

ALEXANDRIA KUBOTA DEALERSHIP

CIVIL SITE PLANS POPLAR RIDGE ROAD, CITY OF ALEXANDRIA CAMPBELL COUNTY, KENTUCKY

LEGEND	
—OHE—	OVERHEAD ELECTRIC
—UGE—	UNDERGROUND ELECTRIC
□	ELECTRIC BOX
⊙	ELECTRIC MANHOLE
⊙	ANCHOR POLE
☆	LIGHT POLE
⊙	UTILITY POLE
⊙	GROUND LIGHT
—OTE—	OVERHEAD TELEPHONE
—UTE—	UNDERGROUND TELEPHONE
□	TELEPHONE BOX
⊙	TELEPHONE MANHOLE
●	BOLLARDS
+	SION
⊙	MAIL BOX
—W—	WATER LINE
⊙	WATER VALVE
⊙	FIRE HYDRANT
⊙	WATER METER
⊙	WATER VALVE BOX
⊙	WATER VALVE MANHOLE
⊙	POST INDICATOR VALVE
—G—	GAS LINE
⊙	GAS METER
⊙	GAS VALVE
⊙	GAS VALVE BOX
⊙	UTILITY MANHOLE
⊙	SEWER MANHOLE
⊙	STORM MANHOLE
---	DITCH OR CREEK
—	GUARDRAIL
—X—	FENCE LINE
—XX—	R/W FENCE LINE

ZONING INFORMATION

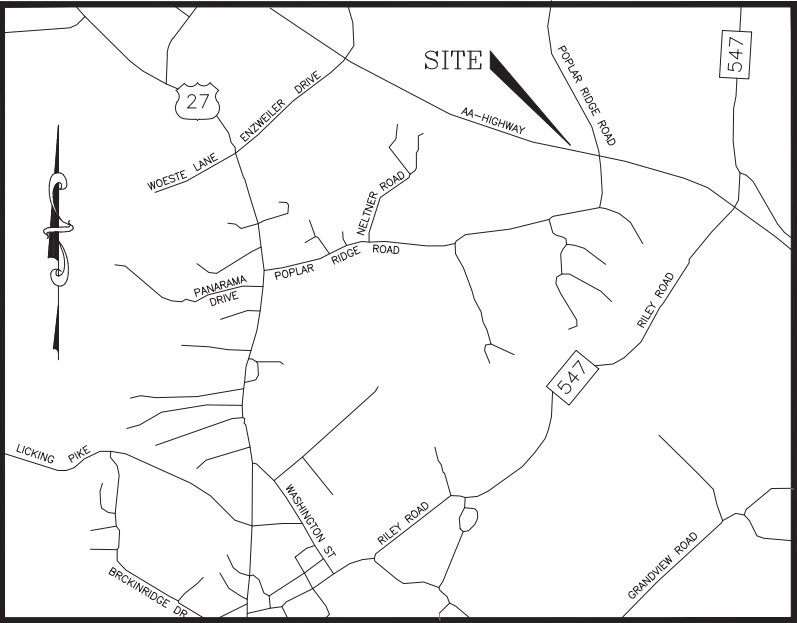
EXISTING ZONING:	HC (HIGHWAY COMMERCIAL) ZONE
	REQUIRED:
MINIMUM LOT AREA:	10,000 SF
MINIMUM LOT FRONTAGE:	SEVENTY (70) FEET
MINIMUM FRONT YARD DEPTH:	FIFTY (50) FEET
MINIMUM SIDE YARD WIDTH:	* SEE NOTE
MINIMUM REAR YARD DEPTH:	FIFTEEN (15) FEET
MAXIMUM BUILDING HEIGHT:	FORTY (40) FEET

* NO RESTRICTIONS EXCEPT WHEN ADJACENT TO STREET, ROAD, HIGHWAY, OR OTHER RIGHT-OF-WAY WHEN REQUIRED WIDTH SHALL BE THE SAME AS REQUIRED FOR A MINIMUM FRONT YARD DEPTH IN THIS ZONE. WHEN BUILDINGS ABUT EACH OTHER, FIREWALL CONSTRUCTION, AS REQUIRED BY THE CITY'S BUILDING CODE, SHALL BE REQUIRED. IN THE EVENT A SIDE YARD IS PROVIDED, IT SHALL NEVER BE LESS THAN FIFTEEN (15) FEET.

PARKING SUMMARY

BUILDING AREA	S.F.	STALLS	STALLS REQUIRED PER CODE
OFFICE SPACE	970	4	1 STALL PER 250 S.F.
SHOWROOM/RETAIL	5,900	6	1 STALL PER 1,000 S.F.
SERVICE AREA (4 BAYS, 20 EMPLOYEES)	5,350	28	2 STALLS PER BAY PLUS 1 PER EMPLOYEE LARGEST
STORAGE/HALL/RESTROOM/MECHANICAL	5,580	6	1 STALL PER 1,000 S.F.
TOTAL SQUARE FOOTAGE	*****	44 STALLS	TOTAL STALLS REQUIRED
STALLS PROVIDED:			
ADA ACCESSIBLE PARKING SPACES	2		ADA ACCESSIBLE PARKING NOTES:
REGULAR PARKING SPACES	43		2 ACCESSIBLE SPACES REQUIRED AND PROVIDED
TOTAL SPACES PROVIDED:	45		1 OF WHICH MUST BE VAN ACCESSIBLE

⊙ BASIS OF ELEVATION:
THE STATION IS A BRONZE NKAPC CONTROL MARK STAMPED "NKC124AZ 2002" SET ON A 12" DIAMETER 3" DEEP CONCRETE POST FLUSH WITH THE GROUND. ELEV. 623.80
STATION IS LOCATED 1.25 MI. SOUTH OF CAMP SPRINGS, EAST OF KY-9 (AA HWY.). FROM THE JUNCTION OF NB KY-9 (AA HWY) WITH THE KY-9 OFF/ON RAMP TO/FROM EB KY-547 (ALEXANDRIA-4 MILE ROAD) GO 0.25 MI. NW ON KY-9 TO THE STATION ON THE RIGHT.



VICINITY MAP
N.T.S.

- C-000 – TITLE/VICINITY MAP
- C-001 – SPECIFICATIONS
- C-100 – EXISTING CONDITIONS/DEMO PLAN
- C-200 – SITE LAYOUT PLAN
- C-300 – UTILITY PLAN
- C-400 – GRADING PLAN
- C-401 – EROSION & SEDIMENT CONTROL PLAN
- C-402 – EROSION & SEDIMENT CONTROL DETAILS
- C-500 – SITE DETAILS
- C-501 – SITE DETAILS

GENERAL NOTES:

JASON BURLAGE OF SD1 IS TO BE CONTACTED AT 859-578-6892 AT LEAST 72 HOURS PRIOR TO ALL LAND DISTURBING ACTIVITIES.

DOUG MALONE OF SD1 IS TO BE CONTACTED AT 859-578-6749 AT LEAST 72 HOURS PRIOR TO INSTALLATION OF THE PUBLIC SANITARY SEWER.

BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL REVISE AND PROVIDE ADDITIONAL BMP'S AS DEEMED NECESSARY PER SECTION 700 OF THE SANITATION DISTRICT NO. 1'S RULES AND REGULATIONS.

STORM WATER RUNOFF FACILITY MAINTENANCE NOTE:
THE OWNER OF THE PROPERTY THAT CONTAINS THE EXISTING DETENTION POND IS RESPONSIBLE FOR ITS PROPER MAINTENANCE.
THE CURRENT OWNER IS KTT PROPERTIES LLC



NOTE:
UNDERGROUND UTILITIES ARE SHOWN BASED ON ABOVE GROUND OBSERVATIONS AND CONSTRUCTION PLANS PROVIDED TO CARDINAL ENGINEERING AND MAY NOT BE COMPLETE OR ACCURATE.
CONTRACTOR TO VERIFY LOCATION AND USE CAUTION WHEN EXCAVATING IN AREAS OF SUSPECTED BURIED UTILITIES.

CONTACTS

ZONING:
CAMPBELL COUNTY PLANNING, ZONING
AND BUILDING INSPECTION (FOR ALEXANDRIA)
1098 MONMOUTH STREET, SUITE 343
NEWPORT, KENTUCKY 41071
(859) 292-3880

WATER:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018
(859) 578-9898

SEWER:
SANITATION DISTRICT NO. 1
1045 EATON DRIVE
FORT WRIGHT, KENTUCKY 41011
(859) 578-7450

ELECTRIC:
DUKE ENERGY
1262 COX ROAD
ERLANGER, KENTUCKY 41018
(513) 287-3589

GAS:
DUKE ENERGY
1262 COX ROAD
ERLANGER, KENTUCKY 41018
(859) 287-5408

TELEPHONE:
CINCINNATI BELL TELEPHONE COMPANY
201 EAST FOURTH STREET
103-1175
CINCINNATI, OHIO 45202
(513) 566-7185

CABLE TELEVISION:
SPECTRUM COMMUNICATIONS
7906 DIXIE HIGHWAY
FLORENCE, KENTUCKY 41076
(888) 735-0300

OTHER UTILITIES:
UNITED UTILITIES PROTECTION
(800) 752-6007



CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOORE ROAD
WILDER, KENTUCKY 41071
PHONE (859) 581-9800

WEBSITE: <http://www.cardinalengineering.net>

CIVIL SITE PLANS
ALEXANDRIA KUBOTA DEALERSHIP
POPLAR RIDGE ROAD, CITY OF ALEXANDRIA
CAMPBELL COUNTY, KENTUCKY

KTT PROPERTIES, LLC
130 MT. ZION ROAD
FLORENCE, KY 41042

PROJECT:

CLIENT:

JOB LOG

DATE ITEM

DRAWN BY:

SEAL

BCC

CHECKED BY:

JDM

PROJECT MANAGER:

JDM

PROJECT NO. 23-119

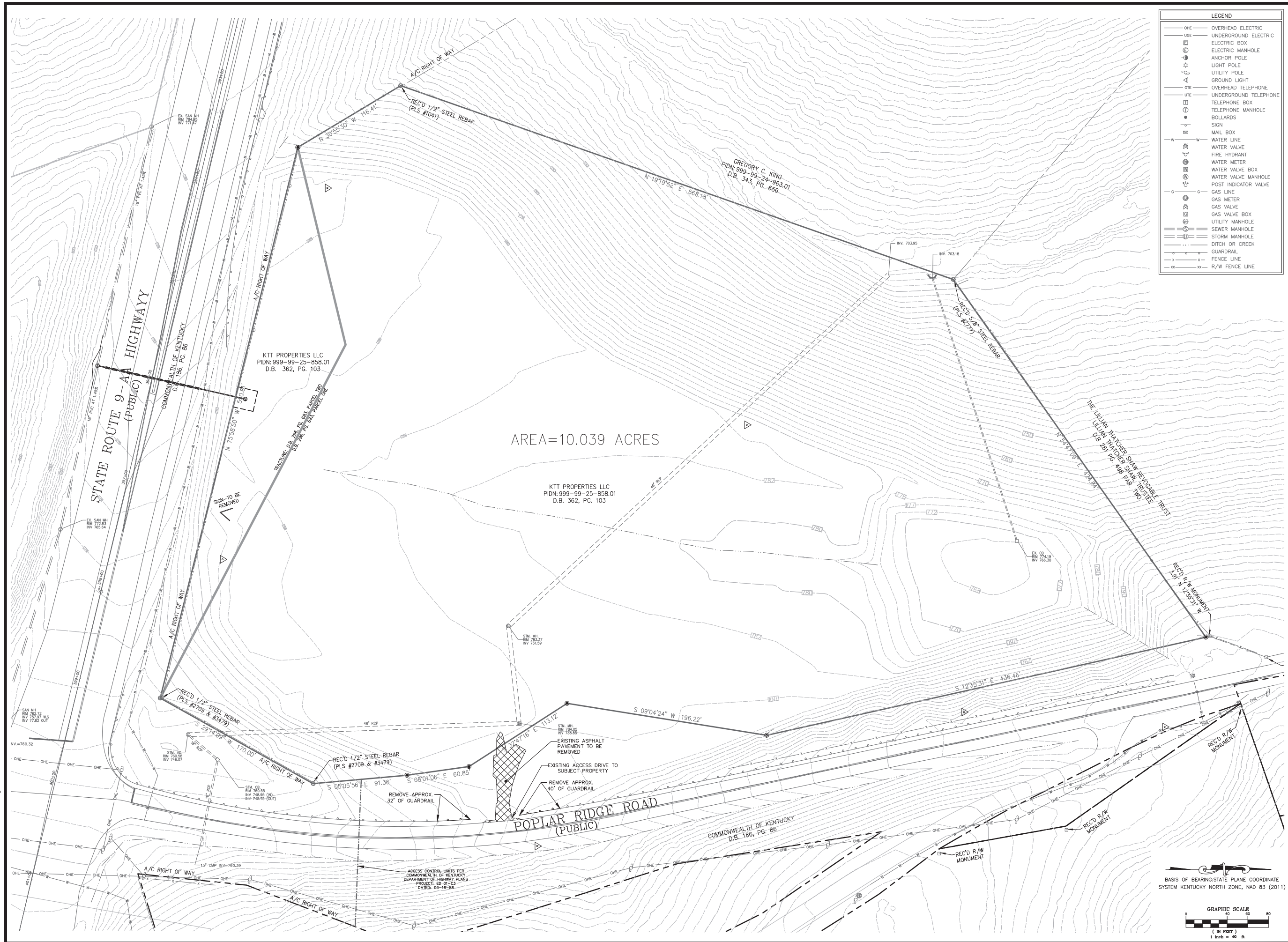
SCALE AS NOTED

DATE 03/08/2024

TITLE / VICINITY MAP

SHEET

C-000



1. REFER TO SHEET C-001 FOR ALL GENERAL/PLAN NOTES.
2. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICTS ALL WORK ASSOCIATED WITH THE PROJECT.

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REGULAR PARKING SPACES	43		
TOTAL SPACES PROVIDED:	45		

1. HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL 3/C-500)
2. LIGHT DUTY ASPHALT PAVEMENT (SEE DETAIL 2/C-500)
3. HEAVY DUTY CONCRETE PAVEMENT (SEE DETAIL 1/C-500)
4. CONCRETE WALK/PATIO (SEE DETAIL 4/C-500)
5. INTEGRAL WALK & CURB (SEE DETAIL 6/C-500)
6. CONCRETE HEADER CURB (SEE DETAIL 7/C-500)
7. ADA ACCESSIBLE CURB RAMP (SEE DETAIL 5/C-500)
8. ADA ACCESSIBLE PARKING SIGNAGE. VAN ACCESSIBLE SPACES SHALL HAVE VAN ACCESSIBLE SIGN BELOW STANDARD HANDICAP SIGN (SEE DETAIL 9/C-500)
9. 4" TRANSVERSE STRIPING AT ACCESSIBLE AISLES & INTERNATIONAL SYMBOL OF ACCESSIBILITY PER ADA REQUIREMENTS (2 COATS)
10. PROPOSED CONCRETE BOLLARD (SEE DETAIL 10/C-500)
11. PRECAST CONCRETE WHEEL STOP (SEE DETAIL 8/C-500)
12. PROPOSED 6" HIGH CHAIN LINK FENCE (SEE DETAIL 10/C-500)
13. PROPOSED CHAIN LINK FENCE (SEE DETAIL 11/C-500)
14. PROPOSED GRAVEL AREA (SEE DETAIL 13/C-500)
15. REFER TO PLANS BY OTHERS FOR DESIGN OF SITE BUILDINGS, THE AREA UNDER THE COVERED PORCH WILL BE CONCRETE PER THE ARCHITECTURAL PLANS
16. FUTURE BUILDING EXPANSION
17. TRANSITION CURB FROM 6" TO FLUSH, REFER TO SHEET C-400 FOR PROPOSED ELEVATIONS
18. STOP BAR/SIGN AND PAVEMENT ARROWS/MARKINGS
19. PROPOSED TRANSFORMER PAD PER DUKE REQUIREMENTS

	PROPOSED HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL 3/C-500)
	PROPOSED LIGHT DUTY ASPHALT PAVEMENT (SEE DETAIL 2/C-500)
	PROPOSED HEAVY DUTY CONCRETE (SEE DETAIL 1/C-500)
	PROPOSED GRAVEL AREA (SEE DETAIL 13/C-500)
	PROPOSED PARKING STALL ROW COUNT
	PROPOSED FENCE

[illegible]

CARDINAL

**ENGINEERING
LAND SURVEYING**
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (859) 581-9600

WEBSITE: <http://www.cardinalengineering.net>

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CAMPBELL COUNTY, KENTUCKY

KTT PROPERTIES, LLC
130 MT. ZION ROAD
FLORENCE, KY 41042

PROJECT:

[illegible]

DRAWN BY

BCC

CHECKED ☐

JDM

PROJECT
MANAGER.

PROJECT NO. 23-119

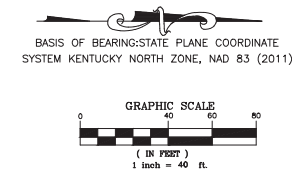
SCALE 1" = 40'

DATE	03/08/2024
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SITE PLAN

SHEET

C-200



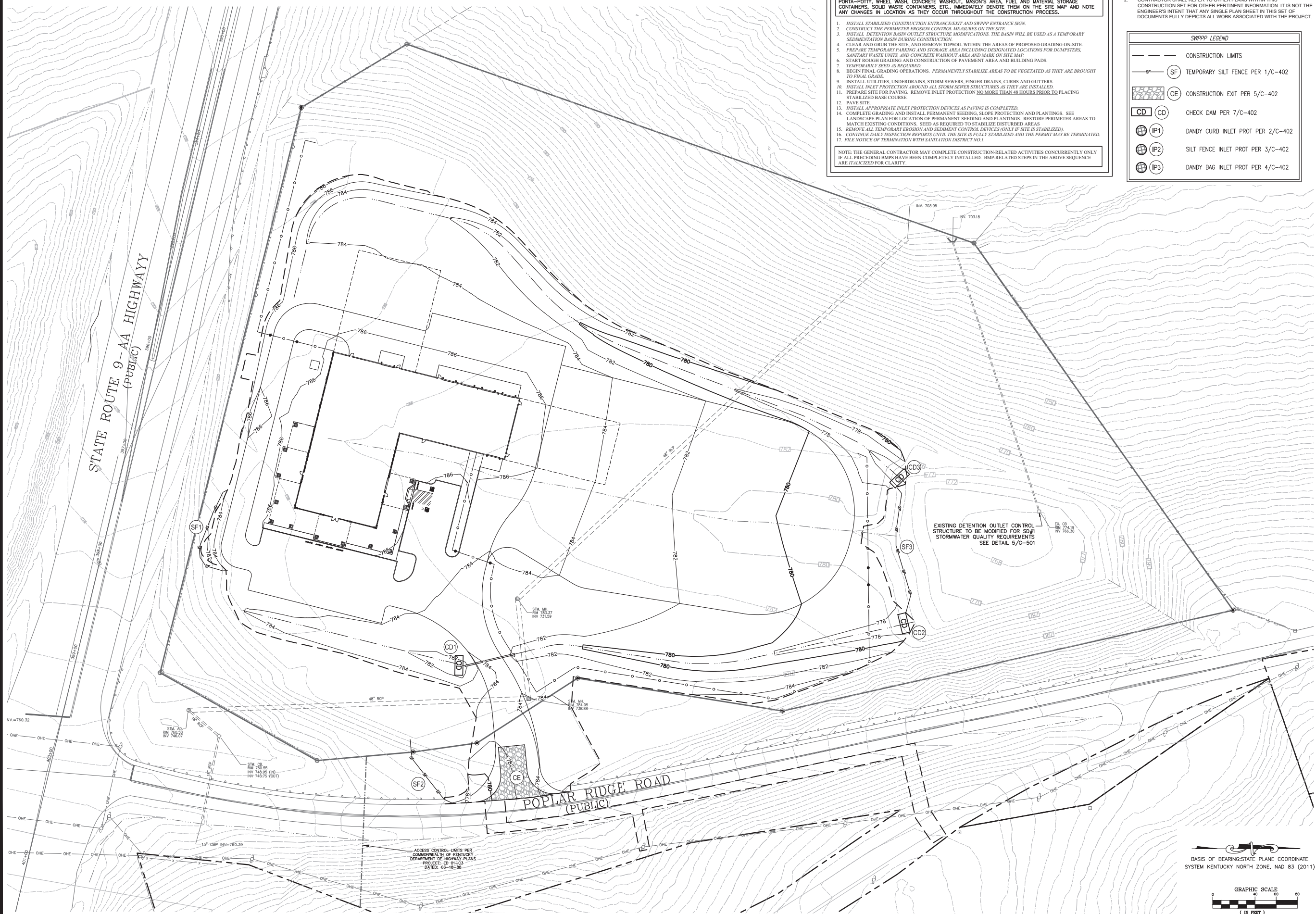
UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAP AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT AND SWPPP ENTRANCE SIGN.
2. CONSTRUCT THE PERIMETER EROSION CONTROL MEASURES ON THE SITE.
3. INSTALL A DRAINAGE SYSTEM ON THE STRUCTURE MODIFICATIONS. THE BASIN WILL BE USED AS A TEMPORARY SEDIMENTATION BASIN DURING CONSTRUCTION.
4. CLEAR AND GRUB THE SITE, AND REMOVE TOPSOIL WITHIN THE AREAS OF PROPOSED GRADING ON-SITE.
5. PREPARE A DRAINAGE PLAN AND STORAGE AREAS INCLUDING DESIGN LOCATIONS FOR DUMPSKERS.
6. START HAZARDOUS WASTE, AND CONCRETE WASHOUT AREAL AND MARK ON SITE.
7. START ROUGH GRADING AND CONSTRUCTION OF PAVEMENT AREA AND BUILDING PADS.
7. TEMPORARILY SEED AS REQUIRED.
8. BEFORE FINAL GRADING OPERATIONS, PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
9. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, FINGER DRAINS, CURBS AND GUTTERS.
10. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES AS THEY ARE INSTALLED.
11. PREPARE SITE FOR PAVING. REMOVE INLET PROTECTION NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
12. PAVE SITE.
13. INSTALL APPROPRIATE INLET PROTECTION DEVICES AS PAVING IS COMPLETED.
14. COMPLETE GRADING AND INSTALL PERMANENT SEEDING, SOIL PROTECTION AND PLANTINGS. SEE ATTACHED PLAN FOR AREAS OF PERMANENT PLANTINGS AND SOIL PROTECTION. RESTORE PERIMETER AREAS TO MATCH EXISTING CONDITIONS. SEED AS REQUIRED TO STABILIZE DISTURBED AREAS
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ONLY IF SITE IS STABILIZED.
16. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AND STABILIZED AND THE PERMIT MAY BE TERMINATED.
17. FILE NOTICE OF TERMINATION WITH SANITATION DISTRICT NO.1.

NOTE: THE GENERAL CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPs HAVE BEEN COMPLETELY INSTALLED. BMP-RELATED STEPS IN THE ABOVE SEQUENCE ARE *ITALICIZED* FOR CLARITY.

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	CONSTRUCTION LIMITS
	TEMPORARY SILT FENCE PER 1/C-402
	CONSTRUCTION EXIT PER 5/C-402
	CHECK DAM PER 7/C-402
	DANDY CURB INLET PROT PER 2/C-402
	SILT FENCE INLET PROT PER 3/C-402
	DANDY BAG INLET PROT PER 4/C-402

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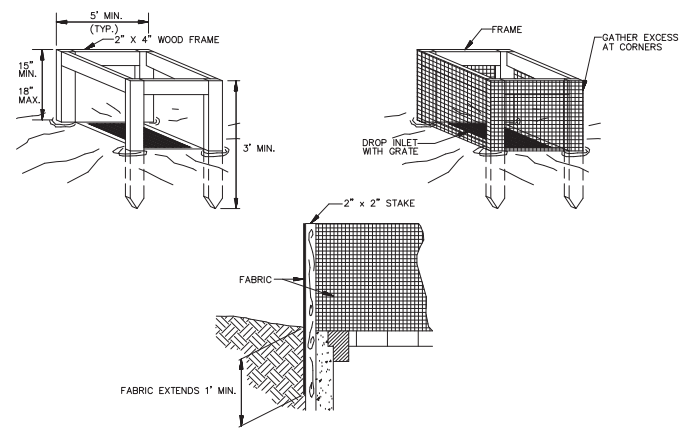
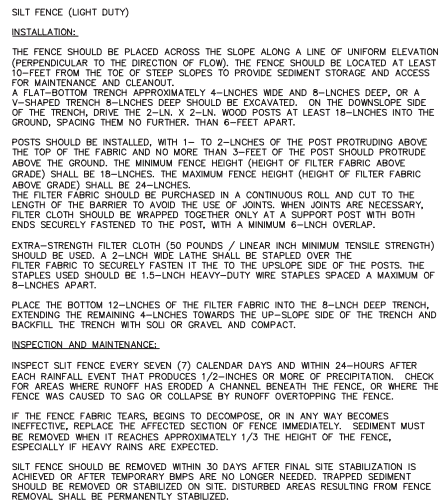
KTT PROPERTIES, LLC
130 MT. ZION ROAD
FLORENCE, KY 41042

CLIENT:

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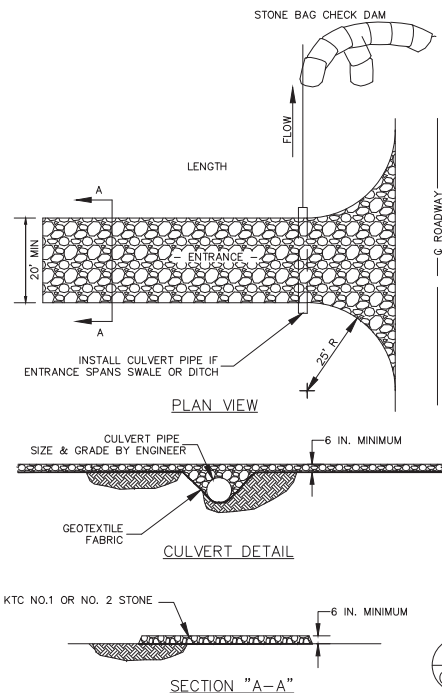
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SHEET C-401



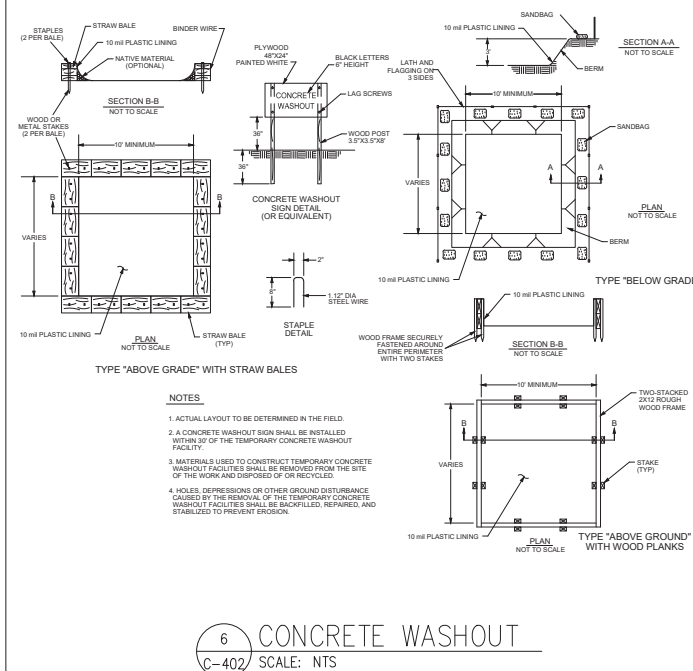
2 DANDY CURB INLET PROTECTION (IP1)
C-402 SCALE: NTS

3 SILT FENCE INLET PROTECTION (IP2)
C-402 SCALE: NTS

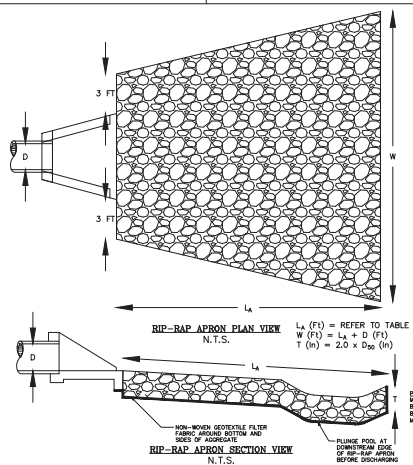


4 DANDY BAG INLET PROTECTION (IP3)
C-402 SCALE: NTS

5 CONSTRUCTION ENTRANCE DETAIL
C-402 SCALE: NTS



6 CONCRETE WASHOUT
C-402 SCALE: NTS

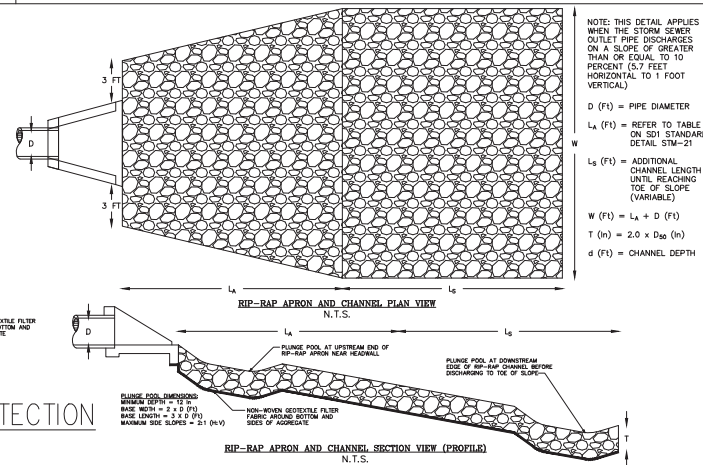
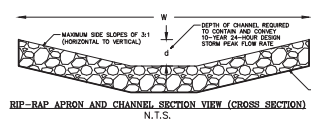


7 ROCK CHECK DAM DETAIL
C-402 SCALE: NTS

NOTES:

1. FLOW RATES LISTED IN THE TABLE SHALL BE BASED ON THE 10-YEAR 24-HOUR DESIGN FIRM PEAK FLOW RATE.
2. OUTLET EROSION PROTECTION IN THE FORM OF A RIP-RAP APRON SHALL REMAIN STRAIGHT THROUGHOUT ITS ENTIRE LENGTH.
3. ENSURE THAT RIP-RAP CONSISTS OF A WELL-GRADED MIXTURE OF STONE. LARGER STONES SHOULD BE WEDGEMAN-LIKE, WITH SUFFICIENT SMALLER SIZES TO FILL THE VOIDS BETWEEN THE STONES. RIP-RAP SHALL BE AVAILABLE IN SHADES NOT RANDED.
4. THE DIAMETER OF THE LARGEST STONE SIZE SHALL BE NO GREATER THAN 1.5 TIMES THE D_{50} SIZE.
5. THE MINIMUM THICKNESS OF RIP-RAP SHALL BE 2.0 TIMES THE D_{50} SIZE.
6. A NON-WOVEN GEOTEXTILE FILTER FABRIC SHALL BE INSTALLED ON THE BOTTOM AND SIDES OF THE RIP-RAP TO PREVENT EROSION.

8 STANDARD/STEEP SLOPE OUTLET EROSION PROTECTION
C-402 SCALE: NTS



RIP-RAP APRON AND CHANNEL SECTION VIEW (PROFILE
N.T.S.

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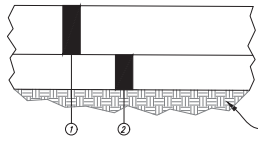
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CAMPBELL COUNTY, KENTUCKY

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PROJECT:		CLIENT:	
JOB LOG			
DATE		ITEM	
DRAWN BY: BCC	SEAL 		
CHECKED BY: JDM			
PROJECT MANAGER: JDM			
PROJECT NO. 23-119			
SCALE		AS NOTED	
DATE		03/08/2024	
EROSION & SEDIMENT CONTROL DETAILS			
SHEET C-402			

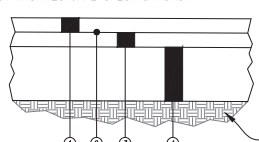
PAVEMENT SECTION NOTES:

- PAVEMENT DESIGN SHOWN ON THESE PLANS IS FOR GENERAL INFORMATIONAL PURPOSES ONLY. ACTUAL PAVEMENT DESIGN TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER BASED UPON SUBGRADE CONDITIONS ENCOUNTERED AT THE SITE AND ANY REQUIRED STABILIZATION AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- ITEM NUMBERS REFER TO LATEST EDITION OF THE KENTUCKY TRANSPORTATION CABINET CONSTRUCTION MATERIALS & SPECIFICATIONS.
- EXPANSION AND CONTROL JOINTS PER ARCHITECTURAL SPECIFICATIONS.



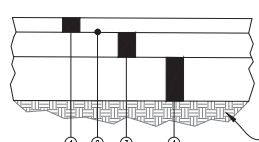
- ① Item 500 8" PCC (Portland Cement Concrete) Pavement
- ② Item 302 6" Aggregate Base

1 HEAVY DUTY CONCRETE PAVEMENT C-500 SCALE: NTS



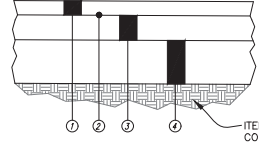
- ① Item 400 1.5" Asphalt Concrete Surface Course
- ② Item 406 Tack Coat
- ③ Item 400 2.5" Asphalt Concrete Intermediate Course
- ④ Item 302 6" Aggregate Base

2 LIGHT DUTY PAVEMENT SECTION C-500 SCALE: NTS



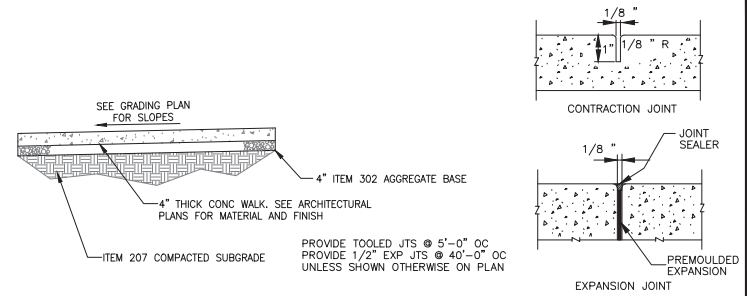
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3 HEAVY DUTY PAVEMENT SECTION C-500 SCALE: NTS

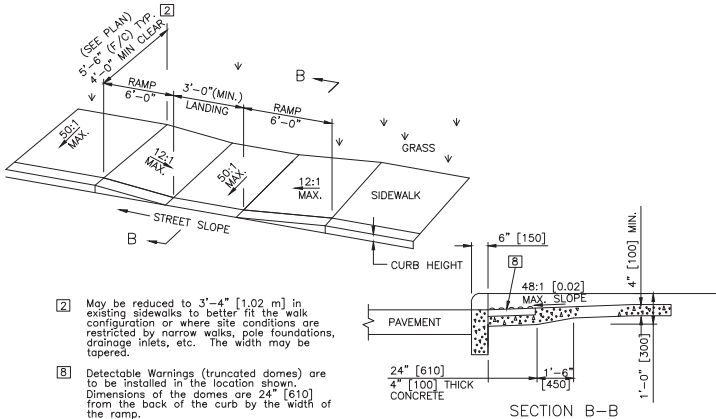


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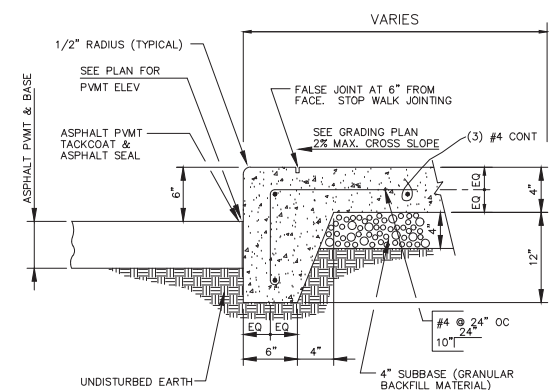
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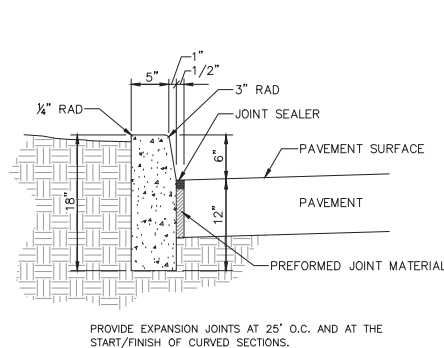
4 CONC WALK AND PATIO AREAS C-500 SCALE: NTS



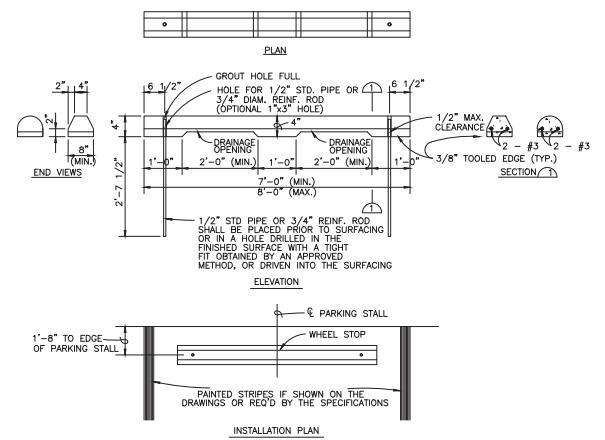
5 ADA CURB RAMP C-500 SCALE: NTS



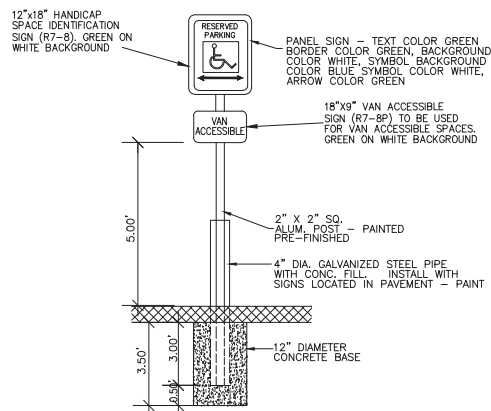
6 INTEGRAL WALK & CURB C-500 SCALE: NTS



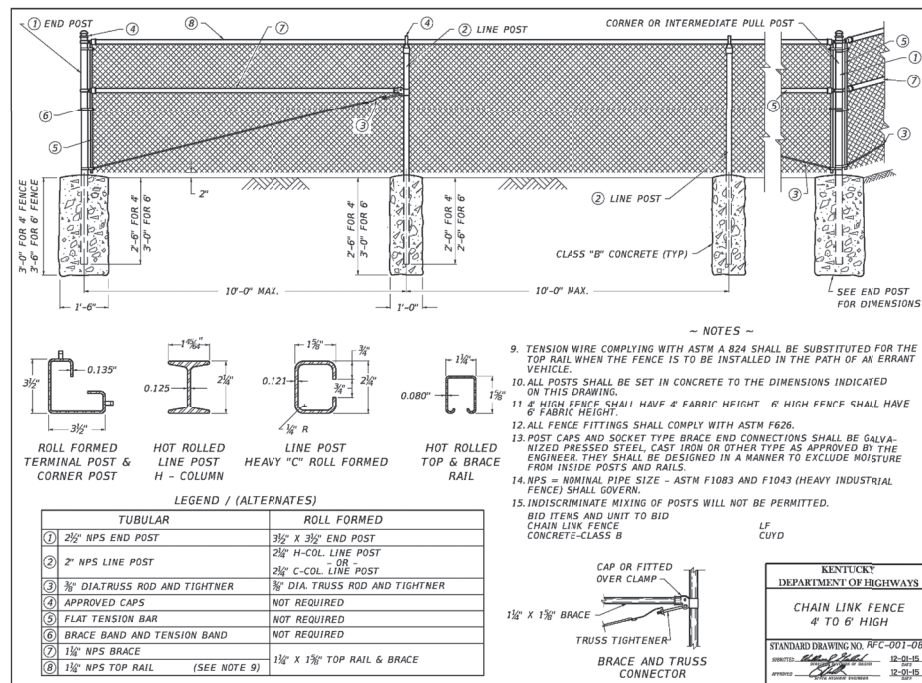
7 CONCRETE HEADER CURB C-500 SCALE: NTS



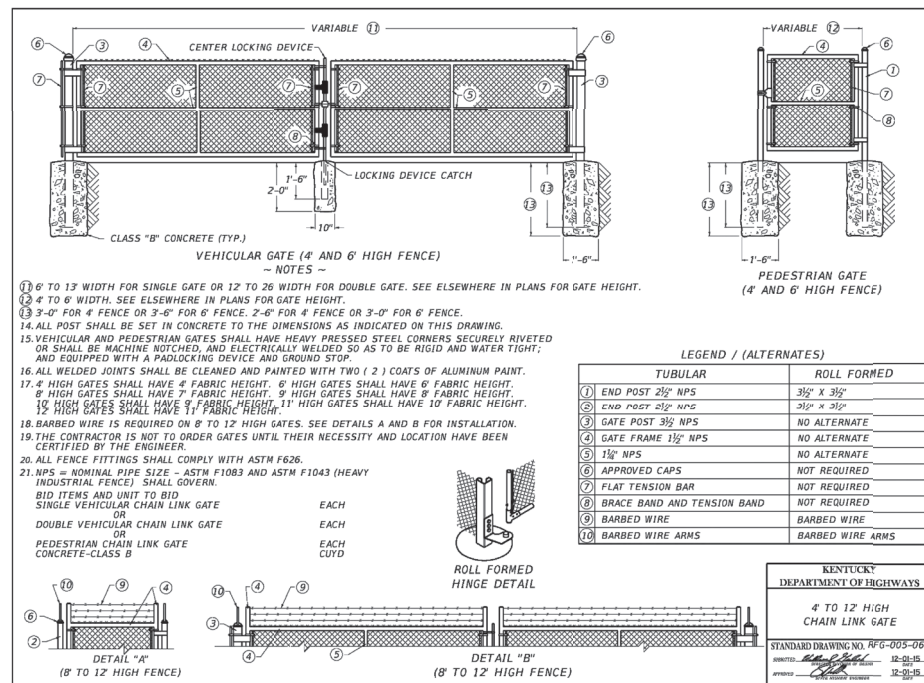
8 PRECAST CONCRETE WHEEL STOP C-500 SCALE: NTS



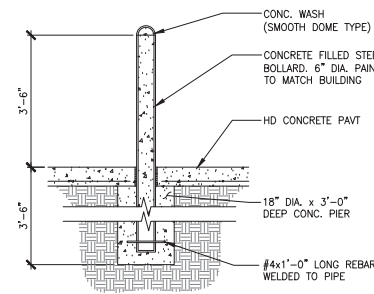
9 HANDICAP SIGN DETAIL C-500 SCALE: NTS



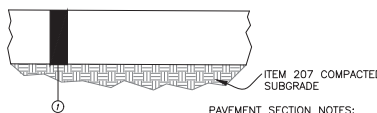
11 CHAIN LINK FENCE C-500 SCALE: NTS



12 CHAIN LINK GATE C-500 SCALE: NTS



10 CONCRETE BOLLARD C-500 SCALE: NTS



13 GRAVEL AREA C-500 SCALE: NTS

PAVEMENT SECTION NOTES:

- PAVEMENT DESIGN SHOWN ON THESE PLANS IS FOR GENERAL INFORMATIONAL PURPOSES ONLY. ACTUAL PAVEMENT DESIGN TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER BASED UPON SUBGRADE CONDITIONS ENCOUNTERED AT THE SITE AND ANY REQUIRED STABILIZATION AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- ITEM NUMBERS REFER TO LATEST EDITION OF THE KENTUCKY TRANSPORTATION CABINET CONSTRUCTION MATERIALS & SPECIFICATIONS.

REVISIONS	DATE	#	ITEM

CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOORE ROAD
WILDER, KENTUCKY 41071
PHONE (859) 581-9800

WEBSITE: <http://www.cardinalengineering.net>

CIVIL SITE PLANS

ALEXANDRIA KUBOTA DEALERSHIP
POPLAR RIDGE ROAD, CITY OF ALEXANDRIA
CAMPELL COUNTY, KENTUCKY

CLIENT:

KTT PROPERTIES, LLC
130 MT. ZION ROAD
FLORENCE, KY 41042

JOB LOG	DATE	ITEM

DRAWN BY: BCC

CHECKED BY: JDM

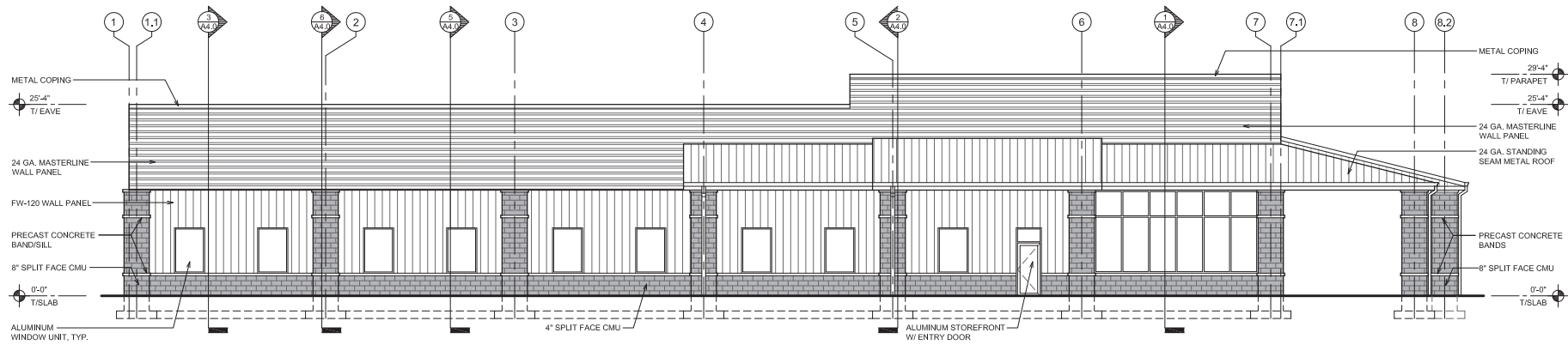
PROJECT MANAGER: JDM

SEAL

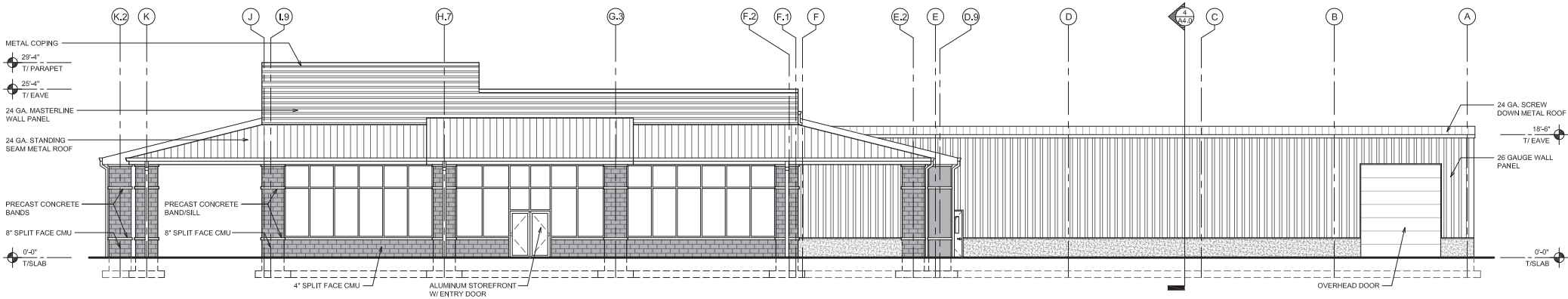
PROJECT NO. 23-119
SCALE AS NOTED
DATE 03/08/2024

SITE DETAILS

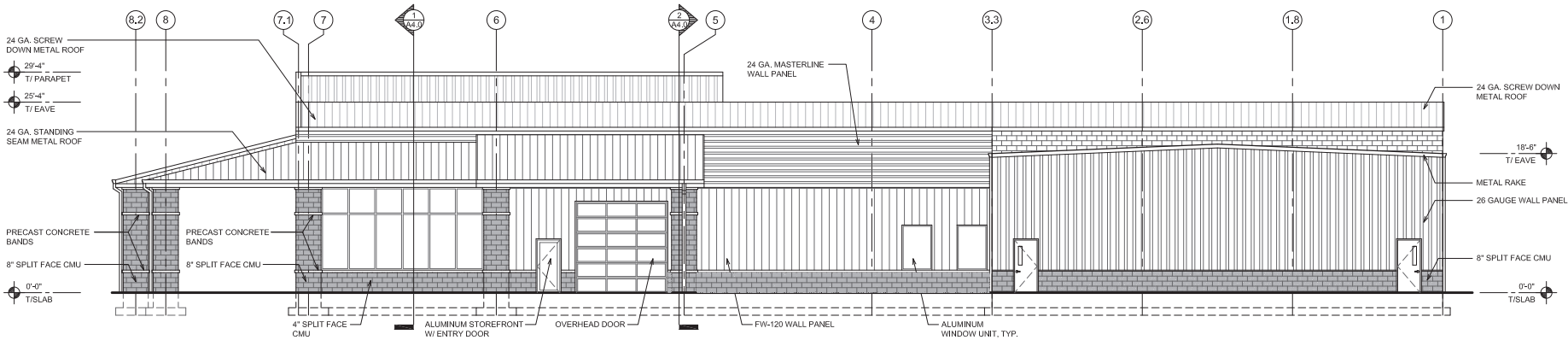
SHEET **C-500**



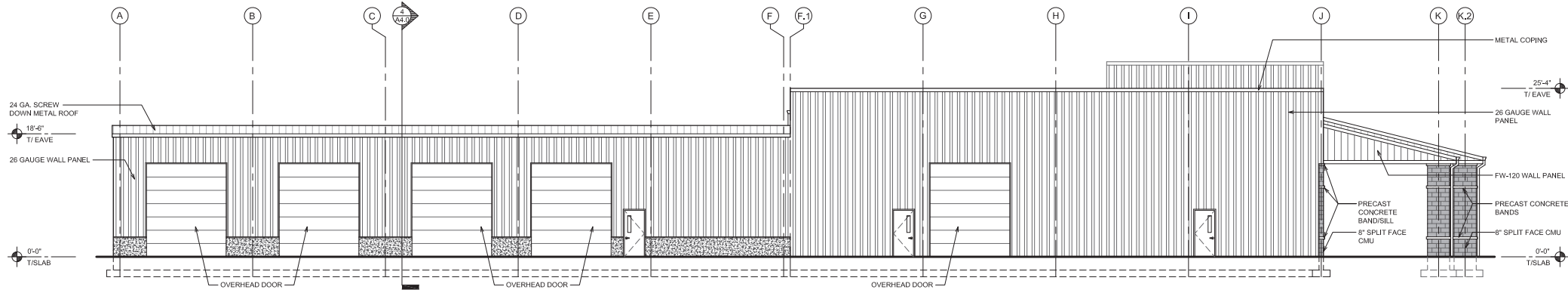
1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



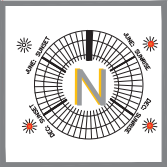
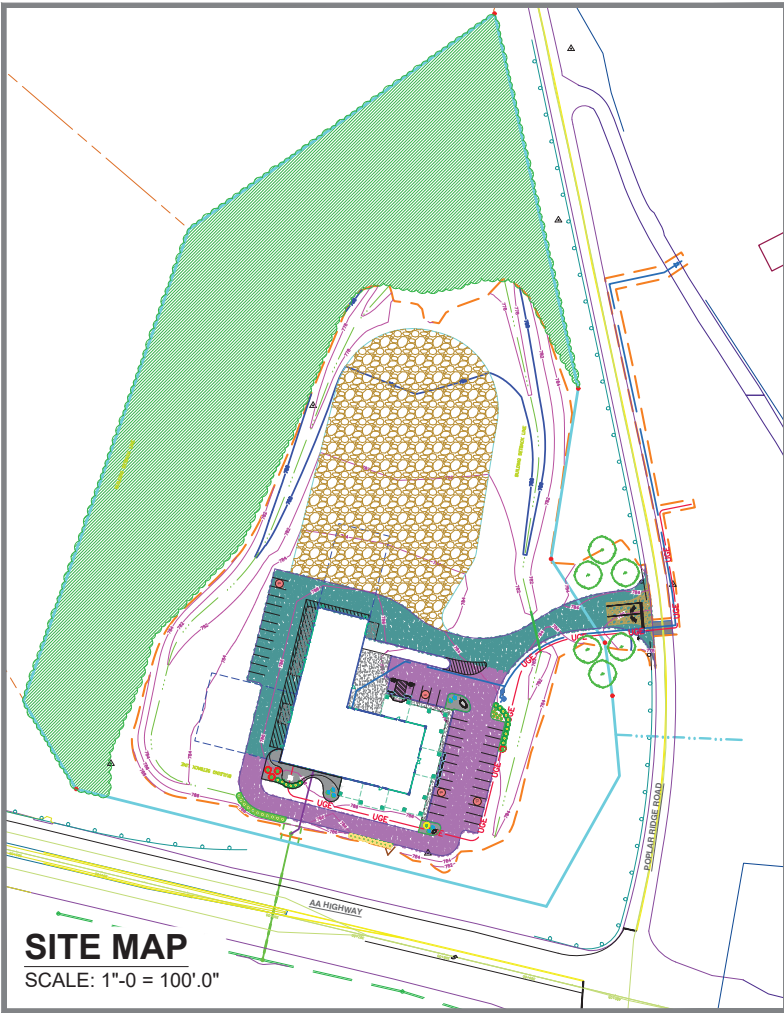
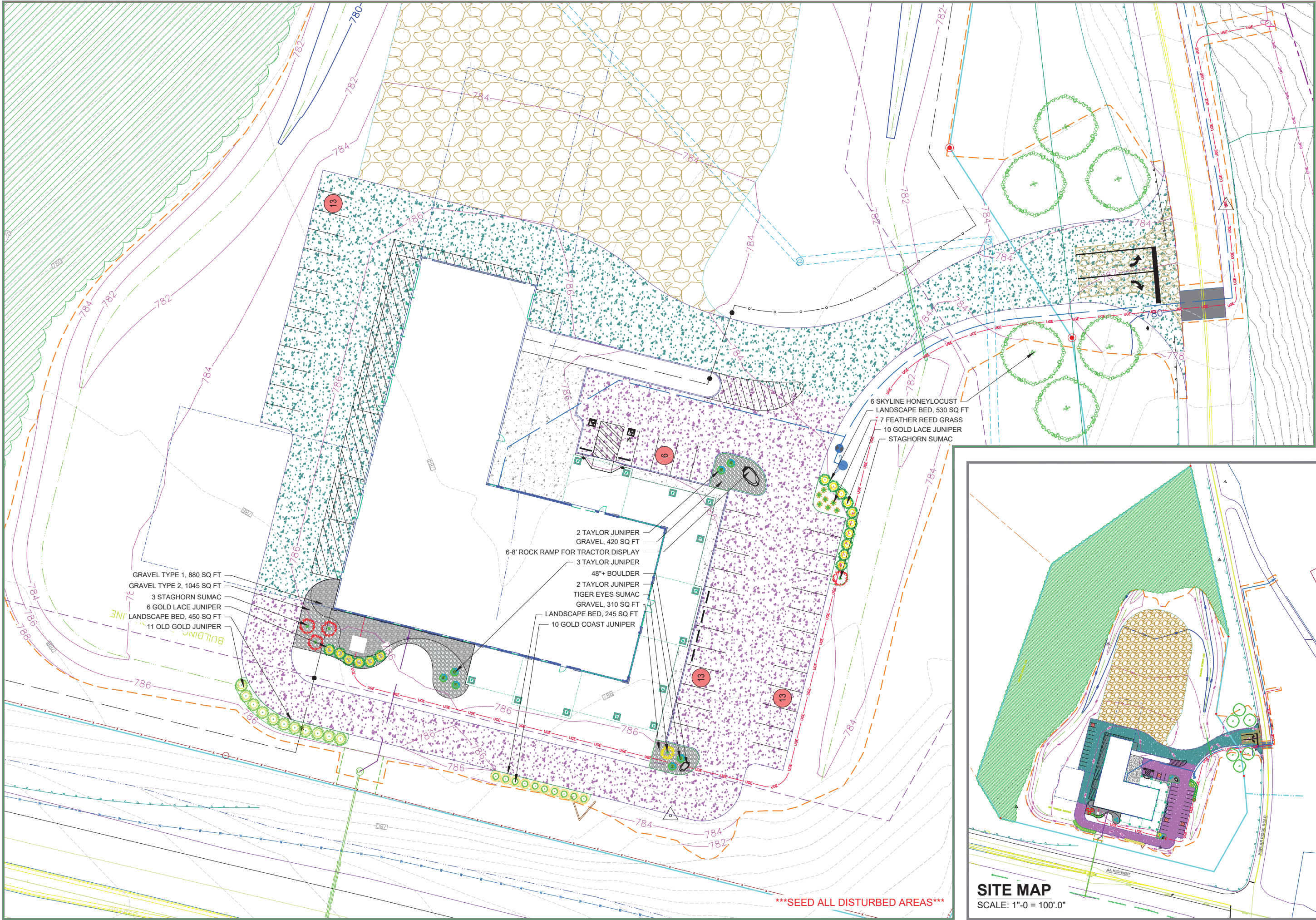
2 EAST ELEVATION
SCALE: 1/8" = 1'-0"



3 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



4 WEST ELEVATION
SCALE: 1/8" = 1'-0"



GAYLE A. FRAZER
REGISTERED LANDSCAPE ARCHITECT
KENTUCKY LANDSCAPE ARCHITECT NO. 704

KUBOTA
POPLAR RIDGE ROAD
ALEXANDRIA, KY



LANDSCAPE PLAN

SCALE
1"=0 = 20'-0"

CURRENT:
3/13/2024
REVISED:
3/13/2024



L1

PLOT DATE: 3/13/2024 9:47 AM

GENERAL PLANTING NOTES

THE CONTRACTOR SHALL:

- 1.CONTACT ALL UTILITY COMPANIES AND HAVE ALL LINES MARKED PRIOR TO COMMENCING WORK.
- 2.PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1, "AMERICAN STANDARD FOR NURSERY STOCK."
- 3.FURNISH NURSERY-GROWN TREES AND SHRUBS COMPLYING WITH ANSI Z60.1, WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
- 4.PROVIDE TREES AND SHRUBS OF SIZES AND GRADES COMPLYING WITH ANSI Z60.1 FOR TYPE OF TREE AND SHRUBS REQUIRED. TREES AND SHRUBS OF A LARGER SIZE MAY BE USED, IF ACCEPTABLE TO LANDSCAPE ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.
- 5.IF FORMER AIRBORNE OR CONSECUTIVE ORDER OF TREES OR SHRUBS IS SHOWN, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER LABEL TO ASSURE SYMMETRY IN PLANTING.
- 6.LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.
- 7.NOTIFY LANDSCAPE ARCHITECT IF SUBSOIL CONDITIONS SHOW EVIDENCE OF UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PITS.
- 8.NOTIFY LANDSCAPE ARCHITECT IF A LIGHT FIXTURE OR OTHER UTILITY HAS BEEN BUILT WITHIN 4" OF TREE TRUNK.
- 9.REFER TO TYPICAL PLANTING DETAILS FOR PLANT INSTALLATION.
- 10.KEEP ADJACENT PAVINGS AND CONSTRUCTION CLEAN AND MAINTAIN WORK AREA IN AN ORDERLY CONDITION FOR THE DURATION OF THE PROJECT.
- 11.PROTECT EXTERIOR PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS OR OTHER OPERATIONS BY OTHER CONTRACTORS BEING PERFORMED ON THE SITE. PROTECTION IS TO BE MAINTAINED FOR THE DURATION OF INSTALLATION AND MAINTENANCE PERIODS.
- 12.TREAT, REPAIR, OR REPLACE DAMAGED EXTERIOR PLANTING.
- 13.REMOVE SURPLUS SOIL/WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
- 14.PROVIDE OWNER WITH A WRITTEN WARRANTY FOR LABOR AND MATERIALS.
- 15.PROVIDE AND INSTALL ANY AND ALL LANDSCAPE PROTECTION REQUIRED FOR DEER RUT SEASON.

THE CONTACTOR'S WARRANTY SHALL INCLUDE:

- 1.A WARRANTY FOR EXTERIOR PLANTS AGAINST DEFECTS, INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLIGENCE OR ABUSE BY OWNER, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL.
- 2.SPECIFIC WARRANTY PERIODS FOR TREES AND SHRUBS. SEED INSTALLATION, GROUND COVERS, AND OTHER EXTERIOR PLANTS.
- 3.THE SERVICES OF MAINTAINING UPRIGHT POSITION OF EXTERIOR PLANTINGS DURING WARRANTY PERIOD, IMMEDIATE REMOVAL OF DEAD EXTERIOR PLANTS AND IMMEDIATE REPLACEMENT (UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON,) AND THE REPLACEMENT OF EXTERIOR PLANTS MORE THAN 25% DEAD OR IN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.

*THE ABOVE WARRANTY SHALL BE LIMITED TO ONE REPLACEMENT OF EACH EXTERIOR PLANT, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE OF CONTRACTOR TO COMPLY WITH REQUIREMENTS.

NOTE: LANDSCAPE ARCHITECT MAY OBSERVE TREES AND SHRUBS EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. LANDSCAPE ARCHITECT RETAINS RIGHT TO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEMS, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE.

PREPARATION AND PLANTING

- TOPSOIL SHALL BE ASTM D 5268, PH RANGE OF 5.5 TO 7, A MINIMUM OF 4% ORGANIC MATERIAL CONTENT; FREE OF STONES 1 INCH OR LARGER IN ANY DIMENSION AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH.
- COMPOST SHALL BE WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, PH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND PROJECT MANAGEMENT SPECIFICATIONS." IN THE EVENT OF A CONFLICT, THE MORE STRINGENT STANDARD SHALL APPLY.

IN THE EVENT OF A CONFLICT BETWEEN THE LANDSCAPE PLAN AND THE PLANT KEY, THE LANDSCAPE PLAN PREVAILS. CONTACT THE LANDSCAPE ARCHITECT FOR CLARIFICATION.

ALL STREET TREES SHALL BE CENTERED BETWEEN THE WALK AND CURB OF THE TREE LAWN EXCEPT WHERE PROHIBITED BY UTILITIES.

Type of Plants Normal Planting Dates

Non-Container Grown, Deciduous: October 1 to April 1

Non-Container Grown, Other: October 1 to May 1

Container Grown:Year-Round if suitable precautions are taken to protect the stock from extremes of moisture and temperature. If there is doubt, obtain a variance or a performance bond.

MULCH TO BE FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, GRADE A MATERIALS APPLY TO 100 PERCENT OPACITY TO LAST 7 MONTHS WITHOUT ANY ADDITIONAL TOP DRESSING. DEPTH WILL VARY DEPENDING ON PRODUCT INSTALLED. TYPICALLY 3"DEPTH

PROVIDE CLIENT OR CLIENT REPRESENTATIVE WITH PRICE AND A SAMPLE OF THE FOLLOWING OPTIONS

- LONG LASTING DYED BLACK MULCH DOUBLE SHREDDED
- DYED BROWN MULCH DOUBLE SHREDDED
- DOUBLE SHREDDED HARDWOOD BLEND
- CYPRESS MULCH
- MINI PINE NUGGET
- MINI PINE FINES
- PINE STRAW
- PREMIUM WOOD CHIP
- WOOD CHIP

- TO 55 % BY WEIGHT; 100 % PASSING THROUGH ONE INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISEMENS PER METER; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS.
- FERTILIZER TO BE SLOW-RELEASE, GRANULAR OR PELLETED CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHORUS, AND POTASSIUM IN AMOUNTS RECOMMENDED FOR TYPE OF PLANT BEING GROWN.
 - LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK. IF A PLANT IS SHOWN ON THE PLAN WITHIN THREE FEET OF AN UNDERGROUND UTILITY, NOTIFY LANDSCAPE ARCHITECT FOR ADJUSTMENT INSTRUCTIONS.
 - PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES, AND LAWNS AND EXISTING EXTERIOR PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.
 - PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
 - LAY OUT INDIVIDUAL TREE AND SHRUB LOCATIONS AND AREAS FOR MULTIPLE EXTERIOR PLANTINGS. STAKE LOCATIONS, OUTLINE AREAS, ADJUST LOCATIONS WHEN REQUESTED, AND OBTAIN LANDSCAPE ARCHITECT'S ACCEPTANCE OF LAYOUT BEFORE PLANTING. MAKE MINOR ADJUSTMENTS AS REQUIRED.
 - TREES SHALL BE SITED IN FIELD BY LANDSCAPE ARCHITECT WHERE NOTED ON PLANS.

PLANTING BEDS ARE TO BE PREPARED AS FOLLOWS:

- LOOSEN SUBGRADE TO A DEPTH OF 4 – 6". REMOVE STONES LARGER THAN 1" IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
- SPREAD COMPOST AT A DEPTH OF 4 – 6" AND TILL WITH LOOSENED SUBGRADE, MIXING THOROUGHLY.
- GRADE PLANTING BEDS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
- EDGE BEDS 3 – 4" DEEP (SEE DETAIL).
- ADDITIONAL PREPARATION FOR PERENNIAL BEDS: PROVIDE A TOTAL OF 6" OF COMPOST AND 6" UNSHREDDED TOPSOIL, THOROUGHLY BLEND MIXTURE. DO NOT COMPACT MULCH WITH MINI-PINE NUGGETS TO 100% COVERAGE. LANDSCAPE ARCHITECT TO OBSERVE AND APPROVE.
- ALL PLANTING BEDS AND INDIVIDUAL TREES AND SHRUBS ARE TO BE MULCHED AT A DEPTH OF 3". APPLY PRE-EMERGENT HERBICIDE BEFORE MULCHING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

*ALL PLANTS ARE TO BE INSTALLED WITH ORGANIC BIO-TONE STARTER (A MYCORRHIZAL FUNGI STIMULANT) AND TRICHODERMA ABSORBENT GEL, PER MANUFACTURERS SPECIFICATIONS ON INSTALLATION MEANS AND METHODS AND APPLICATION RATES.

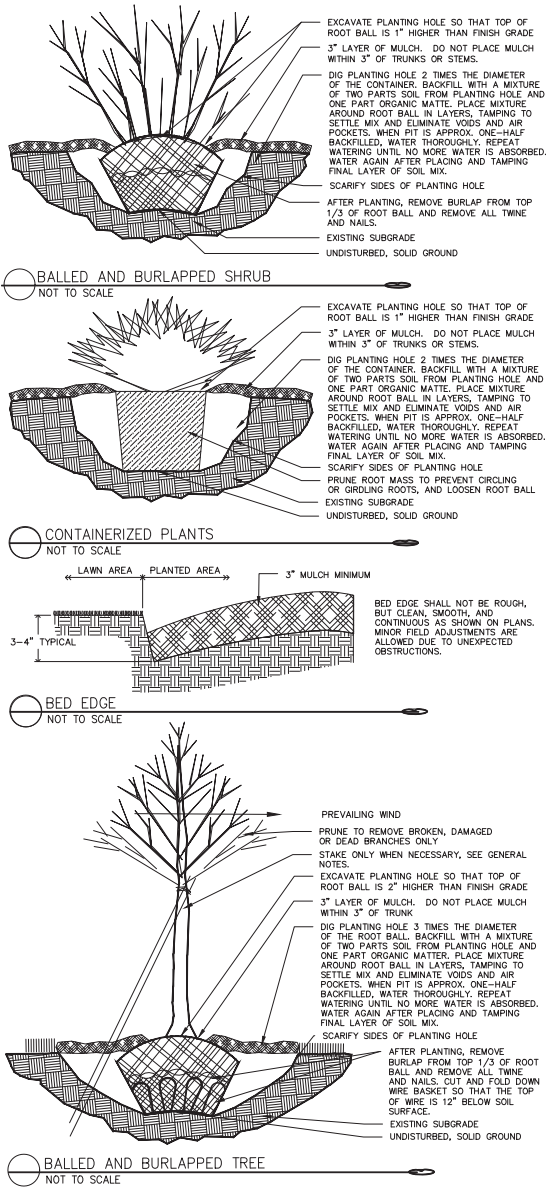
*FOR ALL PLANT MATERIALS, PRUNE TO REMOVE DEAD OR INJURED BRANCHES ONLY, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT.

THE SEED CONTRACTOR SHALL:

- 1.PERFORM A SOIL TEST FOR SEED NEEDS AND FERTILIZE AS REQUIRED FOR SUCCESSFUL GERMINATION.
- 2.TILL AREA TO BE SEEDDED TO A DEPTH OF 4". RAKE TILLED AREA TO REMOVE DEBRIS 1" OR LARGER IN SIZE THAT HAS BEEN BROUGHT TO THE SURFACE DURING TILLING.
- 3.SEED WITH APPROPRIATE MIXTURE AT THE MANUFACTURER'S WRITTEN RECOMMENDED RATE.
- 4.RAKE SEED LIGHTLY INTO TOP OF TOPSOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY.
- 5.PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 1:6 AND/OR SWALES/ AREAS OF HIGHER WATER FLOW WITH EROSION-CONTROL FIBER MESH INSTALLED AND STAPLED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. *SEED CONTRACTOR SHALL IDENTIFY THESE POTENTIAL AREAS OF EROSION AND PROVIDE MEANS TO MITIGATE SUCH.
- 6.PROTECT ALL OTHER SEEDED AREAS BY SPREADING STRAW MULCH AT A UNIFORM RATE OF 2 TONS PER ACRE TO FORM A CONTINUOUS BLANKET 1-1/2" IN LOOSE DEPTH OVER
- 7.SEED INSPECTION SHALL BE PERFORMED TO WARRANT A 90% GERMINATION, YIELDING 80% OPACITY WITHIN 90 DAYS OR INSTALLATION.
- 8.SEED ONLY AS THE WEATHER AND TEMPERATURE ALLOWS FOR SUCCESS.

PLANT KEY			
Count	SIZE	COMMON	LATIN
6	2 in	Skyline Honeylocust	Gleditsia triacanthos inermis 'Skyline'
4	5 gal	Staghorn Sumac	Rhus typhina
1	5 gal	Tiger Eyes Cutleaf Sumac	Rhus typhina 'Tiger Eyes'
10	3 gal	Gold Coast Juniper	Juniperus chinensis 'Gold Coast'
16	3 gal	Gold Lace Juniper	Juniperus chinensis 'Gold Lace'
11	3 gal	Old Gold Juniper	Juniperus chinensis 'Old Gold'
7	6 ft	Taylor Juniper	Juniperus virginiana 'Taylor'
7	3 gal	Karl Foerster Feather Reed Grass	Calamagrostis acutiflora

LANDSCAPE CONTRACTOR MUST PERFORM A SOIL TEST TO DETERMINE FERTILIZATION NEEDS AND OPTIMAL GRASS SEED BLEND



ABSOLUTELY NO PLANT SUBSTITUTIONS WITHOUT WRITTEN PERMISSION OF THE MUNICIPALITY ZONING STAFF, CLIENT REPRESENTATIVE, AND/OR LANDSCAPE ARCHITECT (GAYLE A. FRAZER)

GAYLE A. FRAZER
REGISTERED LANDSCAPE ARCHITECT

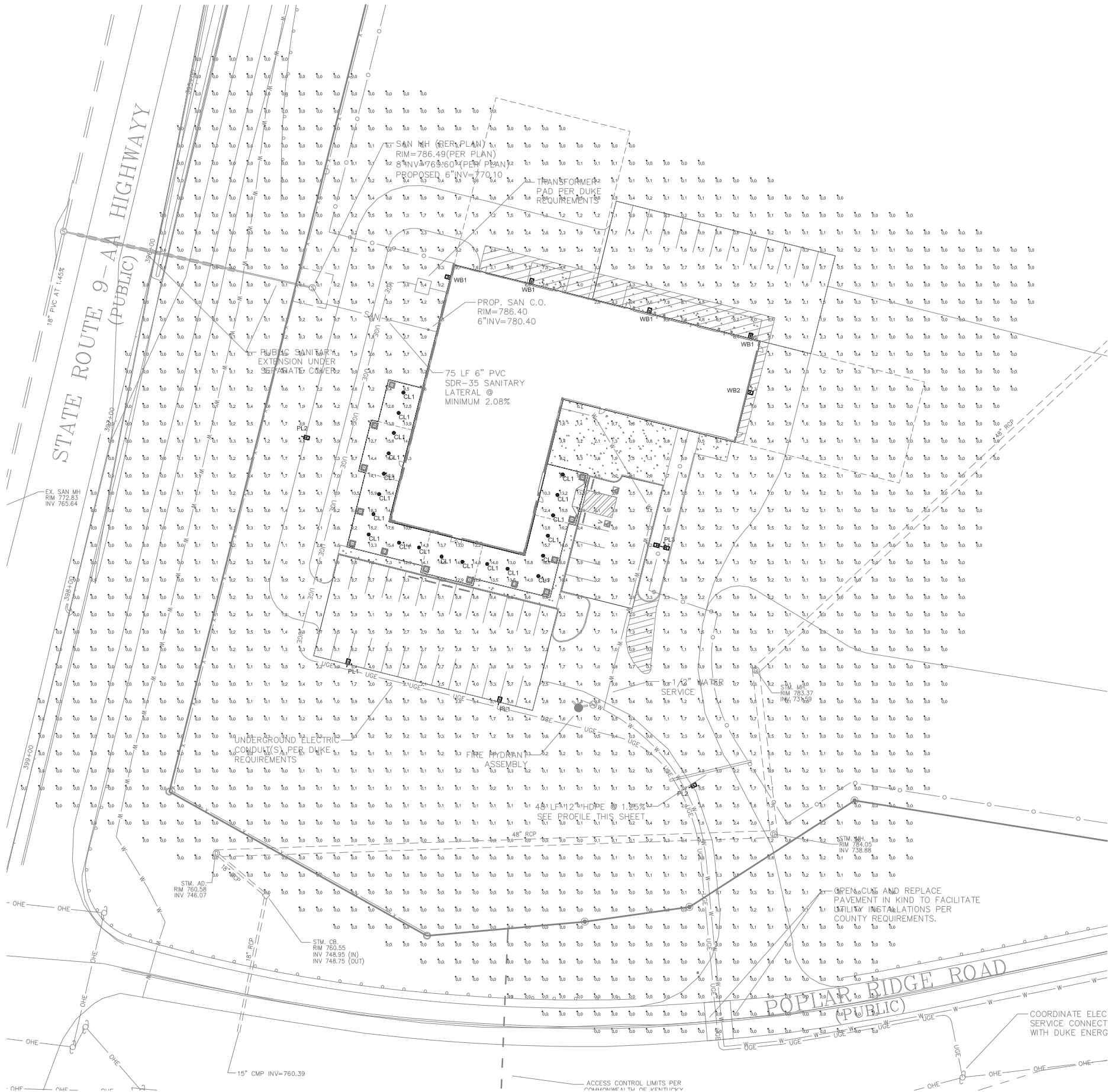
KUBOTA
POPLAR RIDGE ROAD
ALEXANDRIA, KY

SPECIFICATIONS AND NOTES

3/13/2024

REVISIONS:

L2



Luminaire Schedule						
Project: Kubota - Site						
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens Watts Total Watts
	20	CL1	Single	Lithonia VCPG LED P5 40K T5W MVOLT SRM FINISH	0.903	10884 82.14 1642.8
	2	PL1	Single	Lithonia RSXT P4 40K R4 MVOLT SPA FINISH / SSS 20 4C DM18AS FINISH	0.903	16673 133.14 266.28
	2	PL2	Single	Lithonia RSXT P4 40K R3 MVOLT SPA FINISH / SSS 20 4C DM18AS FINISH	0.903	16359 133.14 266.28
	1	PL3	Back-Back	Lithonia RSXT P4 40K R3 MVOLT SPA FINISH / SSS 20 4C DM28AS FINISH	0.903	16359 133.14 266.28
	4	WB1	Single	Lithonia RSXT P4 40K R4 MVOLT WBA FINISH	0.903	16673 133.14 532.56
	1	WB2	Single	Lithonia RSXT P4 40K R3 MVOLT WBA FINISH	0.903	16359 133.14 133.14

Calculation Summary						
Project: Kubota - Site						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
CalcType - Overall	Illuminance	Fc	1.22	17.8	0.0	N/A
CalcType - Canopy	Illuminance	Fc	13.85	17.8	9.4	1.47
CalcType - East Parking Lot	Illuminance	Fc	4.31	8.1	2.5	1.72
CalcType - North Parking Lot	Illuminance	Fc	3.19	8.6	0.4	7.58
CalcType - South Parking Lot	Illuminance	Fc	3.96	8.4	2.1	1.89

NOTES:
TYPE CL1 - FIXTURES ARE MOUNTED AT 14'-0" A.F.G.
TYPE PL1, PL2, & PL3 - FIXTURES ARE MOUNTED AT 22'-6" A.F.G. (24'-0" POLE & 2'-6" BASE)
TYPE WP1 & WP2 - FIXTURES ARE MOUNTED ON BLDG AT 18'-0" A.F.G.

IF USING PRODUCTS WITH SELECTABLE KELVIN TEMPERATURES AND/OR ADJUSTABLE LUMEN PACKAGES, PLEASE ENSURE THOSE FIXTURES ARE SET IN THE FIELD TO THE DESIGN PROVIDED ON THIS DRAWING

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Design Criteria			
DESIGN FILE: Kubota_Site040324.agi		FIXTURE LAYOUT IS BASED ON A 0.80 LIGHT LOSS FACTOR AND REFLECTANCE VALUES UNLESS NOTED OTHERWISE.	
MINIMUM: MAXIMUM: AVERAGE:	AVE./MIN: MAX./AVE: MAX./MIN:	INTERIOR LIGHTING LEVELS ARE SHOWN AT 0'-0" A.F.G. UNLESS NOTED OTHERWISE	EXTERIOR LIGHTING LEVELS ARE SHOWN AT 0'-0" A.F.G. UNLESS NOTED OTHERWISE



King Lighting, Inc.
700 West Pete Rose Way - Suite 215
Cincinnati, OH 45203
(859) 261-5511 Fax (859) 261-2228
www.king-lighting.com

Lighting Calculations for
Kubota - Site
Firenze, KY

LIGHTING SITE PLAN	SCALE 1"=30'-0"	DESIGNER JJ	CHECKED JJ	DATE 04/03/24	SHEET S1
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SANITARY SEWER IMPROVEMENTS CITY OF ALEXANDRIA CAMPBELL COUNTY, KENTUCKY

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CARDINAL

**ENGINEERING
AND SURVEYING**
ONE MOOCK ROAD
MILDER, KENTUCKY 41071
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WEBSITE: <http://www.cardinalengineering.net>

ZONING:
ALEXANDRIA PLANNING
AND ZONING COMMISSION
8236 WEST MAIN STREET
ALEXANDRIA, KENTUCKY 41001
(859) 635-4125

WATER:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018
(859) 578-9898

SEWER:
SANITATION DISTRICT NO. 1
1045 EATON DRIVE
FORT WRIGHT, KENTUCKY 41011
(859) 578-7450

ELECTRIC:
DUKE ENERGY
1262 COX ROAD
ERLANGER, KENTUCKY 41018
(513) 287-3589

GAS:
DUKE ENERGY
1262 COX ROAD
ERLANGER, KENTUCKY 41018
(859) 287-5408

TELEPHONE:
CINCINNATI BELL TELEPHONE COMPANY
201 EAST FOURTH STREET
103-1175
CINCINNATI, OHIO 45202
(513) 566-7185

CABLE TELEVISION:
SPECTRUM COMMUNICATIONS
7906 DIXIE HIGHWAY
FLORENCE, KENTUCKY 41076
(888) 735-0300

OTHER UTILITIES:
UNITED UTILITIES PROTECTION
(800) 752-6007

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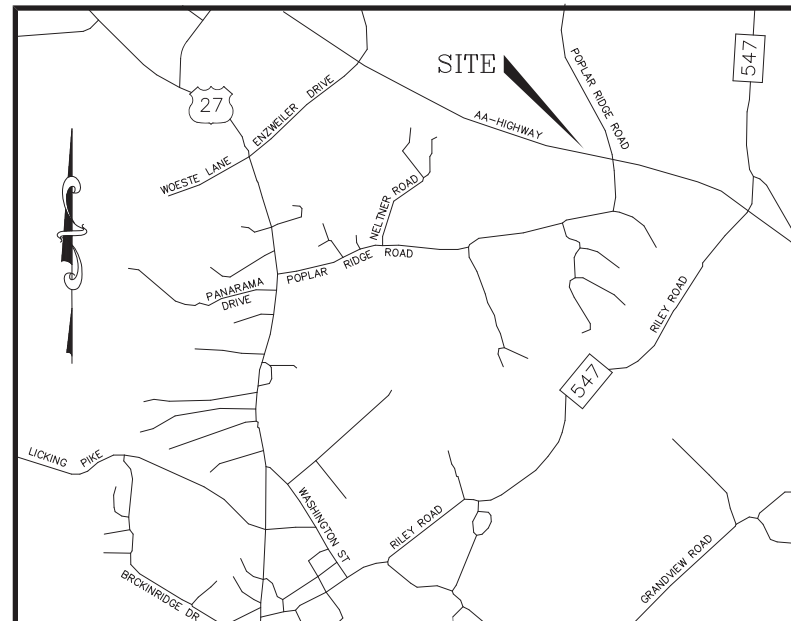
DRAWN BY:	SEAL
JKT	
CHECKED BY:	
JDM	
PROJECT MANAGER:	
JDM	

PROJECT NO. 23-119	
SCALE	AS NOTED
DATE	09-22-23

TITLE/VICINITY MAP

SHEET C-000

LEGEND	
—DHE	OVERHEAD ELECTRIC
—UGE	UNDERGROUND ELECTRIC
	ELECTRIC BOX
	ELECTRIC MANHOLE
	ANCHOR POLE
	LIGHT POLE
	UTILITY POLE
	GROUND LIGHT
—DTE	OVERHEAD TELEPHONE
—UTE	UNDERGROUND TELEPHONE
	TELEPHONE BOX
	TELEPHONE MANHOLE
	BOLLARDS
	SIGN
	MAIL BOX
—W — W —	WATER LINE
	WATER VALVE
	FIRE HYDRANT
	WATER METER
	WATER VALVE BOX
	WATER VALVE MANHOLE
	POST INDICATOR VALVE
—G — G —	GAS LINE
	GAS METER
	GAS VALVE
	GAS VALVE BOX
	UTILITY MANHOLE
	SEWER MANHOLE
	STORM MANHOLE
...	DITCH OR CREEK
	GUARDRAIL
—X — X —	FENCE LINE
—XX — XX —	R/W FENCE LINE



VICINITY MAP
N.T.S.

C-000 - TITLE/VICINITY MAP
C-100 - SPECIFICATIONS & DETAILS
C-200 - PLAN AND PROFILE

GENERAL NOTES:

JASON BURLAGE OF SD1 IS TO BE CONTACTED AT 859-578-6892 AT LEAST 72 HOURS PRIOR TO ALL LAND DISTURBING ACTIVITIES.

DOUG MALONE OF SD1 IS TO BE CONTACTED AT 859-578-6749 AT LEAST 72 HOURS PRIOR TO INSTALLATION OF THE PUBLIC SANITARY SEWER.

BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL REVISE AND PROVIDE ADDITIONAL BMP'S AS DEEMED NECESSARY PER SECTION 700 OF THE SANITATION DISTRICT NO. 1'S RULES AND REGULATIONS.


BASIS OF ELEVATION:
 THE STATION IS A BRONZE NKAPC CONTROL MARK STAMPED
 "NK1244Z 2002" SET ON A 12" DIAMETER 3' DEEP CONCRETE
 POST FLUSH WITH THE GROUND. ELEV. 623.80
 STATION IS LOCATED 1.25 MI. SOUTH OF CAMP SPRINGS, EAST OF
 KY-9 (AA HWY.). FROM THE JUNCTION OF NB KY-9 (AA HWY)
 WITH THE KY-9 OFF/ON RAMP TO/FROM EB KY-547
 (ALEXANDRIA-4 MILE ROAD) GO 0.25 MI. NW ON KY-9 TO THE
 STATION ON THE RIGHT.



NOTE:
UNDERGROUND UTILITIES ARE SHOWN BASED
ON ABOVE GROUND OBSERVATIONS AND
CONSTRUCTION PLANS PROVIDED TO
CARDINAL ENGINEERING AND MAY NOT BE
COMPLETE OR ACCURATE.

CONTRACTOR TO VERIFY LOCATION AND USE
CAUTION WHEN EXCAVATING IN AREAS OF
SUSPECTED BURIED UTILITIES.

1. WHEN SPECIFIED ON THE PLANS, SANITARY SEWER PIPE SHALL BE PVC, SDR-35 OR SDR-26, WITH GASKETED JOINTS THAT CONFORM TO ASTM D-3034.
2. FLEXIBLE THERMOPLASTIC SEWER PIPE INSTALLATION FOR GRAVITY SEWERS SHALL CONFORM TO ASTM D-2321, LATEST REVISION.
3. WHERE PRECAST MANHOLE SECTIONS ARE REQUIRED, THEY SHALL CONFORM TO ASTM C478, WITH SUCH ADDITIONAL REQUIREMENTS AS MAY BE SET FORTH ON THE PLANS, DETAILS OR SPECIAL PROVISIONS. JOINTS BETWEEN SECTIONS SHALL BE BELL AND SPIGOT OR TONGUE AND GROOVE TYPE WITH O-RING GASKETS CONFORMING TO ASTM C443 OR FLEXIBLE BUTYL RUBBER JOINT SEALANT.
4. BASES FOR STANDARD AND DROP MANHOLES SHALL BE PRECAST, REINFORCED CONCRETE SECTIONS. WALL THICKNESS AND REINFORCING SHALL BE THE SAME AS SPECIFIED FOR MANHOLE BARREL SECTIONS. FLOOR THICKNESS SHALL BE A MINIMUM OF EIGHT (8) INCHES WITH MESH REINFORCEMENT OF 0.40 SQUARE INCHES PER SQUARE FOOT, BOTH WAYS. CONCRETE SHALL BE A MINIMUM OF THREE THOUSAND FIVE HUNDRED (3,500) PSI CLASS "A". MANHOLE BASES SHALL BE AS MANUFACTURED BY SHERMAN, ENCORE, K.O.I. OR APPROVED EQUAL. WHEN PRECAST MANHOLE BASES ARE USED, THE SEWER INVERT AND BENCH SHALL BE POURED SEPARATELY TO THE DIMENSIONS SHOWN ON THE STANDARD DETAIL SHEET. PRECAST BASES SHALL HAVE RUBBER OR NEOPRENE OPENINGS TO RECEIVE THE SEWER PIPE. JOINTS SHALL BE STANDARD MANUFACTURERS PRODUCTS SPECIFICALLY DESIGNED FOR THIS PURPOSE.
5. ALL MANHOLE FRAMES AND COVERS SHALL BE OF CAST IRON, CONFORMING TO ASTM A-48, CLASS 30 OR BETTER. NEEHAH FOUNDRY COMPANY R-1733 OR EQUAL, SHALL BE CONSIDERED STANDARD, WITH THE WORDS "SANITARY SEWER" CAST IN ALL COVERS, PLAINLY VISIBLE. IN ADDITION, EACH FRAME SHALL HAVE FOUR (4) ONE (1) INCH DIAMETER HOLES EQUALLY SPACED FOR ATTACHMENT OF THE FRAME TO THE MANHOLE. OTHER TYPES OF FRAMES AND COVERS AND OTHER DETAILS SHALL BE AS SHOWN ON THE PLANS OR IN THE STANDARD DETAIL SHEET. ALL LIDS SHALL BE INTERCHANGEABLE WITH EXISTING FRAMES.
6. WHEN WORKING ON EXISTING SEWERS, THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO EFFECTIVELY HANDLE THE SEWAGE IN THE SEWERS WHILE CONSTRUCTION IS UNDERWAY. WHEN IT IS NECESSARY TO BLOCK AN EXISTING SEWER SECTION FOR ANY REASON OF CONSTRUCTION, THE CONTRACTOR MUST PROVIDE ADEQUATE PUMPING EQUIPMENT TO HANDLE THE SEWAGE FLOW FROM A POINT IMMEDIATELY UPSTREAM OF THE BLOCKED SECTION TO A POINT IMMEDIATELY DOWNSTREAM OF THE BLOCKED SECTION, UNLESS OTHERWISE CALLED FOR, THE POINTS REFERRED TO ABOVE MAY BE MANHOLES.
7. SUBGRADE AND BACKFILL FOR SEWERS SHALL BE COMPACTED TO NOT LESS THAN 98% OF DENSITY DETERMINED FROM THE STANDARD PROCTOR TEST, (ASTM D698).
8. INFILTRATION SHALL NOT EXCEED A RATE OF 200 GALLONS PER DAY PER INCH OF PIPE DIAMETER PER MILE OF SEWER FOR ANY SECTION OF THE SYSTEM.
9. ELEVATIONS SHALL BE AS TABULATED HEREON. THE GEOTECHNICAL ENGINEER SHALL APPROVE ALL PIER DEPTHS, SUBGRADE, COMPACTION, AND BACKFILL. THE GEOTECHNICAL SERVICES SHALL BE COORDINATED BY THE CONTRACTOR.
10. CONSTRUCTION SHALL CONFORM TO AT LEAST THE MINIMUM STANDARDS OF THE SANITATION DISTRICT NO. 1 OF NORTHERN KENTUCKY.
11. VACUUM TESTING OF MANHOLES: THE CONTRACTOR SHALL TEST FOR WATER TIGHTNESS OF ALL MANHOLES BY MEANS OF SAID VACUUM TEST. NO TEST SHALL BE PERFORMED UNTIL THE BACKFILL IS PLACED AROUND THE MANHOLE AND THE CASTING IS BOLTED TO THE MANHOLE PER THE SANITATION DISTRICT NO. 1 SPECIFICATIONS. THE TEST SHALL INCLUDE THE JOINT BETWEEN THE CASTING AND THE MOUNTING SURFACE. THE VACUUM TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN ASTM C1244-93. ALL MANHOLES ADJUSTED TO GRADE BY EITHER THE ADDITION OR REMOVAL OF MANHOLE SECTIONS OR GRADE RINGS WILL BE TESTED IF REQUIRED BY THE SANITATION DISTRICT NO. 1. ALL TESTS MUST BE WITNESSED AND APPROVED BY A REPRESENTATIVE OF THE SANITATION DISTRICT NO. 1. IT IS RECOGNIZED THAT VACUUM TESTING MAY BE IMPRACTICABLE FOR SOME MANHOLES. IN THESE CASES, THE USE OF VACUUM TESTING IS SUBJECT TO THE LIMITATIONS AND CONSIDERATIONS. MANHOLES BUILT OVER LARGE DIAMETER SEWERS ARE AN EXAMPLE OF THIS SITUATION. MANHOLES EXCEPTED FROM TESTING SHALL BE AT THE SOLE DISCRETION OF THE SANITATION DISTRICT NO. 1 ENGINEER.
12. AIR TEST: THE CONTRACTOR SHALL TEST THE TIGHTNESS OF THE PIPE SECTIONS, JOINTS, AND APPURTENANCES OF THE SEWER SYSTEM BY MEANS OF THE LOW PRESSURE AIR TEST. THE LOW PRESSURE AIR TEST SHALL BE CONDUCTED IN ACCORDANCE WITH PROCEDURES OUTLINED IN UNIBELL SPECIFICATION UNIB-6. ANY LEAKS DETERMINED FROM THE AIR TEST SHALL BE SEALED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER, BY BOTH UNCOVERING THE LEAKS AND CORRECTING SAME OR SEALING BY INTERNAL GROUTING CONTROLLED BY TELEVISION OBSERVATION.
13. THE SANITATION DISTRICT NO. 1 SHALL INSPECT ALL CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT FOR INSPECTIONS.
14. ALL CONCRETE SHALL BE READY-MIXED, MEETING ASTM C94. ALL REINFORCED CONCRETE CONSTRUCTION, MANHOLES, PIERS, AND OTHER SPECIAL ITEMS CALLED FOR ON THE PLANS SHALL BE CLASS "A" CONCRETE AND HAVE A MINIMUM TWENTY-EIGHT (28) DAY COMPRESSIVE STRENGTH OF 3,500 PSI.
15. THE LOCATION OF BOTH SURFACE AND SUB-SURFACE STRUCTURES AND UTILITIES ARE SHOWN FROM THE SURVEY PERFORMED BY CARDINAL ENGINEERING CORPORATION AT THE TIME OF BIDDING AND MAY NOT NECESSARILY BE COMPLETE OR CORRECT. AT THE CLOSE OF THE BIDDING PERIOD, PRIOR TO THE START OF ANY CONSTRUCTION OR EARTHMOVING OPERATIONS, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES BY CONTACTING THE KENTUCKY UNDERGROUND PROTECTION INC. AND ALL OTHER AGENCIES THAT HAVE UNDERGROUND UTILITIES NOT COVERED BY KENTUCKY UNDERGROUND PROTECTION INC.
16. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES FROM DAMAGE, REGARDLESS OF WHETHER THEY ARE SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND/OR RESTORATION OF SAME TO THE SATISFACTION OF THE ENGINEER AND THE UTILITY OWNER.
17. BEFORE ORDERING ANY MATERIAL OR PERFORMING ANY WORK, EACH CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR SAME. NO EXTRA CHARGE WILL BE ALLOWED OR COMPENSATION ALLOWED ON ACCOUNT OF DIFFERENCE TO ACTUAL DIMENSIONS AND THE MEASUREMENTS INDICATED ON THE PLANS AND ANY DIFFERENCE WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE DEVELOPER FOR CORRECTION BEFORE PROCEEDING WITH WORK.
18. AS A RESULT OF SUBMITTING PROPOSALS FOR THIS WORK, EACH BIDDER SHALL BE HELD TO HAVE EXAMINED THE PREMISES AND SATISFIED HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL OPERATE IN PERFORMING HIS PART OF THE WORK, OR THAT WILL IN ANY MANNER AFFECT THE WORK UNDER HIS CONTRACT. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THIS CONTRACT ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
19. UNDERGROUND UTILITIES SHOWN ON THE PLANS FROM VARIOUS UTILITY COMPANIES OR AS FIELD LOCATED BY CARDINAL ENGINEERING CORPORATION.

1. THE CONTRACTOR SHALL ADHERE TO ALL GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EMPLOY TRENCHING, SHORING, BACKFILLING, AND GENERAL CONSTRUCTION METHODS AS NECESSARY TO PREVENT DAMAGE TO PROPERTY, PAVEMENT, STRUCTURES, AND INFRASTRUCTURE ADJACENT TO UNBAKED TRENCHES. UNBAKED TRENCH LENGTH SHALL BE KEPT TO A MINIMUM AND/OR SHORING SHOULD BE EMPLOYED AS NEEDED TO PREVENT SOIL MOVEMENTS ADJACENT TO UNBAKED TRENCHES. ALL BEDDING AND GRANULAR BACKFILL MATERIAL SHALL BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING BORROW MATERIAL ON-SITE AND/OR DISPOSING OF EXCESS EXCAVATED MATERIAL OFF SITE AS REQUIRED TO MEET INDICATED DESIGN ELEVATIONS.
2. COMPACTION REQUIREMENTS, FILL AND BACKFILL, AND GENERAL EARTHWORK/GRADING REQUIREMENTS ARE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
3. ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED AS SHOWN ON THE PLANS, AND SHALL BE IN COMPLIANCE WITH THE CURRENT SD1 BEST MANAGEMENT PRACTICES & "NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM" RULES AND REGULATIONS.
4. A COPY OF THE "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP), A COPY OF THE "NOTICE OF INTENT" (NOI), AND A COPY THE SD1 LAND DISTURBANCE PERMIT SHALL BE KEPT ON-SITE.
5. AN AMENDMENT OF THE SWPPP IS REQUIRED WHENEVER A CHANGE IN DESIGN, CONSTRUCTION, AND OPERATION OR MAINTENANCE HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS, OR IF THE SWPPP PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF THE SWPPP.
6. THE CONTRACTOR SHALL ALSO MAINTAIN THE FOLLOWING RECORDS ON-SITE:
 - A. GENERAL CONTRACTOR AND/OR SUBCONTRACTOR SWPPP CERTIFICATIONS.
 - B. THE DATE, TIME, AND EXACT LOCATION OF THE INSPECTION, AND THE NAME OF THE INSPECTOR.
 - C. AN ASSESSMENT OF THE CONDITION OF THE EROSION CONTROLS.
 - D. A DESCRIPTION OF ANY EROSION CONTROL IMPLEMENTATION AND MAINTENANCE PERFORMED.
 - E. A DESCRIPTION OF THE PRESENT PHASE OF CONSTRUCTION AT THE SITE.
7. A SILT BARRIER FENCE SHALL BE PLACED AROUND THE DOWNSTREAM PERIMETER OF THE SITE AS SHOWN ON THE PLANS. SEE SILT FENCE DETAIL AND CHAPTER 7 OF OHIO'S 2006 EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL. SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL AT THE END OF EACH DAY AND SHALL BE INSPECTED WEEKLY OR WITHIN 24 HOURS AFTER A STORM EVENT. WHERE THEY ARE INTENDED TO PROVIDE SEDIMENT CONTROL SILT FENCES MUST BE PLACED ON LEVEL CONTOUR.
8. PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING, AND SHALL CONTINUE TO FUNCTION UNTIL THE SLOPE DEVELOPMENT AREA IS RESTABILIZED.
9. SOIL DISTURBING ACTIVITIES WILL INCLUDE: (1) CLEARING AND GRUBBING; (2) PERIMETER AND OTHER EROSION/SEDIMENT CONTROL MEASURES; (3) GRADING AS SHOWN ON THE PLANS.
10. THE ORDER OF ACTIVITIES WILL BE: (1) CLEAR AND GRUB PROPOSED CONSTRUCTION AREA; (2) INSTALL SILT FENCING AS INDICATED ON THE SITE PLAN; (3) GRADING OPERATIONS.
11. TEMPORARY SOIL STABILIZATION OF DISTURBED AREAS AND TEMPORARY SEEDING SHALL BE COMPLETED PER THE CURRENT SD1 BEST MANAGEMENT PRACTICES.
12. THE FOLLOWING ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE REQUIRED OF THE CONTRACTOR. THE FOLLOWING WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS: (1) ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT (2) ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT; (3) BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE; (4) SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND; (5) TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH; (6) INSPECTION REPORTS TO BE CREATED BY THE CONTRACTOR AND SENT TO SD1 ON A MONTHLY BASIS.
13. PETROLEUM PRODUCTS
 - A. ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCES OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS, WHICH ARE CLEARLY LABELED. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREAS MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HRS. OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED AND SHALL BE PREPARED BY THE PROVIDED BY THE CONTRACTOR IF FOR ONE SINGLE ABOVEGROUND TANK OF 660 GALLONS OR MORE, ACCUMULATIVE ABOVEGROUND STORAGE OF 1330 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE. SOILS THAT HAVE BECOME CONTAMINATED MUST BE DISPOSED OF PROPERLY.
 - B. ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
14. FERTILIZERS
 - A. FERTILIZERS USED WILL ONLY BE APPLIED IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE OF SAID FERTILIZER WILL BE COMPLETELY COVERED. THE CONTENTS OF ANY PARTIALLY USED BAGS OR CONTAINERS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC CONTAINER TO AVOID SPILLS.

A. THE CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED PER THE DETAIL AND MAINTAINED.

17. BEST MANAGEMENT PRACTICES

A. BEST MANAGEMENT PRACTICES (BMPs) AS PRESENTED IN THE CURRENT SD1 BEST MANAGEMENT PRACTICES MANUAL SHALL BE FOLLOWED ON THE SITE AT ALL TIMES. A COPY OF THIS MANUAL SHALL BY ONSITE AT ALL TIMES.

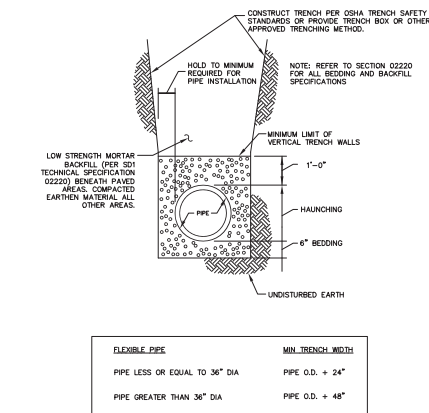
18. TRAFFIC CONTROL

A. THE CONTRACTOR IS REQUIRED TO PROVIDE TRAFFIC CONTROL FOR THE EXPORTING OF MATERIAL FROM THE SITE.

19. KENTUCKY EPA NOTICE OF INTENT

A. THE OWNER HAS FILED A "NOTICE OF INTENT" WITH THE KENTUCKY EPA'S OFFICE PRIOR TO CONSTRUCTION.

1. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA): IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO MEET AND COMPLY WITH SAFETY REQUIREMENTS AND REGULATIONS AS ESTABLISHED BY OSHA OR ANY OTHER REGULATORY BODY. THE OWNER AND ENGINEER WILL NOT BE RESPONSIBLE FOR ANY VIOLATIONS, AS THE CONTRACTOR HAS ACCEPTED FULL AND COMPLETE RESPONSIBILITY FOR PERFORMING SUCH INSPECTIONS FOR COMPLIANCE TO THE REGULATIONS. THE CONTRACTOR SHALL INDEMNIFY AND PROTECT AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ALL CLAIMS, EXPENSE, FINE, DAMAGES OR SUIT, INCLUDING ATTORNEY'S FEES, ARISING OUT OF ANY AND ALL VIOLATIONS SUITS BROUGHT BY INJURED PERSONS AND/OR FINES LEVIED BY OSHA OR ANY OTHER REGULATORY BODY, AS A RESULT OF THE CONTRACTOR'S WORK.



FINISH GRADE

NENAH BR-1942
SERIES FRAME & LID
OR EAST JORDAN 1045
(OR APPROVED EQUAL)

PRECAST CONCRETE (6"-10" OR
HIGH DENSITY POLYETHYLENE
(2"-5") ADJUSTABLE RINGS.

CONCENTRIC TOP
SECTION

GASKETED JOINTS
CONFORMING TO
ASTM C-443

SEAL ALL LIFTING HOLES
THAT PENETRATE
COMPLETELY THROUGH
WALL (TYP)

4'-0"

MANHOLE STEPS PER SD1 SPEC
SECTION 02606 16" O.C. STEPS
SHALL BE LOCATED NO MORE
THAN 24" FROM TOP OF BENCH.
(STEPS SHALL BE REQUIRED FOR
ALL MANHOLLS EXCEEDING
4' IN DEPTH AND STEPS SHALL
BE CUT OF FLOW CHANNEL
DIRECTION.)

PRECAST CONCRETE
MANHOLE SECTIONS
ASTM C-478

1" BATTER

PRECAST OR POURED IN PLACE
CONCRETE BASE

NOTE:
-- SEE DETAIL 113-A FOR
PRECAST DETAIL PLATE

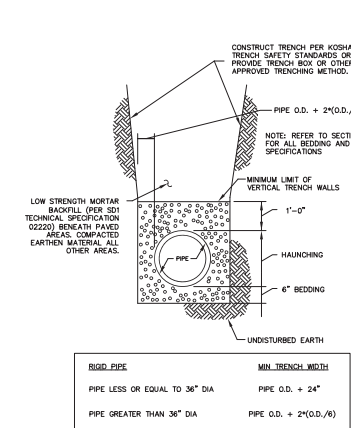
8"-12" COMPACTED
PIPE BEDDING MATERIAL

ANTI-FLOTATION FLANGES MAY
BE REQUIRED IN AREAS WHERE
THE MANHOLE IS SUBJECT TO
GROUND WATER PER SD1 SPEC
02006.

CTED GRANULAR BACKFILL
BENEATH PAVED AREAS

ROPE OF THE INCOMING
CEEDS 24IN FROM THE
AL, A FITTING SHALL
OUTSIDE THE MANHOLE
FACILITATE A MORE
GULAR CONNECTION TO
HOLE WALL. THE USE
FITTING IS TO BE
ON A CASE BY
BY SD1 ENGINEERS.

MANHOLES SHALL BE
PER SECTION 02606.
SHALL BE SHAPED TO
A SMOOTH TRANSITION
FOR PIPE ANGLES
90 AND 180 DEGREES,
ENCED TO THE
AM FLOWLINE. NO
LESS THAN 90 DEGREES
FLOWED BETWEEN
AND OUTGOING PIPES



DOGHOUSE STRUCTURE WALL

INCOMING PIPELINE

DOGHOUSE STRUCTURE INTERIOR

SOLID CONCRETE BLOCKS (TYP)

"DETAIL A"

JOINTS PER STANDARD MANHOLE DETAILS

RUBBER TOP BOTTOM LIP.

0 PSI CONC. EXCAVATION

GREENSTEAK HYDROTITE WATERSTOP OR APPROVED EQUAL (REFER TO DETAIL A)

12" MIN. ABOVE HIGHEST PIPE

EXISTING PIPE

POUR 4,000 PSI CONC. TIGHT AGAINST EXCAVATION

CONSTRUCT REMAINDER OF MANHOLE PER STANDARD MANHOLE DETAILS

TWO ROWS OF GREENSTEAK HYDROTITE WATERSTOP APPROVED EQUAL WRAPPED AROUND PIPE WITHIN STRUCTURE WALL THICK (REFER TO DETAIL A)

SPRINGLINE

SOLID CONCRETE BLOCKS (TYP)

8"-12" COMPACTED PIPE BEDDING MATERIAL

NOTES:

1. BEFORE POURING CONCRETE ASSURE DOGHOUSE STABILITY, LEVEL, AND PLUMB.
2. USE SOLID CONCRETE BLOCKING FOR SUPPORT.
3. WAIT A MIN. OF 24 HOURS AFTER POUR BEFORE BACKFILL PLACEMENT.
4. BENCH TO HAVE SMOOTH FINISH WITH SLOPE OR FALL TO THE SPRINGLINE.
5. CUT PIPE AT THE SPRINGLINE.
6. POUR/INSTALL 4,000 PSI CONCRETE 12-INCHES ABOVE THE HIGHEST PIPE.
7. TWO ROWS OF GREENSTEAK HYDROTITE WATERSTOP OR APPROVED EQUAL SHALL BE WRAPPED AROUND ALL PENETRATIONS WITHOUT BOOTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
8. BOOT MAY BE USED IF CONCRETE IS POURED A MINIMUM OF 12" BELOW THE INCOMING PIPE.

SCALE: NTS

6 1/4" ANCHOR HOLES

6 SOCKETS 2 1/2" DIA TO 36"

24" 28 1/2"

36"

3/4"

1 1/2"

GLASS FIBER REINFORCED PLASTIC SURFACES

CONCRETE

SEWER

SANITARY

6 CONCRETE POSTS

[illegible]

PROJECT: **SANITARY SEWER IMPROVEMENTS**
POPLAR RIDGE KUBOTA DEALERSHIP

CLIENT: **KTT PROPERTIES, LLC**
130 MT. ZION ROAD
FLORENCE, KY 41042

[illegible]

JKT

CHECKED BY:

JDM

PROJECT
MANAGER:

JDM

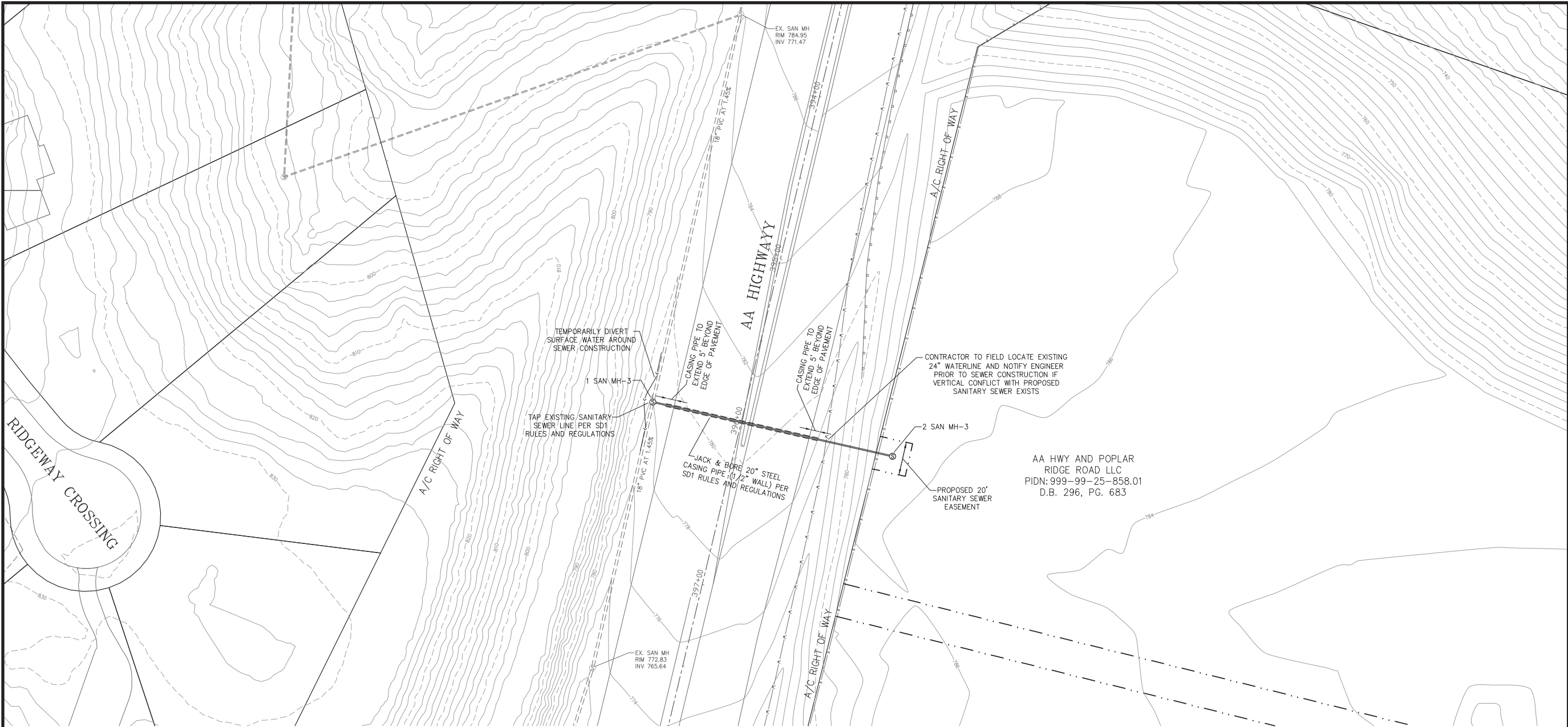
PROJECT NO. 23-119

SCALE	AS NOTED
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DATE 09-22-23

SPECIFICATIONS & DETAILS

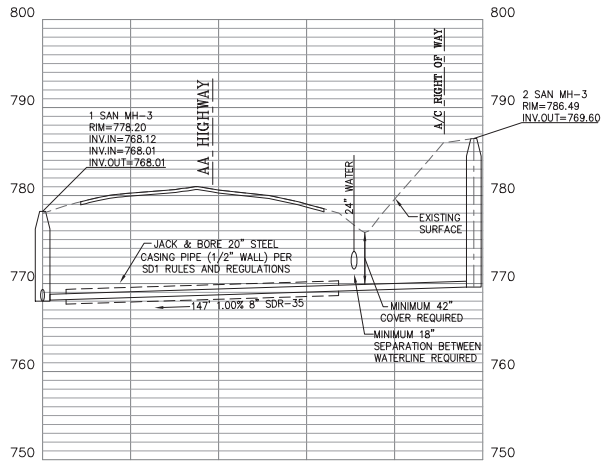
SHEET C-100



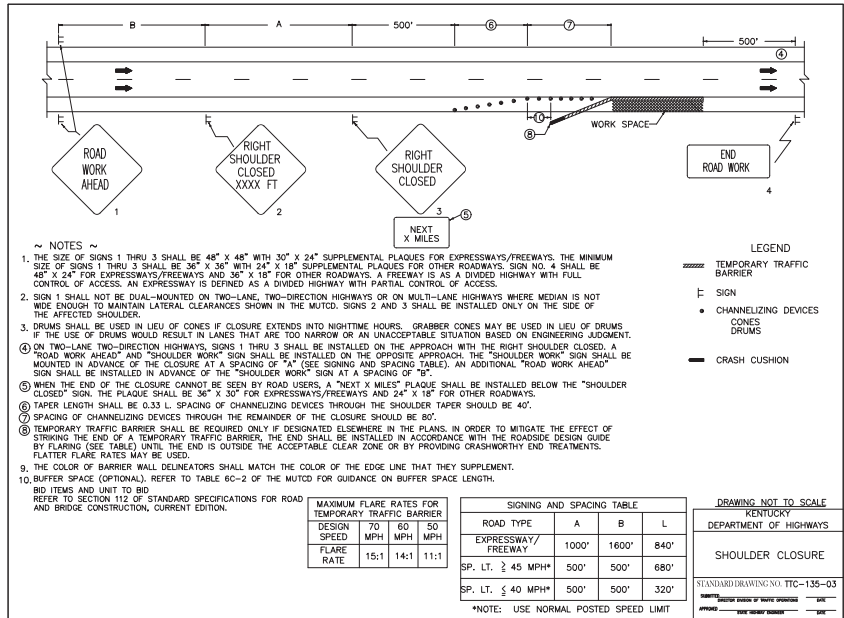
LEGEND	
—OHE—	OVERHEAD ELECTRIC
—UGE—	UNDERGROUND ELECTRIC
□	ELECTRIC BOX
⊙	ELECTRIC MANHOLE
⊙	ANCHOR POLE
☆	LIGHT POLE
⊙	UTILITY POLE
⊙	GROUND LIGHT
—OTE—	OVERHEAD TELEPHONE
—UTE—	UNDERGROUND TELEPHONE
□	TELEPHONE BOX
⊙	TELEPHONE MANHOLE
⊙	BOLLARDS
⊙	SIGN
⊙	MAIL BOX
—W—W—	WATER LINE
⊙	WATER VALVE
⊙	FIRE HYDRANT
⊙	WATER METER
⊙	WATER VALVE BOX
⊙	WATER VALVE MANHOLE
⊙	POST INDICATOR VALVE
—G—G—	GAS LINE
⊙	GAS METER
⊙	GAS VALVE
⊙	GAS VALVE BOX
⊙	UTILITY MANHOLE
—S—S—	SEWER MANHOLE
⊙	DOGHOUSE MANHOLE
⊙	DITCH OR CREEK
—G—G—	GUARDRAIL
—X—X—	FENCE LINE
—XX—XX—	R/W FENCE LINE

NOTES:

- PROPOSED MANHOLE 1 SHALL BE A PRECAST MANHOLE BASE UNLESS IT IS DETERMINED THE EXISTING SANITARY FLOWS ARE TOO MUCH TO BYPASS. TO BE VERIFIED BY SD1'S ONSITE INSPECTOR.
- DOGHOUSE MANHOLE TO BE USED IF PRECAST MANHOLE BASE CANNOT BE UTILIZED. SEE DETAIL 4/C-100.
- REFER TO SHOULDER CLOSURE DETAIL ON THIS SHEET FOR SHOULDER CLOSURES ALONG AA HIGHWAY DURING CONSTRUCTION.



SANITARY SEWER PROFILE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'



REVISIONS
DATE # ITEM

10-17-23	1	REVISIONS PER SD1 & KYTC
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CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE (859) 581-9600

WEBSITE: <http://www.cardinalengineering.net>

SANITARY SEWER IMPROVEMENTS
POPLAR RIDGE KUBOTA DEALERSHIP

KTT PROPERTIES, LLC
130 MT. ZION ROAD
FLORENCE, KY 41042

PROJECT: CLIENT:

JOB LOG
DATE ITEM

DRAWN BY: JKT
CHECKED BY: JCK
PROJECT MANAGER: JDM

SEAL
JOSHUA D. MCINTOSH
23723
KENTUCKY LICENSED PROFESSIONAL ENGINEER

PROJECT NO. 23-119
SCALE 1" = 30'
DATE 09-22-23
PLAN & PROFILE
SHEET C-200



10/27/2023

Kelly Craddock
KTT Properties, LLC
130 Mt. Zion Road, Florence, KY 41042

RE: Poplar Ridge Kubota Dealership - Sanitary Sewers

Kelly Craddock:

Your application for Sanitary Sewer Extension for the above mentioned project has been reviewed and approved by SD1. At this time your application has been forwarded to Kentucky Division of Water for final review. Work may not commence until the approval letter from the Kentucky Division of Water has been received.

In no event shall SD1's issuance of this approval be construed as relieving you from obtaining all other applicable local, state or federal permits and/or licenses prior to performing any work.

Please contact our inspection coordinator, Doug Malone, at 859-578-6749 at least 72 hours prior to the installation of the public sanitary sewers.

Upon completion of the installation of the proposed sewer, SD1 will accept the new infrastructure for ownership and maintenance with the following conditions:

- A passing vacuum test on each new manhole has been performed, and observed by an SD1 inspector.
- Passing air and mandrel tests on all new lines 8" and larger have been performed, and observed by an SD1 inspector.
- An SD1 inspector approves the work and material, based on visual inspection.
- As-built rim and invert elevations, as well as center to center distance to the downstream manhole are submitted to SD1.
- A 20' wide public easement is provided for all publicly dedicated sewers.
- Provide a quit claim of easement for any portion of public sewer being abandoned. SD1 can provide a template for the Easement for Sewer and the Quit Claim of Easement upon request. (if applicable)
- Compaction test results are provided for any areas where new sanitary sewer is constructed on fill.

A One Year Warranty period will commence on the date of acceptance.

If you have any questions or comments regarding this notice, please contact me at 859-578-6880 or by email at aaman@sd1.org.

Best Regards,



Jared Ison
Development Services Coordinator
SD1 Development Services Group

cc: Josh McIntosh - Cardinal Engineering (*via email only*)