LEGEND

EOP = EDGE OF PAVEMENT
TS = TOP OF SIDEWALK
TYP = TYPICAL
T = TRANSITION
TS = TURNING SPACE
R = RAMP

DRY CURB & GUTTER
DETECTIBLE WARNING STRIP
LOCAL/ACCESS ROADWAY PAVEMENT
COLLECTOR ROADWAY PAVEMENT
KCMMB4K CONCRETE SIDEWALK
KCMMB4K CONCRETE SIDEWALK BE CONSTRUCTED DURING STREET CONSTRUCTION

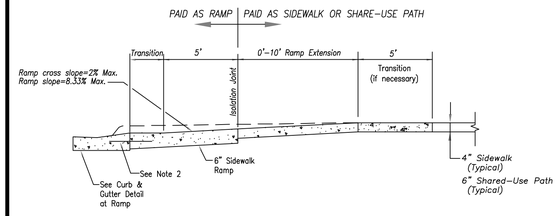
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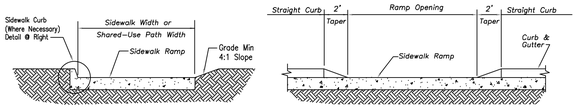
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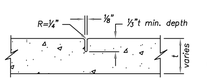


SECTION A–A

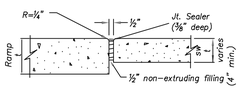


SECTION B–B

SECTION C–C

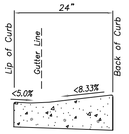


CONTRACTION JOINT

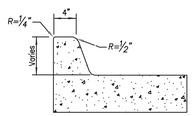


ISOLATION JOINT

JOINT DETAILS
Not to Scale



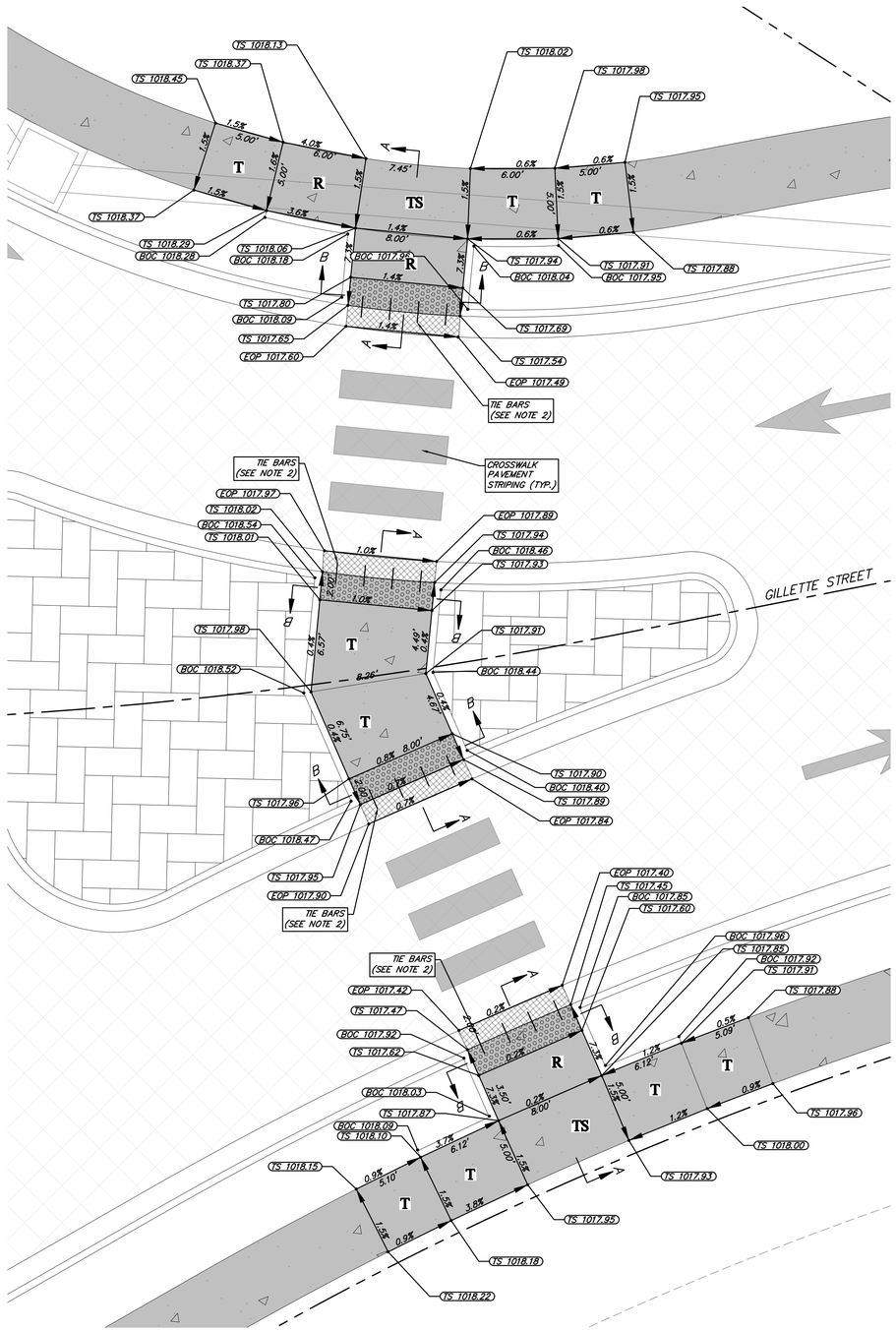
CURB & GUTTER DETAIL AT RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale

SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
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3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
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   •ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
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10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



SUNSET RIDGE AND GILLETTE STREET (E OF ROUNDABOUT)
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET SCALE: 1" = 5'

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DRAWING INFO.
DRAWN BY: GC
CHECK BY: PJ
LICENSE NO. PE-2021025089
DATE: 03/14/2022
ISSUED FOR: FOR REVIEW
JOB NUMBER: 21KC10060

REVISIONS

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

ADA RAMP DETAILS (2)

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C402
45 OF 88

Aug 26, 2022 – 1:30pm Plotted By: gcate G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – ADA RAMPS.dwg Layout: ADA RAMP DETAILS (2)

LEGEND

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TS = TOP OF SIDEWALK
TYP = TYPICAL
T = TRANSITION
TS = TURNING SPACE
R = RAMP

DRY CURB & GUTTER
DETECTIBLE WARNING STRIP
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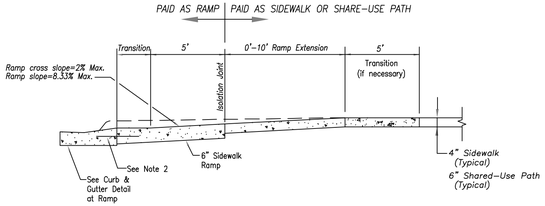
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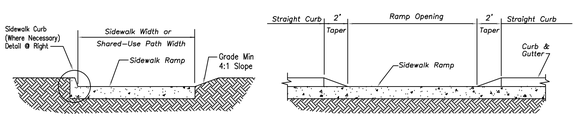
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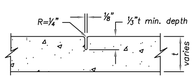


SECTION A–A

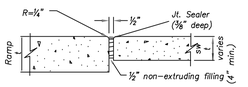


SECTION B–B

SECTION C–C

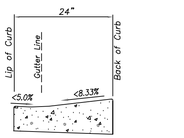


CONTRACTION JOINT

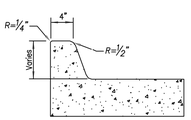


ISOLATION JOINT

JOINT DETAILS
Not to Scale



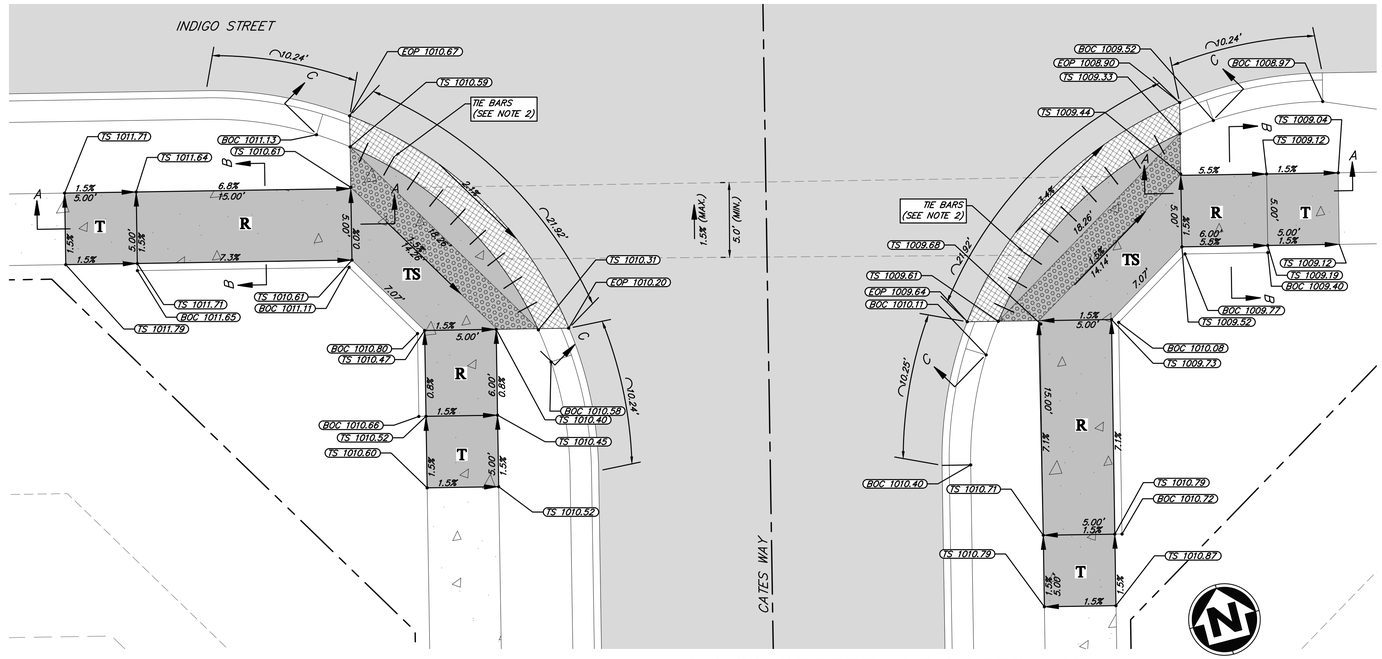
CURB & GUTTER DETAIL AT RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale

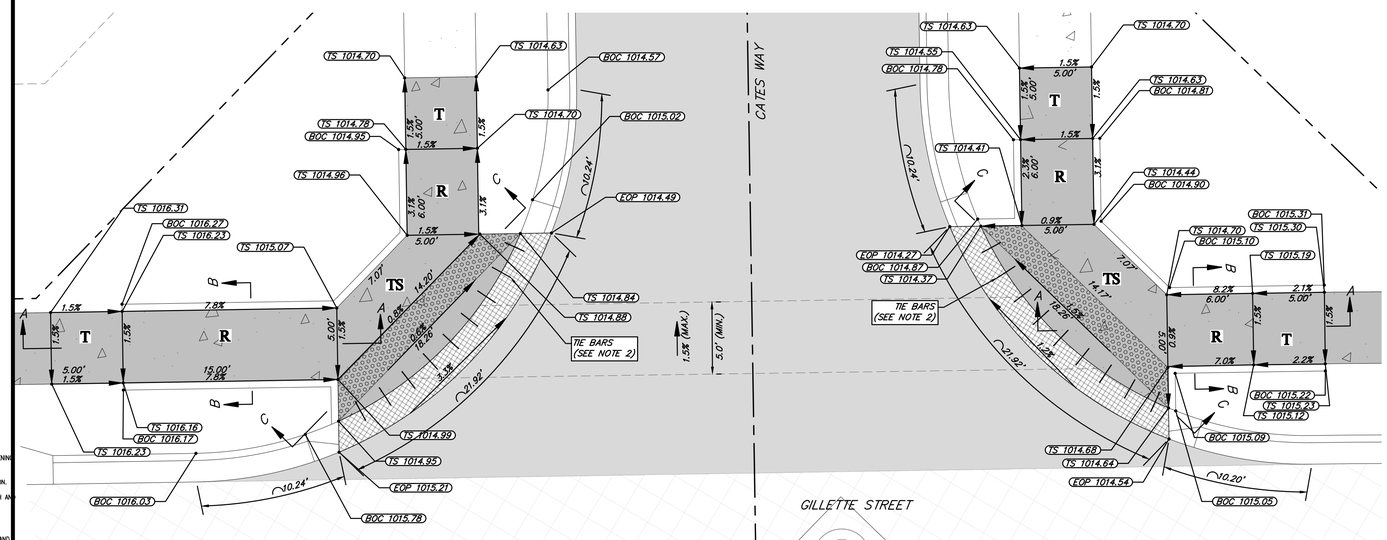
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INDIGO STREET AND CATES WAY
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET SCALE: 1" = 5'



GILLETTE STREET AND CATES WAY
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET SCALE: 1" = 5'

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REVISIONS

NO.	DESCRIPTION	BY	DATE
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DRAWING INFO.

DRAWN BY:	GC
CHECK BY:	PJ
LICENSE NO.	PE-2021025089
DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

ADA RAMP DETAILS (3)

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C403
46 OF 88

Aug 26, 2022 - 1:31pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2022\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - ADA RAMPS.dwg Layout: ADA RAMP DETAILS (3)

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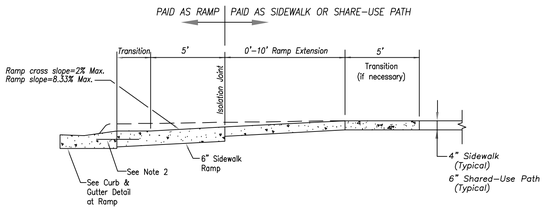
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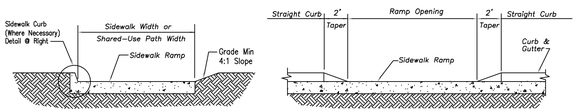
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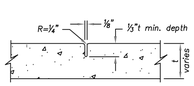


SECTION A–A

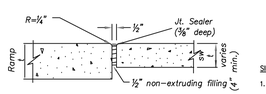


SECTION B–B

SECTION C–C

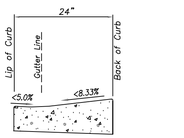


CONTRACTION JOINT

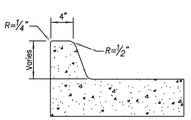


ISOLATION JOINT

JOINT DETAILS
Not to Scale



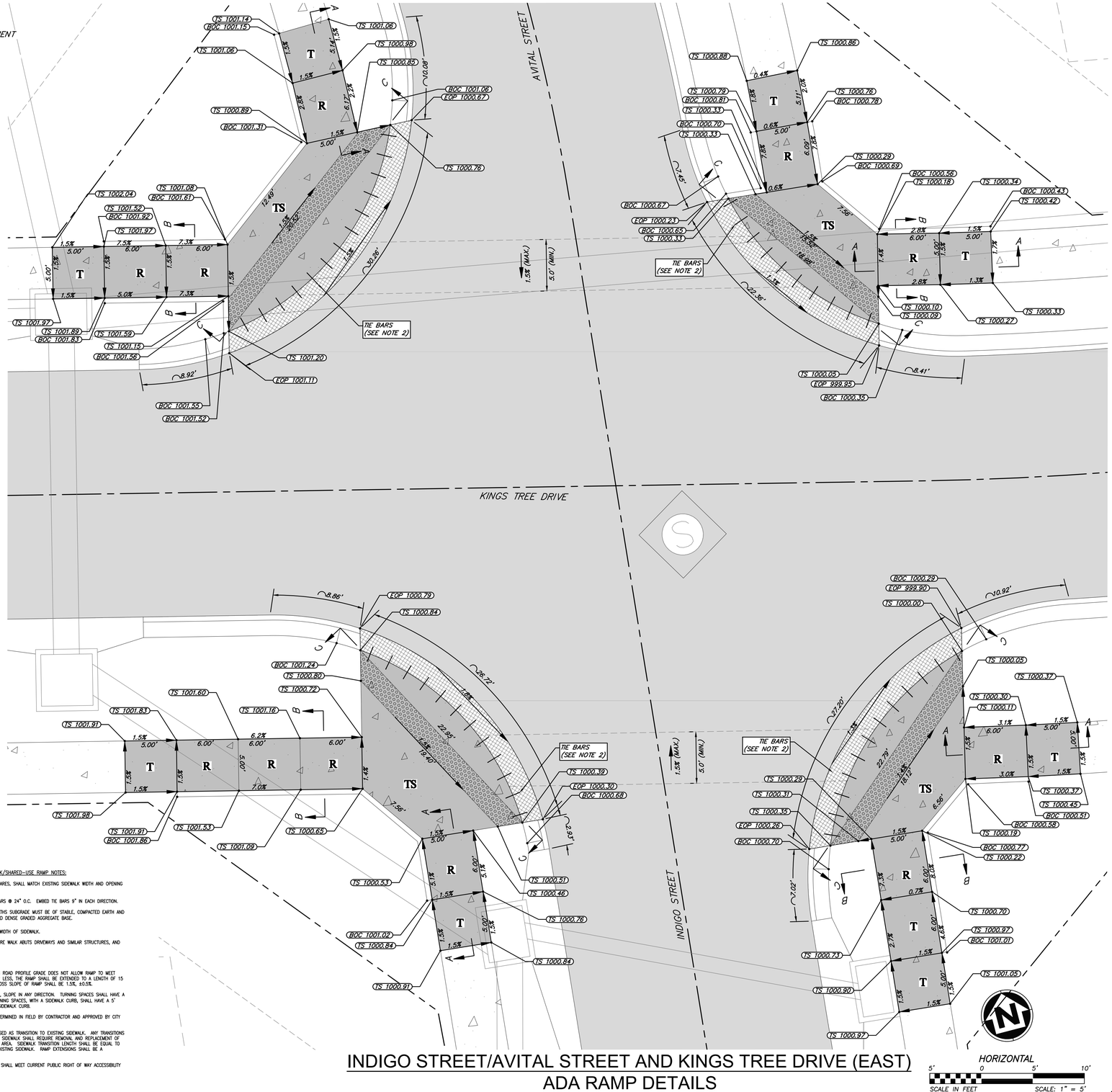
CURB & GUTTER DETAIL AT RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale

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INDIGO STREET/AVITAL STREET AND KINGS TREE DRIVE (EAST)
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET SCALE: 1" = 5'

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EMPLOYEE OWNED
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REVISIONS

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1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
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DRAWING INFO.

DRAWN BY:	GC
CHECK BY:	PJ
LICENSE NO.	PE-2021025089
DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

ADA RAMP DETAILS (4)

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. [illegible]
E-27736
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C404
47 OF 88

Aug 26, 2022 – 1:31pm Plotted By: gcote G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CWL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – ADA RAMPS.dwg Layout: ADA RAMP DETAILS (4)

LEGEND

EOP = EDGE OF PAVEMENT
TS = TOP OF SIDEWALK
TYP = TYPICAL
T = TRANSITION
TS = TURNING SPACE
R = RAMP

DRY CURB & GUTTER
DETECTIBLE WARNING STRIP
LOCAL/ACCESS ROADWAY PAVEMENT
COLLECTOR ROADWAY PAVEMENT
KCMMB4K CONCRETE SIDEWALK
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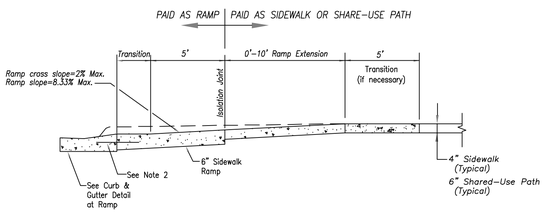
TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA

	Design Slopes	PROWAG Max Allowed Slope[a]	Minimum Width
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Ramp Running Grade	Less than 7.5%	8.33%	5 ft
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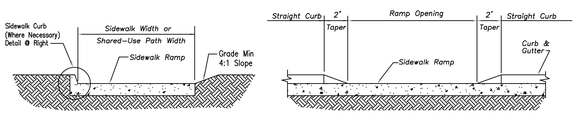
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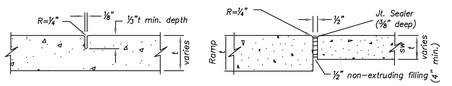


SECTION A–A



SECTION B–B

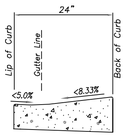
SECTION C–C



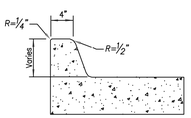
CONTRACTION JOINT

ISOLATION JOINT

JOINT DETAILS
Not to Scale



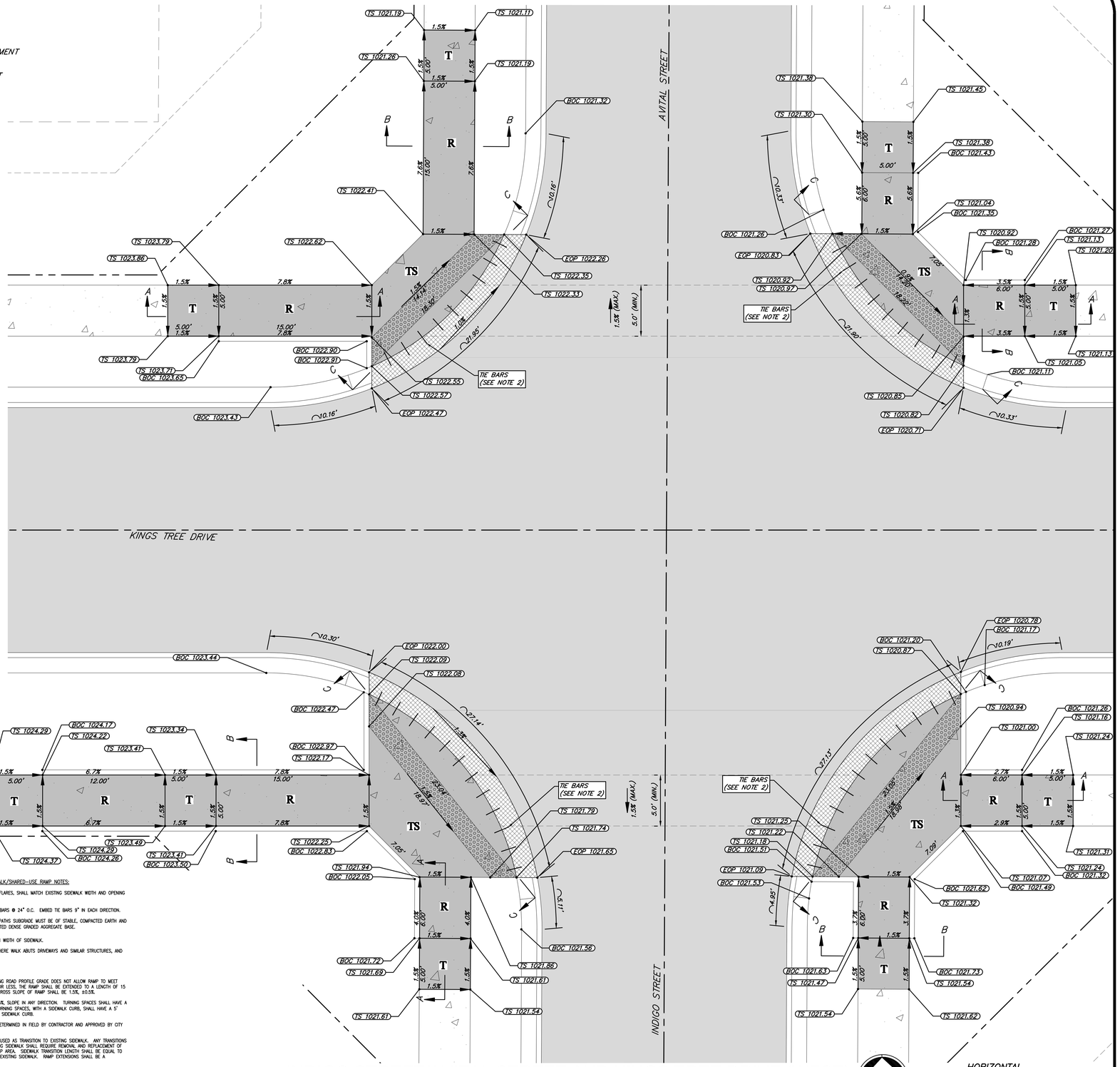
CURB & GUTTER DETAIL AT RAMP
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SIDEWALK CURB DETAIL
Not to Scale

SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

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INDIGO STREET/AVITAL STREET AND KINGS TREE DRIVE (WEST)
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET
SCALE: 1" = 5'

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ADA RAMP DETAILS (5)

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STATE OF MISSOURI
GARRETT R. [illegible]
2017036
PROFESSIONAL ENGINEER
PE: 2021025089
08/26/22

SHEET NUMBER
C405
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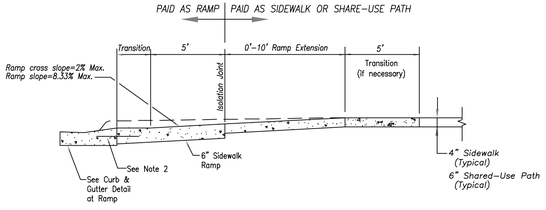
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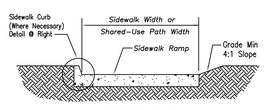
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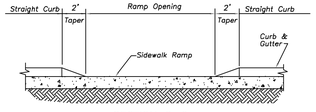
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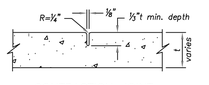
SECTION A–A



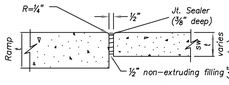
SECTION B–B



SECTION C–C

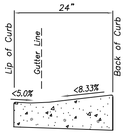


CONTRACTION JOINT

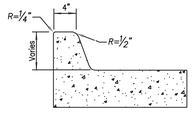


ISOLATION JOINT

JOINT DETAILS
Not to Scale



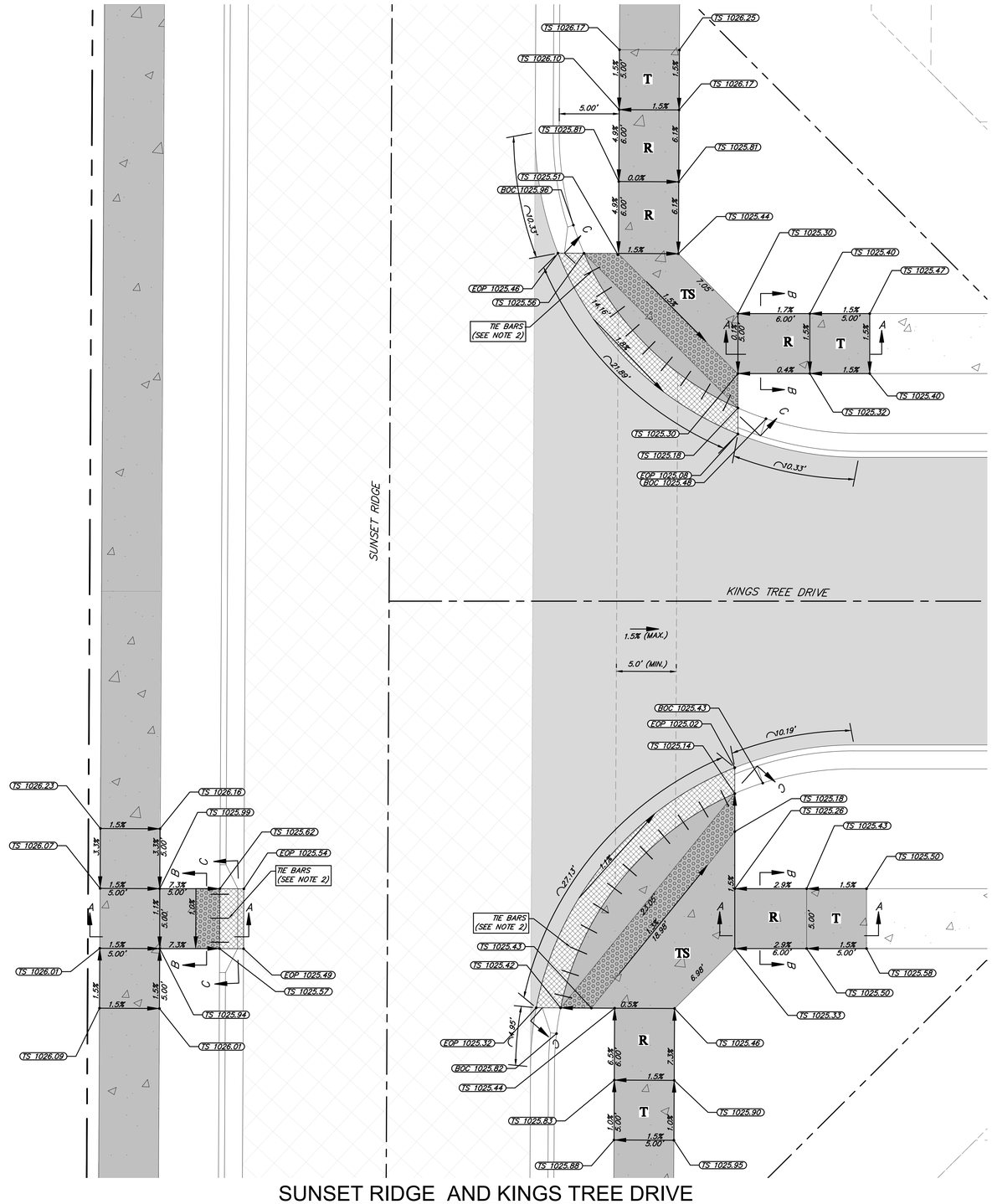
CURB & GUTTER DETAIL AT RAMP
Not to Scale



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SUNSET RIDGE AND KINGS TREE DRIVE
ADA RAMP DETAILS

HORIZONTAL
SCALE IN FEET
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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

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LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
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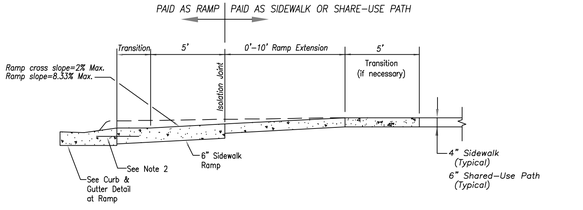
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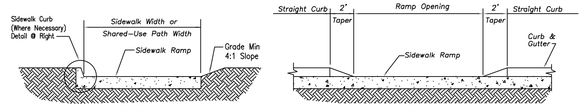
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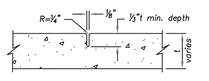


SECTION A–A

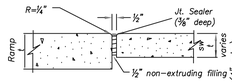


SECTION B–B

SECTION C–C

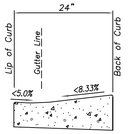


CONTRACTION JOINT

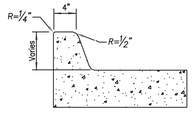


ISOLATION JOINT

JOINT DETAILS
Not to Scale



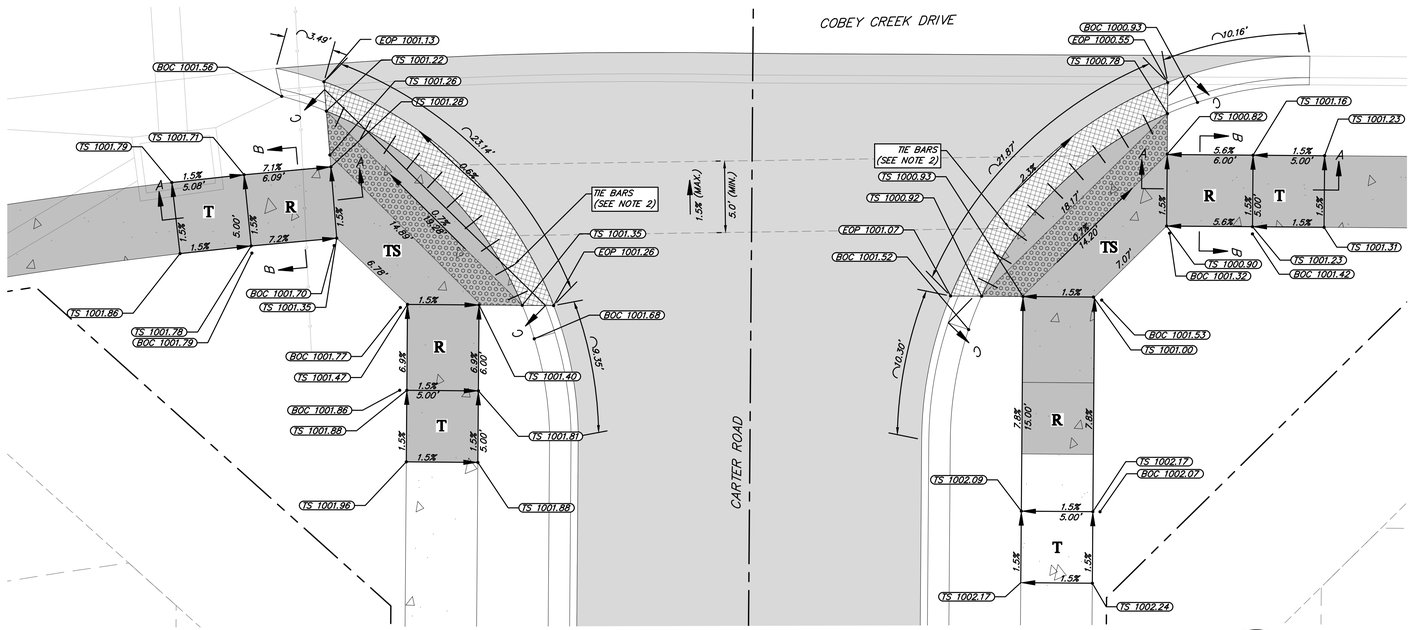
CURB & GUTTER DETAIL AT RAMP
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SIDEWALK CURB DETAIL
Not to Scale

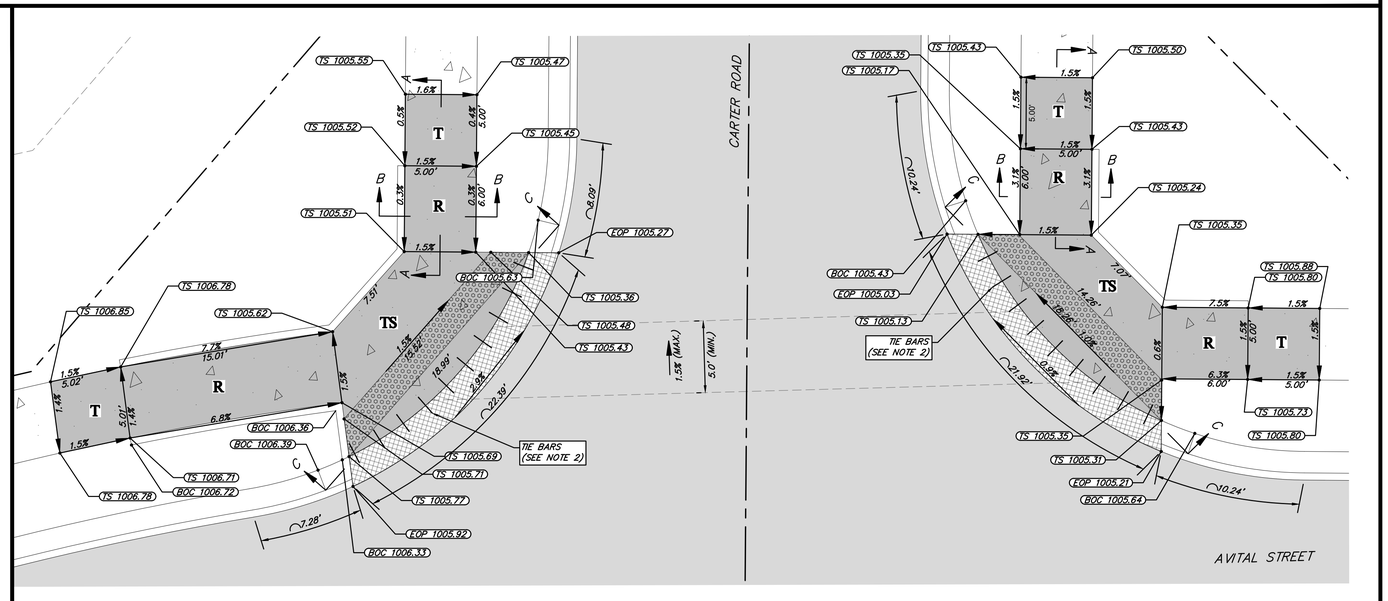
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COBEY CREEK DRIVE AND CARTER RD
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET SCALE: 1" = 5'



AVITAL STREET AND CARTER RD
ADA RAMP DETAILS

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DRAWING INFO.
DRAWN BY: GC
CHECK BY: PJ
LICENSE NO. PE-2021025089
DATE: 03/14/2022
ISSUED FOR: FOR REVIEW
JOB NUMBER: 21KC10060

REVISIONS

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

ADA RAMP DETAILS (7)

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C407
50 OF 88

Aug 26, 2022 – 1:31pm Plotted By: gcate G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – ADA RAMPS.dwg Layout: ADA RAMP DETAILS (7)

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DRY CURB & GUTTER
DETECTIBLE WARNING STRIP
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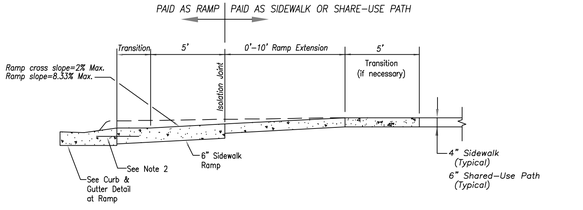
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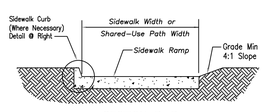
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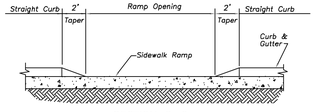
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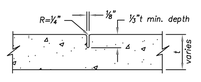
SECTION A–A



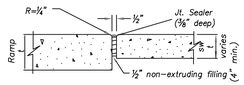
SECTION B–B



SECTION C–C

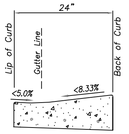


CONTRACTION JOINT

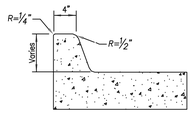


ISOLATION JOINT

JOINT DETAILS
Not to Scale



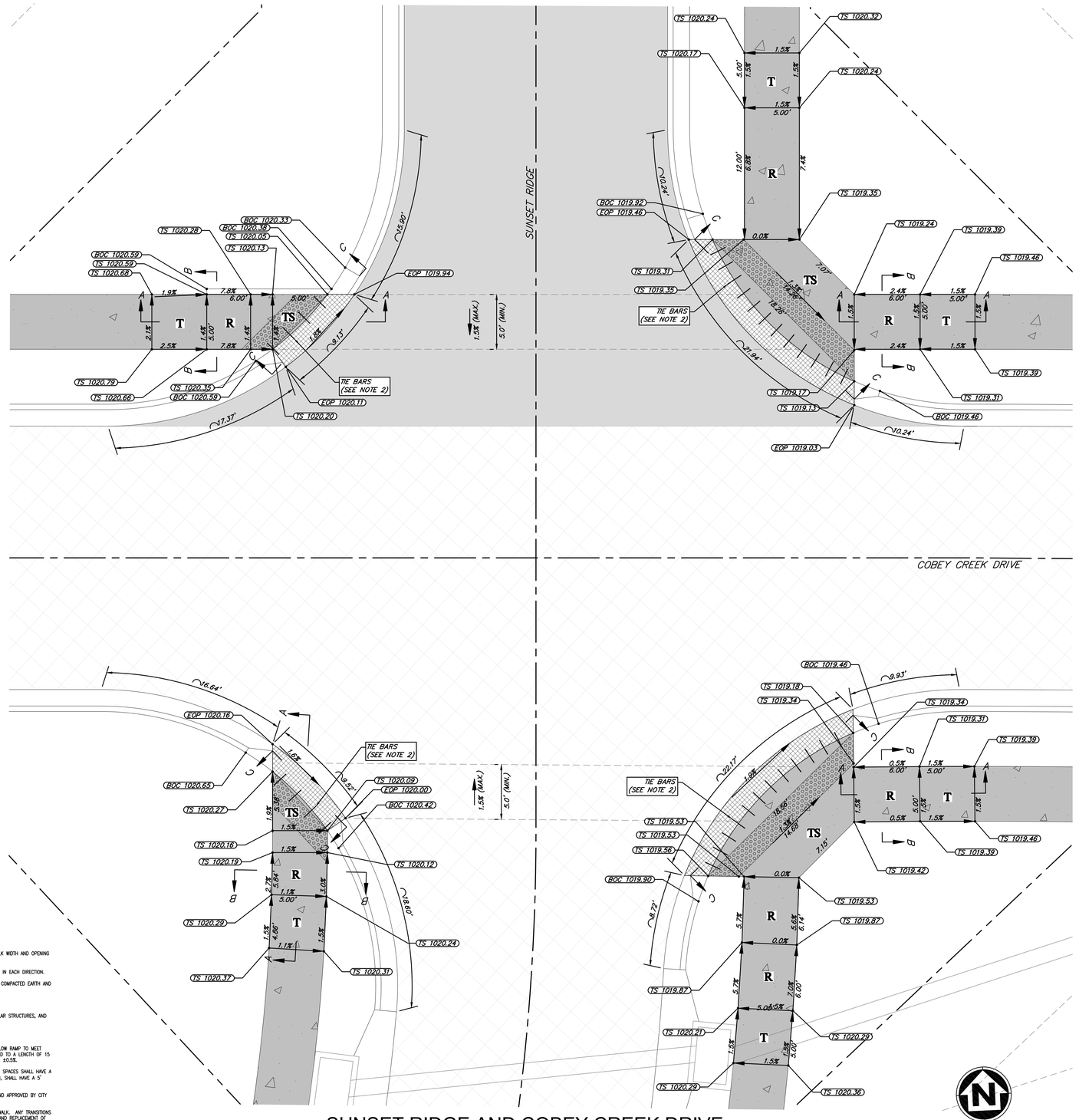
CURB & GUTTER DETAIL AT RAMP
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SIDEWALK CURB DETAIL
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SUNSET RIDGE AND COBEY CREEK DRIVE
ADA RAMP DETAILS

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ADA RAMP DETAILS (8)

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STATE OF MISSOURI
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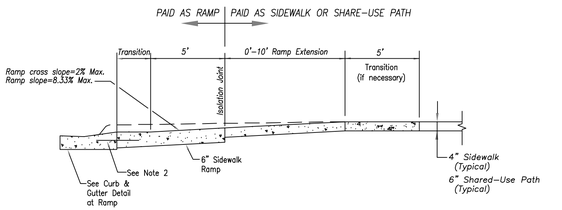
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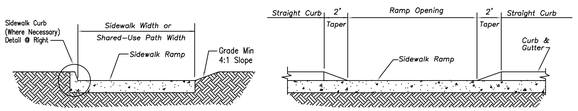
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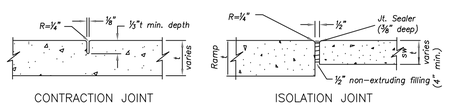


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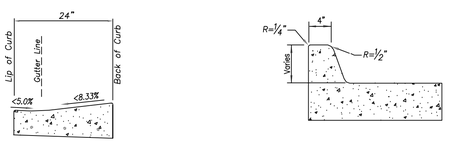


SECTION B–B

SECTION C–C



JOINT DETAILS
Not to Scale

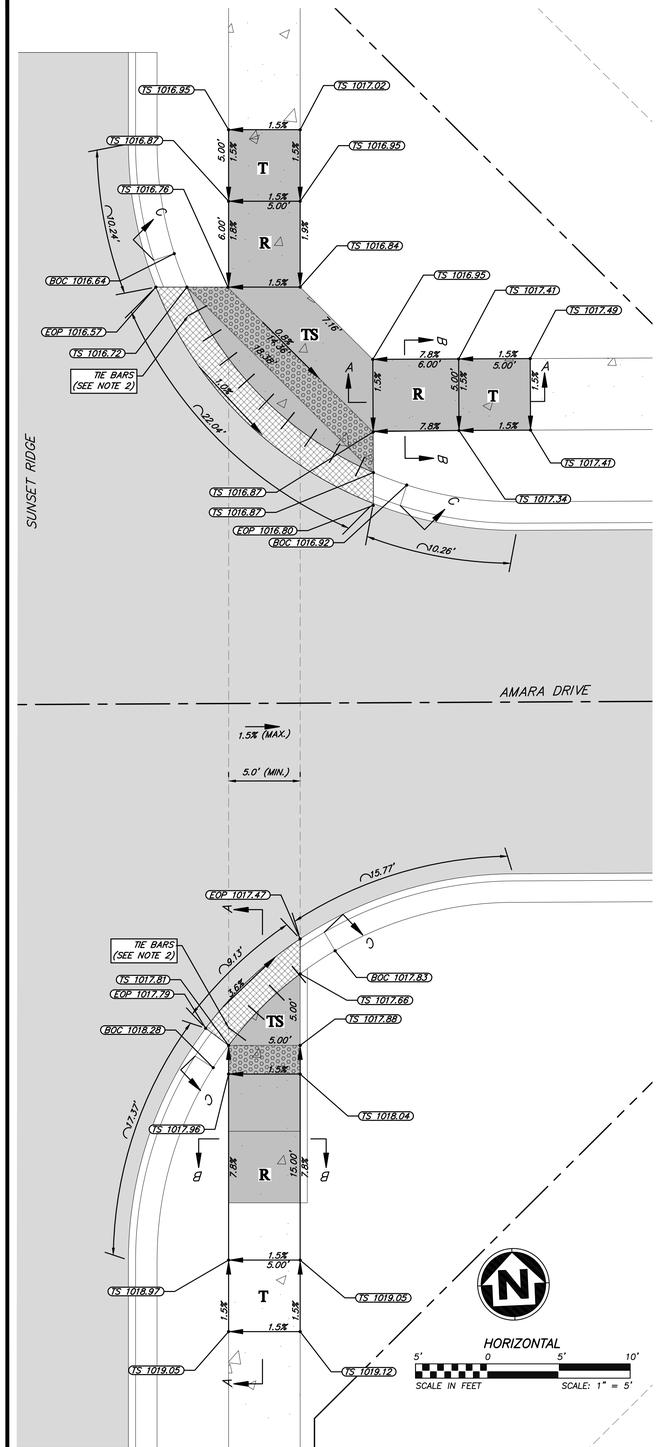


CURB & GUTTER DETAIL AT RAMP
Not to Scale

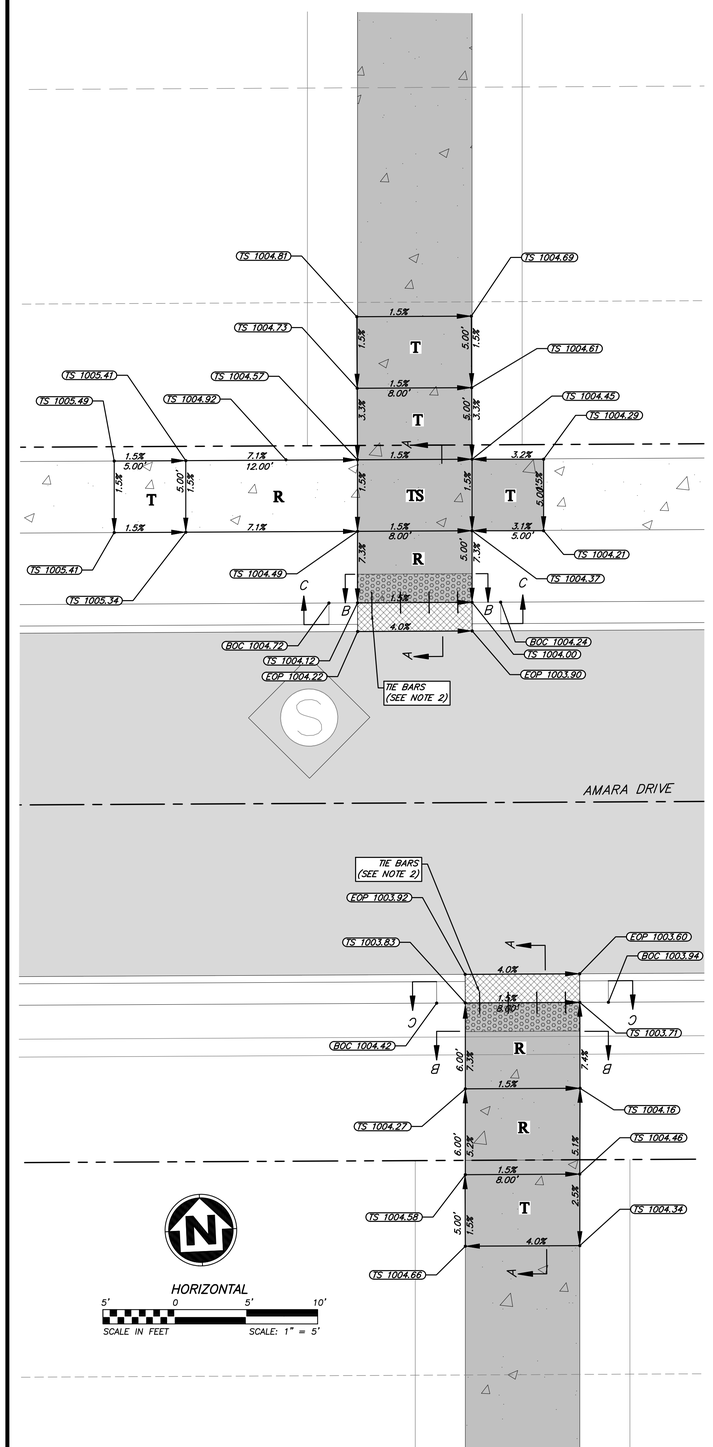
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SUNSET RIDGE AND AMARA DRIVE
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AMARA DRIVE
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ADA RAMP DETAILS (9)

S29, T47N, R31W
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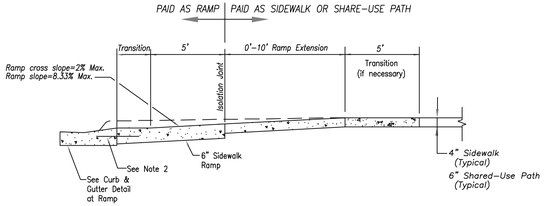
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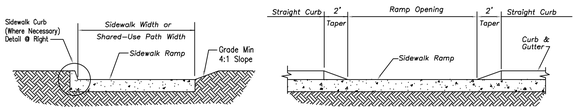
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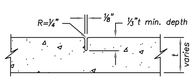


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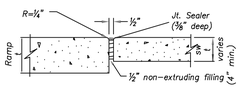


SECTION B–B

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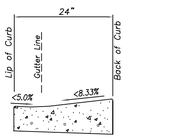


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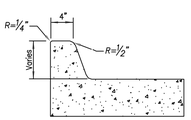


ISOLATION JOINT

JOINT DETAILS
Not to Scale



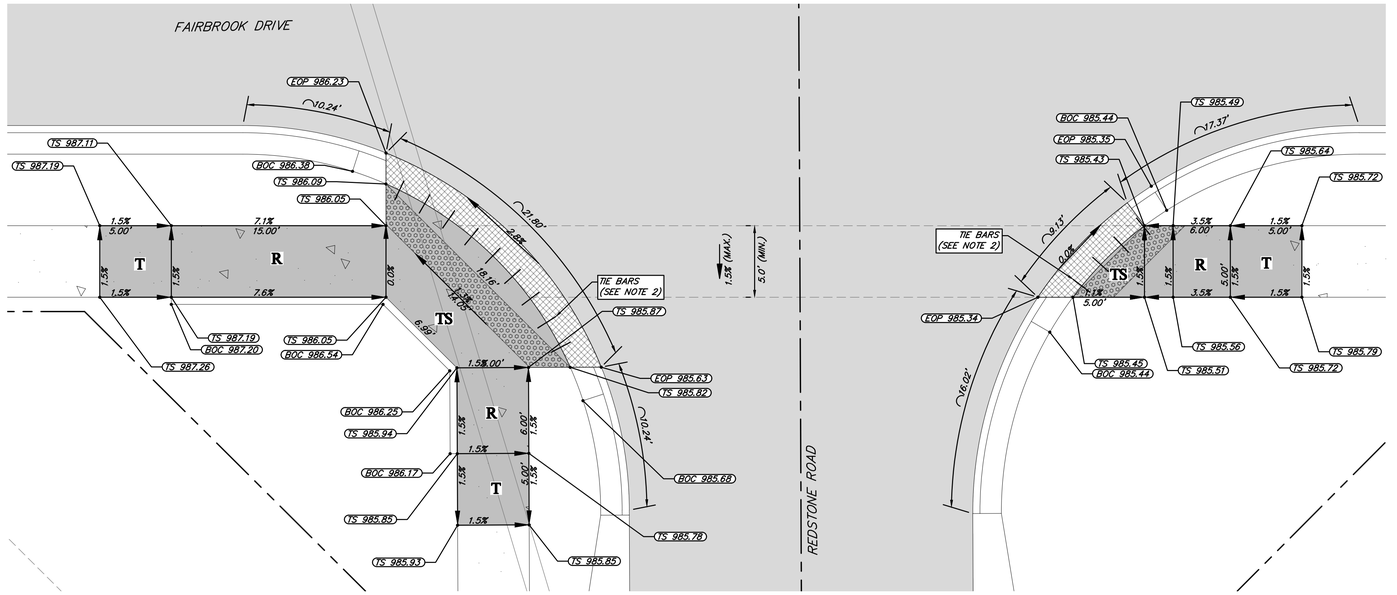
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SIDEWALK CURB DETAIL
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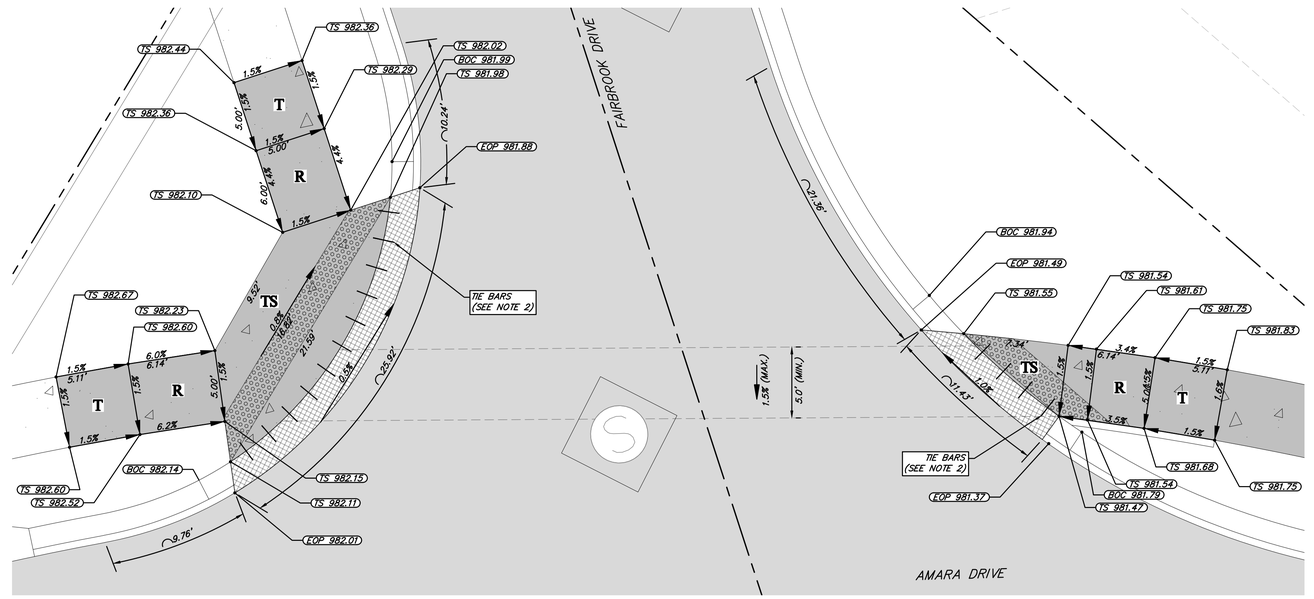
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2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%
7. TURNING SPACES SHALL BE 1.5%, ±0.5% SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



REDSTONE ROAD AND FAIRBROOK DRIVE
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET
SCALE: 1" = 5'



AMARA DRIVE AND FAIRBROOK DRIVE
ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET
SCALE: 1" = 5'

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3.	REVISED PER CITY COMMENT	CA	8/26/22

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

ADA RAMP DETAILS (10)

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C410
53 OF 88

Aug 26, 2022 – 1:32pm Plotted By: gcote G:\Shared drives\KC10 – Land Development\Projects\2022\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – ADA RAMPS.dwg Layout: ADA RAMP DETAILS (10)

LEGEND

EOP = EDGE OF PAVEMENT
TS = TOP OF SIDEWALK
TYP = TYPICAL
T = TRANSITION
TS = TURNING SPACE
R = RAMP

DRY CURB & GUTTER
DETECTIBLE WARNING STRIP
LOCAL/ACCESS ROADWAY PAVEMENT
COLLECTOR ROADWAY PAVEMENT
KCMMB4K CONCRETE SIDEWALK
KCMMB4K CONCRETE SIDEWALK BE CONSTRUCTED DURING STREET CONSTRUCTION

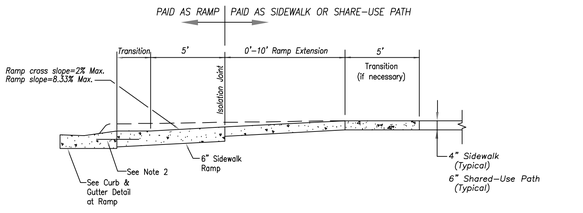
TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA

	Design Slopes	PROWAG Max Allowed Slope[a]	Minimum Width
Turning Space	1.5% all directions	2.0% all	5 ft. x 5 ft.
Ramp Running Grade	Less than 7.5%	8.33%	5 ft
Sidewalks: ≥ 3 ft. green space between sidewalk and curb	1.5% cross slope Running slope no greater than street profile grade	2.0% cross slope	5 feet
Sidewalks: abutted to back of curb	1.5% cross slope Running slope match street profile grade	2.0% cross slope	6 feet

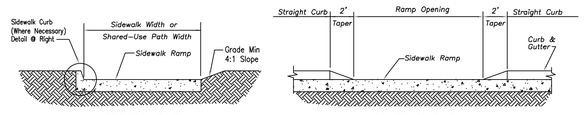
TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS

Type of Route	PCC[3] Thickness	Agg Base Thickness	Comments
Sidewalk[1]	4"	4"	Transverse joints shall be spaced to match width of sidewalk; Joints may be tooled or sawn.
Shared Use Path[2]	6"	4"	Transverse joints shall be spaced to match width of trail, but not greater than 12 ft.; joints shall be sawn.
ADA Ramp	6"	4"	

(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2) Minimum width of paths shall be 10 feet
(3) Accessible routes shall be paved using KCMMB 4k concrete

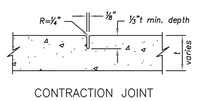


SECTION A–A

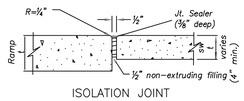


SECTION B–B

SECTION C–C

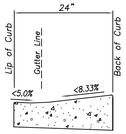


CONTRACTION JOINT

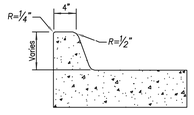


ISOLATION JOINT

JOINT DETAILS
Not to Scale



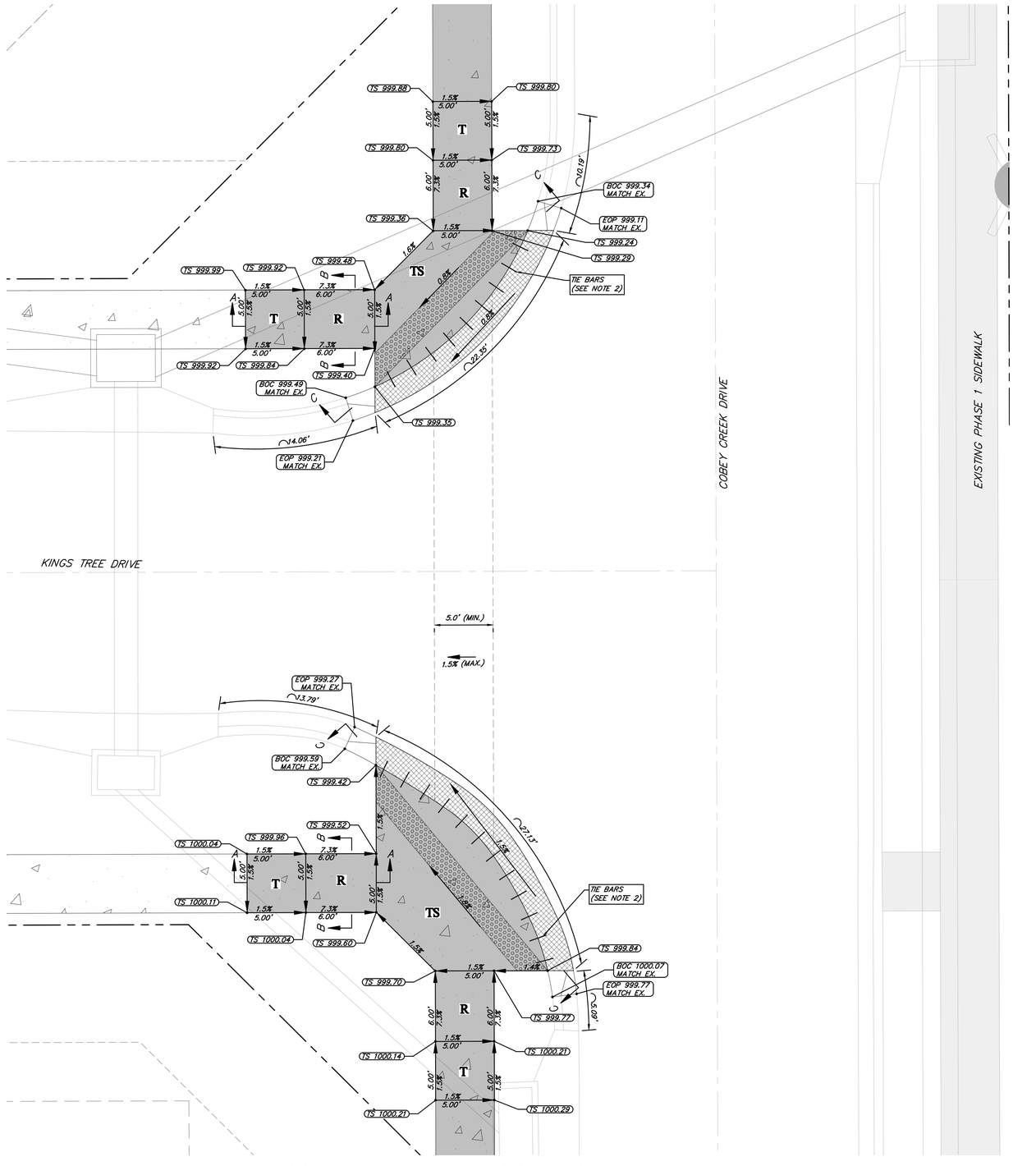
CURB & GUTTER DETAIL AT RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale

SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

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KINGS TREE DRIVE AND COBEY CREEK DRIVE ADA RAMP DETAILS

HORIZONTAL
5' 0 5' 10'
SCALE IN FEET SCALE: 1" = 5'

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

ADA RAMP DETAILS (11)

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
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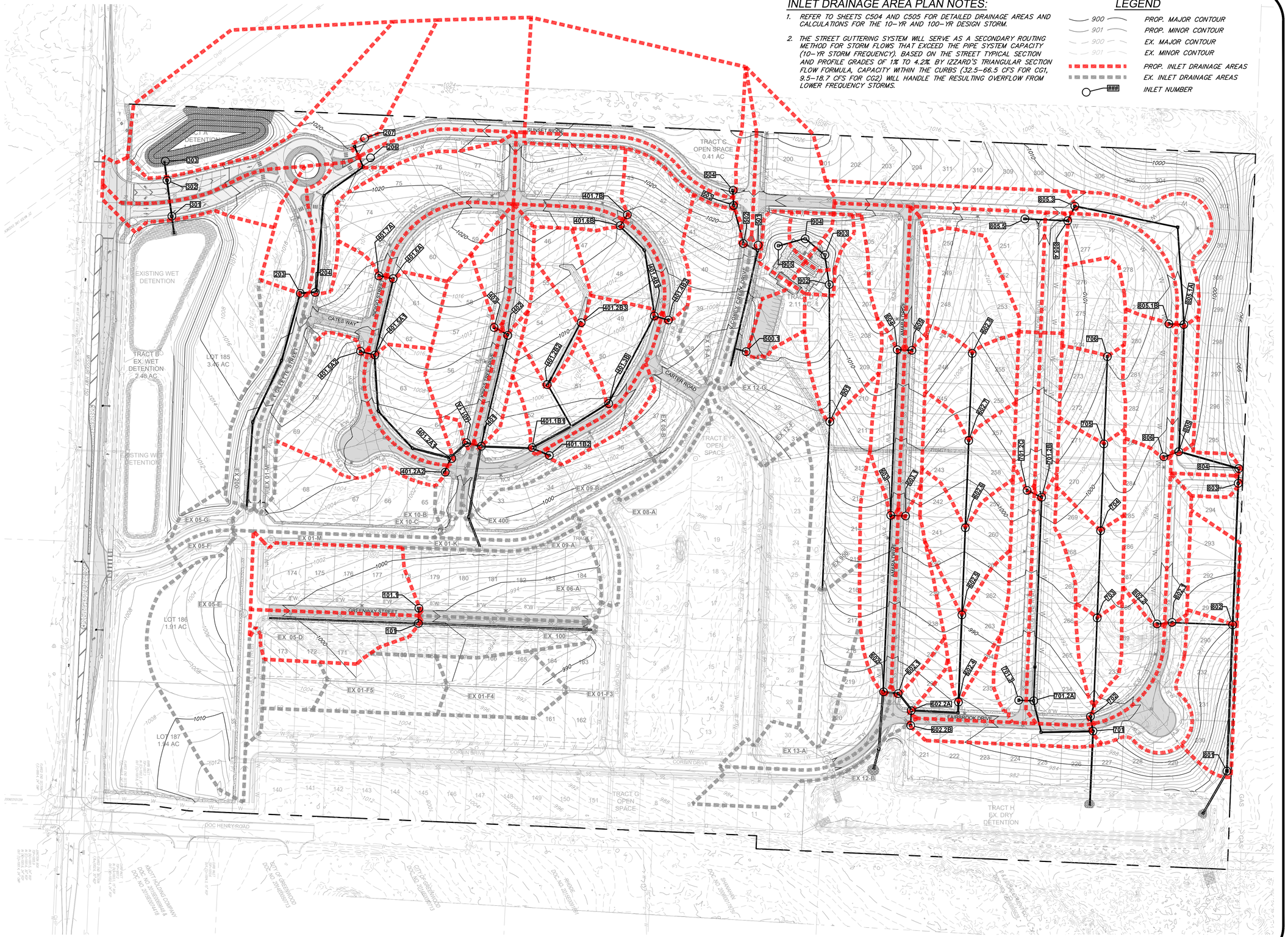
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INLET DRAINAGE AREA PLAN NOTES:

1. REFER TO SHEETS C504 AND C505 FOR DETAILED DRAINAGE AREAS AND CALCULATIONS FOR THE 10-YR AND 100-YR DESIGN STORM.
2. THE STREET GUTTERING SYSTEM WILL SERVE AS A SECONDARY ROUTING METHOD FOR STORM FLOWS THAT EXCEED THE PIPE SYSTEM CAPACITY (10-YR STORM FREQUENCY). BASED ON THE STREET TYPICAL SECTION AND PROFILE GRADES OF 1% TO 4.2% BY IZZARD'S TRIANGULAR SECTION FLOW FORMULA, CAPACITY WITHIN THE CURBS (32.5-66.5 CFS FOR CG1, 9.5-18.7 CFS FOR CG2) WILL HANDLE THE RESULTING OVERFLOW FROM LOWER FREQUENCY STORMS.

LEGEND

- 900 — PROP. MAJOR CONTOUR
- 901 — PROP. MINOR CONTOUR
- 900 — EX. MAJOR CONTOUR
- 901 — EX. MINOR CONTOUR
- PROP. INLET DRAINAGE AREAS
- EX. INLET DRAINAGE AREAS
- INLET NUMBER



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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

INLET DRAINAGE AREA PLAN

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
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LEGEND

FG	FINISH GRADE
MBOE	MINIMUM BUILDING OPENING ELEVATION
	PROPOSED DRAINAGE SWALE

GENERAL NOTES:

1. HOME BUILDER AND/OR PLOT PLAN ENGINEER MUST SUBMIT PLOT PLAN FOR EVERY RESIDENTIAL LOT THAT SHALL MEET THE CITY OF LEE'S SUMMIT REQUIREMENTS AND BE APPROVED PRIOR TO CONSTRUCTION OF HOME.
2. MINIMUM BUILDING OPENING ELEVATIONS ON THIS PLAN HAVE BEEN DETERMINED BASED ON MAX. WATER SURFACE ELEVATION OF 1% DESIGN STORM PLUS (+) TWO (2) FEET, PER CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL SPECIFICATIONS.
3. FINISH GRADES ARE BASED ON MASS GRADING DESIGN FOR INSTALLATION OF PUBLIC IMPROVEMENTS. REAR LOT ELEVATIONS MAY VARY SLIGHTLY AFTER CONSTRUCTION OF HOMES, DEPENDING ON TYPE OF BASEMENT CONSTRUCTED AND OTHER UNFORESEEN FACTORS. HOMEBUILDER SHALL FOLLOW DRAINAGE PATTERNS DEPICTED IN THESE PLANS AND ENSURE PLOT PLAN MAINTAINS DRAINAGE PATTERNS SHOWN.

PROP. DRAINAGE SWALE. NO 100-YR WATER ELEVATION NECESSARY. PIPE SYSTEM SIZED TO HANDLE 100-YR STORM.

EX. DRAINAGE SWALE CONSTRUCTED WITH 1ST PLAT. NO 100-YR WATER ELEVATION NECESSARY. PIPE SYSTEM SIZED TO HANDLE 100-YR STORM.

TRACT A
WET DETENTION
1.43 AC

TRACT B
EX. WET
DETENTION
2.48 AC

LOT 185
3.45 AC

LOT 186
1.91 AC

LOT 187
1.94 AC

TRACT F

EXISTING WET DETENTION

EXISTING WET DETENTION

PHASE 2
PROPERTY LINE

PHASE 1
PROPERTY LINE

SUNSET RIDGE

KINGS TREE DRIVE

INDIGO STREET

GILLETTE STREET

GREENWAY STREET

CORBY CREEK DRIVE

CATES WAY

DAVID ROAD

CORBIN DRIVE

DOC HENRY ROAD

MISSOURI HWY 150

CITY OF GREENWOOD DOC. NO. 2014E0050

KNOTT HOLDING DOC. NO. 2015

HORIZONTAL
60' 0 60' 120'
SCALE IN FEET
SCALE: 1" = 60'

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

MASTER DRAINAGE PLAN - MBOE SOUTH

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
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FUTURE PHASE

PROPERTY LINE
FUTURE PHASE

PROP. DRAINAGE SWALE. NO 100-YR WATER ELEVATION NECESSARY. PIPE SYSTEM SIZED TO HANDLE 100-YR STORM.

PROP. DRAINAGE SWALE. NO 100-YR WATER ELEVATION NECESSARY. PIPE SYSTEM SIZED TO HANDLE 100-YR STORM.

PROP. DRAINAGE SWALE. NO 100-YR WATER ELEVATION NECESSARY. PIPE SYSTEM SIZED TO HANDLE 100-YR STORM.

PROP. DRAINAGE SWALE. NO 100-YR WATER ELEVATION NECESSARY. PIPE SYSTEM SIZED TO HANDLE 100-YR STORM.

EX. DRAINAGE SWALE CONSTRUCTED WITH 1ST PLAT. NO 100-YR WATER ELEVATION NECESSARY. PIPE SYSTEM SIZED TO HANDLE 100-YR STORM.

FUTURE PHASE PHASE 2

PHASE 2 PROPERTY LINE

PHASE 1 PROPERTY LINE

PHASE 1

PHASE 2

TRACT C
OPEN SPACE
0.41 AC

TRACT D
2.11 AC

TRACT E
OPEN SPACE

TRACT H
EX. DRY
DETENTION

AMARA DRIVE

COBEY CREEK DRIVE

CARTER ROAD

FAIRBROOK DRIVE

CORBIN DRIVE

LOT	TYPE	FG	MBOE
250	DAYLIGHT	FG: 1014.17	
249	DAYLIGHT	FG: 1011.70	
248	DAYLIGHT	FG: 1010.98	
247	DAYLIGHT	FG: 1010.26	
246	DAYLIGHT	FG: 1008.72	
245	DAYLIGHT	FG: 1006.56	
244	DAYLIGHT	FG: 1004.40	
243	DAYLIGHT	FG: 1001.70	
242	DAYLIGHT	FG: 999.42	
241	DAYLIGHT	FG: 997.32	
240	DAYLIGHT	FG: 995.22	
239	DAYLIGHT	FG: 993.12	
238	DAYLIGHT	FG: 991.02	
237	DAYLIGHT	FG: 988.92	
236	STANDARD	FG: 984.22	
232	WALKOUT	FG: 988.80	
231	WALKOUT	FG: 985.63	
230	WALKOUT	FG: 982.41	
229	WALKOUT	FG: 979.00	MBOE: 978.59
228	WALKOUT	FG: 992.95	MBOE: 979.02
227	WALKOUT	FG: 992.90	MBOE: 980.51
226	WALKOUT	FG: 990.28	FG: 980.30
225	WALKOUT	FG: 988.81	FG: 980.31
224	DAYLIGHT	FG: 987.84	FG: 980.68
223	DAYLIGHT	FG: 986.79	FG: 980.19
222	DAYLIGHT	FG: 985.74	FG: 980.83
221	DAYLIGHT	FG: 984.68	FG: 980.41
220	STANDARD	FG: 983.63	FG: 981.07
219	DAYLIGHT	FG: 982.58	FG: 979.96
218	DAYLIGHT	FG: 984.55	
217	DAYLIGHT	FG: 987.34	
216	DAYLIGHT	FG: 990.14	
215	DAYLIGHT	FG: 992.94	
214	DAYLIGHT	FG: 995.73	
213	DAYLIGHT	FG: 998.53	
212	DAYLIGHT	FG: 1001.33	
211	DAYLIGHT	FG: 1004.37	
210	DAYLIGHT	FG: 1007.97	
209	DAYLIGHT	FG: 1010.84	
208	DAYLIGHT	FG: 1013.66	
207	DAYLIGHT	FG: 1015.33	
206	DAYLIGHT	FG: 1016.06	
205	DAYLIGHT	FG: 1016.78	
204	STANDARD	FG: 1016.79 / FG: 1017.41	
203	STANDARD	FG: 1019.68 / FG: 1018.66	
202	STANDARD	FG: 1021.78 / FG: 1020.41	
201	STANDARD	FG: 1023.83 / FG: 1021.53	
200	STANDARD	FG: 1026.91 / FG: 1021.12	
31	STANDARD	FG: 1026.74 / FG: 1020.37	
32	STANDARD	FG: 1021.38	
33	STANDARD	FG: 1005.04	
34	STANDARD	FG: 1008.54	
35	DAYLIGHT	FG: 997.45	
36	DAYLIGHT	FG: 998.93	
37	DAYLIGHT	FG: 999.89	
38	DAYLIGHT	FG: 1002.25 / FG: 1002.33	
39	DAYLIGHT	FG: 1004.42	
40	STANDARD	FG: 1010.61	
41	STANDARD	FG: 1020.30 / FG: 1018.04 / FG: 1019.21	
		FG: 1021.07	
		FG: 1009.23	
		FG: 1007.79	
		FG: 1002.30	
		FG: 1001.72	
		FG: 1001.35	
		FG: 998.69	
		FG: 996.29	
		FG: 993.43	
		FG: 990.51	
		FG: 987.80	
		FG: 985.97	
		FG: 984.33	
		FG: 982.50	
		FG: 980.65	
		FG: 1001.96	
		FG: 1004.36	
		FG: 1006.76	
		FG: 1009.17	
		FG: 1011.67	
		FG: 1014.07	
		FG: 1016.51	
		FG: 1001.34 / FG: 1004.08	
		FG: 998.54	
		FG: 995.74	
		FG: 992.95	
		FG: 990.15	
		FG: 987.35	
		FG: 984.56	
		FG: 982.58	
		FG: 1004.68	
		FG: 1007.68	
		FG: 1010.55	
		FG: 1013.40	
		FG: 1015.23	
		FG: 1015.98 / FG: 1016.70	
		FG: 1017.41 / FG: 1019.29	
		FG: 1017.46	
		FG: 991.77	
		FG: 988.98	
		FG: 990.78	
		FG: 987.29	
		FG: 985.92	
		FG: 987.30	
		FG: 987.06	
		FG: 985.92	
		FG: 985.80	
		FG: 986.82	
		FG: 992.39	
		FG: 992.09	
		FG: 992.51	
		FG: 993.26	
		FG: 1002.15	

MMSE: 970.74

LEGEND

FG	FINISH GRADE
MBOE	MINIMUM BUILDING OPENING ELEVATION
	PROPOSED DRAINAGE SWALE

GENERAL NOTES:

1. HOME BUILDER AND/OR PLOT PLAN ENGINEER MUST SUBMIT PLOT PLAN FOR EVERY RESIDENTIAL LOT THAT SHALL MEET THE CITY OF LEE'S SUMMIT REQUIREMENTS AND BE APPROVED PRIOR TO CONSTRUCTION OF HOME.
2. MINIMUM BUILDING OPENING ELEVATIONS ON THIS PLAN HAVE BEEN DETERMINED BASED ON MAX. WATER SURFACE ELEVATION OF 1% DESIGN STORM PLUS (+) TWO (2) FEET, PER CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL SPECIFICATIONS.
3. FINISH GRADES ARE BASED ON MASS GRADING DESIGN FOR INSTALLATION OF PUBLIC IMPROVEMENTS. REAR LOT ELEVATIONS MAY VARY SLIGHTLY AFTER CONSTRUCTION OF HOMES, DEPENDING ON TYPE OF BASEMENT CONSTRUCTED AND OTHER UNFORESEEN FACTORS. HOMEBUILDER SHALL FOLLOW DRAINAGE PATTERNS DEPICTED IN THESE PLANS AND ENSURE PLOT PLAN MAINTAINS DRAINAGE PATTERNS SHOWN.

D & J DEVELOPMENT CO.
DOC. NO. 1966I0895628

PHASE 1

HORIZONTAL
60' 0 60' 120'
SCALE IN FEET SCALE: 1" = 60'

ANDERSON ENGINEERING
EMPLOYEE OWNED
ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
941 W 141ST TERR, STE A • KANSAS CITY, MO 64145 • PHONE (816) 777-4400
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION - LC 62

DRAWING INFO.
DRAWN BY: GC
CHECK BY: PJ
LICENSE NO. PE-2021025089
DATE: 03/14/2022
ISSUED FOR: FOR REVIEW
JOB NUMBER: 21KC10060

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

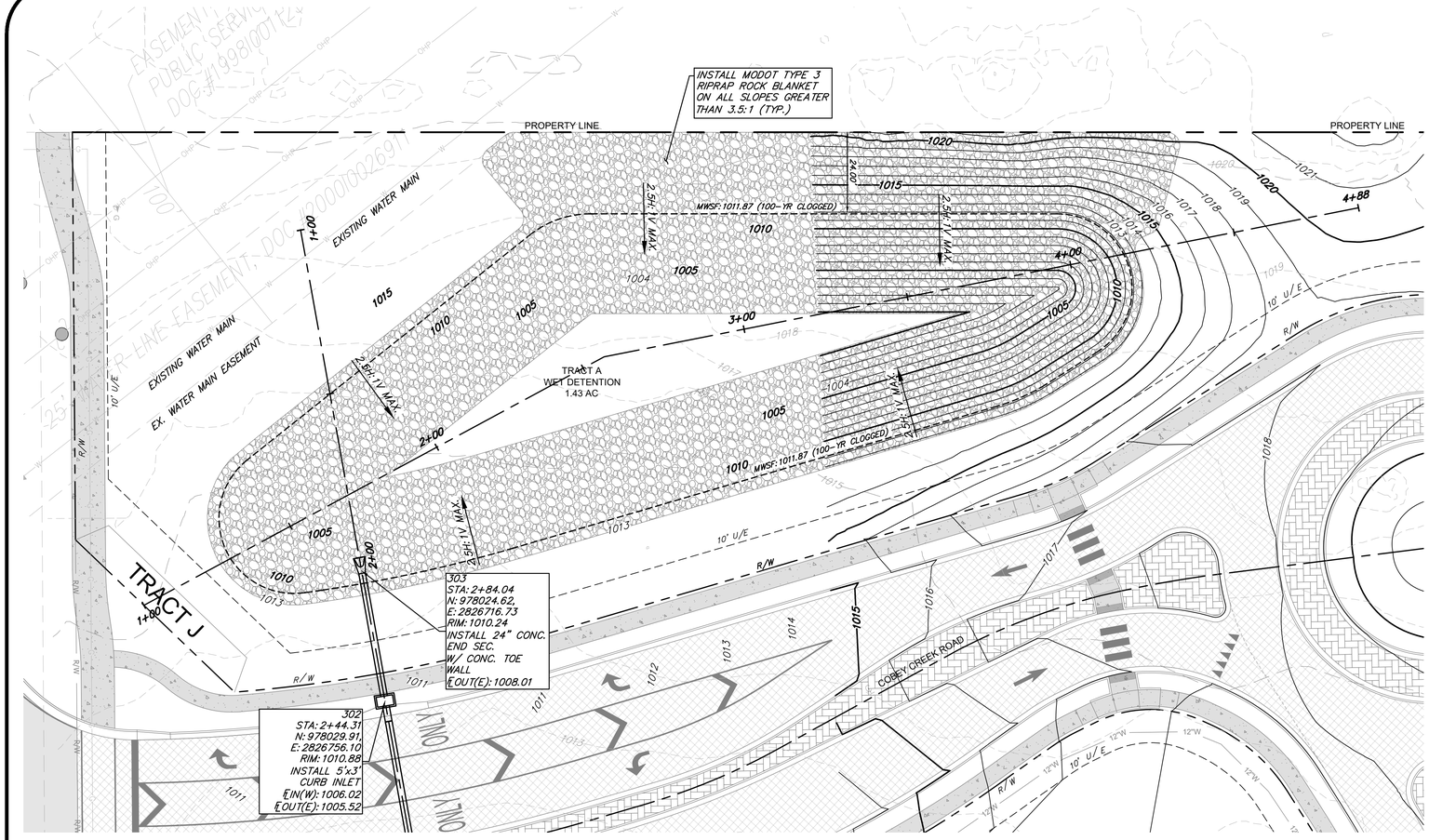
MASTER DRAINAGE PLAN - MBOE NORTH

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C502
57 OF 88

Aug 26, 2022 - 1:34pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - MBOE PLAN.dwg Layout: MASTER DRAINAGE PLAN - MBOE NORTH



WATER SURFACE ELEVATIONS:

PERM. POOL	– 1008.00
2–YR	– 1008.40
10–YR	– 1008.76
100–YR	– 1009.33
100–YR CLOGGED	– 1011.87

OUTLET DISCHARGE RATES:

2–YR	– 0.97 CFS
10–YR	– 3.29 CFS
100–YR	– 8.71 CFS
100–YR CLOGGED	– 0.00 CFS

LEGEND

- 900 — PROPOSED MAJOR CONTOUR
- 901 — PROPOSED MINOR CONTOUR
- 900 — EXISTING MAJOR CONTOUR
- 901 — EXISTING MINOR CONTOUR
- RIPRAP STABILIZATION
- RIGHT–OF–WAY
- ROAD CENTERLINE

WET DETENTION BASIN GENERAL NOTES:

1. CONTRACTOR TO CONSTRUCT STORMWATER MANAGEMENT FACILITIES, SPECIFICALLY THOSE FEATURES RELATED TO DETENTION, PRIOR TO ANY LAND DISTURBANCE OF THE SITE AND PRIOR TO THE CONSTRUCTION OF ANY OTHER SITE DEVELOPMENT WORK AS NOT TO EFFECT DOWNSTREAM NEIGHBORS WITH UNDETAINED STORMWATER DISCHARGE.
2. AN AS–GRADED AND AS–BUILT DRAWING SHALL BE SUBMITTED TO AND REVIEWED BY THE CITY FOR THE DETENTION BASIN. THIS SHALL BE REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF SUBSTANTIAL COMPLETION. ALL PRECAUTIONS SHOULD BE TAKEN TO ENSURE DETENTION POND AND OUTLET STRUCTURE ARE CONSTRUCTED ACCORDING TO THE APPROVED PLANS; VOLUMES AND ELEVATIONS ARE CRITICAL FOR AS–BUILT APPROVAL. THE CITY SHALL BE PROVIDED WITH AN AS–BUILT SURVEY OF THE DETENTION BASIN, OUTLET STRUCTURE INCLUDING ALL WEIR ELEVATIONS AND STORM SYSTEM INCLUDING ALL THE INVERTS, STAMPED BY A MISSOURI LICENSED ENGINEER.
3. ALL SIDEWALK ADJACENT TO TRACTS SHALL BE CONSTRUCTED WITH PUBLIC IMPROVEMENTS, ALONG WITH ALL ADA ACCESSIBLE SIDEWALK RAMPS.
4. ALL SEDIMENT ACCUMULATED THROUGHOUT THE DURATION OF CONSTRUCTION SHALL BE DREDGED OR SKIMMED FROM BOTTOM OF WET POND PRIOR TO FINAL ACCEPTANCE. CONTRACTOR SHALL MAKE GREATEST EFFORT TO PREVENT SEDIMENT BUILDUP AND USE DEWATERING PRACTICES OUTLINED IN THE SWPPP UNTIL CONSTRUCTION IS COMPLETED.

EMERGENCY SPILLWAY NOTES:

24" OUTLET PIPE SHALL FUNCTION AS EMERGENCY SPILLWAY.

NOTE: REFER TO STORM PLAN & PROFILE SHEET (C508) FOR STORM LINE 300 SERIES

STORAGE VOLUME:

2–YR: 67,082 FT³

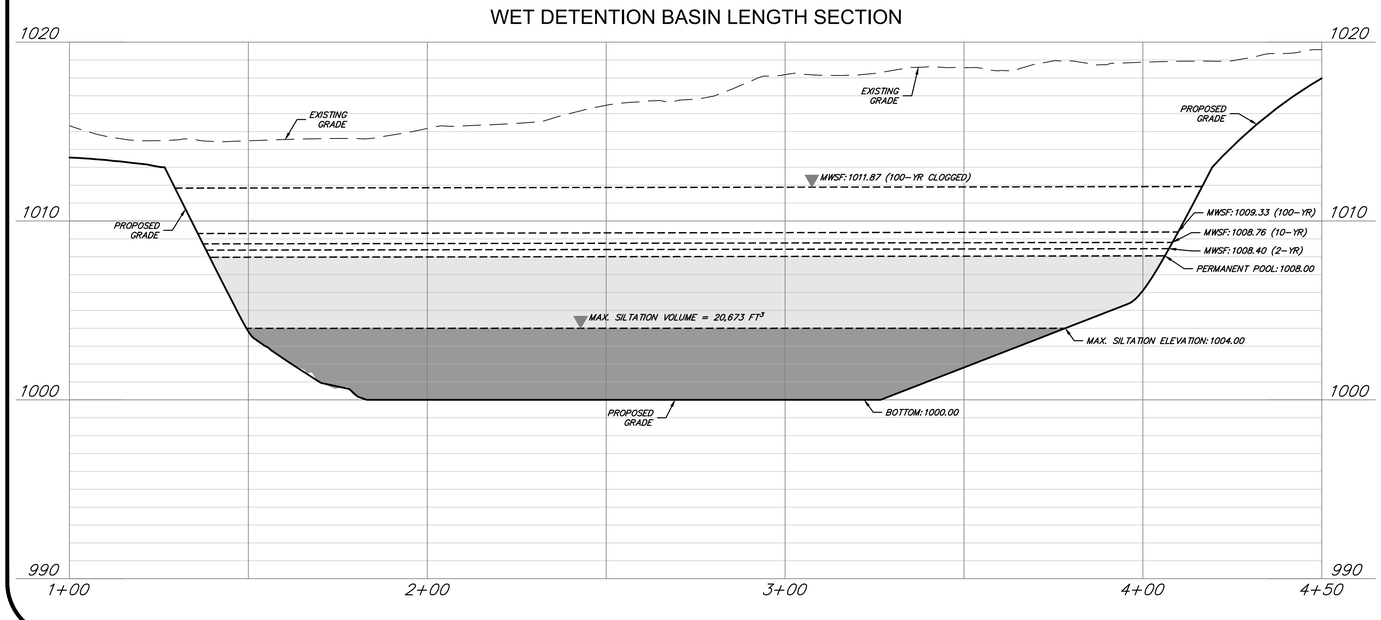
10–YR: 72,309 FT³

100–YR: 107,330 FT³

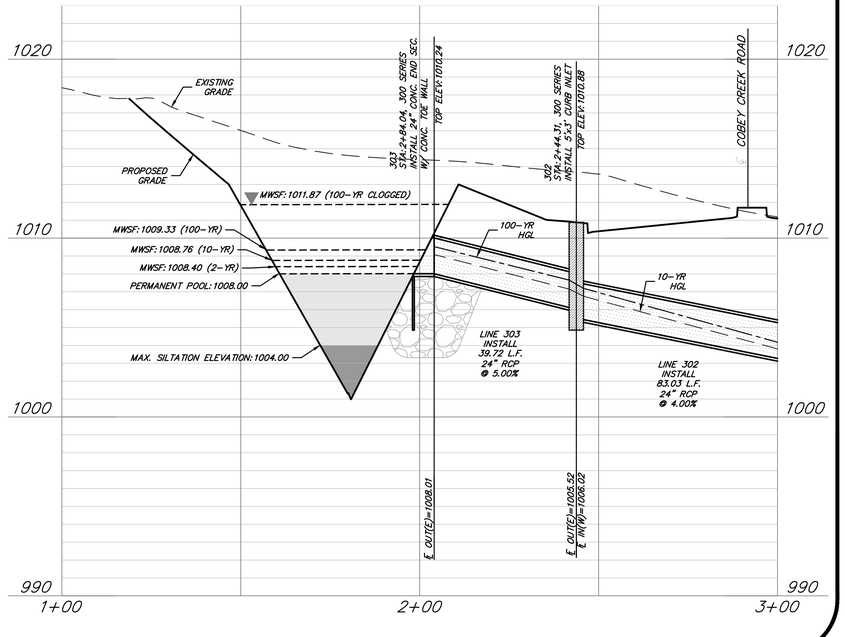
DESIGN MAX: 125,623 FT³

HORIZ.: 1"=20'
VERT.: 1"=4'

WET DETENTION BASIN LENGTH SECTION



WET DETENTION BASIN WIDTH SECTION



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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

WET DETENTION BASIN PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C503
58 OF 88

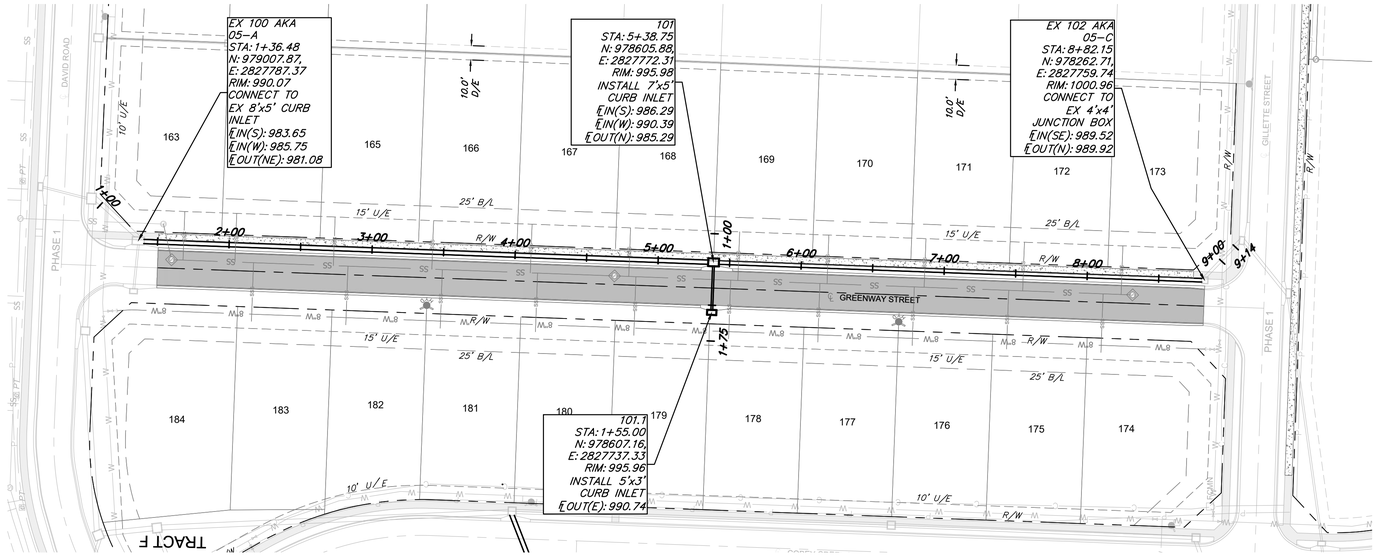
Aug 26, 2022 – 1:34pm Plotted By: gcate G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – DETENTION BASIN.dwg Layout: WET DETENTION BASIN PLAN & PROFILE

10-YEAR

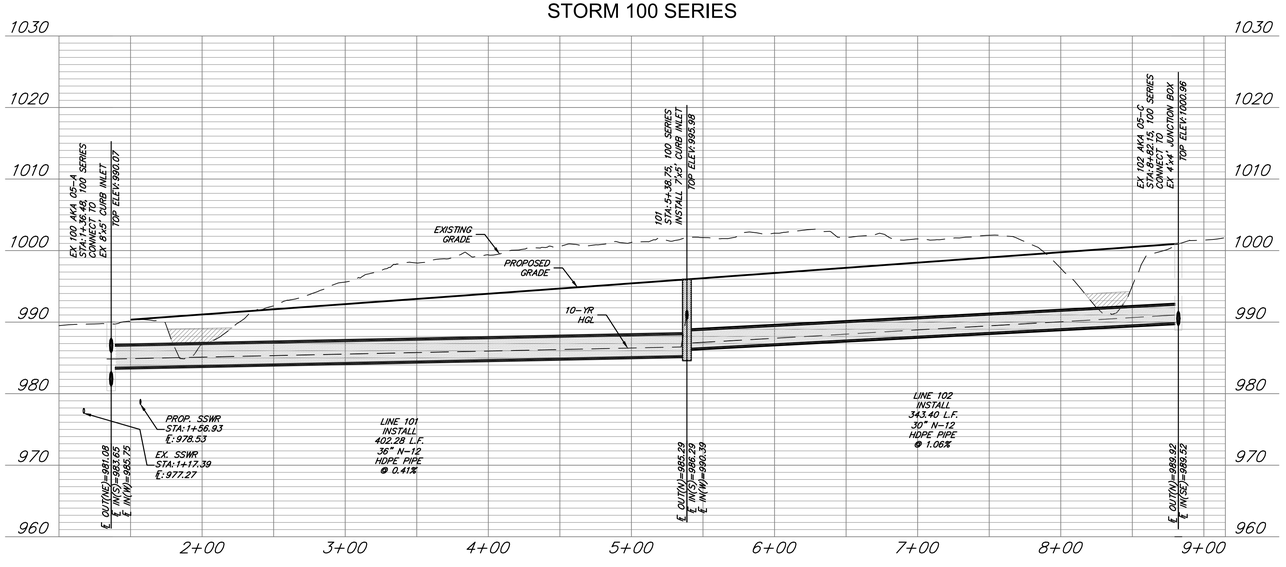
HYDROLOGY											HYDRAULICS													GUTTER/INLET DESIGN					
Line No.	Inlet ID	Downstream Line No.	Drainage Area	Runoff Coefficient	Local CxA	System CxA	Tc	Local Intensity	System Intensity	Incremental Flow	Total Runoff	Line ID	Inlet ID	U/S Ground Elev.	U/S Invert	D/S Invert	Length	Slope	Size	n	Capacity Full	Total Runoff	Velocity	Velocity Out	HGLUp	HGLDn	Line ID	Local Q	QBypass	Gutter Slope	Gutter Spread	Gutter Width
			(ac)	(C)			(min)	(in/hr)	(in/hr)	(cfs)	(cfs)			(ft)	(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)	(ft/s)	(ft/s)	(ft)	(ft)		(cfs)	(cfs)	(ft/ft)	(ft)	(ft)
1	EX 12-F	Outfall	0.95	0.51	0.48	0.48	7.1	8.36	7.33	4.05	26.65	LINE EX 12-F	EX 12-F	996.69	989.39	986.32	145.90	2.10	36	0.012	104.81	26.65	6.61	6.61	991.06	987.99	LINE EX 12-F	1.30	6.30	0.030	11.17	2.00
2	EX 12-G	1	0.41	0.51	0.21	0.21	6.3	8.36	7.66	1.75	24.14	LINE EX 12-G	EX 12-G	1001.64	992.31	989.61	199.66	1.35	30	0.012	51.67	24.14	6.75	6.58	993.98	991.36	LINE EX 12-G	1.35	3.54	0.010	11.67	2.00
3	EX 500 AKA 12-H	2	0.00	0.00	0	0	6.2	0.00	7.73	0.00	18.58	LINE EX 500 AKA 15-H	EX 500 AKA 12-H	1003.75	996.65	995.67	50.58	1.94	24	0.012	34.11	18.58	9.10	11.08	998.20	996.72	LINE EX 500 AKA 15-H	....	....	....	....	....
4	501	3	0.93	0.51	0.47	0.47	5.4	8.36	8.16	3.97	18.26	LINE 501	501	1016.37	1008.79	996.97	274.67	4.30	24	0.012	50.83	18.26	7.16	7.27	1010.33	998.46	LINE 501	0.82	3.14	0.050	7.64	2.00
5	502	4	0.28	0.51	0.14	0.14	5.3	8.36	8.20	1.19	14.47	LINE 502	502	1016.99	1010.75	1009.29	36.45	4.00	18	0.012	22.77	14.47	9.78	11.10	1012.14	1010.33	LINE 502	1.44	10.48	0.050	12.08	2.00
6	503	5	0.30	0.51	0.15	0.15	5.1	8.36	8.31	1.28	13.48	LINE 503	503	1020.24	1013.05	1011.25	90.15	2.00	18	0.012	16.07	13.48	8.85	9.72	1014.42	1012.35	LINE 503	0.65	0.63	0.010	6.60	2.00
7	504	6	2.88	0.51	1.47	1.47	5.0	8.36	8.36	12.28	12.28	LINE 504	504	1020.31	1014.24	1013.55	34.63	2.00	18	0.012	16.06	12.28	8.12	8.80	1015.57	1014.66	LINE 504	2.19	10.09	0.010	16.78	2.00
8	FUT 500.1	3	0.32	0.51	0.16	0.16	5.0	8.36	8.36	1.36	1.36	FUT LINE 500.1	500.1	1009.01	999.24	997.99	25.06	5.00	15	0.012	15.62	1.36	2.32	1.33	999.70	998.97	FUT LINE 500.1	1.36	....	Sag	....	....
9	EX 19-A	2	1.06	0.51	0.54	0.54	5.0	8.36	8.36	4.52	4.52	LINE EX 19-A	EX 19-A	1001.76	996.10	995.91	35.10	0.54	24	0.012	18.03	4.52	4.50	4.77	996.85	996.59	LINE EX 19-A	2.43	12.56	0.010	18.13	2.00
10	EX 01-F	Outfall	0.00	0.00	0	0	15.6	0.00	5.04	0.00	88.93	LINE EX 01-F	EX 01-F	987.57	978.23	977.86	107.18	0.35	48	0.012	91.43	88.93	8.81	9.26	981.39	980.72	LINE EX 01-F	....	....	....	....	....
11	EX 01-G	10	0.00	0.51	0	0	15.4	0.00	5.09	0.00	84.73	LINE EX 01-G	EX 01-G	989.14	978.94	978.59	112.47	0.31	48	0.012	86.81	84.73	6.74	6.74	983.17	982.83	LINE EX 01-G	....	....	....	....	....
12	EX 01-H	11	0.27	0.51	0.14	0.14	15.1	8.36	5.13	1.15	66.06	LINE EX 01-H	EX 01-H	990.98	984.68	982.80	92.49	2.03	42	0.012	155.39	66.06	12.15	15.49	987.23	984.39	LINE EX 01-H	0.71	0.44	0.010	6.29	2.00
13	EX 01-I	12	0.00	0.00	0	0	14.8	0.00	5.19	0.00	66.15	LINE EX 01-I	EX 01-I	995.03	985.40	985.04	143.08	0.25	42	0.012	54.68	66.15	6.88	6.88	989.07	988.54	LINE EX 01-I	....	....	....	....	....
14	EX 01-J	13	0.00	0.00	0	0	14.7	0.00	5.21	0.00	63.95	LINE EX 01-J	EX 01-J	996.48	986.89	985.98	41.28	2.20	42	0.012	161.84	63.95	7.05	6.65	989.81	989.85	LINE EX 01-J	....	....	....	....	....
15	EX 01-K	14	0.43	0.51	0.22	0.22	14.0	8.36	5.33	1.83	60.97	LINE EX 01-K	EX 01-K	999.22	988.78	987.98	248.39	0.32	42	0.012	61.86	60.97	7.20	7.14	991.63	990.89	LINE EX 01-K	0.93	0.90	0.010	7.76	2.00
16	EX 01-L	15	0.00	0.00	0	0	11.6	0.00	5.86	0.00	12.98	LINE EX 01-L	EX 01-L	1001.93	992.81	991.18	265.11	0.61	36	0.012	56.65	12.98	3.69	2.13	993.95	993.59	LINE EX 01-L	....	....	....	....	....
17	EX 01-M	16	0.00	0.00	0	0	10.3	0.00	6.21	0.00	13.73	LINE EX 01-M	EX 01-M	1004.14	995.59	994.32	213.11	0.60	30	0.012	34.30	13.73	5.11	6.60	996.84	995.42	LINE EX 01-M	....	....	....	....	....
18	EX 01-N	17	0.44	0.51	0.22	0.22	9.9	8.36	6.32	1.88	14.00	LINE EX 01-N	EX 01-N	1004.95	999.97	998.44	68.77	2.22	30	0.012	66.27	14.00	8.18	10.70	1001.23	999.22	LINE EX 01-N	0.69	1.19	0.020	6.71	2.00
19	EX 200 AKA 01-O	18	0.84	0.51	0.43	0.43	9.7	8.36	6.37	3.58	12.67	LINE EX 200 AKA 01-O	EX 200 AKA 01-O	1005.00	1000.63	1000.09	35.38	1.53	24	0.012	30.27	12.67	5.72	5.47	1001.91	1001.47	LINE EX 200 AKA 01-O	1.15	3.83	0.020	10.22	2.00
20	201	19	0.00	0.00	0	0	8.7	0.00	6.69	0.00	10.45	LINE 201	201	1009.19	1002.62	1001.13	198.24	0.75	24	0.012	21.24	10.45	5.54	5.52	1003.78	1002.29	LINE 201	....	....	....	....	....
21	202	20	0.00	0.00	0	0	8.0	0.00	6.97	0.00	10.87	LINE 202	202	1012.14	1003.98	1002.82	155.31	0.75	24	0.012	34.67	10.87	5.45	5.27	1005.16	1004.07	LINE 202	....	....	....	....	....
22	203	21	0.54	0.51	0.28	0.28	7.2	8.36	7.26	2.30	11.34	LINE 203	203	1016.17	1005.69	1004.48	161.14	0.75	24	0.012	24.49	11.34	5.55	5.38	1006.90	1005.52	LINE 203	0.90	1.40	0.010	8.56	2.00
23	204	22	0.48	0.51	0.24	0.24	7.0	8.36	7.35	2.05	9.44	LINE 204	204	1016.27	1006.46	1006.19	35.44	0.76	24	0.012	24.69	9.44	5.42	5.49	1007.56	1007.27	LINE 204	1.01	1.82	0.010	9.33	2.00
24	205	23	0.00	0.00	0	0	5.6	0.00	8.03	0.00	8.35	LINE 205	205	1014.80	1008.62	1006.96	221.79	0.75	24	0.012	24.51	8.35	5.47	5.82	1009.63	1007.89	LINE 205	....	....	....	....	....
25	206	24	0.35	0.51	0.18	0.18	5.2	8.36	8.24	1.49	8.57	LINE 206	206	1018.18	1013.32	1009.12	111.97	3.75	18	0.012	13.93	8.57	7.14	8.29	1014.45	1009.77	LINE 206	0.71	0.78	0.010	7.08	2.00
26	207	25	1.69	0.51	0.86	0.86	5.0	8.36	8.36	7.21	7.21	LINE 207	207	1019.88	1014.85	1013.82	51.39	2.00	18	0.012	16.11	7.21	5.89	6.25	1015.89	1014.75	LINE 207	1.45	5.75	0.010	12.27	2.00
27	400	15	0.65	0.66	0.43	0.43	8.5	8.36	6.77	3.59	60.96	LINE 400	400	999.29	991.55	991.18	74.46	0.50	36	0.012	50.93	60.96	8.63	8.63	994.71	994.18	LINE 400	2.35	11.73	0.010	17.70	2.00
28	401	27	0.31	0.66	0.2	0.2	8.1	8.36	6.91	1.71	53.38	LINE 401	401	1001.91	992.57	991.75	164.57	0.50	36	0.012	51.00	53.38	7.55	7.55	997.51	996.61	LINE 401	0.80	1.97	0.026	7.53	2.00
29	401.1B1	28	0.73	0.66	0.48	0.48	7.8	8.36	7.02	4.03	21.46	LINE 401.1B1	401.1B1	1003.42	995.67	993.07	119.06	2.20	24	0.012	36.21	21.46	6.83	6.83	999.95	999.04	LINE 401.1B1	1.83	7.72	0.012	14.68	2.00
30	401.2B1	29	0.00	0.00	0	0	7.3	0.00	7.22	0.00	17.31	LINE 401.2B1	401.2B1	1003.50	997.19	996.17	101.71	1.00	30	0.012	44.49	17.31	3.53	3.53	1001.36	1001.20	LINE 401.2B1	....	....	....	....	....
31	401.3B	30	0.67	0.66	0.44	0.44	6.9	8.36	7.40	3.70	13.38	LINE 401.3B	401.3B	1005.96	998.68	997.69	99.76	1.00	24	0.012	24.41	13.38	4.26	4.26	1001.85	1001.55	LINE 401.3B	1.61	5.52	0.011	13.31	2.00
32	401.4B1	31	0.68	0.66	0.45	0.45	6.3	8.36	7.69	3.75	10.51	LINE 401.4B1	401.4B1	1010.47	1002.01	999.19	226.00	1.25	18	0.012	12.71	10.51	5.95	5.95	1004.01	1002.08	LINE 401.4B1	1.13	3.43	0.018	10.06	2.00
33	401.5B	32	0.00	0.00	0	0	5.4	0.00	8.11	0.00	5.57	LINE 401.5B	401.5B	1014.14	1006.33	1002.51	152.69	2.50	18	0.012	17.99	5.57	4.06	3.15	1007.24	1005.21	LINE 401.5B	....	....	....	....	....
34	401.6B	33	0.24	0.66	0.16	0.16	5.2	8.36	8.27	1.32	5.68	LINE 401.6B	401.6B	1016.66	1009.16	1006.83	78.00	3.00	15	0.012	12.09	5.68	7.64	9.70	1010.12	1007.43	LINE 401.6B	0.52	0.80	0.030	5.16	2.00
35	401.7B	34	0.80	0.66	0.53	0.53	5.0	8.36	8.36	4.42	4.42	LINE 401.7B	401.7B	1017.33	1010.00	1009.66	34.00	1.00	15	0.012	7.00	4.42	5.36	5.76	1010.85	1010.41	LINE 401.7B	0.98	3.43	0.030	8.93	2.00
36	401.1A	28	1.00	0.66	0.66	0.66	7.0	8.36	7.34	5.52	29.67	LINE 401.1A	401.1A	1001.93	993.25	993.07	34.00	0.50	30	0.012	32.33	29.67	6.05	6.05	999.35	999.19	LINE 401.1A	1.61	5.24	0.010	13.35	2.00
37	401.2A1	36	0.83	0.66	0.55	0.55	6.9	8.36	7.41	4.58	25.09	LINE 401.2A1	401.2A1	1000.79	994.00	993.75	50.00	0.50	30	0.012	31.42	25.09	5.11	5.11	1000.41	1000.25	LINE 401.2A1	1.89	7.39	0.010	15.04	2.00
38	401.3A	37	0.00	0.00	0	0	6.4	0.00	7.63	0.00	16.32	LINE 401.3A	401.3A	1001.76	994.95	994.50	90.13	0.50	30	0.012	31.39	16.32	3.33	3.33	1001.36	1001.23	LINE 401.3A	....	....	....	....	....
39	401.4A	38	0.00	0.00	0	0	6.0	0.00	7.82	0.00	16.72	LINE 401.4A	401.4A	1004.37	998.61	995.45	115.71	2.73	24	0.012	40.49	16.72	5.32	5.32	1002.00	1001.46	LINE 401.4A	....	....	....	....	....
40	401.5A1	39	0.54	0.66	0.36	0.36	5.6	8.36	8.03	2.98	17.17	LINE 401.5A1	401.5A1	1008.66	1002.97	999.11	128.75	3.00	24	0.012	42.43	17.17	6.15	5.47	1004.46	1002.30	LINE 401.5A1	1.13	4.70	0.030	10.03	2.00
41	401.6A	40	0.68	0.66	0.45	0.45	5.1	8.36	8.29	3.75	11.43	LINE 401.6A	401.6A	1014.03	1007.96	1003.47	179.42	2.50	18	0.012	18.00	11.43	7.79	8.51	1009.25	1004.54	LINE 401.6A	0.90	2.85	0.030	8.34	2.00
42	401.7A	41	1.41	0.66	0.93	0.93	5.0	8.36	7.78	7.78	7.78	LINE 401.7A	401.7A	1014.03	1009.14	1008.46	34.00	2.00	18	0.012	16.09	7.78	5.30	4.89	1010.22	1009.73	LINE 401.7A	1.31	6.47	0.030	11.28	2.00
43	401.4B2	32	0.35	0.66	0.23	0.23	5.0	8.36	8.36	1.93	1.93	LINE 401.4B2	401.4B2	1011.38	1003.44	1002.76	34.00	2.00	15	0.012	9.89	1.93	1.57	1.57	1005.36	1005.33	LINE 401.4B2	1.23	4.14	0.018	10.76	2.00
44	402	28	0.29	0.66	0.19	0.19	5.4	8.36	8.15	1.60	3.44	LINE 402	402	1011.44	1005.62	994.32	263.49	4.29	15	0.012	14.49	3.44	3.65	2.81	1006.37	999.64	LINE 402	0.55	1.05	0.038	5.34	2.00
45	403	44	0.35	0.66	0.23	0.23	5.0	8.36	8.36	1.93	1.93	LINE 403	403	1011.77	1006.65	1006.12	35.12	1.51	15	0.012	8.59	1.93	3.83	3.97	1007.20	1006.64	LINE 403	0.61	1.33	0.038	5.86	2.00
46	401.2B2	30	0.49	0.66	0.32	0.32	6.5	8.36	7.58	2.70	4.45	LINE 401.2B2	401.2B2	1005.63	999.82	998.19	109.11	1.49	18	0.012	13.90	4.45	2.52	2.52	1001.81	1001.64	LINE 401.2B2	2.70	....	Sag	....	....
47	401.2B3	46	0.40	0.66	0.26	0.26	5.0	8.36	8.36	2.21	2.21	LINE 401.2B3	401.2B3	1008.06	1002.76	1000.32	162.42	1.50	15	0.012	8.57	2.21	2.82	1.80	1003.35	1001.99	LINE 401.2B3	2.21	....	Sag	....	....
48	401.5A2	40	0.61	0.66	0.4	0.4	5.0	8.36	8.36	3.37	3.37	LINE 401.5A2	401.5A2	1008.66	1003.89	1003.72	34.00	0.50	15	0.012	4.95	3.37	2.75	2.74	1005.13	1005.05	LINE 401.5A2	1.62	10.04	0.030	13.26	2.00
49	EX 100 AKA 05-A	11	0.77	0.51	0.39	0.39	13.5	8.36	5.44	3.28	20.54	LINE EX 100 AKA 05-A	EX 100 AKA 05-A	989.65	981.08	980.13	44.06	2.16	36	0.012	106.10	20.54	2.91	2.91	984.35	984.32	LINE EX 100 AKA 05-A	2.04	3.63	0.015	11.41	2.00
50	101	49	0.83	0.51	0.42	0.42	10.7	8.36	6.09	3.54	15.47	LINE 101	101	995.98	985.29	983.65	402.28	0.41	36	0.012	46.13	15.47	5.70	5.88	986.54	984.85	LINE 101	1.47	2.39	0.015	9.75	2.00
51	EX 102 AKA 05-C	50	0.00	0.00	0	0	8.1	0.00	6.90	0.00	10.03	LINE 102	EX 102 AKA 05-C	1000.59	989.92	986.29	343.40	1.06	30	0.012	45.68	10.03	6.27	7.46	990.98	987.09	LINE 102	....	....	....	....	....
52	EX 05-D	51	0.19	0.51	0.1	0.1	8.0	8.36	6.97	0.81	10.13	LINE EX 05-D	EX 05-D	1001.48	991.52	990.39	38.10	2.97	24	0.012	42.20	10.13	6.87	8.26	992.66	991.22	LINE EX 05-D	0.50	0.31	0.010	5.31	2.00
53	EX 05-E	52	2.24	0.51	1.14	1.14	7.7	8.36	7.07	9.55	9.58	LINE EX 05-E	EX 05-E	1001.37	994.01	992.19	49.17	3.70	24	0.012	47.14	9.58	6.83	8.28	995.12	992.98	LINE EX 05-E	9.88	0.00	Sag	29.23	2.00
54	EX 05-F	53	0.17	0.51	0.09	0.09	5.7	8.36	7.99	0.73	1.71	LINE EX 05-F	EX 05-F	1005.19	997.62	994.83	176.22	1.58	15	0.012	8.80	1.71	2.98	2.40	998.14	995.54	LINE EX 05-F	0.40	0.32	0.020	4.16	2.00
55	EX 05-G	54	0.25	0.51	0.13	0.13	5.0	8.36	8.36	1.07	1.07	LINE EX 05-G	EX 05-G	1004.90	1001.24	1001.05	34.74	0.55	15	0.012	5.17	1.07	3.20	3.32	1001.65	1001.44	LINE EX 05-G	0.51	0.56	0.020	5.12	2.00
56	401.1B2	29	0.35	0.51	0.18	0.18	5.0	8.36	8.36	1.49	1.49	LINE 401.1B2	401.1B2	1003.30	997.85	997.42	41.91	1.03	15	0.012	7.09	1.49	1.22	1.22	1001.39	1001.37	LINE 401.1B2	0.68	0.81	0.012	6.80	2.00
57	EX 01-F3	10	0.81	0.51	0.41	0.41	10.2	8.36	6.25	3.45	6.21	LINE EX 01-F3	EX 01-F3	988.59	984.75	983.65	90.59	1.21	15	0.012	7.71	6.21	6.43	6.99	985.76	984.50	LINE EX 01-F3	3.45	....	Sag	....	....
58	EX 01-F4	57	0.80	0.51	0.41	0.41	8.9	8.36	6.64	3.41	3.86	LINE EX 01-F4	EX 01-F4	995.09	989.42	984.95	275.58	1.62	15	0.012	8.91	3.86	3.95	3.21	990.21	986.14	LINE EX 01-F4	3.41	....	Sag	....	....
59	EX 01-F5	58	0.34	0.51	0.17	0.17	5.0	8.36	8.36	1.45	1.45	LINE EX 01-F5	EX 01-F5	1001.57	997.76	989.62	274.66	2.96	15	0.012	12.04	1.45	2.44	1.51	998.24	990.54	LINE EX 01-F5	1.45	....	Sag	....	....
60	401.2A2	37	1.37	0.51	0.7	0.7	5.0	8.36	8.36	5.84	5.84	LINE 401.2A2	401.2A2	1000.91	996.22	995.50	35.73	2.01	18	0.012	16.15	5.84	3.31	3.31	1001.33	1001.24	LINE 401.2A2	2.51	13.37	0.010	18.54	2.00
61	EX 10-B	27	0.25	0.51	0.13	0.13	5.2	8.36	8.28	1.07	7.05	LINE EX 10-B	EX 10-B	999.55	994.56	994.24	35.32	0.91	24	0.012	23.32	7.05	2.24	2.24	997.45	997.42	LINE EX 10-B	3.33	23.73	0.010	22.75	2.00
62	EX 10-C	61	1.42	0.51	0.72	0.72	5.0	8.36	8.36	6.06	6.06	LINE EX 10-C	EX 10-C	999.41	996.24	995.45	44.56	1.77	15	0.012	9.31	6.06	4.94	4.94	997.88	997.54	LINE EX 10-C	2.53	9.10	0.010	16.43	2.00
63	EX 08-A	13	0.17	0.51	0.09	0.09	7.2	8.36	7.29	0.73	3.42	LINE EX 08-A	EX 08-A	997.98	989.87	988.08	94.60	1.89	24	0.012	33.70	3.42	2.47	1.09	990.52	990.52	LINE EX 08-A	0.47	0.26	0.010	5.02	2.00
64	EX 08-B	63	0.75	0.51	0.38	0.38	5.0	8.36	8.36	3.20	3.20	LINE EX 08-B	EX 08-B	999.21	994.08	992.97	132.10	0.84	24	0.012	22.46	3.20	4.44	5.06	994.70	993.48	LINE EX 08-B	2.83	17.07	0.010	20.22	2.00
65	EX 09-A	14	0.43	0.51	0.22	0.22	5.4	8.36	8.16	1.83	6.83	LINE EX 09-A	EX 09-A	997.69	989.09	988.73	52.53	0.69	24	0.012	20.29	6.83	2.17	2.17	991.48	991.44	LINE EX 09-A	2.74	....	Sag	....	....
66	EX 09-B	65	1.21	0.51	0.62	0.62	5.0	8.36	8.36	5.16	5.16	LINE EX 09-B	EX 09-B	997.80	993.48	992.68	34.72	2.30	24	0.012	37.19	5.16	6.36	8.32	994.28	993.18	LINE EX 09-B	66.80	....	Sag	....	....
67	101.1	50	1.30	0.51	0.66	0.66	5.0	8.36	8.36	5.54	5.54	LINE 101.1	101.1	995.96	990.74	990.39	35.00	1.00	15	0.012	7.00	5.54	5.92	6.32	991.69	991.23	LINE 101.1	1.55	4.00	0.015	11.31	2.00
68	EX 06-A	49	1.65	0.51	0.84	0.84	5.0	8.36	8.36	7.04	7.04	LINE EX 06-A	EX 06-A	989.59	985.94	985.75	35.35	0.54	15	0.012	5.13	7.04	5.74	5.74	987.36	987.00	LINE EX 06-A	1.87	9.16	0.015	14.87	2.00
69	601	Outfall	0.00	0.00	0	0	9.9	0.00	6.32	0.00	27.93	LINE 601	601	981.37	972.66	972.46	40.44	0.49	36	0.012	50.80	27.93	6.72	6.72	974.37	974.17	LINE 601	....	....	....	....	....
70	602	69	0.81	0.51	0.41	0.41	9.3	8.36	6.49	3.45	28.70	LINE 602	602	982.76	973.82	972.16	131.04	1.50	36	0.012	51.28	28.70	6.99	7.19	975.55	974.81	LINE 602	1.35	5.41	0.020	11.56	2.00
71	603	70	0.51	0.51	0.26	0.26	7.4	8.36	7.17	2.18	6.94	LINE 603	603	998.37	990.84	975.32	405.21	3.83	18	0.012	22.26	6.94	6.94	8.46	991.86	976.03	LINE 603	0.89	3.30	0.040	8.22	2.00
72	604	71	0.65	0.51	0.33	0.33	5.5	8.36	8.07	2.77	3.95	LINE 604	604	1013.50	1006.54	991.34	379.98	4.00	15	0.012	13.99	3.95	4.69	4.65	1007.34	992.16	LINE 604	0.75	2.02	0.034	7.10	2.00
73	605	72	0.31	0.51	0.16	0.16	5.0	8.36	8.36	1.32	1.32	LINE 605	605	1013.50	1008.06	1007.04	34.00	3.00	15	0.012	12.12	1.32	2.70	2.11	1008.51	1007.67	LINE 605	0.51	0.82	0.034	4.99	2.00
74	602.1	70	0.78	0.51	0.4	0.4	9.2	8.36	6.54	3.33	19.87	LINE 602.1	602.1	982.76	974.49	974.32	34.00	0.50	30	0.012	31.41	19.87	6.01	5.61	976.00	976.01	LINE 602.1	1.19	4.08	0.020	10.46	2.00
75	602.2A	74	0.42	0.51	0.21	0.21	8.9	8.36	6.62	1.79	17.48	LINE 602.2A	602.2A	982.47	975.23	974.99	49.03	0.49	30	0.012	31.09	17.48	6.01	5.91	976.64	976.44	LINE 602.2A	1.83	8.74	0.015	14.62	2.00
76	602.3	75	0.00	0.00	0	0	8.3	0.00	6.83	0.00	14.95	LINE 602.3	602.3	984.07	976.27	975.73	107.25	0.50	30	0.012	31.53	14.95	5.66	5.53	977.57	977.08	LINE 602.3	....	....	....	....	....
77	602.4	76	0.67	0.51	0.34	0.34	8.2	8.36	6.89	2.86	15.07	LINE 602.4	602.4	984.67	976.89	976.77	24.89	0.48	30	0.012	30.85	15.07	6.02	6.24	978.20	978.00	LINE 602.4	2.86	....	Sag	....	....
78	602.5	77	0.88	0.51	0.45	0.45	7.3	8.36	7.21	3.75	13.31	LINE 602.5	602.5	990.67	983.64	977.86	200.00	2.89	24	0.012	41.65	13.31	8.94	11.78	994.95	978.64	LINE 602.5	3.75	....	Sag	....	....
79	602.6	78	0.90	0.51	0

100-YEAR

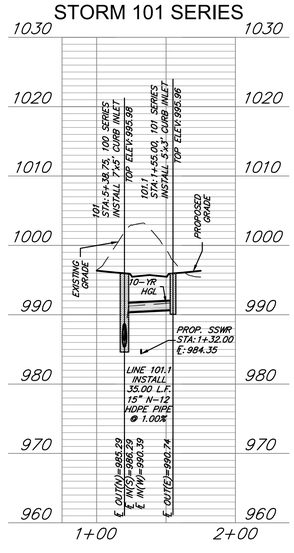
HYDROLOGY											HYDRAULICS														GUTTER/INLET DESIGN					
Line No.	Inlet ID	Downstream Line No.	Drainage Area	Runoff Coefficient	Local CxA	System CxA	Tc	Local Intensity	System Intensity	Incremental Flow	Total Runoff	Line ID	Inlet ID	U/S Ground Elev.	U/S Invert	D/S Invert	Length	Slope	Size	n	Capacity Full	Total Runoff	Velocity	Velocity Out	HGLUp	HGLDn	Line ID	Local Q	QBypass	Gutter Slope	Gutter Spread	Gutter Width
			(ac)	(C)			(min)	(in/hr)	(in/hr)	(cfs)	(cfs)			(ft)	(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)	(ft/s)	(ft/s)	(ft)	(ft)		(cfs)	(cfs)	(ft/ft)	(ft)	(ft)
1	EX 12-F	Outfall	0.95	0.51	0.48	0.48	6.4	12.58	11.45	6.10	41.65	LINE EX 12-F	EX 12-F	996.69	989.39	986.32	145.90	2.10	36	0.012	104.81	41.65	7.88	7.88	991.49	988.42	LINE EX 12-F	1.64	10.34	0.030	13.40	2.00
2	EX 12-G	1	0.41	0.51	0.21	0.21	5.9	12.58	11.83	2.63	37.27	LINE EX 12-G	EX 12-G	1001.64	992.31	989.61	199.66	1.35	30	0.012	51.67	37.27	8.84	9.08	994.37	991.56	LINE EX 12-G	1.70	5.89	0.010	13.90	2.00
3	EX 500 AKA 12-H	2	0.00	0.00	0	0	5.8	0.00	11.91	0.00	28.60	LINE EX 500 AKA 15-H	EX 500 AKA 12-H	1003.75	996.65	996.67	50.58	1.94	24	0.012	34.11	28.60	10.81	12.16	998.49	997.07	LINE EX 500 AKA 15-H	....	....	....	....	....
4	501	3	0.93	0.51	0.47	0.47	5.2	12.58	12.37	5.97	27.69	LINE 501	501	1016.37	1008.79	996.97	274.67	4.30	24	0.012	50.83	27.69	9.47	9.72	1010.61	998.67	LINE 501	1.01	4.95	0.050	9.11	2.00
5	502	4	0.28	0.51	0.14	0.14	5.2	12.58	12.41	1.80	21.91	LINE 502	502	1016.99	1010.75	1009.29	36.45	4.00	18	0.012	22.77	21.91	12.86	13.29	1012.23	1010.61	LINE 502	1.81	16.86	0.050	14.43	2.00
6	503	5	0.30	0.51	0.15	0.15	5.1	12.58	12.53	1.93	20.33	LINE 503	503	1020.24	1013.05	1011.25	90.15	2.00	18	0.012	16.07	20.33	11.50	11.51	1015.63	1012.75	LINE 503	0.82	1.11	0.010	7.92	2.00
7	504	6	2.88	0.51	1.47	1.47	5.0	12.58	12.58	18.48	18.48	LINE 504	504	1020.31	1014.24	1013.55	34.63	2.00	18	0.012	16.06	18.48	10.46	10.46	1017.93	1017.01	LINE 504	2.72	15.76	0.010	19.66	2.00
8	FUT 500.1	3	0.32	0.51	0.16	0.16	5.0	12.58	12.58	2.05	2.05	FUT LINE 500.1	500.1	1009.01	999.24	997.99	25.06	5.00	15	0.012	15.62	2.05	2.72	1.67	999.81	999.84	FUT LINE 500.1	2.05	....	Sag	....	....
9	EX 19-A	2	1.06	0.51	0.54	0.54	5.0	12.58	12.58	6.80	6.80	LINE EX 19-A	EX 19-A	1001.76	996.10	995.91	35.10	0.54	24	0.012	18.03	6.80	5.06	5.33	997.02	996.76	LINE EX 19-A	3.10	20.56	0.010	21.61	2.00
10	EX 01-F	Outfall	0.00	0.00	0	0	12.1	0.00	8.57	0.00	151.29	LINE EX 01-F	EX 01-F	987.57	978.23	977.86	107.18	0.35	48	0.012	91.43	151.29	12.37	12.69	982.67	981.46	LINE EX 01-F	....	....	....	....	....
11	EX 01-G	10	0.00	0.51	0	0	11.9	0.00	8.64	0.00	143.90	LINE EX 01-G	EX 01-G	989.14	978.94	978.59	112.47	0.31	48	0.012	86.81	143.90	11.45	11.45	986.10	985.13	LINE EX 01-G	....	....	....	....	....
12	EX 01-H	11	0.27	0.51	0.14	0.14	11.8	12.58	8.69	1.73	112.01	LINE EX 01-H	EX 01-H	990.98	984.68	982.80	92.49	2.03	42	0.012	155.39	112.01	11.64	11.64	988.73	987.75	LINE EX 01-H	0.90	0.83	0.010	7.57	2.00
13	EX 01-I	12	0.00	0.00	0	0	11.5	0.00	8.78	0.00	111.90	LINE EX 01-I	EX 01-I	995.03	985.40	985.04	143.08	0.25	42	0.012	54.68	111.90	11.63	11.63	991.29	989.78	LINE EX 01-I	....	....	....	....	....
14	EX 01-J	13	0.00	0.00	0	0	11.5	0.00	8.80	0.00	108.10	LINE EX 01-J	EX 01-J	996.48	986.89	985.98	41.28	2.20	42	0.012	161.84	108.10	11.24	11.24	993.94	993.53	LINE EX 01-J	....	....	....	....	....
15	EX 01-K	14	0.43	0.51	0.22	0.22	11.0	12.58	8.97	2.76	102.61	LINE EX 01-K	EX 01-K	999.22	988.78	987.98	248.39	0.32	42	0.012	61.86	102.61	10.67	10.67	998.24	996.04	LINE EX 01-K	1.17	1.59	0.010	9.23	2.00
16	EX 01-L	15	0.00	0.00	0	0	9.4	0.00	9.67	0.00	21.41	LINE EX 01-L	EX 01-L	1001.93	992.81	991.18	265.11	0.61	36	0.012	56.65	21.41	3.03	3.03	1002.66	1002.43	LINE EX 01-L	....	....	....	....	....
17	EX 01-M	16	0.00	0.00	0	0	8.5	0.00	10.11	0.00	22.37	LINE EX 01-M	EX 01-M	1004.14	995.59	994.32	213.11	0.60	30	0.012	34.30	22.37	4.56	4.56	1003.23	1002.69	LINE EX 01-M	....	....	....	....	....
18	EX 01-N	17	0.44	0.51	0.22	0.22	8.3	12.58	10.26	2.82	22.70	LINE EX 01-N	EX 01-N	1004.95	999.97	998.44	68.77	2.22	30	0.012	66.27	22.70	4.63	4.63	1003.71	1003.53	LINE EX 01-N	0.86	1.97	0.020	8.05	2.00
19	EX 200 AKA 01-O	18	0.84	0.51	0.43	0.43	8.2	12.58	10.31	5.39	20.51	LINE EX 200 AKA 01-O	EX 200 AKA 01-O	1005.00	1000.63	1000.09	35.38	1.53	24	0.012	30.27	20.51	6.53	6.53	1004.41	1004.16	LINE EX 200 AKA 01-O	1.45	6.29	0.020	12.21	2.00
20	201	19	0.00	0.00	0	0	7.5	0.00	10.71	0.00	16.71	LINE 201	201	1009.19	1002.62	1001.13	198.24	0.75	24	0.012	21.24	16.71	5.32	5.32	1006.54	1005.62	LINE 201	....	....	....	....	....
21	202	20	0.00	0.00	0	0	7.0	0.00	11.03	0.00	17.22	LINE 202	202	1012.14	1003.98	1002.82	155.31	0.75	24	0.012	21.18	17.22	5.48	5.48	1007.49	1006.72	LINE 202	....	....	....	....	....
22	203	21	0.54	0.51	0.28	0.28	6.5	12.58	11.38	3.47	17.76	LINE 203	203	1016.17	1005.69	1004.48	161.14	0.75	24	0.012	21.23	17.76	5.65	5.65	1008.43	1007.58	LINE 203	1.12	2.34	0.010	10.15	2.00
23	204	22	0.48	0.51	0.24	0.24	6.3	12.58	11.48	3.08	14.75	LINE 204	204	1016.27	1006.46	1006.19	35.44	0.76	24	0.012	21.39	14.75	4.70	4.70	1009.43	1009.30	LINE 204	1.28	3.16	0.010	11.22	2.00
24	205	23	0.00	0.00	0	0	5.4	0.00	12.23	0.00	12.72	LINE 205	205	1014.80	1008.62	1006.96	221.79	0.75	24	0.012	21.20	12.72	4.05	4.05	1010.60	1010.03	LINE 205	....	....	....	....	....
25	206	24	0.35	0.51	0.18	0.18	5.1	12.58	12.46	2.25	12.96	LINE 206	206	1018.18	1013.32	1009.12	111.97	3.75	18	0.012	22.03	12.96	7.54	7.34	1014.67	1010.81	LINE 206	0.89	1.36	0.010	8.46	2.00
26	207	25	1.69	0.51	0.86	0.86	5.0	12.58	12.58	10.85	10.85	LINE 207	207	1019.88	1014.85	1013.82	51.385	2.00	18	0.012	16.11	10.85	7.01	7.19	1016.11	1015.02	LINE 207	1.80	9.05	0.010	14.43	2.00
27	400	15	0.65	0.66	0.43	0.43	7.3	12.58	10.80	5.40	97.27	LINE 400	400	999.29	991.55	991.18	74.46	0.50	36	0.012	50.93	97.27	13.76	13.76	1002.16	1000.81	LINE 400	3.05	19.88	0.010	21.35	2.00
28	401	27	0.31	0.66	0.2	0.2	7.1	12.58	10.96	2.57	84.73	LINE 401	401	1001.91	992.57	991.75	164.57	0.50	36	0.012	51.00	84.73	11.99	11.99	1009.28	1007.02	LINE 401	1.00	3.30	0.026	9.11	2.00
29	401.1B1	28	0.73	0.66	0.48	0.48	6.9	12.58	11.10	6.06	33.92	LINE 401.1B1	401.1B1	1003.42	995.67	993.07	119.06	2.20	24	0.012	36.21	33.92	10.80	10.80	1015.42	1013.14	LINE 401.1B1	2.34	12.84	0.012	17.59	2.00
30	401.2B1	29	0.00	0.00	0	0	6.5	0.00	11.33	0.00	27.16	LINE 401.2B1	401.2B1	1003.50	997.19	996.17	101.71	1.00	30	0.012	44.49	27.16	5.53	5.53	1018.94	1018.56	LINE 401.2B1	....	....	....	....	....
31	401.3B	30	0.67	0.66	0.44	0.44	6.3	12.58	11.53	5.57	20.86	LINE 401.3B	401.3B	1005.96	998.68	997.69	99.76	1.00	24	0.012	24.41	20.86	6.64	6.64	1020.14	1019.41	LINE 401.3B	2.03	9.12	0.011	15.86	2.00
32	401.4B1	31	0.68	0.66	0.45	0.45	5.8	12.58	11.86	5.65	16.21	LINE 401.4B1	401.4B1	1010.47	1002.01	999.19	226.00	1.25	18	0.012	12.71	16.21	9.17	9.17	1025.29	1020.70	LINE 401.4B1	1.41	5.58	0.018	11.97	2.00
33	401.5B	32	0.00	0.00	0	0	5.3	0.00	12.32	0.00	8.46	LINE 401.5B	401.5B	1014.14	1006.33	1002.51	152.69	2.50	18	0.012	17.99	8.46	4.79	4.79	1029.01	1028.17	LINE 401.5B	....	....	....	....	....
34	401.6B	33	0.24	0.66	0.16	0.16	5.1	12.58	12.49	1.99	8.57	LINE 401.6B	401.6B	1016.66	1009.16	1006.83	78.00	3.00	15	0.012	12.09	8.57	6.99	6.99	1030.42	1029.25	LINE 401.6B	0.65	1.34	0.030	6.29	2.00
35	401.7B	34	0.80	0.66	0.53	0.53	5.0	12.58	12.58	6.64	6.64	LINE 401.7B	401.7B	1017.33	1010.00	1009.66	34.00	1.00	15	0.012	7.00	6.64	5.42	5.42	1032.14	1031.84	LINE 401.7B	1.21	5.43	0.030	10.58	2.00
36	401.1A	28	1.00	0.66	0.66	0.66	6.4	12.58	11.46	8.31	46.36	LINE 401.1A	401.1A	1001.93	993.25	993.07	34.00	0.50	30	0.012	32.33	46.36	9.45	9.45	1013.94	1013.57	LINE 401.1A	2.01	8.45	0.010	15.77	2.00
37	401.2A1	36	0.83	0.66	0.55	0.55	6.2	12.58	11.55	6.89	39.09	LINE 401.2A1	401.2A1	1000.79	994.00	993.75	50.00	0.50	30	0.012	31.42	39.09	7.96	7.96	1016.54	1016.16	LINE 401.2A1	2.39	12.10	0.010	17.90	2.00
38	401.3A	37	0.00	0.00	0	0	5.9	0.00	11.80	0.00	25.22	LINE 401.3A	401.3A	1001.76	994.95	994.50	90.13	0.50	30	0.012	31.39	25.22	5.14	5.14	1018.84	1018.55	LINE 401.3A	....	....	....	....	....
39	401.4A	38	0.00	0.00	0	0	5.7	0.00	12.00	0.00	25.67	LINE 401.4A	401.4A	1004.37	998.61	995.45	115.71	2.73	24	0.012	40.49	25.67	8.17	8.17	1020.35	1019.08	LINE 401.4A	....	....	....	....	....
40	401.5A1	39	0.54	0.66	0.36	0.36	5.4	12.58	12.23	4.49	26.16	LINE 401.5A1	401.5A1	1008.66	1002.97	999.11	128.75	3.00	24	0.012	42.43	26.16	8.33	8.33	1022.53	1021.06	LINE 401.5A1	1.42	7.60	0.030	11.97	2.00
41	401.6A	40	0.68	0.66	0.45	0.45	5.1	12.58	12.51	5.65	17.25	LINE 401.6A	401.6A	1014.03	1007.96	1003.47	179.42	2.50	18	0.012	18.00	17.25	9.76	9.76	1028.20	1024.08	LINE 401.6A	1.12	4.53	0.030	9.90	2.00
42	401.7A	41	1.41	0.66	0.93	0.93	5.0	12.58	12.58	11.71	11.71	LINE 401.7A	401.7A	1014.03	1009.14	1008.46	34.00	2.00	18	0.012	16.09	11.71	6.63	6.63	1031.59	1031.23	LINE 401.7A	1.62	10.09	0.030	13.28	2.00
43	401.4B2	32	0.35	0.66	0.23	0.23	5.0	12.58	12.58	2.91	2.91	LINE 401.4B2	401.4B2	1011.38	1003.44	1002.76	34.00	2.00	15	0.012	9.89	2.91	2.37	2.37	1028.50	1028.44	LINE 401.4B2	1.54	6.79	0.018	12.84	2.00
44	402	28	0.29	0.66	0.19	0.19	5.2	12.58	12.36	2.41	5.22	LINE 402	402	1011.44	1005.62	994.32	263.49	4.29	15	0.012	14.49	5.22	4.25	4.26	1016.14	1014.67	LINE 402	0.68	1.73	0.038	6.50	2.00
45	403	44	0.35	0.66	0.23	0.23	5.0	12.58	12.58	2.91	2.91	LINE 403	403	1011.77	1006.65	1006.12	35.12	1.51	15	0.012	8.59	2.91	2.37	2.37	1016.81	1016.75	LINE 403	0.75	2.16	0.038	7.08	2.00
46	401.2B2	30	0.49	0.66	0.32	0.32	6.0	12.58	11.74	4.07	6.89	LINE 401.2B2	401.2B2	1005.63	999.82	998.19	109.11	1.49	18	0.012	13.90	6.89	3.90	3.90	1020.05	1019.65	LINE 401.2B2	4.07	....	Sag	....	....
47	401.2B3	46	0.40	0.66	0.26	0.26	5.0	12.58	12.58	3.32	3.32	LINE 401.2B3	401.2B3	1008.06	1002.76	1000.32	162.42	1.50	15	0.012	8.57	3.32	2.71	2.71	1020.85	1020.48	LINE 401.2B3	3.32	....	Sag	....	....
48	401.5A2	40	0.61	0.66	0.4	0.4	5.0	12.58	12.58	5.07	5.07	LINE 401.5A2	401.5A2	1008.66	1003.89	1003.72	34.00	0.50	15	0.012	4.95	5.07	4.13	4.13	1025.07	1024.89	LINE 401.5A2	2.04	16.27	0.030	15.83	2.00
49	EX 100 AKA 05-A	11	0.77	0.51	0.39	0.39	10.6	12.58	9.12	4.94	34.43	LINE EX 100 AKA 05-A	EX 100 AKA 05-A	989.65	981.08	980.13	44.06	2.16	36	0.012	106.10	34.43	4.87	4.87	989.52	989.42	LINE EX 100 AKA 05-A	2.62	6.39	0.015	13.73	2.00
50	101	49	0.83	0.51	0.42	0.42	8.8	12.58	9.97	5.33	25.32	LINE 101	101	995.98	985.29	983.65	402.28	0.41	36	0.012	46.13	25.32	3.58	3.58	990.64	990.15	LINE 101	1.85	4.07	0.015	11.61	2.00
51	EX 102 AKA 05-C	50	0.00	0.00	0	0	7.1	0.00	10.96	0.00	15.93	LINE 102	EX 102 AKA 05-C	1000.59	989.92	986.29	343.40	1.06	30	0.012	45.68	15.93	4.20	3.25	991.43	990.98	LINE 102	....	....	....	....	....
52	EX 05-D	51	0.19	0.51	0.1	0.1	7.0	12.58	11.04	1.22	16.05	LINE EX 05-D	EX 05-D	1001.48	991.52	990.39	38.10	2.97	24	0.012	42.20	16.05	6.81	7.00	992.91	991.76	LINE EX 05-D	0.63	0.59	0.010	6.46	2.00
53	EX 05-E	52	2.24	0.51	1.14	1.14	6.8	12.58	11.15	14.38	15.13	LINE EX 05-E	EX 05-E	1001.37	994.01	992.19	49.17	3.70	24	0.012	47.14	15.13	7.53	8.62	995.41	993.28	LINE EX 05-E	14.96	....	Sag	....	....
54	EX 05-F	53	0.17	0.51	0.09	0.09	5.4	12.58	12.19	1.09	2.61	LINE EX 05-F	EX 05-F	1005.19	997.62	994.83	176.22	1.58	15	0.012	8.80	2.61	3.14	2.20	998.27	995.98	LINE EX 05-F	0.51	0.58	0.020	5.18	2.00
55	EX 05-G	54	0.25	0.51	0.13	0.13	5.0	12.58	12.58	1.60	1.60	LINE EX 05-G	EX 05-G	1004.90	1001.24	1001.05	34.74	0.55	15	0.012	5.17	1.60	3.60	3.72	1001.74	1001.53	LINE EX 05-G	0.63	0.97	0.020	6.25	2.00
56	401.1B2	29	0.35	0.51	0.18	0.18	5.0	12.58	12.58	2.25	2.25	LINE 401.1B2	401.1B2	1003.30	997.85	997.42	41.91	1.03	15	0.012	7.09	2.25	1.83	1.83	1019.02	1018.98	LINE 401.1B2	0.85	1.39	0.012	8.14	2.00
57	EX 01-F3	10	0.81	0.51	0.41	0.41	8.4	12.58	10.16	5.20	10.11	LINE EX 01-F3	EX 01-F3	988.59	984.75	983.65	90.59	1.21	15	0.012	7.71	10.11	8.24	8.24	988.01	986.12	LINE EX 01-F3	5.20	....	Sag	....	....
58	EX 01-F4	57	0.80	0.51	0.41	0.41	7.6	12.58	10.65	5.13	6.19	LINE EX 01-F4	EX 01-F4	995.09	989.42	984.95	275.58	1.62	15	0.012	8.91	6.19	5.05	5.05	991.36	989.20	LINE EX 01-F4	5.13	....	Sag	....	....
59	EX 01-F5	58	0.34	0.51	0.17	0.17	7.0	12.58	10.57	2.18	2.18	LINE EX 01-F5	EX 01-F5	1001.57	997.76	989.62	274.66	2.96	15	0.012	12.04	2.18	2.81	1.78	998.35	991.90	LINE EX 01-F5	2.18	....	Sag	....	....
60	401.2A2	37	1.37	0.51	0.7	0.7	5.0	12.58	12.58	8.79	8.79	LINE 401.2A2	401.2A2	1000.91	996.22	995.50	35.73	2.01	18	0.012	16.15	8.79	4.98	4.98	1018.79	1018.57	LINE 401.2A2	3.20	21.87	0.010	22.09	2.00
61	EX 10-B	27	0.25	0.51	0.13	0.13	5.1	12.58	12.49	1.60	10.64	LINE EX 10-B	EX 10-B	999.55	994.56	994.24	35.32	0.91	24	0.012	23.32	10.64	3.39	3.39	1009.14	1009.07	LINE EX 10-B	4.33	39.70	0.010	27.39	2.00
62	EX 10-C	61	1.42	0.51	0.72	0.72	5.0	12.58	12.58	9.11	9.11	LINE EX 10-C	EX 10-C	999.41	996.24	995.45	44.56	1.77	15	0.012	9.31	9.11	7.43	7.43	1010.11	1009.35	LINE EX 10-C	3.23	15.11	0.010	19.60	2.00
63	EX 08-A	13	0.17	0.51	0.09	0.09	6.4	12.58	11.41	1.09	5.35	LINE EX 08-A	EX 08-A	997.98	989.87	988.08	94.60	1.89	24	0.012	33.70	5.35	1.70	1.70	995.50	995.45	LINE EX 08-A	0.59	0.50	0.010	6.13	2.00
64	EX 08-B	63	0.75	0.51	0.38	0.38	5.0	12.58	12.58	4.81	4.81	LINE EX 08-B	EX 08-B	999.21	994.08	992.97	132.10	0.84	24	0.012	22.46	4.81	1.72	1.53	995.58	995.54	LINE EX 08-B	3.66	28.51	0.010	24.30	2.00
65	EX 09-A	14	0.43	0.51	0.22	0.22	5.2	12.58	12.37	2.76	10.35	LINE EX 09-A	EX 09-A	997.69	989.09	988.73	52.53	0.69	24	0.012	20.29	10.35	3.29	3.29	997.73	997.64	LINE EX 09-A	4.35	....	Sag	....	....
66	EX 09-B	65	1.21	0.51	0.62	0.62	5.0	12.58	12.58	7.77	7.77	LINE EX 09-B	EX 09-B	997.80	993.48	992.68	34.72	2.30	24	0.012	37.19	7.77	2.47	2.47	997.93	997.89	LINE EX 09-B	110.97	....	Sag	....	....
67	101.1	50	1.30	0.51	0.66	0.66	5.0	12.58	12.58	8.34	8.34	LINE 101.1	101.1	995.96	990.74	990.39	35.00	1.00	15	0.012	7.00	8.34	6.80	6.80	992.14	991.64	LINE 101.1	1.92	6.42	0.015	13.32	2.00
68	EX 06-A	49	1.65	0.51	0.84	0.84	5.0	12.58	12.58	10.59	10.59	LINE EX 06-A	EX 06-A	989.59	985.94	985.75	35.35	0.54	15	0.012	5.13	10.59	8.63	8.63	990.72	989.98	LINE EX 06-A	2.35	14.67	0.015	17.60	2.00
69	601	Outfall	0.00	0.00	0	0	8.3	0.00	10.25	0.00	45.31	LINE 601	601	981.37	972.66	972.45	40.44	0.49	36	0.012	50.80	45.31	8.14	8.19	974.88	974.65	LINE 601	....	....	....	....	....
70	602	69	0.81	0.51	0.41	0.41	7.9	12.58	10.46	5.20	46.26	LINE 602	602	982.76	973.82	973.16	131.04	0.50	36	0.012	51.28	46.26	6.81	6.60	976.46	976.07	LINE 602	1.70	8.89	0.020	13.83	2.00
71	603	70	0.51	0.51	0.26	0.26	6.6	12.58	11.27	3.27	10.92	LINE 603	603	998.37	990.84	975.32	405.21	3.83	18	0.012	22.26	10.92	6.52	6.18	992.11	977.78	LINE 603	1.12	5.40	0.040	9.89	2.00
72	604	71	0.65	0.51	0.33	0.33	5.3	12.58	12.27	4.17	6.01	LINE 604	604	1013.50	1006.54	991.34	379.98	4.00	15	0.012	13.99	6.01	5.46	5.16	1007.53	992.47	LINE 604	0.93	3.24	0.034	8.49	2.00
73	605	72	0.31	0.51	0.16	0.16	5.0	12.58	12.58	1.99	1.99	LINE 605	605	1013.50	1008.06	1007.04	34.00	3.00	15	0.012	12.12	1.99	2.84	1.96	1008.62	1008.01	LINE 605	0.63	1.36	0.034	6.10	2.00
74	602.1	70	0.78	0.51	0.4	0.4	7.8	12.58	10.52	5.01	31.98	LINE 602.1	602.1	982.76	974.49	974.32	34.00	0.50	30	0.012	31.41	31.98	6.52	6.52	977.89	977.72	LINE 602.1	1.50	6.74	0.020	12.52	2.00
75	602.2A	74	0.42	0.51	0.21	0.21	7.6	12.58	10.62	2.70	28.05	LINE 602.2A	602.2A	982.47	975.23	974.99	49.03	0.49	30	0.012	31.09	28.05	5.71	5.72	978.99	978.80	LINE 602.2A	2.41	15.45	0.015	17.94	2.00
76	602.3	75	0.00	0.00	0	0	7.2	0.00	10.88	0.00	23.80	LINE 602.3	602.3	984.07	976.27	975.73	107.25	0.50	30	0.012	31.53	23.80	4.85	4.85	980.23	979.93	LINE 602.3	....	....	....	....	....
77	602.4	76	0.67	0.51	0.34	0.34	7.1	12.58	10.94	4.30	23.93	LINE 602.4	602.4	984.67	976.89	976.77	24.89	0.48	30	0.012	30.85	23.93	4.88	4.88	980.67	980.60	LINE 602.4	4.30	....	Sag	....	....
78	602.5	77	0.88	0.51	0.45	0.45	6.6	12.58	11.32	5.65	20.89	LINE 602.5	602.5	990.67	983.64	977.86	200.00	2.89	24	0.012	41.65	20.89	7.12	6.65	985.28	980.86	LINE 602.5	5.65	....	Sag	....	....
79	602.6	78	0



STORM 100 SERIES



STORM 101 SERIES



GENERAL NOTES:

1. COORDINATES AT TOP ELEVATIONS SHOWN ARE LOCATED AT CENTER OF STRUCTURES. ROAD OFFSETS AREA AT INSIDE FACE OF CURB INLETS, AND AT CENTER OF MANHOLES AND JUNCTIONS BOXES.
2. PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. INSIDE FRONT FACE OF CURB INLETS SHALL BE LOCATED 1.5 FEET BEHIND BACK OF CURB. STRUCTURE SHALL BE PARALLEL WITH CURB ALIGNMENT.
4. TOP ELEVATION OF CURB INLETS SHALL BE SLOPED TO CONFORM TO GRADE OF STREET.
5. WATER MAINS AND STORM SEWERS SHALL HAVE AT LEAST 3' OF CLEAR HORIZONTAL SEPARATION.
6. CONTROLLED FILL: PRIOR TO INSTALLATION OF STORM SEWER PIPING IN FILL AREAS, FILL SHALL BE PLACED AND COMPACTED TO A MINIMUM 95% OF STANDARD PROCTOR DENSITY PER ASTM D 698 TO A MINIMUM DEPTH OF 2 FEET ABOVE THE TOP OF PIPE.

LEGEND

RIP RAP

FILL PRIOR TO PIPE INSTALLATION

STORM PIPE AND STRUCTURES:

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5. ALL STRUCTURE DIMENSIONS ARE MEASURED TO THE INNER WALL OF THE STRUCTURE.

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DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

REVISIONS

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

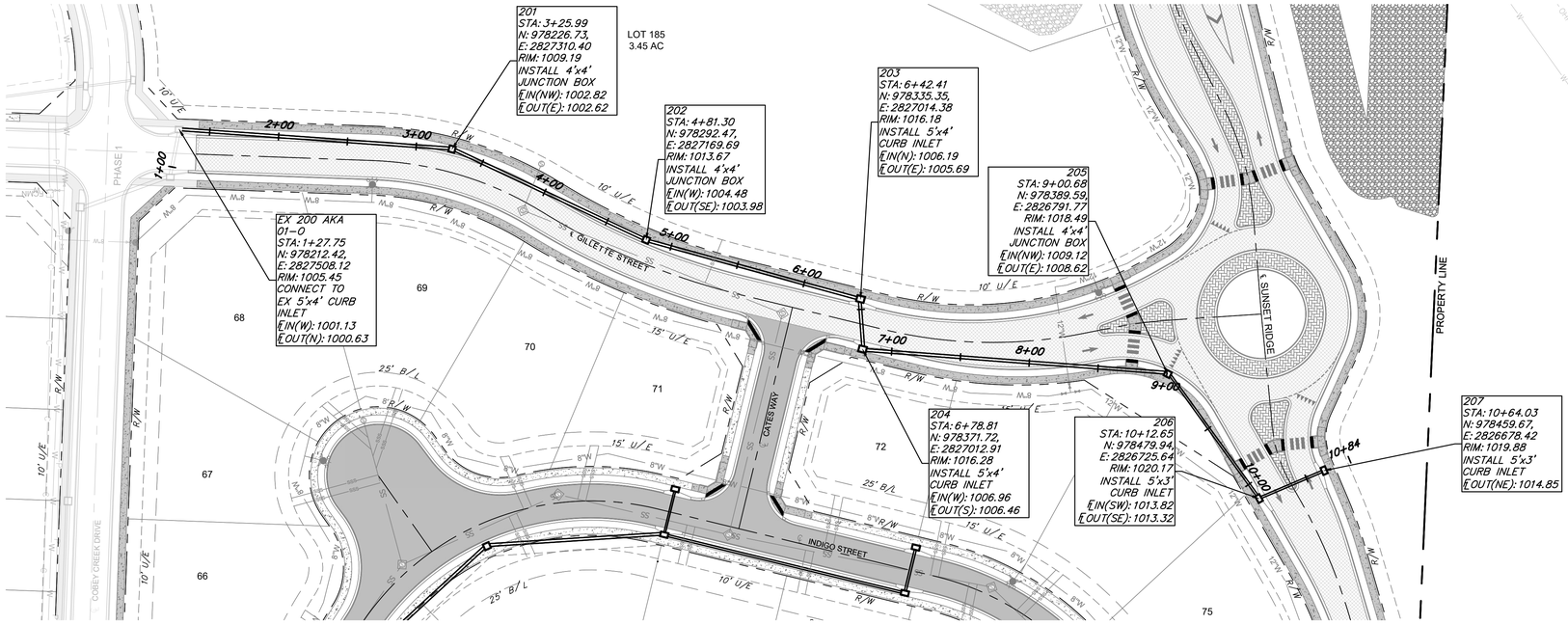
STORM 100 AND 101 SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

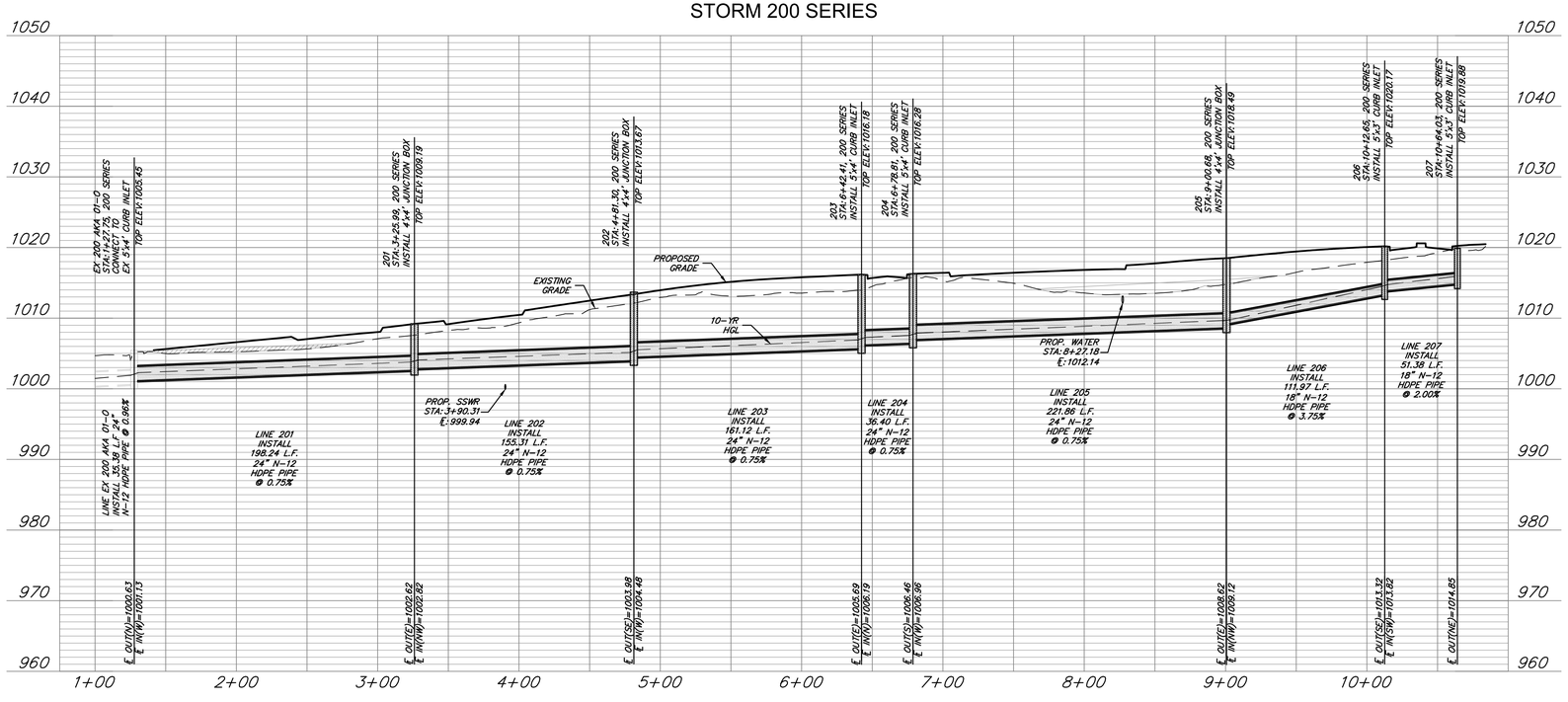
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GARRETT R. [illegible]
NUMBER
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C506
61 OF 88

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STORM 200 SERIES



HORIZ.: 1"=50'
VERT.: 1"=10'

GENERAL NOTES:

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LEGEND

RIP RAP

FILL PRIOR TO PIPE INSTALLATION

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				ISSUED FOR: FOR REVIEW
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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

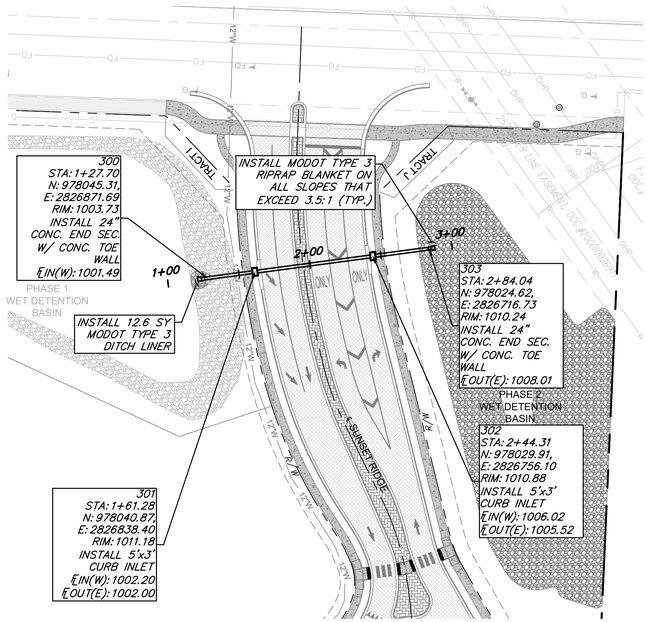
STORM 200 SERIES PLAN & PROFILE

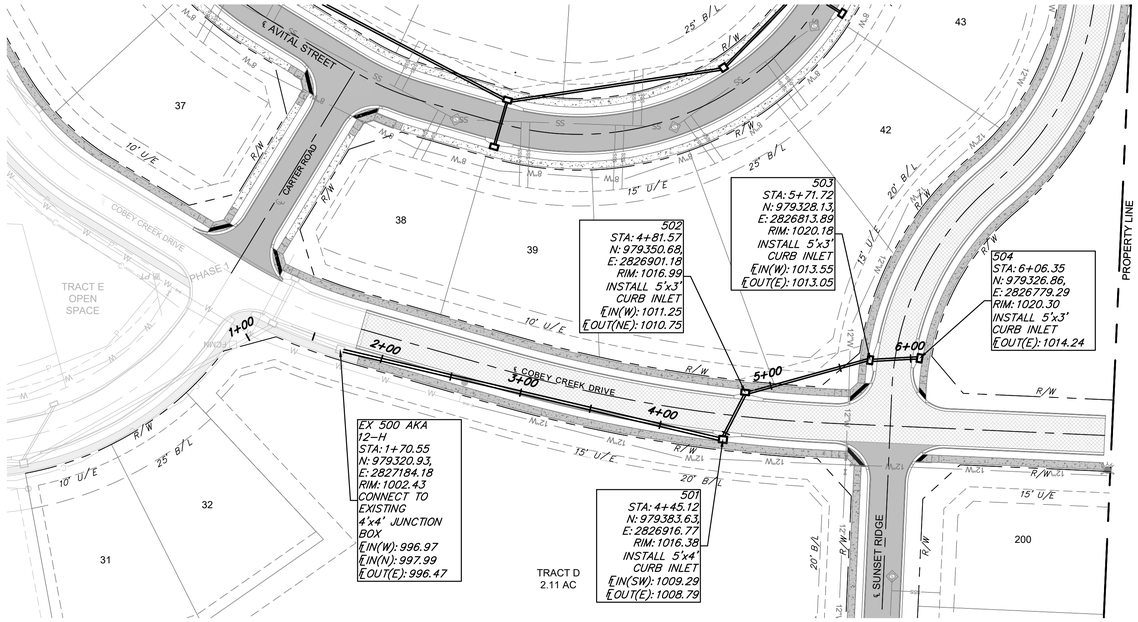
S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. SAYRE
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

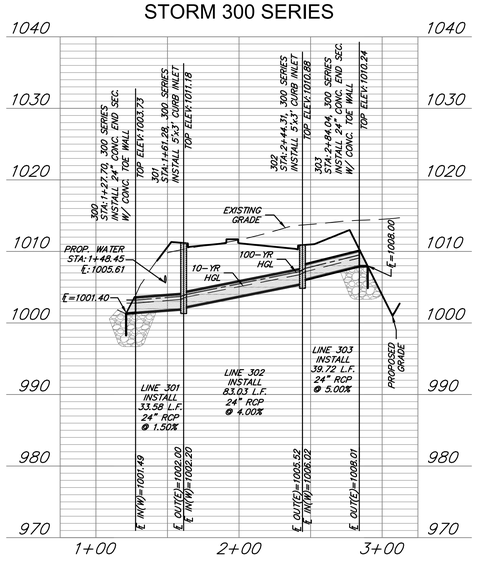
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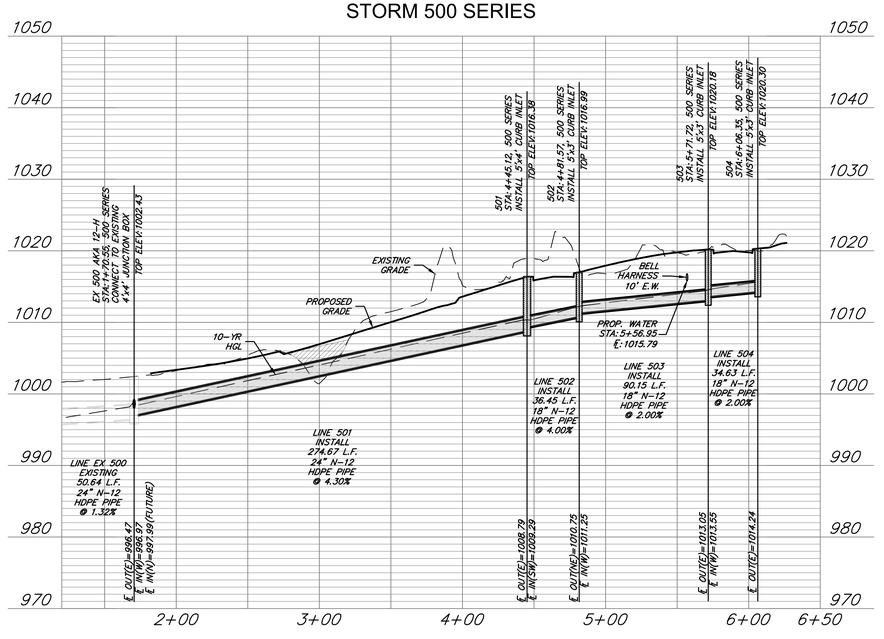




STORM 300 SERIES



STORM 500 SERIES



GENERAL NOTES:

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LEGEND

RIP RAP

FILL PRIOR TO PIPE INSTALLATION

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

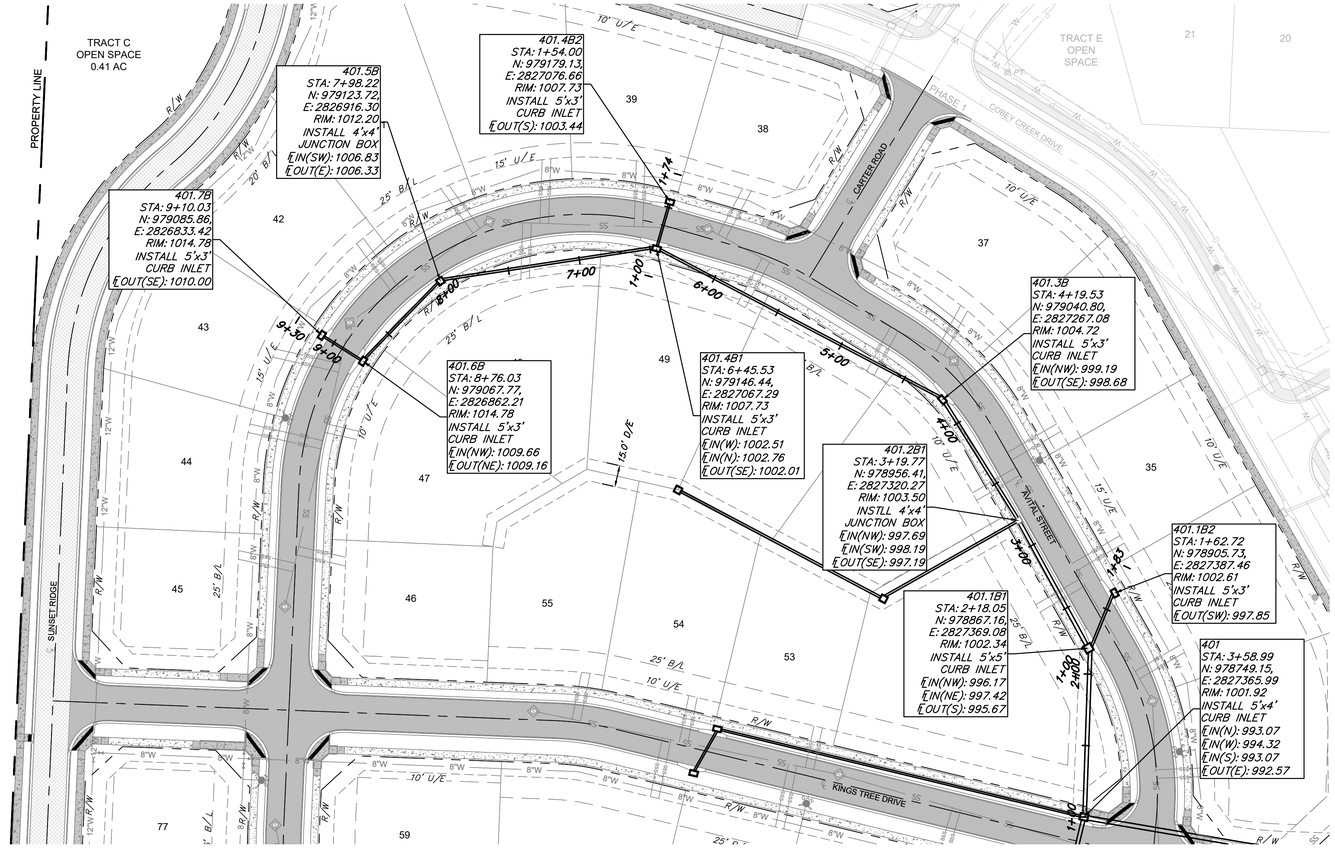
STORM 300 AND 500 SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

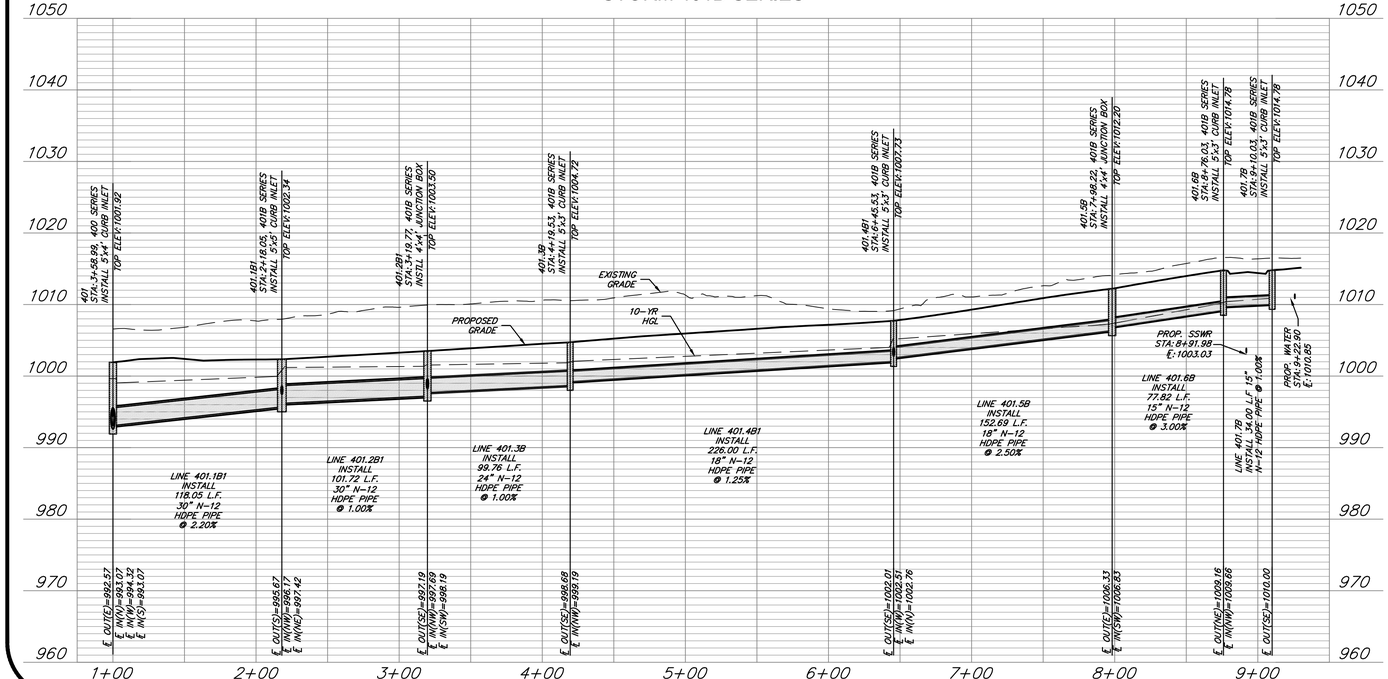
STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE: 2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C508
63 OF 88

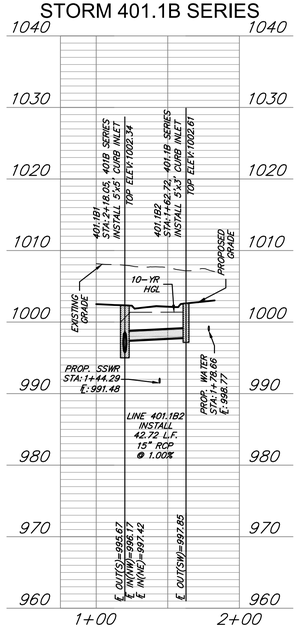
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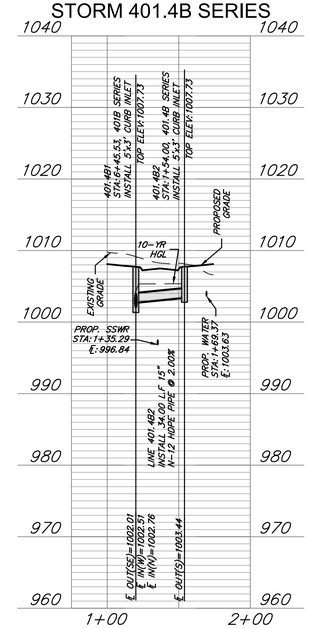
STORM 401B SERIES



STORM 401.1B SERIES



STORM 401.4B SERIES



GENERAL NOTES:

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LEGEND

RIP RAP

FILL PRIOR TO PIPE INSTALLATION

STORM PIPE AND STRUCTURES:

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0 50 100
10
0
HORIZ.: 1"=50'
VERT.: 1"=10'

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

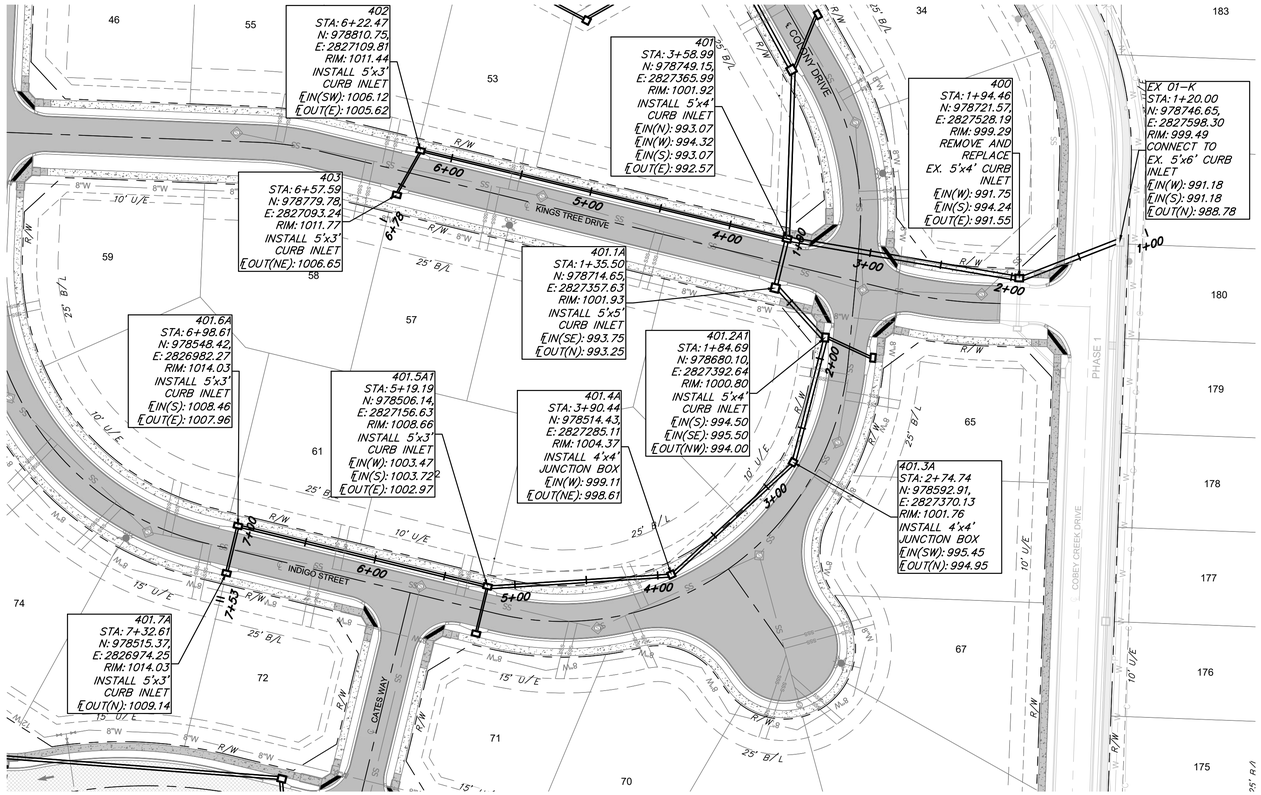
STORM 401B - 401.1B - 401.4B SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C509
64 OF 88

Aug 26, 2022 - 1:36pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - STORM P&P.dwg Layout: STORM 401B - 401.1B - 401.4B SERIES PLAN & PROFILE



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RIP RAP

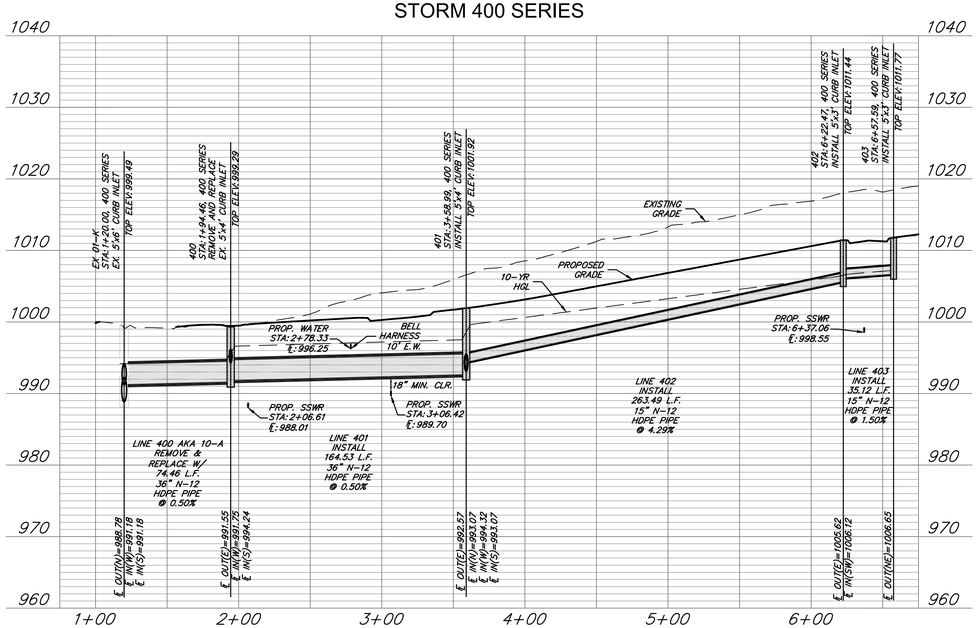
FILL PRIOR TO PIPE INSTALLATION

STORM PIPE AND STRUCTURES:

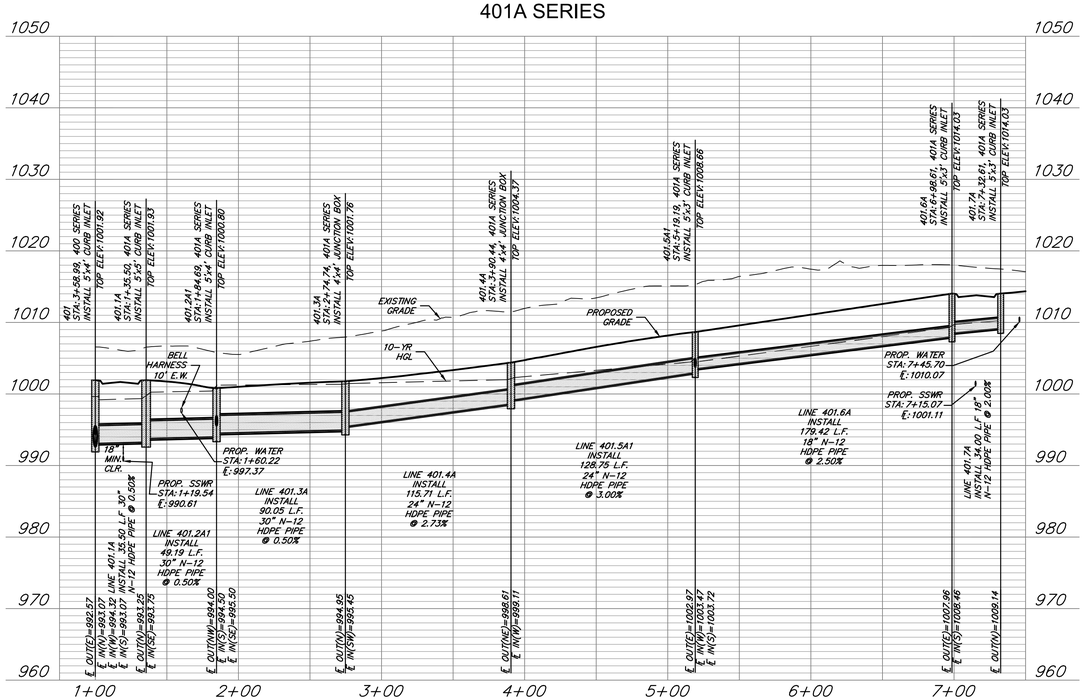
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0 50 100
10
0
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STORM 400 SERIES



401A SERIES



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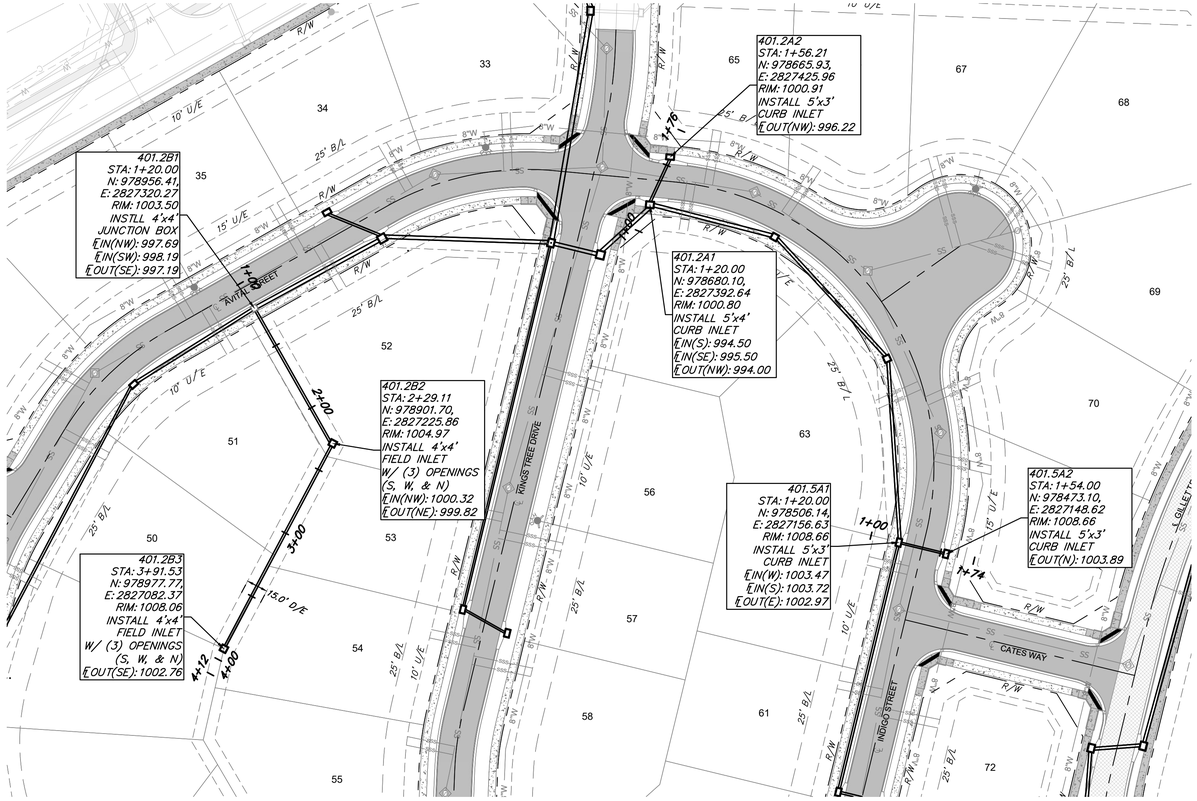
STORM 400 - 401A SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
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PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C510
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Aug 26, 2022 - 1:39pm Plotted By: gcate G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - STORM P&P.dwg Layout: STORM 400 - 401A SERIES PLAN & PROFILE



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LEGEND

RIP RAP

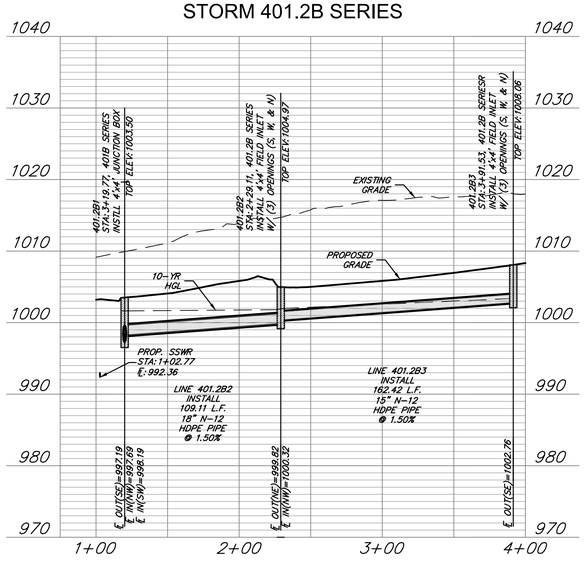
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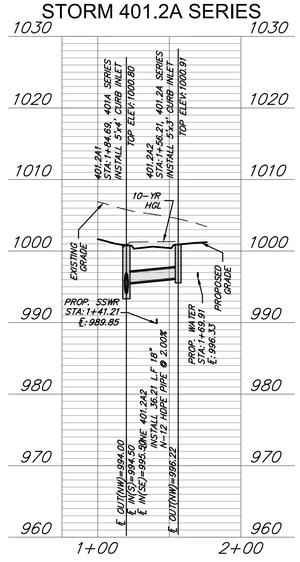
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4. DOUBLE WALL POLYPROPYLENE PIPE IS AN APPROVED EQUAL AND SHALL CONFORM TO THE CITY OF LEE'S SUMMIT SPECIFICATIONS PER SECTION 2602.2.G. OF THE DESIGN AND CONSTRUCTION MANUAL.
5. ALL STRUCTURE DIMENSIONS ARE MEASURED TO THE INNER WALL OF THE STRUCTURE.

0 50 100
10
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HORIZ.: 1"=50'
VERT.: 1"=10'

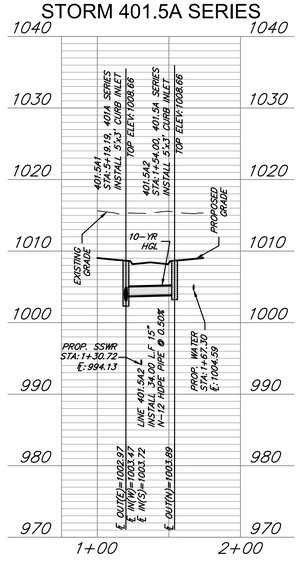
STORM 401.2B SERIES



STORM 401.2A SERIES



STORM 401.5A SERIES



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1.	REVISED PER CITY COMMENT	GC	5/11/22	CHECK BY:	PJ
2.	REVISED PER CITY COMMENT	GC	7/22/22	LICENSE NO.	PE-2021025089
3.	REVISED PER CITY COMMENT	CA	8/26/22	DATE:	03/14/2022
				ISSUED FOR:	FOR REVIEW
				JOB NUMBER:	21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

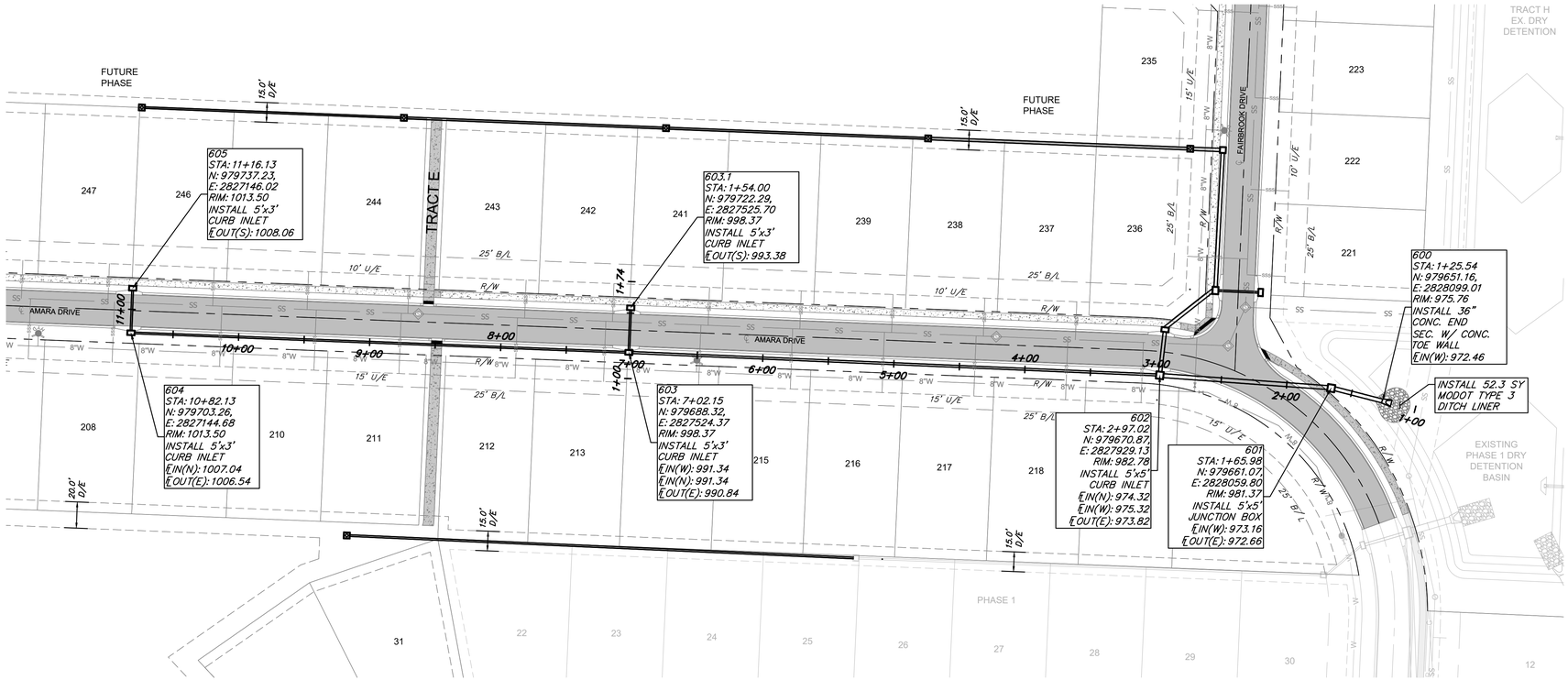
STORM 401.2B - 401.2A - 401.5A SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C511
66 OF 88

Aug 26, 2022 - 1:40pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - STORM P&P.dwg Layout: STORM 401.2B - 401.2A - 401.5A SERIES PLAN & PROFILE



GENERAL NOTES:

1. COORDINATES AT TOP ELEVATIONS SHOWN ARE LOCATED AT CENTER OR STRUCTURES. ROAD OFFSETS AREA AT INSIDE FACE OF CURB INLETS, AND AT CENTER OF MANHOLES AND JUNCTIONS BOXES.
2. PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. INSIDE FRONT FACE OF CURB INLETS SHALL BE LOCATED 1.5 FEET BEHIND BACK OF CURB. STRUCTURE SHALL BE PARALLEL WITH CURB ALIGNMENT.
4. TOP ELEVATION OF CURB INLETS SHALL BE SLOPED TO CONFORM TO GRADE OF STREET.
5. WATER MAINS AND STORM SEWERS SHALL HAVE AT LEAST 3' OF CLEAR HORIZONTAL SEPARATION.
6. CONTROLLED FILL: PRIOR TO INSTALLATION OF STORM SEWER PIPING IN FILL AREAS, FILL SHALL BE PLACED AND COMPACTED TO A MINIMUM 95% OF STANDARD PROCTOR DENSITY PER ASTM D 698 TO A MINIMUM DEPTH OF 2 FEET ABOVE THE TOP OF PIPE.

LEGEND

RIP RAP

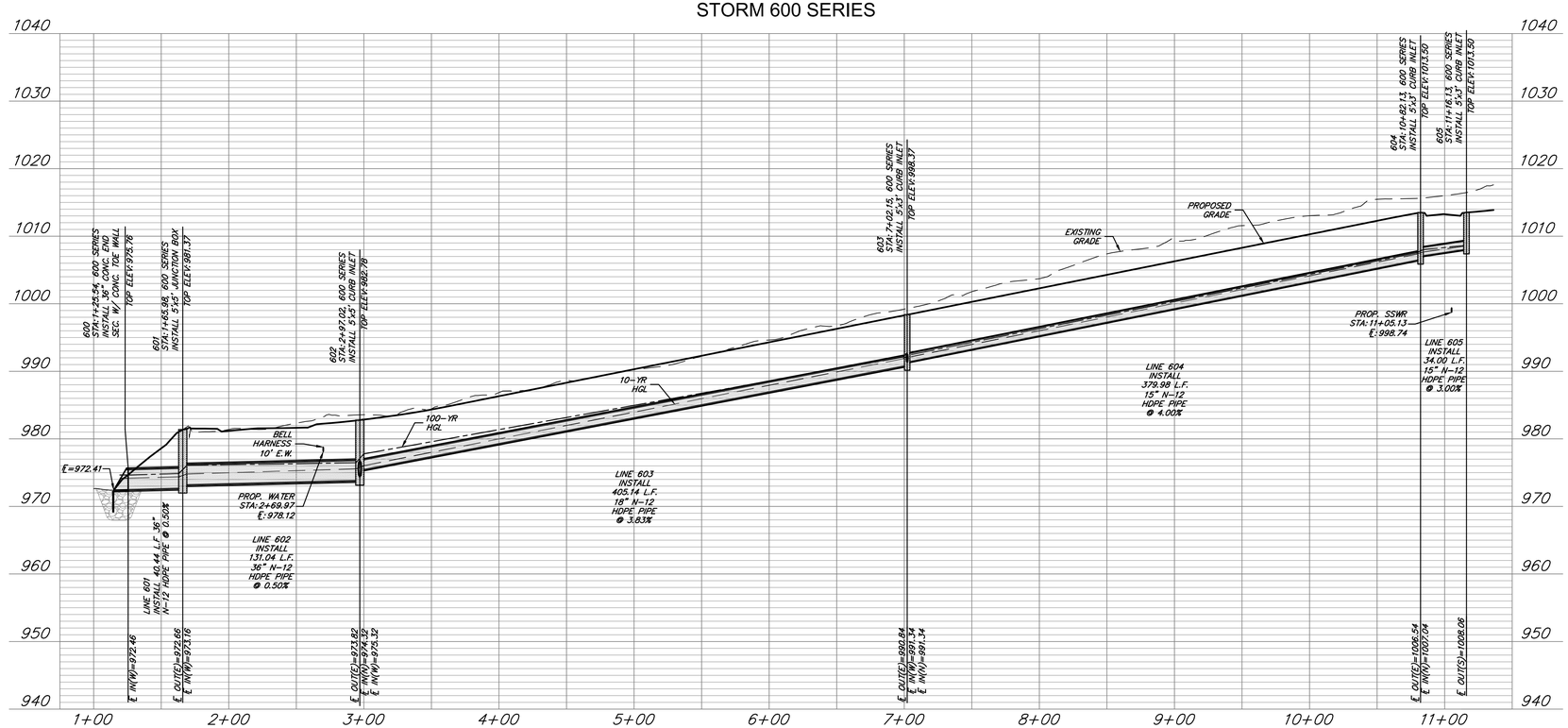
FILL PRIOR TO PIPE INSTALLATION

STORM PIPE AND STRUCTURES:

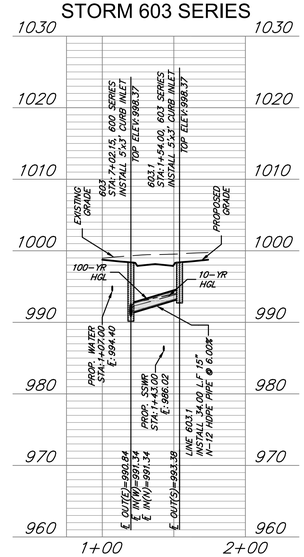
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0 50 100
10 0
HORIZ.: 1"=50'
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STORM 600 SERIES



STORM 603 SERIES



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DATE:	03/14/2022
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JOB NUMBER:	21KC10060

REVISIONS

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

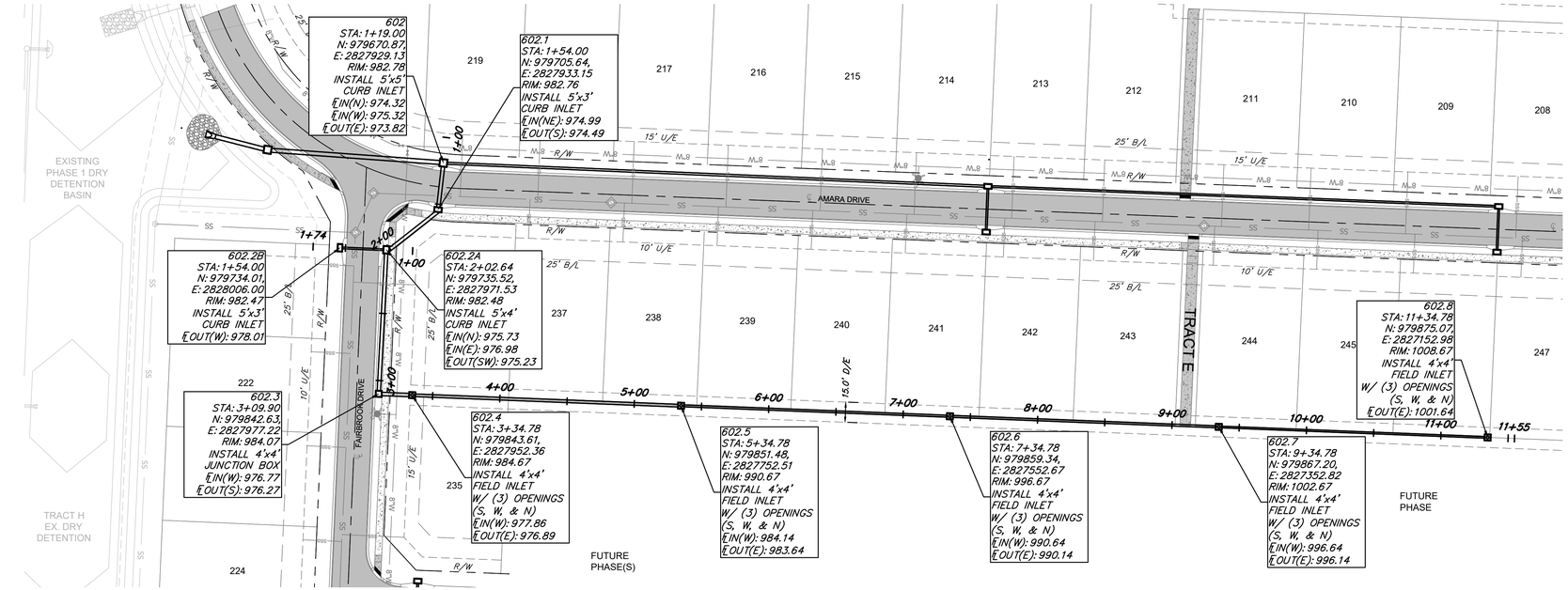
STORM 600 - 603 SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

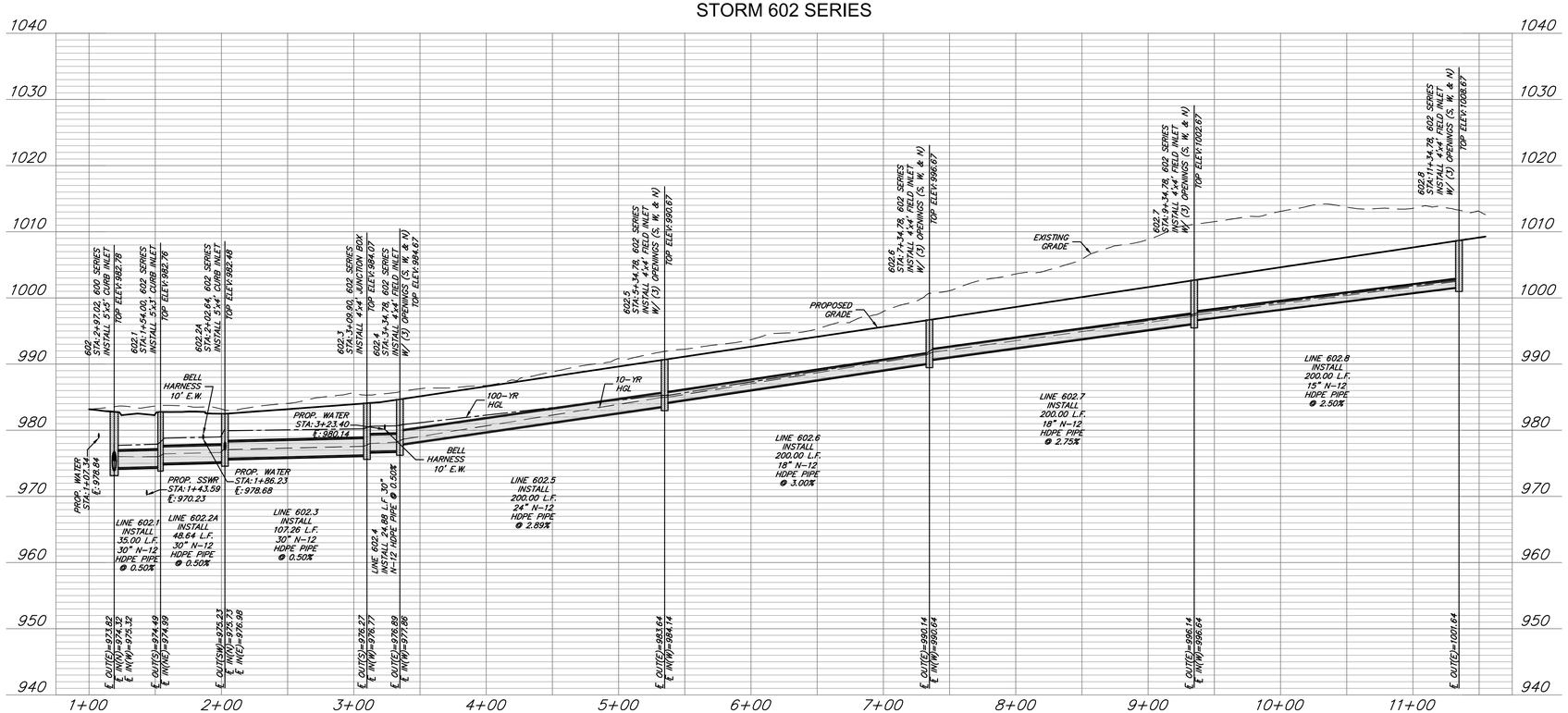
STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C512
67 OF 88

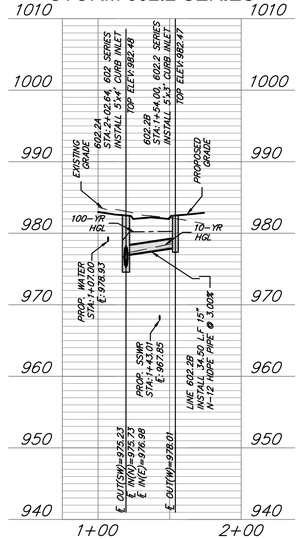
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STORM 602 SERIES



STORM 602.2 SERIES



GENERAL NOTES:

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2. PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. INSIDE FRONT FACE OF CURB INLETS SHALL BE LOCATED 1.5 FEET BEHIND BACK OF CURB. STRUCTURE SHALL BE PARALLEL WITH CURB ALIGNMENT.
4. TOP ELEVATION OF CURB INLETS SHALL BE SLOPED TO CONFORM TO GRADE OF STREET.
5. WATER MAINS AND STORM SEWERS SHALL HAVE AT LEAST 3' OF CLEAR HORIZONTAL SEPARATION.
6. CONTROLLED FILL: PRIOR TO INSTALLATION OF STORM SEWER PIPING IN FILL AREAS, FILL SHALL BE PLACED AND COMPACTED TO A MINIMUM 95% OF STANDARD PROCTOR DENSITY PER ASTM D 698 TO A MINIMUM DEPTH OF 2 FEET ABOVE THE TOP OF PIPE.

LEGEND

RIP RAP

FILL PRIOR TO PIPE INSTALLATION

STORM PIPE AND STRUCTURES:

1. HDPE PIPE SHALL CONFORM TO ASTM F2306. JOINTS SHALL BE INTEGRAL BELL AND SPIGOT WITH RUBBER GASKETS. JOINTS SHALL BE WATER TIGHT AS DEFINED BY ASTM F2306.
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4. DOUBLE WALL POLYPROPYLENE PIPE IS AN APPROVED EQUAL AND SHALL CONFORM TO THE CITY OF LEE'S SUMMIT SPECIFICATIONS PER SECTION 2602.2.G. OF THE DESIGN AND CONSTRUCTION MANUAL.
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0 50 100
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HORIZ.: 1"=50'
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REVISIONS

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

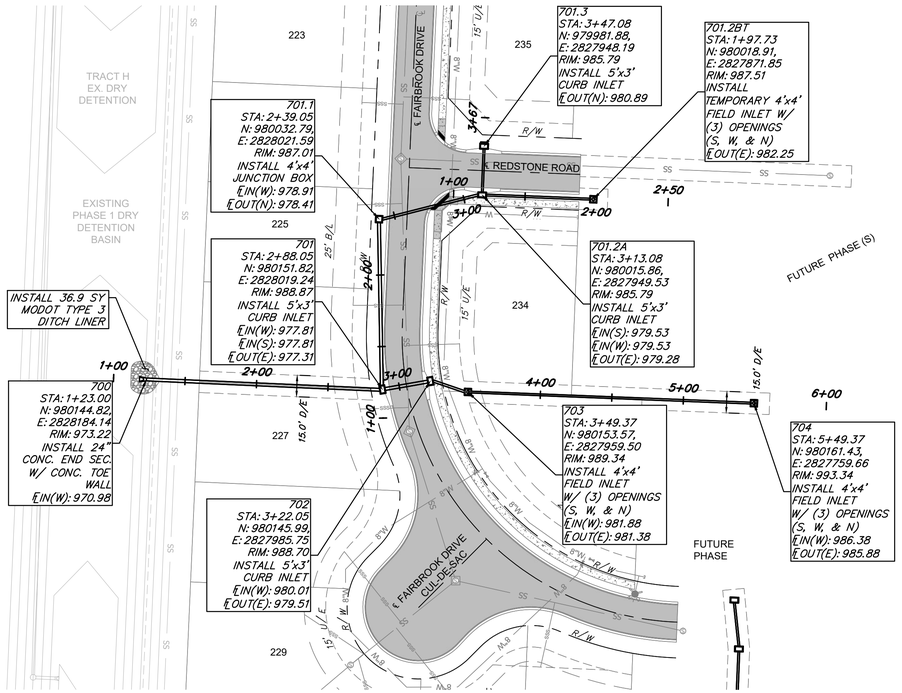
STORM 602 - 602.2 SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C513
68 OF 88

Aug 26, 2022 - 1:41pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - STORM P&P.dwg Layout: STORM 602 - 602.2 SERIES PLAN & PROFILE



GENERAL NOTES:

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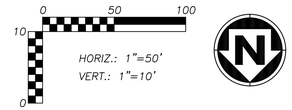
LEGEND

RIP RAP

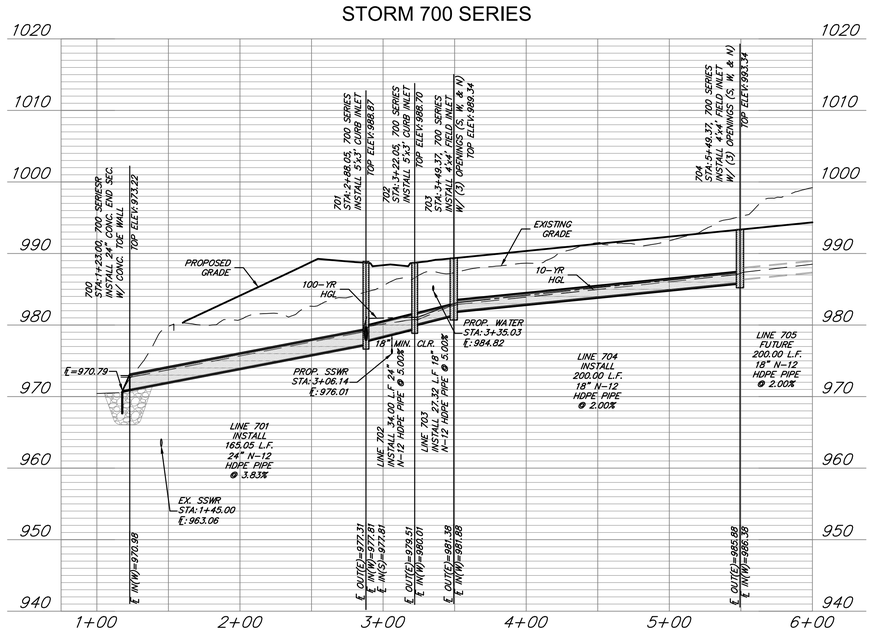
FILL PRIOR TO PIPE INSTALLATION

STORM PIPE AND STRUCTURES:

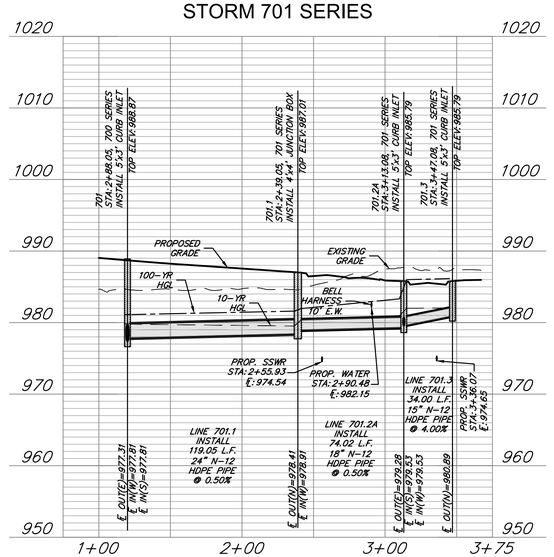
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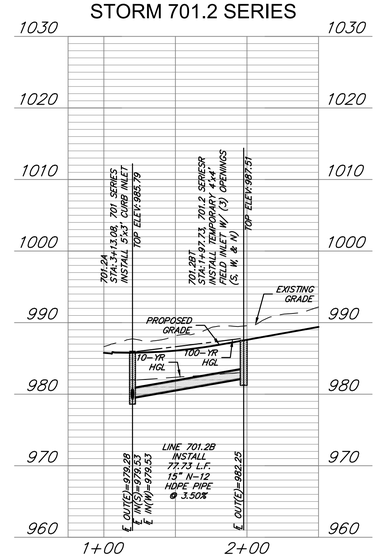
STORM 700 SERIES



STORM 701 SERIES



STORM 701.2 SERIES



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JOB NUMBER:	21KC10060

REVISIONS

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1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

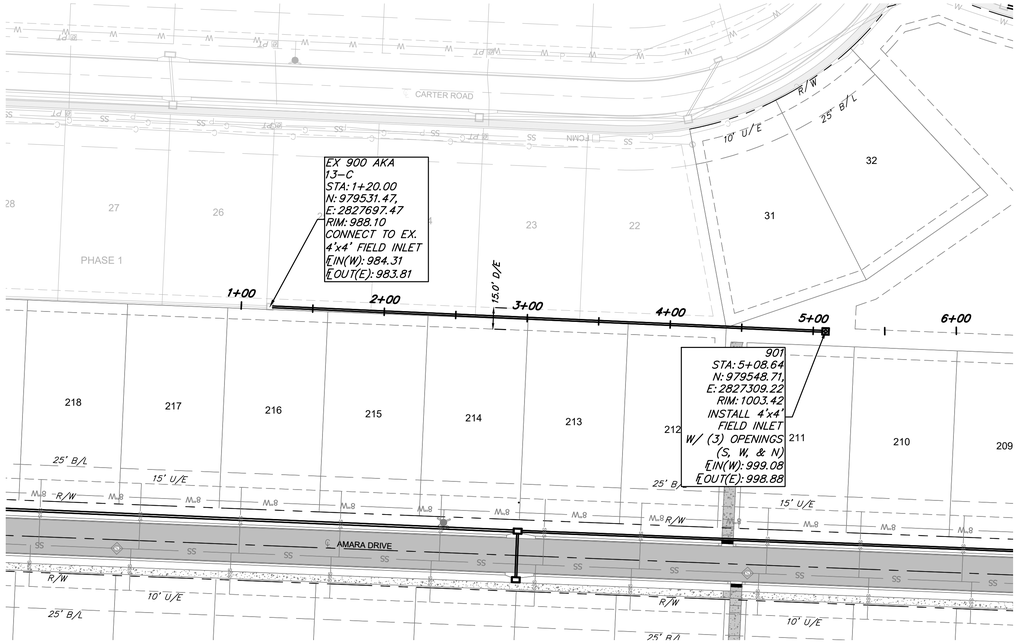
STORM 700 - 701 - 701.2 SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

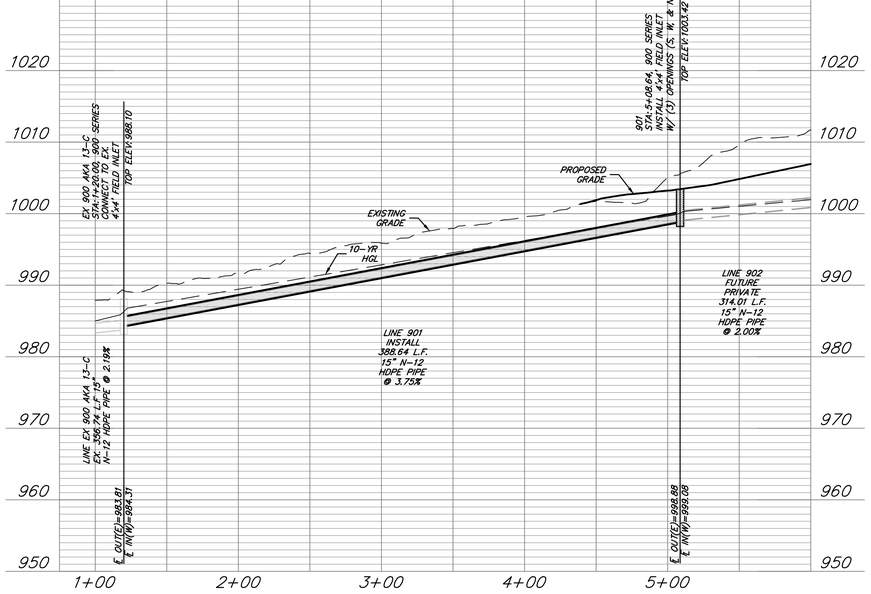
STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C514
69 OF 88

Aug 26, 2022 - 1:41pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03--DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - STORM P&P.dwg Layout: STORM 700 - 701 - 701.2 SERIES PLAN & PROFILE



STORM 900 SERIES



GENERAL NOTES:

1. COORDINATES AT TOP ELEVATIONS SHOWN ARE LOCATED AT CENTER OR STRUCTURES. ROAD OFFSETS AREA AT INSIDE FACE OF CURB INLETS, AND AT CENTER OF MANHOLES AND JUNCTIONS BOXES.
2. PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. INSIDE FRONT FACE OF CURB INLETS SHALL BE LOCATED 1.5 FEET BEHIND BACK OF CURB. STRUCTURE SHALL BE PARALLEL WITH CURB ALIGNMENT.
4. TOP ELEVATION OF CURB INLETS SHALL BE SLOPED TO CONFORM TO GRADE OF STREET.
5. WATER MAINS AND STORM SEWERS SHALL HAVE AT LEAST 3' OF CLEAR HORIZONTAL SEPARATION.
6. CONTROLLED FILL: PRIOR TO INSTALLATION OF STORM SEWER PIPING IN FILL AREAS, FILL SHALL BE PLACED AND COMPACTED TO A MINIMUM 95% OF STANDARD PROCTOR DENSITY PER ASTM D 698 TO A MINIMUM DEPTH OF 2 FEET ABOVE THE TOP OF PIPE.

LEGEND

RIP RAP

FILL PRIOR TO PIPE INSTALLATION

STORM PIPE AND STRUCTURES:

1. HDPE PIPE SHALL CONFORM TO ASTM F2306. JOINTS SHALL BE INTEGRAL BELL AND SPIGOT WITH RUBBER GASKETS. JOINTS SHALL BE WATER TIGHT AS DEFINED BY ASTM F2306.
2. CONCRETE PIPE SHALL CONFORM TO ASTM C76, CLASS III. WALL TYPE B. JOINTS SHALL BE TONGUE-IN-GROVE WITH PREFORMED, FLEXIBLE SEALANTS AND SHALL CONFORM TO ASTM C990.
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0 50 100
10
0
HORIZ.: 1"=50'
VERT.: 1"=10'

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

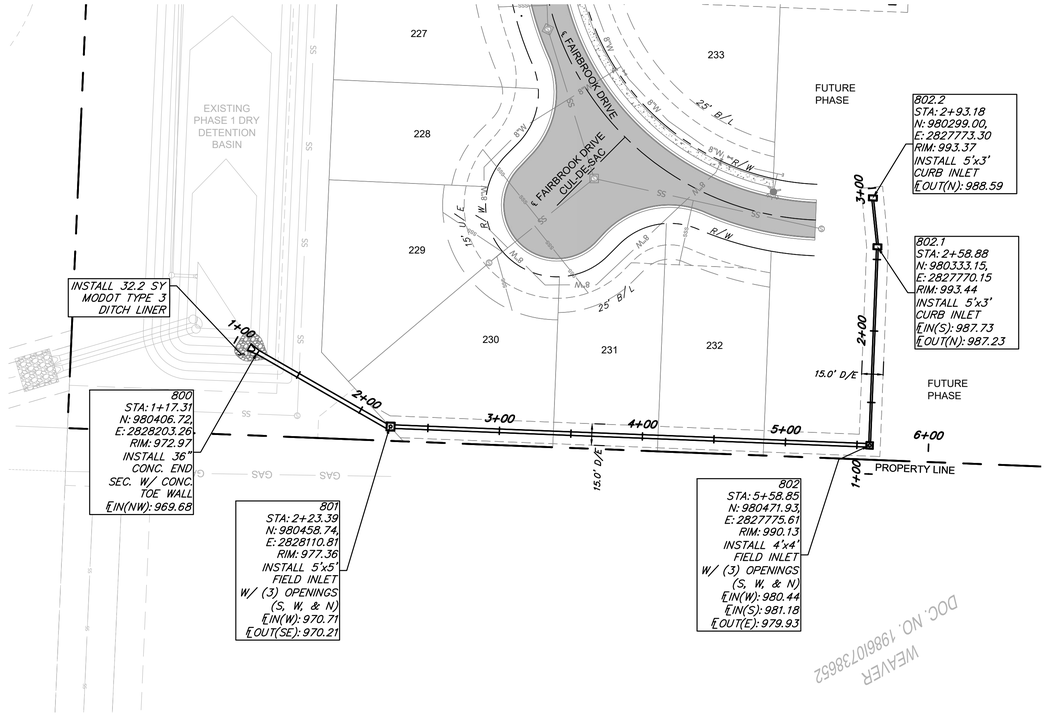
STORM 900 SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C515
70 OF 88

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FILL PRIOR TO PIPE INSTALLATION

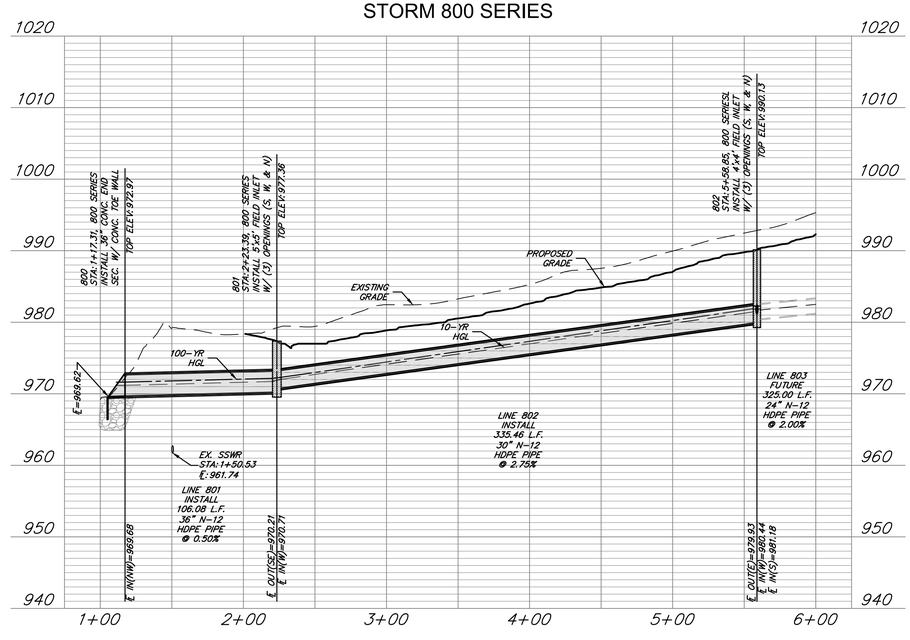
STORM PIPE AND STRUCTURES:

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4. DOUBLE WALL POLYPROPYLENE PIPE IS AN APPROVED EQUAL AND SHALL CONFORM TO THE CITY OF LEE'S SUMMIT SPECIFICATIONS PER SECTION 2602.2.G. OF THE DESIGN AND CONSTRUCTION MANUAL.
5. ALL STRUCTURE DIMENSIONS ARE MEASURED TO THE INNER WALL OF THE STRUCTURE.

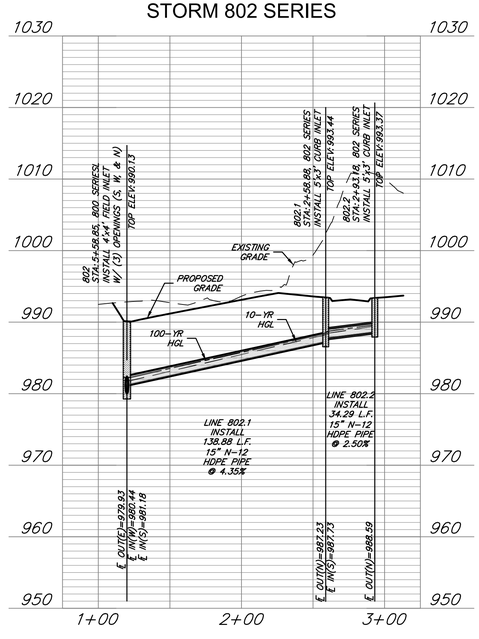
0 50 100
10 0
HORIZ.: 1"=50'
VERT.: 1"=10'

DOC. NO. 1980/07/38652
WEAVER

STORM 800 SERIES



STORM 802 SERIES



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DRAWING INFO.

DRAWN BY:	GC
CHECK BY:	PJ
LICENSE NO.	PE-2021025089
DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

REVISIONS

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

STORM 800 - 802 SERIES PLAN & PROFILE

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C516
71 OF 88

Aug 26, 2022 - 1:42pm Plotted By: gcate G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - STORM P&P.dwg Layout: STORM 800 - 802 SERIES PLAN & PROFILE

GENERAL NOTES:

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13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
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19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTRACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY SWALES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.

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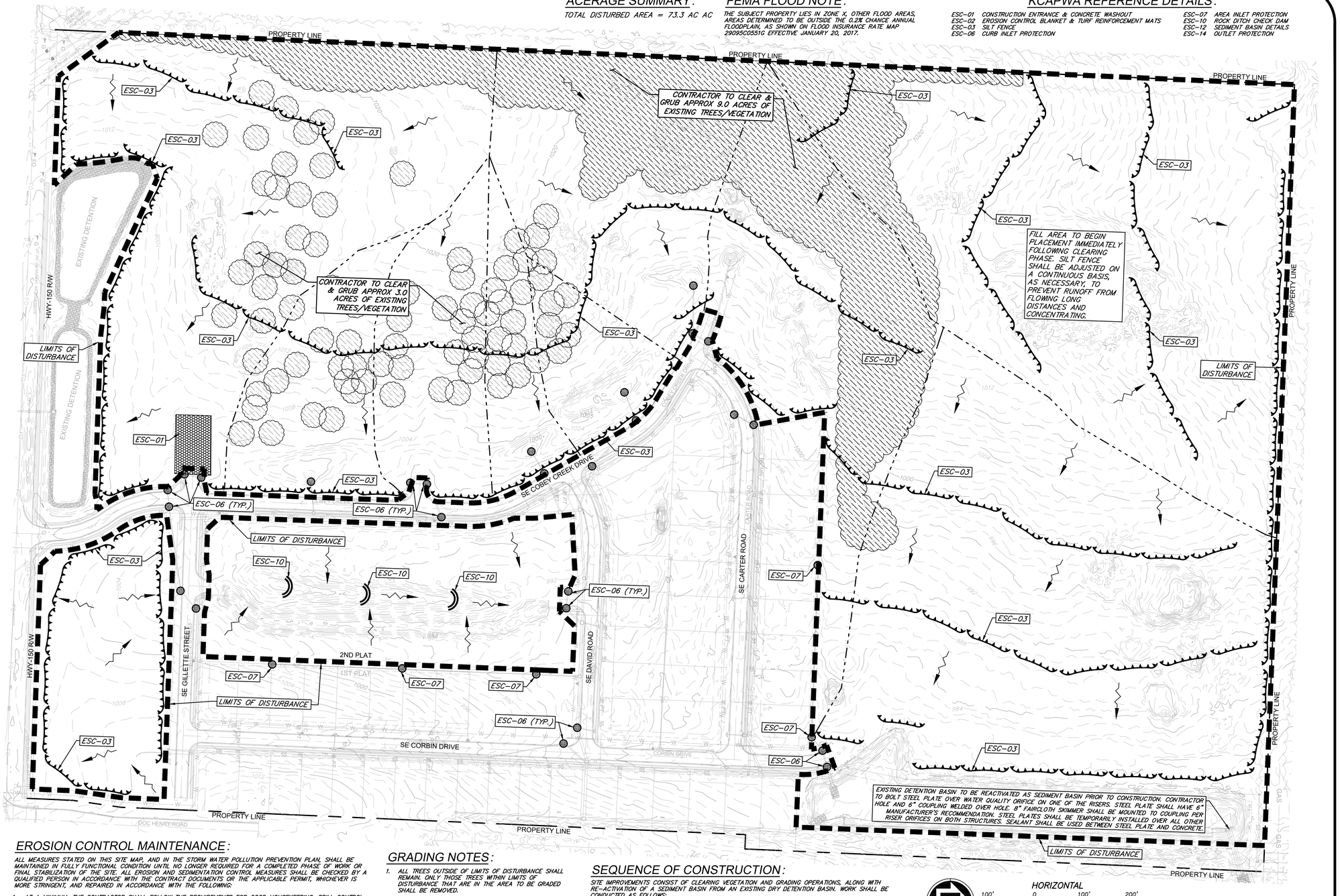
TOTAL DISTURBED AREA = 73.3 AC AC

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THE SUBJECT PROPERTY LIES IN ZONE X, OTHER FLOOD AREAS, AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE ANNUAL FLOODPLAIN, AS SHOWN ON FLOOD INSURANCE RATE MAP 29095C0551G EFFECTIVE JANUARY 20, 2017.

KCAPWA REFERENCE DETAILS:

ESC-01 CONSTRUCTION ENTRANCE & CONCRETE WASHOUT
ESC-02 EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS
ESC-03 SILT FENCE
ESC-06 CURB INLET PROTECTION
ESC-07 AREA INLET PROTECTION
ESC-10 ROCK DITCH CHECK DAM
ESC-12 SEDIMENT BASIN DETAILS
ESC-14 OUTLET PROTECTION



EROSION CONTROL MAINTENANCE:

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
2. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGN OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT ARE IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GROUND ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREON.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF CLEARING VEGETATION AND GRADING OPERATIONS, ALONG WITH RE-ACTIVATION OF A SEDIMENT BASIN FROM AN EXISTING DRY DETENTION BASIN. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. CONSTRUCT CONSTRUCTION VEHICLE ENTRANCE AND INSTALL PERIMETER SILT FENCE AND INLET PROTECTION TO EXISTING INLETS SURROUNDING THE LIMITS OF DISTURBANCE.
2. CLEAR TREES AND VEGETATION WHERE PHASE I GRADING OPERATIONS WILL BE COMPLETED. ONLY REMOVE THOSE TREES NECESSARY TO ACCOMPLISH GRADING ACTIVITIES AS SHOWN ON PLAN. INSTALL ROCK DITCH CHECKS AS ACCESS TO DRAINAGE DITCHES BECOMES AVAILABLE.
3. INSTALL SILT FENCE AND/OR DIVERSION BERM(S) AT TOE OF SLOPE ALONG PERIMETER OF PHASE I AREA. PHASE II ACTIVITIES CANNOT BEGIN UNTIL PHASE I IS COMPLETED.
4. CONTRACTOR TO CONSTRUCT STORMWATER MANAGEMENT FACILITIES, SPECIFICALLY THOSE FEATURES RELATED TO DETENTION, PRIOR TO ANY LAND DISTURBANCE OF THE SITE AND PRIOR TO THE CONSTRUCTION OF ANY OTHER SITE DEVELOPMENT WORK AS NOT TO EFFECT DOWNSTREAM NEIGHBORS WITH UNDETAINED STORMWATER DISCHARGE.
5. CLEAR REMAINING TREES AND VEGETATION WHERE PHASE II GRADING OPERATIONS WILL BE COMPLETED. ONLY REMOVE THOSE TREES NECESSARY TO ACCOMPLISH GRADING ACTIVITIES AS SHOWN ON PLAN.
6. AS TREE CLEARING AND GRADING OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE INTERMEDIATE EROSION CONTROL PLAN.

HORIZONTAL
100' 0 100' 200'
SCALE IN FEET SCALE: 1" = 100'

LEGEND

- DRAINAGE AREAS
- EX. RIGHT-OF-WAY
- EX. PROPERTY LINE
- EX. STORM DRAIN
- 900 EX. MAJOR CONTOUR
- 901 EX. MINOR CONTOUR
- LIMITS OF DISTURBANCE
- EX. SLOPE DIRECTION
- INLET PROTECTION (ESC-06)
- SILT FENCE W/ J HOOKS (ESC-03)
- TEMPORARY STONE CONSTRUCTION EXIT (ESC-01)
- TREE / VEGETATION CLEARING
- ROCK DITCH CHECK DAM (ESC-10)

SEDIMENT BASIN:

DRAINAGE AREA = 97.28 AC
MINIMUM VOLUME FOR SEDIMENT BASIN STORAGE = 350,214 FT³ (3600 FT³/AC)
ACTUAL VOLUME = 676,477 FT³
BOTTOM AREA/ELEVATION
= 2,378 FT²/966.00
TOP AREA/ELEVATION
= 108,226 FT²/978.00
DEPTH = 12.0 FT
MAX. PERMANENT POOL VOLUME (50% OF POND) = 175,107 FT³
PERMANENT POOL TOP AREA/ELEVATION = 95,000 FT²/976.00
(87,552 REQUIRED) FT³/AC
PERMANENT POOL DEPTH = 10.0 FT.
ACTUAL SEDIMENT VOLUME = 95,500 FT³

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A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION - LC 62

REVISIONS			DRAWING INFO.	
NO.	DESCRIPTION	BY	DATE	DRAWN BY: GC
1.	REVISED PER CITY COMMENT	GC	5/11/22	CHECK BY: PJ
2.	REVISED PER CITY COMMENT	GC	7/22/22	LICENSE NO. PE-2021025089
3.	REVISED PER CITY COMMENT	CA	8/26/22	DATE: 03/14/2022
				ISSUED FOR: FOR REVIEW
				JOB NUMBER: 21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

PHASE I - PRE-CLEARING EROSION CONTROL PLAN

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C601
72 OF 88

Aug 26, 2022 - 1:43pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - PHASE I ESC.dwg Layout: PHASE I - PRE-CLEARING EROSION CONTROL PLAN

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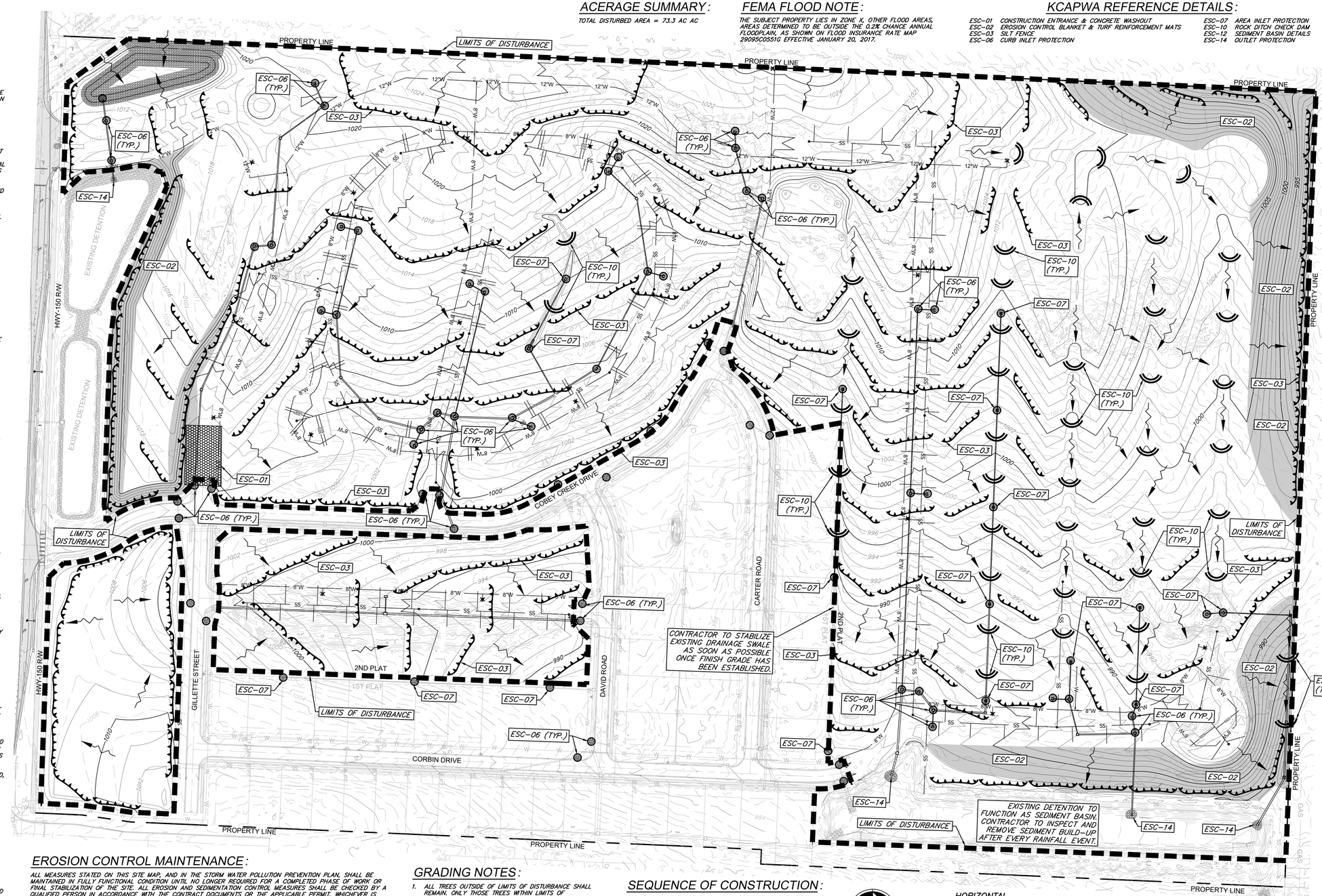
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ESC-06	CURB INLET PROTECTION	ESC-14	OUTLET PROTECTION



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4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREON.

SEQUENCE OF CONSTRUCTION:

PHASE II CONSISTS OF FINISHING MASS GRADING ACTIVITIES, AND INSTALLATION OF WATER MAIN, SEWER MAIN, SEWER SERVICE LINES, AND STORM SEWERS. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. FINISH ANY MASS GRADING AND/OR STEEP SLOPE STABILIZATION ACTIVITIES THAT WERE NOT COMPLETED IN PHASE I.
2. BEGIN INSTALLING UNDERGROUND INFRASTRUCTURE STARTING WITH SANITARY SEWER, FOLLOWED BY STORM SEWER, THEN WATER LINE. INSTALL INLET PROTECTION AND SLOPE INTERRUPT SILT FENCE ONCE PIPE BACKFILLING HAS BEEN COMPLETED.
3. AS PIPE INSTALLATION OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE FINAL STABILIZATION PLAN.
4. AS STORM SEWER INFRASTRUCTURE IS COMPLETED, OUTLET PROTECTION AND RIPRAP SHALL BE INSTALLED TO PROTECT OUTLET AREAS FROM HIGHLY CONCENTRATED DISCHARGE FLOWS.
5. ALL PHASE I AND PHASE II EROSION CONTROL MEASURES SHALL CONTINUE BEING REGULARLY INSPECTED AND MAINTAINED UNTIL FINAL STABILIZATION OF AT LEAST 70% OF THE DISTURBED SURFACE HAS BEEN MET THROUGH TEMPORARY SEEDING.

HORIZONTAL
100' 0 100' 200'
SCALE IN FEET
SCALE: 1" = 100'

LEGEND

- PROP. SLOPE DIRECTION
- PROP. STORM PIPE
- 900 PROP. MAJOR CONTOUR
- 901 PROP. MINOR CONTOUR
- 900 EX. MAJOR CONTOUR
- 901 EX. MINOR CONTOUR
- LIMITS OF DISTURBANCE
- ROCK CHECK DAM BERM (ESC-10)
- INLET PROTECTION (ESC-06 OR ESC-07)
- SILT FENCE W/ J HOOKS (ESC-03)
- TEMPORARY STONE CONSTRUCTION EXIT (ESC-01)
- STEEP SLOPE PROTECTION (ESC-02)
- RIPRAP OUTLET PROTECTION (ESC-14)

SEDIMENT BASIN:

DRAINAGE AREA = 97.28 AC
MINIMUM VOLUME FOR SEDIMENT BASIN STORAGE = 350,214 FT³ (3600 FT³/AC)
ACTUAL VOLUME = 676,477 FT³
BOTTOM AREA/ELEVATION
= 2,378 FT²/966.00
TOP AREA/ELEVATION
= 108,226 FT²/978.00
DEPTH = 12.0 FT
MAX. PERMANENT POOL VOLUME (50% OF POND) = 175,107 FT³
PERMANENT POOL TOP AREA/ELEVATION = 95,000 FT²/976.00
(87,552 REQUIRED) FT³/AC
PERMANENT POOL DEPTH = 10.0 FT.
ACTUAL SEDIMENT VOLUME = 95,500 FT³

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				ISSUED FOR: FOR REVIEW
				JOB NUMBER: 21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

PHASE II - INTERMEDIATE EROSION CONTROL PLAN

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C602
73 OF 88

Aug 26, 2022 - 1:44pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - PHASE II - INTERMEDIATE EROSION CONTROL PLAN Layout: PHASE II - INTERMEDIATE EROSION CONTROL PLAN.dwg

GENERAL NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("EROSION CONTROL"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
5. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 21 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. STABILIZATION MAY CONSIST OF SEED, SOD, ROCK, PAVEMENT, STRUCTURE OR OTHER NON-ERODIBLE COVER.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTRACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY SWALES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.

ACERAGE SUMMARY:

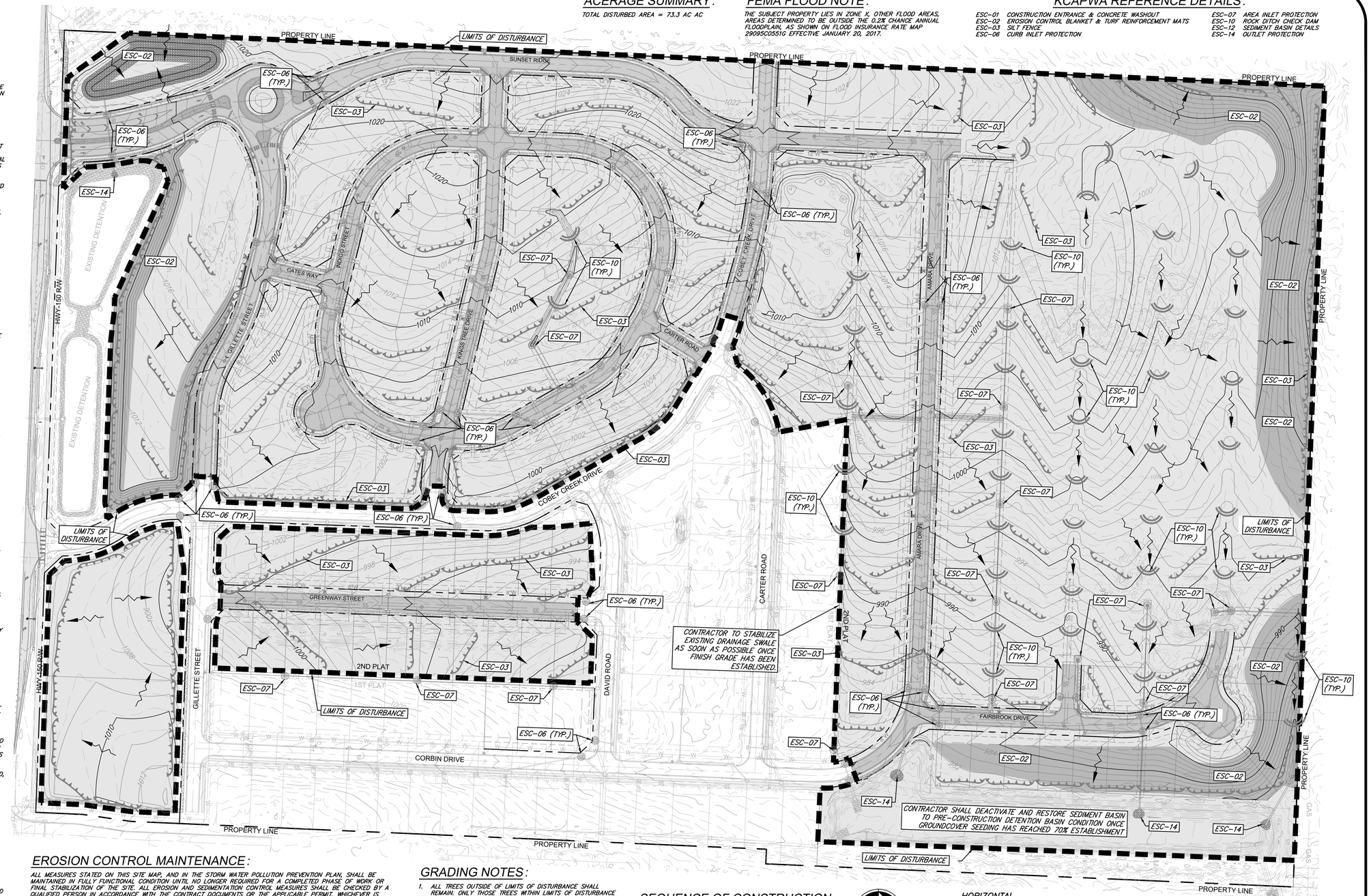
TOTAL DISTURBED AREA = 73.3 AC AC

FEMA FLOOD NOTE:

THE SUBJECT PROPERTY LIES IN ZONE X, OTHER FLOOD AREAS, AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE ANNUAL FLOODPLAIN, AS SHOWN ON FLOOD INSURANCE RATE MAP 29095C0551G EFFECTIVE JANUARY 20, 2017.

KCAPWA REFERENCE DETAILS:

ESC-01	CONSTRUCTION ENTRANCE & CONCRETE WASHOUT	ESC-07	AREA INLET PROTECTION
ESC-02	EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS	ESC-10	ROCK DITCH CHECK DAM
ESC-03	SILT FENCE	ESC-12	SEDIMENT BASIN DETAILS
ESC-06	CURB INLET PROTECTION	ESC-14	OUTLET PROTECTION



EROSION CONTROL MAINTENANCE:

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
2. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGN OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT ARE IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GROUND ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREON.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST PAVING STREETS, RE-ESTABLISHING GROUNDCOVER VEGETATION, DEACTIVATING SEDIMENT BASIN, AND REMOVING SILT FENCE AND INLET PROTECTION. WORK SHALL BE COMPLETED IN THE SEQUENCE AS FOLLOWS:

1. REMOVE CONSTRUCTION ENTRANCE/EXIT AS ROADS ARE PAVED.
2. INSTALL CURB, ROAD PAVEMENT, AND REQUIRED SIDEWALKS ADJACENT TO TRACTS. ADJUST SILT FENCE AND SLOPE INTERRUPTS AS NECESSARY TO PREVENT MUD AND SILT FROM FLOWING LONG DISTANCES.
3. SEED AND/OR SOD ALL DISTURBED AREAS ONCE FINISH GRADE HAS BEEN ACHIEVED. MAINTAIN SILT FENCE, SLOPE INTERRUPTS, STEEP SLOPE PROTECTION, AND INLET PROTECTION UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED OVER 70% OF THE TOTAL DISTURBED AREA.
4. AS ALL DISTURBED AREAS ARE STABILIZED WITH VEGETATIVE COVER, STORM SEWER INLET PROTECTION, SILT FENCE, SLOPE INTERRUPTS, ROCK DITCH CHECKS, AND DIVERSION BERMS CAN BE REMOVED UPON CITY INSPECTION AND APPROVAL. ENSURE ENTIRE SITE IS STABILIZED PRIOR TO DEACTIVATION OF SEDIMENT BASIN.

HORIZONTAL

100' 0 100' 200'

SCALE IN FEET SCALE: 1" = 100'

LEGEND

- PROP. SLOPE DIRECTION
- PROP. STORM PIPE
- 900 PROP. MAJOR CONTOUR
- 901 PROP. MINOR CONTOUR
- 900 EX. MAJOR CONTOUR
- 901 EX. MINOR CONTOUR
- LIMITS OF DISTURBANCE
- ROCK CHECK DAM BERM (ESC-10)
- INLET PROTECTION (ESC-06 OR ESC-07)
- SILT FENCE W/ J HOOKS (ESC-03)
- FINAL SEEDING (ALL AREAS UNPAVED)
- STEEP SLOPE PROTECTION (ESC-02)
- RIPRAP OUTLET PROTECTION (ESC-14)

SEDIMENT BASIN:

DRAINAGE AREA = 97.28 AC
MINIMUM VOLUME FOR SEDIMENT BASIN STORAGE = 350,214 FT³ (3600 FT³/AC)
ACTUAL VOLUME = 676,477 FT³
BOTTOM AREA/ELEVATION = 2,378 FT²/966.00
TOP AREA/ELEVATION = 108,226 FT²/978.00
DEPTH = 12.0 FT
MAX. PERMANENT POOL VOLUME (50% OF POND) = 175,107 FT³
PERMANENT POOL TOP AREA/ELEVATION = 95,000 FT²/976.00
(87,552 REQUIRED) FT³/AC
PERMANENT POOL DEPTH = 10.0 FT.
ACTUAL SEDIMENT VOLUME = 95,500 FT³

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

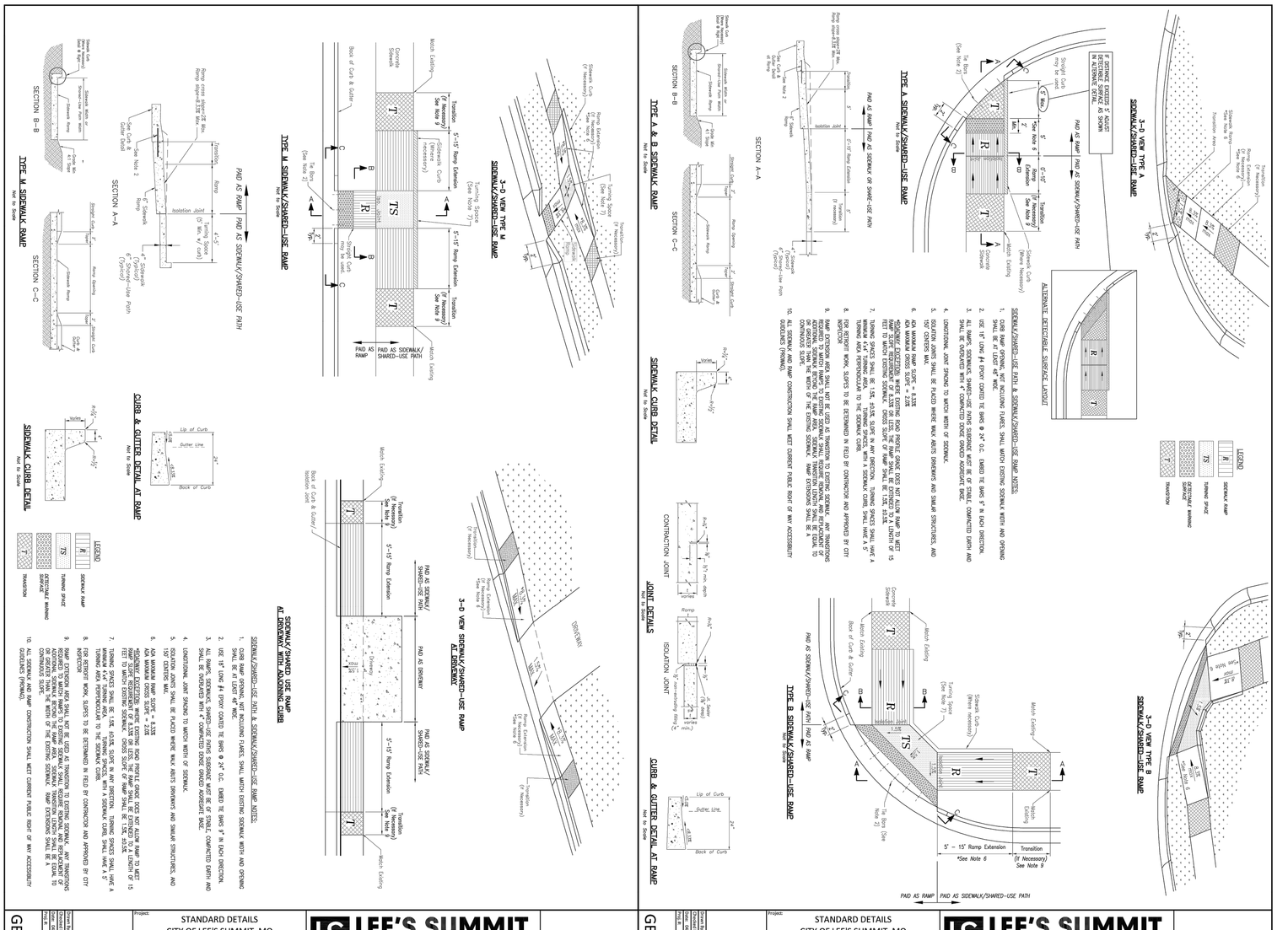
PHASE III - FINAL STABILIZATION EROSION CONTROL PLAN

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C603
74 OF 88

Aug 26, 2022 - 1:44pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - PHASE III ESC.dwg Layout: PHASE III - FINAL STABILIZATION EROSION CONTROL PLAN



GEN-3A

Project: STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Sheet Name: ADA RAMP RETROFIT DETAIL

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

GEN-3B

Project: STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Sheet Name: ADA RAMP RETROFIT DETAIL

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SHEET NUMBER
C701
75 OF 88

GARRETT R. CLAYTON — NUMBER PE-2021025089 — STATE OF MISSOURI — PROFESSIONAL ENGINEER
(08/26/22)

CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

ADA RAMP DETAILS

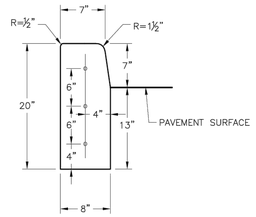
S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

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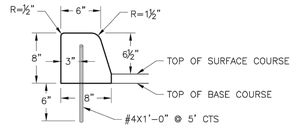
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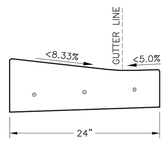
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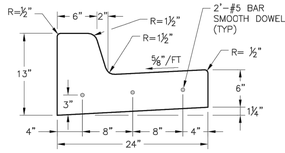
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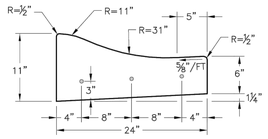
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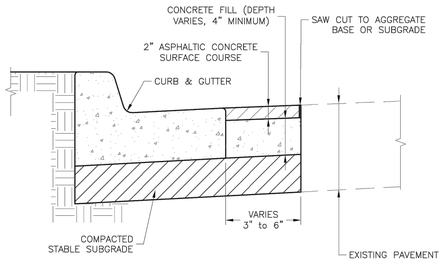
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(ADA SLOPE REQUIREMENTS)



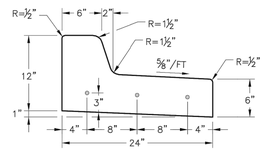
STRAIGHT BACK CURB &
GUTTER
(TYPE CG-1)



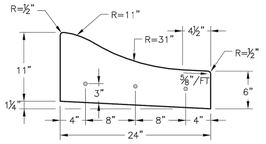
ROLL BACK CURB &
GUTTER
(TYPE CG-2)



CURB REPLACEMENT DETAIL



STRAIGHT BACK DRY CURB &
GUTTER
(TYPE CG-1 DRY)



ROLL BACK DRY CURB &
GUTTER
(TYPE CG-2 DRY)

GENERAL NOTES

1. ¾" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

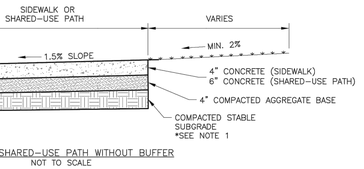
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

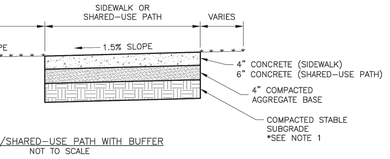
Sheet Name: CURB & GUTTER DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

GEN-4



SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE



SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

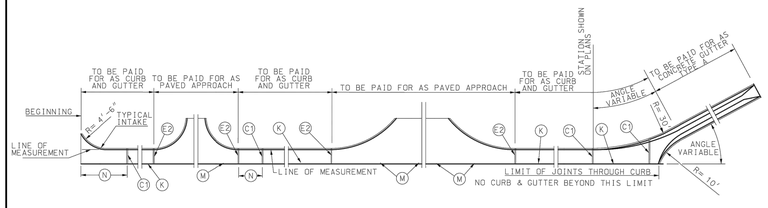
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
4. ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN EXPANSION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK, BUT NO GREATER THAN 10 FT.
6. SHARED-USE PATH WIDTH SHALL BE 10 FT. WIDE.
7. SIDEWALK FINISHING (NO PICTURE FRAMING) AS DIRECTED BY CITY INSPECTOR.
8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

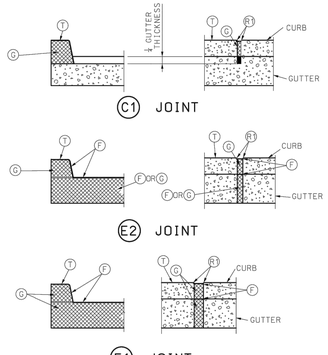
SIDEWALK/SHARED-USE PATH DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

GEN-2



PLAN OF MEASUREMENT OF CURB & GUTTER AND JOINT PLAN



GENERAL NOTES:

A MINIMUM 4" TYPE 1 OR 5 AGGREGATE BASE SHALL BE PLACED BENEATH ALL CURB AND GUTTER SECTIONS AND INCLUDED WITHIN THE MAINLINE BASE PAY LIMITS.

WHEN CURBS ARE CONSTRUCTED DIRECTLY BENEATH GUARDRAIL, CURB HEIGHT SHALL BE 4 INCH BARRIER CURB, AS SHOWN ON STANDARD PLAN 606.00.

CURB, GUTTER AND CURB AND GUTTER CONSTRUCTED ALONG AND ATTACHED TO CONCRETE PAVEMENT OR BASE SHALL HAVE:

1. JOINT (C1) ONE-QUARTER DEPTH OF CURB AND GUTTER THICKNESS AS A CONTINUATION OF EACH CONTRACTION JOINT IN THE BASE OR PAVEMENT.
2. JOINT (E1) AS CONTINUATION OF 2" EXPANSION JOINT (E) IN THE CONCRETE BASE OR PAVEMENT SHALL EXTEND AND CONTINUE THROUGH THE CURB, CUTTER AND CURB AND GUTTER.
3. JOINT (E2) THROUGH CURB AND CURB AND CUTTER AT THE BEGINNING AND END OF EACH PAVED APPROACH.

CURB, CURB AND GUTTER AND GUTTER CONSTRUCTED APART OR SEPARATED FROM CONCRETE BASE OR PAVEMENT OR AS A FORM FOR ASPHALTIC CONCRETE PAVEMENT SHALL HAVE A JOINT (E2) ENTIRELY THROUGH THE CURB, CURB AND GUTTER AND GUTTER, AT THE BEGINNING AND END OF EACH "PAVED APPROACH" AND A JOINT (C1) TO ¼ DEPTH OF CURB AND GUTTER THICKNESS AT INTERVALS OF 30 FEET BETWEEN APPROACHES.

JOINTS (E) AND (E2) THROUGH CURB SHALL BE FILLED WITH PREFORMED FILLER MATERIAL AND SEALED WITH HOT POURED FILLER FOR JOINTS.

JOINT (E1) IN GUTTER SHALL BE FILLED WITH PREFORMED FILLER AND SEALED WITH HOT FILLER MATERIAL.

JOINT (E2) IN GUTTER SHALL BE FILLED WITH PREFORMED FILLER AND SEALED WITH FILLER OR FILLED WITH HOT POURED FILLER.

PREFORMED FILLER MATERIAL SHALL BE PLACED TO PROVIDE 1" HOT POURED FILLER FOR JOINTS.

THE BARRIER CLASS CURBS MAY BE CONSTRUCTED WITHOUT BATTER WHEN CONSTRUCTED ON A RADIUS OF 6 FEET OR LESS. THE (R2) WILL BE REQUIRED.

WHERE A SIDEWALK INTERSECTS A CURB, THE SIDEWALK SHALL BE RAMPED NO STEEPER THAN 12:1 SLOPE TO PROVIDED ACCESS FOR WHEELCHAIR ACROSS APPROACHES.

PRECAST TYPE A AND B GUTTER ARE ONLY ALLOWED WHEN CONSTRUCTABILITY ISSUES MAKE CAST IN PLACE NOT PRACTICAL. PRECAST IS ONLY ALLOWED WITH THE APPROVAL OF THE ENGINEER. WHEN ALLOWED BY THE ENGINEER, TYPES A AND B GUTTER MAY BE PRECAST TO CONFORM TO THE DIMENSIONS SHOWN. THE PRECASTER SHALL SUBMIT SHOP DRAWINGS INDICATING THE SECTION LENGTH, SECTION CONNECTION, AND PROPOSED JOINT SEALING SYSTEM. WHEN PRECAST SECTIONS CANNOT CONFORM TO ANY VERTICAL OR HORIZONTAL CURVE THEN CAST IN PLACE IS THE ONLY OPTION. A COMBINATION OF CAST IN PLACE AND PRECAST GUTTER MAY BE PERMITTED.

LEGEND

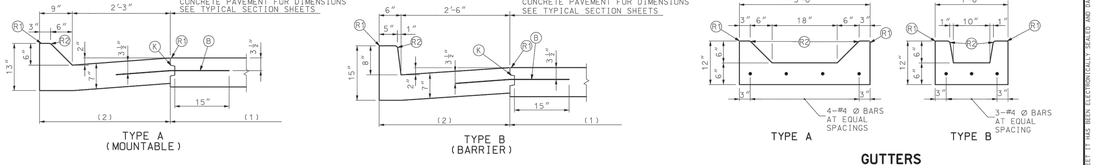
(C1) ¼" MAXIMUM WIDTH TRANSVERSE CONTRACTION JOINT (PREFORMED OR SAWED).
(E) 2" TRANSVERSE EXPANSION JOINT. (PREFORMED OR SAWED)
(E2) ¾" TRANSVERSE EXPANSION JOINT. (PREFORMED OR SAWED)
(F) FILLER FOR JOINTS - HOT POURED.
(K) PREFORMED JOINT FILLER MATERIAL.
(M) TONGUE & GROOVE JOINT WITH TIE BAR - SEE DETAIL.
(N) TONGUE & GROOVE JOINT WITHOUT TIE BARS - SEE DETAIL.
(N) NOT LESS THAN 10' OR MORE THAN 30'.
(T) TOP OF CURB.
(R1) ROUND TO ¼" RADIUS. (EXCEPT FOR SAWED JOINTS)

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI — GARRETT R. GATES — NUMBER PE-2010250891 — PROFESSIONAL ENGINEER
THIS SHEET WAS WHEN SIGNED, SEALED, AND DATED ELECTRONICALLY

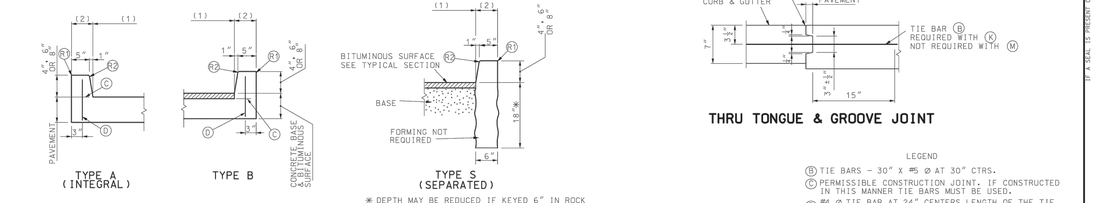
CONCRETE CURB, CURB AND GUTTER AND GUTTER

DATE EFFECTIVE: 04/01/2021
DATE PREPARED: 1/27/2021
609.00P
SHEET NO. 1 OF 2



CURB & GUTTER

GUTTERS



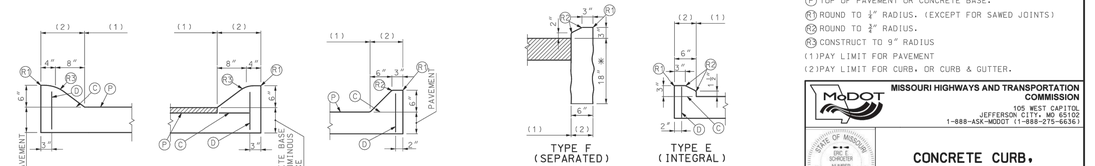
BARRIER CURBS

✱ DEPTH MAY BE REDUCED IF KEYED 6" IN ROCK

THRU TONGUE & GROOVE JOINT

LEGEND

(B) TIE BARS - 30" X #5 Ø AT 30" CTRS.
(C) PERMISSIBLE CONSTRUCTION JOINT. IF CONSTRUCTED IN THIS MANNER TIE BARS MUST BE USED.
(D) #4 Ø TIE BAR AT 24" CENTERS LENGTH OF THE TIE BARS EQUALS THICKNESS OF PAVEMENT PLUS HEIGHT OF CURB, LESS 3 INCHES.
(K) TONGUE & GROOVE JOINT WITH TIE BAR - SEE DETAIL.
(P) TOP OF PAVEMENT OR CONCRETE BASE.
(R1) ROUND TO ¼" RADIUS. (EXCEPT FOR SAWED JOINTS)
(R2) ROUND TO ½" RADIUS.
(R3) CONSTRUCT TO 9" RADIUS
(1) PAY LIMIT FOR PAVEMENT
(2) PAY LIMIT FOR CURB, OR CURB & GUTTER.



BEGINNING AND ENDINGS OF INTROCUCED LOW PROFILE CURBS SHALL UTILIZE CURB HEIGHT RUNOUT FORM D INCH TO 3 INCHES IN 5 FEET PAYMENT. LENGTH SHALL INCLUDE TAPERS.

✱ DEPTH MAY BE REDUCED IF KEYED 6" IN ROCK.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI — GARRETT R. GATES — NUMBER PE-2010250891 — PROFESSIONAL ENGINEER
THIS SHEET WAS WHEN SIGNED, SEALED, AND DATED ELECTRONICALLY

CONCRETE CURB, CURB AND GUTTER AND GUTTER

DATE EFFECTIVE: 07/01/2018
DATE PREPARED: 5/3/2018
609.00P
SHEET NO. 2 OF 2

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REVISIONS

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

DRAWING INFO.

DRAWN BY:	GC
CHECK BY:	PJ
LICENSE NO.	PE-2021025089
DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

CURB & SIDEWALK DETAILS

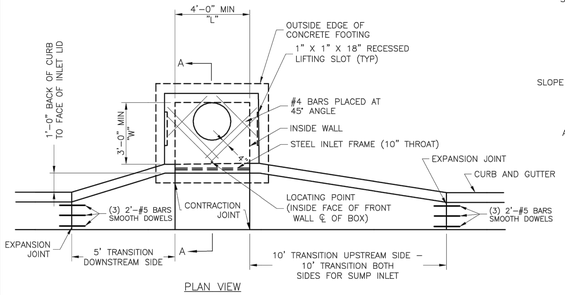
S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI — GARRETT R. GATES — NUMBER PE-2010250891 — PROFESSIONAL ENGINEER
08/26/22

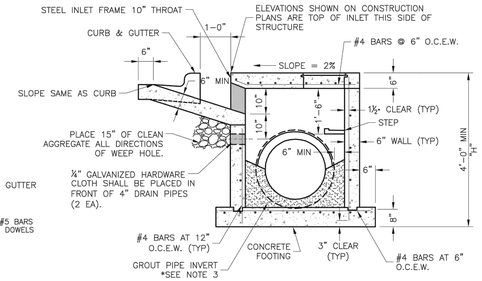
SHEET NUMBER
C702
76 OF 88

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED

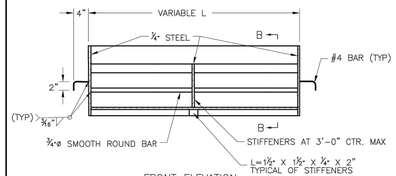
Aug 26, 2022 - 1:45pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - DETAILS.dwg Layout: CURB & SIDEWALK DETAILS



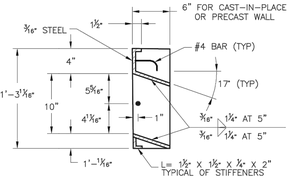
PLAN VIEW



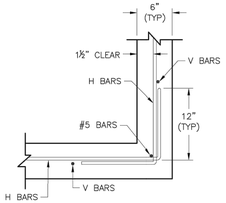
SECTION A–A



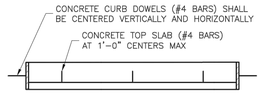
FRONT ELEVATION



SECTION B–B



WALL CORNER DETAIL



PLAN VIEW

STEEL FRAME NOTES:
1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. THE ENTIRE FRAME SHALL BE PAINTED A SINGLE COAT OF CHEM–PRIME #37H–78 PRIMER (GRAY) OR EQUAL.

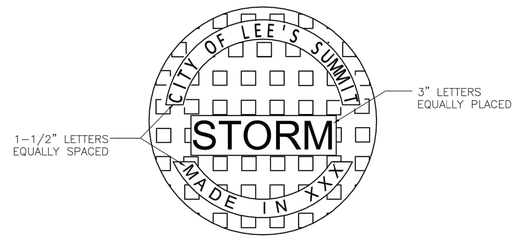
GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
5. STEPS SHALL BE SPACED AT 1'–4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
6. BEVEL ALL EXPOSED EDGES WITH ¾"CHAMFER OR ½" TOOLED EDGE.
7. ON–GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON–SHRINKABLE GROUT
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

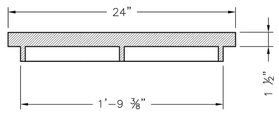
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB INLET DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

STM-1





STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB
NOTE: PICK HOLES NOT SHOWN

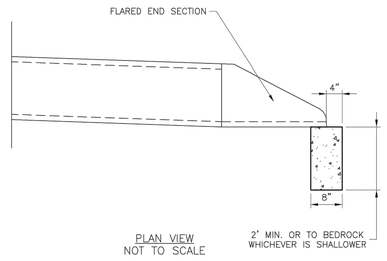
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

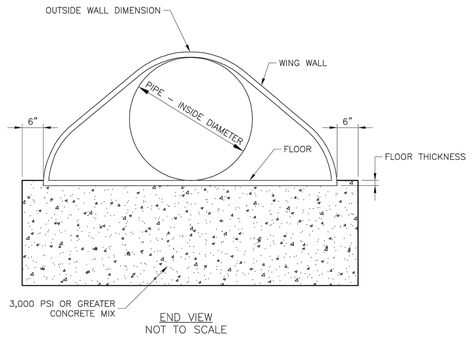
STORM MANHOLE COVER DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

STM-6



PLAN VIEW
NOT TO SCALE



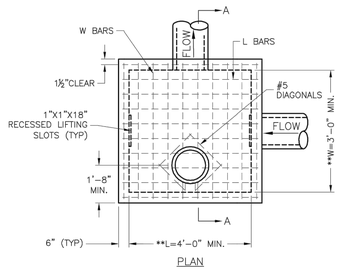
END VIEW
NOT TO SCALE

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

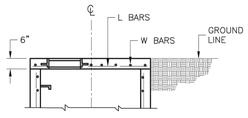
FLARED END SECTION SUPPORT DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

STM-5



PLAN

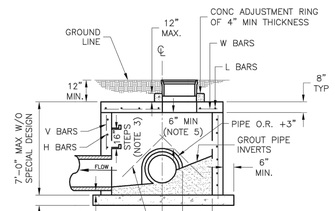


SLAB TOP ALTERNATE FOR JUNCTION BOX (SHALLOW)

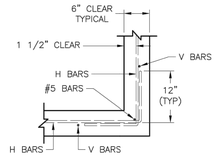
** INCREASE IN MULTIPLES OF 6" (7'–0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING

BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6



SECTION A–A



WALL CORNER DETAIL

GENERAL NOTES:
1. LOCATE RING AND COVER ON BLANK WALL.
2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE AND THE MINIMUM DISTANCE BETWEEN BOXOUTS IS 6".
5. THE MINIMUM REINFORCING SHALL BE 1 H–BAR OVER A CAST–IN–PLACE PIPE AND 2 H–BARS OVER A PRECAST BOXOUT.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL DESIGN.
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: JUNCTION BOX DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

STM-3

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NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

DRAWING INFO.
DRAWN BY: GC
CHECK BY: PJ
LICENSE NO. PE-2021025089
DATE: 03/14/2022
ISSUED FOR: FOR REVIEW
JOB NUMBER: 21KC10060

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

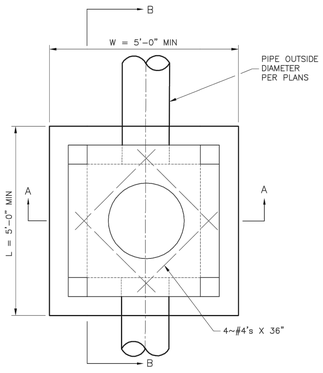
STORM SEWER DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

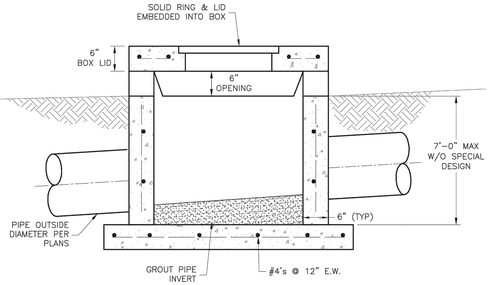
STATE OF MISSOURI
GARRETT R. GATES
NUMBER PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C703
77 OF 88

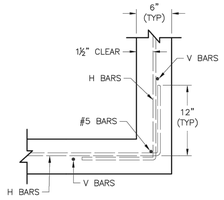
Aug 26, 2022 – 1:45pm Plotted By: gcate G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – DETAILS.dwg Layout: STORM SEWER DETAILS



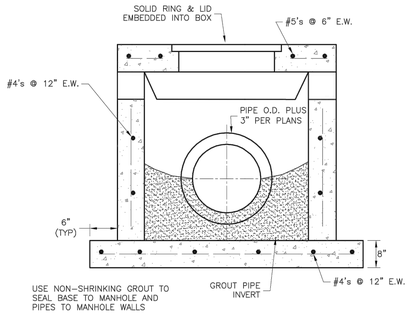
PLAN VIEW



SECTION B–B



WALL CORNER DETAIL



SECTION A–A

GENERAL NOTES:

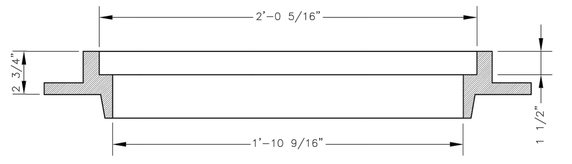
1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
2. USE ¾" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
5. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE.
6. THE MINIMUM REINFORCING SHALL BE 1 H–BAR OVER A CAST–IN–PLACE PIPE AND 2 H–BARS OVER A PRECAST BOXOUT.
7. SHOW FIELD INLET ORIENTATION ON PLANS PLUS NUMBER AND SIDE OF OPENINGS.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

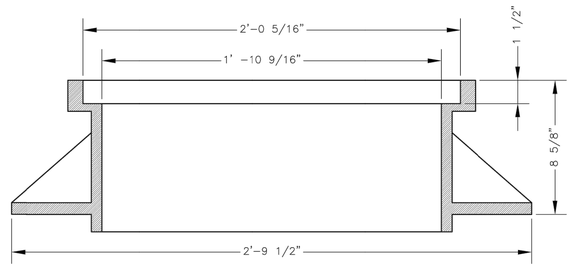
Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: FIELD INLET DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #

STM-2



SLAB MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS103A
MINIMUM WEIGHT = 145 LB



STANDARD 24" MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS101A
MINIMUM WEIGHT = 250 LB

*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

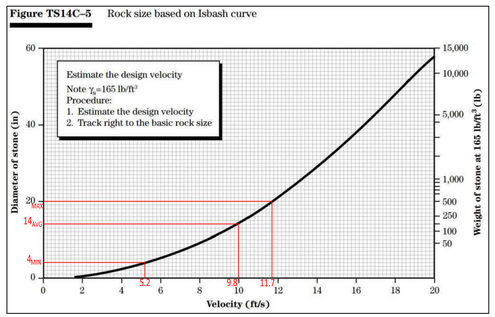
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STORM MANHOLE FRAME DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

STM-7

Figure TS14C–5 Rock size based on Isbash curve



MAXIMUM 10–YR OUTLET VELOCITY PER DRAINAGE CALCULATIONS (SHEET C504) ≈ 8.1 FT/S.

PER TABLE ABOVE, 8.1 FT/S x 1.2 SAFETY FACTOR = 9.8 FT/S ≈ 14" AVERAGE STONE SIZE.

14" STONE ≈ MoDOT TYPE 3 DITCH LINER SPECIFICATION

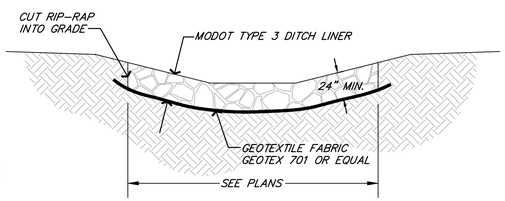
"TYPE TYPE 3 ROCK DITCH LINER SHALL CONSIST OF MATERIAL WITH A PREDOMINANT ROCK SIZE OF 12 INCHES, A MAXIMUM ROCK SIZE OF 20 INCHES AND A GRADATION SUCH THAT NO MORE THAN 15 PERCENT WILL BE LESS THAN 4 INCHES."

RIP–RAP NOTES:

1. *ROCK TO BE USED FOR RIP–RAP SHALL CONSIST OF INDIVIDUAL ROCK FRAGMENTS THAT ARE DENSE, SOUND, AND RESISTANT TO ABRASION. THE ROCK SHALL BE FREE OF CRACKS, SEAMS, AND OTHER DEFECTS THAT WOULD TEND TO INCREASE THE DESTRUCTION OF THE INDIVIDUAL ROCK FRAGMENTS DUE TO WATER AND FRONT ACTION. REFER APWA SECTION 2600.*
2. *RIP–RAP SHALL HAVE A MINIMUM THICKNESS OF 24" AT ALL LOCATIONS SHOWN ON THE PLANS. RIP–RAP SHALL BE PLACED ON GEOTEXTILE FABRIC AS SHOWN IN THE DETAIL.*
3. *24" THICK RIP–RAP SHALL BE WELL–GRADED (D50 = 14") AND CONFORM TO THE TABLE BELOW:*

PERCENT LIGHTER	WEIGHT, LBS.
100	700
85–95	525
30–50	175
0–15	30

4. *A SAMPLE OF ALL ROCK TO BE PLACED SHALL BE SET ASIDE AT A QUARRY CHOSEN BY THE CONTRACTOR AND VISUALLY INSPECTED BY THE CONTRACTOR FOR QUALITY TO ENSURE ROCK MEETS ALL REQUIREMENTS PRIOR TO DELIVERY.*

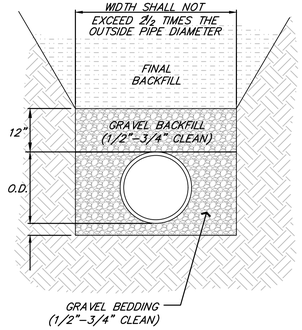


RIPRAP DETAILS

NOT TO SCALE

BEDDING
1/2"–3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS
INITIAL BACKFILL
–UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS
1/2"–3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS
–UNDER OPEN AREAS
1/2"–3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS
FINAL BACKFILL
–UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS
ON–SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8", COMPACTED TO 95% OF STANDARD DENSITY PER ASTM D–698
–UNDER OPEN AREAS
ON–SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8", COMPACTED TO 90% OF STANDARD DENSITY PER ASTM D–698

BEDDING DEPTH BELOW PIPE		
PIPE DIAMETER	IN SOIL	IN ROCK
24" AND LESS	4"	6"
27" THRU 60"	4"	9"



PIPE BEDDING DETAIL

NOT TO SCALE

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REVISIONS

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

DRAWING INFO.

DRAWN BY:	GC
CHECK BY:	PJ
LICENSE NO.	PE-2021025089
DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

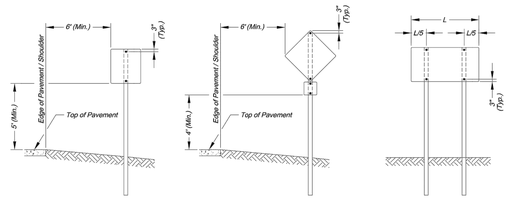
STORM SEWER DETAILS (2)

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. PLATTE
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C704
78 OF 88

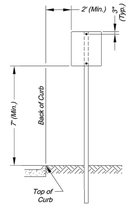
Aug 26, 2022 – 1:45pm Plotted By: gcate G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – DETAILS.dwg Layout: STORM SEWER DETAILS (2)



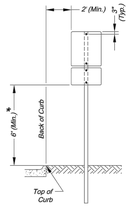
SIGN INSTALLATION FOR NON-CURBED STREET

SIGN INSTALLATION WITH AUXILARY SIGN FOR NON-CURBED STREET

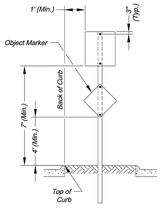
SIGN INSTALLATION WITH TWO SIGN POSTS



SIGN INSTALLATION FOR CURBED STREET



SIGN INSTALLATION WITH AUXILARY SIGN FOR CURBED STREET

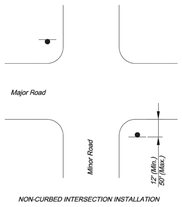


SIGN INSTALLATION FOR RAISED MEDIANS

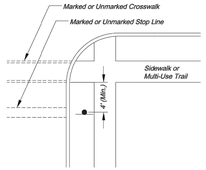
SIGN MOUNTING DETAILS

* *The height to the bottom of a sign when it is located in a pedestrian walkway or extends into a walkway shall be a minimum of 80 inches above the walkway.*

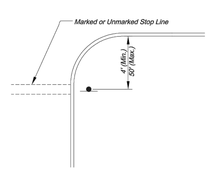
NOTE:
1. *Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.*



NON-CURBED INTERSECTION INSTALLATION

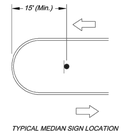


INTERSECTION WITH SIDEWALK / MULTI-USE TRAIL INSTALLATION



CURBED INTERSECTION INSTALLATION

CONTROL SIGN LOCATION



TYPICAL MEDIAN SIGN LOCATION

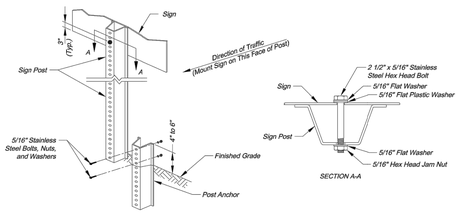
MEDIAN SIGN LOCATION

NOTES:
1. *A 4" P.V.C. sleeve shall be installed in new concrete medians at each location where a sign is to be installed.*
2. *For existing concrete medians, a 4" hole shall be cored into the concrete.*

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

1 OF 3

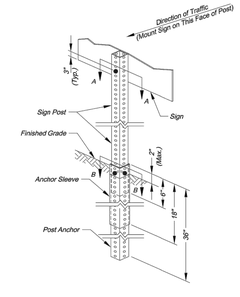
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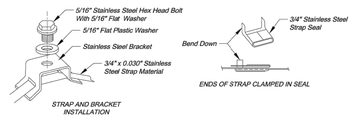
U-STEEL POST DETAILS

U-STEEL POST NOTES:
1. *Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.*
2. *U-Steel post shall be 3 lb./ft., galvanized according to ASTM A123.*
3. *U-Steel post can be used for installation of signs with an area of less than 2.5 square feet.*
4. *All posts shall be embedded a minimum of 3 feet.*

PERMANENT SIGNING GENERAL NOTES:
1. *All signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).*
2. *The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.*
3. *All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.*
4. *The Contractor shall stake the location of all sign posts to be installed. The City Inspector shall inspect the staking prior to installation. Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or designee.*
5. *Signs shown to be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Signal Standard Drawings for the installation of signs on mast arms.*
6. *All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.*
7. *All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the Contractor's expense. The Contractor shall be responsible for removing and storing any signs that are to be reinstalled on the project. All equipment shall be reinstalled in good condition.*
8. *Existing permanent signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1971 SE Hamblen Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.*
9. *All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in reflectorized drums (no less than 7 feet above the pavement surface) until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.*

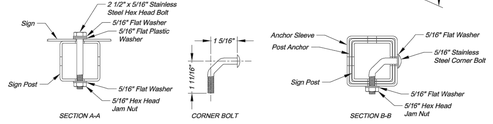


SQUARE STEEL POST INSTALLATION SEQUENCE:
1. *Sign post anchor driven partially into the ground using a drive cap with a sledge or power equipment.*
2. *Anchor sleeve slipped over anchor and drive into the ground together with the sign post anchor.*
3. *Insert sign post into the post anchor and bolt in place.*



STRAP TYPE SIGN SUPPORT DETAILS

METAL POLE SIGN MOUNTING NOTES:
1. *Signs on metal poles shall be attached with two brackets and stainless steel bands.*
2. *Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.*
3. *Holes in sign shall be located such that the sign is level.*
4. *All strap, bracket, and seal materials should be Type 201 stainless steel.*



SQUARE STEEL POST DETAILS

SQUARE STEEL POST NOTES:
1. *Square steel sign posts and break-away anchor shall consist of the following materials:*
   Sign Post - 14 Ga. 2" x 2" Square Steel Post
   Post Anchor - 12 Ga. 2 ¼" x 2 ½" x 36" Square Steel Post
   Anchor Sleeve - 12 Ga. 2 ½" x 2 ½" x 18" Square Steel Post
2. *14 Gauge posts must meet a certified minimum yield strength of 60,000 psi.*
3. *In all installations the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt.*
4. *The maximum area for one sign post is 9.0 square feet. A sign or combination of signs with an area greater than 9.0 square feet will require two posts. Also, signs with a width greater than 36" (not including 36" x 36" diamond shaped signs) will require two posts.*

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

2 OF 3

2

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project:
Sheet Name: SIGN MOUNTING DETAILS
STANDARD DRAWING SN-1

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project:
Sheet Name: SIGN POST DETAILS
STANDARD DRAWING SN-2

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DRAWN BY:	GC
CHECK BY:	PJ
LICENSE NO.	PE-2021025089
DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

REVISIONS

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENT	GC	5/11/22
2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

SIGN POST & MOUNTING DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C705
79 OF 88

Aug 26, 2022 – 1:45pm Plotted By: gcote G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – DETAILS.dwg Layout: SIGN POST & MOUNTING DETAILS

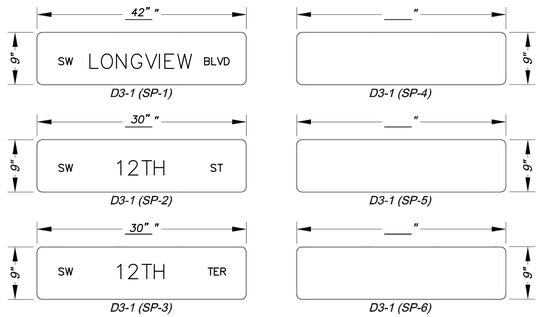
STANDARD ABBREVIATION LISTS

Named Streets	
Avenue	AVE
Boulevard	BLVD
Circle	CIR
Creek	CR
Court	CT
Crossing	XING
Drive	DR
Highway	HWY
Lane	LN
Parkway	PKWY
Place	PL
Road	RD
Street	ST
Terrace	TER
Trail	TRL
Way	WAY

Numbered Streets	
First	ST
Second	ND
Third	RD
Fourth to Tenth	TH

STREET NAME SIGN QUANTITIES

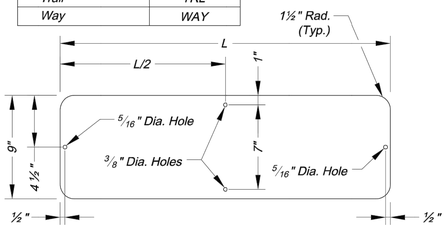
Sign Designation	Sign Size	Sign Area (Sq. Ft.)	Number	Quantity (Sq. Ft.)
D3-1 (SP-1)	9" x 42"	2.625	2	5.25
D3-1 (SP-2)	9" x 30"	1.875	3	5.625
D3-1 (SP-3)	9" x 30"	1.875	1	1.875
D3-1 (SP-4)	9" x			
D3-1 (SP-5)	9" x			
D3-1 (SP-6)	9" x			

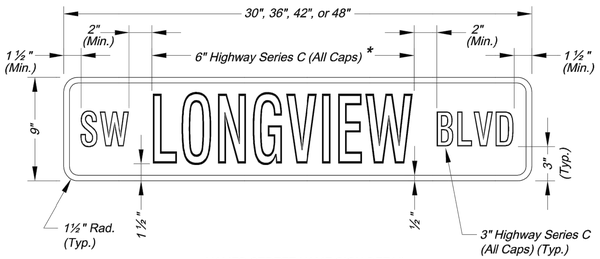


PROJECT SIGN DETAILS

STREET NAME SIGN BLANK DETAILS

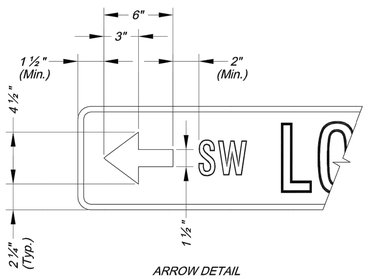
For Mounting on Square Steel Posts



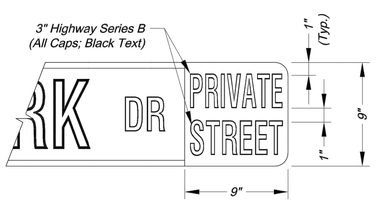


NAMED STREET NAME SIGN DETAIL

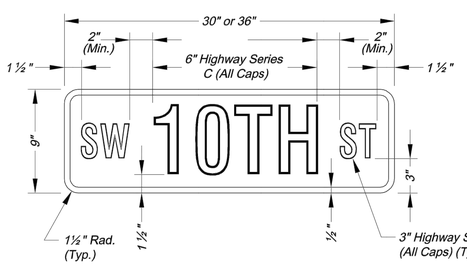
* Use Highway Series B (All Caps) in lieu of series C if necesary to fit text on a 36" sign blank.



ARROW DETAIL



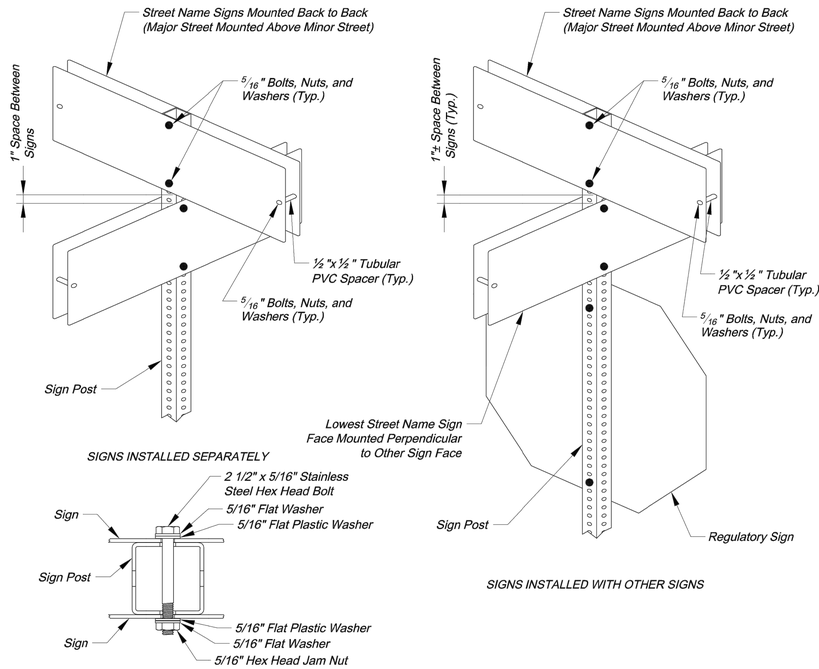
PRIVATE STREET TAG DETAIL



NUMBERED STREET NAME SIGN DETAIL

NOTES:
1. For all street name signs, the legend shall be white and the background shall be green.
2. Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each side of the intersection to indicate the change in names. Arrows shall be white.
3. The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.

STREET NAME SIGN FACE DETAILS

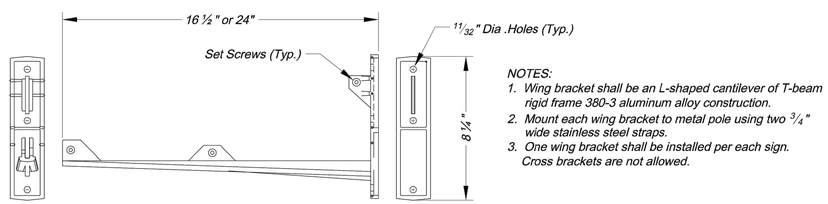


SIGNS INSTALLED WITH OTHER SIGNS

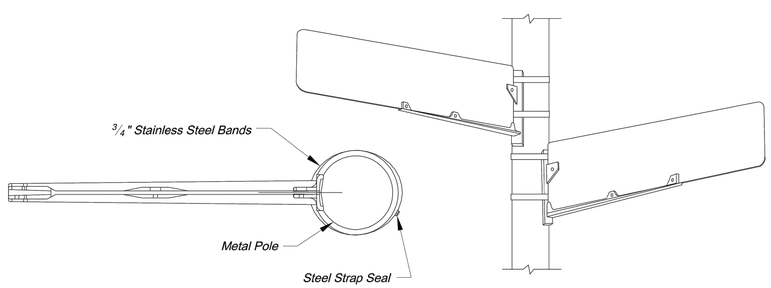
SIGNS INSTALLED SEPARATELY

PLAN VIEW

SQUARE STEEL POST MOUNTING DETAILS



NOTES:
1. Wing bracket shall be an L-shaped cantilever of T-beam rigid frame 380-3 aluminum alloy construction.
2. Mount each wing bracket to metal pole using two 3/4" wide stainless steel straps.
3. One wing bracket shall be installed per each sign. Cross brackets are not allowed.



WING BRACKET MOUNTING DETAILS

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CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
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2.	REVISED PER CITY COMMENT	GC	7/22/22
3.	REVISED PER CITY COMMENT	CA	8/26/22

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CHECK BY:	PJ
LICENSE NO.	PE-2021025089
DATE:	03/14/2022
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

STREET NAME SIGN DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

Project:
Sheet Name: STREET NAME SIGN DETAILS — STANDARD DRAWING SN-3

STATE OF MISSOURI — GARRETT R. GATES — NUMBER PE-2021025089 — PROFESSIONAL ENGINEER — 08/26/22

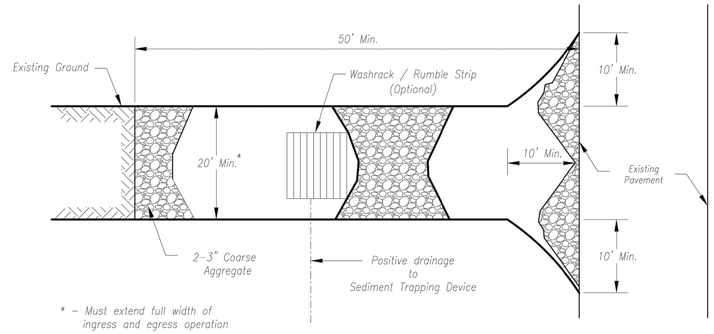
Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

3 OF 3

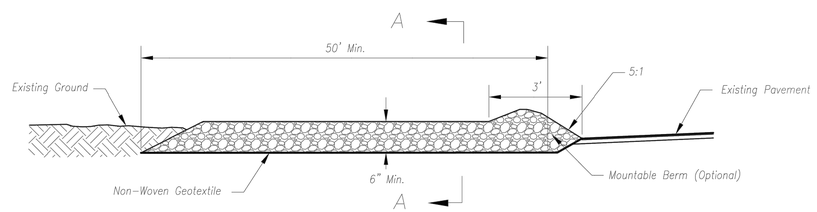
SHEET NUMBER
3

SHEET NUMBER
C706
80 OF 88

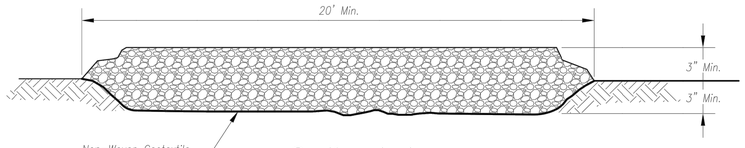
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Plan View
Not to Scale



Side Elevation
Not to Scale



Section A–A
Not to Scale

Notes for Construction Entrance:

1. *Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.*
2. *Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.*
3. *If slope towards the public road exceeds 2%, construct a 6– to 8–inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.*
4. *Install pipe under the entrance if needed to maintain drainage ditches along public roads.*
5. *Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.*
6. *Divert all surface runoff and drainage from the entrance to a sediment control device.*
7. *If conditions warrant, place geotextile fabric on the graded foundation to improve stability.*

Maintenance for Construction Entrance:

1. *Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.*

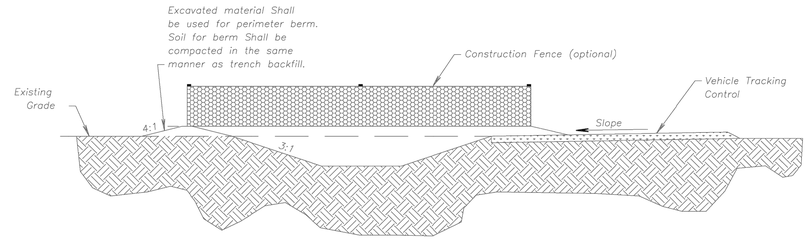
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. *Concrete washout areas shall be installed prior to any concrete placement on site.*
2. *Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.*
3. *Vehicle tracking control is required at the access point to all concrete washout areas.*
4. *Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.*
5. *A one–piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.*

Maintenance for Concrete Washout:

1. *Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.*
2. *Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.*
3. *Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water–tight container and disposed of properly.*
4. *Concrete washout areas shall remain in place until all concrete for the project is placed.*
5. *When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.*



CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION

Kansas City Metro Chapter APWA American Public Works Association

KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01

ADOPTED: 10/24/2016

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

CONSTRUCTION ENTRANCE DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

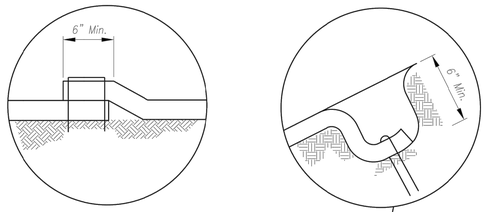
STATE OF MISSOURI
GARRETT R. GATES
NUMBER PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
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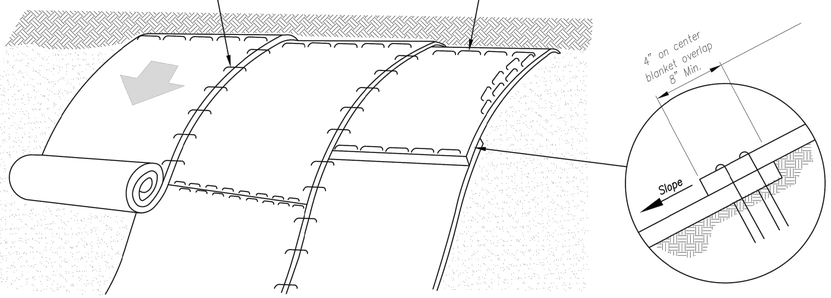
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Aug 26, 2022 - 1:45pm Plotted By: gcote G:\Shared drives\KC10 - Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\STREET STORM EROSION\21KC10060 - SHTS - DETAILS.dwg Layout: STEEP SLOPE PROTECTION DETAILS

Longitudinal Seam



Anchor Slot



Installation on Slopes

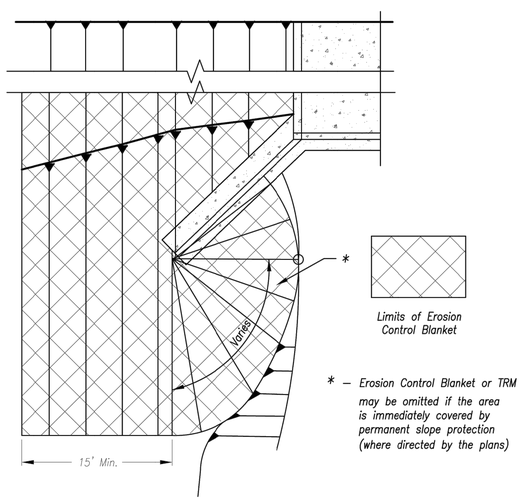
Splice Seam

General Notes:

1. *APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.*
2. *Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.*
3. *LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.*

Maintenance:

1. *Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.*
2. *Edges or seams that are loose or frayed shall be secured.*



Limits of Erosion Control Blanket

* – *Erosion Control Blanket or TRM may be omitted if the area is immediately covered by permanent slope protection (where directed by the plans)*

Partial Box Culvert Plan

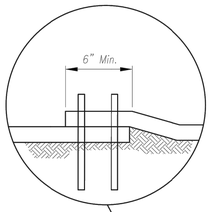
Not to Scale

Installation Around Culvert Slope

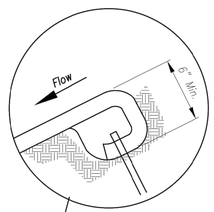
Notes for Installation on Slopes:

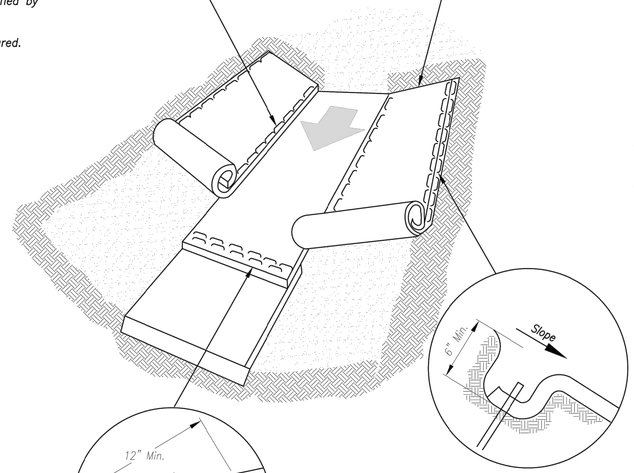
1. *Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.*
2. *ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.*
3. *SPLICE SEAM: When splices are necessary, overlap end a minimum of 8 inches in direction of water flow. Stagger splice seams.*
4. *TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.*

Longitudinal Seam

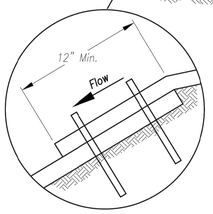


Anchor Fold

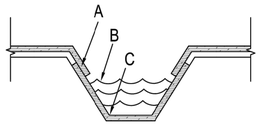




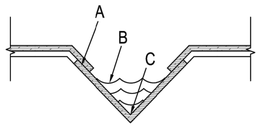
Edge Anchor



Splice Seam



Trapezoidal Channel



V Channel

Notes for Installation in Channels:

1. *Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.*
2. *ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.*
3. *SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.*
4. *CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.*
5. *EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.*
6. *TERMINUS: The bottom edge of the mat shall be anchored.*

Critical Points:

A – *Overlaps and seams;*

B – *Projected water line;*

C – *Channel bottom / side slope vertices;*

Installation in Channels

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION

Kansas City Metro Chapter APWA American Public Works Association

KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS

STANDARD DRAWING NUMBER ESC-02

ADOPTED: 10/24/2016

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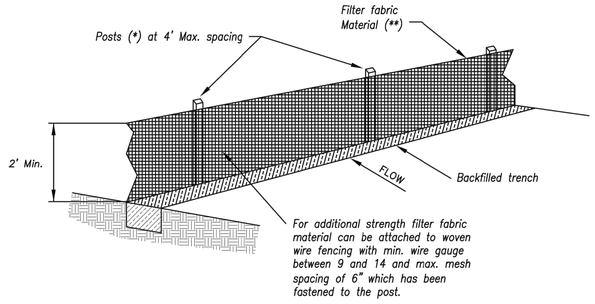
CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

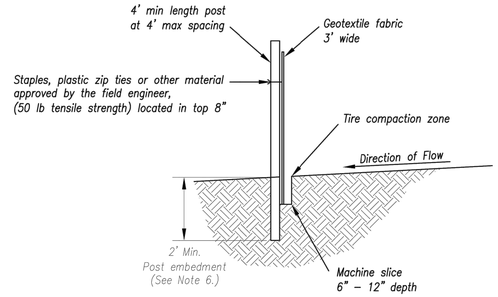
STEEP SLOPE PROTECTION DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

SHEET NUMBER
C802
82 OF 88





(*) POSTS
– MIN. LENGTH 4'
– HARDWOOD 1 3/16" x 1 3/16"
– NO.2 SOUTHERN PINE 2 5/8" x 2 5/8"
– STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS

Not to Scale

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ⅓ the height of silt fence.
2. Repair as necessary to maintain function and structure.

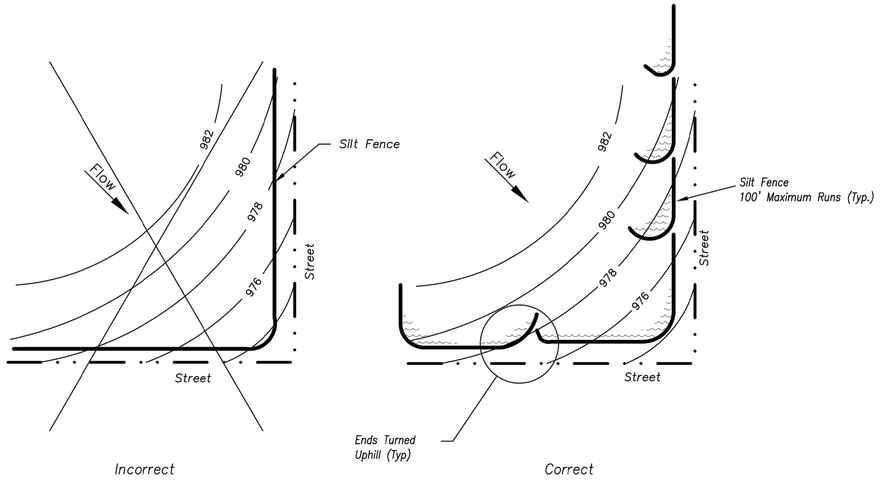
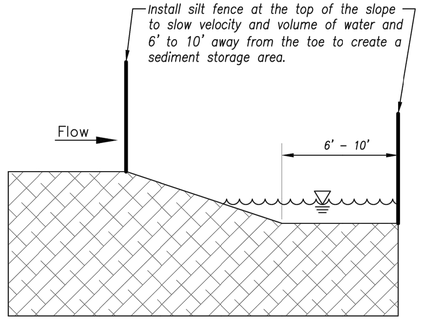
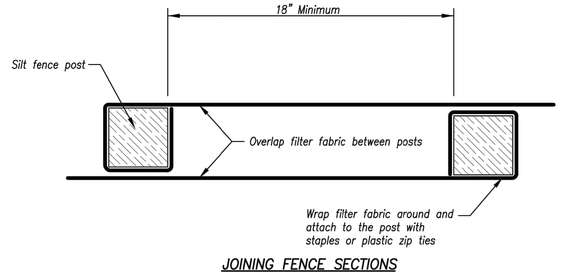


Figure A

SILT FENCE LAYOUT

Not to Scale





JOINING FENCE SECTIONS

Not to Scale

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	
Kansas City Metro Chapter APWA AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

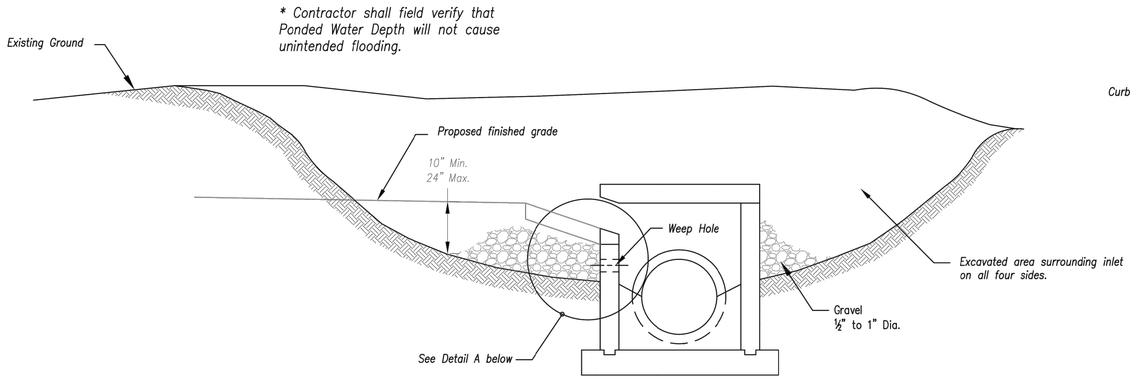
SILT FENCE DETAILS

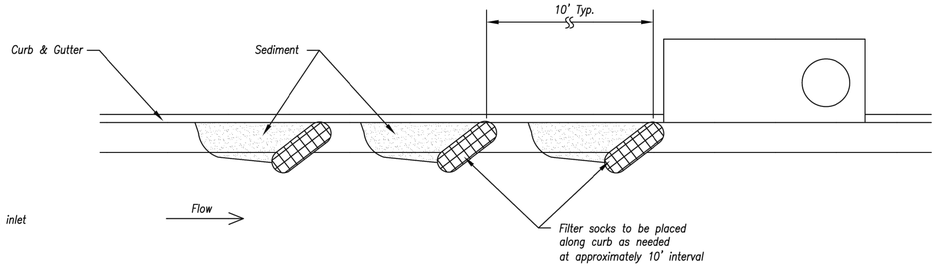
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STATE OF MISSOURI
GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

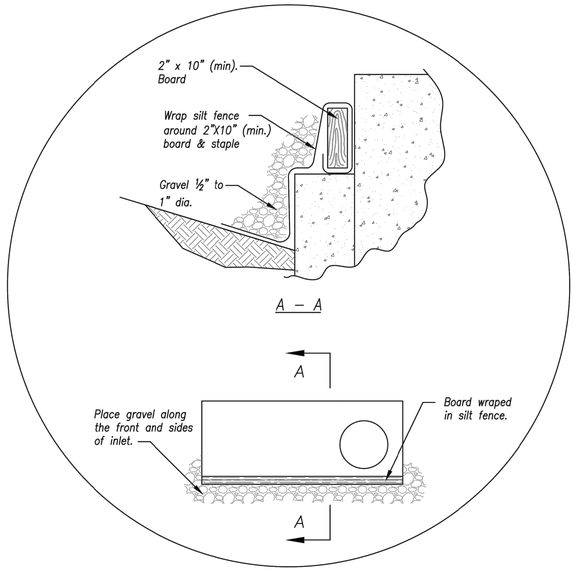
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On Grade Curb Inlet Protection



Detail A

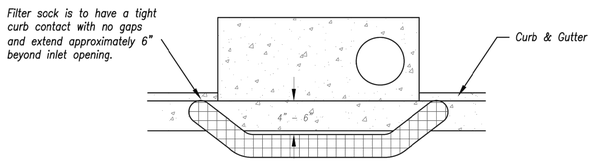
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

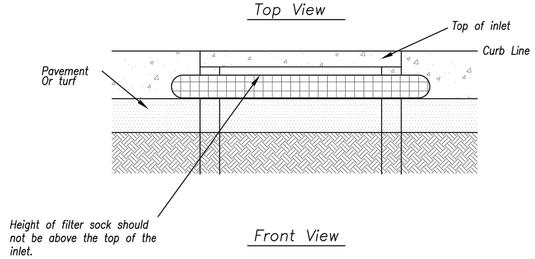
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



Top View



Front View

Sump Inlet Sediment Filter

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

CURB INLET PROTECTION

STANDARD DRAWING NUMBER ESC-06
ADOPTED: 10/24/2016

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ISSUED FOR:	FOR REVIEW
JOB NUMBER:	21KC10060

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2.	REVISED PER CITY COMMENT	GC	7/22/22
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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

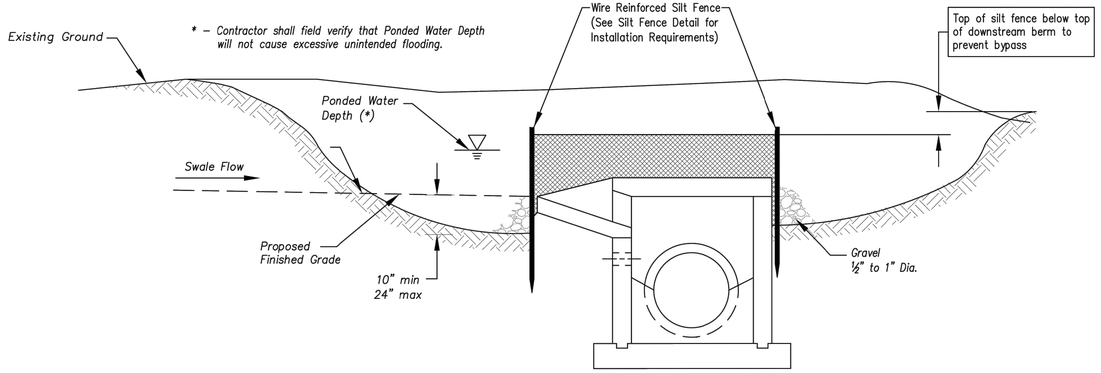
CURB INLET PROTECTION DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER PE-2010025089
PROFESSIONAL ENGINEER
08/26/22

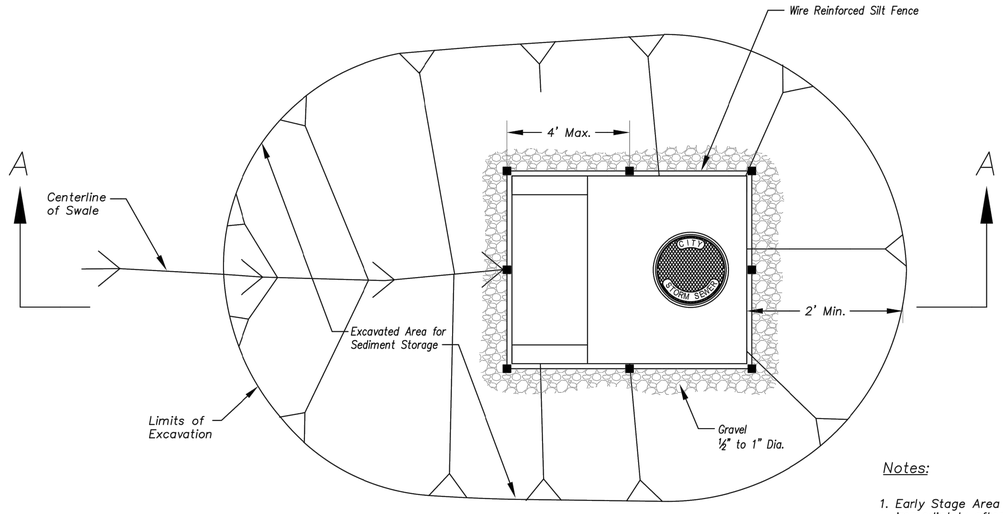
SHEET NUMBER
C804
84 OF 88

Aug 26, 2022 – 1:45pm Plotted By: gcate G:\Shared drives\KC10 – Land Development\Projects\2021\21KC10060 Cobey Creek Residential\01 CIVIL\03–DWG\Sheet\STREET STORM EROSION\21KC10060 – SHTS – DETAILS.dwg Layout: CURB INLET PROTECTION DETAILS



Section A–A

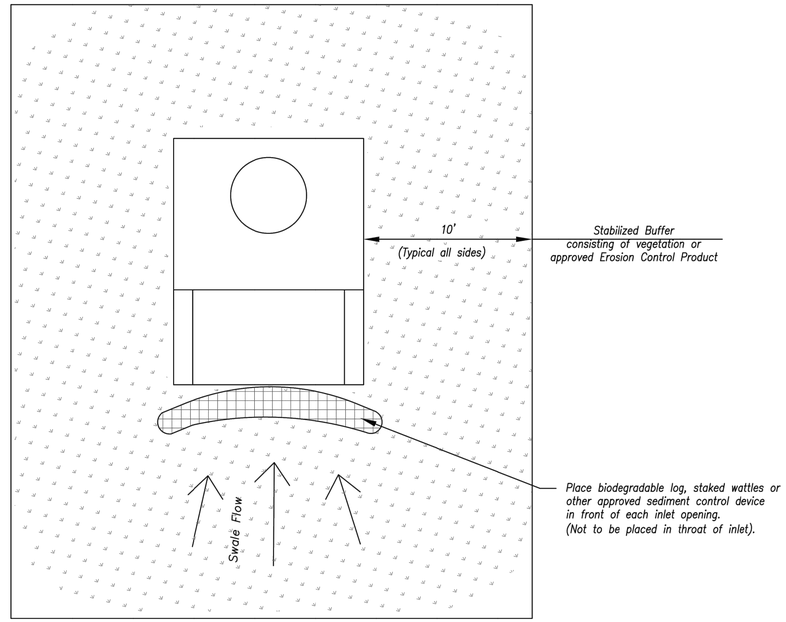
Not to Scale



Plan

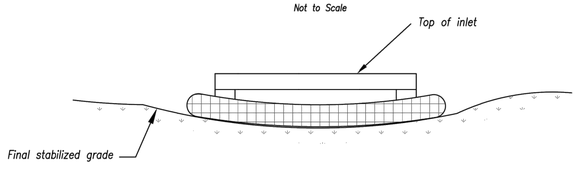
Not to Scale

EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)



Plan

Not to Scale



Front View

LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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KANSAS CITY METRO CHAPTER

AREA INLET AND JUNCTION BOX PROTECTION

STANDARD DRAWING NUMBER ESC-07

ADOPTED: 10/24/2016

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

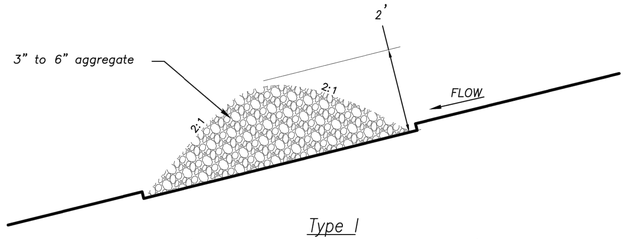
AREA INLET PROTECTION DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

SHEET NUMBER
C805
85 OF 88

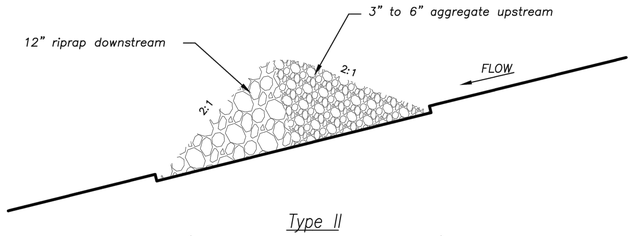
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Type I

(2 Acres or less of Drainage Area)

Not to Scale



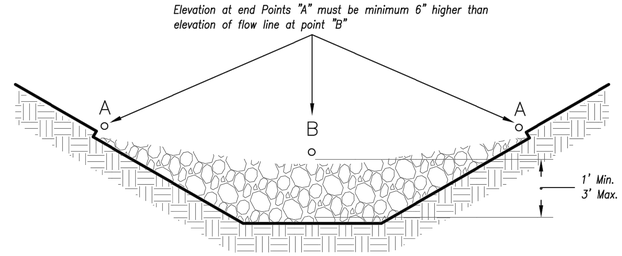
Type II

(2–10 Acres of Drainage Area)

Not to Scale

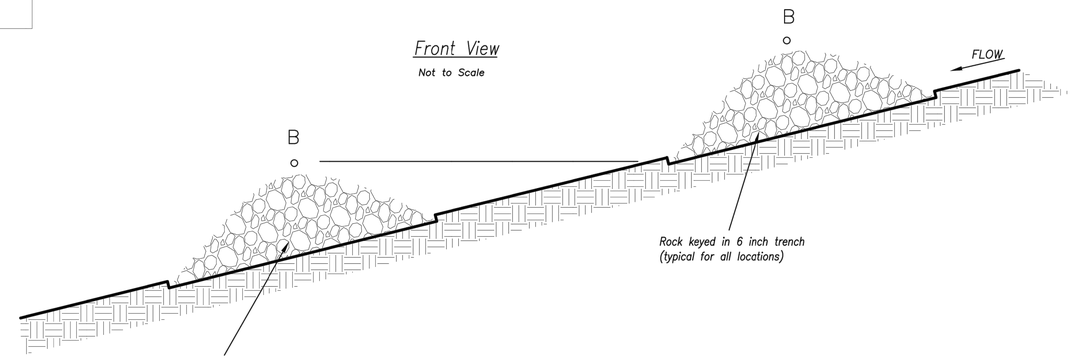
ROCK DITCH CHECK

Temporary Rock Ditch Check Spacing	
Ditch Centerline Slope (%)	Spacing Interval (Feet)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
Note: Use this spacing only for Rock Ditch Checks.	



Front View

Not to Scale



Spacing Between Check Dams (all types)

Not to Scale

Notes:

1. Rock check dams shall be used only for drainage areas less that 10 acres unless approved by the City Engineer.
2. Use rock checks only in situations where the ditch slope exceeds 6%.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of the ditch check.
2. Replace and reshape as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

ROCK DITCH CHECKS

STANDARD DRAWING NUMBER ESC-10

ADOPTED: 10/24/2016

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COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

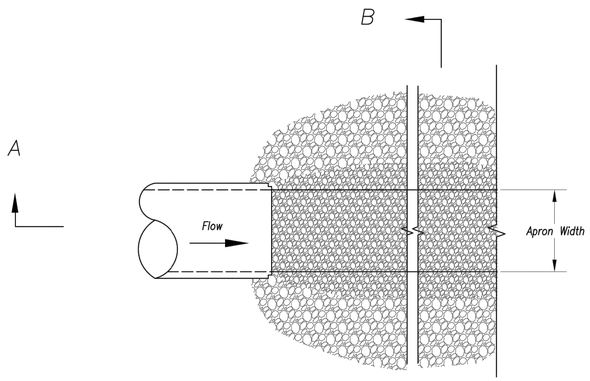
ROCK DITCH CHECKS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

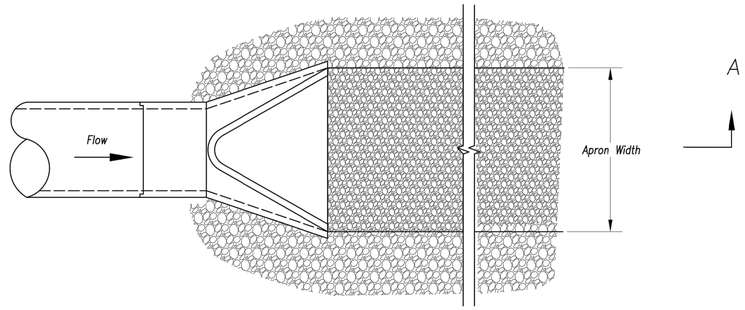
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GARRETT R. GATES
NUMBER
PE-2021025089
08/26/22
PROFESSIONAL ENGINEER

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C806
86 OF 88

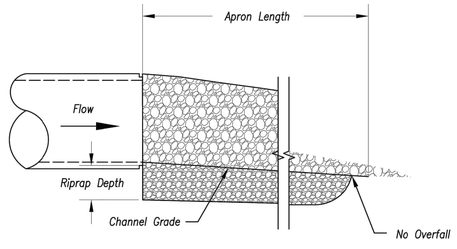
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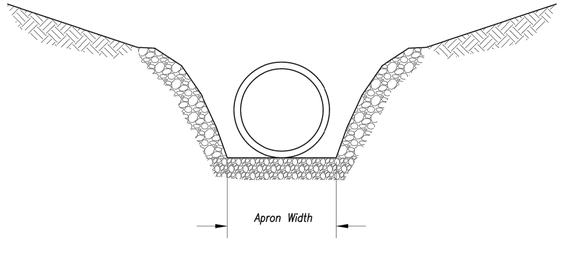
Plan View
Not to Scale



Plan View
Not to Scale

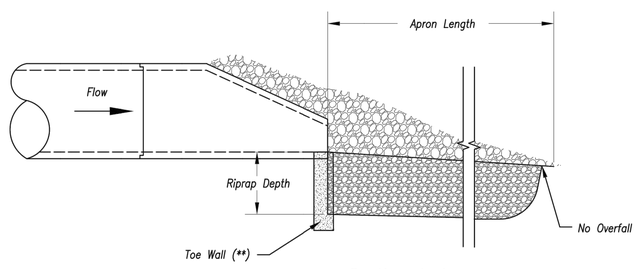


Section A–A
Not to Scale



Section B–B
Not to Scale

OUTLET PROTECTION W/O END SECTION



Section A–A
Not to Scale

OUTLET PROTECTION WITH END SECTION

Notes:

1. *Rock all sides steeper than 3:1.*
2. *Stabilize all disturbed areas downstream of outlet to the limits of disturbance.*
3. *Alternative outlet protection and slope stabilization measures may be used with approval by the Engineer.*
4. *Install riprap apron so that it is no higher than flowline of pipe.*
5. *Reference APWA Specification 2650 for rock type, size, and placement.*

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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OUTLET PROTECTION

STANDARD DRAWING NUMBER ESC-14

ADOPTED: 10/24/2016

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

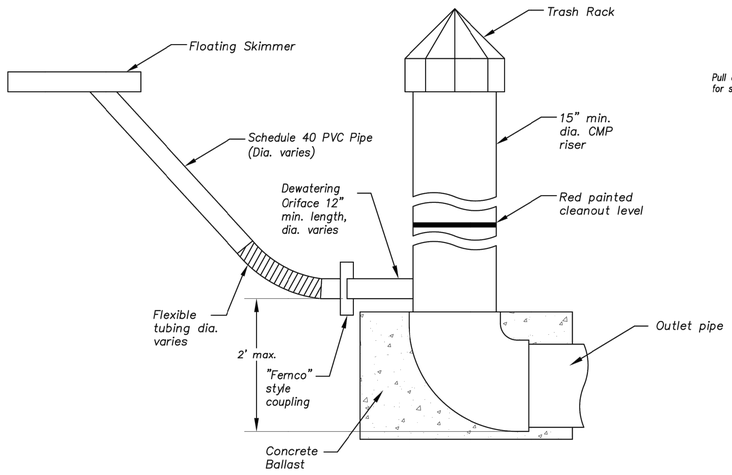
OUTLET PROTECTION DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

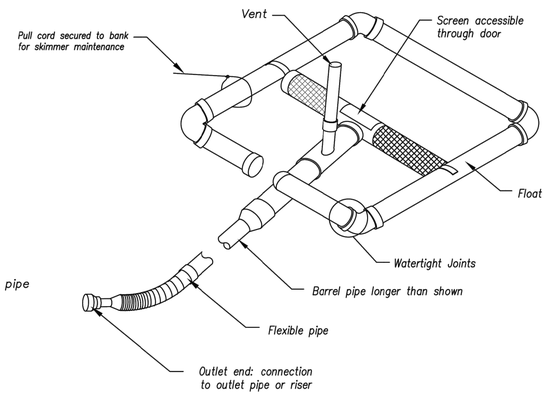
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GARRETT R. GATES
NUMBER PE-2021025089
PROFESSIONAL ENGINEER
08/26/22

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C807
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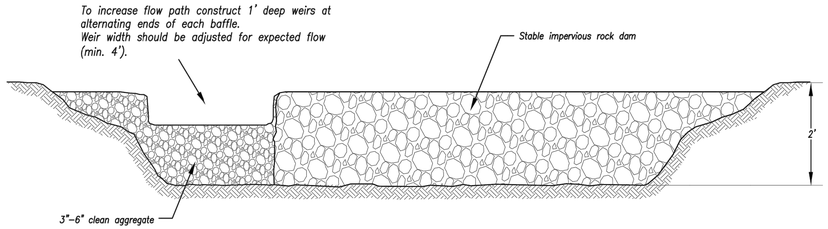


PRINCIPAL SPILLWAY DETAIL

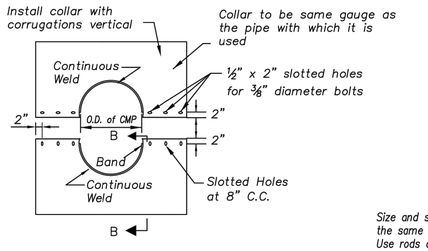


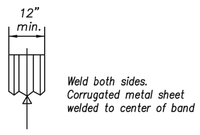
SKIMMER DETAIL (Typ.) *

* Designer to provide specific details per application (e.g. pipe sizes, screen sizes, perforation, etc.) as required.



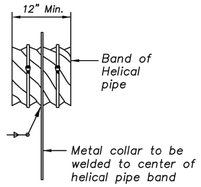
Option A – Rock with Weir



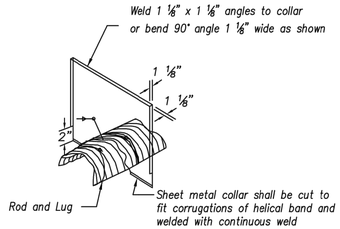


SECTION B–B

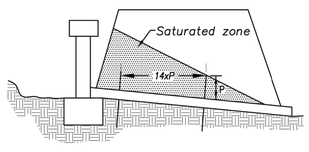
Size and spacing of slotted openings shall be the same as shown for CM collar. Use rods and lugs to clamp bands securely to pipe.



PARTIAL ELEVATION



ISOMETRIC VIEW



ANTI–SEEPAGE COLLAR LOCATIONS

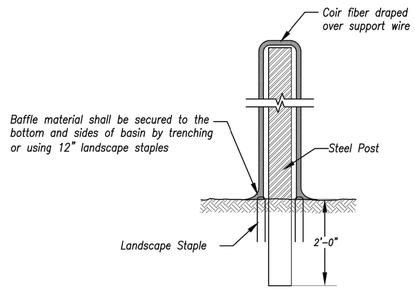
CORRUGATED METAL ANTI–SEEPAGE COLLAR DETAIL

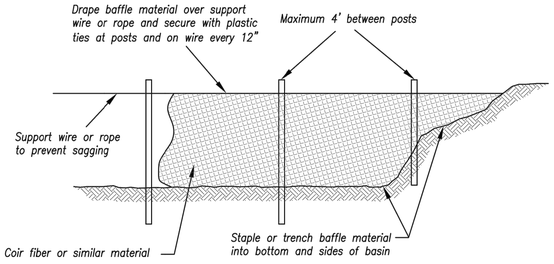
Not to Scale

Anti–Seepage Collar Notes:

1. Connections between the anti–seepage collar and the barrel must be watertight.
2. P = projection distance. Sized as required to achieve at least a 10% increase in seepage length.
3. 14xP = Max. spacing between collars.
4. Collars shall generally be placed in the middle third of the embankment, and within the saturated zone.
5. All materials to be in accordance with construction material specifications.
6. When specified on the plans, coating of collars shall be in accordance with construction material specifications.
7. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
8. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at the time of installation.
9. Each collar shall be furnished with two (2) ½" diameter rods with standard tank lugs for connecting the collars to the pipe.
10. For bands and collars, modification of the details shown may be used providing equal water tightness is maintained and detailed drawings are Submitted and approved by the Engineer prior to delivery.
11. Two other types of anti–seep collars are:
    a. Corrugated metal, similar to above, except shop welded to a 4 ft. section of the pipe and connected to the pipe with connecting bands.
    b. Concrete, 6 inches thick, formed around the pipe with #3 rebar spaced 15".

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.





Option B – Coir Fiber Material

BAFFLE DETAILS

Not to Scale

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KANSAS CITY METRO CHAPTER

SEDIMENT BASIN - DETAILS

STANDARD DRAWING NUMBER ESC-12

ADOPTED: 10/24/2016

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - STREET, STORM, & EROSION

SEDIMENT BASIN DETAILS

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LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. GATES
NUMBER PE-2021025089
PROFESSIONAL ENGINEER
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