X										
Non-Actuated II				X				X								
Pre-Timed																
Exclusive Ped																
Rest In Walk																
Ped Re-Service																
Flashing Walk																
Ped Clear Thru Yellow																
Ped Clear Thru Red																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Omit																

Unit Red Revert:	2.0
Ped Clear Protect:	Off
MUTCD 3 Seconds Don't Walk:	No
Enable Pre-Timed Mode:	No
Free Input Disables Pre-Timed:	No

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MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Configuration Controller Sequence

Controller Sequence (MM) 2-7-1

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B				B				B		B					
Sequence 1																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	1	2	.	.	3	4	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	.	.	7	8	.	.	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	10	4	.	.	9	3	.	.	2	1	.	.	.	.	.	.
Ring 2	14	8	.	.	13	7	.	.	6	5	.	.	.	.	.	.
Sequence 4																
Ring 1	2	3	4	9	11	12	1	.	.	.	.	.	.	.	.	.
Ring 2	15	16	5	.	6	7	8	13	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																

Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Serve																

Independent Ring Group: No
Hardware Alternate Sequence Enable: Yes

Backup Prevent (MM) 2-7-2

Coordination Options

Options (MM) 3-1

System Source:	TBC	ECPI Coord:	Yes
Splits In:	Seconds	Offsets In:	Seconds
Transition:	Smooth	Calc Min Cycle Using Ped Time:	No
Dwell / Add Time:	0	Ped Reservice:	No
Delay Coord Wk-LZ:	No	FO Added Ini Green:	No
Offset Reference:	Yellow	Re-sync Count:	0
Local Zero Override:	No		

Auto Perm Min Green (Sec) (MM) 3-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Preempt TSP/SCP Plan and Split

Enable Preempt Filtering & TSP/SCP (MM) 4-2

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

SCP Strategy Plan (MM) 4-3

SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
1	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
4	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
4	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
6	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
6	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
8	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
8	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
9	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
9	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
10	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
10	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
13	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
13	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
15	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
15	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
18	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
18	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
19	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
19	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
21	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
21	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
22	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
23	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
23	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
24	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
24	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
25	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
25	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
26	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
26	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
27	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
27	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
28	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
28	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
29	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
29	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
30	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
30	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
31	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
31	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
32	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
32	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
33	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
33	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
34	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
34	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
35	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
35	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
36	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
36		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
37	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
37	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
38	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
38	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
39	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
39	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
40	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
40	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
41	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
41	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
42	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
42	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
43	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
43	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
44	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
44	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
45	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
45	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
46	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
46	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
47	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
47	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
48	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
48	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
49	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
49	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
50	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
50	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
51		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
51	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
52	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
52	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
53	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
53	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
54	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
54	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
55	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
55	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
56	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
56	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
57	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
57	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
58	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
58	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
59	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
59	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
60	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
60	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
61	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
61	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
62	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
62	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
63	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
63	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
64	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
64	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
65	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
65		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
66	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
66	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
67	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
67	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
68	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
68	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
69	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
69	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
70	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
70	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
71	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
71	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
72	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
72	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
73	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
73	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
74	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
74	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
75	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
75	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
76	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
76	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
77	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
77	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
78	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
78	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
79	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
79	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
80		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
80	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
81	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
81	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
82	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
82	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
83	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
83	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
84	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
84	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
85	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
85	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
86	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
86	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
87	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
87	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
88	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
88	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
89	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
89	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
90	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
90	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
91	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
91	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
92	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
92	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
93	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
93	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
94	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
94		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Extension																
95	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
95	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
96	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
96	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
97	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
97	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
98	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
98	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
99	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
99	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
100	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
100	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
101	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
101	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
102	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
102	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
103	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
103	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
104	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
104	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
105	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
105	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
106	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
106	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
107	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
107	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
108	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
108	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
109		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

	Max Reduction																
109	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
110	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
110	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
111	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
111	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
112	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
112	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
113	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
113	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
114	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
114	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
115	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
115	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
116	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
116	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
117	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
117	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
118	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
118	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
119	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
119	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
120	Max Reduction	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
120	Max Extension	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

SCP Detector Plan (MM) 4-5

SCP Detector Plan: **1**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **2**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **3**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **4**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: **5**

Detector	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

No Delay In TSP															

SCP Detector Plan: 6

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: 7

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

SCP Detector Plan: 8

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SCP Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Travel Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class Type	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Hold Over	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Lock	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Max Call	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Check In Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Delay In TSP	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Time Base Clock/Calendar

Clock/Calendar Data (MM) 5-1

Manual Event Plan: 0
SYNC Reference Time: 00:00
SYNC Reference: Reference Time
Standard Time From GMT: 0
Day Light Savings: No
Time Reset Input Set Time: 3:30:00

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Time Base Event Plan
Event Plan (MM) 5-2

Event Plan - 1 - Event Type: "Coord"

Cycle Length: 90 Offset Value: 15s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	38	22	0	20	32	28	0	20	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X		X	X	X	

Dwell/Add Time: 0
Timing Plan: 4
Sequence: 4
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 0
Ring Group Offset Disp: 0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	80s	80s	0s	0s

Veh Perm 1: 0 Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 0
SCP Detector Plan: 0
Override Sys: No
Backup Prevent Plan: 0
:

Veh Detector Plan: 4
Veh Det Diag Plan: 0
Ped Det Diag Plan: 0
Det Log: None

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 2 - Event Type: "Coord"

Cycle Length:	120	Offset Value:	45s	Actuated Coord:	Yes	Splits In:	Seconds	Offsets In:	Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	46	38	0	26	54	34	0	22	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X		X	X	X	

Dwell/Add Time:	0
Timing Plan:	4
Sequence:	4
Actuated Walk Rest:	No
Phase Reservice:	No
Max Select:	MAXINH
Max Transition:	0
Ring Group Offset Disp:	0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	110s	110s	0s	0s

Veh Perm 1:	0	Veh Perm 2 Disp:	0
Veh Perm 2:	0		

SCP Strategy Plan:	0	Veh Detector Plan:	4
SCP Detector Plan:	0	Veh Det Diag Plan:	0
Override Sys:	No	Ped Det Diag Plan:	0
Backup Prevent Plan:	0	Det Log:	None
	:		

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 3 - Event Type: "Coord"

Cycle Length:	120	Offset Value:	25s	Actuated Coord:	Yes	Splits In:	Seconds	Offsets In:	Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	52	32	0	26	48	36	0	26	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase																

Dwell/Add Time:	0
Timing Plan:	4
Sequence:	4
Actuated Walk Rest:	No
Phase Reservice:	No
Max Select:	MAXINH
Max Transition:	0
Ring Group Offset Disp:	0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	110s	110s	0s	0s

Veh Perm 1:	0	Veh Perm 2 Disp:	0
Veh Perm 2:	0		

SCP Strategy Plan:	0	Veh Detector Plan:	4
SCP Detector Plan:	0	Veh Det Diag Plan:	0
Override Sys:	No	Ped Det Diag Plan:	0
Backup Prevent Plan:	0	Det Log:	None
	:		

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 4 - Event Type: "Coord"

Cycle Length:	90	Offset Value:	15s	Actuated Coord:	Yes	Splits In:	Seconds	Offsets In:	Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	40	22	0	18	30	32	0	18	0	0	0	10	0	0	0	10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase	X					X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall	X					X										
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase																

Dwell/Add Time:	0
Timing Plan:	4
Sequence:	4
Actuated Walk Rest:	No
Phase Reservice:	No
Max Select:	MAXINH
Max Transition:	0
Ring Group Offset Disp:	0

Ring	1	2	3	4
Ring Split Ext	5	5	0	0
Split Sum	80s	80s	0s	0s

Veh Perm 1:	0	Veh Perm 2 Disp:	0
Veh Perm 2:	0		

SCP Strategy Plan:	0	Veh Detector Plan:	4
SCP Detector Plan:	0	Veh Det Diag Plan:	0
Override Sys:	No	Ped Det Diag Plan:	0
Backup Prevent Plan:	0	Det Log:	None
	:		

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 100 - Event Type: "Coord"

Cycle Length:	80	Offset Value:	0s	Actuated Coord:	No	Splits In:	Seconds	Offsets In:	Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SW-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	20	20	0	20	20	20	0	20	0	0	0	2	0	0	0	2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X	X											
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall																
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X	X	X	X	X	X

Dwell/Add Time:	0
Timing Plan:	0
Sequence:	0
Actuated Walk Rest:	No
Phase Reservice:	No
Max Select:	MAXINH
Max Transition:	4
Ring Group Offset Disp:	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Split Sum	60s	60s	0s	0s

Veh Perm 1:	0	Veh Perm 2 Disp:	0
Veh Perm 2:	0		

SCP Strategy Plan:	0	Veh Detector Plan:	0
SCP Detector Plan:	0	Veh Det Diag Plan:	0
Override Sys:	No	Ped Det Diag Plan:	0
Backup Prevent Plan:	0	Det Log:	None
	:		

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Time Base Day Plan/Schedule

Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Event Plan	Start Time
1	1	00:00
2	4	09:00
3	1	22:00

Day Plan #2

Event	Event Plan	Start Time
1	1	00:00
2	2	06:00
3	4	09:00
4	3	15:00
5	4	19:00
6	1	22:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Detectors

Vehicle Detectors (MM) 6-1 and 6-2

Vehicle Detector Descriptions

Veh Detector	Description (detectors with no description are not shown)

Vehicle Detector Plan Number - 1

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1	None	0.0	None	Red/Yellow		Call	0				X			
2	2	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
4	4	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
5	5	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
6	6	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
8	8	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
11	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
12	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
15	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
16	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
17	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
18	0	None	0.0	Queue	Red/Yellow	2.0	Call	0							
19	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
20	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
21	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
24	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
25	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
26	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
27	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Vehicle Detector Plan Number - 2

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
2	2	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
4	4	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
5	5	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
6	6	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
8	8	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
9	2	None	0.0	Passage	Red/Yellow	0.0	Call	0							
10	2	None	0.0	Passage	Red/Yellow	0.0	Call	0							
11	4	None	0.0	Passage	Red/Yellow	0.0	Call	0							
12	4	None	0.0	Passage	Red/Yellow	0.0	Call	0							
13	6	None	0.0	Passage	Red/Yellow	0.0	Call	0							
14	6	None	0.0	Passage	Red/Yellow	0.0	Call	0							
15	8	None	0.0	Passage	Red/Yellow	0.0	Call	0							
16	8	None	0.0	Passage	Red/Yellow	0.0	Call	0							
17	1	None	0.0	Passage	Red/Yellow	0.0	Call	0							
18	2	None	0.0	Passage	Red/Yellow	0.0	Call	0							
19	3	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
20	4	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
21	5	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	6	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	7	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
24	8	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
25	2	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			

26	4	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
27	6	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	8	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Vehicle Detector Plan Number - 3

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1 - 9, 10	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
2	2	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
4	4	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
5	5 - 13, 14	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
6	6	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
8	8	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
9	9	None	0.0	Passage	Red/Yellow	0.0	Call	0							

10	10	None	0.0	Passage	Red/Yellow	0.0	Call	0							
11	2	None	0.0	Queue	Red/Yellow	0.2	Call	0							
12	4	None	0.0	Queue	Red/Yellow	0.2	Call	0							
13	13	None	0.0	Passage	Red/Yellow	0.0	Call	0							
14	14	None	0.0	Passage	Red/Yellow	0.0	Call	0							
15	6	None	0.0	Queue	Red/Yellow	0.2	Call	0							
16	8	None	0.0	Queue	Red/Yellow	0.2	Call	0							
17	3	None	0.0	Queue	Red/Yellow	0.2	Call	0							
18	7	None	0.0	Queue	Red/Yellow	0.2	Call	0							
19	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
20	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
21	1	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
24	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0							
25	5	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
26	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
27	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	0	Yellow	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	9	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	10	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	13	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	14	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Vehicle Detector Plan Number - 4

Veh Det	Phase Primary - Addit.	Lock In	Delay Time	Ext Option	Delay Mode	Queue Lim. / Extend Time	Call Option	Cross Switch Ph	Bike Call	Use Added Initial	Red Extend	TS2 Det	Detector Log Enable		
													NTCIP Vol.	NTCIP Occ.	ECPI Log
1	1	None	0.0	Passage	Red/Yellow	0.0	Call	9				X			
2	2	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
3	3	None	2.0	Passage	Red/Yellow	0.0	Call	11				X			
4	4	None	0.0	Passage	Red/Yellow	0.0	Call	12				X			
5	5	None	0.0	Passage	Red/Yellow	0.0	Call	13				X			
6	6	None	2.0	Passage	Red/Yellow	0.0	Call	0				X			
7	7	None	2.0	Passage	Red/Yellow	0.0	Call	15				X			
8	8	None	0.0	Passage	Red/Yellow	0.0	Call	16				X			
9	9	None	0.0	Passage	Red/Yellow	0.0	Call	9							
10	0	None	0.0	Passage	Red/Yellow	0.0	Call	9							
11	0	None	0.0	Passage	Red/Yellow	0.2	Call	0							
12	0	None	0.0	Passage	Red/Yellow	0.2	Call	12							
13	0	None	0.0	Passage	Red/Yellow	0.0	Call	13							
14	0	None	0.0	Passage	Red/Yellow	0.0	Call	13							
15	0	None	0.0	Passage	Red/Yellow	0.2	Call	0							
16	0	None	0.0	Passage	Red/Yellow	0.2	Call	16							
17	0	None	0.0	Passage	Red/Yellow	0.2	Call	11							
18	0	None	0.0	Passage	Red/Yellow	0.2	Call	15							
19	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
20	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
21	4	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
22	8	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
23	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
24	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
25	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
26	0	None	0.0	Passage	Red/Yellow	0.0	Call	0							
27	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
28	0	None	0.0	Passage	Red/Yellow	0.0	Call	0				X			
29	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
30	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
31	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
32	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
33	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
34	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
35	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
36	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
37	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
38	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
39	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
40	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
41	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
42	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
43	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
44	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
45	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
46	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
47	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
48	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
49	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

50	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
51	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
52	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
53	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
54	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
55	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
56	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
57	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
58	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
59	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
60	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
61	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
62	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
63	0	Yellow	0.0	None	Red/Yellow		Call	0				X			
64	0	Yellow	0.0	None	Red/Yellow		Call	0				X			

Ped Detector Phase Assignment (MM) 6-3

Ped Detector Number	Called Phase																Ped Extend
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	No
2	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	No
3	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	No
4	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	No
5	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	No
6	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	No
7	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	No
8	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	No
9	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	No
10	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	No
11	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	No
12	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	No
13	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	No
14	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	No
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	No
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	No

Houston TRANSTAR, TXDOT

ECONOLITE

MOVING TRAFFIC FORWARD

IH 10 at Bingle/Voss Eos - (D) - Econolite Type - EOS

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

ECPI Log Period: NTCIP Log Length Unit:
TBEP Period: 60 Inches

Speed Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Local Detector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One/Two Detector	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Vehicle Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trap length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enable Log	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

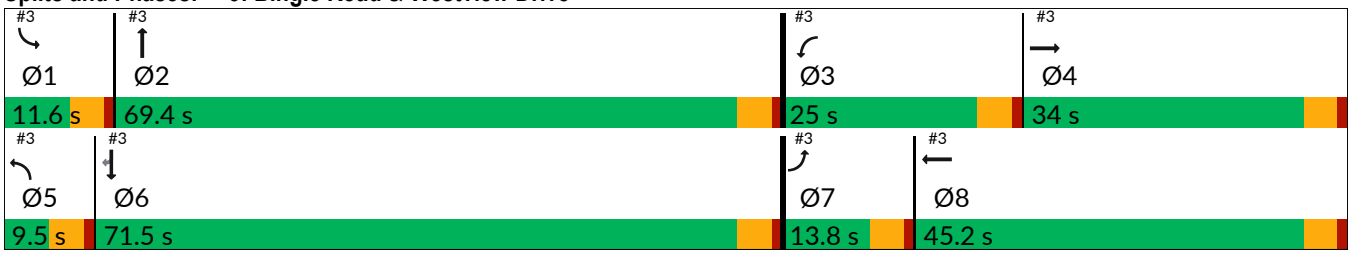
Vehicle Detector Diagnostics (MM) 6-5

Pedestrian Detector Diagnostics (MM) 6-6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	44	210	240	214	40	472	46	811	81
Future Volume (vph)	44	210	240	214	40	472	46	811	81
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.8	34.0	25.0	45.2	9.5	69.4	11.6	71.5	71.5
Total Split (%)	9.9%	24.3%	17.9%	32.3%	6.8%	49.6%	8.3%	51.1%	51.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	8.8	29.5	20.5	43.7	5.0	65.4	6.9	67.1	67.1
Actuated g/C Ratio	0.06	0.21	0.15	0.32	0.04	0.47	0.05	0.49	0.49
v/c Ratio	0.66	1.12	1.09	0.66	0.75	0.82	0.60	1.04	0.18
Control Delay (s/veh)	92.4	128.4	135.0	48.1	122.9	40.7	91.7	77.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.4	128.4	135.0	48.1	122.9	40.7	91.7	77.0	5.9
LOS	F	F	F	D	F	D	F	E	A
Approach Delay (s/veh)		123.5		85.4		45.9		68.6	
Approach LOS		F		F		D		E	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 138.1	
Natural Cycle: 140	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay (s/veh): 75.8	Intersection LOS: E
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Bingle Road & Westview Drive



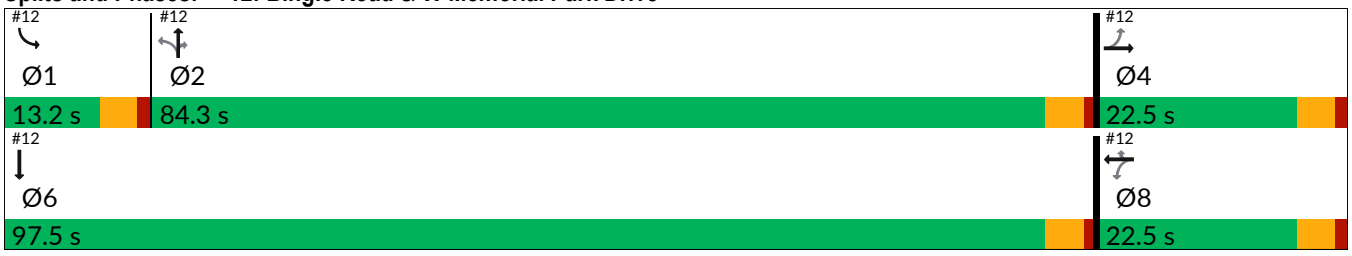
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.8	34.0	25.0	45.2	9.5	69.4	11.6	71.5	71.5
Total Split (%)	9.9%	24.3%	17.9%	32.3%	6.8%	49.6%	8.3%	51.1%	51.1%
Maximum Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Walk Time (s)		7.0		7.0		7.0		7.0	7.0
Flash Don't Walk (s)		11.0		11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0		0		0	0
90th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
90th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
70th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
70th %ile Term Code	Max	Max	Max	Hold	Max	MaxR	Max	MaxR	MaxR
50th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
50th %ile Term Code	Max	Max	Max	Hold	Max	MaxR	Max	MaxR	MaxR
30th %ile Green (s)	9.3	29.5	20.5	40.7	5.0	64.9	7.1	67.0	67.0
30th %ile Term Code	Max	Max	Max	Hold	Max	MaxR	Max	MaxR	MaxR
10th %ile Green (s)	0.0	29.5	20.5	54.5	0.0	67.0	0.0	67.0	67.0
10th %ile Term Code	Skip	Max	Max	Hold	Skip	Hold	Skip	MaxR	MaxR

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 138.1
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 140
70th %ile Actuated Cycle: 140
50th %ile Actuated Cycle: 140
30th %ile Actuated Cycle: 140
10th %ile Actuated Cycle: 130.5

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	1	38	1	15	1	694	135	34	1295
Future Volume (vph)	1	1	38	1	15	1	694	135	34	1295
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Prot	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	84.3	84.3	84.3	13.2	97.5
Total Split (%)	18.8%	18.8%	18.8%	18.8%	18.8%	70.3%	70.3%	70.3%	11.0%	81.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Act Effct Green (s)		8.8		8.8	8.8		89.3	89.3	7.7	99.5
Actuated g/C Ratio		0.08		0.08	0.08		0.78	0.78	0.07	0.87
v/c Ratio		0.02		0.40	0.12		0.52	0.16	0.41	0.89
Control Delay (s/veh)		41.3		60.8	1.3		8.2	3.8	61.1	15.7
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	5.1
Total Delay (s/veh)		41.3		60.8	1.3		8.2	3.8	61.1	20.8
LOS		D		E	A		A	A	E	C
Approach Delay (s/veh)		41.3		41.3			7.3			22.1
Approach LOS		D		D			A			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.4	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 16.9	Intersection LOS: B
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 12: Bingle Road & W Memorial Park Drive



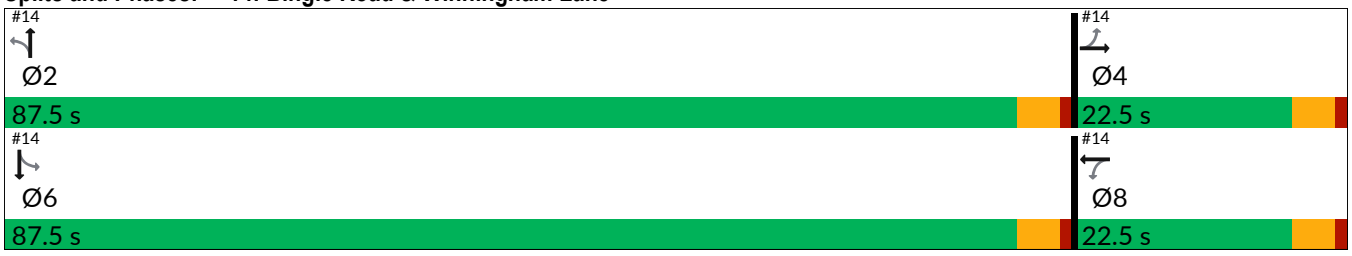
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	84.3	84.3	84.3	13.2	97.5
Total Split (%)	18.8%	18.8%	18.8%	18.8%	18.8%	70.3%	70.3%	70.3%	11.0%	81.3%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	79.8	79.8	79.8	8.7	93.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0
90th %ile Green (s)	12.4	12.4	12.4	12.4	12.4	79.8	79.8	79.8	8.7	93.0
90th %ile Term Code	Hold	Hold	Gap	Gap	Gap	MaxR	MaxR	MaxR	Max	MaxR
70th %ile Green (s)	10.1	10.1	10.1	10.1	10.1	79.8	79.8	79.8	8.7	93.0
70th %ile Term Code	Hold	Hold	Gap	Gap	Gap	MaxR	MaxR	MaxR	Max	MaxR
50th %ile Green (s)	8.7	8.7	8.7	8.7	8.7	82.2	82.2	82.2	8.4	95.1
50th %ile Term Code	Hold	Hold	Gap	Gap	Gap	Dwell	Dwell	Dwell	Gap	Dwell
30th %ile Green (s)	7.4	7.4	7.4	7.4	7.4	91.8	91.8	91.8	7.3	103.6
30th %ile Term Code	Hold	Hold	Gap	Gap	Gap	Dwell	Dwell	Dwell	Gap	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0	108.0	108.0	108.0	0.0	108.0
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip	Dwell	Dwell	Dwell	Skip	Dwell

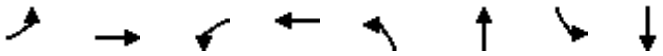
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 114.4
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 114.4
70th %ile Actuated Cycle: 112.1
50th %ile Actuated Cycle: 112.8
30th %ile Actuated Cycle: 120
10th %ile Actuated Cycle: 112.5

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	1	51	1	4	676	2	1280
Future Volume (vph)	1	1	51	1	4	676	2	1280
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	87.5	87.5	87.5	87.5
Total Split (%)	20.5%	20.5%	20.5%	20.5%	79.5%	79.5%	79.5%	79.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		11.7	11.9	11.9	92.1	92.1	92.1	92.1
Actuated g/C Ratio		0.11	0.11	0.11	0.84	0.84	0.84	0.84
v/c Ratio		0.13	0.56	0.06	0.05	0.51	0.01	0.91
Control Delay (s/veh)		24.5	59.8	27.0	4.8	5.0	3.0	20.2
Queue Delay		0.0	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay (s/veh)		24.5	59.8	27.0	4.8	5.6	3.0	20.2
LOS		C	E	C	A	A	A	C
Approach Delay (s/veh)		24.5		55.7		5.6		20.2
Approach LOS		C		E		A		C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 109.7	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 16.7	Intersection LOS: B
Intersection Capacity Utilization 84.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 14: Bingle Road & Winningham Lane





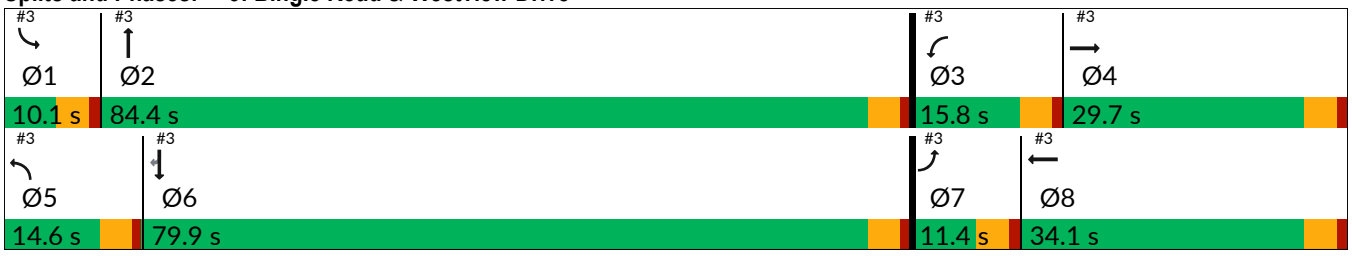
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	87.5	87.5	87.5	87.5
Total Split (%)	20.5%	20.5%	20.5%	20.5%	79.5%	79.5%	79.5%	79.5%
Maximum Green (s)	18.0	18.0	18.0	18.0	83.0	83.0	83.0	83.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	17.0	17.0	17.0	17.0	83.0	83.0	83.0	83.0
90th %ile Term Code	Hold	Hold	Gap	Gap	MaxR	MaxR	MaxR	MaxR
70th %ile Green (s)	13.9	13.9	13.9	13.9	84.7	84.7	84.7	84.7
70th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
50th %ile Green (s)	12.1	12.1	12.1	12.1	91.1	91.1	91.1	91.1
50th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
30th %ile Green (s)	10.1	10.1	10.1	10.1	98.0	98.0	98.0	98.0
30th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	98.0	98.0	98.0	98.0
10th %ile Term Code	Skip	Skip	Skip	Skip	Dwell	Dwell	Dwell	Dwell

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 109.7
Control Type: Actuated-Uncoordinated
90th %ile Actuated Cycle: 109
70th %ile Actuated Cycle: 107.6
50th %ile Actuated Cycle: 112.2
30th %ile Actuated Cycle: 117.1
10th %ile Actuated Cycle: 102.5

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	66	262	123	242	71	853	36	685	62
Future Volume (vph)	66	262	123	242	71	853	36	685	62
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.4	29.7	15.8	34.1	14.6	84.4	10.1	79.9	79.9
Total Split (%)	8.1%	21.2%	11.3%	24.4%	10.4%	60.3%	7.2%	57.1%	57.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	6.9	25.2	11.3	29.6	9.7	79.9	5.6	75.8	75.8
Actuated g/C Ratio	0.05	0.18	0.08	0.21	0.07	0.57	0.04	0.54	0.54
v/c Ratio	0.92	1.08	0.99	1.04	0.72	1.08	0.86	0.77	0.08
Control Delay (s/veh)	141.2	125.3	135.1	108.2	94.6	80.3	138.1	31.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	141.2	125.3	135.1	108.2	94.6	80.3	138.1	31.9	2.3
LOS	F	F	F	F	F	F	F	C	A
Approach Delay (s/veh)		128.2		115.1		81.3		36.7	
Approach LOS		F		F		F		D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Natural Cycle: 140	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay (s/veh): 80.8	Intersection LOS: F
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Bingle Road & Westview Drive



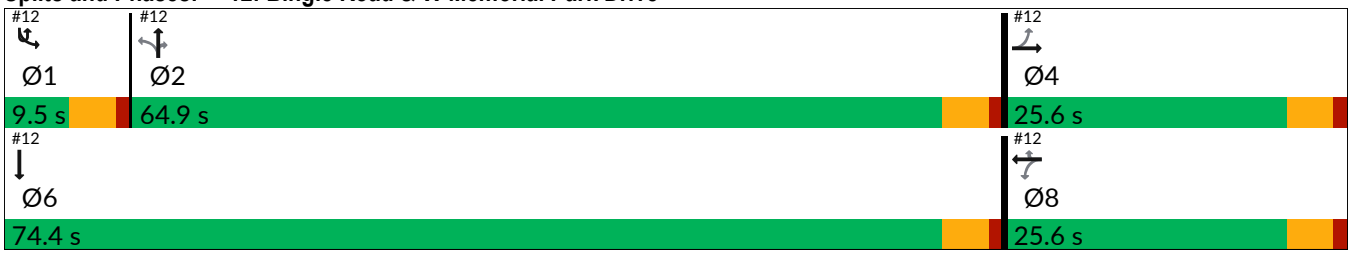
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.4	29.7	15.8	34.1	14.6	84.4	10.1	79.9	79.9
Total Split (%)	8.1%	21.2%	11.3%	24.4%	10.4%	60.3%	7.2%	57.1%	57.1%
Maximum Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	None	Max	Max
Walk Time (s)		7.0		7.0		7.0		7.0	7.0
Flash Don't Walk (s)		11.0		11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0		0		0	0
90th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
90th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
70th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
70th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
50th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
50th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
30th %ile Green (s)	6.9	25.2	11.3	29.6	10.1	79.9	5.6	75.4	75.4
30th %ile Term Code	Max	Max	Max	Max	Max	MaxR	Max	MaxR	MaxR
10th %ile Green (s)	6.9	25.2	11.3	29.6	8.0	79.9	5.6	77.5	77.5
10th %ile Term Code	Max	Max	Max	Max	Gap	MaxR	Max	Hold	Hold

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 140
70th %ile Actuated Cycle: 140
50th %ile Actuated Cycle: 140
30th %ile Actuated Cycle: 140
10th %ile Actuated Cycle: 140

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	1	189	1	75	1	1046	100	39	946
Future Volume (vph)	1	1	189	1	75	1	1046	100	39	946
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Prot	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.6	25.6	25.6	25.6	25.6	64.9	64.9	64.9	9.5	74.4
Total Split (%)	25.6%	25.6%	25.6%	25.6%	25.6%	64.9%	64.9%	64.9%	9.5%	74.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Act Effct Green (s)		21.1		21.1	21.1		62.3	62.3	5.0	69.9
Actuated g/C Ratio		0.21		0.21	0.21		0.62	0.62	0.05	0.70
v/c Ratio		0.01		1.01	0.26		0.96	0.12	0.73	0.80
Control Delay (s/veh)		28.0		96.2	8.3		38.3	4.6	89.6	16.3
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	2.9
Total Delay (s/veh)		28.0		96.2	8.3		38.3	4.6	89.6	19.2
LOS		C		F	A		D	A	F	B
Approach Delay (s/veh)		28.0		72.0			35.0			23.3
Approach LOS		C		E			C			C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 100	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay (s/veh): 35.6	Intersection LOS: D
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Bingle Road & W Memorial Park Drive



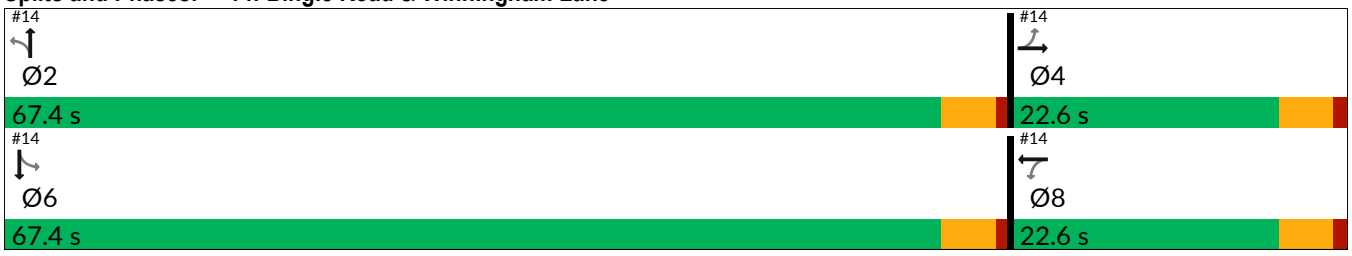
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2		
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.6	25.6	25.6	25.6	25.6	64.9	64.9	64.9	9.5	74.4
Total Split (%)	25.6%	25.6%	25.6%	25.6%	25.6%	64.9%	64.9%	64.9%	9.5%	74.4%
Maximum Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	Max	Max	Max	None	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0
90th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
90th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
70th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
70th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
50th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
50th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
30th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	60.4	60.4	60.4	5.0	69.9
30th %ile Term Code	Hold	Hold	Max	Max	Max	MaxR	MaxR	MaxR	Max	MaxR
10th %ile Green (s)	21.1	21.1	21.1	21.1	21.1	69.9	69.9	69.9	0.0	69.9
10th %ile Term Code	Hold	Hold	Max	Max	Max	Hold	Hold	Hold	Skip	MaxR

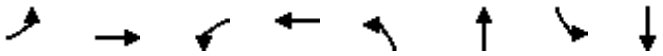
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Control Type: Semi Act-Uncoord
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	1	42	1	10	1162	6	942
Future Volume (vph)	1	1	42	1	10	1162	6	942
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.6	22.6	22.6	22.6	67.4	67.4	67.4	67.4
Total Split (%)	25.1%	25.1%	25.1%	25.1%	74.9%	74.9%	74.9%	74.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		10.0	10.1	10.1	71.7	71.7	71.7	71.7
Actuated g/C Ratio		0.11	0.12	0.12	0.82	0.82	0.82	0.82
v/c Ratio		0.08	0.48	0.14	0.06	0.86	0.06	0.69
Control Delay (s/veh)		23.7	45.3	16.3	3.5	15.7	4.3	8.2
Queue Delay		0.0	0.0	0.0	0.0	2.0	0.0	0.0
Total Delay (s/veh)		23.7	45.3	16.3	3.5	17.8	4.3	8.2
LOS		C	D	B	A	B	A	A
Approach Delay (s/veh)		23.7		37.5		17.6		8.1
Approach LOS		C		D		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 14.5	Intersection LOS: B
Intersection Capacity Utilization 80.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Bingle Road & Winningham Lane





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.6	22.6	22.6	22.6	67.4	67.4	67.4	67.4
Total Split (%)	25.1%	25.1%	25.1%	25.1%	74.9%	74.9%	74.9%	74.9%
Maximum Green (s)	18.1	18.1	18.1	18.1	62.9	62.9	62.9	62.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	14.2	14.2	14.2	14.2	62.9	62.9	62.9	62.9
90th %ile Term Code	Hold	Hold	Gap	Gap	MaxR	MaxR	MaxR	MaxR
70th %ile Green (s)	11.6	11.6	11.6	11.6	63.9	63.9	63.9	63.9
70th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
50th %ile Green (s)	10.2	10.2	10.2	10.2	70.9	70.9	70.9	70.9
50th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
30th %ile Green (s)	8.6	8.6	8.6	8.6	77.9	77.9	77.9	77.9
30th %ile Term Code	Hold	Hold	Gap	Gap	Dwell	Dwell	Dwell	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	77.9	77.9	77.9	77.9
10th %ile Term Code	Skip	Skip	Skip	Skip	Dwell	Dwell	Dwell	Dwell

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 87.7
Control Type: Actuated-Uncoordinated
90th %ile Actuated Cycle: 86.1
70th %ile Actuated Cycle: 84.5
50th %ile Actuated Cycle: 90.1
30th %ile Actuated Cycle: 95.5
10th %ile Actuated Cycle: 82.4

TRAFFIC COUNT VOLUME DATA

Intersection: Bingle Rd @ Winningham Ln

Date 5/19/2026

AM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	1	180	6	0	0	242	1	0	19	0	2	0	0	0	2	0
8:15	0	153	6	0	0	210	0	0	19	1	2	0	0	0	5	0
8:30	0	154	8	0	2	244	0	0	15	0	1	0	0	0	4	0
8:45	1	155	6	0	0	240	1	0	12	1	2	0	0	0	2	0
Peak Hour To	2	642	26	0	2	936	2	0	65	2	7	0	0	0	13	0
PHF	0.50	0.89	0.81	#DIV/0!	0.25	0.96	0.50	#DIV/0!	0.86	0.50	0.88	#DIV/0!	#DIV/0!	#DIV/0!	0.65	#DIV/0!

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	2	642	26	0	2	936	2	0	65	2	7	0	0	0	13	0
No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	2	648	26	0	2	945	2	0	66	2	7	0	0	0	13	0
Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	0	7	1	0	0	16	0	0	2	0	0	0	0	0	0	0
Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	2	655	27	0	2	961	2	0	68	2	7	0	0	0	13	0

PM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---		---	---	---		---	---	---		---	---	---	
4:45	2	250	12	0	0	184	2	0	5	0	0	0	1	0	1	0
5:00	1	214	11	0	2	205	0	0	10	0	5	0	1	0	0	0
5:15	1	224	13	0	0	180	2	0	11	0	2	0	1	0	5	0
5:30	6	221	15	0	0	203	1	0	11	0	2	0	1	0	1	0
Peak Hour To	10	909	51	0	2	772	5	0	37	0	9	0	4	0	7	0
PHF	0.42	0.91	0.85	#DIV/0!	0.25	0.94	0.63	#DIV/0!	0.84	#DIV/0!	0.45	#DIV/0!	1.00	#DIV/0!	0.35	#DIV/0!

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	10	909	51	0	2	772	5	0	37	0	9	0	4	0	7	0
No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	10	918	52	0	2	780	5	0	37	0	9	0	4	0	7	0
Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	0	25	3	0	0	27	0	0	4	0	0	0	0	0	0	0
Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound WBL	WBT	WBR	U-Turn	Eastbound EBL	EBT	EBR	U-Turn
	10	943	55	0	2	807	5	0	41	0	9	0	4	0	7	0

Intersection: Bingle Rd @ W. Memorial Park Dr

Date 5/19/2026

AM

	Northbound				Southbound				Westbound				Eastbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
End Time	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	0	174	30	0	10	244	0	0	7	0	6	0	0	0	0	0
8:15	0	160	38	0	13	221	0	0	12	0	5	0	0	0	0	0
8:30	0	167	31	1	7	263	0	0	7	0	4	0	0	0	0	0
8:45	0	147	47	0	16	243	0	0	3	0	9	0	0	0	0	0
Peak Hour To	0	648	146	1	46	971	0	0	29	0	24	0	0	0	0	0
PHF	#DIV/0!	0.93	0.78	0.25	0.72	0.92	#DIV/0!	#DIV/0!	0.60	#DIV/0!	0.67	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing	Northbound				Southbound				Westbound				Eastbound			
Volumes	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
2026	0	648	146	1	46	971	0	0	29	0	24	0	0	0	0	0
No Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	0	654	147	1	46	981	0	0	29	0	24	0	0	0	0	0
Trip	Northbound				Southbound				Westbound				Eastbound			
Generation	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	13	0	0	0	0	1	17	0	0	1	0	0	8	1	1	0
	Northbound				Southbound				Westbound				Eastbound			
Pass-By	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	1	0	0	0	0	0	2	0	0	0	0	0	1	0	2	0
Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	14	654	147	1	46	982	19	0	29	1	24	0	9	1	3	0

PM

	Northbound				Southbound				Westbound				Eastbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
End Time	---	---	---		---	---	---		---	---	---		---	---	---	
4:45	0	233	22	0	9	175	0	0	43	0	12	0	0	0	0	0
5:00	0	237	21	0	9	199	0	0	26	0	9	0	0	0	0	0
5:15	0	205	24	0	14	188	0	0	63	0	13	0	0	0	0	0
5:30	0	245	19	0	10	206	0	0	45	0	20	0	0	0	0	0
Peak Hour To	0	920	86	0	42	768	0	0	177	0	54	0	0	0	0	0
PHF	#DIV/0!	0.94	0.90	#DIV/0!	0.75	0.93	#DIV/0!	#DIV/0!	0.70	#DIV/0!	0.68	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing	Northbound				Southbound				Westbound				Eastbound			
Volumes	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
2026	0	920	86	0	42	768	0	0	177	0	54	0	0	0	0	0
No Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	0	929	87	0	42	776	0	0	179	0	55	0	0	0	0	0
Trip	Northbound				Southbound				Westbound				Eastbound			
Generation	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	42	0	0	0	0	4	27	0	0	4	0	0	28	4	4	0
	Northbound				Southbound				Westbound				Eastbound			
Pass-By	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn	EBL	EBT	EBR	U-Turn
	6	0	0	0	0	0	5	0	0	0	0	0	5	0	4	0
Build	**Northbound**				**Southbound**				**Westbound**				**Eastbound**			
Volumes	**NBL**	**NBT**	**NBR**	**U-Turn**	**SBL**	**SBT**	**SBR**	**U-Turn**	**WBL**	**WBT**	**WBR**	**U-Turn**	**EBL**	**EBT**	**EBR**	**U-Turn**
2027	48	929	87	0	42	780	32	0	179	4	55	0	33	4	8	0

Intersection: Bingle Rd @ I-10 WBFR

Date 5/21/2026

AM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	135	165	0	0	0	167	121	0	142	91	65	40				
8:15	129	139	0	0	0	137	114	0	128	89	60	33				
8:30	104	150	0	0	0	143	104	0	105	92	76	38				
8:45	137	142	0	0	0	130	121	0	127	80	66	43				
Peak Hour To	505	596	0	0	0	577	460	0	502	352	267	154	0	0	0	0
PHF	0.92	0.90	#DIV/0!	#DIV/0!	#DIV/0!	0.86	0.95	#DIV/0!	0.88	0.96	0.88	0.90	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing Volumes	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
2026	505	596	0	0	0	577	460	0	502	352	267	154				
No Build Volumes	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
2027	510	602	0	0	0	583	465	0	507	356	270	156				
Trip Generation	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
	0	8	0	0	0	4	1	0	0	0	5	0				
Build Volumes	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
2027	510	610	0	0	0	587	466	0	507	356	275	156				

PM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---		---	---	---		---	---	---		---	---	---	
4:45	125	152	0	0	0	90	99	0	80	140	77	35				
5:00	149	152	0	0	0	128	95	0	110	137	89	53				
5:15	142	162	0	0	0	112	101	0	116	148	85	37				
5:30	146	155	0	0	0	154	96	0	119	127	74	47				
Peak Hour To	562	621	0	0	0	484	391	0	425	552	325	172	0	0	0	0
PHF	0.94	0.96	#DIV/0!	#DIV/0!	#DIV/0!	0.79	0.97	#DIV/0!	0.89	0.93	0.91	0.81	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Existing Volumes	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
2026	562	621	0	0	0	484	391	0	425	552	325	172				
No Build Volumes	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
2027	568	627	0	0	0	489	395	0	429	558	328	174				
Trip Generation	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
	0	27	0	0	0	32	7	0	0	0	15	0				
Build Volumes	Northbound				Southbound				Westbound				Eastbound			
	NBL	NBT	NBR	U-Turn	SBL	SBT	SBR	U-Turn	WBL	WBT	WBR	U-Turn				
2027	568	654	0	0	0	521	402	0	429	558	343	174				

Intersection: Voss Rd @ I-10 EBFR

Date 5/21/2026

AM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---	---	---	---	---		---	---	---		---	---	---	
8:00	0	187	152	0	103	189	0	0					117	63	56	38
8:15	0	163	124	0	88	180	0	0					109	72	56	33
8:30	0	143	97	0	87	156	0	0					107	78	49	41
8:45	0	176	99	0	82	186	0	0					111	68	58	51
Peak Hour To	0	669	472	0	360	711	0	0	0	0	0	0	444	281	219	163
PHF	#DIV/0!	0.89	0.78	#DIV/0!	0.87	0.94	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.95	0.90	0.94	0.80

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	669	472	0	360	711	0	0		444	281	219	163

No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	676	477	0	364	718	0	0		448	284	221	165

Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	5	0	0	2	2	0	0		3	0	0	0

Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	681	477	0	366	720	0	0		451	284	221	165

PM

End Time	Northbound Left	Northbound Thru	Northbound Right	Northbound U-Turn	Southbound Left	Southbound Thru	Southbound Right	Southbound U-Turn	Westbound Left	Westbound Thru	Westbound Right	Westbound U-Turn	Eastbound Left	Eastbound Thru	Eastbound Right	Eastbound U-Turn
	---	---	---	---	---	---	---		---	---	---		---	---	---	
4:45	0	179	147	0	67	117	0	0					100	92	46	63
5:00	0	189	139	0	73	170	0	0					96	72	53	76
5:15	0	195	153	0	79	148	0	0					115	105	48	66
5:30	0	219	110	0	77	197	0	0					90	77	57	60
Peak Hour To	0	782	549	0	296	632	0	0	0	0	0	0	401	346	204	265
PHF	#DIV/0!	0.89	0.90	#DIV/0!	0.94	0.80	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.87	0.82	0.89	0.87

Existing Volumes 2026	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	782	549	0	296	632	0	0		401	346	204	265

No Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	790	554	0	299	638	0	0		405	349	206	268

Trip Generation	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	19	0	0	14	18	0	0		8	0	0	0

Build Volumes 2027	Northbound NBL	NBT	NBR	U-Turn	Southbound SBL	SBT	SBR	U-Turn	Westbound	Eastbound EBL	EBT	EBR	U-Turn
	0	809	554	0	313	656	0	0		413	349	206	268

TxDOT C.R.I.S. Accident Reports

Bingle Rd @ Winningham Ln

All crash data available using this tool represents reportable data collected from Texas Peace Officer's Crash Reports (CR-3) received and processed by the Texas Department of Transportation (Department) as of 05/28/2026. The Department makes no warranty, representation or guaranty as to the content, accuracy, timeliness or completeness of any of the information provided as a result of your query. Any opinions and conclusions resulting from analysis performed on the crash data must be represented as your own and not those of the State of Texas or the Department.

Query Result Counts:
Your query returned a total of 2 Crashes containing 3 Units and 4 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023						
1	19521700	23-15610	5/2/2023	1553	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2024 - No Crashes						
Year 2025						
1	20603834	25-00359	1/3/2025	800	NON INTERSECTION	ONE MOTOR VEHICLE - OTHER

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	2
*Correctable AM Peak 7am-9am	0
*Correctable Mid-Day 9am-4pm	0
*Correctable PM Peak 4pm-6pm	0
*Correctable Night Hours 6pm-7a	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	0	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	0	
Rear End Crashes	1	
One Vehicle, Sideswipe, or Other	1	

Bingle Rd at W. Memorial Park Dr

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Query Result Counts:
Your query returned a total of 3 Crashes containing 5 Units and 7 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023 - No Crashes						
Year 2024						
1	20015015	24-05853	2/7/2024	942	INTERSECTION	ANGLE - ONE STRAIGHT-ONE LEFT TURN
2	20491785	24-51860	11/8/2024	2211	INTERSECTION RELATED	ONE MOTOR VEHICLE - GOING STRAIGHT
Year 2025						
1	20621468	2503467	1/23/2025	1900	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	2
*Correctable AM Peak 7am-9am	0
*Correctable Mid-Day 9am-4pm	1
*Correctable PM Peak 4pm-6pm	0
*Correctable Night Hours 6pm-7a	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	1	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	0	
Rear End Crashes	0	
One Vehicle, Sideswipe, or Other	2	

Bingle Rd at I-10 WBFR

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Query Result Counts:
Your query returned a total of 30 Crashes containing 61 Units and 81 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023						
1	19355284	23-02377	1/26/2023	1032	INTERSECTION RELATED	ONE MOTOR VEHICLE - GOING STRAIGHT
2	19376192	23-04049	2/7/2023	1552	INTERSECTION	SAME DIRECTION - BOTH RIGHT TURN
3	19453522	23-09877	3/22/2023	1658	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
4	19492623	23-13715	4/16/2023	1858	NON INTERSECTION	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
5	19511659	23-14940	4/26/2023	1746	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
6	19591657	23-21666	6/9/2023	1055	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
7	19760111	23-36477	9/17/2023	119	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
8	19826752	23-42141	10/19/2023	1701	NON INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
9	19895233	23-48382	11/29/2023	825	INTERSECTION	ANGLE - BOTH GOING STRAIGHT
10	19895242	23-48484	11/29/2023	1442	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
11	19908237	23-48813	12/1/2023	1208	INTERSECTION	ANGLE - BOTH GOING STRAIGHT
12	19955523	23-0851	12/2/2023	1643	NON INTERSECTION	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
13	19959650	23-0885	12/14/2023	1636	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
14	19938351	23-51993	12/22/2023	1639	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE RIGHT TURN
15	19946907	23-52623	12/27/2023	1649	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2024						
1	19997584	24-0029	1/13/2024	1417	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	20288515	24-32031	7/6/2024	1826	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
3	20428963	24-46427	10/4/2024	1327	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
Year 2025						
1	20607101	25-02109	1/14/2025	733	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	20685270	25-0115	2/25/2025	1455	NON INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
3	20747461	25-14291	3/27/2025	841	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
4	20827172	25-23604	5/20/2025	854	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
5	20835883	25-25021	5/29/2025	1822	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
6	20866157	2506-03878	6/11/2025	1636	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
7	20874177	25-28328	6/20/2025	1840	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
8	20967923	25-37232	8/10/2025	956	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
9	20960711	25-38010	8/14/2025	1624	INTERSECTION	ANGLE - BOTH GOING STRAIGHT
10	21093357	25-50733	10/29/2025	635	INTERSECTION	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE
11	21121087	25-52434	11/7/2025	851	INTERSECTION	SAME DIRECTION - ONE STRAIGHT-ONE RIGHT TURN
12	21171101	25-57831	12/10/2025	1208	INTERSECTION RELATED	SAME DIRECTION - ONE RIGHT TURN-ONE STOPPED

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	27
*Correctable AM Peak 7am-9am	1
*Correctable Mid-Day 9am-4pm	1
*Correctable PM Peak 4pm-6pm	1
*Correctable Night Hours 6pm-7am	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	3	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	0	
Rear End Crashes	12	
One Vehicle, Sideswipe, or Other	15	

Voss Rd at I-10 EBFR

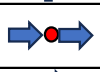
All crash data available using this tool represents reportable data collected from Texas Peace Officer's Crash Reports (CR-3) received and processed by the Texas Department of Transportation (Department) as of 05/28/2026. The Department makes no warranty, representation or guaranty as to the content, accuracy, timeliness or completeness of any of the information provided as a result of your query. Any opinions and conclusions resulting from analysis performed on the crash data must be represented as your own and not those of the State of Texas or the Department.

Query Result Counts:
Your query returned a total of 11 Crashes containing 23 Units and 26 Persons

Filters Applied to current Query:
Crash Date Is Between 2023-01-01 00:01 and 2025-12-31 23:59

Crash Count	Crash ID	Case ID	Crash Date	Crash Time	Intersection Related	Manner of Collision
Year 2023						
1	19814370	230293	5/21/2023	1447	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	19735754	230627	8/28/2023	1144	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2024						
1	19966376	24-01187	1/8/2024	2215	NON INTERSECTION	OTHER
2	20020378	24-0089	2/6/2024	1245	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
3	20021828	240094	2/8/2024	856	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN
4	20213164	240357	5/17/2024	1127	INTERSECTION	ANGLE - ONE STRAIGHT-ONE LEFT TURN
5	20334473	24-38573	8/13/2024	1730	INTERSECTION	ANGLE - ONE STRAIGHT-ONE RIGHT TURN
6	20415579	24-45535	9/28/2024	1340	INTERSECTION RELATED	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END
7	20497460	24-52276	11/11/2024	1541	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
Year 2025						
1	20634069	25-0047	1/28/2025	1231	INTERSECTION RELATED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED
2	21052264	25-46265	10/2/2025	1655	INTERSECTION RELATED	SAME DIRECTION - BOTH RIGHT TURN

Time Frame	Number of Crashes
*Not Correctable / Non-Intersection	9
*Correctable AM Peak 7am-9am	0
*Correctable Mid-Day 9am-4pm	1
*Correctable PM Peak 4pm-6pm	1
*Correctable Night Hours 6pm-7an	0

Collision Diagram Tables		
Type	Total	Diagram
Right Angle Crashes	1	
Left turn with Opposing Thru Traffic	0	
Right Turn not Yeilding ROW	1	
Rear End Crashes	5	
One Vehicle, Sideswipe, or Other	4	

ITE TRIP GENERATION SHEETS & PASS-BY JUSTIFICATION

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	931
Land Use	Fine Dining
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	4
Average Pass-By Rate	44%

Pass-By Characteristics for Individual Sites

GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
6.5	Florida	1995	173	62	—	—	38	—	30
8	Florida	1992	168	45	—	—	55	—	30
8.8	Florida	1992	84	44	40	16	56	—	30
12	Kentucky	1993	38	26	36	38	74	4145	2

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	821
Land Use	Shopping Plaza (40 - 150k)
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	15
Average Pass-By Rate	40%

Pass-By Characteristics for Individual Sites

GLA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
45	Florida	1992	844	56	24	20	44	—	30
50	Florida	1992	555	41	41	18	59	—	30
52	Florida	1995	665	42	33	25	58	—	30
53	Florida	1993	162	59	—	—	41	—	30
57.23	Kentucky	1993	247	31	53	16	69	2659	34
60	Florida	1995	1583	40	38	22	60	—	30
69.4	Kentucky	1993	109	25	42	33	75	1559	34
77	Florida	1992	365	46	—	—	54	—	30
78	Florida	1991	702	55	23	22	45	—	30
82	Florida	1992	336	34	—	—	66	—	30
92.857	Kentucky	1993	133	22	50	28	78	3555	34
100.888	Kentucky	1993	281	28	50	22	72	2111	34
121.54	Kentucky	1993	210	53	30	17	47	2636	34
144	New Jersey	1990	176	32	44	24	68	—	24
146.8	Kentucky	1993	—	36	39	25	64	—	34

Justification for Pass-By Trip Reduction Percentage

When the ITE Trip Generation Manual went from the 10th edition to the 11th edition, it split land use 820-Shopping Center into 3 separate land uses:

- 820-Shopping Center (>150ksqft)
- 821-Shopping Plaza (40-150ksqft)
- 822-Strip Retail Plaza (<40ksqft)

The 3rd edition of the ITE Trip Generation Handbook provides pass-by trip percentage for Land use 820 as it relates to the 10th edition of the Trip Generation Manual. The overall pass-by percentage is listed at 34%. If we identify the six smallest developments (shown below) within all the studied developments listed (see attached sheets) we get an **average pass-by percentage of 52%.** Also, if we look at the relationship between the size of the development and the resulting pass-by percentage, we note that as the size of the development decreases, the pass-by percentage increases.

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
9	Kissimmee, FL	1994	107	2:00–6:00 p.m.	66	20	14	34	—	—	TPD Inc.
17	Orlando, FL	1994	196	2:00–6:00 p.m.	66	—	—	34	—	—	TPD Inc.
44	Pr. Georges Co., MD	1982/83	97	4:00–6:00 p.m.	51	—	—	49	—	—	JHK
45	Orlando, FL	1992	844	2:00–6:00 p.m.	56	24	20	44	—	—	TPD Inc.
50	Orlando, FL	1992	555	2:00–6:00 p.m.	41	41	18	59	—	—	TPD Inc.
51	Boca Raton, FL	Dec. 1987	110	4:00–6:00 p.m.	33	34	33	67	—	42,225	Kimley-Horn and Assoc. Inc.

When considering the most recent data sets (Pass-By Tables - Trip Generation Manual 11th Ed.xlsx (live.com)), we see a similar relationship between the size of the development and the pass-by percentage.

- For Sites between 300-900K, the average pass-by percentage is 19%
- For Sites between 150-300K, the average pass-by percentage is 29%
- For Sites between 40-150k, the average pass-by percentage is 40%

Vehicle Pass-By Rates by Land Use		
Source: ITE *Trip Generation Manual*, 11th Edition		
Land Use Code	820	
Land Use	Shopping Center (> 150k)	
Setting	General Urban/Suburban	
Time Period	Weekday PM Peak Period	
# Data Sites	8 Sites with GLA between 150 and 300k	16 Sites with GLA between 300 and 900k
Average Pass-By Rate	29% for Sites with GLA between 150 and 300k	19% for Sites with GLA between 300 and 900k
	Pass-By Characteristics for Individual Sites	

Vehicle Pass-By Rates by Land Use	
Source: ITE *Trip Generation Manual*, 11th Edition	
Land Use Code	821
Land Use	Shopping Plaza (40 - 150k)
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	15
Average Pass-By Rate	40%
	Pass-By Characteristics for Individual Sites

If we assume that the trend **(an increase in 10% pass-by trips for each step down in size)** will continue with each step down in development size, then for retail developments with a **size <40k** (Land Use 822) we would expect to see a pass-by percentage of **approximately 50%.** This assumed 50% Pass-By rate matches the calculated average pass-by percentage above from the data taken from the 3rd edition of the trip generation handbook as it relates to the 10th edition of the ITE Trip Generation Manual.

Based on this data, a pass-by percentage of 50% would be justifiable; however, to be conservative we used a pass-by percentage of 40%. This is 10% less than what the data above justifies, but provides a more conservative percentage to insure we adequately reflect the impact of the development. Based on the data above and engineering judgement, to use a pass-by percentage less than 40% is not representative of real life expectations and contradicts the data above.

NCHRP REPORT 348

National Cooperative Highway Research Program

NCHRP Report 348

Access Management Guidelines for Activity Centers

Transportation Research Board
National Research Council

National Cooperative Highway Research Program

Report 348

Access Management Guidelines for Activity Centers

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TRANSPORTATION RESEARCH BOARD
NATIONAL RESEARCH COUNCIL

Research Sponsored by the American Association of State Highway and Transportation Officials in Cooperation with the Federal Highway Administration

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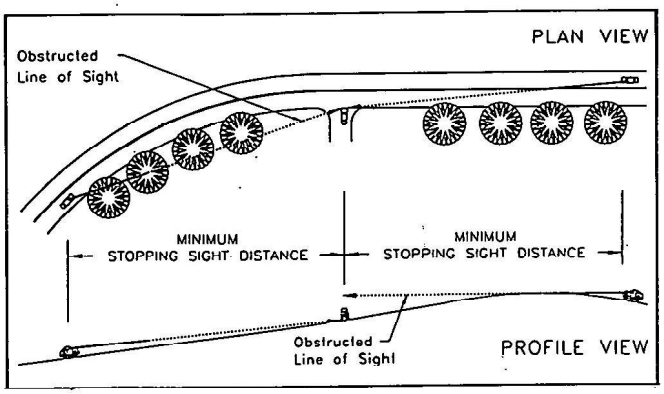

Figure 9-9. Sight distance example.

9.4 SEPARATE TURNING LANES

It may be necessary to construct turning lanes for right or left turns into an access drive for safety or capacity reasons where highway speeds or traffic volumes are high or if there are substantial turning volumes. The purpose of a separate turning lane is to expedite the movement of through traffic, increase intersection capacity, permit the controlled movement of turning traffic, and promote the safety of all traffic. This is accomplished by providing lanes that remove turning vehicles from the through-travel lanes.

The provision of left-turn lanes is essential from both capacity and safety standpoints where left turns would otherwise share the use of a through lane. Shared use of a through lane will dramatically reduce capacity, especially when opposing traffic is heavy. One left turn per signal cycle delays 40 percent of the through vehicles in the shared lane; two turns per cycle delays 60 percent (*3*). Rear-end accidents can be severe on shared lanes.

Right-turn lanes remove the speed differences in the main travel lanes, thereby reducing the frequency and severity of rear-end collisions. They also increase capacity of signalized intersections and may allow more efficient traffic signal phasing.

Table 9-7. Standard stopping sight distances. (Source: American Association of State Highway and Transportation Officials, *A Policy on Geometric Design for Highways and Streets,* 1990)

OPERATING SPEED	Stopping Sight Distances (in feet)						
	STREET GRADE IN PERCENT						
	Upgrades			Level	Downgrades		
	9%	6%	3%	0%	-3%	-6%	-9%
25 mph	140	145	150	150	155	160	165
30 mph	180	190	200	200	210	220	230
35 mph	215	225	235	240	255	270	290
40 mph	270	280	290	300	320	340	370
45 mph		340	350	365	390	420	
50 mph		410	420	440	470	510	
55 mph		460	475	500	540	590	

NOTE: For speeds greater than 35 mph, an average distance between upper and lower operations limits has been used.

Table 9-8. Intersection sight distance triangle.

POSTED SPEED (mph)	Ll (ft.)	Lr2 (ft.)	Lr4 (ft.)
30	270	190	140
35	340	230	165
40	430	280	210
45	540	340	250
50	650	400	300
55	760	460	350

NOTE: Assumes 12 foot wide traffic lanes.
Ll = Clear distance to the left.
Lr2 = Clear distance to the right - 2-lane roadway.
Lr4 = Clear distance to the right - 4-lane roadway.

Warrants

Although turning lanes may be required for some or all access locations to major activity centers, they are not always required for smaller developments. Where there are three or more through lanes in the direction of travel, the requirements for a separate right-turn lane may be dropped. Whether or not a separate turning lane is required at a specific location should be determined by a traffic engineering study. Various guidelines and warrants are suggested to guide this decision.

Left-Turn Lanes—Signalized Intersections. The 1985 "Highway Capacity Manual" recommends that an exclusive left-turn lane be provided at signalized intersections under the following conditions. (1) Where fully protected left-turn phasing is to be provided, an exclusive left-turn lane should be provided. (2) Where space permits use of a left-turn lane, it should be considered where peak-hour left-turn volumes exceed 100 vph. Left-turn lanes may be provided for lower volumes as well, based on the judged need and state or local practice. (Colorado requires by regulation that all new access connections provide a left-turn lane where the peak-hour turn volume exceeds 12 vph.) (3) Where left-turn volumes exceed 300 vph, provision of a double left-turn lane should be considered. (These lanes are essential at access points to major generators to reduce signal time requirements and spillback onto main travel lanes.)

Left-turn lanes also should be provided when delay caused by left-turning vehicles blocking through vehicles would become a problem. When the sum of left-turn and opposing volumes results in unacceptable left-turn delay, the provision of a separate turn lane would not only increase intersection capacity, but would also increase vehicle safety. The provision of left-turn

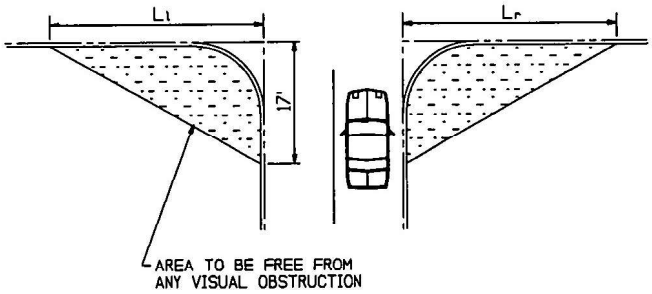

Figure 9-10. Visibility triangle for driveways.

lanes is also specified for certain access categories. In such cases, the lanes should be provided as a matter of policy. Table 9-9 can be used as an additional warrant for providing a separate left-turn lane.

Left-Turn Lanes—Unsignalized Intersection. Several studies have developed criteria for providing separate left-turn lanes at unsignalized intersections. Criteria include cases when the separate lane functions as a deceleration lane and when it becomes a storage lane. Figure 9-11 provides warrants for a left-turn lane, depending on the peak-hour volume on the intersection approach, the peak-hour volume of vehicles turning left, and the operating speed. In most cases, left-turn lanes should be provided where there are more than 12 left turns per peak hour.

Another study compares the percent of left-turning vehicles in the advancing volume against the opposing volume. Table 9-10 is a guide to traffic volumes where separate left-turn lanes should be considered.

Right-Turn Lanes. The 1985 "Highway Capacity Manual" suggests that a separate right-turn lane should be considered when the right-turn volume exceeds 300 vph and the adjacent through lanes also exceed 300 vph per lane. When calculating the adjacent through lane volume, it should be assumed that all through lanes have equal volumes.

The Colorado Department of Transportation recommends providing a separate right-turn deceleration lane, depending on the highway's single lane volume, the volume of right-turning vehicles, and the posted speed of the highway. Figure 9-12 indicates when a separate right-turn lane should be provided. When the design hour volume (DHV) of the single lane highway and the design hour volume of right turns intersect at a point on or above the curve for the posted speed, a separate right-turn lane is required.

Table 9-9. Sum of left turn and opposing volumes during the peak hour necessary to create a left turn delay problem.* (Source: Kenneth R. Agent, "Warrants for Left Turn Lanes," *Transportation Quarterly,* Vol. 37, January 1983)

	Signalized Intersection (4-Lane Highway)		
	CYCLE SPLIT		
Cycle Length	70/30	60/40	50/50
120	950	800	600
90	1,000	850	700
60	1,150	1,000	850

	Signalized Intersection (2-Lane Highway)		
	CYCLE SPLIT		
Cycle Length	70/30	60/40	50/50
120	650	550	400
90	700	600	500
60	750	650	550

	Non-Signalized Intersection	
Delay Criterion	4-Lane Highway	2-Lane Highway
30 Seconds	1,000	900
20 Seconds	900	800

* Assuming a minimum left turn volume such as 50 left turns in the peak hour.

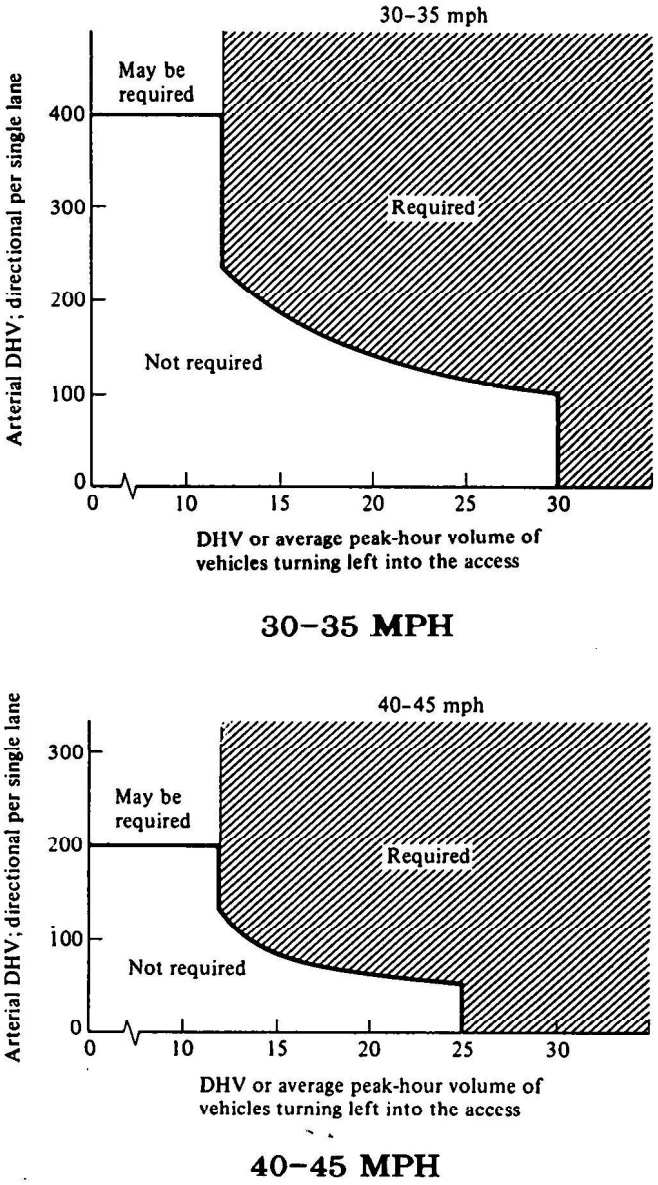

Figure 9-11. Left-turn deceleration lane warrant.

Storage Lengths

The required length of vehicle storage for turning lanes depends on several factors. These include: (1) whether the lane is for left- or right-turning vehicles; (2) the type of traffic control, including the signal timing and cycle length; (3) the number of turning vehicles; and (4) the number of other vehicles on the approach.

Signalized Intersections. Where traffic is to be controlled by a traffic signal, the auxiliary lane ideally should be of sufficient length to (1) store turning vehicles or (2) clear the equivalent lane volume of all other traffic on the approach, whichever is the longest. An equivalent lane volume can be obtained by dividing the sum of other vehicles on the approach by the number of

Table 9-10. Guide for left turn lanes for 2-lane highways. (Source: American Association of State Highway and Transportation Officials, *A Policy on Geometric Design for Highways and Streets*, 1990)

Opposing Volume (Veh./Hr.)	Advancing Volume (vehicles per hour)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
	40-mph Operating Speed			
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340
	50-mph Operating Speed			
800	280	210	165	135
600	350	260	195	170
400	430	320	240	210
200	550	400	300	270
100	615	445	335	295
	60-mph Operating Speed			
800	230	170	125	115
600	290	210	160	140
400	365	270	200	175
200	450	330	250	215
100	505	370	275	240

available lanes. If separate turn lanes are to be provided, the turning volume is assigned to the separate lane and the remaining through or through and right- or left-turning volume is divided by the number of through lanes. This length is necessary to ensure that full use of the separate turn lane will be achieved and that the queue of other vehicles on the approach will not block vehicles from the turn lane.

1. The storage requirements for left-turn lanes should be based upon peak 15-min flow rates. The average number of left turns per cycle can then be multiplied by a factor to account for random variations in arrivals. The length of the lane can be estimated, based on the length of cars, the mix of cars, and other vehicles and arrival rate. This leads to the following formula.

$$L = V\text{K } 25(1 + p)/N_c \qquad (4)$$

where: L = storage length, in feet; V = peak 15-min flow rate expressed in vehicles vph; K = constant to reflect random arrival of vehicles (usually 2); N_c = number of cycles per hour; p = percent of trucks or buses.

Where there are random variations in flow, a factor of 2 is normally applied to the left turns; this implies a failure rate of only 5 percent. However, where volumes increase toward saturation flow, or where movements are controlled by coordinated traffic signal systems, the random arrival factor can be decreased to 1.5.

Figure 9-13 provides a nomograph for the length of a left-turn storage lane at signalized intersections. The 95 percent probability of storing all vehicles uses a "K" value of 2 in the preceding formula. The 90 percent probability value uses a factor of 1.5.

As illustrated, with a left-turn volume of 240 vph, a 70-sec cycle and 10 percent trucks, a storage length of about 260 ft is required for desirable conditions and about 200 ft for a minimum. These storage lengths would accommodate 10 to 11 vehicles for the desirable conditions and about 8 for the minimum. The figure can be used to estimate the storage length (excluding taper) of a double left-turn bay by dividing by 1.8. Thus, for the desirable conditions, a double left-turn bay of about 145 ft (excluding taper) would be required.

2. The storage lengths for right-turn lanes can be obtained by using the "red time" formula. This formula determines the amount of storage space necessary to accommodate vehicles arriving at a signalized intersection during the red phase of the cycle. It is as follows:

$$\text{Storage Length} = \frac{(1 - G/C)\,(\text{volume})\,(1 + \%\ \text{trucks})\,(K)\,(25\ \text{ft/vehicle})}{(\#\ \text{cycles per hour})\,(\#\ \text{traffic lanes})} \qquad (5)$$

where: G = green time, C = cycle length, and K = random arrival factor. (Note that this formula is similar to Formula 3.)

A random arrival factor, K, of 2 should be used where right-turn-on-red is not permitted. Where right-turn-on-red is allowed, a factor of 1.5 could be used to determine the length of storage for right-turning vehicles.

The cycle length chosen to estimate the length of storage lanes should consider the possibility of longer cycle lengths in future years. Where the existing cycle length is less than 90 sec, storage requirements should be based on at least a 90-sec cycle. It is better practice, especially where space is not at a premium, to add an additional 50 to 100 ft to the design initially.

3. Storage lengths at unsignalized intersections can also be determined by considering the left turning volume and the opposing volume. Figure 9-14 gives guidelines for estimating lengths for various storage combinations of traffic volumes.

The nomograph (Figure 9-14) is used by reading horizontally from the opposing traffic volume, V_O, on the vertical axis and reading vertically from the left turn volume, V_L, on the horizontal axis and locating the minimum storage length, S, at the point where the horizontal and vertical lines cross. For example, 100 left-turning vehicles per hour, V_L, with an opposing through volume, V_O, of 950 vph, will require a minimum storage length of about 150 ft.

Total Length of Turn Lanes

A separate turning lane consists of a taper plus a full width auxiliary lane. The design of the turn lanes is based primarily on the speed at which drivers will turn into the lane, the speed to which drivers must reduce in order to turn into the driveway after traversing the deceleration lane, and the amount of vehicular storage that will be required. Other special considerations include the volume of trucks that will use the turning lane and the steepness of an ascending or descending grade.

Although vehicular storage is a principal factor used to establish the full length of the separate turn lane, it may not be the actual determining factor. At off-peak traffic periods on higher

Summary of Differences

Bingle West PAD Ordinance (Original PDF) vs. Aviary PAD Ordinance (Edited Word Document)

Property: 1045 Bingle Road — City of Spring Valley Village, Texas

Overview

The Word document is a **significantly expanded and restructured** revision of the original PDF ordinance. The core deal points (1.695 acres at 1045 Bingle Road, two two-story retail shell buildings, 45-foot height limit, six setback distances, two monument signs at 100 sq ft and 12 ft, two curb cuts, and shared parking) are **preserved unchanged**. The major changes fall into four categories:

- **1. Added statutory citations and waiver authority.** Each deviation from the underlying BWPADD code now expressly cites Section 06P:07.07.05 as the waiver authority and identifies the specific underlying section being waived (e.g., 06P:07.07.01 for the height limit, 06P:07.08.01.02 for the ground-floor medical use, 06P:07.08.03.02 for the patio).
- **2. Substantially expanded permitted use table.** Added the entire NAICS Sector 62 medical/health-care group (physicians, dentists, chiropractors, optometrists, therapists, diagnostic imaging, home health, etc.); added yoga/Pilates/cycle instruction (611699); added speakeasies; added Montessori; and replaced "golf practice ranges" with "indoor putting facilities and golf simulators."
- **3. Filled in placeholder sections and added entirely new operating standards.** The PDF contained empty headings for "Overnight Parking" and "General Hours of Operation"; both now have substantive text. The Word document also adds entirely new sections on Alcohol Sales (F), Future Outdoor Patio (G), Hike & Bike Trail (H), Landscape/Screening/Lighting (I), Drainage (J), Refuse/Deliveries (K), Noise (L), and Fire Sprinklers (M).
- **4. Professional drafting cleanup.** Adds defined terms ("Applicant," "the Application," "Licensed Area"), corrects typos (e.g., "par to of" → "part of"; "zero (o)" → "zero (0)"), reorganizes the caption to meet typical municipal-ordinance form, and adds a complete signature block with the Mayor and City Secretary named.

In the comparison table below, yellow highlight marks the key substantive change or new text. Where a section is entirely new in the Word document, the PDF column simply says "Not present."

Section-by-Section Comparison

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Ordinance Title / Caption	Short title — amends Section 06P:07 and creates a PAD of "approximately 1.695 [acres]" with restrictions, regulations, and requirements. Provides for severability and penalty.	Greatly expanded caption: explicitly amends Exhibit A of Chapter 12 (Zoning Ordinance); names the new PAD "The Aviary Planned Area Development"; specifies two (2) two-story retail shell buildings; adds a savings clause and effective date; and states the penalty as $2,000.00 with each day a separate offense.
WHEREAS #1 — Owner & Property	Identifies Owner as Bingle Roop3K 001, LLC, address 1045 Bingle Road, "1.695 acre tract of land with a legal description of TR 56A ABST 610 A H Osborne."	Owner is also identified as "Applicant". Property is described as 1.695 acres located at 1045 Bingle Road and is "more particularly described in Exhibit “A” attached hereto and made a part hereof" (removes the inline TR 56A ABST 610 A H Osborne reference, replacing it with an Exhibit A reference).

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
WHEREAS — Present Zoning	Not present.	NEW PARAGRAPH ADDED: Confirms the Property is presently zoned BWPADD pursuant to the City's Zoning Ordinance, as amended.
WHEREAS — City Council Authority	Cites Section 06P:07.07.04 as the source of Council authority. Lists factors as space, light and air, and density compatibility with surrounding land uses.	Citation CHANGED to Section 06P:07.07.05. Expanded list of factors: adds "pedestrian and vehicular traffic circulation systems are safe and efficient," "developer will progress in orderly phases," and "public health, safety, and welfare will be protected."
WHEREAS — Project & Specific Requests	Describes the Project as "The Aviary" — two two-story retail shell buildings — with a short bulleted list of requests: • Additional permitted uses • Increased commercial building heights • Shared Parking standards • Secondary curb cut • Alcohol sales • Specific signage • Adjusted setbacks • Bike Trail	Reformatted as a single detailed paragraph with nine (i)–(ix) numbered specific requests, adding substantial detail to each: (i) Expanded permitted uses including medical/health-care on the ground floor — noting the underlying BWPADD code restricts these to upper floors only (ii) Max building height of 45 ft, expressly exceeding the 39 ft limit in Section 06P:07.07.01 (iii) Shared parking under the City of Houston's shared-parking percentage distribution, supplemented by ULI (iv) Two curb cuts on Bingle Road and the existing access easement through the adjacent City parcel at West Memorial Park Drive, supported by a traffic study (v) "Unrestricted" on-premises alcohol sales (vi) Signage consistent with City standards for properties facing Interstate Highway 10 (vii) Site-specific buffer zones and setbacks differing from Section 06P:07.03 (viii) NEW: Future, conditional authorization of an enclosed outdoor patio of up to 2,000 sq ft on the adjacent City parcel, contingent on a separate license/use agreement (ix) Cooperation with a potential future City hike and bike trail
Section 1 — Preamble	Standard language: facts in preamble are found true and correct and incorporated for all purposes.	Substantively the same; minor wording: "of this Ordinance" instead of "to this Ordinance," and adds "hereby" and "herein."
Section 2 — Application Approval	Approves the application for creation of a PAD within the BWPADD with specific amendments, subject to the regulations hereinafter set forth.	Substantively the same; minor wording cleanup ("(the "Property")" instead of "("Property")").

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Section 3 — Plans & Specifications	Changes are expressly for use by this Owner; plans attached as Exhibit A. Modifications, deviations, or ownership change require a separate Ordinance.	Same intent; plans attached as Exhibit “B” (renumbered because Exhibit A is now used for the Legal Description). Minor language polish.
Section 4 — Conflict with Other Ordinances	Standard language: this Ordinance does not amend other provisions; when in conflict with the Comprehensive Zoning Ordinance, this Ordinance prevails.	Substantively the same; minor punctuation/wording changes.
Section 5 — Framing	"The following regulations, restrictions, terms and conditions are established as binding on this Property under this Project. Any reference to existing sections within the City’s Code does not amend those sections universally but is merely added as reference."	Reframed as: "The Aviary PAD use authorized and permitted hereby shall be, and is, subject to the following additional limitations, restrictions and covenants." The "non-universal amendment" sentence has been removed.
Section 5.A — Compliance with Application	Granting of the PAD conditioned upon the Property being used and improvements being constructed in substantial compliance with the application dated April 1, 2026, including description of use, elevation, and site plans.	Same substance and same application date (April 1, 2026). Now references Exhibit “B” (where the plans are attached) and uses the defined term "the Application."
Section 5.B — Permitted Uses Framing	Brief opener: "In addition to the uses already codified in Chapter 12, 06P:07:08.05 Permitted Use List." Then lists uses directly.	Substantially rewritten. Now references Exhibit “C” (Permitted Use Table) which augments and supersedes the table in Section 06P:07.08.05. Expressly waives Section 06P:07.08.01.02 (which limited office/professional uses to upper floors) for health-care and medical uses, allowing them on either ground or upper floors. New "Floor location" subsection and a "Prohibited uses retained" subsection preserving Section 06P:07.08.03.02 prohibitions (drive-thru, outdoor commercial rec, distribution, warehousing, industrial, vehicle storage).
Section 5.B — Use Table Content	Lists: • Dance studios (611610) • Aerobic dance and exercise instruction (611620) • Day care centers, child or infant (624410) • Amusement Arcades (713120) • Fitness centers; yoga, body building studio (713940)	Retains all the above EXCEPT ~~Golf practice ranges~~ is replaced with "Indoor putting facilities and golf simulators" (713990). Adds many new uses: • Yoga, Pilates, cycle, and similar fitness instruction (611699) • Day care now includes "(including Montessori)"

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
	• Golf practice ranges (713990) • Cocktail lounges; drinking places (722410) • Full-Service Restaurants (722511)	• Entire NAICS Sector 62 medical group added: Physicians (621111), Mental Health Specialists (621112), Dentists (621210), Chiropractors (621310), Optometrists (621320), Mental Health Practitioners (621330), Physical/Occupational/Speech Therapists & Audiologists (621340), Podiatrists (621391), Other Health Practitioners (621399), Diagnostic Imaging Centers (621512), Home Health Care Services (621610) • Cocktail lounges now also includes "speakeasies" • Fitness centers now reads "yoga, Pilates, cycle and similar studios"
Section 5.C.1 — Building Height	"No building or structure shall exceed forty-five (45) feet in height exclusive of such appurtenances as antennae, water cooling towers and mechanical equipment enclosures which shall not exceed a ten (10) foot height above the roof and be located no closer than ten (10) feet to the building's external wall."	Same 45-foot limit and same 10-foot appurtenance allowance, but adds "to the top of the parapet" twice and references the underlying limit: "Notwithstanding Section 06P:07.07.01… which limits building height within the BWPADD to thirty-nine (39) feet." Closes with a citation that the deviation is granted under Section 06P:07.07.05 waiver authority.
Section 5.C.2 — Setbacks Framing	"Setbacks and buffer zones shall be in accordance with the Site Plan submitted as par to of [sic] the application."	Same substance but adds an express citation: deviations from Section 06P:07.03 configurations are approved under the Section 06P:07.07.05 waiver authority, "in recognition that the Property is bounded by commercial, religious-assembly, and natural watercourse adjacencies." Typo "par to of" corrected to "part of."
Section 5.C.2.a–f — Individual Setbacks	Northern (Eastern): 5 ft setback; 10 ft wall non-continuous w/ landscaping. Northern (Western): 5 ft setback; 8 ft wood fence; 0 ft landscape. Western: 50 ft setback; 8 ft wood fence; 5 ft landscape/parking. Southern: 25 ft setback; 15 ft landscape/parking; natural vegetation as-is. Eastern: 0 ft setback; 0 ft landscape; adjacent City parcel for parking. Eastern Secondary: 25 ft building setback; 5 ft monument sign; 5 ft landscape/parking along Bingle.	All six setback distances are IDENTICAL to the PDF. Only minor wording cleanups (e.g., "zero (o) foot" typo → "zero (0) foot"; "The intended use for the land adjacent" → "The intended use of the adjacent land").

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Section 5.D.1 — Parking	"The required number of parking spaces shall be determined using Shared Parking, Third Edition, published by the Urban Land Institute, the National Parking Association, and the International Council of Shopping Centers."	Substantially expanded. Adds: "a fifty percent (50%) reduction from the minimum parking requirements" pursuant to Section 06P:07.07.03; primary methodology is now "the City of Houston's shared-parking percentage distribution" with the ULI publication used as a supplement (not the primary source). Adds: "Parking on the Property on any surface other than a paved surface is prohibited."
Section 5.D.2 — Access / Curb Cuts	"A second curb cut as detailed in the Site Plan attached as part of Exhibit A shall be allowed along Bingle Road."	Expanded considerably. Cites Section 06P:07.07.02 and states no access from Voss Road is authorized. The two curb cuts are now: (i) existing access through the adjacent City parcel at West Memorial Park Drive, and (ii) the secondary cut along Bingle Road. Notes the secondary cut "utilizes an existing median break" and is supported by a traffic study showing safe/efficient circulation. Subject to City and Harris County standards.
Section 5.D.3 — Overnight Parking	Listed as a heading only: "3. Overnight Parking" — ~~NO substantive text provided in the PDF.~~	Substantive text now provided: "Overnight parking is prohibited except for tenants' delivery vans or trucks in designated parking spaces only. Signs shall be posted and maintained prohibiting overnight parking."
Section 5.D.4 — General Hours of Operation	Listed as a heading only: "4. General Hours of Operation" — ~~NO substantive text provided in the PDF.~~	Substantive text now provided: General hours 6:00 a.m. to 11:00 p.m. Mon–Sun. Restaurants and cocktail lounges/drinking places: 6:00 a.m. to 12:00 midnight Sun–Thu, and 6:00 a.m. to 2:00 a.m. Fri–Sat.
Section 5.D.5 — Construction Activity	Not present.	NEW SUBSECTION: Construction permitted 7 a.m.–7 p.m. Mon–Fri and 9 a.m.–6 p.m. Sat–Sun. Emergency maintenance excluded from these restrictions.
Section 5.E — Signage	"The Property may have two (2) monument signs each with a total face area of 100 square feet including base and a maximum height of 12 feet adjacent to Bingle Road. The Property may have building wall signage in accordance with City signage regulations. The Monument Signs shall be located according to the Site Plan submitted as part of the application. All signage shall comply with the other ordinances of the City applicable to signage."	Same two monument signs, 100 sq ft face area, 12-foot max height. Now broken into four numbered subsections and adds: (E.1) "one (1) monument sign at each entry point"; (E.2) "All signage shall comply with the City's signage standards applicable to properties facing Interstate Highway 10 (I-10)"; (E.3) "illuminated wall signage identifying tenants and uses on the Property" is allowed.

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
Section 5.F — Alcohol Sales	Not present as a stand-alone section. (Alcohol sales were mentioned only in the bulleted WHEREAS list.)	NEW SUBSECTION: On-premises sale and consumption of alcohol "permitted without restriction" for permitted uses (full-service restaurants, cocktail lounges, drinking places, speakeasies), subject only to TABC requirements. Expressly states the City has NOT adopted (and does not adopt) the Section 109.33 Texas Alcoholic Beverage Code rule prohibiting sale within 300 feet of a church, public school, public hospital, or day-care center — so no proximity restriction applies.
Section 5.G — Future Outdoor Patio	Not present.	ENTIRELY NEW SECTION (7 subsections): Conditional authorization for a future enclosed outdoor patio on the adjacent City parcel, contingent on a license/use agreement. G.1 No patio established yet; right vests only upon a separate license/use agreement. G.2 Permitted as an accessory use to restaurant (722511) or cocktail lounge/speakeasy (722410); Section 06P:07.08.03.02 outdoor commercial recreation prohibition waived as to this patio. G.3 Patio must be enclosed by walls, railings, fencing, or partial roof/canopy. G.4 Maximum 2,000 sq ft. G.5 Hours: not later than 11 p.m. Sun–Thu, midnight Fri–Sat. G.6 Alcohol service permitted on patio subject to TABC. G.7 Subject to lighting (I.3) and noise (L) standards.
Section 5.H — Hike & Bike Trail	Listed only as a single line in the WHEREAS bulleted list ("Bike Trail"). ~~No substantive text in the body of the ordinance.~~	NEW STAND-ALONE SUBSECTION with substantive text: If the City elects to construct a hike and bike trail, Owner shall cooperate in good faith and permit construction through the Property along a mutually acceptable route, subject to reasonable easement terms. Owner not obligated to construct at its own expense.
Section 5.I — Landscape / Screening / Lighting	Not present.	ENTIRELY NEW SECTION: I.1 Landscaping per the landscape plan; must meet/exceed Chapter 16. Mature oak and cypress trees along Bingle Road frontage to be preserved. Continuous evergreen hedge required along Bingle Road frontage to screen head-in parking headlights. I.2 Landscape maintenance hours: 7 a.m.–7 p.m. Mon–Fri; 9 a.m.–6 p.m. Sat–Sun.

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
		I.3 Outdoor lighting: parking lot avg no more than 8 foot-candles; western parking areas adjacent to planned Dolphin Cove residential PADD: no more than 4 foot-candles in drive aisles during business hours; reduced to avg 2 foot-candles after hours. "White" metal halide or color-corrected only; light poles max 16 ft; no high-pressure sodium.
Section 5.J — Drainage Systems	Not present.	NEW SUBSECTION: Owner shall design and construct storm-water drainage in compliance with City ordinances and the Application, as approved by the City's Floodplain Administrator.
Section 5.K — Refuse; Building Maintenance; Deliveries	Not present.	NEW SUBSECTION: K.1 Refuse containers and dumpsters must be enclosed and located as shown on the site plan. K.2 Pickup: 7 a.m.–7 p.m. weekdays; 9 a.m.–6 p.m. weekends. K.3 Deliveries: 7 a.m.–7 p.m. Mon–Fri; 9 a.m.–6 p.m. Sat–Sun.
Section 5.L — Noise	Not present.	NEW SUBSECTION: All activities to comply with City noise ordinances, except that operating hours may be extended as provided above.
Section 5.M — Fire Sprinklers	Not present.	NEW SUBSECTION: All buildings shall be constructed with fire sprinklers as required by City ordinances.
Section 6 — Severability	Standard severability clause.	Substantively the same, but contains a duplicated phrase: "notwithstanding the omission of any and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional" — likely an editing artifact that may warrant a cleanup.
Section 7 — Penalty	"Any person who shall violate any provision of this ordinance shall be deemed guilty of a misdemeanor and upon conviction, shall be fined in an amount not to exceed $2,000. Each day of violation shall constitute a separate offense."	Adds the culpable mental states: "intentionally, knowingly, recklessly, or with criminal negligence." Fine cap stated as "$2,000.00" (with decimal). Each-day-separate-offense language retained.
Section 8 — Exhibits	Lists: Exhibit A: Legal Description Exhibit B: Application and documents	Same three exhibits, with cleaner punctuation: Exhibit A: Legal Description; Exhibit B: The Application, including documentations; and

Section / Topic	Original PDF (Bingle West PAD)	Edited Word Document (Aviary PAD)
	Exhibit C: Use Table : All Floor	Exhibit C: Use Table – All Floors.
Signature Block	Bare placeholder: "PASSED, APPROVED, and ADOPTED this _____ day of _____, 2026. FOR THE CITY"	Replaced with: "ADOPTED this ____ day of _____, 2026" and a full signature block naming Marcus Vajdos, Mayor and Jasmin Torres, City Secretary.

200 Feet notification radius

PUBLIC NOTICE
CITY OF SPRING VALLEY VILLAGE, TEXAS
NOTICE OF PUBLIC HEARING

Notice Is Hereby Given To Hear Comments And Testimony Concerning The Following:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING SECTION 06P:07, BINGLE WEST PLANNED AREA DEVELOPMENT DISTRICT, BY CREATING A PLANNED AREA DEVELOPMENT OF APPROXIMATELY 1.695 ACRE TRACT WITH CERTAIN RESTRICTIONS, REGULATIONS, AND REQUIREMENTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR PENALTY.

The **Planning and Zoning Commission** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 9, 2026
Time: 6:30 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

The **City Council** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 23, 2026
Time: 6:00 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

For additional information regarding these public hearings, please contact the Development Services Manager, Jose Gomez, at (713) 465-8308.

ESTE 1955

SPRING VALLEY

VILLAGE

CITY OF SPRING VALLEY VILLAGE

ZONING SIGNAGE CRITERIA SUBMITTAL PACKET

(Planning & Zoning Commission)

SPRING VALLEY VILLAGE 1025 CAMPBELL ROAD HOUSTON, TEXAS 77055

SPRING VALLEY VILLAGE

COMMERCIAL ZONING CHANGE NOTIFICATION SIGN CRITERIA

A zoning sign is a sign erected on property for which a zoning case has been filed with the City, including, but not limited to, zoning changes, Specific Use Permits, Variances, or Special Exceptions. **The number of signs and the placement of signs shall be determined by the Building Official at the time of submittal.** It is the responsibility of the owner/project representative to contact the Building Department to verify the number and location of signs needed.

Property owners/applicants may use any sign company to meet zoning change sign criteria. To order zoning signs, the applicant should contact a sign company concerning sign creation and installation in the Building Official designated location(s).

IF YOU HAVE ANY QUESTIONS, PLEASE CALL (713) 465-8308.

ADHERE TO THE FOLLOWING INSTRUCTIONS:

SIGNS DESIGN

- The sign shall be constructed in accordance with the City's design standards for zoning signs.
- Signs shall be a minimum of four (4) feet by four (4) feet.
- Must be two (2) sided ten (10) millimeter Coroplast sign or other material of equivalent strength and durability.
- Lettering shall be on both sides of the sign.
- Metal or wood posts shall be used.
- Must include the City of Spring Valley Village official logo with a minimum size of one (1) foot.
- Capital letters on that sign shall be no smaller than three (3) inches tall using the Bold Arial font style.
- The signs shall comply with the layout and dimensions on the attached Zoning Sign Design Diagram.

PLACEMENT

- One (1) sign shall be erected by the applicant adjacent to each street frontage on the property that is the subject of the application and for each two hundred feet (200') of frontage along a street with a maximum of three (3) signs required per street frontage.
- Signs shall be placed in a location on private property and clearly visible from all streets adjacent to the property included in the application.
- Where land does not have frontage on a public street, signs shall be posted on the nearest public street with a notation indicating the location of the land subject to the application.
- Signs shall be no greater than twenty (20) feet from the property line and shall be a minimum of two (2) feet off the ground, unless otherwise directed by the Building Official or his/her designee.
- Signs shall be placed perpendicular to the roadway to ensure they are readable from both sides.
- Signs shall be located so that the lettering is visible and may be clearly read from the street.

PROOF OF POSTING

- The applicant shall erect the sign(s) on the property that is the subject of the application a minimum of fourteen (14) calendar days immediately preceding the date of the public hearing before the Planning & Zoning Commission ("Commission").
- The applicant is responsible for maintaining the sign(s) on the property throughout the entire review process.
- A minimum of seven (7) calendar days prior to the public hearing before the Commission, the applicant shall file an affidavit, on a form provided by the City, with the Building Official verifying that the sign(s) was posted as required.

REMOVAL OF SIGNS

- **The applicant shall be responsible for removing the sign(s) from the property within seven (7) calendar days of the final action on the application by the City of Spring Valley Village.**

Preparer's Name: Gerard Hillsman **Preparer's Signature:**

NOTE: Violations of the sign ordinance will result in fines to the property owner and will delay the requested zoning case. Failure to remove zoning signs per the sign ordinance will result in a citation of $500 per sign/per day until removed.

SPRING VALLEY VILLAGE

AFFIDAVIT OF SIGN POSTING

(Re)Zoning Case No. _____

Date of Planning and Zoning Commission Meeting: June 9, 2026

In accordance with the requirements of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village, Texas, I Gerard Hillsman hereby certify that I have posted or caused to be posted Zoning Change Notification sign(s) on the property subject to zoning change, located at

1045 Bingle Rd, Houston, TX 77055

Said sign(s) meet the specifications of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village. Posting of said signs was accomplished on 5/21/2026 as provided for in Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village. Said signs have been posted in a manner which provides an unobstructed view and which allows clear reading from the public right(s)-of-way along Bingle Rd.

I further certify that this affidavit was filed with the Building Department of the City of Spring Valley Village within the time provisions of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village.

Executed this date: 5/21/26

Printed Name of Applicant or Authorized Representative for Zoning Case No. Gerard Hillsman

Signature of Applicant or Authorized Representative for Zoning Case No. _____

Sworn and subscribed before me on this date: 5/21/26

JASMIN TORRES
My Notary ID # 132390811
Expires March 5, 2028

Notary Public _____

PLEASE NOTE: Failure to post the notification sign(s) on the property by the close of business (4:30 pm) fourteen (14) days prior Planning and Zoning Commission public hearing shall result in the postponement of consideration by the Commission.

STAFF USE ONLY:

Date/Time submitted: 5/21/26 / 4:00 P.M. Verified by: _____

PREPARED BY THE BUILDING DEPARTMENT, CITY OF SPRING VALLEY VILLAGE, 1025 CAMPBELL ROAD, HOUSTON, TEXAS 77055 (713) 465-8308

SPRING VALLEY VILLAGE

AFFIDAVIT OF ZONING CHANGE NOTIFICATION SIGN MAINTENANCE

(Re)Zoning Case No._____

Date of City Council Meeting: June 23

In accordance with the requirements of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village, Texas, I Gerard Hillsman hereby certify that Zoning Change Notification sign(s) have been maintained on the property subject to zoning change, located at

1045 Bingle Rd, Houston, TX 77055

Said sign(s) have been maintained in a manner consistent with the requirements contained in Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village.

I further certify that this affidavit was filed with the Building Department of the City on date _____ within the time provisions of Section 01:04:03 of Exhibit 'A' of Chapter 12 of the Code of Ordinances of the City of Spring Valley Village.

I understand that I am required to remove said signs within seven (7) calendar days of any final action on the application taken by the City of Spring Valley Village regarding the zoning change.

Executed this date: 5/21/26

Printed Name of Applicant or Authorized Representative for Zoning Case No. Gerard Hillsman

Signature of Applicant or Authorized Representative for Zoning Case No. [signature]

Sworn and subscribed before me on this date: 5/21/26

Notary Public [signature]

(Seal) JASMIN TORRES
My Notary ID # 132390811
Expires March 5, 2028

PLEASE NOTE: Failure to maintain the signs prior to City Council public hearing may result in postponement of consideration if the applicant has not attempted to replace damaged or missing signs upon notification by Staff.

FOR STAFF USE ONLY:

Date/Time submitted: 5/21/26/4:00 pm Verified by: [signature]

PREPARED BY THE BUILDING DEPARTMENT, CITY OF SPRING VALLEY VILLAGE, 1025 CAMPBELL ROAD, HOUSTON, TEXAS 77055 (713) 465-8308

Current Owner / Resident
1065 Bingle Rd.
Houston, TX 77055

Current Owner / Resident
1110 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
1114 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
1106 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
1118 Joshua Ln.
Houston, TX 77055

Current Owner / Resident
20 Woodsborough Circle
Houston, TX 77055

Current Owner / Resident
22 Woodsborough Circle
Houston, TX 77055

Current Owner / Resident
24 Woodsborough Circle
Houston, TX 77055

Current Owner / Resident
19 Woodsborough Circle
Houston, TX 77055

EST. 1955
SPRING VALLEY
VILLAGE

May 21, 2025

Dear Property Owner:

Notice Is Hereby Given To Hear Comments And Testimony Regarding The Following:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SPRING VALLEY VILLAGE, TEXAS, AMENDING SECTION 06P:07, BINGLE WEST PLANNED AREA DEVELOPMENT DISTRICT, BY CREATING A PLANNED AREA DEVELOPMENT OF APPROXIMATELY 1.695 ACRE TRACT WITH CERTAIN RESTRICTIONS, REGULATIONS, AND REQUIREMENTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR PENALTY.

The **Planning and Zoning Commission** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 09, 2026
Time: 6:30 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

The **City Council** of the City of Spring Valley Village will hold a public hearing regarding this request to provide all interested parties the right to appear and request information on:

Date: Tuesday, June 23, 2026
Time: 6:00 p.m.
Location: Council Chambers
Spring Valley Village City Hall
1025 Campbell Road
Houston, TX 77055

This notice is being sent to you as current property records indicate that you own property in close proximity to the proposed development of Bingle Road. All interested parties are invited to attend both public hearings and will have the opportunity to be heard. For further information, please contact me at (832) 910-8577 or jgomez@springvalleytx.com.

Sincerely,

Development Service Manager

1025 CAMPBELL ROAD • HOUSTON, TEXAS 77055-7495
(713) 465-8308 • FAX (713) 461-7969 • www.springvalleytx.com