Final Development Plans / Site Civil Plans
Summit Point
504 NE Chipman Road
City of Lee's Summit, Missouri
Section 32, Township 48N, Range 31W

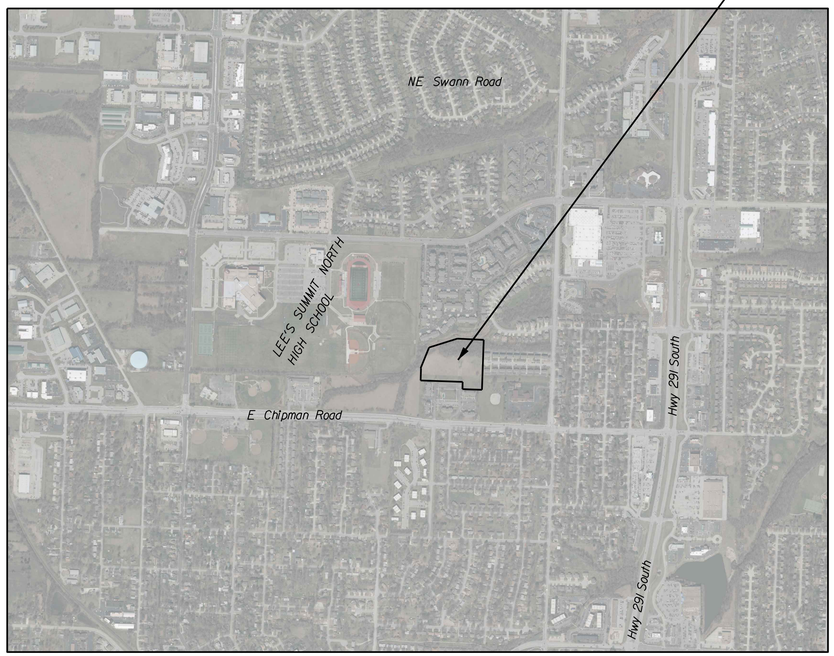
LEGAL DESCRIPTION:

LEGAL DESCRIPTION:

A tract of land in the Southwest Quarter of Section 32, Township 48N, Range 31W in Lee's Summit, Jackson County, Missouri, described as follows:

Commencing at the Southwest corner of the Southwest Quarter of Section 32; thence North 88 degrees, 00 minutes, 27 seconds West, along the South line of the Southwest Quarter, 1525.36 feet; thence North 01 degree, 59 minutes, 33 seconds East, leaving the South line, 97.98 feet to a point on the existing North right-of-way of Chipman Road and the Southwest corner of "Summit Point First Plat" recorded in Book 41 at Page 60; thence North 01 degree, 54 minutes, 38 seconds East, along the West line of the plat, 417.58 feet (measured), (420.12 feet, plat), to the Northwest corner of the plat and the Point of Beginning; thence North 01 degree, 54 minutes, 38 seconds East, 135.86 feet; thence North 72 degrees, 33 minutes, 20 seconds West, 5.19 feet; thence North 22 degrees, 20 minutes, 37 seconds East, 250.76 feet to a point on the South line of "AMLI Summit Ridge Lot 1", recorded in Book I66 at Page 48; thence North 72 degrees, 31 minutes, 35 seconds East, along the South line of the plat, 330.00 feet; thence South 87 degrees, 28 minutes, 25 seconds East, continuing along the South line, 251.73 feet to the Southeast corner of the plat, also being a point on the West line of "Maple Tree Manor First Plat" recorded in Book I60 at Page 59; thence South 87 degrees, 28 minutes, 25 seconds East, along the West line of the plat, 44.56 feet to a point on the West line of "Maple Tree Manor, Lot 8A and 8B", recorded In Book I116 at Page 85; thence South 02 degrees, 04 minutes, 01 second West, along the West line of the plat, 32.10 feet to the Southwest corner of the plat and the Northwest corner of "Replat of English Manor Units 41-72 Inclusive", recorded in Book I49 at Page 13; thence South 02 degrees, 04 minutes, 01 second West, along the West line of the plat, 439.00 feet to the Southwest corner of the Southwest corner of the plat and the Northwest corner of "St. Matthews Acres", recorded in Book 39 at Page 160, thence South 02 degrees, 04 minutes, 01 second West, along the West line of the plat, 88.48 feet to the Northeast corner of "Summit Point First Plat"; thence along the North line of the plat the following three courses; North 88 degrees, 05 minutes, 22 seconds West, 218.00 feet; thence North 01 degree, 54 minutes, 38 seconds East, 81.01 feet; thence North 88 degrees, 05 mintues, 22 seconds West, 470.58 feet to the Point of Beginning, containing 314,151.52 square feet or 7.21 acres, more or less.

PROJECT LOCATION



LOCATION MAP

LEES SUMMIT,MISSOURI

UTILITY INFORMATION

UTILITY LOCATION	MISSOURI ONE-CALL SYSTEM 1-800-DIG-RITE 1-800-344-7483
ELECTRIC	KANSAS CITY POWER AND LIGHT P.O. BOX 418679 KANSAS CITY, MISSOURI 64141 816-471-5275 816-298-1196
GAS SERVICE	MISSOURI GAS ENERGY 3025 SE CLOVER DRIVE LEE'S SUMMIT, MISSOURI 64082 1-800-582-0000
TELEPHONE	AT&T 777 NW BLUE PARKWAY, #3080 LEE'S SUMMIT, MISSOURI 64086 816-251-2800
WATER SERVICE	CITY OF LEE'S SUMMIT UTILITIES 220 SE GREEN STREET LEE'S SUMMIT, MISSOURI 64063 816-966-1900

ENGINEER:

CFS ENGINEERS
1421 E 104th STREET, SUITE 100
KANSAS CITY, MO 64131
816.333.4477
ATTN: LANCE SCOTT

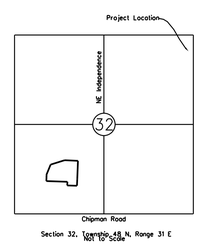
ARCHITECT:

BCS Design
19920 West 161st Street
Olathe, Kansas 66062
913.780.4820
Attn: Jeff Shinkle

OWNER / DEVELOPER:

Summit Point II, LLC
Gary R. Rauscher
President
331 Soquel Avenue, Suite 100
Santa Cruz, CA 95062

Phone (831) 480-6339



VICINITY MAP

N

2000' 0 2000' 4000'
SCALE FEET
SCALE: 1" = 2000'

GENERAL NOTES:

1. THE BOUNDARY INFORMATION, EXISTING UTILITY LINES, AND TOPOGRAPHIC FEATURES SHOWN ARE ACCORDING TO THIS INFORMATION MADE AVAILABLE TO THE ENGINEER. HOWEVER, ALL UTILITIES EXISTING MAY NOT BE SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY EXISTING TOPOGRAPHIC FEATURES AND EXISTING UTILITY LOCATIONS AND REPORT ANY DISCREPANCIES TO THE OWNER AND ENGINEER PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. PORTION OF TOPOGRAPHIC SURVEY PROVIDED BY OWNER.
2. LANDSCAPING SHALL BE INSTALLED PRIOR TO OCCUPANCY.
3. THE CONTRACTOR SHALL SUBMIT AN EXPANSION/CONTRACTION JOINT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
4. ALL EXCAVATION SHALL BE UNCLASSIFIED.
5. THE CONTRACTOR SHALL CONTACT THE CITY OF LEE'S SUMMIT PUBLIC WORKS INSPECTIONS AT (816) 969-1829 WITHIN 48 HOURS OF COMMENCEMENT OF CONSTRUCTION.
6. THE CONTRACTOR SHALL CONTACT RIGHT-OF-WAY INSPECTIONS AT (816) 969-1838 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHTS-OF-WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT.

INDEX OF SHEETS

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
MISSOURI PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Date: 03-25-2015
Rev. -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1:20
File name: P2065-ST-SH-CD Cover Sheet.dgn
Plot date: 8/2/2022

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

SITE/CIVIL PLANS
Construction Drawings

TITLE SHEET

C100

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FINAL DEVELOPMENT PLAN
SUMMIT POINT 2nd PLAT
LEE'S SUMMIT, MISSOURI

LEGAL DESCRIPTION:

A tract of land in the Southwest Quarter of Section 32, Township 48N, Range 31W in Lee's Summit, Jackson County, Missouri, described as follows:
Commencing at the Southeast corner of the Southwest Quarter of Section 32; thence North 88 degrees, 00 minutes, 27 seconds West, along the South line of the Southwest Quarter, 1525.36 feet; thence North 01 degree, 59 minutes, 33 seconds East, leaving the South line, 97.98 feet to a point on the existing North Right-Of-Way of Chipman Road and the Southwest corner of "Summit Point First Plat", recorded in Book 41 at Page 60; thence North 01 degree, 54 minutes, 38 seconds East, along the West line of the plat, 417.58 feet (measured), (420.12 feet, plat), to the Northwest corner of the plat and the POINT OF BEGINNING; thence North 01 degree, 54 minutes, 38 seconds East, 135.86 feet; thence North 72 degrees, 33 minutes, 20 seconds West, 5.19 feet; thence North 22 degrees, 20 minutes, 37 seconds East, 250.76 feet to a point on the South line of "AMLI Summit Ridge Lot 1", recorded in Book I66 at Page 48; thence North 72 degrees, 31 minutes, 35 seconds East, along the South line of the plat, 330.00 feet; thence South 87 degrees, 28 minutes, 25 seconds East, continuing along the South line, 251.73 feet to the Southeast corner of the plat, also being a point on the West line of "Maple Tree Manor-1st Plat, recorded in Book I60 at Page 59; thence South 87 degrees, 28 minutes, 25 seconds East, along the West line of the plat, 44.56 feet to a point on the West line of "Maple Tree Manor, Lot 8A and 8B"; recorded in Book I116 at Page 85; thence South 02 degrees, 04 minutes, 01 second West, along the West line of the plat, 32.10 feet to the Southwest corner of the plat and the Northwest corner of "Replat of English Manor Units 41-72 Inclusive", recorded in Book I49 at Page 13; thence South 02 degrees, 04 minutes, 01 second West, along the West line of the plat, 439.00 feet to the Southwest corner of the plat and the Northwest corner of "St. Matthews Acres", recorded in Book 39 at Page 160; thence South 02 degrees, 04 minutes, 01 second West, along the West line of the plat, 88.48 feet to the Northeast corner of "Summit Point First Plat"; thence along the North line of the plat the following three courses:
North 88 degrees, 05 minutes, 22 seconds West, 218.00 feet;
North 01 degree, 54 minutes, 38 seconds East, 81.01 feet;
North 88 degrees, 05 minutes, 22 seconds West, 470.58 feet
to the POINT OF BEGINNING, containing 314,151.52 square feet, or 7.21 acres, more or less.

SITE DATA TABLE:

AREA OF SITE = 7.21 ACRES
EXISTING ZONING - RP-4
PROPOSED ZONING - RP-4

DENSITY = 36 UNITS/4.97 ACRES = 7.24 UNITS PER ACRE

UNIT MIX (NEW CONSTRUCTION)

48 - 1 BEDROOM
72 - 2 BEDROOM
24 - 3 BEDROOM

PARKING REQUIREMENTS

5 – EXISTING BUILDINGS (100 UNITS)
1 & 2 BR @ 1.5 PER UNIT + 0.5 GUEST PER UNIT
(100x1.5) + (100x0.5) = 200 spaces

3 – Type A Buildings (72 UNITS)
24 – 2 BR @ 1.5 PER UNIT + 0.5 GUEST PER UNIT
3(24X1.5) + 3(24x0.5) = 144 spaces

1 – Type B Building (24 UNITS)
12 – 1 BR @ 1.5 PER UNIT + 0.5 GUEST PER UNIT
1(12X1.5) + 1(12x0.5) = 24 spaces
12 – 3 BR @ 2 PER UNIT + 0.5 GUEST PER UNIT
1(12X2.0) + 1(12x0.5) = 30 spaces

2 – Type C Building (48 UNITS)
18 – 1 BR @ 1.5 PER UNIT + 0.5 GUEST PER UNIT
2(18X1.5) + 2(18x0.5) = 72 spaces
6 – 3 BR @ 2 PER UNIT + 0.5 GUEST PER UNIT
2(6X2.0) + 2(6x0.5) = 30 spaces

500 TOTAL SPACES REQUIRED

PARKING PROVIDED

230 EXISTING
245 NEW

475 TOTAL SPACES PROVIDED

PROJECT DENSITY (PHASES 1 & 2)

5 – EXISTING BUILDINGS (100 1 & 2 BR UNITS)

3 – Type A Buildings (72 2 BR UNITS)

1 – Type B Building (12 1BR UNITS & 12 3BR UNITS)

2 – Type C Building (36 1BR UNITS & 12 3BR UNITS)

244 TOTAL UNITS EXISTING AND PROPOSED
100 UNITS ON EXISTING PROPERTY (PHASE I)
144 UNITS ON NORTH PROPERTY (PHASE II)

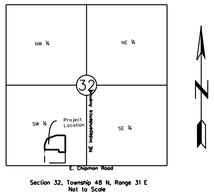
AREA OF TRACT (PHASES I & III) = 13.96 ACRES
DENSITY 244 UNITS /13.96 ACRES = 17.48 UNITS PER ACRE (PHASES I-III)

IMPERVIOUS AREA = 3.8 ACRES
GREEN SPACE (PERVIOUS AREA) = 3.41 ACRES = 47%

FLOOR AREA RATIO (FAR)

3A BUILDINGS @ 11,300 SF - 33,900 SF
1B BUILDING @ 11,000 SF - 11,000 SF
2C BUILDINGS @ 10,580 SF - 21,160 SF
TOTAL - 66,060 SF

FAR = 66,060/314,068 (7.21 ACRES) = 0.21



Vicinity Map

ID	OWNER	ZONING
1	MAPLE TREE MANOR HOMES ASSOCIATION LLC	RP–3
2	LANDON M GOMES	RP–3
3	RKM REAL ESTATE LLC	RP–3
4	ROBIN L HALL	RP–3
5	ERW PROPERTIES LLC (7 UNITS)	RP–3
6	LW PROPERTIES LLC (8 UNITS)	RP–3
7	ST MATTHEW LUTHERAN CHURCH	R–1
8	JEFFREY AND LAUREN DITTMER	RP–2
9	BRUCE RUSSELL SCOGGAN	RP–2
10	A&R INVESTMENT SOLUTIONS LLC	RP–2
11	RONNIE JOANNE BABICH	RP–2
12	SHE SHERMAN & ZHON SHELLY	RP–2
13	JABAN M MOORE	RP–2
14	DAN A NEUSTADTER	RP–2
15	MCAP SAGE LP	RP–4
16	CARROLL L METZGER TRUSTEE	CP–2
17	CARROLL L METZGER TRUSTEE	RP–4
18	REORGANIZED SCHOOL DISTRICT NO 7	R–1
19	JVM SUMMIT RIDGE APARTMENTS LLC	RP–4

FLOOD PLAIN ELEVATION:

THE MAXIMUM 100-YEAR WSEL ON THE PROPERTY WAS CALCULATED TO BE ELEVATION 998.8. THE MINIMUM FLOOR ELEVATION FOR ANY OF THE PROPOSED IS SET AT 1000.8 (2' FREEBOARD.)

SEWER IMPACT STATEMENT:

THE PROPOSED DEVELOPMENT WILL PRODUCE MINIMAL SEWAGE TO THE SYSTEM. ASSUMING AN AVERAGE FLOW OF 100 GPCD AND AN AVERAGE OF 1 PERSON PER BEDROOM (414 BEDROOMS), THE SYSTEM WILL RECEIVE 41,400 GPD OR 29 GPM. THE EXISTING SEWER HAS AVAILABLE CAPACITY.

WATER MAIN CAPACITY:

PER STAFF, THE EXISTING WATER MAIN IN CHIPMAN ROAD HAS THE CAPACITY TO SERVE THE PROJECT.

NOTES:

1. PROJECT SHALL BE CONSTRUCTED IN ONE PHASE AND BE PLATTED IN ONE LOT.
2. CONSTRUCTION SHALL COMMENCE SPRING 2021
3. CONSTRUCTION COMPLETE FALL 2022
4. AS PER FEMA MAP (COMMUNITY PANEL NO. 29095C0436G) DATED JANUARY 20, 2017, THE PROPERTY LIES TO THE SOUTH OF TRIBUTARY P3 OF PRARIE LEE LAKE WHERE LOCATED IN FEMA DESIGNATED ZONE A WHERE NO BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.

MODIFICATIONS:

1. REDUCTION OF GUEST PARKING REQUIRMENTS FROM 122 TO 111
2. INCREASE OF PROJECT DENSITY TO 17.48 UNITS PER ACRE

OIL & GAS WELLS

We have made a visual inspection of the premisis and have determined that there is no visual evidence that any oil or gas wells exist within the boundary of the subject property.

We have also made a review of the file "Oil and Gas Permits Database" found at https://dnr.mo.gov/geology/geosrv/oilandgas.htm and find no permits for oil and gas wells on the subject property.

ADDRESSES

All units shall be addressed separately. House numbers will be provided by the city.

BENCH MARK:

CHIS "□" ON CURB INLET
NORTH SIDE OF CHIPMAN ROAD
130' WEST OF SOUTHWEST CORNER
ELEV = 1022.38

DEVELOPER:

CANYON VIEW PROPERTIES
331 SOQUEL AVENUE, SUITE 100
SANTA CRUZ, CA 95062
831.480.6339
ATTN: GARY RAUSCHER

ENGINEER:

CFS ENGINEERS
9229 WARD PARKWAY, SUITE 110
KANSAS CITY, MO 64114
816.333.4477
ATTN: LANCE SCOTT

OWNER:

SUMMIT POINT PHASE II LLC
331 SOQUEL AVENUE, SUITE 100
SANTA CRUZ, CA 95062
831.480.6339
ATTN: GARY RAUSCHER

ARCHITECT:

BCS Design
19920 West 161st Street
Olathe, Kansas 66062
913.780.4820
Attn: Jeff Shinkle

N

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

DATE OF PREPARATION: 2-8-22

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-28556
PROFESSIONAL ENGINEER
3/25/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	3-25-22	
	CITY SUBMITTAL	2-2-22	

Designed by: RP
Drawn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:100
Rev: -
File name: 215065-SI-SHFDP Existing Conditions.dgn
Plot date: 6/23/2022 12:59:44 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Final Development Plan

INDEX AND SITE DATA

Sheet reference number:
C101

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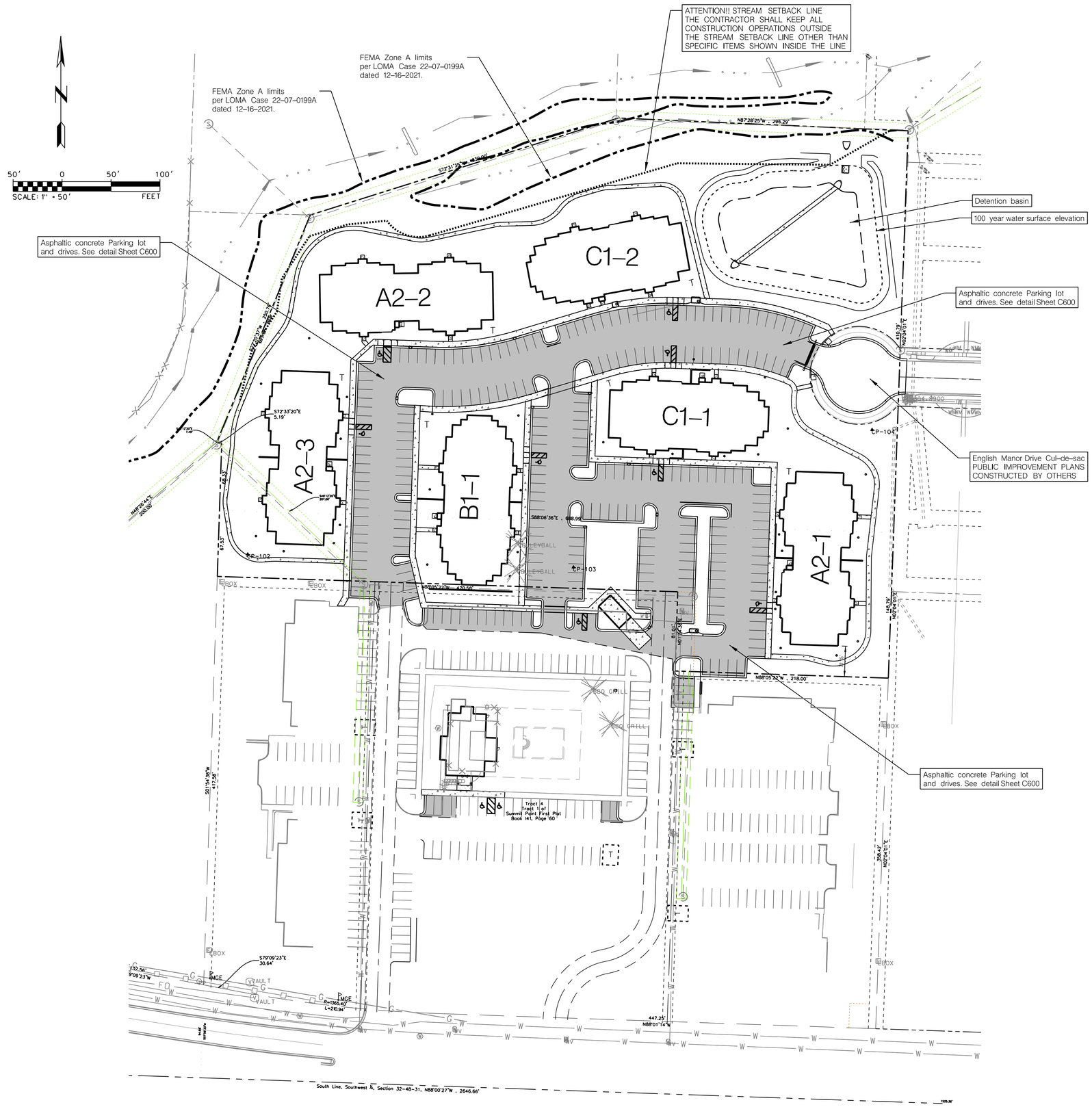

NOTES:

1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
3. CONTRACTOR SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT TO PROVIDE SMOOTH SURFACE TRANSITIONS BETWEEN NEW ENTRANCE DRIVES AND EXISTING STREETS.
4. CONTRACTOR SHALL MATCH EXISTING CURB & GUTTER IN GRADE, SIZE, TYPE, AND ALIGNMENT AT CONNECTIONS TO EXISTING STREETS.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION SUCH AS, BUT NOT LIMITED TO: DRAINAGE UTILITIES, PAVEMENT, STRIPING, CURB, ETC., AND TO INCLUDE ANY WORK IN DOT R.O.W. AND/OR CITY R.O.W. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
6. ALL WORK ON THIS PLAN SHALL BE DONE IN STRICT ACCORDANCE WITH GEOTECHNICAL REPORT.
7. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND PRECISE BUILDING DIMENSIONS. SIDEWALK AND SPECIFIC BUILDING AREA TREATMENTS AND IMPROVEMENTS.
8. ALL DIMENSIONS SHOWN ON BUILDINGS ARE TO OUTSIDE FACE OF BUILDING.
9. ALL RADII SHALL BE 4.0' MEASURED AT THE BACK OF CURB UNLESS OTHERWISE NOTED.
10. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATIONS AND GEOTECH REPORT.
11. PARKING LOT STRIPING SHALL BE ACCORDING TO KANSAS CITY METROPOILTON CHAPTER OF APWA. ALL STRIPING IS TO HAVE TWO COATS OF PAINT (MIN.). ALL STRIPING OTHER THAN ACCESSIBLE SHALL BE WHITE. ACCESSIBLE STRIPING SHALL BE BLUE.
12. ALL CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF LEE'S SUMMIT, MISSOURI STANDARDS AND SPECIFICATIONS.
13. ALL ACCESSIBLE PARKING SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.
14. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH A LIST OF ALL SUB-CONTRACTORS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OPERATIONS.
15. ALL CURB AND GUTTER SHALL BE TYPE CG-1 OR CG-2 AS NOTED ON THE PLAN.
16. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE METROPOLITAN CHAPTER OF APWA AND THE CITY OF LEE'S SUMMIT, MISSOURI, IN CURRENT USAGE EXCEPT AS NOTED.

NEW ASPHALT PAVEMENT. SEE DETAIL SHEET C600.
NOTE: PAVEMENT UNDER PARKING AREAS HAS A DIFFERENT THICKNESS THAN THE PAVEMENT UNDER THE DRIVES.

NEW CONCRETE PAVEMENT. SEE DETAIL SHEET C600.

Legend

	Major Contour		Water Meter
	Minor Contour		Water Valve
	Right-of-Way Line		Fire Hydrant
	Section Line		Light Pole
	Easement Line		Center Line
	Storm Sewer Line	Found	F
	Sanitary Sewer Line	Bar & Cap	B&C
	Waterline		
	Fence Line		Existing Contour (Index)
	Vegetation Line		Existing Contour (Intermediate)
	Found Survey Monument		
	Set Iron Bar with Cap CF&S CLS 1999141100		
	Section Corner		Proposed Contour 970
(88)	Schedule B-2 Exception		
	Storm Sewer Manhole		
	Sanitary Sewer Manhole		Regulatory Floodplain
	Tree		
			Stream Setback

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/08/22	

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:50
Rev. -
File name: 215065-ST-SHCD Overall Site Plandgn
Plot date: 8/2/2022
2:47:59 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

OVERALL SITE PLAN

Sheet reference number:
C200

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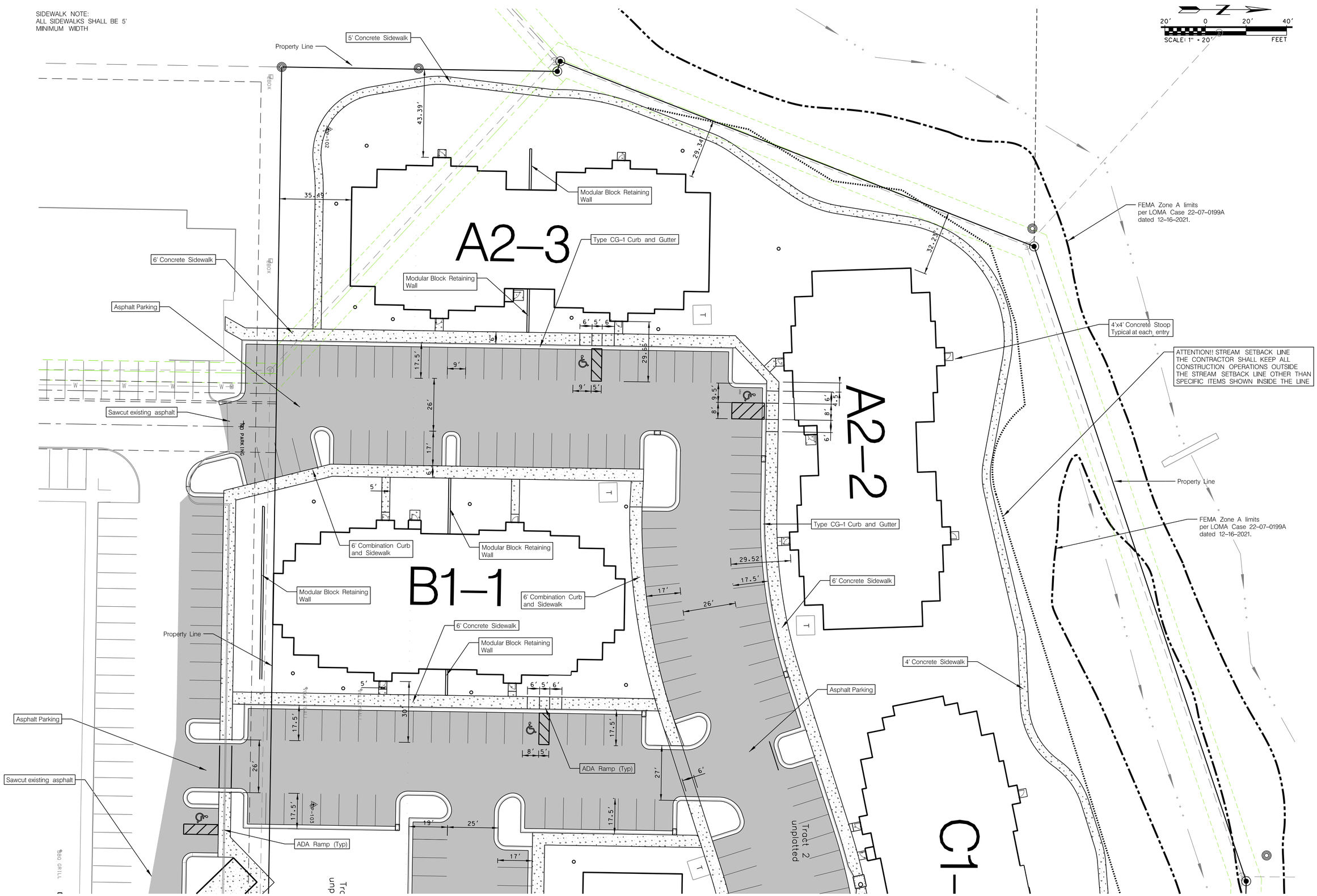
SIDEWALK NOTE:
ALL SIDEWALKS SHALL BE 5'
MINIMUM WIDTH



STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

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	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/08/22	

Rev. -

Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:20
Plot date 8/2/2022
File name: 25065-ST-SHCD West Side Plandgn
2:45:01 PM

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

SITE PLAN (WEST)

C201

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SIDEWALK NOTE:
ALL SIDEWALKS SHALL BE 5'
MINIMUM WIDTH

N

20' 0 20' 40'
SCALE: 1" = 20' FEET

Asphalt Parking

Sawcut existing asphalt

ADA Ramp (Typ)

Use curb and gutter detail for ramp across front of Compactor

Cram-A-Lot Trash Compactor and Enclosure See Architectural

Concrete Compactor Pad

Sawcut existing asphalt

Modular Block Retaining Wall

PAINT CURB RED
PAINT 6" HIGH RED LETTERS
"NO PARKING FIRE LANE"
ON PAVEMENT

Modular Block Retaining Wall

Modular Block Retaining Wall

4' Concrete Sidewalk

Modular Block Retaining Wall

A2-1

C1-1

C1-2

Asphalt Parking

5' Concrete Sidewalk

FEMA Zone A limits
per LOMA Case 22-07-0199A
dated 12-16-2021.

PAINT CURB RED
PAINT 6" HIGH RED LETTERS
"NO PARKING FIRE LANE"
ON PAVEMENT

ATTENTION!! STREAM SETBACK LINE
THE CONTRACTOR SHALL KEEP ALL
CONSTRUCTION OPERATIONS OUTSIDE
THE STREAM SETBACK LINE OTHER THAN
SPECIFIC ITEMS SHOWN INSIDE THE LINE

FEMA Zone A limits
per LOMA Case 22-07-0199A
dated 12-16-2021.

4' wide concrete trickle channel

PAINT CURB OR PAVEMENT RED
PAINT 6" HIGH RED LETTERS
"NO PARKING FIRE LANE"
ON PAVEMENT EACH SIDE OF GATE

Detention Basin

Gate with Knox Box for Emergency Access.
See Architectural

NE English Manor Drive
(Public Street by others)
See sheets C1000-1004

Notes:
1.
2.

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
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Designed by: RP
Drawn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:20
Rev: -
File name: P:\2065-ST SH-CD East Side Plan.dgn
Plot date: 8/2/2022

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

SITE PLAN (EAST)

C202

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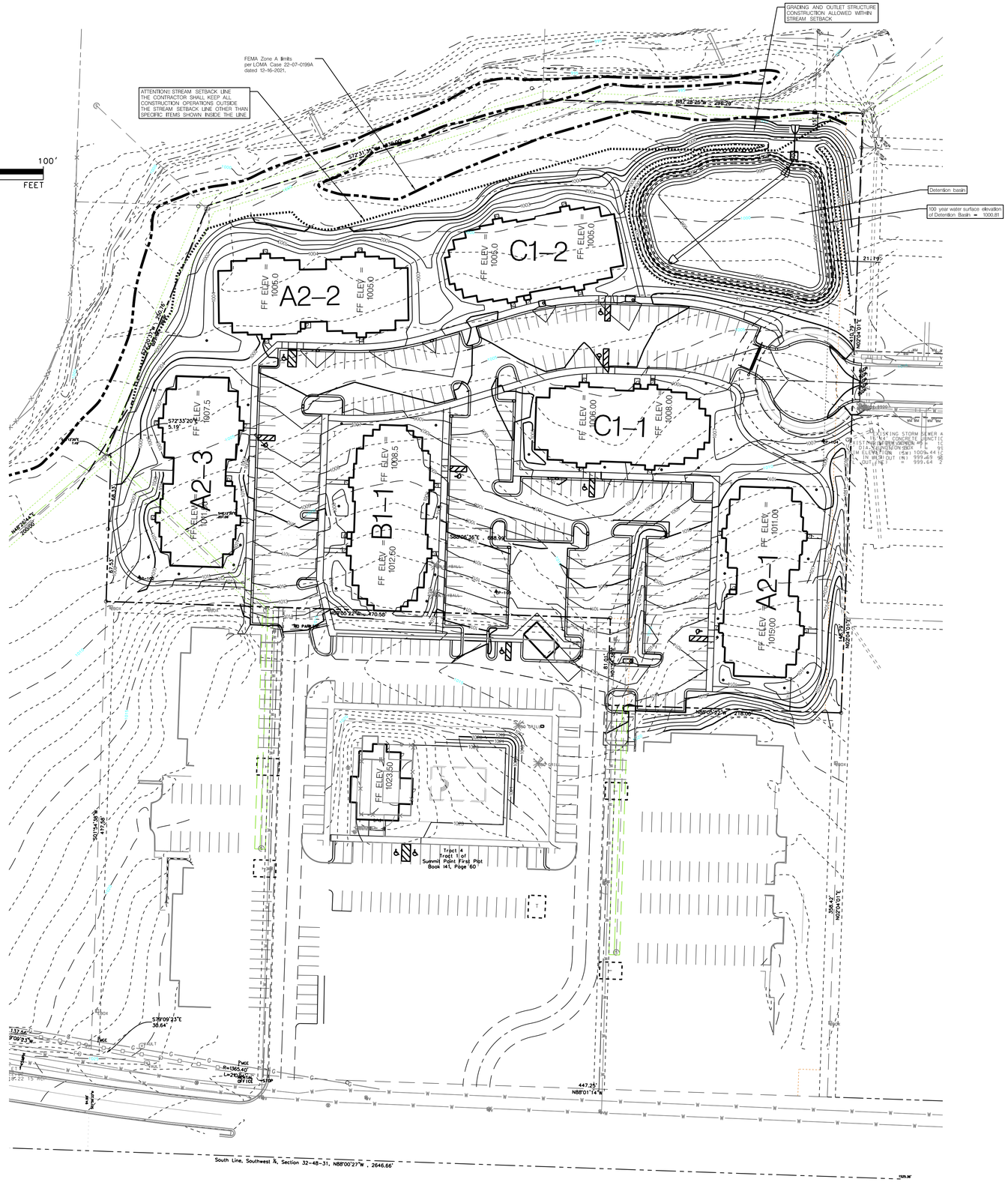

GRADING NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO; DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURBS, ETC. AND TO INCLUDE ANY WORK IN STATE RIGHT OF WAY AND/OR CITY RIGHT OF WAY. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
3. EXISTING AND PROPOSED CONTOURS ARE SHOWN AT ONE FOOT (1') INTERVALS AND ARE REFERENCED TO USGS DATUM.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE NECESSARY PERMITS FOR THE COMPLETION OF EARTHWORK AS SHOWN AND FOR HAULING BORROW MATERIAL IN AND WASTE MATERIAL OFF OF THE SITE.
5. AREAS OF PROPOSED CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION AND TOPSOIL TO A DEPTH OF SIX INCHES (6") OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE TOPSOIL SHALL BE STOCKPILED AND REDISTRIBUTED PER THE SPECIFICATIONS. TOPSOIL SHALL NOT BE USED FOR STRUCTURAL FILL IN BUILDING AND PAVEMENT AREAS.
6. TESTING AND INSPECTION OF EARTHWORK SHALL BE PROVIDED BY A TESTING LABORATORY SELECTED BY THE OWNER. THE OWNER SHALL BE RESPONSIBLE FOR THE COST OF TESTING.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD ADJUST THE TOPS OF ALL MANHOLES AND VALVE/METER BOXES AS NECESSARY TO MATCH THE FINISH GRADE OF ADJACENT AREAS. NO SEPARATE OR ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR MAKING FINAL ADJUSTMENTS TO MANHOLES AND BOXES.
8. SOIL FOR FILLING SHOULD BE GRADED AS IT ARRIVES.
9. GRADING SHALL NOT EXCEED A 3' HORIZONTAL TO A 1' VERTICAL SLOPE.
10. THE CONTRACTOR SHALL NOT GRADE OUTSIDE THE PROPERTY LINE UNTIL APPROVED FROM APPROPRIATE REGULATORY AGENCIES.
11. REMOVE FROM THE SITE MATERIAL ENCOUNTERED IN GRADING OPERATIONS THAT, IN THE OPINION OF THE OWNER OR OWNER'S REPRESENTATIVE, IS UNSUITABLE OR UNDESIRABLE FOR BACKFILLING SUBGRADE OR FOUNDATION PURPOSES. SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE OWNER. BACKFILL AREAS WITH LAYERS OF SUITABLE MATERIAL SHALL BE COMPACTED AS SPECIFIED.
12. UNLESS OTHERWISE INDICATIED ON THE DRAWINGS, REMOVE TREES, SHRUBS, GRASS, OTHER VEGETATION, IMPROVEMENTS, OR OBSTRUCTIONS INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION. REMOVAL INCLUDES DIGGING OUT STUMPS AND ROOTS. DO NOT REMOVE ITEMS ELSEWHERE IN SITE OR PREMISES UNLESS SPECIFICALLY INDICATED.
13. STRIP TOPSOIL TO WHATEVER DEPTHS ENCOUNTERED TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER OBJECTIONABLE MATERIAL. CUT HEAVY GROWTHS OF GRASS FROM AREAS BEFORE STRIPPING. TOPSOIL SHALL CONSIST OF SANDY CLAY SURFICIAL SOIL FOUND IN DEPTH OF NOT LESS THAN 6". SATISFACTORY TOPSOIL IS REASONABLY FREE OF SUBSOIL, CLAY, LUMPS, STONES, AND OTHER OBJECTS OVER 2" IN DIAMETER, WEEDS, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
14. STOCKPILE TOPSOIL IN STORAGE PILES IN AREAS SHOWN OR WHERE DIRECTED. CONSTRUCT STORAGE PILES TO FREELY DRAIN SURFACE WATER. COVER STORAGE PILES IF REQUIRED TO PREVENT WINDBLOWN DUST. DISPOSE OF UNSUITABLE WASTE MATERIAL. EXCESS TOPSOIL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
15. COMPLETELY REMOVE STUMPS, ROOTS, AND OTHER DEBRIS BELOW PROPOSED SUBGRADE ELEVATION. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL, UNLESS FURTHER EXCAVATION OR EARTHWORK IS REQUIRED.
16. REMOVE EXISTING SOIL ABOVE AND BELOW GRADE IMPROVEMENTS AND ABANDON UNDERGROUND PIPING OR CONDUIT NECESSARY TO PERMIT CONSTRUCTION AND OTHER WORK.
17. UNLESS SPECIFICALLY INDICATIED OTHERWISE ON THE DRAWINGS OR IN THE SOIL INVESTIGATION REPORT, AREAS EXPOSED BY EXCAVATION OR STRIPPING AND ON WHICH SUBGRADE PREPARATIONS ARE TO BE PREFORMED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8" AND COMPACTED TO A MINIMUM OF 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, IN ACCORDANCE WITH ASTM D 698, AT A MOISTURE CONTENT OF NOT LESS THAN 2% BELOW AND NOT MORE THAN 2% ABOVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR. THESE AREAS SHALL THEN BE PROOFROLLED TO DETECT ANY AREASOF INSUFFICIENT COMPACTION. PROOFROLLING SHALL BE ACCOMPLISHED BY MAKING TWO (2) COMPLETE PASSES WITH A FULLY-LOADED TANDEM-AXLE DUMP TRUCK, OR APPROVED EQUIVALENT, IN EACH OF THE TWO PERPENDICULAR DIRECTIONS UNDER THE SUPERVISION AND DIRECTION OF A FIELD GEOTECHNICAL ENGINEER. AREAS OF FAILURE SHALL BE EXCAVATED AND RE-COMPACTED AS STATED ABOVE.
18. UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS, FILL MATERIALS USED IN PREPARATION OF SUBGRADE SHALL BE PLACED IN LIFTS OR LAYERS NOT TO EXCEED 8" LOOSE MEASURE AND COMPACTED TO A MINIMUM DENSITY OF 95% OF THE STANDARD PROCTOR DRY DENSITY, IN ACCORDANCE WITH ASTM D 698, AT A MOISTURE CONTENT OF NOT LESS THAN 2% BELOW AND NOT MORE THAN 2% ABOVE THE OPTIMUM MOISTURE CONTENT. THE COMPACTION SHOULD BE INCREASED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY IN THE UPPER 24 INCHES OF FILL SUPPORTED PAVEMENT AREAS.
19. ALL GRADING SHALL COMPLY WITH THE GEOTECHNICAL REPORT.
20. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL IN ACCORDANCE WITH THE APPROVED LAND DISTURBANCE PERMIT ISSUED BY THE CITY OF LEE'S SUMMIT, MISSOURI PUBLIC WORKS.
21. SEE SHEETS C301 AND C302 FOR SPOT ELEVATIONS.

Legend

- Major Contour
- Minor Contour
- Right-of-Way Line
- Section Line
- Easement Line
- Storm Sewer Line
- Sanitary Sewer Line
- Waterline
- Fence Line
- Vegetation Line
- Found Survey Monument
- Set Iron Bar with Cap CF&S CLS 1999141100
- Section Corner
- (88) Schedule B-2 Exception
- Storm Sewer Manhole
- Sanitary Sewer Manhole
- Tree
- Water Meter
- Water Valve
- Fire Hydrant
- Light Pole
- Center Line
- Found Bar & Cap — F, B&C
- Existing Contour (Index)
- Existing Contour (Intermediate)
- Proposed Contour — 970

STATE OF MISSOURI
LANCE V. SCOTT
NUMBER E-35645
PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Rev. -
Reviewed by: ---
Plot scale: 1:50
File name: 215065-ST-SH-CD Overall Grading Plan.dgn
Plot date: 8-2-2022

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

OVERALL GRADING PLAN

Sheet reference number:
C300

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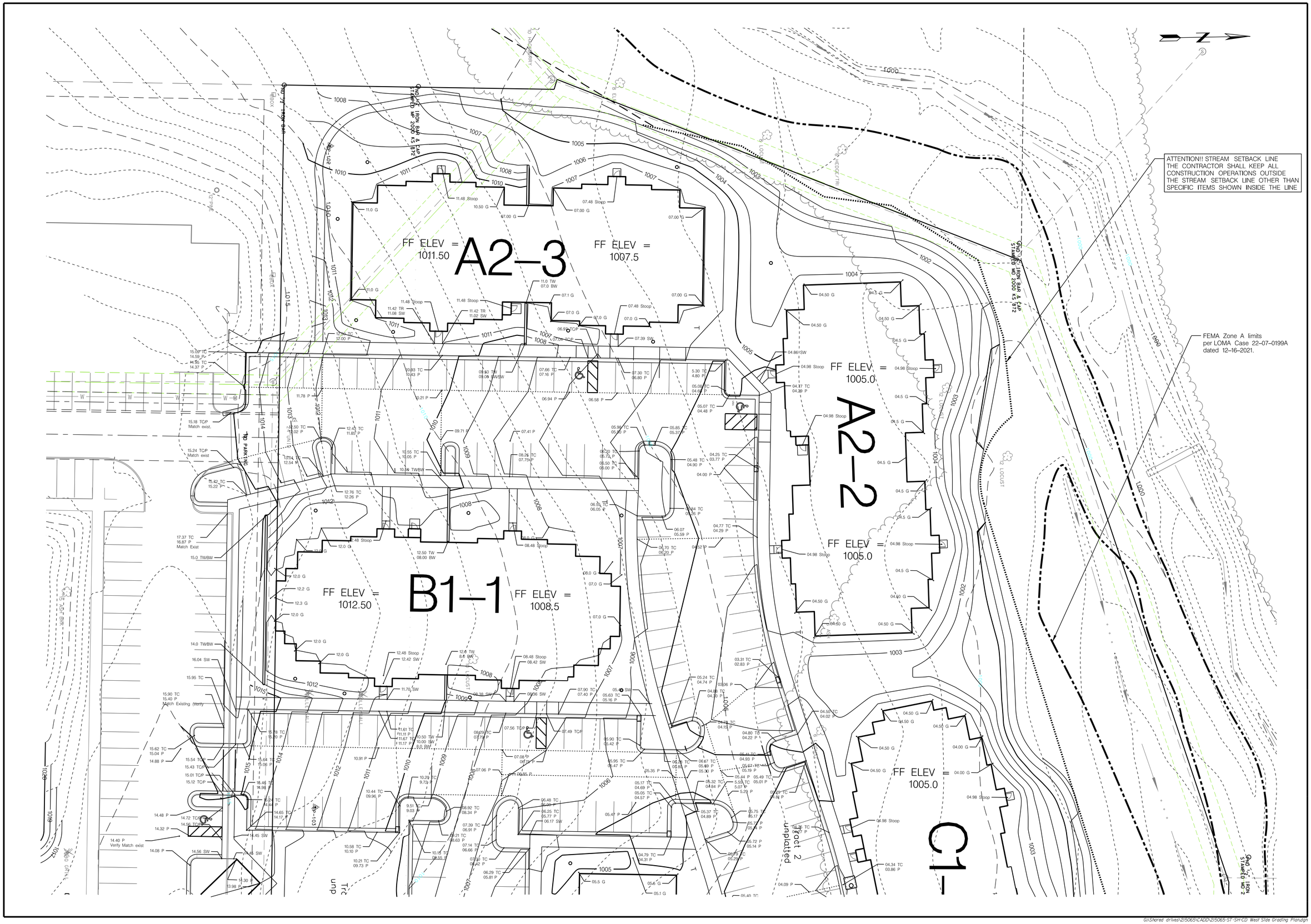

ATTENTION!! STREAM SETBACK LINE
THE CONTRACTOR SHALL KEEP ALL
CONSTRUCTION OPERATIONS OUTSIDE
THE STREAM SETBACK LINE OTHER THAN
SPECIFIC ITEMS SHOWN INSIDE THE LINE

FEMA Zone A limits
per LOMA Case 22-07-0199A
dated 12-16-2021.

LANCE W. SCOTT
NUMBER
E-28865

8/2/22

Mark	Description	Date	Appr.
	CITY SUBMITTAL	02/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	08/02/22	

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

Designed by: RP
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Ckd by: LWS
Date: 03-25-2015
Rev. -
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Submitted by: ---
Plot scale: 1:20
File name: 215065-ST-SH-CD West Side Grading Plan.dgn
Plot date: 8/2/2022 3:00:43 PM

WEST SIDE GRADING PLAN

C301

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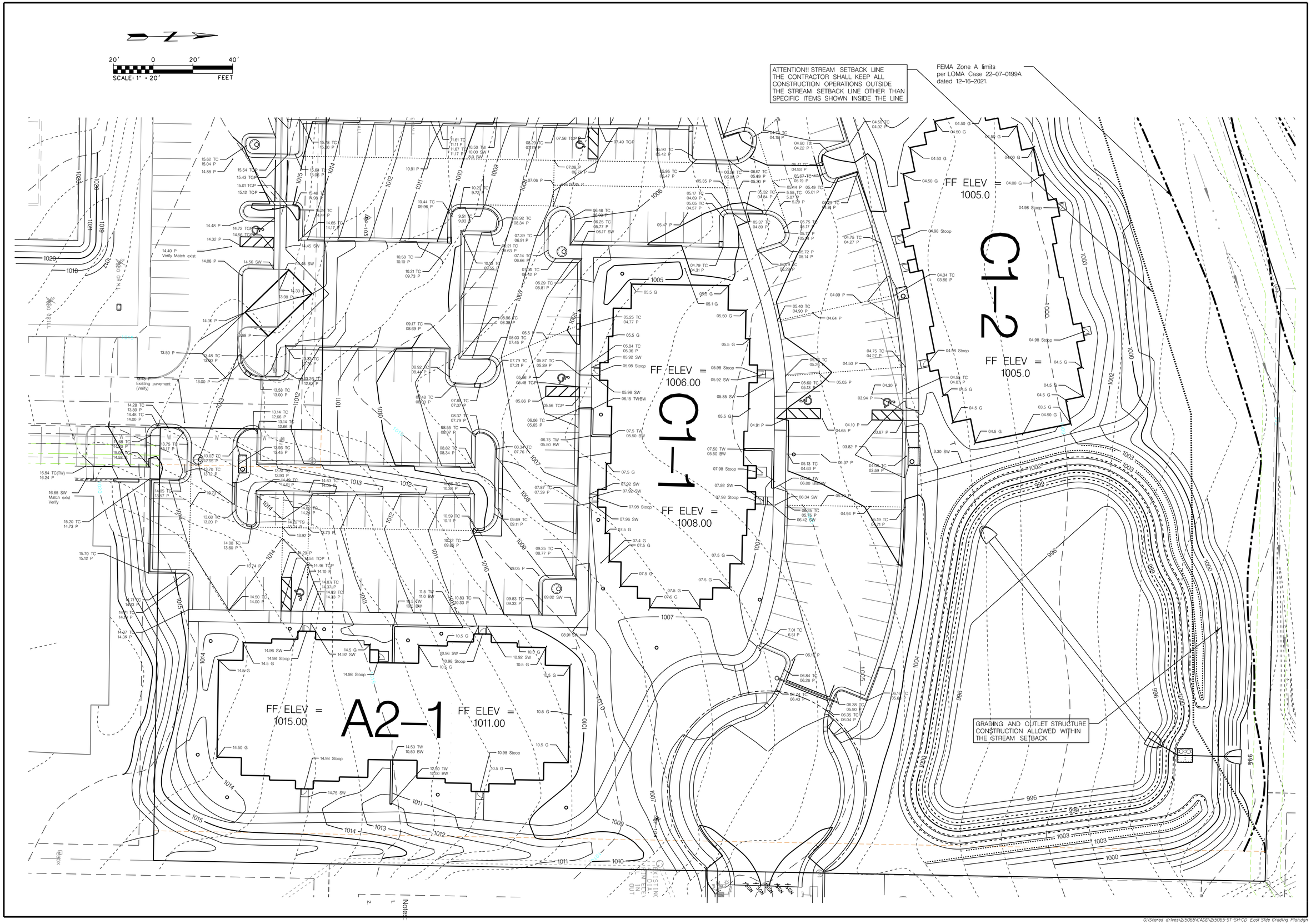

Notes:
1.
2.

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	REVISED PER COMMENTS	04/27/22	
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	CITY SUBMITTAL	02/02/22	

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

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Submitted by: ---
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Rev. -
File name: 215065-ST-SH-CD East Side Grading Plan.dgn
Plot date: 8/2/2022 10:37 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

EAST SIDE GRADING PLAN

C302

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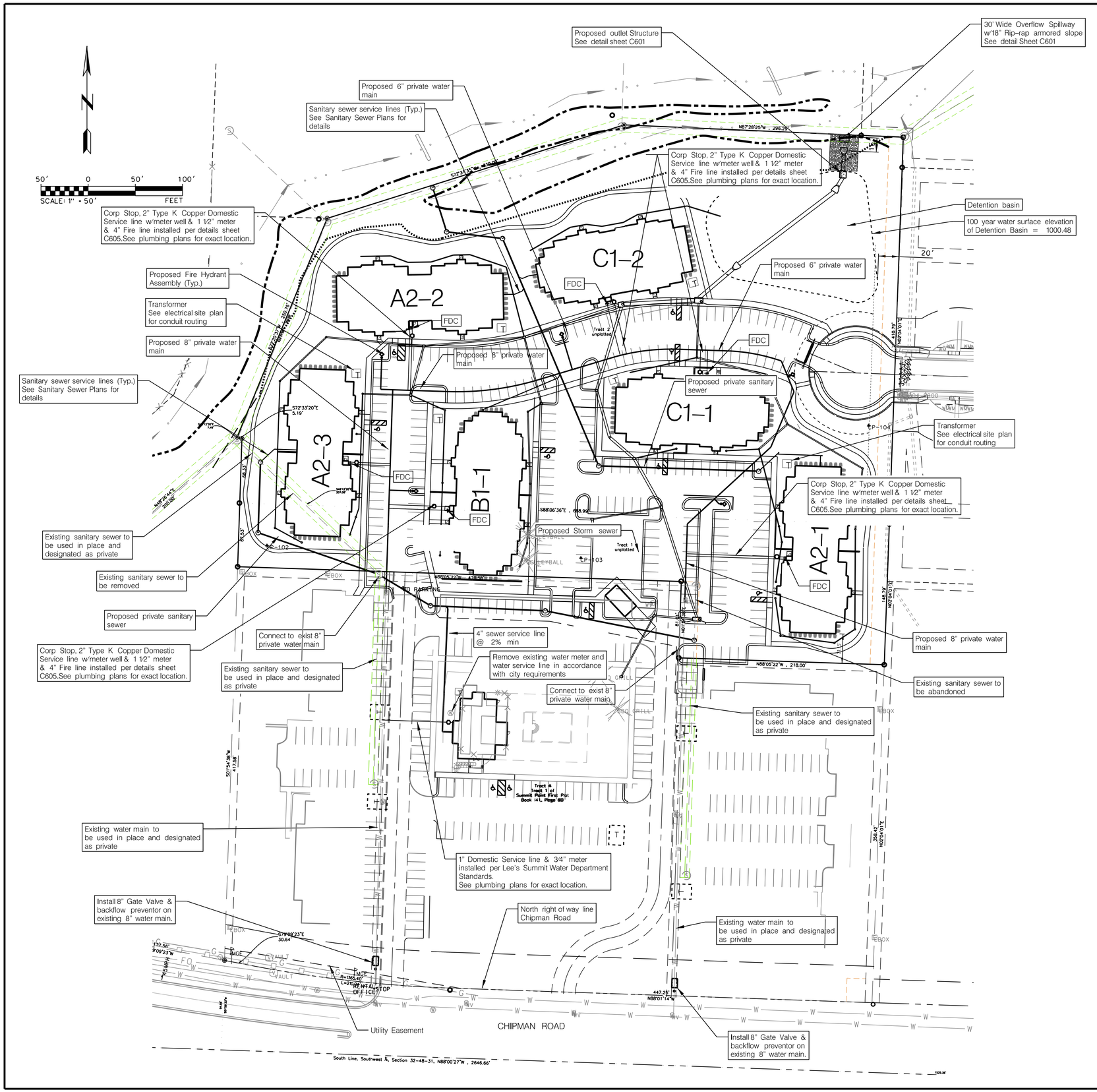

UTILITY NOTES:

1. CONTRACTOR TO COORDINATE WITH APPROPRIATE, UTILITY COMPANIES PRIOR TO CONSTRUCTION ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS, ANY DEVIATION FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL REFER TO ARCHITECTS PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION, WATER SERVICE, ELECTRICAL, AND TELEPHONE SERVICE.
3. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH CITY UTILITY REQUIREMENTS AS TO LOCATION AND SCHEDULING OF TIE-INS/CONNECTION TO THEIR FACILITIES.
4. THE CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS AND RELOCATIONS AS REQUIRED WITH THE RESPECTIVE UTILITY COMPANY/OWNER.
5. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL PERMITS AND PAY ALL FEES AS REQUIRED FOR UTILITY SERVICE CONNECTIONS.
6. THE CONTRACTOR SHALL COORDINATE LOCATIONS AND SIZES OF UTILITY SERVICE CONNECTIONS AT THE BUILDING WITH THE ARCHITECTS, MECHANICAL, PLUMBING PLANS AND DETAILS AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL PUBLIC AND DOMESTIC WATER SERVICE LINES, METERS, BACK-FLOW DEVICES, PITS, VALVES AND ALL OTHER INCIDENTALS REQUIRED FOR A COMPLETE OPERABLE DOMESTIC WATER SYSTEM. ALL COST ASSOCIATED WITH THE COMPLETE WATER SYSTEM FOR THE BUILDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DOMESTIC AND IRRIGATION LINES SHALL BE OF MATERIALS APPROVED BY THE CITY OF LEE'S SUMMIT. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT.
8. THE CONTRACTOR SHALL INSTALL A BACKFLOW PREVENTION ASSEMBLY ON THE DOMESTIC WATER SERVICE LINE PRIOR TO ANY POINT OF USE.
9. THE CONTRACTOR SHALL COORDINATE INSTALLATION AND LOCATION OF ELECTRICAL SERVICE AND TRANSFORMER PADS WITH THE POWER COMPANY.
10. THE CONTRACTOR SHALL COORDINATE LOCATION AND CONSTRUCTION OF GAS SERVICE LINE AND GAS METER WITH THE GAS COMPANY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SANITARY SEWER SERVICE LINES FROM THE BUILDINGS TO THE PUBLIC OR PRIVATE LINE. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND PLUMBING PLANS FOR SPECIFIC LOCATIONS AND ELEVATIONS OF THE SERVICE LINES AT THE BUILDING CONNECTION. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT, MISSOURI.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS, TOOLS AND EQUIPMENT AND INSTALLATION OF ELECTRICAL POWER, TELEPHONE AND GAS SERVICE FROM A POINT OF CONNECTION FROM THE PUBLIC OR PRIVATE UTILITY LINES TO THE BUILDING STRUCTURES. THIS WILL INCLUDE ALL CONDUITS, SERVICE LINES, METERS, CONCRETE PADS AND ALL OTHER INCIDENTALS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM AS REQUIRED BY THE OWNER AND THE PUBLIC UTILITIES. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SIZE OF UTILITIES SPECIFIC LOCATION OF SERVICE AND ENTRANCE DETAILS OF THE BUILDINGS.
13. THE CONTRACTOR SHALL COORDINATE WITH THE PHONE COMPANY FOR LOCATION AND INSTALLATION OF PHONE SERVICE TO BUILDING.
14. A RIGHT-OF-WAY WORK PERMIT SHALL BE OBTAINED BY THE CONTRACTOR TO COMPLETE UTILITY WORK WITHIN THE PUBLIC STREET RIGHT-OF-WAY.
15. CONTRACTOR SHALL INSTALL 2-2" CONDUITS FOR THE TELEPHONE AND CATV SERVICE CONNECTIONS TO THE BUILDING AS REQUIRED BY THE UTILITY COMPANY (SEE ELECTRICAL PLAN).
16. ALL SANITARY SEWER PVC PIPING SHALL BE SDR-26, UNLESS OTHERWISE NOTED. ALL SERVICE LATERALS SHALL BE 4" DIA., AND ALL WYE CONNECTIONS SHALL BE "CUT IN".

NOTES:

1. All construction shall be per APWA and/or Lee's Summit standards.
2. Project will be all electric. No gas lines will be provided.
3. Storm Sewer shall be HDPE or PVC.
4. Unless noted otherwise, all of the drainage for the project shall be Private.
5. Fire Department Connection (FDC) shall be 4" Storz type fitting.
6. All water lines and fire hydrants shall be Private.
7. All Transforming and ground mounted equipment shall be screened by landscaping.
8. Ductile Iron Pipe for waterlines shall be zinc coated in accordance with Lee's Summit standards.

FIRE DEPARTMENT CONNECTION:

Each building has a water room located near the center on the front.
Fire department connection is located in the water room and is shown thus.

FDC

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/21/22	
	CITY SUBMITTAL	02/02/22	

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:50
Plot date: 8/2/2022
File name: 215065-ST-SH-CD Utility Plan.dgn
Rev. -

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

UTILITY PLAN

Sheet reference number:
C400

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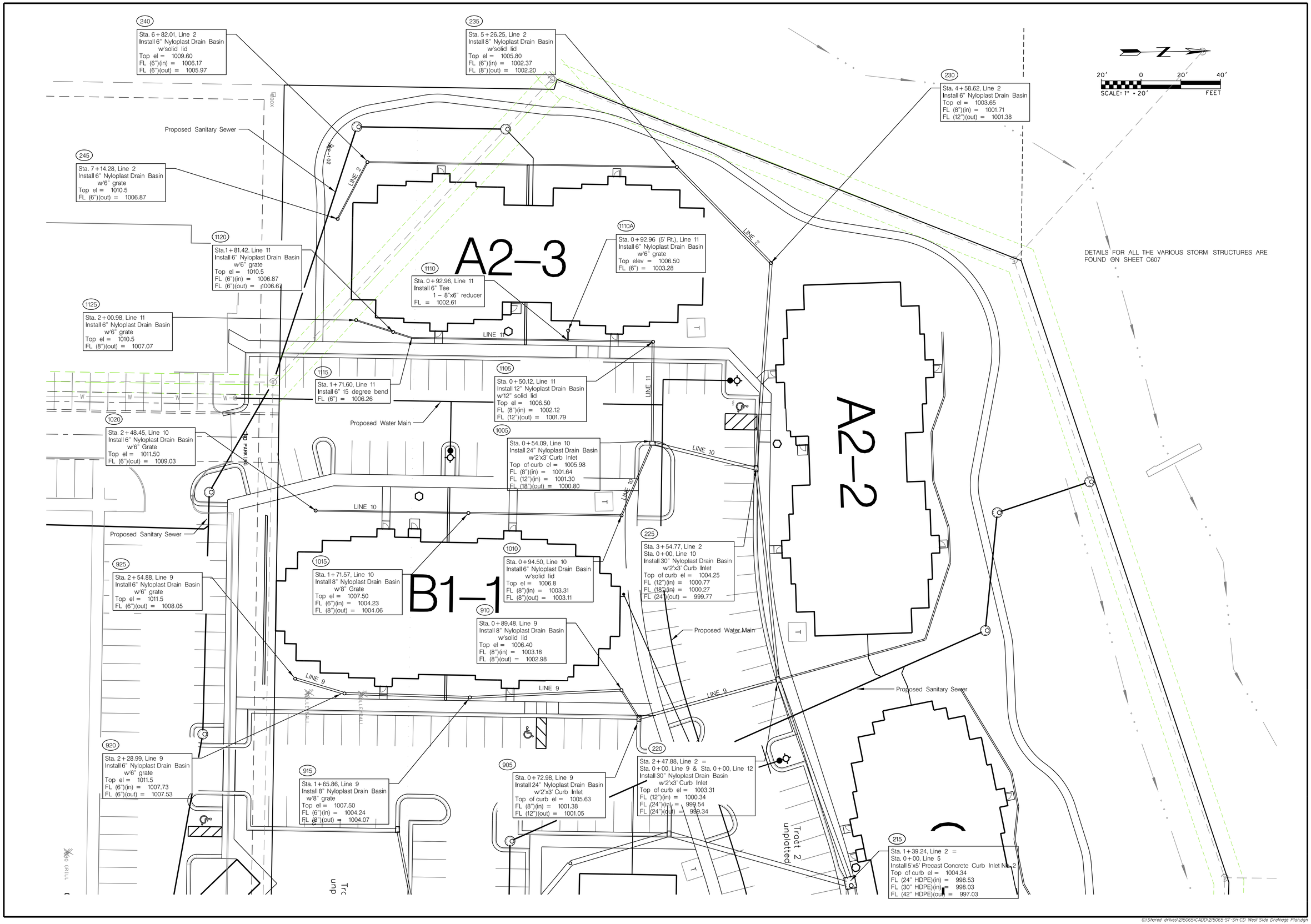

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

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	CITY SUBMITTAL	02/02/22	

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:20
Rev: -
File name: 215065-ST-SH-CD West Side Drainage Plan.dgn
Plot date: 8/2/2022
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SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

WEST SIDE DRAINAGE PLAN
L2, L9, L10, L11 & L12

C401

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DETAILS FOR ALL THE VARIOUS STORM STRUCTURES ARE FOUND ON SHEET C607

SCALE: 1" = 20'

20' 0 20' 40' FEET

705
Sta. 0+74.35, Line 7
Install 18" Nyloplast Drain Basin w/2'x3' Curb Inlet
Top el = 1010.21
FL (6")(out) = 1006.65

535
Sta. 4+87.88, Line 5
Install 12" Nyloplast Drain Basin w/12" grate
Top el = 1015.00
FL (15")(out) = 1009.57

530
Sta. 4+14.78, Line 5
Install 24" Nyloplast Drain Basin w/2'x3' Curb Inlet
Top el = 1012.80
FL (15")(in) = 1006.56
FL (24")(out) = 1005.81

505
Sta. 0+94.56, Line 5
Install 2'x3' Nyloplast Curb Inlet No. 1
Top of curb el = 1004.79
FL = (30")(in) = 999.47
FL = (30")(out) = 999.27

515
Sta. 1+79.40, Line 5 =
Sta. 0+00, Line 6
Install 30" Nyloplast Drain Basin w/2'x3' Curb Inlet
Top el = 1005.25
FL (6")(in) = 1002.50
FL (30")(in) = 1000.70
FL (30")(out) = 1000.50

510
Sta. 1+46.42, Line 5
Install 30" Nyloplast Drain Basin w/12" grate
Top el = 1004.5
FL (30")(in) = 1000.19
FL (30")(out) = 999.99

605
Sta. 0+45.85, Line 6
Install 6" Nyloplast Drain Basin w/6" grate
Top el = 1005.25
FL (6")(out) = 1002.90

405A
Sta. 0+34.59, Line 4A
Install 8" Nyloplast Drain Basin w/8" grate
Top el = 1005.25
FL (8")(out) = 1002.92

405
Sta. 0+40.15, Line 4=
Sta. 0+00, Line 4A
Install 24" Nyloplast Drain Basin w/12" solid grate
Top el = 1007.00
FL (8")(in) = 1001.41
FL (8")(in) = 1001.41
FL (12")(out) = 1001.08

215
Sta. 1+39.24, Line 2 =
Sta. 0+00, Line 5
Install 5'x5' Precast Concrete Curb Inlet No. 2
Top of curb el = 1004.34
FL (24" HDPE)(in) = 998.53
FL (30" HDPE)(in) = 998.03
FL (42" HDPE)(out) = 997.03

210
Sta. 0+57.35, Line 2 =
Sta. 0+10.20 Line 3
Install 8'x5' Precast Concrete Curb Inlet No. 1
Top of curb el = 1004.08
FL (15" HDPE)(in) = 998.75
FL (42" HDPE)(in) = 996.70
FL = (42" HDPE)(out) = 996.50

305
Sta. 0+70.55, Line 3
Install 24" Nyloplast Drain Basin w/12" solid grate
Top el = 1004.58
FL (8")(in) = 1002.30
FL (15")(in) = 999.50
FL (15")(out) = 999.30

200
Sta 0+00. Line 2
42" HDPE End Section
FL = 996.25

310
Sta. 1+45.62, Line 3
Install 24" Nyloplast Drain Basin w/12" solid grate
Top el = 1006.75
FL (15")(in) = 1000.25
FL (15")(out) = 1000.05

Install 4' wide x 124 LF Concrete trickle channel @ 1.00%

Outlet Structure, Line 1
See detail, sheet C601

520
Sta. 2+38.39 Bk, Line 5 =
Sta. 2+45.39, Line 5 =
Sta. 0+00, Line 7
Install 30" Nyloplast Drain Basin w/2'x3' Curb Inlet
Top el = 1007.85
FL (6")(in) = 1003.16
FL (30")(in) = 1001.37
FL (30")(out) = 1001.16

525
Sta. 3+69.68, Line 5
Install 8'x3' Precast Concrete Curb Inlet No. 3
Top of curb el = 1012.93
FL (24")(in) = 1004.56
FL (30")(out) = 1004.06

415
Sta. 1+41.76, Line 4
Install 8" Nyloplast Drain Basin w/8" grate
Top el = 1010.00
FL (6")(in) = 1007.12
FL (8")(out) = 1006.95

340
Sta. 5+49.85, Line 3
Install 8" Nyloplast Drain Basin w/8" grate
Top el = 1013.50
FL (6")(in) = 1010.29
FL (8")(out) = 1010.12

420
Sta. 1+84.33, Line 4
Install 6" Nyloplast Drain Basin w/6" grate
Top el = 1014.00
FL (6")(out) = 1010.95

410
Sta. 1+24.65, Line 4
Install 8" Nyloplast Drain Basin w/8" grate
Top el = 1010.00
FL (8")(in) = 1006.61
FL (8")(out) = 1006.41

345
Sta. 5+90.14, Line 3
Install 6" Nyloplast Drain Basin w/6" grate
Top el = 1014.00
FL (6")(out) = 1010.72

335
Sta. 4+92.26, Line 3
Install 8" Nyloplast Drain Basin w/8" grate
Top el = 1013.50
FL (8")(in) = 1009.27
FL (8")(out) = 1009.07

315
Sta. 2+02.86, Line 3=
Sta. 0+00, Line 4
Install 24" Nyloplast Drain Basin w/12" solid grate
Top el = 1006.7
FL (12")(in) = 1000.84
FL (12")(in) = 1000.84
FL (15")(out) = 1000.59

330
Sta. 4+66.75, Line 3
Install 8" Nyloplast Drain Basin w/8" grate
Top el = 1013.50
FL (8")(in) = 1008.82
FL (8")(out) = 1008.62

325
Sta. 3+60.23, Line 3=
Install 12" Nyloplast Drain Basin w/12" grate
Top el = 1010.00
FL (8")(in) = 1005.71
FL (12")(out) = 1005.38

320
Sta. 2+95.28, Line 3=
Install 18" Nyloplast Drain Basin w/12" solid grate
Top el = 1009.20
FL (12")(in) = 1004.74
FL (12")(out) = 1004.54

S88°06'36"E, 868.99'
N87°28'25"W, 296.29'
N01°54'38"E 81.01'
N02°04'01" 148.79'
N02°04'01"E 410.79'
218.00'

Proposed 8" Sanitary Sewer
Proposed 8" Water Main
Tract 2 unplotted
LINE 1 LINE 2 LINE 3 LINE 4 LINE 5 LINE 6 LINE 7

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
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8/2/22

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	CITY SUBMITTAL	02/02/22	

Designed by: RP
Date: 03-25-2015
Rev: -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1:20
File name: 25065-ST-SHCD East Side Drainage Plan.dgn
Plot date: 8/2/2022 3:06:36 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

EAST SIDE DRAINAGE PLAN
L1, L2, L3, L4, L4A, L5, L6 & L7

C402

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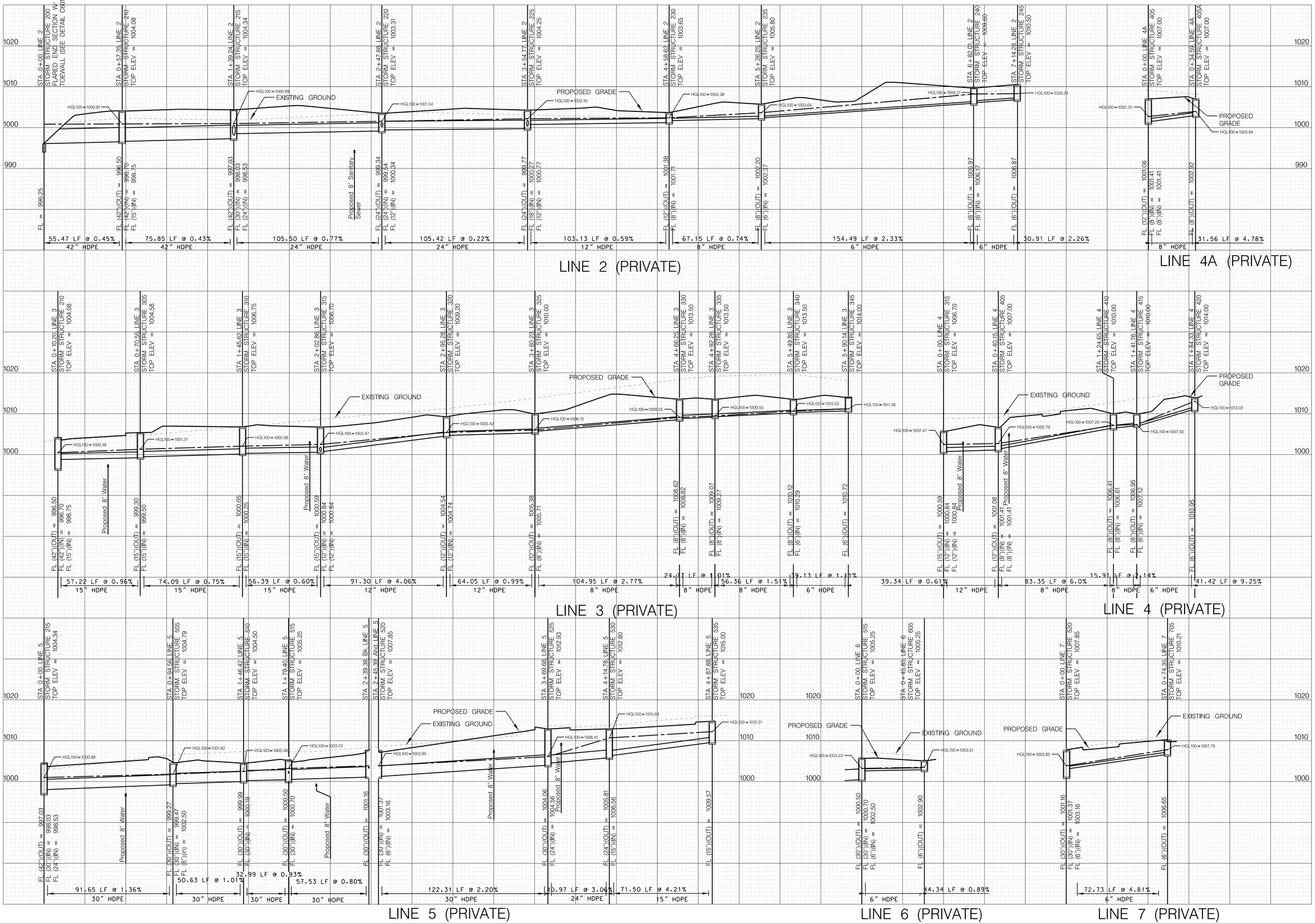

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STATE OF MISSOURI
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Drawn by: RP
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Submitted by: ---
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File name: 215065-ST-SHCD Storm Sewer Profiles Sheet.dgn
Plot date: 8/2/2022 3:51 PM
Rev. -

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

DRAINAGE PROFILES
L2, L3, L4, L4A, L5,
L6 & L7

C403

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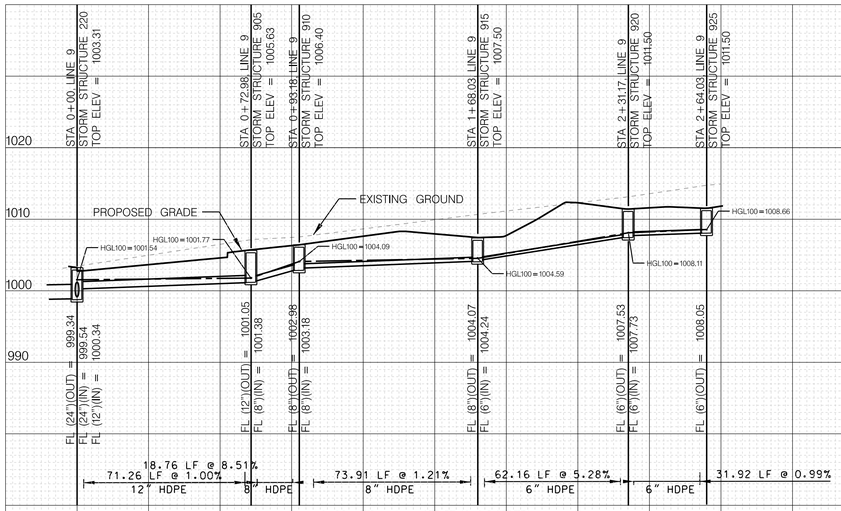

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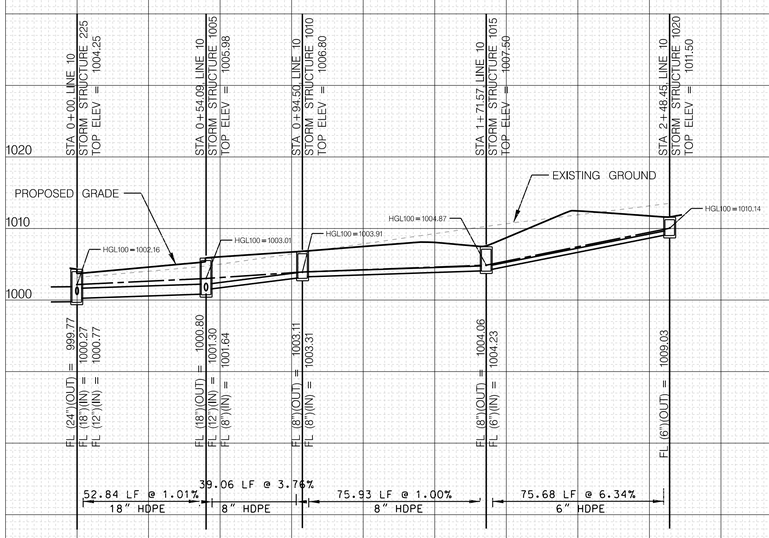

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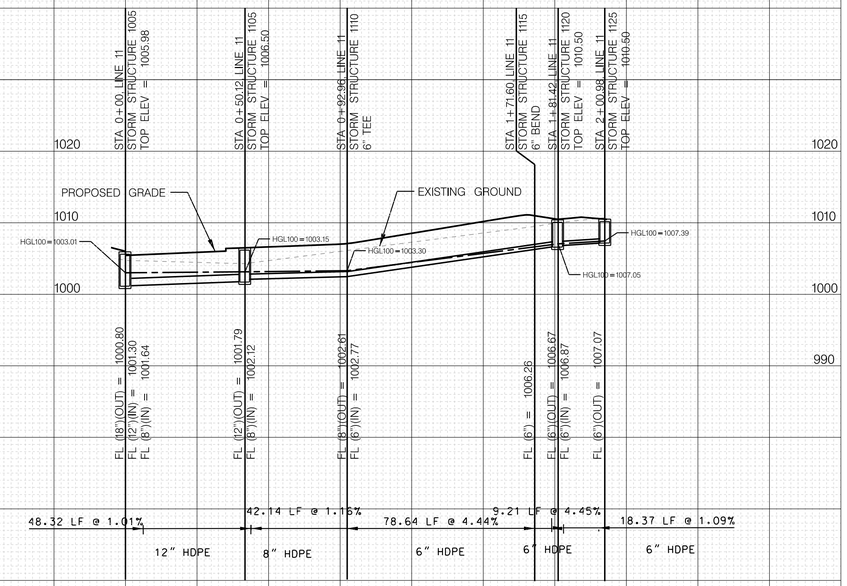

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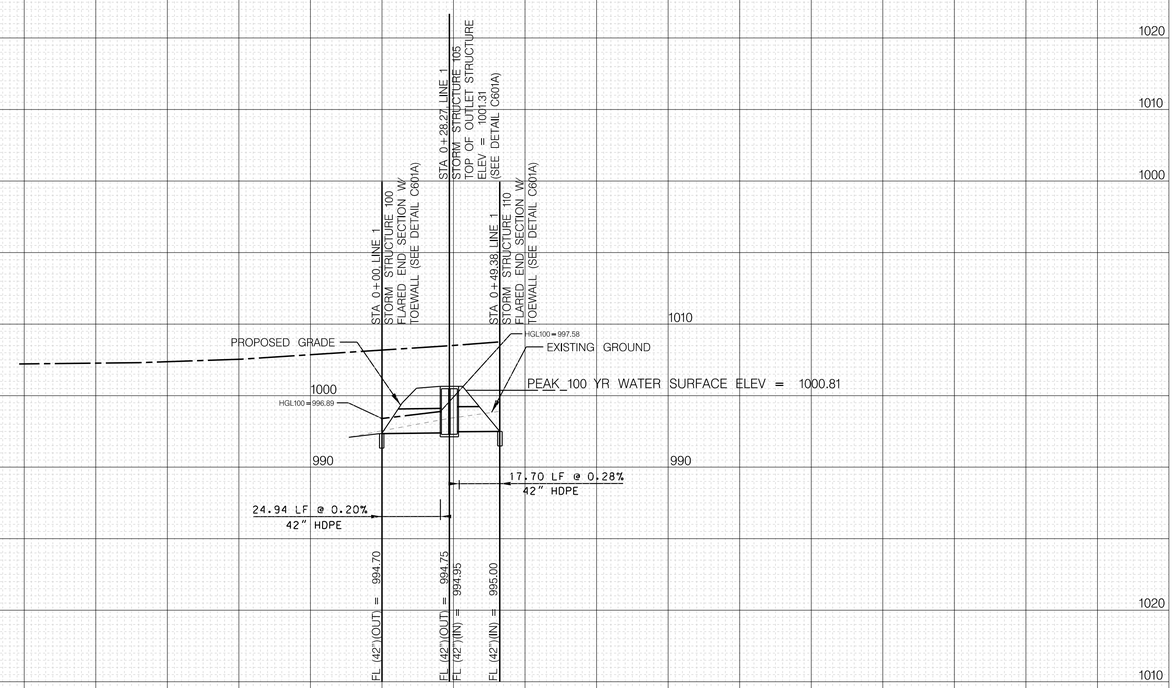

LINE 1 – OUTLET STRUCTURE (PRIVATE)

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-28645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/08/22	

Designed by: RP
Date: 03-25-2015
Rev. -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1:30
File name: 215065-ST-SHCD Storm Sewer Profiles Sheet.dwg
Plot date: 8/2/2022 3:56:21 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

DRAINAGE PROFILES
L9, L10 & L11

C404

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STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
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	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Drawn by: RP
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Ckd by: LWS
Plot scale: 1:20
Rev. -
File name: 215065-ST-SH-CD San Sewer Plan & Profile Line 1.dgn
Plot date: 8/2/2022 3:44 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

SANITARY SEWER PLAN AND PROFILE LINE 1

C405

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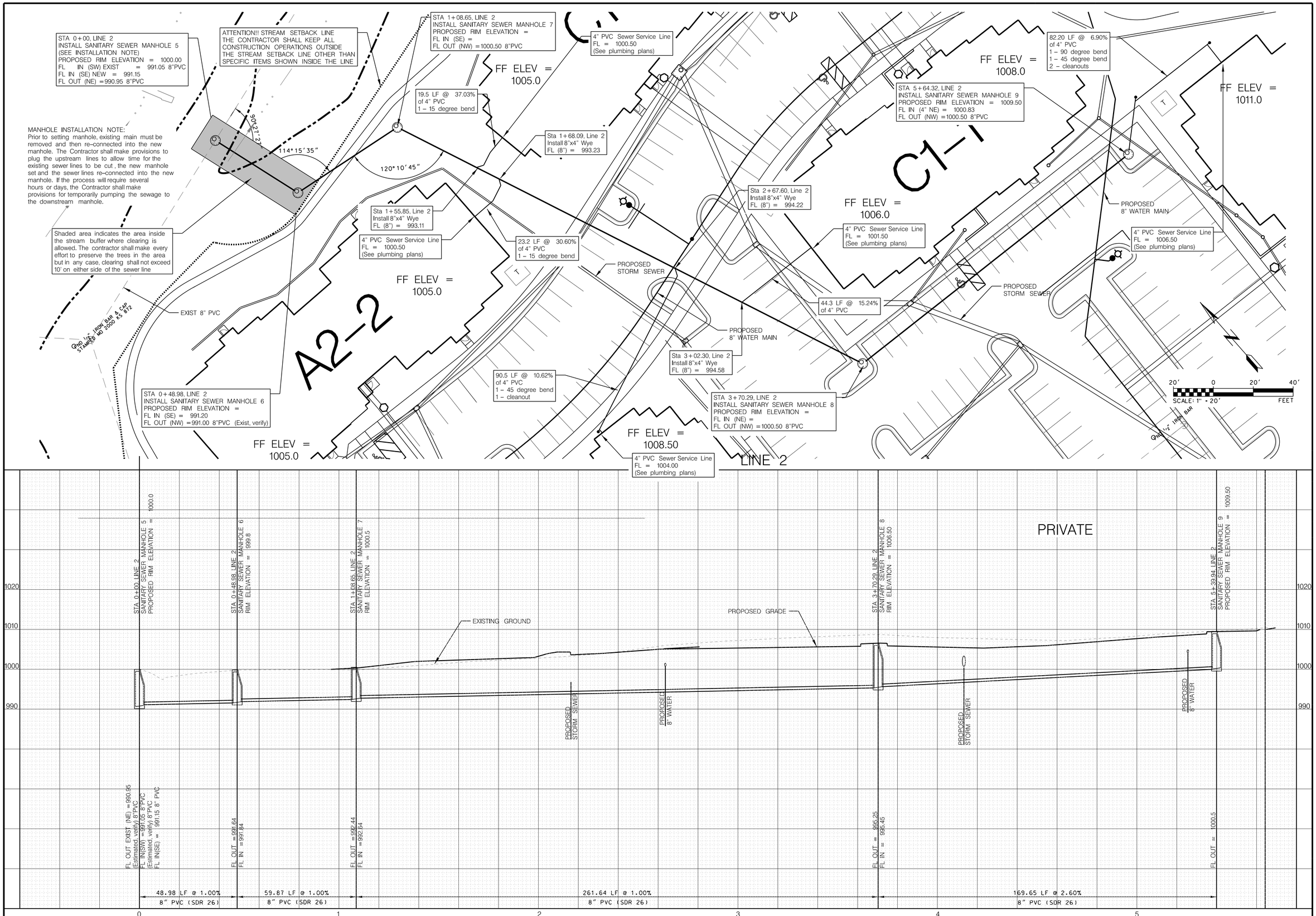

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STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
MISSOURI PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/21/22	
	CITY SUBMITTAL	02/02/22	

Rev. -

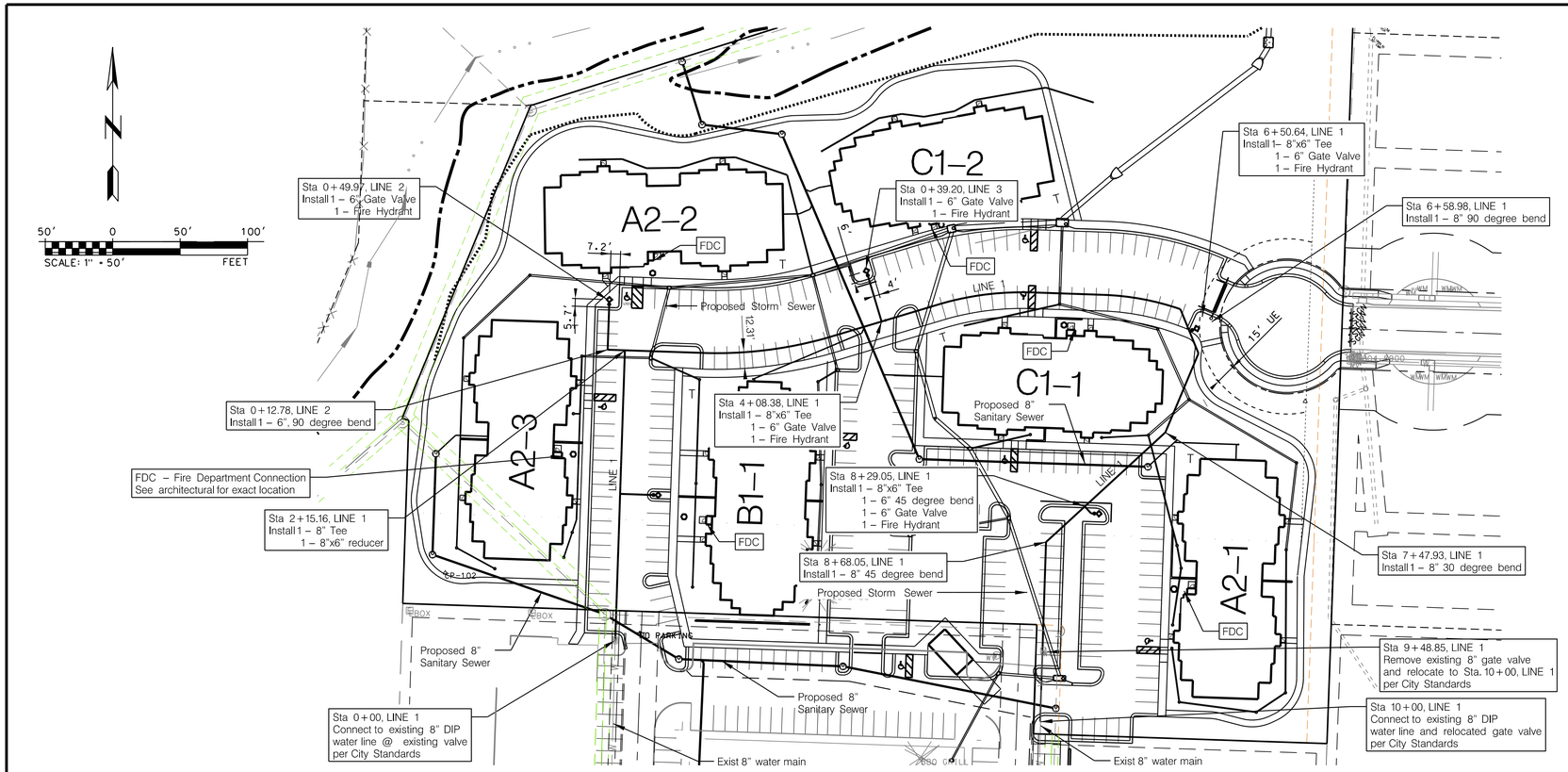
Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Plot scale: 1:20
Date: 03-25-2015
Reviewed by: ---
File name: 215065-ST-SH-CD San Sewer Plan & Profile Line 2.dgn
Plot date: 8/2/2022 3:56 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

SANITARY SEWER
PLAN AND PROFILE
LINE 2

C406

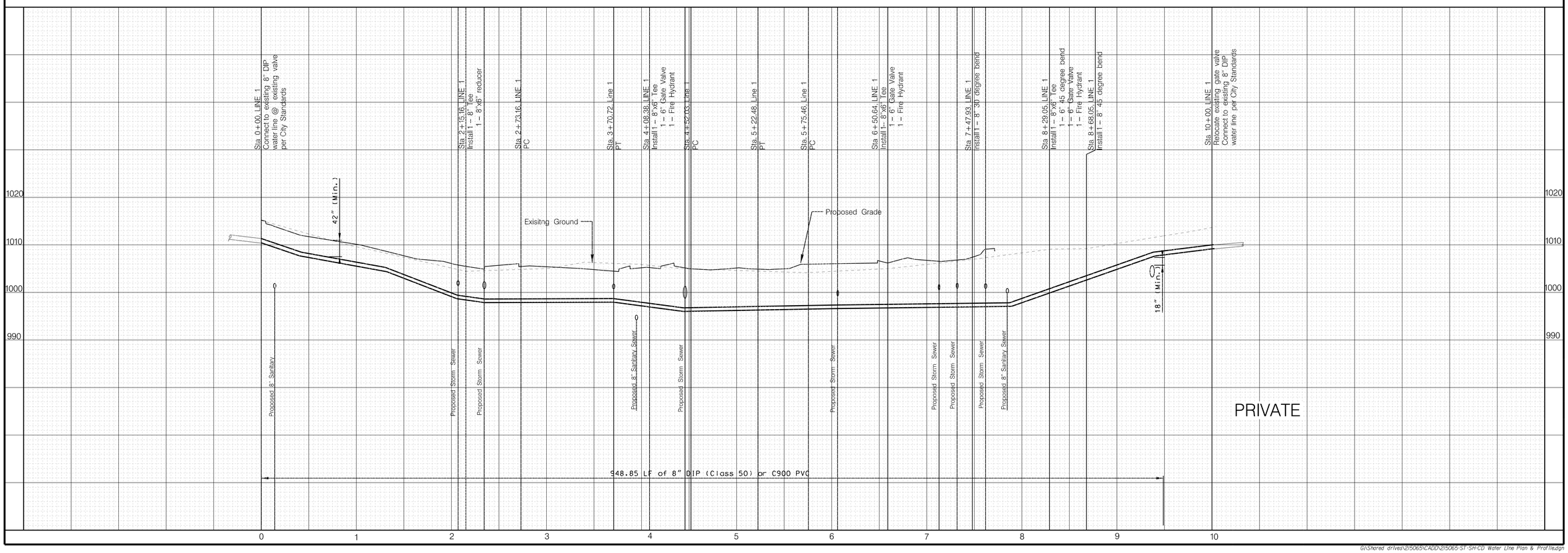


WATERLINE GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE PER APWA AND/OR LEE'S SUMMIT STANDARDS.
2. EXISTING PAVEMENT, CURB AND SIDEWALKS OVER THE EXCAVATION LIMITS SHALL BE SAWCUT AND REMOVED AND PROPERLY DISPOSED OF OFF OF THE SITE. TRENCHING, EXCAVATION AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH LEE'S SUMMIT STANDARDS. PAVEMENT, CURB AND SIDEWALK SHALL BE REPLACED TO MATCH THE EXISTING SECTIONA IN ACCORDANCE WITH LEE'S SUMMIT STANDARDS.
3. THESE PLANS WERE PREPARED BASED OFF OF UTILITY FIELD MARKING LOCATIONS RECORDED IN THE FIELD, AND THE ACTUAL WATER AND UTILITY LINE LOCATIONS COULD VARY. CONTRACTOR SHALL MAKE A RECORD OF THE DEVIATIONS IN MATERIALS, FITTINGS AND ALIGNMENTS TO ACCOMMODATE THE FIELD CONSTRUCTION, AND SHALL PROVIDE THE AS-BUILT CONSTRUCTION RECORDS TO THE CITY AND THE ENGINEER UPON COMPLETION OF THE WATER LINE RELOCATION WORK.
4. THE CONTRACTOR SHALL CONTACT THE CITY OF LEE'S SUMMIT PUBLIC WORKS INSPECTIONS AT (816) 969-1829 A MINIMUM OF 48 HOURS BEFORE COMMENCEMENT OF CONSTRUCTION.
5. CONTRACTOR TO COORDINATE WITH APPROPRIATE, UTILITY COMPANIES PRIOR TO CONSTRUCTION ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS OR REQUIRED IN THE FIELD. ANY DEVIATION FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL PUBLIC AND DOMESTIC WATER LINE PIPES, METERS, VALVES AND ALL OTHER INCIDENTALS REQUIRED FOR A COMPLETE OPERABLE WATER SYSTEM. ALL PUBLIC AND DOMESTIC WATER LINES AND FITTINGS SHALL BE OF MATERIALS APPROVED BY THE CITY OF LEE'S SUMMIT. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT.

EXISTING WATER LINE IS TO BECOME PRIVATE
SEE SHEET C400 FOR LOCATION OF BACKFLOW PREVENTOR VAULTS ON EXISTING MAIN AND SERVICE LINES, FIRE LINES AND WATER METERS.

SEE CLUBHOUSE UTILITY PLAN C702 FOR LOCATION OF CLUBHOUSE SERVICE LINE.



Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/08/22	

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Plot scale: 1:50
Date: 03-25-2015
Reviewed by: ---
Rev. -
File name: 215065-ST-SH-CD Water Line Plan & Profile.dgn
Plot date: 8/2/2022
35:40 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

WATER LINE PLAN AND PROFILE

C407

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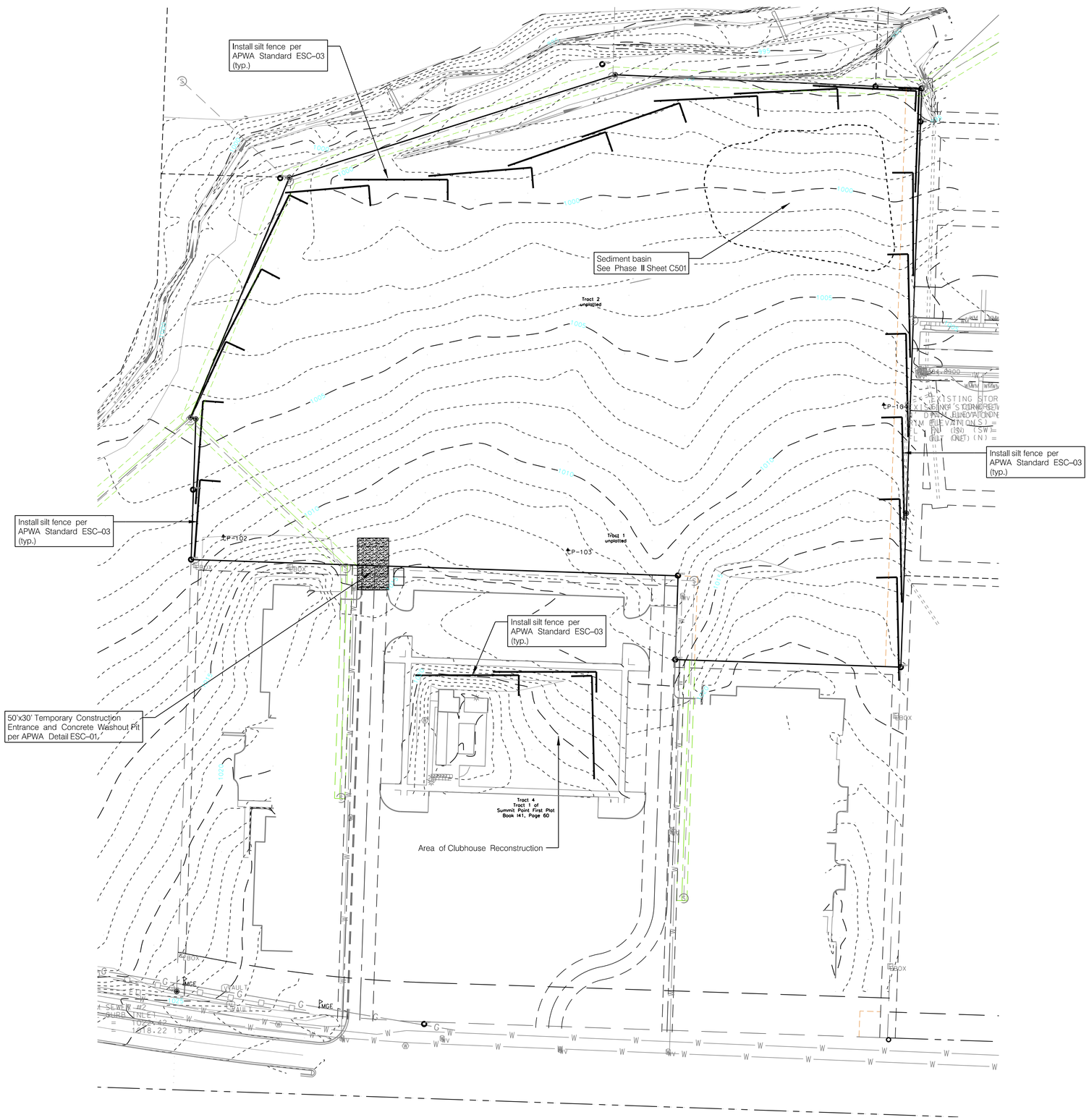
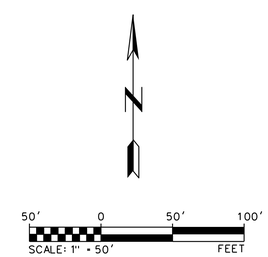


EROSION CONTROL PHASE I

NOTES:
1. Install 30'x50' Temporary Const Entrance
2. Set Material Storage Area
3. Install Silt Fence
4. Begin clearing and grubbing operations



STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
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	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:50
Rev. -
File name: 215065-ST-SH-CD EC Phase I.dgn
Plot date: 8/2/2022 3:03:30 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

EROSION CONTROL PLAN
PHASE I
PRE-CONSTRUCTION

Sheet reference number:
C500

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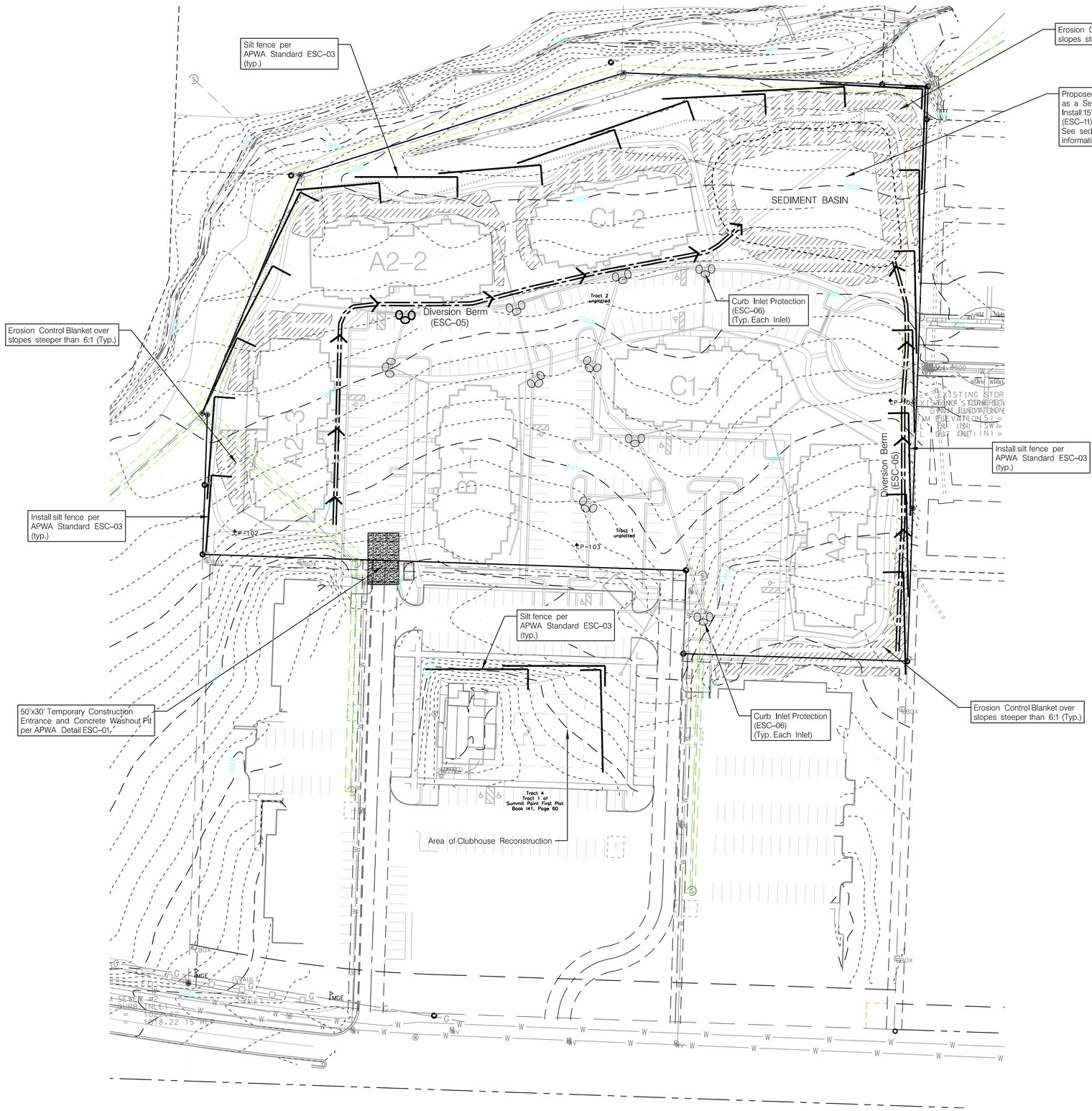

EROSION CONTROL PHASE II

NOTES:
1. Strip topsoil and stockpile out of active grading areas.
2. Begin grading and earthwork
3. Grade sediment basin (Stormwater detention basin) (ESC–12)
4. Install 15" HDPE Sediment Basin Outlet Culvert, Riser and Trash Rack (ESC–12)
5. Install 6" Sediment Basin Skimmer (ESC–12)
6. Install diversion berms and Slope Drains (ESC–05)
7. Start temporary seeding on areas not disturbed for seven day.
8. Install Erosion Control Blankets and Turf reinforcement mats on graded slopes steeper that 6:1.
9. Begin sewer and utility line construction.
10. Install Curb INlet Protection (ESC–06) and Area Inlet and Junction Box Protection (ESC–07)
11. Begin Concrete Curb and Gutter, Pavement and sidewalk work.
12. Begin building foundation and Structural wall work.
13. Start Permanent Seeding on finished graded areas.

COOK, FLATT & STROBEL ENGINEERS, P.A.
1421 E 104th STREET, SUITE #100
KANSAS CITY, MISSOURI 64131
TELEPHONE (816) 333-4477
WWW.CFSE.COM

Project: Summit Point Sediment Basin Sizing
Project# 21-5065
Designer: TEI
Date: 03-31-22
File Name: "03-31-22 Summit Point-Sediment Basin Sizing"

SEDIMENT BASIN DESIGN SUMMARY TABLE

Design Item	Basin No. 1	Basin No. 2	Basin No. 3	Basin No. 4	Units	Notes
Site Data:						
Tributary Drainage Area to Pond	9.74				Acres	5.53 acres Onsite, 4.21 acres Offsite
50% (2-Yr) Design Flow	25.01				cfs	
50% (2-Yr) Max. WSEL	997.26				ft	
4% (25-Yr) Design Flow	59.12				cfs	
4% (25-Yr) Max. WSEL	999.25				ft	
Pond Data:						
Disturbed Ground Area to Pond	5.53				Acres	
Minimum Sediment Storage Volume	1305				cu yd	134 cy/acre required minimum
Provided Sediment Storage Volume	2835				cu yd	
Bottom Elevation	995.00				ft	
Sediment Cleanout Elevation	996.10				ft	Elevation equal to 20% of original design volume
Top of Riser Elevation	997.00				ft	Top of dry storage volume
Emergency Spillway Elevation	1001.00				ft	at or above Q-2yr elevation. 1.0ft min. above principal spillway
Top of Dam Elevation	1003.25				ft	1.0ft min. above Q-25yr elevation
Basin Shape Data:						
A = Area of Normal Pool	10002				SF	
L = Length of Flow Path	165				ft	
We = Effective Width = A/L	60.6				ft	
Length to Width Ratio = L/We	2.7					
Principal Spillway Data:						
Riser Pipe dia.	15				in	15" min. Size for 2 year flow minimum
Barrel Pipe dia.	15				in	15" min. Size for 2 year flow minimum
Concrete Base size for Riser Pipe	0.35				CY	Size to prevent flotation. 1.25 safety factor required
Skimmer Size	6				in	Designer to provide specific details and calculations per
Skimmer Emptying Time	9.8				hr	application to de-water in 6 to 24 hours
Emergency Spillway Data:						
Design Depth in Spillway.	1.6				ft	
Spillway Width	10.0				ft	
Design Velocity in Spillway	3.8				ft/sec	
Lining Material	Geo-Fab					

50' 0 50' 100'
SCALE: 1" = 50' FEET

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
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	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/21/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Drawn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:50
File name: 215065-ST-SH-CD EC Phase II.dgn
Plot date: 8/2/2022 3:22:38 PM
Rev. -

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

EROSION CONTROL PLAN
PHASE II
ACTIVE CONSTRUCTION

Sheet reference number:
C501

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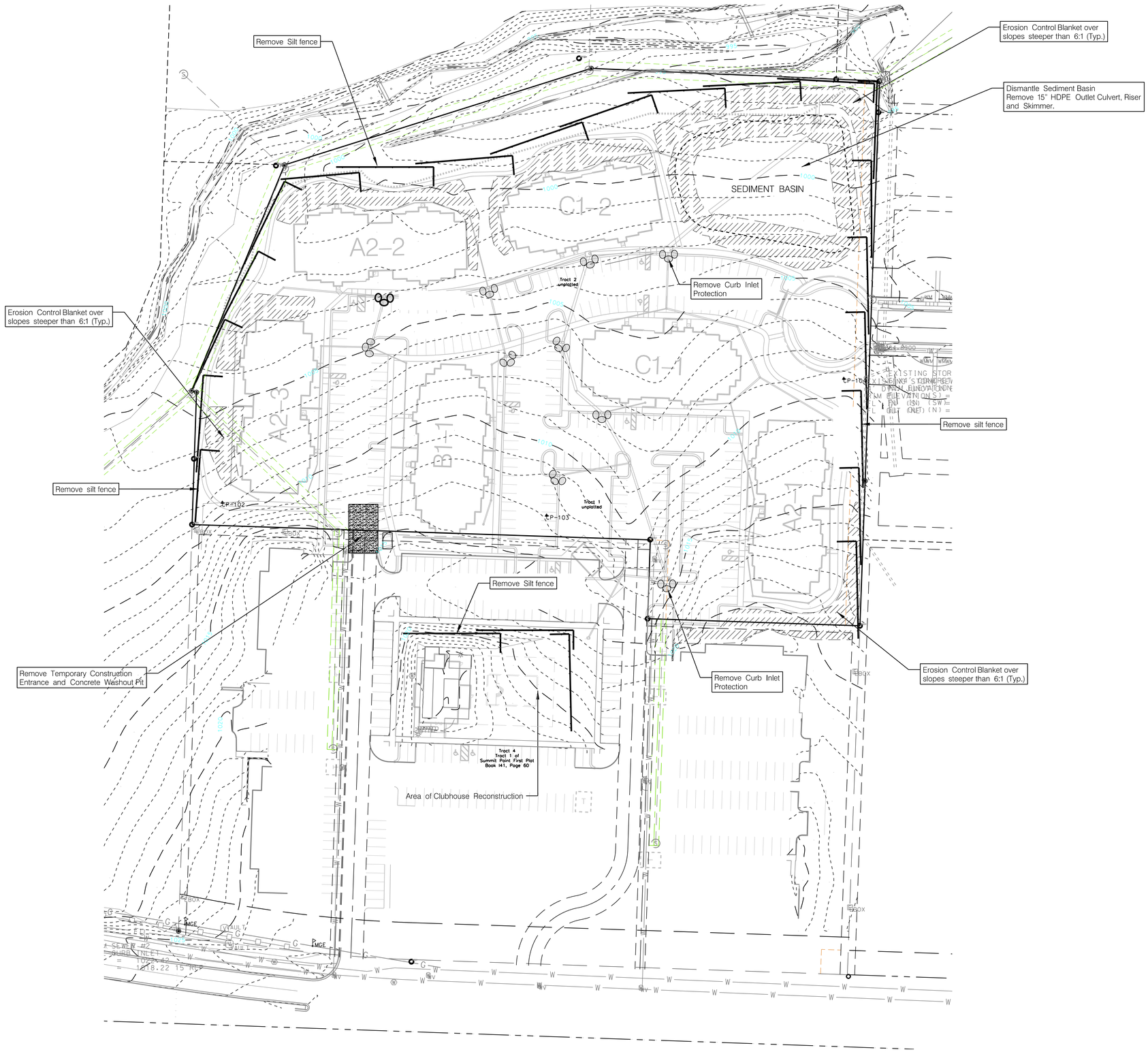

EROSION CONTROL PHASE II

NOTES:
1. Maintain erosion control features until permanent ground cover vegatation has been established.
2. Dismantle and remove Sediment Basin outlet culvert and skimmer.
3. Remove curb inlet protection and area inlet and junction box protection.
4. Remove temporary construction entrance and concrete wash pit.

50' 0 50' 100'
SCALE: 1" = 50' FEET

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

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	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:50
Rev. -
File name: 215065-ST-SHCD EC Phase III.dgn
Plot date: 8/2/2022 10:33:34 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

EROSION CONTROL PLAN
PHASE III
FINAL RESTORATION

Sheet reference number:
C502

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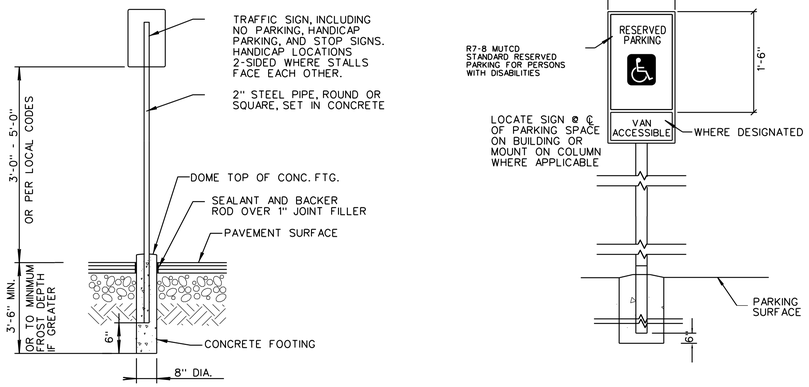

ACCESSIBLE PARKING SPACE SIGNAGE

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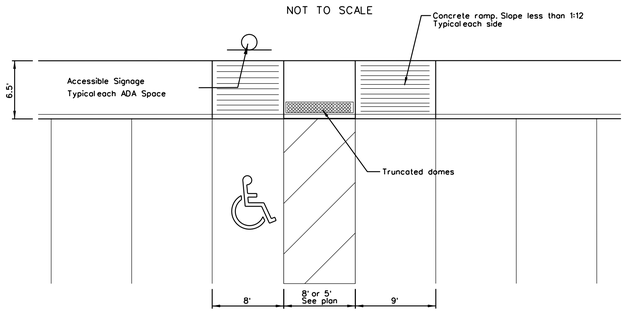

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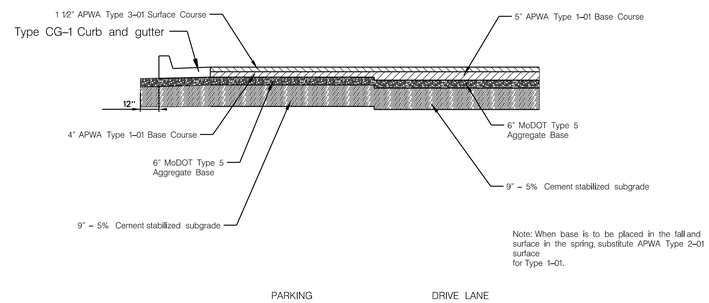

ASPHALT PAVING SECTION

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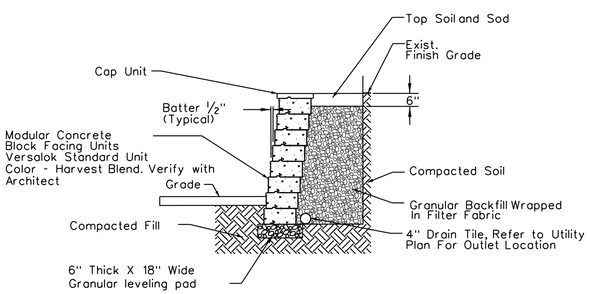


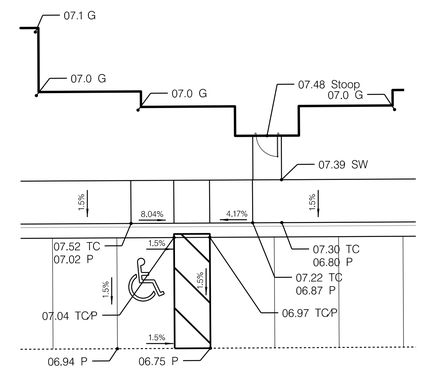
NOTE:

Contractor Shall Submit Shop Drawings For Each Wall. Shop Drawings Shall Include Retaining Wall Plans And Calculations, Sealed By A Missouri Registered Engineer, And Be Submitted To The City And Engineer For Review And Approval Prior To Construction (1994 Ubc Section 106.3.2).

Block Wall Shall Have A Handrail At Location Greater Than A 30" Drop From

MODULAR BLOCK RETAINING WALL

NOT TO SCALE



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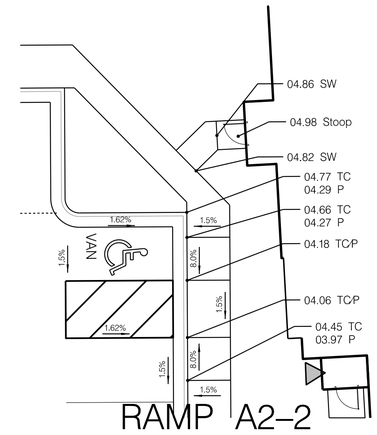

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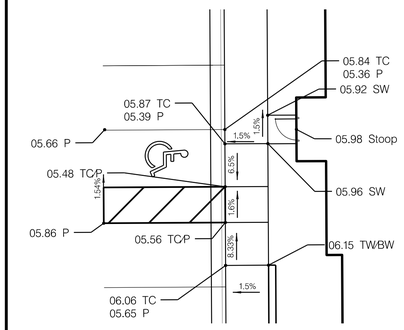

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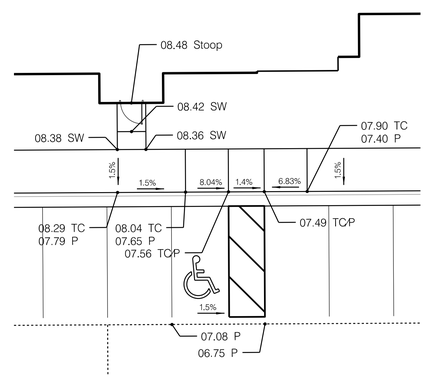

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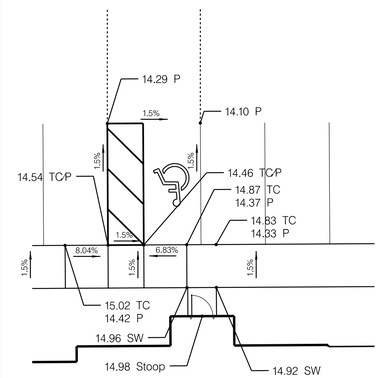

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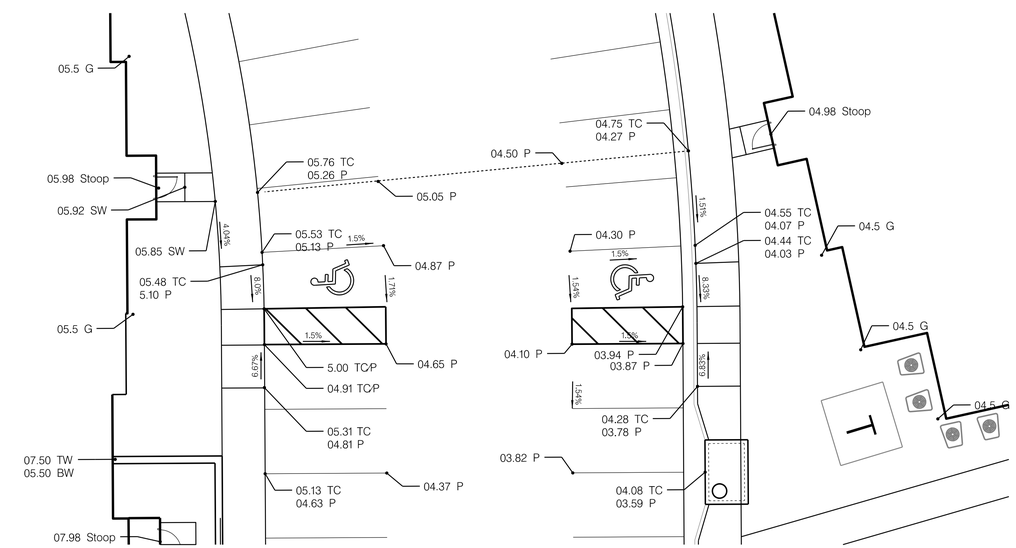

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	REVISED PER COMMENTS	08/02/22	
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	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

STATE OF MISSOURI — LANCE W. SCOTT — NUMBER E-35645 — REGISTERED PROFESSIONAL ENGINEER — 8/2/22

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:40
File name: 215065-ST-SHCD ADA Detailsdgn
Plot date: 8/2/2022 3:54:43 PM
Rev. -

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

DETAILS

Sheet reference number:
C600

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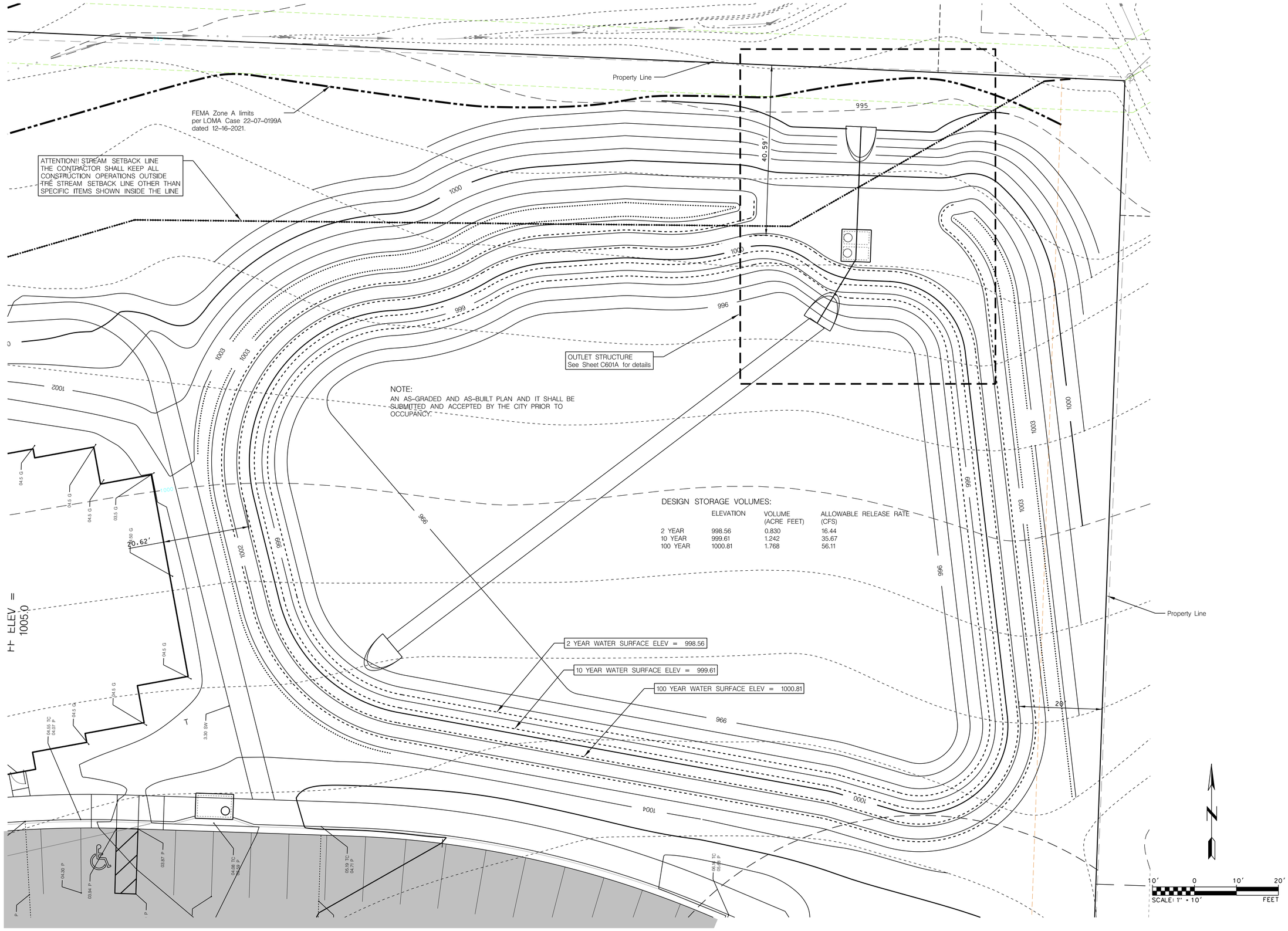

DESIGN STORAGE VOLUMES:

	ELEVATION	VOLUME (ACRE FEET)	ALLOWABLE RELEASE RATE (CFS)
2 YEAR	998.56	0.830	16.44
10 YEAR	999.61	1.242	35.67
100 YEAR	1000.81	1.768	56.11

STATE OF MISSOURI
LANCE W. SCOTT
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8/2/22

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	CITY SUBMITTAL	02/08/22	

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---
Date: 03-25-2015
Reviewed by: ---
Plot scale: 1:40
Rev. -
File name: 215065-S1-SH-CD Detention Basin Plan.dgn
Plot date: 8/2/2022

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

DETENTION BASIN PLAN

Sheet reference number:
C601

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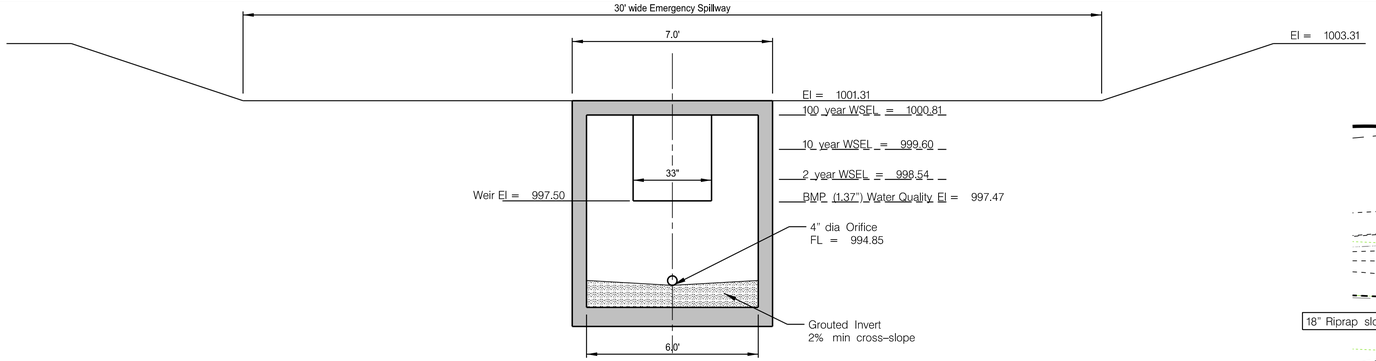
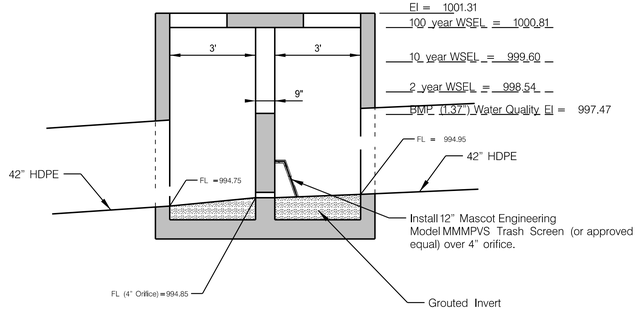
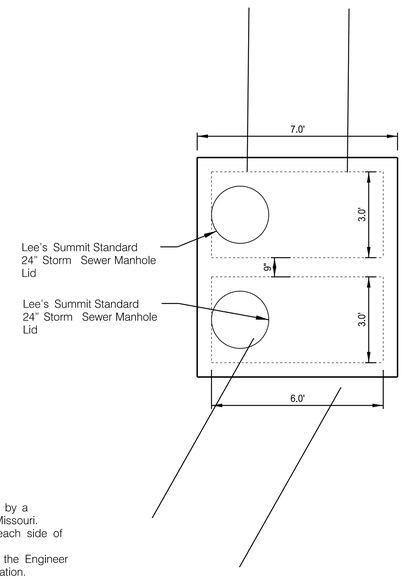




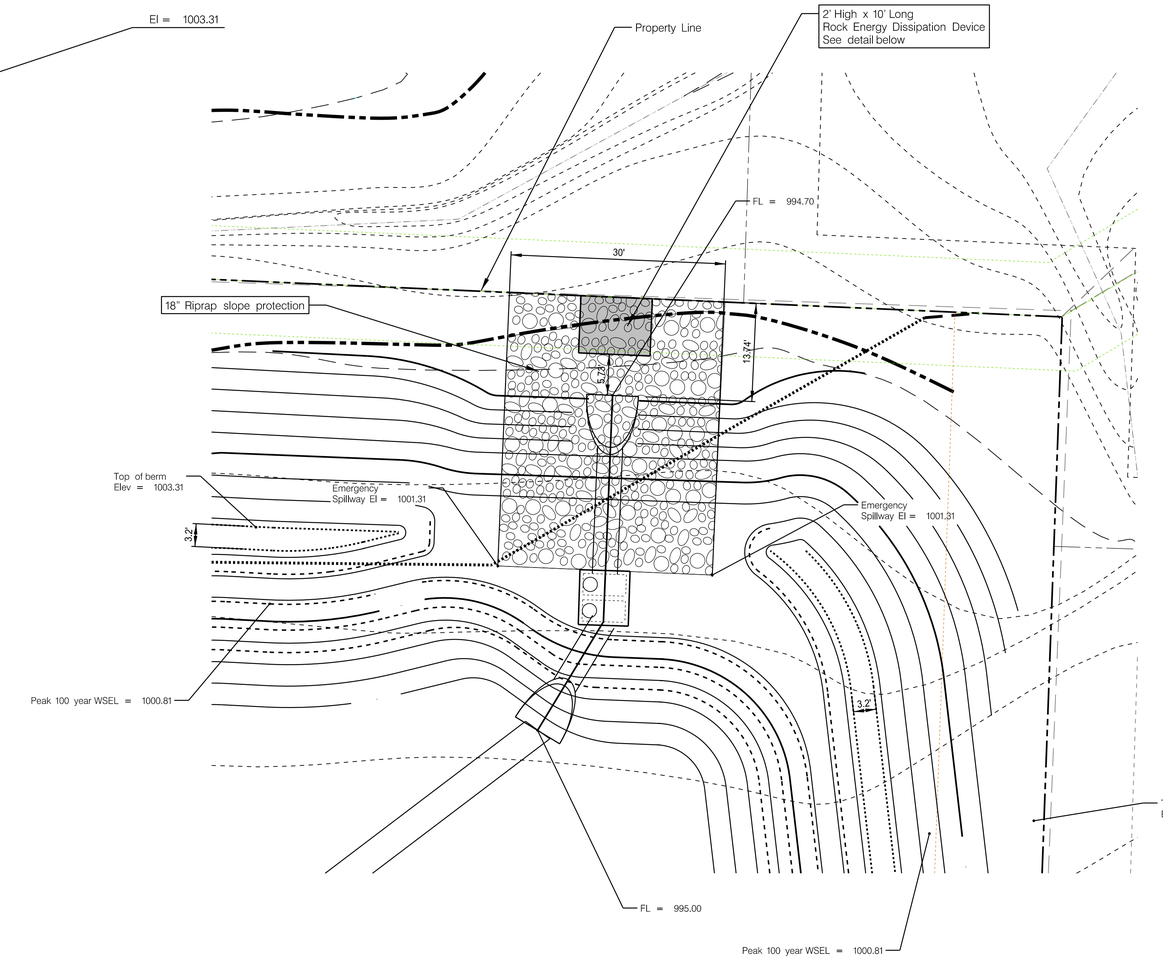


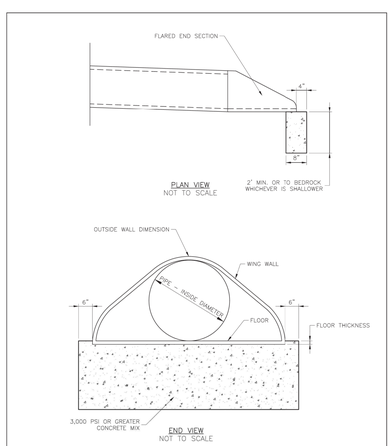
General Note:
The structure shall be precast, sealed by a professional engineer in the State of Missouri.
The structure shall include steps on each side of the weir, below the manhole covers.
Shop drawings shall be submitted to the Engineer and the City for review, prior to fabrication.

OUTLET STRUCTURE SECTION

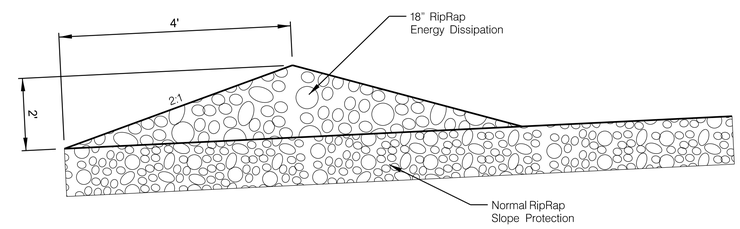
NOT TO SCALE

See profile, Sheet C404





LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION	Date: 05/2011 Drawn By: MM Checked By: DL
	FLARED END SECTION SUPPORT DETAIL	STM-5



ROCK ENERGY DISSIPATION DEVICE

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Rev. -

Designed by: RP
Date: 03-25-2015
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1:40
File name: 215065-ST-SH-CD Detention Basin Details.dgn
Plot date: 8-2-2022 3:27:24 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

DETENTION BASIN DETAILS

C601A

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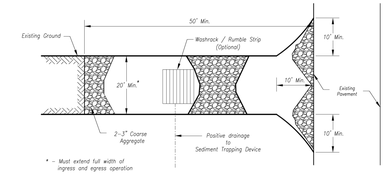
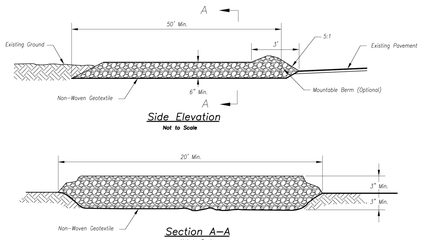
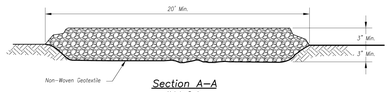


Plan View
Not to Scale



Side Elevation
Not to Scale



Section A–A
Not to Scale

Notes for Construction Entrance:

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

Maintenance for Construction Entrance:

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

CONSTRUCTION ENTRANCE

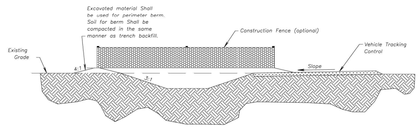
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

Notes for Concrete Washout:

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

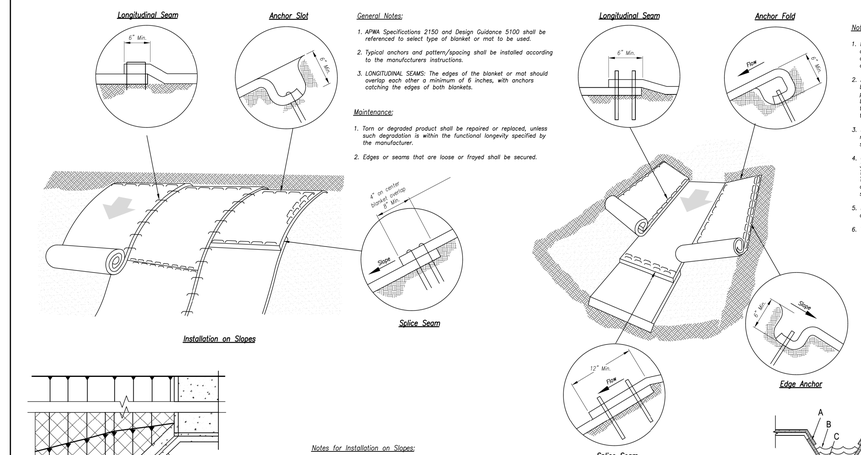
Maintenance for Concrete Washout:

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



CONCRETE WASHOUT

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



General Notes:

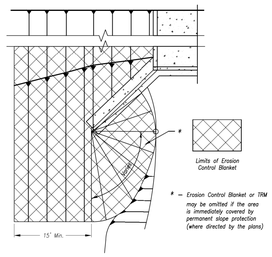
1. *APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.*
2. *Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.*
3. *LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each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



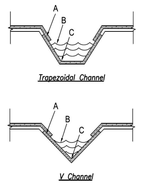
Partial Box Culvert Plan
Not to Scale

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

Installation Around Culvert Slope

Notes for Installation on Slopes:

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



Critical Points:

A – *Overlaps and seams;*

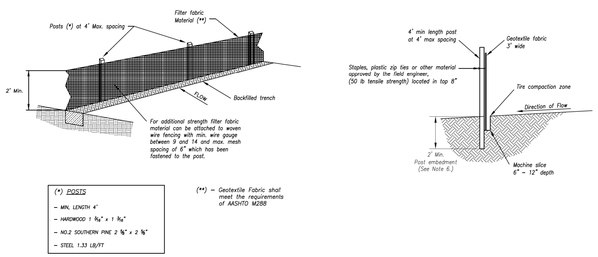
B – *Projected water line;*

C – *Channel bottom / side slope vertices;*

Installation in Channels

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

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



(*) *POSTS*
- *MIN. LENGTH 4'*
- *HARDWOOD 1 ¼" x 1 ¼"*
- *NO.2 SOUTHERN PINE 2 ⅜" x 2 ⅜"*
- *STEEL 1.33 LB/FT*

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

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. *Attsch 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.*

SILT FENCE DETAILS
Not to Scale

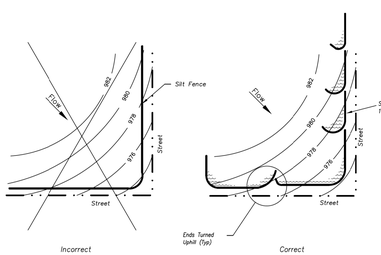
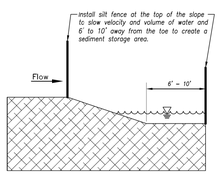
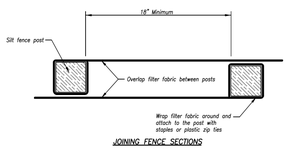


Figure A

SILT FENCE LAYOUT
Not to Scale

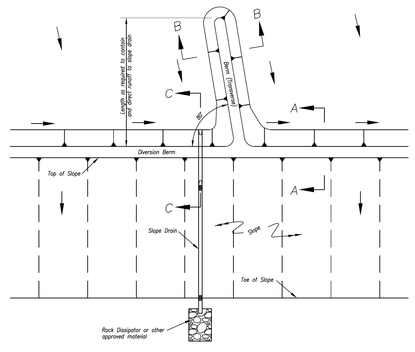




JOINING FENCE SECTIONS
Not to Scale

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

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



TYPICAL PLAN VIEW OF DIVERSION BERM AND SLOPE DRAIN

Notes for Diversion Berm:

1. *Slope drains are optional, but may be required by the engineer if the berm is at the top of a steep slope.*
2. *Diversion berms must be installed as a first step in the land–disturbing activity and must be functional prior to upslope land disturbance.*
3. *The berm should be adequately compacted to prevent failure.*
4. *Temporary or permanent seeding and mulch shall be applied to the berm immediately following its construction.*
5. *Place the berm so to minimize damages by construction operations and traffic.*
6. *The berm must discharge to a temporary sediment trap or stabilized area.*
7. *All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of diversion.*
8. *The diversion shall be excavated or shaped to line, grade and cross–section as required to meet the criteria specified herein, free of irregularities which will impede flow.*
9. *Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed diversion. Fill shall be composed of soil which is free from excessive organic debris, rocks or other objectionable materials.*

Maintenance:

1. *Berm shall be reshaped, compacted, and stabilized as necessary to maintain its function.*
2. *Breaches in the berm shall be repaired immediately.*

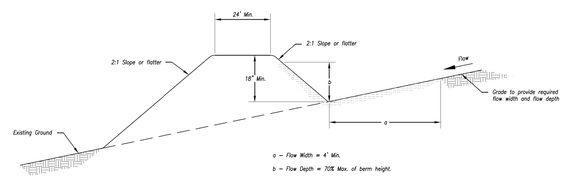
Notes for Slope Drain:

1. *Slope Drain and Diversion Berm may be used on either project foresiopes or project backslopes.*
2. *Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.*
3. *Pipe shall be secured in place as approved by Engineer.*

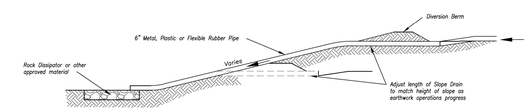
Maintenance:

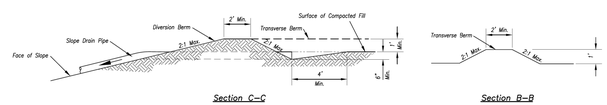
1. *Accumulation of any visible sediment at the inlet and outlet shall be removed promptly.*
2. *Outlet conditions shall be repaired if scour is observed. Leaking or damaged section of pipe shall be repaired immediately.*
3. *Barriers directing water to the inlet shall be monitored for continuity and effectiveness.*

TYPICAL PROFILE OF DIVERSION BEAM
Not to Scale



TYPICAL PROFILE OF DIVERSION BERM





Section C–C

Section B–B

TYPICAL PROFILE OF DIVERSION BERM WITH SLOPE DRAIN

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

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER
DIVERSION BERMS AND SLOPE DRAINS
STANDARD DRAWING NUMBER ESC-05
ADOPTED: 10/24/2016

STATE OF MISSOURI
LANCE V. SCOTT
NUMBER E-35645
PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Drawn by: RP
Ckd by: LWS
Date: 03-25-2015
Reviewed by: ---
Submitted by: ---
Plot scale: 1=40
Rev. -
File name: 215065-ST-SHCD EC Detailsdgn
Plot date: 8/2/2022

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

EROSION CONTROL DETAILS

Sheet reference number:
C-602

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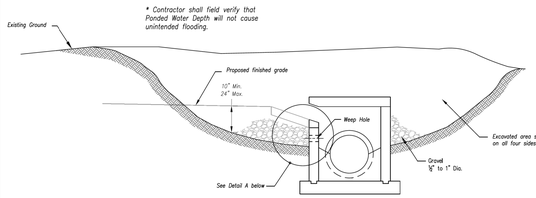
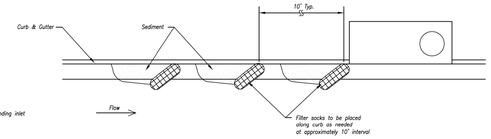
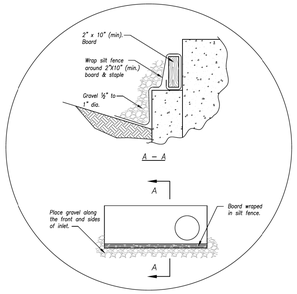


EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)



On Grade Curb Inlet Protection



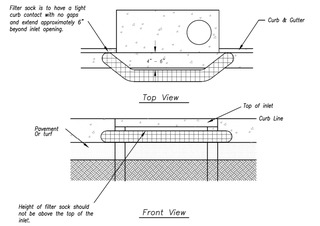
Detail A

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.

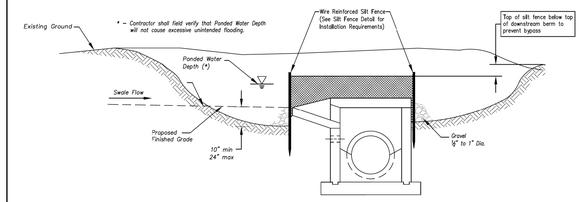


Sump Inlet Sediment Filter

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 APWA American Public Works Association
KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION
STANDARD DRAWING NUMBER ESC-06
ADOPTED: 10/24/2016



Section A–A
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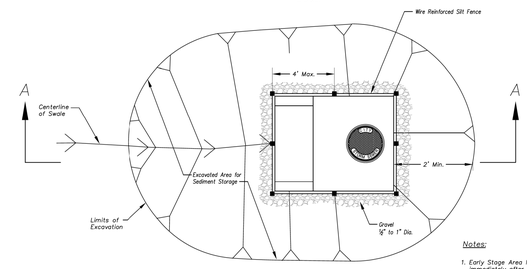
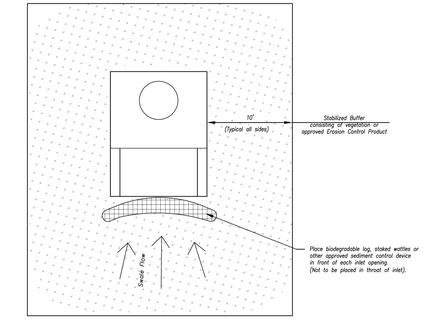


Plan
Not to Scale

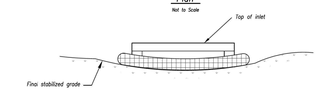
EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)

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

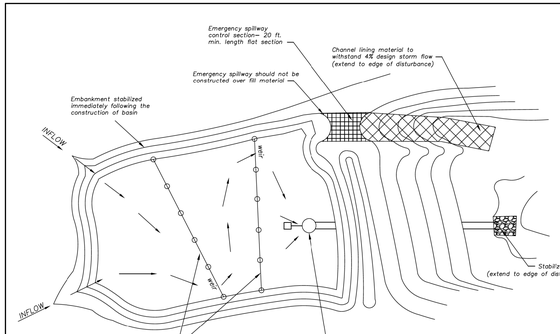
LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

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 APWA American Public Works Association
KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION
STANDARD DRAWING NUMBER ESC-07
ADOPTED: 10/24/2016



Plan View (*)
Not to Scale

Sediment Basin Design Summary (**)

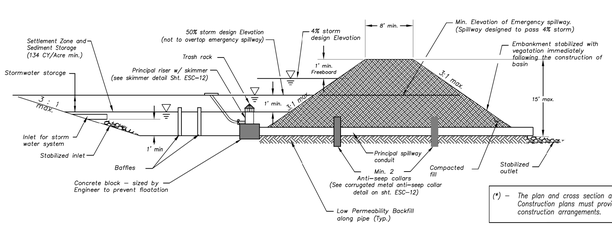
Design Item	Basin #1	Basin #2	Units	Notes
Site Data:				
Tributary Drainage Area to Pond			Acres	
50% (2 yr) Design Flow			cfs	
4% (25 yr) Design Flow			cfs	
Pond Data:				
Minimum Sediment Storage Volume			cu yd	1.34 cy/acre required minimum
Provided Sediment Storage Volume			cu yd	
Bottom Elevation			Ft	
Sediment Cleanout Elevation			Ft	Elevation equal to 20% of original design volume
Top of Riser Elevation			Ft	Top of dry storage volume
Emergency Spillway Elevation			Ft	at or above Q–2 elevation. 1.0 ft min above principal spillway
Top of Dam Elevation			Ft	1.0 ft min above Q–25 elevation
Basin Shape Data:				
A = Area at Normal Pool			SF	
L = Length of Flow Path			Ft	
We = Effective Width = A/L			Ft	
Length to Width Ratio = L/We				
Principal Spillway Data:				
Riser Pipe dia			in	15" min. Size for 2 year flow minimum
Barrel Pipe dia			in	15" min. Size for 2 year flow minimum
Concrete Base size for Riser Pipe			CY	Size to prevent flotation. 1.25 safety factor required
Skimmer Size				Designer to provide specific details and calculations per application to dewater in 48 to 72 hours
Emergency Spillway Data:				
Design Depth in Spillway			ft	
Design Velocity in Spillway			ft/sec	
Lining Material				Designer to provide specific details and calculations per application
(**) – Required on all Sediment Basin Plan Sheets				

Sediment Basin Notes:

1. Interior baffles shall be provided to reduce short–circuiting of the basin. See Sht. ESC–12 for approved baffle options.
2. Emergency spillways to be located in a non–fill location when feasible and shall be lined with a non–erodible material such as Riprap or Turf Reinforcement Mat.
3. When directed, sediment basins shall be fenced using construction fence or other material for safety reasons and include warning signs, reading: "Danger – KEEP OUT".

Maintenance:

1. Check temporary sediment basins after periods of significant runoff.
2. Remove sediment and restore the basin to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlets.
4. Repair and/or replace baffles as necessary to maintain function and integrity of installation.
5. Keep outlet, skimmer and pool area free of all trash and other debris.

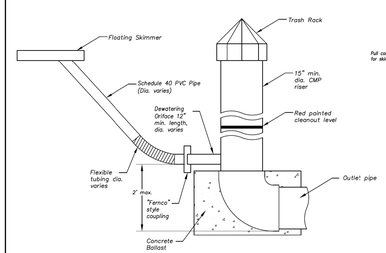


Cross Section (*)
Not to Scale

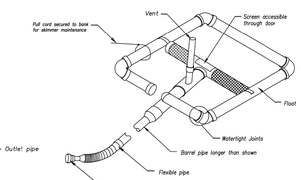
(*) – The plan and cross section are schematic in nature. Construction plans must provide specific site construction arrangements.

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

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter APWA American Public Works Association
KANSAS CITY METRO CHAPTER
SEDIMENT BASIN
STANDARD DRAWING NUMBER ESC-11
ADOPTED: 10/24/2016

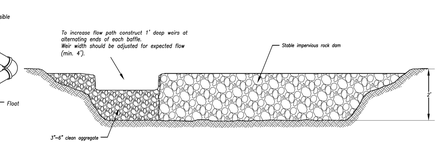


PRINCIPAL SPILLWAY DETAIL

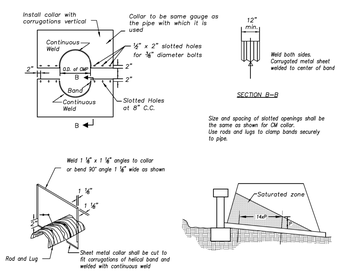


SKIMMER DETAIL (Typ.) *

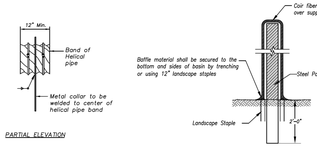
* Designer to provide specific details per application (e.g. pipe sizes, screen sizes, perforation, etc.) as required.



Option A – Rock with Weir

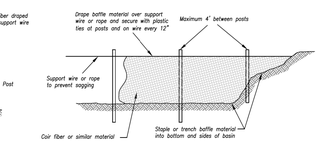


CORRUGATED METAL ANTI–SEEPAGE COLLAR DETAIL
Not to Scale



Anti–Seepage Collar Notes:

1. Connections between the anti–seepage collar and the barrel must be watertight.
2. P = projection distance. Sized as required to achieve at least a 10% increase in seepage length.
3. 14xP = Max. spacing between collars.
4. Collars shall generally be placed in the middle third of the embankment, and within the saturated zone.
5. All materials to be in accordance with construction material specifications.
6. When specified on the plans, coating of collars shall be in accordance with construction material specifications.
7. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
8. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at the time of installation.
9. Each collar shall be furnished with two (2) ⅝" diameter rods with standard tank lugs for connecting the collars to the pipe.
10. For bands and collars, modification of the details shown may be used providing equal water tightness is maintained and detailed drawings are Submitted and approved by the Engineer prior to delivery.
11. Two other types of anti–seep collars are:
    a. Corrugated metal, similar to above, except shop welded to a 4 ft. section of the pipe and connected to the pipe with connecting bands.
    b. Concrete, 6 inches thick, formed around the pipe with #3 rebar spaced 15".



Option B – Coir Fiber Material

BAFFLE DETAILS
Not to Scale

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

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter APWA American Public Works Association
KANSAS CITY METRO CHAPTER
SEDIMENT BASIN – DETAILS
STANDARD DRAWING NUMBER ESC-12
ADOPTED: 10/24/2016

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Date: 03-25-2015
Rev. -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1=40
File name: 215065-ST-SHCD EC Details (2).dgn
Plot date: 8/2/2022

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

EROSION CONTROL DETAILS (2)

Sheet reference number:
C-603

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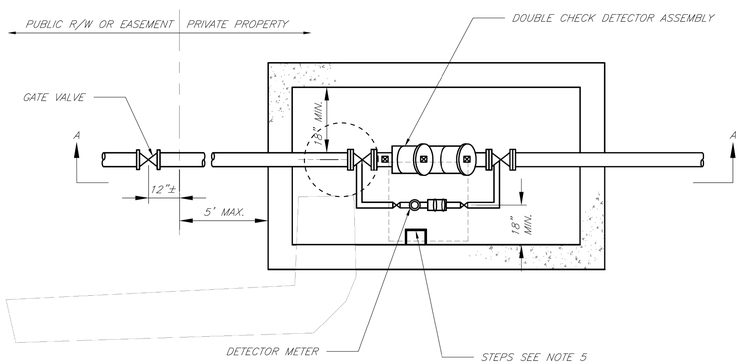
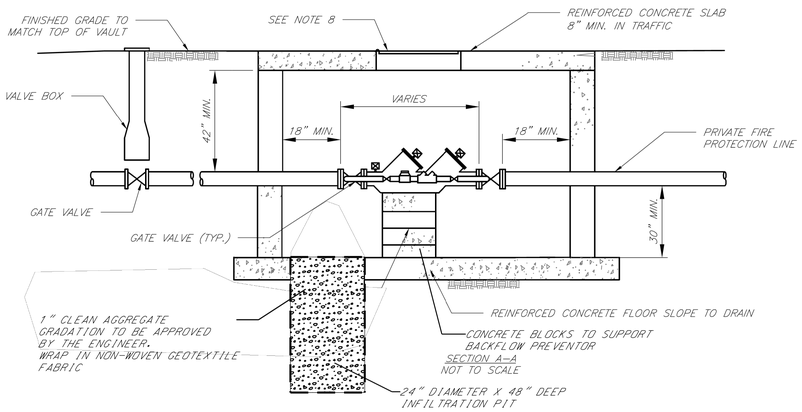


PLAN VIEW
NOT TO SCALE



SECTION A–A
NOT TO SCALE

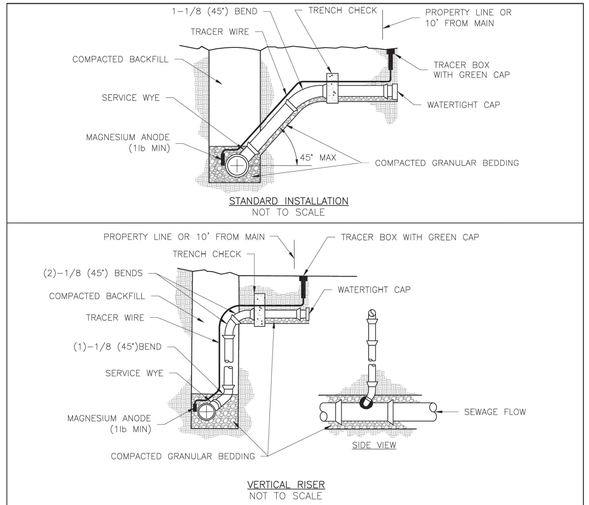
GENERAL NOTES:

1. METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE. METER VAULT ROOF TO BE REINFORCED CONCRETE WITH OPENING CENTERED OVER DETECTOR METER. REINFORCED WALLS AND SLABS ARE TO BE DESIGNED BY THE OWNER'S ENGINEER OR PRECAST ENGINEER.
2. METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA AND WHERE SURFACE WATER WILL NOT DRAIN INTO IT. PROVIDE CONCRETE SUMP TO DRAIN TO AN ABOVE GROUND DISCHARGE POINT.
3. ALL PIPE AND FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
4. ALL FITTINGS FOR THE DETECTOR METER TO BE BRASS.
5. STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16" CENTERS.
6. A DEPARTMENT OF NATURAL RESOURCES APPROVED DOUBLE CHECK DETECTOR ASSEMBLY BACKFLOW PREVENTER MUST BE USED. FOR A COPY OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES APPROVED BACKFLOW PREVENTION ASSEMBLIES, CONTACT WATER UTILITIES AT 816–969–1900.
7. ALL VALVES SHALL HAVE RISING STEMS.
8. MANHOLE COVER SHALL BE A BILCO K–1 MODEL UNLESS IN A VEHICLE TRAFFIC AREA. SEE THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR TRAFFIC CONDITIONS. THE COVER SHALL HAVE A 1–3/4" ø HOLE DRILLED FOR A TOUCH/READ DEVICE.
9. A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.
10. CONTACT PUBLIC WORKS ENGINEERING FOR VAULTS THAT INCLUDE A FIRE DEPARTMENT CONNECTION OR A 3" OR LARGER METER.

CITY OF LEE'S SUMMIT, MO
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

Project: STANDARD DRAWINGS
Sheet Name: VAULT FOR DOUBLE CHECK DETECTOR CHECK

Drawn By: AS
Checked By: DL
Date: 1/14
Rev: 1/14
of
WAT–12



STANDARD INSTALLATION
NOT TO SCALE

VERTICAL RISER
NOT TO SCALE

NOTES:

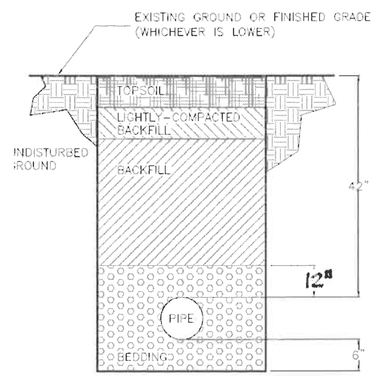
1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
8. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER–PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

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

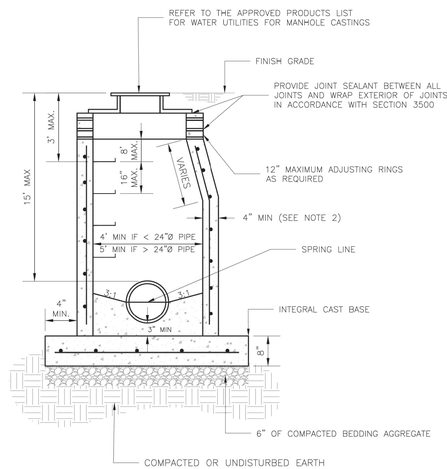
SANITARY SEWER STUB DETAIL

Date: 12/2015
Drawn By: MJF
Checked By: DL

SAN-1



TRENCH DETAIL



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 SANITARY PRECAST MANHOLE

Date: 12/2015
Drawn By: SC
Checked By: DL

SAN-2

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-26465
MISSOURI PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Date: 03-25-2015
Rev: -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1=40
File name: 215065-ST-SHCD Details-LS.dgn
Plot date: 8/2/2022 10:46:03 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

WATER AND SEWER DETAILS

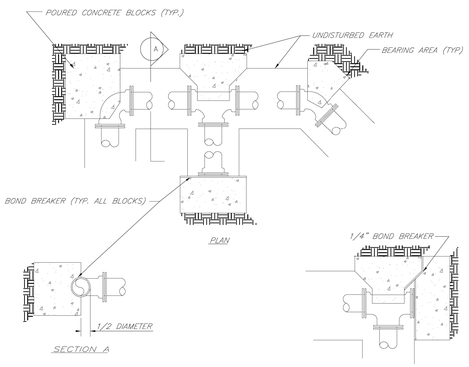
C604

G:\Shared drives\215065\CADD\215065-ST-SH-CD Details-LS.dgn

REQUIRED CONCRETE BEARING AREA (SQUARE FEET – SF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	4.7	6.7	4.0	4.0	4.0
8	8.4	11.8	6.4	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	REST. JT.	32.5	16.5	8.3
20	REST. JT.	REST. JT.	40.1	20.4	10.3
24	REST. JT.	REST. JT.	REST. JT.	29.4	14.8

NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



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

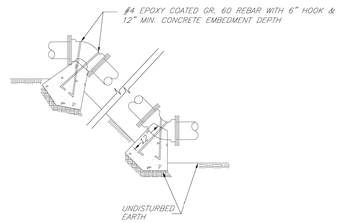
HORIZONTAL THRUST BLOCKS

Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-1 | Rev: 1/14 | Rev:

REQUIRED CONCRETE VOLUME (CUBIC FEET – CF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.8	126.9	68.7	35.0	17.6
10	140.2	198.3	107.3	54.7	27.5
12	202.0	REST. JT.	154.6	78.8	39.6
14	REST. JT.	REST. JT.	210.4	107.3	53.9
16	REST. JT.	REST. JT.	REST. JT.	140.1	70.4
18	REST. JT.	REST. JT.	REST. JT.	177.3	89.1
20	REST. JT.	REST. JT.	REST. JT.	REST. JT.	110.0
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	158.4

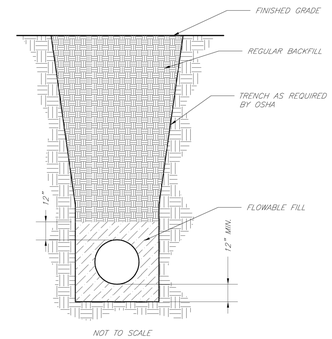
NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



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

VERTICAL THRUST BLOCKS

Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-2 | Rev: 1/14 | Rev:



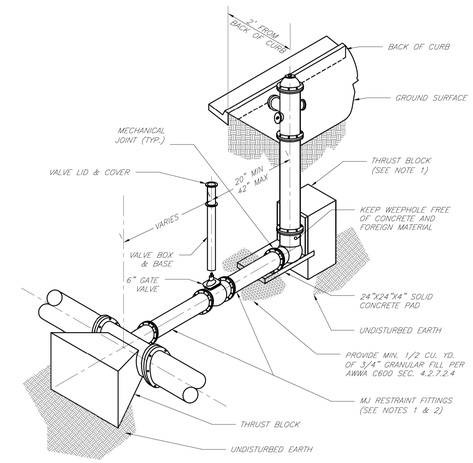
NOT TO SCALE

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

TRENCH CHECK

Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-6 | Rev: 1/14 | Rev:

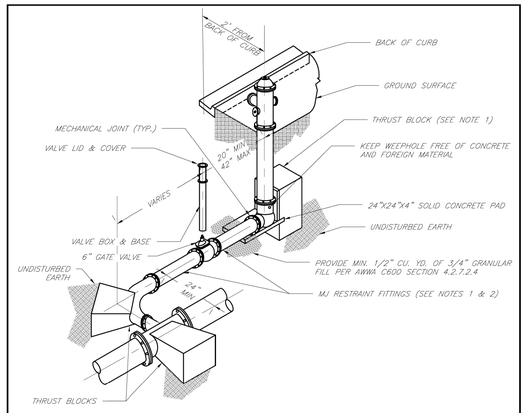


NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

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

HYDRANT INSTALLATION – STRAIGHT SET

Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-7 | Rev: 1/14 | Rev:



NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
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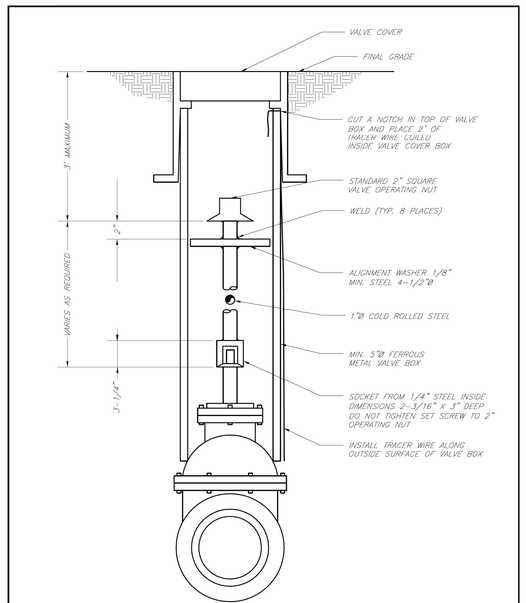
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

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

HYDRANT WITH 90 DEGREE BEND

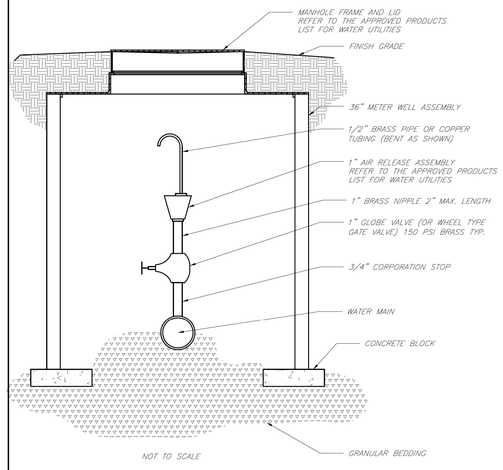
Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-8 | Rev: 1/14 | Rev:



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

VALVE STEM EXTENSION AND VALVE BOX

Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-9 | Rev: 1/14 | Rev:

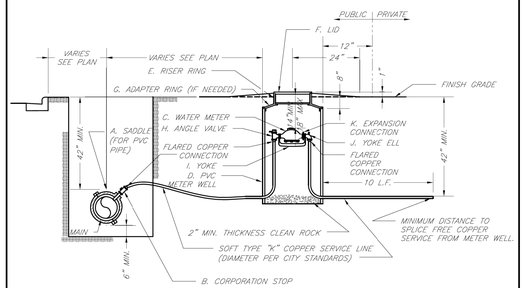


NOT TO SCALE

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

AIR RELEASE ASSEMBLY

Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-10 | Rev: 1/14 | Rev:



TYPICAL METER INSTALLATION – 2" AND SMALLER
NOT TO SCALE

NOTES:
1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A–K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9 LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

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

SERVICE CONNECTION/METER WELL

Date: 02/13 | Drawn By: JN | Checked By: DL | FILE: WAT-11 | Rev: 1/14 | Rev:

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	CITY SUBMITTAL	02/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	08/02/22	

Designed by: RP
Date: 03-25-2015
Rev: -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1=40
File name: 215065-ST-SH-CD Details-LSI.dgn
Plot date: 8/2/2022
3:32:23 PM

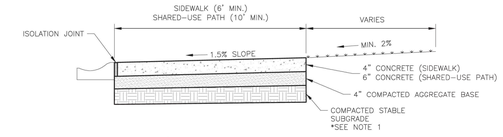
SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

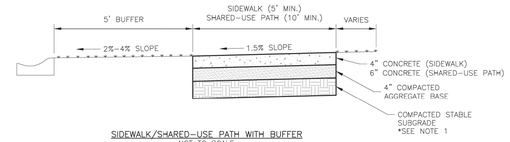
WATER DETAILS

C605

G:\Shared drives\215065\CADD\215065-ST-SH-CD Details-LSI.dgn



SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE



SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

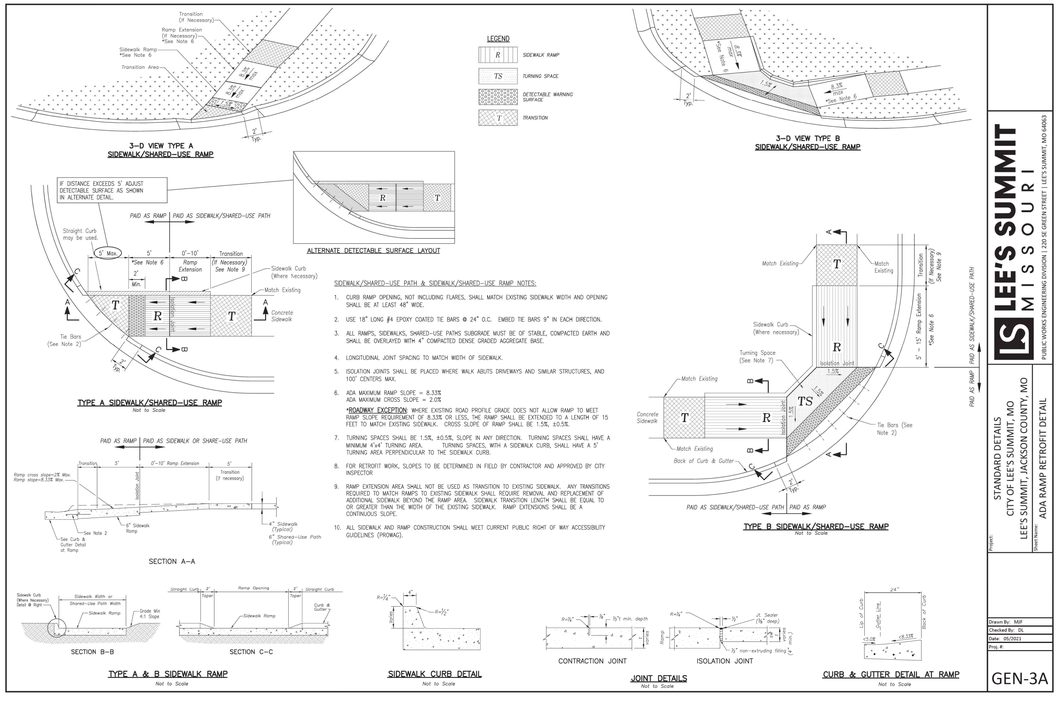
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED-USE PATHS.
4. ALL SIDEWALK/SHARED-USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 100 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED-USE PATHS, BUT NO GREATER THAN 10 FT.
6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED-USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
7. SHARED-USE PATHS WIDTH SHALL BE 10 FT. WIDE.
8. SIDEWALK/SHARED-USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
9. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

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

SIDEWALK/SHARED-USE PATH DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL

GEN-2



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

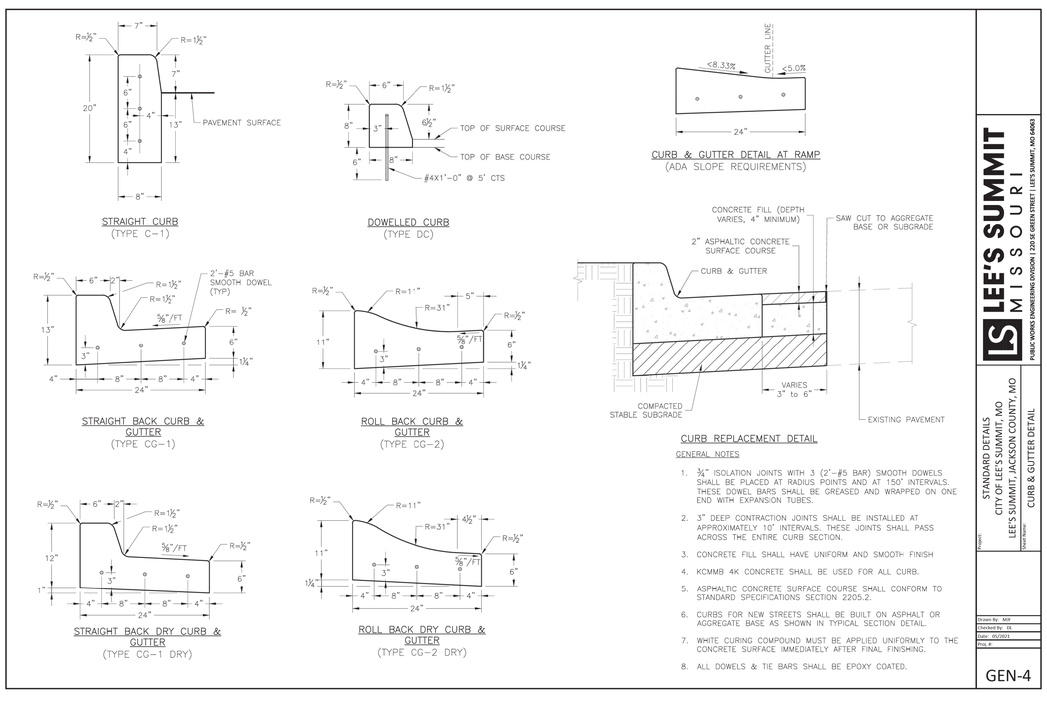
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 100' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).

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

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:

GEN-3A



GENERAL NOTES

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

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

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB & GUTTER DETAIL

Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:

GEN-4

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Rev: -

Date: 03-25-2015
Reviewed by: ---
Plot scale: 1=40
Submitted by: ---
File name: 215065-ST-SHCD Details-LS Curb and Ramp.dgn
Plot date: 8/2/2022 3:33:37 PM

Designed by: RP
Dwn by: RP
Ckd by: LWS

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

CURB AND RAMP DETAILS

Sheet reference number:
C606

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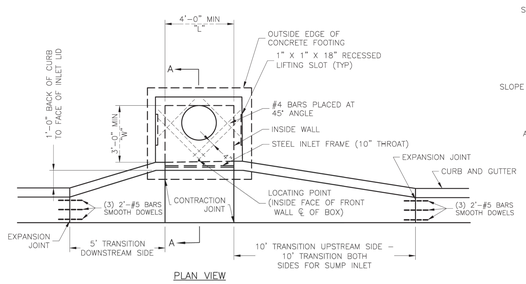
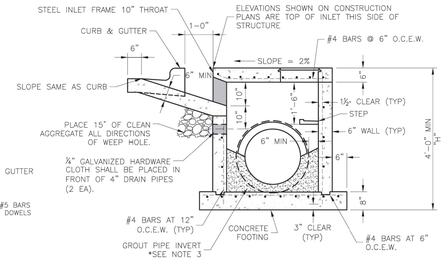
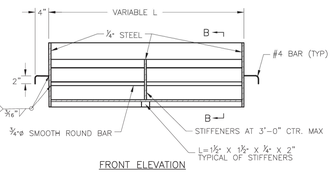


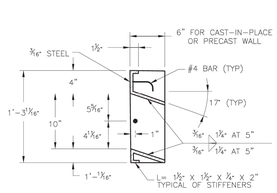
PLAN VIEW



SECTION A–A



FRONT ELEVATION



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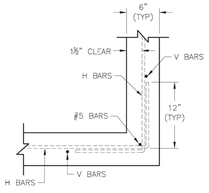
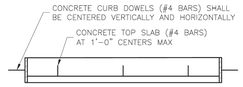


WALL CORNER DETAIL



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.

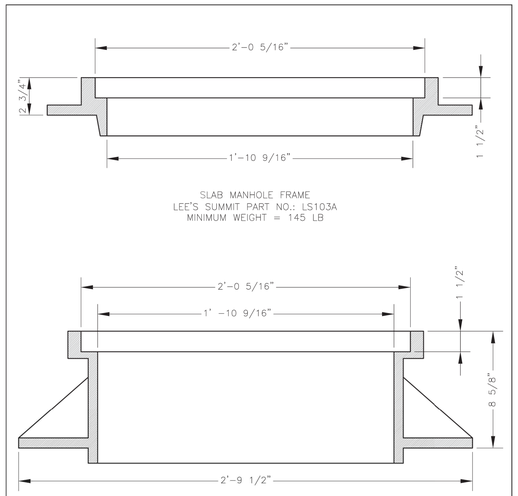
GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
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: 05/2021
Proj. #:

STM-1



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

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

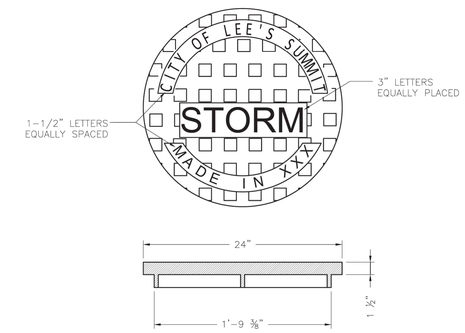
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

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

STORM MANHOLE FRAME DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL

DWG-7



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

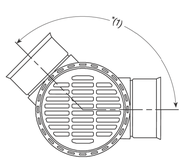
STORM MANHOLE COVER DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL

STM-6

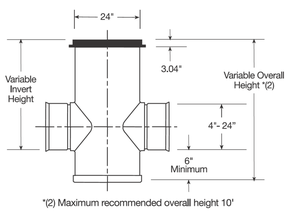
24" Drain Basins

Part#/Prefix	Product Description	Available Outlets
2824AG__X	24" Custom Basin	4" thru 24"



*(1) Adapters can be mounted on any angle 0° to 359°.

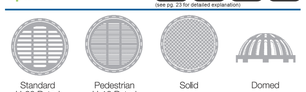
To determine minimum angle between adapters please see chart on page (1).



*(2) Maximum recommended overall height 10'

24" Grate Options

(see pg. 23 for detailed explanation)

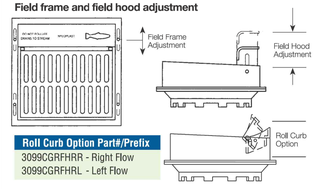


Standard H-20 Rated | Pedestrian H-10 Rated | Solid | Domed

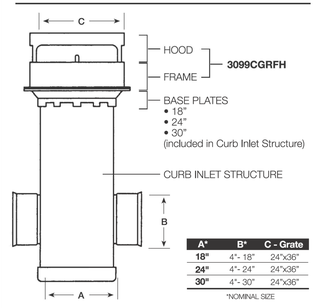
Curb Inlets with 2'x3' Grate

See chart on page (14) for 2'x3' Curb Inlet part numbers

Field frame and field hood adjustment



Roll Curb Option Part#/Prefix
3099CGRFHRR - Right Flow
3099CGRFHRL - Left Flow

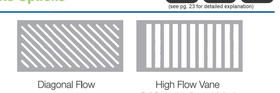


A*	B*	C - Grate
18"	4"- 18"	24"x36"
24"	4"- 24"	24"x36"
30"	4"- 30"	24"x36"

*NOMINAL SIZE

2'x3' Grate Options

(see pg. 23 for detailed explanation)



Diagonal Flow | High Flow Vane (Roll Curb - right flow or left flow)

Grate Options for Inline Drains & Drain Basins

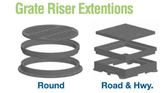
Grate Markers

Public education and outreach is part of the NPDES requirement. Storm drain marking is an established method of involving the public and increasing community awareness about non-point source pollution.

Many Nyloplast castings come with a recessed area on the grate designed to accomodate these grate markers.

Nyloplast keeps inventory of only the featured marker shown below, however, other markers may be purchased in 100 piece lots as custom orders.
Call for details.

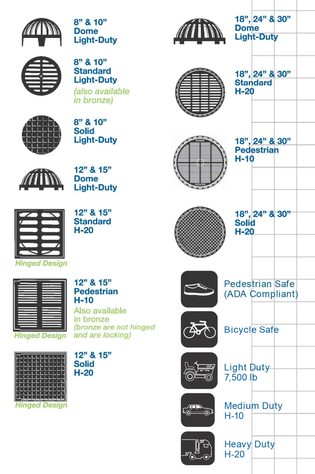
Grate Riser Extentions



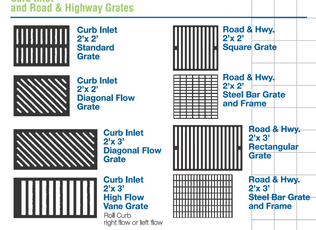
Round | Road & Hwy.

Extension rings can be used to quickly raise the grade of existing grates when resurfacing is required. Nyloplast extension rings are only to be used with Nyloplast ductile iron castings.

Size	Part #
18" Round with 2.0" Rise	1899CGER200
24" Round with 2.0" Rise	2499CGER200
30" Round with 2.0" Rise	3099CGER200
18" Round with 1.5" Rise	1899CGER150
24" Round with 1.5" Rise	2499CGER150
30" Round with 1.5" Rise	3099CGER150
Road & Highway	
2'x 2' with 2.0" Rise	3299CGSQER200
2'x 3' with 2.0" Rise	3299CGSREER200



Curb Inlet and Road & Highway Grates



SHOP DRAWINGS:

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DRAINAGE STRUCTURES FOR REVIEW BY THE ENGINEER AND THE CITY PRIOR TO FABRICATION OF ANY DRAINAGE STRUCTURES.

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	CITY SUBMITTAL	02/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	08/02/22	

Rev. -

Date: 03-25-2015
Reviewed by: ---
Plot scale: 1=40
File name: 215065-ST-SH-CD Details-Drainage.dgn
Plot date: 8-2-2022

Designed by: RP
Dwn by: RP
Ckd by: LWS
Submitted by: ---

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

DRAINAGE DETAILS

Sheet reference number:
C607

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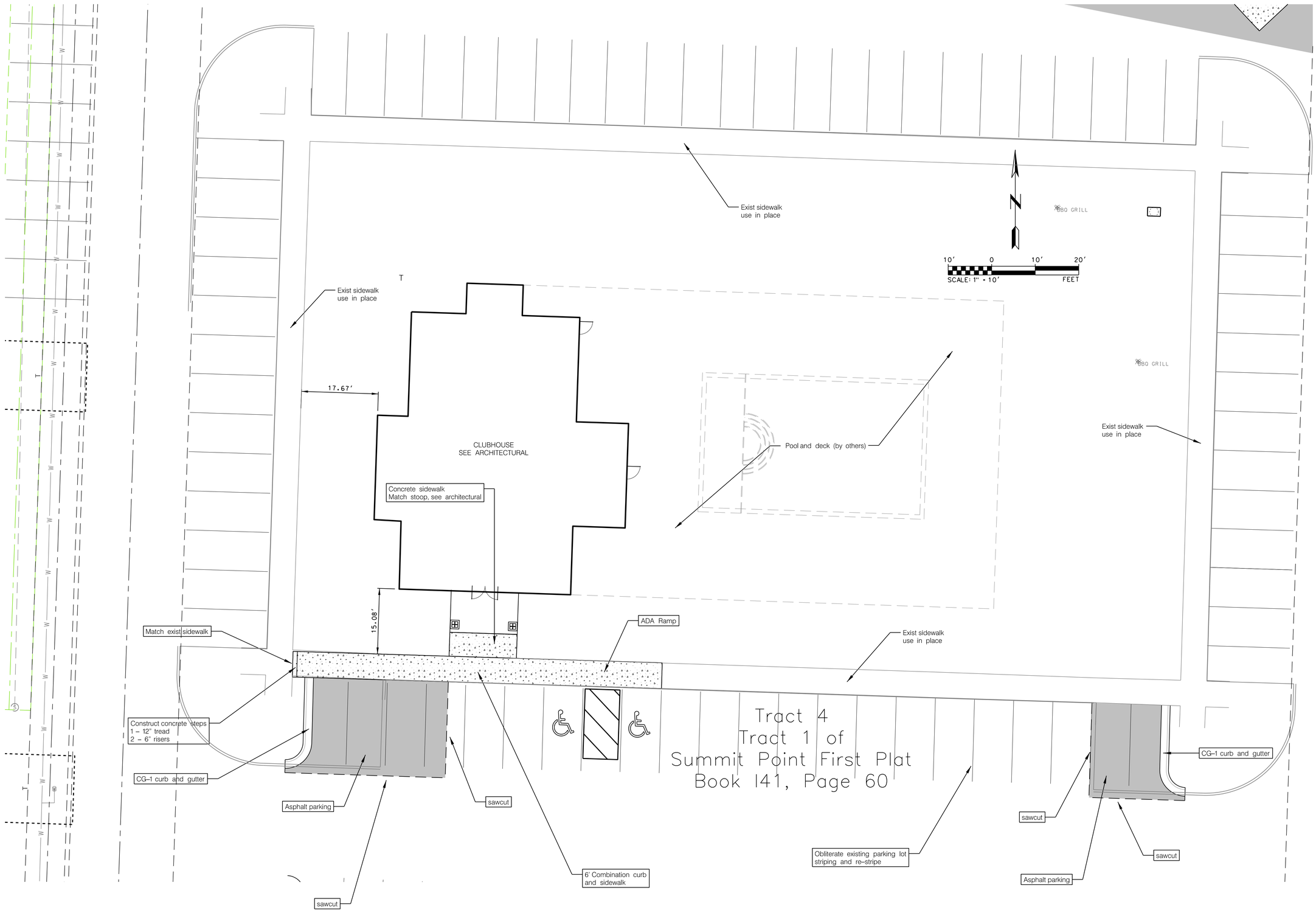


STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Date: 03-25-2015
Rev: -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1:10
File name: 215065-ST-SH-CD Clubhouse Plan.dgn
Plot date: 8/2/2022

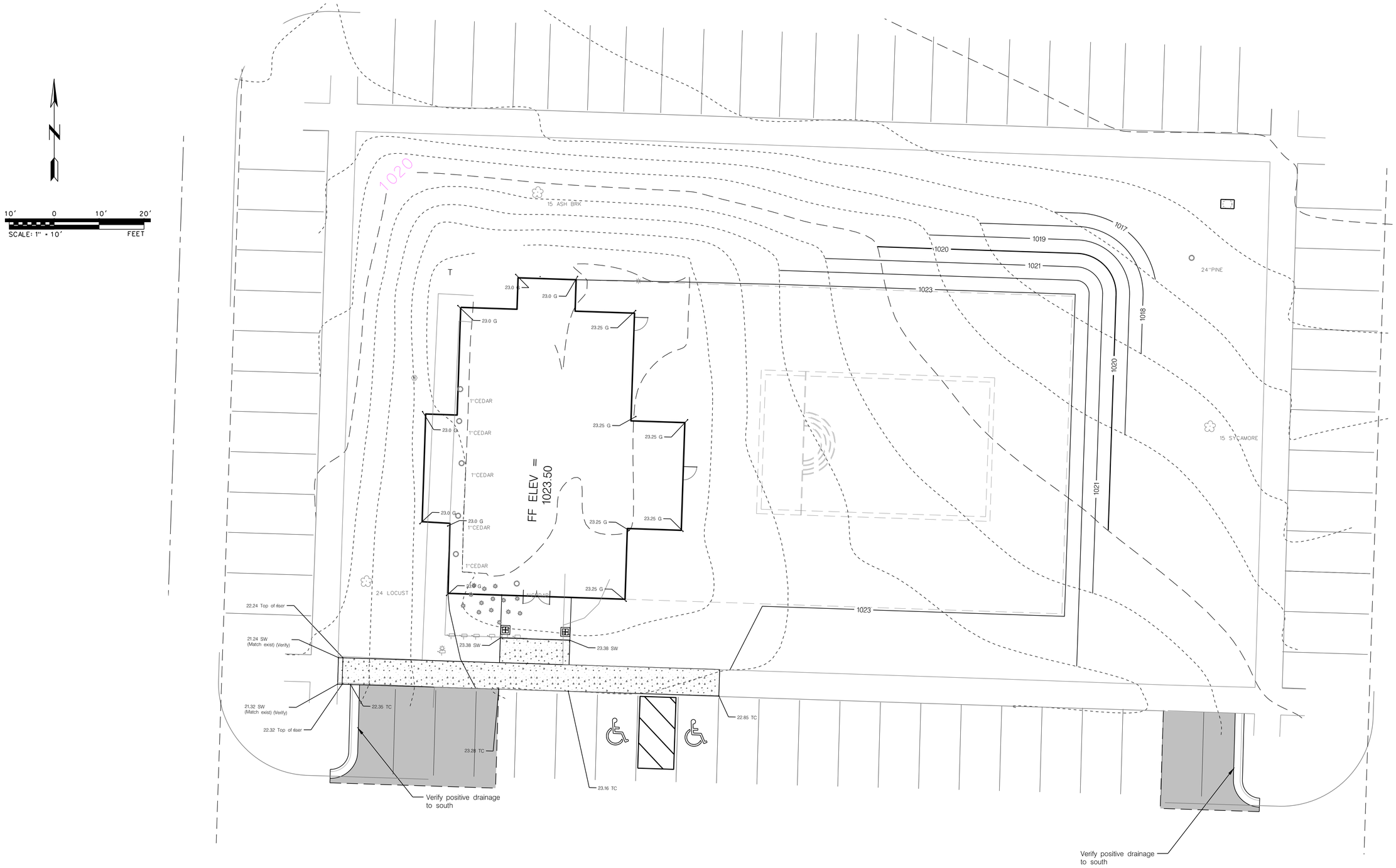
SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

CLUBHOUSE SITE PLAN

C700

G:\Shared drives\215065\CADD\215065-ST-SH-CD Clubhouse Plan.dgn



STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Date: 03-25-2015
Rev: -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
Plot scale: 1:40
File name: 215065-ST-SH-CD Clubhouse Grading Plan.dgn
Plot date: 8/2/2022 3:46:36 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

CLUBHOUSE GRADING PLAN

C701

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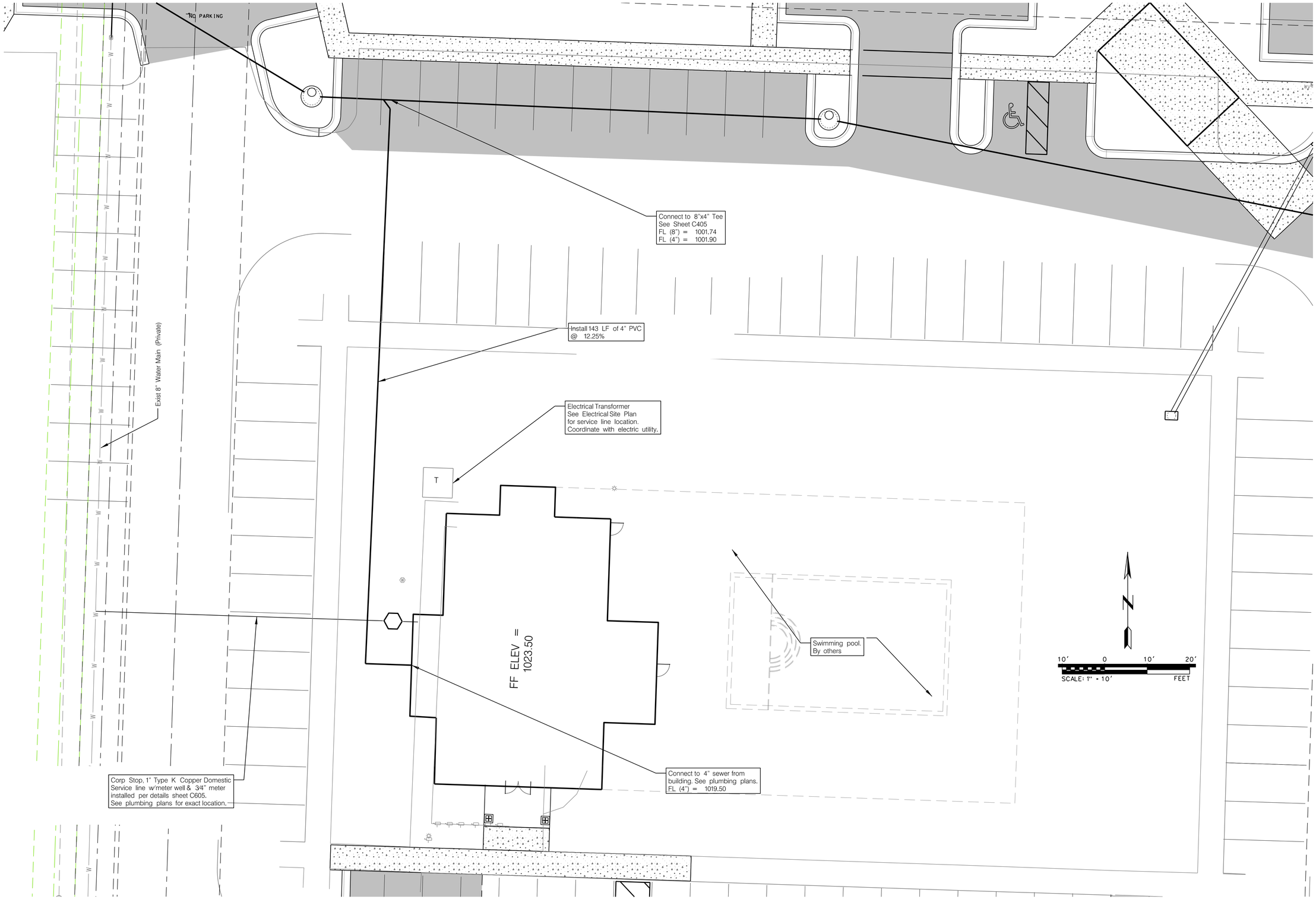

STATE OF MISSOURI
LANCE W. SCOTT
NUMBER E-35645
REGISTERED PROFESSIONAL ENGINEER
8/2/22

Mark	Description	Date	Appr.
	REVISED PER COMMENTS	08/02/22	
	REVISED PER COMMENTS	04/27/22	
	REVISED PER COMMENTS	04/27/22	
	CITY SUBMITTAL	02/02/22	

Designed by: RP
Date: 03-25-2015
Rev. -
Dwn by: RP
Ckd by: LWS
Reviewed by: ---
Submitted by: ---
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File name: 2015065.ST-SHCD Clubhouse Utility Plan.dgn
Plot date: 8/2/2022 3:56:27 PM

SUMMIT POINT
504 NE Chipman Road
Lee's Summit, Missouri

Construction Drawings

CLUBHOUSE UTILITY PLAN

C702

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