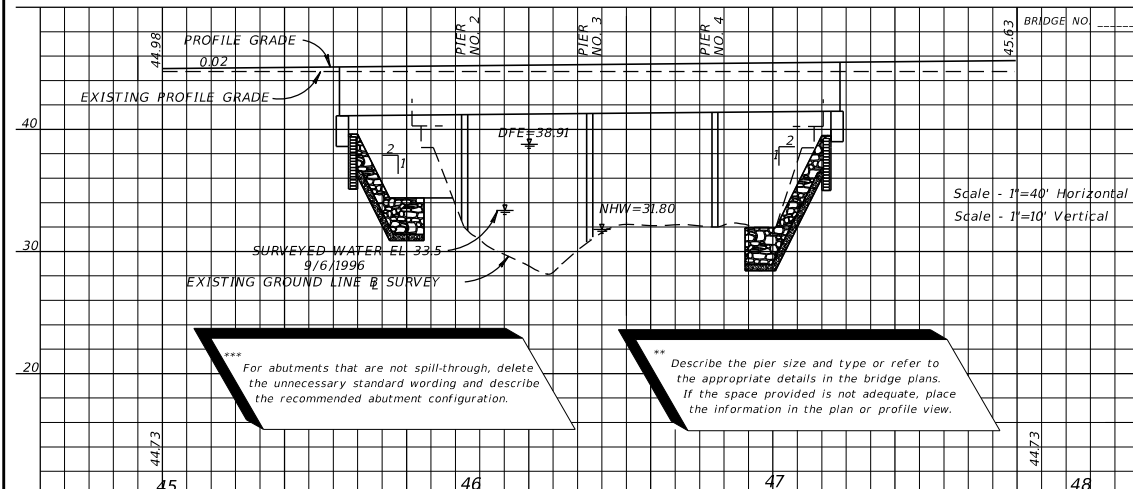


(REFERENCE)	* EXISTING STRUCTURES				PROPOSED STRUCTURE
	(1)	(2)	(3)	(4)	
FOUNDATION	Conc. Piles	Timber			Conc. Piles
OVERALL LENGTH	135	200			164 (rem. #1)
SPAN LENGTH	5 @ 27	20 @ 10			4 @ 41
TYPE CONSTRUCTION	Concrete	Timber			Concrete
AREA OF OPENING @ D.F.	1000	Unknown			1020
BRIDGE WIDTH	28	Railroad (South)			44
ELEV. LOW MEMBER	40.35	38.32			41.7

NOTE:
 The hydraulic data is shown for informational purposes only to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgements and assumptions are required to establish these factors. The resultant hydraulic data is sensitive to changes, particularly antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which cannot be obtained.

This sheet has been included in the plans for documentation.
 DO NOT USE FOR CONSTRUCTION PURPOSES.



TERMS:
 Design Flood: Utilized to assure a desired level of hydraulic performance.
 Base Flood: Has a 1% chance of being exceeded in any given year (100 year frequency).
 Overtopping Flood: Causes flow over the highway, over a watershed divide, or thru emergency relief structures.
 Greatest Flood: The most severe that can be predicted where overtopping is not practicable.

WATER SURFACE ELEVATIONS:	N.H.W. (Non-Tidal)	31.80	M.H.W. (Tidal)	
CONTROL (Non-Tidal)			M.L.W. (Tidal)	

FLOOD DATA:	MAX. EVENT OF RECORD	DESIGN FLOOD	BASE FLOOD	OVERTOPPING or GREATEST FLOOD
STAGE ELEV. NAVD (ft)	38.7 (rem. #2)	38.91	39.27	39.57
DISCHARGE (cfs)	unknown	3280	3950	4630
AVERAGE VELOCITY (ft/s)	+	3.22	3.58	4.13
EXCEEDANCE PROB. (%)	+	2	1	0.2
FREQUENCY (yr.)	-	50	100	500

SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE:

PIER INFORMATION	LONG TERM SCOUR ELEV.	WORST CASE < 100 yr. FREQ. (yr.)	WORST CASE < 500 yr. FREQ. (yr.)
NUMBERS * * SIZE AND TYPE			
2 & 3 24" Conc. Piles	N/A	18.4	16.4
4 (rem. #3) 24" Conc. Piles	N/A	27.6	25.6

HYDRAULIC RECOMMENDATIONS

- BEGIN BRIDGE STATION 45+58.00 END BRIDGE STATION 47+22.00 SKEW ANGLE 0°
- CLEARANCE PROVIDED: NAV: HORIZ. 39.0 VERT. 8.04 ABOVE EL. 3314 DRIFT: HORIZ. 39.0 VERT. 2.26 ABOVE EL. 38.91
- MINIMUM CLEARANCE: NAV: HORIZ. 10.0 VERT. 6.0 ABOVE EL. 3314 DRIFT: HORIZ. N/A VERT. 2.0 ABOVE EL. 38.91
- ABUTMENTS: BEGIN BRIDGE END BRIDGE

RUBBLE GRADE:	Bank and Shore	Bank and Shore
SLOPE:	Non-Buried	Non-Buried
BURIED OR NON-BURIED HORIZ. TOE:	10	10
TOE HORIZ. DISTANCE:	15' Lt., 20' Rt.	15' Lt. and Rt.

REMARKS:
 (1) Bridge lengthened to accommodate predicted channel migration to the west.
 (2) Based on mark provided by local resident of 43 years.
 (3) Due to predicted channel migration to the west and lack of meander cutoff, Pier No. 4 will not experience main channel scour depths.

EXHIBIT BHD-1
 Date: 1/1/13

REVISIONS		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		BRIDGE HYDRAULIC RECOMMENDATIONS	SHEET NO.
DATE	DESCRIPTION	ROAD NO.	COUNTY		
		70	LEON	123456-1-52-01	