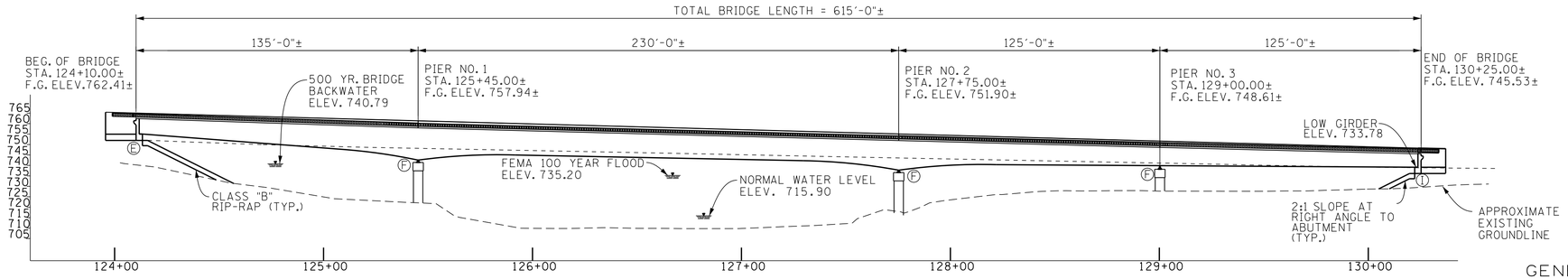
P.E. NO. 70068-0211-94

PROJECT NO.	YEAR	SHEET NO.
BR-NH/APD-40(37)	2019	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



(I) DENOTES: INTEGRAL
(E) DENOTES: EXPANSION
(F) DENOTES: FIXED

ELEVATION

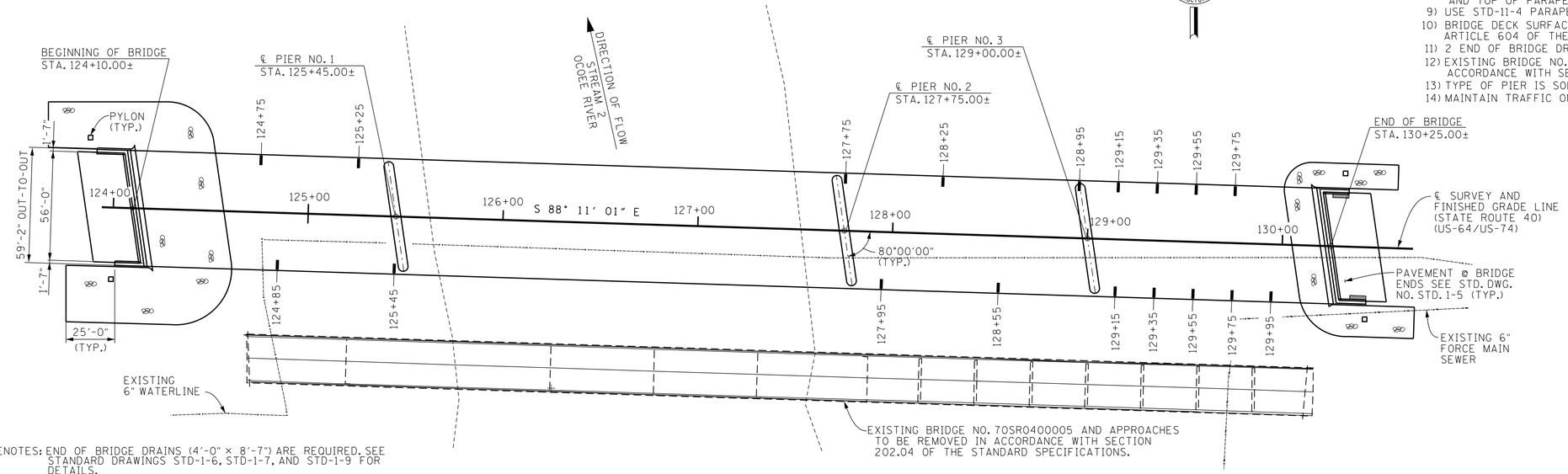
SCALE: 1" = 30'-0"

GENERAL NOTES

1) SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JAN. 1, 2015 EDITION).
2) LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY WITH AS=0.150, SDS=0.271, SD1=0.069, (1000 YEAR RETURN PERIOD). DEAD LOAD INCLUDES 35 LB/SQ. FT. FOR FUTURE WEARING SURFACE.
3) DESIGN SPECIFICATIONS: AASHTO LRFD EIGHTH EDITION, 2017, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4) CONCRETE: CLASS "A" f'c = 3000 PSI, CLASS "DS" f'c = 4000 PSI FOR BRIDGE DECK.
5) CLASS "DS" CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.
6) REINFORCING STEEL: TO BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTION 604 AND 907 OF THE STANDARD SPECIFICATIONS. (EPOXY COAT ALL SLAB STEEL)
7) SUPERSTRUCTURE: TO CONSIST OF 4 SPANS STEEL WPG (WEB VARIES FROM 6'-3" TO 10'-0") WITH COMPOSITE DECK SLAB.
8) TEXTURE COATING: TO BE MOUNTAIN GRAY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF-WHITE (37886).
9) USE STD-11-4 PARAPET.
10) BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD (3) IN ARTICLE 604 OF THE STANDARD SPECIFICATIONS.
11) 2 END OF BRIDGE DRAINS ARE REQUIRED AT ABUTMENT NO. 2.
12) EXISTING BRIDGE NO. 70SR0400005 AND APPROACHES TO BE REMOVED IN ACCORDANCE WITH SECTION 202.04 OF THE STANDARD SPECIFICATIONS.
13) TYPE OF PIER IS SOLID WALL.
14) MAINTAIN TRAFFIC ON EXISTING STRUCTURE.

HYDRAULIC DATA

DRAINAGE AREA = 612.94MI.²
DESIGN DISCHARGE (100 YR.) = 40,000CFS
WATER AREA PROVIDED BELOW EL. 734.87 = 7,506.27 FT²
100 YR. VELOCITY = 5.33 FPS
100 YR. BRIDGE BACKWATER = 0.11 FT. @ EL. 734.94
ROADWAY OVERTOPPING EL. = 541.80FT.
500 YR. DISCHARGE 62,000 @ EL. 740.30



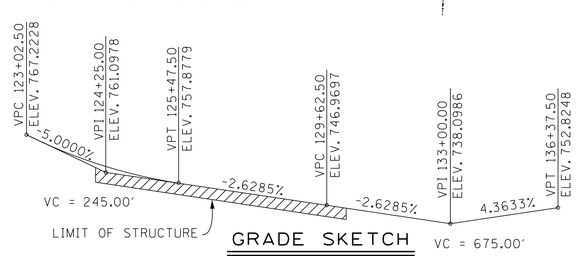
DENOTES: END OF BRIDGE DRAINS (4'-0" × 8'-7") ARE REQUIRED. SEE STANDARD DRAWINGS STD-1-6, STD-1-7, AND STD-1-9 FOR DETAILS.

DENOTES: BRIDGE DECK GRATE DRAINS ARE REQUIRED. SEE STANDARD DRAWING STD-1-2 FOR DETAILS.

NOTE: ANY EXCAVATION OF THE STREAM CHANNEL AREA (E.G., FOR PIER FOOTING OR RIP-RAP PLACEMENT) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. THIS SHALL BE ACCOMPLISHED BY THE USE OF SHEET PILES, FLUMES, DIVERSION PIPE WITH SAND BAG DAM AT PIPE INLET, LINED DIVERSION CHANNEL WITH SAND BAG BERM, JERSEY BARRIERS, ETC. ANY EXCAVATION NOT DESIGNATED AS BRIDGE EXCAVATION 204-XX IS TO BE PAID FOR AS ROADWAY ITEM NUMBER 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED) AND FOOTNOTED "UNSUITABLE FOR ROADWAY FILL MATERIAL". OTHER ITEMS FOR EROSION CONTROL AND DIVERSION LIKE BUT NOT LIMITED TO THE ITEMS LISTED ABOVE ARE TO BE PAID AS A LUMP SUM FOR SEQUENCING FOR CONSTRUCTION IN THE DRY UNDER ITEM NUMBER 209-65.2X.

PLAN

SCALE: 1" = 30'-0"



GRADE SKETCH

(STATE ROUTE 40)
(US-64/US-74)

2042 ADT = 6,950
ROADWAY WIDTH = 56'-0"
STD-11-4 PARAPET
DESIGN SPEED: 55 MPH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PRELIMINARY LAYOUT
STATE ROUTE 40
(U.S. 64/U.S. 74)
OVER
OCOEE RIVER
BRIDGE ID. NO. 70SR0400005
STATION 127+20.00
LOG MILE 3.12
POLK COUNTY
2019

CORRECT Ted A Kmiazewycz
ENGINEER OF STRUCTURES

DESIGNED BY ROBERT LEFEVRE/W.P. DATE 11-18
DRAWN BY DEANNA EASTERLY DATE 11-18
SUPERVISED BY KORNIKOSKI/LEFEVRE DATE 11-18
CHECKED BY DATE

3/19/2019
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MACHINED RIP-RAP CLASS "B" = 426 TONS

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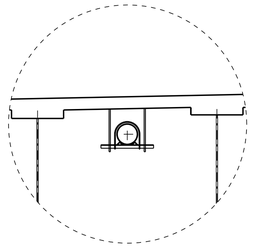
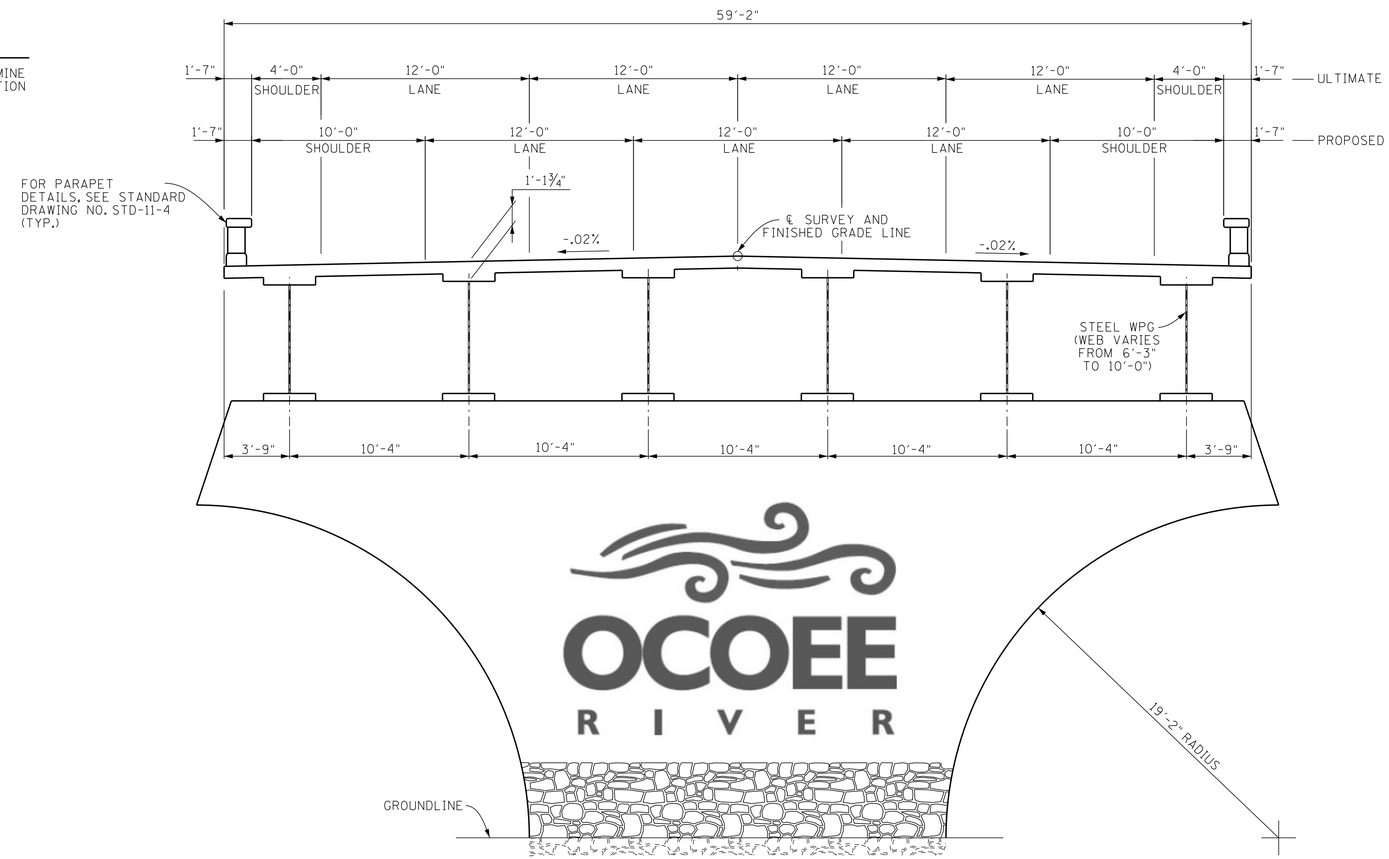


PIPE HANGER DETAIL

ILLUSTRATIVE ONLY - UTILITY OWNER TO DETERMINE PREFERRED PIPE HANGER ASSEMBLY AND LOCATION IN ANY INTERIOR BAY.



NOTE: OCOEE RIVER AND SYMBOL FORM FINISH SHALL ONLY BE PLACED ON THE SIDE OF PIER NO. 1 AND PIER NO. 2 FACING THE RIVER. THE STONE FACING SHALL BE PLACED ONLY AROUND THE COLUMN OF PIER NO. 1 AND PIER NO. 2.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PRELIMINARY LAYOUT
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(U.S. 64/U.S. 74)
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BRIDGE ID. NO. 70SR0400005
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