COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R1

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLANS OF PROPOSED PROJECT

PIKE COUNTY

U.S. 460
POND CREEK BRIDGE
GRADE, DRAIN & INCIDENTAL SURFACING
NHPP 0806 (044)

INDEX OF SHEETS

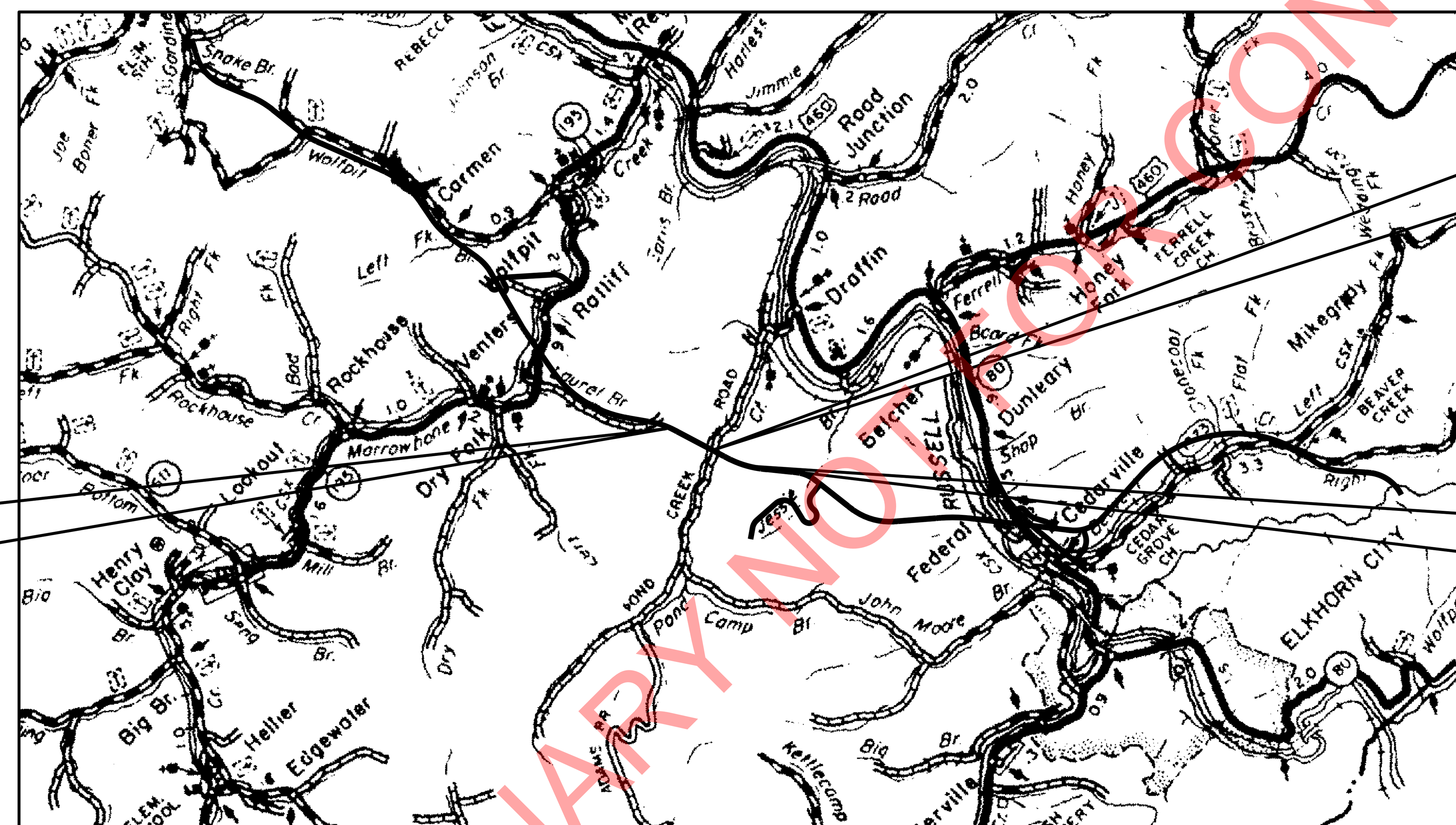
SHEETS NOT INCLUDED IN TOTAL SHEETS

1A, 2A-C, 3A, 5A, 5B, 7A, 7B, 11A, 12A, 18A, 18B

STANDARD DRAWINGS

RBI-001-11	RDB-400-05	RDP-010-09
RBI-002-07	RDB-410-06	RDX-160-06
RBM-020-09	RDB-420-05	RDX-210-03
RBM-115-10	RDD-040-05	RDX-215-01
RBM-120-01	RDH-110-02	RDX-220-05
RBR-001-12	RDH-210-03	RDX-225-01
RBR-005-11	RDH-310-04	RDX-230-01
RBR-010-06	RDI-001-10	RGS-001-07
RBR-015-05	RDI-002-05	RGS-002-06
RBR-016-05	RDI-003-05	RGX-001-06
RBR-050-07	RDI-004-04	RGX-010-04
RBR-051	RDI-020-09	RGX-050-02
RBR-055	RDI-021-01	RGX-200-01
RDB-001-12	RDI-025-05	TTC-100-04
RDB-002-12	RDI-026-01	TTC-150-03
RDB-005-09	RDI-035-02	TTD-125-02
RDB-280-06	RDI-040-01	
RDB-281-03	RDI-041-01	
RDB-282-04	RDI-045-02	
RDB-283-04	RDP-001-06	

TOTAL STD. DRAWINGS : 56



STATION 617+25
5-SPAN BRIDGE OVER POND CREEK
BRIDGE NO. 27242

BEGIN PROJECT
STATION 611+80.00

END PROJECT
STATION 622+70.00

1 0 1 2 3
GRAPHIC SCALE IN MILES

LAYOUT MAP

THIS PROJECT IS ON THE NATIONAL HIGHWAY SYSTEM

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY. ACCESS SHALL BE PROVIDED ONLY WHERE SPECIFICALLY INDICATED ON THE PLANS WITH A MINIMUM SPACING OF 1200 FEET.

DESIGN CRITERIA

CLASS OF HIGHWAY ARTERIAL
TYPE OF TERRAIN MOUNTAINOUS
DESIGN SPEED 60 mph
REQUIRED NPSD 525'
REQUIRED PSD N/A
LEVEL OF SERVICE C
ADT PRESENT (1997) N/A
ADT FUTURE (2020) 8300
DHV 830
D % 58/42
T % 16

GEOGRAPHIC COORDINATES

LATITUDE 37 DEGREES 19 MINUTES 30 SECONDS NORTH
LONGITUDE 82 DEGREES 24 MINUTES 16 SECONDS WEST

DESIGNED

% RESTRICTED SD N/A
LEVEL OF SERVICE A
MAX. DISTANCE W/O PASSING N/A

GROSS LENGTH 1,090 LIN. FT. 0.206 MILES
DEDUCTED FOR EQUALITIES 0 LIN. FT.
NET LENGTH 1,090 LIN. FT. 2.178 MILES
RAILROAD CROSSINGS NO. LIN. FT.
BRIDGES 1,000 LIN. FT.

ITEM NO. 12-263.63

KENTUCKY
DEPARTMENT OF HIGHWAYS
PIKE COUNTY
POND CREEK - RUSSELL FORK

PROJECT NUMBER: FD52 098 0460 NEW LOC
NHPP 0806 (044)
LETTING DATE:

RECOMMENDED BY APRIL 7 2017 BY JOHN MICHAEL JOHNSON
PROJECT DEVELOPMENT TEAM

PLAN APPROVED MAY 5, 2017 BY
STATE HIGHWAY ENGINEER

PREPARED BY:
PALMER ENGINEERING COMPANY

STATE OF KENTUCKY
JEFFREY C. COWAN
16389
LICENSED
PROFESSIONAL ENGINEER

DESIGNED BY 20 BY
JEFFREY C. COWAN
P.E. 16389

APPROVED:
F.H.W.A. DIVISION ADMINISTRATOR

PREPARED BY — DATE
CHECKED BY — DATE
APPROVED BY — DATE

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

4/10/2017
R00100LS.dgn

6-93
FORM NO. 2m

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R1A

SCHEMATIC PLAN
SHEET LAYOUT
PIKE COUNTY
U.S. 460
POND CREEK BRIDGE

N

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

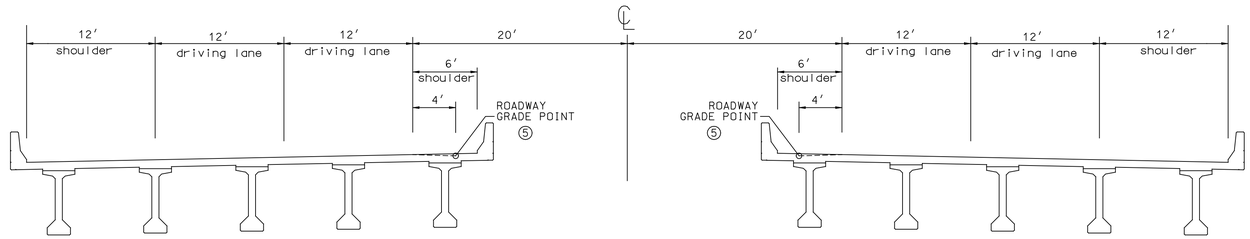
6-93
FORM NO. 2m

4/1/2017

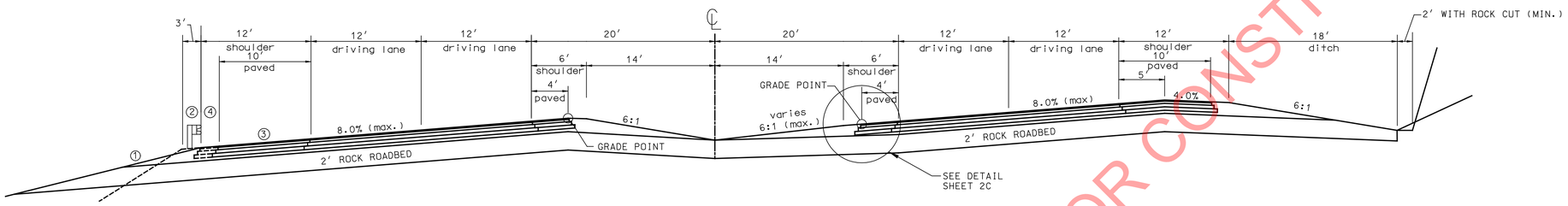
schemPC.dgn

SCALE: 1" = 300'
SCHEMATIC PLAN

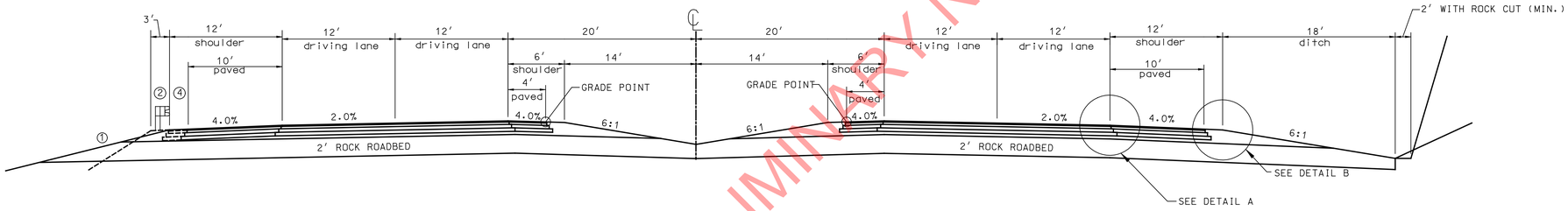
COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R2



BRIDGE DECK TYPICAL SECTION



SUPERELEVATED SECTION MAINLINE



NORMAL SECTION MAINLINE

(FOR INFORMATION ONLY)
US 460 MAINLINE PAVEMENT DESIGN

1.25″ SURFACE	1.25″ DEPTH CLASS 3 ASPHALT SURFACE 0.38B PG64-22
16.25″ BASE	3.25″ DEPTH CLASS 3 ASPHALT BASE 1.0D PG64-22 9″ (4.5″+ 4.5″) DEPTH CLASS 3 ASPHALT BASE 1.0D PG64-22 4″ CRUSHED STONE BASE
	2′ ROCK ROAD BED

(FOR INFORMATION ONLY)
US 460 SHOULDER PAVEMENT DESIGN

1.25″ SURFACE	1.25″ DEPTH CLASS 2 ASPHALT SURFACE 0.38B PG64-22
16.25″ BASE	3.25″ DEPTH CLASS 2 ASPHALT BASE 1.0D PG64-22 9″ (4.5″+ 4.5″) DEPTH CLASS 3 ASPHALT BASE 1.0D PG64-22 4″ CRUSHED STONE BASE
BIT. SEAL COAT	2.4 LB/SY ASPHALT SEAL COAT 20 LB/SY ASPHALT SEAL AGGREGATE (TWO APPLICATIONS)
	2′ ROCK ROAD BED

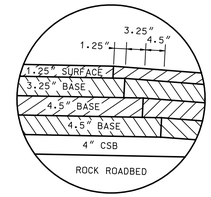
① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDERS

② SHOULDERS SHALL BE WIDENED 3′ WHERE GUARDRAIL IS REQUIRED

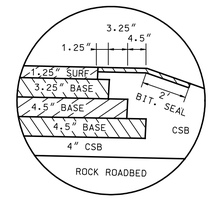
③ SUPERELEVATED SHOULDERS: CONSTRUCT TO STANDARD SUPERELEVATION EXCEPT NOT FLATTER THAN 4.0%

④ EXTEND SHOULDER PAVEMENT TO FACE OF GUARDRAIL, WHERE PRESENT

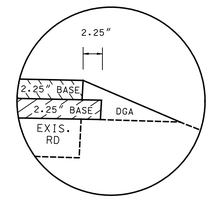
⑤ ELEVATION AT INSIDE EDGE OF DRIVING LANE RELATIVE TO ROADWAY GRADE POINT STAYS CONSTANT ON BRIDGE DECK (4′ x 4% = 0.16′ ABOVE)



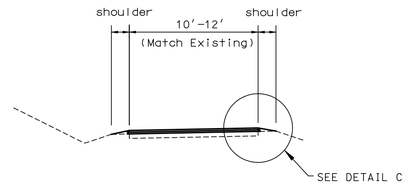
DETAIL A
NOT TO SCALE



DETAIL B
NOT TO SCALE



DETAIL C
NOT TO SCALE



POND CREEK ROAD OVERLAY

4.5″ BASE	4.5″ (2.25″+ 2.25′) DEPTH CLASS 2 ASPHALT BASE 0.75D PG64-22
	4.5″ WEDGE DENSE GRADED AGGREGATE

NOT TO SCALE

TYPICAL

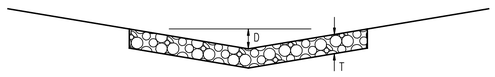
PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

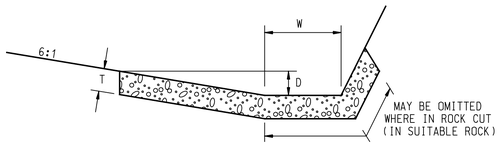
typ-PC.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R2A



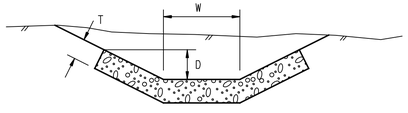
D = DEPTH TO PROTECT
T = THICKNESS (ROCK LINING)

MEDIAN DITCHES



D = DEPTH TO PROTECT
T = THICKNESS (ROCK LINING)
W = DITCH WIDTH PLUS
BENCH WIDTH (IF ANY)

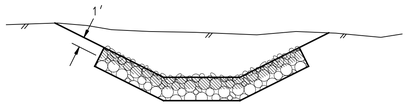
TYPICAL ROADWAY DITCH IN CUT SECTIONS



D = DEPTH TO PROTECT
T = THICKNESS (ROCK LINING)
W = WIDTH

TYPICAL SURFACE DITCH SECTION

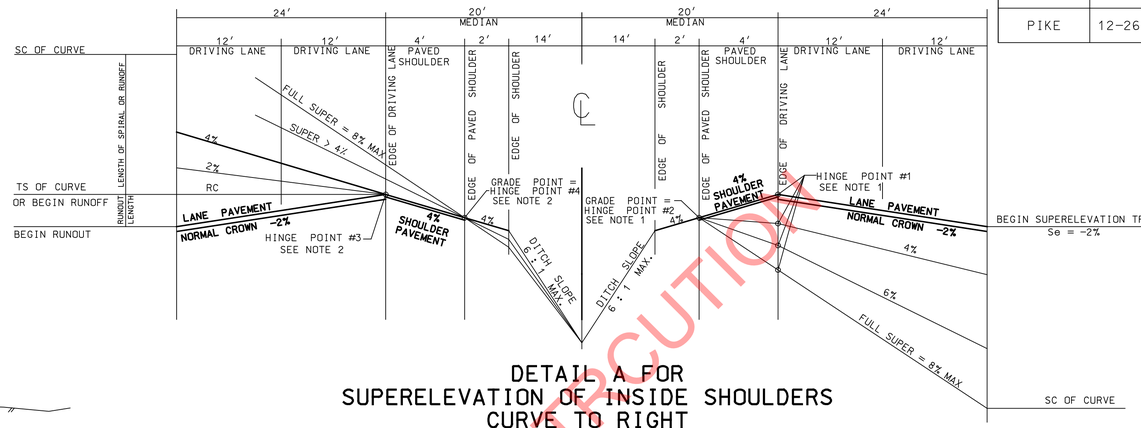
GROUT ① TO PENETRATE
TOP 1′ OF RIP RAP LINING ②



① HIGH SLUMP 3000 PSI GROUT

② PLACEMENT OF GROUT SHOULD LEAVE TOP 1′ LAYER OF STONES 1/3 TO 1/4 EXPOSED, AND RESULT IN A SURFACE MATRIX OF ROUGH STONE AND FILLED VOIDS

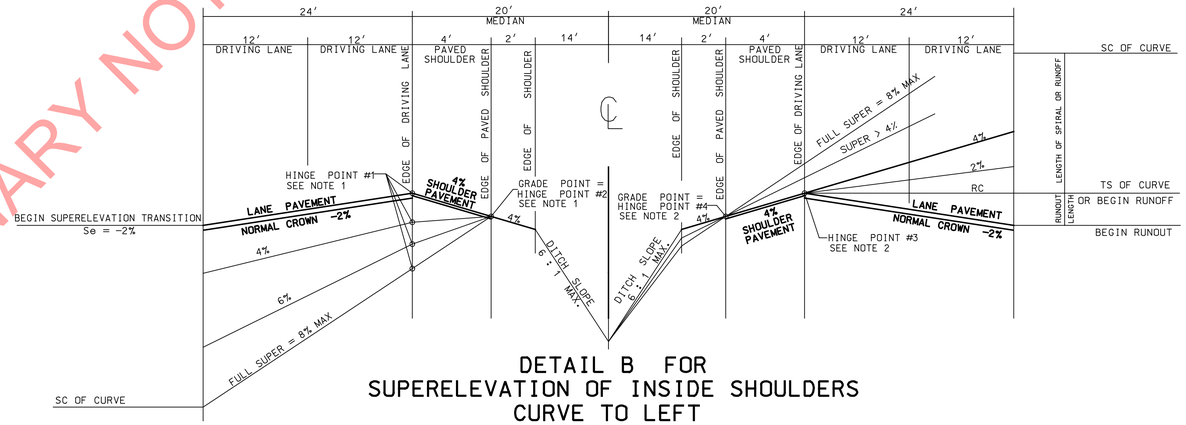
GROUTED RIP RAP DITCH SECTION



DETAIL A FOR SUPERELEVATION OF INSIDE SHOULDERS CURVE TO RIGHT
NTS

NOTE #1: THE SHOULDER TRANSITIONS FROM POSITIVE 4% TO FULL SUPER ROTATING AROUND HINGE POINT #2 IN THE SAME DISTANCE THAT THE PAVEMENT TRANSITIONS FROM NEGATIVE 2% TO FULL SUPER ROTATING AROUND HINGE POINT #1

NOTE #2: FOR SUPERELEVATION FROM NORMAL CROWN THROUGH POSITIVE 4% THE DRIVING LANES ROTATE AROUND HINGE POINT #3 AND THE SHOULDER REMAINS AT NEGATIVE 4%. FOR SUPERELEVATION FROM POSITIVE 4% THROUGH POSITIVE 8% THE DRIVING LANES AND THE SHOULDER ROTATE AROUND HINGE POINT #4 WITH NO BREAK IN SLOPE AT THE EDGE OF PAVEMENT.

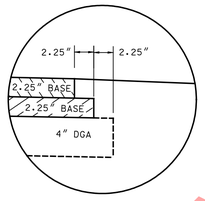


DETAIL B FOR SUPERELEVATION OF INSIDE SHOULDERS CURVE TO LEFT
NTS

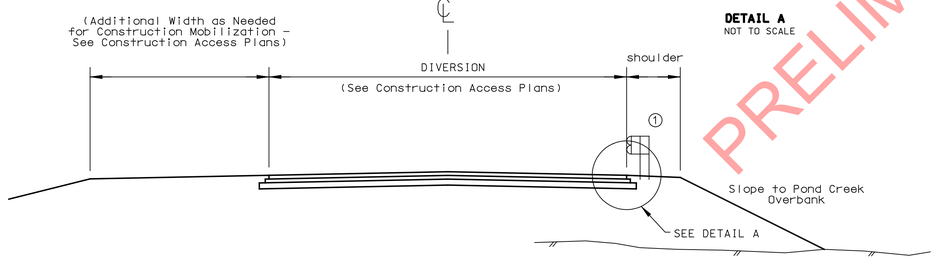
NOTE #1: THE SHOULDER TRANSITIONS FROM POSITIVE 4% TO FULL SUPER ROTATING AROUND HINGE POINT #2 IN THE SAME DISTANCE THAT THE PAVEMENT TRANSITIONS FROM NEGATIVE 2% TO FULL SUPER ROTATING AROUND HINGE POINT #1.

NOTE #2: FOR SUPERELEVATION FROM NORMAL CROWN THROUGH POSITIVE 4% THE DRIVING LANES ROTATE AROUND HINGE POINT #3 AND THE SHOULDER REMAINS AT NEGATIVE 4%. FOR SUPERELEVATION FROM POSITIVE 4% THROUGH POSITIVE 8% THE DRIVING LANES AND THE SHOULDER ROTATE AROUND HINGE POINT #4 WITH NO BREAK IN SLOPE AT THE EDGE OF PAVEMENT.

① MINIMUM SHOULDER: 2′ WITHOUT GUARDRAIL
3′ WITH GUARDRAIL



DETAIL A
NOT TO SCALE



POND CREEK ROAD DIVERSION

② 8.5″ BASE 4.5″ (2.25″+ 2.25′) DEPTH CLASS 2 ASPHALT BASE 0.75D PG64-22
4.0″ DENSE GRADED AGGREGATE

② PAVEMENT FOR LOW WATER CROSSING MAY VARY:
SEE PERMIT DETAILS AND REQUIREMENTS

NOT TO SCALE
TYPICAL

PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

typ-rc.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R2B

GENERAL SUMMARY

ITEM CODE	ITEM	UNIT	TOTAL PROJECT
78	CRUSHED AGGREGATE SIZE NO. 2 (11)	TON	2
1002	PERFORATED PIPE - 8 INCH (11)	LIN FT	100
1012	NON-PERFORATED PIPE - 8 INCH (11)	LIN FT	100
1022	PERFORATED PIPE HEADWALL TY 1 - 8 INCH (11)	EACH	2
1982	DELINEATOR FOR GUARDRAIL M/W (6)	EACH	4
1984	DELINEATOR FOR BARRIER - WHITE (6)	EACH	4
2159	TEMPORARY DITCH	LIN FT	550
2160	CLEAN TEMPORARY DITCH	LIN FT	275
2200	ROADWAY EXCAVATION (13)	CU YD	216,110
2371	GUARDRAIL END TREATMENT TY 7 (6)	EACH	2
2397	TEMPORARY GUARDRAIL (6)	LIN FT	200
2475	PLUG WATER WELL	EACH	2
2483	CHANNEL LINING CLASS II (4)	TON	83
2488	CHANNEL LINING CLASS IV (5)	CU YD	356
2542	CEMENT (11)	TON	4
2545	CLEARING AND GRUBBING (12)	LUMP SUM	1
2562	SIGNS (6)	SQ FT	87
2568	MOBILIZATION	LUMP SUM	1
2569	DEMOBILIZATION	LUMP SUM	1
2610	RETAINING WALL - GABION (5)	CU YD	34
2650	MAINTAIN AND CONTROL TRAFFIC (7)	LUMP SUM	1
2651	DIVERSION (9)	LUMP SUM	1
2701	TEMPORARY SILT FENCE	LIN FT	550
2703	SILT TRAP TYPE A	EACH	20
2704	SILT TRAP TYPE B	EACH	20
2705	SILT TRAP TYPE C	EACH	20
2706	CLEAN SILT TRAP TYPE A	EACH	20
2707	CLEAN SILT TRAP TYPE B	EACH	20
2708	CLEAN SILT TRAP TYPE C	EACH	20
2726	STAKING	LUMP SUM	1
3171	CONCRETE BARRIER WALL TY 9T (6)	LIN FT	200
5950	EROSION CONTROL BLANKET	SQ YD	5,000
5952	TEMPORARY MULCH	SQ YD	64,500
5953	TEMPORARY SEEDING AND PROTECTION	SQ YD	48,400
5963	INITIAL FERTILIZER	TON	2
5964	20-10-10 FERTILIZER	TON	4
5985	SEEDING AND PROTECTION	SQ YD	78,500
5992	AGRICULTURAL LIMESTONE	TON	49
10020NS	FUEL ADJUSTMENT (10)	DOLL	37,374
20667ED	PNEUMATIC BACKSTOWING (11)	TON	150
20911ED	HIGH SLUMP 3000 PSI GROUT (5)	CU YD	18
24740EC	CONSTRUCTION ACCESS (8)	LUMP SUM	1

PAVING AREAS

ITEM CODE	ITEM	POND CREEK ROAD OVERLAY (3)	POND CREEK ROAD DIVERSION (1)	TOTALS
		SQUARE YARDS		
221	2.5" CLASS 2 ASPHALT BASE 0.75D PG64-22	1200	1128	2328
221	2.5" CLASS 2 ASPHALT BASE 0.75D PG64-22	1242	1156	2398
001	4" DENSE GRADED AGGREGATE	500 (2)	1184	1684

PAVING QUANTITIES

ITEM CODE	ITEM	UNIT	POND CREEK ROAD OVERLAY (3)	POND CREEK ROAD DIVERSION (1)	TOTALS
221	CLASS 2 ASPHALT BASE 0.75D PG64-22	TON	336	314	650
001	DENSE GRADED AGGREGATE	TON	141 (2)	272	413

ASPH. MIXTURE ESTIMATED AT 110 LB/SQ YD/IN OF DEPTH

DGA BASE ESTIMATED AT 115 LB/SY YD/IN OF DEPTH

(1) FOR ESTIMATING PURPOSES ONLY; FINAL QUANTITIES TO BE DETERMINED BY THE CONSTRUCTION ACCESS PLAN

(2) INCLUDES QUANTITIES FOR SHOULDER WEDGE ALONG OVERLAY AND FOR MAINTENANCE OF EXISTING ROADS DURING CONSTRUCTION (AS DIRECTED BY THE ENGINEER)

(3) FOR RESURFACING OF POND CREEK ROAD AFTER BRIDGE CONSTRUCITON COMPLETE; FINAL LIMITS TO BE DETERMINED BY THE ENGINEER

(4) FOR LINING OF POND CREEK ROAD DITCHES WHERE LOCATED IN THE CLEAR ZONE AND REPAIR/REPLACE DISTURBED AREAS OF PREVIOUSLY CONSTRUCTED ROADWAY DITCHES OF THE SAME LINING (AS DIRECTED BY THE ENIGNEER)

(5) FOR NEW DITCHES IN STEEP TERRAIN, REPAIR/REPLACE DISTURBED AREAS OF PREVIOUSLY CONSTRUCTED ROADWAY DITCHES OF THE SAME LINING, AND LINING OF POND CREEK CHANNEL BANKS WHERE DISTURBED (AS DIRECTED BY THE ENGINEER)

(6) FOR MAINTENANCE OF TRAFFIC ALONG POND CREEK ROAD. WHERE TEMPORARY CONCRETE BARRIER IS USED, THE ENDS SHALL EITHER BE TAPERED OR CURVED OUT OF THE CLEAR ZONE (AS DIRECTED BY THE ENGINEER) TO AVOID ANY TRAFFIC HAZARD OR CRASH CUSHIONS SHALL BE USED

(7) TO INCLUDE ALL ITEMS FOR MAINTAINING TRAFFIC ON POND CREEK ROAD, NOT QUANTIFIED OR SPECIFICALLY LISTED.

(8) SEE NOTES SHEET R2C FOR CONSTRUCTION ACCESS BID ITEM DESCRIPTION

(9) FOR TRAFFIC MANAGEMENT AROUND THE PIER CONSTRUCTION ADJACENT TO POND CREEK ROAD; TO INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR ITS CONSTRUCTION, MAINTENANCE, AND REMOVAL

(10) DERIVED FROM EARTHWORK AS ESTIMATED ON SHEET R16; FINAL QUANTITY TO BE DETERMINED BY EARTHWORK AS DETAILED IN THE CONSTRUCTION ACCESS PLAN

(11) FOR BACKSTOWING OF MINE OR AUGER OPENINGS (SEE GEOTECHNICAL NOTE 7)

(12) APPROXIMATELY 20 ACRES

(13) ROADWAY EXCAVATION AS DETAILED ON SHEET R16

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY. ACCESS SHALL BE ALLOWED ONLY WHERE SPECIFICALLY SHOWN ON PLANS.

MINIMUM SPACING IS 1200 FEET

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

4/18/2017

R0020BSU.dgn

GENERAL SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R2C

GENERAL NOTES

BEFORE YOU DIG

THE CONTRACTOR IS INSTRUCTED TO CALL 1-800-752-6007 TO REACH KY 811, THE ONE-CALL SYSTEM FOR INFORMATION ON THE LOCATION OF EXISTING UNDERGROUND UTILITIES. THE CALL IS TO BE PLACED A MINIMUM OF TWO (2) AND NO MORE THAN TEN (10) BUSINESS DAYS PRIOR TO EXCAVATION. THE CONTRACTOR SHOULD BE AWARE THAT OWNERS OF UNDERGROUND FACILITIES ARE NOT REQUIRED TO BE MEMBERS OF THE KY 811 ONE-CALL BEFORE-U-DIG (BUD) SERVICE. THE CONTRACTOR MUST COORDINATE EXCAVATION WITH THE UTILITY OWNERS, INCLUDING THOSE WHOM DO NOT SUBSCRIBE TO KY 811. IT MAY BE NECESSARY FOR THE CONTRACTOR TO CONTACT THE COUNTY COURT CLERK TO DETERMINE WHAT UTILITY COMPANIES HAVE FACILITIES IN THE AREA.

DEPARTMENT OF THE ARMY PERMIT AND WATER QUALITY CERTIFICATION APPROVALS

A DEPARTMENT OF THE ARMY (DA) PERMIT, WHICH MAY REQUIRE APPROVAL OF A STATE WATER QUALITY CERTIFICATION FROM THE KENTUCKY DIVISION OF WATER, REGULATES THIS PROJECT AT ONE OR MORE LOCATIONS. PERFORM ALL APPLICABLE WORK IN COMPLIANCE WITH THE CONDITIONS STATED IN THE DA PERMIT AND THE APPROVED WATER QUALITY CERTIFICATION. POST A COPY OF THE DA PERMIT AND THE WATER QUALITY CERTIFICATION IN A CONSPICUOUS PLACE AT THE PROJECT SITE. IF A DA PERMIT OR WATER QUALITY CERTIFICATION APPROVAL IS PENDING, DO NOT WORK IN OR DISTURB THE DESIGNATED AREA(S) UNTIL OBTAINING THE APPROPRIATE APPROVAL(S). REFER TO NOTICE(S) CONTAINED IN THE CONTRACT BID PROPOSAL FOR DESIGNATED AREA(S) WHERE WORK IS PROHIBITED BY THE ABSENCE OF APPROVAL.

STANDARD DRAWINGS

STANDARD DRAWINGS ARE NOT ATTACHED TO THESE PLANS. A STANDARD DRAWING BOOK AND THE HEADWALL SUPPLEMENTAL BOOK MAY BE OBTAINED FROM THE POLICY SUPPORT BRANCH OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES IN FRANKFORT, KY AT (502) 564-3670.

SPECIAL PROVISION 69 EMBANKMENT AT BRIDGE END BENT STRUCTURES (SEE BRIDGE PLANS).

COMPACTION OF ASPHALT MIXTURES

WILL ACCEPT THE COMPACTION OF ASPHALT MIXTURES FURNISHED ON THIS PROJECT BY OPTION B ACCORDING TO SUBSECTIONS 402.03.02 AND 403.03.10 OF THE STANDARD SPECIFICATIONS.

SPECIAL NOTES

SPECIAL NOTE 11D ROCK BLASTING

WORK SCHEDULE, CONTRACTOR COORDINATION, AND EXCESS MATERIAL SITES

GRADE AND DRAIN CONSTRUCTION OPERATIONS ARE UNDERWAY ON THE ADJOINING ROADWAY PROJECT TO THE EAST OF THIS LOCATION. NO WORK MAY BEGIN ON THAT SIDE UNTIL THE CONTRACTOR HAS COMPLETED THAT WORK. GRADE AND DRAIN CONSTRUCTION OPERATIONS ARE ALSO UNDERWAY FOR THE BRIDGE OVER KY 195 1.4 MILES TO THE WEST OF THIS LOCATION. ALL ACCESS AND MOBILIZATION FROM THIS SIDE SHALL BE COORDINATED WITH THAT CONTRACTOR IN SUCH A WAY AS TO ALLOW WORK FOR BOTH PROJECTS TO BE ACCOMPLISHED IN A TIMELY MANNER AND PREVENT ANY UNNECESSARY DELAYS, AS DIRECTED BY THE ENGINEER. (REFER TO SECTION 105.06 IN THE KYTC STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.)

PLANS FOR PLACEMENT OF EXCESS MATERIAL ON BOTH SIDES OF POND CREEK ARE TO BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL A MINIMUM OF 30 DAYS BEFORE EARTHWORK OPERATIONS MAY BEGIN.

SPECIAL NOTES

UNDERGROUND UTILITIES:

GAS, POWER, AND OTHER UTILITIES HAVE BEEN OR ARE IN THE PROCESS OF BEING RELOCATED UNDERGROUND IN AND AROUND THIS LOCATION. THE CONTRACTOR WILL CONFIRM THE LOCATION WITH EACH UTILITY, AND OBSERVE ANY AND ALL REQUIREMENTS FOR EQUIPMENT MOBILIZATION OVER THOSE AREAS, INCLUDING MINIMUM COVER, TYPE OF COVER, MAXIMUM LOADING, ETC.

TREE RESTRICTIONS:

TREE CUTTING RESTRICTION WILL BE ENFORCED. TREES MAY ONLY BE CUT BETWEEN OCTOBER 15TH AND MARCH 31ST.

TREE REMOVAL: NO CLEARING OF TREES 5 INCHES (DIAMETER AT BREAST HEIGHT) OR GREATER FROM JUNE 1ST TO JULY 31ST.

CONSTRUCTION ACCESS PLAN:

THE CONTRACT LUMP SUM PRICE FOR "CONSTRUCTION ACCESS" SHALL INCLUDE THE DESIGN AND SUBMITTAL OF PLANS FOR REVIEW, AND ALL MATERIALS, EQUIPMENT, AND LABOR TO BUILD AND MAINTAIN SAFE ACCESS TO ALL AREAS OF THE PROJECT.

ANY INFORMATION SHOWN IN THE CONTRACT PLANS PERTAINING TO CONSTRUCTION ACCESS OR METHODS IS FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE MEANS AND METHODS FOR CONSTRUCTION.

CONTRACTOR SHALL SUBMIT TO THE ENGINEER DETAILED CONSTRUCTION ACCESS DRAWINGS FOR REVIEW AND APPROVAL AT LEAST 45 CALENDAR DAYS PRIOR TO UNDERTAKING ANY WORK. NO WORK SHALL BEGIN UNTIL THE CONSTRUCTION ACCESS PLAN HAS BEEN APPROVED BY THE ENGINEER.

CONSTRUCTION ACCESS PLANS SHALL INCLUDE, AS A MINIMUM, PLAN AND PROFILE DRAWINGS SHOWING CONSTRUCTION LIMITS, EXCAVATION AND EMBANKMENT SLOPES, ELEVATIONS OF ROCK BENCHES, TEMPORARY DRAINAGE, PROJECT SEQUENCING, AND ANY STAGING, LAYDOWN, OR MATERIAL STORAGE AREAS. THE PLANS SHALL ALSO ACCOUNT FOR CRANE PLACEMENT NECESSARY TO CONSTRUCT THE BRIDGE. ANY DISTURBANCE TO PREVIOUSLY CONSTRUCTED SLOPES, ROCK ROADBED, DITCHES, OR DRAINAGE SYSTEMS SHALL BE REPAIRED OR RECONSTRUCTED TO THE SATISFACTION OF THE ENGINEER.

ROCK BENCHING SCHEME SHALL PROVIDE LONG-TERM DURABILITY SO THAT BRIDGE SUBSTRUCTURES ARE NOT ADVERSELY AFFECTED. THE LITHOLOGY OF THE HILLSIDE SHALL BE CONSIDERED IN THE BENCHING DESIGN TO REDUCE POTENTIAL DEGRADATION DUE TO RAVELING. FOOTINGS SHALL BE KEYED INTO ROCK A MINIMUM DEPTH OF 2'-0" AND A MINIMUM OF 2'-0" OF ROCK REFILL SHALL BE PLACED OVER FOOTINGS. A MINIMUM OF 15'-0" OF SOUND ROCK BENCH SHALL BE LEFT BETWEEN ALL PIER FOOTINGS AND A LOWER CUT OR NATURAL SLOPE. A MINIMUM OF 10'-0" OF SOUND ROCK BENCH SHALL BE LEFT BETWEEN ALL ABUTMENT FOOTINGS AND A LOWER CUT OR NATURAL SLOPE.

FOR ALL ROCK BENCHES AT PIER AND ABUTMENT LOCATIONS, AND THOSE BELOW AND ABOVE THEM AS INDICATED BY THE ENGINEER, THE FOLLOWING PROCESS SHALL APPLY. BEFORE THE PRE-SPLIT HOLES ARE DRILLED, THE CONTRACTOR SHALL CLEARLY MARK THEIR LOCATIONS AT LEAST 14 DAYS PRIOR TO DRILLING. THE ENGINEER WILL DIRECT A SURVEY OF THE HOLE LOCATIONS FOR REVIEW AND APPROVAL. AFTER DRILLING, SHOT, AND EXCAVATION THE ENGINEER WILL AGAIN DIRECT A SURVEY OF THE FINAL EXCAVATED SURFACE, AND APPROVAL MUST BE GIVEN BEFORE COMMENCEMENT OF THE NEXT SET OF HOLES OR PREPARATION FOR THE SUBSTRUCTURE UNIT MAY BEGIN. WHERE EXCAVATED BENCHES DEVIATE FROM PRESCRIBED ELEVATIONS AND LOCATIONS IN THE APPROVED CONSTRUCTION ACCESS PLAN, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE MITIGATION AND REMEDIATION OF THE BENCHING SCHEME TO THE ENGINEER FOR APPROVAL. THAT APPROVAL MUST BE GIVEN BEFORE WORK MAY CONTINUE IN THE AFFECTED AREA.

COSTS TO DEVELOP THE CONSTRUCTION ACCESS PLANS, TO REPAIR OR RECONSTRUCT PREVIOUSLY CONSTRUCTED SLOPES, ROCK ROADBEDS, DITCHES, OR DRAINAGE SYSTEMS AND TO PROVIDE AND PLACE REFILL SHALL BE INCIDENTAL TO THE BID ITEM FOR CONSTRUCTION ACCESS.

COSTS OF EXCAVATION REQUIRED TO CONSTRUCT THE BRIDGE FOUNDATIONS OUTSIDE OF THAT INCLUDED IN SECTION 603 OF THE STANDARD SPECIFICATIONS AND AS DETAILED ON THE GENERAL SUMMARY AND SHEET R16 SHALL BE INCLUDED IN THE BID ITEM FOR CONSTRUCTION ACCESS.

SEE THE FOUNDATION LAYOUT DRAWINGS FOR ADDITIONAL INFORMATION.

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

General Notes-PC.dgn 4/18/2017

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R3

CONVENTIONAL SIGNS

SURVEY LINE

GRADE LINE — 400' V.C.

GROUND LINE

COUNTY LINE
CORPORATE LIMITS
EXIST. PROPERTY LINE
EXIST. RIGHT OF WAY & PROPERTY LINE
PROPOSED RIGHT OF WAY

RIGHT OF WAY MONUMENT

BENCH MARK — B.M. NO.4

EXISTING R/W MARKER

RIGHT OF WAY MONUMENT
EXISTING **PROPOSED**

UTILITY TEST HOLE — TH

EXISTING ROAD

RAILROAD
FENCE (CONTROLLED ACCESS)
FENCE (EXCEPT STONE AND HEDGE)

TREE LINE

TREES

PIPE CULVERT
CULVERT
BRIDGE

BUILDINGS — 1-S FRAME, 1-S BRICK, SHED, 2-S BRICK

GUARDRAIL — END TREATMENT, GUARDRAIL, TERMINAL SECTION

	EXISTING	PROPOSED
LIGHTING POLE		
POWER POLE		
JOINT POWER & TELEPHONE POLE		
TELEPHONE & TELEGRAPH POLE		
ANCHOR, POWER OR TELEPHONE		
STUB POWER		
STUB TELEPHONE		
WATER MAIN	WM	6" WM
GAS MAIN	GM	6" GM
TELEPHONE DUCT	T	T
ELECTRIC DUCT	E	E
DIRECT BURIAL TV CABLE	TV	TV
SANITARY SEWER (WITH MANHOLE)	SAN	SAN
STORM SEWER (WITH MANHOLE)	STORM	STORM
DIRECT BURIAL ELECTRIC CABLE	E	E
DIRECT BURIAL TELEPHONE CABLE	T	T
OVERHEAD WIRE		
TRAFFIC LIGHTS		
ELECTRIC MANHOLE	EMH	EMH
TELEPHONE MANHOLE	TMH	TMH

STONE FENCE
HEDGE FENCE

SWAMP OR MARSH

SPRINGS

SINKHOLE

QUARRY SITE

BLUE LINE STREAM

INTERMITTENT STREAM OR DITCH

LAKES OR PONDS

REGULATED FLOODWAY

NORTH POINT

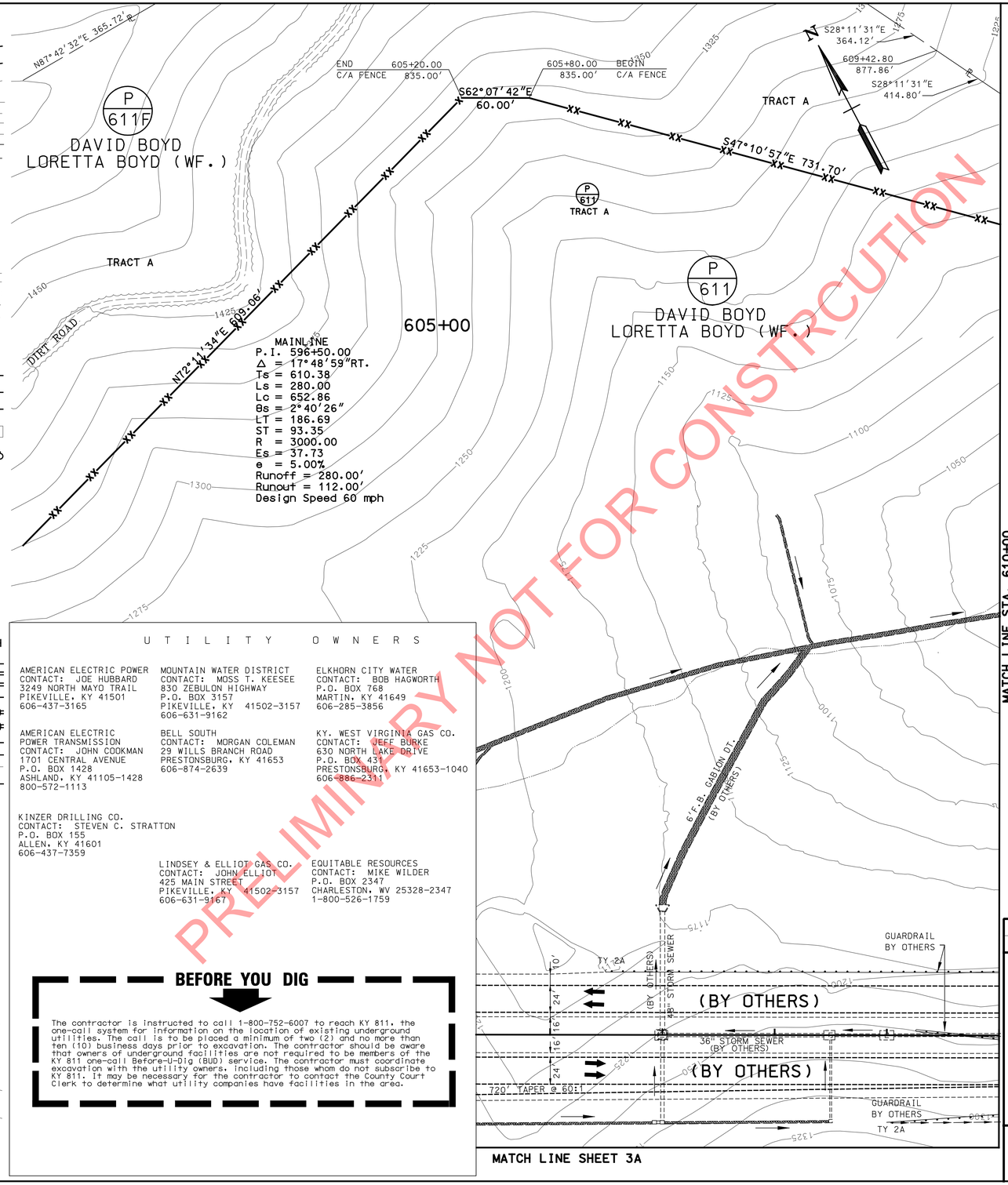
PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

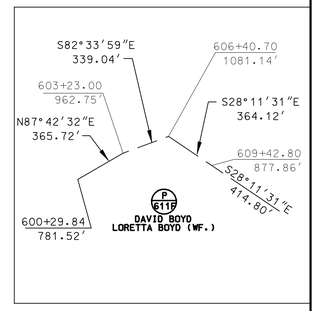
Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

4/1/2017

p1598-PC.dgn





NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

U T I L I T Y O W N E R S

AMERICAN ELECTRIC POWER
CONTACT: JOE HUBBARD
3249 NORTH MAYO TRAIL
PIKEVILLE, KY 41501
606-437-3165

MOUNTAIN WATER DISTRICT
CONTACT: MOSS T. KEESEE
830 ZEBULON HIGHWAY
P.O. BOX 3157
PIKEVILLE, KY 41502-3157
606-631-9162

ELKHORN CITY WATER
CONTACT: BOB HAGWORTH
P.O. BOX 768
MARTIN, KY 41649
606-285-3856

AMERICAN ELECTRIC POWER TRANSMISSION
CONTACT: JOHN COOKMAN
1701 CENTRAL AVENUE
P.O. BOX 1428
ASHLAND, KY 41105-1428
800-572-1113

BELL SOUTH
CONTACT: MORGAN COLEMAN
29 WILLS BRANCH ROAD
PRESTONSBURG, KY 41653
606-874-2639

KY. WEST VIRGINIA GAS CO.
CONTACT: JEFF BURKE
630 NORTH LAKE DRIVE
P.O. BOX 431
PRESTONSBURG, KY 41653-1040
606-886-2311

KINZER DRILLING CO.
CONTACT: STEVEN C. STRATTON
P.O. BOX 155
ALLEN, KY 41601
606-437-7359

LINDSEY & ELLIOT GAS CO.
CONTACT: JOHN ELLIOT
425 MAIN STREET
PIKEVILLE, KY 41502-3157
606-631-9167

EQUITABLE RESOURCES
CONTACT: MIKE WILDER
P.O. BOX 2347
CHARLESTON, WV 25328-2347
1-800-526-1759

BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

UNDERGROUND UTILITIES:

GAS, POWER, AND OTHER UTILITIES HAVE BEEN OR ARE IN THE PROCESS OF BEING RELOCATED UNDERGROUND IN AND AROUND THIS LOCATION. THE CONTRACTOR WILL CONFIRM THE LOCATION WITH EACH UTILITY, AND OBSERVE ANY AND ALL REQUIREMENTS FOR EQUIPMENT MOBILIZATION OVER THOSE AREAS, INCLUDING MINIMUM COVER, TYPE OF COVER, MAXIMUM LOADING, ETC. (SEE ALSO SHEET R11A.)

0' 50' 100' 200'

SCALE: 1"=50'

DESIGNED BY:
DATE SUBMITTED:

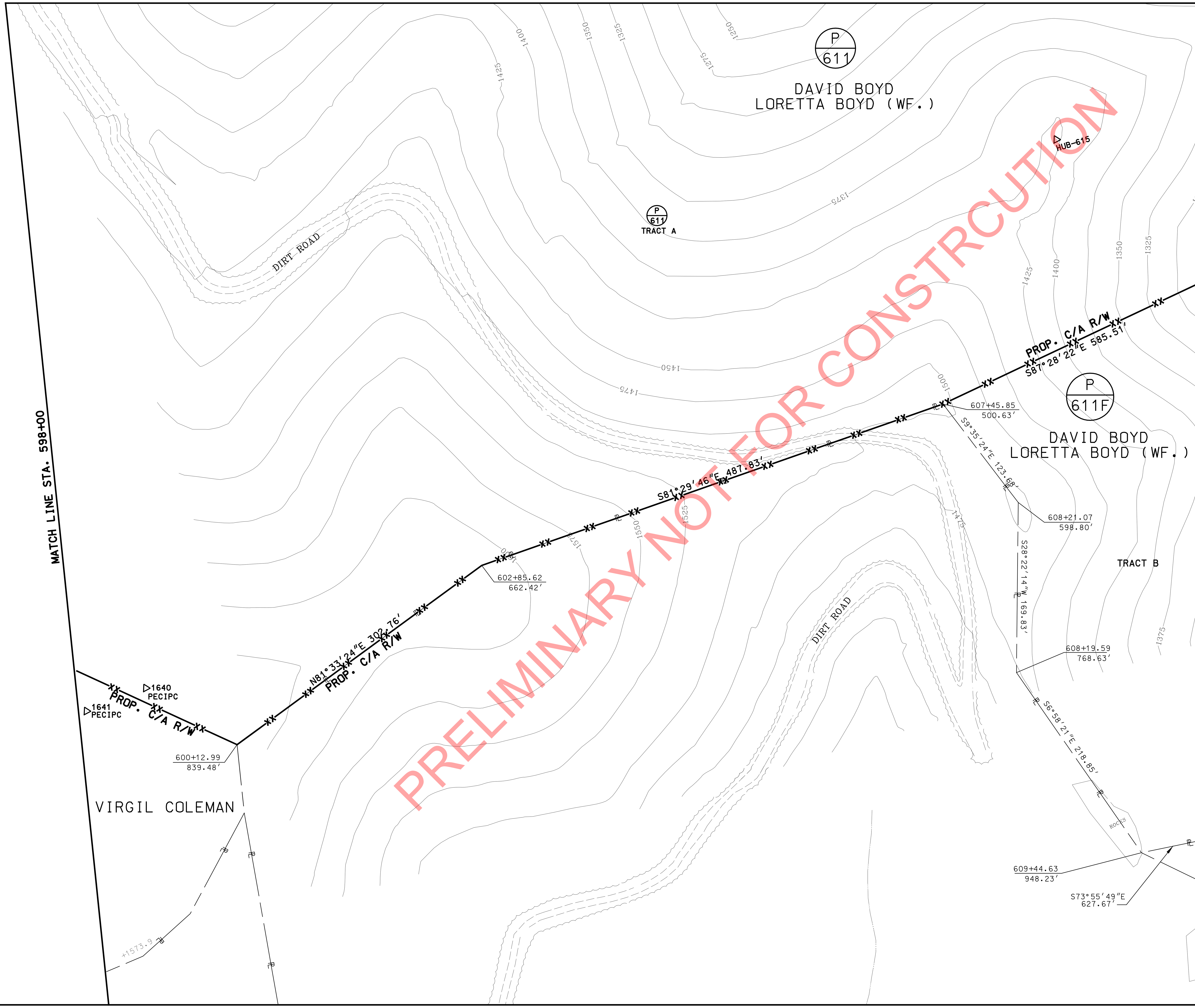
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF
PIKE

PROJECT NUMBERS: FD52 098 0460 NEW LOC
NHPP 0806 (044)

STA. 598+00 TO STA. 610+00

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R3A

MATCH LINE SHEET 3



NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

0' 50' 100' 200'

SCALE: 1" = 50'

STA. 598+00 TO STA. 610+00

PREPARED BY ______ DATE ______
CHECKED BY ______ DATE ______
APPROVED BY ______ DATE ______

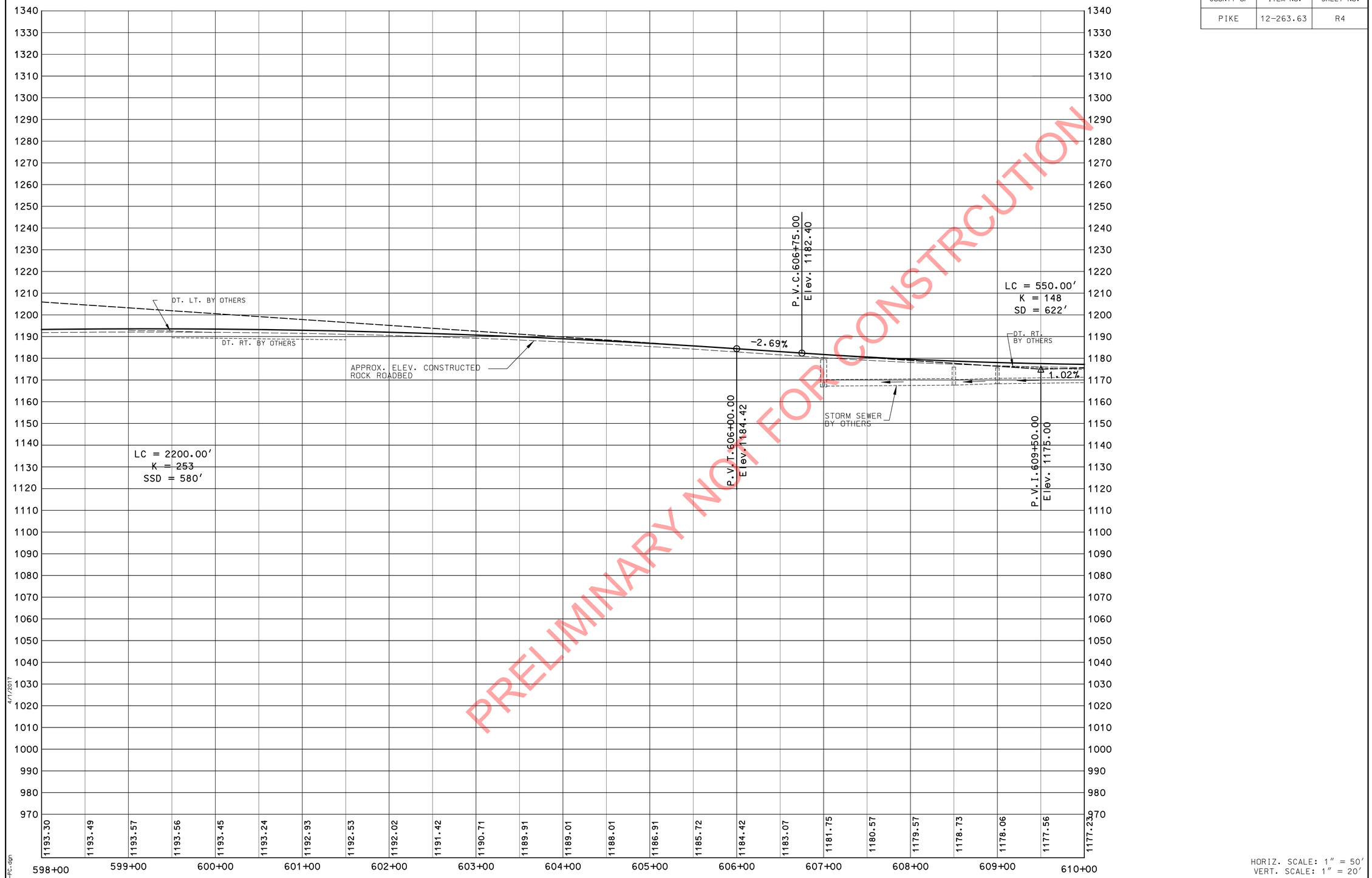
4/1/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

pl598b-PC.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R4



PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

4/1/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

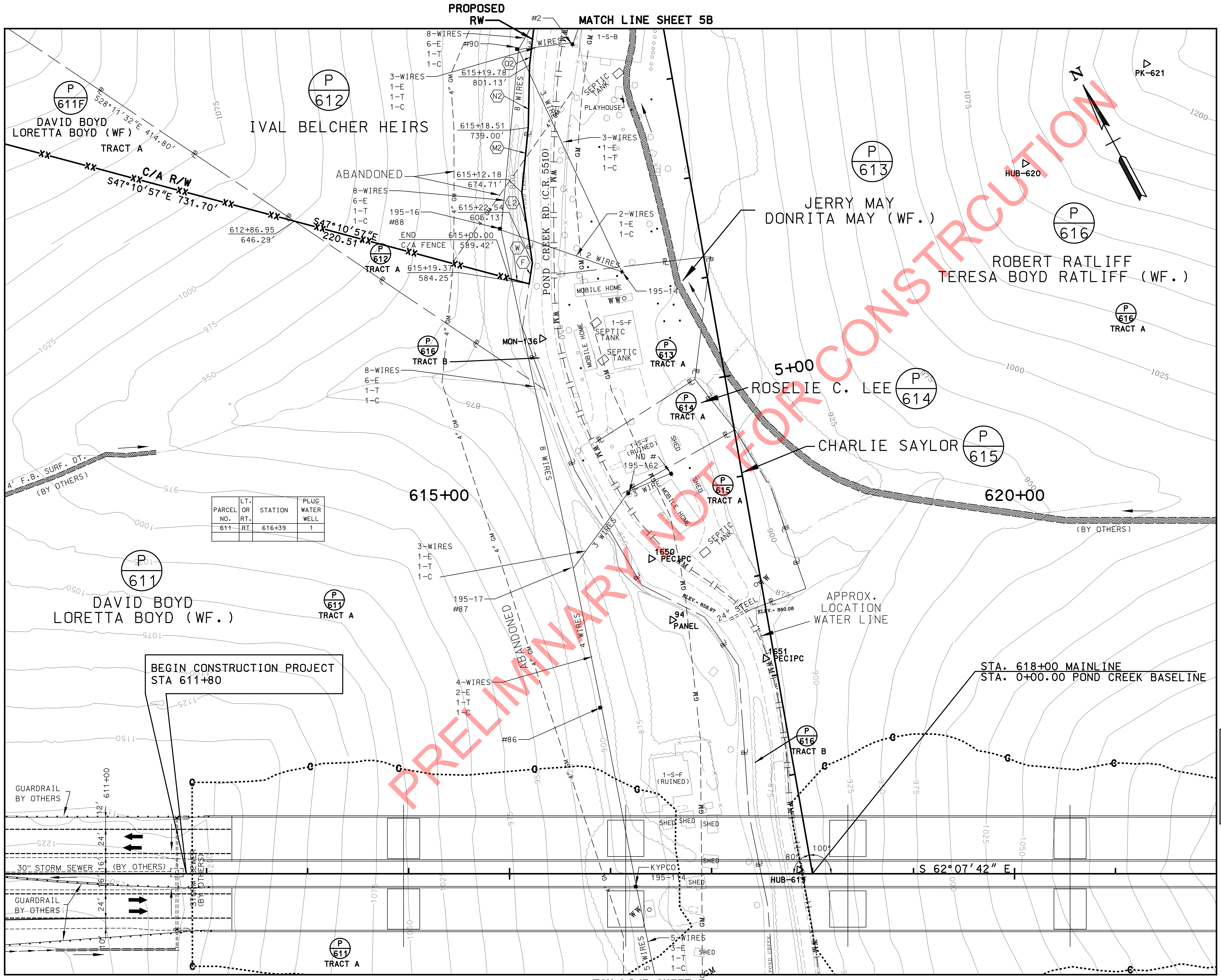
6-93
FORM NO. 2m

pr-598-PC.dgn

HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 20'

MAINLINE PROFILE STA. 598+00 TO STA. 610+00

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R5



PARCEL NO.	LT. OR RT.	STATION	PLUG WATER WELL
611	RT.	616+39	1

F N36°28'38"E 21.12'
W S47°10'53"E 20.05'
L2 N19°24'30"E 70.34'
M2 N33°29'38"E 64.60'
N2 N29°02'16"E 62.14'
O2 N34°21'55"E 69.92'

STA. 617+25
5-SPAN WELDED STEEL PLATE GIRDER BRIDGE OVER POND CREEK AND POND CREEK ROAD

UNDERGROUND UTILITIES:

GAS, POWER, AND OTHER UTILITIES HAVE BEEN OR ARE IN THE PROCESS OF BEING RELOCATED UNDERGROUND IN AND AROUND THIS LOCATION. THE CONTRACTOR WILL CONFIRM THE LOCATION WITH EACH UTILITY, AND OBSERVE ANY AND ALL REQUIREMENTS FOR EQUIPMENT MOBILIZATION OVER THOSE AREAS, INCLUDING MINIMUM COVER, TYPE OF COVER, MAXIMUM LOADING, ETC. (SEE ALSO SHEET R11A.)

NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

0' 50' 100' 200'

SCALE: 1" = 50'

STA. 610+00 TO STA. 622+00

PREPARED BY ______ DATE ______
CHECKED BY ______ DATE ______
APPROVED BY ______ DATE ______

4/1/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

p1610-PC.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R5A

MATCH LINE SHEET 5

ROBERT RATLIFF
TERESA BOYD RATLIFF (WF.)

P 616 TRACT B

P 616 TRACT A

P 611 TRACT A

P 611 DAVID BOYD LORETTA BOYD (WF.)

PARCEL NO.	LT. OR RT.	STATION	PLUG WATER WELL
611	RT	616+89	1

612+75.00
250.00'

C/A R/W
S62°07'42"E 475.00'

S87°28'22"E 585.51'

HUB-617

HUB-616

195-19
#85

END C/A FENCE
617+50.00
250.00'

ABANDONED 5-WIRES

APPROX. LOCATION WATER LINE

617+81.95
250.00'

618+55.00
250.00'
BEGIN C/A FENCE

618+02.73
250.00'

618+00.86
256.63'

617+93.93
295.17'

C/A R/W
S62°07'42"E 295.00'

S38°43'16"E 884.24'

P 611 DAVID BOYD LORETTA BOYD (WF.)

P 611 TRACT B

621+50.00
250.00'

P 643

P 611F DAVID BOYD LORETTA BOYD (WF.)

WELL (PLUGGED)

617+81.35
252.15'

617+74.19
291.94'

617+68.33
331.55'

5-WIRES
3-E
1-T
1-C

3-WIRES
1-E
1-T
1-C

KYPCO
195-91
83½

617+67.17
365.48'

617+71.05
396.86'

617+79.45
437.50'

617+96.55
499.71'

618+03.99
545.04'
#83

618 NEW PEC/RC

SEPTIC TANK

GARAGE

617+88.28
333.36'

617+87.21
364.59'

617+90.80
393.60'

617+98.90
432.82'

618+16.12
495.43'

618+23.86
542.68'

618+27.23
587.97'

618+31.88
621.92'

618+39.16
653.32'

618+58.51
719.74'

618+92.51
845.01'

619+00.81
868.17'

619+11.51
884.61'

619+39.43
918.30'

621+29.98
915.96'

N64°53'46"W
188.56'

N62°49'57"W 190.57'

6-WIRES
4-E
1-T
1-C
617+96.57
579.22'

TRACT B

TRACT C

POND CREEK RD. (C.R. 5510)

MICHAEL TAYLOR
SHERRY TAYLOR (WF.)

617+80.62
671.68'

617+73.49
768.50'

617+31.08
778.55'

615+59.03
819.86'

S75°54'40"E 176.94'

S73°55'49"E 627.67'

ROCKS

NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

MATCH LINE STA. 610+00

MATCH LINE STA. 622+00

(F) S62°07'42"E 11.38'
(G) S62°07'42"E 20.58'
(L) S62°07'42"E 52.27'
(R) N43°34'07"E 2.23'
(S) N38°04'09"E 40.43'
(T) N36°17'02"E 40.04'
(U) N29°50'01"E 33.95'
(V) N20°50'06"E 31.62'
(W) N16°11'34"E 41.50'
(X) N12°29'47"E 64.52'
(Y) N18°33'39"E 45.94'
(Z) N23°37'34"E 34.30'
(A1) N61°56'49"W 9.95'
(B1) S37°39'33"W 93.82'
(C1) S32°05'05"W 97.09'
(D1) S75°27'32"E 43.59'
(E1) N11°46'09"W 43.75'
(F1) N5°11'27"W 19.61'
(G1) N8°08'45"E 24.61'
(H1) N12°41'19"E 129.80'
(I1) N11°37'28"E 69.18'
(J1) N14°49'37"E 32.23'
(K1) N20°04'02"E 34.26'
(L1) N23°37'32"E 45.42'
(M1) N18°33'39"E 47.89'
(N1) N12°29'47"E 64.93'
(O1) N16°11'34"E 40.04'
(P1) N20°50'06"E 29.23'
(Q1) N29°50'01"E 31.25'
(R1) N36°17'02"E 38.60'
(S1) N38°04'09"E 39.16'
(T1) N43°34'15"E 6.89'

UNDERGROUND UTILITIES:

GAS, POWER, AND OTHER UTILITIES HAVE BEEN OR ARE IN THE PROCESS OF BEING RELOCATED UNDERGROUND IN AND AROUND THIS LOCATION. THE CONTRACTOR WILL CONFIRM THE LOCATION WITH EACH UTILITY, AND OBSERVE ANY AND ALL REQUIREMENTS FOR EQUIPMENT MOBILIZATION OVER THOSE AREAS, INCLUDING MINIMUM COVER, TYPE OF COVER, MAXIMUM LOADING, ETC. (SEE ALSO SHEET R11A.)

0' 50' 100' 200'

SCALE: 1" = 50'

STA. 610+00 TO 622+00

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

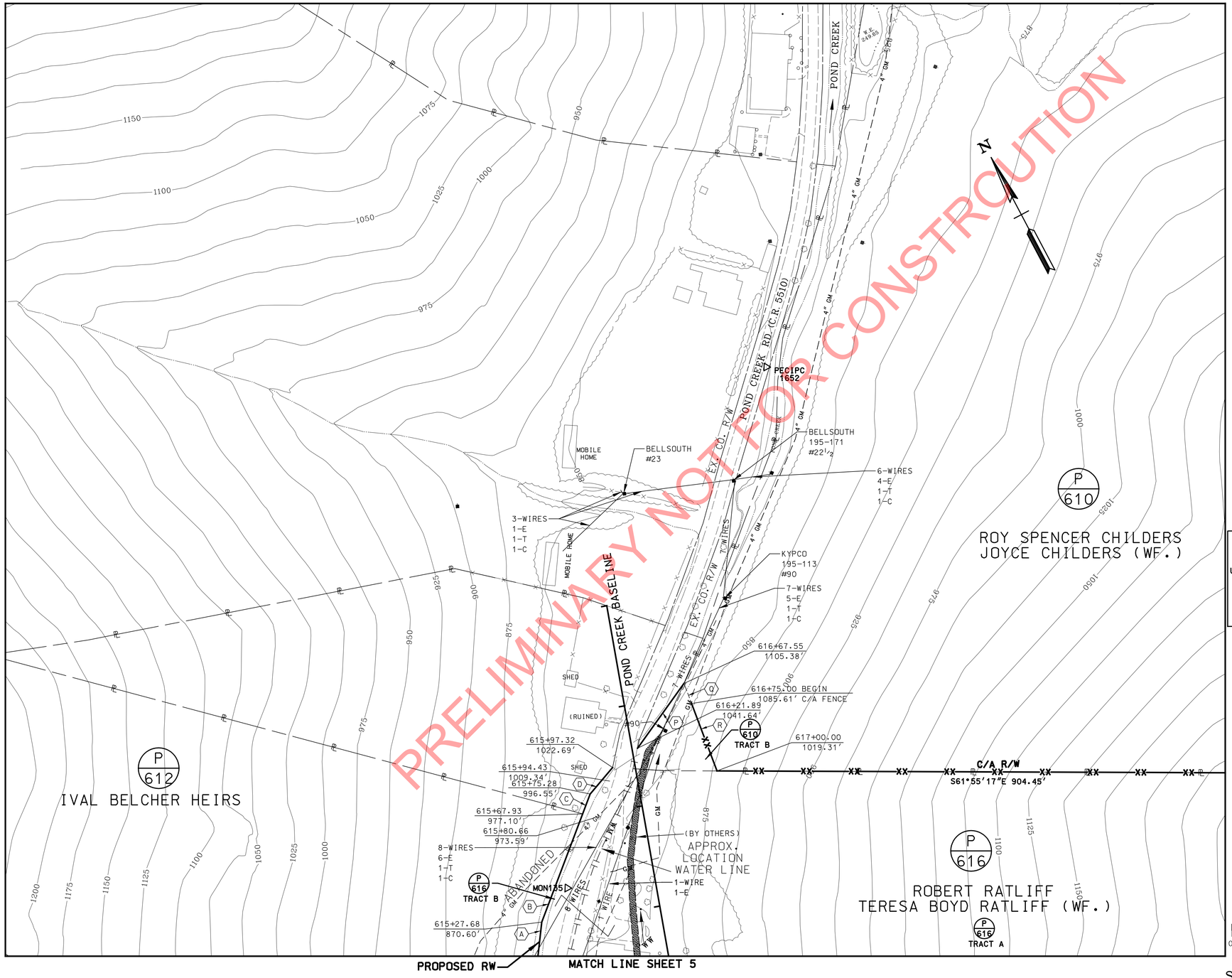
Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

p1610b-PC.dgn

4/1/2017

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R5B



A N34°21'55"E 69.92'
B N48°34'26"E 113.86'
C N48°34'26"E 20.79'
D N68°00'22"E 34.19'
P N63°29'05"E 78.41'
Q N7°12'43"E 21.13'
R N7°12'43"E 70.86'

UNDERGROUND UTILITIES:

GAS, POWER, AND OTHER UTILITIES HAVE BEEN OR ARE IN THE PROCESS OF BEING RELOCATED UNDERGROUND IN AND AROUND THIS LOCATION. THE CONTRACTOR WILL CONFIRM THE LOCATION WITH EACH UTILITY, AND OBSERVE ANY AND ALL REQUIREMENTS FOR EQUIPMENT MOBILIZATION OVER THOSE AREAS, INCLUDING MINIMUM COVER, TYPE OF COVER, MAXIMUM LOADING, ETC. (SEE ALSO SHEET R11A.)

NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

0' 50' 100' 200'

SCALE: 1" = 50'

STA. 610+00 TO STA. 622+00

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

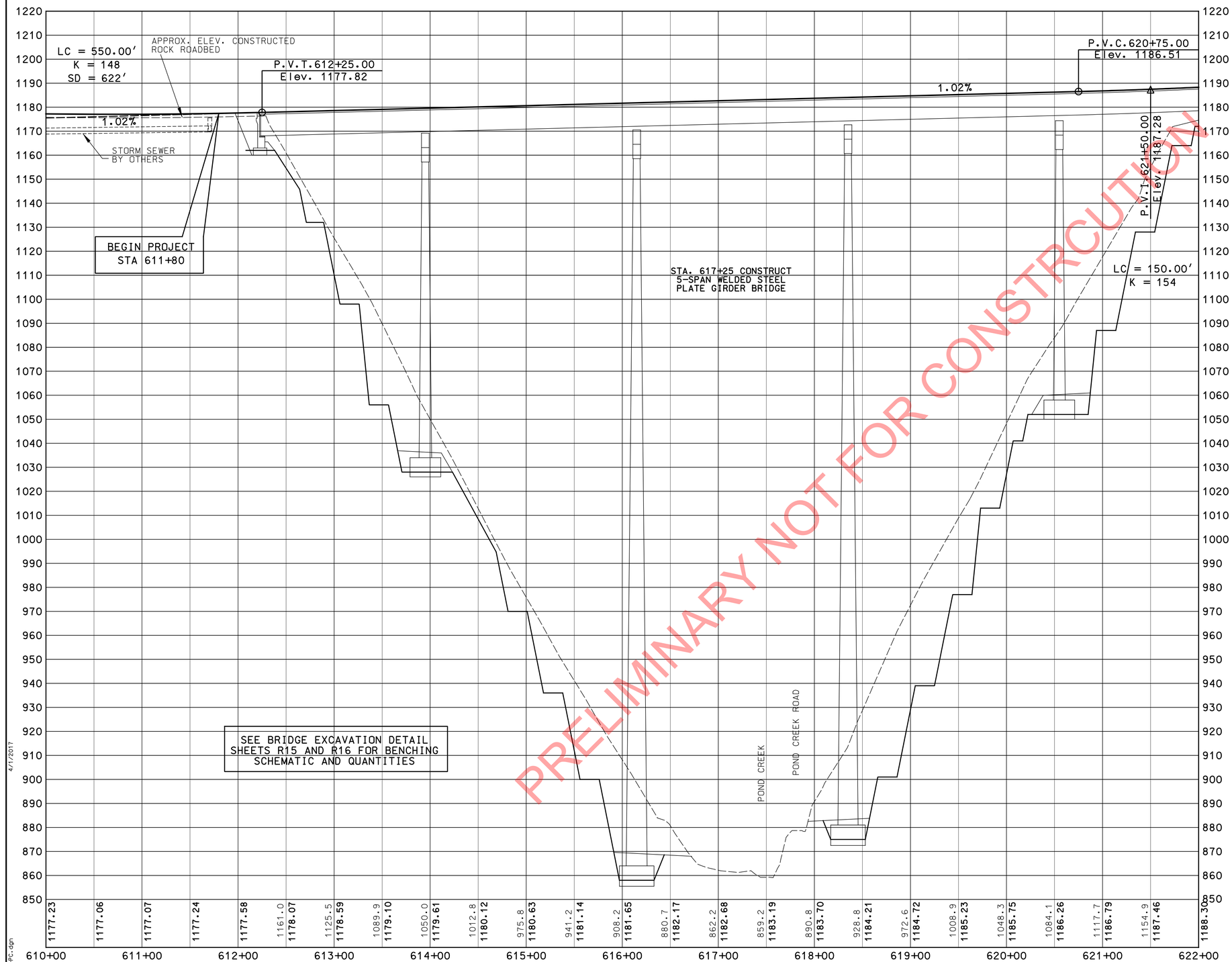
Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93 FORM NO. 2m

4/1/2017

p1610c-PC.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R6



PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

pr-610-PC.dgn
4/7/2017

HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 20'

MAINLINE PROFILE STA. 610+00 TO STA. 622+00

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R7

MATCH LINE SHEET # 7B

HUB-625

HUB-626

P 616
ROBERT RATLIFF
TERESA BOYD RATLIFF (WF.)

MAINLINE
P.I. 632+84.31
Δ = 22°08'11"LT.
Ts = 922.62'
Ls = 280.00'
Lc = 1265.42'
θs = 2°00'19"
LT = 186.68'
ST = 93.34'
R = 4000.00'
Es = 76.65'
e = 4.0%
RUNOFF = 280.00'
RUNOUT = 140.00'
Design Speed 60 mph

P 616 TRACT A

625+00 (BY OTHERS)

630+00

MATCH LINE STA. 622+00

MATCH LINE STA. 633+50

END CONSTRUCTION PROJECT
STA 622+70

TS STA.623+61.69

SC STA.626+41.69

60" STORM SEWER BY OTHERS

STORM SEWER BY OTHERS

STORM SEWER BY OTHERS

(BY OTHERS)

(BY OTHERS)

S62°07'42"E

S84°15'53"E

PI STA.632+84.31

3" GM

ABANDONED

PRELIMINARY NOT FOR CONSTRUCTION

N

0' 50' 100' 200'

NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

MATCH LINE SHEET # 7A

SCALE: 1" = 50'

STA. 622+00 TO STA. 633+50

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

4/1/2017

p1622-PC.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R7A

MATCH LINE SHEET # 7

ROBERT RATLIFF
TERESA BOYD RATLIFF (WF.)
P 616
P 616 TRACT A

3" GM ABANDONED

1674 PECIPC

P 611 TRACT B

S38°43'16"E 884.24'
C/A R/W

P 637 TRACT A

S62°05'42"E 352.70'
C/A R/W

S62°05'42"E 185.22'

629+00.00
625.00'

632+00.64
673.46'

NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

MATCH LINE STA. 622+00

P 611F
DAVID BOYD
LORETTA BOYD (WF.)

P 637
FRANK COLEMAN

P 638
JANE LEE HEIRS

MATCH LINE STA. 633+50

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

4/1/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

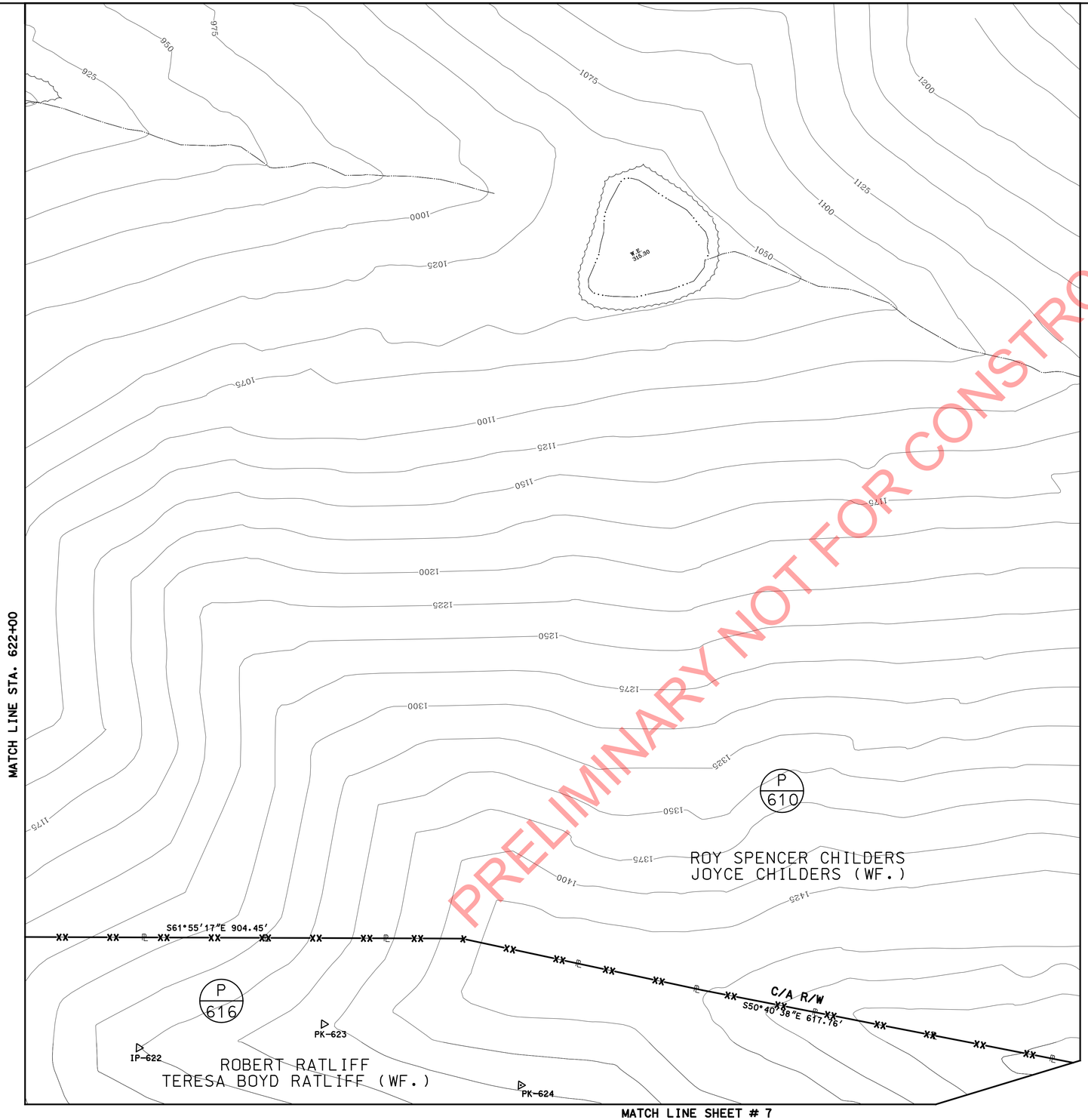
6-93
FORM NO. 2m

p1622b-PC.dgn

0' 50' 100' 200'
SCALE: 1" = 50'

STA. 622+00 TO STA. 633+50

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R7B



N

NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

0' 50' 100' 200'

SCALE: 1" = 50'

STA. 622+00 TO STA. 633+50

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

4/1/2017

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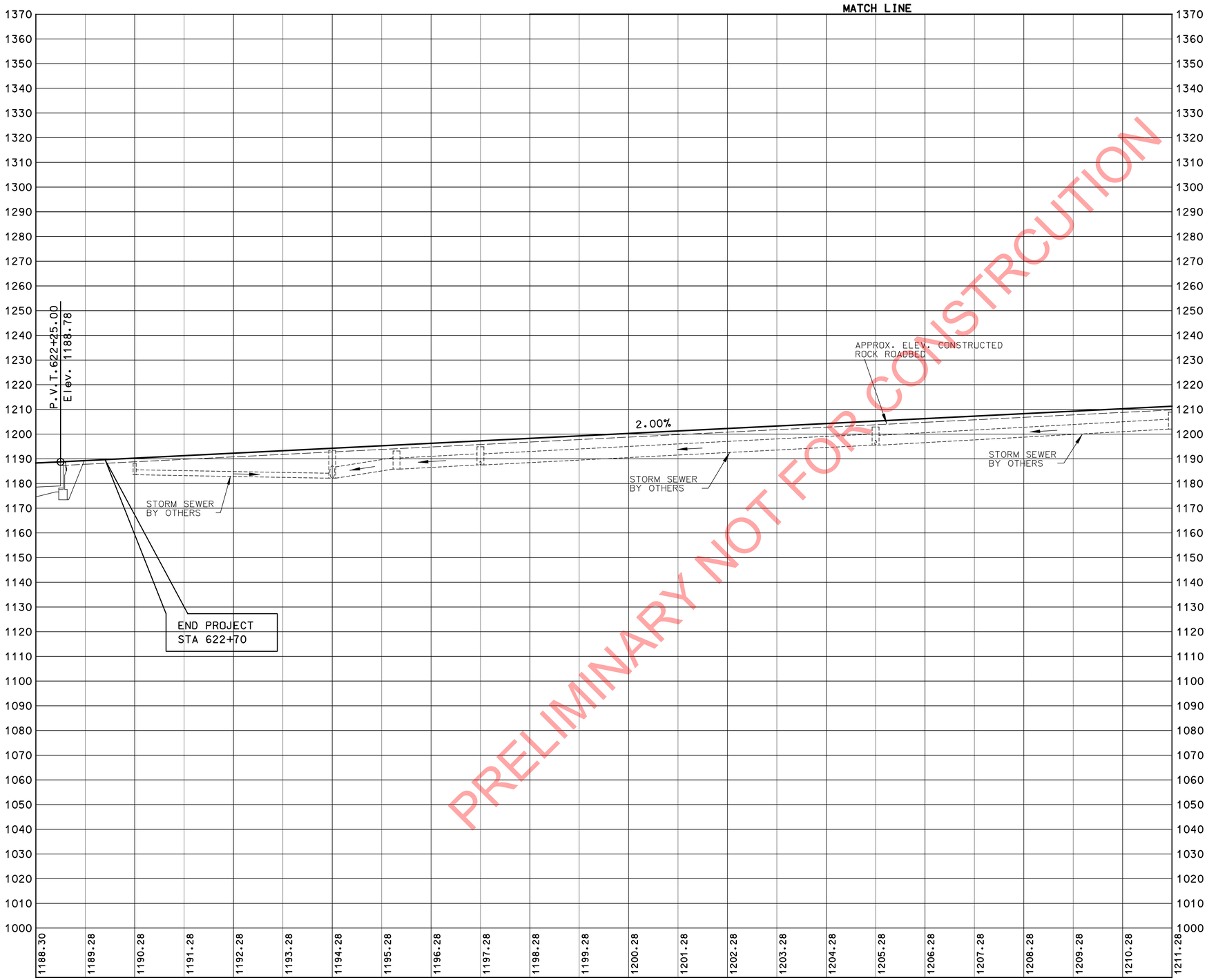
COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R8



PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

4/1/2017

pr-622-PC.dgn

HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 20'

MAINLINE PROFILE STA. 622+00 TO STA. 633+50

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY. ACCESS SHALL BE PROVIDED ONLY WHERE SPECIFICALLY INDICATED ON THE PLANS WITH A MINIMUM SPACING OF 1200 FEET.

RIGHT OF WAY SUMMARY SHEET

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R9

PARCEL NO.	NAME	TOTAL AREA OF TRACT		PERMANENT R/W ACQUIRED		EASEMENTS		AREA SEVERED				EXCESS PURCHASED		PORTION REMAINING		SEWER SYSTEM TYPE	SEWER SYSTEM AFFECTED BY PROJECT		BUILDINGS ACQUIRED NUMBER				HAZARDOUS WASTE	CAP WELLS	DEED BOOK	PAGE NO.	REMARKS
						PERMANENT	TEMPORARY	LEFT		RIGHT																	
		ACRES	SQ. FT.	ACRES	SQ. FT.	SQ. FT.	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.		YES	NO	C	R	F	S					
610	ROY SPENCER CHILDERS JOYCE CHILDERS (WF)	101.549①		3.587				97.962						97.962		1		X							510	342	
611	DAVID BOYD LORETTA BOYD (WF)	94.562①		60.772				7.887		25.903				33.790		1	X			1		7		1	535 707	68 511	707 517 716 426 744 426
612	IVAL BELCHER HEIRS	6.005①		0.253				5.752						5.752		5		X							293	75	WILL BOOK AA PAGE 738
613	JERRY MAY DONRITA MAY (WF.)	0.452①		0.452										0		1	X			3				1	590	557	TOTAL TAKE
614	ROSELIE C. LEE	0.170①		0.170										0		5		X				1			558	52	TOTAL TAKE
615	CHARLIE SAYLOR	0.397①		0.397										0		1	X			1		1		1	648	399	TOTAL TAKE
616	ROBERT RATLIFF TERESA BOYD RATLIFF (WF)	61.005①		61.005										0		1	X			1		1		1	708	702	TOTAL TAKE
617	LARRY D. FIELDS	61.336①		21.475				39.861						39.861		5		X							732	746	
618	ANTEL SKERLAK CARRIE MAE SKERLAK (WF)	38.326①		10.029				28.297				28.297		0		1	X			1				1	469 563	463 430	TOTAL TAKE (EXCESS PURCHASE)
619	LIT RATLIFF HEIRS	26.740①		15.088						11.652				11.652		5		X							240	193	WILL BOOK L PAGE 256
620	ROY WELLMAN ELVIRA WELLMAN (WF.) HEIRS	14.094①		14.094										0		5		X							846	357	TOTAL TAKE
621	CHESTER OWENS HEIRS	18.833①		13.302						5.531				5.531		5		X							328	131	
622	ROY WELLMAN HEIRS	4.348①		4.348										0		5		X							257	165	TOTAL TAKE
623	KERMEL D. KEYSER LORETTA A. KEYSER (WF)	33.944①		18.842						15.102				15.102		5		X							451	325	
624	RUFUS ENGLE PATSY ANN ENGLE (WF.)	4.009①		2.682						1.327				1.327		5		X							653	670	
625	MARY HOGSTEN ROWE HEIRS	10.104①		10.104										0		5		X			1	1			264 428 728	261 87 425	WILL BOOK R PAGE 305 TOTAL TAKE
626	JOE RAMEY MARY RAMEY (WF.) HEIRS	12.059①		5.232						6.827				6.827		5		X							297	335	
627	CLARENCE STALKER HEIRS	62.140①		19.694						42.446				42.446		5		X							345	269	
628	LARRY D. FIELDS	88.493①		52.792				27.709		7.992				35.694		5		X							732	746	
629	C. M. CAUDILL HEIRS	379.559①		105.603				104.733		169.223				273.956		5		X							252	392	WILL BOOK L PAGE 293
630	LINDSEY & ELLIOT GAS WELL NO. 1																										STA. 704+74.73 LT. 150.25'
631	KY-WV GAS WELL NO. 6647																							1			STA. 654+40.61 LT. 53.08'
632	JESSIE'S BRANCH CEMETERY																										FOR GRAVE RELOCATION PURPOSES ONLY
633	KY-WV GAS WELL NO. KF 4352																										STA. 648+73.06 LT. 1,932.57'
634	MAZIE HOPSON HEIRS	6.920①		6.920										0		5		X							227	276	TOTAL TAKE
635	SETH WELLMAN	6.942①		6.942										0		5		X							828	593	TOTAL TAKE
636	KY-WV GAS WELL NO. 6589																										APPROACH 664+50 STA. 44+28.33, LT. 156.11
637	FRANK COLEMAN	9.401①		0.331						9.070				9.070		1		X							684	265	
638	JANE LEE HEIRS	54.547①		1.539						53.008				53.008		1		X							263 523	483 167	AFFIDAVIT OF DESCENT
639	ROY HAWKINS GUSTA HAWKINS (WF.)	157.267①		1.232								156.035		156.035		5		X							321	437	
640	CSX RAILROAD	*				91,399		*		*				*		5		X							22 22	432 434	
641	EQUITABLE PRODUCTION CO GAS WELL NO. KF 5485																										STA. 679+87.44 LT. 424.37'
642	MARY SUE BELCHER	10.000						10.000						10.000											424	405	HOME HEATING CONVERSION ONLY
629F	C. M. CAUDILL HEIRS	15.903		8.106			339636			7.797				7.797		4									252	392	WILL BOOK L PAGE 293
611F	DAVID BOYD LORETTA BOYD (WF)	33.790		33.790				0		0				0		4									535 707	68 511	707 517 716 426 744 426
643	KY-WV GAS WELL NO.7139																										STA. 618+38.55 RT. 293.91

Note: Permanent R/W acquired + permanent easement + area severed = Total area of tract.

① AREA FROM COMBINATION OF DEED AND SURVEY
② AREA STATED IN DEED
③ AREA FROM DEED DESCRIPTION

HAZARDOUS WASTE
UST – UNDERGROUND STORAGE TANK

TYPE SEWER SYSTEM
1. PRIVATE – INDIVIDUAL
2. PRIVATE – MULTI-PARTY
3. PUBLIC
4. NONE
5. NOT APPLICABLE

BUILDINGS ACQUIRED CODE
C – COMMERCIAL
R – RESIDENTIAL
F – FARM
S – STORAGE

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

rw-sum_Pond Creek Brg.dgn

RIGHT OF WAY SUMMARY SHEET

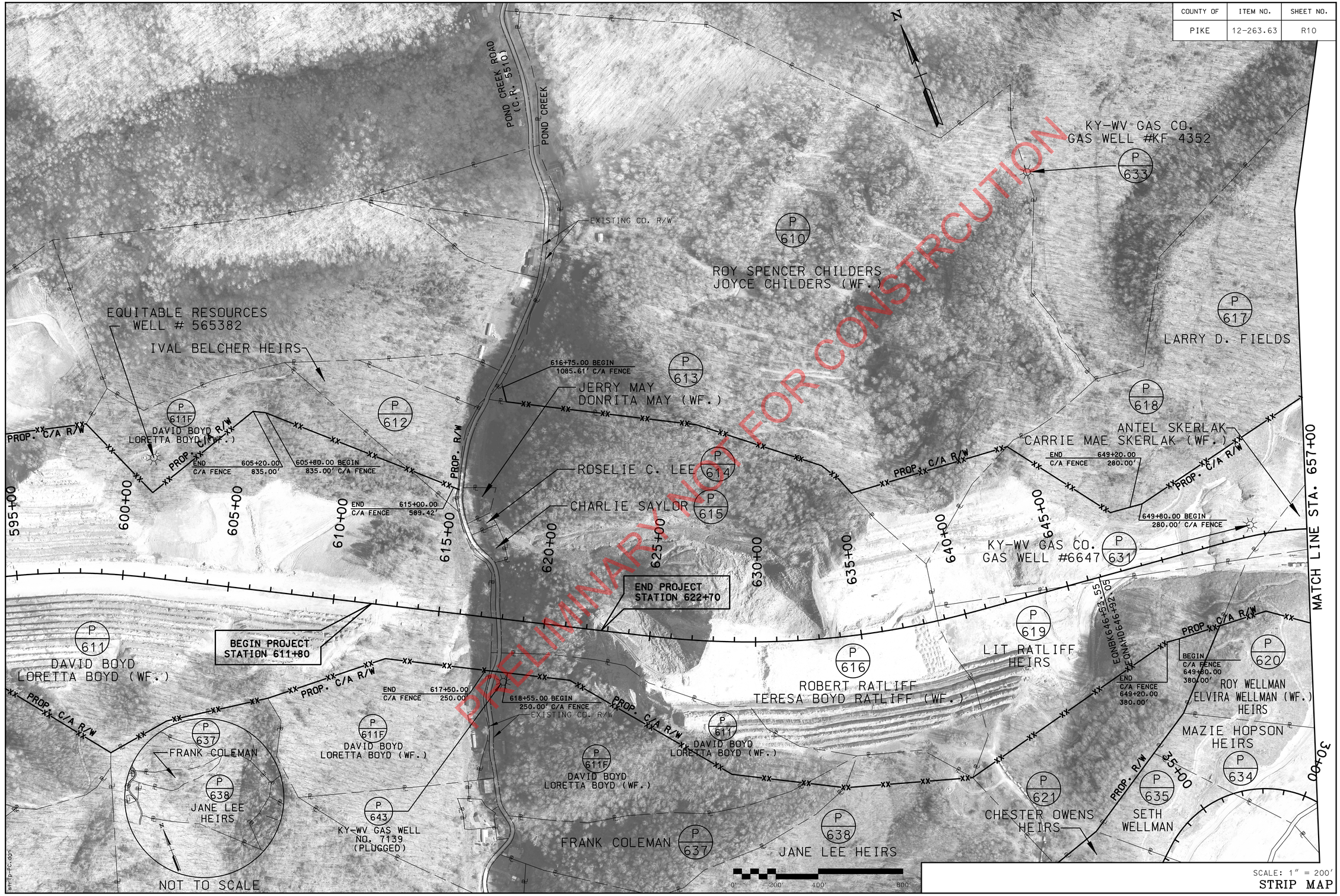
COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R10

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

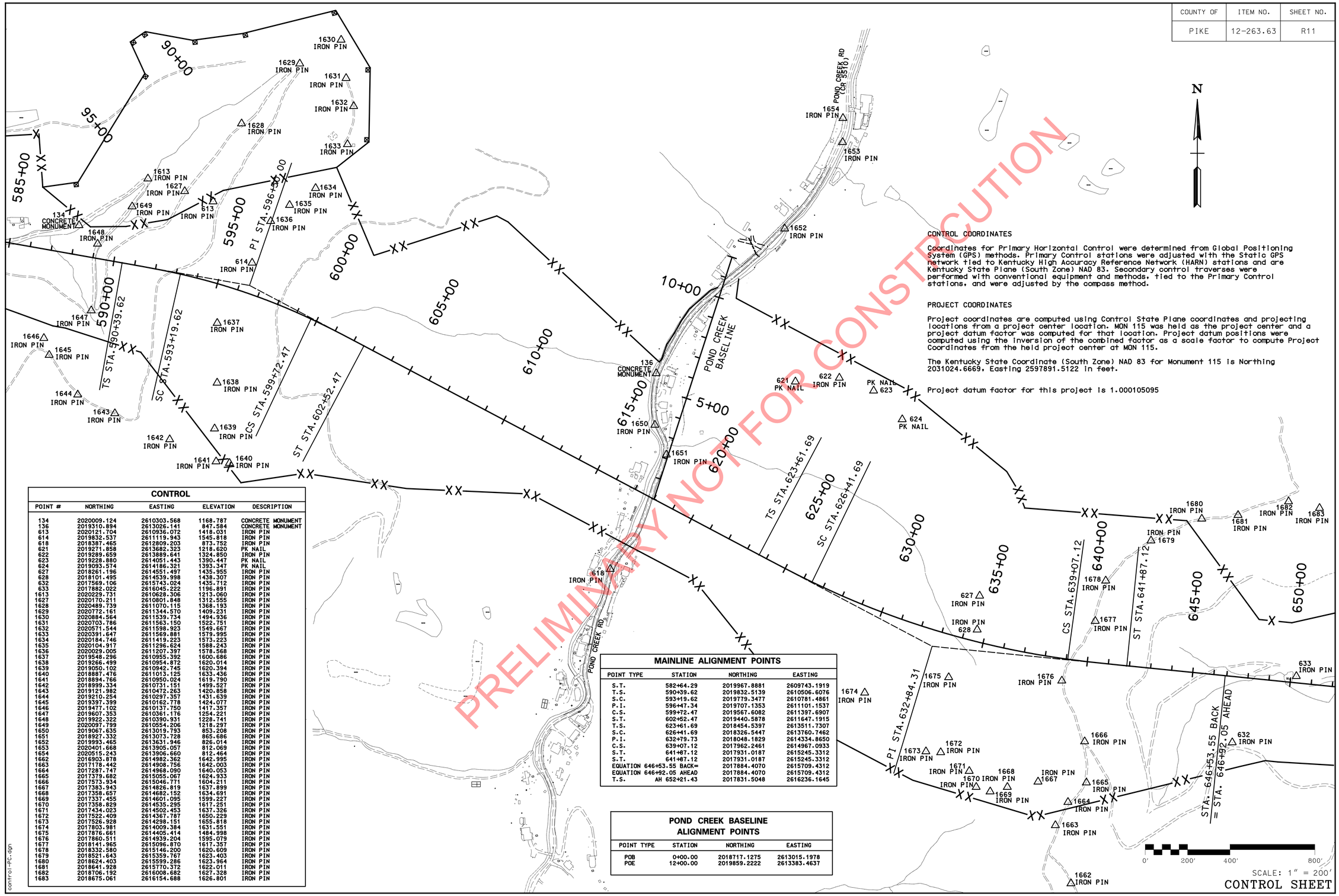
Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

smrtp-PEC.dgn



COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R11



CONTROL COORDINATES

Coordinates for Primary Horizontal Control were determined from Global Positioning System (GPS) methods. Primary Control stations were adjusted with the Static GPS network tied to Kentucky High Accuracy Reference Network (HARN) stations and are Kentucky State Plane (South Zone) NAD 83. Secondary control traverses were performed with conventional equipment and methods, tied to the Primary Control stations, and were adjusted by the compass method.

PROJECT COORDINATES

Project coordinates are computed using Control State Plane coordinates and projecting locations from a project center location. MON 115 was held as the project center and a project datum factor was computed for that location. Project datum positions were computed using the inversion of the combined factor as a scale factor to compute Project Coordinates from the held project center at MON 115.

The Kentucky State Coordinate (South Zone) NAD 83 for Monument 115 is Northing 2031024.6669, Easting 2597891.5122 in feet.

Project datum factor for this project is 1.000105095

CONTROL

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
134	2020009.124	2610303.568	1168.787	CONCRETE MONUMENT
136	2019310.894	2613026.141	847.584	CONCRETE MONUMENT
613	2020121.704	2610936.072	1418.031	IRON PIN
614	2019832.537	2611119.943	1545.818	IRON PIN
618	2018387.465	2612809.203	873.752	IRON PIN
621	2019271.858	2613682.323	1218.620	PK NAIL
622	2019289.659	2613889.641	1324.850	IRON PIN
623	2019228.880	2614051.443	1390.447	PK NAIL
624	2019093.574	2614186.321	1393.347	PK NAIL
627	2018261.196	2614551.497	1435.955	IRON PIN
628	2018101.495	2614539.998	1438.307	IRON PIN
632	2017569.106	2615743.024	1435.712	IRON PIN
633	2017882.022	2616045.222	1196.891	IRON PIN
1613	2020229.731	2610628.306	1213.060	IRON PIN
1627	2020170.211	2610801.848	1312.555	IRON PIN
1628	2020489.739	2611070.115	1368.193	IRON PIN
1629	2020772.161	2611344.570	1409.231	IRON PIN
1630	2020884.564	2611539.734	1494.936	IRON PIN
1631	2020703.786	2611563.150	1522.751	IRON PIN
1632	2020571.544	2611598.923	1549.667	IRON PIN
1633	2020391.647	2611569.881	1579.995	IRON PIN
1634	2020184.746	2611419.223	1573.223	IRON PIN
1635	2020104.917	2611296.624	1588.243	IRON PIN
1636	2020029.005	2611207.397	1578.568	IRON PIN
1637	2019548.296	2610955.392	1600.686	IRON PIN
1638	2019266.499	2610954.872	1620.014	IRON PIN
1639	2019050.102	2610942.745	1620.394	IRON PIN
1640	2018887.476	2611013.125	1633.436	IRON PIN
1641	2018894.766	2610950.024	1619.790	IRON PIN
1642	2018999.334	2610731.151	1498.527	IRON PIN
1643	2019121.982	2610472.263	1420.858	IRON PIN
1644	2019210.254	2610297.357	1431.639	IRON PIN
1645	2019397.399	2610162.778	1424.077	IRON PIN
1646	2019477.102	2610137.750	1417.357	IRON PIN
1647	2019607.353	2610361.176	1254.221	IRON PIN
1648	2019922.322	2610390.931	1228.741	IRON PIN
1649	2020097.799	2610554.206	1218.297	IRON PIN
1650	2019067.635	2613019.793	853.208	IRON PIN
1651	2018927.332	2613073.728	865.686	IRON PIN
1652	2019993.465	2613631.946	826.014	IRON PIN
1653	2020401.668	2613905.057	812.069	IRON PIN
1654	2020515.243	2613906.660	812.464	IRON PIN
1662	2016903.878	2614982.362	1642.995	IRON PIN
1663	2017178.442	2614908.756	1642.003	IRON PIN
1664	2017287.747	2614968.090	1640.053	IRON PIN
1665	2017379.682	2615055.067	1624.933	IRON PIN
1666	2017573.934	2615046.771	1604.211	IRON PIN
1667	2017383.943	2614826.819	1637.899	IRON PIN
1668	2017358.557	2614682.152	1634.691	IRON PIN
1669	2017337.455	2614601.095	1599.227	IRON PIN
1670	2017358.829	2614535.295	1617.251	IRON PIN
1671	2017434.023	2614502.453	1637.326	IRON PIN
1672	2017522.409	2614367.787	1650.229	IRON PIN
1673	2017526.928	2614298.151	1655.818	IRON PIN
1674	2017803.981	2614009.384	1631.551	IRON PIN
1675	2017876.661	2614405.414	1484.998	IRON PIN
1676	2017860.511	2614939.204	1595.079	IRON PIN
1677	2018141.965	2615096.870	1617.357	IRON PIN
1678	2018332.580	2615146.200	1620.609	IRON PIN
1679	2018521.643	2615359.767	1623.403	IRON PIN
1680	2018624.403	2615599.286	1623.964	IRON PIN
1681	2018641.928	2615770.372	1622.011	IRON PIN
1682	2018706.192	2616008.682	1627.328	IRON PIN
1683	2018675.061	2616154.688	1626.801	IRON PIN

MAINLINE ALIGNMENT POINTS

POINT TYPE	STATION	NORTHING	EASTING
S.T.	582+64.29	2019967.8881	2609743.1919
T.S.	590+39.62	2019832.5139	2610506.6076
S.C.	593+19.62	2019779.3477	2610781.4861
P.I.	596+47.34	2019707.1353	2611101.1537
C.S.	599+72.47	2019567.6082	2611397.6907
S.T.	602+52.47	2019440.5878	2611647.1915
T.S.	623+61.69	2018454.5397	2613511.7307
S.C.	626+41.69	2018326.5447	2613760.7462
P.I.	632+79.73	2018048.1829	2614334.8650
C.S.	639+07.12	2017962.2461	2614967.0933
S.T.	641+87.12	2017931.0187	2615245.3312
S.T.	641+87.12	2017931.0187	2615245.3312
EQUATION 646+53.55 BACK=		2017884.4070	2615709.4312
EQUATION 646+92.05 AHEAD		2017884.4070	2615709.4312
T.S.	AH 652+21.43	2017831.5048	2616236.1645

POND CREEK BASELINE ALIGNMENT POINTS

POINT TYPE	STATION	NORTHING	EASTING
POB	0+00.00	2018717.1275	2613015.1978
POE	12+00.00	2019859.2222	2613383.4637

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

control-PC.dgn

CONTROL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R11A

PRELIMINARY NOT FOR CONSTRUCTION
N
605+00
610+00
615+00
620+00
625+00
630+00
635+00
PVT
Existing
Pole 10
378201950000014
45' 4
DS101
Remove
Pole 3
378201950OLD15
45' 4
DS103
Install
Pole 4
378201950000015
50' 2
DS112
Existing
Pole 5
378201950000016
45' 4
DS117
Install
Pole 6
378201950000017
50' 2
DS101
Remove
Pole 9
378201950OLD17
45' 4
DS101
Remove
Pole 11
378201950OLD18
45' 4
DS101
UG STA # 100'
PROPOSED UG
APX 715' DITCH
UG STA # 200'
Remove
Pole 12
378201950OLD114
45' 5
DS101
CAUTION
GAS LINE
UG STA # 300'
UG STA # 400'
Remove
Pole 13
378201950OLD19
40' 5
DS103
UG STA # 500'
Remove
Pole 14
378201950OLD91
55' 4
DS101
UG STA # 600'
UG STA # 700'
Install
Pole 2
378201950000095
50' 2
DS115
Remove
Pole 15
378201950OLD95
35' 5
DS101, DS115
Existing
Pole 1
378201950000020
40' 5
DS101
FOR INFORMATIONAL PURPOSES ONLY
AS-BUILT PLANS MAY BE AVAILABLE NEAR THE TIME OF PROJECT LETTING. THOSE PLANS WILL INCLUDE THE UTILITIES FOR THE FOLLOWING COMPANIES: KENTUCKY POWER, AT&T KENTUCKY, AND SUDDENLINK COMMUNICATIONS. WATER LINE RELOCATION IS ALSO UNDERWAY. THE CONTRACTOR WILL CONTACT THE UTILITY FOR ITS PLANNED OR CONSTRUCTED LOCATION.
NOTE -
ALL POLES INSTALL AND
REMOVE ARE AT&T OWNED
500'
0'
100'
400'
SCALE: 1" = 100'

UTILITY REFERENCE PLAN

PREPARED BY ______ DATE ______
CHECKED BY ______ DATE ______
APPROVED BY ______ DATE ______

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

Utility Reference Sheet.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R12

ENVIRONMENTAL NOTES

EROSION CONTROL AND WATER POLLUTION CONTROL

THE PROVISIONS OF SECTION 212 (EROSION CONTROL) AND 213 (WATER POLLUTION CONTROL) OF THE KENTUCKY STANDARD SPECIFICATIONS SHALL BE FULLY ENFORCED TO MINIMIZE ADVERSE IMPACTS TO THE WATER QUALITY OF POND CREEK, GROUND WATER, AND OTHER AQUATIC FEATURES. SILT TRAPS (PER CURRENT KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION) ARE NOT TO BE CONSTRUCTED IN A NATURAL STREAM CHANNEL AND SILT IS TO BE PREVENTED FROM ENTERING POND CREEK BY USE OF SEDIMENTATION BASINS, SILT CHECKS, SILT TRAPS, SILT FENCES, TEMPORARY SEEDING AND, IF NECESSARY, TEMPORARY SILT DITCHES, PROPERLY LOCATED ALONG THE LENGTH OF THE CONSTRUCTION AND IN EPHEMERAL DITCHES TRIBUTARY TO THESE FEATURES. ALL RUNOFF FROM CONSTRUCTION IS TO BE ROUTED THROUGH THESE EROSION CONTROL STRUCTURES. WITH THE EXECPTION OF THE PROPOSED CHANNEL TIE-IN, POND CREEK IS TO REMAIN UNDISTURBED UNLESS APPROPRIATE PERMITS ARE OBTAINED.

BLASTING OPERATIONS

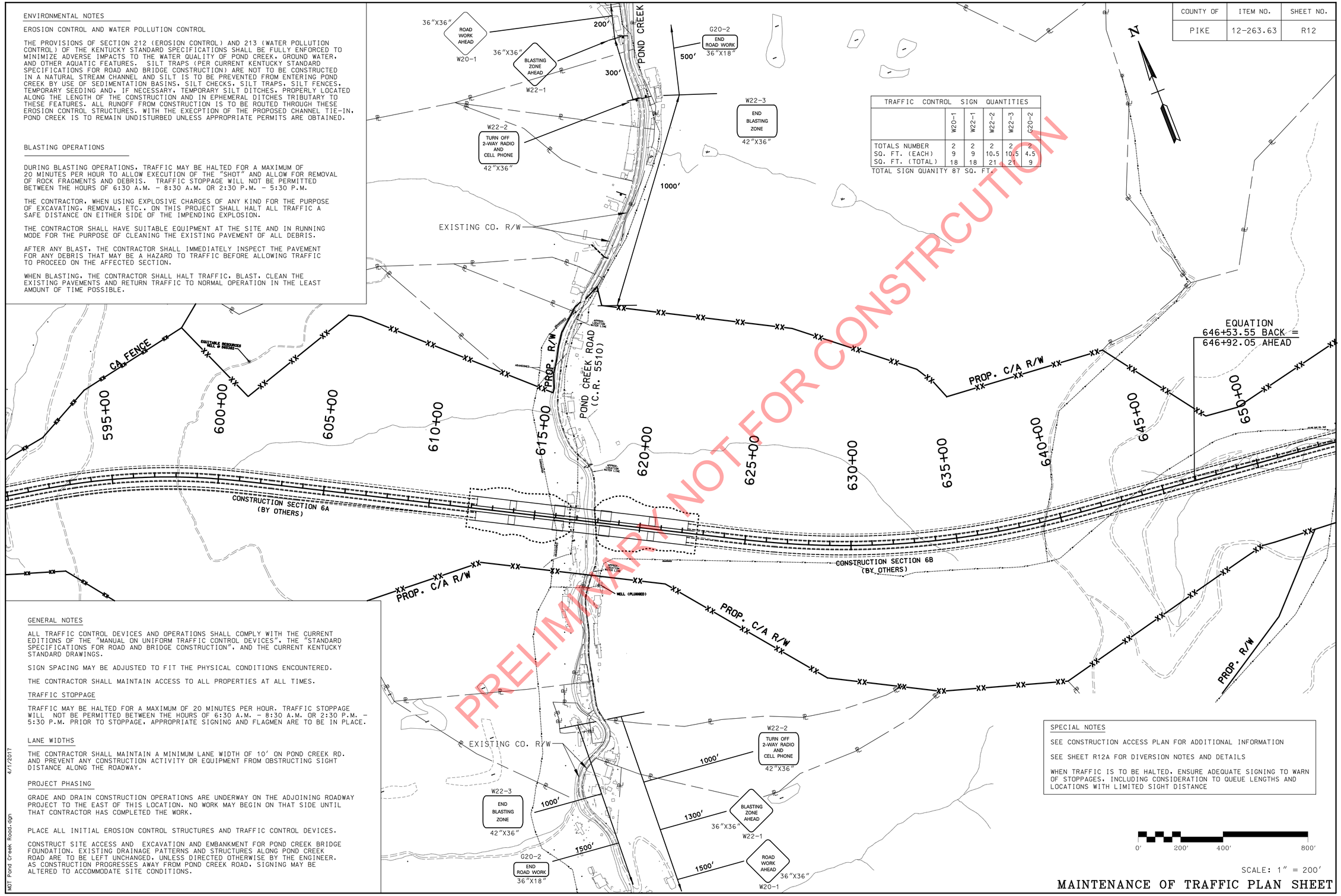
DURING BLASTING OPERATIONS, TRAFFIC MAY BE HALTED FOR A MAXIMUM OF 20 MINUTES PER HOUR TO ALLOW EXECUTION OF THE "SHOT" AND ALLOW FOR REMOVAL OF ROCK FRAGMENTS AND DEBRIS. TRAFFIC STOPPAGE WILL NOT BE PERMITTED BETWEEN THE HOURS OF 6:30 A.M. – 8:30 A.M. OR 2:30 P.M. – 5:30 P.M.

THE CONTRACTOR, WHEN USING EXPLOSIVE CHARGES OF ANY KIND FOR THE PURPOSE OF EXCAVATING, REMOVAL, ETC., ON THIS PROJECT SHALL HALT ALL TRAFFIC A SAFE DISTANCE ON EITHER SIDE OF THE IMPENDING EXPLOSION.

THE CONTRACTOR SHALL HAVE SUITABLE EQUIPMENT AT THE SITE AND IN RUNNING MODE FOR THE PURPOSE OF CLEANING THE EXISTING PAVEMENT OF ALL DEBRIS.

AFTER ANY BLAST, THE CONTRACTOR SHALL IMMEDIATELY INSPECT THE PAVEMENT FOR ANY DEBRIS THAT MAY BE A HAZARD TO TRAFFIC BEFORE ALLOWING TRAFFIC TO PROCEED ON THE AFFECTED SECTION.

WHEN BLASTING, THE CONTRACTOR SHALL HALT TRAFFIC, BLAST, CLEAN THE EXISTING PAVEMENTS AND RETURN TRAFFIC TO NORMAL OPERATION IN THE LEAST AMOUNT OF TIME POSSIBLE.



TRAFFIC CONTROL SIGN QUANTITIES	W20-1	W22-1	W22-2	W22-3	G20-2
TOTALS NUMBER	2	2	2	2	2
SQ. FT. (EACH)	9	9	10.5	10.5	4.5
SQ. FT. (TOTAL)	18	18	21	21	9

TOTAL SIGN QUANITY 87 SQ. FT.

GENERAL NOTES

ALL TRAFFIC CONTROL DEVICES AND OPERATIONS SHALL COMPLY WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AND THE CURRENT KENTUCKY STANDARD DRAWINGS.

SIGN SPACING MAY BE ADJUSTED TO FIT THE PHYSICAL CONDITIONS ENCOUNTERED.

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.

TRAFFIC STOPPAGE

TRAFFIC MAY BE HALTED FOR A MAXIMUM OF 20 MINUTES PER HOUR. TRAFFIC STOPPAGE WILL NOT BE PERMITTED BETWEEN THE HOURS OF 6:30 A.M. – 8:30 A.M. OR 2:30 P.M. – 5:30 P.M. PRIOR TO STOPPAGE, APPROPRIATE SIGNING AND FLAGMEN ARE TO BE IN PLACE.

LANE WIDTHS

THE CONTRACTOR SHALL MAINTAIN A MINIMUM LANE WIDTH OF 10' ON POND CREEK RD. AND PREVENT ANY CONSTRUCTION ACTIVITY OR EQUIPMENT FROM OBSTRUCTING SIGHT DISTANCE ALONG THE ROADWAY.

PROJECT PHASING

GRADE AND DRAIN CONSTRUCTION OPERATIONS ARE UNDERWAY ON THE ADJOINING ROADWAY PROJECT TO THE EAST OF THIS LOCATION. NO WORK MAY BEGIN ON THAT SIDE UNTIL THAT CONTRACTOR HAS COMPLETED THE WORK.

PLACE ALL INITIAL EROSION CONTROL STRUCTURES AND TRAFFIC CONTROL DEVICES.

CONSTRUCT SITE ACCESS AND EXCAVATION AND EMBANKMENT FOR POND CREEK BRIDGE FOUNDATION. EXISTING DRAINAGE PATTERNS AND STRUCTURES ALONG POND CREEK ROAD ARE TO BE LEFT UNCHANGED, UNLESS DIRECTED OTHERWISE BY THE ENGINEER. AS CONSTRUCTION PROGRESSES AWAY FROM POND CREEK ROAD, SIGNING MAY BE ALTERED TO ACCOMMODATE SITE CONDITIONS.

SPECIAL NOTES

SEE CONSTRUCTION ACCESS PLAN FOR ADDITIONAL INFORMATION

SEE SHEET R12A FOR DIVERSION NOTES AND DETAILS

WHEN TRAFFIC IS TO BE HALTED, ENSURE ADEQUATE SIGNING TO WARN OF STOPPAGES. INCLUDING CONSIDERATION TO QUEUE LENGTHS AND LOCATIONS WITH LIMITED SIGHT DISTANCE

SCALE: 1" = 200'

MAINTENANCE OF TRAFFIC PLAN SHEET

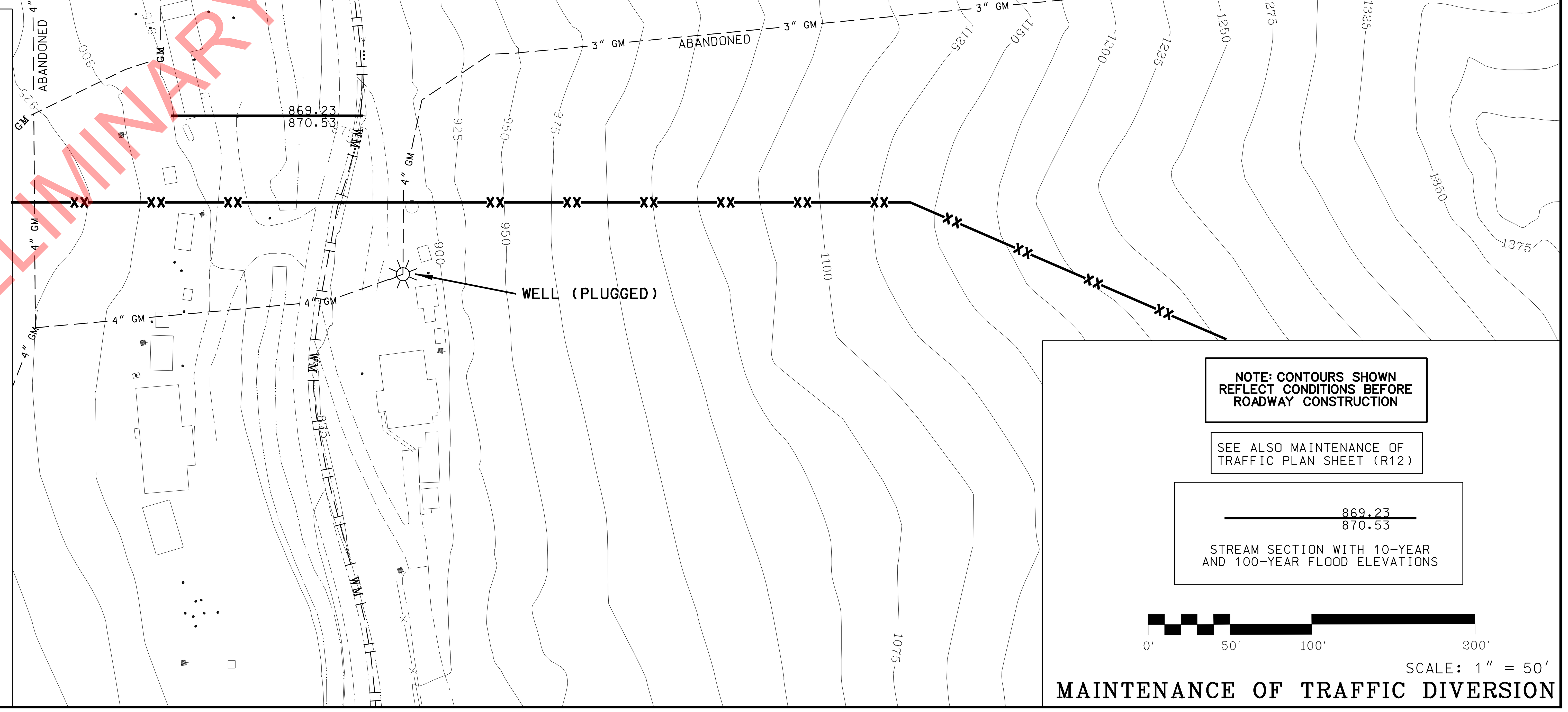
PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

MDT Pond Creek Road.dgn 4/1/2017

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R12A



POND CREEK ROAD TEMPORARY DIVERSION FOR PIER CONSTRUCTION

EMBANKMENT MATERIAL TO MEET ALL CRITERIA FOR NORMAL ROADWAY EMBANKMENT IN GRADING, MATERIAL, COMPACTION, AND ALL PERMIT REQUIREMENTS.

THE SLOPE FACING THE CREEK SHALL BE PROTECTED BY CLASS III OR CLASS IV CHANNEL LINING, UP TO THE 10-YEAR FLOOD ELEVATION.

ALIGNMENT AND GRADE SHALL BE DESIGNED TO MINIMIZE ANY BACKWATER UPSTREAM, OR ANY INCREASES IN EROSIVE VELOCITIES. THE DESIGN SHALL ACCOMMODATE AND PROTECT ALL UNDERGROUND AND OVERHEAD UTILITIES, AND MEET THEIR REQUIREMENTS FOR COVER, LOADS, AND CLEARANCE.

THE DESIGN FOR THE DIVERSION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY ALL APPROPRIATE AGENCIES BEFORE ITS CONSTRUCTION. IT SHALL BE ACCOMPANIED BY AND INCORPORATED WITH THE CONSTRUCTION ACCESS PLAN.

TEMPORARY CROSSINGS MAY BE LOCATED AT EXISTING STREAM CROSSING LOCATIONS WHERE THE EXISTING DRAINAGE STRUCTURE IS CAPABLE OF HANDLING THE LOADS FOR ALL RE-ROUTED TRAFFIC. IF MODIFIED OR REPLACED, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER DATA SHOWING ANY INCREASE IN THE 100 YEAR HEADWATER WILL BE LIMITED TO 1' OR LESS. ALL STREAM CROSSINGS, WHETHER NEW OR EXISTING, SHALL ABIDE BY ALL PERMIT REQUIREMENTS.

THE CROSSINGS AND DIVERSION ALIGNMENT SHALL BE DESIGNED TO ACCOMMODATE ALL TYPES OF VEHICLES ANTICIPATED USING IT.

WORK SHALL COMMENCE AND PROCEED IN SUCH A WAY AS TO MINIMIZE THE TIME PUBLIC TRAFFIC MUST USE THE DIVERSION.

IF BUILT TO ONE-LANE WIDTH, A LOCATION IN THE DIVERSION SHALL BE INCLUDED WHERE TRAFFIC IN ONE DIRECTION MAY EASILY PULL ASIDE TO ALLOW TRAFFIC FROM THE OPPOSITE DIRECTION TO PASS, AND STILL ACCOMMODATE ALL CONSTRUCTION VEHICLES AND EQUIPMENT, WHETHER MOVING OR STATIONARY.

THE DIVERSION GRADE SHALL BE DESIGNED TO BE ABOVE THE 10-YEAR FLOOD (WITH THE EXCEPTION OF LOW-WATER CROSSINGS) AND HAVE A LOCATION WHERE STRANDED VEHICLES MAY TAKE REFUGE ABOVE THE 100-YEAR FLOOD.

SIGNS SHALL BE INCLUDED AT THE APPROACHES TO EACH CROSSING TO WARN VEHICLES NOT TO USE THE CROSSINGS WHEN OVERTOPPED BY FLOOD WATERS.

ANY DAMAGE TO THE DIVERSION FROM FLOODING OR VEHICLES (WHETHER CONSTRUCTION OR PUBLIC) TO BE REPAIRED IMMEDIATELY OR AS SOON AS POSSIBLE.

THE CONTRACTOR SHALL BE PREPARED TO KEEP ACCESS THROUGH THE CONSTRUCTION SITE OPEN AT ALL TIMES, EITHER BY THE EXISTING ROAD OR DIVERSION. AT NO TIME, WHETHER DUE TO CONSTRUCTION, FLOODING, OR OTHER CIRCUMSTANCES WILL BOTH THE ROAD AND DIVERSION BE CLOSED FOR MORE THAN 20 MINUTES EXCEPT WHERE FLOODING ALREADY OCCURS.

POND CREEK ROAD PAVEMENT, CROSS PIPES, DITCHES, AND ROADWAY SLOPES SHALL BE INSPECTED AND REPAIRED TO THE SATISFACTION OF THE ENGINEER BEFORE THE ROAD IS REOPENED TO TRAFFIC.

WHEN NO LONGER NEEDED, THE DIVERSION AND CROSSINGS SHALL BE REMOVED, AND THE CREEK AND ITS OVERBANKS RESTORED AS CLOSELY AS POSSIBLE TO PRECONSTRUCTION CONDITIONS. COST FOR ITS REMOVAL TO BE INCLUDED IN THE BID ITEM FOR CONSTRUCTION ACCESS PLAN.

MAINTENANCE OF TRAFFIC DIVERSION

PREPARED BY ______ DATE ______
CHECKED BY ______ DATE ______
APPROVED BY ______ DATE ______

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Cell Name: PIKEPL

4/1/2017
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6-93
FORM NO. 2m

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R13

EROSION CONTROL NOTES

ALL SILT CONTROL DEVICES SHALL BE SIZED TO RETAIN A VOLUME OF 3,600 CUBIC FEET PER DISTURBED CONTRIBUTING ACRE.

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED GROUND DURING EACH PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL COMPUTE THE VOLUME NECESSARY TO CONTROL SEDIMENT DURING EACH PHASE OF CONSTRUCTION. AS WORK PROCEEDS, SILT TRAPS MAY BE ADDED OR REMOVED IN ORDER TO ACHIEVE THE BEST MANAGEMENT PLAN. THE REQUIRED VOLUME AT EACH ADDED SILT TRAP SHALL BE COMPUTED AS UP GRADIENT CONTRIBUTING AREAS ARE DISTURBED OR ARE STABILIZED TO THE SATISFACTION OF THE ENGINEER. THE REQUIRED VOLUME CALCULATION FOR EACH SILT TRAP SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER. THE REQUIRED VOLUME AT EACH SILT TRAP MAY BE REDUCED BY THE FOLLOWING AMOUNTS:

- UPGRADIENT AREAS NOT DISTURBED (ACRES).
- UPGRADIENT AREAS THAT HAVE BEEN RECLAIMED AND PROTECTED BY EROSION CONTROL BLANKET OR OTHER GROUND PROTECTION MATERIAL SUCH AS TEMPORARY MULCH.(ACRES).
- THE USE OF TEMPORARY MULCH IS ENCOURAGED.
- UPGRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT FENCE (ACRES). AREAS PROTECTED BY SILT FENCE SHALL BE COMPUTED AT A MAXIMUM RATE OF 100 SQUARE FOOT PER LINEAR FOOT OF SILT FENCE.
- UPGRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT TRAPS (ACRES).

THE EROSION CONTROL PLAN SHALL BE ANNOTATED AS THE WORK PROCEEDS BY THE CONTRACTOR TO DETAIL THE SELECTION OF EACH EROSION CONTROL DEVICE USED AND THE VOLUME PROVIDED BY EACH SILT TRAP IN ACCORDANCE WITH THE DOCUMENTATION PROCEDURES ESTABLISHED BY THE DIVISION OF CONSTRUCTION.

IF A SILT BASIN IS NOT USED THEN ONE SILT TRAP TYPE A, ALTERNATE NUMBER 2 OR SILT TRAP TYPE B SHALL ALWAYS BE PLACED AT THE MOST REMOTE DOWNSTREAM COLLECTION POINT PRIOR TO DISCHARGING INTO A BLUE LINE STREAM OR ONTO AN ADJACENT PROPERTY OWNER. WHERE OVERLAND FLOW EXIST, A SILT FENCE OR OTHER FILTER DEVICES MAY BE USED OR THE OVERLAND FLOW MAY BE DIVERTED TO ONE OF THE AFOREMENTIONED SILT BASIN OR TRAPS.

THE EROSION CONTROL PLANS DO NOT CONSTITUTE A BMP BY THEMSELVES. THEY PROVIDE A STARTING POINT FOR THE CONTRACTOR AND RESIDENT ENGINEER TO DEVELOP THE BMP ACCORDING TO SECTION 213.03.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE SUPPLEMENTAL SPECS EFFECTIVE WITH THE OCTOBER, 2004 LETTING.

EROSION CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONING PRIOR TO ANY EXCAVATION OR DISTURBANCE WITHIN A DRAINAGE AREA.

THE CONTRACTOR SHALL BE REQUIRED TO CLEAN OUT (REMOVE SEDIMENT FROM) SILT TRAPS AND SILT FENCES WHENEVER THEY BECOME ONE-HALF FULL AND PROPERLY DISPOSE OF THE MATERIAL AT SITES APPROVED BY THE RESIDENT ENGINEER.

EROSION CONTROL MEASURES EMPLOYED BY THE CONTRACTOR WILL BE UNIQUE TO THE PROJECT AND WORK CONDITIONS AND SHALL BE APPROVED BY THE RESIDENT ENGINEER. THE DEVELOPMENT AND UTILIZATION OF THESE MEASURES WILL BE RECORDED AS PART OF THE BMP, KEPT ON SITE, AND AVAILABLE FOR PUBLIC INSPECTION.

EROSION CONTROL LEGEND

SILT TRAP TYPE A ALTERNATE 1	[A]
SILT TRAP TYPE A ALTERNATE 2	
SILT TRAP TYPE B	
SILT TRAP TYPE C	
SILT FENCE	—— SF ——
TEMPORARY SILT DITCH	
DISTURBED DRAINAGE AREA	
OVERLAND SHEET FLOW	
PROPOSED R/W	
PROPOSED C/A R/W	——XX

NOTE: ADDITIONAL EXCAVATION, GRADING, OR OTHER SOIL DISTURBING ACTIVITIES OUTSIDE THE DISTURB LIMITS AS SHOWN TO BE ADDRESSED BY THE CONTRACTOR. EROSION PREVENTION AND SEDIMENT CONTROLS FOR THOSE ACTIVITIES TO BE SHOWN ON LATER VERSIONS OF THE BMP KEPT ON SITE.

DISTURBED DRAINAGE AREAS

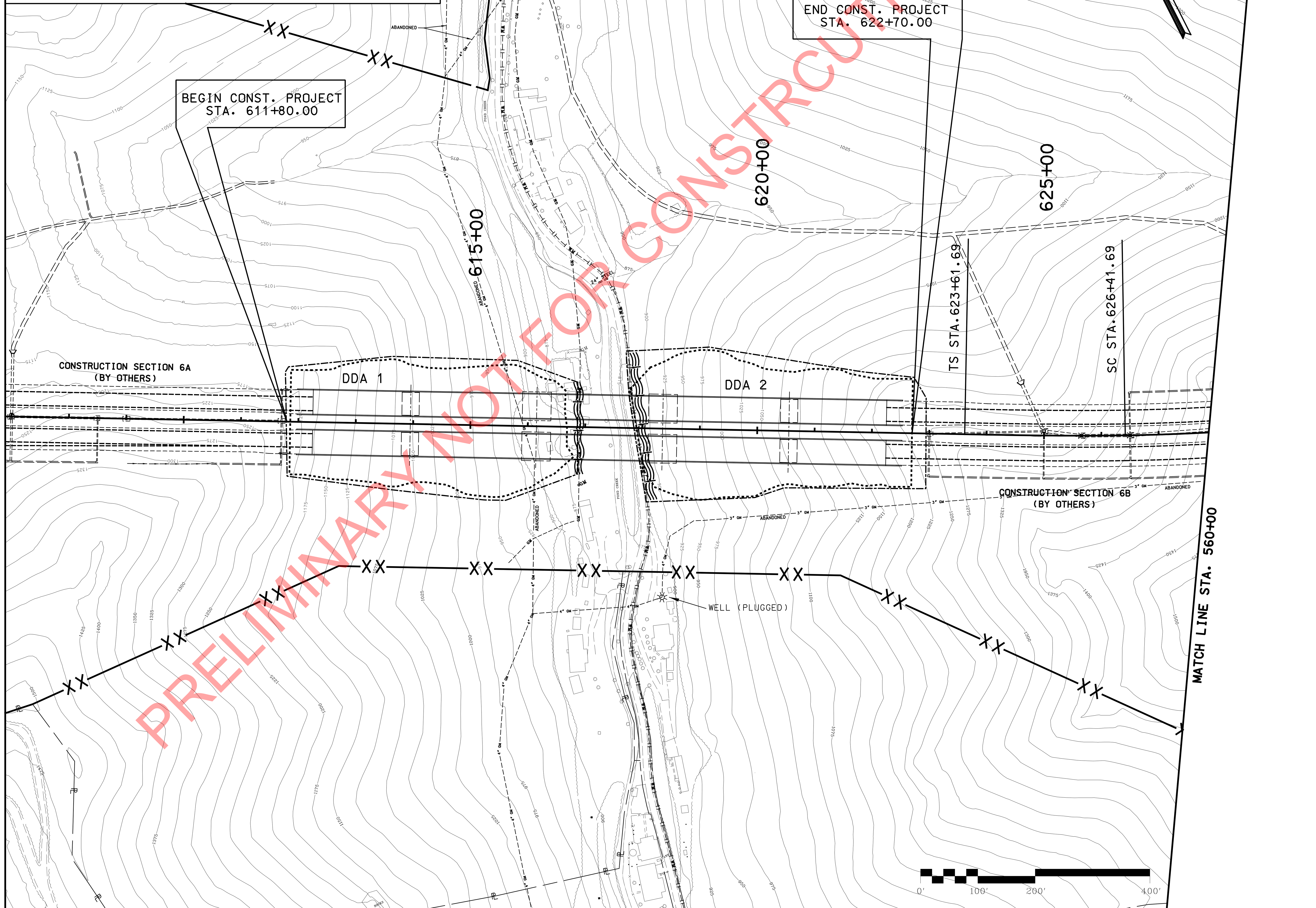
SECTION	DISTURBED AREA (ACRES)	MAXIMUM SEDIMENT VOLUME (CU FT)
DDA 1	2.577	9,277
DDA 2	2.703	9,731

SPECIAL NOTES

THE EROSION CONTROL PLAN SHALL BE MODIFIED TO REFLECT THE APPROVED CONSTRUCTION ACCESS PLAN.

CONTOURS AND DISTURBANCE AREAS SHOWN HERE REFLECT PRECONSTRUCTION CONDITIONS FOR THIS SITE AND THE ADJOINING ROADWAY CONSTRUCTION SITES. RUNOFF RELEASE TYPES, QUANTITY, AND LOCATIONS HAVE CHANGED AND WILL CONTINUE TO CHANGE AS THE PROJECT TO THE EAST PROGRESSES. NO WORK ON THAT SIDE MAY COMMENCE UNTIL THE CONTRACTOR ON THAT SIDE IS FINISHED.

PLANS FOR PLACEMENT OF EXCESS EXCAVATION MATERIAL ON BOTH SIDES OF POND CREEK ARE TO BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL A MINIMUM OF 30 DAYS BEFORE EARTHWORK OPERATIONS MAY BEGIN. THOSE PLANS SHALL INCLUDE ANY AND ALL EROSION CONTROL MEASURES NEEDED, AND SHALL BE KEPT UP TO DATE AS CONSTRUCTION PROCEEDS.



SCALE: 1" = 100'

EROSION CONTROL PLAN

PREPARED BY ______ DATE ______
CHECKED BY ______ DATE ______
APPROVED BY ______ DATE ______

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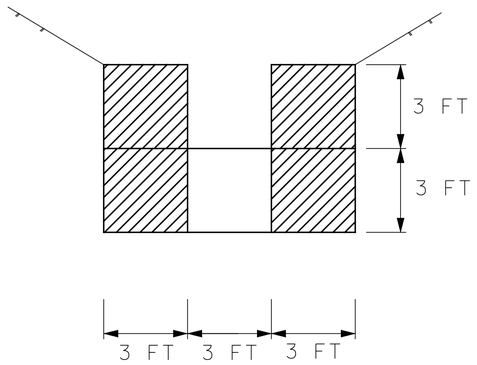
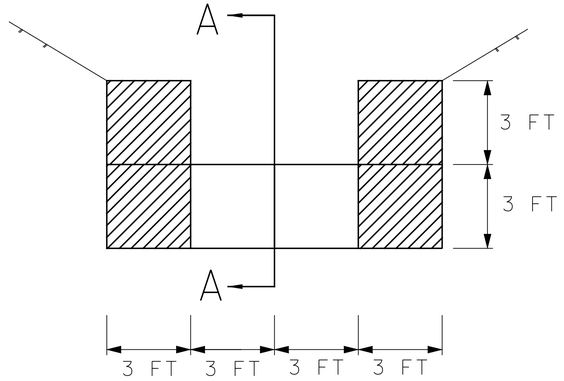
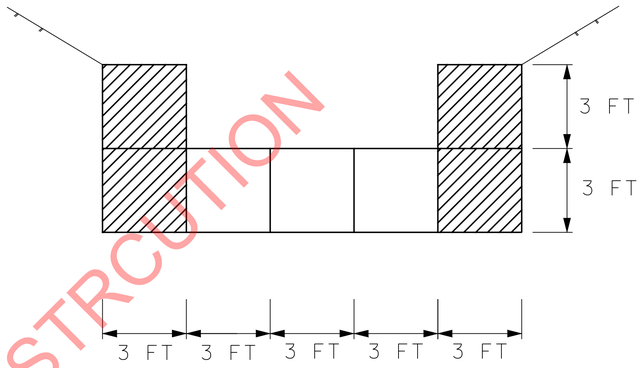
COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R14



3 FT BOTTOM WIDTH



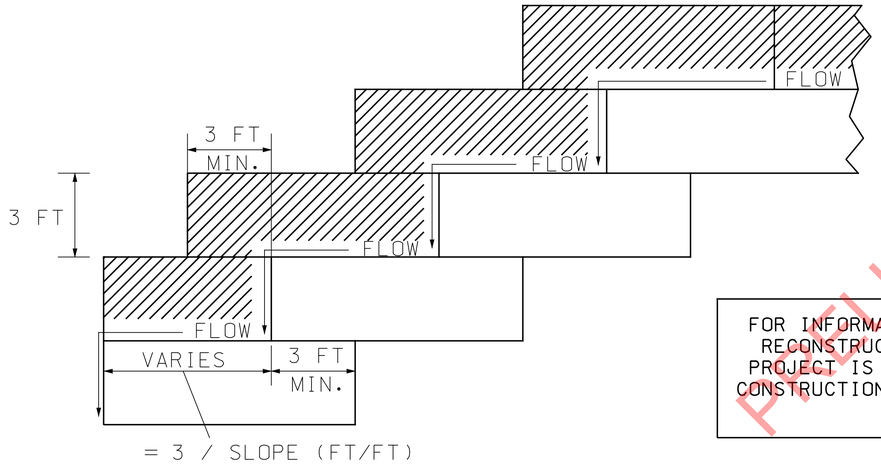
6 FT BOTTOM WIDTH



9 FT BOTTOM WIDTH

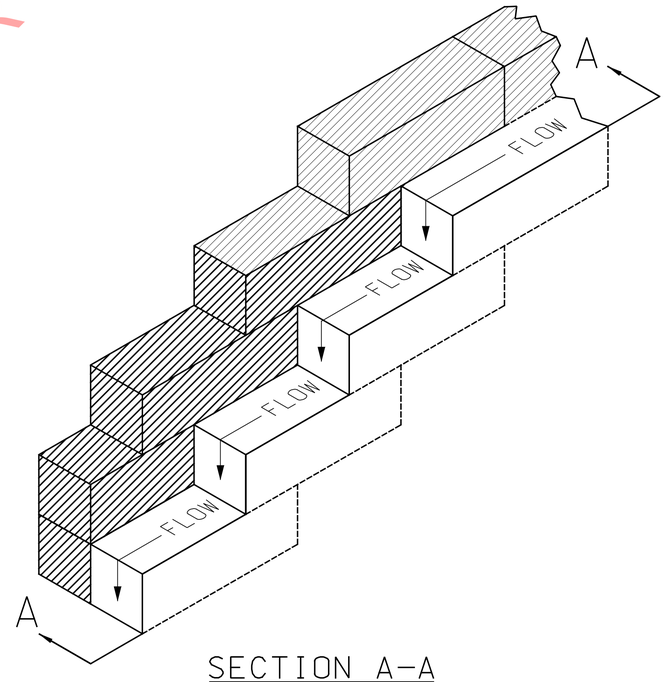
GABION STEP-DITCH CROSS SECTION

NOTE: PAY ITEM TO BE CUBIC YARD GABION



SECTION A-A PROFILE VIEW

FOR INFORMATION ONLY: TO BE USED WHERE RECONSTRUCTION OF DITCH ON ADJOINING PROJECT IS NEEDED, AS SPECIFIED IN THE CONSTRUCTION ACCESS PLAN, OR AS DIRECTED BY THE ENGINEER



SECTION A-A
OBLIQUE VIEW OF DITCH

PREPARED BY ____ DATE ____
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GABION STEP DITCH DETAIL

NOT TO SCALE
TYPICAL

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R15

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

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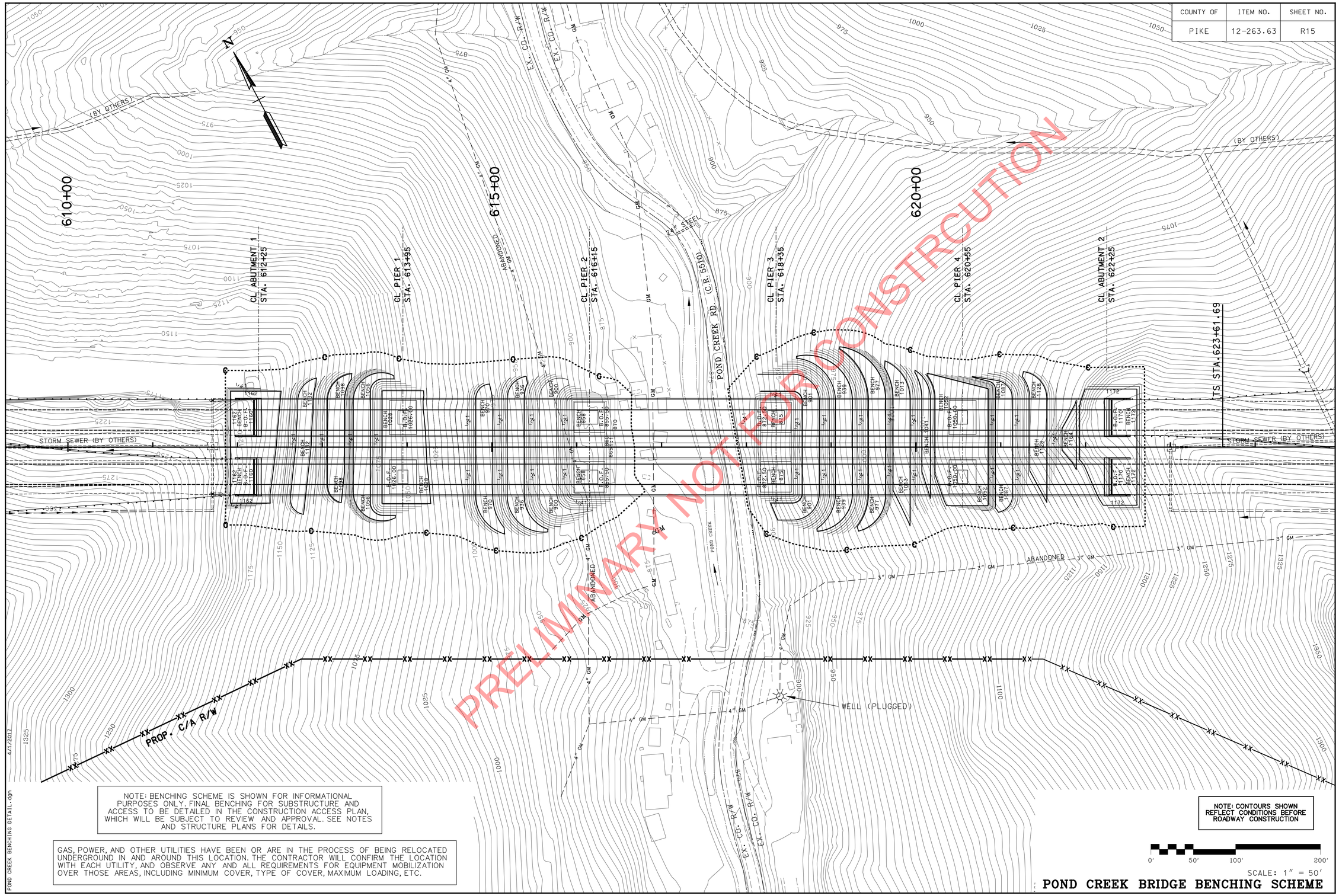
FORM NO. 2m

POND CREEK BENCHING DETAIL.dgn

4/12/2017



NOTE: BENCHING SCHEME IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. FINAL BENCHING FOR SUBSTRUCTURE AND ACCESS TO BE DETAILED IN THE CONSTRUCTION ACCESS PLAN, WHICH WILL BE SUBJECT TO REVIEW AND APPROVAL. SEE NOTES AND STRUCTURE PLANS FOR DETAILS.

GAS, POWER, AND OTHER UTILITIES HAVE BEEN OR ARE IN THE PROCESS OF BEING RELOCATED UNDERGROUND IN AND AROUND THIS LOCATION. THE CONTRACTOR WILL CONFIRM THE LOCATION WITH EACH UTILITY, AND OBSERVE ANY AND ALL REQUIREMENTS FOR EQUIPMENT MOBILIZATION OVER THOSE AREAS, INCLUDING MINIMUM COVER, TYPE OF COVER, MAXIMUM LOADING, ETC.

NOTE: CONTOURS SHOWN REFLECT CONDITIONS BEFORE ROADWAY CONSTRUCTION

0' 50' 100' 200'

SCALE: 1" = 50'

POND CREEK BRIDGE BENCHING SCHEME

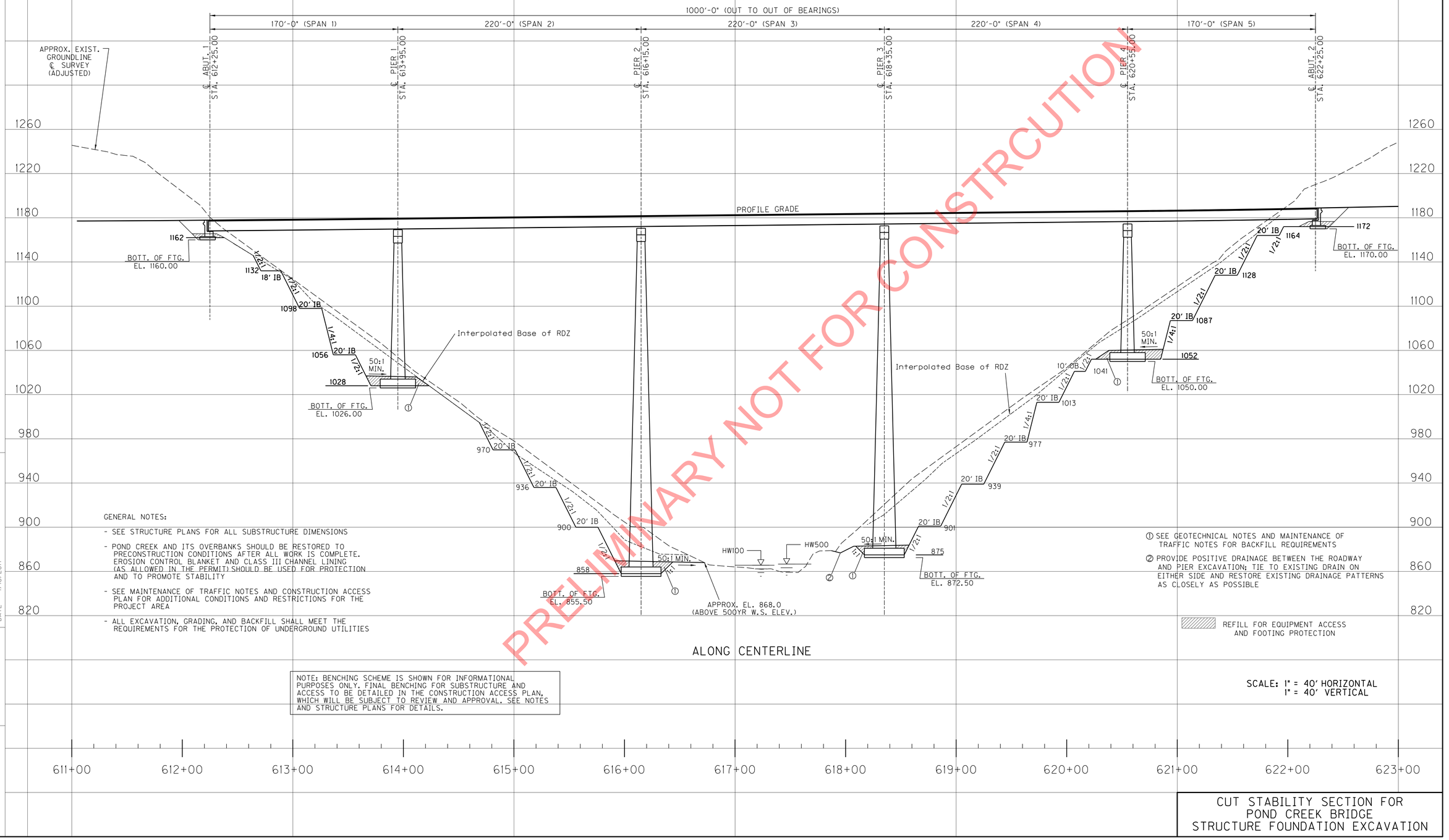
COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R16

BRIDGE SUBSTRUCTURE ESTIMATED EXCAVATION QUANTITIES•

	WEST (BACK-STATION) OF POND CREEK	EAST (AHEAD-STATION) OF POND CREEK	TOTALS
COMMON	15,750 CY	16,660 CY	32,410 CY
ROCK	41,350 CY	142,340 CY	183,690 CY
ROCK ROADBED••	167 CY	167 CY	334 CY

•QUANTITIES SHOWN RELATE ONLY TO THE BENCHING SCHEME SHOWN. FINAL QUANTITIES TO BE DETERMINED BY THE EXCAVATION REQUIRED BY THE APPROVED CONSTRUCTION ACCESS PLAN.
•• FOR REPAIR AND REPLACEMENT OF ROCK ROADBED DISTURBED OR REMOVED FOR CONSTRUCTION OF BRIDGE ABUTMENTS, DRAINAGE STRUCTURES, EQUIPMENT AND MATERIAL STAGING, AND OTHER LOCATIONS AS DESIGNATED BY THE ENGINEER.

NOTE: ALL EARTHWORK QUANTITIES OVER AND ABOVE THOSE SHOWN HERE ARE TO BE INCLUDED IN THE CONSTRUCTION ACCESS BID ITEM.



GENERAL NOTES:

- SEE STRUCTURE PLANS FOR ALL SUBSTRUCTURE DIMENSIONS
- POND CREEK AND ITS OVERBANKS SHOULD BE RESTORED TO PRECONSTRUCTION CONDITIONS AFTER ALL WORK IS COMPLETE. EROSION CONTROL BLANKET AND CLASS III CHANNEL LINING (AS ALLOWED IN THE PERMIT) SHOULD BE USED FOR PROTECTION AND TO PROMOTE STABILITY
- SEE MAINTENANCE OF TRAFFIC NOTES AND CONSTRUCTION ACCESS PLAN FOR ADDITIONAL CONDITIONS AND RESTRICTIONS FOR THE PROJECT AREA
- ALL EXCAVATION, GRADING, AND BACKFILL SHALL MEET THE REQUIREMENTS FOR THE PROTECTION OF UNDERGROUND UTILITIES

① SEE GEOTECHNICAL NOTES AND MAINTENANCE OF TRAFFIC NOTES FOR BACKFILL REQUIREMENTS

② PROVIDE POSITIVE DRAINAGE BETWEEN THE ROADWAY AND PIER EXCAVATION; TIE TO EXISTING DRAIN ON EITHER SIDE AND RESTORE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE

REFILL FOR EQUIPMENT ACCESS AND FOOTING PROTECTION

NOTE: BENCHING SCHEME IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. FINAL BENCHING FOR SUBSTRUCTURE AND ACCESS TO BE DETAILED IN THE CONSTRUCTION ACCESS PLAN, WHICH WILL BE SUBJECT TO REVIEW AND APPROVAL. SEE NOTES AND STRUCTURE PLANS FOR DETAILS.

ALONG CENTERLINE

SCALE: 1" = 40' HORIZONTAL
1" = 40' VERTICAL

CUT STABILITY SECTION FOR POND CREEK BRIDGE STRUCTURE FOUNDATION EXCAVATION

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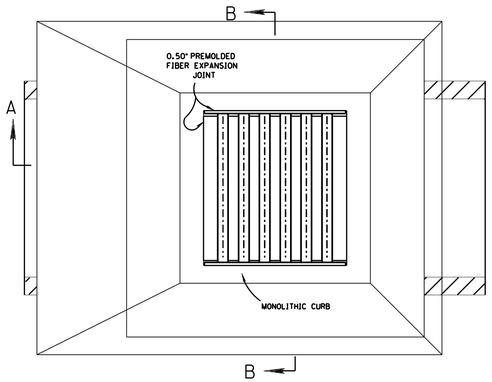
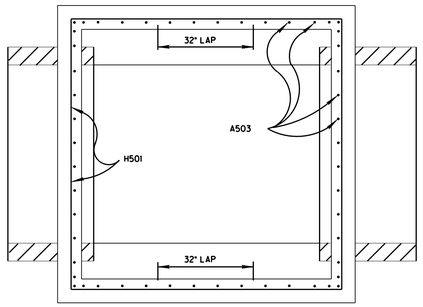
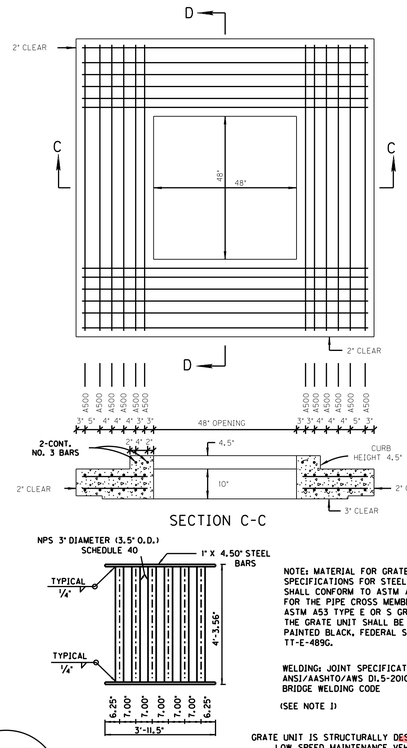
PIKE	12-263.63	R17



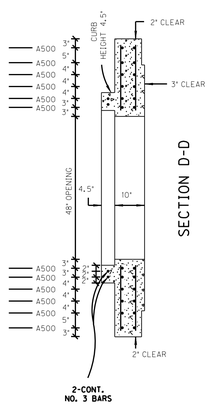
SECTION E-E



SECTION E-E



SECTION C-C



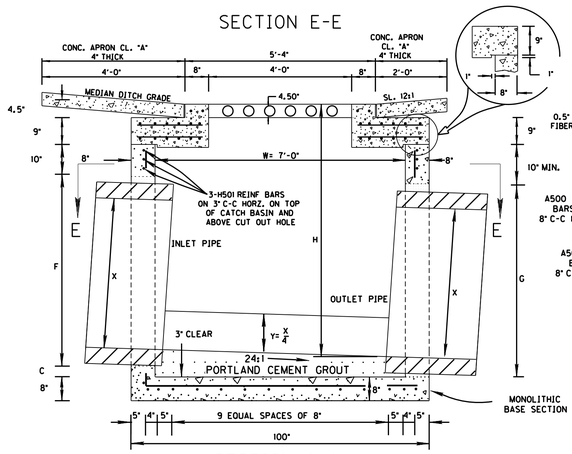
SECTION D-D

NOTE: MATERIAL FOR GRATE SPECIFICATIONS FOR STEEL BARS SHALL CONFORM TO ASTM A36. FOR THE PIPE CROSS MEMBERS, ASTM A53 TYPE E OR S GRADE A OR B. THE GRATE UNIT SHALL BE PAINTED BLACK, FEDERAL SPEC. TT-E-489G.

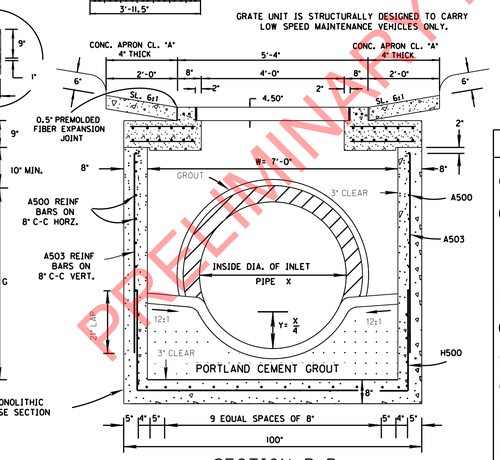
WELDING: JOINT SPECIFICATION ANSI/AASHTO/AWS D1.5-2010 BRIDGE WELDING CODE

(SEE NOTE J)

GRATE UNIT IS STRUCTURALLY DESIGNED TO CARRY LOW SPEED MAINTENANCE VEHICLES ONLY.



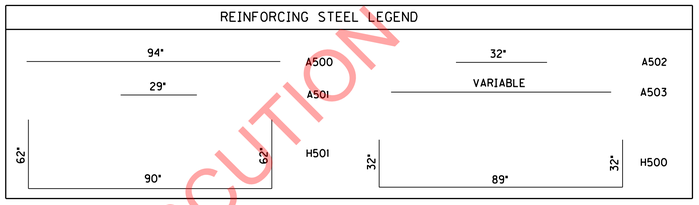
SECTION A-A



SECTION B-B

ALL STEEL REINFORCEMENT SHALL BE #5

REINFORCING STEEL LEGEND



CATCH BASIN DIMENSIONS

INSIDE WIDTH OF CATCH BASIN (INCHES)	WALL THICKNESS (INCHES)	OUTSIDE WIDTH OF CATCH BASIN (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90 ° (INCHES)	DIMENSION C (INCHES)
84	8	100	60	54	3.5

CUT-OUT HOLES FOR INLET & OUTLET PIPES

INSIDE DIAMETER (X) OF PIPE (INCHES)	DIAMETER OF CUT-OUT HOLES F & G - (INCHES)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	26	21	24
24	32	27	31
30	40	33	39
36	47	40	45
42	54	46	50
48	61	52	56
54	68	58	——
60	75	64	——

CUT- OUT HOLES FOR PRECAST STRUCTURES TO BE CORED OR FORMED IN ORDER TO OBTAIN A SMOOTH EDGED HOLE. SCORED OR ETCHED HOLES WITH REINFORCING STEEL LEFT UNCUT WILL NOT BE PERMITTED.

CATCH BASIN MINIMUM DEPTH TABLE

INSIDE DIAMETER (X) OF PIPE (INCHES)	MINIMUM DEPTH - (FEET)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	4.08	3.88	4.00
24	4.58	4.38	4.54
30	5.17	4.88	5.13
36	5.71	5.42	5.63
42	6.25	5.92	6.08
48	6.79	6.42	6.58
54	7.33	6.92	——
60	7.88	7.42	——

(1) DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW ELEVATION BASED ON INLET AND OUTLET PIPES BEING THE SAME DIAMETER. IF OUTLET PIPE IS GREATER ADJUSTMENT IN DEPTHS MUST BE MADE TO ACCOMMODATE THIS SITUATION.

(2) TO DETERMINE FLOOR OF CATCH BASIN ELEVATION, WHEN INLET AND OUTLET PIPES ARE THE SAME SIZE, ADD PIPE WALL THICKNESS PLUS 1.5" TO THE ABOVE MINIMUM DEPTHS.

GENERAL NOTES

(A) CAST-IN-PLACE CONCRETE CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 710 AND/OR SPECIAL PROVISIONS.

(B) THE CONTRACTOR MAY WITH PERMISSION FROM THE ENGINEER SUBSTITUTE PRECAST CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) AND AASHTO M199 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.

CONCRETE: f'_c = 4,000 POUNDS PER SQUARE INCH AT 28 DAYS
REINFORCING STEEL: ASTM A615, F_y = 60,000 POUNDS PER SQUARE INCH
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

(C) PRECAST CATCH BASIN UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED CATCH BASIN UNITS AT HIS OWN EXPENSE.

(D) ADDITIONAL REINFORCING STEEL NECESSARY ABOVE THE CORED OR FORMED CUT-OUT HOLES TO MAINTAIN THE INTEGRITY OF THE STRUCTURE DURING HANDLING AND PLACEMENT SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.

(E) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE CATCH BASIN.

(F) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES AND PLACE A MINIMUM OF ONE(1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.

(G) INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.

(H) CONCRETE JOINT MATERIAL TO BE IN ACCORDANCE WITH SECTION 807 OF STANDARD SPECIFICATIONS.

(J) PROVIDE SECURITY DEVICE FOR GRATE, SIMILAR TO THAT SHOWN IN STANDARD DRAWING RDX-160-05 OR EQUIVALENT

- FOR INFORMATION ONLY -
USE ONLY WHERE REPLACEMENT OF PREVIOUSLY CONSTRUCTED STRUCTURE IS REQUIRED

PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

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4/1/2017
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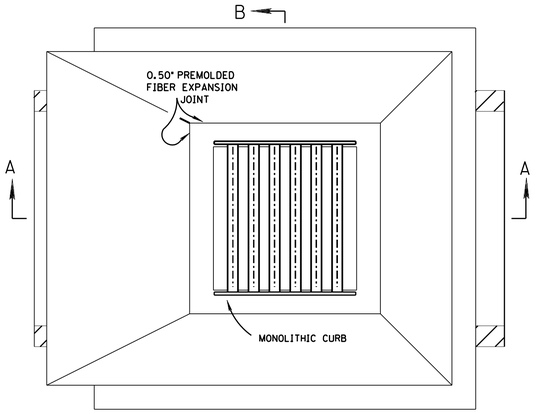
4/1/2017

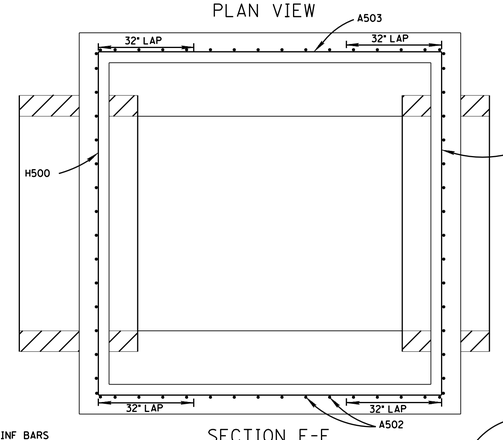
NOT TO SCALE

MODIFIED DROP BOX INLET DETAIL SHEET (1 OF 2)

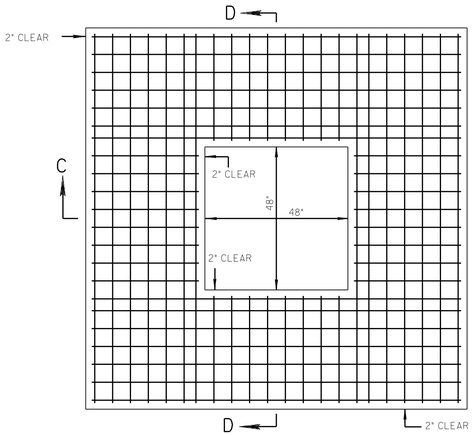
COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R18

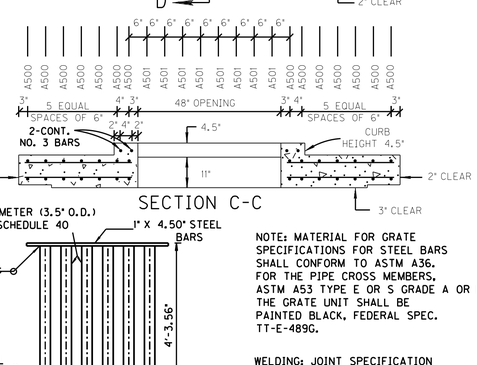


PLAN VIEW



SECTION E-E





SECTION C-C

SECTION D-D

NPS 3" DIAMETER (3.5" O.D.) SCHEDULE 40

1" X 4.50" STEEL BARS

TYPICAL 1/4"

4'-3.56"

6.25" 7.00" 7.00" 7.00" 7.00" 7.00" 6.25"

3'-11.5"

NOTE: MATERIAL FOR GRATE SPECIFICATIONS FOR STEEL BARS SHALL CONFORM TO ASTM A36. FOR THE PIPE CROSS MEMBERS, ASTM A53 TYPE E OR S GRADE A OR B. THE GRATE UNIT SHALL BE PAINTED BLACK, FEDERAL SPEC. TT-E-489G.

WELDING: JOINT SPECIFICATION ANSI/AASHTO/AWS D1.5-2010 BRIDGE WELDING CODE

GRATE UNIT IS STRUCTURALLY DESIGNED TO CARRY LOW SPEED MAINTENANCE VEHICLES ONLY.

REINFORCING STEEL LEGEND

ALL STEEL REINFORCEMENT SHALL BE #5

CATCH BASIN DIMENSIONS

INSIDE WIDTH OF CATCH BASIN (INCHES)	WALL THICKNESS (INCHES)	OUTSIDE WIDTH OF CATCH BASIN (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90 ° (INCHES)	DIMENSION C (INCHES)
108	10	128	78	72	4.5

CUT-OUT HOLES FOR INLET & OUTLET PIPES

INSIDE DIAMETER (X) OF PIPE (INCHES)	DIAMETER OF CUT-OUT HOLES F & G - (INCHES)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	26	21	24
24	32	27	31
30	40	33	39
36	47	40	45
42	54	46	50
48	61	52	56
54	68	58	___
60	75	64	___
66	82	70	___
72	89	76	___
78	96	82	___

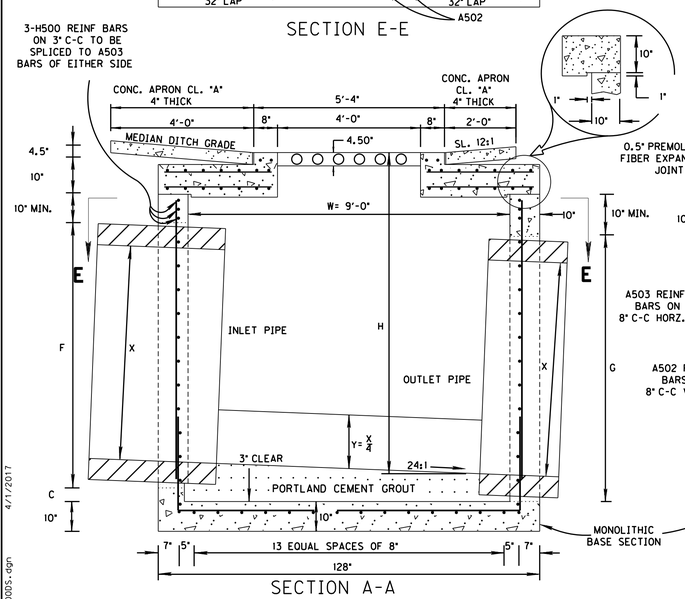
CUT- OUT HOLES FOR PRECAST STRUCTURES TO BE CORED OR FORMED IN ORDER TO OBTAIN A SMOOTH EDGED HOLE. SCORED OR ETCHED HOLES WITH REINFORCING STEEL LEFT UNCUT WILL NOT BE PERMITTED.

CATCH BASIN MINIMUM DEPTH TABLE

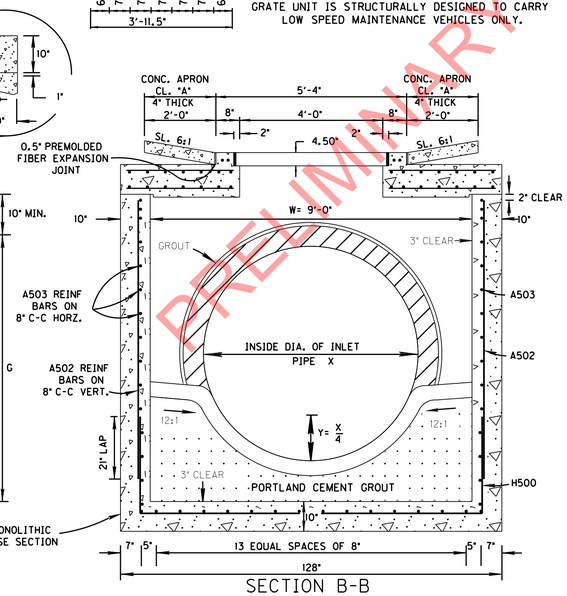
INSIDE DIAMETER (X) OF PIPE (INCHES)	MINIMUM DEPTH - (FEET)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	4.25	4.04	4.17
24	4.75	4.54	4.71
30	5.34	5.04	5.29
36	5.88	5.58	5.79
42	6.42	6.08	6.25
48	6.96	6.58	6.75
54	7.50	7.08	___
60	8.04	7.58	___
66	8.58	8.08	___
72	9.13	8.58	___
78	9.67	9.08	___

(1) DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW ELEVATION BASED ON INLET AND OUTLET PIPES BEING THE SAME DIAMETER, IF OUTLET PIPE IS GREATER ADJUSTMENT IN DEPTHS MUST BE MADE TO ACCOMMODATE THIS SITUATION.

(2) TO DETERMINE FLOOR OF CATCH BASIN ELEVATION, WHEN INLET AND OUTLET PIPES ARE THE SAME SIZE, ADD PIPE WALL THICKNESS PLUS 1.5" TO THE ABOVE MINIMUM DEPTHS.



SECTION A-A



SECTION B-B

GENERAL NOTES

(A) CAST-IN-PLACE CONCRETE CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 710 AND/OR SPECIAL PROVISIONS.

(B) THE CONTRACTOR MAY WITH PERMISSION FROM THE ENGINEER SUBSTITUTE PRECAST CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) AND AASHTO M199 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.

CONCRETE: f'_c = 4,000 POUNDS PER SQUARE INCH AT 28 DAYS
REINFORCING STEEL: ASTM A615, F_y = 60,000 POUNDS PER SQUARE INCH
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

(C) PRECAST CATCH BASIN UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED CATCH BASIN UNITS AT HIS OWN EXPENSE.

(D) ADDITIONAL REINFORCING STEEL NECESSARY ABOVE THE CORED OR FORMED CUT-OUT HOLES TO MAINTAIN THE INTEGRITY OF THE STRUCTURE DURING HANDLING AND PLACEMENT SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.

(E) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE CATCH BASIN.

(F) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES AND PLACE A MINIMUM OF ONE(1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.

(G) INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.

(H) CONCRETE JOINT MATERIAL TO BE IN ACCORDANCE WITH SECTION 807 OF STANDARD SPECIFICATIONS.

(I) PROVIDE SECURITY DEVICE FOR GRATE, SIMILAR TO THAT SHOWN IN STANDARD DRAWING RDX-160-05 OR EQUIVALENT

- FOR INFORMATION ONLY -
USE ONLY WHERE REPLACEMENT OF PREVIOUSLY CONSTRUCTED STRUCTURE IS REQUIRED

NOT TO SCALE

MODIFIED DROP BOX INLET DETAIL SHEET (2 OF 2)

PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

R018005.dgn
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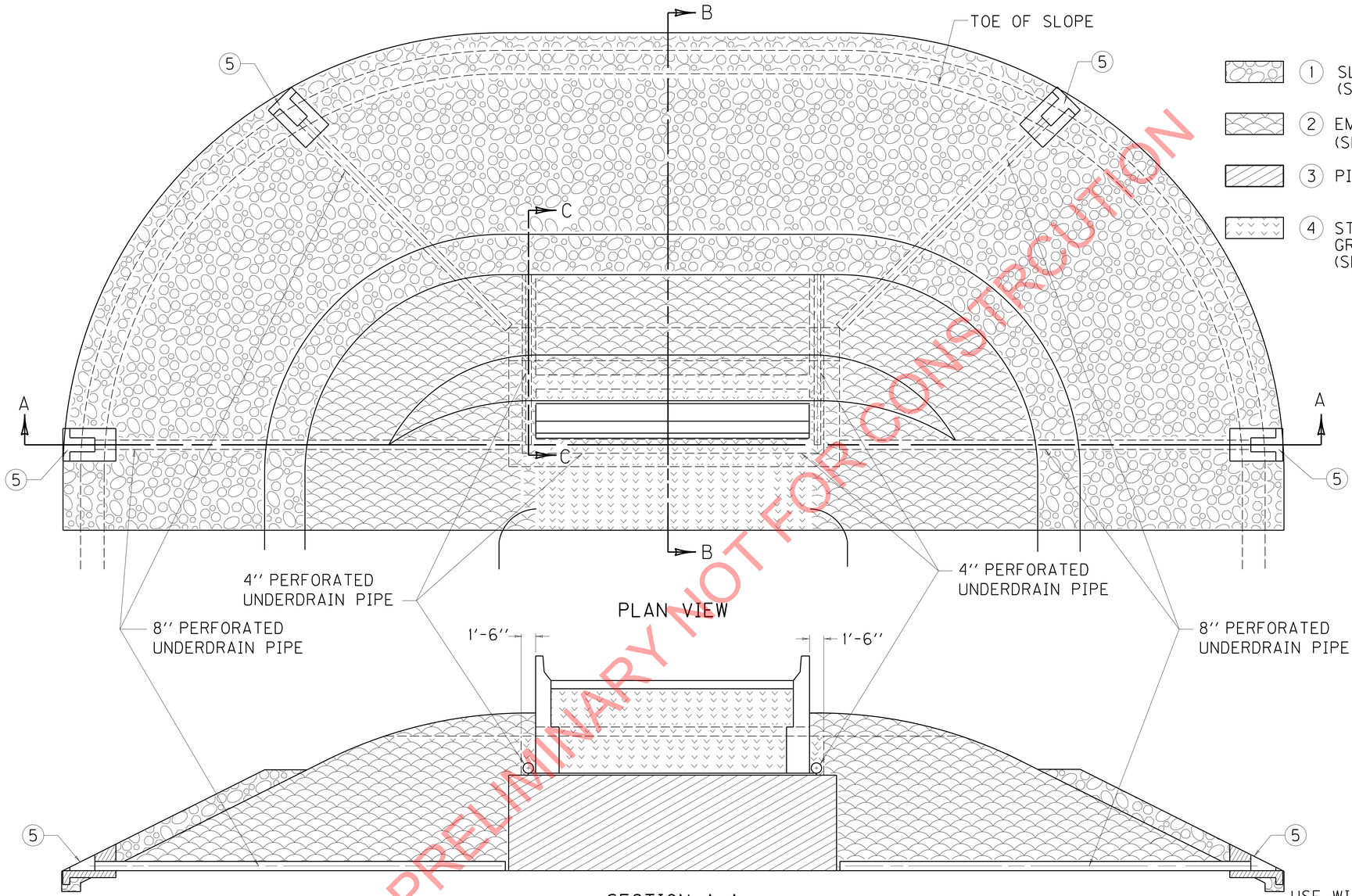
Cell Name: PIKEPL
4/1/2017
6-93
FORM NO. 2m
4/1/2017
R018005.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R18A



PLAN VIEW

SECTION A-A

LEGEND

1. SLOPE PROTECTION (SEE BRIDGE PLANS)
2. EMBANKMENT (SEE ROADWAY PLANS)
3. PILE CORE
4. STRUCTURE GRANULAR BACKFILL (SEE BRIDGE PLANS)

~ NOTES ~

THE PURPOSE OF THIS DRAWING AND CUR. SEPIA 010 IS TO DEFINE THE LIMITS OF THE FOUR MATERIALS SHOWN. FOR SIMPLICITY PURPOSES, AN END-BENT ON A ZERO DEGREE SKEW IS SHOWN. THE SAME PRINCIPLES WOULD APPLY FOR MORE VARIED STRUCTURES.

1. SLOPE PROTECTION REQUIRED WHEN AND AS NOTED ON THE PLANS.
2. GRANULAR OR ROCK EMBANKMENT REQUIRED WHEN AND AS NOTED ON THE PLANS.
3. PILE CORE IN ACCORDANCE WITH SPECIAL PROVISION NO. 69.
4. STRUCTURE GRANULAR BACKFILL REQUIRED AT ALL TIMES.
5. FOR HEADWALL CONSTRUCTION SEE CUR. STD. DWG RDP-010. (SEE ROADWAY PLANS)

USE WITH CUR. STD. DWG. RDP-010, SEPIA 010

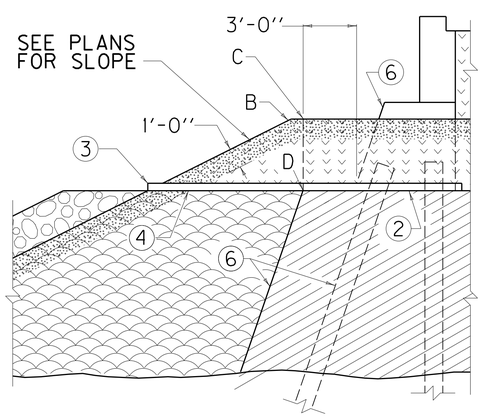
KENTUCKY DEPARTMENT OF HIGHWAYS

TREATMENT OF EMBANKMENTS AT END-BENTS

SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE

009

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R18B



SECTION C-C

SECTION B-B

BID ITEMS AND UNIT TO BID

GRANULAR EMBANKMENT	CUYD
STRUCTURE GRANULAR BACKFILL	CUYD

CONSTRUCTION SEQUENCE ''A''

1. CONSTRUCT EMBANKMENT TO SLOPES A, B, F, AND G SUCH THAT NO UNCOMPACTED OR LOOSE MATERIAL SHALL REMAIN.
2. EXCAVATE FOR END-BENT TO C, D, E, AND F.
3. INSTALL PILES (OR OTHER FOUNDATION).
4. PLACE 2'' MORTAR BED OR ANY CLASS CONCRETE.
5. CONSTRUCT CONCRETE END-BENT.
6. INSTALL 4'' PERFORATED UNDERDRAIN PIPE AND BACKFILL.
7. BACKFILL TO C, D, E, F, G, Z, AND J WITH COMPACTED STRUCTURE GRANULAR BACKFILL.

① CONSTRUCTION SEQUENCE ''B''

1. CONSTRUCT EMBANKMENT TO TEMPORARY SLOPE ④.
2. INSTALL PILES (OR OTHER FOUNDATION).
3. PLACE 2'' MORTAR BED OR ANY CLASS CONCRETE.
4. CONSTRUCT CONCRETE END-BENT.
5. INSTALL 4'' PERFORATED UNDERDRAIN PIPE AND BACKFILL.
6. BACKFILL TO FINISHED GRADE IN ACCORDANCE WITH SPECIAL PROVISION NO. 69.

~ NOTES ~

① CONSTRUCTION SEQUENCE ''B'' IS A PERMITTED ALTERNATE ONLY WHEN GRANULAR OR ROCK EMBANKMENT IS UTILIZED.

② 2'' MORTAR BED OR ANY CLASS CONCRETE.

③ 4'' PERFORATED UNDERDRAIN PIPE WRAPPED WITH GEOTEXTILE FABRIC FOR DRAINING THE EXCAVATED TRENCH AND STRUCTURE GRANULAR BACKFILL.

④ ACCEPTABLE ALTERNATES FOR TEMPORARY SLOPE (CONSTRUCTION SEQUENCE ''B'').

5. SHADED PORTIONS ▨ AND ▨ REPRESENT LIMITS OF NON-ERODIBLE GRANULAR EMBANKMENT IN ACCORDANCE WITH SPECIAL PROVISION NO. 69.

⑥ SLOPES ARE EQUAL.

⑦ ''H'' = EMBANKMENT HEIGHT MEASURED FROM SUBGRADE ELEVATION AT POINT Ⓩ TO THE LOWEST ELEVATION AT THE TOE OF THE SLOPE.

⑧ LIMITS OF EMBANKMENT CONSTRUCTION (H/2 OR 50' MIN.) REQUIRING 2' MAXIMUM LIFT THICKNESS FOR GRANULAR OR ROCK EMBANKMENTS.

9. SEE CURRENT SPECIAL PROVISION NO. 69 FOR CONSTRUCTION AND MATERIAL REQUIREMENTS, METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

10. STRUCTURE GRANULAR BACKFILL PLACED AS A COMPLETE SEPARATE OPERATION AFTER CONSTRUCTION OF ALL OTHER EMBANKMENT.

11. *NO INDIVIDUAL FRAGMENTS LARGER THAN 4 INCHES IN ANY DIMENSION PERMITTED WITHIN 3'-0'' OF THE STRUCTURE.*

⑫ PLACE GEOTEXTILE FABRIC, TYPE IV PRIOR TO PLACING STRUCTURE GRANULAR BACKFILL AND AGGREGATE BASE COURSE.

LEGEND

- SLOPE PROTECTION (SEE BRIDGE PLANS)
- PILE CORE
- STRUCTURE GRANULAR BACKFILL
- EMBANKMENT

USE WITH SEPIA 009

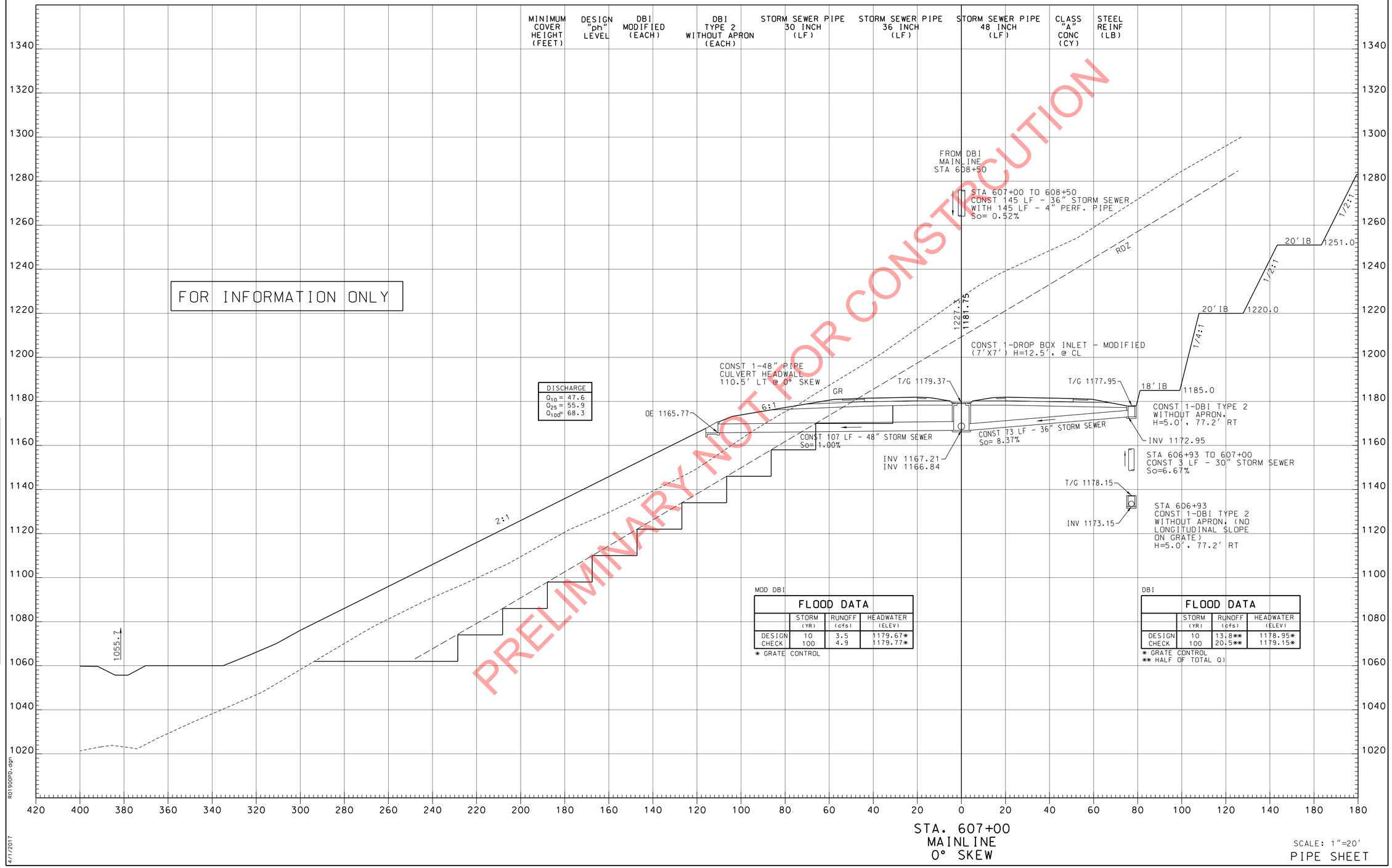
KENTUCKY DEPARTMENT OF HIGHWAYS

TREATMENT OF EMBANKMENTS AT END-BENTS - DETAILS

SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE

010

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R19



MOD DBI

FLOOD DATA	STORM (YR)	RUNOFF (cfs)	HEADWATER (ELEV)
DESIGN	10	3.5	1179.67*
CHECK	100	4.9	1179.77*

* GRATE CONTROL

DBI

FLOOD DATA	STORM (YR)	RUNOFF (cfs)	HEADWATER (ELEV)
DESIGN	10	13.8**	1178.95*
CHECK	100	20.5**	1179.15*

* GRATE CONTROL
** HALF OF TOTAL Q)

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

R01900PD.dgn

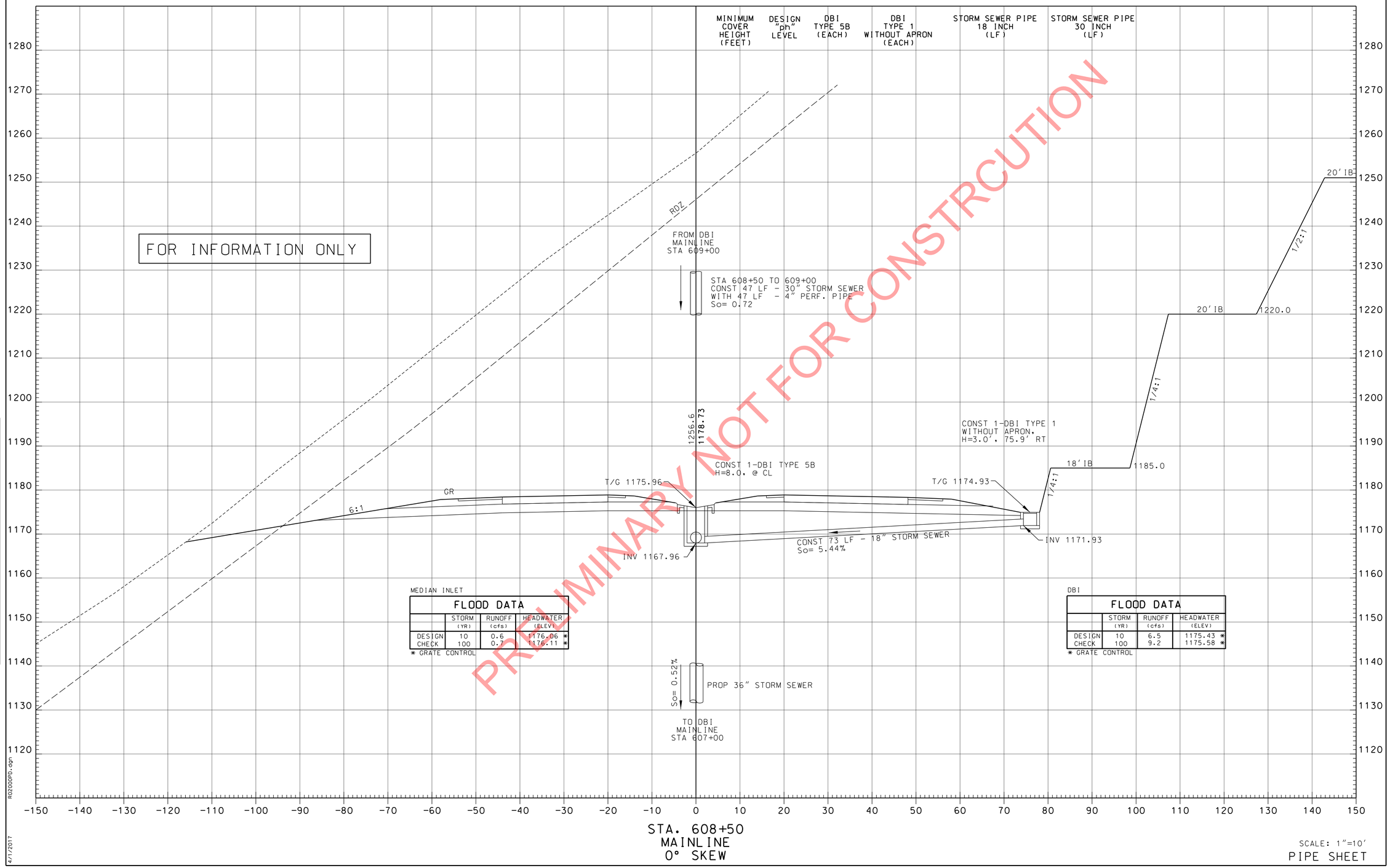
4/1/2017

STA. 607+00
MAINLINE
0° SKEW

SCALE: 1"=20'

PIPE SHEET

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R20



STA. 608+50
MAINLINE
0° SKEW

SCALE: 1"=10'

PIPE SHEET

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

4/1/2017

R020000D.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R21

FOR INFORMATION ONLY

MINIMUM COVER HEIGHT (FEET) | DESIGN "ph" LEVEL | DBI TYPE 5B (EACH) | STORM SEWER PIPE 30 INCH (LF)

FROM DBI
MAINLINE
STA 611+70.61

STA 609+00 TO 611+71.61
CONST 269 LF - 30" STORM SEWER
WITH 269 LF - 4" PERF. PIPE
So= 0.52%

RDZ

1255.5
1178.06

CONST 1-DBI TYPE 5B
H=7.35' @ CL

T/G 1175.65

GR

6:1

GR

1/4:1

18' IB

1185.0

1/4:1

20' IB

1220.0

1/2:1

20' IB

INV 1168.30

FLOOD DATA			
	STORM (YR)	RUNOFF (cfs)	HEADWATER (ELEV)
DESIGN	25	0.7	1175.80 *
CHECK	100	0.8	1175.85 *

* GRATE CONTROL

So=0.72

PROP 30" STORM SEWER

TO DBI
MAINLINE
STA 608+50

1270 1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

STA. 609+00
MAINLINE
0° SKEW

SCALE: 1"=10'

PIPE SHEET

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

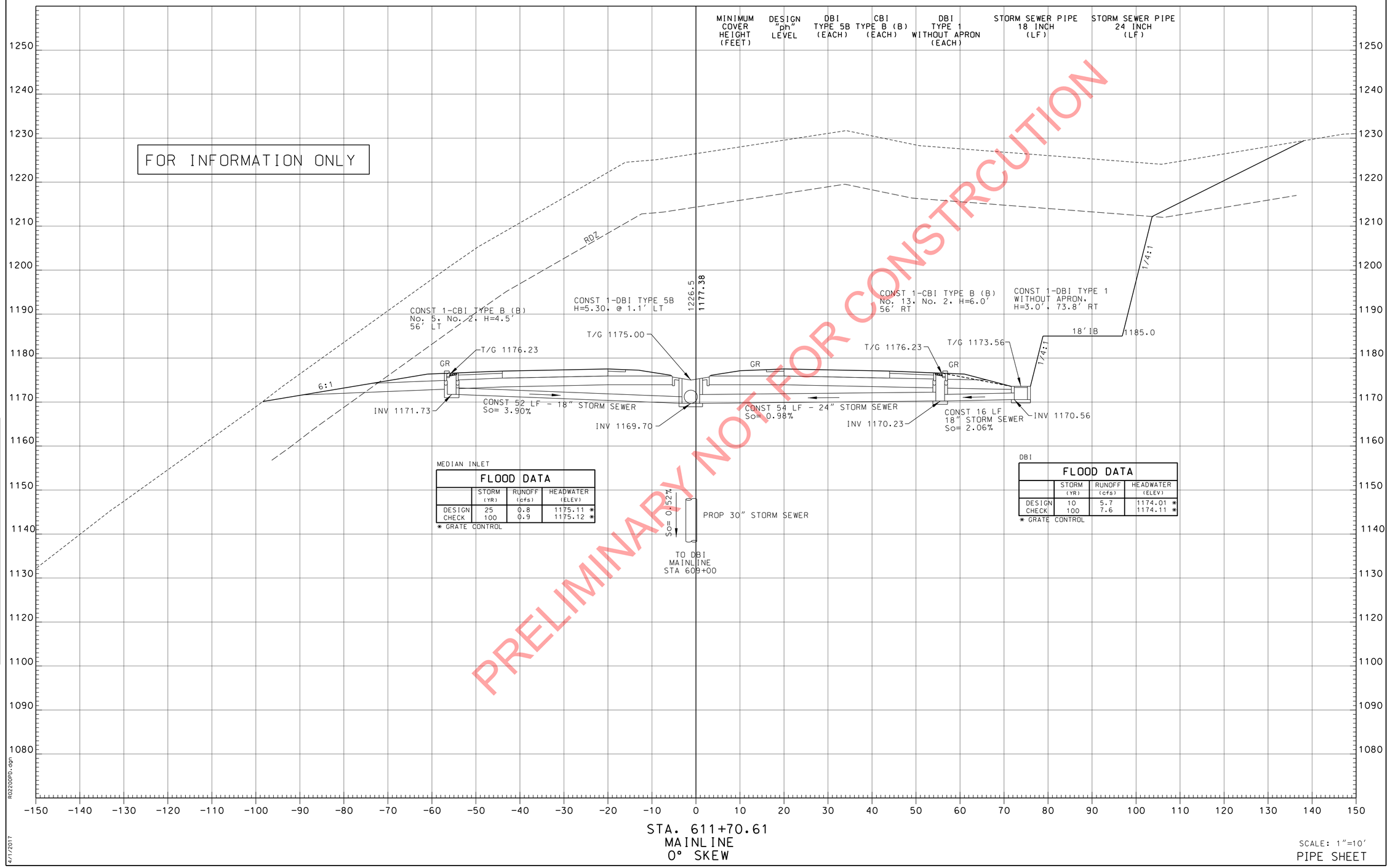
6-93
FORM NO. 2m

R02100PD.dgn

4/1/2017

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R22

FOR INFORMATION ONLY



PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

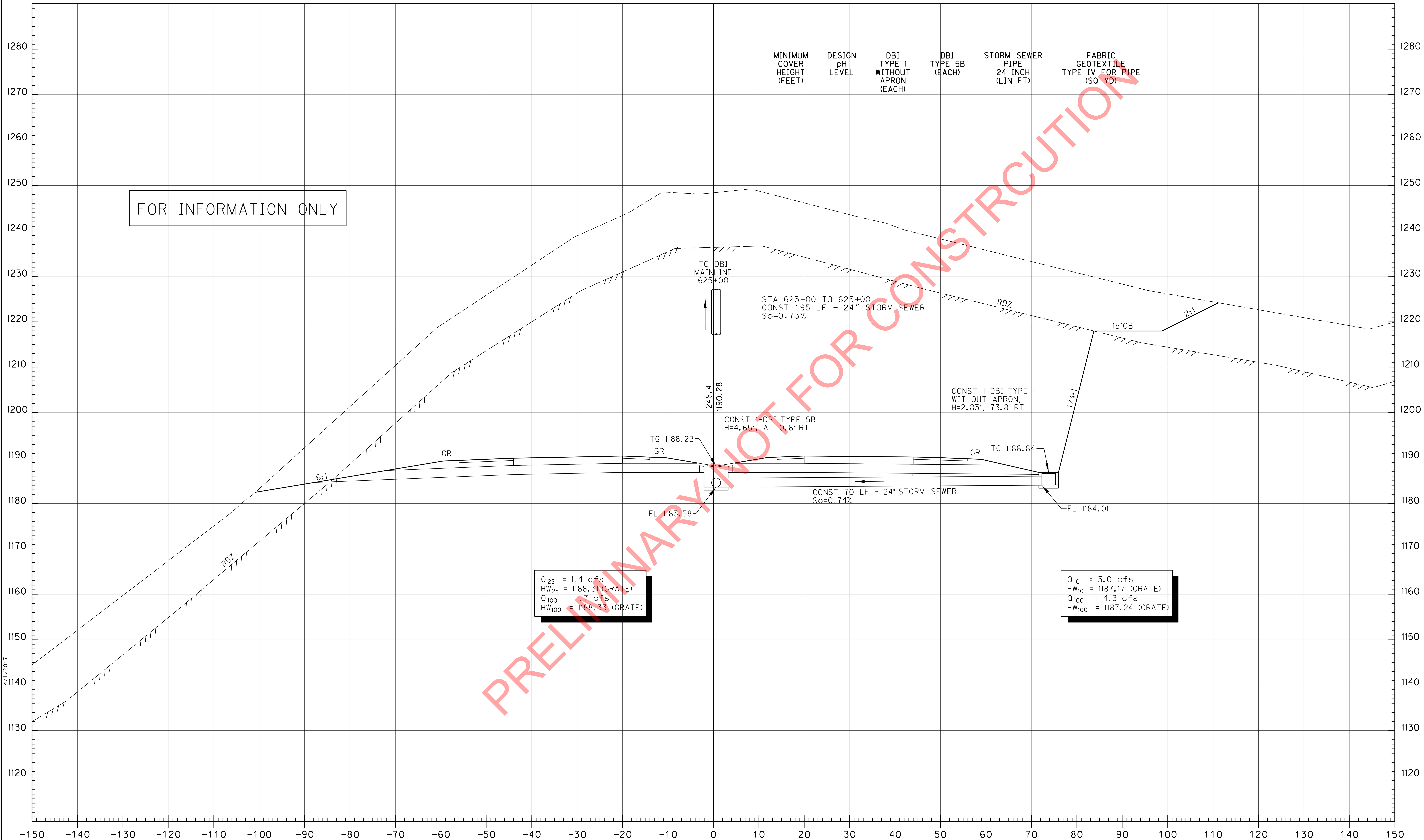
R02200PD.dgn
4/1/2017

STA. 611+70.61
MAINLINE
0° SKEW

SCALE: 1"=10'
PIPE SHEET

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R23

MINIMUM COVER HEIGHT (FEET)	DESIGN pH LEVEL	DBI TYPE 1 WITHOUT APRON (EACH)	DBI TYPE 5B (EACH)	STORM SEWER PIPE 24 INCH (LIN FT)	FABRIC GEOTEXTILE TYPE IV FOR PIPE (SQ YD)



STA. 623+00
MAINLINE
0° SKEW

SCALE: 1"=10'
PIPE SHEET

PREPARED BY ______ DATE
CHECKED BY ______ DATE
APPROVED BY ______ DATE

4/1/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

R02300PD.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R24

FOR INFORMATION ONLY

MINIMUM COVER HEIGHT (FEET)	DESIGN "ph" LEVEL	MODIFIED DBI WITHOUT APRON (EACH)	DBI TYPE I WITHOUT APRON (EACH)	STORM SEWER PIPE 18 INCH (LF)	STORM SEWER PIPE 54 INCH (LF)	STORM SEWER PIPE 60 INCH (LF)	CLASS "A" CONC (CY)	STEEL REINF (LB)	FABRIC GEOTEXTILE TYPE IV FOR PIPE (SQ YD)

FROM DBI MAINLINE 625+65

STA 625+00 TO 625+65
CONST 58 LF OF 54" STORM SEWER
So= 6.34%

ROZ

1/2:1

20'IB 1280

1/2:1

18'IB 1253

1/2:1

20'IB 1226

1/4:1

5' LEFT 25° DEFLECTION BACKSTATION 1249.8
GP LEFT N194.18
GP RIGHT N194.28

CONST 1-60" PIPE CULVERT HEADWALL 99.0' LT @ 0° SKEW

DISCHARGE
Q_{10} = 140.1 cfs
Q_{25} = 169.6 cfs
Q_{100} = 215.5 cfs

CONST 1-DROP BOX INLET - MODIFIED WITHOUT APRON H=11.33', W=9.00', @ 7.5' LEFT

CONST 1-DBI TYPE 1 WITHOUT APRON, H=3.33', 73.8' RT

T/G 1193.49

GR

GR

T/G 1191.74

OE 1178.64

3:1

CONST 88 LF - 60" STORM SEWER
So=4.00%

CONST 77 LF - 18" STORM SEWER
So=8.12%

FL 1188.41

FL 1182.16

Q_{10} = 3.1 cfs
HW_{10} = 1192.09 (GRATE)
Q_{100} = 4.5 cfs
HW_{100} = 1192.17 (GRATE)

So=0.73%

PROP 24" STORM SEWER

FROM DBI MAINLINE 623+00

1060.75

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

4/7/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

R02400PD.dgn

STA. 625+00
MAINLINE
0° SKEW

SCALE: 1"=20'
PIPE SHEET

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R25

FOR INFORMATION ONLY

	MINIMUM COVER HEIGHT (FEET)	DESIGN pH LEVEL	MODIFIED DBI (EACH)	STORM SEWER PIPE 54 INCH (LIN FT)	FABRIC GEOTEXTILE TYPE IV FOR PIPE (SQ YD)

FROM DBI
MAINLINE
626+50

STA 625+65 TO 626+50
CONST 78 LF - 54" STORM SEWER
So=2.18%

Q_{25} = 1.2 cfs
HW_{25} = 1193.32 (GRATE)
Q_{100} = 1.4 cfs
HW_{100} = 1193.35 (GRATE)

CONST 1-DROP BOX INLET - MODIFIED
H=7.33', W=7.00', @ ℄

TG 1193.17

GR

FL 1185.84

PROP 54" STORM SEWER

So=6.34%

TO DBI
MAINLINE
625+00

2:1
1226
20'IB
1/4:1
1268.0
1195.58
1/4:1
20'IB
1226
1/2:1
18'IB
1253
1/2:1

STA. 625+65
MAINLINE
0° SKEW

SCALE: 1"=10'
PIPE SHEET

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

4/1/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

R02500PD.dgn

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R26

	MINIMUM COVER HEIGHT (FEET)	DESIGN pH LEVEL	DBI TYPE I WITHOUT APRON (EACH)	MODIFIED DBI (EACH)	STORM SEWER PIPE 18 INCH (LIN FT)	STORM SEWER PIPE 24 INCH (LIN FT)	STORM SEWER PIPE 54 INCH (LIN FT)	FABRIC GEOTEXTILE TYPE IV FOR PIPE (SQ YD)
15'OB								
18'IB								
20'IB								
18'IB								
20'IB								

15'OB

1/2:1

1253

18'IB

1/2:1

1226

20'IB

1/4:1

CONST 1-DBI TYPE 1
WITHOUT APRON.
H=2.83', 73.8' LT

RDZ

TG 1192.68

FL 1189.85

Q_{10} = 7.4 cfs
HW_{10} = 1193.23 (GRATE)
Q_{100} = 10.5 cfs
HW_{100} = 1193.36 (GRATE)

CONST 69 LF - 18" STORM SEWER
So=3.34%

1316.0
1197.28

CONST 1-DROP BOX INLET - MODIFIED
H=7.33', W=7.00' @ ℄

TG 1194.87

FL 1187.54

CONST 69 LF - 24" STORM SEWER
So=6.41%

TG 1195.46

FL 1191.96

CONST 1-DBI TYPE 1
WITHOUT APRON.
H=3.50', 73.8' RT

1/4:1

Q_{10} = 13.2 cfs
HW_{10} = 1196.26 (GRATE)
Q_{100} = 19.4 cfs
HW_{100} = 1196.51 (GRATE)

20'IB

1226

1/2:1

18'IB

1253

1/2:1

FROM DBI
MAINLINE
630+50

STA 626+50 TO 630+50
CONST 393 LF - 54" STORM SEWER
So=2.04%

So=2.18%

PROP 54" STORM SEWER

TO DBI
MAINLINE
625+65

1300 1290 1280 1270 1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

STA. 626+50
MAINLINE
0° SKEW

SCALE: 1"=10'

PIPE SHEET

PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

4/1/2017

Cell Library: PEC-3D.CEL
Cell Name: PIKEPL

6-93
FORM NO. 2m

R026OOPD.dgn

GEOTECHNICAL SYMBOLS

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R27

AASHTO Classification of Soils and Soil-Aggregate Mixtures

General Classification	Granular Materials (35% or less passing 0.075 mm)							Silt-Clay Materials (More than 35% passing 0.075 mm)			
Group Classification	A-1		A-3	A-2				A-4	A-5	A-6	A-7
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5 A-7-6
Sieve Analysis, Percent Passing											
2.00 mm (No. 10)	50 max	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
0.425 mm (No. 40)	30 max	50 max	51 min	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
0.075 mm (No. 200)	15 max	25 max	10 max	35 max	35 max	35 max	35 max	36 min	36 min	36 min	36 min
Characteristics of Fraction Passing 0.425 mm (No. 40)											
Liquid Limit	- - -		- - -	40 max	41 min	40 max	41 min	40 max	41 min	40 max	41 min
Plasticity Index	6 max		N.P.	10 max	10 max	11 min	11 min	10 max	10 max	11 min	11 min

Unified Soil Classifications

MAJOR DIVISIONS		SYMBOL		NAME
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW		Well-graded gravels or gravel-sand mixtures, little or no fines.
		GP		Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GM		Silty gravels, gravel-sand-silt mixtures.
		GC		Clayey gravels, gravel-sand-clay mixtures.
	SAND AND SANDY SOILS	SW		Well graded sands or gravelly sands, little or no fines.
		SP		Poorly graded sands or gravelly sands, little or no fines.
		SM		Silty sands, sand-silt mixtures.
		SC		Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS	SILTS AND CLAYS LL IS LESS THAN 50	ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays silty clays, lean clays.
	SILTS AND CLAYS LL IS GREATER THAN 50	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		CH		Inorganic clays of high plasticity, fat clays.
UNCLASSIFIED MATERIAL		NONE		Non-classified material(i.e. overburden, pavement, slag, etc.) Include visual description.

AI	Activity Index
LI	Liquidity Index
S+C	Silt + Clay (% finer than No.200 Sieve)
○	Rockline Soundings
◕	Disturbed Sample Boring
◎	Undisturbed Sample Boring
◉	Undisturbed Sample Boring & Rock Core
●	Rock Core
⌖	Slope Inclinometer Installation
	typical applications: ⌖ ◕ ◎ ◉ ●
OW	Observation Well
➡	Approximate Footing Elevation
▼ (Date)	Water Elevation
VS (psf)	Field Vane Shear Strength
▮	Thin-walled Tube Sample
<	Standard Penetration Test Sample
N	Penetration Resistance
Qu (psf)	Unconfined Compressive Strength
UU (psf)	Unconsolidated Undrained Triaxial Strength
W%	Moisture Content
KY RQD	Rock Quality Designation (Kentucky Method)
STD RQD	Rock Quality Designation (Standard Method)
SDI(JS)	Slake Durability Index (Jar Slake Test)
REC	Core Recovery
Ø	Angle of Internal Friction (Total Stress)
$\overline{Ø}$	Angle of Internal Friction (Effective Stress)
c (psf)	Cohesion (Total Stress)
$\overline{c}$ (psf)	Cohesion (Effective Stress)
γ (pcf)	Total Unit Weight
RDZ	Rock Disintegration Zone
OB	Overburden Bench
IB	Intermediate Bench
R	Refusal
NR	Refusal Not Encountered

LIMESTONE

SANDSTONE

DURABLE SHALE (SDI ≥ 95)

NONDURABLE SHALE (SDI < 95)

COAL

TALUS, MINE WASTE, FILL MATERIAL, BOULDERS, & ETC.

GRANULAR EMBANKMENT

STRUCTURE GRANULAR BACKFILL

SLOPE PROTECTION

GEOTECHNICAL SYMBOL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R28

PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

GEOTECHNICAL NOTES

1) Temporary sheeting, cofferdams, and/or a dewatering method may be required for the installation of the foundations.

2) Solid rock excavation will be required for installation of spread footings at this structure.

3) Structure excavation shall be completed just prior to structure foundation construction in order to prevent the bedrock from being exposed for an extended period of time and deteriorating. The contractor shall take care during blasting and other excavation methods to avoid over-breakage and damage to the bedrock beneath the footings.

4) Footings shall be embedded a minimum of 2 feet into unweathered bedrock. All footing excavations in bedrock shall be cut neat so that no forming or backfilling is necessary in the construction of the portions of footings located in rock. Concrete and steel should be placed directly against the rock cut faces.

5) A minimum 2 feet of refill or refill as shown on the plans shall be placed over the top of the pier footings. Additional thickness of refill may be necessary to protect the footings from damage due to equipment traffic. The refill shall have a top size of 4 inches and may be from roadway or structure excavation. The refill shall be graded to provide positive surface drainage away from the footings.

6) The bedrock at this location may be susceptible to weathering and softening in the presence of water. Water must be kept out of the footing excavations. The footing steel and concrete should be placed the same day as or as soon as practical after the footing excavation is made. If the bedrock becomes softened at bearing elevation, the softened material should be undercut to unweathered material prior to placing the concrete.

7) At the direction of the Engineer, any mine tunnels or horizontal openings which are exposed in the excavation for the foundation for Pier 2, whether shown on the plans or not, shall be backfilled a minimum distance of 20 feet from the face of the foundation excavation. To insure that the void is completely backfilled, pneumatic backstowing using maximum size 1 1/2 inch with no more than 5% passing the 100 sieve will be required. The last 5 feet, horizontally, of backstowed material shall contain five (5) percent cement, by weight, and shall be backstowed as a slurry mix. This will help provide stability of the backstowed material at the face of the foundation excavation. If feasible, positive drainage of the tunnels or openings shall be provided through the use of pipe drains, surface ditches or other suitable drainage facilities. Pipes and other materials used for drainage shall be paid for at the unit bid price for those items. Pneumatic backstowing or other special equipment shall be paid for at the unit bid price per ton of backstowed material.

8) Excess Material Sites
   A) Remove the existing overburden from all native areas down to bedrock.
   B) Place a 10' thick drainage blanket consisting of durable sandstone beneath the proposed excess material before its placement.
   C) Construct embankment foundation benches in accordance with Standard Drawing RGX-010, except that the vertical rise will not be excavated vertically but will be excavated with a 1:1 slope to allow the use of a continuous rock drainage blanket.
   D) Construct the lower portion of the site (approximately half its height) of durable rock.
   E) Plans for any excess material site must be submitted to the Engineer for review and approval a minimum of 30 days before earthwork operations may begin.
   F) Excess material on the west side should be placed in such a way as to result in a 2.5:1 slope or flatter down and away from the roadway shoulder.

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

PIKE

PROJECT NUMBERS: FD52 098 0460 NEW LOC
NHPP 0806 (044)

GEOTECHNICAL NOTE SHEET

USER: PEC Jeff-c
DATE: 4/5/2017
FILE NAME: Geotech Notes (SA-16-2012) Updated.dgn
E-SHEET NAME: Geotech Notes (SA-16-2012) Updated.dgn
4/5/2017

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R29

GEOTECHNICAL NOTES

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
APPROVED BY _____ DATE _____

1) In accordance with Section 206 of the current Standard Specifications, the moisture content of embankment material shall not vary from the optimum moisture content as determined by KM 64-511 by more than +2 percent or less than -2 percent. This moisture content requirement shall have equal weight with the density requirement when determining the acceptability of embankment construction. Refer to the Family of Curves for moisture/density correlation.

2) All soils, whether from roadway or borrow, may require manipulation to obtain proper moisture content prior to compaction. Direct payment shall not be permitted for rehandling, hauling, stockpiling, and/or manipulating soils.

3) The contractor is responsible for conducting any operations necessary (such as construction of temporary drainage ditches, etc.) to excavate the cut areas to the required typical section. These operations shall be incidental to Roadway Excavation and no additional compensation shall be made for this work.

4) The contractor shall construct foundation embankment benches and transverse benches as indicated on the plans and/or as directed by the Engineer, prior to placement of embankments in areas requiring such benches.

5) Transverse benching and/or perforated pipe underdrains shall be installed at the following approximate locations and any others designated by the Engineer. Contrary to Standard Drawing RDP-006-03, transverse benches and perforated pipe underdrains shall be placed on both the upgrade and downgrade cut to fill transitions.

Mainline
Station 549+80
Station 585+80

6) Foundation embankment benches shall be placed in accordance with Standard Drawing RGX-010-03 at the locations listed below and/or as directed by the Engineer.

Mainline
Station 549+25 to 550+25, Right Side
Station 605+75 to 608+25, Left Side

Coleman Cemetery Entrance
Station 2+00 to 3+25, Right Side

7) Excavation of surface ditches and channel changes adjacent to embankment areas shall be performed prior to the placement of the adjacent embankments. The material excavated for the channel changes and surface ditches is suitable for embankment construction if dried to proper moisture content in accordance with Section 206 of the current Standard Specifications.

8) The contractor shall conduct grading operations in such a manner that durable sandstone (SDI>=95) from roadway excavation be stockpiled separately or otherwise manipulated so that ample quantities are available for those areas requiring said material. No direct payment will be allowed for such necessary manipulating as stockpiling, hauling and/or rehandling the material.

9) All embankments shall be constructed entirely with durable sandstone (SDI>=95) from roadway excavation, as directed by the Engineer. Shales, coal and underclays shall be wasted and not utilized in the construction of the roadway. The placement of this material is incidental to the unit bid price for roadway excavation.

10) Any coal encountered at/or within four (4) feet of planned grade shall be removed to a depth of 4 feet below planned grade. The Contractor shall not perform additional undercutting to recover coal without prior approval of the Engineer. Any such undercutting at or near grade for recovery of coal shall be backfilled with durable rock (sandstone) from roadway excavation in two (2) foot lifts, and positive drainage shall be maintained through the cut using eight (8) inch perforated pipe underdrains, as applicable.

11) Any vertical mine or air shaft under the proposed embankment, whether shown on the plans or not, shall be filled with broken stone (durable sandstone) from roadway excavation and capped with an eight (8) inch thick reinforced concrete slab. The slab shall be in accordance with Section 708 of the current Standard Specifications for Road and Bridge Construction.

12) Any mine tunnels or horizontal auger openings in mined-out areas below grade which show signs of subsidence, whether shown on the plans or not, shall be thoroughly investigated at the direction of the Engineer by rock coring, probing or other means. The openings shall be collapsed or undercut and backfilled with broken stone (durable sandstone) from roadway excavation. The material shall be backfilled in accordance with Section 206. At the direction of the Engineer, pneumatic backstowing of crushed stone (maximum size 1 inch with no more than 5% passing the No. 100 sieve) may be utilized to backfill openings which are inaccessible or difficult to backfill by other means. If feasible, positive drainage of the tunnels or openings shall be provided through the use of pipe underdrains or other suitable drainage features. Pipes and other material used for drainage shall be paid for at the unit bid price for those items. Pneumatic backstowing or other special equipment shall be paid for at the unit price per ton of backstowed material.

13) Any mine tunnels or horizontal openings which are exposed in cut slopes, whether shown on the plans or not, shall be backfilled a minimum distance of 20 feet from the face of the cut. To insure that the void is completely backfilled, pneumatic backstowing with broken stone (maximum size 1 inch with no more than 5% passing the No. 100 sieve) shall be required in an effort to completely fill any voids. The last 5 feet, horizontally, of backstowed material shall contain five (5) percent cement, by weight, and shall be backstowed as a slurry mix. This will help provide stability of the backstowed material at the face of the cut. If feasible, positive drainage of the tunnels or openings shall be provided through the use of pipe drains, surface ditches or other suitable drainage facilities. Pipes and other material used for drainage shall be paid for at the unit bid price for those items. Pneumatic backstowing or other special equipment shall be paid for at the unit bid price per ton of backstowed material. The following areas have been identified as possible mined-out zones.

Mainline
Station 592+00 to 609+00

14) When excavating for the pier foundations, the contractor shall take care during blasting and other excavation methods to avoid over-breakage and damage to the bedrock beneath the footings.

GEOTECHNICAL NOTES FROM ADJOINING ROADWAY PROJECT.
ALL RELEVANT NOTES APPLICABLE HERE.

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

PIKE

PROJECT NUMBERS: FD52 098 0460 NEW LOC
NHPP 0806 (044)

GEOTECHNICAL NOTE SHEET

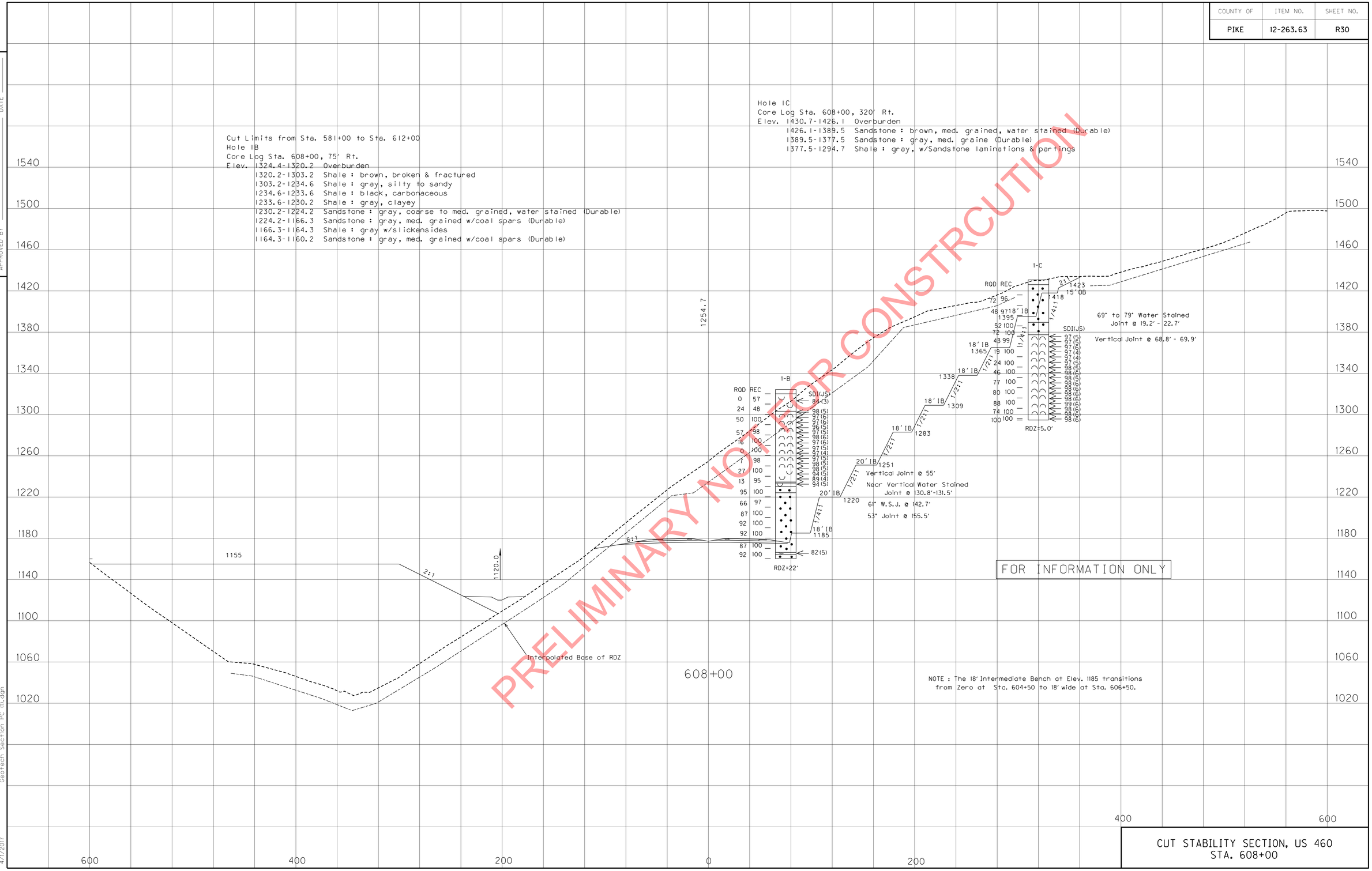
USER: PEC Jeff-c
DATE: 4/1/2017
FILE NAME: Geotech Notes PC (1).dgn
E-SHEET NAME: Geotech Notes PC (1).dgn
4/1/2017

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R30

PREPARED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

Cut Limits from Sta. 581+00 to Sta. 612+00
Hole 1B
Core Log Sta. 608+00, 75' Rt.
Elev. 1324.4-1320.2 Overburden
1320.2-1303.2 Shale : brown, broken & fractured
1303.2-1234.6 Shale : gray, silty to sandy
1234.6-1233.6 Shale : black, carbonaceous
1233.6-1230.2 Shale : gray, clayey
1230.2-1224.2 Sandstone : gray, coarse to med. grained, water stained (Durable)
1224.2-1166.3 Sandstone : gray, med. grained w/coal spars (Durable)
1166.3-1164.3 Shale : gray w/slickensides
1164.3-1160.2 Sandstone : gray, med. grained w/coal spars (Durable)

Hole 1C
Core Log Sta. 608+00, 320' Rt.
Elev. 1430.7-1426.1 Overburden
1426.1-1389.5 Sandstone : brown, med. grained, water stained (Durable)
1389.5-1377.5 Sandstone : gray, med. graine (Durable)
1377.5-1294.7 Shale : gray, w/Sandstone laminations & partings



PRELIMINARY NOT FOR CONSTRCUTION

FOR INFORMATION ONLY

NOTE : The 18' Intermediate Bench at Elev. 1185 transitions from Zero at Sta. 604+50 to 18' wide at Sta. 606+50.

CUT STABILITY SECTION, US 460
STA. 608+00

USER: PEC Jeff-c
DATE: 4/1/2017
FILE NAME: Geotech Section PC (1).dgn
E-SHEET NAME: Geotech Section PC (1).dgn
4/1/2017

GEOTECHNICAL NOTES

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R31

1). In accordance with Section 206 of the current Standard Specifications, the moisture content of embankment material shall not vary from the optimum moisture content as determined by KM 64-511 by more than +2 percent or less than -2 percent. This moisture content requirement shall have equal weight with the density requirement when determining the acceptability of embankment construction. Refer to the Family of Curves for moisture/density correlation.

2). All soils, whether from roadway or borrow, may require manipulation to obtain proper moisture content prior to compaction. Direct payment shall not be permitted for rehandling, hauling, stockpiling, and/or manipulating soils.

3). Excavation of surface ditches and channel changes adjacent to embankment areas shall be performed prior to the placement of the adjacent embankments.

4). The contractor is responsible for conducting any operations necessary (such as construction of temporary drainage ditches, etc.) to excavate the cut areas to the required typical section. These operations shall be incidental to the roadway price.

5). Some of the soil horizons and slopes on the project are subject to erosion. Necessary procedures in accordance with Sections 212 and 213 of the current Standard Specifications shall be followed on construction.

6). The contractor shall construct foundation embankment benches and transverse benches as indicated on the plans and/or as directed by the Engineer, prior to placement of embankments in areas requiring such benches.

7). Transverse benching and/or perforated pipe underdrains shall be installed at the following approximate locations and any others designated by the Engineer. Contrary to Standard Drawing RDP-006, transverse benches and perforated pipe underdrains shall be placed on both the upgrade and downgrade cut to fill transitions.

Station 647+30
Station 674+90
Station 706+80
Station 731+25

8). Foundation embankment benches shall be placed in accordance with Standard Drawing RGX-010 at the locations listed below and/or as directed by the Engineer.

Station 735+25 to 735+75, Left Side

9). All roadway embankments shall be constructed entirely with durable sandstone and durable shale from roadway excavation, as directed by the Engineer. Non-durable shales, coal and underclays shall be wasted and not utilized in the construction of the roadway. The placement of this material is incidental to the unit bid price for roadway excavation.

10). Excess material is proposed to be placed on the adjacent hillsides next to the proposed embankments (false cuts) in the following areas. Excavate the existing (overburden) material to bedrock before placing the excess material as directed by the Engineer to ensure stability of the excess material above the roadway. This excess material shall be limited to durable sandstone only.

Station 648+25 to 654+00, Left Side
Station 649+50 to 656+50, Right Side
Station 663+25 to 669+75, Left Side
Station 667+75 to 670+75, Right Side

11). The contractor shall conduct grading operations in such a manner that durable sandstone from roadway excavation be stockpiled separately or otherwise manipulated so that ample quantities are available for those areas requiring said material. Also, durable shale (SDI>95) from roadway excavation be stockpiled separately or otherwise manipulated so that ample quantities are available for those areas requiring said material. No direct payment will be allowed for such necessary manipulating as stockpiling, hauling and/or handling the material.

12). The pond at the following approximate station and any others designated by the Engineer shall be drained, any soft saturated materials stabilized with 3 foot of durable sandstone and/or durable shale from roadway excavation, or as determined by the Engineer. The placement of this material is incidental to the unit bid price for roadway excavation or embankment-in-place.

Jessie Branch Approach
Station 20+00, 100'-250' Left

13). All water wells within the limits of construction, whether shown on the plans or not, shall be treated in accordance with requirements of section 708 of the Standard Specifications for Road and Bridge Construction, current edition. A water well was noted within the construction limits at approximate station 658+87, left.

14). Gas wells were noted at the following approximate locations. Necessary procedures shall be followed prior to construction in the affected areas.

Station 654+50, 75' Left
Station 679+90, 420' Left
Station 704+90, 150' Left

Jessie Branch Approach
Station 44+20, 160' Left

15). Any coal encountered at/or within four (4) feet of planned grade shall be removed to a depth of 4 feet below planned grade. The Contractor shall not perform additional undercutting to recover coal without prior approval of the Engineer. Any such undercutting at or near grade for recovery of coal shall be backfilled with durable rock (sandstone) from roadway excavation in two (2) feet lifts, and positive drainage shall be maintained through the cut using eight (8) inch perforated pipe underdrains, as applicable.

16). Any vertical mine or air shaft under the proposed embankment, whether shown on the plans or not, shall be filled with broken stone (durable sandstone) from roadway excavation and capped with an eight (8) inch thick reinforced concrete slab. The slab shall be in accordance with Section 708 of the current Standard Specifications for Road and Bridge Construction.

17). Any mine tunnels or horizontal auger openings in mined-out areas below grade which show signs of subsidence, whether shown on the plans or not, shall be thoroughly investigated at the direction of the Engineer by rock coring, probing or other means. The openings shall be collapsed or undercut and backfilled with broken stone (durable sandstone) from roadway excavation. The material shall be backfilled in accordance with Section 206. At the direction of the Engineer, pneumatic backstowing of crushed stone (maximum size 1 1/2 inch with no more than 5% passing the No. 100 sieve) may be utilized to backfill openings which are inaccessible or difficult to backfill by other means. If feasible, positive drainage of the tunnels or openings shall be provided through the use of pipe underdrains or other suitable drainage features. Pipes and other material used for drainage shall be paid for at the unit bid price for those items. Pneumatic backstowing or other special equipment shall be paid for at the unit price per ton of backstowed material.

18). Any mine tunnels or horizontal openings which are exposed in cut slopes, whether shown on the plans or not, shall be backfilled a minimum distance of 20 feet from the face of the cut. To insure that the void is completely backfilled, pneumatic backstowing with broken stone (maximum size 1 1/2 inch with no more than 5% passing the No. 100 sieve) shall be required in an effort to completely fill any voids. The last 5 feet, horizontally, of backstowed material shall contain five (5) percent cement, by weight, and shall be backstowed as a slurry mix. This will help provide stability of the backstowed material at the face of the cut. If feasible, positive drainage of the tunnels or openings shall be provided through the use of pipe drains, surface ditches or other suitable drainage facilities. Pipes and other material used for drainage shall be paid for at the unit bid price for those items. Pneumatic backstowing or other special equipment shall be paid for at the unit bid price per ton of backstowed material. The following areas have been identified as possible mined-out zones.

Station 674+00 to 699+00
Station 702+00 to 705+00

Controlled Embankments Dunleary Hollowfill and Jessie Branch Approach

19). All embankment construction for these areas shall be in accordance with Section 206 of the Standard Specifications for Road and Bridge Construction.

20). A durable sandstone drainage blanket shall be constructed along the natural flowline and extend from the toe to the head of the natural drain beneath the proposed fill for Dunleary Hollowfill. In addition, lateral drains from swales and seeps shall be constructed as accordance directed by the Engineer to direct water to the drainage blanket. The drainage blanket will need to be sized to drain the entire area; however, as a minimum the drainage blanket shall be 16 feet wide and 8 feet high. The durable sandstone for the blanket shall be limited to a maximum size of 3 feet in any dimension and no more than 10% smaller than 1 foot.

GEOTECHNICAL NOTES FROM ADJOINING ROADWAY PROJECT. ALL RELEVANT NOTES APPLICABLE HERE.

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

PIKE

PROJECT NUMBERS: FD52 098 0460 NEW LOC
NHPP 0806 (044)

GEOTECHNICAL NOTES

COUNTY OF	ITEM NO.	SHEET NO.
PIKE	12-263.63	R32

Cut Limits from Sta. 622+50 to Sta. 648+50

Hole 2A
Core Log Sta. 625+88, 60' Rt.
Elev. 1335.0-1330.2 Overburden
1330.2-1324.7 Shale : brown, silty, weathered
1324.7-1238.0 Shale : gray, silty to sandy
1238.0-1235.2 Shale : (carbonaceous) black
1235.2-1225.1 Shale : dark gray, silty to sandy
1225.1-1222.7 Coal (Recovered 1.5')
1222.7-1219.4 Shale : dark gray, silty to sandy
1219.4-1199.0 Sandstone : gray, fine grained w/shale laminations & some water stains (Durable)
1199.0-1179.0 Sandstone : gray, fine grained w/shale laminations & some water stains (Durable)

1265
1235.0
2:1
15' OB
20' IB
1226
1/4:1
1287.0
2-A
625+88
60' Rt.
1335.0
ROD REC
4 82
3 100
47 100
23 100
47 100
11 100
9 99
5 100
9 100
9 100
18 93
50 100
98 100
75 100
55 89
41 91
SDI(JS)
RDZ=11.0'
Vertical Joint @ 14.9'
Near Vertical Joint @ 19.9-20.3'
1/2:1
20' IB
1313
1280
18' IB
1253
45° Joint @ 73.8'
Slickensides @ 111.6'-112.5'
79° Water Stained Joint @ 116.5'-117.9'
69° Joint @ 135.9'
Lost Water @ 135.8'
145.5'-146.3' Weathered & Broken
Vertical W.S.J. @ 148.5'-150.4'
1406
1379
1346
2-B
ROD REC
73 97
6 100
83 100
82 98
83 97
75 100
64 100
89 100
94 99
83 97
88 99
RDZ=7.0'
52° Water Stained Joint @ 9.8'
Near Vertical W.S.J. @ 99.3'-100.5'
Interpolated Base of RDZ

626+00

Hole 2B
Core Log Sta. 626+00, 380' Rt.
Elev. 1422.5-1416.0 Overburden
1416.0-1394.4 Sandstone : gray, fine to med. grained w/intermittent water stains (Durable)
1394.4-1362.0 Sandstone : gray, med. grained (Durable)
1362.0-1306.5 Shale : (Siltstone) gray w/sandstone laminations

FOR INFORMATION ONLY

SCALE: 1" = 40' HORIZONTAL
1" = 40' VERTICAL

CUT STABILITY SECTION, US 460
STA. 626+00