

# HIGHLAND HILLS PARK IMPROVEMENTS

## CITY OF FORT THOMAS

210789

CITY OF FORT THOMAS OFFICIALS

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Andy Ellison

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Ben Pendery

Eric Strange

CITY ADMINISTRATOR

Matthew Kremer



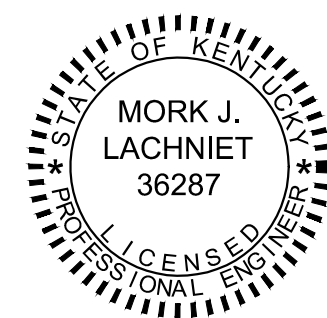
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ISSUED FOR:	BID NO.	DATE	REVISION
ISSUE DATE: 03/28/2024			
SCALE: AS NOTED			
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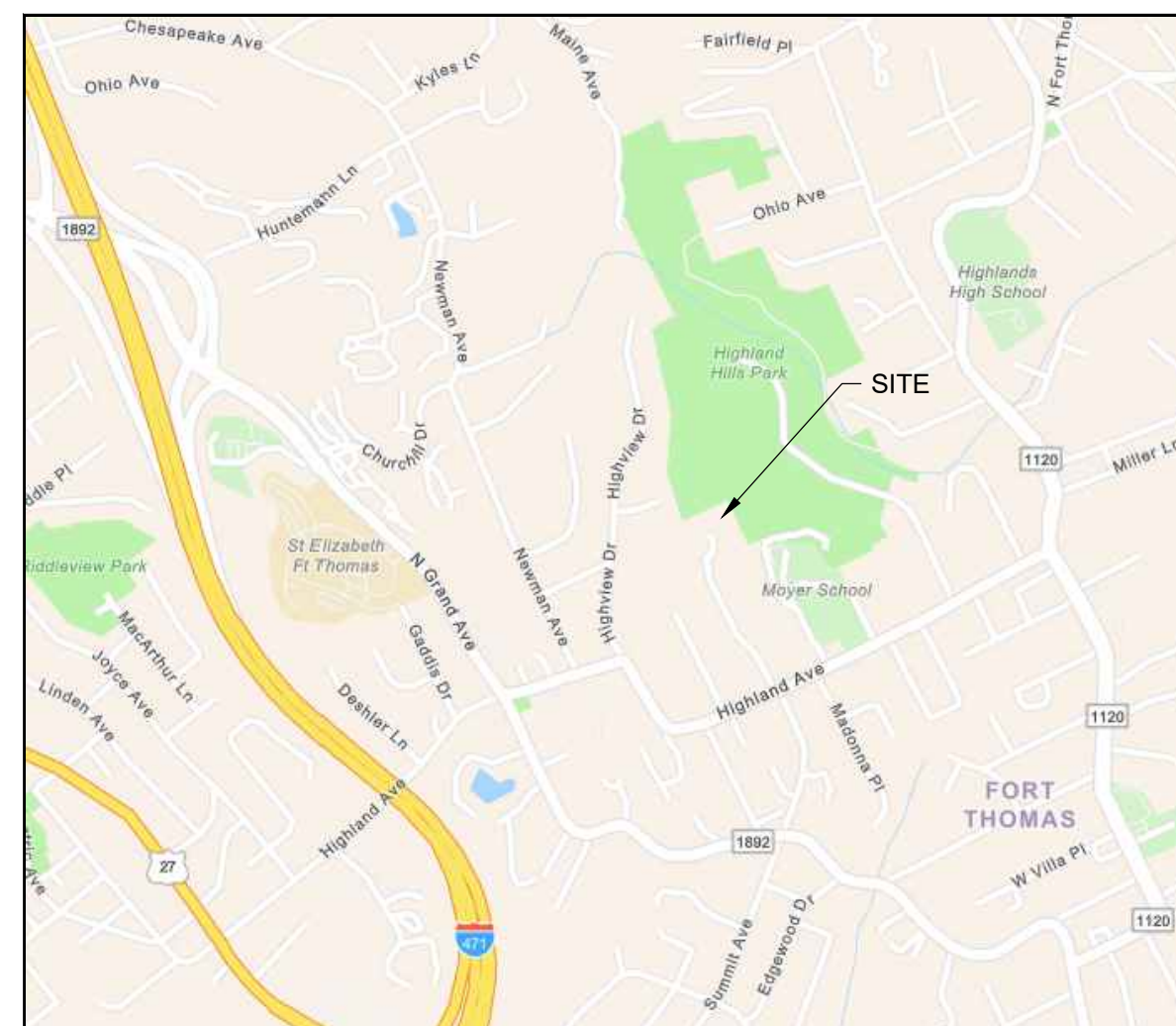
**HIGHLAND HILLS PARK  
IMPROVEMENTS  
CITY OF FORT THOMAS  
- CAMPBELL COUNTY, KENTUCKY -**

TITLE



MORK J LACHNIET, PE

PE #36287




PROJECT NO.	
210789	
DISCIPLINE	
CIVIL	
SHEET NAME	
TTL	
SHEET	OF
1	9





**LEGEND**

 REMOVE EX. ASPHALT PAVEMENT

**your trusted advisor**  
**consultants** — engineers — architects — planners

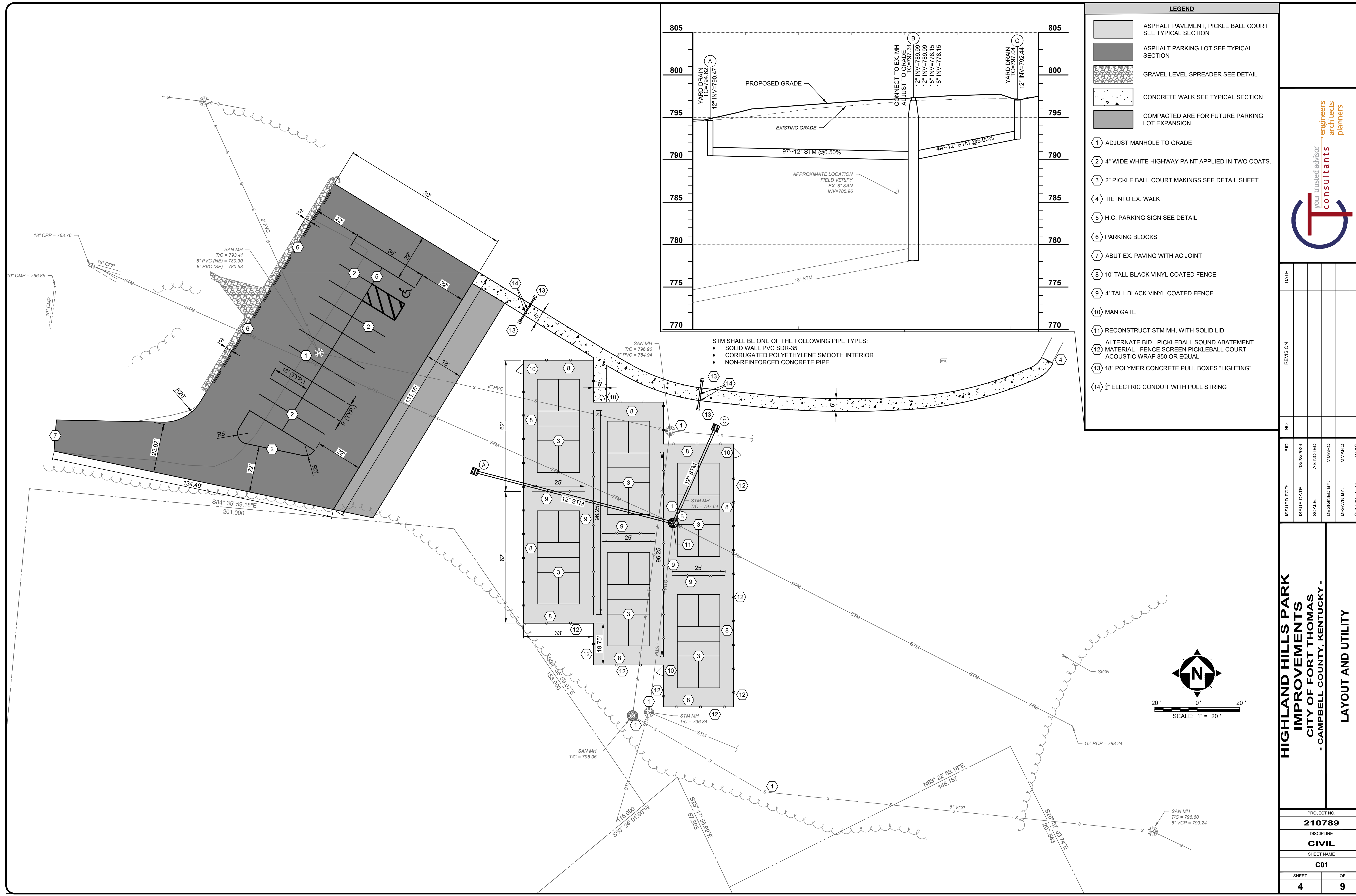


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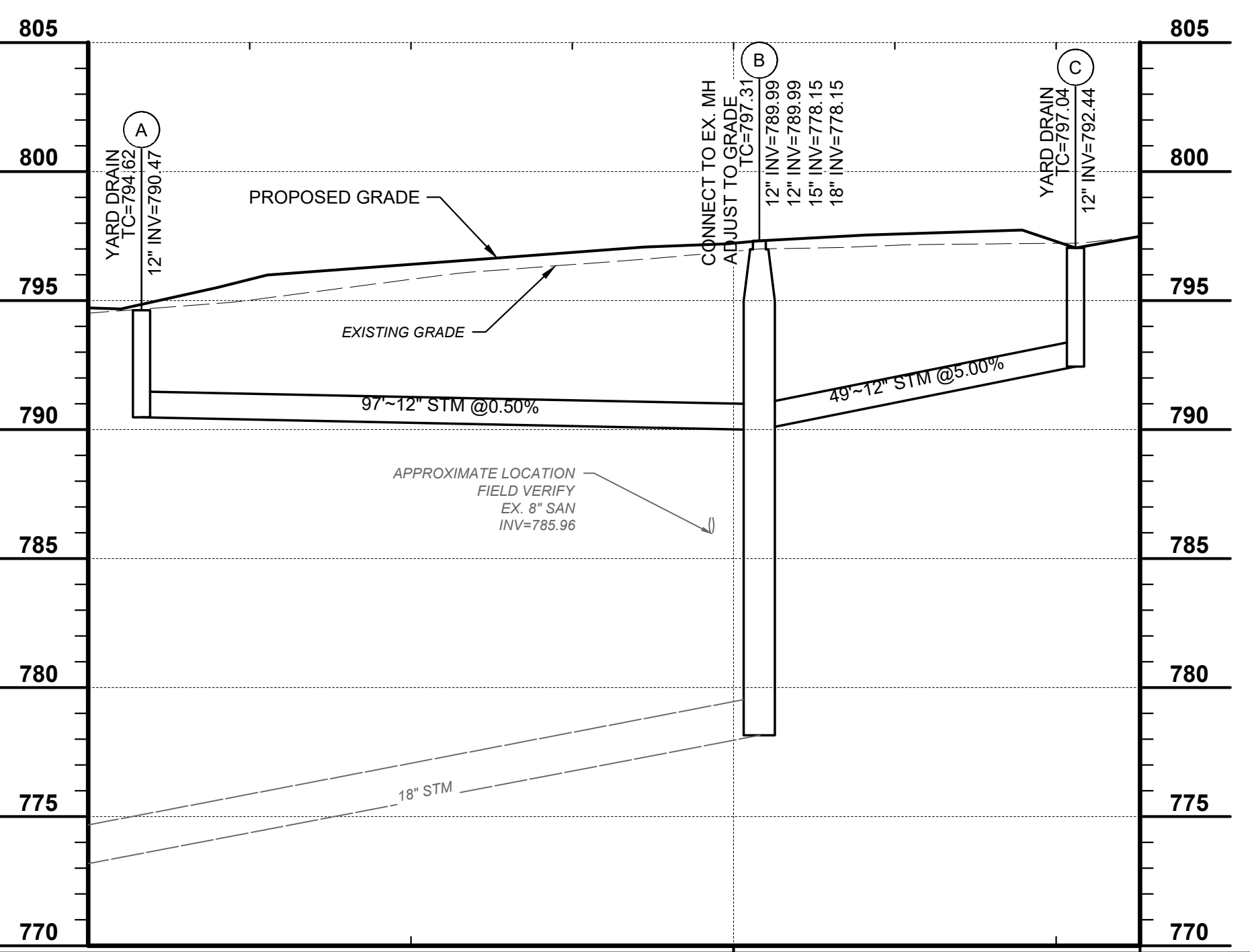
**HIGHLAND HILLS PARK  
IMPROVEMENTS  
CITY OF FORT THOMAS  
- CAMPBELL COUNTY, KENTUCKY -**

**DEMOLITION PLAN**

PROJECT NO. <b>210789</b>	
DISCIPLINE <b>CIVIL</b>	
SHEET NAME <b>DM01</b>	
SHEET <b>3</b>	OF <b>9</b>




- LEGEND**
- ASPHALT PAVEMENT, PICKLE BALL COURT SEE TYPICAL SECTION
  - ASPHALT PARKING LOT SEE TYPICAL SECTION
  - GRAVEL LEVEL SPREADER SEE DETAIL
  - CONCRETE WALK SEE TYPICAL SECTION
  - COMPACTED ARE FOR FUTURE PARKING LOT EXPANSION
- 1 ADJUST MANHOLE TO GRADE
  - 2 4" WIDE WHITE HIGHWAY PAINT APPLIED IN TWO COATS.
  - 3 2" PICKLE BALL COURT MAKINGS SEE DETAIL SHEET
  - 4 TIE INTO EX. WALK
  - 5 H.C. PARKING SIGN SEE DETAIL
  - 6 PARKING BLOCKS
  - 7 ABUT EX. PAVING WITH AC JOINT
  - 8 10' TALL BLACK VINYL COATED FENCE
  - 9 4' TALL BLACK VINYL COATED FENCE
  - 10 MAN GATE
  - 11 RECONSTRUCT STM MH, WITH SOLID LID
  - 12 ALTERNATE BID - PICKLEBALL SOUND ABATEMENT MATERIAL - FENCE SCREEN PICKLEBALL COURT ACOUSTIC WRAP 850 OR EQUAL
  - 13 18" POLYMER CONCRETE PULL BOXES "LIGHTING"
  - 14 3/4" ELECTRIC CONDUIT WITH PULL STRING


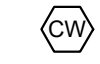
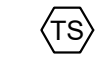


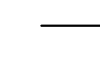


STM SHALL BE ONE OF THE FOLLOWING PIPE TYPES:

- SOLID WALL PVC SDR-35
- CORRUGATED POLYETHYLENE SMOOTH INTERIOR
- NON-REINFORCED CONCRETE PIPE

	
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<b>HIGHLAND HILLS PARK IMPROVEMENTS</b> CITY OF FORT THOMAS - CAMPBELL COUNTY, KENTUCKY - <b>LAYOUT AND UTILITY</b>	
PROJECT NO. <b>210789</b>	
DISCIPLINE <b>CIVIL</b>	
SHEET NAME <b>C01</b>	
SHEET <b>4</b>	OF <b>9</b>

**LEGEND**

-  CONSTRUCTION ENTRANCE UTILIZE EXISTING
-  CONCRETE WASHOUT
-  SOIL STOCKPILE
-  PERMANENT SEED
-  INLET PROTECTION
-  SILT FENCE SEE TYPICAL DETAIL

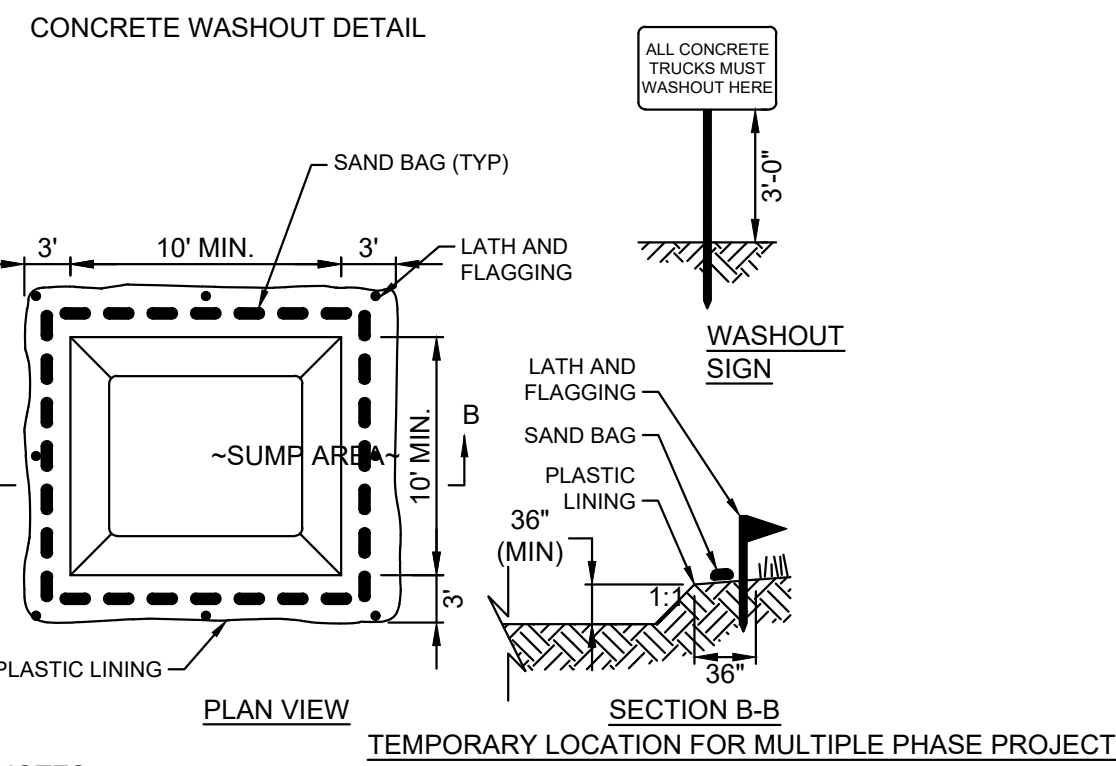
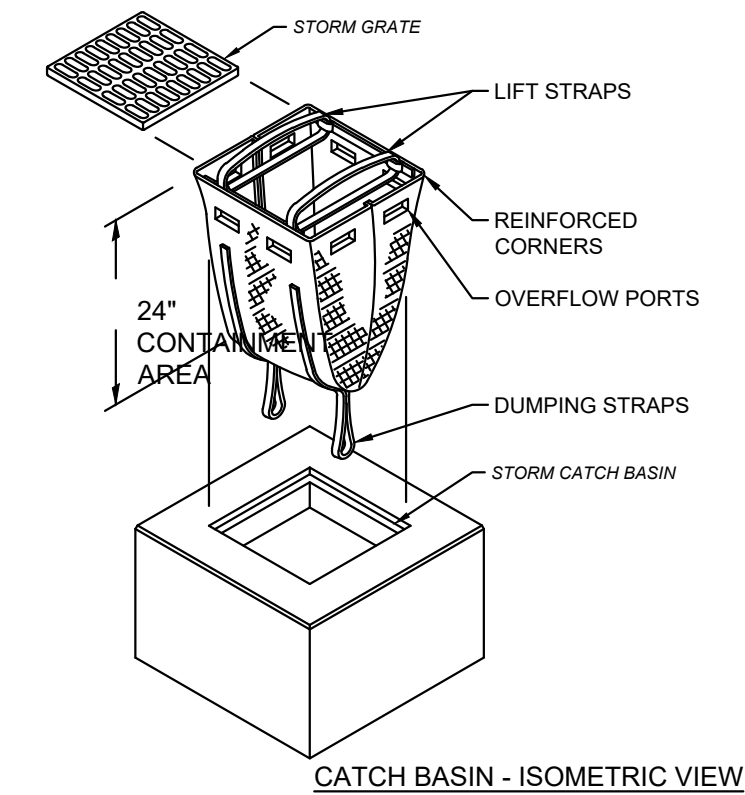
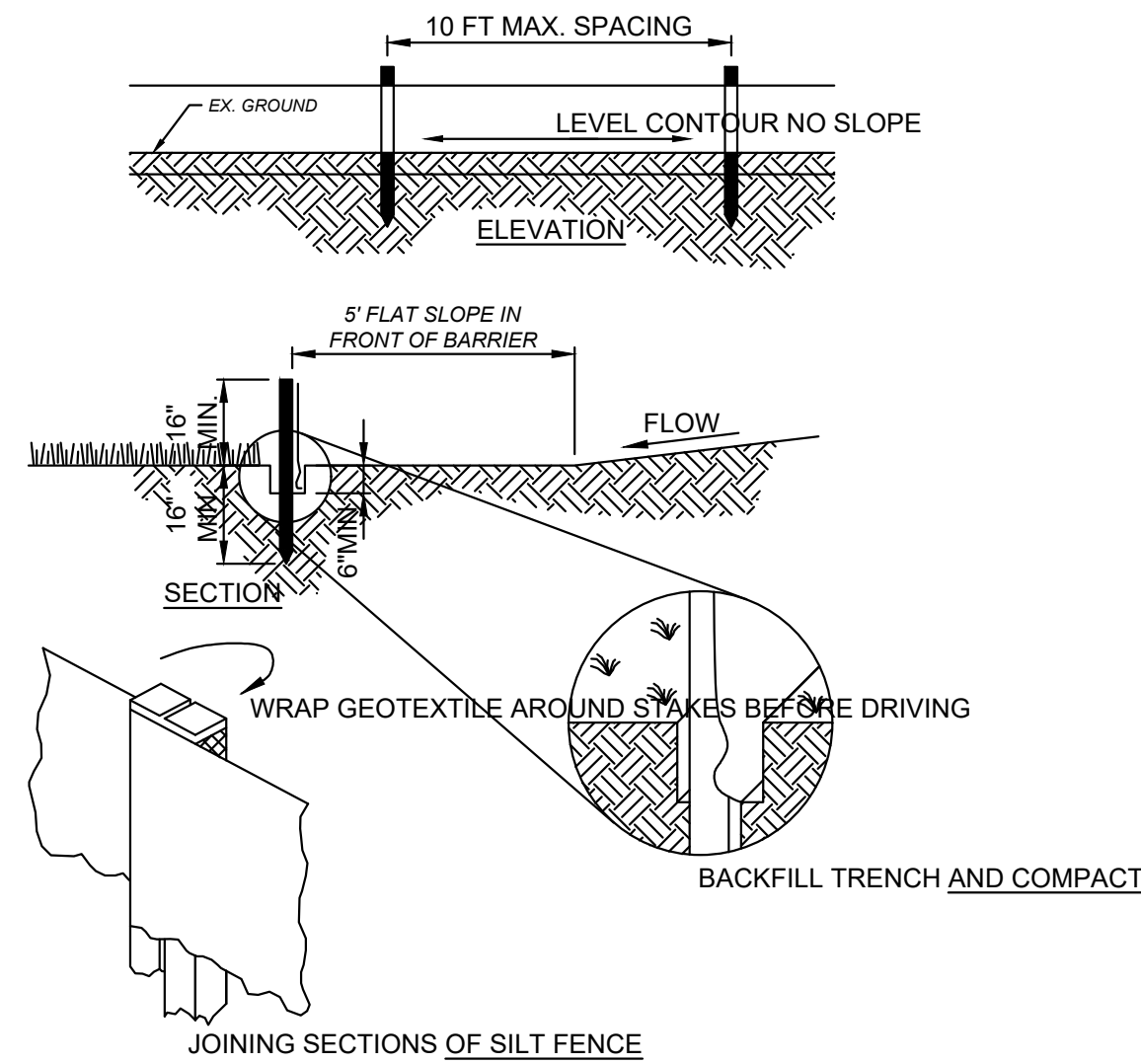
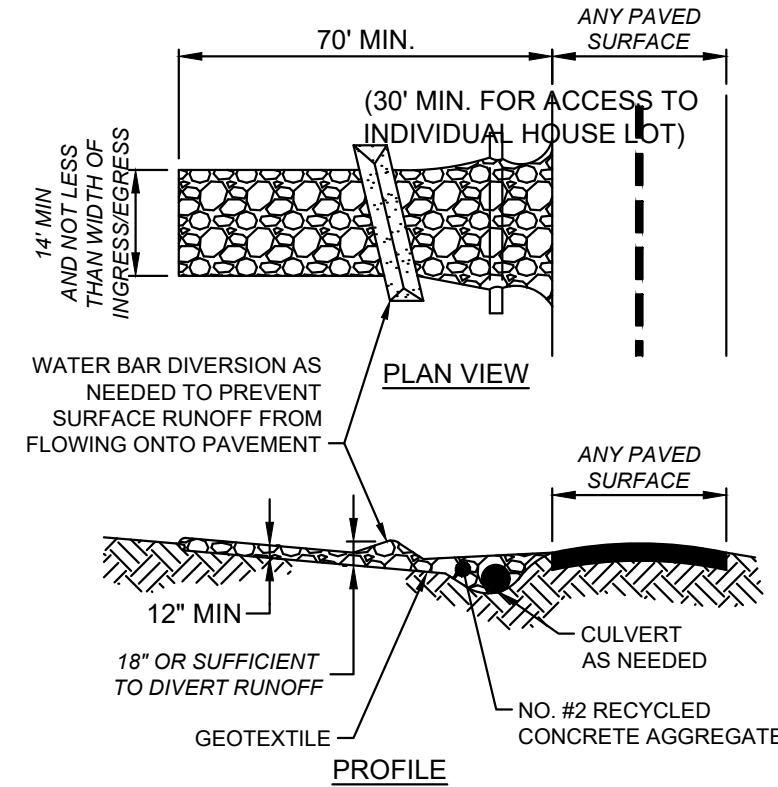
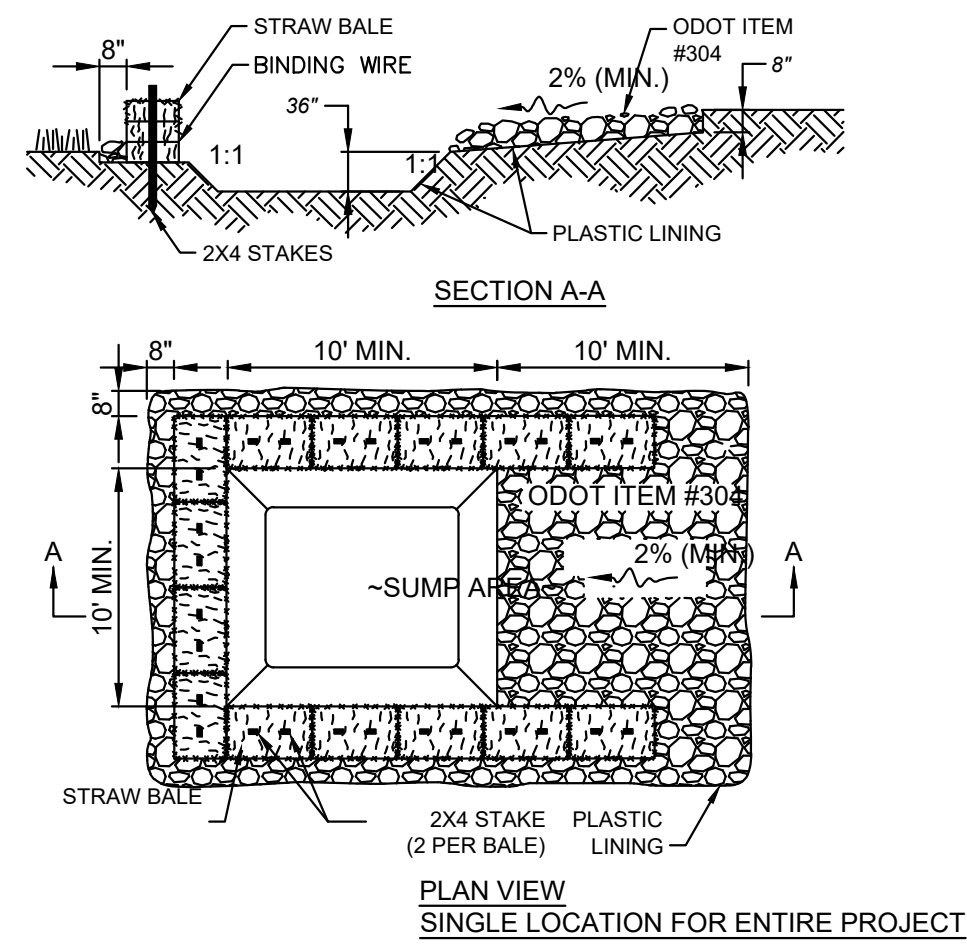


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**HIGHLAND HILLS PARK  
IMPROVEMENTS  
CITY OF FORT THOMAS  
- CAMPBELL COUNTY, KENTUCKY -  
GRADING AND EROSION CONTROL**

PROJECT NO. <b>210789</b>
DISCIPLINE <b>CIVIL</b>
SHEET NAME <b>C02</b>
SHEET <b>5</b> OF <b>9</b>





- NOTES:
- WASHOUT PIT SHALL BE LOCATED 100' MINIMUM FROM INLETS, STREAMS, WETLANDS AND ANY OTHER SURFACE WATERS.
  - ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, SHALL BE DISPOSED OF IN THE CONCRETE WASHOUT AREA. DISPOSAL OF EXCESS CONCRETE OR CONCRETE WASHOUT ON THE GROUND, OR IN STORM DRAINS, DITCHES OR WATER BODIES, IS PROHIBITED.
  - CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. FOR LARGER SITES, MULTIPLE CONCRETE WASHOUT AREAS MAY BE REQUIRED.
  - IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO THE CONSTRUCTION ENTRANCE.
  - PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS, AND INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF ROCKS OR DEBRIS.
  - CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
  - CONCRETE WASHOUT AREAS SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOWS.
  - PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE, BUT MUST BE SPECIFICALLY DESIGNED FOR CONCRETE WASHOUT USE.
  - CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND TO DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR POLYETHYLENE SHEETING SHALL BE REPAIRED IMMEDIATELY. THE CONCRETE WASHOUT AREA SHALL BE CLEANED OR REPLACED WHEN IT IS 75% FULL. THE POLYETHYLENE SHEETING SHALL BE REPLACED AFTER EACH CLEANING.
  - SAW CUT CONCRETE, RESIDUE FROM SAW CUT, AND GRINDINGS SHALL BE DISPOSED OF IN THE WASHOUT PIT.

- NOTES:
- PLACE GEOTEXTILE OVER THE ENTIRE AREA PRIOR TO PLACING STONE MEETING THE MIN. SPECIFICATIONS:
 

A. TENSILE STRENGTH	= 200 LBS.
B. PUNCTURE STRENGTH	= 80 PSI
C. TEAR STRENGTH	= 50 LBS.
D. BURST STRENGTH	= 320 PSI
E. ELONGATION	= 20%
F. EQUIVALENT OPENING SIZE	≤ 0.6 MM
G. PERMITTIVITY	= 0.001 CM/SEC
  - APPLY ADDITIONAL STONE AS CONDITIONS DEMAND AND REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6". REMOVE AND REPLACE IF STONES BECOMES MUD-LADEN.
  - IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
  - CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR TO PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

- NOTES:
- PRESERVE VEGETATION FOR 5 FEET, OR AS MUCH AS POSSIBLE, UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
  - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. PERFORM ONE OF THE FOLLOWING IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW:
    - CHANGE THE LAYOUT OF THE SILT FENCE.
    - REMOVE ACCUMULATED SEDIMENT.
    - INSTALL OTHER PRACTICES.

FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

SILT FENCE SCALE: NONE

CONSTRUCTION ENTRANCE SCALE: NONE

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/AC	TIME	MOW
CREeping RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL YEARLY OR AS NEEDED	≥3"
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

PERMANENT SEEDING SPECIES SELECTION		
SEED MIX	SEED RATE LB/AC.	NOTES:
GENERAL USE		
CREeping RED FESCUE	20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH ≥2.0 FT./SEC. VELOCITY
DOMESTIC RYEGRASS	10 - 20	
KENTUCKY BLUEGRASS	20 - 40	
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
STEEP BANKS OR CUT SLOPES		
TALL FESCUE	40 - 50	
CROWN VETCH	10 - 20	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20 - 30	
FLAT PEA	20 - 25	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20 - 30	
ROAD DITCHES AND SWALES		
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
KENTUCKY BLUEGRASS	5	
LAWN		
KENTUCKY BLUEGRASS	100 - 120	
PERENNIAL RYEGRASS	100 - 120	
KENTUCKY BLUEGRASS	100 - 120	FOR SHADED AREAS
CREeping RED FESCUE	100 - 120	

PERMANENT SEEDING DETAIL	
SCALE:	NONE

- NOTES:
- THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
  - SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH ADEQUATE VEGETATION. PERFORM SOIL TESTS ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
  - APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPING INTO PLACE.
  - APPLY MULCHING IMMEDIATELY AFTER SEEDING.
  - SEEDING SHALL BE INSPECTED FOR BARE SPOTS AND WASHOUTS, AND RESEEDED AS NECESSARY.

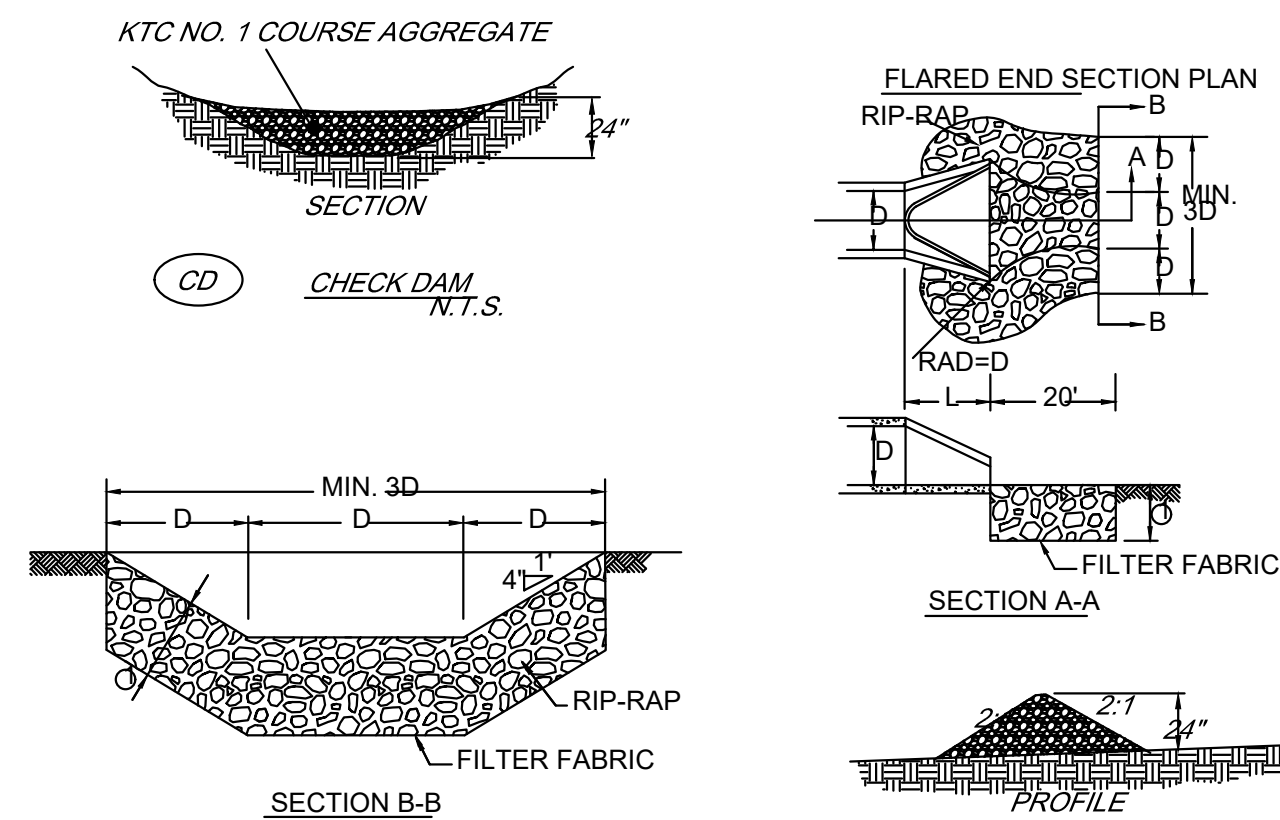
TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 TO AUGUST 15	OATS	3	128
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
AUGUST 16 TO NOVEMBER 1	PERENNIAL RYEGRASS	2	40
	TALL FESCUE	1	40
	RYE	3	112
NOVEMBER 1 TO SPRING	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	1	40
ONLY MULCH OR DORMANT SEEDING.			

TEMPORARY SEEDING DETAIL SCALE: NONE

- NOTES:
- FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
  - COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
  - FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE.
  - FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
  - BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
  - WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE:

MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8'	12'	18'	24'
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50.1 - 10:1	100'	125'	200'	250'
10% - 20%	10.1 - 5:1	75'	100'	150'	200'

FILTER SOCK DETAIL SCALE: NONE



Ø 24" MIN. CLASS III CHANNEL LINING (RIP RAP) INSIDE PIPE DIAMETER

ROCK CHANNEL PROTECTION (REFERENCE ARMY CORP OF ENGINEERS DETAIL NO. G104401X & KYTC RDD-040)



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CITY OF FORT THOMAS  
- CAMPBELL COUNTY, KENTUCKY -  
EROSION CONTROL DETAILS

PROJECT NO.	DISCIPLINE	SHEET NAME
210789	CIVIL	D01
SHEET	OF	
6	9	







