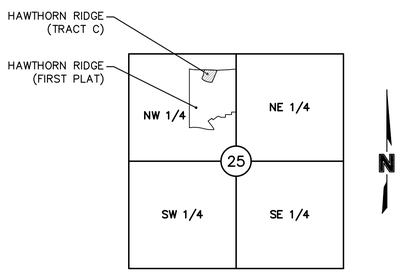
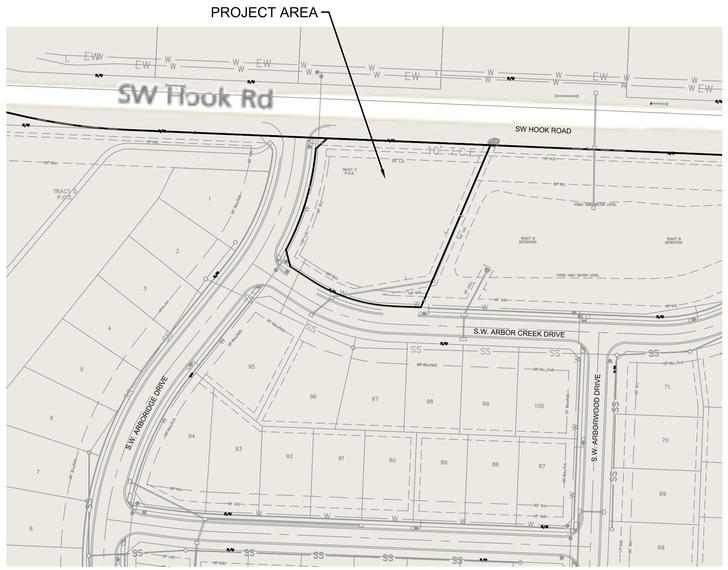
HAWTHORN RIDGE
1534 SW HOOK ROAD
FINAL DEVELOPMENT PLANS

SECTION S 25, TOWNSHIP 47 N, RANGE 32 W
IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



VICINITY MAP
S 25, T 47 N, R 32 W
SCALE 1"=2000'



INDEX OF SHEETS	
Sheet Title	Sheet Number
TITLE SHEET	C01
GENERAL NOTES	C02
EXISTING CONDITIONS	C03
GRADING PLAN	C04
SPOT ELEVATIONS	C05
1 SPOT ELEVATIONS	C06
GEOMETRIC PLAN	C07
SITE PLAN	C08
UTILITY PLAN	C09
EROSION CONTROL PLAN	C10
DETAIL SHEET	C11
DETAIL SHEET	C12
DETAIL SHEET	C13
LANDSCAPE PLANS	L1-L4
ARCHITECTURAL TITLE SHEET	
ARCHITECTURAL FLOOR PLAN	A100
ARCHITECTURAL ROOF PLAN	A101
ARCHITECTURAL ELEVATIONS	A200-A201
EXTERIOR LIGHTING PLAN	E-L1

PROJECT TEAM & UTILITY CONTACT LIST	
OWNER / DEVELOPER CLAYTON PROPERTIES GROUPS, INC. DBA SUMMIT HOMES 120 SE 30TH STREET, CONTACT: VINCENT WALKER PHONE: 816.246.6700 EMAIL: VINCENT@SUMMITHOMESKC.COM	UTILITY SERVICE NUMBERS NAME: LEE'S SUMMIT PUBLIC WORKS PHONE: 816-969-1800 NAME: LEE'S SUMMIT WATER & SEWER DEPARTMENT PHONE: 816-969-1940 NAME: SPIRE (MGE) PHONE: 816-756-5252 NAME: AT&T PHONE: 800-286-8313 NAME: KCP&L PHONE: 816-471-5275 NAME: SPECTRUM (TWC) PHONE: 816-358-5350 NAME: GOOGLE FIBER PHONE: 877-454-6959
ENGINEER OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JULIE E SELLERS, P.E. PHONE: 816.361.1177 EMAIL: JSELLERS@OLSSON.COM	

☐ NOT FOR CONSTRUCTION

☒ REVIEWED FOR CONSTRUCTION

PROPERTY DESCRIPTION:

ALL OF TRACT C, HAWTHORN RIDGE FIRST PLAT, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

BENCHMARK

RR SPIKE IN SOUTH FACE OF POWER POLE ON NORTH SIDE OF SW. HOOK ROAD, IMMEDIATELY WEST OF DRIVEWAY FOR HOUSE#1622. ELEVATION= 1024.63'

NOTES:

ANY QUANTITIES SHOWN WITHIN THESE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.

ACCEPTED:

CITY OF LEE'S SUMMIT. DATE

CIVIL ENGINEER:
I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED, AND THESE PLANS PREPARED, TO MEET OR EXCEED THE DESIGN CRITERIA OF LEE'S SUMMIT, MISSOURI, IN CURRENT USAGE, EXCEPT AS INDICATED BELOW.

JULIE SELLERS, P.E. 8/2/19 DATE
CIVIL ENGINEER
MO# 2017000367

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #:001592
1301 BURLINGTON, SUITE 100 TEL 816.361.1177
NORTH KANSAS CITY, MO 64116 www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	REVISED PER CITY COMMENTS

TITLE SHEET
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD

LEE'S SUMMIT, MISSOURI

2019

drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C01

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_TTL01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:15am XREFS: C_XBASE_0191288

GENERAL NOTES:

1. ALL PAVING DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.

2. REFER TO DETAIL SHEET FOR INSTALLATION OF SIGNS.

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. ALL WORK ON THIS PLAN SHALL BE DONE IN STRICT ACCORDANCE WITH THE OWNER'S SITE WORK SPECIFICATIONS.

6. ALL TRAFFIC CONTROL SIGNS SHALL BE FABRICATED AS SHOWN IN THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS.

7. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULE, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, SIDEWALK AND SPECIFIC BUILDING AREA TREATMENTS AND IMPROVEMENTS. FOR EXACT BUILDING DIMENSIONS, SEE ARCHITECTURAL PLANS. CONTRACTOR TO STAKE AND CONSTRUCT FOUNDATIONS AND FOOTINGS FROM STRUCTURAL PLAN. BUILDING DIMENSIONS ON THIS PLAN ARE FOR REFERENCE ONLY.

8. ALL DIMENSIONS SHOWN ON BUILDING ARE TO OUTSIDE FACE OF BUILDING.

9. CONTRACTOR SHALL COORDINATE PROTECTION OF BUILDING CORNERS, TRANSFORMERS, AND ALL OTHER APPLICABLE STRUCTURES WITH GUARD POST BOLLARDS WITHIN 5' OF THE BUILDINGS TO BE INSTALLED BY GENERAL CONTRACTOR.

10. PARKING LOT STRIPING SHALL BE INCLUDED IN PAVING CONTRACTOR'S SCOPE OF WORK. ALL STRIPING IS TO BE TWO LAYERS, 4" STROKE, REFLECTIVE PAINT, INCLUDING ADA SYMBOL AND HATCHING. PAINT COLOR TO BE WHITE ON ASPHALT AND YELLOW ON CONCRETE.

11. ALL ACCESSIBLE PARKING SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.

12. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH A LIST OF ALL SUBCONTRACTORS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.

13. ALL ASPHALT PAVING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF LEES SUMMIT DESIGN AND CONSTRUCTION MANUAL SECTION 2200.

14. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR, AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO, AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. 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. ANY WORK IN CITY R.O.W. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS AND SURVEY MONUMENTS AND IS RESPONSIBLE FOR RE-ESTABLISHMENT OF ANY PROPERTY CORNERS OR SURVEY MONUMENTS IF DISTURBED BY CONSTRUCTION ACTIVITIES.

15. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

16. ALL CONSTRUCTION IN STATE HIGHWAY DEPARTMENT RIGHT-OF-WAY SHALL BE COORDINATED WITH THE HIGHWAY DEPARTMENT RESIDENT MAINTENANCE ENGINEER PRIOR TO START OF CONSTRUCTION. LATEST SPECIFICATIONS ADOPTED BY US DEPARTMENT OF TRANSPORTATION AND STATE HIGHWAY DEPARTMENT SHALL GOVERN ON THIS PROJECT.

17. ALL SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE RELEVANT UTILITY COMPANY OR REGULATORY AUTHORITY, AND THE SPECIFICATIONS FOR THE CONSTRUCTION OF THE EXISTING IMPROVEMENTS WHICH ARE BEING ALTERED OR REPLACED. CONTRACTOR SHALL CONTACT THE ENGINEER FOR SPECIFICATION SECTIONS FOR ITEMS SUCH AS LANDSCAPING AND IRRIGATION THAT ARE AFFECTED BY THE WORK BUT NOT COMPLETELY DETAILED OR SPECIFIED ON THESE PLANS.

18. ALL CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF LEE'S SUMMIT, MISSOURI STANDARDS AND SPECIFICATIONS.

19. ALL CURB RETURN RADII ARE 4.0' UNLESS OTHERWISE NOTED.

WETLANDS NOTICE:

1. ANY DEVELOPMENT, EXCAVATION, CONSTRUCTION, OR FILLING IN A U.S. CORPS OF ENGINEERS DESIGNATED WETLAND IS SUBJECT TO LOCAL, STATE AND FEDERAL APPROVALS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND/OR RESTRICTIONS AND ANY VIOLATION WILL BE SUBJECT TO FEDERAL PENALTY. THE CONTRACTOR SHALL HOLD THE OWNER/DEVELOPER, THE ENGINEER AND THE LOCAL GOVERNING AGENCIES HARMLESS AGAINST SUCH VIOLATION.

WARRANTY/DISCLAIMER:

1. THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A TEMPORARY BASIS AT THE SITE.

FLOOD CERTIFICATION:

1. THE ENTIRE SITE IS LOCATED WITHIN ZONE X, "AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN" AS DEPICTED ON THE FEMA FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 29095C 0406F, REVISION DATE SEPTEMBER 29, 2006

OIL/GAS WELLS:

NO OIL OR GAS WELLS LOCATED WITHIN THE PROJECT LIMITS.

INFORMATION OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, GEOLOGICAL SURVEY GEOSCIENCES TECHNICAL RESOURCE ASSESSMENT TOOL (GEOSTRAT).

DEMOLITION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR RAISING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED.

2. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

3. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE OWNER'S SITE WORK SPECIFICATIONS.

4. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE AND ADJUSTMENTS DUE TO CONFLICTS OR GRADING TO ANY EXISTING STRUCTURES OR UNDERGROUND UTILITIES THAT ARE TO REMAIN IN PLACE.

5. ALL ITEMS DESIGNATED TO BE DEMOLISHED AND REMOVED FROM THE SITE SHALL BE DISPOSED OF IN AN APPROPRIATE LOCATION IN ACCORDANCE WITH STATE OR LOCAL GUIDELINES.

6. PUBLIC STREETS AND SIDEWALKS SHALL BE KEPT CLEAN AND CLEAR OF TRASH AND DEBRIS FROM DEMOLITION OPERATIONS AT ALL TIMES.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST AND EROSION CONTROL DURING DEMOLITION OPERATIONS.

8. THE CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES PRIOR TO REMOVAL OR RELOCATION OF ANY UTILITIES AND TO SAFELY STOP SERVICES AND DISMANTLE SERVICE LINES PRIOR TO BEGINNING DEMOLITION OPERATIONS.

9. CONTRACTOR IS TO REMOVE AND RE-USE SEWER PIPES, POWER POLES AND GUY WIRES, WATER LINES AND METERS, VEGETATION, ASPHALT, AND OTHER UNSUITABLE DEBRIS OR MATERIAL. SHOWN OR NOT SHOWN WITHIN CONSTRUCTION LIMITS AND WHERE NECESSARY TO ALLOW FOR CONSTRUCTION ACTIVITY. ALL MATERIAL TO BE REMOVED AS UNCLASSIFIED EXCAVATION.

10. ALL CAVITIES CREATED BY REMOVAL OF EXISTING FACILITIES IN THE AREA OF PROPOSED CONSTRUCTION SHALL BE FILLED AND COMPACTED IN ACCORDANCE WITH THE SITE WORK SPECIFICATIONS TO SUBGRADE ELEVATION.

11. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF EXISTING OVERHEAD ELECTRICAL POWER LINES.

12. EXISTING UTILITIES ARE SHOWN AS LOCATED AND IDENTIFIED IN THE FIELD BY UTILITY COMPANY REPRESENTATIVE. THE OWNER AND THE ENGINEER MAKE NO ASSURANCE OF THE ACTUAL LOCATION, DEPTH, SIZE OR TYPE OF UTILITY LINES SHOWN. THE OWNER AND THE ENGINEER MAKES NO ASSURANCE THAT ALL OF THE EXISTING UTILITY LINES ON THE SITE ARE SHOWN.

GRADING AND CLEARING NOTES:

1. EXISTING UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION WORK. ANY DAMAGE TO EXISTING STRUCTURES, UTILITIES, FENCES AND/OR INCIDENTALS NOT DESIGNATED FOR REMOVAL SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

2. CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEES SUMMIT, MISSOURI (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED DRIVE LANES.

3. CONTRACTOR SHALL PROVIDE A LEVEL BUILDING PAD BASED UPON PROPOSED FINISHED FLOOR ELEVATION TO ± 0.10' OR AS ESTABLISHED THROUGH ALTERNATIVE BID DOCUMENTS.

4. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH A MINIMUM OF FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON SITE THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

5. AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH AS RECOMMENDED BY GEOTECHNICAL ENGINEER AND/ OR TESTING AGENCY. SOILS REMOVED DURING SITE STRIPPING SHOULD BE EVALUATED TO DETERMINE IF PORTIONS OF THE TOPSOIL STRATUM MAY BE UTILIZED AS STRUCTURAL FILL WITHIN PAVEMENT AREAS. ANY MATERIAL NOT DEEMED AS SUITABLE FILL MATERIAL BY THE GEOTECHNICAL ENGINEER AND/ OR TESTING AGENCY SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR AT HIS EXPENSE.

6. ALL EMBANKMENT SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 9". EMBANKMENT PLACED WITHIN THE PAVEMENT AREAS SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). EMBANKMENT PLACED WITHIN THE BUILDING AREAS SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF 0 TO 4 PERCENT ABOVE OPTIMUM MOISTURE CONTENT AS DEFINED BY THE STANDARD PROCTOR COMPACTION PROCEDURE. ALL EMBANKMENT PLACED WITHIN 18" OF THE BUILDING SUBGRADE SHOULD HAVE A LIQUID LIMIT LESS THAN 60. THE GEOTECHNICAL REPORT SHALL SUPERSEDE RECOMMENDATIONS AS STATED IN THIS PLAN SET.

UTILITY CONSTRUCTION NOTES:

1. PRIOR TO INSTALLATION OF ANY PROPOSED UTILITY THE CONTRACTOR SHALL EXCAVATE, VERIFY, AND CALCULATE ALL CROSSINGS WITH EXISTING UTILITIES AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT THE ENGINEER IS NOT NOTIFIED OF CONFLICTS WITH EXISTING UTILITIES.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT IS THE CONTRACTORS RESPONSIBILITY TO RELOCATE AND/OR ADJUST ALL EXISTING UTILITIES THAT CONFLICT WITH PROPOSED SITE IMPROVEMENTS.

3. UNLESS OTHERWISE SHOWN, CALLED OUT OR SPECIFIED HEREON OR WITHIN THE SPECIFICATIONS:
   ALL STORM DRAIN PIPE BEDDING SHALL BE INSTALLED PER CITY STANDARD DETAILS.
   ALL STORM DRAIN PIPES ARE MEASURED FROM CENTER OF STRUCTURES AND ENDS OF FLARED END SECTIONS.

4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL DOWNSTREAM EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION.

5. TELEPHONE CONDUIT SHALL HAVE A MINIMUM COVER OF 30". CONDUIT SHALL BE DUAL 4" SCHEDULE 40 PVC. CONTRACTOR SHALL COORDINATE LOCATION WITH THE UTILITY REPRESENTATIVE AND LOCATE PVC CROSSINGS AS NECESSARY. SEE ELEC. PLANS FOR ENTRANCE LOCATIONS.

6. FOR ALL SERVICE LINE ENTRANCE LOCATIONS WITHIN THE BUILDING, INCLUDING ROOF DRAIN CONNECTIONS, SEE ARCHITECTURAL PLANS AND DETAILS.

7. ALL WATER SERVICE LINES SHALL BE A MINIMUM OF 48" BELOW FINISHED GRADE.

8. ALL SANITARY SEWER LINES SHALL BE SDR-26 WITH 42" MIN. COVER.

9. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS A MINIMUM OF 48 HOURS PRIOR TO DISRUPTION.

10. ALL ELECTRIC AND TELEPHONE, INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTION'S SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.

11. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.

12. ALL PRIVATE INSTALLATIONS SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS AS ADOPTED BY THE CITY OF LEE'S SUMMMIT, MISSOURI.

13. EXTENSION OF BOTH DOMESTIC WATER SERVICE AND FIRE PROTECTION LINE MAY NOT BE PROVIDED UNTIL PUBLIC MAIN HAS BEEN TESTED AND ACCEPTED BY WRITTEN AUTHORIZATION FROM LEE'S SUMMIT WATER DEPARTMENT.

14. CONTRACTOR TO CONTACT LEE'S SUMMIT WATER SERVICES DEPARTMENT FOR MAIN LINE TAP AND METER SET A MINIMUM OF 48 HOURS PRIOR TO CONNECTION.

17. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL THE APPROPRIATE PERMITS HAVE BEEN PULLED FROM THE CITY OF LEE'S SUMMIT AND/OR JACKSON COUNTY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.

18. ALL ELECTRICAL CONDUIT SHALL BE SCHEDULE 40 ELECTRICAL PVC, AS CALLED OUT AND HAVE AN AVERAGE OF 36" TO 42" COVER WITH A MINIMUM OF 30" CONFORMING TO THE CURRENT REGULATIONS SET FORTH BY MISSOURI PUBLIC SERVICE. SEE MECH. PLANS FOR ENTRANCE LOCATIONS.

19. CONTRACTOR SHALL MAKE APPLICATION WITH SPIRE ENERGY FOR PROPOSED METER.

SITE DISTURBANCE NOTES:

1. THE INTENT OF THIS EROSION CONTROL PLAN IS TO ASSIST THE CONTRACTOR IN THEIR RESPONSIBILITY TO PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR NECESSARY TO CONTROL EROSION, SILTATION AND DISCHARGES OF SOIL MATERIAL (SEDIMENT) INTO DOWNSTREAM SYSTEMS OR RECEIVING CHANNELS. THIS SHALL BE REQUIRED DURING ALL PHASES OF CONSTRUCTION AND UNTIL SUITABLE GROUND COVER IS ESTABLISHED FOR ALL DISTURBED AREAS. IF ANY METHOD OF CONTROL FAILS, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY, SO THAT THE OWNER OR THEIR AGENT CAN REVIEW THE CONTRACTOR'S PROPOSED METHOD OF REPAIR.

   THIS PLAN INDICATES THE CRITICAL AREA(S) OF CONCERN TO BE CONTROLLED AS A MINIMUM. THE CONTROL MAY CONSIST OF TEMPORARY CONTROL MEASURES AS SHOWN ON THE PLANS OR ORDERED BY THE OWNER DURING THE LIFE OF THE CONTRACT TO CONTROL EROSION OR WATER POLLUTION, THROUGH THE USE OF BERMS, DIKES, DAMS, SEDIMENT BASINS, FIBER MATS, NETTING, GRAVEL, MULCHES, GRASSES, SLOPE DRAINS, DIVERSION SWALES OR OTHER EROSION CONTROL DEVICES OR METHODS. THE OWNER HAS THE AUTHORITY TO LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY THE CONSTRUCTION OPERATIONS AND TO DIRECT THE CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, OR OTHER AREAS OF WATER IMPOUNDMENT OR CONVEYANCES.

   THE TEMPORARY POLLUTION CONTROL PROVISIONS CONTAINED HEREIN SHALL BE COORDINATED WITH ANY PERMANENT EROSION CONTROL FEATURES SPECIFIED ELSEWHERE IN THE CONTRACT TO THE EXTENT PRACTICAL TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION CONTROL THROUGHOUT THE CONSTRUCTION AND POST CONSTRUCTION PERIOD.

2. THIS SEDIMENTATION CONTROL PLAN MAKES USE OF THE FOLLOWING APPLICATIONS:
   ____ PRESERVATION OF EXISTING VEGETATION
   _x_ SEDIMENT BARRIERS
   ____ SEDIMENT TRAPS
   _x_ INLET PROTECTION
   ____ OUTLET PROTECTION
   ____ SOIL RETAINING SYSTEMS
   ____ SLOPE DRAINS
   ____ SUBSURFACE DRAINS

   PHYSICAL DESCRIPTION OF EACH SPECIFIC SEDIMENT CONTROL DEVICE TO BE UTILIZED IS CALLED OUT ON THE PLANS WITH INSTALLATION PROCEDURES, CONSTRUCTION SPECIFICATIONS AND MAINTENANCE ARRANGEMENT AS CALLED FOR ON THE DETAIL SHEET. IN ADDITION TO THE MEASURES SPECIFIED, THE FOLLOWING GENERAL PRACTICES SHALL BE ADHERED TO WHEN APPLICABLE.

A) CLEARING AND GRUBBING WITHIN 50' OF A DEFINED DRAINAGE COURSE SHOULD BE AVOIDED WHEN POSSIBLE. WHERE CHANGES TO A DEFINED DRAINAGE COURSE OCCUR, WORK SHOULD BE DELAYED UNTIL ALL MATERIALS AND EQUIPMENT NECESSARY TO PROTECT AND COMPLETE THE DRAINAGE CHANGE ARE ON SITE. CHANGES SHALL BE COMPLETED AS QUICKLY AS POSSIBLE ONCE THE WORK HAS BEEN INITIATED. THE AREA IMPACTED BY THE CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED OR PROTECTED FROM EROSION AS SOON AS POSSIBLE, AREAS WITHIN 50' OF A DEFINED DRAINAGE WAY SHOULD BE RECONTOURED AS NEEDED OR OTHERWISE PROTECTED WITHIN FIVE (5) WORKING DAYS AFTER GRADING HAS CEASED.

B) WHERE SOIL DISTURBING ACTIVITIES CEASE IN AN AREA FOR MORE THAN 14 DAYS, THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES. IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH, THEN THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES IF ACTIVITIES CEASE FOR MORE THAN SEVEN (7) DAYS.

C) EXISTING VEGETATION SHALL BE PRESERVED TO THE EXTENT AND WHERE PRACTICAL. IN NO CASE SHALL DISTURBED AREAS REMAIN WITHOUT VEGETATIVE GROUND COVER FOR A PERIOD IN EXCESS OF 60 DAYS.

D) ADDITIONAL SITE MANAGEMENT PRACTICES WHICH SHALL BE ADHERED TO DURING THE CONSTRUCTION PROCESS SHALL INCLUDE:

   SOLID AND HAZARDOUS WASTE MANAGEMENT INCLUDING PROVIDING TRASH CONTAINERS AND REGULAR SITE CLEAN UP FOR PROPER DISPOSAL OF SOLID WASTE SUCH AS BUILDING MATERIAL, PRODUCT/MATERIAL SHIPPING WASTE, FOOD CONTAINERS AND CUPS, AND PROVIDING CONTAINERS FOR THE PROPER DISPOSAL OF WASTE PAINTS SOLVENTS, AND CLEANING COMPOUNDS.

   PROVISIONS OF PORTABLE TOILETS FOR PROPER DISPOSAL OF SANITARY SEWAGE.

   STORAGE OF CONSTRUCTION MATERIALS AWAY FROM DRAINAGE COURSES AND LOW AREAS.

   INSTALLATION OF CONTAINMENT BERMS AND USE OF DRIP PANS AT PETROLEUM PRODUCT AND LIQUID STORAGE TANKS AND CONTAINERS.

3. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED, OR SODDED, IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY AND GOOD ENGINEERING PRACTICES. THIS SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER COMPLETING THE WORK, IN ANY AREA. IF THIS IS OUTSIDE OF THE SEEDING PERIOD, SILT BARRIERS OR OTHER SIMILARLY EFFECTIVE MEASURES SHALL BE PROVIDED UNTIL SUCH TIME THAT THE AREAS CAN BE SEEDED.

4. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL CURRENT STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING ALL ADDITIONAL STANDARDS, SPECIFICATIONS OR REQUIREMENTS WHICH ARE REQUIRED BY GOVERNING AGENCIES (INCLUDING LOCAL, STATE AND FEDERAL AUTHORITIES) HAVING JURISDICTION OVER THE WORK PROPOSED BY THESE CONSTRUCTION DRAWINGS.

5. ALL EROSION CONTROL MEASURES, TEMPORARY OR PERMANENT, REQUIRE MAINTENANCE TO PRESERVE THEIR EFFECTIVENESS. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE OCCURRENCE OF A 2-YR, 24-HR STORM EVENT, OR ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE OCCURRENCE OF A STORM EVENT OF 0.25-INCHES OF PRECIPITATION OR GREATER. ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. ALL COSTS ASSOCIATED WITH THE REPAIR WORK, INCLUDING RELATED INCIDENTALS ASSOCIATED WITH THE REPAIR WORK, WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID FOR THE PROPOSED WORK.

LEGEND

GENERAL	
ACU	AIR CONDITIONING UNIT
AST	ARROW STRAIGHT
ATL	ARROW TURN LEFT
ATR	ARROW TURN RIGHT
BLB	BILLBOARD
BOV	BLOW OFF VALVE
BSH	BUSH
COL	COLUMN
CTR	CONIFEROUS TREE
DRN	DRAIN GRATE
DTR	DECIDUOUS TREE
FLP	FLAG POLE
GDP	GUARD POST
GPL	GUY POLE
GTP	GREASE TRAP
GUY	GUY WIRE
HCP	ACCESSABLE PARKING MARKER
LST	LIFT STATION
MLB	MAILBOX
MP	MILE POST MARKER
MWL	MONITORING WELL
PIV	POST INDICATOR VALVE
PPT	PROPANE TANK
RAT	RADIO TOWER
SAD	SATELLITE
SCV	SPRINKLER CONTROL VALVE
SGN	SIGN
SLB	STREET LIGHT BOX
SLC	STREET LIGHT CABINET
SPB	SPRINKLER BOX
SPH	SPRINKLER HEAD
STP	STUMP
SVL	SEWER VALVE
TCB	TRAFFIC CONTROL BOX
TSA	TRAFFIC SIGNAL WITH MAST ARM
TSC	TRAFFIC SIGNAL CABINET
TSMH	TRAFFIC SIGNAL MANHOLE
TSP	TRAFFIC SIGNAL POLE
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING SIDEWALK
	PROPOSED SIDEWALK
	FUTURE SIDEWALK
	EXISTING BUILDINGS
	PROPOSED BUILDINGS
	FUTURE BUILDINGS
	EXISTING EDGE OF PAVEMENT
	PROPOSED EDGE OF PAVEMENT
	FUTURE EDGE OF PAVEMENT
	EXISTING ROADWAY CENTER LINE
	PROPOSED ROADWAY CENTER LINE
	FUTURE ROADWAY CENTER LINE
	EXISTING CURB & GUTTER
	PROPOSED CURB & GUTTER
	FUTURE CURB & GUTTER
R	RADIUS
L	ARC DISTANCE
D	DELTA / CENTRAL ANGLE
EASEMENTS & SETBACKS	
A.E.	ACCESS EASEMENT
B.M.P.	BEST MANAGEMENT PRACTICE EASEMENT
B.L.	BUILDING SETBACK
C.T.V.E.	CABLE TV EASEEMNT
C.E.	CONSERVATION EASEMENT
C.G.E.	CONSTRUCTION GRADING EASEMENT
F.P.E.	FLOOD PLAIN EASEMENT
F.O.E.	FIBER OPTIC EASEMENT
F.P.S.E.	FIRE PROTECTION SYSTEM EASEMENT
F.L.E.	FUEL LINE EASEMENT
L.S.E.	LANDSCAPE EASEMENT
G.E.	NATURAL GAS EASEMENT
T.E.	TELEPHONE EASEMENT
E.E.	POWER\ELECTRIC EASEMENT
P.S.	PARKING SETBACK
S.B.	STREAM BUFFER
S.D.E.	SURFACE DRAINAGE EASEMENT
SIGHT DIST. ESMT.	SIGHT DISTANCE EASEMENT
S.E.	SANITARY SEWER EASEMENT
S.L.E.	STEAM LINE EASEMENT
D.E.	STORM DRAINAGE EASEMENT
S.W.M.E.	STORM WATER MANAGEMENT EASEMENT
T.C.D.S.E.	TEMPORARY CUL-DE-SAC EASEMENT
TEMP. ESMT.	TEMPORARY EASEMENT
TRAIL ESMT.	TRAIL\PATH EASEMENT
U.E.	UTILITY EASEMENT
W.E.	WATER EASEMENT
F.Y.S	FRONT YARD SETBACK
R.Y.S.	REAR YARD SETBACK
S.Y.S.	SIDE YARD SETBACK
CONTOURS	
-100-	EXISTING INDEX CONTOURS
-100-	EXISTING INTERMEDIATE CONTOURS
100	PROPOSED INDEX CONTOURS
100	PROPOSED INTERMEDIATE CONTOURS

SURVEY MARKERS	
BMK	BENCHMARK
CPT	CONTROL POINT
FND	FOUND MONUMENT
ROW	ROW MARKER
SCR	SECTION CORNER
SET	SET MONUMENT
BOUNDARIES	
	SECTION LINE
EP	EXISTING PROPERTY BOUNDARY
P	PROPOSED PROPERTY BOUNDARY
	EXISTING LOT LINE
	PROPOSED LOT LINE
ER/W	EXISTING RIGHT-OF-WAY
R/W	PROPOSED RIGHT-OF-WAY
UTILITIES	
CAB	CABLE BOX
CAV	CABLE VAULT
TVP	TELEVISION PEDESTAL
TVR	TELEVISION RISER
ECTVOH	EXISTING CABLE TV, OVERHEAD
ECTV	EXISTING CABLE TV, UNDERGROUND
CTVOH	PROPOSED CABLE TV, OVERHEAD
CTV	PROPOSED CABLE TV, UNDERGROUND
FOB	FIBER OPTIC BOX
FOM	FIBER OPTIC MANHOLE
FOP	FIBER OPTIC PEDESTAL
FOV	FIBER OPTIC VAULT
EFOOH	EXISTING FIBER OPTIC, OVERHEAD
EFO	EXISTING FIBER OPTIC, UNDERGROUND
FOOH	PROPOSED FIBER OPTIC, OVERHEAD
FO	PROPOSED FIBER OPTIC, UNDERGROUND
FDC	FIRE DEPT. CONNECTION
EFP	EXISTING FIRE PROTECTION SYSTEM LINE
FP	PROPOSED FIRE PROTECTION SYSTEM LINE
EFL	EXISTING FUEL LINE
FPL	PROPOSED FUEL LINE
GAR	GAS RISER
GMH	GAS MANHOLE
GMK	GAS MARKER
GMT	GAS METER
GRG	GAS REGULATOR
GVL	GAS VALVE
EG	EXISTING NATURAL GAS LINE
G	PROPOSED NATURAL GAS LINE
TEC	TELEPHONE CABINET
TEP	TELEPHONE PEDESTAL
TER	TELEPHONE RISER
TEV	TELEPHONE VAULT
TMH	TELEPHONE MANHOLE
ETELOH	EXISTING TELEPHONE LINE, OVERHEAD
ETEL	EXISTING TELEPHONE LINE, UNDERGROUND
TELOH	PROPOSED TELEPHONE LINE, OVERHEAD
TEL	PROPOSED TELEPHONE LINE, UNDERGROUND
GLT	GROUND LIGHT
LTP	LIGHT POLE
PWP	POWER POLE
TRF	ELECTRIC TRANSFORMER
EBX	ELECTRIC BOX
ELC	ELECTRIC CABINET
ELR	ELECTRIC RISER
EMH	ELECTRIC MANHOLE
EMT	ELECTRIC METER
ESC	ELECTRIC SECTIONALIZER
EVT	ELECTRIC VAULT
YDL	YARD LIGHT
EEOH	EXISTING POWER\ELECTRIC LINE, OVERHEAD
EE	EXISTING POWER\ELECTRIC LINE, UNDERGROUND
SCO	SEWER CLEANOUT
SSMH	SANITARY MANHOLE
ESS	EXISTING SANITARY SEWER
SS	PROPOSED SANITARY SEWER
FSS	FUTURE SANITARY SEWER
ESL	EXISTING STEAM LINE
SL	PROPOSED STEAM LINE
SDMH	STORM SEWER MANHOLE
FES	FLARED END SECTION
RDN	ROOF DRAIN
EST	EXISTING STORM SEWER
ST	PROPOSED STORM SEWER
FH	FIRE HYDRANT
WMH	WATER MANHOLE
WMK	WATER MARKER
WMT	WATER METER
WVL	WATER VALVE
EW	EXISTING WATER LINE
W	PROPOSED WATER LINE

olsson

OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION

GENERAL NOTES
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD

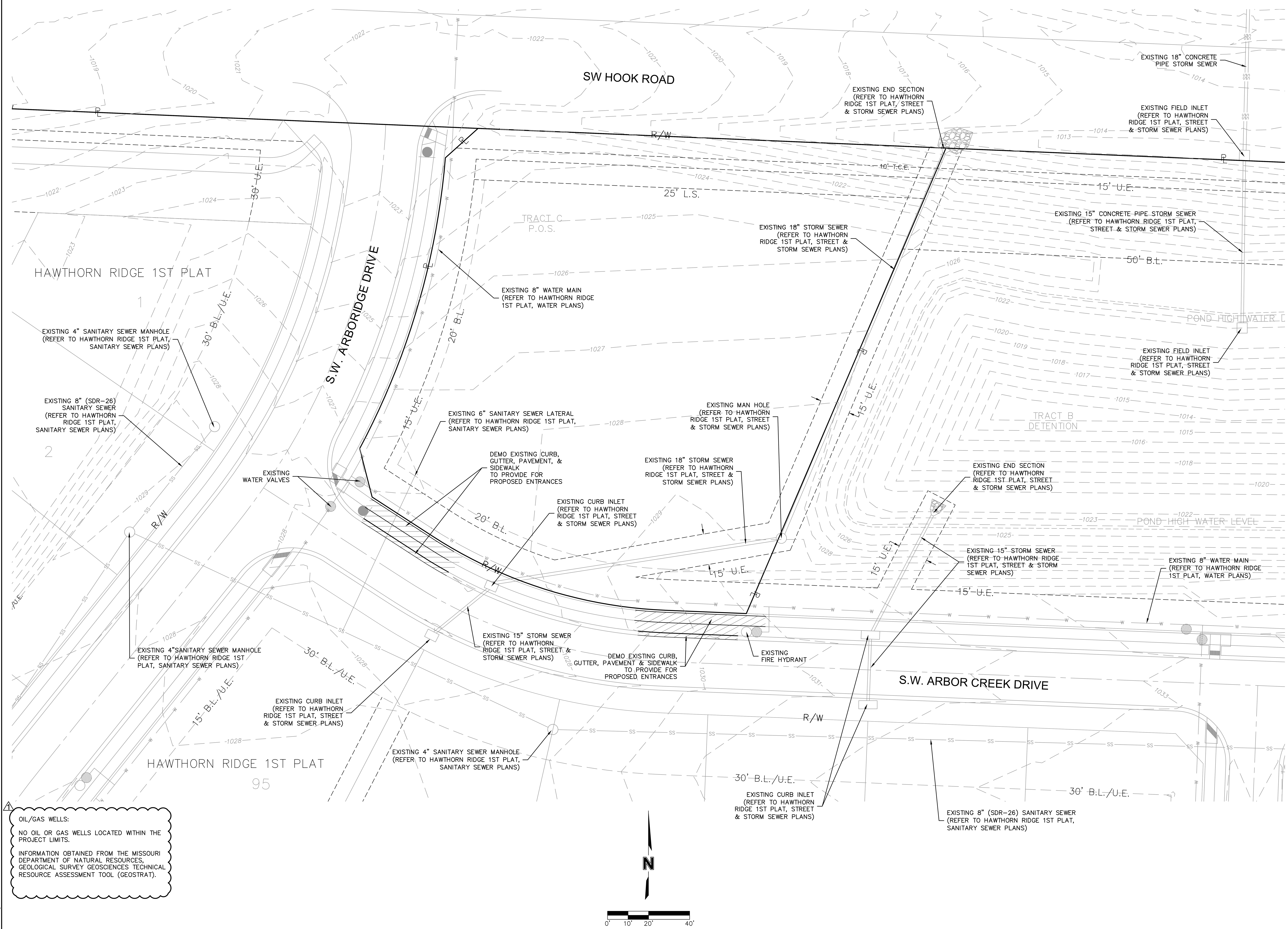
LEE'S SUMMIT, MISSOURI

2019

drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C02

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_GEN01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:16am XREFS: C_XBASE_0191288



SW HOOK ROAD
S.W. ARBORIDGE DRIVE
S.W. ARBOR CREEK DRIVE
HAWTHORN RIDGE 1ST PLAT
1
2
HAWTHORN RIDGE 1ST PLAT
95
TRACT C
P.O.S.
TRACT B
DETENTION
R/W
25' L.S.
15' U.E.
50' B.L.
10' T.C.E.
30' U.E.
30' B.L./U.E.
20' B.L.
15' U.E.
15' B.L./U.E.
POND HIGH WATER LEVEL
EXISTING 18" CONCRETE PIPE STORM SEWER
EXISTING FIELD INLET (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING END SECTION (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING 15" CONCRETE PIPE STORM SEWER (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING 18" STORM SEWER (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING 8" WATER MAIN (REFER TO HAWTHORN RIDGE 1ST PLAT, WATER PLANS)
EXISTING 4" SANITARY SEWER MANHOLE (REFER TO HAWTHORN RIDGE 1ST PLAT, SANITARY SEWER PLANS)
EXISTING 8" (SDR-26) SANITARY SEWER (REFER TO HAWTHORN RIDGE 1ST PLAT, SANITARY SEWER PLANS)
EXISTING 6" SANITARY SEWER LATERAL (REFER TO HAWTHORN RIDGE 1ST PLAT, SANITARY SEWER PLANS)
EXISTING MAN HOLE (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING WATER VALVES
DEMO EXISTING CURB, GUTTER, PAVEMENT, & SIDEWALK TO PROVIDE FOR PROPOSED ENTRANCES
EXISTING 18" STORM SEWER (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING CURB INLET (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING END SECTION (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING FIELD INLET (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING 15" STORM SEWER (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING 8" WATER MAIN (REFER TO HAWTHORN RIDGE 1ST PLAT, WATER PLANS)
EXISTING 4"SANITARY SEWER MANHOLE (REFER TO HAWTHORN RIDGE 1ST PLAT, SANITARY SEWER PLANS)
EXISTING 15" STORM SEWER (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
DEMO EXISTING CURB, GUTTER, PAVEMENT & SIDEWALK TO PROVIDE FOR PROPOSED ENTRANCES
EXISTING FIRE HYDRANT
EXISTING CURB INLET (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING 4" SANITARY SEWER MANHOLE (REFER TO HAWTHORN RIDGE 1ST PLAT, SANITARY SEWER PLANS)
EXISTING CURB INLET (REFER TO HAWTHORN RIDGE 1ST PLAT, STREET & STORM SEWER PLANS)
EXISTING 8" (SDR-26) SANITARY SEWER (REFER TO HAWTHORN RIDGE 1ST PLAT, SANITARY SEWER PLANS)
N
0' 10' 20' 40'
SCALE IN FEET

OIL/GAS WELLS:

NO OIL OR GAS WELLS LOCATED WITHIN THE PROJECT LIMITS.

INFORMATION OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, GEOLOGICAL SURVEY GEOSCIENCES TECHNICAL RESOURCE ASSESSMENT TOOL (GEOSTRAT).

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_EXC01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:17am XREFS: C_XBASE_0191288 C_DBASE_0191288

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REV. NO.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	Oil and Gas Well Information Added

REVISIONS

EXISTING CONDITIONS
FINAL DEVELOPMENT PLANS

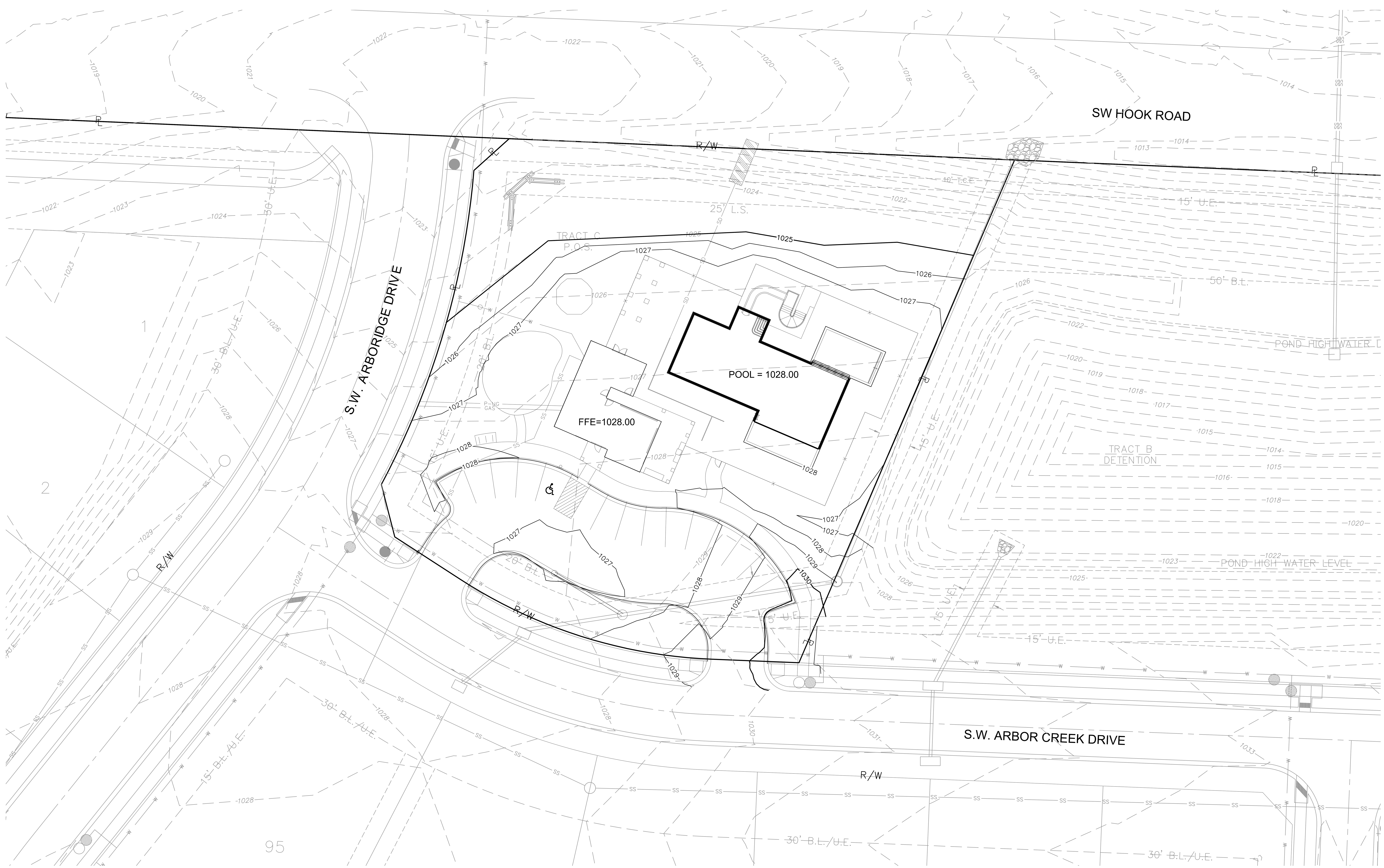
HAWTHORN RIDGE
1534 SW HOOK ROAD

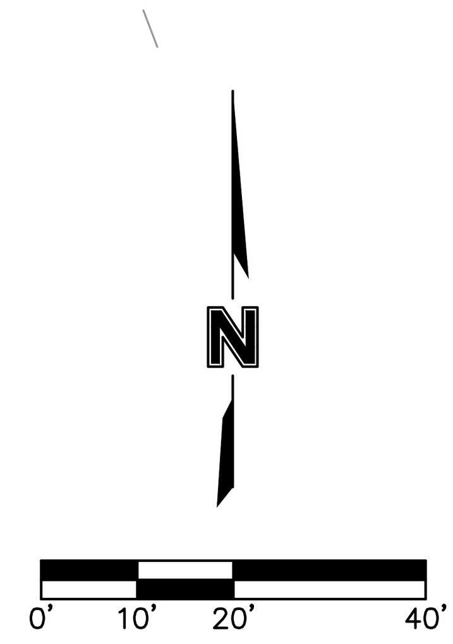
LEE'S SUMMIT, MISSOURI

2019

drawn by:	G.S.
checked by:	J.E.S.
designed by:	J.E.S.
QA/QC by:	M.G.D.
project no.:	019-1288
date:	06-14-2019

SHEET
C03





LEGEND	
100	EXISTING INDEX CONTOURS
100	EXISTING INTERMEDIATE CONTOURS
100	PROPOSED INDEX CONTOURS
100	PROPOSED INTERMEDIATE CONTOURS

EARTHWORK QUANTITIES NOTES:

1. EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.

2. EARTHWORK QUANTITIES DO NOT TAKE INTO CONSIDERATION EXCAVATION, REMOVAL AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE BY A GEOTECHNICAL ENGINEER. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND FOR REPLACING IT WITH SUITABLE MATERIAL.

1

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
SITE	769	622

GENERAL NOTES:

1. CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.

2. AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH AS RECOMMENDED BY GEOTECHNICAL ENGINEER AND/ OR TESTING AGENCY. SOILS REMOVED DURING SITE STRIPPING SHOULD BE EVALUATED TO DETERMINE IF PORTIONS OF THE TOPSOIL STRATUM MAY BE UTILIZED AS STRUCTURAL FILL WITHIN PAVEMENT AREAS. ANY MATERIAL NOT DEEMED AS SUITABLE FILL MATERIAL BY THE GEOTECHNICAL ENGINEER AND/ OR TESTING AGENCY SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR AT THEIR EXPENSE.

3. CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS AS CALLED OUT IN THE GEOTECHNICAL REPORT AND ENGINEERING EVALUATION AS PROVIDED BY THE GEOTECHNICAL ENGINEER.

4. ALL EMBANKMENT OUTSIDE OF RIGHT-OF-WAY SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 9". EMBANKMENT SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF -0 TO +3 PERCENT OF OPTIMUM MOISTURE CONTENT.

olsson

OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	REVISED GRADING AND QUANTITIES

GRADING PLAN
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD

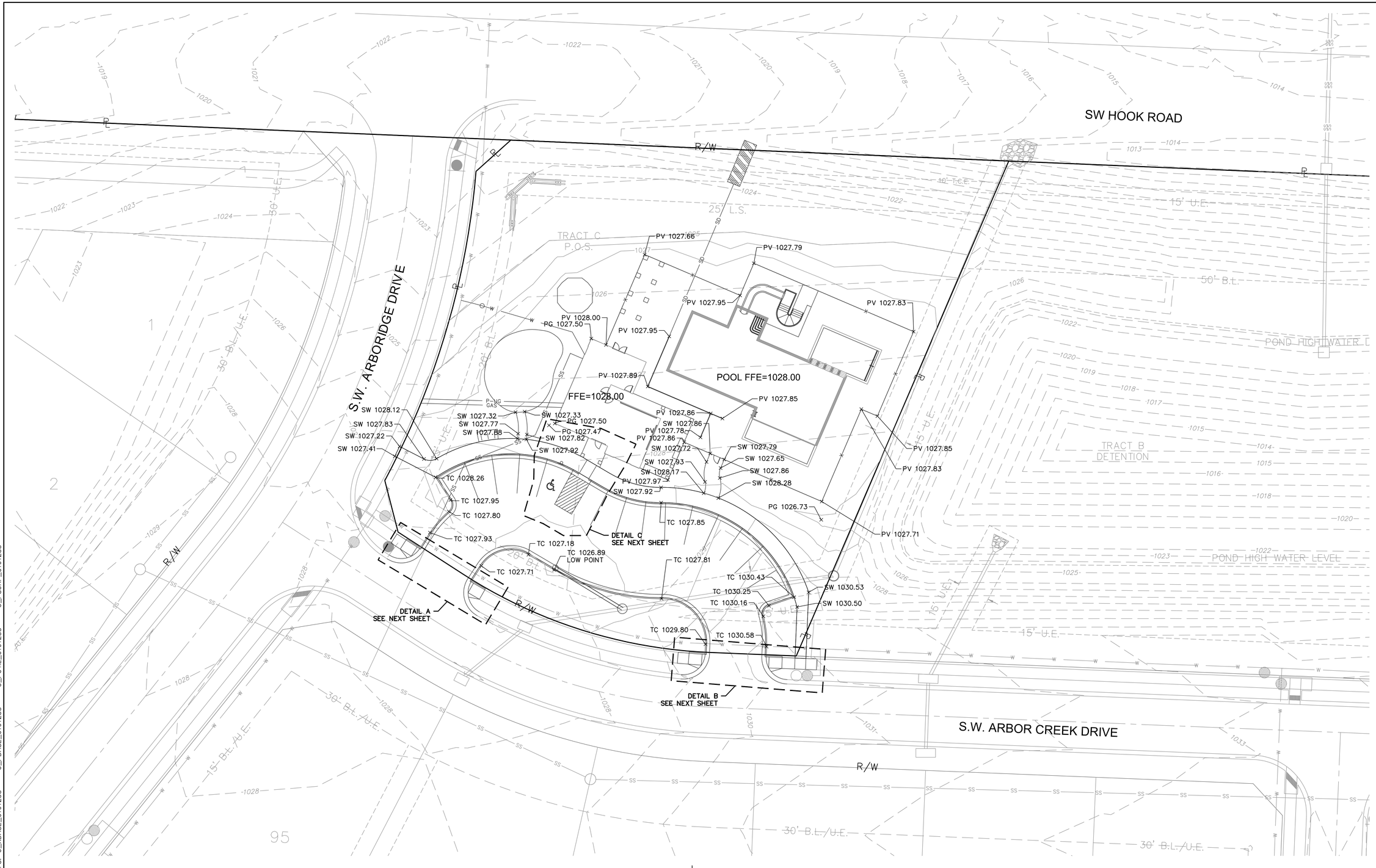
LEE'S SUMMIT, MISSOURI

2019

drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C04

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_GRD01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:18am XREFS: C_XBASE_0191288 C_PBASE_0191288 C_PUTIL_0191288



LEGEND	
TC	TOP OF CURB
PV	TOP OF PAVEMENT
SW	SIDEWALK
FF	FINISHED FLOOR ELEVATION
PG	PROPOSED GRADE

olsson

OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	ADA ACCESSIBLE ROUTE SHOWN

SPOT ELEVATIONS
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD

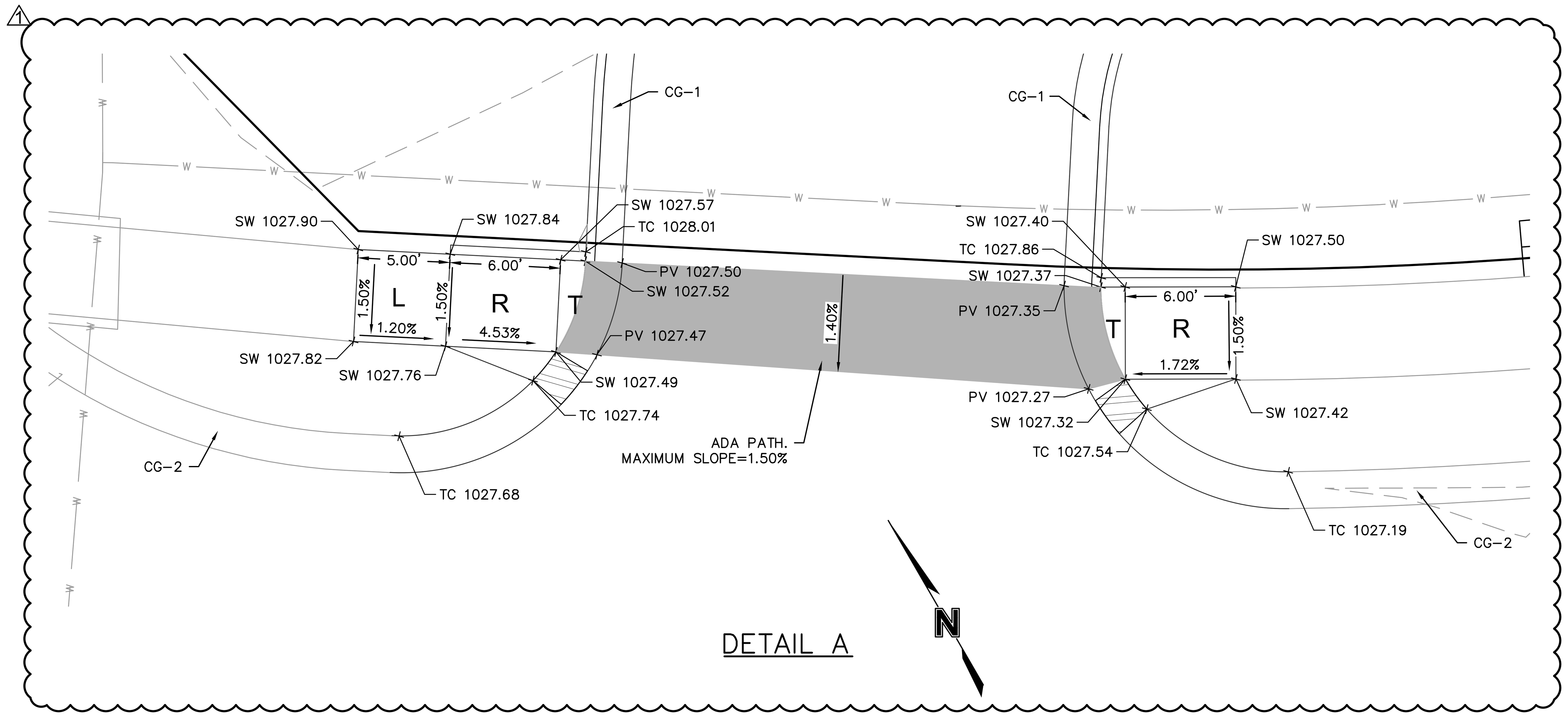
LEE'S SUMMIT, MISSOURI

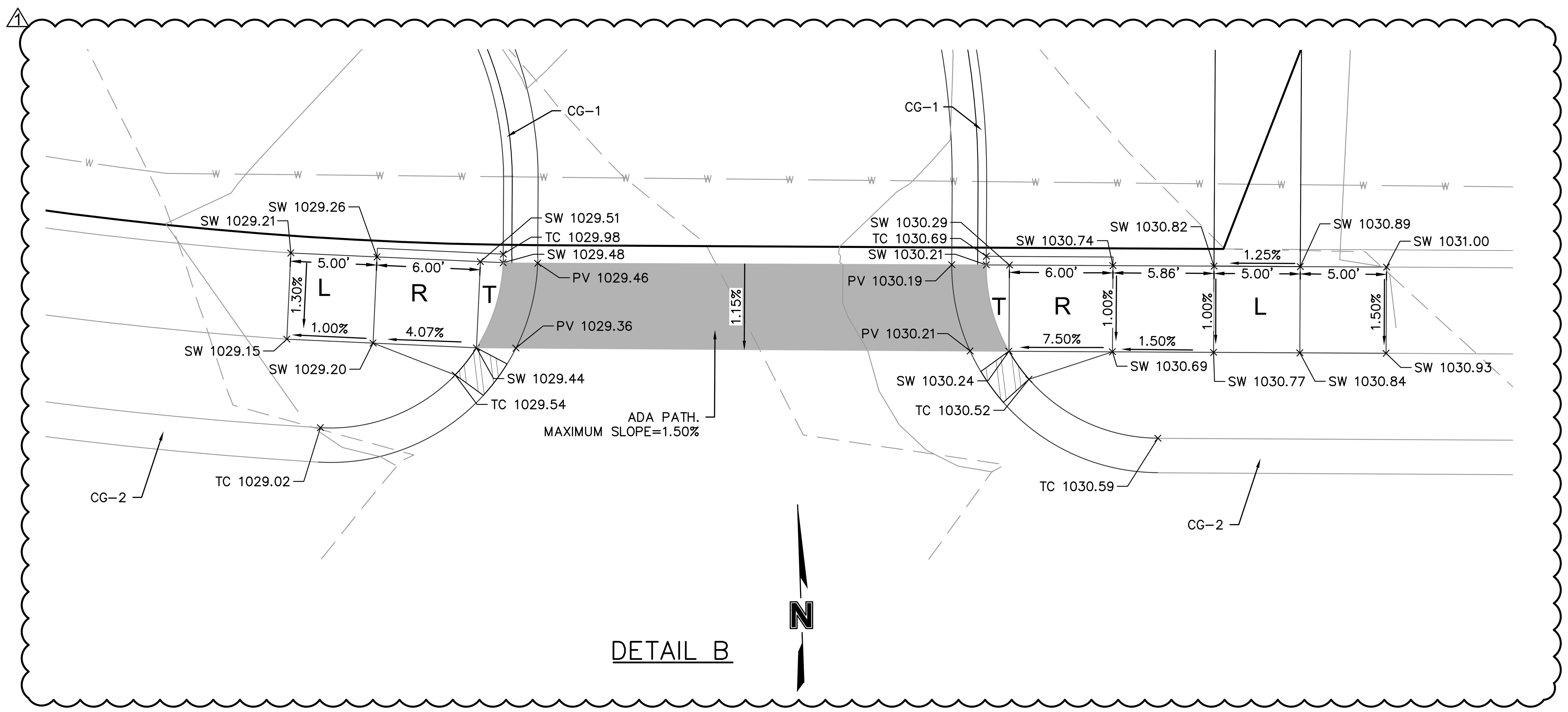
2019

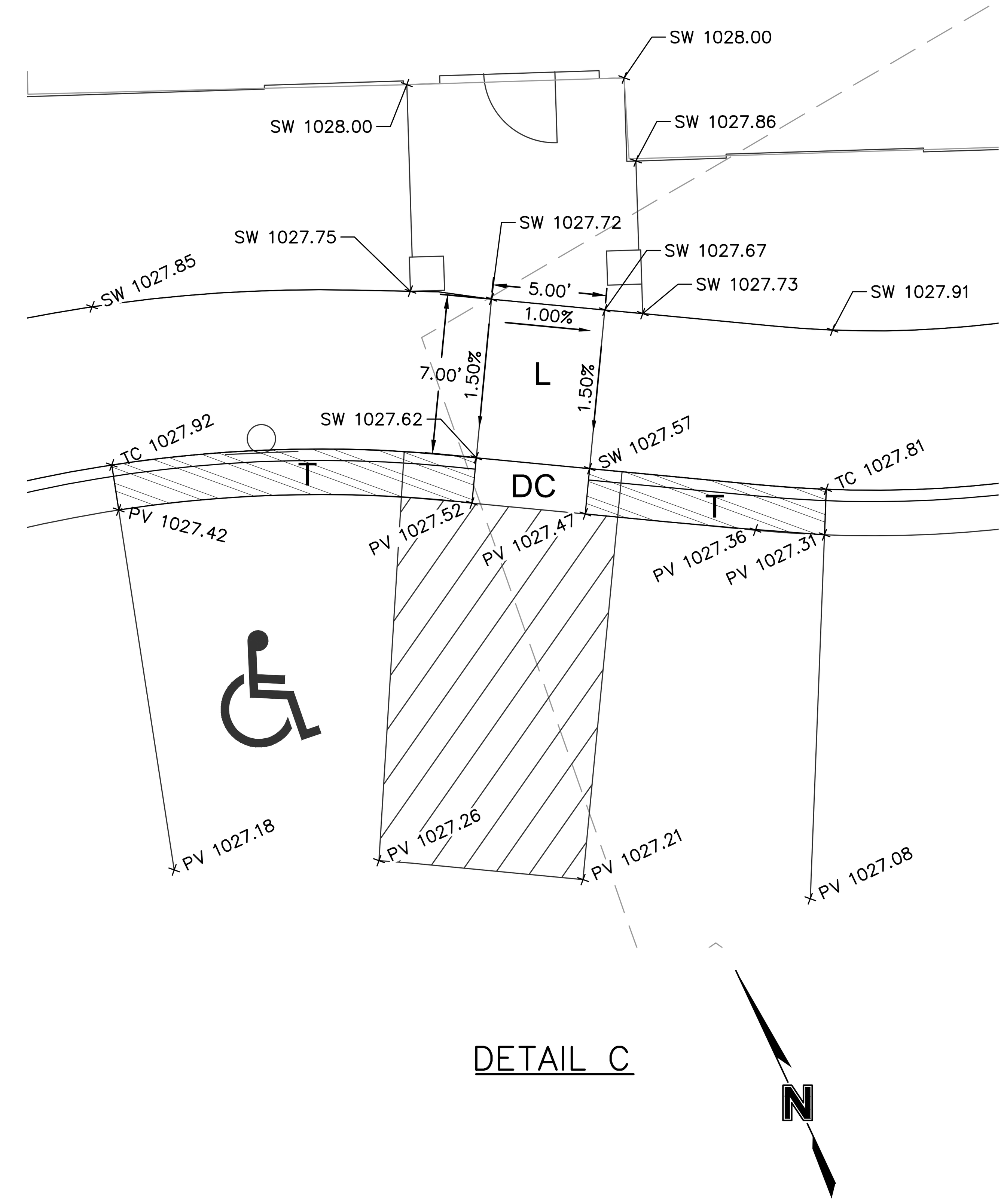
drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C05

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_SPT01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 1:04pm XREFS: C_XBASE_0191288 C_PBASE_0191288 C_PUTIL_0191288 C_PSURF_0191288







NOTES:
1. All ADA curb ramps shall be built per current municipality adopted ADA standards.
2. Curb ramp flares shall not be steeper than 1:10 max slope.
3. A turning space is required at all directional changes, which shall not have a slope greater than 2%.
4. Ramp runs shall have a maximum running slope of 7.5%.

ADA LEGEND	
T	TRANSITION
DC	DEPRESSED CURB
L	LANDING
R	RAMP
(hatch)	TRANSITION CURB LIMITS

LEGEND	
TC	TOP OF CURB
PV	TOP OF PAVEMENT
SW	SIDEWALK
FF	FINISHED FLOOR ELEVATION

0' 2.5' 5' 10'
SCALE IN FEET

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_SPT01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 1:04pm XREFS: C_XBASE_0191288 C_PBASE_0191288 C_PUTIL_0191288 C_PSURF_0191288

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER
JULIE SELLERS, P.E.
MO# 2017000367

REV. NO.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	ADA RAMP DETAILS ADDED

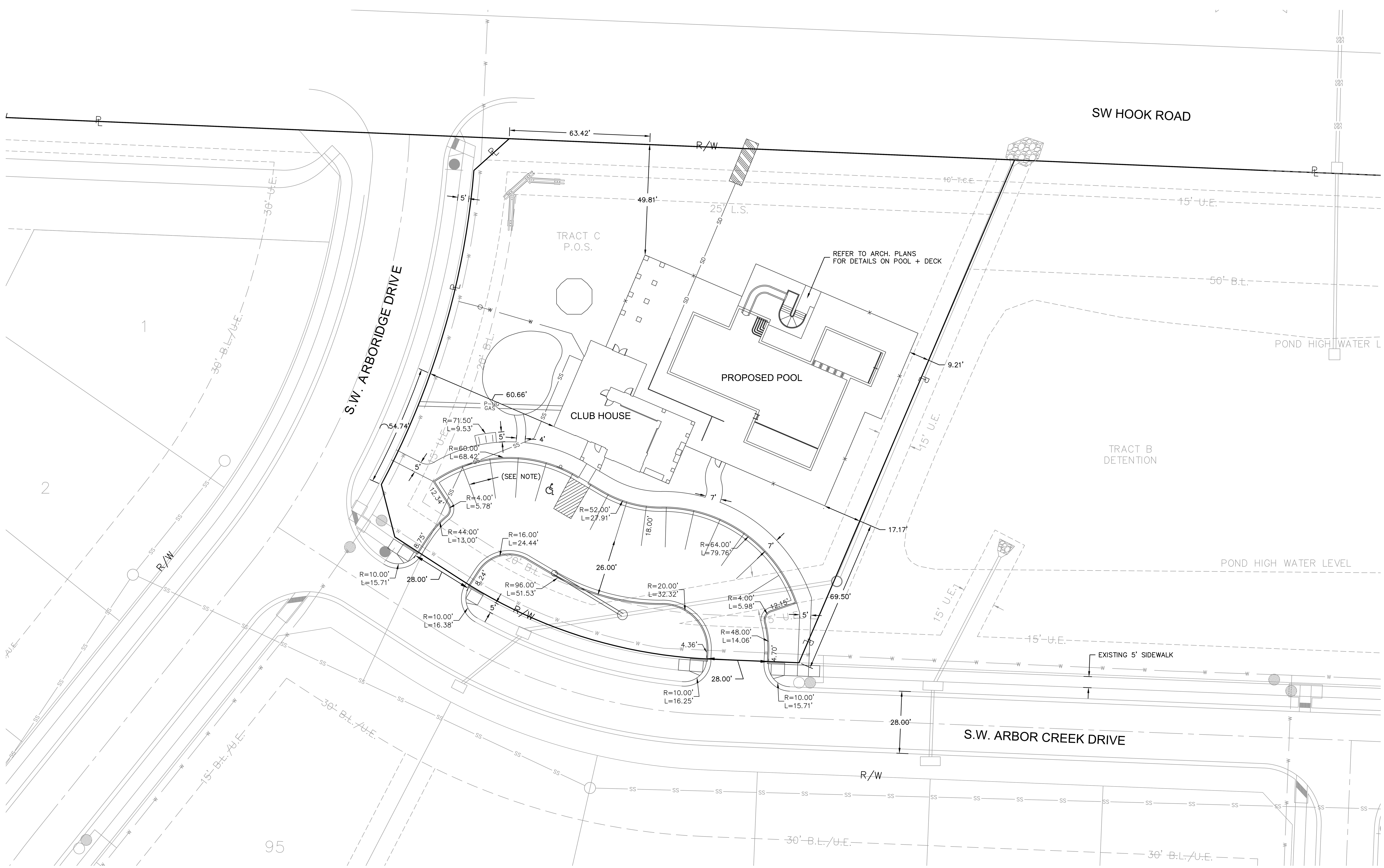
REVISIONS

SPOT ELEVATIONS
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD
LEE'S SUMMIT, MISSOURI
2019

drawn by:	G.S.
checked by:	J.E.S.
designed by:	J.E.S.
QA/QC by:	M.G.D.
project no.:	019-1288
date:	06-14-2019

SHEET
C06



N
0' 10' 20' 40'
SCALE IN FEET

GENERAL NOTES:

1. PAVEMENT MARKING SPACING ALONG CURB FOR PARKING STALLS SHALL BE EVENLY DIVIDED. ADA STALL SHALL BE A MIN. WIDTH OF 9' AND AISLE 8' (SEE SHEET C12 FOR ADDITIONAL DETAILS)

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_GE001_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 1:09pm XREFS: C_XBASE_0191288 C_PBASE_0191288 C_PUTIL_0191288

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION

GEOMETRIC PLAN
FINAL DEVELOPMENT PLANS

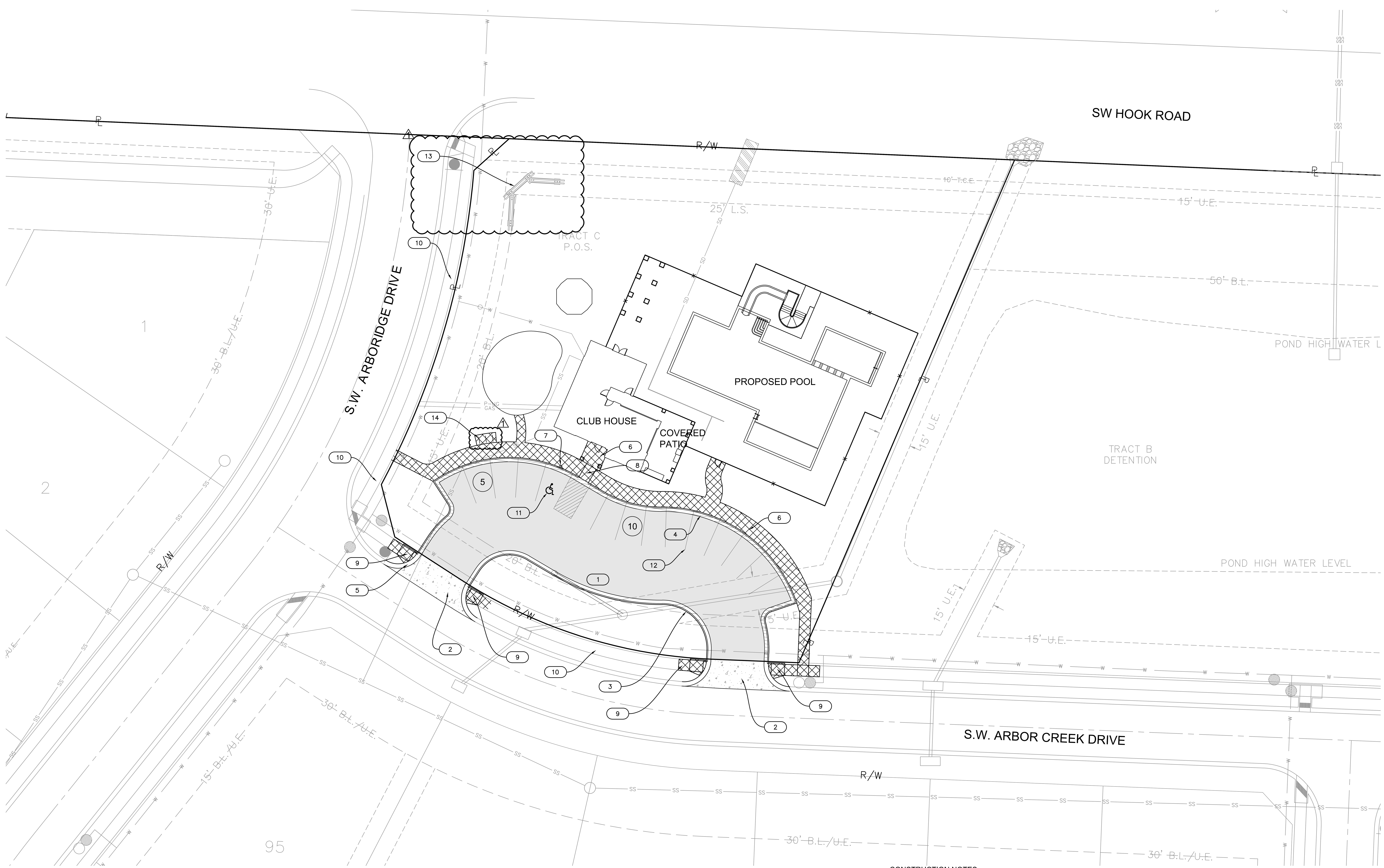
HAWTHORN RIDGE
1534 SW HOOK ROAD

LEE'S SUMMIT, MISSOURI

2019

drawn by:	G.S.
checked by:	J.E.S.
designed by:	J.E.S.
QA/QC by:	M.G.D.
project no.:	019-1288
date:	06-14-2019

SHEET
C07



LEGEND	
CONCRETE SIDEWALK (See Detail Sheet)	CG-1 CURB & GUTTER (See Detail Sheet)
STANDARD DUTY ASPHALT PAVEMENT (See Detail Sheet)	CG-1 CURB & GUTTER (DRY) (See Detail Sheet)
CONCRETE PAVEMENT (See Detail Sheet)	CG-2 CURB & GUTTER (See Detail Sheet)
	(1) # OF PARKING STALLS

SITE DATA TABLE	
TOTAL AREA	47,506 S.F. (1.09 AC.)
TOTAL BUILDING FLOOR AREA	1,490 S.F.
PROPOSED IMPERVIOUS AREA	20,780 S.F. (0.48 AC.)
REQUIRED PARKING (1 STALL:16 LOTS)	13 STALLS (INCLUDING 1 ADA STALL) (204 LOTS)
PROPOSED PARKING	15 STALLS (INCLUDING 1 ADA STALL)

CONSTRUCTION NOTES

1. CONSTRUCT STANDARD DUTY ASPHALT PAVEMENT (SEE LEGEND)
2. CONSTRUCT STANDARD CONCRETE PAVEMENT – KCMMB (SEE LEGEND)
3. TYPE CG–1 CONCRETE CURB AND GUTTER (SEE LEGEND)
4. TYPE CG–1 DRY CONCRETE CURB AND GUTTER (SEE LEGEND)
5. TYPE CG–2 CONCRETE CURB AND GUTTER (SEE LEGEND)
6. CONSTRUCT PRIVATE SIDEWALK
7. PROPOSED ACCESSIBLE PARKING SIGN
8. CONSTRUCT ACCESSIBLE SIDEWALK LANDING (SEE SPOT ELEVATION PLAN)
9. ADA RAMP WITHOUT TRUNCATED DOMES
10. EXISTING PUBLIC SIDEWALK
11. PROPOSED ACCESSIBLE STRIPING (TYP.) (SEE DETAIL SHEET)
12. PROPOSED PAVEMENT STRIPING (TYP.) (SEE NOTE 10, SHEET C02)
13. PROPOSED MONUMENT SIGN (SEE ARCHITECTURAL PLANS)
14. PROPOSED BICYCLE RACKS

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER
JULIE SELLERS, P.E.
MO# 2017000367

NO. REV.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	SITE DATA TABLE, BICK RACKS, & MONUMENT SIGN ADDED

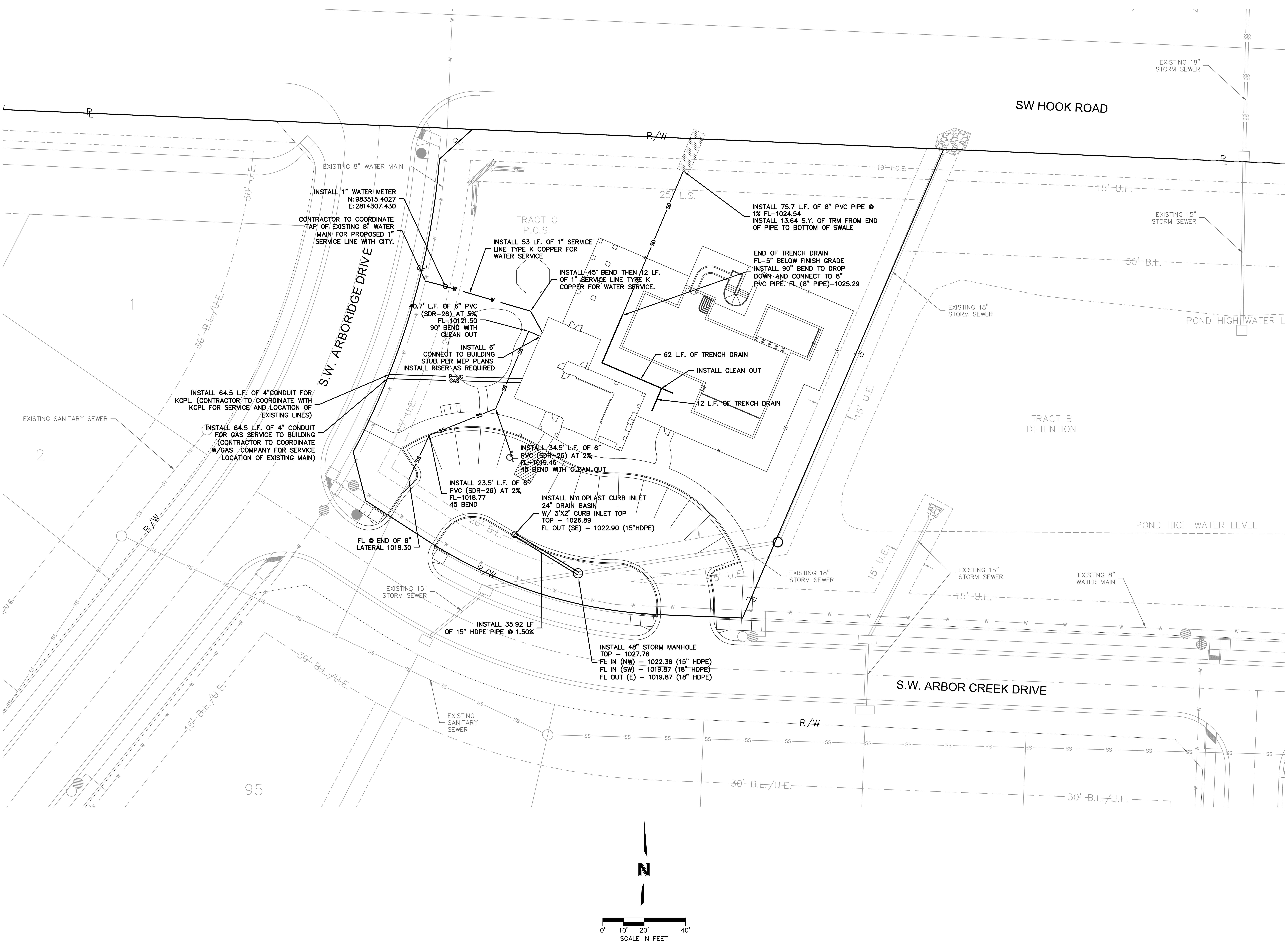
REVISIONS

SITE PLAN
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD
LEE'S SUMMIT, MISSOURI
2019

drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C08



olsson

OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION

UTILITY PLAN
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD

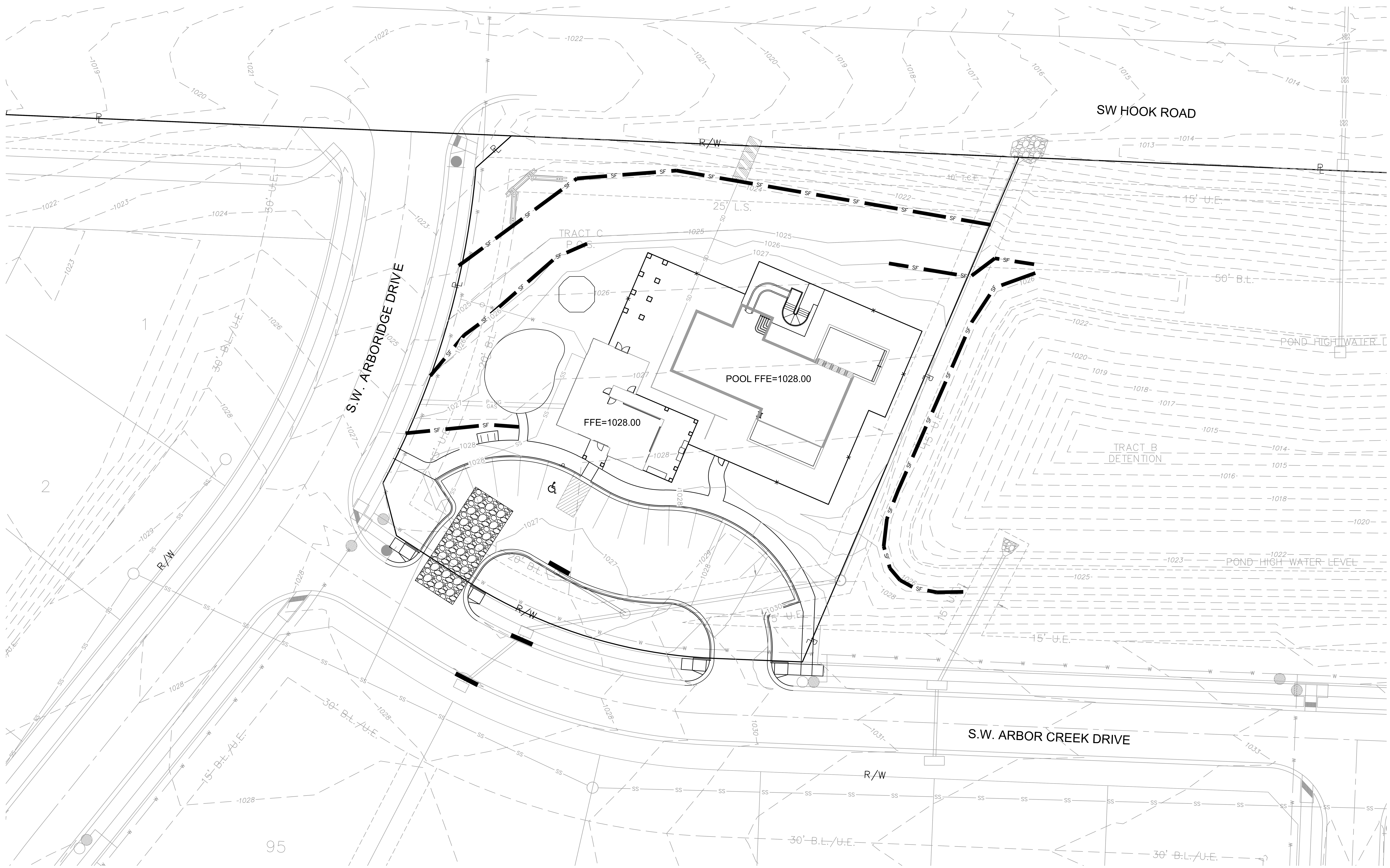
LEE'S SUMMIT, MISSOURI

2019

drawn by:	G.S.
checked by:	J.E.S.
designed by:	J.E.S.
QA/QC by:	M.G.D.
project no.:	019-1288
date:	06-14-2019

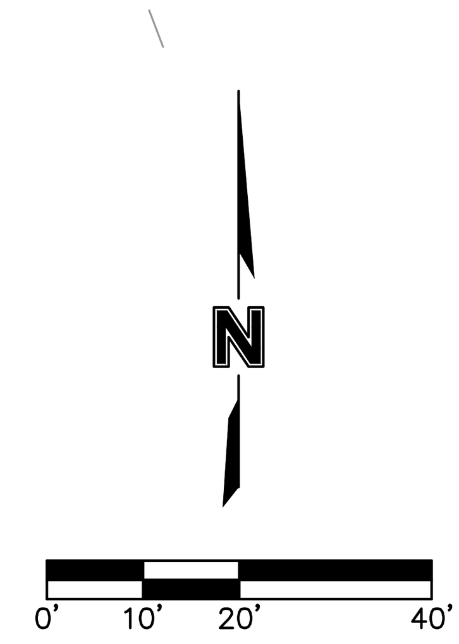
SHEET
C09

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_UTL01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:22am XREFS: C_XBASE_0191288 C_PBASE_0191288 C_PUTIL_0191288



NOTES:

1. THE EROSION CONTROL PLAN INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.
2. REFER TO LANDSCAPING PLAN FOR SEEDING + LANDSCAPING REQUIREMENTS.
3. SEE SHEET C13 FOR DETAILS.



DISTURBED AREA = 0.93 AC.

LEGEND	
DEVICES	
SF	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TEMPORARY STONE CONSTRUCTION ENTRANCE

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_ERC01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:23am XREFS: C_XBASE_0191288 C_PBASE_0191288 C_PUTIL_0191288

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

NO. REV.	DATE	REVISIONS DESCRIPTION

REVISIONS

EROSION CONTROL PLAN
FINAL DEVELOPMENT PLANS

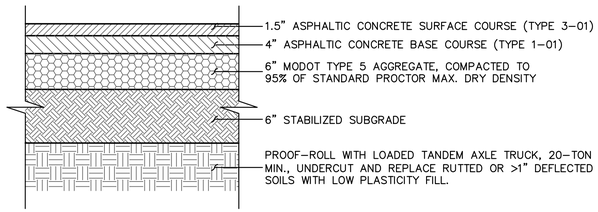
HAWTHORN RIDGE
1534 SW HOOK ROAD

LEE'S SUMMIT, MISSOURI

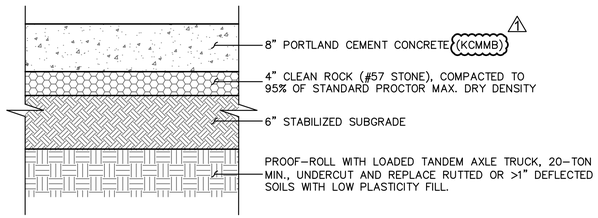
2019

drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

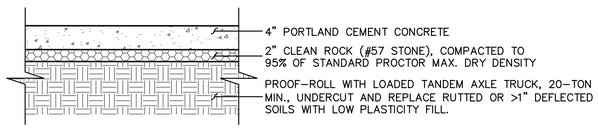
SHEET
C10



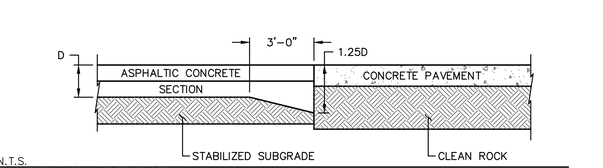
N.T.S.
01 STANDARD DUTY ASPHALT PAVEMENT SECTION



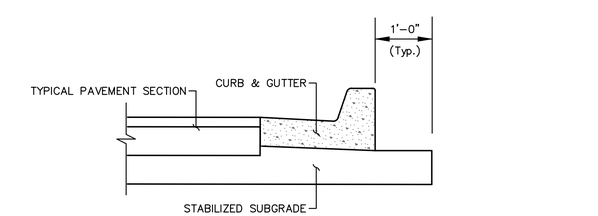
N.T.S.
02 STANDARD CONCRETE PAVEMENT SECTION



N.T.S.
03 STANDARD CONCRETE SIDEWALK SECTION

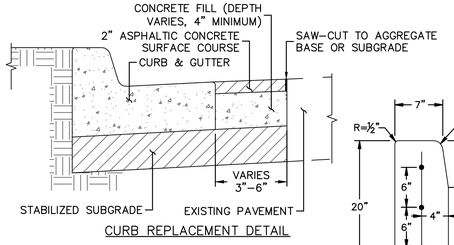


N.T.S.
04 THICKENED ASPHALT EDGE DETAIL

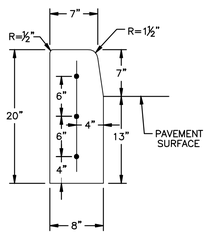


N.T.S.
05 PAVING DETAIL

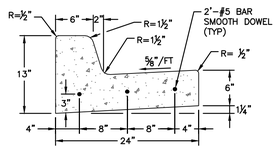
GENERAL NOTES:
1. ¾" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH.
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURBS.
5. ASPHALTIC CONCRETE SURFACE 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.



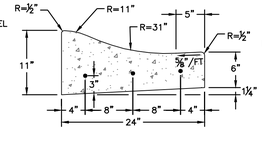
CURB REPLACEMENT DETAIL



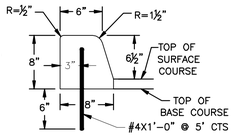
STRAIGHT CURB
(TYPE C-1)



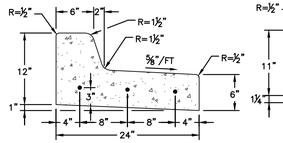
STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



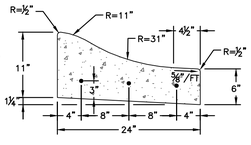
ROLL BACK CURB & GUTTER
(TYPE CG-2)



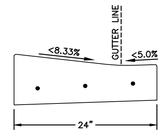
DOWELLED CURB
(TYPE DC)



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

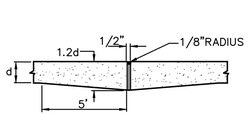


ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)

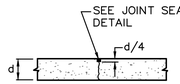


CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)

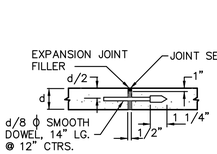
N.T.S.
06 CURB & GUTTER DETAIL



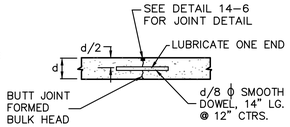
TYPE A – EXPANSION JOINT



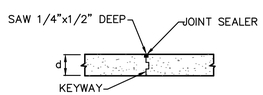
TYPE D – SAWED LONGITUDINAL OR TRANSVERSE



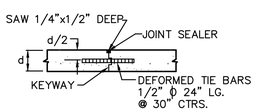
TYPE A – ALTERNATE EXPANSION JOINT



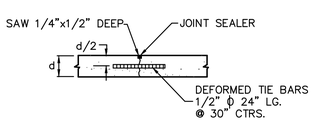
TYPE E – PLANNED TRANSVERSE CONSTRUCTION JOINT (USED AT NORMAL JOINT SPACING)



TYPE B – LONGITUDINAL CONSTRUCTION JOINT



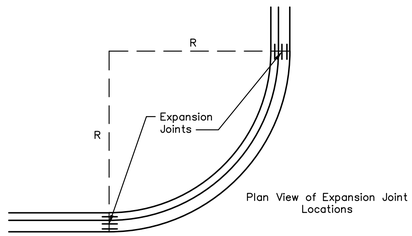
TYPE F – EMERGENCY TIED TRANSVERSE CONSTRUCTION JOINT (USED AT MIDDLE THIRD NORMAL JOINT SPACING)



TYPE C – TIED BUTT LONGITUDINAL CONSTRUCTION JOINT

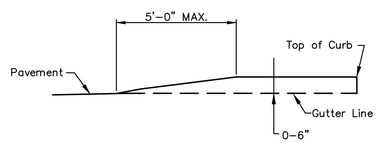
KEYWAYS FOR TYPE B AND F CONSTRUCTION JOINT

N.T.S.
07 CONCRETE PAVEMENT JOINTING DETAILS



NOTES:
1. 3/4" EXPANSION JOINTS WITH 2' DOWELS TO BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESES DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 2" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS.
3. FIX DOWELS WITH BAR CHAIRS OR EQUAL.

N.T.S.
08 EXPANSION JOINT PLACEMENT DETAIL



N.T.S.
09 CURB TERMINUS DETAIL

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #L001592
1301 BURLINGTON, SUITE 105
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

NO. REV.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	REVISED CONCRETE PAVEMENT SECTION DETAIL

REVISIONS

DETAIL SHEET
FINAL DEVELOPMENT PLANS

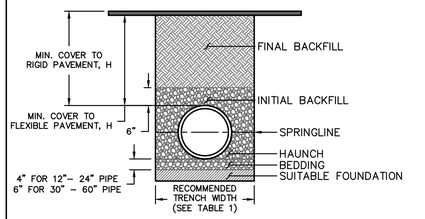
HAWTHORN RIDGE
1534 SW HOOK ROAD
LEE'S SUMMIT, MISSOURI

2019

drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C11

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_DTL01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:24am XREFS:



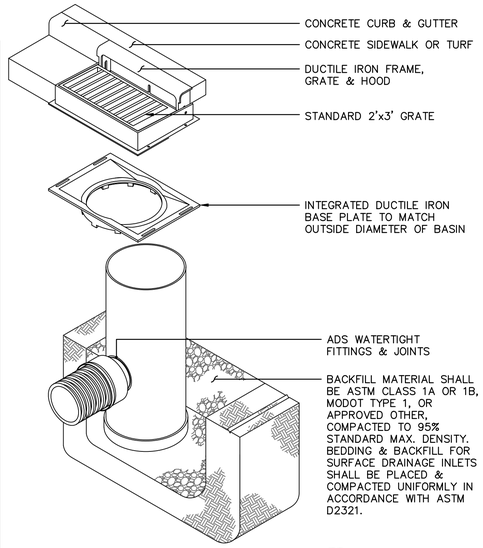
PIPE DIA.	MIN. TRENCH WIDTH*
<4"	O.D.+15"
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

*TRENCH CENTERED ON PIPE

NOTES:

1. ALL HDPE AND PVC PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. IF TRENCH IS EXCAVATED IN ROCK OR HIGH–BEARING STRENGTH SOILS, TRENCH WIDTHS FOR 24" – 60" DIA. MAY BE REDUCED, FROM VALUES IN TABLE 1, TO THE PIPE OD PLUS 12".
3. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
4. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE GEOTECHNICAL ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE GEOTECHNICAL ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
5. BEDDING: SUITABLE MATERIAL SHALL BE ASTM CLASS 1A OR 1B, MODOT TYPE 1, OR APPROVED OTHER, COMPACTED TO 95% STANDARD MAX. DENSITY.. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR PIPE 24" DIAMETER AND LESS; 6" FOR 30"–60" DIAMETER PIPE.
6. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE ASTM CLASS 1A OR 1B, MODOT TYPE 1, OR APPROVED OTHER, COMPACTED TO 95% STANDARD MAX. DENSITY IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. INSTALL AND COMPACT IN 6" MAXIMUM LIFTS.
7. FINAL BACKFILL: EXCEPT WHERE SUPERCEDED BY CITY REQUIREMENTS FOR RIGHT–OF–WAY CONSTRUCTION, GEOTECHNICAL REQUIREMENTS FOR UTILITY TRENCH BACKFILL, AND OTHER CONSIDERATIONS, SUITABLE MATERIAL MAY BE SITE SOILS COMPACTED TO 95% STANDARD MAX. DENSITY TO WITHIN 12" OF THE PAVEMENT SUBGRADE, AND TO SUBGRADE ELEVATION FOR NON–PAVED AREAS.
8. MINIMUM COVER: MINIMUM COVER, H, IN NON–TRAFFIC RATED APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED PER CITY AND/OR UTILITY STANDARDS AND/OR TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" FOR UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR UP TO 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE OR TO TOP OF RIGID PAVEMENT.

01 N.T.S. PIPE TRENCHING & BEDDING



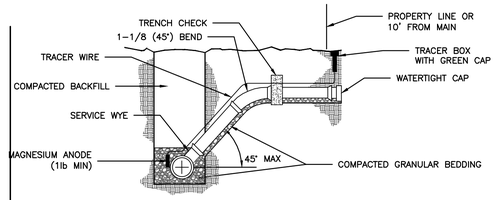
DRAIN BASIN NOTES:

1. BOTH DRAIN BASINS AND CURB INLETS USE STANDARD BASIN ASSEMBLY.
2. UNLESS OTHERWISE COORDINATED WITH ENGINEER, NO SUBSTITUTION FOR ADS NYLOPLAST STRUCTURES, INCLUDING ALL PARTS. ALL CONSTRUCTION SHALL BE PER MANUFACTURER'S STANDARDS AND RECOMMENDATIONS.

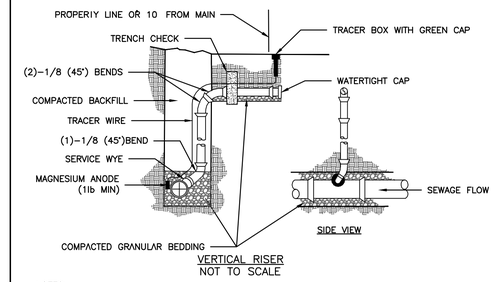
DOME COVER

SOLID COVER

02 N.T.S. ADS NYLOPLAST STRUCTURES



STANDARD INSTALLATION
NOT TO SCALE

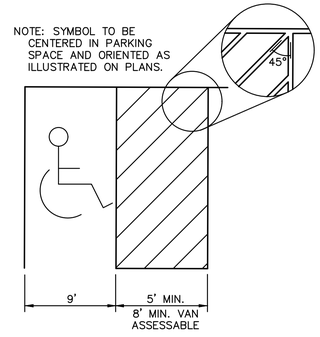


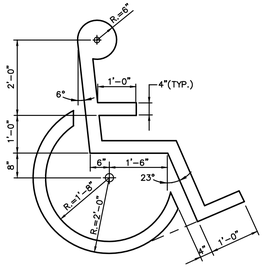
VERTICAL RISER
NOT TO SCALE

NOTES:

1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. ALL NEW CONSTRUCTION OFF SEWER STUBS SHALL BE TEMPORARILY MARKED WITH A MARKING STAKE, 36" ABOVE GROUND AND PAINTED GREEN.
3. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
4. 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.
5. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
6. #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.
7. 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.
8. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
9. 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.

03 N.T.S. BUILDING SEWER STUB AND RISER



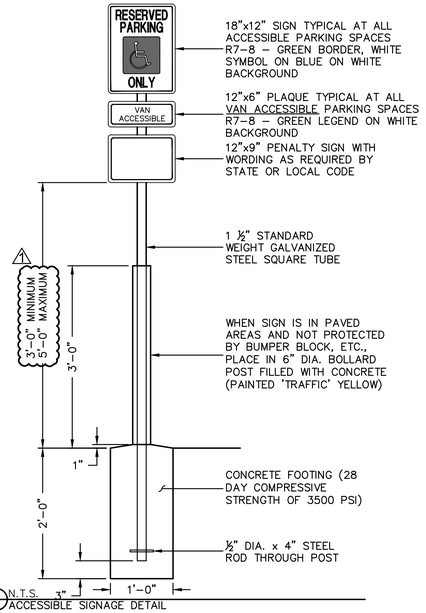


04 N.T.S. ACCESSIBLE STRIPING DETAIL

NOTES:

1. ALL SIGNS SHALL COMPLY WITH THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS
2. GALVANIZED SQUARE TUBE:
   POST TUBES – 2"X2"X¾" 12GA.
   POST TUBE SHALL MEET ASTM A1011 GRADE 50.
   POST TUBE GALVANIZED AS PER ASTM A653 GRADE 90.
   ANCHOR TUBE – 2–¼"x2–¼"x⅜" 12GA.
   HEAVY DUTY ANCHOR TUBE SHALL MEET ASTM A500 GRADE B.
   STRUCTURAL TUBE AND STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123

   THE UPPER SIGN POST SHALL TELESCOPE INSIDE THE ANCHOR TUBE A MINIMUM OF 12". THE ANCHOR TUBE SHALL BE A MINIMUM 27" DEEP WITH 3" MIN., 4" MAX. EXPOSED ABOVE FINISH GRADE.



05 N.T.S. ACCESSIBLE SIGNAGE DETAIL

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #L001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
8/2/19
PROFESSIONAL ENGINEER

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION
1	2019.07.26	REVISED ADA SIGN DETAIL

DETAIL SHEET
FINAL DEVELOPMENT PLANS

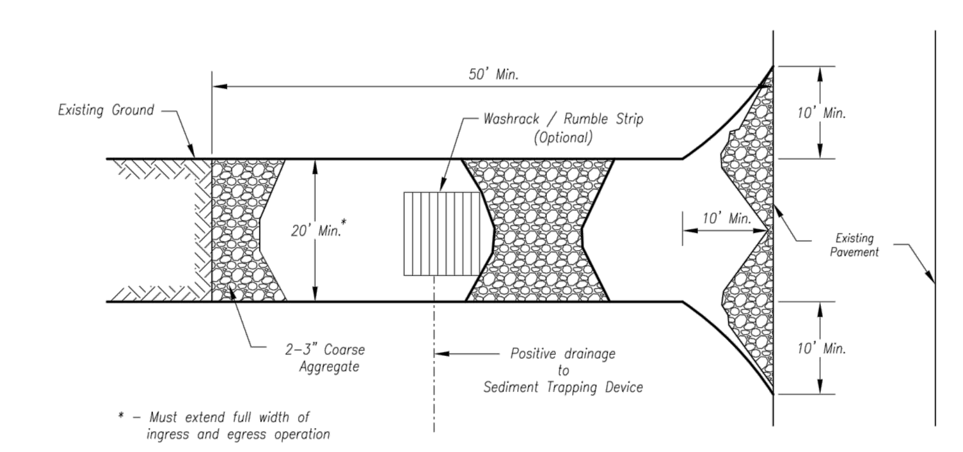
HAWTHORN RIDGE
1534 SW HOOK ROAD
LEE'S SUMMIT, MISSOURI

2019

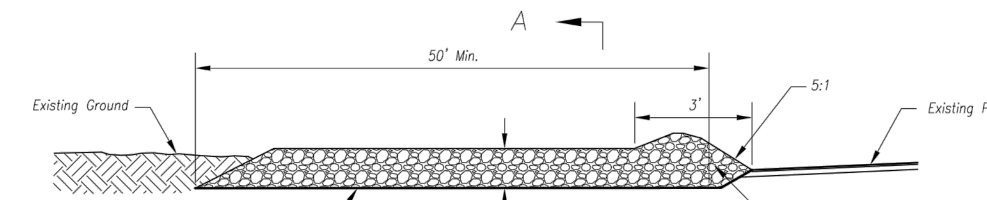
drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C12

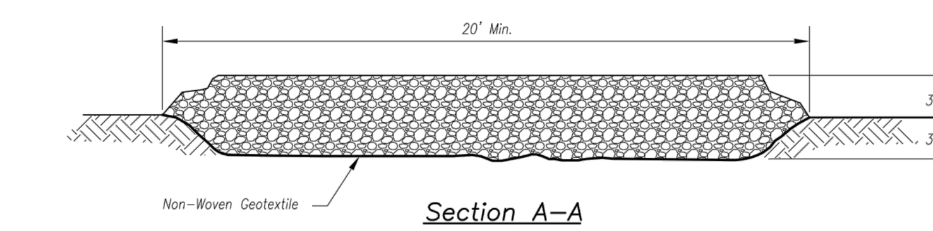
DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_DTL01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:24am XREFS:



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A–A
Not to Scale

Notes for Construction Entrance:

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

Maintenance for Construction Entrance:

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

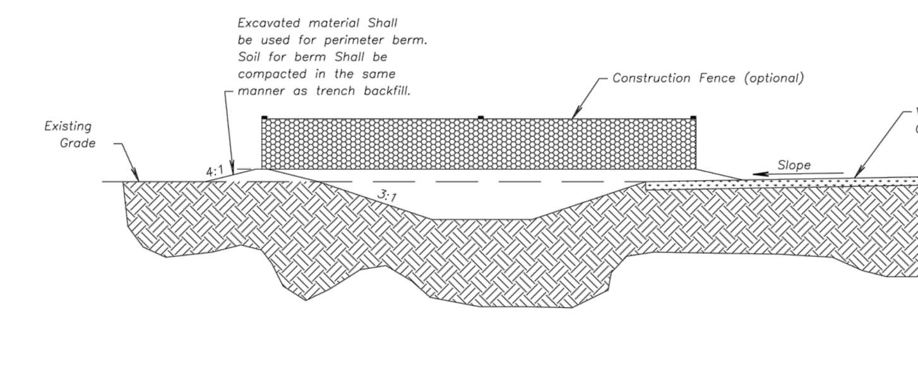
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

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

Maintenance for Concrete Washout:

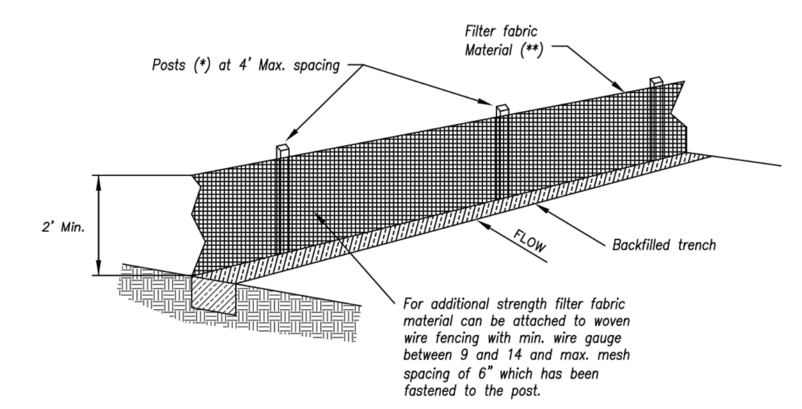
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface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



CONCRETE WASHOUT

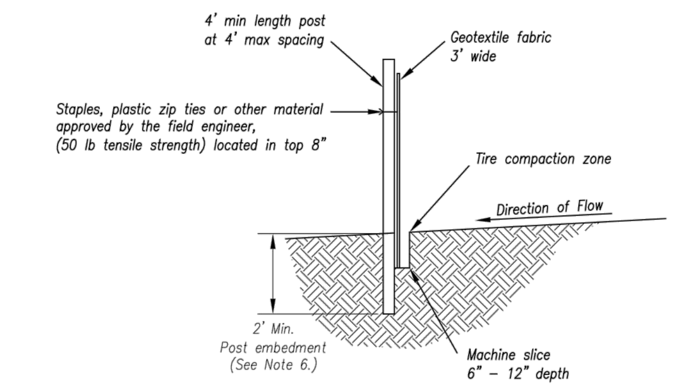
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

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



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

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



SILT FENCE DETAILS
Not to Scale

Notes:

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

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches 1/3 the height of silt fence.
2. Repair as necessary to maintain function and structure.

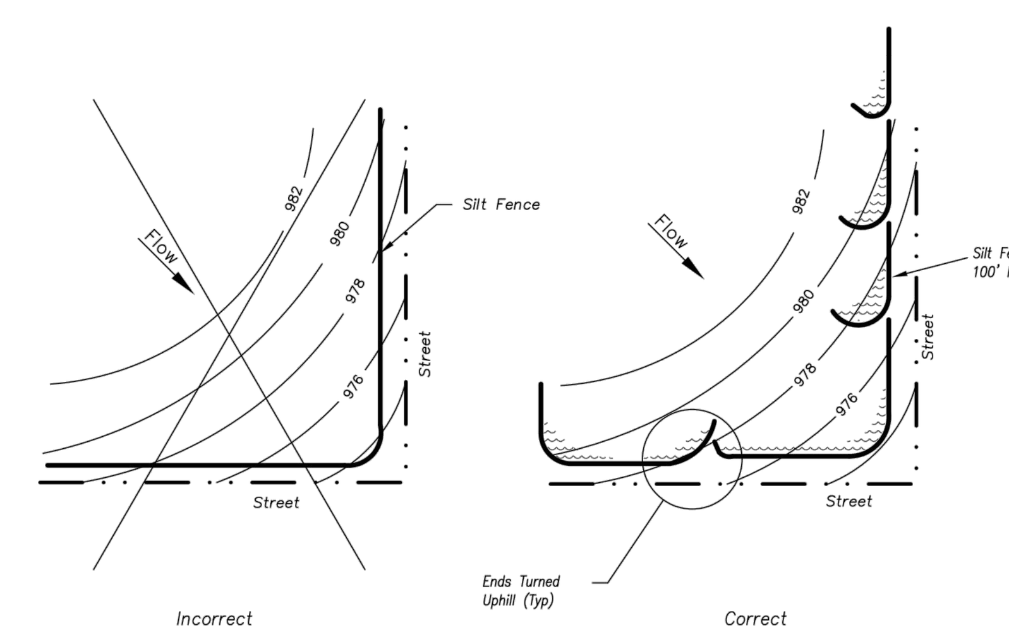
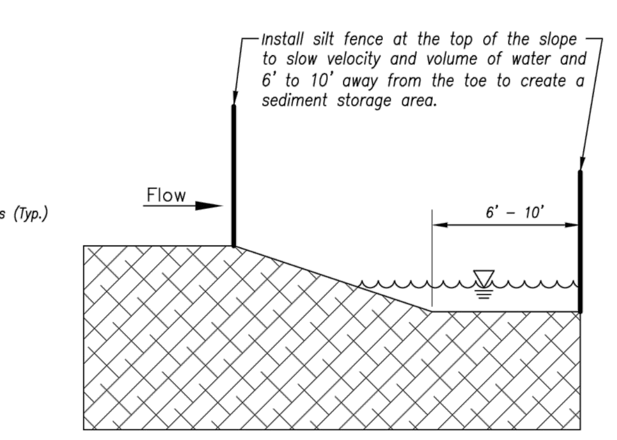
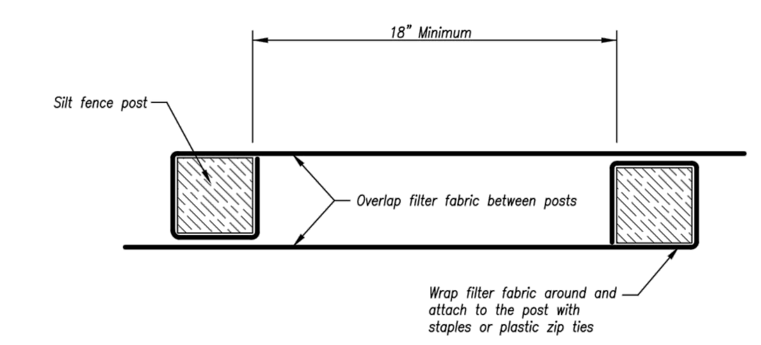


Figure A



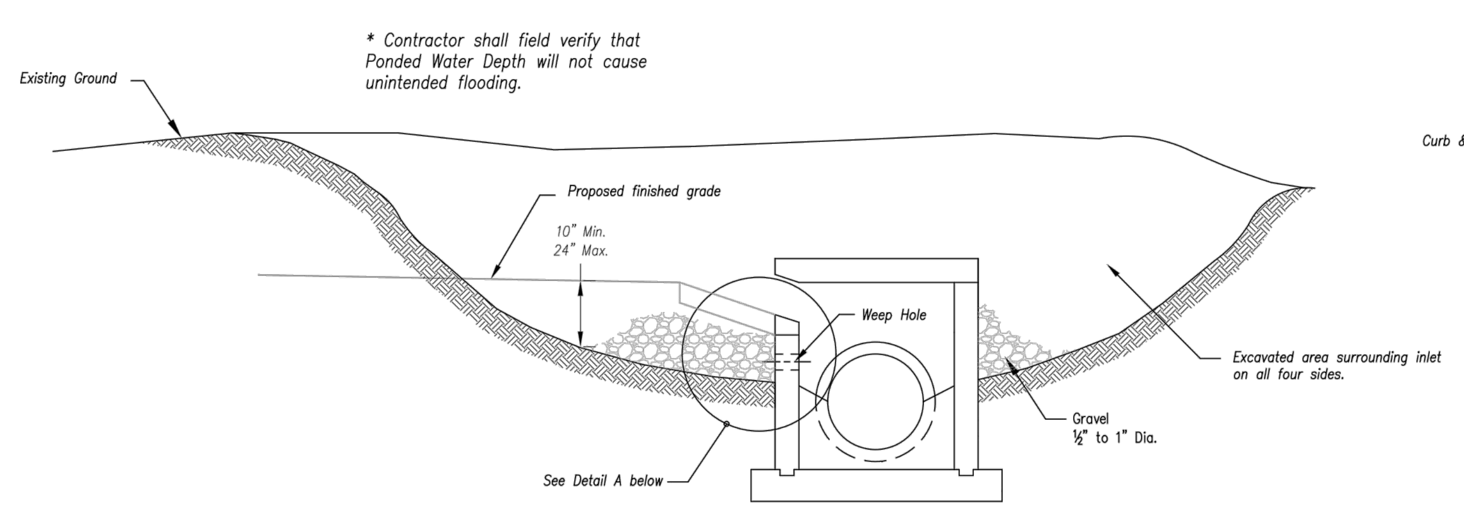
SILT FENCE LAYOUT
Not to Scale

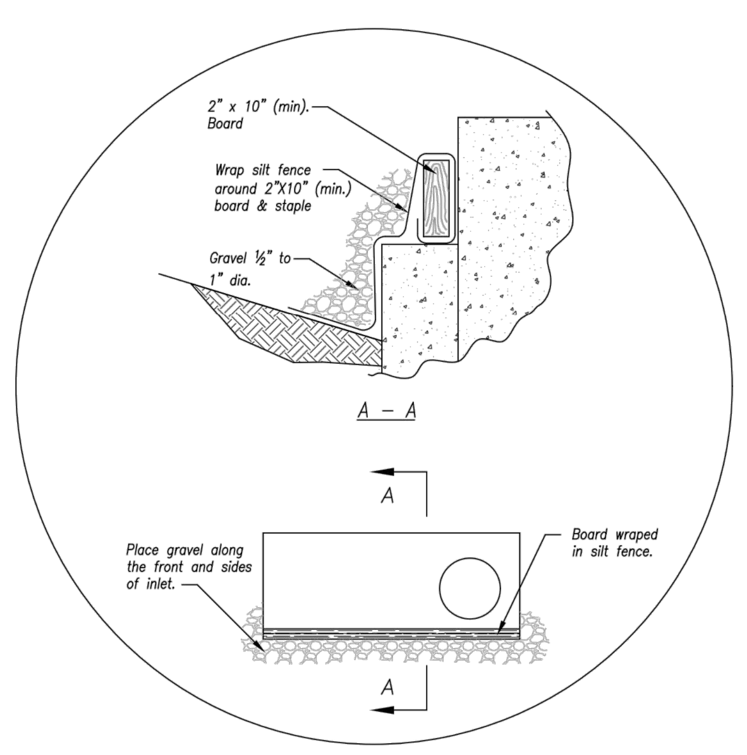


JOINING FENCE SECTIONS
Not to Scale

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

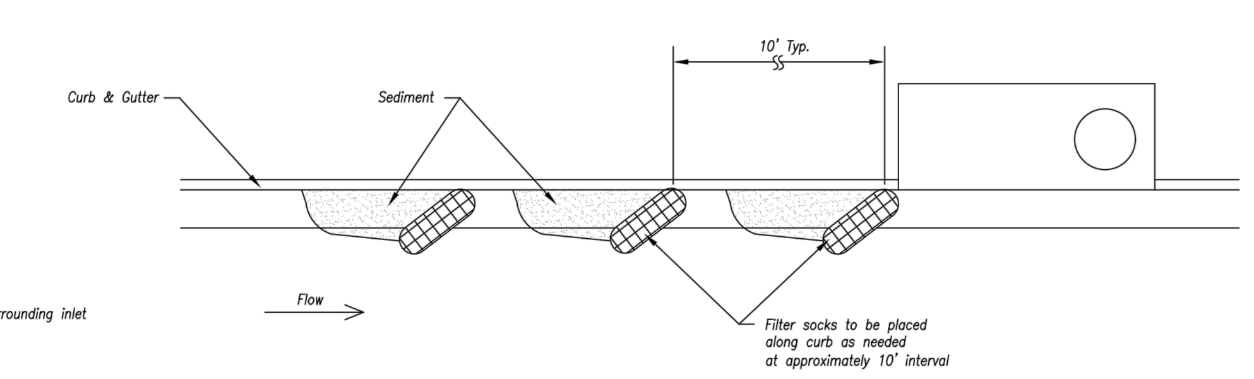
AMERICAN PUBLIC WORKS ASSOCIATION	
APWA Kansas City Metro Chapter	KANSAS CITY METRO CHAPTER
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016





Detail A

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



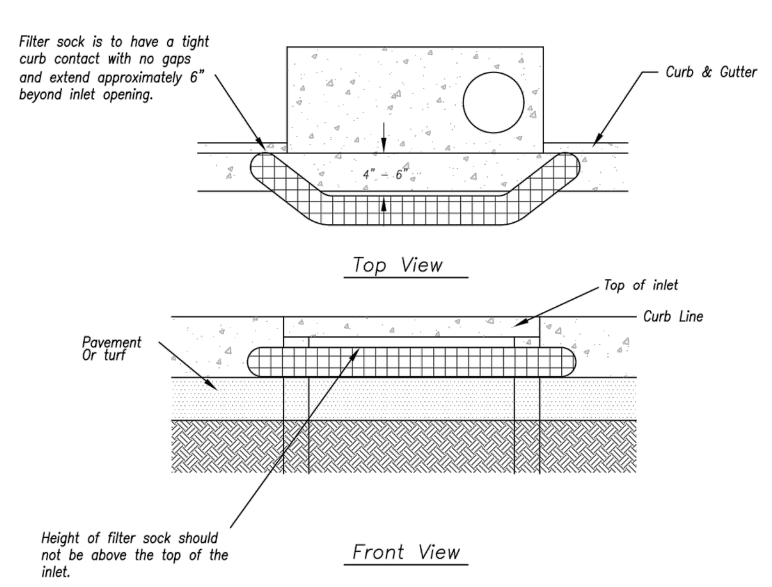
On Grade Curb Inlet Protection

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	
APWA Kansas City Metro Chapter	KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016

olsson
OLSSON - CIVIL ENGINEERING
MISSOURI CERTIFICATE OF AUTHORITY #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
PROFESSIONAL ENGINEER
8/2/19

JULIE SELLERS, P.E.
MO# 2017000367

REVISIONS

NO. REV.	DATE	REVISIONS DESCRIPTION

DETAIL SHEET
FINAL DEVELOPMENT PLANS

HAWTHORN RIDGE
1534 SW HOOK ROAD

LEE'S SUMMIT, MISSOURI

2019

drawn by: G.S.
checked by: J.E.S.
designed by: J.E.S.
QA/QC by: M.G.D.
project no.: 019-1288
date: 06-14-2019

SHEET
C13

DWG: F:\2019\1001-1500\019-1288\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_DTL01_0191288.dwg USER: jsellers
DATE: Aug 02, 2019 10:24am XREFS: