

101 W. IMPERIAL HWY LA HABRA, CA 90631

VICINITY MAP

PROJECT INFO

A.C.	ASPHALT CONCRETE	MIN.	MINIMUM
A.C.T.	ACOUSTICAL CEILING TILE	M.O.	MASONRY OPENING
A.F.F.	ABOVE FINISH FLOOR	MTD.	MOUNTED
BD.	BOARD	MTL.	METAL
BLDG.	BUILDING	(N)	NEW
BM.	BEAM	N.A.	NOT APPLICABLE
B-	BOTTOM OF	N.A.P.	NOT A PART
CARP.	CARPENTRY	N.I.C.	NOT IN CONTRACT
C.B.C.	CALIFORNIA BUILDING CODE	N.T.S.	NOT TO SCALE
C.C.	CENTER TO CENTER	O.C.	ON CENTER
C.G.	CORNER GUARD	O.D.	OUTSIDE DIAMETER
C.I.	CAST IRON	O.F.D.	OVER FLOW DRAIN
C.J.	CONTROL JOINT	O.H.	OVER HEAD
CLG.	CEILING	OOSP.	OUT OF SEQUENCE PARKING
CLR.	CLEAR	OV.	OVER
C.M.U.	CONCRETE MASONRY UNIT	PART.	PARTITION
COL.	COLUMN	PL.	PLATE
CONC.	CONCRETE	PROP.	PROPERTY
C.T.	CERAMIC TILE	P-LAM.	PLASTIC LAMINATE
C.W.	COLD WATER	PLYWD.	PLYWOOD
DIA.	DIAMETER	PT.	PAINT
DIM.	DIMENSION	PR.	PAIR
DNW.	DOWN	P.O.C.	POINT OF CONNECTION
D.S.	DOWN SPOUT	P.S.F.	POUNDS PER SQUARE FOOT
DWG.	DRAWING	P.S.I.	POUNDS PER SQUARE INCH
D.T.	DRIVE-THRU	QTY.	QUANTITY
E.J.	EXPANSION JOINT	R.	RISER
ELEC.	ELECTRIC(AL)	RAD.	RADIUS
ELEV.	ELEVATION	R.C.P.	REFLECTED CEILING PLAN
EQ.	EQUAL	R.D.	ROOF DRAIN
EQUIP.	EQUIPMENT	REF.	REFERENCE
(E)	EXISTING	R.I.	ROUGH IN
EXT.	EXTERIOR	R.O.	ROUGH OPENING
F.D.	FLOOR DRAIN	RM.	ROOM
F.E.	FIRE EXTINGUISHER	SSBB	SELF SERVICE BEVERAGE BAR
F.E.C.	FIRE EXTINGUISHER CABINET	SCHED.	SCHEDULE
FKT.	FIXTURE	SHT.	SHEET
F.G.	FINISH GRADE	SIM.	SIMILAR
F.O.M.	FACE OF MASONRY	SPEC.	SPECIFICATION
F.O.S.	FACE OF STUD	SQ.	SQUARE
F.P.	FIRE PROOF	S.S.	STAINLESS STEEL
F.S.	FLOOR SINK	S.T.C.	SOUND TRANSMISSION COEFFICIENT
FT.	FOOT (FEET)	STL.	STEEL
FTG.	FOOTING	STRUCT.	STRUCTURAL
GA.	GAUGE	SUSP.	SUSPENDED
GALV.	GALVANIZED	S.V.	SHEET VINYL
GYP. BD.	GYPSPUM BOARD	T24	TITLE 24
G.C.	GENERAL CONTRACTOR	T.	TREAD
H.B.	HOSE BIB	TEMP.	TEMPORARY
H.M.	HOLLOW METAL	T.J.	TOOLED JOINT
HORZ.	HORIZONTAL	TYP.	TYPICAL
HDWR.	HARDWARE	T-	TOP OF ...
HT.	HEIGHT	U.N.O.	UNLESS NOTED OTHERWISE
HVAC	HEATING VENTILATING AND COOLING	V.	VENT
H.W.	HOT WATER	V.C.T.	VINYL COMPOSITION TILE
I.D.	INSIDE DIAMETER	VERT.	VERTICAL
INT.	INTERIOR	V.I.F.	VERIFY IN FIELD
J-BOX	JUNCTION BOX	V.B.	VINYL BASE
JT.	JOINT	WI.	WITH
LAV.	LAVATORY	W.C.	WATER CLOSET
L.T.G.	LIGHTING	WD.	WOOD
MAX.	MAXIMUM	WH.	WATER HEATER
MFR.	MANUFACTURER	WP.	WATER PROOF
MECH.	MECHANICAL	WI.	WROUGHT IRON
		W.W.F.	WELDED WIRE FABRIC

BUILDING DATA:
 PROPOSED OCCUPANCY: B
 STORY OF BUILDING: SINGLE STORY
 USE: RESTAURANT
 CONSTRUCTION TYPE: V-B
 LOT SIZE:
 BUILDING AREA: 1,900 SQ FT
 SPRINKLERS: NO
 FLOOR AREA: 1,900 SQ FT

TENANT
 7LEAVES CAFE
 14381 N. EUCLID STREET, SUITE 3A & 3B
 GARDEN GROVE, CA 92843

LIFE SAFETY SYSTEM:
 EMERGENCY LIGHTING: X YES — NO
 EXIT SIGNS: X YES — NO
 FIRE ALARM AND SMOKE DETECTION SYSTEM: X YES X NO
 PANIC HARDWARE: X YES X NO
 FIRE SPRINKLERS: — YES X NO

PARKING ANALYSIS:
 PARKING SPACES PROVIDED: 14 STANDARD
 ACCESSIBLE PARKING SPACES PROVIDED: 1 VAN ACCESSIBLE

BUSINESS DESCRIPTION
 THIS FACILITY WILL BE USED AS A DRIVE THRU/DINE IN COFFEE SHOP.

CODE: (2022 CBC)
 2022 CBC (California Building Code)
 2022 CMC (California Mechanical code)
 2022 CPC (California Plumbing Code)
 2022 CEC (California Electrical Code)
 2022 CA ENERGY CODE
 CALIFORNIA GREEN BUILDING STANDARDS

- BUILDING FACADE REMODEL
 - NEW ROOF PARAPET
 - NEW EXTERIOR PAINT
- PARKING LOT REMODEL
 - RESTRIPE PARKING LOT
 - NEW ACCESSIBLE PATH OF TRAVEL FROM PUBLIC R.O.W.
- INTERIOR REMODEL
 - NEW KITCHEN PREP AREA
 - NEW CUSTOMER SERVICE AREA
 - ACCESSIBLE RESTROOMS
- SEPARATE SUBMITTAL
 - WALL & SITE SIGNAGE
- REMOVAL OF NON-CONFORMING FREESTANDING SIGN.

ARCHITECTURAL	
CS	COVER SHEET
P0.0	SITE PHOTOS
A0	LANDSCAPE PLANS
A1.0	PROPOSED SITE PLAN
A2.0	EXISTING FLOOR PLAN
A2.1	PROPOSED FLOOR PLAN
A8.0	EXISTING ELEVATIONS
A8.1	PROPOSED ELEVATIONS
MB	MENU BOARD SPECS

BUILDING CODES	4	SCOPE OF WORK	2
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WOOD FRAME BUILDING
 EXISTING ONE STORY
 CONSTRUCTION TYPE: V-B
 LOT SIZE: 20,153 SF
 LOT #01
 ASSESSOR # - 412-031-01
 ZONING - PC1
 OCCUPANCY GROUP: B

DESCRIPTION	5	DESCRIPTION	3
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OWNER:
 7LEAVES CAFE
 CONTACT: MICHAEL TRANG 510-698-1014
 DESIGNER:
 TOBY NGUYEN 714-251-2490
 EARNEST LITTLE 562-686-1007

ABBREVIATIONS	8
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PROJECT INFO	7
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CONTACT INFO & CONSULTANTS	6
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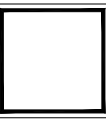
SHEET INDEX	1
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DATE	REVISION

PROJECT:
 7LEAVES CAFE
 101 W. IMPERIAL HWY
 LA HABRA, CA 90631

SHEET TITLE:
 COVER SHEET



DESIGNER TN / EL
SIGNATURE
CONSULTANT
DATE 06-25-2024
TIME 2:05
SHEET
CS
OF X SHEETS



VIEW FROM IMPERIAL HWY



VIEW FROM EUCLID ST



VIEW FROM REAR



VIEW FROM REAR



VIEW FROM EUCLID ST



VIEW FROM IMPERIAL HWY

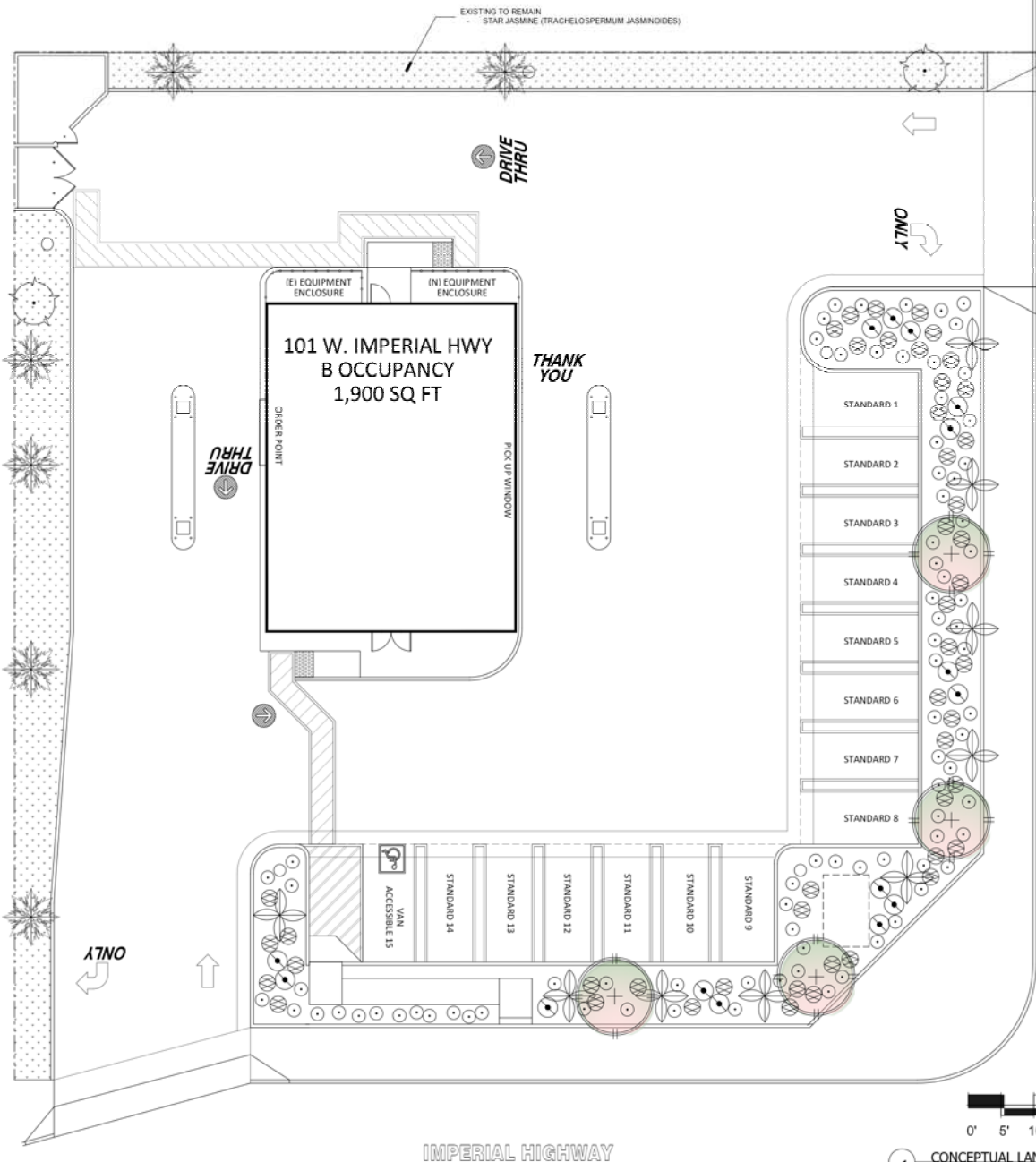
REV	DESCRIPTION	DATE

PROJECT: 7LEAVES CAFE
 101 W. IMPERIAL HWY
 LA HABRA, CA 90631

SHEET TITLE: PHOTOS



DESIGNER: TN / EL
 SIGNATURE
 CONSULTANT
 DATE: 06-29-2024
 XREF: 24-05
 SHEET



TREE LEGEND

SYMBOL	QTY	SIZE	BOTANICAL NAME	COMMON NAME	REMARKS	WUCOLS
	4	24" BOI	PROSOPIS ALBA	ARGENTINE MESQUITE	NEW TREE SEE DETAIL C SHEET L14	LOW
	2		AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	EXISTING TO REMAIN	LOW
	6		SYAGRUS ROMANZOFFIANA	QUEEN PALM	EXISTING TO REMAIN	LOW
	9		WILKINGTONIA ROBUSTA	MEXICAN FAN PALM	EXISTING TO REMAIN	LOW

REFER TO THE PLANTING NOTES AND DETAILS ON THE PLANTING DETAILS SHEET AND THE PLANTING SPECIFICATIONS SHEET.

SHRUB AND GROUNDCOVER LEGEND

SYMBOL	QTY	SIZE	BOTANICAL NAME	COMMON NAME	SPACING	REMARKS	WUCOLS
	15	5 GAL	YUCCA RECURVIFOLIA	SOFT LEAVED YUCCA	PER PLAN	SEE DETAIL A AND B	VERY LOW
	83	1 GAL	FESTUCA MAUREI	ATLAS FESCUE	PER PLAN	SEE DETAIL A AND B	LOW
	17	1 GAL	SPERMATOPHYTES	SPERMATOPHYTES	PER PLAN	SEE DETAIL A AND B	LOW

REFER TO THE PLANTING NOTES AND DETAILS ON THE PLANTING DETAILS SHEET AND THE PLANTING SPECIFICATIONS SHEET.

* SPECIAL HYBRID PLANTS HAVE BEEN SPECIFIED. CONTRACTOR MAY NOT SUBSTITUTE OTHER SPECIES. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES BEFORE ORDERING.
 ** NOTE: PLANTS TO BE OBTAINED FROM MONROVIA NURSERY TO FIND THE NEAREST DEALER, GO TO HTTP://WWW.MONROVIA.COM/

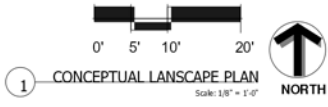
SHOVEL CUT NOTE
 CONTRACTOR TO SHOVEL CUT TURF EDGE AROUND SHRUBS/GROUNDCOVER IN OPEN TURF AREA, TYP.

MULCH NOTE
 1. MULCH ALL SHRUB AREAS WITH A 3" LAYER MIN. OF BARK MULCH SIZED 1/2"-2". PROVIDE SAMPLE TO OWNER FOR APPROVAL.
 2. APPLY MULCH AROUND ALL TREE TRUNKS IN TURF AREAS. EXTEND MULCH A MIN. OF 8" FROM EDGE OF ROOTBALLS. DO NOT MULCH OVER ROOTBALLS.
 3. FOREST FLOOR MULCH BY ADUANAGA GREEN (949) 755-9555

PLANT WATERING
 CONTRACTOR SHALL PROVIDE TEMPORARY WATERING OF ALL PLANT MATERIAL AND SOIL TO MAINTAIN HEALTHY, GROWING PLANTS FOR THE ENTIRE LENGTH OF THE ESTABLISHMENT MAINTENANCE PERIOD. WATER TRUCKS MAY BE REQUIRED IF HOSE BIBS OR QUICK COUPLERS ARE NOT NEARBY.

EUCUID STREET

IMPERIAL HIGHWAY



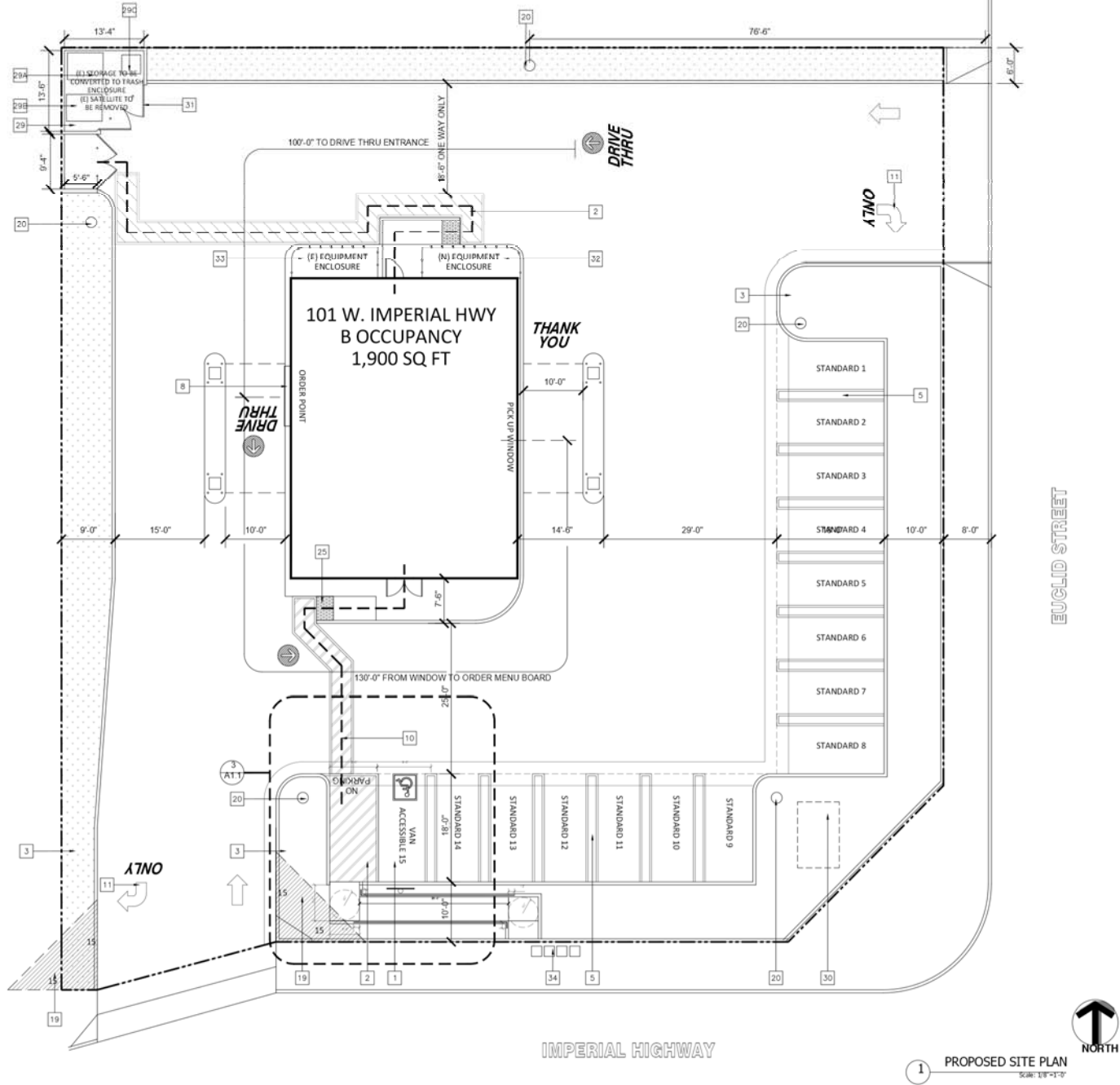
REV.	DESCRIPTION	DATE

PROJECT:
 7LEAVES CAFE
 101 W. IMPERIAL HWY
 LA HABRA, CA 90631

SHEET TITLE:
 PRELIMINARY
 LANDSCAPE PLAN



DESIGNER	TW / EL
CONSULTANT	
DATE	08-25-2018
JOB NO.	78-05
SHEET	A0



NOTE: ALL SITE CONDITIONS SHOWN ARE EXISTING TO REMAIN EXCEPT THOSE NOTED IN THE KEYED NOTES BELOW.

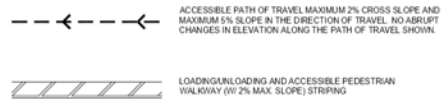
KEY NOTES SITE PLAN

MARK	DESCRIPTION OF WORK	DETAIL REF.
1	(E) VAN ACCESSIBLE PARKING (RESTRIPE)	
2	(E) NO PARKING AISLE (RESTRIPE)	
3	(E) 6" CONC. CURB & PLANTER	
4	(N) CIRCULATION PAINT STRIPING	
5	RESTRIPE PARKING STALL AREA	
6		
7		
8	(N) SIGNAGE: MENU BOARD	
9	(E) ACCESSIBLE WALKWAY 5% MAX RUNNING SLOPE, 2% CROSS SLOPE	
10	(N) DIRECTIONAL RIGHT TURN ONLY SYMBOL	
11	(E) GUTTER TO REMAIN	
12	(E) CURB RAMP TO BE REMOVED AND REPLACED WITH (N) CURB RAMP PER CITY STD	
13	ADDITIONAL NOTE: (1) RESTRIPE CROSSWALK AT INTERSECTION, (2) IF APPLICABLE, INSTALL A PEDESTRIAN CALL BUTTON CLOSER TO THE CURB	
14	(N) ACCESSIBLE PEDESTRIAN WALKWAY 5% MAX RUNNING SLOPE, 2% CROSS SLOPE	
15	(N) 24" BOX GREEN PAINT, 4" 8" IN HEIGHT PER CITY STANDARDS AND APPROVED PLANS	
16	(E) 1" DIAMETER WATER METER	
17	(E) 1" IRRIGATION METERS	
18	(E) 4" SEWER LATERAL	
19	15X15 SIGHT TRIANGLE	
20	(E) LIGHT POLE PAINT TO MATCH BUILDING	
21	15X15 SIGHT TRIANGLE	
22	RELOCATE EXISTING UNAUTHORIZED PARKING SIGN	
23	(N) UNAUTHORIZED PARKING SIGN	
24	(N) RIGHT TURN ONLY SIGNAGE	
25	(N) TRUNCATED DOMES	
26	(N) BICYCLE PARKING SPACES, 24"x60", (N) LANDSCAPE WITH SHRUBS TO MATCH FOR MITIGATION	
27	(E) BACKFLOW DEVICES, THERE ARE 2 ON SITE	
28	RESTRIPE TO MAINTAIN 20'-0" DRIVEWAY AISLE	
29	(E) TRASH ENCLOSURE: (25A) 4 YD TRASH BIN; (25B) 4 YD RECYCLE BIN; (25C) 65 GAL ORGANICS CART	
30	(E) FREESTANDING SIGN TO BE REMOVED	
31	(N) METAL DOORS FOR TRASH ENCLOSURE	
32	(N) EQUIPMENT ENCLOSURE (REPLACE CHAINLINK FENCE WITH WOOD SIDING FENCE TO MATCH)	
33	(E) EQUIPMENT ENCLOSURE (REPLACE CHAINLINK FENCE WITH WOOD SIDING FENCE TO MATCH)	
34	(E) NEWSPAPER BOX STANDS TO BE RELOCATED/REMOVED	

PARKING ANALYSIS

PARKING ANALYSIS: TOTAL STALLS = 15
STANDARD PARKING = 11 VAN ACCESSIBLE = 1

SYMBOLS LEGEND



PLAN CHECK NOTES

- LANDSCAPE DETAILS: ANY VINES THAT HAVE BEEN DAMAGED OR ARE DECAYING ALONG THE PERIMETER CMU WALLS WILL BE RESTORED
- EXISTING LANDSCAPE TO REMAIN: INCLUDES ALL TREES, SHRUBS, GRASS AND VINES ON SITE



REV.	DESCRIPTION	DATE

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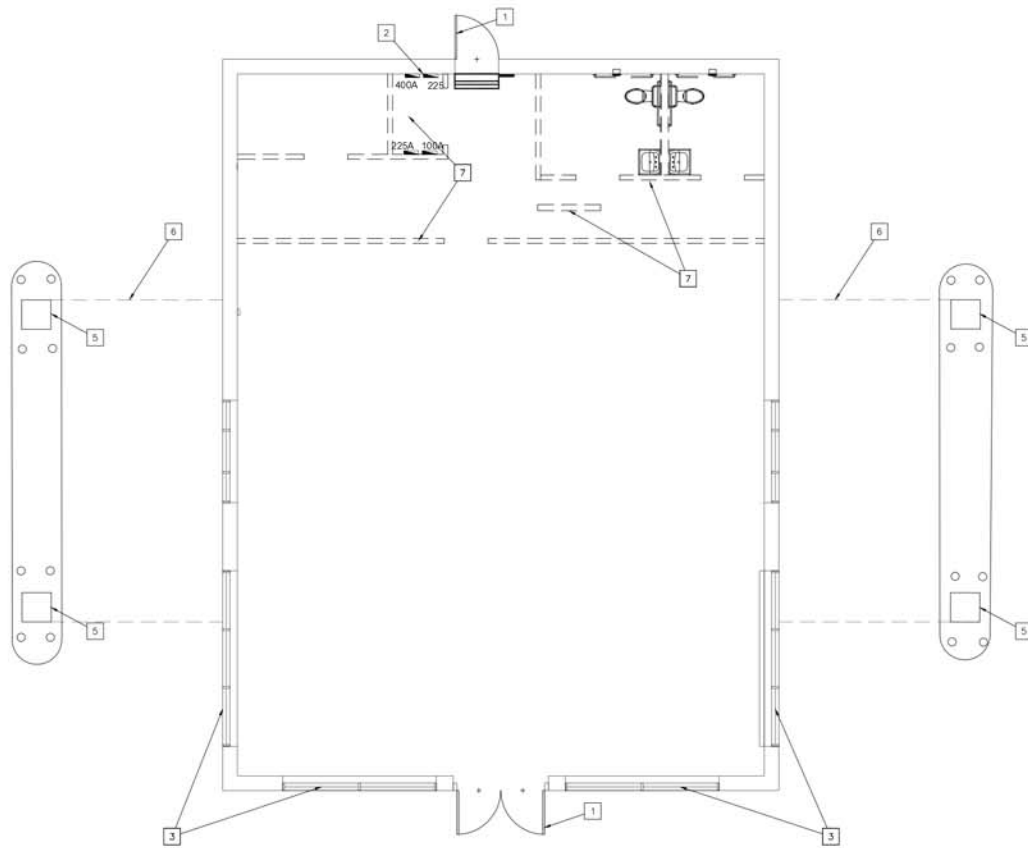
SHEET TITLE: PROPOSED SITE PLAN



DESIGNER: TM / EL
SIGNATURE:
CONSULTANT:
DATE: 09-25-2024
JOB NO: 24-05
SHEET: A1.0
OF X SHEET

1 PROPOSED SITE PLAN
SCALE: 1/8"=1'-0"





1 EXISTING FLOOR PLAN
Scale: 1/4" = 1'-0"

FLOOR PLAN KEYNOTES

- 1 EXISTING DOOR
- 2 EXISTING ELECTRICAL PANEL
- 3 EXISTING WINDOW
- 4 EXISTING FLOOR DRAIN
- 5 EXISTING ROOF ABOVE
- 6 ROOF ABOVE
- 7 WALL TO BE REMOVED
- 8 -
- 9

SYMBOL LEGEND

- (E) WALL TO REMAIN
- (E) WALL TO BE REMOVED
- (E) 1 HOUR FIRE BARRIER WALL
- (E) ILLUMINATED EXIT SIGN W/ EMERGENCY LIGHTING
HARDWIRED W/ 90 MIN. BACK-UP BATTERY
- (E) ILLUMINATED DIRECTIONAL EXIT SIGN
HARDWIRED W/ 90 MIN. BACK-UP BATTERY
- THRESHOLD, NO MORE THAN 1" LOWER THAN THE
THRESHOLD OF THE DOORWAY
- FLOOR DRAIN
- FLOOR SINK



REV.	DESCRIPTION	DATE

PROJECT:
7LEAVES CAFE
101 W. IMPERIAL HWY
LA HABRA, CA 90631

SHEET TITLE
EXISTING
FLOOR PLAN



DESIGNER TM / EL
SIGNATURE
CONSULTANT
DATE 08-25-2018
JOB NO. 78-05
SHEET
A2.0

REV.	DESCRIPTION	DATE
1		

PROJECT: **7LEAVES CAFE**
 101 W. IMPERIAL HWY
 LA HABRA, CA 90631

SHEET TITLE: **FLOOR PLAN**

DESIGNED	TN / EL
SIGNATURE	
CONTRACT	

DATE: 06-25-2024
 TIME: 24:00
 SHEET: **A2.1**
 OF X SHEET

FLOOR PLAN KEYNOTES

- 1 NEW DOOR
- 2 NEW ELECTRICAL PANEL. SEE ELECTRICAL PLANS FOR MORE INFORMATION
- 3 ACCESSIBLE COUNTER, MAX HEIGHT, 34". SEE DETAIL 3/A7
- 4 DOOR ACTIVATED AIR CURTAIN, MINIMUM 750 FT FPM MINUTE
- 5 INSTALL INTERNATIONAL SYMBOL OF ACCESSIBILITY AT MAIN ENTRANCE DOORS PER CBC 11B-703.2.2.1. SEE DETAIL 7/124
- 6 PROVIDE TACTILE EXIT SIGN AT ALL GRADE LEVEL EXIT DOORS. SIGN TO READ "EXIT". SEE DETAIL 3/274
- 7 PROVIDE 6 INCH SPLASH GUARD BETWEEN SINK AND STORAGE RACK
- 8 MOP SINK, WITH CHEMICAL STORAGE SHELF ABOVE AND MOP RACK
- 9 (N) FRP WALL, ABOVE, BELOW, & BEHIND SINKS
- 10 (N) FLASHING. FREEZER SHALL BE FLASHED TO WALLS AND TO CEILING
- 11
- 12 TOWEL DISPENSER
- 13 SOAP DISPENSER
- 14 MIN. 8 FT HIGH PARTITION WALL. TO EXTEND TO TO BE IN LINE WITH THE FRONT OF THE JANITORIAL SINK
- 15 NEW TRENCH DRAIN

EGRESS

PER CBC 1002.8

TABLE 1014.3
 COMMON PATH OF TRAVEL W/ SPRINKLER SYSTEM

OCCUPANCY: 30
 OCCUPANT LOAD: 30'

TABLE 1016.2
 EXIT ACCESS TRAVEL DISTANCE W/ SPRINKLER SYSTEM

OCCUPANCY: 250'
 OCCUPANT LOAD: 250'

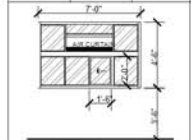
MAX. TRAVEL OF DISTANCE: 250'

OCCUPANT LOAD CALCULATIONS

FUNCTION OF SPACE	LOAD FACTOR	AREA	# OF OCCUPANTS
DINING AREA	(1/15)	527 S.F.	36 OCCUPANTS
PREP AREA	(1/200)	755 S.F.	4 OCCUPANTS
SERVICE COUNTER AREA	(1/100)	157 S.F.	2 OCCUPANTS
TOTAL			42 OCCUPANTS

WINDOW SCHEDULE

WINDOW #	SIZE	THK	HARDWARE	MATERIAL	REMARKS
(A)	4'-0" x 7'-0"	1/2"	READY ACCESS	ALUMINUM FRAME TEMP. GLAZE	NEW DRIVE THRU WINDOW
(B)	4'-0" x 3'-0"	1/2"	FIXED	ALUMINUM FRAME TEMP. GLAZE	(E) WINDOW TO REMAIN
(C)	5'-0" x 3'-0"	1/2"	FIXED	ALUMINUM FRAME TEMP. GLAZE	(E) WINDOW TO REMAIN



(A) ALUMINUM FRAME
 TEMP. GLAZE 402 SIGN OPENING WITH AIR CURTAIN

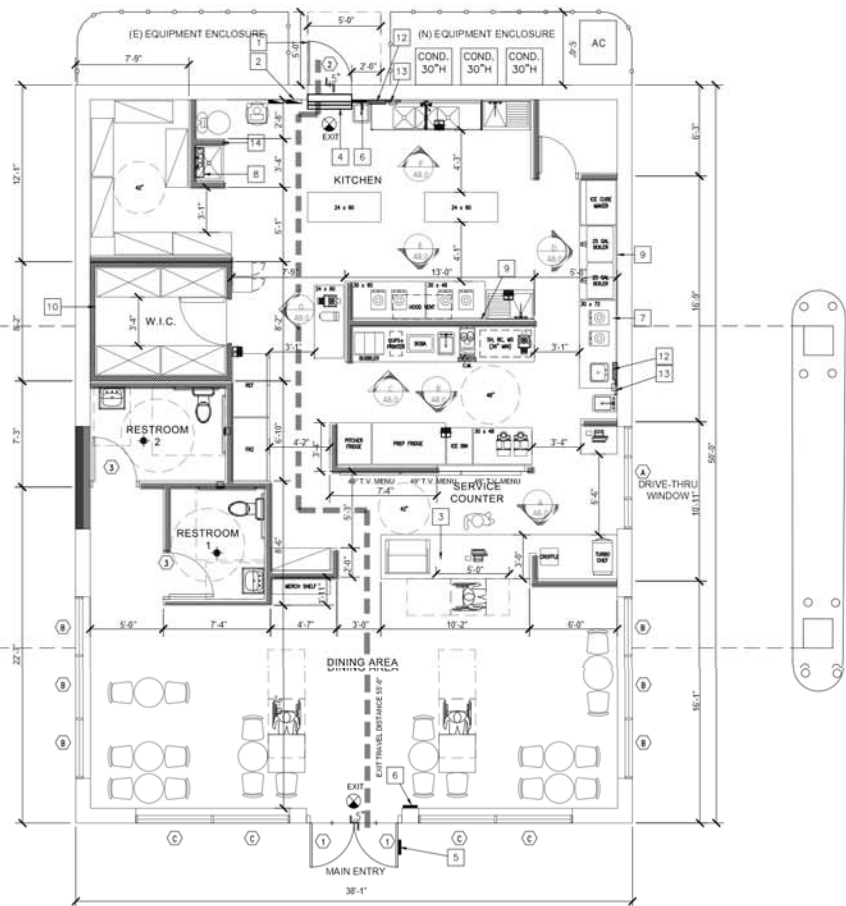
DOOR SCHEDULE

DOOR #	MATERIAL	SIZE	N/L	T/YPE	SPECIFICATION
1	ALUMINUM	3'-0" x 8'-0" x 1'-3/4"	NEW	SWING	(N) PUSH & PULL W/ PANIC HARDWARE. FRONT DOOR
2	HOLLOWMETAL	3'-0" x 7'-0" x 1'-3/4"	EXIST	SWING	(E) LEVEL HANDLE
3	WOOD	3'-0" x 8'-0" x 1'-3/4"	NEW	SWING	(N) LEVER HANDLE
4	WOOD	3'-0" x 8'-0" x 1'-3/4"	NEW	SWING	(N) TRAFFIC DOOR

- 1) THE DOOR SHALL SWING TO THE FULLY OPEN POSITION WHEN AN OPENING FORCE NOT TO EXCEED 5 LBS (INTERIOR AND EXTERIOR DOORS) AND 15 LBS (FIRE DOORS) IS APPLIED TO THE LATCH SIDE.
- 2) DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
- 3) IN ALL 8' HANDS OCCUPANCIES, KEY LOCKING HARDWARE MAY BE USED AT THE MAIN ENTRY DOORS, PROVIDED A SIGN IN CONTRASTING LETTERS OF 1 INCH OR MORE IS PROVIDED AT THE DOOR STATING THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED.
- 4) DOOR LANDINGS SHALL MEET THE CRITERIA FOR THRESHOLDS, SIZES, AND CLEARANCES SPECIFIED IN CBC 1011.5 THROUGH 1011.7.

SYMBOL LEGEND

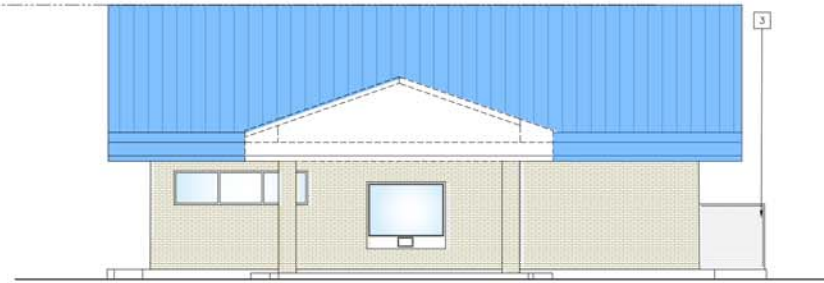
- (E) WALL TO REMAIN
- (N) WALL
- PATH OF TRAVEL
- (E) 1 HOUR FIRE BARRIER WALL
- (N) ILLUMINATED EXIT SIGN W/ EMERGENCY LIGHTING HARDWIRED W/ 90 MIN. BACK-UP BATTERY
- (N) ILLUMINATED DIRECTIONAL EXIT SIGN HARDWIRED W/ 90 MIN. BACK-UP BATTERY
- THRESHOLD, NO MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY
- FLOOR DRAIN
- FLOOR SINK



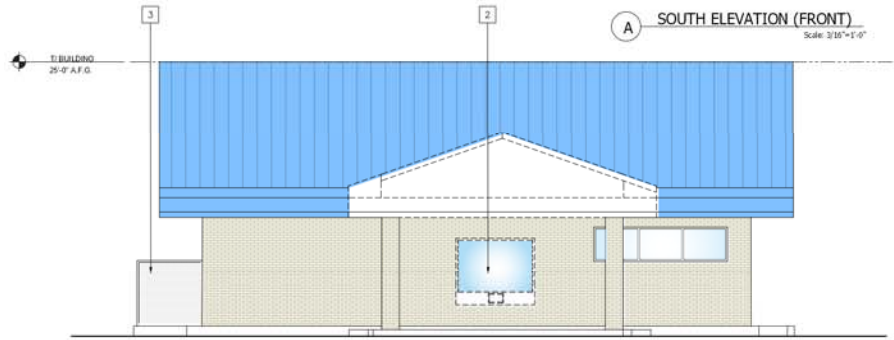
2 PROPOSED FLOOR PLAN
 SCALE: 1/4" = 1'-0"



A SOUTH ELEVATION (FRONT)
Scale: 3/16"=1'-0"



B EAST ELEVATION (STREET SIDE)
Scale: 3/16"=1'-0"



C WEST ELEVATION (INTERIOR SIDE)
Scale: 3/16"=1'-0"



D NORTH ELEVATION (REAR VIEW)
Scale: 3/16"=1'-0"

EXISTING ELEVATIONS

KEYNOTES

1	MODIFY EXISTING ROOF
2	REMOVE WINDOW
3	REPLACE EXISTING CHAIN LINK FENCE
4	
5	
6	
7	
8	
9	
10	

REV.	DESCRIPTION	DATE

PROJECT
7LEAVES CAFE
101 W. IMPERIAL HWY
LA HABRA, CA 90631

SHEET TITLE
EXISTING
ELEVATIONS



DESIGNER TM / EL
SIGNATURE
CONSULTANT
DATE 06-25-2018
JOB NO. 21-04
SHEET A8.0
OF X SHEET

REV.	DESCRIPTION	DATE
1		

PROJECT: 7LEAVES CAFE
 101 W. IMPERIAL HWY
 LA HABRA, CA 90631

SHEET TITLE: PROPOSED ELEVATIONS



DESIGNER	TM / EL
SIGNATURE	
CONSULTANT	
DATE	06-23-2024
JOB NO.	24-05
SHEET	
A8.1	
OF	X SHEET

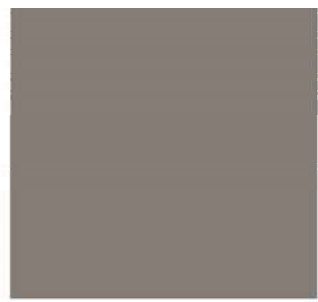


PROPOSED ELEVATIONS

KEYNOTES	
1	(E) BRICK VENEER TO REMAIN
2	PRIMARY COLOR - OMEGA #10 OMEGA WHITE
3	INFILL WINDOW WITH BRICK VENEER TO MATCH
4	ACCENT COLOR - DUNN EDWARDS METAL FRINGE DET626
5	(N) 6'-0" H EQUIPMENT ENCLOSURE - WOOD SIDING FENCE (PAINT TO MATCH)
6	(N) STUCCO EXTERIOR
7	(N) WALL SIGNAGE (UNDER SEPARATE PERMIT)
8	(N) MENU BOARD (STATIC)



OMEGA COLORTEK - #10 OMEGA WHITE



DUNN EDWARDS - METAL FRINGE DET626



MODERN HORIZONTAL SIDING FENCE

NEW MENU BOARD
ONE (1) REQUIRED

20.23 SQ. FT.
SCALE: 1/2" = 1'-0"

A Aluminum Cabinet with .080" thick walls, and .125" thick framing Painted MPC Satin Black (Interior & Exterior)

B .125" Clear Polycarbonate Insert with Matte Lamination applied to reverse side, or equal

C 3" x 3" x 0.125" Aluminum "L" Retainer Painted MPC Satin Black

D .080" Thick Aluminum Skirt Painted MPC Satin Black

E 080" Thick Aluminum Skirt Painted MPC Satin Black

F 4" x 4" x 0.25" Aluminum post Welded to sign cabinet

G Angled Aluminum Vent cover Painted MPC Satin Black

H Solid Border on Retainers

Promotional Signs
3301 S. Susan St.
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HME ENGINEERING DEPARTMENT WHITE PAPER

Drive-Thru Sound Levels - NEXEO

The white paper addresses sound pressure levels (SPL) from the NEXEO™ drive-thru drive-thru communication system, where microphone noise obscures the ambient noise level. The paper includes general information and typical measurements for standard NEXEO drive-thru systems.

Note: Because every site is different and each municipality has its own regulations, HME is unable to make specific recommendations for compliance or give any assurance that any particular system configuration will comply with any given regulations. Statements made in this paper should be taken as general guidelines, but to ensure compliance, the site planner should retain the services of a qualified acoustic consultant equipped to make the necessary measurements.

Sound pressure levels are measured in units of dB SPL and usually include a frequency selective weight referred to as "A weighting". For this reason, the units are frequently written as "dBA SPL" and that notation will be used throughout this paper.

In the drive-thru, the primary source of sound other than the vehicles themselves is often the drive-thru communication system. There is the sound from the speaker (outbound) which comes from the vehicle take or greeter. There is also the sound of the voice of the customer in the vehicle (inbound). This paper only addresses outbound sound. The outbound audio is delivered to the speaker and must be loud enough to be clearly heard by the customer over the noise of the customer's vehicle, any local traffic, and other ambient background noise in the area. However, if it is too loud, the sound can be objectionable to neighbors or even violate specific local regulations.

The sound pressure level observed from a speaker decreases as the observer distance from the speaker increases. However, it can be difficult to predict how much reduction will actually occur. For a single point sound source like an alarm bell hanging in air, the SPL decreases approximately 3 dB over every time the distance from the source doubles. Thus, if one starts one foot away, the level will be 30 dB lower when one is 10 feet away. Unfortunately, speakers are neither single point sources nor are they hanging in air. Rather, speakers are mounted in a variety of different types of enclosures, i.e. cabinets, surrounding buildings, and can be partially or fully shielded by the customer and any other vehicles. All of this tends to make the sound more directional and the SPL at distance less predictable. In measurements with a real speaker point, we tend to use SPL observations closer to 3 dB when the distance doubles.

EMF (radio frequency) waves with a Radio Frequency Automatic Volume Control (AVC) which can be used to reduce the outbound sound pressure level based on ambient noise. When AVC is active, the microphone in the speaker will not measure the ambient noise level and the outbound level is reduced to a level that is approximately 8 - 12 dB above the ambient noise, but it never increases the level above what would be heard with AVC turned off. This feature can considerably reduce the SPL during quiet periods and may help in satisfying local requirements.

This paper provides some typical measurement techniques to help users better understand an outdoor environment under specific circumstances. Measurements for the chamber allow us to simulate an average parking lot with an average ambient noise level. These measurements can be used as a guide for what level might occur in a drive-thru installation. SPL levels at distances greater than 10 ft from the speaker point are calculated based on proposed SPL observations at distance. Additionally, these results were compared with previous outdoor measurements with the same model of speaker and speaker post to verify the validity of the calculated values.

All measurements provided here were taken using the following drive-thru equipment:

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- Base station: HME ICR-ED set to factory default level (outbound volume "70")
- NEXEO™ ICR-ED™ has the same outbound audio processing as ICR and produces the same SPL as the ICR but systems where the NEXEO™ outbound volume is set to "70", NEXEO factory default outbound volume is "70", which is 2 dB lower than the ICR factory default setting. These two systems assume a NEXEO setting of "72". The setting other than "72", the appropriate correction factor from Table 1 needs to be applied.

Note: AVC measurements were taken with NEXEO system and a volume setting of "70".

- Speaker: HME 8700
- Microphone: HME EMF (required for AVC operation)
- Speaker post: Titan Digital model 30730

SPL measurements were taken with:

- NTE Modulare M11 with Mini-SPL microphone with a 1/4-inch, clip-on microphone
- Ambient background noise level - 52 dBA SPL (room noise floor)

These measurements were taken using gain, noise, and levels simulating the loudest speech expected from an order taker initial measurements were taken with AVC and no obstructions or reflecting surfaces in front of the speaker. These are not "normal" conditions for a drive-thru, but they do yield one worst-case SPL. Measurements can be taken for a 10 dB SPL. Measurements can be taken for a 10 dB SPL. The speaker in the test speaker post is oriented 1.5 m (5 ft) behind from the floor and the microphone is oriented at 40 inches from the floor. All measurements are taken directly in front of the speaker post.

SPL was without AVC was made with continuous pink noise supplied to a communication at a single point source so that an order taker speaking into the microphone. Measurements are taken with the microphone microphone on a stand. These measurements were taken at various heights above the floor and distances from the speaker post in order to have a good picture of the way that SPL changes with distance. Measurements are taken at heights of 1.5 m, 1.6 m, 1.7 m, 1.8 m, 1.9 m, and 2.0 m above the floor and at distances of 1 foot, 2 feet, 4 feet, 8 feet, 16 feet in front of the post. From this data, we are able to extrapolate pink noise SPL at greater distances (not measured).

To verify the validity of these measurements, they have been checked for self-consistency and they have been checked against measurements taken outdoors (20 ft) with the same model speaker and post. In all cases, the SPL is within 1 dB. Additionally, the NEXEO SPL was verified to be within 1 dB of the ICR SPL.

SPL was with AVC are made at a single position with different ambient noise levels in order to demonstrate and measure AVC function. This single position approximates the position of the drive-thru customer while placing an order. These measurements are made with continuous traffic noise supplied to large speakers at the back of the room to simulate ambient noise. Recorded noise is used to create an order taker speech. These measurements are taken 40 inches above the floor and 40 inches from the post. Correction factors are then calculated to allow the SPL to be estimated at other positions and distances.

With AVC, the NEXEO outbound volume setting determines the maximum output level that NEXEO can provide to the speaker. This has the effect of setting the volume up under loud noise conditions. It does not change the ambient level under quiet conditions. For this reason, the ambient volume level should be set to the level required under the ambient conditions.

Figure 1 is a graph showing plots of measured SPL at 10 ft and extrapolated (20 ft) at 10 ft SPL at various distances from the speaker post and at different heights above the ground. Since the speaker is mounted 1.5 ft above the ground, the top curve represents the SPL directly in line with the speaker axis. From these plots, it is easy to see that the SPL drops approximately 7 dB away from the distance doubles when on axis. When off axis, the SPL curves are initially shallower but ultimately approach the 3 dB curve as the distance increases. If the speaker were mounted at a different height in a similar enclosure, the top curve would

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represent the SPL at that height. For example, if the speaker were mounted at a height of 3 feet, this curve would represent the SPL at a height of 3 feet.

SPL at Distance from Speaker Post for Different Heights

Figure 1 - Plots of SPL vs Distance at Various Heights

Figure 2 is a graph showing plots of measured SPL at the 1.5 foot level taken outdoors at specific distances up to 50 feet compared with measurements and extrapolations from the acoustic chamber. This graph shows the very close agreement between the outdoor measurements and the chamber measurements.

Outdoor vs Chamber Measurements

Figure 2 - Plots of SPL Measured Outdoors and in Acoustic Chamber

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AVC Operation

When AVC is turned on, the inbound microphone is used to measure the ambient noise level in the drive-thru and adjust the outbound level down so that it never rises more than 12 dB above the ambient noise level at the calibration point. This is particularly useful at night when there is less traffic on surrounding streets and fewer cars in the drive-thru. It may also be useful at situations where the regulations do not specify specific sound pressure levels but use terms like "reasonable" or "reasonable". Because AVC adjusts continuously, it means that the outbound level changes as the conditions change.

AVC is calibrated to adjust the SPL as measured at a point near the expected location of the customer. SPL measurements have been taken at a point 40 inches above the ground and 40 inches in front of the post. Figures 3 and 4 are based on these measurements.

Since AVC adapts based on the noise level measured at the speaker post, a motor vehicle will drive the outbound level up. Thus, the use of AVC will not guarantee that the SPL is below any particular level for all vehicles or conditions. However, it will keep the outbound level from becoming excessively loud.

The maximum ambient SPL is always determined by the outbound volume slider whether AVC is on or off. Thus, when the AVC is on, the ambient level will always be less than or equal to the level with the AVC off. AVC is designed to operate at any volume slider setting. That means that the ambient level during quiet periods will be the same whether the slider is at "12" or "20". When AVC is on, the slider will be the Maximum level rather than the Ambient level. The measurements and plots shown in this document were taken with the volume slider at "20". This is the recommended setting to NEXEO when AVC is enabled.

Figure 3 is a graph of the relative difference between the ambient SPL from the speaker and the ambient noise level at different distances from the speakerpost. Each curve represents a different ambient noise level, and these curves ensure that the ambient level is consistent throughout the measurement area. In the tested configuration, the ambient SPL was always less than the ambient level at distances greater than 10 ft from the speakerpost.

Outbound SPL Relative to Ambient Noise Level Over Distance

Figure 3 - Outbound Level Relative to Ambient for Various Ambient Noise Levels

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Figure 4 is a graph of the total SPL (ambient noise plus outbound audio) measured at different distances. These curves show that at distances greater than 10 feet, the contribution of the outbound audio to the overall ambient level is minimal.

Total SPL (Ambient + Outbound) Over Distance

Figure 4 - Total Sound Pressure Level at Distance

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SPL Estimation Guidelines

HME cannot provide guarantees of SPL in specific situations. Only our own measurements can confirm sound pressure levels at any particular location. However, these measurements can help predict general values. When there are cars in the vicinity of the speaker post, they will block and reflect sound in various ways and while they will change the direction that the sound travels, they will not increase the SPL higher than it would be the result of the speaker. Echoes from surrounding buildings can cause sounds to combine such that it is unpredictable ways, as beyond the scope of this paper to make any predictions of SPL when there are buildings above than 10 ft or so.

The equations presented here can be used along with the graphs to make estimations of SPL at other distances and under other ambient noise conditions. They depend on various assumptions and should only be used for making estimates.

NEXEO Volume Correction

All measurements except for those using AVC have been taken with the outbound volume set to the default setting of 12. The table below gives correction factors for the ambient SPL given different volume slider settings. The correction factor should be added to the plotted ambient SPL to get the expected SPL for that volume setting.

Volume Setting	0	1	2	3	4	5	6	7	8	9	10
Correction Factor	-0.68	-1.08	-1.58	-1.98	-2.48	-2.98	-3.48	-3.98	-4.48	-4.98	-5.48

Table 1 - SPL Correction Factors

Estimating SPL (at 10 ft)

When AVC is off, the ambient level from the speaker will depend only on the volume of the individual speaker used. The measurements here all assume a loud speaker set near the upper limit of the system's capability. Using the graph of Figure 1, it is possible to estimate the SPL at various heights and distances within a few dB. At distances less than 10 ft, it is best to approximate the level by estimating where the point would be on the graph. For distances greater than 10 ft, it is reasonable to assume that the level will decrease by 3 dB each time the distance doubles. The predicted SPL at some distance beyond 10 ft would be given by this equation:

$$SPL = 55 - (3 \times \log_{10} \frac{d}{10})$$

where d is the distance in feet.

Thus, the estimated SPL at 300 ft is $55 - (3 \times \log_{10} \frac{300}{10}) = 32$ dBA.

Estimating Outbound Level with AVC Active

When AVC is on, the outbound level will adjust based on the ambient noise level as measured by the inbound microphone. Given a configuration where the microphone is located approximately 20 inches above the speaker, the approximate ambient SPL above Ambient can be estimated from the graph in Figure 3. The total ambient SPL can be estimated from the graph in Figure 4.

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