

DETENTION POND CONSTRUCTION HISTORY

2001- CONSTRUCTION OF BUILDING A AND EXISTING DETENTION PONDS "A", "B", AND "C"
REF DESIGN PACKAGE "FIRST UNITED METHODIST CHURCH", SHEET C-3 "DRAINAGE AREA MAP" BY F&S PARTNERS AND BSM ENGINEERS, SIGNED 11/19/2001.

2006- CONSTRUCTION OF BUILDING B. PER AS BUILT, DETENTION POND "B" WAS ALREADY SIZED FOR FLOW COMING FROM BUILDING B, THEREFORE EXISTING PONDS WERE NOT MODIFIED.
REF DESIGN PACKAGE "FIRST UNITED METHODIST CHURCH PHASE 2", SHEET 4/9 "DRAINAGE AREA MAP" BY F&S PARTNERS AND BSM ENGINEERS, SIGNED 04/06

2007- CONSTRUCTION OF TOWNSEND ROAD AND YELLOW JACKET LANE INSTALLED A PUBLIC STORM SEWER SYSTEM THAT REDUCED THE CONTRIBUTING DRAINAGE AREAS TO DETENTION PONDS "A" AND "C". REF DESIGN PACKAGE "CITY OF ROCKWALL TOWNSEND BLVD & YELLOW JACKET LANE", SHEETS D002, D005, D1003, D1004, D111. BY WEIR & ASSOCIATES, INC, SIGNED 07-07

2014- CONSTRUCTION OF BUILDING C AND DETENTION POND "D". PER AS BUILT, CONTRIBUTING DRAINAGE AREA TO DETENTION POND "B" WAS REDUCED AND DIRECTED TO NEWLY CONSTRUCTED DETENTION POND "D". REF DESIGN PACKAGE "FIRST UNITED METHODIST CHURCH, PHASE 3", SHEET 5/12 "DRAINAGE AREA MAP" BY BSM ENGINEERS, SIGNED 07-14

THE INFORMATION PROVIDED ON THIS PLAN IS BASED ON THE COMBINED DRAINAGE AREA INFORMATION FROM THE ABOVE PROJECTS.

2001 DRAINAGE INFORMATION: ACCORDING TO THE DESIGN PACKAGE "FIRST UNITED METHODIST CHURCH", SHEET C-3 "DRAINAGE AREA MAP" BY F&S PARTNERS AND BSM ENGINEERS, SIGNED 11/19/2001, THE DESIGN VALUES FOR DETENTION PONDS "A", "B", AND "C" ARE AS FOLLOWS:

POND "A"
RUNOFF FACTOR C= 0.8
AREA=3.40 ACRES
INTENSITY= 9.8 in/hr

POND "B"
RUNOFF FACTOR C= 0.8
AREA=3.55 ACRES
INTENSITY= 9.8 in/hr

POND "C"
RUNOFF FACTOR C= 0.8
AREA=2.23 ACRES
INTENSITY= 9.8 in/hr

TOTAL AREA CURRENTLY DRAINING TO DETENTION PONDS "A", "B", AND "C" = 9.18 ACRES

EXISTING CONDITIONS FOR PLAN BELOW (COMBINED INFORMATION FROM 2001-2014): WITH THE ADDITION OF NEW STORM SEWER IN TOWNSEND AND YELLOW JACKET, AS WELL AS NEW DETENTION POND "D" THE FLOW CURRENTLY GOING TO PONDS "A", "B", "C" AND DETENTION POND "D" ARE AS FOLLOWS:

POND "A"

DRAINAGE AREA EX 12 = 1.31 ACRES

POND "B"

DRAINAGE AREAS EX 5-11 = 2.68 ACRES

POND "C"

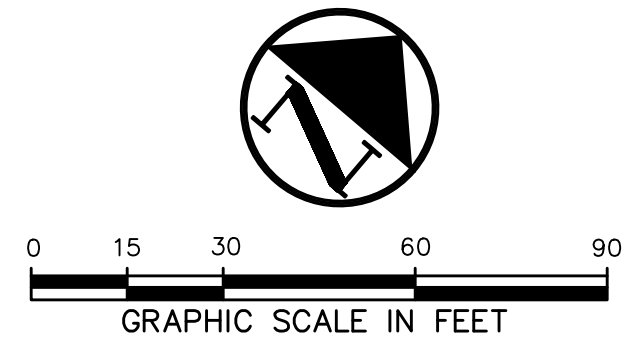
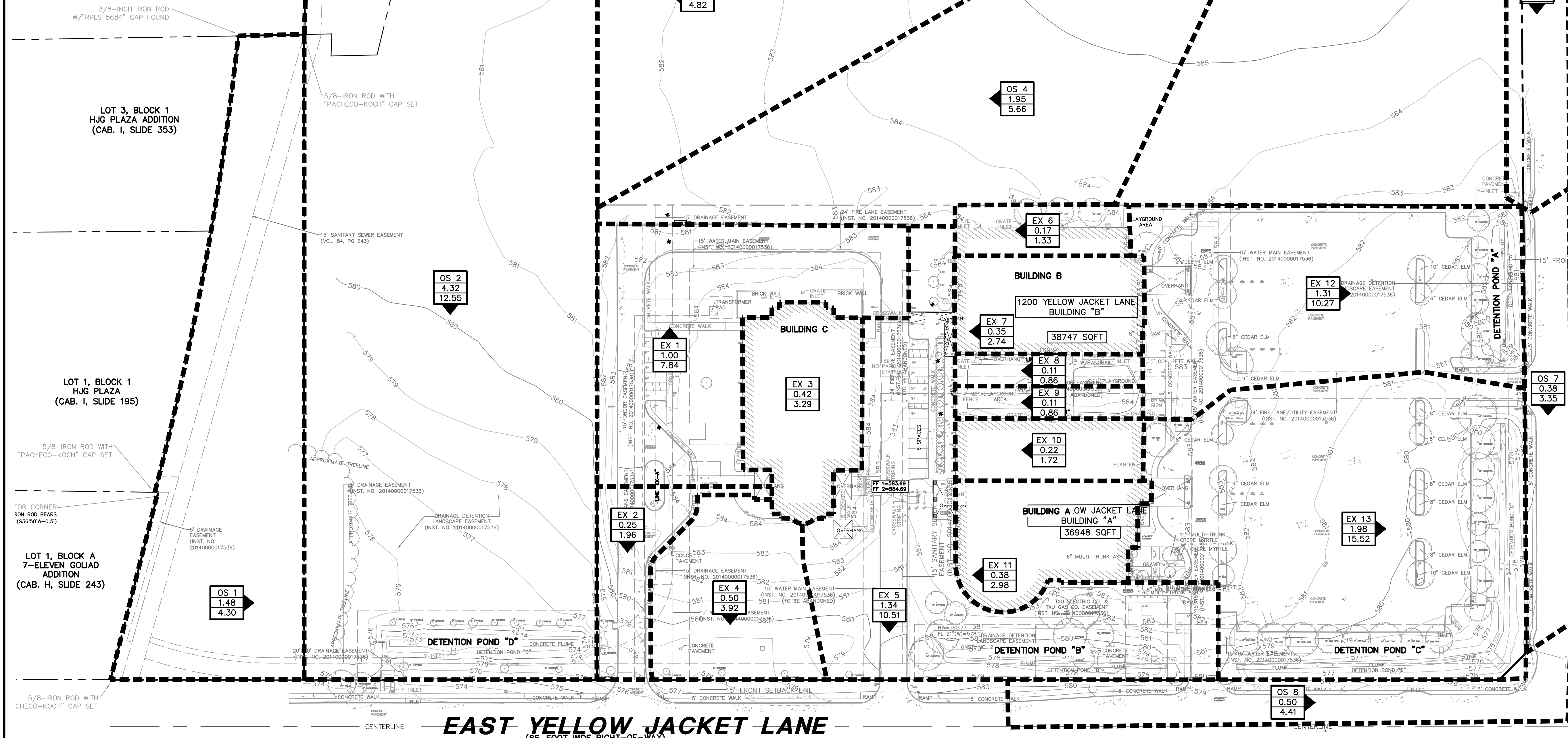
DRAINAGE AREA EX 13 = 1.98 ACRES

DETENTION POND "D"

DRAINAGE AREAS EX 1-4 = 2.18 ACRES

TOTAL AREA CURRENTLY DRAINING TO DETENTION PONDS "A", "B", AND "C" = 5.97 ACRES

9.18 ACRES- 5.97 ACRES = 3.21 ACRES NO LONGER DRAIN TO ONSITE DETENTION PONDS



LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CH	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TEB	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
TS	TRAFFIC SIGN
X	PROPERTY LINE
-613-	EXISTING CONTOUR
→	DRAINAGE FLOW DIRECTION
---	100-YR FLOODPLAIN LIMITS
---	DRAINAGE DIVIDE
---	EXISTING DRAINAGE AREA ID
Q100	AREA IN ACRES Q100 IN CUBIC FEET PER SECOND

NOTE: EXISTING DRAINAGE AREAS ARE BASED ON PROPOSED AREAS PROVIDED IN THE DRAINAGE AREAS AS PART OF THE DESIGN PACKAGES LISTED BELOW:

"FIRST UNITED METHODIST CHURCH", SHEET C-3 "DRAINAGE AREA MAP" BY F&S PARTNERS AND BSM ENGINEERS, SIGNED 11/19/2001.

"FIRST UNITED METHODIST CHURCH PHASE 2", SHEET 4/9 "DRAINAGE AREA MAP" BY F&S PARTNERS AND BSM ENGINEERS, SIGNED 04/06

"CITY OF ROCKWALL TOWNSEND BLVD & YELLOW JACKET LANE", SHEETS D002, D005, D1003, D1004, D111. BY WEIR & ASSOCIATES, INC, SIGNED 07/07

"FIRST UNITED METHODIST CHURCH, PHASE 3", SHEET 5/12 "DRAINAGE AREA MAP" BY BSM ENGINEERS, SIGNED 07/14

RECORD DRAWING

THE SIGNED AND SEALED CONSTRUCTION DOCUMENT HAS BEEN REVISIONED TO REFLECT CONSTRUCTION RECORDS MAINTAINED AND PROVIDED BY THE CONTRACTOR FOR THIS PROJECT. THE INFORMATION SHOWN ON THIS RECORD DRAWING, WHICH WAS PROVIDED BY THE CONTRACTOR, OR OTHERS NOT ASSOCIATED WITH THE DESIGN ENGINEER, CANNOT BE VERIFIED FOR ACCURACY OR COMPLETENESS. PACHECO KOCH SHALL ASSUME NO LIABILITY FOR ANY CHANGES MADE DURING CONSTRUCTION THAT WERE NOT SPECIFICALLY APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE SEALED CONSTRUCTION DRAWINGS ARE ON FILE AT THE OFFICES OF PACHECO KOCH.

ATTENDED BY: STEVEN M. HEILBRUN, PE
SIGNATURE: *Steven M. Heilbrun*
ENGINEER OF RECORD: STEVEN M. HEILBRUN, PE
CONTRACTOR: THE CHRISTMAN COMPANY
DATE REVISED: 07/21/2023

NORTH T. L. TOWNSEND DRIVE
(85'-FOOT WIDE RIGHT-OF-WAY)

HERMAN E. UTLEY MIDDLE SCHOOL,
LOT 1, BLOCK 1
(CAB. H, SLIDE 69)

EAST YELLOW JACKET LANE
(85'-FOOT WIDE RIGHT-OF-WAY)

DRAINAGE AREA TABLE						
DRAINAGE AREA ID	AREA (acres)	C	Tc (min)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	COMMENTS
EX 1	1.00	0.80	10	9.80	7.84	DRAINS TO EXISTING CURB INLET
EX 2	0.25	0.80	10	9.80	1.96	DRAINS TO DETENTION POND "D"
EX 3	0.42	0.80	10	9.80	3.29	DRAINS TO EXISTING ROOF DRAINS
EX 4	0.50	0.80	10	9.80	3.92	DRAINS TO EXISTING Y-INLET
EX 5	1.34	0.80	10	9.80	10.51	DRAINS TO DETENTION POND "B"
EX 6	0.17	0.80	10	9.80	1.33	DRAINS TO EXISTING GRATE INLETS
EX 7	0.35	0.80	10	9.80	2.74	DRAINS TO EXISTING ROOF DRAINS

DRAINAGE AREA TABLE						
DRAINAGE AREA ID	AREA (acres)	C	Tc (min)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	COMMENTS
EX 8	0.11	0.80	10	9.80	0.86	DRAINS TO EXISTING GRATE INLETS
EX 9	0.11	0.80	10	9.80	0.86	DRAINS TO EXISTING GRATE INLETS
EX 10	0.22	0.80	10	9.80	1.72	DRAINS TO EXISTING ROOF DRAINS
EX 11	0.38	0.80	10	9.80	2.98	DRAINS TO EXISTING ROOF DRAINS
EX 12	1.31	0.80	10	9.80	10.27	DRAINS TO DETENTION POND "A"
EX 13	1.98	0.80	10	9.80	15.52	DRAINS TO DETENTION POND "C"
OS 1	1.48	0.35	20	8.30	4.30	DRAINS TO EXISTING Y-INLET

DRAINAGE AREA TABLE						
DRAINAGE AREA ID	AREA (acres)	C	Tc (min)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	COMMENTS
OS 2	4.32	0.35	20	8.30	12.55	DRAINS TO EXISTING Y-INLET
OS 3	1.66	0.35	20	8.30	4.82	DRAINS TO OS 2
OS 4	1.95	0.35	20	8.30	5.66	DRAINS TO EXISTING Y-INLET
OS 5	2.52	0.35	20	8.30	7.32	DRAINS TO EXISTING Y-INLET
OS 6	0.50	0.90	10	9.80	4.41	DRAINS TO EXISTING CURB INLET
OS 7	0.38	0.90	10	9.80	3.35	DRAINS TO EXISTING CURB INLET
OS 8	0.50	0.90	10	9.80	4.41	DRAINS TO EXISTING CURB INLET

DETENTION POND DRAINAGE TABLE	
+	DETENTION POND "A" DRAINS TO DETENTION POND "C"
#	DETENTION POND "B" DRAINS TO DETENTION POND "C"
%	DETENTION POND "C" DRAINS TO EXISTING STORM SEWER IN TOWNSEND DRIVE
^	DETENTION POND "D" DRAINS TO EXISTING STORM SEWER IN EAST YELLOW JACKET

OWNER:
GARY HANCOCK
FIRST UNITED METHODIST ROCKWALL
1200 EAST YELLOW JACKET LANE
ROCKWALL, TEXAS 75087

NO.	DATE	REVISION
	07/21/2023	RECORD DRAWING

Pacheco Koch 7557 RAMBLER ROAD, SUITE 1400
DALLAS, TX 75231 972.235.3031
TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

EXISTING DRAINAGE AREA MAP

FIRST UNITED METHODIST CHURCH
YELLOW JACKET LANE & TOWNSEND ROAD
LOT 7, BLOCK 1
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
SMH	GAC	APR 2022	1"=30'			C4.1

LAND USE: CHURCH

8/21/2023 3:03 PM
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FIRST UNITED METHODIST CHURCH