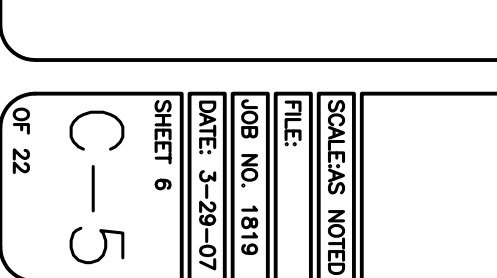
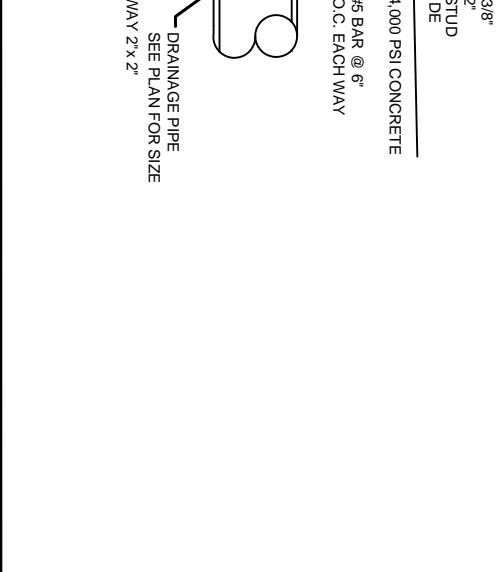
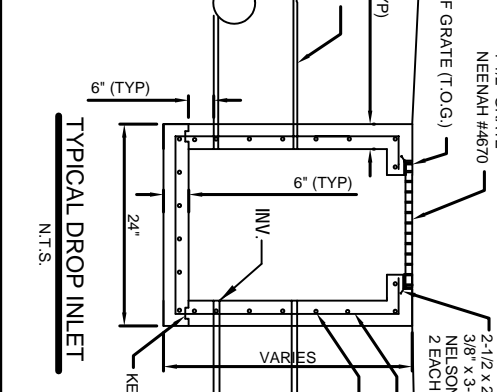


- NOTES:**
- 1) DRAIN PIPE & FITTINGS WITHIN PROPERTY LINE SHALL BE POLYVINYL
 - 2) ELEVATIONS SHOWN ARE MEETING CLASS 100 C-900 PVC.
 - 3) FIELD VERIFY ALL ELEVATIONS AND DRAINAGE SYSTEM PLACEMENT PRIOR TO START OF WORK.
- LEGEND**
- PROPERTY LINE
 - SETBACK
 - NEW BUILDING OUTLINE
 - NEW 6" WOODEN FENCE
 - NEW CATCH BASIN
 - EXISTING DRAINAGE LINE W/ FLOW DIRECTION
 - NEW DRAINAGE LINE W/ FLOW DIRECTION
 - TEMPORARY SILT FENCING
 - EXISTING ELEVATIONS
 - NEW ELEVATIONS
 - TOP OF GRATE ELEVATION
 - INVERT ELEVATION
 - SLOPE LINES

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



PROJECT: EL-BETHEL PENTECOSTAL CHURCH

DRAINAGE RUN OFF CALCULATIONS - RATIONAL METHOD

PRIOR DEVELOPMENT
25 Year Frequency

| | | | |
|---------------------|-------------|-------------|-------------|
| Green Space | c(1) = 0.21 | c(2) = 0.21 | c(3) = 0.35 |
| Waterlight Surfaces | c(1) = 0.9 | c(2) = 0 | c(3) = 0.35 |
| Gravel Surface | c(1) = 0.21 | c(2) = 0 | c(3) = 0.35 |
| Summary | c = 0.35 | c = 0.35 | c = 0.35 |

RESULTS

Duration (D) = Time of concentration (TC)
 $TC = 7.039(L^{0.397})(C^{1.1309})(S^{-1.969})$
 where L = 300, C = 0.74, S = 0.1667, TC = D = 13.13
 therefore and from Rainfall Intensity Table I = 7.30 in/hr

DISCHARGE END AREA CALCULATIONS

where Q is allowable run off

Q = 3.471 cfs
 c = 0.28 coefficient
 g = 32.2 ft/sec
 H/H = 3.64 feet
 A = 0.23 sqft

MINIMUM REQUIRED PIPE SIZE: 6.51 INCH DIAMETER
USE 3.82 INCH ORIFICE

Q₁ = CIA

| | | | |
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| Green Space | c(1) = 0.21 | c(2) = 0.35 | c(3) = 0.35 |
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USE 3.82 INCH ORIFICE

SCALE: AS NOTED
 FILE:
 JOB NO. 1819
 DATE: 3-29-07
 SHEET 6
 C-5
 OF 22

EL-BETHEL PENTECOSTAL CHURCH

DAMMON ENGINEERING, INC.

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

DRAINAGE PLAN

EUGENE WELLINGTON
 ALLEN ROAD
 SLIDELL, LOUISIANA