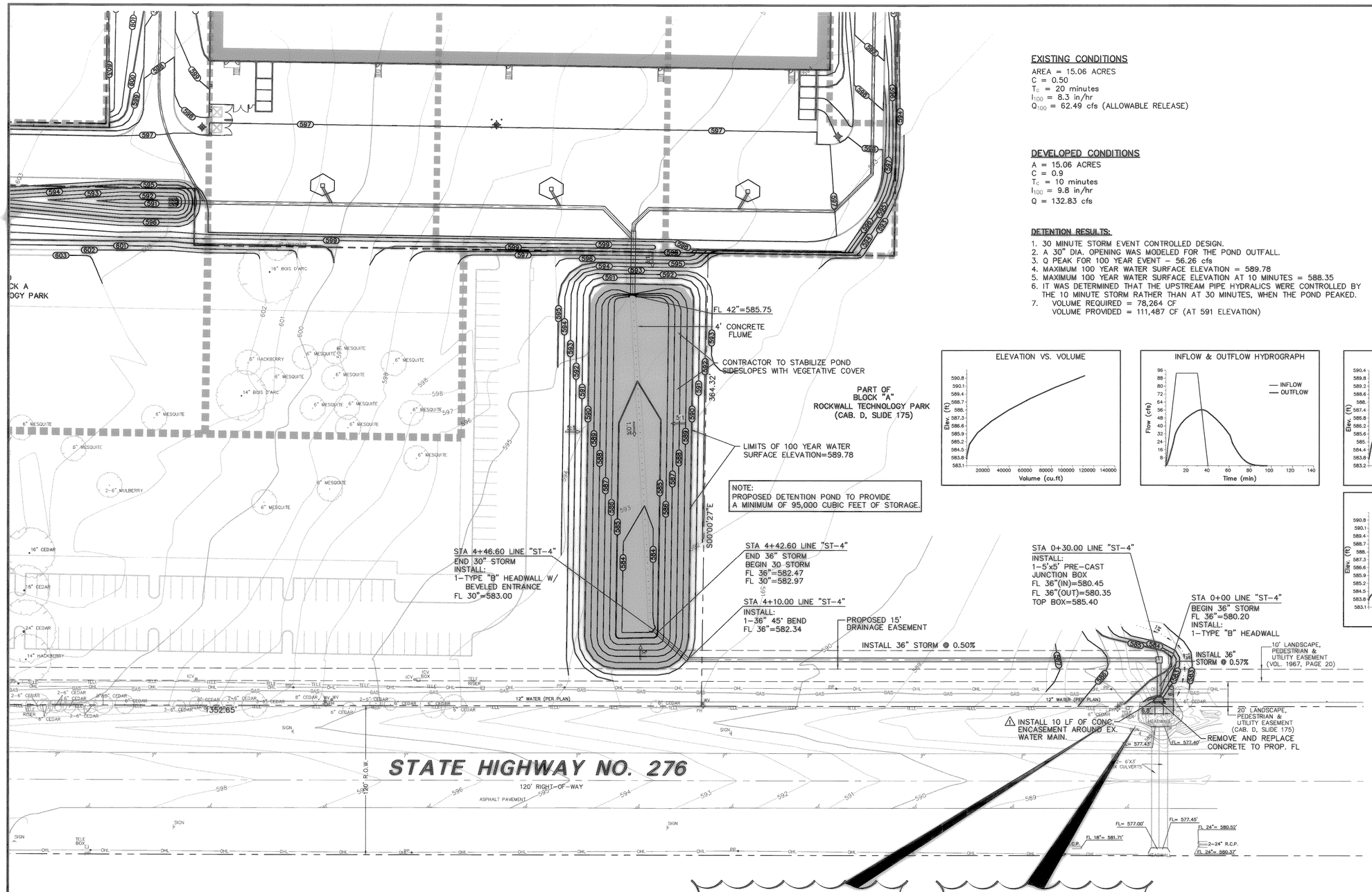


EXISTING CONDITIONS

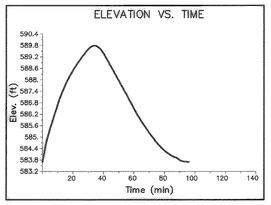
AREA = 15.06 ACRES
C = 0.50
T_c = 20 minutes
I_{100} = 8.3 in/hr
Q_{100} = 62.49 cfs (ALLOWABLE RELEASE)

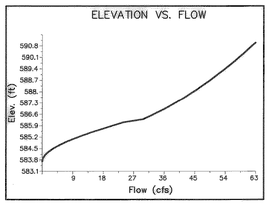
DEVELOPED CONDITIONS

A = 15.06 ACRES
C = 0.9
T_c = 10 minutes
I_{100} = 9.8 in/hr
Q = 132.83 cfs

DETENTION RESULTS:

1. 30 MINUTE STORM EVENT CONTROLLED DESIGN.
2. A 30" DIA. OPENING WAS MODELED FOR THE POND OUTFALL.
3. Q PEAK FOR 100 YEAR EVENT – 56.26 cfs
4. MAXIMUM 100 YEAR WATER SURFACE ELEVATION = 589.78
5. MAXIMUM 100 YEAR WATER SURFACE ELEVATION AT 10 MINUTES = 588.35
6. IT WAS DETERMINED THAT THE UPSTREAM PIPE HYDRALICS WERE CONTROLLED BY THE 10 MINUTE STORM RATHER THAN AT 30 MINUTES, WHEN THE POND PEAKED.
7. VOLUME REQUIRED = 78,264 CF
   VOLUME PROVIDED = 111,487 CF (AT 591 ELEVATION)





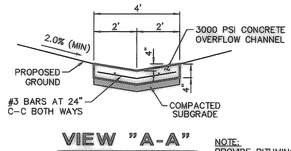
LEGEND

B	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
GM	GAS METER
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
TV	TV BOX
FP	FLAG POLE
SIGN	TRAFFIC SIGN
	PROPERTY LINE
	FENCE
61.3	EXIST CONTOUR
EL 612.39	EXIST SPOT ELEVATION
TC 612.39 / G 611.92	EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
	PROPOSED DRAINAGE DIVIDE
61.3	PROPOSED CONTOUR
TC 614.5 / G 614.0	PROPOSED TOP OF CURB ELEVATION / PROPOSED GUTTER ELEVATION
EL 614.5	PROPOSED SPOT ELEVATION
	PROPOSED DRAINAGE FLOW DIRECTION

BENCHMARKS

BM 1	"□" CUT SET IN CENTER OF A 12' HEADWALL ±2230' WEST OF ℄ F.M.549 AND ±70' NORTH OF ℄ S.H. 276	ELEV.=581.84
BM 2	"□" CUT FOUND IN CENTER OF 4' HEADWALL @ NORTHEAST CORNER OF F.M.549 & S.H.276	ELEV.=592.75
BM 3	"□" CUT SET P.O.C. OF B.C. ON THE SOUTH END OF MEDIAN ON INNOVATION DR. AT THE INTERSECTION OF STATE HIGHWAY NO. 276.	ELEV.=599.49
BM 4	"□" CUT SET IN CENTER OF INLET ON THE EAST RIGHT OF WAY OF INNOVATION DR. ±80' SOUTH OF CENTERLINE OF DISCOVERY BLVD.	ELEV.=584.18
BM 5	"□" CUT SET ON THE EAST RIGHT OF WAY OF RESEARCH CIR. AT THE P.C. OF B.C. ON THE NORTH SIDE OF ENTRANCE.	ELEV.=599.84

NOTE:
CONTRACTOR MUST OBTAIN PERMITT FROM TxDOT BEFORE BEGINNING ANY WORK IN THE RIGHT-OF-WAY OF STATE HIGHWAY NO. 276



VIEW "A-A"
NOT TO SCALE

NOTE:
PROVIDE BITUMINOUS EXPANSION MATERIAL WHERE PILOT CHANNEL ABUTS PROPOSED STRUCTURE

Pilot Channel

NOT TO SCALE

CAUTION !

CONTACT:
LONE STAR GAS: 1-800-344-8377
SOUTHWESTERN BELL TELE.: 1-800-395-0440
TEXAS UTIL. ELECT. CO.: 1-800-233-2133
TEXAS ONE CALL : 1-800-245-4545
48 HOURS PRIOR TO CONSTRUCTION

CAUTION !

OVERHEAD ELECTRICAL LINES, TELEPHONE LINES, WATER LINE AND GAS LINE LOCATED IN WORK AREA. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH UTILITY COMPANY ON POSSIBLE RELOCATION OF GAS MAIN AT CONTRACTORS EXPENSE. CONTRACTOR TO LOCATE PROIR TO CONSTRUCTION.

RECORD DRAWING

THIS DRAWING HAS BEEN REVISED TO REFLECT CONSTRUCTION RECORDS MAINTAINED AND PROVIDED BY THE CONTRACTOR FOR THIS PROJECT.

CONTRACTOR: PRECEPT BUILDERS

DATE REVISED: 10/31/2003 (2)

STATE OF TEXAS
STEVEN A. MARKUSSEN
70090
REGISTERED PROFESSIONAL ENGINEER
12/20/02

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY STEVEN A. MARKUSSEN, P.E. 70090 ON 12/20/02. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

NO.	DATE	REVISION
2	10/31/2003	RECORD DRAWING
1	1/09/2003	ADDED WATER ENCASEMENT AND CHANGED ALIGNMENT FOR "ST-4"

EZ-FLO WAREHOUSE

Pacheco Koch Consulting Engineers
8350 N CENTRAL EXPWY SUITE 1000 DALLAS, TEXAS 75206 972.235.3031

DETENTION POND PLAN

E-Z FLO WAREHOUSES

ROCKWALL TECHNOLOGY PARK

J.M. ALLEN SURVEY, ABSTRACT NO. 2

CITY OF ROCKWALL, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CJE	RRL	DEC 2002	1"=40'			C3.4

PK FILE: 2058-02-0183 DWG FILE: 2058-02.183CV.DWG

FRED MITCHELL
11/03/2003 – 4:26PM
M:\DWG-20\2058-02-183\DWG\2058-02.183CV.DWG