

- LEGEND**
- DRAINAGE AREA BOUNDARY
 - - - TIME OF CONCENTRATION FLOW PATH
 - USGS 10 FT CONTOURS
 - DA-X DRAINAGE AREA ID
 - XXXX JUNCTION ID
 - JUNCTION
 - 100-YR FEMA EFFECTIVE FLOODPLAIN
 - 500-YR FEMA EFFECTIVE FLOODPLAIN
 - ▨ FEMA FLOODWAY
 - FLOW ARROW

- NOTES:**
1. TRAVIS COUNTY FEMA FIRM PANELS 48453C0280J AND 48453C0285H. FLOOD PLAIN DATA BASED ON BEST CURRENT FEMA EFFECTIVE DATA.
 2. THE PFLUGERVILLE 2030 PLAN FOR FUTURE DEVELOPMENT WAS REVIEWED TO DETERMINE FUTURE LANDUSE WITHIN THE PROJECT SITE. THE FUTURE LANDUSE WITHIN THE LIMIT OF WORK IS CURRENTLY DEVELOPED OR IN ACTIVE CONSTRUCTION THUS INCLUDED IN EXISTING CONDITIONS.
 3. ALL DRAINAGE AREA CALCULATIONS PERFORMED USING HEC-HMS v. 4.3

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION, BIDDING,
 OR PERMIT PURPOSES

JMT
 TBPE FIRM REG. NO. F-16341
 ENGINEER TARA T. ALEXANDER
 P.E. NO. 109548 DATE 5/13/2020

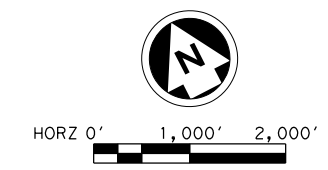
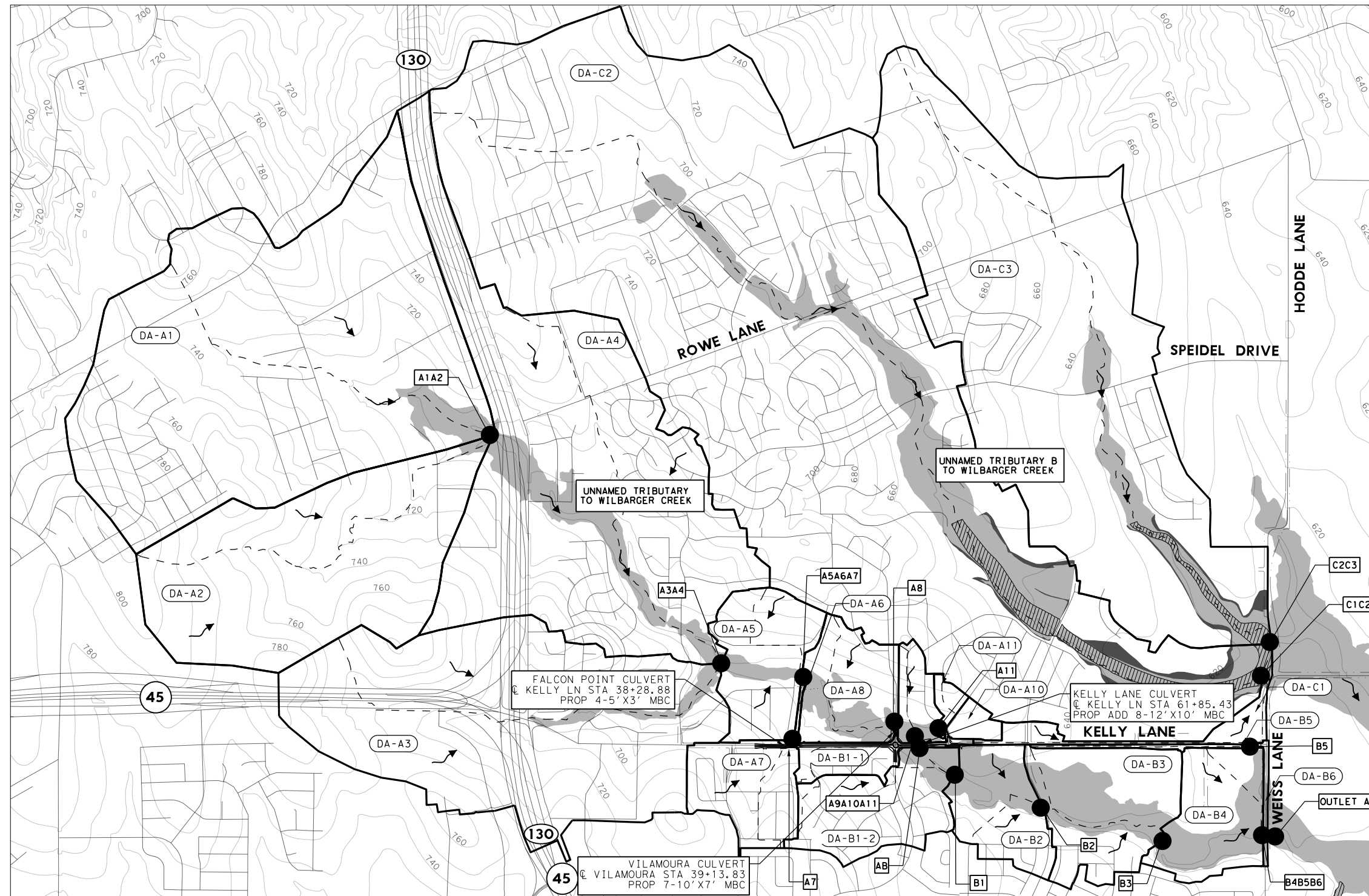
JMT TBPE REGISTRATION NO. F-16341
 where quality meets life
PFLUGERVILLE TEXAS

**CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 EXISTING DRAINAGE AREA MAP**

SHEET 1 OF 1

DRAINAGE ID	DRAINAGE AREA (SQ. MI.)	DRAINAGE AREA (ACRES)	COMPOSITE CN VALUE	TIME OF CONCENTRATION (MIN)	LAG (MIN)	INITIAL ABSTRACTION (I)	2-YEAR PEAK DISCHARGE (CFS)	5-YEAR PEAK DISCHARGE (CFS)	10-YEAR PEAK DISCHARGE (CFS)	25-YEAR PEAK DISCHARGE (CFS)	50-YEAR PEAK DISCHARGE (CFS)	100-YEAR PEAK DISCHARGE (CFS)
A1	1.089	697.0	85	47.0	28.2	0.36	1175	1639	2051	2651	3132	3647
A2	0.526	336.6	92	43.2	25.9	0.18	738	967	1166	1455	1686	1934
A3	0.725	464.0	89	43.7	26.2	0.24	930	1250	1530	1935	2259	2605
A4	0.887	567.7	85	59.4	35.6	0.36	831	1162	1459	1889	2237	2610
A5	0.134	85.8	83	25.9	15.5	0.42	186	263	332	432	512	597
A6	0.007	4.5	89	10.0	6.0	0.25	17	23	28	35	41	47
A7	0.101	64.6	84	18.6	11.1	0.37	170	237	297	384	453	527
A8	0.110	70.4	81	42.5	25.5	0.47	109	157	202	266	319	374
A9	0.006	3.8	88	10.6	6.4	0.27	14	19	23	30	35	40
A10	0.053	33.9	84	28.0	16.8	0.37	73	103	129	167	197	230
A11	0.012	7.7	85	10.0	6.0	0.36	26	36	45	58	68	79
B1	0.172	110.1	86	21.4	12.8	0.34	288	398	493	632	742	858
B2	0.106	67.8	86	17.8	10.7	0.33	193	266	329	421	494	572
B3	0.175	112.0	88	33.7	20.2	0.26	252	340	418	530	620	715
B4	0.124	79.4	89	28.6	17.2	0.24	200	267	326	411	478	551
B5	0.009	5.8	89	34.3	20.6	0.25	13	18	22	27	32	37
B6	0.007	4.5	98	10.0	6.0	0.04	21	26	31	38	43	49
C1	0.041	26.2	84	42.9	25.7	0.37	45	64	80	104	123	143
C2	2.481	1587.8	84	115.0	69.0	0.39	1437	2058	2629	3468	4164	4922
C3	1.121	717.4	85	94.3	56.6	0.36	774	1093	1381	1802	2149	2523

DESIGN	PROJECT NO.		
JMT			
GRAPHICS			
JMT	STATE	ROADWAY	
CHECK	TEXAS	KELLY LN	
JMT	COUNTY	CITY	SHEET NO.
CHECK	TRAVIS	PFLUGERVILLE	EX-DA1



- LEGEND**
- DRAINAGE AREA BOUNDARY
 - - - TIME OF CONCENTRATION FLOW PATH
 - USGS 10 FT CONTOURS
 - DA-X DRAINAGE AREA ID
 - XXXX JUNCTION ID
 - JUNCTION
 - 100-YR FEMA EFFECTIVE FLOODPLAIN
 - 500-YR FEMA EFFECTIVE FLOODPLAIN
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JMT
 TBPE FIRM REG. NO. F-16341
 ENGINEER TARA T. ALEXANDER
 P.E. NO. 109548 DATE 5/13/2020

JMT TBPE REGISTRATION NO. F-16341
 where quality meets life
PFLUGERVILLE
 TEXAS

**CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 PROPOSED DRAINAGE AREA MAP**

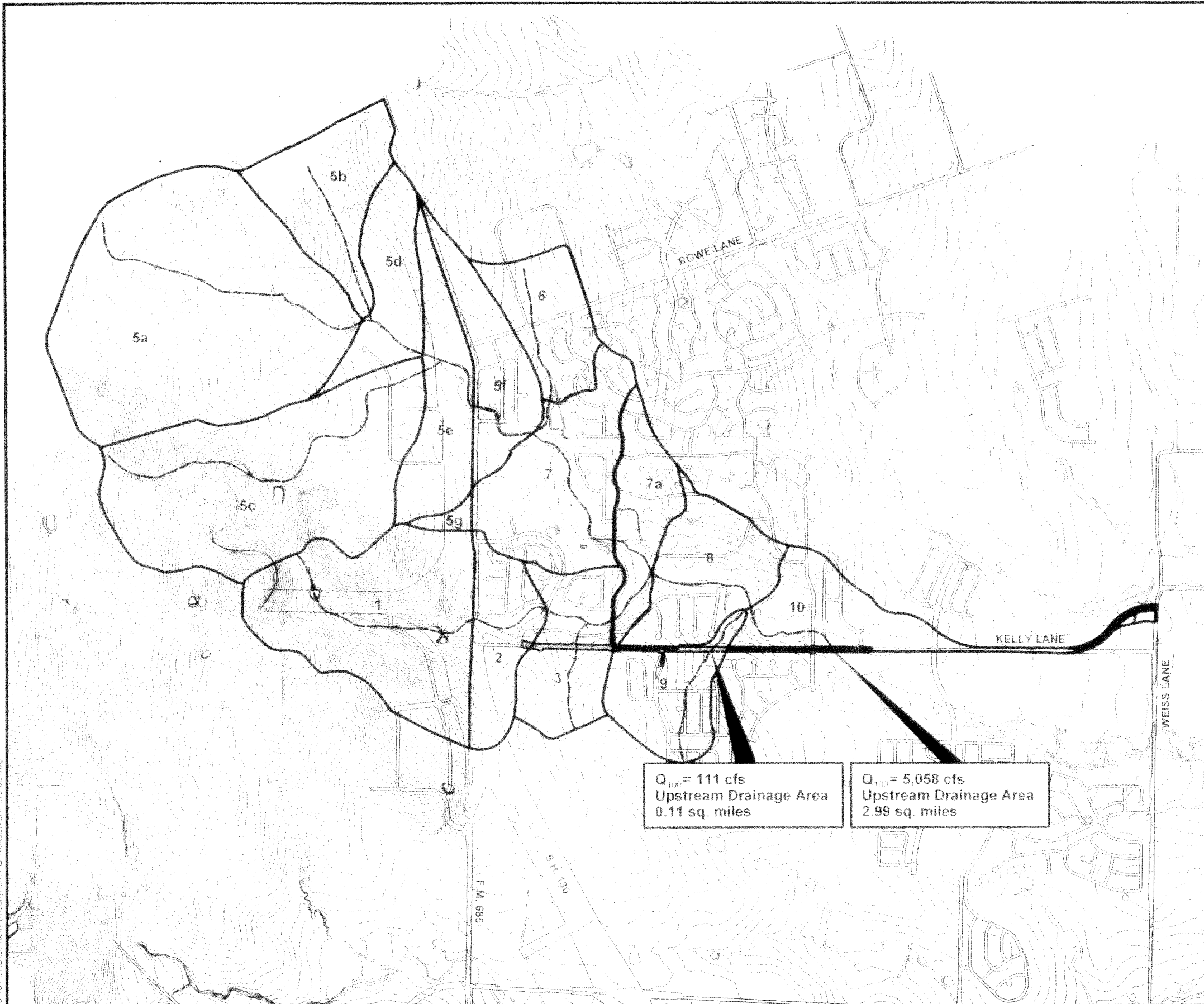
SHEET 1 OF 1

PROPOSED_HEC-HMS Results

DRAINAGE ID	DRAINAGE AREA (SQ. MI.)	DRAINAGE AREA (ACRES)	COMPOSITE CN VALUE	TIME OF CONCENTRATION (MIN)	LAG (MIN)	INITIAL ABSTRACTION (I)	2-YEAR PEAK DISCHARGE (CFS)	5-YEAR PEAK DISCHARGE (CFS)	10-YEAR PEAK DISCHARGE (CFS)	25-YEAR PEAK DISCHARGE (CFS)	50-YEAR PEAK DISCHARGE (CFS)	100-YEAR PEAK DISCHARGE (CFS)
A1	1.089	697	85	47.0	28.2	0.36	1175	1639	2051	2651	3132	3647
A2	0.526	337	92	43.2	25.9	0.18	738	967	1166	1455	1686	1934
A3	0.725	464	89	43.7	26.2	0.24	930	1250	1530	1935	2259	2605
A4	0.887	568	85	59.4	35.6	0.36	831	1162	1459	1889	2237	2610
A5	0.134	86	83	25.9	15.5	0.42	186	263	332	432	512	597
A6	0.003	2	86	16.8	10.1	0.33	6	8	10	12	14	17
A7	0.105	67	85	18.6	11.1	0.36	182	252	314	404	476	552
A8	0.109	70	81	42.5	25.5	0.47	108	156	200	264	316	371
A10	0.053	34	84	28.0	16.8	0.37	73	103	129	167	197	230
A11	0.012	8	85	10.0	6.0	0.36	26	36	45	58	68	79
B1-1	0.041	26	87	18.8	11.3	0.31	75	102	126	161	188	217
B1-2	0.137	88	87	21.4	12.8	0.31	237	324	400	510	597	689
B2	0.106	68	86	17.8	10.7	0.33	193	266	329	421	494	572
B3	0.175	112	88	33.7	20.2	0.26	252	340	418	530	620	715
B4	0.124	79	89	28.6	17.2	0.24	200	267	326	411	478	551
B5	0.009	6	89	34.3	20.6	0.25	13	18	22	27	32	37
B6	0.007	4	98	10.0	6.0	0.04	21	26	31	38	43	49
C1	0.041	26	84	42.9	25.7	0.37	45	64	80	104	123	143
C2	2.481	1588	84	115.0	69.0	0.39	1437	2058	2629	3468	4164	4922
C3	1.121	717	85	94.3	56.6	0.36	774	1093	1381	1802	2149	2523

DESIGN	PROJECT NO.		
JMT			
GRAPHICS			
JMT	STATE		ROADWAY
CHECK	TEXAS		KELLY LN
JMT	COUNTY	CITY	SHEET NO.
CHECK	TRAVIS	PFLUGERVILLE	PR-DA1
JMT			

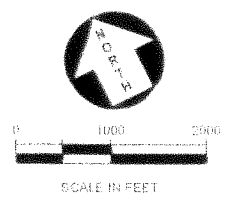
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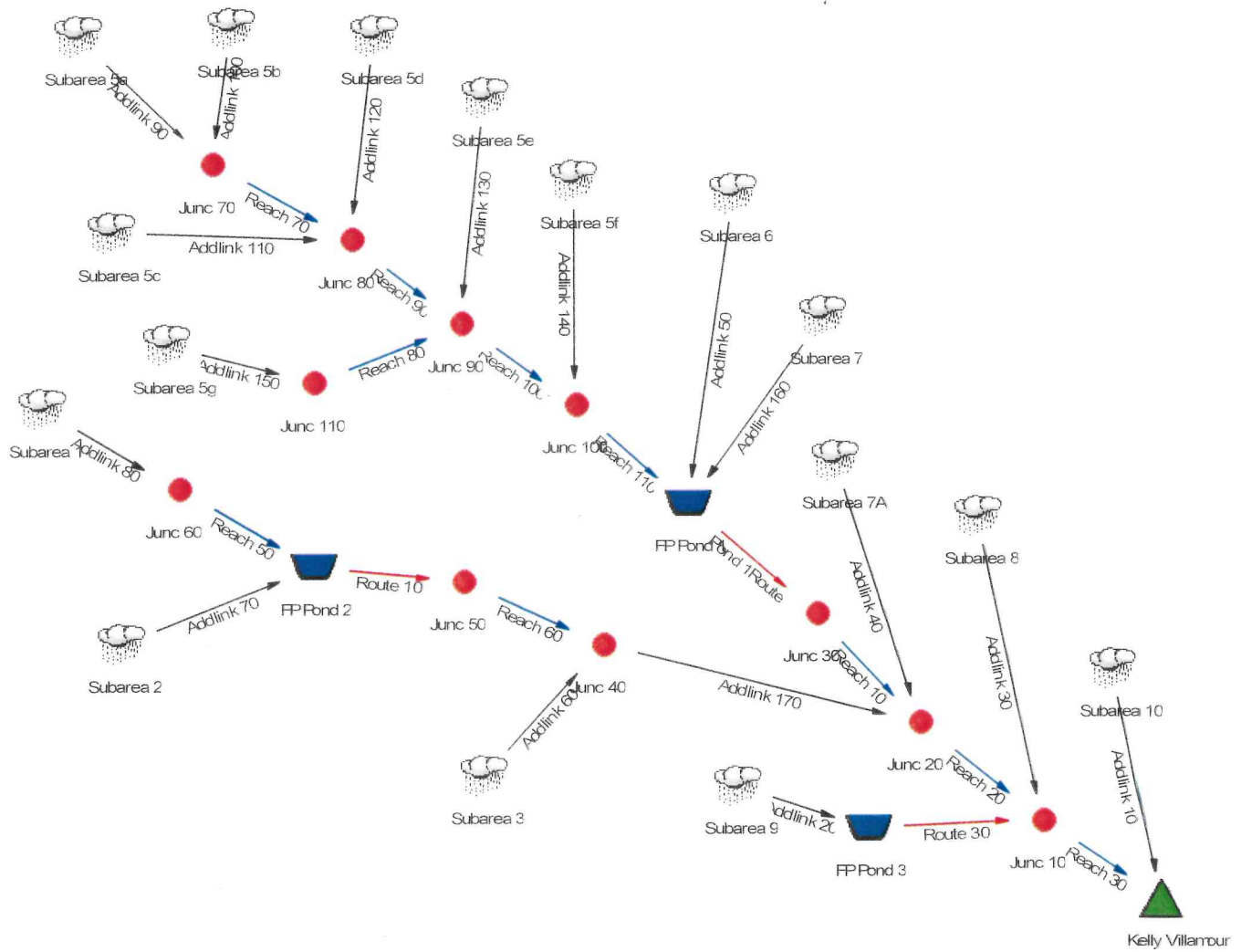
$Q_{100} = 111$ cfs
Upstream Drainage Area
0.11 sq. miles

$Q_{100} = 5,058$ cfs
Upstream Drainage Area
2.99 sq. miles

Node ID	Type	Area (Acres)	Curve Number	Time of Concentration (hr)	2-Yr Peak (cfs)	25-Yr Peak (cfs)	100-Yr Peak (cfs)
FP Pond 1 In	Pond				641.53	2274.53	3319.78
FP Pond 1 Out	Pond				639.46	2267.00	3309.98
FP Pond 2 In	Pond				246.68	707.68	993.90
FP Pond 2 Out	Pond				173.18	644.48	930.77
FP Pond 3 In	Pond				99.37	274.08	379.47
FP Pond 3 Out	Pond				58.39	101.16	111.24
Junc 10	Jct				982.92	3455.82	5002.52
Junc 100	Jct				544.87	1908.42	2752.79
Junc 110	Jct				23.08	78.85	114.19
Junc 20	Jct				891.07	3178.46	4627.01
Junc 30	Jct				639.46	2267.00	3309.98
Junc 40	Jct				231.82	840.66	1211.01
Junc 50	Jct				173.18	644.48	930.77
Junc 60	Jct				167.51	520.80	739.26
Junc 70	Jct				275.67	929.94	1347.49
Junc 80	Jct				475.43	1631.44	2367.53
Junc 90	Jct				513.39	1787.43	2569.27
Kelly Villanueva	Jct				994.54	3491.25	6058.35
Subarea 1	Area	262.4	83	1.50	167.81	520.80	739.26
Subarea 2	Area	89.6	94	1.03	108.23	267.81	347.72
Subarea 3	Area	115.2	94	1.48	110.45	265.01	357.91
Subarea 5a	Area	467.2	79	1.89	210.51	728.04	1058.05
Subarea 5b	Area	121.6	84	0.91	110.94	332.93	468.91
Subarea 5c	Area	345.6	79	1.84	159.11	551.56	800.84
Subarea 5d	Area	96.0	84	0.93	86.29	257.67	362.97
Subarea 5e	Area	96.0	84	0.87	90.13	269.22	378.82
Subarea 5f	Area	83.2	84	1.08	68.22	204.62	288.47
Subarea 5g	Area	25.6	79	0.60	23.08	78.85	114.19
Subarea 6	Area	102.4	82	1.20	72.41	229.65	327.21
Subarea 7	Area	185.6	87	0.93	187.60	522.81	725.58
Subarea 7a	Area	76.8	87	0.75	87.59	242.95	336.88
Subarea 8	Area	140.8	83	1.90	76.12	238.18	338.81
Subarea 9	Area	70.4	87	0.49	99.37	274.08	379.47
Subarea 10	Area	44.8	84	1.10	36.64	109.76	154.57



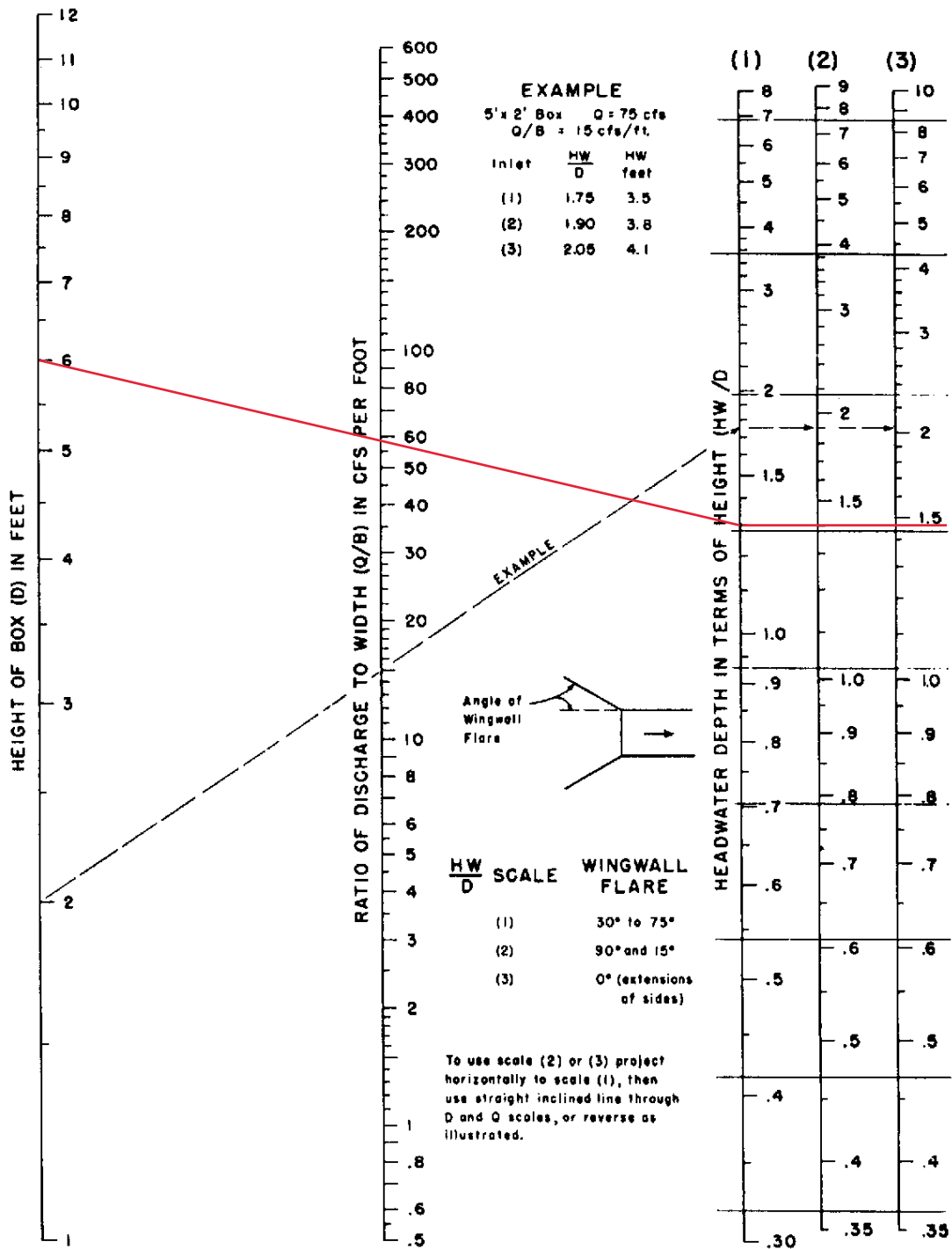
DESIGN SET	NO.	DATE	REVISION	BY	PROJECT NO. 2008 - 104			KASBERG, PATRICK & ASSOCIATES, LP CONSULTING ENGINEERS TEMPLE, TEXAS 76501	CITY OF PFLUGERVILLE, TEXAS KELLY LANE ROADWAY AND DRAINAGE IMPROVEMENTS DRAINAGE AREA MAP AND CALCULATIONS	SHEET NO. G32	
	©2011 Kasberg, Patrick & Associates, LP KPA Firm Registration Number F-510				DRAWN BY Douglas L. Krumnow DESIGNED BY John A. Smcik, P.E. APPROVED BY <i>[Signature]</i> DATE 5/14/11					Plot Date May 18, 2011 - 2:45pm Plotted By DLK	OF 33 SHEETS



**KELLY LANE ROADWAY IMPROVEMENTS
DRAINAGE SUMMARY**

Node ID	Type	Area (acres)	Curve Number	Time of Concentration (hr)	2-Yr Peak (cfs)	25-Yr Peak (cfs)	100-Yr Peak (cfs)
FP Pond 1 In	Pond				641.53	2274.53	3319.78
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FP Pond 3 In	Pond				99.37	274.08	379.47
FP Pond 3 Out	Pond				58.39	101.16	111.24
Junc 10	Jct				982.92	3455.82	5002.52
Junc 100	Jct				544.87	1908.42	2752.79
Junc 110	Jct				23.08	78.85	114.19
Junc 20	Jct				891.07	3178.46	4627.01
Junc 30	Jct				639.46	2267.00	3309.98
Junc 40	Jct				231.82	840.66	1211.01
Junc 50	Jct				173.18	644.48	930.77
Junc 60	Jct				167.51	520.80	739.26
Junc 70	Jct				275.67	929.94	1347.49
Junc 80	Jct				475.43	1631.44	2367.53
Junc 90	Jct				513.39	1787.43	2569.27
Kelly Villamoura	Jct				994.54	3491.25	5058.35
Subarea 1	Area	262.4	83	1.50	167.51	520.80	739.26
Subarea 2	Area	89.6	94	1.03	108.23	257.81	347.72
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Subarea 9	Area	70.4	87	0.49	99.37	274.08	379.47
Subarea 10	Area	44.8	84	1.10	36.64	109.76	154.57

CHART 8B



HEADWATER DEPTH FOR BOX CULVERTS WITH INLET CONTROL

Culvert Calculator Report

Kelly Ln at Villamoura at Sta 61+00

Solve For: Discharge

Culvert Summary			
Allowable HW Elevation	648.86 ft	Headwater Depth/ Height	1.39
Computed Headwater Elevation	648.86 ft	Discharge	5,485.16 cfs
Inlet Control HW Elev	648.86 ft	Tailwater Elevation	639.96 ft
Outlet Control HW Elev	648.66 ft	Control Type	Inlet Control

Grades			
Upstream Invert	640.50 ft	Downstream Invert	639.96 ft
Length	109.00 ft	Constructed Slope	0.004954 ft/ft

Hydraulic Profile			
Profile	S2	Depth, Downstream	4.38 ft
Slope Type	Steep	Normal Depth	4.35 ft
Flow Regime	Supercritical	Critical Depth	4.66 ft
Velocity Downstream	13.04 ft/s	Critical Slope	0.004131 ft/ft

Section			
Section Shape	Box	Mannings Coefficient	0.013
Section Material	Concrete	Span	8.00 ft
Section Size	8 x 6 ft	Rise	6.00 ft
Number Sections	12		

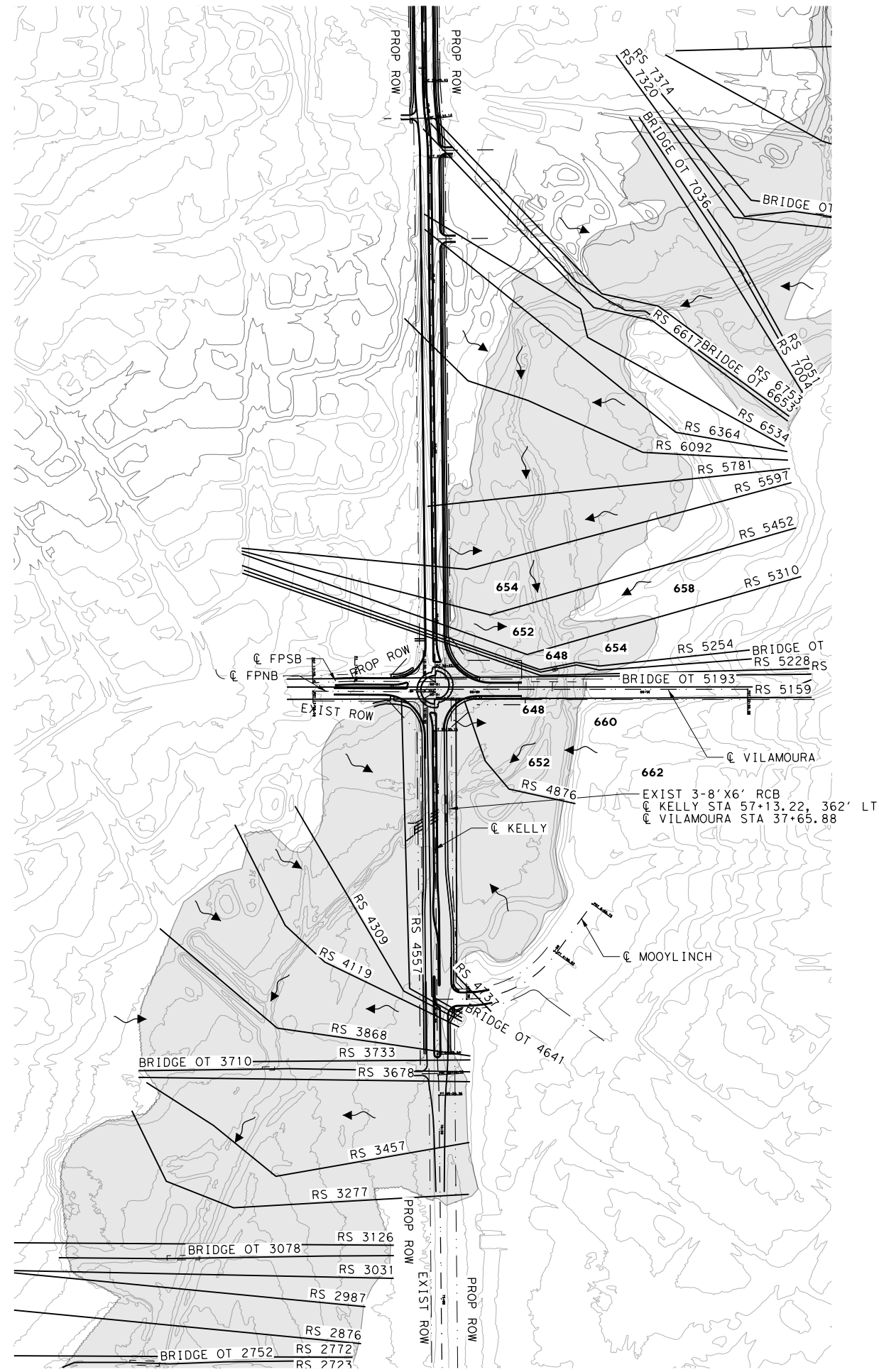
Outlet Control Properties			
Outlet Control HW Elev	648.66 ft	Upstream Velocity Head	2.33 ft
Ke	0.50	Entrance Loss	1.17 ft

Inlet Control Properties			
Inlet Control HW Elev	648.86 ft	Flow Control	Transition
Inlet Type	90 and 15 ° wingwall flares	Area Full	576.0 ft ²
K	0.06100	HDS 5 Chart	8
M	0.75000	HDS 5 Scale	2
C	0.04000	Equation Form	1
Y	0.80000		

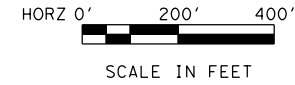
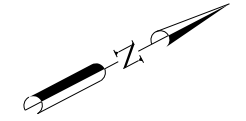
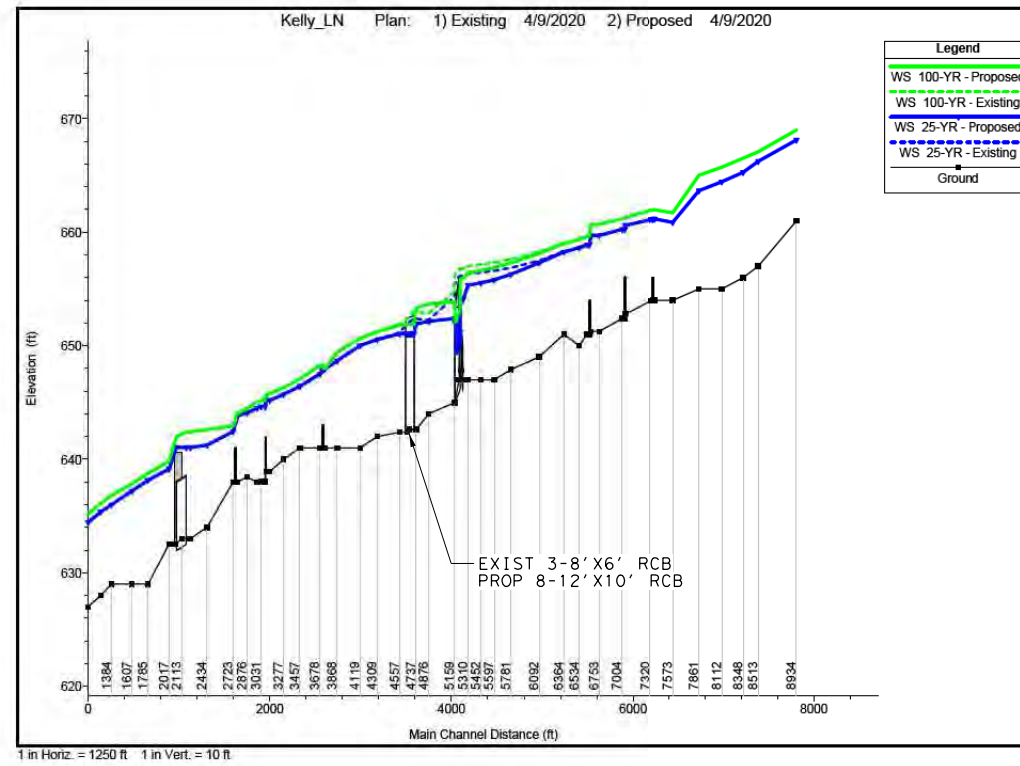
$$Q \text{ per Box} = 5485 / 12 = 457 \text{ cfs}$$

$$\text{Discharge per Width} = 457 / 8 = 57 \text{ cfs (} Q/B \text{ in Nomograph)}$$

$$H_w = 648.86 - 640.5 = 8.36 \text{ ft}$$



EXISTING PROFILE PLOT



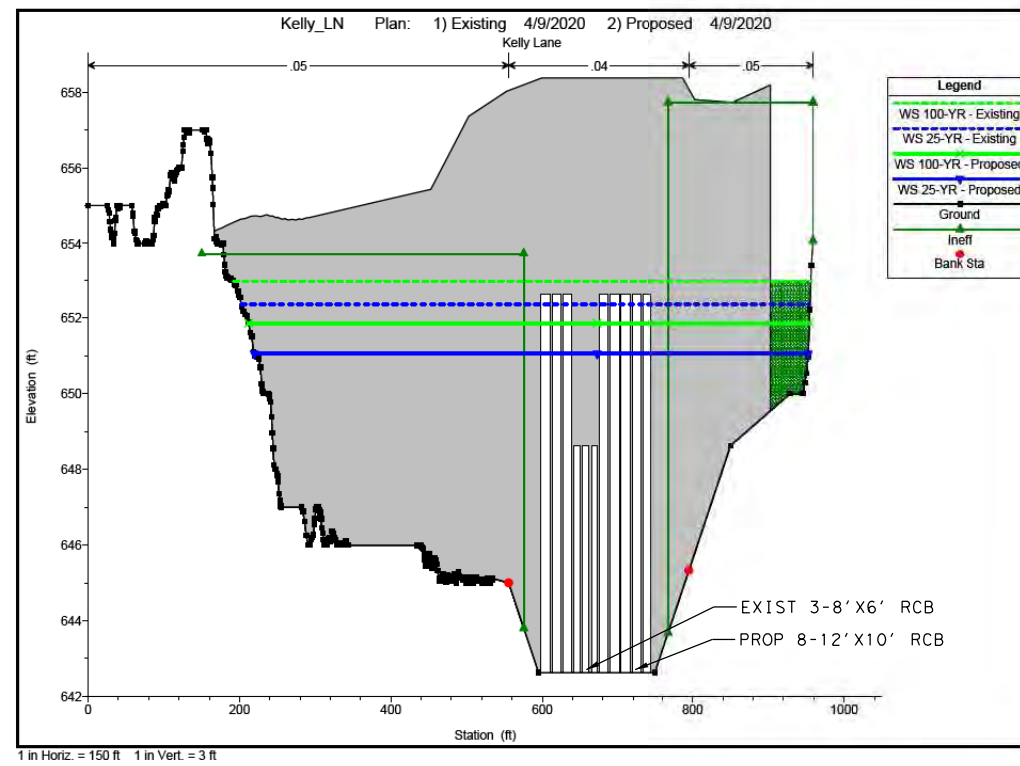
LEGEND

- FLOW ARROW
- CONTOURS
- STREAM CENTERLINE
- RIVER STATION, RS
- EXISTING ROW
- PROPOSED ROW
- FEMA FLOOD ZONE

NOTES:

1. CALCULATIONS PERFORMED USING HEC-RAS VERSION 5.0.7.
2. ALL STORM EVENTS OVERTOP ROADWAY.

EXISTING US CULVERT CROSS SECTION



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 ENGINEER TARA T. ALEXANDER
 P.E. NO. 109548 DATE 5/12/2020


JMT TBPE REGISTRATION NO. F-16341
 where quality meets life
PFLUGERVILLE TEXAS

CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 CULVERT CROSSING - KELLY LN

SHEET 1 OF 6

DESIGN	PROJECT NO.		
JMT			
GRAPHICS			
JMT	STATE	ROADWAY	
CHECK	TEXAS	KELLY LN	
JMT	COUNTY	CITY	SHEET NO.
CHECK	TRAVIS	PFLUGERVILLE	1

KELLY LN CULVERT CROSSING - PROFILE OUTPUT TABLE													
Reach	River Sta	Profile	Plan	O Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
UKNTRIB	8934	25 - YR	Existing	6956	661.0	668.14	666.82	668.73	0.00436	8.3	1315	566	0.58
UKNTRIB	8934	25 - YR	Proposed	6956	661.0	668.14	666.82	668.73	0.00436	8.3	1315	566	0.58
UKNTRIB	8934	100 - YR	Existing	9727	661.0	669.02	667.78	669.72	0.00439	9.1	1676	669	0.60
UKNTRIB	8934	100 - YR	Proposed	9727	661.0	669.02	667.78	669.72	0.00439	9.1	1676	669	0.60
UKNTRIB	8513	25 - YR	Existing	6956	657.0	666.26		666.86	0.00462	8.8	1425	482	0.60
UKNTRIB	8513	25 - YR	Proposed	6956	657.0	666.26		666.86	0.00462	8.8	1425	482	0.60
UKNTRIB	8513	100 - YR	Existing	9727	657.0	667.11		667.81	0.00475	9.7	1854	614	0.62
UKNTRIB	8513	100 - YR	Proposed	9727	657.0	667.11		667.81	0.00475	9.7	1854	614	0.62
UKNTRIB	8348	25 - YR	Existing	6956	656.0	665.30		666.12	0.00405	9.2	1358	518	0.58
UKNTRIB	8348	25 - YR	Proposed	6956	656.0	665.30		666.12	0.00405	9.2	1358	518	0.58
UKNTRIB	8348	100 - YR	Existing	9727	656.0	666.54		667.18	0.00298	8.7	2040	583	0.51
UKNTRIB	8348	100 - YR	Proposed	9727	656.0	666.54		667.18	0.00298	8.7	2040	583	0.51
UKNTRIB	8112	25 - YR	Existing	6956	655.0	664.47		665.14	0.00388	9.7	1307	398	0.58
UKNTRIB	8112	25 - YR	Proposed	6956	655.0	664.47		665.14	0.00388	9.7	1308	398	0.58
UKNTRIB	8112	100 - YR	Existing	9727	655.0	665.76		666.40	0.00363	10.3	1982	611	0.57
UKNTRIB	8112	100 - YR	Proposed	9727	655.0	665.76		666.40	0.00363	10.3	1983	611	0.57
UKNTRIB	7861	25 - YR	Existing	6956	655.0	663.69		664.22	0.00321	7.9	1323	353	0.51
UKNTRIB	7861	25 - YR	Proposed	6956	655.0	663.69		664.22	0.00320	7.9	1324	353	0.51
UKNTRIB	7861	100 - YR	Existing	9727	655.0	665.05		665.57	0.00283	8.3	1930	503	0.49
UKNTRIB	7861	100 - YR	Proposed	9727	655.0	665.05		665.57	0.00283	8.3	1931	503	0.49
UKNTRIB	7573	25 - YR	Existing	7236	654.0	660.88	660.62	662.51	0.01144	13.2	787	189	0.94
UKNTRIB	7573	25 - YR	Proposed	7242	654.0	660.88	660.63	662.51	0.01146	13.3	787	189	0.94
UKNTRIB	7573	100 - YR	Existing	10099	654.0	661.72	661.72	663.86	0.01311	15.4	964	218	1.03
UKNTRIB	7573	100 - YR	Proposed	10105	654.0	661.73	661.73	663.86	0.01306	15.4	965	218	1.03
UKNTRIB	7374	25 - YR	Existing	7236	654.0	661.19	659.07	661.33	0.00174	5.5	2426	674	0.37
UKNTRIB	7374	25 - YR	Proposed	7242	654.0	661.19	659.08	661.33	0.00174	5.5	2427	674	0.37
UKNTRIB	7374	100 - YR	Existing	10099	654.0	662.00	659.52	662.19	0.00177	6.0	2976	682	0.38
UKNTRIB	7374	100 - YR	Proposed	10105	654.0	662.00	659.53	662.19	0.00177	6.0	2975	682	0.38
UKNTRIB	7355												
			Bridge										
UKNTRIB	7320	25 - YR	Existing	7236	654.0	661.15	658.60	661.27	0.00112	4.5	2800	712	0.30
UKNTRIB	7320	25 - YR	Proposed	7242	654.0	661.15	658.60	661.27	0.00112	4.5	2799	712	0.30
UKNTRIB	7320	100 - YR	Existing	10099	654.0	661.95	659.19	662.10	0.00121	5.0	3371	719	0.32
UKNTRIB	7320	100 - YR	Proposed	10105	654.0	661.94	659.19	662.10	0.00121	5.0	3370	719	0.32
UKNTRIB	7051	25 - YR	Existing	7236	652.8	660.63	657.97	660.85	0.00201	6.0	2154	779	0.40
UKNTRIB	7051	25 - YR	Proposed	7242	652.8	660.62	657.97	660.85	0.00202	6.0	2152	779	0.40
UKNTRIB	7051	100 - YR	Existing	10099	652.8	661.35	659.38	661.63	0.00232	6.9	2684	891	0.44
UKNTRIB	7051	100 - YR	Proposed	10105	652.8	661.35	659.37	661.63	0.00234	6.9	2681	891	0.44
UKNTRIB	7036												
			Bridge										
UKNTRIB	7004	25 - YR	Existing	7236	652.4	660.28	659.70	660.78	0.00470	9.2	1669	801	0.62
UKNTRIB	7004	25 - YR	Proposed	7242	652.4	660.28	659.71	660.78	0.00472	9.2	1667	801	0.62
UKNTRIB	7004	100 - YR	Existing	10099	652.4	661.21	659.97	661.54	0.00305	8.1	2736	948	0.51
UKNTRIB	7004	100 - YR	Proposed	10105	652.4	661.21	659.97	661.54	0.00307	8.1	2732	948	0.51
UKNTRIB	6753	25 - YR	Existing	7236	651.3	659.74	657.50	659.99	0.00148	5.5	2320	725	0.35
UKNTRIB	6753	25 - YR	Proposed	7242	651.3	659.74	657.50	659.99	0.00149	5.5	2315	725	0.35
UKNTRIB	6753	100 - YR	Existing	10099	651.3	660.71	658.51	660.98	0.00140	5.8	3038	750	0.35
UKNTRIB	6753	100 - YR	Proposed	10105	651.3	660.71	658.44	660.97	0.00141	5.8	3033	750	0.35
UKNTRIB	6653												
			Bridge										
UKNTRIB	6617	25 - YR	Existing	7236	651.0	658.91	658.04	659.79	0.00604	10.6	1182	495	0.70
UKNTRIB	6617	25 - YR	Proposed	7242	651.0	658.89	658.04	659.78	0.00615	10.7	1175	494	0.71
UKNTRIB	6617	100 - YR	Existing	10099	651.0	659.66	659.08	660.77	0.00697	12.2	1456	608	0.76
UKNTRIB	6617	100 - YR	Proposed	10105	651.0	659.63	659.08	660.76	0.00711	12.3	1446	607	0.77
UKNTRIB	6534	25 - YR	Existing	7236	650.0	658.69	657.81	659.26	0.00394	8.2	1447	488	0.56
UKNTRIB	6534	25 - YR	Proposed	7242	650.0	658.66	657.82	659.24	0.00403	8.3	1437	488	0.57
UKNTRIB	6534	100 - YR	Existing	10099	650.0	659.43	658.41	660.15	0.00439	9.3	1759	738	0.60
UKNTRIB	6534	100 - YR	Proposed	10105	650.0	659.40	658.41	660.13	0.00451	9.4	1744	738	0.61


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 P.E. NO. 109548 DATE 5/14/2020



**CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 CROSSING NO.2 & NO.3**

SHEET 2 OF 6			
DESIGN	PROJECT NO.		
JMT			
GRAPHICS			
JMT	STATE	ROADWAY	
CHECK	TEXAS	KELLY LN	
JMT	COUNTY	CITY	SHEET NO.
CHECK	TRAVIS	PFLUGERVILLE	2

KELLY LN CULVERT CROSSING - PROFILE OUTPUT TABLE													
Reach	River Sta	Profile	Plan	O Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
UKNTRIB	6364	25 - YR	Existing	7236	651.0	658.31	656.88	658.61	0.00277	6.8	1918	717	0.47
UKNTRIB	6364	25 - YR	Proposed	7242	651.0	658.26	656.93	658.58	0.00290	6.9	1891	715	0.48
UKNTRIB	6364	100 - YR	Existing	10099	651.0	659.07	657.54	659.44	0.00289	7.4	2384	794	0.49
UKNTRIB	6364	100 - YR	Proposed	10105	651.0	659.02	657.54	659.40	0.00302	7.6	2350	791	0.50
UKNTRIB	6092	25 - YR	Existing	7236	649.0	657.53	655.77	657.87	0.00277	7.1	1958	655	0.47
UKNTRIB	6092	25 - YR	Proposed	7242	649.0	657.31	655.77	657.72	0.00344	7.8	1820	646	0.52
UKNTRIB	6092	100 - YR	Existing	10099	649.0	658.31	657.09	658.68	0.00272	7.6	2469	798	0.48
UKNTRIB	6092	100 - YR	Proposed	10105	649.0	658.16	656.96	658.57	0.00309	8.0	2368	792	0.51
UKNTRIB	5781	25 - YR	Existing	7236	647.9	656.89	655.28	657.11	0.00195	6.8	2356	739	0.41
UKNTRIB	5781	25 - YR	Proposed	7242	647.9	656.31	655.29	656.66	0.00321	8.3	1924	686	0.52
UKNTRIB	5781	100 - YR	Existing	10099	647.9	657.69	655.74	657.93	0.00193	7.2	2962	834	0.41
UKNTRIB	5781	100 - YR	Proposed	10105	647.9	657.36	655.74	657.67	0.00249	7.9	2661	778	0.47
UKNTRIB	5597	25 - YR	Existing	7236	647.0	656.64	654.40	656.80	0.00131	5.1	2697	796	0.33
UKNTRIB	5597	25 - YR	Proposed	7242	647.0	655.82	654.38	656.12	0.00259	6.7	1977	620	0.45
UKNTRIB	5597	100 - YR	Existing	10099	647.0	657.40	654.86	657.61	0.00153	5.9	3351	1006	0.36
UKNTRIB	5597	100 - YR	Proposed	10105	647.0	656.97	654.87	657.25	0.00204	6.6	2777	716	0.41
UKNTRIB	5452	25 - YR	Existing	7236	647.0	656.49	653.35	656.63	0.00101	4.9	2861	773	0.29
UKNTRIB	5452	25 - YR	Proposed	7242	647.0	655.55	653.35	655.80	0.00173	5.9	2113	543	0.38
UKNTRIB	5452	100 - YR	Existing	10099	647.0	657.22	653.86	657.40	0.00122	5.7	3443	909	0.33
UKNTRIB	5452	100 - YR	Proposed	10105	647.0	656.72	653.86	656.99	0.00158	6.2	2791	613	0.37
UKNTRIB	5310	25 - YR	Existing	7236	647.0	656.39		656.49	0.00078	4.5	3235	788	0.26
UKNTRIB	5310	25 - YR	Proposed	7242	647.0	655.35	652.84	655.55	0.00159	5.9	2285	596	0.37
UKNTRIB	5310	100 - YR	Existing	10099	647.0	657.09		657.23	0.00100	5.4	3797	870	0.30
UKNTRIB	5310	100 - YR	Proposed	10105	647.0	656.55	653.43	656.76	0.00138	6.1	3026	646	0.35
UKNTRIB	5254	25 - YR	Existing	7320	647.0	656.25	653.98	656.43	0.00126	5.4	2652	809	0.33
UKNTRIB	5254	25 - YR	Proposed	7325	647.0	654.08	653.90	655.27	0.00994	12.4	1110	463	0.88
UKNTRIB	5254	100 - YR	Existing	10176	647.0	656.94	654.65	657.16	0.00144	6.1	3172	821	0.36
UKNTRIB	5254	100 - YR	Proposed	10180	647.0	656.10	654.75	656.62	0.00336	8.7	2146	607	0.53
UKNTRIB	5246			Culvert									
UKNTRIB	5228	25 - YR	Existing	7320	647.8	656.19	653.92	656.37	0.00150	5.6	2529	811	0.36
UKNTRIB	5228	25 - YR	Proposed	7325	647.8	653.99	653.99	655.07	0.01160	12.5	1068	405	0.93
UKNTRIB	5228	100 - YR	Existing	10176	647.8	656.87	654.48	657.09	0.00168	6.3	3044	823	0.38
UKNTRIB	5228	100 - YR	Proposed	10180	647.8	655.96	654.57	656.50	0.00397	8.9	1989	523	0.57
UKNTRIB	5224	25 - YR	Existing	7320	647.0	656.13	654.77	656.35	0.00202	6.7	2431	991	0.41
UKNTRIB	5224	25 - YR	Proposed	7325	647.0	654.02	651.52	654.50	0.00353	7.3	1378	297	0.52
UKNTRIB	5224	100 - YR	Existing	10176	647.0	656.84	655.38	657.08	0.00202	7.1	3006	999	0.42
UKNTRIB	5224	100 - YR	Proposed	10180	647.0	655.99	652.43	656.44	0.00227	7.1	1967	417	0.44
UKNTRIB	5193			Bridge									
UKNTRIB	5159	25 - YR	Existing	7320	645.0	654.32	654.32	655.58	0.00676	12.6	1056	508	0.76
UKNTRIB	5159	25 - YR	Proposed	7325	645.0	652.41	648.47	652.68	0.00144	5.0	1783	315	0.34
UKNTRIB	5159	100 - YR	Existing	10176	645.0	655.14	655.14	656.49	0.00709	13.7	1419	616	0.79
UKNTRIB	5159	100 - YR	Proposed	10180	645.0	653.91	649.22	654.25	0.00140	5.6	2224	335	0.35
UKNTRIB	4876	25 - YR	Existing	7320	644.0	652.31	650.86	652.65	0.00268	6.7	1756	443	0.46
UKNTRIB	4876	25 - YR	Proposed	7325	644.0	652.17	648.07	652.32	0.00092	4.0	2455	437	0.27
UKNTRIB	4876	100 - YR	Existing	10176	644.0	652.85	651.33	653.34	0.00350	8.0	1995	447	0.53
UKNTRIB	4876	100 - YR	Proposed	10180	644.0	653.71	648.84	653.89	0.00083	4.4	3137	446	0.26
UKNTRIB	4737	25 - YR	Existing	7374	644.0	652.40	650.01	652.46	0.00036	2.7	4009	753	0.17
UKNTRIB	4737	25 - YR	Proposed	7374	642.6	651.93	646.31	652.20	0.00066	4.2	1765	743	0.24
UKNTRIB	4737	100 - YR	Existing	10266	644.0	652.98	650.01	653.08	0.00051	3.4	4448	764	0.21
UKNTRIB	4737	100 - YR	Proposed	10265	642.6	653.36	647.21	653.76	0.00079	5.0	2040	776	0.27
UKNTRIB	4641			Culvert									
UKNTRIB	4557	25 - YR	Existing	7374	643.0	651.16	650.01	651.38	0.00140	5.0	2506	858	0.33
UKNTRIB	4557	25 - YR	Proposed	7374	642.4	651.06	646.29	651.28	0.00070	3.9	2105	752	0.24
UKNTRIB	4557	100 - YR	Existing	10266	643.0	651.93	650.01	652.18	0.00145	5.5	3169	868	0.35
UKNTRIB	4557	100 - YR	Proposed	10265	642.4	651.85	647.21	652.04	0.00062	3.9	3478	757	0.23


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 ENGINEER TARA T. ALEXANDER
 P.E. NO. 109548 DATE 5/14/2020



**CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 CROSSING NO.2 & NO.3**

DESIGN	JMT	PROJECT NO.	
GRAPHICS	JMT	STATE	ROADWAY
CHECK	JMT	TEXAS	KELLY LN
CHECK	JMT	COUNTY	CITY
CHECK	JMT	TRAVIS	PFLUGERVILLE
			SHEET NO. 3

KELLY LN CULVERT CROSSING - PROFILE OUTPUT TABLE													
Reach	River Sta	Profile	Plan	O Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
UKNTRIB	4309	25 - YR	Existing	7374	642.0	650.60		650.89	0.00283	6.6	2001	659	0.46
UKNTRIB	4309	25 - YR	Proposed	7374	642.0	650.55		650.91	0.00348	7.3	1836	616	0.51
UKNTRIB	4309	100 - YR	Existing	10266	642.0	651.27		651.63	0.00321	7.6	2464	727	0.50
UKNTRIB	4309	100 - YR	Proposed	10265	642.0	651.22		651.65	0.00369	8.1	2260	647	0.54
UKNTRIB	4119	25 - YR	Existing	7463	641.0	650.03		650.37	0.00258	6.8	2056	732	0.45
UKNTRIB	4119	25 - YR	Proposed	7469	641.0	650.02		650.35	0.00246	6.7	2056	698	0.44
UKNTRIB	4119	100 - YR	Existing	10399	641.0	650.66		651.06	0.00284	7.6	2517	743	0.48
UKNTRIB	4119	100 - YR	Proposed	10405	641.0	650.65		651.05	0.00276	7.5	2496	704	0.47
UKNTRIB	3868	25 - YR	Existing	7463	641.0	648.68		649.36	0.00656	9.9	1538	712	0.71
UKNTRIB	3868	25 - YR	Proposed	7469	641.0	648.68		649.36	0.00656	9.9	1539	712	0.71
UKNTRIB	3868	100 - YR	Existing	10399	641.0	649.56	648.83	650.12	0.00496	9.4	2211	788	0.63
UKNTRIB	3868	100 - YR	Proposed	10405	641.0	649.56	648.82	650.12	0.00496	9.4	2214	790	0.63
UKNTRIB	3733	25 - YR	Existing	7463	641.0	647.96	647.31	648.52	0.00536	8.9	1507	518	0.64
UKNTRIB	3733	25 - YR	Proposed	7469	641.0	647.96	647.32	648.52	0.00536	8.9	1508	518	0.64
UKNTRIB	3733	100 - YR	Existing	10399	641.0	648.00	647.70	649.09	0.01063	12.5	1526	578	0.90
UKNTRIB	3733	100 - YR	Proposed	10405	641.0	648.00	647.70	649.09	0.01064	12.6	1526	578	0.90
UKNTRIB	3710		Bridge										
UKNTRIB	3678	25 - YR	Existing	7463	641.0	647.53		648.03	0.00427	7.9	1608	545	0.57
UKNTRIB	3678	25 - YR	Proposed	7469	641.0	647.53		648.03	0.00427	7.9	1609	545	0.57
UKNTRIB	3678	100 - YR	Existing	10399	641.0	648.29		648.87	0.00445	8.7	2051	633	0.59
UKNTRIB	3678	100 - YR	Proposed	10405	641.0	648.29		648.86	0.00442	8.7	2047	626	0.59
UKNTRIB	3457	25 - YR	Existing	7463	641.0	646.44		646.97	0.00587	8.0	1514	578	0.65
UKNTRIB	3457	25 - YR	Proposed	7469	641.0	646.44		646.97	0.00587	8.0	1515	578	0.65
UKNTRIB	3457	100 - YR	Existing	10399	641.0	647.09		647.74	0.00628	9.0	1897	649	0.68
UKNTRIB	3457	100 - YR	Proposed	10405	641.0	647.09		647.75	0.00628	9.0	1898	650	0.68
UKNTRIB	3277	25 - YR	Existing	7463	640.0	645.72		646.04	0.00395	6.5	1861	666	0.53
UKNTRIB	3277	25 - YR	Proposed	7469	640.0	645.73		646.04	0.00395	6.5	1863	666	0.53
UKNTRIB	3277	100 - YR	Existing	10399	640.0	646.32		646.72	0.00440	7.4	2271	719	0.57
UKNTRIB	3277	100 - YR	Proposed	10405	640.0	646.32		646.72	0.00440	7.4	2272	720	0.57
UKNTRIB	3126	25 - YR	Existing	7463	638.9	645.20	644.13	645.47	0.00343	6.9	2091	788	0.51
UKNTRIB	3126	25 - YR	Proposed	7469	638.9	645.21	644.14	645.48	0.00342	6.9	2094	788	0.51
UKNTRIB	3126	100 - YR	Existing	10399	638.9	645.77	644.52	646.10	0.00363	7.6	2539	793	0.53
UKNTRIB	3126	100 - YR	Proposed	10405	638.9	645.77	644.52	646.10	0.00362	7.6	2540	793	0.53
UKNTRIB	3078		Bridge										
UKNTRIB	3031	25 - YR	Existing	7463	638.0	644.64	642.95	644.87	0.00317	6.1	2113	739	0.48
UKNTRIB	3031	25 - YR	Proposed	7469	638.0	644.64	642.95	644.87	0.00317	6.1	2114	739	0.48
UKNTRIB	3031	100 - YR	Existing	10399	638.0	645.19	643.79	645.50	0.00361	6.9	2525	771	0.52
UKNTRIB	3031	100 - YR	Proposed	10405	638.0	645.19	643.80	645.50	0.00362	6.9	2525	771	0.52
UKNTRIB	2987	25 - YR	Existing	7512	638.0	644.51	643.00	644.73	0.00289	5.8	2181	736	0.46
UKNTRIB	2987	25 - YR	Proposed	7518	638.0	644.51	643.00	644.73	0.00289	5.8	2182	736	0.46
UKNTRIB	2987	100 - YR	Existing	10474	638.0	645.04	644.01	645.33	0.00342	6.7	2569	757	0.50
UKNTRIB	2987	100 - YR	Proposed	10480	638.0	645.04	644.01	645.33	0.00342	6.7	2569	757	0.50
UKNTRIB	2876	25 - YR	Existing	7512	638.4	644.10	643.37	644.37	0.00335	5.5	1944	715	0.48
UKNTRIB	2876	25 - YR	Proposed	7518	638.4	644.10	643.37	644.37	0.00335	5.5	1945	715	0.48
UKNTRIB	2876	100 - YR	Existing	10474	638.4	644.48	643.37	644.88	0.00444	6.7	2216	719	0.56
UKNTRIB	2876	100 - YR	Proposed	10480	638.4	644.48	643.37	644.88	0.00446	6.8	2215	719	0.56
UKNTRIB	2772	25 - YR	Existing	7512	638.0	643.86	640.89	644.09	0.00229	5.4	2195	694	0.41
UKNTRIB	2772	25 - YR	Proposed	7518	638.0	643.86	640.89	644.09	0.00229	5.4	2195	694	0.41
UKNTRIB	2772	100 - YR	Existing	10474	638.0	644.07	642.64	644.47	0.00393	7.2	2345	825	0.54
UKNTRIB	2772	100 - YR	Proposed	10480	638.0	644.06	642.64	644.47	0.00395	7.3	2341	825	0.54
UKNTRIB	2752		Bridge										
UKNTRIB	2723	25 - YR	Existing	7512	638.0	642.45	642.45	643.32	0.01279	10.1	1195	609	0.92
UKNTRIB	2723	25 - YR	Proposed	7518	638.0	642.45	642.45	643.33	0.01278	10.1	1196	609	0.92
UKNTRIB	2723	100 - YR	Existing	10474	638.0	642.95	642.87	643.96	0.01277	11.0	1507	628	0.94
UKNTRIB	2723	100 - YR	Proposed	10480	638.0	642.96	642.87	643.96	0.01276	11.0	1508	628	0.94


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 OR PERMIT PURPOSES

 TBPE FIRM REG. NO. F-16341
 ENGINEER TARA T. ALEXANDER
 P.E. NO. 109548 DATE 5/14/2020



**CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 CROSSING NO.2 & NO.3**

DESIGN	JMT	PROJECT NO.		
GRAPHICS	JMT	STATE	ROADWAY	
CHECK	JMT	TEXAS	KELLY LN	
CHECK	JMT	COUNTY	CITY	SHEET NO.
CHECK	JMT	TRAVIS	PFLUGERVILLE	4

KELLY LN CULVERT CROSSING - PROFILE OUTPUT TABLE													
Reach	River Sta	Profile	Plan	O Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
UKNTRIB	2434	25 - YR	Existing	7512	634.0	641.26	638.94	641.42	0.00149	4.4	2524	905	0.33
UKNTRIB	2434	25 - YR	Proposed	7518	634.0	641.27	638.95	641.42	0.00149	4.4	2527	906	0.33
UKNTRIB	2434	100 - YR	Existing	10474	634.0	642.64	639.50	642.80	0.00109	4.4	3481	1031	0.30
UKNTRIB	2434	100 - YR	Proposed	10480	634.0	642.64	639.50	642.80	0.00109	4.4	3482	1031	0.30
UKNTRIB	2250	25 - YR	Existing	7512	633.0	641.06	637.32	641.21	0.00097	4.1	2508	501	0.28
UKNTRIB	2250	25 - YR	Proposed	7518	633.0	641.06	637.33	641.22	0.00097	4.1	2510	501	0.28
UKNTRIB	2250	100 - YR	Existing	10474	633.0	642.43	637.97	642.61	0.00100	4.8	3269	685	0.29
UKNTRIB	2250	100 - YR	Proposed	10480	633.0	642.43	637.97	642.61	0.00100	4.8	3270	685	0.29
UKNTRIB	2113	Culvert											
UKNTRIB	2017	25 - YR	Existing	7512	632.5	639.15	636.72	639.69	0.00327	7.0	1320	545	0.50
UKNTRIB	2017	25 - YR	Proposed	7518	632.5	639.15	636.70	639.69	0.00327	7.0	1320	545	0.50
UKNTRIB	2017	100 - YR	Existing	10474	632.5	639.82	637.68	640.65	0.00434	8.6	1481	579	0.59
UKNTRIB	2017	100 - YR	Proposed	10480	632.5	639.83	637.68	640.65	0.00435	8.6	1481	579	0.59
UKNTRIB	1785	25 - YR	Existing	7512	629.0	638.15	637.60	638.78	0.00431	8.3	1517	691	0.57
UKNTRIB	1785	25 - YR	Proposed	7518	629.0	638.16	637.60	638.79	0.00431	8.3	1518	691	0.57
UKNTRIB	1785	100 - YR	Existing	10474	629.0	638.77	638.16	639.54	0.00491	9.4	1848	712	0.62
UKNTRIB	1785	100 - YR	Proposed	10480	629.0	638.77	638.16	639.54	0.00491	9.4	1848	712	0.62
UKNTRIB	1607	25 - YR	Existing	7512	629.0	637.22	636.93	638.01	0.00393	9.1	1629	695	0.57
UKNTRIB	1607	25 - YR	Proposed	7518	629.0	637.22	636.93	638.01	0.00393	9.1	1630	695	0.57
UKNTRIB	1607	100 - YR	Existing	10474	629.0	637.86	637.60	638.68	0.00419	9.9	2077	716	0.60
UKNTRIB	1607	100 - YR	Proposed	10480	629.0	637.86	637.59	638.69	0.00419	9.9	2078	716	0.60
UKNTRIB	1384	25 - YR	Existing	7512	629.0	636.01	635.82	636.98	0.00551	9.8	1389	650	0.66
UKNTRIB	1384	25 - YR	Proposed	7518	629.0	636.01	635.82	636.98	0.00551	9.8	1389	650	0.67
UKNTRIB	1384	100 - YR	Existing	10474	629.0	636.83	636.57	637.70	0.00486	9.9	1934	676	0.64
UKNTRIB	1384	100 - YR	Proposed	10480	629.0	636.83	636.57	637.70	0.00486	9.9	1935	676	0.64
UKNTRIB	1264	25 - YR	Existing	7602	628.0	635.38		636.09	0.00789	10.0	1415	599	0.76
UKNTRIB	1264	25 - YR	Proposed	7609	628.0	635.38		636.09	0.00789	10.0	1416	599	0.76
UKNTRIB	1264	100 - YR	Existing	10622	628.0	636.13		636.91	0.00791	10.9	1884	736	0.78
UKNTRIB	1264	100 - YR	Proposed	10628	628.0	636.13		636.91	0.00791	10.9	1885	736	0.78
UKNTRIB	1126	25 - YR	Existing	7602	627.0	634.44	633.85	635.12	0.00700	8.9	1418	589	0.70
UKNTRIB	1126	25 - YR	Proposed	7609	627.0	634.44	633.85	635.12	0.00700	8.9	1419	589	0.70
UKNTRIB	1126	100 - YR	Existing	10622	627.0	635.18	634.64	635.96	0.00701	9.8	1882	731	0.72
UKNTRIB	1126	100 - YR	Proposed	10628	627.0	635.18	634.63	635.96	0.00701	9.8	1883	731	0.72

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**CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 CROSSING NO.2 & NO.3**

SHEET 5 OF 6

DESIGN	PROJECT NO.		
JMT			
GRAPHICS			
JMT	STATE	ROADWAY	
CHECK	TEXAS	KELLY LN	
JMT	COUNTY	CITY	SHEET NO.
CHECK	TRAVIS	PFLUGERVILLE	5

VILAMOURA CROSSING					
PLAN:	EXISTING	001	UKNTRIB	RS: 5193	PROFILE: 100-YR
E.G. US. (FT)	657.08	ELEMENT	INSIDE BR US	INSIDE BR DS	
W.S. US. (FT)	656.84	E.G. ELEV (FT)	657.08	657.08	
Q TOTAL (CFS)	10176	W.S. ELEV (FT)	656.84	656.31	
Q BRIDGE (CFS)	4082	CRIT W.S. (FT)	655.85	655.74	
Q WEIR (CFS)	6094	MAX CHL DPTH (FT)	9.82	11.31	
WEIR STA LFT (FT)	436.5	VEL TOTAL (FT/S)	5.96	7.46	
WEIR STA RGT (FT)	1523.66	FLOW AREA (SQ FT)	1706.63	1363.66	
WEIR SUBMERG	0.35	FROUDE # CHL	0.34	0.42	
WEIR MAX DEPTH (FT)	4.08	SPECIF FORCE (CU FT)	6133.6	6932.58	
MIN EL WEIR FLOW (FT)	653.01	HYDR DEPTH (FT)	3.07	3.65	
MIN EL PRS (FT)	653.40	W.P. TOTAL (FT)	879.68	688.12	
DELTA EG (FT)	0.59	CONV. TOTAL (CFS)			
DELTA WS (FT)	1.69	TOP WIDTH (FT)	576.83	529.65	
BR OPEN AREA (SQ FT)	457	FRCTN LOSS (FT)			
BR OPEN VEL (FT/S)	8.93	C & E LOSS (FT)			
BR SLUICE COEF		SHEAR TOTAL (LB/SQ FT)			
BR SEL METHOD	PRESS/WEIR	POWER TOTAL (LB/FT S)			

VILAMOURA CROSSING						
PLAN:	PROPOSED	001	UKNTRIB	RS: 5193	OPEN#2: BRIDGE	PROFILE: 100-YR
E.G. US. (FT)	656.44	ELEMENT	INSIDE BR US	INSIDE BR DS		
W.S. US. (FT)	656.04	E.G. ELEV (FT)	656.44	654.25		
Q TOTAL (CFS)	4623	W.S. ELEV (FT)	653.40	653.40		
Q BRIDGE (CFS)	4623	CRIT W.S. (FT)	653.08	649.45		
Q WEIR (CFS)		MAX CHL DPTH (FT)	6.38	8.40		
WEIR STA LFT (FT)		VEL TOTAL (FT/S)	10.12	4.96		
WEIR STA RGT (FT)		FLOW AREA (SQ FT)	457	931.34		
WEIR SUBMERG		FROUDE # CHL	0.80	0.32		
WEIR MAX DEPTH (FT)		SPECIF FORCE (CU FT)	2522.6	4230.31		
MIN EL WEIR FLOW (FT)	656.98	HYDR DEPTH (FT)				
MIN EL PRS (FT)	653.40	W.P. TOTAL (FT)	321.29	336.71		
DELTA EG (FT)	2.19	CONV. TOTAL (CFS)	20000.9	63010.9		
DELTA WS (FT)	2.08	TOP WIDTH (FT)				
BR OPEN AREA (SQ FT)	457	FRCTN LOSS (FT)				
BR OPEN VEL (FT/S)	10.12	C & E LOSS (FT)				
BR SLUICE COEF		SHEAR TOTAL (LB/SQ FT)	4.74	0.93		
BR SEL METHOD	PRESS ONLY	POWER TOTAL (LB/FT S)	47.99	4.61		

VILAMOURA CROSSING						
PLAN:	PROPOSED	001	UKNTRIB	RS: 5193	OPEN#3: CULVERT #1	PROFILE: 100-YR
Q CULV GROUP (CFS)	5557	CULV FULL LEN (FT)			56	
# BARRELS	7	CULV VEL US (FT/S)			11.34	
Q BARREL (CFS)	794	CULV VEL DS (FT/S)			11.34	
E.G. US. (FT)	656.44	CULV INV EL UP (FT)			646.10	
W.S. US. (FT)	655.92	CULV INV EL DN (FT)			645.00	
E.G. DS (FT)	654.25	CULV FRCTN LS (FT)			0.18	
W.S. DS (FT)	653.86	CULV EXIT LOSS (FT)			1.61	
DELTA EG (FT)	2.19	CULV ENTR LOSS (FT)			0.4	
DELTA WS (FT)	2.06	Q WEIR (CFS)				
E.G. IC (FT)	656.51	WEIR STA LFT (FT)				
E.G. OC (FT)	656.44	WEIR STA RGT (FT)				
CULVERT CONTROL	Outlet	WEIR SUBMERG				
CULV WS INLET (FT)	653.1	WEIR MAX DEPTH (FT)				
CULV WS OUTLET (FT)	652	WEIR AVG DEPTH (FT)				
CULV NML DEPTH (FT)	3.01	WEIR FLOW AREA (SQ FT)				
CULV CRT DEPTH (FT)	5.81	MIN EL WEIR FLOW (FT)			656.88	

KELLY LANE CROSSING						
PLAN:	EXISTING	001	UKNTRIB	RS: 4641	CULV GROUP: CULVERT #1	PROFILE: 100-YR
Q CULV GROUP (CFS)			1032		CULV FULL LEN (FT)	115
# BARRELS			3		CULV VEL US (FT/S)	7.16
Q BARREL (CFS)			344		CULV VEL DS (FT/S)	7.16
E.G. US. (FT)			653.08		CULV INV EL UP (FT)	642.65
W.S. US. (FT)			652.98		CULV INV EL DN (FT)	642.4
E.G. DS (FT)			652.18		CULV FRCTN LS (FT)	0.19
W.S. DS (FT)			651.93		CULV EXIT LOSS (FT)	0.55
DELTA EG (FT)			0.90		CULV ENTR LOSS (FT)	0.16
DELTA WS (FT)			1.05		Q WEIR (CFS)	9234.29
E.G. IC (FT)			652.94		WEIR STA LFT (FT)	183.41
E.G. OC (FT)			653.08		WEIR STA RGT (FT)	956.29
CULVERT CONTROL		Outlet			WEIR SUBMERG	0.6
CULV WS INLET (FT)			648.65		WEIR MAX DEPTH (FT)	3.12
CULV WS OUTLET (FT)			648.4		WEIR AVG DEPTH (FT)	2.71
CULV NML DEPTH (FT)					WEIR FLOW AREA (SQ FT)	2094.04
CULV CRT DEPTH (FT)			3.86		MIN EL WEIR FLOW (FT)	650.01

KELLY LANE CROSSING						
PLAN:	PROPOSED	001	UKNTRIB	RS: 4641	CULV GROUP: CULVERT #1	PROFILE: 100-YR
Q CULV GROUP (CFS)			1355.99		CULV FULL LEN (FT)	90
# BARRELS			3		CULV VEL US (FT/S)	9.42
Q BARREL (CFS)			452		CULV VEL DS (FT/S)	9.42
E.G. US. (FT)			653.76		CULV INV EL UP (FT)	642.63
W.S. US. (FT)			653.36		CULV INV EL DN (FT)	642.38
E.G. DS (FT)			652.04		CULV FRCTN LS (FT)	0.25
W.S. DS (FT)			651.85		CULV EXIT LOSS (FT)	1.19
DELTA EG (FT)			1.72		CULV ENTR LOSS (FT)	0.28
DELTA WS (FT)			1.51		Q WEIR (CFS)	
E.G. IC (FT)			650.55		WEIR STA LFT (FT)	
E.G. OC (FT)			653.76		WEIR STA RGT (FT)	
CULVERT CONTROL		Outlet			WEIR SUBMERG	
CULV WS INLET (FT)			648.63		WEIR MAX DEPTH (FT)	
CULV WS OUTLET (FT)			648.38		WEIR AVG DEPTH (FT)	
CULV NML DEPTH (FT)					WEIR FLOW AREA (SQ FT)	
CULV CRT DEPTH (FT)			4.63		MIN EL WEIR FLOW (FT)	654.01

KELLY LANE CROSSING						
PLAN:	PROPOSED	001	UKNTRIB	RS: 4641	CULV GROUP: CULVERT #2	PROFILE: 100-YR
Q CULV GROUP (CFS)			3341		CULV FULL LEN (FT)	
# BARRELS			3		CULV VEL US (FT/S)	10.03
Q BARREL (CFS)			1114		CULV VEL DS (FT/S)	9.8
E.G. US. (FT)			653.76		CULV INV EL UP (FT)	642.63
W.S. US. (FT)			653.36		CULV INV EL DN (FT)	642.38
E.G. DS (FT)			652.04		CULV FRCTN LS (FT)	0.10
W.S. DS (FT)			651.85		CULV EXIT LOSS (FT)	1.31
DELTA EG (FT)			1.72		CULV ENTR LOSS (FT)	0.31
DELTA WS (FT)			1.51		Q WEIR (CFS)	
E.G. IC (FT)			653.19		WEIR STA LFT (FT)	
E.G. OC (FT)			653.76		WEIR STA RGT (FT)	
CULVERT CONTROL		OUTLET			WEIR SUBMERG	
CULV WS INLET (FT)			651.88		WEIR MAX DEPTH (FT)	
CULV WS OUTLET (FT)			651.85		WEIR AVG DEPTH (FT)	
CULV NML DEPTH (FT)			6.62		WEIR FLOW AREA (SQ FT)	
CULV CRT DEPTH (FT)			6.45		MIN EL WEIR FLOW (FT)	654.01

KELLY LANE CROSSING						
PLAN:	PROPOSED	001	UKNTRIB	RS: 4641	CULV GROUP: CULVERT #3	PROFILE: 100-YR
Q CULV GROUP (CFS)			5568		CULV FULL LEN (FT)	
# BARRELS			5		CULV VEL US (FT/S)	10.03
Q BARREL (CFS)			1114		CULV VEL DS (FT/S)	9.8
E.G. US. (FT)			653.76		CULV INV EL UP (FT)	642.63
W.S. US. (FT)			653.36		CULV INV EL DN (FT)	642.38
E.G. DS (FT)			652.04		CULV FRCTN LS (FT)	0.10
W.S. DS (FT)			651.85		CULV EXIT LOSS (FT)	1.31
DELTA EG (FT)			1.72		CULV ENTR LOSS (FT)	0.31
DELTA WS (FT)			1.51		Q WEIR (CFS)	
E.G. IC (FT)			653.19		WEIR STA LFT (FT)	
E.G. OC (FT)			653.76		WEIR STA RGT (FT)	
CULVERT CONTROL		Outlet			WEIR SUBMERG	
CULV WS INLET (FT)			651.88		WEIR MAX DEPTH (FT)	
CULV WS OUTLET (FT)			651.85		WEIR AVG DEPTH (FT)	
CULV NML DEPTH (FT)			6.62		WEIR FLOW AREA (SQ FT)	
CULV CRT DEPTH (FT)			6.44		MIN EL WEIR FLOW (FT)	654.01

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P.E. NO. 109548 DATE 5/14/2020

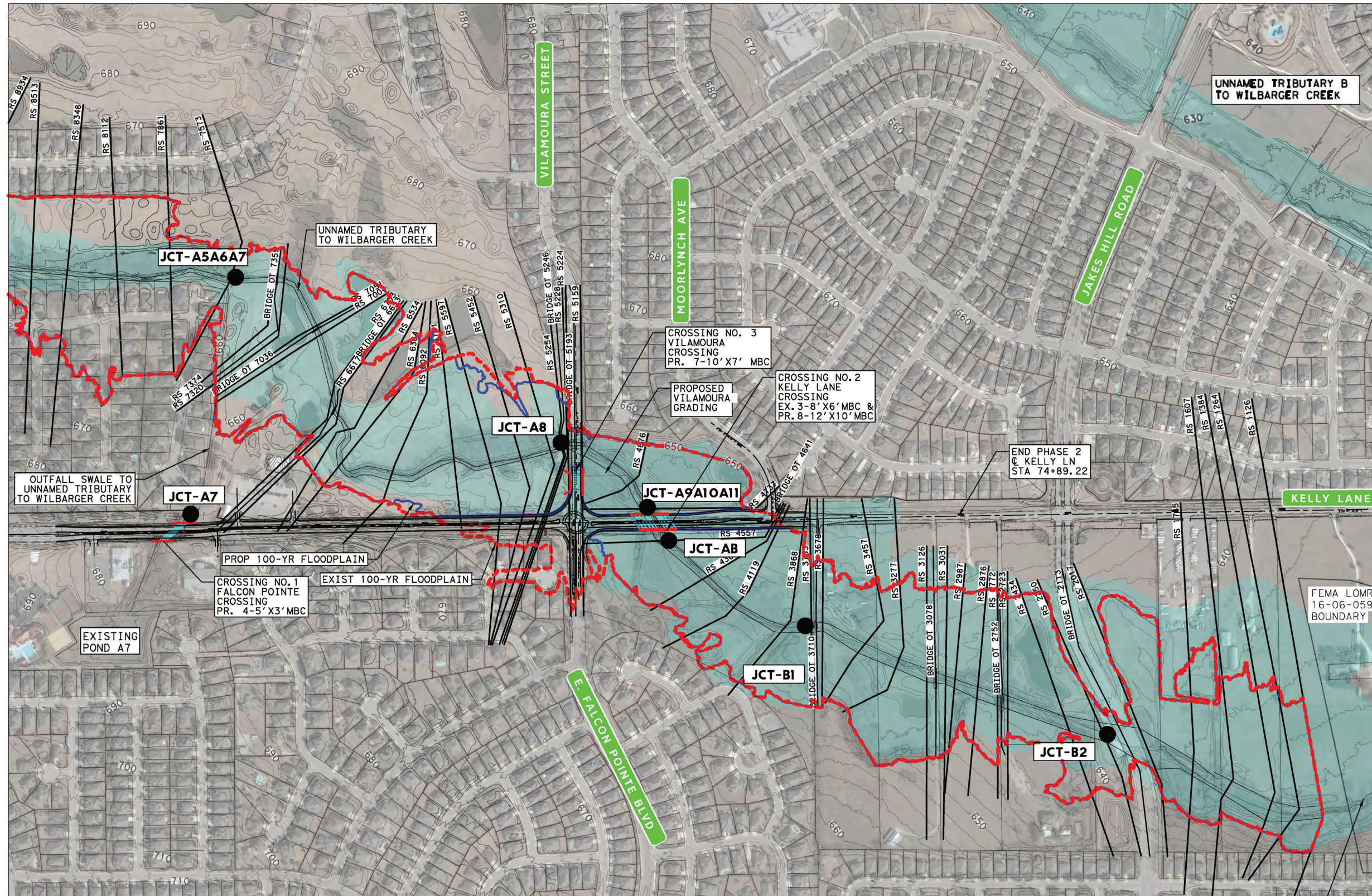
JMT TBPE REGISTRATION NO. F-16341

where quality meets life

PFLUGERVILLE
TEXAS

**CITY OF PFLUGERVILLE
KELLY LANE ROADWAY IMPROVEMENTS
PHASE 2
CULVERT NO.2 & NO.3**

DESIGN	JMT	PROJECT NO.		
GRAPHICS	JMT			
CHECK	JMT	STATE	ROADWAY	
CHECK	JMT	TEXAS	KELLY LN	
CHECK	JMT	COUNTY	CITY	SHEET NO.
CHECK	JMT	TRAVIS	PFLUGERVILLE	6



HORZ 0' 250' 500'

LEGEND

- 2' CONTOURS
- STREAM CENTERLINE
- RIVER STATION, RS
- 100-YR FEMA EFFECTIVE FLOODPLAIN (EXISTING)
- 100-YR EXISTING CONDITIONS FLOODPLAIN
- 100-YR PROPOSED CONDITIONS FLOODPLAIN
- JUNCTION

NOTES:

- JUNCTION A7 AT THE FALCON POINTE CROSSING
- JUNCTION A8 AT THE VILAMOURA STREET CROSSING
- JUNCTION A9A10A11 AT THE KELLY LANE CROSSING

TERMINATION POINT OF HEC-RAS MODEL CREATED BY JMT, START OF THE FEMA LOMR 16-06-0599 MODEL

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 PFLUGERVILLE TEXAS

**CITY OF PFLUGERVILLE
 KELLY LANE ROADWAY IMPROVEMENTS
 PHASE 2
 MAJOR CROSSING EXHIBIT**

SHEET 1 OF 1

DESIGN	PROJECT NO.		
JMT			
GRAPHICS			
JMT	STATE	ROADWAY	
CHECK	TEXAS	\$HWY\$	
JMT	COUNTY	CITY	SHEET NO.
CHECK	TRAVIS	PFLUGERVILLE	FIGURE-01
JMT			