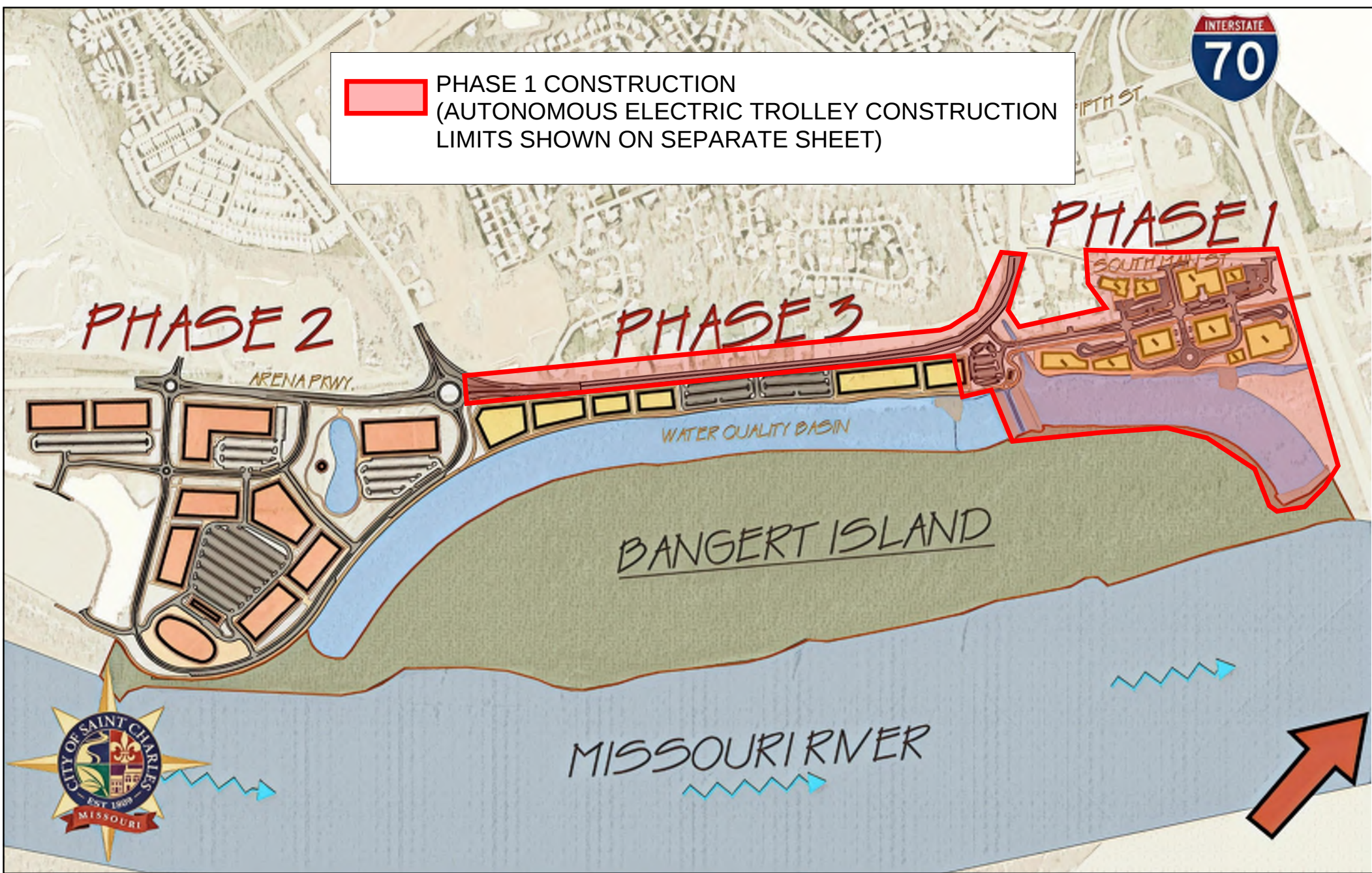
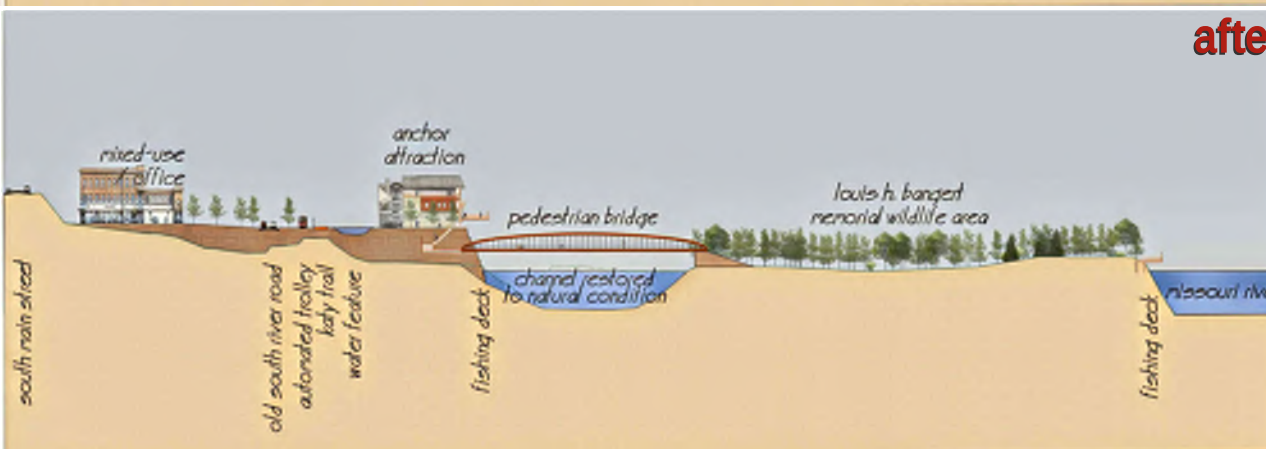
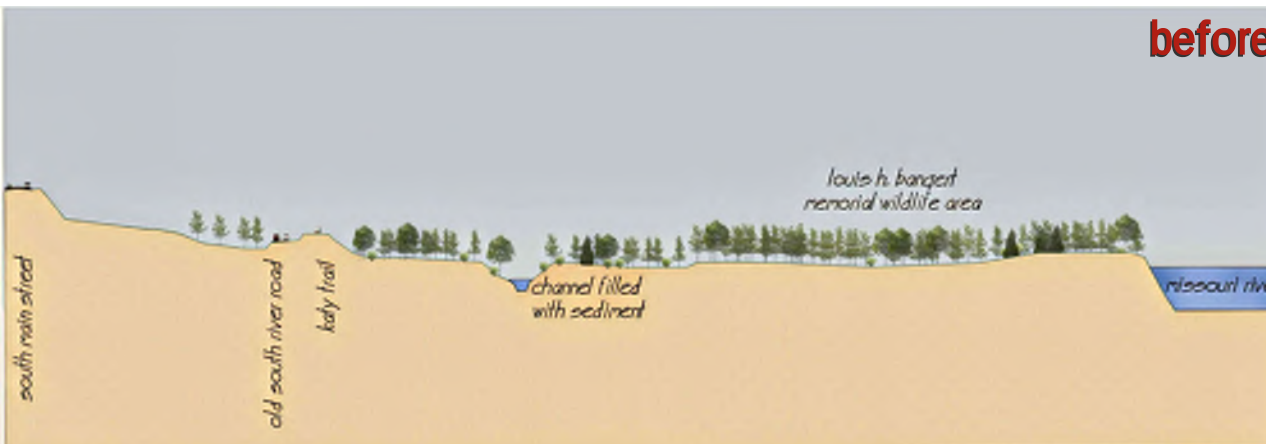


APPENDIX H - PLAN SHEETS & TECHNICAL PLATES

BANGERT ISLAND RIVERFRONT TRANSFORMATION PROJECT - PHASE 1
PLAN SHEETS

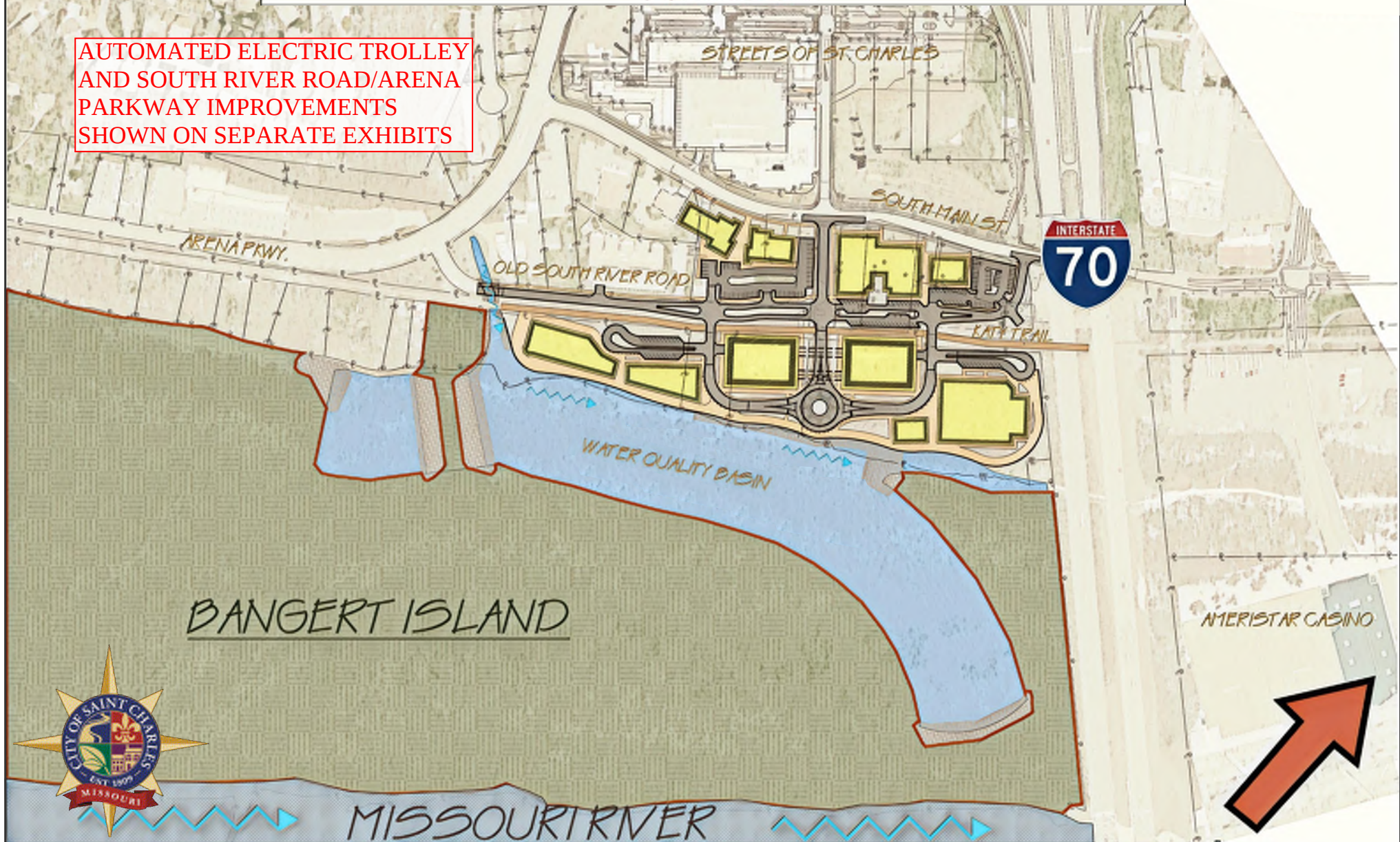


Recreation | Access | Habitat | Water Quality | Economic Development



BANGERT ISLAND RIVERFRONT TRANSFORMATION PROJECT PHASE I

AUTOMATED ELECTRIC TROLLEY
AND SOUTH RIVER ROAD/ARENA
PARKWAY IMPROVEMENTS
SHOWN ON SEPARATE EXHIBITS



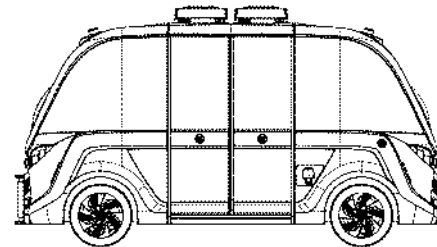
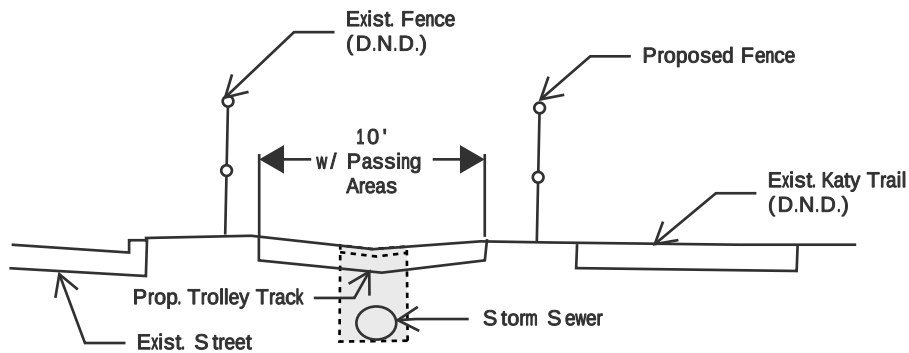
AUTONOMOUS ELECTRIC TROLLEY CONSTRUCTION CONCEPT & PHASING MAP

IMPLEMENTATION PLAN DEVELOPED IN
COORDINATION WITH NAVYA
AUTONOMOUS SHUTTLE (www.navya.tech)

FUTURE TROLLEY EXPANSTION

PHASE 1 TROLLEY CONSTRUCTION (1.7 MILES)

TROLLEY PATH TYPICAL SECTION
N.T.S



15 passengers
11 Seated
4 Standing



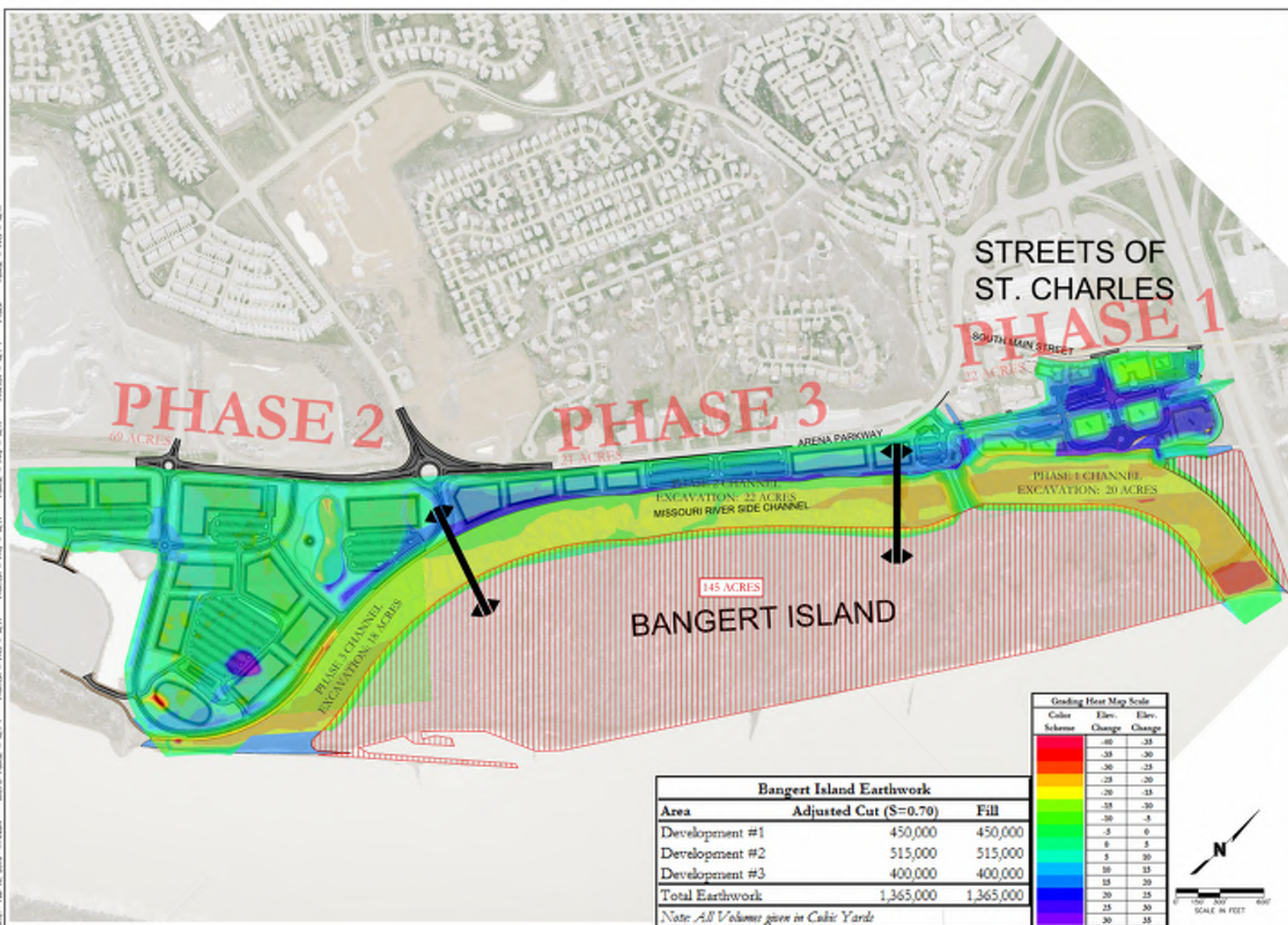
Dimensions
Length 4.75m
Width 2.11m
Height 2.66m
Empty / Gross weight
2,400kg / 3,650 kg



Operating speed
25km/h



Average autonomy
9 hours



SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
ROADWAY ITEMS			
201-20.10	CLEARING AND GRUBBING	LS	1
202-20.10	REMOVAL OF IMPROVEMENTS	LS	1
202-20.20	BACKFILL AND ABANDON EXISTING STORM SEWER	CY	21.8
203-99.10	UNSUITABLE SUBGRADE	CY	1,000.0
207-10.01	LINEAR GRADING	STA	34.5
304-05.04	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	SY	21677.2
401-16.00	BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)	TONS	2260.8
405-10.00	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)	TONS	8471.4
407-10.05	TACK COAT	GAL	1018
502-11.07	CONCRETE PAVEMENT (7 IN. NON-REINF)	SY	1062.7
604-20.00	ADJUST TO GRADE (SEWER MANHOLE)	EA	10
609-10.10	CONCRETE CURB (6" HEIGHT AND UNDER) TYPE S	LF	196
609-10.43	1.5 FT CONCRETE CURB AND GUTTER (6 IN.)	LF	500
609-20.11	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A	LF	458
612-10.25	CHANNELIZER (TRIM LINE)	EA	334
613-10.14	SAWCUT (ANY DEPTH)	LF	5376
614-99.10	DRIVEWAY TRENCH DRAIN	LF	53
616-10.00	TYPE III MOVEABLE BARRICADE	EA	9
618-10.00	MOBILIZATION	LS	1
619-10.00	PAVEMENT EDGE TREATMENT	LF	2850
627-40.00	CONTRACTOR FURNISHED SURVEYING AND STAKING	LS	1
731-00.01	REPLACE MANHOLE LID	EA	2
731-00.02	REPLACE DOUBLE CURB INLET TOP (LOCKING LID)	EA	11
731-00.03	REPLACE SINGLE CURB INLET TOP (LOCKING LID)	EA	2
731-00.04	GRATE INLET (LOCKING LID)	EA	1
731-01.00	CONVERT TO MANHOLE, ADJUST TO GRADE	EA	6
731-99.10	REMOVE AND REPLACE TOP W/ SUMP BRIDGE TOP - DOUBLE	EA	2
803-10.00A	SODDING	SY	1453
805-20.00	SEEDING AND MULCHING	ACRE	0.4
806-10.00	INLET CHECK	EA	43
806-70.00	SILT FENCE	LF	5722
SIGNING, STRIPING, SIGNALS, AND LIGHTING ITEMS			
612-10.05	CONSTRUCTION SIGNS	SF	2226
612-50.00	PROJECT INFORMATION SIGNS	LS	1
620-20.01	4 IN SOLID WHITE EXTRUDED THERMOPLASTIC PAVEMENT MARKING PAINT	LF	5106
620-20.02	4 IN INTERMITTENT WHITE EXTRUDED THERMOPLASTIC PAVEMENT MARKING PAINT	LF	6290
620-20.03	4 IN SOLID YELLOW EXTRUDED THERMOPLASTIC PAVEMENT MARKING PAINT	LF	5872
620-20.04	24 IN SOLID WHITE EXTRUDED THERMOPLASTIC PAVEMENT MARKING PAINT	LF	11
620-20.05	WHITE BICYCLE SYMBOL & ARROW PAVEMENT MARKING PAINT	EA	7
620-20.06	24 IN SOLID DIAGONAL YELLOW EXTRUDED THERMOPLASTIC PAVEMENT MARKING PAINT	LF	24
620-26.01	TEMPORARY PAVEMENT MARKING 4 IN. WHITE	LF	4430
620-26.02	TEMPORARY PAVEMENT MARKING 4 IN. YELLOW	LF	9333
903-50.04A	PERMANENT SIGNAGE	SF	59
BIKE AND PEDESTRIAN ITEMS			
608-60.04	4" THICK CONCRETE SIDEWALK	SY	1294.6

SOUTH RIVER
ROAD
SIDEWALK &
PAVEMENT
IMPROVEMENTS

DATE SUBMITTED
OCT 2018
COUNTY
ST. CHARLES
STP - 5414(630)
STP NUMBER

PROJECT NO.

DESCRIPTION

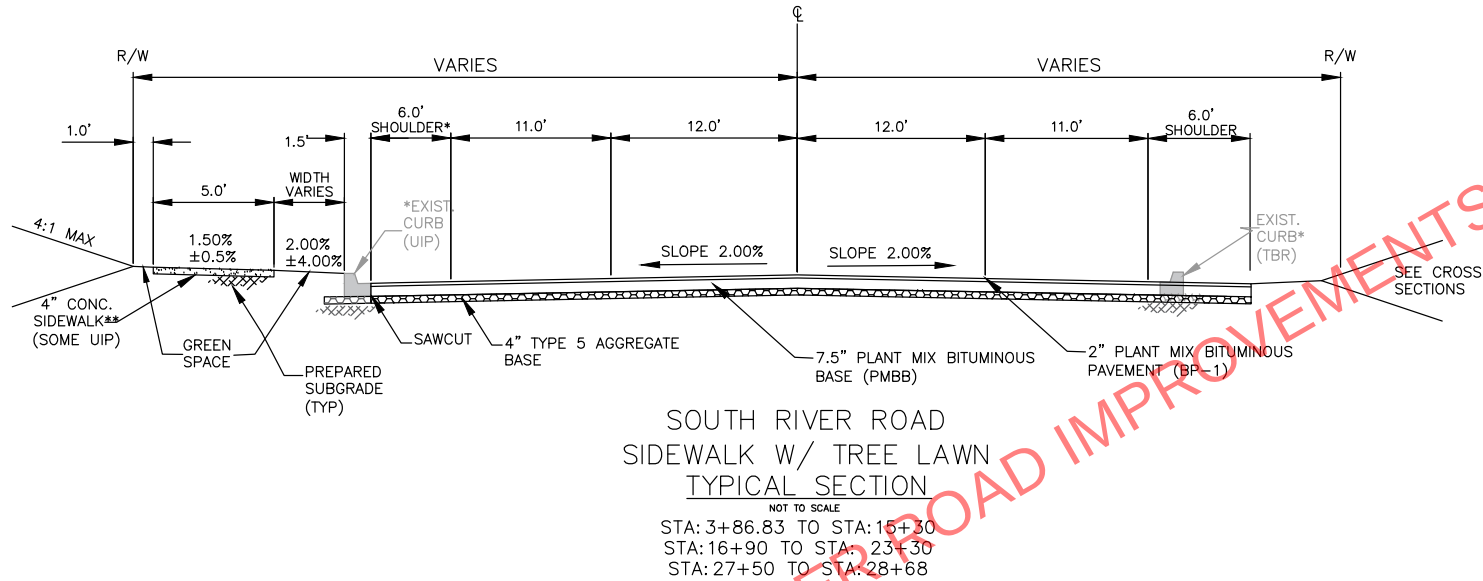
DATE

SAINT CHARLES COUNTY,
MISSOURI
301 N. THIRD STREET
ST. CHARLES, MO 63301
636-949-7305

ST. CHARLES
COUNTY
HIGHWAY
DEPARTMENT

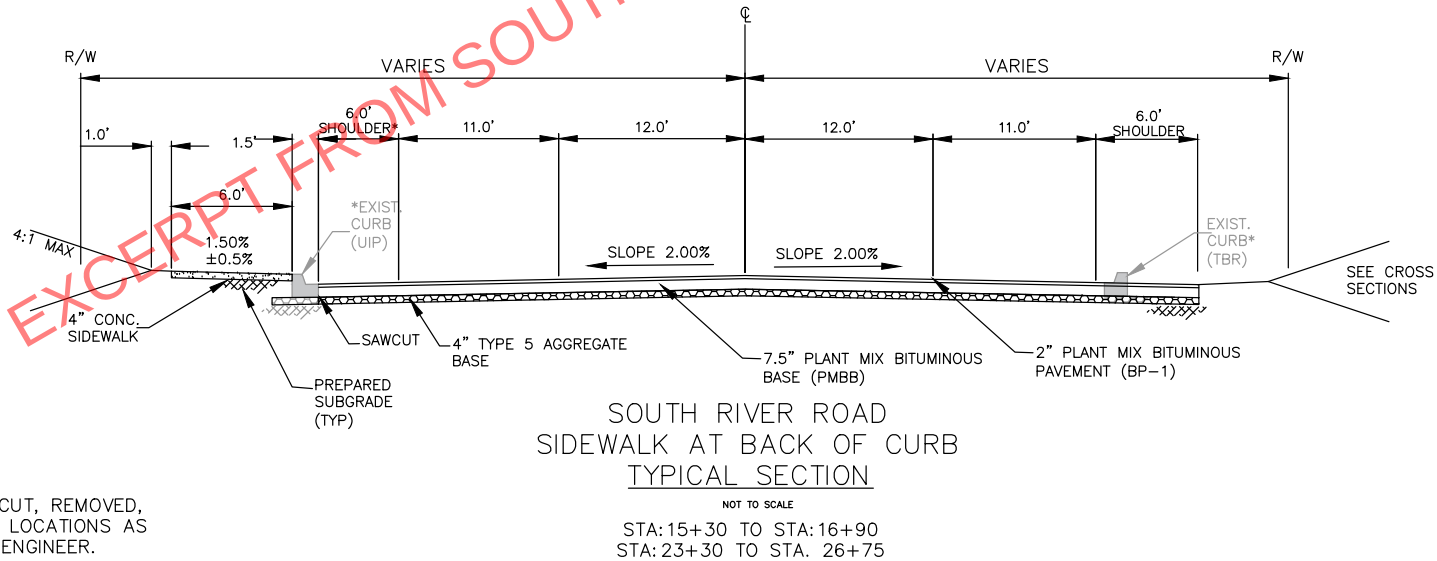


CHRISTOPHER KYLE BOSTIC
PROFESSIONAL
ENGINEER
LICENSE NO. E-30083
SHEET NUMBER
Q-1



* WIDTH VARIES SEE PLANS

** (INTERMITTENT SIDEWALK—SEE PLANS FOR AREAS WHERE EXISTING SIDEWALK WILL BE USED IN PLACE)



NOTES:

EXISTING CURB TO BE SAWCUT, REMOVED, AND REPLACED IN KIND AT LOCATIONS AS DIRECTED BY THE COUNTY ENGINEER.

SOUTH RIVER
ROAD
SIDEWALK &
PAVEMENT
IMPROVEMENTS

DATE SUBMITTED
OCT 2018

COUNTY
ST. CHARLES

STP-5414(630)

STP NUMBER

PROJECT NO.

DESCRIPTION

DATE

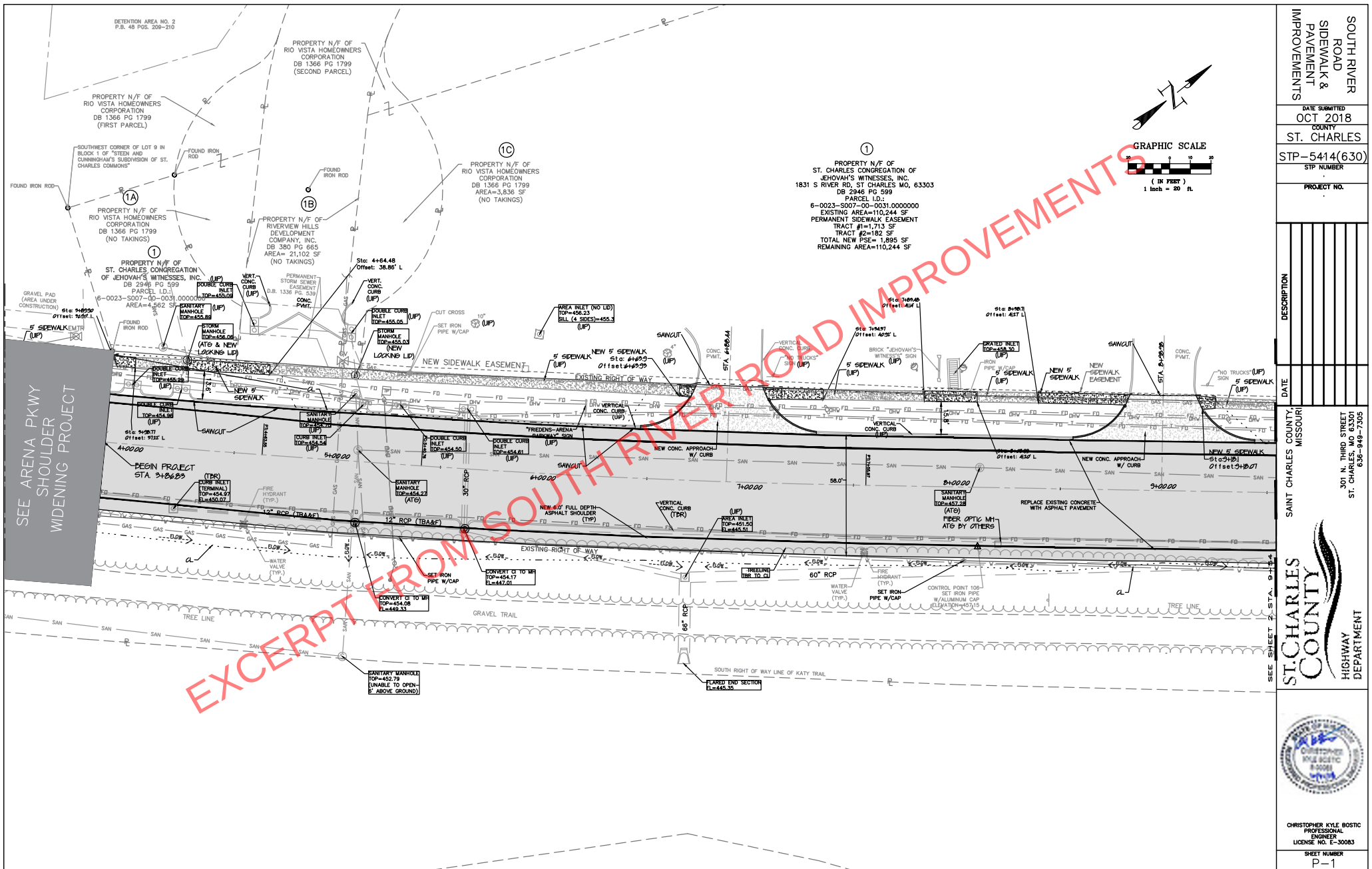
SAINT CHARLES COUNTY,
MISSOURI

301 N. THIRD STREET
ST. CHARLES, MO 63301
636-949-7305

ST. CHARLES
COUNTY
HIGHWAY
DEPARTMENT

CHRISTOPHER KYLE BOSTIC
PROFESSIONAL
ENGINEER
LICENSE NO. E-30083

SHEET NUMBER
TS-1



SOUTH RIVER
ROAD
SIDEWALK &
PAVEMENT
IMPROVEMENTS

DATE SUBMITTED
OCT 2018

COUNTY
ST. CHARLES

STP-5414(630)
STP NUMBER

PROJECT NO.

DESCRIPTION

DATE

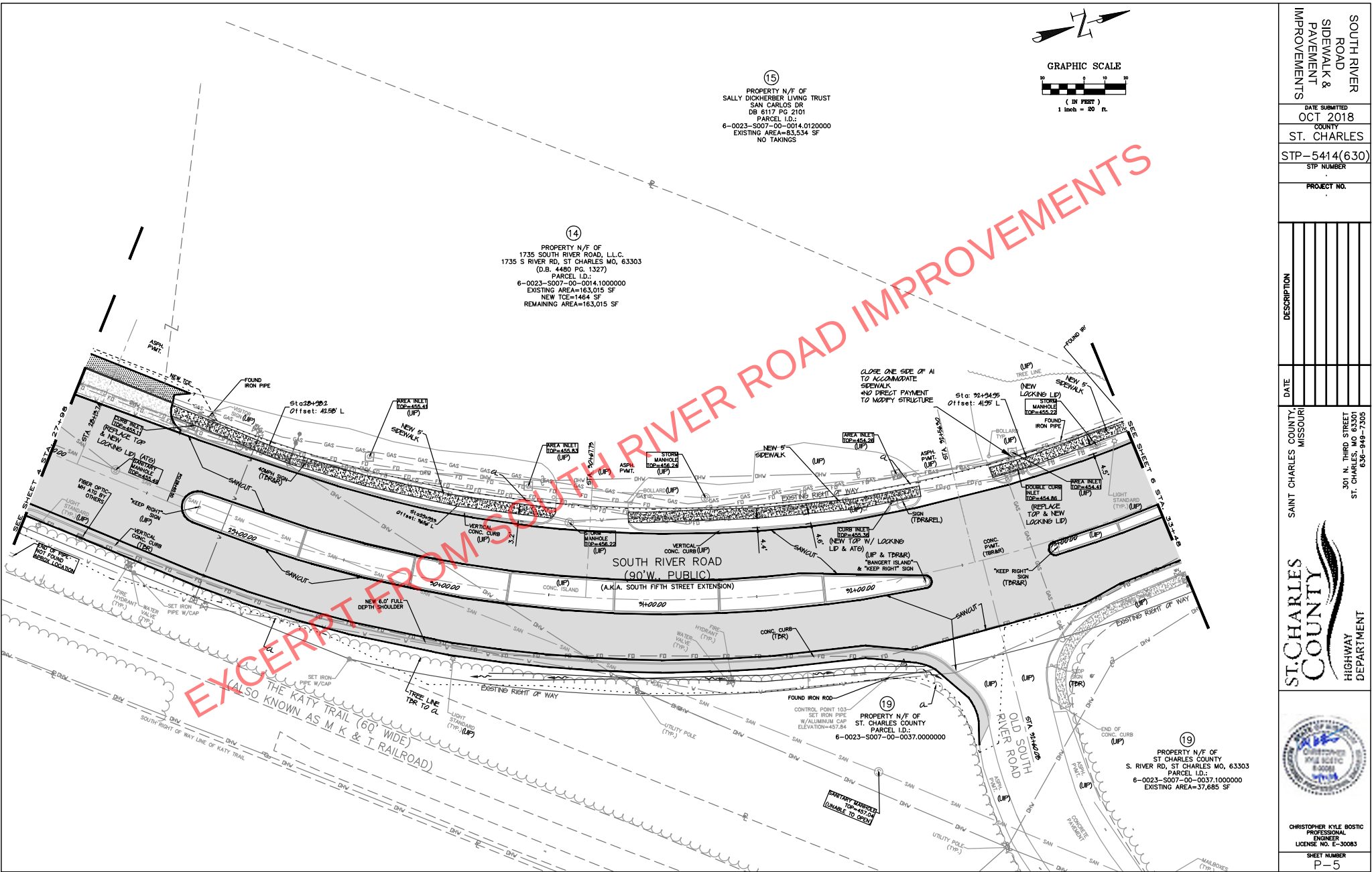
SAINT CHARLES COUNTY,
MISSOURI

301 N. THIRD STREET
ST. CHARLES, MO 63301
636-949-7305



CHRISTOPHER KYLE BOSTIC
PROFESSIONAL
ENGINEER
LICENSE NO. E-30083

SHEET NUMBER
P-1



SOUTH RIVER
ROAD
SIDEWALK &
PAVEMENT
IMPROVEMENTS

DATE SUBMITTED
OCT 2018

COUNTY
ST. CHARLES

STP-5414(630)

PROJECT NO.

DESCRIPTION

DATE

SAINT CHARLES COUNTY,
MISSOURI

301 N. THIRD STREET
ST. CHARLES,
MISSOURI 63303-9499

ST. CHARLES COUNTY
HIGHWAY
DEPARTMENT

CHRISTOPHER KYLE BOSTIC
PROFESSIONAL
ENGINEER
LICENSE NO. E-30083

SHEET NUMBER
P-5

SOUTH MAIN STREET PROPERTY

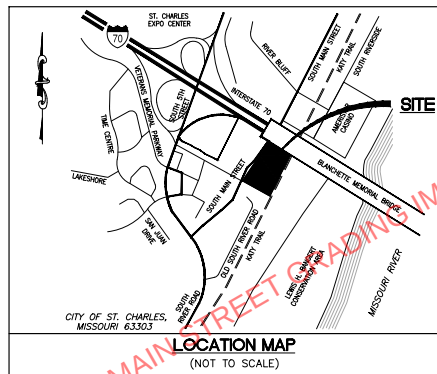
A TRACT OF LAND BEING PART OF LOT 57 IN BLOCK 9 OF STEEN & CUNNINGHAM'S SURVEY OF THE COMMONS OF ST. CHARLES AND LOTS 5 AND 6 IN BLOCK 1 OF EVANS SURVEY OF THE ST. CHARLES COMMONS TOWNSHIP 46 NORTH, RANGE 5 EAST CITY OF ST. CHARLES, ST. CHARLES COUNTY, MISSOURI

CITY REVISIONS 12/8/2017

LEGEND

EXISTING	PROPOSED
460 459 458.15	460 459 458.25 621.25 PROP. FINISH
CONTOURS	CONTOURS
SPOT GRADE	SPOT GRADE
TREE LINE	TREE LINE
TREE	TREE
BUSH	BUSH
STORM MANHOLE	STORM MANHOLE
AREA INLET	AREA INLET
CURB INLET	CURB INLET
GRATED INLET	GRATED INLET
FLARED END SECTION	FLARED END SECTION
STORM SEWER	STORM SEWER
GRATED MANHOLE	GRATED MANHOLE
STORM DESIGNATOR	STORM DESIGNATOR
DOWNSPOUT	DOWNSPOUT
DRAINAGE PIPE	DRAINAGE PIPE
SWALE/SLOPE INDICATOR	SWALE/SLOPE INDICATOR
SANITARY MANHOLE	SANITARY MANHOLE
SANITARY SEWER	SANITARY SEWER
CLEAN OUT	CLEAN OUT
SANITARY DESIGNATOR	SANITARY DESIGNATOR
UTILITY POLE	UTILITY POLE
GUIDE WIRE	GUIDE WIRE
OVERHEAD UTILITY	OVERHEAD UTILITY
UNDERGROUND ELECTRIC	UNDERGROUND ELECTRIC
ELECTRIC MARKER	ELECTRIC MARKER
ELECTRIC METER	ELECTRIC METER
ELECTRIC BOX	ELECTRIC BOX
ELECTRIC PULL BOX	ELECTRIC PULL BOX
ELECTRIC TRANSFORMER	ELECTRIC TRANSFORMER
ELECTRIC MANHOLE	ELECTRIC MANHOLE
UNDERGROUND TELEPHONE	UNDERGROUND TELEPHONE
FIBER OPTIC MARKER	FIBER OPTIC MARKER
CABLE MARKER	CABLE MARKER
GAS LINE	GAS LINE
GAS VALVE	GAS VALVE
GAS METER	GAS METER
GAS MARKER	GAS MARKER
WATER LINE	WATER LINE
WATER VALVE	WATER VALVE
WATER METER	WATER METER
FIRE HYDRANT	FIRE HYDRANT
SIGN	SIGN
MAIL BOX	MAIL BOX
TEST HOLE	TEST HOLE
LIGHT STANDARD	LIGHT STANDARD
FENCE	FENCE
BOLLARD	BOLLARD
RETAINING WALL	RETAINING WALL
CONCRETE PAVEMENT	CONCRETE PAVEMENT
SILTATION FENCE	SILTATION FENCE
AIR CONDITIONER	AIR CONDITIONER
FLAG POLE	FLAG POLE
MONITORING WELL	MONITORING WELL
PARKING METER	PARKING METER
PLANTER	PLANTER
SPRINKLER CONTROL BOX	SPRINKLER CONTROL BOX
SPRINKLER	SPRINKLER
SPRINKLER VALVE	SPRINKLER VALVE
TRAFFIC CONTROL BOX	TRAFFIC CONTROL BOX
TRAFFIC POLE	TRAFFIC POLE
YARD LIGHT	YARD LIGHT
GUARD RAIL	GUARD RAIL
PROPERTY LINE	PROPERTY LINE
EASEMENT	EASEMENT
SETBACK	SETBACK
INLET PROTECTION	INLET PROTECTION
WATTLE	WATTLE
CHECK DAM	CHECK DAM
USE IN PLACE	USE IN PLACE
TO BE REMOVED	TO BE REMOVED
ADJUST TO GRADE	ADJUST TO GRADE
TO BE REMOVED & RELOCATED	TO BE REMOVED & RELOCATED
TYPICAL	TYPICAL
NOT TO SCALE	NOT TO SCALE
HIGH POINT IN GRADE	HIGH POINT IN GRADE
LOW POINT IN GRADE	LOW POINT IN GRADE
TOP OF WALL	TOP OF WALL
BOTTOM OF WALL	BOTTOM OF WALL
NOT IN CONTRACT	NOT IN CONTRACT

MASS GRADING PLANS



PERTINENT DATA

OWNER = CITY OF ST. CHARLES
SITE ADDRESS = MAIN STREET
ST. CHARLES, MO 63303
SITE ACREAGE = 4.104 AC
DISTURBED LAND = 3.786 AC
EXISTING ZONING = C-2, R-1E
PROPOSED ZONING = C-2, R-1E
SCHOOL DISTRICT = ST. CHARLES
WATERSHEDS = PS. 48, PREL. 20-19
WATERSHED = MISSOURI RIVER
FEMA MAP PANEL = 2115C228 G (ZONE X)

UTILITIES

WATER SERVICE = CITY OF ST. CHARLES
200 NORTH SECOND ST.
ST. CHARLES, MO 63301
(636) 944-3500
CONTACT: JOHN PHILLIPS
JENNIE KELLY

SEWER DISTRICT = CITY OF ST. CHARLES
200 NORTH SECOND ST.
ST. CHARLES, MO 63301
(636) 944-3500
CONTACT: JOHN PHILLIPS
JENNIE KELLY

CABLE SERVICE = CHARTER COMMUNICATIONS
4125 SHAWNEE DR.
DARTY CITY, MO 63045
(636) 387-4643
CONTACT: JOHN DAWKINS

PHONE SERVICE = AT&T
402 NORTH THIRD ST.
ST. CHARLES, MO 63301
(636) 944-3380
CONTACT: SANTA WELLS
(314) 277-0683
MATT THOMPSON

FIRE DISTRICT = CITY OF ST. CHARLES FIRE DEPARTMENT
200 NORTH SECOND ST.
ST. CHARLES, MO 63301
(636) 944-3542
FIRE MARSHALL: CHRIS NEWBOLD

ELECTRIC SERVICE = AMEREN UE
ST. CHARLES DISTRICT
2100 BLUESTONE DR.
ST. CHARLES, MO 63303
(636) 925-3206
CONTACT: JOHN KISHING
FELICIA CHILDS

GAS SERVICE = LADLER-GAS COMPANY
3800 FOREST PARK BLVD.
BERKELEY, MO 63134
(314) 498-8437
CONTACT: HENT THAMMER
DAVID SHERMAN

INDEX

		REVISIONS				
		1	2	3	4	5
C1.0	COVER SHEET					
C2.1	SPECIFICATIONS/INTERIM GRADING					
C3.1	GRADING PLAN					
C4.1	SWPPP					
C4.2	SWPP DETAILS					

BENCHMARK

BENCHMARK INFORMATION: CITY OF ST. CHARLES SURVEY DISK STAMPED OSC 04
2003, NAVORS ELEVATION OF 562.77 (5 FT.)
SITE BENCHMARK: SOUTH BOLT ON FIRE HYDRANT 135' NORTHEAST OF THE
CENTERLINE INTERSECTION OF MAIN STREET AND LOWLAND STREET 135' NORTH
OF A LIGHT POLE NORTHEAST OF 540' INTERSECTION AND 5.7' EAST OF THE
EASTERN CURB ON MAIN STREET
HAVING AN ELEVATION OF 484.82 FEET.

UTILITY INFORMATION:

UTILITIES SHOWN HAVE BEEN TAKEN FROM AVAILABLE SURVEYS,
UTILITY COMPANY MAPS AND PHYSICAL PROPERTY INSPECTION. THE
LOCATIONS AND FACILITIES SHALL BE CONSIDERED APPROXIMATE
ONLY. THERE MAY BE ADDITIONAL UTILITIES THAT HAVE NOT BEEN
SHOWN ON THIS SURVEY. THE CONTRACTOR WILL BE RESPONSIBLE FOR
THE LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR
CONSTRUCTION.



CALL 1-800-DO-RIE (MISSOURI ONE CALL) TO HAVE LOCATIONS
MARKED IN THE FIELD (SUBSCRIBING UTILITIES REQUIRE 48 HOURS
NOTICE PRIOR TO CONSTRUCTION).

DESIGNED BY
DRAWN BY
CHECKED BY
DRAWING SCALE
DATE
Job Number
16-0057
Sheet Number
C1.0

COLE
INC.
10000
04/26/2016

DESIGNED BY
DRAWN BY
CHECKED BY
DRAWING SCALE
DATE
Job Number
16-0057
Sheet Number
C1.0

COLE
INC.
10000
04/26/2016

DESIGNED BY
DRAWN BY
CHECKED BY
DRAWING SCALE
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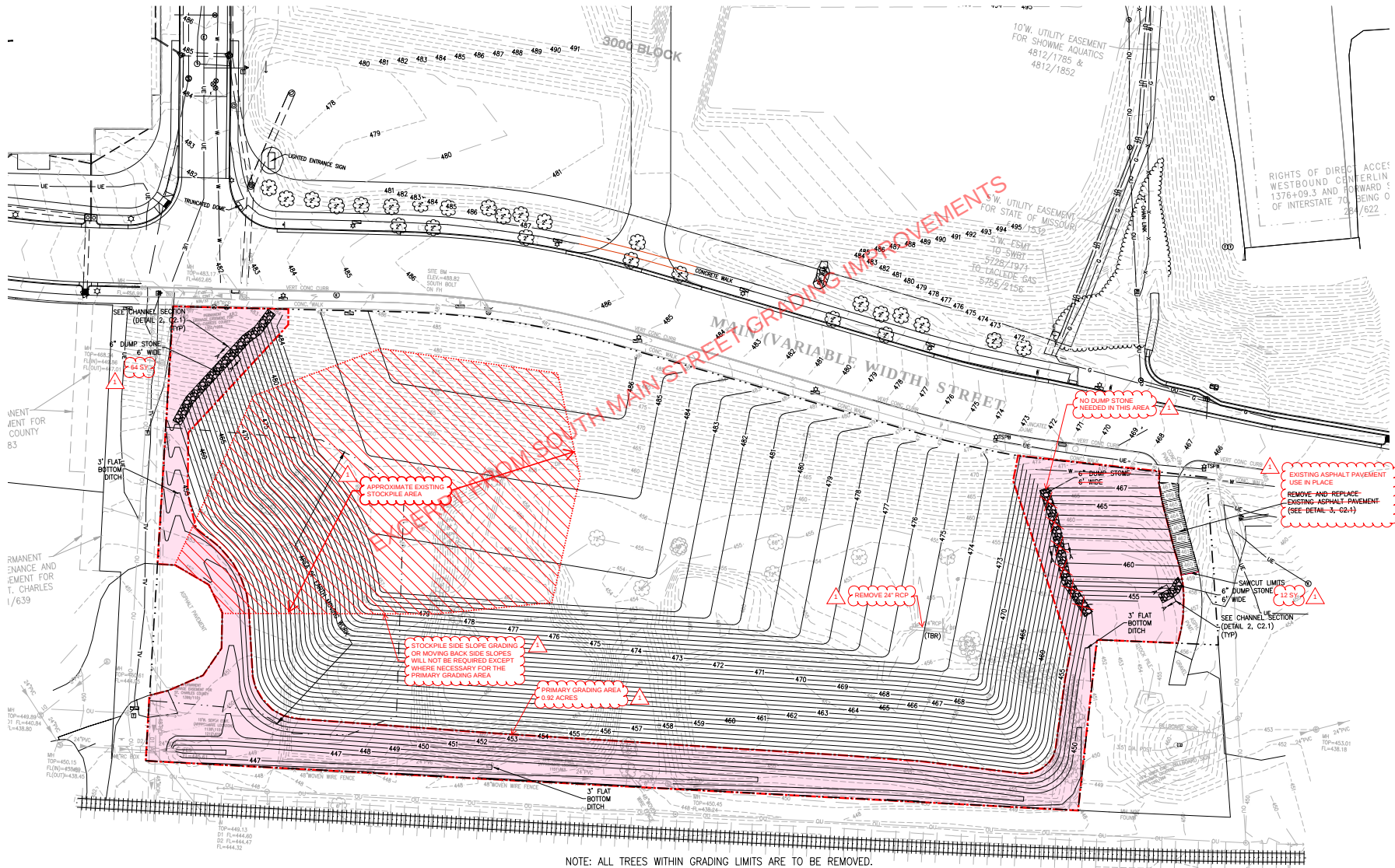
COLE
INC.
10000
04/26/2016

- GRADING NOTES**
1. CONTRACTOR SHALL MOVE EARTHWORK ON-SITE TO THE PROPOSED ELEVATIONS WITHIN THE PRIMARY GRADING AREA. ANY FILL MATERIAL NEEDED SHALL BE TAKEN FROM THE ON-SITE EXISTING STOCKPILE AREA.
 2. THIS IS AN ACTIVE FILL SITE FOR THE CITY. CONTRACTOR SHALL EXPECT COORDINATION WITH OTHER CONTRACTORS AND PROVIDE GUIDANCE ON PLACEMENT OF NEW FILL MATERIAL ON-SITE DURING CONSTRUCTION OF THIS PROJECT.
 3. AFTER GRADING OPERATIONS HAVE CEASED, THE PRIMARY GRADING AREA SHALL BE SEEDED.
 4. EROSION CONTROL DEVICES INCLUDING SILT FENCE, CHECK DAMS, AND CONSTRUCTION WASHDOWN AREA SHALL REMAIN IN PLACE AFTER PROJECT IS COMPLETED.

UTILITY INFORMATION:

UTILITIES SHOWN HAVE BEEN TAKEN FROM AVAILABLE SURVEYS. UTILITY COMPANY MAPS AND PHYSICAL PROPERTY INSPECTION. THE LOCATION AND FACILITIES SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE ADDITIONAL UTILITIES THAT HAVE NOT BEEN SHOWN ON THIS SURVEY. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.

30' 0' 30' 60'
SCALE: 1" = 30'



NOTE: ALL TREES WITHIN GRADING LIMITS ARE TO BE REMOVED.

DESIGNED BY: MTS DRAWN BY: MTS CHECKED BY: TDB DRAWING SCALE: DATE: 04/26/2016 Job Number: 16-0057 Sheet Number: C3.1		DEVELOPER/OWNER: CITY OF ST. CHARLES 301 N SECOND STREET ST. CHARLES, MO 63301 PHONE (636) 948-9337 THE PROFESSIONAL SEAL, SIGNATURE AND EXPIRATION DATE OF THE ENGINEER OR ARCHITECT MUST BE PLACED IN THE SPACE PROVIDED FOR THE SEAL AND SIGNATURE. THE EXPIRATION DATE OF THE SEAL MUST BE PLACED IN THE SPACE PROVIDED FOR THE EXPIRATION DATE. DATE: 11/01/16
CONTRACTOR: SOUTH MAIN STREET PROPERTY PROJECT: MASS GRADING PLAN LOCATION: ST. CHARLES, MISSOURI 63303 GRADING PLAN		COLE ENGINEERING & ARCHITECTURE, P.C. 1000 N. MAIN STREET, SUITE 100 ST. CHARLES, MISSOURI 63301 PHONE: (636) 948-9337 FAX: (636) 948-9338 WWW.COLEENGINEERING.COM

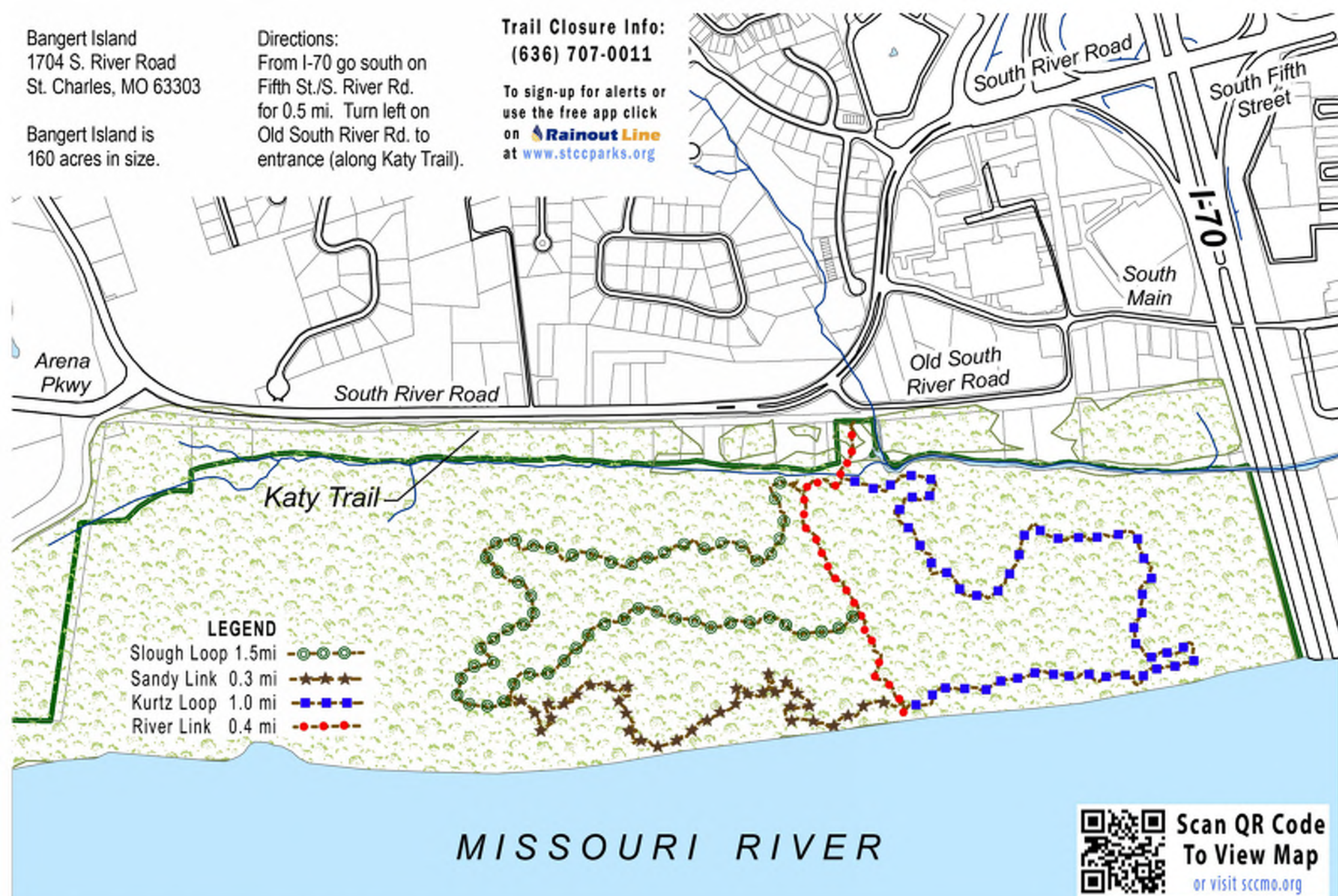
Bangert Island
1704 S. River Road
St. Charles, MO 63303

Bangert Island is
160 acres in size.

Directions:
From I-70 go south on
Fifth St./S. River Rd.
for 0.5 mi. Turn left on
Old South River Rd. to
entrance (along Katy Trail).

Trail Closure Info:
(636) 707-0011

To sign-up for alerts or
use the free app click
on **Rainout Line**
at www.stccparks.org

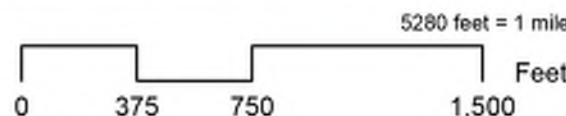


Scan QR Code
To View Map
or visit stccmo.org

**ST. CHARLES
COUNTY**
PARKS

**St. Charles County
Bangert Island**

St. Charles County Parks, 201 N. Second St., S. 510, St. Charles, MO, 63301 636.949.7535 www.stccparks.org



2-19-13