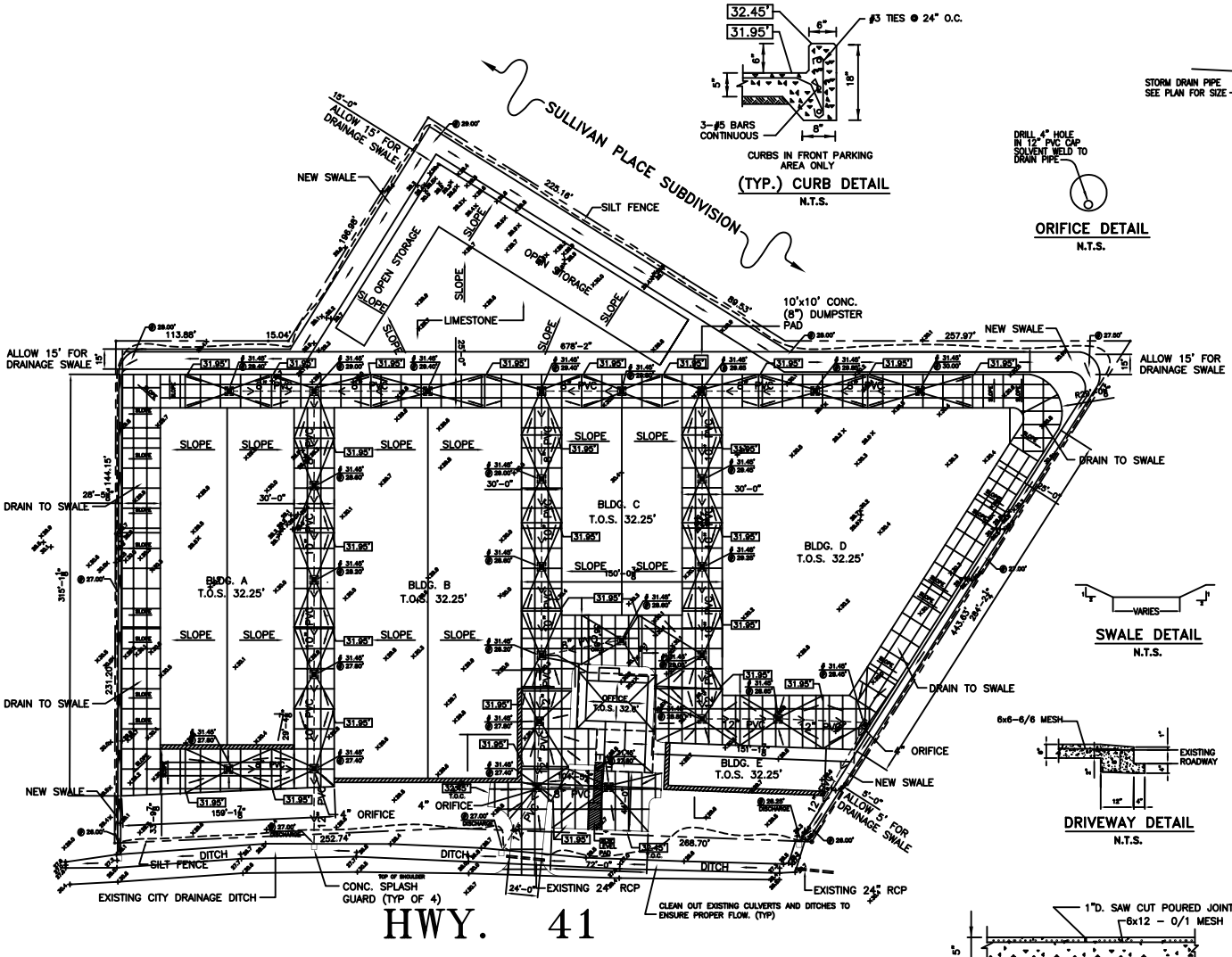
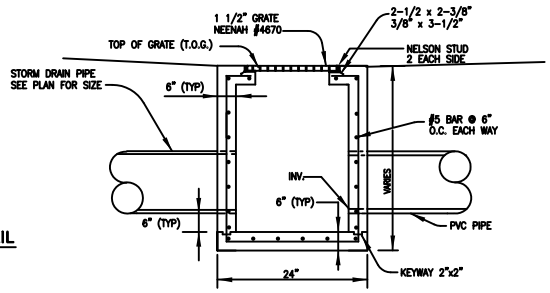


DRAINAGE AND PAVING PLAN
SCALE: 1" = 40'-0"

(TYP.) CURB DETAIL
N.T.S.

ORIFICE DETAIL
N.T.S.



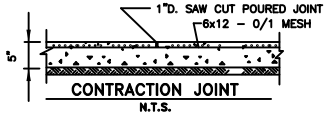
TYPICAL DROP INLET
N.T.S.

SWALE DETAIL
N.T.S.

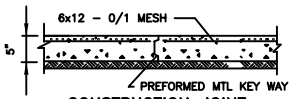
DRIVEWAY DETAIL
N.T.S.

PROJECT:	PLANET STORAGE				
DRAINAGE RUN OFF CALCULATIONS -- RATIONAL METHOD					
PRIOR DEVELOPMENT 10 Year Frequency					
Q_1 = CIA					
Waterlight Surfaces		8568	sqft =	0.197	Acres
Gravel Surface c(1) =	0.0	0	sqft =	0.000	Acres
c(2)	0.91				
Grass Space c(3) =	0.35	261768	sqft =	6.009	Acres
Summary		207034	sqft =	0.151	Acres
c =	0.36				
Duration (D) = Time of concentration (TC)					
TC = .7039(L^.3617)(c^-1.1306)(S^-.1985)					
where L =	768	Runoff length ft		Flow diff	1.1
c =	0.36	Runoff coef			
S =	0.1440	Percent Slope			
therefore TC = D =	43.72	minutes or			
and from Rainfall Intensity I =	4.50	inchr			
Q_1 =	10.038 cfs	RUNOFF LIMIT 90%		9.034 cfs	
POST DEVELOPMENT 10 Year Frequency					
Q_2 = CIA					
Waterlight Surfaces c(1) =	0.0	106773	sqft =	4.517	Acres
Gravel Surface c(2) =	0.91	27606	sqft	0.634	Acres
Grass Space c(3) =	0.35	43655	sqft =	1.000	
Summary		207034	sqft =	0.151	Acres
c =	0.74				
D = Time of concentration (TC)					
TC = .7039(L^.3617)(c^-1.1306)(S^-.1985)					
where L =	768	Runoff length ft		Flow diff =	1
c =	0.74	Runoff coef			
S =	0.1318	Percent Slope			
therefore TC = D =	19.90	minutes or			
and from Rainfall Intensity I =	7.90	inchr			
Q_2 =	34.569 cfs				
RESULTS					
DETENTION REQUIRED Q_2-Q_1		25.526	cfs		
ONE HOUR DETENTION		91929.2	cuft		
DETENTION DIMENSIONS		WIDTH	598	feet	
		LENGTH	145	feet	
		DEPTH	0.35	feet	
DISCHARGE END AREA CALCULATIONS					
Q = cA(2gH)^1/2		where Q is allowable run off			
Allowable run off	Q =	0.034	cfs		
Friction loss factor	c =	0.98	coefficient		
Acceleration	g =	32.2	ft/sec		
Height above invert	H =	2.50	feet		
End area	A =	0.73	sqft		
REQUIRED CONDUIT =		11.54	inch diameter		

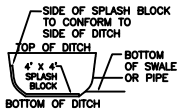
USE 4" ORIFICE @ (3) DISCHARGES



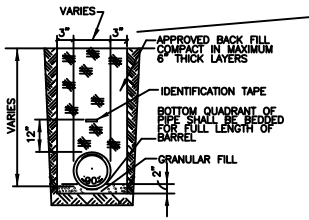
CONTRACTION JOINT
N.T.S.



CONSTRUCTION JOINT
N.T.S.



SPLASH BLOCK DETAIL
N.T.S.



DRAIN PIPE BEDDING
N.T.S.

LEGEND

- PROPERTY LINE
- NEW BUILDING
- CATCH BASIN
- EXPANSION JOINT (30'x45')
- CONTROL JOINT (10'x15')
- SLOPE LINES
- T.O. GRATE ELEVATION
- INVERT ELEVATION
- 00.00 - NEW ELEVATIONS
- 00.00 - EXISTING ELEVATIONS
- TEMPORARY SILT FENCING
- NEW DRAINAGE LINE

NOTES:

1) DRAIN PIPE & FITTINGS SHALL BE POLYVINYL CHLORIDE PLASTIC PIPE, MEETING CLASS 100 C-900 PVC.
2) ELEVATIONS SHOWN ARE M.S.L.
3) ALL DRAINAGE PIPE SHALL BE 12" PVC.
4) "DETECTABLE WARNING" ON HANDICAP RAMPS, CUT 1/4" DEEP GROOVES @ 2" TO 3" O.C. AND SCORED INTO CONCRETE AND PAINTED (TYP OF ALL RAMPS LEADING TO VEHICULAR AREAS) MAX SLOPE 1:12

VICINITY MAP
N.T.S.

DRAINAGE AND PAVING PLAN

JEFF BRELAND
64287 HWY 41
PEARL RIVER, LOUISIANA

PLANET STORAGE

DAMMON ENGINEERING, INC.
1065 FLORIDA AVENUE 985-649-5532 SLIDELL, LA. 70458
DAMMONENGINEERING.COM

SCALE:AS NOTED
FILE:
JOB NO.1757
DATE:6-19-06
SHEET 3
C-2
OF 27