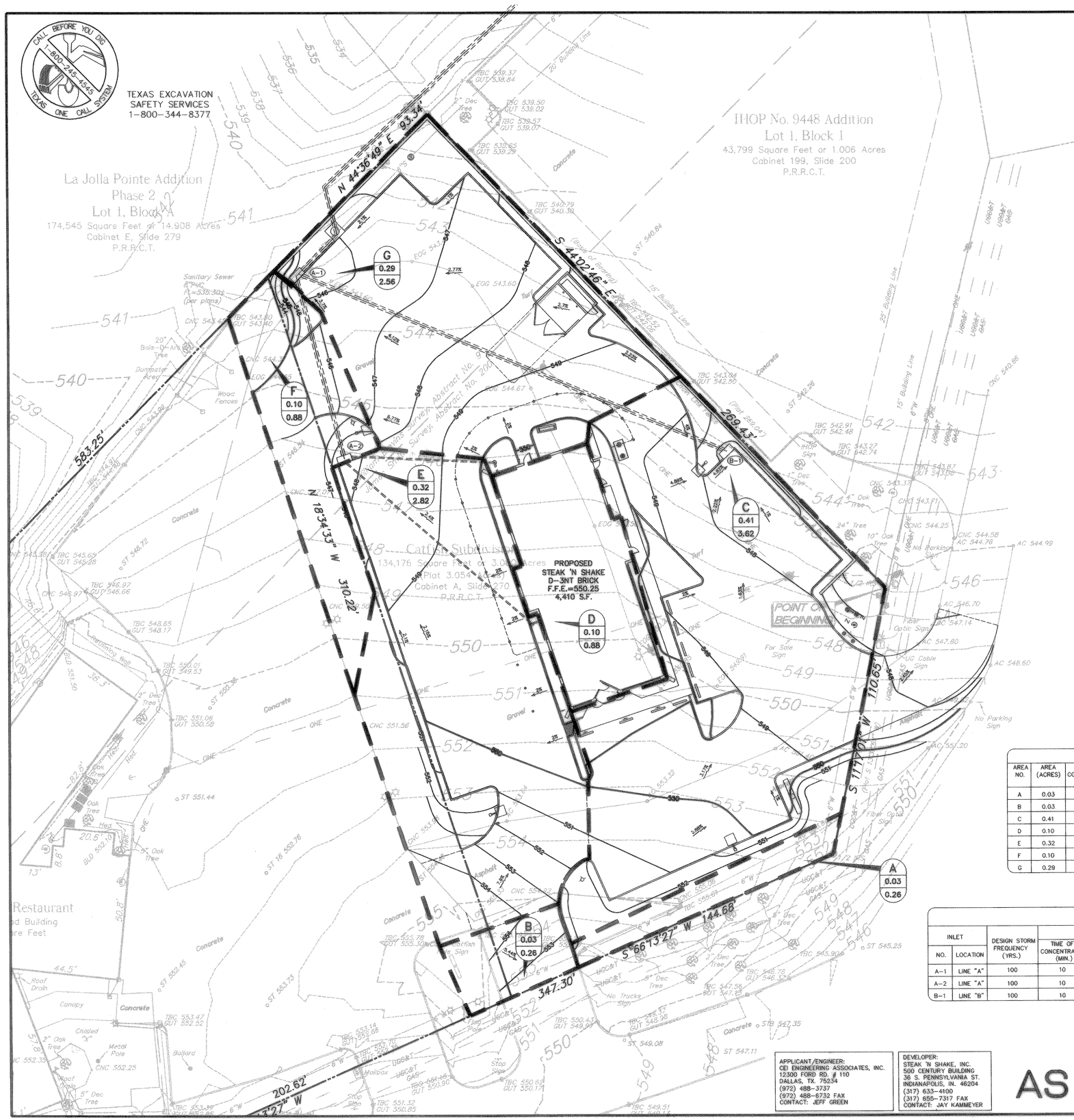

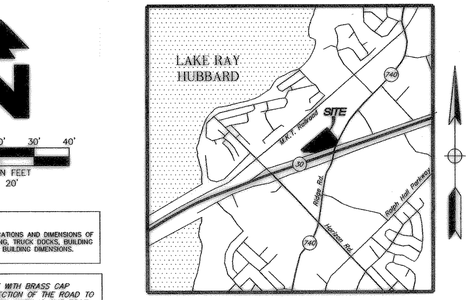

0 20' 30' 40'
SCALE IN FEET
1" = 20'

NOTE:
SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PORCHES, RAMPS, VESTIBULE, SLOPED PAVING, TRUCK DOCKS, BUILDING UTILITY ENTRANCE LOCATIONS AND PRECISE BUILDING DIMENSIONS.

BENCH MARK: CONCRETE MONUMENT WITH BRASS CAP LOCATED AT THE SOUTHWEST INTERSECTION OF THE ROAD TO THE MARINA AND VILLAGE ROAD. BENCH MARK IS ONE FOOT WEST OF VILLAGE ROAD AND EIGHT FEET NORTHEAST OF AN EXISTING WYE INLET. ELEVATION = 506.0486

LEGEND

EXISTING

CNC	CONCRETE		BENCHMARK
E	EAST OR ELECTRIC		
EG	EXISTING GROUND		
N	NORTH		CHISELED CROSS
OH	OVERHEAD		
S	SOUTH OR SEWER		CURB INLET
T	TELEPHONE		DRAINAGE MANHOLE
UG	UNDERGROUND		
W	WEST OR WATER		FIRE HYDRANT
CM	CONTROL MONUMENT		GAS METER
	PROPERTY LINE		GUY WIRE
	STORM DRAIN		IRON ROD FOUND
G	GAS		IRON ROD SET
OHE	OVERHEAD ELECTRIC		SIGN
X"S	SEWER		SEWER MANHOLE
UGE	UNDERGROUND ELECTRIC		UTILITY POLE
UGE&T	UNDERGROUND ELECTRIC AND TELEPHONE		WATER VALVE
UGTV	UNDERGROUND TV		
X"W	WATER		

A — DENOTES SUBDRAINAGE AREA
0.18 — DRAINAGE AREA (ACRES)
1.57 — DENOTES FLOW, CFS ("Q"-100 YR. STORM)

DRAINAGE DIVIDE LINE

FORMULA USED FOR FLOW RATE:

Q100=CiA; Rational Method
Q100=100 Year Storm Event
C=Runoff Coefficient
Pervious Area (0.9 used)
Impervious Area (0.9 used)
i=100 Year Intensity
i=9.8 in./hr. for a tc=10 minutes
A=Acres

STORM WATER RUNOFF CALCULATIONS

AREA NO.	AREA (ACRES)	TIME OF CONCENTRATION (MINUTES)	RUNOFF COEFFICIENT C	INTENSITY I 100 (IN/HR)	DESIGN FLOW, Q 100 (CFS)	COMMENTS
A	0.03	10	0.9	9.8	0.26	FLOWS OFF-SITE TO EXISTING HIGHWAY R.O.W.
B	0.03	10	0.9	9.8	0.26	FLOWS OFF-SITE TO EXISTING HIGHWAY R.O.W.
C	0.41	10	0.9	9.8	3.62	SHEET FLOW TO PROPOSED 5' CURB INLET
D	0.10	10	0.9	9.8	0.88	ROOF DRAINS
E	0.32	10	0.9	9.8	2.82	SHEET FLOW TO PROPOSED 5' CURB INLET
F	0.10	10	0.9	9.8	0.88	SHEET FLOWW OFF-SITE TO BE PICKED UP BY ADJACENT DEVELOPMENT
G	0.29	10	0.9	9.8	2.56	SHEET FLOW TO PROPOSED 5' CURB INLET

INLET CALCULATIONS

INLET NO.	INLET LOCATION	DESIGN STORM FREQUENCY (YRS.)	AREA RUNOFF (Q=CIA) TIME OF CONCENTRATION (MIN.)	INTENSITY "I" (IN/HR)	RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	"Q" (CFS)	CARRY OVER FROM UPSTREAM INLET (CFS)	GUTTER SLOPE (FT./FT.)	CROWN TYPE	SELECTED INLET LENGTH "Li" (FT.)	TYPE	CAPACITY (CFS)	CARRY OVER TO DOWNSTREAM INLET (CFS)
A-1	LINE "A"	100	10	9.8	0.9	0.29	2.56	0	SUMP	2%	5	C.I.	8.7*	0
A-2	LINE "A"	100	10	9.8	0.9	0.32	2.82	0	SUMP	2%	5	C.I.	8.7*	0
B-1	LINE "B"	100	10	9.8	0.9	0.41	3.62	0	SUMP	2%	5	C.I.	8.7*	0

* CAPACITY CALCULATED ASSUMING Y0 =0.4', PER FIGURE 3.7 OF CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION

APPLICANT/ENGINEER:
CEI ENGINEERING ASSOCIATES, INC.
12300 FORD RD. # 110
DALLAS, TX. 75234
(972) 488-3737
(972) 488-6732 FAX
CONTACT: JEFF GREEN

DEVELOPER:
STEAK 'N SHAKE, INC.
500 CENTURY BUILDING
36 S. PENNSYLVANIA ST.
INDIANAPOLIS, IN. 46204
(317) 633-4100
(317) 655-7317 FAX
CONTACT: JAY KAMMEYER

AS BUILT

SHEET NO. C-9 OF 13

FAMOUS FOR STEAKBURGERS — Steak n Shake

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12300 FORD ROAD, SUITE 110
DALLAS, TEXAS 75234
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(972) 488-6732

DWG. NAME: 9434proj.dwg
JOB NO.: 19434.0
DATE: 08/27/04
PRELIM.

STATE OF TEXAS
M. CHRISTOPHER ROGERS
89618
LICENSED
PROFESSIONAL ENGINEER

REVISION NO.	DATE	COMMENTS
1	4-5-05	PER INITIAL CITY COMMENTS
2	5-10-05	PER SECOND CITY COMMENTS
3	8-2-05	ADDED LIGHT POLE LOCATIONS

DATE	TJB	JKG	JKG	JKG
08/27/04	PRN	PM	DES	DRW

DRAINAGE AREA MAP
STEAK 'n SHAKE
PROPOSED LOT 1, BLOCK A
STEAK 'N SHAKE ADDITION
INTERSTATE HIGHWAY 30, ROCKWALL, TEXAS