# COBEY CREEK - 1ST PLAT

## STREET, STORM SEWER, LAND DISTURBANCE AND MASTER DRAINAGE PLANS

NE & SE $\frac{1}{4}$, SECTION 29 & NW $\frac{1}{4}$ SECTION 28,
TOWNSHIP 47 NORTH, RANGE 31 WEST
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

## INDEX OF SHEETS


### STREET AND STORM SEWER PLANS

1. COVER SHEET
2. GENERAL UTILITY LAYOUT - STREET AND STORM
3. GRADING PLAN

### STREET - PLAN AND PROFILE

4. COBEY CREEK DRIVE
5. COBEY CREEK DRIVE AND DAVID ROAD
6. GILLETTE STREET
7. CORBIN DRIVE
8. CARTER ROAD
9. JUD ROAD AND COBEY LANE

### STORM SEWERS - PLAN AND PROFILE

10. STORM SEWER LINE 1 AND 1D
11. STORM SEWER LINE 1
12. STORM SEWER LINES 1F, 2 AND 3
13. STORM SEWER LINES 4, 5, AND 6
14. STORM SEWER LINES 8, 9, 10 AND 11
15. STORM SEWER LINE 12
16. STORM SEWER LINES 13 AND 14
17. STORM SEWER LINES 15, 16, 17, 18 AND 19
18. UNDERDRAIN PLAN
19. DRAINAGE AREAS
20. HYDROLOGY CALCULATIONS

### STREET INTERSECTION DETAILS

21. INTERSECTION DETAILS - COBEY CREEK DRIVE AND GILLETTE STREET
22. INTERSECTION DETAILS - COBEY CREEK DRIVE AND JUD ROAD
23. INTERSECTION DETAILS - COBEY CREEK DRIVE AND DAVID ROAD
24. INTERSECTION DETAILS - COBEY CREEK DRIVE AND CARTER ROAD
25. INTERSECTION DETAILS - GILLETTE STREET AND CORBIN DRIVE
26. INTERSECTION DETAILS - GILLETTE STREET AND COBEY LANE
27. INTERSECTION DETAILS - CORBIN DRIVE AND DAVID ROAD
28. INTERSECTION DETAILS - DAVID ROAD AND COBEY LANE
29. INTERSECTION DETAILS - CORBIN DRIVE AND CARTER ROAD

### DETENTION BASIN DETAILS

30. NORTH DETENTION BASIN, IN-BASIN STORM PIPE AND OUTLET STORM PIPE
31. SOUTH DETENTION BASINS, TEMPORARY PIPE AND OUTLET RISER DETAIL

### DIVERSION BERM AND OVERFLOW SWALE

32. 3' SWALE, DIVERSION BERM & 100 YEAR OVERFLOW SWALE

### MASTER DRAINAGE PLANS

33. LOT AND FOUNDATION DATA - VILLA LOTS
34. LOT AND FOUNDATION DATA - R-1 LOTS

### LAND DISTURBANCE PLANS

35. GENERAL NOTES
36. SITE ASSESSMENT PLAN
37. PRE-CLEARING PLAN
38. STABILIZATION PLAN
39. FINAL RESTORATION PLAN
40. SEDIMENTATION POND DETAIL

### STREET DETAILS

41. TYPICAL STREET SECTIONS
42. STREET AND CURB DETAILS

### STANDARD STORM DETAILS

43. 43A NORTH DETENTION BASIN OUTLET STRUCTURE DETAIL
    43B SOUTH DETENTION BASIN OUTLET STRUCTURE DETAIL
44. CURB INLET & FIELD INLET DETAILS
45. JUNCTION BOX, MANHOLE COVER AND END SECTION SUPPORT DETAILS
46. STORM MANHOLE FRAME, TRENCH CHECK AND UNDERDRAIN DETAILS

### EROSION CONTROL DETAILS

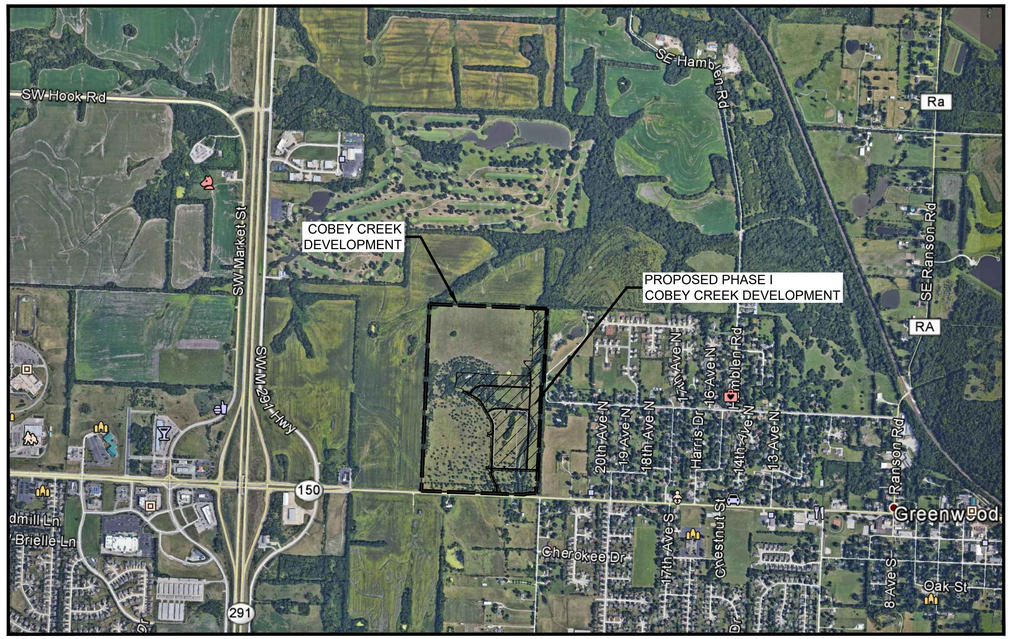
47. EROSION CONTROL DETAILS
48. EROSION CONTROL DETAILS

### STREET SIGNING PLAN AND DETAILS

49. SIGNING PLAN
50. SIGN DETAILS
51. SIGN DETAILS
52. SIGN DETAILS
53. SIGN DETAILS

### APPENDIX

FINAL PLAT


## VICINITY MAP

0 1000' 1500' 2000'
SCALE: 1"=1000'

## LEGEND

| | | | |
|---|---|---|---|
| Existing Section Line | | Proposed Right-of-Way | |
| Existing Right-of-Way Line | | Proposed Property Line | |
| Existing Lot Line | | Proposed Lot Line | L/L |
| Existing Easement Line | | Proposed Easement | U/E |
| Existing Curb & Gutter | | Proposed Curb & Gutter | |
| Existing Sidewalk | | Proposed Sidewalk | |
| Existing Storm Sewer | | Proposed Storm Sewer | |
| Existing Storm Structure | | Proposed Storm Structure | |
| Existing Waterline | W/L | Proposed Fire Hydrant | |
| Existing Gas Main | GAS | Proposed Waterline | W/L |
| Existing Sanitary Sewer | | Proposed Sanitary Sewer | |
| Existing Sanitary Manhole | | Proposed Sanitary Manhole | |
| Existing Contour Major | | Proposed Contour Major | |
| Existing Contour Minor | | Proposed Contour Minor | |
| | | Future Curb & Gutter | |

## UTILITIES

811 Know what's below. Call before you dig.

*City of Lee's Summit*
*Department of Public Works*
*220 SE Green*
*Lee's Summit, Mo.*
*816-969-1800*

*AT&T*
*215 N. Spring*
*Independence, Mo.*
*816-325-5610*

*KCPL*
*130 SE Hamblen Road*
*Lee's Summit, Mo.*
*816-347-4320*

*Time Warner*
*6550 Winchester Avenue*
*Kansas City, Mo.*
*913-643-1901*

*Missouri Gas Energy*
*3025 SE Clover Road*
*Lee's Summit, Mo.*
*816-537-4681*

*Missouri One Call*
*1-800-344-7483*

## LEGAL DESCRIPTION:

*All that part of the Southeast Quarter of Section 29, Township 47 North, Range 31 West, more particularly described as follows:*

*Commencing at the Southeast corner of said Southeast Quarter; thence North 02°30'29" East, along the East line of the Southeast Quarter of said Section 29, a distance of 58.62 feet; thence departing said East line, North 87°29'31" West, a distance of 40.00 feet to the North right-of-way line of Missouri State Highway No. 150, as now established, and the Point of Beginning; thence South 85°26'23" West, along the North right-of-way line of said Missouri State Highway No. 150, a distance of 142.47 feet; thence South 65°50'12" West, continuing along said North right-of-way line, a distance of 27.99 feet; thence continuing along said North right-of-way line, North 87°54'10" West, along a line 30 feet North of and parallel with the South line of said Southeast Quarter, a distance of 1436.75 feet; thence departing said North right-of-way line, North 02°32'36" East, a distance of 2613.35 feet to the North line of said Southeast Quarter; thence South 87°44'49" East, along the North line of said Southeast Quarter, a distance of 1641.53 feet to the Northeast corner of said Southeast Quarter; thence South 02°30'29" West, along the East line of said Southeast Quarter, a distance of 1081.05 feet; thence departing said East line, North 87°29'31" West, a distance of 30.00 feet; thence South 02°30'29" West, along a line 30 feet West of and parallel with the East line of said Southeast Quarter, a distance of 1302.74 feet; thence South 08°13'07" West, a distance of 100.51 feet; thence South 02°30'29" West, along a line 40 feet West of and parallel with the East line of said Southeast Quarter, a distance of 96.45 feet to the Point of Beginning. Containing 4,237,595.37 square feet or 97.28 acres, more or less.*

## GENERAL NOTES

1. *The underground utilities shown herein have been plotted from available information and do not necessarily reflect the actual existence, or nonexistence, size, type, number, or locations of these or other utilities. The contractor shall be responsible for verifying the actual locations of all underground utilities, shown or not shown, and said utilities shall be located in the field prior to any grading, excavation, or construction of improvements. These provisions shall in now way absolve any party from complying with the "UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT", Chapter 319, RSMO.*

2. *Gas, Water, and other Utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers, including building laterals.*

3. *The Contractor shall secure all required permits and notify the Development Engineering Department of the City of Lee's Summit (816-969-1200) at least 48 hours prior to any construction.*

4. *Prior to submittal of construction bids, the Contractor shall be required to visit the site to verify existing conditions and proposed improvements.*

5. *All construction materials and methods used shall comply with the latest editions of the City of Lee's Summit "DESIGN AND CONSTRUCTION MANUAL" as adopted by City Ordinance NO. 5813. See said Manual for standard details.*

6. *The Contractor shall be responsible for notification and coordination with all Utility Companies.*

7. *The Contractor shall notify the Engineer immediately of any discrepancies in the plans.*

8. *"Controlled Fill" indicates fill to be placed in accordance with APWA Section 2100 for grading and site preparation, with APWA Section 2200 for street construction (paving), with APWA Section 2500 for sanitary sewer construction and with APWA Section 2600 for storm sewer construction unless otherwise noted.*

## NOTE:

1) *The subject property is located within the Big Creek Watershed.*

2) *There was no oil or gas wells located on the subject property as of May 14, 2018 as shown by the Missouri Geological Survey GEOSTRAT (Geosciences Technical Resource Asessment Tool).*

## PROJECT BENCHMARK:

*#1 MODNR MONUMENT JA-45*
*N: 986351.65*
*E: 2824617.51*
*TOP ELEV. 1012.79*

*#2 MONUMENT AT THE INTERSECTION OF M150 & DOC HENRY ROAD*
*N: 977823.53*
*E: 2828220.61*
*TOP ELEV. 1006.04*

DEVELOPER
JCM DEVELOPMENT, LLC
1314 MARKET STREET
LEE'S SUMMIT, MO 64082
(816) 786-4008
CONTACT - CHRIS JEFFRIES

ENGINEER
Hg CONSULT, INC.
CONTACT - KEVIN STERRETT
1411 N.E. TODD GEORGE ROAD
LEES SUMMIT, MISSOURI 64086
(816) 703-7098

Prepared: November 21, 2018

| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 07/30/19 | PER CITY'S COMMENTS | 6 | SPW | RKS |
| 07/03/19 | PER CITY'S COMMENTS | 5 | SPW | RKS |
| 04/23/19 | PER CITY'S COMMENTS | 4 | SPW | RKS |
| 04/16/19 | PER CITY'S COMMENTS | 3 | SPW | RKS |
| 03/27/19 | PER CITY'S COMMENTS | 2 | SPW | RKS |
| 03/08/19 | PER CITY'S COMMENTS | 1 | SPW | RKS |
| 11/21/18 | SUBMITTAL TO CITY OF LEES SUMMIT | | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER
R. KEVIN STERRETT | MO E-26440
July 3, 2019


Hg Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
COVER SHEET

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. 16-059 Base Phase I
DRAWING NO. 16-059 Phase I Street Plans
DATE July 30, 2019
JOB NO. 16-059
SHEET 1 OF 53

PROPOSED OFFSITE SANITARY SEWER

PROPOSED NORTH DETENTION BASIN OUTLET STRUCTURE

PROPOSED STORM SEWER

PROPOSED DEVELOPMENT NORTH DETENTION BASIN

PROPOSED 5' CONCRETE SIDEWALK TO BE CONSTRUCTED IN PHASE I (TYP.)

PROPOSED STORM SEWER

PROPOSED SANITARY SEWER

PROPOSED WATER LINE

PROPOSED STORM SEWER

PROPOSED SANITARY SEWER

PROPOSED 5' CONCRETE SIDEWALK TO BE CONSTRUCTED IN PHASE I (TYP.)

PROPOSED STORM SEWER

PROPOSED SOUTH DETENTION BASINS

TRACT H Open Space

TRACT G Open Space

TRACT E Open Space

TRACT D Open Space

Clubhouse / Event Center

CORBIN DRIVE

CARTER ROAD

DAVID ROAD

COBEY LANE

COBEY CREEK DRIVE

GILLETTE STREET

JUD ROAD

MISSOURI 150 HIGHWAY

POND #3

POND #2

POND #1

## KEY

| PROPOSED | | EXISTING |
|---|---|---|
| SAN | Sanitary Sewer | SAN 42" CMP |
| | Storm Sewer | |
| W/L | Water | W |
| | Sidewalk | |
| | 2' Curb | |
| | Existing Grades | 975 |
| | Manhole | |
| | Catch Basin | |
| | Junction Box | |
| | Field Inlet | |
| | Flared End Section | |
| | Fire Hydrant | |
| | Water Valve | |
| | Handicap Ramp | |
| UGP | Underground Power | UGP |
| UGT | Underground Telephone | |
| GAS | Gas Line | GAS |
| X | Fence | X |
| | Tree Line | |
| | Finish Street Flow | |

## LEGEND

PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I ROAD CONSTRUCTION

NOTE:
1. BEGIN / END OF ROAD CONSTRUCTION BEGIN / END OF SIDEWALK CONSTRUCTION UNLESS OTHERWISE NOTED.
2. PROPOSED 5' WIDE CONCRETE SIDEWALK THAT ABUTS PLATTED LOTS SHALL BE CONSTRUCTED AT TIME OF BUILDING CONSTRUCTION.

## NOTE:

*STREETS TO BE CONSTRUCTED WITH STRAIGHT BACK CURB (CG-1):*

*COBEY CREEK DRIVE, GILLETTE STREET & JUD ROAD.*

*STREETS TO BE CONSTRUCTED WITH ROLL BACK CURB (CG-2):*

*CORBIN DRIVE, COBEY LANE, DAVID ROAD & CARTER ROAD.*

811 Know what's below. Call before you dig.

0 100' 150' 200'
SCALE: 1"=100'

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RWS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RWS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RWS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RWS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RWS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RWS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RWS |

**IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES**

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 2006440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)


# STREET AND STORM SEWER PLANS GENERAL UTILITY LAYOUT

# COBEY CREEK FIRST PLAT PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

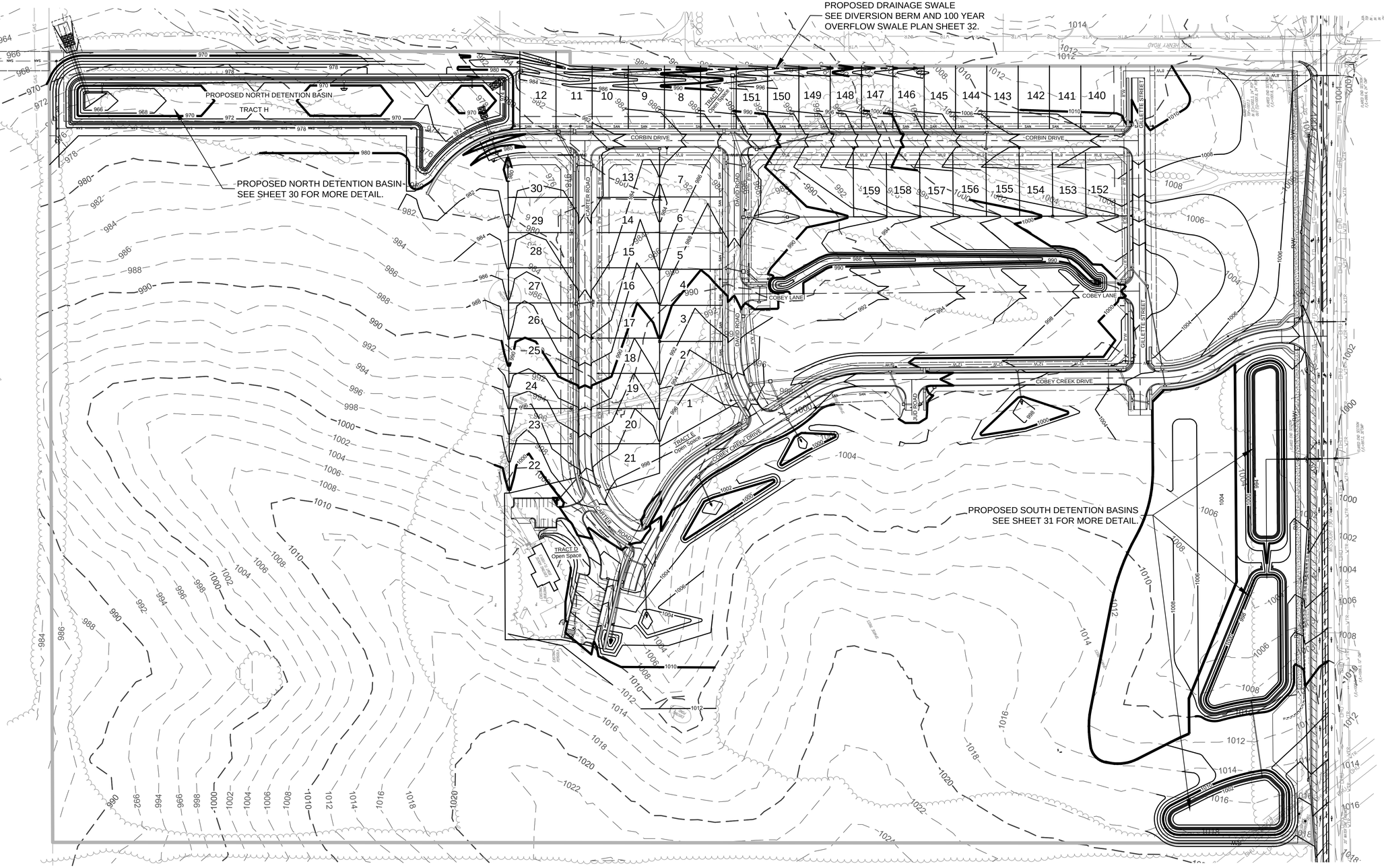
X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

SHEET 2 OF 53




## GENERAL NOTES:

1. *This sheet is for informational purposes only. See individual sheets for exact utility locations.*
2. *See Sanitary Sewer sheets and Utility Map for Minimum Basement Floor elevations (MBF) and Minimum Low Opening elevations (MLO).*
3. *Grading plan represents general site grading prior to the development of lots.*
4. *Existing grades aquired from topographic survey, May 2017. Existing street grades verified in field.*
5. *Per contractor, all excess dirt or deficiencies of dirt to be handled on site.*
6. *Tract H shall be "Common Area" to be owned and maintained by the Homeowner's Association.*
7. *The swales located on or near the lots designated as "X" to carry excess storm water runoff shall be maintained by the Owners of said lots. Minimum Low Openings (MLO) of said lots on the swale side of said lots shall be a minimum of one (1) foot above the adjacent top of finish swale elevation unless a higher MLO elevation is required by other restrictions.*
8. *The Minimum Low Opening (MLO) for the front of all lots shall be a minimum of one (1) foot above the top of corresponding curb elevation.*

0 100' 150' 200'
SCALE: 1"=100'

811 Know what's below. Call before you dig.

| NO. | BY | CK/APP | DATE | REVISION |
|---|---|---|---|---|
| 6 | SPW | RKS | 07/30/19 | PER CITY'S COMMENTS |
| 5 | SPW | RKS | 07/03/19 | PER CITY'S COMMENTS |
| 4 | SPW | RKS | 04/23/19 | PER CITY'S COMMENTS |
| 3 | SPW | RKS | 04/16/19 | PER CITY'S COMMENTS |
| 2 | SPW | RKS | 03/27/19 | PER CITY'S COMMENTS |
| 1 | SPW | RKS | 03/06/19 | PER CITY'S COMMENTS |
| | SPW | RKS | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI — RICHARD KEVIN STERRETT — NUMBER 2006440 — REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)


# STREET AND STORM SEWER PLANS
## PHASE I GRADING PLAN

# COBEY CREEK FIRST PLAT
## PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

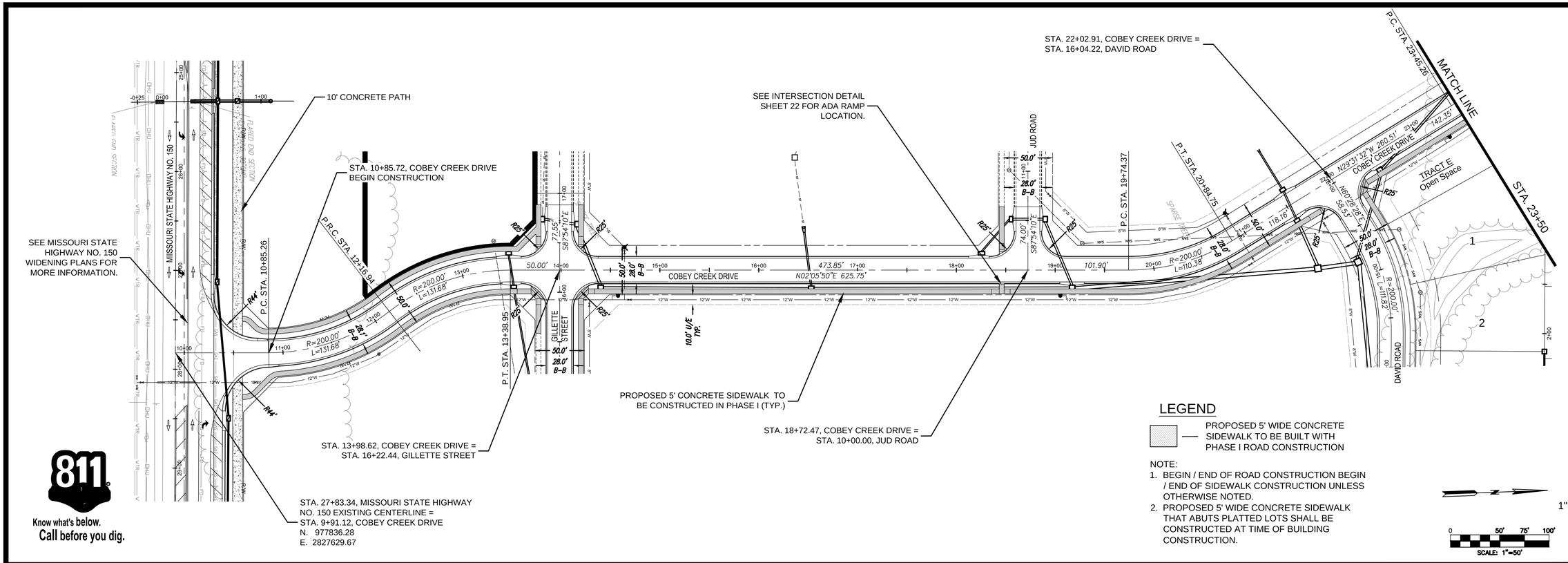
X-REF NO.
16-059 Base Phase I

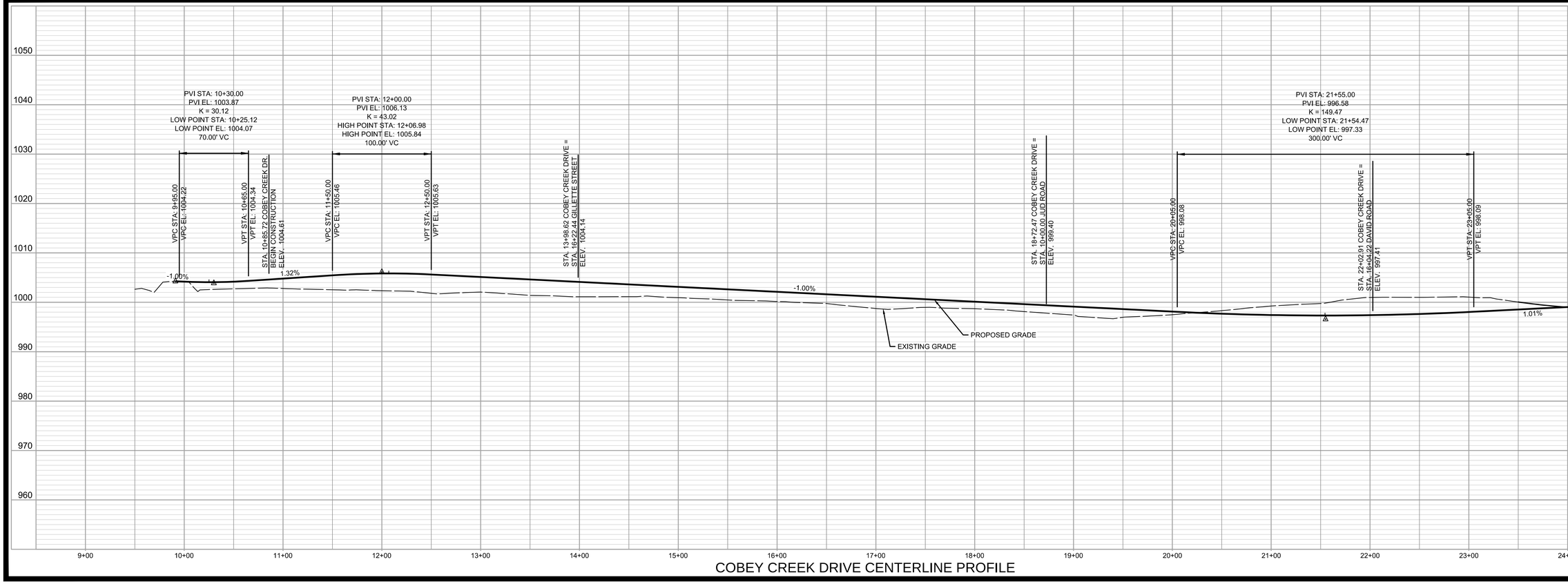
DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

SHEET 3 OF 53




COBEY CREEK DRIVE CENTERLINE PROFILE

| NO. | BY | CK/APP |
|---|---|---|
| 6 | SPW | RKS |
| 5 | SPW | RKS |
| 4 | SPW | RKS |
| 3 | SPW | RKS |
| 2 | SPW | RKS |
| 1 | SPW | RKS |

| DATE | REVISION |
|---|---|
| 07/26/19 | PER CITY'S COMMENTS |
| 07/03/19 | PER CITY'S COMMENTS |
| 04/23/19 | PER CITY'S COMMENTS |
| 04/16/19 | PER CITY'S COMMENTS |
| 03/27/19 | PER CITY'S COMMENTS |
| 03/06/19 | PER CITY'S COMMENTS |
| 11/21/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
July 3, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


# STREET AND STORM SEWER PLANS
## STREET CENTERLINE PROFILES
## COBEY CREEK DRIVE
## COBEY CREEK FIRST PLAT
## PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

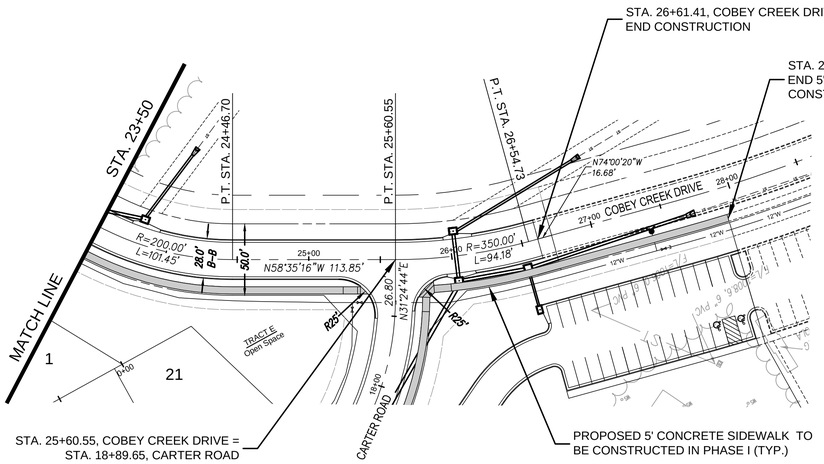
X-REF NO.
16-059 Base Phase I

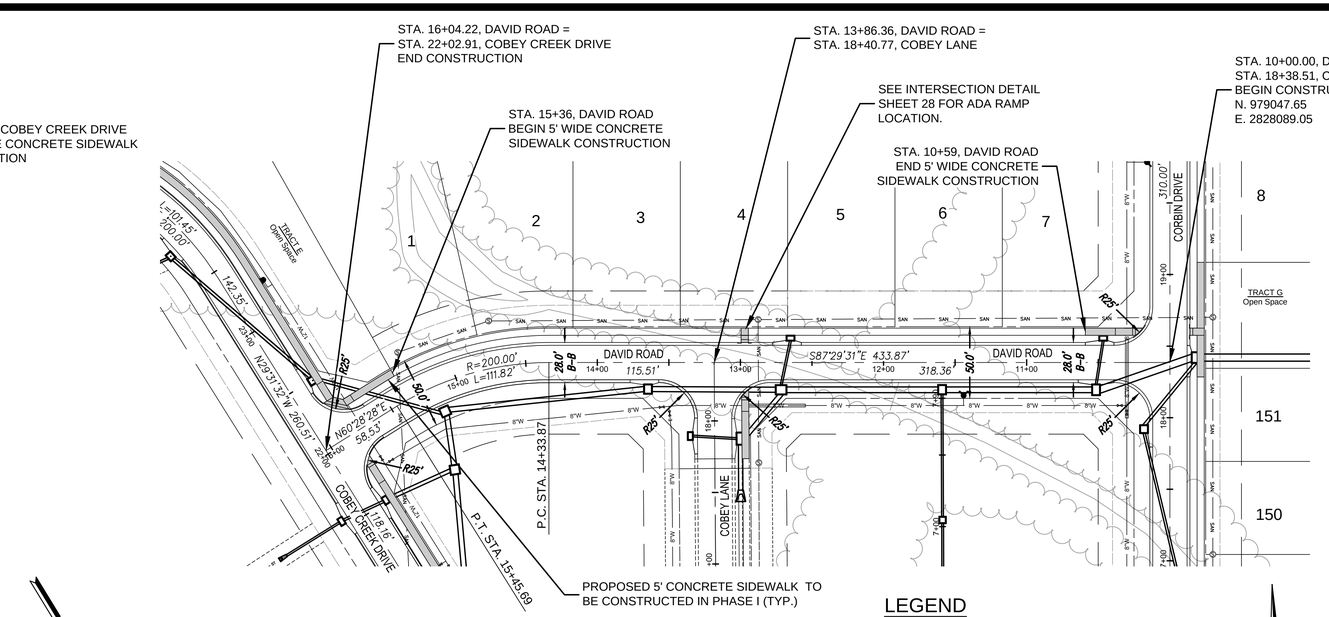
DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

SHEET 4 OF 53




811 Know what's below. Call before you dig.

0 50' 75' 100' 10' 0
SCALE: 1"=50' 1"=10'

## LEGEND

PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I ROAD CONSTRUCTION

NOTE:
1. BEGIN / END OF ROAD CONSTRUCTION BEGIN / END OF SIDEWALK CONSTRUCTION UNLESS OTHERWISE NOTED.
2. PROPOSED 5' WIDE CONCRETE SIDEWALK THAT ABUTS PLATTED LOTS SHALL BE CONSTRUCTED AT TIME OF BUILDING CONSTRUCTION.

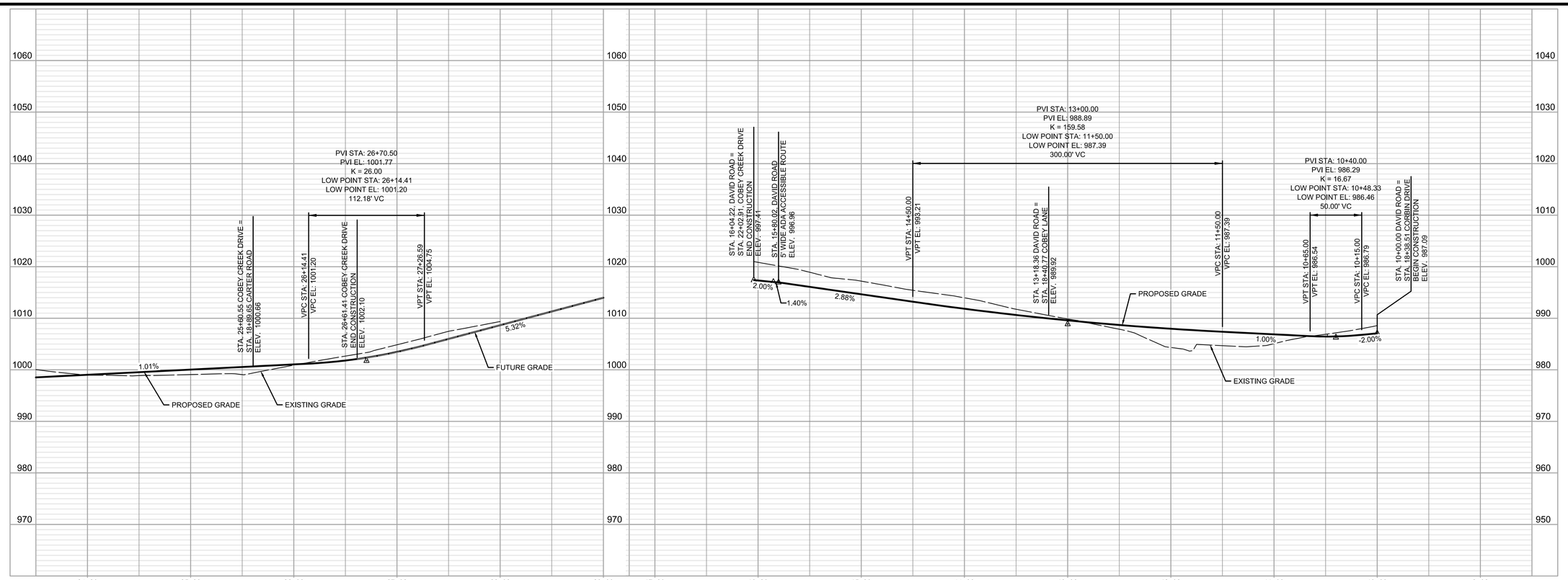
N

0 50' 75' 100' 10' 0
SCALE: 1"=50' 1"=10'

| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 07/30/19 | PER CITY'S COMMENTS | 6 | SFW | RKS |
| 07/03/19 | PER CITY'S COMMENTS | 5 | SFW | RKS |
| 04/23/19 | PER CITY'S COMMENTS | 4 | SFW | RKS |
| 04/16/19 | PER CITY'S COMMENTS | 3 | SFW | RKS |
| 03/27/19 | PER CITY'S COMMENTS | 2 | SFW | RKS |
| 03/06/19 | PER CITY'S COMMENTS | 1 | SFW | RKS |
| 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | | SFW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 2006026440
REGISTERED PROFESSIONAL ENGINEER
R. KEVIN STERRETT | MO E-26440
July 3, 2019





Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)


# STREET AND STORM SEWER PLANS
# STREET CENTERLINE PROFILES
# COBEY CREEK DRIVE & DAVID ROAD
# COBEY CREEK FIRST PLAT
# PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

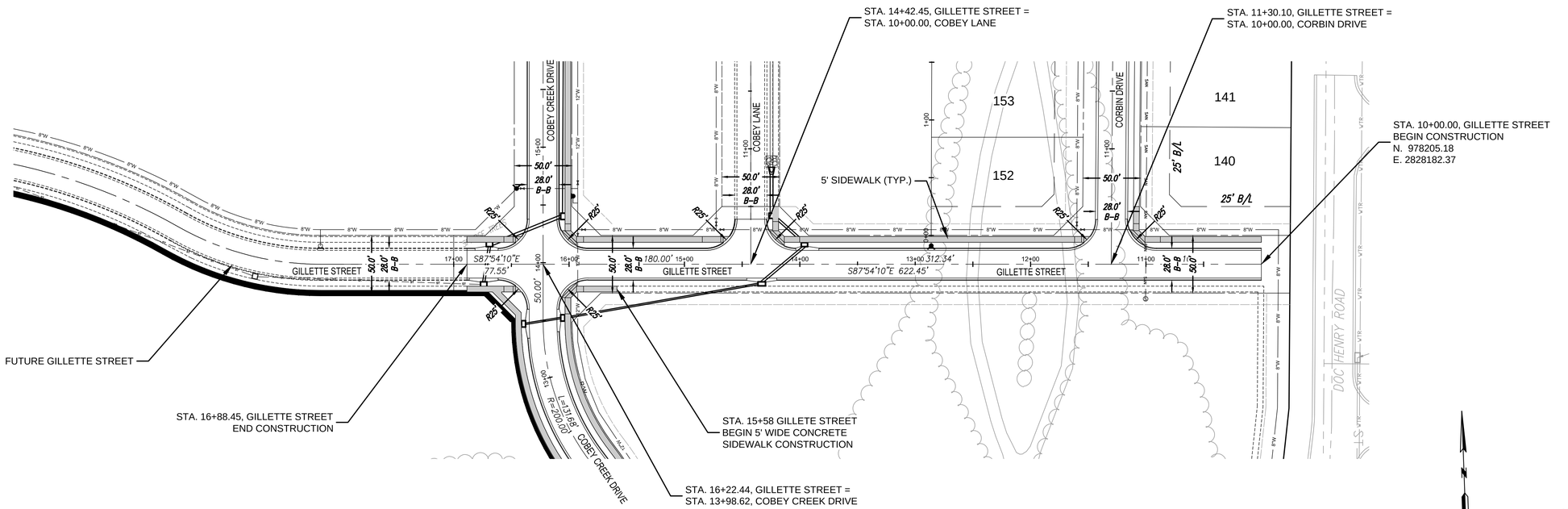
SHEET 5 OF 53

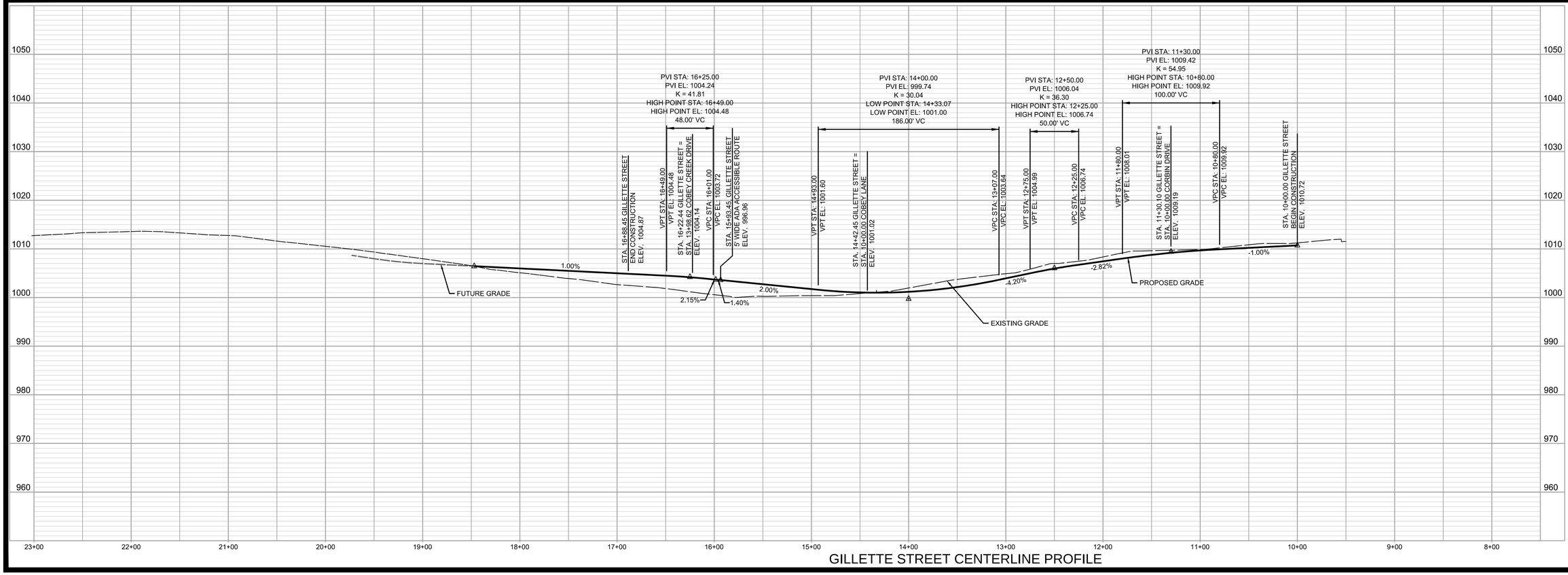
## LEGEND

PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I ROAD CONSTRUCTION

NOTE:
1. BEGIN / END OF ROAD CONSTRUCTION BEGIN / END OF SIDEWALK CONSTRUCTION UNLESS OTHERWISE NOTED.
2. PROPOSED 5' WIDE CONCRETE SIDEWALK THAT ABUTS PLATTED LOTS SHALL BE CONSTRUCTED AT TIME OF BUILDING CONSTRUCTION.

Know what's below.
Call before you dig.




GILLETTE STREET CENTERLINE PROFILE

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| | 07/30/19 | PER CITY'S COMMENTS | SPW | RVS |
| 6 | 07/03/19 | PER CITY'S COMMENTS | SPW | RVS |
| 5 | 04/23/19 | PER CITY'S COMMENTS | SPW | RVS |
| 4 | 04/16/19 | PER CITY'S COMMENTS | SPW | RVS |
| 3 | 03/27/19 | PER CITY'S COMMENTS | SPW | RVS |
| 2 | 03/06/19 | PER CITY'S COMMENTS | SPW | RVS |
| 1 | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RVS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
STREET CENTERLINE PROFILES
GILLETTE STREET

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

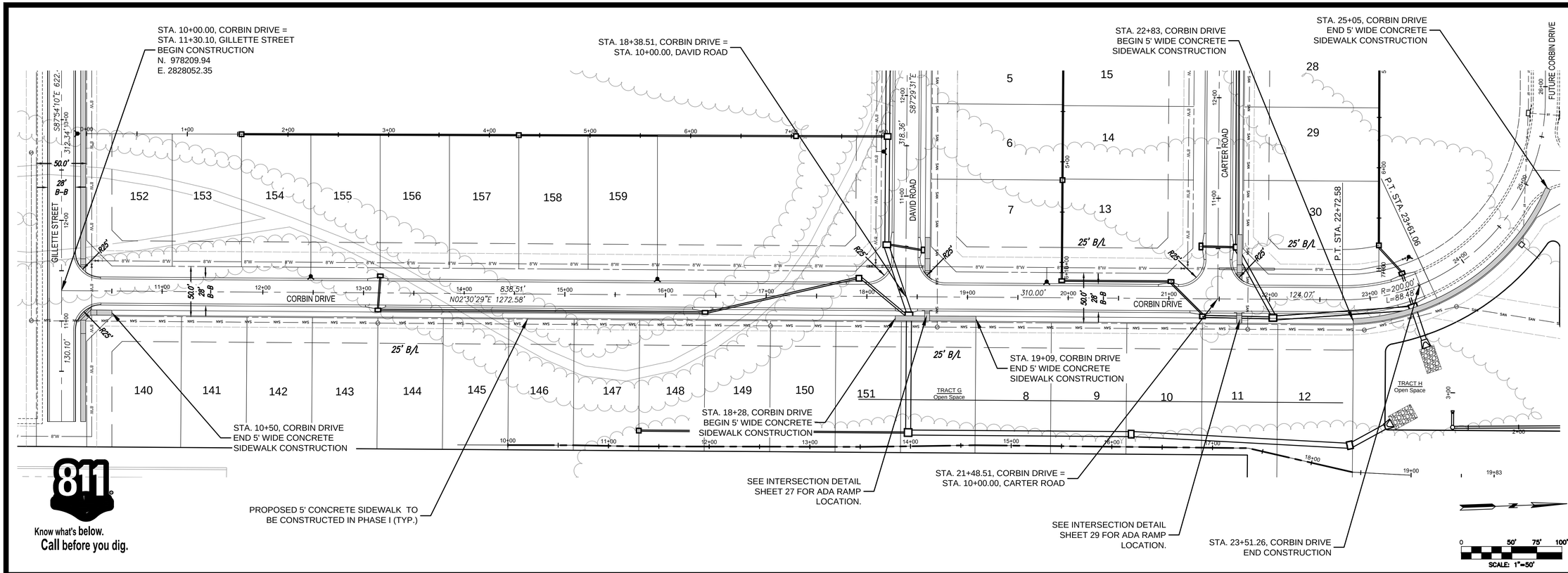
X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

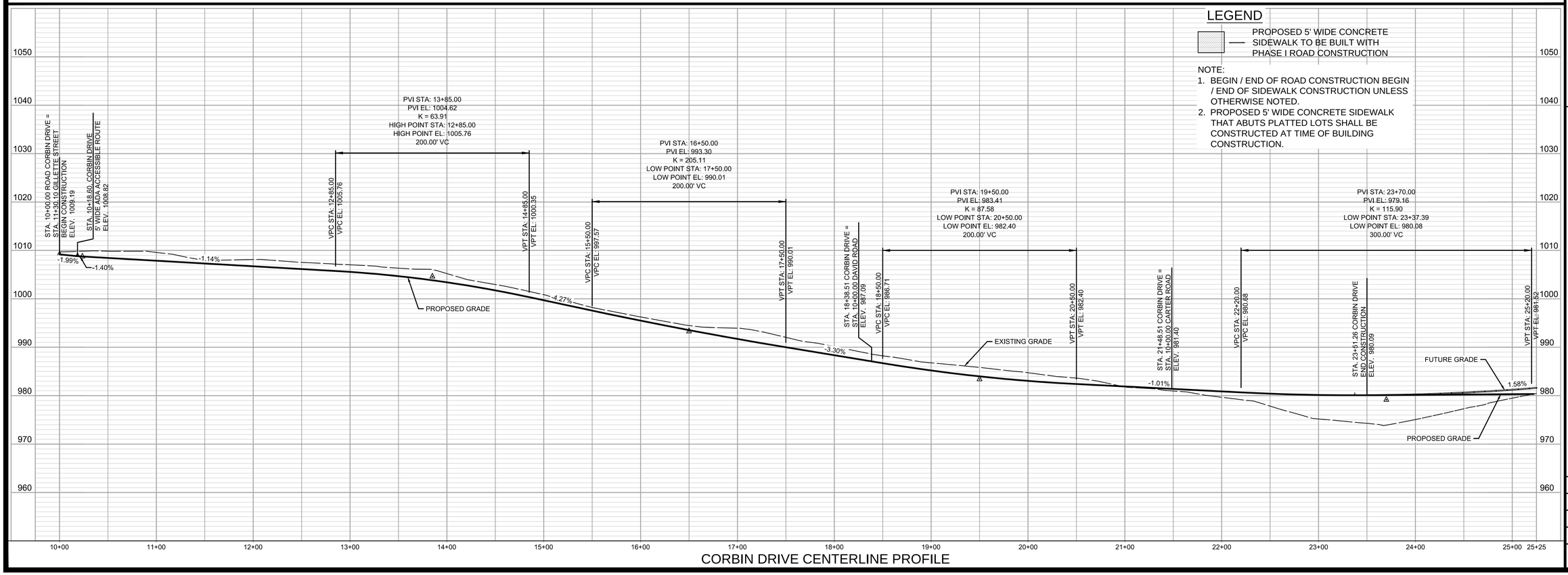
DATE
July 30, 2019

JOB NO.
16-059

SHEET 6 OF 53




Know what's below.
Call before you dig.




| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RWS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RWS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RWS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RWS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RWS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RWS |
| | 11/21/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RWS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 2006440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
STREET CENTERLINE PROFILES
CORBIN DRIVE

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

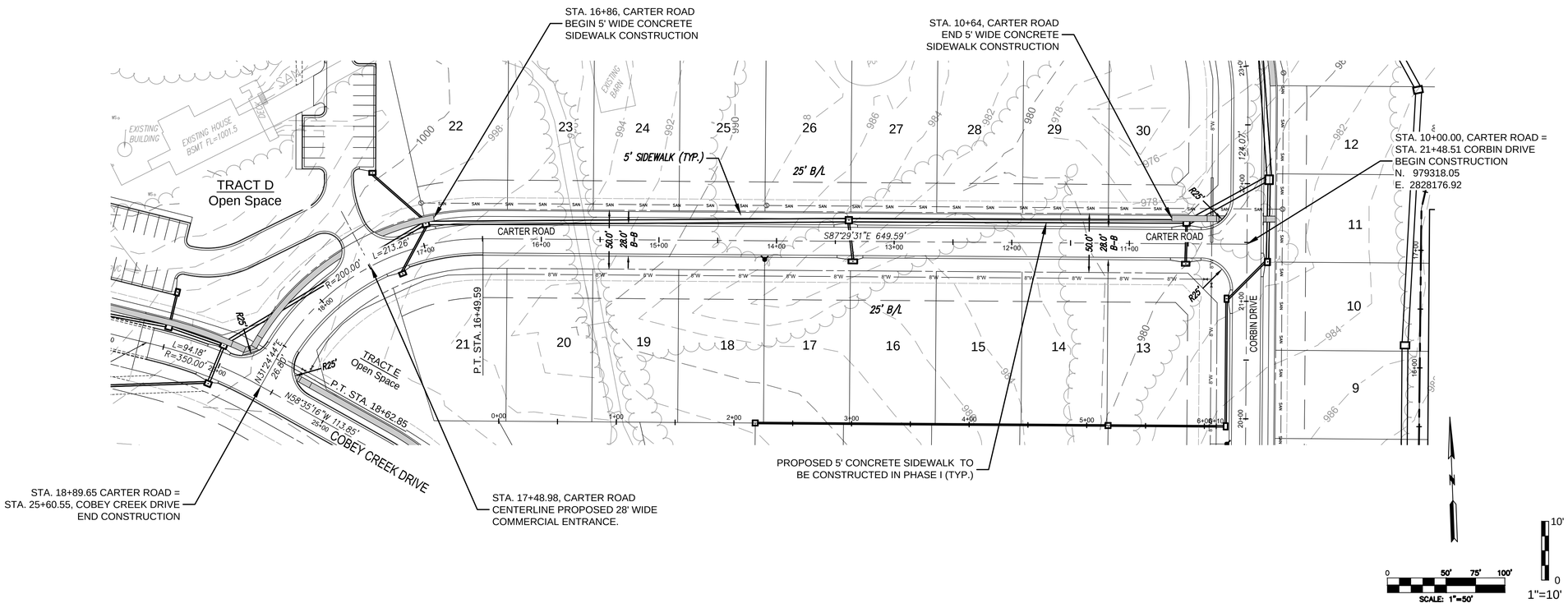
SHEET 7 OF 53

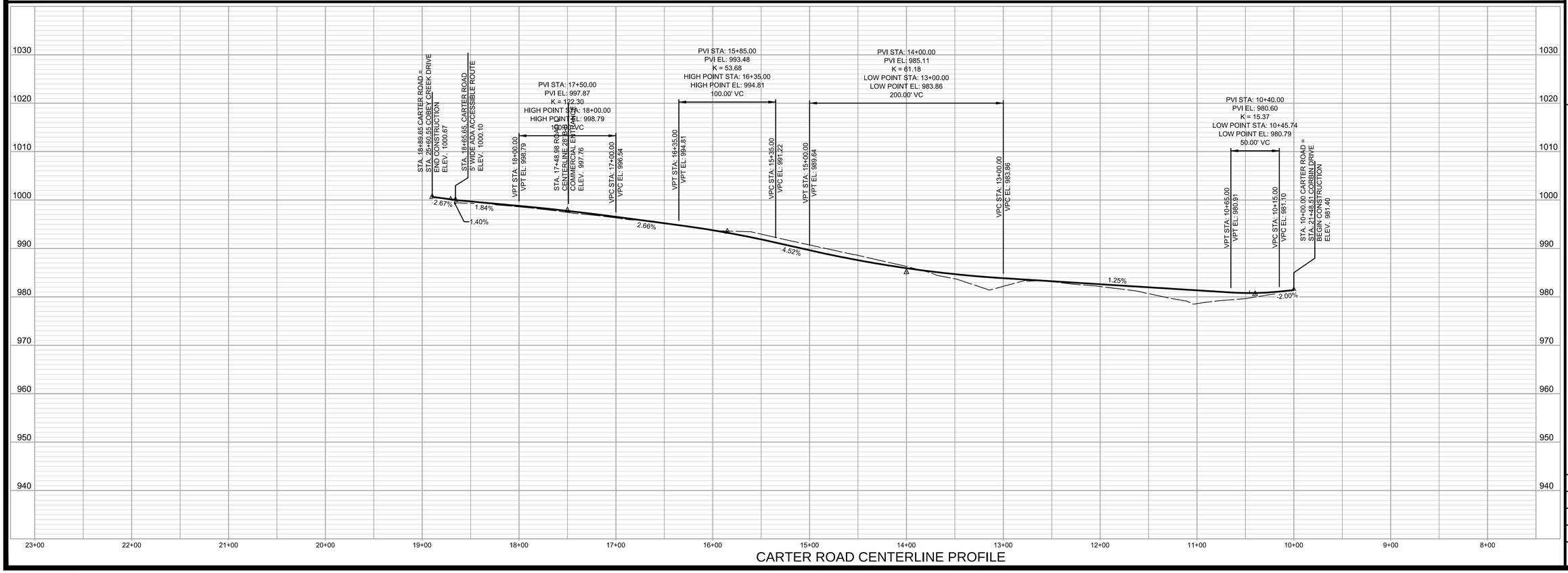
## LEGEND

PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I ROAD CONSTRUCTION

NOTE:
1. BEGIN / END OF ROAD CONSTRUCTION BEGIN / END OF SIDEWALK CONSTRUCTION UNLESS OTHERWISE NOTED.
2. PROPOSED 5' WIDE CONCRETE SIDEWALK THAT ABUTS PLATTED LOTS SHALL BE CONSTRUCTED AT TIME OF BUILDING CONSTRUCTION.

811 Know what's below. Call before you dig.




| NO. | BY | CK/APP | DATE | REVISION |
|---|---|---|---|---|
| 6 | SPW | RVS | 07/30/19 | PER CITY'S COMMENTS |
| 5 | SPW | RVS | 07/03/19 | PER CITY'S COMMENTS |
| 4 | SPW | RVS | 04/23/19 | PER CITY'S COMMENTS |
| 3 | SPW | RVS | 04/16/19 | PER CITY'S COMMENTS |
| 2 | SPW | RVS | 03/27/19 | PER CITY'S COMMENTS |
| 1 | SPW | RVS | 03/06/19 | PER CITY'S COMMENTS |
| | SPW | RVS | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 2010026440
REGISTERED PROFESSIONAL ENGINEER
R. KEVIN STERRETT | MO E-26440
July 3, 2019

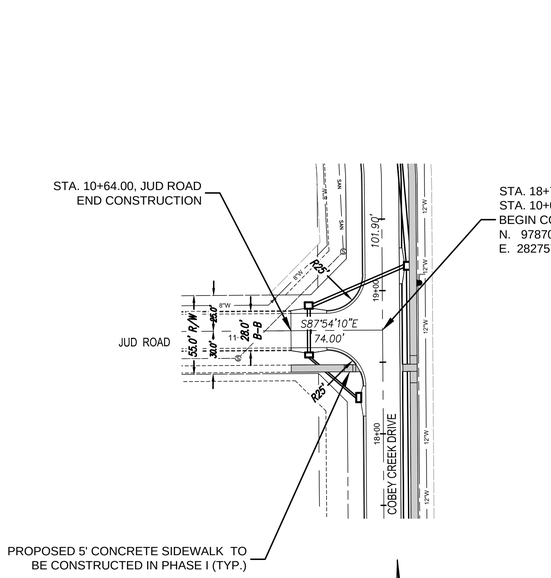

Consult engineers planners Inc
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)

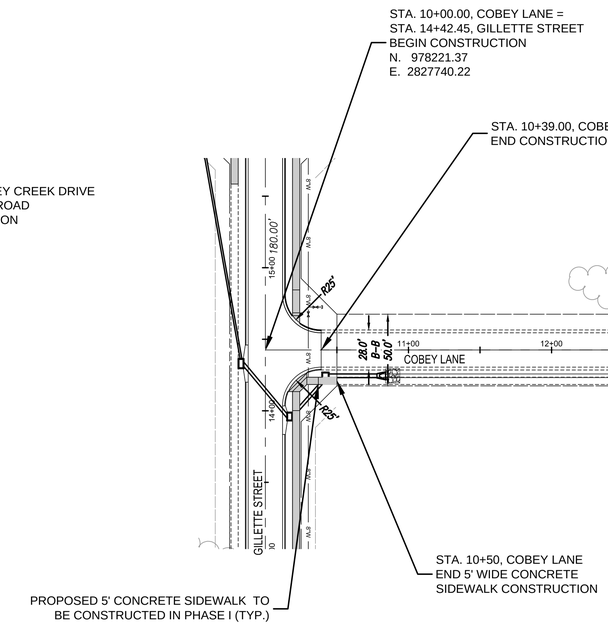

STREET AND STORM SEWER PLANS
STREET CENTERLINE PROFILES
CARTER ROAD

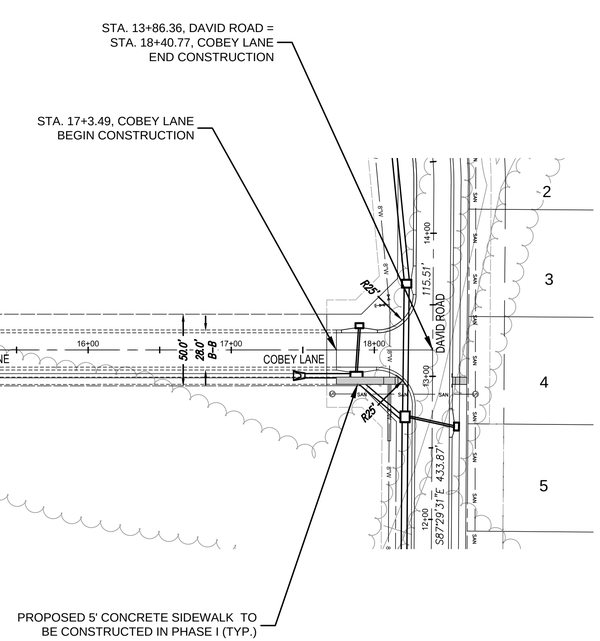
# COBEY CREEK FIRST PLAT
## PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

| | |
|---|---|
| X-REF NO. | 16-059 Base Phase I |
| DRAWING NO. | 16-059 Phase I Street Plans |
| DATE | July 30, 2019 |
| JOB NO. | 16-059 |
| SHEET OF | 8 OF 53 |




## LEGEND

PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I ROAD CONSTRUCTION

NOTE:
1. BEGIN / END OF ROAD CONSTRUCTION BEGIN / END OF SIDEWALK CONSTRUCTION UNLESS OTHERWISE NOTED.
2. PROPOSED 5' WIDE CONCRETE SIDEWALK THAT ABUTS PLATTED LOTS SHALL BE CONSTRUCTED AT TIME OF BUILDING CONSTRUCTION.

Know what's below.
Call before you dig.

0 50' 75' 100'
SCALE: 1"=50'
10'
0
1"=10'

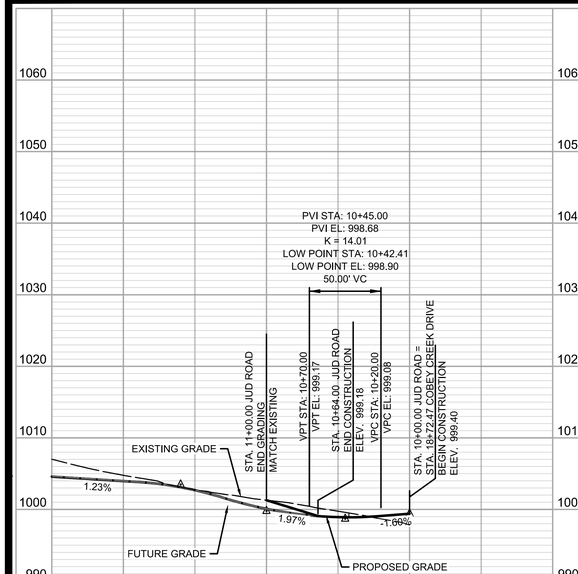
| NO. | BY | CK/APP | DATE | REVISION |
|---|---|---|---|---|
| 6 | SPW | RWS | 07/30/19 | PER CITY'S COMMENTS |
| 5 | SPW | RWS | 07/03/19 | PER CITY'S COMMENTS |
| 4 | SPW | RWS | 04/23/19 | PER CITY'S COMMENTS |
| 3 | SPW | RWS | 04/16/19 | PER CITY'S COMMENTS |
| 2 | SPW | RWS | 03/27/19 | PER CITY'S COMMENTS |
| 1 | SPW | RWS | 03/06/19 | PER CITY'S COMMENTS |
| | SPW | RWS | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

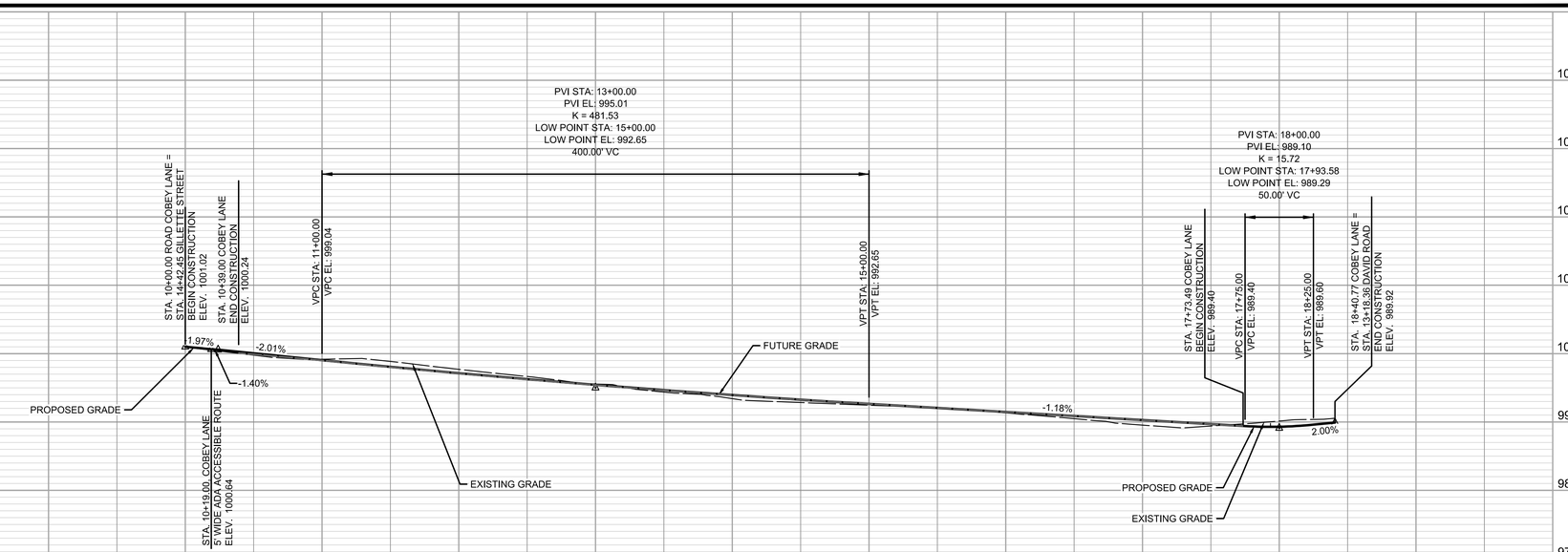
STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)




JUD ROAD CENTERLINE PROFILE




COBEY LANE CENTERLINE PROFILE

# STREET AND STORM SEWER PLANS
# STREET CENTERLINE PROFILES
# JUD ROAD & COBEY LANE
# COBEY CREEK FIRST PLAT
# PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

SHEET 9 OF 53

01-A FLARED END SECTION (60" DIA.)
W/ CONCRETE TOE WALL
STA. 23+03.27 CORBIN DR, 125.95' RT
INSTALL 42 C.Y. (30'Lx15'Wx2.5'T) STONE
RIPRAP USING A MIN. #50 (D50=18")
STONE. PLACE FILTER FABRIC PRIOR TO
INSTALLATION OF RIPRAP.
N: 979525.72
E: 2828232.22

01-B FIELD INLET (5'x7')
STA. 22+77.33 CORBIN DR, 144.57' RT
TOP = 984.24
THROAT OPENINGS = 983.24 (E,S,W.)
N: 979525.72
E: 2828232.22

01-C FIELD INLET (5'x7')
STA. 20+63.51 CORBIN DR, 135.00' RT
TOP = 988.59
THROAT OPENINGS = 987.59 (E,S,W)
N: 979266.53
E: 2828233.76

01-D FIELD INLET (7'x7')
STA. 18+41.94 CORBIN DR, 135.00' RT
TOP = 993.60
THROAT OPENINGS = 992.60 (E,S,W)
N: 979045.17
E: 2828224.07

01-D2 FIELD INLET (4'x4')
STA. 15+74.44 CORBIN DR, 135.00' RT
TOP = 1002.17
THROAT OPENINGS = 1001.17 (E,S,W)
N: 978777.93
E: 2828212.36

## GENERAL NOTES:

1. ALL CALLOUTS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL STRUCTURE DIMENSIONS ARE TAKEN FROM INSIDE FACE TO INSIDE FACE.
3. FUTURE PHASE ACTIVITY IS DELINEATED WITH DASHED LINES AND GREYED-OUT LINEWORK.

01-E CURB INLET (7'x5')
STA. 18+41.94 CORBIN DR, 18.00' RT
TOP = 986.99
N: 979050.29
E: 2828107.18

01-F CURB INLET (5'x7')
STA. 10+51.50 DAVID RD, 19.00' LT
TOP = 986.48
N: 979030.92
E: 2828036.77

01-F2 JUNCTION BOX (5'x6')
STA. 11+59.11 DAVID RD, 19.00' LT
TOP = 987.57
N: 979035.64
E: 2827929.26

CORBIN DRIVE
CARTER ROAD
DAVID ROAD
GILLETTE STREET
MATCHLINE

SCALE
50' 0 50' 100'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.

| NO. | BY | CK/APP |
|---|---|---|
| 3 | RAM | RKS |
| 2 | RAM | RKS |
| 1 | RAM | RKS |

| DATE | REVISION |
|---|---|
| 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 |
| 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 |
| 12/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER PE-2006440
PROFESSIONAL ENGINEER
3/27/19

R. KEVIN STERRETT, MO E-26440

engineers
planners
Inc
Consult
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005873

STORM SEWER LINES 1 AND 1D

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. XXX
DRAWING NO. XXX
DATE March 27, 2019
JOB NO. 16.059.01
SHEET OF 10 53

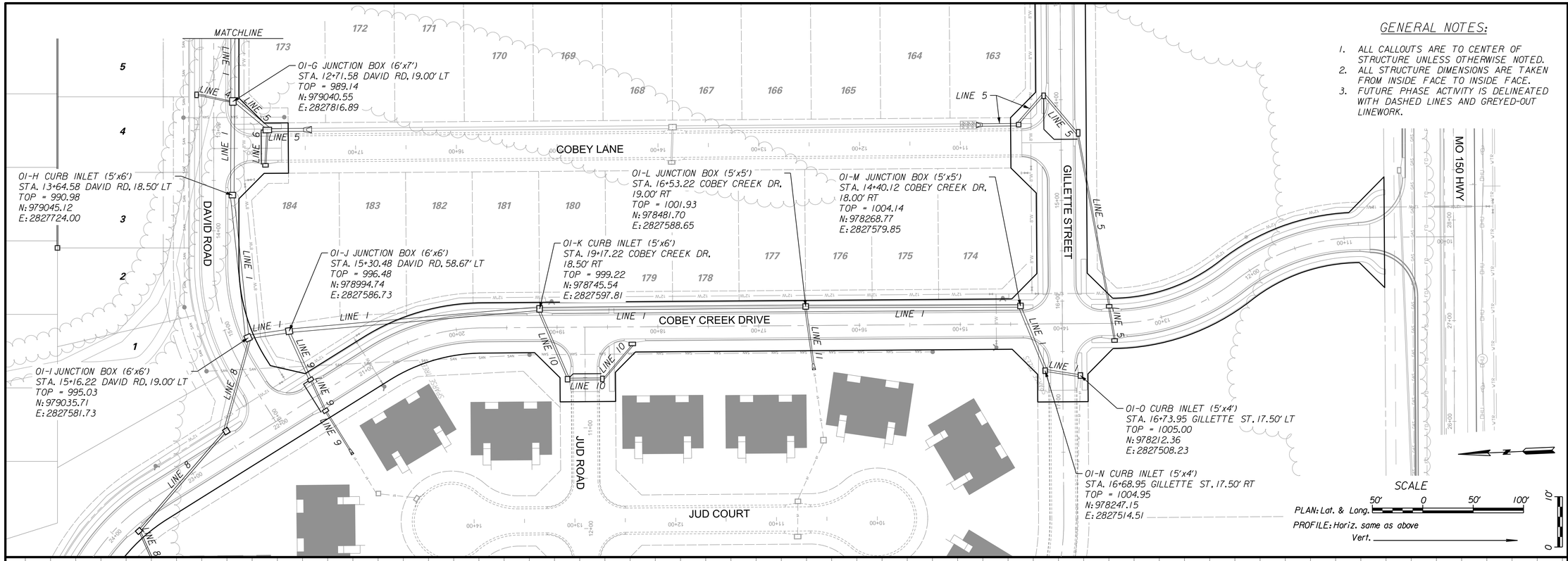
3/27/2019
16.059-StormPlanProf01-line01-01.dgn

## STORM SEWER LINE 1

01-A FLARED END SECTION (60" DIA.) W/ CONCRETE TOE WALL
F/L = 973.25
44.85' 60" HDPE AT 0.40%
01-B FIELD INLET (5'x7') TOP = 984.24 THROAT OPENINGS = 983.24 (E,S,W)
F/L OUT = 973.42
F/L IN = 974.92
212.54' 60" HDPE AT 0.10%
01-C FIELD INLET (5'x7') TOP = 988.59 THROAT OPENINGS = 987.59 (E,S,W,)
F/L OUT = 974.14
F/L IN = 974.34
215.57' 60" HDPE AT 0.20%
01-D FIELD INLET (7'x7') TOP = 993.60 THROAT OPENINGS = 992.60 (E,S,W)
F/L OUT = 974.77
F/L IN = 975.27
111.00' 60" HDPE AT 0.20%
01-E CURB INLET (7'x5') TOP = 986.99
C/L CORBIN DRIVE
SANIT.SWR. LINE B 8" PVC, F/L=973.47
F/L OUT = 975.49
F/L IN = 975.69
68.29' 60" HDPE AT 0.10%
WATER LINE G 8" PVC, F/L=982.53
01-F CURB INLET (5'x7') TOP = 986.48
F/L OUT = 975.76
F/L IN = 977.87
102.61' 48" HDPE AT 0.40%
01-F2 JUNCTION BOX (5'x6') TOP = 987.57
F/L OUT = 978.28
F/L IN = 978.78
106.47' 48" HDPE AT 0.40%
LINE 1-D F/L 988.44
LINE 2 F/L 982.72
LINE 1F F/L 983.65
LINE 3 F/L 982.55
10-YR HGL
MATCHLINE

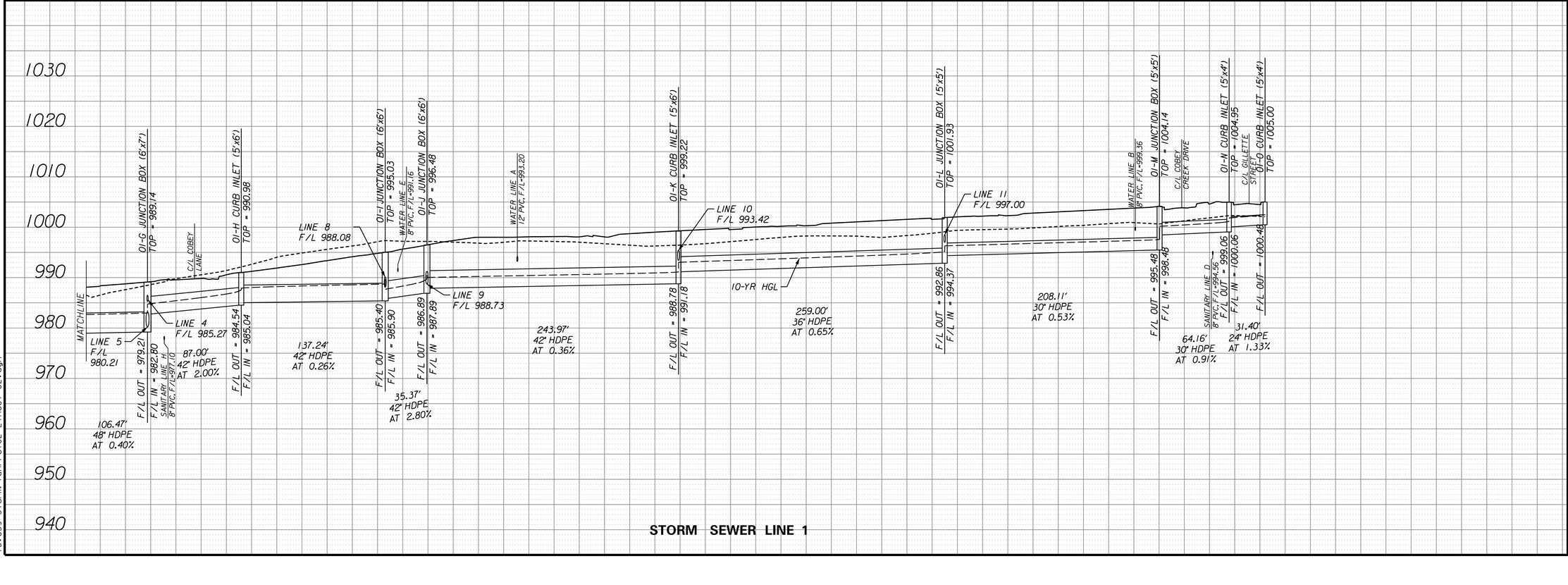
## STORM SEWER LINE 1D

01-D FIELD INLET (7'x7') TOP = 993.60 THROAT OPENINGS = 992.60 (E,S,W)
F/L IN = 988.44
LINE 1 F/L 975.27
LINE 1 F/L 974.77
262.00' 15" HDPE AT 3.01%
01-D2 FIELD INLET (4'x4') TOP = 1002.17 THROAT OPENINGS = 1001.17 (E,S,W)
F/L OUT = 996.33
10-YR HGL




## GENERAL NOTES:

1. ALL CALLOUTS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL STRUCTURE DIMENSIONS ARE TAKEN FROM INSIDE FACE TO INSIDE FACE.
3. FUTURE PHASE ACTIVITY IS DELINEATED WITH DASHED LINES AND GREYED-OUT LINEWORK.




**STORM SEWER LINE 1**

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | RAM | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAM | RKS |
| 1 | 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | RAM | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER PE-2004019440
PROFESSIONAL ENGINEER

3/27/19

R. KEVIN STERRETT, MO E-26440

Consult Inc
engineers
planners
1010 Haskell St. Ste. 210 Kansas City, KS 66105 816-759-2285 CORPORATE LICENSE No. E2010005823

STORM SEWER LINE 1

COBEY CREEK

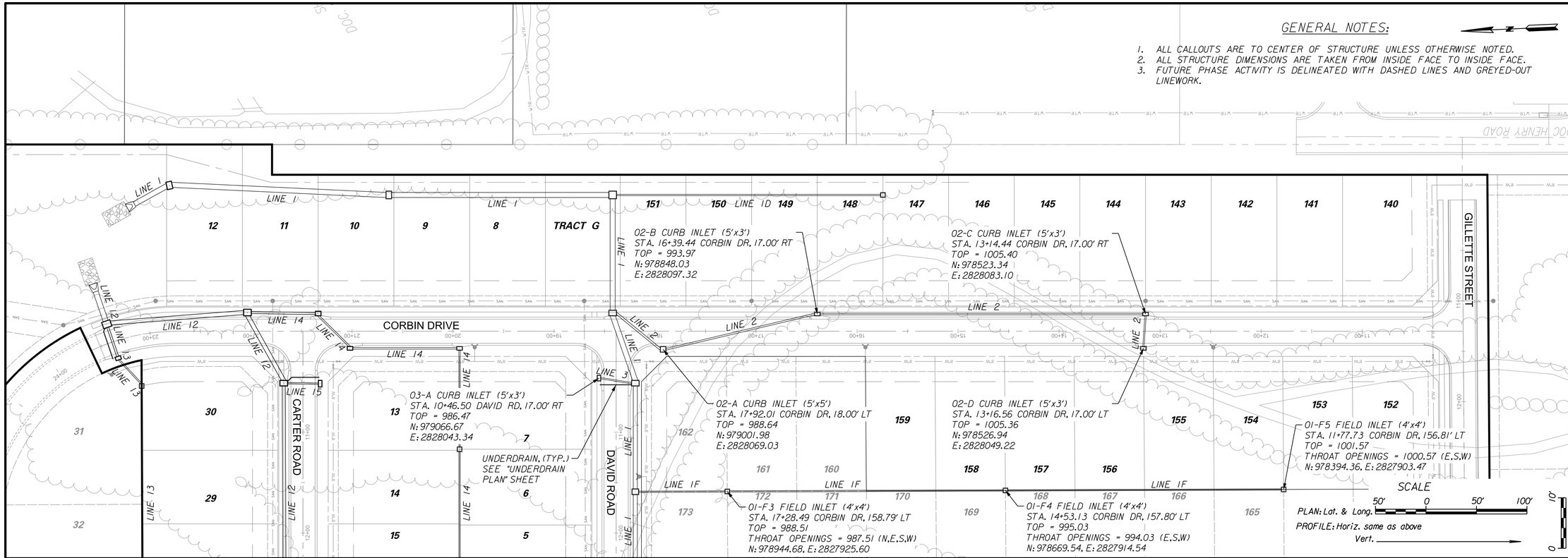
CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

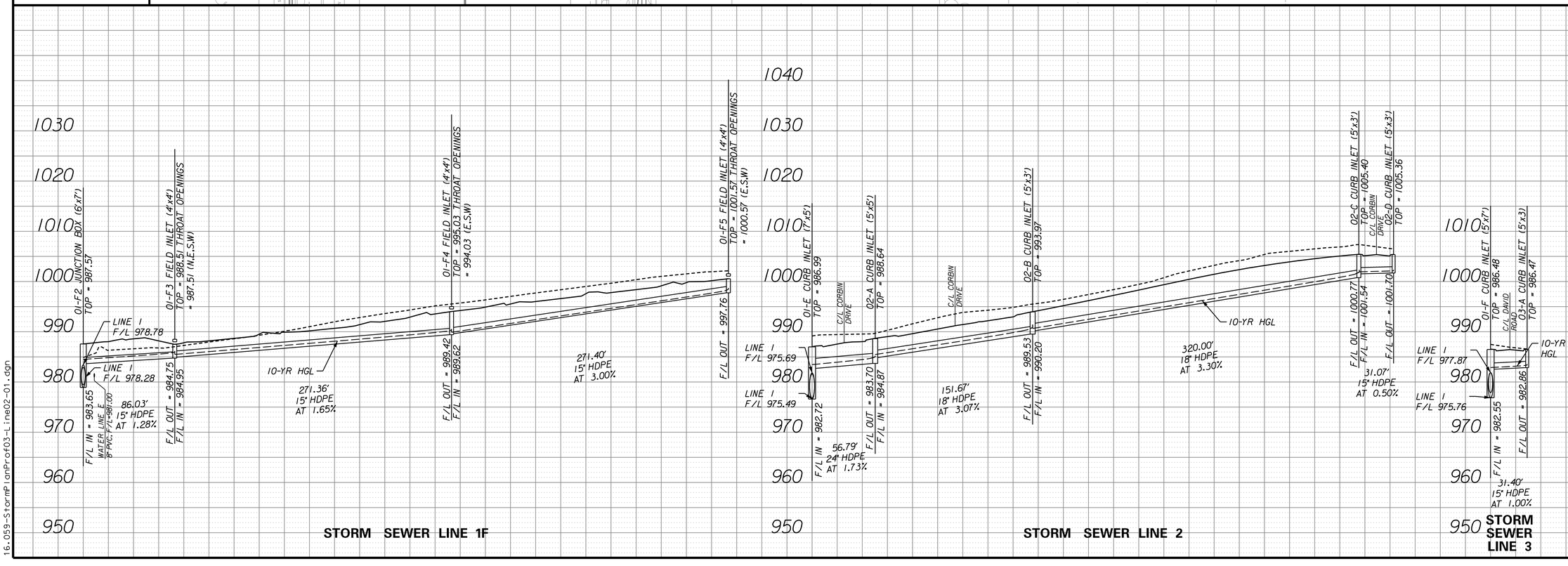
X-REF NO.
XXX
DRAWING NO.
XXX
DATE
March 27, 2019
JOB NO.
16.059.01
SHEET 11 OF 53

3/27/2019
16.059-StormPlanProf02-Line01-02.dgn

## GENERAL NOTES:

1. ALL CALLOUTS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL STRUCTURE DIMENSIONS ARE TAKEN FROM INSIDE FACE TO INSIDE FACE.
3. FUTURE PHASE ACTIVITY IS DELINEATED WITH DASHED LINES AND GREYED-OUT LINEWORK.




| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | RAM | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAM | RKS |
| 1 | 12/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | RAM | RKS |

© THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER PROFESSIONAL ENGINEER
3/27/19
R. KEVIN STERRETT, MO E-26440

Consult Inc engineers planners
CORPORATE LICENSE No. E2010005823
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285

STORM SEWER LINES 1F, 2 AND 3

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
xxx
DRAWING NO.
xxx
DATE
March 27, 2019
JOB NO.
16.059.01
SHEET OF
12 53

3/27/2019
16.059-StormPlanProf03-Line02-01.dgn

04-A CURB INLET (5'x3')
STA. 12+65.00 DAVID RD. 17.00' RT
TOP = 988.96
N: 979076.23
E: 2827825.04

UNDERDRAIN. (TYP.)
SEE "UNDERDRAIN PLAN" SHEET

06-A CURB INLET (5'x3')
STA. 17+89.55 COBEY LN. 17.00' LT
TOP = 989.33
N: 979011.02
E: 2827752.13

05-A CURB INLET (8'x5')
STA. 17+87.49 COBEY LN. 18.00' RT
TOP = 989.34
N: 979007.68
E: 2827787.03

TEMP. FLARED END SECTION (36" DIA.)
W/ CONCRETE TOE WALL
STA. 17+43.49 COBEY LN. 18.00' RT
N: 978963.71
E: 2827785.42
SEE NOTE 4

05-C JUNCTION BOX (4'x4')
STA. 10+42.00 COBEY LN. 18.00' RT
TOP = 1000.31
N: 978262.69, E: 2827759.75

TEMP. FLARED END SECTION (30" DIA.)
W/ CONCRETE TOE WALL
STA. 10+84.00 COBEY LN. 18.00' RT
INSTALL 7 C.Y. (16'Lx8'Wx1.5'T) STONE RIPRAP USING A MIN. 50* (D50=12") STONE. PLACE FILTER FABRIC PRIOR TO INSTALLATION OF RIPRAP.
N: 978304.66
E: 2827761.28
SEE NOTE 4

05-D CURB INLET (5'x3')
STA. 13+95.95 GILLETTE ST. 17.00' RT
TOP = 1001.11
N: 978236.66
E: 2827787.31

05-E CURB INLET (6'x3')
STA. 14+33.00 GILLETTE ST. 17.00' LT
TOP = 1001.26
N: 978204.04
E: 2827749.04

UNDERDRAIN. (TYP.)
SEE "UNDERDRAIN PLAN" SHEET

05-F CURB INLET (5'x3')
STA. 13+52.12 COBEY CREEK DR. 17.00' RT
TOP = 1004.89
N: 978180.87
E: 2827575.63

05-G CURB INLET (5'x3')
STA. 13+47.12 COBEY CREEK DR. 17.00' LT
TOP = 1004.92
N: 978176.99
E: 2827541.47

COBEY LANE
COBEY CREEK DRIVE
DAVID ROAD
JUD ROAD
JUD COURT
GILLETTE STREET
MO 150 HWY

## GENERAL NOTES:

1. ALL CALLOUTS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL STRUCTURE DIMENSIONS ARE TAKEN FROM INSIDE FACE TO INSIDE FACE.
3. FUTURE PHASE ACTIVITY IS DELINEATED WITH DASHED LINES AND GREYED-OUT LINEWORK.
4. FLARED END SECTION IS MEANT TO BE TEMPORARY UNTIL FUTURE STORM IS DEVELOPED. AT WHICH TIME THE FLARED END SECTION CAN BE REPLACED BY ANOTHER STRUCTURE OR ADDITIONAL PIPE.

SCALE
50' 0 50' 100'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | RAM | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAM | RKS |
| 1 | 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | RAM | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THEN PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER PE-2010008573
PROFESSIONAL ENGINEER
3/27/19
R. KEVIN STERRETT, MO E-26440

Consult Inc
engineers
planners
1010 Haskell St. Ste. 210 Kansas City, KS 66105 816-759-2285 CORPORATE LICENSE No. E2010005573

STORM SEWER LINES 4, 5, AND 6

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. XXX
DRAWING NO. XXX
DATE March 27, 2019
JOB NO. 16.059.01
SHEET OF 13 53

ALL GREYED-OUT LINEWORK TO BE INSTALLED IN A FUTURE PHASE

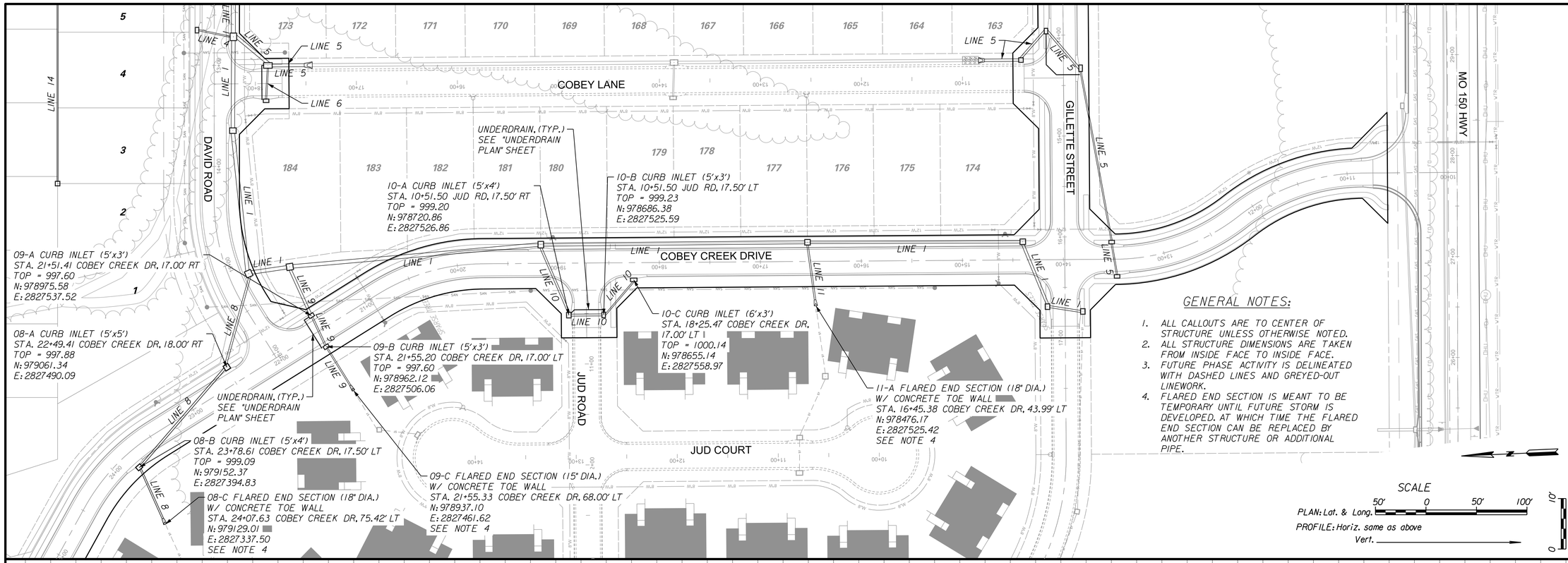
1030
1020
1010
1000
990
980
970
960
950

04-A CURB INLET (5'x3') STA. 12+65.00 DAVID RD. TOP = 988.96
C/L DAVID ROAD
01-G JUNCTION BOX (6'x7') TOP = 989.14
WATER LINE E 8" PVC, F/L=985.19
05-A CURB INLET (8'x5') TOP = 989.34
TEMP. FLARED END SECTION (36" DIA.) W/ CONCRETE TOE WALL
05-B CURB INLET (7'x5') TOP = 994.14
TEMP. FLARED END SECTION (30" DIA.) W/ CONCRETE TOE WALL
05-C JUNCTION BOX (14'x4') TOP = 1000.31
WATER LINE D 8" PVC, F/L=995.85
05-D CURB INLET (5'x3') TOP = 1001.11
C/L GILLETTE STREET
05-E CURB INLET (6'x3') TOP = 1001.26
WATER LINE A 12" PVC, F/L=1000.19
05-F CURB INLET (5'x3') TOP = 1004.89
C/L COBEY CREEK DRIVE
05-G CURB INLET (5'x3') TOP = 1004.92
06-A CURB INLET (5'x3') TOP = 989.33
C/L COBEY LANE
07-A CURB INLET (6'x3') TOP = 994.15

LINE 1 F/L 982.80
LINE 1 F/L 979.21
F/L OUT = 985.30
F/L IN = 985.27
F/L IN = 980.21
32.18' 15" HDPE AT 0.10%
SANITARY LINE H 8" PVC, F/L=977.50
F/L OUT = 981.11
F/L IN = 983.62
40.50' 36" HDPE AT 2.21%
F/L = 983.79
40.00' 36" HDPE AT 0.43%
LINE 6 F/L 985.66
354.59' 36" HDPE AT 0.43%
F/L OUT = 985.29
F/L IN = 986.29
LINE 7 F/L 990.39
297.90' 30" HDPE AT 0.92%
F/L = 989.02
40.00' 30" HDPE AT 0.92%
F/L OUT = 989.39
F/L IN = 990.39
35.42' 24" HDPE AT 3.46%
F/L OUT = 991.61
F/L IN = 992.11
48.31' 24" HDPE AT 3.77%
F/L OUT = 993.93
F/L IN = 994.68
170.52' 15" HDPE AT 1.60%
F/L OUT = 997.41
F/L IN = 1000.80
31.41' 15" HDPE AT 1.08%
F/L OUT = 1001.14
LINE 5 F/L 983.62
LINE 5 F/L 981.11
F/L IN = 985.66
31.07' 15" HDPE AT 1.10%
F/L OUT = 986.00
LINE 5 F/L 986.29
LINE 5 F/L 985.29
F/L IN = 990.39
31.02' 15" HDPE AT 1.00%
F/L OUT = 990.70
10-YR HGL

STORM SEWER LINE 4 AND 5
STORM SEWER LINE 6
STORM SEWER LINE 7

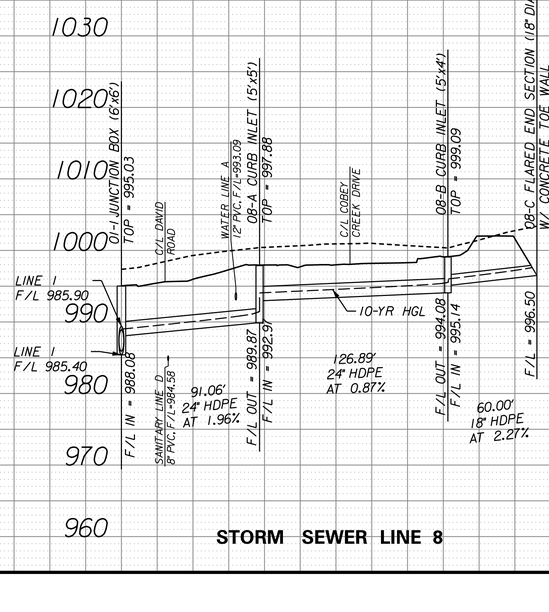
3/27/2019
16.059-StormPlanProf04-Line04-01.dgn



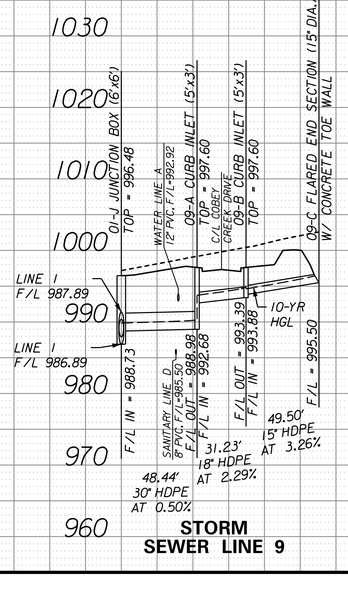

## GENERAL NOTES:

1. ALL CALLOUTS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL STRUCTURE DIMENSIONS ARE TAKEN FROM INSIDE FACE TO INSIDE FACE.
3. FUTURE PHASE ACTIVITY IS DELINEATED WITH DASHED LINES AND GREYED-OUT LINEWORK.
4. FLARED END SECTION IS MEANT TO BE TEMPORARY UNTIL FUTURE STORM IS DEVELOPED. AT WHICH TIME THE FLARED END SECTION CAN BE REPLACED BY ANOTHER STRUCTURE OR ADDITIONAL PIPE.

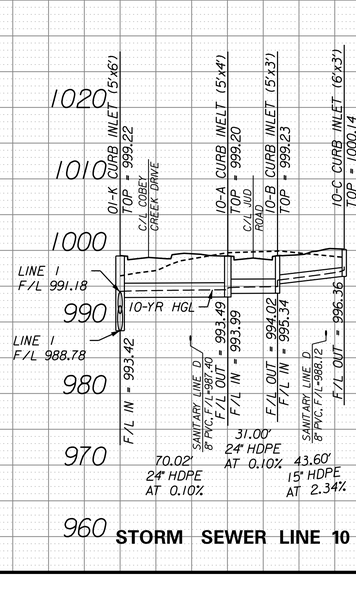
SCALE
50' 0 50' 100'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.
10' 0



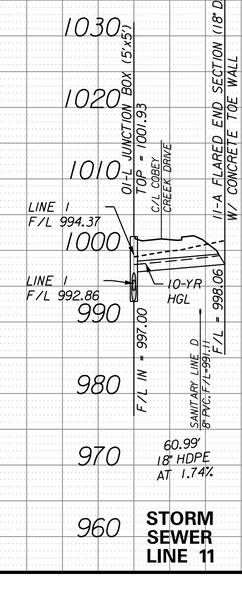

STORM SEWER LINE 8




STORM SEWER LINE 9




STORM SEWER LINE 10




STORM SEWER LINE 11

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | RAH | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAH | RKS |
| 1 | 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | RAH | RKS |

© THIS IS NOT A RUBBER STAMP SEAL AND THE SIGNATURE IS NOT IN BLUE INK. THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER E-26440
NOTARIAL PROFESSIONAL ENGINEER
3/27/19
R. KEVIN STERRETT, MO E-26440

Consult Inc
engineers
planners
1010 Haskell St. Ste. 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005873

STORM SEWER LINES 8, 9, 10, AND 11

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
XXX
DRAWING NO.
XXX
DATE
March 27, 2019
JOB NO.
16.059.01
SHEET OF
14 53

3/27/2019
16.059-StormPlanProf05-Line08-01.dgn

TRACT G

CORBIN DRIVE

CARTER ROAD

COBEY CREEK DRIVE

LINE 1 LINE 8 LINE 12 LINE 13 LINE 14 LINE 15 LINE 16 LINE 18 LINE 19

12-A FLARED END SECTION (60" DIA.)
W/ CONCRETE TOE WALL
STA. 23+38.02 CORBIN DR, 60.57' RT
INSTALL 42 C.Y. (30'Lx15'Wx2.5'T) STONE RIPRAP USING A MIN. *50 (D50=18") STONE. PLACE FILTER FABRIC PRIOR TO INSTALLATION OF RIPRAP.
N: 979562.93
E: 2828158.40

12-B CURB INLET (8'x6')
STA. 23+38.00 CORBIN DR, 18.50' RT
TOP = 980.06
N: 979551.13
E: 2828118.02

12-C JUNCTION BOX (6'x7')
STA. 22+03.51 CORBIN DR, 18.50' RT
TOP = 980.92
N: 979411.49
E: 2828123.50

12-D CURB INLET (5'x7')
STA. 10+51.50 CARTER RD, 19.00' RT
TOP = 980.83
N: 979378.59
E: 2828051.99

12-E2 CURB INLET (5'x5')
STA. 15+53.00 CARTER RD, 18.00' RT
TOP = 992.01
N: 979399.54
E: 2827550.93

12-E CURB INLET (5'x5')
STA. 13+38.69 CARTER RD, 18.00' RT
TOP = 984.38
N: 979390.16
E: 2827765.03

12-F CURB INLET (5'x5')
STA. 16+94.74 CARTER RD, 18.00' RT
TOP = 995.70
N: 979400.37
E: 2827405.44

12-G CURB INLET (5'x4')
STA. 26+03.00 COBEY CREEK DR, 17.50' RT
TOP = 1001.35
N: 979303.15
E: 2827230.01

12-H JUNCTION BOX (5'x5')
STA. 26+49.82 COBEY CREEK DR, 18.00' RT
TOP = 1002.06
N: 979320.93
E: 2827184.18

12-I FLARED END SECTION (24" DIA.)
W/ CONCRETE TOE WALL
STA. 27+71.78 COBEY CREEK DR, 11.65' RT
N: 979348.52
E: 2827064.84
SEE NOTE 4

## GENERAL NOTES:

1. ALL CALLOUTS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL STRUCTURE DIMENSIONS ARE TAKEN FROM INSIDE FACE TO INSIDE FACE.
3. FUTURE PHASE ACTIVITY IS DELINEATED WITH DASHED LINES AND GREYED-OUT LINEWORK.
4. FLARED END SECTION IS MEANT TO BE TEMPORARY UNTIL FUTURE STORM IS DEVELOPED. AT WHICH TIME THE FLARED END SECTION CAN BE REPLACED BY ANOTHER STRUCTURE OR ADDITIONAL PIPE.
5. SEE "STORM SEWER CALCULATIONS" SHEET FOR RIP RAP SIZING AND DESIGN INFORMATION.

SCALE
PLAN: Lat. & Long. 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 10' 0

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 4 | 03/02/20 | CHANGES TO STORM LINE 12 | RAM | RKS |
| 3 | 12/20/19 | ADDRESSED CITY COMMENTS DATED 3/30/19 | RAM | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAM | RKS |
| 1 | 1/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | RAM | RKS |

© THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER PROFESSIONAL ENGINEER
03/02/20


Consult inc engineers planners
CORPORATE LICENSE No. E2010005873
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285


STORM SEWER LINE 12

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. XXX
DRAWING NO. XXX
DATE March 27, 2019
JOB NO. 16.059.01
SHEET OF 15 53

1030 1020 1010 1000 990 980 970 960 950 940

F/L = 971.00 — 12-A FLARED END SECTION (60" DIA.) W/ CONCRETE TOE WALL

39.07' 60" HDPE AT 0.10%

SANITARY LINE B 12" PVC, F/L=967.44 F/L OUT = 971.04 F/L IN = 972.04

12-B CURB INLET (8'x6') TOP = 980.06

LINE 13 F/L 974.60

132.38' 48" HDPE AT 0.10%

12-C JUNCTION BOX (6'x7') TOP = 980.92 C/L CORBIN DRIVE

F/L OUT = 972.17 F/L IN = 972.67

SANITARY LINE C 8" PVC, F/L=971.07

73.87' 48" HDPE AT 0.10%

WATER LINE G 8" PVC, F/L=977.20

12-D CURB INLET (5'x7') TOP = 980.83

LINE 14 F/L 976.67

LINE 15 F/L 977.30

F/L OUT = 972.75 F/L IN = 975.55

282.19' 36" HDPE AT 1.22%

10-YR HGL

LINE 16 F/L 981.00

F/L OUT = 979.00 F/L IN = 979.50

12-E CURB INLET (5'x5') TOP = 984.38

209.31' 36" HDPE AT 1.38%

12-E2 (CURB INLET 5'x5') TOP = 992.01

F/L OUT = 982.39 F/L IN = 986.35

140.54' 36" HDPE AT 2.00%

LINE 18 F/L 992.48

SANITARY SERVICE, (TYP.)

12-F CURB INLET (5'x5') TOP = 995.70

F/L OUT = 989.16 F/L IN = 989.66

196.60' 30" HDPE AT 1.40%

WATER LINE A 12" PVC, F/L=996.23

LINE 19 F/L 995.80

12-G CURB INLET (5'x4') TOP = 1001.35

F/L OUT = 992.41 F/L IN = 995.67

44.17' 24" HDPE AT 1.80%

12-H JUNCTION BOX (5'x5') TOP = 1002.06

F/L OUT = 996.47 F/L IN = 996.97

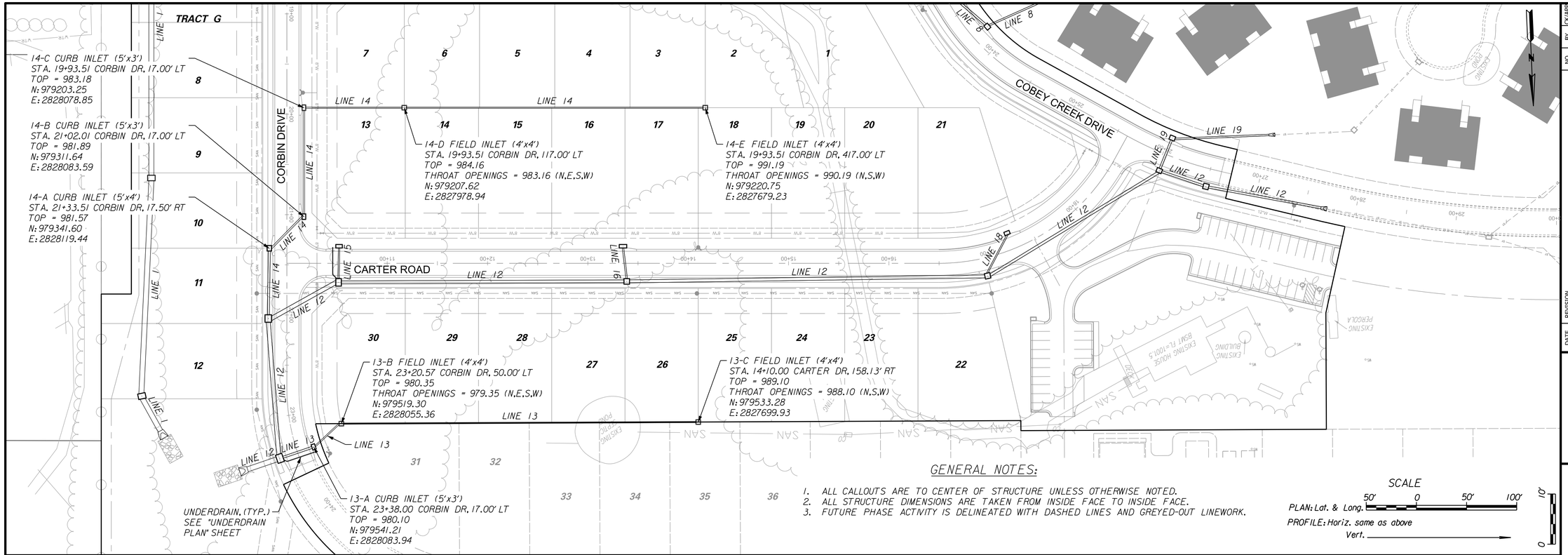
120.00' 24" HDPE AT 2.53%

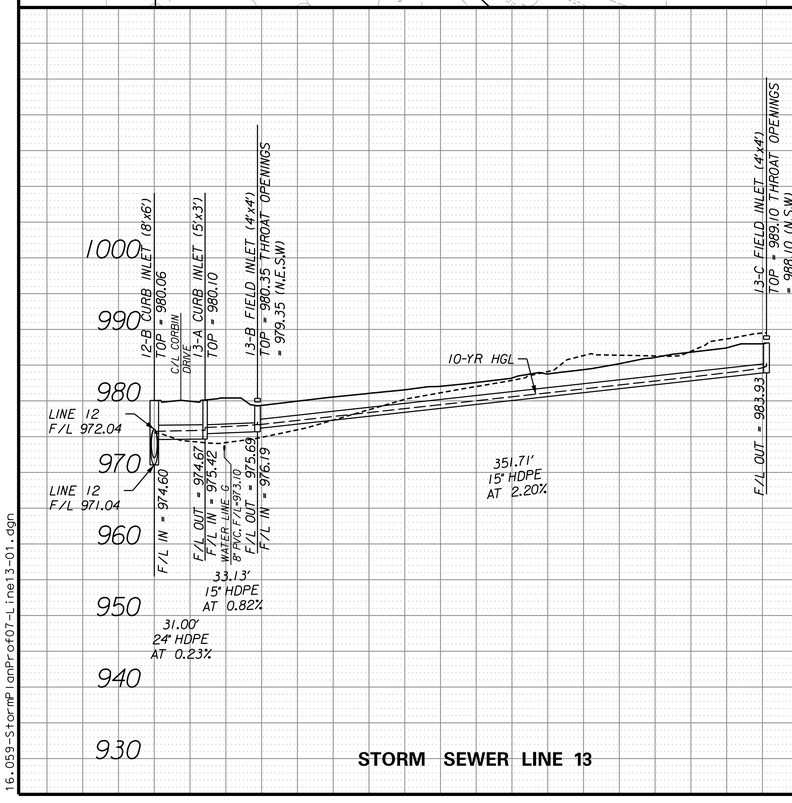
12-I FLARED END SECTION (24" DIA.) W/ CONCRETE TOE WALL

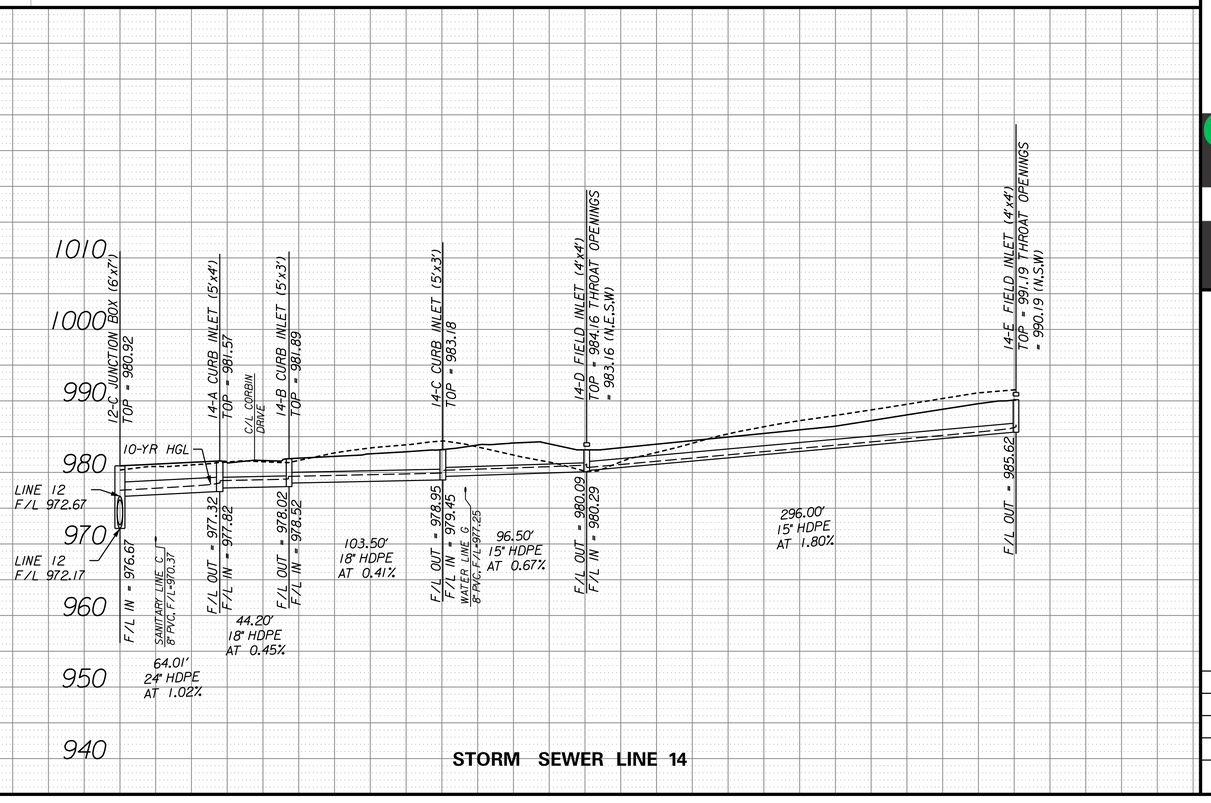
F/L = 1000.00

STORM SEWER LINE 12

3/2/2020
16.059-StormPlanProf06-Line12-01.dgn




| NO. | REVISION | DATE | BY | CK/APP |
|---|---|---|---|---|
| 3 | ADDRESSED CITY COMMENTS DATED 3/20/19 | 3/27/19 | RAM | RKS |
| 2 | ADDRESSED CITY COMMENTS DATED 12/18/18 | 3/8/19 | RAM | RKS |
| 1 | SUBMITTAL TO CITY OF LEE'S SUMMIT | 12/21/18 | RAM | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER PROFESSIONAL ENGINEER
3/27/19
R. KEVIN STERRETT, MO E-26440

Hg Consult Inc engineers planners
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005823

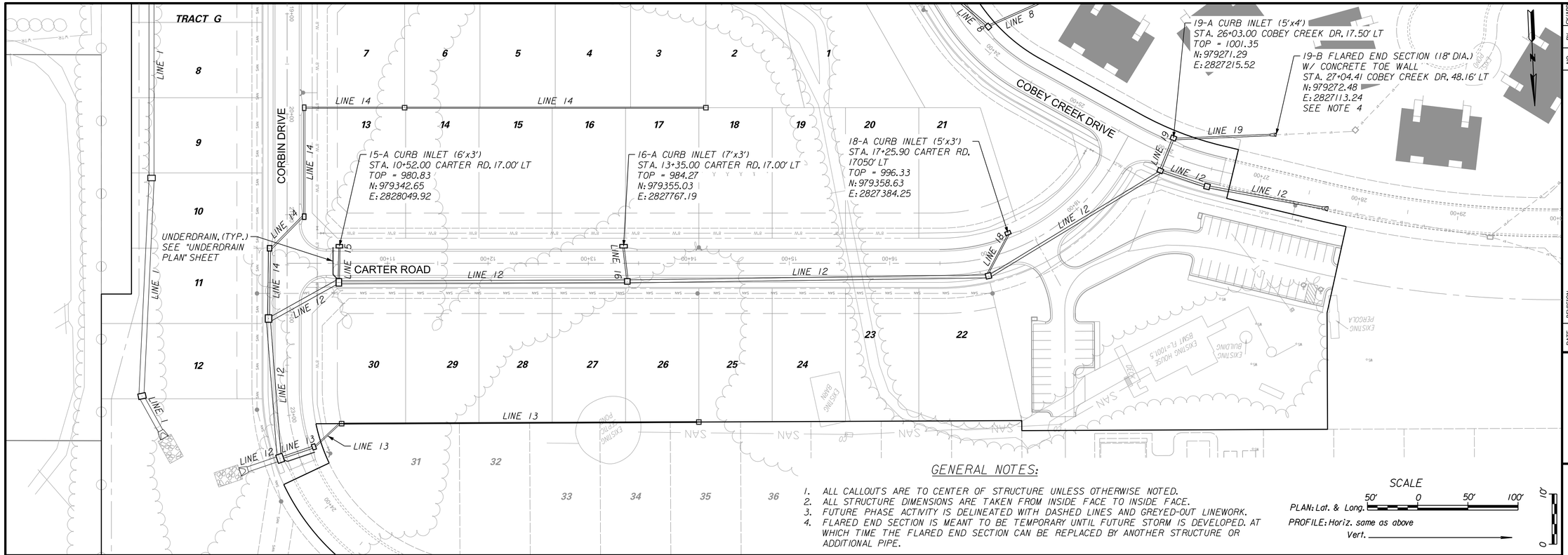
STORM SEWER LINES 13 AND 14

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. xxx
DRAWING NO. xxx
DATE March 27, 2019
JOB NO. 16.059.01
SHEET 16 OF 53

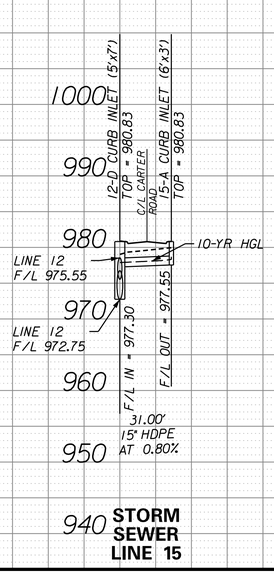
3/27/2019
16.059-StormPlanProf07-Line13-01.dgn



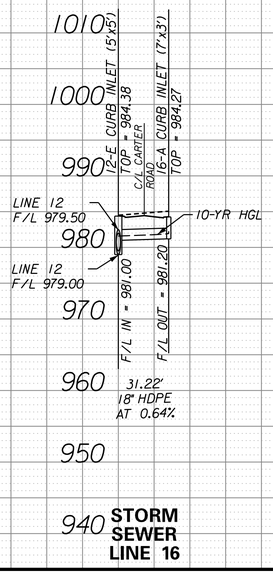

## GENERAL NOTES:

1. ALL CALLOUTS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL STRUCTURE DIMENSIONS ARE TAKEN FROM INSIDE FACE TO INSIDE FACE.
3. FUTURE PHASE ACTIVITY IS DELINEATED WITH DASHED LINES AND GREYED-OUT LINEWORK.
4. FLARED END SECTION IS MEANT TO BE TEMPORARY UNTIL FUTURE STORM IS DEVELOPED. AT WHICH TIME THE FLARED END SECTION CAN BE REPLACED BY ANOTHER STRUCTURE OR ADDITIONAL PIPE.

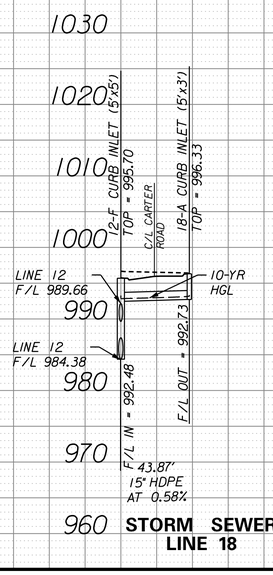
SCALE
50' 0 50' 100'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.
10' 0



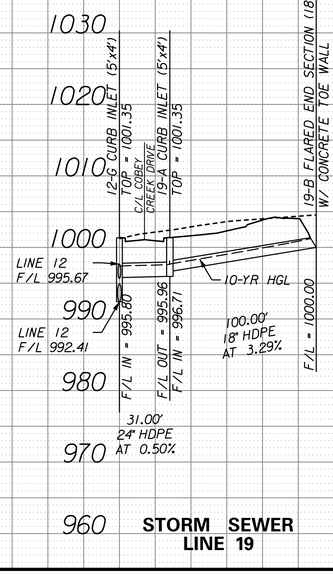

STORM SEWER LINE 15




STORM SEWER LINE 16




STORM SEWER LINE 18




STORM SEWER LINE 19

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | RAM | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAM | RKS |
| 1 | 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | RAM | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER
3/27/19
R. KEVIN STERRETT, MO E-26440

Consult Inc
engineers
planners
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005823

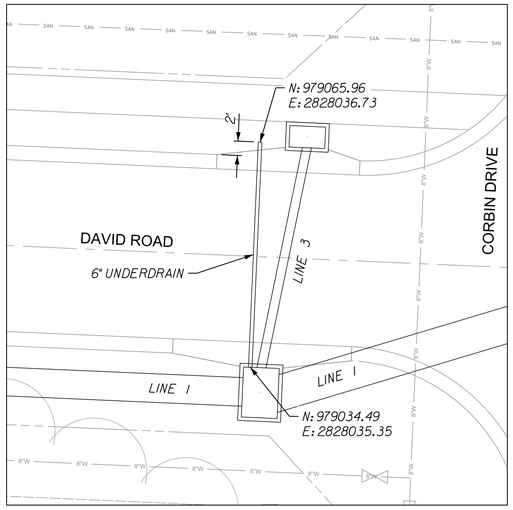
STORM SEWER LINES 15, 16, 18, AND 19

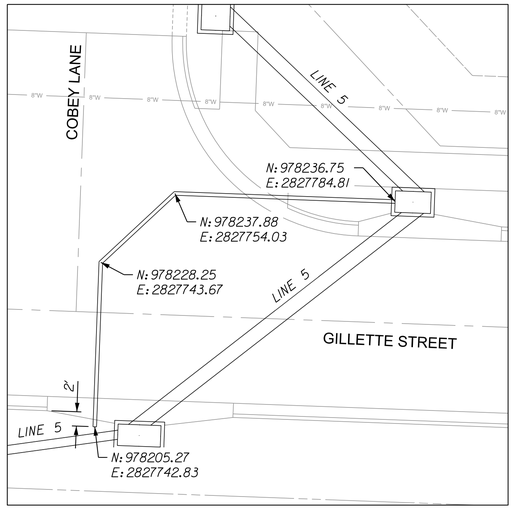
COBEY CREEK

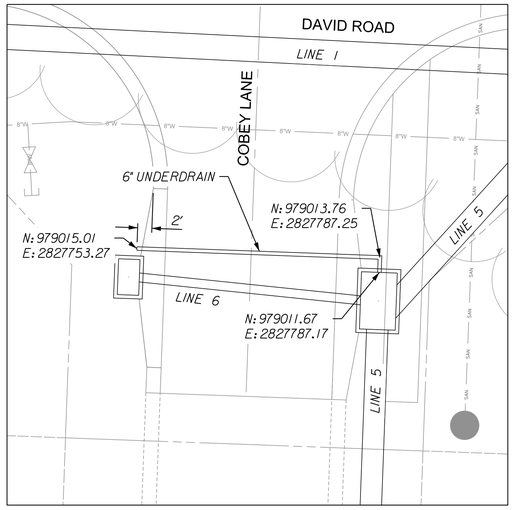
CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

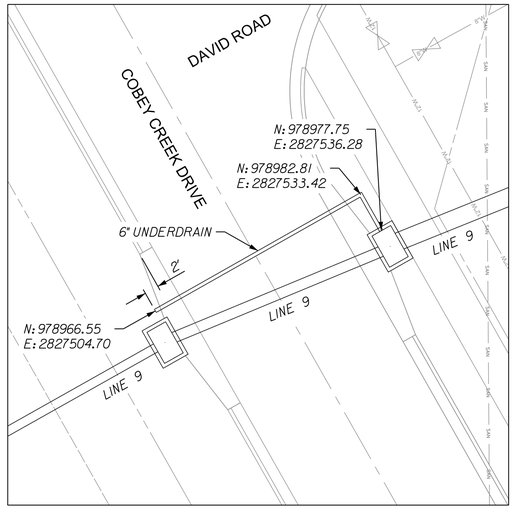
X-REF NO.
xxx
DRAWING NO.
xxx
DATE
March 27, 2019
JOB NO.
16.059.01
SHEET 17 OF 53

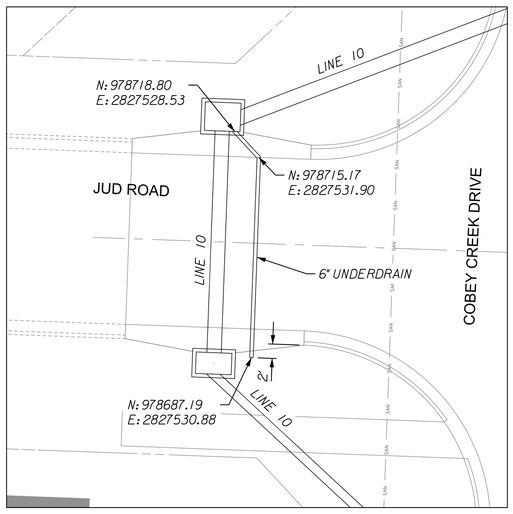
3/27/2019
16.059-StormPlanProf08-Line15-01.dgn

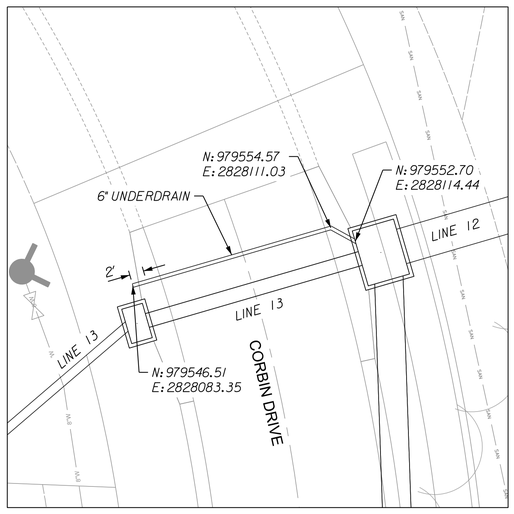


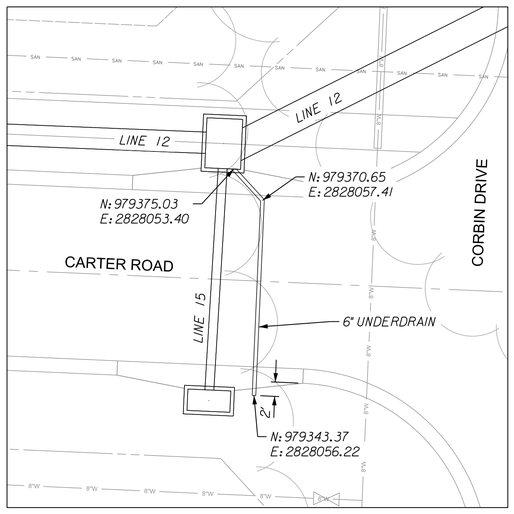



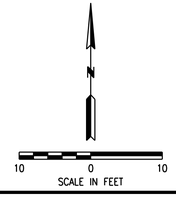




## GENERAL NOTES:

1. SEE UNDERDRAIN DETAIL SHEET FOR ADDITIONAL UNDERDRAIN INFORMATION.




| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | RAM | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAM | RKS |
| 1 | 1/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | RAM | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THEN THIS IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
NUMBER E-26440
STATE PROFESSIONAL ENGINEER

3/27/19

R. KEVIN STERRETT, MO E-26440

Consult Inc engineers planners
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005823

UNDERDRAIN PLAN

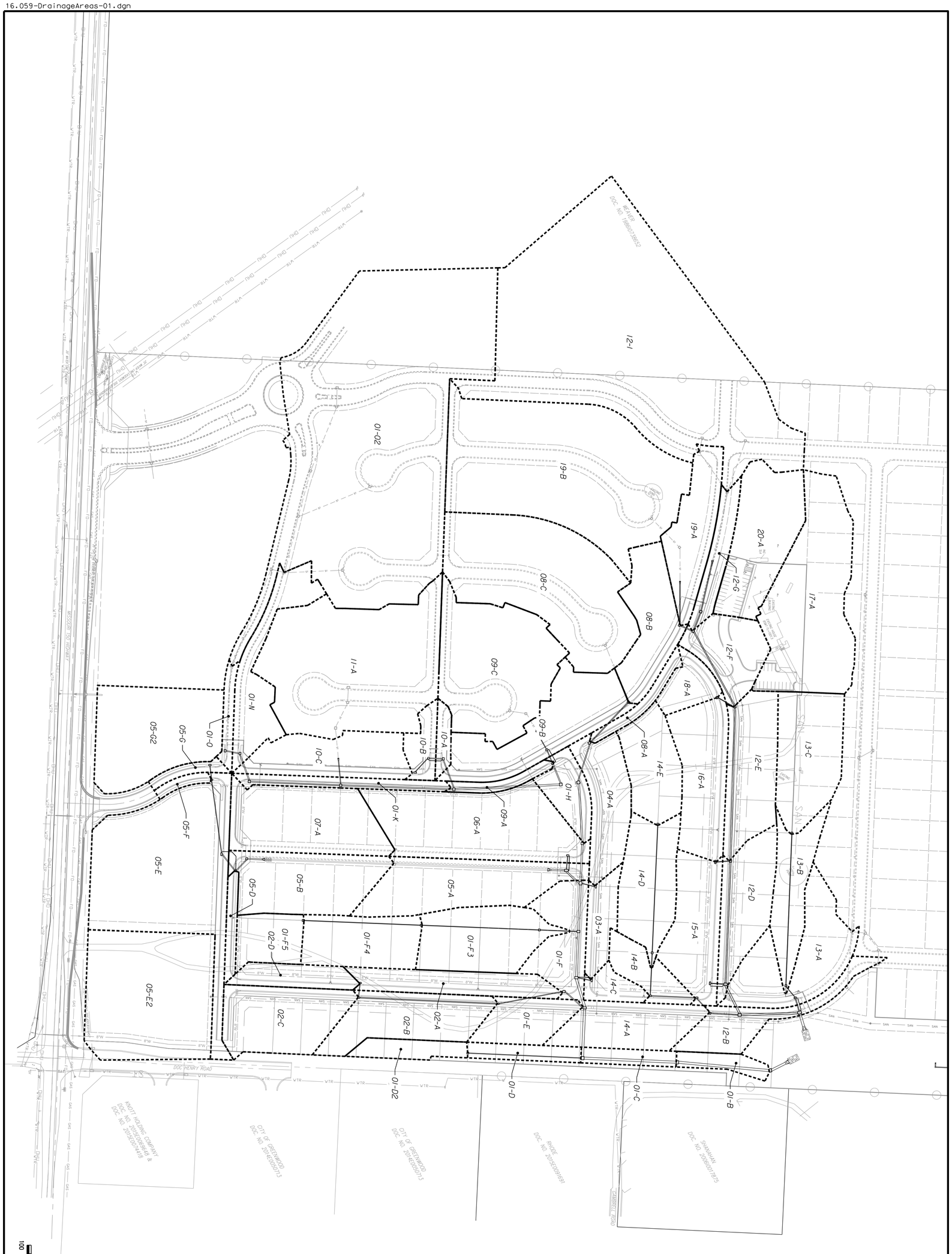
COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
XXX
DRAWING NO.
XXX
DATE
March 27, 2019
JOB NO.
16.059.01
SHEET OF
18 53

3/27/2019
16.059-StormPlanProf09-UnderdrainPlan.dgn

3/27/2019
16.059-DrainageAreas-01.dgn




SCALE IN FEET
100 0 100

DRAINAGE AREAS

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

Hg Consult Inc engineers planners

11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005873

3/27/19

R. KEVIN STERRETT, MO E-26440

| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | 3 | RAM | RKS |
| 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | 2 | RAM | RKS |
| 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | 1 | RAM | RKS |

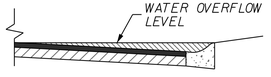
IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

PROJECT NO. XXX
DRAWN BY XXX
DATE March 27, 2019
JOB NO. 16.059.01
SHEET NO. 19 OF SHEETS 53

# STORM SEWER CALCULATIONS

COBEY CREEK PHASE 1

| STORM SEWER NO. | SEWER LOCATION | | TRIBUTARY AREA (AC.) | | | COMPOSITE RUNOFF COEFFIEIENT | TIME OF CONCEN-TRATION | 10-YEAR DESIGN (k = 1) | | | | | | | | | | | 100-YEAR DESIGN (k = 1.25) | | | | | | | | | | CURB INLET | | | PIPE DESIGN | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | RUNOFF [cfs] | | | | | | | | | | | RUNOFF [cfs] | | | | | | | | | | | | | | | | | | |
| | FROM STRUCTURE NO. | TO STRUCTURE NO. | AREA DESIGNATION ACRES | | TOTAL | | | INTENSITY [in/hr] i[10] | Q[10] | IN PIPE UPSTREAM [CFS] | BY PASS IN [CFS] | TOTAL Q[10] | IN PIPE DOWN-STREAM [CFS] | BY PASS OUT [CFS] | 10-YR INLET CAPACITY [CFS] | 10-YR INLET CAPACITY 80% [CFS] | 10-YR SPREAD [FT] | 10-YEAR HGL | INTENSITY [in/hr] i[10] | Q[100] | IN PIPE UPSTREAM [CFS] | BY PASS IN [CFS] | TOTAL Q[100] | IN PIPE DOWN-STREAM [CFS] | BY PASS OUT [CFS] | 100-YR INLET CAPACITY [CFS] | 100-YR INLET CAPACITY 80% [CFS] | 100-YEAR HGL | GUTTER SLOPE [%] | GUTTER CAPACITY [CFS] | INLET LENGTH [FT] | PIPE SIZE [in] | PIPE SLOPE [%] | PIPE TYPE | ROUGH. COEFF. [MANN-INGS] | FULL VELOCITY [FPS] | FULL FLOW [CFS] |
| LINE 1 | NA | NA | 01-O2 | 6.93 | 6.93 | 0.66 | 5.00 | 7.38 | 33.75 | NA | NA | 33.75 | 33.75 | NA | NA | NA | NA | NA | 10.32 | 59.00 | NA | NA | 59.00 | 59.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | 01-O | 01-N | 01-O | 0.14 | 7.08 | 0.51 | 5.00 | 7.38 | 0.53 | 33.75 | 0.00 | 34.28 | 34.28 | 0.00 | 21.85 | 21.85 | 1.32 | 1004.31 | 10.32 | 0.92 | 59.00 | 0.00 | 59.92 | 59.92 | 0.00 | 21.85 | 21.85 | 1022.32 | NA | NA | 5.00 | 2.00 | 1.33 | HDPE | 0.01 | 12.33 | 33.97 |
| | 01-N | 01-M | 01-N | 0.74 | 7.82 | 0.51 | 5.00 | 7.38 | 2.79 | 34.28 | 0.00 | 37.07 | 37.07 | 0.00 | 2.80 | 2.79 | 6.31 | 1001.80 | 10.32 | 4.87 | 59.92 | 0.00 | 64.79 | 64.40 | 0.39 | 4.51 | 4.51 | 1015.18 | 1.00 | 32.45 | 5.00 | 2.50 | 0.91 | HDPE | 0.01 | 11.28 | 50.74 |
| | 01-M | 01-L | NA | NA | 7.82 | NA | NA | NA | NA | 37.07 | 0.00 | 37.07 | 37.07 | 0.00 | NA | NA | NA | 998.24 | NA | NA | 64.40 | 0.00 | 64.40 | 64.40 | 0.00 | NA | NA | 1012.50 | NA | NA | NA | 2.50 | 0.53 | HDPE | 0.01 | 9.05 | 38.96 |
| | 01-L | 01-K | NA | NA | 10.53 | NA | NA | NA | NA | 50.27 | 0.00 | 50.27 | 50.27 | 0.00 | NA | NA | NA | 995.49 | NA | NA | 64.40 | 0.00 | 64.40 | 64.40 | 0.00 | NA | NA | 1007.72 | NA | NA | NA | 3.00 | 0.65 | HDPE | 0.01 | 10.71 | 69.91 |
| | 01-K | 01-J | 01-K | 0.29 | 11.99 | 0.51 | 5.00 | 7.38 | 1.09 | 55.97 | 0.00 | 57.06 | 57.06 | 0.00 | 1.08 | 1.07 | 1.77 | 991.84 | 10.32 | 1.91 | 64.40 | 0.00 | 66.31 | 66.31 | 0.00 | 1.88 | 1.88 | 1004.99 | 1.00 | 32.45 | 6.00 | 3.50 | 0.36 | HDPE | 0.01 | 8.85 | 78.82 |
| | 01-J | 01-I | NA | NA | 15.07 | NA | NA | NA | NA | 72.06 | 0.00 | 72.06 | 72.06 | 0.00 | NA | NA | NA | 990.18 | NA | NA | 66.31 | 0.00 | 66.31 | 66.31 | 0.00 | NA | NA | 1002.67 | NA | NA | NA | 3.50 | 2.80 | HDPE | 0.01 | 20.10 | 218.81 |
| | 01-I | 01-H | NA | NA | 18.42 | NA | NA | NA | NA | 88.08 | 0.00 | 88.08 | 88.08 | 0.00 | NA | NA | NA | 989.68 | NA | NA | 66.31 | 0.00 | 66.31 | 66.31 | 0.00 | NA | NA | 1001.14 | NA | NA | NA | 3.50 | 0.26 | HDPE | 0.01 | 8.89 | 66.99 |
| | 01-H | 01-G | 01-H | 0.37 | 18.79 | 0.51 | 5.00 | 7.38 | 1.39 | 88.08 | 0.00 | 89.47 | 89.47 | 0.00 | 1.38 | 1.37 | 1.59 | 987.64 | 10.32 | 2.43 | 66.31 | 0.00 | 68.74 | 68.74 | 0.00 | 2.41 | 2.41 | 996.47 | 2.96 | 16.39 | 6.00 | 3.50 | 2.00 | HDPE | 0.01 | 18.72 | 184.97 |
| | 01-G | 01-F2 | NA | NA | 30.73 | NA | NA | NA | NA | 141.92 | 0.00 | 141.92 | 141.92 | 0.00 | NA | NA | NA | 984.60 | NA | NA | 68.74 | 0.00 | 68.74 | 68.74 | 0.00 | NA | NA | 994.97 | NA | NA | NA | 4.00 | 0.40 | HDPE | 0.01 | 10.83 | 118.67 |
| | 01-F2 | 01-F | NA | NA | 32.85 | NA | NA | NA | NA | 149.86 | 0.00 | 149.86 | 149.86 | 0.00 | NA | NA | NA | 982.76 | NA | NA | 68.74 | 0.00 | 68.74 | 68.74 | 0.00 | NA | NA | 990.58 | NA | NA | NA | 4.00 | 0.40 | HDPE | 0.01 | 11.37 | 118.04 |
| | 01-F | 01-E | 01-F | 0.64 | 33.82 | 0.51 | 5.00 | 7.38 | 2.41 | 151.10 | 0.03 | 153.54 | 153.54 | 0.00 | 21.85 | 21.85 | 4.77 | 981.50 | 10.32 | 4.21 | 68.74 | 0.47 | 73.42 | 73.42 | 0.00 | 21.85 | 21.85 | 987.91 | NA | NA | 5.00 | 5.00 | 0.10 | HDPE | 0.01 | 7.42 | 106.84 |
| | 01-E | 01-D | 01-E | 0.48 | 37.07 | 0.51 | 5.00 | 7.38 | 1.81 | 163.56 | 0.41 | 165.78 | 165.78 | 0.00 | 2.20 | 2.19 | 1.85 | 981.37 | 10.32 | 3.16 | 73.42 | 2.47 | 79.05 | 78.61 | 0.44 | 5.16 | 5.16 | 987.51 | 3.30 | 17.31 | 7.00 | 5.00 | 0.20 | HDPE | 0.01 | 8.84 | 151.42 |
| | 01-D | 01-C | 01-D | 0.22 | 37.55 | 0.51 | 5.00 | 7.38 | 0.83 | 166.72 | 0.00 | 167.55 | 167.55 | 0.00 | 48.30 | 48.30 | 3.42 | 980.76 | 10.32 | 1.45 | 78.61 | 0.00 | 80.06 | 80.06 | 0.00 | 48.30 | 48.30 | 985.66 | NA | NA | 21.00 | 5.00 | 0.20 | HDPE | 0.01 | 8.87 | 151.39 |
| | 01-C | 01-B | 01-C | 0.19 | 37.74 | 0.51 | 5.00 | 7.38 | 0.72 | 167.55 | 0.00 | 168.26 | 168.26 | 0.00 | 39.10 | 39.10 | 0.60 | 978.89 | 10.32 | 1.25 | 80.06 | 0.00 | 81.31 | 81.31 | 0.00 | 39.10 | 39.10 | 982.15 | NA | NA | 17.00 | 5.00 | 0.10 | HDPE | 0.01 | 8.02 | 107.18 |
| | 01-B | 01-A | 01-B | 0.19 | 37.93 | 0.51 | 5.00 | 7.38 | 0.72 | 168.26 | 0.00 | 168.98 | 168.98 | 0.00 | 39.10 | 39.10 | 3.47 | 978.49 | 10.32 | 1.25 | 81.31 | 0.00 | 82.56 | 82.56 | 0.00 | 39.10 | 39.10 | 980.64 | NA | NA | 17.00 | 5.00 | 0.40 | HDPE | 0.01 | 11.82 | 213.89 |
| LINE 1D | 01-D2 | 01-D | 01-D2 | 0.25 | 0.25 | 0.51 | 5.00 | 7.38 | 0.94 | 0.00 | 0.00 | 0.94 | 0.94 | 0.00 | 27.60 | 27.60 | 5.31 | 996.93 | 10.32 | 1.64 | 0.00 | 0.00 | 1.64 | 1.64 | 0.00 | 27.60 | 27.60 | 997.10 | NA | NA | 12.00 | 1.25 | 3.01 | HDPE | 0.01 | 6.71 | 14.57 |
| LINE 1F | 01-F5 | 01-F4 | 01-F5 | 0.41 | 0.41 | 0.51 | 5.00 | 7.38 | 1.54 | 0.00 | 0.00 | 1.54 | 1.54 | 0.00 | 27.60 | 27.60 | 7.34 | 998.48 | 10.32 | 2.70 | 0.00 | 0.00 | 2.70 | 2.70 | 0.00 | 27.60 | 27.60 | 998.73 | NA | NA | 12.00 | 1.25 | 3.00 | HDPE | 0.01 | 7.73 | 14.55 |
| | 01-F4 | 01-F3 | 01-F4 | 0.75 | 1.16 | 0.51 | 5.00 | 7.38 | 2.82 | 1.54 | 0.00 | 4.37 | 4.37 | 0.00 | 27.60 | 27.60 | 10.92 | 990.40 | 10.32 | 4.93 | 2.70 | 0.00 | 7.63 | 7.63 | 0.00 | 27.60 | 27.60 | 995.38 | NA | NA | 12.00 | 1.25 | 1.65 | HDPE | 0.01 | 8.26 | 10.78 |
| | 01-F3 | 01-F2 | 01-F3 | 0.95 | 2.12 | 0.51 | 5.00 | 7.38 | 3.58 | 4.37 | 0.00 | 7.94 | 7.94 | 0.00 | 47.15 | 47.15 | 8.99 | 986.04 | 10.32 | 6.25 | 7.63 | 0.00 | 13.88 | 13.88 | 0.00 | 47.15 | 47.15 | 993.07 | NA | NA | 16.00 | 1.25 | 1.28 | HDPE | 0.01 | 8.60 | 9.49 |
| LINE 2 | 02-D | 02-C | 02-D | 0.34 | 0.34 | 0.51 | 5.00 | 7.38 | 1.28 | 0.00 | 0.00 | 1.28 | 1.28 | 0.00 | 1.28 | 1.27 | 1.73 | 1002.31 | 10.32 | 2.24 | 0.00 | 0.00 | 2.24 | 2.24 | 0.00 | 2.23 | 2.23 | 1002.57 | 1.61 | 12.09 | 5.00 | 1.25 | 0.50 | HDPE | 0.01 | 3.84 | 5.94 |
| | 02-C | 02-B | 02-C | 0.95 | 1.29 | 0.51 | 5.00 | 7.38 | 3.58 | 1.28 | 0.00 | 4.86 | 4.70 | 0.16 | 3.43 | 3.42 | 6.37 | 1002.01 | 10.32 | 6.25 | 2.24 | 0.00 | 8.49 | 7.23 | 1.26 | 5.01 | 5.01 | 1002.45 | 1.61 | 12.09 | 5.00 | 1.50 | 3.30 | HDPE | 0.01 | 10.89 | 24.82 |
| | 02-B | 02-A | 02-B | 0.91 | 2.20 | 0.51 | 5.00 | 7.38 | 3.43 | 4.70 | 0.16 | 8.28 | 7.87 | 0.41 | 3.16 | 3.15 | 3.46 | 991.15 | 10.32 | 5.99 | 7.23 | 1.26 | 14.47 | 12.00 | 2.47 | 4.75 | 4.75 | 991.85 | 3.84 | 18.67 | 5.00 | 1.50 | 3.07 | HDPE | 0.01 | 12.22 | 23.94 |
| | 02-A | 01-E | 02-A | 0.58 | 2.78 | 0.51 | 5.00 | 7.38 | 2.18 | 7.87 | 0.00 | 10.05 | 10.02 | 0.03 | 2.17 | 2.16 | 1.85 | 985.21 | 10.32 | 3.82 | 12.00 | 0.00 | 15.82 | 15.35 | 0.47 | 3.37 | 3.37 | 988.12 | 3.30 | 17.31 | 5.00 | 2.00 | 1.73 | HDPE | 0.01 | 10.37 | 38.70 |
| LINE 3 | 03-A | 01-F | 03-A | 0.33 | 0.33 | 0.51 | 5.00 | 7.38 | 1.24 | 0.00 | 0.00 | 1.24 | 1.24 | 0.00 | 1.22 | 1.22 | 1.86 | 983.47 | 10.32 | 2.17 | 0.00 | 0.00 | 2.47 | 2.47 | 0.00 | 2.44 | 2.44 | 987.98 | 1.00 | 9.53 | 5.00 | 1.25 | 1.00 | HDPE | 0.01 | 4.87 | 8.40 |
| LINE 4 | 04-A | 01-G | 04-A | 0.70 | 0.70 | 0.51 | 5.00 | 7.38 | 2.63 | 0.00 | 0.00 | 2.63 | 2.63 | 0.00 | 2.64 | 2.63 | 5.94 | 986.26 | 10.32 | 4.61 | 0.00 | 0.00 | 4.61 | 4.31 | 0.30 | 4.32 | 4.32 | 995.30 | 1.00 | 9.53 | 5.00 | 1.25 | 0.10 | HDPE | 0.01 | 2.45 | 2.64 |
| LINE 5 | NA | NA | 05-G2 | 1.40 | 1.40 | 0.81 | 5.00 | 7.38 | 8.37 | NA | NA | 8.37 | 8.37 | NA | NA | NA | NA | NA | 10.32 | 14.63 | NA | NA | 14.63 | 14.63 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | 05-G | 05-F | 05-G | 0.11 | 1.51 | 0.51 | 5.00 | 7.38 | 0.41 | 8.37 | 0.00 | 8.78 | 8.78 | 0.00 | 21.85 | 21.85 | 1.19 | 1003.15 | 10.32 | 0.72 | 14.63 | 0.00 | 15.35 | 15.35 | 0.00 | 21.85 | 21.85 | 1021.40 | NA | NA | 5.00 | 1.25 | 1.08 | HDPE | 0.01 | 8.12 | 8.72 |
| | 05-F | 05-E | 05-F | 0.08 | 1.58 | 0.51 | 5.00 | 7.38 | 0.30 | 8.78 | 0.00 | 9.08 | 9.08 | 0.00 | 0.29 | 0.28 | 1.08 | 998.66 | 10.32 | 0.53 | 15.35 | 0.00 | 15.88 | 15.88 | 0.00 | 0.50 | 0.50 | 1017.84 | 1.00 | 9.53 | 5.00 | 1.25 | 1.60 | HDPE | 0.01 | 9.72 | 10.62 |
| | NA | NA | 05-E2 | 2.00 | 2.00 | 0.81 | 5.00 | 7.38 | 11.96 | 9.08 | NA | 21.04 | 21.04 | NA | NA | NA | NA | NA | 10.32 | 20.90 | 15.88 | NA | 36.78 | 36.78 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | 05-E | 05-D | 05-E | 2.46 | 6.05 | 0.51 | 5.00 | 7.38 | 9.26 | 21.04 | 0.00 | 30.30 | 30.30 | 0.00 | 24.15 | 24.15 | 9.40 | 996.44 | 10.32 | 16.18 | 36.78 | 0.00 | 52.96 | 52.96 | 0.00 | 24.15 | 24.15 | 1011.63 | NA | NA | 6.00 | 2.00 | 3.77 | HDPE | 0.01 | 18.38 | 57.07 |
| | 05-D | 05-C | 05-D | 0.14 | 6.19 | 0.51 | 5.00 | 7.38 | 0.54 | 30.30 | 0.00 | 30.84 | 30.84 | 0.00 | 0.54 | 0.53 | 1.04 | 994.63 | 10.32 | 0.92 | 52.96 | 0.00 | 53.88 | 53.88 | 0.00 | 0.94 | 0.94 | 1008.38 | 4.20 | 66.50 | 5.00 | 2.00 | 3.46 | HDPE | 0.01 | 17.86 | 54.72 |
| | 05-C | 05-B | NA | NA | 6.19 | NA | NA | NA | NA | 30.84 | 0.00 | 30.84 | 30.84 | 0.00 | NA | NA | NA | 991.98 | NA | NA | 53.88 | 0.00 | 53.88 | 53.88 | 0.00 | NA | NA | 1003.98 | NA | NA | NA | 2.50 | 0.92 | HDPE | 0.01 | 10.87 | 51.01 |
| | 05-B | 05-A | 05-B | 1.07 | 8.39 | 0.51 | 5.00 | 7.38 | 4.03 | 35.07 | 0.00 | 39.10 | 39.10 | 0.00 | 4.02 | 4.01 | 7.46 | 987.54 | 10.32 | 7.04 | 53.88 | 0.00 | 60.92 | 60.52 | 0.40 | 6.63 | 6.63 | 999.11 | 1.43 | 38.80 | 7.00 | 3.00 | 0.43 | HDPE | 0.01 | 8.60 | 56.53 |
| | 05-A | 01-G | 05-A | 1.18 | 11.24 | 0.51 | 5.00 | 7.38 | 4.44 | 45.37 | 0.00 | 49.81 | 49.81 | 0.00 | 28.75 | 28.75 | 7.15 | 985.18 | 10.32 | 7.76 | 60.52 | 0.40 | 68.68 | 68.68 | 0.00 | 28.75 | 28.75 | 996.77 | NA | NA | 8.00 | 3.00 | 2.21 | HDPE | 0.01 | 16.76 | 128.90 |
| LINE 6 | 06-A | 05-A | 06-A | 1.66 | 1.66 | 0.51 | 5.00 | 7.38 | 6.25 | 0.00 | 0.02 | 6.27 | 6.27 | 0.00 | 21.85 | 21.85 | 9.29 | 987.85 | 10.32 | 10.92 | 0.00 | 0.86 | 11.78 | 11.78 | 0.00 | 21.85 | 21.85 | 998.61 | NA | NA | 5.00 | 1.25 | 1.10 | HDPE | 0.01 | 7.79 | 8.80 |
| LINE 7 | 07-A | 05-B | 07-A | 1.13 | 1.13 | 0.51 | 5.00 | 7.38 | 4.25 | 0.00 | 0.00 | 4.25 | 4.23 | 0.02 | 4.25 | 4.24 | 8.56 | 992.01 | 10.32 | 7.43 | 0.00 | 0.00 | 7.43 | 6.57 | 0.86 | 6.60 | 6.60 | 999.96 | 1.13 | 10.13 | 6.00 | 1.25 | 1.00 | HDPE | 0.01 | 6.85 | 8.38 |
| LINE 8 | 08-C | 08-B | 08-C | 2.38 | 2.38 | 0.66 | 5.00 | 7.38 | 11.59 | 0.00 | 0.00 | 11.59 | 11.59 | 0.00 | NA | NA | NA | 998.59 | 10.32 | 20.26 | 0.00 | 0.00 | 20.26 | 20.26 | 0.00 | NA | NA | 1007.61 | NA | NA | NA | 1.50 | 2.27 | HDPE | 0.01 | 12.00 | 20.58 |
| | 08-B | 08-A | 08-B | 0.79 | 3.18 | 0.66 | 5.00 | 7.38 | 3.85 | 11.59 | 0.06 | 15.50 | 15.38 | 0.12 | 3.81 | 3.79 | 8.42 | 995.90 | 10.32 | 6.73 | 20.26 | 0.93 | 27.92 | 26.38 | 1.54 | 6.14 | 6.14 | 1004.19 | 1.00 | 32.45 | 5.00 | 2.00 | 0.87 | HDPE | 0.01 | 9.01 | 27.45 |
| | 08-A | 01-I | 08-A | 0.17 | 3.35 | 0.51 | 5.00 | 7.38 | 0.64 | 15.38 | 0.00 | 16.02 | 16.02 | 0.00 | 0.65 | 0.65 | 1.47 | 991.60 | 10.32 | 1.12 | 26.38 | 0.00 | 27.50 | 27.50 | 0.00 | 1.14 | 1.14 | 1002.37 | 1.00 | 32.45 | 5.00 | 2.00 | 1.96 | HDPE | 0.01 | 12.29 | 41.21 |
| LINE 9 | 09-C | 09-B | 09-C | 1.77 | 1.77 | 0.66 | 5.00 | 7.38 | 8.62 | 0.00 | 0.00 | 8.62 | 8.62 | 0.00 | NA | NA | NA | 997.48 | 10.32 | 15.07 | 0.00 | 0.00 | 15.07 | 15.07 | 0.00 | NA | NA | 1008.58 | NA | NA | NA | 1.25 | 3.26 | HDPE | 0.01 | 12.74 | 15.17 |
| | 09-B | 09-A | 09-B | 1.17 | 2.93 | 0.66 | 5.00 | 7.38 | 5.70 | 8.62 | 0.12 | 14.44 | 14.44 | 0.00 | 21.85 | 21.85 | 6.52 | 994.95 | 10.32 | 9.96 | 15.07 | 1.54 | 26.57 | 26.57 | 0.00 | 21.85 | 21.85 | 1004.60 | NA | NA | 5.00 | 1.50 | 2.29 | HDPE | 0.01 | 12.61 | 20.65 |
| | 09-A | 01-J | 09-A | 0.15 | 3.08 | 0.51 | 5.00 | 7.38 | 0.56 | 14.44 | 0.00 | 15.00 | 15.00 | 0.00 | 21.85 | 21.85 | 1.33 | 990.37 | 10.32 | 0.99 | 26.57 | 0.00 | 27.56 | 27.56 | 0.00 | 21.85 | 21.85 | 1003.16 | NA | NA | 5.00 | 2.50 | 0.50 | HDPE | 0.01 | 7.26 | 37.70 |
| LINE 10 | 10-C | 10-B | 10-C | 0.82 | 0.82 | 0.66 | 5.00 | 7.38 | 3.99 | 0.00 | 0.00 | 3.99 | 3.99 | 0.00 | 3.97 | 3.96 | 8.49 | 997.60 | 10.32 | 6.98 | 0.00 | 0.39 | 7.37 | 6.66 | 0.71 | 6.62 | 6.62 | 1006.15 | 1.00 | 32.45 | 6.00 | 1.25 | 2.34 | HDPE | 0.01 | 9.24 | 12.84 |
| | 10-B | 10-A | 10-B | 0.23 | 1.05 | 0.66 | 5.00 | 7.38 | 1.12 | 3.99 | 0.00 | 5.11 | 5.11 | 0.00 | 21.85 | 21.85 | 1.22 | 995.09 | 10.32 | 1.96 | 6.66 | 0.71 | 9.33 | 9.33 | 0.00 | 21.85 | 21.85 | 1005.33 | NA | NA | 5.00 | 2.00 | 0.10 | HDPE | 0.01 | 3.03 | 9.30 |
| | 10-A | 01-K | 10-A | 0.12 | 1.17 | 0.66 | 5.00 | 7.38 | 0.58 | 5.11 | 0.00 | 5.70 | 5.70 | 0.00 | 21.85 | 21.85 | 0.96 | 994.63 | 10.32 | 1.02 | 9.33 | 0.00 | 10.35 | 10.35 | 0.00 | 21.85 | 21.85 | 1005.17 | NA | NA | 5.00 | 2.00 | 0.10 | HDPE | 0.01 | 3.14 | 9.30 |
| LINE 11 | 11-A | 01-L | 11-A | 2.71 | 2.71 | 0.66 | 5.00 | 7.38 | 13.20 | 0.00 | 0.00 | 13.20 | 13.20 | 0.00 | NA | NA | NA | 1000.38 | 10.32 | 23.07 | 0.00 | 0.00 | 23.07 | 23.07 | 0.00 | NA | NA | 1012.19 | NA | NA | NA | 1.50 | 1.74 | HDPE | 0.01 | 11.14 | 18.00 |
| LINE 12 | 12-I | 12-H | 12-I | 6.18 | 6.18 | 0.51 | 5.00 | 7.38 | 23.26 | 0.00 | 0.00 | 23.26 | 23.26 | 0.00 | NA | NA | NA | 1001.78 | 10.32 | 40.66 | 0.00 | 0.00 | 40.66 | 40.66 | 0.00 | NA | NA | 1004.63 | NA | NA | NA | 2.00 | 2.53 | HDPE | 0.01 | 14.85 | 46.77 |
| | NA | NA | 20-A | 1.10 | 1.10 | 0.51 | 5.00 | 7.38 | 4.14 | 23.26 | NA | 27.40 | 27.40 | NA | NA | NA | NA | NA | 10.32 | 7.24 | 40.66 | NA | 47.90 | 47.90 | NA | NA | NA | NA | NA | NA | NA | | | | | | | |
| | 12-H | 12-G | NA | NA | 7.28 | NA | NA | NA | NA | 27.40 | 0.00 | 27.40 | 27.40 | 0.00 | NA | NA | NA | 998.60 | NA | NA | 47.90 | 0.00 | 47.90 | 47.90 | 0.00 | NA | NA | 1002.29 | NA | NA | NA | 2.00 | 1.80 | HDPE | 0.01 | 13.56 | 39.46 |
| | 12-G | 12-F | 12-G | 0.34 | 11.87 | 0.51 | 5.00 | 7.38 | 1.28 | 47.99 | 0.00 | 49.27 | 49.27 | 0.00 | 1.30 | 1.29 | 1.90 | 995.90 | 10.32 | 2.24 | 47.90 | 0.00 | 50.13 | 50.13 | 0.00 | 2.27 | 2.27 | 1000.58 | 1.00 | 32.45 | 5.00 | 2.50 | 1.40 | HDPE | 0.01 | 14.17 | 63.06 |
| | NA | NA | 17-A | 1.90 | 1.90 | 0.51 | 5.00 | 7.38 | 7.15 | 49.27 | NA | 56.42 | 56.42 | NA | NA | NA | NA | NA | 10.32 | 12.50 | 50.13 | NA | 62.63 | 62.63 | NA | NA | NA | NA | NA | NA | NA | | | | | | | |
| | 12-F | 12-E | 12-F | 0.61 | 14.68 | 0.51 | 5.00 | 7.38 | 2.30 | 57.55 | 0.00 | 59.85 | 59.85 | 0.00 | 2.28 | 2.27 | 1.98 | 987.42 | 10.32 | 4.01 | 62.63 | 0.00 | 66.65 | 66.65 | 0.44 | 3.55 | 3.55 | 990.43 | 2.50 | 15.07 | 5.00 | 3.00 | 1.38 | HDPE | 0.01 | 14.92 | 101.73 |
| | 12-E | 12-D | 12-E | 0.92 | 16.52 | 0.51 | 5.00 | 7.38 | 3.46 | 63.31 | 0.00 | 66.77 | 66.61 | 0.16 | 3.30 | 3.29 | 5.66 | 982.02 | 10.32 | 6.05 | 66.65 | 0.44 | 73.14 | 73.14 | 1.49 | 5.01 | 5.01 | 984.54 | 1.87 | 13.03 | 5.00 | 3.00 | 1.22 | HDPE | 0.01 | 14.58 | 95.87 |
| | 12-D | 12-C | 12-D | 0.78 | 18.15 | 0.51 | 5.00 | 7.38 | 2.94 | 69.81 | 0.16 | 72.91 | 72.91 | 0.00 | 21.85 | 21.85 | 5.59 | 976.08 | 10.32 | 5.13 | 73.14 | 1.49 | 79.76 | 79.76 | 0.00 | 21.85 | 21.85 | 978.60 | NA | NA | 5.00 | 4.00 | 0.10 | HDPE | 0.01 | 5.70 | 59.10 |
| | 12-C | 12-B | NA | NA | 20.98 | NA | NA | NA | NA | 83.56 | 0.00 | 83.56 | 83.56 | 0.00 | NA | NA | NA | 976.21 | NA | NA | 79.76 | 0.00 | 79.76 | 79.76 | 0.00 | NA | NA | 978.26 | NA | NA | NA | 4.00 | 0.10 | HDPE | 0.01 | 6.45 | 58.97 |
| | 12-B | 12-A | 12-B | 0.57 | 24.23 | 0.51 | 5.00 | 7.38 | 2.15 | 93.65 | 0.00 | 95.79 | 95.79 | 0.00 | 28.75 | 28.75 | 3.01 | 974.64 | 10.32 | 3.75 | 79.76 | 0.54 | 84.05 | 84.05 | 0.00 | 28.75 | 28.75 | 975.89 | NA | NA | 8.00 | 5.00 | 0.10 | HDPE | 0.01 | 6.05 | 106.97 |
| LINE 13 | 13-C | 13-B | 13-C | 1.00 | 1.00 | 0.51 | 5.00 | 7.38 | 3.76 | 0.00 | 0.00 | 3.76 | 3.76 | 0.00 | 27.60 | 27.60 | 13.27 | 985.13 | 10.32 | 6.58 | 0.00 | 0.00 | 6.58 | 6.58 | 0.00 | 27.60 | 27.60 | 985.89 | NA | NA | 12.00 | 1.25 | 2.20 | HDPE | 0.01 | 8.89 | 12.46 |
| | 13-B | 13-A | 13-B | 0.64 | 1.64 | 0.51 | 5.00 | 7.38 | 2.41 | 3.76 | 0.00 | 6.17 | 6.17 | 0.00 | 47.15 | 47.15 | 6.85 | 977.02 | 10.32 | 4.21 | 6.58 | 0.00 | 10.79 | 10.79 | 0.00 | 47.15 | 47.15 | 977.82 | NA | NA | 16.00 | 1.25 | 0.82 | HDPE | 0.01 | 6.86 | 7.59 |
| | 13-A | 12-B | 13-A | 1.04 | 2.68 | 0.51 | 5.00 | 7.38 | 3.91 | 6.17 | 0.00 | 10.09 | 10.09 | 0.00 | 21.85 | 21.85 | 3.93 | 975.99 | 10.32 | 6.84 | 10.79 | 0.00 | 17.63 | 17.63 | 0.00 | 21.85 | 21.85 | 976.56 | NA | NA | 5.00 | 2.00 | 0.23 | HDPE | 0.01 | 4.82 | 13.97 |
| LINE 14 | 14-E | 14-D | 14-E | 0.67 | 0.67 | 0.51 | 5.00 | 7.38 | 2.52 | 0.00 | 0.00 | 2.52 | 2.52 | 0.00 | 27.60 | 27.60 | 10.16 | 986.54 | 10.32 | 4.41 | 0.00 | 0.00 | 4.41 | 4.41 | 0.00 | 27.60 | 27.60 | 986.97 | NA | NA | 12.00 | 1.25 | 1.80 | HDPE | 0.01 | 7.41 | 11.27 |
| | 14-D | 14-C | 14-D | 0.85 | 1.52 | 0.51 | 5.00 | 7.38 | 3.20 | 2.52 | 0.00 | 5.72 | 5.72 | 0.00 | 47.15 | 47.15 | 8.33 | 981.18 | 10.32 | 5.59 | 4.41 | 0.00 | 10.00 | 10.00 | 0.00 | 47.15 | 47.15 | 982.77 | NA | NA | 16.00 | 1.25 | 0.67 | HDPE | 0.01 | 6.27 | 6.87 |
| | 14-C | 14-B | 14-C | 0.20 | 1.72 | 0.51 | 5.00 | 7.38 | 0.75 | 5.72 | 0.00 | 6.47 | 6.47 | 0.00 | 0.75 | 0.75 | 1.55 | 980.22 | 10.32 | 1.32 | 10.00 | 0.00 | 11.32 | 11.32 | 0.00 | 1.31 | 1.31 | 981.26 | 1.01 | 9.58 | 5.00 | 1.50 | 0.41 | HDPE | 0.01 | 5.40 | 8.78 |
| | 14-B | 14-A | 14-B | 0.37 | 2.09 | 0.51 | 5.00 | 7.38 | 1.39 | 6.47 | 0.00 | 7.87 | 7.87 | 0.00 | 1.38 | 1.38 | 1.94 | 979.36 | 10.32 | 2.43 | 11.32 | 0.00 | 13.75 | 13.75 | 0.00 | 2.42 | 2.42 | 980.12 | 1.01 | 9.58 | 5.00 | 1.50 | 0.45 | HDPE | 0.01 | 5.77 | 9.16 |
| | 14-A | 12-C | 14-A | 0.74 | 2.83 | 0.51 | 5.00 | 7.38 | 2.79 | 7.87 | 0.00 | 10.65 | 10.65 | 0.00 | 2.80 | 2.79 | 6.27 | 978.72 | 10.32 | 4.87 | 13.75 | 0.44 | 19.06 | 19.06 | 0.54 | 4.79 | 4.79 | 979.22 | 1.01 | 9.58 | 5.00 | 2.00 | 1.02 | HDPE | 0.01 | 8.52 | 29.64 |
| LINE 15 | 15-A | 12-D | 15-A | 0.85 | 0.85 | 0.51 | 5.00 | 7.38 | 3.20 | 0.00 | 0.00 | 3.20 | 3.20 | 0.00 | 24.15 | 24.15 | 5.02 | 978.62 | 10.32 | 5.61 | 0.00 | 0.29 | 5.90 | 5.90 | 0.00 | 24.15 | 24.15 | 979.21 | NA | NA | 6.00 | 1.25 | 0.80 | HDPE | 0.01 | 5.88 | 7.51 |
| LINE 16 | 16-A | 12-E | 16-A | 0.92 | 0.92 | 0.51 | 5.00 | 7.38 | 3.46 | 0.00 | 0.00 | 3.46 | 3.46 | 0.00 | 3.46 | 3.45 | 5.67 | 982.22 | 10.32 | 6.06 | 0.00 | 0.00 | 6.06 | 6.06 | 0.29 | 5.77 | 5.77 | 984.79 | 1.87 | 13.03 | 7.00 | 1.50 | 0.64 | HDPE | 0.01 | 5.49 | 10.93 |
| LINE 18 | 18-A | 12-F | 18-A | 0.30 | 0.30 | 0.51 | 5.00 | 7.38 | 1.13 | 0.00 | 0.00 | 1.13 | 1.13 | 0.00 | 1.12 | 1.12 | 1.55 | 993.31 | 10.32 | 1.96 | 0.00 | 0.00 | 1.96 | 1.96 | 0.00 | 1.96 | 1.96 | 993.52 | 2.26 | 14.32 | 5.00 | 1.25 | 0.58 | HDPE | 0.01 | 3.90 | 6.38 |
| LINE 19 | 19-B | 19-A | 19-B | 3.50 | 3.50 | 0.66 | 5.00 | 7.38 | 17.05 | 0.00 | 0.00 | 17.05 | 17.05 | 0.00 | NA | NA | NA | 1002.97 | 10.32 | 29.83 | 0.00 | 0.00 | 29.83 | 29.83 | 0.00 | NA | NA | 1011.77 | NA | NA | NA | 1.50 | 3.29 | HDPE | 0.01 | 15.12 | 24.77 |
| | 19-A | 12-G | 19-A | 0.74 | 4.24 | 0.66 | 5.00 | 7.38 | 3.60 | 17.05 | 0.00 | 20.65 | 20.59 | 0.06 | 3.56 | 3.55 | 7.91 | 998.13 | 10.32 | 6.32 | 29.83 | 0.00 | 36.15 | 36.15 | 0.93 | 5.40 | 5.40 | 1002.45 | 1.00 | 32.45 | 5.00 | 2.00 | 0.50 | HDPE | 0.01 | 7.58 | 20.80 |




**100 YEAR STORM OVERFLOW PATH**

*NOT TO SCALE*

*THE STREET GUTTERING SYSTEM WILL SERVE AS THE ROUTING FOR STORM FLOWS THAT EXCEED THE PIPE SYSTEM CAPACITY (10 YEAR 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 OVERFLOW FROM THE FLOWS FROM HIGHER FREQUENCY STORMS.*

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | RAM | RKS |
| 2 | 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | RAM | RKS |
| 1 | 11/21/18 | SUBMITTAL TO CITY OF LEE'S

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

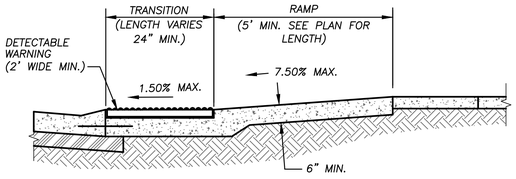
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | 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 |

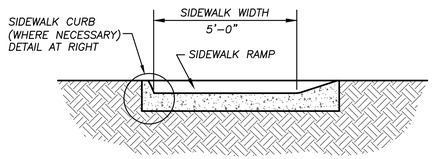
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

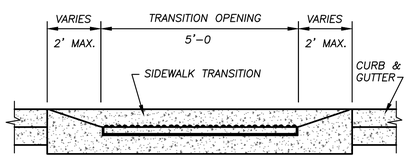
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2) Minimum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



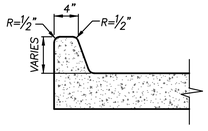

SECTION A-A



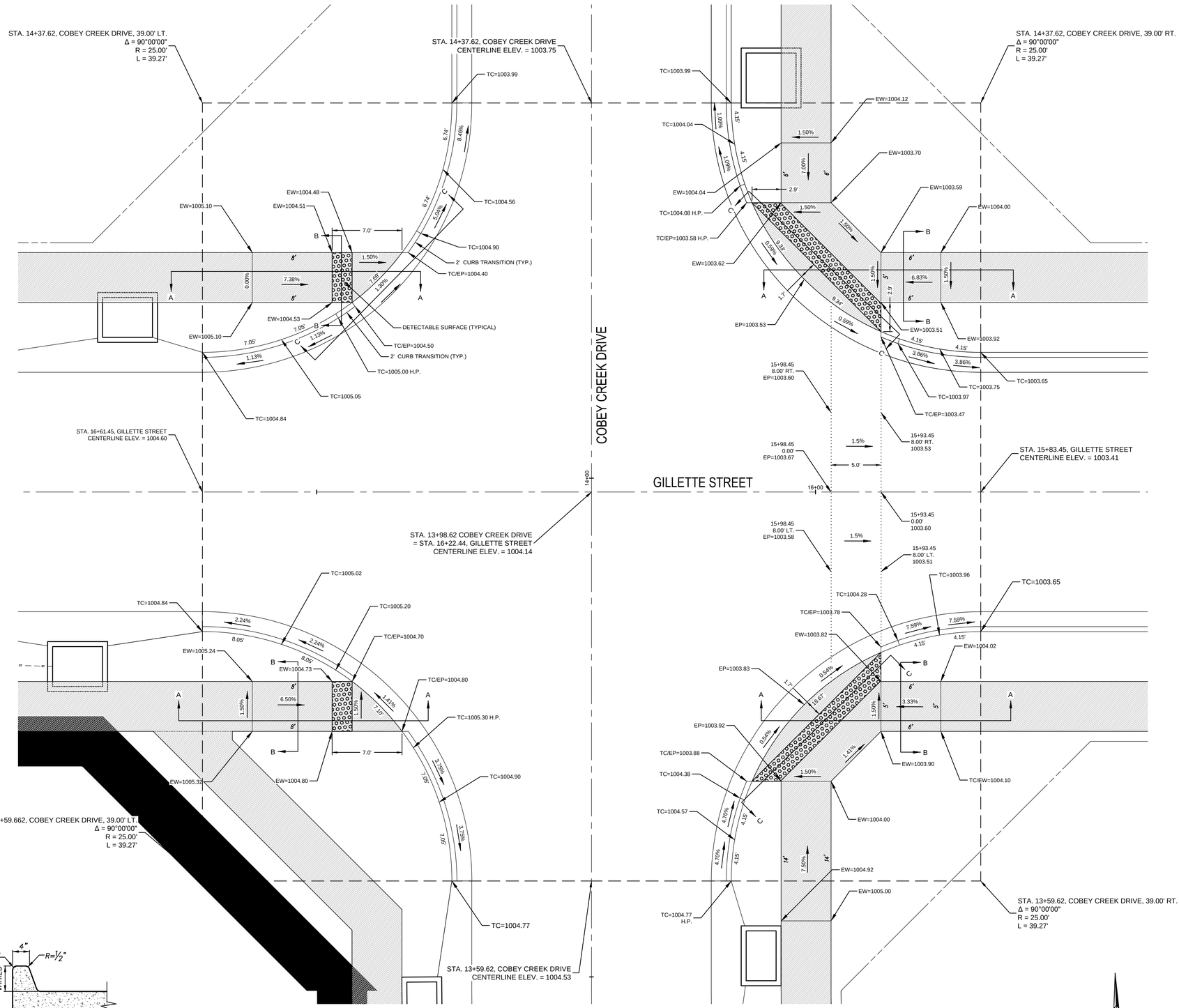

SECTION B-B




SECTION C-C




SIDEWALK CURB




COBEY CREEK DRIVE AND GILLETTE STREET
INTERSECTION DETAIL

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RWS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RWS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RWS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RWS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RWS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RWS |
| | 11/21/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RWS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 2010026440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019


Consult engineers planners Inc
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
INTERSECTION AND ADA RAMP DETAILS
COBEY CREEK DRIVE AND GILLETTE STREET

COBEY CREEK FIRST PLAT
PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

SHEET 21 OF 53

0 5' 10' 15'
SCALE: 1" = 5'

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

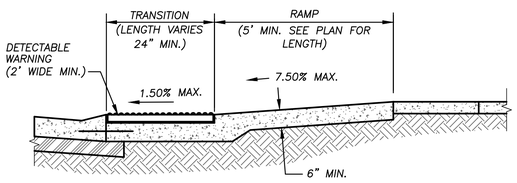
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | 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 |

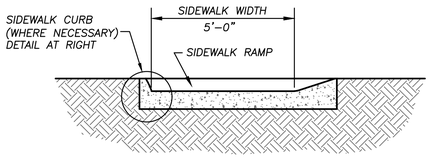
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

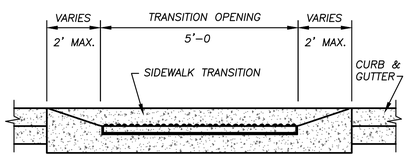
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



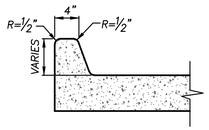

SECTION A-A



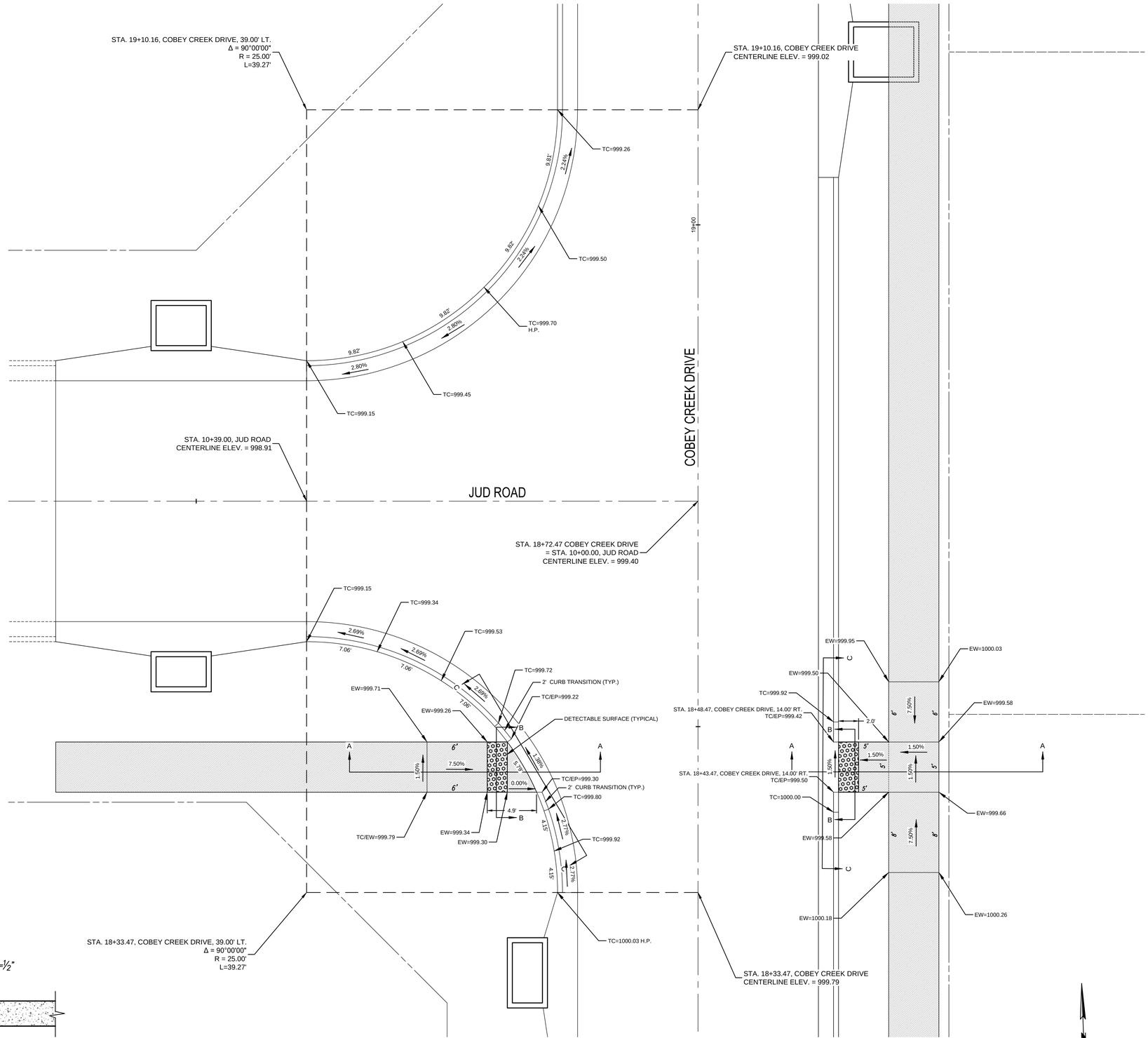

SECTION B-B




SECTION C-C




SIDEWALK CURB




COBEY CREEK DRIVE AND JUD ROAD
INTERSECTION DETAIL

0 5' 10' 15'
SCALE: 1" = 5'

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RWS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RWS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RWS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RWS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RWS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RWS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RWS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
July 3, 2019


Consult engineers planners Inc
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
INTERSECTION AND ADA RAMP DETAILS
COBEY CREEK DRIVE AND JUD ROAD

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

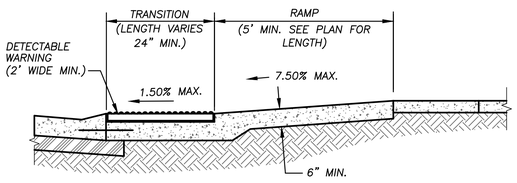
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | 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 |

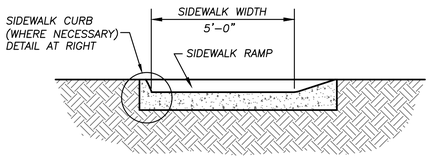
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

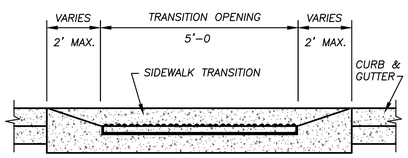
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



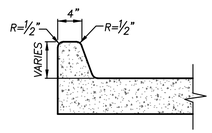

SECTION A-A



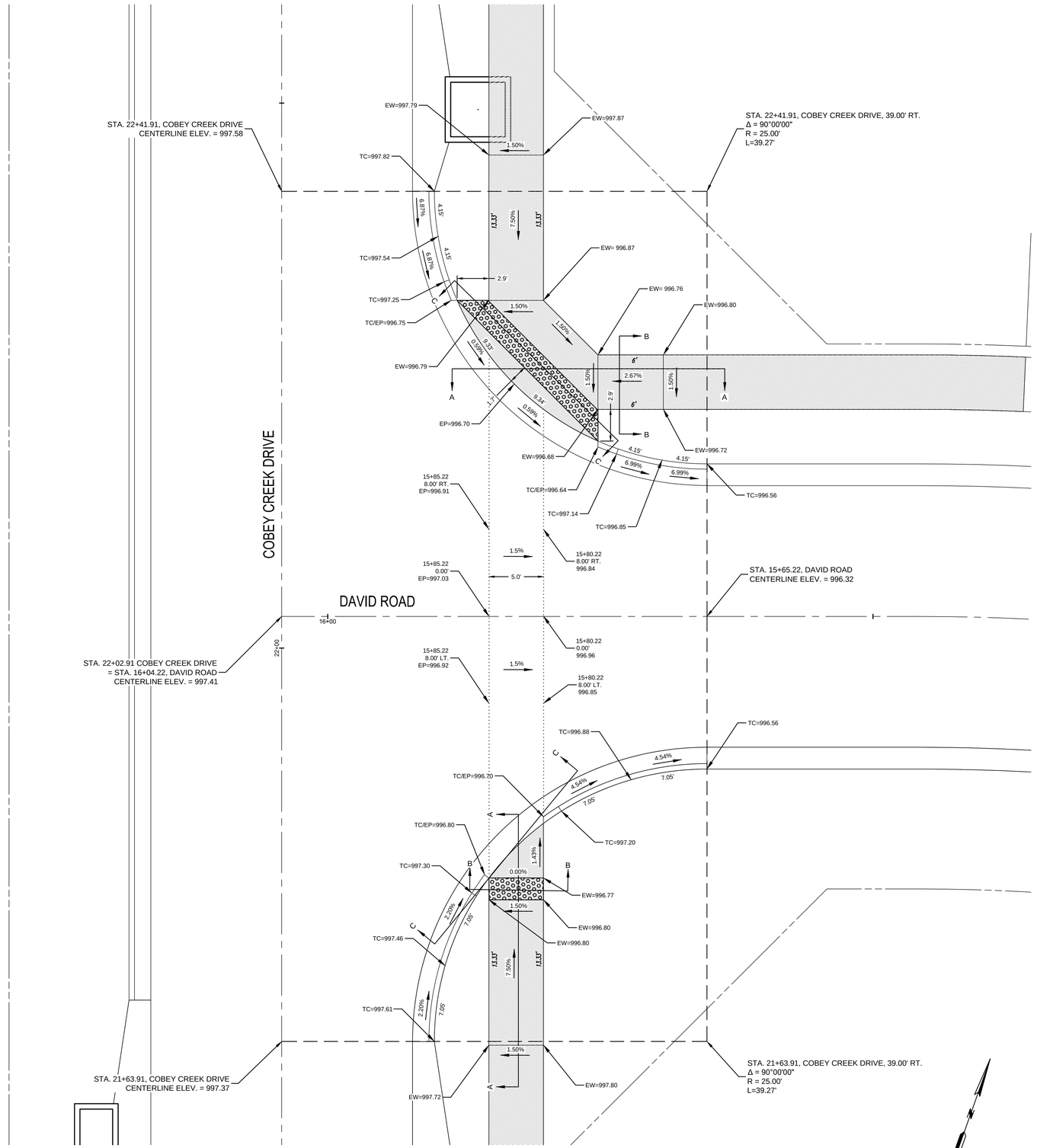

SECTION B-B




SECTION C-C




SIDEWALK CURB




COBEY CREEK DRIVE AND DAVID ROAD
INTERSECTION DETAIL

SCALE: 1" = 5'

| NO. | BY | CK/APP |
|---|---|---|
| 6 | SPW | RKS |
| 5 | SPW | RKS |
| 4 | SPW | RKS |
| 3 | SPW | RKS |
| 2 | SPW | RKS |
| 1 | SPW | RKS |

| DATE | REVISION |
|---|---|
| 07/30/19 | PER CITY'S COMMENTS |
| 07/03/19 | PER CITY'S COMMENTS |
| 04/23/19 | PER CITY'S COMMENTS |
| 04/16/19 | PER CITY'S COMMENTS |
| 03/27/19 | PER CITY'S COMMENTS |
| 03/06/19 | PER CITY'S COMMENTS |
| 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
July 3, 2019


Consult engineers planners Inc
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005?3 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
INTERSECTION AND ADA RAMP DETAILS
COBEY CREEK DRIVE AND DAVID ROAD

COBEY CREEK FIRST PLAT
PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
July 30, 2019

JOB NO.
16-059

23 SHEET OF 53

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

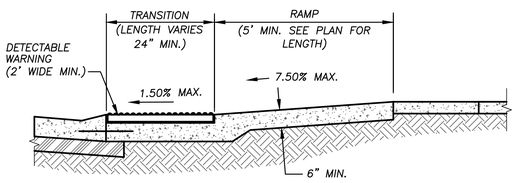
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | 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 |

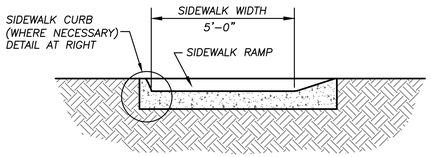
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

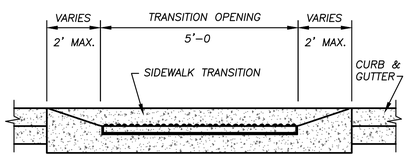
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



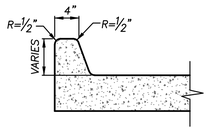

SECTION A-A



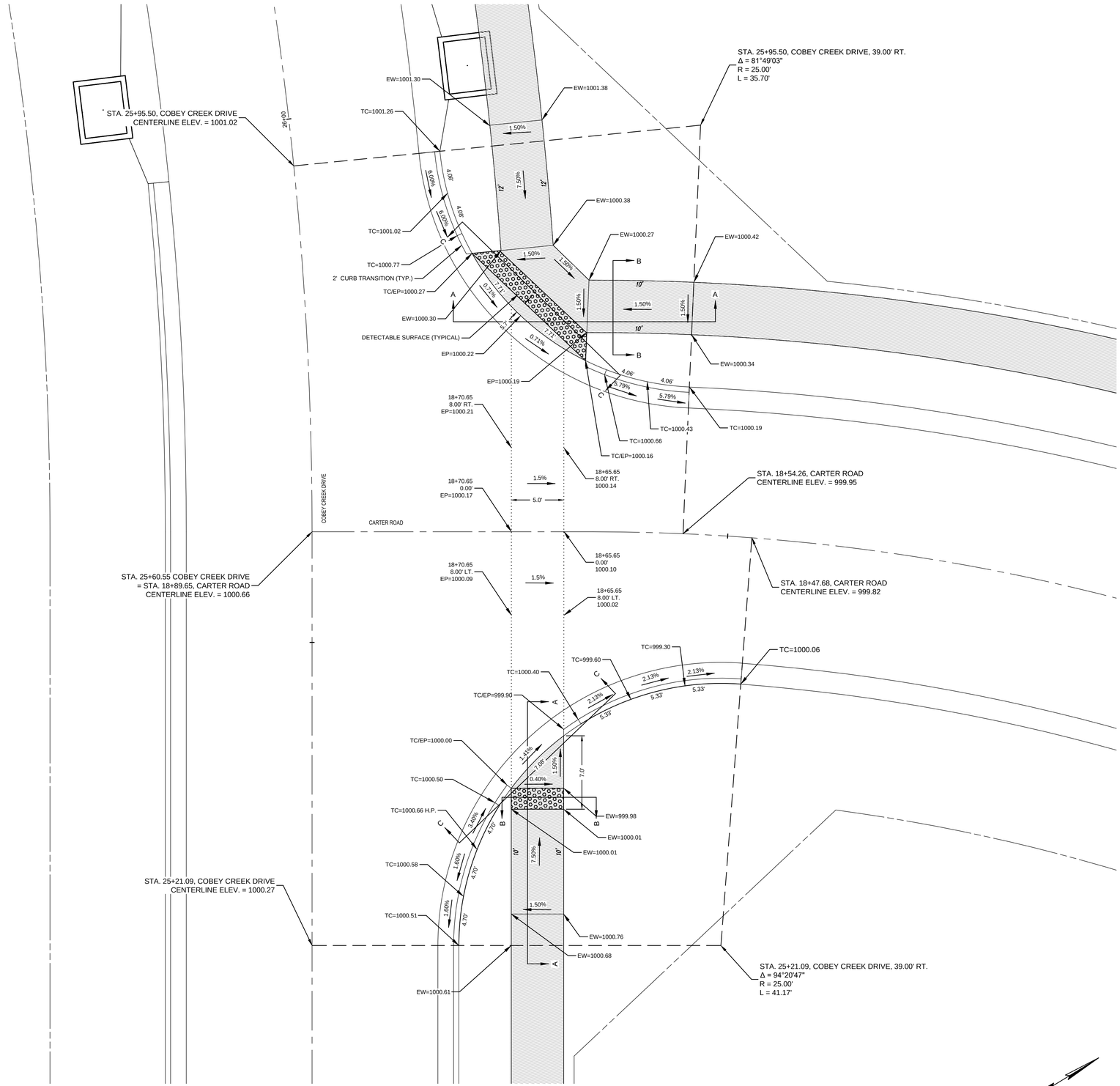

SECTION B-B




SECTION C-C




SIDEWALK CURB




COBEY CREEK DRIVE AND CARTER ROAD
INTERSECTION DETAIL
SCALE: 1" = 5'

SCALE: 1" = 5'

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RKS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RKS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RKS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
July 3, 2019


Consult engineers planners Inc
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


# STREET AND STORM SEWER PLANS
## INTERSECTION AND ADA RAMP DETAILS
## COBEY CREEK DRIVE AND CARTER ROAD
## COBEY CREEK FIRST PLAT
## PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

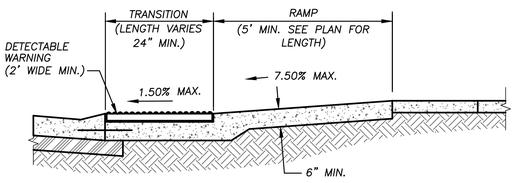
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | 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 |

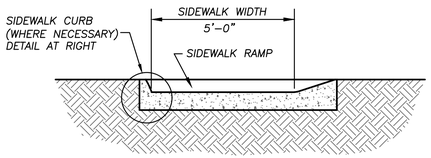
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

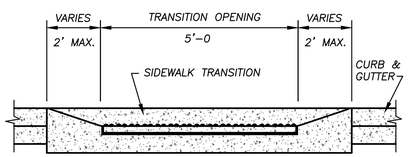
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



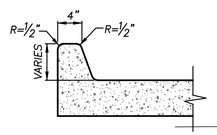

SECTION A-A



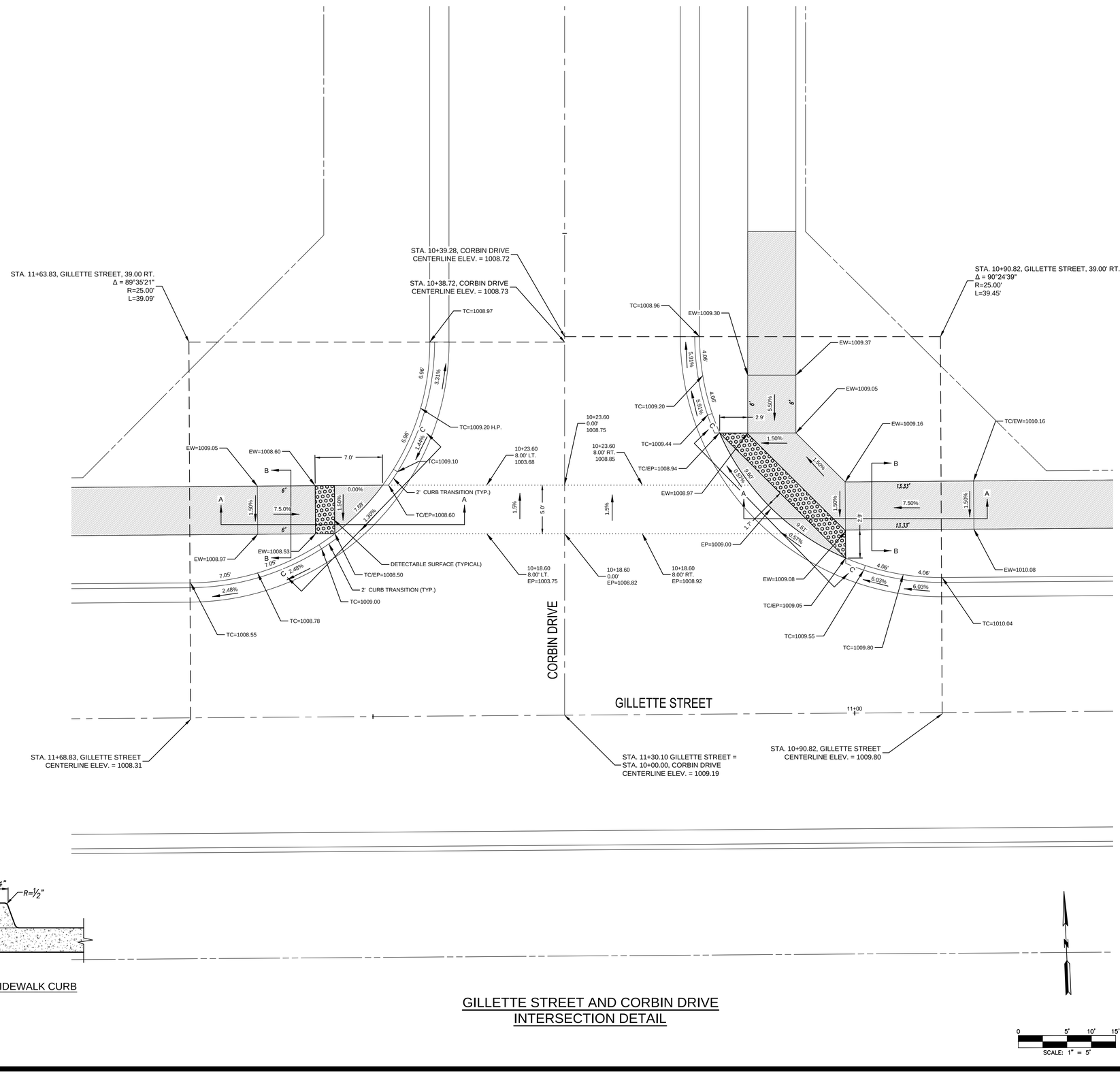

SECTION B-B




SECTION C-C




SIDEWALK CURB




GILLETTE STREET AND CORBIN DRIVE
INTERSECTION DETAIL

SCALE: 1" = 5'

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RKS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RKS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RKS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 2010026440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
July 3, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
INTERSECTION AND ADA RAMP DETAILS
GILLETTE STREET AND CORBIN DRIVE

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

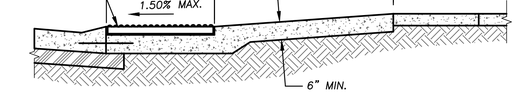
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | 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 |

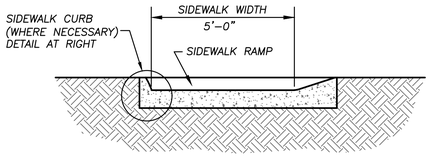
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

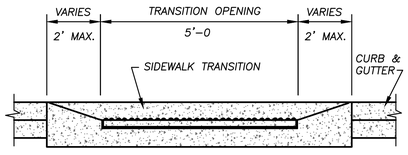
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



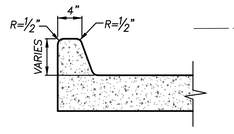

SECTION A-A



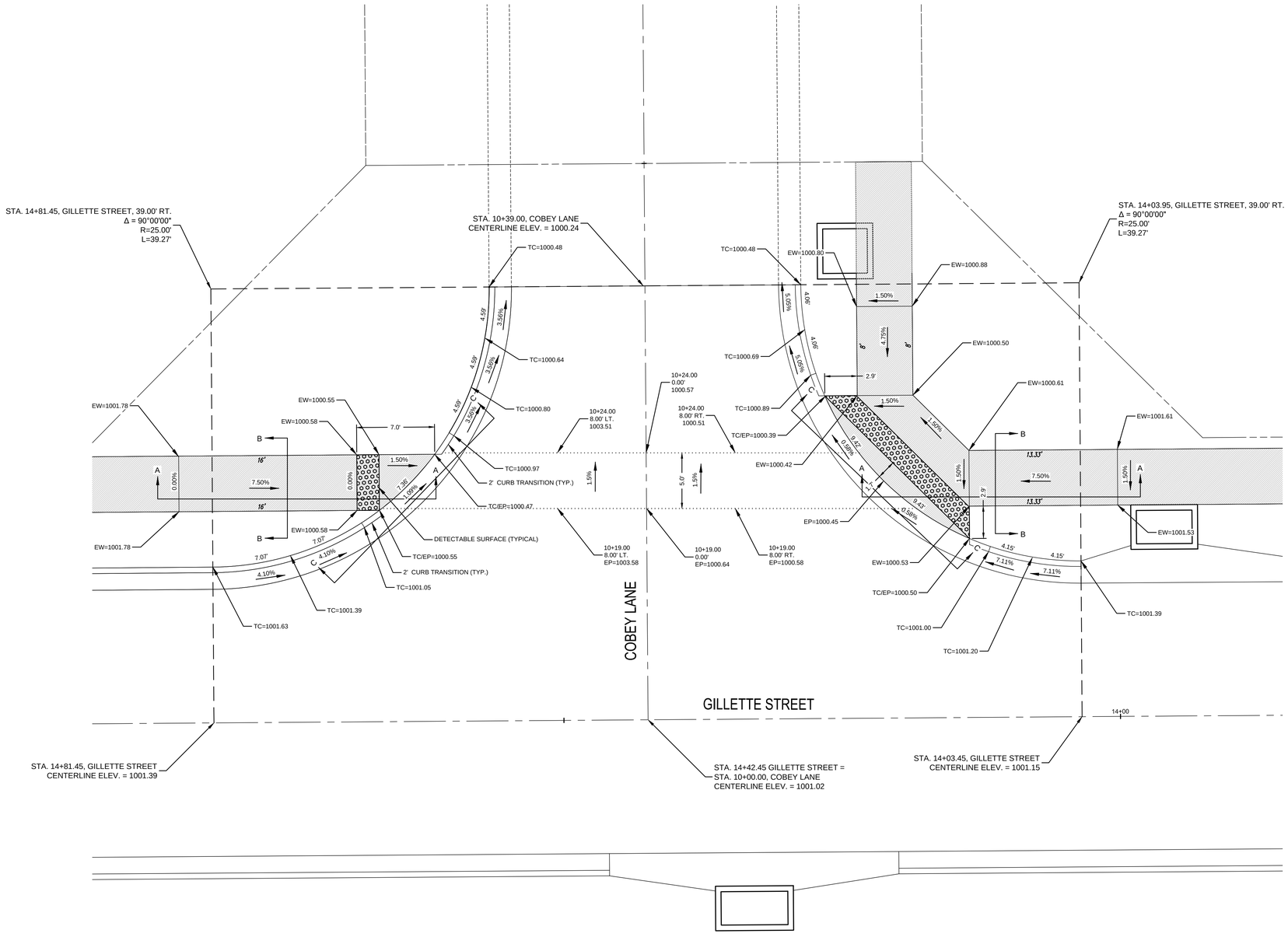

SECTION B-B




SECTION C-C




SIDEWALK CURB




GILLETTE STREET AND COBEY LANE
INTERSECTION DETAIL

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RVS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RVS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RVS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RVS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RVS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RVS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RVS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
R. KEVIN STERRETT
NUMBER 2026440

R. KEVIN STERRETT| MO E-26440
July 3, 2019

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
INTERSECTION AND ADA RAMP DETAILS
GILLETTE STREET AND COBEY LANE

COBEY CREEK FIRST PLAT
PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

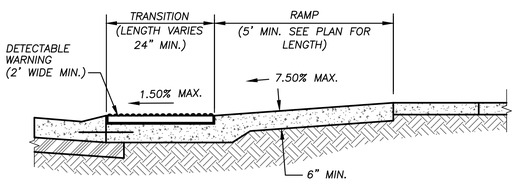
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | Design Slopes | PROWAG Max Allowed Slope[x] | 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 |

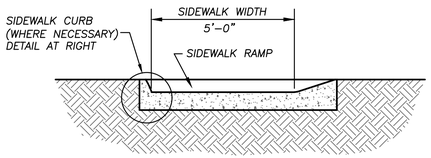
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

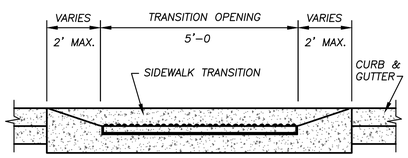
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



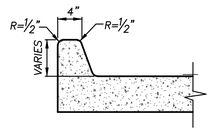

SECTION A-A



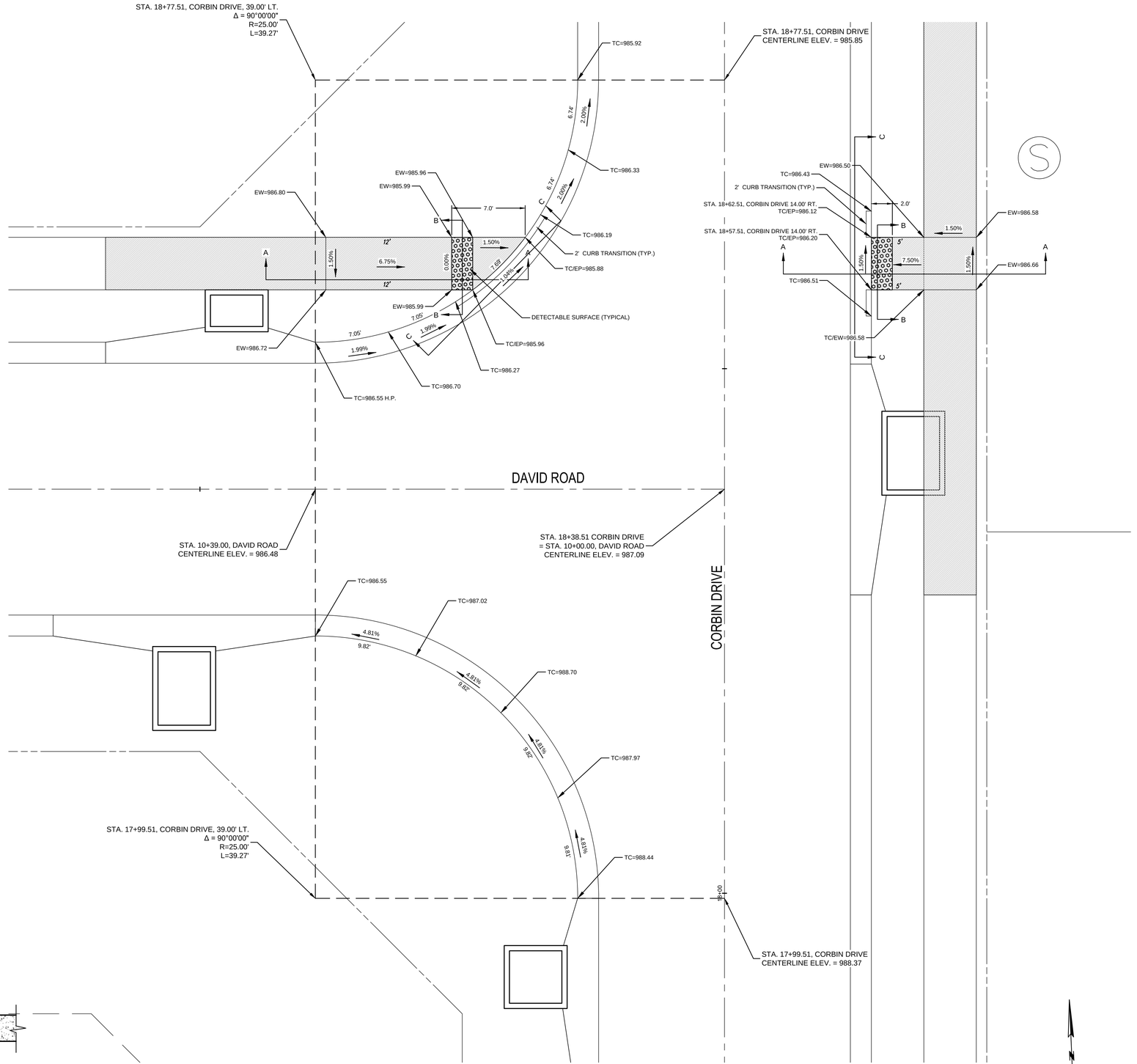

SECTION B-B




SECTION C-C




SIDEWALK CURB




CORBIN DRIVE AND DAVID ROAD
INTERSECTION DETAIL
SCALE: 1" = 5'

0 5' 10' 15'
SCALE: 1" = 5'

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RKS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RKS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RKS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES




R. KEVIN STERRETT | MO E-26440
July 3, 2019

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
INTERSECTION AND ADA RAMP DETAILS
CORBIN DRIVE AND DAVID ROAD

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

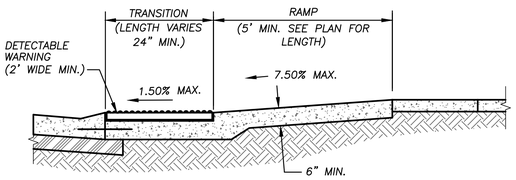
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | Design Slopes | PROWAG Max Allowed Slope[x] | 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 |

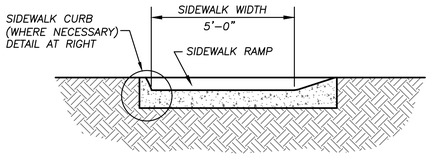
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

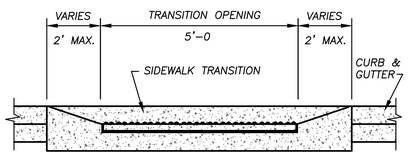
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



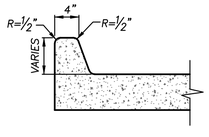

SECTION A-A



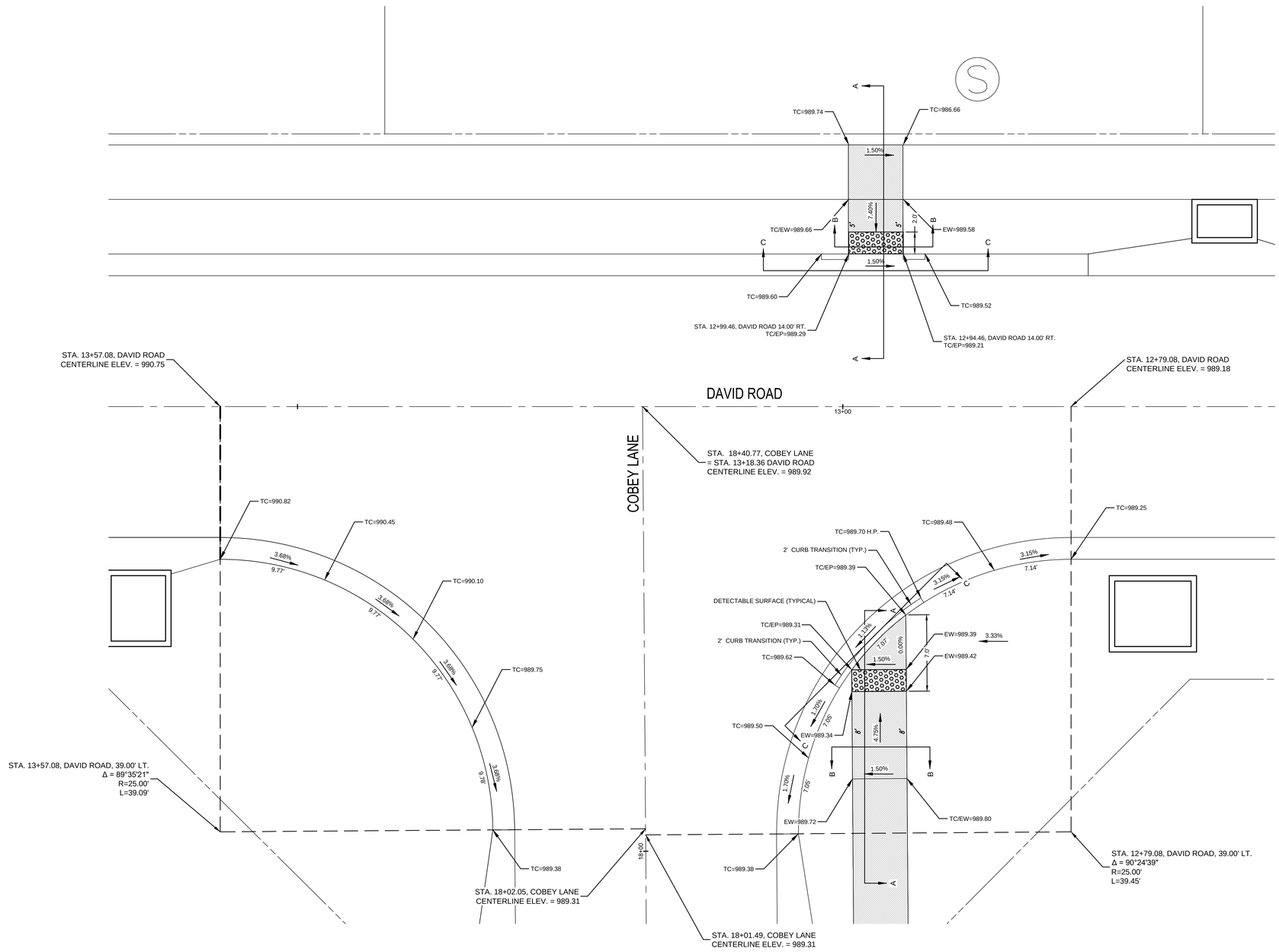

SECTION B-B




SECTION C-C




SIDEWALK CURB




DAVID ROAD AND COBEY LANE
INTERSECTION DETAIL
SCALE: 1" = 5'

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RKS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RKS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RKS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/21/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
R. KEVIN STERRETT
NUMBER 2010044040
R. KEVIN STERRETT| MO E-26440
July 3, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005


# STREET AND STORM SEWER PLANS
# INTERSECTION AND ADA RAMP DETAILS
# DAVID ROAD AND COBEY LANE

## COBEY CREEK FIRST PLAT
## PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059

## LEGEND

EW = EDGE OF WALK
TC = TOP OF CURB
EP = EDGE OF PAVEMENT
TC / EW = TOP OF CURB = EDGE OF WALK
TC / EP = TOP OF CURB = EDGE OF PAVEMENT
H.P. = HIGH POINT

= DETECTABLE SURFACE

= PROPOSED 5' WIDE CONCRETE SIDEWALK TO BE BUILT WITH PHASE I STREET CONSTRUCTION

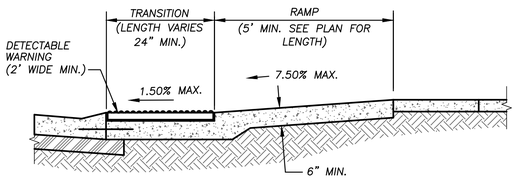
**TABLE LS-5: ACCESSIBLE ROUTE DESIGN CRITERIA**

| | 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 |

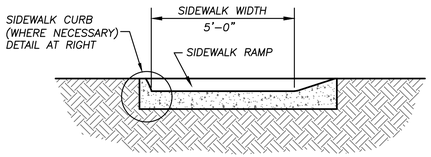
**TABLE LS-6: MINIMUM ACCESSIBLE ROUTE THICKNESS SECTIONS**

| 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" | |

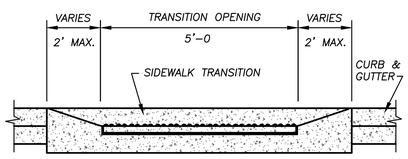
(1) Minimum width of sidewalks shall be 5 feet, with a typical 5-foot green space between sidewalk and back of curb. A 3 to 5-foot green space may be used based on site conditions and upon approval of the City Engineer. If less than 3-foot green space, sidewalk shall be at least 6-feet wide.
(2)Minimum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



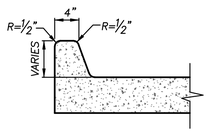

SECTION A-A



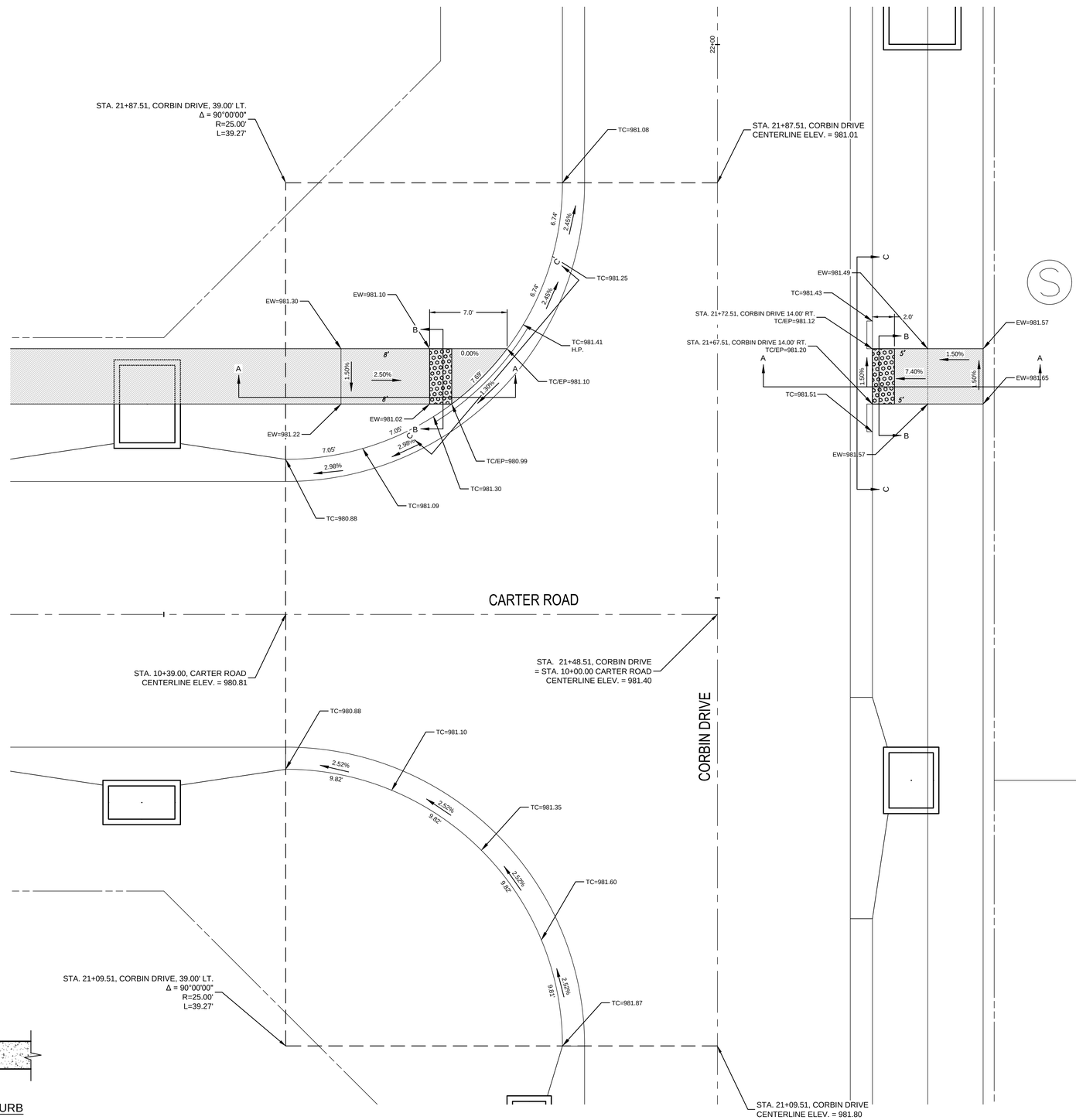

SECTION B-B




SECTION C-C




SIDEWALK CURB




CORBIN DRIVE AND CARTER ROAD
INTERSECTION DETAIL
SCALE: 1" = 5'

SCALE: 1" = 5'

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RKS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RKS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RKS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER
R. KEVIN STERRETT| MO E-26440
July 3, 2019


Consult engineers planners Inc
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005 73 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
INTERSECTION AND ADA RAMP DETAILS
CORBIN DRIVE AND CARTER ROAD
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059

SEE STORM SEWER PLAN SHEETS 10 & 15 FOR RIPRAP INFORMATION.

FLARED END SECTION DET3B
N. 979586.44 E. 2828222.25
W/ STANDARD CONCRETE TOEWALL

FLARED END SECTION DET2E
N. 979852.93 E. 2828231.99
W/ STANDARD CONCRETE TOEWALL

NOTE:
THE 100 YEAR WATER SURFACE ELEVATION WITH CLOGGED OUTLET STRUCTURE = 977.49.

48" DIA. ADS HP MANHOLE WITH 30" GRATE DET2B
N. 980352.98 E. 2828263.34

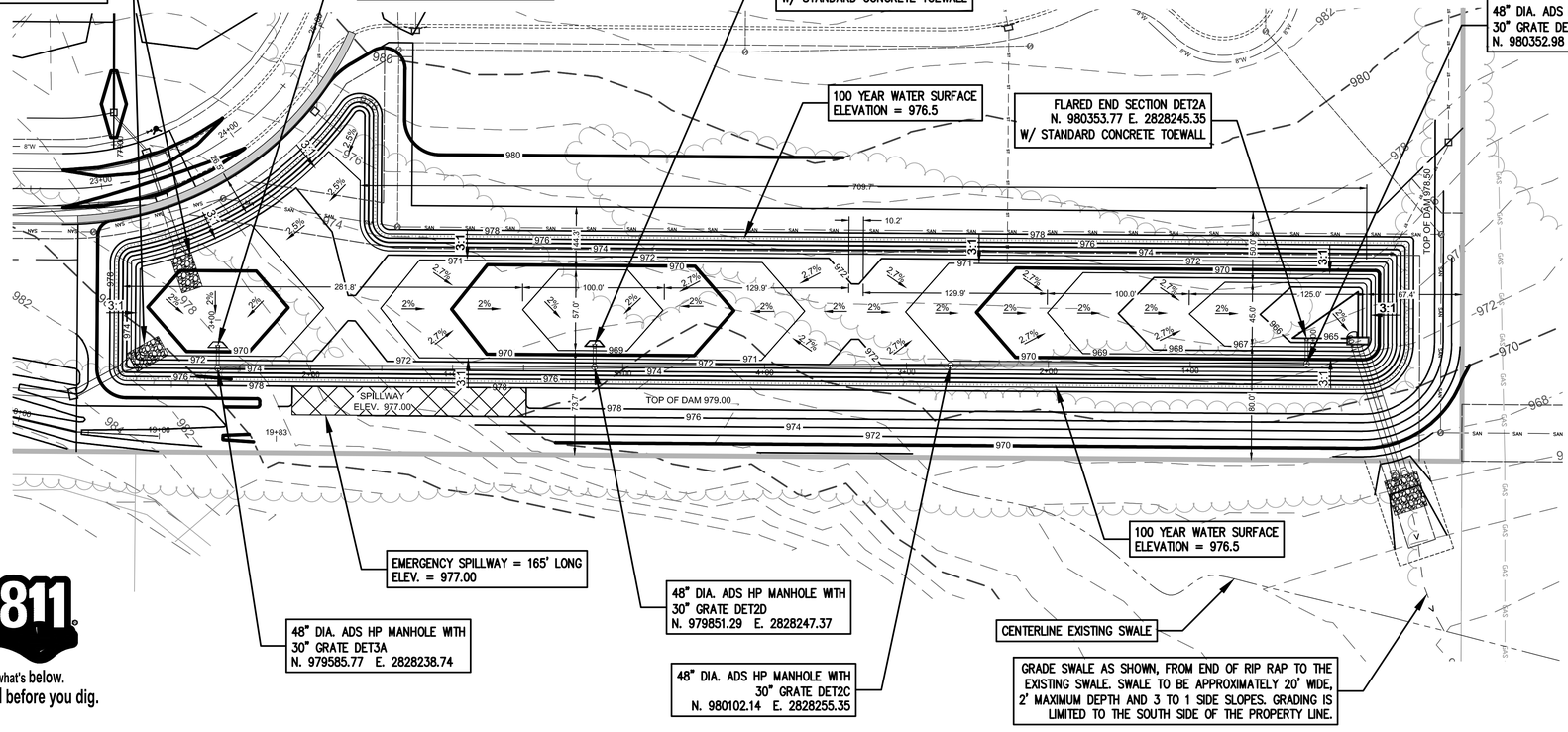
4'x 14' CONCRETE OUTLET STRUCTURE DET1B
N. 980389.78 E. 2828248.55

2 – 48" END SECTIONS DET1A
N. 980416.30 E. 2828345.36

INSTALL 44.4 C.Y. (24' WIDE X 25' LONG X 2' DEEP) STONE RIPRAP WITH MINIMUM 15" STONE AND ADDITIONAL ENERGY DISSIPATORS. PLACE FILTER FABRIC PRIOR TO INSTALLATION OF RIPRAP.

100 YEAR WATER SURFACE ELEVATION = 976.5

FLARED END SECTION DET2A
N. 980353.77 E. 2828245.35
W/ STANDARD CONCRETE TOEWALL




EMERGENCY SPILLWAY = 165' LONG
ELEV. = 977.00

48" DIA. ADS HP MANHOLE WITH 30" GRATE DET3A
N. 979585.77 E. 2828238.74

48" DIA. ADS HP MANHOLE WITH 30" GRATE DET2D
N. 979851.29 E. 2828247.37

48" DIA. ADS HP MANHOLE WITH 30" GRATE DET2C
N. 980102.14 E. 2828255.35

100 YEAR WATER SURFACE ELEVATION = 976.5

CENTERLINE EXISTING SWALE

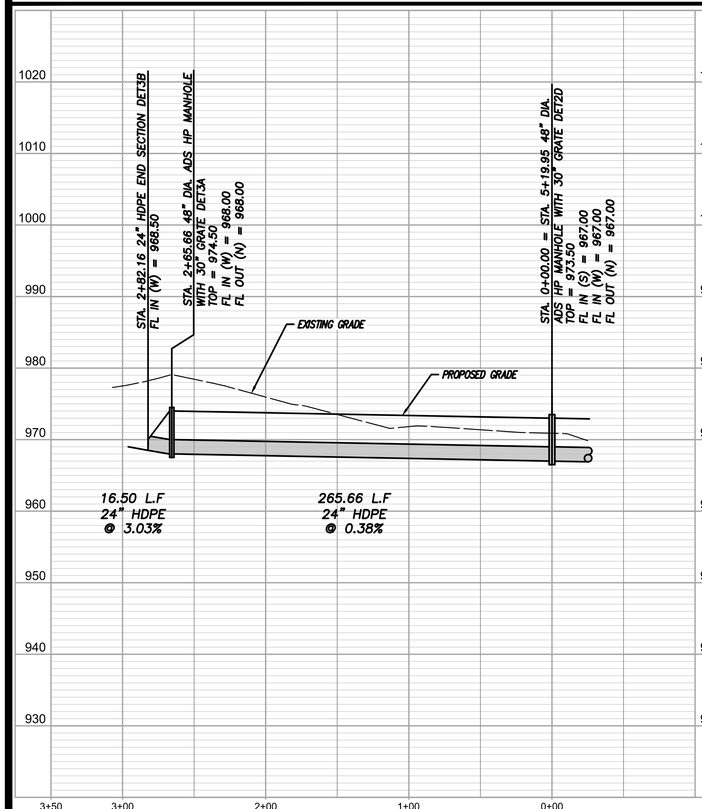
GRADE SWALE AS SHOWN, FROM END OF RIP RAP TO THE EXISTING SWALE. SWALE TO BE APPROXIMATELY 20' WIDE, 2' MAXIMUM DEPTH AND 3 TO 1 SIDE SLOPES. GRADING IS LIMITED TO THE SOUTH SIDE OF THE PROPERTY LINE.

811
Know what's below.
Call before you dig.

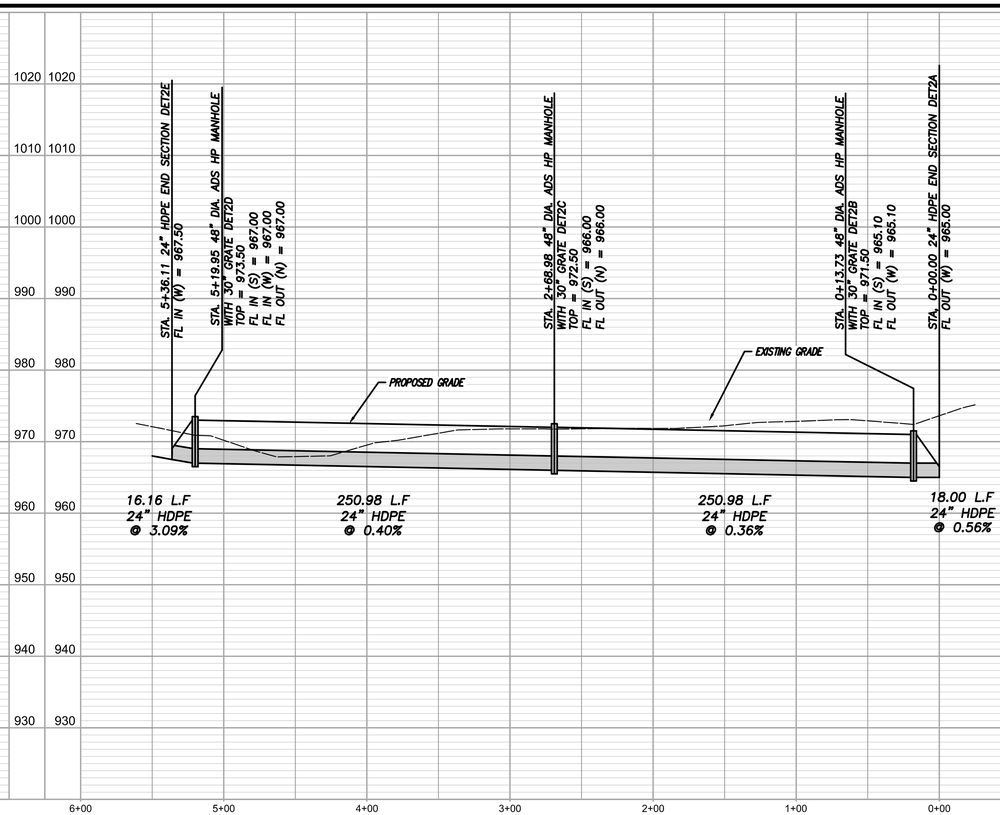
NOTE:

1. AREAS TO RECEIVE FILL SHOULD BE STRIPPED OF VEGETATION, TOPSOIL, SOFT SOIL AND DELETERIOUS MATERIALS.
2. THE EXPOSED SUBGRADE SHOULD BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK. SOFT AREAS THAT DEVELOP SHOULD BE OVEREXCAVATED AND BACKFILLED WITH COMPACTED CLAY SOIL OR THE AREA MOISTURE CONDITIONED, REWORKED AND COMPACTED.
3. NON-ORGANIC, FINE-GRAINED CLAY SOIL SHOULD BE USED FOR FILL.
4. SOIL FILL SHOULD BE PLACED IN UNIFORM 8-INCH THICK LIFTS.
5. THE FILL SHOULD BE COMPACTED TO AT LEAST 95 PERCENT STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY AT A MOISTURE CONTENT BETWEEN MINUS 1 TO PLUS 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
6. DELETERIOUS MATERIAL AND PIECES OF ROCK LARGER THAN 2 INCHES SHOULD NOT BE INCLUDED IN THE FILL.
7. THE FILL SHOULD NOT BE PLACED ON SOFT MATERIALS OR FROZEN GROUND. FROZEN SOILS SHOULD NOT BE USED FOR FILL.

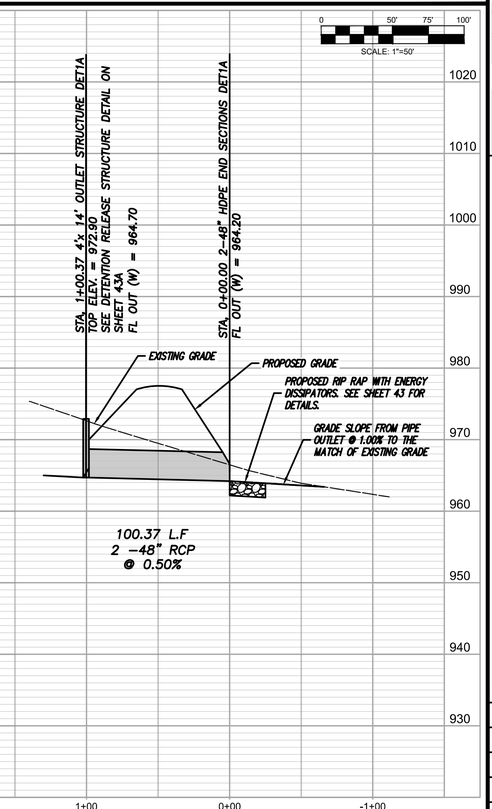
10'
0
1"=10'




DETENTION BASIN IN-BASIN STORM SEWER LINE 3




DETENTION BASIN IN-BASIN STORM SEWER LINE 2




DETENTION BASIN OUTLET PIPE LINE 1

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 1 | 07/31/20 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/27/19 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER
R. KEVIN STERRETT | MO E-26440
July 21, 2020


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005 / E-1736 (KS.)


STREET AND STORM SEWER PLANS
NORTH DETENTION BASIN, IN-BASIN STORM LINE AND OUTLET STRUCTURE
COBEY CREEK FIRST PLAT PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16–059 Base Phase I
DRAWING NO.
16–059 Phase I Street Plans
DATE
July 21, 2020
JOB NO.
16–059

POND #1
TOP OF DAM ELEV. = 1009.00
WATER SURFACE ELEV. = 1005.00
BOTTOM OF POND ELEV. = 1001.00
EMERGENCY SPILLWAY = RISER PIPE
SERVES AS EMERGENCY SPILLWAY.

NOTE:
THE POND #1 100 YEAR WATER SURFACE ELEVATION WITH CLOGGED OUTLET STRUCTURE = 1008.28

POND #1 100 YEAR WATER SURFACE ELEVATION = 1007.21

POND #2 100 YEAR WATER SURFACE ELEVATION = 1002.77

POND #3 100 YEAR WATER SURFACE ELEVATION = 999.60

POND #2
TOP OF DAM ELEV. = 1005.00
WATER SURFACE ELEV. = 1001.00
BOTTOM OF POND ELEV. = 997.00
SPILLWAY = 1.5' WIDE WEIR WITH 3:1 SIDE SLOPES @ ELEV. 1001.00
EMERGENCY SPILLWAY = 15' WIDE WEIR WITH 3:1 SIDE SLOPES @ 1003.27

POND #3
TOP OF DAM ELEV. = 1001.00
WATER SURFACE ELEV. = 998.00
BOTTOM OF POND ELEV. = 994.00
EMERGENCY SPILLWAY = OUTLET STRUCTURE
SERVES AS EMERGENCY SPILLWAY

TEMPORARY 18" PVC RISER DET4B
SEE SHEET 42 FOR RISER DETAIL.
N. 978011.13 E. 2826721.74

TEMPORARY 18" HDPE END SECTION DET4A
N. 978026.79 E. 2826878.79

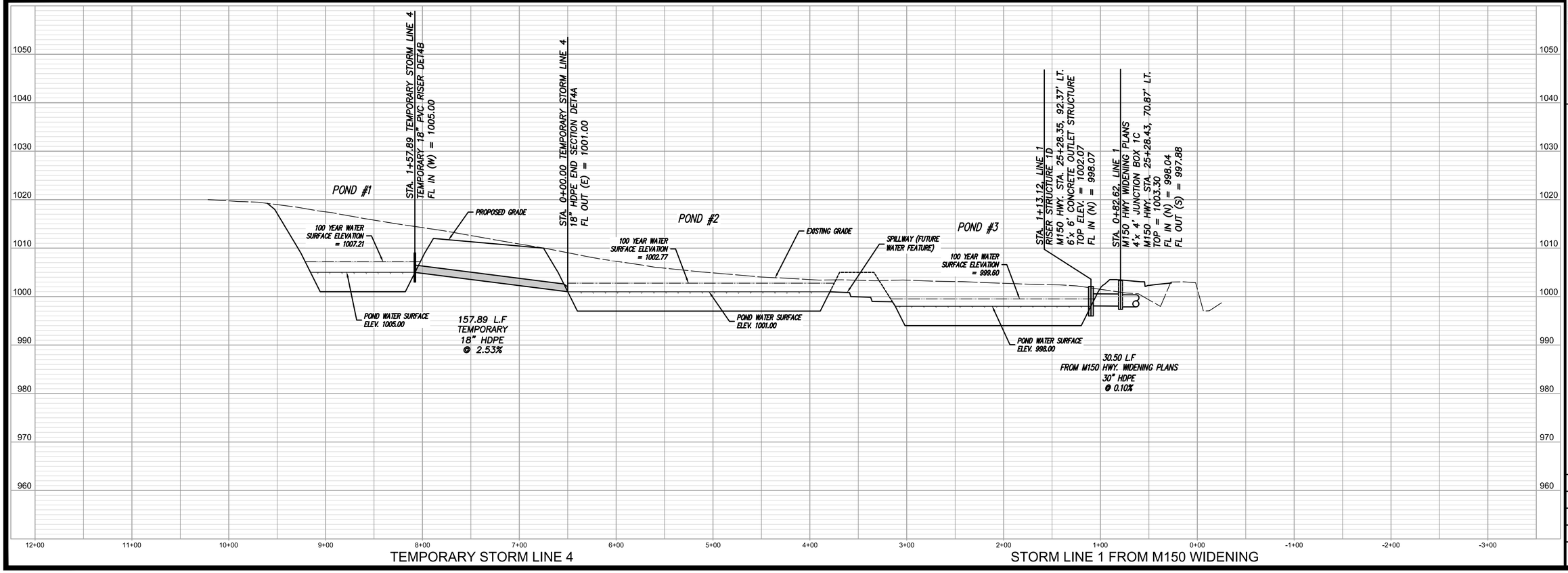
6'x 6' CONCRETE OUTLET STRUCTURE 1D
SEE SHEET 43B FOR STRUCTURE DETAIL.
N. 977941.91 E. 2827378.75

NOTE:
THE POND #2 100 YEAR WATER SURFACE ELEVATION WITH CLOGGED OUTLET STRUCTURE = 1004.04

NOTE:
THE POND #3 100 YEAR WATER SURFACE ELEVATION WITH CLOGGED OUTLET STRUCTURE = 1004.46

Know what's below.
Call before you dig.

SCALE: 1"=50'




TEMPORARY STORM LINE 4

STORM LINE 1 FROM M150 WIDENING

| NO. | REVISION | DATE | BY | CK/APP |
|---|---|---|---|---|
| 7 | PER CITY'S COMMENTS | 07/21/20 | SPW | RKS |
| | SUBMITTAL TO CITY OF LEES SUMMIT | 11/27/18 | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
July 21, 2020


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005 73 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
SOUTH DETENTION BASINS, TEMPORARY STORM LINE AND OUTLET STRUCTURE

COBEY CREEK FIRST PLAT
PHASE I

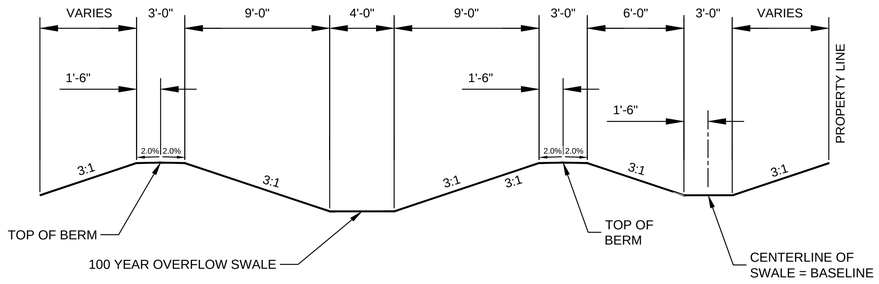
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
July 21, 2020

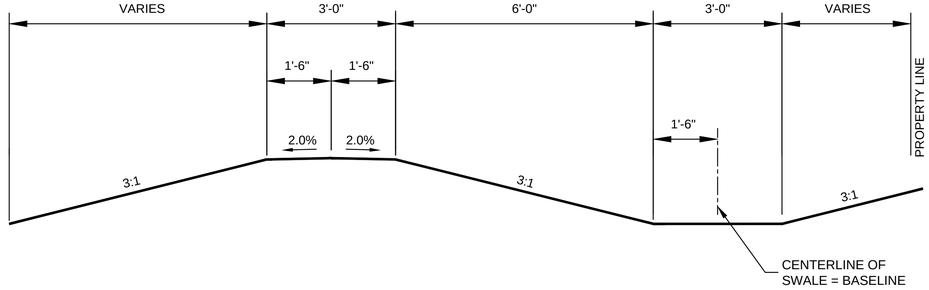
JOB NO.
16-059




3' SWALE, DIVERSION BERM & 100 YEAR OVERFLOW SWALE

NOT TO SCALE

(FROM STA. 13+50 TO 18+47)




3' SWALE AND DIVERSION BERM

NOT TO SCALE

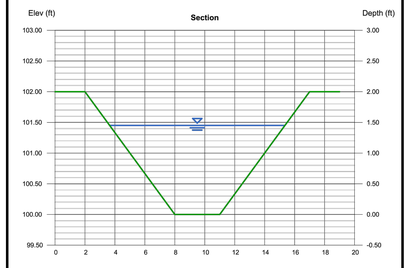
(FROM STA. 10+00 TO 13+50)

**Channel Report**

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Mar 7 2019

**<Name>**

| Trapezoidal | | Highlighted | |
|---|---|---|---|
| Bottom Width (ft) | = 3.00 | Depth (ft) | = 1.45 |
| Side Slopes (z:1) | = 3.00, 3.00 | Q (cfs) | = 67.57 |
| Total Depth (ft) | = 2.00 | Area (sqft) | = 10.66 |
| Invert Elev (ft) | = 100.00 | Velocity (ft/s) | = 6.34 |
| Slope (%) | = 2.00 | Wetted Perim (ft) | = 12.17 |
| N-Value | = 0.030 | Crit Depth, Yc (ft) | = 1.57 |
| | | Top Width (ft) | = 11.70 |
| Calculations | | EGL (ft) | = 2.07 |
| Compute by: | Known Q | | |
| Known Q (cfs) | = 67.57 | | |




3' SWALE WATER SURFACE CALCS

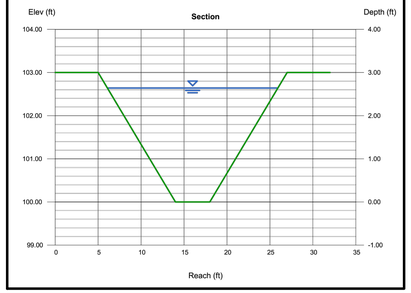
(CALCS @ STA. 18+47, WATER SURFACE VARIES FROM STA. 10+00 TO 16+00)

**Channel Report**

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Monday, Feb 11 2019

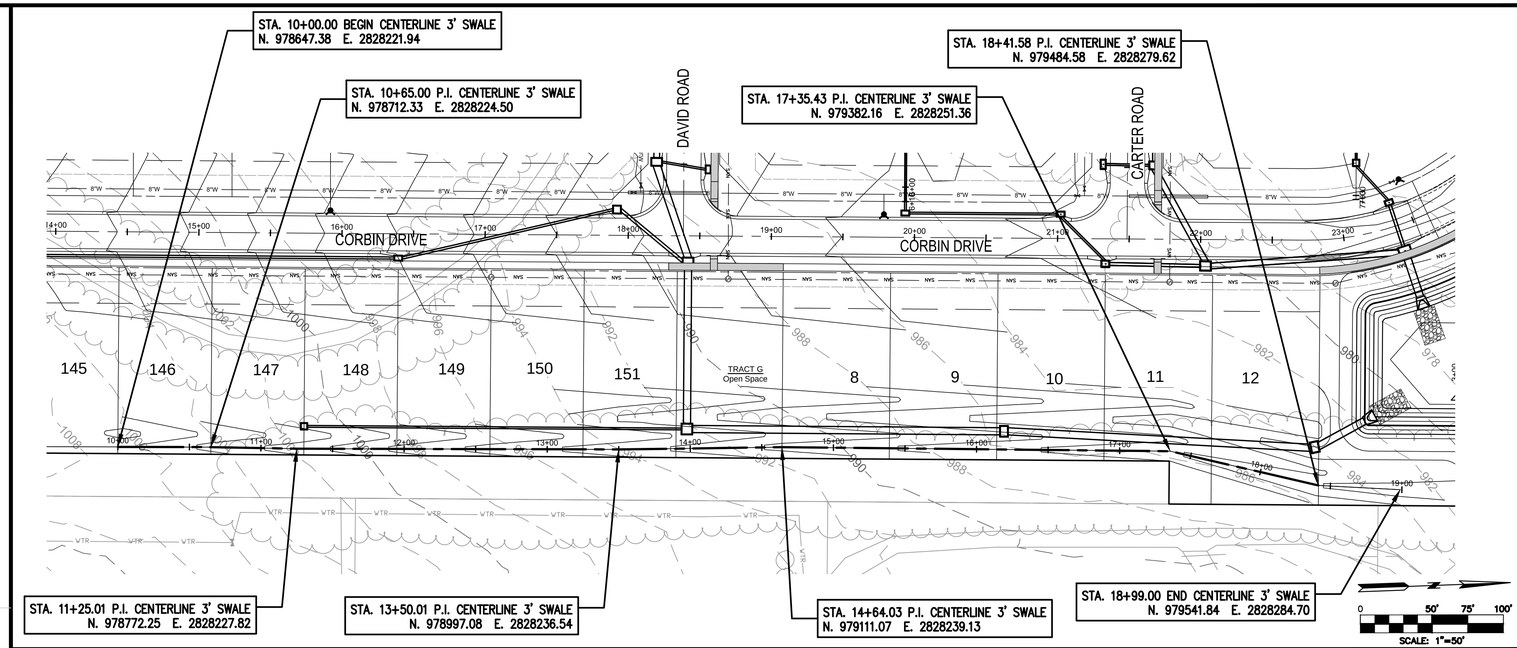
**<Name>**

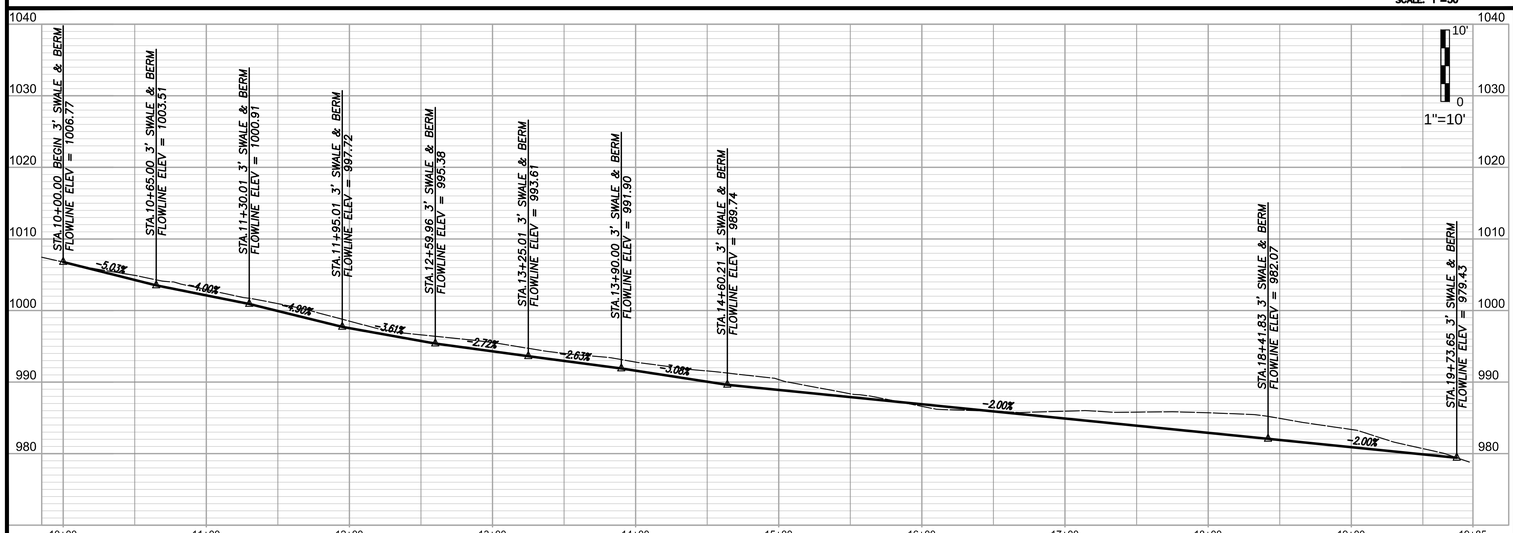
| Trapezoidal | | Highlighted | |
|---|---|---|---|
| Bottom Width (ft) | = 4.00 | Depth (ft) | = 2.64 |
| Side Slopes (z:1) | = 3.00, 3.00 | Q (cfs) | = 290.33 |
| Total Depth (ft) | = 3.00 | Area (sqft) | = 31.47 |
| Invert Elev (ft) | = 100.00 | Velocity (ft/s) | = 9.23 |
| Slope (%) | = 2.00 | Wetted Perim (ft) | = 20.70 |
| N-Value | = 0.030 | Crit Depth, Yc (ft) | = 2.99 |
| | | Top Width (ft) | = 19.84 |
| Calculations | | EGL (ft) | = 3.96 |
| Compute by: | Known Q | | |
| Known Q (cfs) | = 290.33 | | |




100 YEAR WATER OVERFLOW SWALE WATER SURFACE CALCS

(FROM STA. 13+75 TO 18+47)




CENTERLINE PROFILE TOP OF DIVERSION BERM

| NO. | BY | CK/APP | DATE | REVISION |
|---|---|---|---|---|
| 6 | SPW | RVS | 07/30/19 | PER CITY'S COMMENTS |
| 5 | SPW | RVS | 07/03/19 | PER CITY'S COMMENTS |
| 4 | SPW | RVS | 04/23/19 | PER CITY'S COMMENTS |
| 3 | SPW | RVS | 04/16/19 | PER CITY'S COMMENTS |
| 2 | SPW | RVS | 03/27/19 | PER CITY'S COMMENTS |
| 1 | SPW | RVS | 03/06/19 | PER CITY'S COMMENTS |
| | SPW | RVS | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440

July 3, 2019


Consult Inc engineers planners

11010 Haskell Street, Suite 210, Kansas City, Kansas 66109

CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)


# STREET AND STORM SEWER PLANS
## 3' SWALE, DIVERSION BERM & 100 YEAR OVERFLOW SWALE
## COBEY CREEK FIRST PLAT
## PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

| | |
|---|---|
| X-REF NO. | 16-059 Base Phase I |
| DRAWING NO. | 16-059 Phase I Street Plans |
| DATE | July 30, 2019 |
| JOB NO. | 16-059 |
| SHEET | 32 |
| OF | 53 |

## SECTION 5600 - STORM DRAINAGE SYSTEMS & FACILITIES
## CITY OF LEE'S SUMMIT, MISSOURI
## DESIGN CRITERIA

This is Lee's Summit, Missouri's supplement to Section 5600 of the Kansas City Metropolitan Chapter of APWA Design Criteria, current edition. The following additions, deletions and/or revisions are adopted as a part of Section 5600 for use within Lee's Summit, Missouri.

5601.2 Definitions

Add the following definitions:

*Minimum Building Opening Elevation (MBOE): Either the lowest opening within a building or the lowest adjacent grade as indicated on the following figures:*

FIG. 1
EXAMPLES OF MBOE(S)

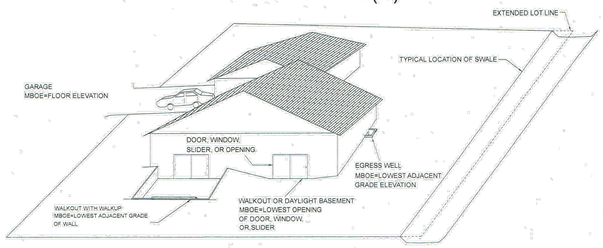
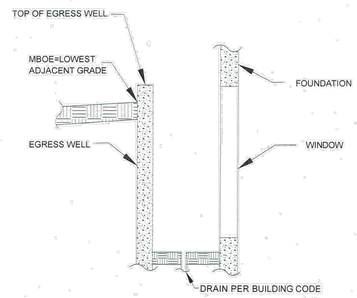
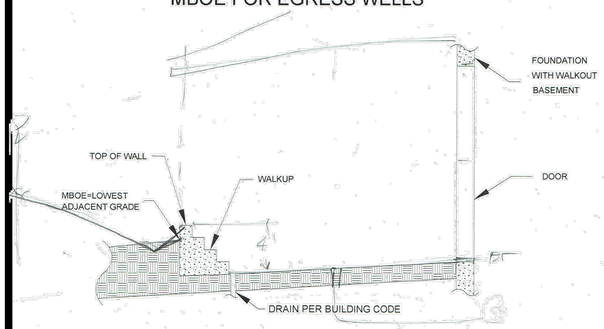


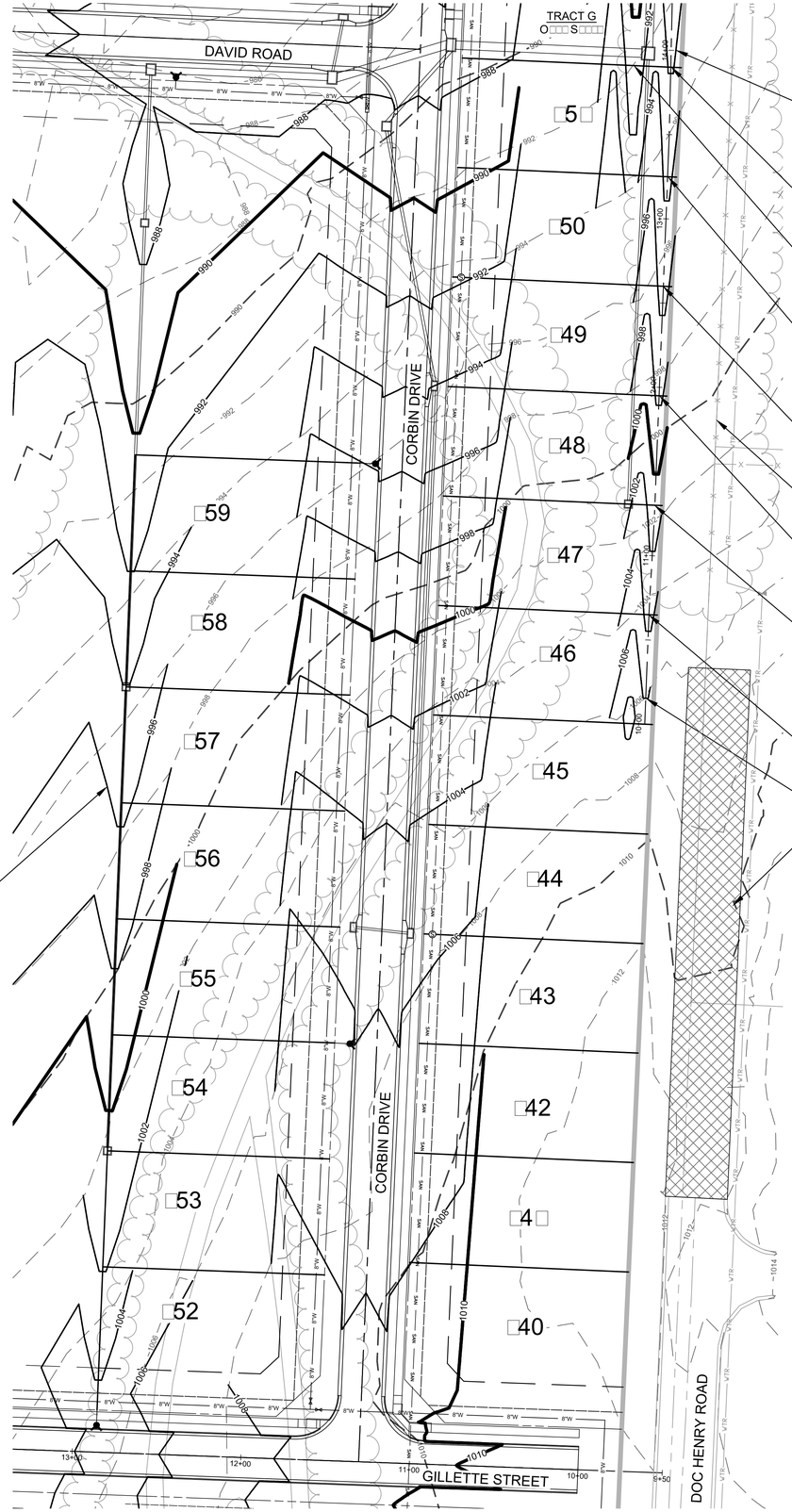

FIG. 2

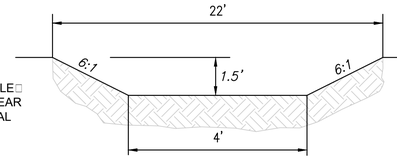



MBOE FOR EGRESS WELLS




MBOE FOR WALKOUT WITH A WALKUP




TYPICAL REAR YARD SWALE DETAIL
(NO SCALE)

NOTE:
FOR TYPICAL REAR YARD SWALE:
REAR LOT CORNER ELEVATION + DEPTH = 100 YEAR WATER SURFACE ELEVATION

MBOE = 2 FEET PLUS THE 100 YEAR WATER SURFACE ELEVATION IF IT IS THE HIGHEST LOT CORNER ELEVATION

SWALE CAPACITY AT 2.0% SLOPE = 125 CFS

100 YEAR WATER DEPTH IN SWALE

LOTS: 1, 2, 18, 19, 20 & 21
DEPTH = 0.28'

LOTS: 22, 23, 24, 25, 152 & 153
DEPTH = 0.24'

LOTS: 3, 4, 5, 6, 7, 13, 14, 15, 16, 17, 154, 155, 156 & 157
DEPTH = 0.31'

LOTS: 26, 27, 28, 29, 30, 158 & 159
DEPTH = 0.34'

## NOTES:

1) *Corner descriptions are oriented as if standing on the street facing the lot.*
2) *Conventional basement type indicates windows only above finished basement elevation.*
3) *Walkout basement type was determined by subtracting the 70' lot elevation from the 25' B/L elevaton. If the resulting elevation difference was greater than 6 feet it was determined that the buider could make the house a walkout by raising the top of foundation as needed. The intent of the designer was not to force these lots to be walkouts, only to suggest it was possible by raising the top of foundation.*
4) *Daylight basement type was determined by top of foundation being 2 feet above, and the back lot corner of the lot being 3 feet below the front right-of-way elevation on the high side of the lot.*
5) *Corner of house elevations based on top of foundation to be 1 foot above the high side front right-of-way elevation.*
6) *As-graded plot plans shall be required for the following lots: 1-30 and 140-159.*
7) *All proposed swales shall be established during Phase I construction and grading.*
8) *MBOEs are allowed to be interpolated from adjoining lot MBOEs where appropriate.*

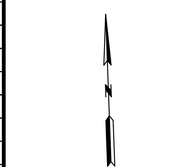
**Lot Corner Elevations and MBOEs**

| LOT | FRONT | | REAR | | M.B.O.E. | BASEMENT TYPE |
|---|---|---|---|---|---|---|
| No. | LEFT COR | RIGHT COR | LEFT COR | RIGHT COR | | |
| 140 | 1008.0 | 1008.8 | 1012.8 E/F | 1012.0 E/F | 1014.8 | CONVENTIONAL |
| 141 | 1007.2 | 1008.0 | 1013.3 E/F | 1012.8 E/F | 1015.3 | CONVENTIONAL |
| 142 | 1006.5 | 1007.2 | 1013.0 E/F | 1013.3 E/F | 1015.3 | CONVENTIONAL |
| 143 | 1005.6 | 1006.5 | 1012.0 E/F | 1013.0 E/F | 1015.0 | DAYLIGHT |
| 144 | 1004.2 | 1005.6 | 1009.8 E/F | 1012.0 E/F | 1014.0 | DAYLIGHT |
| 145 | 1002.2 | 1004.2 | 1007.0 E/F | 1009.8 E/F | 1011.8 | DAYLIGHT |
| 146 | 999.5 | 1002.2 | 1004.6 | 1007.0 E/F | 1009.0 | DAYLIGHT |
| 147 | 996.8 | 999.5 | 1001.9 | 1004.6 | 1006.6 | DAYLIGHT* |
| 148 | 994.2 | 996.8 | 999.0 | 1001.9 | 1003.9 | DAYLIGHT* |
| 149 | 991.8 | 994.2 | 996.7 | 999.0 | 1001.0 | DAYLIGHT |
| 150 | 989.6 | 991.8 | 995.1 | 996.7 | 998.7 | DAYLIGHT |
| 151 | 987.5 | 989.6 | 993.5 | 995.1 | 997.1 | DAYLIGHT |
| | | | | | | |

**Lot Corner Elevations and MBOEs**

| LOT | FRONT | | REAR | | M.B.O.E. | BASEMENT TYPE |
|---|---|---|---|---|---|---|
| No. | LEFT COR | RIGHT COR | LEFT COR | RIGHT COR | | |
| 152 | 1008.8 | 1008.1 | 1004.9 | 1003.3 | 1010.8 | DAYLIGHT |
| 153 | 1008.1 | 1007.3 | 1003.2 | 1000.6 | 1010.1 | DAYLIGHT |
| 154 | 1007.3 | 1006.5 | 1000.6 | 999.0 | 1009.3 | DAYLIGHT |
| 155 | 1006.5 | 1005.6 | 999.0 | 997.9 | 1008.5 | DAYLIGHT |
| 156 | 1005.6 | 1004.1 | 997.9 | 996.0 | 1007.6 | DAYLIGHT |
| 157 | 1004.1 | 1001.8 | 996.0 | 994.0 | 1006.1 | DAYLIGHT |
| 158 | 1001.8 | 999.0 | 994.0 | 992.0 | 1003.8 | DAYLIGHT |
| 159 | 999.0 | 996.1 | 992.0 | 990.3 | 1001.0 | DAYLIGHT |
| | | | | | | |
| | | | | | | |

*E/F = EXISTING = PROPOSED  DAYLIGHT* = MBOE FOR WALKOUT WITH A WALKUP*




| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/06/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

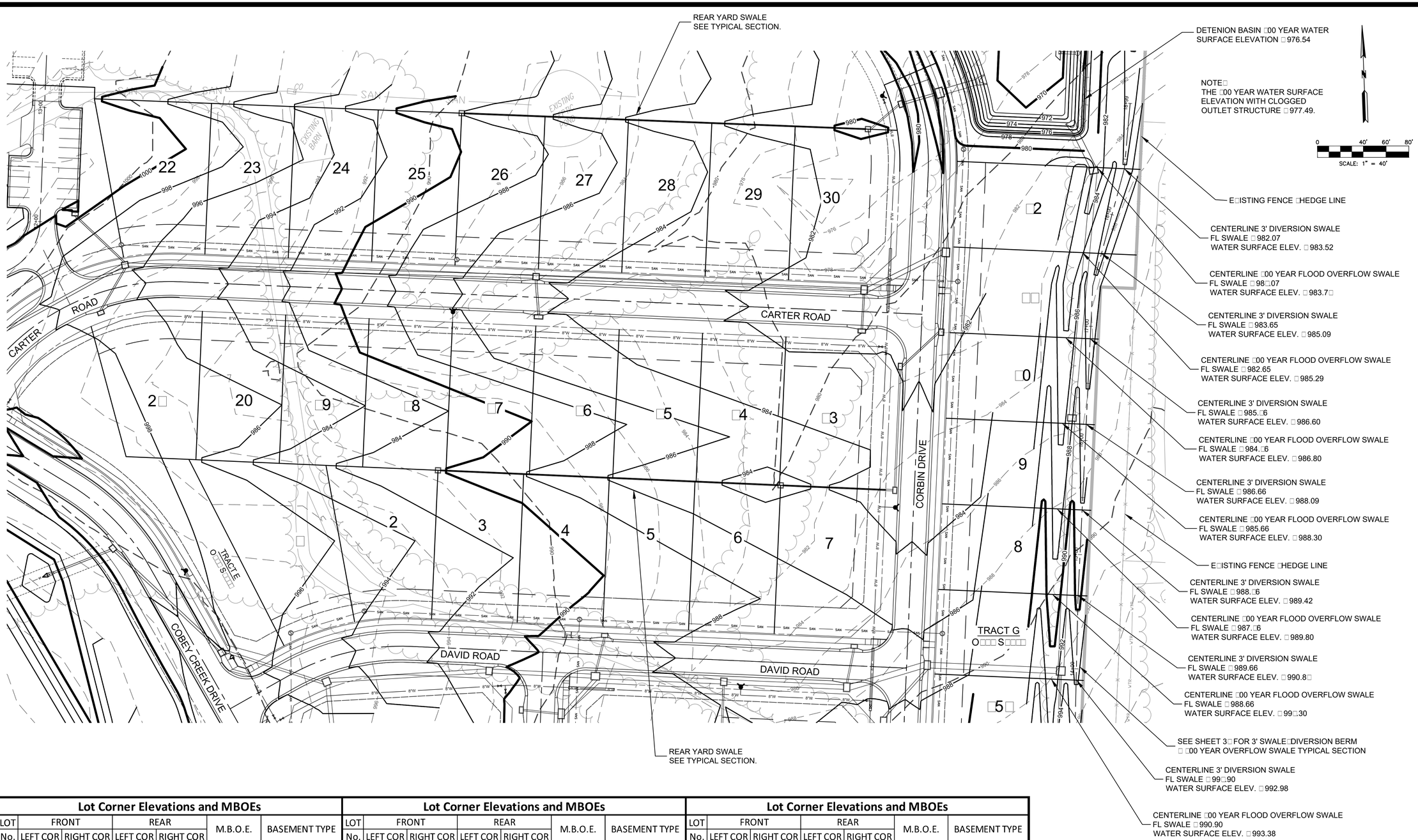



R. KEVIN STERRETT | MO E-26440
March 27, 2019

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005 73 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
MASTER DRAINAGE PLAN
LOT AND FOUNDATION DATA - VILLA LOTS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Master Drainage
DATE
March 27, 2019
JOB NO.
16-059




## Lot Corner Elevations and MBOEs

| LOT | FRONT | | REAR | | M.B.O.E. | BASEMENT TYPE |
|---|---|---|---|---|---|---|
| No. | LEFT COR | RIGHT COR | LEFT COR | RIGHT COR | | |
| 1 | 995.8 | 994.1 | 997.2 | 992.2 | 999.5 | WALKOUT |
| 2 | 994.1 | 992.4 | 992.2 | 990.2 | 996.4 | WALKOUT |
| 3 | 992.4 | 990.5 | 990.2 | 988.1 | 994.4 | WALKOUT |
| 4 | 990.5 | 989.2 | 988.1 | 986.0 | 992.5 | WALKOUT |
| 5 | 989.2 | 988.1 | 986.0 | 984.5 | 991.2 | WALKOUT |
| 6 | 988.1 | 987.3 | 984.5 | 983.2 | 990.1 | WALKOUT |
| 7 | 987.3 | 986.7 | 988.2 | 983.4 | 989.3 | WALKOUT |
| 8 | 983.6 | 985.2 | 989.7 | 991.7 | 993.3 | DAYLIGHT* |
| 9 | 982.5 | 983.6 | 988.3 | 989.7 | 991.5 | DAYLIGHT* |
| 10 | 981.8 | 982.5 | 986.8 | 988.3 | 990.3 | DAYLIGHT* |
| 11 | 981.0 | 981.8 | 987.3 | 986.8 | 988.6 | DAYLIGHT |
| 12 | 980.3 | 981.0 | 985.8 | 987.3 | 987.3 | DAYLIGHT* |

## Lot Corner Elevations and MBOEs

| LOT | FRONT | | REAR | | M.B.O.E. | BASEMENT TYPE |
|---|---|---|---|---|---|---|
| No. | LEFT COR | RIGHT COR | LEFT COR | RIGHT COR | | |
| 13 | 981.1 | 981.8 | 983.4 | 983.2 | 985.7 | DAYLIGHT |
| 14 | 981.8 | 982.7 | 983.2 | 984.5 | 986.8 | DAYLIGHT |
| 15 | 982.7 | 983.6 | 984.5 | 985.9 | 988.2 | DAYLIGHT |
| 16 | 983.6 | 984.5 | 985.9 | 987.9 | 990.2 | DAYLIGHT |
| 17 | 984.5 | 986.4 | 987.9 | 990.0 | 992.3 | DAYLIGHT |
| 18 | 986.4 | 989.1 | 990.0 | 991.6 | 993.9 | DAYLIGHT |
| 19 | 989.1 | 992.3 | 991.6 | 993.7 | 996.0 | CONVENTIONAL |
| 20 | 992.3 | 994.6 | 993.7 | 996.6 | 998.9 | CONVENTIONAL |
| 21 | 994.6 | 996.8 | 996.6 | 999.1 | 1001.4 | CONVENTIONAL |

## Lot Corner Elevations and MBOEs

| LOT | FRONT | | REAR | | M.B.O.E. | BASEMENT TYPE |
|---|---|---|---|---|---|---|
| No. | LEFT COR | RIGHT COR | LEFT COR | RIGHT COR | | |
| 22 | 995.9 | 994.6 | 1000.3 | 996.7 | 1002.6 | CONVENTIONAL |
| 23 | 994.6 | 992.3 | 996.7 | 994.0 | 999.0 | CONVENTIONAL |
| 24 | 992.3 | 989.1 | 994.0 | 990.8 | 996.3 | WALKOUT |
| 25 | 989.1 | 986.4 | 990.8 | 988.1 | 993.1 | WALKOUT |
| 26 | 986.4 | 984.5 | 988.1 | 986.3 | 990.5 | WALKOUT |
| 27 | 984.5 | 983.6 | 986.3 | 983.9 | 988.7 | WALKOUT |
| 28 | 983.6 | 982.7 | 983.9 | 982.3 | 986.3 | WALKOUT |
| 29 | 982.7 | 981.8 | 982.3 | 980.8 | 984.7 | DAYLIGHT* |
| 30 | 981.8 | 981.0 | 980.8 | 980.3 | 983.8 | DAYLIGHT* |

*E/F = EXISTING = PROPOSED  DAYLIGHT* = MBOE FOR WALKOUT WITH A WALKUP*

## NOTES:

1) *Corner descriptions are oriented as if standing on the street facing the lot.*
2) *Conventional basement type indicates windows only above finished basement elevation.*
3) *Walkout basement type was determined by subtracting the 70' lot elevation from the 25' B/L elevaton. If the resulting elevation difference was greater than 6 feet it was determined that the buider could make the house a walkout by raising the top of foundation as needed. The intent of the designer was not to force these lots to be walkouts, only to suggest it was possible by raising the top of foundation.*
4) *Daylight basement type was determined by top of foundation being 2 feet above, and the back lot corner of the lot being 3 feet below the front right-of-way elevation on the high side of the lot.*
5) *Corner of house elevations based on top of foundation to be 1 foot above the high side front right-of-way elevation.*
6) *As-graded plot plans shall be required for the following lots: 1-30 and 140-159.*
7) *All proposed swales shall be established during Phase I construction and grading.*
8) *MBOEs are allowed to be interpolated from adjoining lot MBOEs where appropriate.*

| NO. | BY | CK/APP | DATE | REVISION |
|---|---|---|---|---|
| | | | 03/27/19 | PER CITY'S COMMENTS |
| 2 | SPW | RKS | 03/06/19 | PER CITY'S COMMENTS |
| 1 | SPW | RKS | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
ROBERT KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
March 27, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005?3 (MO.) / E-1736 (KS.)


# STREET AND STORM SEWER PLANS
# MASTER DRAINAGE PLAN
# LOT AND FOUNDATION DATA - R-1 LOTS
# COBEY CREEK FIRST PLAT
# PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Master Drainage
DATE
March 27, 2019
JOB NO.
16-059

## CONSTRUCTION SEQUENCE NOTES:

1. Implement Pre-Clearing Plan: All structural BMPs shown on the pre-clearing plan must be in place before general clearing operations. Clearing necessary to place structural BMPs shall be the minimum required for installation. Coordinate clearing necessary to place structural BMPs with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all diversions dikes, sediment basins, and sediment traps within 5 days after installation.
2. Early Work: Clear minimum work zone and construct any early work items that are shown on the pre-clearing plan. (No early work is identified on these plans).
3. Grading: Clear site and complete mass grading.
4. Implement Steep Slope Protection. During grading operations, place steep slope protection shown on the inactive area stabilization drawing as soon as practical.
5. Stabilize Inactive Areas: The ground cover and other structural BMPs shown on the inactive area stabilization drawing must be placed within 14 days of cessation of mass grading at each location. In determining the inactive status of the ground, evaluate each portion of the site separately. The need for subsequent placement of trenched utilities, future building or other construction in an otherwise inactive area is not justification for delay of stabilization.
6. Install Site Improvements: Construct the remainder of the utilities, roads and other site improvements depicted on the construction plans.
7. Implement Final Stabilization: Coordinate removal of construction phase BMPs necessary to place final stabilization with local weather forecast so that removal and placement may be completed within a forecast dry period. Down-slope perimeter controls shall not be removed until final stabilization is placed and vegetative cover is established over the remainder of the site.
8. Establishment and Final Construction: Once the remainder of the site is stabilized including establishment of seeded cover types, construct permanent water quality BMPs and remove the sediment controls and the remaining access controls. Restore area disturbed by removal of sediment controls with the exception of the undisturbed natural areas. .
9. Plan Modification: The Contractor must modify the plan if the plan fails to substantially control erosion and offsite sedimentation. Plan modifications due to ineffectiveness may be taken without prior approval of the review agency, but must be fully documented and approval secured from the permitting authority as soon as practicable. The contractor may modify the plan or construction sequence if implementation is infeasibe for site conditions or contractor methods. Any such modification shall control erosion and offsite sedimentation to the maximum extent practicable. Any such modification shall require the prior approval of the permitting authority.
10. Structural BMP refers to any BMP that requires installation of physical placement on the site as opposed to management BMPs such as management of the construction sequence, inspection, maintenance and good housekeeping activities.

## EROSION CONTROL NOTES:

1. The Developer shall be responsible for erosion control within the boundaries of this development. Erosion control shall be the responsibility of said Developer until all development work on site is complete, and all appropriate permits have been released and/or terminated. At that time, erosion control shall become the responsibility of the individual lot owners. Public Works inspections will consider the Developer the responsible party for erosion and sediment control on individual lots until a building permit is taken for the individual lot. The Developer is responsible for seeing that all Development Contractors comply with the requirements of any and all land disturbance permits, grading permits and storm water discharge permits.
2. Erosion Control shall be the responsibility of the individual lot owner during construction of the individual lot.
3. Erosion Control and Siltation Control methods shall be in place prior to commencement of any grading and/or excavation of the site. All erosion control measures shall remain in place until final grade and sod is completed by the Builder, and shall be maintained throughout the project until the acceptance of the work by the City.
4. Inlet and outlet erosion control for the storm sewer system shall be based on the velocity of the storm water runoff and shall confirm to the standard details included in the project construction plans. Stormwater pipes, outlets and channels shall be protected by the silt barriers and kept free from waste and silt at all times prior to final surface stabilization.
5. No grading shall be steeper than 3H:1V. All areas graded should have the soil surface lightly roughened and loosened to a depth of 2 to 4 inches prior to seeding. Areas that have been graded and will not be stabilized immediately shall be roughened to reduce runoff velocity until seeding takes place (City Design and Construction Manual, 2102.3, APWA 5106.4).
6. A temporary gravel construction entrance as shown on the plans shall be used by all vehickles entering the stie. Said entrance shall be graded to prevent runoff from leaving the site. All other entrances to the site shall be adequately "closed" or barricaded to restrict construction traffic to the construction entrance only.
7. Sediment Fences shall be inspected peridically and after every rain event for damage and for the amount of sediment which has accumulated. Removal of sediment will be required when it reaches one-third (1/3) the height of the sediment fence. Sediment fences to be repaired or replaced as necessary, or when required by the City or MoDNR.
8. Upon completion of catch basin installation and prior to paving of streets, the throats of all basins shall be "blocked" or otherwise closed to prevent mud and debris from entering the enclosed storm sewer system.
9. Any and all field inlets shall have "Silt Saver" in place around the throat openings to prevent sediment from entering the enclosed storm sewer system.
10. Parking on non-surfaced areas is prohibited in order to eliminate the condition whereby mud and debris from construction and employee vehicles is tracked onto existing pavement. The Contractor shall keep the existing roadways free of mud, rock and debris at all times.
11. Permanently stabilize all graded areas immediately after final grading is complete on each area in the Grading Plan. If clearing and/or grading operations are suspended for a period of thirty (30) days or longer, temporary stabilization measures are required (per City of Lee's Summit Design and Construction Manual, Ordinance No. 5813). These measures may include seeding, periodic wetting, mulching or other suitable measures.
12. If cut and fill operations occur during a season not favorable for immediate establishment of permanent ground cover, a fast germinating annual such as rye grasses or sudan grasses shall be utilized to retard erosion, if adequate stormwater detention and erosion control methods have not been established.
13. In the event wells and/or cisterns exist or are encountered on teh project site, they shall be located and sealed by the Contractor in accordance with all local, state and federal regulations.
14. All trash and debris located on the project site, either existing or as a result of construction, shall be removed and properly disposed of in accordance with all local, state and federal regulations.
15. Upon completion of the project, Contractor shall seed, mulch and fertilize all areas disturbed by construction.
16. Additional erosion and siltation control methods and devices may be required as directed by the City or MoDNR.
17. Installation, construction and maintenance of all sediment and erosion control methods shall be in compliance with City Ordinance.
18. All denuded areas must be stabilized through surface roughening see APWA 2102.3 and 5106.4. Runoff from those open areas should be directed to an approved sediment trapping device.
19. Existing ponds and ditches to be drained, unsuitable material removed and regraded as shown.
20. After paving of streets, protect all catch basin throat openings with "gutterbuddies" or "wattles".
21. Disturbed areas, including Right of Ways shall be seeded. The seeding process shall include in order:

a. Furnished Topsoil
b. Finish Gradin
c. Prepare Seed bed
d. Seed and maintain areas as required

The following are seeding and fertilizer rates for specific turf grasses applied per acre:

Annual rye - 10 lbs
Perennial Fescue Blend (K31) - 20 lbs
Fertilizer (12-12-12) - 185 lbs
Brome or straw mulch - 4000 lbs

## SOIL CREDIBILITY:

| NRCS# | Name | Slopes | HSG |
|---|---|---|---|
| 10000 | Arisburg silt loam | 1-5% | C |
| 10082 | Sampsel silty clay loam | 2-5% | C/D |
| 10117 | Sampsel silty clay loam | 5-9% | C/D |

Soil Group C was considered for the Cobey Creek site. Curve numbers were used in accordance with the APWA 5600.

## GENERAL NOTES:

1. Rock berms may be used in lieu of silt fence or mulch berms are indicated if trenching is prohibitive due to excessive roots or rock.
2. If silt fence is used, it is to be installed using the slice method in lieu of trenching.

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 2 | 1/27/19 | PER CITY COMMENTS | MJC | RKS |
| 1 | 1/8/19 | PER CITY COMMENTS | MJC | RKS |
| | 11/2/18 | SUBMITTAL TO CITY OF LEES SUMMIT | MJC | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
March 27, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


# LAND DISTURBANCE PLANS
# GENERAL NOTES

# COBEY CREEK FIRST PLAT
# PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Land Disturbance

DATE
March 27, 2019

JOB NO.
16-059

RECEIVING WATERS IS
BIG CREEK
APPRO□IMATELY □30
MILES DOWNSTREAM

LIMITS OF DISTURBANCE
AREA □5□80 ACRES

RIDGE LINE

E□ISTING DRAINAGE SWALE

RIDGE LINE

LIMITS OF DISTURBANCE
AREA □5□80 ACRES

MISSOURI □50 HIGHWAY

DOC. NO. K0600077

DOC. NO. K0600079

DOC. NO. K0600078

DOC. NO. K0600078

DOC. NO. K0600077

DOC. NO. K0600078

DOC. NO. K0600078

DOC. NO. K0600078

INSTALL OUTLET STRUCTURE AND 8" FAIRCLOTH SKIMMER. SEE DETAIL

PROPOSED DETENTION BASIN

CONSTRUCT POND AT THE BEGINNING OF CONSTRUCTION PRIOR TO ANY OTHER LAND DISTURBANCE. INSTALL SILT FENCE AT ELEVATION 973 AROUND INSIDE OF POND TO STABILIZE SLOPE.

MAXIMUM PRE-DEVELOPED PONDING ELEVATION OF 978

POST CONSTRUCTION SITE NOTICE AND GRADING PERMIT. SWPPP MUST BE KEPT WITH CONSTRUCTION SITE NOTICE OR IN JOB TRAILER.

CONSTRUCTION ENTRANCE

TEMPORARY PARKING AND STORAGE

CONCRETE WASHOUT

CONSTRUCTION TRAILER

LIMITS OF DISTURBANCE AREA 5.80 ACRES

LIMITS OF DISTURBANCE AREA 5.80 ACRES

MISSOURI 50 HIGHWAY

KEY

| PROPOSED | | EXISTING |
|---|---|---|
| SAN | Sanitary Sewer | SAN |
| | Storm Sewer | 42" CMP |
| W.L. | Water | W |
| | Sidewalk | |
| | 2' Curb | |
| | Existing Grades | 975 |
| Ⓢ | Manhole | Ⓢ |
| | Catch Basin | |
| | Junction Box | |
| | Field Inlet | |
| | Flared End Section | |

| PROPOSED | | EXISTING |
|---|---|---|
| | Fire Hydrant | |
| | Water Valve | |
| | Handicap Ramp | |
| | Underground Power | UGP UGP |
| | Underground Telephone | UGT |
| | Gas Line | GAS GAS |
| | Fence | |
| | Tree Line | |
| | Finish Street Flow | |

LEGEND

- SF — Silt Fence
- Inlet Protection, install as soon as inlet is constructed
- Seed and Mulch
- Seed and Blanket
- Biolog Ditch Check
- Finish Street Flow

0 100' 150' 200'
SCALE IN FEET

Know what's below. Call before you dig.

| NO. | BY | CK/APP | DATE | REVISION |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 2 | MJC | RKS | 1/27/19 | PER CITY COMMENTS |
| 1 | MJC | RKS | 1/8/19 | PER CITY COMMENTS |
| | MJC | RKS | 11/2/18 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI — RICHARD KEVIN STERRETT — NUMBER 26440 — REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
March 27, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


# LAND DISTURBANCE PLANS
## PRE-CLEARING PLAN

# COBEY CREEK FIRST PLAT
## PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Land Disturbance

DATE
March 27, 2019

JOB NO.
16-059

SHEET 37 OF 53

INSTALL OUTLET STRUCTURE AND 8" FAIRCLOTH SKIMMER. SEE DETAIL

PROPOSED DETENTION BASIN

ROCK CHECK DAM

POST CONSTRUCTION SITE NOTICE AND GRADING PERMIT. SWPPP MUST BE KEPT WITH CONSTRUCTION SITE NOTICE OR IN JOB TRAILER.

CONSTRUCT POND AT THE BEGINNING OF CONSTRUCTION PRIOR TO ANY OTHER LAND DISTURBANCE. INSTALL SILT FENCE AT ELEVATION 973 AROUND INSIDE OF POND TO STABILIZE SLOPE.

ROCK CHECK DAM

CONCRETE WASHOUT

CONSTRUCTION ENTRANCE

CONSTRUCTION TRAILER

TEMPORARY PARKING AND STORAGE

LIMITS OF DISTURBANCE AREA 5.80 ACRES

811 Know what's below. Call before you dig.

## GENERAL NOTES:

*No grading shall be steeper than 3H:1V.*
*All areas graded should have the soil surface lightly roughened and loosened to a depth of 2 to 4 inches prior to seeding. Areas that have been graded and will not be stabilized immediately shall be roughened to reduce runoff velocity until seeding takes place (City Design and Construction Manual, 2102.3, APWA 5106.4).*

LEGEND

- SF — Silt Fence
- Inlet Protection, install as soon as inlet is constructed
- Seed and Mulch
- Seed and Blanket
- Biolog Ditch Check
- Finish Street Flow

0 100' 150' 200'
SCALE IN FEET

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| | 1/27/19 | PER CITY COMMENTS | MJC | RKS |
| | 1/8/19 | PER CITY COMMENTS | MJC | RKS |
| | 1/22/18 | SUBMITTAL TO CITY OF LEES SUMMIT | MJC | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI — ROBERT KEVIN STERRETT — NUMBER 2006 — REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
March 27, 2019

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)

LAND DISTURBANCE PLANS
STABILIZATION PLAN

COBEY CREEK FIRST PLAT
PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Land Disturbance

DATE
March 27, 2019

JOB NO.
16-059

SHEET 38 OF 53

REMOVE SEDIMENT FROM POND TO PROPOSED GRADE. ONCE POND IS SEEDED AND STABILI□ED REMOVE 8" FAIRCLOTH SKIMMER AND STEEL PLATES.

PROPOSED DETENTION BASIN

REMOVE ROCK CHECK DAM□ SEED AND INSTALL TRM.

POST CONSTRUCTION SITE NOTICE AND GRADING PERMIT. SWPPP MUST BE KEPT WITH CONSTRUCTION SITE NOTICE OR IN □OB TRAILER.

AFTER SITE IS SEEDED AND STABILI□ED REMOVE SILT FENCE.

REMOVE ROCK CHECK DAM SEED AND INSTALL TRM.

□LIMITS OF DISTURBANCE AREA □ 5□80 ACRES

AFTER SITE IS SEEDED AND STABILI□ED REMOVE ALL INLET PROTECTION.

811 Know what's below. Call before you dig.

## GENERAL NOTES:

*No grading shall be steeper than 3H:1V.*
*All areas graded should have the soil surface lightly roughened and loosened to a depth of 2 to 4 inches prior to seeding. Areas that have been graded and will not be stabilized immediately shall be roughened to reduce runoff velocity until seeding takes place (City Design and Construction Manual, 2102.3, APWA 5106.4).*

**LEGEND**

- SF — Silt Fence
- Inlet Protection, install as soon as inlet is constructed
- Seed and Mulch
- Seed and Blanket
- Biolog Ditch Check
- Finish Street Flow

0 100' 150' 200'
SCALE IN FEET

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| | 1/27/19 | PER CITY COMMENTS | MJC | RKS |
| | 1/8/19 | PER CITY COMMENTS | MJC | RKS |
| | 1/22/18 | SUBMITTAL TO CITY OF LEES SUMMIT | MJC | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI — R. KEVIN STERRETT — NUMBER 2006026440 — REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
March 27, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


# LAND DISTURBANCE PLANS FINAL RESTORATION PLAN

# COBEY CREEK FIRST PLAT PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

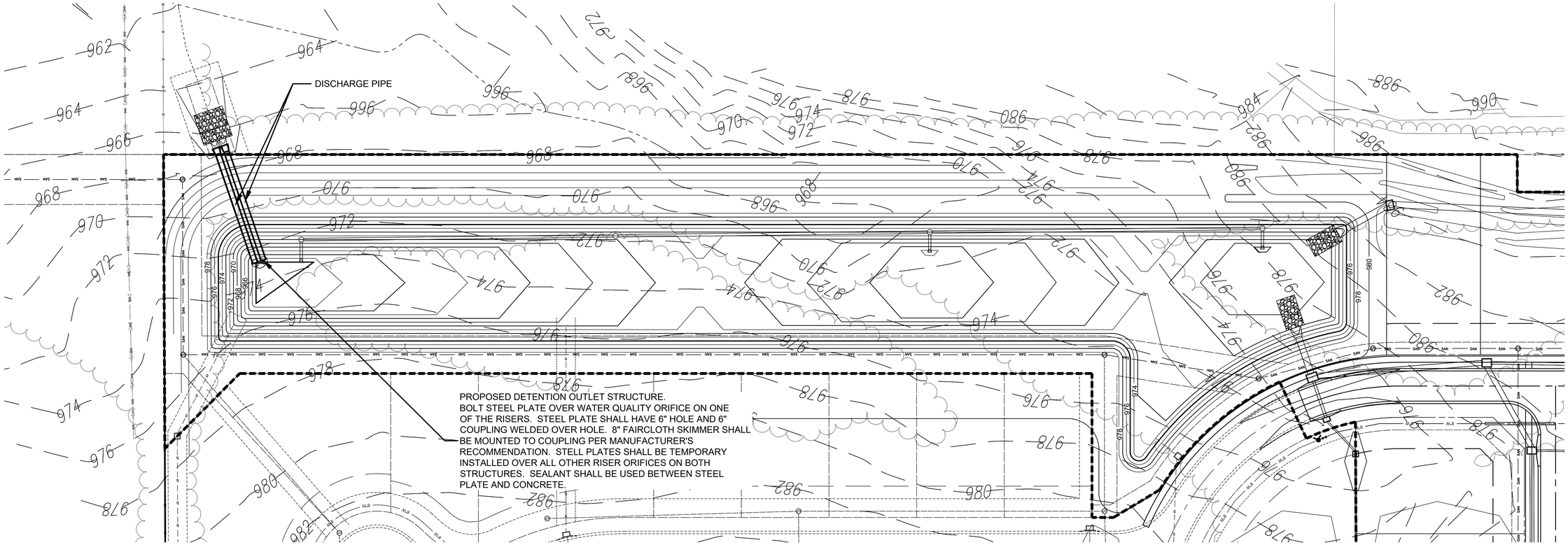
X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase 1 Land Disturbance

DATE
March 27, 2019

JOB NO.
16-059

SHEET 39 OF 53




*STAGE STORAGE CALCULATIONS:*

| Contour Elevation | Contour Area (sq. ft) | Depth (ft) | Incremental Volume (cu. ft) | Cumulative Volume (cu. ft) |
|---|---|---|---|---|
| 966.000 | 2,378.68 | 0.0 | 1,031.00 | 1,031.00 |
| 968.000 | 8,421.62 | 2.0 | 10,184.00 | 11,215.00 |
| 970.000 | 32,067.69 | 2.0 | 37,949.00 | 49,163.00 |
| 972.000 | 66,409.02 | 2.0 | 96,416.00 | 145,579.00 |
| 974.000 | 82,953.98 | 2.0 | 149,057.00 | 294,636.00 |
| 976.000 | 95,470.16 | 2.0 | 178,278.00 | 472,914.00 |
| 978.000 | 108,225.91 | 2.0 | 203,563.00 | 676,477.00 |

*BASIN DATA*
*Drainage Area – 97.28 Acre*
*Minimum Volume for Sediment Basin Storage – 350,214 CF (3600 CF/Drainage Area Acre)*
*Actual Volume – 676,477.00 CF*
*Bottom Area/Elevation – 2,378 SF/966.00*
*Top Area/Elevation – 108,226 SF/978.00*
*Depth – 12.0 ft*
*Actual Top Area – 108,226 SF*
*Maximum Permanent Pool Volume, 50% of pond – 175,107 CF*
*Permanent Pool Top Area/Elevation – 95,500 SF/976.00 (87,552 Required) CF/AC)*
*Permanent Pool Depth – 10.0 ft*
*Actual Sediment Volume – 95,500 CF*

Know what's below.
Call before you dig.

## GENERAL NOTES:

*No grading shall be steeper than 3H:1V.*
*All areas graded should have the soil surface lightly roughened and loosened to a depth of 2 to 4 inches prior to seeding. Areas that have been graded and will not be stabilized immediately shall be roughened to reduce runoff velocity until seeding takes place (City Design and Construction Manual, 2102.3, APWA 5106.4).*
*The permanent storm water detention basin to be used as temporary sediment basin for all phases of construction.*

0 40' 60' 80'
SCALE IN FEET

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 2 | 1/27/19 | PER CITY COMMENTS | MJC | RKS |
| 1 | 1/8/19 | PER CITY COMMENTS | MJC | RKS |
| | 11/27/18 | SUBMITTAL TO CITY OF LEES SUMMIT | MJC | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

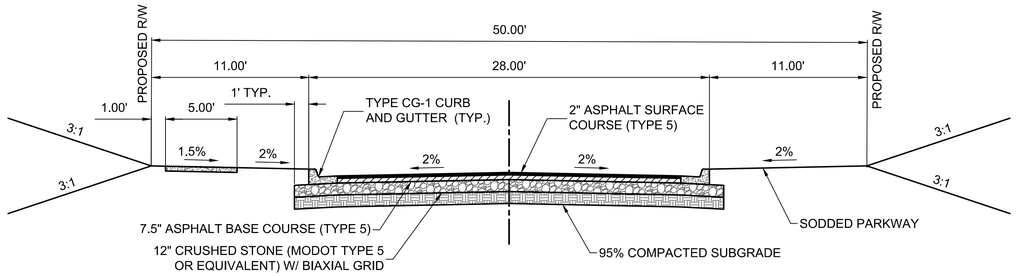
R. KEVIN STERRETT| MO E-26440
March 27, 2019

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005?3 (MO.) / E-1736 (KS.)

LAND DISTURBANCE PLANS
SEDIMENTATION POND DETAIL

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

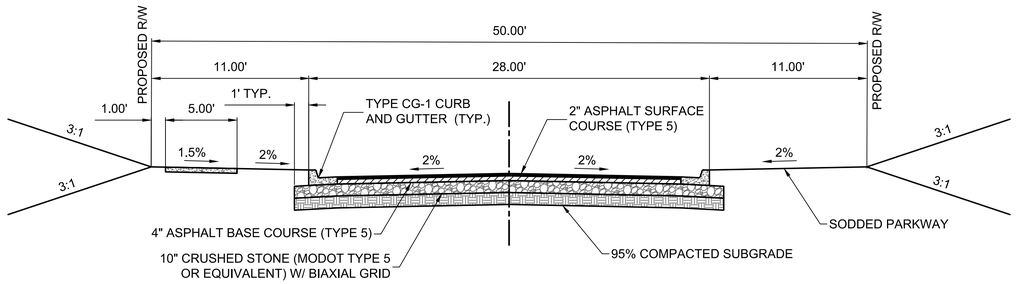
X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Land Disturbance
DATE
March 27, 2019
JOB NO.
16-059
SHEET 40 OF 53




COMMERCIAL LOCAL FULL DEPTH PAVEMENT SECTION

CG-1 CURB AND GUTTER
NOT TO SCALE

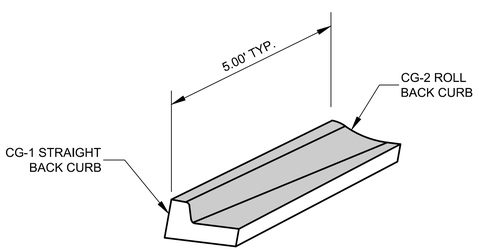
PHASE I
COBEY CREEK DRIVE (STA. 10+85.72 TO 14+37.62)
GILLETTE STREET (STA. 10+00 TO 16+88.45)




RESIDENTIAL LOCAL FULL DEPTH PAVEMENT SECTION

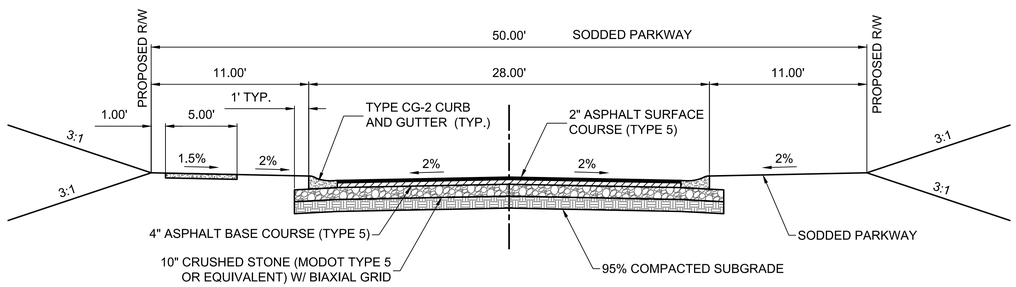
CG-1 CURB AND GUTTER
NOT TO SCALE

PHASE I
COBEY CREEK DRIVE (STA. 14+37.62 TO 26+61.94)
COBEY LANE (STA. 10+00 TO 10+39)
CORBIN DRIVE (STA. 10+00 TO 10+39)
JUD DRIVE (10+00 TO 10+64)




NOTE:
CURB TRANSITIONS SHALL BE MADE AFTER RADII AT CURB RETURNS. CURB TRANSITIONS SHALL ALSO BE MADE AT CURB INLETS WHEN POSSIBLE.

TYPICAL CG-1 TO CG-2
CURB TRANSITION
NOT TO SCALE




RESIDENTIAL LOCAL FULL DEPTH PAVEMENT SECTION

CG-2 CURB AND GUTTER
NOT TO SCALE

CARTER ROAD (STA. 10+00 TO 18+89.65)
COBEY LANE (STA. 10+39 TO 18+40.77)
CORBIN DRIVE (STA. 10+39 TO 36+88.75)
DAVID ROAD (STA. 10+00 TO 18+89.65)

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/30/19 | PER CITY'S COMMENTS | SPW | RKS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RKS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RKS |
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/08/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/28/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

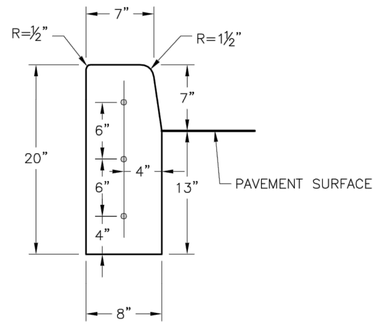
STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019

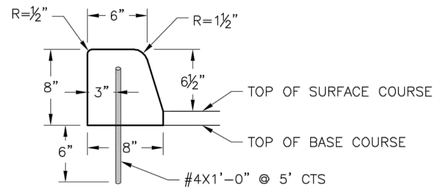

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
TYPICAL STREET SECTIONS AND
CURB TRANSITION DETAIL
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

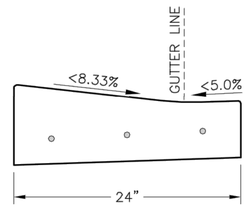
X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16-059



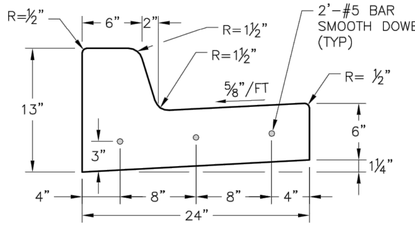

STRAIGHT CURB
(TYPE C–1)



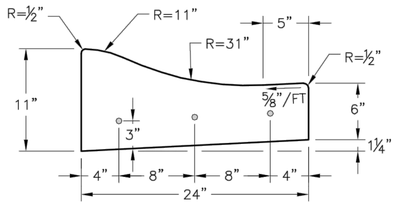

DOWELLED CURB
(TYPE DC)



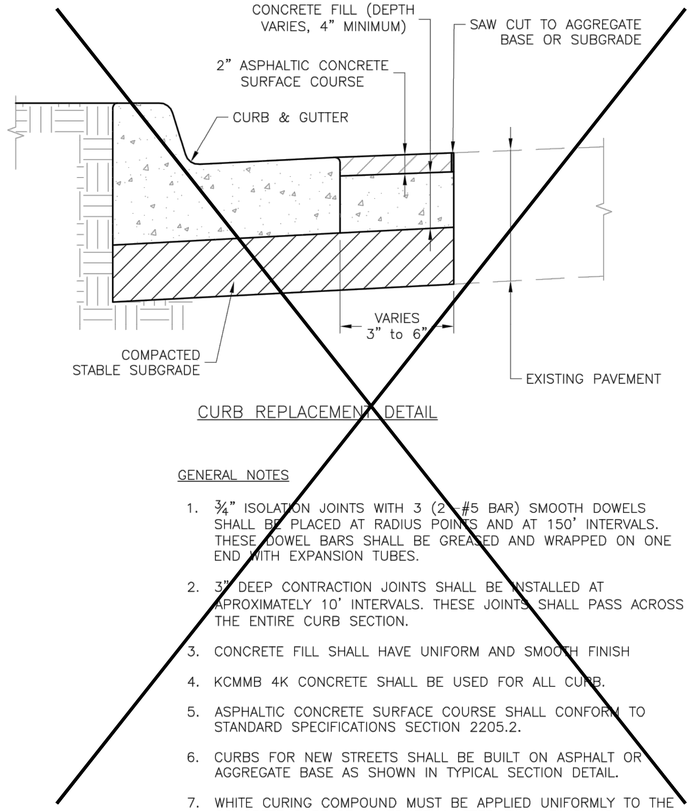

CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



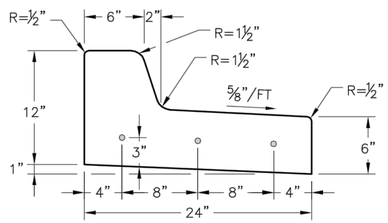

STRAIGHT BACK CURB &
GUTTER
(TYPE CG–1)



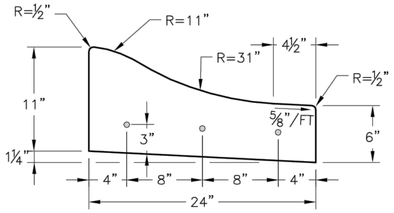

ROLL BACK CURB &
GUTTER
(TYPE CG–2)




CURB REPLACEMENT DETAIL



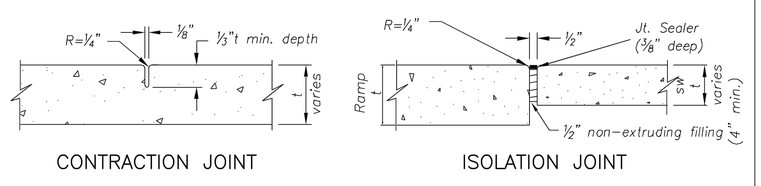

STRAIGHT BACK DRY CURB &
GUTTER
(TYPE CG–1 DRY)




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 APROXIMATELY 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.




CONTRACTION JOINT

ISOLATION JOINT

JOINT DETAILS
*Not to Scale*

| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 07/26/19 | PER CITYS COMMENTS | 6 | SPW | RKS |
| 07/03/19 | PER CITYS COMMENTS | 5 | SPW | RKS |
| 04/23/19 | PER CITYS COMMENTS | 4 | SPW | RKS |
| 04/16/19 | PER CITYS COMMENTS | 3 | SPW | RKS |
| 03/27/19 | PER CITYS COMMENTS | 2 | SPW | RKS |
| 03/08/19 | PER CITYS COMMENTS | 1 | SPW | RKS |
| 11/2/18 | SUBMITAL TO CITY OF LEES SUMMIT | | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

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

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

Project:

Sheet Name: CURB & GUTTER DETAILS

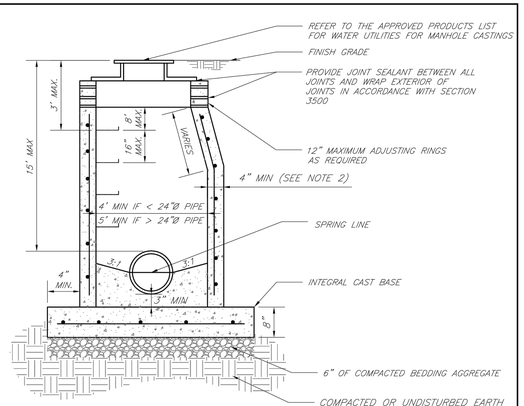
Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

GEN-4

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
STREET, CURB AND SIDEWALK JOINT DETAILS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16–059 Base Phase I
DRAWING NO.
16–059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16–059




NOTES:

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'.
3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

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

STANDARD PRECAST MANHOLE – SANIT

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: SAN–2

The scruffy dome is made of galvanised steel and is used in stormwater applications to provide a debris and security screen for manholes.

**Design Specifications**

- The type 1 debris screen is a full height design, suitable for manholes with a 600mm diameter or larger. *(Refer to figure 1)*
- The type 2 debris screen has a lower height profile making it less noticeable in areas such as parks and gardens. Suitable for manholes with a diameter of 600 mm or larger. *(Refer to figure 2)*

**Installation**

- Dome brackets are bolted to the manhole riser with stainless steel bolts.
- The bolts are purchased separately.

***Note:*** *The North Island and South Island have different versions of Scruffy Domes with small changes in the bracket design (See photos below). Please contact your local Hynds branch for more information.*

## North Island Scruffy Dome



## South Island Scruffy Dome



| Product Code | Manhole (mm) | Type | Riser ID (mm) | A = OD of Grille (mm) | B = Diameter of Inner Ring (mm) | C = Height of Dome (mm) | D = Leg Length (mm) |
|---|---|---|---|---|---|---|---|
| **Type 1 High Profile** | | | | | | | |
| MHD0600S | 600 | 1 | 610 | 640 | 145 | 300 | 190 |
| MHD0675S | 675 | 1 | 686 | 715 | 145 | 300 | 190 |
| MHD0900S | 900 | 1 | 914 | 950 | 230 | 500 | 190 |
| MHD1050S | 1050 | 1 | 1066 | 1125 | 230 | 565 | 190 |
| MHD1050S-H* | 1050 | 1 | 1066 | 1125 | 230 | 565 | 190 |
| MHD1200S | 1200 | 1 | 1207 | 1270 | 230 | 635 | 190 |
| MHD1200S-H* | 1200 | 1 | 1207 | 1270 | 230 | 635 | 190 |
| MHD1400S | 1400 | 1 | 1372 | 1430 | 230 | 715 | 190 |
| MHD1500S | 1500 | 1 | 1524 | 1580 | 230 | 790 | 190 |
| MHD1650S | 1650 | 1 | 1676 | 1740 | 230 | 870 | 190 |
| MHD1800S | 1800 | 1 | 1829 | 1900 | 230 | 950 | 190 |
| **Type 2 Low Profile** | | | | | | | |
| MHD0600S2 | 600 | 2 | 610 | 640 | 145 | 150 | 190 |
| MHD0675S2 | 675 | 2 | 686 | 715 | 145 | 150 | 190 |
| MHD0900S2 | 900 | 2 | 914 | 950 | 230 | 170 | 190 |
| MHD1050S2 | 1050 | 2 | 1066 | 1125 | 230 | 200 | 190 |
| MHD1050S2HL* | 1050 | 2 | 1066 | 1125 | 230 | 200 | 190 |
| MHD1200S2 | 1200 | 2 | 1207 | 1270 | 230 | 360 | 190 |
| MHD1200S2HL* | 1200 | 2 | 1207 | 1270 | 230 | 360 | 190 |
| MHD1400S2 | 1400 | 2 | 1372 | 1430 | 230 | 390 | 190 |
| MHD1500S2 | 1500 | 2 | 1524 | 1580 | 230 | 435 | 190 |
| MHD1650S2 | 1650 | 2 | 1676 | 1740 | 230 | 480 | 190 |
| MHD1800S2 | 1800 | 2 | 1829 | 1900 | 230 | 520 | 190 |

***Note:*** *Larger sizes 2000, 2300, 2550, 3000mm are available on request*
**H - hinged HL - hinged and lockable*

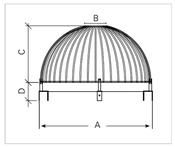



**FIG. 1** Dimensions of Type 1 Hynds Scruffy Dome (see table).

***Note:*** *Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.*

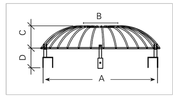
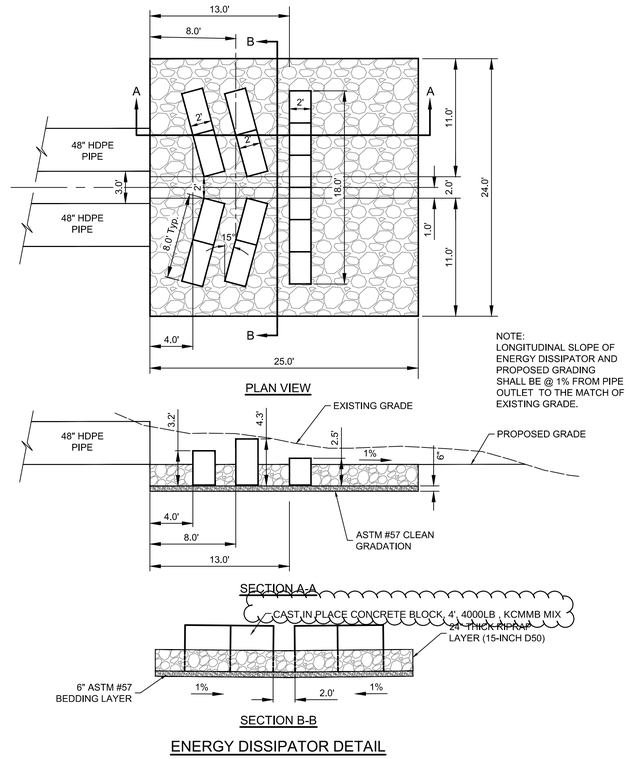


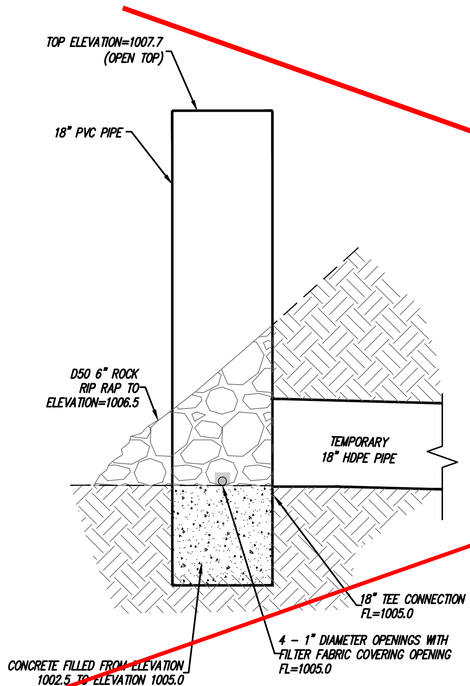

**FIG. 2** Dimensions of Type 2 Hynds Scruffy Dome (see table).

***Note:*** *Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.*

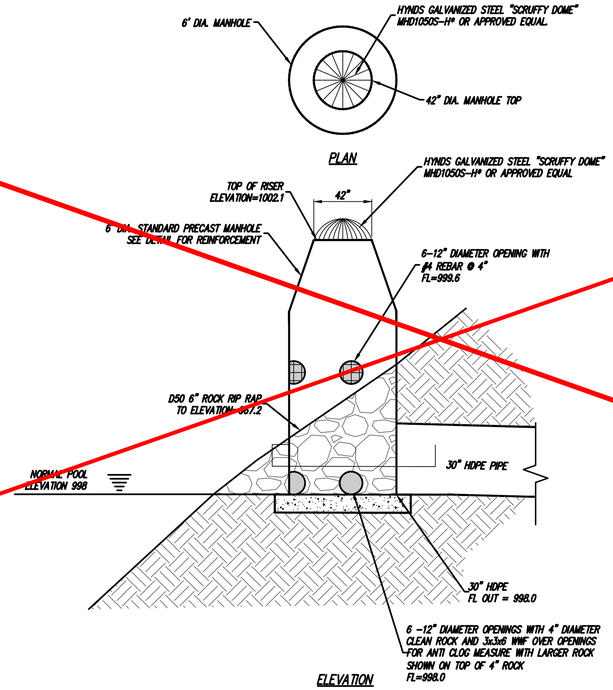




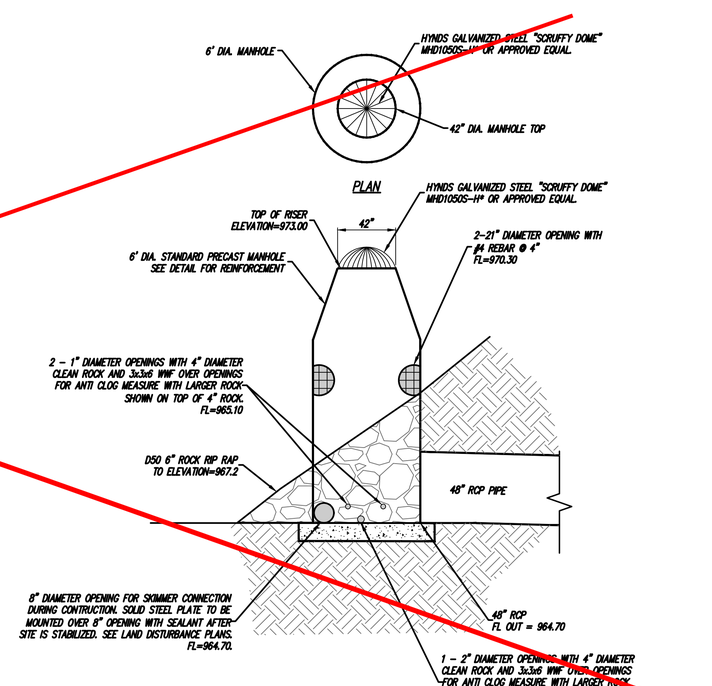

ENERGY DISSIPATOR DETAIL




TEMPRORARY PVC RISER STRUCTURE DET 4B
DETENTION RELEASE STRUCTURE
NTS




SOUTH DETENTION RELEASE
STRUCTURE
NOT TO SCALE




NORTH DETENTION RELEASE STRUCTURE (TYPICAL OF 2)
NOT TO SCALE

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 6 | 07/26/19 | PER CITY'S COMMENTS | SPW | RKS |
| 5 | 07/03/19 | PER CITY'S COMMENTS | SPW | RKS |
| 4 | 04/23/19 | PER CITY'S COMMENTS | SPW | RKS |
| 3 | 04/09/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/08/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/2/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

12/18/20 Revised for dissipator block material 7 RKS RKS

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER 2006440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
July 3, 2019

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
NORTH AND SOUTH DETENTION BASINS
OUTLET STRUCTURE DETAILS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16–059 Base Phase I
DRAWING NO.
16–059 Phase I Street Plans
DATE
July 30, 2019
JOB NO.
16–059

The scruffy dome is made of galvanised steel and is used in stormwater applications to provide a debris and security screen for manholes.

**Design Specifications**

- The type 1 debris screen is a full height design, suitable for manholes with a 600mm diameter or larger. *(Refer to figure 1.)*
- The type 2 debris screen has a lower height profile making it less noticeable in areas such as parks and gardens. Suitable for manholes with a diameter of 600 mm or larger. *(Refer to figure 2.)*

**Installation**

- Dome brackets are bolted to the manhole riser with stainless steel bolts.
- The bolts are purchased separately.

***Note:*** *The North Island and South Island have different versions of Scruffy Domes with small changes in the bracket design (See photos below). Please contact your local Hynds branch for more information.*

DS 14 SCRUFFY DOMES | DRAINAGE | PG 2

## North Island Scruffy Dome



## South Island Scruffy Dome



| Product Code | Manhole (mm) | Type | Riser ID (mm) | A = OD of Grille (mm) | B = Diameter of Inner Ring (mm) | C = Height of Dome (mm) | D = Leg Length (mm) |
|---|---|---|---|---|---|---|---|
| **Type 1 High Profile** | | | | | | | |
| MHD0600S | 600 | 1 | 610 | 640 | 145 | 300 | 190 |
| MHD0675S | 675 | 1 | 686 | 715 | 145 | 300 | 190 |
| MHD0900S | 900 | 1 | 914 | 950 | 230 | 500 | 190 |
| MHD1050S | 1050 | 1 | 1066 | 1125 | 230 | 565 | 190 |
| MHD1050S-H* | 1050 | 1 | 1066 | 1125 | 230 | 665 | 190 |
| MHD1200S | 1200 | 1 | 1207 | 1270 | 230 | 635 | 190 |
| MHD1200S-H* | 1200 | 1 | 1207 | 1270 | 230 | 635 | 190 |
| MHD1400S | 1400 | 1 | 1372 | 1430 | 230 | 715 | 190 |
| MHD1500S | 1500 | 1 | 1524 | 1580 | 230 | 790 | 190 |
| MHD1650S | 1650 | 1 | 1676 | 1740 | 230 | 870 | 190 |
| MHD1800S | 1800 | 1 | 1829 | 1900 | 230 | 950 | 190 |
| **Type 2 Low Profile** | | | | | | | |
| MHD0600S2 | 600 | 2 | 610 | 640 | 145 | 150 | 190 |
| MHD0675S2 | 675 | 2 | 686 | 715 | 145 | 150 | 190 |
| MHD0900S2 | 900 | 2 | 914 | 950 | 230 | 170 | 190 |
| MHD1050S2 | 1050 | 2 | 1066 | 1125 | 230 | 200 | 190 |
| MHD1050S2HL* | 1050 | 2 | 1066 | 1125 | 230 | 200 | 190 |
| MHD1200S2 | 1200 | 2 | 1207 | 1270 | 230 | 360 | 190 |
| MHD1200S2HL* | 1200 | 2 | 1207 | 1270 | 230 | 360 | 190 |
| MHD1400S2 | 1400 | 2 | 1372 | 1430 | 230 | 390 | 190 |
| MHD1500S2 | 1500 | 2 | 1524 | 1580 | 230 | 435 | 190 |
| MHD1650S2 | 1650 | 2 | 1676 | 1740 | 230 | 480 | 190 |
| MHD1800S2 | 1800 | 2 | 1829 | 1900 | 230 | 520 | 190 |

***Note:*** *Larger sizes 2000, 2300, 2550, 3000mm are available on request*
**H - hinged HL - hinged and lockable*

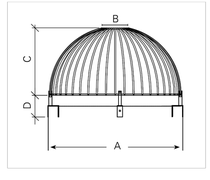



**FIG. 1** Dimensions of Type 1 Hynds Scruffy Dome (see table).

***Note:*** *Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.*

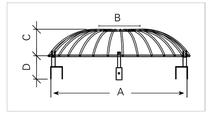
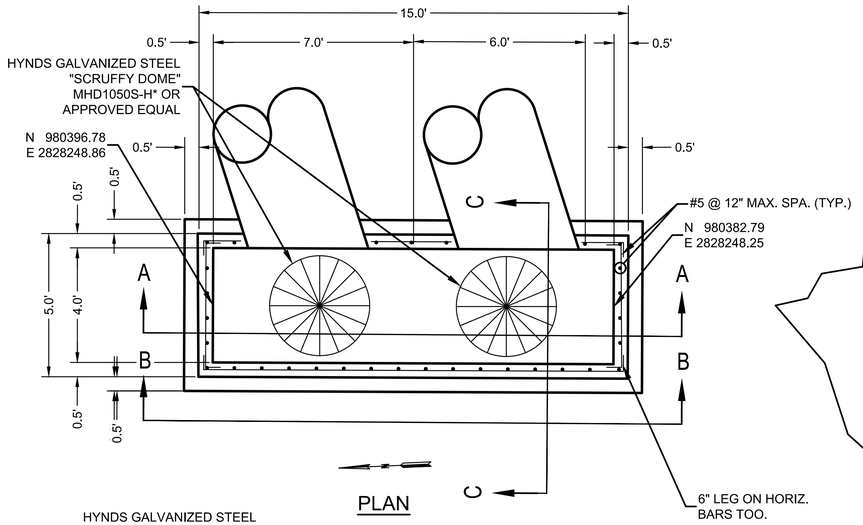
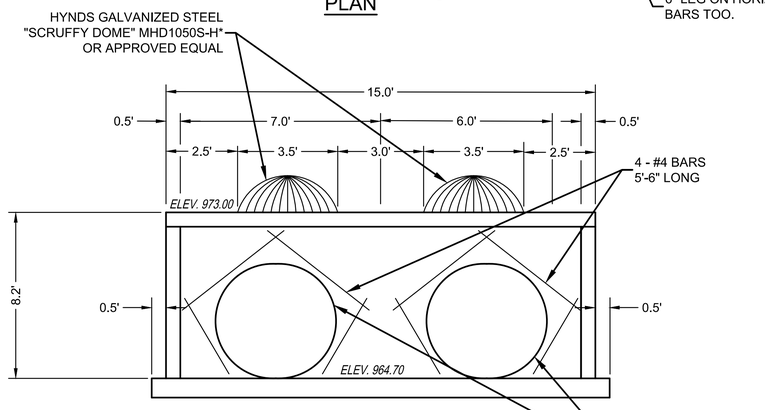


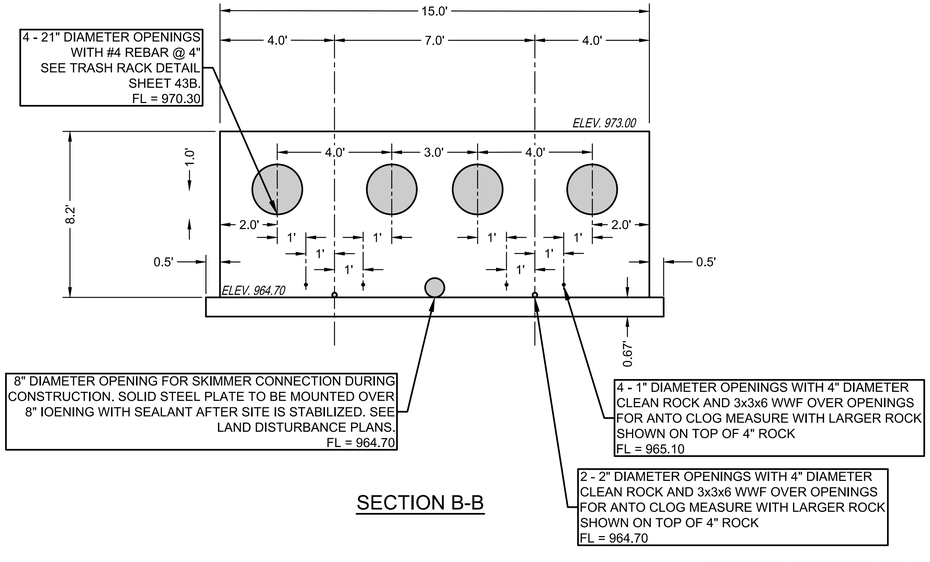

**FIG. 2** Dimensions of Type 2 Hynds Scruffy Dome (see table).

***Note:*** *Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.*

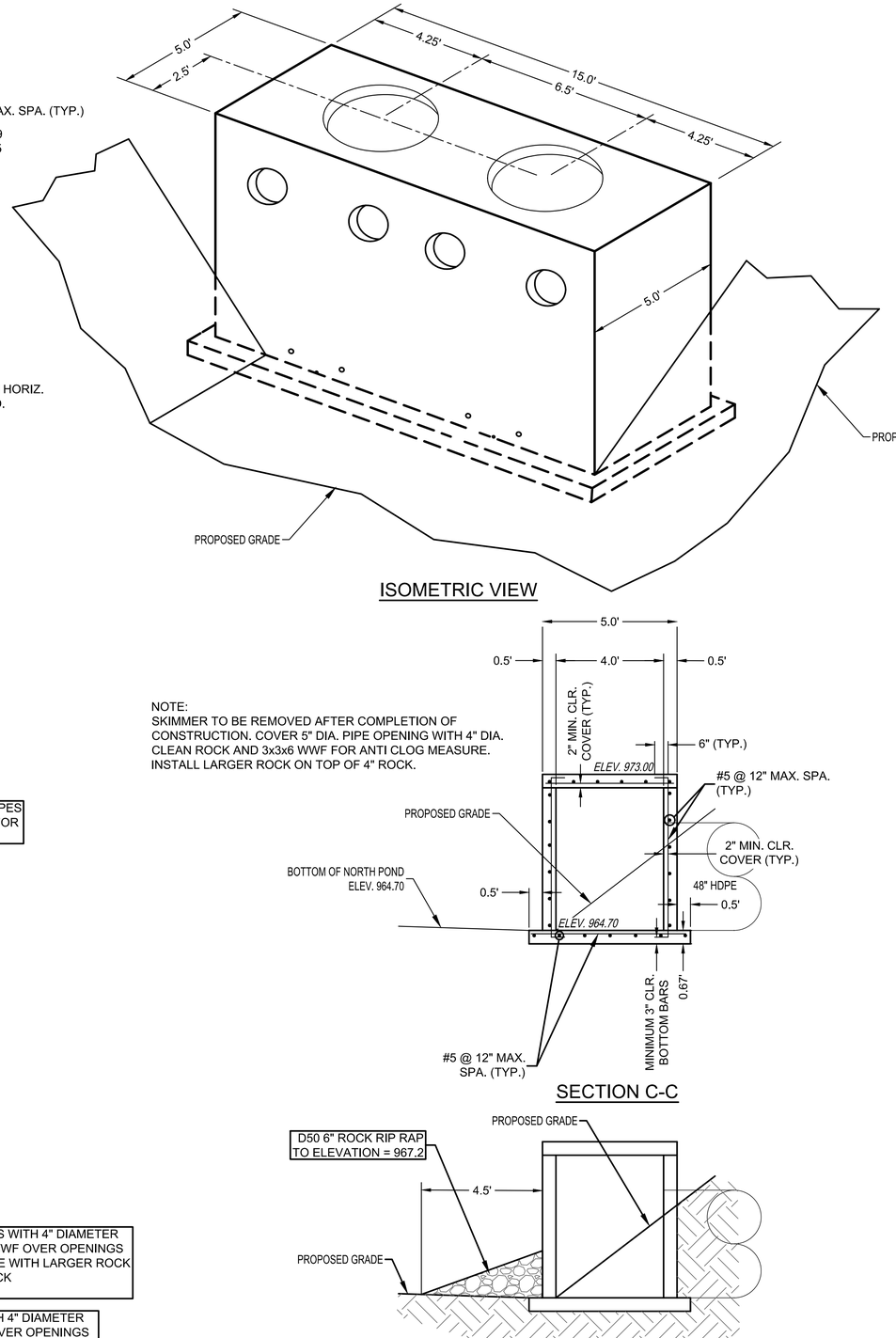
DS 14 SCRUFFY DOMES | DRAINAGE | PG 3




NOTE:
1. REINFORCING STEEL FOR ALL WALLS, TOP AND BOTTOM SLABS WILL BE NO. 5 BARS WITH MAXIMUM SPACING OF 12" IN BOTH VERTICAL AND HORIZONTAL DIRECTIONS. BOTTOM SLAB IS 8" THICK. ALL OTHER WALLS AND TOP SLAB ARE 6" THICK. CONCRETE STRENGTH = 4 KSI. REINFORCING STEEL SHALL BE GRADE 60. TYPICAL MINIMUM CONCRETE COVER IS 2", EXCEPT 3" CLEAR COVER IS REQUIRED FOR BARS FROM THE BOTTOM OF THE BOTTOM SLAB. TOP COVER IN THE BOTTOM SLAB IS 1 $\frac{3}{4}$".
2. REINFORCING STEEL EXPOSED AT THE INLET OPENING LOCATIONS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.

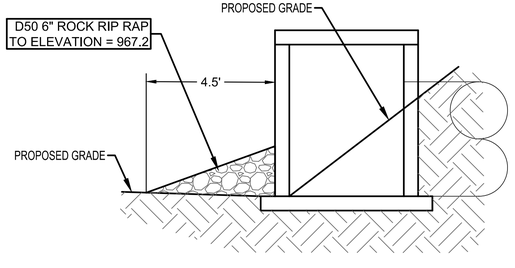



ISOMETRIC VIEW

NOTE:
SKIMMER TO BE REMOVED AFTER COMPLETION OF CONSTRUCTION. COVER 5" DIA. PIPE OPENING WITH 4" DIA. CLEAN ROCK AND 3x3x6 WWF FOR ANTI CLOG MEASURE. INSTALL LARGER ROCK ON TOP OF 4" ROCK.




SECTION C-C

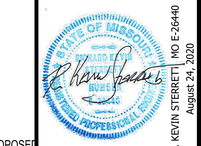



SECTION C-C
POST CONSTRUCTION

DETENTION OUTLET STRUCTURE
NOT TO SCALE

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 8 | 08/04/20 | REVISED NORTH OUTLET STRUCTURE PER ORIGINAL STORM REPORT | SPW | RKS |
| 7 | 07/01/20 | PER CITYS COMMENTS | SPW | RKS |
| | 11/21/19 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

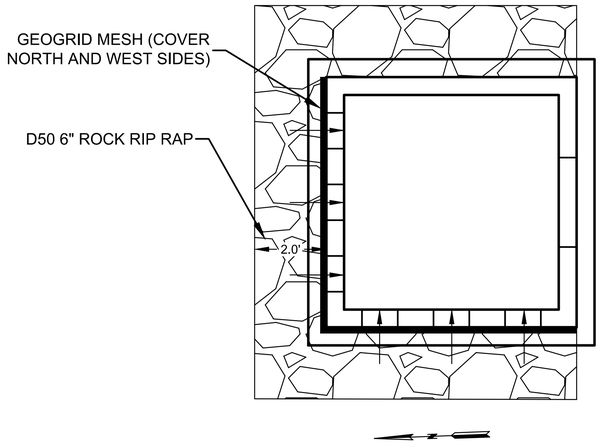



R. KEVIN STERRETT | MO E-26440
August 24, 2020

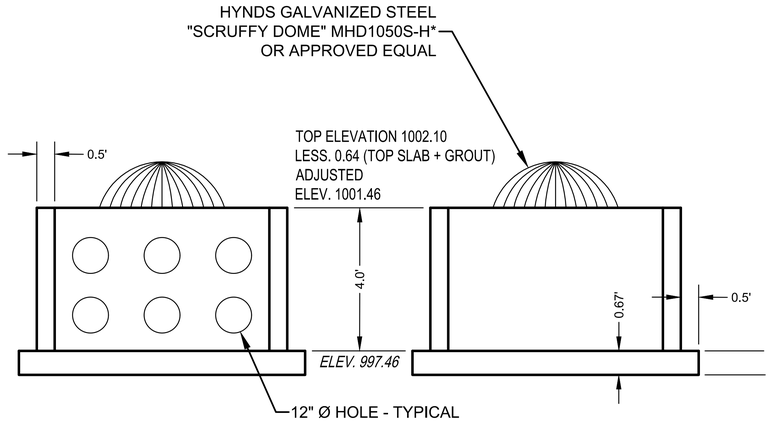

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
NORTH DETENTION BASIN
OUTLET STRUCTURE
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

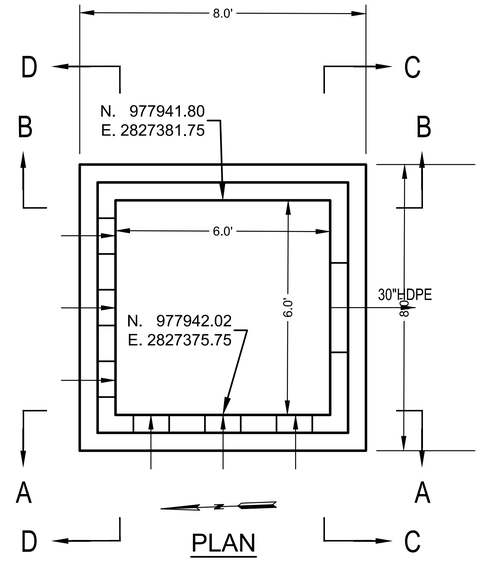
X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
August 24, 2020
JOB NO.
16-059
SHEET 43A OF 53



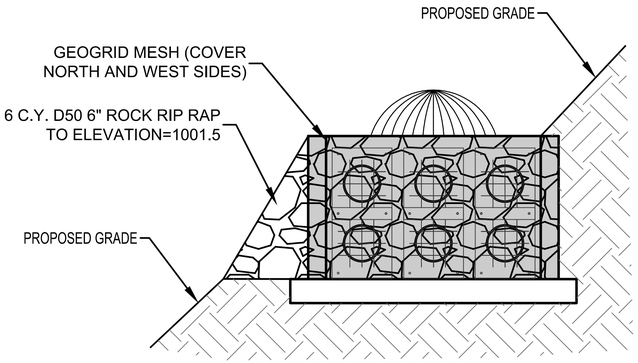

PLAN



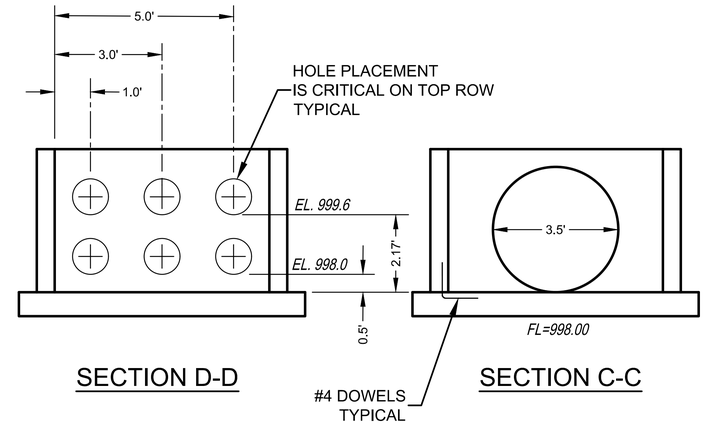

SECTION A-A SECTION B-B



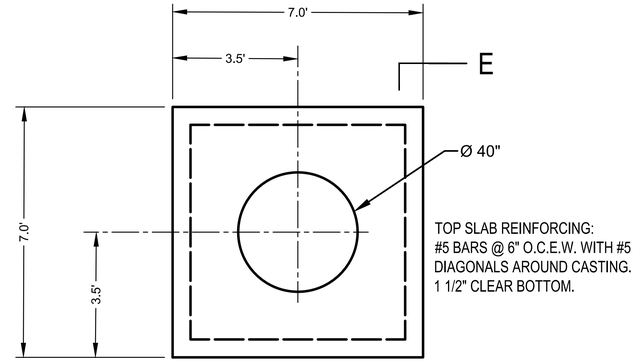

PLAN




SIDE VIEW
FACING WEST SIDE

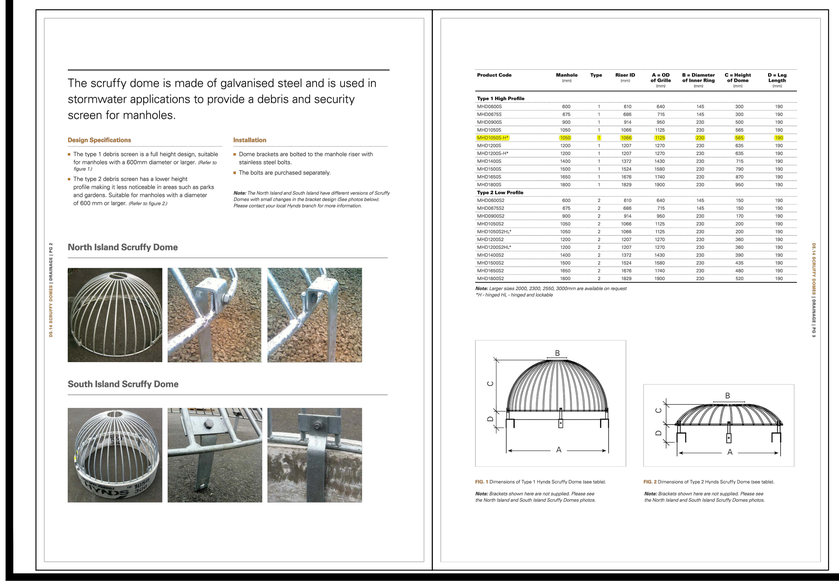



SECTION D-D SECTION C-C




TOP SLAB REINFORCING:
#5 BARS @ 6" O.C.E.W. WITH #5 DIAGONALS AROUND CASTING.
1 1/2" CLEAR BOTTOM.

PLAN - TOP SLAB



The scruffy dome is made of galvanised steel and is used in stormwater applications to provide a debris and security screen for manholes.

**Design Specifications**

- The type 1 debris screen is a full height design, suitable for manholes with a 600mm diameter or larger. *(Refer to figure 1)*
- The type 2 debris screen has a lower height profile making it less noticeable in areas such as parks and gardens. Suitable for manholes with a diameter of 600 mm or larger. *(Refer to figure 2)*

**Installation**

- Dome brackets are bolted to the manhole riser with stainless steel bolts.
- The bolts are purchased separately.

***Note:*** *The North Island and South Island have different versions of Scruffy Domes with small changes in the bracket design (See photos below). Please contact your local Hynds branch for more information.*

**North Island Scruffy Dome**



**South Island Scruffy Dome**



DS 14 SCRUFFY DOMES | DRAWINGS | PG 2

| Product Code | Manhole (mm) | Type | Riser ID (mm) | A = OD of Grills (mm) | B = Diameter of Inner Ring (mm) | C = Height of Dome (mm) | D = Leg Length (mm) |
|---|---|---|---|---|---|---|---|
| **Type 1 High Profile** | | | | | | | |
| MHD0600S | 600 | 1 | 610 | 640 | 145 | 300 | 190 |
| MHD0675S | 675 | 1 | 686 | 715 | 145 | 300 | 190 |
| MHD0900S | 900 | 1 | 914 | 950 | 230 | 500 | 190 |
| MHD1050S | 1050 | 1 | 1066 | 1125 | 230 | 565 | 190 |
| MHD1050S-H* | 1050 | 1 | 1066 | 1125 | 230 | 565 | 190 |
| MHD1200S | 1200 | 1 | 1207 | 1270 | 230 | 635 | 190 |
| MHD1200S-H* | 1200 | 1 | 1207 | 1270 | 230 | 635 | 190 |
| MHD1400S | 1400 | 1 | 1372 | 1430 | 230 | 715 | 190 |
| MHD1500S | 1500 | 1 | 1524 | 1580 | 230 | 790 | 190 |
| MHD1650S | 1650 | 1 | 1676 | 1740 | 230 | 870 | 190 |
| MHD1800S | 1800 | 1 | 1829 | 1900 | 230 | 950 | 190 |
| **Type 2 Low Profile** | | | | | | | |
| MHD0600S2 | 600 | 2 | 610 | 640 | 145 | 150 | 190 |
| MHD0675S2 | 675 | 2 | 686 | 715 | 145 | 150 | 190 |
| MHD0900S2 | 900 | 2 | 914 | 950 | 230 | 170 | 190 |
| MHD1050S2 | 1050 | 2 | 1066 | 1125 | 230 | 200 | 190 |
| MHD1050S2HL* | 1050 | 2 | 1066 | 1125 | 230 | 200 | 190 |
| MHD1200S2 | 1200 | 2 | 1207 | 1270 | 230 | 360 | 190 |
| MHD1200S2HL* | 1200 | 2 | 1207 | 1270 | 230 | 360 | 190 |
| MHD1400S2 | 1400 | 2 | 1372 | 1430 | 230 | 390 | 190 |
| MHD1500S2 | 1500 | 2 | 1524 | 1580 | 230 | 435 | 190 |
| MHD1650S2 | 1650 | 2 | 1676 | 1740 | 230 | 480 | 190 |
| MHD1800S2 | 1800 | 2 | 1829 | 1900 | 230 | 520 | 190 |

***Note:*** *Larger sizes 2000, 2300, 2550, 3000mm are available on request*
**H - hinged HL - hinged and lockable*




**FIG. 1** Dimensions of Type 1 Hynds Scruffy Dome (see table).

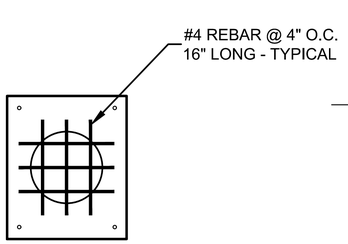
***Note:*** *Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.*




**FIG. 2** Dimensions of Type 2 Hynds Scruffy Dome (see table).

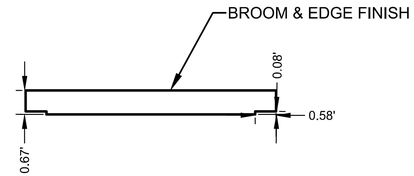
***Note:*** *Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.*

DS 14 SCRUFFY DOMES | DRAWINGS | PG 3




MATERIAL TO BE 1/2" STEEL PLATE
ASSEMBLED PRODUCT TO BE HOT DIP GALVANIZED TRASH RACK FOR 1+13.12 SOUTH DETENTION RELEASE
(TYPICAL OF 12)

TRASH RACK




SECTION E-E

# DETENTION OUTLET STRUCTURE

NOT TO SCALE

| NO. | BY | CK/APP | DATE | REVISION |
|---|---|---|---|---|
| 1 | SPW | RKS | 07/21/20 | PER CITY'S COMMENTS |
| | | | 11/21/19 | SUBMITTAL TO CITY OF LEES SUMMIT |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER E-26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT| MO E-26440
July 21, 2020


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010000573 (MO.) / E-1736 (KS.)

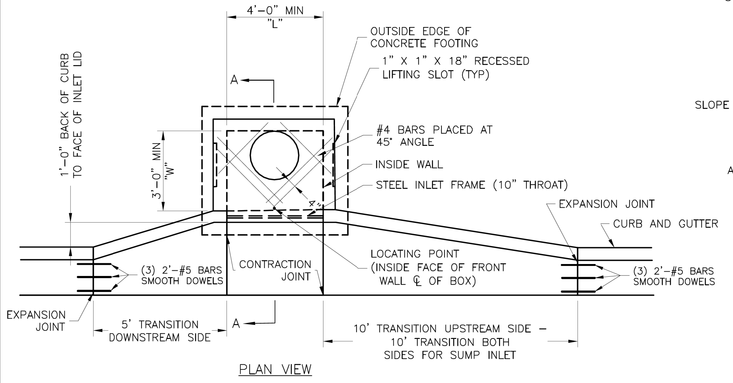

STREET AND STORM SEWER PLANS
SOUTH DETENTION BASIN
OUTLET STRUCTURE

COBEY CREEK FIRST PLAT
PHASE I

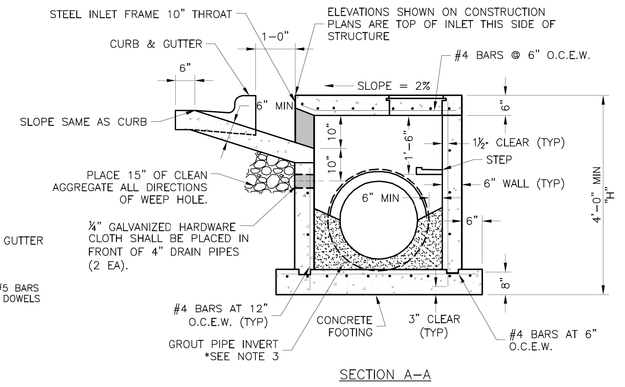
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
July 21, 2020
JOB NO.
16-059

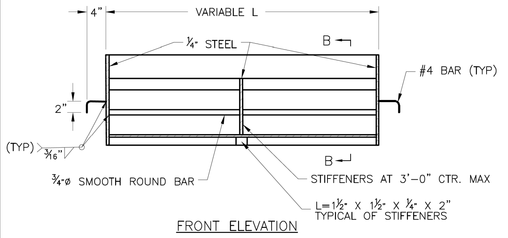
3/27/2019
16.059-StormDetail-01.dgn



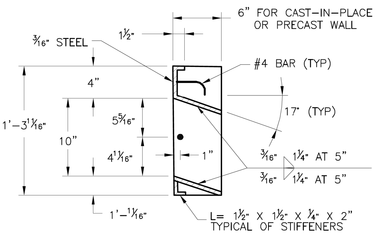

PLAN VIEW



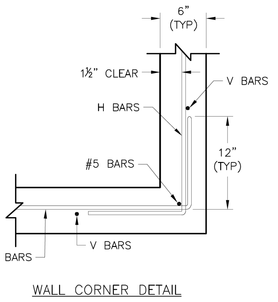

SECTION A–A



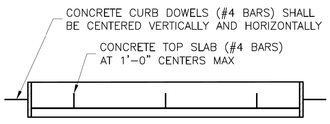

FRONT ELEVATION




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.

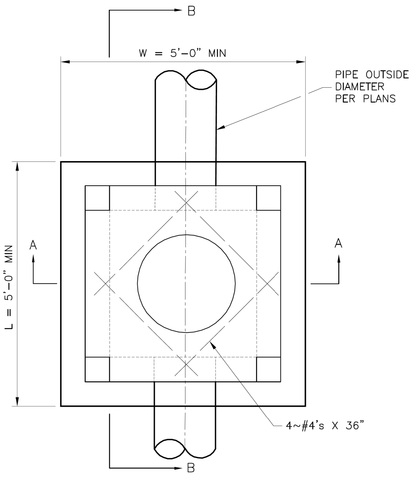
GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
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

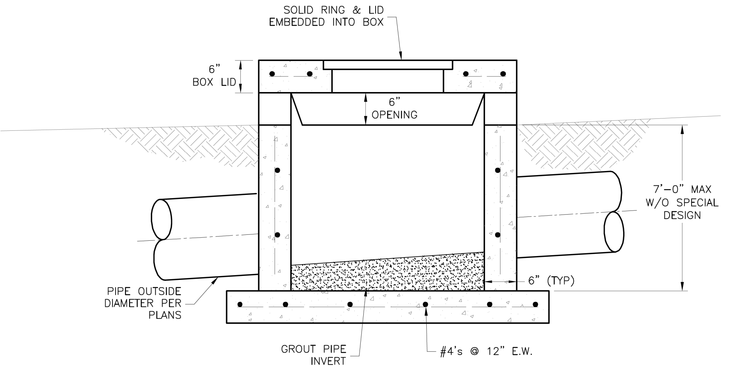
Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB INLET DETAIL

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

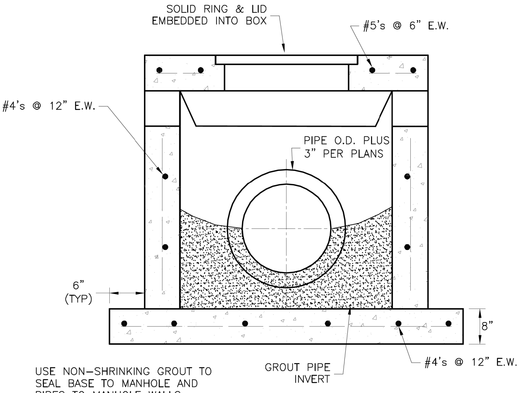
STM-1



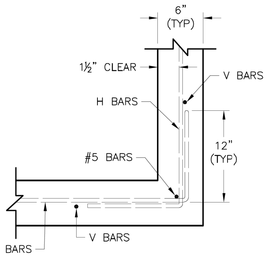

PLAN VIEW




SECTION B–B




SECTION A–A




WALL CORNER DETAIL

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

SHEET 44 OF 53
PROJECT NO. 16.059.01
DATE March 22, 2019
DRAWING NO. XXX
CHECKED NO. XXX

STORM SEWER DETAILS

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

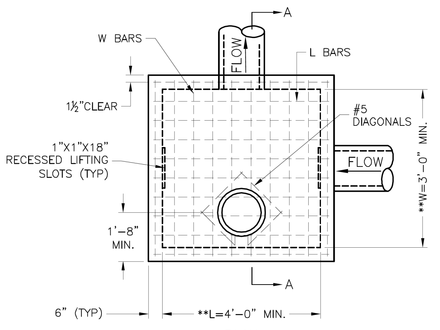

Hg Consult Inc engineers planners
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005873


3/27/19
R. KEVIN STERRETT, MO E-26440

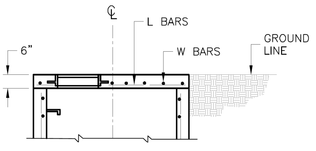
| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | 3 | RAM | RKS |
| 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | 2 | RAM | RKS |
| 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | 1 | RAM | RKS |


IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

3/27/2019
16.059-StormDetail-02.dgn




PLAN

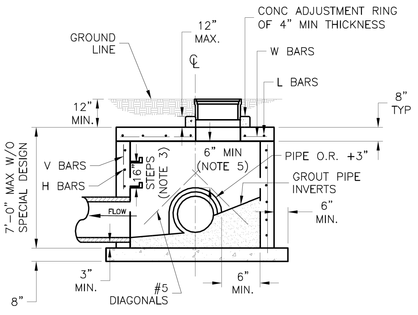



SLAB TOP ALTERNATE FOR JUNCTION BOX (SHALLOW)

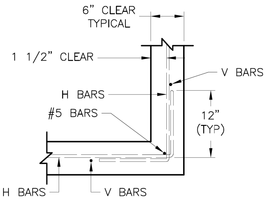
** INCREASE IN MULTIPLES OF 6" (7'-0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING

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




SECTION A–A




WALL CORNER DETAIL

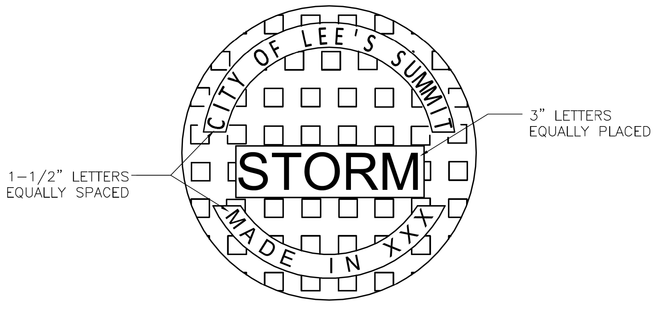
GENERAL NOTES:
1. LOCATE RING AND COVER ON BLANK WALL.
2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS 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




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

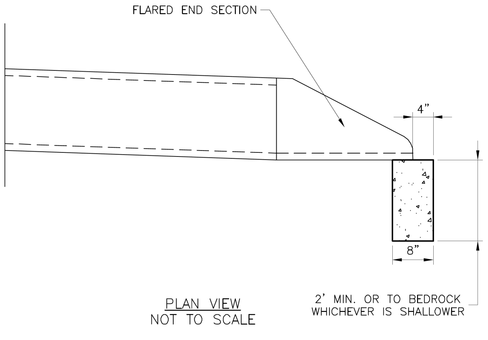
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

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

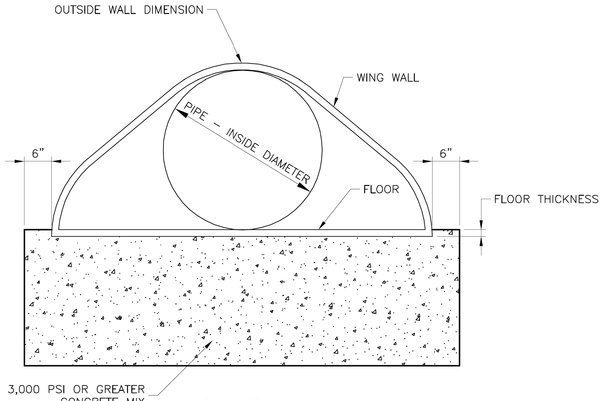
STORM MANHOLE COVER DETAIL

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

SHEET 45 OF 53
JOB NO. 16.059.01
DATE March 22, 2019
DESIGNED XXX
DRAWN BY XXX
CHECKED XXX

STORM SEWER DETAILS

COBEY CREEK

CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

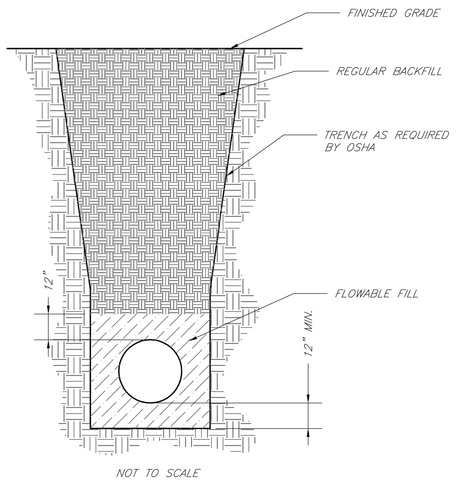
Hg Consult Inc engineers planners
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005873

3/27/19
R. KEVIN STERRETT, MO E-26440

| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | 3 | RAM | RKS |
| 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | 2 | RAM | RKS |
| 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | 1 | RAM | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

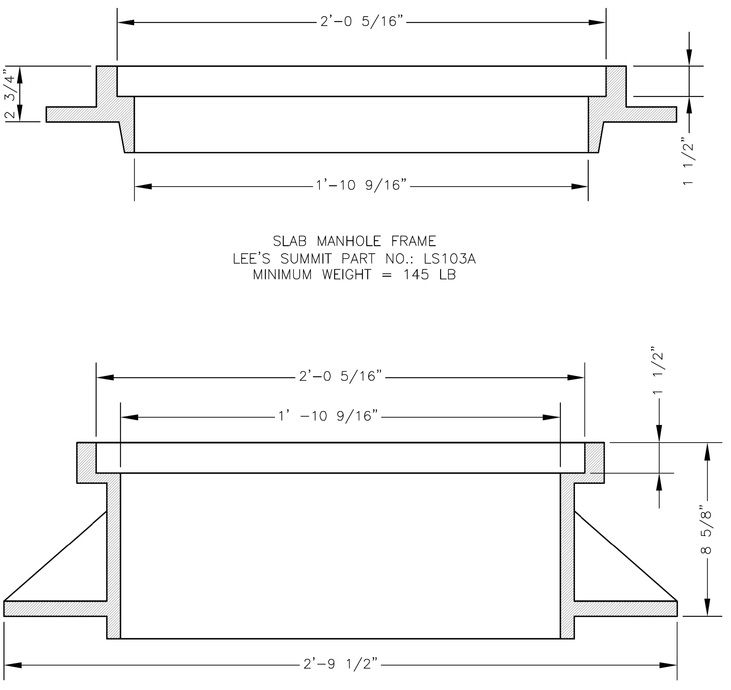
3/27/2019
16.059-StormDetail-03.dgn




NOT TO SCALE

NOTES:
1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES > 6" IN ANY DIMENSION.
3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE.
4. LENGTH OF TRENCH CHECK SHALL BE A MINIMUM OF 12".

| LEE'S SUMMIT MISSOURI<br>PUBLIC WORKS ENGINEERING DIVISION \| 220 SE GREEN STREET \| LEE'S SUMMIT, MO 64063 | Date: 02/13<br>Drawn By: JN<br>Checked By: DL<br>FILE: WAT-6<br>Rev: 1/14<br>Rev: |
|---|---|
| TRENCH CHECK | |



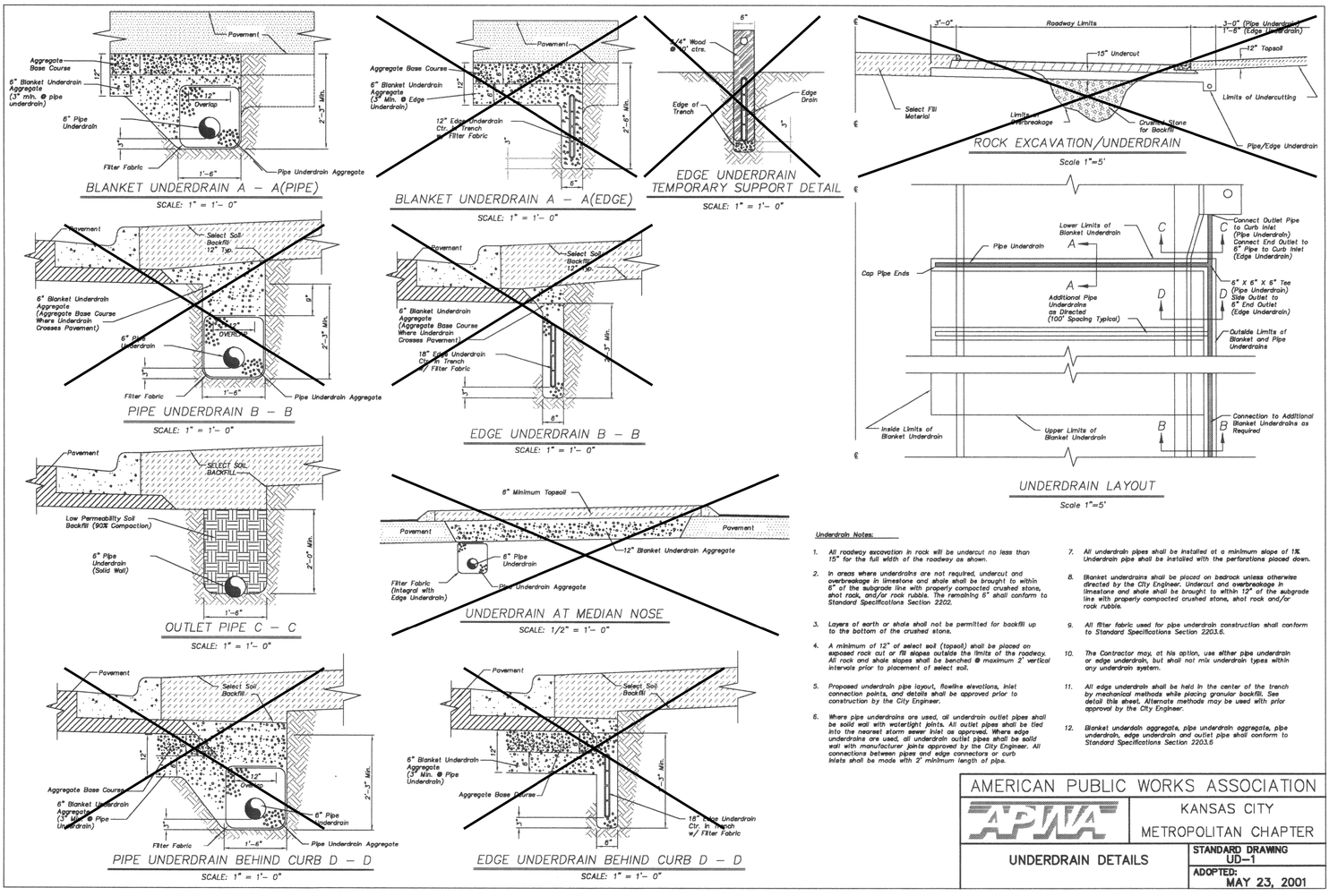

SLAB MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS103A
MINIMUM WEIGHT = 145 LB




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<br>PUBLIC WORKS ENGINEERING DIVISION \| 220 SE GREEN STREET \| LEE'S SUMMIT, MO 64063 | Date: 04/17<br>Drawn By: MIF<br>Checked By: DL |
|---|---|
| STORM MANHOLE FRAME DETAIL | STM-7 |




Underdrain Notes:

1. All roadway excavation in rock will be undercut no less than 15" for the full width of the roadway as shown.
2. In areas where underdrains are not required, undercut and overbreakage in limestone and shale shall be brought to within 6" of the subgrade line with properly compacted crushed stone, shot rock, and/or rock rubble. The remaining 6" shall conform to Standard Specifications Section 2202.
3. Layers of earth or shale shall not be permitted for backfill up to the bottom of the crushed stone.
4. A minimum of 12" of select soil (topsoil) shall be placed on exposed rock cut or fill slopes outside the limits of the roadway. All rock and shale slopes shall be benched @ maximum 2' vertical intervals prior to placement of select soil.
5. Proposed underdrain pipe layout, flowline elevations, inlet connection points, and details shall be approved prior to construction by the City Engineer.
6. Where pipe underdrains are used, all underdrain outlet pipes shall be solid wall with watertight joints. All outlet pipes shall be tied into the nearest storm sewer inlet as approved. Where edge underdrains are used, all underdrain outlet pipes shall be solid wall with manufacturer joints approved by the City Engineer. All connections between pipes and edge connectors or curb inlets shall be made with 2' minimum length of pipe.
7. All underdrain pipes shall be installed at a minimum slope of 1% Underdrain pipe shall be installed with the perforations placed down.
8. Blanket underdrains shall be placed on bedrock unless otherwise directed by the City Engineer. Undercut and overbreakage in limestone and shale shall be brought to within 12" of the subgrade line with properly compacted crushed stone, shot rock and/or rock rubble.
9. All filter fabric used for pipe underdrain construction shall conform to Standard Specifications Section 2203.6.
10. The Contractor may, at his option, use either pipe underdrain or edge underdrain, but shall not mix underdrain types within any underdrain system.
11. All edge underdrain shall be held in the center of the trench by mechanical methods while placing granular backfill. See detail this sheet. Alternate methods may be used with prior approval by the City Engineer.
12. Blanket underdrain aggregate, pipe underdrain aggregate, pipe underdrain, edge underdrain and outlet pipe shall conform to Standard Specifications Section 2203.6

| AMERICAN PUBLIC WORKS ASSOCIATION<br>APWA<br>KANSAS CITY METROPOLITAN CHAPTER | |
|---|---|
| UNDERDRAIN DETAILS | STANDARD DRAWING UD–1<br>ADOPTED: MAY 23, 2001 |

46 SHEET OF 53

16.059.01 JOB NO.
March 22, 2019 DATE
XXX DESIGNED
XXX DRAWN
XXX CHECKED

STORM SEWER DETAILS

COBEY CREEK

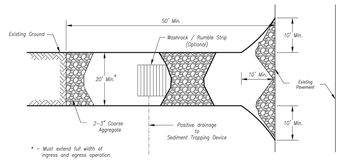
CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI


Hg Consult Inc engineers planners
11010 Haskell St. Ste 210 Kansas City, KS 66109 816-759-2285 CORPORATE LICENSE No. E2010005873

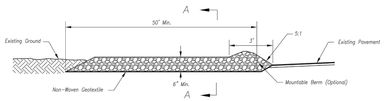

R. KEVIN STERRETT, MO E-26440 3/27/19

| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 3/27/19 | ADDRESSED CITY COMMENTS DATED 3/20/19 | 3 | RAM | RKS |
| 3/8/19 | ADDRESSED CITY COMMENTS DATED 12/18/18 | 2 | RAM | RKS |
| 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | 1 | RAM | RKS |

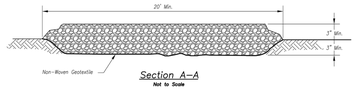

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IS NOT IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES




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 areas.
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.

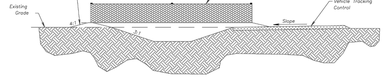
CONSTRUCTION ENTRANCE

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 adequately for the anticipated volume of concrete to be placed. The slopes leading out of the subsurface pit shall be 2:1. 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:

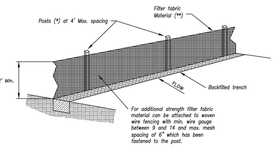
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface 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

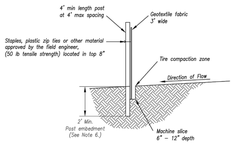
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control, Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER |
|---|---|
| CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT | STANDARD DRAWING NUMBER ESC-01 |
| | ADOPTED: 10/24/2016 |




(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD 1 ¼" x 1 ¼"
- NO.2 SOUTHERN PINE 2 ¾" x 2 ¾"
- 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 ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.

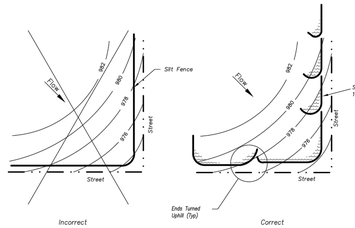
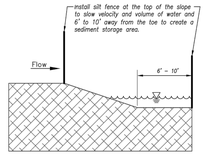
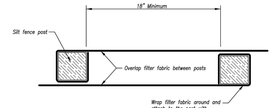



Figure A

SILT FENCE LAYOUT
Not to Scale

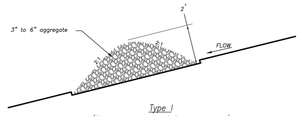


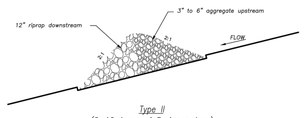

JOINING FENCE SECTIONS
Not to Scale

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

| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER |
|---|---|
| SILT FENCE | STANDARD DRAWING NUMBER ESC-03 |
| | ADOPTED: 10/24/2016 |




Type I
(2 Acres or less of Drainage Area)
Not to Scale

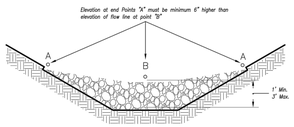



Type II
(2-10 Acres of Drainage Area)
Not to Scale

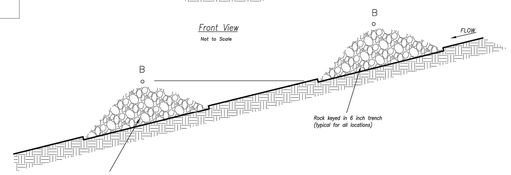
ROCK DITCH CHECK

| Temporary Rock Ditch Check Spacing | |
|---|---|
| Ditch Centerline Slope ( % ) | Spacing Interval (Feet) |
| 5.0 | 60 |
| 6.0 | 50 |
| 7.0 | 43 |
| 8.0 | 38 |
| 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:

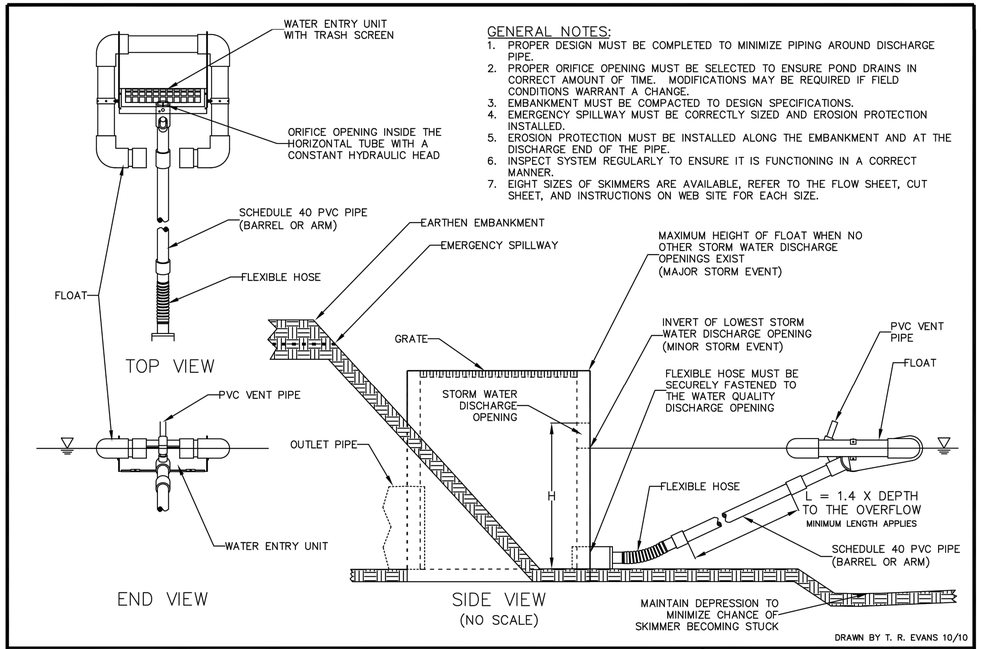
1. Rock check dams shall be used only for drainage areas less that 10 acres unless approved by the City Engineer.
2. Use rock checks only in situations where the ditch slope exceeds 6%.

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 |




GENERAL NOTES:
1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

DRAWN BY T. R. EVANS 10/10

FAIRCLOTH SKIMMER® DISCHARGE SYSTEM WITH OUTLET STRUCTURE

J. W. FAIRCLOTH & SON INC.
WWW.FAIRCLOTHSKIMMER.COM
TELEPHONE: (919) 732-1244
FAX: (919) 732-1286
EMAIL: WARREN@FAIRCLOTHSKIMMER.COM

| DATE | REVISION | NO. | BY | CK/APP |
|---|---|---|---|---|
| 1/27/19 | PER CITY COMMENTS | 2 | MJC | RKS |
| 1/8/19 | PER CITY COMMENTS | 1 | MJC | RKS |
| 11/2/18 | SUBMITTAL TO CITY OF LEES SUMMIT | | MJC | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
RICHARD KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
March 27, 2019


Consult I&C inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005 / E-1736 (KS.)


LAND DISTURBANCE PLANS
EROSION CONTROL DETAILS SHEET 1 OF 2

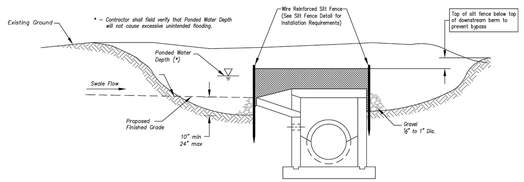
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

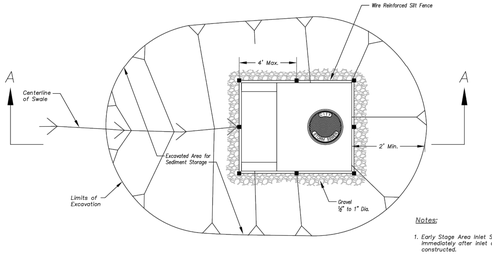
DRAWING NO.
16-059 Phase I Land Disturbance

DATE
March 27, 2019

JOB NO.
16-059




Section A-A
Not to Scale

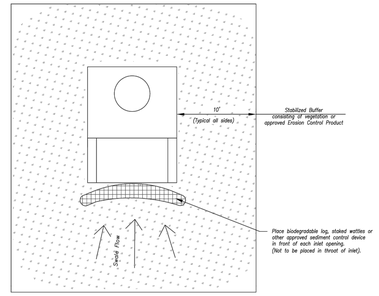



Plan
Not to Scale

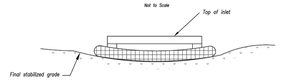
**EARLY STAGE AREA INLET**
**(All open boxes and inlets not at final grade)**

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.




Plan
Not to Scale




Front View

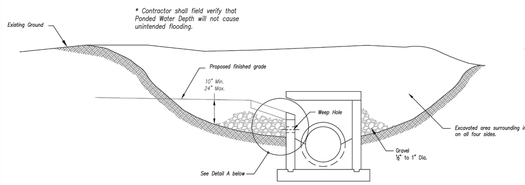
**LATE STAGE AREA INLET**
**(Area inlets at final grade and existing inlets)**

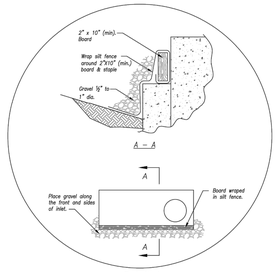
Maintenance:

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.

| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER |
|---|---|
| AREA INLET AND JUNCTION BOX PROTECTION | STANDARD DRAWING NUMBER ESC-07 |
| | ADOPTED: 10/24/2016 |




Detail A

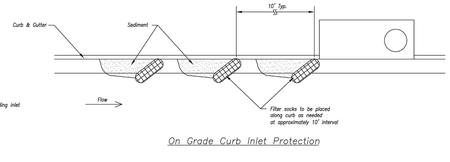
**EARLY STAGE CURB INLET**
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

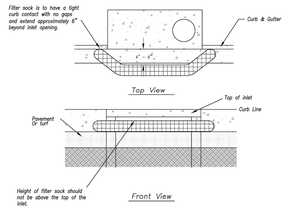
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When 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.




On Grade Curb Inlet Protection

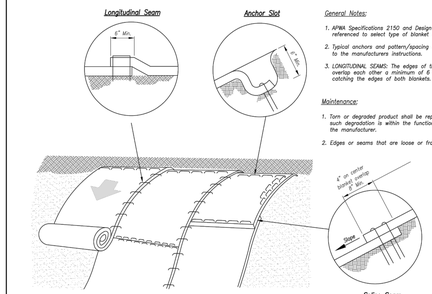


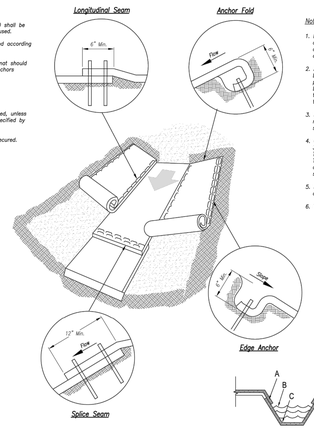

Sump Inlet Sediment Filter

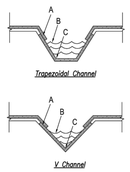
**LATE STAGE CURB INLET**
(After Pouring Curb and Inlet Throat)

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

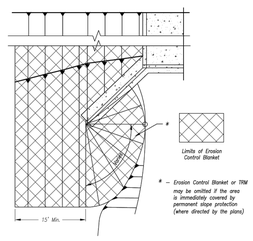
| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER |
|---|---|
| CURB INLET PROTECTION | STANDARD DRAWING NUMBER ESC-06 |
| | ADOPTED: 10/24/2016 |




Installation in Channels




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. 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.

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.

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:

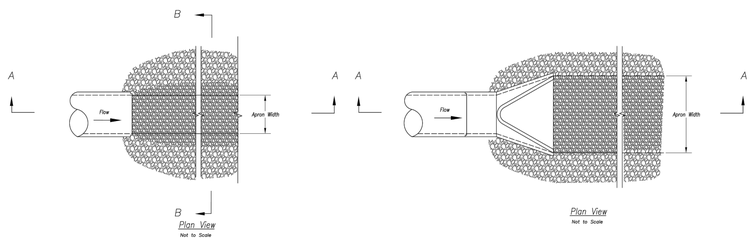
A - Overlaps and seams;

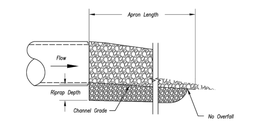
B - Projected water line;

C - Channel bottom / side slope vertices;

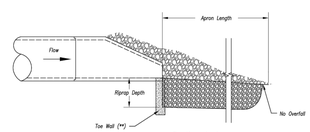
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER |
|---|---|
| EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS | STANDARD DRAWING NUMBER ESC-02 |
| | ADOPTED: 10/24/2016 |



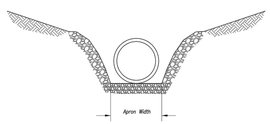




Section A-A
Not to Scale




Section A-A
Not to Scale

OUTLET PROTECTION WITH END SECTION




Section B-B
Not to Scale

OUTLET PROTECTION W/O 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 2600 for rock type, size, and placement.

| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER |
|---|---|
| OUTLET PROTECTION | STANDARD DRAWING NUMBER ESC-14 |
| | ADOPTED: 10/24/2016 |

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 2 | 1/22/19 | PER CITY COMMENTS | MJC | RKS |
| 1 | 1/8/19 | PER CITY COMMENTS | MJC | RKS |
| | 11/2/18 | SUBMITTAL TO CITY OF LEES SUMMIT | MJC | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES

STATE OF MISSOURI
R. KEVIN STERRETT
NUMBER 26440
REGISTERED PROFESSIONAL ENGINEER

R. KEVIN STERRETT | MO E-26440
March 27, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005 / E-1736 (KS.)


LAND DISTURBANCE PLANS
EROSION CONTROL DETAILS - SHEET 2 OF 2

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

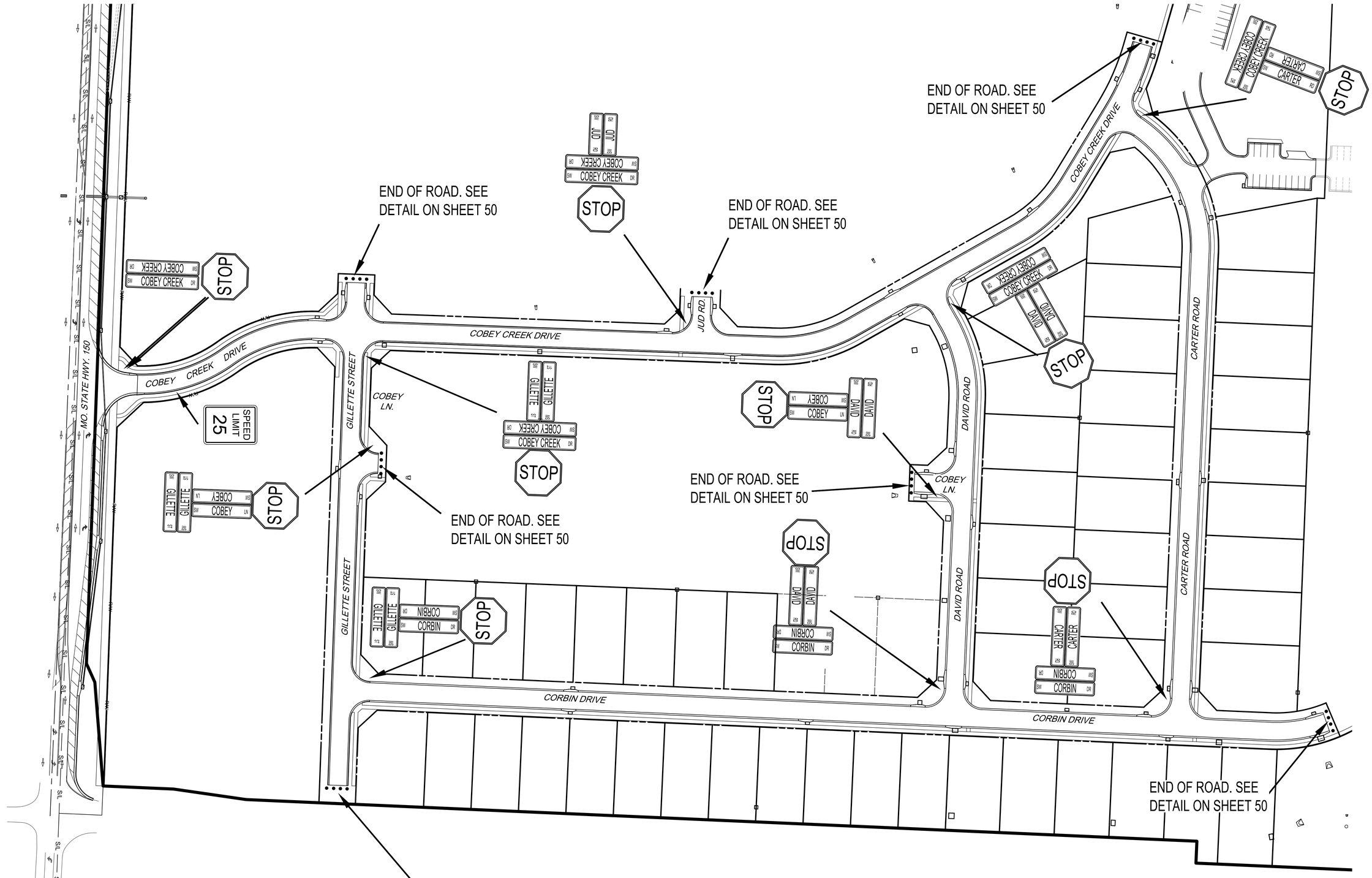
X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Land Disturbance

DATE
March 27, 2019

JOB NO.
16-059

SHEET 48 OF 53




811 Know what's below. Call before you dig.

0 60' 90' 120' SCALE IN FEET

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/08/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/21/18 | SUBMITTAL TO CITY OF LEES SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES.

STATE OF MISSOURI — DUANE R. KEVIN STERRETT — NUMBER E-26440 — REGISTERED PROFESSIONAL ENGINEER

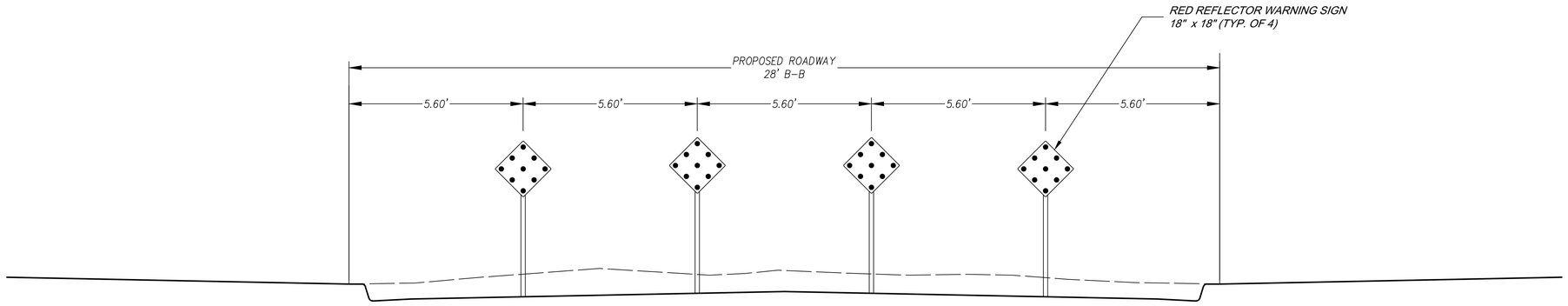
R. KEVIN STERRETT | MO E-26440
April 16, 2019


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)

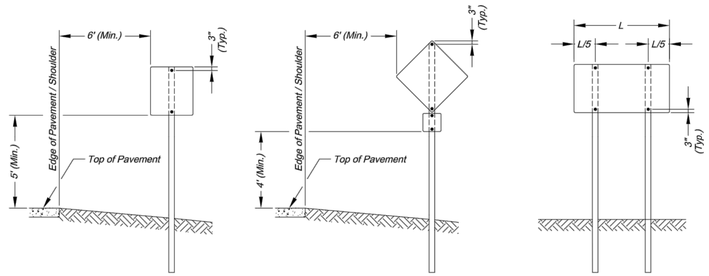

STREET AND STORM SEWER PLANS
SIGNING PLAN

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
April 16, 2019
JOB NO.
16-059
SHEET 49 OF 53




*TYPICAL END OF ROAD SIGNAGE*
*NOT TO SCALE*



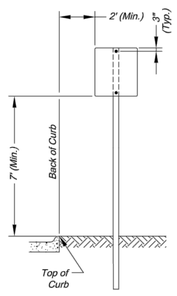

*SIGN INSTALLATION FOR NON-CURBED STREET*



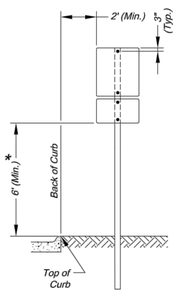

*SIGN INSTALLATION WITH AUXILARY SIGN FOR NON-CURBED STREET*



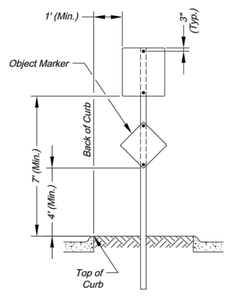

*SIGN INSTALLATION WITH TWO SIGN POSTS*




*SIGN INSTALLATION FOR CURBED STREET*




*SIGN INSTALLATION WITH AUXILARY SIGN FOR CURBED STREET*

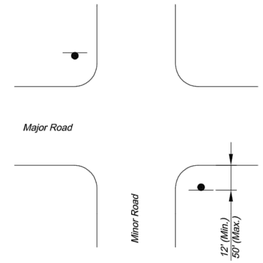



*SIGN INSTALLATION FOR RAISED MEDIANS*

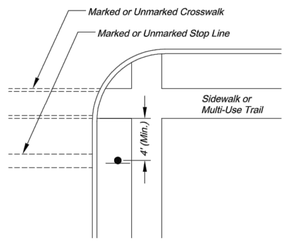
## *SIGN MOUNTING DETAILS*

* *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.*

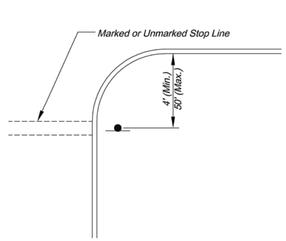
*NOTE:*
1. *Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.*




*NON-CURBED INTERSECTION INSTALLATION*

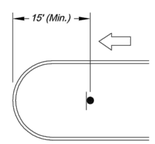



*INTERSECTION WITH SIDEWALK / MULTI-USE TRAIL INSTALLATION*




*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.*

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 04/16/19 | PER CITY'S COMMENTS | SHW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SHW | RKS |
| 1 | 03/08/19 | PER CITY'S COMMENTS | SHW | RKS |
| | 11/21/18 | SUBMITAL TO CITY OF LEES SUMMIT | SHW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES.

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

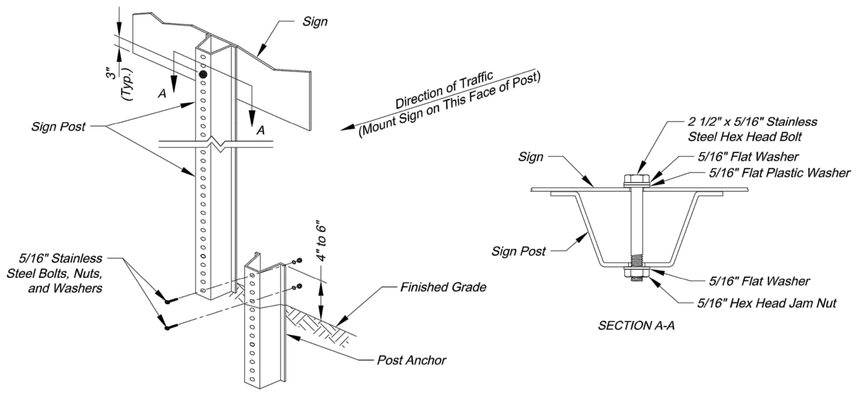
Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#
1 OF 3
**1**

Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005?3 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
SIGNING DETAILS

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
April 16, 2019
JOB NO.
16-059
50 SHEET OF 53




# U-STEEL POST DETAILS

*U-STEEL POST NOTES:*

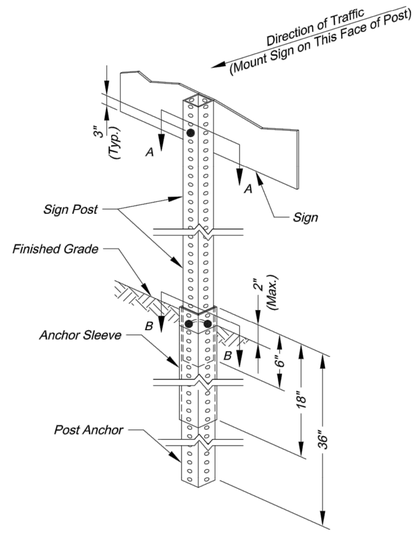
1. *Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.*
2. *U-Steel post shall be 3 lb./ft., galvanized according to ASTM A123.*
3. *U-Steel post can be used for installation of signs with an area of less than 2.5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

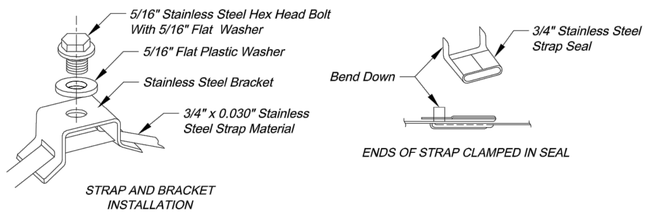
*PERMANENT SIGNING GENERAL NOTES:*

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.*

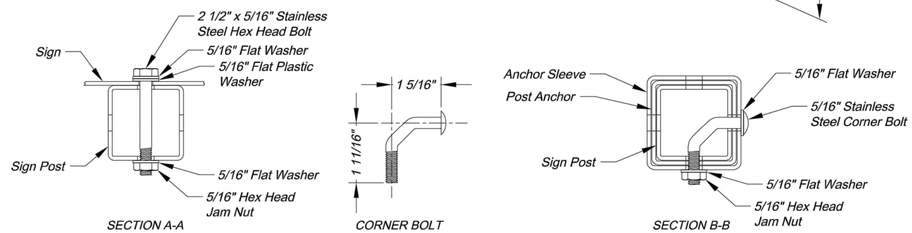



# STRAP TYPE SIGN SUPPORT DETAILS

*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 ¼" 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.*


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


| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 04/16/19 | PER CITY'S COMMENTS | SHW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SHW | RKS |
| 1 | 03/08/19 | PER CITY'S COMMENTS | SHW | RKS |
| | 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | SHW | RKS |


IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES


Project: SIGN POST DETAILS

Sheet Name: STANDARD DRAWING SN-2

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

2 OF 3

**2**


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005573 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
SIGNING DETAILS

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
April 16, 2019

JOB NO.
16-059

51 SHEET OF 53

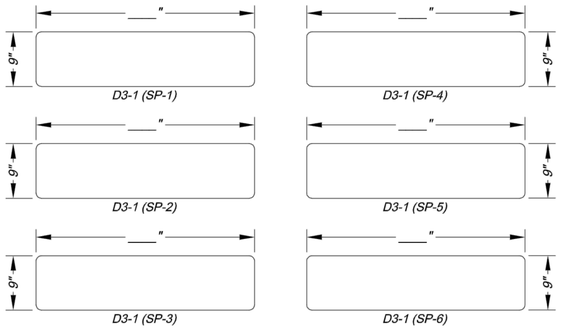
## STANDARD ABBREVIATION LISTS

| 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 |

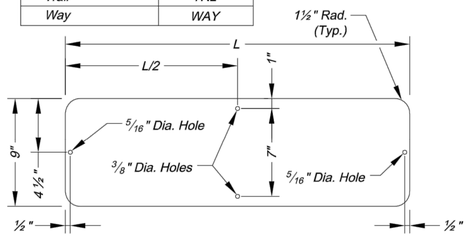
| Numbered Streets | |
|---|---|
| First | ST |
| Second | ND |
| Third | RD |
| Fourth to Tenth | TH |

## STREET NAME SIGN QUANTITIES

| Sign Designation | Sign Size | Sign Area (Sq. Ft.) | Number | Quantity (Sq. Ft.) |
|---|---|---|---|---|
| D3-1 (SP-1) | 9" x | Sq. Ft. | 1 | 1 |
| D3-1 (SP-2) | 9" x | | | |
| D3-1 (SP-3) | 9" x | | | |
| D3-1 (SP-4) | 9" x | | | |
| D3-1 (SP-5) | 9" x | | | |
| D3-1 (SP-6) | 9" x | | | |

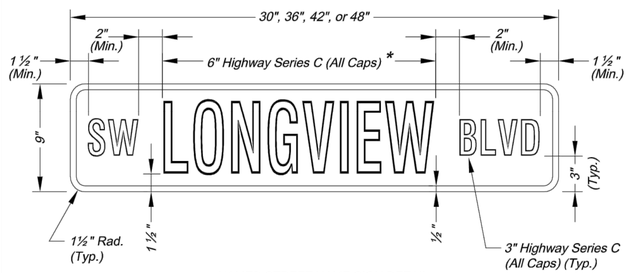



## PROJECT SIGN DETAILS



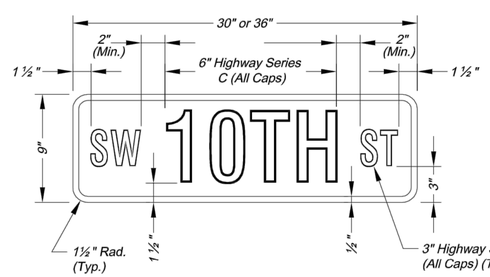

## STREET NAME SIGN BLANK DETAILS

*For Mounting on Square Steel Posts*

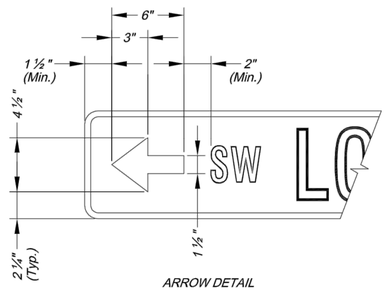



NAMED STREET NAME SIGN DETAIL

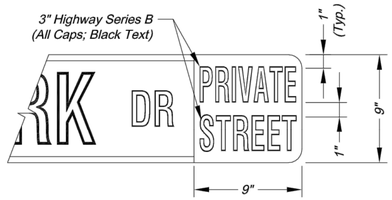
* Use Highway Series B (All Caps) in lieu of series C if necesary to fit text on a 36" sign blank.




NUMBERED STREET NAME SIGN DETAIL




ARROW DETAIL

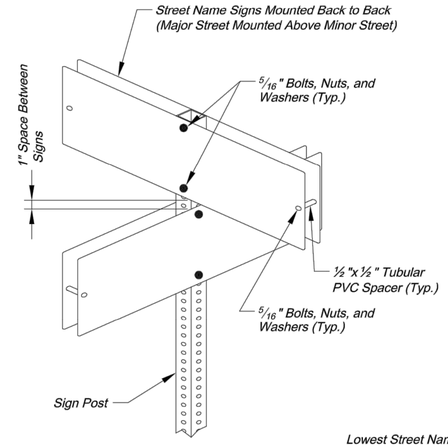



PRIVATE STREET TAG DETAIL

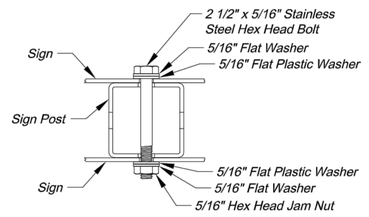
NOTES:

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.

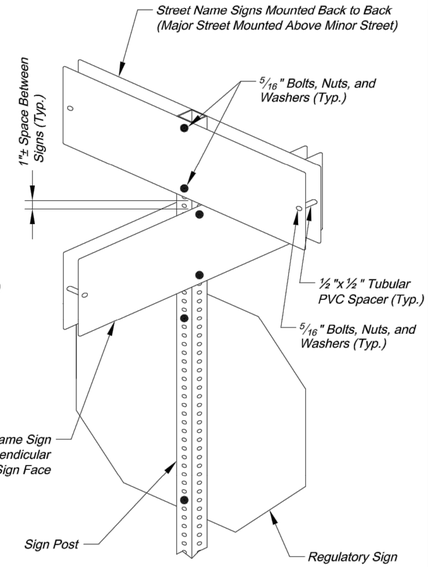
## STREET NAME SIGN FACE DETAILS




SIGNS INSTALLED SEPARATELY

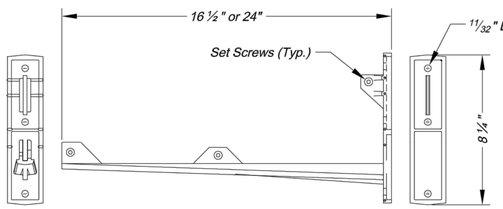



PLAN VIEW



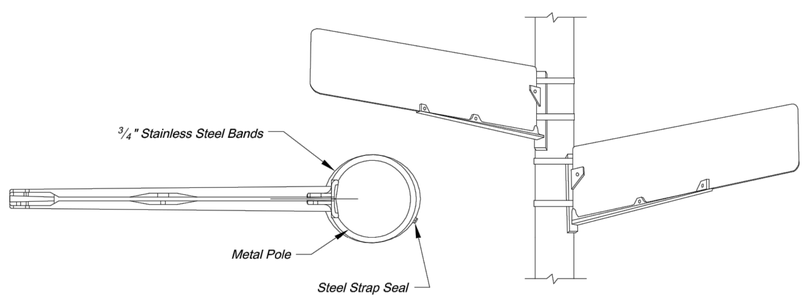

SIGNS INSTALLED WITH OTHER SIGNS

## 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 ¾" wide stainless steel straps.
3. One wing bracket shall be installed per each sign. Cross brackets are not allowed.




## WING BRACKET MOUNTING DETAILS

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 04/16/19 | PER CITY'S COMMENTS | SPW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SPW | RKS |
| 1 | 03/08/19 | PER CITY'S COMMENTS | SPW | RKS |
| | 11/21/18 | SUBMITAL TO CITY OF LEE'S SUMMIT | SPW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES.


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: STREET NAME SIGN DETAILS

Sheet Name: STANDARD DRAWING SN-3

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

3 OF 3

**3**


Consult Inc engineers planners
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005 (MO.) / E-1736 (KS.)


STREET AND STORM SEWER PLANS
SIGNING DETAILS

COBEY CREEK FIRST PLAT
PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

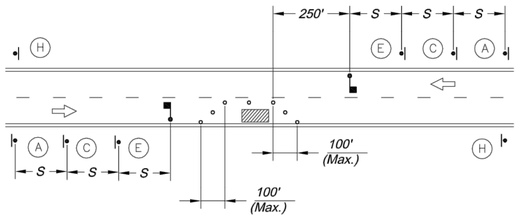
DATE
April 16, 2019

JOB NO.
16-059

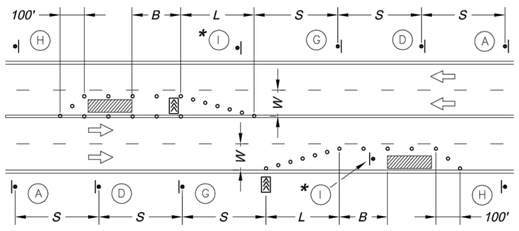
52 SHEET OF 53

## SYMBOL LEGEND

- Work Area
- Sign
- Barricade
- Direction of Travel
- Channelizer
- Arrow Panel
- Flagger

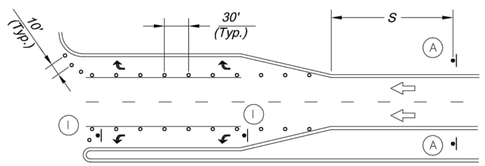



LANE CLOSURE - TWO LANE STREET



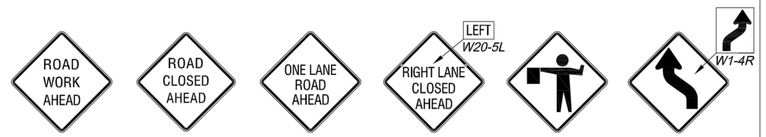

LANE CLOSURE - FOUR LANE STREET

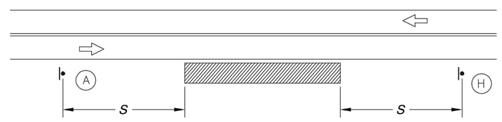
* Install Signs Every 200 Feet Throughout the Closed Lane or As Needed



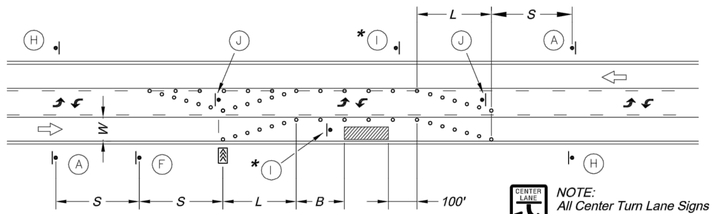

TURN LANE CLOSURE

## SIGN LEGEND




TYPICAL SIGNING FOR WORK ADJACENT TO THE STREET




CENTER LANE ONLY

R3-9b

NOTE:
All Center Turn Lane Signs (MUTCD No. R3-9B) Shall Be Covered During Lane Closure

LANE CLOSURE - THREE LANE STREET

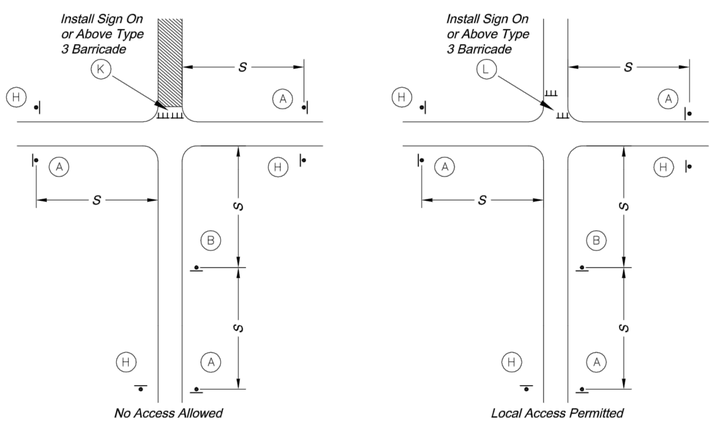
* Install Signs Every 200 Feet Throughout the Closed Lane or As Needed

| Sign Spacing "S" | |
|---|---|
| Speed Limit (mph) | Spacing (Feet) |
| 25 | 100 |
| 30 - 35 | 250 |
| ≥ 40 | 350 |

| Taper Dimensions (Feet) | | | | |
|---|---|---|---|---|
| Speed Limit (mph) | Minimum Taper Length "L", per Lane Width "W" | | | Minimum Number of Channelizers |
| | 10 | 11 | 12 | |
| 25 | 105 | 115 | 125 | 6 |
| 30 | 150 | 165 | 180 | 7 |
| 35 | 205 | 225 | 245 | 8 |
| 40 | 270 | 295 | 320 | 9 |
| 45 | 450 | 495 | 540 | 13 |

| Guidelines for Length of Longitudinal Buffer Space "B" | |
|---|---|
| Speed Limit (mph) | Length (Feet) |
| 25 | 35 |
| 30 | 55 |
| 35 | 85 |
| 40 | 120 |
| 45 | 170 |

| Maximum Channelizer Spacing | | |
|---|---|---|
| Speed Limit (mph) | Within Taper (Feet) | Outside Taper (Feet) |
| 25 | 25 | 50 |
| 30 | 30 | 60 |
| 35 | 35 | 70 |
| 40 | 40 | 80 |
| 45 | 45 | 90 |



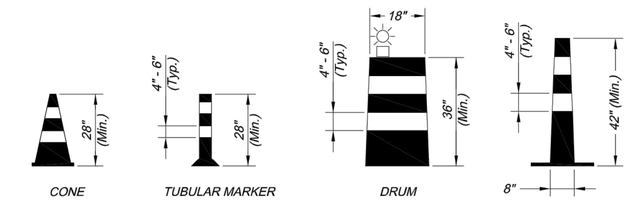

No Access Allowed

Local Access Permitted

TYPICAL STREET CLOSURE

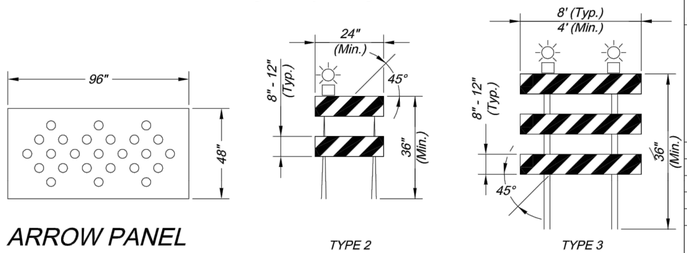
## GENERAL NOTES:

1. All signs, barricades, channelizers, markings and other traffic control devices shall conform to the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
2. All traffic control devices shall be standard in size, shape, color, and message, in good condition, and retro-reflectorized. All signs shall be securely mounted with height and lateral location as described in the MUTCD.
3. Warning lights shall be used on barricades in place at night and on warning signs which alert drivers about a change in alignment, traffic control, lane closure, or road closure.
4. Flaggers shall be used where indicated on the plans, where construction vehicles interact with normal traffic, or where construction activities impose a restriction on traffic, as directed by the City Traffic Engineer. Where flaggers are used, advance signing shall be erected as shown in the details or as specified in the MUTCD. Flaggers shall meet the requirements in the MUTCD in regard to character, training, attire, and behavior.
5. Trim-lines are the City's preferred channelizing device. Cones may not be used at nighttime.
6. Traffic control devices not in use or not applicable shall be either covered or removed from the work area.
7. The Contractor shall use barricades, street plates, or fencing as needed to effectively shield pedestrian and vehicular traffic from exposed objects, excavations, and construction activities.
8. Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.
9. No street shall be closed without the approval of the City Traffic Engineer. The Contractor shall notify the City Traffic Engineer at least 7 days in advance of any street closure. If a detour route around the closure is to be provided, all detour signing shall be as shown on a plan approved by the City Traffic Engineer.
10. Construction vehicles parked along streets shall be located within the work area (traffic control) or where otherwise normally permitted. Construction materials, including traffic control and vehicles shall not restrict sight distance for vehicles exiting at streets or drives.
11. Construction materials shall be kept off of sidewalks, consolidated in one location within City right-of-way, and removed daily unless otherwise approved by the Inspector. Dirt, mud, and other construction debris on streets and sidewalks shall be removed immediately.
12. The Contractor shall not perform any work that will restrict vehicular traffic in any way between the hours of 7:00 a.m. and 9:00 a.m. or 4:00 p.m. and 6:00 p.m. Monday through Friday unless otherwise indicated in the specifications.
13. All travel lanes should be at least 11 feet wide unless otherwise authorized by the City Traffic Engineer. A "Narrow Lanes" sign shall be installed in advance of a lane width reduction to less than 11 feet.
14. All edge drop-offs of more than 2 inches and less than 4 inches should be protected by a wedge or barrier and all edge drop-offs greater than 4 inches shall have edge protection (see Traffic Control Specifications for edge treatment requirements).
15. The "Workers" symbolic sign (MUTCD No. W21-1a) may be used instead of the "Road Work Ahead" sign for work with a duration of 12 hours or less. The "End Road Work" sign is not required to be installed after the "Workers" sign.
16. No traffic signal shall be altered or modified in any way without a plan approved by the City Traffic Engineer.
17. The Contractor shall be responsible for maintaining all traffic control devices on an around-the-clock basis, whether or not work is actively being pursued and any deficiencies noted shall be corrected immediately.
18. The traffic control requirements shown on these plans are minimum requirements only and do not attempt to address in depth the variety of situations that may occur once construction has started. In no way do the requirements shown on these plans relieve the Contractor of his responsibility for selecting the proper traffic control devices and implementation procedures that will assure the safety of drivers, pedestrians, and workers at all times.
19. Should the contractor fail to enforce the traffic control plan or fail to clean, replace or otherwise maintain the traffic control devices when directed to do so by the City Traffic Engineer or representative, the City may take one or more of the following actions:
    - A) Employ another agency to correct deficiencies in traffic control devices and deduct the cost from the Contractor's pay estimate,
    - B) Stop the work until deficiencies are corrected,
    - C) Suspend all pay estimates until deficiencies are corrected, or
    - D) Place the Contractor in default.




## CHANNELIZERS

NOTE: White Bands On Barricades and Channelizers Shall Be Made From High Intensity Sheeting Material.




## BARRICADES

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: TRAFFIC CONTROL DETAILS

Sheet Name: STANDARD DRAWING TC-1

Drawn By: JJW
Checked By: MP
Date: 12-10-2008
Project No.: X

x OF x

X

| NO. | DATE | REVISION | BY | CK/APP |
|---|---|---|---|---|
| 3 | 04/16/19 | PER CITY'S COMMENTS | SHW | RKS |
| 2 | 03/27/19 | PER CITY'S COMMENTS | SHW | RKS |
| 1 | 03/08/19 | PER CITY'S COMMENTS | SHW | RKS |
| | 11/21/18 | SUBMITTAL TO CITY OF LEE'S SUMMIT | SHW | RKS |

IF THIS IS NOT A BLUE INK SEAL AND THE SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES


Consult engineers planners Inc
11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE No. E2010005


STREET AND STORM SEWER PLANS
SIGNING DETAILS

COBEY CREEK FIRST PLAT
PHASE I

CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I

DRAWING NO.
16-059 Phase I Street Plans

DATE
April 16, 2019

JOB NO.
16-059

SHEET 53 OF 53