

PROJECT: Platform Crane
 SCALE: 1"=20'

DRAINAGE RUN-OFF CALCULATIONS - RATIONAL METHOD

PRIOR DEVELOPMENT
 10 Year Frequency

Wateright Surfaces (C1) =	0.9	0	sqft =	0.000	Acres	
Gravel Surface (C2) =	0.21	0	sqft =	0.000	Acres	
Green Space (C3) =	0.35	286187	sqft =	6.570	Acres	
Summary	c =	0.35	286187	sqft =	6.570	Acres

Duration (D) = Time of concentration (TC)
 $TC = 70.95(L^{0.385})^{0.78} / (S^{0.48})^{0.78}$
 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

$Q_p = 10.248$ cfs RUNOFF LIMIT 90% 9.313 cfs

POST DEVELOPMENT
 10 Year Frequency

Wateright Surfaces (C1) =	0.9	6300	sqft =	1.446	Acres	
Gravel Surface (C2) =	0.21	64489	sqft =	1.526	Acres	
Green Space (C3) =	0.35	156698	sqft =	3.597	Acres	
Summary	c =	0.44	286187	sqft =	6.570	Acres

D = Time of concentration (TC)
 $TC = 70.95(L^{0.385})^{0.78} / (S^{0.48})^{0.78}$
 where L = 1018.75 Runoff length ft Elev diff = 1.5
 c = 0.44 Runoff coef
 S = 0.1472 Percent Slope
 therefore TC = D = 59.45 minutes or
 and from Rainfall Intensity Table I = 7.60 in/hr

$Q_p = 21.897$ cfs

RESULTS

DETENTION REQUIRED $Q_p - Q_1$	12.649	cfs
ONE HOUR DETENTION	46304.4	cuft
DETENTION DIMENSIONS		
WIDTH	62	feet
LENGTH	745	feet
DEPTH	0.98	feet

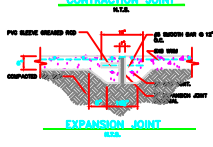
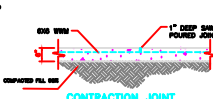
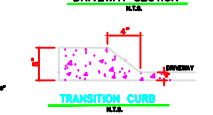
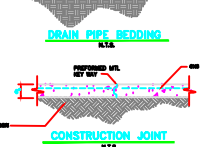
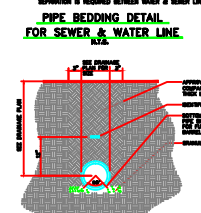
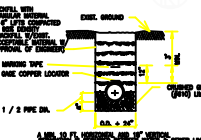
DISCHARGE END AREA CALCULATIONS
 where Q is allowable run off

Allowable run off	Q =	9.313	cfs
Friction loss factor	c =	0.98	coefficient
Acceleration	g =	32.2	ft/sec ²
Height above invert	H =	3.50	feet
End area	A =	0.63	sqft

REQUIRED CONDUIT = 16.77 inch diameter

- LEGEND:**
- PROPERTY LINE
 - SETBACK LINE
 - NEW BUILDING
 - NEW WATER LINE
 - NEW SEWER LINE
 - NEW POWER LINE
 - NEW DRAIN LINE
 - NEW DROP INLET
 - EXPANSION JOINT
 - CONTROL JOINT
 - SLOPE LINES
 - TOP OF GRATE ELEVATION
 - INVERT ELEVATION
 - NEW ELEVATIONS
 - EXISTING ELEVATIONS

DRAINAGE PLAN
 SCALE: 1"=20'



- NOTES:**
- DOWN PIPE & FITTINGS SHALL BE POLYETHYLENE GLYCOL PLASTIC PIPE, MEETING AASHTO M 254-100 PVC, 100 C-300 PIPE.
 - ELEVATIONS SHOWN ARE M.S.L.
 - SAUCE OUT 24" DEEP FOR FOUNDATION AND BRUSHING OR TO UNDISTURBED SOIL CAPABLE OF 1000 PBF BEARING.

DRAINAGE PLAN
 PLATFORM CRANE SERVICE
 DOSS DRIVE
 SLIDELL, LOUISIANA

OFFICE/WAREHOUSE
DAMON ENGINEERING, INC.
 1086 FLORIDA AVENUE 988-649-8888 BELLSHED, LA. 70488
 DAMONENGINEERING.COM

SCALE: AS NOTED
 FILE:
 JOB NO. 1655
 DATE: 04-07-05
 SHEET
C-3
 OF

REVISED: 04-04-06