

SOUTH LARGE PARKING LOT HAS THE SAME AVERAGE ELEVATION AS THE SITE, THEREFORE NO MITIGATION REQUIRED.

CHURCH ELEVATION = 28.56 FT. HOWEVER SITE = 28.0 FT. (DIFF OF 1.29'). THE CHURCH IS 4,494 S.F. WITH PORCH. THEREFORE NO MITIGATION REQUIRED.

THE GROUND AROUND THE CHURCH ELEVATION = 28.0 FT. HOWEVER SITE = 28.0 FT. DIFF OF 0.0 AND NO MITIGATION REQUIRED. THE DRIVEWAY HAS THE SAME AVERAGE ELEVATION AS THE SITE, THEREFORE NO MITIGATION REQUIRED.

THE NORTH PARKING LOT HAS THE SAME AVERAGE ELEVATION AS THE SITE, THEREFORE NO MITIGATION REQUIRED.

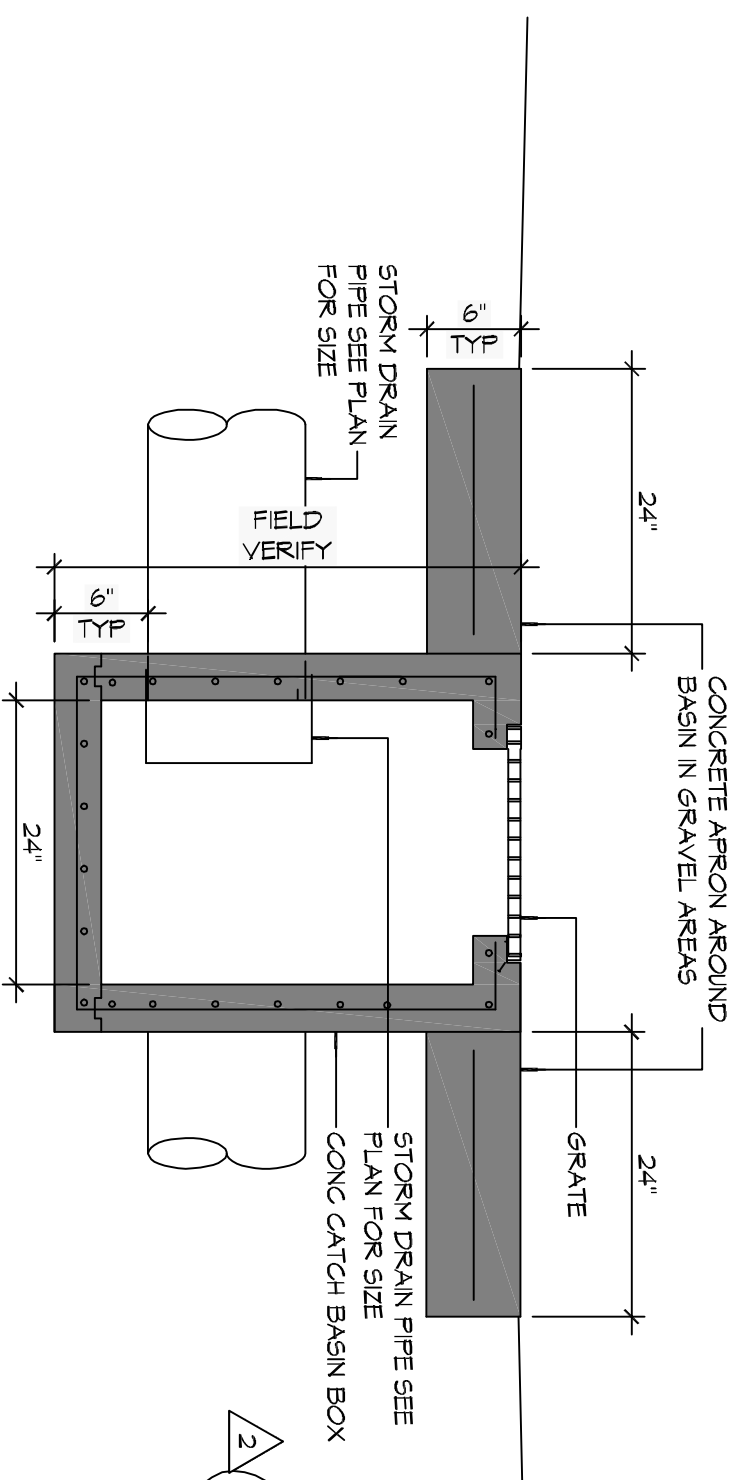
TOTAL DISPLACEMENT = (6.136 + 2.023) cu ft = 8.159 cu ft.
 DIVIDE THIS BY THE LENGTH OF HOLE AND AVG DEPTH OF THE HOLE = 9.195 cu ft.

3 DETAIL
SCALE: NTS

NO NET FILL CALCULATIONS

2 DETAIL
SCALE: NTS

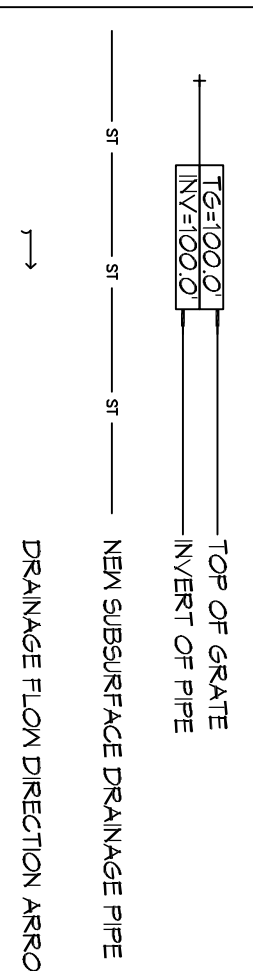
TYPICAL CATCH BASIN



GENERAL NOTES

1. DRAIN PIPES ALONG AEROSOL MUST BE THE BELL AND SPIGOT TYPE WITH 1/2" KING SUBMERGED GAGES. THE BELLS OF THE PIPES SHALL BE FABRIC. ALL PIPES SHALL REQUIRE A 3" COMPACTED SAND OR LIVESTONE BASE.
2. REMOVE DEBRIS AND CLEAN BOTTOM OF DITCHES DOWN 6" IN DEPTH. REPLACE ANY BROKEN CRUSHED PIPES OR CURBETS WITH SAME SIZE AND TYPE.
3. DRAIN PIPE AND FITTINGS WITHIN PROPERTY SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING CLASS 200 (2" TO 36") AND ARE PLUS OR MINUS 1/2" FIELD VERIFY ALL ELEVATIONS AND AND DRAINAGE SYSTEM PLACEMENT BEFORE START OF WORK.
4. ALL ELEVATIONS SHOWN ARE M.S.L. AND ARE PLUS OR MINUS 1/2" REWORK TO MATCH.
5. PROVIDE VERTICAL ELBOW AT DOWNPOINETS FOR CONNECTION TO SUBSURFACE DRAINAGE WHERE INDICATED. ELBOW ID SHALL BE SIZED SUCH THAT THE DOWNPOINT CAN BE INSERTED INTO THE PIPE OPENING.

SITE DRAINAGE LEGEND



STORM WATER RUN-OFF CALCULATIONS

PROJECT: **New Church**
 SYSTEM: **STORMWATER RUN-OFF CALCULATIONS**

FORMULA USED: **[1] RATIONAL METHOD: Q=ACI**

where: Q = Peak discharge of watershed in cubic feet per second (cfs) due to maximum storm assumed.
 A = Maximum storm area in acres.
 C = Coefficient of run-off [2].
 I = Intensity of rainfall in inches per hour based on concentration time [3].

[4] TC = (2.48 / (L^0.76 - 91.97))

where: TC = Time of concentration (minutes) required for rain falling at most remote point to reach discharge point.
 L = Site length in feet.
 S = Percent slope of watershed.

PRIOR DEVELOPMENT

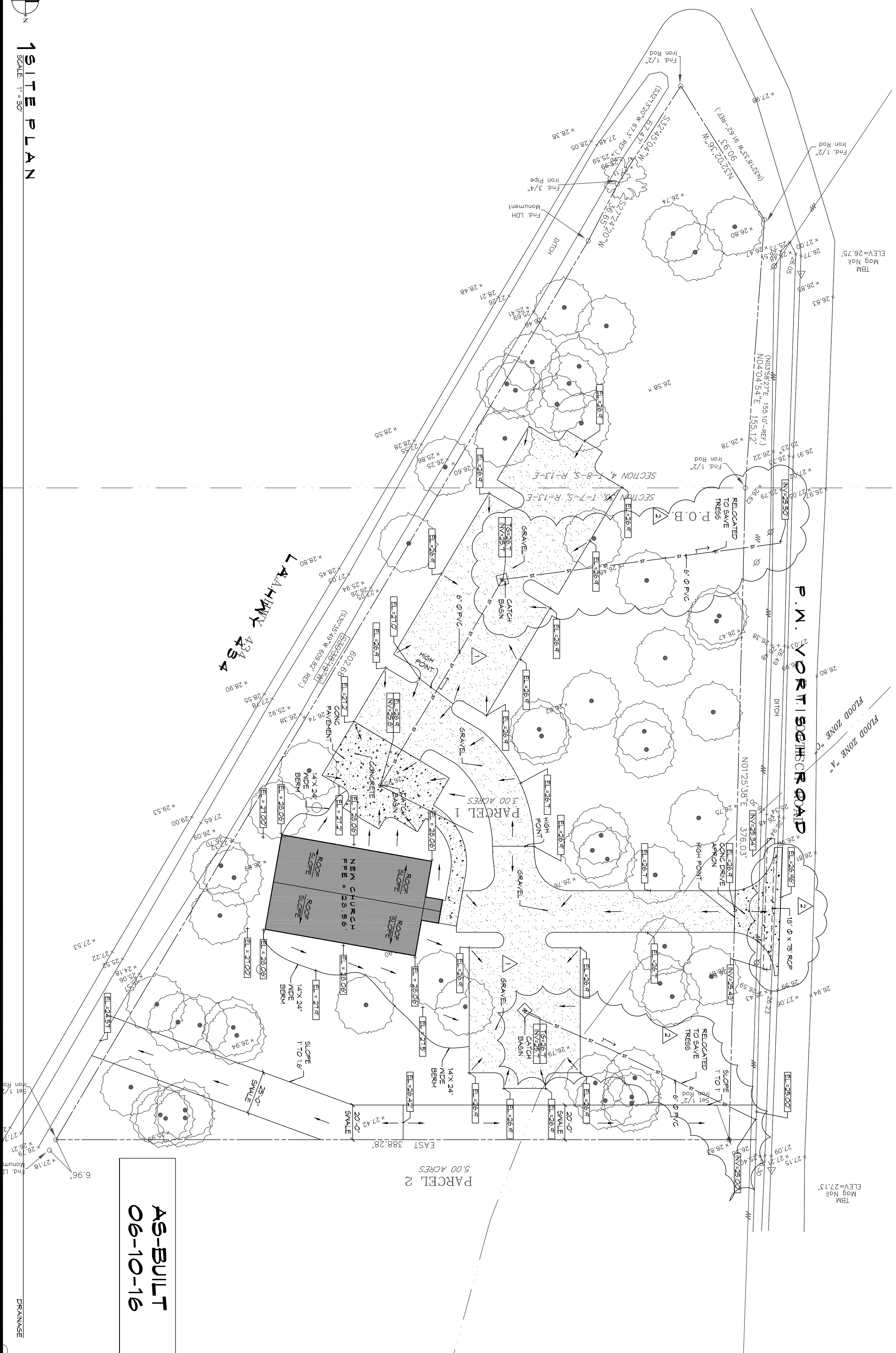
Q = A C I	Q	cfs	Acres
Gravel Surface	0.25	0.000	Acres
Green Space	0.15	1.987	Acres
Summery	0.18	1.987	Acres

Duration (D) = Time of concentration (TC)
 where: L = 8025 ft. (run-off length)
 S = 0.15 percent slope
 TC = 1.2840 minutes
 Intensity (I) = 3.884 in/hr

POST DEVELOPMENT

Q = A C I	Q	cfs	Acres
Gravel Surface	0.25	0.189	Acres
Gravel	0.25	2.495	Acres
Green Space	0.15	4.913	Acres
Summery	0.18	1.987	Acres

Duration (D) = Time of concentration (TC)
 where: L = 8025 ft. (run-off length)
 S = 0.15 percent slope
 TC = 1.2840 minutes
 Intensity (I) = 3.884 in/hr



AS-BUILT
06-10-16

where: A = Discharge area required
 S = Acceleration of gravity
 C = Discharge coefficient

where: Q = Hydraulic flow
 L = Length of pipe
 S = Slope

where: Q = Peak discharge of watershed in cubic feet per second (cfs) due to maximum storm assumed.
 A = Maximum storm area in acres.
 C = Coefficient of run-off [2].
 I = Intensity of rainfall in inches per hour based on concentration time [3].

REQUIRED CONDUIT = 5.431 inch inside diameter

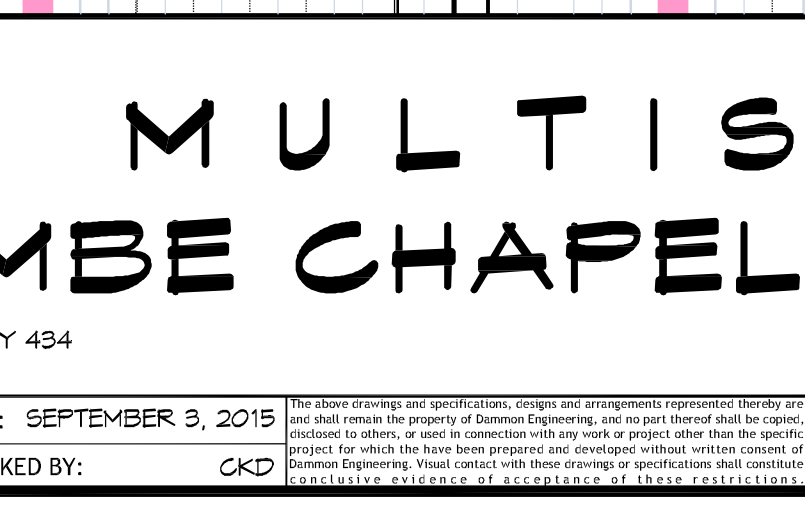
References:
 1. Chen, M.F. The Civil Engineering Handbook, 1985, Ed. 9.11, 941, 1035.
 2. Stormwater Management Manual for Design, 1998, Ed. 2.1, 18.42.
 3. Stormwater Management Manual for Design, 1998, Ed. 2.1, 18.42.
 4. Chen, M.F. The Civil Engineering Handbook, 1985, Ed. 9.11, 941, 1035.
 5. Chen, M.F. The Civil Engineering Handbook, 1985, Ed. 9.11, 941, 1035.

PRO MULTIS LACOMBE CHAPEL
 PA VORTISCH ROAD AND LA HWY 434
 LACOMBE, LOUISIANA 70445

JOB NO: 2250 DATE: SEPTEMBER 3, 2015
 DRAWN BY: KJK CHECKED BY: CKD

DRAINAGE

SHEET TITLE: **PRO MULTIS LACOMBE CHAPEL**
 SHEET NO: **06-10-16**



#	DESCRIPTION	DATE
1	REVISED DRAINAGE	11-05-15
2	REVISED DRAINAGE	06-10-16

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1 SITE PLAN
SCALE: 1" = 30'