AGENDA

ARCHITECTURAL REVIEW BOARD MEETING
CITY HALL, 385 SOUTH GOLIAD, ROCKWALL, TEXAS
***NOVEMBER 15, 2022* IN THE CITY COUNCIL CONFERENCE ROOM AT 5:00 PM**

NOTES ABOUT PUBLIC PARTICIPATION = RED

(I) CALL TO ORDER

(II) OPEN FORUM

This is a time for anyone to address the Architectural Review Board (ARB) on any topic. Per the policies of the City of Rockwall, public comments are limited to three (3) minutes out of respect for the time of other citizens. On topics raised during the OPEN FORUM, please know that the Architectural Review Board (ARB) is not permitted to respond to your comments during the meeting per the Texas Open Meetings Act.

(III) ACTION ITEMS

(1) **SP2022-053 (BETHANY ROSS)**
Discuss and consider a request by Alan Jacob on behalf of Jim Melino of the Cambridge Companies, Inc. for the approval of a *Site Plan* for a *Self-Service Carwash* on a 6.37-acre tract of land identified as Tract 3-09 of the J. M. Allen Survey, Abstract No. 2, City of Rockwall, Rockwall County, Texas, zoned Planned Development District 10 (PD-10) for Commercial (C) District, situated within the SH-205 By-Pass Overlay (SH-205 BY OV) District, located at the northwest corner of SH-276 and John King Boulevard, and take any action necessary.

(2) **SP2022-054 (BETHANY ROSS)**
Discuss and consider a request by Robert Romano on behalf of Bill McMahon of Triton I-30 Rockwall II, LLC for the approval of an *Amended Site Plan* for an existing *Restaurant* facility on a 1.370-acre parcel of land identified as Lot 17, Block A, La Jolla Pointe, Phase 2 Addition, City of Rockwall, Rockwall County, Texas, zoned Commercial (C) District, situated within the IH-30 Overlay (IH-30 OV) District, addressed as 568 E. IH-30, and take any action necessary.

(3) **SP2022-058 (HENRY LEE)**
Discuss and consider a request by Frank A. Polma, PE of R-Delta Engineers, Inc. on behalf of Stephen Geiger of Rayburn Country Electric Cooperative for the approval of a *Site Plan* for an *Industrial Campus* on a 99.849-acre tract of land identified as Lots 6, 7, 8 & 9, Block A, Rayburn Country Addition and Tract 3 of the W. H. Barnes Survey, Abstract No. 26, City of Rockwall, Rockwall County, Texas, zoned Heavy Commercial (HC) and Commercial (C) Districts, situated within the SH-205 Overlay (SH-205 OV) District, addressed as 950 & 980 Sids Road, and take any action necessary.

(IV) ADJOURNMENT

The City of Rockwall Planning and Zoning Commission reserves the right to adjourn into executive session at any time to discuss any matters listed on the agenda above, as authorized by Texas Government Code §551.071 (Consultation with City Attorney).

This facility is wheelchair accessible and accessible parking spaces are available. Request for accommodations or interpretive services must be made 48 hours prior to this meeting. Please contact the City Secretary's Office at (972) 772-6406 for further information.

I, Angelica Guevara, Planning and Zoning Coordinator for the City of Rockwall, Texas, do hereby certify that this Agenda was posted at City Hall, in a place readily accessible to the general public at all times, on *November 11, 2022* prior to 5:00 PM, and remained so posted for at least 72 continuous hours preceding the scheduled time of said meeting.

CITY OF ROCKWALL

PLANNING AND ZONING COMMISSION CASE MEMO

PLANNING AND ZONING DEPARTMENT
385 S. GOLIAD STREET • ROCKWALL, TX 75087
PHONE: (972) 771-7745 • EMAIL: PLANNING@ROCKWALL.COM

TO:	Planning and Zoning Commission
DATE:	November 15, 2022
APPLICANT:	Alan Jacob; *Delayne Reamsbottom*
CASE NUMBER:	SP2022-053; *Site Plan for a Self-Service Car Wash*

SUMMARY

Discuss and consider a request by Alan Jacob on behalf of Jim Melino of the Cambridge Companies, Inc. for the approval of a *Site Plan* for a *Self-Service Carwash* on a 6.37-acre tract of land identified as Tract 3-09 of the J. M. Allen Survey, Abstract No. 2, City of Rockwall, Rockwall County, Texas, zoned Planned Development District 10 (PD-10) for Commercial (C) District, situated within the SH-205 By-Pass Overlay (SH-205 BY OV) District, located at the northwest corner of SH-276 and John King Boulevard, and take any action necessary.

BACKGROUND

On September 16, 1974, the subject property was annexed by *Ordinance No. 74-26 [Case No. A1974-006].* At the time of annexation, the subject property was zoned Agricultural (AG) District. On November 4, 1974 the zoning was changed from Agricultural (AG) District to Planned Development District 10 (PD-10). This Planned Development District was amended in 1996 [*Ordinance No. 96-03*], 2000 [*Ordinance No. 00-08*], 2004 [*Ordinance No.'s 04-25 & 04-40*], 2012 [*Ordinance No. 12-13*], 2013 [*Ordinance No. 13-39*], and 2020 [*Ordinance No. 20-30*]. Currently, the Planned Development District ordinance designates the subject property for Commercial (C) District land uses. In addition, the subject property has remained vacant since annexation.

PURPOSE

The applicant -- *Alan Jacob of Delayne Reamsbottom* -- is requesting the approval of a *Site Plan* for the purpose of establishing a *Self-Service Car Wash.*

ADJACENT LAND USES AND ACCESS

The subject property is situated at the northwest corner of SH-276 and John King Boulevard. The land uses adjacent to the subject property are as follows:

North: Directly north of the subject property is a 32.6546-acre lot (*i.e. Lot 1, Block A, Mansions Family Addition*) developed with a multi-family development (*i.e. Sixteen50 at Lake Ray Hubbard*) zoned Planned Development District 10 (PD-10) for multi-family and single-family attached *(i.e. Townhomes*) land uses. Beyond this is Phase 3 of the Rockwall Downes Subdivision, which was platted in January 31, 2017 and consists of 26 single-family residential lots. This property is zoned Planned Development District 10 (PD-10) for single-family land uses.

South: Directly south of the subject property is SH-276, which is classified as a TXDOT6D (*i.e. a Texas Department of Transportation, six [6] lane, divided roadway*) on the City's Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan. Beyond this is a 6.705-acre tract of land (*i.e. Lot 1, Block 1, Rockwall Bypass Addition*), zoned Planned Development District 10 (PD-10) for Commercial (C) District land uses. Beyond this is a 2.41-acre vacant tract of land (*i.e. Tract 1-2, of the W H Baird Survey, Abstract No. 25*) zoned Planned Development District 10 (PD-10) for Commercial (C) District land uses.

East: Directly east of the subject property is John King Boulevard, which is identified as a P6D (*i.e. principle collector, six (6) lane, divided roadway*) on the City's Master Thoroughfare Plan contained in the OURHometown Vision 2040

Comprehensive Plan. Beyond this is a 1.0080-arcre parcel of land (*i.e. Lot 1, Block A, VRE Rockwall Addition*) developed with a *Retail Store with Gasoline Sales with more than Two (2) Dispensers* (*i.e. 7-11*), zoned Planned Development District 10 (PD-10) for limited Commercial (C) District land uses.

West: Directly west of the subject property is a 32.6546-acre lot (*i.e. Lot 1, Block A, Mansions Family Addition*) developed with a multi-family development (*i.e. Sixteen50 at Lake Ray Hubbard*), zoned Planned Development District 10 (PD-10) for multi-family, single-family attached *(i.e. Townhomes*) land uses. Beyond this is a 6.739-acre lot (*i.e. Lot 2, Block A, Houser Addition*), zoned Heavy Commercial (HC) District and developed with a heavy manufacturing facility *(i.e. Chryso Inc*.).

DENSITY AND DIMENSIONAL REQUIREMENTS

According to Section D, *PD Development Standards*, of Planned Development District 10 (PD-10), a *Self-Service Car Wash* is a permitted *by-right* land use on the subject property. The submitted site plan, landscape plan, and building elevations generally conform to the technical requirements contained within the Unified Development Code (UDC) for a property located within a Commercial (C) District and Planned Development District 10 (PD-10), with the exception of the variances and exceptions outline in the *Variances and Exceptions by the Applicant* section below. A summary of the density and dimensional requirements for the subject property and the proposed projects conformance to these requirements are as follows:

Ordinance Provisions	*Zoning District Standards*	*Conformance to the Standards*
Minimum Lot Area	*43,560 SF*	*X=277,477* SF*; In Conformance*
Minimum Lot Frontage	*25-Feet*	*X>233-Feet; In Conformance*
Minimum Lot Depth	*100-Feet*	*X>267-Feet; In Conformance*
Minimum Front Yard Setback	*25-Feet*	*X=30-Feet; In Conformance*
Minimum Rear Yard Setback	*10-Feet*	*X>10-Feet; In Conformance*
Minimum Side Yard Setback	*10-Feet*	*X≥10-Feet; In Conformance*
Maximum Building Height	*60-Feet*	*X=33.5-feet; In Conformance*
Max Building/Lot Coverage	*60%*	*X<60%; In Conformance*
Minimum Number of Parking Spaces	*Car Wash (1/250): 21 Spaces +5 employee stalls 26 total spaces*	*X=27; In Conformance*
Minimum Landscaping Percentage	*20%*	*X=80%; In Conformance*
Maximum Impervious Coverage	*85-90%*	*C=45%; In Conformance*

TREESCAPE PLAN

The treescape table provided by the applicant indicates that 1,042.50 inches of trees will be removed from the subject property as a result of the development. According to Subsection 05 (F), *Mitigation Balance*, of Article 09, *Tree Preservation*, of the Unified Development Code (UDC) "…(t)rees required by Article 08, *Landscape and Fence Standards*, of the Unified Development Code (UDC) shall be permitted to be subtracted from the total mitigation balance if provided on site as part of the required landscaping." In this case, the landscape table provided by the applicant indicates that 20, four (4) caliper inch caliper trees will be planted. With the planted trees, the remaining mitigation balance will be 855.50 inches (*i.e. 935.50 – [20 x 4.00] = 855.50*). The applicant has indicated to staff that they would like to request an *Alternative Tree Mitigation Settlement Agreement* in order to pay the remaining tree mitigation balance in full. This would equate to a total of $85,550.00 paid into the *Tree Fund* if approved. This has been added as a *Condition of Approval* for this case and -- *if the Planning and Zoning Commission approves this case with the Conditions of Approval* – the Planning and Zoning Commission will be sending a recommendation for the approval of the requested *Alternative Tree Mitigation Settlement Agreement*.

CONFORMANCE WITH THE CITY'S CODES

Based on Subsection 02.02, *Land Use Standards*, of Article 13, *Definitions*, of the Unified Development Code (UDC), the applicant is requesting the approval of a *Self-Service Car Wash*, which conforms to the land uses listed in Section 01, *Land Use Schedule*, of Article 04, *Permissible Uses*, of the Unified Development Code (UDC) for a property situated in a Commercial (C) District, and with the requirements of Planned Development District 10 (PD-10) as stipulated by *Ordinance No. 20-30*. The proposed site plan generally conforms to the *General Overlay District Standards* and the *General Commercial (C) District Standards* as stipulated by Article 05, *District Development Standards*, of the Unified Development Code (UDC), with the

exception of the variances and exceptions being requested in the *Variances and Exceptions Requested by the Applicant* section of this case memo.

VARIANCES AND EXCEPTIONS BY THE APPLICANT

As stated above, the applicant's request conforms to the majority of the City's codes; however, staff has identified the following exceptions and variances:

(1) *Roof Design Standards.* According to Subsection 06.02 (C)(2), *Roof Design Standards*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC), "(a)ll structures that have a building footprint of less than 6,000 SF shall be constructed with a pitched roof". In this case the applicant is proposing a flat roof with a parapet to screen the roof mounted utility equipment. This will require a *variance* from the Planning and Zoning Commission pending a recommendation from the Architectural Review Board (ARB).

(2) *Four (4) Sided Architecture.* According to Subsection 06.02 (C)(5), *Four (4) Sided Architecture*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC), "(a)ll buildings shall be architecturally finished on all four (4) sides utilizing the same materials, detailing, articulation and features." In this case the applicant is required to meet the building articulation standards for the primary building façade on all sides of the building. Given the proposed building elevations the applicant does not meet the wall projection requirements. This will require a variance from the Planning and Zoning Commission pending a recommendation from the Architectural Review Board (ARB).

According to Subsection 09, *Exceptions and Variances*, of Article 11, *Development Applications and Review Procedures*, of the Unified Development Code (UDC), an applicant may request the Planning and Zoning Commission grant exceptions and variances to the provisions contained in the Unified Development Code (UDC), where unique or extraordinary conditions exist or where strict adherence to the technical requirements of the Unified Development Code would create an undue hardship. In addition, the code requires that applicants provide a minimum of two (2) compensatory measures for each variance or exception requested. The proposed compensatory measures are intended to directly offset the requested exceptions and variances. In this case, as compensatory measures, the applicant is *only* proposing to incorporate more than the required 20% stone on the building; however, after reviewing the applicant's plans, staff has identified the following that could be considered compensatory measures: [*1*] more than 90% masonry materials on the two (2) primary facades, [*2*] six (6) more accent trees than required along SH-276, [*3*] two (2) more canopy trees than required along SH-276, and [*4*] six (6) more accent trees than required along John King Boulevard. Regardless of the provided compensatory measures, requests for exceptions and variances are discretionary decisions for the Planning and Zoning Commission. Staff should note that a supermajority vote (*e.g. six [6] out of the seven [7] commissioners*) -- *with a minimum of four (4) votes in the affirmative* -- is required for the approval of an exception.

CONFORMANCE WITH OURHOMETOWN VISION 2040 COMPREHENSIVE PLAN

The Future Land Use Plan adopted with the OURHometown Vision 2040 Comprehensive Plan identifies the subject property as being situated in the *Technology District* and is designated for *Commercial/Retail* land uses. According to the plan, the *Commercial/Retail* land use category "….is characterized by single to multi-tenant commercial retail centers along major arterials at key intersections." In this case, the subject property is at a key intersection, but the proposed use (*i.e. a Self Service Carwash*) is not a multi-tenant commercial retail center. The primary land uses in *Commercial/Retail* include commercial retail buildings, restaurants/brew pubs, multi-tenant commercial centers, neighborhood centers and convenience centers. In this case, the applicant is requesting approval for a *Self-Service Car Wash*, which *does not* appear to conform to the land uses called out for the subject property according to the OURHometown Vision 2040 Comprehensive Plan; however, staff should point out that the land uses is permitted within the Commercial (C) District and that the Commercial (C) District is considered to be a conforming zoning district in the *Commercial/Retail* designation.

ARCHITECTURAL REVIEW BOARD (ARB) RECOMMENDATION

On October 25, 2022, the Architecture Review Board (ARB) reviewed the proposed building elevations, and made a motion to recommend approval by a vote of 4-0, with Board Member Johnson, Meyrat, and Lefere absent.

CONDITIONS OF APPROVAL

If the Planning and Zoning Commission chooses to approve the applicant's *Site Plan* for the construction of the *Self-Service Carwash* on the subject property, then staff would propose the following conditions of approval:

(1) All staff comments provided by the Planning, Engineering and Fire Department must be addressed prior to the submittal of engineering plans;

(2) The applicant will need to provide an updated Landscape Plan showing one (1) canopy tree per 750 SF of detention area and one (1) accent tree per 1,500 SF of detention area. This plan will need to be submitted and approved prior to submitting civil engineering.

(3) A recommendation of approval will be forwarded to the City Council for an *Alternative Tree Mitigation Settlement Agreement* in the amount of $85,550.00, which will satisfy the outstanding tree mitigation balance of 855.5 caliper inches of trees.

(4) Any construction resulting from the approval of this *Site Plan* shall conform to the requirements set forth by the Unified Development Code (UDC), the International Building Code (IBC), the Rockwall Municipal Code of Ordinances, city adopted engineering and fire codes and with all other applicable regulatory requirements administered and/or enforced by the state and federal government.

DEVELOPMENT APPLICATION

City of Rockwall
Planning and Zoning Department
385 S. Goliad Street
Rockwall, Texas 75087

STAFF USE ONLY
PLANNING & ZONING CASE NO.

NOTE: *THE APPLICATION IS NOT CONSIDERED ACCEPTED BY THE CITY UNTIL THE PLANNING DIRECTOR AND CITY ENGINEER HAVE SIGNED BELOW.*

DIRECTOR OF PLANNING:

CITY ENGINEER:

PLEASE CHECK THE APPROPRIATE BOX BELOW TO INDICATE THE TYPE OF DEVELOPMENT REQUEST [SELECT ONLY ONE BOX]:

PLATTING APPLICATION FEES:
- ☐ MASTER PLAT ($100.00 + $15.00 ACRE) [1]
- ☐ PRELIMINARY PLAT ($200.00 + $15.00 ACRE) [1]
- ☐ FINAL PLAT ($300.00 + $20.00 ACRE) [1]
- ☐ REPLAT ($300.00 + $20.00 ACRE) [1]
- ☐ AMENDING OR MINOR PLAT ($150.00)
- ☐ PLAT REINSTATEMENT REQUEST ($100.00)

SITE PLAN APPLICATION FEES:
- ☒ SITE PLAN ($250.00 + $20.00 ACRE) [1]
- ☐ AMENDED SITE PLAN/ELEVATIONS/LANDSCAPING PLAN ($100.00)

ZONING APPLICATION FEES:
- ☐ ZONING CHANGE ($200.00 + $15.00 ACRE) [1]
- ☐ SPECIFIC USE PERMIT ($200.00 + $15.00 ACRE) [1 & 2]
- ☐ PD DEVELOPMENT PLANS ($200.00 + $15.00 ACRE) [1]

OTHER APPLICATION FEES:
- ☐ TREE REMOVAL ($75.00)
- ☐ VARIANCE REQUEST/SPECIAL EXCEPTIONS ($100.00) [2]

NOTES:
[1]: IN DETERMINING THE FEE, PLEASE USE THE EXACT ACREAGE WHEN MULTIPLYING BY THE PER ACRE AMOUNT. FOR REQUESTS ON LESS THAN ONE ACRE, ROUND UP TO ONE (1) ACRE.
[2]: A ***$1,000.00*** FEE WILL BE ADDED TO THE APPLICATION FEE FOR ANY REQUEST THAT INVOLVES CONSTRUCTION WITHOUT OR NOT IN COMPLIANCE TO AN APPROVED BUILDING PERMIT.

PROPERTY INFORMATION [PLEASE PRINT]

ADDRESS	Northwest Corner of SH276 & John King Boulevard				
SUBDIVISION	Mansions Family Addition	LOT	1	BLOCK	A
GENERAL LOCATION	Central City				

ZONING, SITE PLAN AND PLATTING INFORMATION [PLEASE PRINT]

CURRENT ZONING	Commercia, PD-10	CURRENT USE	Vacant Land, Zoned Commercial PD-10
PROPOSED ZONING	Commercial, PD-10 (same as current)	PROPOSED USE	Express Auto Spa (Car Wash)
ACREAGE	6.37	LOTS [CURRENT]	1
		LOTS [PROPOSED]	1

☒ ***SITE PLANS AND PLATS:*** *BY CHECKING THIS BOX YOU ACKNOWLEDGE THAT DUE TO THE PASSAGE OF HB3167 THE CITY NO LONGER HAS FLEXIBILITY WITH REGARD TO ITS APPROVAL PROCESS, AND FAILURE TO ADDRESS ANY OF STAFF'S COMMENTS BY THE DATE PROVIDED ON THE DEVELOPMENT CALENDAR WILL RESULT IN THE DENIAL OF YOUR CASE.*

OWNER/APPLICANT/AGENT INFORMATION [PLEASE PRINT/CHECK THE PRIMARY CONTACT/ORIGINAL SIGNATURES ARE REQUIRED]

☒ OWNER	The Cambridge Companies, Inc.	☒ APPLICANT	Delayne Reamsbottom
CONTACT PERSON	Jim Melino	CONTACT PERSON	Alan Jacob (CWPD)
ADDRESS	8750 N. Central Expressway Suite 1735	ADDRESS	1837 Trail Drive
CITY, STATE & ZIP	Dallas, Texas 75231	CITY, STATE & ZIP	Rockwall, Texas 75087
PHONE	(214)532-3924	PHONE	(801)815-2741
E-MAIL	jim@cambridgecos.com	E-MAIL	delaynereamsbottom@gmail.com

NOTARY VERIFICATION [REQUIRED]

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED James Melino [*OWNER*] THE UNDERSIGNED, WHO STATED THE INFORMATION ON THIS APPLICATION TO BE TRUE AND CERTIFIED THE FOLLOWING:

"I HEREBY CERTIFY THAT I AM THE OWNER FOR THE PURPOSE OF THIS APPLICATION; ALL INFORMATION SUBMITTED HEREIN IS TRUE AND CORRECT; AND THE APPLICATION FEE OF $ $250+$20/AC *TO COVER THE COST OF THIS APPLICATION, HAS BEEN PAID TO THE CITY OF ROCKWALL ON THIS THE* 10th *DAY OF* October, 2022. *BY SIGNING THIS APPLICATION, I AGREE THAT THE CITY OF ROCKWALL (I.E. "CITY") IS AUTHORIZED AND PERMITTED TO PROVIDE INFORMATION CONTAINED WITHIN THIS APPLICATION TO THE PUBLIC. THE CITY IS ALSO AUTHORIZED AND PERMITTED TO REPRODUCE ANY COPYRIGHTED INFORMATION SUBMITTED IN CONJUNCTION WITH THIS APPLICATION, IF SUCH REPRODUCTION IS ASSOCIATED OR IN RESPONSE TO A REQUEST FOR PUBLIC INFORMATION."*

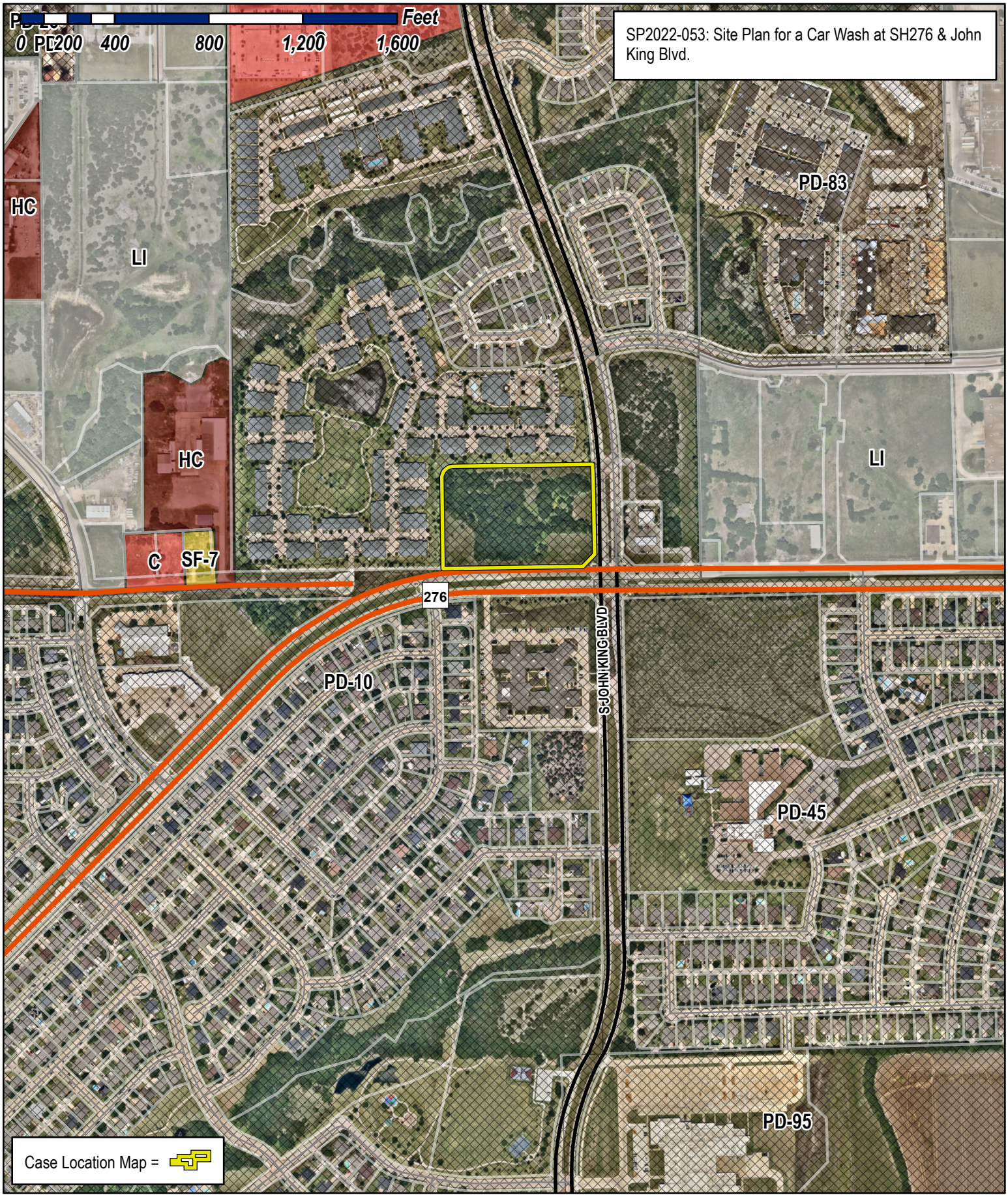
GIVEN UNDER MY HAND AND SEAL OF OFFICE ON THIS THE 10th *DAY OF* October, 2022.

OWNER'S SIGNATURE By: James Melino, President

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS Kelsey Ulrich

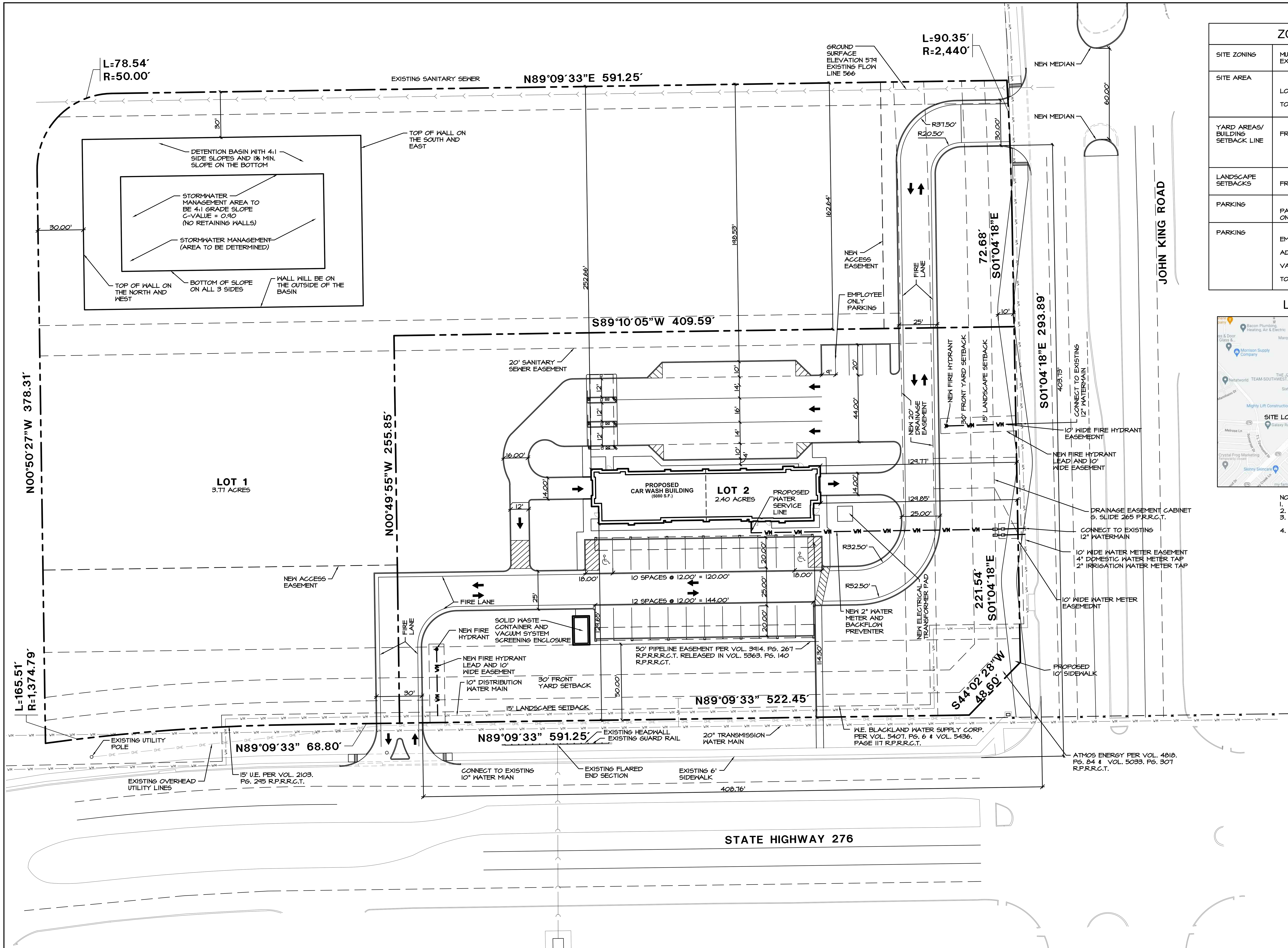
KELSEY ULRICH
Notary ID #133863336
My Commission Expires
July 18, 2026

MY COMMISSION EXPIRES July 18, 2026



City of Rockwall

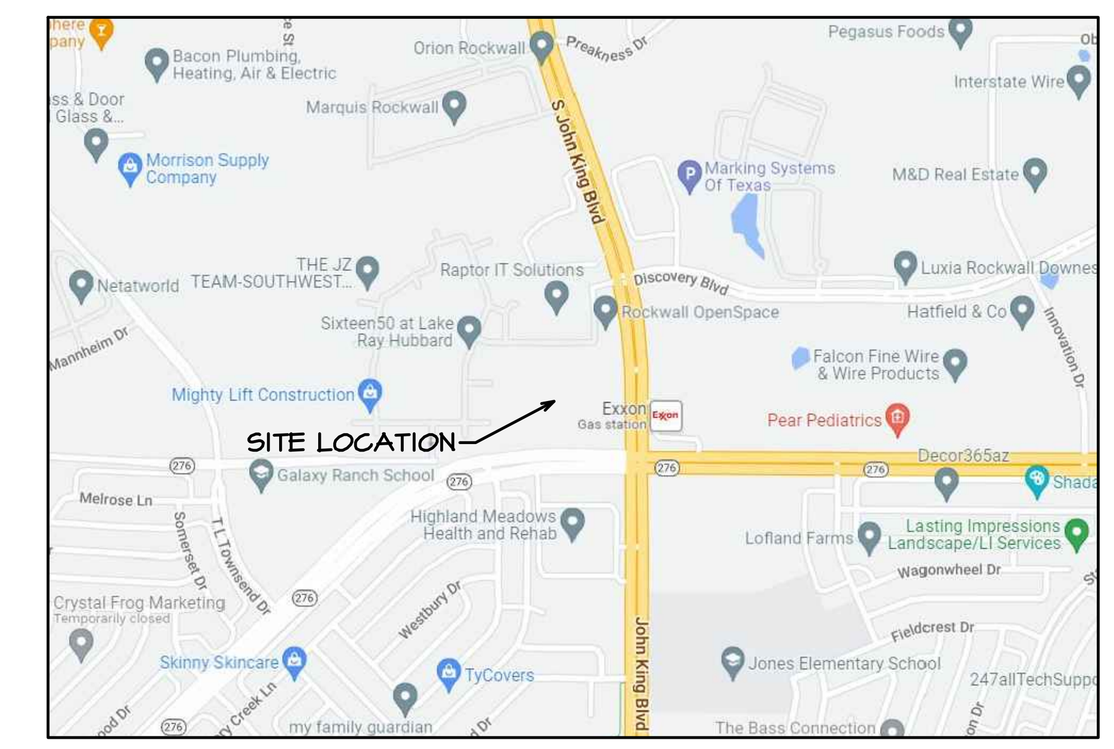
Planning & Zoning Department
385 S. Goliad Street
Rockwall, Texas 75032
(P): (972) 771-7745
(W): www.rockwall.com


L=78.54'
R=50.00'
EXISTING SANITARY SEWER
N89°09'33"E 591.25'
GROUND SURFACE ELEVATION 519 EXISTING FLOW LINE 566
L=90.35'
R=2,440'
NEW MEDIAN
NEW MEDIAN
DETENTION BASIN WITH 4:1 SIDE SLOPES AND 1% MIN. SLOPE ON THE BOTTOM
TOP OF WALL ON THE SOUTH AND EAST
STORMWATER MANAGEMENT AREA TO BE 4:1 GRADE SLOPE C-VALUE = 0.90 (NO RETAINING WALLS)
STORMWATER MANAGEMENT (AREA TO BE DETERMINED)
TOP OF WALL ON THE NORTH AND WEST
BOTTOM OF SLOPE ON ALL 3 SIDES
WALL WILL BE ON THE OUTSIDE OF THE BASIN
NEW ACCESS EASEMENT
EMPLOYEE ONLY PARKING
FIRE LANE
72.68'
S01°04'18"E
JOHN KING ROAD
S89°10'05"W 409.59'
20' SANITARY SEWER EASEMENT
N00°50'27"W 378.31'
N00°49'55"W 255.85'
LOT 1
3.77 ACRES
PROPOSED CAR WASH BUILDING (5080 S.F.)
LOT 2
2.40 ACRES
PROPOSED WATER SERVICE LINE
NEW 20' DRAINAGE EASEMENT
NEW FIRE HYDRANT
30' FRONT YARD SETBACK
15' LANDSCAPE SETBACK
CONNECT TO EXISTING 12" WATERMAIN
S01°04'18"E 293.89'
10' WIDE FIRE HYDRANT EASEMENT
NEW FIRE HYDRANT LEAD AND 10' WIDE EASEMENT
DRAINAGE EASEMENT CABINET G, SLIDE 265 P.R.R.C.T.
CONNECT TO EXISTING 12" WATERMAIN
10' WIDE WATER METER EASEMENT
4" DOMESTIC WATER METER TAP
2" IRRIGATION WATER METER TAP
10' WIDE WATER METER EASEMENT
10 SPACES @ 12.00' = 120.00'
12 SPACES @ 12.00' = 144.00'
NEW ACCESS EASEMENT
FIRE LANE
SOLID WASTE CONTAINER AND VACUUM SYSTEM SCREENING ENCLOSURE
NEW FIRE HYDRANT
NEW 2" WATER METER AND BACKFLOW PREVENTER
NEW ELECTRICAL TRANSFORMER PAD
221.54'
S01°04'18"E
NEW FIRE HYDRANT LEAD AND 10' WIDE EASEMENT
10" DISTRIBUTION WATER MAIN
30' FRONT YARD SETBACK
50' PIPELINE EASEMENT PER VOL. 3414, PG. 267 R.P.R.R.C.T. RELEASED IN VOL. 5363, PG. 140 R.P.R.C.T.
N89°09'33" 522.45'
S44°02'28"W 48.50'
PROPOSED 10' SIDEWALK
15' LANDSCAPE SETBACK
L=165.51'
R=1,374.79'
EXISTING UTILITY POLE
N89°09'33" 68.80'
N89°09'33" 591.25'
EXISTING HEADWALL
EXISTING GUARD RAIL
20" TRANSMISSION WATER MAIN
W.E. BLACKLAND WATER SUPPLY CORP. PER VOL. 5407, PG. 6 & VOL. 5436, PAGE 117 R.P.R.R.C.T.
ATMOS ENERGY PER VOL. 4818, PG. 84 & VOL. 5033, PG. 307 R.P.R.R.C.T.
EXISTING OVERHEAD UTILITY LINES
15' U.E. PER VOL. 2103, PG. 245 R.P.R.R.C.T.
CONNECT TO EXISTING 10" WATER MIAN
EXISTING FLARED END SECTION
EXISTING 6' SIDEWALK
408.76'
STATE HIGHWAY 276

ZONING INFORMATION

SITE ZONING	MUNICIPALITY: CITY OF ROCKWALL EXISTING ZONING: PD-10		
SITE AREA		PROPOSED	
	LOT AREA:	131,340 S.F. 3.02 ACRES	
	TOTAL PROPERTY AREA:	277,477 S.F. 6.37 ACRES	
YARD AREAS/ BUILDING SETBACK LINE	FRONT YARD:	STANDARD 15'-0"	PROPOSED 15'-0"
LANDSCAPE SETBACKS	FRONT YARD:	STANDARD 50'-0"	PROPOSED 50'-0"
PARKING	PARKING BASED ON BUILDING AREA	STANDARD 21	PROPOSED 29
PARKING		PROPOSED	
	EMPLOYEE STALLS:	5	
	ADA/VACUUM STALLS:	2	
	VACUUM STALLS:	22	
	TOTAL STALLS:	29	

LOCATION MAP



NOTES:
1. MAX LIGHT POLE HEIGHT IS 20'
2. ALL ROOFTOP EQUIPMENT TO BE SCREENED.
3. 95% OF EXTERIOR FACADE TO BE MASONRY NOT COUNTING DOORS AND WINDOWS.
4. ALL ELECTRICAL AND DATA UTILITY SERVICE LINES TO BE PLACED UNDERGROUND WHEN ENTERING THE SITE FROM PUBLIC R.O.W..

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the_____day of______________.

WITNESS OUR HANDS, this____day of_____________,_________.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

PRELIMINARY

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF PRELIMINARY REVIEW UNDER THE AUTHORITY OF RANDALL E. SIEMON, PE

RELEASED FOR REVIEW ONLY. NOT FOR CONSTRUCTION.

RANDALL E. SIEMON, PE
TEXAS PE 73607

TEXAS FIRM
ID NO. 18685

NORTH

CASE NUMBER SP2022-053

1" = 30'

00 15 30 60 120

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

WT GROUP
Engineering with Precision, Pace and Passion.
2675 Pratum Avenue | Hoffman Estates, IL 60192
T: 224.293.6333 | F: 224.293.6444
wtengineering.com
Texas Firm ID No. 18685

WT Group
Engineering • Design • Consulting

CAR WASH
1720 S. JOHN KING BLVD.
ROCKWALL, TEXAS 75032

ISSUE

TO	DATE
	10//7/22
	10/31/22

CHECK:TOA
DRAWN:TEP
JOB: C2200058

CP-3.0
CONCEPTUAL SITE PLAN

LEGAL DESCRIPTION (AS PROVIDED)
TRACT 1: (Fee Simple)

Being all that certain tract of land situated in the J.M. Allen Sur vey, Abstract Number 2, Rockwall County, Texas , and being a port of a tract of land described in the deed to Cambridge Companies, Inc., as recorded in Volume 99, Page 1022, Real Property Records of said County; the subject tract being more particularly described as follows:

BEGINNING ot a 5/ ^ iron rod found for the Eost Southeost corner of Lot 1, Block A of Mansions Family Addition, an addition to the City of Rockwall, Rockwall County, Texas according to the plot thereof recorded in Cobinet G, Poge 395, Plot Records of soid County, and being in the West line of S.H. 205 Byposs at
the beginning of o curve to the right, having a rodius of 2440.00 feet, and a chord bearing and distance of South 02 degrees 09 minutes 37 seconds East, 90.01 feet;

Thence along said curve on arc distance of 90.02 feet to o copped iron rod stompe I ©KA ^ set;

Thence South 01 degrees 02 minutes 40 seconds East with said Bypass a distance of 293.91 feet to o capped iron rod stompe I ©KA ^ set;
Thence South 44 degrees 04 minutes 04 seconds West o distance of 70.57 feet to o TXDOT monument found in the North line of S.H. 276;

Thence South 89 degrees 10 minutes 05 seconds West a distance of 594.76 feet to a copped iron rod stompe I ©519 ^ found for the Southwest corner of the herein described tract and South Sout heast corner of said Lot 1;

Thence North 00 degrees 48 minutes 23 seconds West with said common line o distance of 384.00 feet to a capped iron rod stampe I ©519 ^ found at the beginning of a curve to the right, having o radius of 50.00 feet, and a chord bearing and distance of North 44 degrees 01 minutes 51 seconds East, 70.15 feet;

Thence olong said curve with said common line an arc distance of 77.76 feet to a capped iron rod stampe I ©519 ^ found;
Thence North 89 degrees 09 minutes 09 seconds East with said common line a distance of 591.73 feet to the PLACE OF BEGINNING and containing 6.37 acres of land more or less.

SAVE AND EXCEPT thot tract of lond granted in Deed filed 06/24/2016, recorded under cc# 20160000010580, Real Property Records, Rockwall County, Texas.

TRACT 2: (Eosem ent)

Non - exclusive, permanent easement for the purpose of pedestrian and vehicular ingress and egress created
by
and described in Fire Lone and Access Easement Agreem ent , by and between Western Rim Investors 2008- I,
L.P., and The Cambridge Com pan ies, Inc., Trustee on behalf of Garrett-Poindexter Associates, L.P., filed 10/08/2008, recorded in Volume 5595, Page 282, Real Property Records, Rockwall County, Texas.

LEGAL DESCRIPTION (AS SURVEYED)

B EING 6.170 4 ocres (268,784 square feet) of land out of the remoinder of a called 123.4 acre troct conveyed to Cambridge Companies, Inc. Trustee, by Warranty deed recorded under Volume 99, Page 1022, of the Official Public Records of Rockwall County, Texas (O.P.R.R.C. T.), said 6.1704 acre tract lying with in the James Allen Survey, A-2, and is more porticulorly described as follows:

BEGINNING at a 5/8 inch iron rod found in the west right of way (R.O.W.) lin e of State Highway 205 Bypass (120 foot R.O.W.) for the most easter ly southeast corner of the Final Plat of Mansions Family Addition, occording to the Plot of some, recorded under Cobinet G, Sheet 395 of the Plat Recorded of Rockwall County, Texas (P.R.R.C. T.);

THENCE in o southerly direction, continuing along said west right of way line, on ore distance of 90.35 feet along a curve to the RIGHT, having a radius of 2,440.00 feet, a delta angle of 02"07'17", and whose long

chord bears South 02"07'5 ^ East, a dis t ance of 90.34 feet to a point of t ongenc y, from which o 5/8 inch iron rod with cop found bears, ;

THENCE South 01*04' I ^ Eost, continuing with said west right of way line, a distance of 293.89 feet to a 5/8" iron rod with cap marked "CORE 6657" set for the easterly southeast corner of the herein described tract:

THENCE South 44'02'2 ^ West, o distance of 48.60 feet to a 5/8" iron rod with cap marked "CORE 6657" set in the north right of way line of State Highway 276 (120 foot R.O.W.) for the sout her ly southeast corner of the herein described troct;

THENCE South 89'11'1 ^ West , with the north right of way line of said State Highway 276, a distance of 444.97 feet to a 5/8 inch iron rod with cop found at the beginning of o curve;

THENCE in a southwesterly direction, with said north right of way line, on ore distance of 165.61 feet along a curve to the LEFT, having a radius of 1,374.79 feet, o delta angle of 06"54'07", and whose long chord

bears South 85"43'5 ^ West, a distance of 165.51 feet to a cut "X" found in concrete for the southerly southeost corner of said Addition and the southwest corner of the herein described tract;

THENCE North 00' 50' 2 ^ West, with the southerly east line of said Addition, a distance of 378.31 feet to a point ot the beginning of a curve, from which a found 5/8 inch iron rod with cap bears North 34'56'19" East, a distance of 0.67 feet;

THENCE in o northeasterly direction, on ore distonce of 78.54 feet along a curve to the RIGHT, having a radius of 50.00 feet, a delta angle of 89'59'56", and whose long chord bears North 44"09'3 ^ East, a distance of 70.71 feet to a point for a tangent, from which o found 5/8 inch iron rod with cap bears South 75'32'49" West, a distance of 0.41 feet;

THENCE North 89"09'3 ^ East. with the eosterly south line of soid Addition. o distance of 591.25 feet to the POINT OF BEGINNING and conta ining a computed 6.1704 acres (268,784 square feet) of land

PRELIMINARY

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF PRELIMINARY REVIEW UNDER THE AUTHORITY OF RANDALL E. SIEMON, PE

RELEASED FOR REVIEW ONLY. NOT FOR CONSTRUCTION.

RANDALL E. SIEMON, PE
TEXAS PE 73607

TEXAS FIRM
ID NO. 18685

CASE NUMBER SP2022-053

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

WT GROUP
Engineering with Precision, Pace and Passion.
2675 Pratum Avenue | Hoffman Estates, IL 60192
T: 224.293.6333 | F: 224.293.6444
wtengineering.com
Texas Firm ID No: 18685

WT Group
Engineering • Design • Consulting

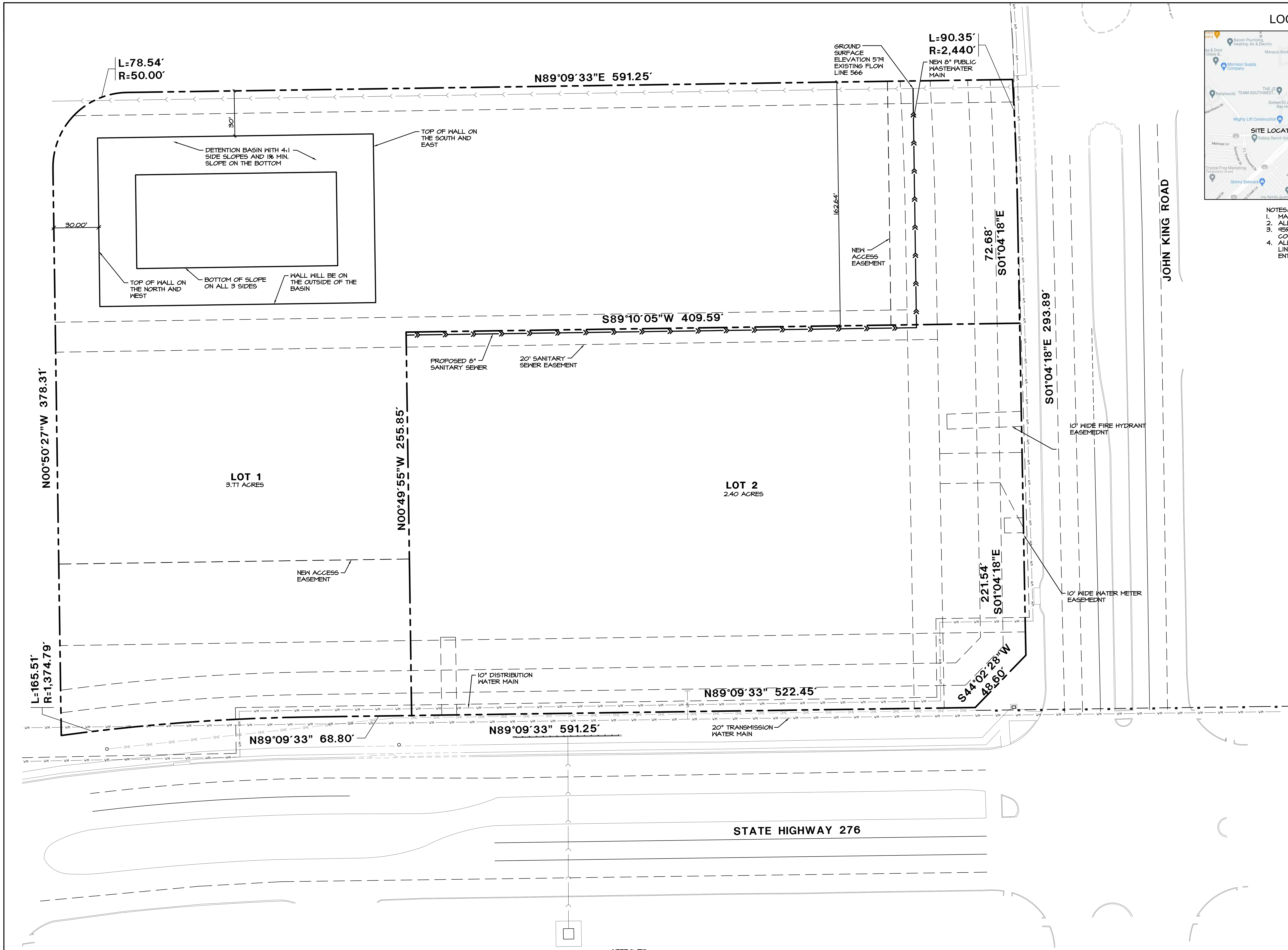
TRACT 3-09 OF THE J.M. ALLEN SURVEY, ABSTRACT NO. 0002
CAR WASH
1720 S. JOHN KING BLVD.
ROCKWALL, TEXAS 75032

ISSUE

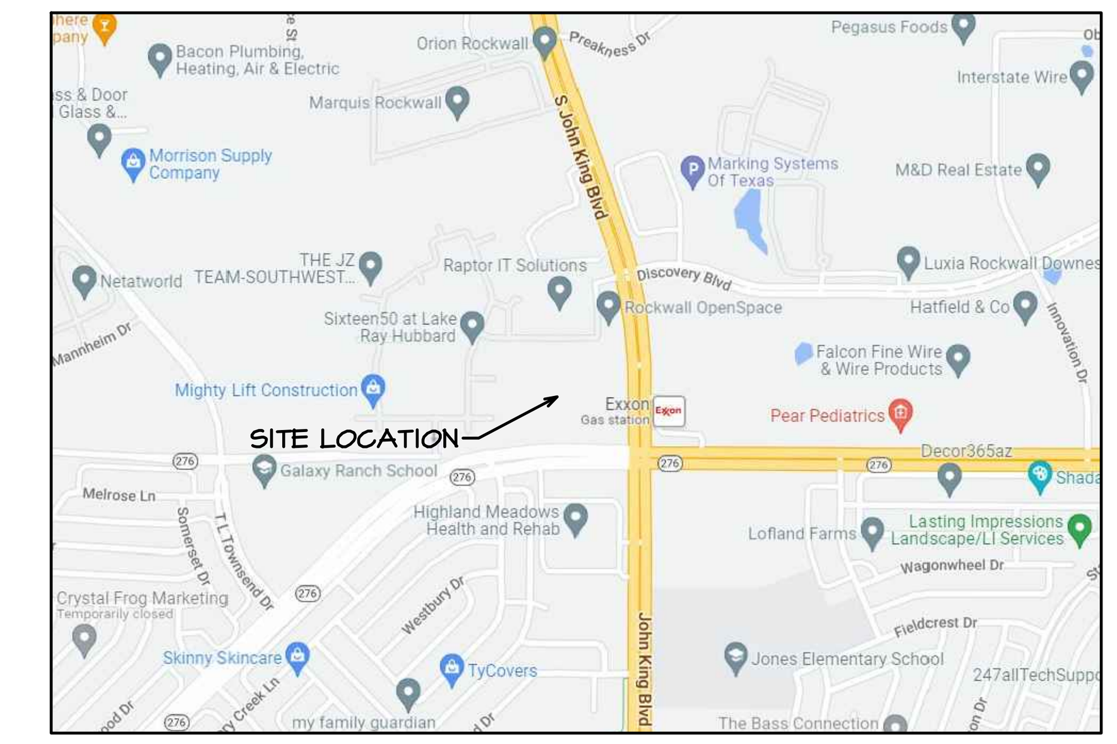
TO	DATE
	10//7/22
	10/31/22

CHECK:TOA
DRAWN:TEP
JOB: C2200058

CP-3.1
CONCEPTUAL SITE PLAN



LOCATION MAP



NOTES:
1. MAX LIGHT POLE HEIGHT IS 20'
2. ALL ROOFTOP EQUIPMENT TO BE SCREENED.
3. 95% OF EXTERIOR FACADE TO BE MASONRY NOT COUNTING DOORS AND WINDOWS.
4. ALL ELECTRICAL AND DATA UTILITY SERVICE LINES TO BE PLACED UNDERGROUND WHEN ENTERING THE SITE FROM PUBLIC R.O.W.

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the_____day of_____,______.

WITNESS OUR HANDS, this____day of__________,________.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

PRELIMINARY

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RANDALL E. SIEMON, PE
TEXAS PE 73607

TEXAS FIRM
ID NO. 18685

NORTH

CASE NUMBER SP2022-053

1" = 30'

00 15 30 60 120

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

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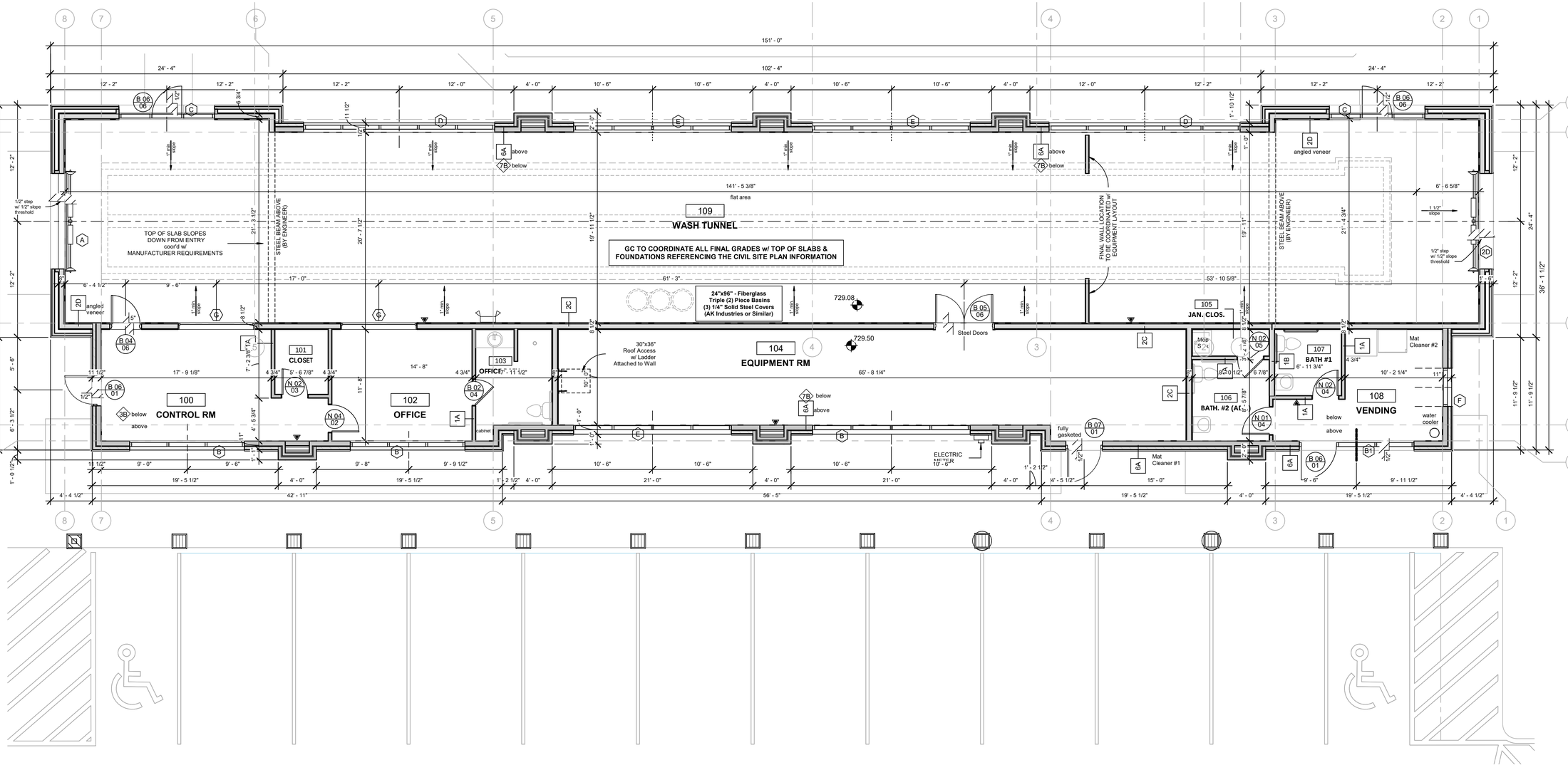
CAR WASH
1720 S. JOHN KING BLVD.
ROCKWALL, TEXAS 75032

ISSUE

TO	DATE
	10/7/22
	10/31/22

CHECK:TOA
DRAWN:TEP
JOB: C2200058

CP-3.2
PROPOSED PARCEL PLAN



FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"

N

APPROVED:
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on the_____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

CASE# SP2022-053

NERO ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO, IL 60631
TEL 847.825.9400

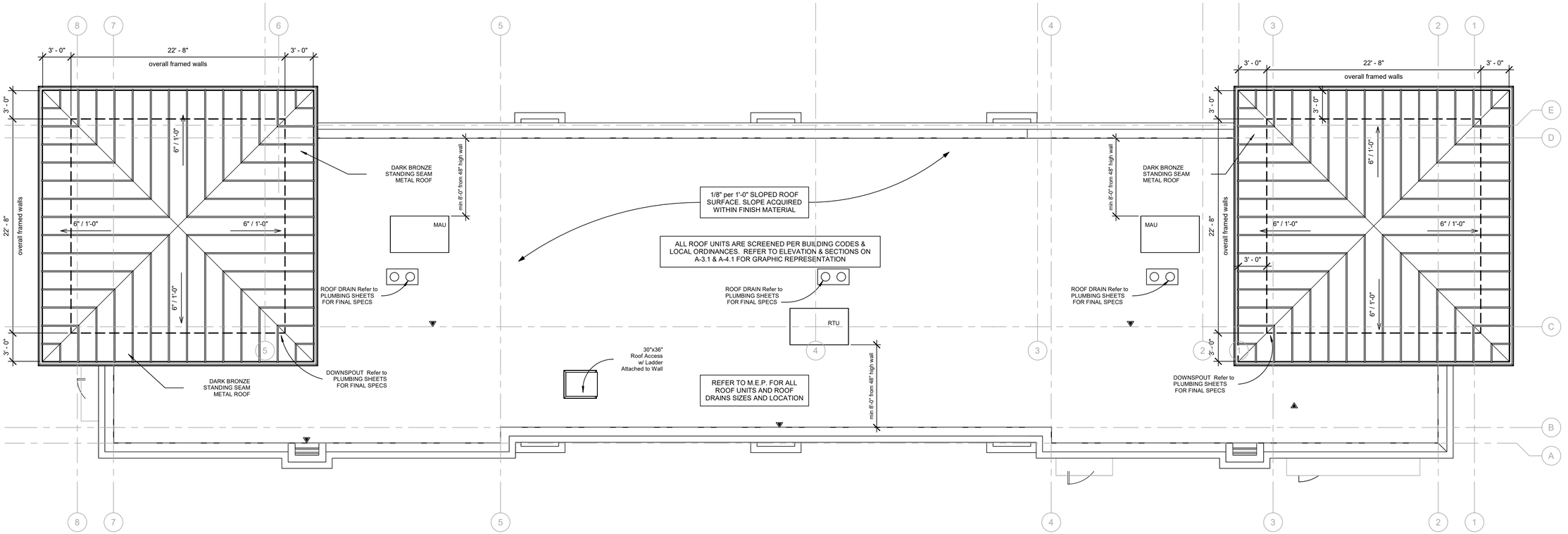
PROJECT #	2034
DATE:	01/17/22

NEW AUTOMATED CARWASH FACILITY

1720 S JOHN KING BLVD
ROCKWALL, TEXAS 75087
(Tract 3-09 of the J. M. Allen Survey, Abstract No. 0002)

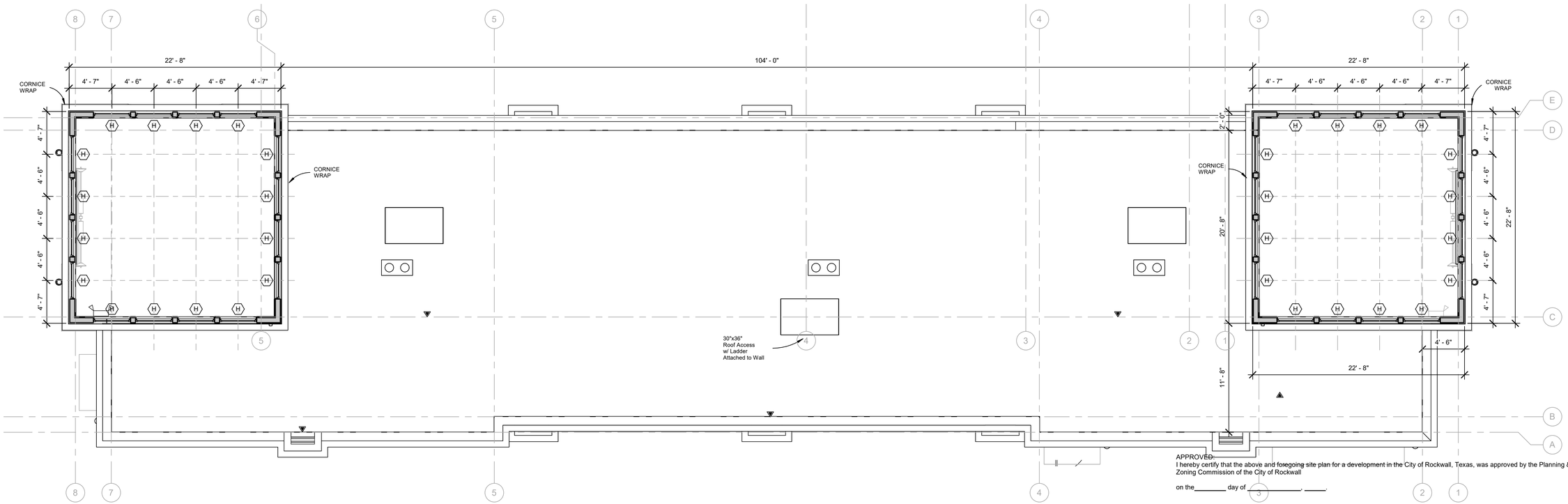
1	10/31/22	ZONING REVISIONS
	10/07/22	ZONING REVIEW
▲		REVISIONS

DRAWN BY:	RAM
APPROVED BY:	GCN / MAM
SCALE:	AS NOTED
DESCRIPTION:	FLOOR PLAN
SHEET NO.	A-2.1



1 A-2.3 ROOF PLAN
SCALE: 3/16" = 1'-0"

N



2 A-2.3 TOWER PLAN
SCALE: 3/16" = 1'-0"

N

APPROVED:
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on the_____ day of _____, ____.

WITNESS OUR HANDS, this _____ day of _____, ____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

CASE# SP2022-053

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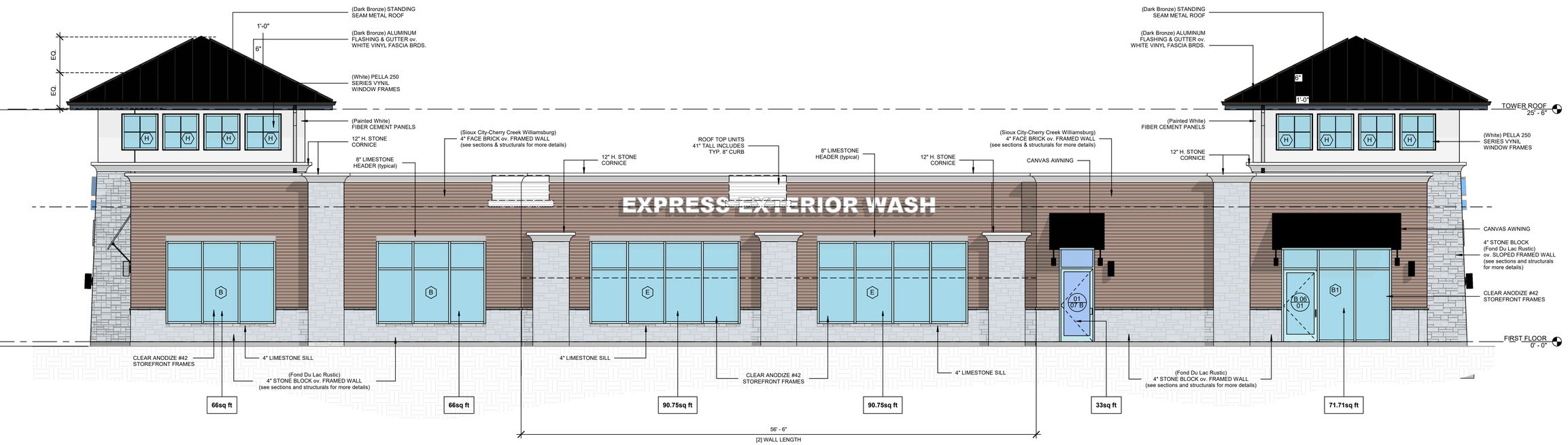
6400 N NORTHWEST HWY
SUITE 4
CHICAGO, IL 60631
TEL 847.825.9400

PROJECT #	2034
DATE:	01/17/22

NEW AUTOMATED CARWASH FACILITY

1720 S JOHN KING BLVD
ROCKWALL, TEXAS 75087
(Tract 3-09 of the J. M. Allen Survey, Abstract No. 0002)

1	10/31/22	ZONING REVISIONS
	10/07/22	ZONING REVIEW
▲		**REVISIONS**
DRAWN BY:		RAM
APPROVED BY:		GCN / MAM
SCALE:		AS NOTED
DESCRIPTION:		ROOF & TOWER PLANS
SHEET NO.		A-2.3

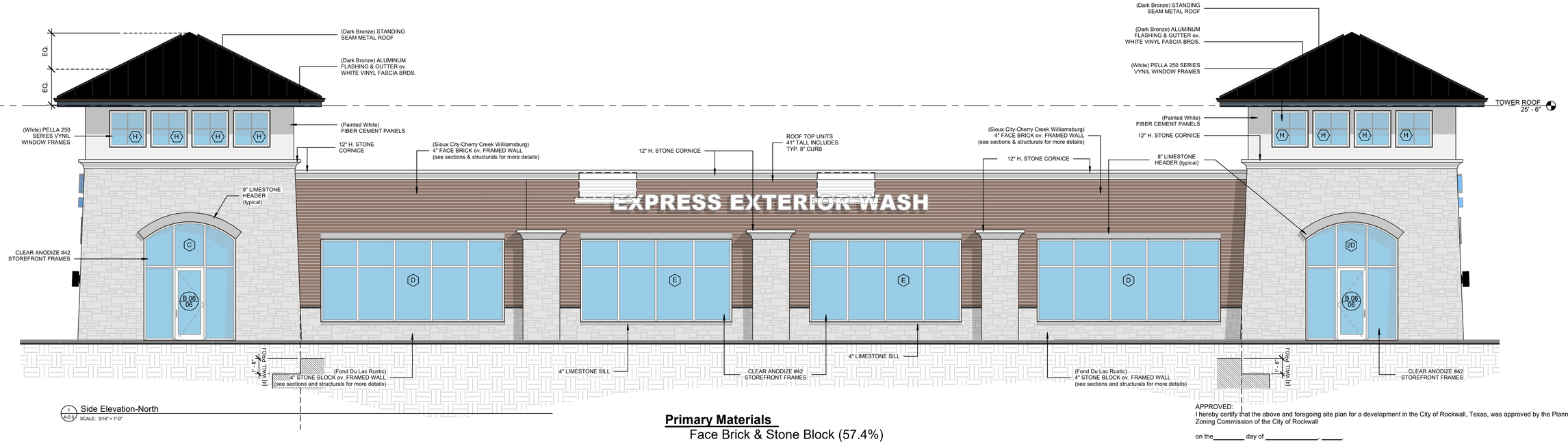


2 A-5.0 Main Elevation-South
SCALE: 3/16" = 1'-0"

- **Tower Roofs**
  Metal-(Dark Bronze)

- **Main Body of Building**
  4" Face Brick - (Sioux City-Cherry Creek Williamsburg)
  4"- 5" Stone Block (Fond Du Lac Rustic)

- **Accent Walls** - Upper Tower Walls
  Fiber Cement Panels (White)



1 A-5.0 Side Elevation-North
SCALE: 3/16" = 1'-0"

Primary Materials
Face Brick & Stone Block (57.4%)

Accent Material
Fiber Cement Panels (8.6%)

APPROVED:
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on the_____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

CASE# SP2022-053

NERI ARCHITECTS
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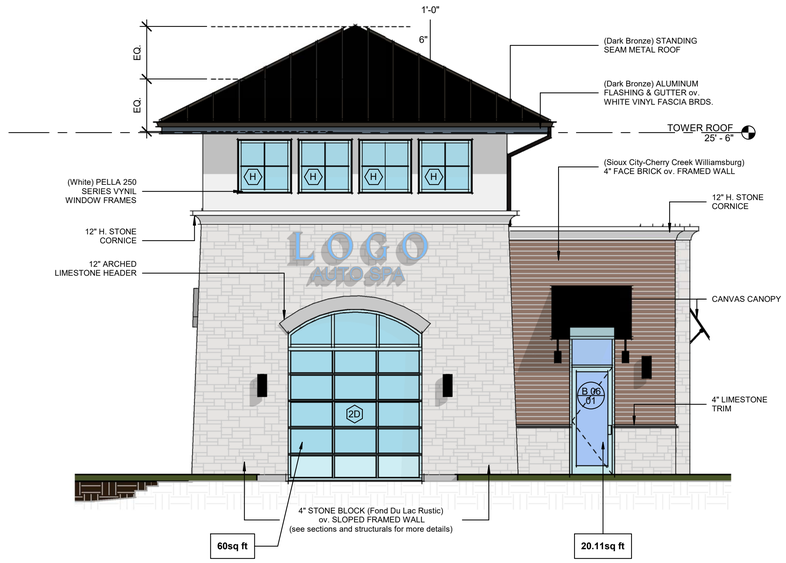
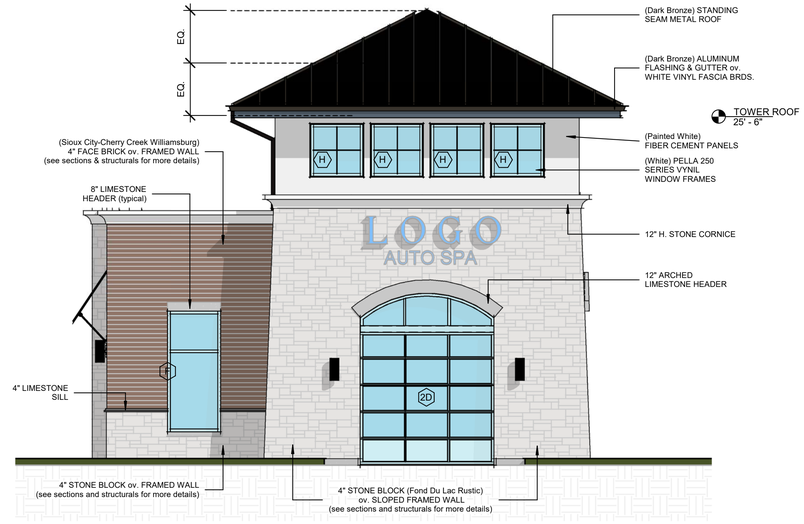
ROCKWALL, TEXAS 75087
(Tract 3-09 of the J. M. Allen Survey, Abstract No. 0002)

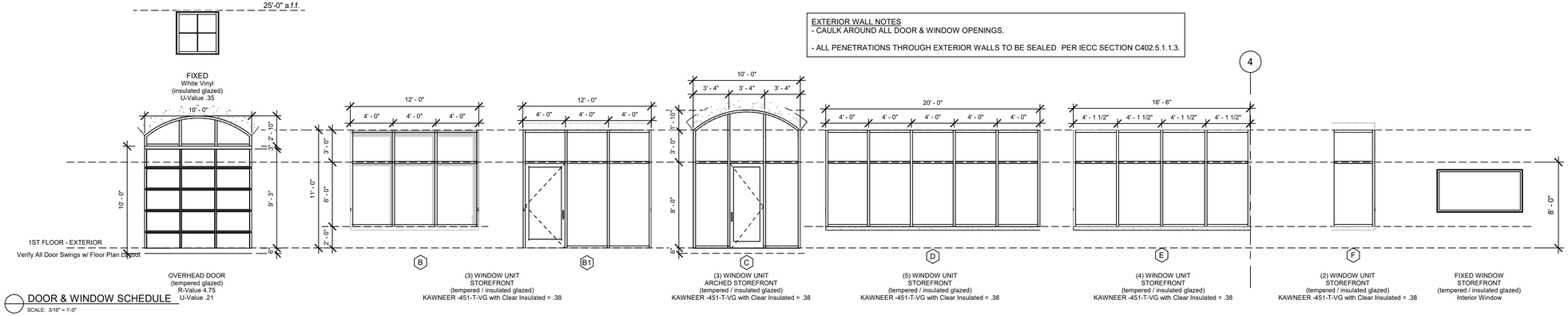
1	10/31/22	ZONING REVISIONS
	10/07/22	ZONING REVIEW
▲		**REVISIONS**
DRAWN BY:		RAM
APPROVED BY:		GCN / MAM
SCALE:		AS NOTED
DESCRIPTION:		MAIN ELEVATIONS
SHEET NO.		A-5.0



5 A-5.1 Entry Elevation
SCALE: 3/16" = 1'-0"



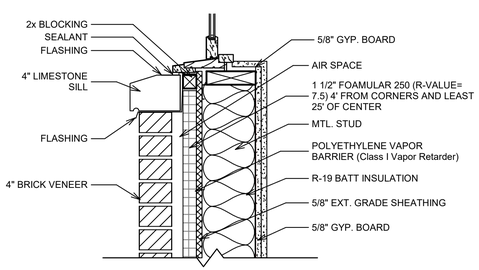
6 A-5.1 Exit Elevation
SCALE: 3/16" = 1'-0"



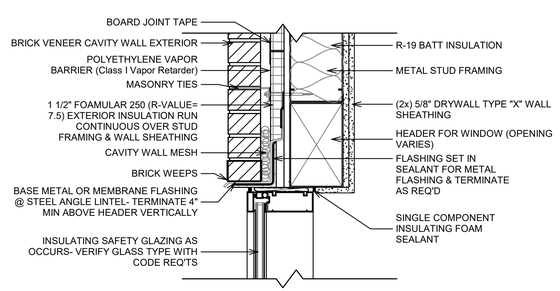
DOOR & WINDOW SCHEDULE
SCALE: 3/16" = 1'-0"

EXTERIOR WALL NOTES
- CAULK AROUND ALL DOOR & WINDOW OPENINGS.

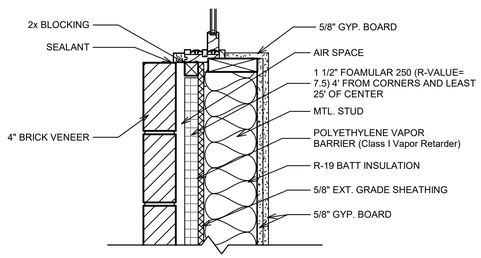
- ALL PENETRATIONS THROUGH EXTERIOR WALLS TO BE SEALED PER IECC SECTION C402.5.1.1.3.



10 A-5.1 WINDOW SILL DETAIL -brick veneer
SCALE: 1 1/2" = 1'-0"

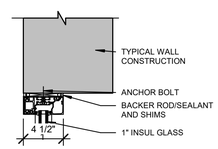


8 A-5.1 WINDOW HEADER DETAIL - brick veneer
SCALE: 1 1/2" = 1'-0"

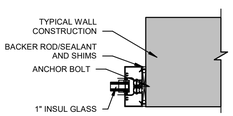


9 A-5.1 WINDOW JAMB DETAIL - brick veneer
SCALE: 1 1/2" = 1'-0"

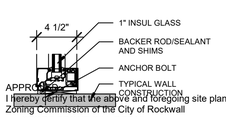
INTERIOR STOREFRONT DETAILS



STORE FRONT HEAD DETAIL



STORE FRONT JAMB DETAIL



STORE FRONT SILL DETAIL

APPROVED

I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the _____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

_____
Planning & Zoning Commission, Chairman

_____
Director of Planning and Zoning

CASE# SP2022-053

NERI ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO, IL 60631
TEL 847.825.9400

PROJECT #	2034
DATE:	01/17/22

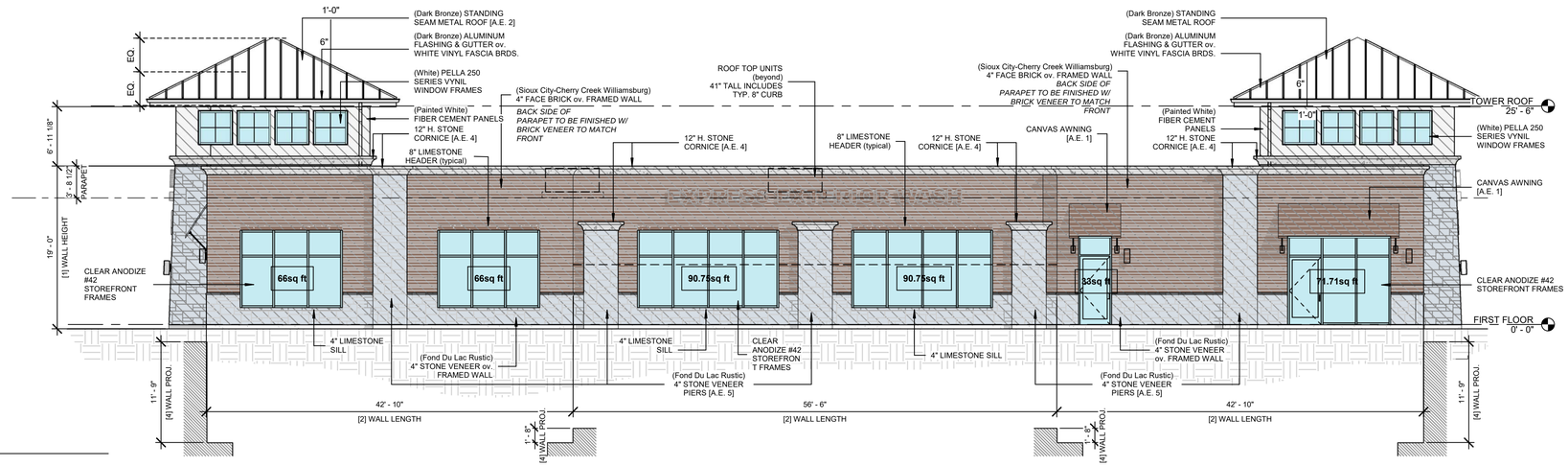
NEW AUTOMATED CARWASH FACILITY

1720 S JOHN KING BLVD
ROCKWALL, TEXAS 75087
(Tract 3-09 of the J. M. Allen Survey, Abstract No. 0002)

⚠	10/31/22	ZONING REVISIONS
	10/07/22	ZONING REVIEW
▲		**REVISIONS**
DRAWN BY:		RAM
APPROVED BY:		GCN / MAM
SCALE:		AS NOTED
DESCRIPTION:		MAIN ELEVATIONS & WINDOW SCHDL.
SHEET NO.		A-5.1

MASONRY	Stone -	720.84 SF	31.6%	94.2%
	Brick -	1,227.39 SF	53.7%	
	Stone Cornice	204.21 SF	8.9%	
OTHER	Fiber Cement -	133.00 SF	5.8%	5.8%
TOTAL	TOTAL FACADE -	2,285.44 SF	100.0%	100.0%
	Window -	804.42 SF		

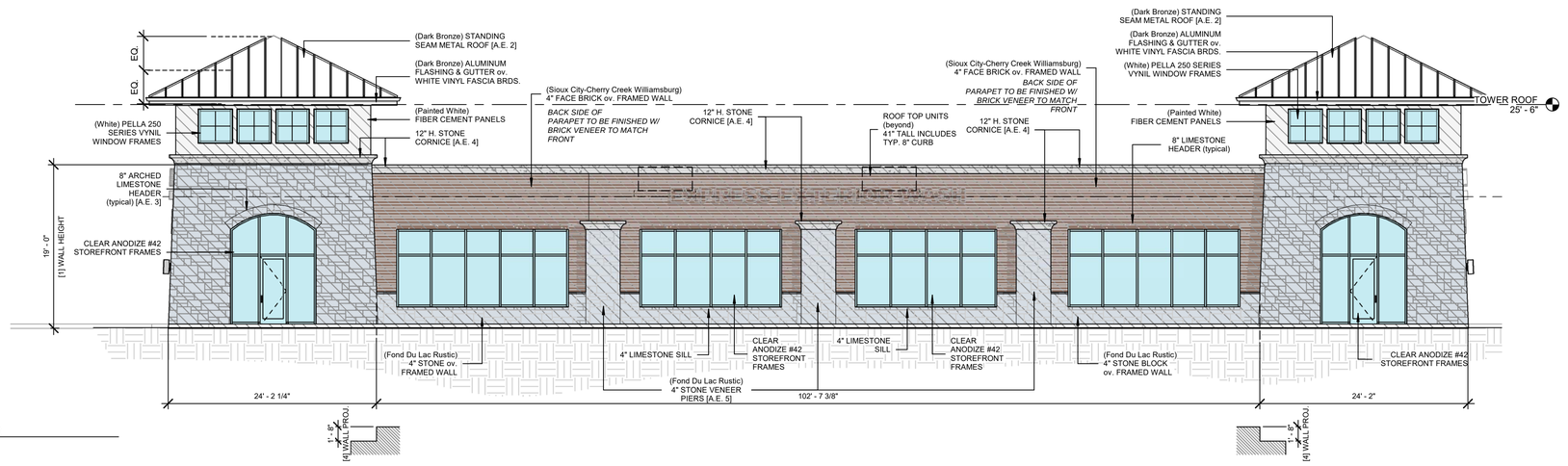
ARCHITECTURAL ELEMENT(S) - [A.E. #]
1. Awnings
2. Peaked Roof Form
3. Arches
4. Articulated Cornice Line
5. Offests, projection Expressing Structural Bay



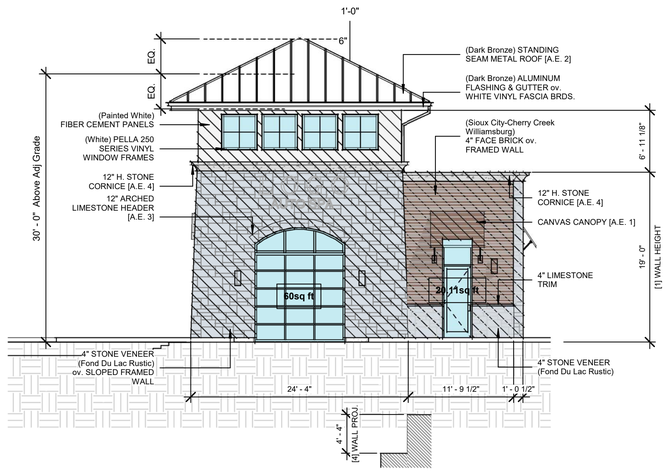
A-5.2 Main Elevation-South - material exhibit
SCALE: 1/8" = 1'-0"

MASONRY	Stone -	979.39 SF	47.4%	93.6%
	Brick -	787.99 SF	38.2%	
	Stone Cornice	165.02 SF	8.0%	
OTHER	Fiber Cement -	133.00 SF	6.4%	6.4%
TOTAL	TOTAL FACADE -	2,065.40 SF	100.0%	100.0%
	Window -	1,030.86 SF		

ARCHITECTURAL ELEMENT(S) - [A.E. #]
1. Awnings
2. Peaked Roof Form
3. Arches
4. Articulated Cornice Line
5. Offests, projection Expressing Structural Bay



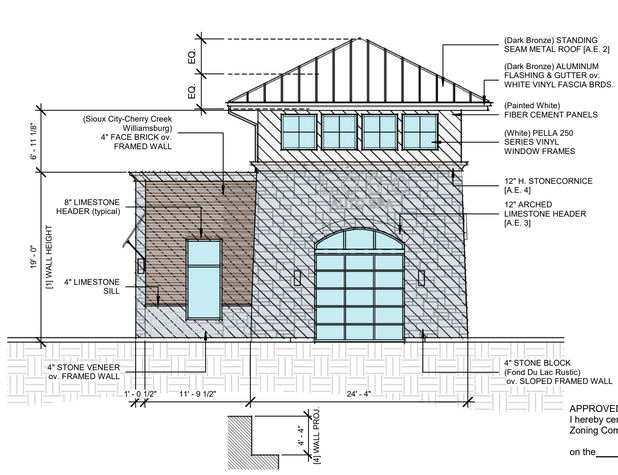
A-5.2 Side Elevation-North - material exhibit
SCALE: 1/8" = 1'-0"



A-5.2 Entry Elevation - material exhibit
SCALE: 1/8" = 1'-0"

MASONRY	Stone -	375.77 SF	60.5%	90.0%
	Brick -	145.26 SF	23.4%	
	Stone Cornice	37.65 SF	6.1%	
OTHER	Fiber Cement -	62.30 SF	10.0%	10.0%
TOTAL	TOTAL FACADE -	620.98 SF	100.0%	100.0%
	Window -	223.10 SF		

ARCHITECTURAL ELEMENT(S) - [A.E. #]
1. Awnings
2. Peaked Roof Form
3. Arches
4. Articulated Cornice Line
5. Offests, projection Expressing Structural Bay



A-5.2 Exit Elevation - material exhibit
SCALE: 1/8" = 1'-0"

MASONRY	Stone -	381.69 SF	61.4%	90.0%
	Brick -	140.33 SF	22.6%	
	Stone Cornice	37.65 SF	6.0%	
OTHER	Fiber Cement -	62.30 SF	10.0%	10.0%
TOTAL	TOTAL FACADE -	621.97 SF	100.0%	100.0%
	Window -	258.74 SF		

ARCHITECTURAL ELEMENT(S) - [A.E. #]
1. Awnings
2. Peaked Roof Form
3. Arches
4. Articulated Cornice Line
5. Offests, projection Expressing Structural Bay

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall

on the_____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

CASE# SP2022-053

NERI ARCHITECTS
6400 N NORTHWEST HWY SUITE 4
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TEL 847.825.9400

PROJECT #	2034
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NEW AUTOMATED CARWASH FACILITY

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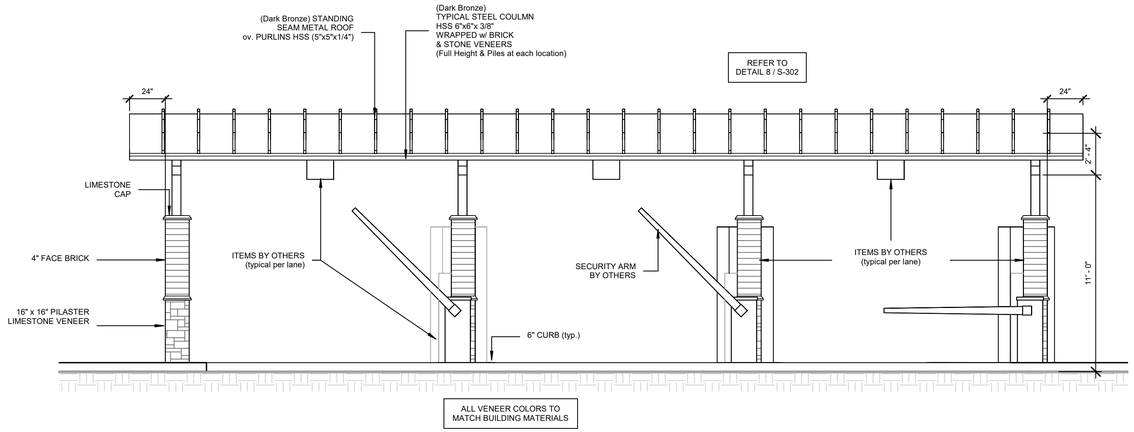
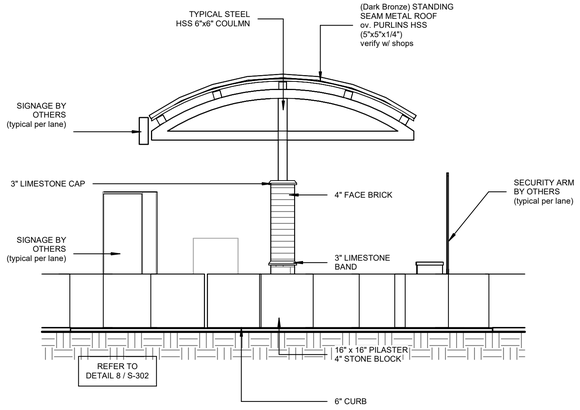
ROCKWALL, TEXAS 75087
(Tract 3-09 of the J. M. Allen Survey, Abstract No. 0002)

1	10/31/22	ZONING REVISIONS
	10/07/22	ZONING REVIEW
▲		**REVISIONS**

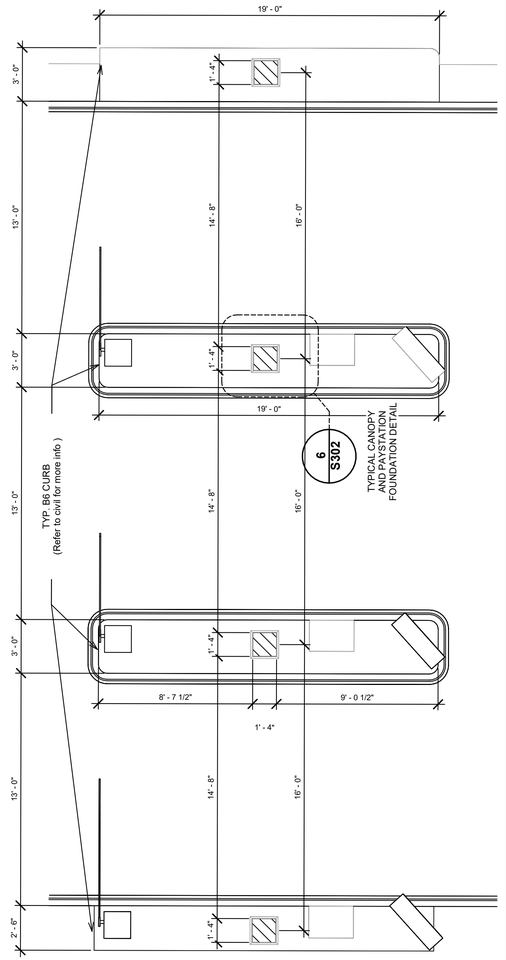
DRAWN BY:	RAM
APPROVED BY:	GCN / MAM
SCALE:	AS NOTED
DESCRIPTION:	MAIN ELEVATIONS - material exhibits
SHEET NO.	A-5.2



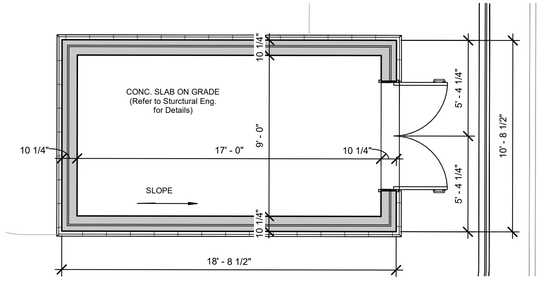
1 / A-7.0 PAY STATION (side elevation)
SCALE: 1/4" = 1'-0"



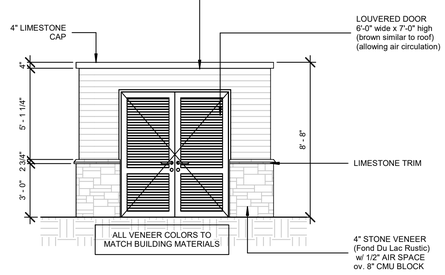
2 / A-7.0 PAY STATION (front elevation)
SCALE: 1/4" = 1'-0"



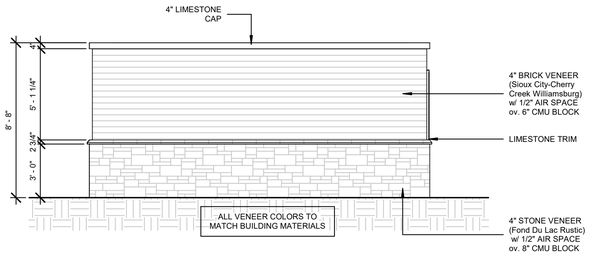
3 / A-7.0 PAY STATION PLAN
SCALE: 1/4" = 1'-0"



4 / A-7.0 Refuse #1 Plan
SCALE: 1/4" = 1'-0"

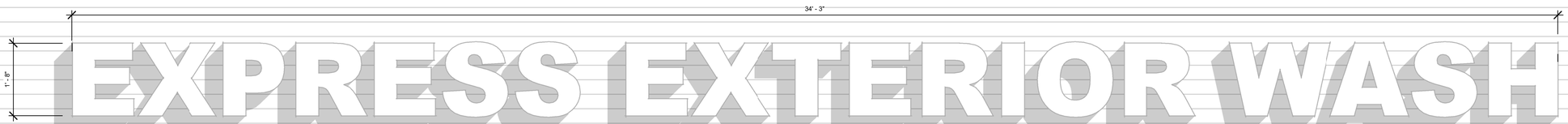


6 / A-7.0 Refuse #1 (Entry)
SCALE: 1/4" = 1'-0"



7 / A-7.0 Refuse #1 (Sides)
SCALE: 1/4" = 1'-0"

BUILDING AND MONUMENT SIGNS ARE UNDER SEPARATE PERMIT
(Coordination required by GC and SUB-Contractor. Notify Architect of Any discrepancies)



8 / A-7.0 $3 BUILDING SIGN
SCALE: 3/4" = 1'-0"

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall

on the_____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

CASE# SP2022-053

NERI ARCHITECTS
6400 N NORTHWEST HWY SUITE 4
CHICAGO, IL 60631
TEL 847.825.9400

NEW AUTOMATED CARWASH FACILITY

1720 S JOHN KING BLVD
ROCKWALL, TEXAS 75087
(Tract 3-09 of the J. M. Allen Survey, Abstract No. 0002)

PROJECT #	2034
DATE:	01/17/22

⚠	10/31/22	ZONING REVISIONS
	10/07/22	ZONING REVIEW
▲		**REVISIONS**

DRAWN BY:	RAM
APPROVED BY:	GCN / MAM
SCALE:	AS NOTED
DESCRIPTION:	SIGNAGE, REFUSE, PAY STATION
SHEET NO.	A-7.0

1 / Z-1 VIEW LOOKING NORTHWEST

SCALE: 12" = 1'-0"

2034

01/17/22

Z-1

NEW CAR WASH FACILITY
1720 S JOHN KING BLVD
ROCKWALL, TX 75087

NERI ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO IL 60631
TEL 847.825.9400

2034
01/17/22
Z-2

1 / Z-2 VIEW LOOKING NORTHEAST
SCALE: 12" = 1'-0"

NEW CAR WASH FACILITY
1720 S JOHN KING BLVD
ROCKWALL, TX 75087

N E R I
ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO IL 60631
TEL 847.825.9400

1 Z-3 VIEW LOOKING SOUTHWEST

SCALE: 12" = 1'-0"

2034

01/17/22

Z-3

NEW CAR WASH FACILITY
1720 S JOHN KING BLVD
ROCKWALL, TX 75087

NERI ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO IL 60631
TEL 847.825.9400

1 / Z-4 VIEW LOOKING SOUTHEAST
SCALE: 12" = 1'-0"

2034
01/17/22
Z-4

NEW CAR WASH FACILITY
1720 S JOHN KING BLVD
ROCKWALL, TX 75087

NERI ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO IL 60631
TEL 847.825.9400

2034
01/17/22
Z-5

1 / Z-5 VIEW LOOKING NORTHEAST w/ SIGN
SCALE: 12" = 1'-0"

NEW CAR WASH FACILITY
1720 S JOHN KING BLVD
ROCKWALL, TX 75087

NERI ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO IL 60631
TEL 847.825.9400

2034

01/17/22

Z-6

1 / Z-6 AERIAL VIEW LOOKING SOUTH

SCALE: 12" = 1'-0"

NEW CAR WASH FACILITY
1720 S JOHN KING BLVD
ROCKWALL, TX 75087

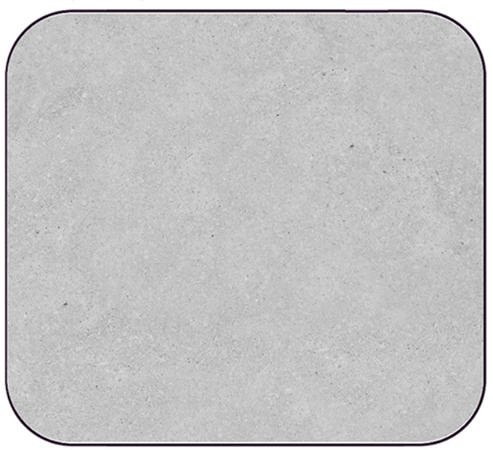
NERI ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO IL 60631
TEL 847.825.9400

1 **METAL ROOFING**
DARK BRONZE

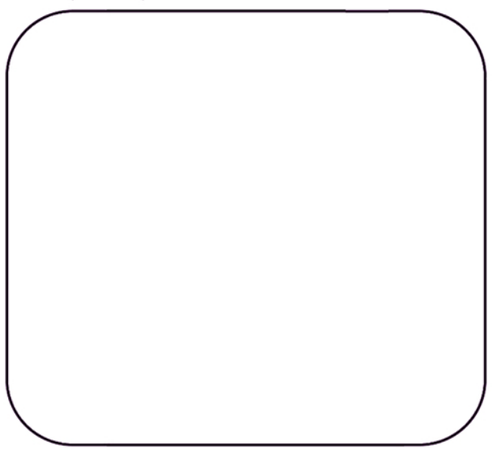
2 **GUTTERS/ DOWNSPOUTS**
DARK BRONZE

3 **STONE VENEER**
FOND DU LAC - RUSTIC

4 **BRICK VENEER**
SIOUX CITY-CHERRY CREEK WILLIAMSBURG



5 **SILLS & HEADERS**
CUT LIMESTONE



6 **UPPER WALL/ CORNICE**
PAINTED WHITE

7 **ALUMINUM STOREFRONTS**
CLEAR - ANNODIZED

APPLICANT

DELAYNE REAMSBOTTOM
1837 TRAIL DRIVE ROCKWALL, TX 75087
801.815.2741
delaynereamsbottom@gmail.com

OWNER

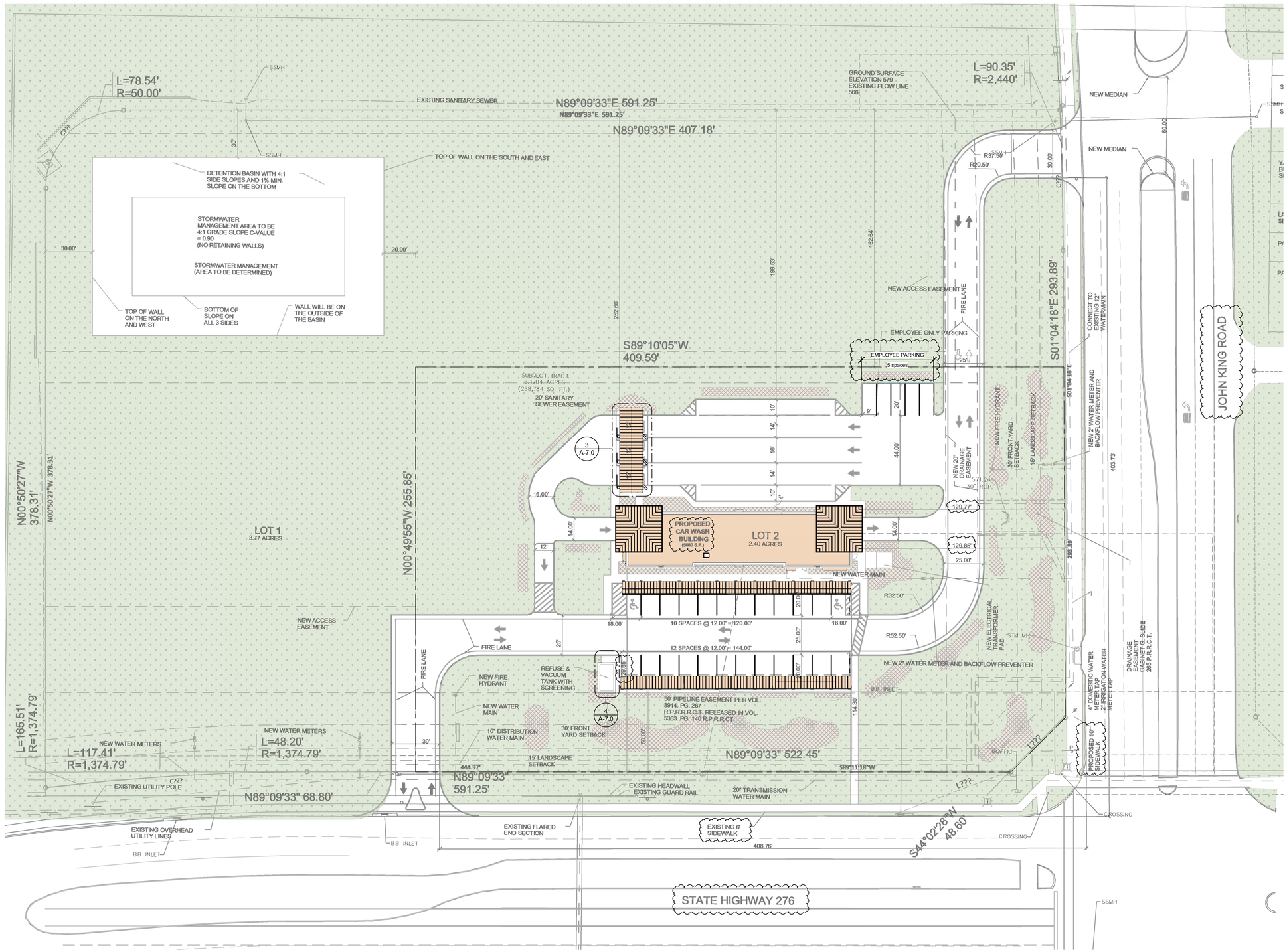
JIM MELINO
THE CAMBRIDGE COMPANIES, INC.
8750 N. CENTRAL EXPY. #1735 DALLAS, TX 75231
214.532.3924
jim@cambridgecos.com

NEW AUTOMATED CARWASH

NW STATE HWY 276 & JOHN KING ROCKWALL, TX 75087

CASE NUMBER

SUBMITTED ON 10.13.22



1 G-1.2 SITE PLAN
SCALE: 1" = 30'-0"

NOTES:
ALL OVERHEAD UTILITIES BE PLACED UNDERGROUND

APPROVED:
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on the_____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

CASE# SP2022-053

NERO ARCHITECTS
6400 N NORTHWEST HWY
SUITE 4
CHICAGO, IL 60631
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PROJECT #	2034
DATE:	01/17/22

NEW AUTOMATED CARWASH FACILITY

1720 S JOHN KING BLVD
ROCKWALL, TEXAS 75087
(Tract 3-09 of the J. M. Allen Survey, Abstract No. 0002)

1	10/31/22	ZONING REVISIONS
	10/07/22	ZONING REVIEW
		REVISIONS
DRAWN BY:		RAM
APPROVED BY:		GCN / MAM
SCALE:		AS NOTED
DESCRIPTION:		SITE PLAN
SHEET NO.		G-1.2

Compliance Table

LOT ZONING: Overlay District:	(C) commercial (SH-205 BY OV) SH-205 By-Pass Overlay District	
lot area:	104,544.0 s.f. (2.40 Acres)	
FLOOR AREA CALCULATIONS:	**PROPOSED**	**ALLOWED** (4:1)
ground floor:	5,080.0	
TOTAL FLOOR AREA:	**5,080.0**	**418,176.0**
LOT COVERAGE CALCULATIONS:	**PROPOSED**	**ALLOWED** (60%)
ground floor:	5,080.0	
TOTAL LOT COVERAGE:	5,080.0	**62,726.4**
MAXIMUM IMP PARKING CALC:	**PROPOSED**	**ALLOWED** (85-90%)
Employee Parking area:	910.8	
Vacuum Parking area:	9,966.0	
TOTAL IMP PARKING AREA:	10,876.6	**88,862.4 - 94,089.6**
MINIMUM LANDSCAPING CALC:	**PROPOSED**	**REQUIRED** (20%)
Commercial (C) Distrcit Impervious Area:	47,647.1	
Landscape Area:	83,692.9	
TOTAL LANDSCAPE AREA:	83,692.9	**20,908.8**
Area of Landscaping in Front and Along side of Building	PROPOSED	REQUIRED (50%)
	43,066.0	**41,846.45**

GENERAL NOTES

1. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT /OWNER IMMEDIATELY OF ANY DISCREPANCIES, OBSTACLES AND/OR PROBLEMS.
2. VERIFICATION OF DIMENSIONS AND GRADES, BOTH EXISTING AND PROPOSED, SHALL BE THE CONTRACTOR'S RESPONSIBILITY PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES.
3. ALL SURFACE DRAINAGE SHALL BE DIRECTED AWAY FROM STRUCTURES. SURFACE DRAINAGE SHALL BE DIRECTED TO EXISTING CATCH BASINS DESIGNATED FOR THE COLLECTION OF SURFACE RUN-OFF.
4. CONTRACTOR SHALL NOTIFY OWNER OF ANY UNDESIRABLE DRAINAGE CONDITIONS AND RECOMMEND SUITABLE SOLUTIONS. WHERE NECESSARY TO ACHIEVE PROPER DRAINAGE, UNDER DRAINAGE FOR TREE PITS SHALL BE INSTALLED AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.
5. LANDSCAPE CONTRACTOR SHALL REPAIR IN KIND ALL AREAS DAMAGED AS A RESULT OF LANDSCAPE OPERATIONS.
6. ALL TREE AND SHRUB BEDS TO RECEIVE A MINIMUM 3" OF SHREDDED HARDWOOD MULCH.
7. ALL GROUND COVER/ PERENNIAL BEDS TO RECEIVE A MINIMUM 2" OF MUSHROOM COMPOST.
8. SIZES SHOWN ON PLANTING PLAN ARE MINIMUM ACCEPTABLE SIZES.
9. LANDSCAPE CONTRACTOR SHALL WARRANT ALL TREES, SHRUBS, VINES, GROUNDCOVERS AND PERENNIALS UNDER THIS CONTRACT WILL BE HEALTHY AND IN FLOURISHING CONDITION OF ACTIVE GROWTH ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
10. SOIL TO BE USED FOR THE PLANTING MEDIUM FOR THE PROJECT SHALL BE FERTILE, WELL DRAINED, OF UNIFORM QUALITY, FREE OF STONES OVER 1" IN DIAMETER, STICKS, OILS, CHEMICALS, PLASTER, CONCRETE AND OTHER DELETERIOUS MATERIALS.
11. THE LANDSCAPE CONTRACTOR SHALL PREPARE PLANTING BEDS BY ADDING SOIL AMENDMENTS TO TOPSOIL MIX IN THE FOLLOWING QUANTITIES: TOPSOIL MIX FOR TREES AND SHRUBS SHALL BE THREE (3) PARTS TOPSOIL, ONE (1) PART PEAT, AND ONE (1) PART SAND. TOPSOIL MIX FOR PERENNIALS, BULBS, AND GROUND COVERS SHALL BE THREE (3) PARTS TOPSOIL, ONE (1) PART SAND AND TWO (2) PARTS DECOMPOSED MUSHROOM COMPOST. SOIL SHALL MEET THE FOLLWING REQUIREMENTS: SOIL COMPOSITION-45-77% SILT, 0-25% CLAY, 25-33% SAND; SOIL ACIDITY: Ph 6.0-7.0; SOIL ORGANIC CONTENT: THREE (3) TO FIVE (5) PERCENT.
12. ALL PLANTS TO BE BALLED IN BURLAP OR CONTAINER GROWN AS SPECIFIED ON PLANTING PLAN. ALL PLASTIC ROOT WRAPPING MATERIAL AND METAL WIRE BASKETS SHALL BE REMOVED.
13. LANDSCAPE CONTRACTOR SHALL STAKE THE LOCATION OF ALL TREES AND PLANTING BED LINES AND HAVE LAYOUT APPROVED BY LANDSCAPE ARCHITECT/OWNER PRIOR TO PLANTING.
14. WATER ALL PLANTS IMMEDIATELY AFTER PLANTING. FLOOD PLANTS TWICE DURING FIRST TWENTY-FOUR HOUR PERIOD AFTER PLANTING.
15. ALL NEW AND TRANSPLANTED PLANTS TO BE SPRAYED WITH AN ANTIDESSICANT WITHIN TWENTY FOUR HOURS AFTER PLANTING. ANTI-TRANSPIRANT SHALL BE EQUAL TO "WILTPROOF."
16. ALL MUD SHALL BE REMOVED FROM ALL TIRES BEFORE LEAVING THE SITE AND ROADS SHALL BE KEPT CLEAR OF MUD AND DEBRIS AT ALL TIMES.
17. ALL GRASS AREAS SHALL BE 6 INCHES OF TOPSOIL AND KENTUCKY BLUEGRASS SOD.

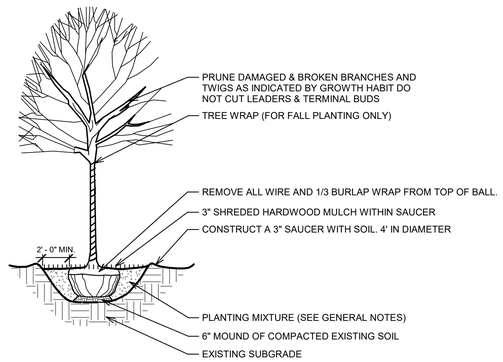
Planting Schedule

per CITY OF ROCKWALL - UNIFIED DEVELOPMENT CODES

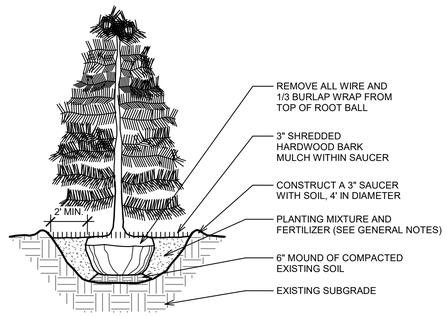
LEGEND	QUANT. - %	BOTANICAL NAME	COMMON NAME	MIN. SIZE	TOTAL (inches)	NOTES/SPECIAL CONDITIONS
CANOPY / SHADE / PARKWAY DECIDUOUDS TREES (Min. Size at planting 4" Caliper) - Parkway Trees shall be max 40' apart						
TD	7	Taxodium Distichum	Bald Cypress	4" caliper / 8' ht	28	mature height 120'
AR	5	Acer Rubrum	October Glory Maple	4" caliper / 8' ht	20	mature height 40' - 50'
FT	6	Fraxinus Texensis	Texas Ash	4" caliper / 8' ht	24	mature height 45'
QB	9	Quercus Buckleyi	Texas Red Oak	4" caliper / 8' ht	36	mature height 30' - 55'
MG	5	Magnolia Grandiflora	Little Gem Magnolia	4" caliper / 8' ht	20	mature height 15' - 20'
TOTAL					128	
ACCENT TREES (Plant this size tree no closer than 10 feet from the center of pole line.)						
SM	6	Acer Truncatum	Shantung Maple	2.5" caliper / 8' ht	15	mature height 25' - 35'
CL	4	Chilopsis Linearis	Desert Willow	2.5" caliper / 8' ht	10	mature height 15' - 20'
IV	16	Ilex Vomitoria	Yapon Holly	2.5" caliper / 8' ht	40	mature height 10' - 20'
FL	10	Rhus Lanceolata	Flame Leaf Sumac	2.5" caliper / 8' ht	25	mature height 40' - 50'
CC	6	Cercis Canadensis	Eastern Redbud	2.5" caliper / 8' ht	15	mature height 20' - 30'
TOTAL					105	
TOTAL					233	
EVERGREEN TREES (Min. Size at planting 6' hgt.)						
PS	3	Pinus Strobus	Eastern White Pine	6' ht		
TO	12	Thuja Occidentalis	White Cedar	6' ht		mature height 8'-12'
JT	8	Juniperus virginiana 'Taylor'	Taylor Juniper	6' ht		mature height 18'
SHRUBS (All Hedges to be maintained and kept below @ max. 4'-0" tall)						
CT	42	Leucophyllum SP.	Cenizo (Texas Sage)	30" spr. / 24" ht		Medium Shrub
BJ	100	Buxus Japonica	Japanese Boxwood	30" spr. / 24" ht		Small Shrub
TM	10	Taxus × media 'Hicksii'	Hicks Yew Hedge	30" spr. / 24" ht		Large Shrub
FI	81	Forsythia Intermedia 'Spectabilis'	Forsythia	30" spr. / 24" ht		Large Shrub
NO	26	Nerium Oledander	Oleander	30" spr. / 24" ht		Large Shrub
DY	76	Ilex Vomitoria 'Nana'	Dwarf Yaupon Holly	30" spr. / 24" ht		Small Shrub
ORNAMENTAL GRASS						
SOD	-	Cynodon Dactylon	Bermuda Grass	56,497 Sq. Ft.		Typical Ground Cover w/o plantings
WG	476	Eragrostis Curvula	Weeping Love Grass			Ground Cover
PD	16	Sporobolus Heterolepsis	Prairie Dropseed			
JB	98	Imperata Cylindrica ' Red Baron'	Japanese Blood Grass			
PERENNIALS, GROUNDCOVERS - (plants in mulch beds)						
RL	tbd	Rudbeckia Laciniata	Green-headed Coneflower	2" pots		Use in Wetland Basin / Embankment
VM	270	Vinca minor	Periwinkle	18" spread / 2"pots		perennials mature height 18"
AT	110	Asclepias Tuberosa	Butterfly Weed	18" spread / 2"pots		perennials
EP	74	Echinacea purpurea	Purple Coneflower	18" spread / 2"pots		perennials
WF	37	Waldsteinia Fragarioides	Barren Strawberry	18" spread / 2"pots		perennials
RS	230	Rudbeckia Speciosa	Black-eyed Susan	18" spread / 2"pots		perennials
PT	182	Pycnanthemum Tenuifolium	Slender Mountain Mint			ground cover

NOTES:

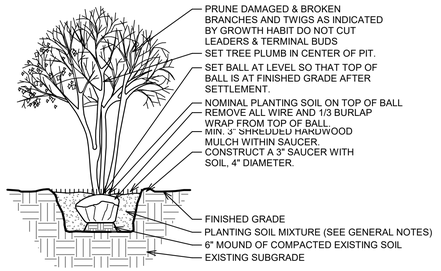
- ONCE A TREESCAPE PLAN HAS BEEN APPROVED FOR A PROPERTY, A TREE REMOVAL PERMIT WILL BE REQUIRED TO REMOVE ANY TREE(S).
- ALL LANDSCAPE BUFFERS AND PUBLIC RIGHT-OF-WAY LOCATED ADJACENT TO A PROPOSED DEVELOPMENT SHALL BE IMPROVED WITH GRASS (I.E. SOD – HYDRO MULCH SHALL BE PROHIBITED IN THESEAREAS) PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY
- THE DEVELOPER SHALL ESTABLISH GRASS AND MAINTAIN THE SEEDED AREA, INCLUDING WATERING, UNTIL A "PERMANENT STAND OF GRASS" IS OBTAINED AT WHICH TIME THE PROJECT WILL BE ACCEPTED BY THE CITY. A "STAND OF GRASS" CONSISTS OF 75% TO 80% COVERAGE AND MINIMUM HEIGHT OF ONE (1) INCH IN HEIGHT.
- IRRIGATION. LANDSCAPE DESIGN PURSUANT TO THE REQUIREMENTS OF THIS CHAPTER SHALL RECOGNIZE THE NEED FOR IRRIGATION AND WATER CONSERVATION. SPRINKLER IRRIGATION SYSTEMS MAY BE REQUIRED FOR CERTAIN LANDSCAPED AREAS, AS DETERMINED BY A LANDSCAPE ARCHITECT. THE NEED FOR SPRINKLER IRRIGATION SYSTEMS SHALL BE DETERMINED BY THE TYPE OF PLANT MATERIAL AND THE CONDITION/GROWING MEDIUM THAT THEY ARE INSTALLED IN. FOR INSTANCE, WHETHER THERE IS A PERMANENT MEANS AVAILABLE TO WATER PLANT MATERIAL, SUCH AS HOSE BIBS, SHALL BE A CONSIDERATION. ALL IRRIGATION SYSTEMS SHALL BE DESIGNED TO MINIMIZE THE USE OF WATER.
- TREES MUST BE PLANTED AT LEAST FIVE (5) FEET FROM WATER, SEWER, AND STORM SEWER LINES.



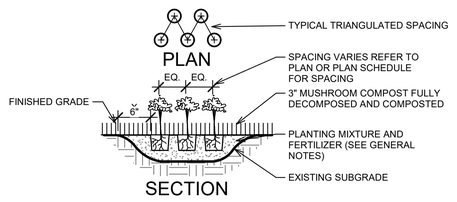
1 L1.1 DECIDUOUS TREE PLANTING DETAIL
SCALE: 3/16" = 1'-0"



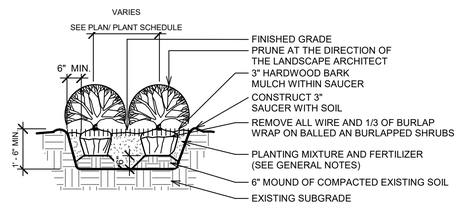
2 L1.1 ORNAMENTAL TREE PLANTING DETAIL
SCALE: 1/4" = 1'-0"



3 L1.1 LARGE SHRUB PLANTING DETAIL
SCALE: 1/4" = 1'-0"



5 L1.1 GROUND COVER PLANTING DETAIL
SCALE: 3/8" = 1'-0"



6 L1.1 SMALL SHRUB PLANTING DETAIL
SCALE: 3/8" = 1'-0"

4 L1.1 Light Post Foundation
SCALE: 1/2" = 1'-0"

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on the_____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

CASE# SP2022-053

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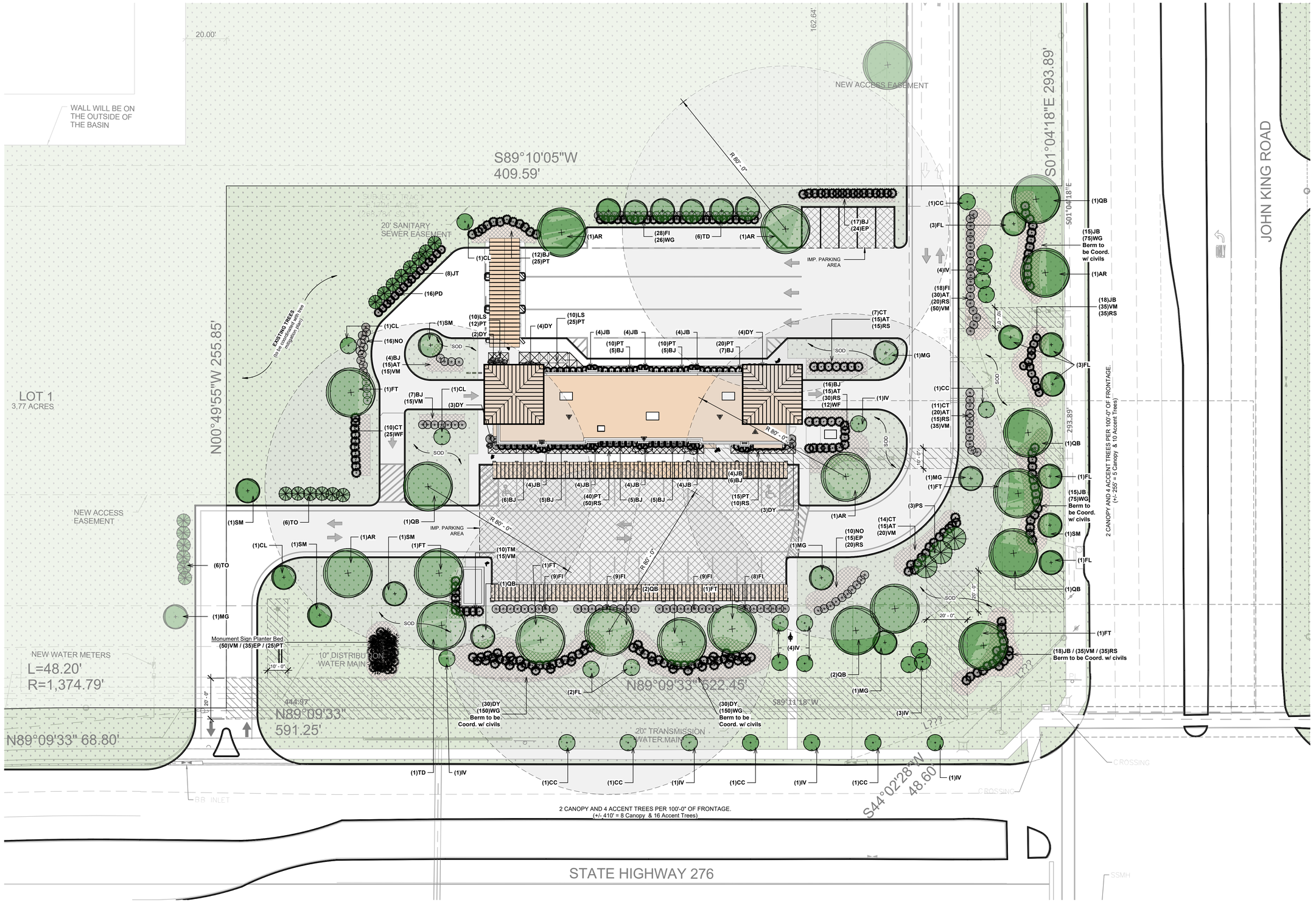
	10/07/22	ZONING REVIEW
▲		**REVISIONS**

DRAWN BY:	RAM
APPROVED BY:	GCN / MAM
SCALE:	AS NOTED
DESCRIPTION:	LANDSCAPE DETAILS & NOTES
SHEET NO.	L1.1



1 / L1.2 SITE PLAN
SCALE: 3/64" = 1'-0"

N

APPROVED:
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on the_____ day of _____, _____.

WITNESS OUR HANDS, this _____ day of _____, _____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

CASE# SP2022-053

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PROJECT #	2034
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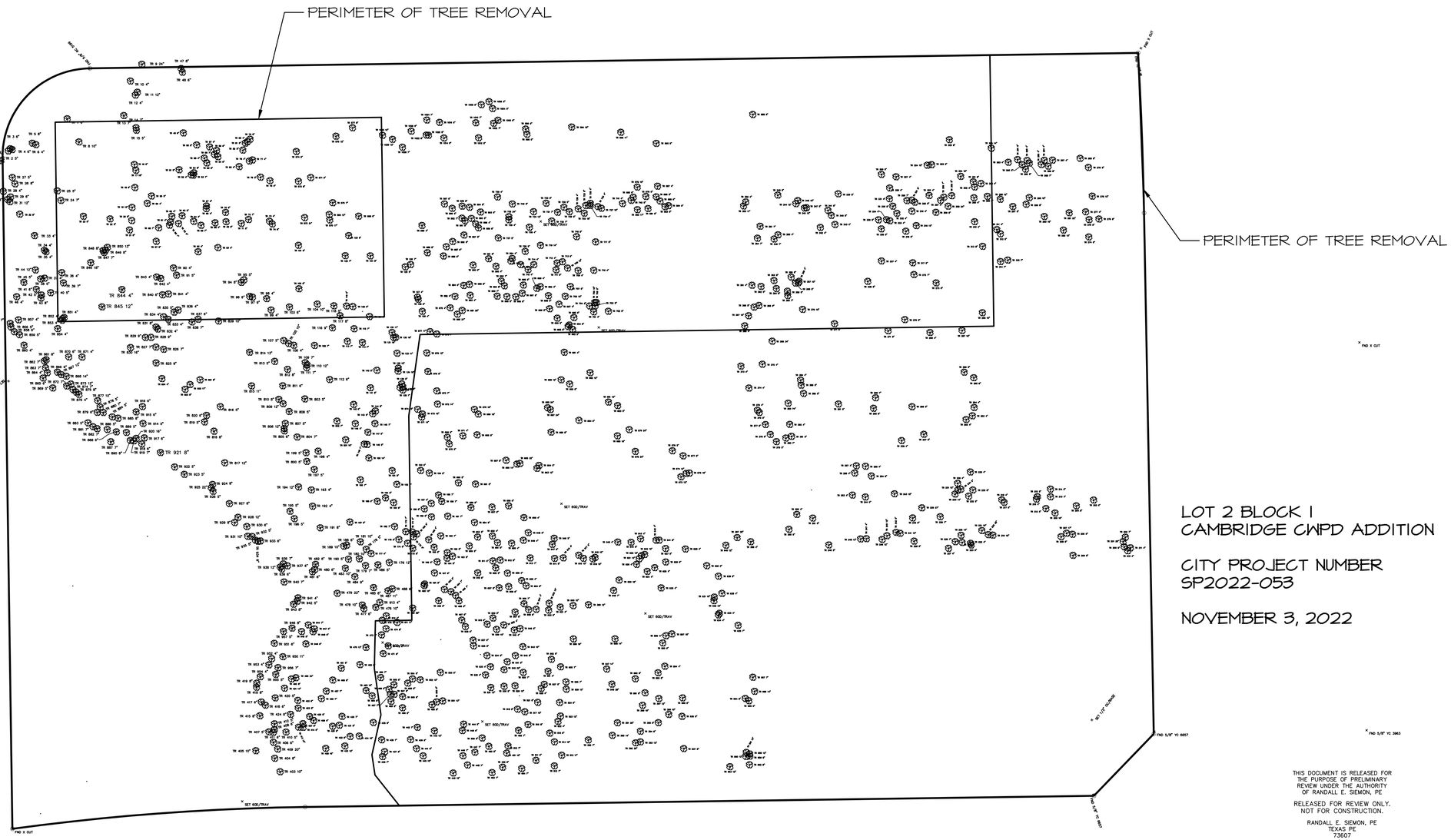
	10/07/22	ZONING REVIEW
▲		REVISIONS
DRAWN BY:		RAM
APPROVED BY:		GCN / MAM
SCALE:		AS NOTED
DESCRIPTION:		LANDSCAPE PLAN
SHEET NO.		L1.2



LOT 2 BLOCK 1
CAMBRIDGE CWPD ADDITION

CITY PROJECT NUMBER
SP2022-053

NOVEMBER 3, 2022

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF PRELIMINARY REVIEW UNDER THE AUTHORITY OF RANDALL E. SIEMON, PE

RELEASED FOR REVIEW ONLY. NOT FOR CONSTRUCTION.

RANDALL E. SIEMON, PE
TEXAS PE
73607
11/3/22

NORTH

1" = 30'

00 15 30 60 120

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ZEPHYR CAR WASH
1720 S. JOHN KING BLVD.
ROCKWALL, TEXAS 75032

ISSUE

TO	DATE
	10//7/22
	10/31/22

CHECK:TOA
DRAWN:TEP
JOB: C2200058

TP-1.1

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
	ESTIMATED MITIGATION			560.25	INCHES				
1	Honey Locust	non-protect	4	0	1	4	0	- Good	
2	Bois D'arc	non Protect	4	0	1	5	0	- Excellent	
3	Green Ash		5	0	1	5	0	- Excellent	
5	Bois D'arc	non Protect	6	0	1	5	0	- Excellent	1
6	Bois D'arc	non Protect	4	0	1	5	0	- Excellent	
7	Bois D'arc	non Protect	5	0	1	5	0	- Excellent	
8	Bois D'arc	non Protect	4.5	0	0	5		- Excellent	1
9	Hackberry	non Protect	22	0	1	4	0	- Good	
10	Eastern Red Cedar		0	12	1	5	0	- Excellent	
11	Hackberry	non Protect	8.5	0	1	4	0	- Good	
13	Hackberry	non Protect	4	0	1	4	0	- Good	
14	Hackberry	non Protect	6	0	1	5	0	- Excellent	
16	Hackberry	non Protect	5.5	0	0	3		- Viable with	1
17	Hackberry	non Protect	12	0	0	4	0	- Good	1
18	Hackberry	non Protect	5.5	0	0	4		- Good	1
19	Hackberry	non Protect	9	0	0	4		- Good	1
20	Honey Locust	non Protect	4.5	0	0	4	0	- Good	1
21	Hackberry	non Protect	8.5	0	0	4		- Good	1
22	Honey Locust	non Protect	4.5	0	0	5	0	- Excellent	1
23	Green Ash		9	0	0	5	0	- Excellent	1
24	Eastern Red Cedar		0	22	0	5	0	- Excellent	1
25	Green Ash		4.5	0	0	5	2.25	- Excellent	
26	Honey Locust	non Protect	7	0	1	4	0	- Good	
27	Hackberry	non Protect	4.5	0	1	4	0	- Good	
28	Hackberry	non Protect	4	0	1	4	0	- Good	
29	Hackberry	non Protect	5.5	0	1	5	0	- Excellent	
30	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
31	Eastern Red Cedar		0	27	1	5	0	- Excellent	
32	Honey Locust	non Protect	5	0	1	4	0	- Good	
33	Honey Locust	non Protect	3.5	0	1	5	0	- Excellent	
34	Honey Locust	non Protect	4	0	1	4	0	- Good	
36	Bois D'arc	non Protect	3.5	0	0	4		- Good	1
39	Hackberry	non Protect	6	0	0	5		- Excellent	1
40	Hackberry	non Protect	3.5	0	0	5		- Excellent	1
41	Honey Locust	non Protect	5	0	1	4	0	- Good	
42	Honey Locust	non Protect	4	0	1	4	0	- Good	
43	Honey Locust	non Protect	5.5	0	1	4	0	- Good	
44	Honey Locust	non Protect	6.5	0	1	4	0	- Good	
45	Honey Locust	non Protect	4	0	1	4	0	- Good	
47	Hackberry	non Protect	9	0	1	4	0	- Good	
48	Hackberry	non Protect	6	0	1	5	0	- Excellent	
49	Honey Locust	non Protect	3.5	0	0	4	0	- Good	1
50	Honey Locust	non Protect	4.5	0	0	4	0	- Good	1
51	Hackberry	non Protect	6	0	0	5	0	- Excellent	1
53	Bois D'arc	non Protect	6	0	0	4	0	- Good	1
54	Bois D'arc	non Protect	5	0	0	4		- Good	1
55	Honey Locust	non Protect	5	0	1	4	0	- Good	
57	Honey Locust	non Protect	5	0	0	4	0	- Good	1
58	Hackberry	non Protect	6.5	0	0	4		- Good	1
59	Hackberry	non Protect	7	0	1	4	0	- Good	1
60	Honey Locust	non Protect	3.5	0	0	3	0	- Viable with	1
62	Hackberry	non Protect	6	0	0	4		- Good	1
63	Honey Locust	non Protect	4.5	0	0	4	0	- Good	1
65	Hackberry	non Protect	7.5	0	0	4		- Good	1
69	Hackberry	non Protect	8	0	0	4		- Good	1
70	Honey Locust	non Protect	4	0	0	1		- Dead	1
71	Hackberry	non Protect	4.5	0	0	5		- Excellent	1

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
72	Hackberry	non Protect	6.5	0	0	4		- Good	1
73	Hackberry	non Protect	4	0	0	4		- Good	1
74	Hackberry	non Protect	5.5	0	0	4		- Good	1
75	Hackberry	non Protect	8	0	0	4		- Good	1
76	Honey Locust	non Protect	4.5	0	0	2		- Diseased	1
77	Honey Locust	non Protect	3.5	0	0	3	0	- Viable with	1
79	Honey Locust	non Protect	4	0	0	3	0	- Viable with	1
81	Honey Locust	non Protect	4.5	0	0	4	0	- Good	1
82	Honey Locust	non Protect	4	0	0	4	0	- Good	1
83	Honey Locust	non Protect	3.5	0	0	3	0	- Viable with	1
84	Hackberry	non Protect	6	0	0	5		- Excellent	1
85	Hackberry	non Protect	7.5	0	0	5		- Excellent	1
86	Honey Locust	non Protect	5	0	0	4	0	- Good	1
88	Honey Locust	non Protect	3.5	0	0	3	0	- Viable with	1
89	Honey Locust	non Protect	4	0	1	4	0	- Good	1
91	Honey Locust	non Protect	3.5	0	0	5	0	- Excellent	1
93	Bois D'arc	non Protect	4	0	1	4		- Good	1
94	Bois D'arc	non Protect	8	0	0	4		- Good	1
95	Honey Locust	non Protect	4	0	0	3	0	- Viable with	1
97	Hackberry	non Protect	8	0	0	5		- Excellent	1
99	Honey Locust	non Protect	4	0	0	2		- Diseased	1
101	Honey Locust	non Protect	4.5	0	0	4	0	- Good	1
102	Honey Locust	non Protect	6.5	0	0	3	0	- Viable with	1
103	Green Ash		6	0	0	5	0	- Excellent	1
104	Green Ash		4.5	0	0	4	0	- Good	1
105	Hackberry	non Protect	8.5	0	1	4	0	- Good	
106	Hackberry	non Protect	4	0	1	4	0	- Good	
107	Hackberry	non Protect	4	0	1	5	0	- Excellent	
108	Green Ash		7	0	1	4	0	- Good	
110	Hackberry	non Protect	9.5	0	1	5	0	- Excellent	
111	Hackberry	non Protect	6	0	1	4	0	- Good	
112	Green Ash		5.5	0	1	5	0	- Excellent	
113	Green Ash		6.5	0	1	5	0	- Excellent	
114	Green Ash		5	0	1	4	0	- Good	
115	Green Ash		6	0	1	4	0	- Good	
116	Green Ash		9	0	1	4	0	- Good	
117	Green Ash		8	0	0	4	4	- Good	1
118	Green Ash		4	0	0	4	2	- Good	1
119	Green Ash		4	0	1	4	0	- Good	1
120	Green Ash		4.5	0	0	5	0	- Excellent	1
121	Green Ash		5	0	0	4	2.5	- Good	
122	Hackberry	non Protect	5.5	0	0	4		- Good	1
123	Hackberry	non Protect	5	0	0	4		- Good	1
124	Hackberry	non Protect	5.5	0	0	4		- Good	1
125	Bois D'arc	non Protect	4.5	0	1	4	0	- Good	
126	Bois D'arc	non Protect	4.5	0	1	5	0	- Excellent	
128	Hackberry	non Protect	5.5	0	1	4	0	- Good	
130	Bois D'arc	non Protect	15	0	1	3	0	- Viable with	
131	Hackberry	non Protect	10	0	1	3	0	- Viable with	
133	Bois D'arc	non Protect	7	0	1	3	0	- Viable with	
134	Bois D'arc	non Protect	8	0	1	2		- Diseased	
135	Hackberry	non Protect	8.5	0	1	3	0	- Viable with	
136	Cedar Elm		4	0	1	4	0	- Good	
137	Bois D'arc	non Protect	10	0	1	3	0	- Viable with	
139	Hackberry	non Protect	9	0	1	4	0	- Good	
140	Green Ash		4.5	0	1	4	0	- Good	
141	Green Ash		7.5	0	1	5	0	- Excellent	
142	Hackberry	non Protect	5.5	0	1	4	0	- Good	
143	Green Ash		6	0	1	4	0	- Good	
144	Green Ash		7.5	0	1	5	0	- Excellent	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
145	Green Ash		6	0	1	5	0	- Excellent	
147	Green Ash		5	0	1	3	0	- Viable with	
149	Green Ash		7.5	0	1	4	0	- Good	
150	Green Ash		10	0	1	5	0	- Excellent	
151	Green Ash		5	0	1	5	0	- Excellent	
152	Green Ash		6	0	1	5	0	- Excellent	
153	Green Ash		5.5	0	0	5	2.75	- Excellent	
154	Green Ash		5.5	0	0	5	2.75	- Excellent	
155	Green Ash		6	0	0	4	3	- Good	
156	Green Ash		5.5	0	0	5	2.75	- Excellent	
158	Green Ash		7.5	0	0	4	3.75	- Good	
159	Green Ash		4.5	0	0	4	2.25	- Good	
160	Green Ash		7	0	0	4	3.5	- Good	
161	Green Ash		7	0	0	5	3.5	- Excellent	
162	Green Ash		4.5	0	0	5	2.25	- Excellent	
163	Green Ash		4	0	0	5	2	- Excellent	
164	Green Ash		7.5	0	0	5	3.75	- Excellent	
165	Green Ash		7.5	0	0	5	3.75	- Excellent	
166	Green Ash		4	0	1	5	0	- Excellent	
167	Green Ash		8.5	0	0	5	4.25	- Excellent	
169	Green Ash		5	0	0	4	2.5	- Good	
170	Green Ash		4	0	0	4	2	- Good	
171	Green Ash		5	0	0	4	2.5	- Good	
172	Green Ash		6	0	1	4	0	- Good	
173	Green Ash		5	0	1	4	0	- Good	
174	Green Ash		5	0	1	4	0	- Good	
175	Green Ash		5	0	1	4	0	- Good	
176	Bois D'arc		8	0	1	2	0	- Diseased	
178	Green Ash		5	0	1	4	0	- Good	
179	Green Ash		6	0	1	4	0	- Good	
180	Green Ash		9	0	1	5	0	- Excellent	
181	Green Ash		8.5	0	1	5	0	- Excellent	
182	Green Ash		6.5	0	1	4	0	- Good	
183	Green Ash		4	0	1	4	0	- Good	
184	Green Ash		4.5	0	1	4	0	- Good	
185	Green Ash		4	0	1	5	0	- Excellent	
186	Honey Locust	non Protect	5.5	0	1	3	0	- Viable with	
187	Honey Locust	non Protect	4	0	1	3	0	- Viable with	
188	Green Ash		5.5	0	1	4	0	- Good	
189	Green Ash		9	0	1	5	0	- Excellent	
190	Green Ash		4	0	1	4	0	- Good	
191	Green Ash		3.5	0	1	4	0	- Good	
194	Green Ash		8.5	0	1	5	0	- Excellent	
195	Hackberry	non Protect	4	0	1	5	0	- Excellent	
196	Green Ash		4	0	1	5	0	- Excellent	
197	Honey Locust		4	0	1	3	0	- Viable with	
199	Green Ash		4	0	1	4	0	- Good	
200	Hackberry	non Protect	9	0	0	5		- Excellent	
201	Bois D'arc	non Protect	18	0	0	3	0	- Viable with	
202	Hackberry	non Protect	7.5	0	0	5		- Excellent	
203	Hackberry	non Protect	6	0	0	5		- Excellent	
204	Black Willow		8.5	0	0	5	4.25	- Excellent	
205	Black Willow		11	0	1	4	0	- Good	
206	Bois D'arc	non Protect	7	0	1	3	0	- Viable with	
207	Bois D'arc	non Protect	18	0	0	3		- Viable with	
208	Hackberry	non Protect	10	0	0	2		- Diseased	
209	Hackberry	non Protect	4.5	0	0	5		- Excellent	
210	Hackberry	non Protect	4.5	0	0	5		- Excellent	
212	Black Willow		4	0	0	4	2	- Good	
213	Hackberry	non Protect	4	0	0	5		- Excellent	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
214	Hackberry	non Protect	5	0	0	5	0	- Excellent	
217	Hackberry	non Protect	3	0	0	4	0	- Good	
219	Bois D'arc	non Protect	12.5	0	0	3	0	- Viable with	
220	Bois D'arc	non Protect	13	0	1	3	0	- Viable with	
223	Hackberry	non Protect	4.5	0	0	5	0	- Excellent	
224	Hackberry	non Protect	7	0	0	4	0	- Good	
225	Hackberry	non Protect	8.5	0	0	2	0	- Diseased	
226	Hackberry	non Protect	12	0	0	4	0	- Good	
229	Hackberry	non Protect	7	0	0	3	0	- Viable with	
230	Bois D'arc	non Protect	20	0	0	3	0	- Viable with	
231	Hackberry	non Protect	14	0	0	3	0	- Viable with	
232	Hackberry	non Protect	4	0	0	5	0	- Excellent	
233	Hackberry	non Protect	4.5	0	1	4	0	- Good	
234	Hackberry	non Protect	5	0	0	2	0	- Diseased	
235	Hackberry	non Protect	4	0	1	5	0	- Excellent	
236	Hackberry	non Protect	4.5	0	0	4	0	- Good	
237	Hackberry	non Protect	6	0	1	5	0	- Excellent	
239	Bois D'arc	non Protect	28	0	1	3	0	- Viable with	
240	Hackberry	non Protect	10	0	0	2	0	- Diseased	
241	Hackberry	non Protect	10.5	0	0	5	0	- Excellent	
242	Eastern Red Cedar		0	9	0	4	0	- Good	
243	Bois D'arc	non Protect	16	0	0	4	0	- Good	
244	Hackberry	non Protect	10	0	0	5	0	- Excellent	
245	Hackberry	non Protect	10.5	0	0	5	0	- Excellent	
246	Hackberry	non Protect	11	0	0	5	0	- Excellent	
247	Hackberry	non Protect	4	0	0	4	0	- Good	
248	Hackberry	non Protect	13	0	0	4	0	- Good	
249	Bois D'arc	non Protect	3.5	0	0	4	0	- Good	
250	Honey Locust	non Protect	5	0	0	5	2.5	- Excellent	
252	Black Willow		4	0	0	5	2	- Excellent	
253	Hackberry	non Protect	5	0	0	4	0	- Good	
254	Hackberry	non Protect	5	0	0	4	0	- Good	
255	Hackberry	non Protect	4.5	0	0	4	0	- Good	
256	Hackberry	non Protect	3	0	0	4	0	- Good	
257	Hackberry	non Protect	4.5	0	0	4	0	- Good	
258	Hackberry	non Protect	5	0	0	5	0	- Excellent	
259	Hackberry	non Protect	7.5	0	0	5	0	- Excellent	
260	Hackberry	non Protect	5	0	0	5	0	- Excellent	
261	Hackberry	non Protect	5	0	0	5	0	- Excellent	
262	Hackberry	non Protect	5	0	0	5	0	- Excellent	
263	Hackberry	non Protect	4	0	0	5	0	- Excellent	
264	American Elm		4	0	0	5	2	- Excellent	
265	Hackberry	non Protect	6	0	0	5	0	- Excellent	
266	Hackberry	non Protect	6.5	0	0	5	0	- Excellent	
267	Hackberry	non Protect	7.5	0	0	5	0	- Excellent	
268	Hackberry	non Protect	5.5	0	1	5	0	- Excellent	
270	Honey Locust	non Protect	4.5	0	1	5	0	- Excellent	
271	Honey Locust	non Protect	5.5	0	0	5	0	- Excellent	
272	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
273	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
274	Hackberry	non Protect	4.5	0	0	5	0	- Excellent	
275	Hackberry	non Protect	5	0	0	5	0	- Excellent	
276	Hackberry	non Protect	5.5	0	0	5	0	- Excellent	
277	Hackberry	non Protect	5	0	0	5	0	- Excellent	
278	Bois D'arc	non Protect	12.5	0	0	3	0	- Viable with	
279	Hackberry	non Protect	4	0	0	5	0	- Excellent	
280	Eastern Red Cedar		0	16	0	5	0	- Excellent	
281	Hackberry	non Protect	24	0	1	4	0	- Good	
282	Bois D'arc	non Protect	7	0	1	4	0	- Good	
283	Hackberry	non Protect	20	0	1	4	0	- Good	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
286	Eastern Red Cedar		0	21	0	4	0	- Good	
287	Honey Locust	non Protect	4	0	1	4	0	- Good	
288	Honey Locust	non Protect	7	0	0	4	0	- Good	
289	Hackberry	non Protect	4	0	0	4	0	- Good	
290	Honey Locust	non Protect	5	0	0	4	0	- Good	
291	Honey Locust	non Protect	7	0	0	4	0	- Good	
292	Eastern Red Cedar		0	20	0	5	0	- Excellent	
293	Honey Locust	non Protect	4.5	0	0	4	0	- Good	
294	Eastern Red Cedar		0	27	1	5	0	- Excellent	
295	Bois D'arc	non Protect	9	0	1	3	0	- Viable with	
296	Bois D'arc	non Protect	9	0	1	3	0	- Viable with	
297	Eastern Red Cedar		0	17	0	5	0	- Excellent	
298	Hackberry	non Protect	11.5	0	0	4	0	- Good	
299	Eastern Red Cedar		0	17	1	4	0	- Good	
300	Hackberry	non Protect	4.5	0	1	4	0	- Good	
301	Bois D'arc	non Protect	5	0	1	4	0	- Good	
302	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
303	Bois D'arc	non Protect	4	0	1	4	0	- Good	
304	Eastern Red Cedar		0	25	1	5	0	- Excellent	
305	Bois D'arc	non Protect	5.5	0	1	3	0	- Viable with	
306	Hackberry	non Protect	7	0	1	5	0	- Excellent	
308	Bois D'arc	non Protect	19	0	1	4	0	- Good	
309	Bois D'arc	non Protect	5	0	1	4	0	- Good	
310	Hackberry	non Protect	4	0	1	5	0	- Excellent	
312	Hackberry	non Protect	5	0	0	5	0	- Excellent	
313	Hackberry	non Protect	5.5	0	1	5	0	- Excellent	
314	Hackberry	non Protect	4.5	0	0	5	0	- Excellent	
315	Hackberry	non Protect	5	0	0	5	0	- Excellent	
316	Hackberry	non Protect	5	0	1	5	0	- Excellent	
317	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
318	Hackberry	non Protect	5	0	1	5	0	- Excellent	
319	Hackberry	non Protect	5	0	1	5	0	- Excellent	
320	Hackberry	non Protect	5	0	1	5	0	- Excellent	
321	Hackberry	non Protect	6	0	1	5	0	- Excellent	
322	Hackberry	non Protect	4	0	1	5	0	- Excellent	
323	Eastern Red Cedar		0	22	1	4	0	- Good	
324	Eastern Red Cedar		0	24	1	5	0	- Excellent	
325	Eastern Red Cedar		0	22	1	5	0	- Excellent	
326	Hackberry	non Protect	6.5	0	1	5	0	- Excellent	
329	Hackberry	non Protect	5	0	1	5	0	- Excellent	
330	Hackberry	non Protect	4	0	1	4	0	- Good	
331	Hackberry	non Protect	4	0	1	5	0	- Excellent	
335	Hackberry	non Protect	4	0	1	5	0	- Excellent	
336	Hackberry	non Protect	4	0	1	5	0	- Excellent	
337	Hackberry	non Protect	4	0	1	5	0	- Excellent	
338	Hackberry	non Protect	5	0	1	5	0	- Excellent	
339	Hackberry	non Protect	4	0	1	4	0	- Good	
340	Hackberry	non Protect	4	0	1	4	0	- Good	
341	Honey Locust		7	0	1	4	0	- Good	
342	Hackberry	non Protect	3	0	1	5	0	- Excellent	
344	Hackberry	non Protect	12	0	1	4	0	- Good	
346	Hackberry	non Protect	13	0	1	4	0	- Good	
347	Eastern Red Cedar		0	16	1	5	0	- Excellent	
348	Honey Locust		4.5	0	1	4	0	- Good	
350	Bois D'arc	non Protect	3.5	0	1	4	0	- Good	
351	Hackberry	non Protect	6.5	0	1	5	0	- Excellent	
353	Eastern Red Cedar		8.5	0	1	5	0	- Excellent	
354	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
355	Honey Locust	non Protect	7.5	0	1	3	0	- Viable with	
356	Honey Locust	non Protect	4	0	1	5	0	- Excellent	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
357	Hackberry	non Protect	9	0	1	5	0	- Excellent	
358	Hackberry	non Protect	8	0	1	5	0	- Excellent	
359	Hackberry	non Protect	8.5	0	1	5	0	- Excellent	
361	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
362	Hackberry	non Protect	6.5	0	1	4	0	- Good	
363	Hackberry	non Protect	10	0	1	4	0	- Good	
364	Eastern Red Cedar		0	16	1	5	0	- Excellent	
365	Hackberry	non Protect	8	0	1	4	0	- Good	
366	Hackberry	non Protect	7	0	1	4	0	- Good	
367	Hackberry	non Protect	11	0	1	5	0	- Excellent	
368	Hackberry	non Protect	4	0	1	5	0	- Excellent	
369	Bois D'arc	non Protect	22	0	0	3	11	- Viable with	
370	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
371	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
373	Hackberry	non Protect	4	0	0	5	2	- Excellent	
374	Hackberry	non Protect	4	0	0	5	2	- Excellent	
375	Hackberry	non Protect	3	0	0	5	1.5	- Excellent	
376	Hackberry	non Protect	5	0	0	5	2.5	- Excellent	
377	Hackberry	non Protect	4.5	0	0	4	2.25	- Good	
378	Hackberry	non Protect	5.5	0	0	5	2.75	- Excellent	
379	Hackberry	non Protect	4	0	0	5	2	- Excellent	
380	Hackberry	non Protect	5	0	0	5	2.5	- Excellent	
381	Hackberry	non Protect	5.5	0	0	5	2.75	- Excellent	
383	Bois D'arc	non Protect	28	0	0	3	14	- Viable with	
384	Hackberry	non Protect	4.5	0	0	4	2.25	- Good	
385	Hackberry	non Protect	4.5	0	0	4	2.25	- Good	
386	Hackberry	non Protect	4	0	0	4	2	- Good	
387	Bois D'arc	non Protect	17	0	0	3	8.5	- Viable with	
389	Green Ash		8	0	0	3	4	- Viable with	
390	Hackberry	non Protect	13	0	0	4	6.5	- Good	
391	Bois D'arc	non Protect	14	0	0	2		- Diseased	
392	Bois D'arc	non Protect	7.5	0	0	3	3.75	- Viable with	
393	Bois D'arc	non Protect	8	0	0	3	4	- Viable with	
394	Hackberry	non Protect	6.5	0	0	5	3.25	- Excellent	
395	Hackberry	non Protect	4.5	0	0	5	2.25	- Excellent	
396	Green Ash		9	0	0	4	4.5	- Good	
397	Hackberry	non Protect	9.5	0	0	5	4.75	- Excellent	
398	Green Ash		9	0	0	3	4.5	- Viable with	
399	Green Ash		11	0	0	4	5.5	- Good	
403	Eastern Red Cedar		0	26	1	4	0	- Good	
404	Hackberry	non Protect	7.5	0	1	4	0	- Good	
405	Eastern Red Cedar		0	16	1	5	0	- Excellent	
406	Honey Locust	non Protect	4.5	0	1	3	0	- Viable with	
408	Hackberry	non Protect	5.5	0	1	3	0	- Viable with	
409	Bois D'arc	non Protect	14	0	1	4	0	- Good	
410	Eastern Red Cedar		0	17	1	4	0	- Good	
413	Hackberry	non Protect	15.5	0	1	5	0	- Excellent	
414	Bois D'arc	non Protect	4.5	0	1	2	0	- Diseased	
415	Eastern Red Cedar		0	20	1	4	0	- Good	
416			0	13	1	4	0	- Good	
417	Eastern Red Cedar		0	17	1	4	0	- Good	
418	Eastern Red Cedar		0	17	1	5	0	- Excellent	
419	Eastern Red Cedar		0	16	1	5	0	- Excellent	
420	Eastern Red Cedar		0	16	1	3	0	- Viable with	
421	Bois D'arc	non Protect	13	0	1	4	0	- Good	
422	Eastern Red Cedar		0	18	1	4	0	- Good	
423	Bois D'arc	non Protect	5	0	1	2	0	- Diseased	
424	Bois D'arc	non Protect	6	0	1	2	0	- Diseased	
425	Eastern Red Cedar		0	25	1	5	0	- Excellent	
426	Other		4.5	0	1	3	0	- Viable with	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
427	Bois D'arc	non Protect	5	0	1	3	0	- Viable with	
428	Eastern Red Cedar		0	24	1	4	0	- Good	
429	Eastern Red Cedar		0	26	1	4	0	- Good	
430	Green Ash		6.5	0	1	4	0	- Good	
431	Eastern Red Cedar		0	24	1	5	0	- Excellent	
432	Green Ash		5.5	0	1	4	0	- Good	
433	Green Ash		5	0	1	4	0	- Good	
434	Green Ash		8.5	0	1	4	0	- Good	
435	Hackberry	non Protect	6.5	0	1	4	0	- Good	
436	Green Ash		6	0	0	4	3	- Good	
437	Green Ash		9	0	0	5	4.5	- Excellent	
438	Green Ash		7	0	0	4	3.5	- Good	
439	Hackberry	non Protect	7	0	0	4	3.5	- Good	
440	Hackberry	non Protect	10.5	0	0	4	5.25	- Good	
441	Green Ash		5.5	0	0	4	2.75	- Good	
442	Green Ash		5.5	0	0	4	2.75	- Good	
443	Cedar Elm		12.5	0	0	3	6.25	- Viable with	
444	Honey Locust	non Protect	5	0	0	3	0	- Viable with	
445	Honey Locust	non Protect	4.5	0	0	3	0	- Viable with	
446	Hackberry	non Protect	6.5	0	0	5	0	- Excellent	
447	Hackberry	non Protect	6	0	0	4	0	- Good	
448	Hackberry	non Protect	5.5	0	0	4	0	- Good	
449	Hackberry	non Protect	11.5	0	0	4	0	- Good	
450	Honey Locust	non Protect	4	0	0	3	0	- Viable with	
451	Green Ash		11	0	0	4	5.5	- Good	
452	Honey Locust	non Protect	5.5	0	0	4	0	- Good	
453	Hackberry	non Protect	8	0	0	5	0	- Excellent	
454	Green Ash		5	0	0	4	2.5	- Good	
455	Green Ash		7	0	0	4	3.5	- Good	
456	Eastern Red Cedar		0	18	1	2	0	- Diseased	
457	Eastern Red Cedar		0	19	1	3	0	- Viable with	
458	Eastern Red Cedar		0	20	1	4	0	- Good	
459	Bois D'arc	non Protect	9	0	1	3	0	- Viable with	
460	Bois D'arc	non Protect	7.5	0	1	4	0	- Good	
461	Green Ash		4.5	0	1	4	0	- Good	
462	Other		4.5	0	1	5	0	- Excellent	
463	Green Ash		10	0	1	4	0	- Good	
464	Green Ash		8	0	1	4	0	- Good	
465	Green Ash		6.5	0	0	4	3.25	- Good	
466	Green Ash		5.5	0	0	4	2.75	- Good	
467	Green Ash		5.5	0	0	5	2.75	- Excellent	
468	Green Ash		4	0	0	4	2	- Good	
469	Green Ash		7	0	0	4	3.5	- Good	
470	Green Ash		11	0	1	4	0	- Good	
471	Green Ash		8.5	0	0	4	4.25	- Good	
472	Green Ash		4.5	0	0	5	2.25	- Excellent	
473	Green Ash		6.5	0	0	4	3.25	- Good	
474	Green Ash		5.5	0	0	4	2.75	- Good	
475	Green Ash		5.5	0	0	5	2.75	- Excellent	
476	Green Ash		10	0	1	5	0	- Excellent	
477	Green Ash		5.5	0	1	5	0	- Excellent	
478	Green Ash		8.5	0	1	5	0	- Excellent	
479	Green Ash		10	0	1	4	0	- Good	
480	Hackberry	non Protect	3	0	1	4	0	- Good	
481	Hackberry	non Protect	4	0	1	5	0	- Excellent	
482	Green Ash		4.5	0	1	5	0	- Excellent	
483	Hackberry	non Protect	8.5	0	1	4	0	- Good	
484	Green Ash		8	0	1	4	0	- Good	
485	Green Ash		5	0	1	4	0	- Good	
487	Honey Locust	non Protect	8	0	1	1	0	- Dead	

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Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
488	Green Ash		5	0	1	5	0	- Excellent	
489	Bois D'arc	non Protect	7.5	0	1	2	0	- Diseased	
490	Green Ash		7.5	0	0	5	3.75	- Excellent	
492	Hackberry	non Protect	6.5	0	0	4	0	- Good	
493	Green Ash		4.5	0	0	4	2.25	- Good	
494	Green Ash		7	0	0	4	3.5	- Good	
495	Bois D'arc	non Protect	6.5	0	0	4	0	- Good	
496	Green Ash		6.5	0	0	4	3.25	- Good	
497	Green Ash		7	0	0	3	3.5	- Viable with	
499	Bois D'arc	non Protect	7	0	0	3	0	- Viable with	
500	Bois D'arc	non Protect	8.5	0	0	2		- Diseased	
501	Bois D'arc	non Protect	6.5	0	0	3	0	- Viable with	
502	Green Ash		7.5	0	0	4	3.75	- Good	
503	Green Ash		4	0	0	4	2	- Good	
505	Green Ash		4.5	0	0	4	2.25	- Good	
506	Green Ash		6	0	0	5	3	- Excellent	
507	Green Ash		4	0	0	4	2	- Good	
508	Green Ash		5.5	0	0	4	2.75	- Good	
509	Honey Locust	non Protect	4	0	1	3	0	- Viable with	
510	Green Ash		7	0	1	3	0	- Viable with	
511	Green Ash		5.5	0	0	4	2.75	- Good	
512	Green Ash		8	0	0	3	4	- Viable with	
513	Green Ash		9	0	0	3	4.5	- Viable with	
514	Green Ash		4.5	0	0	3	2.25	- Viable with	
515	Green Ash		6	0	0	3	3	- Viable with	
516	Honey Locust	non Protect	6.5	0	0	3	0	- Viable with	
517	Green Ash		9.5	0	0	4	4.75	- Good	
518	Green Ash		5.5	0	0	5	2.75	- Excellent	
519	Green Ash		5	0	1	5	0	- Excellent	
520	Green Ash		7.5	0	0	4	3.75	- Good	
521	Green Ash		6	0	0	4	3	- Good	
522	Bois D'arc	non Protect	3.5	0	0	3	0	- Viable with	
523	Green Ash		10	0	0	5	5	- Excellent	
524	Green Ash		5.5	0	0	3	2.75	- Viable with	
525	Hackberry		7.5	0	0	3	3.75	- Viable with	
526	American Elm		8	0	0	2		- Diseased	
527	Green Ash		4.5	0	0	4	2.25	- Good	
528	Green Ash		4	0	0	5	2	- Excellent	
529	Green Ash		6.5	0	0	4	3.25	- Good	
530	Green Ash		7.5	0	0	4	3.75	- Good	
531	Green Ash		9.5	0	0	4	4.75	- Good	
532	Green Ash		4	0	0	3	2	- Viable with	
533	Green Ash		4	0	0	4	2	- Good	
534	Green Ash		4	0	0	4	2	- Good	
535	Green Ash		7	0	0	4	3.5	- Good	
536	Green Ash		4	0	1	4	0	- Good	
537	Green Ash		6.5	0	0	4	3.25	- Good	
539	Green Ash		8	0	0	4	4	- Good	
540	Green Ash		8.5	0	1	4	0	- Good	
541	Green Ash		5	0	0	4	2.5	- Good	
542	Green Ash		7.5	0	0	4	3.75	- Good	
543	Green Ash		7	0	0	4	3.5	- Good	
545	Green Ash		6.5	0	0	4	3.25	- Good	
546	Green Ash		4	0	0	5	2	- Excellent	
547	Hackberry	non Protect	9	0	0	3	0	- Viable with	
548	Bois D'arc	non Protect	16.5	0	0	3	0	- Viable with	
549	Green Ash		5	0	0	4	2.5	- Good	
550	Green Ash		11.5	0	0	3	5.75	- Viable with	
553	Eastern Red Cedar		0	16	1	3	0	- Viable with	
555	Eastern Red Cedar		0	24	1	5	0	- Excellent	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
556	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
557	Hackberry	non Protect	9	0	1	3	0	- Viable with	
558	Eastern Red Cedar		0	20	1	5	0	- Excellent	
559	Eastern Red Cedar		0	23	1	5	0	- Excellent	
560	Eastern Red Cedar		0	18	1	5	0	- Excellent	
561	Eastern Red Cedar		0	17	1	5	0	- Excellent	
562	Hackberry	non Protect	5.5	0	1	5	0	- Excellent	
563	Eastern Red Cedar		0	18	1	5	0	- Excellent	
564	Eastern Red Cedar		0	17	1	5	0	- Excellent	
565	Eastern Red Cedar		0	15	1	3	0	- Viable with	
566	Eastern Red Cedar		0	17	1	4	0	- Good	
567	Eastern Red Cedar		0	16	1	5	0	- Excellent	
568	Honey Locust		5	0	0	4	0	- Good	1
570	Hackberry	non Protect	15.5	0	0	4	0	- Good	1
571	Hackberry	non Protect	5	0	0	4	0	- Good	1
572	Bois D'arc	non Protect	7	0	0	3	0	- Viable with	1
573	Honey Locust	non Protect	4.5	0	0	4	0	- Good	1
574	Honey Locust	non Protect	4.5	0	0	3	0	- Viable with	1
575	Eastern Red Cedar		0	10	0	3	0	- Viable with	1
576	Bois D'arc	non Protect	5.5	0	0	4	0	- Good	1
577	Bois D'arc	non Protect	5.5	0	0	4	0	- Good	1
578	Eastern Red Cedar		0	21	1	5	0	- Excellent	
579	Eastern Red Cedar		0	19	1	5	0	- Excellent	
580	Eastern Red Cedar		0	17	1	5	0	- Excellent	
581	Hackberry	non Protect	5.5	0	1	5	0	- Excellent	
582	Eastern Red Cedar		0	26	1	5	0	- Excellent	
583	Eastern Red Cedar		0	25	1	5	0	- Excellent	
584	Eastern Red Cedar		0	19	1	5	0	- Excellent	
585	Eastern Red Cedar		0	22	1	5	0	- Excellent	
586	Eastern Red Cedar		0	18	1	5	0	- Excellent	
587	Eastern Red Cedar		0	15	1	5	0	- Excellent	
588	Eastern Red Cedar		0	24	1	5	0	- Excellent	
590	Eastern Red Cedar		0	20	1	5	0	- Excellent	
592	Eastern Red Cedar		0	23	1	5	0	- Excellent	
594	Eastern Red Cedar		0	22	1	5	0	- Excellent	
596	Eastern Red Cedar		0	13	1	5	0	- Excellent	
598	Eastern Red Cedar		0	15	1	5	0	- Excellent	
600	Green Ash		8	0	0	4	4	- Good	
601	Green Ash		4	0	0	4	2	- Good	
602	Green Ash		8.5	0	0	4	4.25	- Good	
604	Green Ash		8.5	0	0	4	4.25	- Good	
605	Green Ash		4.5	0	0	4	2.25	- Good	
606	Green Ash		6.5	0	0	3	3.25	- Viable with	
607	Green Ash		9	0	0	3	4.5	- Viable with	
608	Hackberry	non Protect	5	0	0	4	0	- Good	
610	Hackberry	non Protect	8	0	0	1	0	- Dead	
611	Hackberry	non Protect	5.5	0	0	4	0	- Good	
612	Hackberry	non Protect	8	0	0	5	0	- Excellent	
613	Hackberry	non Protect	8	0	0	3	0	- Viable with	
614	Hackberry	non Protect	4.5	0	0	4	0	- Good	
615	Green Ash		4	0	0	4	2	- Good	
616	Hackberry	non Protect	9.5	0	0	4	0	- Good	
617	Green Ash		5	0	0	4	2.5	- Good	
618	Hackberry	non Protect	8.5	0	0	3	0	- Viable with	
619	Eastern Red Cedar		0	14	0	3	0	- Viable with	
620	Eastern Red Cedar		0	15	0	5	0	- Excellent	
621	Hackberry	non Protect	11	0	0	4	0	- Good	
623	Hackberry	non Protect	10	0	0	2		- Diseased	
624	Eastern Red Cedar		0	19	0	4	0	- Good	
625	Eastern Red Cedar		0	19	0	4	0	- Good	

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TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
626	Eastern Red Cedar		0	24	0	5	0	- Excellent	
627	Eastern Red Cedar		0	19	0	5	0	- Excellent	
628	Hackberry	non Protect	5	0	0	5	0	- Excellent	
629	Eastern Red Cedar		0	18	0	5	0	- Excellent	
632	Hackberry	non Protect	11.5	0	0	4	0	- Good	
634	Hackberry	non Protect	3	0	0	5	0	- Excellent	
635	Hackberry	non Protect	5	0	0	5	0	- Excellent	
636	Black Willow		7.5	0	0	1		- Dead	
637	Hackberry	non Protect	8	0	0	3	0	- Viable with	
638	Hackberry	non Protect	4.5	0	0	5	0	- Excellent	
639	Eastern Red Cedar		0	15	1	4	0	- Good	
640	Hackberry	non Protect	12	0	0	4	0	- Good	
641	Hackberry	non Protect	9.5	0	0	4	0	- Good	
642	Eastern Red Cedar		0	14	0	4	0	- Good	
643	Eastern Red Cedar		0	14	0	4	0	- Good	
644	Eastern Red Cedar		0	12	0	3	0	- Viable with	
645	Eastern Red Cedar		0	15	0	4	0	- Good	
646	Green Ash		6	0	0	4	3	- Good	
647	Green Ash		6	0	0	4	3	- Good	
648	Green Ash		8	0	0	4	4	- Good	
649	Green Ash		4.5	0	0	4	2.25	- Good	
650	Green Ash		4.5	0	0	4	2.25	- Good	
651	Green Ash		6	0	0	4	3	- Good	
653	Green Ash		4.5	0	0	4	2.25	- Good	
654	Bois D'arc	non Protect	6	0	0	3	0	- Viable with	
655	Green Ash		5	0	0	4	2.5	- Good	
656	Hackberry	non Protect	11	0	0	5	0	- Excellent	
657	Texas Redbud		5	0	0	3	2.5	- Viable with	
658	Green Ash		5	0	0	4	2.5	- Good	
659	Hackberry	non Protect	5.5	0	0	4	0	- Good	
660	Green Ash		5.5	0	0	5	2.75	- Excellent	
661	Eastern Red Cedar		0	14	0	4	0	- Good	
663	Bois D'arc	non Protect	10	0	1	3	0	- Viable with	
664	Eastern Red Cedar		0	16	0	3	0	- Viable with	
665	Bois D'arc	non Protect	13.5	0	0	3	0	- Viable with	
666	Hackberry	non Protect	10.5	0	0	3	0	- Viable with	
667	Eastern Red Cedar		0	20	0	3	0	- Viable with	
668	Green Ash		8	0	0	4	4	- Good	
669	Hackberry	non Protect	5	0	0	4	0	- Good	
671	Bois D'arc	non Protect	9.5	0	0	3	0	- Viable with	
672	Bois D'arc	non Protect	10	0	0	3	0	- Viable with	
673	Bois D'arc	non Protect	10.5	0	1	2	0	- Diseased	
675	Hackberry	non Protect	15	0	1	5	0	- Excellent	
676	Hackberry	non Protect	5.5	0	0	5	0	- Excellent	
677	Hackberry	non Protect	4.5	0	0	5	0	- Excellent	
678	Bois D'arc	non Protect	23	0	0	2	0	- Diseased	
679	Bois D'arc	non Protect	21	0	0	3	0	- Viable with	
680	Bois D'arc	non Protect	17	0	0	3	0	- Viable with	
681	Hackberry	non Protect	10	0	0	5	0	- Excellent	
682	Bois D'arc	non Protect	8	0	0	3	0	- Viable with	
683	Hackberry	non Protect	6	0	0	5	0	- Excellent	
684	Hackberry	non Protect	7	0	1	4	0	- Good	
686	Green Ash		8	0	1	4	0	- Good	
687	Black Willow		15	0	1	5	0	- Excellent	
689	Green Ash		9	0	0	5	4.5	- Excellent	
690	Hackberry	non Protect	7.5	0	0	4	0	- Good	
691	Green Ash		4	0	0	4	2	- Good	
692	Eastern Red Cedar		0	20	1	5	0	- Excellent	
693	Hackberry	non Protect	9.5	0	1	5	0	- Excellent	
694	Eastern Red Cedar		0	18	1	4	0	- Good	

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TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
695	Eastern Red Cedar		0	21	1	5	0	- Excellent	
696	Eastern Red Cedar		0	20	1	5	0	- Excellent	
697	Eastern Red Cedar		0	22	1	5	0	- Excellent	
698			0	25	1	5	0	- Excellent	
699	Eastern Red Cedar		0	22	1	5	0	- Excellent	
700	Eastern Red Cedar		0	26	1	5	0	- Excellent	
702	Honey Locust		5.5	0	1	3	0	- Viable with	
703	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
704	Hackberry	non Protect	6	0	1	5	0	- Excellent	
705	Hackberry	non Protect	10.5	0	1	5	0	- Excellent	
706	Other		4	0	1	4	0	- Good	
707	Eastern Red Cedar		0	25	1	5	0	- Excellent	
708	Bois D'arc	non Protect	8	0	1	2	0	- Diseased	
709	Eastern Red Cedar		0	11	1	4	0	- Good	
711	Hackberry	non Protect	5	0	1	4	0	- Good	
712	Eastern Red Cedar		18	0	1	5	0	- Excellent	
713	Hackberry	non Protect	9	0	1	4	0	- Good	
714	Eastern Red Cedar		0	21	1	5	0	- Excellent	
715	Eastern Red Cedar		0	21	1	5	0	- Excellent	
717	Eastern Red Cedar		0	19	1	4	0	- Good	
718	Bois D'arc	non Protect	4.5	0	1	4	0	- Good	
719	Hackberry	non Protect	9	0	1	4	0	- Good	
720	Eastern Red Cedar		0	26	1	5	0	- Excellent	
721	Eastern Red Cedar		0	23	1	5	0	- Excellent	
722	Eastern Red Cedar		0	25	1	5	0	- Excellent	
723	Eastern Red Cedar		0	25	1	5	0	- Excellent	
724	Eastern Red Cedar		0	24	1	5	0	- Excellent	
725	Eastern Red Cedar		0	24	1	5	0	- Excellent	
726	Eastern Red Cedar		0	14	1	5	0	- Excellent	
727	Eastern Red Cedar		0	23	1	5	0	- Excellent	
728	Eastern Red Cedar		0	22	1	5	0	- Excellent	
729	Eastern Red Cedar		0	23	1	5	0	- Excellent	
730	Eastern Red Cedar		0	15	1	5	0	- Excellent	
731	Eastern Red Cedar		0	22	1	5	0	- Excellent	
732	Bois D'arc	non Protect	7	0	1	4	0	- Good	
733	Eastern Red Cedar		0	20	1	5	0	- Excellent	
734	Bois D'arc	non Protect	12	0	1	4	0	- Good	
735	Bois D'arc	non Protect	9.5	0	1	4	0	- Good	
736	Eastern Red Cedar		0	15	1	5	0	- Excellent	
737	Green Ash		5	0	1	4	0	- Good	
738	Eastern Red Cedar		0	16	1	4	0	- Good	
739	Eastern Red Cedar		0	16	1	5	0	- Excellent	
740	Eastern Red Cedar		0	16	1	5	0	- Excellent	
741			0	20	1	5	0	- Excellent	
742	Eastern Red Cedar		0	18	1	5	0	- Excellent	
800	Honey Locust		4.5	0	1	3	0	- Viable with	
801	Bois D'arc	non Protect	5.5	0	1	4	0	- Good	
802	Hackberry	non Protect	5.5	0	1	5	0	- Excellent	
804	Green Ash		4.5	0	1	4	0	- Good	
806	Hackberry	non Protect	7	0	1	4	0	- Good	
807	Hackberry	non Protect	4.5	0	1	5	0	- Excellent	
808	Green Ash		4	0	1	5	0	- Excellent	
809	American Elm		11	0	1	5	0	- Excellent	
810	Hackberry	non Protect	6	0	1	5	0	- Excellent	
811	Hackberry	non Protect	4	0	1	5	0	- Excellent	
812	Green Ash		7.5	0	1	5	0	- Excellent	
814	Green Ash		11.5	0	1	3	0	- Viable with	
815	Green Ash		6	0	1	5	0	- Excellent	
817	Green Ash		7.5	0	1	4	0	- Good	
818	Honey Locust	non Protect	5.5	0	1	4	0	- Good	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
819	Honey Locust	non Protect	3	0	1	3	0	- Viable with	
820	Honey Locust	non Protect	5	0	1	4	0	- Good	
821	Hackberry	non Protect	6	0	1	4	0	- Good	
822	Green Ash		7	0	1	4	0	- Good	
823	Bois D'arc	non Protect	3.5	0	1	5	0	- Excellent	
825	Hackberry		8	0	1	5	0	- Excellent	
826	Bois D'arc	non Protect	3.5	0	1	4	0	- Good	
827	Honey Locust		6.5	0	1	4	0	- Good	
828	Bois D'arc	non Protect	4	0	1	4	0	- Good	
829	American Elm		8.5	0	1	4	0	- Good	
830	Green Ash		7	0	1	4	0	- Good	
831	Honey Locust	non Protect	7.5	0	1	4	0	- Good	
835	Honey Locust	non Protect	4.5	0	0	3	0	- Viable with	1
837	Hackberry	non Protect	4.5	0	0	5	0	- Excellent	1
838	Green Ash		5	0	1	4	0	- Good	1
839	Green Ash		9.5	0	1	4	0	- Good	
840	Honey Locust	non Protect	5	0	0	5	0	- Excellent	1
845	Bois D'arc	non Protect	6	0	0	4	0	- Good	1
846	Bois D'arc	non Protect	9.5	0	0	4	0	- Good	1
847	Hackberry	non Protect	7	0	0	3	0	- Viable with	1
848	Bois D'arc	non Protect	6	0	0	3	0	- Viable with	1
850	Hackberry	non Protect	7.5	0	0	4	0	- Good	1
853	Honey Locust	non Protect	3.5	0	1	3	0	- Viable with	
855	Hackberry	non Protect	6.5	0	1	5	0	- Excellent	
856	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
857	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
858	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
859	Hackberry	non Protect	3.5	0	1	5	0	- Excellent	
861	Hackberry	non Protect	7	0	1	4	0	- Good	
862	Hackberry	non Protect	6	0	1	5	0	- Excellent	
863	Hackberry	non Protect	7	0	1	5	0	- Excellent	
865	Honey Locust		5	0	1	4	0	- Good	
866	Hackberry	non Protect	8	0	1	5	0	- Excellent	
867	Bois D'arc	non Protect	5.5	0	1	4	0	- Good	
868	Eastern Red Cedar		0	27	1	4	0	- Good	
869	Eastern Red Cedar		0	16	1	5	0	- Excellent	
870	Eastern Red Cedar		0	12	1	5	0	- Excellent	
871	Eastern Red Cedar		0	14	1	4	0	- Good	
872	Hackberry	non Protect	7	0	1	4	0	- Good	
873	Hackberry	non Protect	10.5	0	1	3	0	- Viable with	
874	Hackberry	non Protect	6	0	1	4	0	- Good	
875	Hackberry	non Protect	7.5	0	1	4	0	- Good	
876	Eastern Red Cedar		0	16	1	5	0	- Excellent	
877	Eastern Red Cedar		0	25	1	5	0	- Excellent	
879	Eastern Red Cedar		0	18	1	5	0	- Excellent	
880	Hackberry	non Protect	5.5	0	1	4	0	- Good	
881	Eastern Red Cedar		0	22	1	5	0	- Excellent	
882	Eastern Red Cedar		0	17	1	5	0	- Excellent	
883	Eastern Red Cedar		0	20	1	5	0	- Excellent	
884	Eastern Red Cedar		0	15	1	5	0	- Excellent	
885	Hackberry	non Protect	6	0	1	4	0	- Good	
886	Eastern Red Cedar		0	16	1	5	0	- Excellent	
887	Eastern Red Cedar		0	18	1	5	0	- Excellent	
888	Hackberry	non Protect	4.5	0	1	4	0	- Good	
889	Hackberry	non Protect	4	0	1	5	0	- Excellent	
890	Hackberry	non Protect	6	0	1	4	0	- Good	
891	Hackberry	non Protect	6	0	0	4	3	- Good	
892	Green Ash		8.5	0	0	3	4.25	- Viable with	
893	Green Ash		8.5	0	0	5	4.25	- Excellent	
894	Hackberry	non Protect	4	0	0	5	0	- Excellent	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
895	Hackberry	non Protect	6.5	0	0	4	0	- Good	
896	Hackberry	non Protect	7.5	0	0	4	0	- Good	
897	Hackberry	non Protect	12	0	0	4	0	- Good	
898	Green Ash		12	0	0	3	6	- Viable with	
899	Bois D'arc	non Protect	9	0	0	3	0	- Viable with	
900	Green Ash		7	0	0	4	3.5	- Good	
901	Green Ash		4.5	0	0	4	2.25	- Good	
902	Green Ash		6.5	0	0	4	3.25	- Good	
903	Green Ash		9	0	1	4	0	- Good	
904	Green Ash		5	0	0	5	2.5	- Excellent	
905	Green Ash		6	0	0	5	3	- Excellent	
906	Green Ash		8.5	0	0	4	4.25	- Good	
907	Green Ash		6.5	0	0	4	3.25	- Good	
908	Green Ash		4	0	0	5	2	- Excellent	
909	Green Ash		5	0	0	4	2.5	- Good	
910	Green Ash		6	0	0	4	3	- Good	
911	Green Ash		7.5	0	0	5	3.75	- Excellent	
915	Honey Locust	non Protect	3.5	0	1	4	0	- Good	
916	Honey Locust	non Protect	3.5	0	1	4	0	- Good	
917	Eastern Red Cedar		0	21	1	5	0	- Excellent	
918	Eastern Red Cedar		0	22	1	5	0	- Excellent	
919	Hackberry	non Protect	6	0	1	4	0	- Good	
920	Bois D'arc	non Protect	4	0	1	3	0	- Viable with	
921	Eastern Red Cedar		0	24	1	5	0	- Excellent	
922	Hackberry	non Protect	4	0	1	5	0	- Excellent	
923	Hackberry	non Protect	4	0	1	5	0	- Excellent	
924	Hackberry	non Protect	9	0	1	4	0	- Good	
925	Bois D'arc	non Protect	10	0	1	3	0	- Viable with	
927	Eastern Red Cedar		0	22	1	5	0	- Excellent	
928	Eastern Red Cedar		0	24	1	4	0	- Good	
929	Hackberry	non Protect	6.5	0	1	5	0	- Excellent	
930	Eastern Red Cedar		0	23	1	5	0	- Excellent	
931			0	22	1	5	0	- Excellent	
932	Eastern Red Cedar		0	20	1	5	0	- Excellent	
933	Eastern Red Cedar		0	23	1	5	0	- Excellent	
934	Hackberry	non Protect	8	0	1	4	0	- Good	
936	Eastern Red Cedar		0	13	1	2	0	- Diseased	
937	Eastern Red Cedar		0	15	1	4	0	- Good	
938	Hackberry	non Protect	9	0	1	4	0	- Good	
940	Eastern Red Cedar		0	18	1	5	0	- Excellent	
941	Eastern Red Cedar		0	17	1	4	0	- Good	
942	Eastern Red Cedar		0	17	1	4	0	- Good	
943	Eastern Red Cedar		0	17	1	4	0	- Good	
944	Eastern Red Cedar		0	22	1	4	0	- Good	
945	Eastern Red Cedar		0	24	1	5	0	- Excellent	
946	Eastern Red Cedar		0	24	1	5	0	- Excellent	
947	Eastern Red Cedar		0	21	1	4	0	- Good	
948	Eastern Red Cedar		0	22	1	4	0	- Good	
949	Eastern Red Cedar		0	26	1	5	0	- Excellent	
950	Bois D'arc	non Protect	6	0	1	2	0	- Diseased	
951	Eastern Red Cedar		0	18	1	4	0	- Good	
952	Eastern Red Cedar		0	11	1	4	0	- Good	
953	Eastern Red Cedar		0	14	1	4	0	- Good	
954	Eastern Red Cedar		0	12	1	4	0	- Good	
955	Hackberry	non Protect	4	0	1	4	0	- Good	
956	Hackberry	non Protect	5.5	0	1	4	0	- Good	
957	Eastern Red Cedar		0	16	1	4	0	- Good	
958	Black Willow		11	0	0	3	5.5	- Viable with	
959	Black Willow		7.5	0	0	4	3.75	- Good	
960	Black Willow		10	0	0	5	5	- Excellent	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

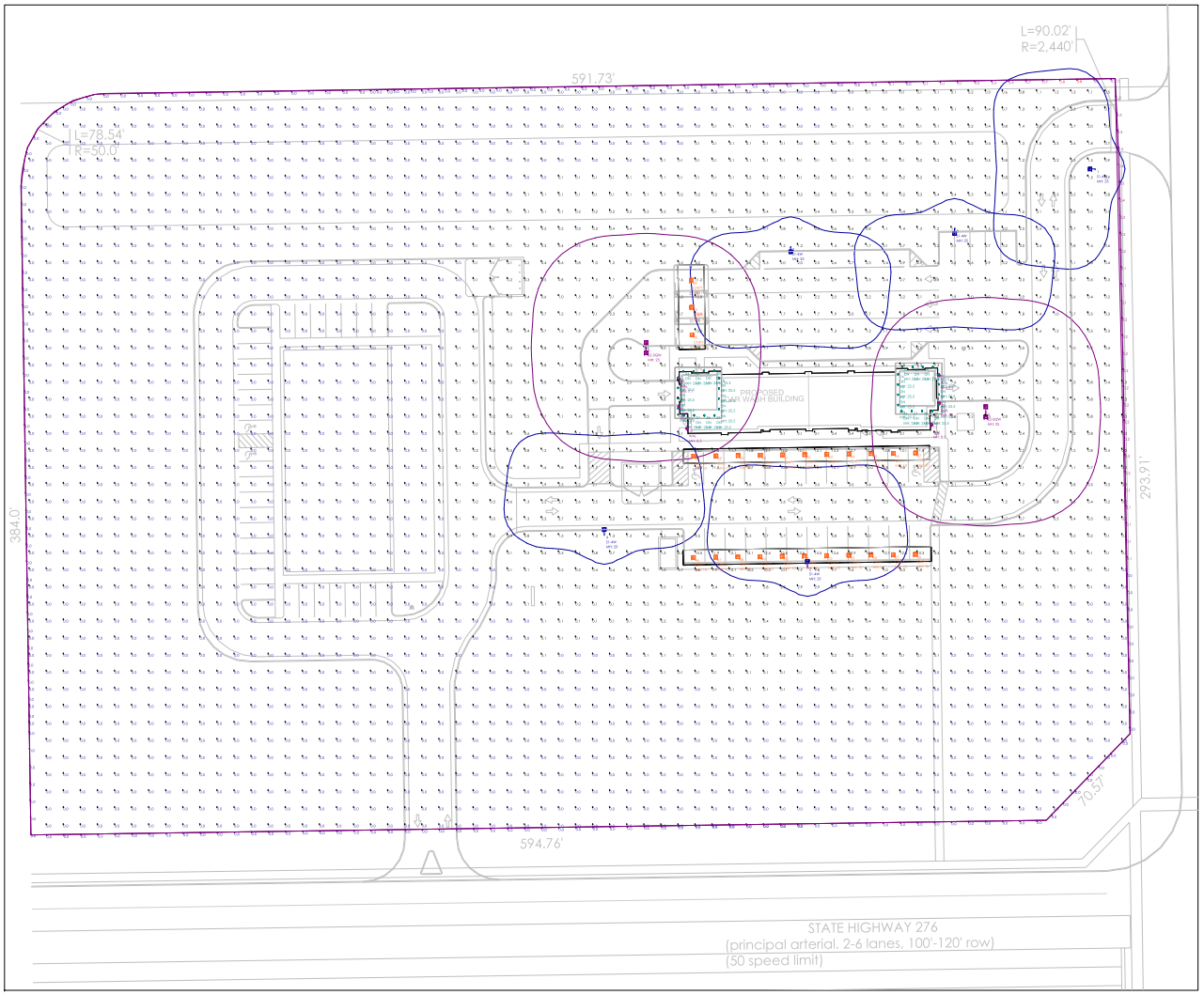
Tree Tag	Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH	MIT REQD (INCHES)	Health	TREES IN DETENTION AREA YES=1 BLANK=NO
961	Black Willow		8	0	0	4	4	- Good	
962	Black Willow		7	0	0	5	3.5	- Excellent	
963	Black Willow		10.5	0	0	5	5.25	- Excellent	
964	Black Willow		8.5	0	0	4	4.25	- Good	
965	Black Willow		4.5	0	0	5	2.25	- Excellent	
966	Black Willow		9	0	0	4	4.5	- Good	
967	Green Ash		5.5	0	0	5	2.75	- Excellent	
968	Black Willow		7	0	0	3	3.5	- Viable with	
969	Green Ash		6	0	0	4	3	- Good	
970	Green Ash		6	0	0	4	3	- Good	
972	Green Ash		12	0	0	4	6	- Good	
973	Eastern Red Cedar		0	15	0	4	0	- Good	
974	Hackberry	non Protect	9	0	0	4	0	- Good	
975	Bois D'arc	non Protect	7	0	0	3	0	- Viable with	
976	Bois D'arc	non Protect	8	0	0	3	4	- Viable with	
977	Bois D'arc	non Protect	7	0	1	3	0	- Viable with	
978	Green Ash		6	0	0	4	3	- Good	
979	Green Ash		4	0	1	5	0	- Excellent	
980	Black Willow		19	0	1	3	0	- Viable with	
982	Green Ash		3.5	0	1	4	0	- Good	
984	Hackberry	non Protect	5.5	0	1	4	0	- Good	
985	Hackberry	non Protect	8	0	1	5	0	- Excellent	
986	Hackberry	non Protect	4.5	0	1	4	0	- Good	
987	Eastern Red Cedar		0	22	1	5	0	- Excellent	
988	Bois D'arc	non Protect	4	0	1	4	0	- Good	
989	Hackberry	non Protect	4	0	1	3	0	- Viable with	
990	Eastern Red Cedar		0	24	1	4	0	- Good	
991	Green Ash		4.5	0	1	4	0	- Good	
992	Green Ash		7	0	1	5	0	- Excellent	
993	Eastern Red Cedar		0	21	1	5	0	- Excellent	
994	Hackberry		5	0	1	5	0	- Excellent	
995	Green Ash		4.5	0	1	5	0	- Excellent	
996	Green Ash		5	0	1	5	0	- Excellent	
997	Eastern Red Cedar		0	19	1	5	0	- Excellent	
998	Hackberry	non Protect	4.5	0	1	4	0	- Good	
999	Eastern Red Cedar		0	19	1	5	0	- Excellent	
1000	Eastern Red Cedar		0	18	1	5	0	- Excellent	
1002	Eastern Red Cedar		0	17	1	5	0	- Excellent	
1004	Eastern Red Cedar		0	17	1	5	0	- Excellent	
1008	Eastern Red Cedar		18	0	1	5	0	- Excellent	
1009	Eastern Red Cedar		16	0	1	5	0	- Excellent	
1010	Eastern Red Cedar		0	16	1	5	0	- Excellent	
1012	Eastern Red Cedar		0	17	1	5	0	- Excellent	
1014	Eastern Red Cedar		0	19	1	5	0	- Excellent	
1016	Eastern Red Cedar		0	18	1	5	0	- Excellent	
1020	Eastern Red Cedar		0	18	1	5	0	- Excellent	
1022	Eastern Red Cedar		0	18	1	5	0	- Excellent	
1024	Eastern Red Cedar		0	17	1	5	0	- Excellent	
1026	Eastern Red Cedar		0	16	1	5	0	- Excellent	
1028	Eastern Red Cedar		0	17	1	5	0	- Excellent	
1030	Eastern Red Cedar		0	20	1	5	0	- Excellent	
1032	Eastern Red Cedar		0	20	1	5	0	- Excellent	1
4411	Bois D'arc	non Protect	13	0	1	2	0	- Diseased	
4412	Green Ash		7	0	1	5	0	- Excellent	
4413	Eastern Red Cedar		0	14	1	5	0	- Excellent	
4414	Eastern Red Cedar		0	12	1	5	0	- Excellent	
4415	Eastern Red Cedar		0	10	1	5	0	- Excellent	
4416	Eastern Red Cedar		0	16	1	5	0	- Excellent	
4417	Eastern Red Cedar		0	14	1	5	0	- Excellent	
4418	Green Ash		5	0	1	4	0	- Good	

CAR WASH ROCKWALL
TREES REMOVED FROM DETENTION AREA

Tree Tag Species	TREE TYPE FEATURED (NONE) SECONDARY PRIMARY	CAPLIER INCH	HEIGHT (FEET)	OUTSIDE CLEAR ZONE (1)OR REMOVE (0)	HEALTH 0	MIT REQD (INCHES) 560.25	Health	TREES IN DETENTION AREA YES=1 BLANK=NO

Luminaire Schedule - Part numbers are provided by the manufacturer and are only intended to be used as a reference to output and optics used.										
Symbol	Qty	Tag	Arrangement	Luminaire Lumens	Arr. Lum. Lumens	Luminaire Watts	Arr. Watts	LLF	Manufacturer	Description
	25	CNPY	Single	4450	4450	38	38	0.900	HUBBELL	VSH-30-4K7-UNV
	32	DN	Single	996	996	14.4	14.4	0.900	DALS Lighting Inc.	RGR4-CC-XX
	5	S1-4W	SINGLE	15232	15232	109.7	109.7	0.900	HUBBELL OUTDOOR	ASL1-160L-115-4K7-4W-UNV-AX-X
	2	S2-5QW	Back-Back	15632	31264	109.7	219.4	0.900	HUBBELL OUTDOOR	ASL1-160L-115-4K7-5QW-UNV-AX-X (2@180)
	6	WAL	GROUP	N.A.	2240	N.A.	14	0.450	FC Lighting	FCC612W-UNV-940-05-05L-X-D40-U40-LD

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Max/Min	Avg/Min	Description
PROPERTY LINES	Illuminance	Fc	0.05	0.8	0.0	N.A.	N.A.	READINGS @ GRADE
PROPERTY_Planar	Illuminance	Fc	0.78	13.3	0.0	N.A.	N.A.	READINGS @ GRADE
CAR WASH PARKING & DRIVES	Illuminance	Fc	2.83	11.0	0.6	18.33	4.72	READINGS @ GRADE



Not to Scale

NOTES
PG-ENLIGHTEN IS NEITHER LICENSED NOR INSURED TO DETERMINE CODE COMPLIANCE. CODE COMPLIANCE REVIEW BY OTHERS.
ANY VARIANCE FROM REFLECTANCE VALUES, OBSTRUCTIONS, LIGHT LOSS FACTORS OR DIMENSIONAL DATA WILL AFFECT THE ACTUAL LIGHT LEVELS OBTAINED.
THIS ANALYSIS IS A MATHEMATICAL MODEL AND CAN BE ONLY AS ACCURATE AS IS PERMITTED BY THE THIRD-PARTY SOFTWARE AND THE IES STANDARDS USED.
FIXTURE TYPES AND QUANTITIES MAY CHANGE BASED ON UNKNOWN OBSTRUCTIONS OR FIELD CONDITIONS. THESE CHANGES MAY RESULT IN AN INCREASED QUANTITY OF FIXTURES.
FIXTURE TYPES AND QUANTITIES BASED ON PROVIDED LAYOUT AND DRAWINGS ARE FOR REFERENCE ONLY. TYPES AND QUANTITIES MAY CHANGE WITH FUTURE REVISIONS.
CALCULATION GRID VALUES 10'-0" O.C.

PARKING LOT DESIGN GUIDE	MAINTAINED HORIZONTAL		MAINTAINED VERTICAL		MAXIMUM	
APPLICATION AND TASK	AVERAGE (FC)	RANGE (FC)	AVERAGE (FC)	RANGE (FC)	AVG:MIN	MAX:MIN
PARKING (UNCOVERED) ZONE 3 (URBAN)	1.5	0.75 - 3	0.8	0.4 - 1.6	4:1	15:1
PARKING (UNCOVERED) ZONE 2 (SUBURBAN)	1	0.5 - 2	0.6	0.3 - 1.2	4:1	15:1
SAFETY (BUILDING EXTERIOR)	1	0.5 - 2	-	-	FOR SECURITY ISSUES, RAISE AVG. TO 3	
SIMPLIFIED RECOMMENDATIONS BASED ON IES 'THE LIGHTING HANDBOOK' 10TH EDITION AND IES RP-20-14. INDIVIDUAL APPLICATIONS WILL DETERMINE SPECIFIC RECOMMENDATIONS. PLEASE REFER TO THE MOST RECENT HANDBOOK FOR A MORE DETAILED EVALUATION AND ADDITIONAL APPLICATIONS. THESE RECOMMENDATIONS DO NOT SUPERCEDE ANY APPLICABLE CODES.						

PROJECT NAME:
ROCKWALL TX CAR WASH- NW STATE HWY 276 & JOHN KING RD

CLIENT NAME:
NERI ARCHITECTS

REVISIONS
1
2
3

PG CONTACT:
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Patti.Geier@pg-enlighten.com
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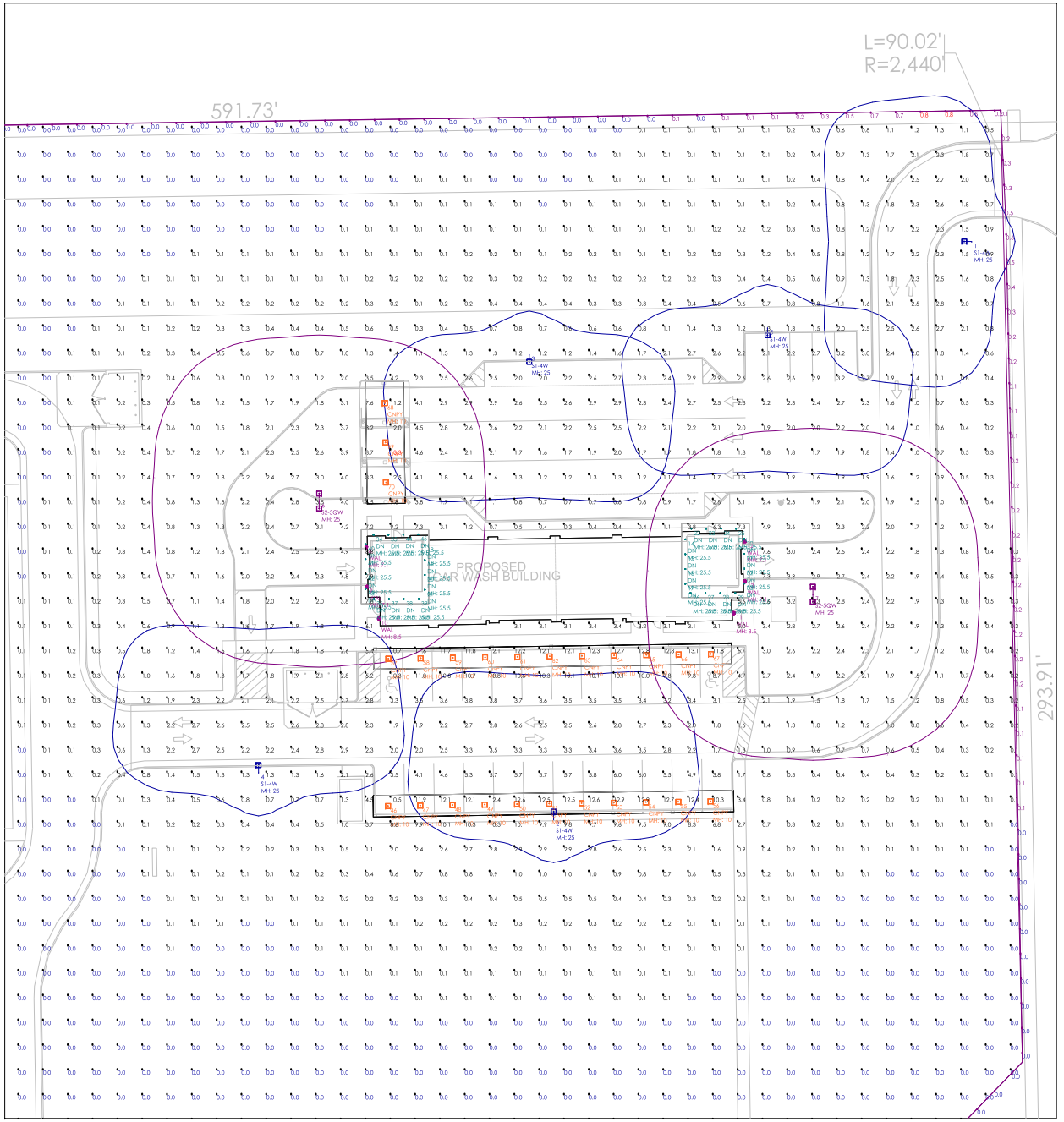
DRAWN BY:
Joeli Collins
joeli.collins@pg-enlighten.com
847.228.1199

Date:10/5/2022

Luminaire Location Summary					
LumNo	Tag (Qty)	Label	Mtg Ht	Orient	Tilt
1	S1-4W (1)	ASL1-160L-115-4K7-4W	25	180	0
2	S1-4W (1)	ASL1-160L-115-4K7-4W	25	90	0
3	S1-4W (1)	ASL1-160L-115-4K7-4W	25	270	0
4	S1-4W (1)	ASL1-160L-115-4K7-4W	25	90	0
5	S1-4W (1)	ASL1-160L-115-4K7-4W	25	270	0
6	S2-5QW (2)	ASL1-160L-115-4K7-5QW_2	25	90	0
7	S2-5QW (2)	ASL1-160L-115-4K7-5QW_2	25	90	0
8		FCC612W-940-05-05L-D40-U40	7.1	90	0
9		FCC612W-940-05-05L-D40-U40	7.1	90	0
10		FCC612W-940-05-05L-D40-U40	8.5	90	0
11		FCC612W-940-05-05L-D40-U40	8.5	90	0
12		FCC612W-940-05-05L-D40-U40	7.1	90	0
13		FCC612W-940-05-05L-D40-U40	7.1	90	0
14	DN (1)	RGR4	25.5	90	0
15	DN (1)	RGR4	25.5	90	0
16	DN (1)	RGR4	25.5	90	0
17	DN (1)	RGR4	25.5	90	0
18	DN (1)	RGR4	25.5	90	0
19	DN (1)	RGR4	25.5	90	0
20	DN (1)	RGR4	25.5	90	0
21	DN (1)	RGR4	25.5	90	0
22	DN (1)	RGR4	25.5	90	0
23	DN (1)	RGR4	25.5	90	0
24	DN (1)	RGR4	25.5	90	0
25	DN (1)	RGR4	25.5	90	0
26	DN (1)	RGR4	25.5	90	0
27	DN (1)	RGR4	25.5	90	0
28	DN (1)	RGR4	25.5	90	0
29	DN (1)	RGR4	25.5	90	0
30	DN (1)	RGR4	25.5	90	0
31	DN (1)	RGR4	25.5	90	0
32	DN (1)	RGR4	25.5	90	0
33	DN (1)	RGR4	25.5	90	0
34	DN (1)	RGR4	25.5	90	0
35	DN (1)	RGR4	25.5	90	0
36	DN (1)	RGR4	25.5	90	0
37	DN (1)	RGR4	25.5	90	0
38	DN (1)	RGR4	25.5	90	0
39	DN (1)	RGR4	25.5	90	0
40	DN (1)	RGR4	25.5	90	0
41	DN (1)	RGR4	25.5	90	0
42	DN (1)	RGR4	25.5	90	0
43	DN (1)	RGR4	25.5	90	0
44	DN (1)	RGR4	25.5	90	0
45	DN (1)	RGR4	25.5	90	0
46	CNPY (1)	VSH-30-4K7	10	90	0
47	CNPY (1)	VSH-30-4K7	10	90	0
48	CNPY (1)	VSH-30-4K7	10	90	0
49	CNPY (1)	VSH-30-4K7	10	90	0
50	CNPY (1)	VSH-30-4K7	10	90	0
51	CNPY (1)	VSH-30-4K7	10	90	0
52	CNPY (1)	VSH-30-4K7	10	90	0
53	CNPY (1)	VSH-30-4K7	10	90	0
54	CNPY (1)	VSH-30-4K7	10	90	0
55	CNPY (1)	VSH-30-4K7	10	90	0
56	CNPY (1)	VSH-30-4K7	10	90	0
57	CNPY (1)	VSH-30-4K7	10	90	0
58	CNPY (1)	VSH-30-4K7	10	90	0
59	CNPY (1)	VSH-30-4K7	10	90	0
60	CNPY (1)	VSH-30-4K7	10	90	0
61	CNPY (1)	VSH-30-4K7	10	90	0
62	CNPY (1)	VSH-30-4K7	10	90	0
63	CNPY (1)	VSH-30-4K7	10	90	0
64	CNPY (1)	VSH-30-4K7	10	90	0
65	CNPY (1)	VSH-30-4K7	10	90	0
66	CNPY (1)	VSH-30-4K7	10	90	0
67	CNPY (1)	VSH-30-4K7	10	90	0
68	CNPY (1)	VSH-30-4K7	10	0	0
69	CNPY (1)	VSH-30-4K7	10	0	0
70	CNPY (1)	VSH-30-4K7	10	0	0



Scale: 1 inch= 20 Ft.

enlighten

PROJECT NAME:
ROCKWALL TX CAR WASH- NW STATE HWY 276 & JOHN KING RD

CLIENT NAME:
NERI ARCHITECTS

DRAWN BY:
Joeli Collins
joeli.collins@pg-enlighten.com
847.228.1199

PG CONTACT:
Patti Geier
patti.Geier@pg-enlighten.com
847.228.1199

REVISIONS	
1	
2	
3	

Date:10/5/2022

Page 2 of 2

BEACON
design . performance . technology

Vanish

EDGE-LIT CANOPY

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VANISH EDGE-LIT

FEATURES

- Edge-Lit technology for even illumination
- Low profile 2.1" depth design virtually disappears into the canopy
- Illuminates without distraction and glare
- Pendant or surface mounted with ¾" conduit
- Universal retrofit solution for HID replacements for various sizes
- IP65 rating to keep water and insects out
- Cast Aluminum with integral heat sink to maintain optimal thermal performance for long LED life Cast aluminum

IP66 DLC LISTED DLC LISTED PREMIUM UL CERTIFIED

SPECIFICATIONS

CONSTRUCTION

- Die-cast aluminum, low profile housing
- New construction or retrofit solution
- Canopy and soffit applications
- Easy installation
- Driver and optical chamber serviceable from below canopy
- Powder coat finish
- Heat sink design to disperse heat away from fixture
- Suitable for wet locations

OPTICS

- Acrylic Lens
- Type V distribution
- Comfort lens for low glare
- Light Guide Edge-Lit technology

INSTALLATION

- Surface or pendant mounted
- Easy installation and serviceable below the canopy deck
- Hinge for hanging during service

ELECTRICAL

- Universal 120-277 , 347, 480 Input Voltage
- Power Factor > 0.9 at full load
- Total Harmonic Distortion < 20% at full load
- 10 kV Surge Protection
- 0-10 Volt Dimmable Driver
- Operating temperature: -40°C to +40°C

CERTIFICATIONS

- UL Certified
- DesignLights Consortium™ 5.1 qualified
- Wet Location Listed
- IP66
- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org

WARRANTY

- 5 year warranty

ORDERING GUIDE

Example: VSH-85-5K7-UNV-WHS

CATALOG #

VSH – – –

Series		Size	Color Temp	Voltage		Finish	
VSH	Vanish	30[1]	4K7	UNV	Universal	BLT	Black Matte Textured
		55	5K7	347	347V	BLS	Black Gloss Smooth
		85		480	480V	DBT	Dark Bronze Matte Textured
		140				DBS	Dark Bronze Gloss Smooth
						GTT	Graphite Matte Textured
						LGS	Light Grey Gloss Smooth
						LGT	Light Grey Matte Textured
						PSS	Platinum Silver Smooth
						WHT	White Matte Textured
						WHS	White Gloss Smooth
						VGT	Verde Green Textured
						Color Option	
						CC	Custom Color

Notes:
1 Only available in Universal Voltage

KEY DATA	
Lumen Range	4,500 – 20,200
Wattage Range	30 – 140 Watts
Efficacy Range (LPW)	138 – 157
Reported Life (Hours)	>60,000

Vanish

EDGE-LIT CANOPY

PERFORMANCE DATA

Product	Lumens	B	U	G	LPW	CRI	CCT
VSH-30-4K7	4564	2	0	1	150	70	4000K
VSH-30-5K7	4793	2	0	1	157	70	5000K
VSH-55-4K7	8846	3	0	2	153	70	4000K
VSH-55-5K7	9069	3	0	2	157	70	5000K
VSH-85-4K7	13296	3	0	2	152	70	4000K
VSH-85-5K7	13666	3	0	2	157	70	5000K
VSH-140-4K7	19649	4	0	3	138	70	4000K
VSH-140-5K7	20196	4	0	3	142	70	5000K

Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment application and inherent performance balances of the electrical components.

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	50,000	TM-21-11[1] L96 60,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.94	0.92	0.90	0.81	>170,000
40°C / 104°F	0.99	0.94	0.92	0.89	0.80	>160,000

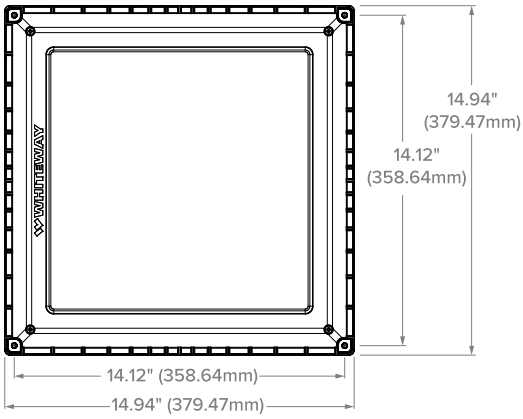
LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

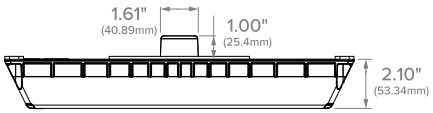
Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

Vanish

EDGE-LIT CANOPY

DIMENSIONS



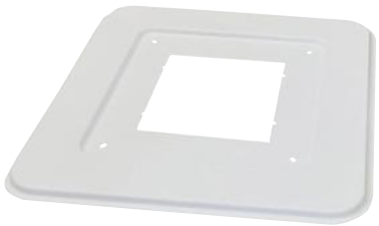


MOUNTING ACCESSORIES

Accessories (order separately)			
☐	**93133148**	WHITEWAY 15 IN CVR PLT WHT VSH/GSY	Retrofit cover plate for LSI Encore 15” square-replacement for 10” opening
☐	**93133149**	WHITEWAY DECORATIVE CVR PLT VSH/GSY	26” Decorative Beauty Plate for Canopy Retrofits
☐	**93133151**	WHITEWAY HID RETRFT KIT WHT VSH/GSY (fits any square HID housing between 21” & 23” square.)	Universal HID retrofit kit
☐	**93133177**	WHITEWAY STEM AND JUNCTION BOX	

93133148

93133149



93133151

- Measure outside dimension of existing housing

93133177

EXO
OUTDOOR LIGHTING

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

FEATURES

- Compact sleek design with multiple LED configurations and simple installation
- The SLING includes a universal mounting block for easy pole installation or mast arm option for 2-3/8 ft OD roadway brackets
- Capable of replacing up to 1000w HID luminaires
- Micro Strike optical distributions of Type 2, 3, 4W or 5QW
- Tool-less entry option for easy installation and maintenance
- 1.5G rated for high vibration applications including bridges and overpasses

C US

BUY AMERICAN SOLUTIONS
See Certification Specifications

DLC LISTED PREMIUM

CONTROL TECHNOLOGY

NX LIGHTING CONTROLS™

wiSCAPE™

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish
- Separate optical and electrical compartment for improved thermal management and optimum component operation
- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- Premium engineered individual acrylic lenses deliver IES Type 2, 3, 4W and 5QW distributions
- Lens distributions are field rotatable (in 90˚ increments) or exchangeable for job site fine-tuning
- 3000K, 4000K, or 5000K (70 CRI) CCT
- 80, 160, or 320 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero uplight at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Tool-less entry to wiring/driver compartment optional
- Universal mounting block works with #2 drill pattern
- Fixture ships with slotted mounting block to accommodate wide range of drill patterns for easy retrofit opportunities
- Mast arm fitter accessory or option available for 2-3/8" OD brackets with vertical tilt of +3°, 0° or -3°

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40˚ C to 40˚ C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20KA and 10KV protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is consumed

CONTROLS

- Photo control, occupancy sensor and Zigbee wireless available for complete on/off and dimming control
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6
- NX Lighting Controls™ available with in fixture wireless control module, features dimming and occupancy sensor
- wiSCAPE® available with in fixture wireless control module, features dimming and occupancy sensor via 7-pin
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application

CERTIFICATIONS

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40˚C ambient temperatures
- DLC (DesignLights Consortium Qualified),with some Premium Qualified configurations.Please refer to the DLC website for specificproduct qualifications at www.designlights.org
- 1.5G rated for ANSI C136.31 high vibration applications
- IP65 optical assembly
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020.

WARRANTY

- 5 Year warranty

KEY DATA	
Lumen Range	3,200–36,000
Wattage Range	25–255
Efficacy Range (LPW)	118–148
Weight lbs. (kg)	14.5–17.5 (6.6–8.0)

EXO
OUTDOOR LIGHTING

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

ORDERING GUIDE

Example: ASL1-80L-50-3K7-2-UNV-ASQU-BLT-7PRMD-40F

CATALOG #

ORDERING INFORMATION

Series	# LEDs	CCT/CRI	Distribution	Rotation/Orientation	Voltage	Mounting
ASL1 ASL Microstrike Series	**80L-25** 3,000 lm	**3K7** 3000K, 70 CRI	**2** Type II	**L** Optic rotation left	**UNV** Universal 120-277V	**ASQU** Arm Square w/ Universal Mount
	80L-39 4,500 lm	**4K7** 4000K, 70 CRI	**3** Type III	**R** Optic rotation right	**120** 120V	**A3** AS with 3.5-4.13" OD RPA3 & UM
	80L-50 6,000 lm	**5K7** 5000K, 70 CRI	**4W** Type 4W		**208** 208V	**A4** AS with 4.18-5.25" OD RPA4 & U
	160L-70 9,000 lm		**5QW** Type 5QW		**240** 240V	**A5** AS with 5.5-6.5" OD RPA5 & UM
	160L-100 12,000 lm				**277** 277V	**MAF** Mast Arm Fitter for 2-3/8" OD
	160L-115 15,000 lm				**347** 347V	
	160L-135 18,000 lm				**480** 480V	
ASL2 ASL Microstrike Series	**320L-145** 21,000 lm					
	320L-170 24,000 lm					
	320L-185 27,000 lm					
	320L-210 30,000 lm					
	320L-235 33,000 lm					
	320L-255 35,000 lm					

Control Options Network	
NXSPW30F[1]	NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, 30' (use white for WH, black for DB, GT, TT, gray for LG, PS)
NXSP30F[1]	NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 30' (use white for WH, black for DB, GT, TT, gray for LG, PS)
NXWE[1]	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor
Stand Alone Sensors	
SCP-8F[5,6]	Remote control programmable line voltage sensor
SCP-40F[5,6]	Remote control programmable line voltage sensor
Control Options Other	
7PR	7 Pin Receptacle
7PR-SC	7 Pin Receptacle with shorting cap
7PR-MD8F	7 pin receptacle with low voltage sensor at 8' mounting for external control accessory
7PR-MD40F	7 pin receptacle with low voltage sensor at 40' mounting for external control accessory
7PR-TL	7 Pin Receptacle with Photocontrol
ADD	AutoDim timer based dimming
ADT	AutoDim time of day dimming
Sensors	
BTS_F	Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens[7]
BTSO_F	Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height [8]

Options	
F[3]	Fusing
BC	Backlight Control
TB[4]	Terminal Block
TE	Tooless Entry
SSF	Stainless Steel Fasteners

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
LGT	Light Grey Matte Textured
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

Notes:

1 Not compatible with 80L configurations
2 Not compatible with 480V configurations
3 Must specify voltage
4 Not available with a combination or 347/480 and fusing
5 Must specify voltage, 120V or 277V only
6 Order at least one SPC--REMOTE per project location to program and control the occupancy sensor
7 Replace "_" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height
8 Replace "_" with "12" for up to 12' mounting height

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

CONTROL ACCESSORIES (ORDERED SEPARATELY)

	Catalog Number	Description
☐	**SCP-Remote**	Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor
☐	**WIR-RME-L**	wiSCAPE External Fixture Module
☐	**NXOFM-1R1D-UNV**	NX 7-Pin Twist-Lock® with NX Networked Wireless Radio, Integral Automatic Dimming Photocell, Integral Single Pole Relay with Dimming, and Bluetooth Programming

ACCESSORIES (ORDERED SEPARATELY)

	Catalog Number	Description
☐	**ASL1-HSS-90-B-XXX**[1]	House Side Shield Back 90 deg
☐	**ASL1-HSS-90-F-XXX**[1]	House Side Shield Front 90 deg
☐	**ASL1-HSS-90-S-XXX**[1]	House Side Shield Side 90 deg
☐	**ASL1-HSS-270-BSS-XXX**[1]	House Side Shield Back, Side & Side 270 deg
☐	**ASL1-HSS-270-FSS-XXX**[1]	House Side Shield Front, Side & Side 270 deg
☐	**ASL1-HSS-270-FSB-XXX**[1]	House Side Shield Front, Side & Back 270 deg
☐	**ASL1-HSS-360-XXX**[1]	House Side Shield 360 deg
☐	**ASL2-HSS-90-B-XXX**[1]	House Side Shield Back 90 deg
☐	**ASL2-HSS-90-F-XXX**[1]	House Side Shield Front 90 deg
☐	**ASL2-HSS-90-S-XXX**[1]	House Side Shield Side 90 deg
☐	**ASL2-HSS-270-BSS-XXX**[1]	House Side Shield Back, Side & Side 270 deg
☐	**ASL2-HSS-270-FSS-XXX**[1]	House Side Shield Front, Side & Side 270 deg
☐	**ASL2-HSS-270-FSB-XXX**[1]	House Side Shield Front, Side & Back 270 deg
☐	**ASL2-HSS-360-XXX**[1]	House Side Shield 360 deg
☐	**ASL-MAF**	Mast arm kit with wildlife shield for mounting on 2 3/8" OD arms
☐	**SETA2-XX**[1]	Square pole tenon adapter (4 at 90 degrees) (2 3/8" OD tenon)
☐	**RETA2-XX**[1]	Round pole tenon adapter (4 at 90 degrees) (2 3/8" OD tenon), requires CL1S-RPA4-ACC-XX for each luminaire
☐	**RARBC80L**	Backlight Control 80L
☐	**RARBC160L**	Backlight Control 160L
☐	**RARBC320L**	Backlight Control 320L
☐	**RARBC480L**	Backlight Control 480L
☐	**CL1S-RPA4-ACC-XX**[1]	Round Pole Adapter (* denotes pole diameter; 3 = 3 ¼" -3 ¾"; 4* = 3 7/8" – 6")
☐	**ASL-ARMMTG-XX1**[1]	Arm mounting kit for side of pole attachment
☐	**WB-AREA-XX**[1]	Wall bracket, Compatible with standard arm mount option
☐	**ASL-MAF**	Mast arm kit with wildlife shield for mounting on 2 3/8" OD arms

1 Replace XX or XXX with color choice, eg.: DB for Dark Bronze or BLT for Black Matte Textured

EXO OUTDOOR LIGHTING

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
				Lumens	LPW[1]	B	U	G	Lumens	LPW[1]	B	U	G	Lumens	LPW[1]	B	U	G
ASL1	25	25.4	2	3430	135	2	0	2	3413	134	2	0	2	3225	127	2	0	2
			3	3465	136	2	0	2	3448	136	2	0	2	3259	128	2	0	2
			4W	3401	134	2	0	3	3384	133	2	0	3	3198	126	2	0	3
			5QW	3483	137	4	0	2	3466	136	4	0	2	3274	129	4	0	2
	39	38.0	2	5237	138	3	0	3	5211	137	3	0	3	4924	130	3	0	3
			3	5292	139	2	0	2	5265	139	2	0	2	4976	131	2	0	2
			4W	5193	137	2	0	3	5168	136	2	0	3	4883	129	2	0	3
			5QW	5318	140	4	0	2	5292	139	4	0	2	4999	132	4	0	2
	50	49.7	2	6294	127	2	0	2	6263	126	2	0	2	5918	119	2	0	2
			3	6360	128	2	0	2	6328	127	2	0	2	5980	120	2	0	2
			4W	6242	126	2	0	3	6211	125	2	0	3	5869	118	2	0	3
			5QW	6392	129	4	0	2	6360	128	4	0	2	6008	121	4	0	2
	70	68.4	2	9461	138	3	0	3	9414	138	3	0	3	8897	130	3	0	3
			3	9560	140	2	0	2	9513	139	2	0	2	8989	131	2	0	2
			4W	9383	137	2	0	3	9336	136	2	0	3	8822	129	2	0	3
			5QW	9608	140	4	0	2	9560	140	4	0	2	9032	132	4	0	2
	100	88.0	2	11945	136	2	0	2	11886	135	2	0	2	11232	128	2	0	2
			3	12070	137	2	0	2	12010	136	2	0	2	11349	129	2	0	2
			4W	11846	135	2	0	3	11787	134	2	0	3	11139	127	2	0	3
			5QW	12131	138	4	0	2	12070	137	4	0	2	11403	130	4	0	2
	115	109.7	2	15683	143	2	0	2	15605	142	2	0	2	14977	137	2	0	2
			3	15486	141	2	0	2	15411	140	2	0	2	14819	135	2	0	2
			4W	15305	140	2	0	3	15232	139	2	0	3	14646	134	2	0	3
			5QW	15732	143	4	0	2	15653	143	4	0	2	15024	137	4	0	2
	135	133.3	2	18089	136	3	0	3	17999	135	3	0	3	17275	130	3	0	3
			3	17861	134	2	0	2	17776	133	2	0	2	17092	128	2	0	2
			4W	17653	132	2	0	3	17569	132	2	0	3	16893	127	2	0	3
			5QW	18155	136	4	0	2	18064	136	4	0	2	17338	130	4	0	2

ASL2 Performance Data on next page

1 VAC input Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations. Actual performance may differ as a result of end-user environment and application.

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
				Lumens	LPW[1]	B	U	G	Lumens	LPW[1]	B	U	G	Lumens	LPW[1]	B	U	G
ASL2	145	143.0	2	21007	147	3	0	4	20902	146	3	0	4	20061	140	3	0	4
			3	20842	146	3	0	4	20738	145	3	0	4	19904	139	3	0	4
			4W	20595	144	3	0	5	20492	143	3	0	5	19668	138	3	0	5
			5QW	21130	148	5	0	4	21024	147	5	0	4	20179	141	5	0	4
	170	168.0	2	24447	146	3	0	4	24325	145	3	0	4	23347	139	3	0	4
			3	24256	144	3	0	4	24134	144	3	0	4	23164	138	3	0	4
			4W	23968	143	3	0	5	23848	142	3	0	5	22889	136	3	0	5
			5QW	24591	146	5	0	4	24468	146	5	0	4	23484	140	5	0	4
	185	185.0	2	26651	144	4	0	5	26518	143	4	0	5	25452	138	4	0	5
			3	26442	143	3	0	4	26310	142	3	0	4	25252	136	3	0	4
			4W	26129	141	4	0	5	25998	141	4	0	5	24953	135	4	0	5
			5QW	26808	145	5	0	5	26674	144	5	0	5	25602	138	5	0	5
	210	210.0	2	29880	142	3	0	4	29731	142	3	0	4	28535	136	3	0	4
			3	29646	141	3	0	4	29497	140	3	0	4	28312	135	3	0	4
			4W	29294	139	3	0	5	29148	139	3	0	5	27976	133	3	0	5
			5QW	30056	143	5	0	4	29905	142	5	0	4	28703	137	5	0	4
	235	235.0	2	32959	140	3	0	4	32794	140	3	0	4	31475	134	3	0	4
			3	32700	139	3	0	4	32537	138	3	0	4	31229	133	3	0	4
			4W	32312	137	3	0	5	32151	137	3	0	5	30858	131	3	0	5
			5QW	33152	141	5	0	4	32987	140	5	0	4	31661	135	5	0	4
	255	261.2	2	36218	139	4	0	5	36037	138	4	0	5	34588	132	4	0	5
			3	35934	138	3	0	4	35754	137	3	0	4	34317	131	3	0	4
			4W	35508	136	4	0	5	35330	135	4	0	5	33910	130	4	0	5
			5QW	36431	139	5	0	5	36249	139	5	0	5	34792	133	5	0	5

1 VAC input Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations. Actual performance may differ as a result of end-user environment and application.

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

ELECTRICAL DATA

Family	Nominal Wattage	Input Voltage (Volts)	Current (AMPS)	System Power (Watts)
SLING (ASL1)	25	120	0.21	25.4
		208	0.12	
		240	0.11	
		277	0.09	
		347	0.07	
		480	0.05	
	39	120	0.32	38
		208	0.18	
		240	0.16	
		277	0.14	
		347	0.11	
		480	0.08	
	50	120	0.41	49.7
		208	0.24	
		240	0.21	
		277	0.18	
		347	0.14	
		480	0.10	
	70	120	0.57	68.4
		208	0.33	
		240	0.29	
		277	0.25	
		347	0.20	
		480	0.14	
	100	120	0.73	88
		208	0.42	
		240	0.37	
		277	0.32	
		347	0.25	
		480	0.18	
	115	120	0.91	109.7
		208	0.53	
		240	0.46	
		277	0.40	
		347	0.32	
		480	0.23	
	135	120	1.11	133.3
		208	0.64	
		240	0.56	
		277	0.48	
		347	0.38	
		480	0.28	
SLING (ASL2) Next Page				

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

ELECTRICAL DATA (CONT'D)

Family	Nominal Wattage	Input Voltage (Volts)	Current (AMPS)	System Power (Watts)
SLING (ASL2)	145	120	1.19	143.0
		208	0.69	
		240	0.60	
		277	0.52	
		347	0.41	
		480	0.30	
	170	120	1.40	168.0
		208	0.81	
		240	0.70	
		277	0.61	
		347	0.48	
		480	0.35	
	185	120	1.54	185.0
		208	0.89	
		240	0.77	
		277	0.67	
		347	0.53	
		480	0.39	
	210	120	1.75	210.0
		208	1.01	
		240	0.88	
		277	0.76	
		347	0.61	
		480	0.44	
	235	120	1.96	235.0
		208	1.13	
		240	0.98	
		277	0.85	
		347	0.68	
		480	0.49	
	255	120	2.18	261.2
		208	1.26	
		240	1.09	
		277	0.94	
		347	0.75	
		480	0.54	

EXO
OUTDOOR LIGHTING

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11[1] L96 60,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

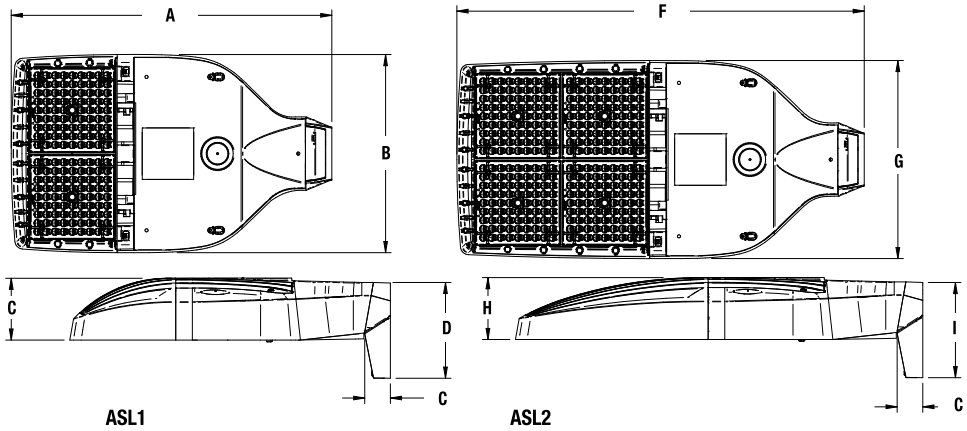
1. Projected per IESNA TM-21-11 (* Cree XP-L, 2100mA, 105°C Ts, 6,000hrs)

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0° C	32° F	1.06
10° C	50° F	1.03
20° C	68° F	1.01
25° C	77° F	1.00
30° C	86° F	0.99
40° C	104° F	0.97
50° C	122° F	0.94

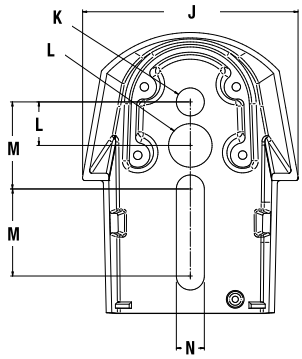
Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

DIMENSIONS



	Weight
ASL1	14.47 lbs (6.56 kgs)
ASL2	17.47 lbs (7.92 kgs)

A	B	C	D	E	F	G	H	I	ASL1 EPA@0°	ASL2 EPA@0°	ASL1 w/ HSS	ASL2 w/ HSS
18.9"	11.7"	3.7"	5.65"	1.5"	24.0"	11.7"	3.7"	5.62"	.46 ft.^{2}	.56 ft.^{2}	.73 ft.^{2}	1.01 ft.^{2}
480mm	297mm	94mm	144mm	38mm	610mm	297mm	94mm	143mm	.14 m^2	.17 m^2	.22 m^2	.31 m^2

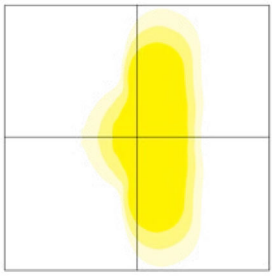


J	K	L	M	N
4.33"	.562"	.875"	1.75"	.562"
480mm	297mm	94mm	610mm	297mm

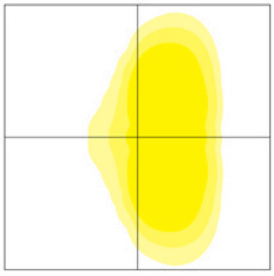
PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

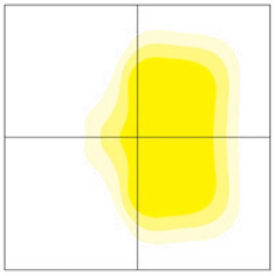
Type II



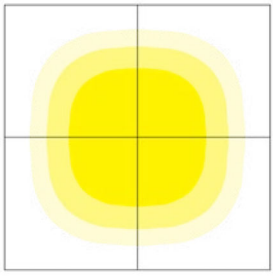
Type III



Type IV



Type V



SLING Micro Strike

AREA/SITE/ROAD LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

ADDITIONAL INFORMATION (CONT'D)

OCCUPANCY SENSOR

- Individual fixture control
- Dims product when space is not occupied

7-PIN RECEPTACLE

- Compatible with 3-pin, 5-pin or 7-pin photocontrols
- Turns fixture on when sun sets, off when sun rises
- Wireless networked solution
- For use with a variety of control platforms

*Additional accessories required.

NX

NX LIGHTING CONTROLS™

NX Lighting Conrols™ platform delivers a lighting control solution capable of seamlessly connecting exterior and interior applications.

- Standalone or networked fixture control
- Astronomical time schedules
- BACnet building networking
- Connects with indoor wired, wireless or hybrid networks
- Wireless setup via app
- Occupancy Sensor option dims product when space is not occupied

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

ADDITIONAL INFORMATION (CONT'D)

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	Delay 0-9 Hours	R6

ADT-AutoDim Time of Day Based Option

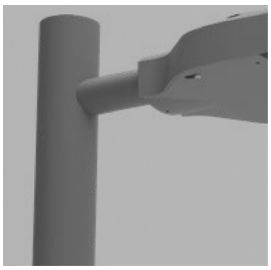
- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	12-6 AM and 9-11P	R6

MOUNTING

Arm Mount – Fixture ships with integral arm for ease of installation. Compatible with Outdoor S2 drill pattern.



MAF – Fits 2-3/8" OD arms Roadway applications.

Wall Mount – Wall mount bracket designed for building mount applications.

DATE: LOCATION:

TYPE: PROJECT:

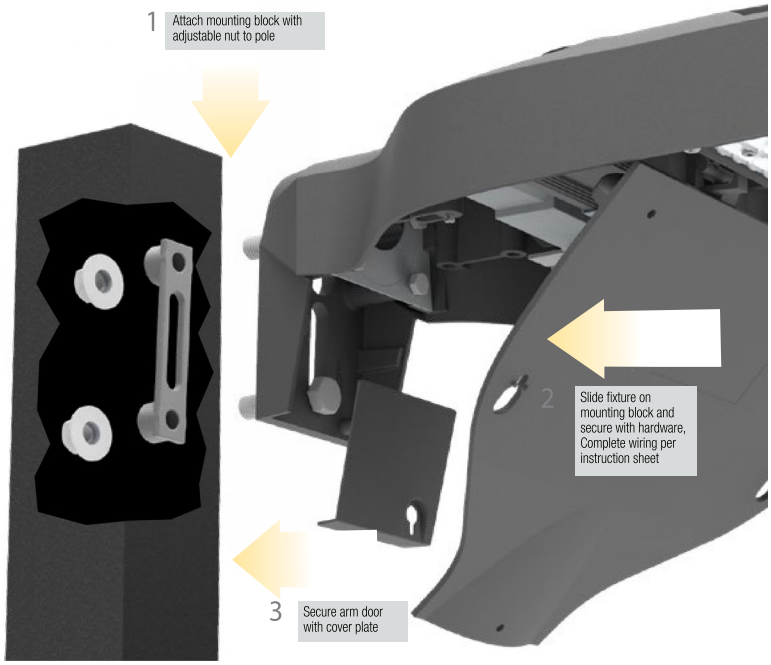
CATALOG #:

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

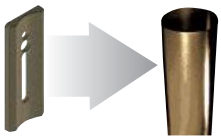
ADDITIONAL INFORMATION (CONT'D)

MOUNTING (CONT'D)



Universal Mount – Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5"

ACCESSORY



ROUND POLE ADAPTER

WB-AREA-XX

SPOKE BRACKET (single arm shown) Horizontal round arm tenon adapters for use with MAF mounting type or accessory kit. Reference SH Spoke Pole Top Brackets for ordering information.

SLING Micro Strike

AREA/SITE/ROAD LIGHTER

DATE: LOCATION:

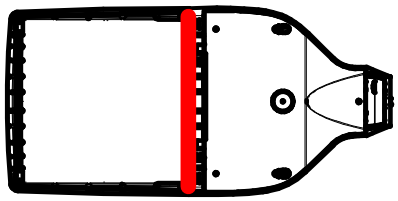
TYPE: PROJECT:

CATALOG #:

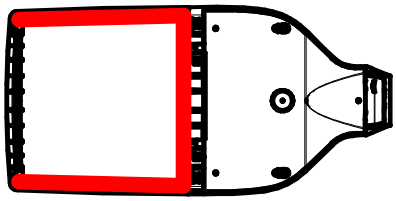
ADDITIONAL INFORMATION (CONT'D)

CONFIGURATIONS

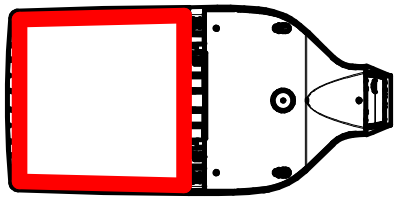
ASLx HSS-90-B-xx



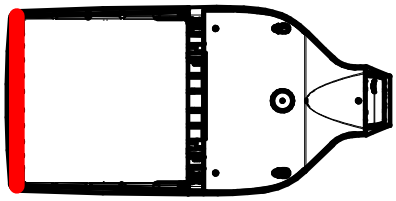
ASLx HSS-270-BSS-xx



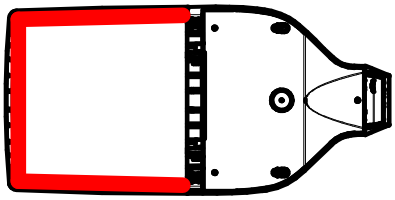
ASLx HSS-360-xx



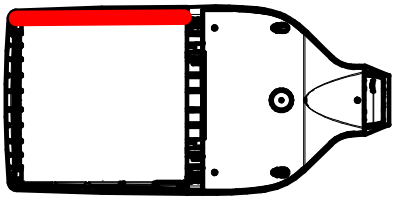
ASLx HSS-90-F-xx



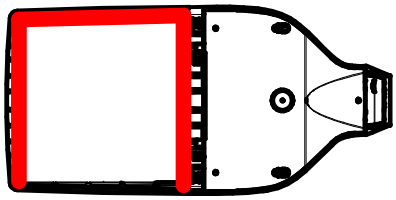
ASLx HSS-270-FSS-xx



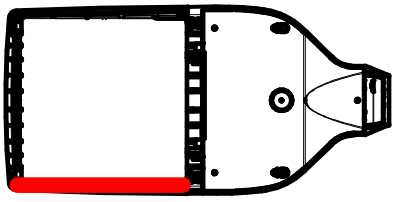
ASLx HSS-90-S-xx



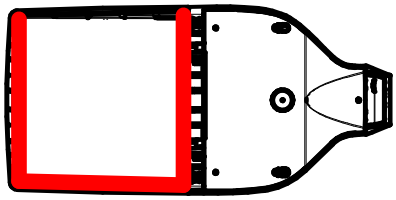
ASLx HSS-270-FSB-xx



ASLx HSS-90-S-xx



ASLx HSS-270-FSB-xx



USE OF TRADEMARKS AND TRADE NAMES

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Smooth baffle, round

When choosing a recessed fixture, eliminating glare is a priority. The unique positioning of the LED module in this series of downlights will meet that important need.

WET

LOW-GLARE

ENERGY STAR

Intertek

IC RATED

JA8 CERTIFIED

2700k 3000k 3500k 4000k 5000k

COLOR TEMPERATURE

Model	Size	Watts	Delivered lumens	LED lumens	CRI	Color °T	Voltage
RGR2-CC	2"	8 W	600 lm	750 lm	90	2700, 3000, 3500, 4000, 5000 K	120 V
RGR4-CC	4"	14 W	990 lm	1200 lm	90		120 V
RGR6-CC	6"	20 W	1600 lm	1900 lm	90		120 V

Specifications

Every fixture includes a junction box with integrated dimmable driver

Can be daisy chained

Superior LED performance and lifespan

Regressed light source

Minimal heat emission

Aluminum construction

Switch-selectable CCT: 2700K/3000 K/3500 K/4000 K/5000 K

IC certification (suitable for direct contact with insulation)

Air-tight certified as per ASTM E283-04

40° beam angle

Suitable for wet locations

JA8 Certified

Refer to website for dimmer compatibility

Ideal operating temperature: -20° to 40° C

5-year warranty

Finish

- **BK** Black
- **SN** Satin Nickel
- **WH** White

Accessories

RFP-UNI
Universal rough-in plate

RFP-23
Rough-in plate for 2" and 3" models

RFP-46
Rough-in plate for 4" and 6" models

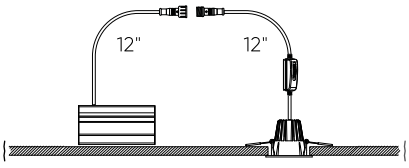
Order example

RGR4-CC-BK
Dimmable RGR4-CC 4" round regressed LED fixture in a black finish

Note
Other Color °T and Finishes available, but may require MOQ's and longer lead times. Please contact your DALS representative for more information.

RGR2- CC Ø2 ¾"

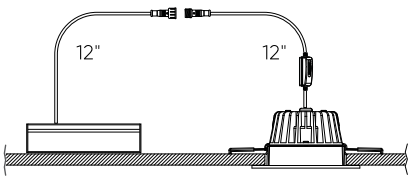
Ø3 ⅛"



4 13/16" x 2" x 2"

RGR4-CC Ø4"

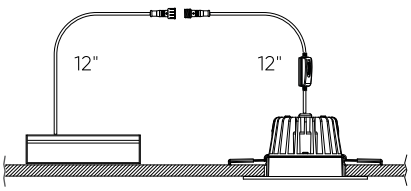
Ø4 ½"



5 ⅜" x 3" x 1 ¼"

RGR6-CC Ø6 ½"

Ø7"



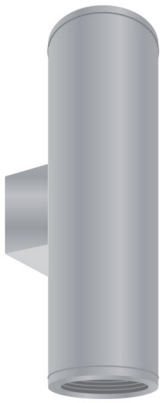
5 ⅜" x 3" x 1 ¼"

FC OUTDOOR LIGHTING

Date:	Approved:
Type:	
Fixture:	
Project:	

FCC600 Up/Down or Up, Standard Drivers without Battery Backup

6” Round wall mount up/down or up only cylinder outdoor



Intertek CE NOM

Made in USA with domestic & globally sourced components

FEATURES

- Up to 5000 lm, Up to 100 LPW
- Numerous mounting capabilities
- Clear anti-glare tempered glass lens (IK09)
- Multiple color finishes with AAMA 2605 option (10 yr. paint warranty)
- 0-10V 1% Dimming (Standard)
- 1.5G Vibration Tested
- 95 CRI with 2 SDCM

PERFORMANCE

Beam Spread: 15° | 25° | 40° | 50° | 72°
CCT Options: 2700K | 3000K | 3500K | 4000K
CRI: 93 CRI
Consistency: 2 SDCM (Fixture to Fixture)
Lumens: 5000 lm
Lifetime: > 70,000 hours / L70 or better

PHYSICAL

Mounting: Mounts directly to standard recessed junction box with wall mount or twist-lock canopy. Additional holes allow unit to be attached directly to mounting surface.
Ingress Protection: Continuous silicone gasket to seal out contaminants, IP65 rated for dry, damp or wet locations
Finish: Six stage chemical iron phosphate conversion pre-treatment. Polyester powder coat finish, 18 µm Min., 5000hr salt spray test (ASTM B117) compliant with Florida / AAMA 2604 specification. AAMA 2605 optional w/ 10 yr. paint warranty.
Warranty: 5-Year limited warranty (refer to website for details)
Housing: Heavy-walled, extruded aluminum housing with high pressure die-cast lens ring and cap with stainless steel hardware.
Lens: IK09 impact compliant, clear anti-glare tempered glass
Vibration Resistance: Compliant with 1.5G ANSI C136.31, Seismic rated AC-156
Weight: 8-12 lbs (Depending on Length)
Operating Temperature: -22°F to 122°F (-30°C to 50°C)

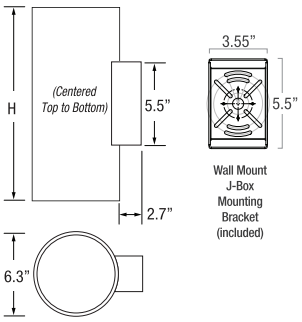
ELECTRICAL

Voltage: Universal 120–277V AC standard, 347V optional
Power Supply: Integral Class II, electronic high-power factor >.90, THD < 20%, FCC Title 47 Part 15 Class A. EldoLED & Lutron optional
Power Consumption: Up to 53W (5000 lm)
Dimming: Standard: 0-10V, 1% Dimming, Optional: ELV, TRIAC, dim to off, DMX, DALI
Certification: CEC Title 24 - JA8 Compliant (93 CRI Only)
Standards: cETLus Listed, CE, NOM, and RoHS Compliant. Wet location listed for wall or ceiling mount IP65 Ingress protection. 1.5G (ANSI C136.31) Vibration resistance rated. IK09 (IEC6226) Impact resistance rated. IESNA LM79 Photometric testing by NVLAP accredited test lab. IESNA LM80 LED testing by NVLAP accredited test lab. IESNA TM21 Luminaire lumen depreciation projection to >70,000hrs.

PHYSICAL DIMENSIONS

Fixture	Height (H)
FCC610W	10.95” Height (1 Integral Driver Only)
FCC612W	12.95” Height (1 Integral Driver Only)
FCC614W	14.95” Height (1 Integral Driver Only)
FCC616W	16.95” Height (1 Integral Driver Only)
FCC618W	18.95” Height
FCC620W	20.95” Height
	(All above are Wall Mount Standard)

Wall Mount (WM)



US Commercial Lighting Manufacturer Since 1982

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OUTDOOR LIGHTING

Date:	Approved:
Type:	
Fixture:	
Project:	

FCC600 Up/Down or Up, Standard Drivers without Battery Backup

PRODUCT CODE

EXAMPLE: FCC610W-UNV-927-0505L-BKE-D15U15-ET

MODEL	LENGTH	MOUNTING	VOLTAGE	COLOR	LUMENS	FINISH	DOWNLIGHT OPTICS	UPLIGHT OPTICS	DIMMING	OPTIONS	BATTERY
			-	-	-	-	-		-	-	-

MODEL

FCC610W	10.95" Height (1 Integral Driver Only)
FCC612W	12.95" Height (1 Integral Driver Only)
FCC614W	14.95" Height (1 Integral Driver Only)
FCC616W	16.95" Height (1 Integral Driver Only)
FCC618W	18.95" Height
FCC620W	20.95" Height
	(All above are Wall Mount Standard)

VOLTAGE

UNV	Universal 120-277 Volt AC
347V	347 Volt AC

COLOR

927	(93CRI) 2700K
930	(93CRI) 3000K
935	(93CRI) 3500K
940	(93CRI) 4000K

DOWN LUMENS (nominal) UP LUMENS

NO	No Light Option	
05	500 lm	**05L**
10	1000 lm	**10L**
15	1500 lm	**15L**
20	2000 lm	**20L**
25	2500 lm	**25L**
30	3000 lm	**30L**
35	3500 lm	**35L**
40	4000 lm	**40L**
45	4500 lm	**45L**
50	5000 lm	**50L**

(50L Max Total output) (Standard Lumen Output Split 50% Up / 50% Down) (Additional driver needed for unequal output selections)

FINISH

BKE	Black (AAMA 2604)
BRE	Bronze (AAMA 2604)
SLE	Silver (AAMA 2604)
WHE	White (AAMA 2604)
CCE	Custom Color (AAMA 2604)
BKED	Black (AAMA 2605)
BRED	Bronze (AAMA 2605)
SLED	Silver (AAMA 2605)
WHED	White (AAMA 2605)
CCED	Custom Color (AAMA 2605)

DOWN LIGHT OPTICS (nominal) UPLIGHT OPTICS

D15	Spot (15°) (15L Max)	**U15**
D25	Narrow Flood (25°)	**U25**
D40	Mid Flood (40°)	**U40**
D50	Flood (50°)	**U50**
D72	Wide Flood (72°)	**U72**

WITH SOFT FIELD LENS (Below)

D15S	Spot (15°) (15L Max)	**U15S**
D25S	Narrow Flood (25°)	**U25S**
D40S	Mid Flood (40°)	**U40S**
D50S	Flood (50°)	**U50S**
D72S	Wide Flood (72°)	**U72S**

DIMMING

ET	ELV or TRIAC Driver (120V Phase Dimming w/ UNV Driver) (20L-45L Only)
LD	0-10V Dimming, 1% (Standard)
ET2	ELV or TRIAC Drivers (Qty. 2) (120V Phase Dimming w/ UNV Drivers) (20L-45L Only)
LD2	0-10V Dimming, 1% (Qty. 2)

OPTIONS

CV	Cut-Off Visor (Down Only)

BATTERY

N/A	(Leave Blank)

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FCC600 Up/Down or Up, Standard Drivers without Battery Backup

LUMENS nominal

Model	Watts	940
FCC6	5W (Min)	500 lm (Min)
	53W (Max)	5000 lm (Max)

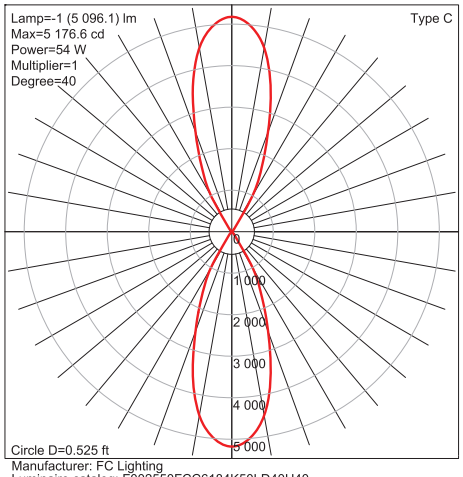
IES Multiplier	
Color	Multiplier
927	0.93
930	0.97
935	0.99
940	1.00

**83CRI≤1.15 Consult factory.*

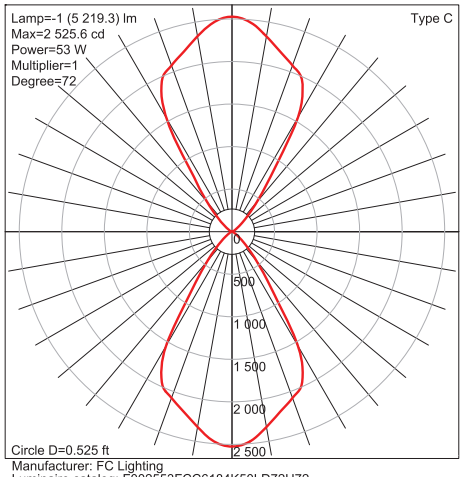
TRIAC & ELV Approved Dimmer List	
Manufacturer	Manufacturer Part Number
Lutron	Glyder GLV-600
	Diva DVLV-600P
	Diva DV-600P
	Diva DVELV-600P(303)
	Maestro MALV-600
	Nova T NT-1000
	Nova T NTELV-600
	Skylark SLV-600P
	RadioRA2-10ND
Leviton	SureSlide 6633
	Illumatech IPE04

0-10V Approved Dimmer List	
Manufacturer	Manufacturer Part Number
Lutron	Diva DVSTV-XX
	Diva DVSTV-453PH-WH1
Leviton	Illumatech 010-IP710-DLZ

PHOTOMETRICS



Manufacturer: FC Lighting
Luminaire catalog: F002550FCC6184K50LD40U40



Manufacturer: FC Lighting
Luminaire catalog: F002553FCC6184K50LD72U72

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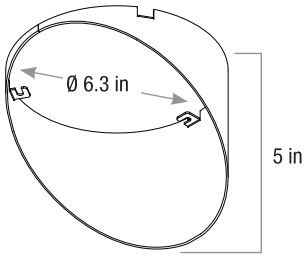
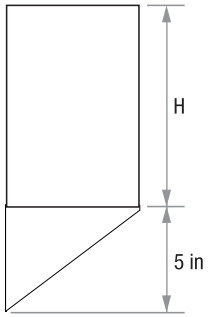
FCC600 Up/Down or Up, Standard Drivers without Battery Backup

MORE DIMENSIONS

Cutt-Off Visor (CV) *(Down Only)*



Bottom View



Side View

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p. (805) 426-4477

September 14, 2022

Mr. Nick Spallone
Car Wash Pro Designers (CWPD)
6400 N Northwest Hwy, Unit 4
Chicago, IL 60631

Subject: S John King Blvd Car Wash Facility–Noise Impact Study–Rockwall, TX

Dear Mr. Spallone:

MD Acoustics, LLC (MD) has completed a noise assessment for the proposed car wash located near the northwest corner of S John King Blvd and TX 276 in the City of Rockwall, TX. This assessment reviews the projected car wash operational noise levels and compares them to the City's noise ordinance. The project proposes a covered car wash tunnel with 24 vacuum stations on approximately 3.02 acres.

1.0 Assessment Overview

This assessment evaluates the projections of operational noise and compares them to the relevant noise ordinance for informational purposes. The project location map is located in Exhibit A. The site plan utilized for the project is indicated in Exhibit B.

2.0 Local Acoustical Requirements

The Code of Ordinances of Rockwall, Texas Chapter 16 Section 16-183 states the following:

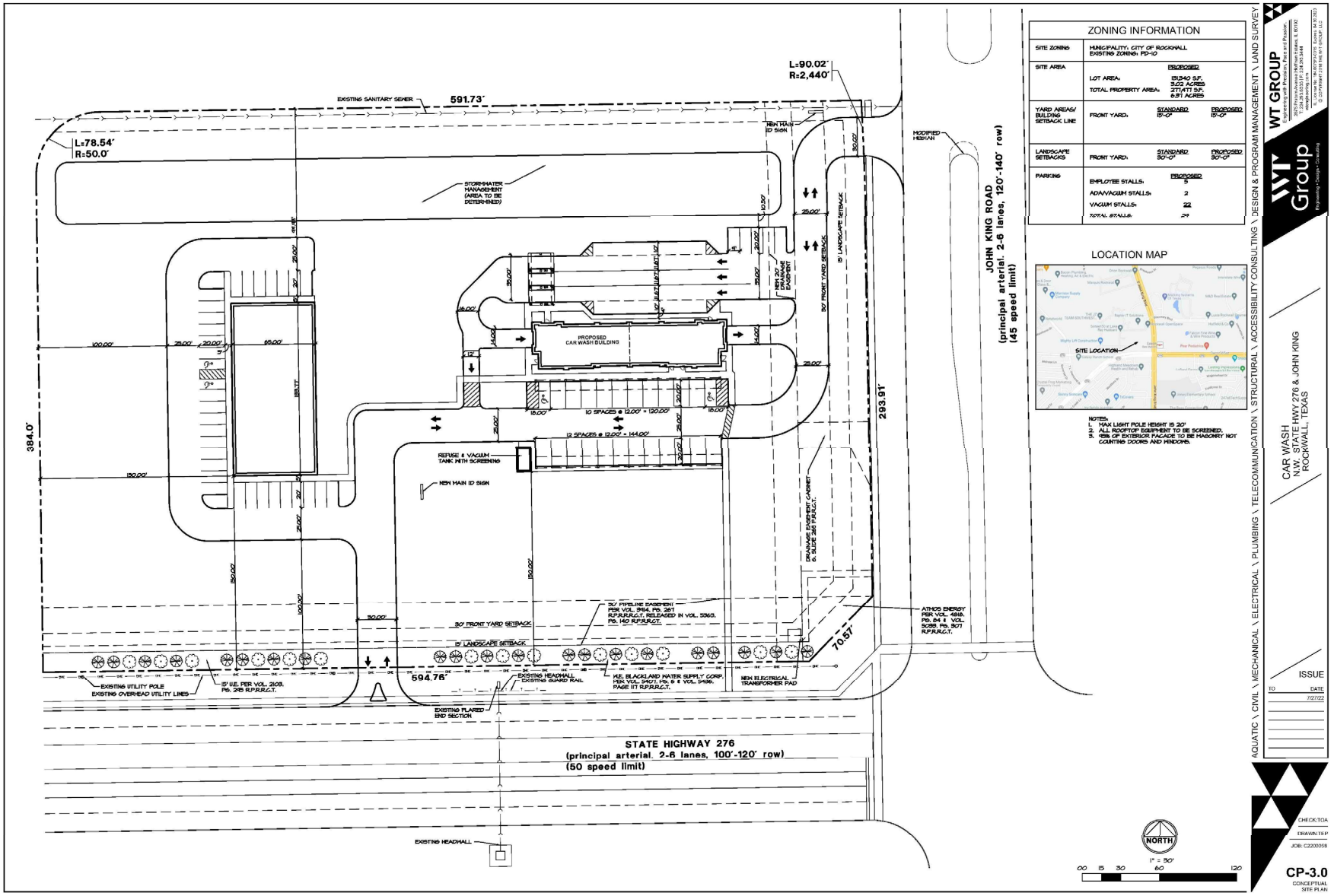
It shall be a violation of this article for any person to operate or permit to be operated any stationary source of sound which creates a unit percentile sound level (L_1) greater than 15 dBA above the ambient sound pressure level (L_{90}) as set forth in the table below in any residential use zone, or creates a tenth percentile sound level (L_{10}) or a 90th percentile sound level (L_{90}) which exceeds the limits set forth in the table below for the receiving land use districts when measured at the property boundary. For the purpose of enforcing these provisions, a measurement period shall not be less than ten minutes or more than 30 minutes.

Table 1: Rockwall Noise Limits

Land Use District	*Tenth Percentile (L_{10})*	*Ambient, or 90th Percentile (L_{90})*
Residential:		
7:00 a.m.—10:00 p.m.	*65 dBA*	*55 dBA*
10:00 p.m.—7:00 a.m.	*60 dBA*	*50 dBA*
Commercial/Agriculture:		
7:00 a.m.—10:00 p.m.	*72 dBA*	*62 dBA*
10:00 p.m.—7:00 a.m.	*67 dBA*	*57 dBA*
Industrial:		
7:00 a.m.—10:00 p.m.	*85 dBA*	*75 dBA*
10:00 p.m.—7:00 a.m.	*85 dBA*	*75 dBA*

Exhibit A
Location Map

Exhibit B
Site Plan



3.0 Study Method and Procedure

SoundPLAN Acoustic Model

SoundPLAN (SP) acoustical modeling software was utilized to model future worst-case stationary noise impacts to the adjacent land uses. SP is capable of evaluating multiple stationary noise source impacts at various receiver locations. SP's software utilizes algorithms (based on the inverse square law and reference equipment noise level data) to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations.

The model assumes that the car wash tunnel has an 8-foot-tall by 10-foot-wide exit opening and is covered by a solid roof. The blowers (120 HP IDC Predator system or equivalent) were modeled at 7 to 10 feet high as point sources. The blowers are modeled approximately 5 feet inside the exit of the tunnel. The reference equipment sound level data is provided in Appendix B.

The SP model assumes a total of 24 vacuums and the dryer system are operating simultaneously (worst-case scenario) when in actuality, the noise will be intermittent and lower in noise level. The project proposes to house all other equipment (e.g., compressors, pumps, vacuum turbine motors) inside equipment rooms. The reference vacuum equipment sound level data is provided in Appendix B. Appendix C contains the model's inputs and outputs.

4.0 Existing Ambient Noise Levels

Five short-term (11 to 15-min) ambient noise measurements were performed on September 9 to September 10, 2022, to determine the existing ambient noise levels at the project site. Appendix A contains the locations of each measurement and the recorded data. The results of the short-term noise measurements are presented in Table 2.

Table 2: Short-Term Measurement Ambient Noise Data (dBA)[1]

Location	Date	Start Time	Leq	Lmax	Lmin	L1	L10	L25	L50	L90
ST1	9/9/2022	3:56 PM	60.9	75.6	48.2	71.2	64.3	60.1	57.0	52.6
ST2	9/9/2022	4:18 PM	54.0	62.9	45.8	60.8	57.3	55.0	52.1	48.9
ST3	9/9/2022	4:42 PM	52.7	64.9	46.1	59.2	54.7	53.1	51.5	48.7
ST4	9/10/2022	2:02 PM	66.0	85.5	49.3	75.0	68.6	64.9	61.6	54.3

Notes:
1. Measurement locations are indicated in Appendix A.

These locations represent the levels at the adjacent properties. ST1 represents the residential properties to the south. ST2 represents the residential properties to the west. ST3 represents the residential properties to the north. ST4 represents the commercial property to the east.

The data indicates the ambient noise levels at nearby land uses range between 53 to 66 dBA Leq during operational hours. The measured noise levels and field notes indicate that traffic noise along SR-276 is the main source of noise impacting the project site.

A long-term measurement was also performed to determine the overall trend in the area throughout the day.

Table 3: Long-Term Measurement Ambient Noise Data (dBA)[1]

Time	dB(A)							
	L_{EQ}	L_{MAX}	L_{MIN}	L_1	L_5	L_{10}	L_{50}	L_{90}
5PM-6PM	60.3	74.6	50.6	64.2	63.5	62.6	59.7	57.5
6PM-7PM	60.0	74.7	49.8	63.6	62.9	62.5	59.1	57.4
7PM-8PM	62.1	76.3	51.1	68.8	67.4	66.2	60.1	56.4
8PM-9PM	58.1	63.7	56.3	63.6	62.8	61.4	56.5	54.3
9PM-10PM	60.0	82.9	49.6	68.4	65.1	62.0	57.0	53.8
10PM-11PM	58.1	76.2	48.4	66.0	63.8	60.3	55.9	53.4
11PM-12AM	56.1	74.8	47.0	63.5	59.6	56.6	54.0	52.1
12AM-1AM	55.3	75.8	46.6	63.7	58.5	56.5	53.4	51.8
1AM-2AM	52.8	75.8	43.5	63.4	55.7	53.6	50.3	46.8
2AM-3AM	51.7	76.7	40.4	62.7	55.9	51.9	47.4	43.7
3AM-4AM	52.4	72.3	39.1	62.2	59.4	55.8	46.5	42.2
4AM-5AM	53.4	78.0	39.4	64.8	57.4	55.5	47.5	43.9
5AM-6AM	56.1	74.4	41.9	63.9	62.0	60.2	52.7	49.2
6AM-7AM	58.3	77.8	47.8	64.8	63.3	61.3	56.1	52.4
7AM-8AM	61.0	79.9	51.1	67.2	65.9	62.6	59.9	56.9
8AM-9AM	61.1	76.3	48.7	66.3	65.5	64.6	60.0	56.4
9AM-10AM	58.9	80.4	45.4	65.9	62.8	61.3	57.3	54.6
10AM-11AM	59.8	78.7	46.1	67.1	64.1	63.9	57.7	55.2
11AM-12PM	59.7	83.5	47.0	68.3	63.7	61.7	56.7	54.3
12PM-1PM	57.7	74.7	45.3	62.8	60.9	60.6	57.0	53.3
1PM-2PM	57.4	77.1	45.0	64.8	61.0	58.8	55.9	53.4
CNEL	64.7							

Notes:
[1.] Appendix A for measured noise data.

The long-term data indicate that the afternoon is the quietest time of day during operational hours.

5.0 Findings and Recommendations

A total of four (4) receptors were modeled to accurately evaluate the future operational noise levels near the project site. In Exhibit C, a yellow dot denotes a receptor. Receptors 1, 2, and 4 represent areas that must meet the residential noise standard, and receptor 3 must meet the commercial noise standard. All yellow dots represent the property line of the project site.

Table 4 presents the project's predicted noise levels and the project plus ambient noise levels. Table 4 compares both sets of noise levels to the maximum permitted L_{90} noise level. The model assumes that the car wash is operating continuously as a worst-case scenario. With this assumption, the L_{90} levels would

have the potential to increase the most due to the project. Therefore, if increases to the L_{90} levels are within code and insignificant, increases to L_{10} and L_1 levels will be as well.

Table 4: Worst-Case Predicted Operational Noise Levels (dBA, L_{90})[1]

Receptor[1]	Existing Ambient Noise Level[2]	Project Noise Level[3]	Rockwell Texas Ambient Limit 7 AM to 10 PM	Total Combined Noise Level	Change in Noise Level as Result of Project
1	49	41	55	50	1
2	49	39	55	49	0
3	54	50	62	55	1
4	53	46	55	54	1

Exhibit C shows the future noise level projections and contours based on the proposed project design. The project noise level at the residential properties is 39-46 dBA and meets the residential standard of 55 dBA L_{90}. The project noise level at the nonresidential properties is 50 dBA L_{90} and meets the nonresidential standard of 62 dBA Leq.

The L_{10} and L_1 levels will therefore change by less than 1 dB as a result of the project, as the project levels are at least 10 dB quieter than the existing levels.

The overall noise level will increase by 0-1 dB as a result of the project. Table 5 provides the characteristics associated with changes in noise levels.

Table 5: Change in Noise Level Characteristics[1]

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud

https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm

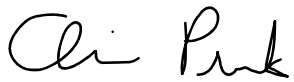
The noise level increase due to the project would fall within the “not perceptible” noise level characteristics at the receptors.

6.0 Conclusions

MD has reviewed the applicable noise ordinances and modeled the noise levels for the proposed car wash. The proposed car wash does not exceed the maximum permitted noise levels and does not perceptibly increase the overall ambient noise level.

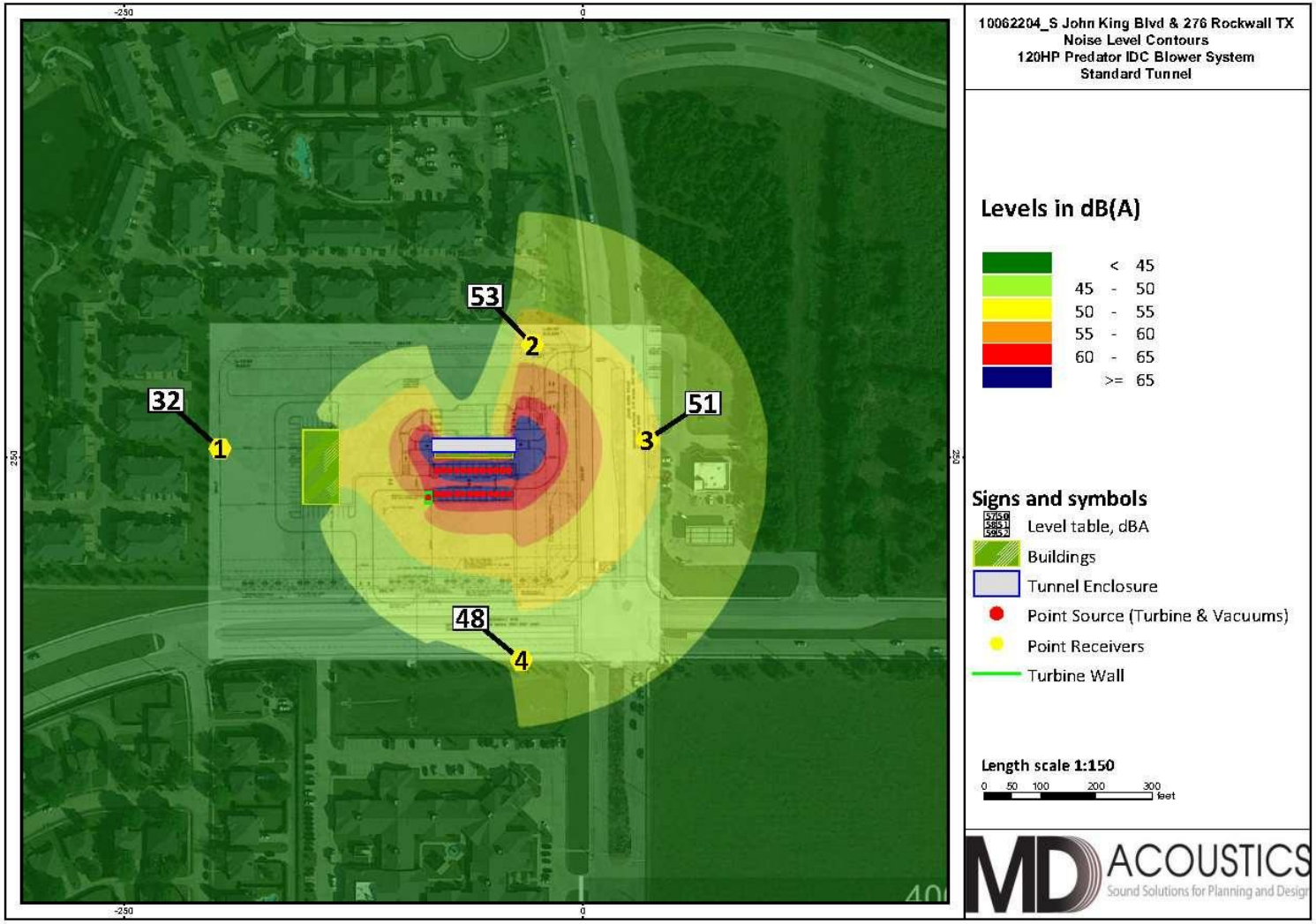
MD is pleased to provide this noise review for the car wash project. If you have any questions regarding this analysis, please call our office at (602) 774-1950.

Sincerely,
MD Acoustics, LLC



Claire Pincock, INCE-USA
Acoustical Consultant

Exhibit C
Operational Noise Levels



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Simi Valley, CA 93065

15-Minute Continuous Noise Measurement Datasheet

Project: S John King Blvd Car Wash
Site Address/Location: S John King Blvd & TX 276
Date: 9/9/22-9/10/22
Field Tech/Engineer: Brandon Skinner

Site Observations: Medium traffic. Load insects at location 2. Location 4 contains trucks, motorcycles, horns, and birds.

General Location:
Sound Meter: Piccolo **SN:** A2A-05967-E0
Settings: A-weighted, slow, 1-sec, 15-minute interval

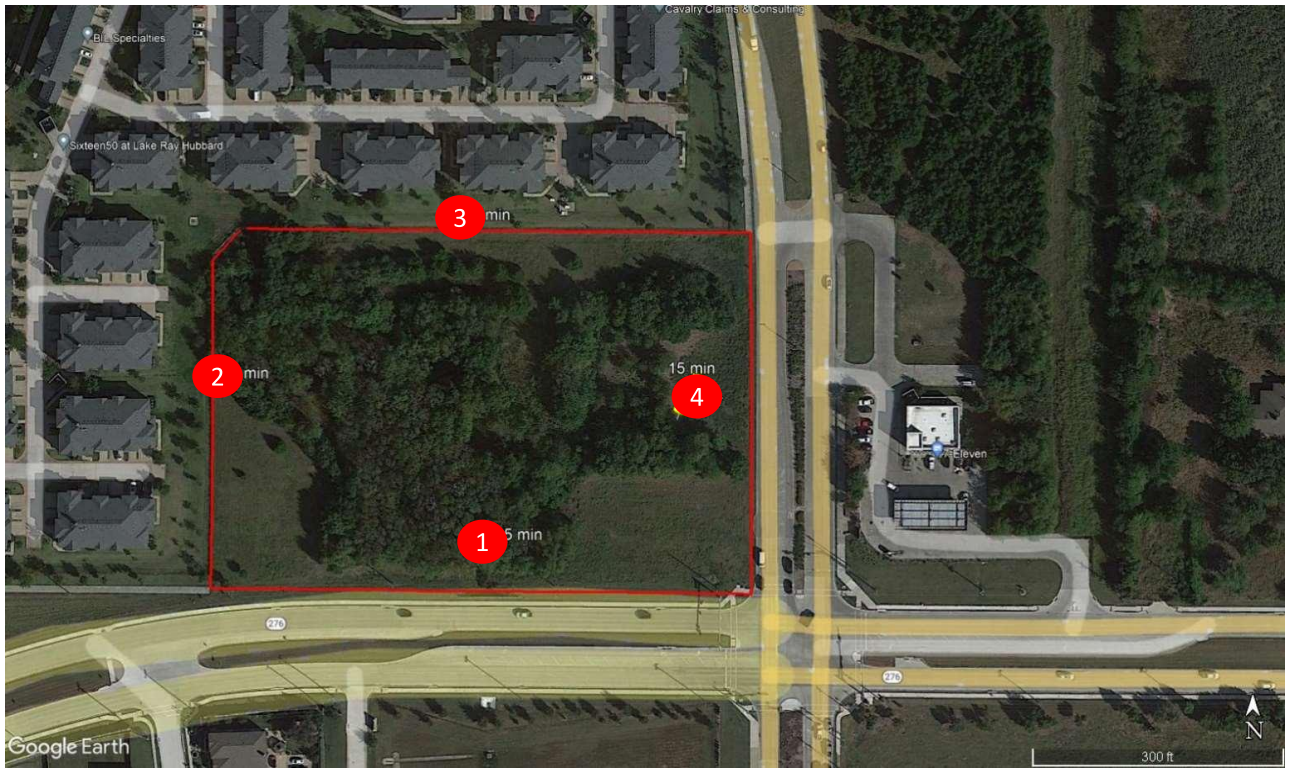
Site Topo: Flat
Ground Type: Soft site conditions

Site ID: ST-1 thru ST-4

Noise Source(s) w/ Distance:

1 - 35' north of 276 at midpoint of small railing
2 -20' west of east PL
3 - near middle of north PL
4 - 12' from John King curb

Figure 1: Monitoring Locations



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10-Minute Continuous Noise Measurement Datasheet - Cont.

Project: S John King Blvd Car Wash
Site Address/Location: S John King Blvd & TX 276
Site ID: ST-1 thru ST-4

Table 1: Morning - Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L1	L10	L25	L50	L90
1	1:56 PM	2:11 PM	60.9	75.6	48.2	71.2	64.3	60.1	57.0	52.6
2	2:18 PM	2:33 PM	54.0	62.9	45.8	60.8	57.3	55.0	52.1	48.9
3	2:42 PM	2:56 PM	52.7	64.9	46.1	59.2	54.7	53.1	51.5	48.7
4	12:02 PM	12:13 PM	66.0	85.5	49.3	75.0	68.6	64.9	61.6	54.3

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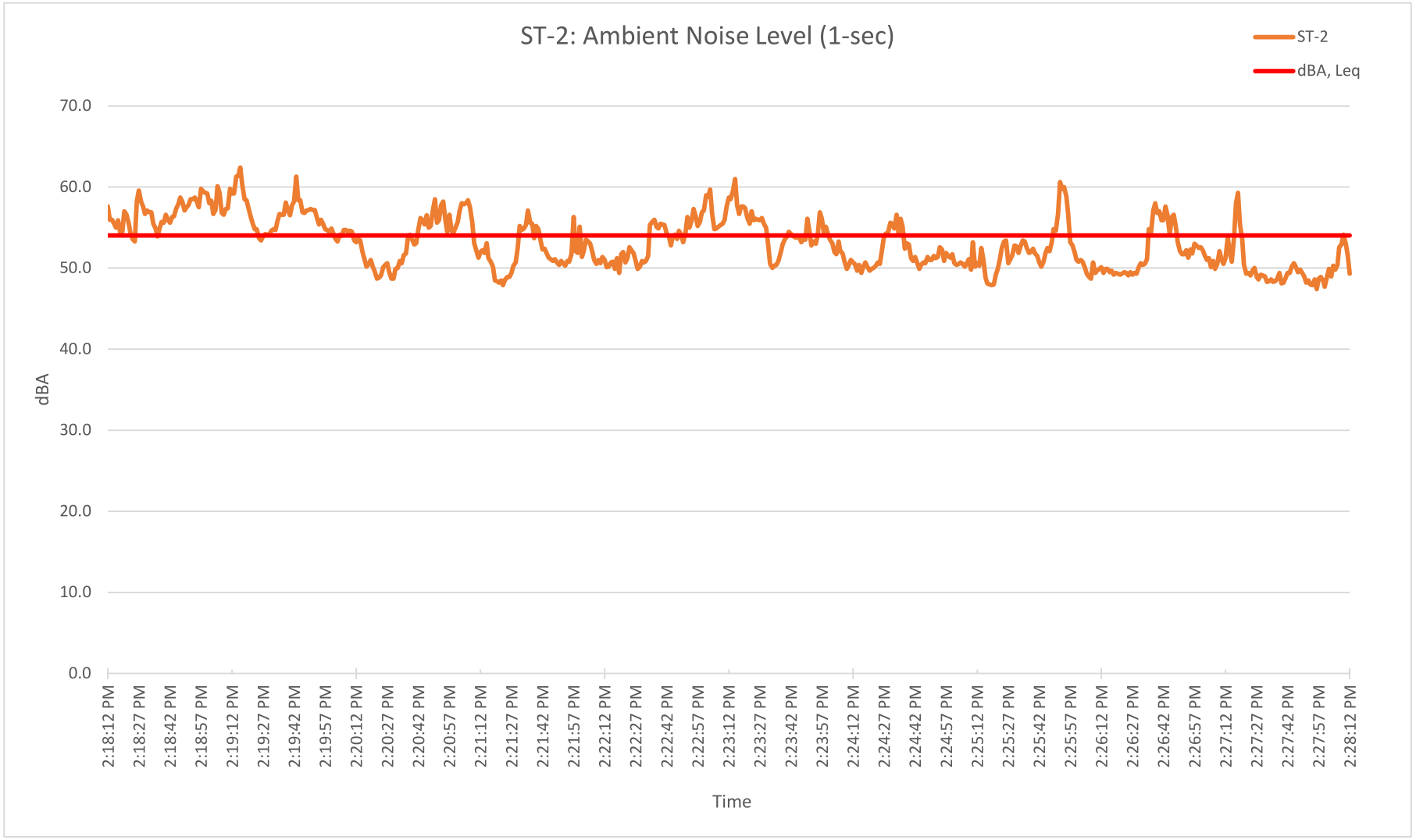
10-Minute Continuous Noise Measurement Datasheet - Cont.

Project: S John King Blvd Car Wash
Site Address/Location: S John King Blvd & TX 276
Site ID: ST-2



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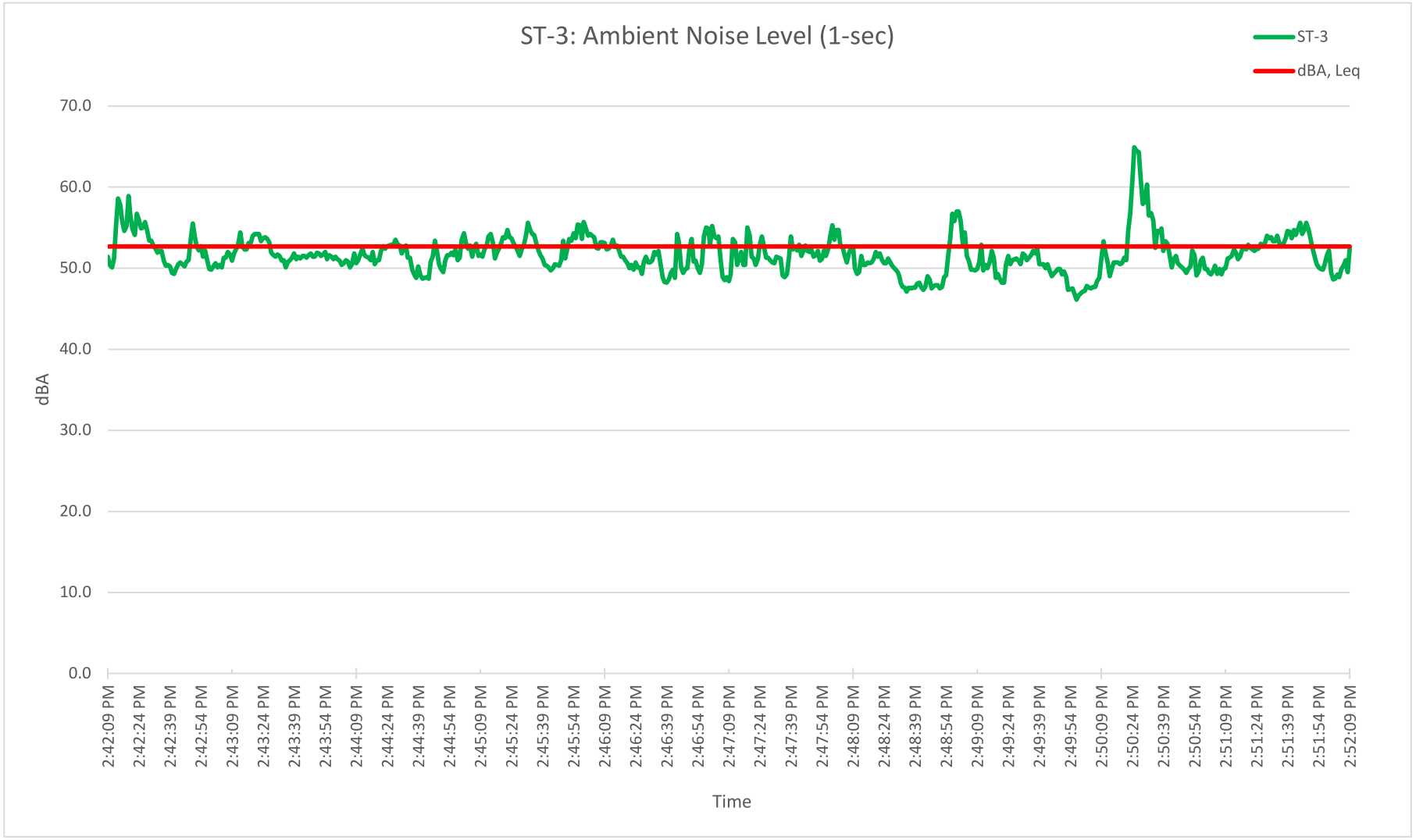
10-Minute Continuous Noise Measurement Datasheet - Cont.

Project: S John King Blvd Car Wash
Site Address/Location: S John King Blvd & TX 276
Site ID: ST-3



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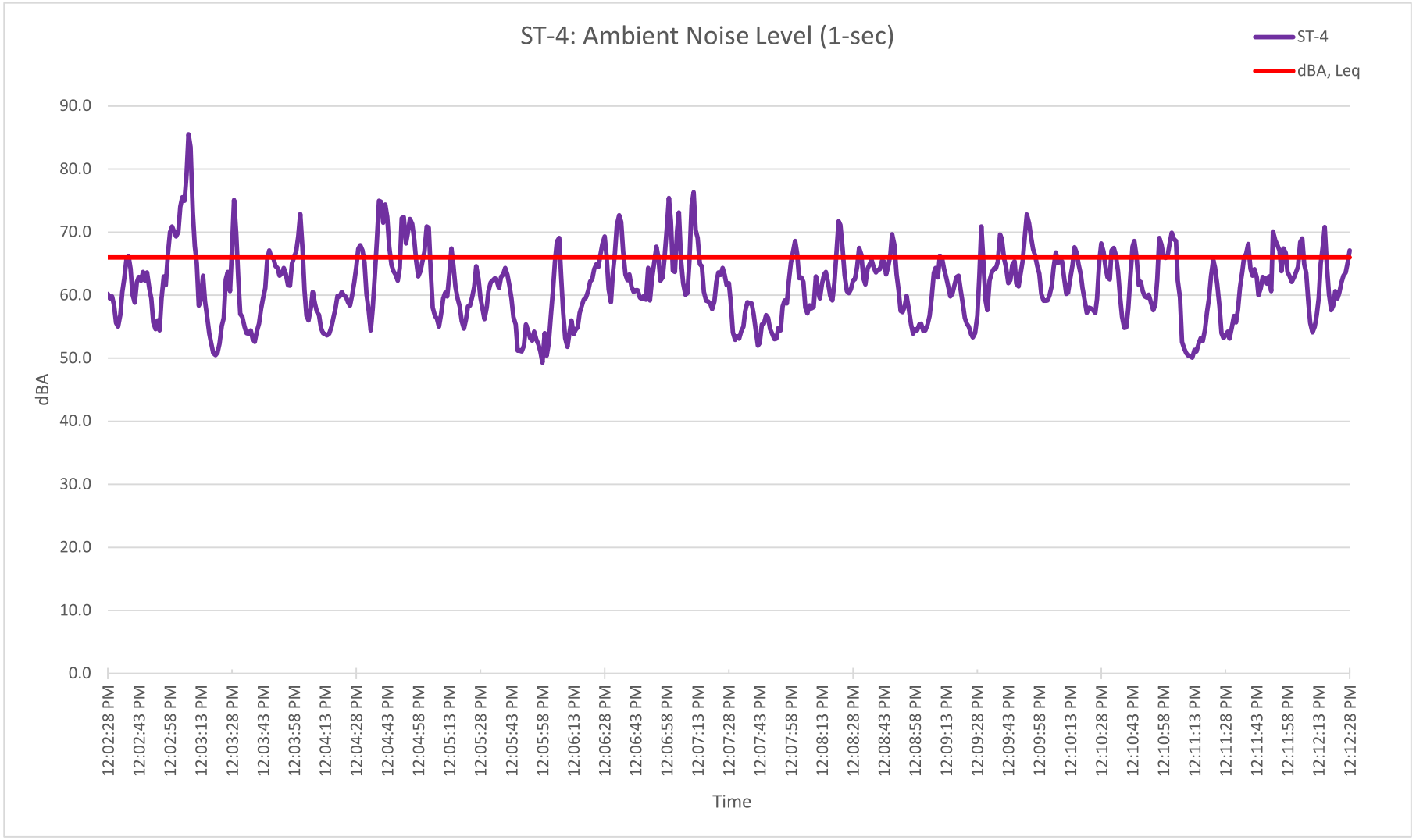
10-Minute Continuous Noise Measurement Datasheet - Cont.

Project: S John King Blvd Car Wash
Site Address/Location: S John King Blvd & TX 276
Site ID: ST-4



Appendix A

Noise Measurement Field Sheets

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CA Office
1197 E Los Angeles Ave, C-256
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24-Hour Continuous Noise Measurement Datasheet

Project: S John King Blvd Car Wash
Site Address/Location: S John King Blvd & TX 276
Date: 9/9/22-9/10/22
Field Tech/Engineer: Brandon Skinner

Site Observations: Heavy traffic southbound King when measurement started. Trucks, motorcycles, horns, crows.

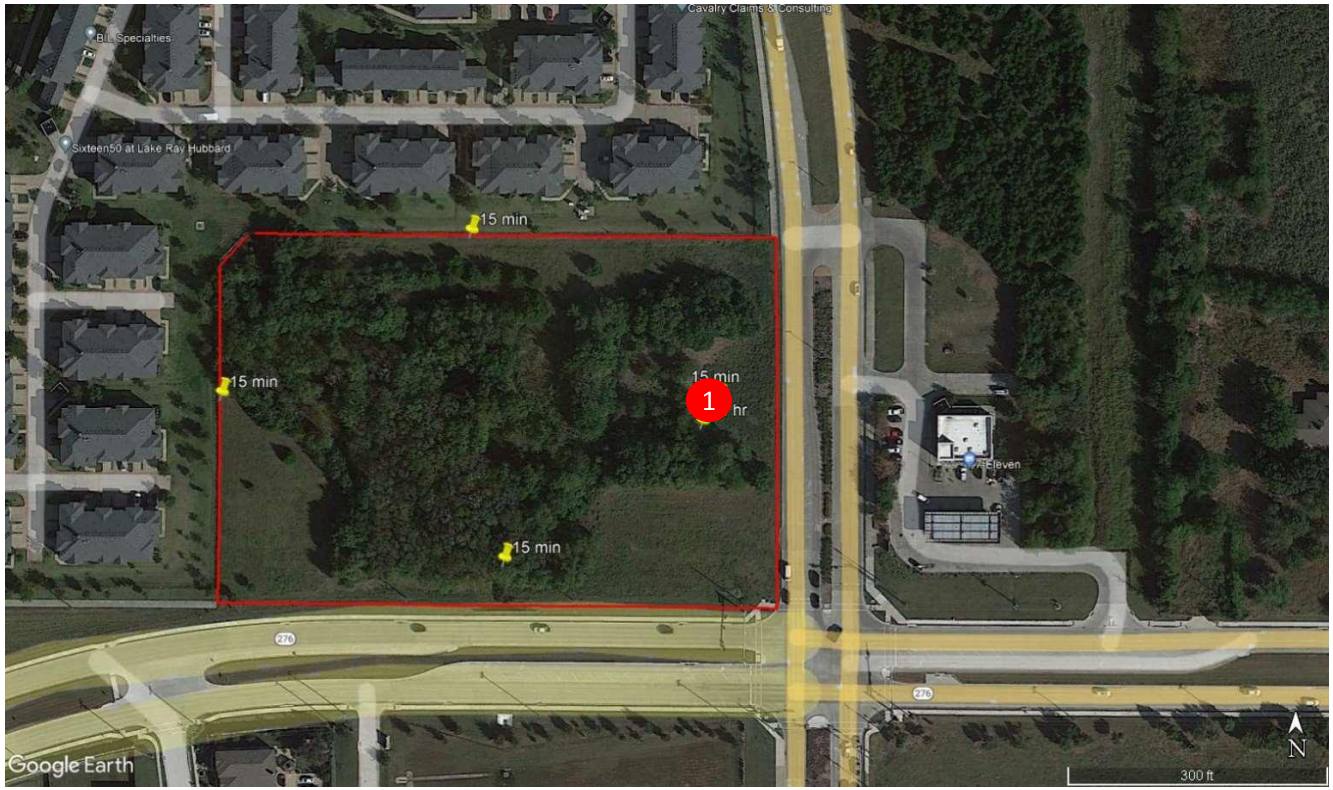
General Location:
Sound Meter: Piccolo **SN:** A2A-05967-E0
Settings: A-weighted, slow, 1-sec, 15-minute interval

Site ID: LT-1

Site Topo: Flat
Ground Type: Soft site, Open raw ground with a road

Noise Source(s) w/ Distance:
75' from John King

Figure 1: LT-1 Monitoring Location



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24-Hour Noise Measurement Datasheet - Cont.

Project: S John King Blvd Car Wash **Day:** 1 of 1
Site Address/Location: S John King Blvd & TX 276
Site ID: LT-1

Date	Start	Stop	Leq	Lmax	Lmin	L1	L5	L10	L50	L90
9/9/2022	3:00 PM	4:00 PM	60.3	74.6	50.6	64.2	63.5	62.6	59.7	57.5
9/9/2022	4:00 PM	5:00 PM	60.0	74.7	49.8	63.6	62.9	62.5	59.1	57.4
9/9/2022	5:00 PM	6:00 PM	62.1	76.3	51.1	68.8	67.4	66.2	60.1	56.4
9/9/2022	6:00 PM	7:00 PM	58.1	63.7	56.3	63.6	62.8	61.4	56.5	54.3
9/9/2022	7:00 PM	8:00 PM	60.0	82.9	49.6	68.4	65.1	62.0	57.0	53.8
9/9/2022	8:00 PM	9:00 PM	58.1	76.2	48.4	66.0	63.8	60.3	55.9	53.4
9/9/2022	9:00 PM	10:00 PM	56.1	74.8	47.0	63.5	59.6	56.6	54.0	52.1
9/9/2022	10:00 PM	11:00 PM	55.3	75.8	46.6	63.7	58.5	56.5	53.4	51.8
9/9/2022	11:00 PM	12:00 AM	52.8	75.8	43.5	63.4	55.7	53.6	50.3	46.8
9/10/2022	12:00 AM	1:00 AM	51.7	76.7	40.4	62.7	55.9	51.9	47.4	43.7
9/10/2022	1:00 AM	2:00 AM	52.4	72.3	39.1	62.2	59.4	55.8	46.5	42.2
9/10/2022	2:00 AM	3:00 AM	53.4	78.0	39.4	64.8	57.4	55.5	47.5	43.9
9/10/2022	3:00 AM	4:00 AM	56.1	74.4	41.9	63.9	62.0	60.2	52.7	49.2
9/10/2022	4:00 AM	5:00 AM	58.3	77.8	47.8	64.8	63.3	61.3	56.1	52.4
9/10/2022	5:00 AM	6:00 AM	61.0	79.9	51.1	67.2	65.9	62.6	59.9	56.9
9/10/2022	6:00 AM	7:00 AM	61.1	76.3	48.7	66.3	65.5	64.6	60.0	56.4
9/10/2022	7:00 AM	8:00 AM	58.9	80.4	45.4	65.9	62.8	61.3	57.3	54.6
9/10/2022	8:00 AM	9:00 AM	59.8	78.7	46.1	67.1	64.1	63.9	57.7	55.2
9/10/2022	9:00 AM	10:00 AM	59.7	83.5	47.0	68.3	63.7	61.7	56.7	54.3
9/10/2022	10:00 AM	11:00 AM	57.7	74.7	45.3	62.8	60.9	60.6	57.0	53.3
9/10/2022	11:00 AM	12:00 PM	57.4	77.1	45.0	64.8	61.0	58.8	55.9	53.4

CNEL: 64.7

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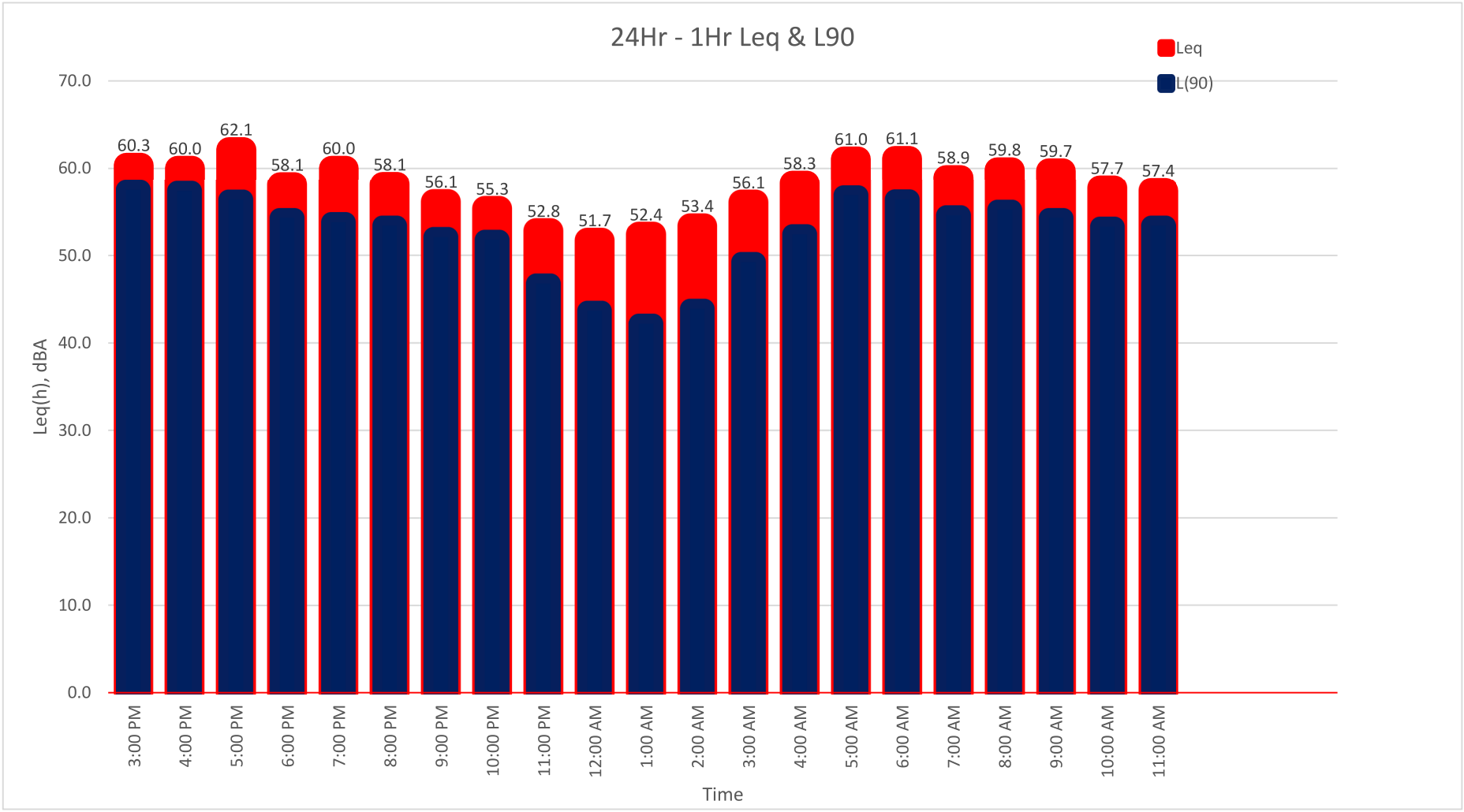
Simi Valley, CA 93065

24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: S John King Blvd Car Wash **Day:** 1 of 1
Site Address/Location: S John King Blvd & TX 276
Site ID: LT-1



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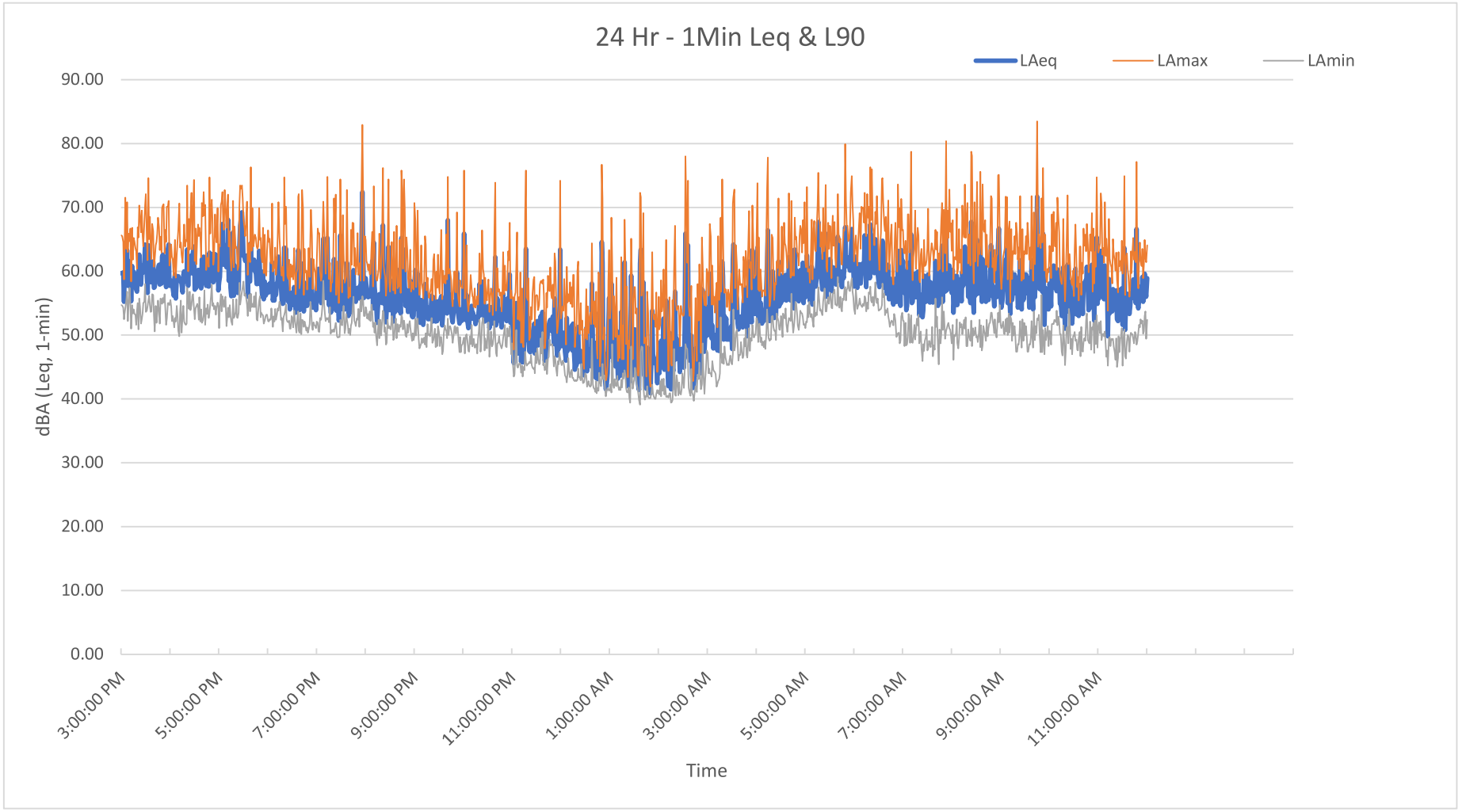

Appendix B

Sound Reference Data

80hp Predator Quiet Dryer System Specifications

Center Band Sound Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1,000 Hz	2,000 Hz	4,000 Hz	8,000 Hz	**Total Sound** 60 Hz Results	
Final Sound Pressure Level	49.6	58.4	71.5	73.2	70.7	69.2	63.1	53.0	77.6	dBA at Q=1, 5 feet
Final Sound Pressure Level	47.0	55.5	68.6	70.1	67.6	66.2	60.1	49.6	74.6	dBA at Q=1, 10 feet
Final Sound Pressure Level	45.4	53.8	66.9	68.2	65.8	64.4	58.4	47.6	72.8	dBA at Q=1, 15 feet
Final Sound Pressure Level	44.0	52.3	65.5	66.7	64.3	62.9	56.9	46.0	71.3	dBA at Q=1, 20 feet
Final Sound Pressure Level	42.8	51.1	64.2	65.4	63.0	61.6	55.6	44.6	70.0	dBA at Q=1, 25 feet
Final Sound Pressure Level	41.6	49.9	63.0	64.3	61.8	60.4	54.4	43.5	68.9	dBA at Q=1, 30 feet
Final Sound Pressure Level	40.6	48.9	62.0	63.2	60.8	59.4	53.4	42.4	67.9	dBA at Q=1, 35 feet
Final Sound Pressure Level	39.7	48.0	61.1	62.3	59.9	58.5	52.5	41.5	66.9	dBA at Q=1, 40 feet
Final Sound Pressure Level	38.9	47.2	60.3	61.5	59.0	57.6	51.6	40.6	66.1	dBA at Q=1, 45 feet
Final Sound Pressure Level	38.1	46.4	59.5	60.7	58.3	56.9	50.9	39.8	65.3	dBA at Q=1, 50 feet
Final Sound Pressure Level	37.4	45.7	58.8	60.0	57.6	56.2	50.2	39.1	64.6	dBA at Q=1, 55 feet
Final Sound Pressure Level	36.8	45.0	58.2	59.3	56.9	55.5	49.5	38.5	64.0	dBA at Q=1, 60 feet
Final Sound Pressure Level	36.2	44.4	57.5	58.7	56.3	54.9	48.9	37.9	63.4	dBA at Q=1, 65 feet
Final Sound Pressure Level	35.6	43.8	57.0	58.2	55.7	54.3	48.3	37.3	62.8	dBA at Q=1, 70 feet
Final Sound Pressure Level	35.1	43.3	56.4	57.6	55.2	53.8	47.8	36.7	62.2	dBA at Q=1, 75 feet
Final Sound Pressure Level	34.6	42.8	55.9	57.1	54.7	53.3	47.3	36.2	61.7	dBA at Q=1, 80 feet

Sound pressure values are approximated from outdoor propagation equation for planes waves given the sound power values.

* All information provided by MD Acoustics, LLC via tests performed in Cary, IL IDC facilities.

Sound Power Values

									Lw_eq
Predator Side Column	55.6	66.9	79.7	82.9	80.2	78.6	72.4	64.0	86.9
Predator Hogger Single	67.8	75.8	88.9	89.8	87.4	86.1	80.1	68.3	94.5

INTERNATIONAL DRYING
CORPORATION

STEALTH PREDATOR DRYING SYSTEM

THE FIRST "ULTRA QUIET" DRYING SYSTEM

- ✔Patent pending Reverse flow technology
- ✔Producers construced from 304 surgical stainless steel
- ✔Over 11,000 cubic feet per minute (CFM) per 10HP motor
- ✔Meets or exceeds most U.S. and International sound regulations
- ✔Sound & Performance studies done in reverberant sound room ISO 3741:2010, 3747:2010

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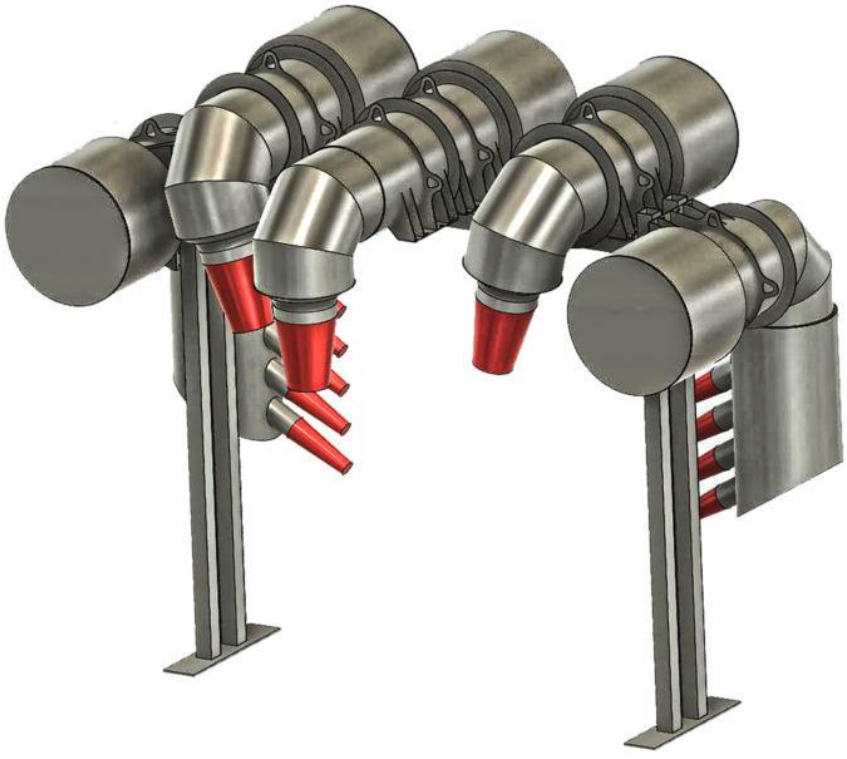
Cary, IL 60013

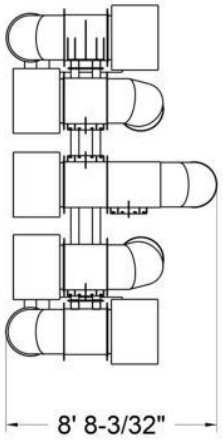
Stealth Predator Ultra-Quiet Drying System Specifications

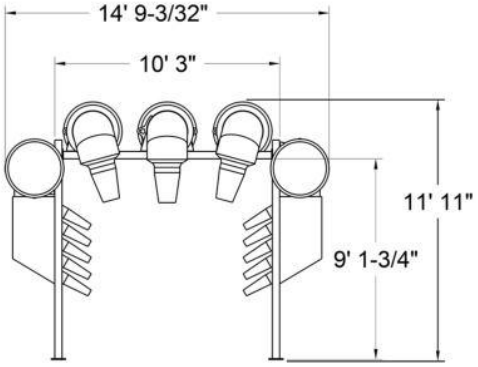
30HP System - Total Sound 60Hz		80HP System - Total Sound 60Hz	
Q = sound source			
65	dBA at Q=1, 30 feet	69.4	dBA at Q=1, 30 feet
61.8	dBA at Q=1, 45 feet	66.5	dBA at Q=1, 45 feet
60.2	dBA at Q=1, 55 feet	64.9	dBA at Q=1, 55 feet

Meets OSHA Sound Exposure Requirements

✓ **The Stealth Predator features patent pending "Reverse flow air technology" which creates the first "Ultra-Quiet Dryer" and is the most powerful Ultra Quiet Dryer ever designed.**







INTERNATIONAL DRYING CORPORATION

SPECIFICATIONS

15' 2" Bay Width
12' 0" Ceiling Height
96" Standard Clearance

Closed cell foam nozzles available in red, blue, black

Ducts-Stainless Steel
Molded Aluminum Impellors
Stainless Steel Motor Housings

Slotted flanges for adjustability of air outlet and air intake direction

SOUND LEVEL METER READINGS

MODEL: FT-DD-T340HP4 (40hp VACSTAR TURBINE VACUUM PRODUCER)

READING ONE: 73 DB-A, 3 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING TWO: 69 DB-A, 10 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING THREE: 54 DB-A, 20 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING FOUR: 38 DB-A, 30 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

NOTE: THESE READINGS WERE TAKEN OUTSIDE IN THE OPEN ON A CONCRETE SLAB.

SOUND LEVEL METER USED:

SIMPSON MODEL #40003 – MSHA APPROVED.
MEETS OSHA & WALSH-HEALY REQUIREMENTS FOR NOISE CONTROL.
CONFORMS TO ANSI S1.4-1983, IEC 651 SPECS FOR METER TYPE.

Vacutech
1350 Hi-Tech Drive, Sheridan WY, 82801
PHONE: (800) 917-9444 FAX: (303) 675-1988
EMAIL: info@vacutechllc
WEB SITE: vacutechllc.com

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Project: SuperStar Car Wash Chula Vista
Site Location: 1555 W Warner Rd, Gilbert, AZ 85233
Date: 4/5/2018
Field Tech/Engineer: Robert Pearson
Source/System: Vacutec System

Location: Vac Bay 1
Sound Meter: NTi XL2 **SN:** A2A-05967-E0
Settings: A-weighted, slow, 1-sec, 10-sec duration
Meteorological Cond.: 80 degrees F, 2 mph wind

Site Observations:
Clear sky, measurements were performed within 1.5ft of source. Measurements were performed while the vacuum was positiioned at three (3) different positions. Holstered, unholstered and inside a car. This data is utilized for acoustic modeling purposes and represents an average sound level at a vacuum station.

Table 1: Summary Measurement Data

Source	System	Overall dB(A)	3rd Octave Band Data (dBA)																														
			20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K	5K	6.3K	8K	10K	12.5K	16K	20K
Vacutech (Holstered)	Vacuum	63.3	9	17	22	29	31	35	40	41	44	43	46	48	47	49	51	51	51	52	53	52	52	50	52	53	50	47	47	48	45	39	30
Vacutech (Unholstered)	Vacuum	80.7	6	19	22	28	34	37	40	43	47	46	48	48	48	49	54	55	58	58	62	65	68	70	74	75	73	69	67	65	63	60	55
Vacutech (Inside Car)	Vacuum	69.6	16	28	31	38	42	45	49	51	52	55	60	61	57	55	59	53	55	56	54	57	57	57	57	57	55	54	51	48	46	42	36
Average Level*	Vacuum	76.3	13	24	28	34	38	41	45	47	49	51	56	57	53	52	56	54	56	56	59	61	64	66	69	70	68	64	62	60	58	55	50

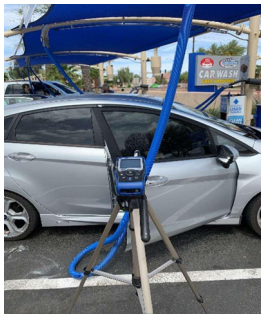
* Refers to the logarithmic average of all measurements. This measurement represents an average of the multiple vacuum positions.

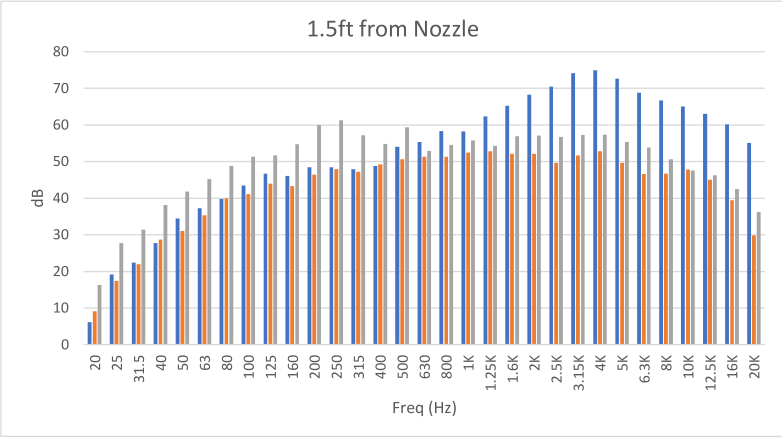
Figure 1: Example Measurement Position

Figure 1: Holstered

Figure 2: Unholstered

Figure 3: Inside Car





Vacutech sound levels

Appendix C
SoundPLAN Inputs/Outputs

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
Receiver R1 Fl G Lr,lim dB(A) Leq,d 32.1 dB(A) Sigma(Leq,d) 0.0 dB(A)						
Vac	Default industrial noise	Point		15.4	0.0	
Vac	Default industrial noise	Point		15.4	0.0	
Vac	Default industrial noise	Point		15.3	0.0	
Vac	Default industrial noise	Point		15.2	0.0	
Vac	Default industrial noise	Point		15.1	0.0	
Vac	Default industrial noise	Point		15.0	0.0	
Vac	Default industrial noise	Point		14.9	0.0	
Vac	Default industrial noise	Point		14.8	0.0	
Vac	Default industrial noise	Point		14.6	0.0	
Vac	Default industrial noise	Point		14.5	0.0	
Vac	Default industrial noise	Point		14.4	0.0	
Vac	Default industrial noise	Point		14.3	0.0	
Vac	Default industrial noise	Point		12.4	0.0	
Vac	Default industrial noise	Point		15.2	0.0	
Vac	Default industrial noise	Point		15.1	0.0	
Vac	Default industrial noise	Point		15.0	0.0	
Vac	Default industrial noise	Point		14.9	0.0	
Vac	Default industrial noise	Point		14.8	0.0	
Vac	Default industrial noise	Point		14.7	0.0	
Vac	Default industrial noise	Point		14.6	0.0	
Vac	Default industrial noise	Point		14.5	0.0	
Vac	Default industrial noise	Point		14.4	0.0	
Vac	Default industrial noise	Point		14.3	0.0	
Vac	Default industrial noise	Point		14.2	0.0	
Turbine	Default industrial noise	Point		-0.9	0.0	
001 - 120HP IDC Standard Tunnel-Roof 01	Default industrial noise	Area		2.1	0.0	
001 - 120HP IDC Standard Tunnel-Facade 01	Default industrial noise	Area		-2.2	0.0	
001 - 120HP IDC Standard Tunnel-Facade 02	Default industrial noise	Area		-10.8	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		22.7	0.0	
001 - 120HP IDC Standard Tunnel-Facade 03	Default industrial noise	Area		0.3	0.0	
001 - 120HP IDC Standard Tunnel-Facade 04	Default industrial noise	Area		-7.1	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		28.4	0.0	
Receiver R2 Fl G Lr,lim dB(A) Leq,d 52.9 dB(A) Sigma(Leq,d) 0.0 dB(A)						
Vac	Default industrial noise	Point		14.5	0.0	
Vac	Default industrial noise	Point		14.4	0.0	
Vac	Default industrial noise	Point		14.4	0.0	
Vac	Default industrial noise	Point		14.6	0.0	

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
Vac	Default industrial noise	Point		14.7	0.0	
Vac	Default industrial noise	Point		14.9	0.0	
Vac	Default industrial noise	Point		15.1	0.0	
Vac	Default industrial noise	Point		15.4	0.0	
Vac	Default industrial noise	Point		15.8	0.0	
Vac	Default industrial noise	Point		16.4	0.0	
Vac	Default industrial noise	Point		17.8	0.0	
Vac	Default industrial noise	Point		21.9	0.0	
Vac	Default industrial noise	Point		21.0	0.0	
Vac	Default industrial noise	Point		20.9	0.0	
Vac	Default industrial noise	Point		20.5	0.0	
Vac	Default industrial noise	Point		20.4	0.0	
Vac	Default industrial noise	Point		20.4	0.0	
Vac	Default industrial noise	Point		20.3	0.0	
Vac	Default industrial noise	Point		20.4	0.0	
Vac	Default industrial noise	Point		20.4	0.0	
Vac	Default industrial noise	Point		17.9	0.0	
Vac	Default industrial noise	Point		19.3	0.0	
Vac	Default industrial noise	Point		21.4	0.0	
Vac	Default industrial noise	Point		29.7	0.0	
Turbine	Default industrial noise	Point		3.3	0.0	
001 - 120HP IDC Standard Tunnel-Roof 01	Default industrial noise	Area		12.9	0.0	
001 - 120HP IDC Standard Tunnel-Facade 01	Default industrial noise	Area		8.2	0.0	
001 - 120HP IDC Standard Tunnel-Facade 02	Default industrial noise	Area		11.3	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		52.9	0.0	
001 - 120HP IDC Standard Tunnel-Facade 03	Default industrial noise	Area		17.0	0.0	
001 - 120HP IDC Standard Tunnel-Facade 04	Default industrial noise	Area		-5.0	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		28.9	0.0	
Receiver R3 Fl G Lr,lim dB(A) Leq,d 50.9 dB(A) Sigma(Leq,d) 0.0 dB(A)						
Vac	Default industrial noise	Point		26.6	0.0	
Vac	Default industrial noise	Point		26.8	0.0	
Vac	Default industrial noise	Point		27.1	0.0	
Vac	Default industrial noise	Point		27.4	0.0	
Vac	Default industrial noise	Point		27.7	0.0	
Vac	Default industrial noise	Point		28.1	0.0	
Vac	Default industrial noise	Point		28.4	0.0	
Vac	Default industrial noise	Point		28.7	0.0	
Vac	Default industrial noise	Point		29.1	0.0	

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
Vac	Default industrial noise	Point		29.5	0.0	
Vac	Default industrial noise	Point		29.9	0.0	
Vac	Default industrial noise	Point		30.3	0.0	
Vac	Default industrial noise	Point		28.0	0.0	
Vac	Default industrial noise	Point		26.6	0.0	
Vac	Default industrial noise	Point		26.9	0.0	
Vac	Default industrial noise	Point		27.2	0.0	
Vac	Default industrial noise	Point		27.5	0.0	
Vac	Default industrial noise	Point		27.8	0.0	
Vac	Default industrial noise	Point		28.1	0.0	
Vac	Default industrial noise	Point		28.5	0.0	
Vac	Default industrial noise	Point		28.8	0.0	
Vac	Default industrial noise	Point		29.2	0.0	
Vac	Default industrial noise	Point		29.5	0.0	
Vac	Default industrial noise	Point		29.9	0.0	
Turbine	Default industrial noise	Point		8.2	0.0	
001 - 120HP IDC Standard Tunnel-Roof 01	Default industrial noise	Area		8.0	0.0	
001 - 120HP IDC Standard Tunnel-Facade 01	Default industrial noise	Area		9.1	0.0	
001 - 120HP IDC Standard Tunnel-Facade 02	Default industrial noise	Area		8.8	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		50.3	0.0	
001 - 120HP IDC Standard Tunnel-Facade 03	Default industrial noise	Area		9.6	0.0	
001 - 120HP IDC Standard Tunnel-Facade 04	Default industrial noise	Area		-11.7	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		20.3	0.0	
Receiver R3 Fl G Lr,lim dB(A) Leq,d 47.6 dB(A) Sigma(Leq,d) 0.0 dB(A)						
Vac	Default industrial noise	Point		28.6	0.0	
Vac	Default industrial noise	Point		29.6	0.0	
Vac	Default industrial noise	Point		29.5	0.0	
Vac	Default industrial noise	Point		28.9	0.0	
Vac	Default industrial noise	Point		29.3	0.0	
Vac	Default industrial noise	Point		29.2	0.0	
Vac	Default industrial noise	Point		29.2	0.0	
Vac	Default industrial noise	Point		29.3	0.0	
Vac	Default industrial noise	Point		29.4	0.0	
Vac	Default industrial noise	Point		29.4	0.0	
Vac	Default industrial noise	Point		29.4	0.0	
Vac	Default industrial noise	Point		29.5	0.0	
Vac	Default industrial noise	Point		28.8	0.0	
Vac	Default industrial noise	Point		28.9	0.0	

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
Vac	Default industrial noise	Point		29.1	0.0	
Vac	Default industrial noise	Point		29.2	0.0	
Vac	Default industrial noise	Point		29.3	0.0	
Vac	Default industrial noise	Point		29.5	0.0	
Vac	Default industrial noise	Point		29.5	0.0	
Vac	Default industrial noise	Point		29.6	0.0	
Vac	Default industrial noise	Point		29.7	0.0	
Vac	Default industrial noise	Point		29.7	0.0	
Vac	Default industrial noise	Point		29.8	0.0	
Vac	Default industrial noise	Point		29.8	0.0	
Turbine	Default industrial noise	Point		11.2	0.0	
001 - 120HP IDC Standard Tunnel-Roof 01	Default industrial noise	Area		4.9	0.0	
001 - 120HP IDC Standard Tunnel-Facade 01	Default industrial noise	Area		3.2	0.0	
001 - 120HP IDC Standard Tunnel-Facade 02	Default industrial noise	Area		4.3	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		45.6	0.0	
001 - 120HP IDC Standard Tunnel-Facade 03	Default industrial noise	Area		0.2	0.0	
001 - 120HP IDC Standard Tunnel-Facade 04	Default industrial noise	Area		-7.9	0.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Default industrial noise	Area		26.7	0.0	

S John King Blvd & 276 Rockwall TX
Octave spectra of the sources in dB(A) - 001 - 120HP IDC - Standard: Outdoor SP

Name	Source type	I or A	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
001 - 120HP IDC Standard Tunnel-Facade 01	Area	251.57	86.1	57.0	37.5	61.5	0.0	0.0		3	100%/24h	17_Facade 01_	54.1	48.2	59.2	53.9	41.1	34.6	24.3	11.7	
001 - 120HP IDC Standard Tunnel-Facade 02	Area	32.63	88.7	57.0	39.6	54.7	0.0	0.0		3	100%/24h	18_Facade 02_	47.7	41.9	52.1	47.5	35.7	29.6	19.5	7.8	
001 - 120HP IDC Standard Tunnel-Facade 03	Area	251.57	86.1	57.0	37.5	61.5	0.0	0.0		3	100%/24h	19_Facade 03_	54.1	48.2	59.2	53.9	41.1	34.6	24.3	11.7	
001 - 120HP IDC Standard Tunnel-Facade 04	Area	32.63	81.7	57.0	34.5	49.6	0.0	0.0		3	100%/24h	20_Facade 04_	40.8	34.5	48.1	40.9	22.5	6.5	-13.6		
001 - 120HP IDC Standard Tunnel-Roof 01	Area	333.18	85.7	57.0	37.2	62.4	0.0	0.0		0	100%/24h	15_Roof 01_	54.9	49.1	60.1	54.8	42.0	35.4	25.2	12.7	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Area	7.43	88.9	0.0	88.9	97.6	0.0	0.0		3	100%/24h	53_Transmissive area 01_	71.4	79.7	91.9	93.3	90.5	88.4	81.4	68.0	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Area	7.43	81.6	0.0	81.6	90.3	0.0	0.0		3	100%/24h	54_Transmissive area 01_	64.2	71.9	87.6	86.4	77.0	65.1	48.0	26.7	
Turbine	Point				72.6	72.6	0.0	0.0		0	100%/24h	Vacutech Turbine	47.3	57.5	54.5	51.9	55.8	59.5	66.1	69.3	65.0
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2

S John King Blvd & 276 Rockwall TX
Octave spectra of the sources in dB(A) - 001 - 120HP IDC - Standard: Outdoor SP

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Name	Source type	I or A	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2

S John King Blvd & 276 Rockwall TX
Contribution spectra - 001 - 120HP IDC - Standard: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Receiver R1 Fl G Lr,lim dB(A) Leq,d 32.1 dB(A) Sigma(Leq,d) 0.0 dB(A)																													
001 - 120HP IDC Standard Tunnel-Facade 01	Leq,d	-2.2					-4.0			-15.9			-8.2			-16.2			-30.6			-39.3			-53.7			-78.0	
001 - 120HP IDC Standard Tunnel-Facade 02	Leq,d	-10.8					-12.1			-24.3			-18.0			-25.1			-38.2			-46.2			-60.9			-86.4	
001 - 120HP IDC Standard Tunnel-Facade 03	Leq,d	0.3					-0.8			-13.3			-7.9			-15.5			-29.2			-37.9			-52.8			-77.4	
001 - 120HP IDC Standard Tunnel-Facade 04	Leq,d	-7.1					-9.9			-21.5			-11.2			-21.2			-41.5			-59.7			-85.6				
001 - 120HP IDC Standard Tunnel-Roof 01	Leq,d	2.1					-1.1			-11.0			-1.8			-9.4			-24.2			-33.9			-50.1			-76.7	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	22.7					10.4			11.6			17.8			17.1			14.9			12.4			1.3			-25.9	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	28.4					13.8			15.5			26.6			22.3			10.7			-2.6			-25.7			-58.8	
Turbine	Leq,d	-0.9				-24.9	-18.5	-12.2	-12.7	-10.6	-10.2	-12.7	-14.2	-15.5	-18.5	-21.0	-18.1	-17.9	-16.7	-14.2	-13.5	-14.0	-16.9	-13.3	-13.3	-15.0	-16.3	-19.9	-28.8
Vac	Leq,d	14.6	-13.9	-11.3	-4.7	-1.2	1.3	4.7	2.2	2.4	4.4	7.2	7.2	2.2	-0.8	2.1	-4.9	-3.6	-3.6	-6.8	-3.3	-4.7	-6.4	-8.4	-11.0	-16.6	-22.4	-31.7	-43.3
Vac	Leq,d	14.7	-13.8	-11.1	-4.6	-1.0	1.4	4.8	2.4	2.5	4.5	7.3	7.3	2.3	-0.8	2.2	-4.8	-3.5	-3.6	-6.7	-3.3	-4.6	-6.3	-8.3	-10.9	-16.3	-22.1	-31.2	-42.5
Vac	Leq,d	14.8	-13.6	-11.0	-4.4	-0.9	1.5	4.9	2.5	2.6	4.6	7.4	7.4	2.4	-0.7	2.3	-4.7	-3.4	-3.5	-6.6	-3.2	-4.6	-6.2	-8.2	-10.7	-16.1	-21.8	-30.5	-41.6
Vac	Leq,d	14.9	-13.5	-10.9	-4.3	-0.8	1.7	5.0	2.7	2.8	4.8	7.5	7.5	2.4	-0.6	2.4	-4.6	-3.3	-3.4	-6.6	-3.1	-4.5	-6.1	-8.0	-10.6	-15.9	-21.4	-29.9	-40.8
Vac	Leq,d	14.2	-14.5	-11.8	-5.2	-1.7	0.8	4.2	1.7	1.8	3.9	6.8	6.8	1.8	-1.2	1.8	-5.2	-3.8	-3.9	-7.1	-3.6	-5.1	-6.8	-8.9	-11.7	-17.5	-23.7	-34.1	-46.5
Vac	Leq,d	14.3	-14.3	-11.7	-5.1	-1.6	0.9	4.3	1.8	2.0	4.1	6.9	6.9	1.9	-1.1	1.9	-5.1	-3.8	-3.8	-7.0	-3.5	-5.0	-6.7	-8.8	-11.5	-17.2	-23.4	-33.6	-45.7
Vac	Leq,d	14.4	-14.2	-11.6	-5.0	-1.4	1.0	4.4	1.9	2.1	4.2	7.0	7.0	2.0	-1.0	2.0	-5.0	-3.7	-3.8	-6.9	-3.5	-4.9	-6.6	-8.7	-11.4	-17.0	-23.1	-33.0	-44.9
Vac	Leq,d	14.5	-14.0	-11.4	-4.8	-1.3	1.2	4.5	2.1	2.2	4.3	7.1	7.1	2.1	-0.9	2.1	-5.0	-3.6	-3.7	-6.9	-3.4	-4.8	-6.5	-8.5	-11.2	-16.8	-22.7	-32.4	-44.1
Vac	Leq,d	15.1	-13.2	-10.6	-4.1	-0.6	1.9	5.2	2.9	2.9	4.9	7.6	7.6	2.5	-0.5	2.4	-4.6	-3.2	-3.3	-6.5	-3.0	-4.4	-6.0	-7.9	-10.4	-15.7	-21.1	-29.5	-40.3
Vac	Leq,d	15.0	-13.4	-10.8	-4.2	-0.7	1.7	5.1	2.7	2.8	4.8	7.5	7.5	2.4	-0.6	2.4	-4.7	-3.3	-3.4	-6.5	-3.1	-4.5	-6.1	-8.0	-10.6	-15.9	-21.6	-30.1	-41.1
Vac	Leq,d	14.9	-13.5	-10.9	-4.3	-0.8	1.6	5.0	2.6	2.7	4.7	7.4	7.4	2.3	-0.7	2.3	-4.7	-3.4	-3.5	-6.6	-3.2	-4.5	-6.2	-8.2	-10.7	-16.2	-21.9	-30.7	-42.0
Vac	Leq,d	14.8	-13.6	-11.0	-4.4	-0.9	1.5	4.9	2.5	2.6	4.6	7.3	7.3	2.2	-0.8	2.2	-4.8	-3.4	-3.5	-6.7	-3.2	-4.6	-6.3	-8.3	-10.9	-16.4	-22.2	-31.3	-42.8
Vac	Leq,d	15.4	-12.7	-10.1	-3.6	-0.1	2.3	5.6	3.4	3.4	5.3	8.0	7.9	2.8	-0.2	2.7	-4.3	-3.0	-3.1	-6.2	-2.8	-4.1	-5.7	-7.5	-9.9	-14.9	-19.2	-27.0	-37.0
Vac	Leq,d	15.4	-12.8	-10.2	-3.7	-0.2	2.2	5.5	3.3	3.3	5.3	7.9	7.8	2.7	-0.3	2.7	-4.4	-3.1	-3.1	-6.3	-2.8	-4.2	-5.7	-7.6	-10.0	-15.1	-19.7	-27.6	-37.8
Vac	Leq,d	15.3	-12.9	-10.3	-3.8	-0.3	2.1	5.4	3.1	3.2	5.2	7.8	7.7	2.7	-0.4	2.6	-4.5	-3.1	-3.2	-6.3	-2.9	-4.2	-5.8	-7.7	-10.1	-15.3	-20.1	-28.2	-38.6
Vac	Leq,d	15.2	-13.1	-10.5	-3.9	-0.4	2.0	5.3	3.0	3.1	5.0	7.7	7.7	2.6	-0.4	2.5	-4.5	-3.2	-3.3	-6.4	-3.0	-4.3	-5.9	-7.8	-10.3	-15.5	-20.6	-28.9	-39.5
Vac	Leq,d	12.4	-14.0	-11.7	-5.6	-2.5	-0.5	2.5	0.1	0.1	2.1	4.7	4.7	-0.3	-3.2	-0.2	-7.3	-5.8	-5.9	-9.0	-5.6	-6.9	-8.5	-9.6	-11.1	-15.3	-19.5	-27.4	-37.5
Vac	Leq,d	15.2	-13.0	-10.4	-3.9	-0.4	2.0	5.3	3.1	3.1	5.1	7.8	7.7	2.7	-0.4	2.6	-4.5	-3.2	-3.2	-6.4	-2.9	-4.3	-5.8	-7.7	-10.1	-15.3	-20.0	-28.0	-38.3
Vac	Leq,d	15.1	-13.1	-10.6	-4.0	-0.5	1.9	5.2	3.0	3.0	5.0	7.7	7.7	2.6	-0.4	2.5	-4.5	-3.2	-3.3	-6.4	-3.0	-4.3	-5.9	-7.8	-10.2	-15.5	-20.4	-28.6	-39.1
Vac	Leq,d	15.0	-13.3	-10.7	-4.1	-0.6	1.8	5.1	2.8	2.9	4.9	7.6	7.6	2.5	-0.5	2.5	-4.6	-3.3	-3.4	-6.5	-3.1	-4.4	-6.0	-7.9	-10.4	-15.7	-20.9	-29.3	-39.9
Vac	Leq,d	14.6	-13.8	-11.2	-4.6	-1.1	1.4	4.7	2.3	2.4	4.5	7.2	7.2	2.2	-0.9	2.1	-4.9	-3.5	-3.6	-6.7	-3.3	-4.7	-6.4	-8.4	-11.0	-16.6	-22.5	-32.0	-43.6

S John King Blvd & 276 Rockwall TX
Contribution spectra - 001 - 120HP IDC - Standard: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Vac	Leq,d	14.5	-13.9	-11.3	-4.7	-1.2	1.3	4.6	2.2	2.3	4.3	7.1	7.1	2.1	-0.9	2.0	-5.0	-3.6	-3.7	-6.8	-3.4	-4.8	-6.5	-8.5	-11.2	-16.8	-22.8	-32.6	-44.4
Vac	Leq,d	14.4	-14.1	-11.4	-4.8	-1.3	1.2	4.5	2.0	2.2	4.2	7.0	7.0	2.0	-1.0	2.0	-5.1	-3.7	-3.7	-6.9	-3.4	-4.9	-6.6	-8.6	-11.4	-17.0	-23.1	-33.2	-45.2
Vac	Leq,d	14.3	-14.2	-11.6	-5.0	-1.4	1.0	4.4	1.9	2.0	4.1	6.9	6.9	1.9	-1.1	1.9	-5.1	-3.7	-3.8	-7.0	-3.5	-4.9	-6.7	-8.8	-11.5	-17.3	-23.5	-33.8	-46.0
Receiver R2 Fl G Lr,lim dB(A)	Leq,d 52.9 dB(A) Sigma(Leq,d) 0.0 dB(A)																												
001 - 120HP IDC Standard Tunnel-Facade 01	Leq,d	8.2					6.5			-5.0			2.0			-7.0			-21.6			-29.6			-42.1			-60.5	
001 - 120HP IDC Standard Tunnel-Facade 02	Leq,d	11.3					7.9			-0.8			6.1			3.2			-6.6			-12.6			-24.0			-40.2	
001 - 120HP IDC Standard Tunnel-Facade 03	Leq,d	17.0					13.5			4.8			12.2			8.4			-2.0			-8.4			-20.1			-37.6	
001 - 120HP IDC Standard Tunnel-Facade 04	Leq,d	-5.0					-7.7			-18.5			-9.3			-18.5			-37.7			-56.0			-79.6				
001 - 120HP IDC Standard Tunnel-Roof 01	Leq,d	12.9					7.3			-0.7			10.1			4.6			-7.7			-14.9			-27.4			-46.4	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	52.9					31.6			37.5			44.5			47.1			47.7			46.2			37.9			19.9	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	28.9					14.7			17.8			26.7			22.8			14.2			1.0			-19.4			-48.4	
Turbine	Leq,d	3.3				-23.2	-16.7	-10.4	-10.6	-8.6	-8.4	-13.9	-15.5	-14.3	-15.6	-18.1	-16.9	-11.0	-10.5	-7.8	-6.8	-7.2	-10.1	-6.5	-7.0	-9.4	-11.9	-16.2	-25.0
Vac	Leq,d	20.4	-10.6	-8.1	-1.5	1.9	4.3	7.6	6.0	6.1	8.0	9.9	9.6	4.2	0.9	3.7	-3.6	-1.8	9.2	6.9	11.2	10.6	9.6	8.2	6.0	0.6	-5.4	-15.5	-26.9
Vac	Leq,d	20.4	-11.0	-8.5	-1.9	1.5	3.9	7.2	5.6	5.6	7.5	9.6	9.3	4.0	0.7	3.5	-3.8	-2.2	9.3	7.0	11.3	10.7	9.8	8.4	6.2	0.9	-5.1	-15.2	-26.9
Vac	Leq,d	20.3	-11.3	-8.8	-2.2	1.2	3.6	6.9	5.2	5.3	7.2	9.5	9.1	3.8	0.5	3.3	-3.9	-2.5	9.4	7.1	11.5	10.9	10.0	8.6	6.4	1.1	-4.8	-14.9	-26.8
Vac	Leq,d	20.4	-11.5	-9.0	-2.5	1.0	3.4	6.7	5.0	5.0	6.9	9.3	9.0	3.7	0.4	3.2	-4.0	-2.7	9.6	7.3	11.6	11.0	10.2	8.8	6.7	1.4	-4.5	-14.5	-26.7
Vac	Leq,d	29.7	-6.6	-3.6	3.4	7.4	10.4	14.4	13.8	14.8	17.7	16.1	17.1	13.1	11.4	15.3	9.3	16.8	17.7	15.6	19.9	19.6	19.3	18.7	17.7	14.3	11.1	4.8	-3.0
Vac	Leq,d	21.4	-9.1	-6.3	0.5	4.2	6.9	10.5	9.4	10.0	12.4	12.3	12.5	7.6	4.9	8.0	1.2	6.8	7.0	4.0	7.5	6.4	5.1	3.7	1.9	-2.3	-6.3	-13.4	-22.0
Vac	Leq,d	19.3	-9.5	-6.9	-0.2	3.4	5.9	9.3	8.0	8.2	10.4	11.0	10.9	5.7	2.7	5.6	-1.5	2.7	2.7	-0.4	2.9	1.7	0.4	-1.0	-2.6	-6.7	-10.5	-17.4	-25.7
Vac	Leq,d	17.9	-10.1	-7.5	-1.0	2.5	4.9	8.3	6.8	6.9	8.8	10.2	9.9	4.6	1.4	4.1	-3.2	-0.9	-1.2	-4.4	-1.3	-2.6	-4.1	-5.1	-6.3	-10.0	-13.5	-20.0	-28.1
Vac	Leq,d	14.7	-12.2	-9.8	-3.4	-0.2	2.0	5.0	3.4	3.3	5.0	7.1	6.7	1.3	-2.0	0.7	-6.5	-5.0	-5.2	-8.1	-4.1	-4.5	-4.9	-5.6	-6.5	-9.9	-13.0	-19.2	-26.8
Vac	Leq,d	14.9	-12.0	-9.6	-3.3	0.0	2.1	5.2	3.6	3.5	5.2	7.3	6.9	1.5	-1.8	0.9	-6.3	-4.8	-5.0	-7.8	-3.9	-4.3	-4.7	-5.4	-6.3	-9.7	-12.8	-15.3	-25.4
Vac	Leq,d	15.1	-11.8	-9.4	-3.1	0.1	2.3	5.4	3.9	3.7	5.4	7.5	7.1	1.7	-1.6	1.1	-6.2	-4.6	-4.8	-7.6	-3.7	-4.0	-4.5	-5.1	-6.1	-9.4	-12.5	-18.5	-25.9
Vac	Leq,d	15.4	-11.6	-9.2	-2.9	0.4	2.6	5.6	4.2	4.0	5.8	7.7	7.3	1.9	-1.4	1.3	-6.0	-4.3	-4.5	-7.2	-3.4	-3.8	-4.3	-4.9	-5.8	-9.2	-12.2	-18.2	-25.5
Vac	Leq,d	14.5	-12.0	-9.6	-3.3	-0.1	2.1	5.2	3.3	3.2	4.9	6.6	6.2	0.9	-2.4	0.3	-6.9	-5.2	-5.4	-8.5	-4.5	-5.0	-5.5	-6.3	-7.3	-10.9	-14.3	-20.7	-28.8
Vac	Leq,d	14.4	-12.2	-9.8	-3.5	-0.2	1.9	4.9	3.2	3.0	4.6	6.7	6.3	0.9	-2.4	0.3	-6.8	-5.3	-5.5	-8.6	-4.5	-4.9	-5.4	-6.1	-7.2	-10.7	-14.0	-20.4	-28.3
Vac	Leq,d	14.4	-12.3	-9.9	-3.6	-0.3	1.9	4.9	3.2	3.0	4.7	6.8	6.4	1.0	-2.3	0.4	-6.8	-5.3	-5.5	-8.5	-4.4	-4.8	-5.3	-6.0	-7.0	-10.5	-13.7	-20.0	-27.8
Vac	Leq,d	14.6	-12.2	-9.9	-3.5	-0.3	1.9	4.9	3.3	3.1	4.8	7.0	6.5	1.2	-2.2	0.6	-6.6	-5.2	-5.4	-8.3	-4.3	-4.7	-5.1	-5.8	-6.7	-10.2	-13.4	-19.6	-27.3
Vac	Leq,d	21.0	-11.9	-9.4	-2.8	0.6	3.0	6.3	4.5	4.5	6.4	8.8	8.5	3.2	0.0	2.8	-4.4	9.3	10.2	7.9	12.3	11.7	10.9	9.6	7.6	2.6	-3.1	-13.0	-25.5
Vac	Leq,d	20.9	-11.9	-9.3	-2.8	0.7	3.1	6.4	4.6	4.6	6.5	8.9	8.6	3.3	0.1	2.9	-4.3	9.2	10.0	7.7	12.1	11.5	10.7	9.4	7.4	2.3	-3.5	-13.4	-25.9

S John King Blvd & 276 Rockwall TX
Contribution spectra - 001 - 120HP IDC - Standard: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Vac	Leq,d	20.5	-11.8	-9.3	-2.7	0.7	3.1	6.4	4.7	4.7	6.6	9.0	8.7	3.4	0.2	3.0	-4.2	-3.0	9.9	7.6	12.0	11.4	10.5	9.2	7.2	2.0	-3.8	-13.8	-26.2
Vac	Leq,d	20.4	-11.7	-9.2	-2.6	0.8	3.2	6.5	4.8	4.8	6.7	9.2	8.9	3.6	0.3	3.1	-4.1	-2.9	9.7	7.4	11.8	11.2	10.3	9.0	6.9	1.7	-4.1	-14.2	-26.5
Vac	Leq,d	15.8	-11.1	-8.7	-2.4	0.8	3.0	6.1	4.7	4.6	6.3	8.0	7.6	2.2	-1.1	1.6	-5.7	-3.8	-4.0	-6.8	-3.0	-3.4	-3.9	-4.6	-5.5	-8.9	-11.9	-17.8	-25.1
Vac	Leq,d	16.4	-10.5	-8.1	-1.7	1.6	3.8	6.9	5.5	5.4	7.2	8.5	8.1	2.7	-0.6	2.0	-5.3	-2.9	-3.2	-6.0	-2.3	-2.8	-3.4	-4.2	-5.1	-8.5	-11.5	-17.5	-24.7
Vac	Leq,d	17.8	-9.6	-7.0	-0.6	2.8	5.1	8.3	7.1	7.1	9.1	9.5	9.2	3.8	0.5	3.2	-4.1	-0.8	-1.2	-4.2	-0.7	-1.5	-2.3	-3.2	-4.3	-7.8	-10.9	-16.8	-24.1
Vac	Leq,d	21.9	-8.5	-5.8	0.9	4.6	7.2	10.8	10.0	10.5	13.0	12.5	12.7	7.9	5.4	8.6	1.8	7.6	7.8	4.9	8.3	7.3	6.2	4.9	3.3	-0.8	-4.4	-11.0	-18.8
Receiver R3 Fl G Lr,lim dB(A)	Leq,d 50.9 dB(A)	Sigma(Leq,d) 0.0 dB(A)																											
001 - 120HP IDC Standard Tunnel-Facade 01	Leq,d	9.1					6.2			-3.1			3.9			-0.5			-12.0			-19.7			-33.1			-53.6	
001 - 120HP IDC Standard Tunnel-Facade 02	Leq,d	8.8					5.6			-3.2			3.2			0.5			-8.9			-15.0			-26.8			-44.4	
001 - 120HP IDC Standard Tunnel-Facade 03	Leq,d	9.6					6.7			-2.8			4.3			0.2			-10.3			-16.9			-29.4			-49.4	
001 - 120HP IDC Standard Tunnel-Facade 04	Leq,d	-11.7					-13.4			-26.3			-17.5			-27.0			-41.3			-59.7			-85.5				
001 - 120HP IDC Standard Tunnel-Roof 01	Leq,d	8.0					3.0			-6.0			4.8			-0.5			-12.5			-19.6			-32.9			-53.9	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	50.3					29.5			35.2			41.5			44.2			45.3			43.9			35.3			15.9	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	20.3					8.5			8.9			17.4			14.0			10.8			-2.7			-24.9			-57.7	
Turbine	Leq,d	8.2				-22.7	-15.6	-8.7	-8.7	-5.9	-5.1	-7.1	-7.9	-8.7	-11.1	-13.1	-9.4	-7.6	-5.9	-2.9	-1.7	-2.0	-4.6	-0.8	-1.1	-3.3	-5.8	-10.7	-20.9
Vac	Leq,d	28.5	-7.4	-4.4	2.6	6.6	9.6	13.6	12.7	13.7	16.7	14.8	15.7	11.7	10.0	13.9	7.9	15.6	16.6	14.5	18.8	18.5	18.1	17.4	16.4	12.7	9.2	2.5	-6.0
Vac	Leq,d	28.1	-7.6	-4.6	2.4	6.4	9.4	13.4	12.4	13.4	16.4	14.4	15.4	11.3	9.6	13.6	7.5	15.3	16.3	14.2	18.5	18.2	17.8	17.1	16.0	12.3	8.7	1.8	-6.9
Vac	Leq,d	27.8	-7.8	-4.8	2.2	6.2	9.2	13.2	12.1	13.1	16.1	14.0	15.0	11.0	9.3	13.2	7.2	15.0	16.0	13.9	18.2	17.9	17.5	16.7	15.6	11.8	8.1	1.1	-7.8
Vac	Leq,d	27.5	-8.0	-5.1	1.9	5.9	8.9	12.9	11.8	12.8	15.8	13.7	14.6	10.6	8.9	12.9	6.8	14.7	15.7	13.6	17.9	17.6	17.1	16.4	15.2	11.4	7.6	0.4	-8.7
Vac	Leq,d	29.9	-6.4	-3.4	3.6	7.6	10.6	14.6	14.0	15.0	18.0	16.4	17.4	13.4	11.6	15.6	9.6	17.0	17.9	15.8	20.1	19.9	19.5	18.9	18.0	14.6	11.5	5.3	-2.4
Vac	Leq,d	29.5	-6.7	-3.7	3.3	7.3	10.3	14.3	13.6	14.6	17.6	16.0	16.9	12.9	11.2	15.1	9.1	16.6	17.6	15.5	19.8	19.5	19.1	18.5	17.6	14.1	10.9	4.5	-3.3
Vac	Leq,d	29.2	-6.9	-3.9	3.1	7.1	10.1	14.1	13.3	14.3	17.3	15.6	16.5	12.5	10.8	14.8	8.7	16.3	17.2	15.2	19.5	19.2	18.8	18.2	17.2	13.7	10.3	3.9	-4.2
Vac	Leq,d	28.8	-7.1	-4.1	2.9	6.9	9.9	13.9	13.0	14.0	17.0	15.1	16.1	12.1	10.4	14.3	8.3	16.0	16.9	14.8	19.1	18.9	18.4	17.8	16.8	13.2	9.8	3.2	-5.1
Vac	Leq,d	27.7	-7.9	-4.9	2.1	6.1	9.1	13.1	12.1	13.0	16.0	14.0	14.9	10.9	9.2	13.2	7.1	15.0	15.9	13.8	18.2	17.9	17.4	16.7	15.5	11.7	8.0	1.0	-7.9
Vac	Leq,d	28.1	-7.6	-4.6	2.4	6.4	9.3	13.3	12.3	13.3	16.3	14.3	15.3	11.3	9.5	13.5	7.5	15.3	16.2	14.1	18.5	18.2	17.7	17.0	15.9	12.2	8.6	1.6	-7.1
Vac	Leq,d	28.4	-7.4	-4.4	2.6	6.6	9.6	13.6	12.6	13.6	16.6	14.7	15.7	11.6	9.9	13.9	7.8	15.6	16.6	14.4	18.8	18.5	18.0	17.4	16.3	12.6	9.1	2.3	-6.2
Vac	Leq,d	28.7	-7.2	-4.2	2.8	6.8	9.8	13.8	12.9	13.9	16.9	15.1	16.0	12.0	10.3	14.3	8.2	15.9	16.9	14.7	19.1	18.8	18.4	17.7	16.7	13.1	9.7	3.0	-5.3
Vac	Leq,d	26.6	-8.7	-5.7	1.3	5.3	8.3	12.3	11.0	12.0	14.9	12.6	13.6	9.6	7.9	11.8	5.8	13.9	14.8	12.7	17.1	16.7	16.2	15.4	14.1	10.0	6.0	-1.7	-11.4
Vac	Leq,d	26.8	-8.5	-5.5	1.5	5.5	8.5	12.5	11.2	12.2	15.2	12.9	13.9	9.9	8.2	12.1	6.1	14.2	15.1	12.9	17.3	17.0	16.5	15.6	14.4	10.4	6.4	-1.1	-10.6
Vac	Leq,d	27.1	-8.3	-5.3	1.7	5.7	8.7	12.7	11.5	12.5	15.4	13.2	14.2	10.2	8.5	12.4	6.4	14.4	15.3	13.2	17.6	17.3	16.7	16.0	14.7	10.8	6.9	-0.4	-9.8

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Contribution spectra - 001 - 120HP IDC - Standard: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Vac	Leq,d	27.4	-8.1	-5.1	1.9	5.9	8.9	12.9	11.8	12.7	15.7	13.6	14.6	10.5	8.8	12.8	6.7	14.7	15.6	13.5	17.9	17.6	17.1	16.3	15.1	11.3	7.5	0.3	-8.8
Vac	Leq,d	28.0	-8.9	-5.9	1.1	5.1	8.1	12.1	10.8	11.7	14.7	12.4	13.4	9.3	10.0	13.9	7.9	16.0	16.9	14.8	19.2	18.8	18.3	17.4	16.1	11.9	7.7	-0.1	-10.1
Vac	Leq,d	26.6	-8.7	-5.7	1.3	5.3	8.3	12.3	11.0	12.0	15.0	12.7	13.7	9.6	7.9	11.9	5.9	13.9	14.9	12.7	17.1	16.8	16.2	15.4	14.1	10.1	6.1	-1.5	-11.2
Vac	Leq,d	26.9	-8.5	-5.5	1.5	5.5	8.5	12.5	11.3	12.2	15.2	13.0	14.0	9.9	8.2	12.2	6.1	14.2	15.2	13.0	17.4	17.0	16.5	15.7	14.4	10.5	6.5	-1.0	-10.4
Vac	Leq,d	27.2	-8.3	-5.3	1.7	5.7	8.7	12.7	11.5	12.5	15.5	13.3	14.3	10.3	8.6	12.5	6.5	14.5	15.4	13.3	17.7	17.3	16.8	16.0	14.8	10.9	7.1	-0.3	-9.5
Vac	Leq,d	29.1	-6.9	-3.9	3.1	7.1	10.1	14.1	13.3	14.3	17.3	15.5	16.5	12.5	10.7	14.7	8.7	16.3	17.2	15.1	19.4	19.2	18.8	18.1	17.1	13.6	10.3	3.8	-4.3
Vac	Leq,d	29.5	-6.7	-3.7	3.3	7.3	10.3	14.3	13.6	14.6	17.6	15.9	16.9	12.9	11.2	15.1	9.1	16.6	17.5	15.5	19.7	19.5	19.1	18.5	17.5	14.1	10.8	4.5	-3.4
Vac	Leq,d	29.9	-6.4	-3.4	3.6	7.6	10.6	14.6	14.0	14.9	17.9	16.4	17.3	13.3	11.6	15.6	9.5	17.0	17.9	15.8	20.1	19.8	19.5	18.9	18.0	14.6	11.4	5.2	-2.5
Vac	Leq,d	30.3	-6.2	-3.2	3.8	7.8	10.8	14.8	14.3	15.3	18.3	16.8	17.8	13.8	12.1	16.0	10.0	17.3	18.3	16.2	20.4	20.2	19.9	19.3	18.4	15.1	12.0	6.0	-1.5
Receiver R3 Fl G Lr,lim dB(A)	Leq,d 47.6 dB(A)	Sigma(Leq,d) 0.0 dB(A)																											
001 - 120HP IDC Standard Tunnel-Facade 01	Leq,d	3.2					1.2			-9.7			-2.7			-8.8			-20.7			-27.9			-41.0			-63.3	
001 - 120HP IDC Standard Tunnel-Facade 02	Leq,d	4.3					1.6			-7.7			-1.9			-4.3			-13.3			-19.6			-32.4			-53.8	
001 - 120HP IDC Standard Tunnel-Facade 03	Leq,d	0.2					-1.3			-13.1			-6.6			-15.1			-29.4			-37.9			-52.1			-75.7	
001 - 120HP IDC Standard Tunnel-Facade 04	Leq,d	-7.9					-10.4			-21.4			-12.6			-20.3			-38.2			-56.3			-81.3				
001 - 120HP IDC Standard Tunnel-Roof 01	Leq,d	4.9					0.6			-8.7			1.6			-4.8			-19.0			-28.4			-43.6			-67.9	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	45.6					26.0			30.9			36.2			39.2			40.9			39.5			29.8			6.5	
001 - 120HP IDC Standard Tunnel-Transmissive area 01	Leq,d	26.7					13.0			15.9			23.8			21.5			14.3			0.5			-21.9			-56.2	
Turbine	Leq,d	11.2				-15.9	-13.0	-6.0	-5.7	-3.0	-2.1	-7.3	-8.2	-9.0	-5.8	-7.3	-5.1	-4.5	-3.1	-0.2	1.0	0.8	-1.8	2.1	2.1	0.2	-1.8	-5.9	-15.1
Vac	Leq,d	29.6	-7.3	-4.3	2.7	6.7	9.7	13.7	12.8	13.8	16.8	14.9	15.9	11.9	11.4	15.4	9.4	17.2	18.1	16.0	20.4	20.1	19.6	18.8	17.7	13.9	10.3	3.3	-5.3
Vac	Leq,d	29.5	-7.3	-4.3	2.7	6.7	9.7	13.6	12.7	13.7	16.7	14.8	15.8	11.8	11.3	15.3	9.3	17.2	18.1	15.9	20.3	20.0	19.5	18.8	18.2	14.3	10.5	3.4	-5.4
Vac	Leq,d	29.5	-7.4	-4.4	2.6	6.6	9.6	13.6	12.6	13.6	16.6	14.7	15.7	11.6	11.3	15.2	9.2	17.1	18.0	15.9	20.2	19.9	19.4	18.7	18.1	14.2	10.4	3.2	-5.6
Vac	Leq,d	29.3	-7.5	-4.5	2.5	6.5	9.5	13.5	12.5	13.5	16.5	14.6	15.5	11.5	11.1	15.1	9.1	17.0	17.9	15.8	20.1	19.8	19.3	18.6	17.4	13.6	9.8	2.7	-6.1
Vac	Leq,d	29.8	-7.1	-4.1	2.9	6.9	9.9	13.9	13.0	14.0	17.0	15.1	16.1	13.4	11.6	15.6	9.6	17.4	18.3	16.2	20.5	20.2	19.8	19.0	17.9	14.2	10.6	3.7	-4.8
Vac	Leq,d	29.8	-7.2	-4.2	2.8	6.8	9.8	13.8	13.0	14.0	16.9	15.1	16.1	13.3	11.6	15.6	9.5	17.4	18.3	16.2	20.5	20.2	19.7	19.0	17.9	14.1	10.5	3.7	-4.9
Vac	Leq,d	29.7	-7.2	-4.2	2.8	6.8	9.8	13.8	12.9	13.9	16.9	15.1	16.0	13.3	11.6	15.5	9.5	17.3	18.2	16.1	20.5	20.2	19.7	19.0	17.8	14.1	10.5	3.6	-5.0
Vac	Leq,d	29.7	-7.2	-4.2	2.8	6.8	9.8	13.8	12.9	13.9	16.9	15.0	16.0	13.2	11.5	15.5	9.4	17.3	18.2	16.1	20.4	20.1	19.7	18.9	17.8	14.0	10.4	3.5	-5.1
Vac	Leq,d	29.3	-8.3	-5.3	1.7	5.7	8.7	12.7	11.5	14.7	17.6	15.4	16.4	12.3	10.6	14.6	8.5	16.6	17.5	15.4	19.7	19.4	18.9	19.0	17.7	13.6	9.5	1.9	-7.7
Vac	Leq,d	29.2	-8.2	-5.2	1.8	5.8	8.8	12.8	11.6	14.7	17.7	15.5	16.4	12.4	10.7	14.7	8.6	16.7	17.6	15.4	19.8	19.5	19.0	18.2	16.9	13.0	9.0	1.5	-7.9
Vac	Leq,d	29.2	-8.2	-5.2	1.8	5.8	8.8	12.8	11.7	14.8	17.8	15.5	16.5	12.5	10.8	14.7	8.7	16.7	17.6	15.5	19.9	19.6	19.0	18.2	17.0	13.1	9.1	1.7	-7.7
Vac	Leq,d	29.3	-8.1	-5.1	1.9	5.9	8.9	12.9	11.7	14.8	17.8	15.6	16.6	12.6	10.8	14.8	8.8	16.8	17.7	15.6	19.9	19.6	19.1	18.3	17.1	13.1	9.2	1.8	-7.5

S John King Blvd & 276 Rockwall TX
Contribution spectra - 001 - 120HP IDC - Standard: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Vac	Leq,d	28.6	-8.6	-5.6	1.4	5.4	8.4	12.4	11.2	12.1	17.3	15.0	15.9	11.9	10.2	14.2	8.1	16.2	17.1	15.0	19.4	19.0	18.5	17.7	16.3	12.3	8.2	0.5	-9.3
Vac	Leq,d	29.6	-8.5	-5.5	1.5	5.5	8.5	12.5	11.3	12.2	17.4	15.1	16.0	12.0	10.3	14.3	8.2	16.3	17.2	15.1	21.1	20.7	20.2	19.3	18.0	14.0	9.9	2.2	-7.5
Vac	Leq,d	29.5	-8.4	-5.4	1.6	5.6	8.6	12.6	11.4	12.3	17.5	15.2	16.2	12.1	10.4	14.4	8.3	16.4	17.3	15.2	19.6	20.7	20.2	19.4	18.1	14.0	9.9	2.3	-7.4
Vac	Leq,d	28.9	-8.3	-5.3	1.7	5.7	8.6	12.6	11.5	12.4	17.6	15.3	16.3	12.2	10.5	14.5	8.4	16.5	17.4	15.3	19.7	19.3	18.8	18.0	16.7	12.7	8.7	1.2	-8.4
Vac	Leq,d	28.8	-7.9	-4.9	2.1	6.1	9.1	13.1	12.1	13.1	16.0	14.0	14.9	10.9	10.6	14.6	8.5	16.6	17.5	15.3	19.7	19.4	18.9	18.1	16.8	12.9	9.0	1.7	-7.5
Vac	Leq,d	28.9	-7.8	-4.8	2.2	6.2	9.2	13.2	12.2	13.2	16.2	14.1	15.1	11.1	10.8	14.7	8.7	16.7	17.6	15.5	19.8	19.5	19.0	18.2	17.0	13.1	9.2	2.0	-7.1
Vac	Leq,d	29.1	-7.7	-4.7	2.3	6.3	9.3	13.3	12.3	13.3	16.3	14.3	15.2	11.2	10.9	14.9	8.8	16.8	17.7	15.6	19.9	19.6	19.1	18.3	17.1	13.2	9.4	2.2	-6.7
Vac	Leq,d	29.2	-7.6	-4.6	2.4	6.4	9.4	13.4	12.4	13.4	16.4	14.4	15.4	11.4	11.0	15.0	8.9	16.9	17.8	15.7	20.0	19.7	19.2	18.4	17.2	13.4	9.6	2.5	-6.4
Vac	Leq,d	29.4	-8.1	-5.1	1.9	5.9	8.9	12.9	11.8	14.9	17.9	15.7	16.7	12.6	10.9	14.9	8.8	16.8	17.7	15.6	20.0	19.7	19.2	18.4	17.1	13.2	9.3	2.0	-7.4
Vac	Leq,d	29.4	-8.0	-5.0	2.0	6.0	9.0	13.0	11.8	14.9	17.9	15.7	16.7	12.7	11.0	14.9	8.9	16.9	17.8	15.7	20.0	19.7	19.2	18.4	17.2	13.3	9.4	2.1	-7.2
Vac	Leq,d	29.4	-8.0	-5.0	2.0	6.0	9.0	13.0	11.9	15.0	18.0	15.8	16.7	12.7	11.0	15.0	8.9	16.9	17.8	15.7	20.1	19.7	19.2	18.5	17.2	13.3	9.5	2.1	-7.1
Vac	Leq,d	29.5	-8.0	-5.0	2.0	6.0	9.0	13.0	11.9	15.0	18.0	15.8	16.8	12.7	11.0	15.0	8.9	16.9	17.8	15.7	20.1	19.8	19.3	18.5	17.3	13.4	9.5	2.2	-7.1

CITY OF ROCKWALL

PLANNING AND ZONING COMMISSION CASE MEMO

PLANNING AND ZONING DEPARTMENT
385 S. GOLIAD STREET • ROCKWALL, TX 75087
PHONE: (972) 771-7745 • EMAIL: PLANNING@ROCKWALL.COM

TO:	Planning and Zoning Commission
DATE:	November 15, 2022
APPLICANT:	Robert Romano
CASE NUMBER:	SP2022-054; *Amended Site Plan for Snuffer's Restaurant & Bar*

SUMMARY

Discuss and consider a request by Robert Romano on behalf of Bill McMahon of Triton I-30 Rockwall II, LLC for the approval of an *Amended Site Plan* for an existing *Restaurant* facility on a 1.370-acre parcel of land identified as Lot 17, Block A, La Jolla Pointe, Phase 2 Addition, City of Rockwall, Rockwall County, Texas, zoned Commercial (C) District, situated within the IH-30 Overlay (IH-30 OV) District, addressed as 568 E. IH-30, and take any action necessary.

BACKGROUND

The subject property was annexed into the City of Rockwall on September 26, 1960 by *Ordinance No. 60-04* [*Case No. 1960-004*]. At the time of annexation, the subject property was zoned Agricultural (AG) District. Based on the January 3, 1972 zoning map, at some point between the time of annexation and January 3, 1972 the subject property was rezoned to a Commercial (C) District. This remains the current zoning designation of the subject property. In 2007, the Planning and Zoning Commission approved a Site Plan [*Case No. SP2007-007]* for a 3,567 SF restaurant (*i.e. Taco Cabana*) which was built in 2008. Taco Cabana vacated the property in January 2019. The subject property has remained vacant since 2019.

PURPOSE

The applicant -- *Robert Romano* – submitted an application requesting the approval of an amended site plan for the renovation of the existing 3,567 SF restaurant, and proposed additions to the restaurant of 621 SF and 1,260 SF .

ADJACENT LAND USES AND ACCESS

The subject property is located at 568 E. IH-30. The land uses adjacent to the subject property are as follows:

North: Directly north of the subject property is a vacant 2.5440-acre parcel of land (*i.e. Lot 19, Block A, La Jolla Pointe Addition*), zoned Commercial (C) District. Beyond this is a vacant 1.284-acre parcel of land (*i.e. Lot 10, Block A, La Jolla Point Addition Phase 2*) zoned Commercial (C) District. Beyond this is La Jolla Pointe Drive, which is classified as a *Minor Collector* on the City's Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan.

South: Directly south of the subject property is the west bound lanes of the IH-30 Frontage Road. Beyond this is IH-30, which is identified as a TXDOT 6D (*i.e. Texas Department of Transportation Principle Arterial Roadway, six [6] lane, divided roadway*) on the City's Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan. Beyond this is the east bound lanes of the IH-30 Frontage Road.

East: Directly east of the subject property is a 1.148-acre parcel of land (*i.e. Lot 1, Block A, Steak-N-Shake Addition*), zoned Commercial (C) District, and developed with a *restaurant with a drive-through (i.e Steak-N-Shake)*. Beyond this is Ridge Road [*FM-740*] which is identified as a M4D *(i.e. major collector, four [4] lane, divided roadway*) on the City's Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan.

West: Directly west of the subject property is a 1.346-acre parcel of land, zoned Commercial (C) District, and developed with a 9,742 restaurant (*i.e. Logan's Roadhouse)*. West of this is a 1.364-acre parcel of land, zoned Commercial (C) District, and developed with a 9,379.50 SF *Health Club* (*i.e. White Tiger Taekwondo*). Beyond this is Catalina Drive, which is identified as a *Minor Collector* on the City's Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan.

DENSITY AND DIMENSIONAL REQUIREMENTS

According to Section 01, *Land Use Schedule*, of Article 04, *Permissible Uses*, of the Unified Development Code (UDC), a *Restaurant with 2,000 SF or more without a Drive-Through* is permitted *by-right* in a Commercial (C) District. The submitted site plan, landscape plan, and building elevations generally conform to the technical requirements contained within the Unified Development Code (UDC) for a property located within a Commercial (C) District with the exception of the variances and exceptions outline in the *Variances and Exceptions by the Applicant* section below. A summary of the density and dimensional requirements for the subject property and the proposed projects conformance to these requirements are as follows:

Ordinance Provisions	*Zoning District Standards*	*Conformance to the Standards*
Minimum Lot Area	10,000 SF	59,677 SF; *In Conformance*
Minimum Lot Frontage	60-Feet	200-Feet; *In Conformance*
Minimum Lot Depth	100-Feet	350-Feet; *In Conformance*
Minimum Front Yard Setback	15-Feet	84-Feet; *In Conformance*
Minimum Rear Yard Setback	10-Feet	32-Feet; *In Conformance*
Minimum Side Yard Setback	10-Feet	12-Feet; *In Conformance*
Maximum Building Height	60-Feet	24-Feet; *In Conformance*
Max Building/Lot Coverage	60%	11%; *In Conformance*
Minimum Number of Parking Spaces	1/100 or 55 Spaces	55; In Conformance
Minimum Landscaping Percentage	20%	X=27%; *In Conformance*
Maximum Impervious Coverage	85-90%	C=64%; *In Conformance*

LANDSCAPE PLAN

According to Subsection 03.02, *Applicability*, of Article 08, *Landscape and Fence Standards*, of the Unified Development Code (UDC), a landscape plan is required with an amended site plan that proposes an expansion of the existing floor area of a non-residential building or structure by 30%, or that adds 2,000 SF of floor area or more. In this case, the applicant is proposing to add 1,881 SF of additional floor area, which equates to 53% of the existing building's floor area. The applicant has provided a landscape plan that generally conforms to the requirements set forth in Article 08, *Landscape and Fence Standards*, of the Unified Development Code (UDC) and Subsection 06.02, *Overlay District Landscape Standards*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC) with the exception of the use of several Mexican fan palms. According to Appendix C, *Landscaping Guidelines and Requirements*, of the Unified Development Code (UDC), a Mexican fan palm is not considered an approved tree; however, the palms are existing on the subject property, and are from 14-caliper inches to 18-caliper inches in size, which are comparable to an approved canopy tree. Other than the use of the Mexican fan palm trees, the applicant's request conforms to the requirements set forth in Subsection 05.01, *Landscape Buffers*, of Article 08, *Landscape and Fence Standards*, of the Unified Development Code (UDC), and the canopy tree requirements for parking lot areas as set forth in Subsection 05.02, *Landscape Screening*, of Article 08, *Landscape and Fence Standards*, of the Unified Development Code (UDC). Based on this it would be counterproductive and unnecessary to request that the applicant to remove the Mexican fan palms.

CONFORMANCE WITH THE CITY'S CODES

Based on Subsection 02.02, *Land Use Standards*, of Article 13, *Definitions*, of the Unified Development Code (UDC), the applicant is requesting the approval of a *Restaurant with 2,000 SF or more without Drive-Through*, which conforms to the land uses listed in Section 01, *Land Use Schedule*, of Article 04, *Permissible Uses*, of the Unified Development Code (UDC) for a property situated in a Commercial (C) District. The proposed site plan generally conforms to the *General Overlay District Standards* and the *General Commercial (C) District Standards* as stipulated by Article 05, *District Development Standards*, of

the Unified Development Code (UDC), with the exception of the variances and exceptions being requested in the *Variances and Exceptions Requested by the Applicant* section of this case memo.

VARIANCES AND EXCEPTIONS BY THE APPLICANT

As stated above, the applicant's request to renovate the subject property conforms to the majority of the City's codes; however, staff has identified the following variances:

(1) Architectural Standards.

(a) *Roof Design Standards.* According to Subsection 06.02 (C)(2), Roof Design Standards, of Article 05, District Development Standards, of the Unified Development Code (UDC), "(a)ll structures that have a building footprint of less than 6,000 SF shall be constructed with a pitched roof". In this case the applicant is proposing a flat roof with a parapet to screen the roof mounted utility equipment. This will require a variance from the Planning and Zoning Commission pending a recommendation from the Architectural Review Board (ARB).

(b) *Four (4) Sided Architecture.* According to Subsection 06.02 (C)(5), Four (4) Sided Architecture, of Article 05, District Development Standards, of the Unified Development Code (UDC), "(a)ll buildings shall be architecturally finished on all four (4) sides utilizing the same materials, detailing, articulation and features." In this case the applicant is required to meet the building articulation standards for the primary building façade on all sides of the building. Given the proposed building elevations the applicant does not meet the wall projection requirements. This will require a variance from the Planning and Zoning Commission pending a recommendation from the Architectural Review Board (ARB).

Staff should point out that the existing building does not meet these standards; however, since the applicant is expanding the legal non-conformity of the structure, the project would be subject to requesting the variances through the amended site plan process. In addition, according to Subsection 09.02, *Variances to the General Overlay District Standards*, of Article 11, *Development Applications and Review Procedures*, of the Unified Development Code (UDC), "(i)n cases where a variance or variances is/are being requested, the applicant shall provide two (2) compensatory measures that directly offset the requested variance." The code goes on to require that applicant's provide compensatory measures that directly offset the requested variances. In this case, as compensatory measures the applicant is proposing to provide [*1*] seven (7) percent more than the required landscape percentage, [*2*] more than the required stone percentage on the building, [*3*] additional landscaping around the front of the building, and [*4*] shrubs along the east property line. Requests for variances to the *General Overlay District Standards* are discretionary decisions for the Planning and Zoning Commission, and require a supermajority vote (*e.g. six [6] out of the seven [7] commissioners*) -- *with a minimum of four (4) votes in the affirmative* -- for approval.

CONFORMANCE WITH OURHOMETOWN VISION 2040 COMPREHENSIVE PLAN

The Future Land Use Plan adopted with the OURHometown Vision 2040 Comprehensive Plan identifies the subject property as being situated within the *IH-30 Corridor District* and is designated for *Special Commercial Corridor* land uses. According to the plan, the *Special Commercial Corridor* "….is intended to provide an area for commercial/retail activity centers that are intended to support and serve the entire region." The primary land uses in the *Special Commercial Corridor* include Regional shopping centers, entertainment, retail, personal services, restaurants, corporate offices, employment and recreational land uses. In this case, the applicant is requesting approval of an *Amended Site Plan* for a *Restaurant with 2,000 SF or more without Drive-Through.* Based on this, the applicant's request appears to conform to the goals and policies of the OURHometown Vision 2040 Comprehensive Plan.

ARCHITECTURAL REVIEW BOARD (ARB):

On October 25, the Architecture Review Board (ARB) reviewed the proposed building elevations, and requested changes from the applicant. Specifically, the ARB wanted to see existing rooftop units (RTUs) (*i.e. HVAC and vent-a-hood equipment*) hatched into the updated building elevations and for the applicant to provide a rendering of the proposed building. The applicant has provided a rendering, but has failed to hatch in the existing RTUs. The renderings and updated building elevations will be reviewed by the ARB at the meeting on *November 15, 2022*.

CONDITIONS OF APPROVAL

If the Planning and Zoning Commission chooses to approve the applicant's request for an amended site plan for an existing restaurant with drive-through, then staff would propose the following conditions of approval:

(1) All staff comments provided by the Planning, Engineering and Fire Department must be addressed prior to the submittal of a building permit.

(2) The applicant shall be required to fully screen all HVAC and RTU's from visibility of the adjacent properties and rights-of-way. In addition, updated building elevations shall be required to be submitted showing conformance to this requirement prior to the issuance of a building permit.

(3) The applicant shall provide an updated photometric plan and lighting cut sheets that conform to the requirements set forth by the Unified Development Code (UDC) prior to the issuance of a building permit.

(4) Any construction resulting from the approval of this *Amended Site Plan* shall conform to the requirements set forth by the Unified Development Code (UDC), the International Building Code (IBC), the Rockwall Municipal Code of Ordinances, city adopted engineering and fire codes and with all other applicable regulatory requirements administered and/or enforced by the state and federal government.

DEVELOPMENT APPLICATION

City of Rockwall
Planning and Zoning Department
385 S. Goliad Street
Rockwall, Texas 75087

STAFF USE ONLY

PLANNING & ZONING CASE NO.

NOTE: *THE APPLICATION IS NOT CONSIDERED ACCEPTED BY THE CITY UNTIL THE PLANNING DIRECTOR AND CITY ENGINEER HAVE SIGNED BELOW.*

DIRECTOR OF PLANNING:

CITY ENGINEER:

PLEASE CHECK THE APPROPRIATE BOX BELOW TO INDICATE THE TYPE OF DEVELOPMENT REQUEST [SELECT ONLY ONE BOX]:

PLATTING APPLICATION FEES:
- ☑ MASTER PLAT ($100.00 + $15.00 ACRE) [1]
- ☐ PRELIMINARY PLAT ($200.00 + $15.00 ACRE) [1]
- ☐ FINAL PLAT ($300.00 + $20.00 ACRE) [1]
- ☐ REPLAT ($300.00 + $20.00 ACRE) [1]
- ☐ AMENDING OR MINOR PLAT ($150.00)
- ☐ PLAT REINSTATEMENT REQUEST ($100.00)

SITE PLAN APPLICATION FEES:
- ☐ SITE PLAN ($250.00 + $20.00 ACRE) [1]
- ☑ AMENDED SITE PLAN/ELEVATIONS/LANDSCAPING PLAN ($100.00)

ZONING APPLICATION FEES:
- ☐ ZONING CHANGE ($200.00 + $15.00 ACRE) [1]
- ☐ SPECIFIC USE PERMIT ($200.00 + $15.00 ACRE) [1 & 2]
- ☐ PD DEVELOPMENT PLANS ($200.00 + $15.00 ACRE) [1]

OTHER APPLICATION FEES:
- ☐ TREE REMOVAL ($75.00)
- ☐ VARIANCE REQUEST/SPECIAL EXCEPTIONS ($100.00) [2]

NOTES:
[1]: IN DETERMINING THE FEE, PLEASE USE THE EXACT ACREAGE WHEN MULTIPLYING BY THE PER ACRE AMOUNT. FOR REQUESTS ON LESS THAN ONE ACRE, ROUND UP TO ONE (1) ACRE.
[2]: A ***$1,000.00*** FEE WILL BE ADDED TO THE APPLICATION FEE FOR ANY REQUEST THAT INVOLVES CONSTRUCTION WITHOUT OR NOT IN COMPLIANCE TO AN APPROVED BUILDING PERMIT.

PROPERTY INFORMATION [PLEASE PRINT]

ADDRESS	568 East I-30 Rockwall, TX 75087				
SUBDIVISION	La Jolla Pointe Addition, Phase 2	LOT	17	BLOCK	A
GENERAL LOCATION	I-30 Access Road (North Side) West of Ridge Road				

ZONING, SITE PLAN AND PLATTING INFORMATION [PLEASE PRINT]

CURRENT ZONING		CURRENT USE			
PROPOSED ZONING		PROPOSED USE			
ACREAGE	1.370	LOTS [CURRENT]	1	LOTS [PROPOSED]	1

☐ ***SITE PLANS AND PLATS:*** *BY CHECKING THIS BOX YOU ACKNOWLEDGE THAT DUE TO THE PASSAGE OF HB3167 THE CITY NO LONGER HAS FLEXIBILITY WITH REGARD TO ITS APPROVAL PROCESS, AND FAILURE TO ADDRESS ANY OF STAFF'S COMMENTS BY THE DATE PROVIDED ON THE DEVELOPMENT CALENDAR WILL RESULT IN THE DENIAL OF YOUR CASE.*

OWNER/APPLICANT/AGENT INFORMATION [PLEASE PRINT/CHECK THE PRIMARY CONTACT/ORIGINAL SIGNATURES ARE REQUIRED]

☑ OWNER	Triton I-30 Rockwall II, LLC	☑ APPLICANT	
CONTACT PERSON	Bill McMahon	CONTACT PERSON	Robert Romano
ADDRESS	1845 Woodall Rodgers Freeway Suite 1100	ADDRESS	800 Exposition Ave. #1
CITY, STATE & ZIP	Dallas, TX 75201	CITY, STATE & ZIP	Dallas, TX 75226
PHONE	737.346.7110	PHONE	214.821.8242
E-MAIL	bill.mcmahon@localfavorite.com	E-MAIL	hubcity.rr2002@gail.com

NOTARY VERIFICATION [REQUIRED]

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED Bill McMahon CONTACT [*OWNER*] THE UNDERSIGNED, WHO STATED THE INFORMATION ON THIS APPLICATION TO BE TRUE AND CERTIFIED THE FOLLOWING:

"I HEREBY CERTIFY THAT I AM THE OWNER FOR THE PURPOSE OF THIS APPLICATION; ALL INFORMATION SUBMITTED HEREIN IS TRUE AND CORRECT; AND THE APPLICATION FEE OF $100.00 *, TO COVER THE COST OF THIS APPLICATION, HAS BEEN PAID TO THE CITY OF ROCKWALL ON THIS THE* 13th *DAY OF* October *, 2022. BY SIGNING THIS APPLICATION, I AGREE THAT THE CITY OF ROCKWALL (I.E. "CITY") IS AUTHORIZED AND PERMITTED TO PROVIDE INFORMATION CONTAINED WITHIN THIS APPLICATION TO THE PUBLIC. THE CITY IS ALSO AUTHORIZED AND PERMITTED TO REPRODUCE ANY COPYRIGHTED INFORMATION SUBMITTED IN CONJUNCTION WITH THIS APPLICATION, IF SUCH REPRODUCTION IS ASSOCIATED OR IN RESPONSE TO A REQUEST FOR PUBLIC INFORMATION."*

GIVEN UNDER MY HAND AND SEAL OF OFFICE ON THIS THE 13th *DAY OF* October *, 2022*

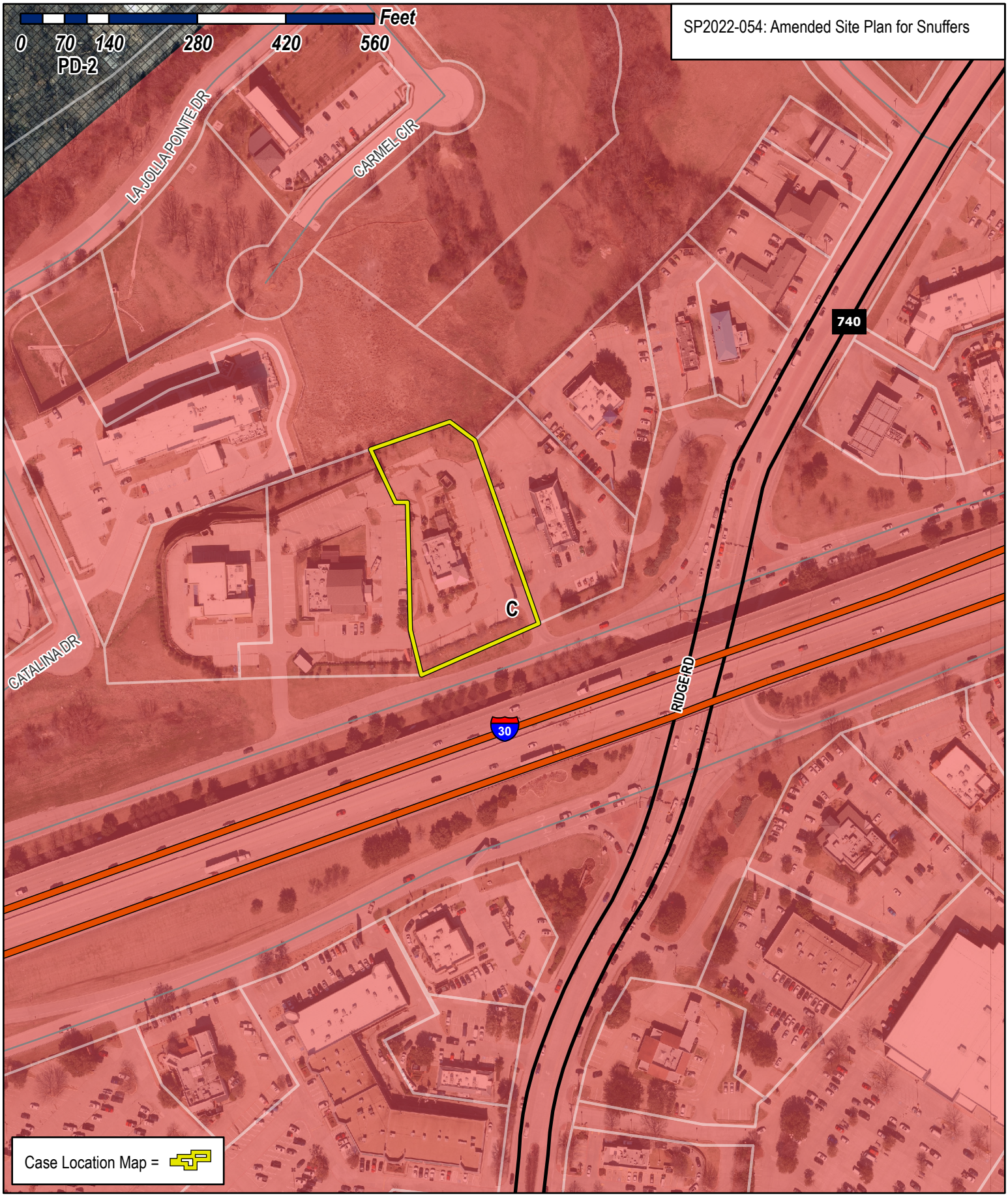
OWNER'S SIGNATURE Bill M

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS Donna M. Combs

DONNA M. COMBS
Notary Public, State of Texas
Comm. Expires 02-09-2025
Notary ID 499696

MY COMMISSION EXPIRES 02-09-2025

Notary 499696
Exp. 02-09-2025



City of Rockwall

Planning & Zoning Department
385 S. Goliad Street
Rockwall, Texas 75032
(P): (972) 771-7745
(W): www.rockwall.com

HUB CITY PRODUCTIONS

800 EXPOSITION AVENUE • DALLAS TEXAS 75226 • 214.821.8242

COMMUNICATION

DATE: 1 NOVEMBER 2022

TO: BETHANY ROSS, PLANNER
CITY OF ROCKWALL
385 GOLIAD STREET
ROCKWALL, TX 75087

FROM: ROBERT ROMANO

CC: BILL McMAHON (LOCAL FAVORITE RESTAURANT GROUP)

RE: ***SNUFFER'S RESTAURANT & BAR***
568 EAST INTERSTATE 30
ROCKWALL, TX 75087

PROJECT NUMBER: SP2022-054

In reference to the above named project, the following is a written explanation of the required compensatory measure required for the following variances:

(a) **Roof Design Standards.** According to Subsection 06.02 (C)(2), Roof Design Standards, of Article 05, District Development Standards, of the Unified Development Code (UDC), "(a)ll structures that have a building footprint of less than 6,000 SF shall be constructed with a pitched roof". In this case the applicant is proposing a flat roof with a parapet to screen the roof mounted utility equipment. This will require a variance from the Planning and Zoning Commission pending a recommendation from the Architectural Review Board (ARB).

(b) **Four (4) Sided Architecture.** According to Subsection 06.02 (C)(5), Four (4) Sided Architecture, of Article 05, District Development Standards, of the Unified Development Code (UDC), "(a)ll buildings shall be architecturally finished on all four (4) sides utilizing the same materials, detailing, articulation and features." In this case the applicant is required to meet the building articulation standards for the primary building façade on all sides of the building. Given the proposed building elevations the applicant does not meet the wall projection requirements. This will require a variance from the Planning and Zoning Commission pending a recommendation from the Architectural Review Board (ARB).

Based on the current submitted plans, the following compensatory items have been provided:

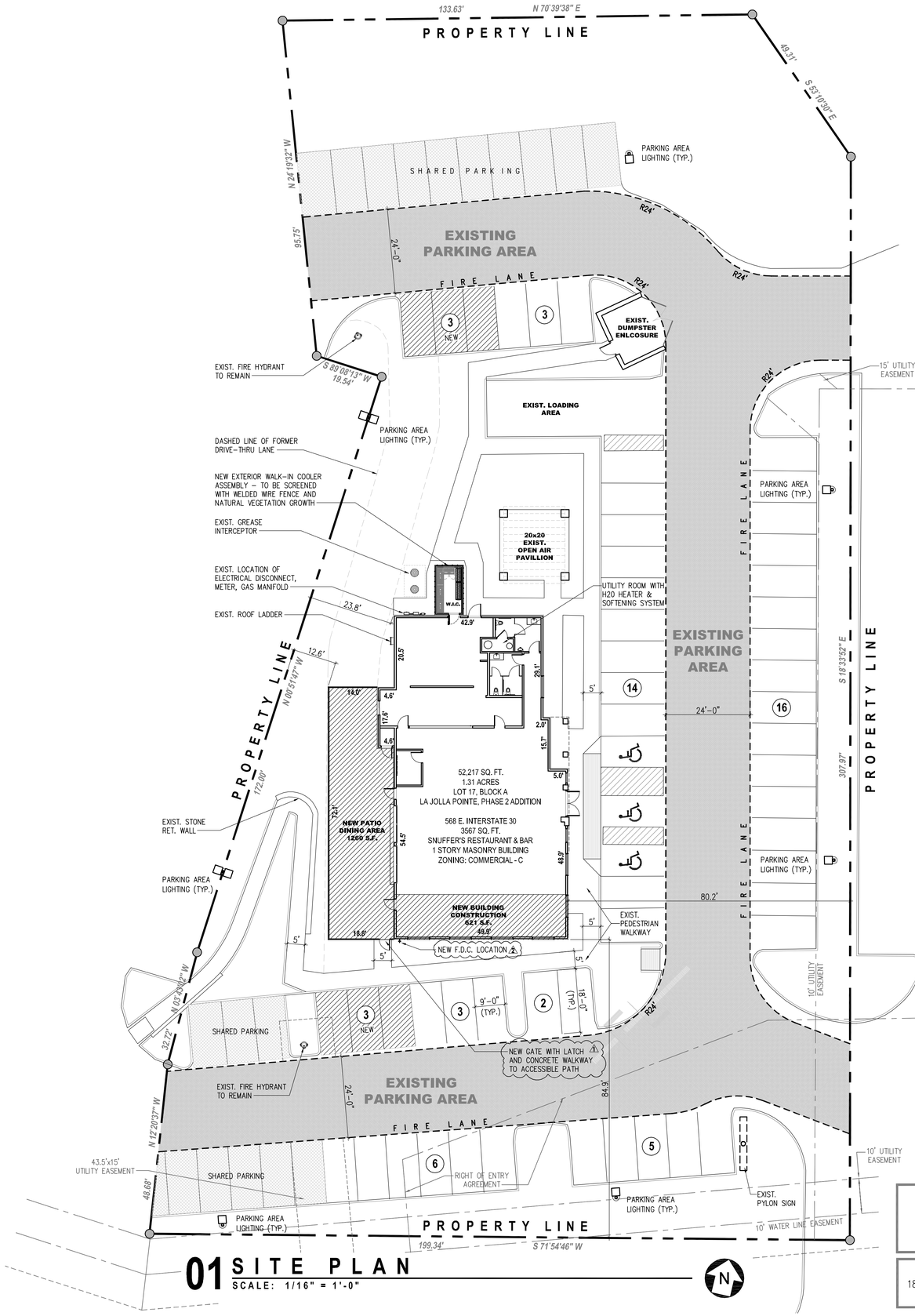
(1) 7% more than the required landscape percentage.

(2) More than the required stone percentage.

(3) Additional landscaping around the front (south/primary face) of the building.

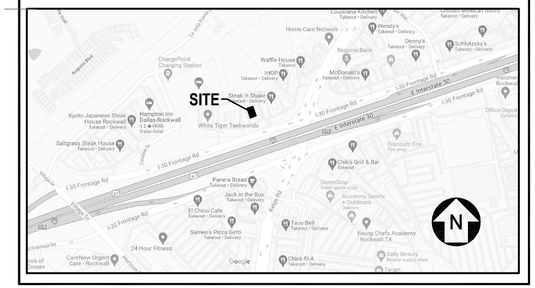
(4) Additional landscaping along the east edge of the site (to help shield Snuffers customers from the headlight glare of Steak-n-Shake parking area).

Please contact me directly if any further clarification is required.



01 SITE PLAN
SCALE: 1/16" = 1'-0"

VICINITY MAP



PARKING ANALYSIS

EXIST. BUILDING = 3567 SF
PROPOSED EXPANSION = 1881 SF
TOTAL AREA = 5448 SF

49 PARKS EXISTING
6 PARKS PARKS ADDED

55 PARKS PROVIDED
54 PARKS REQUIRED

03 ACCESSIBLE SPACES

LEGAL DESCRIPTION

LOT 17, BLOCK A, LA JOLLA POINTE, PHASE 2 ADDITION, CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS, ZONED COMMERCIAL (C) DISTRICT, SITUATED WITHIN THE IH-30 OVERLAY (IH-30 OV) DISTRICT

OWNER: LOCAL FAVORITE RESTAURANTS, LLC
1845 WOODALL RODGERS FWY. #1100 DALLAS, TX 75201
BILL McMAHON 972.241.2171

PROJECT NUMBER: SP2022-54

SITE PLAN SIGNATURE BLOCK:

I HEREBY CERTIFY THAT THE ABOVE AND FOREGOING SITE PLAN FOR A DEVELOPMENT IN THE CITY OF ROCKWALL, TEXAS WAS APPROVED BY THE PLANNING & ZONING COMMISSION OF THE CITY OF ROCKWALL.

WITNESS OUR HANDS, THIS _____ DAY OF _____

PLANNING & ZONING COMMISSION CHAIRMAN

DIRECTOR OF PLANNING & ZONING

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DALLAS TEXAS 75226
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hubcity.rr2002@gmail.com

SNUFFER'S
RESTAURANT & BAR
CONVERSION
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ARCHITECTURAL SITE PLAN

REV. NO.	DATE	DESCRIPTION
1	07.09.22	CITY COMMENTS
2	10.31.22	PLANNING & ZONING COMMENTS

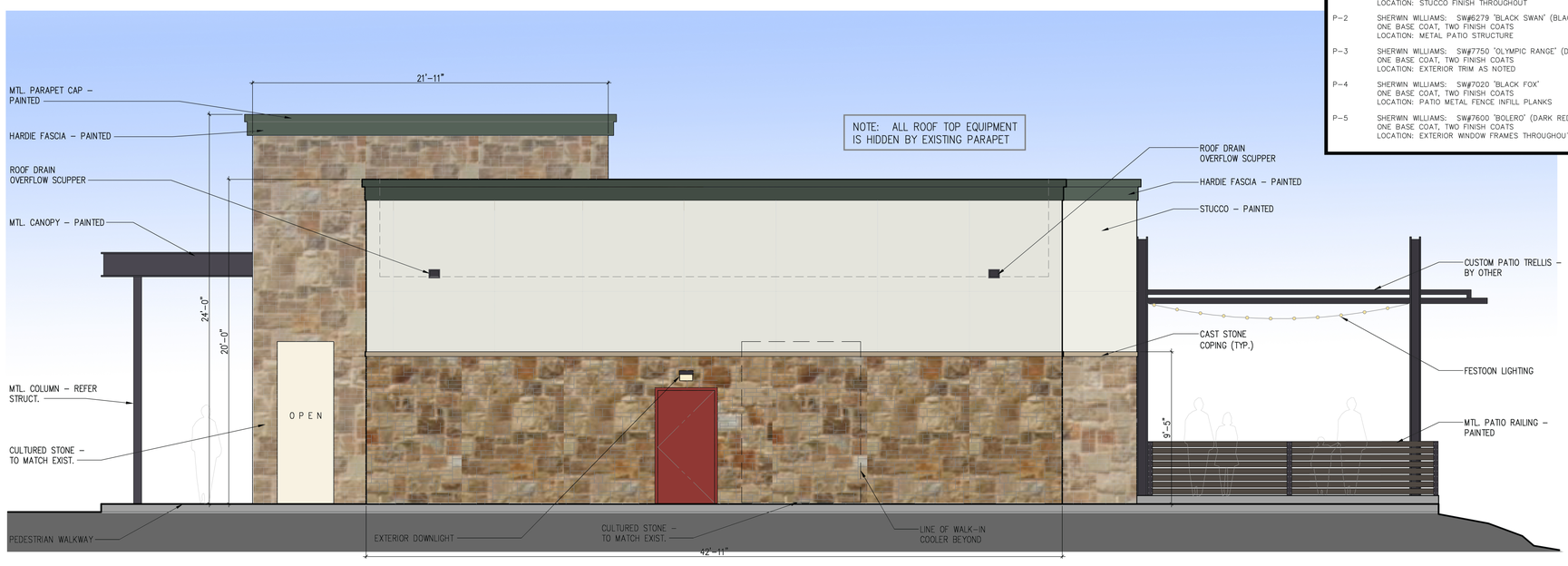
DATE ISSUED:
03-13-22

PROJECT NO.:
21751

DRAWING NO.:
A001

02 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

MATERIAL CALCULATIONS – SOUTH ELEVATION		
MATERIAL	AREA (S.F.)	PERCENTAGE
PRIMARY – CULTURED STONE	301	39%
PRIMARY – STUCCO (OFF–WHITE)	450	50%
SECONDARY – HARDIE FASCIA/TRIM	95	11%
TOTAL	846	100%



01 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

MATERIAL CALCULATIONS – NORTH ELEVATION		
MATERIAL	AREA (S.F.)	PERCENTAGE
PRIMARY – CULTURED STONE	549	49%
PRIMARY – STUCCO (OFF–WHITE)	463	41%
SECONDARY – HARDIE FASCIA/TRIM	104	10%
TOTAL	1116	100%

0 10 20 40

SPECIFICATIONS

KEY	EXTERIOR WALL FINISHES
CS–1	CULTURED STONE VENEER (TO MATCH EXISTING)
ST–1	STUCCO FINISH – PAINTED
TR–1	HARDIE FASCIA TRIM – PAINTED
AL–1	ALUMINUM PARAPET CAP – PAINTED

KEY	PAINT FINISH
P–1	SHERWIN WILLIAMS: SW#6203 "SPARE WHITE" ONE BASE COAT, TWO FINISH COATS LOCATION: STUCCO FINISH THROUGHOUT
P–2	SHERWIN WILLIAMS: SW#6279 "BLACK SWAN" (BLACK) ONE BASE COAT, TWO FINISH COATS LOCATION: METAL PATIO STRUCTURE
P–3	SHERWIN WILLIAMS: SW#7750 "OLYMPIC RANGE" (DARK GREEN) ONE BASE COAT, TWO FINISH COATS LOCATION: EXTERIOR TRIM AS NOTED
P–4	SHERWIN WILLIAMS: SW#7020 "BLACK FOX" ONE BASE COAT, TWO FINISH COATS LOCATION: PATIO METAL FENCE INFILL PLANKS
P–5	SHERWIN WILLIAMS: SW#7600 "BOLERO" (DARK RED) ONE BASE COAT, TWO FINISH COATS LOCATION: EXTERIOR WINDOW FRAMES THROUGHOUT

LEGAL DESCRIPTION
LOT 17, BLOCK A, LA JOLLA POINTE, PHASE 2 ADDITION, CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS, ZONED COMMERCIAL (C) DISTRICT, SITUATED WITHIN THE IH–30 OVERLAY (IH–30 OV) DISTRICT

OWNER: LOCAL FAVORITE RESTAURANTS, LLC
1845 WOODALL RODGERS FWY. #1100 DALLAS, TX 75201
BILL McMAHON 972.241.2171

PROJECT NUMBER: SP2022-54

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WITNESS OUR HANDS, THIS _____ DAY OF _____

PLANNING & ZONING COMMISSION CHAIRMAN

DIRECTOR OF PLANNING & ZONING

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EXTERIOR ELEVATIONS

REV. NO.	DATE	DESCRIPTION
1	07.09.22	CITY COMMENTS
2	10.31.22	PLANNING & ZONING COMMENTS

DATE ISSUED:
03–13–22

PROJECT NO.:
21751

DRAWING NO.:
A300

MATERIAL CALCULATIONS – WEST ELEVATION		
MATERIAL	AREA (S.F.)	PERCENTAGE
PRIMARY – CULTURED STONE	680	41%
PRIMARY – STUCCO (OFF-WHITE)	870	50%
SECONDARY – HARDIE FASCIA/TRIM	155	9%
TOTAL	1705	100%

02 WEST ELEVATION
SCALE: 1/4" = 1'-0"

SPECIFICATIONS

KEY	EXTERIOR WALL FINISHES
CS-1	CULTURED STONE VENEER (TO MATCH EXISTING)
ST-1	STUCCO FINISH – PAINTED
TR-1	HARDIE FASCIA TRIM – PAINTED
AL-1	ALUMINUM PARAPET CAP – PAINTED

KEY	PAINT FINISH
P-1	SHERWIN WILLIAMS: SW#6203 "SPARE WHITE" ONE BASE COAT, TWO FINISH COATS LOCATION: STUCCO FINISH THROUGHOUT
P-2	SHERWIN WILLIAMS: SW#6279 "BLACK SWAN" (BLACK) ONE BASE COAT, TWO FINISH COATS LOCATION: METAL PATIO STRUCTURE
P-3	SHERWIN WILLIAMS: SW#7750 "OLYMPIC RANGE" (DARK GREEN) ONE BASE COAT, TWO FINISH COATS LOCATION: EXTERIOR TRIM AS NOTED
P-4	SHERWIN WILLIAMS: SW#7020 "BLACK FOX" ONE BASE COAT, TWO FINISH COATS LOCATION: PATIO METAL FENCE INFILL PLANKS
P-5	SHERWIN WILLIAMS: SW#7600 "BOLERO" (DARK RED) ONE BASE COAT, TWO FINISH COATS LOCATION: EXTERIOR WINDOW FRAMES THROUGHOUT

MATERIAL CALCULATIONS – EAST ELEVATION		
MATERIAL	AREA (S.F.)	PERCENTAGE
PRIMARY – CULTURED STONE	1078	62%
PRIMARY – STUCCO (OFF-WHITE)	498	29%
SECONDARY – HARDIE FASCIA/TRIM	157	9%
TOTAL	1733	100%

01 EAST ELEVATION
SCALE: 1/4" = 1'-0"

0 10 20 40

LEGAL DESCRIPTION
LOT 17, BLOCK A, LA JOLLA POINTE, PHASE 2 ADDITION, CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS, ZONED COMMERCIAL (C) DISTRICT, SITUATED WITHIN THE IH-30 OVERLAY (IH-30 OV) DISTRICT

OWNER: LOCAL FAVORITE RESTAURANTS, LLC
1845 WOODALL RODGERS FWY. #1100 DALLAS, TX 75201
BILL McMAHON 972.241.2171

PROJECT NUMBER: SP2022-54

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WITNESS OUR HANDS, THIS _____ DAY OF _____

PLANNING & ZONING COMMISSION CHAIRMAN

DIRECTOR OF PLANNING & ZONING

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DALLAS TEXAS 75226
TEL: 214.821.8242
hubcity.rr2002@gmail.com

SNUFFER'S RESTAURANT & BAR
CONVERSION
568 EAST I-30 • ROCKWALL, TEXAS 75087

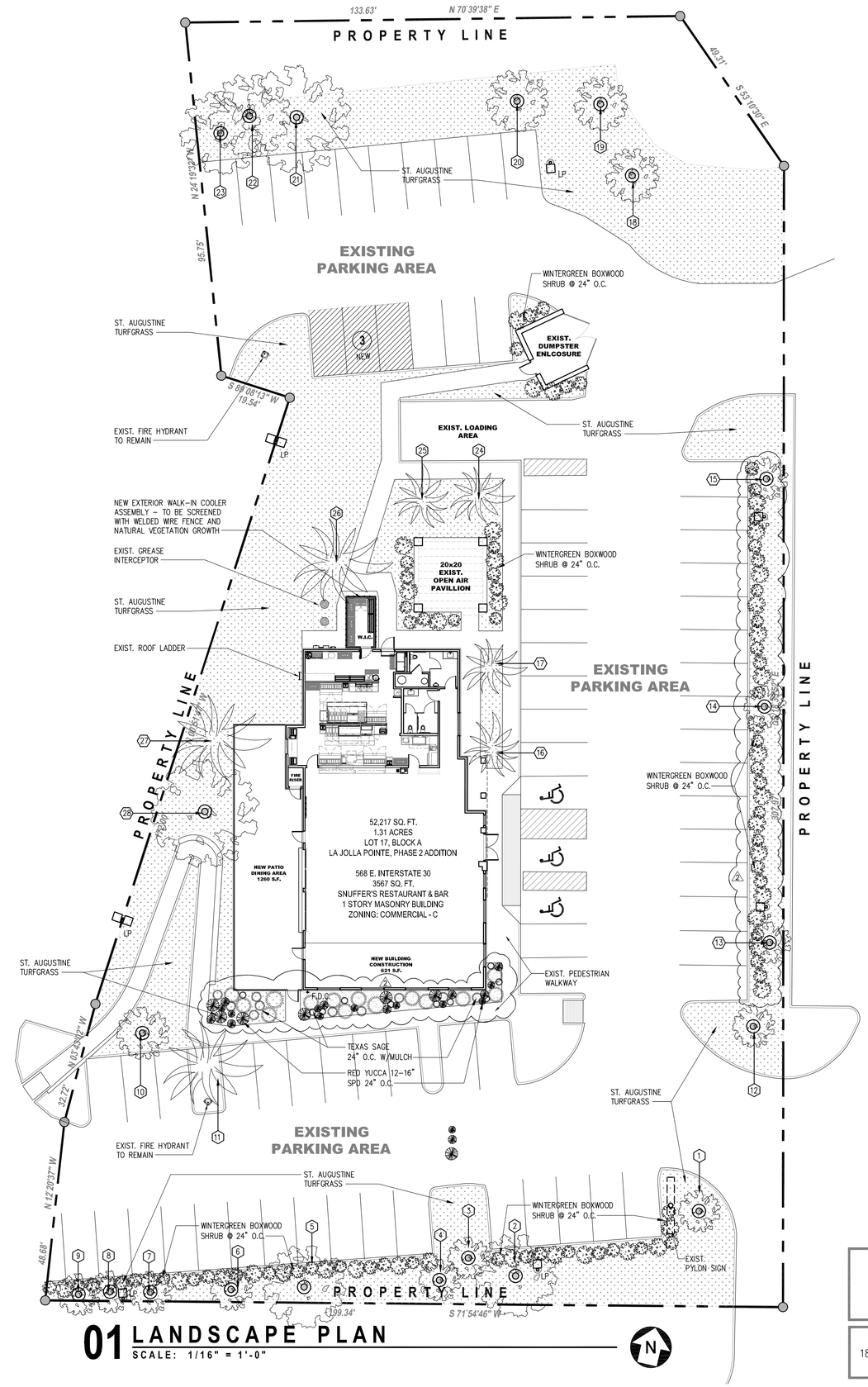
EXTERIOR ELEVATIONS

REV. NO.	DATE	DESCRIPTION
1	07.09.22	CITY COMMENTS
2	10.31.22	PLANNING & ZONING COMMENTS

DATE ISSUED:
03-13-22

PROJECT NO.:
21751

DRAWING NO.:
A301



01 LANDSCAPE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA SUMMARY TABLE

ZONING	COMMERCIAL	RESTAURANT 1 PER 100 S.F. OF GROSS BUILDING AREA	
PROPOSED USE	RESTAURANT		
TOTAL LOT AREA / SQ. FT. & AC	57,217 SQ. FT. / 1.31 AC	TOTAL HANDICAP REQUIRED	2
TOTAL BUILDING FOOTPRINT	5448 SQ. FT.	TOTAL HANDICAP PROVIDED	3
TOTAL BUILDING FLOOR AREA	5448 SQ. FT.	TOTAL PARKING PROVIDED	55
BUILDING HEIGHT	1-STORY	TOTAL PARKING AREA	28,172 SQ. FT.
MAX. ALLOWABLE LOT COVERAGE	NONE	INTERIOR PLANTING AREA (5%)	572 SQ. FT.
ACTUAL LOT COVERAGE	9.5%	LANDSCAPE AREA REQUIRED (20%)	11,443 SQ. FT.
FLOOR AREA RATIO	0.095:1	LANDSCAPE AREA PROVIDED	15,192 SQ. FT.
TOTAL PARKING REQUIRED	54	AREA OF IMPERVIOUS SURFACE	36,577 SQ. FT.

EXISTING TREES

MARK	DESCRIPTION	MARK	DESCRIPTION	MARK	DESCRIPTION
1	PIN OAK/6" CALIPER	12	PIN OAK/6" CALIPER	24	MEXICAN FAN PALM/14"
1a	RED MAPLE/10" CALIPER	13	PIN OAK/6" CALIPER	25	MEXICAN FAN PALM/18"
2	PIN OAK/8" CALIPER	14	LIVE OAK/10" CALIPER	26	MEXICAN FAN PALM/18"
3	RED MAPLE/6" CALIPER	15	PIN OAK/8" CALIPER	27	MEXICAN FAN PALM/18"
4	RED MAPLE/6" CALIPER	16	MEXICAN FAN PALM/14"	28	RED MAPLE/10" CALIPER
5	PIN OAK/10" CALIPER	17	MEXICAN FAN PALM/14"		
6	RED MAPLE/10" CALIPER	18	PIN OAK/10" CALIPER		
7	RED MAPLE/10" CALIPER	19	RED MAPLE/8" CALIPER		
8	RED MAPLE/6" CALIPER	20	RED MAPLE/10" CALIPER		
9	PIN OAK/10" CALIPER	21	LIVE OAK/12" CALIPER		
10	RED MAPLE/10" CALIPER	22	PIN OAK/10" CALIPER		
11	MEXICAN FAN PALM/14"	23	LIVE OAK/6" CALIPER		

MAINTENANCE NOTES

1. THE OWNER, TENANT AND THEIR AGENT, IF ANY, SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE.
2. ALL LANDSCAPE SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THIS SHALL INCLUDE MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, AND OTHER SUCH ACTIVITIES COMMON TO LANDSCAPE MAINTENANCE.
3. ALL LANDSCAPE AREAS SHALL BE KEPT FREE OF TRASH, LITTER, WEEDS AND OTHER SUCH MATERIAL OR PLANTS NOT PART OF THIS PLAN.
4. ALL PLANT MATERIAL WHICH DIES SHALL BE REPLACED WITH PLANT MATERIAL OF EQUAL OR BETTER VALUE.
5. CONTRACTOR SHALL PROVIDE SEPARATE BID PROPOSAL FOR ONE YEAR'S MAINTENANCE TO BEGIN AFTER FINAL ACCEPTANCE.

LANDSCAPE NOTES

1. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY OWNER OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.
2. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY OWNER OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.
4. CONTRACTOR TO PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
5. ALL PLANTING BEDS AND LAWN AREAS TO BE SEPARATED BY STEEL EDGING. NO STEEL TO BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS
6. ALL LANDSCAPE AREAS THAT EXCEED 1000 SQ. FT. TO BE IRRIGATED WITH AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM AND SHALL INCLUDE RAIN AND FREEZE SENSORS. METAL EDGING SHALL BE 4" x 4" MIN.
7. ALL LANDSCAPE SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM PROVIDED.

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
	18	HESPERALOE PARVIFLORAH	RED YUCCA	60" HT X 36" SPR.	–
	25	LEUCOPHYLLUM FRUTESCENS	TEXAS SAGE	96" HT X 72" W	–
	197	BUXUS SINICA VAR. INSULARIS 'WINTERGREEN'	WINTERGREEN BOXWOOD	24" HT X 60" W	–
	–	STENOTAPHRUM SECUNDATUM	ST. AUGUSTINE TURFGRASS	SOD	SOD TO HAVE TIGHT, ROLLED JOINTS & BE FREE OF WEEDS, DEBRIS, & ROCK

0 10 20 40 80

LEGAL DESCRIPTION
LOT 17, BLOCK A, LA JOLLA POINTE, PHASE 2 ADDITION, CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS, ZONED COMMERCIAL (C) DISTRICT, SITUATED WITHIN THE IH-30 OVERLAY (IH-30 OV) DISTRICT

OWNER: LOCAL FAVORITE RESTAURANTS, LLC
1845 WOODALL RODGERS FWY. #1100 DALLAS, TX 75201
BILL McMAHON 972.241.2171

PROJECT NUMBER: SP2022-54

SITE PLAN SIGNATURE BLOCK:
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WITNESS OUR HANDS, THIS _____ DAY OF _____

PLANNING & ZONING COMMISSION CHAIRMAN

DIRECTOR OF PLANNING & ZONING

hub city PRODUCTIONS
800 EXPOSITION AVENUE
DALLAS TEXAS 75226
TEL: 214.821.8242
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SNUFFER'S RESTAURANT & BAR
CONVERSION
568 EAST I-30 • ROCKWALL, TEXAS 75087

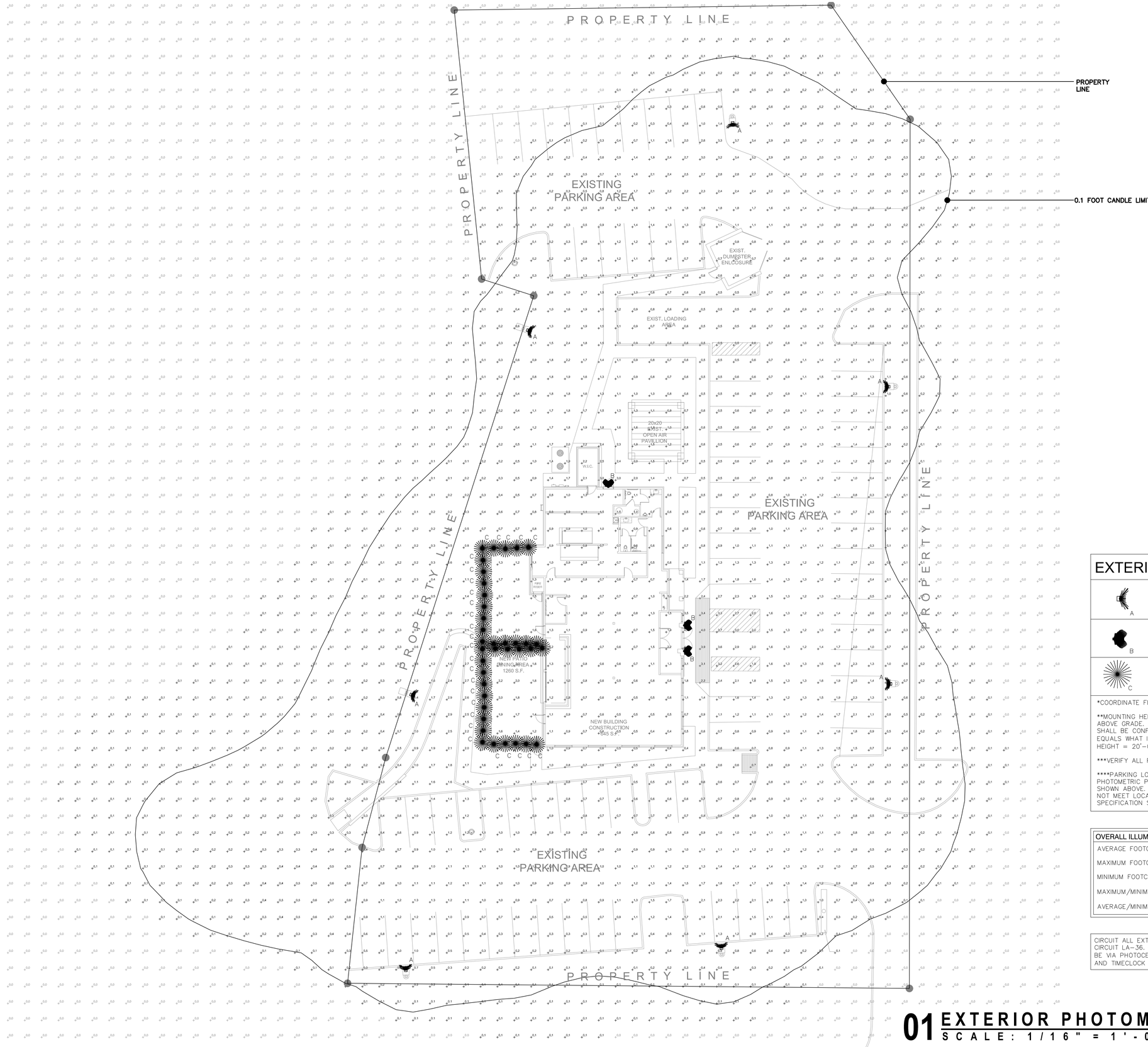
LANDSCAPE PLAN

REV. NO.	DATE	DESCRIPTION
1	07.09.22	CITY COMMENTS
2	10.31.22	PLANNING & ZONING COMMENTS

DATE ISSUED:
03-13-22

PROJECT NO.:
21751

DRAWING NO.:
A002



EXTERIOR LIGHTING LEGEND

A	POLE LIGHT, 73W LED, 120V MANF: LITHONIA LIGHTING MODEL: RSX1 LED P2 50K R3 HS 20'–0" MOUNTING HEIGHT, 0° TILT
B	WALL PACK, 19.1W LED, 120V MANF: LITHONIA LIGHTING MODEL: DSX1 LED 10C 530 40K TFTM MVOLT 10'–0" MOUNTING HEIGHT
C	FESTOON LIGHTING, 1.5W LED, 120V MANF: BUDGET LIGHTING MODEL: BAYSIDE LIGHT STRIP HEAVY DUTY 10'–0" MOUNTING HEIGHT

*COORDINATE FIXTURE FINISHES WITH ARCHITECT.

**MOUNTING HEIGHT REFERS TO THE HEIGHT OF THE LIGHT FIXTURE ABOVE GRADE. ANY POLE LIGHT MOUNTED ONTO A CONCRETE BASE SHALL BE CONFIGURED SO THAT THE HEIGHT OF THE LIGHT SOURCE EQUALS WHAT IS SHOWN ON THE SCHEDULE (BASE HEIGHT + POLE HEIGHT = 20'–0").

***VERIFY ALL FINAL SPECIFICATIONS WITH ARCHITECT.

****PARKING LOT LIGHTING IS EXISTING TO REMAIN. EXTERIOR PHOTOMETRIC PLAN IS BASED ON THE POLE LIGHT SPECIFICATION SHOWN ABOVE. WHERE LIGHTING LEVELS MEASURED IN THE FIELD DO NOT MEET LOCAL REQUIREMENTS, REPLACE WITH FIXTURE SPECIFICATION SHOWN ABOVE.

OVERALL ILLUMINATED ZONE CALCULATION
AVERAGE FOOTCANDLE: 0.9
MAXIMUM FOOTCANDLE: 4.4
MINIMUM FOOTCANDLE: 0.1
MAXIMUM/MINIMUM: 44:1
AVERAGE/MINIMUM: 9:1

CIRCUIT ALL EXTERIOR LIGHTING TO CIRCUIT LA–36. CONTROLS SHALL BE VIA PHOTOCELL (ON) AND TIMECLOCK (OFF).

01 EXTERIOR PHOTOMETRIC PLAN

SCALE: 1/16" = 1'-0"

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RESTAURANT & BAR
CONVERSION
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LIGHTING PLAN

REV. NO.	DATE	DESCRIPTION
1	07.09.22	CITY COMMENTS
2	10.31.22	PLANNING & ZONING COMMENTS

STATE OF TEXAS
PETER ADAM LEPTUCH
101149
LICENSED
PROFESSIONAL
ENGINEER
10/31/22

PETER A. LEPTUCH
ENGINEERING & CONSULTING SERVICES
Peter A. Leptuch, P.E.
PE #101149, FIRM #13543
300 N. Carroll Blvd. #200
Denton, TX 76201
(940) 808–0615

DATE ISSUED:
03–13–22

PROJECT NO.:
21751

DRAWING NO.:
E3.1
2

CITY OF ROCKWALL

PLANNING AND ZONING COMMISSION CASE MEMO

PLANNING AND ZONING DEPARTMENT
385 S. GOLIAD STREET • ROCKWALL, TX 75087
PHONE: (972) 771-7745 • EMAIL: PLANNING@ROCKWALL.COM

TO:	Planning and Zoning Commission
DATE:	November 15, 2022
APPLICANT:	Frank Polma; *R-Delta Engineers, Inc.*
CASE NUMBER:	SP2022-058; *Site Plan for Rayburn Electric Corporation*

SUMMARY

Discuss and consider a request by Frank A. Polma, PE of R-Delta Engineers, Inc. on behalf of Stephen Geiger of Rayburn Country Electric Cooperative for the approval of a *Site Plan* for an Industrial Campus on a 99.849-acre tract of land identified as Lots 6, 7, 8 & 9, Block A, Rayburn Country Addition and Tract 3 of the W. H. Barnes Survey, Abstract No. 26, City of Rockwall, Rockwall County, Texas, zoned Heavy Commercial (HC) District, situated within the SH-205 Overlay (SH-205 OV) District, addressed as 950 & 980 Sids Road, and take any action necessary.

BACKGROUND

The subject property was annexed on May 19, 1986 by *Ordinance No. 86-37* [*Case No. A1986-005*]. According to the December 7, 1993 zoning map the subject property was zoned Agricultural (AG) District and Heavy Commercial (HC) District. On March 17, 2014, the City Council approved a zoning change [*Case No. Z2014-001*] for a portion of the subject property changing the designation from an Agricultural (AG) District to a Heavy Commercial (HC) District. This zoning change put the entire subject property under the Heavy Commercial (HC) District designation. Following this approval, on August 11, 2014, the City Council approved a final plat of the subject property designating it as Lots 1-3, Block A, Rayburn Country Addition. On May 15, 2018, the City Council approved a replat of the subject property establishing Lots 4-7, Block A, Rayburn Country Addition. On January 30, 2019 the City Council approved a subsequent replat of the subject property establishing Lots 8 & 9, Block A, Rayburn Country Addition. On September 19, 2022, the City Council approved a preliminary plat [*Case No. P2022-041*] for the subject property.

PURPOSE

On October 14, 2022, the applicant -- *Frank Polma of R-Delta Engineers, Inc.* -- submitted an application requesting the approval of a *Site Plan* for the purpose of constructing three (3) buildings on the subject property.

ADJACENT LAND USES AND ACCESS

The subject property is addressed as 950 & 980 Sids Road. The land uses adjacent to the subject property are as follows:

North: Directly north of the subject property is a two (2) acre parcel of land developed with an office/manufacturing building, zoned Planned Development District 43 (PD-43) for Commercial (C) District land uses. Beyond this is Sids Road, which is identified as a M4U (*i.e. major collector, four [4] lane, undivided roadway*) on the Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan. Following this are seven (7) tracts of land, one (1) zoned Commercial (C) District (*i.e. 960 Sids Road*), four (4) zoned Heavy Commercial (HC) District (*i.e. 955, 965, 967 & 981 Sids Road*), and two (2) zoned Agricultural (AG) District (*i.e. 995 & 1005 Sids Road*). Beyond this are two (2) large vacant tracts of land zoned Commercial (C) District.

South: Directly south of the subject property is a vacant 58.72-acre tract of land, owned by the applicant, and zoned Heavy Commercial (HC) District and Commercial (C) District. Beyond this is Mims Road, which is identified as a M4U (*i.e. major collector, four [4] land, undivided roadway*) on the Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan. Following this is the Rockwall Business Park, which is zoned

Heavy Commercial (HC) District. This is followed by two (2) large vacant tracts of land, zoned Agricultural (AG) District.

East: Directly east of the subject property is a vacant 4.1334-acre parcel of land zoned Commercial (C) District. Beyond this is S. Goliad Street [*SH-205*], which is identified as a P6D (*i.e. principal arterial, six [6] lane, divided roadway*) on the Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan. Beyond this is the Hickory Ridge Subdivision, which is zoned Planned Development District 10 (PD-10) for Single-Family land uses.

West: Directly west of the subject property is a 1.50-acre tract of land zoned Planned Development District 38 (PD-38) for Heavy Commercial (HC) District land uses. Beyond this is the intersection of Sids Road and Mims Road, which are both identified as M4U (*i.e. major collector, four [4] land, undivided roadway*) on the Master Thoroughfare Plan contained in the OURHometown Vision 2040 Comprehensive Plan. Following this is the Highland Meadows Subdivision, which is zoned Single Family 7 (SF-7) District.

DENSITY AND DIMENSIONAL REQUIREMENTS

According to Section 01, *Land Use Schedule*, of Article 04, *Permissible Uses*, of the Unified Development Code (UDC), an *Office* and *Warehouse* is a permitted *by-right* land use in a Heavy Commercial (HC) District. The submitted site plan, landscape plan, photometric plan, and building elevations generally conform to the technical requirements contained within the Unified Development Code (UDC) for a property located within a Heavy Commercial (HC) District with the exception of the items noted in the *Variances and Exceptions Requested by the Applicant* section of this case memo. A summary of the density and dimensional requirements for the subject property are as follows:

Ordinance Provisions	*Zoning District Standards*	*Conformance to the Standards*
Minimum Lot Area	*12,500 SF*	*X=99.849-acres; In Conformance*
Minimum Lot Frontage	*100-Feet*	*X= 1,166.39-feet; In Conformance*
Minimum Lot Depth	*125-Feet*	*X=338.73-feet; In Conformance*
Minimum Front Yard Setback	*25-Feet*	*X>25-feet; In Conformance*
Minimum Rear Yard Setback	*20-Feet*	*X>20-feet; In Conformance*
Minimum Side Yard Setback	*15-Feet*	*X>15-feet; In Conformance*
Maximum Building Height	*60-Feet*	*X=46.25-feet; In Conformance*
Max Building/Lot Coverage	*60%*	*X=07.80%; In Conformance*
Minimum Number of Parking Spaces	*1 Parking Space/1000 SF (47 Required)* *1 Parking Space/ 300 SF (222 Required)* *Total = 269 Parking Spaces*	*X=271; In Conformance*
Minimum Landscaping Percentage	*15%*	*X>15.00%; In Conformance*
Maximum Impervious Coverage	*90-95%*	*X<90%; In Conformance*

TREESCAPE PLAN

The *Treescape Plan* provided by the applicant indicates that 377.5 caliper inches of trees will be removed from the property as a result of the development. As part of the proposed development the applicant's landscape plan shows that 78, four (4) inch caliper canopy trees and 17, five (5) inch caliper canopy trees will be planted, totaling 397.00 caliper inches of trees being planted with the proposed development. Based on this the proposed landscape plan satisfies the mitigation balance.

CONFORMANCE WITH THE CITY'S CODES

The applicant is requesting to construct three (3) new buildings on the subject property that will contain a mix of *Office* and *Warehousing* land uses. According to Subsection 02.02(D)(2), *Office Building*, of Article 13, *Definitions*, of the Unified Development Code (UDC), an *Office* is defined as "facility that provides executive, management, administrative, or professional services…but not involving the sale of merchandise except as incidental to a permitted use." According to Subsection 02.02(D)(2), *Warehouse/Distribution Center,* of Article 13, *Definitions*, of the Unified Development Code (UDC) a *Warehouse/Distribution Center* is defined as "(a) building used primarily for the storage and distribution of goods, merchandise, supplies, and equipment." In this case, the applicant's request for *Office* and *Warehousing* land uses are

permitted by right according to Section 01, *Land Use Schedule*, of Article 04, *Permissible Uses*, of the Unified Development Code (UDC).

According to Subsection 01.05, *Screening Standards*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC), "(o)ff-street loading docks must be screened from all public streets, any residential zoning district or residentially used property, and any parks and open space that abuts or is directly across a public street or alley from the subject property." This section also states that either a six (6) foot masonry wall with canopy trees or three (3) tiered screening shall be utilized to screen off-street loading docks. In this case, the applicant's off-street loading dock faces onto a public street (*i.e. Sids Road*) and requires screening. In lieu of the screening methods listed previously, the applicant is suggesting to plant a 36-inch tall shrub row along Sids Road for screening. The applicant has proposed this screening method as they have detailed that existing water and sewer easements restrict their ability to use of canopy or accent trees. This screening method will require an exception from the Planning and Zoning Commission, which is listed in the *Variances and Exceptions Requested by the Applicant* section of this case memo.

The proposed site plan also generally conforms to the requirements of the *General Commercial District Standards* as stipulated by Article 05, *District Development Standards*, of the Unified Development Code (UDC), with the exception of the exceptions being requested as outlined in the *Variances and Exceptions Requested by the Applicant* section of this case memo.

VARIANCES AND EXCEPTIONS BY THE APPLICANT

As stated above, the applicant's request conforms to the majority of the City's codes; however, staff has identified the following exceptions:

(1) *Screening Standards*.

(a) *Above Ground Storage Tanks.* According to Subsection 01.05, *Screening Standards*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC), "(a)bove ground storage tanks shall be screened utilizing walls matching the main structure." In this case, the applicant is requesting not to screen an above ground storage tank, stating that it will be internal to the site and have limited visibility from any public rights-of-way or adjoining properties. This will require an *exception* from the Planning and Zoning Commission.

(b) *Outside Storage.* According to Subsection 01.05, *Screening Standards*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC), "(o)utside storage of materials or vehicles shall be screened from all public streets, any residential zoning district or residentially used property, and parks and open space that abuts or is directly across a public street or alley from the subject property." In this case, the applicant has a laydown yard for outside storage and is requesting not to fully screen it on the basis that it will be internal to the site and have limited visibility from any public rights-of-way or adjoining properties. This will require an *exception* from the Planning and Zoning Commission.

(c) *Loading Docks.* According to Subsection 01.05, *Screening Standards*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC), "(o)ff-street loading docks must be screened from all public streets, any residential zoning district or residentially used property, and any parks and open space that abuts or is directly across a public street or alley from the subject property." In this case the applicant is requesting to screen the roll up doors with 36-inch tall shrubs in lieu of three (3) tiered landscaping or a masonry wall with canopy trees. As stated above the applicant has indicated there is existing water and wastewater lines/easements that restrict their ability to plant canopy or accent trees in these areas. This will require an *exception* from the Planning and Zoning Commission.

(2) Building Articulation.

(a) *Primary and Secondary Building Facades*. According to Subsection 04.01 (C), *General Commercial District Standards*, of Article 05, *District Development Standards*, of the Unified Development Code (UDC), for primary and secondary building facades a "…wall length shall not exceed three (3) times the wall height." In this case, each of

the new buildings the applicant is proposing do not meet the wall length requirement. This will require an *exception* from the Planning and Zoning Commission.

(3) *Landscaping Standards*.

(a) *Non-Residential Landscape Buffers*. According to Subsection 05.01, *Landscape Buffers*, of Article 08, *Landscape and Fence Standards*, of the Unified Development Code (UDC), a landscape buffer abutting a public right-of-way shall be "(a) minimum of a ten (10) foot wide landscape buffer [*and*] shall be required along the entire length of any non-residential lot that abuts a public right-of-way…", and "…shall incorporate ground cover, a built-up berm and shrubbery along the entire length of frontage." In this case, the applicant is requesting to only provide the buffer in front of the buildings they are proposing to develop along Sids Road, and not along the existing detention pond. Currently, there is a ten (10) landscape buffer; however, this portion of the landscape buffer does not incorporate the required canopy and accent trees. The applicant is also requesting not to incorporate the berm along the entire existing and proposed ten (10) foot landscape buffer. The applicant has stated that they are trying to provide continuity along their frontage and that the existing landscape buffer does not incorporate a berm. This will require an *exception* from the Planning and Zoning Commission.

(4) *Engineering Standards.*

(a) *Driveway Spacing.* According to Figure 2.3, *Minimum Driveway Spacing & Corner Clearance*, of Section 2, *Streets*, of the Engineering Standards of Design and Construction the proposed driveway along S. Goliad Street [*SH-205*] does not meet the minimum driveway spacing requirements. In this case, the applicant has been working with TXDOT on right-in and right-out configuration for this driveway. While this is considered to be off-site, this element of the proposed project will require a *variance* from the Planning and Zoning Commission.

(b) *Gravel Surface.* According to Subsection 2.20, *Off-Street Parking*, of Section 2, *Streets*, of the Engineering Standards of Design and Construction states that "(a)ll parking areas and spaces shall be designed and constructed of steel reinforced concrete." In addition, Subsection 03.02, *Paving Materials*, of Article 06, *Parking and Loading*, of the Unified Development Code (UDC) states that "(a)ll required parking *and loading areas*, public and private drives, and fire lanes shall be constructed of concrete …". In this case, the applicant is requesting a gravel lay down yard for equipment and vehicles, and has stated that this is to accommodate tracked vehicles. This will require a *variance/exception* from the Planning and Zoning Commission.

According to Subsection 09, *Exceptions and Variances*, of Article 11, *Development Applications and Review Procedures*, of the Unified Development Code (UDC), an applicant may request the Planning and Zoning Commission grant variances and exceptions to the provisions contained in the Unified Development Code (UDC), where unique or extraordinary conditions exist or where strict adherence to the technical requirements of the Unified Development Code would create an undue hardship. In addition, the code requires that the applicant provide compensatory measures that directly offset the requested variances and exceptions. As compensatory measures for this case, the applicant is proposing [1] increased architectural elements on *Buildings D* & *E*, [2] *Building E* will have at least 90% stone on each façade, [3] all buildings will have greater masonry material percentages than adjacent properties, and [4] providing seventeen (17), five (5) inch caliper canopy trees in lieu of the required four (4) inch caliper trees. Compensatory measure three (3) is not truly a compensatory measure; however, staff should note that the proposed buildings do incorporate a greater percentage of stone than the adjacent properties along Sids Road and that the proposed buildings maintain continuity with the design scheme of other buildings situated on the site. This better creates a campus type development on the subject property; however, requests for exceptions and variances to the *General Standards* and *Engineering Standards of Design and Construction* are discretionary decisions for the Planning and Zoning Commission. Staff should note that a supermajority vote (*e.g. six [6] out of the seven [7] commissioners*) -- *with a minimum of four (4) votes in the affirmative* -- is required for the approval of a variance or exception.

CONFORMANCE WITH OURHOMETOWN VISION 2040 COMPREHENSIVE PLAN

The Future Land Use Plan adopted with the OURHometown Vision 2040 Comprehensive Plan identifies the subject property as being situated in the *Southwest Residential District*. The *Southwest Residential District* "…contains a mixture of land uses that include existing medium and low density residential, heavy commercial/retail land uses (*i.e. National Drive, Sids Road, and Mims Road*) and commercial land uses." *Strategy #2* in the *Southwest Residential District* indicates that the properties

surrounding Sids Road and Mims Road contain some of the only land in the City for *Commercial/Industrial* land uses and that "…these areas should be protected from the encroachment of incompatible land uses." In this case, the applicant is proposing *Office* and *Warehousing*, which maintains the existing land uses on subject property and in the surrounding area. Based on this the applicant's proposal appears to conform with the goals and policies of the Comprehensive Plan.

ARCHITECTURAL REVIEW BOARD (ARB) RECOMMENDATION

On October 25, 2022 the Architecture Review Board approved a motion to recommend approval of the building elevations and variances/exceptions by a vote of 6-0, with Board Member Johnson absent.

CONDITIONS OF APPROVAL

If the Planning and Zoning Commission chooses to approve the applicant's *Site Plan* for the construction of three (3) buildings on the *subject property*, then staff would propose the following conditions of approval:

(1) All staff comments provided by the Planning, Engineering and Fire Department must be addressed prior to the submittal of engineering plans.

(2) Any construction resulting from the approval of this *Site Plan* shall conform to the requirements set forth by the Unified Development Code (UDC), the International Building Code (IBC), the Rockwall Municipal Code of Ordinances, city adopted engineering and fire codes and with all other applicable regulatory requirements administered and/or enforced by the state and federal government.

DEVELOPMENT APPLICATION

City of Rockwall
Planning and Zoning Department
385 S. Goliad Street
Rockwall, Texas 75087

STAFF USE ONLY

PLANNING & ZONING CASE NO.

NOTE: *THE APPLICATION IS NOT CONSIDERED ACCEPTED BY THE CITY UNTIL THE PLANNING DIRECTOR AND CITY ENGINEER HAVE SIGNED BELOW.*

DIRECTOR OF PLANNING:

CITY ENGINEER:

PLEASE CHECK THE APPROPRIATE BOX BELOW TO INDICATE THE TYPE OF DEVELOPMENT REQUEST [SELECT ONLY ONE BOX]:

PLATTING APPLICATION FEES:
- ☐ MASTER PLAT ($100.00 + $15.00 ACRE) [1]
- ☐ PRELIMINARY PLAT ($200.00 + $15.00 ACRE) [1]
- ☐ FINAL PLAT ($300.00 + $20.00 ACRE) [1]
- ☐ REPLAT ($300.00 + $20.00 ACRE) [1]
- ☐ AMENDING OR MINOR PLAT ($150.00)
- ☐ PLAT REINSTATEMENT REQUEST ($100.00)

SITE PLAN APPLICATION FEES:
- ☑ SITE PLAN ($250.00 + $20.00 ACRE) [1]
- ☐ AMENDED SITE PLAN/ELEVATIONS/LANDSCAPING PLAN ($100.00)

ZONING APPLICATION FEES:
- ☐ ZONING CHANGE ($200.00 + $15.00 ACRE) [1]
- ☐ SPECIFIC USE PERMIT ($200.00 + $15.00 ACRE) [1 & 2]
- ☐ PD DEVELOPMENT PLANS ($200.00 + $15.00 ACRE) [1]

OTHER APPLICATION FEES:
- ☐ TREE REMOVAL ($75.00)
- ☐ VARIANCE REQUEST/SPECIAL EXCEPTIONS ($100.00) [2]

NOTES:
[1]: IN DETERMINING THE FEE, PLEASE USE THE EXACT ACREAGE WHEN MULTIPLYING BY THE PER ACRE AMOUNT. FOR REQUESTS ON LESS THAN ONE ACRE, ROUND UP TO ONE (1) ACRE.
[2]: A ***$1,000.00*** FEE WILL BE ADDED TO THE APPLICATION FEE FOR ANY REQUEST THAT INVOLVES CONSTRUCTION WITHOUT OR NOT IN COMPLIANCE TO AN APPROVED BUILDING PERMIT.

PROPERTY INFORMATION [PLEASE PRINT]

ADDRESS	950 Sids Road, Rockwall, Texas				
SUBDIVISION	Rayburn Country Addition	LOT		BLOCK	
GENERAL LOCATION					

ZONING, SITE PLAN AND PLATTING INFORMATION [PLEASE PRINT]

CURRENT ZONING	AG, C and HC	CURRENT USE	Rayburn Electric's Headquarters		
PROPOSED ZONING	AG, C and HC	PROPOSED USE	Rayburn Electric's Headquarters		
ACREAGE	99.849	LOTS [CURRENT]	Four (4)	LOTS [PROPOSED]	Four (4)

☑ ***SITE PLANS AND PLATS:*** *BY CHECKING THIS BOX YOU ACKNOWLEDGE THAT DUE TO THE PASSAGE OF HB3167 THE CITY NO LONGER HAS FLEXIBILITY WITH REGARD TO ITS APPROVAL PROCESS, AND FAILURE TO ADDRESS ANY OF STAFF'S COMMENTS BY THE DATE PROVIDED ON THE DEVELOPMENT CALENDAR WILL RESULT IN THE DENIAL OF YOUR CASE.*

OWNER/APPLICANT/AGENT INFORMATION [PLEASE PRINT/CHECK THE PRIMARY CONTACT/ORIGINAL SIGNATURES ARE REQUIRED]

☐ OWNER	Rayburn Country Electric Coop.	☐ APPLICANT	R-Delta Engineers, Inc.
CONTACT PERSON	Stephen Geiger	CONTACT PERSON	Frank A. Polma, P.E.
ADDRESS	950 Sids Road	ADDRESS	618 Main Street
CITY, STATE & ZIP	Rockwall, Texas, 75087	CITY, STATE & ZIP	Garland, Texas, 75040
PHONE	(469) 402-2112	PHONE	(972) 494-5031
E-MAIL	sgeiger@rayburnelectric.com	E-MAIL	fapolma@rdelta.com

NOTARY VERIFICATION [REQUIRED]

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED Stephen Geiger [*OWNER*] THE UNDERSIGNED, WHO STATED THE INFORMATION ON THIS APPLICATION TO BE TRUE AND CERTIFIED THE FOLLOWING:

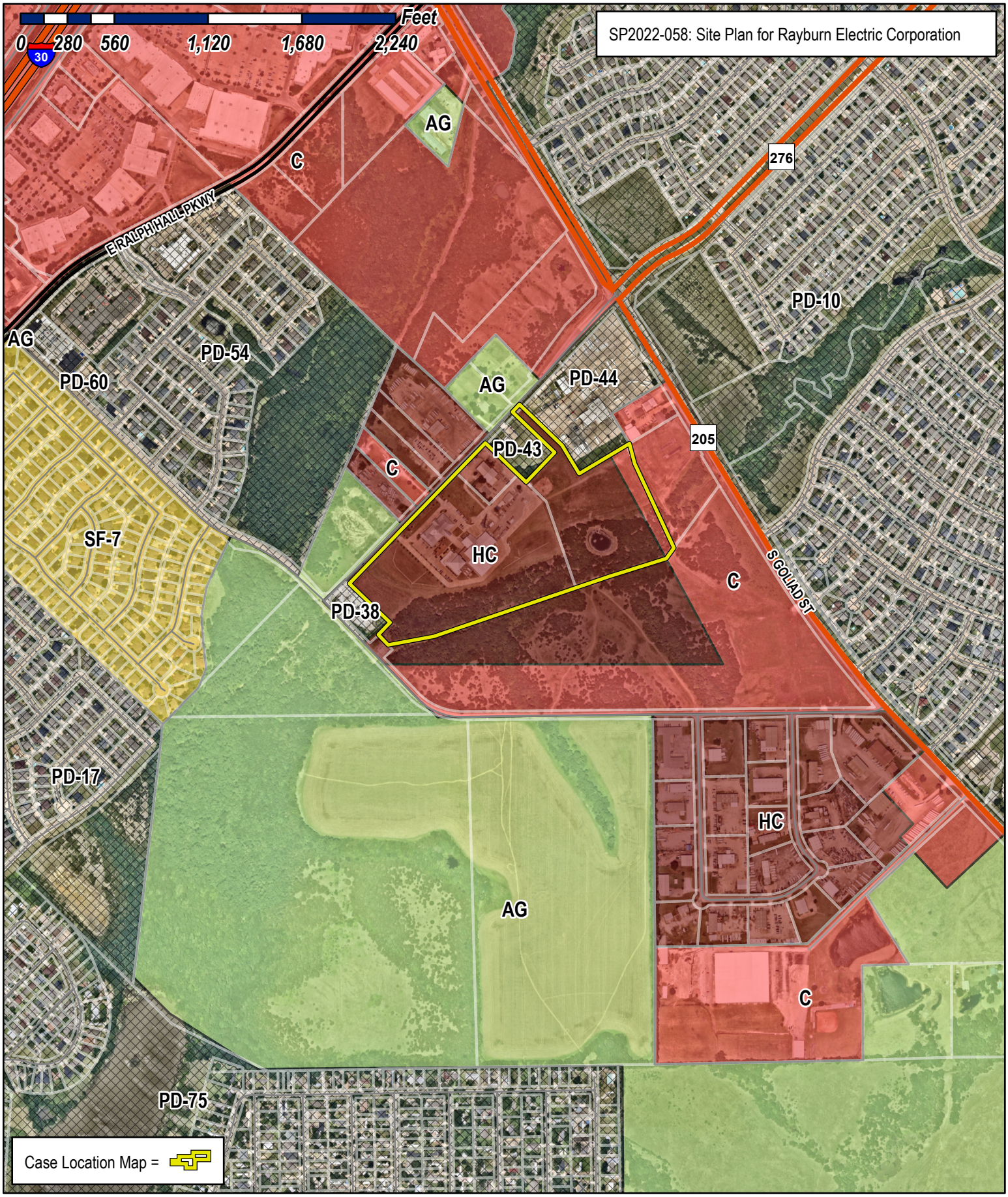
"I HEREBY CERTIFY THAT I AM THE OWNER FOR THE PURPOSE OF THIS APPLICATION; ALL INFORMATION SUBMITTED HEREIN IS TRUE AND CORRECT; AND THE APPLICATION FEE OF $ 2,246.98 *, TO COVER THE COST OF THIS APPLICATION, HAS BEEN PAID TO THE CITY OF ROCKWALL ON THIS THE* 14th *DAY OF* October *, 2022. BY SIGNING THIS APPLICATION, I AGREE THAT THE CITY OF ROCKWALL (I.E. "CITY") IS AUTHORIZED AND PERMITTED TO PROVIDE INFORMATION CONTAINED WITHIN THIS APPLICATION TO THE PUBLIC. THE CITY IS ALSO AUTHORIZED AND PERMITTED TO REPRODUCE ANY COPYRIGHTED INFORMATION SUBMITTED IN CONJUNCTION WITH THIS APPLICATION, IF SUCH REPRODUCTION IS ASSOCIATED OR IN RESPONSE TO A REQUEST FOR PUBLIC INFORMATION."*

GIVEN UNDER MY HAND AND SEAL OF OFFICE ON THIS THE 12 *DAY OF* October *, 2022*

STEPHANIE HUNT
Notary Public, State of Texas
Comm. Expires 09-01-2024
Notary ID 11508120

OWNER'S SIGNATURE Stephanie Hunt

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS *MY COMMISSION EXPIRES*



City of Rockwall

Planning & Zoning Department
385 S. Goliad Street
Rockwall, Texas 75032
(P): (972) 771-7745
(W): www.rockwall.com

November 3, 2022

City of Rockwall, Texas
385 S. Goliad Street
Rockwall, Texas 75087

ATTENTION: **Mr. Henry Lee, AICP**
Planner

SUBJECT: **REC Campus Expansion – Case #SP2022-058**
Variance Requests (Revision 2)

Dear Mr. Lee,

Pursuant to submittal of the project Site Plan and supporting documents and on behalf of Rayburn Country Electric Cooperative (REC); we request variances to the following City Unified Development Code (UDC) requirements for this project:

1) Building Primary and Secondary Façade Articulation: The proposed cladding of Buildings "D" and "E" is based on the functionality of the building interior activities as well as the existing REC Headquarters Building on site. The facilities within Buildings "D" and "E" (new warehouse, mobile substation storage, lineman training facility, and office administration areas) are critical spaces requiring 24/7 redundancy for mechanical and electrical systems to maintain operations regardless of any adverse environmental conditions. The proposed length of Building "D" reflects the layout necessary to meet the required program and the specific adjacencies necessary to support these functions. The office components of Building "D" emulate the example of the existing headquarters building to ensure a similar architectural style from the site and along Sids road. The materials of Building "D" are primarily leuders stone, tilt-up concrete panels with matching integral color, standing-seam metal roofs, and wood accents to break up the massing. As part of the overall campus expansion, the design considers the massing of existing buildings, locating the new buildings on the site to allow open green space to be viewed from the public right of way. Compensatory measures included in the building designs per Article 11, Section 9.01 of the UDC are as follows:
    - (G) Masonry building materials in percentages greater then surrounding properties (Buildings "D", "E" & "F")
    - (H) Inclusion of 20-percent natural or cultured stone (Building "E")
    - (I) Increased architectural elements (Buildings "D" and "E"):
        - Canopies
        - Awnings

        - Peaked roof forms
        - Outdoor patio space
        - Outdoor plaza space
        - Display windows
        - Varied roof heights
    - (K) Compliance with General Overlay District Standards
        - Exterior façade with 90-percent Primary Materials and/or a maximum of 10-percent Secondary Materials excluding doors and windows (Building "E")
        - Rooftop Mechanical Equipment Screening and other rooftop appurtenances accomplished by architectural features integral to the building's design ensuring the mechanical equipment is not visible from any direction (Building "D")
2) Above Ground Fuel Tank Screening: Subsection 01.05 of the UDC requires screening with walls matching the main structure. The proposed fuel storage tank is internal to the site and not visible from any public right-of-way. We request that this requirement be waived since walls would serve no purpose screening the fuel storage tank from public view. No compensatory mitigation measures are proposed for this request.
3) Driveway Spacing Variance: A variance to the minimum spacing requirement is requested for the proposed Access Drive connection to State Highway 205. Preliminary discussions with the Texas Department of Transportation indicate they will permit the reduced driveway spacing if the driveway connection is constructed in the "right in" "right out" configuration shown on the Site Plan. The proposed access drive connection to State Highway 205 will be gated and is intended mainly for egress of the REC Mobile Substation. Compensatory mitigation is the "right in" "right out" configuration of the proposed drive approach at State Highway 205.
4) Outdoor Storage Area Screening Variance: A partial variance for screening of the proposed Outdoor Storage Area is requested due to its distance from State Highway 205 and the existing Heavy Commercial use of the adjacent properties. In lieu of perimeter screen walls or the full landscape screening we request that only canopy trees along a portion of the proposed access drive be required to screen the outdoor storage area as shown in the Landscape Plans. As compensatory mitigation proposed Building "F" will include 10-foot high masonry walls on three sides in order to screen the equipment contained within from view of adjacent properties. The purpose of Building "F" is to shelter equipment from the elements and exterior walls are not necessary for this function.
5) Outdoor Storage Area Surfacing: A variance is requested to allow the use of gravel surfacing in lieu of concrete paving in the Outdoor Storage Area. This area will be utilized for storage of high voltage electrical equipment, raw materials, and construction equipment used in the course of business for REC operations. The construction equipment includes a Caterpillar D6 and other metal tracked heavy construction equipment that would degrade concrete paving over time. Compensatory mitigation measures for the gravel surfacing are the extensive enhanced pedestrian improvements and Amenity Pond proposed with the campus expansion.

6) Three Tiered Screening along Sids Road: Subsection 05.02, Article 8 of the UDC requires screening of the Building "D" roll-up doors from Sids Road. City comments indicate three-tiered screening is the preferred screening method. Taller shrubs (36-inch height initial) are proposed in lieu of a shrub/berm combination due to the existing 15-foot Water and Drainage Easement, existing fence, and existing trees along the Sids Road frontage.

In addition to the variances requested above, we request that this project be permitted to utilize the version of the Tree Preservation Ordinance (UDC Article 09) in place at the time of Preliminary Plat approval (i.e. the "previous" version). The Treescape Plan included in the Site Plan resubmittal is based on the previous version of the Tree Preservation Ordinance.

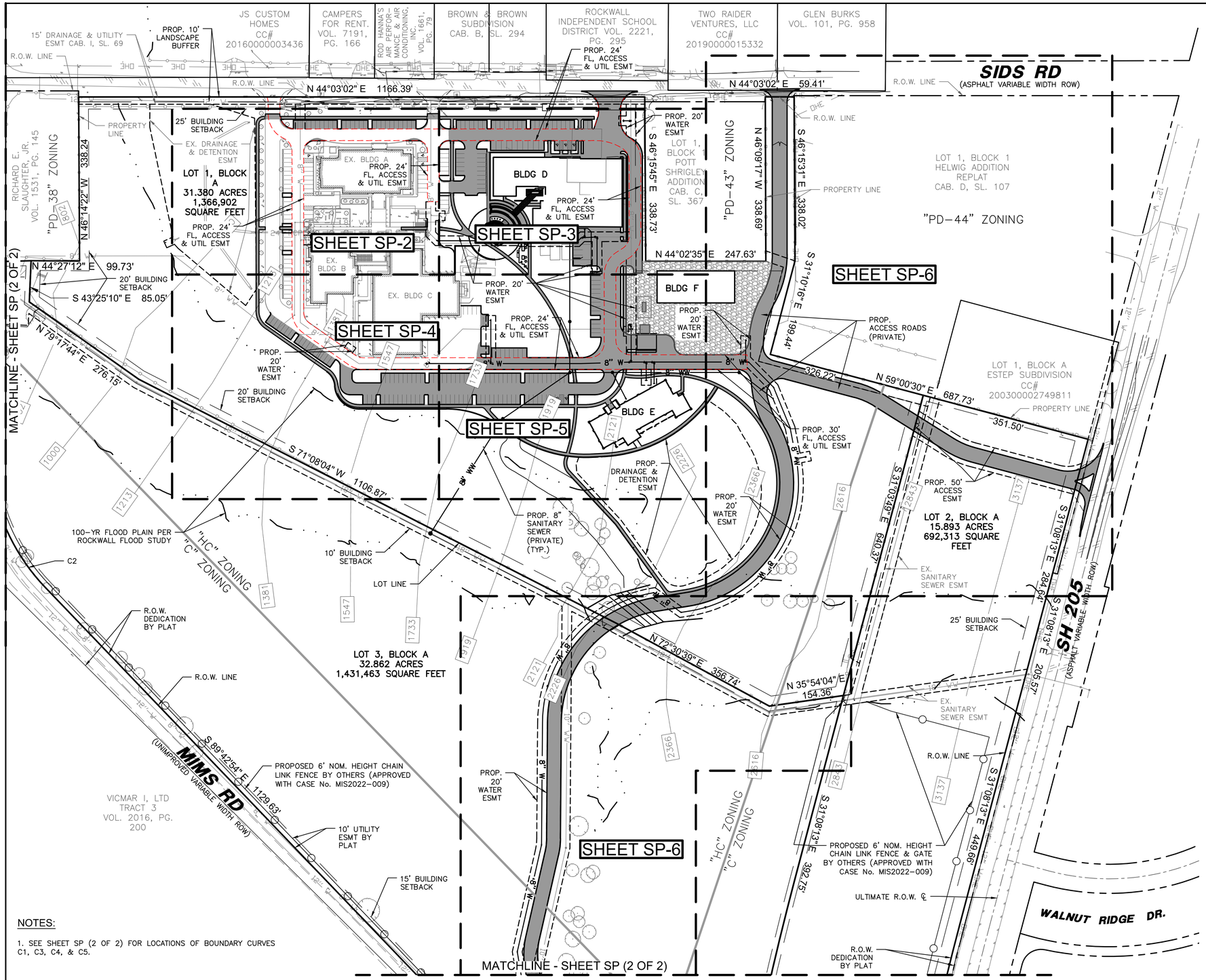
We greatly appreciate your consideration of these variance requests.

Best Regards,

R-DELTA ENGINEERS, INC.
TBPE Firm No. F-001515

Frank A. Polma, P.E.
President

Cc: Mr. Stephen Geiger, P.E. – Rayburn Electric Cooperative



LEGEND

EM	EX. ELECTRIC METER
ICV	EX. IRRIGATION CONTROL VALVE
B	EX. BOLLARD
WM	EX. WATER METER
SSMH	EX. SANITARY SEWER MANHOLE
TPED	EX. TELEPHONE PEDESTAL
WV	EX. WATER VALVE
EB	EX. ELECTRIC BOX
FH	EX. FIRE HYDRANT
CMP	EX. CORRUGATED METAL PIPE
X" W	EX. WATER MAIN PIPE
X" WW	EX. WASTE WATER MAIN PIPE
XX" CMP	EXISTING CORRUGATED METAL PIPE & SIZE
	EXISTING WROUGHT IRON FENCE
	EXISTING CHAIN LINK FENCE
PP	EXISTING POWER POLE
OHE	EXISTING OVERHEAD ELECTRIC
	EXISTING GUY WIRE
	EXISTING FLOOD LIGHT
	EDGE OF ASPHALT
	PROPOSED WROUGHT IRON FENCE
	PROPOSED 6' CHAIN LINK FENCE BY OTHERS
	100-YR FLOOD PLAIN-ROCKWALL
	BFR - CONSTRUCT BARRIER FREE RAMP WITH TRUNCATED DOMED PANELS PER CITY DETAILS. NO EXTRA PAY ITEM FOR MONOLITHIC CURBS.
	ACCESSIBLE AISLE STRIPING
1000	CROSS-SECTION LOCATION-CITY OF ROCKWALL MASTER DRAINAGE STUDY
	PROPOSED CONCRETE PAVEMENT
	PROPOSED GRAVEL SURFACING

100 50 0 100
GRAPHIC SCALE IN FEET
SCALE: 1" = 100'

EXISTING SITE PARKING DATA

PUBLIC SPACES	ACCESSIBLE SPACES	TOTAL
125	5	130

PROPOSED SITE PARKING DATA

PUBLIC SPACES	ACCESSIBLE SPACES	TOTAL
262	9	271

SITE INFORMATION:

EXISTING ZONING: HEAVY COMMERCIAL (HC), COMMERCIAL (C), & AGRICULTURAL (AG)

PROPOSED ZONING: NO CHANGE

PROPOSED USE: EXPANSION OF EXISTING SITE TO INCLUDE 2 NEW OFFICE BUILDINGS, TRUCK WAREHOUSE, AND LAYDOWN STORAGE WAREHOUSE

TOTAL AREA LOT 1: 1,366,902 SQ FT 31.38 AC
TOTAL AREA LOTS 1-4: 4,146,392 SQ FT 95.19 AC

LOT 1 "HC" ZONING

MAXIMUM BUILDING HEIGHT: 60 FT
MAXIMUM LOT COVERAGE: 60%
MAXIMUM FLOOR AREA RATIO: 4:1
MAXIMUM IMPERVIOUS PARKING: 90-95%

PROPOSED MAX. BUILDING D HEIGHT: 40'
PROPOSED MAX. BUILDING E HEIGHT: 46'-4"
PROPOSED MAX. BUILDING F HEIGHT: 26'-8"
PROPOSED LOT COVERAGE: 106,281/1,366,902 = 7.8%
PROPOSED FLOOR AREA RATIO: 113,260/1,366,902 = 0.08:1
PROPOSED IMPERVIOUS PARKING: 69,510/1,366,902 = 5.1%

EXISTING PARKING:
EXISTING WAREHOUSE 23,520 SQ FT (1:1000) = 24 SPACES
EXISTING OFFICE 31,530 SQ FT (1:300) = 106 SPACES
REMOVED OFFICE 7,700 SQ FT (1:300) = -26 SPACES

EXISTING REQUIRED PARKING = 104 SPACES

REQUIRED PARKING:
PROPOSED WAREHOUSE D 12,750 SQ FT (1:1000) = 13 SPACES
PROPOSED OFFICE D 19,600 SQ FT (1:300) = 66 SPACES
PROPOSED OFFICE E 23,000 SQ FT (1:300) = 77 SPACES
PROPOSED WAREHOUSE F 10,560 SQ FT (1:1000) = 11 SPACES

TOTAL REQUIRED PARKING = 271 SPACES
TOTAL PROVIDED PARKING = 271 SPACES

PAVEMENT INFORMATION:

ALL PAVEMENTS BELOW HAVE #3 BARS 24" O.C.E.W.

PAVEMENT TYPE	THICKNESS (INCHES)	28-DAY (PSI)	MIN. CEMENT (SACKS/CY) MACHINE	HAND
FIRE LANE	6"	3,600	6.0	6.5
DRIVEWAYS	6"	3,600	6.0	6.5
BARRIER FREE RAMPS	6"	3,600	6.0	6.5
DUMPSTER PADS	7"	3,600	6.0	6.5
SIDEWALKS	4"	3,000	N/A	5.5
PARKING LOT/ DRIVE AISLES	5"	3,000	5.0	5.5

NOTES:

1. SEE SHEET SP (2 OF 2) FOR LOCATIONS OF BOUNDARY CURVES C1, C3, C4, & C5.

BOUNDARY CURVE DATA					
CURVE	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	11°11'01"	5,779.71'	1,128.15'	S 36°43'43" E	1,126.36'
C2	46°17'44"	417.50'	337.34'	N 66°34'02" W	328.24'
C3	36°44'03"	482.50'	309.35'	S 61°47'11" E	304.08'
C4	129°16'42"	40.00'	90.25'	S 23°55'53" W	72.29'
C5	7°41'42"	6,142.03'	824.89'	N 34°59'04" W	824.27'

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of _____, _____.

WITNESS OUR HANDS, this ___ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1-4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

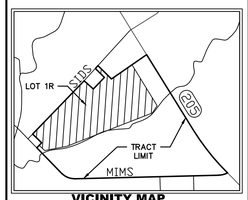
MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER/ APPLICANT
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087
469-402-2100

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040
TBPE No. F-1515

Rayburn Electric COOPERATIVE

PRELIMINARY
SUBMITTED FOR REVIEW
BY: BRIAN PAUL PATRICK
P.E. 80844
R-Delta Engineers, Inc.
Date: November 3, 2022
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING PURPOSES



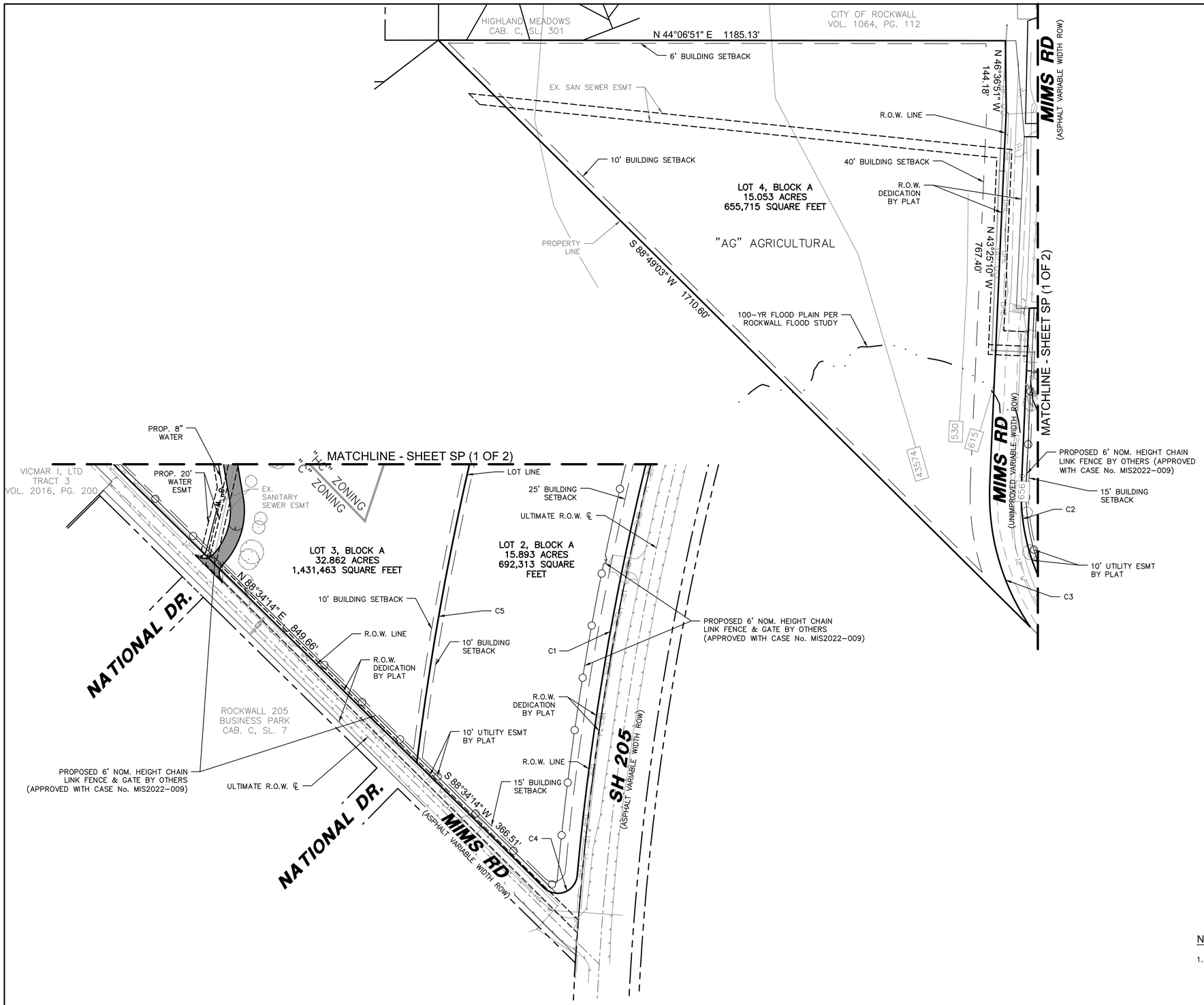
VICINITY MAP
NTS

REVISION

NO.	DESCRIPTION	DATE

PROJECT NUMBER
3036.21
DATE
11/03/2022
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
SITE PLAN
CASE# SP2022-058

SHEET NO.
SP (1 OF 2)



LEGEND

EM	EX. ELECTRIC METER
ICV	EX. IRRIGATION CONTROL VALVE
B	EX. BOLLARD
WM	EX. WATER METER
SSMH	EX. SANITARY SEWER MANHOLE
TPED	EX. TELEPHONE PEDESTAL
WV	EX. WATER VALVE
EB	EX. ELECTRIC BOX
FH	EX. FIRE HYDRANT
CMP	EX. CORRUGATED METAL PIPE
X" W	EX. WATER MAIN PIPE
X" WW	EX. WASTE WATER MAIN PIPE
XX" CMP	EXISTING CORRUGATED METAL PIPE & SIZE
	EXISTING WROUGHT IRON FENCE
	EXISTING CHAIN LINK FENCE
PP	EXISTING POWER POLE
OHE	EXISTING OVERHEAD ELECTRIC
	EXISTING GUY WIRE
	EXISTING FLOOD LIGHT
	EDGE OF ASPHALT
	PROPOSED WROUGHT IRON FENCE
	PROPOSED 6' CHAIN LINK FENCE BY OTHERS
	100-YR FLOOD PLAIN-ROCKWALL
	BFR - CONSTRUCT BARRIER FREE RAMP WITH TRUNCATED DOMED PANELS PER CITY DETAILS. NO EXTRA PAY ITEM FOR MONOLITHIC CURBS.
	ACCESSIBLE AISLE STRIPING
1000	CROSS-SECTION LOCATION- CITY OF ROCKWALL MASTER DRAINAGE STUDY
	PROPOSED CONCRETE PAVEMENT

100 50 0 100
GRAPHIC SCALE IN FEET
SCALE: 1" = 100'

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_____ Director of Planning and Zoning

SITE INFORMATION:

SEE SP (1 OF 2)

PAVEMENT INFORMATION:

SEE SP (1 OF 2)

NOTES:

1. SEE SHEET SP (2 OF 2) FOR BOUNDARY CURVE DATA.

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1-4, BLOCK A
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TBPE No. F-1515

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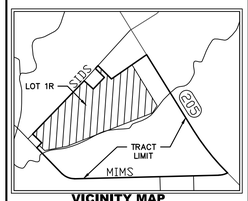

VICINITY MAP
NTS

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CITY SITE PLAN SUBMITTAL
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SITE PLAN
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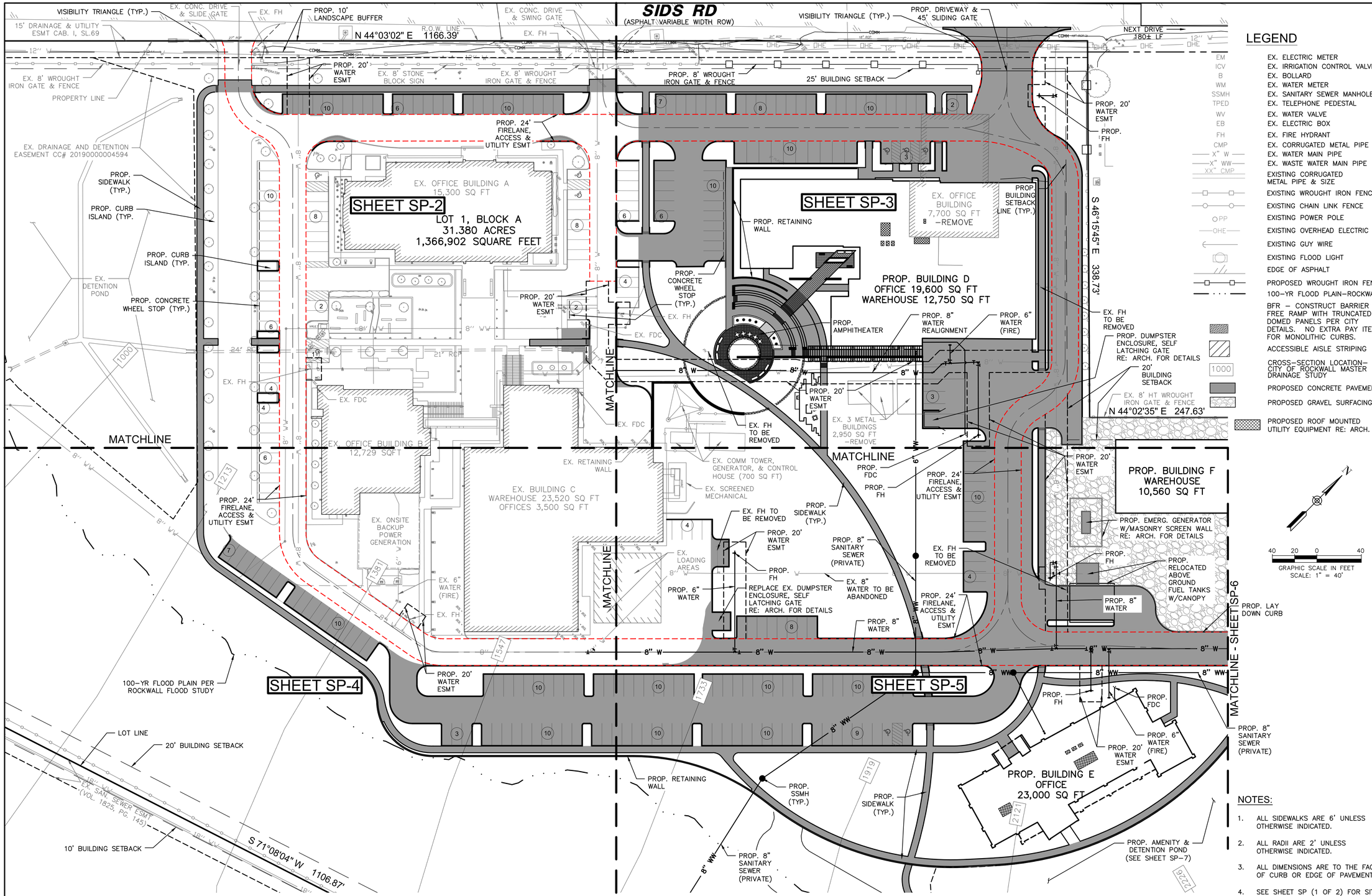
SHEET NO.
SP (2 OF 2)



NOTES:

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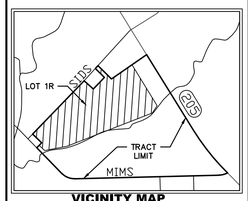

VICINITY MAP
NTS

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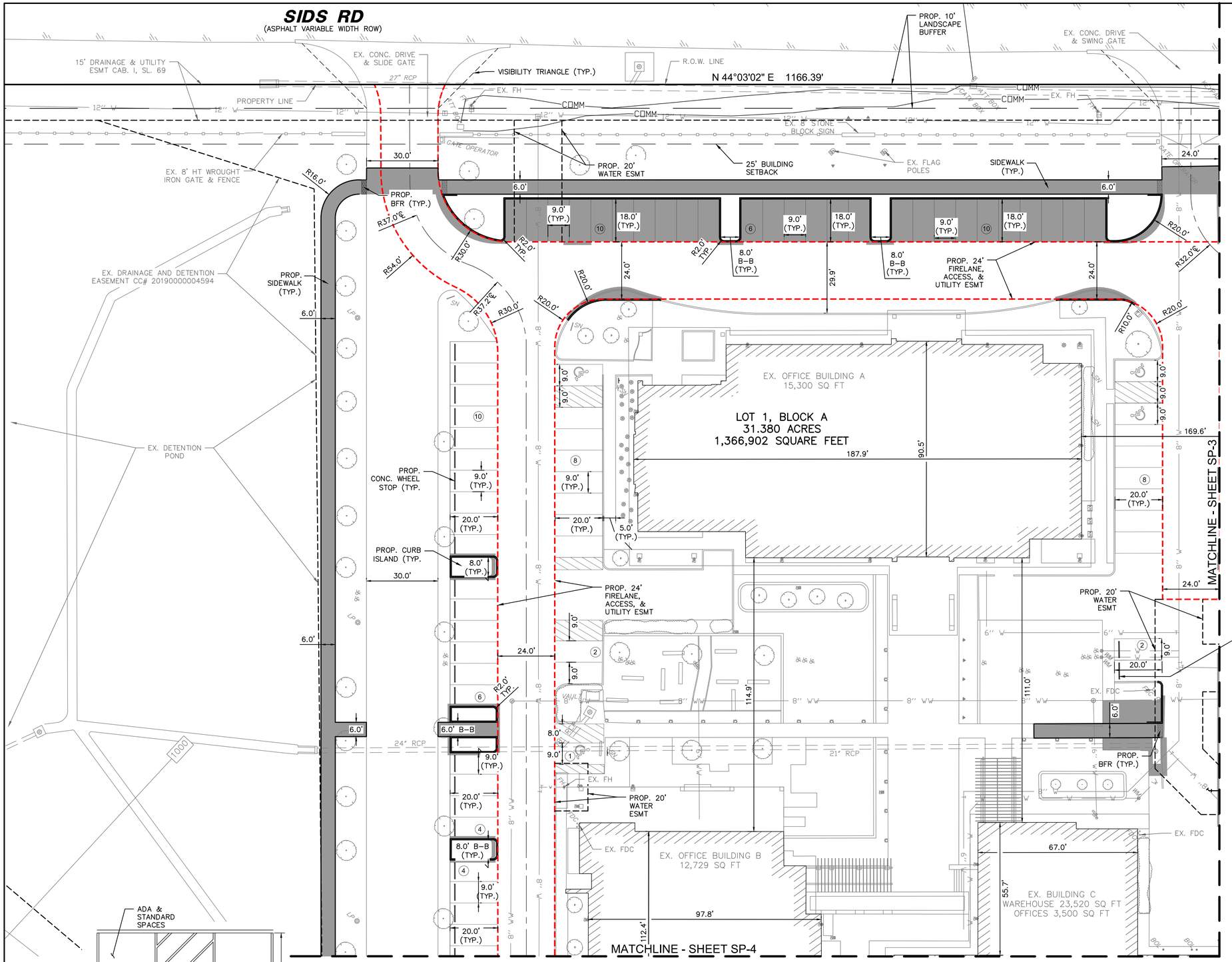
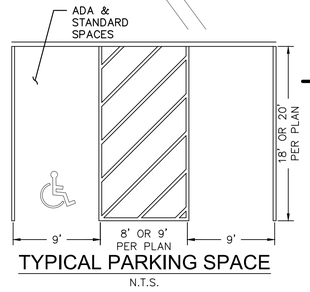
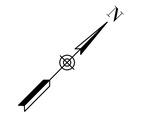
SHEET TITLE
SITE PLAN
CASE# SP2022-058

SHEET NO.
SP-1





TYPICAL PARKING SPACE
N.T.S.



20 10 0 20
GRAPHIC SCALE IN FEET
SCALE: 1" = 20'

LEGEND

EM	EX. ELECTRIC METER
ICV	EX. IRRIGATION CONTROL VALVE
B	EX. BOLLARD
WM	EX. WATER METER
SSMH	EX. SANITARY SEWER MANHOLE
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	EXISTING FLOOD LIGHT
	EDGE OF ASPHALT
	PROPOSED WROUGHT IRON FENCE
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	ACCESSIBLE AISLE STRIPING
1000	CROSS-SECTION LOCATION- CITY OF ROCKWALL MASTER DRAINAGE STUDY
	PROPOSED CONCRETE PAVEMENT

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950 SIDS ROAD
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469-402-2100

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618 MAIN STREET
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Rayburn Electric COOPERATIVE

PRELIMINARY
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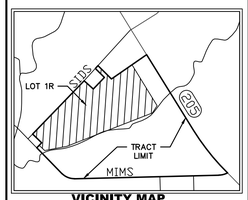

VICINITY MAP
NTS

REVISION

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3036.21
DATE
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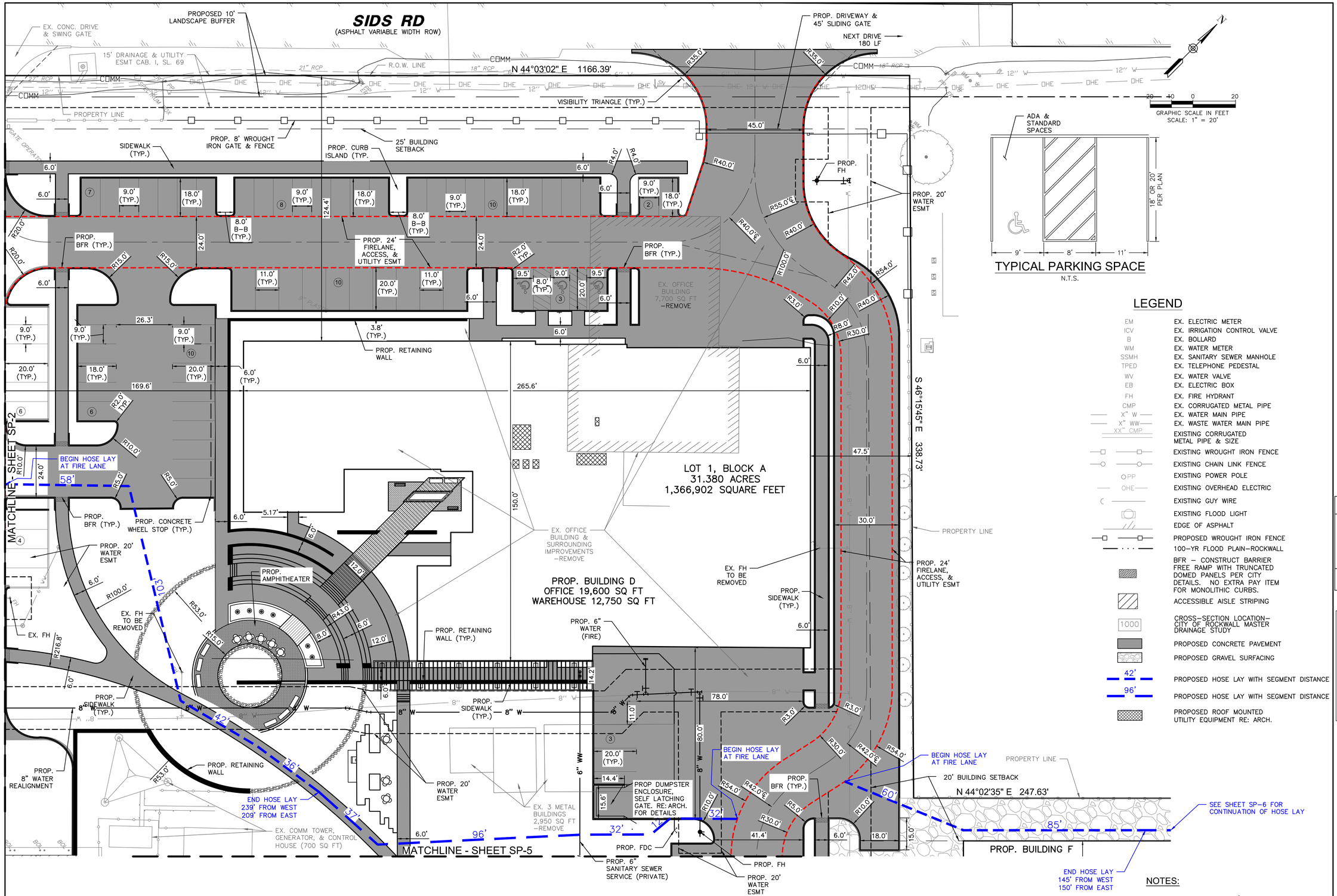
SHEET TITLE
SITE PLAN
CASE# SP2022-058

SHEET NO.
SP-2



LEGEND

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B	EX. BOLLARD
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	ACCESSIBLE AISLE STRIPING
1000	CROSS–SECTION LOCATION– CITY OF ROCKWALL MASTER DRAINAGE STUDY
	PROPOSED CONCRETE PAVEMENT
	PROPOSED GRAVEL SURFACING
42'	PROPOSED HOSE LAY WITH SEGMENT DISTANCE
96'	PROPOSED HOSE LAY WITH SEGMENT DISTANCE
	PROPOSED ROOF MOUNTED UTILITY EQUIPMENT RE: ARCH.

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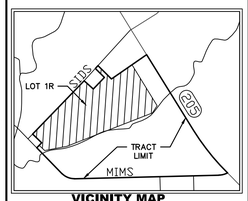

VICINITY MAP
NTS

REVISION

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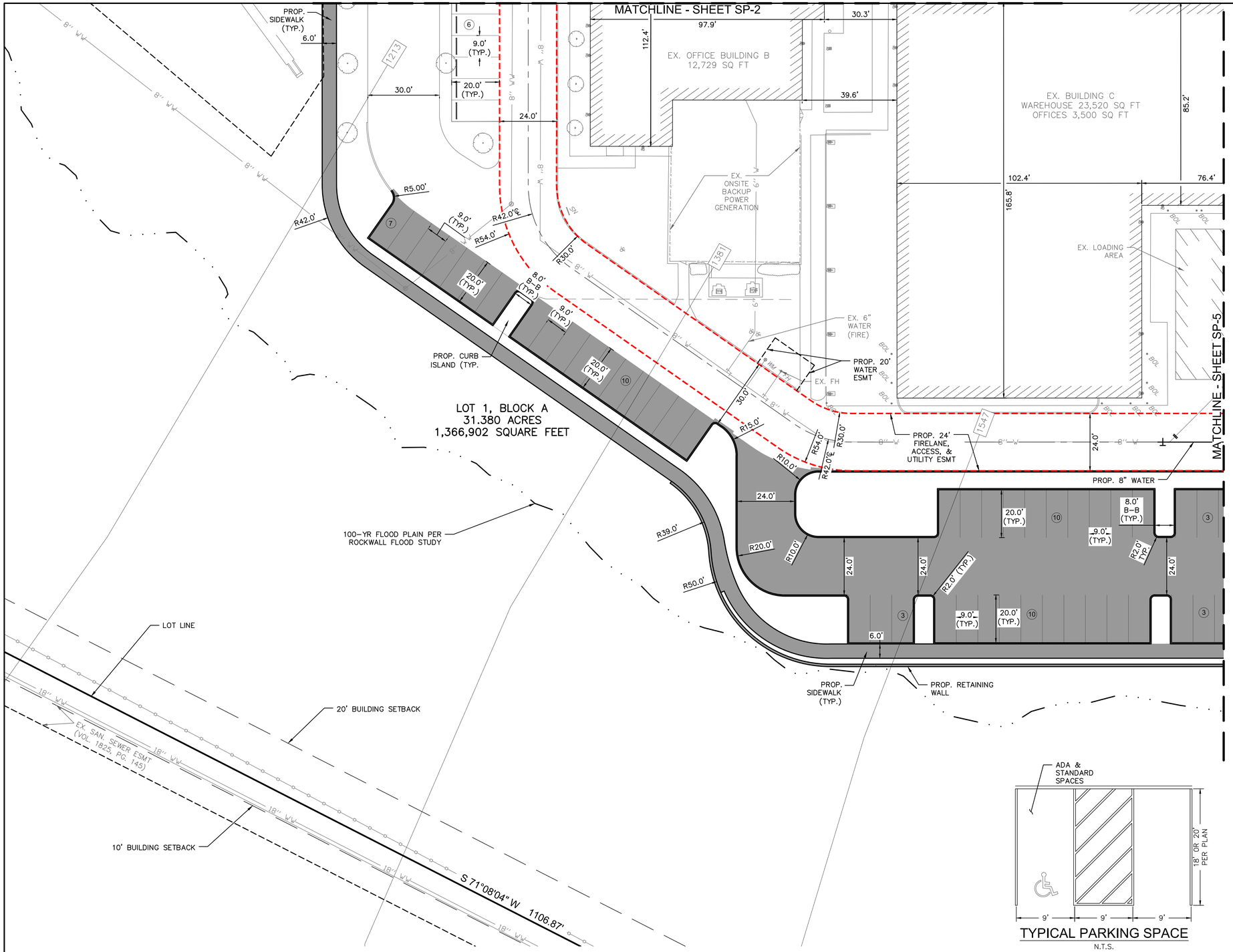
PROJECT NUMBER
3036.21
DATE
11/03/2022
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
SITE PLAN
CASE# SP2022-058

SHEET NO.
SP-3



20 10 0 20

GRAPHIC SCALE IN FEET
SCALE: 1" = 20'

LEGEND

EM	EX. ELECTRIC METER
ICV	EX. IRRIGATION CONTROL VALVE
B	EX. BOLLARD
WM	EX. WATER METER
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TYPICAL PARKING SPACE
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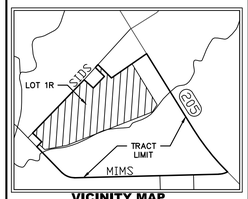

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SITE PLAN
CASE# SP2022-058

SHEET NO.
SP-4

MATCHLINE - SHEET SP-3

MATCHLINE - SHEET SP-4

MATCHLINE - SHEET SP-6

EX. BUILDING C
WAREHOUSE 23,520 SQ FT
OFFICES 3,500 SQ FT

PROP. BUILDING F
WAREHOUSE
10,560 SQ FT

PROP. BUILDING E
OFFICE
23,000 SQ FT

LOT 1, BLOCK A
31.380 ACRES
1,366,902 SQUARE FEET

PROP. SIDEWALK (TYP.)
PROP. 24' FIRELANE, ACCESS, & UTILITY ESMT
PROP. 6" SANITARY SEWER SERVICE (PRIVATE)
PROP. CURB ISLAND (TYP.
PROP. OUTSIDE STORAGE
PROP. EMERG. GENERATOR W/MASONRY SCREEN WALL, SELF LATCHING GATE RE: ARCH. FOR DETAILS
PROP. 20' WATER ESMT
PROP. RELOCATED ABOVE GROUND FUEL TANKS W/CANOPY
EX. FH TO BE REMOVED
PROP. FH
EX. 8" WATER TO BE ABANDONED
PROP. 8" SANITARY SEWER (PRIVATE)
REPLACE EX. DUMPSTER ENCLOSURE, SELF LATCHING GATE RE: ARCH. FOR DETAILS
EX. LOADING AREA
PROP. ACCESS DRIVE A
BEGIN HOSE LAY AT FIRE LANE
PROP. BFR (TYP.)
PROP. 6" SANITARY SEWER SERVICE (PRIVATE)
PROP. FDC
PROP. 8" SANITARY SEWER (PRIVATE)
PROP. SSMH (TYP.)
PROP. RETAINING WALL
PROP. AMENITY & DETENTION POND (SEE SHEET SP-7)
PROP. DRAINAGE & DETENTION ESMT (SEE SHEET SP-7)
END HOSE LAY 250' FROM WEST 247' FROM NORTH
100-YR FLOOD PLAIN PER ROCKWALL FLOOD STUDY
ADA & STANDARD SPACES

GRAPHIC SCALE IN FEET
SCALE: 1" = 20'

LEGEND

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OHE	EX. OVERHEAD ELECTRIC
	EX. GUY WIRE
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	EDGE OF ASPHALT
	PROP. WROUGHT IRON FENCE
	100-YR FLOOD PLAIN-ROCKWALL
	BFR - CONSTRUCT BARRIER FREE RAMP WITH TRUNCATED DOMED PANELS PER CITY DETAILS. NO EXTRA PAY ITEM FOR MONOLITHIC CURBS.
	ACCESSIBLE AISLE STRIPING
1000	CROSS-SECTION LOCATION-CITY OF ROCKWALL MASTER DRAINAGE STUDY
	PROPOSED CONCRETE PAVEMENT
	PROPOSED GRAVEL SURFACING
74'	PROPOSED HOSE LAY WITH SEGMENT DISTANCE
85'	PROPOSED HOSE LAY WITH SEGMENT DISTANCE
	PROPOSED ROOF MOUNTED UTILITY EQUIPMENT RE: ARCH.

NOTES:

1. ALL SIDEWALKS ARE 6' UNLESS OTHERWISE INDICATED.
2. ALL RADII ARE 2' UNLESS OTHERWISE INDICATED.
3. ALL DIMENSIONS ARE TO THE FACE OF CURB OR EDGE OF PAVEMENT.
4. SEE SHEET SP (1 OF 2) FOR SITE INFORMATION AND PARKING INFORMATION.

TYPICAL PARKING SPACE
N.T.S.

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of _____, ____.

WITNESS OUR HANDS, this ___ day of _____, ____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER/ APPLICANT
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087
469-402-2100

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040
TBPE No. F-1515

Rayburn Electric COOPERATIVE

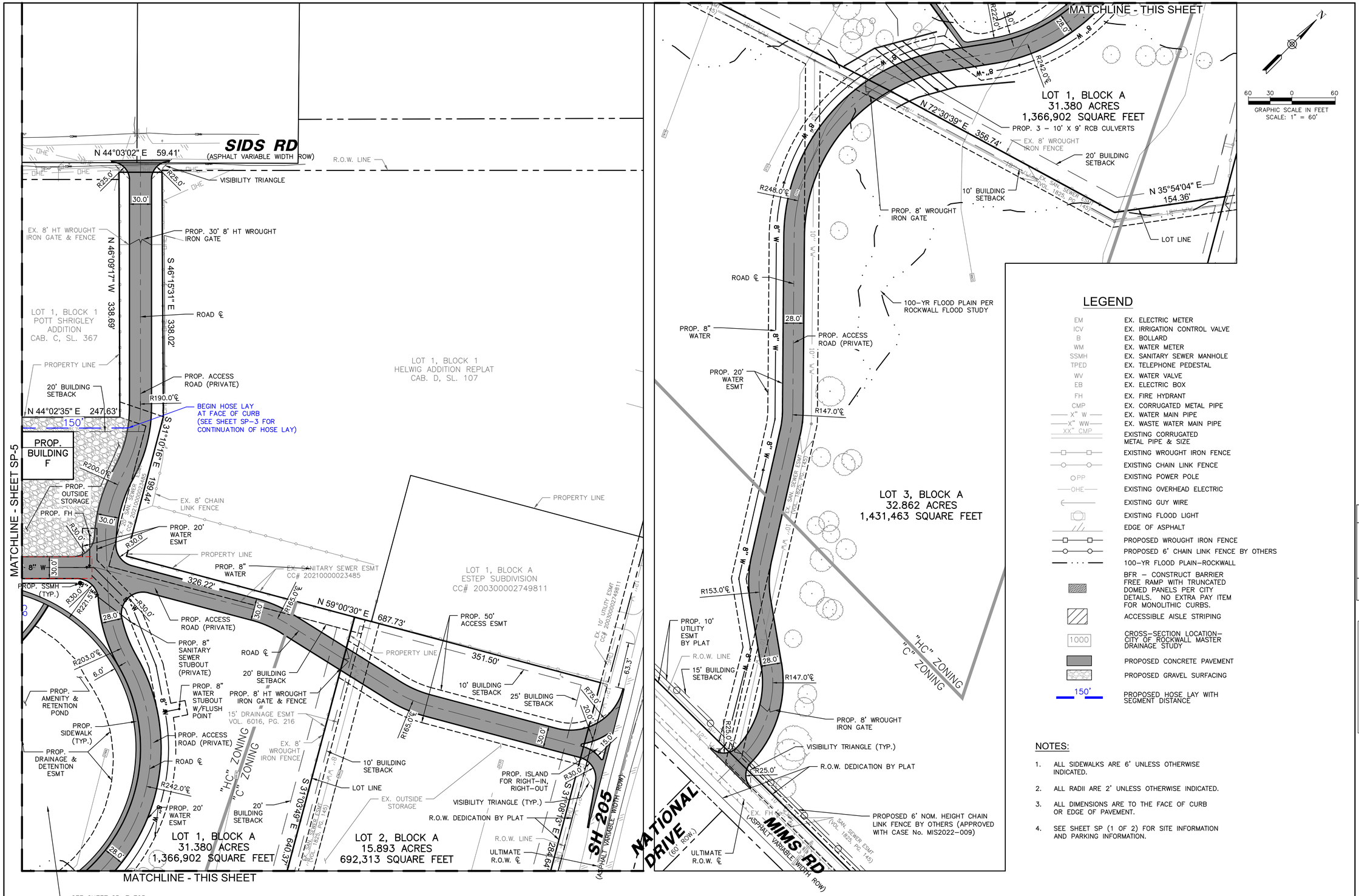
PRELIMINARY
SUBMITTED FOR REVIEW
BY: BRIAN PAUL PATRICK
P.E. 80844
R-Delta Engineers, Inc.
Date: November 3, 2022
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING PURPOSES

VICINITY MAP
NTS

REVISION NO. | DESCRIPTION | DATE

PROJECT NUMBER
3036.21
DATE
11/03/2022
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
SITE PLAN
CASE# SP2022-058

SHEET NO.
SP-5



LEGEND

EM	EX. ELECTRIC METER
ICV	EX. IRRIGATION CONTROL VALVE
B	EX. BOLLARD
WM	EX. WATER METER
SSMH	EX. SANITARY SEWER MANHOLE
TPED	EX. TELEPHONE PEDESTAL
WV	EX. WATER VALVE
EB	EX. ELECTRIC BOX
FH	EX. FIRE HYDRANT
CMP	EX. CORRUGATED METAL PIPE
X" W	EX. WATER MAIN PIPE
X" WW	EX. WASTE WATER MAIN PIPE
XX" CMP	EXISTING CORRUGATED METAL PIPE & SIZE
	EXISTING WROUGHT IRON FENCE
	EXISTING CHAIN LINK FENCE
PP	EXISTING POWER POLE
OHE	EXISTING OVERHEAD ELECTRIC
	EXISTING GUY WIRE
	EXISTING FLOOD LIGHT
	EDGE OF ASPHALT
	PROPOSED WROUGHT IRON FENCE
	PROPOSED 6' CHAIN LINK FENCE BY OTHERS
	100-YR FLOOD PLAIN-ROCKWALL
	BFR – CONSTRUCT BARRIER FREE RAMP WITH TRUNCATED DOMED PANELS PER CITY DETAILS. NO EXTRA PAY ITEM FOR MONOLITHIC CURBS.
	ACCESSIBLE AISLE STRIPING
1000	CROSS-SECTION LOCATION-CITY OF ROCKWALL MASTER DRAINAGE STUDY
	PROPOSED CONCRETE PAVEMENT
	PROPOSED GRAVEL SURFACING
150'	PROPOSED HOSE LAY WITH SEGMENT DISTANCE

NOTES:

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_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

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RAYBURN ELECTRIC COOPERATIVE
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ROCKWALL, TX 75087
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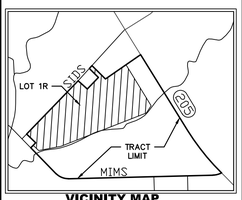


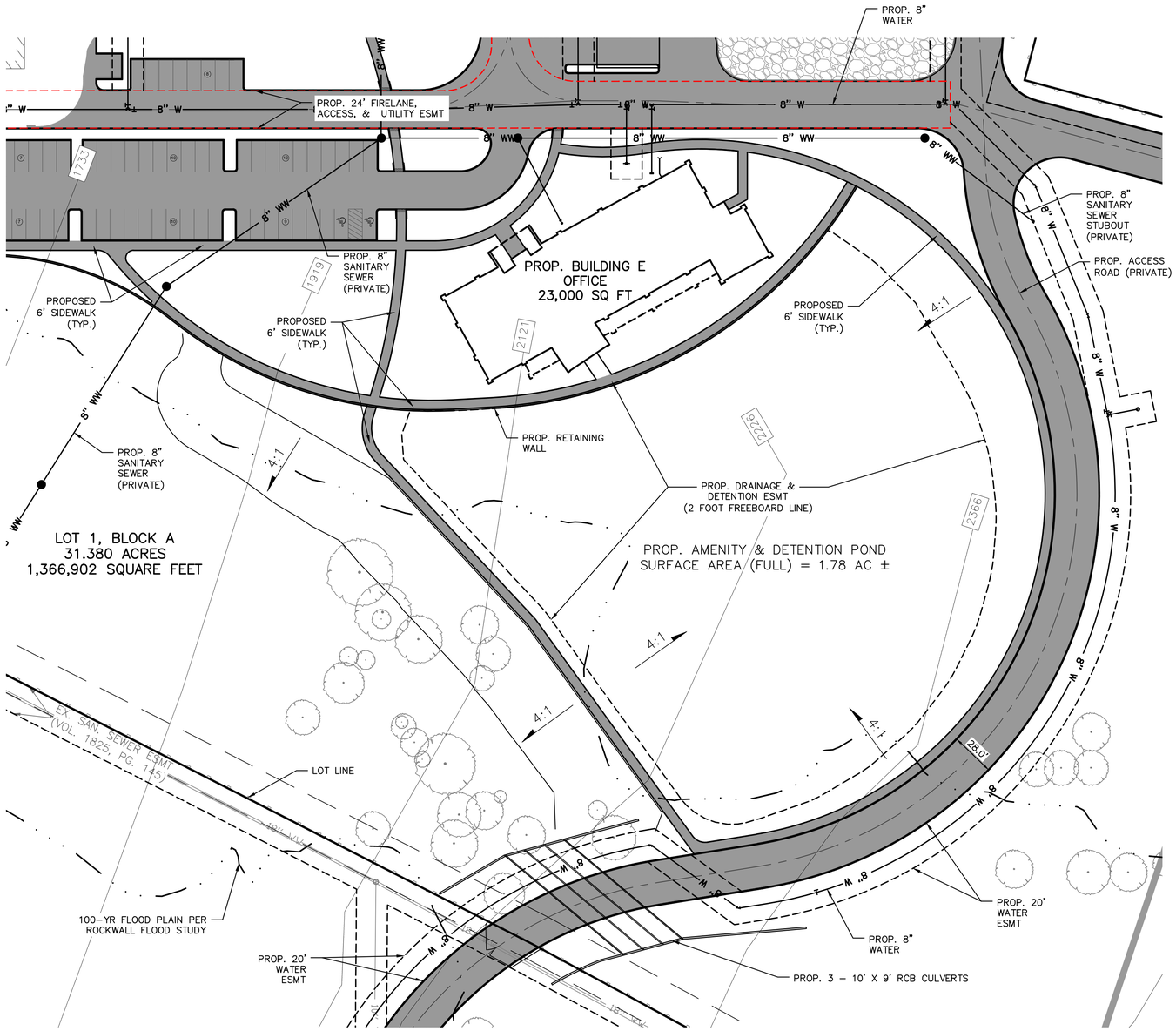
VICINITY MAP
NTS

REVISION

NO.	DESCRIPTION	DATE

PROJECT NUMBER
3036.21
DATE
11/03/2022
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
SITE PLAN
CASE# SP2022-058

SHEET NO.
SP-6



40 20 0 40

GRAPHIC SCALE IN FEET
SCALE: 1" = 40'

LEGEND

EM	EX. ELECTRIC METER
ICV	EX. IRRIGATION CONTROL VALVE
B	EX. BOLLARD
WM	EX. WATER METER
SSMH	EX. SANITARY SEWER MANHOLE
TPED	EX. TELEPHONE PEDESTAL
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	ACCESSIBLE AISLE STRIPING
1000	CROSS-SECTION LOCATION-CITY OF ROCKWALL MASTER DRAINAGE STUDY
	PROPOSED CONCRETE PAVEMENT

NOTES:

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WITNESS OUR HANDS, this ____ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

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950 SIDS ROAD
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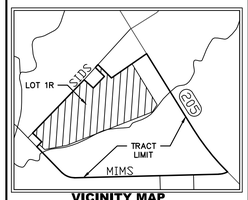


VICINITY MAP
NTS

REVISION

NO.	DESCRIPTION	DATE

PROJECT NUMBER
3036.21
DATE
11/03/2022
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
SITE PLAN
CASE# SP2022-058

SHEET NO.
SP-7

EXTERIOR MATERIALS LEGEND

ST01:
a. STONE TYPE: LIMESTONE
b. STONE NAME: LEUDERS CHOPPED BUFF
c. GROUT/SEALANT COLOR: MATCH EXISTING
d. LOCATION: EXTERIOR STONE MASONRY VENEER

AMF01:
a. MATERIAL TYPE: ALUMINIUM
b. FINISH TYPE: ANODIZED
c. ANODIZED COLOR: DARK BRONZE
d. COATING COLOR: MATCH EXISTING
e. LOCATION: MULLIONS

AMF02:
a. MATERIAL TYPE: STEEL
b. FINISH TYPE: HIGH-PERFORMANCE ORGANIC FLUOROPOLYMER
c. COATING COLOR: MATCH PT02
d. LOCATION: EXPOSED TRELLIS COLUMNS

AMF03:
a. MATERIAL TYPE: STEEL
b. COATING COLOR: MATCH EXISTING ROOF, BERRIDGE PREWEATHERED GALVALUME
c. MATTE FINISH
d. LOCATION: STANDING SEAM METAL ROOF

WD01:
a. SPECIES AND CUT: WESTERN RED CEDAR
b. FINISH: CLEAR MATTE FINISH
c. LOCATION: WOOD BEAM CLADDING. EXTERIOR SOFFITS, INTERIOR CEILINGS AND TRIM.

CSM01:
a. MATERIAL TYPE: CAST STONE
b. COLOR: NATURAL
c. AGGREGATE:
d. EXPOSED TEXTURE FINISH: [SMOOTH] [HONED] [SAND TEXTURE]
e. LOCATION: WAINSCOT SILL @ STONE, PARAPET CAP

PCP01:
a. MATERIAL TYPE: PORTLAND CEMENT PLASTER
b. COLOR: MATCH SW 9111 ANTLER VELVET

PC01:
a. MATERIAL TYPE: TILT UP CONCRETE PANELS
b. COLOR: MATCH SW 9111 ANTLER VELVET

PT01:
a. MANUFACTURER: SHERWIN WILLIAMS
b. NUMBER: SW9111
c. COLOR: ANTLER VELVET
d. SHEEN: SEMIGLOSS
e. LOCATION: GUTTERS AND DOWNSPOUTS

PT02:
a. MANUFACTURER: SHERWIN WILLIAMS
b. NUMBER: SW9111
c. COLOR: ANTLER VELVET
d. SHEEN: SEMIGLOSS
e. LOCATION: EXPOSED STRUCTURAL STEEL & ENTRY CANOPIES

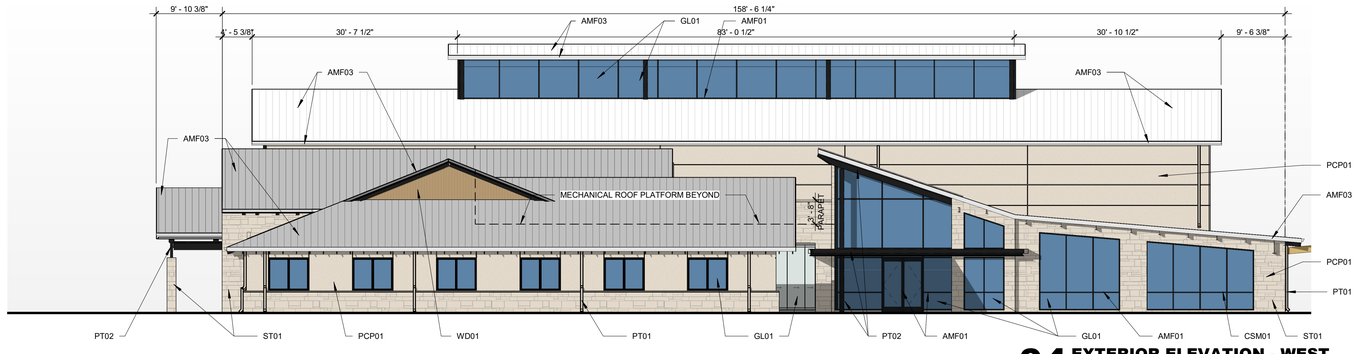
GL01: INSULATING COATED GLASS - VISION
1) OVERALL THICKNESS: 1 IN NOMINAL
2) OUTBOARD LITE: CLEAR HS; 1/4" THICK GLASS WITH COATING ON NO.2 SURFACE.
3) AIR SPACE: 1/2"; ALUMINIUM BLACK, ARGON
4) INBOARD LITE: CLEAR HS; 1/4" THICK GLASS
5) BASIS OF DESIGN MANUFACTURER AND PRODUCT: VIRACON 1" INSULATED LOW-E GLASS

GL02: INSULATING COATED GLASS - SPANDREL
1) OVERALL THICKNESS: 1 IN NOMINAL
2) OUTBOARD LITE: SPANDREL 1/4" THICK GLASS WITH COATING ON NO.2 SURFACE.
3) AIR SPACE: 1/2"; ALUMINIUM BLACK, ARGON
4) INBOARD LITE: CLEAR HS; 1/4" THICK GLASS
5) BASIS OF DESIGN MANUFACTURER AND PRODUCT: VIRACON 1" INSULATED LOW-E GLASS COLOR: V908 GRAY

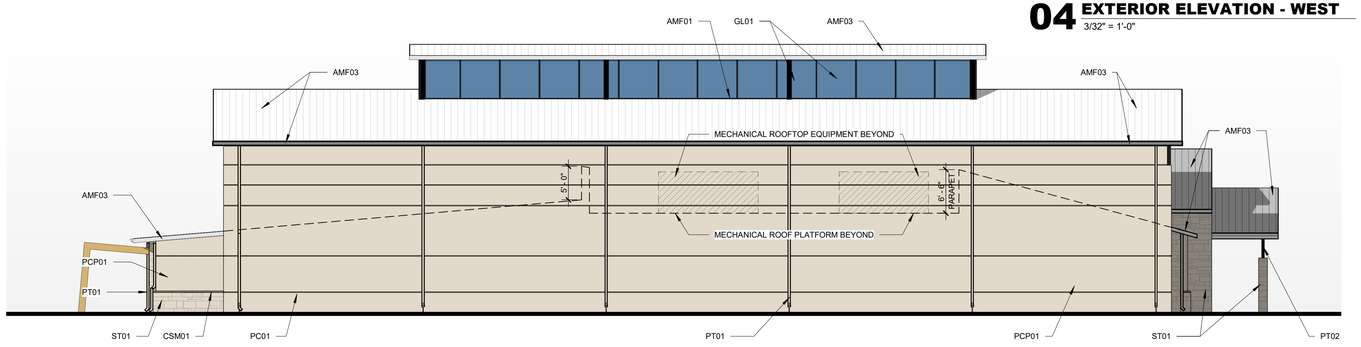
CMU01:
a. MANUFACTURER: FEATHERLITE
b. SPLIT FACE MASONRY BLOCK
c. COLOR: CREAM

Building "D" Elevation Material Calculations

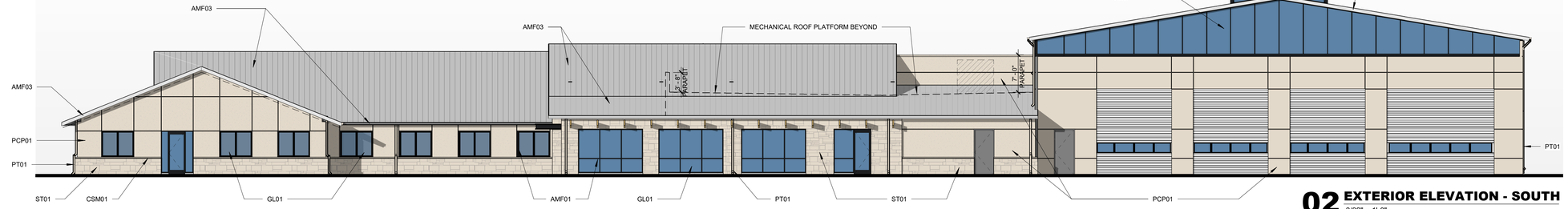
	MATERIAL	AMOUNT (SF)	AMOUNT (%)
NORTH			
	PORTLAND CEMENT PLASTER (PCP01)	460	21%
	WOOD SIDING (WD01)	160	7%
	STONE VENEER (ST01)	607	28%
	TILT UP CONCRETE PANELS (PC01)	975	44%
		2202	100%
SOUTH			
	PORTLAND CEMENT PLASTER (PCP01)	547	21%
	WOOD SIDING (WD01)	0	0%
	STONE VENEER (ST01)	635	24%
	TILT UP CONCRETE PANELS (PC01)	1,457	55%
		2639	100%
EAST			
	PORTLAND CEMENT PLASTER (PCP01)	54	1%
	WOOD SIDING (WD01)	0	0%
	STONE VENEER (ST01)	120	3%
	TILT UP CONCRETE PANELS (PC01)	3540	95%
		3714	100%
WEST			
	PORTLAND CEMENT PLASTER (PCP01)	1465	37%
	WOOD SIDING (WD01)	154	4%
	STONE VENEER (ST01)	680	17%
	TILT UP CONCRETE PANELS (PC01)	1,629	41%
		3928	100%



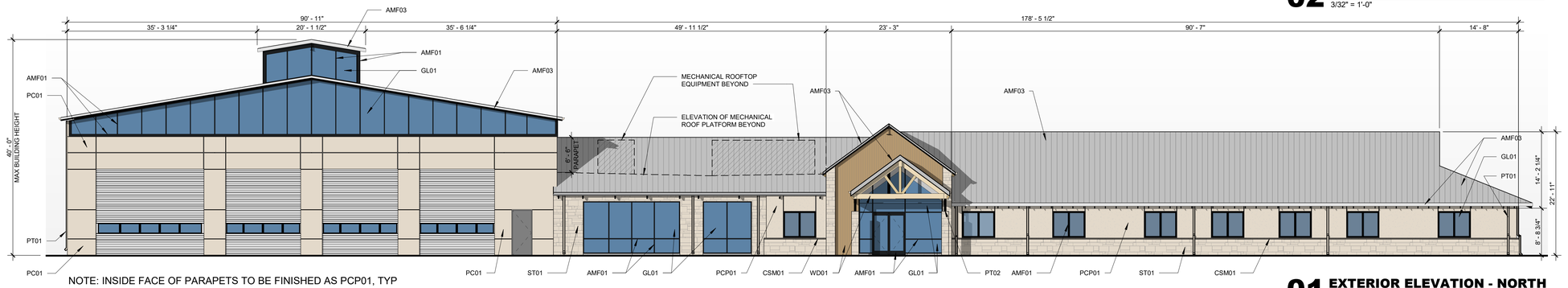
04 EXTERIOR ELEVATION - WEST
3/32" = 1'-0"



03 EXTERIOR ELEVATION - EAST
3/32" = 1'-0"



02 EXTERIOR ELEVATION - SOUTH
3/32" = 1'-0"



NOTE: INSIDE FACE OF PARAPETS TO BE FINISHED AS PCP01, TYP

01 EXTERIOR ELEVATION - NORTH
3/32" = 1'-0"

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of _____, ____.

WITNESS OUR HANDS, this ___ day of _____, ____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
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R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

INTERIM REVIEW ONLY
These documents are incomplete, and are released for interim review only and are not intended for regulatory approval, permit, or construction purposes.
Architect: _____
Arch. Reg. No.: _____
Date: _____

KEY PLAN

REVISION
NO. DESCRIPTION DATE

HKS PROJECT NUMBER
25370.000
DATE
11/01/22
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
BLDG ELEVATIONS - D

CASE# SP2022-058

SHEET NO.
PA5.01

EXTERIOR MATERIALS LEGEND

ST01:
a. STONE TYPE: LIMESTONE
b. STONE NAME: LEUDERS CHOPPED BUFF
c. GROUT/SEALANT COLOR: MATCH EXISTING
d. LOCATION: EXTERIOR STONE MASONRY VENEER

AMF01:
a. MATERIAL TYPE: ALUMINIUM
b. FINISH TYPE: ANODIZED
c. ANODIZED COLOR: DARK BRONZE
d. COATING COLOR: MATCH EXISTING
e. LOCATION: MULLIONS

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a. MATERIAL TYPE: STEEL
b. FINISH TYPE: HIGH-PERFORMANCE ORGANIC FLUOROPOLYMER
c. COATING COLOR: MATCH PT02
d. LOCATION: EXPOSED TRELLIS COLUMNS

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b. COATING COLOR: MATCH EXISTING ROOF, BERRIDGE PREWEATHERED GALVALUME
c. MATTE FINISH
d. LOCATION: STANDING SEAM METAL ROOF

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a. SPECIES AND CUT: WESTERN RED CEDAR
b. FINISH: CLEAR MATTE FINISH
c. LOCATION: WOOD BEAM CLADDING. EXTERIOR SOFFITS, INTERIOR CEILINGS AND TRIM.

CSM01:
a. MATERIAL TYPE: CAST STONE
b. COLOR: NATURAL
c. AGGREGATE:
d. EXPOSED TEXTURE FINISH: [SMOOTH] [HONED] [SAND TEXTURE]
e. LOCATION: WAINSCOT SILL @ STONE, PARAPET CAP

PCP01:
a. MATERIAL TYPE: PORTLAND CEMENT PLASTER
b. COLOR: MATCH SW 9111 ANTLER VELVET

PC01:
a. MATERIAL TYPE: TILT UP CONCRETE PANELS
b. COLOR: MATCH SW 9111 ANTLER VELVET

PT01:
a. MANUFACTURER: SHERWIN WILLIAMS
b. NUMBER: SW9111
c. COLOR: ANTLER VELVET
d. SHEEN: SEMIGLOSS
e. LOCATION: GUTTERS AND DOWNSPOUTS

PT02:
a. MANUFACTURER: SHERWIN WILLIAMS
b. NUMBER: SW9111
c. COLOR: ANTLER VELVET
d. SHEEN: SEMIGLOSS
e. LOCATION: EXPOSED STRUCTURAL STEEL & ENTRY CANOPIES

GL01: INSULATING COATED GLASS - VISION
1) OVERALL THICKNESS: 1 IN NOMINAL
2) OUTBOARD LITE: CLEAR HS; 1/4" THICK GLASS WITH COATING ON NO.2 SURFACE.
3) AIR SPACE: 1/2", ALUMINIUM BLACK, ARGON
4) INBOARD LITE: CLEAR HS; 1/4" THICK GLASS
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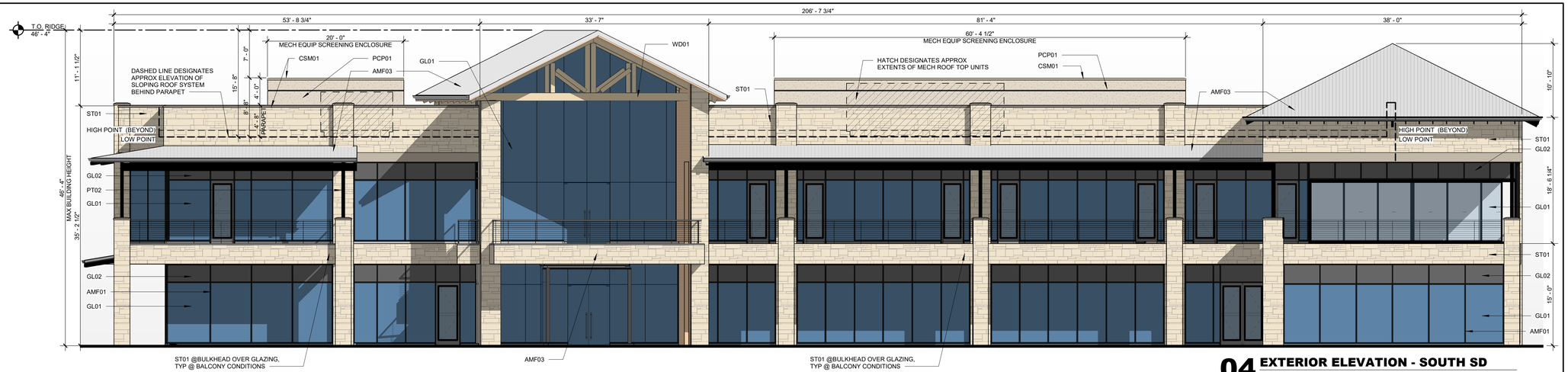
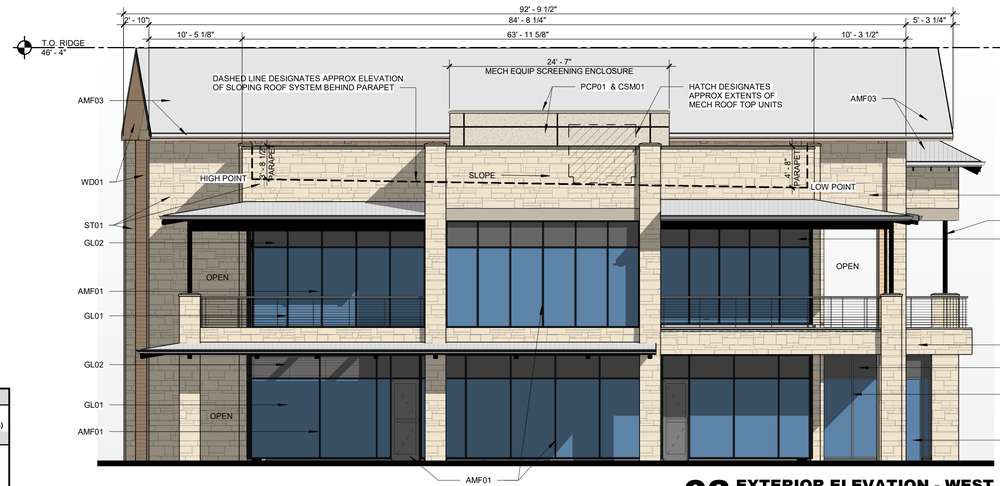
CMU01:
a. MANUFACTURER: FEATHERLITE
b. SPLIT FACE MASONRY BLOCK
c. COLOR: CREAM

Building "E" Elevation Material Calculations

	MATERIAL	AMOUNT (SF)	AMOUNT (%)
NORTH			
	PORTLAND CEMENT PLASTER (PCP01)	190	6%
	WOOD SIDING (WD01)	150	4%
	STONE VENEER (ST01)	3020	90%
		3360	100%
SOUTH			
	PORTLAND CEMENT PLASTER (PCP01)	190	5%
	WOOD SIDING (WD01)	93	3%
	STONE VENEER (ST01)	3410	92%
		3693	100%
EAST			
	PORTLAND CEMENT PLASTER (PCP01)	110	6%
	WOOD SIDING (WD01)	56	3%
	STONE VENEER (ST01)	1683	91%
		1849	100%
WEST			
	PORTLAND CEMENT PLASTER (PCP01)	110	6%
	WOOD SIDING (WD01)	56	3%
	STONE VENEER (ST01)	1750	91%
		1916	100%



04 EXTERIOR ELEVATION - SOUTH SD
1/8" = 1'-0"



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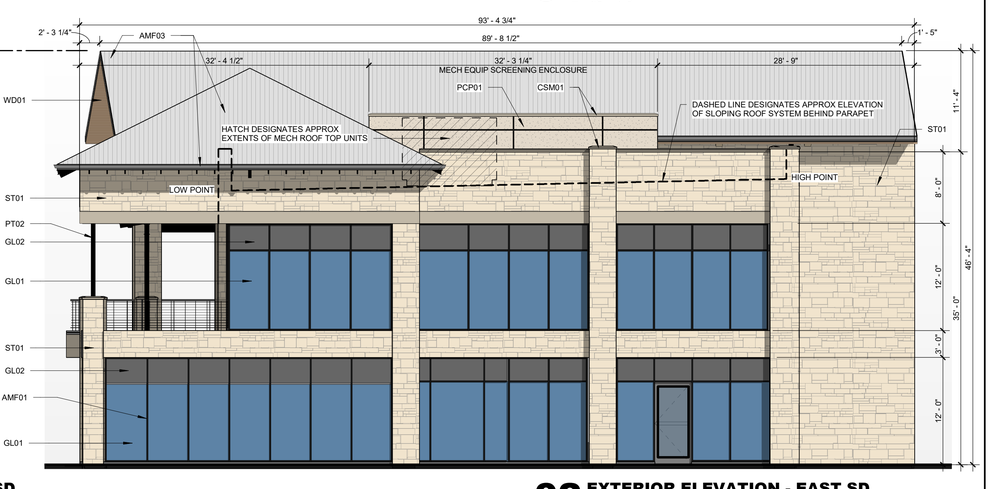
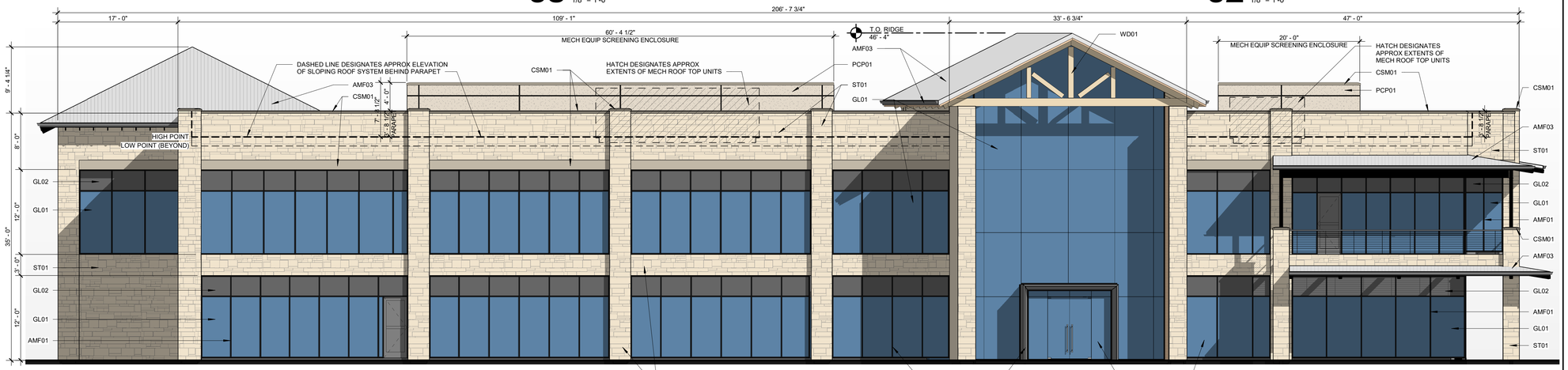


02 EXTERIOR ELEVATION - EAST SD
1/8" = 1'-0"



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01 EXTERIOR ELEVATION - NORTH SD
1/8" = 1'-0"

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_____ Director of Planning and Zoning

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REC CAMPUS ADDITION
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DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
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950 SIDS ROAD
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618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

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Architect: _____
Arch. Reg. No.: _____
Date: _____

KEY PLAN

REVISION
NO. DESCRIPTION DATE

HKS PROJECT NUMBER
25370.001
DATE
11/01/22
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
BLDG ELEVATIONS - E

CASE# SP2022-058

SHEET NO.
PA5.02

EXTERIOR MATERIALS LEGEND

ST01:
a. STONE TYPE: LIMESTONE
b. STONE NAME: LEUDERS CHOPPED BUFF
c. GROUT/SEALANT COLOR: MATCH EXISTING
d. LOCATION: EXTERIOR STONE MASONRY VENEER

AMF01:
a. MATERIAL TYPE: ALUMINIUM
b. FINISH TYPE: ANODIZED
c. ANODIZED COLOR: DARK BRONZE
d. COATING COLOR: MATCH EXISTING
e. LOCATION: MULLIONS

AMF02:
a. MATERIAL TYPE: STEEL
b. FINISH TYPE: HIGH-PERFORMANCE ORGANIC FLUOROPOLYMER
c. COATING COLOR: MATCH PT02
d. LOCATION: EXPOSED TRELLIS COLUMNS

AMF03:
a. MATERAL TYPE: STEEL
b. COATING COLOR: MATCH EXISTING ROOF, BERRIDGE PREWEATHERED GALVALUME
c. MATTE FINISH
d. LOCATION: STANDING SEAM METAL ROOF

WD01:
a. SPECIES AND CUT: WESTERN RED CEDAR
b. FINISH: CLEAR MATTE FINISH
c. LOCATION: WOOD BEAM CLADDING. EXTERIOR SOFFITS, INTERIOR CEILINGS AND TRIM.

CSM01:
a. MATERIAL TYPE: CAST STONE
b. COLOR: NATURAL
c. AGGREGATE:
d. EXPOSED TEXTURE FINISH: [SMOOTH] [HONED] [SAND TEXTURE]
e. LOCATION: WAINSCOT SILL @ STONE, PARAPET CAP

PCP01:
a. MATERIAL TYPE: PORTLAND CEMENT PLASTER
b. COLOR: MATCH SW 9111 ANTLER VELVET

PC01:
a. MATERIAL TYPE: TILT UP CONCRETE PANELS
b. COLOR: MATCH SW 9111 ANTLER VELVET

PT01:
a. MANUFACTURER: SHERWIN WILLIAMS
b. NUMBER: SW9111
c. COLOR: ANTLER VELVET
d. SHEEN: SEMIGLOSS
e. LOCATION: GUTTERS AND DOWNSPOUTS

PT02:
a. MANUFACTURER: SHERWIN WILLIAMS
b. NUMBER: SW9111
c. COLOR: ANTLER VELVET
d. SHEEN: SEMIGLOSS
e. LOCATION: EXPOSED STRUCTURAL STEEL & ENTRY CANOPIES

GL01: INSULATING COATED GLASS - VISION
1) OVERALL THICKNESS: 1 IN NOMINAL
2) OUTBOARD LITE: CLEAR HS; 1/4" THICK GLASS WITH COATING ON NO.2 SURFACE.
3) AIR SPACE: 1/2"; ALUMINIUM BLACK, ARGON
4) INBOARD LITE: CLEAR HS; 1/4" THICK GLASS
5) BASIS OF DESIGN MANUFACTURER AND PRODUCT: VIRACON 1" INSULATED LOW-E GLASS

GL02: INSULATING COATED GLASS - SPANDREL
1) OVERALL THICKNESS: 1 IN NOMINAL
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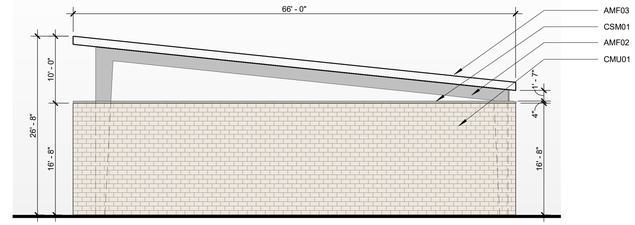
3) AIR SPACE: 1/2"; ALUMINIUM BLACK, ARGON
4) INBOARD LITE: CLEAR HS; 1/4" THICK GLASS
5) BASIS OF DESIGN MANUFACTURER AND PRODUCT: VIRACON 1" INSULATED LOW-E GLASS
COLOR: V908 GRAY

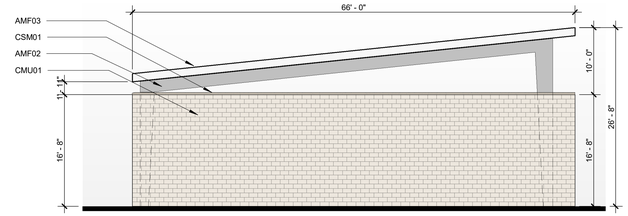
CMU01:
a. MANUFACTURER: FEATHERLITE
b. SPLIT FACE MASONRY BLOCK
c. COLOR: CREAM

Building "F" Elevation Material Calculations

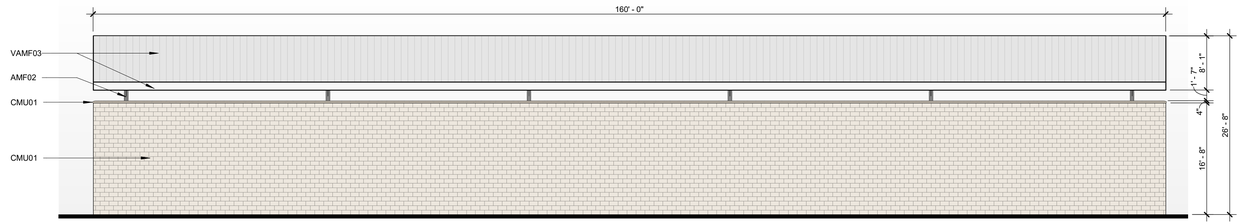
	MATERIAL	AMOUNT (SF)	AMOUNT (%)
NORTH			
	CMU SPLIT FACE (CMU01)	2667	100%
		2667	100%
SOUTH			
	CMU SPLIT FACE (CMU01)	22	100%
		22	100%
EAST			
	CMU SPLIT FACE (CMU01)	1090	100%
		1090	100%
WEST			
	CMU SPLIT FACE (CMU01)	1090	100%
		1090	100%



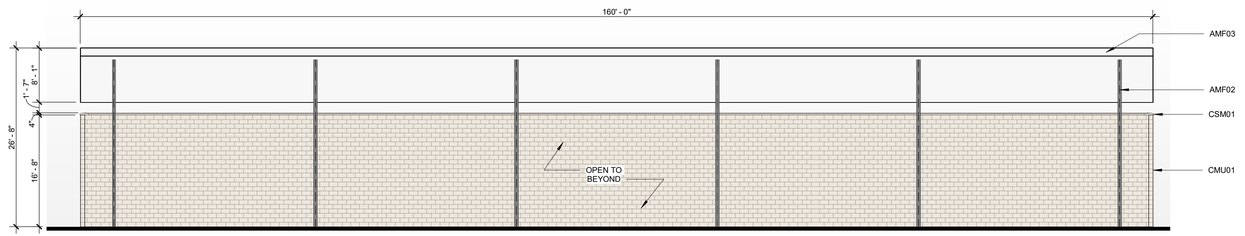
04 EXTERIOR ELEVATION - BUILDING F EAST
3/32" = 1'-0"



03 EXTERIOR ELEVATION - BUILDING F WEST
3/32" = 1'-0"



02 EXTERIOR ELEVATION - BUILDING F NORTH
3/32" = 1'-0"



01 EXTERIOR ELEVATION - BUILDING F SOUTH
3/32" = 1'-0"

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of _____, ____.

WITNESS OUR HANDS, this ___ day of _____, ____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

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SUITE 100
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SHEET TITLE
BLDG ELEVATIONS - F
CASE# SP2022-058
SHEET NO.
PA5.03

EXTERIOR MATERIALS LEGEND

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c. ANODIZED COLOR: DARK BRONZE
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e. LOCATION: MULLIONS

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a. MATERIAL TYPE: STEEL
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c. COATING COLOR: MATCH PT02
d. LOCATION: EXPOSED TRELLIS COLUMNS

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a. MATERAL TYPE: STEEL
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a. MATERIAL TYPE: TILT UP CONCRETE PANELS
b. COLOR: MATCH SW 9111 ANTLER VELVET

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b. NUMBER: SW9111
c. COLOR: ANTLER VELVET
d. SHEEN: SEMIGLOSS
e. LOCATION: GUTTERS AND DOWNSPOUTS

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b. NUMBER: SW9111
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d. SHEEN: SEMIGLOSS
e. LOCATION: EXPOSED STRUCTURAL STEEL & ENTRY CANOPIES

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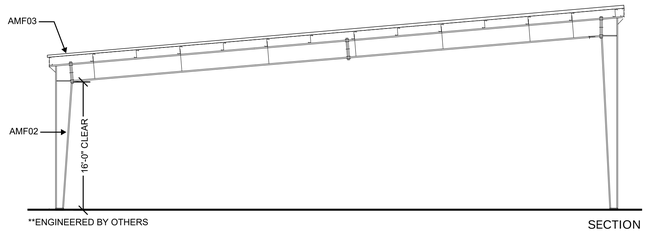
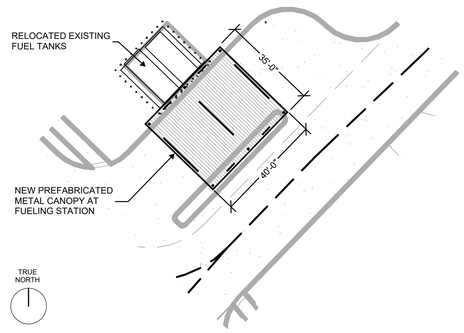
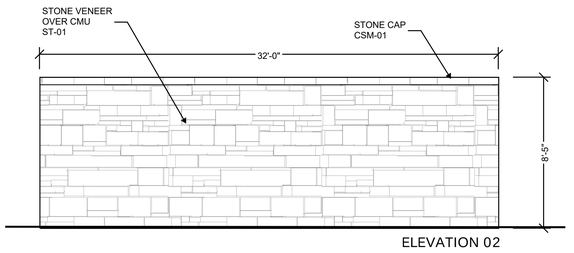
CMU01:
a. MANUFACTURER: FEATHERLITE
b. SPLIT FACE MASONRY BLOCK
c. COLOR: CREAM

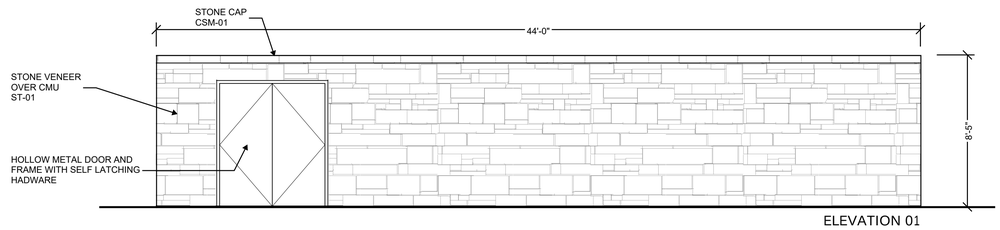




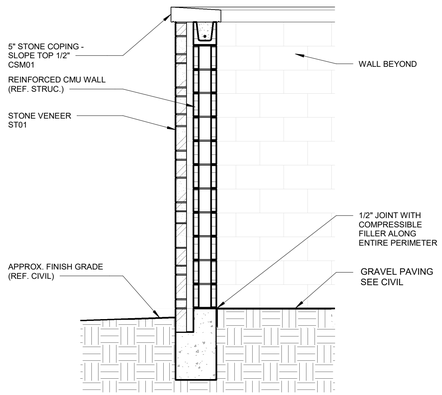
03 FUEL STATION CANOPY



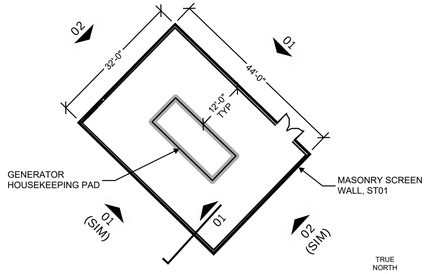
ELEVATION 02



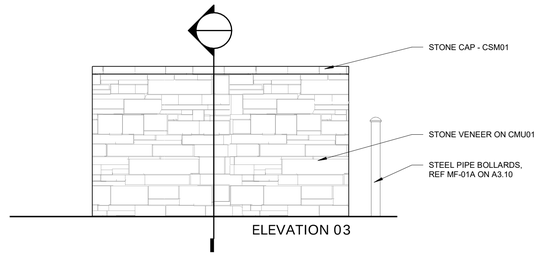
ELEVATION 01



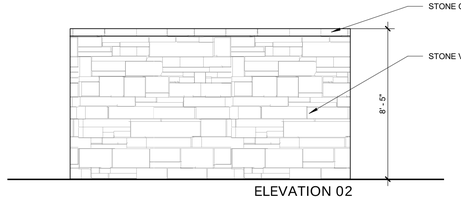
SECTION 01



02 GENERATOR ENCLOSURE



ELEVATION 03



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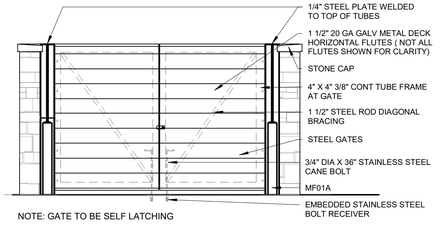

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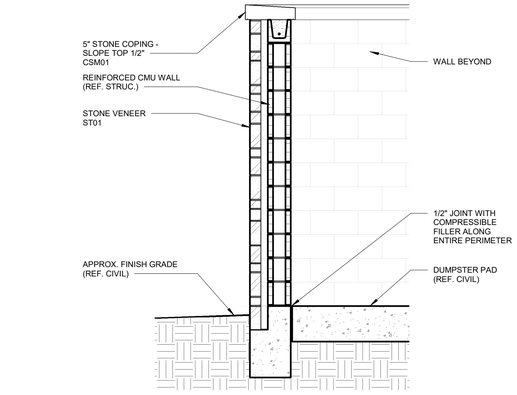

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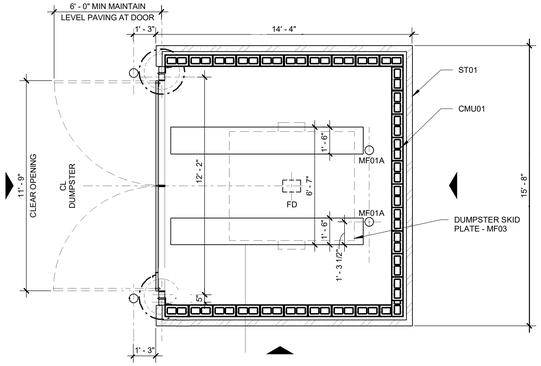
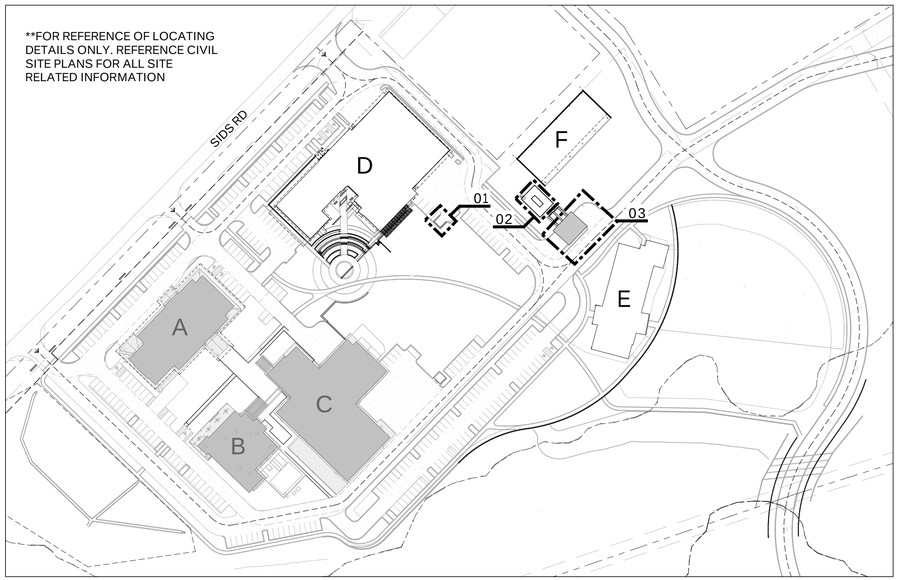


NOTE: PAVEMENT AT DUMPSTER PAD TO BE FLAT.

01 TRASH ENCLOSURE DETAILS



ACCESSORY SITE STRUCTURES - KEY PLAN

TRUE NORTH

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_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
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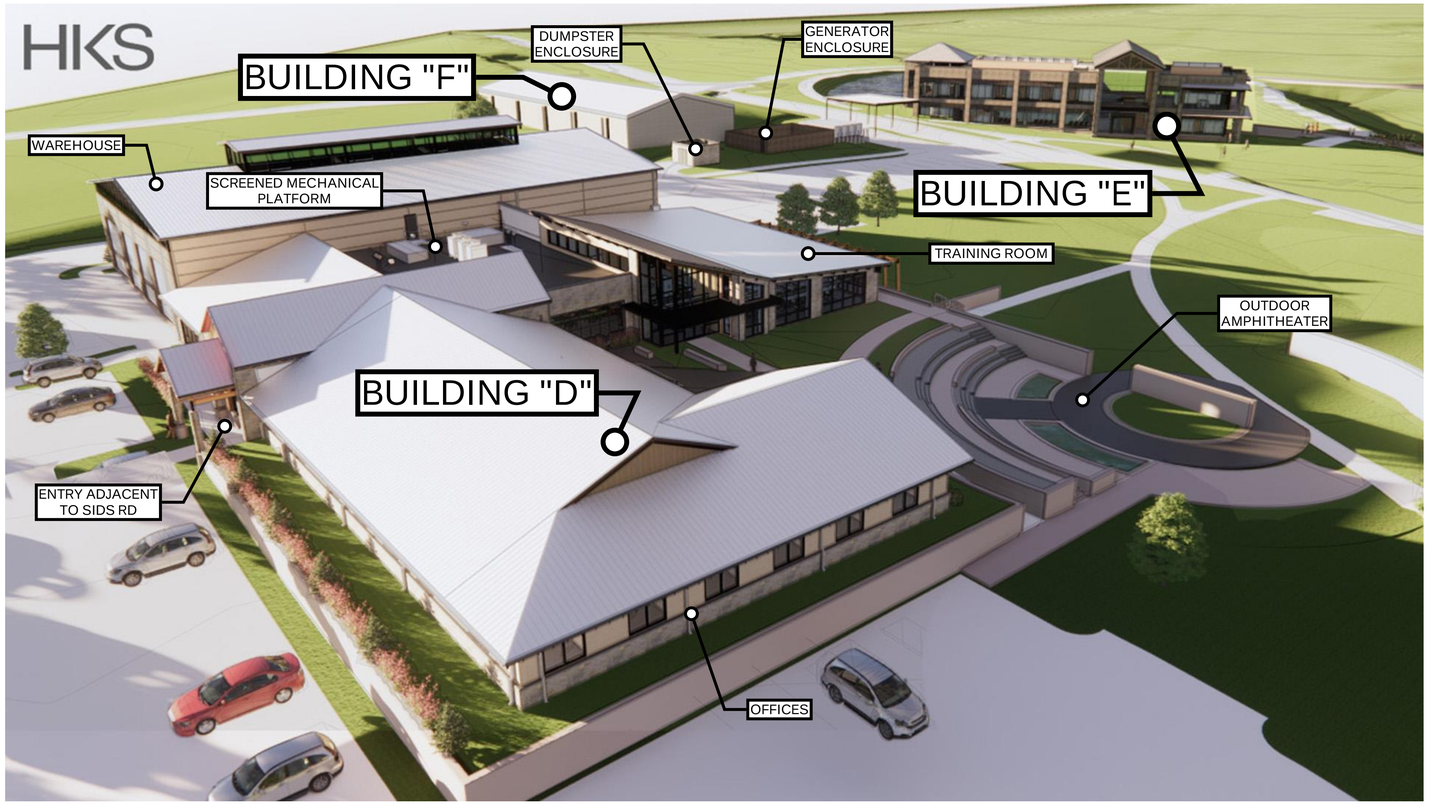

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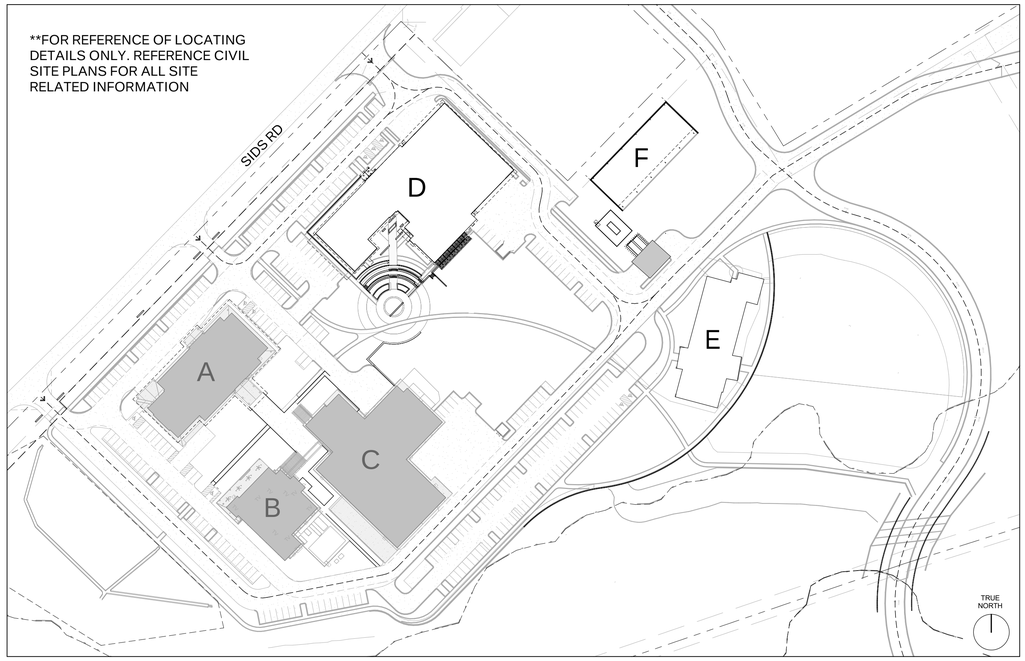
**FOR REFERENCE OF LOCATING DETAILS ONLY. REFERENCE CIVIL SITE PLANS FOR ALL SITE RELATED INFORMATION



KEY PLAN

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REC CAMPUS ADDITION
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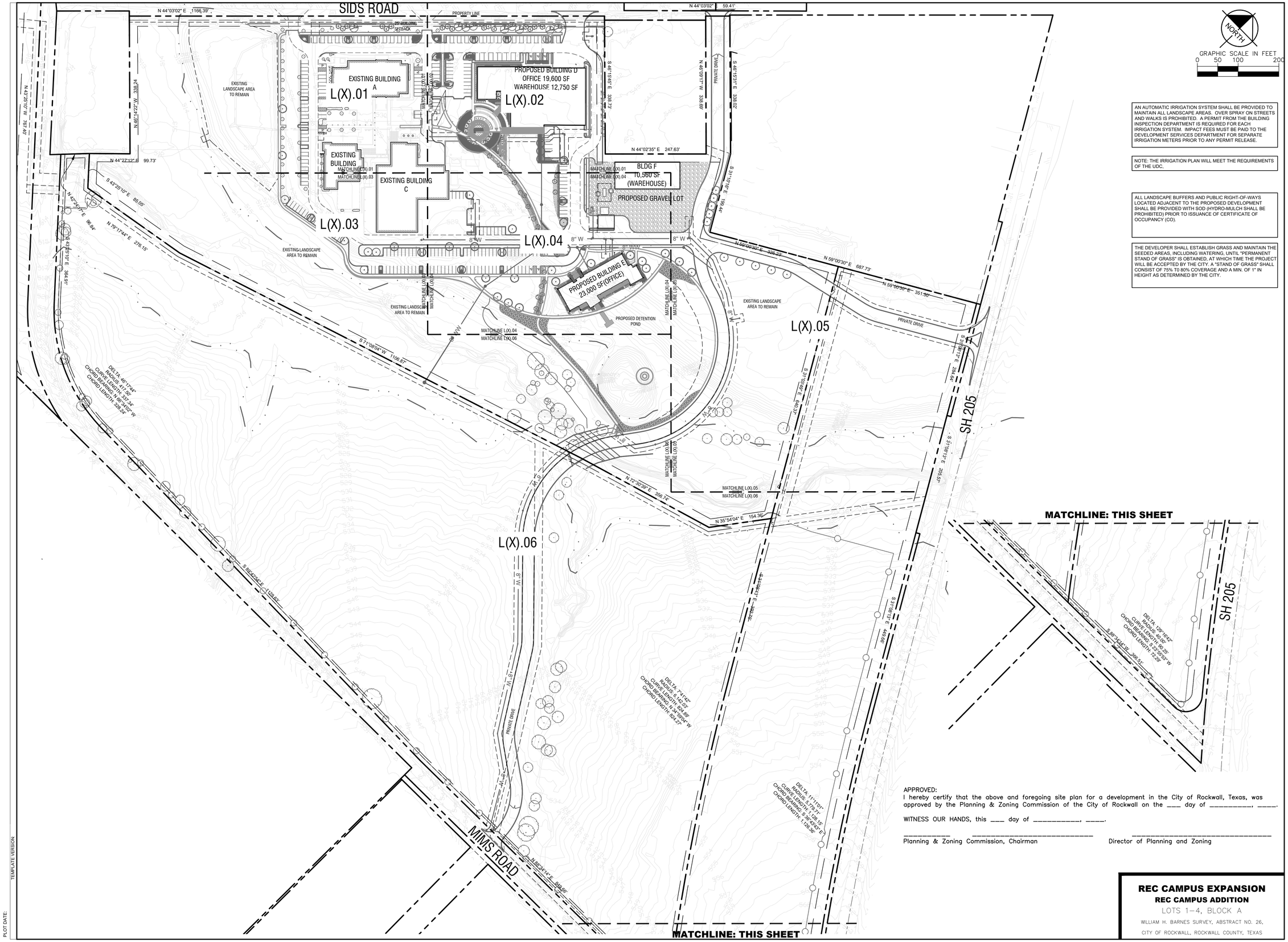

AN AUTOMATIC IRRIGATION SYSTEM SHALL BE PROVIDED TO MAINTAIN ALL LANDSCAPE AREAS. OVER SPRAY ON STREETS AND WALKS IS PROHIBITED. A PERMIT FROM THE BUILDING INSPECTION DEPARTMENT IS REQUIRED FOR EACH IRRIGATION SYSTEM. IMPACT FEES MUST BE PAID TO THE DEVELOPMENT SERVICES DEPARTMENT FOR SEPARATE IRRIGATION METERS PRIOR TO ANY PERMIT RELEASE.

NOTE: THE IRRIGATION PLAN WILL MEET THE REQUIREMENTS OF THE UDC.

ALL LANDSCAPE BUFFERS AND PUBLIC RIGHT-OF-WAYS LOCATED ADJACENT TO THE PROPOSED DEVELOPMENT SHALL BE PROVIDED WITH SOD (HYDRO-MULCH SHALL BE PROHIBITED) PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY (CO).

THE DEVELOPER SHALL ESTABLISH GRASS AND MAINTAIN THE SEEDED AREAS, INCLUDING WATERING, UNTIL "PERMANENT STAND OF GRASS" IS OBTAINED, AT WHICH TIME THE PROJECT WILL BE ACCEPTED BY THE CITY. A "STAND OF GRASS" SHALL CONSIST OF 75% TO 80% COVERAGE AND A MIN. OF 1" IN HEIGHT AS DETERMINED BY THE CITY.

APPROVED:
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WITNESS OUR HANDS, this ____ day of _____, _____.

_____ _____
Planning & Zoning Commission, Chairman

_____
Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

PLOT DATE:
TEMPLATE VERSION:

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT
LANDON P. [illegible]
3480
STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

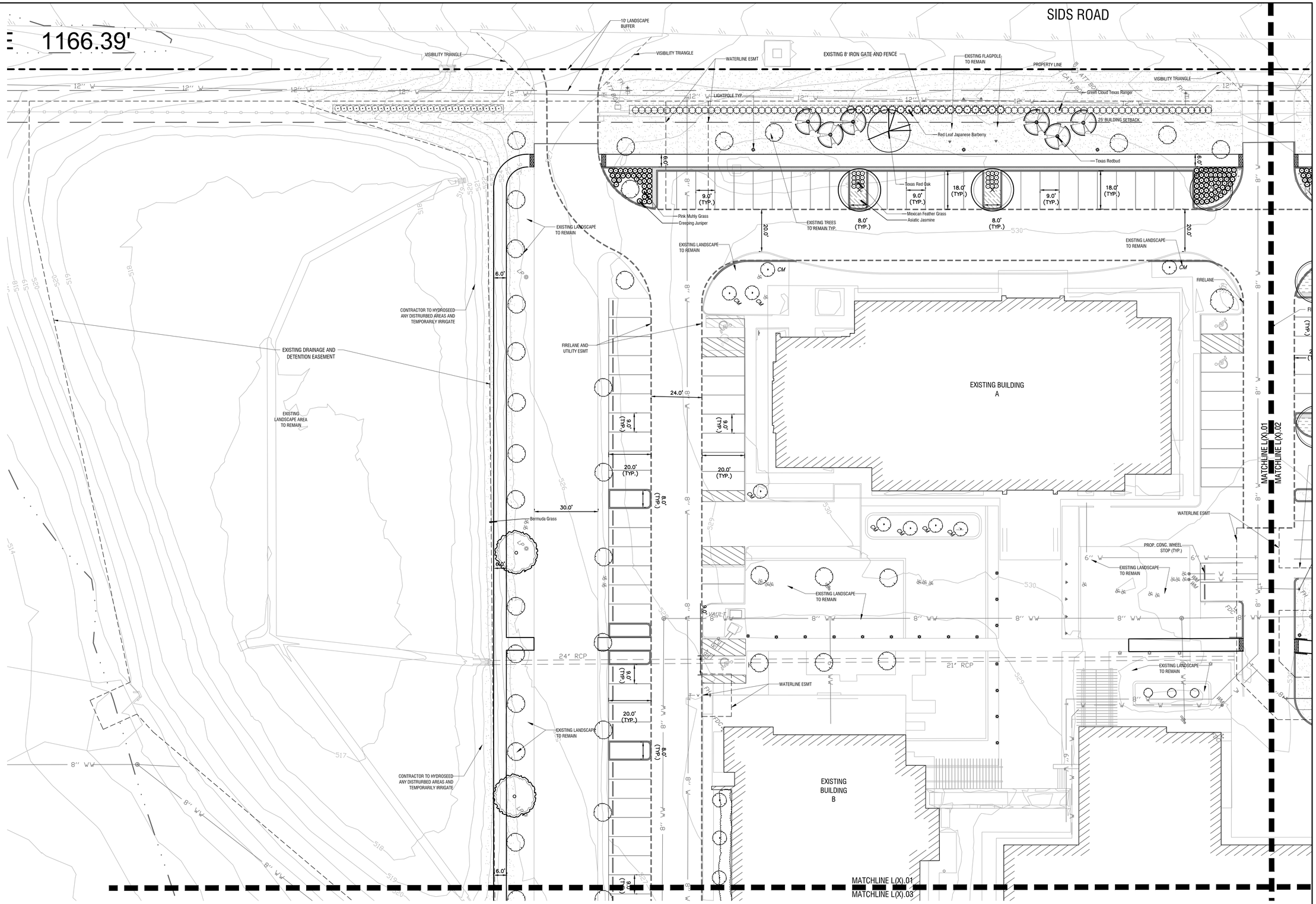
DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
OVERALL PLAN

CASE# SP2022-058

SHEET NO.
L1.01



NORTH

0' 20' 40'

Scale: 1" = 20'-0"

Landscape Plan

Scale: 1" = 20' - 0"

A

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Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1-4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

PLOT DATE:
TEMPLATE VERSION:

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GARLAND, TEXAS 75040

RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT
LANDON R. ...
3480
STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

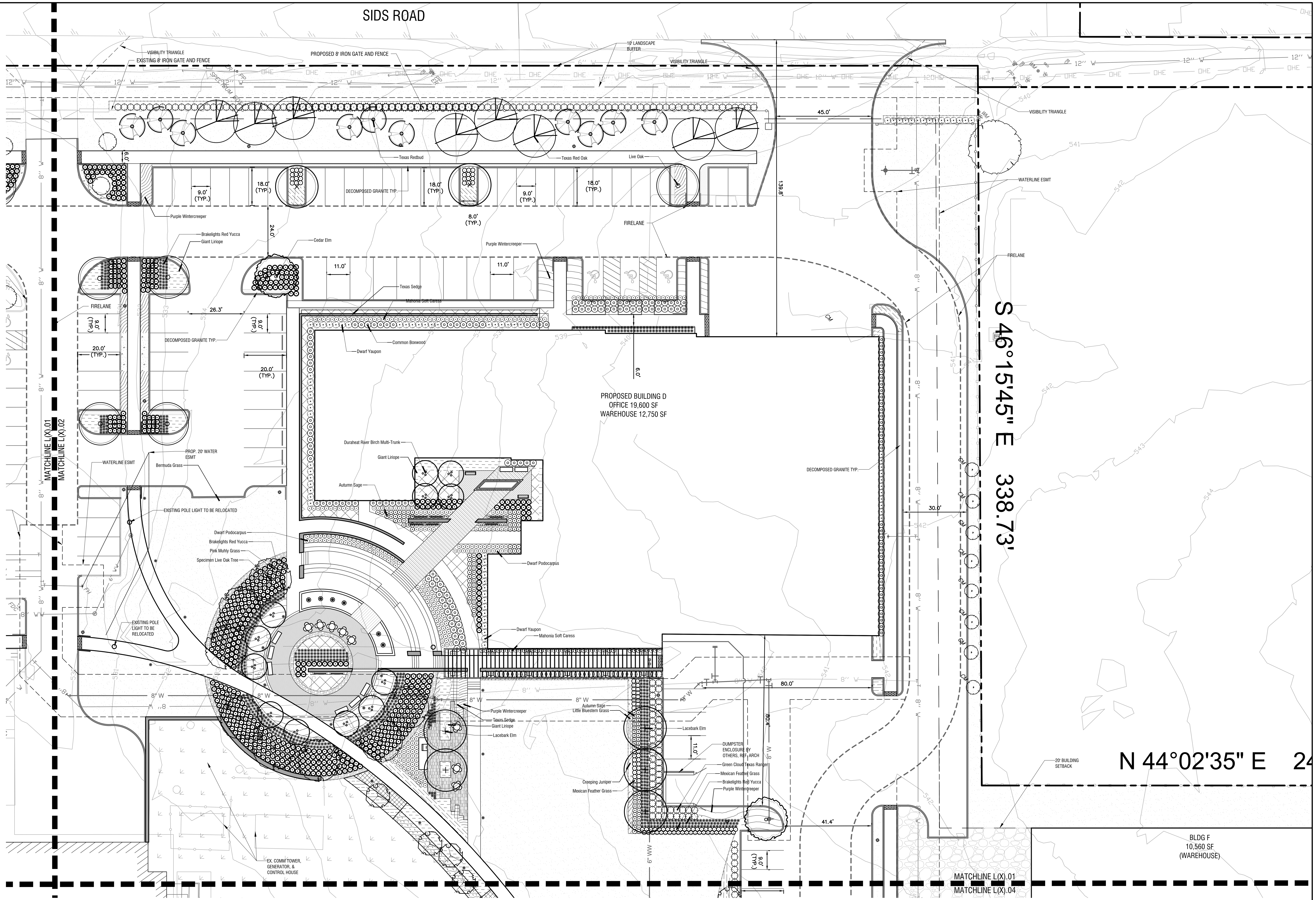
DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
LANDSCAPE PLAN

CASE# SP2022-058

SHEET NO.
L5.01



SIDS ROAD
VISIBILITY TRIANGLE
EXISTING 8' IRON GATE AND FENCE
PROPOSED 8' IRON GATE AND FENCE
10' LANDSCAPE BUFFER
45.0'
139.8'
Texas Redbud
Texas Red Oak
Live Oak
DECOMPOSED GRANITE TYP.
Purple Wintercreeper
8.0' (TYP.)
18.0' (TYP.)
9.0' (TYP.)
FIRELANE
WATERLINE ESMT
Brakelights Red Yucca
Giant Liriope
Cedar Elm
11.0'
Texas Sedge
Mahonia Soft Caress
Common Boxwood
Dwarf Yaupon
26.3'
20.0' (TYP.)
PROPOSED BUILDING D
OFFICE 19,600 SF
WAREHOUSE 12,750 SF
S 46°15'45" E 338.73'
N 44°02'35" E
Duraheat River Birch Multi-Trunk
Autumn Sage
PROP. 20' WATER ESMT
Bermuda Grass
EXISTING POLE LIGHT TO BE RELOCATED
Dwarf Podocarpus
Pink Muhly Grass
Specimen Live Oak Tree
30.0'
80.0'
41.4'
Little Bluestem Grass
Lacebark Elm
DUMPSTER ENCLOSURE BY OTHERS, REF. ARCH
Green Cloud Texas Ranger
Mexican Feather Grass
Creeping Juniper
20' BUILDING SETBACK
EX. COMM TOWER, GENERATOR, & CONTROL HOUSE
BLDG F
10,560 SF
(WAREHOUSE)
MATCHLINE L(X).01
MATCHLINE L(X).02
MATCHLINE L(X).04
NORTH
Scale: 1" = 20'-0"

Landscape Plan

Scale: 1" = 20' - 0"

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Planning & Zoning Commission, Chairman

Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1-4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
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DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
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DALLAS, TX 75206

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ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT 3480 STATE OF TEXAS
10/31/22

KEY PLAN

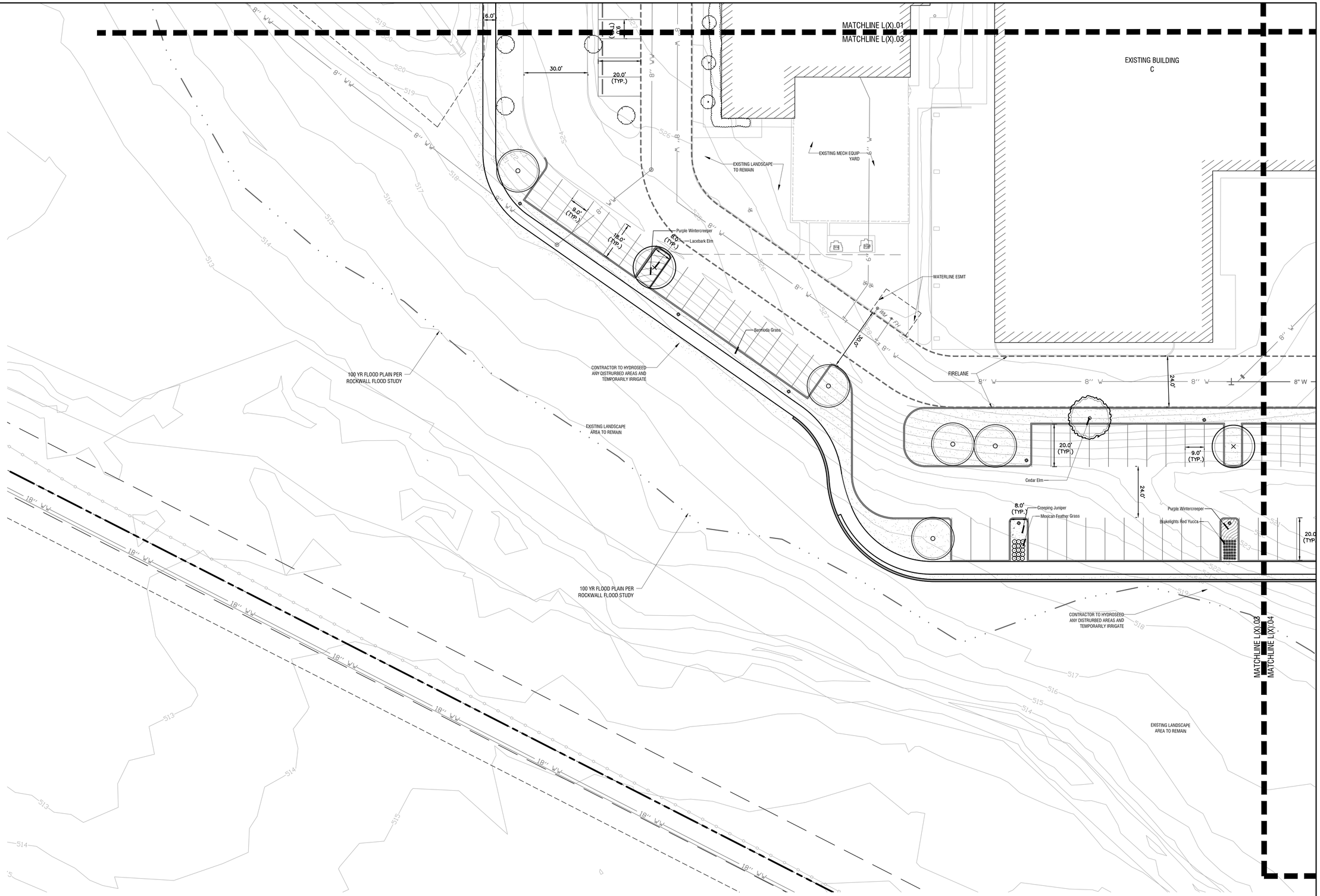
REVISION
NO. DESCRIPTION DATE

HKS PROJECT NUMBER
25370.000
DATE
10/31/22
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
LANDSCAPE PLAN

CASE# SP2022-058

SHEET NO.
L5.02

TEMPLATE VERSION:
PLOT DATE:



NORTH

0' 20' 40'

Scale: 1" = 20'-0"

Landscape Plan

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_____
Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1-4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
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ROCKWALL, TX 75087

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GARLAND, TEXAS 75040

RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT
LANDON R. [illegible]
3480
STATE OF TEXAS

10/31/22

KEY PLAN

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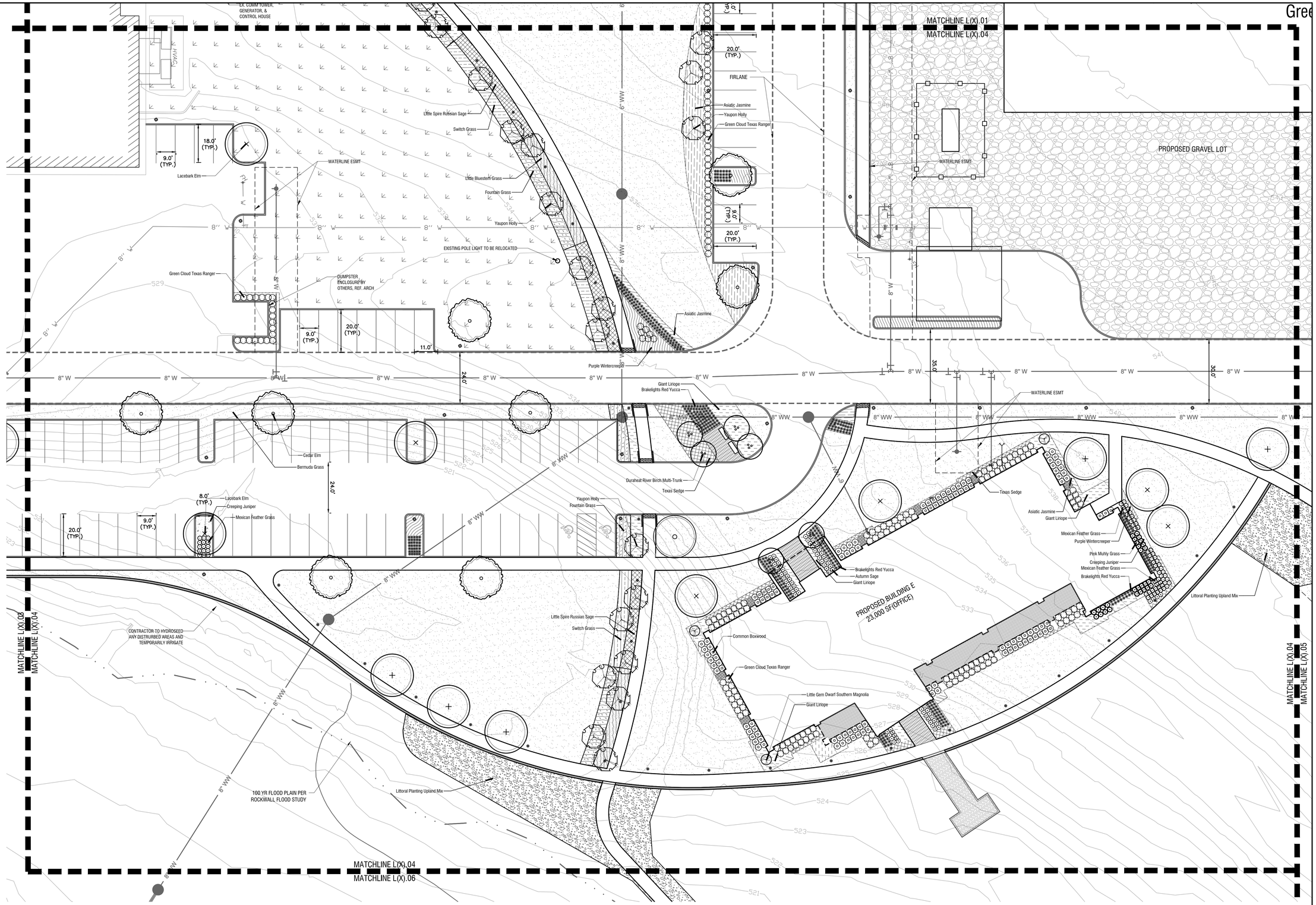
CITY SITE PLAN SUBMITTAL

SHEET TITLE
LANDSCAPE PLAN

CASE# SP2022-058

SHEET NO.
L5.03



NORTH

0' 20' 40'

Scale: 1" = 20'-0"

Landscape Plan

Scale: 1" = 20' - 0"

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618 MAIN STREET
GARLAND, TEXAS 75040

RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT
LAWSON P.
3489
STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

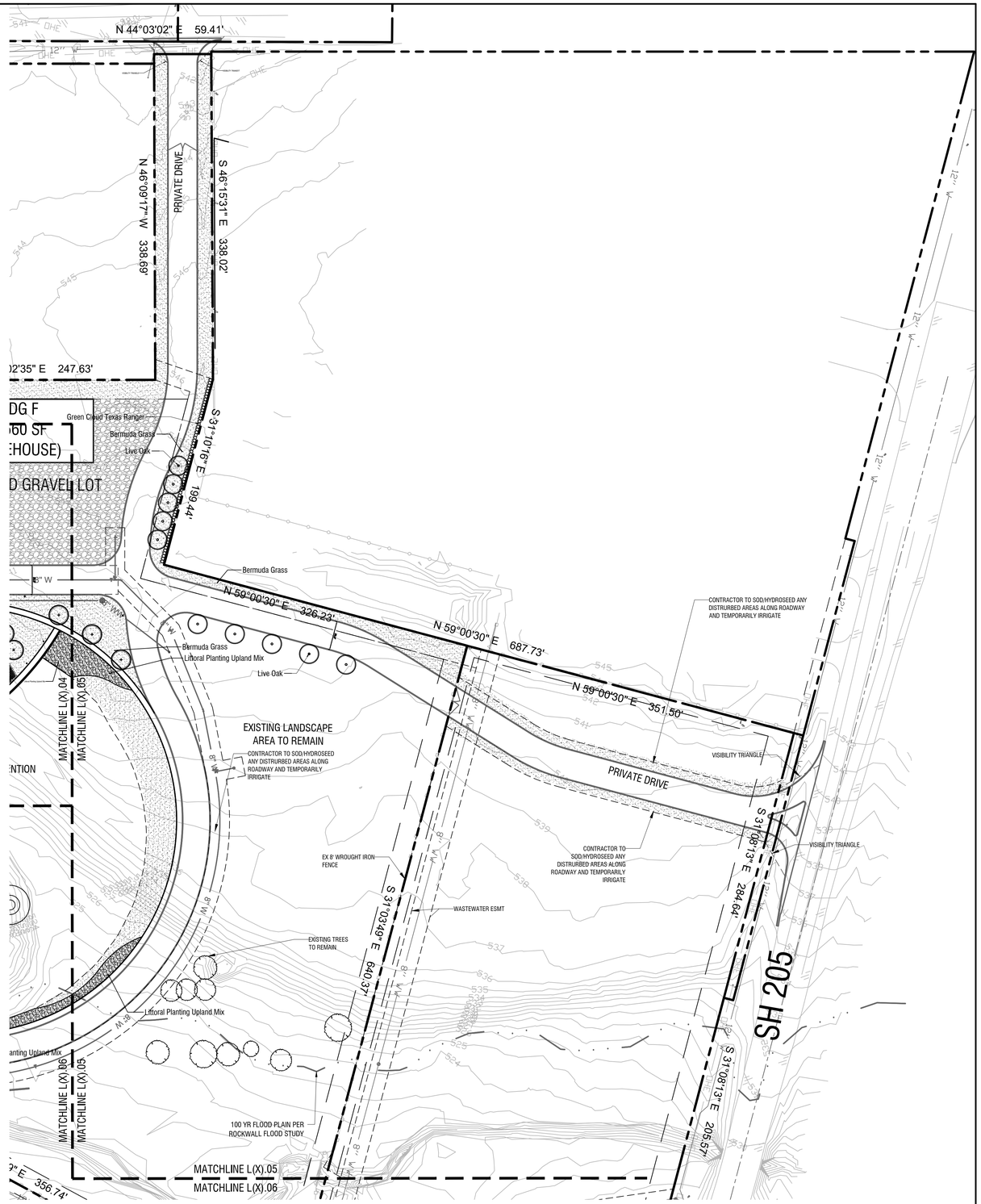
DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
LANDSCAPE PLAN

CASE# SP2022-058

SHEET NO.
L5.04



PLOT DATE:

TEMPLATE VERSION:

NORTH

0' 60' 120'

Scale: 1" = 60'-0"

Landscape Plan

Scale: 1" = 60' - 0"

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REC CAMPUS EXPANSION

REC CAMPUS ADDITION

LOTS 1–4, BLOCK A

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GARLAND, TEXAS 75040

RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT LAWSON P. [illegible] 2480 STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER

25370.000

DATE

10/31/22

ISSUE

CITY SITE PLAN SUBMITTAL

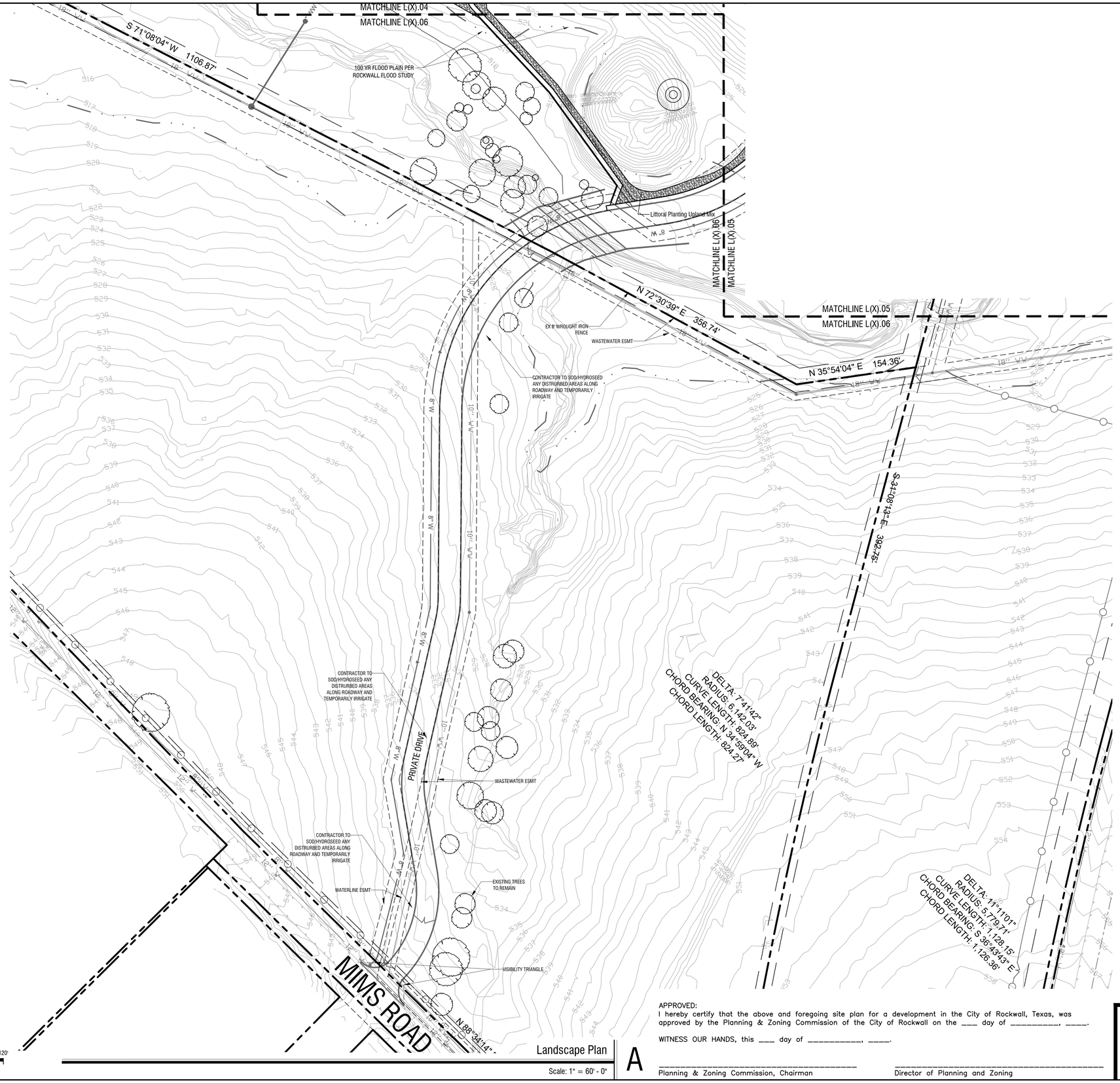
SHEET TITLE

LANDSCAPE PLAN

CASE# SP2022-058

SHEET NO.

L5.05



Landscape Plan

Scale: 1" = 60' - 0"

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_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

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REGISTERED LANDSCAPE ARCHITECT
LANDON P. [illegible]
3480
STATE OF TEXAS

10/31/22

KEY PLAN

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NO.	DESCRIPTION	DATE

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DATE
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ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
LANDSCAPE PLAN

CASE# SP2022-058

SHEET NO.
L5.06

PLANT SCHEDULE

TREES	COMMON / BOTANICAL NAME	CONT.	SIZE	SPACING	QTY	REMARKS
	Cedar Elm / Ulmus crassifolia	4" cal	12``-14`	As Shown	13	B&B, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED, STRONG CENTRAL LEADER
	Duraheat River Birch Multi-Trunk / Betula nigra `Duraheat`	65 gal	10``-12`` ht		18	CONTAINER, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED, MULTI-TRUNK (3-5 TRUNKS)
	Lacebark Elm / Ulmus parvifolia	4" cal	14``-16`	As Shown	25	B&B, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED, STRONG CENTRAL LEADER
	Live Oak / Quercus virginana	4" cal	12``-14`` ht	As Shown	22	B&B, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED, STRONG CENTRAL LEADER
	Specimen Live Oak Tree / Quercus virginana	5" cal	18``-20`` ht.		8	B&B, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED, MULTI-TRUNK (3-5 TRUNKS)
	Texas Red Oak / Quercus texana	5" cal	16``-18`	As Shown	9	B&B, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED, STRONG CENTRAL LEADER

ORNAMENTAL TREES	COMMON / BOTANICAL NAME	CONT.	SIZE	SPACING	QTY	REMARKS
	Little Gem Dwarf Southern Magnolia / Magnolia grandiflora 'Little Gem'	65 gal	8``-10`` ht	As Shown	3	CONTAINER, NURSERY GROWN, MATCHED, FULL TO BASE, WELL-BRANCHED, STRONG CENTRAL LEADER
	Texas Redbud / Cercis canadensis texensis	45 gal	8``-10``	As Shown	16	CONTAINER, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED
	Yaupon Holly / Ilex vomitoria	45 Gal.	8``-10``	As Shown	22	CONTAINER, NURSERY GROWN, MATCHED, FULL, WELL-BRANCHED, MULTI-TRUNK (3 MIN.), TREE FORM

SHRUBS	COMMON / BOTANICAL NAME	CONT.	SIZE	SPACING	QTY	REMARKS
	Autumn Sage / Salvia greggii	5 gal	12" h X 18" w	24" OC	205	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Brakelights Red Yucca / Hesperaloe parviflora `Brakelights` TM	5 gal	12" h X 12" w	18" OC	1,237	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Common Boxwood / Buxus sempervirens	5 gal	24" h x 24" w	36" OC	262	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Dwarf Podocarpus / Podocarpus macrophyllus `Pringles`	5 gal	24" h x 18" w	24" OC	257	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Dwarf Yaupon / Ilex vomitoria `Nana`	5 gal	24" h x 24" w	36" OC	102	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Green Cloud Texas Ranger / Leucophyllum frutescens `Green Cloud` TM	7 gal	36" h X 30" w	36" OC	490	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Mahonia Soft Caress / Mahonia eurybracteata `Soft Caress`	5 gal	18" h X 18" w	24" OC	125	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Mexican Feather Grass / Nassella tenuissima	5 gal	12" h X 12" w	24" OC	212	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Pink Muhly Grass / Muhlenbergia capillaris	5 gal	18" h X 18" w	30" OC	729	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Red Leaf Japanese Barberry / Berberis thunbergii 'Atropurpurea'	7 gal	36" h X 30" w	36" OC	49	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED

SHRUB AREAS	COMMON / BOTANICAL NAME	CONT.	SIZE	SPACING	SPACING	QTY	REMARKS
	Littoral Planting Upland Mix	SEED				10,491 sf	
	Fountain Grass / Cenchrus advena	3 gal	12" Ht. x 12" W	24" OC	24" o.c.	305	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Little Spire Russian Sage / Perovskia atriplicifolia 'Little Spire'	1 gal	12" Ht. x 12" W	24" O.C.	24" o.c.	263	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Switch Grass / Panicum virgatum	3 gal	18" Ht. 12" Spr.	36" O.C.	36" o.c.	117	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED

GROUND COVERS	COMMON / BOTANICAL NAME	CONT.	SIZE	SPACING	QTY	
	Hydroseed	HYDROMULCH			27,926 sf	REFER TO SPECIFICATIONS
	Asiatic Jasmine / Trachelospermum asiaticum	1 gal	8"h x 8"w	18" o.c.	1,022	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Bermuda Grass / Cynodon dactylon	sod			137,859 sf	REFER TO SPECIFICATIONS
	Creeping Juniper / Juniperus horizontalis	1 gal	8"h x 8"w	18" o.c.	272	
	Giant Liriope / Liriope gigantea	1 gal	12" h x 12" w	18" o.c.	1,130	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Little Bluestem Grass / Schizachyrium scoparium	3 gal	24" h x 18" w	24" o.c.	195	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Purple Wintercreeper / Euonymus fortunei 'Coloratus'	1 gal	8"h x 8"w	18" o.c.	1,482	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED
	Texas Sedge / Carex texensis	1 gal	12" h x 12" w	18" o.c.	1,072	CONTAINER, NURSERY GROWN, MATCHED AND WELL ROOTED

NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF A DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.

NOTE: PLANTS ARE SPECIFIED BY HEIGHT, SPREAD AND CONTAINER SIZE. ALL PLANTINGS ARE EXPECTED TO MEET ALL SPECIFICATIONS PROVIDED.

Rayburn Co-Op - Rockwall Code Calculations Chart		
Site Data	**AC**	**SF**
Total Site Area	31.38	1,366,902
Surface Parking Spaces	271	
Site Landscape Area	**Required (% / SF)**	**Provided (% / SF)**
15% of site to be landscaped (Heavy Commercial zoning district)*	15%	16%
**Developed area only*	205,035	214,086
Street Frontage	**Required**	**Provided**
Sids Road - 832 LF(773 LF Frontage + 59.41 LF of Drive connection)		
10' Buffer	YES	YES
1 Canopy Tree/ 50 LF (Min. 4" Cal.)	17	17 (8 Existing)
1 Accent Tree/ 50LF (4' ht. Min.)	17	17
Continuous row of shrubs (min. 36" ht.- 3 Gal.)	YES	YES*
SH 205 - Drive connection 200LF		
1 Canopy Tree/ 50 LF (Min. 4" Cal.)	N/A	N/A
Mims Road - Drive connection 78 LF		
1 Canopy Tree/ 50 LF (Min. 4" Cal.)	N/A	N/A
*36" tall shrubs provided in lieu of berm and 5" cal. trees		
Parking Lot	**Required**	**Provided**
1 Large Canopy Tree/ 10 parking spaces	27	35
One tree within 80' of each parking space	YES	YES
Headlight Screening (min. 2' ht. berm with evergreen shrubs)	YES	YES
Total Trees	**Required**	**Provided**
Total Canopy Trees		95
Total Trees Existing (within parking areas)		36
Total Trees (Canopy Trees only)		131

EXISTING SITE PARKING DATA

PUBLIC SPACES	ACCESSIBLE SPACES	TOTAL
125	5	130

PROPOSED SITE PARKING DATA

PUBLIC SPACES	ACCESSIBLE SPACES	TOTAL
262	9	271

SITE INFORMATION:

EXISTING ZONING: HEAVY COMMERCIAL (HC), COMMERCIAL (C), & AGRICULTURAL (AG)

PROPOSED ZONING: NO CHANGE

PROPOSED USE: EXPANSION OF EXISTING SITE TO INCLUDE 2 NEW OFFICE BUILDINGS, TRUCK WAREHOUSE, AND LAYDOWN STORAGE WAREHOUSE

TOTAL AREA LOT 1: 1,366,902 SQ FT 31.38 AC
TOTAL AREA LOTS 1–4: 4,146,392 SQ FT 95.19 AC

LOT 1 "HC" ZONING

MAXIMUM BUILDING HEIGHT: 60 FT
MAXIMUM LOT COVERAGE: 60%
MAXIMUM FLOOR AREA RATIO: 4:1
MAXIMUM IMPERVIOUS PARKING: 90–95%

PROPOSED MAX. BUILDING D HEIGHT: 40'
PROPOSED MAX. BUILDING E HEIGHT: 46'–4"
PROPOSED MAX. BUILDING F HEIGHT: 26'–8"
PROPOSED LOT COVERAGE: 106,281/1,366,902 = 7.8%
PROPOSED FLOOR AREA RATIO: 113,260/1,366,902 = 0.08:1
PROPOSED IMPERVIOUS PARKING: 69,510/1,366,902 = 5.1%

EXISTING PARKING:
EXISTING WAREHOUSE 23,520 SQ FT (1:1000) = 24 SPACES
EXISTING OFFICE 31,530 SQ FT (1:300) = 106 SPACES
REMOVED OFFICE 7,700 SQ FT (1:300) = –26 SPACES

EXISTING REQUIRED PARKING = 104 SPACES

REQUIRED PARKING:
PROPOSED WAREHOUSE D 12,750 SQ FT (1:1000) = 13 SPACES
PROPOSED OFFICE D 19,600 SQ FT (1:300) = 66 SPACES
PROPOSED OFFICE E 23,000 SQ FT (1:300) = 77 SPACES
PROPOSED WAREHOUSE F 10,560 SQ FT (1:1000) = 11 SPACES

TOTAL REQUIRED PARKING = 271 SPACES
TOTAL PROVIDED PARKING = 271 SPACES

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of _____, ____.

WITNESS OUR HANDS, this ___ day of _____, ____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

REC RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT — LANDON R. — 9480 — STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

DATE
10/31/22

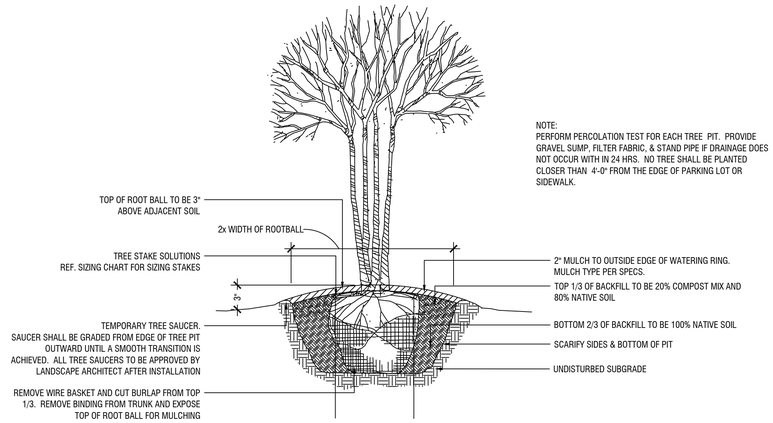
ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
PLANTING SCHEDULE

CASE# SP2022-058

SHEET NO.
L5.07

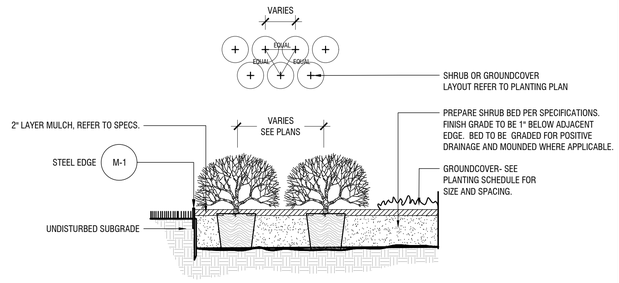
PLOT DATE:
TEMPLATE VERSION:



NOTE:
PERFORM PERCOLATION TEST FOR EACH TREE PIT. PROVIDE GRAVEL SUMP, FILTER FABRIC, & STAND PIPE IF DRAINAGE DOES NOT OCCUR WITH IN 24 HRS. NO TREE SHALL BE PLANTED CLOSER THAN 4'-0" FROM THE EDGE OF PARKING LOT OR SIDEWALK.

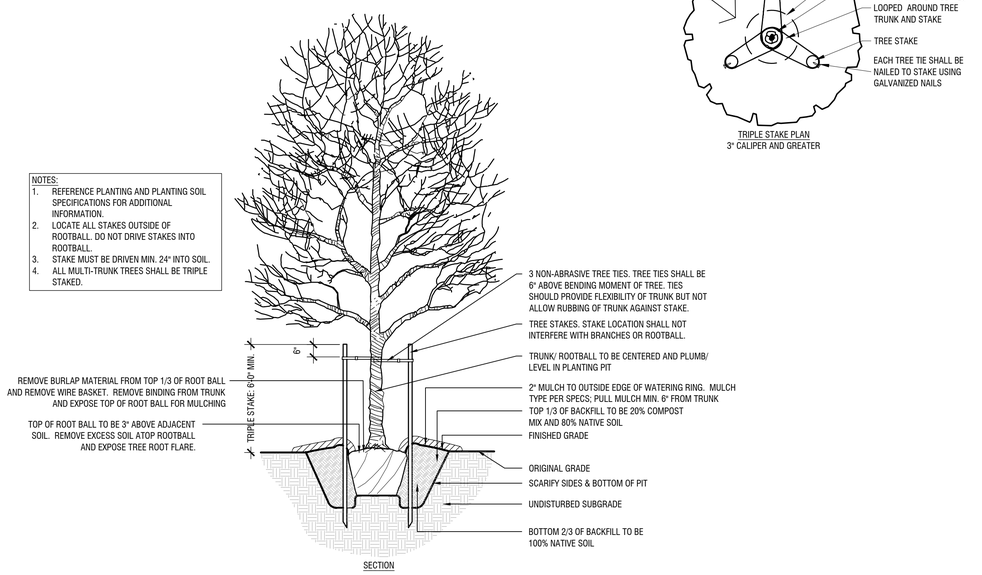
Multi-trunk / Ornamental Tree — B

Scale: 1/2" = 1'-0"



Shrubs & Groundcover — D

Scale: 1/2" = 1'-0"



Canopy Tree (Above Grade Stakes) — A

Scale: 1/2"=1'-0"

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WITNESS OUR HANDS, this ___ day of _____, ____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

PLOT DATE:
TEMPLATE VERSION:

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT — LANDON — 3480 — STATE OF TEXAS

10/31/22

KEY PLAN

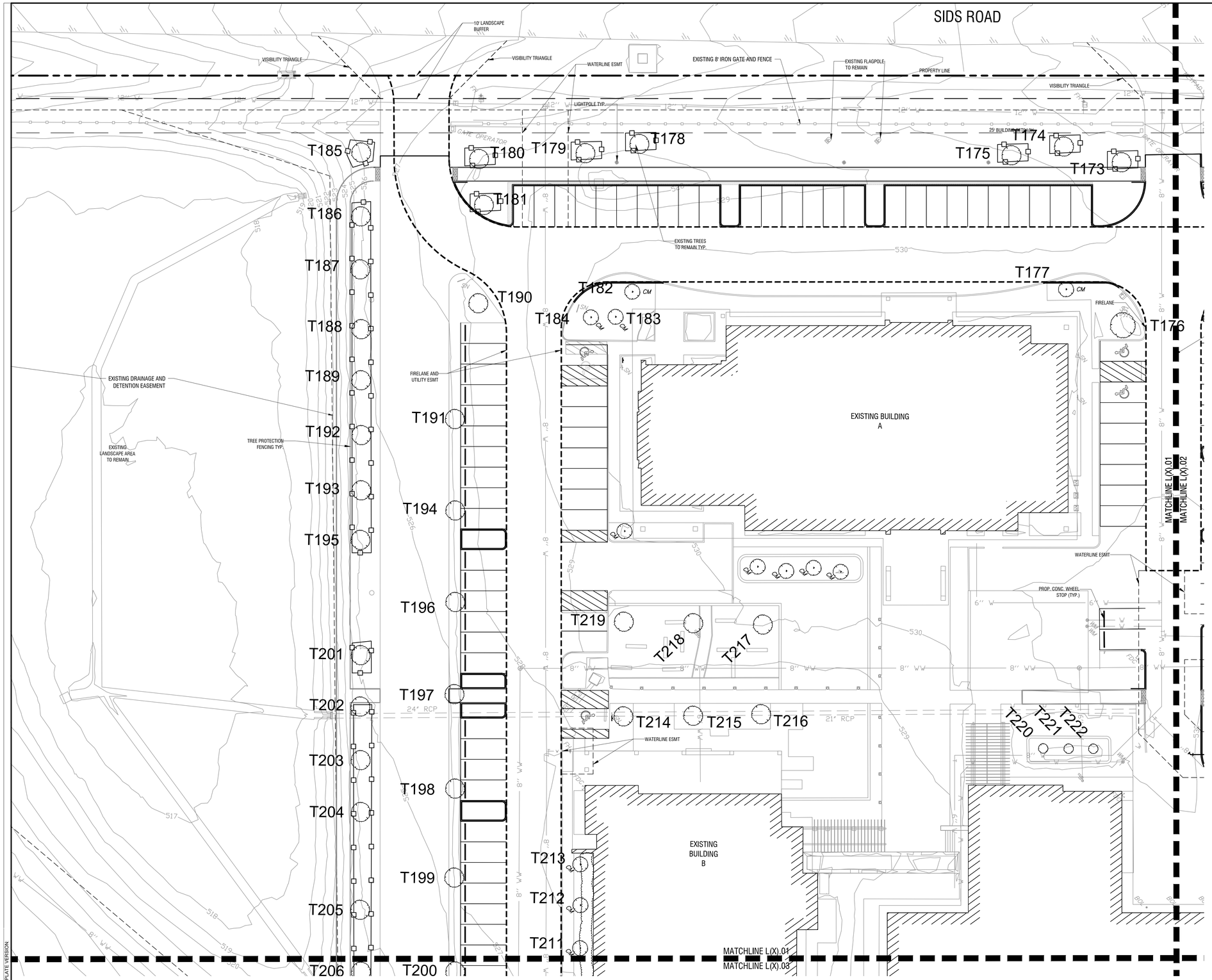
REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000
DATE
10/31/22
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
PLANTING DETAILS

CASE# SP2022-058

SHEET NO.
L5.08



NORTH Scale: 1" = 20'-0"

0' 20' 40'

Treescape Plan

Scale: 1" = 20' - 0"

A

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WITNESS OUR HANDS, this ___ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1-4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

PLOT DATE:

TEMPLATE VERSION:

LEGEND

T40 EXISTING TREE TAG NUMBER

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

TREE PROTECTION FENCING

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT
LANDON R. [illegible]
3480
STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

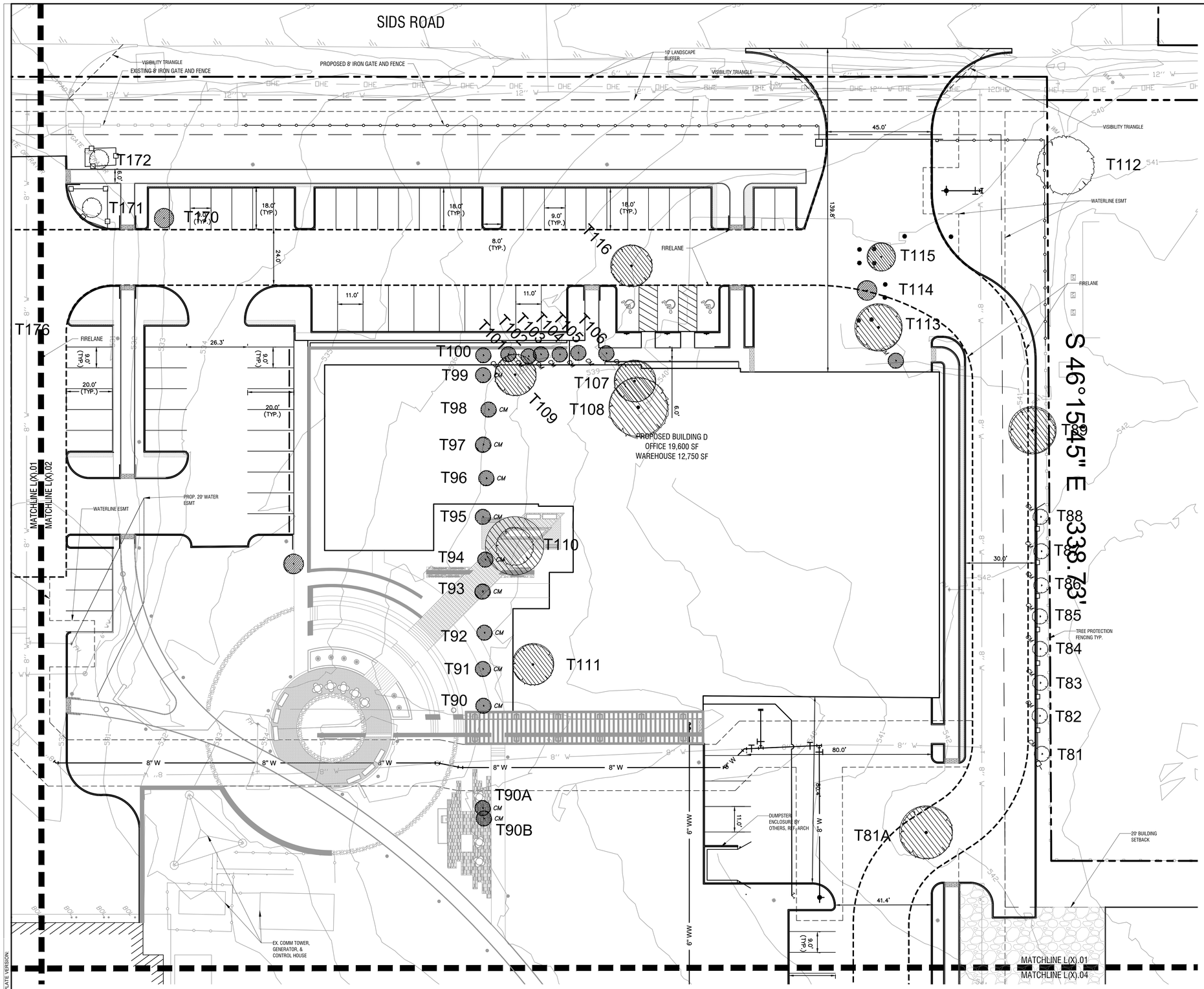
DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
TREESCAPE PLAN

CASE# SP2022-058

SHEET NO.
L7.01



LEGEND

- T40 — EXISTING TREE TAG NUMBER
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCING

NORTH Scale: 1" = 20'-0" (0', 20', 40')

Treescape Plan

Scale: 1" = 20' - 0"

A

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_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

PLOT DATE:
TEMPLATE VERSION:

HKS

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LANDSCAPE ARCHITECT
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HKS, INC.
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DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
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DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT — LANCON PAUL — 3489 — STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

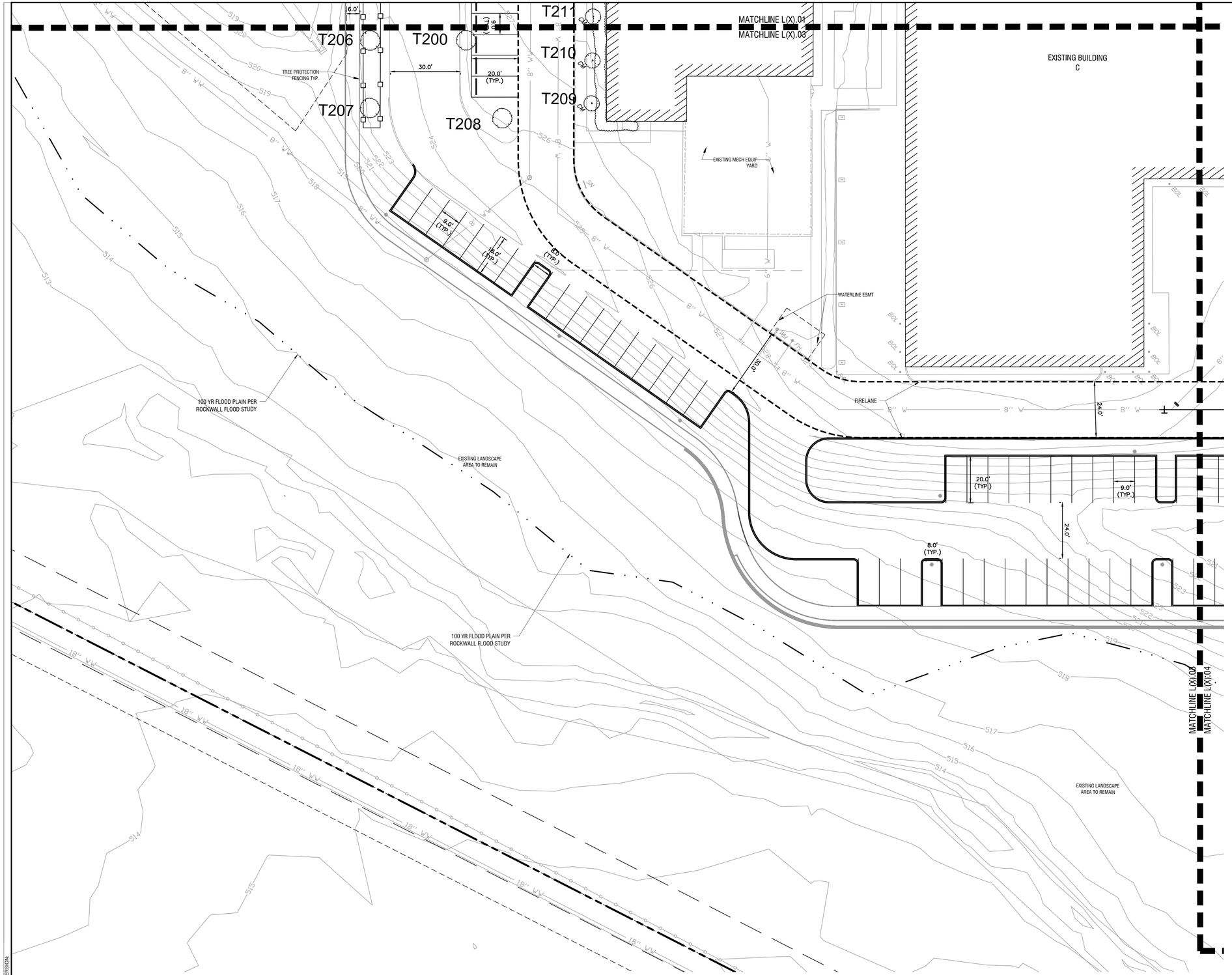
DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
TREESCAPE PLAN

CASE# SP2022-058

SHEET NO.
L7.02



LEGEND

- T40 EXISTING TREE TAG NUMBER
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCING

NORTH Scale: 1" = 20'-0" (0', 20', 40')

Treescape Plan
Scale: 1" = 20' - 0"

A

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WITNESS OUR HANDS, this ___ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

PLOT DATE:
TEMPLATE VERSION:

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

REC RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT — LANDON P. [illegible] — 3480 — STATE OF TEXAS

10/31/22

KEY PLAN

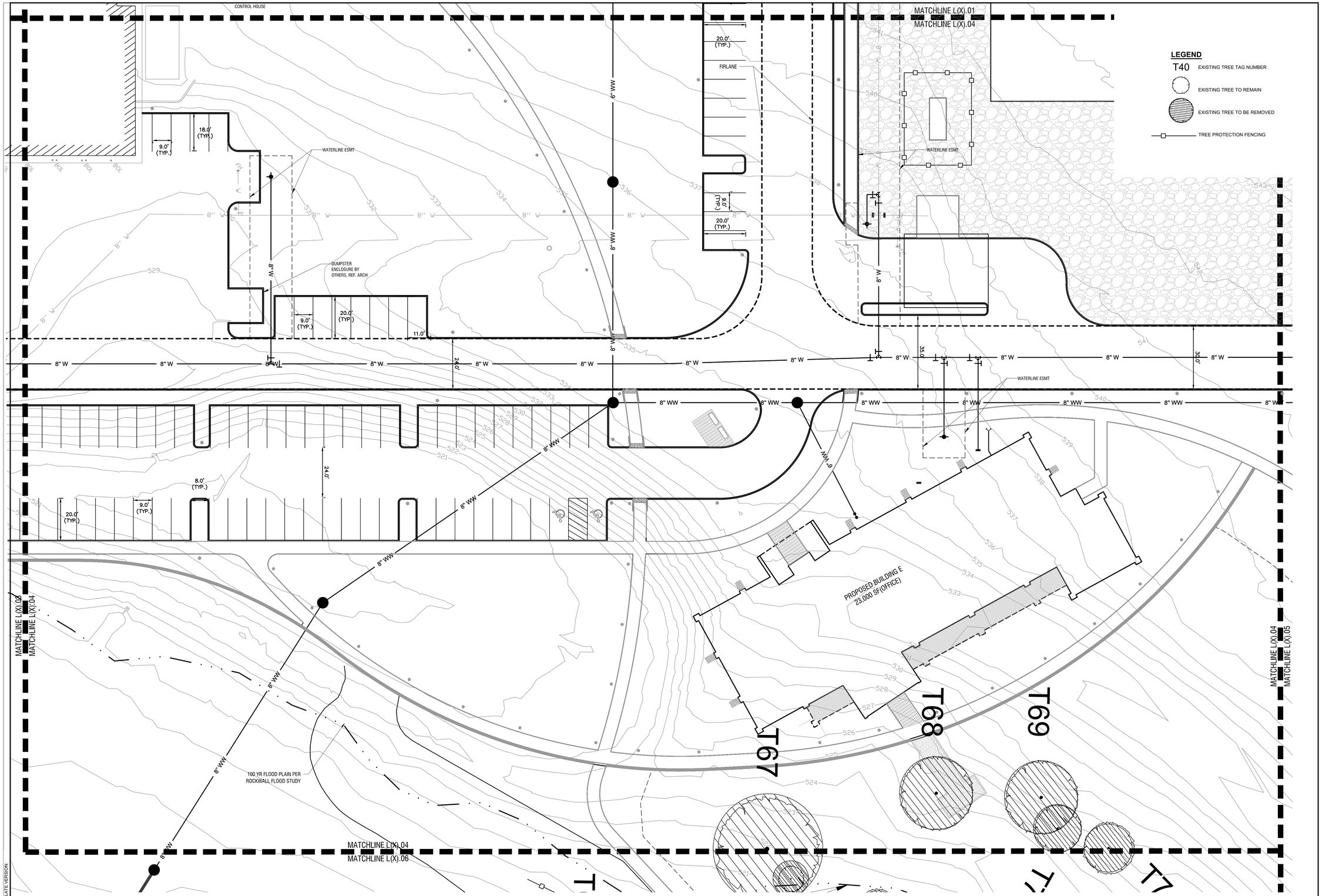
REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000
DATE
10/31/22
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
TREESCAPE PLAN

CASE# SP2022-058

SHEET NO.
L7.03



Treescape Plan

Scale: 1" = 20' - 0"

A

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WITNESS OUR HANDS, this ____ day of _____, _____.

_____
Planning & Zoning Commission, Chairman

_____
Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

PLOT DATE:
TEMPLATE VERSION:

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT
LANCON PAUL
3489
STATE OF TEXAS

10/31/22

KEY PLAN

REVISION
NO. DESCRIPTION DATE

HKS PROJECT NUMBER
25370.000

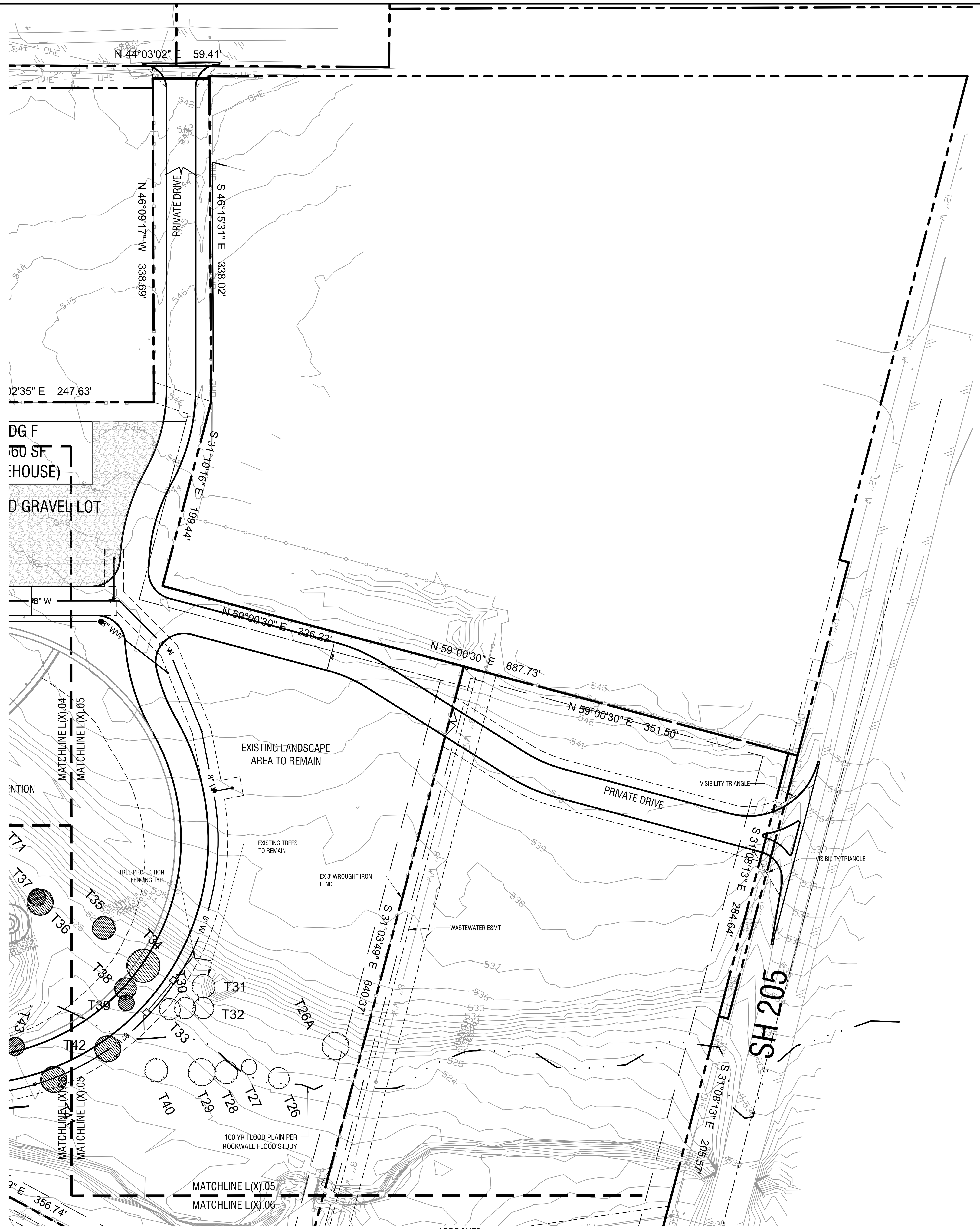
DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
TREESCAPE PLAN

CASE# SP2022-058

SHEET NO.
L7.04



LEGEND

T40 EXISTING TREE TAG NUMBER

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

TREE PROTECTION FENCING

NORTH

Scale: 1" = 60'-0" (0' 60' 120')

Landscape Plan

Scale: 1" = 60' - 0"

A

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WITNESS OUR HANDS, this ___ day of __________, ____.

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
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KIMLEY-HORN AND ASSOCIATE, INC.
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DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT · LANDON R. ... · 3480 · STATE OF TEXAS
10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

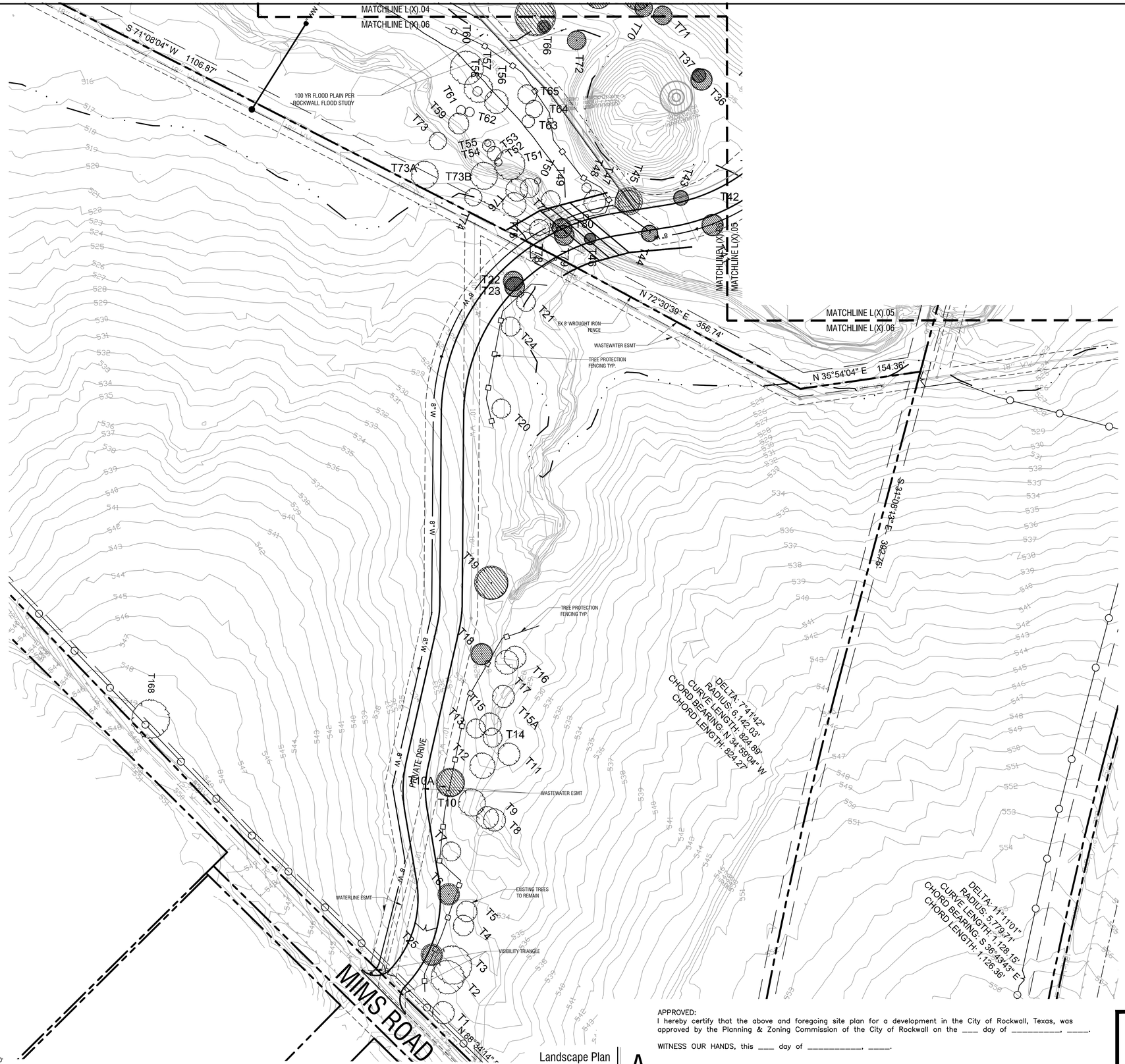
SHEET TITLE
TREESCAPE PLAN

CASE# SP2022-058

SHEET NO.
L7.05

TEMPLATE VERSION:

PLOT DATE:



NORTH

0' 60' 120'

Scale: 1" = 60'-0"

Landscape Plan

Scale: 1" = 60' - 0"

A

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WITNESS OUR HANDS, this ___ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

LEGEND

T40	EXISTING TREE TAG NUMBER
	EXISTING TREE TO REMAIN
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCING

HKS

ARCHITECT
HKS, INC.
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HKS, INC.
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DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
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DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

RayburnElectric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT
LANDON P. [illegible]
3480
STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000

DATE
10/31/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
TREESCAPE PLAN

CASE# SP2022-058

SHEET NO.
L7.06

PLOT DATE:

TEMPLATE VERSION:

Location Key	Size DBH (Inches)	Description	Common Name	Comments	Tree Designation				Removal Status	Replacement Caliper Inches
					Feature	Primary	Secondary	Non-Protected		
T1	14	M.T.	Bois D'Arc					X		
T2	24	M.T.	Bois D'Arc					X		
T3	24		Bois D'Arc					X		
T4	16	M.T.	Hackberry				X			
T5	13		American Elm			X				
T6	12		Eastern Red Cedar				X		Removed	6
T7	12		Eastern Red Cedar				X			
T8	14		Hackberry				X			
T9	15	M.T.	Bois D'Arc					X		
T10	18	M.T.	American Elm			X				
T10A	30		Cottonwood					X	Removed	60
T11	14		Black Willow					X		
T12	16		Black Willow					X		
T13	12		Eastern Red Cedar				X			
T14	15	M.T.	Hackberry	Dying and Covered with Poison Ivy			X			
T15	14		Hackberry	Diseased Crown			X			
T15A	14	M.T.	Hackberry				X			
T16	14		Hackberry				X			
T17	15		American Elm			X				
T18	13		Hackberry				X		Removed	6.5
T19	14	M.T.	Bois D'Arc	Tagged as "20"				X	Removed	
T20	12		Eastern Red Cedar				X			
T21	13	M.T.	Eastern Red Cedar				X			
T22	12		Eastern Red Cedar				X		Removed	6
T23	12		Eastern Red Cedar				X		Removed	6
T24	12		Eastern Red Cedar				X			
T25	12		Eastern Red Cedar				X		Removed	6
T26A	9		Cedar Elm			X				
T26	11		Eastern Red Cedar				X			
T27	8		White Ash			X				
T28	13	M.T.	Eastern Red Cedar				X			
T29	14	M.T.	Eastern Red Cedar				X			
T30	11		Eastern Red Cedar				X			
T31	12		Eastern Red Cedar				X			
T32	11		Eastern Red Cedar	Branched to Ground			X			
T33	11		Eastern Red Cedar				X			
T34	17		White Ash			X			Removed	17
T35	12		Eastern Red Cedar	Only Top 1/4 of Tree is Alive.			X		Removed	6
T36	13		Eastern Red Cedar	Entirely Dead			X		Removed	6.5
T37	9		White Ash			X			Removed	9
T38	11		Hackberry				X		Removed	5.5
T39	8		Slippery Elm	Entire Tree is Wilted.		X			Removed	8
T40	12		Hackberry				X			
T41	13		Hackberry				X		Removed	6.5
T42	14	M.T.	Eastern Red Cedar				X		Removed	7
T43	8		Hackberry					X	Removed	
T44	10"		Bois D'Arc					X	Removed	
T45	14		American Elm			X			Removed	14
T46	7		Slippery Elm			X			Removed	7
T47	14		White Ash			X				
T48	6		Cedar Elm			X				
T49	12		Eastern Red Cedar				X			
T50	4		Bois D'Arc					X		
T51	19		Bois D'Arc					X		
T52	5		Persimmon			X				
T53	9		Persimmon			X				
T54	8		Black Willow					X		
T55	4		Persimmon			X				
T56	15		White Ash			X				
T57	18		Bois D'Arc					X		
T58	6		Bois D'Arc					X		
T59	14	M.T.	Bois D'Arc					X		
T60	21	M.T.	Bois D'Arc					X		
T61	6		Bois D'Arc	Tagged as "62"				X		
T62	6		Bois D'Arc	Tagged as "63"				X		
T63	8		American Elm			X				
T64	8	M.T.	Hackberry					X		
T65	12		White Ash			X				
T66	6		Bois D'Arc					X	Removed	
T67	24	M.T.	Bois D'Arc					X	Removed	
T68	17	M.T.	Hackberry				X		Removed	8.5
T69	15	M.T.	Hackberry				X		Removed	7.5
T70	11		Hackberry				X		Removed	5.5
T71	12		Bois D'Arc					X	Removed	
T72	14		Hackberry				X		Removed	7
T73	11		Cedar Elm			X				
T73A	8		American Elm			X				
T73B	12		Eastern Red Cedar				X			
T74	15		Eastern Red Cedar				X			
T75	15		Eastern Red Cedar				X			
T76	14		Eastern Red Cedar				X			
T77	12		Black Willow					X		
T78	13		Eastern Red Cedar				X			
T79	12		Eastern Red Cedar				X		Removed	6
T80	12		Eastern Red Cedar				X		Removed	6
T81	12	M.T.	'Natchez' Crape Myrtle					X		
T81A	18		Live Oak			X			Removed	18
T82	7	M.T.	'Natchez' Crape Myrtle					X		
T83	6	M.T.	'Natchez' Crape Myrtle					X		
T84	11	M.T.	'Natchez' Crape Myrtle					X		
T85	16	M.T.	'Natchez' Crape Myrtle					X		
T86	18	M.T.	'Natchez' Crape Myrtle					X		
T87	15	M.T.	'Natchez' Crape Myrtle					X		
T88	11	M.T.	'Natchez' Crape Myrtle					X		
T89	15		Bradford Pear			X			Removed	15
T90	11	M.T.	'Natchez' Crape Myrtle					X	Removed	
T90A	20	M.T.	'Natchez' Crape Myrtle					X	Removed	
T90B	9	M.T.	'Watermelon Red' Crape Myrtle					X	Removed	
T91	11	M.T.	'Natchez' Crape Myrtle					X	Removed	
T92	11	M.T.	'Natchez' Crape Myrtle					X	Removed	
T93	15	M.T.	'Natchez' Crape Myrtle					X	Removed	
T94	9	M.T.	'Natchez' Crape Myrtle					X	Removed	
T95	19	M.T.	'Natchez' Crape Myrtle					X	Removed	
T96	7	M.T.	'Watermelon Red' Crape Myrtle					X	Removed	
T97	19	M.T.	'Natchez' Crape Myrtle					X	Removed	
T98	9	M.T.	'Watermelon Red' Crape Myrtle					X	Removed	
T99	13	M.T.	'Natchez' Crape Myrtle					X	Removed	
T100	8	M.T.	'Natchez' Crape Myrtle					X	Removed	
T101	11	M.T.	'Natchez' Crape Myrtle					X	Removed	
T102	7	M.T.	'Natchez' Crape Myrtle					X	Removed	
T103	10	M.T.	'Natchez' Crape Myrtle					X	Removed	
T104	7	M.T.	'Natchez' Crape Myrtle					X	Removed	
T105	11	M.T.	'Natchez' Crape Myrtle					X	Removed	
T106	6	M.T.	'Natchez' Crape Myrtle					X	Removed	
T107	18		Red Oak			X			Removed	18
T108	22		Bradford Pear			X			Removed	22
T109	12		Bradford Pear	Diseased		X			Removed	12
T110	15		Bradford Pear	Wind Damaged		X			Removed	15
T111	15		Live Oak			X			Removed	15
T112	17		Live Oak			X				
T113	13		Live Oak	Bad Freeze Damaged Trunk		X			Removed	13
T114	5		Magnolia			X			Removed	5
T115	9		Live Oak	Bad Freeze Damaged Trunk		X			Removed	9
T116	12		Texas Red Oak	Substantial Trunk Damage with Borer Infestation		X			Removed	12
T138	18	M.T.	Hackberry				X			
T141	12		Eastern Red Cedar				X			
T142	14		Eastern Red Cedar				X			
T143	17	M.T.	Eastern Red Cedar				X			
T144	4		Cedar Elm			X				
T145	16		Eastern Red Cedar				X			
T146	11		Eastern Red Cedar				X			
T147	14		Eastern Red Cedar				X			
T148	12		Eastern Red Cedar				X			
T149	12		Eastern Red Cedar				X			
T150	12		Eastern Red Cedar				X			
T151	12	M.T.	Eastern Red Cedar				X			
T152	15		Eastern Red Cedar				X			
T153	11		Eastern Red Cedar				X			
T155	16		Eastern Red Cedar				X			
T156	12		Eastern Red Cedar				X			
T157	14		Eastern Red Cedar				X			
T158	8		Cedar Elm			X				
T158A	7		Cedar Elm			X				
T159	8		Locust					X		
T160	5		White Ash			X				
T161	5		Cedar Elm			X				
T162	4		White Ash			X				
T163	4		Cedar Elm			X				
T164	8		Cedar Elm			X				
T164A	7		Cedar Elm			X				
T164B	10	M.T.	Cedar Elm			X				
T164C	6		Cedar Elm			X				
T165	7		Black Willow					X		
T166	20		Black Willow					X		
T168	19	M.T.	Eastern Red Cedar				X			
T168A	23	M.T.	Eastern Red Cedar				X			
T170	6		Live Oak			X			Removed	6
T171	6		Live Oak			X				
T172	6		Bur Oak			X				
T173	6		Bur Oak			X				
T174	6		Bur Oak			X				
T175	6		Bur Oak			X				
T176	7		Live Oak			X				
T177	8	M.T.	'Natchez' Crape Myrtle					X		
T178	6		Bur Oak			X				
T179	6		Bur Oak			X				
T180	6		Bur Oak			X				
T181	6		Live Oak	Stunted- Old Sapsucker Damage		X				
T182	10	M.T.	'Natchez' Crape Myrtle					X		
T183	7.5	M.T.	'Natchez' Crape Myrtle					X		
T184	7	M.T.	'Natchez' Crape Myrtle					X		
T185	6		Bald Cypress			X				
T186	6		Bald Cypress			X				
T187	6		Bald Cypress			X				
T188	6		Bald Cypress			X				
T189	6		Bald Cypress			X				
T190	6		Live Oak	Stunted- Old Sapsucker Damage		X				
T191	6		Live Oak			X				
T192	6		Bald Cypress			X				
T193	6		Bald Cypress			X				
T194	6		Live Oak			X				
T195	6		Bald Cypress			X				
T196	6		Live Oak			X				
T197	6		Live Oak			X				
T198	6		Live Oak			X				
T199	6		Live Oak			X				
T200	6		Live Oak			X				
T201	6		Bald Cypress			X				
T202	6		Bald Cypress			X				
T203	6		Bald Cypress			X				
T204	6		Bald Cypress			X				
T205	6		Bald Cypress			X				
T206	6		Bald Cypress			X				
T207	6		Bald Cypress			X				
T208	6		Live Oak			X				
T209	-		Crape Myrtle	Dead, Coming Back From Roots						
T210	3.5	M.T.	'Natchez' Crape Myrtle					X		
T211	2.5	M.T.	'Natchez' Crape Myrtle					X		
T212	2.5	M.T.	'Natchez' Crape Myrtle					X		
T213	3	M.T.	'Natchez' Crape Myrtle					X		
T214	6		Live Oak	Weeping Habit		X				
T215	6		Live Oak	Weeping Habit		X				
T216	6		Live Oak	Weeping Habit		X				
T217	6		Live Oak	Weeping Habit		X				
T218	6		Live Oak	Weeping Habit		X				
T219	6		Live Oak	Weeping Habit		X				
T223	14		Black Willow					X		
TOTAL	**2,210**									

TOTAL REPLACEMENT INCHES REQUIRED:	377.5
MITIGATION INCHES PROVIDED ON SITE:	380
MITIGATION INCHES (CREDITS) REMAINING:	-2.5

SITE INFORMATION:

EXISTING ZONING: HEAVY COMMERCIAL (HC), COMMERCIAL (C), & AGRICULTURAL (AG)

PROPOSED ZONING: NO CHANGE

PROPOSED USE: EXPANSION OF EXISTING SITE TO INCLUDE 2 NEW OFFICE BUILDINGS, TRUCK WAREHOUSE, AND LAYDOWN STORAGE WAREHOUSE

TOTAL AREA LOT 1: 1,366,902 SQ FT 31.38 AC
TOTAL AREA LOTS 1–4: 4,146,392 SQ FT 95.19 AC

LOT 1 "HC" ZONING

MAXIMUM BUILDING HEIGHT: 60 FT
MAXIMUM LOT COVERAGE: 60%
MAXIMUM FLOOR AREA RATIO: 4:1
MAXIMUM IMPERVIOUS PARKING: 90–95%

PROPOSED MAX. BUILDING D HEIGHT: 40'
PROPOSED MAX. BUILDING E HEIGHT: 46'–4"
PROPOSED MAX. BUILDING F HEIGHT: 26'–8"
PROPOSED LOT COVERAGE: 106,281/1,366,902 = 7.8%
PROPOSED FLOOR AREA RATIO: 113,260/1,366,902 = 0.08:1
PROPOSED IMPERVIOUS PARKING: 69,510/1,366,902 = 5.1%

EXISTING PARKING:
EXISTING WAREHOUSE 23,520 SQ FT (1:1000) = 24 SPACES
EXISTING OFFICE 31,530 SQ FT (1:300) = 106 SPACES
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APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of _____, _____.

WITNESS OUR HANDS, this ___ day of _____, _____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

HKS

ARCHITECT
HKS, INC.
350 N SAINT PAUL ST
SUITE 100
DALLAS, TX 75201

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATE, INC.
260 EAST DAVIS STREET, SUITE 100
MCKINNEY, TX 75069

STRUCTURAL ENGINEER
HKS, INC.
350 N SAINT PAUL ST, SUITE 100
DALLAS, TX 75201- 4240

MEP ENGINEERS
SYSKA HENNESSY GROUP
4925 GREENVILLE AVENUE, SUITE 415
DALLAS, TX 75206

OWNER
RAYBURN ELECTRIC COOPERATIVE
950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

REGISTERED LANDSCAPE ARCHITECT — ANDREW R. — 3480 — STATE OF TEXAS

10/31/22

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.000
DATE
10/31/22
ISSUE
CITY SITE PLAN SUBMITTAL
SHEET TITLE
TREESCAPE TABLE

CASE# SP2022-058

SHEET NO.
L7.07

PLOT DATE:
TEMPLATE VERSION:

Luminaire Schedule								
Symbol	Type	Qty	Manufacturer / Catalog Number	Total Lumen Output	Total Input Watts	Ballast Factor	Light Lost Factor	User Defined Factor
	AA	51	LITHONIA CSX1 LED 60C 700 40K T4M HS	12377	134	1.000	0.900	1.000
	BB	40	LITHONIA KBD8 LED 12C 350 40K ASY MVOLT	809	16	1.000	0.900	1.000
	CC	2	LITHONIA DSXW2 LED 20C 350 40K T2S MVOLT	2988	25	1.000	0.900	1.000

Calculation Summary						
Calculation Grid Location	Calc. Height (Ft.)	Units	Avg	Max	Min	Avg/Min
GROUND_Planar	0	Fc	0.76	5.2	0.0	N.A.
PARKING LOT 1		Fc	2.69	4.2	1.4	1.92
PARKING LOT 2 & ROADWAY		Fc	2.91	5.1	0.8	3.64

AA

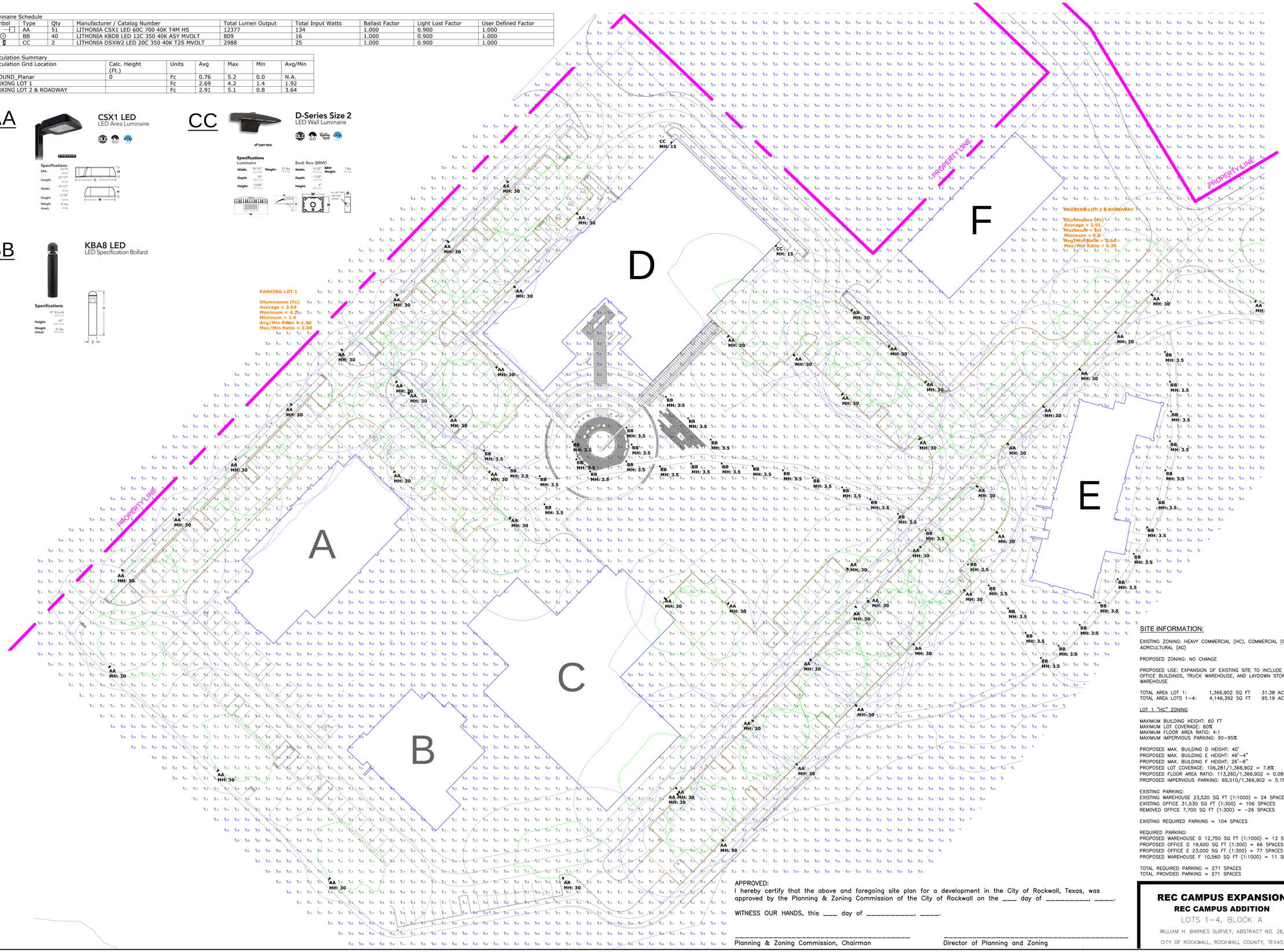
CSX1 LED
LED Area Luminaire

CC

D-Series Size 2
LED Wall Luminaire

BB

KBA8 LED
LED Specification Bollard



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APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of _____, ____.

WITNESS OUR HANDS, this ___ day of _____, ____.

_____ Planning & Zoning Commission, Chairman

_____ Director of Planning and Zoning

REC CAMPUS EXPANSION
REC CAMPUS ADDITION
LOTS 1–4, BLOCK A
WILLIAM H. BARNES SURVEY, ABSTRACT NO. 26,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

HKS

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950 SIDS ROAD
ROCKWALL, TX 75087

CIVIL ENGINEER
R - DELTA ENGINEERS, INC.
618 MAIN STREET
GARLAND, TEXAS 75040

Rayburn Electric COOPERATIVE

INTERIM REVIEW ONLY

These documents are incomplete, and are released for interim review only and are not intended for regulatory approval, permit, or construction purposes.

Architect: _____
Arch. Reg. No.: _____
Date: _____

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
25370.001

DATE
11/01/22

ISSUE
CITY SITE PLAN SUBMITTAL

SHEET TITLE
SITE LIGHTING

CASE# SP2022-058

SHEET NO.
SL.00

Traffic Impact Analysis

Rayburn Electric Cooperative
Rockwall, Texas

October 13, 2022

Kimley-Horn and Associates, Inc.
Dallas, Texas

Project #67075002
Registered Firm F-928

Kimley»Horn

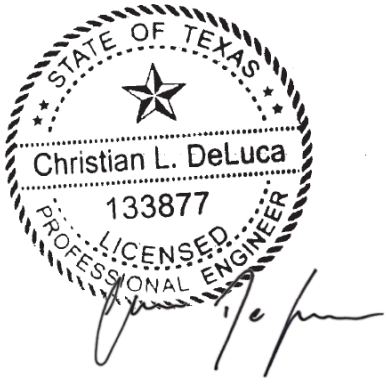
Traffic Impact Analysis

Rayburn Electric Cooperative Campus Expansion
Rockwall, Texas

Prepared by:

Kimley-Horn and Associates, Inc.
13455 Noel Road, Two Galleria Tower, Suite 700
Dallas, Texas 75240
Registered Firm F-928

10/13/2022



Contact:
Christian DeLuca, P.E., PTOE
972-770-1300
October 13, 2022

TABLE OF CONTENTS

LIST OF EXHIBITS

LIST OF TABLES

EXECUTIVE SUMMARY

The proposed Rayburn Electric Cooperative (REC) Campus Expansion development is located within the block bounded by Goliad Street, Sims Road, and Mims Road in Rockwall, Texas. The site is proposed to be built as a distribution center. This study is intended to identify traffic generation characteristics, identify potential traffic related impacts on the local street system, and to develop mitigation measures required for identified impacts. The following existing intersections were selected to be part of this study:

- Goliad Street & Sids Road
- Mims Road & Sids Road
- Goliad Street & Mims Road
- Mims Road & National Drive

The analysis also included the following driveways having access in and out of the site:

- Drive 1, which is an existing full-access driveway for the REC Campus to Sids Road
- Drive 2, which is an existing full-access driveway for the REC Campus to Sids Road. The driveway is across from the driveway for Air Performance.
- Drive 3, which is an existing full-access driveway for the REC Campus to Sids Road. The driveway is across from the driveway for Rockwall ISD school bus parking lot.
- Drive 4, which is an existing full-access driveway for the REC Campus to Sids Road
- Drive 5, which is a proposed right-in right-out driveway to Goliad Street.
- Drive 6, which is an existing full-access driveway for the REC Campus to Mims Road. The driveway is across from the existing roadway, National Drive.

Traffic operations were analyzed at the study intersections for existing volumes and 2024 background traffic volumes and 2024 background plus site-generated traffic volumes. The future years correspond to the expected buildout year of the site. Conditions were analyzed for the weekday AM and PM peak hours. The background traffic conditions include existing traffic with compound growth rates.

The REC campus expansion development is expected to generate approximately 26 new weekday AM peak hour one-way vehicle trips and 37 new weekday PM peak hour one-way vehicle trips at buildout. The distribution of the site-generated traffic volumes onto the street system was based on the surrounding roadway network, existing traffic patterns, and the project's proposed access locations.

Based on the analysis presented in this report, the proposed Rayburn Electric Cooperative Campus Expansion development can be successfully incorporated into the surrounding roadway network. The proposed site driveways provide the appropriate level of access for the development. The site-generated traffic does not have a significant or disproportionate effect on the existing vehicle traffic operations. The following recommendations should be included in the development of the site:

1. Construct Drive 4 to Goliad Street as a right-in/right-out driveway due to not meeting TxDOT driveway access spacing.

I.INTRODUCTION

A. Purpose

Kimley-Horn was retained to conduct a Traffic Impact Analysis (TIA) of future traffic conditions associated with the development of the Rayburn Electric Cooperative Campus Expansion site located within the block bounded by Goliad Street, Sims Road, and Mims Road in Rockwall, Texas. A site vicinity map is provided as **Exhibit 1**. **Exhibit 2** shows the proposed conceptual site plan. This study is intended to identify traffic generation characteristics, identify potential traffic related impacts on the local street system, and to develop mitigation measures required for identified impacts.

B. Methodology

Traffic operations were analyzed at the study intersections for AM and PM peak hours for the following scenarios due to falling into Analysis Category 1 based on the requirements listed in Table 2.6 in the City of Rockwall's Standards of Design & Construction.

- 2022 existing traffic
- 2024 background traffic
- 2024 background plus site traffic

The capacity analyses were conducted using the *Synchro*™ software package and its associated *Intersection* reports for signalized intersections and *Highway Capacity Manual* reports for unsignalized intersections.

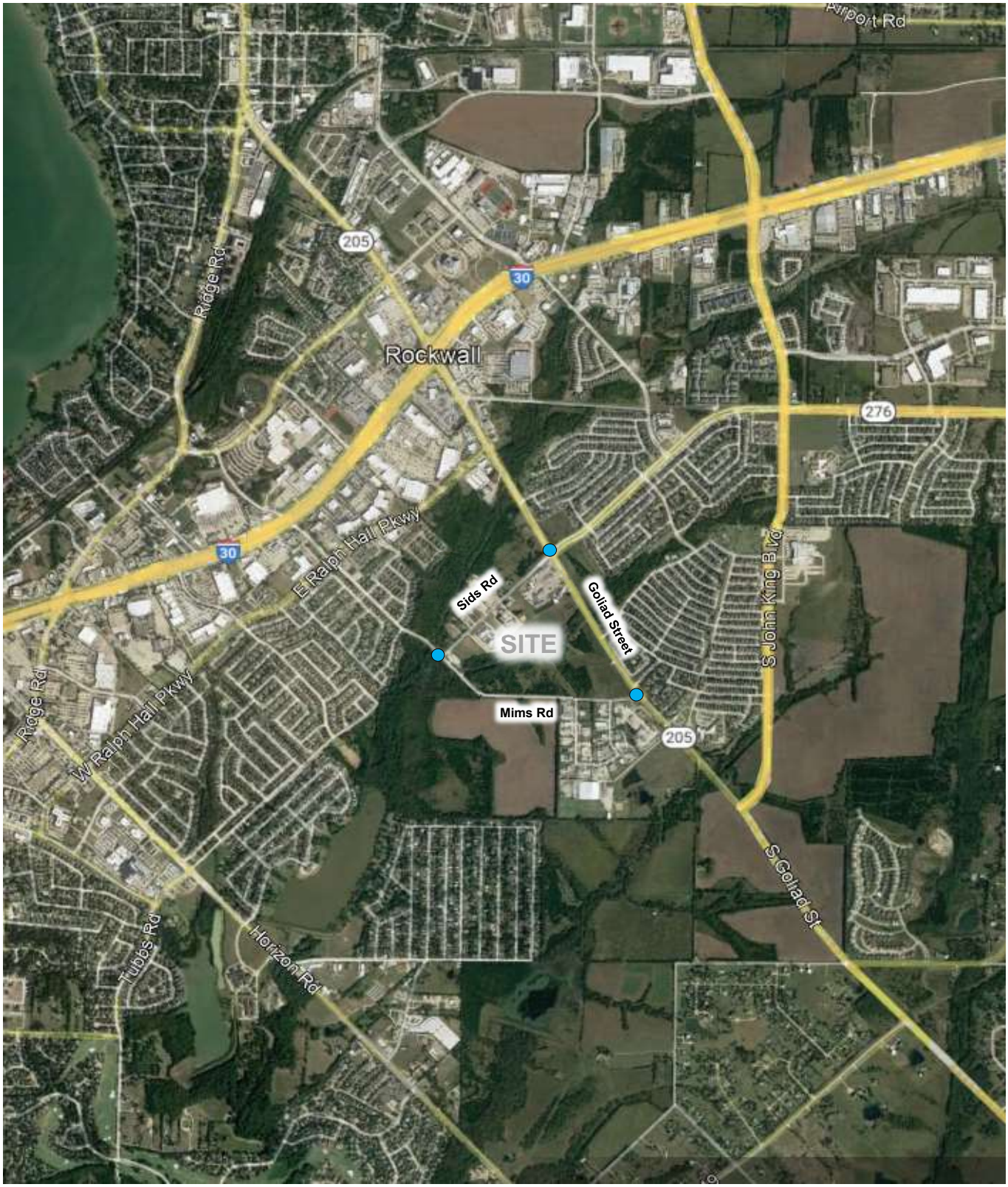


EXHIBIT 1

Vicinity Map

Lineman Building - Rockwall, Texas

Kimley»Horn

LEGEND:

= Study Intersection

North

Not To Scale

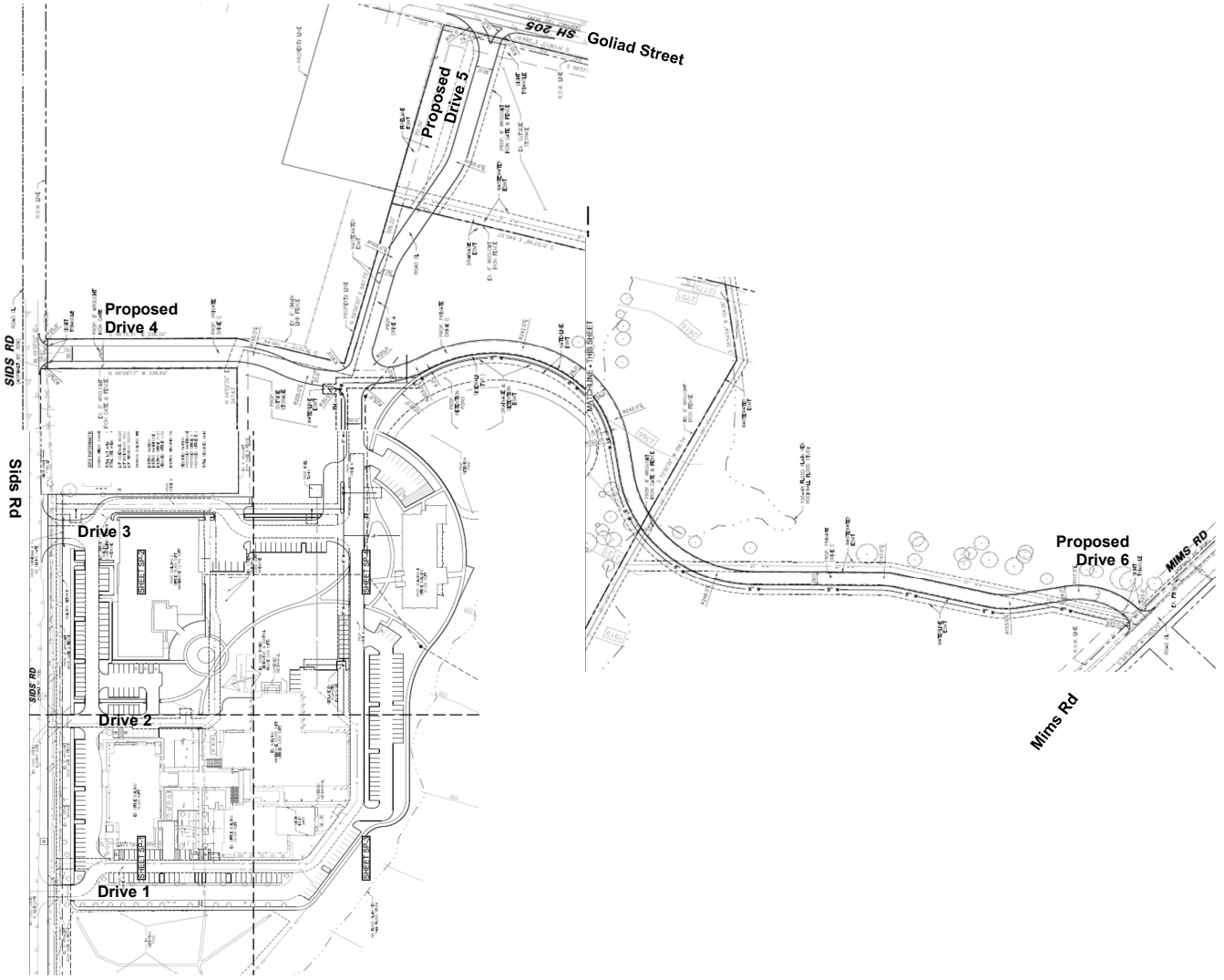


EXHIBIT 2

Conceptual Site Plan

Lineman Building - Rockwall, Texas

Kimley»Horn

North

Not To Scale

II. EXISTING AND FUTURE AREA CONDITIONS

A. Roadway Characteristics

The following signalized intersections were evaluated as part of this study:

- Goliad Street & Sids Road

The following unsignalized intersections were evaluated as part of this study:

- Mims Road & Sids Road
- Goliad Street & Mims Road
- Mims Road & National Drive

The major study area roadways are described below.

Sids Road – is a two-lane undivided roadway between Mims Road to Goliad Street and then transitions into a four-lane divided roadway east of Goliad Street. The speed limit is 30 mph west of Goliad Street adjacent to the proposed site and 50 mph east of Goliad Street. Sids Road is identified as a 4-lane undivided minor arterial, west of Goliad Street, and a 6-lane divided arterial, east of Goliad Street.

Goliad Street (SH 205) – is a two-lane undivided roadway between John King Boulevard to Sids Road and then transitions into a six-lane divided roadway north of Sids Road. The speed limit is 55 mph south of Sids Road adjacent to the proposed site and 45 mph north of Sids Road. Goliad Street is identified as a 6-lane divided arterial on the City of Rockwall Thoroughfare Plan.

Mims Road – is a two-lane undivided roadway that runs from Goliad Street to I-30. On the City of Rockwall Thoroughfare Plan, Industrial Boulevard is designated as a four-lane undivided minor arterial. The speed limit near the site is 30 mph.

Exhibit 3 illustrates the intersection geometry used for the traffic analysis.

B. Existing Study Area

The property is zoned as Heavy Commercial (LHC with “office/warehouse combinations land uses” listed as a primary land use. The use of the property will not be changing.

C. Proposed Site Improvements

The development as proposed includes expansion of the Rayburn Electric.Cooperative Campus. The existing REC campus contains 62,750 square feet; 7700 square feet will be removed while two buildings totaling 52,500 square feet will be added. The net gain is 44,800 square feet.

As shown in **Exhibit 3**, the site has three proposed driveways. The driveways to be modeled in this analysis are as follows:

Drive 1 – is an existing full-access driveway to Sids Road. The drive is approximately 550 feet northeast of the intersection of Mims Road and Sids Road.

Drive 2 – is an existing full-access driveway to Sids Road and is located across from another commercial driveway. The drive is approximately 300 feet northeast of Drive 1.

Drive 3 – would reconstruct and widen the site's northenmost driveway to Sids Road. The drive is approximately 375 feet northeast of Drive 2 and meets the City of Rockwall's minimum driveway spacing of 200 feet.

Proposed Drive 4 – would be a full-access driveway to Sids Road approximately 285 feet north of Drive 3. Drive 4 is proposed to be 100 feet northeast of the existing commercial driveway servicing S & A Systems Inc. The City of Rockwall requires 200 feet driveway spacing on Arterials and 100 feet of spacing on Collectors. Sids Road is expected to be a 4-lane arterial in the future based on the thoroughfare plan, however, functions as a two-lane collector today. Furthermore, the roadway dead ends into Mims Road and traffic volumes will likely remain low for quite sometimes. Further attributing to collector characteristics. The S & A Systems driveway only services a few parking spaces and has very low traffic. For these reasons, the 100-foot driveway spacing is appropriate for this driveway.

Proposed Drive 5 – would be a right-in right-out driveway to Goliad Street (SH 205) approximately 810 feet south of Goliad Street. The driveway will be 155 feet south of the next driveway to the north. Goliad Street is a TxDOT roadway and therefore requires 360 feet of spacing as a 45 MPH road. This spacing requirement is not met. To provide reasonable access under these conditions but also provide the safest operation, the driveway connection should be constructed to only allow right-in/right out turning movements.

Proposed Drive 6 – would be a full access driveway to the existing intersection of Mims Road and National Drive. The access point will create the fourth leg of the existing three-legged intersection

The intersection spacing appears to meet the City of Rockwall standards for driveway spacing away from intersections of minor arterials, and between driveways to minor arterials. Intersection sight distance at the proposed driveways is acceptable with each on relatively straight segments of their respective roadway.

D. Existing Traffic Volumes

Exhibit 4 shows the existing weekday AM and PM peak hour traffic volumes. 24-hour machine counts were collected near the site at the intersection of Goliad Street and Sids Road. The raw count sheets, as well as a comparison between the 24-hour volumes collected and previous 24-hour counts, are provided at the end of this report.

The 24-hour count showed the daily volume on the roadway link as follows:

- Goliad Street, west of Sids Road: 11,423 vehicles per day (vpd)
- Sids Road, south of Goliad Street: 2,339 vpd

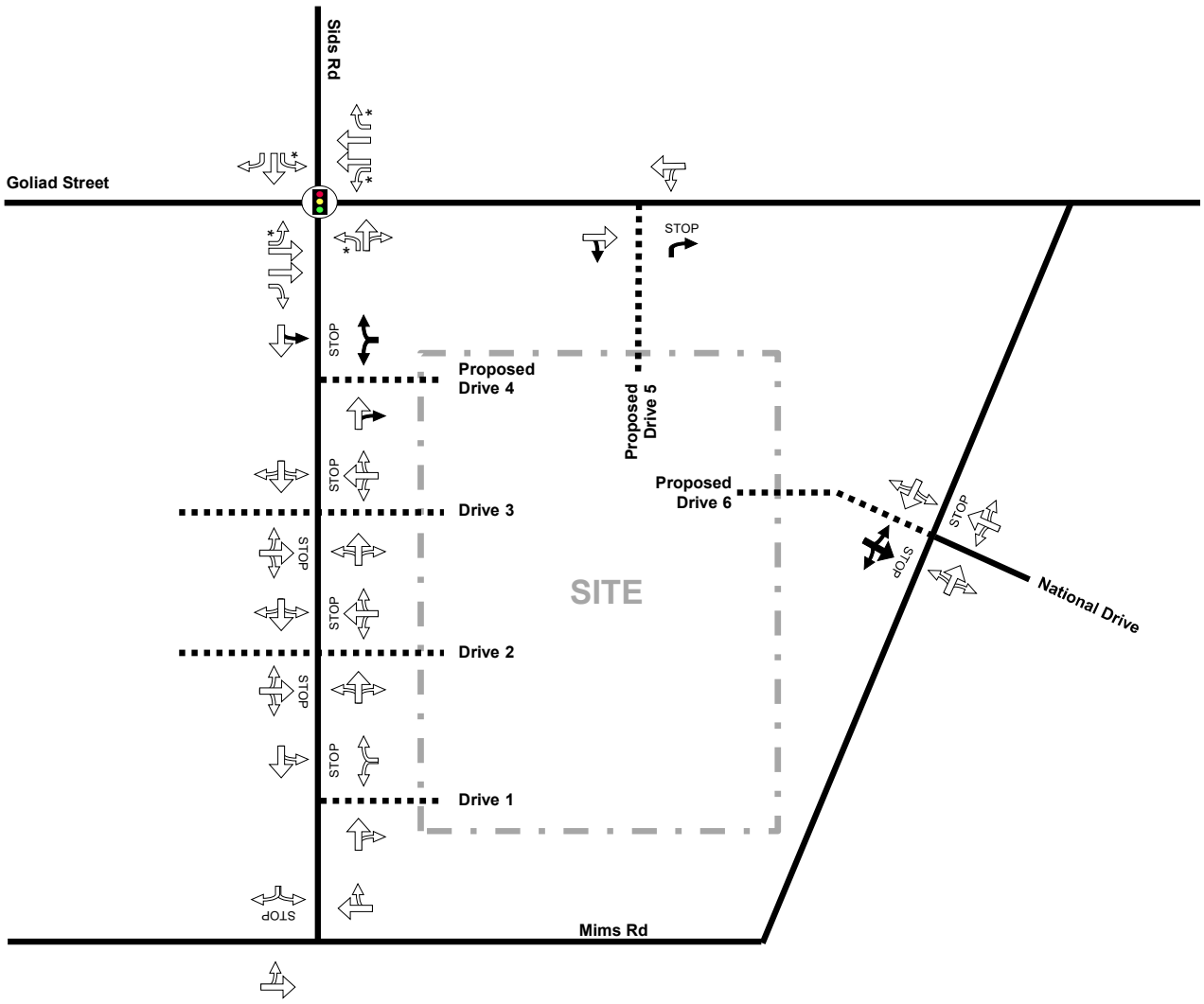


EXHIBIT 3

Lane Assignment and Intersection Control

Lineman Building - Rockwall, Texas

Kimley»Horn

LEGEND:

= Signalized Intersection

STOP = Stop-Controlled Approach

= Travel Lane

* = Turn Bay

= Driveway Lanes or Off-Site Improvements

TWLTL = Two-Way Left Turn Lane

North

Not To Scale

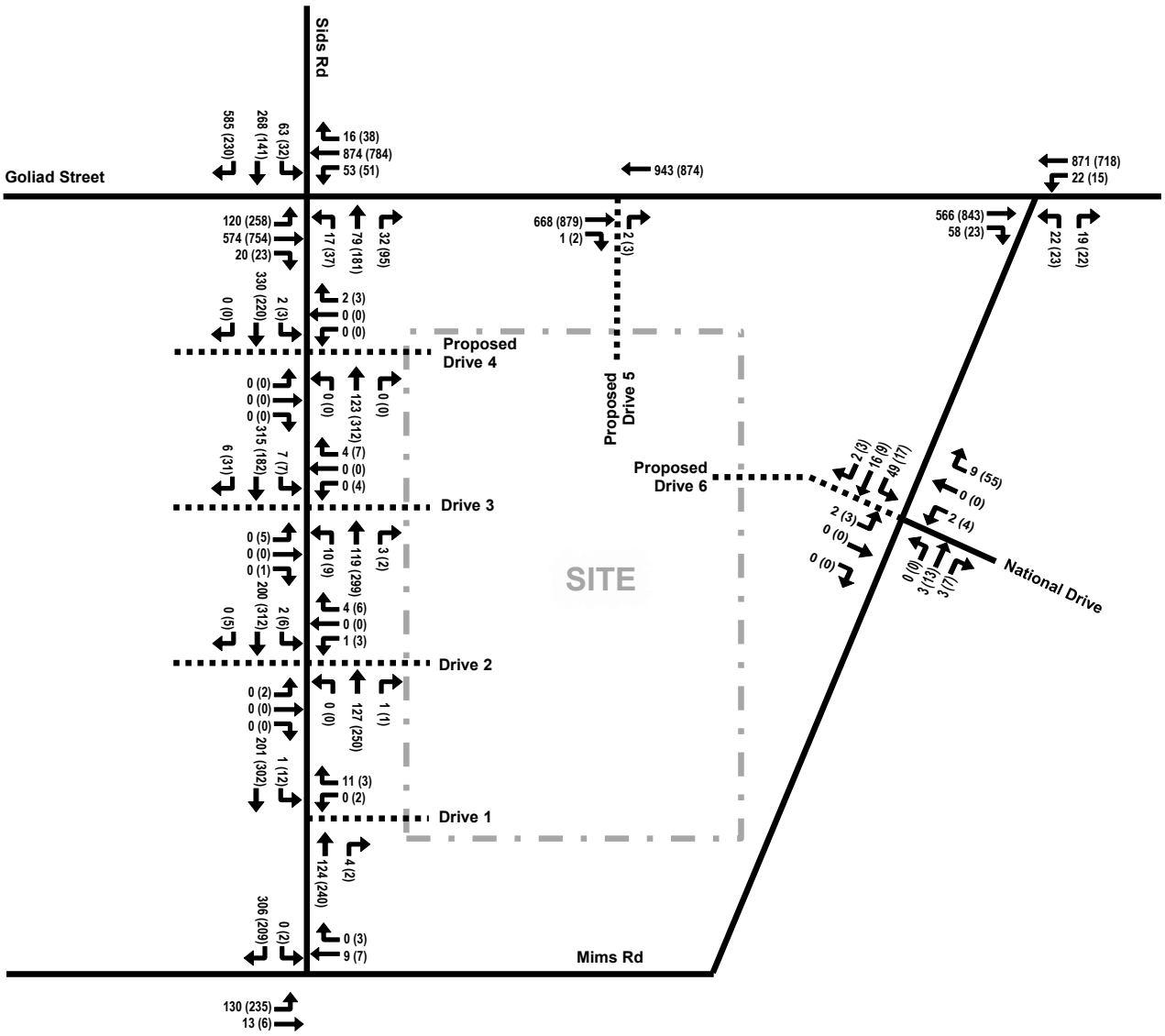


EXHIBIT 8

2024 Background Plus Site-Generated Traffic Volumes

Lineman Building - Rockwall, Texas

Kimley»Horn

LEGEND:

X (Y)

X = Weekday AM Peak Hour Turning Movements

Y = Weekday PM Peak Hour Turning Movements

Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in analysis.

North

Not To Scale

III. PROJECT TRAFFIC CHARACTERISTICS

A. Site-Generated Traffic

Site-generated traffic estimates are determined through a process known as trip generation. If site specific trip data is unknown, rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific tie interval using the 10th edition of *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). However, since the specific trip data of the existing site is known that data is a better indication of the expected trip data after the expansion is completed. The existing trip data was grown as a ratio based on the square footage of the existing REC campus and proposed REC campus. An additional 20% trip increase was applied to ensure a conservative analysis.

No reductions were taken for pass-by trips, internal capture, or multimodal use.

Table 1 shows the resulting daily and weekday AM and PM peak hour trip generation for the proposed development, showing new external trips.

Table 1 – Trip Generation

Land Uses	Amount	Units	ITE Code	Daily One-Way Trips	AM Peak Hour One-Way Trips			PM Peak Hour One-Way Trips		
					IN	OUT	TOTAL	IN	OUT	TOTAL
Existing Site (Observed)	*62,750*	*SF*	*170*	*636*[(2)]	*11*	*13*	*24*	*17*	*18*	*35*
Proposed Expansion (Estimated) [(1)]	44,800	SF	170	551[(2)]	8	10	18	13	13	25
Development Totals										
Subtotal Trip Generation Total:				1187[(2)]	19	23	42	30	31	60
Contingency (20% Increase)				-	4	5	8	6	6	12
Existing Site (Observed)				-636[(2)]	*-11*	*-13*	*-24*	*-17*	*-18*	*-35*
Total Net New External Vehicle Trips:				***551***[(2)]	**12**	**15**	**26**	**19**	**19**	**37**

(1) Trip Generation rates based on the existing site's observed inbound and outbound trips.
(2) Trip Generation rates based on ITE Trip Generation, 11th Edition.

B. Trip Distribution and Assignment

The distribution of the site-generated traffic volumes in to and out of the site driveways and onto the street system was based on the area street system characteristics, existing traffic patterns, relative land use density, and the locations of the proposed driveway access to/from the site. The corresponding distributions can be found in **Exhibit 5**. The corresponding inbound and outbound traffic assignment, where the directional distribution is applied using the most probable paths to and from the site can be found in **Exhibit 6**

C. Development of 2024 Background Traffic

In order to obtain 2024 background traffic, the existing traffic counts and historic counts near the site were compared to find expected growth trends within the study area. Based on the recent growth in the area, an annual growth rate of 3.2% was assumed for the background traffic through 2024. To calculate the 2024 background traffic, the existing 2022 traffic counts were grown by their respective growth rates annually for two years. The resulting 2024 background weekday AM and PM peak hour traffic volumes are shown in **Exhibit 7**.

D. Development of 2024 Total Traffic

Site traffic volumes were added to the background volumes to represent the estimated total (background plus site-generated) traffic conditions for the 2024 study year after completion of the proposed development. **Exhibit 8** shows the resulting 2024 weekday AM and PM peak hour total traffic volumes.

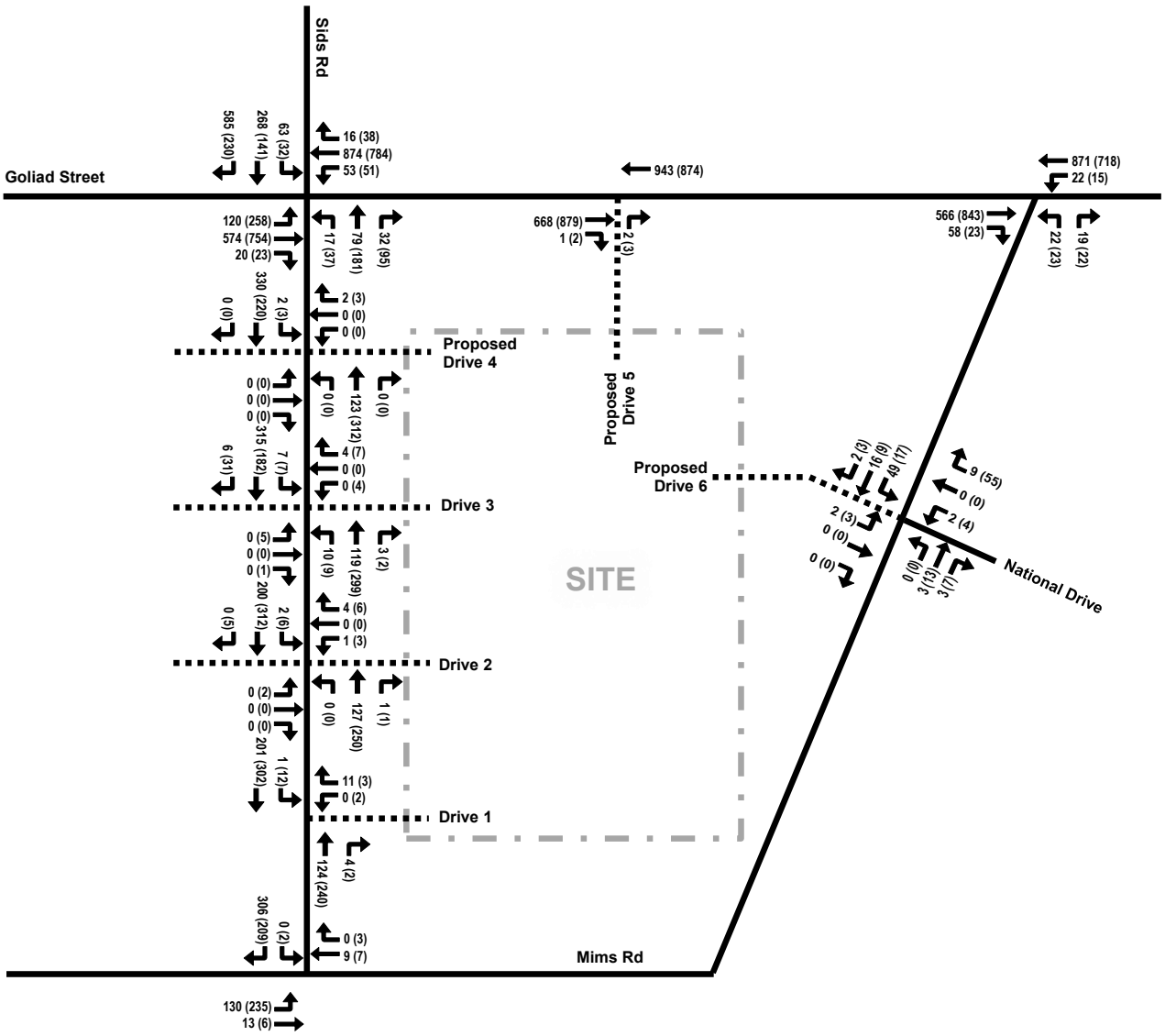


EXHIBIT 8

2024 Background Plus Site-Generated Traffic Volumes

Lineman Building - Rockwall, Texas

Kimley»Horn

LEGEND:

X (Y)

X = Weekday AM Peak Hour Turning Movements

Y = Weekday PM Peak Hour Turning Movements

Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in analysis.

North

Not To Scale

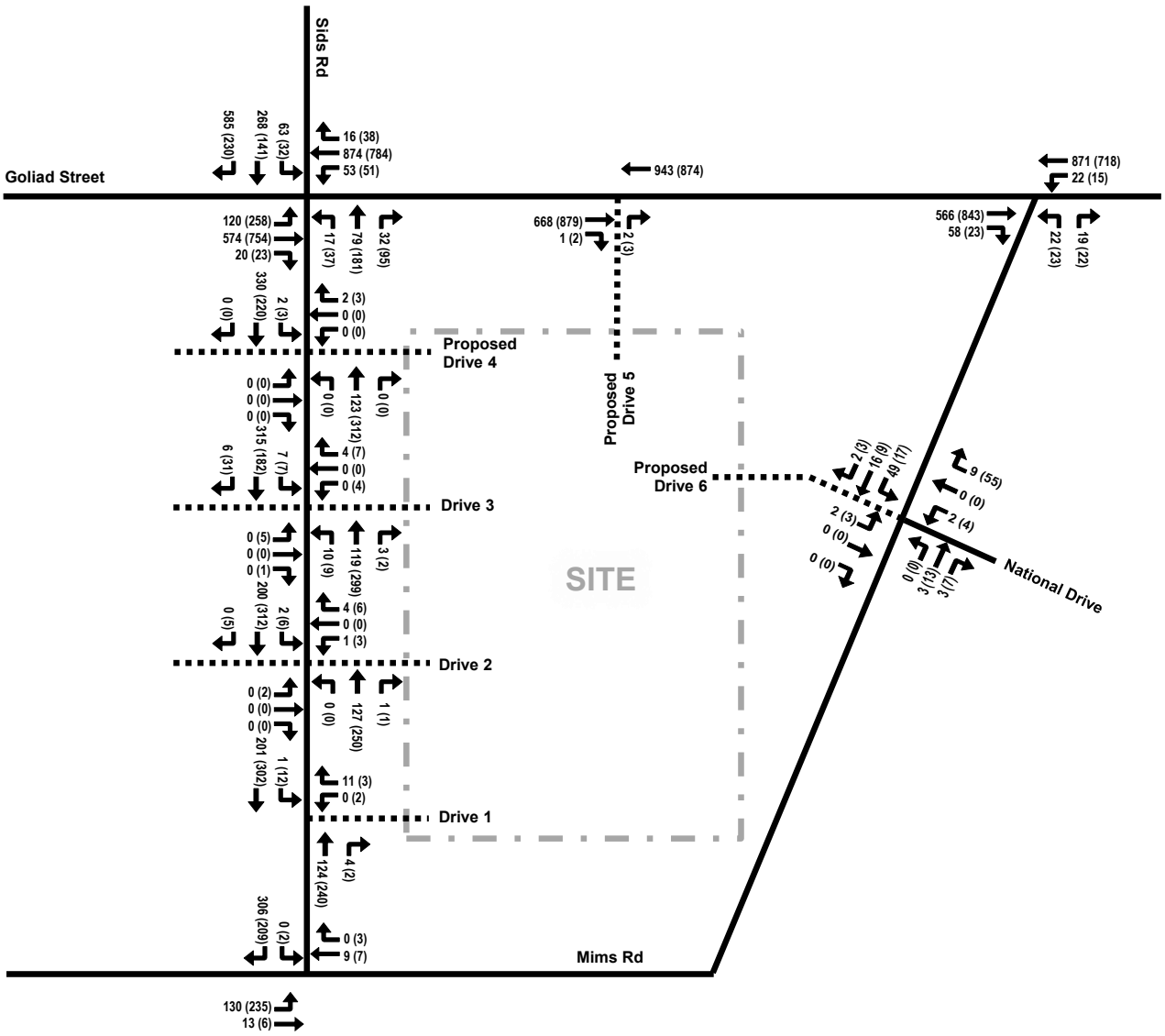


EXHIBIT 8

2024 Background Plus Site-Generated Traffic Volumes

Lineman Building - Rockwall, Texas

Kimley»Horn

LEGEND:

X (Y)

X = Weekday AM Peak Hour Turning Movements

Y = Weekday PM Peak Hour Turning Movements

Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in analysis.

North

Not To Scale

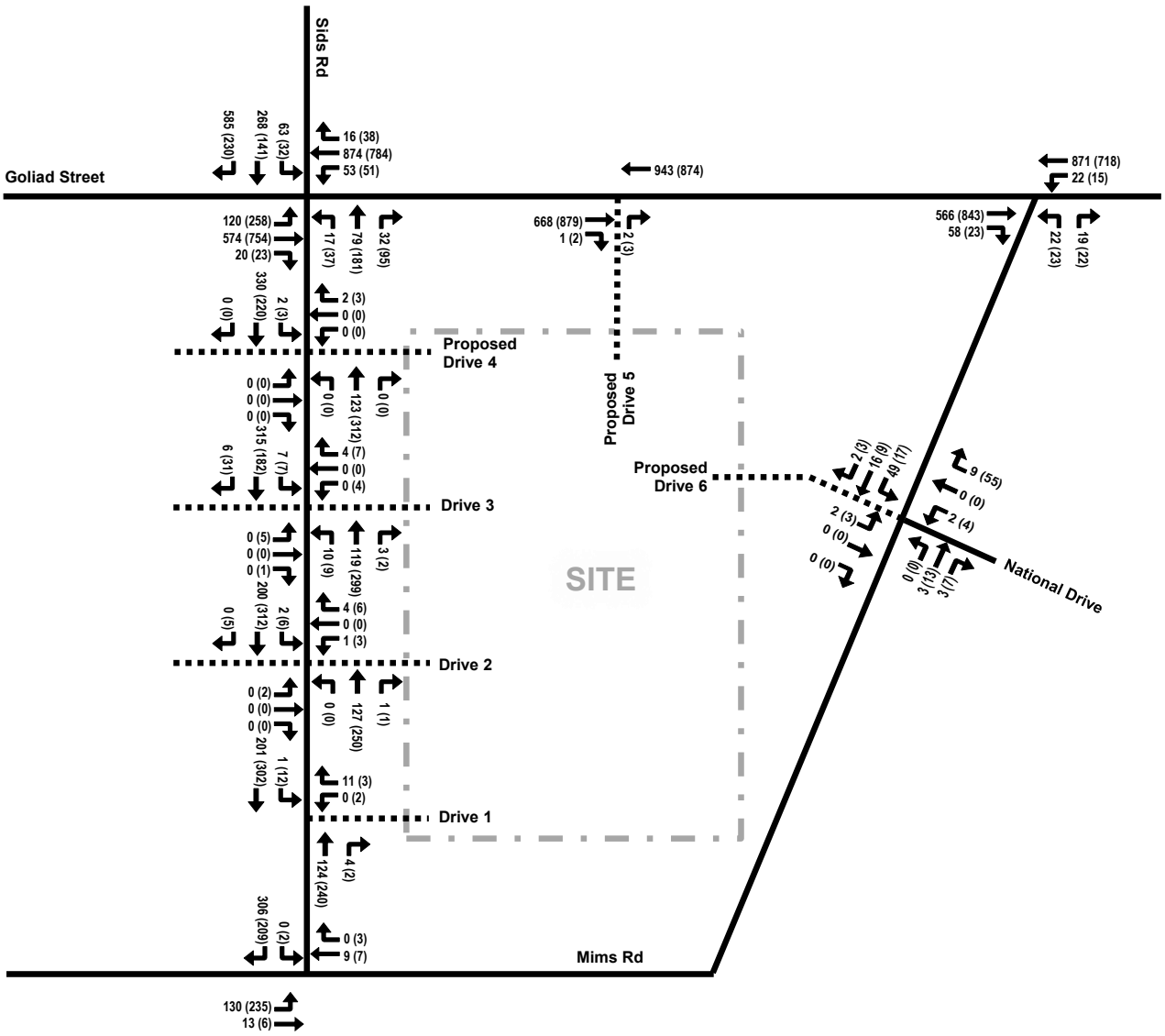


EXHIBIT 8

2024 Background Plus Site-Generated Traffic Volumes

Lineman Building - Rockwall, Texas

Kimley»Horn

LEGEND:

X (Y)

X = Weekday AM Peak Hour Turning Movements

Y = Weekday PM Peak Hour Turning Movements

Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in analysis.

North

Not To Scale

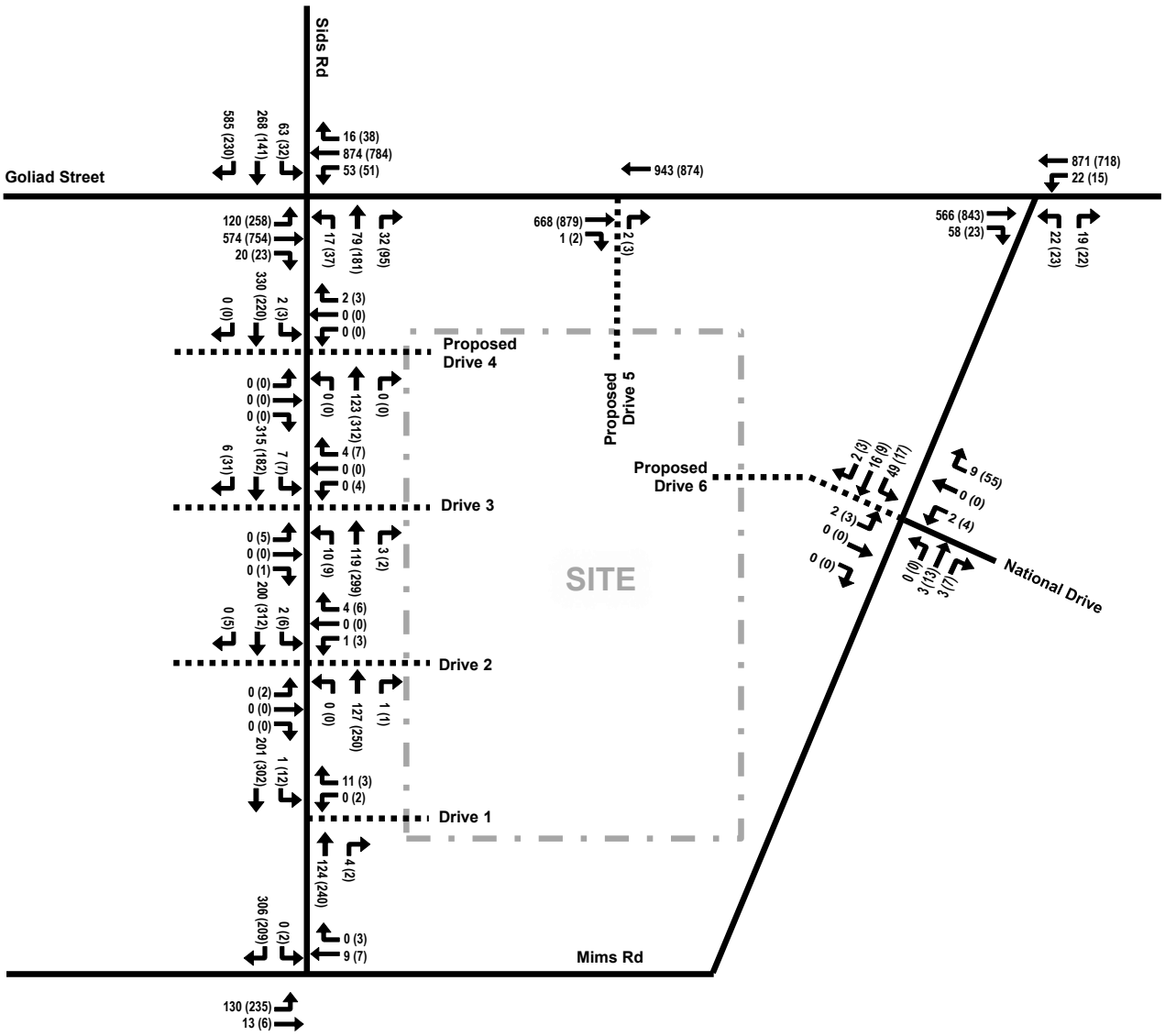


EXHIBIT 8

2024 Background Plus Site-Generated Traffic Volumes

Lineman Building - Rockwall, Texas

Kimley»Horn

LEGEND:

X (Y)

X = Weekday AM Peak Hour Turning Movements

Y = Weekday PM Peak Hour Turning Movements

Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in analysis.

North

Not To Scale

IV. TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn conducted a traffic operations analysis to determine potential capacity deficiencies in the 2022 & 2024study years at the study intersections. The acknowledged source for determining overall capacity is the current edition of the *Highway Capacity Manual.*

A. Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Definitions provided from the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2010.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. For the unsignalized analysis, the level of service (LOS) for a two-way stop-controlled intersection is defined for each movement. Unlike signalized intersections which define LOS for each approach and for the intersection as a whole, LOS for two-way stop-controlled intersections is not defined as a whole.

Signal timings for the signalized intersection were based on the observed signal timing in the field. No timing adjustments were made in future scenarios.

The analyses assumed the lane geometry and intersection control shown in **Exhibit 3**.

The peak hour factors (PHF) for the existing traffic is known from the counts collected at the study intersections and was assumed to remain the same through the analysis. PHF for the site-generated traffic is unknown, so at new driveways it was assumed to be 0.92.

B. Analysis Results

Table 3 show the intersection operational results for the weekday AM and PM peak hours, respectively.

Table 3 – Traffic Operational Results – Weekday AM & PM Peak Hour

INTERSECTION	APPROACH	2021 Existing Traffic		2023 Background Traffic		2023 Background plus Site Traffic		2021 Existing Traffic		2023 Background Traffic		2023 Background plus Site Traffic	
		AM PEAK HOUR		AM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR		PM PEAK HOUR		PM PEAK HOUR	
		DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS
Signalized Intersection													
Sids Road & Goliad Road	EB	24.6	C	24.7	C	24.7	C	34.4	C	34.4	C	36.1	D
	WB	34.0	C	34.2	C	34.1	C	32.2	C	32.2	C	31.8	C
	NB	21.8	C	23.3	C	23.2	C	24.9	C	24.9	C	25.2	C
	SB	17.9	B	20.9	C	23.2	C	12.7	B	12.7	B	13.0	B
	Overall	**25.5**	**C**	**26.7**	**C**	**27.4**	**C**	**29.3**	**C**	**29.3**	**C**	**29.8**	**C**
Unsignalized Intersection													
Mims Road & Sids Road	EBL	7.4	A	7.5	A	7.5	A	7.6	A	7.6	A	7.7	A
	SB	9.8	A	9.9	A	10.0	A	9.3	A	9.3	A	9.3	A
Goliad Road & Mims Road	EB	8.5	A	8.5	A	8.5	A	8.4	A	8.4	A	8.4	A
	NBL	7.3	A	7.3	A	7.3	A	7.3	A	7.3	A	7.3	A
Sids Road & Drive 1	WB	9.0	A	9.0	A	9.0	A	11.3	B	11.3	B	11.0	B
	SBL	-	-	-	-	7.5	A	7.8	A	7.8	A	7.8	A
Sids Road & Drive 2	EB	0.0	A	0.0	A	0.0	A	13.7	B	13.7	B	13.9	B
	WB	9.6	A	9.8	A	9.5	A	11.4	B	11.4	B	11.1	B
	NBL	-	-	-	-	-	-	-	-	-	-	-	-
	SBL	7.5	A	7.5	A	7.5	A	7.8	A	7.8	A	7.8	A
Sids Road & Drive 3	EB	-	-	-	-	-	-	12.8	B	12.8	B	13.1	B
	WB	8.9	A	8.9	A	9.0	A	12.0	B	12.0	B	11.4	B
	NBL	8.0	A	8.0	A	8.0	A	7.7	A	7.7	A	7.7	A
	SBL	7.5	A	7.5	A	7.5	A	7.9	A	7.9	A	7.9	A
Sids Road & Drive 4	WB	-	-	-	-	9.2	A	-	-	-	-	10.3	B
	SBL	-	-	-	-	7.6	A	-	-	-	-	8.0	A
Goliad Road & Drive 5	NBT	-	-	-	-	13.6	B	-	-	-	-	16.6	C
Mims Road & National Drive / Drive 6	EBL	-	-	-	-	-	-	-	-	-	-	-	-
	WBL	-	-	-	-	-	-	7.3	A	7.3	A	7.3	A
	NBT	8.6	A	8.6	A	8.6	A	8.7	A	8.7	A	8.7	A
	SBT	-	-	-	-	9.8	A	-	-	-	-	9.4	A

- No traffic movements in this analysis scenario

C. Traffic Operations

The results in **Table 3** show the intersection operational results for the weekday AM and PM peak hours. After the site-generated traffic is added to the roadway network, each approach operates at the same LOS and negligible increase in delay during both the AM and PM peak hours. The signalized intersection of Goliad Street and Sids Road performs at LOS C in the peak hours representing favorable operations; the analysis demonstrates that the site traffic can be incorporated into the roadway network with very limited disturbances to the existing traffic flow. The existing driveways remain operating with low delays and the proposed driveways are all expected to perform with low delays at LOS B or better. These results indicate favorable operations and that the development is provided the appropriate amount of access.

D. Link Volume Analysis

The volume to capacity ratio (V/C) of Sids Road and Goliad Street was calculated for the 2022 existing traffic and the 2024 background and background plus site traffic scenarios. The daily link capacity for each roadway is taken from the NTCOG model capacity volumes assuming the rural area type, Sids Road, as a secondary arterial, has a capacity of 875 vehicles per hour per lane (vphpl). Goliad Street, as a primary arterial, has a capacity of 925 vehicles per hour per lane (vphpl).

The link analyses displayed in **Table 4** shows that Sids Road currently operates with ample capacity of LOS A/B with current traffic volumes. After the traffic from the background growth and the project site are added to the network, the roadway continues to operate at a LOS A/B through the build-out of the site in 2024. Goliad Street currently operates with acceptable capacity of LOS D in a two-lane configuration with current traffic volumes. After the traffic from the background growth and the project site are added to the network, the roadway continues to operate at a LOS D through the build-out of the site in 2024.

The site as proposed does not have a significant negative impact on the link capacities of the study roadways.

Table 4 – Link Operational Results

Analysis Year	Roadway	Segment	Number of Lanes	Capacity	Background Volume	V/C	LOS	Back+Site Volume	V/C	LOS
2022	Sids Road	Mims Road to Goliad Street	2	17,500	11,423	0.65	D	-	-	-
	Goliad Street	Sids Road to Mims Road	2	17,500	2,339	0.13	A/B	-	-	-
2024	Sids Road	Mims Road to Goliad Street	2	17,500	12,166	0.70	D	12,500	0.71	D
	Goliad Street	Sids Road to Mims Road	2	17,500	2,491	0.14	A/B	2,571	0.15	A/B

E. Right-Turn Lane Analysis

Where justified, the addition of right-turn deceleration lanes can help inbound turning vehicles separate from the through traffic, avoiding conflicts and smoothing traffic flow. The TxDOT *Access Management Manual* sets forth criteria for auxiliary lanes on TxDOT roadways. Per Table 2.3 (Auxiliary Lane Thresholds), a right-turn deceleration lane should be considered on roads with a posted speed less than or equal to 45 MPH if the projected right-turn volume into a driveway is greater than 60 vehicles per hour. **Table 5** shows the driveway locations with right-turn driveway access to the site, and how they compare with the TxDOT threshold. The high inbound volume occurs in the PM peak hour for every driveway in this analysis.

In consideration to these recommendations and TxDOT criterion, a right-turn lane is not recommended at any of the site driveways.

Table 5 – Right-Turn Lane Analysis

Right-Turn Location	Projected Maximum Peak Hour Right-Turn Volume	TxDOT Threshold (Access Management Manual, Table 2-3)	Right-Turn Lane Recommended?
Drive 1 from Sids Road	4 vph	60 vph	No
Drive 2 from Sids Road	1 vph	60 vph	No
Drive 3 from Sids Road	3 vph	60 vph	No
Drive 4 from Sids Road	0 vph	60 vph	No
Drive 5 from Goliad Street	2 vph	50 vph	No
Drive 6 from Mims Road	3 vph	60 vph	No

V.CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, the proposed Rayburn Electric Cooperative Campus Expansion development can be successfully incorporated into the surrounding roadway network. The proposed site driveways provide the appropriate level of access for the development. The site-generated traffic does not have a significant or disproportionate effect on the existing vehicle traffic operations.

The following recommendations should be included in the development of the site:

1. Construct Drive 4 to Goliad Street as a right-in/right-out driveway due to not meeting TxDOT driveway access spacing.

Kimley»Horn

TRAFFIC COUNTS AND HISTORICAL DATA

Lineman Building - Rockwall, Texas

Historical Link Volumes and Growth Rates

Goliad Street						
Record	**Year**	**Link Start**	**Link End**	**Source**	**24-Hour Volume**	**Annual Growth Rate**
1	2011	Lochspring Drive	SH 276	TxDOT	20,696	-
2	2013	Lochspring Drive	SH 276	TxDOT	23,328	6.2%
3	2014	Lochspring Drive	SH 276	TxDOT	21,981	-5.8%
4	2015	Lochspring Drive	SH 276	TxDOT	23,046	4.8%
5	2016	Lochspring Drive	SH 276	TxDOT	24,309	5.5%
6	2017	Lochspring Drive	SH 276	TxDOT	26,274	8.1%
7	2018	Lochspring Drive	SH 276	TxDOT	26,568	1.1%
8	2019	Lochspring Drive	SH 276	TxDOT	26,846	1.0%
9	2020	Lochspring Drive	SH 276	TxDOT	26,590	-1.0%
10	2021	Lochspring Drive	SH 276	TxDOT	27,992	5.3%
					Average Growth 2011 - 2021:	**3.0%**

Mims Road						
Record	**Year**	**Link Start**	**Link End**	**Source**	**24-Hour Volume**	**Annual Growth Rate**
1	2009	Goliad Street	Sids Road	TxDOT	1,143	-
2	2014	Goliad Street	Sids Road	TxDOT	1,353	3.4%
					Average Growth 2009 - 2014:	**3.4%**

Average Annual Growth:	**3.2%**

National Data & Surveying Services Intersection Turning Movement Count

Location: Rayburn County Electric Middle Dwy & Sids Rd
City: Rockwall
Control: No Control

Project ID: 22-470030-006
Date: 9/20/2022

Data - Totals

NS/EW Streets:	Rayburn County Electric Middle Dwy				Rayburn County Electric Middle Dwy				Sids Rd				Sids Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0	20	0	0	1	19	0	0	40
6:45 AM	0	0	0	0	0	0	0	0	0	12	0	0	2	17	0	0	31
7:00 AM	0	0	0	0	0	0	0	0	0	14	0	0	1	27	0	0	42
7:15 AM	0	0	1	0	0	0	0	0	0	23	0	0	0	42	0	0	66
7:30 AM	0	0	0	0	0	0	0	0	0	32	0	0	1	47	0	0	80
7:45 AM	1	0	1	0	0	0	0	0	0	38	0	0	1	74	1	0	116
8:00 AM	0	0	1	0	0	0	0	0	0	23	0	0	2	93	2	0	121
8:15 AM	0	0	0	0	0	0	0	0	0	25	0	0	0	77	2	0	104
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	3	0	0	0	0	0	0	187	0	0	8	396	5	0	600
APPROACH %'s :	25.00%	0.00%	75.00%	0.00%					0.00%	100.00%	0.00%	0.00%	1.96%	96.82%	1.22%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	1	0	2	0	0	0	0	0	0	118	0	0	4	291	5	0	421
PEAK HR FACTOR :	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.776	0.000	0.000	0.500	0.782	0.625	0.000	0.870
	0.375				0.000				0.776				0.773				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	0	0	0	0	0	62	0	0	0	31	0	0	93
4:45 PM	0	0	2	0	1	0	0	0	0	55	0	0	0	51	0	0	109
5:00 PM	1	0	0	0	1	0	0	0	0	59	0	0	0	51	0	0	112
5:15 PM	2	0	0	0	0	0	0	0	0	59	0	0	1	42	0	0	104
5:30 PM	0	0	2	0	0	0	0	0	0	60	0	0	0	43	0	0	105
5:45 PM	0	0	0	0	1	0	0	0	0	46	0	0	0	37	0	0	84
6:00 PM	0	0	0	0	0	0	0	0	0	50	0	0	0	31	0	0	81
6:15 PM	0	0	1	0	0	0	0	0	0	43	0	0	0	37	0	0	81
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	0	5	0	3	0	0	0	0	434	0	0	1	323	0	0	769
APPROACH %'s :	37.50%	0.00%	62.50%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.31%	99.69%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	3	0	4	0	2	0	0	0	0	233	0	0	1	187	0	0	430
PEAK HR FACTOR :	0.375	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.971	0.000	0.000	0.250	0.917	0.000	0.000	0.960
	0.875				0.500				0.971				0.922				

National Data & Surveying Services Intersection Turning Movement Count

Location: Rayburn County Electric West Dwy & Sids Rd
City: Rockwall
Control: No Control

Project ID: 22-470030-005
Date: 9/20/2022

Data - Totals

NS/EW Streets:	Rayburn County Electric West Dwy				Rayburn County Electric West Dwy				Sids Rd				Sids Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0	20	0	0	2	17	0	0	39
6:45 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	17	0	0	29
7:00 AM	0	0	0	0	0	0	0	0	0	15	0	0	1	26	0	0	42
7:15 AM	0	0	0	0	0	0	0	0	0	23	4	0	2	39	0	0	68
7:30 AM	0	0	1	0	0	0	0	0	0	30	0	0	2	46	0	0	79
7:45 AM	0	0	1	0	0	0	0	0	0	37	1	0	2	72	0	0	113
8:00 AM	0	0	0	0	0	0	0	0	0	23	2	0	5	89	0	0	119
8:15 AM	0	0	0	0	0	0	0	0	0	25	0	0	0	76	0	0	101
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	2	0	0	0	0	0	0	185	7	0	14	382	0	0	590
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					0.00%	96.35%	3.65%	0.00%	3.54%	96.46%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	2	0	0	0	0	0	0	115	3	0	9	283	0	0	412
PEAK HR FACTOR :	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.777	0.375	0.000	0.450	0.795	0.000	0.000	0.866
	0.500								0.776				0.777				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	1	0	0	0	0	0	0	58	0	0	0	31	0	0	90
4:45 PM	0	0	0	0	0	0	0	0	0	54	0	0	0	50	0	0	104
5:00 PM	4	0	3	0	0	0	0	0	0	56	0	0	0	52	0	0	115
5:15 PM	0	0	3	0	0	0	0	0	0	56	0	0	0	44	0	0	103
5:30 PM	1	0	3	0	0	0	0	0	0	57	0	0	0	43	0	0	104
5:45 PM	0	0	0	0	0	0	0	0	0	46	0	0	0	37	0	0	83
6:00 PM	0	0	0	0	0	0	0	0	0	50	0	0	0	31	0	0	81
6:15 PM	0	0	0	0	0	0	0	0	0	44	0	0	0	38	0	0	82
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	0	10	0	0	0	0	0	0	421	0	0	0	326	0	0	762
APPROACH %'s :	33.33%	0.00%	66.67%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	5	0	9	0	0	0	0	0	0	223	0	0	0	189	0	0	426
PEAK HR FACTOR :	0.313	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.978	0.000	0.000	0.000	0.909	0.000	0.000	0.926
	0.500								0.978				0.909				

National Data & Surveying Services Intersection Turning Movement Count

Location: SR 205/S Goliad St & Mims Rd
City: Rockwall
Control: 1-Way Stop(EB)

Project ID: 22-470030-004
Date: 9/20/2022

Data - Totals

NS/EW Streets:	SR 205/S Goliad St				SR 205/S Goliad St				Mims Rd				Mims Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	2	193	0	0	0	90	9	0	8	0	0	0	0	0	0	0	302
6:45 AM	7	202	0	0	0	72	15	0	1	0	0	0	0	0	0	0	297
7:00 AM	5	216	0	0	0	94	10	0	6	0	0	0	0	0	0	0	331
7:15 AM	2	195	0	0	0	119	16	0	4	0	3	0	0	0	0	0	339
7:30 AM	10	201	0	0	0	121	10	0	8	0	3	0	0	0	0	0	353
7:45 AM	1	210	0	1	0	161	15	0	5	0	6	0	0	0	0	0	399
8:00 AM	6	210	0	0	0	128	13	0	4	0	4	0	0	0	0	0	365
8:15 AM	5	171	0	0	0	137	10	0	8	0	5	0	0	0	0	0	336
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	38	1598	0	1	0	922	98	0	44	0	21	0	0	0	0	0	2722
APPROACH %'s :	2.32%	97.62%	0.00%	0.06%	0.00%	90.39%	9.61%	0.00%	67.69%	0.00%	32.31%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	19	816	0	1	0	529	54	0	21	0	16	0	0	0	0	0	1456
PEAK HR FACTOR :	0.475	0.971	0.000	0.250	0.000	0.821	0.844	0.000	0.656	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.912
		0.968				0.828				0.841							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	3	159	0	0	0	194	10	0	7	0	5	0	0	0	0	0	378
4:45 PM	2	154	0	0	0	198	2	0	10	0	7	0	0	0	0	0	373
5:00 PM	2	186	0	0	0	177	5	0	22	0	4	0	0	0	0	0	396
5:15 PM	2	188	0	0	0	165	3	0	7	0	4	0	0	0	0	0	369
5:30 PM	4	155	0	0	0	202	6	0	5	0	10	0	0	0	0	0	382
5:45 PM	2	152	0	0	0	210	9	0	5	0	1	0	0	0	0	0	379
6:00 PM	3	176	0	0	0	211	4	0	5	0	3	0	0	0	0	0	402
6:15 PM	1	144	0	0	0	202	4	0	2	0	0	0	0	0	0	0	353
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	19	1314	0	0	0	1559	43	0	63	0	34	0	0	0	0	0	3032
APPROACH %'s :	1.43%	98.57%	0.00%	0.00%	0.00%	97.32%	2.68%	0.00%	64.95%	0.00%	35.05%	0.00%					
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	11	671	0	0	0	788	22	0	22	0	18	0	0	0	0	0	1532
PEAK HR FACTOR :	0.688	0.892	0.000	0.000	0.000	0.934	0.611	0.000	0.786	0.000	0.450	0.000	0.000	0.000	0.000	0.000	0.953
		0.897				0.925				0.667							

National Data & Surveying Services Intersection Turning Movement Count

Location: National Dr & Mims Rd
City: Rockwall
Control: 1-Way Stop(NB)

Project ID: 22-470030-003
Date: 9/27/2022

Data - Totals

NS/EW Streets:	National Dr				National Dr				Mims Rd				Mims Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	5	0	0	0	0	0	0	0	3	0	8	0	0	0	16
6:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	11	0	0	0	14
7:00 AM	1	0	5	0	0	0	0	0	0	0	1	0	5	0	0	0	12
7:15 AM	0	0	4	0	0	0	0	0	0	0	1	0	2	0	0	0	7
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4
7:45 AM	1	0	2	0	0	0	0	0	0	0	1	0	5	2	0	0	11
8:00 AM	0	0	2	0	0	0	0	0	0	0	2	0	5	8	0	0	17
8:15 AM	0	0	4	0	0	0	0	0	0	3	0	0	7	5	0	1	20
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	0	25	0	0	0	0	0	0	3	8	0	46	15	0	1	101
APPROACH %'s :	10.71%	0.00%	89.29%	0.00%					0.00%	27.27%	72.73%	0.00%	74.19%	24.19%	0.00%	1.61%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	2	0	8	0	0	0	0	0	0	3	3	0	20	15	0	1	52
PEAK HR FACTOR :	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.000	0.714	0.469	0.000	0.250	0.650
	0.625								0.500				0.692				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	1	0	10	0	0	0	0	0	0	5	3	0	3	3	0	0	25
4:45 PM	0	0	7	0	0	0	0	0	0	4	2	0	3	2	0	0	18
5:00 PM	1	0	14	0	0	0	0	0	0	1	2	0	5	2	0	0	25
5:15 PM	1	0	8	0	0	0	0	0	0	2	0	0	5	1	0	0	17
5:30 PM	0	0	3	0	0	0	0	0	0	5	2	0	6	2	0	0	18
5:45 PM	0	0	2	0	0	0	0	0	0	3	1	0	7	0	0	0	13
6:00 PM	1	0	7	0	0	0	0	0	0	0	0	0	0	2	0	0	10
6:15 PM	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	0	52	0	0	0	0	0	0	20	11	0	30	13	0	0	130
APPROACH %'s :	7.14%	0.00%	92.86%	0.00%					0.00%	64.52%	35.48%	0.00%	69.77%	30.23%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	3	0	39	0	0	0	0	0	0	12	7	0	16	8	0	0	85
PEAK HR FACTOR :	0.750	0.000	0.696	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.583	0.000	0.800	0.667	0.000	0.000	0.850
	0.700								0.594				0.857				

National Data & Surveying Services Intersection Turning Movement Count

Location: Mims Rd & Sids Rd
City: Rockwall
Control: 1-Way Yield(WB)

Project ID: 22-470030-002
Date: 9/20/2022

Data - Totals

NS/EW Streets:	Mims Rd				Mims Rd				Sids Rd				Sids Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	21	1	0	0	0	0	0	0	0	0	19	0	41
6:45 AM	0	0	0	0	13	0	0	0	0	0	0	0	0	0	16	0	29
7:00 AM	0	0	0	0	15	3	0	0	0	0	0	0	0	0	26	0	44
7:15 AM	0	1	1	0	25	1	0	0	0	0	0	0	0	0	39	0	67
7:30 AM	0	2	0	0	30	3	0	0	0	0	0	0	0	0	46	0	81
7:45 AM	0	0	0	0	38	2	0	0	0	0	0	0	0	0	72	0	112
8:00 AM	0	3	0	0	25	3	0	0	0	0	0	0	0	0	89	0	120
8:15 AM	0	2	0	0	27	4	0	0	0	0	0	0	0	0	77	0	110
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	8	1	0	194	17	0	0	0	0	0	0	0	0	384	0	604
APPROACH %'s :	0.00%	88.89%	11.11%	0.00%	91.94%	8.06%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	7	0	0	120	12	0	0	0	0	0	0	0	0	284	0	423
PEAK HR FACTOR :	0.000	0.583	0.000	0.000	0.789	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.798	0.000	0.881
	0.583				0.825								0.798				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	59	3	0	0	0	0	0	0	0	0	31	0	93
4:45 PM	0	1	1	0	51	4	0	0	0	0	0	0	0	0	49	0	106
5:00 PM	0	2	1	0	55	0	0	0	0	0	0	0	2	0	55	0	115
5:15 PM	0	2	1	0	53	1	0	0	0	0	0	0	0	0	43	0	100
5:30 PM	0	3	0	0	58	1	0	0	0	0	0	0	0	0	45	0	107
5:45 PM	0	0	0	0	47	1	0	0	0	0	0	0	0	0	37	1	86
6:00 PM	0	0	1	0	46	1	0	0	0	0	0	0	0	0	31	0	79
6:15 PM	0	3	0	0	46	1	0	0	0	0	0	0	0	0	37	0	87
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	11	4	0	415	12	0	0	0	0	0	0	2	0	328	1	773
APPROACH %'s :	0.00%	73.33%	26.67%	0.00%	97.19%	2.81%	0.00%	0.00%					0.60%	0.00%	99.09%	0.30%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	8	3	0	217	6	0	0	0	0	0	0	2	0	192	0	428
PEAK HR FACTOR :	0.000	0.667	0.750	0.000	0.935	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.873	0.000	0.930
	0.917				0.945								0.851				

National Data & Surveying Services Intersection Turning Movement Count

Location: Rayburn County Electric East Dwy & Sids Rd
City: Rockwall
Control: No Control

Project ID: 22-470030-007
Date: 9/20/2022

Data - Totals

NS/EW Streets:	Rayburn County Electric East Dwy				Rayburn County Electric East Dwy				Sids Rd				Sids Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	2	29	0	0	1	15	1	0	48
6:45 AM	0	0	0	0	0	0	0	0	0	16	1	0	1	18	0	0	36
7:00 AM	0	0	0	0	0	0	0	0	0	20	0	0	2	29	1	0	52
7:15 AM	0	0	2	0	0	0	0	0	0	24	0	0	0	41	1	0	68
7:30 AM	0	0	1	0	0	0	0	0	0	32	0	0	1	46	3	0	83
7:45 AM	0	0	0	0	0	0	0	0	0	37	2	0	3	74	2	0	118
8:00 AM	0	0	0	0	0	0	0	0	1	23	0	0	1	96	0	0	121
8:15 AM	0	0	0	0	0	0	0	0	8	18	0	0	0	78	1	0	105
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	3	0	0	0	0	0	11	199	3	0	9	397	9	0	631
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					5.16%	93.43%	1.41%	0.00%	2.17%	95.66%	2.17%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	0	9	110	2	0	5	294	6	0	427
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.281	0.743	0.250	0.000	0.417	0.766	0.500	0.000	0.882
	0.250				0.000				0.776				0.786				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	1	0	0	0	0	0	7	60	0	0	0	30	6	0	104
4:45 PM	3	0	0	0	0	0	0	0	3	69	0	0	2	45	14	0	136
5:00 PM	0	0	2	0	0	0	0	0	4	77	0	0	0	42	10	0	135
5:15 PM	0	0	0	0	4	0	0	0	0	70	0	0	1	38	4	0	117
5:30 PM	1	0	1	0	1	1	0	0	1	62	1	0	0	42	1	0	111
5:45 PM	0	0	1	0	0	0	0	0	0	50	0	0	0	37	2	0	90
6:00 PM	1	0	1	0	2	0	0	0	0	52	0	0	0	30	4	0	90
6:15 PM	0	0	0	0	0	0	0	0	0	46	0	0	0	36	1	0	83
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	0	6	0	7	1	0	0	15	486	1	0	3	300	42	0	866
APPROACH %'s :	45.45%	0.00%	54.55%	0.00%	87.50%	12.50%	0.00%	0.00%	2.99%	96.81%	0.20%	0.00%	0.87%	86.96%	12.17%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	4	0	3	0	5	1	0	0	8	278	1	0	3	167	29	0	499
PEAK HR FACTOR :	0.333	0.000	0.375	0.000	0.313	0.250	0.000	0.000	0.500	0.903	0.250	0.000	0.375	0.928	0.518	0.000	0.917
	0.583				0.375				0.886				0.816				

National Data & Surveying Services Intersection Turning Movement Count

Location: SR 205/S Goliad St & SR 276/Sids Rd
City: Rockwall
Control: Signalized

Project ID: 22-470030-001
Date: 9/20/2022

Data - Totals

NS/EW Streets: SR 205/S Goliad St | SR 205/S Goliad St | SR 276/Sids Rd | SR 276/Sids Rd

AM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
12:00 AM	0	13	1	0	4	14	1	0	0	1	1	0	0	0	3	0	38
12:15 AM	0	6	1	0	7	17	0	1	0	0	1	0	0	1	1	0	35
12:30 AM	0	4	2	0	3	18	0	0	1	1	0	0	0	1	5	0	35
12:45 AM	0	4	0	0	0	7	0	0	0	0	0	0	0	0	2	0	13
1:00 AM	0	5	0	0	2	6	0	0	0	0	0	0	1	0	1	0	15
1:15 AM	0	8	0	0	4	6	0	0	0	1	0	0	0	0	2	0	21
1:30 AM	0	6	0	0	0	5	1	0	0	0	1	0	0	0	2	0	15
1:45 AM	0	3	0	0	1	8	1	0	0	1	0	0	1	1	3	0	19
2:00 AM	0	7	0	0	1	2	1	0	0	0	1	0	0	0	2	0	14
2:15 AM	0	7	0	0	0	5	0	0	0	0	0	0	0	0	1	0	13
2:30 AM	0	5	0	0	3	6	0	0	0	0	0	0	2	0	0	0	16
2:45 AM	0	9	0	0	1	4	0	0	0	0	0	0	0	0	1	0	15
3:00 AM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9
3:15 AM	0	6	0	0	0	2	0	0	0	0	0	0	0	1	2	0	11
3:30 AM	1	7	0	0	2	3	0	0	0	0	0	0	0	0	0	0	13
3:45 AM	0	12	0	0	0	2	0	0	0	1	0	0	0	0	2	0	17
4:00 AM	0	20	0	0	1	9	0	0	0	0	0	0	0	0	4	0	34
4:15 AM	0	24	0	0	0	4	1	0	0	0	0	0	1	1	6	0	37
4:30 AM	0	21	0	0	1	16	1	0	0	0	0	0	0	0	8	0	47
4:45 AM	1	42	0	0	3	12	1	0	0	1	1	0	0	4	13	0	78
5:00 AM	3	54	1	0	3	11	4	0	1	1	1	0	1	2	7	0	89
5:15 AM	2	68	0	0	2	26	2	0	1	2	0	0	2	5	21	0	131
5:30 AM	3	94	1	0	5	28	2	0	1	3	2	0	1	3	15	0	158
5:45 AM	2	111	0	0	3	36	14	0	1	1	1	0	3	13	24	0	209
6:00 AM	3	145	1	0	5	29	5	0	4	5	5	0	4	9	41	0	256
6:15 AM	3	161	2	0	6	45	5	0	3	6	11	0	7	10	39	0	298
6:30 AM	6	210	4	0	9	84	4	0	1	13	14	0	10	9	60	0	424
6:45 AM	6	216	3	0	13	68	3	0	2	7	9	0	14	16	79	0	436
7:00 AM	13	241	3	0	15	115	3	0	3	12	3	0	7	16	95	0	526
7:15 AM	12	212	8	0	20	111	2	0	1	13	13	0	13	34	105	0	544
7:30 AM	9	213	5	0	27	134	5	0	2	23	7	0	13	39	121	0	598
7:45 AM	9	208	2	0	30	130	2	0	4	24	12	0	18	68	129	0	636
8:00 AM	19	211	4	0	32	132	4	1	2	16	4	0	17	82	148	0	672
8:15 AM	11	188	4	0	24	142	6	1	3	8	7	0	11	61	151	0	617
8:30 AM	19	148	7	0	25	109	4	0	5	15	9	0	19	49	132	0	541
8:45 AM	17	173	1	0	32	142	6	0	18	14	8	0	9	42	122	0	584
9:00 AM	9	207	9	0	27	113	3	0	7	14	11	0	7	32	99	0	538
9:15 AM	10	172	2	0	35	117	6	0	7	10	8	0	6	26	89	0	488
9:30 AM	3	162	7	0	52	133	6	0	7	15	8	0	3	28	68	0	492
9:45 AM	5	170	3	0	28	103	5	0	1	16	7	0	1	29	60	0	428
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	166	3577	71	0	426	1959	98	3	75	224	145	0	171	582	1663	0	9160
APPROACH %'s :	4.35%	93.79%	1.86%	0.00%	17.14%	78.80%	3.94%	0.12%	16.89%	50.45%	32.66%	0.00%	7.08%	24.09%	68.83%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	48	820	15	0	113	538	17	2	11	71	30	0	59	250	549	0	2523
PEAK HR FACTOR :	0.632	0.962	0.750	0.000	0.883	0.947	0.708	0.500	0.688	0.740	0.625	0.000	0.819	0.762	0.909	0.000	0.939
	0.943				0.968				0.700				0.868				

NOON

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
10:00 AM	8	192	4	0	23	101	1	0	4	8	10	0	4	14	59	0	428
10:15 AM	8	164	0	0	25	102	6	0	4	10	8	0	4	19	56	0	406
10:30 AM	10	147	4	0	28	124	5	0	2	23	17	0	3	17	60	0	440
10:45 AM	3	163	1	0	25	138	0	0	5	20	10	0	6	17	60	0	448
11:00 AM	7	152	3	0	28	111	4	0	3	14	12	0	7	20	60	0	421
11:15 AM	3	173	3	0	45	147	9	0	3	20	2	0	2	14	52	0	473
11:30 AM	14	171	6	0	35	144	4	0	6	18	16	0	4	17	48	0	483
11:45 AM	4	160	7	0	37	138	3	0	11	17	9	0	5	25	68	0	484
12:00 PM	4	153	5	0	36	188	10	0	8	14	12	0	4	12	72	0	518
12:15 PM	10	193	2	0	38	141	7	0	5	20	18	0	4	26	70	0	534
12:30 PM	11	139	3	0	38	156	5	0	4	25	15	0	8	26	72	1	503
12:45 PM	10	140	6	0	40	140	10	0	8	30	17	0	2	23	53	0	479
1:00 PM	12	146	2	0	43	148	8	0	4	20	9	0	5	15	73	0	485
1:15 PM	10	128	2	0	47	179	10	0	8	23	16	0	3	15	55	0	496
1:30 PM	4	166	5	0	47	147	12	0	4	24	21	0	11	27	56	1	525
1:45 PM	6	144	4	0	39	171	15	0	0	16	16	0	7	24	54	0	496
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	124	2531	57	0	574	2275	109	0	79	302	208	0	79	311	968	2	7619
APPROACH %'s :	4.57%	93.33%	2.10%	0.00%	19.41%	76.91%	3.68%	0.00%	13.41%	51.27%	35.31%	0.00%	5.81%	22.87%	71.18%	0.15%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	29	645	17	0	149	623	25	0	28	76	54	0	21	89	282	1	2039
PEAK HR FACTOR :	0.659	0.835	0.607	0.000	0.980	0.828	0.625	0.000	0.636	0.760	0.750	0.000	0.656	0.856	0.979	0.250	0.955
	0.843				0.851				0.898				0.918				

PM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	10	130	11	0	46	171	7	1	6	27	12	0	3	31	48	0	503
2:15 PM	5	147	8	0	39	159	3	0	7	35	27	0	3	17	52	0	502
2:30 PM	10	127	5	0	49	164	1	0	4	34	18	0	4	18	60	0	494
2:45 PM	13	165	5	0	56	179	2	0	5	24	16	0	7	17	62	0	551
3:00 PM	11	188	5	0	52	166	3	0	2	19	9	0	6	31	47	0	539
3:15 PM	11	136	4	0	65	161	2	0	2	28	17	0	7	22	46	0	501
3:30 PM	6	150	5	0	33	186	4	0	3	21	17	0	6	23	46	0	500
3:45 PM	9	163	9	0	52	156	9	0	4	23	18	0	12	29	53	0	537
4:00 PM	10	142	7	0	58	193	3	0	5	38	21	0	12	25	37	0	551
4:15 PM	13	145	14	0	55	185	3	0	3	21	24	0	8	20	51	0	542
4:30 PM	10	152	12	0	52	191	4	0	2	40	23	0	18	26	49	0	579
4:45 PM	22	178	6	0	53	176	3	0	7	31	29	0	6	40	48	0	599
5:00 PM	13	199	15	0	63	182	6	0	9	43	23	0	6	34	47	0	640
5:15 PM	7	183	8	0	61	141	3	1	9	55	16	0	9	27	52	0	572
5:30 PM	3	176	7	0	65	207	6	0	4	37	21	0	9	28	69	0	632
5:45 PM	9	148	9	0	60	181	2	0	5	29	19	0	26	27	58	0	573
6:00 PM	7	176	10	0	59	206	2	0	5	29	26	0	10	26	50	1	607
6:15 PM	6	156	4	0	48	201	3	0	1	24	22	0	13	23	52	0	553
6:30 PM	9	166	10	0	52	204	1	0	4	31	21	0	9	20	51	0	578
6:45 PM	3	151	13	0	54	221	1	0	3	23	14	0	11	22	35	0	551
7:00 PM	7	136	9	0	48	218	2	0	4	16	17	0	10	15	27	0	509
7:15 PM	9	128	4	0	37	178	1	0	0	15	22	0	11	12	33	0	450
7:30 PM	5	112	6	0	39	209	0	0	1	18	25	0	11	7	32	0	465
7:45 PM	4	103	4	0	35	175	2	0	0	12	11	0	7	9	34	1	397
8:00 PM	5	102	8	0	48	165	2	0	0	12	13	0	5	8	30	0	398
8:15 PM	1	111	5	0	36	162	0	0	0	18	15	0	5	7	23	0	383
8:30 PM	5	108	5	0	37	176	0	0	2	16	12	0	5	6	21	0	393
8:45 PM	2	85	4	0	44	144	0	0	2	12	18	0	5	4	8	0	328
9:00 PM	0	67	3	0	36	114	0	0	1	4	5	0	2	3	11	0	246
9:15 PM	0	41	2	0	30	91	0	0	2	5	10	0	2	6	14	1	204
9:30 PM	2	67	4	0	21	90	1	0	0	5	3	0	2	0	13	0	208
9:45 PM	0	37	0	0	15	70	1	0	0	5	1	0	1	8	7	0	145
10:00 PM	2	39	0	0	10	65	0	0	0	4	3	0	3	1	9	0	136
10:15 PM	2	31	1	0	16	66	1	1	1	3	1	0	2	2	8	0	135
10:30 PM	2	34	7	0	12	41	1	0	2	5	1	0	4	2	7	0	118
10:45 PM	0	21	1	0	14	26	0	0	0	1	5	0	1	1	6	0	76
11:00 PM	0	15	2	0	8	25	0	0	0	1	1	0	3	1	7	0	63
11:15 PM	0	10	0	0	7	25	0	1	0	2	1	0	0	1	2	0	49
11:30 PM	0	8	1	0	7	19	0	0	0	0	0	0	0	0	2	0	37
11:45 PM	0	6	0	0	6	8	0	0	0	0	0	0	0	0	2	0	22
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	233	4439	233	0	1578	5697	79	4	105	766	557	0	264	599	1309	3	15866
APPROACH %'s :	4.75%	90.50%	4.75%	0.00%	21.45%	77.43%	1.07%	0.05%	7.35%	53.64%	39.01%	0.00%	12.14%	27.54%	60.18%	0.14%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	45	736	36	0	242	706	18	1	29	166	89	0	30	129	216	0	2443
PEAK HR FACTOR :	0.511	0.925	0.600	0.000	0.931	0.853	0.750	0.250	0.806	0.755	0.767	0.000	0.833	0.806	0.783	0.000	0.954
	0.900				0.870				0.888				0.884				

Kimley»Horn

Synchro™ Output - 2022 Existing Traffic

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	113	538	17	48	820	15	11	71	30	59	250
Future Volume (vph)	2	113	538	17	48	820	15	11	71	30	59	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		285		0	185		265	285		0	330	
Storage Lanes		1		1	1		2	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.956			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	3539	1583	1770	3539	1583	1770	1781	0	1770	1863
Flt Permitted		0.127			0.328			0.510			0.687	
Satd. Flow (perm)	0	237	3539	1583	611	3539	1583	950	1781	0	1280	1863
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				95			95		18			
Link Speed (mph)			45			45			30			30
Link Distance (ft)			505			1013			908			822
Travel Time (s)			7.7			15.3			20.6			18.7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	2	120	572	18	51	872	16	12	76	32	63	266
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	572	18	51	872	16	12	108	0	63	266
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			12			12			12			12
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	D.P+P	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA		D.P+P	NA
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases	8	8		4	4		8	6			2	

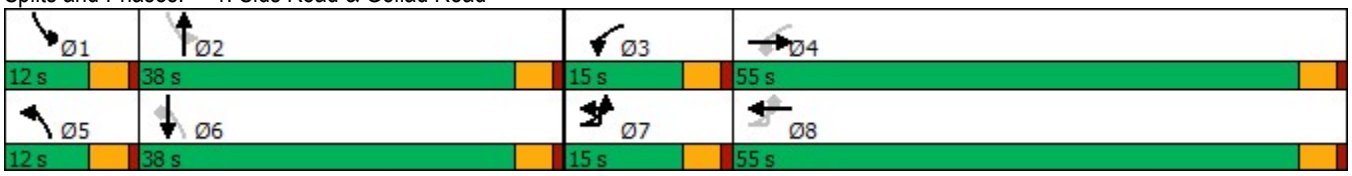
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	549
Future Volume (vph)	549
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	326
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.94
Adj. Flow (vph)	584
Shared Lane Traffic (%)	
Lane Group Flow (vph)	584
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	CI+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	7	7	4	4	3	8	8	5	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	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5
Total Split (s)	15.0	15.0	55.0	55.0	15.0	55.0	55.0	12.0	38.0		12.0	38.0
Total Split (%)	12.5%	12.5%	45.8%	45.8%	12.5%	45.8%	45.8%	10.0%	31.7%		10.0%	31.7%
Maximum Green (s)	10.5	10.5	50.5	50.5	10.5	50.5	50.5	7.5	33.5		7.5	33.5
Yellow Time (s)	3.5	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	1.0
Lost Time Adjust (s)		0.0	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	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	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		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	Max		None	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0		7.0			7.0
Flash Dont 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
Act Effct Green (s)		39.3	34.9	34.9	40.5	30.3	30.3	42.3	34.2		39.7	41.1
Actuated g/C Ratio		0.41	0.36	0.36	0.42	0.31	0.31	0.44	0.36		0.41	0.43
v/c Ratio		0.51	0.45	0.03	0.15	0.78	0.03	0.03	0.17		0.11	0.33
Control Delay		23.3	25.7	0.1	15.8	35.7	0.1	17.9	22.2		18.2	22.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		23.3	25.7	0.1	15.8	35.7	0.1	17.9	22.2		18.2	22.8
LOS		C	C	A	B	D	A	B	C		B	C
Approach Delay			24.6			34.0			21.8			17.9
Approach LOS			C			C			C			B
Queue Length 50th (ft)		44	150	0	18	264	0	4	39		22	103
Queue Length 95th (ft)		77	203	0	38	338	0	17	91		55	231
Internal Link Dist (ft)			425			933			828			742
Turn Bay Length (ft)		285			185		265	285			330	
Base Capacity (vph)		272	1897	892	400	1897	892	484	644		569	796
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.45	0.30	0.02	0.13	0.46	0.02	0.02	0.17		0.11	0.33

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 96.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 25.5 Intersection LOS: C
Intersection Capacity Utilization 82.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Sids Road & Goliad Road



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	31.7%
Maximum Green (s)	33.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	Max
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	41.1
Actuated g/C Ratio	0.43
v/c Ratio	0.68
Control Delay	15.7
Queue Delay	0.0
Total Delay	15.7
LOS	B
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	114
Queue Length 95th (ft)	#379
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	863
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.68

Intersection Summary

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	120	12	8	0	0	284
Future Vol, veh/h	120	12	8	0	0	284
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	136	14	9	0	0	323

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	9	0	-	0	295	9
Stage 1	-	-	-	-	9	-
Stage 2	-	-	-	-	286	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1611	-	-	-	696	1073
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1611	-	-	-	637	1073
Mov Cap-2 Maneuver	-	-	-	-	637	-
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	SB
HCM Control Delay, s	6.8	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1611	-	-	-	1073
HCM Lane V/C Ratio	0.085	-	-	-	0.301
HCM Control Delay (s)	7.4	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	1.3

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	115	3	0	189
Future Vol, veh/h	0	9	115	3	0	189
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	131	3	0	215

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	348	133	0	0	134	0
Stage 1	133	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	649	916	-	-	1451	-
Stage 1	893	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	649	916	-	-	1451	-
Mov Cap-2 Maneuver	649	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1451	-
HCM Lane V/C Ratio	-	-	0.011	-	-
HCM Control Delay (s)	-	-	9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	2	0	118	0	1	187	0
Future Vol, veh/h	0	0	0	1	0	2	0	118	0	1	187	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	1	0	2	0	136	0	1	215	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	354	353	215	353	353	136	215	0	0	136	0	0
Stage 1	217	217	-	136	136	-	-	-	-	-	-	-
Stage 2	137	136	-	217	217	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	601	572	825	602	572	913	1355	-	-	1448	-	-
Stage 1	785	723	-	867	784	-	-	-	-	-	-	-
Stage 2	866	784	-	785	723	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	599	571	825	601	571	913	1355	-	-	1448	-	-
Mov Cap-2 Maneuver	599	571	-	601	571	-	-	-	-	-	-	-
Stage 1	785	722	-	867	784	-	-	-	-	-	-	-
Stage 2	864	784	-	784	722	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.6	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1355	-	-	-	778	1448	-	-
HCM Lane V/C Ratio	-	-	-	-	0.004	0.001	-	-
HCM Control Delay (s)	0	-	-	0	9.6	7.5	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	1	9	110	2	5	294	6
Future Vol, veh/h	0	0	0	0	0	1	9	110	2	5	294	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	1	10	125	2	6	334	7

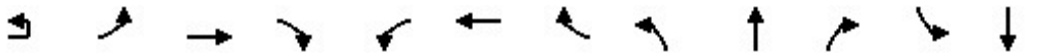
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	497	497	338	496	499	126	341	0	0	127	0	0
Stage 1	350	350	-	146	146	-	-	-	-	-	-	-
Stage 2	147	147	-	350	353	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	483	475	704	484	473	924	1218	-	-	1459	-	-
Stage 1	666	633	-	857	776	-	-	-	-	-	-	-
Stage 2	856	775	-	666	631	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	477	468	704	479	466	924	1218	-	-	1459	-	-
Mov Cap-2 Maneuver	477	468	-	479	466	-	-	-	-	-	-	-
Stage 1	660	630	-	849	769	-	-	-	-	-	-	-
Stage 2	847	768	-	663	628	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.9	0.6	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1218	-	-	-	924	1459	-	-
HCM Lane V/C Ratio	0.008	-	-	-	0.001	0.004	-	-
HCM Control Delay (s)	8	0	-	0	8.9	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	258	752	19	48	784	38	31	177	95	32	137
Future Volume (vph)	1	258	752	19	48	784	38	31	177	95	32	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		285		0	185		265	285		0	330	
Storage Lanes		1		1	1		2	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.948			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	3539	1583	1770	3539	1583	1770	1766	0	1770	1863
Flt Permitted		0.155			0.223			0.646			0.458	
Satd. Flow (perm)	0	289	3539	1583	415	3539	1583	1203	1766	0	853	1863
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				95			95		22			
Link Speed (mph)			45			45			30			30
Link Distance (ft)			505			1013			908			822
Travel Time (s)			7.7			15.3			20.6			18.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	272	792	20	51	825	40	33	186	100	34	144
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	273	792	20	51	825	40	33	286	0	34	144
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			12			12			12			12
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	D.P+P	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA		D.P+P	NA
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases	8	8		4	4		8	6			2	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	230
Future Volume (vph)	230
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	242
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	242
Shared Lane Traffic (%)	
Lane Group Flow (vph)	242
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	CI+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

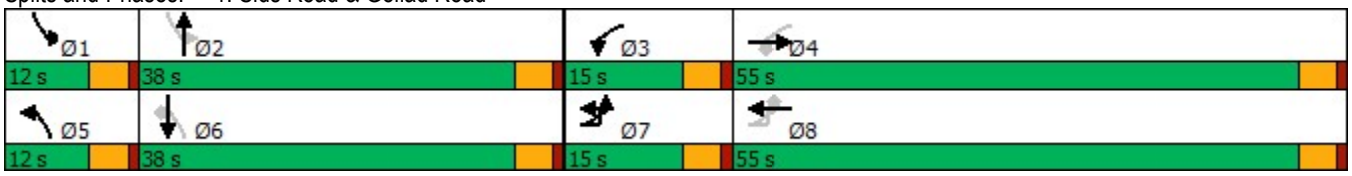


Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	7	7	4	4	3	8	8	5	2		1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5
Total Split (s)	15.0	15.0	55.0	55.0	15.0	55.0	55.0	12.0	38.0		12.0	38.0
Total Split (%)	12.5%	12.5%	45.8%	45.8%	12.5%	45.8%	45.8%	10.0%	31.7%		10.0%	31.7%
Maximum Green (s)	10.5	10.5	50.5	50.5	10.5	50.5	50.5	7.5	33.5		7.5	33.5
Yellow Time (s)	3.5	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	1.0
Lost Time Adjust (s)		0.0	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	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	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		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	Max		None	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0		7.0			7.0
Flash Dont 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
Act Effct Green (s)		39.1	37.0	37.0	41.3	28.4	28.4	38.0	34.1		38.0	34.1
Actuated g/C Ratio		0.42	0.40	0.40	0.44	0.30	0.30	0.41	0.37		0.41	0.37
v/c Ratio		0.94	0.56	0.03	0.18	0.77	0.07	0.06	0.43		0.08	0.21
Control Delay		62.5	25.7	0.1	15.9	34.8	0.3	17.4	25.8		17.6	24.7
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		62.5	25.7	0.1	15.9	34.8	0.3	17.4	25.8		17.6	24.7
LOS		E	C	A	B	C	A	B	C		B	C
Approach Delay			34.4			32.2			24.9			12.7
Approach LOS			C			C			C			B
Queue Length 50th (ft)		112	220	0	17	245	0	11	126		11	63
Queue Length 95th (ft)		#287	294	0	38	317	0	32	234		33	127
Internal Link Dist (ft)			425			933			828			742
Turn Bay Length (ft)		285			185		265	285			330	
Base Capacity (vph)		291	1951	915	345	1951	915	539	659		424	681
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.94	0.41	0.02	0.15	0.42	0.04	0.06	0.43		0.08	0.21

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 93.3			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 29.3		Intersection LOS: C	
Intersection Capacity Utilization 70.3%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Sids Road & Goliad Road



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	31.7%
Maximum Green (s)	33.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	Max
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	34.1
Actuated g/C Ratio	0.37
v/c Ratio	0.33
Control Delay	4.9
Queue Delay	0.0
Total Delay	4.9
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	56
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	732
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.33

Intersection Summary

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	231	6	7	3	2	205
Future Vol, veh/h	231	6	7	3	2	205
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	248	6	8	3	2	220

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	512	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1608	-	-	-	522	1071
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	608	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1608	-	-	-	441	1071
Mov Cap-2 Maneuver	-	-	-	-	441	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	608	-

Approach	EB	WB	SB
HCM Control Delay, s	7.5	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1608	-	-	-	1056
HCM Lane V/C Ratio	0.154	-	-	-	0.211
HCM Control Delay (s)	7.6	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.8

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	2	238	0	10	302
Future Vol, veh/h	2	2	238	0	10	302
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	2	2	259	0	11	328

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	609	259	0	0	259	0
Stage 1	259	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	458	780	-	-	1306	-
Stage 1	784	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	453	780	-	-	1306	-
Mov Cap-2 Maneuver	453	-	-	-	-	-
Stage 1	784	-	-	-	-	-
Stage 2	706	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	573	1306	-
HCM Lane V/C Ratio	-	-	0.008	0.008	-
HCM Control Delay (s)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	0	3	0	4	0	248	0	4	310	5
Future Vol, veh/h	2	0	0	3	0	4	0	248	0	4	310	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	0	3	0	4	0	258	0	4	323	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	594	592	326	592	594	258	328	0	0	258	0	0
Stage 1	334	334	-	258	258	-	-	-	-	-	-	-
Stage 2	260	258	-	334	336	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	417	419	715	418	418	781	1232	-	-	1307	-	-
Stage 1	680	643	-	747	694	-	-	-	-	-	-	-
Stage 2	745	694	-	680	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	414	417	715	417	416	781	1232	-	-	1307	-	-
Mov Cap-2 Maneuver	414	417	-	417	416	-	-	-	-	-	-	-
Stage 1	680	640	-	747	694	-	-	-	-	-	-	-
Stage 2	741	694	-	677	639	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	11.4	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1232	-	-	414	568	1307	-	-
HCM Lane V/C Ratio	-	-	-	0.005	0.013	0.003	-	-
HCM Control Delay (s)	0	-	-	13.7	11.4	7.8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	1	4	0	3	9	296	1	3	178	31
Future Vol, veh/h	5	0	1	4	0	3	9	296	1	3	178	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	1	4	0	3	10	322	1	3	193	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	560	559	210	560	576	323	227	0	0	323	0	0
Stage 1	216	216	-	343	343	-	-	-	-	-	-	-
Stage 2	344	343	-	217	233	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	439	438	830	439	428	718	1341	-	-	1237	-	-
Stage 1	786	724	-	672	637	-	-	-	-	-	-	-
Stage 2	671	637	-	785	712	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	433	433	830	435	423	718	1341	-	-	1237	-	-
Mov Cap-2 Maneuver	433	433	-	435	423	-	-	-	-	-	-	-
Stage 1	779	722	-	666	631	-	-	-	-	-	-	-
Stage 2	662	631	-	782	710	-	-	-	-	-	-	-

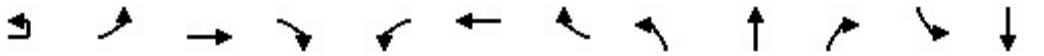
Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	12	0.2	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1341	-	-	471	523	1237	-	-
HCM Lane V/C Ratio	0.007	-	-	0.014	0.015	0.003	-	-
HCM Control Delay (s)	7.7	0	-	12.8	12	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Synchro™ Output - 2024 Background Traffic

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	120	573	18	51	874	16	12	76	32	63	266
Future Volume (vph)	2	120	573	18	51	874	16	12	76	32	63	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		285		0	185		265	285		0	330	
Storage Lanes		1		1	1		2	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.956			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	3539	1583	1770	3539	1583	1770	1781	0	1770	1863
Flt Permitted		0.119			0.310			0.485			0.682	
Satd. Flow (perm)	0	222	3539	1583	577	3539	1583	903	1781	0	1270	1863
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				95			95		17			
Link Speed (mph)			45			45			30			30
Link Distance (ft)			505			1013			908			822
Travel Time (s)			7.7			15.3			20.6			18.7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	2	128	610	19	54	930	17	13	81	34	67	283
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	130	610	19	54	930	17	13	115	0	67	283
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			12			12			12			12
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	D.P+P	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA		D.P+P	NA
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases	8	8		4	4		8	6			2	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	585
Future Volume (vph)	585
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	316
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.94
Adj. Flow (vph)	622
Shared Lane Traffic (%)	
Lane Group Flow (vph)	622
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

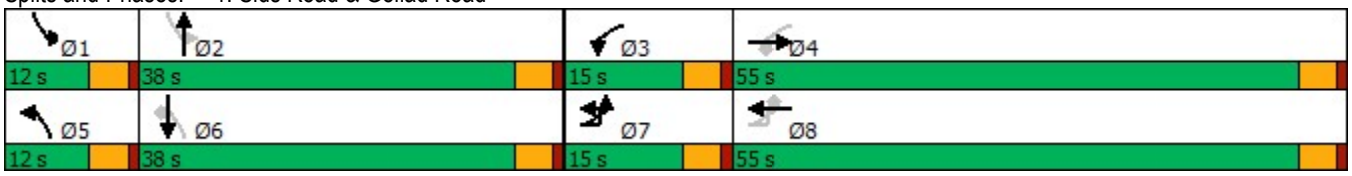


Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	7	7	4	4	3	8	8	5	2		1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5
Total Split (s)	15.0	15.0	55.0	55.0	15.0	55.0	55.0	12.0	38.0		12.0	38.0
Total Split (%)	12.5%	12.5%	45.8%	45.8%	12.5%	45.8%	45.8%	10.0%	31.7%		10.0%	31.7%
Maximum Green (s)	10.5	10.5	50.5	50.5	10.5	50.5	50.5	7.5	33.5		7.5	33.5
Yellow Time (s)	3.5	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	1.0
Lost Time Adjust (s)		0.0	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	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	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		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	Max		None	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0		7.0			7.0
Flash Dont 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
Act Effct Green (s)		41.8	37.2	37.2	43.0	32.6	32.6	42.4	34.2		39.7	41.2
Actuated g/C Ratio		0.42	0.38	0.38	0.44	0.33	0.33	0.43	0.35		0.40	0.42
v/c Ratio		0.55	0.46	0.03	0.16	0.80	0.03	0.03	0.18		0.12	0.36
Control Delay		25.0	25.4	0.1	15.6	35.9	0.1	19.2	23.7		19.4	24.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		25.0	25.4	0.1	15.6	35.9	0.1	19.2	23.7		19.4	24.5
LOS		C	C	A	B	D	A	B	C		B	C
Approach Delay			24.7			34.2			23.3			20.9
Approach LOS			C			C			C			C
Queue Length 50th (ft)		47	162	0	19	290	0	5	45		25	119
Queue Length 95th (ft)		85	217	0	40	366	0	18	100		60	255
Internal Link Dist (ft)			425			933			828			742
Turn Bay Length (ft)		285			185		265	285			330	
Base Capacity (vph)		265	1850	872	393	1850	872	455	628		552	776
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.49	0.33	0.02	0.14	0.50	0.02	0.03	0.18		0.12	0.36

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 98.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 86.3%		ICU Level of Service E	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Sids Road & Goliad Road



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	31.7%
Maximum Green (s)	33.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	Max
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	41.2
Actuated g/C Ratio	0.42
v/c Ratio	0.74
Control Delay	19.5
Queue Delay	0.0
Total Delay	19.5
LOS	B
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	158
Queue Length 95th (ft)	#465
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	844
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.74

Intersection Summary

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	128	13	9	0	0	303
Future Vol, veh/h	128	13	9	0	0	303
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	145	15	10	0	0	344

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	10	0	-	0	315	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1610	-	-	-	678	1071
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1610	-	-	-	616	1071
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	SB
HCM Control Delay, s	6.8	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1610	-	-	-	1071
HCM Lane V/C Ratio	0.09	-	-	-	0.321
HCM Control Delay (s)	7.5	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	1.4

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	123	3	0	201
Future Vol, veh/h	0	10	123	3	0	201
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	140	3	0	228

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	370	142	0	0	143	0
Stage 1	142	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	630	906	-	-	1440	-
Stage 1	885	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	630	906	-	-	1440	-
Mov Cap-2 Maneuver	630	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	906	1440	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Control Delay (s)	-	-	9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	1	0	2	0	126	0	1	199	0
Future Vol, veh/h	0	0	0	1	0	2	0	126	0	1	199	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	1	0	2	0	145	0	1	229	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	377	376	229	376	376	145	229	0	0	145	0	0
Stage 1	231	231	-	145	145	-	-	-	-	-	-	-
Stage 2	146	145	-	231	231	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	580	555	810	581	555	902	1339	-	-	1437	-	-
Stage 1	772	713	-	858	777	-	-	-	-	-	-	-
Stage 2	857	777	-	772	713	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	578	554	810	580	554	902	1339	-	-	1437	-	-
Mov Cap-2 Maneuver	578	554	-	580	554	-	-	-	-	-	-	-
Stage 1	772	712	-	858	777	-	-	-	-	-	-	-
Stage 2	855	777	-	771	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.8	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1339	-	-	-	761	1437	-	-
HCM Lane V/C Ratio	-	-	-	-	0.005	0.001	-	-
HCM Control Delay (s)	0	-	-	0	9.8	7.5	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	1	10	117	2	5	313	6
Future Vol, veh/h	0	0	0	0	0	1	10	117	2	5	313	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	1	11	133	2	6	356	7

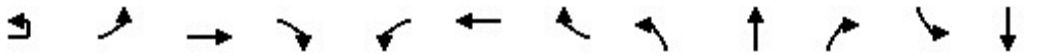
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	529	529	360	528	531	134	363	0	0	135	0	0
Stage 1	372	372	-	156	156	-	-	-	-	-	-	-
Stage 2	157	157	-	372	375	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	460	455	684	461	454	915	1196	-	-	1449	-	-
Stage 1	648	619	-	846	769	-	-	-	-	-	-	-
Stage 2	845	768	-	648	617	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	454	448	684	456	447	915	1196	-	-	1449	-	-
Mov Cap-2 Maneuver	454	448	-	456	447	-	-	-	-	-	-	-
Stage 1	642	616	-	838	761	-	-	-	-	-	-	-
Stage 2	836	760	-	645	614	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.9	0.6	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1196	-	-	-	915	1449	-	-
HCM Lane V/C Ratio	0.01	-	-	-	0.001	0.004	-	-
HCM Control Delay (s)	8	0	-	0	8.9	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	258	752	19	48	784	38	31	177	95	32	137
Future Volume (vph)	1	258	752	19	48	784	38	31	177	95	32	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		285		0	185		265	285		0	330	
Storage Lanes		1		1	1		2	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.948			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	3539	1583	1770	3539	1583	1770	1766	0	1770	1863
Flt Permitted		0.155			0.223			0.646			0.458	
Satd. Flow (perm)	0	289	3539	1583	415	3539	1583	1203	1766	0	853	1863
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				95			95		22			
Link Speed (mph)			45			45			30			30
Link Distance (ft)			505			1013			908			822
Travel Time (s)			7.7			15.3			20.6			18.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	272	792	20	51	825	40	33	186	100	34	144
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	273	792	20	51	825	40	33	286	0	34	144
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			12			12			12			12
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	D.P+P	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA		D.P+P	NA
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases	8	8		4	4		8	6			2	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	230
Future Volume (vph)	230
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	242
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	242
Shared Lane Traffic (%)	
Lane Group Flow (vph)	242
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

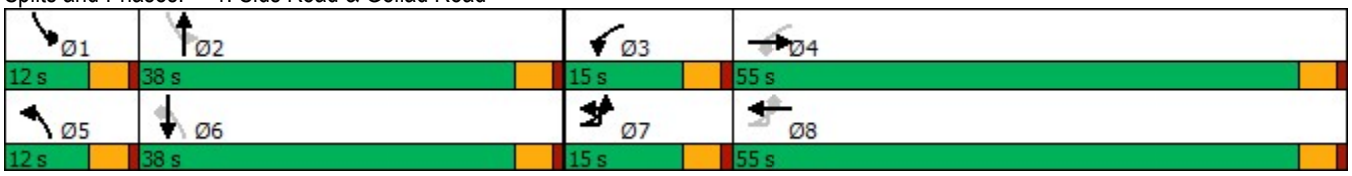


Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	7	7	4	4	3	8	8	5	2		1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5
Total Split (s)	15.0	15.0	55.0	55.0	15.0	55.0	55.0	12.0	38.0		12.0	38.0
Total Split (%)	12.5%	12.5%	45.8%	45.8%	12.5%	45.8%	45.8%	10.0%	31.7%		10.0%	31.7%
Maximum Green (s)	10.5	10.5	50.5	50.5	10.5	50.5	50.5	7.5	33.5		7.5	33.5
Yellow Time (s)	3.5	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	1.0
Lost Time Adjust (s)		0.0	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	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	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		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	Max		None	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0		7.0			7.0
Flash Dont 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
Act Effct Green (s)		39.1	37.0	37.0	41.3	28.4	28.4	38.0	34.1		38.0	34.1
Actuated g/C Ratio		0.42	0.40	0.40	0.44	0.30	0.30	0.41	0.37		0.41	0.37
v/c Ratio		0.94	0.56	0.03	0.18	0.77	0.07	0.06	0.43		0.08	0.21
Control Delay		62.5	25.7	0.1	15.9	34.8	0.3	17.4	25.8		17.6	24.7
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		62.5	25.7	0.1	15.9	34.8	0.3	17.4	25.8		17.6	24.7
LOS		E	C	A	B	C	A	B	C		B	C
Approach Delay			34.4			32.2			24.9			12.7
Approach LOS			C			C			C			B
Queue Length 50th (ft)		112	220	0	17	245	0	11	126		11	63
Queue Length 95th (ft)		#287	294	0	38	317	0	32	234		33	127
Internal Link Dist (ft)			425			933			828			742
Turn Bay Length (ft)		285			185		265	285			330	
Base Capacity (vph)		291	1951	915	345	1951	915	539	659		424	681
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.94	0.41	0.02	0.15	0.42	0.04	0.06	0.43		0.08	0.21

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 93.3			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 29.3		Intersection LOS: C	
Intersection Capacity Utilization 70.3%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Sids Road & Goliad Road



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	31.7%
Maximum Green (s)	33.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	Max
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	34.1
Actuated g/C Ratio	0.37
v/c Ratio	0.33
Control Delay	4.9
Queue Delay	0.0
Total Delay	4.9
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	56
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	732
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.33

Intersection Summary

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	231	6	7	3	2	205
Future Vol, veh/h	231	6	7	3	2	205
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	248	6	8	3	2	220

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	512	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1608	-	-	-	522	1071
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	608	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1608	-	-	-	441	1071
Mov Cap-2 Maneuver	-	-	-	-	441	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	608	-

Approach	EB	WB	SB
HCM Control Delay, s	7.5	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1608	-	-	-	1056
HCM Lane V/C Ratio	0.154	-	-	-	0.211
HCM Control Delay (s)	7.6	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.8

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	2	238	0	10	302
Future Vol, veh/h	2	2	238	0	10	302
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	2	2	259	0	11	328

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	609	259	0	0	259	0
Stage 1	259	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	458	780	-	-	1306	-
Stage 1	784	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	453	780	-	-	1306	-
Mov Cap-2 Maneuver	453	-	-	-	-	-
Stage 1	784	-	-	-	-	-
Stage 2	706	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	573	1306	-
HCM Lane V/C Ratio	-	-	0.008	0.008	-
HCM Control Delay (s)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	0	3	0	4	0	248	0	4	310	5
Future Vol, veh/h	2	0	0	3	0	4	0	248	0	4	310	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	0	3	0	4	0	258	0	4	323	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	594	592	326	592	594	258	328	0	0	258	0	0
Stage 1	334	334	-	258	258	-	-	-	-	-	-	-
Stage 2	260	258	-	334	336	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	417	419	715	418	418	781	1232	-	-	1307	-	-
Stage 1	680	643	-	747	694	-	-	-	-	-	-	-
Stage 2	745	694	-	680	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	414	417	715	417	416	781	1232	-	-	1307	-	-
Mov Cap-2 Maneuver	414	417	-	417	416	-	-	-	-	-	-	-
Stage 1	680	640	-	747	694	-	-	-	-	-	-	-
Stage 2	741	694	-	677	639	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	11.4	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1232	-	-	414	568	1307	-	-
HCM Lane V/C Ratio	-	-	-	0.005	0.013	0.003	-	-
HCM Control Delay (s)	0	-	-	13.7	11.4	7.8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	1	4	0	3	9	296	1	3	178	31
Future Vol, veh/h	5	0	1	4	0	3	9	296	1	3	178	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	1	4	0	3	10	322	1	3	193	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	560	559	210	560	576	323	227	0	0	323	0	0
Stage 1	216	216	-	343	343	-	-	-	-	-	-	-
Stage 2	344	343	-	217	233	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	439	438	830	439	428	718	1341	-	-	1237	-	-
Stage 1	786	724	-	672	637	-	-	-	-	-	-	-
Stage 2	671	637	-	785	712	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	433	433	830	435	423	718	1341	-	-	1237	-	-
Mov Cap-2 Maneuver	433	433	-	435	423	-	-	-	-	-	-	-
Stage 1	779	722	-	666	631	-	-	-	-	-	-	-
Stage 2	662	631	-	782	710	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	12	0.2	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1341	-	-	471	523	1237	-	-
HCM Lane V/C Ratio	0.007	-	-	0.014	0.015	0.003	-	-
HCM Control Delay (s)	7.7	0	-	12.8	12	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Kimley»Horn

Synchro™ Output - 2024 Background Plus Site Traffic

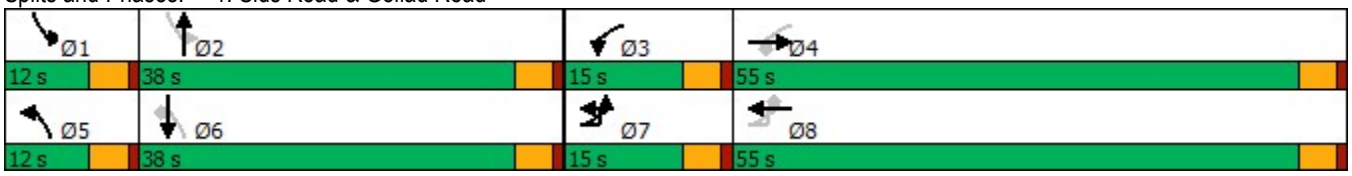
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	120	574	21	53	874	16	17	79	32	63	269
Future Volume (vph)	2	120	574	21	53	874	16	17	79	32	63	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		285		0	185		265	285		0	330	
Storage Lanes		1		1	1		2	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.957			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	3539	1583	1770	3539	1583	1770	1783	0	1770	1863
Flt Permitted		0.118			0.311			0.472			0.678	
Satd. Flow (perm)	0	220	3539	1583	579	3539	1583	879	1783	0	1263	1863
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				95			95		17			
Link Speed (mph)			45			45			30			30
Link Distance (ft)			505			1013			919			822
Travel Time (s)			7.7			15.3			20.9			18.7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	2	128	611	22	56	930	17	18	84	34	67	286
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	130	611	22	56	930	17	18	118	0	67	286
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			12			12			12			12
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	D.P+P	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA		D.P+P	NA
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases	8	8		4	4		8	6			2	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	585
Future Volume (vph)	585
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	313
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.94
Adj. Flow (vph)	622
Shared Lane Traffic (%)	
Lane Group Flow (vph)	622
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	7	7	4	4	3	8	8	5	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	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5
Total Split (s)	15.0	15.0	55.0	55.0	15.0	55.0	55.0	12.0	38.0		12.0	38.0
Total Split (%)	12.5%	12.5%	45.8%	45.8%	12.5%	45.8%	45.8%	10.0%	31.7%		10.0%	31.7%
Maximum Green (s)	10.5	10.5	50.5	50.5	10.5	50.5	50.5	7.5	33.5		7.5	33.5
Yellow Time (s)	3.5	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	1.0
Lost Time Adjust (s)		0.0	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	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	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		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	Max		None	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0		7.0			7.0
Flash Dont 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
Act Effct Green (s)		41.8	37.2	37.2	43.0	32.6	32.6	41.5	34.2		39.7	39.1
Actuated g/C Ratio		0.42	0.38	0.38	0.44	0.33	0.33	0.42	0.35		0.40	0.40
v/c Ratio		0.55	0.46	0.03	0.17	0.80	0.03	0.04	0.19		0.12	0.39
Control Delay		25.2	25.5	0.1	15.6	35.9	0.1	19.1	23.8		19.4	26.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		25.2	25.5	0.1	15.6	35.9	0.1	19.1	23.8		19.4	26.8
LOS		C	C	A	B	D	A	B	C		B	C
Approach Delay			24.7			34.1			23.2			23.2
Approach LOS			C			C			C			C

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 98.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 27.4		Intersection LOS: C	
Intersection Capacity Utilization 86.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Sids Road & Goliad Road



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	31.7%
Maximum Green (s)	33.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	Max
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	39.1
Actuated g/C Ratio	0.40
v/c Ratio	0.76
Control Delay	21.9
Queue Delay	0.0
Total Delay	21.9
LOS	C
Approach Delay	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	130	611	22	56	930	17	18	118	67	286	622
v/c Ratio	0.55	0.46	0.03	0.17	0.80	0.03	0.04	0.19	0.12	0.39	0.76
Control Delay	25.2	25.5	0.1	15.6	35.9	0.1	19.1	23.8	19.4	26.8	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	25.5	0.1	15.6	35.9	0.1	19.1	23.8	19.4	26.8	21.9
Queue Length 50th (ft)	47	162	0	19	290	0	7	47	25	120	160
Queue Length 95th (ft)	86	217	0	41	366	0	23	103	60	260	#471
Internal Link Dist (ft)		425			933			839		742	
Turn Bay Length (ft)	285			185		265	285		330		
Base Capacity (vph)	265	1850	872	394	1850	872	440	629	549	737	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.33	0.03	0.14	0.50	0.02	0.04	0.19	0.12	0.39	0.76

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	131	13	9	0	0	306
Future Vol, veh/h	131	13	9	0	0	306
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	149	15	10	0	0	348

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	10	0	-	0	323	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	313	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1610	-	-	-	671	1071
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1610	-	-	-	609	1071
Mov Cap-2 Maneuver	-	-	-	-	609	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	741	-

Approach	EB	WB	SB
HCM Control Delay, s	6.8	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1610	-	-	-	1071
HCM Lane V/C Ratio	0.092	-	-	-	0.325
HCM Control Delay (s)	7.5	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.4

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	58	22	0	0	0
Future Vol, veh/h	0	58	22	0	0	0
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	-	400	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	64	24	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	49	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	960	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	946	1084	1622	-	-	-
Mov Cap-2 Maneuver	946	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.015	-	0.059	-	-
HCM Control Delay (s)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	124	4	1	201
Future Vol, veh/h	0	11	124	4	1	201
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	141	5	1	228

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	374	144	0	0	146	0
Stage 1	144	-	-	-	-	-
Stage 2	230	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	627	903	-	-	1436	-
Stage 1	883	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	626	903	-	-	1436	-
Mov Cap-2 Maneuver	626	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	903	1436	-
HCM Lane V/C Ratio	-	-	0.014	0.001	-
HCM Control Delay (s)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	1	0	4	0	128	1	2	200	0
Future Vol, veh/h	0	0	0	1	0	4	0	128	1	2	200	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	1	0	5	0	147	1	2	230	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	384	382	230	382	382	148	230	0	0	148	0	0
Stage 1	234	234	-	148	148	-	-	-	-	-	-	-
Stage 2	150	148	-	234	234	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	574	551	809	576	551	899	1338	-	-	1434	-	-
Stage 1	769	711	-	855	775	-	-	-	-	-	-	-
Stage 2	853	775	-	769	711	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	570	550	809	575	550	899	1338	-	-	1434	-	-
Mov Cap-2 Maneuver	570	550	-	575	550	-	-	-	-	-	-	-
Stage 1	769	710	-	855	775	-	-	-	-	-	-	-
Stage 2	849	775	-	767	710	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.5	0	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1338	-	-	-	808	1434	-	-
HCM Lane V/C Ratio	-	-	-	-	0.007	0.002	-	-
HCM Control Delay (s)	0	-	-	0	9.5	7.5	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	4	10	120	3	8	316	6
Future Vol, veh/h	0	0	0	0	0	4	10	120	3	8	316	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	5	11	136	3	9	359	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	543	542	363	541	544	138	366	0	0	139	0	0
Stage 1	381	381	-	160	160	-	-	-	-	-	-	-
Stage 2	162	161	-	381	384	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	451	447	682	452	446	910	1193	-	-	1445	-	-
Stage 1	641	613	-	842	766	-	-	-	-	-	-	-
Stage 2	840	765	-	641	611	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	442	439	682	446	438	910	1193	-	-	1445	-	-
Mov Cap-2 Maneuver	442	439	-	446	438	-	-	-	-	-	-	-
Stage 1	635	608	-	834	758	-	-	-	-	-	-	-
Stage 2	827	757	-	636	606	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9	0.6	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1193	-	-	-	910	1445	-	-
HCM Lane V/C Ratio	0.01	-	-	-	0.005	0.006	-	-
HCM Control Delay (s)	8	0	-	0	9	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	668	1	0	943	0	3
Future Vol, veh/h	668	1	0	943	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	726	1	0	1025	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	727
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	424
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	424
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	424	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	13.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕				↕			↕			↕	
Traffic Vol, veh/h	0	3	3	1	49	16	2	2	0	9	3	0	0
Future Vol, veh/h	0	3	3	1	49	16	2	2	0	9	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	5	2	75	25	3	3	0	14	5	0	0

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	28	0	0	-	10	0	0	185	190	8	192	191	27
Stage 1	-	-	-	-	-	-	-	8	8	-	177	181	-
Stage 2	-	-	-	-	-	-	-	177	182	-	15	10	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1585	-	-	-	1610	-	-	776	705	1074	768	704	1048
Stage 1	-	-	-	-	-	-	-	1013	889	-	825	750	-
Stage 2	-	-	-	-	-	-	-	825	749	-	1005	887	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1585	-	-	~ -52	~ -52	-	-	776	705	1074	758	704	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	776	705	-	758	704	-
Stage 1	-	-	-	-	-	-	-	1013	889	-	825	750	-
Stage 2	-	-	-	-	-	-	-	825	749	-	992	887	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0		8.6	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1004	1585	-	-	+	-	-	758
HCM Lane V/C Ratio	0.017	-	-	-	-	-	-	0.006
HCM Control Delay (s)	8.6	0	-	-	-	-	-	9.8
HCM Lane LOS	A	A	-	-	-	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	124	0	2	331
Future Vol, veh/h	0	3	124	0	2	331
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	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	182	0	3	487

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	675	182	0	0	182	0
Stage 1	182	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	419	861	-	-	1393	-
Stage 1	849	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	418	861	-	-	1393	-
Mov Cap-2 Maneuver	418	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	612	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	861	1393	-
HCM Lane V/C Ratio	-	-	0.005	0.002	-
HCM Control Delay (s)	-	-	9.2	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

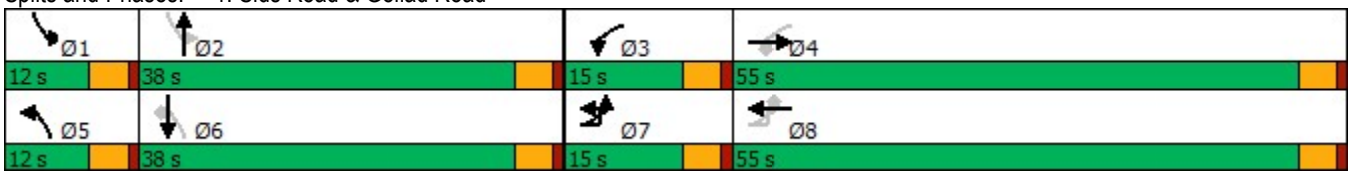
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	258	754	23	51	784	38	38	182	95	32	141
Future Volume (vph)	1	258	754	23	51	784	38	38	182	95	32	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		285		0	185		265	285		0	330	
Storage Lanes		1		1	1		2	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.949			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	3539	1583	1770	3539	1583	1770	1768	0	1770	1863
Flt Permitted		0.152			0.209			0.641			0.451	
Satd. Flow (perm)	0	283	3539	1583	389	3539	1583	1194	1768	0	840	1863
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				95			95		22			
Link Speed (mph)			45			45			30			30
Link Distance (ft)			505			1013			919			822
Travel Time (s)			7.7			15.3			20.9			18.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	272	794	24	54	825	40	40	192	100	34	148
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	273	794	24	54	825	40	40	292	0	34	148
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			12			12			12			12
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	D.P+P	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA		D.P+P	NA
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases	8	8		4	4		8	6			2	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	230
Future Volume (vph)	230
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	242
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	242
Shared Lane Traffic (%)	
Lane Group Flow (vph)	242
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	CI+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	7	7	4	4	3	8	8	5	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	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5
Total Split (s)	15.0	15.0	55.0	55.0	15.0	55.0	55.0	12.0	38.0		12.0	38.0
Total Split (%)	12.5%	12.5%	45.8%	45.8%	12.5%	45.8%	45.8%	10.0%	31.7%		10.0%	31.7%
Maximum Green (s)	10.5	10.5	50.5	50.5	10.5	50.5	50.5	7.5	33.5		7.5	33.5
Yellow Time (s)	3.5	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	1.0
Lost Time Adjust (s)		0.0	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	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	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		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	Max		None	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0		7.0			7.0
Flash Dont 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
Act Effct Green (s)		39.7	35.1	35.1	40.8	29.0	29.0	38.0	34.1		38.0	34.1
Actuated g/C Ratio		0.42	0.37	0.37	0.43	0.31	0.31	0.40	0.36		0.40	0.36
v/c Ratio		0.95	0.60	0.04	0.20	0.75	0.07	0.08	0.45		0.08	0.22
Control Delay		64.4	27.5	0.1	16.2	34.3	0.3	17.6	26.2		17.7	25.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		64.4	27.5	0.1	16.2	34.3	0.3	17.6	26.2		17.7	25.1
LOS		E	C	A	B	C	A	B	C		B	C
Approach Delay			36.1			31.8			25.2			13.0
Approach LOS			D			C			C			B

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 93.9			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 29.8		Intersection LOS: C	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Sids Road & Goliad Road



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	31.7%
Maximum Green (s)	33.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	Max
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	34.1
Actuated g/C Ratio	0.36
v/c Ratio	0.33
Control Delay	5.0
Queue Delay	0.0
Total Delay	5.0
LOS	A
Approach Delay	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	273	794	24	54	825	40	40	292	34	148	242
v/c Ratio	0.95	0.60	0.04	0.20	0.75	0.07	0.08	0.45	0.08	0.22	0.33
Control Delay	64.4	27.5	0.1	16.2	34.3	0.3	17.6	26.2	17.7	25.1	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.4	27.5	0.1	16.2	34.3	0.3	17.6	26.2	17.7	25.1	5.0
Queue Length 50th (ft)	114	222	0	18	246	0	13	130	11	65	0
Queue Length 95th (ft)	#290	295	0	40	317	0	37	240	33	130	56
Internal Link Dist (ft)		425			933			839		742	
Turn Bay Length (ft)	285			185		265	285		330		
Base Capacity (vph)	288	1934	908	335	1934	908	532	656	417	675	728
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.41	0.03	0.16	0.43	0.04	0.08	0.45	0.08	0.22	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	235	6	7	3	2	210
Future Vol, veh/h	235	6	7	3	2	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	253	6	8	3	2	226

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	522	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	512	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1608	-	-	-	515	1071
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	602	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1608	-	-	-	434	1071
Mov Cap-2 Maneuver	-	-	-	-	434	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	602	-

Approach	EB	WB	SB
HCM Control Delay, s	7.5	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1608	-	-	-	1056
HCM Lane V/C Ratio	0.157	-	-	-	0.216
HCM Control Delay (s)	7.7	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.6	-	-	-	0.8

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	23	0	0	0
Future Vol, veh/h	0	23	23	0	0	0
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	-	400	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	24	24	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	49	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	960	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	946	1084	1622	-	-	-
Mov Cap-2 Maneuver	946	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.015	-	0.022	-	-
HCM Control Delay (s)	7.3	-	8.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	3	240	2	12	302
Future Vol, veh/h	2	3	240	2	12	302
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	2	3	261	2	13	328

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	616	262	0	0	263	0
Stage 1	262	-	-	-	-	-
Stage 2	354	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	454	777	-	-	1301	-
Stage 1	782	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	449	777	-	-	1301	-
Mov Cap-2 Maneuver	449	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	601	1301	-
HCM Lane V/C Ratio	-	-	0.009	0.01	-
HCM Control Delay (s)	-	-	11	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	0	3	0	6	0	250	1	6	312	5
Future Vol, veh/h	2	0	0	3	0	6	0	250	1	6	312	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	0	3	0	6	0	260	1	6	325	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	604	601	328	601	603	261	330	0	0	261	0	0
Stage 1	340	340	-	261	261	-	-	-	-	-	-	-
Stage 2	264	261	-	340	342	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	410	414	713	412	413	778	1229	-	-	1303	-	-
Stage 1	675	639	-	744	692	-	-	-	-	-	-	-
Stage 2	741	692	-	675	638	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	405	412	713	410	411	778	1229	-	-	1303	-	-
Mov Cap-2 Maneuver	405	412	-	410	411	-	-	-	-	-	-	-
Stage 1	675	635	-	744	692	-	-	-	-	-	-	-
Stage 2	735	692	-	671	634	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	11.1	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1229	-	-	405	599	1303	-	-
HCM Lane V/C Ratio	-	-	-	0.005	0.016	0.005	-	-
HCM Control Delay (s)	0	-	-	13.9	11.1	7.8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	1	4	0	8	9	299	2	7	182	31
Future Vol, veh/h	5	0	1	4	0	8	9	299	2	7	182	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	1	4	0	9	10	325	2	8	198	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	582	578	215	578	594	326	232	0	0	327	0	0
Stage 1	231	231	-	346	346	-	-	-	-	-	-	-
Stage 2	351	347	-	232	248	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	424	427	825	427	418	715	1336	-	-	1233	-	-
Stage 1	772	713	-	670	635	-	-	-	-	-	-	-
Stage 2	666	635	-	771	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	414	420	825	421	411	715	1336	-	-	1233	-	-
Mov Cap-2 Maneuver	414	420	-	421	411	-	-	-	-	-	-	-
Stage 1	765	708	-	664	629	-	-	-	-	-	-	-
Stage 2	652	629	-	765	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	11.4	0.2	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1336	-	-	451	580	1233	-	-
HCM Lane V/C Ratio	0.007	-	-	0.014	0.022	0.006	-	-
HCM Control Delay (s)	7.7	0	-	13.1	11.4	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	879	2	0	874	0	3
Future Vol, veh/h	879	2	0	874	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	955	2	0	950	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	956
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	313
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	313	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-
HCM Control Delay (s)	16.6	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	13	7	17	9	3	4	0	55	3	0	0
Future Vol, veh/h	0	13	7	17	9	3	4	0	55	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	8	20	11	4	5	0	65	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	15	0	0	23	0	0	72	74	19	105	76	13
Stage 1	-	-	-	-	-	-	19	19	-	53	53	-
Stage 2	-	-	-	-	-	-	53	55	-	52	23	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1603	-	-	1592	-	-	919	816	1059	875	814	1067
Stage 1	-	-	-	-	-	-	1000	880	-	960	851	-
Stage 2	-	-	-	-	-	-	960	849	-	961	876	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1592	-	-	910	805	1059	814	803	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	910	805	-	814	803	-
Stage 1	-	-	-	-	-	-	1000	880	-	960	840	-
Stage 2	-	-	-	-	-	-	948	838	-	902	876	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.3	8.7	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1047	1603	-	-	1592	-	-	814
HCM Lane V/C Ratio	0.066	-	-	-	0.013	-	-	0.004
HCM Control Delay (s)	8.7	0	-	-	7.3	0	-	9.4
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	313	0	3	220
Future Vol, veh/h	0	3	313	0	3	220
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	368	0	4	259

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	635	368	0	0	368	0
Stage 1	368	-	-	-	-	-
Stage 2	267	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	443	677	-	-	1191	-
Stage 1	700	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	441	677	-	-	1191	-
Mov Cap-2 Maneuver	441	-	-	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	775	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	677	1191	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	10.3	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-