CONTACT INFORMATION

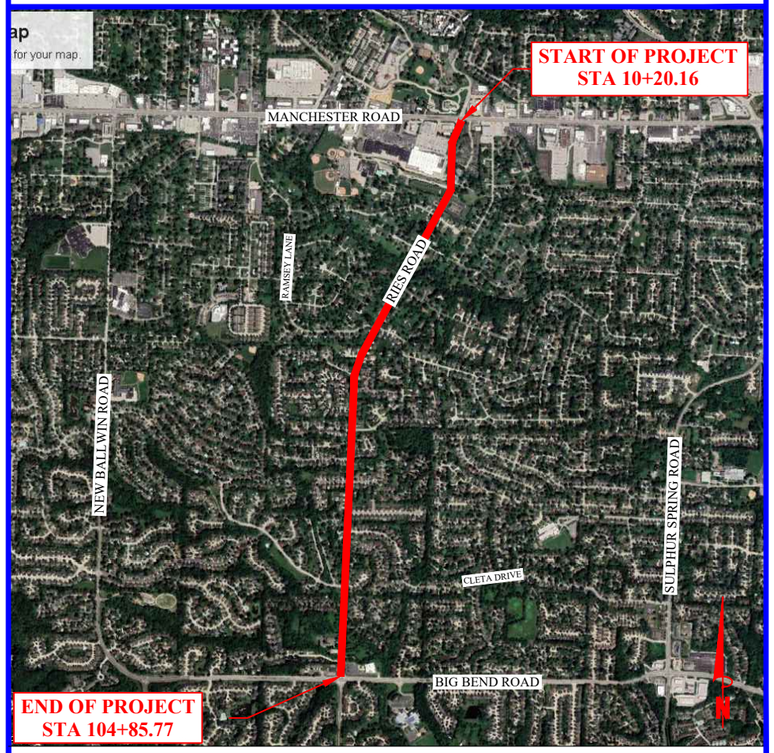
WATER	SEWER
MISSOURI AMERICAN WATER	**METROPOLITAN SEWER DISTRICT**
REPRESENTATIVE: DANIEL WOODCOCK	**REPRESENTATIVE:** JOHN C. GRIMM, P.E.
ADDRESS: 727 CRAIG ROAD ST. LOUIS, MISSOURI 63141	**ADDRESS:** 2350 MARKET STREET ST. LOUIS, MO 63103-2555
PHONE: (314) 996-2321	**PHONE:** (314) 768-2743
ELECTRIC	**GAS**
AMEREN	**SPIRE**
REPRESENTATIVE: TIM MEUTH	**REPRESENTATIVE:** BRIAN LANGENBACHER
ADDRESS: 9823 MACKENZIE ROAD ST. LOUIS, MISSOURI 63123	**ADDRESS:** 4118 SHREWSBURY AVENUE SHREWSBURY, MISSOURI 63119
PHONE: (314) 992-9713	**PHONE:** (314) 768-7767
TELEPHONE	**CABLE**
AT&T	**CHARTER COMMUNICATIONS**
REPRESENTATIVE: ANDREW BITTER	**REPRESENTATIVE:** ELVIS BROWN
ADDRESS: 12851 MANCHESTER RD., 2-E-214 DES PERES, MISSOURI 63131	**ADDRESS:** 101 NW PLAZA DR. ST. ANN, MISSOURI 63074
PHONE: (314) 825-9360	**PHONE:** (314) 386-1645
OWNER	
CITY OF BALLWIN	**MoDOT**
REPRESENTATIVE: JIM LINK	**REPRESENTATIVE:** JILL STEIGER
ADDRESS: 1 GOVERNMENT CENTER BALLWIN, MO 63011	**ADDRESS:** 1590 WOODLAKE DRIVE CHESTERFIELD, MISSOURI 63017-5712
PHONE: (636) 227-8580	**PHONE:** (314) 453-5061

LOCATION INFORMATION

QUADRANGLE/YEAR: MANCHESTER/2017
TOWNSHIP: 44N
RANGE: 4E
SECTION: 02

LENGTH OF PROJECT

START OF PROJECT: STA. 10+20.16
END OF PROJECT: STA. 104+85.77
PROJECT LENGTH: 9,465.61 FEET
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL
ADT: 8,095 (2020)
DESIGN SPEED: 30 MPH



VICINITY MAP
NOT TO SCALE

RIES ROAD IMPROVEMENTS

IN THE
CITY OF BALLWIN
ST. LOUIS COUNTY, MISSOURI
FEDERAL PROJECT NO. STP-4939(610)

CITY OF Ballwin MISSOURI

1 GOVERNMENT CENTER
BALLWIN, MO 63011
TELEPHONE (636) 227-8580
FAX (636) 207-2320
www.ballwin.mo.us

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FAX (314) 842-5957
www.cochraneng.com

COCHRAN PROJECT NO. SC19-1062
OCTOBER 2023

SHEET INDEX

DESIGN DESIGNATION

FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL
CURRENT POSTED SPEED: 30 MPH
DESIGN SPEED: 30 MPH
CURRENT ADT: 8,095
DESIGN ADT: 8,500 (2040)

ALL OSHA RULES & REGULATIONS ESTABLISHED FOR THE TYPE OF CONSTRUCTION REQUIRED BY THESE PLANS SHALL BE STRICTLY FOLLOWED (IE. TRENCHING, BLASTING, ETC.)

TWO WORKING DAYS PRIOR TO THE START OF ANY EXCAVATION ON THIS SITE, CONTRACTOR SHALL CALL 1-800-DIG-RITE FOR UTILITY LOCATION INFORMATION.

WHERE THE TERM "STANDARD SPECIFICATIONS" IS USED, SUCH REFERENCE SHALL MEAN THE 2023 EDITION OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS OTHERWISE PROVIDED IN THE PROJECT MANUAL. IN CASE OF CONFLICT IN THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE REQUIREMENTS STATED IN THE PROJECT MANUAL, THE REQUIREMENTS IN THE PROJECT MANUAL SHALL PREVAIL.

PRELIMINARY
NOT FOR CONSTRUCTION

ENGINEERING CERTIFICATE OF AUTHORITY NUMBER - 2007006937
LAND SURVEYING CERTIFICATE OF AUTHORITY NUMBER - 2007004529

CITY OF BALLWIN

ACCEPTED BY:

JIM LINK
DIRECTOR OF PUBLIC WORKS

LEGEND AND GENERAL NOTES

LEGEND, GENERAL NOTES AND ABBREVIATIONS SHALL APPLY TO ALL SHEETS UNLESS OTHERWISE NOTED ON INDIVIDUAL SHEET

LEGEND

EXISTING		NEW
500	INDEX CONTOUR	500
	INTERMEDIATE CONTOUR	498
R/W	RIGHT–OF–WAY	R/W
	LOT LINE	
	PERMANENT EASEMENT	PE
AE	AERIAL ELECTRIC	AE
	UTILITY POLE	
	GUY WIRE	
UGE	UNDERGROUND ELECTRIC	UGE
CATV	UNDERGROUND CABLE TV	CATV
UGT	UNDERGROUND TELEPHONE	UGT
FO	UNDERGROUND FIBER OPTIC	FO
SAN	SANITARY SEWER LINE	SAN
FM	SANITARY FORCEMAIN	FM
	SANITARY SEWER MANHOLE	
SS	STORM SEWER LINE	
	STORM SEWER MANHOLE	
	CURB/AREA INLET	
	GRATED INLET	
	GRATED INLET W/ SIDE INTAKE	
	FLARED END SECTION	
	SWALE	
G	GAS LINE	G
G	GAS VALVE	G
GM	GAS METER	GM
W	WATER LINE	W
	FIRE HYDRANT	
	WATER VALVE	
WM	WATER METER	WM
	GUARDRAIL	
	FENCE	

EXISTING		NEW
	TREE	
	TREELINE	
	LIGHT	
	COBRAHEAD LIGHT	
	LOAD CENTER	
	HAND HOLE	
	MAILBOX	
	SIGN	
	CORING LOCATION	
	CONCRETE PAVEMENT	
	ASPHALT PAVEMENT	
	GRAVEL SURFACE	
	ROCK BLANKET/DITCH LINER	
	CONCRETE APPROACH	
	CONCRETE SIDEWALK	
	CURB RAMP	
	ASPHALT DRIVEWAY	
	AGGREGATE DRIVEWAY	
	SODDING	
	FULL DEPTH PAVEMENT (WIDENING)	
	FULL DEPTH PAVEMENT (REPAIR)	
	PAVEMENT MILLING	
	RETAINING WALL	
	CONCRETE VERTICAL CURB	
	CONCRETE CURB AND GUTTER	
	CONSTRUCTION LIMITS	
	SILT FENCE	SILT
	INLET CHECK	
	DITCH CHECK	
	PROJECT BASELINE	
	TEMPORARY CONSTRUCTION EASEMENT	T.C.E.

ABBREVIATIONS

AI – AREA INLET
ARC – ARC LENGTH
ATG – ADJUST TO GRADE
BF – BOTTOM OF FOOTING
BOP – BEGINNING OF PAVEMENT
BW – BOTTOM OF WALL
CB – CHORD BEARING
CHD – CHORD LENGTH
CI – CURB INLET
CMP – CORRUGATED METAL PIPE
DCI – DOUBLE CURB INLET
DGI – DOUBLE GRATED INLET
ELEV – ELEVATION
EOP – END OF PAVEMENT
FES – FLARED END SECTION
FL – FLOW LINE
GI – GRATED INLET
GIS – GRATED INLET WITH SIDE INTAKE
HDPE – HIGH–DENSITY POLYETHYLENE
JB – JUNCTION BOX
LF – LINEAR FEET
LT – LEFT
MAX – MAXIMUM
MH – MANHOLE
MIN – MINIMUM
NO – NUMBER
O/S – OFFSET
OC – ON CENTER
PC – POINT OF CURVATURE
PCC – POINT OF COMPOUND CURVATURE
PE – PERMANENT EASEMENT
PI – POINT OF INTERSECTION
PRC – POINT OF REVERSE CURVATURE
PT – POINT OF TANGENCY
R/W – RIGHT–OF–WAY
RAD – RADIUS
RCP – REINFORCED CONCRETE PIPE
RT – RIGHT
SSD – STOPPING SIGHT DISTANCE
STA – STATION
TBR – TO BE REMOVED
TBR&R – TO BE REMOVED AND REPLACED
TCE – TEMPORARY CONSTRUCTION EASEMENT
TW – TOP OF WALL
TYP – TYPICAL
VPC – VERTICAL POINT OF CURVATURE
VPI – VERTICAL POINT OF INTERSECTION
VPT – VERTICAL POINT OF TANGENCY
ø – DIAMETER
℄ – CENTERLINE
(1) – KEYED NOTE

GENERAL NOTES

TOPOGRAPHIC SURVEY NOTES:

1.

DESIGN NOTES:

1. CONTRACTOR SHALL RELOCATE ALL EXISTING SIGNS, PLANTERS, MAILBOXES, AND PRIVATE LIGHTS AS NECESSARY FOR THE CONSTRUCTION OF THE IMPROVEMENTS. NEW LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL ADJUST TO GRADE ALL UTILITIES NECESSARY TO BRING THE UTILITY TO THE GRADE OF THE NEW CONSTRUCTION.
3. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF ALL POTENTIAL UTILITY CONFLICTS PRIOR TO ORDERING STORM SEWER PIPE AND STRUCTURES.
4. CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING PRIVATE SIDEWALKS AS NECESSARY FOR THE CONSTRUCTION OF THE IMPROVEMENTS. PRIVATE SIDEWALKS SHALL BE SAW CUT AT THE RIGHT–OF–WAY OR NEAREST JOINT AS DIRECTED BY THE ENGINEER.
5. EXISTING CULVERT PIPES, WHICH ARE UNDER DRIVEWAYS BEING REPLACED BY THE CONSTRUCTION OF IMPROVEMENTS, SHALL BE REMOVED.
6. CONTRACTOR SHALL DISCUSS MILLING DEPTHS WITH THE ENGINEER PRIOR TO STARTING THE MILLING PROCESS. DEPTH SHOWN IS APPROXIMATE AND MAY VARY AS DIRECTED TO OBTAIN THE DESIRED CROSS SLOPE AND PROFILE. UNIT COST FOR THE MILLING WORK SHALL NOT CHANGE REGARDLESS OF THE MILLED THICKNESS, UNLESS THE BID FORM PROVIDES MULTIPLE MILLING DEPTH LINE ITEMS.
7. OBLITERATE ANY EXISTING STRIPING THAT CONFLICTS WITH THE PROPOSED PAVEMENT MARKING PLAN. THE PROCESS FOR REMOVAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING (INCIDENTAL TO CONSTRUCTION).
8. THE LOCATION OF THE NEW UNDERGROUND ELECTRIC FOR STREET LIGHTING AS SHOWN IS APPROXIMATE AND SHALL NOT INTERFERE WITH ANY NEW OR EXISTING UTILITIES, SIGNS, TREES, OR IMPROVEMENTS OF ANY KIND. THEREFORE, THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF UNDERGROUND ELECTRIC WITH EXISTING UTILITIES AND ANY OTHER IMPROVEMENTS ASSOCIATED WITH THIS PROJECT.
9. ALL AREAS OF CLEARING, GRUBBING AND STRIPPING NOT SHOWN IN PLANS, CONTRACTOR SHALL CONDUCT CLEARING, GRUBBING AND STRIPPING AS NECESSARY UNLESS OTHERWISE NOTED IN PLANS.

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LAND SURVEYING CERTIFICATE OF AUTHORITY NUMBER – 2007004529

PRELIMINARY
NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

LEGEND AND GENERAL NOTES

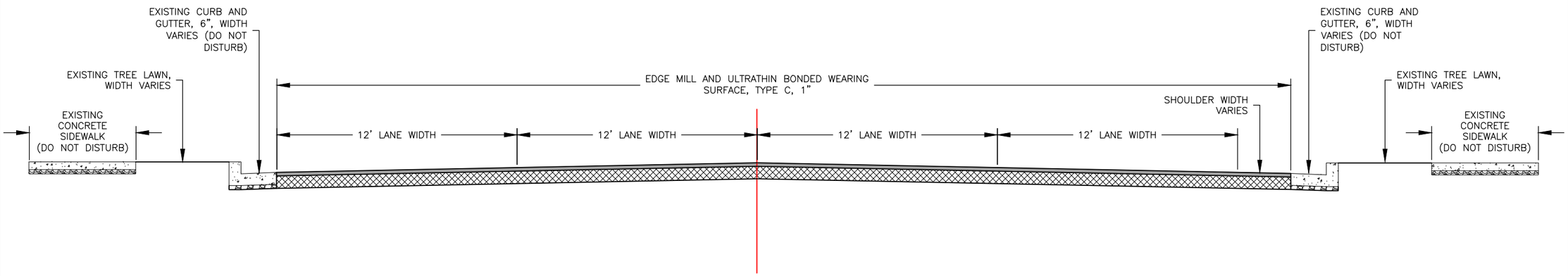
DATE:	REVISION:

DWN. BY:	APP'D. BY:
M.D.M.	K.J.W.

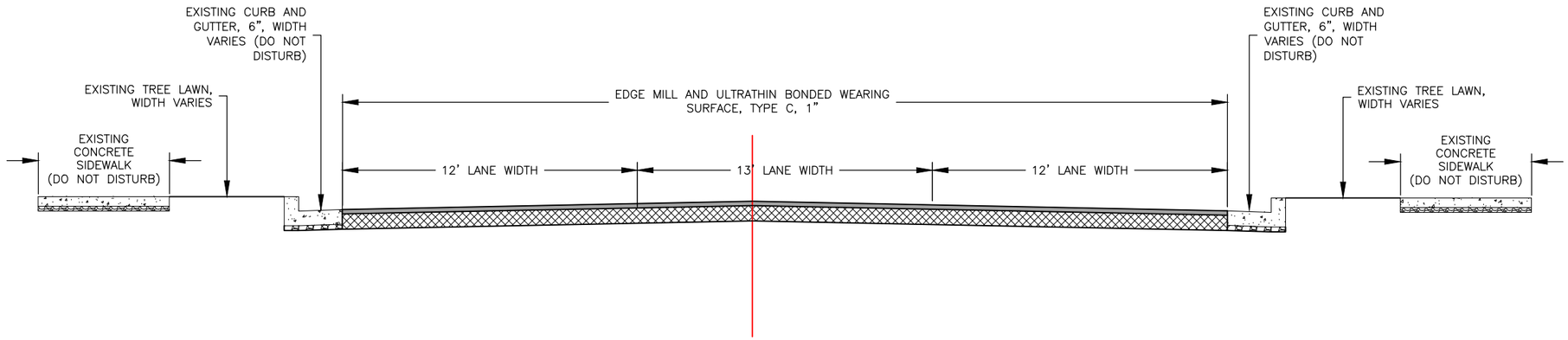
DATE: 10/6/23
SCALE: NO SCALE
PROJ. NO: SC19–1061
DWG. NO: LG-1

Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\LEGEND.dwg Tab: LG-1 Plotted on: Oct 18, 2023 – 10:36am Plotted by: MSpalding

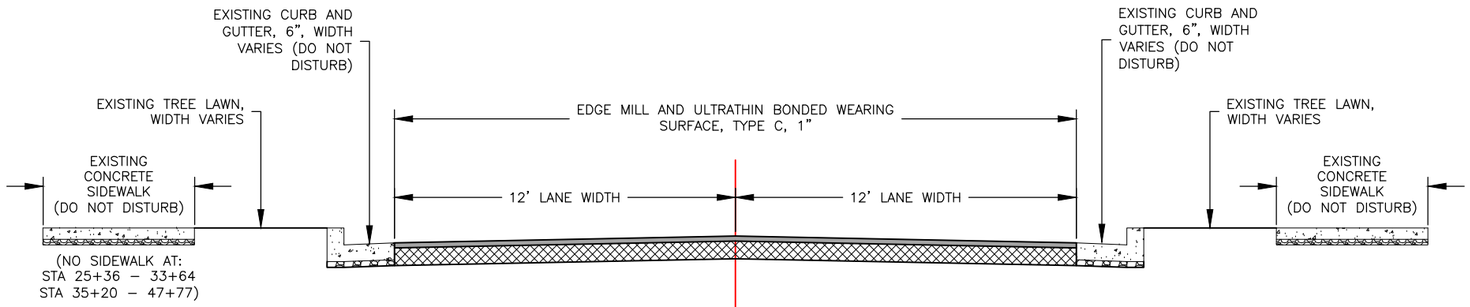
TYPICAL SECTIONS



TYPICAL PAVEMENT SECTION
STA 10+39 – 11+60



TYPICAL PAVEMENT SECTION
STA 11+60 – 16+86
STA 86+75 – 93+12



TYPICAL PAVEMENT SECTION
STA 16+86 – 34+16
STA 35+02 – 86+75
STA 93+12 –100+27

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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

TYPICAL SECTIONS

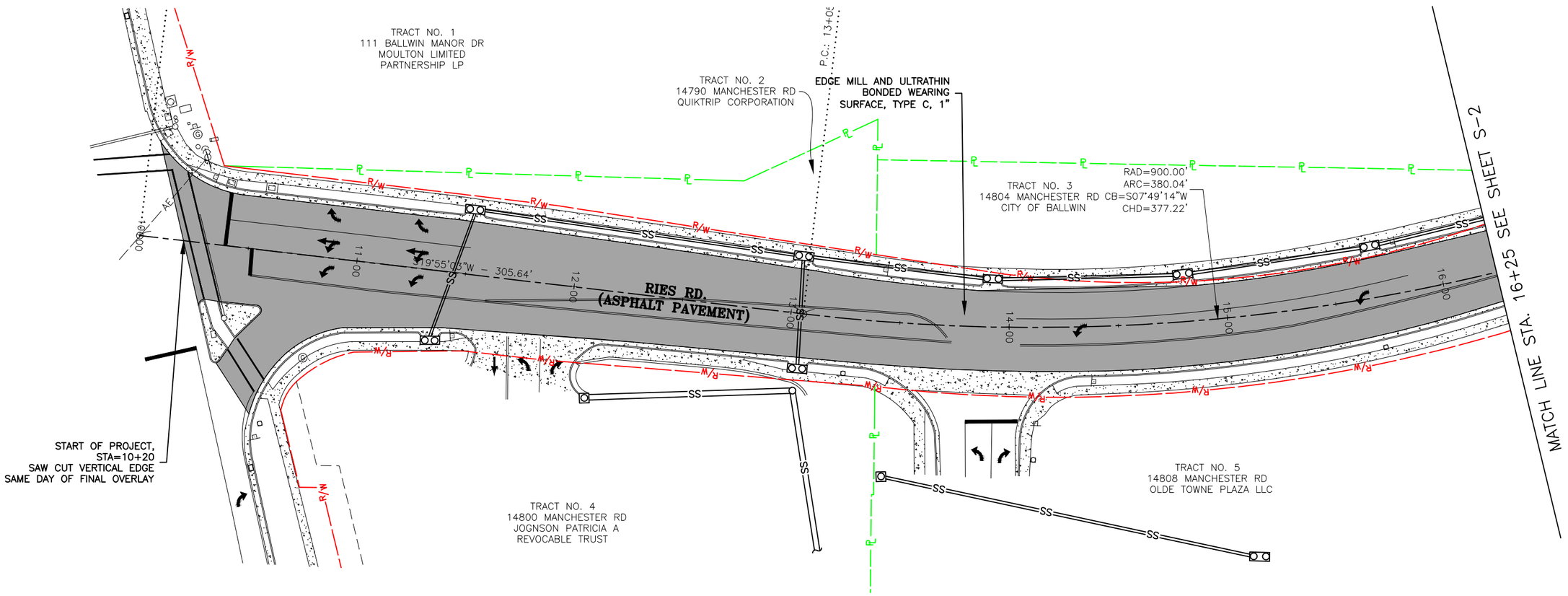
DATE:	REVISION:

DWN. BY:	APPD. BY:
M.D.M.	K.J.W.

DATE: 10/6/23
SCALE: AS SHOWN
PROJ. NO: SC19-1061
DWG. NO: TXS-1

Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\TYPICAL SECTIONS.dwg Tab: TXS-1 Plotted on: Oct 18, 2023 – 10:36am Plotted by: MSpalding

SITE PLAN



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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SITE PLAN

DATE:	REVISION:

DWN. BY: M.D.M. APP'D. BY: K.J.W.
DATE: 10/6/23
SCALE: 1' = 50'
PROJ. NO: SC19-1061
DWG. NO: S-1

SITE PLAN

25 0 25 50

TRACT NO. 1
111 BALLWIN MANOR DR
MOULTON LIMITED
PARTNERSHIP LP

TRACT NO. 7
151 RIES RD
HILBERT PROPERTIES LLC

TRACT NO. 12
152 RIES RD
CITY OF BALLWIN

TRACT NO. 8
200 RIES RD
ARADHYULA, PRAVEEN &
SANGITA

TRACT NO. 9
204 RIES RD
FIRST BAPTIST CHURCH OF
BALLWIN

TRACT NO. 10
206 RIES RD
FIRST BAPTIST CHURCH OF
BALLWIN

TRACT NO. 11
149 RIES RD A
MICALEB LLC
DOC NO. 1639/1384

TRACT NO. 5
14808 MANCHESTER RD
OLDE TOWNE PLAZA LLC

TRACT NO. 12
300 JEFFERSON AVE
OLDE TOWNE PLAZA LLC

MATCH LINE STA. 16+25 SEE SHEET S-1

MATCH LINE STA. 22+75 SEE SHEET S-3

P.T.

EDGE MILL AND ULTRATHIN BONDED WEARING SURFACE, TYPE C, 1"

NEW CONCRETE CURB AND GUTTER

RIES RD. (ASPHALT PAVEMENT)

S04°16'36"E — 381.72'

RAD=550.00'
ARC=306.24'
CB=S11°40'29"W
CHD=302.30'

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1 MODIFIED)

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

SAW CUT VERTICAL EDGE SAME DAY OF FINAL OVERLAY

JEFFERSON AVE. (ASPHALT PAVEMENT)

17+00 18+00 19+00 20+00 21+00 22+00

R/W PL SS SAN W

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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

DATE:	REVISION:
DWN. BY: M.D.M.	APPD. BY: K.J.W.
DATE:	10/6/23
SCALE:	1" = 50'
PROJ. NO:	SC19-1061
DWG. NO:	S-2

SITE PLAN

Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-2 Plotted on: Oct 18, 2023 - 10:36am Plotted by: MSpalding

SITE PLAN

25 0 25 50

SAW CUT VERTICAL EDGE
SAME DAY OF FINAL OVERLAY

NEW CONCRETE CURB
AND GUTTER

ESSEN CT.
(ASPHALT PAVEMENT)

EDGE MILL AND ULTRATHIN
BONDED WEARING
SURFACE, TYPE C, 1"

RIES RD.
(ASPHALT PAVEMENT)

ESSEN LN.
(ASPHALT PAVEMENT)

MATCH LINE STA. 22+75 SEE SHEET S-2

MATCH LINE STA. 29+50 SEE SHEET S-4

S27°37'34"W – 249.62'

S28°02'06"W – 580.20'

TRACT NO. 10
206 RIES RD
FIRST BAPTIST CHURCH OF
BALLWIN

TRACT NO. 12
300 JEFFERSON AVE
OLDE TOWNE PLAZA LLC

TRACT NO. 13
205 RIES RD
NAVARRO, RICHARD
MICHAEL & NORTH NAVARRO

TRACT NO. 18
283 ESSEN CT
ESSEN ESTATES
HOMEOWNERS ASSOCIATION
INC

TRACT NO. 13
275 ESSEN CT
VANDERBILT HOMES INC

TRACT NO. 20
209 RIES RD
SHAHMAGHSOUDI, MAKTAB
TARIGHE

TRACT NO. 21
303 ESSEN LN
JENNE, ROBERT

TRACT NO. 14
276 ESSEN CT
WEISENBACH, STEPHANIE L
& EVANS LAUREN

TRACT NO. 19
284 ESSEN CT
ESSEN ESTATES
HOMEOWNERS ASSOCIATION
INC

TRACT NO. 22
304 ESSEN LN
ALTMAN, CODY R K &
KATHRYN

TRACT NO. 15
218 RIES RD
CANMAN, SARAH M

TRACT NO. 23
217 RIES RD
SLIVKA, JACK M

TRACT NO. 24
219 RIES RD

NEW CURB RAMP WITH
DETECTABLE WARNING
DEVICE (TYPE J1)

NEW CURB RAMP WITH
DETECTABLE WARNING
DEVICE (TYPE C2)

SAW CUT VERTICAL EDGE
SAME DAY OF FINAL OVERLAY

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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

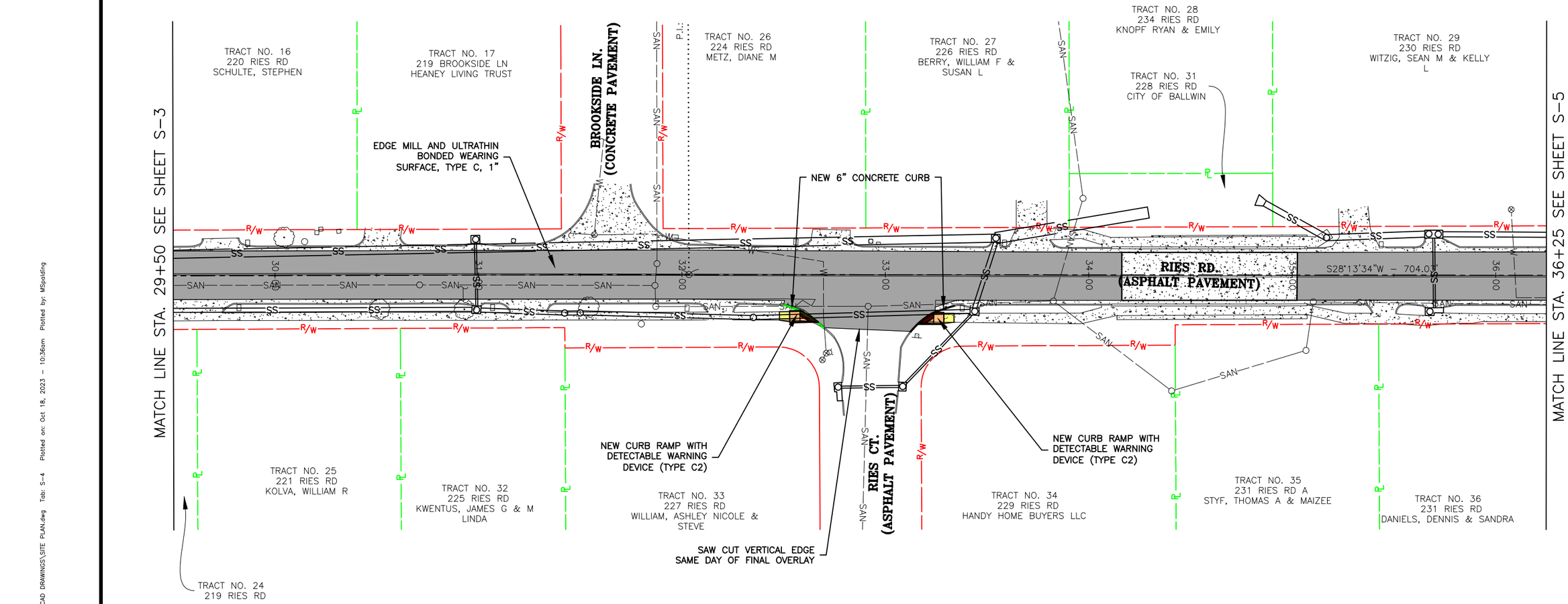
	DATE:	REVISION:

DWN. BY: M.D.M. APPD. BY: K.J.W.
DATE: 10/6/23
SCALE: 1' = 50'
PROJ. NO: SC19-1061
DWG. NO: S-3

SITE PLAN

Drawing name: z:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-3 Plotted on: Oct 18, 2023 – 10:36am Plotted by: MSpalding

SITE PLAN



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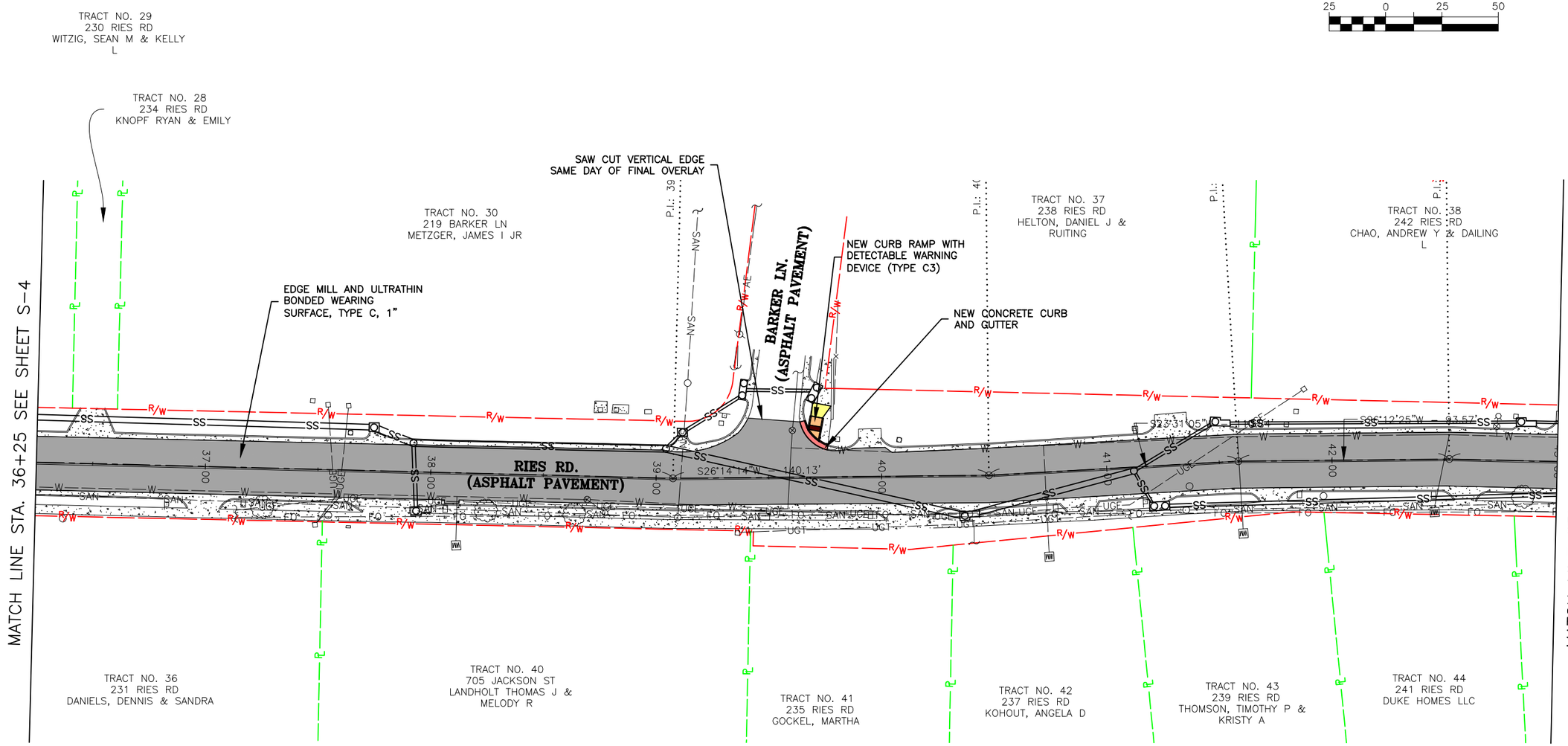
CITY OF BALLWIN, MISSOURI

	DATE:	REVISION:

DWN. BY: M.D.M. APP'D. BY: K.J.W.
DATE: 10/6/23
SCALE: 1" = 50'
PROJ. NO: SC19-1061
DWG. NO: S-4

SITE PLAN

SITE PLAN



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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SITE PLAN

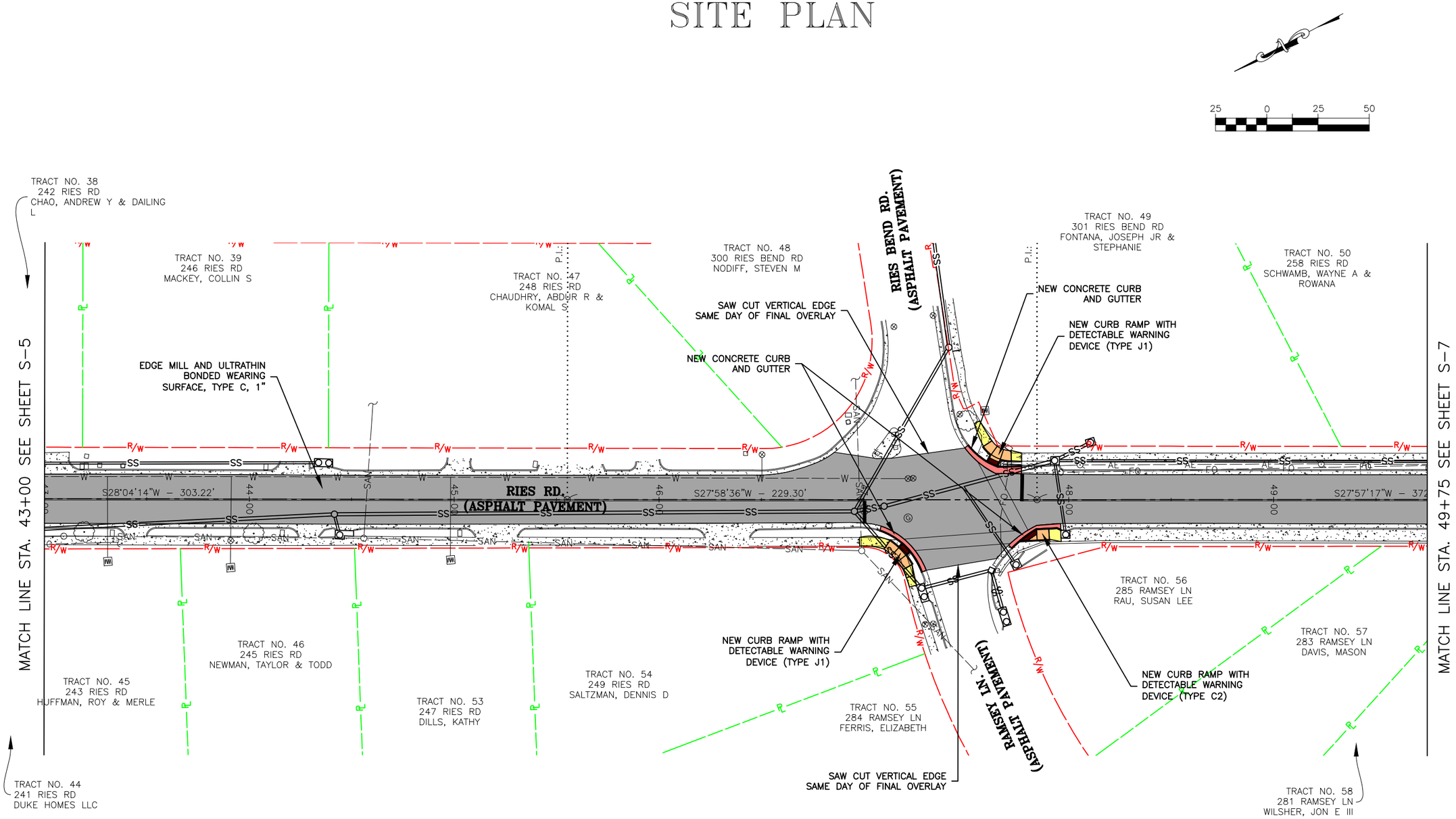
DATE:	REVISION:

DWN. BY:	APP'D. BY:
M.D.M.	K.J.W.

DATE: 10/6/23
SCALE: 1" = 50'
PROJ. NO: SC19-1061
DWG. NO: S-5

Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-5 Plotted on: Oct 18, 2023 – 10:36am Plotted by: MSpalding

SITE PLAN



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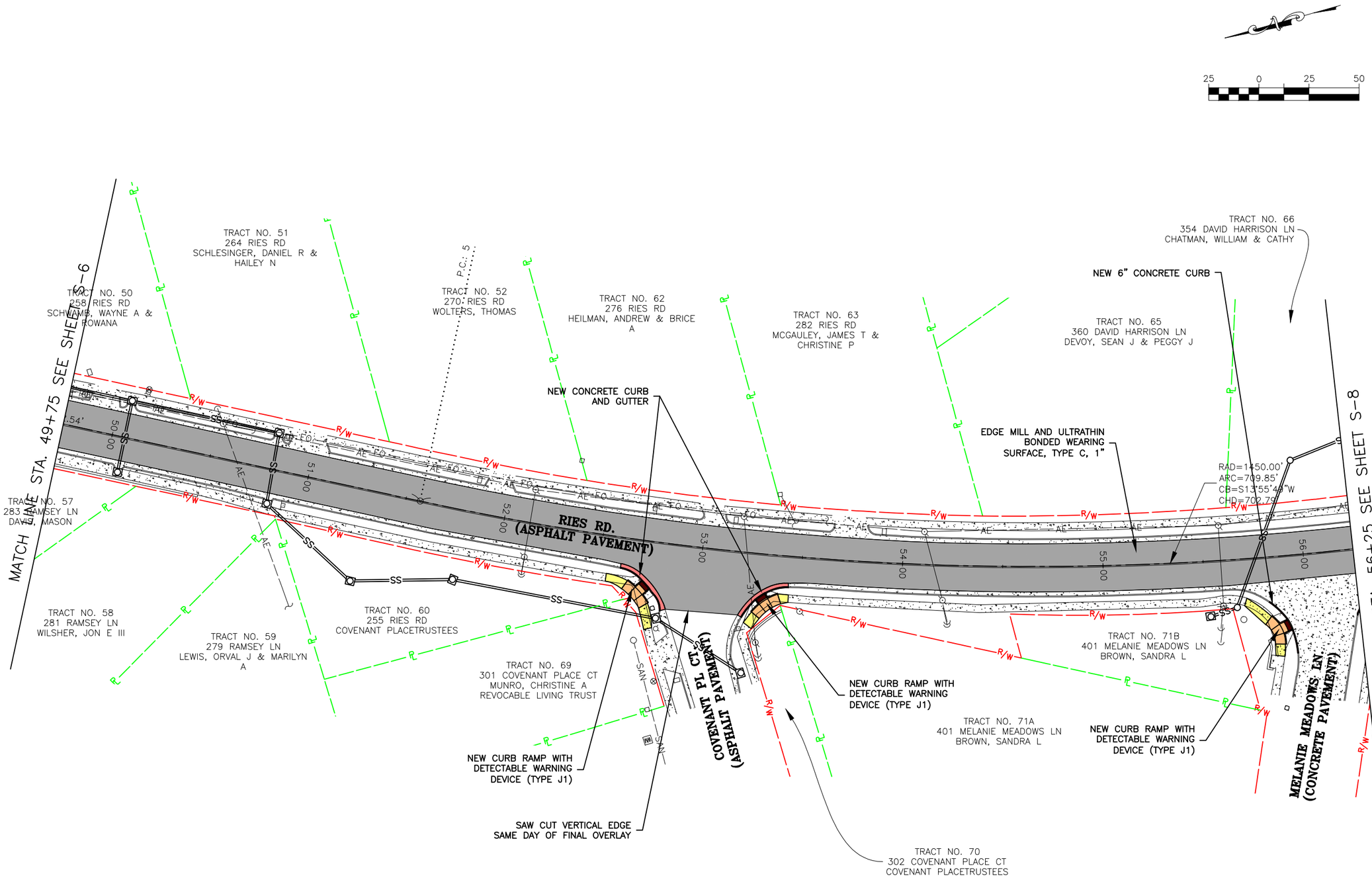
RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

REVISION:	
DATE:	
DWN. BY: M.D.M.	APP'D. BY: K.J.W.
DATE:	10/6/23
SCALE:	1' = 50'
PROJ. NO:	SC19-1061
DWG. NO:	S-6

SITE PLAN

Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-6 Plotted on: Oct 18, 2023 - 10:36am Plotted by: MSpalding

SITE PLAN



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LAND SURVEYING CERTIFICATE OF AUTHORITY NUMBER – 2007004529

PRELIMINARY
NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

REVISION:	
DATE:	
DWN. BY:	M.D.M.
APP'D. BY:	K.J.W.
DATE:	10/6/23
SCALE:	1" = 50'
PROJ. NO:	SC19-1061
DWG. NO:	S-7

SITE PLAN

Drawing name: z:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-7 Plotted on: Oct 18, 2023 – 10:36am Plotted by: MSpalding

SITE PLAN

25 0 25 50

TRACT NO. 66
354 DAVID HARRISON LN
CHATMAN, WILLIAM & CATHY

TRACT NO. 67
348 DAVID HARRISON LN
VELTEN, KENNETH R &
BARBARA E

TRACT NO. 68
342 DAVID HARRISON LN
ZICKEL, LISA K TR & DAVID
G TR

TRACT NO. 74
336 DAVID HARRISON LN
DAVID HARRISON FARM
TRUSTEES

TRACT NO. 75
349 RIES RD
ALQRDAHGY, MAHMOUD

TRACT NO. 76
347 RIES RD 1/2
DJAVAHERIAN, ZOLEE

TRACT NO. 77
347 RIES RD
NEYENS, JACK E REVOCABLE
TRUST

TRACT NO. 78
399 RIES BEND RD
NIHLAWI, MUHAMAD FAWAZ
& MARYAM ESTEP

MATCH LINE STA. 56+25 SEE SHEET S-7

NEW 6" CONCRETE CURB

EDGE MILL AND ULTRATHIN BONDED WEARING SURFACE, TYPE C, 1"

EDGE MILL AND ULTRATHIN BONDED WEARING SURFACE, TYPE C, 1"

NEW CONCRETE CURB AND GUTTER

P.T. 58+[illegible]

RIES RD.
(ASPHALT PAVEMENT)

S00°05'40"E – 480.87'

MATCH LINE STA. 63+25 SEE SHEET S-9

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

REMINGTON PL DR.
(ASPHALT PAVEMENT)

SAW CUT VERTICAL EDGE
SAME DAY OF FINAL OVERLAY

TRACT NO. 72
321 REMINGTON WAY DR
WARD, BRUCE D & JEANI M

TRACT NO. 73
317 REMINGTON WAY DR
KREBS, CASSANDRA L

TRACT NO. 79
313 REMINGTON WAY DR
GENTEMANN, JEFFREY &
ANNE

TRACT NO. 80
309 REMINGTON WAY DR
KHAN, MUHAMMAD I &
FAREHA KHAN

TRACT NO. 81
305 REMINGTON WAY DR
AHIR, JWALANT I &
VAISHALIBEN J

TRACT NO. 82
301 REMINGTON WAY DR
WU LI & LIU JINGQI

TRACT NO. 83
402 REMINGTON PLACE DR
MUCKLOW, KEVIN & ABBY

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CITY OF BALLWIN, MISSOURI

DATE:	
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APP'D. BY:	K.J.W.
DATE:	10/6/23
SCALE:	1' = 50'
PROJ. NO:	SC19-1061
DWG. NO:	S-8

SITE PLAN

Drawing name: z:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-8 Plotted on: Oct 18, 2023 – 10:36am Plotted by: MSpalding

SITE PLAN

25 0 25 50

MATCH LINE STA. 63+25 SEE SHEET S-8

SAW CUT VERTICAL EDGE SAME DAY OF FINAL OVERLAY

NEW CONCRETE CURB AND GUTTER

RIES BEND RD. (ASPHALT PAVEMENT)

NEW CONCRETE CURB AND GUTTER

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE E1)

TRACT NO. 78
399 RIES BEND RD
NIHLAWI, MUHAMAD FAWAZ
& MARYAM ESTEP

TRACT NO. 85
340 RIES RD
KRONE, MATTHEW L

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

EDGE MILL AND ULTRATHIN BONDED WEARING SURFACE, TYPE C, 1"

NEW 6" CONCRETE CURB

TRACT NO. 86
101 TARA RIDGE CT
PATHAKAMURI, SAI PRAVEEN

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

TARA RIDGE CT. (ASPHALT PAVEMENT)

SAW CUT VERTICAL EDGE SAME DAY OF FINAL OVERLAY

TRACT NO. 87
100 TARA RIDGE CT
KRONE, MATTHEW L

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

NEW 6" CONCRETE CURB

NEW CONCRETE SLAB, 4"

RIES RD. (ASPHALT PAVEMENT)

S00°43'22"W – 443.47'

S03°14'34"W – 135.25'

NEW CONCRETE SLAB, 4"

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE E1)

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE E1)

MADRINA CT. (ASPHALT PAVEMENT)

NEW 6" CONCRETE CURB

TRACT NO. 84
403 MADRINA CT
DUMI, BESNIK

TRACT NO. 90
400 MADRINA CT
KESSLER, MARILYN J

TRACT NO. 91
404 RIES RD
KELLY, LOUISE G

NEW 6" CONCRETE CURB

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

TRACT NO. 92
401 TALBERT CT
YOUNG, TRAVIS A & KYLIE N

TALBERT DR. (ASPHALT PAVEMENT)

SAW CUT VERTICAL EDGE SAME DAY OF FINAL OVERLAY

MATCH LINE STA. 70+00 SEE SHEET S-10

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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

REVISION:	
DATE:	
DWN. BY: M.D.M.	APPD. BY: K.J.W.
DATE:	10/6/23
SCALE:	1" = 50'
PROJ. NO:	SC19-1061
DWG. NO:	S-9

SITE PLAN

Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-9 Plotted on: Oct 18, 2023 – 10:36am Plotted by: MSpoldrug

SITE PLAN

25 0 25 50

SAW CUT VERTICAL EDGE
SAME DAY OF FINAL OVERLAY

NEW 6" CONCRETE CURB

HOLLY GREEN DR.
(ASPHALT PAVEMENT)

NEW 6" CONCRETE CURB

TRACT NO. 96
104 HOLLY GREEN DR
MCCALL, WARREN

NEW CURB RAMP WITH
DETECTABLE WARNING
DEVICE (TYPE J1)

TRACT NO. 88
409 RIES RD
GREENKEY PROPERTY
GROUP

TRACT NO. 89
413 RIES RD
COX, NOAH A

TRACT NO. 94
105 HOLLY GREEN DR
STEINER, JEFFREY & HOPE

NEW CURB RAMP WITH
DETECTABLE WARNING
DEVICE (TYPE J1)

TRACT NO. 97
100 HOLLY GREEN DR
SAUCEDO, CHRISTENE L

TRACT NO. 98
421 RIES RD
O'NEILL, GARY KENT &
KATHLEEN G

TRACT NO. 95
101 HOLLY GREEN DR
WOODROW, CRAIG &
DESIREE

NEW CONCRETE SLAB, 4"

NEW CONCRETE SLAB, 4"

EDGE MILL AND ULTRATHIN
BONDED WEARING
SURFACE, TYPE C, 1"

MATCH LINE STA. 70+00 SEE SHEET S-9

MATCH LINE STA. 76+75 SEE SHEET S-11

S03°17'15"W – 186.49'

S01°27'10"W – 193.57'

RIES RD.
(ASPHALT PAVEMENT)

NEW CURB RAMP WITH
DETECTABLE WARNING
DEVICE (TYPE J1)

TRACT NO. 93
400 TALBERT CT
LARSON, STEVEN E &
STEPHANIE M

NEW 6" CONCRETE CURB

NEW CURB RAMP WITH
DETECTABLE WARNING
DEVICE (TYPE J1)

TRACT NO. 100
403 VALLEY MANOR DR
DUDLEY, JOHN A & STACEI
N

NEW CONCRETE CURB
AND GUTTER

VALLEY MANOR DR.
(ASPHALT PAVEMENT)

NEW CURB RAMP WITH
DETECTABLE WARNING
DEVICE (TYPE J1)

TRACT NO. 101
402 VALLEY MANOR DR
LAUBER, MARK & GINA L

NEW CONCRETE CURB
AND GUTTER

TRACT NO. 102
418 RIES RD
ROBINSON, JAMES & EILEEN

TRACT NO. 103
420 RIES RD
HADZISELIMOVIC, MIRSAD &
SEFKA

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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

REVISION:	
DATE:	
DWN. BY: M.D.M.	APP'D. BY: K.J.W.
DATE: 10/6/23	
SCALE: 1' = 50'	
PROJ. NO: SC19-1061	
DWG. NO: S-10	

SITE PLAN

Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-10 Plotted on: Oct 18, 2023 – 10:37am Plotted by: MSpalding

SITE PLAN

25 0 25 50

MATCH LINE STA. 76+75 SEE SHEET S-10

MATCH LINE STA. 83+50 SEE SHEET S-12

TRACT NO. 98
421 RIES RD
O'NEILL, GARY KENT &
KATHLEEN G

TRACT NO. 99
261 MAGNOLIA TRACE DR
POWERS, SEAN & SARAH

TRACT NO. 107
268 MAGNOLIA TRACE DR
STRINGER, JERRY D

TRACT NO. 108
902 CLETA DR
MELDRUM, BRYAN

TRACT NO. 109
900 CLETA DR
CANDA, JOSEPH E

TRACT NO. 110
903 CLETA DR
NEJAT, KASRA RAHELEH

TRACT NO. 112
905 SHANDRA DR
THOMAS, MERCY GRACE

TRACT NO. 111
901 CLETA DR
BUSCHMEYER, CLAUDIA L

TRACT NO. 104
428 RIES RD
VOOPER, BURTON P &
DEBRA E

TRACT NO. 105
436 RIES RD
MALIK, VAIBHAV & SOKHI
GULSHAN

TRACT NO. 106
403 APPLESTONE DR
FLAGG, JEREMY & HEATHER

TRACT NO. 115
404 APPLESTONE DR
KARNA, ANJANI KALYAN

TRACT NO. 116
500 RIES RD
LEAVER, THOMAS H

TRACT NO. 103
420 RIES RD
HADZISELIMOVIC, MIRSAD &
SEFKA

TRACT NO. 106
403 APPLESTONE DR
FLAGG, JEREMY & HEATHER

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE E1)

NEW CONCRETE CURB AND GUTTER

SAW CUT VERTICAL EDGE SAME DAY OF FINAL OVERLAY

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

NEW CONCRETE CURB AND GUTTER

NEW 6" CONCRETE CURB

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

SAW CUT VERTICAL EDGE SAME DAY OF FINAL OVERLAY

NEW 6" CONCRETE CURB

NEW CURB RAMP WITH DETECTABLE WARNING DEVICE (TYPE J1)

EDGE MILL AND ULTRATHIN BONDED WEARING SURFACE, TYPE C, 1"

MAGNOLIA TRACE DR. (ASPHALT PAVEMENT)

CLETA DR. (ASPHALT PAVEMENT)

RIES RD. (ASPHALT PAVEMENT)

S00°22'47"W - 963.87'

77+00 78+00 79+00 80+00 81+00 82+00 83+00

R/W P/L W SS AE SAN NAS

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RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

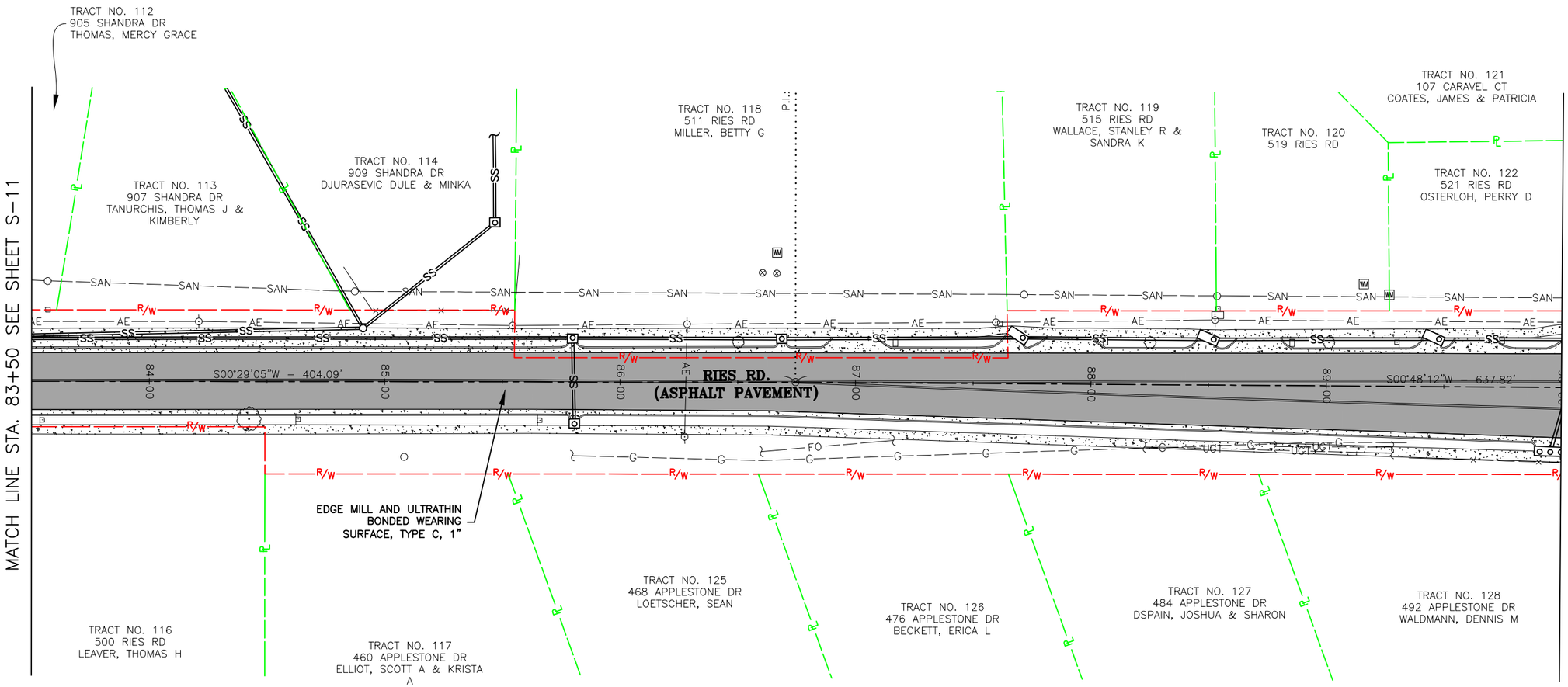
DATE:	
REVISION:	
DWN. BY: M.D.M.	APP'D. BY: K.J.W.
DATE:	10/6/23
SCALE:	1' = 50'
PROJ. NO:	SC19-1061
DWG. NO:	S-11

SITE PLAN

Drawing name: z:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-11 Plotted on: Oct 18, 2023 - 10:41am Plotted by: MSpalding

SITE PLAN

25 0 25 50



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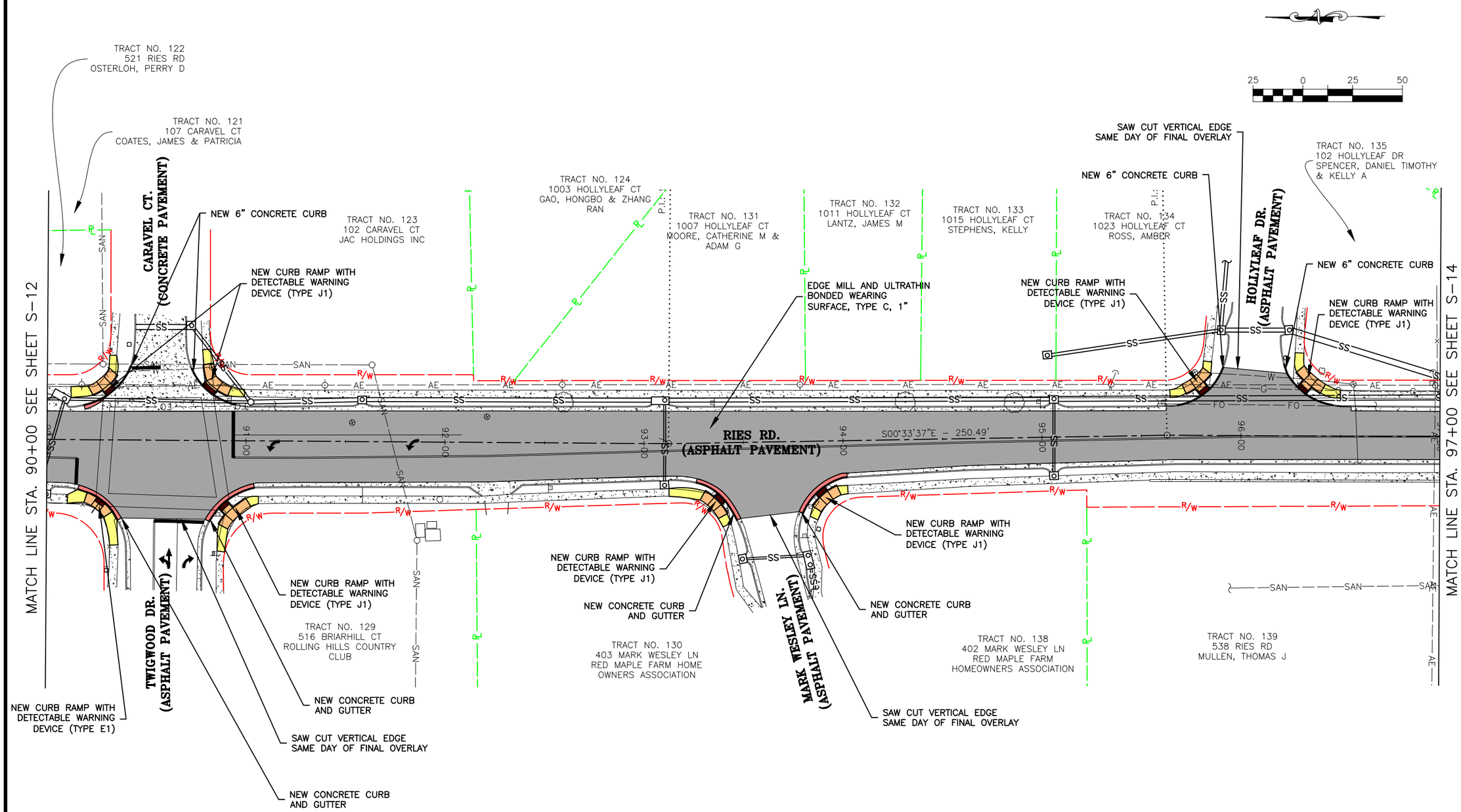
CITY OF BALLWIN, MISSOURI

SITE PLAN

DATE:	REVISION:

DWN. BY: M.D.M. APP'D. BY: K.J.W.
DATE: 10/6/23
SCALE: 1" = 50'
PROJ. NO: SC19-1061
DWG. NO: S-12

SITE PLAN



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FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SITE PLAN	
REVISION:	
DATE:	
DWN. BY: M.D.M.	APP'D. BY: K.J.W.
DATE: 10/6/23	
SCALE: 1' = 50'	
PROJ. NO: SC19-1061	
DWG. NO: S-13	

SITE PLAN

25 0 25 50

MATCH LINE STA. 96+75 SEE SHEET S-13

MATCH LINE STA. 103+75 SEE SHEET S-15

TRACT NO. 136
106 HOLLYLEAF DR
ALEXANDER FAMILY TRUST

TRACT NO. 135
102 HOLLYLEAF DR
SPENCER, DANIEL TIMOTHY
& KELLY A

EDGE MILL AND ULTRATHIN BONDED WEARING SURFACE, TYPE C, 1"

TRACT NO. 137
501 BIG BEND RD
WEST SPRINGS CHURCH

S00°42'47"W - 892.99'

TRACT NO. 139
538 RIES RD
MULLEN, THOMAS J

TRACT NO. 140
542 RIES RD
TAIWANESE PREBYTERIAN
CHURCH

TRACT NO. 141
532 RIES RD
UNION ELECTRIC COMPANY

TRACT NO. 142
405 PINE HOLLOW CT
PINE HOLLOW TRUSTEES

PINE HOLLOW CT.
(CONCRETE PAVEMENT)

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CITY OF BALLWIN, MISSOURI

SITE PLAN

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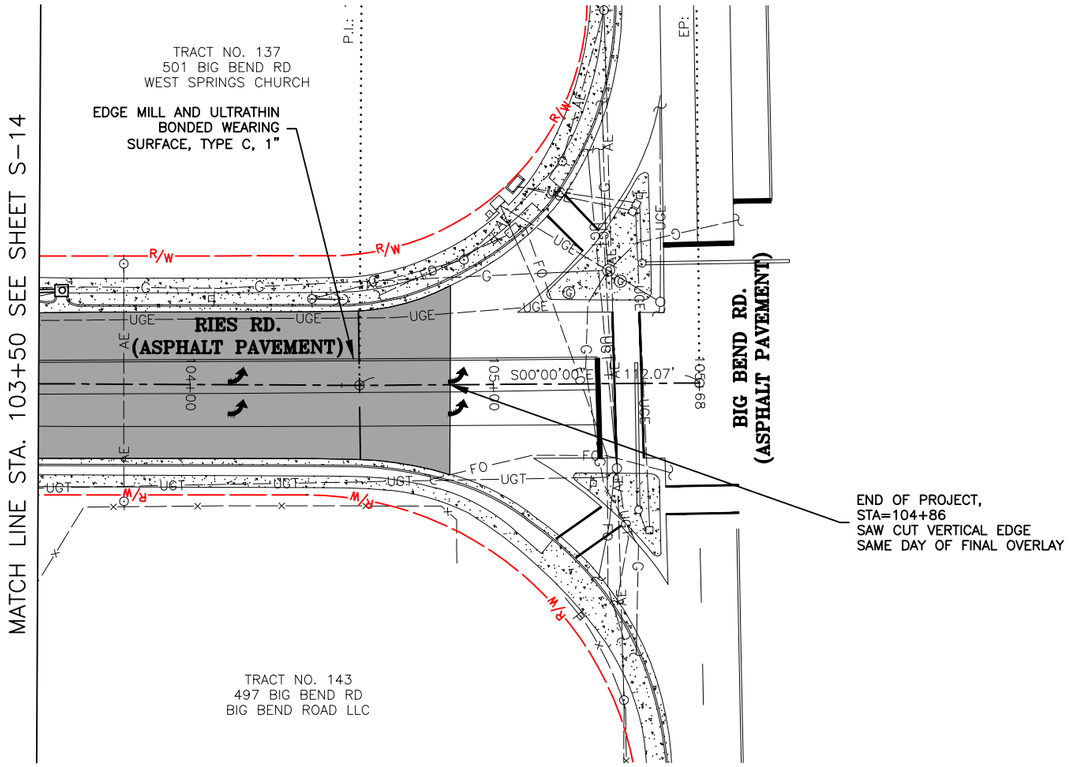
DATE: 10/6/23	
SCALE: 1' = 50'	
PROJ. NO: SC19-1061	
DWG. NO: S-14	

SITE PLAN

25 0 25 50



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SITE PLAN

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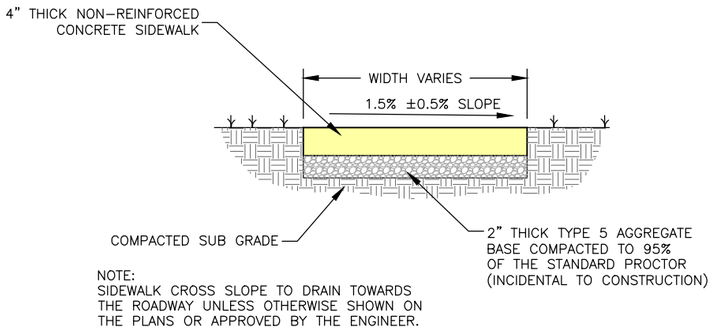
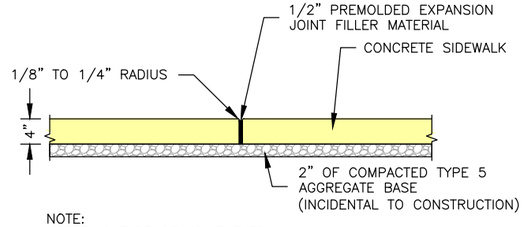
DATE: 10/6/23	
SCALE: 1' = 50'	
PROJ. NO: SC19-1061	
DWG. NO: S-15	

Drawing name: z:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SITE PLAN.dwg Tab: S-15 Plotted on: Oct 18, 2023 - 10:51am Plotted by: MSpalding



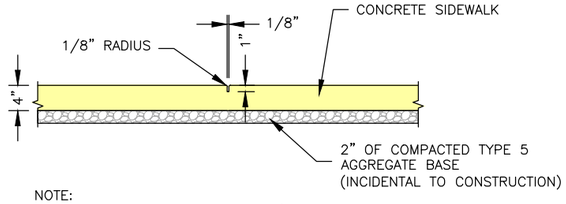
NOTE:
SIDEWALK CROSS SLOPE TO DRAIN TOWARDS THE ROADWAY UNLESS OTHERWISE SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER.

SIDEWALK CROSS-SECTION DETAIL
NO SCALE



NOTE:
USE THIS TYPE OF JOINT EVERY 45' ON CENTER AND AT ALL STREET INTERSECTIONS

TYPICAL SIDEWALK EXPANSION JOINT
NO SCALE



NOTE:
USE THIS TYPE OF JOINT EVERY 5' ON CENTER.

TYPICAL SIDEWALK CONTROL JOINT
NO SCALE

SIDEWALK NOTES:

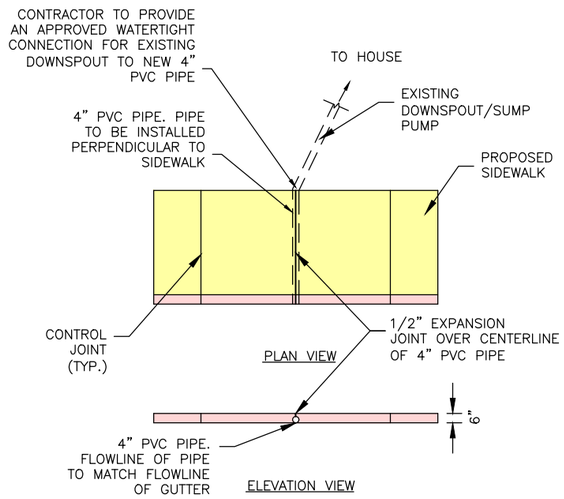
WHEN A JOINT FALLS WITHIN FIVE FEET OF OR CONTACTS AN OBJECT (I.E. SIGN POST, LIGHT BASE, POLE, STRUCTURE, CORNER OF A BUILDING, ETC.), THE JOINT SHALL BE MOVED TO PERMIT THE JOINT TO FALL IN THE CENTER OF THE OBJECT AND THE ADJACENT JOINT SPACING SHALL BE ADJUSTED ACCORDINGLY. THE ENGINEER HAS THE RIGHT TO MAKE ADJUSTMENTS TO THE PLACEMENT OF THE JOINTS IN THE FIELD AS HE DEEMS NECESSARY.

WHEN INSTALLING SIGNS IN NEW SIDEWALKS, PVC SLEEVES SHALL BE INSTALLED PRIOR TO PLACEMENT OF ANY NEW CONCRETE. PVC SLEEVE SHALL BE SCHEDULE 40 PVC. THE LENGTH OF THE SLEEVE SHALL BE THE SAME AS THE THICKNESS OF THE SIDEWALK AND AGGREGATE BASE. THE PVC SLEEVE SHALL BE INSTALLED FLUSH WITH THE FINISH GRADE OF THE SURROUNDING SIDEWALK. BACK FILL THE VOID BETWEEN THE SLEEVE AND SIGN POST WITH SAND TO WITHIN 1" OF THE FINISHED SURFACE. FILL THE FINAL 1" WITH NON-SHRINK GROUT.

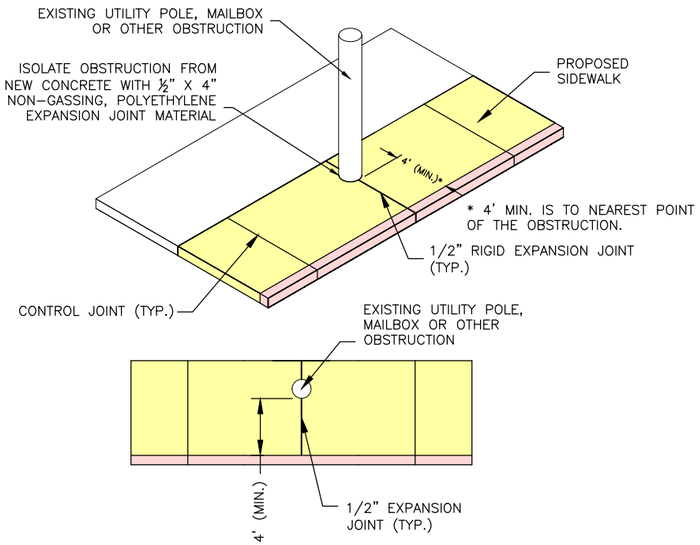
NOTES:

ALL DOWNSPOUT PIPE UNDER SIDEWALK SHALL BE 4" SCHEDULE 40 PVC PIPE.

CONTRACTOR SHALL EXTEND EXISTING DOWNSPOUTS AS NECESSARY TO PROVIDE ADEQUATE DRAINAGE TO FLOWLINE OF GUTTER.



EXTENSION OF PRIVATE DRAIN PIPE THROUGH SIDEWALK
NO SCALE



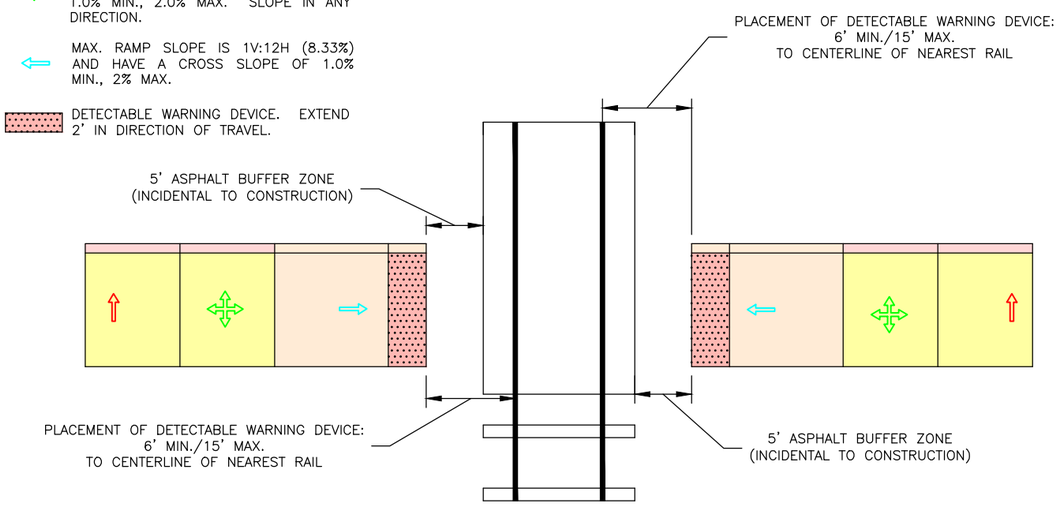
SIDEWALK SECTION AT OBSTRUCTION
NO SCALE

NOTE:

THE SURFACE OF THE PEDESTRIAN ACCESS ROUTE SHALL BE LEVEL AND FLUSH WITH THE TOP OF THE RAIL AT THE OUTER EDGES OF THE RAIL. THE SURFACE BETWEEN THE RAILS SHALL BE ALIGNED WITH THE TOP OF THE RAIL.

LEGEND

- 1.0% MIN., 2% MAX. CROSS SLOPE.
- LANDING AREA. MIN. 5' X 5' WITH 1.0% MIN., 2.0% MAX. SLOPE IN ANY DIRECTION.
- MAX. RAMP SLOPE IS 1V:12H (8.33%) AND HAVE A CROSS SLOPE OF 1.0% MIN., 2% MAX.
- DETECTABLE WARNING DEVICE. EXTEND 2' IN DIRECTION OF TRAVEL.



RAMP AND DETECTABLE WARNING PLACEMENT AT RAIL ROAD CROSSING
NO SCALE

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314-842-4033 (tel.)
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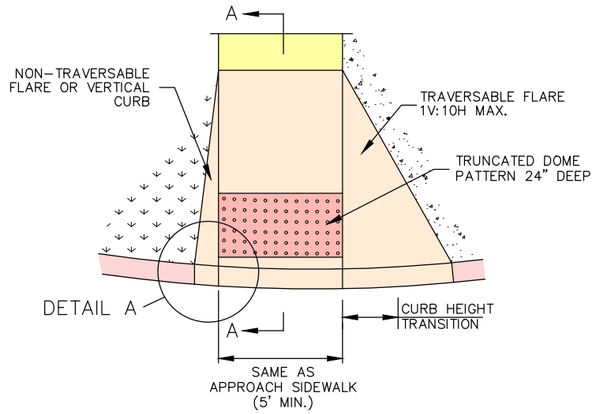
ENGINEERING CERTIFICATE OF AUTHORITY NUMBER - 2007006937
LAND SURVEYING CERTIFICATE OF AUTHORITY NUMBER - 2007004529

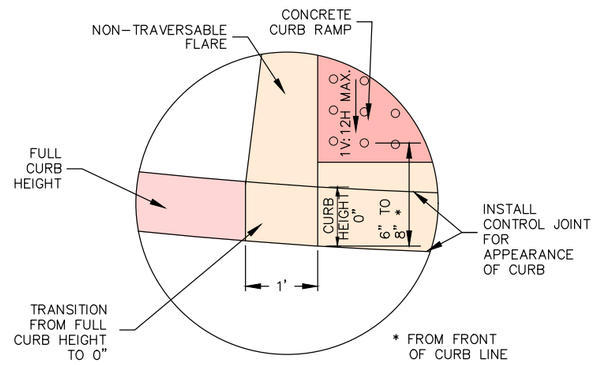
PRELIMINARY
NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

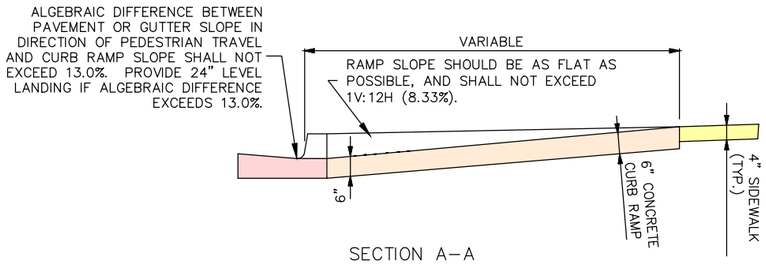
SIDEWALK AND RAMP DETAILS

DATE:	REVISION:
DWN. BY: M.D.M.	APPD. BY: K.J.W.
DATE: 10/6/23	
SCALE: AS SHOWN	
PROJ. NO: SC19-1061	
DWG. NO: DE-1	

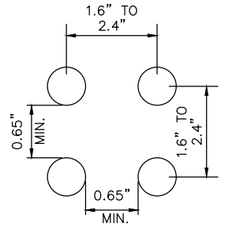




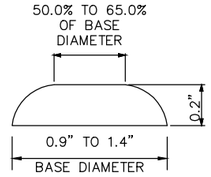
DETAIL A



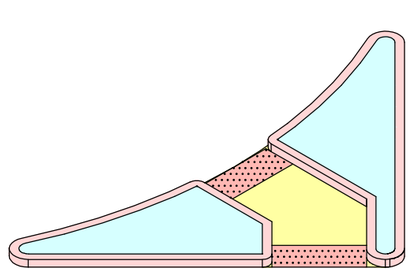
SECTION A–A

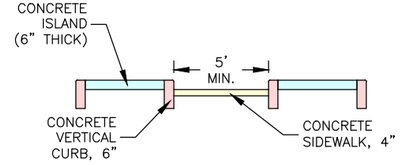


TRUNCATED DOMES SPACING

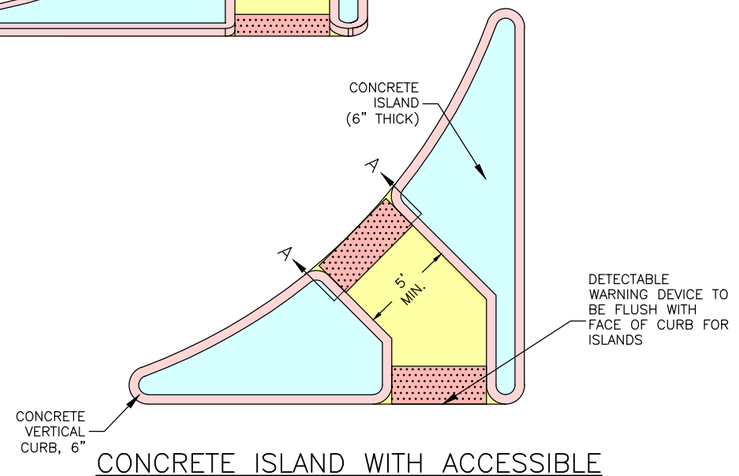


TRUNCATED DOMES CROSS SECTION



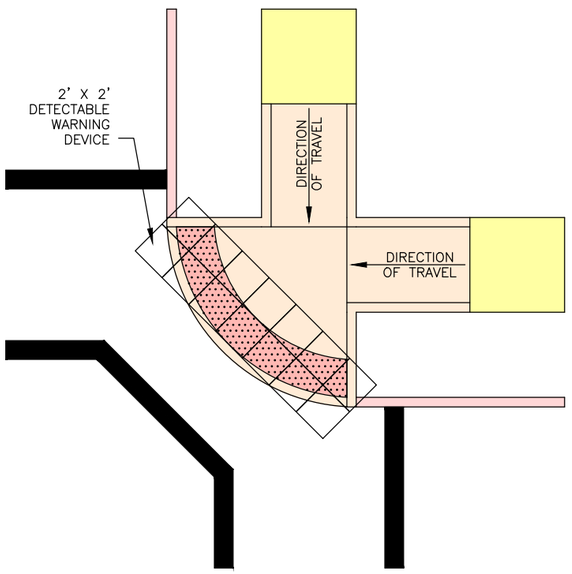


SECTION A–A



CONCRETE ISLAND WITH ACCESSIBLE CUT–THROUGH DETAIL

NO SCALE

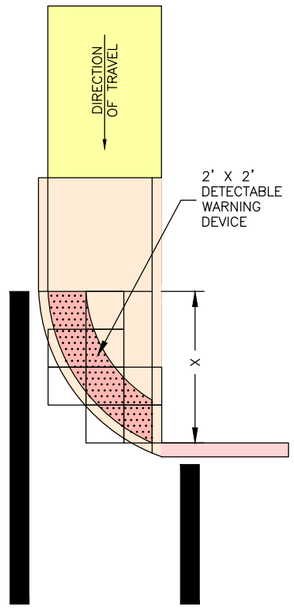


DETECTABLE WARNING DEVICE LAYOUT FOR 2 DIRECTION RAMP

NO SCALE

NOTES:

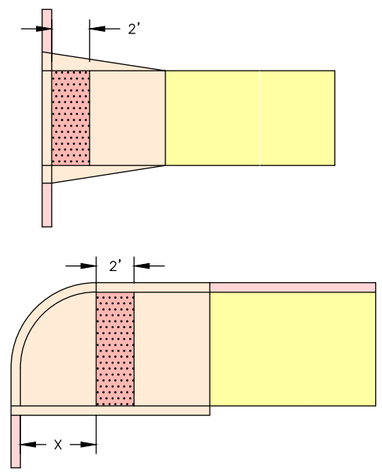
1. CONTRACTOR MUST TRIM THE DETECTABLE WARNING PANELS TO PROVIDE A 2' DEEP STRIP THAT IS THE FULL WIDTH OF THE RAMP AND FOLLOWS THE CURVATURE OF THE CURB.
2. 2' X 2' DETECTABLE WARNING PANEL IS FOR REFERENCE ONLY. CONTRACTOR MAY USE ALTERNATE SIZED PANELS TO MINIMIZE CUTTING.
3. THE DETECTABLE WARNING DEVICE LAYOUT FOR 1 DIRECTIONAL RAMP MUST BE USED WHEN THE "X" DIMENSION IS GREATER THAN 5 FEET. WHEN "X" IS LESS THAN 5 FEET, THE DETECTABLE WARNING DEVICES SHALL BE AT THE BOTTOM OF THE RAMP AND PARALLEL TO THE DIRECTION OF TRAVEL.



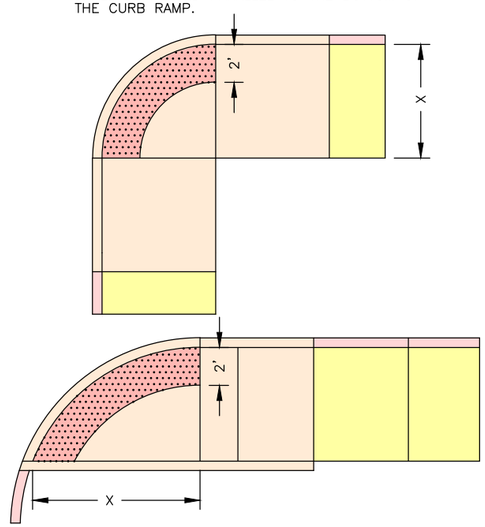
DETECTABLE WARNING DEVICE LAYOUT FOR 1 DIRECTION RAMP

NO SCALE

WHEN DISTANCE "X" IS LESS THAN 5', TRUNCATED DOME DETECTABLE WARNING DEVICE SHALL BE PLACED PERPENDICULAR TO THE PATH OF TRAVEL.



WHEN DISTANCE "X" IS GREATER THAN 5', TRUNCATED DOME DETECTABLE WARNING DEVICE SHALL BE PLACED PARALLEL TO THE BOTTOM OF THE CURB RAMP.



DETECTABLE WARNING DEVICE PLACEMENT ON RAMP

NO SCALE

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LAND SURVEYING CERTIFICATE OF AUTHORITY NUMBER – 2007004529

PRELIMINARY NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SIDEWALK AND RAMP DETAILS

DATE:	REVISION:
DWN. BY: M.D.M.	APP'D. BY: K.J.W.
DATE: 10/6/23	
SCALE: AS SHOWN	
PROJ. NO: SC19–1061	
DWG. NO: DE-2	

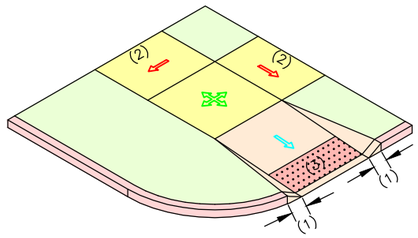
Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SIDEWALK AND RAMP DETAILS.dwg Tab: DE-2 Plotted on: Oct 18, 2023 - 10:37am Plotted by: MSpalding

LEGEND

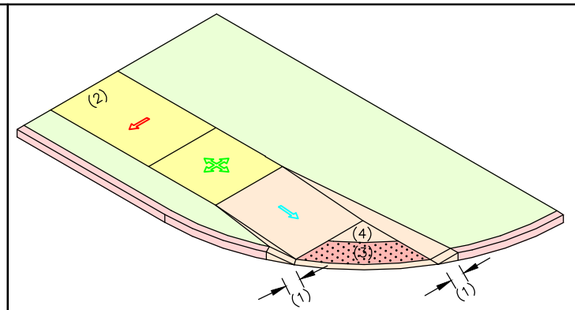
- 1.0% MIN., 2.0% MAX. CROSS SLOPE.
- LANDING AREA. MIN. 5' X 5' WITH 1.0% MIN., 2.0% MAX. SLOPE IN ANY DIRECTION.
- MAX. RAMP SLOPE IS 1V:12H (8.33%) AND HAVE A CROSS SLOPE OF 1.0% MIN., 2.0% MAX.
- DETECTABLE WARNING DEVICE. EXTEND 2' IN DIRECTION OF TRAVEL.

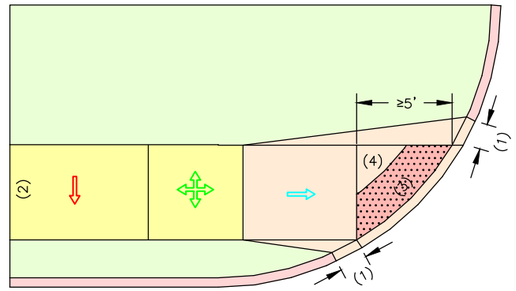
KEYED NOTES

(1) 1' OR VERTICAL CURB AS DIRECTED BY THE ENGINEER. IF TRAVERSABLE, MAX. SLOPE IS 1V:10H WHEN MEASURED PARALLEL TO CURB LINE.
(2) SEE PLAN SHEETS FOR WIDTH. SIDEWALKS AT CURB SHALL BE A MINIMUM OF 6' WIDE AND SIDEWALKS WITH A TREE LAWN SHALL BE A MINIMUM OF 5', WIDE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
(3) DETECTABLE WARNING DEVICES ARE NOT USED ON EVERY CURB RAMP INSTALLED. SEE SITE PLAN FOR LOCATIONS WITH DETECTABLE WARNING DEVICES.
(4) TRANSITION AREA SLOPE TO BE MAXIMUM OF 5.0% OR MATCH STREET GRADE. SLOPES SHALL NOT CREATE AN AREA THAT HOLDS WATER.

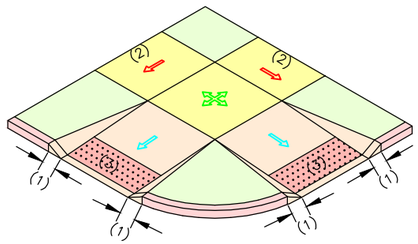


TYPE A1

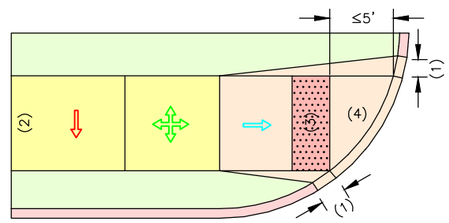




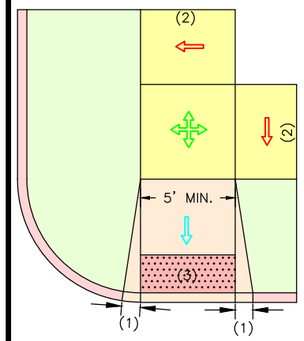
TYPE A3 CURB RAMP
PERPENDICULAR WITH TREE LAWN LARGE RADIUS
NO SCALE



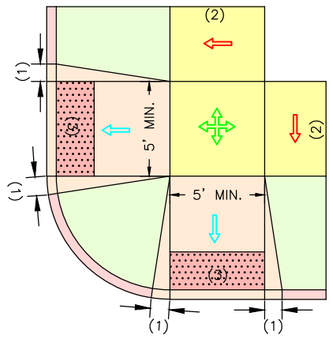
TYPE A2



TYPE A4 CURB RAMP
PERPENDICULAR WITH TREE LAWN, SMALL RADIUS
NO SCALE

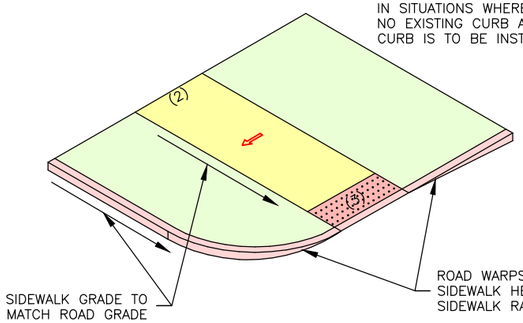


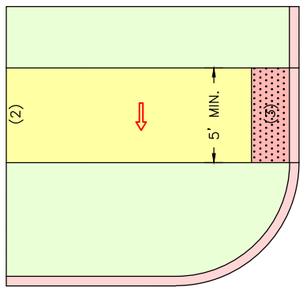
TYPE A1



TYPE A2

TYPE A1 AND A2 CURB RAMP
PERPENDICULAR WITH TREE LAWN
(6' OR GREATER)
NO SCALE





TYPE A5 CURB RAMP
PERPENDICULAR WITH TREE LAWN, NO RAMP
NO SCALE

CURB RAMP GENERAL NOTES:

ALL AREAS OF THE PEDESTRIAN ACCESS ROUTE MUST BE COMPLIANT WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)". EXCEPTIONS MUST BE APPROVED BY THE ENGINEER.

FINISHED SIDEWALK SHALL BE STABLE, SLIP RESISTANT AND SURFACE DOES NOT POND WATER.

SIDEWALK AND RAMP CROSS SLOPES SHALL BE A MINIMUM OF 1.0% TO FACILITATE DRAINAGE AND A MAXIMUM OF 2.0% TO BE USABLE FOR DISABLED INDIVIDUALS.

STORMWATER INLETS, SIGNS, POSTS, MANHOLE COVERS, PULL BOXES AND OTHER ACCESS LIDS SHOULD BE AVOIDED WITHIN THE SIDEWALK. IF SUCH A LOCATION IS NECESSARY, THE FEATURE MUST MEET ADA STANDARDS.

THE RUNNING GRADE OF A SIDEWALK SHALL NOT EXCEED 5.0% UNLESS IT IS MATCHING THE GRADE OF THE ADJACENT ROADWAY.

ALL RAMPS SHALL NOT HAVE RUNNING SLOPES GREATER THAN 8.33% OR 1V:12H. RAMP LENGTH NOT REQUIRED TO EXCEED 15 FEET.

PEDESTRIAN ACCESS ROUTE SHALL CONTINUE ACROSS DRIVEWAYS.

LANDINGS SHALL BE CONSTRUCTED AT THE TOP AND/OR BOTTOM OF A CURB RAMP WHEREVER A TURNING MOVEMENT OR ACCESS TO PEDESTRIAN PUSH BUTTON IS REQUIRED.

LANDINGS LOCATED IN THE ROADWAY MUST BE COMPLETELY CONTAINED WITHIN THE CROSSWALK.

SIDE FLARES OF CURB RAMPS, IN THE PATH OF PEDESTRIAN TRAVEL (TRAVERSABLE), SHALL NOT EXCEED A SLOPE OF 1V:10H. SIDE FLARES OUTSIDE THE PEDESTRIAN PATH (NONTRAVERSABLE) MAY BE 1V:2H OR VERTICAL.

TRANSITION FROM SIDEWALK TO GUTTER TO ROADWAY MUST BE FLUSH.

DETECTABLE WARNING DEVICE (TRUNCATED DOMES) SHALL BE PRE-FORMED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, AT PUBLIC STREET INTERSECTIONS AND ANY SIGNALIZED INTERSECTIONS. STAMPED CONCRETE WILL NOT BE ACCEPTED.

THE DETECTABLE WARNING DEVICE SHALL BE RED. TRUNCATED DOMES SHALL SPAN THE FULL WIDTH (WITHIN 2") OF THE RAMP OR LANDING.

DETECTABLE WARNING DOMES SHALL BE ALIGNED PARALLEL TO THE SLOPE WHEN INSTALLED ON A RAMP. WHEN INSTALLED ON A LANDING OR BLENDED TRANSITION, THEY SHALL BE ALIGNED PERPENDICULAR OR RADIAL TO THE BREAK BETWEEN THE RAMP, LANDING OR BLENDED TRANSITION AND THE STREET.

IF CONSTRUCTION OF 5' X 5' LANDING IS NOT FEASIBLE, 4' X 4' LANDING MAY BE USED WITH APPROVAL FROM THE ENGINEER.

RAMP WIDTH MAY BE REDUCED TO 4' WITH APPROVAL OF THE ENGINEER.

CURB RAMPS AND INTEGRAL CURBS THAT ARE PART OF RAMPS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE SIDEWALK.

THE CONTRACTOR SHALL IDENTIFY THE REMOVAL LIMITS FOR THE SIDEWALK AND CURB. IF THE CONTRACTOR DETERMINES THE REMOVAL LIMITS ARE NOT ADEQUATE TO MEET ADA STANDARDS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND CONSULT THE ENGINEER TO DETERMINE THE BEST SOLUTION.

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FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SIDEWALK AND RAMP DETAILS

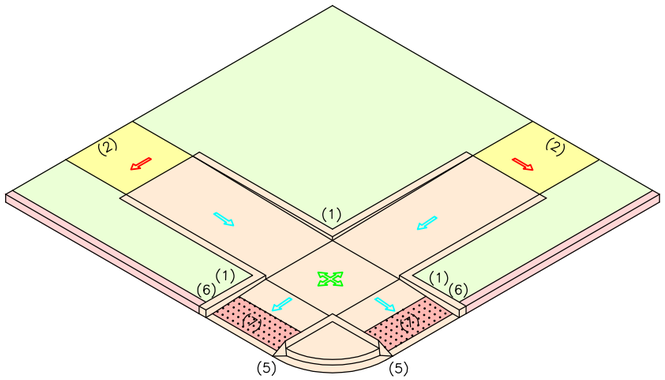
DATE:	REVISION:
DWN. BY: M.D.M.	APPD. BY: K.J.W.
DATE: 10/6/23	
SCALE: AS SHOWN	
PROJ. NO: SC19-1061	
DWG. NO: DE-3	

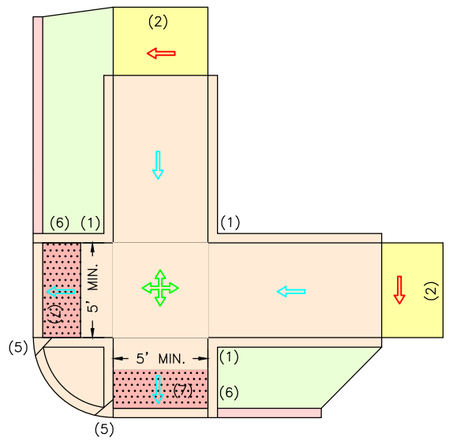
LEGEND

- 1.0% MIN., 2.0% MAX. CROSS SLOPE.
- LANDING AREA. MIN. 5' X 5' WITH 1.0% MIN., 2.0% MAX. SLOPE IN ANY DIRECTION.
- MAX. RAMP SLOPE IS 1V:12H (8.33%) AND HAVE A CROSS SLOPE OF 1.0% MIN., 2.0% MAX.
- DETECTABLE WARNING DEVICE. EXTEND 2' IN DIRECTION OF TRAVEL.

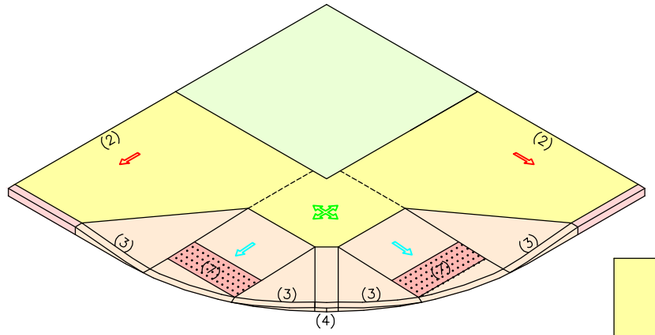
KEYED NOTES

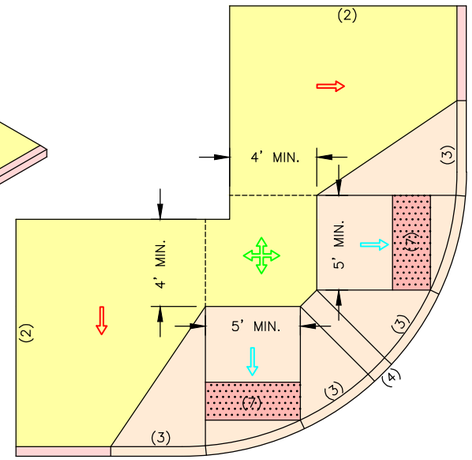
(1) VARIABLE CURB HEIGHT. CURB MAY BE ELIMINATED IF UNNECESSARY AND APPROVED BY THE ENGINEER
(2) SEE PLAN SHEETS FOR WIDTH. SIDEWALKS AT CURB SHALL BE A MINIMUM OF 6' WIDE AND SIDEWALKS WITH A TREE LAWN SHALL BE A MINIMUM OF 5', WIDE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
(3) FLARE MAX. SLOPE IS 1V:10H WHEN MEASURED PARALLEL TO CURB LINE.
(4) CURB HEIGHT BETWEEN THE FLARES MAY RANGE BETWEEN 3" AND 6" AS NECESSARY WITH APPROVAL FROM THE ENGINEER.
(5) CHAMFER CORNERS AT 45 DEGREE ANGLE.
(6) 1' WIDE FLARE MAY BE SUBSTITUTED FOR VERTICAL CURB AT THE DISCRETION OF THE ENGINEER FOR NO ADDITION COST.
(7) DETECTABLE WARNING DEVICES ARE NOT USED ON EVERY CURB RAMP INSTALLED. SEE SITE PLAN FOR LOCATIONS WITH DETECTABLE WARNING DEVICES.



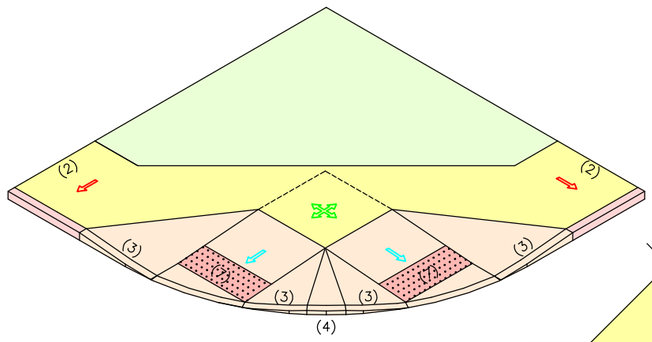


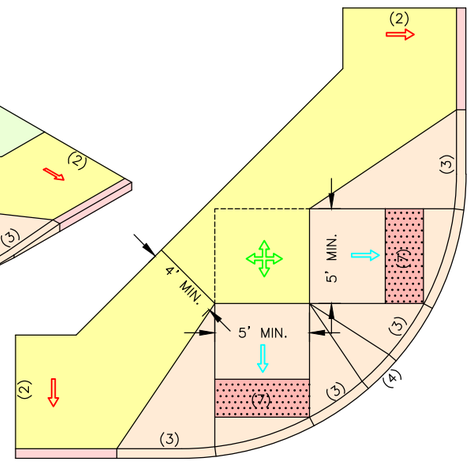
TYPE A6 CURB RAMP
PERPENDICULAR WITH SMALL TREE LAWN
(LESS THAN 6')
NO SCALE





TYPE B1 CURB RAMP
PERPENDICULAR, FOR WIDE
SIDEWALK, NO TREE LAWN
NO SCALE





TYPE B2 CURB RAMP
PERPENDICULAR, FOR NARROW
SIDEWALK, NO TREE LAWN
NO SCALE

CURB RAMP GENERAL NOTES:

ALL AREAS OF THE PEDESTRIAN ACCESS ROUTE MUST BE COMPLIANT WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)". EXCEPTIONS MUST BE APPROVED BY THE ENGINEER.

FINISHED SIDEWALK SHALL BE STABLE, SLIP RESISTANT AND SURFACE DOES NOT POND WATER.

SIDEWALK AND RAMP CROSS SLOPES SHALL BE A MINIMUM OF 1.0% TO FACILITATE DRAINAGE AND A MAXIMUM OF 2.0% TO BE USABLE FOR DISABLED INDIVIDUALS.

STORMWATER INLETS, SIGNS, POSTS, MANHOLE COVERS, PULL BOXES AND OTHER ACCESS LIDS SHOULD BE AVOIDED WITHIN THE SIDEWALK. IF SUCH A LOCATION IS NECESSARY, THE FEATURE MUST MEET ADA STANDARDS.

THE RUNNING GRADE OF A SIDEWALK SHALL NOT EXCEED 5.0% UNLESS IT IS MATCHING THE GRADE OF THE ADJACENT ROADWAY.

ALL RAMPS SHALL NOT HAVE RUNNING SLOPES GREATER THAN 8.33% OR 1V:12H. RAMP LENGTH NOT REQUIRED TO EXCEED 15 FEET.

PEDESTRIAN ACCESS ROUTE SHALL CONTINUE ACROSS DRIVEWAYS.

LANDINGS SHALL BE CONSTRUCTED AT THE TOP AND/OR BOTTOM OF A CURB RAMP WHEREVER A TURNING MOVEMENT OR ACCESS TO PEDESTRIAN PUSH BUTTON IS REQUIRED.

LANDINGS LOCATED IN THE ROADWAY MUST BE COMPLETELY CONTAINED WITHIN THE CROSSWALK.

SIDE FLARES OF CURB RAMPS, IN THE PATH OF PEDESTRIAN TRAVEL (TRAVERSABLE), SHALL NOT EXCEED A SLOPE OF 1V:10H. SIDE FLARES OUTSIDE THE PEDESTRIAN PATH (NONTRAVERSABLE) MAY BE 1V:2H OR VERTICAL.

TRANSITION FROM SIDEWALK TO GUTTER TO ROADWAY MUST BE FLUSH.

DETECTABLE WARNING DEVICE (TRUNCATED DOMES) SHALL BE PRE-FORMED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, AT PUBLIC STREET INTERSECTIONS AND ANY SIGNALIZED INTERSECTIONS. STAMPED CONCRETE WILL NOT BE ACCEPTED.

THE DETECTABLE WARNING DEVICE SHALL BE RED. TRUNCATED DOMES SHALL SPAN THE FULL WIDTH (WITHIN 2") OF THE RAMP OR LANDING.

DETECTABLE WARNING DOMES SHALL BE ALIGNED PARALLEL TO THE SLOPE WHEN INSTALLED ON A RAMP. WHEN INSTALLED ON A LANDING OR BLENDED TRANSITION, THEY SHALL BE ALIGNED PERPENDICULAR OR RADIAL TO THE BREAK BETWEEN THE RAMP, LANDING OR BLENDED TRANSITION AND THE STREET.

IF CONSTRUCTION OF 5' X 5' LANDING IS NOT FEASIBLE, 4' X 4' LANDING MAY BE USED WITH APPROVAL FROM THE ENGINEER.

RAMP WIDTH MAY BE REDUCED TO 4' WITH APPROVAL OF THE ENGINEER.

CURB RAMPS AND INTEGRAL CURBS THAT ARE PART OF RAMPS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE SIDEWALK.

THE CONTRACTOR SHALL IDENTIFY THE REMOVAL LIMITS FOR THE SIDEWALK AND CURB. IF THE CONTRACTOR DETERMINES THE REMOVAL LIMITS ARE NOT ADEQUATE TO MEET ADA STANDARDS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND CONSULT THE ENGINEER TO DETERMINE THE BEST SOLUTION.

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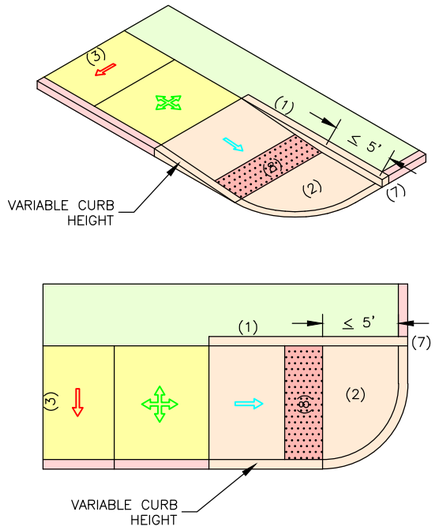
SCALE: AS SHOWN	
PROJ. NO: SC19-1061	
DWG. NO: DE-4	

LEGEND

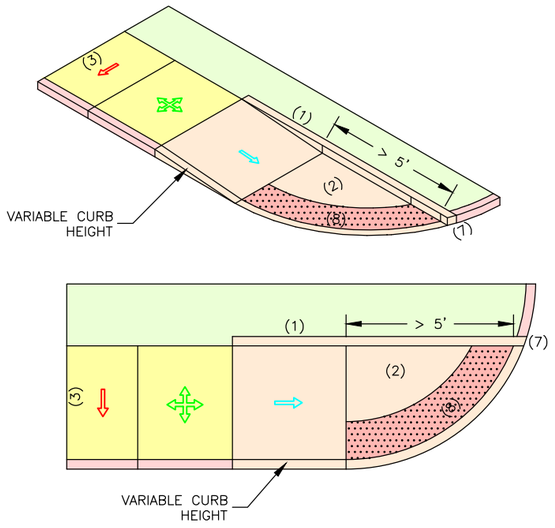
- 1.0% MIN., 2.0% MAX. CROSS SLOPE.
- LANDING AREA. MIN. 5' X 5' WITH 1.0% MIN., 2.0% MAX. SLOPE IN ANY DIRECTION.
- MAX. RAMP SLOPE IS 1V:12H (8.33%) AND HAVE A CROSS SLOPE OF 1.0% MIN., 2.0% MAX.
- DETECTABLE WARNING DEVICE. EXTEND 2' IN DIRECTION OF TRAVEL.

KEYED NOTES

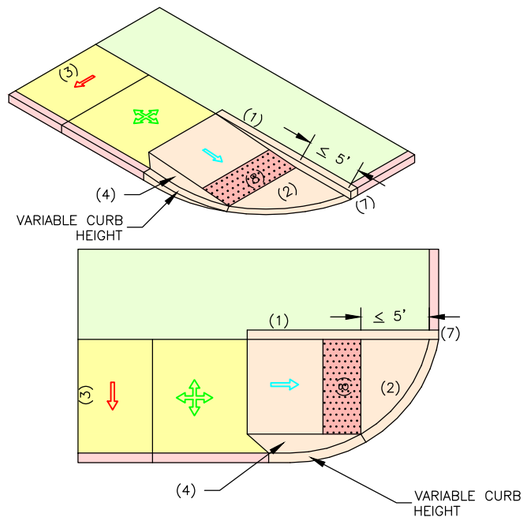
(1) VARIABLE CURB HEIGHT. CURB MAY BE ELIMINATED IF UNNECESSARY AND APPROVED BY THE ENGINEER.
(2) TRANSITION AREA SLOPE TO BE MAXIMUM OF 5.0% OR MATCH STREET GRADE. SLOPES SHALL NOT CREATE AN AREA THAT HOLDS WATER.
(3) SEE PLAN SHEETS FOR WIDTH. SIDEWALKS AT CURB SHALL BE A MINIMUM OF 6' WIDE AND SIDEWALKS WITH A TREE LAWN SHALL BE A MINIMUM OF 5', WIDE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
(4) FLARE MAX. SLOPE IS 1V:10H WHEN MEASURED PARALLEL TO CURB LINE.
(5) ENSURE THAT INSIDE EDGE OF CURVED RAMPS MAINTAIN A 1V:12H (8.33%) MAX. SLOPE.
(6) ENSURE ADEQUATE DRAINAGE OF LANDING AREA. SLOPES SHALL NOT CREATE A LANDING AREA THAT HOLDS WATER.
(7) 1' WIDE FLARE MAY BE SUBSTITUTED FOR VERTICAL CURB AT THE DISCRETION OF THE ENGINEER FOR NO ADDITION COST.
(8) DETECTABLE WARNING DEVICES ARE NOT USED ON EVERY CURB RAMP INSTALLED. SEE SITE PLAN FOR LOCATIONS WITH DETECTABLE WARNING DEVICES.



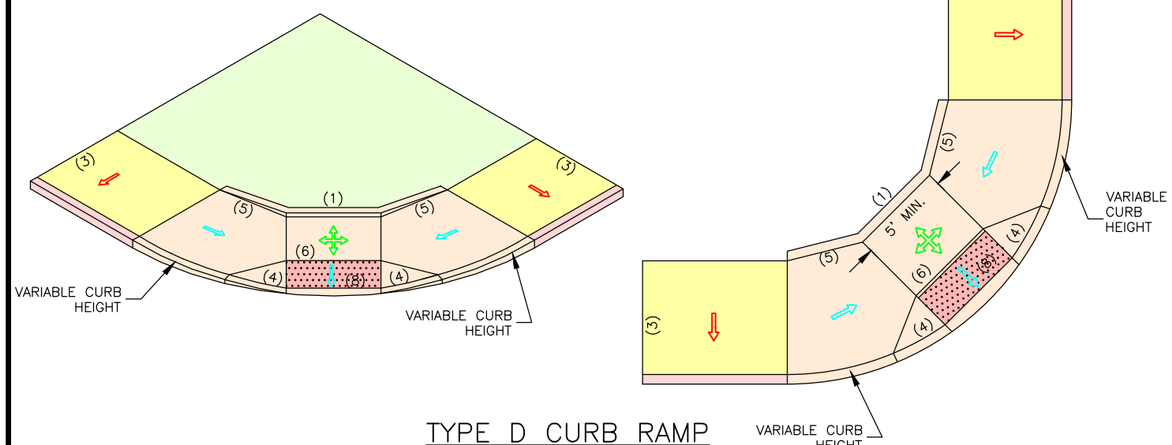
TYPE C1 CURB RAMP
PERPENDICULAR SMALL RADIUS
NO SCALE



TYPE C2 CURB RAMP
PERPENDICULAR LARGE RADIUS
NO SCALE



TYPE C3 CURB RAMP
PERPENDICULAR WITH TRAVERSABLE FLARE
NO SCALE



TYPE D CURB RAMP
COMPOUND DIAGONAL
NO SCALE

CURB RAMP GENERAL NOTES:

ALL AREAS OF THE PEDESTRIAN ACCESS ROUTE MUST BE COMPLIANT WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)". EXCEPTIONS MUST BE APPROVED BY THE ENGINEER.

FINISHED SIDEWALK SHALL BE STABLE, SLIP RESISTANT AND SURFACE DOES NOT POND WATER.

SIDEWALK AND RAMP CROSS SLOPES SHALL BE A MINIMUM OF 1.0% TO FACILITATE DRAINAGE AND A MAXIMUM OF 2.0% TO BE USABLE FOR DISABLED INDIVIDUALS.

STORMWATER INLETS, SIGNS, POSTS, MANHOLE COVERS, PULL BOXES AND OTHER ACCESS LIDS SHOULD BE AVOIDED WITHIN THE SIDEWALK. IF SUCH A LOCATION IS NECESSARY, THE FEATURE MUST MEET ADA STANDARDS.

THE RUNNING GRADE OF A SIDEWALK SHALL NOT EXCEED 5.0% UNLESS IT IS MATCHING THE GRADE OF THE ADJACENT ROADWAY.

ALL RAMPS SHALL NOT HAVE RUNNING SLOPES GREATER THAN 8.33% OR 1V:12H. RAMP LENGTH NOT REQUIRED TO EXCEED 15 FEET.

PEDESTRIAN ACCESS ROUTE SHALL CONTINUE ACROSS DRIVEWAYS.

LANDINGS SHALL BE CONSTRUCTED AT THE TOP AND/OR BOTTOM OF A CURB RAMP WHEREVER A TURNING MOVEMENT OR ACCESS TO PEDESTRIAN PUSH BUTTON IS REQUIRED.

LANDINGS LOCATED IN THE ROADWAY MUST BE COMPLETELY CONTAINED WITHIN THE CROSSWALK.

SIDE FLARES OF CURB RAMPS, IN THE PATH OF PEDESTRIAN TRAVEL (TRAVERSABLE), SHALL NOT EXCEED A SLOPE OF 1V:10H. SIDE FLARES OUTSIDE THE PEDESTRIAN PATH (NONTRAVERSABLE) MAY BE 1V:2H OR VERTICAL.

TRANSITION FROM SIDEWALK TO GUTTER TO ROADWAY MUST BE FLUSH.

DETECTABLE WARNING DEVICE (TRUNCATED DOMES) SHALL BE PRE-FORMED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, AT PUBLIC STREET INTERSECTIONS AND ANY SIGNALIZED INTERSECTIONS. STAMPED CONCRETE WILL NOT BE ACCEPTED.

THE DETECTABLE WARNING DEVICE SHALL BE RED. TRUNCATED DOMES SHALL SPAN THE FULL WIDTH (WITHIN 2") OF THE RAMP OR LANDING.

DETECTABLE WARNING DOMES SHALL BE ALIGNED PARALLEL TO THE SLOPE WHEN INSTALLED ON A RAMP. WHEN INSTALLED ON A LANDING OR BLENDED TRANSITION, THEY SHALL BE ALIGNED PERPENDICULAR OR RADIAL TO THE BREAK BETWEEN THE RAMP, LANDING OR BLENDED TRANSITION AND THE STREET.

IF CONSTRUCTION OF 5' X 5' LANDING IS NOT FEASIBLE, 4' X 4' LANDING MAY BE USED WITH APPROVAL FROM THE ENGINEER.

RAMP WIDTH MAY BE REDUCED TO 4' WITH APPROVAL OF THE ENGINEER.

CURB RAMPS AND INTEGRAL CURBS THAT ARE PART OF RAMPS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE SIDEWALK.

THE CONTRACTOR SHALL IDENTIFY THE REMOVAL LIMITS FOR THE SIDEWALK AND CURB. IF THE CONTRACTOR DETERMINES THE REMOVAL LIMITS ARE NOT ADEQUATE TO MEET ADA STANDARDS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND CONSULT THE ENGINEER TO DETERMINE THE BEST SOLUTION.

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ENGINEERING CERTIFICATE OF AUTHORITY NUMBER - 2007006937
LAND SURVEYING CERTIFICATE OF AUTHORITY NUMBER - 2007004529

PRELIMINARY
NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SIDEWALK AND RAMP DETAILS

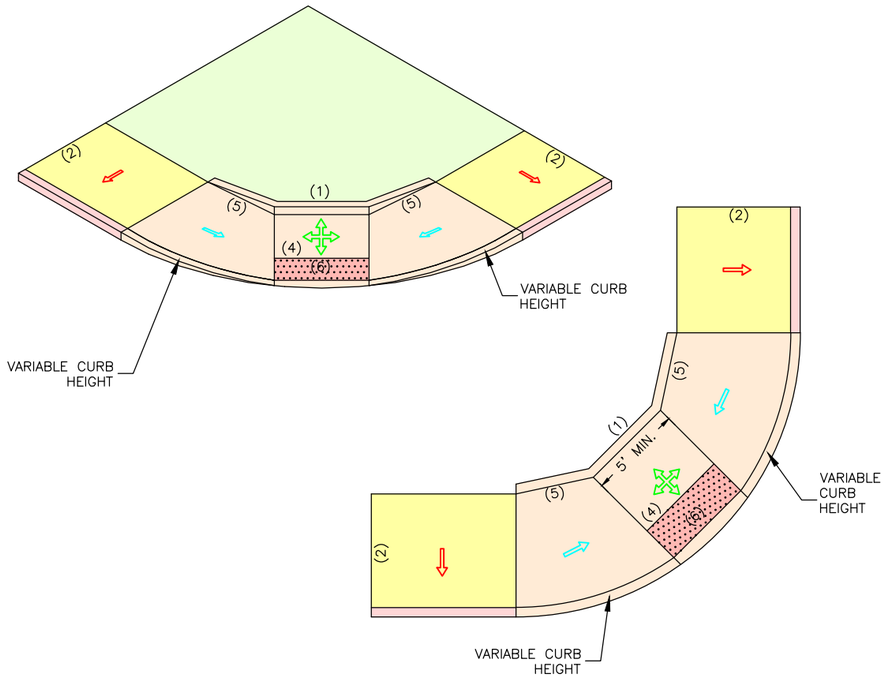
DATE:	REVISION:
DWN. BY: M.D.M.	APP'D. BY: K.J.W.
DATE: 10/6/23	
SCALE: AS SHOWN	
PROJ. NO: SC19-1061	
DWG. NO: DE-5	

LEGEND

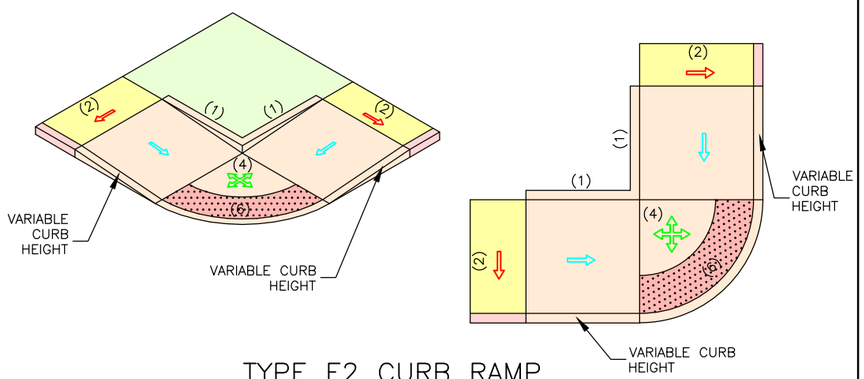
- 1.0% MIN., 2.0% MAX. CROSS SLOPE.
- LANDING AREA. MIN. 5' X 5' WITH 1.0% MIN., 2.0% MAX. SLOPE IN ANY DIRECTION.
- MAX. RAMP SLOPE IS 1V:12H (8.33%) AND HAVE A CROSS SLOPE OF 1.0% MIN., 2.0% MAX.
- DETECTABLE WARNING DEVICE. EXTEND 2' IN DIRECTION OF TRAVEL.

KEYED NOTES

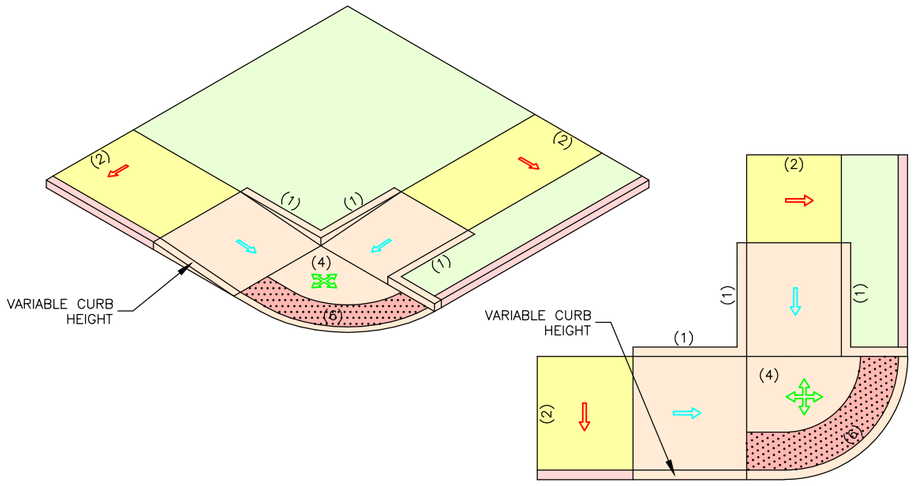
(1) VARIABLE CURB HEIGHT. CURB MAY BE ELIMINATED IF UNNECESSARY AND APPROVED BY THE ENGINEER.
(2) SEE PLAN SHEETS FOR WIDTH. SIDEWALKS AT CURB SHALL BE A MINIMUM OF 6' WIDE AND SIDEWALKS WITH A TREE LAWN SHALL BE A MINIMUM OF 5', WIDE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
(3) FLARE MAX. SLOPE IS 1V:10H WHEN MEASURED PARALLEL TO CURB LINE.
(4) ENSURE ADEQUATE DRAINAGE OF LANDING AREA. SLOPES SHALL NOT CREATE A LANDING AREA THAT HOLDS WATER.
(5) ENSURE THAT INSIDE EDGE OF CURVED RAMPS MAINTAIN A 1V:12H (8.33%) MAX. SLOPE.
(6) DETECTABLE WARNING DEVICES ARE NOT USED ON EVERY CURB RAMP INSTALLED. SEE SITE PLAN FOR LOCATIONS WITH DETECTABLE WARNING DEVICES.



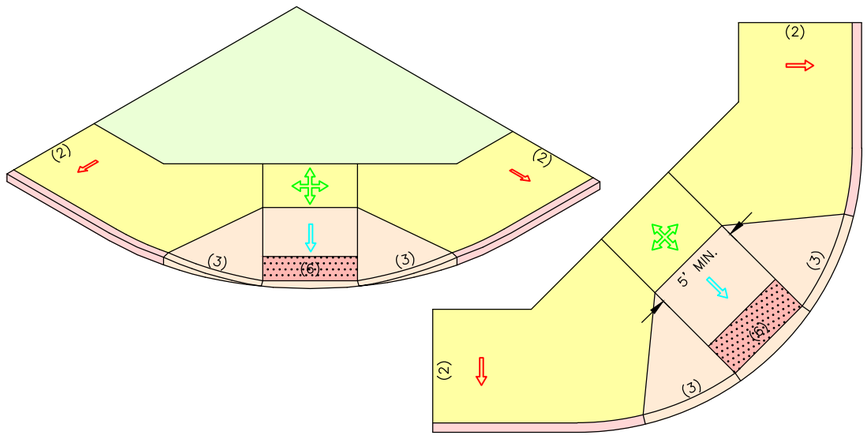
TYPE E1 CURB RAMP
PARALLEL DIAGONAL FOR NARROW SIDEWALKS, LARGE RADIUS
NO SCALE



TYPE E2 CURB RAMP
PARALLEL DIAGONAL FOR NARROW SIDEWALKS, SMALL RADIUS, NO TREE LAWN
NO SCALE



TYPE E3 CURB RAMP
PARALLEL DIAGONAL FOR NARROW SIDEWALKS, SMALL RADIUS, ONE TREE LAWN
NO SCALE



TYPE F1 CURB RAMP
DIAGONAL FOR NARROW SIDEWALKS
NO SCALE

CURB RAMP GENERAL NOTES:

ALL AREAS OF THE PEDESTRIAN ACCESS ROUTE MUST BE COMPLIANT WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)". EXCEPTIONS MUST BE APPROVED BY THE ENGINEER.

FINISHED SIDEWALK SHALL BE STABLE, SLIP RESISTANT AND SURFACE DOES NOT POND WATER.

SIDEWALK AND RAMP CROSS SLOPES SHALL BE A MINIMUM OF 1.0% TO FACILITATE DRAINAGE AND A MAXIMUM OF 2.0% TO BE USABLE FOR DISABLED INDIVIDUALS.

STORMWATER INLETS, SIGNS, POSTS, MANHOLE COVERS, PULL BOXES AND OTHER ACCESS LIDS SHOULD BE AVOIDED WITHIN THE SIDEWALK. IF SUCH A LOCATION IS NECESSARY, THE FEATURE MUST MEET ADA STANDARDS.

THE RUNNING GRADE OF A SIDEWALK SHALL NOT EXCEED 5.0% UNLESS IT IS MATCHING THE GRADE OF THE ADJACENT ROADWAY.

ALL RAMPS SHALL NOT HAVE RUNNING SLOPES GREATER THAN 8.33% OR 1V:12H. RAMP LENGTH NOT REQUIRED TO EXCEED 15 FEET.

PEDESTRIAN ACCESS ROUTE SHALL CONTINUE ACROSS DRIVEWAYS.

LANDINGS SHALL BE CONSTRUCTED AT THE TOP AND/OR BOTTOM OF A CURB RAMP WHEREVER A TURNING MOVEMENT OR ACCESS TO PEDESTRIAN PUSH BUTTON IS REQUIRED.

LANDINGS LOCATED IN THE ROADWAY MUST BE COMPLETELY CONTAINED WITHIN THE CROSSWALK.

SIDE FLARES OF CURB RAMPS, IN THE PATH OF PEDESTRIAN TRAVEL (TRAVERSABLE), SHALL NOT EXCEED A SLOPE OF 1V:10H. SIDE FLARES OUTSIDE THE PEDESTRIAN PATH (NONTRAVERSABLE) MAY BE 1V:2H OR VERTICAL.

TRANSITION FROM SIDEWALK TO GUTTER TO ROADWAY MUST BE FLUSH.

DETECTABLE WARNING DEVICE (TRUNCATED DOMES) SHALL BE PRE-FORMED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, AT PUBLIC STREET INTERSECTIONS AND ANY SIGNALIZED INTERSECTIONS. STAMPED CONCRETE WILL NOT BE ACCEPTED.

THE DETECTABLE WARNING DEVICE SHALL BE RED. TRUNCATED DOMES SHALL SPAN THE FULL WIDTH (WITHIN 2") OF THE RAMP OR LANDING.

DETECTABLE WARNING DOMES SHALL BE ALIGNED PARALLEL TO THE SLOPE WHEN INSTALLED ON A RAMP. WHEN INSTALLED ON A LANDING OR BLENDED TRANSITION, THEY SHALL BE ALIGNED PERPENDICULAR OR RADIAL TO THE BREAK BETWEEN THE RAMP, LANDING OR BLENDED TRANSITION AND THE STREET.

IF CONSTRUCTION OF 5' X 5' LANDING IS NOT FEASIBLE, 4' X 4' LANDING MAY BE USED WITH APPROVAL FROM THE ENGINEER.

RAMP WIDTH MAY BE REDUCED TO 4' WITH APPROVAL OF THE ENGINEER.

CURB RAMPS AND INTEGRAL CURBS THAT ARE PART OF RAMPS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE SIDEWALK.

THE CONTRACTOR SHALL IDENTIFY THE REMOVAL LIMITS FOR THE SIDEWALK AND CURB. IF THE CONTRACTOR DETERMINES THE REMOVAL LIMITS ARE NOT ADEQUATE TO MEET ADA STANDARDS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND CONSULT THE ENGINEER TO DETERMINE THE BEST SOLUTION.

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PRELIMINARY
NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SIDEWALK AND RAMP DETAILS

DATE:	REVISION:

DWN. BY:	APPD. BY:
M.D.M.	K.J.W.

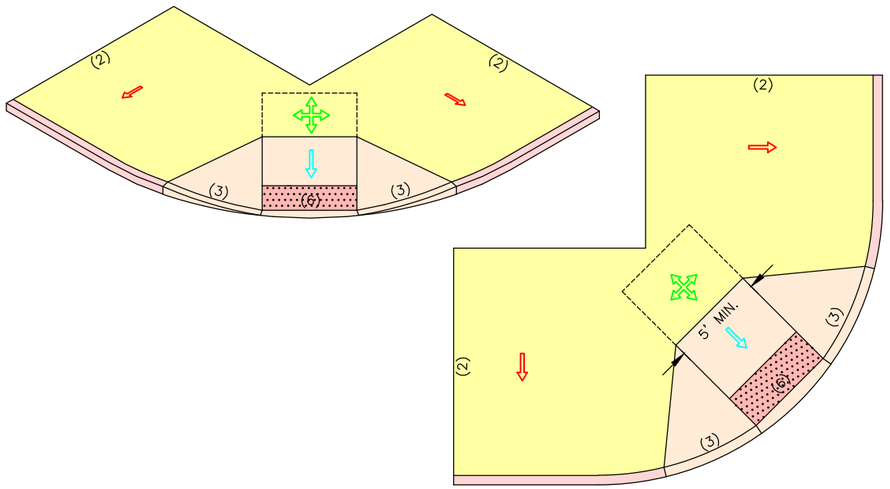
DATE: 10/6/23
SCALE: AS SHOWN
PROJ. NO: SC19-1061
DWG. NO: DE-6

LEGEND

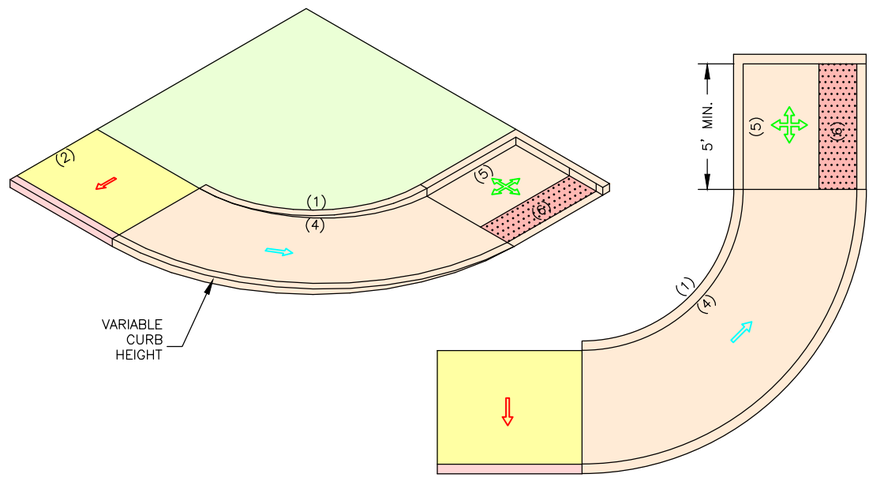
- 1.0% MIN., 2.0% MAX. CROSS SLOPE.
- LANDING AREA. MIN. 5' X 5' WITH 1.0% MIN., 2.0% MAX. SLOPE IN ANY DIRECTION.
- MAX. RAMP SLOPE IS 1V:12H (8.33%) AND HAVE A CROSS SLOPE OF 1.0% MIN., 2.0% MAX.
- DETECTABLE WARNING DEVICE. EXTEND 2' IN DIRECTION OF TRAVEL.

KEYED NOTES

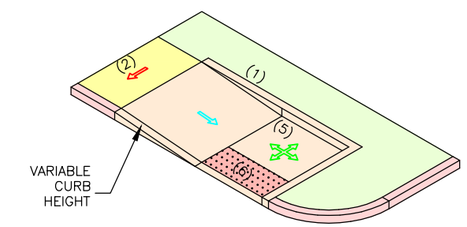
(1) VARIABLE CURB HEIGHT. CURB MAY BE ELIMINATED IF UNNECESSARY AND APPROVED BY THE ENGINEER.
(2) SEE PLAN SHEETS FOR WIDTH. SIDEWALKS AT CURB SHALL BE A MINIMUM OF 6' WIDE AND SIDEWALKS WITH A TREE LAWN SHALL BE A MINIMUM OF 5', WIDE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
(3) FLARE MAX. SLOPE IS 1V:10H WHEN MEASURED PARALLEL TO CURB LINE.
(4) ENSURE THAT INSIDE EDGE OF CURVED RAMPS MAINTAIN A 1V:12H (8.33%) MAX. SLOPE.
(5) ENSURE ADEQUATE DRAINAGE OF LANDING AREA. SLOPES SHALL NOT CREATE A LANDING AREA THAT HOLDS WATER.
(6) DETECTABLE WARNING DEVICES ARE NOT USED ON EVERY CURB RAMP INSTALLED. SEE SITE PLAN FOR LOCATIONS WITH DETECTABLE WARNING DEVICES.

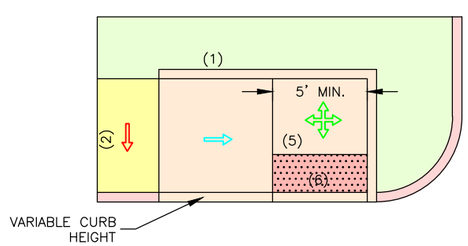


TYPE F2 CURB RAMP
DIAGONAL FOR WIDE SIDEWALKS
NO SCALE

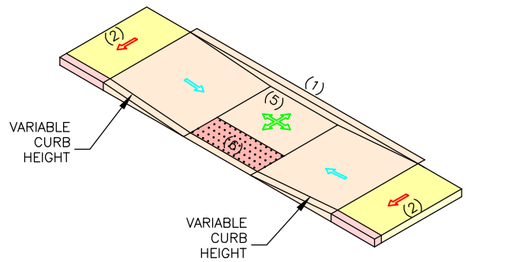


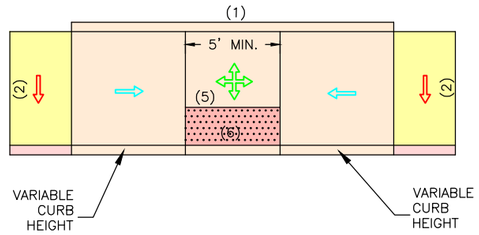
TYPE G1 CURB RAMP
PARALLEL AT INTERSECTION
NO SCALE





TYPE G2 CURB RAMP
PARALLEL, CHANGING DIRECTION
NO SCALE





TYPE G3 CURB RAMP
PARALLEL, MIDBLOCK
NO SCALE

CURB RAMP GENERAL NOTES:

ALL AREAS OF THE PEDESTRIAN ACCESS ROUTE MUST BE COMPLIANT WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)". EXCEPTIONS MUST BE APPROVED BY THE ENGINEER.

FINISHED SIDEWALK SHALL BE STABLE, SLIP RESISTANT AND SURFACE DOES NOT POND WATER.

SIDEWALK AND RAMP CROSS SLOPES SHALL BE A MINIMUM OF 1.0% TO FACILITATE DRAINAGE AND A MAXIMUM OF 2.0% TO BE USABLE FOR DISABLED INDIVIDUALS.

STORMWATER INLETS, SIGNS, POSTS, MANHOLE COVERS, PULL BOXES AND OTHER ACCESS LIDS SHOULD BE AVOIDED WITHIN THE SIDEWALK. IF SUCH A LOCATION IS NECESSARY, THE FEATURE MUST MEET ADA STANDARDS.

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ALL RAMPS SHALL NOT HAVE RUNNING SLOPES GREATER THAN 8.33% OR 1V:12H. RAMP LENGTH NOT REQUIRED TO EXCEED 15 FEET.

PEDESTRIAN ACCESS ROUTE SHALL CONTINUE ACROSS DRIVEWAYS.

LANDINGS SHALL BE CONSTRUCTED AT THE TOP AND/OR BOTTOM OF A CURB RAMP WHEREVER A TURNING MOVEMENT OR ACCESS TO PEDESTRIAN PUSH BUTTON IS REQUIRED.

LANDINGS LOCATED IN THE ROADWAY MUST BE COMPLETELY CONTAINED WITHIN THE CROSSWALK.

SIDE FLARES OF CURB RAMPS, IN THE PATH OF PEDESTRIAN TRAVEL (TRAVERSABLE), SHALL NOT EXCEED A SLOPE OF 1V:10H. SIDE FLARES OUTSIDE THE PEDESTRIAN PATH (NONTRAVERSABLE) MAY BE 1V:2H OR VERTICAL.

TRANSITION FROM SIDEWALK TO GUTTER TO ROADWAY MUST BE FLUSH.

DETECTABLE WARNING DEVICE (TRUNCATED DOMES) SHALL BE PRE-FORMED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, AT PUBLIC STREET INTERSECTIONS AND ANY SIGNALIZED INTERSECTIONS. STAMPED CONCRETE WILL NOT BE ACCEPTED.

THE DETECTABLE WARNING DEVICE SHALL BE RED. TRUNCATED DOMES SHALL SPAN THE FULL WIDTH (WITHIN 2") OF THE RAMP OR LANDING.

DETECTABLE WARNING DOMES SHALL BE ALIGNED PARALLEL TO THE SLOPE WHEN INSTALLED ON A RAMP. WHEN INSTALLED ON A LANDING OR BLENDED TRANSITION, THEY SHALL BE ALIGNED PERPENDICULAR OR RADIAL TO THE BREAK BETWEEN THE RAMP, LANDING OR BLENDED TRANSITION AND THE STREET.

IF CONSTRUCTION OF 5' X 5' LANDING IS NOT FEASIBLE, 4' X 4' LANDING MAY BE USED WITH APPROVAL FROM THE ENGINEER.

RAMP WIDTH MAY BE REDUCED TO 4' WITH APPROVAL OF THE ENGINEER.

CURB RAMPS AND INTEGRAL CURBS THAT ARE PART OF RAMPS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE SIDEWALK.

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PRELIMINARY
NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SIDEWALK AND RAMP DETAILS

DATE:	REVISION:
DWN. BY: M.D.M.	APPD. BY: K.J.W.
DATE: 10/6/23	
SCALE: AS SHOWN	
PROJ. NO: SC19-1061	
DWG. NO: DE-7	

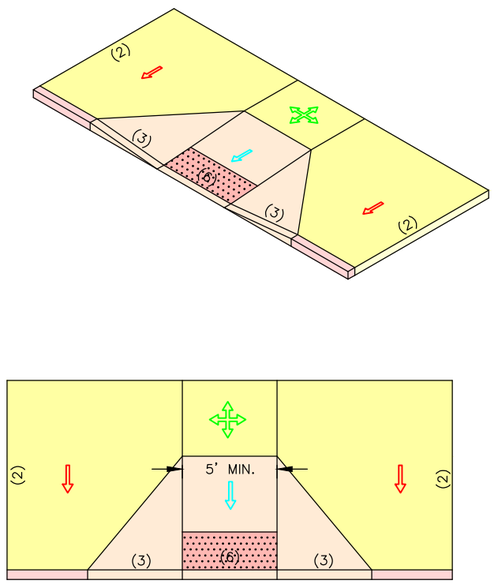
Drawing name: J:\SC19-1061 Ballwin Ries Road\AUTOCAD DRAWINGS\SIDEWALK AND RAMP DETAILS.dwg Tab: DE-7 Plotted on: Oct 18, 2023 - 10:37am Plotted by: MSpalding

LEGEND

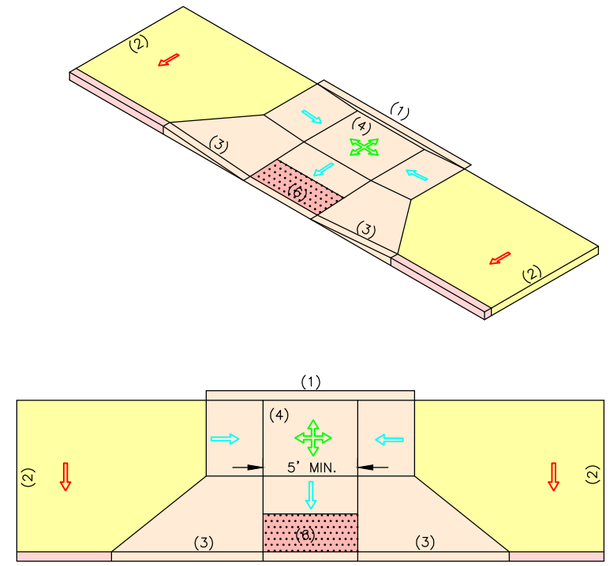
- 1.0% MIN., 2.0% MAX. CROSS SLOPE.
- LANDING AREA. MIN. 5' X 5' WITH 1.0% MIN., 2.0% MAX. SLOPE IN ANY DIRECTION.
- MAX. RAMP SLOPE IS 1V:12H (8.33%) AND HAVE A CROSS SLOPE OF 1.0% MIN., 2.0% MAX.
- DETECTABLE WARNING DEVICE. EXTEND 2' IN DIRECTION OF TRAVEL.

KEYED NOTES

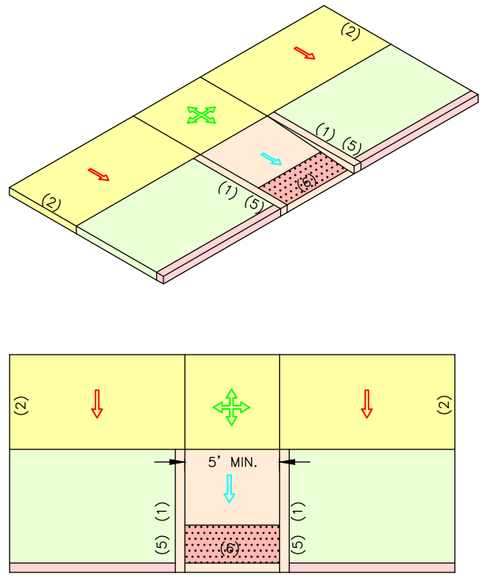
(1) VARIABLE CURB HEIGHT. CURB MAY BE ELIMINATED IF UNNECESSARY AND APPROVED BY THE ENGINEER.
(2) SEE PLAN SHEETS FOR WIDTH. SIDEWALKS AT CURB SHALL BE A MINIMUM OF 6' WIDE AND SIDEWALKS WITH A TREE LAWN SHALL BE A MINIMUM OF 5', WIDE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
(3) FLARE MAX. SLOPE IS 1V:10H WHEN MEASURED PARALLEL TO CURB LINE.
(4) ENSURE ADEQUATE DRAINAGE OF LANDING AREA. SLOPES SHALL NOT CREATE A LANDING AREA THAT HOLDS WATER.
(5) 1" WIDE FLARE MAY BE SUBSTITUTED FOR VERTICAL CURB AT THE DISCRETION OF THE ENGINEER FOR NO ADDITIONAL COST.
(6) DETECTABLE WARNING DEVICES ARE NOT USED ON EVERY CURB RAMP INSTALLED. SEE SITE PLAN FOR LOCATIONS WITH DETECTABLE WARNING DEVICES.



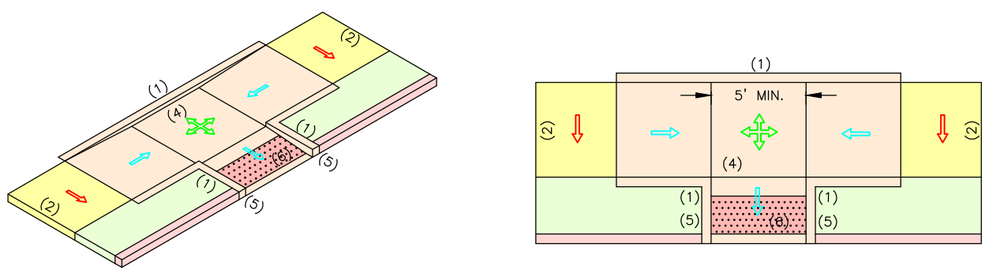
TYPE H CURB RAMP
PERPENDICULAR FOR WIDE SIDEWALK, MIDBLOCK
NO SCALE



TYPE I CURB RAMP
COMBINATION (PARALLEL AND PERPENDICULAR), MIDBLOCK
NO SCALE



TYPE J2 CURB RAMP
PERPENDICULAR WITH TREE LAWN (6' OR GREATER), MIDBLOCK
NO SCALE



TYPE J1 CURB RAMP
PERPENDICULAR WITH TREE LAWN (LESS THAN 6'), MIDBLOCK
NO SCALE

CURB RAMP GENERAL NOTES:

ALL AREAS OF THE PEDESTRIAN ACCESS ROUTE MUST BE COMPLIANT WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)". EXCEPTIONS MUST BE APPROVED BY THE ENGINEER.

FINISHED SIDEWALK SHALL BE STABLE, SLIP RESISTANT AND SURFACE DOES NOT POND WATER.

SIDEWALK AND RAMP CROSS SLOPES SHALL BE A MINIMUM OF 1.0% TO FACILITATE DRAINAGE AND A MAXIMUM OF 2.0% TO BE USABLE FOR DISABLED INDIVIDUALS.

STORMWATER INLETS, SIGNS, POSTS, MANHOLE COVERS, PULL BOXES AND OTHER ACCESS LIDS SHOULD BE AVOIDED WITHIN THE SIDEWALK. IF SUCH A LOCATION IS NECESSARY, THE FEATURE MUST MEET ADA STANDARDS.

THE RUNNING GRADE OF A SIDEWALK SHALL NOT EXCEED 5.0% UNLESS IT IS MATCHING THE GRADE OF THE ADJACENT ROADWAY.

ALL RAMPS SHALL NOT HAVE RUNNING SLOPES GREATER THAN 8.33% OR 1V:12H. RAMP LENGTH NOT REQUIRED TO EXCEED 15 FEET.

PEDESTRIAN ACCESS ROUTE SHALL CONTINUE ACROSS DRIVEWAYS.

LANDINGS SHALL BE CONSTRUCTED AT THE TOP AND/OR BOTTOM OF A CURB RAMP WHEREVER A TURNING MOVEMENT OR ACCESS TO PEDESTRIAN PUSH BUTTON IS REQUIRED.

LANDINGS LOCATED IN THE ROADWAY MUST BE COMPLETELY CONTAINED WITHIN THE CROSSWALK.

SIDE FLARES OF CURB RAMPS, IN THE PATH OF PEDESTRIAN TRAVEL (TRAVERSABLE), SHALL NOT EXCEED A SLOPE OF 1V:10H. SIDE FLARES OUTSIDE THE PEDESTRIAN PATH (NONTRAVERSABLE) MAY BE 1V:2H OR VERTICAL.

TRANSITION FROM SIDEWALK TO GUTTER TO ROADWAY MUST BE FLUSH.

DETECTABLE WARNING DEVICE (TRUNCATED DOMES) SHALL BE PRE-FORMED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, AT PUBLIC STREET INTERSECTIONS AND ANY SIGNALIZED INTERSECTIONS. STAMPED CONCRETE WILL NOT BE ACCEPTED.

THE DETECTABLE WARNING DEVICE SHALL BE RED. TRUNCATED DOMES SHALL SPAN THE FULL WIDTH (WITHIN 2") OF THE RAMP OR LANDING.

DETECTABLE WARNING DOMES SHALL BE ALIGNED PARALLEL TO THE SLOPE WHEN INSTALLED ON A RAMP. WHEN INSTALLED ON A LANDING OR BLENDED TRANSITION, THEY SHALL BE ALIGNED PERPENDICULAR OR RADIAL TO THE BREAK BETWEEN THE RAMP, LANDING OR BLENDED TRANSITION AND THE STREET.

IF CONSTRUCTION OF 5' X 5' LANDING IS NOT FEASIBLE, 4' X 4' LANDING MAY BE USED WITH APPROVAL FROM THE ENGINEER.

RAMP WIDTH MAY BE REDUCED TO 4' WITH APPROVAL OF THE ENGINEER.

CURB RAMPS AND INTEGRAL CURBS THAT ARE PART OF RAMPS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE SIDEWALK.

THE CONTRACTOR SHALL IDENTIFY THE REMOVAL LIMITS FOR THE SIDEWALK AND CURB. IF THE CONTRACTOR DETERMINES THE REMOVAL LIMITS ARE NOT ADEQUATE TO MEET ADA STANDARDS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND CONSULT THE ENGINEER TO DETERMINE THE BEST SOLUTION.

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PRELIMINARY
NOT FOR CONSTRUCTION

RIES ROAD IMPROVEMENTS
FEDERAL PROJECT NO. STP-4939(610)
CITY OF BALLWIN, MISSOURI

SIDEWALK AND RAMP DETAILS

REVISION:	
DATE:	
DWN. BY: M.D.M.	APP'D. BY: K.J.W.
DATE:	10/6/23
SCALE:	AS SHOWN
PROJ. NO:	SC19-1061
DWG. NO:	DE-8