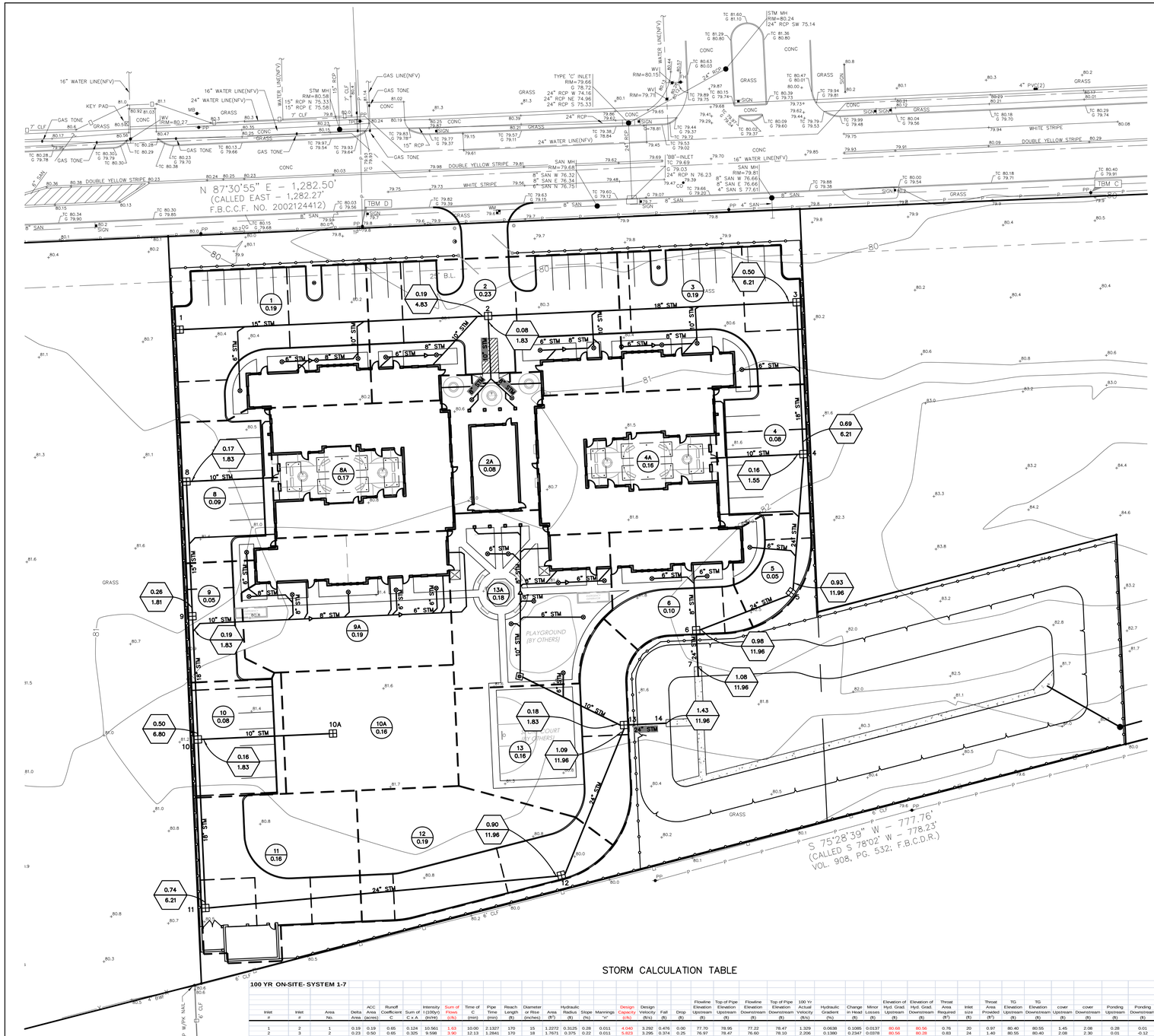

NOTES

NOTE:
CONTRACTOR TO FIELD VERIFY ALL CRITICAL EXISTING ELEV'S, LOCATION AND FLOW LINES OF EXISTING STORM SEWER, DRAINAGE FACILITIES, WATER AND SANITARY SEWER BEFORE COMMENCING ANY CONSTRUCTION.

NOTE:
COORDINATE WITH ARCHITECT FOR ALL DEMOLITION.

OWNER TO OBTAIN ALL PERMITS REQUIRED BY CITY OF SUGAR LAND, AND ALL GOVERNMENTAL AUTHORITIES WITH JURISDICTION, PRIOR TO STARTING CONSTRUCTION OF UTILITY AND/OR DRIVEWAYS WITHIN PUBLIC RIGHTS OF WAY.

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH CIVIL DRAINAGE PLAN AND ASSURE POSITIVE DRAINAGE FROM THE BUILDING OVER THE SIDEWALK AND TO THE PARKING LOT. ANY PROBLEMS ENCOUNTERED DURING CONSTRUCTION SHALL BE COORDINATED WITH THE CIVIL ENGINEER BEFORE FINAL CONSTRUCTION. IF LANDSCAPING BEDS ARE USED ADJACENT TO THE BUILDING CONTRACTOR SHALL ASSURE THAT DRAINAGE IS NOT BLOCKED. REFER TO LANDSCAPE FRENCH DRAIN DETAIL IF NEEDED.

NOTE:
CONTRACTOR SHALL COORDINATE WITH OWNER, GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER FOR SELECT FILL REQUIREMENTS AND PROCEDURES UNDER BUILDING SLABS. SEE SOILS REPORT FOR ALL REQUIRED DESIGN CRITERIA. CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION UNTIL THE REQUIRED SELECT FILL PROCEDURE UNDER BUILDING SLABS HAS BEEN APPROVED.

NOTE:
CONTRACTOR SHALL ALSO COORDINATE WITH SOILS REPORT FOR ALL REQUIRED FILL, COMPACTING AND LIME STABILIZATION UNDER PROPOSED PAVING SECTIONS.

NOTE:
CLEAN-OUTS, MANHOLES, INLETS AND/OR JUNCTION BOXES LOCATED IN PAVEMENT OR SIDEWALK SHALL HAVE TRAFFIC BEARING LIDS OR GRATES.

CONTRACTOR TO COORD W/ ARCHITECTURAL AND MEP PLANS (PLUMBING PLANS) FOR THE EXACT LOCATION AND CONTINUATION OF STORM SEWER TO BUILDING. (TYP)

NOTE:
REFER TO SHEET C-5"NOTES AND DETAILS", NOTES #1 & 2 FOR SPECIFICATION OF STORM SEWER PIPE MATERIAL.

LEGEND

- 105.5 EXISTING ELEV.
- TG 108.10 TOP OF GRATE ELEV.
- 104.80 TOP OF PAVEMENT
- FL 104.80 FLOW LINE ELEV.
- JB 108.10 TOP OF JUNCTION BOX ELEV.
- FF 310.00 FINISHED FLOOR
- 5.67 / 1.39 ACCUMULATIVE DRAINAGE AREA IN ACRES / SUM OF FLOW IN CFS
- 1 / 0.27 DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- SQUARE GRATE INLET
- 6" CIRCULAR GRATE INLET
- JUNCTION BOX
- DRAINAGE AREA MAP BOUNDARY

STORM CALCULATION TABLE

100 YR ON-SITE- SYSTEM 1-7

Inlet #	Inlet #	Area No.	Delta Area	ACC Area (acres)	Runoff Coefficient C	Sum of C x A	Intensity (1100/yr) (in/Hr)	Sum of Flows (cfs)	Time of C (min)	Pipe Time (min)	Reach Length (ft)	Diameter or Rise (inches)	Area (ft^2)	Hydraulic Radius (ft)	Slope (%)	Mannings "n"	Design Capacity (cfs)	Design Velocity (ft/s)	Fall (ft)	Drop (ft)	Flowline Elevation Upstream (ft)	Top of Pipe Elevation Upstream (ft)	Flowline Elevation Downstream (ft)	Top of Pipe Elevation Downstream (ft)	100 Yr Actual Velocity (ft/s)	Hydraulic Gradient (%)	Change in Head (ft)	Minor Losses (ft)	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream (ft)	Throat Area Required (ft^2)	Inlet size (ft)	Throat Area Provided (ft^2)	TG Elevation Upstream (ft)	TG Elevation Downstream (ft)	cover Upstream (ft)	cover Downstream (ft)	Ponding Upstream (ft)	Ponding Downstream (ft)
1	2	1	0.19	0.19	0.65	0.124	10.561	1.63	10.00	2.1327	170	15	1.2272	0.3125	0.28	0.011	4.040	3.292	0.476	0.00	77.70	78.95	77.22	78.47	1.329	0.0638	0.1085	0.0137	80.68	80.56	0.76	20	0.97	80.40	80.55	1.45	2.08	0.28	0.01
2	3	2	0.23	0.50	0.65	0.325	9.598	3.90	12.13	1.2841	93	18	1.7671	0.375	0.22	0.011	6.823	3.253	0.374	0.25	76.97	78.47	76.69	78.19	2.306	0.1380	0.2347	0.0378	80.56	80.28	0.80	24	1.40	80.55	80.40	2.08	2.30	0.01	-0.12
3	4	3	0.19	0.69	0.65	0.449	9.131	5.12	13.42	0.4833	84	18	1.7671	0.375	0.25	0.011	6.207	3.513	0.21	0.00	76.60	78.10	76.39	77.89	2.897	0.2300	0.1999	0.0652	80.28	80.02	0.65	27	1.77	80.40	80.70	2.30	2.81	-0.12	-0.68
4	5	4	0.08	0.93	0.65	0.605	8.973	6.76	13.90	0.5869	76	24	3.1416	0.5	0.20	0.011	11.957	3.806	0.152	0.50	75.89	77.89	75.74	77.74	2.159	0.0900	0.0684	0.0262	80.02	79.91	0.27	32	2.49	80.70	80.65	2.81	2.71	-0.68	-0.54
5	6	5	0.05	0.98	0.65	0.637	8.791	7.06	14.49	0.4189	56	24	3.1416	0.5	0.20	0.011	11.957	3.806	0.112	0.00	75.74	77.74	75.63	77.63	2.228	0.0959	0.0537	0.0385	79.91	79.82	0.17	32	2.49	80.45	80.50	2.71	2.87	-0.54	-0.68
6	7	6	0.10	1.08	0.65	0.702	8.667	7.81	14.91	0.1721	25	24	3.1416	0.5	0.20	0.011	11.957	3.806	0.05	0.00	75.63	77.63	75.58	77.58	2.421	0.1132	0.0283	0.0455	79.82	79.75	0.33	32	2.49	80.50	80.60	2.87	2.42	-0.68	-0.25
2A	2	2A	0.08	0.08	0.65	0.052	10.561	0.69	10.00	1.1653	88	10	0.5454	0.2083	0.50	0.011	1.831	3.357	0.44	0.00	0.00	0.83	-0.44	0.39	1.259	0.0983	0.0885	0.0123	0.49	0.39	0.32	18	0.62	81.60	81.45	81.85	81.06	-81.11	-81.06	
4A	4	4A	0.16	0.16	0.65	0.104	10.561	1.37	10.00	0.2648	40	10	0.5454	0.2083	0.50	0.013	1.549	2.841	0.2	0.00	0.00	0.83	-0.20	0.63	2.517	0.3934	0.1573	0.0492	0.21	0.00	0.64	18	0.79	81.60	81.45	81.50	80.82	-81.39	-81.45	

100 YR ON-SITE- SYSTEM 9-14

Inlet #	Inlet #	Area No.	Delta Area	ACC Area (acres)	Runoff Coefficient C	Sum of C x A	Intensity (1100/yr) (in/Hr)	Sum of Flows (cfs)	Time of C (min)	Pipe Time (min)	Reach Length (ft)	Diameter or Rise (inches)	Area (ft^2)	Hydraulic Radius (ft)	Slope (%)	Mannings "n"	Design Capacity (cfs)	Design Velocity (ft/s)	Fall (ft)	Drop (ft)	Flowline Elevation Upstream (ft)	Top of Pipe Elevation Upstream (ft)	Flowline Elevation Downstream (ft)	Top of Pipe Elevation Downstream (ft)	100 Yr Actual Velocity (ft/s)	Hydraulic Gradient (%)	Change in Head (ft)	Minor Losses (ft)	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream (ft)	Throat Area Required (ft^2)	Inlet size (ft)	Throat Area Provided (ft^2)	TG Elevation Upstream (ft)	TG Elevation Downstream (ft)	cover Upstream (ft)	cover Downstream (ft)	Ponding Upstream (ft)	Ponding Downstream (ft)
8	9	8	0.09	0.26	0.65	0.169	10.561	2.23	10.00	0.6784	74	15	1.2272	0.3125	0.30	0.011	4.181	3.407	0.222	0.00	77.70	78.95	77.48	78.73	1.818	0.1195	0.0884	0.0257	80.95	80.84	0.36	24	1.40	80.70	80.60	1.75	1.87	0.25	0.24
9	10	9	0.05	0.50	0.65	0.325	10.224	4.15	10.68	0.4822	68	18	1.7671	0.375	0.30	0.011	6.800	3.848	0.204	0.25	77.23	78.73	77.02	78.52	2.350	0.1566	0.1065	0.0429	80.84	80.69	0.19	24	1.40	80.60	80.65	1.87	2.13	0.24	0.04
10	11	10	0.08	0.74	0.65	0.481	10.093	6.59	11.16	0.4554	93	18	1.7671	0.375	0.25	0.011	6.207	3.513	0.233	0.00	77.02	78.52	76.79	78.29	3.403	0.3284	0.3054	0.0899	80.69	80.29	0.80	27	1.77	80.65	80.40	2.13	2.11	0.04	-0.11
11	12	11	0.16	0.90	0.65	0.585	9.807	7.17	11.62	1.4384	197	24	3.1416	0.5	0.20	0.011	11.957	3.806	0.394	0.50	76.29	78.29	75.90	77.90	2.283	0.1007	0.1983	0.0405	80.29	80.05	0.59	32	2.49	80.40	80.20	2.11	2.30	-0.11	-0.15
12	13	12	0.16	1.09	0.65	0.709	9.256	8.30	13.05	0.5689	89	24	3.1416	0.5	0.20	0.011	11.957	3.806	0.178	0.00	75.90	77.90	75.72	77.72	2.609	0.1316	0.1171	0.0629	80.05	79.98	0.66	32	2.49	80.20	80.15	2.30	2.43	-0.15	-0.27
13	14	13	0.16	1.43	0.65	0.930	9.063	10.53	13.62	0.1144	23	24	3.1416	0.5	0.20	0.011	11.957	3.806	0.046	0.00	75.72	77.72	75.67	77.67	3.352	0.2171	0.0499	0.0872	79.88	79.75	0.55	32	2.49	80.15	80.00	2.43	2.33	-0.27	-0.25
8A	8	8A	0.17	0.17	0.65	0.111	10.561	1.46	10.00	0.6232	100	10	0.5454	0.2083	0.50	0.011	1.831	3.357	0.5	0.00	0.00	0.83	-0.50	0.33	2.674	0.4441	0.4441	0.0555	0.83	0.33	0.68	18	0.79	81.75	80.70	80.92	80.37	-80.92	-80.37	
9A	9	9A	0.19	0.19	0.65	0.124	10.561	1.63	10.00	0.5576	100	10	0.5454	0.2083	0.50	0.011	1.831	3.357	0.5	0.00	0.00	0.83	-0.50	0.33	2.989	0.5547	0.5547	0.0694	81.46	80.84	0.76	8	0.12	81.35	80.70	80.52	80.37	0.11	0.14	
10A	10	10A	0.16	0.16	0.65	0.104	10.561	1.37	10.00	0.4966	75	10	0.5454	0.2083	0.50	0.011	1.831	3.357	0.375	0.00	0.00	0.83	-0.38	0.46	2.517	0.3934	0.295	0.0492	80.64	80.29	0.64	8	0.12	81.35	80.70	80.52	80.24	-0.71	-0.41	
13A	13	13A	0.18	0.18	0.65	0.117	10.561	1.54	10.00	0.6592	112	10	0.5454	0.2083	0.50	0.011	1.831	3.357	0.56	0.00	0.00	0.83	-0.56	0.27	2.832	0.4979	0.5576	0.0623	0.89	0.27	0.72	12	0.27	81.60	80.80	80.77	80.53	-80.71	-80.53	

C-3 DRAINAGE AREA MAP

Scale 1" = 30' JOB NO: 130-2

SEE SHT C-0 FOR TOPOGRAPHIC SURVEY
SEE SHT C-1 FOR GRADING & DRAINAGE
SEE SHT C-2 FOR STORM SEWER LAYOUT
SEE SHT C-3 FOR DRAINAGE AREA MAP
SEE SHT C-4 FOR SANITARY & WATER LAYOUT
SEE SHT C-5 FOR PAVING JOINT LAYOUT
SEE SHT C-6 FOR SWPPP & DETAILS
SEE SHT C-7 FOR NOTES & DETAILS
SEE SHT C-8 FOR P&P OVERALL
SEE SHT C-9 FOR PUBLIC STORM P&P
SEE SHT SL-01 FOR GENERAL CONSTRUCTION NOTES I
SEE SHT SL-02 FOR GENERAL CONSTRUCTION NOTES II
SEE SHT SL-03 FOR STORM SEWER MANHOLE DETAILS
SEE SHT SL-04 FOR STORM SEWER MANHOLE DETAILS
SEE SHT SL-05 FOR STORM SEWER CONSTRUCTION NOTES
SEE SHT SL-20 FOR STORM SEWER PIPE BEDDING & BACKFILL DETAILS

TEXAS ENGINEERING AND MAPPING
12810 CENTURY DRIVE
STAFFORD, TEXAS 77477
PHONE: (281) 491-2525 FAX: (281) 491-2535

Optimum Personal Care Assisted Living Facilities

XXX Lakeview Drive
Sugar Land, Texas 77478

Radian
ARCHITECTURE
134 Eldridge Road Suite A
Sugar Land, Texas 77478
TEL (713) 933-0507
FAX (713) 933-0512

#	Date	Description
1	12.10.12	SCHEMATIC DESIGN

TEXAS ENGINEERING & MAPPING CO.
REGISTRATION # F-2906
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF CARLOS J. BARILLAS, P.E. 50474 ON 03-28-13. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.

Project No.1201.31

DRAINAGE AREA MAP

Sheet No.

C-3