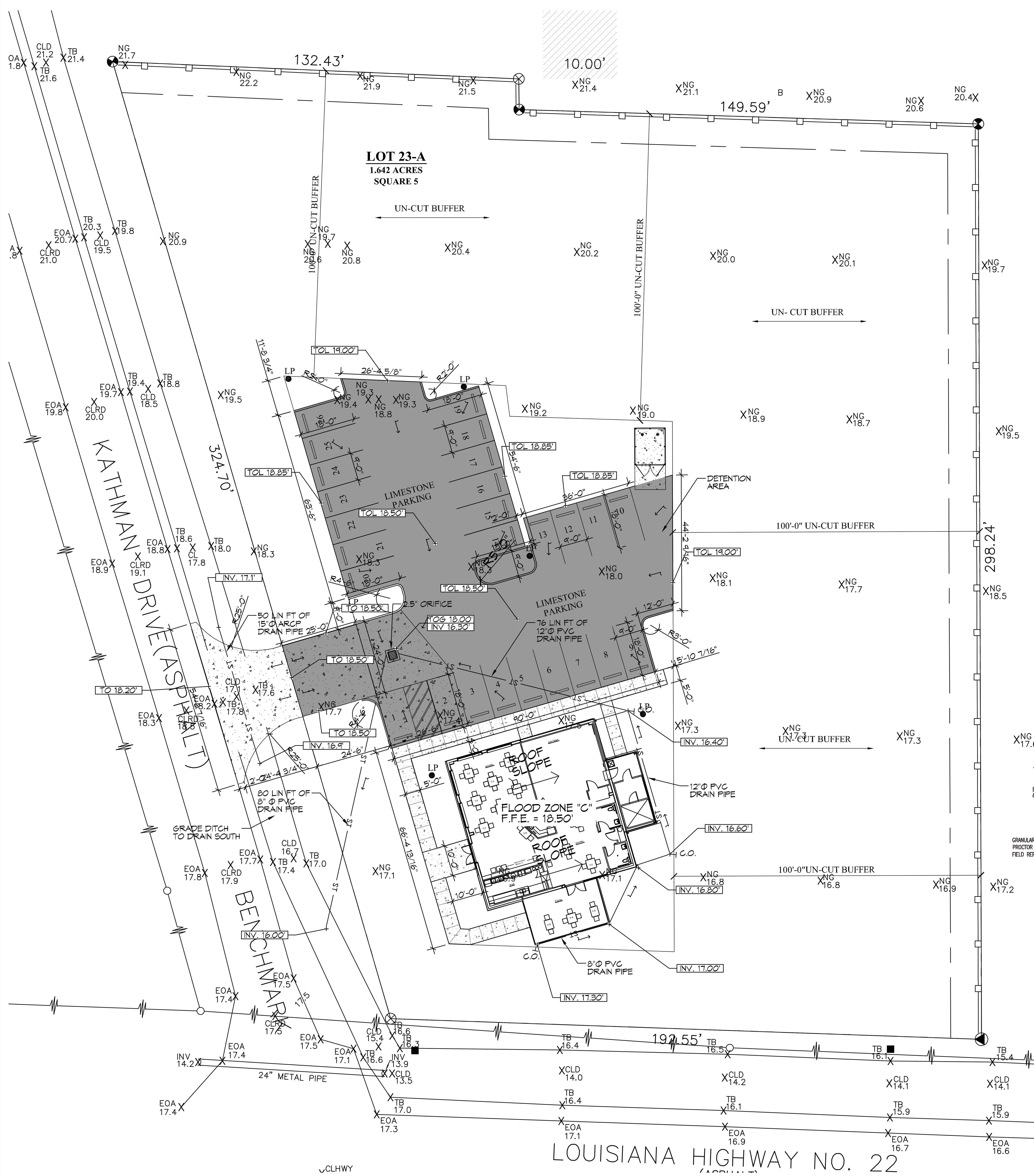


1 DRAINAGE PLAN
SCALE: 1" = 20'-0"

RESTAURANT

STORMWATER RUN-OFF CALCULATIONS

used

[1] RATIONAL METHOD: Q=Aci

Q= Peak discharge of watershed in cubic feet per second (cfs) due to maximum storm assumed.
A= Area of watershed in acres.
c= Coefficient of run-off [2].
i= Intensity of rainfall in inches per hour based on concentration time. [3]

$$[4]\ TC = \frac{\left(L^{0.8}\left(\frac{1000}{c}-9\right)^{0.7}\right)}{(1140(s^{0.5}))}$$

TC= Time of concentration= time required for rain falling at most remote point to reach discharge point.
c= Site run-off coefficient based on conditions shown.
s= Percent slope of overland flow.

PRIOR DEVELOPMENT
25 Year Frequency

Surfaces		0	sqft =	0.000 Acres
c(1) =	0.9			
rface		0	sqft =	0.000 Acres
c(2) =	0.25			
ace		71532.2	sqft =	1.642 Acres
c(3) =	0.15			
		71532.2	sqft =	1.642 Acres
c =	0.15			

D) = Time of concentration (TC)

L =	324	run-off length ft	Elev diff =	1
c =	0.15	run-off coef		
S =	0.3086	percent slope		
TC = D =	23.58	minutes		
rainfall i =	7.66	in/hr		
Q_1 =	1.887 cfs		10% reduction	0.189 cfs

POST DEVELOPMENT
25 Year Frequency

Surfaces		5296.6	sqft =	0.122 Acres
c(1) =	0.9			
rface		0	sqft =	0.000 Acres
c(2) =	0.25			
ace		66235.6	sqft =	1.521 Acres
c(3) =	0.15			
		71532.2	sqft =	1.642 Acres
c =	0.21			

D) = Time of concentration (TC)

L =	112	run-off length ft	Elev diff =	1.5
c =	0.21	run-off coef		
S =	1.3393	percent slope		
TC = D =	16.84	minutes		
rainfall i =	7.66	in/hr		
Q_2 =	2.585 cfs			

DETENTION REQUIREMENTS

required	Q_2-Q_1	0.70	cfs	
R DETENTION		2514.8	cuft	
N DIMENSIONS		WIDTH	103	feet
		LENGTH	114	feet
		DEPTH	0.21	feet

DISCHARGE END AREA REQUIREMENTS
10 Year Frequency

$$[5]\ A = \frac{Q}{\left(c\sqrt{(2gh)}\right)}$$

A= Discharge Area required
g= Acceleration of gravity
c= Discharge coefficient
h= Hydraulic head
Q= Flow volume from run-off

cing Site Drainage

Q =	0.189	cfs	h =	1.00	feet
c =	0.62	coefficient	A =	0.038	sqft
g =	32.16	ft/sec/sec			

D CONDUIT = 2.64 inch inside diameter

es
V.F. The Civil Engineering Handbook. 1995. Eq.# 31.1, pg. 1036
Elwyn E. Data Book for Civil Engineers. Vol.1 1960. Tbl. B, pg. 18-02
Elwyn E. Data Book for Civil Engineers. Vol.1 1960. Fig.B, pg. 18-01
V.F. The Civil Engineering Handbook. 1995. Tbl. 31.2 Regan Equation (n=0.013)
V.F. The Civil Engineering Handbook. 1995. Eq.# 28.32, pg. 969

DRAINAGE NOTES

1. ELEVATIONS SHOWN ARE MSL.
2. FIELD VERIFY ALL ELEVATIONS AND AND DRAINAGE SYSTEM PLACEMENT PRIOR TO START OF WORK.
3. PROVIDE VERTICAL ELBOW AT DOWNSPOUTS WITH SPLASH BLOCKS.

DRAINAGE LEGEND

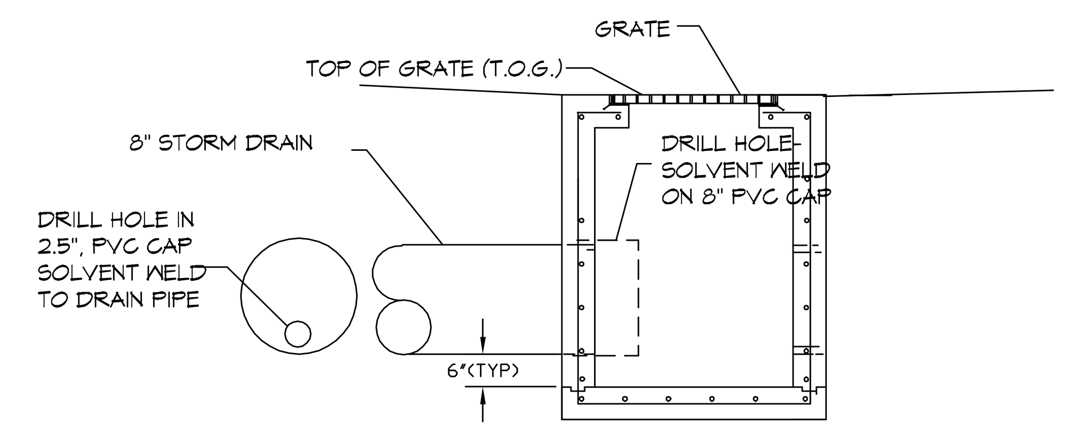
TOC XXX.X — TOP OF CONCRETE ELEVATION
TOG XXX.X — TOP OF GRATE ELEVATION
INV XXX.X — INVERT OF PIPE ELEVATION
"15" — 15"Ø ARCP DRAIN PIPE IN DITCH; PVC PIPE IN PARKING AREA
EL XXX.X — NEW ELEVATION
NG XXX.X — NATURAL GRADE
SLOPE

FLOOD ZONE

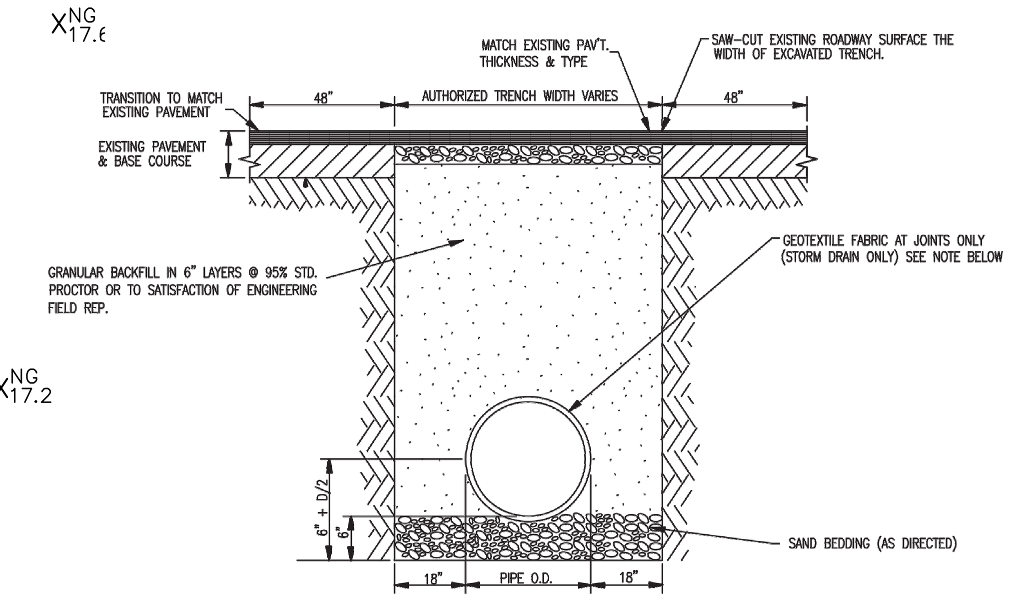
ZONE "C"

BUILDING ELEVATION

FINISHED FLOOR ELEVATION = 18.50'

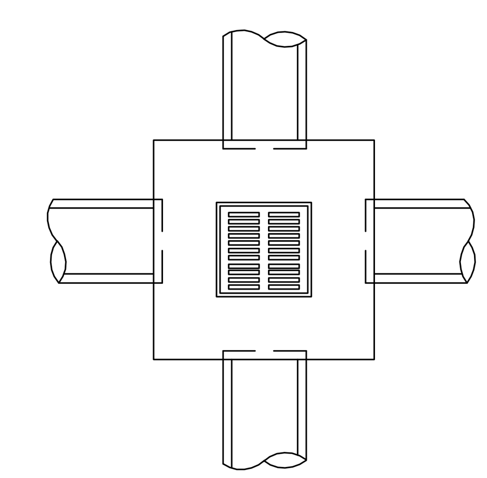


2 DROP INLET PIPE CAP
SCALE: N.T.S.

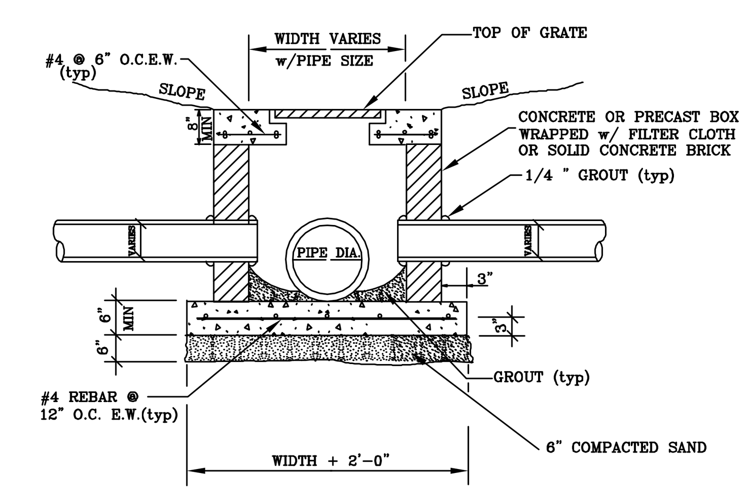


TYPICAL DETAIL FOR CULVERTS IN ROADWAYS
N.T.S.

NOTES:
1. ALL GEOTEXTILE FABRIC TO BE 3'-0" WIDE AND TO OVERLAP NO LESS THAN 1/2 OF PIPE DIAMETER. COST OF FABRIC IS TO BE ABSORBED IN THE UNIT PRICE OF DRAIN PIPE AND SHALL NOT BE MEASURED FOR SEPERATE PAYMENT.
2. ADDITIONAL BEDDING MATERIAL MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. TIMBER PLANKING UNDER CULVERTS MAY BE REQUIRED BY ENGINEER.



TYPICAL DROP INLET
NTS
NOTE: NUMBER OF CULVERTS INTO/OUT OF BOX WILL VARY.



SECTION DROP INLET
NTS

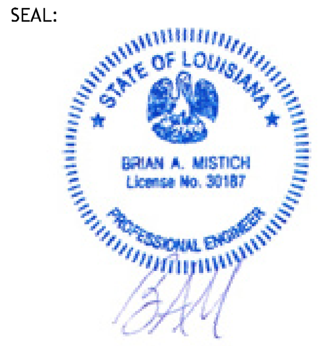
3 PIPE BEDDING AND DROP INLET
SCALE: N.T.S.

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI
Chief Engineer: Brian Mistich, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

#	DESCRIPTION	DATE
1	REVISED CUT/FILL CALCS	9/26/2019

REVISIONS

SEAL:

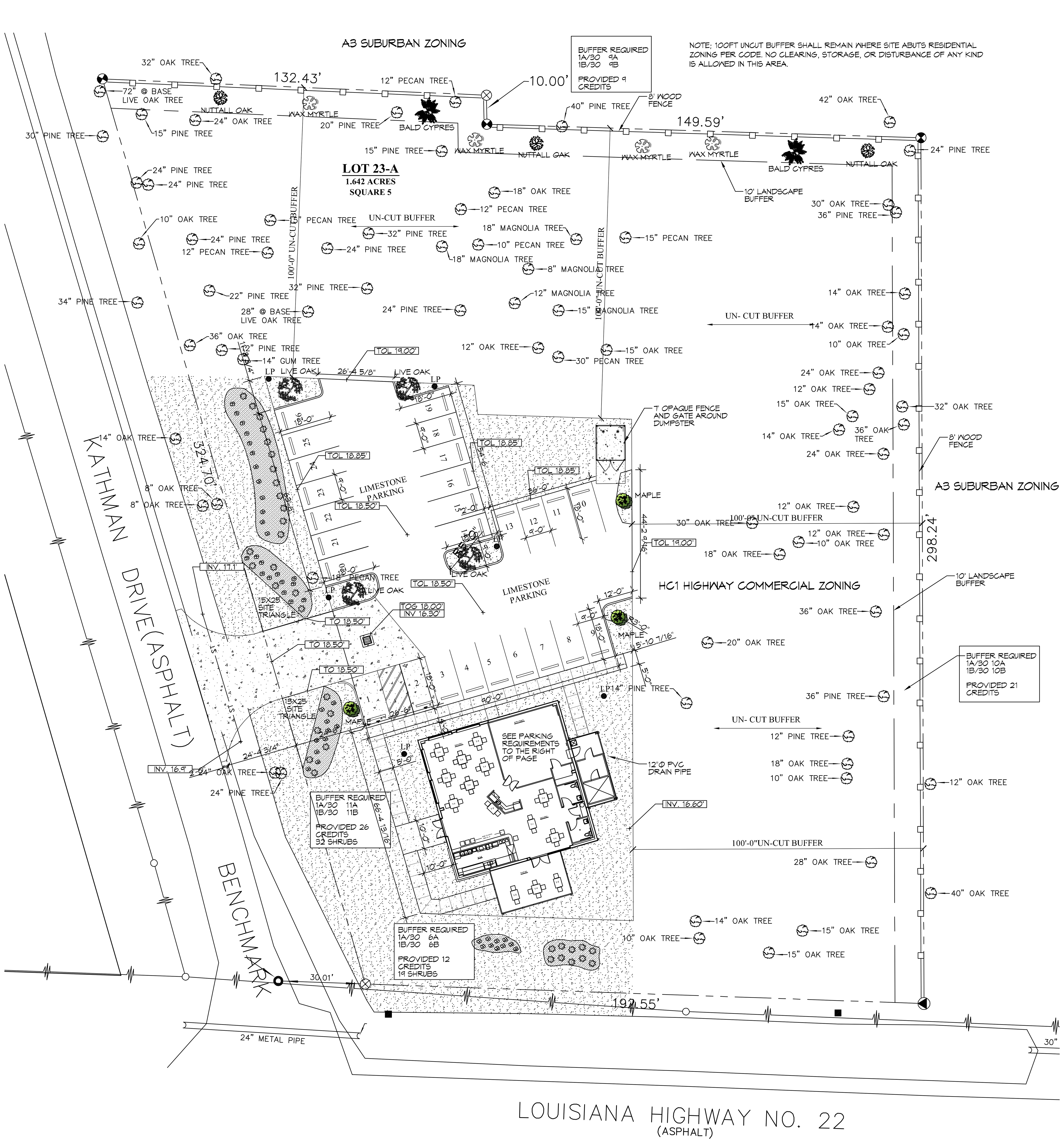


NEW RESTAURANT
HABANERO MEXICAN RESTAURANT
1538 LA HWY. 22 WEST
MADISONVILLE, LA 70447

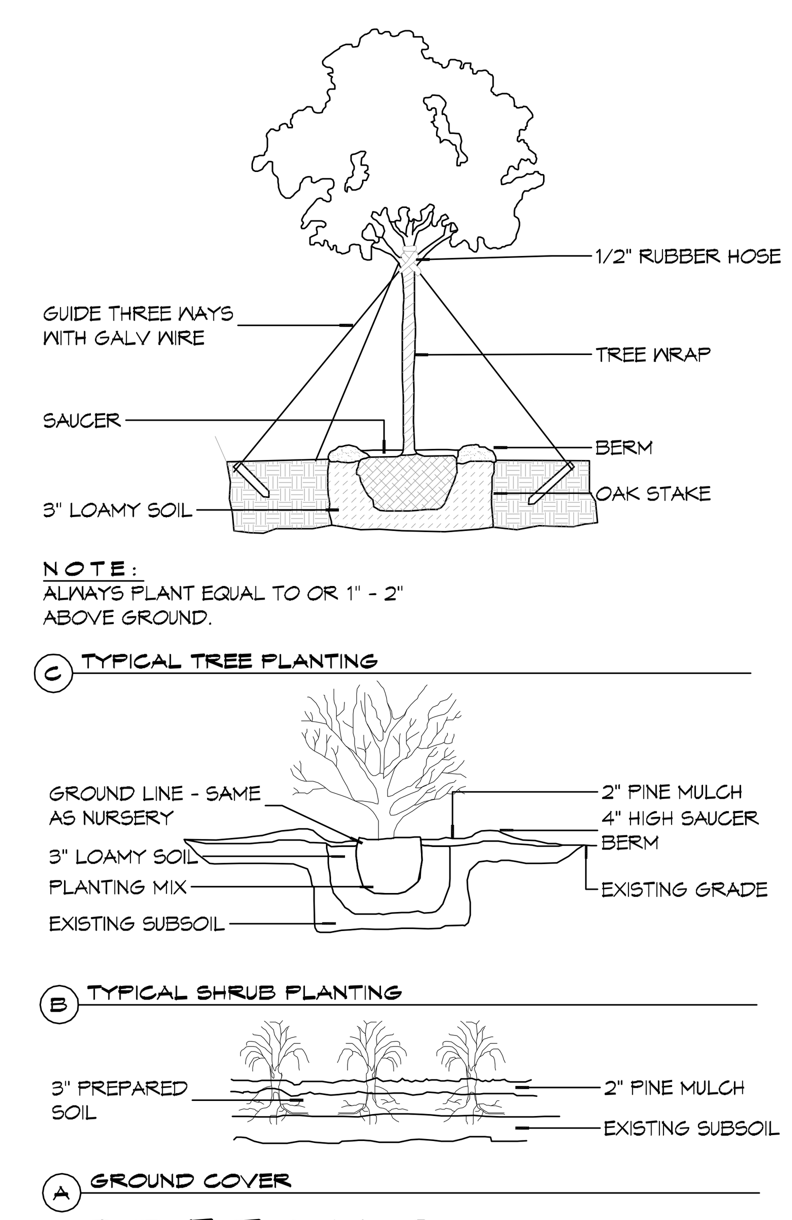
JOB No: 2345 | DATE: 10-24-2019
DRAWN BY: CKD | CHECKED BY: BAM

SHEET TITLE:
DRAINAGE PLAN

DRAWING NUMBER:
C101



1 LANDSCAPING PLAN
SCALE: 1" = 20'-0"



2 DETAILS
SCALE: NTS

LANDSCAPING NOTES

1. ALL LANDSCAPING INDICATED ON THIS SHEET WILL BE INSTALLED UNDER SEPARATE CONTRACT BY OTHERS AND NOT IN CONTRACT "NIC" AND ARE SHOWN FOR COORDINATION AND PERMITTING PURPOSES ONLY.
2. ALL LANDSCAPING SHALL BE DESIGNED AND INSTALLED BY A LANDSCAPING COMPANY LICENSED IN THE STATE OF LOUISIANA.
3. CONTACT LOCAL UNDERGROUND UTILITY SERVICES FOR UTILITY LOCATION AND IDENTIFICATION, PRIOR TO COMMENCING WORK.
4. PERFORM EXCAVATIONS IN THE VICINITY OF UNDERGROUND UTILITIES WITH CARE AND BY HAND, IF NECESSARY. THE CONTRACTOR BEARS FULL RESPONSIBILITY FOR THIS WORK AND DISRUPTION OR DAMAGE TO UTILITIES AND SHALL BE IMMEDIATELY REPAIRED AND AT NO EXPENSE TO THE OWNER.
5. ITEMS ENCOUNTERED BELOW GRADE AND NOT SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR.
6. CONTACT THE LOCAL UNDERGROUND SERVICE UPDATE FOR UTILITY LOCATION AND IDENTIFICATION PRIOR TO DEMOLITION.

LEGEND

- NUTTALL OAK
ALL CLASS "A" TREES, AT THE TIME OF PLANTING, SHALL HAVE A MINIMUM CALIPER OF AT LEAST TWO (2) INCHES, MEASURED SIX (6") INCHES ABOVE THE ROOT BALL, AND A MINIMUM HEIGHT OF 10 TO 12 FEET AT TIME OF PLANTING AND A MATURE AVERAGE CROWN SPREAD OF 50 FEET.
- BALD CYPRESS
ALL CLASS "A" TREES, AT THE TIME OF PLANTING, SHALL HAVE A MINIMUM CALIPER OF AT LEAST TWO (2) INCHES, MEASURED SIX (6") INCHES ABOVE THE ROOT BALL, AND A MINIMUM HEIGHT OF 10 TO 12 FEET AT TIME OF PLANTING AND A MATURE AVERAGE CROWN SPREAD OF 50 FEET.
- LIVE OAK
ALL CLASS "A" TREES, AT THE TIME OF PLANTING, SHALL HAVE A MINIMUM CALIPER OF AT LEAST TWO (2) INCHES, MEASURED SIX (6") INCHES ABOVE THE ROOT BALL, AND A MINIMUM HEIGHT OF 10 TO 12 FEET AT TIME OF PLANTING AND A MATURE AVERAGE CROWN SPREAD OF 50 FEET.
- MAPLE
ALL CLASS "A" TREES, AT THE TIME OF PLANTING, SHALL HAVE A MINIMUM CALIPER OF AT LEAST TWO (2) INCHES, MEASURED SIX (6") INCHES ABOVE THE ROOT BALL, AND A MINIMUM HEIGHT OF 10 TO 12 FEET AT TIME OF PLANTING AND A MATURE AVERAGE CROWN SPREAD OF 50 FEET.
- WAX MYRTLE
ALL CLASS "B" TREES, AT THE TIME OF PLANTING, SHALL HAVE A MINIMUM CALIPER OF AT LEAST (1-1/2") ONE AND HALF INCHES, MEASURED SIX (6") INCHES ABOVE THE ROOT BALL, AND A MINIMUM HEIGHT OF 8 FEET AT TIME OF PLANTING AND A MATURE AVERAGE CROWN SPREAD OF 20 FEET.
- AZALEA
SHRUB: A RELATIVELY LOW-GROWING BUSHY PLANT, USUALLY WITH WOODY STEMS. FOR THE PURPOSE OF THIS DEFINITION, GROUND COVER, TREES AND ANNUALS ARE NOT CONSIDERED SHRUBS.
- CAMELLIA
SHRUB: A RELATIVELY LOW-GROWING BUSHY PLANT, USUALLY WITH WOODY STEMS. FOR THE PURPOSE OF THIS DEFINITION, GROUND COVER, TREES AND ANNUALS ARE NOT CONSIDERED SHRUBS.
- GRASS - PINE MULCH

NOTE; ALL TREES & SHRUBS TO BE MULCHED W/3" DEPTH, ALL OTHER AREAS TO BE COVERED IN LIVE GROUND COVER OR SOD.

LICENSED LANDSCAPER

BILL BROWN JR.
LUXURY LANDSCAPE SERVICES 985-774-5211
HORT. #2377

PLANNING

ZONED - HC-1 HIGHWAY COMMERCIAL ZONING

SEATING SCHEDULE

T-2 TABLE (2 SEATS) - 4 EACH = 8 SEATS
T-4 TABLE (4 SEATS) - 10 each = 40 SEATS
BAR = 9 SEATS

PARKING REQUIRED

STAFF 1 PER STAFF & WORKERS
DINING 57 SEATS @ 1 PER 3 SEATS = 19 SPACES
TOTAL REQUIRED PARKING = 26 SPACES

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI
Chief Engineer: Brian Mistich, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

REVISIONS

#	DESCRIPTION	DATE

SEAL:

NEW RESTAURANT
HABANERO MEXICAN RESTAURANT
1938 LA HWY. 22 WEST
MADISONVILLE, LA 70447

JOB No: 2398	DATE: 10-29-2019
DRAWN BY: CKD	CHECKED BY: BB JR

SHEET TITLE:
LANDSCAPING PLAN

DRAWING NUMBER:
L101