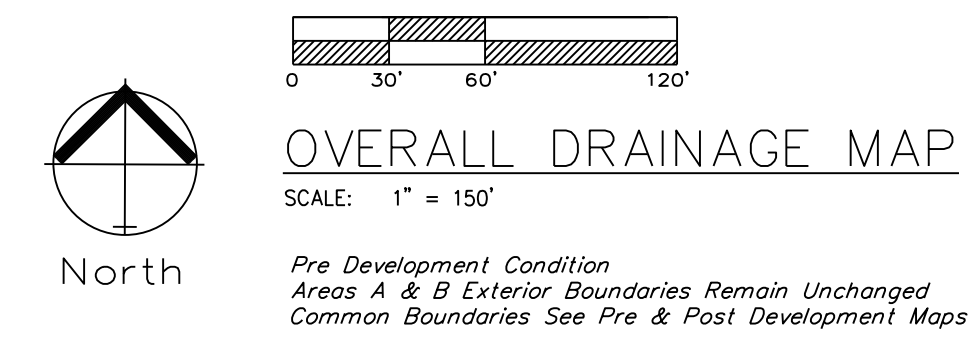




APWA STORM DRAINAGE "TC" COMPUTATIONS FOR : MAIN ORCHARD																							
		yellow areas are self computing overwrite if necessary		Surface types:		Asph/Conc	Bus/Com	Dirt	Grass/Park	Lake	MultFam	SnglFam	Undev	Other									
				SURFACE CODES		A	B	D	G	L	M	S	U	Z	TC COMPUTATION								
				"C" Values		0.90	0.87	0.60	0.30	0.90	0.66	0.51	0.3										
						Overwrite Length - DnElev or Slope if necessary				SURFACE CODE		P=Paved U=Unpaved		Overwrite Slope or Elevations if necessary				Cal Overland	Used Min 5	Cal Channel	Cal Channel	Total	
		TOTAL WATERSHED				OVERLAND FLOW - 100' MAX				P		CHANNEL FLOW - FIRST REACH											
AREA ID	TOTAL ACRES	WTRSHD LENGTH	UP ELEV	DN ELEV	SURFACE CODE	"C" VALUE	OVR/LND LENGTH	UP ELEV	DN ELEV	SLOPE %	or	CHANNEL LENGTH	UP ELEV	DN ELEV	SLOPE %	VELOCITY F/S	Flow T(I)	Max 15 T(I)	One T(I)	Two T(I)	TC @ 10	AREA ID	
PRE																						PRE	
A	18.71	1654.0	1050.0	1018.0	Z	0.57	100.0	1050.0	1048.0	2.0	U	1554.0	1048.0	1018.0	1.93	2.2	7.6	7.6	11.6	0.0	19.1	A	
A1	1.01	602.6	1048.6	1040.0	Z	0.51	100.0	1048.6	1046.6	2.0	U	502.6	1046.6	1040.0	1.32	1.9	8.4	8.4	4.5	0.0	12.9	A1	
B	26.53	1531.0	1042.0	1007.0	Z	0.56	100.0	1042.0	1039.0	3.0	U	1431.0	1039.0	1007.0	2.24	2.4	6.7	6.7	9.9	0.0	16.6	B	
B-1	6.27	736.0	1042.0	1025.0	Z	0.51	100.0	1042.0	1039.0	3.0	U	636.0	1039.0	1025.0	2.20	2.4	7.4	7.4	4.4	0.0	11.8	B-1	
B-2	0.93	236.0	1042.0	1036.0	Z	0.30	100.0	1042.0	1039.0	3.0	U	136.0	1039.0	1036.0	2.21	2.4	10.0	10.0	0.9	0.0	10.9	B-2	
B-3	1.13	200.0	1042.0	1034.0	Z	0.51	100.0	1042.0	1039.0	3.0	U	100.0	1039.0	1034.0	5.00	3.6	7.4	7.4	0.5	0.0	7.8	B-3	
POST																							
A	18.72	1654.0	1050.0	1018.0	Z	0.57	100.0	1050.0	1048.0	2.0	U	1554.0	1048.0	1018.0	1.93	2.2	7.6	7.6	11.6	0.0	19.1	A	
A1	1.02	602.6	1048.6	1040.0	Z	0.51	100.0	1048.6	1046.6	2.0	U	502.6	1046.6	1040.0	1.32	1.9	8.4	8.4	4.5	0.0	12.9	A1	
B	26.54	1531.0	1042.0	1007.0	Z	0.56	100.0	1042.0	1039.0	3.0	U	1431.0	1039.0	1007.0	2.24	2.4	6.7	6.7	9.9	0.0	16.6	B	
B-1	4.49	736.0	1042.0	1025.0	Z	0.51	100.0	1042.0	1039.0	3.0	U	636.0	1039.0	1025.0	2.20	2.4	7.4	7.4	4.4	0.0	11.8	B-1	
B-2	0.49	193.4	1042.0	1035.0	Z	0.51	100.0	1042.0	1039.0	3.0	U	93.4	1039.0	1035.0	4.28	3.3	7.4	7.4	0.5	0.0	7.8	B-2	
B-3	0.96	200.0	1042.0	1034.0	Z	0.51	100.0	1042.0	1039.0	3.0	U	100.0	1039.0	1034.0	5.00	3.6	7.4	7.4	0.5	0.0	7.8	B-3	

* Velocity = 16.1345 x SQRT(slope) [Unpaved] Velocity = 20.3282 x SQRT(slope) [Paved] Formula taken from "Urban Hydrology for Small Watersheds - Technical Release 55", Appendix F, Figure 3-1.

** T(I) = 1.8 x (1.1-C) x SQRT(overland length / (slope)*1/3) Formula taken from American Public Works Association 5602.5.

*** T(T) = Channel Length / Velocity Formula taken from "Urban Hydrology for Small Watersheds - Technical Release 55", Eq. 3-1.

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 20050008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

MAIN ORCHARD
Section 6, Township 47 North, Range 31 West
Lee's Summit, Jackson County, Missouri

Project: 510 NW MAIN ST
LS, MO
Issue Date: December 11, 2019

Drainage Area Map
Construction Plans for:
MAIN ORCHARD
Section 6, Township 47 North, Range 31 West
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

C 202