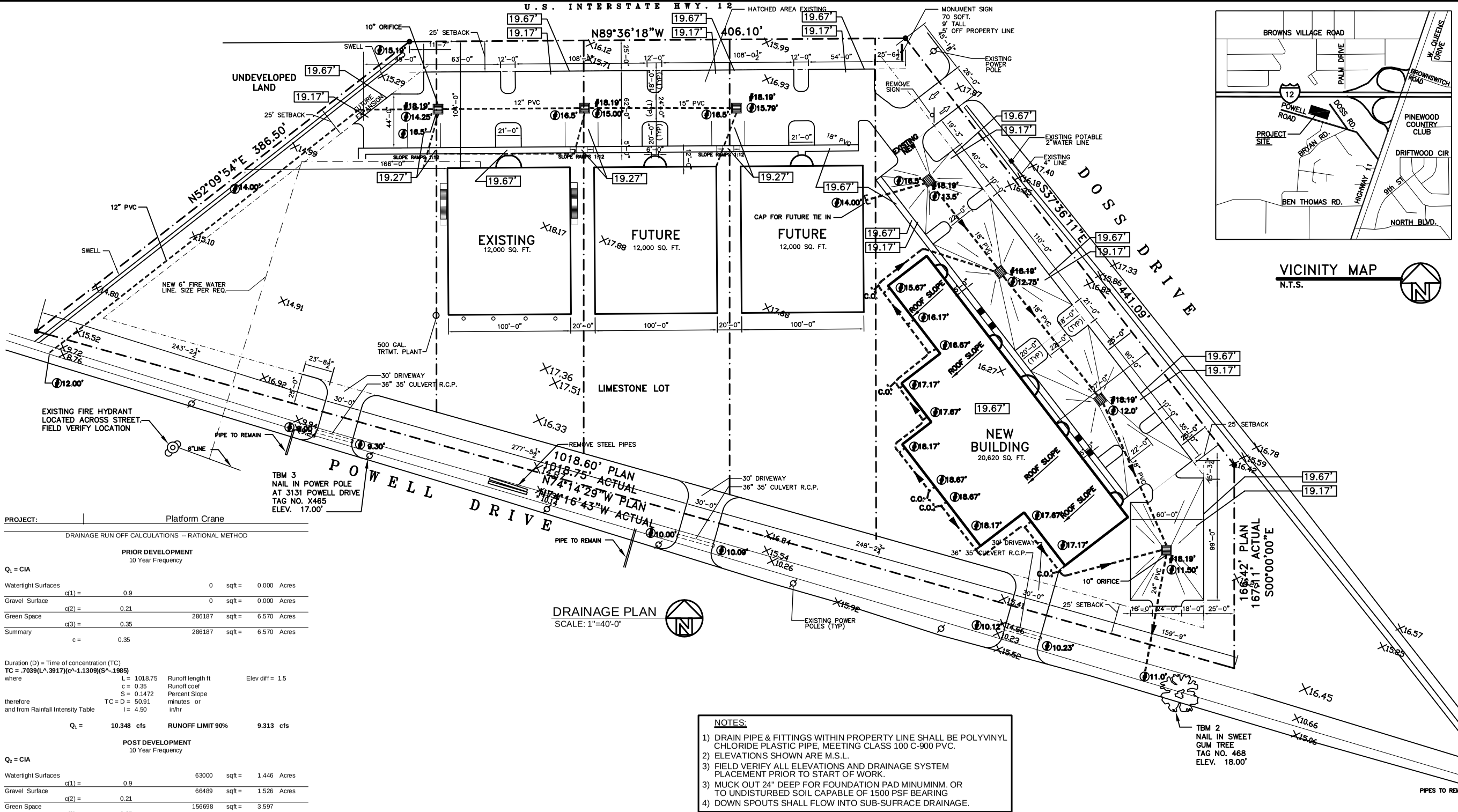


VICINITY MAP
N.T.S.

DRAINAGE PLAN
SCALE: 1"=40'-0"

NOTES:

1) DRAIN PIPE & FITTINGS WITHIN PROPERTY LINE SHALL BE POLYVINYL CHLORIDE PLASTIC PIPE, MEETING CLASS 100 C-900 PVC.
2) ELEVATIONS SHOWN ARE M.S.L.
3) FIELD VERIFY ALL ELEVATIONS AND DRAINAGE SYSTEM PLACEMENT PRIOR TO START OF WORK.
3) MUCK OUT 24" DEEP FOR FOUNDATION PAD MINUMINM. OR TO UNDISTURBED SOIL CAPABLE OF 1500 PSF BEARING
4) DOWN SPOUTS SHALL FLOW INTO SUB-SUFRACE DRAINAGE.

PROJECT: Platform Crane

DRAINAGE RUN OFF CALCULATIONS -- RATIONAL METHOD

PRIOR DEVELOPMENT
10 Year Frequency

$Q_1 = CIA$

Watertight Surfaces		0	sqft =	0.000	Acres
	c(1) = 0.9				
Gravel Surface		0	sqft =	0.000	Acres
	c(2) = 0.21				
Green Space		286187	sqft =	6.570	Acres
	c(3) = 0.35				
Summary		286187	sqft =	6.570	Acres
	c = 0.35				

Duration (D) = Time of concentration (TC)
TC = .7039(L^.3917)(c^-1.1309)(S^-.1985)
where L = 1018.75 Runoff length ft Elev diff = 1.5
c = 0.35 Runoff coef
S = 0.1472 Percent Slope
therefore TC = D = 50.91 minutes or
and from Rainfall Intensity Table I = 4.50 in/hr

Q_1 = 10.348 cfs RUNOFF LIMIT 90% 9.313 cfs

POST DEVELOPMENT
10 Year Frequency

$Q_2 = CIA$

Watertight Surfaces		63000	sqft =	1.446	Acres
	c(1) = 0.9				
Gravel Surface		66489	sqft =	1.526	Acres
	c(2) = 0.21				
Green Space		156698	sqft =	3.597	
	c(3) = 0.35				
Summary		286187	sqft =	6.570	Acres
	c = 0.44				

D = Time of concentration (TC)
TC = .7039(L^.3917)(c^-1.1309)(S^-.1985)
where L = 1018.75 Runoff length ft Elev diff = 1.5
c = 0.44 Runoff coef
S = 0.1472 Percent Slope
therefore TC = D = 39.45 minutes or
and from Rainfall Intensity Table I = 7.60 in/hr

Q_2 = 21.897 cfs

RESULTS

DETENTION REQUIRED Q_2-Q_1 12.585 cfs
ONE HOUR DETENTION 45304.4 cuft
DETENTION DIMENSIONS
WIDTH 62 feet
LENGTH 745 feet
DEPTH **0.98 feet**

DISCHARGE END AREA CALCULATIONS

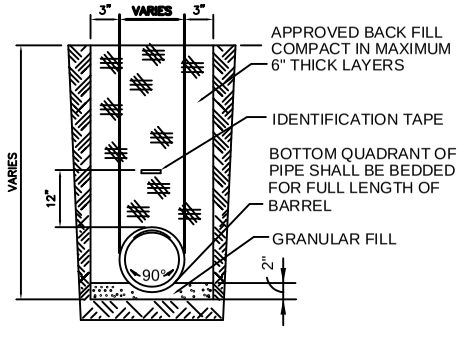
Q = cA(2gH)^1/2 where Q is allowable run off

Allowable run off	Q =	9.313	cfs
Friction loss factor	c =	0.98	coefficient
Acceleration	g =	32.2	ft/ft/sec
Height above invert	if H =	3.50	feet
End area	A =	0.63	sqft

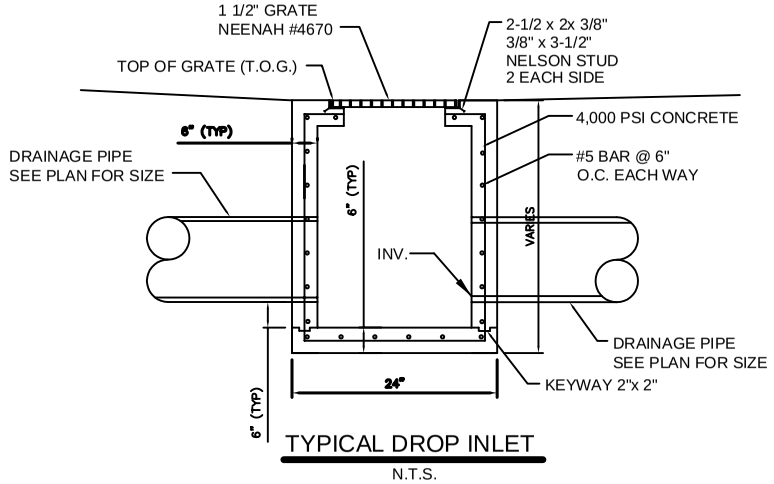
REQUIRED CONDUIT = 10.77 inch diameter

LEGEND:

- PROPERTY LINE
- SERVITUDE / EASEMENT
- SETBACK
- NEW BUILDING
- NEW DRAIN LINE
- NEW DROP INLET w/TEMP. SILT FENCING
- EXPANSION JOINT
- CONTROL JOINT
- SLOPE LINES
- # - T.O. GRATE ELEVATION
- (#) - INVERT ELEVATION
- 00.00 - NEW ELEVATIONS
- EL=00.00 - EXISTING ELEVATIONS
- TEMPORARY SILT FENCING



DRAIN PIPE BEDDING
N.T.S.



TYPICAL DROP INLET
N.T.S.

DAMMON ENGINEERING, INC.
EMMETT DAMMON

ARCHITECT
ROBERT SOLLBERGER

1095 FLORIDA AVENUE
SLIDELL, LA. 70458
985-649-5832

WEBSITE:
WWW.DAMMONENGINEERING.CO

EMAIL:
DAMMONENG@BELLSOUTH.NET

ARCHITECTURE
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EXPERT WITNESS

NEW OFFICE BUILDING

PLATFORM CRANE

SLIDELL, LA

DRAINAGE PLAN

REV:

SCALE: AS NOTED
JOB#: 1898
DATE: 10-8-07
SHEET 5

C-4

OF 25