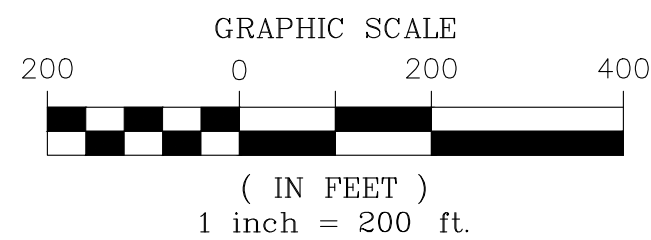
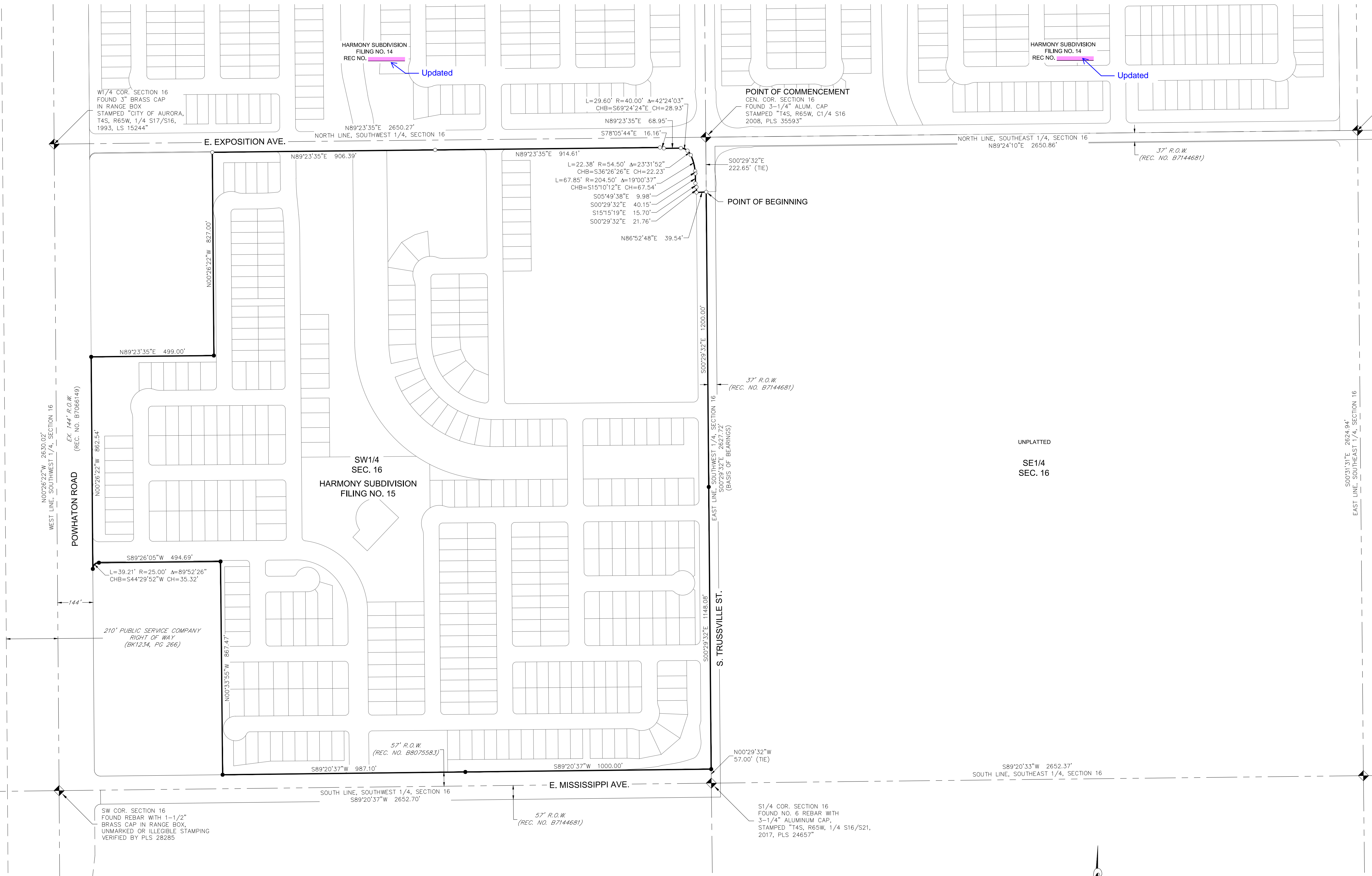


HARMONY SUBDIVISION FILING NO. 15

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 2 OF 13



LEGEND	
◆	FOUND SECTION CORNER AS DESCRIBED
●	SET NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
○	RECOVERED NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369

ENGINEER/SURVEYOR

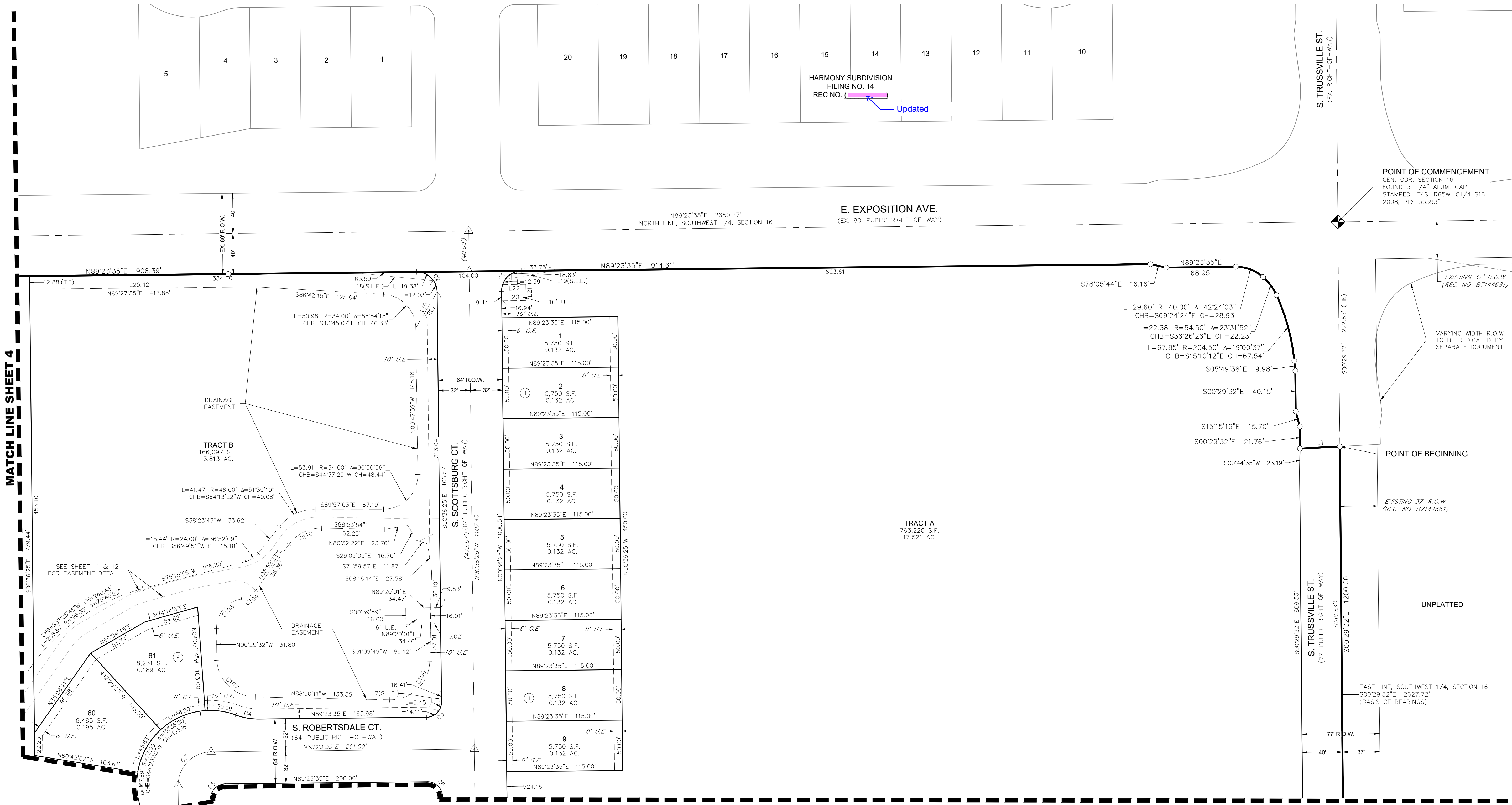
Westwood

10333 E. Dry Creek Rd., Suite 240
Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

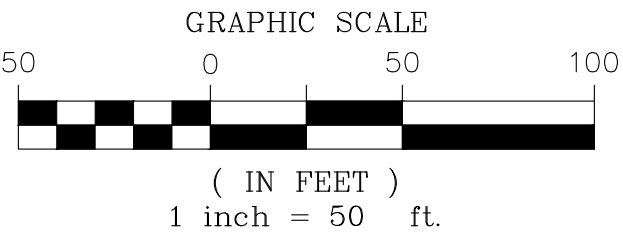
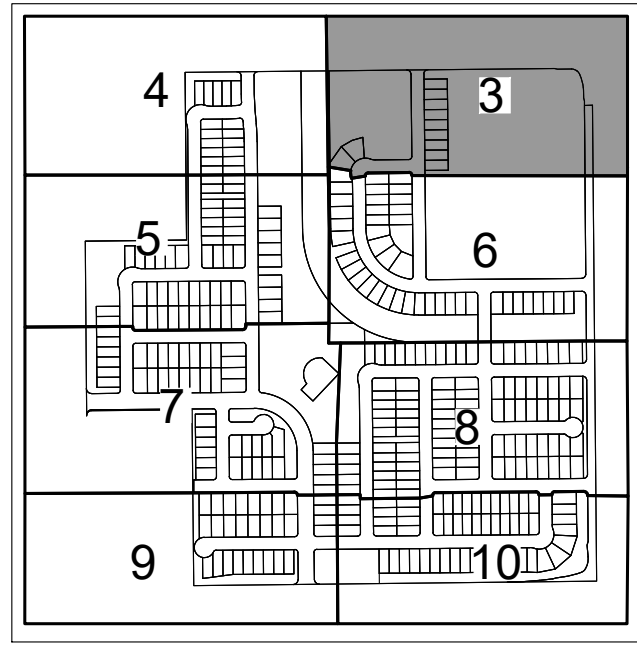
HARMONY SUBDIVISION FILING NO. 15 FINAL PLAT J.N. R0033209.00 PREPARED: 05/03/2022 REVISED: SHEET 2 OF 13

HARMONY SUBDIVISION FILING NO. 15

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 3 OF 13



LEGEND	
	FOUND SECTION CORNER AS DESCRIBED
	SET NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	RECOVERED NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR, TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-47 AURORA CITY CODE AND PER SEC. 38-51-105-9(A & B) COLORADO REVISED STATUTES.
	BLOCK NUMBER
	DRAINAGE EASEMENT
	UTILITY EASEMENT
	ACCESS AND UTILITY EASEMENT
	SIDEWALK EASEMENT
	GAS EASEMENT
	SIGHT LINE EASEMENT
	RIGHT-OF-WAY

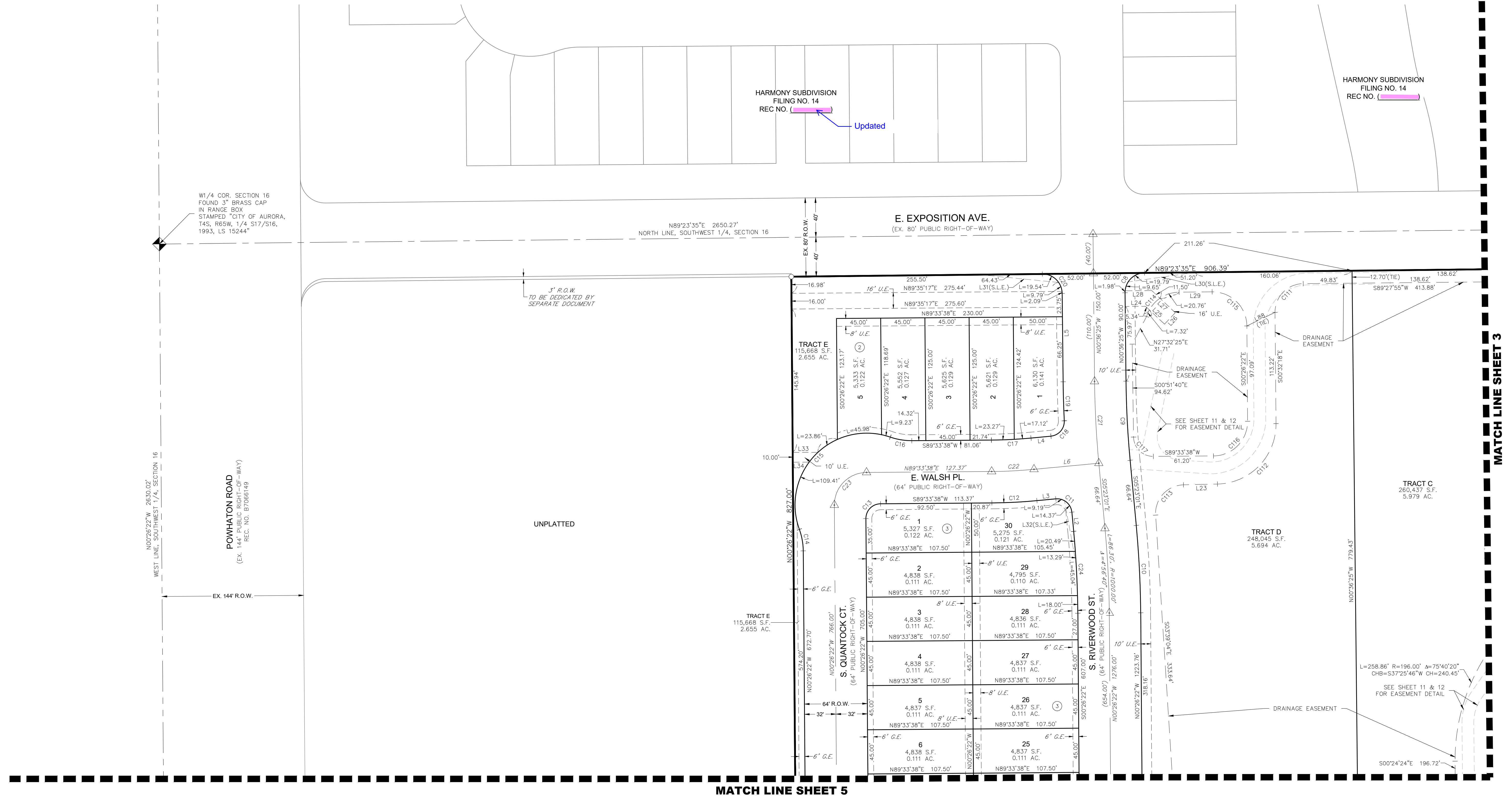


NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

ENGINEER/SURVEYOR
Westwood
10333 E. Dry Creek Rd., Suite 240
Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

HARMONY SUBDIVISION FILING NO. 15

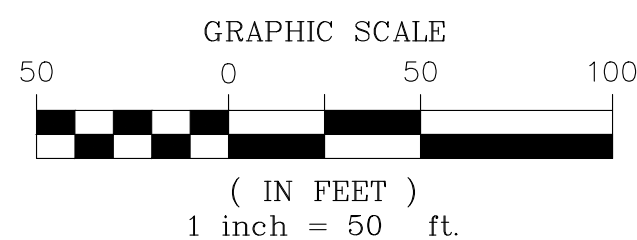
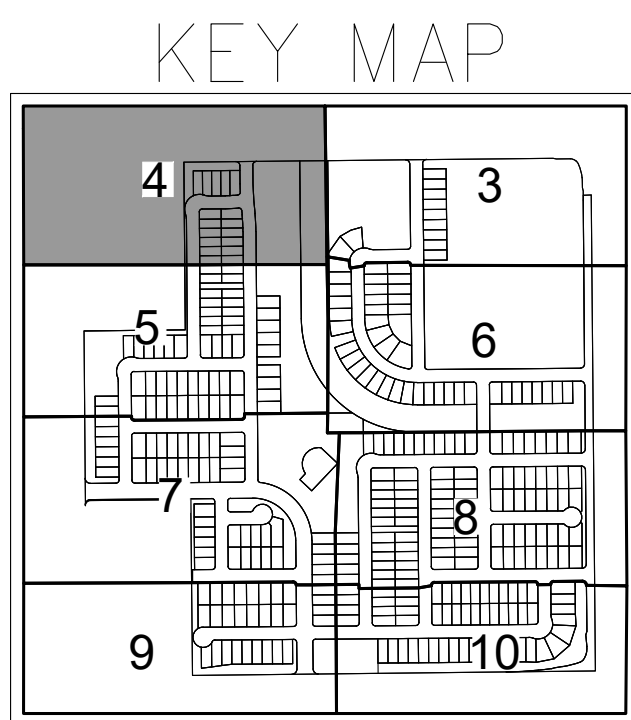
A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 4 OF 13



MATCH LINE SHEET 3

MATCH LINE SHEET 5

LEGEND	
	FOUND SECTION CORNER AS DESCRIBED
	SET NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	RECOVERED NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR, TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-47 AURORA CITY CODE AND PER SEC. 38-51-105-9(A & B) COLORADO REVISED STATUTES.
	BLOCK NUMBER
	DRAINAGE EASEMENT
	UTILITY EASEMENT
	ACCESS AND UTILITY EASEMENT
	SIDEWALK EASEMENT
	GAS EASEMENT
	SIGHT LINE EASEMENT
	RIGHT-OF-WAY



NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES



ENGINEER/SURVEYOR

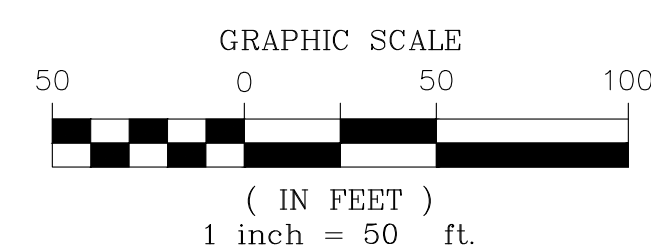
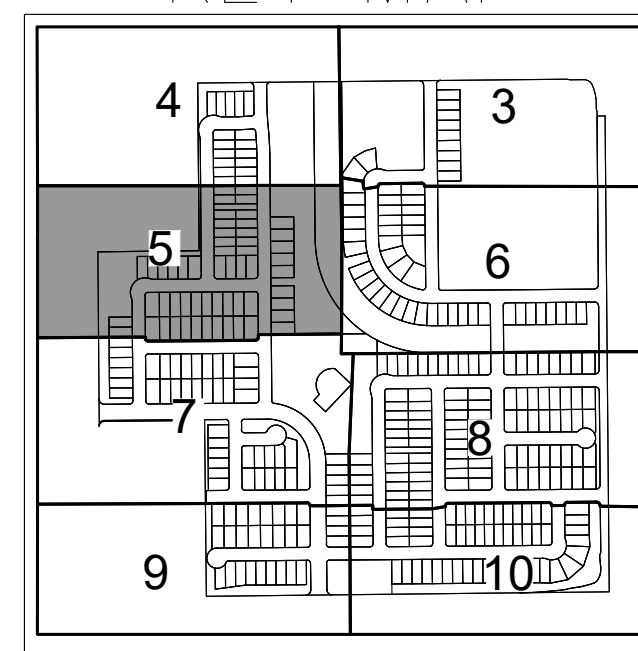
Westwood

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Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 5 OF 13



LEGEND	
	FOUND SECTION CORNER AS DESCRIBED
●	SET NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
○	RECOVERED NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-47 AURORA CITY CODE AND PER SEC. 38-51-105-9(A & B) COLORADO REVISED STATUTES.
⊗	BLOCK NUMBER
D.E.	DRAINAGE EASEMENT
U.E.	UTILITY EASEMENT
A.U.E.	ACCESS AND UTILITY EASEMENT
S.W.E.	SIDEWALK EASEMENT
G.E.	GRASS EASEMENT
S.L.E.	SIGHT LINE EASEMENT
R.O.W.	RIGHT-OF-WAY



NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

ENGINEER/SURVEYOR

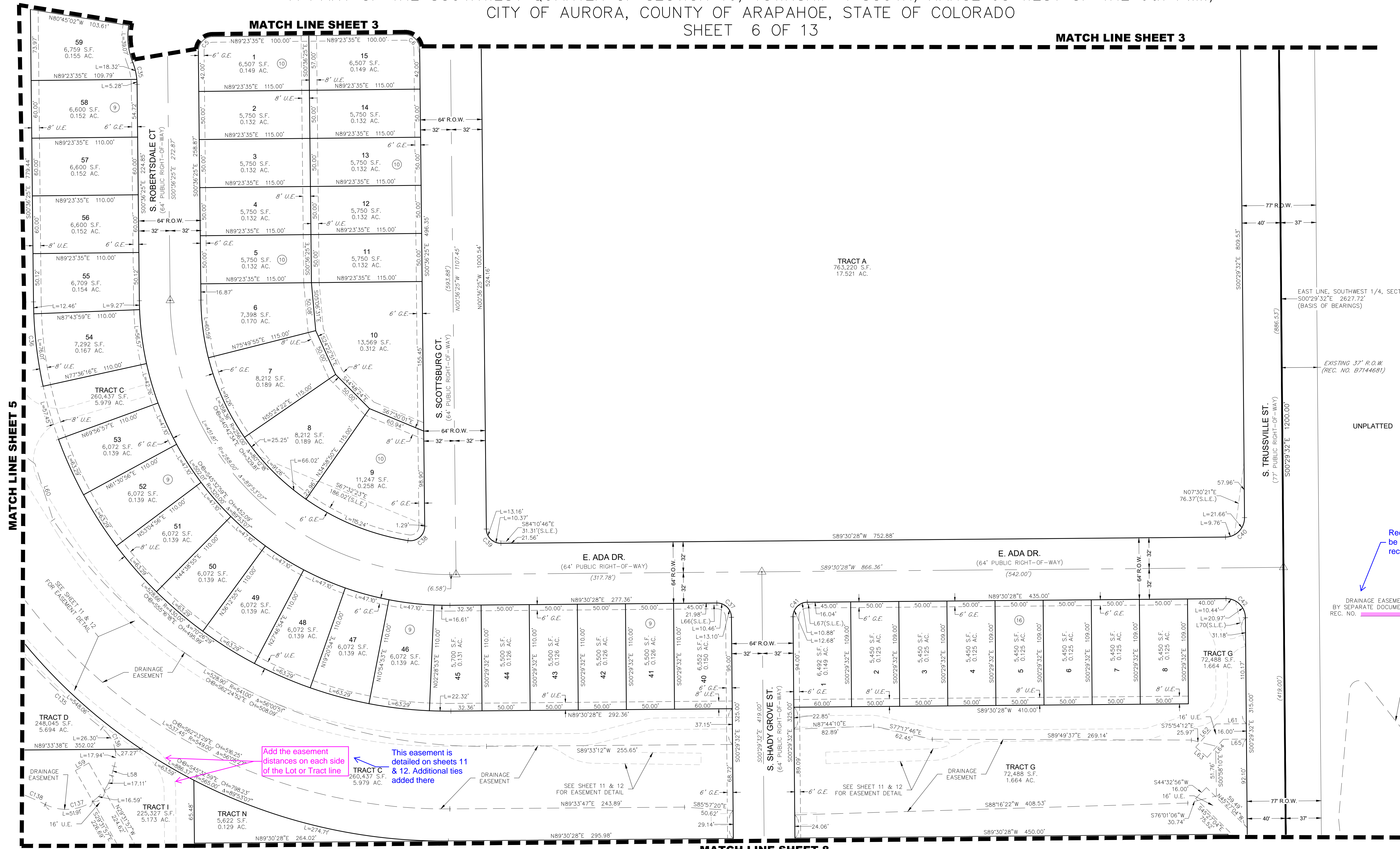
Westwood

10333 E. Dry Creek Rd., Suite 240
Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

HARMONY SUBDIVISION FILING NO. 15 FINAL PLAT J.N. R0033209.00 PREPARED: 05/03/2022 REVISED: SHEET 5 OF 13

HARMONY SUBDIVISION FILING NO. 15

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 6 OF 13



N:\PROJECTS\30175604 SAND CREEK\CAD\SURVEY\PLATS\HARMONY F15 - PLAT SHEETS\DWG.MPJ\ARK_9/24/22

ENGINEER/SURVEYOR

Westwood

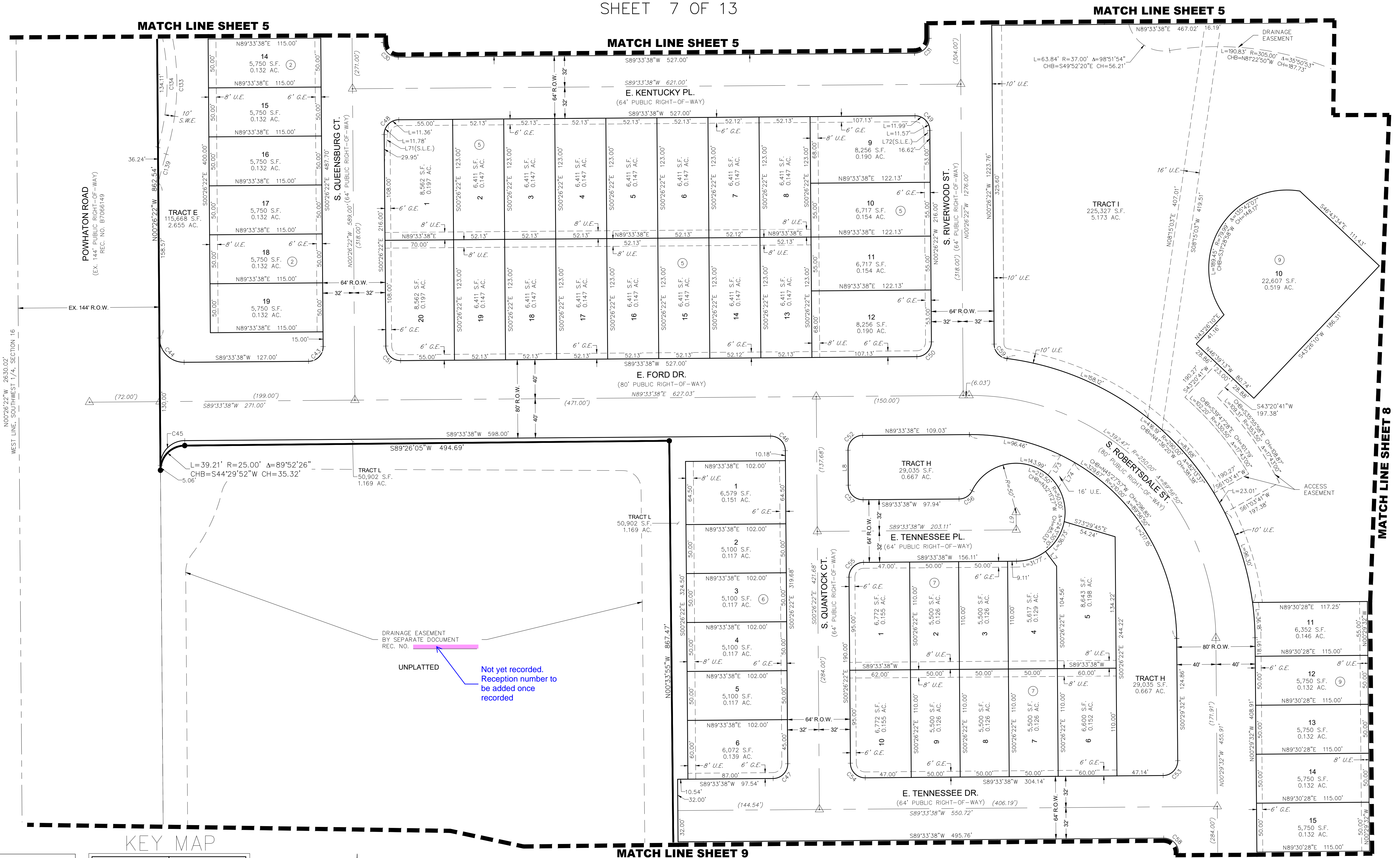
10333 E. Dry Creek Rd., Suite 240
Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

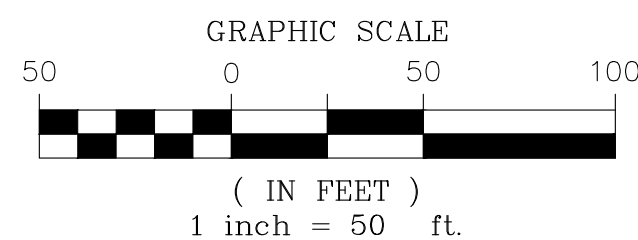
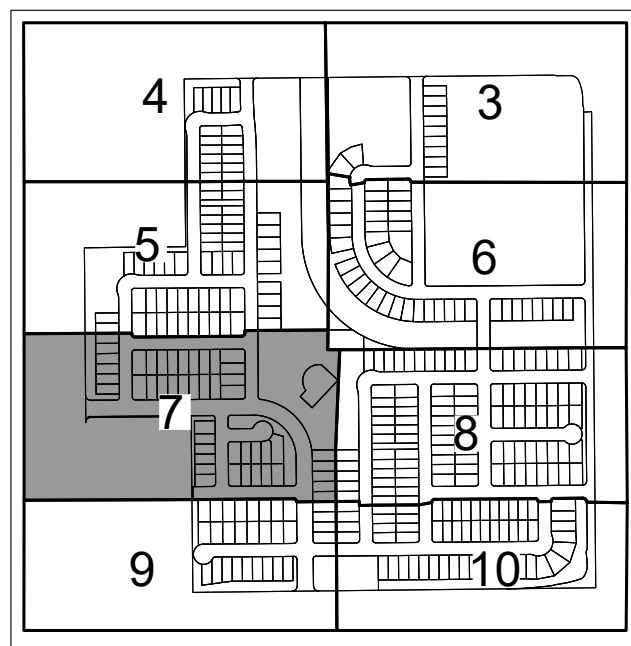
HARMONY SUBDIVISION FILING NO. 15 FINAL PLAT J.N. R0033209.00 PREPARED: 05/03/2022 REVISED: SHEET 6 OF 13

HARMONY SUBDIVISION FILING NO. 15

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 7 OF 13



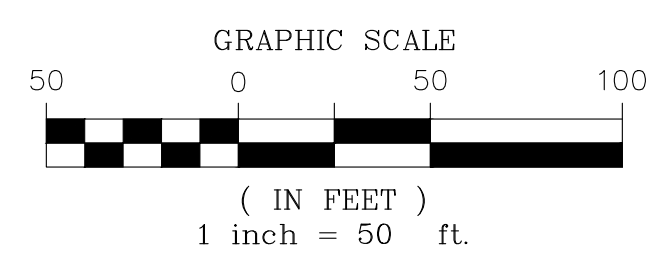
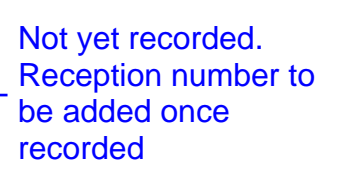
LEGEND	
	FOUND SECTION CORNER AS DESCRIBED
	SET NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	RECOVERED NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR, TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-47 AURORA CITY CODE AND PER SEC. 38-51-105-9(A & B) COLORADO REVISED STATUTES.
	BLOCK NUMBER
	D.E. DRAINAGE EASEMENT
	U.E. UTILITY EASEMENT
	A.U.E. ACCESS AND UTILITY EASEMENT
	S.W.E. SIDEWALK EASEMENT
	G.E. GAS EASEMENT
	S.L.E. SIGHT LINE EASEMENT
	R.O.W. RIGHT-OF-WAY








NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

ENGINEER/SURVEYOR
Westwood
10333 E. Dry Creek Rd., Suite 240
Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 8 OF 13



<h1>LEGEND</h1>	
	FOUND SECTION CORNER AS DESCRIBED
	SET NO. 5 REBAR, 30" LONG, w/1"-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	RECOVERED NO. 5 REBAR, 30" LONG, w/1"-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR, TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-447 AURORA CITY CODE AND PER SEC. 38-51-105-9(A & B) COLORADO REVISED STATUTES.
	BLOCK NUMBER
D.E.	DRAINAGE EASEMENT
U.E.	UTILITY EASEMENT
A.U.E.	ACCESS AND UTILITY EASEMENT
S.W.E.	SIDEWALK EASEMENT
G.E.	GAZEBO EASEMENT
S.L.E.	SIGHT LINE EASEMENT
R.O.W.	RIGHT-OF-WAY

NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

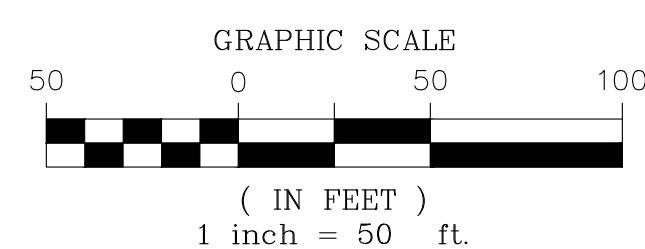
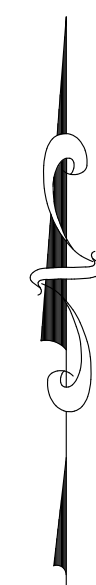
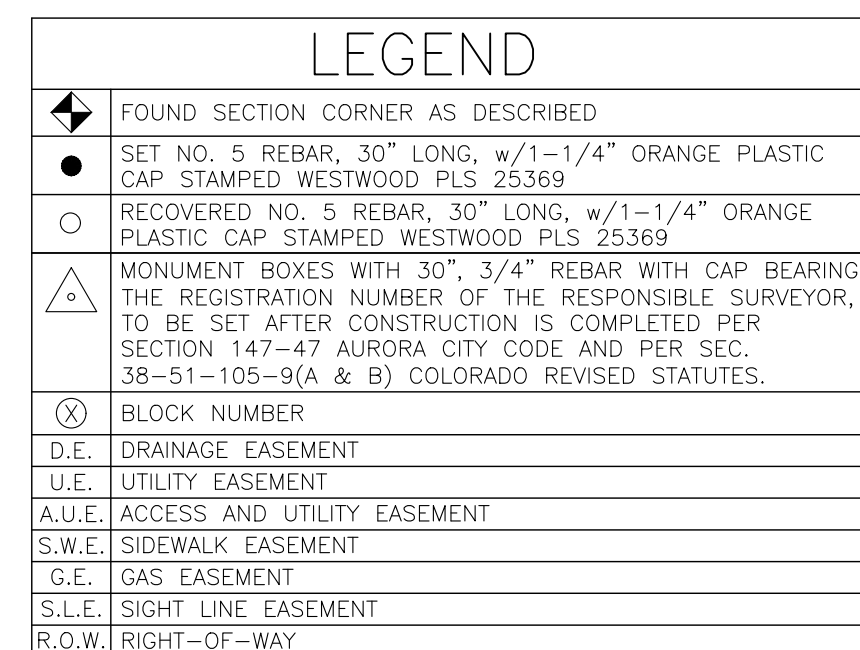
ENGINEER/SURVEYOR

Westwood

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Tel: (720) 482-9526 / Fax: (720) 482-9546

HARMONY SUBDIVISION FILING NO. 15 FINAL PLAT J.N. R0033209.00 PREPARED: 05/03/2022 REVISED: SHEET 8 OF 13

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 9 OF 13



NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

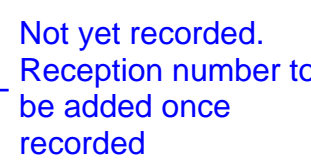
ENGINEER/SURVEYOR






Westwood

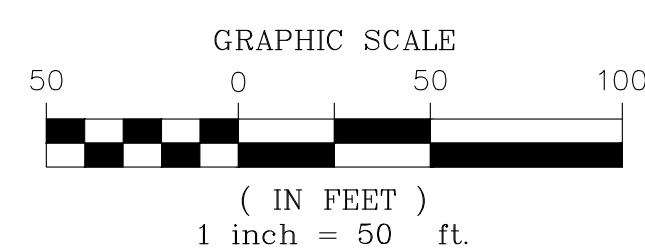
10333 E. Dry Creek Rd., Suite 240
Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

HARMONY SUBDIVISION FILING NO. 15 FINAL PLAT J.N. R0033209.00 PREPARED: 05/03/2022 REVISED: SHEET 9 OF 13

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 10 OF 13



LEGEND	
	FOUND SECTION CORNER AS DESCRIBED
	SET NO. 5 REBAR, 30' LONG, w/1"-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	○ RECOVERED NO. 5 REBAR, 30' LONG, w/1"-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR, TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-47 AURORA CITY CODE AND PER SEC. 38-51-105-(A & B) COLORADO REVISED STATUTES.
	BLOCK NUMBER
D.E.	DRAINAGE EASEMENT
U.E.	UTILITY EASEMENT
A.U.E.	ACCESS AND UTILITY EASEMENT
S.W.E.	SIDEWALK EASEMENT
G.E.	GRASS EASEMENT
S.L.E.	SIGHT LINE EASEMENT
R.O.W.	RIGHT-OF-WAY



NOTE: SEE SHEET 12 FOR LINE & CURVE TABLES

ENGINEER/SURVEYOR

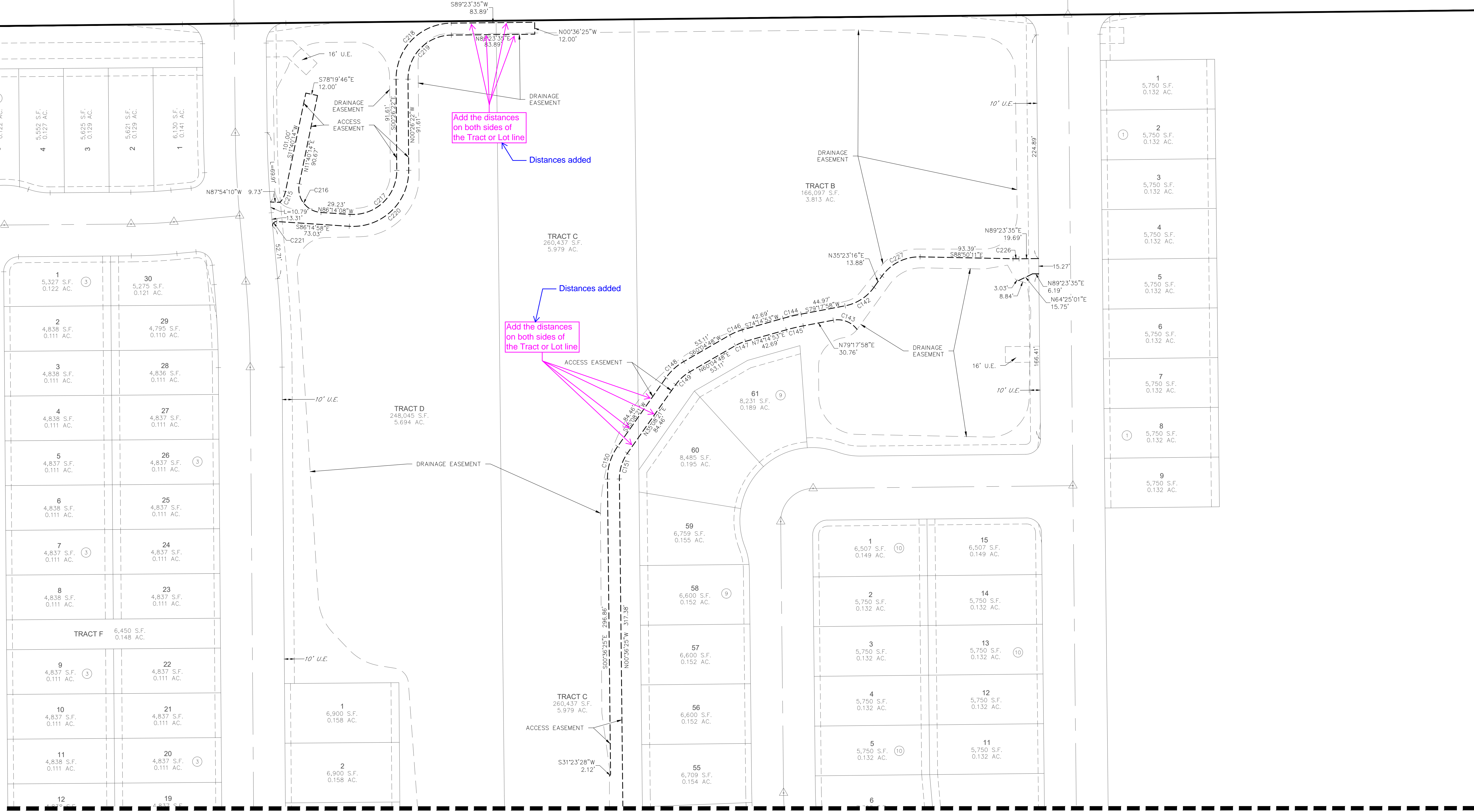
Westwood

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Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

HARMONY SUBDIVISION FILING NO. 15 FINAL PLAT J.N. R0033209.00 PREPARED: 05/03/2022 REVISED: SHEET 10 OF 13

HARMONY SUBDIVISION FILING NO. 15

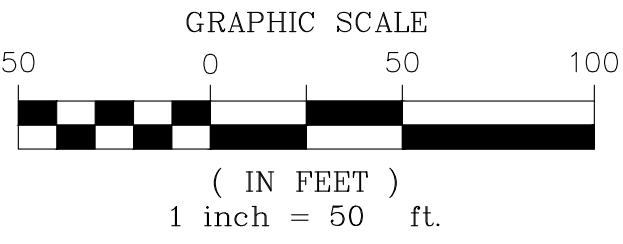
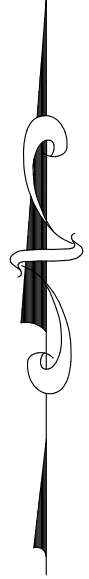
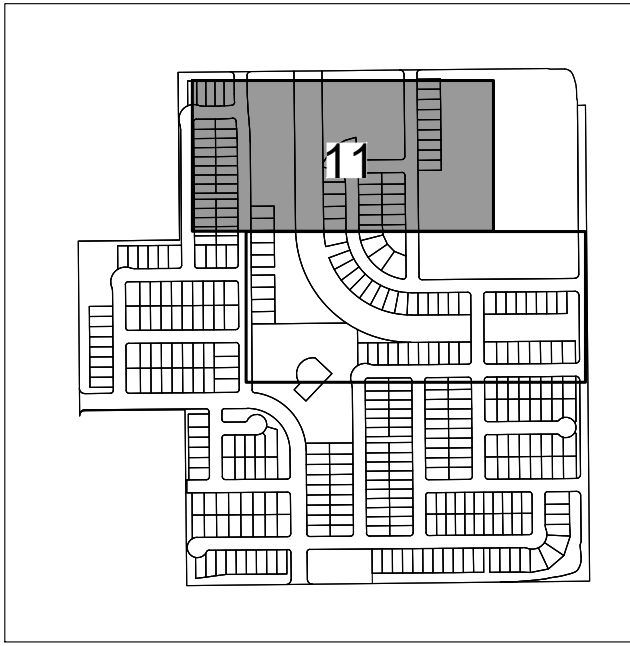
A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 11 OF 13



MATCH LINE SHEET 12

LEGEND	
	FOUND SECTION CORNER AS DESCRIBED
	SET NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	RECOVERED NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP STAMPED WESTWOOD PLS 25369
	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR, TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-47 AURORA CITY CODE AND PER SEC. 38-51-105-9(A & B) COLORADO REVISED STATUTES.
	BLOCK NUMBER
	DRAINAGE EASEMENT
	UTILITY EASEMENT
	ACCESS AND UTILITY EASEMENT
	SIDEWALK EASEMENT
	GAS EASEMENT
	SIGHT LINE EASEMENT
	RIGHT-OF-WAY

KEY MAP



NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

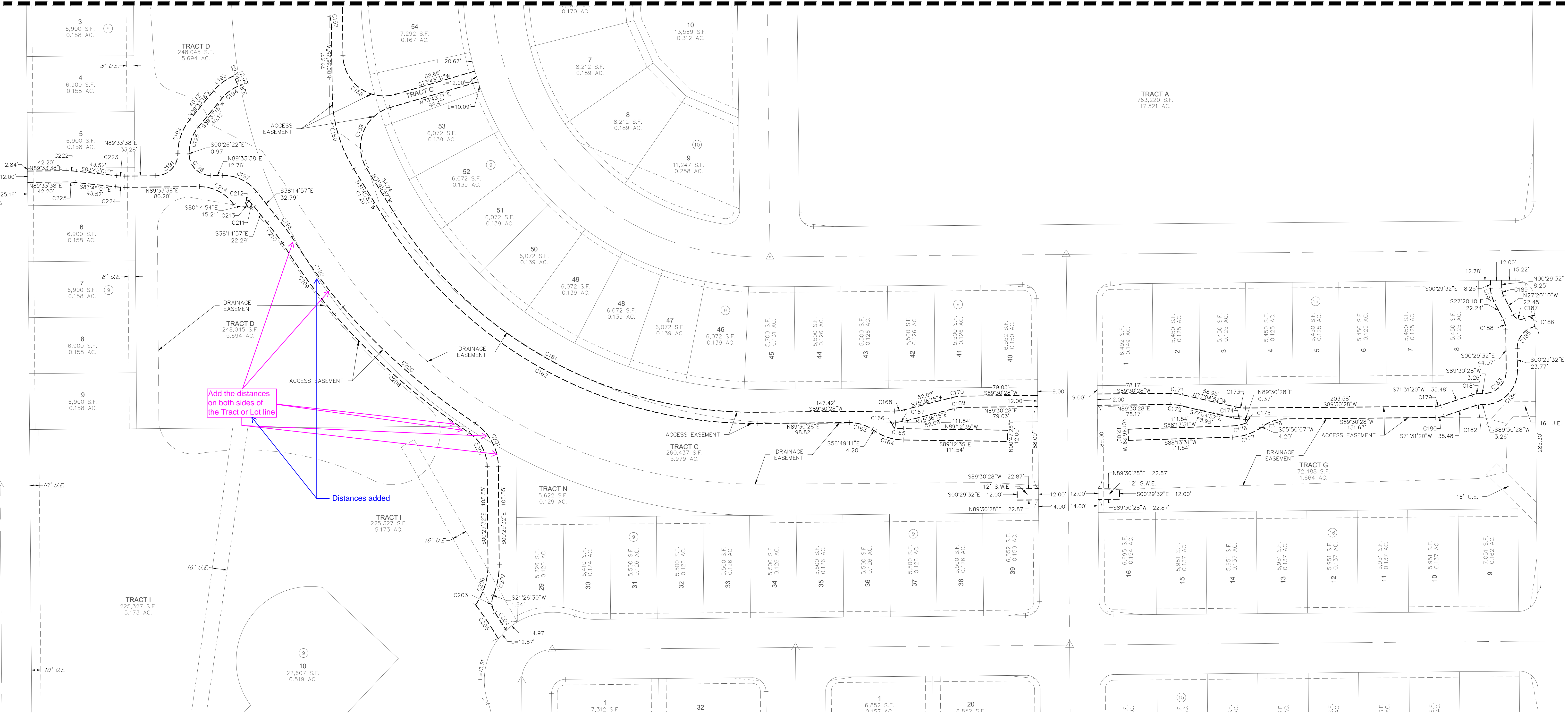
ENGINEER/SURVEYOR

Westwood
10333 E. Dry Creek Rd., Suite 240
Englewood, CO 80112
Tel: (720) 482-9526 / Fax: (720) 482-9546

HARMONY SUBDIVISION FILING NO. 15

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 12 OF 13

MATCH LINE SHEET 11



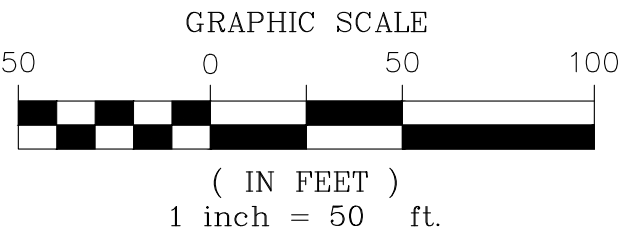
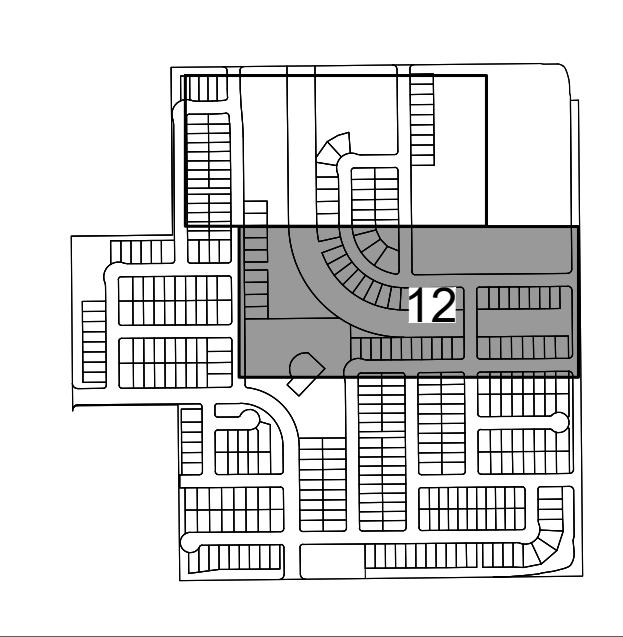
Add the distances
on both sides of
the Tract or Lot line

Distances added

LEGEND

◆	FOUND SECTION CORNER AS DESCRIBED
●	SET NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP, STAMPED WESTWOOD PLS 25369
○	RECOVERED NO. 5 REBAR, 30" LONG, w/1-1/4" ORANGE PLASTIC CAP, STAMPED WESTWOOD PLS 25369
△	MONUMENT BOXES WITH 30", 3/4" REBAR WITH CAP BEARING THE REGISTRATION NUMBER OF THE RESPONSIBLE SURVEYOR, TO BE SET AFTER CONSTRUCTION IS COMPLETED PER SECTION 147-47 AURORA CITY CODE AND PER SEC. 38-51-105-9(A & B) COLORADO REVISED STATUTES.
ⓧ	BLOCK NUMBER
D.E.	DRAINAGE EASEMENT
U.E.	UTILITY EASEMENT
A.U.E.	ACCESS AND UTILITY EASEMENT
S.W.E.	SIDEWALK EASEMENT
G.E.	GAS EASEMENT
S.L.E.	SIGHT LINE EASEMENT
R.O.W.	RIGHT-OF-WAY

KEY MAP



NOTE: SEE SHEET 13 FOR LINE & CURVE TABLES

ENGINEER/SURVEYOR

Westwood

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HARMONY SUBDIVISION FILING NO. 15

A PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 13 OF 13

CURVE TABLE					
CURVE NO.	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	20.00'	90°00'00"	31.42'	S44°23'35"W	28.28'
C2	20.00'	90°00'00"	31.42'	N45°36'25"W	28.28'
C3	15.00'	90°00'00"	23.56'	N44°23'35"E	21.21'
C4	65.00'	20°48'25"	23.60'	S80°12'13"E	23.48'
C5	15.00'	90°00'00"	23.56'	S44°23'35"W	21.21'
C6	15.00'	90°00'00"	23.56'	N45°36'25"W	21.21'
C7	33.00'	90°00'00"	51.84'	S44°23'35"W	46.67'
C8	20.00'	90°00'00"	31.42'	S44°23'35"W	28.28'
C9	968.00'	4°46'36"	80.70'	S02°59'43"E	80.68'
C10	1032.00'	4°56'40"	89.06'	N02°54'42"W	89.03'
C11	15.00'	90°00'00"	23.56'	N50°23'01"W	21.21'
C12	532.00'	4°56'40"	45.91'	N87°05'18"E	45.89'
C13	15.00'	90°00'00"	23.56'	S44°23'38"W	21.21'
C14	65.00'	19°36'18"	22.24'	N10°14'30"W	22.13'
C15	73.00'	129°12'35"	164.62'	S44°33'38"W	131.89'
C16	65.00'	19°36'18"	22.24'	S80°38'13"E	22.13'
C17	468.00'	4°56'40"	40.39'	N87°05'18"E	40.37'
C18	15.00'	87°25'38"	22.89'	N40°54'10"E	20.73'
C19	1032.00'	2°12'14"	39.70'	S01°42'32"E	39.69'
C20	20.00'	90°00'00"	31.42'	N45°36'24"W	28.28'
C21	1000.00'	4°46'36"	83.37'	S02°59'43"E	83.35'
C22	500.00'	4°56'40"	43.15'	N87°05'18"E	43.13'
C23	33.00'	90°00'00"	51.84'	S44°33'38"W	46.67'
C24	968.00'	4°56'40"	83.53'	N02°54'42"W	83.51'
C25	15.00'	89°59'57"	23.56'	S45°26'23"E	21.21'
C26	15.00'	90°00'00"	23.56'	N44°33'38"E	21.21'
C27	15.00'	90°00'00"	23.56'	N44°33'38"E	21.21'
C28	65.00'	19°36'18"	22.24'	S80°38'13"E	22.13'
C29	65.00'	19°36'18"	22.24'	N10°14'30"W	22.13'
C30	15.00'	90°00'00"	23.56'	S45°26'22"E	21.21'
C31	15.00'	90°00'00"	23.56'	N44°33'38"E	21.21'
C32	15.00'	90°00'00"	23.56'	N45°26'22"W	21.21'
C33	15.00'	90°00'00"	23.56'	S44°33'38"W	21.21'
C34	33.00'	90°00'00"	51.84'	S44°33'38"W	46.67'
C35	65.00'	20°48'25"	23.60'	N11°00'38"W	23.48'
C36	430.00'	11°47'19"	88.47'	S06°30'05"E	88.32'

CURVE TABLE					
CURVE NO.	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C37	15.00'	90°00'00"	23.56'	N45°29'32"W	21.21'
C38	15.00'	99°47'42"	26.13'	N49°17'26"E	22.95'
C39	15.00'	89°53'07"	23.53'	S45°32'59"E	21.19'
C40	20.00'	90°00'00"	31.42'	N44°30'28"E	28.28'
C41	15.00'	90°00'00"	23.56'	S44°30'28"W	21.21'
C42	20.00'	90°00'00"	31.42'	N45°29'32"W	28.28'
C43	15.00'	90°00'00"	23.56'	N44°33'38"E	21.21'
C44	25.00'	89°59'59"	39.27'	S45°26'22"E	35.36'
C45	25.00'	90°00'00"	39.27'	S44°33'38"W	35.36'
C46	15.00'	90°00'00"	23.56'	N45°26'22"W	21.21'
C47	15.00'	90°00'00"	23.56'	N44°33'38"W	21.21'
C48	15.00'	90°00'00"	23.56'	S44°33'38"W	21.21'
C49	15.00'	90°00'00"	23.56'	N45°26'22"W	21.21'
C50	15.00'	90°00'00"	23.56'	N44°33'38"E	21.21'
C51	15.00'	90°00'00"	23.56'	S45°26'22"E	21.21'
C52	15.00'	90°00'00"	23.56'	S44°33'38"W	21.21'
C53	15.00'	90°03'10"	23.58'	N44°32'03"E	21.22'
C54	15.00'	90°00'00"	23.56'	S45°26'22"E	21.21'
C55	15.00'	90°00'00"	23.56'	S44°33'38"W	21.21'
C56	15.00'	63°30'10"	16.62'	N57°48'33"E	15.79'
C57	15.00'	90°00'00"	23.56'	S45°26'22"E	21.21'
C58	15.00'	89°56'50"	23.55'	N45°27°57"W	21.20'
C59	15.00'	82°16'47"	21.54'	S41°34'45"E	19.74'
C60	20.00'	90°00'00"	31.42'	N44°30'28"E	28.28'
C61	15.00'	90°00'00"	23.56'	S45°29'32"E	21.21'
C62	15.00'	90°00'00"	23.56'	N44°30'28"E	21.21'
C63	65.00'	19°36'18"	22.24'	S80°41'23"E	22.13'
C64	65.00'	19°36'18"	22.24'	N10°17'41"W	22.13'
C65	15.00'	90°00'00"	23.56'	S44°30'28"W	21.21'
C66	15.00'	90°00'00"	23.56'	N45°29'32"W	21.21'
C67	15.00'	90°00'00"	23.56'	S44°30'28"W	21.21'
C68	15.00'	90°00'00"	23.56'	N45°29'32"W	21.21'
C69	15.00'	90°00'00"	23.56'	N44°30'28"E	21.21'
C70	15.00'	90°00'00"	23.56'	S45°29'32"E	21.21'
C71	15.00'	90°00'00"	23.56'	S44°30'28"W	21.21'
C72	20.00'	90°00'00"	31.42'	N45°29'32"W	28.28'

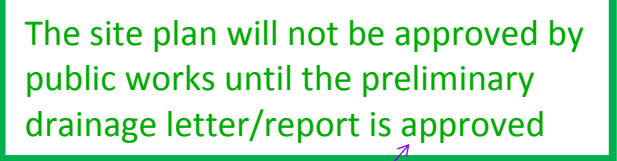
CURVE TABLE					
CURVE NO.	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C73	20.00'	90°00'00"	31.42'	N44°30'28"E	28.28'
C74	15.00'	90°00'00"	23.56'	S45°29'32"E	21.21'
C75	15.00'	90°00'00"	23.56'	S44°30'28"W	21.21'
C76	15.00'	43°41'27"	11.44'	N68°38'48"W	11.16'
C77	15.00'	43°41'27"	11.44'	N67°39'44"E	11.16'
C78	15.00'	90°00'00"	23.56'	S45°29'32"E	21.21'
C79	20.00'	90°00'00"	31.42'	N45°29'32"W	28.28'
C80	15.00'	90°00'00"	23.56'	S44°30'28"W	21.21'
C81	15.00'	90°00'00"	23.56'	N45°29'32"W	21.21'
C82	15.00'	90°00'00"	23.56'	S44°30'28"W	21.21'
C83	33.00'	90°00'00"	51.84'	S44°30'28"W	46.67'
C84	15.00'	90°03'10"	23.58'	N44°32'03"E	21.22'
C85	15.00'	63°30'05"	16.62'	S57°48'36"W	15.79'
C86	15.00'	89°46'58"	23.51'	N45°32'53"W	21.17'
C87	25.00'	90°00'00"	39.27'	N44°20'37"E	35.36'
C88	25.00'	90°00'00"	39.27'	S45°39'23"E	35.36'
C89	15.00'	90°09'51"	23.60'	S44°25'32"W	21.24'
C90	15.00'	90°00'00"	23.56'	S45°29'32"E	21.21'
C91	15.00'	90°00'00"	23.56'	N44°30'28"E	21.21'
C92	15.00'	90°00'00"	23.56'	S45°29'32"E	21.21'
C93	15.00'	90°00'00"	23.56'	N44°30'28"E	21.21'
C94	15.00'	90°00'00"	23.56'	S45°29'32"E	21.21'
C95	15.00'	90°00'00"	23.56'	N44°30'28"E	21.21'
C96	65.00'	19°36'18"	22.24'	S10°17'41"E	22.13'
C97	65.00'	19°36'18"	22.24'	N80°41'23"W	22.13'
C98	1951.00'	4°41'10"	159.57'	N87°00'01"E	159.52'
C99	1461.34'	2°34'10"	65.53'	N83°22'24"E	65.53'
C100	1460.85'	0°27'43"	11.78'	N81°13'11"E	11.78'
C101	472.01'	10°56'40"	90.16'	N75°36'13"E	90.02'
C102	32.00'	34°27'33"	19.25'	N52°54'06"E	18.96'
C103	92.00'	42°33'37"	68.34'	N14°23'31"E	66.78'
C104	843.00'	3°53'23"	57.23'	S04°56'36"E	57.22'
C105	33.00'	90°00'00"	51.84'	N44°30'28"E	46.67'
C106	39.00'	90°00'00"	61.26'	N46°09'49"E	55.15'
C107	39.00'	85°01'34"	57.88'	S46°19'24"E	52.71'
C108	29.00'	82°13'22"	41.62'	S40°37'09"W	38.14'

CURVE TABLE					
CURVE NO.	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C109	21.00'	45°51'27"	16.81'	N58°48'06"E	16.36'
C110	39.00'	55°17'02"	37.63'	S63°30'54"W	36.19'
C111	29.00'	90°00'13"	45.55'	S44°27'48"W	41.01'
C112	61.00'	89°13'26"	94.99'	N44°04'25"E	85.68'
C113	29.00'	92°20'12"	46.74'	S42°31'02"W	41.84'
C114	35.00'	72°23'59"	44.23'	S53°11'35"W	41.34'
C115	35.00'	90°10'03"	55.08'	N45°31'23"W	49.57'
C116	35.00'	90°00'00"	54.98'	N44°33'38"E	49.50'
C117	20.00'	89°34'42"	31.27'	S45°39'01"E	28.18'
C118	54.00'	40°02'53"	37.74'	S23°40'30"E	36.98'
C119	54.00'	37°05'18"	34.96'	S62°14'36"E	34.35'
C120	16.00'	76°34'43"	21.38'	N42°29'54"W	19.83'
C121	24.00'	64°51'11"	27.17'	S36°38'08"E	25.74'
C122	549.00'	56°05'27"	537.45'	S62°23'29"E	516.25'
C123	26.00'	53°34'20"	24.31'	S26°39'06"E	23.43'
C124	18.00'	89°25'42"	28.09'	N44°59'37"W	25.33'
C125	43.00'	35°19'57"	26.52'	N17°23'12"E	26.10'
C126	27.00'	29°28'33"	13.89'	S20°18'54"W	13.74'
C127	28.00'	84°13'16"	41.16'	N47°41'16"E	37.55'
C128	28.00'	89°22'18"	43.68'	S45°30'57"E	39.38'
C129	53.00'	91°07'20"	84.29'	S44°43'52"W	75.68'
C130	35.00'	88°55'42"	54.32'	S44°01'28"W	49.03'
C131	292.00'	11°53'32"	60.61'	N38°44'51"W	60.50'
C132	326.00'	1°27'15"	8.27'	S18°01'08"E	8.27'
C133	244.00'	35°59'51"	153.30'	N00°44'50"W	150.79'
C134	234.00'	33°18'17"	136.02'	N00°26'22"W	134.11'
C135	670.00'	1°9'51"	225.14'	S42°25'52"E	224.08'
C136	37.00'	68°29'36"	44.23'	N17°48'40"W	41.64'
C137	49.00'	100°06'28"	85.61'	N66°29'22"E	75.13'
C138	305.00'	35°50'53"	190.83'	N81°22'50"W	187.73'
C139	471.00'	3°37'30"	29.80'	S15°22'40"W	29.80'
C140	44.00'	33°04'29"	25.40'	S30°11'34"E	25.05'
C141	56.00'	22°55'53"	22.41'	S35°19'05"E	22.26'

CURVE TABLE					
CURVE NO.	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C142	46.00'	43°54'42"	35.25'	S57°20'37"W	34.40'
C143	24.00'	64°17'38"	26.93'	S68°33'13"E	25.54'
C144	211.00'	5°03'05"	18.60'	S76°46'25"W	18.60'
C145	199.00'	5°03'05"	17.54'	N76°46'25"E	17.54'
C146	56.00'	14°10'04"	13.85'	S67°09'50"W	13.81'
C147	44.00'	14°10'04"	10.88'	N67°09'50"E	10.85'
C148	56.00'	24°56'27"	24.38'	S47°36'35"W	24.18'
C149	44.00'	24°56'27"	19.15'	N47°36'35"E	19.00'
C150	56.00'	35°44'46"	34.94'	S17°15'58"W	34.37'
C151	44.00'	35°44'46"	27.45'	N17°15'58"E	27.01'
C157	44.00'	15°54'15"	12.21'	N08°33'33"W	12.17'
C158	44.00'	105°40'04"	81.15'	N53°26'27"W	70.13'
C159	44.00'	105°29'28"	81.01'	N20°58'47"E	70.04'
C160	154.00'	31°09'32"	83.75'	N16°11'11"W	82.72'
C161	454.40'	58°43'35"	465.75'	N61°07'44"W	445.63'
C162	466.40'	58°43'35"	478.05'	S61°07'44"E	457.39'
C163	44.00'	33°40'21"	25.86'	S73°39'22"E	25.49'
C164	56.00'	32°23'24"	31.66'	S73°00'53"E	31.24'
C165	44.00'	12°02'56"	9.25'	N83°11'07"W	9.24'
C166	3.00'	164°49'43"	8.64'	N05°18'47"E	5.96'
C167	56.00'	13°03'33"	12.76'	N82°10'01"E	12.74'
C168	44.00'	13°52'13"	10.65'	S82°34'22"W	10.63'
C169	44.00'	13°52'13"	10.65'	N82°34'22"E	10.63'
C170	56.00'	13°52'13"	13.56'	S82°34'22"W	13.52'
C171	56.00'	13°24'40"	13.11'	N83°47'12"W	13.08'
C172	44.00'	13°24'40"	10.30'	S83°47'12"E	10.28'
C173	44.00'	13°24'40"	10.30'	N83°47'12"W	10.28'
C174	56.00'	13°24'40"	13.11'	S83°47'12"E	13.08'
C175	2.00'	157°49'52"	5.51'	H11°34'36"E	3.93'
C176	44.00'	20°53'11"	16.04'	S77°46'55"W	15.95'
C177	56.00'	32°23'24"	31.66'	S72°01'49"W	31.24'
C178	44.00'	33°40'21"	25.86'	S72°40'18"W	25.49'
C179	19.00'	17°59'08"	5.96'	S80°30'54"W	5.94'
C180	31.00'	17°59'08"	9.73'	S80°30'54"W	9.69'
C181	31.00'	17°59'08"	9.73'	S80°30'54"W	9.69'
C182	19.00'	17°59'08"	5.96'	S80°30'54"W	5.94'
C183	24.00'	90°00'00"	37.70'	S44°30'28"W	33.94'
C184	36.00'	90°00'00"	56.55'	S44°30'28"W	50.91'
C185	24.00'	78°35'56"	32.92'	S38°46'26"W	30.40'
C186	36.00'	18°27'58"	11.60'	S72°40'07"W	11.55'
C187	9.00'	89°11'42"	14.01'	N71°56'16"W	12.64'

A PART OF THE NORTH HALF OF SECTION 16, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6th P.M.,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO

The Cover Sheet of the site plan must be updated. Provide the list for the sheets in the landscape plan sheets on the Cover Sheet.



Minor Adjustment Requests (Administrative):

1. Minor Adjustment Request (Administrative) to Section to Section 146-4.3.10.C for 5 lots double fronting on to E. Walsh Place and Exposition Ave per enhanced & extended landscape buffer along E. Exposition Avenue.
2. Minor Adjustment Request (Administrative) to Section Section 146-4.5.3.B.1 for 5 lots Tennessee Place that do not comply with the 2-turn rule per enhanced & extended landscape buffer Along E. Ford Drive & S. Robertsdale Street.
3. Minor Adjustment Request (Administrative) to Section to Section 146-4.3.10.C for 5 lots fronting on S. Trussville Street and S. Titus Court per enhanced & extended landscape buffer along S. Trussville St.

DATA TABLE	
LAND AREA WITHIN PROPERTY LINES	126.675 AC
NUMBER OF UNITS PROPOSED	358
NUMBER OF BUILDINGS PROPOSED	
CONSTRUCTION TYPE (V-B)	358
OCCUPANCY CLASS (R-3)	

I apologize for the confusion on this.
Provide the following data block information:

- 2015 IBC Construction type of building(s).
- 2015 IBC occupancy type of building(s).
- Sprinklered or not sprinklered.

**FUTURE PHASES OF HARMONY SUBDIVISION WILL BE DEVELOPED TO COMPLY WITH BOTH THE COA LOT TYPE REQUIREMENTS AND APPROVED HARMONY FDP MAXIMUM UNIT COUNT.

This Site Plan and any amendments hereto, upon approval by the City of Aurora and recording, shall be binding upon the applicants therefore, their successors and assigns. This plan shall limit and control the issuance and validity of all building permits, and shall restrict and limit the construction, location, use, occupancy and operation of all land and structures within this plan to all conditions, requirements, locations and limitations set forth herein.

Abandonment, withdrawal or amendment of this plan may be permitted only upon approval of the City of Aurora.

By: _____ Corporate
(Principals or Owners) Seal

The foregoing instrument was acknowledged before me this _____ day of _____ AD, _____ by

Witness my hand and official seal

Notary
Seal

My commisission expires _____

City Attorney: _____ Date: _____

Planning Director: _____ Date: _____

**MELCOR/
TC AURORA, LLC**
C/O MARATHON LAND COMPANY
9750 W. CAMBRIDGE PLACE
LITTLETON CO 80127
TEL: (303) 920-9400
FAX: (303) 920-9440
CONTACT: JAMES SPEHALSKI

PCS GROUP, INC.

200 KALAMATH STREET
DENVER CO 80223
TEL: (303) 531-4905
CONTACT: JOHN PRESTWICH

Westwood

Westwoodps.com ENGLEWOOD, CO 80112
Westwood Professional Services, Inc. TEL: 720.482.9526

Westwood
10333 E DRY CREEK RD.
SUITE 240
ENGLEWOOD, CO 80112
TEL: 720.482.9526
Westwoodps.com
Westwood Professional Services, Inc.

Melcor/TC Aurora, LLC
C/O Marathon Land Company
9750 W. Cambridge Place
Littleton, CO 80127
Tel: (303) 920-9400 Fax: (303) 920-9440

HARMONY SUBDIVISION
CIVIL SITE PLAN NO. 5
COVER SHEET

DATE:	SEPTEMBER, 2022
CHECKED BY:	BPW
DJG	
AS SHOWN	
FILE NO:	8130214922

SHEET NUMBER

1.0

OF 35

NOTES:

1. THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS, INCLUDING THE HOMEOWNERS OR MERCHANTS ASSOCIATION, SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL FIRE LANE SIGNS AS REQUIRED BY THE CITY OF AURORA.
2. ALL SIGNS MUST CONFORM TO THE HARMONY FDP AND THE CITY OF AURORA SIGN CODE.
3. RIGHT OF WAY FOR INGRESS AND EGRESS FOR SERVICE AND EMERGENCY VEHICLES IS GRANTED OVER, ACROSS, ON AND THROUGH ANY AND ALL PRIVATE ROADS AND WAYS NOW OR HEREAFTER ESTABLISHED ON THE DESCRIBED PROPERTY, AND THE SAME ARE HEREBY DESIGNATED AS "SERVICE/EMERGENCY AND UTILITY EASEMENTS" AND SHALL BE POSTED "NO PARKING-FIRE LANE."
4. THE APPLICANT HAS THE OBLIGATION TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
5. THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS, SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL LANDSCAPING MATERIALS SHOWN OR INDICATED ON THE APPROVED SITE PLAN OR LANDSCAPE PLAN ON FILE IN THE PLANNING DEPARTMENT. ALL LANDSCAPING WILL BE INSTALLED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
6. ALL CROSSINGS OR ENCROACHMENTS INTO EASEMENTS AND RIGHTS-OF-WAY OWNED BY THE CITY OF AURORA ("CITY") IDENTIFIED AS BEING PRIVATELY-OWNED AND MAINTAINED HEREIN ARE ACKNOWLEDGED BY THE UNDERSIGNED AS BEING SUBJECT TO CITY'S USE AND OCCUPANCY OF SAID EASEMENTS OR RIGHTS-OF-WAY. THE UNDERSIGNED, ITS SUCCESSORS AND ASSIGNS, FURTHER AGREES TO REMOVE, REPAIR, REPLACE, RELOCATE, MODIFY, OR OTHERWISE ADJUST SAID CROSSINGS OR ENCROACHMENTS UPON REQUEST FROM THE CITY AND AT NO EXPENSE TO THE CITY. THE CITY RESERVES THE RIGHT TO MAKE FULL USE OF THE EASEMENTS AND RIGHTS-OF-WAY AS MAY BE NECESSARY OR CONVENIENT AND THE CITY RETAINS ALL RIGHTS TO OPERATE, MAINTAIN, INSTALL, REPAIR, REMOVE OR RELOCATE ANY CITY FACILITIES LOCATED WITHIN SAID EASEMENTS AND RIGHTS-OF-WAY AT ANY TIME AND IN SUCH A MANNER AS IT DEEMS NECESSARY OR CONVENIENT.
7. THE APPROVAL OF THIS DOCUMENT DOES NOT CONSTITUTE FINAL APPROVAL OF GRADING, DRAINAGE, UTILITY, PUBLIC IMPROVEMENTS AND BUILDING PLANS. CONSTRUCTION PLANS MUST BE REVIEWED AND APPROVED BY THE APPROPRIATE AGENCY PRIOR TO THE ISSUANCE OF BUILDING PERMITS.
8. ALL BUILDING ADDRESS NUMBERS SHALL COMPLY WITH THE AURORA CITY CODE, SECTION 126, ARTICLE VII-NUMBERING OF BUILDINGS.
9. ALL ROOFTOP MECHANICAL EQUIPMENT AND VENTS GREATER THAN EIGHT (8) INCHES IN DIAMETER MUST BE SCREENED. SCREENING MAY BE DONE EITHER WITH AN EXTENDED PARAPET WALL OR A FREESTANDING SCREEN WALL. SCREENS SHALL BE AT LEAST AS HIGH AS THE EQUIPMENT THEY HIDE. IF EQUIPMENT IS VISIBLE BECAUSE SCREENS DON'T MEET THE MINIMUM HEIGHT REQUIREMENT, THE DIRECTOR OF PLANNING MAY REQUIRE CONSTRUCTION MODIFICATIONS PRIOR TO THE ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY.
10. NOTWITHSTANDING ANY SURFACE IMPROVEMENTS, LANDSCAPING, PLANTING OR CHANGES SHOWN IN THESE SITE OR CONSTRUCTION PLANS, OR ACTUALLY CONSTRUCTED OR PUT IN PLACE, ALL UTILITY EASEMENTS MUST REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH TO ALLOW FOR ADEQUATE MAINTENANCE EQUIPMENT. ADDITIONALLY, NO INSTALLATION, PLANTING, CHANGE IN THE SURFACE, ETC., SHALL INTERFERE WITH THE OPERATION OF THE UTILITY LINES PLACED WITHIN THE EASEMENT. BY SUBMITTING THESE SITE OR CONSTRUCTION PLANS FOR APPROVAL, THE LANDOWNER RECOGNIZES AND ACCEPTS THE TERMS, CONDITIONS AND REQUIREMENTS OF THIS NOTE.
11. FINAL GRADE SHALL BE AT LEAST SIX (6) INCHES BELOW ANY EXTERIOR WOOD SIDING ON THE PREMISES.
12. ALL INTERESTED PARTIES ARE HEREBY ALERTED THAT THIS SITE PLAN IS SUBJECT TO ADMINISTRATIVE CHANGES AND AS SHOWN ON THE ORIGINAL SITE PLAN ON FILE IN THE AURORA CITY PLANNING OFFICE AT THE MUNICIPAL BUILDING. A COPY OF THE OFFICIAL CURRENT PLAN MAY BE PURCHASED THERE. LIKEWISE, SITE PLANS ARE REQUIRED TO AGREE WITH THE APPROVED SUBDIVISION PLAT OF RECORD AT THE TIME OF A BUILDING PERMIT; AND IF NOT, MUST BE AMENDED TO AGREE WITH THE PLAT AS NEEDED, OR VICE VERSA.
13. ERRORS IN APPROVED SITE PLANS RESULTING FROM COMPUTATIONS OR INCONSISTENCIES IN THE DRAWINGS MADE BY THE APPLICANT ARE THE RESPONSIBILITY OF THE PROPERTY OWNER OF RECORD. WHERE FOUND, THE CURRENT MINIMUM CODE REQUIREMENTS WILL APPLY AT THE TIME OF BUILDING PERMIT. PLEASE BE SURE THAT ALL PLAN COMPUTATIONS ARE CORRECT.
14. ALL REPRESENTATIONS AND COMMITMENTS MADE BY APPLICANTS AND PROPERTY OWNERS AT PUBLIC HEARINGS REGARDING THIS PLAN ARE BINDING UPON THE APPLICANT, PROPERTY OWNER, AND ITS HEIRS, SUCCESSORS, AND ASSIGNS.
15. ARCHITECTURAL FEATURES, SUCH AS BAY WINDOWS, FIREPLACES, ROOF OVERHANGS, GUTTERS, EAVES, FOUNDATIONS, FOOTINGS, CANTILEVERED WALLS, ETC, ARE NOT ALLOWED TO ENCROACH INTO ANY EASEMENT OR FIRE LANE.
16. ALL STREET TRAFFIC SIGNS PROVIDED BY THE HARMONY DEVELOPMENT SHALL BE FURNISHED AND INSTALLED PER MUTCD STANDARDS.
17. FIRE LANE AND HANDICAPPED PARKING SIGNS, SIGN DETAILS, HANDICAPPED PARKING STALL DETAILS, AND LOCATIONS SHALL BE APPROVED WITH THE CIVIL PLANS, "SIGNAGE AND STRIPING" PACKAGE.
18. NEW AND EXISTING BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION THAT IS LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. NUMBERS SHALL BE NOT LESS THAN 4" HIGH WITH A MINIMUM STROKE WIDTH OF 1/2 INCH. (2015 IFC, 505.1)
19. IN LOCATIONS WHERE UTILITY EASEMENTS OVERLAP DRAINAGE EASEMENTS, ONLY SUBSURFACE UTILITIES SHALL BE PERMITTED WITHIN THE PORTION OF THE UTILITY EASEMENT THAT OVERLAPS THE DRAINAGE EASEMENT. INSTALLATION OF ABOVE GROUND UTILITIES WITHIN A DRAINAGE EASEMENT REQUIRES PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER.
20. THE STREETLIGHT OR PEDESTRIAN LIGHT INSTALLATION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE DESIGNED, FUNDED, AND CONSTRUCTED BY THE DEVELOPER/OWNER. OWNERSHIP AND MAINTENANCE OF THE STREET/PEDESTRIAN LIGHTS SHALL BE THE RESPONSIBILITY OF THE CITY OF AURORA ONCE THEY HAVE BEEN ACCEPTED. STREET LIGHT AND/OR PEDESTRIAN PHOTOMETRICS PLANS SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL AND SHALL BECOME A PART OF THE APPROVED CIVIL CONSTRUCTION PLANS FOR THE PROJECT. AN ELECTRICAL PLAN SHOWING SITE LOCATION OF LIGHTS, ELECTRICAL ONE LINE AND GROUNDING DETAILS SHALL BE SUBMITTING TO THE PERMIT CENTER FOR REVIEW BY THE BUILDING DEPARTMENT. THE OWNER IS RESPONSIBLE FOR OBTAINING AN ADDRESS FOR THE METER(S) FROM THE PLANNING DEPARTMENT. A BUILDING PERMIT FOR THE METER AND A PUBLIC INSPECTIONS PERMIT FOR THE STREET LIGHTS ARE REQUIRED. CERTIFICATE OF OCCUPANCIES WILL NOT BE ISSUED UNTIL THE STREET AND/OR PEDESTRIAN LIGHTING PLANS ARE APPROVED, CONSTRUCTED, AND INITIALLY ACCEPTED.
21. ALL BUILDING ADDRESS NUMBERS SHALL COMPLY WITH CITY CODE OF THE CITY OF AURORA-VOLUME II - CHAPTER 126 - ARTICLE VII - SECTIONS 126-271 THROUGH 126-282
22. THE APPLICANT HAS THE OBLIGATION TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA)
23. ACCESSIBLE EXTERIOR ROUTES" SHALL BE PROVIDED FROM PUBLIC TRANSPORTATION STOPS, ACCESSIBLE PARKING AND ACCESSIBLE PASSENGER LOADING ZONES AND PUBLIC SIDEWALKS TO 60% OF THE ACCESSIBLE BUILDING ENTRANCE THEY SERVE. THE ACCESSIBLE ROUTE BETWEEN ACCESSIBLE PARKING AND ACCESSIBLE BUILDING ENTRANCES SHALL BE THE MOST PRACTICAL DIRECT ROUTE. THE ACCESSIBLE ROUTE MUST BE LOCATED WITHIN A SIDEWALK. NO SLOPE ALONG THIS ROUTE MAY EXCEED 1:20 WITHOUT PROVIDING A RAMP WITH A MAXIMUM SLOPE OF 1:12 AND HANDRAILS. CROSSWALKS ALONG THIS ROUTE SHALL BE WIDE ENOUGH TO WHOLLY CONTAIN THE CURB RAMP WITH A MINIMUM WIDTH OF 36" AND SHALL BE PAINTED WITH WHITE STRIPES. THE CITY OF AURORA ENFORCES HANDICAPPED ACCESSIBILITY REQUIREMENTS BASED ON THE 2015 INTERNATIONAL BUILDING CODE, CHAPTER 11, AND THE ICC A117.1-2009.
24. THE DEVELOPER, OWNER AND ASSIGNS ARE RESPONSIBLE FOR COMPLYING WITH THE FEDERALLY MANDATED REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
25. THE 2015 INTERNATIONAL FIRE CODE, SECTION 510, REQUIRES ALL BUILDINGS TO BE ASSESSED FOR ADEQUATE EMERGENCY RESPONDER RADIO COVERAGE (ERRC). AT THE TIME THE STRUCTURE IS AT FINAL FRAME AND FINAL ELECTRICAL INSPECTIONS, THE GENERAL CONTRACTOR (GC) WILL BE REQUIRED TO HIRE AN APPROVED AND QUALIFIED INDEPENDENT 3RD PARTY TO ASSESS THE RADIO FREQUENCY LEVELS WITHIN THE STRUCTURE. ONCE COMPLETED, THE 3RD PARTY WILL PROVIDE THE RESULTS OF THE TEST TO BOTH THE GC AND THE AURORA BUILDING DIVISION AS TO WHETHER THE STRUCTURE PASSED OR FAILED THE PRELIMINARY RADIO SURVEILLANCE. A STRUCTURE THAT HAS PASSED THIS SURVEILLANCE REQUIRES NO FURTHER ACTION BY THE GC. A FAILED RADIO SURVEILLANCE WILL REQUIRE A LICENSED CONTRACTOR TO SUBMIT PLANS TO THE AURORA BUILDING DIVISION TO OBTAIN A BUILDING PERMIT FOR THE INSTALLATION OF AN ERRC SYSTEM PRIOR TO INSTALLATION. THIS ASSESSMENT AND INSTALLATION IS AT THE OWNER OR DEVELOPER'S EXPENSE. FUTURE INTERIOR OR EXTERIOR MODIFICATIONS TO THE STRUCTURE AFTER THE ORIGINAL CERTIFICATE OF OCCUPANCY IS ISSUED WILL REQUIRE A REASSESSMENT FOR ADEQUATE RADIO FREQUENCY COVERAGE.
26. EMERGENCY INGRESS AND EGRESS - RIGHT-OF-WAY FOR INGRESS AND EGRESS FOR SERVICE AND EMERGENCY VEHICLES IS GRANTED OVER, AND ACROSS, ON AND THROUGH ANY AND ALL PRIVATE ROADS AND WAYS NOW OR HEREAFTER ESTABLISHED ON THE DESCRIBED PROPERTY, AND THE SAME ARE HEREBY DESIGNATED AS "SERVICE/EMERGENCY AND UTILITY EASEMENTS" AND SHALL BE POSTED "NO PARKING - FIRE LANE".
27. THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS, INCLUDING THE HOMEOWNERS OR MERCHANTS ASSOCIATION SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL FIRE LANE SIGNS.
28. THE DEVELOPER IS RESPONSIBLE FOR SIGNING AND STRIPING ALL PUBLIC STREETS. THE DEVELOPER IS REQUIRED TO PLACE TRAFFIC CONTROL, STREET NAME, AND GUIDE SIGNS ON ALL PUBLIC STREETS AND PRIVATE STREETS APPROACHING AN INTERSECTION WITH A PUBLIC STREET. SIGNS SHALL BE FURNISHED AND INSTALLED PER THE MOST CURRENT EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CITY STANDARDS, AND SHOWN ON THE SIGNING AND STRIPING PLAN FOR THE DEVELOPMENT.
29. PARKS, RECREATION IMPROVEMENTS, TRAILS, AND OPEN SPACE AREAS PROVIDED TO SATISFY CITY LAND DEDICATION REQUIREMENTS IN ACCORDANCE WITH APPROVED DEVELOPMENT PLANS OR PROVIDED BY A METROPOLITAN DISTRICT OR OTHER APPROPRIATE JURISDICTION OR OWNERS ASSOCIATION IN ACCORDANCE WITH APPROVED METROPOLITAN DISTRICT SERVICE PLANS SHALL BE OPEN TO THE GENERAL PUBLIC.

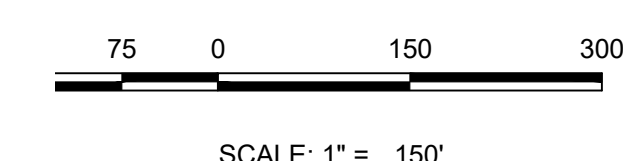
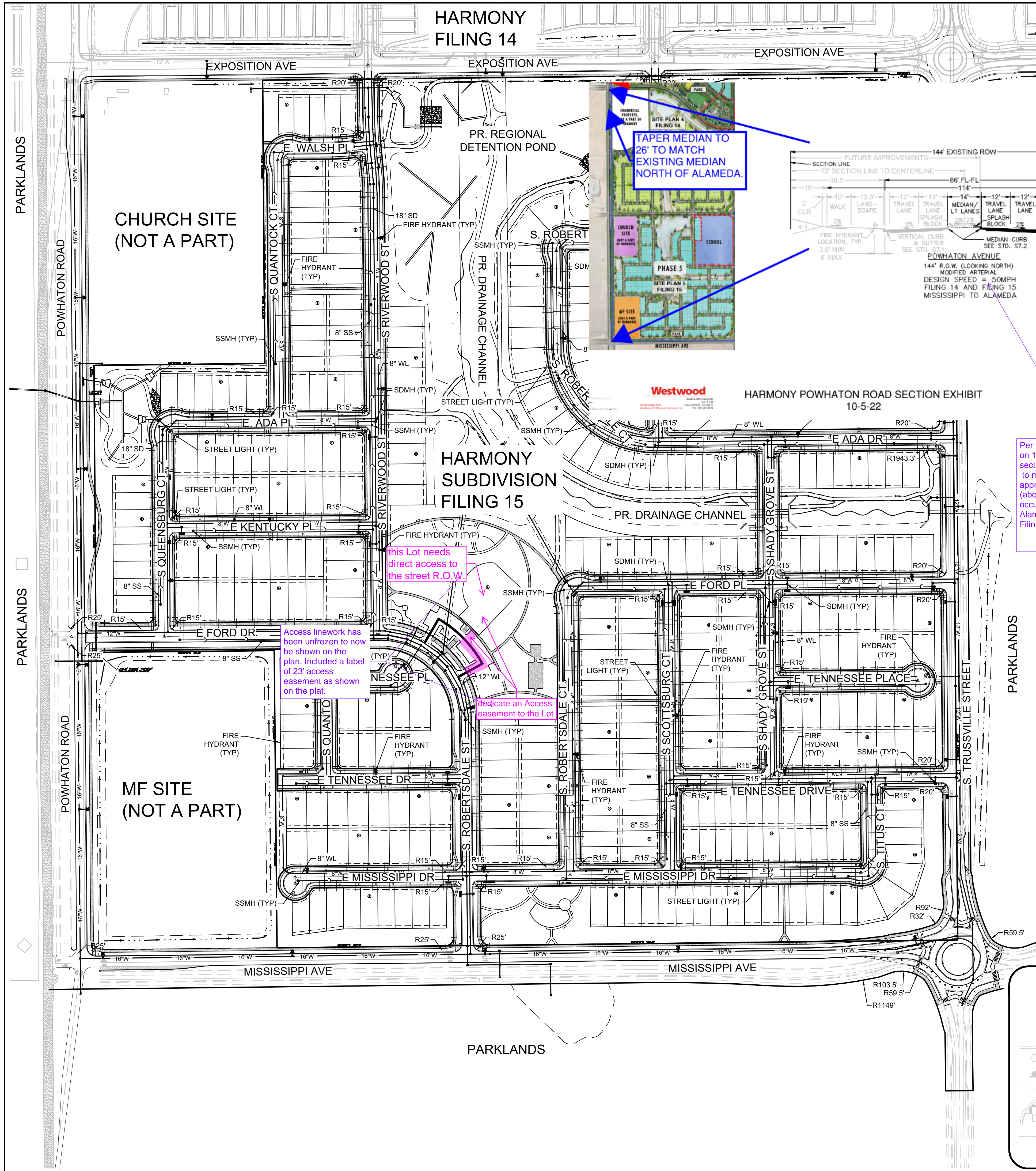
SHEET NUMBER	DRAWN BY: DJG CHECKED BY: BPW DATE: AUGUST, 2022	SCALE: AS SHOWN FILE NO: 8130214922	HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 GENERAL NOTES		Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440		<div>Westwood</div> <div>Westwoodps.com Westwood Professional Services, Inc.</div> <div>10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526</div>		No.	Revisions	Date	Init.	Appr.	Date

The table has been updated per the guidance outlined on the second page.

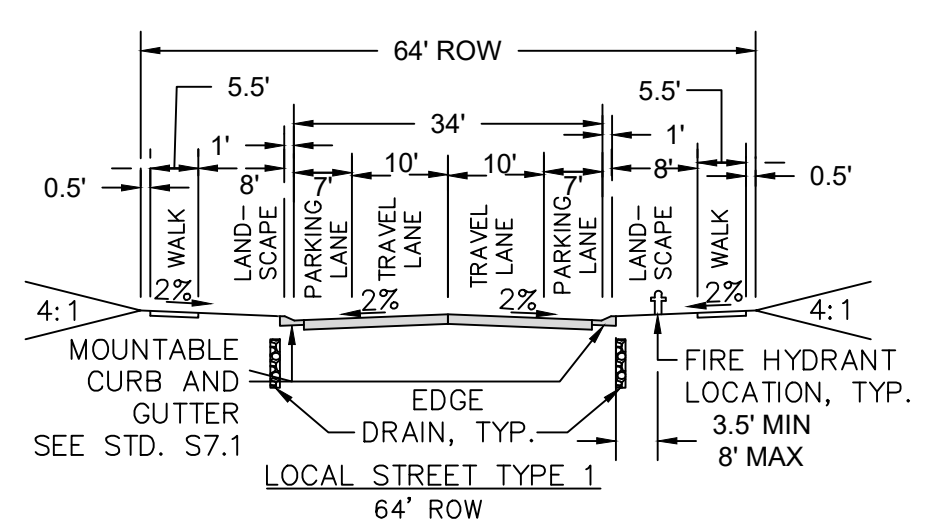
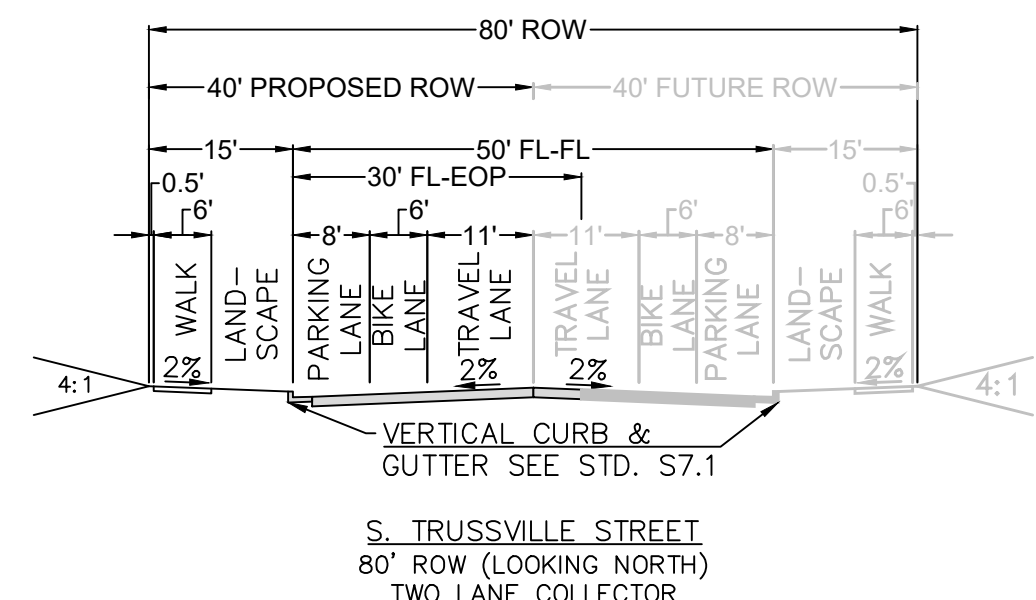
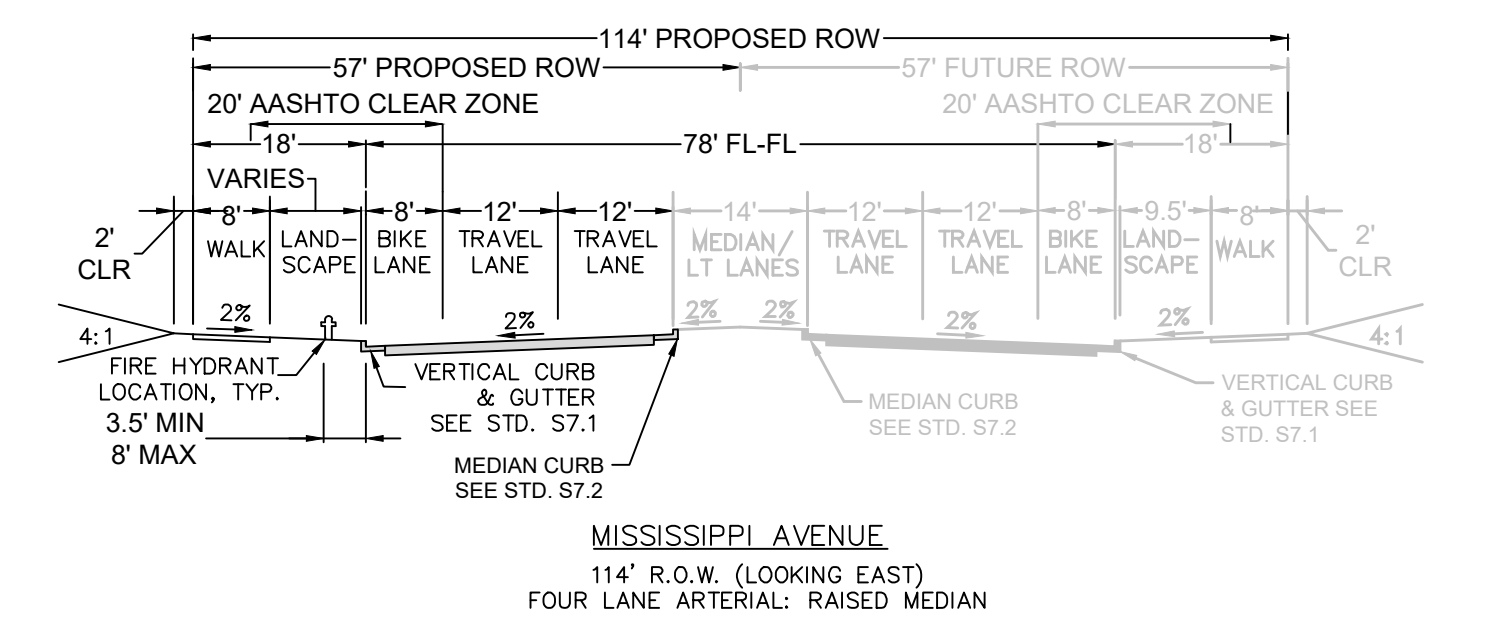
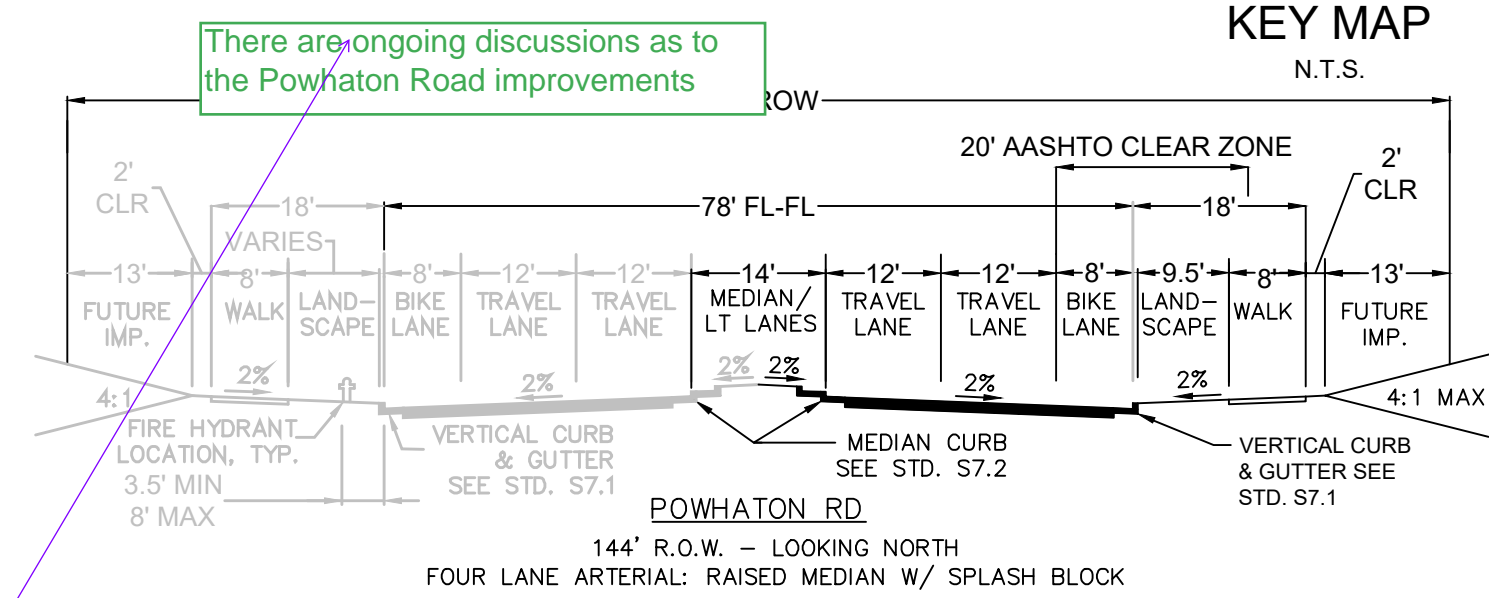
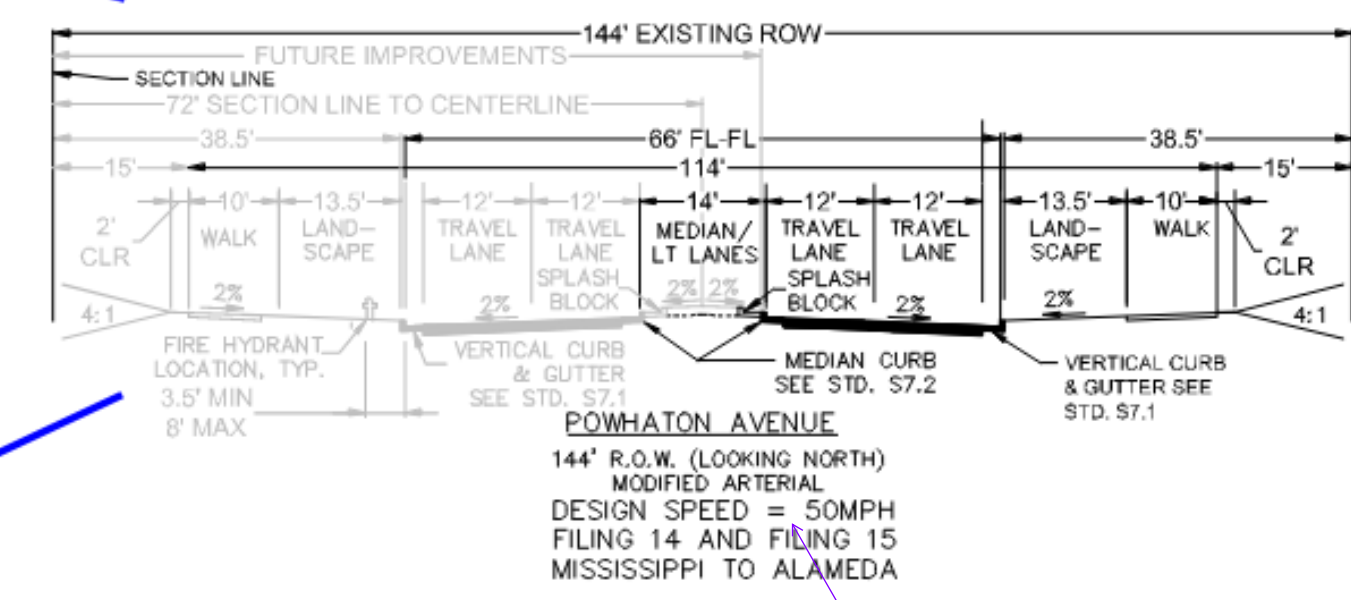
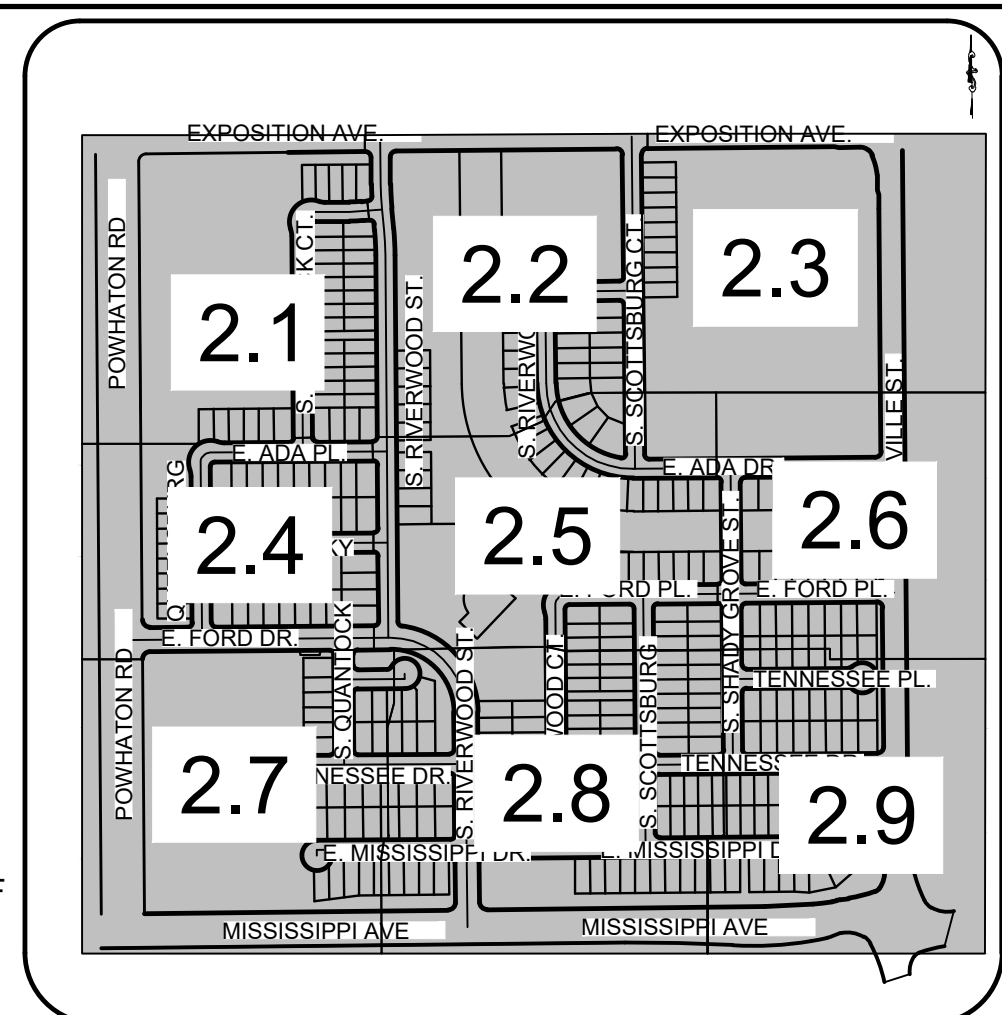
Some of these Lots and Blocks will be combined into larger Block areas

FILING #	BLOCK #	LOT #	SQUARE FOOTAGE	FRONTAGE	SETBACKS			CLASSIFICATION
					FRONT	SIDE	SIDE*	
			FT		FT	FT	FT	
15	1	1	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	2	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	3	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	4	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	5	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	6	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	7	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	8	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	1	9	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	2	1	6130	37.50	10	5	10	SMALL SINGLE FAMILY
15	2	2	5621	45.01	10	5		SMALL SINGLE FAMILY
15	2	3	5625	45.00	10	5		SMALL SINGLE FAMILY
15	2	4	5552	45.79	10	5		SMALL SINGLE FAMILY
15	2	5	5333	45.98	10	5		SMALL SINGLE FAMILY
15	3	1	5327	45.00	10	5	10	SMALL SINGLE FAMILY
15	3	2	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	3	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	4	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	5	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	6	4838	45.00	10	5		SMALL SINGLE FAMILY
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15	3	8	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	9	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	10	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	11	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	12	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	13	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	14	6449	41.50	10	5	10	LARGE SINGLE FAMILY
15	3	15	5865	51.00	10	5		STANDARD SINGLE FAMILY
15	3	16	5635	49.00	10	5		STANDARD SINGLE FAMILY
15	3	17	6679	43.50	10	5	10	LARGE SINGLE FAMILY
15	3	18	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	19	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	20	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	21	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	22	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	23	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	24	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	25	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	26	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	27	4838	45.00	10	5		SMALL SINGLE FAMILY
15	3	28	4836	45.00	10	5		SMALL SINGLE FAMILY
15	3	29	4795	45.04	10	5		SMALL SINGLE FAMILY
15	3	30	5275	40.12	10	5	10	STANDARD SINGLE FAMILY
15	4	1	7329	50.00	10	5	10	LARGE SINGLE FAMILY
15	4	2	5675	50.00	10	5		STANDARD SINGLE FAMILY
15	4	3	5675	50.00	10	5		STANDARD SINGLE FAMILY
15	4	4	5675	50.00	10	5		STANDARD SINGLE FAMILY
15	4	5	5578	50.86	10	5		STANDARD SINGLE FAMILY
15	4	6	5410	52.02	10	5		STANDARD SINGLE FAMILY
15	4	7	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	4	8	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	4	9	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	4	10	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	4	11	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	4	12	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	4	13	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	4	14	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	5	1	8352	55.00	10	5	10	LARGE SINGLE FAMILY
15	5	2	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	3	6255	52.13	10	5		STANDARD SINGLE FAMILY
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15	5	5	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	6	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	7	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	8	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	9	6255	52.13	10	5		STANDARD SINGLE FAMILY
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15	5	14	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	15	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	16	6255	52.13	10	5		STANDARD SINGLE FAMILY
15	5	17	6255	52.13	10	5		STANDARD SINGLE FAMILY
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15	6	1	8562	55.00	10	5	10	LARGE SINGLE FAMILY
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15	6	3	6411	52.13	10	5		STANDARD SINGLE FAMILY
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15	6	9	8256	53.00	10	5	10	LARGE SINGLE FAMILY
15	6	10	6717	55.00	10	5		STANDARD SINGLE FAMILY
15	6	11	6717	55.00	10	5		STANDARD SINGLE FAMILY
15	6	12	8256	53.00	10	5	10	LARGE SINGLE FAMILY

FILING #	BLOCK #	LOT #	SQUARE FOOTAGE	FRONTAGE	SETBACKS			CLASSIFICATION
					FRONT	SIDE	SIDE*	
			FT		FT	FT	FT	
15	6	13	6411	52.13	10	5		STANDARD SINGLE FAMILY
15	6	14	6411	52.13	10	5		STANDARD SINGLE FAMILY
15	6	15	6411	52.13	10	5		STANDARD SINGLE FAMILY
15	6	16	6411	52.13	10	5		STANDARD SINGLE FAMILY
15	6	17	6411	52.13	10	5		STANDARD SINGLE FAMILY
15	6	18	6411	52.13	10	5		STANDARD SINGLE FAMILY
15	6	19	6411	52.13	10	5		STANDARD SINGLE FAMILY
15	6	20	8562	55.00	10	5	10	LARGE SINGLE FAMILY
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15	8	1	6579	64.50	10	5		LARGE SINGLE FAMILY
15	8	2	5100	50.00	10	5		STANDARD SINGLE FAMILY
15	8	3	5100	50.00	10	5		STANDARD SINGLE FAMILY
15	8	4	5100	50.00	10	5		STANDARD SINGLE FAMILY
15	8	5	5100	50.00	10	5		STANDARD SINGLE FAMILY
15	8	6	6072	45.00	10	5	10	LARGE SINGLE FAMILY
15	9	1	6772	47.00	10	5	10	LARGE SINGLE FAMILY
15	9	2	5500	50.00	10	5		STANDARD SINGLE FAMILY
15	9	3	5500	50.00	10	5		STANDARD SINGLE FAMILY
15	9	4	5617	40.88	10	5		STANDARD SINGLE FAMILY
15	9	5	8643	36.73	10	5		LARGE SINGLE FAMILY
15	9	6	6600	60.00	10	5		LARGE SINGLE FAMILY
15	9	7	5500	50.00	10	5		STANDARD SINGLE FAMILY
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15	9	9	5500	50.00	10	5		STANDARD SINGLE FAMILY
15	9	10	6772	47.00	10	5	10	LARGE SINGLE FAMILY
15	10	1	6600	60.00	10	5		LARGE SINGLE FAMILY
15	10	2	6600	60.00	10	5		LARGE SINGLE FAMILY
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15	10	7	6600	60.00	10	5		LARGE SINGLE FAMILY
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15	10	11	6600	60.00	10	5		LARGE SINGLE FAMILY
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15	10	13	6600	60.00	10	5		LARGE SINGLE FAMILY
15	10	14	6600	60.00	10	5		LARGE SINGLE FAMILY
15	10	15	6600	60.00	10	5		LARGE SINGLE FAMILY
15	10	16	6650	61.08	10	5		LARGE SINGLE FAMILY
15	11	1	5215	58.95	10	5		STANDARD SINGLE FAMILY
15	11	2	6375	56.97	10	5		STANDARD SINGLE FAMILY
15	11	3	6151	50.00	10	5		STANDARD SINGLE FAMILY
15	11	4	6000	50.00	10	5		STANDARD SINGLE FAMILY
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15	11	8	6000	50.00	10	5		STANDARD SINGLE FAMILY
15	11	9	6000	50.00	10	5		STANDARD SINGLE FAMILY
15	12	1	6552	45.00	10	5	10	LARGE SINGLE FAMILY
15	12	2	5500	50.00	10	5		STANDARD SINGLE FAMILY
15	12	3	5500	50.00	10	5		STANDARD SINGLE FAMILY
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15	12	9	5500	50.00	10	5		STANDARD SINGLE FAMILY
15	12	10	5410	50.85	10	5		STANDARD SINGLE FAMILY
15	12	11	5226	51.87	10	5		STANDARD SINGLE FAMILY
15	12	12	6325	55.00	10	5		STANDARD SINGLE FAMILY
15	12	13	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	12	14	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	12	15	5750	50.00	10	5		STANDARD SINGLE FAMILY
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15	12	28	5750	50.00	10	5		STANDARD SINGLE FAMILY
15	12	29	6352	55.09	10	5		STANDARD SINGLE FAMILY
15	13	1	7312	49.00	10	5	10	LARGE SINGLE FAMILY
15	13	2	5175	45.00	10	5		SMALL SINGLE FAMILY
15	13	3	5175	45.00	10	5		SMALL SINGLE FAMILY



B & GUTTER RETURN RADII PER TABLE 4.04.5.03 OF VY MANUAL. SEE AREA SITE PLANS FOR DETAILS. ED INTERSECTIONS ARE CLASSIFIED AS FULL

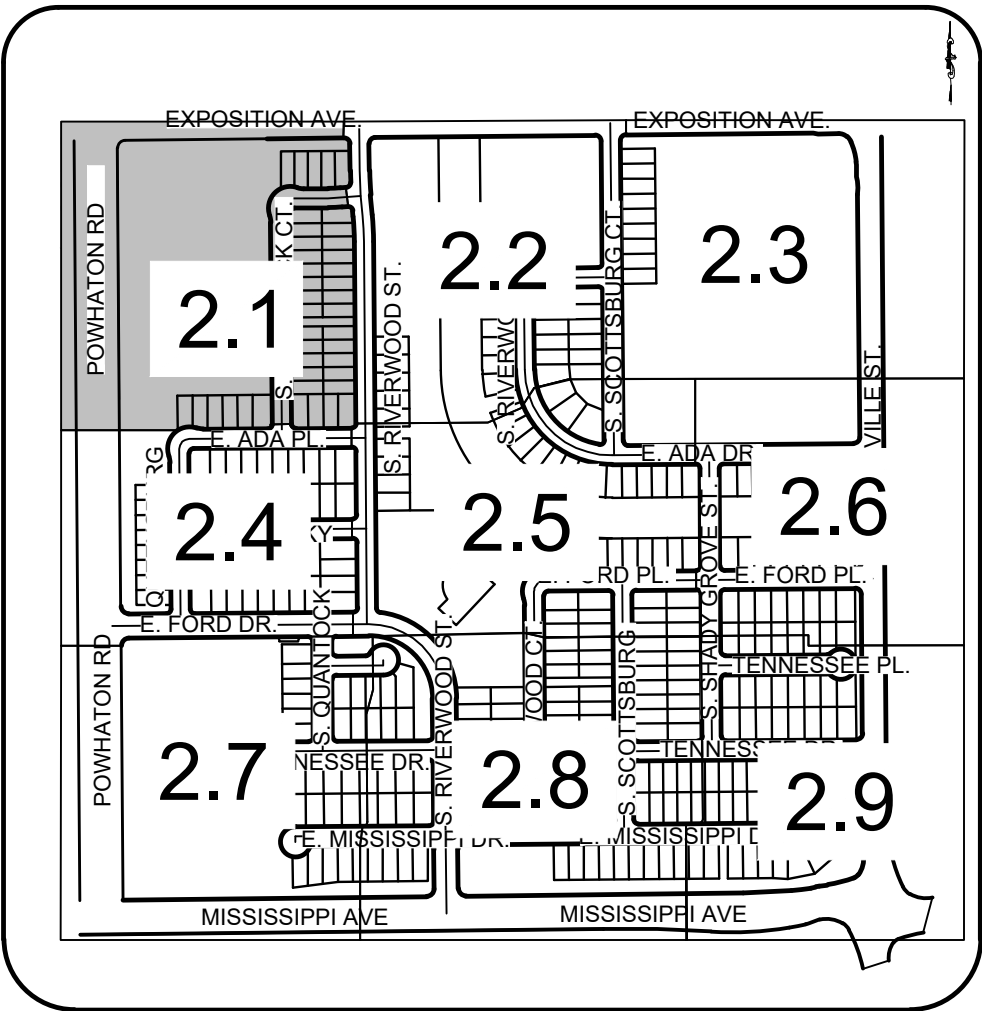
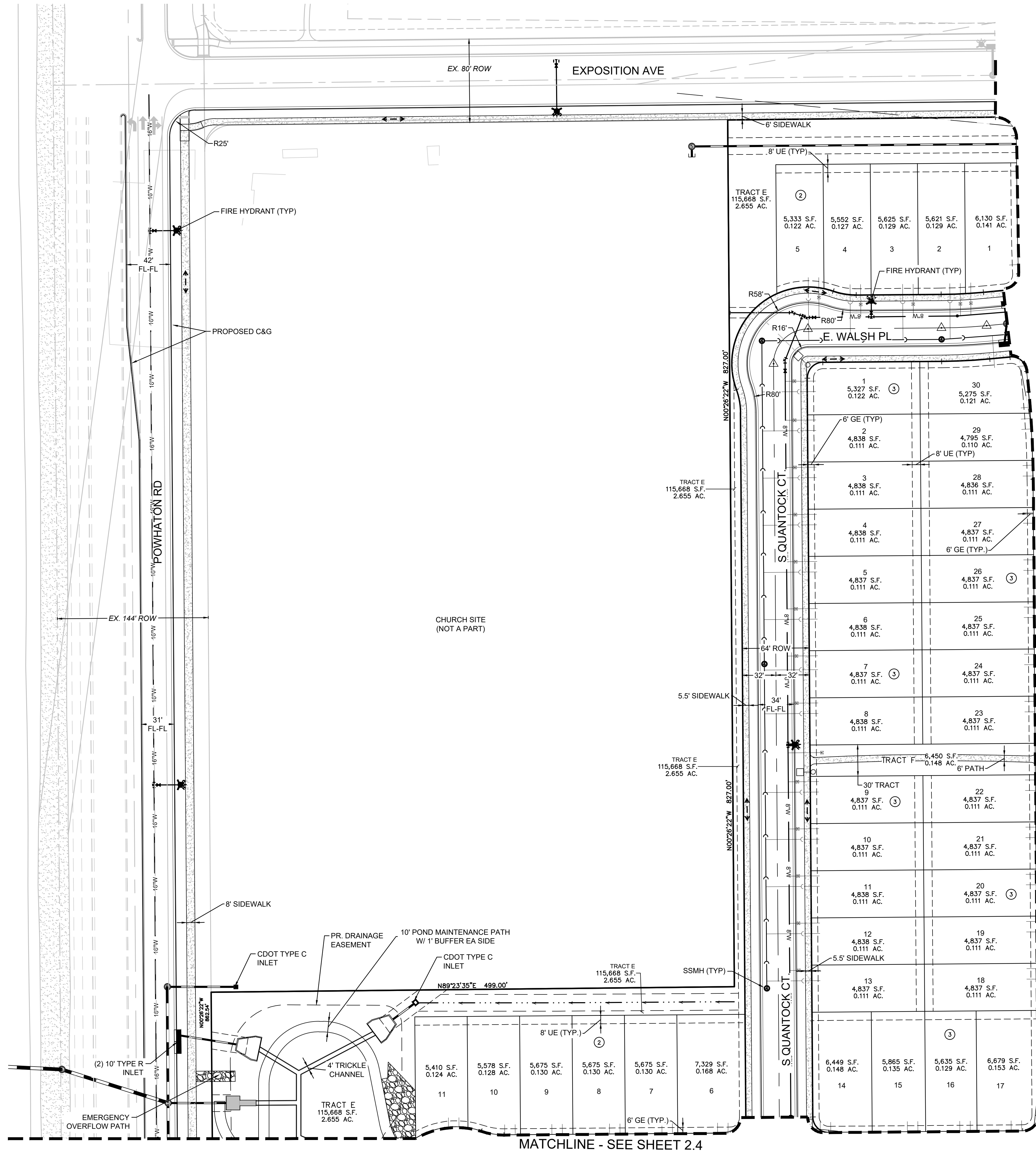


- LOCAL STREETS:
- S RIVERWOOD ST
 - E WALSH PL
 - S QUANTOCK CT
 - S QUEENSBURG CT
 - E ADA PL
 - E KENTUCKY PL
 - E FORD DR
 - S SCOTTSBURG CT
 - E TENNESSEE DR
 - S QUANTOCK DR
 - E MISSISSIPPI DR
 - S TITUS CT
 - E FORD PL
 - S SCOTTSBURG CT
 - S SHADY GROVE ST
 - E ADA DR
 - E TENNESSEE PLACE

LEGEND

② BLOCK NUMBER OF HARMONY SUBDIVISION	PROP MID-BLOCK RAMP(METRO)	PROP CONCRETE PAN (METRO)	PROP LANDSCAPE BENCH(METRO)
6 LOT NUMBER	STREET CENTERLINE	PROPOSED CURB & GUTTER	PROF FENCING/POSTS(METRO)
PROP CURB & GUTTER(METRO)	PUBLIC STREET RIGHT-OF-WAY	PROPOSED LIGHT POLE	SIGHT TRIANGLE LINE
PROF LIGHT POLE(METRO)	PROPERTY LOT LINE	PROPOSED FIRE HYDRANT	DESIGNATED SMALL LOT
EXISTING FIRE HYDRANT	EDGE OF PAVEMENT	PROPOSED SIDEWALK	PROPOSED CONCRETE PAN
PROF SIDEWALK(METRO)	SECTION LINE	PROPOSED CURB RETURN SIDEWALK RAMP	PROPOSED BUILDING ENVELOPE
PROF CURB RETURN SIDEWALK RAMP "HCR" (METRO)	PROPOSED EASEMENT	PROPOSED TEMPORARY ROAD BARRIER	PROPOSED MID-BLOCK RAMP
PROF TEMPORARY ROAD BARRIER (METRO)	EXISTING EASEMENT		PROPOSED MANHOLE
	CSP BOUNDARY		
	FILING BOUNDARY		
	PEDESTRIAN ACCESSIBILITY ROUTE		

No.		Revisions		Date	
No.		Revisions		Date	
Westwood 10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526 Westwoodpa.com Westwood Professional Services, Inc.					
MelcorTC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440					
HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 OVERALL SITE PLAN					
SCALE: AS SHOWN		FILE NO: 8130214922		DATE: AUGUST, 2022	
DRAWN BY: DJG		CHECKED BY: BPW		DATE: AUGUST, 2022	
SHEET NUMBER		2.0		OF 35	



KEY MAP
N.T.S.



SCALE: 1" = 50'

- NOTES:
1. SEE SHEET 2.0 OVERALL SITE PLAN FOR CROSS SECTION DETAILS.
 2. STREET LIGHT LOCATIONS ARE CONCEPTUAL AND FINAL STREET LIGHT LOCATIONS WILL BE DETERMINED WITH PHOTOMETRIC ANALYSIS IN THE LIGHTING PLANS SUBMITTED WITH THE CIVIL PLANS. LIGHT FIXTURE TYPE TO BE INCLUDED WITH THIS PHOTOMETRIC PLAN.
 3. ALL STORM DRAIN IS PUBLIC UNLESS OTHERWISE NOTED.
 4. FENCING DESIGN, TYPE AND LOCATION ARE ON THE LANDSCAPING SHEETS.
 5. SIGNAGE AND STRIPING WILL BE PROVIDED WITH THE CIVIL PLANS.

LEGEND

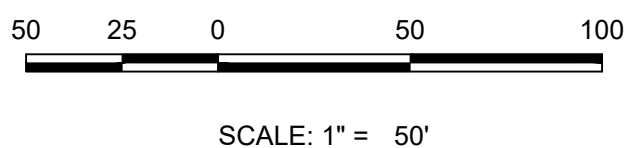
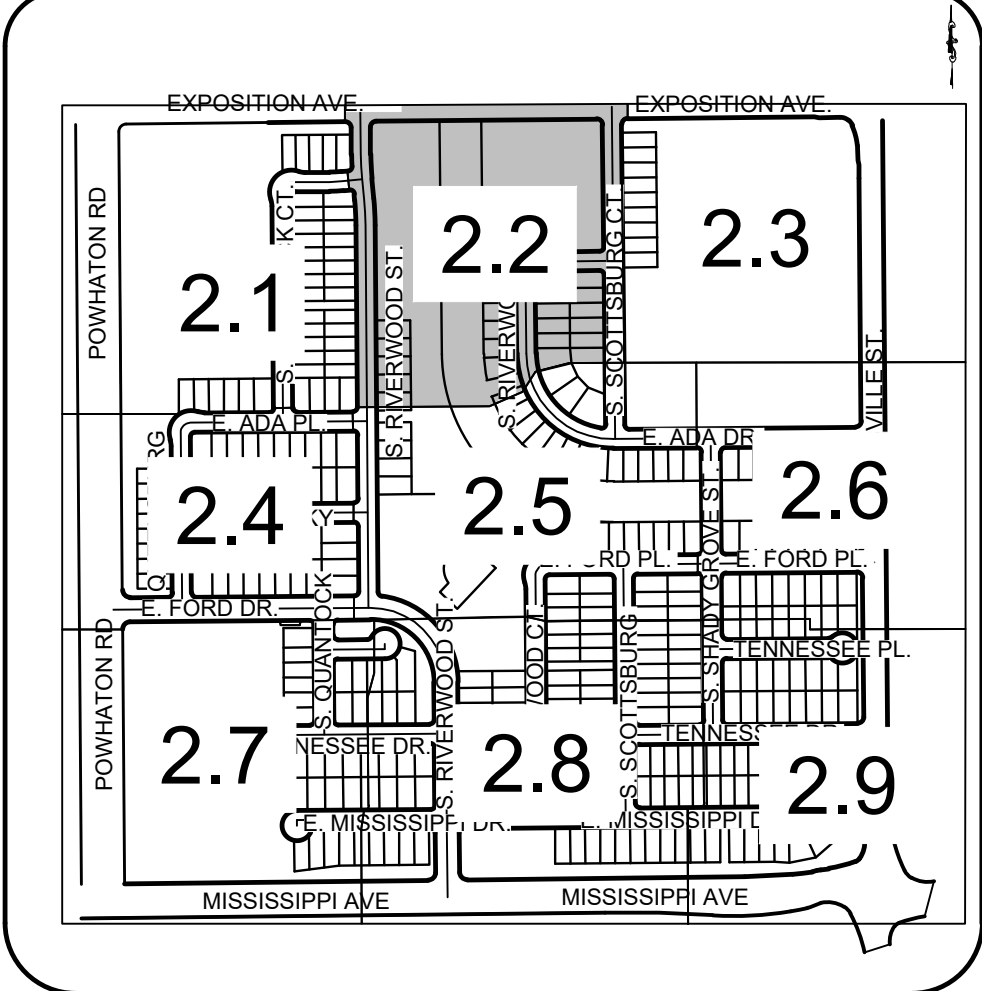
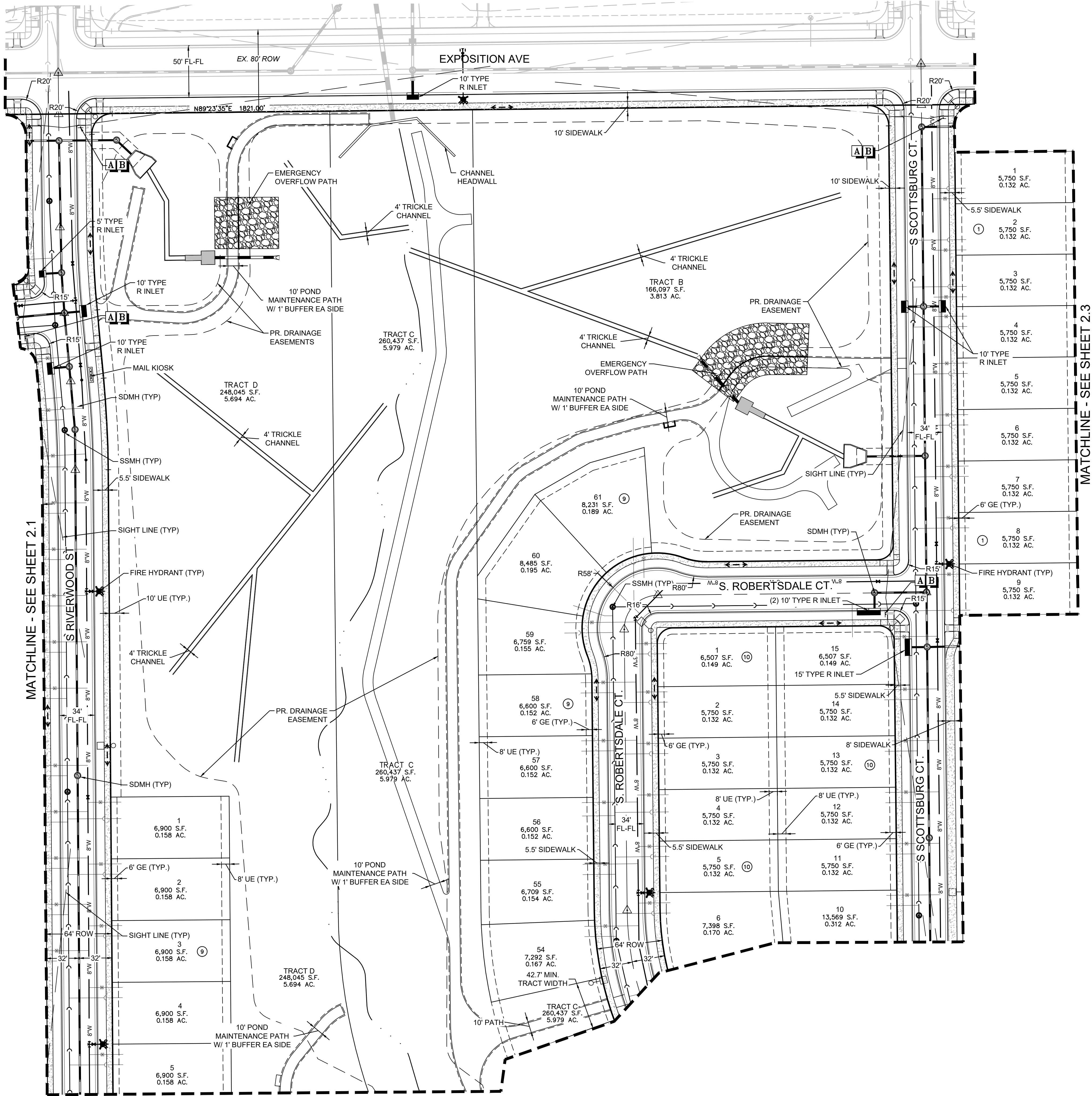
②	BLOCK NUMBER OF HARMONY SUBDIVISION	—	PROP MID-BLOCK RAMP(METRO)
6	LOT NUMBER	—	STREET CENTERLINE
—	PROP CURB & GUTTER(METRO)	—	PUBLIC STREET RIGHT-OF-WAY
—	PROP LIGHT POLE(METRO)	—	PROPERTY LOT LINE
—	EXISTING FIRE HYDRANT	—	EDGE OF PAVEMENT
—	PROP SIDEWALK(METRO)	—	SECTION LINE
—	PROP CURB RETURN SIDEWALK RAMP "HCR" (METRO)	—	PROPOSED EASEMENT
—	PROP TEMPORARY ROAD BARRIER (METRO)	—	EXISTING EASEMENT
—	PROP CONCRETE PAN (METRO)	—	CSP BOUNDARY
—	PROPOSED CURB & GUTTER	—	FILING BOUNDARY
—	PROPOSED LIGHT POLE	—	PEDESTRIAN ACCESSIBILITY ROUTE
—	PROPOSED FIRE HYDRANT	—	PROP LANDSCAPE BENCH(METRO)
—	PROPOSED SIDEWALK	—	PROP FENCING/POSTS(METRO)
—	PROPOSED CURB RETURN SIDEWALK RAMP	—	SIGHT TRIANGLE LINE
—	PROPOSED TEMPORARY ROAD BARRIER	—	DESIGNATED SMALL LOT
		—	PROPOSED CONCRETE PAN
		—	PROPOSED BUILDING ENVELOPE
		—	PROPOSED MID-BLOCK RAMP
		—	PROPOSED MANHOLE

TRAFFIC CONTROL

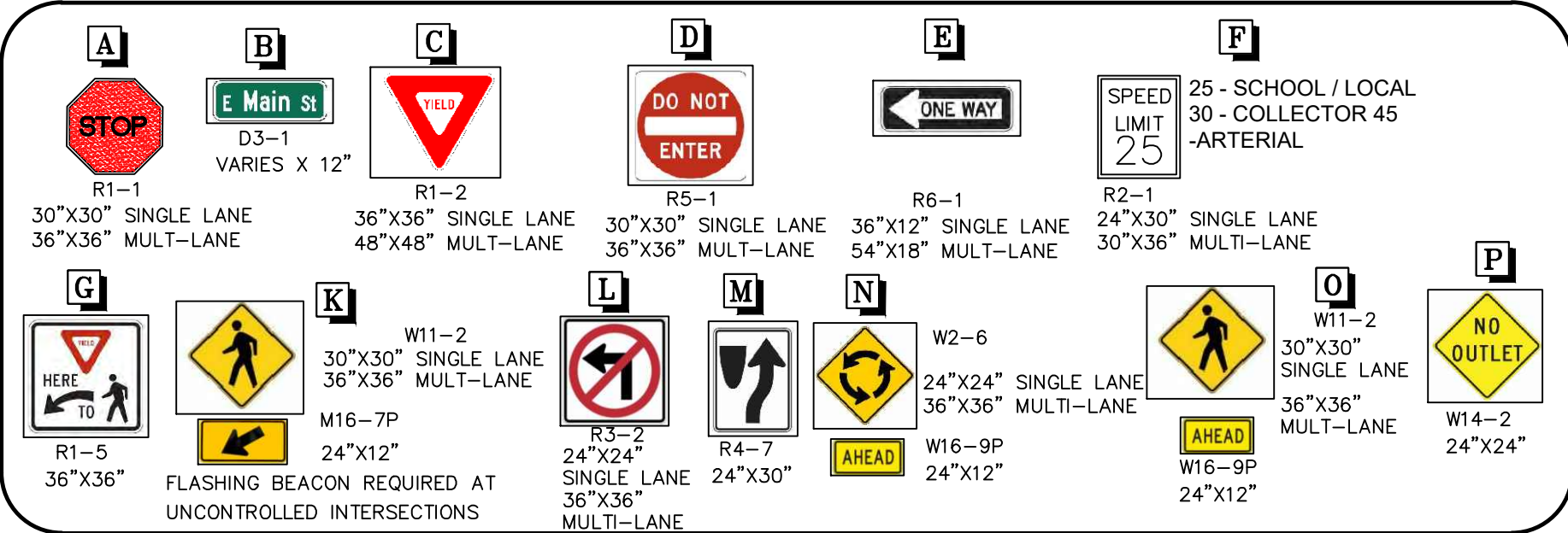
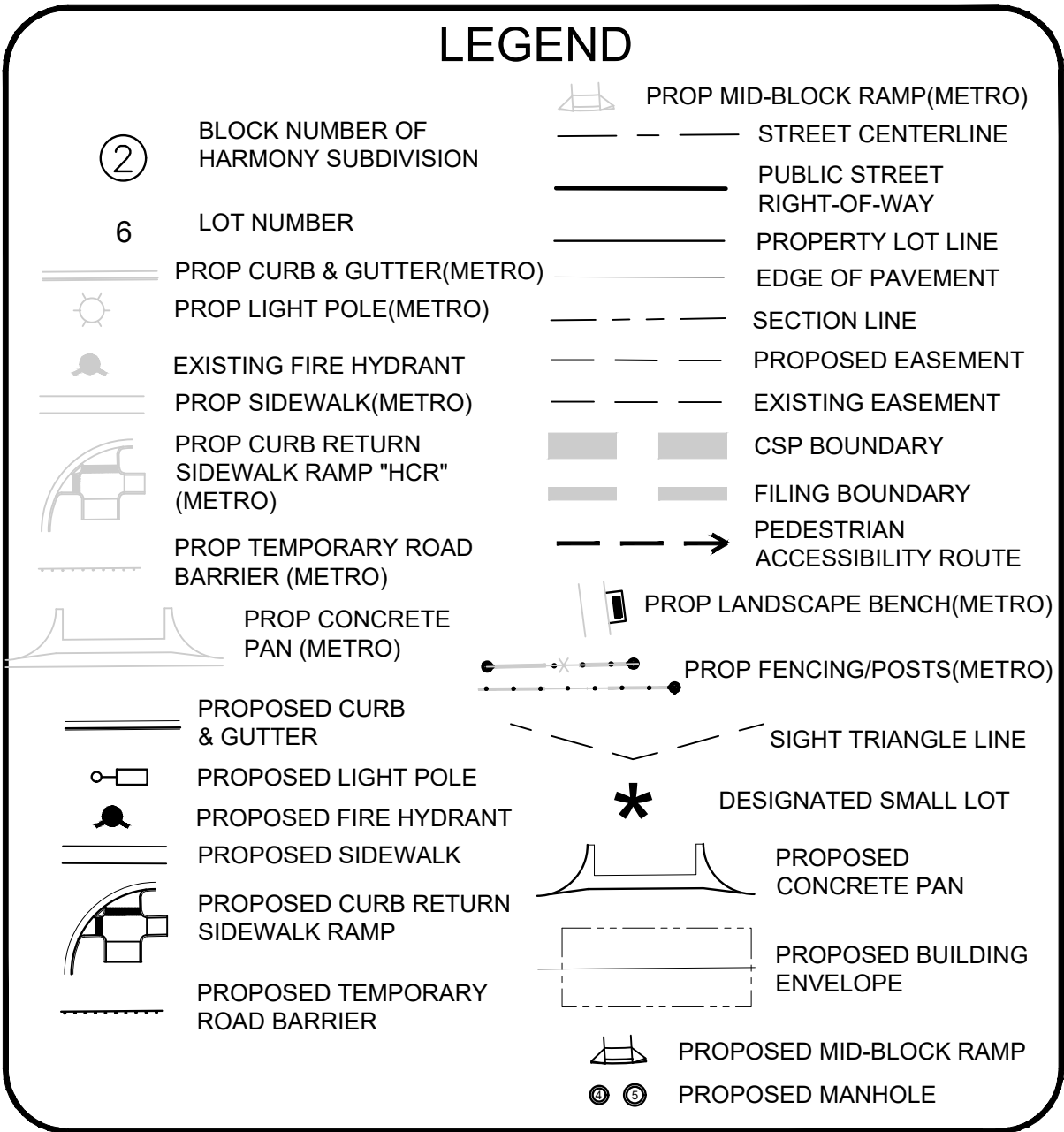
A STOP R1-1 30"x30" SINGLE LANE 36"x36" MULT-LANE	B E Main St D3-1 VARIES X 12"	C YIELD R1-2 36"x36" SINGLE LANE 48"x48" MULT-LANE	D DO NOT ENTER R5-1 30"x30" SINGLE LANE 36"x36" MULT-LANE	E ONE WAY R6-1 36"x12" SINGLE LANE 54"x18" MULT-LANE	F SPEED LIMIT 25 R2-1 24"x30" SINGLE LANE 30"x36" MULT-LANE
G HERE TO R1-5 36"x36"	K W11-2 30"x30" SINGLE LANE 36"x36" MULT-LANE M16-7P 24"x12"	L R3-2 24"x24" SINGLE LANE 36"x36" MULT-LANE	M R4-7 24"x30"	N W2-6 24"x24" SINGLE LANE 36"x36" MULT-LANE W16-9P 24"x12"	O W11-2 30"x30" SINGLE LANE 36"x36" MULT-LANE W16-9P 24"x12"
P NO OUTLET W14-2 24"x24"					

FLASHING BEACON REQUIRED AT UNCONTROLLED INTERSECTIONS

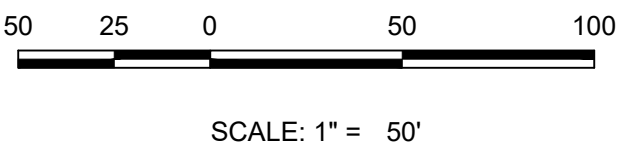
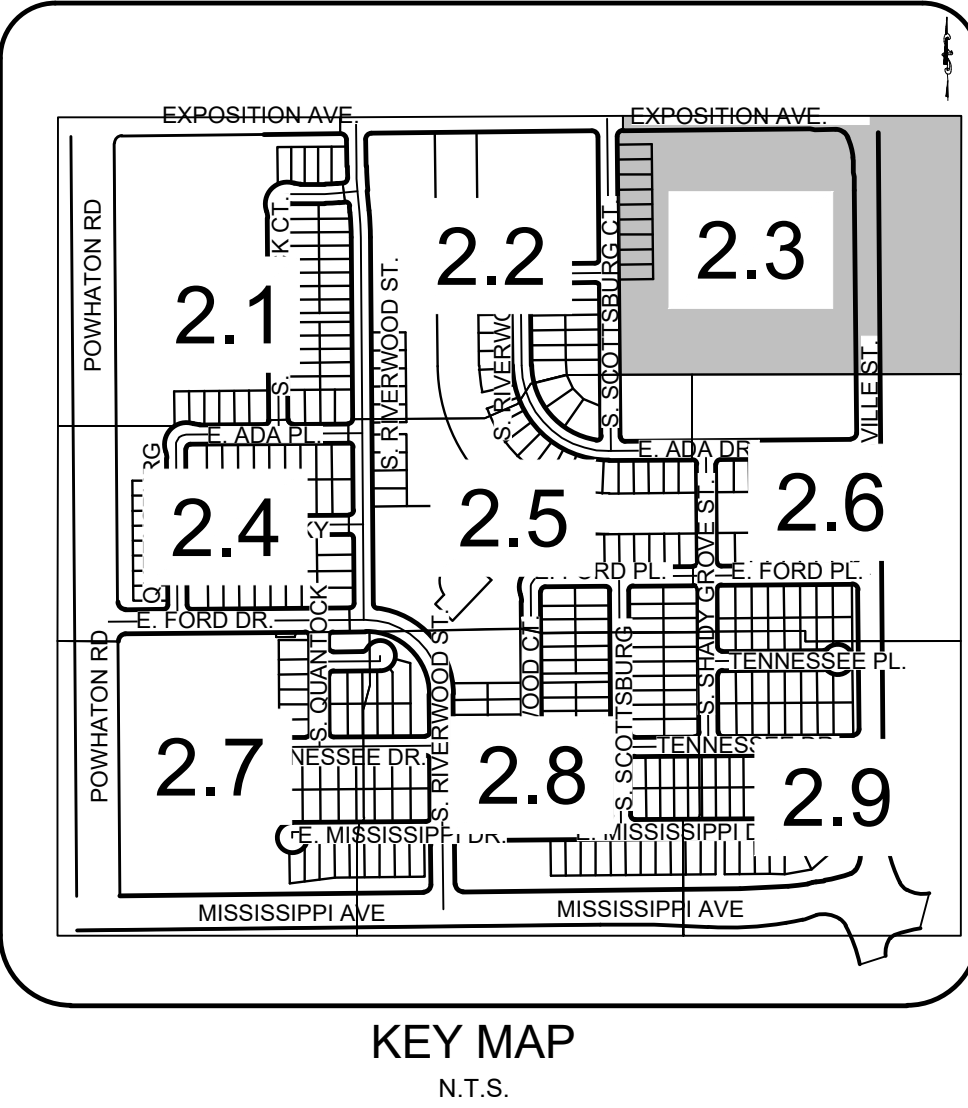
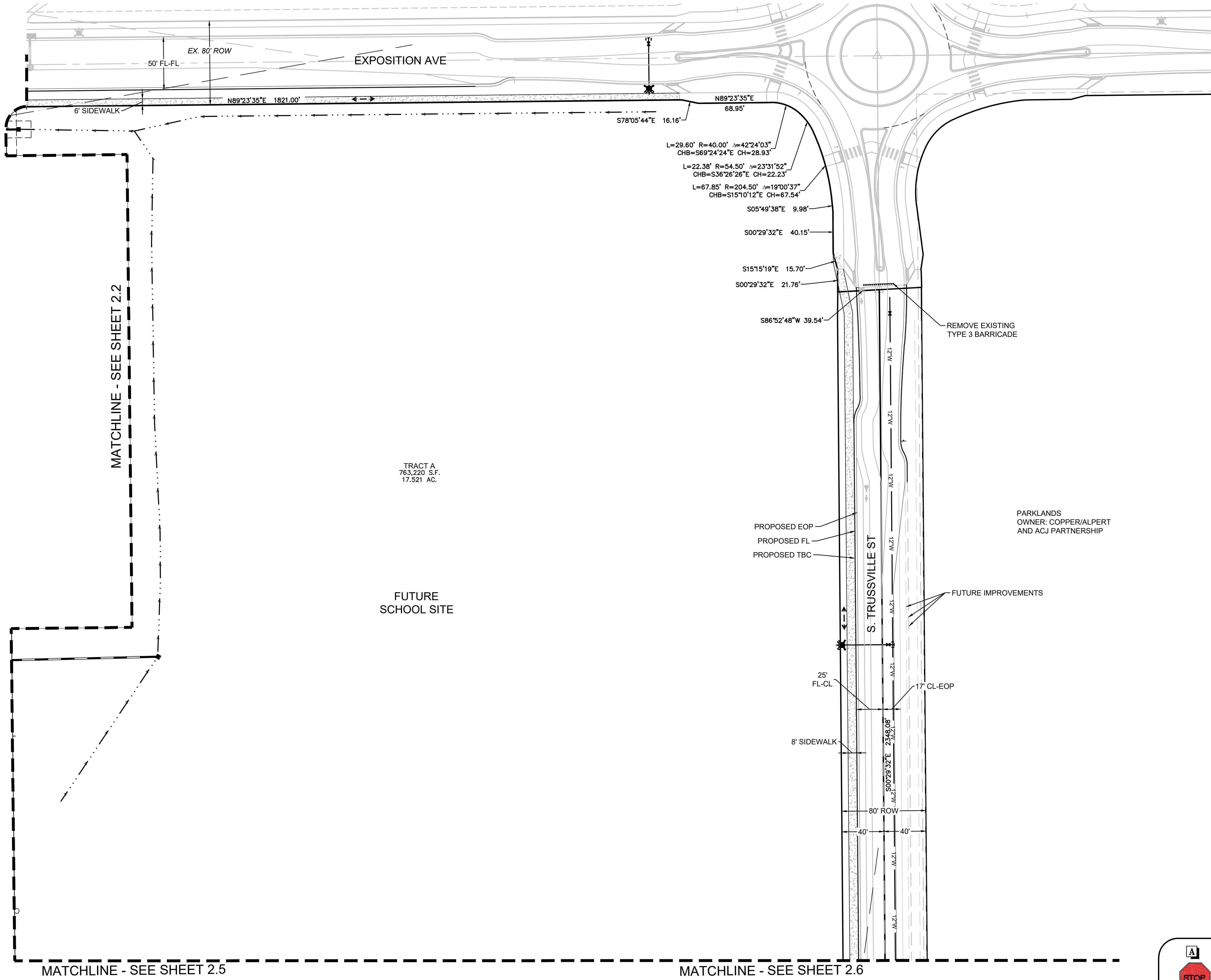
SHEET NUMBER		2.1		OF 35	
DRAWN BY:		DJB		DATE:	
CHECKED BY:		BPW		AUGUST, 2022	
SCALE:		AS SHOWN		FILE NO:	
HARMONY SUBDIVISION		CIVIL SITE PLAN NO. 5		8130214922	
C/O Marathon Land Company		9750 W. Cambridge Place		Littleton, CO 80127	
Tel: (303) 920-9400		Fax: (303) 920-9440			
Westwood		10333 E DRY CREEK RD.		SUITE 240	
Westwoodpa.com		ENGLEWOOD, CO 80112		TEL: 720.482.9526	
Revisions		No.		Date	
Init.		Apr.		Date	



- NOTES:
1. SEE SHEET 2.0 OVERALL SITE PLAN FOR CROSS SECTION DETAILS.
 2. ALL ALLEYS ARE PRIVATELY OWNED & MAINTAINED BY THE METROPOLITAN DISTRICT.
 3. STREET LIGHT LOCATIONS ARE CONCEPTUAL AND FINAL STREET LIGHT LOCATIONS WILL BE DETERMINED WITH PHOTOMETRIC ANALYSIS IN THE LIGHTING PLANS SUBMITTED WITH THE CIVIL PLANS. LIGHT FIXTURE TYPE TO BE INCLUDED WITH THIS PHOTOMETRIC PLAN.
 4. ALL STORM DRAIN IS PUBLIC UNLESS OTHERWISE NOTED.
 5. FENCING DESIGN, TYPE AND LOCATION ARE ON THE LANDSCAPING SHEETS.
 6. SIGNAGE AND STRIPING WILL BE PROVIDED WITH THE CIVIL PLANS.



SHEET NUMBER	DRAWN BY: DJG	CHECKED BY: BPW	DATE: AUGUST, 2022	SCALE: AS SHOWN	FILE NO: 8130214922	HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 AREA SITE PLAN	Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440	Westwood 10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526 Westwoodpa.com Westwood Professional Services, Inc.	Revisions	No.	Date	Init.	Appr.	Date



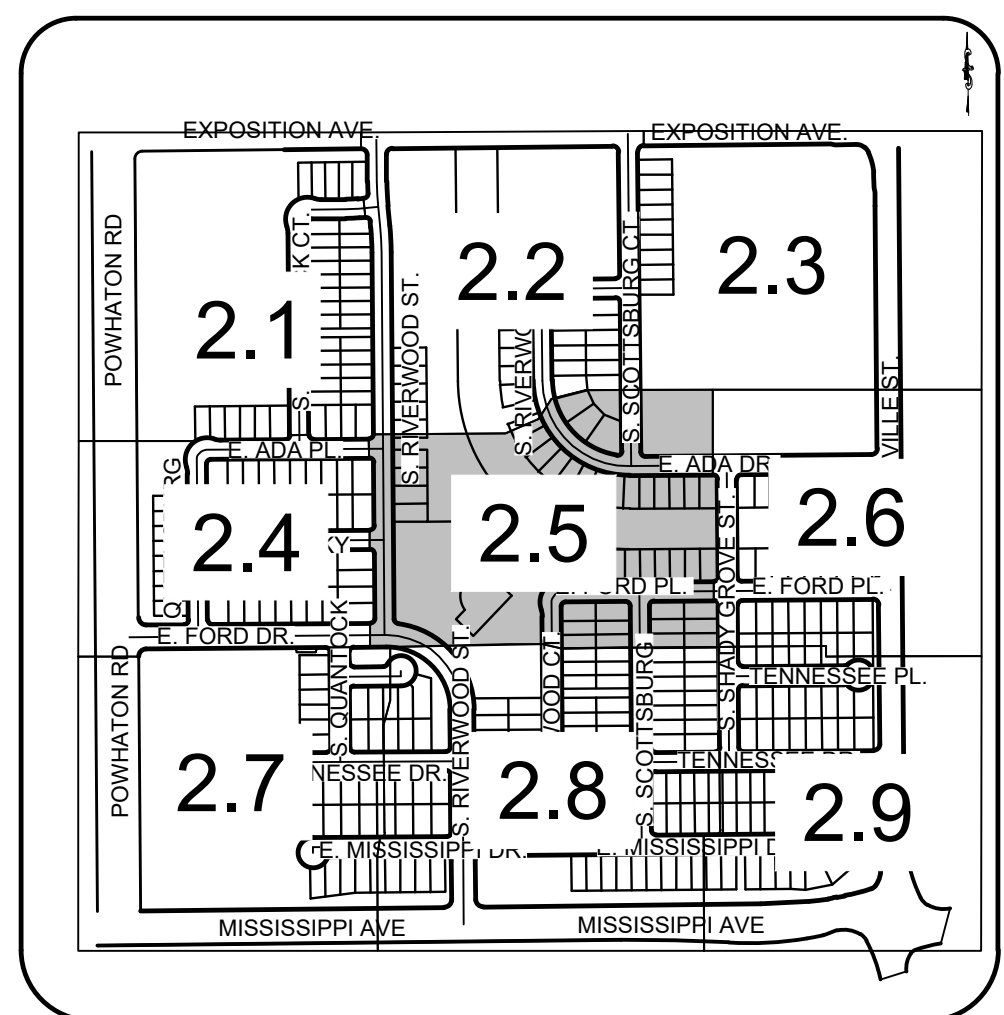
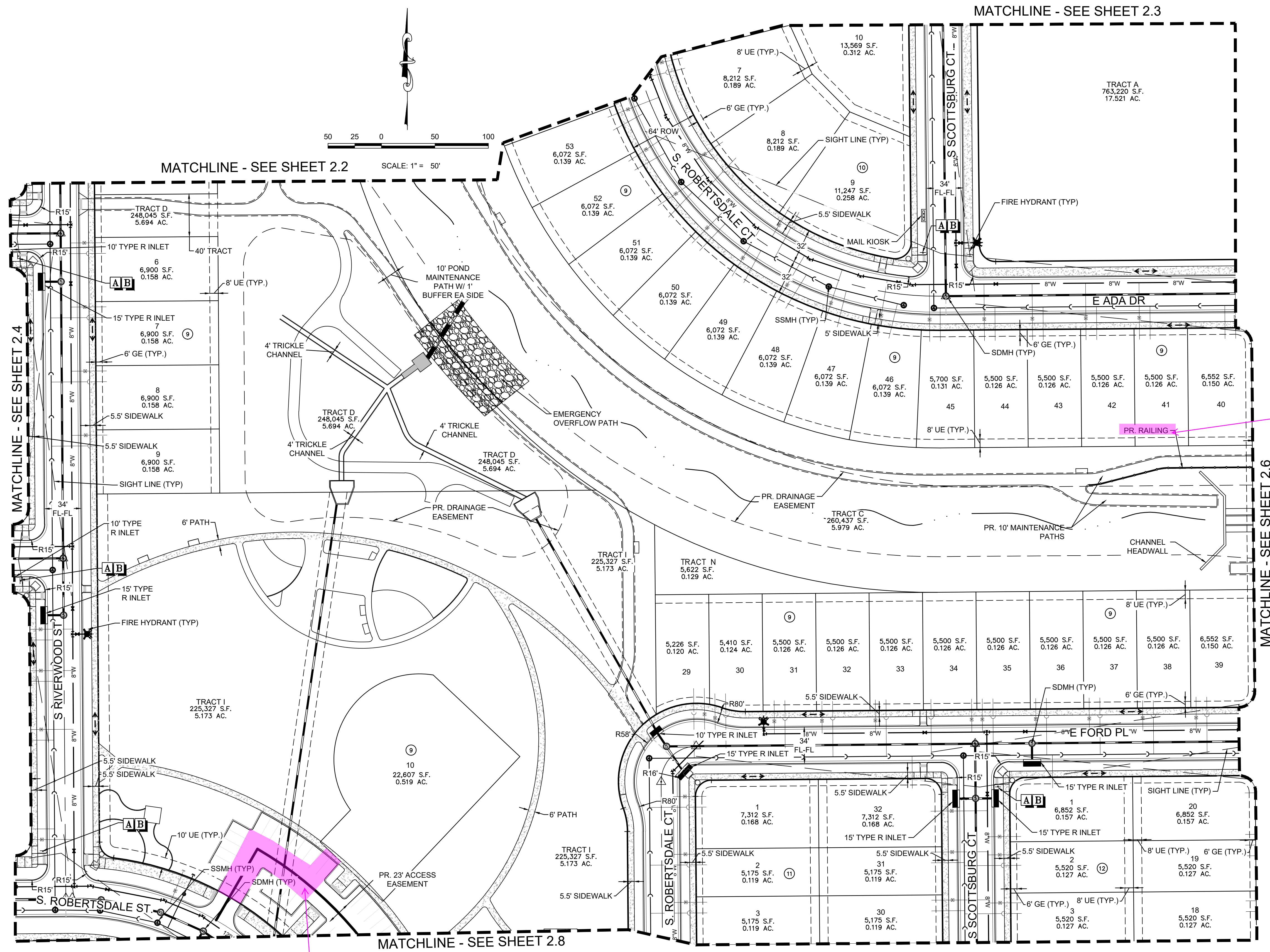
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LEGEND

② BLOCK NUMBER OF HARMONY SUBDIVISION	PROP MID-BLOCK RAMP(METRO)
6 LOT NUMBER	STREET CENTERLINE
PROP CURB & GUTTER(METRO)	PUBLIC STREET
PROP LIGHT POLE(METRO)	RIGHT-OF-WAY
EXISTING FIRE HYDRANT	PROPERTY LOT LINE
PROP SIDEWALK(METRO)	EDGE OF PAVEMENT
PROP CURB RETURN	SECTION LINE
SIDEWALK RAMP "HCR" (METRO)	PROPOSED EASEMENT
PROP TEMPORARY ROAD BARRIER (METRO)	EXISTING EASEMENT
PROP CONCRETE PAN (METRO)	CSP BOUNDARY
PROPOSED CURB & GUTTER	FILING BOUNDARY
PROPOSED LIGHT POLE	PEDESTRIAN ACCESSIBILITY ROUTE
PROPOSED FIRE HYDRANT	PROPOSED LANDSCAPE BENCH(METRO)
PROPOSED SIDEWALK	PROP FENCING/POSTS(METRO)
PROPOSED CURB RETURN	SIGHT TRIANGLE LINE
SIDEWALK RAMP	DESIGNATED SMALL LOT
PROPOSED TEMPORARY ROAD BARRIER	PROPOSED CONCRETE PAN
	PROPOSED BUILDING ENVELOPE
	PROPOSED MID-BLOCK RAMP
	PROPOSED MANHOLE

A R1-1 30"x30" SINGLE LANE 36"x36" MULTI-LANE	B D3-1 VARIES X 12"	C R1-2 36"x36" SINGLE LANE 48"x48" MULTI-LANE	D R5-1 30"x30" SINGLE LANE 36"x36" MULTI-LANE	E R6-1 24"x30" SINGLE LANE 30"x36" MULTI-LANE	F R2-1 24"x30" SINGLE LANE 30"x36" MULTI-LANE
G R1-5 36"x36"	H W11-2 30"x30" SINGLE LANE 36"x36" MULTI-LANE	I M16-7P 24"x12"	J R3-2 24"x24" SINGLE LANE 36"x36" MULTI-LANE	K R4-7 24"x30"	L W2-6 24"x24" SINGLE LANE 36"x36" MULTI-LANE
M W14-2 24"x24"	N W16-9P 24"x12"	O W17-2 30"x30" SINGLE LANE 36"x36" MULTI-LANE	P W18-9P 24"x12"	Q W19-2 30"x30" SINGLE LANE 36"x36" MULTI-LANE	R W20-2 24"x24"

SHEET NUMBER	2.3	OF 35	DRAWN BY: DJG	CHECKED BY: BPW	DATE: AUGUST, 2022	SCALE: AS SHOWN	FILE NO: 8130214922	HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 AREA SITE PLAN	Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440	Westwood 10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526 Westwoodps.com Westwood Professional Services, Inc.	Revisions	No.	Date	Init.	Appr.	Date



Acknowledged, thank you. Process will begin to get license agreements in place by final CDs.

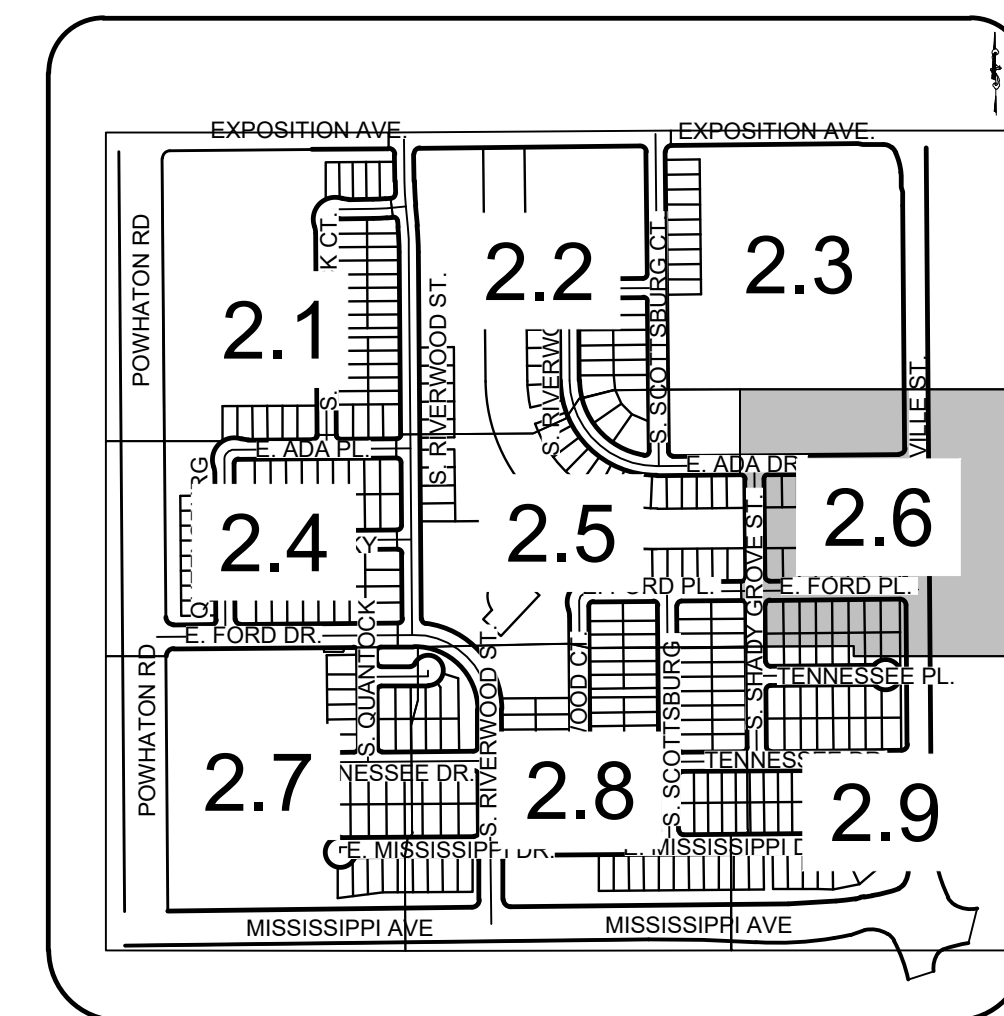
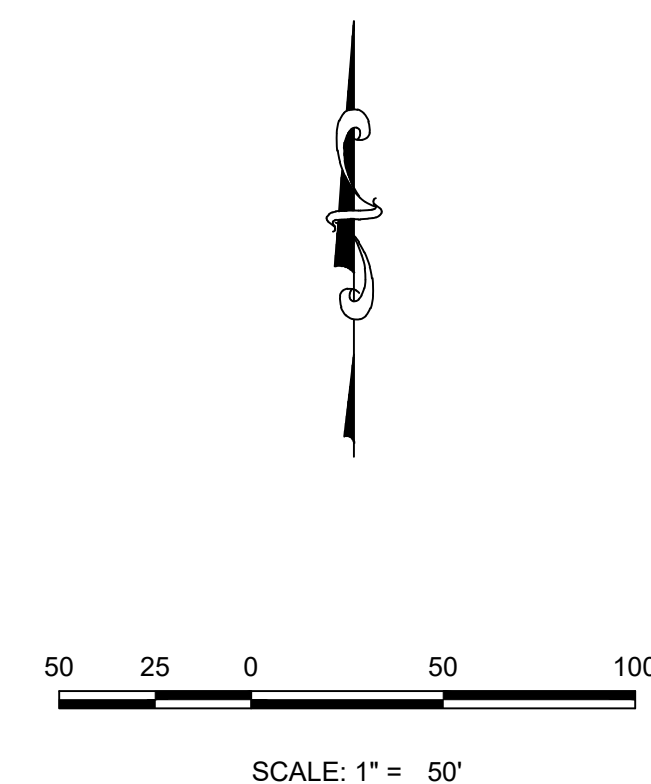
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LEGEND

②	BLOCK NUMBER OF HARMONY SUBDIVISION	—	PROPOSED MID-BLOCK RAMP (METRO)
6	LOT NUMBER	—	STREET CENTERLINE
—	PROPOSED CURB & GUTTER (METRO)	—	PUBLIC STREET RIGHT-OF-WAY
—	PROPOSED LIGHT POLE (METRO)	—	PROPERTY LOT LINE
—	EXISTING FIRE HYDRANT	—	EDGE OF PAVEMENT
—	PROPOSED SIDEWALK (METRO)	—	SECTION LINE
—	PROPOSED CURB RETURN SIDEWALK RAMP "HCR" (METRO)	—	PROPOSED EASEMENT
—	PROPOSED TEMPORARY ROAD BARRIER (METRO)	—	EXISTING EASEMENT
—	PROPOSED CONCRETE PAN (METRO)	—	CSP BOUNDARY
—	PROPOSED CURB & GUTTER	—	FILING BOUNDARY
—	PROPOSED LIGHT POLE	—	PEDESTRIAN ACCESSIBILITY ROUTE
—	PROPOSED FIRE HYDRANT	—	PROPOSED LANDSCAPE BENCH (METRO)
—	PROPOSED SIDEWALK	—	PROPOSED FENCING/POSTS (METRO)
—	PROPOSED CURB RETURN SIDEWALK RAMP	—	SIGHT TRIANGLE LINE
—	PROPOSED TEMPORARY ROAD BARRIER	—	DESIGNATED SMALL LOT
		—	PROPOSED CONCRETE PAN
		—	PROPOSED BUILDING ENVELOPE
		—	PROPOSED MID-BLOCK RAMP
		—	PROPOSED MANHOLE

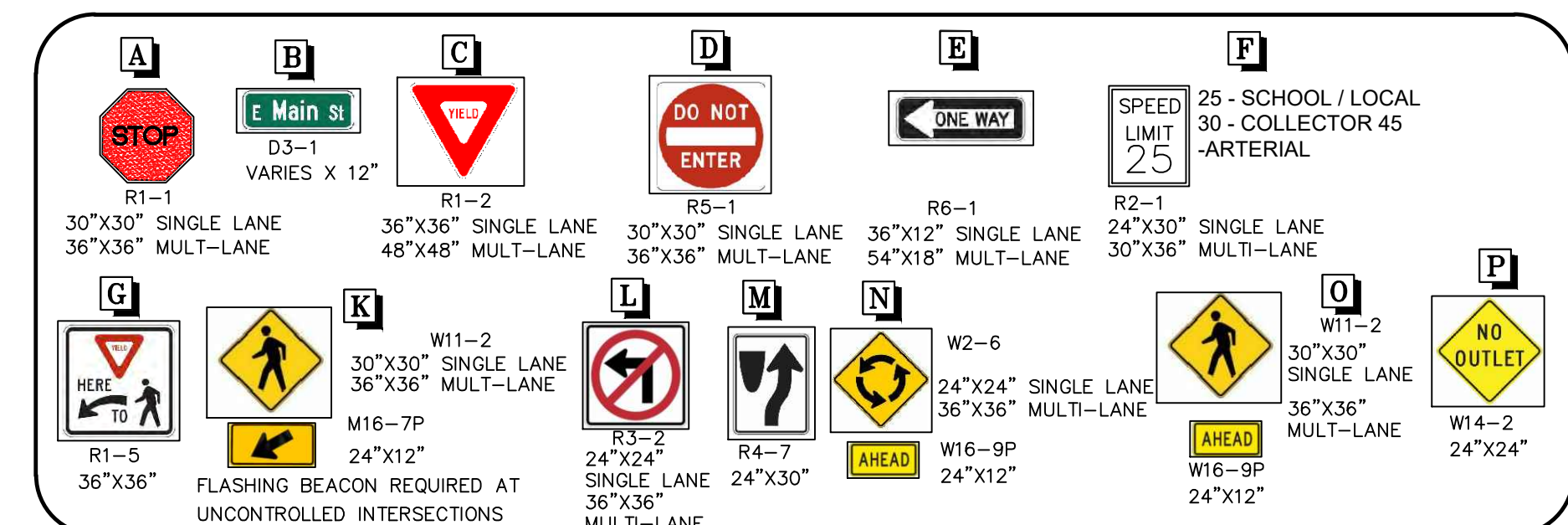
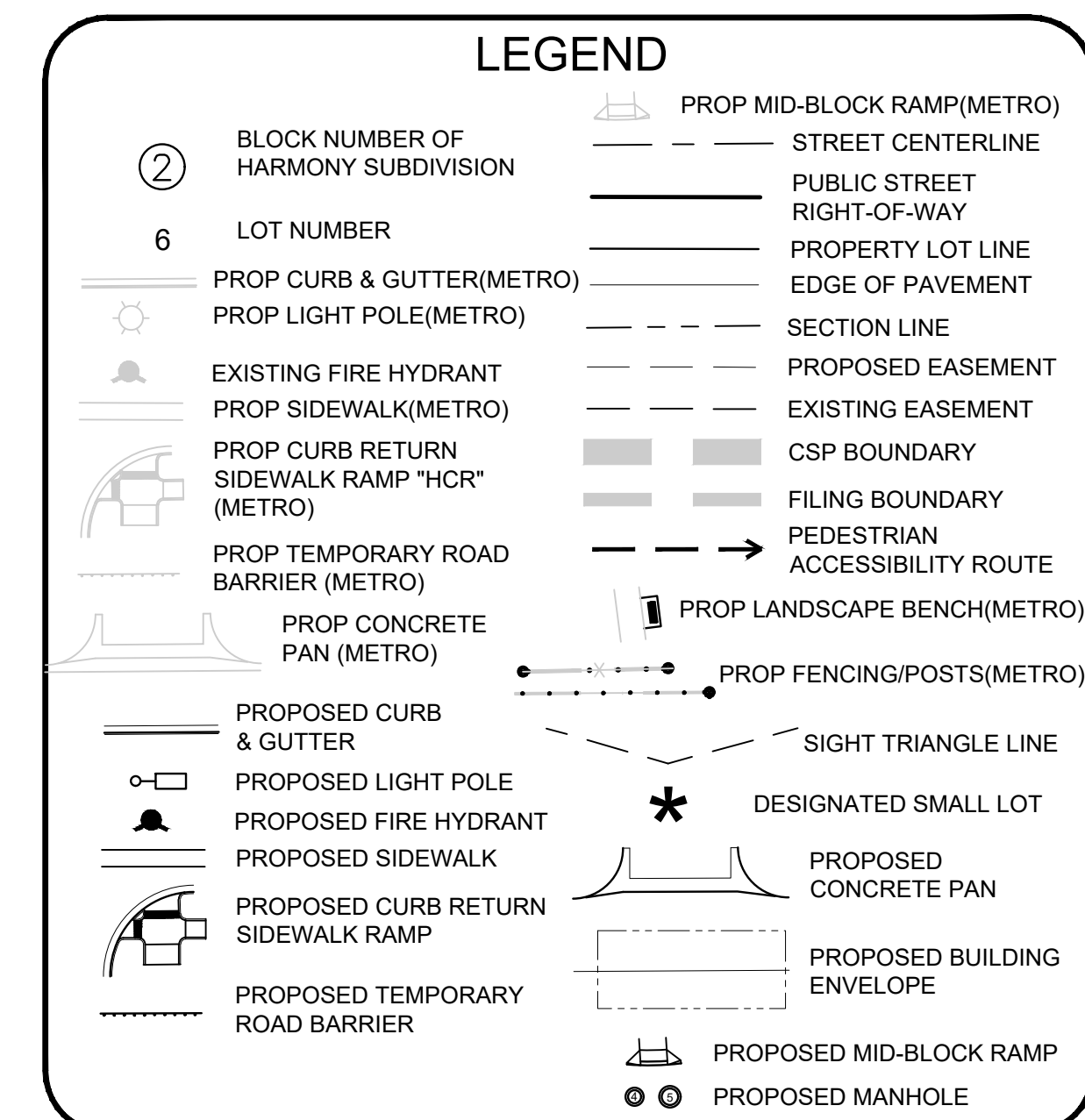
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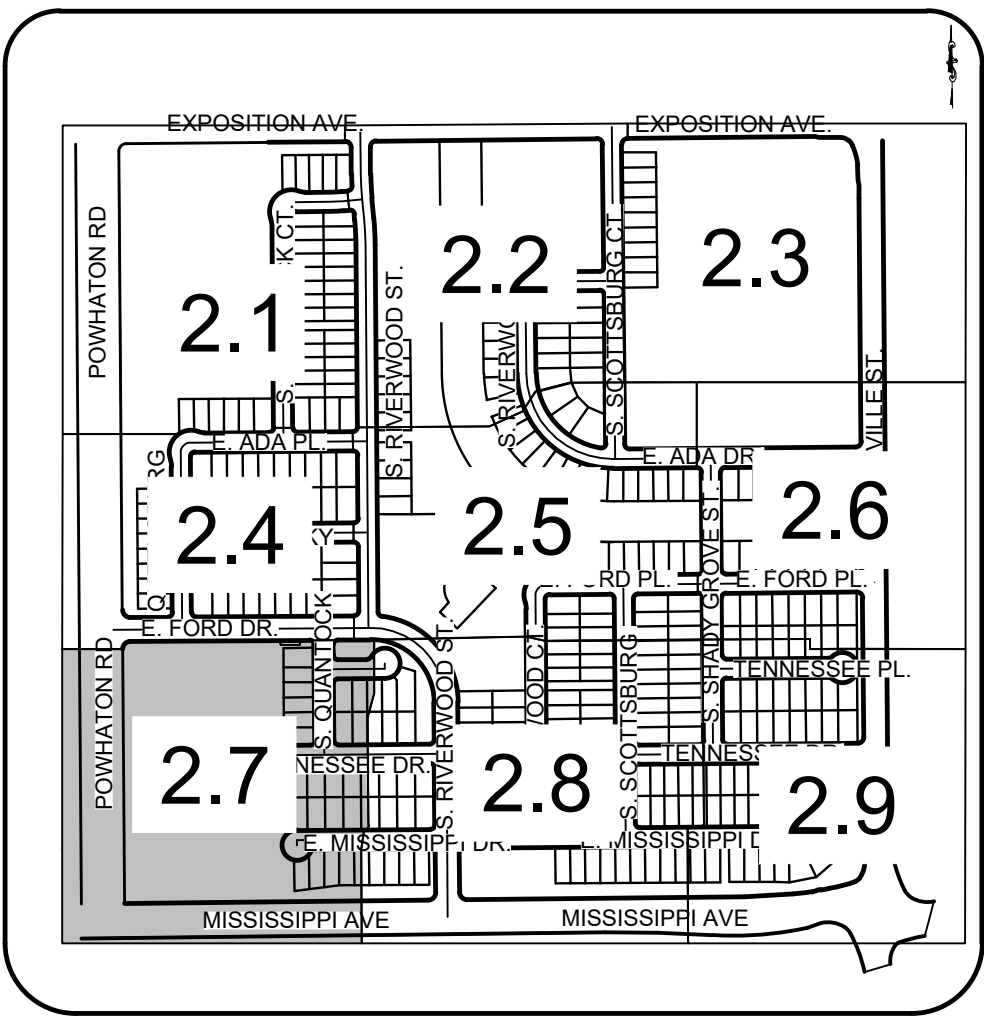
Westwood		Melcor/TC Aurora, LLC		HARMONY SUBDIVISION		SCALE: AS SHOWN		DRAWN BY: DJG		SHEET NUMBER	
10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526		C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440		CIVIL SITE PLAN NO. 5 AREA SITE PLAN		FILE NO: 8130214922		CHECKED BY: BPW		2.5	
Revisions		No.		Date		Date		DATE: AUGUST, 2022		OF 35	



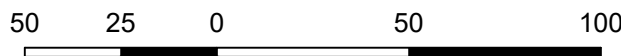
KEY MAP
N.T.S.

- NOTES:
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


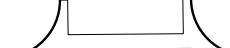






KEY MAP
N.T.S.

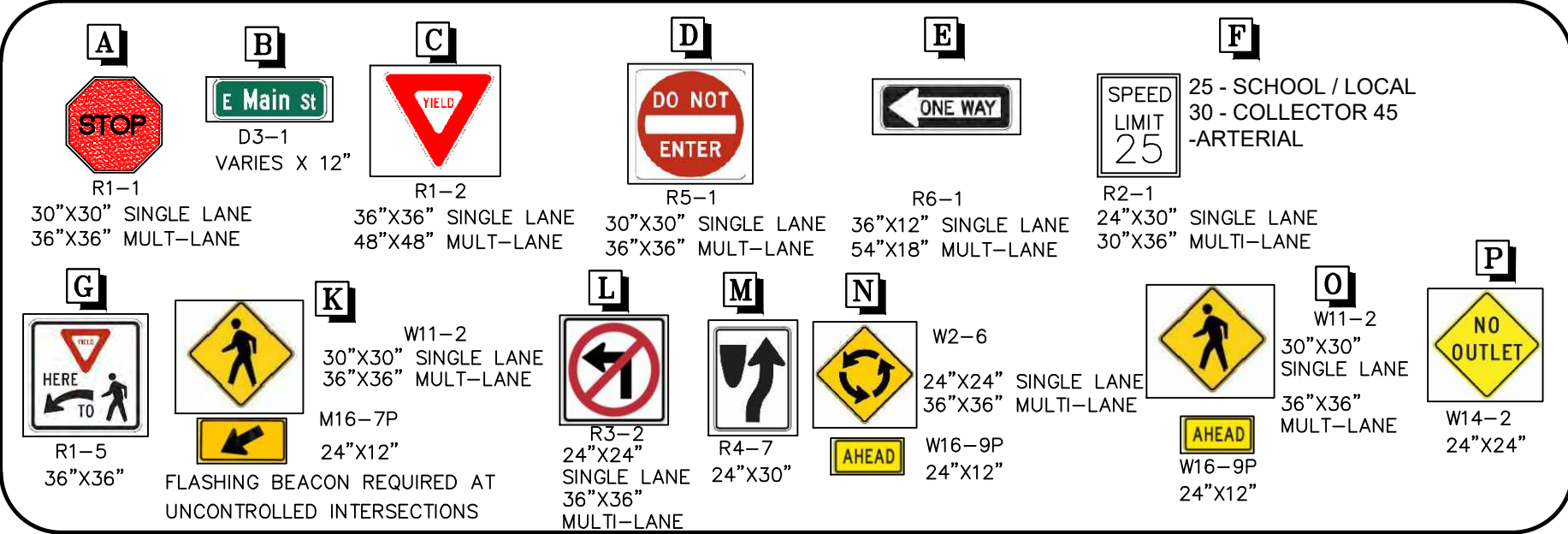


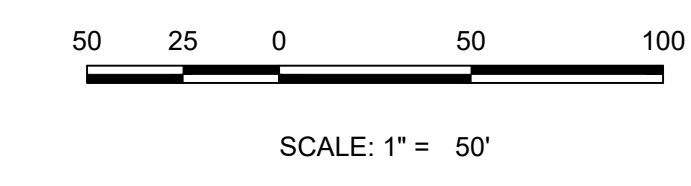
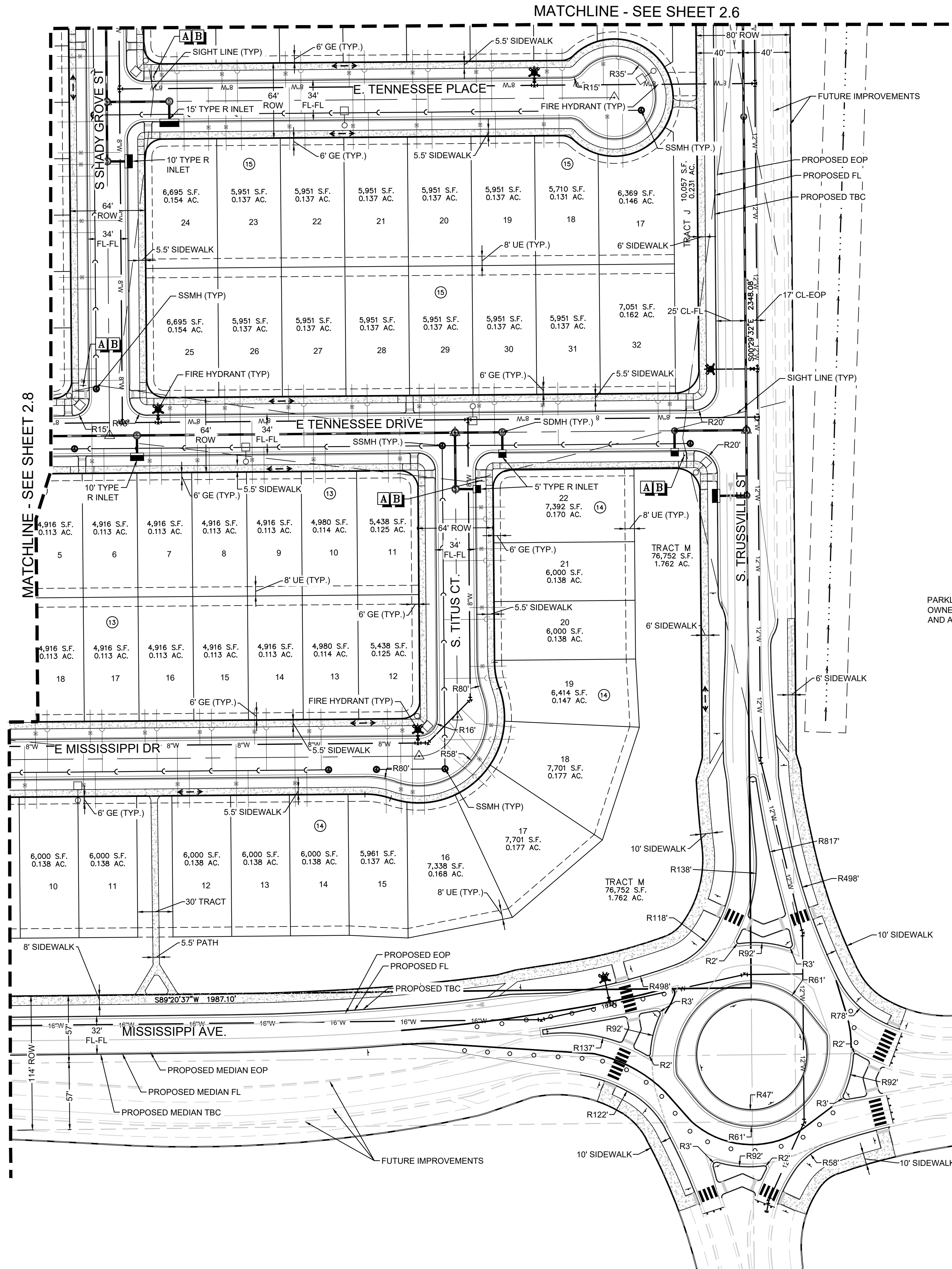
SCALE: 1" = 50'

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LEGEND

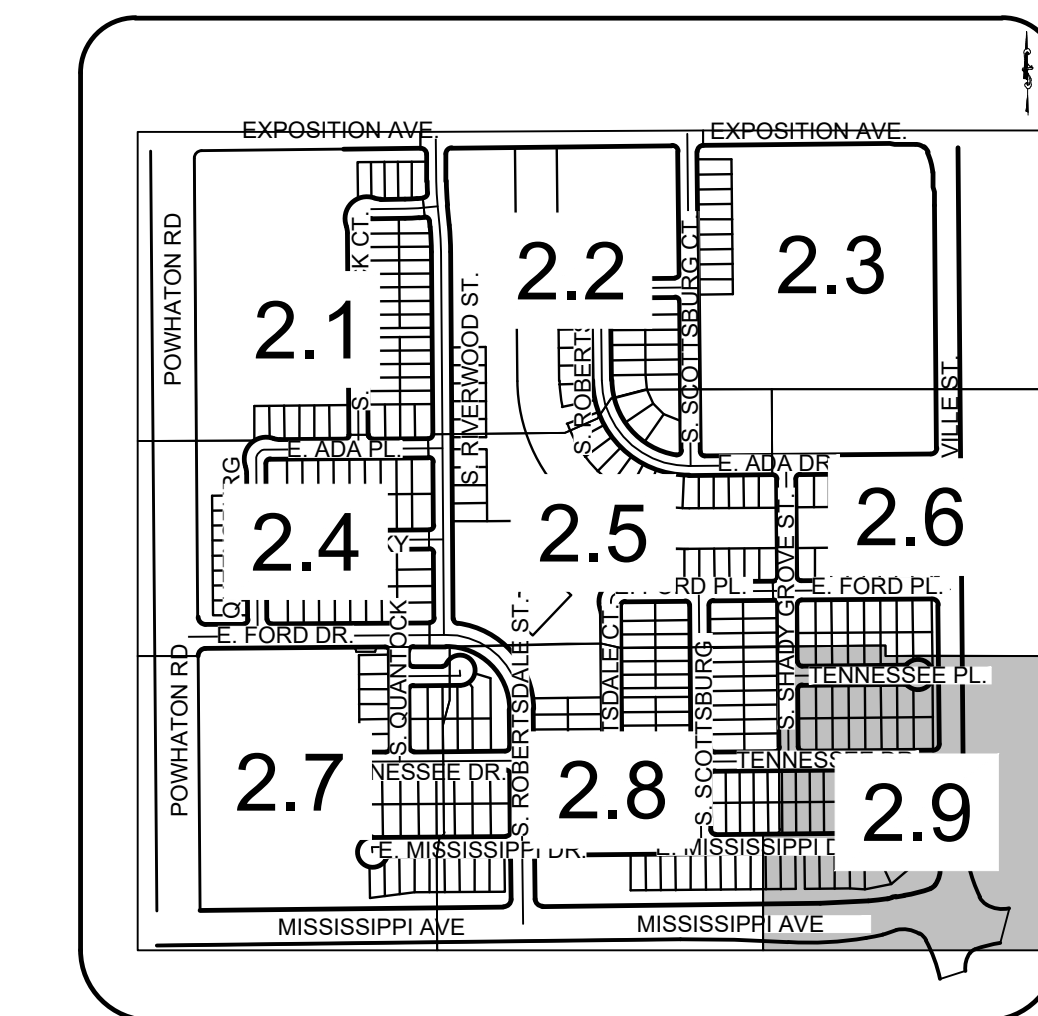
- | | | | |
|---|--|---|-----------------------------------|
|  | PROP MID-BLOCK RAMP(METRO) |  | STREET CENTERLINE |
|  | BLOCK NUMBER OF
HARMONY SUBDIVISION |  | PUBLIC STREET
RIGHT-OF-WAY |
|  | LOT NUMBER |  | PROPERTY LOT LINE |
|  | PROP CURB & GUTTER(METRO) |  | EDGE OF PAVEMENT |
|  | PROP LIGHT POLE(METRO) |  | SECTION LINE |
|  | EXISTING FIRE HYDRANT |  | PROPOSED EASEMENT |
|  | PROP SIDEWALK(METRO) |  | EXISTING EASEMENT |
|  | PROP CURB RETURN |  | CSP BOUNDARY |
|  | SIDEWALK RAMP "HCR"
(METRO) |  | FILING BOUNDARY |
|  | PROP TEMPORARY ROAD
BARRIER (METRO) |  | PEDESTRIAN
ACCESSIBILITY ROUTE |
|  | PROP CONCRETE
PAN (METRO) |  | PROP LANDSCAPE BENCH(METRO) |
|  | PROPOSED CURB
& GUTTER |  | PROP FENCING/POSTS(METRO) |
|  | PROPOSED LIGHT POLE |  | SIGHT TRIANGLE LINE |
|  | PROPOSED FIRE HYDRANT |  | DESIGNATED SMALL LOT |
|  | PROPOSED SIDEWALK |  | PROPOSED
CONCRETE PAN |
|  | PROPOSED CURB RETURN |  | PROPOSED BUILDING
ENVELOPE |
|  | SIDEWALK RAMP | | |
|  | PROPOSED TEMPORARY
ROAD BARRIER |  | PROPOSED MID-BLOCK RAMP |
| | |  | PROPOSED MANHOLE |





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PARKLANDS
OWNER: COPPER/ALPERT
AND ACJ PARTNERSHIP



KEY MAP
N.T.S.

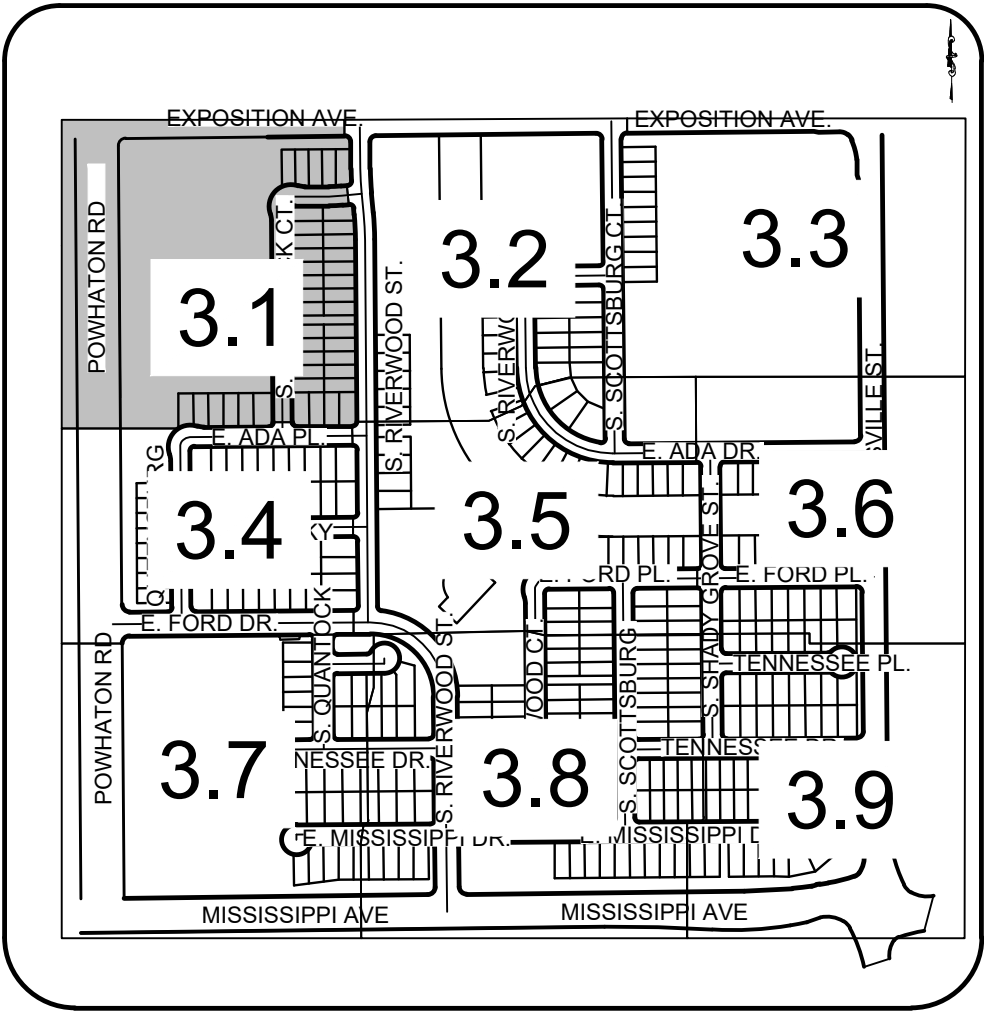
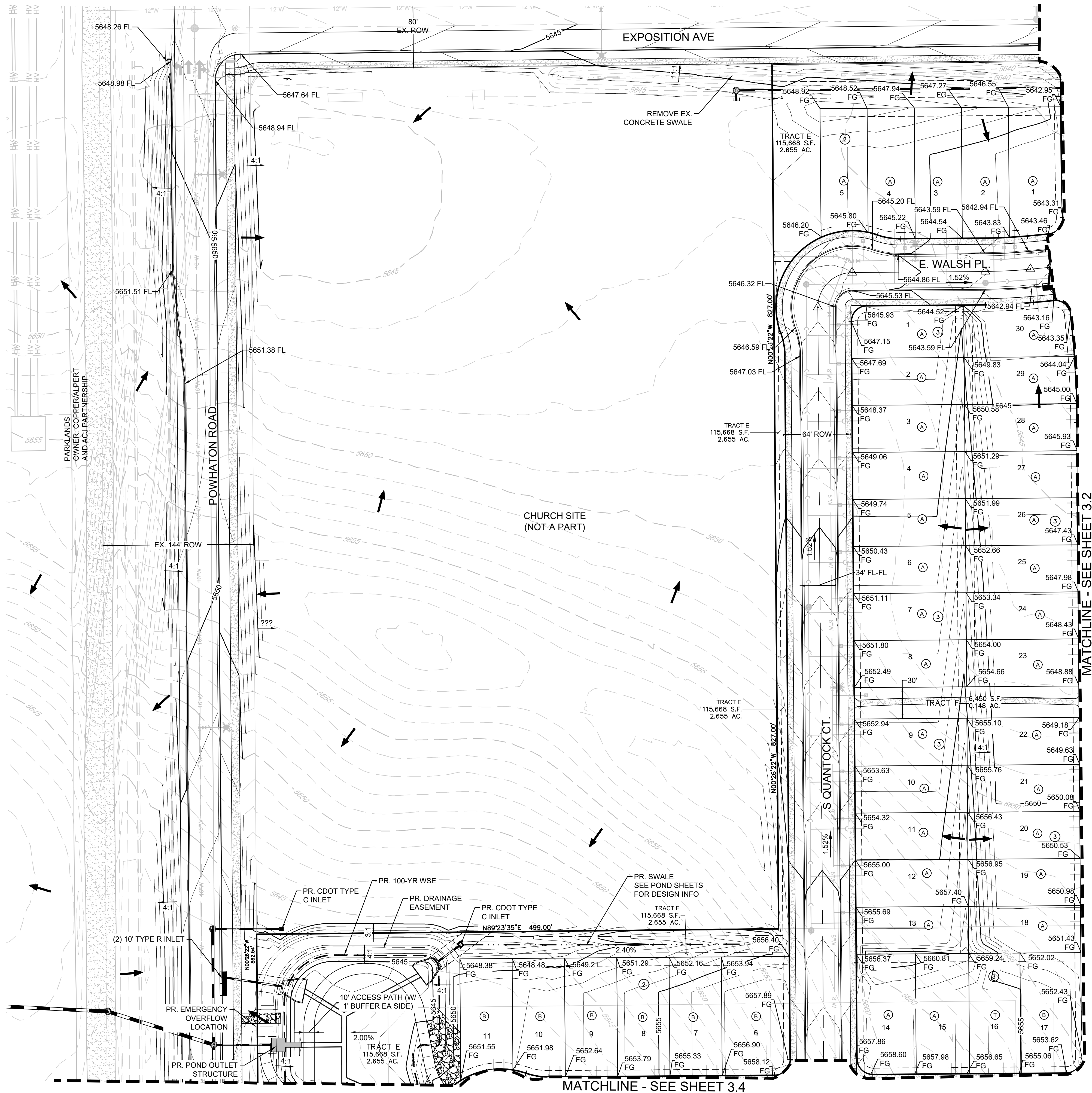
LEGEND

② BLOCK NUMBER OF HARMONY SUBDIVISION	PROPOSED MID-BLOCK RAMP(METRO)
6 LOT NUMBER	STREET CENTERLINE
PROPOSED CURB & GUTTER(METRO)	PUBLIC STREET
PROPOSED LIGHT POLE(METRO)	RIGHT-OF-WAY
EXISTING FIRE HYDRANT	PROPERTY LOT LINE
PROPOSED SIDEWALK(METRO)	EDGE OF PAVEMENT
PROPOSED CURB RETURN SIDEWALK RAMP "HCR" (METRO)	SECTION LINE
PROPOSED TEMPORARY ROAD BARRIER (METRO)	PROPOSED EASEMENT
PROPOSED CONCRETE PAN (METRO)	EXISTING EASEMENT
PROPOSED CURB & GUTTER	CSP BOUNDARY
PROPOSED LIGHT POLE	FILING BOUNDARY
PROPOSED FIRE HYDRANT	PEDESTRIAN ACCESSIBILITY ROUTE
PROPOSED SIDEWALK	PROPOSED LANDSCAPE BENCH(METRO)
PROPOSED CURB RETURN SIDEWALK RAMP	PROPOSED FENCING/POSTS(METRO)
PROPOSED TEMPORARY ROAD BARRIER	SIGHT TRIANGLE LINE
	DESIGNATED SMALL LOT
	PROPOSED CONCRETE PAN
	PROPOSED BUILDING ENVELOPE
	PROPOSED MID-BLOCK RAMP
	PROPOSED MANHOLE

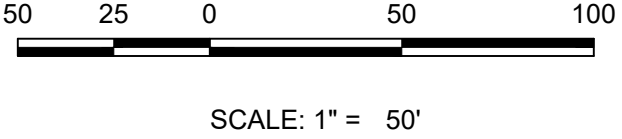
TRAFFIC CONTROL

A STOP R1-1 30"x30" SINGLE LANE 36"x36" MULT-LANE	B E Main St D3-1 VARIES X 12"	C YIELD R1-2 36"x36" SINGLE LANE 48"x48" MULT-LANE	D DO NOT ENTER R5-1 30"x30" SINGLE LANE 36"x36" MULT-LANE	E ONE WAY R6-1 36"x12" SINGLE LANE 54"x18" MULT-LANE	F SPEED LIMIT 25 R2-1 24"x30" SINGLE LANE 30"x36" MULT-LANE
G HERE TO R1-5 36"x36"	K FLASHING BEACON REQUIRED AT UNCONTROLLED INTERSECTIONS W11-2 30"x30" SINGLE LANE 36"x36" MULT-LANE M16-7P 24"x12"	L NO LEFT TURN R3-2 24"x24" SINGLE LANE 36"x36" MULT-LANE	M AHEAD R4-7 24"x30"	N AHEAD W2-6 24"x24" SINGLE LANE 36"x36" MULT-LANE W16-9P 24"x12"	O NO OUTLET W11-2 30"x30" SINGLE LANE 36"x36" MULT-LANE W14-2 24"x24"

SHEET NUMBER 2.9 OF 35	DRAWN BY: DJG	SCALE: AS SHOWN	HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 AREA SITE PLAN	Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440	Westwood 10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526 Westwoodpa.com Westwood Professional Services, Inc.	Revisions No.	Date	Appr.	Date
	CHECKED BY: BPW	FILE NO: 8130214922							
	DATE: AUGUST, 2022								



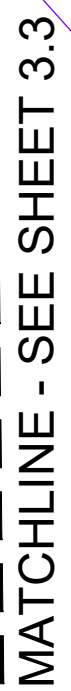
KEY MAP
N.T.S.



NOTES:

- ALL STORM DRAIN IS PUBLIC UNLESS OTHERWISE NOTED
- PONDS SHALL BE OWNED AND MAINTAINED BY THE DEVELOPER








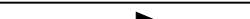

LEGEND	
— 5640 —	EXISTING MAJOR CONTOUR
- - - 5640 - - -	EXISTING MINOR CONTOUR
— 5640 —	PROPOSED MAJOR CONTOUR
- - - 5640 - - -	PROPOSED MINOR CONTOUR
→	PROPOSED OVERLAND FLOW
—	CSP BOUNDARY
—	PROPOSED STORM INLET
—	PROPOSED FLARED END SECTION
—	PROPOSED STORM DRAIN



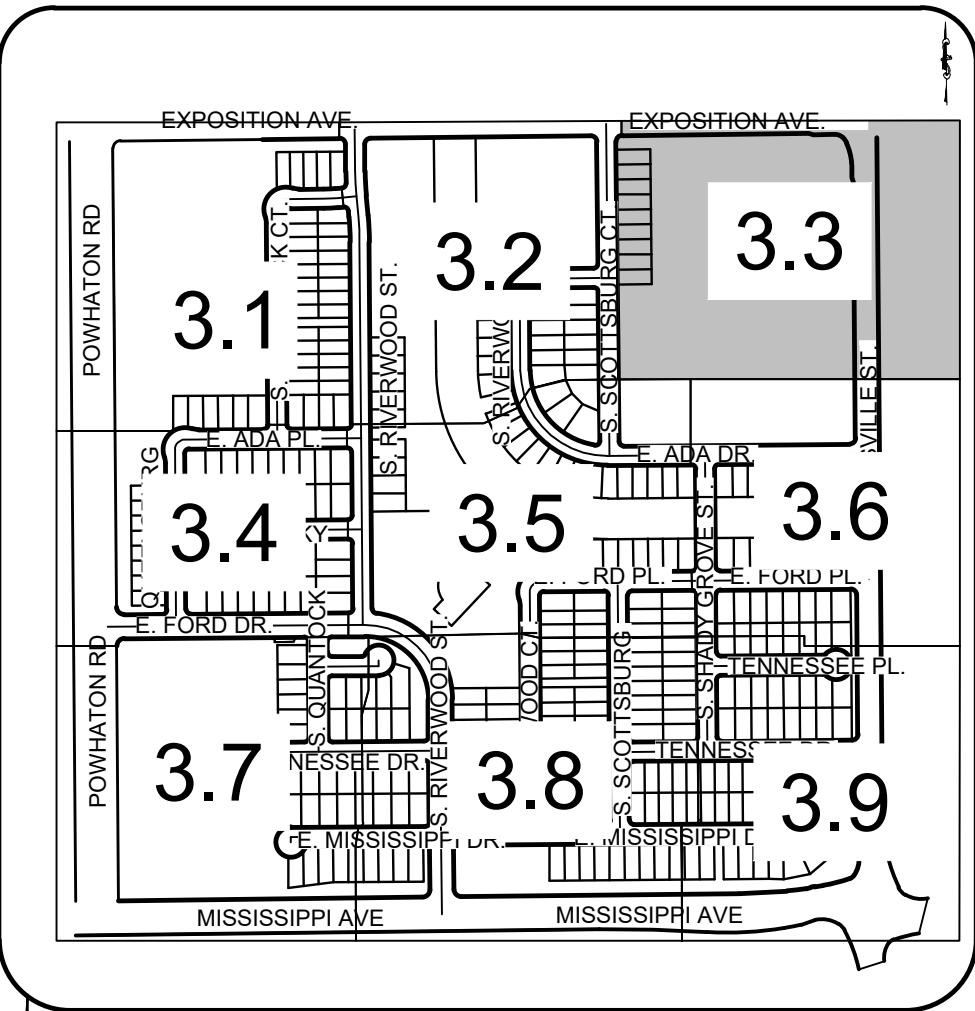
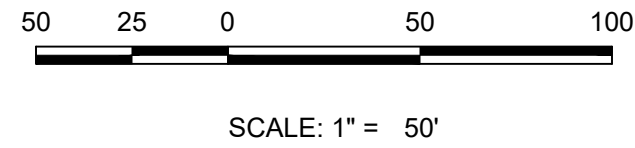
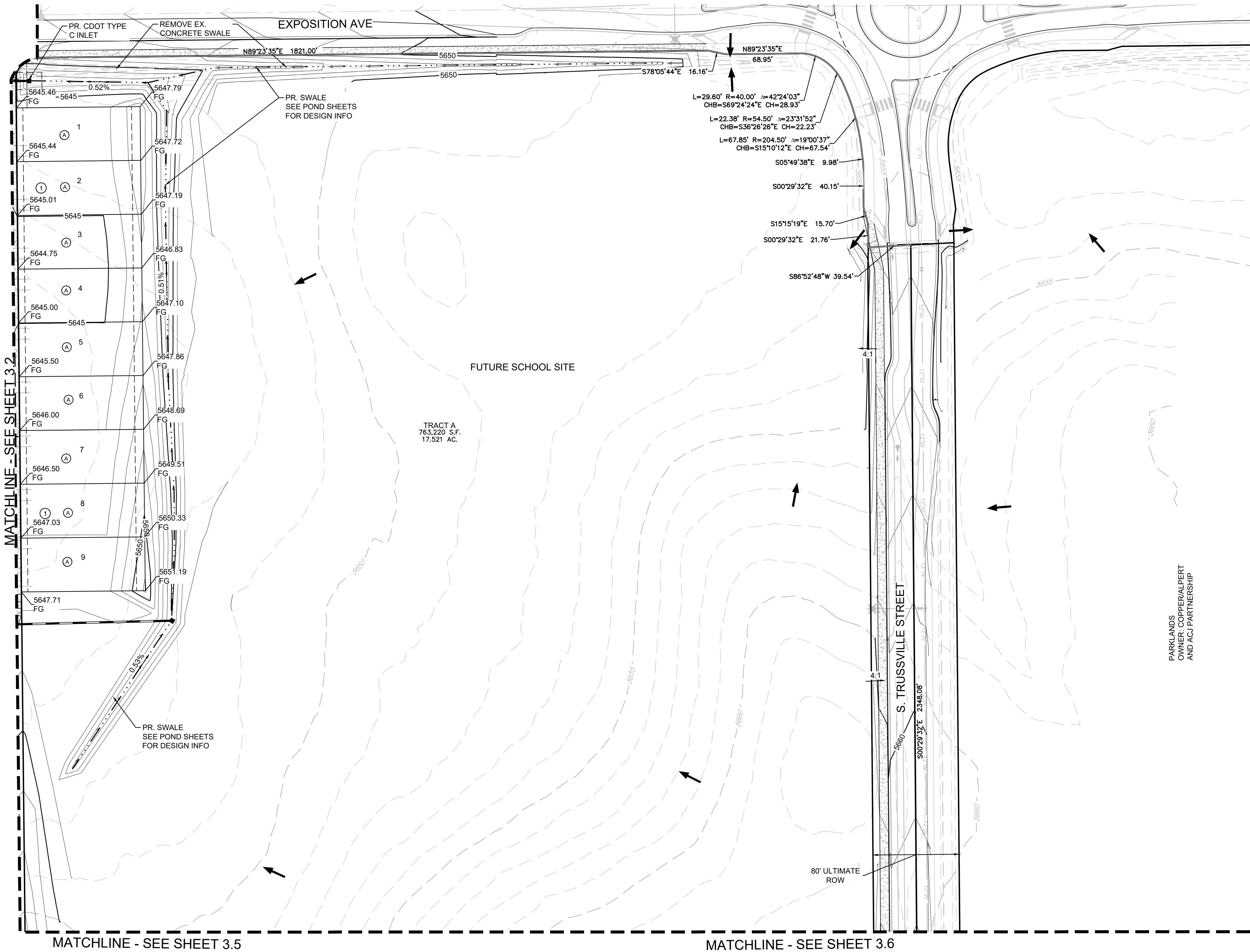
50 25 0 50 100

SCALE: 1" = 50'



- | LEGEND | |
|---|-----------------------------|
|  | EXISTING MAJOR CONTOUR |
|  | EXISTING MINOR CONTOUR |
|  | PROPOSED MAJOR CONTOUR |
|  | PROPOSED MINOR CONTOUR |
|  | PROPOSED OVERLAND FLOW |
|  | CSP BOUNDARY |
|  | PROPOSED STORM INLET |
|  | PROPOSED FLARED END SECTION |
|  | PROPOSED STORM DRAIN |

<div> <div>3.2</div> <div> <div>SHEET NUMBER</div> <div>OF 35</div> </div> </div>	<div> <div>DRAWN BY:</div> <div>DUG</div> </div>	<div> <div>SCALE:</div> <div>AS SHOWN</div> </div>	<div> <div>HARMONY SUBDIVISION</div> <div>CIVIL SITE PLAN NO. 5</div> <div>AREA GRADING PLAN</div> </div>		<div> <div>Melcor/TC Aurora, LLC</div> <div>C/O Marathon Land Company</div> <div>9750 W. Cambridge Place</div> <div>Littleton, CO 80127</div> <div>Tel: (303) 920-9400 Fax: (303) 920-9440</div> </div>	<div> <div>Westwood</div> <div>10333 E DRY CREEK RD.</div> <div>SUITE 240</div> <div>ENGLEWOOD, CO 80112</div> <div>TEL: 720.482.9526</div> <div>Westwoodps.com</div> <div>Westwood Professional Services, Inc.</div> </div>	<div> <div>No.</div> <div>Revisions</div> <div>Date</div> <div>Init.</div> <div>Appr.</div> </div>



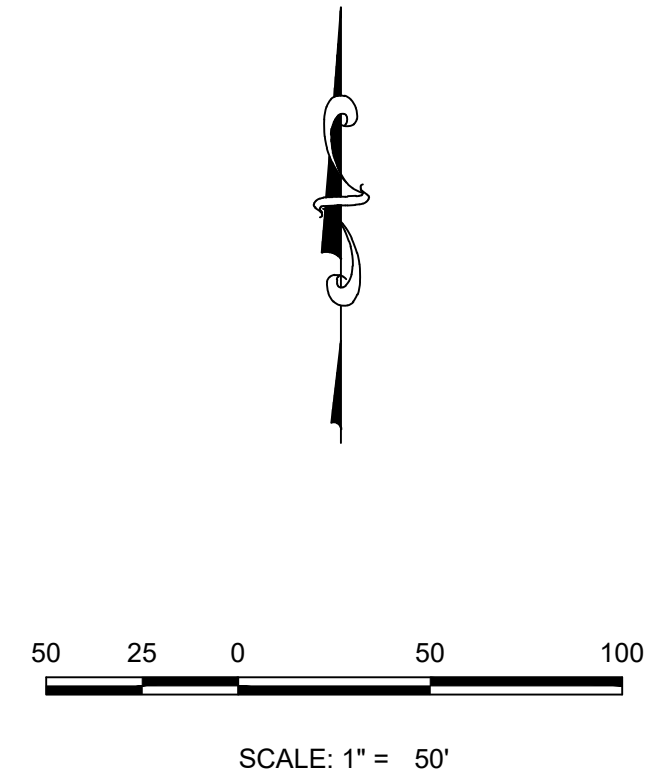
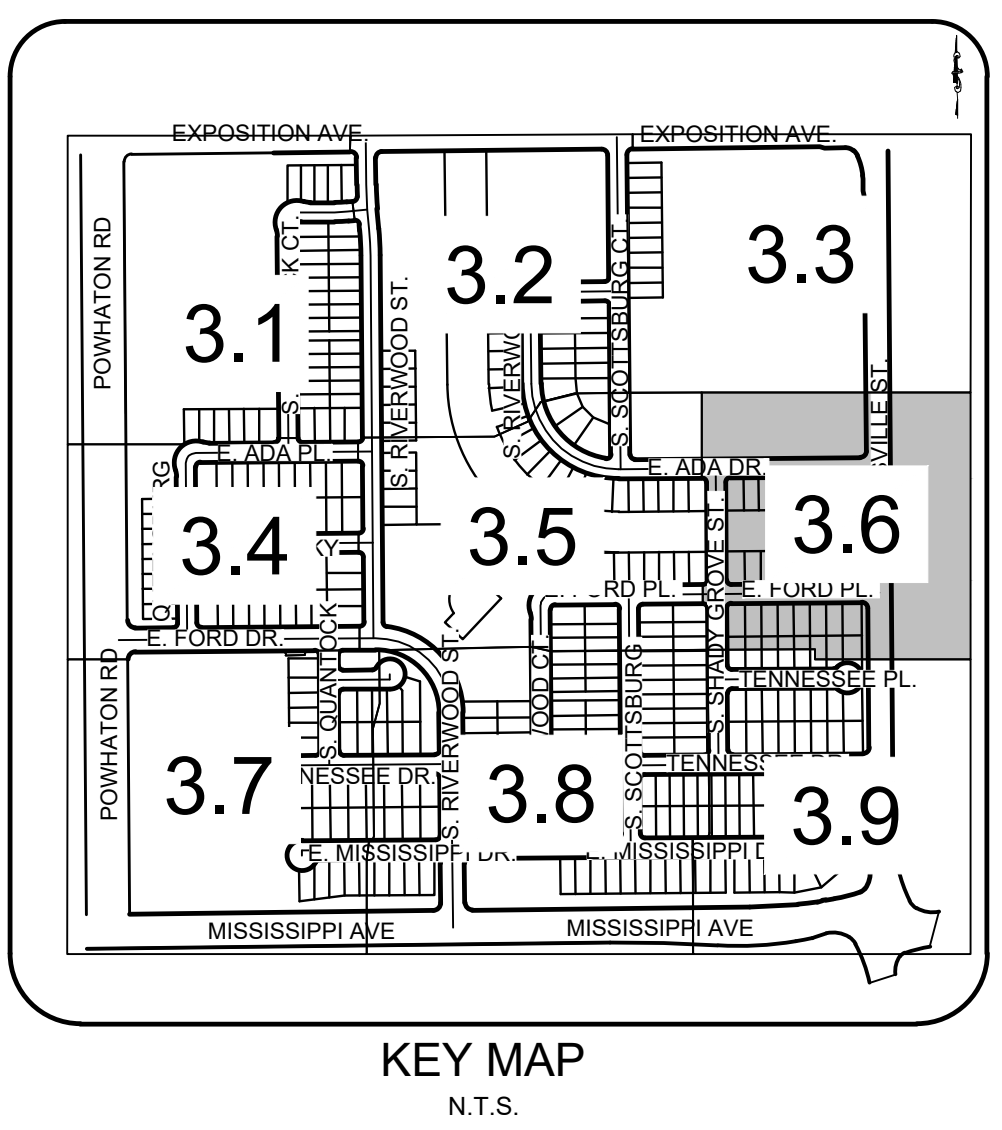
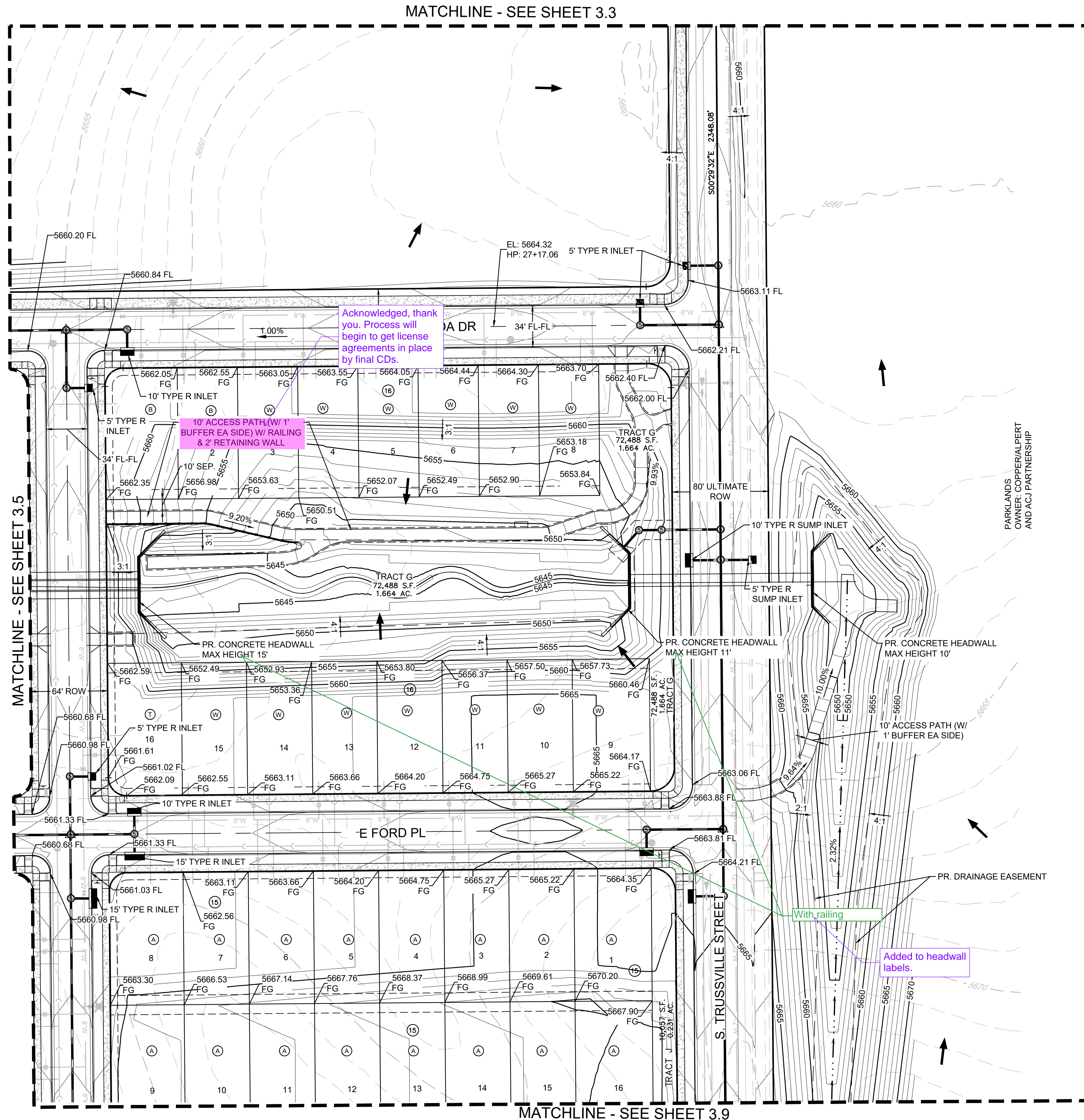
KEY MAP
N.T.S.

NOTES:

1. ALL STORM DRAIN IS PUBLIC UNLESS OTHERWISE NOTED
2. PONDS SHALL BE OWNED AND MAINTAINED BY THE DEVELOPER

LEGEND	
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED OVERLAND FLOW
	CSP BOUNDARY
	PROPOSED STORM INLET
	PROPOSED FLARED END SECTION
	PROPOSED STORM DRAIN

SHEET NUMBER 3.3 OF 35	DRAWN BY: DJB CHECKED BY: BPW DATE: AUGUST, 2022	SCALE: AS SHOWN FILE NO: 8130214922	HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 AREA GRADING PLAN	Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440	Westwood Westwoodps.com Westwood Professional Services, Inc.	10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526	Revisions	No.	Date	Init.	Appr.	Date

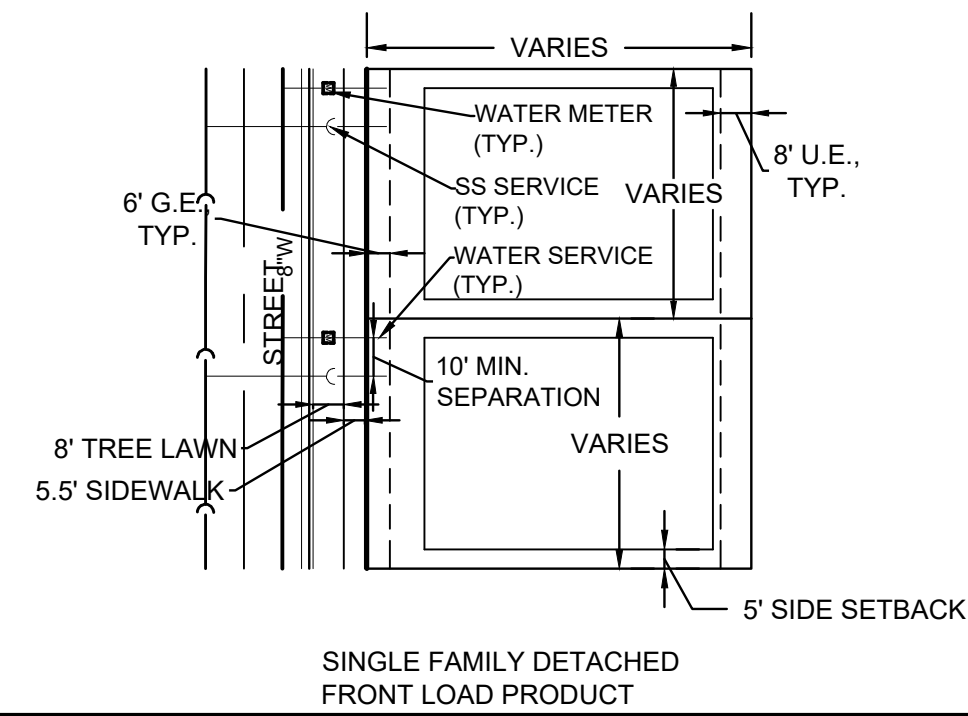
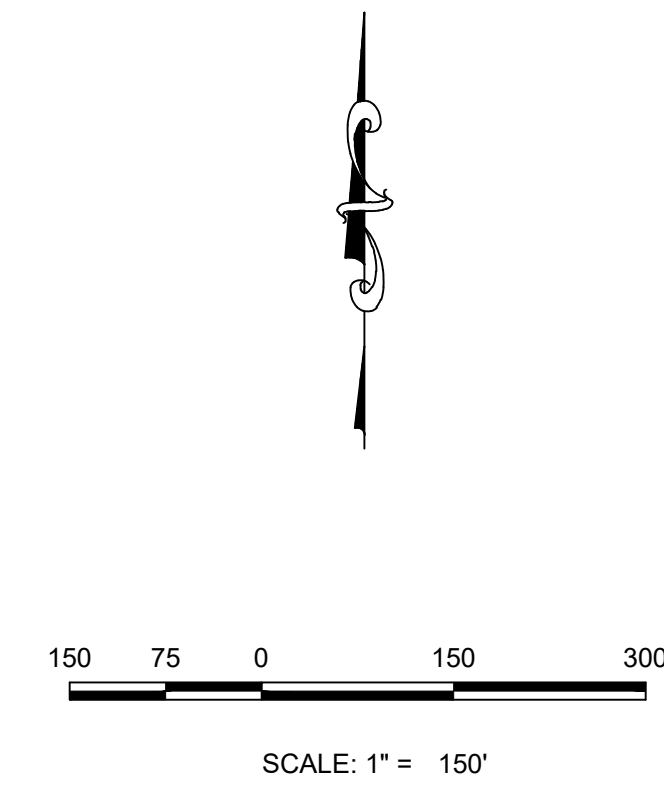


NOTES:








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LEGEND	
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED OVERLAND FLOW
	CSP BOUNDARY
	PROPOSED STORM INLET
	PROPOSED FLARED END SECTION
	PROPOSED STORM DRAIN

SHEET NUMBER	3.6	OF 35	DRAWN BY:	DJG	SCALE:	AS SHOWN	FILE NO:	8130214922	DATE:	AUGUST, 2022	Revisions	No.	Date	Appr.	Date
			CHECKED BY:	BPW											
HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 AREA GRADING PLAN															
Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440															
Westwood 10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526 Westwoodps.com Westwood Professional Services, Inc.															




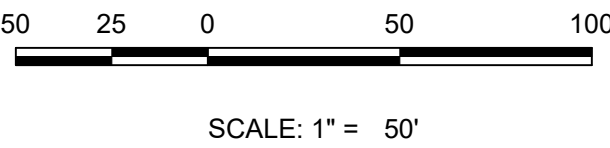
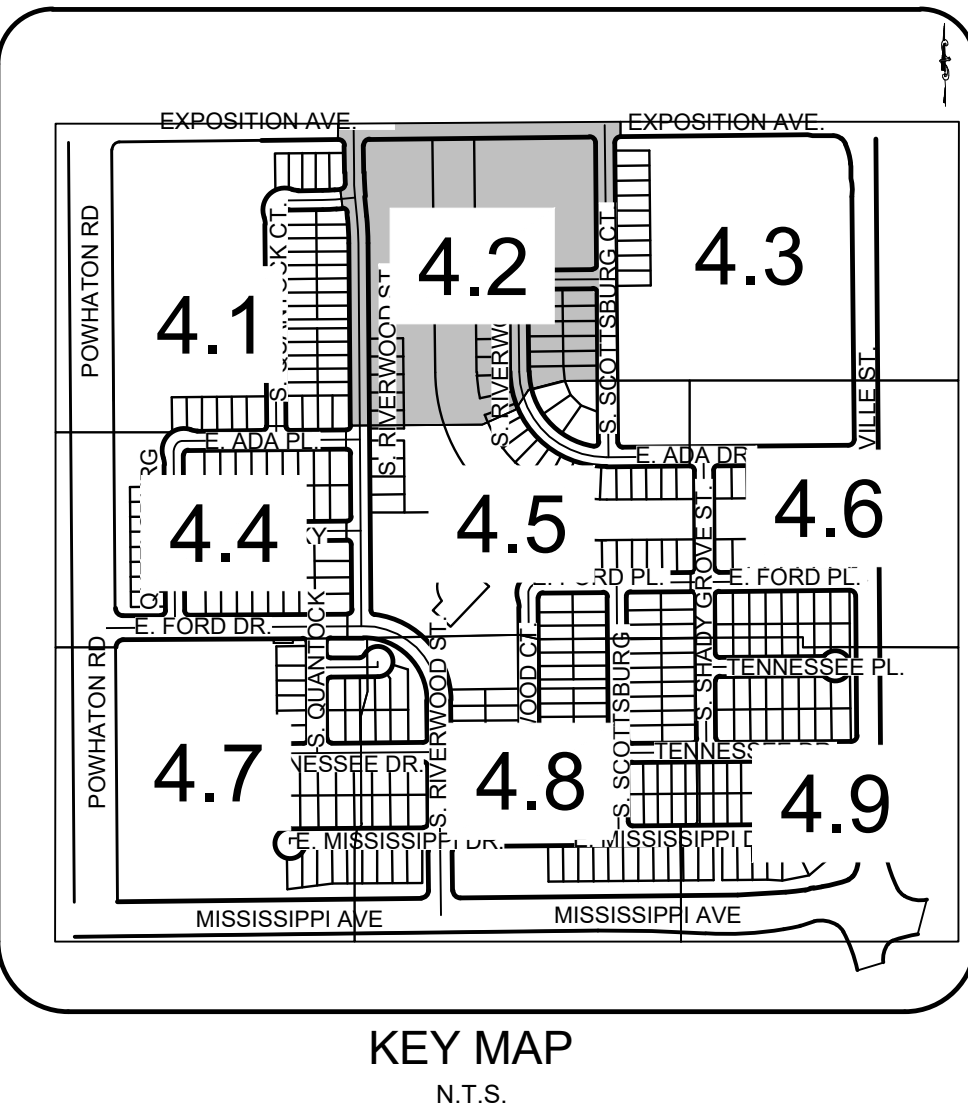
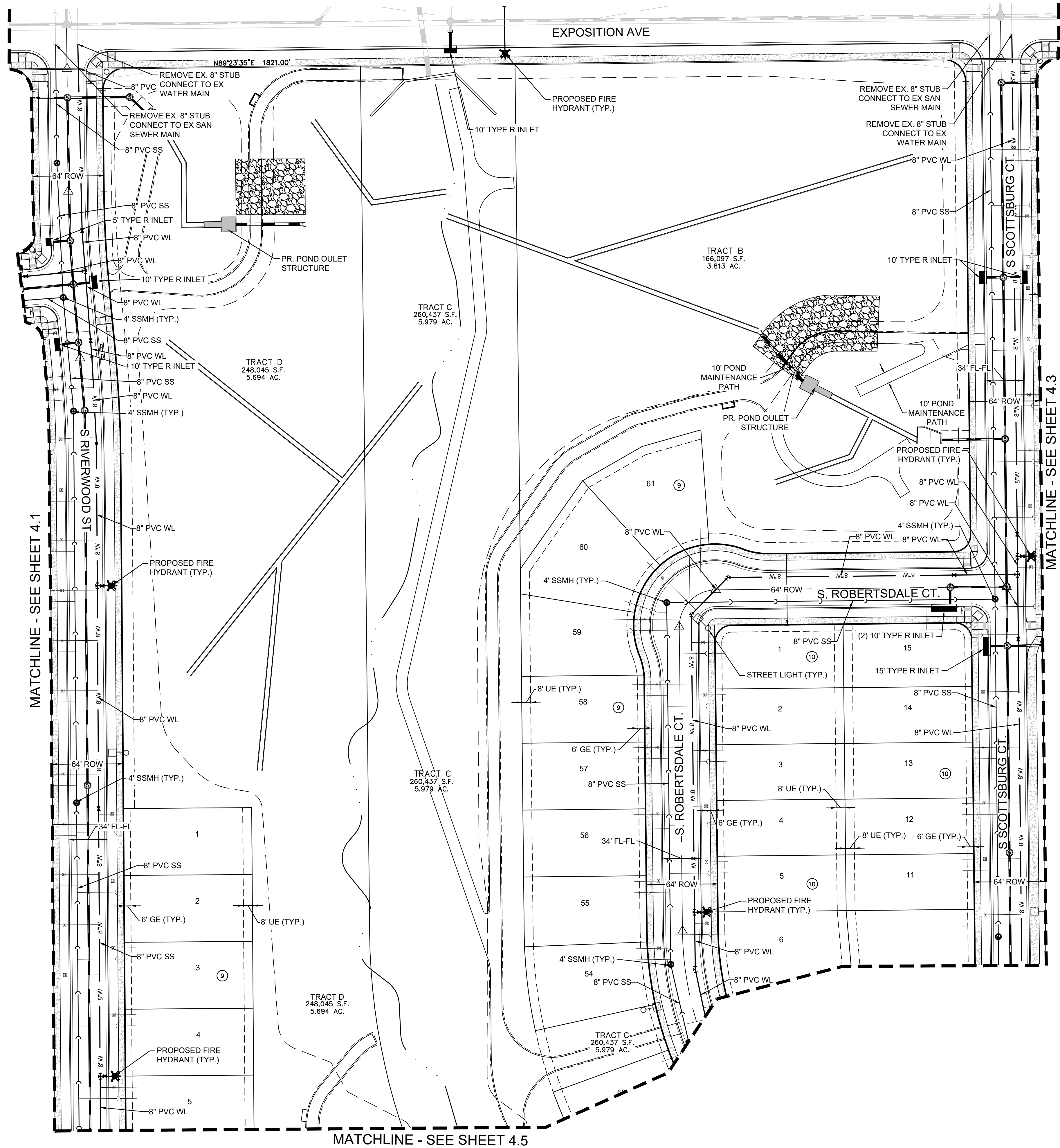
UTILITY LEGEND

	PROPOSED 8" WATERLINE UNLESS OTHERWISE NOTED		PROPOSED CAP W/ BLOW OFF
	PROPOSED GATE VALVE		EXISTING TREE
	PROPOSED 8" SANITARY SEWER WITH MANHOLE UNLESS OTHERWISE NOTED		PROPOSED FLARED END SECTION
	FILING NO 12 BOUNDARY		PROPOSED STORM DRAIN WITH MANHOLE
	PROPOSED IRRIGATION SLEEVE		EASEMENT LINE
	CENTERLINE		PROPOSED SWALE
	RIGHT-OF-WAY		PROPOSED AREA INLET
	PROPERTY LINE		AIR RELEASE VALVE
	PROPOSED WATER METER		STREET LIGHT
	PROPOSED IRRIGATION		LOT NUMBER
	PROPOSED UNDER DRAIN		BLOCK NUMBER
	PROPOSED 6" FIRE HYDRANT ASSEMBLY		
	EXISTING FIRE HYDRANT		

ABBREVIATIONS

AD	ANGLE DIFFERENCE	PVT	POINT OF VERTICAL TANGENT
BVC	BEGIN VERTICAL CURVE	RCBC	REINFORCED CONCRETE BOX CULVERT
BVP	BEGIN VERTICAL PROFILE	RCP	REINFORCED CONCRETE PIPE
EL	ELEVATION	ROW	RIGHT OF WAY
EP	EDGE OF PAVEMENT	RW	RAW WATER LINE
EVC	END VERTICAL CURVE	SD	STORM DRAIN
EVP	END VERTICAL PROFILE	SL	SECTION LINE
FG	FINISHED GROUND	SS	EDGE OF 6' SHOULDER OFFSET
FL	FLOW LINE	SS	SANITARY SEWER
HL	HIGH POINT	STA	STATION
INV	INVERT	TC	TOP OF CURB
K	CURVATURE COEFFICIENT	T.O.S.	TOP OF PIPE
LF	LINEAR FEET	UE	UTILITY EASEMENT
MH	MANHOLE	VC	VERTICAL CURVE
N.T.S.	NOT TO SCALE	WL	WATER LINE
PL	PROPERTY LINE	WSE	WATER SURFACE ELEVATION
PVC	POLYVINYL CHLORIDE		
PVI	POINT OF VERTICAL INTERSECTION		

SHEET NUMBER 4.0 OF 35	DRAWN BY:	DUG	SCALE:	HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 OVERALL UTILITY PLAN	Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440	 10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526 Westwoodps.com Westwood Professional Services, Inc.						
	CHECKED BY:	BPW	FILE NO.									
	DATE:	AUGUST, 2022	8130214922									



NOTES:

- 1) ALL STORM DRAIN IS PUBLIC UNLESS OTHERWISE NOTED
2) UNDER DRAINS ARE PRIVATE UNLESS OTHERWISE NOTED

UTILITY LEGEND

	PROPOSED 8" WATERLINE UNLESS OTHERWISE NOTED		PROPOSED CAP W/ BLOW OFF
	PROPOSED GATE VALVE		EXISTING TREE
	PROPOSED 8" SANITARY SEWER WITH MANHOLE UNLESS OTHERWISE NOTED		PROPOSED FLARED END SECTION
	FILING NO 12 BOUNDARY		PROPOSED STORM INLET
	PROPOSED IRRIGATION SLEEVE		PROPOSED STORM DRAIN WITH MANHOLE
	CENTERLINE		EASEMENT LINE
	RIGHT-OF-WAY		PROPOSED SWALE
	PROPERTY LINE		PROPOSED AREA INLET
	PROPOSED WATER METER		AIR RELEASE VALVE
	PROPOSED IRRIGATION		STREET LIGHT
	PROPOSED UNDER DRAIN		LOT NUMBER
	PROPOSED 6" FIRE HYDRANT ASSEMBLY		BLOCK NUMBER
	EXISTING FIRE HYDRANT		

ABBREVIATIONS

AD	ANGLE DIFFERENCE	PVT	POINT OF VERTICAL TANGENT
BVC	BEGIN VERTICAL CURVE	RCBC	REINFORCED CONCRETE BOX CULVERT
BVP	BEGIN VERTICAL PROFILE	RCP	REINFORCED CONCRETE PIPE
EL	ELEVATION	ROW	RIGHT OF WAY
EP	EDGE OF PAVEMENT	RW	RAW WATER LINE
EVC	END VERTICAL CURVE	SD	STORM DRAIN
EVP	END VERTICAL PROFILE	SL	SECTION LINE
FG	FINISHED GROUND	SO	EDGE OF 6" SHOULDER OFFSET
FL	FLOW LINE	SS	SANITARY SEWER
HP	HIGH POINT	STA	STATION
INV	INVERT	TC	TOP OF CURB
K	CURVATURE COEFFICIENT	T.O.S.	TOP OF PIPE
LF	LINEAR FEET	UE	UTILITY EASEMENT
MH	MANHOLE	VC	VERTICAL CURVE
N.T.S.	NOT TO SCALE	WL	WATER LINE
PL	PROPERTY LINE	WSE	WATER SURFACE ELEVATION
PVC	POLYVINYL CHLORIDE		
PVI	POINT OF VERTICAL INTERSECTION		

Westwood

10333 E DRY CREEK RD.
SUITE 240
ENGLEWOOD, CO 80112
TEL: 720.482.9526

Melcor/TC Aurora, LLC
C/O Marathon Land Company
9750 W. Cambridge Place
Littleton, CO 80127
Tel: (303) 920-9400 Fax: (303) 920-9440

HARMONY SUBDIVISION
CIVIL SITE PLAN NO. 5
AREA UTILITY PLAN

SCALE: AS SHOWN

DRAWN BY: DJG

CHECKED BY: BPW

DATE: AUGUST, 2022

FILE NO: 8130214922

DATE: AUGUST, 2022

SHEET NUMBER 4.2 OF 35

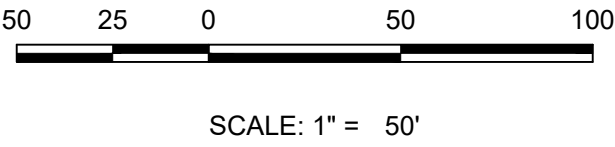
No.

Revisions


Init.

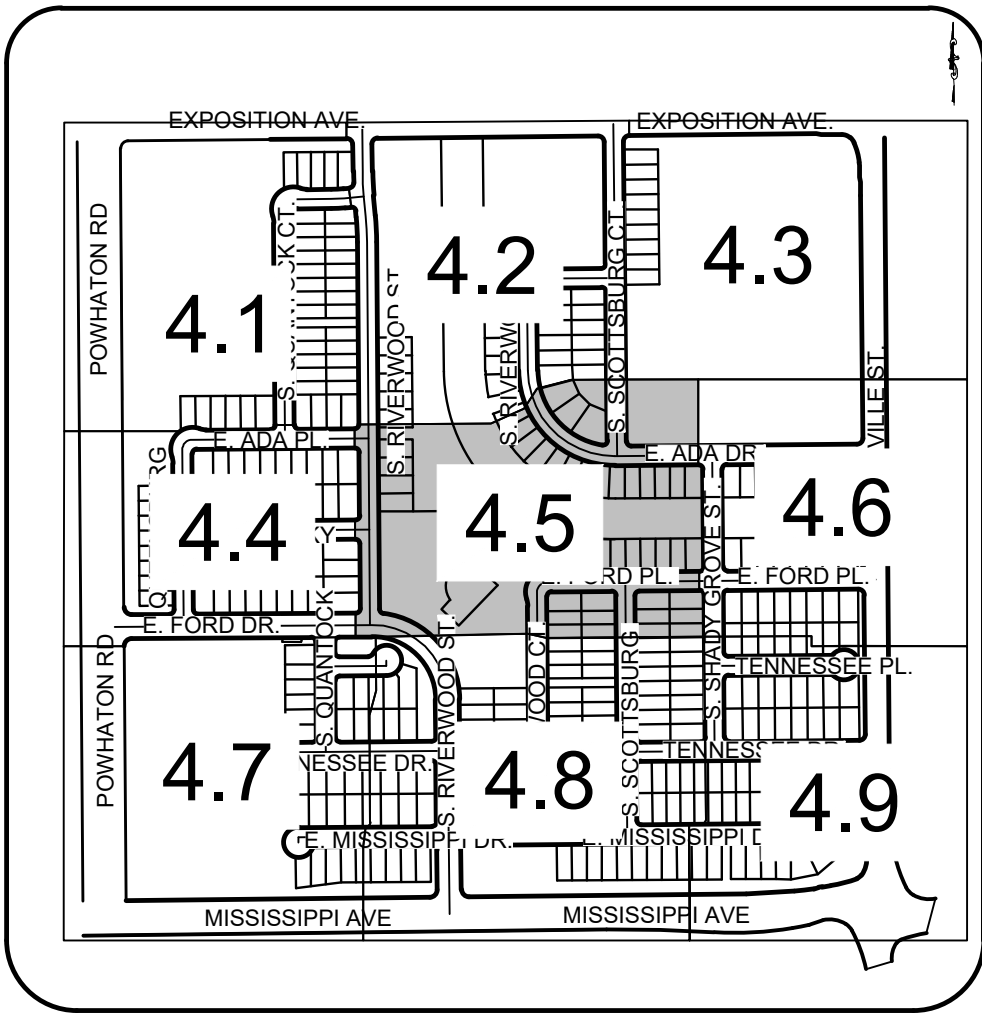
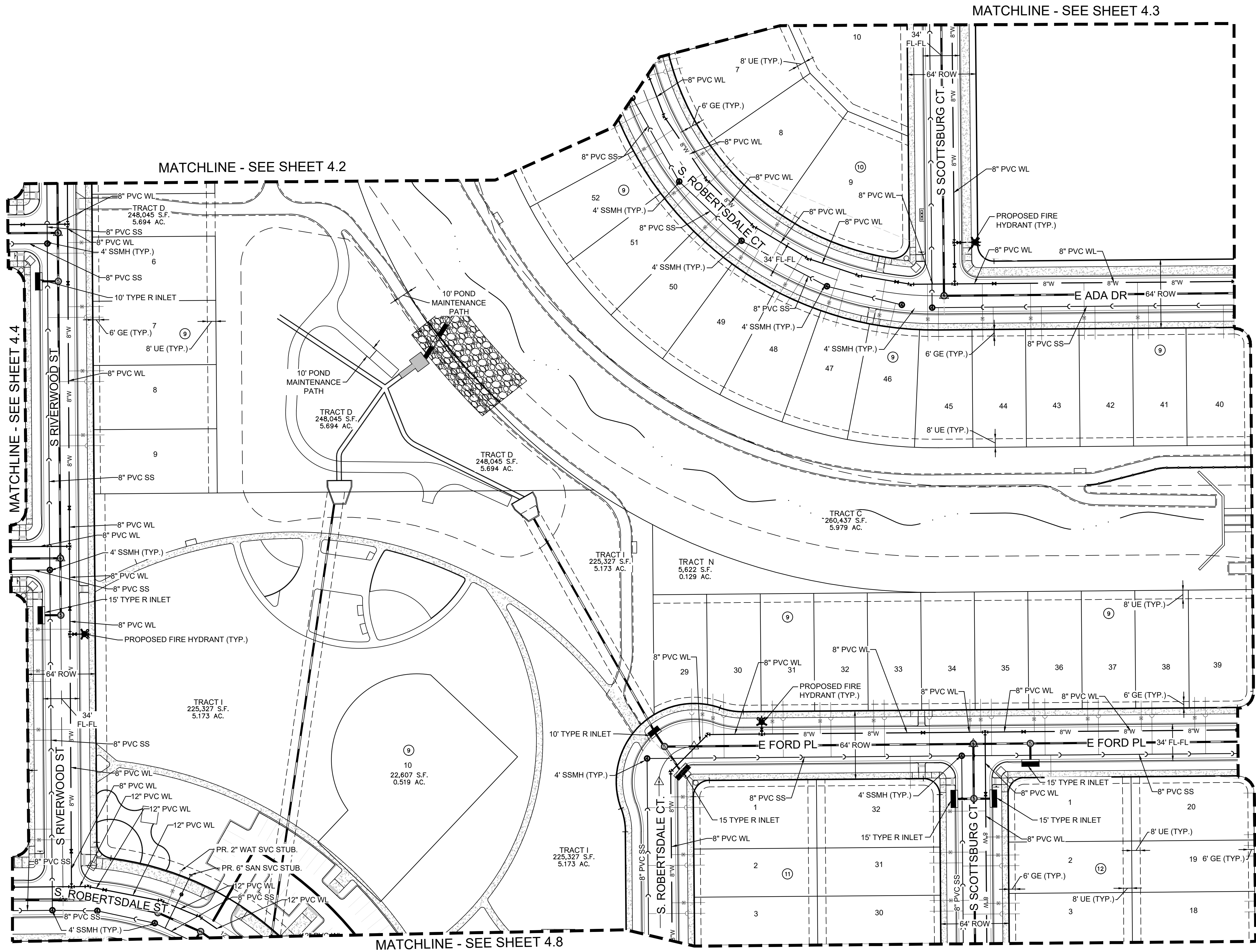
Appr.

Date

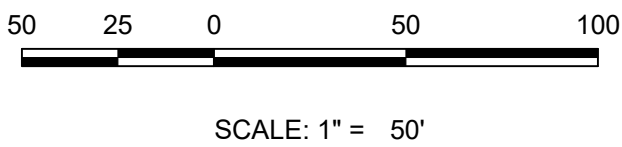


1) ALL STORM DRAIN IS PUBLIC UNLESS OTHERWISE NOTED
2) UNDER DRAINS ARE PRIVATE UNLESS OTHERWISE NOTED

SHEET NUMBER	4.3	OF 35	DRAWN BY:	DJG	SCALE:	HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 AREA UTILITY PLAN	MelcorTC Aurora, LLC C/O Marathon Land Company 9/50 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440	 Westwoodjps.com Westwood Professional Services, Inc.	10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526	No.	Revisions	Date	Init.	Appr.	Date	
			CHECKED BY:	BPW	FILE NO:											8130214922
			DATE:	AUGUST, 2022												



KEY MAP
N.T.S.



NOTES:

- 1) ALL STORM DRAIN IS PUBLIC UNLESS OTHERWISE NOTED
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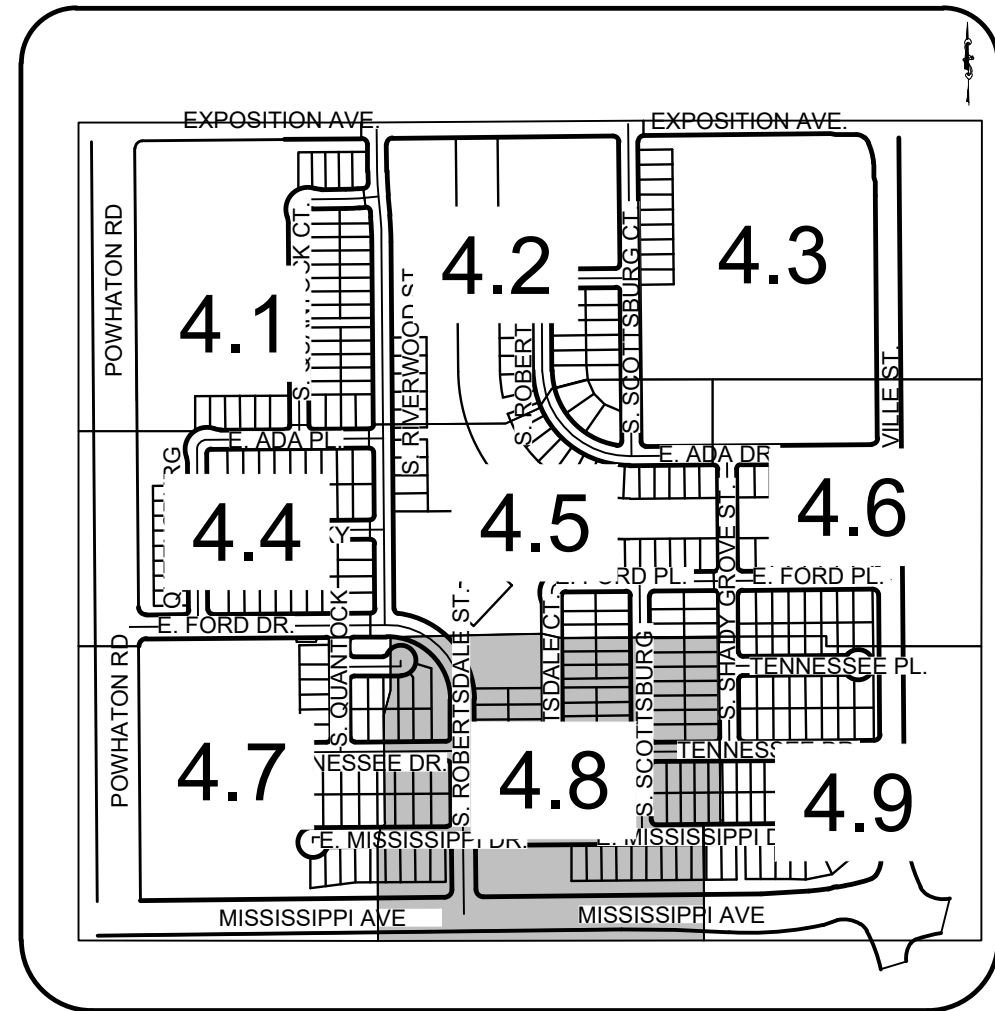
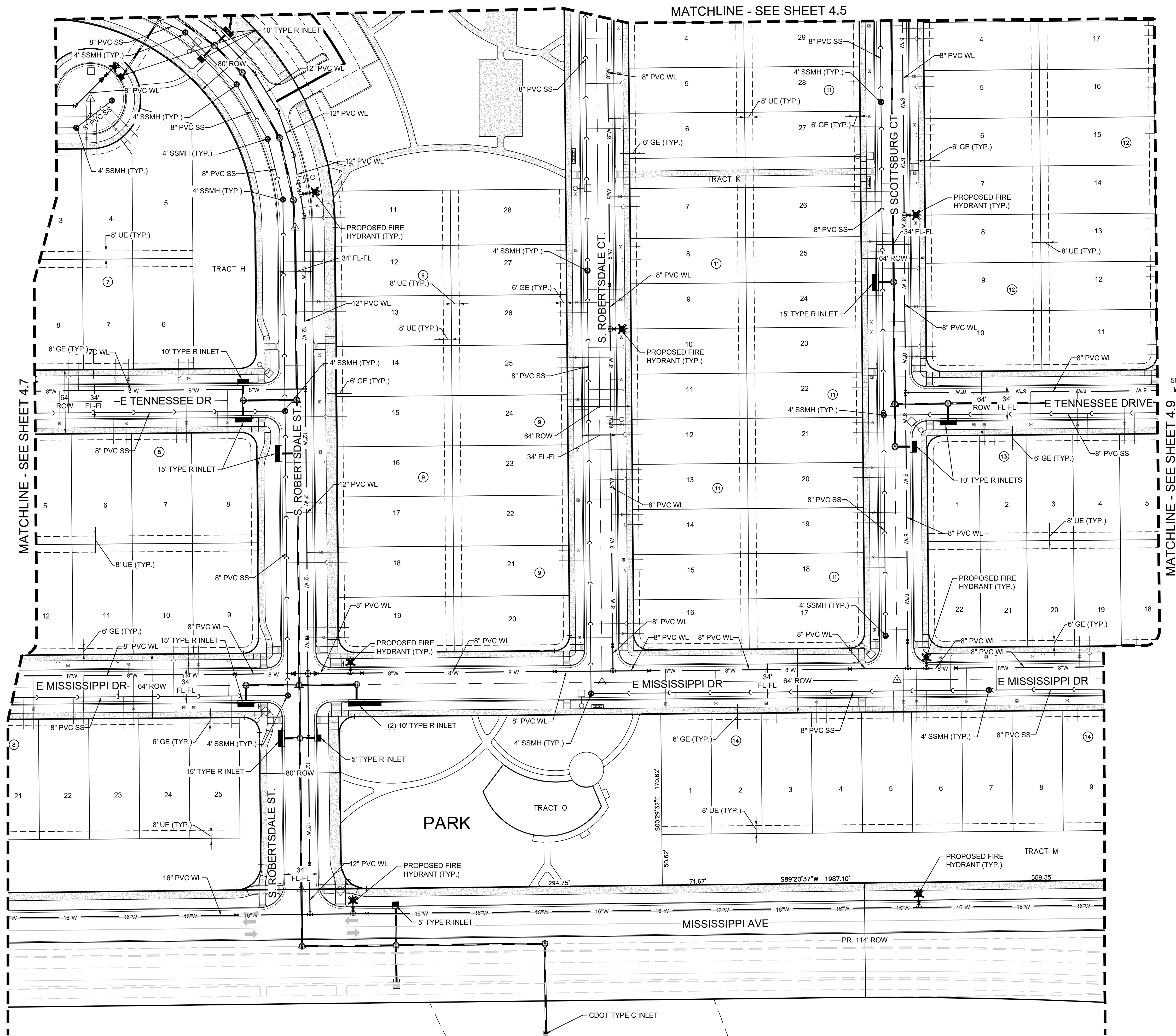
UTILITY LEGEND

	PROPOSED 8" WATERLINE UNLESS OTHERWISE NOTED		PROPOSED CAP W/ BLOW OFF
	PROPOSED GATE VALVE		EXISTING TREE
	PROPOSED 8" SANITARY SEWER WITH MANHOLE UNLESS OTHERWISE NOTED		PROPOSED FLARED END SECTION
	FILING NO 12 BOUNDARY		PROPOSED STORM DRAIN WITH MANHOLE
	PROPOSED IRRIGATION SLEEVE		PROPOSED STORM DRAIN WITH MANHOLE
	CENTERLINE		EASEMENT LINE
	RIGHT-OF-WAY		PROPOSED SWALE
	PROPERTY LINE		PROPOSED AREA INLET
	PROPOSED WATER METER		AIR RELEASE VALVE
	PROPOSED IRRIGATION		STREET LIGHT
	PROPOSED UNDER DRAIN		LOT NUMBER
	PROPOSED 6" FIRE HYDRANT ASSEMBLY		BLOCK NUMBER
	EXISTING FIRE HYDRANT		

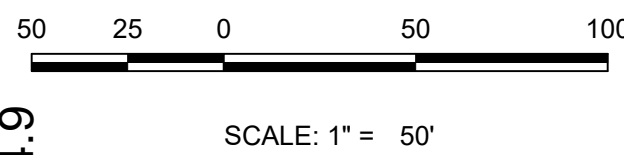
ABBREVIATIONS

AD	ANGLE DIFFERENCE	PVT	POINT OF VERTICAL TANGENT
BVC	BEGIN VERTICAL CURVE	RCBC	REINFORCED CONCRETE BOX CULVERT
BVP	BEGIN VERTICAL PROFILE	RCP	REINFORCED CONCRETE PIPE
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EP	EDGE OF PAVEMENT	RW	RAW WATER LINE
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EVP	END VERTICAL PROFILE	SL	SECTION LINE
FG	FINISHED GROUND	SO	EDGE OF 6" SHOULDER OFFSET
FL	FLOW LINE	SS	SANITARY SEWER
HP	HIGH POINT	STA	STATION
INV	INVERT	TC	TOP OF CURB
K	CURVATURE COEFFICIENT	T.O.S.	TOP OF PIPE
LF	LINEAR FEET	UE	UTILITY EASEMENT
MH	MANHOLE	VC	VERTICAL CURVE
N.T.S.	NOT TO SCALE	WL	WATER LINE
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PVI	POINT OF VERTICAL INTERSECTION		

Westwood		Melcor/TC Aurora, LLC		HARMONY SUBDIVISION		SCALE: AS SHOWN		SHEET NUMBER	
10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526		C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440		CIVIL SITE PLAN NO. 5 AREA UTILITY PLAN		FILE NO: 8130214922		4.5	
No.		Revisions		Date		Init.		Appr.	
Date		Date		Date		Date		Date	
August, 2022		August, 2022		August, 2022		August, 2022		August, 2022	



KEY MAP
N.T.S.



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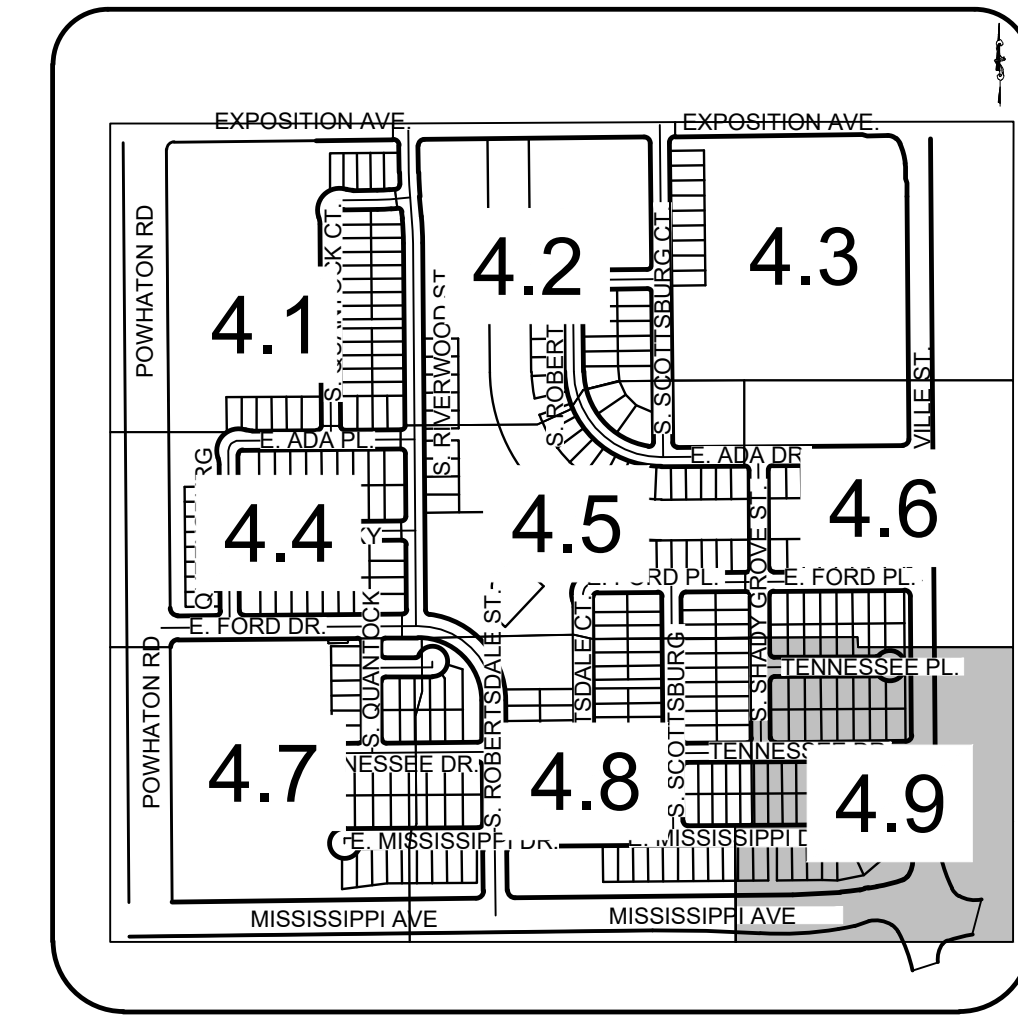
UTILITY LEGEND

	PROPOSED 8" WATERLINE UNLESS OTHERWISE NOTED		PROPOSED CAP W/ BLOW OFF
	PROPOSED GATE VALVE		EXISTING TREE
	PROPOSED 8" SANITARY SEWER WITH MANHOLE UNLESS OTHERWISE NOTED		PROPOSED FLARED END SECTION
	FILING NO 12 BOUNDARY		PROPOSED STORM DRAIN WITH MANHOLE
	PROPOSED IRRIGATION SLEEVE		EASEMENT LINE
	CENTERLINE		PROPOSED SWALE
	RIGHT-OF-WAY		PROPOSED AREA INLET
	PROPERTY LINE		AIR RELEASE VALVE
	PROPOSED WATER METER		STREET LIGHT
	PROPOSED IRRIGATION		LOT NUMBER
	PROPOSED UNDER DRAIN		BLOCK NUMBER
	PROPOSED 6" FIRE HYDRANT ASSEMBLY		
	EXISTING FIRE HYDRANT		

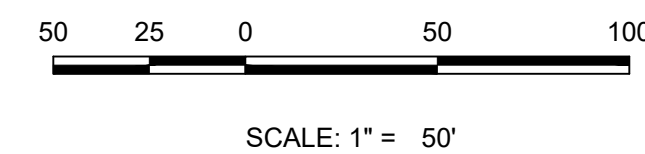
ABBREVIATIONS

AD	ANGLE DIFFERENCE	PVT	POINT OF VERTICAL TANGENT
BVC	BEGIN VERTICAL CURVE	RCBC	REINFORCED CONCRETE BOX
BVP	BEGIN VERTICAL PROFILE		CULVERT
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EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
EVC	END VERTICAL CURVE	RW	RAW WATER LINE
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FG	FINISHED GROUND	SL	SECTION LINE
FL	FLOW LINE	SO	EDGE OF 6' SHOULDER OFFSET
HP	HIGH POINT	SS	SANITARY SEWER
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K	CURVATURE COEFFICIENT	TC	TOP OF CURB
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MH	MANHOLE	UE	UTILITY EASEMENT
N.T.S.	NOT TO SCALE	VC	VERTICAL CURVE
PL	PROPERTY LINE	WL	WATER LINE
PVC	POLYVINYL CHLORIDE	WSE	WATER SURFACE ELEVATION
PVI	POINT OF VERTICAL INTERSECTION		

Westwood		10333 E DRY CREEK RD. SUITE 240 ENGLEWOOD, CO 80112 TEL: 720.482.9526	
Melcor/TC Aurora, LLC C/O Marathon Land Company 9750 W. Cambridge Place Littleton, CO 80127 Tel: (303) 920-9400 Fax: (303) 920-9440		HARMONY SUBDIVISION CIVIL SITE PLAN NO. 5 AREA UTILITY PLAN	
SCALE: AS SHOWN		FILE NO: 8130214922	
DRAWN BY: DJG	CHECKED BY: BPW	DATE: AUGUST, 2022	
SHEET NUMBER 4.8		OF 35	




























KEY MAP
N.T.S.



NOTES:

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UTILITY LEGEND

	PROPOSED 8" WATERLINE UNLESS OTHERWISE NOTED		PROPOSED CAP W/ FLOW OFF
	PROPOSED GATE VALVE		EXISTING TREE
	PROPOSED 8" SANITARY SEWER WITH MANHOLE UNLESS OTHERWISE NOTED		PROPOSED FLARED END SECTION
	FILING NO 12 BOUNDARY		PROPOSED STORM INLET
	PROPOSED IRRIGATION SLEEVE		PROPOSED STORM DRAIN WITH MANHOLE
	CENTERLINE		EASEMENT LINE
	RIGHT-OF-WAY		PROPOSED SWALE
	PROPERTY LINE		PROPOSED AREA INLET
	PROPOSED WATER METER		AIR RELEASE VALVE
	PROPOSED IRRIGATION		STREET LIGHT
	PROPOSED UNDER DRAIN		LOT NUMBER
	PROPOSED 6" FIRE HYDRANT ASSEMBLY		BLOCK NUMBER
	EXISTING FIRE HYDRANT		

ABBREVIATIONS

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BVC	BEGIN VERTICAL CURVE	RCCB	REINFORCED CONCRETE BOX
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FG	FINISHED GROUND	SL	SECTION LINE
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K	CURVATURE COEFFICIENT	TC	TOP OF CURB
LF	LINEAR FEET	T.O.S.	TOP OF PIPE
MH	MANHOLE	UE	UTILITY EASEMENT
N.T.S.	NOT TO SCALE	VC	VERTICAL CURVE
PL	PROPERTY LINE	WL	WATER LINE
PVC	POLYVINYL CHLORIDE	WSE	WATER SURFACE ELEVATION
PVL	POINT OF VERTICAL INTERSECTION		

No.	Revisions	Date	Init.	Appr.	Date

Westwood

Westwoodps.com
Westwood Professional Services, Inc.
SUITE 240
ENGLEWOOD, CO 80112
TEL: 720.482.9526

Melcor/TC Aurora, LLC
C/O Marathon Land Company

Littleton, CO 80127
Tel: (303) 920-9400 Fax: (303) 920-9440

**HARMONY SUBDIVISION
CIVIL SITE PLAN NO. 5
AREA UTILITY PLAN**

DRAWN BY:	DJG	SCALE:	AS SHOWN
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1

1

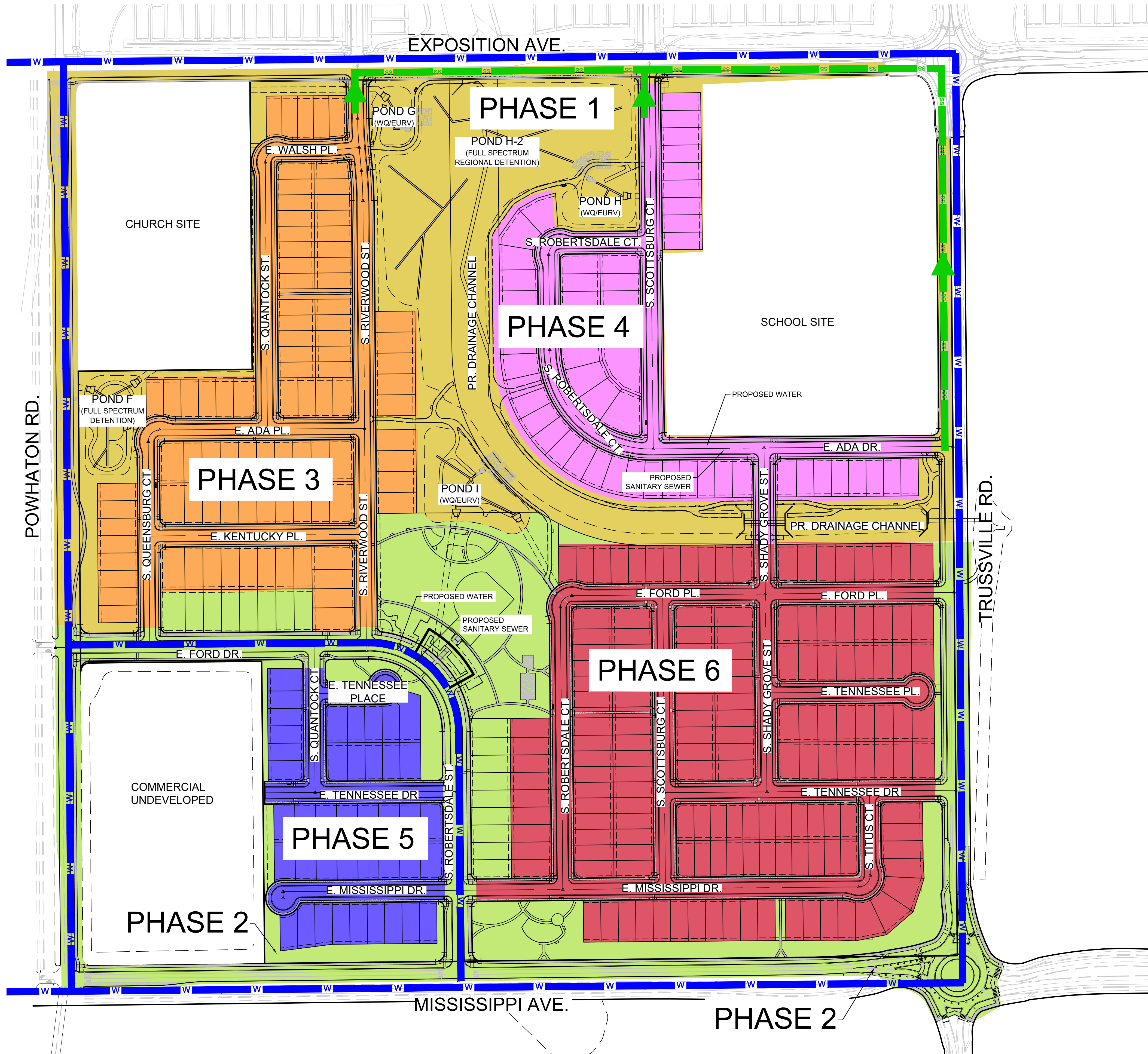
INVESTMENT

SHEET NUMBER

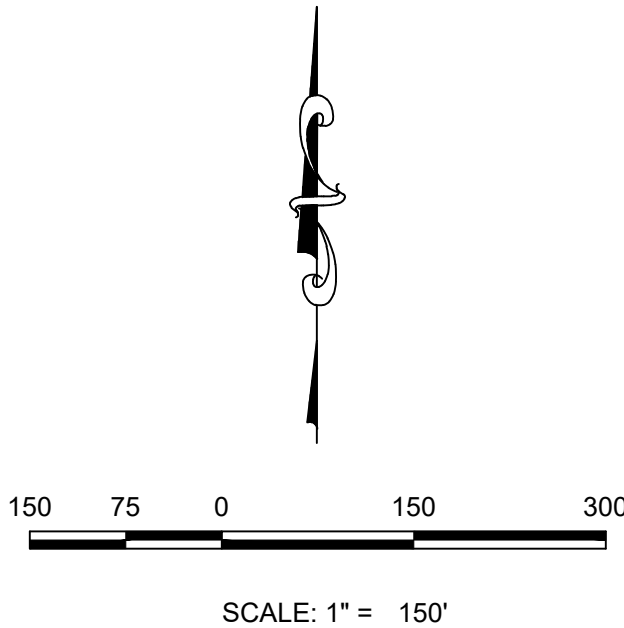
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OE 35

HARMONY FILING 15 PHASING PLAN



- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5
- PHASE 6



FILING 15 IMPROVEMENTS:

ON-SITE INFRASTRUCTURE

1. WATER, SANITARY SEWER AND STORM DRAIN UTILITIES AS DEFINED WITHIN THE CONSTRUCTION PLAN DOCUMENTS, INCLUDING A PROPOSED DRAINAGE CHANNEL AND REGIONAL POND.
2. CURB, GUTTER AND ASPHALT AS DEFINED WITHIN THE CONSTRUCTION PLAN DOCUMENTS.
3. SIGNAGE AND LIGHTING AS DEFINED WITHIN THE CONSTRUCTION PLAN DOCUMENTS.
4. LANDSCAPING SHALL BE PROVIDED.
5. STREET LANDSCAPING SHALL BE COMPLETED AS ADJACENT PROPERTY PARCELS ARE CONSTRUCTED.
6. ALL ITEMS IN THE SPECIFIC PHASE (INCLUDING THOSE ITEMS CONSTRUCTED IN PREVIOUS PHASES) SHALL BE INITIALLY ACCEPTED PRIOR TO THE FIRST CERTIFICATE OF OCCUPANCY IN THE SUBJECT PHASE.

FILING 15 - PHASING

GENERAL NOTES:

1. THE DEVELOPER SHALL PROVIDE TWO DISTINCT POINTS OF EMERGENCY ACCESS TO THE OVERALL SITE AND A LOOPED WATER SUPPLY TO EACH PHASE OF THE DEVELOPMENT. THE DEVELOPER SHALL CONSTRUCT, WITH APPROVED PLAN REVISION FROM THE CITY, ANY OFF SITE ROADWAY OR EMERGENCY CROSSINGS IMPROVEMENTS PER CITY STANDARDS NECESSARY TO FACILITATE EMERGENCY VEHICULAR ACCESS TO THIS SITE.
2. ALL ROADWAYS INTERNAL TO EACH PHASE WITHIN THE FILING NO. 15 BOUNDARY SHALL BE CONSTRUCTED TO FULL WIDTH INCLUDING STRIPING, SIDEWALKS, MEDIAN, STORM DRAIN, INLETS, STREET LIGHTING, ETC. AS SHOWN ON THE FILING 15 CD'S.

PHASE 1:

PHASE 1 SHALL INCLUDE THE FOLLOWING ROADWAYS:
WEST HALF OF S. TRUSSVILLE ST. FROM NORTH ROUNDABOUT TO SOUTH EDGE OF PR. DRAINAGE CHANNEL
SOUTH HALF OF EXPOSITION AVE FROM POWHATON RD TO TRUSSVILLE ST.
EAST HALF OF POWHATON RD FROM EXPOSITION AVE TO (FUTURE) E. FORD DR.
PHASE 1 SHALL INCLUDE THE CONSTRUCTION OF POND G, POND F, POND H, POND I, THE REGIONAL DETENTION POND H-2, AND THE CHANNEL FROM THE REGIONAL DETENTION POND TO TRUSSVILLE ST
OPEN SPACE TRACTS EAST OF POWHATON RD SHOWN WITHIN PHASE 1 SHALL BE CONSTRUCTED IN PHASE 1

PHASE 2:

PHASE 2 SHALL INCLUDE THE FOLLOWING ROADWAYS AND ADJACENT HOMES WHERE APPLICABLE:
WEST HALF OF S. TRUSSVILLE ST. FROM PR. DRAINAGE CHANNEL TO THE PR. SOUTHEAST ROUNDABOUT
NORTH HALF OF E. MISSISSIPPI AVE. FROM POWHATON RD TO PR. SOUTHEAST ROUNDABOUT
EAST HALF OF POWHATON RD. FROM E. FORD DR. TO E. MISSISSIPPI AVE.
E. FORD DR. FROM POWHATON RD. TO S. RIVERWOOD ST
S. ROBERTSDALE ST. FROM S. RIVERWOOD ST. TO MISSISSIPPI AVE.
PHASE 2 SHALL INCLUDE THE CONSTRUCTION OF THE NEIGHBORHOOD PARK AND PUBLIC ART INSTALLATION
OPEN SPACE TRACTS EAST OF S. TRUSSVILLE ST. AND NORTH OF E. MISSISSIPPI AVE. SHOWN WITHIN PHASE 2 SHALL BE CONSTRUCTED IN PHASE 2.

PHASE 3:

PHASE 3 SHALL INCLUDE THE FOLLOWING ROADWAYS AND ALL ADJACENT HOMES:
S. RIVERWOOD ST.
E. WALSH PL.
E. ADA PL.
S. QUANTOCK ST.
S. QUEENSBURG CT.
E. KENTUCKY PL.

PHASE 4:

PHASE 4 SHALL INCLUDE THE FOLLOWING ROADWAYS AND ALL ADJACENT HOMES:
S. ROBERTSDALE CT. FROM S. SCOTTSBURG CT. TO E. ADA DR.
S. SCOTTSBURG CT. FROM EXPOSITION AVE. TO E. ADA DR.
E. ADA DR.
S. SHADY GROVE ST. FROM E. ADA DR. TO SOUTH EDGE OF PR. DRAINAGE CHANNEL

PHASE 5:

PHASE 5 SHALL INCLUDE THE FOLLOWING ROADWAYS AND ALL ADJACENT HOMES:
S. QUANTOCK CT. FROM E. FORD DR. TO E. TENNESSEE DR.
E. TENNESSEE DR. TO S. ROBERTSDALE ST.
E. MISSISSIPPI DR. TO S. ROBERTSDALE ST.
E. TENNESSEE PL. FROM S. QUANTOCK CT.

PHASE 6:

PHASE 6 SHALL INCLUDE THE FOLLOWING ROADWAYS AND ALL ADJACENT HOMES:
E. MISSISSIPPI DR. FROM S. ROBERTSDALE ST. TO S. TITUS CT.
S. TITUS CT.
E. FORD PL.
S. ROBERTSDALE CT. FROM E. MISSISSIPPI DR. TO E. FORD PL.
S. SCOTTSBURG CT. FROM E. FORD PL. TO E. MISSISSIPPI DR.
S. SHADY GROVE ST. FROM SOUTH EDGE OF PR. DRAINAGE CHANNEL TO E. TENNESSEE DR.
E. TENNESSEE DR. FROM S. SCOTTSBURG CT. TO TRUSSVILLE RD
E. TENNESSEE PL. FROM S. SHADY GROVE ST.

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C/O Marathon Land Company
9750 W. Cambridge Place
Littleton, CO 80127
Tel: (303) 920-9400 Fax: (303) 920-9440

HARMONY SUBDIVISION
CIVIL SITE PLAN NO. 5
PHASING PLAN

SCALE:
AS SHOWN
FILE NO:
8130214922

DRAWN BY:
CHECKED BY:
DATE:
AUGUST, 2022

SHEET NUMBER
5.0
OF 35

No.	Revisions	Date	Init.	Appr.	Date

Coordinate upload to portal with Daniel.
ddpershi@auroragov.org.
Ensure remaining comments are addressed prior to upload.

Daniel has been made aware of the submittal concurrent to the upload.

HARMONY – PHASE 5

MASTER UTILITY STUDY AMENDMENT

AURORA, COLORADO

Prepared for:

Melcor/TC, LLC c/o Marathon Land Company
9750 West Cambridge Place
Littleton, CO 80127
Phone: (303) 920-9400

Prepared by:

APPROVED FOR ONE YEAR FROM THIS DATE _____

City Engineer Date

Westwood Professional Services
10333 E. Dry Creek Road, Suite 240
Englewood, Colorado 80112
Contact: Brian P. Wilson, P.E.
Phone: (720) 249-3588
Email: brian.wilson@westwoodps.com

Water Department

Date

Fire Department

Date

Preparation Date:
August 23, 2022

FACSIMILE

This electronic plan is a facsimile of the signed and sealed pdf set

CO Professional Engineer
Brian P. Wilson, P.E. No. 0050067

Date

ENGINEER'S STATEMENT:

This utility study "Harmony – Master Utility Conformance Letter" was prepared under my direct supervision in accordance with the provisions of the City of Aurora Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure. I understand that the City of Aurora does not and will not assume liability for facilities designed by others.

Brian P. Wilson, P.E. 0050067
CVL Consultants of Colorado, Inc.

Date

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INTRODUCTION

GENERAL DESCRIPTION & LOCATION

Harmony CSP 5 Filing 15 contains a total of approximately 167 acres and is solely residential with development to include 358 detached single-family units (SFD). The Harmony development is located in the southern 1/2 of Section 9, the southwest, northwest, and northeast 1/4 of Section 16, and the northern 1/2 of Section 15, Township 4 South, Range 65 West of the 6th Principal Meridian, in the City of Aurora, Colorado. Harmony CSP 5 Filing 15 is bound on the north by Exposition Ave, to the south by future Powhatan Road, to the east by future South Trussville Street, and to the west by existing Powhatan Road. *Parklands (formerly Eastern Hills)* is located east, south, and west of the proposed development, and is currently in the conceptual/preliminary planning stage. Figure-1 clearly depicts the overall Harmony project in context to the surrounding roadways and known developments.



Figure 1
Location Map

SCOPE OF WORK

The purpose of this Master Utility Report Amendment is to amend the approved “Master Utility Report” (Ref. 1) for Harmony prepared by CVL Consultants to the current proposed layout. The calculations in the Master Utility Report assumed a larger population and therefore computed higher peak daily flow and max hour demand values. The report has now been updated for the planned unit count and residence types. The proposed water and sewer system must meet the criteria set forth by the guidelines of the *Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure* (Ref. 2) manual prepared by the City of Aurora (COA). Westwood will work in conjunction with the client and the COA to ensure that the water distribution and sanitary sewer systems are compatible with existing facilities and planned development.

TOPOGRAPHIC CONDITIONS

Harmony CSP 5 is currently undeveloped land. A small southwestern portion of the site slopes from the southwest to the northwest, while the majority eastern portion generally drains to the center of the site at an existing culvert low point. The total elevation change in the southwestern portion is approximately 35 feet, dropping from 5680 feet above mean sea level (MSL) to 5645 feet above MSL. The total elevation change in the eastern portion is approximately 40 feet, dropping from 5680 feet above MSL at the southern boundary to 5640 feet above MSL at the central point of the development. From the *City of Aurora’s Water Capital Improvement Plan (CIP)*, (Ref. 3) dated February 2009, it is shown that the proposed development is entirely within pressure Zone 4. Table 1 below presents the pressures provided for Zone 4.

Table 1 – City of Aurora Pressure Zones

Zone	Static Hydraulic Grade Line, (ft)	Service Elevation Range, (ft)	Static Pressure Range, (psig)
Zone 4	5850	5589-5711	60-113

From the *City of Aurora Wastewater Utility Plan – Volume I: Report* (Ref. 4) the proposed development falls within the service area Subarea 2 – Environs/Eastern Prairie Developing Area and part of the First Creek drainage basin.

WATER DISTRIBUTION SYSTEM

It is known that the proposed development is entirely within pressure Zone 4.

DEMANDS

The Provide data table showing fire flow demands by land use type for the system modeling. (Residential, Commercial, (Multi-family) & Industrial; 1500, 2500, 3500 respectively.

(fire flow)

- Single Family Peak Hour Factor = 4.5 x average day demand

A table has been added in this section for the typical fire flow demand requirements.

All potable water will be supplied by the Harmony CSP 5 water distribution system. The proposed system in four locations, all of which are to be constructed as part of Harmony CSP4. The first location will be at the existing 12" water stub located along South Trussville Street just south of the roundabout. The second location shall be located at existing 16" water stub at the intersection of Exposition Avenue and Powhatan Road. The third and fourth locations shall be connected to existing 8" water stubs at the intersection of S Riverwood St and S Scottsburg Ct.

WATER DEMANDS

The summary of current water demands calculated for the proposed water distribution system for Harmony CSP 5 is presented in Table 2. The summary of previous water demands calculated for the proposed water distribution system for Harmony CSP is presented in Table 3. As stated previously within this report, the demands were determined using assumptions and requirements outlined in the ***Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure*** (Ref. 2). The residential populations were based on 2.77 persons per single family detached dwelling unit. Average day demands were calculated using the average water demand rate. Maximum day and peak hour demands were calculated using peaking factors shown above.

Table 2 - New Calculated Water Demand for CSP 5

Planning Area	Area (ac.)	Residence Type	Residences	Population (Persons/SFD)	Demand (gpm/cap)	Max Population	Average Day Demand (gpm)	Max Day + Fire Flow Demand (gpm)	Max Hour Demand (gpm)
CSP 5	108.15	SFD	358	2.77	0.07	992	69.42	1,694.38	312.39
CSP 5	17.52	School					5.00	1,514.00	22.50
Total	125.67		358			992	74.42	3,208.38	334.89

Table 3 – Master Utility Report Calculated Water Demand for CSP 5

Planning Area	Area (ac)	Density (units/ac)	Max units	Population (Persons/SFD)	Demand (gpm/cap)	Max Population	Average Day Demand (gpm)	Max Day Demand (gpm)	Max Hour Demand (gpm)
PA-8	42.0	8.0	336	2.77	0.07	931	65.15	182.42	293.18
PA-9	37.0	8.0	37	2.77	0.07	103	7.17	20.08	32.27
PA-10	22.6	8.0	260	2.77	0.07	721	50.41	141.15	226.85
Total			633			1,755	122.73	343.65	552.30

SANITARY SYSTEM AND FLOWS

The summary of current sanitary sewer demands calculated for the proposed sanitary sewer system for Harmony CSP 5 is presented in Table 4. The summary of previous sanitary sewer system for Harmony CSP 5 is presented in Table 5. The Harmony CSP 5 Filing 15 has a total of 358 residences, all detached single-family units. The flows from these residences will be carried by PVC pipes to two existing 8” stubs located where Exposition Avenue intersects with S Riverwood St and S Scottsburg Ct. Population estimates are based on 2.77 capita per dwelling unit for single-family units.

WASTEWATER DESIGN CRITERIA

This section describes the design criteria incorporated in developing the wastewater collection system for Harmony. These design criteria were adopted from the *Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure* (Ref. 2):

- Population – 2.77 people per SFD/SFA/MF.
- Average Daily Flow – 68 gpcd for residential areas, 10 gpcd for schools, 4000 gallons per day/acre for commercial areas, and 5000 gallons per day for community centers, fire stations, and churches.
- Peaking Factor (PF) = $5 \div p^{0.167}$, where p = population in thousands and PF is no greater than 4.0 and no less than 1.7.
- The flow velocity shall not exceed ten (10) fps flowing full of ½ full using Manning’s Formula and (n=0.011 for PVC) or (n=0.013 for RCP). Minimum slope shall be 0.4% with a minimum velocity of two (2) fps at least once per day.
- Depth of flow in pipes should not exceed 75% of capacity for pipes 12 inches or smaller and 90% for pipes larger than 12 inches
- Minimum drop through a manhole from inlet to outlet or same diameter pipe shall be:
 1. 0.2 ft. on straight through run
 2. 0.3 ft. on deflected bends greater than 45 degrees
- Minimum of 4 inch diameter pipe for service lines
- Inflow & Infiltration is calculated as 10% of the Peak Daily Flow

Table 4 - New Calculated Sanitary Sewer Demand for CSP 5

Residence Type	Demand (gpd/cap)	Residences	Occupancy	Population (Thousands of People)	Average Day Flow (gpd)	Peaking Factor $4 > 5 \div p^{0.167} > 1.7$	Peak Daily Flow (gpd)	Inflow & Infiltration (gpd)	Peak Daily Flow w/ I&I (gpd)
SFD	68	358	2.77	0.991	67,432	4	269,728	26,972	296,700
School	10			0.688	6,880	4	27,520	2,752	30,272
Total		358		1.679	74,312		297,248	29,725	326,972

Table 5 – Master Utility Report Calculated Sanitary Sewer Demand for CSP 5

Planning Area	Residence Type	Demand (gpd/cap)	Residences	Occupancy	Population (Thousands of People)	Average Day Flow (gpd)	Peaking Factor $4 > 5 \div p^{0.167} > 1.7$	Peak Daily Flow (gpd)
PA-8	SFD	80	336	3.9	1.310	104,832	4	419,328
PA-9	SFD	80	296	4.5	1.332	106,560	4	426,240
PA-10	SFD	80	181	2.4	0.434	34,752	4	139,008
	Total		813		3.076	246,144		984,576

CONCLUSION

The proposed Harmony CSP5 water system will have a smaller demand than the previously reviewed “Master Utility Report” (Ref. 1) and conforms to the *Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure* (Ref. 2). The proposed Harmony CSP5 sanitary system will serve 358 residences and will outfall to the existing sanitary sewer stubs located at Exposition Avenue. The flows for the proposed sanitary system are significantly smaller than the previously reviewed “Master Utility Report” (Ref. 1) and conforms to the *Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure* (Ref. 2).

REFERENCES

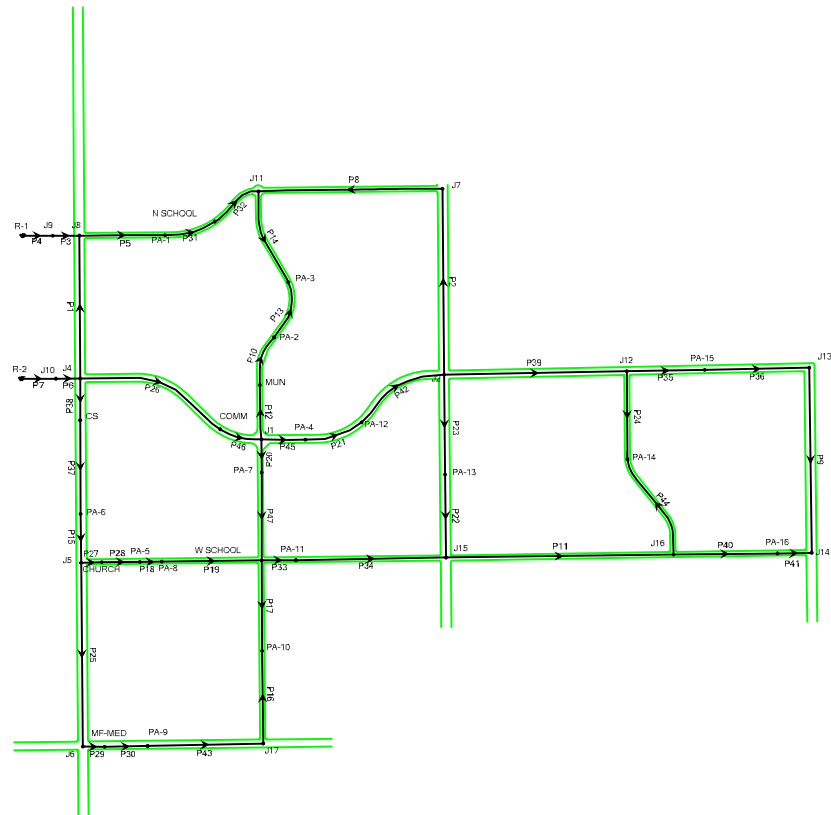
1. **Master Utility Report**, CVL Consultants, June 1, 2016.
2. **Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure**, City of Aurora, January 2012.
3. **Treated Water Distribution System 2025 Capital Improvement Plan**, City of Aurora, February 2009.
4. **City of Aurora Wastewater Utility Plan – Volume I: Report**, Camp Dresser & McKee, Inc., January 15, 2003.

Appendix A

Water Distribution Demands and WaterGEMS Results

WATER SYSTEM SCHEMATIC

HARMONY



WATER DEMANDS

HARMONY
Master Utility Report
Water Demand Calculations

Land Use	Avg. Day (gpm/cap)	Max Day (gpm/cap)	Max Hour (gpm/cap)	Occupancy	Density (units/ac)
SINGLE FAMILY	0.11	2.8:1 of Avg	4.5:1 of Avg	3.20	8.0
SINGLE FAMILY-Attach	0.11	2.8:1 of Avg	4.5:1 of Avg	2.10	11.0
Multi Family - MEDIUM	0.11	2.8:1 of Avg	4.5:1 of Avg	1.70	15.0
Multi Family - LARGE	0.11	2.8:1 of Avg	4.5:1 of Avg	1.70	11.0

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
CHURCH	1.00	4.00	10.00

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
REC. CENTER	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
SCHOOL	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
COMMERCIAL	22.66	72.52	95.19

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
FIRE STATION	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
COMMUNITY CENTER	5.00	12.60	16.10

Label	Description	Area (ac)	Max Units**	Density (units/ac)	Occupancy (persons/unit)	Max Population	Avg. Day Demand (gpm)	Max Day Demand (gpm)	Peak Hour Demand (gpm)	Comments
PA-1	SINGLE FAMILY	12.6	101	8.0	3.20	323	35.55	99.55	159.98	
	Total						35.55	99.55	159.98	
PA-17	NORTH SCHOOL SITE	10.0				688	5.00	12.60	16.10	K-8
	Total						5.00	12.60	16.10	
PA-2	SINGLE FAMILY	107.8	862	8.0	3.20	2758	303.42	849.59	1365.41	
	Total						303.42	849.59	1365.41	
COMM	COMMUNITY CENTER	7.5					5.00	12.60	16.10	
	Total						5.00	12.60	16.10	
PA-3	SINGLE FAMILY	115.2	922	8.0	3.20	2950	324.54	908.72	1460.45	
	Total						324.54	908.72	1460.45	
PA-64	MUNICIPAL	2.8					5.00	12.60	16.10	FIRE STATION
	Total						5.00	12.60	16.10	
PA-4	SINGLE FAMILY- ATTACHED	62.0	496	8.0	2.10	1042	114.58	320.81	515.59	
	Total						114.58	320.81	515.59	
*CS	COMMERCIAL	20.0					22.66	72.52	95.19	GROCERY RELATED
	Total						22.66	72.52	95.19	
PA-5	SINGLE FAMILY	15.5	124	8.0	3.20	397	43.65	122.21	196.42	
	Total						43.65	122.21	196.42	
PA-6	SINGLE FAMILY - ATTACHED	18.4	147	8.0	2.10	309	33.96	95.08	152.81	
	Total						33.96	95.08	152.81	
PA-7	SINGLE FAMILY	51.5	412	8.0	3.20	1318	145.02	406.07	652.61	
	Total						145.02	406.07	652.61	
*CHURCH	CHURCH	11.4					1.00	4.00	10.00	CHURCH SITE
	Total						1.00	4.00	10.00	
*MF-MED	MF-OFFSITE	10.4	208	20.0	1.70	354	38.90	108.91	175.03	
	Total						38.90	108.91	175.03	
PA-8	SINGLE FAMILY	42.0	336	8.0	3.20	1075	118.27	331.16	532.22	
	Total						118.27	331.16	532.22	
PA-9	SINGLE FAMILY	37.0	37	1.0	3.20	118	13.02	36.47	58.61	
	Total						13.02	36.47	58.61	

* NOT A PART OF THE HARMONY FDP, BUT IS INCLUDED IN THIS WATERCAD ANALYSIS

**MAX UNITS AND MAX POPULATION WILL BE UP TO BUT NOT EXCEEDING THE NUMBER SHOWN.

HARMONY
Master Utility Report
Water Demand Calculations

Land Use	Avg. Day (gpm/cap)	Max Day (gpm/cap)	Max Hour (gpm/cap)	Occupancy	Density (units/ac)
SINGLE FAMILY	0.11	2.8:1 of Avg	4.5:1 of Avg	3.20	8.0
SINGLE FAMILY-Attach	0.11	2.8:1 of Avg	4.5:1 of Avg	2.10	11.0
Multi Family - MEDIUM	0.11	2.8:1 of Avg	4.5:1 of Avg	1.70	15.0
Multi Family - LARGE	0.11	2.8:1 of Avg	4.5:1 of Avg	1.70	11.0

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
CHURCH	1.00	4.00	10.00

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
REC. CENTER	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
SCHOOL	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
COMMERCIAL	22.66	72.52	95.19

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
FIRE STATION	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
COMMUNITY CENTER	5.00	12.60	16.10

Label	Description	Area (ac)	Max Units**	Density (units/ac)	Occupancy (persons/unit)	Max Population	Avg. Day Demand (gpm)	Max Day Demand (gpm)	Peak Hour Demand (gpm)	Comments
PA-10	SINGLE FAMILY	22.6	260	11.5	3.20	832	91.52	256.26	411.84	
	Total						91.52	256.26	411.84	
PA-18	WEST SCHOOL SITE	18.1				688	5.00	12.60	16.10	K-8
	Total						5.00	12.60	16.10	
PA-11	SINGLE FAMILY	23.1	66	2.9	3.20	211	23.23	65.05	104.54	
	Total						23.23	65.05	104.54	
PA-12	SINGLE FAMILY	83.4	314	3.8	3.20	1005	110.53	309.48	497.38	
	Total						110.53	309.48	497.38	
PA-13	SINGLE FAMILY	64.5	195	3.0	3.20	624	68.64	192.19	308.88	
	Total						68.64	192.19	308.88	
PA-14	SINGLE FAMILY	64.6	195	3.0	3.20	624	68.64	192.19	308.88	
	Total						68.64	192.19	308.88	
PA-15	SINGLE FAMILY	72.6	345	4.8	3.20	1104	121.44	340.03	546.48	
	Total						121.44	340.03	546.48	
PA-16	SINGLE FAMILY - ATTACHED	47.0	75	1.6	2.10	158	17.33	48.51	77.96	
	Total						17.33	48.51	77.96	

MODEL TOTAL			5,095			16,578	1,555.74	4,360.75	6,973.96	
HARMONY TOTAL			4,887			16,225	1,493.19	4,175.32	6,693.74	On-Site

* NOT A PART OF THE HARMONY FDP, BUT IS INCLUDED IN THIS WATERCAD ANALYSIS

**MAX UNITS AND MAX POPULATION WILL BE UP TO BUT NOT EXCEEDING THE NUMBER SHOWN.

HARMONY
Master Utility Report
Water Demand Calculations

Land Use	Avg. Day (gpm/cap)	Max Day (gpm/cap)	Max Hour (gpm/cap)	Occupancy	Density (units/ac)
SINGLE FAMILY	0.11	2.8:1 of Avg	4.5:1 of Avg	3.20	8.0
SINGLE FAMILY-Attach	0.11	2.8:1 of Avg	4.5:1 of Avg	2.10	11.0
Multi Family - MEDIUM	0.11	2.8:1 of Avg	4.5:1 of Avg	1.70	15.0
Multi Family - LARGE	0.11	2.8:1 of Avg	4.5:1 of Avg	1.70	11.0

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
CHURCH	1.00	4.00	10.00

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
REC. CENTER	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
SCHOOL	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
COMMERCIAL	22.66	72.52	95.19

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
FIRE STATION	5.00	12.60	16.10

Land Use	Avg. Day (gpm)	Max Day (gpm)	Max Hour (gpm)
COMMUNITY CENTER	5.00	12.60	16.10

OFF-SITE WATER CALCULATIONS*										
Label	Description	Area (ac)	Max Units**	Density (units/ac)	Occupancy (persons/unit)	Max Population	Avg. Day Demand (gpm)	Max Day Demand (gpm)	Peak Hour Demand (gpm)	Comments
J6 Parklands	PARKLANDS CONNECTION	58.0	290	5.0	3.20	928	102.08	285.82	459.36	
J14 Parklands	PARKLANDS CONNECTION	58.0	290	5.0	3.20	928	102.08	285.82	459.36	
J15 Parklands	PARKLANDS CONNECTION	58.0	290	5.0	3.20	928	102.08	285.82	459.36	
J2 Undeveloped	UNDEVELOPED CONNECTION	40.0	200	5.0	3.20	640	70.40	197.12	316.80	
J12 Undeveloped	UNDEVELOPED CONNECTION	40.0	200	5.0	3.20	640	70.40	197.12	316.80	
J7 Sun Meadows	SUN MEADOWS CONNECTION	60.0	300	5.0	3.20	960	105.60	295.68	475.20	
J8 Sun Meadows	SUN MEADOWS CONNECTION	60.0	300	5.0	3.20	960	105.60	295.68	475.20	

AVERAGE DAY

HARMONY

Active Scenario: AVERAGE DAY

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Velocity (ft/s)	Flow (gpm)	Headloss Gradient (ft/1000ft)
P1	J4	J8	2,046	16	PVC	130.0	0.04	24.82	0.001
P2	J7	J2	2,662	16	PVC	130.0	0.20	-125.86	0.013
P3	J9	J8	10	12	PVC	130.0	1.10	387.35	0.439
P4	J9	R-1	1	12	PVC	130.0	1.10	-387.35	0.488
P5	J8	PA-1	1,232	12	PVC	130.0	0.87	306.58	0.284
P6	J4	J10	10	24	PVC	130.0	1.42	-2,004.45	0.293
P7	J10	R-2	1	24	PVC	130.0	1.42	-2,004.45	0.488
P8	J11	J7	2,642	12	PVC	130.0	0.06	-20.26	0.002
P9	J13	J14	2,650	16	PVC	130.0	0.14	86.02	0.007
P10	MUN	PA-2	742	12	PVC	130.0	0.97	341.67	0.347
P11	J16	J15	3,264	12	PVC	130.0	0.12	-42.30	0.007
P12	J1	MUN	780	12	PVC	130.0	0.98	346.67	0.357
P13	PA-2	PA-3	869	12	PVC	130.0	0.11	38.25	0.006
P14	PA-3	J11	1,409	12	PVC	130.0	0.81	-286.29	0.250
P15	J5	PA-6	700	16	PVC	130.0	0.72	-452.93	0.144
P16	J17	PA-10	1,328	12	PVC	130.0	0.24	83.84	0.026
P17	PA-10	W SCHOOL	1,295	12	PVC	130.0	0.02	-7.68	0.000
P18	PA-5	PA-8	315	12	PVC	130.0	0.48	170.44	0.096
P19	PA-8	W SCHOOL	1,434	12	PVC	130.0	0.15	52.17	0.011
P20	J1	PA-7	475	12	PVC	130.0	0.61	214.62	0.147
P21	PA-4	PA-12	863	24	PVC	130.0	0.55	771.54	0.053
P22	J15	PA-13	1,188	16	PVC	130.0	0.09	-58.52	0.003
P23	PA-13	J2	1,430	16	PVC	130.0	0.20	-127.16	0.014
P24	J12	PA-14	1,262	12	PVC	130.0	0.17	59.73	0.014
P25	J5	J6	2,632	16	PVC	130.0	0.38	237.84	0.044
P26	J4	COMM	2,256	24	PVC	130.0	1.04	1,470.07	0.177
P27	J5	CHURCH	297	12	PVC	130.0	0.61	215.09	0.146
P28	CHURCH	PA-5	548	12	PVC	130.0	0.61	214.09	0.146
P29	J6	MF-MED	313	16	PVC	130.0	0.22	135.76	0.016
P30	MF-MED	PA-9	617	16	PVC	130.0	0.15	96.86	0.008
P31	PA-1	N SCHOOL	751	12	PVC	130.0	0.77	271.03	0.226
P32	N SCHOOL	J11	794	12	PVC	130.0	0.75	266.03	0.218
P33	W SCHOOL	PA-11	491	12	PVC	130.0	0.31	109.09	0.042
P34	PA-11	J15	2,158	12	PVC	130.0	0.24	85.86	0.027
P35	J12	PA-15	1,120	24	PVC	130.0	0.15	207.46	0.005
P36	PA-15	J13	1,502	24	PVC	130.0	0.06	86.02	0.001
P37	PA-6	CS	1,342	16	PVC	130.0	0.78	-486.89	0.164
P38	CS	J4	599	16	PVC	130.0	0.81	-509.55	0.179
P39	J2	J12	2,623	24	PVC	130.0	0.24	337.59	0.012
P40	J16	PA-16	1,494	12	PVC	130.0	0.09	33.39	0.005
P41	PA-16	J14	492	12	PVC	130.0	0.05	16.06	0.001
P42	PA-12	J2	1,436	24	PVC	130.0	0.47	661.01	0.040
P43	PA-9	J17	1,662	16	PVC	130.0	0.13	83.84	0.006
P44	PA-14	J16	1,571	12	PVC	130.0	0.03	-8.91	0.001
P45	J1	PA-4	630	24	PVC	130.0	0.63	886.12	0.070
P46	COMM	J1	621	24	PVC	130.0	1.03	1,447.41	0.171
P47	PA-7	W SCHOOL	1,258	12	PVC	130.0	0.20	69.60	0.018

HARMONY

Active Scenario: AVERAGE DAY

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
CHURCH	5,646.55	1.00	87.8	5,849.52
COMM	5,630.53	22.66	94.8	5,849.60
CS	5,628.18	22.66	95.9	5,849.89
J1	5,641.98	0.00	89.8	5,849.49
J2	5,643.16	70.40	89.2	5,849.34
J4	5,629.30	0.00	95.5	5,850.00
J5	5,647.47	0.00	87.4	5,849.57
J6	5,672.32	102.08	76.6	5,849.45
J7	5,618.35	105.60	99.9	5,849.31
J8	5,612.42	105.60	102.8	5,850.00
J9	5,609.31	0.00	104.1	5,850.00
J10	5,624.26	0.00	97.7	5,850.00
J11	5,620.07	0.00	99.2	5,849.30
J12	5,681.12	70.40	72.8	5,849.31
J13	5,711.38	0.00	59.7	5,849.31
J14	5,685.26	102.08	71.0	5,849.29
J15	5,677.09	102.08	74.5	5,849.32
J16	5,660.25	0.00	81.8	5,849.30
J17	5,672.78	0.00	76.4	5,849.43
MF-MED	5,670.87	38.90	77.3	5,849.45
MUN	5,635.82	5.00	92.3	5,849.21
N SCHOOL	5,617.48	5.00	100.4	5,849.48
PA-1	5,620.06	35.55	99.3	5,849.65
PA-2	5,629.95	303.42	94.8	5,848.96
PA-3	5,630.21	324.54	94.6	5,848.95
PA-4	5,651.51	114.58	85.6	5,849.45
PA-5	5,645.18	43.65	88.4	5,849.44
PA-6	5,636.98	33.96	92.0	5,849.67
PA-7	5,641.60	145.02	89.9	5,849.42
PA-8	5,646.41	118.27	87.8	5,849.41
PA-9	5,671.39	13.02	77.0	5,849.44
PA-10	5,656.85	91.52	83.3	5,849.40
PA-11	5,657.56	23.23	83.0	5,849.38
PA-12	5,666.02	110.53	79.3	5,849.40
PA-13	5,669.05	68.64	78.0	5,849.32
PA-14	5,682.61	68.64	72.1	5,849.30
PA-15	5,713.00	121.44	59.0	5,849.31
PA-16	5,680.75	17.33	72.9	5,849.29
W SCHOOL	5,652.03	5.00	85.4	5,849.40

HARMONY

Active Scenario: AVERAGE DAY

ID	Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
473	R-1	5,850.00	387.35	5,850.00
591	R-2	5,850.00	2,004.45	5,850.00

MAX DAY

HARMONY

Active Scenario: MAX DAY

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Velocity (ft/s)	Flow (gpm)	Headloss Gradient (ft/1000ft)
P1	J4	J8	2,046	16	PVC	130.0	0.11	69.21	0.004
P2	J7	J2	2,662	16	PVC	130.0	0.59	-369.99	0.099
P3	J9	J8	10	12	PVC	130.0	3.03	1,067.98	2.832
P4	J9	R-1	1	12	PVC	130.0	3.03	-1,067.98	2.930
P5	J8	PA-1	1,232	12	PVC	130.0	2.39	841.51	1.841
P6	J4	J10	10	24	PVC	130.0	3.90	-5,502.06	2.051
P7	J10	R-2	1	24	PVC	130.0	3.90	-5,502.06	1.953
P8	J11	J7	2,642	12	PVC	130.0	0.21	-74.31	0.021
P9	J13	J14	2,650	16	PVC	130.0	0.39	247.12	0.047
P10	MUN	PA-2	742	12	PVC	130.0	2.71	954.61	2.326
P11	J16	J15	3,264	12	PVC	130.0	0.29	-103.66	0.038
P12	J1	MUN	780	12	PVC	130.0	2.74	967.21	2.383
P13	PA-2	PA-3	869	12	PVC	130.0	0.30	105.03	0.039
P14	PA-3	J11	1,409	12	PVC	130.0	2.28	-803.68	1.691
P15	J5	PA-6	700	16	PVC	130.0	1.99	-1,245.40	0.938
P16	J17	PA-10	1,328	12	PVC	130.0	0.63	223.52	0.158
P17	PA-10	W SCHOOL	1,295	12	PVC	130.0	0.09	-32.73	0.005
P18	PA-5	PA-8	315	12	PVC	130.0	1.32	464.45	0.612
P19	PA-8	W SCHOOL	1,434	12	PVC	130.0	0.38	133.30	0.061
P20	J1	PA-7	475	12	PVC	130.0	1.71	602.97	0.993
P21	PA-4	PA-12	863	24	PVC	130.0	1.47	2,071.75	0.334
P22	J15	PA-13	1,188	16	PVC	130.0	0.27	-169.65	0.023
P23	PA-13	J2	1,430	16	PVC	130.0	0.58	-361.84	0.095
P24	J12	PA-14	1,262	12	PVC	130.0	0.50	175.76	0.101
P25	J5	J6	2,632	16	PVC	130.0	1.04	654.72	0.285
P26	J4	COMM	2,256	24	PVC	130.0	2.85	4,019.85	1.139
P27	J5	CHURCH	297	12	PVC	130.0	1.68	590.67	0.955
P28	CHURCH	PA-5	548	12	PVC	130.0	1.66	586.67	0.944
P29	J6	MF-MED	313	16	PVC	130.0	0.59	368.90	0.098
P30	MF-MED	PA-9	617	16	PVC	130.0	0.41	259.98	0.051
P31	PA-1	N SCHOOL	751	12	PVC	130.0	2.10	741.97	1.458
P32	N SCHOOL	J11	794	12	PVC	130.0	2.07	729.37	1.413
P33	W SCHOOL	PA-11	491	12	PVC	130.0	0.81	284.88	0.248
P34	PA-11	J15	2,158	12	PVC	130.0	0.62	219.83	0.153
P35	J12	PA-15	1,120	24	PVC	130.0	0.42	587.15	0.032
P36	PA-15	J13	1,502	24	PVC	130.0	0.18	247.12	0.007
P37	PA-6	CS	1,342	16	PVC	130.0	2.14	-1,340.48	1.074
P38	CS	J4	599	16	PVC	130.0	2.25	-1,413.00	1.184
P39	J2	J12	2,623	24	PVC	130.0	0.59	833.31	0.062
P40	J16	PA-16	1,494	12	PVC	130.0	0.25	87.23	0.028
P41	PA-16	J14	492	12	PVC	130.0	0.11	38.70	0.006
P42	PA-12	J2	1,436	24	PVC	130.0	1.25	1,762.27	0.248
P43	PA-9	J17	1,662	16	PVC	130.0	0.36	223.52	0.039
P44	PA-14	J16	1,571	12	PVC	130.0	0.05	-16.43	0.001
P45	J1	PA-4	630	24	PVC	130.0	1.70	2,392.58	0.436
P46	COMM	J1	621	24	PVC	130.0	2.81	3,962.75	1.109
P47	PA-7	W SCHOOL	1,258	12	PVC	130.0	0.56	196.91	0.125

HARMONY

Active Scenario: MAX DAY

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
CHURCH	5,646.55	4.00	86.7	5,846.89
COMM	5,630.53	57.10	93.8	5,847.41
CS	5,628.18	72.51	95.7	5,849.27
J1	5,641.98	0.00	88.6	5,846.72
J2	5,643.16	197.12	87.7	5,845.80
J4	5,629.30	0.00	95.5	5,849.98
J5	5,647.47	0.00	86.4	5,847.17
J6	5,672.32	285.82	75.3	5,846.42
J7	5,618.35	295.68	98.3	5,845.54
J8	5,612.42	295.68	102.8	5,849.97
J9	5,609.31	0.00	104.1	5,850.00
J10	5,624.26	0.00	97.7	5,850.00
J11	5,620.07	0.00	97.5	5,845.48
J12	5,681.12	70.40	71.2	5,845.64
J13	5,711.38	0.00	58.1	5,845.59
J14	5,685.26	285.82	69.3	5,845.47
J15	5,677.09	285.82	72.9	5,845.64
J16	5,660.25	0.00	80.2	5,845.51
J17	5,672.78	0.00	75.1	5,846.29
MF-MED	5,670.87	108.92	75.9	5,846.39
MUN	5,635.82	12.60	90.4	5,844.86
N SCHOOL	5,617.48	12.60	99.1	5,846.60
PA-1	5,620.06	99.54	98.5	5,847.70
PA-2	5,629.95	849.58	92.2	5,843.13
PA-3	5,630.21	908.71	92.1	5,843.10
PA-4	5,651.51	320.82	84.3	5,846.44
PA-5	5,645.18	122.22	87.0	5,846.37
PA-6	5,636.98	95.09	91.2	5,847.83
PA-7	5,641.60	406.06	88.5	5,846.25
PA-8	5,646.41	331.16	86.4	5,846.18
PA-9	5,671.39	36.46	75.7	5,846.36
PA-10	5,656.85	256.26	81.9	5,846.08
PA-11	5,657.56	65.04	81.5	5,845.97
PA-12	5,666.02	309.48	77.9	5,846.16
PA-13	5,669.05	192.19	76.4	5,845.67
PA-14	5,682.61	192.19	70.5	5,845.51
PA-15	5,713.00	340.03	57.4	5,845.60
PA-16	5,680.75	48.52	71.3	5,845.47
W SCHOOL	5,652.03	12.60	84.0	5,846.09

HARMONY

Active Scenario: MAX DAY

ID	Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
473	R-1	5,850.00	1,067.98	5,850.00
591	R-2	5,850.00	5,502.06	5,850.00

MAX DAY WITH
FIRE FLOW ANALYSIS

HARMONY

Active Scenario: MAX DAY + FIRE FLOW

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Velocity (ft/s)	Flow (gpm)	Headloss Gradient (ft/1000ft)
P1	J4	J8	2,046	16	PVC	130.0	0.11	69.21	0.004
P2	J7	J2	2,662	16	PVC	130.0	0.59	-369.99	0.099
P3	J9	J8	10	12	PVC	130.0	3.03	1,067.98	2.832
P4	J9	R-1	1	12	PVC	130.0	3.03	-1,067.98	2.930
P5	J8	PA-1	1,232	12	PVC	130.0	2.39	841.51	1.841
P6	J4	J10	10	24	PVC	130.0	3.90	-5,502.06	2.051
P7	J10	R-2	1	24	PVC	130.0	3.90	-5,502.06	1.953
P8	J11	J7	2,642	12	PVC	130.0	0.21	-74.31	0.021
P9	J13	J14	2,650	16	PVC	130.0	0.39	247.12	0.047
P10	MUN	PA-2	742	12	PVC	130.0	2.71	954.61	2.326
P11	J16	J15	3,264	12	PVC	130.0	0.29	-103.66	0.038
P12	J1	MUN	780	12	PVC	130.0	2.74	967.21	2.383
P13	PA-2	PA-3	869	12	PVC	130.0	0.30	105.03	0.039
P14	PA-3	J11	1,409	12	PVC	130.0	2.28	-803.68	1.691
P15	J5	PA-6	700	16	PVC	130.0	1.99	-1,245.40	0.938
P16	J17	PA-10	1,328	12	PVC	130.0	0.63	223.52	0.158
P17	PA-10	W SCHOOL	1,295	12	PVC	130.0	0.09	-32.73	0.005
P18	PA-5	PA-8	315	12	PVC	130.0	1.32	464.45	0.612
P19	PA-8	W SCHOOL	1,434	12	PVC	130.0	0.38	133.30	0.061
P20	J1	PA-7	475	12	PVC	130.0	1.71	602.97	0.993
P21	PA-4	PA-12	863	24	PVC	130.0	1.47	2,071.75	0.334
P22	J15	PA-13	1,188	16	PVC	130.0	0.27	-169.65	0.023
P23	PA-13	J2	1,430	16	PVC	130.0	0.58	-361.84	0.095
P24	J12	PA-14	1,262	12	PVC	130.0	0.50	175.76	0.101
P25	J5	J6	2,632	16	PVC	130.0	1.04	654.72	0.285
P26	J4	COMM	2,256	24	PVC	130.0	2.85	4,019.85	1.139
P27	J5	CHURCH	297	12	PVC	130.0	1.68	590.67	0.955
P28	CHURCH	PA-5	548	12	PVC	130.0	1.66	586.67	0.944
P29	J6	MF-MED	313	16	PVC	130.0	0.59	368.90	0.098
P30	MF-MED	PA-9	617	16	PVC	130.0	0.41	259.98	0.051
P31	PA-1	N SCHOOL	751	12	PVC	130.0	2.10	741.97	1.458
P32	N SCHOOL	J11	794	12	PVC	130.0	2.07	729.37	1.413
P33	W SCHOOL	PA-11	491	12	PVC	130.0	0.81	284.88	0.248
P34	PA-11	J15	2,158	12	PVC	130.0	0.62	219.83	0.153
P35	J12	PA-15	1,120	24	PVC	130.0	0.42	587.15	0.032
P36	PA-15	J13	1,502	24	PVC	130.0	0.18	247.12	0.007
P37	PA-6	CS	1,342	16	PVC	130.0	2.14	-1,340.48	1.074
P38	CS	J4	599	16	PVC	130.0	2.25	-1,413.00	1.184
P39	J2	J12	2,623	24	PVC	130.0	0.59	833.31	0.062
P40	J16	PA-16	1,494	12	PVC	130.0	0.25	87.23	0.028
P41	PA-16	J14	492	12	PVC	130.0	0.11	38.70	0.006
P42	PA-12	J2	1,436	24	PVC	130.0	1.25	1,762.27	0.248
P43	PA-9	J17	1,662	16	PVC	130.0	0.36	223.52	0.039
P44	PA-14	J16	1,571	12	PVC	130.0	0.05	-16.43	0.001
P45	J1	PA-4	630	24	PVC	130.0	1.70	2,392.58	0.436
P46	COMM	J1	621	24	PVC	130.0	2.81	3,962.75	1.109
P47	PA-7	W SCHOOL	1,258	12	PVC	130.0	0.56	196.91	0.125

HARMONY

Active Scenario: MAX DAY + FIRE FLOW

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
CHURCH	5,646.55	4.00	86.7	5,846.89
COMM	5,630.53	57.10	93.8	5,847.41
CS	5,628.18	72.51	95.7	5,849.27
J1	5,641.98	0.00	88.6	5,846.72
J2	5,643.16	197.12	87.7	5,845.80
J4	5,629.30	0.00	95.5	5,849.98
J5	5,647.47	0.00	86.4	5,847.17
J6	5,672.32	285.82	75.3	5,846.42
J7	5,618.35	295.68	98.3	5,845.54
J8	5,612.42	295.68	102.8	5,849.97
J9	5,609.31	0.00	104.1	5,850.00
J10	5,624.26	0.00	97.7	5,850.00
J11	5,620.07	0.00	97.5	5,845.48
J12	5,681.12	70.40	71.2	5,845.64
J13	5,711.38	0.00	58.1	5,845.59
J14	5,685.26	285.82	69.3	5,845.47
J15	5,677.09	285.82	72.9	5,845.64
J16	5,660.25	0.00	80.2	5,845.51
J17	5,672.78	0.00	75.1	5,846.29
MF-MED	5,670.87	108.92	75.9	5,846.39
MUN	5,635.82	12.60	90.4	5,844.86
N SCHOOL	5,617.48	12.60	99.1	5,846.60
PA-1	5,620.06	99.54	98.5	5,847.70
PA-2	5,629.95	849.58	92.2	5,843.13
PA-3	5,630.21	908.71	92.1	5,843.10
PA-4	5,651.51	320.82	84.3	5,846.44
PA-5	5,645.18	122.22	87.0	5,846.37
PA-6	5,636.98	95.09	91.2	5,847.83
PA-7	5,641.60	406.06	88.5	5,846.25
PA-8	5,646.41	331.16	86.4	5,846.18
PA-9	5,671.39	36.46	75.7	5,846.36
PA-10	5,656.85	256.26	81.9	5,846.08
PA-11	5,657.56	65.04	81.5	5,845.97
PA-12	5,666.02	309.48	77.9	5,846.16
PA-13	5,669.05	192.19	76.4	5,845.67
PA-14	5,682.61	192.19	70.5	5,845.51
PA-15	5,713.00	340.03	57.4	5,845.60
PA-16	5,680.75	48.52	71.3	5,845.47
W SCHOOL	5,652.03	12.60	84.0	5,846.09

HARMONY

Active Scenario: MAX DAY + FIRE FLOW

ID	Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
473	R-1	5,850.00	1,067.98	5,850.00
591	R-2	5,850.00	5,502.06	5,850.00

MAX DAY WITH FF AT PA-15

HARMONY

Active Scenario: MAX DAY FF AT PA-15

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Velocity (ft/s)	Flow (gpm)	Headloss Gradient (ft/1000ft)
P1	J4	J8	2,046	16	PVC	130.0	0.10	65.05	0.004
P2	J7	J2	2,662	16	PVC	130.0	0.24	-151.56	0.019
P3	J9	J8	10	12	PVC	130.0	3.42	1,204.01	3.613
P4	J9	R-1	1	12	PVC	130.0	3.42	-1,204.01	3.418
P5	J8	PA-1	1,232	12	PVC	130.0	2.76	973.38	2.411
P6	J4	J10	10	24	PVC	130.0	4.67	-6,581.21	2.832
P7	J10	R-2	1	24	PVC	130.0	4.67	-6,581.21	2.930
P8	J11	J7	2,642	12	PVC	130.0	0.41	144.12	0.070
P9	J13	J14	2,650	16	PVC	130.0	0.20	126.59	0.014
P10	MUN	PA-2	742	12	PVC	130.0	2.80	985.98	2.470
P11	J16	J15	3,264	12	PVC	130.0	0.75	-263.63	0.215
P12	J1	MUN	780	12	PVC	130.0	2.83	998.58	2.528
P13	PA-2	PA-3	869	12	PVC	130.0	0.39	136.41	0.063
P14	PA-3	J11	1,409	12	PVC	130.0	2.19	-772.31	1.571
P15	J5	PA-6	700	16	PVC	130.0	2.31	-1,449.35	1.241
P16	J17	PA-10	1,328	12	PVC	130.0	0.91	320.95	0.309
P17	PA-10	W SCHOOL	1,295	12	PVC	130.0	0.18	64.70	0.016
P18	PA-5	PA-8	315	12	PVC	130.0	1.62	570.98	0.898
P19	PA-8	W SCHOOL	1,434	12	PVC	130.0	0.68	239.82	0.180
P20	J1	PA-7	475	12	PVC	130.0	1.66	585.39	0.941
P21	PA-4	PA-12	863	24	PVC	130.0	2.08	2,937.31	0.637
P22	J15	PA-13	1,188	16	PVC	130.0	0.23	-143.24	0.017
P23	PA-13	J2	1,430	16	PVC	130.0	0.54	-335.43	0.083
P24	J12	PA-14	1,262	12	PVC	130.0	0.39	136.33	0.063
P25	J5	J6	2,632	16	PVC	130.0	1.20	752.15	0.368
P26	J4	COMM	2,256	24	PVC	130.0	3.47	4,899.21	1.643
P27	J5	CHURCH	297	12	PVC	130.0	1.98	697.20	1.300
P28	CHURCH	PA-5	548	12	PVC	130.0	1.97	693.20	1.286
P29	J6	MF-MED	313	16	PVC	130.0	0.74	466.33	0.151
P30	MF-MED	PA-9	617	16	PVC	130.0	0.57	357.41	0.093
P31	PA-1	N SCHOOL	751	12	PVC	130.0	2.64	929.03	2.211
P32	N SCHOOL	J11	794	12	PVC	130.0	2.60	916.43	2.157
P33	W SCHOOL	PA-11	491	12	PVC	130.0	1.34	471.25	0.629
P34	PA-11	J15	2,158	12	PVC	130.0	1.15	406.21	0.478
P35	J12	PA-15	1,120	24	PVC	130.0	1.23	1,736.99	0.241
P36	PA-15	J13	1,502	24	PVC	130.0	0.09	126.59	0.002
P37	PA-6	CS	1,342	16	PVC	130.0	2.46	-1,544.44	1.396
P38	CS	J4	599	16	PVC	130.0	2.58	-1,616.95	1.520
P39	J2	J12	2,623	24	PVC	130.0	1.38	1,943.71	0.297
P40	J16	PA-16	1,494	12	PVC	130.0	0.59	207.76	0.138
P41	PA-16	J14	492	12	PVC	130.0	0.45	159.24	0.084
P42	PA-12	J2	1,436	24	PVC	130.0	1.86	2,627.82	0.519
P43	PA-9	J17	1,662	16	PVC	130.0	0.51	320.95	0.076
P44	PA-14	J16	1,571	12	PVC	130.0	0.16	-55.87	0.012
P45	J1	PA-4	630	24	PVC	130.0	2.31	3,258.13	0.772
P46	COMM	J1	621	24	PVC	130.0	3.43	4,842.10	1.608
P47	PA-7	W SCHOOL	1,258	12	PVC	130.0	0.51	179.33	0.105

HARMONY

Active Scenario: MAX DAY FF AT PA-15

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
CHURCH	5,646.55	4.00	86.3	5,845.93
COMM	5,630.53	57.10	93.3	5,846.26
CS	5,628.18	72.51	95.6	5,849.06
J1	5,641.98	0.00	88.0	5,845.26
J2	5,643.16	197.12	86.7	5,843.48
J4	5,629.30	0.00	95.5	5,849.97
J5	5,647.47	0.00	86.0	5,846.32
J6	5,672.32	285.82	74.9	5,845.35
J7	5,618.35	295.68	97.4	5,843.43
J8	5,612.42	295.68	102.8	5,849.96
J9	5,609.31	0.00	104.1	5,850.00
J10	5,624.26	0.00	97.7	5,850.00
J11	5,620.07	0.00	96.7	5,843.62
J12	5,681.12	70.40	69.9	5,842.70
J13	5,711.38	0.00	56.7	5,842.43
J14	5,685.26	285.82	68.0	5,842.40
J15	5,677.09	285.82	71.9	5,843.34
J16	5,660.25	0.00	78.9	5,842.64
J17	5,672.78	0.00	74.6	5,845.12
MF-MED	5,670.87	108.92	75.5	5,845.30
MUN	5,635.82	12.60	89.8	5,843.29
N SCHOOL	5,617.48	12.60	98.6	5,845.33
PA-1	5,620.06	44.35	98.2	5,846.99
PA-2	5,629.95	849.58	91.5	5,841.46
PA-3	5,630.21	908.71	91.4	5,841.40
PA-4	5,651.51	320.82	83.6	5,844.78
PA-5	5,645.18	122.22	86.6	5,845.23
PA-6	5,636.98	95.09	90.9	5,847.18
PA-7	5,641.60	406.06	87.9	5,844.82
PA-8	5,646.41	331.16	85.9	5,844.94
PA-9	5,671.39	36.46	75.2	5,845.24
PA-10	5,656.85	256.26	81.3	5,844.71
PA-11	5,657.56	65.04	80.8	5,844.38
PA-12	5,666.02	309.48	77.1	5,844.23
PA-13	5,669.05	192.19	75.4	5,843.36
PA-14	5,682.61	192.19	69.2	5,842.62
PA-15	5,713.00	1,610.40	56.0	5,842.44
PA-16	5,680.75	48.52	70.0	5,842.44
W SCHOOL	5,652.03	12.60	83.4	5,844.68

HARMONY

Active Scenario: MAX DAY FF AT PA-15

ID	Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
473	R-1	5,850.00	1,204.01	5,850.00
591	R-2	5,850.00	6,581.21	5,850.00

MAX HOUR

HARMONY

Active Scenario: MAX HOUR

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen- Williams C	Velocity (ft/s)	Flow (gpm)	Headloss Gradient (ft/1000ft)
P1	J4	J8	2,046	16	PVC	130.0	0.18	111.65	0.011
P2	J7	J2	2,662	16	PVC	130.0	0.96	-599.64	0.242
P3	J9	J8	10	12	PVC	130.0	4.84	1,706.63	6.836
P4	J9	R-1	1	12	PVC	130.0	4.84	-1,706.63	6.836
P5	J8	PA-1	1,232	12	PVC	130.0	3.81	1,343.08	4.377
P6	J4	J10	10	24	PVC	130.0	6.21	-8,760.57	4.834
P7	J10	R-2	1	24	PVC	130.0	6.21	-8,760.57	4.883
P8	J11	J7	2,642	12	PVC	130.0	0.35	-124.44	0.053
P9	J13	J14	2,650	16	PVC	130.0	0.64	399.24	0.114
P10	MUN	PA-2	742	12	PVC	130.0	4.35	1,534.37	5.601
P11	J16	J15	3,264	12	PVC	130.0	0.46	-161.64	0.087
P12	J1	MUN	780	12	PVC	130.0	4.40	1,550.47	5.710
P13	PA-2	PA-3	869	12	PVC	130.0	0.48	168.98	0.094
P14	PA-3	J11	1,409	12	PVC	130.0	3.66	-1,291.45	4.071
P15	J5	PA-6	700	16	PVC	130.0	3.18	-1,993.97	2.241
P16	J17	PA-10	1,328	12	PVC	130.0	1.01	354.36	0.371
P17	PA-10	W SCHOOL	1,295	12	PVC	130.0	0.16	-57.48	0.013
P18	PA-5	PA-8	315	12	PVC	130.0	2.10	740.19	1.452
P19	PA-8	W SCHOOL	1,434	12	PVC	130.0	0.59	207.97	0.138
P20	J1	PA-7	475	12	PVC	130.0	2.75	969.17	2.392
P21	PA-4	PA-12	863	24	PVC	130.0	2.34	3,298.73	0.790
P22	J15	PA-13	1,188	16	PVC	130.0	0.44	-274.56	0.057
P23	PA-13	J2	1,430	16	PVC	130.0	0.93	-583.44	0.230
P24	J12	PA-14	1,262	12	PVC	130.0	0.81	285.34	0.248
P25	J5	J6	2,632	16	PVC	130.0	1.67	1,047.36	0.680
P26	J4	COMM	2,256	24	PVC	130.0	4.54	6,406.95	2.701
P27	J5	CHURCH	297	12	PVC	130.0	2.69	946.61	2.290
P28	CHURCH	PA-5	548	12	PVC	130.0	2.66	936.61	2.244
P29	J6	MF-MED	313	16	PVC	130.0	0.94	588.00	0.232
P30	MF-MED	PA-9	617	16	PVC	130.0	0.66	412.95	0.122
P31	PA-1	N SCHOOL	751	12	PVC	130.0	3.36	1,183.10	3.460
P32	N SCHOOL	J11	794	12	PVC	130.0	3.31	1,167.00	3.374
P33	W SCHOOL	PA-11	491	12	PVC	130.0	1.28	450.97	0.580
P34	PA-11	J15	2,158	12	PVC	130.0	0.98	346.44	0.356
P35	J12	PA-15	1,120	24	PVC	130.0	0.67	945.72	0.078
P36	PA-15	J13	1,502	24	PVC	130.0	0.28	399.24	0.016
P37	PA-6	CS	1,342	16	PVC	130.0	3.43	-2,146.79	2.569
P38	CS	J4	599	16	PVC	130.0	3.58	-2,241.96	2.784
P39	J2	J12	2,623	24	PVC	130.0	0.92	1,301.46	0.141
P40	J16	PA-16	1,494	12	PVC	130.0	0.39	138.10	0.065
P41	PA-16	J14	492	12	PVC	130.0	0.17	60.12	0.014
P42	PA-12	J2	1,436	24	PVC	130.0	1.99	2,801.35	0.583
P43	PA-9	J17	1,662	16	PVC	130.0	0.57	354.36	0.091
P44	PA-14	J16	1,571	12	PVC	130.0	0.07	-23.54	0.002
P45	J1	PA-4	630	24	PVC	130.0	2.71	3,814.34	1.034
P46	COMM	J1	621	24	PVC	130.0	4.49	6,333.99	2.644
P47	PA-7	W SCHOOL	1,258	12	PVC	130.0	0.90	316.58	0.301

HARMONY

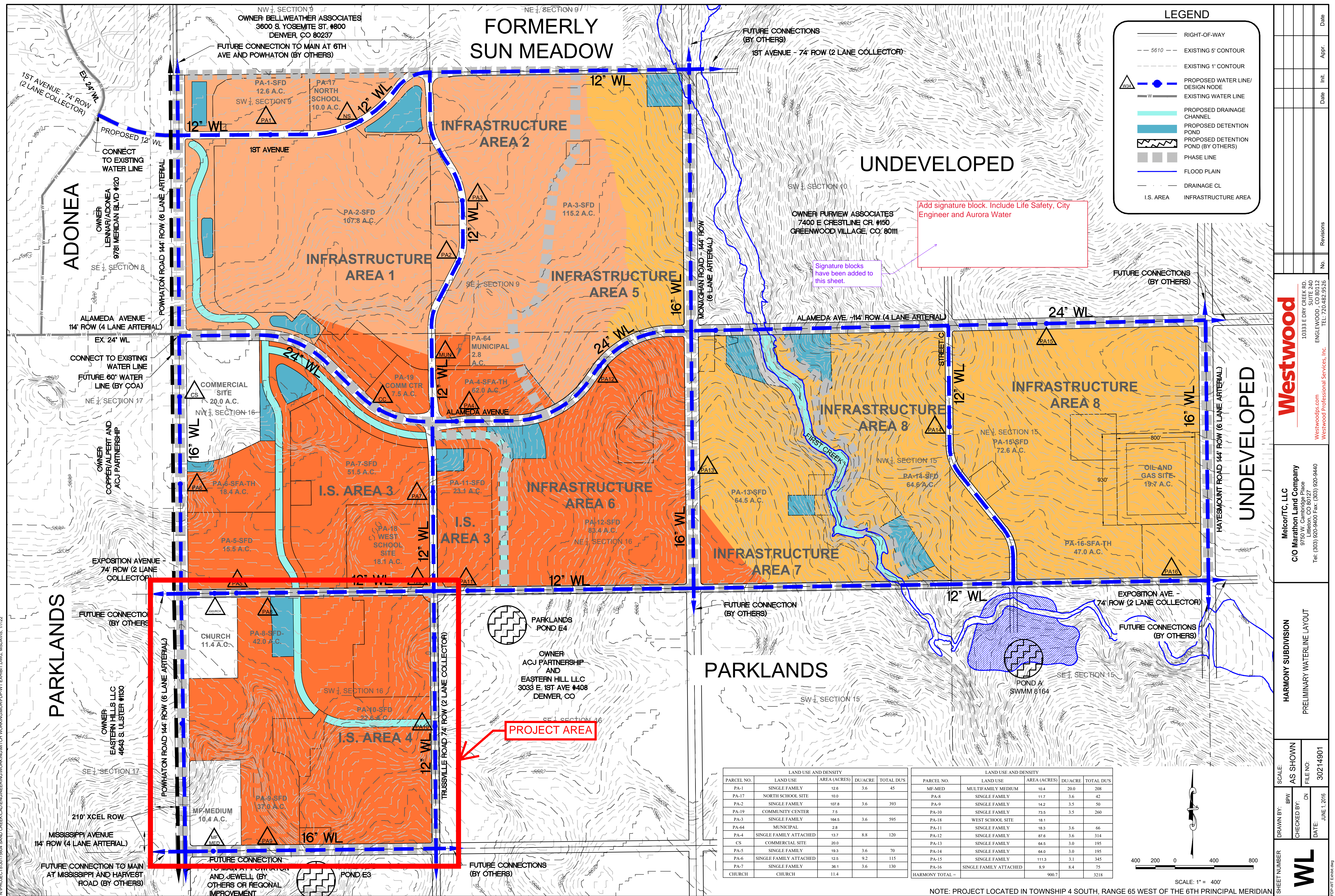
Active Scenario: MAX HOUR

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
CHURCH	5,646.55	10.00	84.8	5,842.58
COMM	5,630.53	72.97	92.3	5,843.85
CS	5,628.18	95.17	95.2	5,848.28
J1	5,641.98	0.00	86.6	5,842.21
J2	5,643.16	316.80	85.2	5,840.04
J4	5,629.30	0.00	95.5	5,849.95
J5	5,647.47	0.00	84.7	5,843.26
J6	5,672.32	459.36	73.2	5,841.47
J7	5,618.35	475.20	95.6	5,839.40
J8	5,612.42	475.20	102.8	5,849.92
J9	5,609.31	0.00	104.1	5,849.99
J10	5,624.26	0.00	97.7	5,850.00
J11	5,620.07	0.00	94.8	5,839.26
J12	5,681.12	70.40	68.6	5,839.67
J13	5,711.38	0.00	55.5	5,839.56
J14	5,685.26	459.36	66.6	5,839.26
J15	5,677.09	459.36	70.3	5,839.64
J16	5,660.25	0.00	77.5	5,839.36
J17	5,672.78	0.00	72.9	5,841.17
MF-MED	5,670.87	175.05	73.8	5,841.40
MUN	5,635.82	16.10	87.4	5,837.76
N SCHOOL	5,617.48	16.10	97.1	5,841.93
PA-1	5,620.06	159.98	97.1	5,844.53
PA-2	5,629.95	1,365.39	88.1	5,833.60
PA-3	5,630.21	1,460.43	88.0	5,833.52
PA-4	5,651.51	515.61	82.2	5,841.56
PA-5	5,645.18	196.43	84.9	5,841.35
PA-6	5,636.98	152.82	89.9	5,844.83
PA-7	5,641.60	652.59	86.3	5,841.08
PA-8	5,646.41	532.21	84.1	5,840.90
PA-9	5,671.39	58.59	73.5	5,841.32
PA-10	5,656.85	411.84	79.5	5,840.68
PA-11	5,657.56	104.54	79.1	5,840.41
PA-12	5,666.02	497.38	75.7	5,840.88
PA-13	5,669.05	308.88	73.8	5,839.71
PA-14	5,682.61	308.88	67.8	5,839.36
PA-15	5,713.00	546.48	54.8	5,839.58
PA-16	5,680.75	77.99	68.6	5,839.26
W SCHOOL	5,652.03	16.10	81.6	5,840.70

HARMONY

Active Scenario: MAX HOUR

ID	Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
473	R-1	5,850.00	1,706.63	5,850.00
591	R-2	5,850.00	8,760.57	5,850.00



Appendix B

Wastewater Demands and Routing Calculations

HARMONY DEVELOPMENT
CITY OF AURORA
ON-SITE SANITARY SEWER PEAK ROUTING CALCULATIONS

PLANNING AREA	TYPE OF DEVELOPMENT	AREA (AC)	MAX. UNITS***	MAXIMUM DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	AVG DAY FLOW (GPD/CAP)	AVG DAY FLOW (GPD)	MAX POPULATION*** (THOUSANDS)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	PEAK DAILY FLOW (CFS)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)
PA-1	SFD	12.6	101	8.0	3.3	80	26,664	0.333	4.0	106,656	0.17	2,666	109,322
PA-17-NORTH SCHOOL	SCHOOL	10.0	1		688	10	6,880	0.688	4.0	27,520	0.04	688	28,208
PA-2	SFD	107.8	862	8.0	4.4	80	303,424	3.793	4.0	1,213,696	1.88	30,342	1,244,038
PA-19-COMMUNITY CENTER	COMM	7.5					5,000	0.001	4.0	20,000	0.03	500	20,500
PA-3	SFD	115.2	922	8.0	4.4	80	324,544	4.057	4.0	1,284,331	1.99	32,454	1,316,785
PA-4	SFA-TH	62.0	496	8.0	2.1	80	83,328	1.042	4.0	333,312	0.52	8,333	341,645
CS	COMMERCIAL SITE	20.0			(Equivalent Popul.) 50	(GPD/Acre) 4,000	80,000	0.050	4.0	320,000	0.50	8,000	328,000
PA-5	SFD	15.5	124	8.0	6.7	80	66,464	0.831	4.0	265,856	0.41	6,646	272,502
PA-6	SFA-TH	18.4	147	8.0	5.4	80	63,504	0.794	4.0	254,016	0.39	6,350	260,366
PA-7	SFD	51.5	412	8.0	3.7	80	121,952	1.524	4.0	487,808	0.75	12,195	500,003
CHURCH	CHURCH	11.4					5,000	0.001	4.0	20,000	0.03	500	20,500
MF-MED	MF-MEDIUM	10.4	208	20.0	1.7	80	28,288	0.354	4.0	113,152	0.18	2,829	115,981
PA-8	SFD	42.0	336	8.0	3.9	80	104,832	1.310	4.0	419,328	0.65	10,483	429,811
PA-9	SFD	37.0	296	8.0	4.5	80	106,560	1.332	4.0	426,240	0.66	10,656	436,896
PA-10	SFD	22.6	181	8.0	2.4	80	34,752	0.434	4.0	139,008	0.22	3,475	142,483

***MAX UNITS AND MAX POPULATION WILL BE UP TO BUT NOT EXCEEDING THE NUMBER SHOWN.

HARMONY DEVELOPMENT

CITY OF AURORA

PLANNING AREA	TYPE OF DEVELOPMENT	AREA (AC)	MAX. UNITS	MAXIMUM DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	AVG DAY FLOW (GPD/CAP)	AVG DAY FLOW (GPD)	POPULATION (THOUSANDS)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	PEAK DAILY FLOW (CFS)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)
PA-18- WEST SCHOOL	SCHOOL	18.1	1		688	10	6,880	0.688	4.0	27,520	0.04	688	28,208
PA-11	SFD	23.1	185	8.0	3.5	80	51,800	0.648	4.0	207,200	0.32	5,180	212,380
PA-12	SFD	83.4	667	8.0	3.2	80	170,752	2.134	4.0	683,008	1.06	17,075	700,083
PA-64- MUNICIPAL	FIRE STATION	2.8					5,000	0.001	4.0	20,000	0.03	500	20,500
PA-13	SFD	64.5	516	8.0	2.8	80	115,584	1.445	4.0	462,336	0.72	11,558	473,894
PA-14	SFD	64.6	517	8.0	2.6	80	107,536	1.344	4.0	430,144	0.67	10,754	440,898
PA-15	SFD	72.6	581	8.0	3.6	80	167,328	2.092	4.0	669,312	1.04	16,733	686,045
PA-16	SFA-TH	47.0	517	11.0	8.4	80	347,424	4.343	3.9	1,359,322	2.10	34,742	1,394,064

OFF-SITE SANITARY SEWER PEAK FLOW CALCULATIONS*

PLANNING AREA	TYPE OF DEVELOPMENT	AREA (AC)	MAX. UNITS	MAXIMUM DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	AVG DAY FLOW (GPD/CAP)	AVG DAY FLOW (GPD)	POPULATION (THOUSANDS)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	PEAK DAILY FLOW (CFS)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)
Parklands F-13*	NAC & SFD	43.0	225				57,600	0.720	4.0	230,400	0.36	5,760	236,160
Parklands F-12*	SFD	24.0	145				37,018	0.464	4.0	148,072	0.23	3,702	151,774
Parklands F-7*	CP, CAC, SFA, SFD	282.0	1896				485,366	6.067	2.78	1,349,317	2.09	48,537	1,697,000
Parklands F-1*	CP, NP, NAC SFD	466.0	2334				596,788	7.469	2.57	1,533,745	2.37	59,679	2,182,000
Sun Meadows** SM Offsite 2	SFD/MF COMM/RETAIL	60.0	320			80	60,638	0.758	4.0	242,552	0.38	6,064	248,616
Sun Meadows** PA-1	CAC-Shopping Ctr	18.5	19		25	2000	37,000	0.463	4.0	148,000	0.23	3,700	151,700
Sun Meadows** PA-4,9,12	School-Elem SFD/SFA/MF-MED	85.0	680				184,080	3.176	4.0	736,320	1.14	18,408	754,728
Sun Meadows** PA-21	MF-MED	9.9	158		1.7	80	21,542	0.269	4.0	86,168	0.13	2,154	88,322
Sun Meadows** PA-22,23	CAC-Shopping Ctr MF-MED	38.3	289				79,539	0.994	4.0	318,156	0.49	7,954	326,110
Sun Meadows** PA-13,15	SFD/SFA/MF-MED Park	46.9	275				75,042	0.939	4.0	300,168	0.46	7,504	307,672
Sun Meadows** PA-26	SFD/SFA/MF-MED	12.8	102		3.2	80	26,214	0.328	4.0	104,856	0.16	2,621	107,477
Undeveloped SM Offsite 1	SFD/MF COMM/RETAIL	160.5	857			80	162,208	2.028	4.0	648,832	1.00	16,221	665,053

* Source: Sanitary Sewer Analysis calculations/exhibits by Meurer & Associates dated 7/5/2005 for Parklands (formerly Eastern Hills)

** Source: Master Utilities Report for Sun Meadow, CVL Consultants of Colorado, Inc., Oct. 5, 2005

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HARMONY DEVELOPMENT
CITY OF AURORA
ON-SITE SANITARY SEWER PEAK ROUTING CALCULATIONS - (PERMANENT GRAVITY SYSTEM)

DESIGN POINT	PLANNING AREA	DESCRIPTION	AREA (AC)	UNITS	MAXIMUM DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	AVG DAY FLOW (GPD/CAP)	PERCENTAGE OF PLANNING AREA	AVG DAY FLOW (GPD)	POPULATION (THOUSANDS)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)	PEAK DAY FLOW WITH INFILTRATION (CFS)	COMMENTS
SS2	PA-1, 2, 3, NORTH SCHOOL		201.4	1,532					536,974	7.314	3.6	1,925,786	53,697	1,979,483	3.06	to DP SS1, 12"
SS2	PA-1	SFD	12.6	101	8.0	3.3	80	100%	26,664	0.333	4.0	106,656	2,666	109,322	0.17	
SS2	PA-2 (40%)	SFD	107.8	862	8.0	4.4	80	40%	121,370	1.517	4.0	485,478	12,137	497,615	0.77	
SS3	PA-2, 3, NORTH SCHOOL		145.7	1,086					388,941	5.464	3.8	1,464,510	38,894	1,503,404	2.33	to DP SS2 - 12"
SS3	PA-18- NORTH SCHOOL	SCHOOL	10	1		688.0	10	100%	6,880	0.688	4.0	27,520	688	28,208	0.04	
SS3	PA-2 (35%)	SFD	107.8	862	8.0	4.4	80	35%	106,198	1.327	4.0	424,794	10,620	435,413	0.67	
SS4	PA-3		97.9	784					275,862	3.448	4.0	1,103,450	27,586	1,131,036	1.75	to DP SS3 - 12"
SS4	PA-3 (70%)	SFD	115.2	922	8.0	4.4	80	70%	227,181	2.840	4.0	908,723	22,718	931,441	1.44	
SS5	PA-3		17.3	138					48,682	0.609	4.0	194,726	4,868	199,595	0.31	to DP SS4 - 8"
SS5	PA-3 (15%)	SFD	115.2	922	8.0	4.4	80	15%	48,682	0.609	4.0	194,726	4,868	199,595	0.31	

DESIGN POINT	PLANNING AREA	DESCRIPTION	AREA (AC)	UNITS	MAXIMUM DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	AVG DAY FLOW (GPD/CAP)	PERCENTAGE OF PLANNING AREA	AVG DAY FLOW (GPD)	POPULATION (THOUSANDS)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)	PEAK DAY FLOW WITH INFILTRATION (CFS)	COMMENTS
SS8	PA-2, 4, 5, 6, 7, 8, 9, 10, 11, 12, WEST SCHOOL, CS, CHURCH, MF-MED, F-12,13, COMM, MUNICIPAL		519.7	3,640					1,104,586	13.276	3.2	3,586,053	110,459	3,696,512	5.72	to DP SS7, 15"
SS8	COMMERCIAL SITE	CS	20.0			(Equivalent Popul.) 50.0	4,000	100%	(GPD/Acre) 80,000	0.050	4.0	320,000	8,000	328,000	0.51	
SS9	PA-4, 5, 6, 7, 8, 9, 10, 11, 12, WEST SCHOOL, CHURCH, MF-MED, F-12,13, COMM, MUNICIPAL		499.7	3,640					1,024,586	13.226	3.2	3,328,429	102,459	3,430,888	5.31	to DP SS8 - 15"
SS9	PA-2 (25%)	SFD	107.8	862	8.0	4.4	80	25%	75,856	0.948	4.0	303,424	7,586	311,010	0.48	
SS10	PA-4, 11,12, COMM, MUNICIPAL		178.8	1349.0					315,880	3.826	4.0	1,262,360	31,588	1,293,948	2.00	to DP SS9 - 8"
SS10	PA-4	SFD	62.0	496	8.0	2.1	80	100%	83,328	1.042	4.0	333,312	8,333	341,645	0.53	
SS10	COMMUNITY CENTER		7.5					100%	5,000	0.001	4.000	20,000	500	20,500	0.03	
SS19	PA-64 - MUNICIPAL		2.8	1					5,000	0.001	4.0	20,000	500	20,500	0.03	to DP SS10 - 8"
SS19	PA-64 - MUNICIPAL	SFD	2.8	1				100%	5,000	0.001	4.0	20,000	500	20,500	0.03	
SS11	PA-12		83.4	667					170,752	2.134	4.0	683,008	17,075	700,083	1.08	to DP SS10 - 8"
SS11	PA-12	SFD	83.4	667	8.0	3.2	80	100%	170,752	2.134	4.0	683,008	17,075	700,083	1.08	
SS12	PA-11		23.1	185					51,800	0.648	4.0	207,200	5,180	212,380	0.33	to DP SS10 - 8"
SS12	PA-11	SFD	23.1	185	8.0	3.5	80	100%	51,800	0.648	4.0	207,200	5,180	212,380	0.33	
SS13	PA-5, 6, 7, 8, 9, 10, CHURCH MF-MED, WEST SCHOOL, F-12,13		293.9	2,075					632,850	8.452	3.5	2,215,466	63,285	2,278,751	3.53	to DP SS9 - 12"
SS13	PA-7	SFD	51.5	412	8.0	3.7	80	100%	121,952	1.524	4.0	487,808	12,195	500,003	0.77	

HARMONY DEVELOPMENT
CITY OF AURORA
ON-SITE SANITARY SEWER PEAK ROUTING CALCULATIONS - (PERMANENT GRAVITY SYSTEM)

DESIGN POINT	PLANNING AREA	DESCRIPTION	AREA (AC)	UNITS	MAXIMUM DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	AVG DAY FLOW (GPD/CAP)	PERCENTAGE OF PLANNING AREA	AVG DAY FLOW (GPD)	POPULATION (THOUSANDS)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)	PEAK DAY FLOW WITH INFILTRATION (CFS)	COMMENTS
SS14	PA-5, 6		33.9	271					129,968	1.625	4.0	519,872	12,997	532,869	0.82	to DP SS13 - 8"
SS14	PA-6	SFA	18.4	147	8.0	5.4	80	100%	63,504	0.794	4.0	254,016	6,350	260,366	0.40	
SS15	PA-5		15.5	124					66,464	0.831	4.0	265,856	6,646	272,502	0.42	to DP SS14 - 8"
SS15	PA-5	SFD	15.5	124	8.0	6.7	80	100%	66,464	0.831	4.0	265,856	6,646	272,502	0.42	
SS16	PA-8, 9, 10, WEST SCHOOL CHURCH, MF-MED, F-12,13		208.5	1,392					380,930	5.303	3.8	1,441,500	38,093	1,479,593	2.29	to DP SS13 - 12"
SS16	PA-10 (70%)	SFD	22.6	181	8.0	2.4	80	70%	24,326	0.304	4.0	97,306	2,433	99,738	0.15	
SS17	PA-8, CHURCH		53.4	336					109,832	1.311	4.0	439,328	10,983	450,311	0.70	to DP SS16 - 8"
SS17	PA-8	SFD	42.0	336	8.0	3.9	80	100%	104,832	1.310	4.0	419,328	10,483	429,811	0.67	
SS18	CHURCH		11.4	0					5,000	0.001	4.0	20,000	500	20,500	0.03	to DP SS17 - 8"
SS18	CHURCH	SFD	11.4	0				100%	5,000	0.001	4.0	20,000	500	20,500	0.03	
SS20	PA-9, PA-10, MF-MED		54.2	558					145,274	1.816	4.0	581,094	14,527	595,622	0.92	to DP SS19 - 8"
SS20	PA-10 (30%)	SFD	22.6	181	8.0	2.4	80	30%	10,426	0.130	4.0	41,702	1,043	42,745	0.07	
SS20	PA-9	SFD	37.0	296	8.0	4.5	80	100%	106,560	1.332	4.0	426,240	10,656	436,896	0.68	
SS21	MF-MED		10.4	208					28,288	0.354	4.0	113,152	2,829	115,981	0.18	to DP SS20 - 8"
SS21	MF-MEDIUM	MF-MEDIUM	10.4	208	20.0	1.7	80	100%	28,288	0.354	4.0	113,152	2,829	115,981	0.18	
SS22	WEST SCHOOL, PARK F-12 PARK F-13		85.1	371					101,498	1.872	4.0	405,992	10,150	416,142	0.64	to DP SS16 - 8"
SS22	PA-19- WEST SCHOOL	SCHOOL	18.1	1		688.0	10	100%	6,880	0.688	4.0	27,520	688	28,208	0.04	
SS22	PARKLAND F-12	OFFSITE	24.0	145				100%	37,018	0.464	4.0	148,072	3,702	151,774	0.23	
SS23	PARK F-13		43.0	225					57,600	0.720	4.0	230,400	5,760	236,160	0.37	to DP SS22 - 8"
SS23	PARKLAND F-13	OFFSITE	43.0	225				100%	57,600	0.720	4.0	230,400	5,760	236,160	0.37	

SM DP 11	PA-3,12-17 PARK F-1,7, SM-OFF-1,2 SM PA-4,9,26,10,12,13,15,21-23		1445.9	9,199					2,514,971	32.323	2.8	7,037,439	251,497	7,288,936	11.28	Tie to replaced SS Line at 6th Ave/Pow Upsize from 18" to 24"
SM DP 11	SM OFF-2	SFD/MF COMM/RETAIL	60.0	320.0			80	100%	60,638	0.758	4.0	242,552	6,064	248,616	0.38	
SM DP 10	PA-3,12-17,PARK F-1,7 SM OFF-1,PA-4,9,26,10,12,13,15,21-23		1385.9	8,879					2,454,333	31.565	2.8	6,895,031	245,433	7,140,464	11.05	to SM DP 11 - 24"
SM DP 10	SM PA-1	CAC-Shopping Ctr	18.5	19.0		25.0	2,000	100%	37,000	0.463	4.0	148,000	3,700	151,700	0.23	
SM DP 9	PA-3,12-17,PARK F-1,7 SM OFF-1,PA-4,9,26,12,13,15,21-23		1367.4	8,860					2,417,333	31.102	2.8	6,807,865	241,733	7,049,599	10.91	to SM DP 10 - 24"
SM DP 9	SM PA-4,9,12	School-Elem SFD/SFA/MF-MED	85.0	680.0				100%	184,080	3.176	4.0	736,320	18,408	754,728	1.17	
SM DP 7	PA-3,12-17 PARK F-1,7 SM OFF-1,PA-26,13,15,22,23,21		1282.4	8,180					2,233,253	27.926	2.9	6,403,606	223,325	6,626,931	10.25	to SM DP 9 - 18"
SM DP 7	SM PA-21	MF-MED	9.9	158.0		1.7	80	100%	21,542	0.269	4.0	86,168	2,154	88,322	0.14	

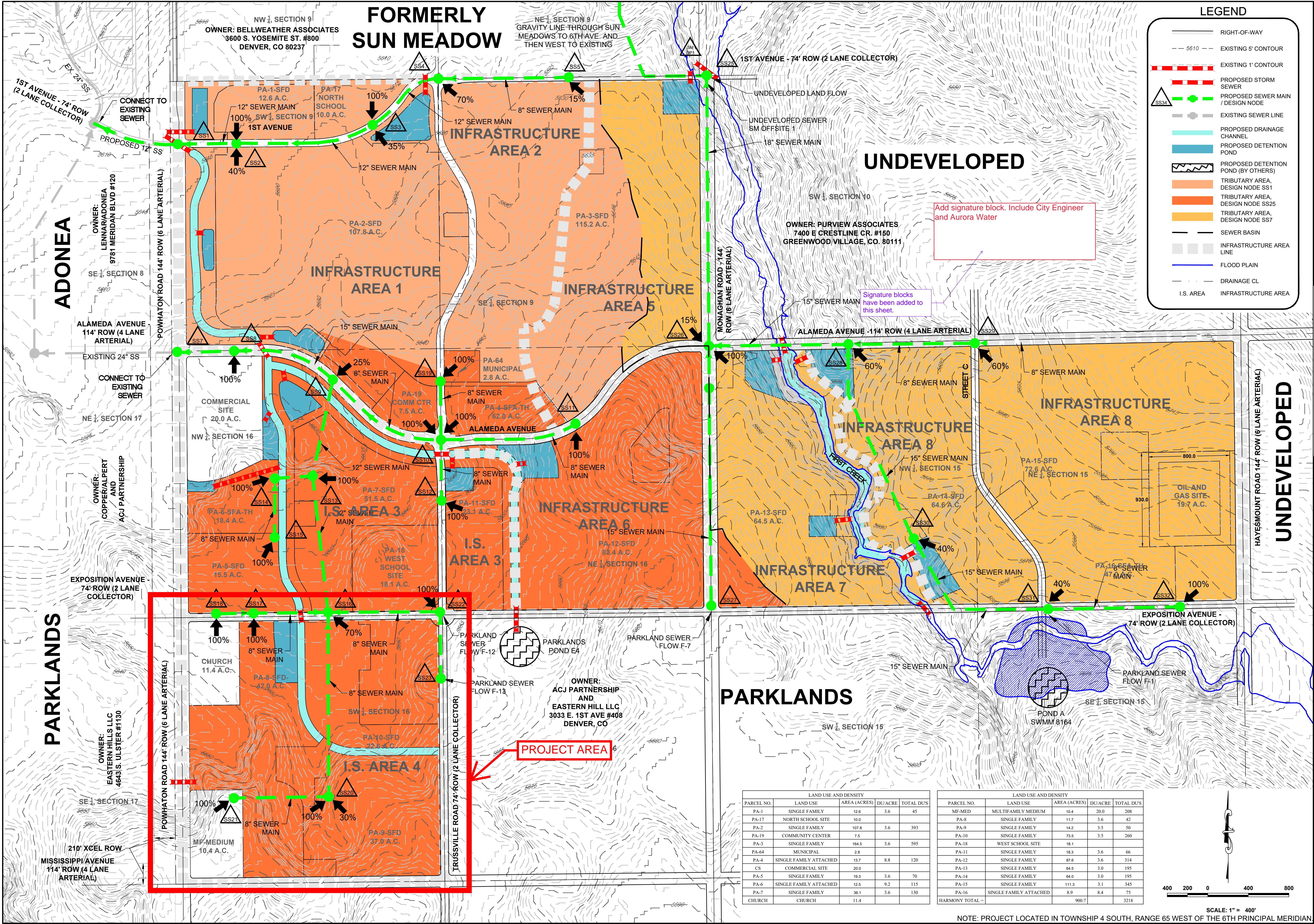
HARMONY DEVELOPMENT
CITY OF AURORA
ON-SITE SANITARY SEWER PEAK ROUTING CALCULATIONS - (PERMANENT GRAVITY SYSTEM)

DESIGN POINT	PLANNING AREA	DESCRIPTION	AREA (AC)	UNITS	MAXIMUM DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	AVG DAY FLOW (GPD/CAP)	PERCENTAGE OF PLANNING AREA	AVG DAY FLOW (GPD)	POPULATION (THOUSANDS)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)	PEAK DAY FLOW WITH INFILTRATION (CFS)	COMMENTS
SM DP 6	PA-3,12-17,PARK F-1,7 SM OFF-1,PA-26,13,15,22,23		1272.5	8,022					2,211,711	27.657	2.9	6,352,096	221,171	6,573,267	10.17	to SM DP 7 - 18"
SM DP 6	SM PA-22,23	CAC-Shopping Ctr MF-MED	38.3	289.0				100%	79,539	0.994	4.0	318,156	7,954	326,110	0.50	
SM DP 3	PA-3,12-17,PARK F-1,7 SM OFF-1,PA-26,13,15		1234.2	7,733					2,132,172	26.663	2.9	6,161,204	213,217	6,374,421	9.86	to SM DP 6 - 18"
SM DP 3	SM PA-13,15	SFD/SFA/MF-MED Park	46.9	275.0				100%	75,042	0.939	4.0	300,168	7,504	307,672	0.48	
SM DP 24	PA-3,12-17,PARK F-1,7 SM OFF-1,PA-26		1187.3	7,458					2,057,130	25.724	2.9	5,980,057	205,713	6,185,770	9.57	to SM DP 3 - 18"
SM DP 2	SM PA-26	SFD/SFA/MF-MED	12.8	102.0		3.2	80	100%	26,214	0.328	4.0	104,856	2,621	107,477	0.17	
SM DP 1	PA-3,12,13,14,15,16,17, PARK F-1,7, SM OFF-1		1174.5	7,356					2,030,916	25.396	2.9	5,916,519	203,092	6,119,611	9.47	to SM DP 2 - 18"
SM DP 1/ SS 25	SM OFF-1	SFD/MF COMM/RETAIL	160.5	857.0			80	100%	162,208	2.028	4.0	648,832	16,221	665,053	1.03	
SS 26	PA-3,12,13,14,15,16 PARK F-1,7		1014.0	6,499					1,868,708	23.368	3.0	5,520,162	186,871	5,707,033	8.83	to DP SS25 - 18"
SS 26	PA-3 (15%)	SFD	115.2	922	8.0	4.4	80	15%	48,682	0.609	4.0	194,726	4,868	199,595	0.31	
SS 26	PA-13	SFD	64.5	516	8.0	2.8	80	100%	115,584	1.445	4.0	462,336	11,558	473,894	0.73	
SS27	PARK F-7		282.0	1,896					485,366	6.067	2.8	1,349,317	48,537	1,397,854	2.16	to DP SS27 - 15"
SS27	PARKLAND F-7	OFFSITE	282.0	1,896				100%	485,366	6.067	2.8	1,349,317	48,537	1,397,854	2.16	
SS28	PA-14,15,16, PARK F-1		650.2	3,949					1,219,076	15.248	3.2	3,867,285	121,908	3,989,192	6.17	to DP SS26 - 15"
SS28	PA-14 (60)	SFD	64.6	517	8.0	2.6	80	60%	64,522	0.807	4.0	258,086	6,452	264,539	0.41	
SS29	PA-15 (60%)		43.6	349					100,397	1.255	4.0	401,587	10,040	411,627	0.64	to DP SS29 - 8"
SS30	PA-15 (60%)	SFD	72.6	581	8.0	3.6	80	60%	100,397	1.255	4.0	401,587	10,040	411,627	0.64	
SS30	PA-14, 15, 16, PARKLAND F-1		567.9	3,290					1,054,158	13.186	3.3	3,426,226	105,416	3,531,642	5.47	to DP SS29 - 15"
SS30	PA-14 (40%)	SFD	64.6	517	8.0	2.6	80	40%	43,014	0.538	4.0	172,058	4,301	176,359	0.27	
SS31	PA-15, 16, Park-F1		542.0	3,083					1,011,143	12.648	3.3	3,309,348	101,114	3,410,463	5.28	to DP SS32 - 15"
SS31	PA-15 (40%)	SFD	72.6	581	8.0	3.6	80	40%	66,931	0.837	4.0	267,725	6,693	274,418	0.42	
SS31	Parklands-F1	Offsite	466.0	2,334				100%	596,788	7.469	2.6	1,533,745	59,679	2,182,000	3.38	
SS32	PA-16		47.0	517					347,424	4.343	3.9	1,359,322	34,742	1,394,064	2.16	to DP SS30 - 8"
SS32	PA-16	SFA	47.0	517	11.0	8.4	80	100%	347,424	4.343	3.9	1,359,322	34,742	1,394,064	2.16	

NOTES:

Peaking Factor = $5/p^{0.167}$, p = population in thousands, where $1.7 < PF > 4$ Sanitary Sewer loading rates, factors, and calculations based on City of Aurora Public Utility Improvements Standards and Specifications Chapter 4

(p) - in Planning Area and Description columns represent portion of the total Planning Area described



LEGEND

- RIGHT-OF-WAY
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED STORM SEWER
- PROPOSED SEWER MAIN / DESIGN NODE
- EXISTING SEWER LINE
- PROPOSED DRAINAGE CHANNEL
- PROPOSED DETENTION POND
- PROPOSED DETENTION POND (BY OTHERS)
- TRIBUTARY AREA, DESIGN NODE SS1
- TRIBUTARY AREA, DESIGN NODE SS25
- TRIBUTARY AREA, DESIGN NODE SS7
- SEWER BASIN
- INFRASTRUCTURE AREA LINE
- FLOOD PLAIN
- DRAINAGE CL
- I.S. AREA
- INFRASTRUCTURE AREA

LAND USE AND DENSITY				
PARCEL NO.	LAND USE	AREA (ACRES)	DU/ACRE	TOTAL DUS
PA-1	SINGLE FAMILY	12.6	3.6	45
PA-17	NORTH SCHOOL SITE	10.0		
PA-2	SINGLE FAMILY	107.8	3.6	393
PA-19	COMMUNITY CENTER	7.5		
PA-3	SINGLE FAMILY	164.5	3.6	595
PA-64	MUNICIPAL	2.8		
PA-4	SINGLE FAMILY ATTACHED	13.7	8.8	120
CS	COMMERCIAL SITE	20.0		
PA-5	SINGLE FAMILY	19.3	3.6	70
PA-6	SINGLE FAMILY ATTACHED	12.5	9.2	115
PA-7	SINGLE FAMILY	36.1	3.6	130
CHURCH	CHURCH	11.4		

LAND USE AND DENSITY				
PARCEL NO.	LAND USE	AREA (ACRES)	DU/ACRE	TOTAL DUS
MF-MED	MULTIFAMILY MEDIUM	10.4	20.0	208
PA-8	SINGLE FAMILY	11.7	3.6	42
PA-9	SINGLE FAMILY	14.2	3.5	50
PA-10	SINGLE FAMILY	73.5	3.5	260
PA-18	WEST SCHOOL SITE	18.1		
PA-11	SINGLE FAMILY	18.3	3.6	66
PA-12	SINGLE FAMILY	87.6	3.6	314
PA-13	SINGLE FAMILY	64.5	3.0	195
PA-14	SINGLE FAMILY	64.0	3.0	195
PA-15	SINGLE FAMILY	111.3	3.1	345
PA-16	SINGLE FAMILY ATTACHED	8.9	8.4	75
HARMONY TOTAL =		900.7		3218

SCALE: 1" = 400'

400 200 0 400 800

Westwood

10333 E DRY CREEK RD. SUITE 240
ENGLEWOOD, CO 80112
TEL: 720.482.9226

Melcor/TC, LLC

C/O Marathon Land Company
9750 W. Cambridge Place
Tel: (303) 920-9400 Fax: (303) 920-9440

HARMONY SUBDIVISION

PRELIMINARY SANITARY SEWER LAYOUT

SCALE: AS SHOWN

FILE NO: 30214901

DRAWN BY: BPW

CHECKED BY: CN

DATE: JUNE 1, 2016

SHEET NUMBER

SS1

No.

Revisions

Date

Appr.

Date

Channel Report

PA-8 SANITARY CHANNEL DIAGRAM w/ PEAK DAILY FLOW

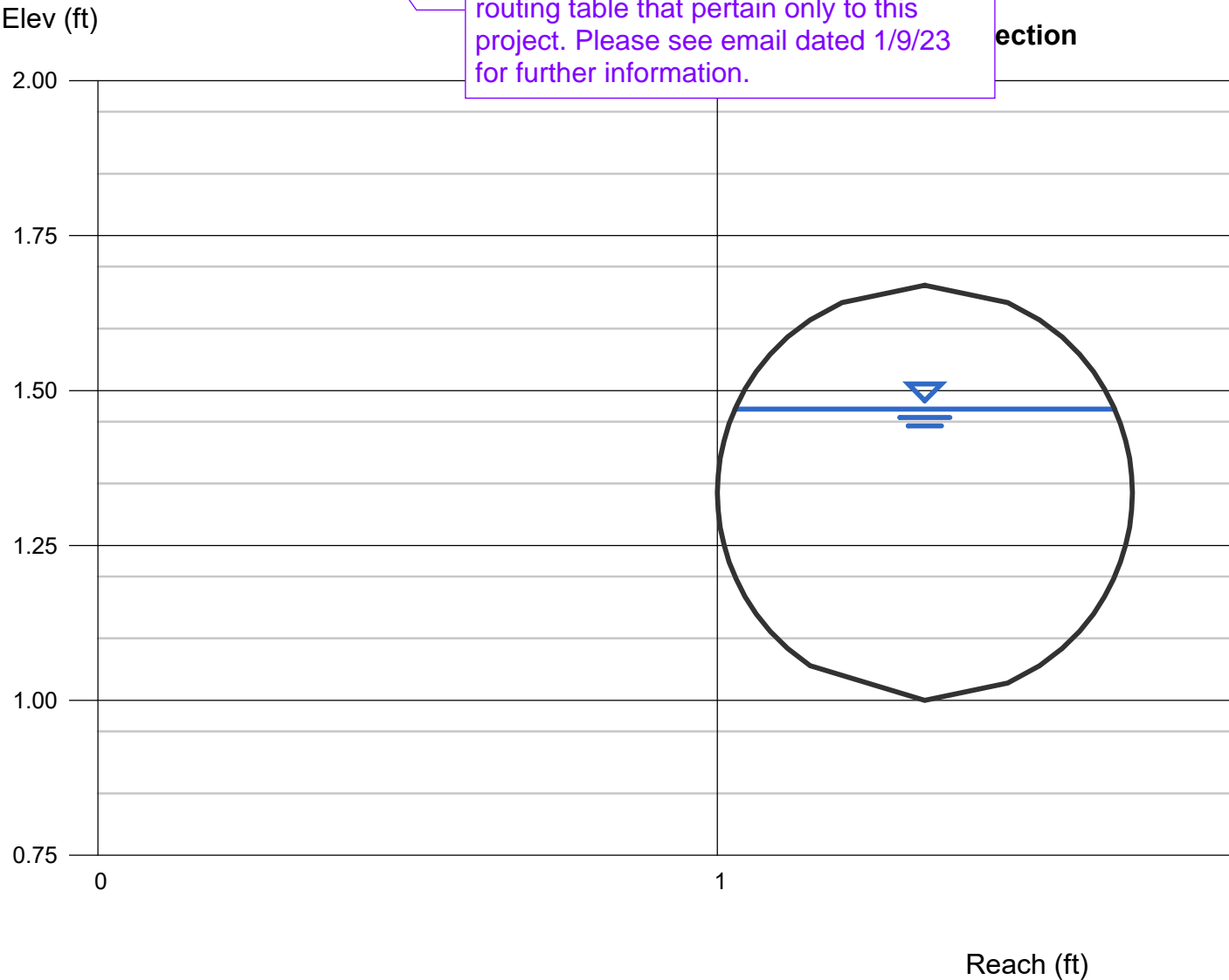
Circular
Diameter (ft) = 0.67

Channel report should be in conjunction with Design points shown on the routing table. Not all design points required. Only those pertaining to the project area.

Calculations
Compute by:
Known Q (cfs) Known Q
= 0.65
= 419,328 gpd

Highlighted
Depth (ft) = 0.47
Q (cfs) = 0.650
Area (sqft) = 0.27
Velocity (ft/s) = 2.45
Wetted Perim (ft) = 1.33
Crit Depth, Yc (ft) = 0.38
Top Width (ft) = 0.61
EGL (ft) = 0.56

The channel report sheets have been revised to reflect the design points on the routing table that pertain only to this project. Please see email dated 1/9/23 for further information.



Channel Report

PA-9 SANITARY CHANNEL DIAGRAM w/ PEAK DAILY FLOW

Circular

Diameter (ft)
= 0.67

Invert Elev (ft)
= 1.00

Slope (%)
= 0.40

N-Value
= 0.013

Calculations

Compute by:
Known Q (cfs)
Known Q
= 0.66
= 426,240 gpd

Highlighted

Depth (ft)
= 0.48

Q (cfs)
= 0.660

Area (sqft)
= 0.27

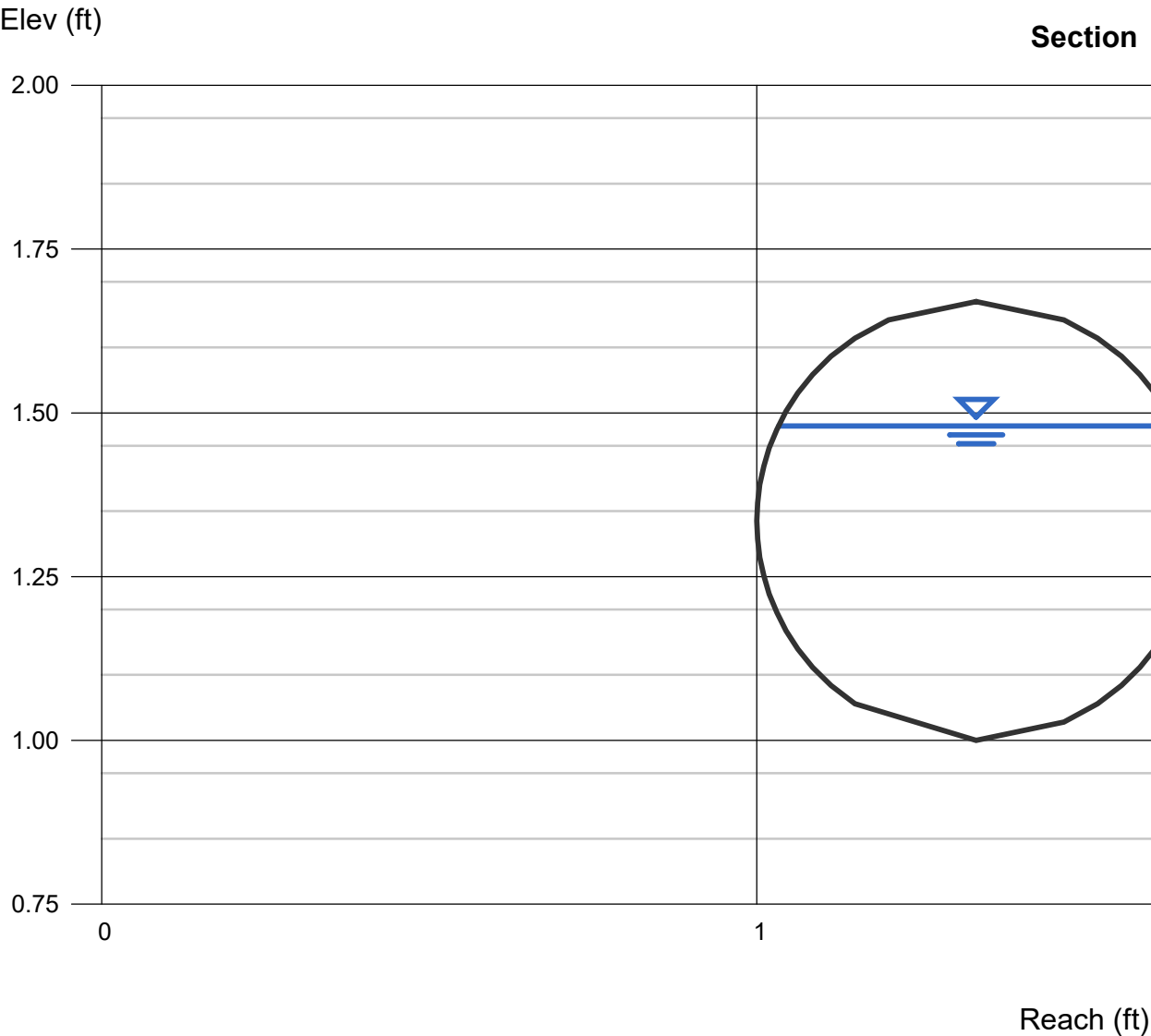
Velocity (ft/s)
= 2.44

Wetted Perim (ft)
= 1.35

Crit Depth, Yc (ft)
= 0.39

Top Width (ft)
= 0.60

EGL (ft)
= 0.57



Channel Report

PA-10 SANITARY CHANNEL DIAGRAM w/ PEAK DAILY FLOW

Circular

Diameter (ft) = 0.67

Invert Elev (ft) = 1.00

Slope (%) = 0.40

N-Value = 0.013

Calculations

Compute by: Known Q

Known Q (cfs) = 0.22

= 139,008 gpd

Highlighted

Depth (ft) = 0.25

Q (cfs) = 0.220

Area (sqft) = 0.12

Velocity (ft/s) = 1.83

Wetted Perim (ft) = 0.88

Crit Depth, Yc (ft) = 0.22

Top Width (ft) = 0.65

EGL (ft) = 0.30

