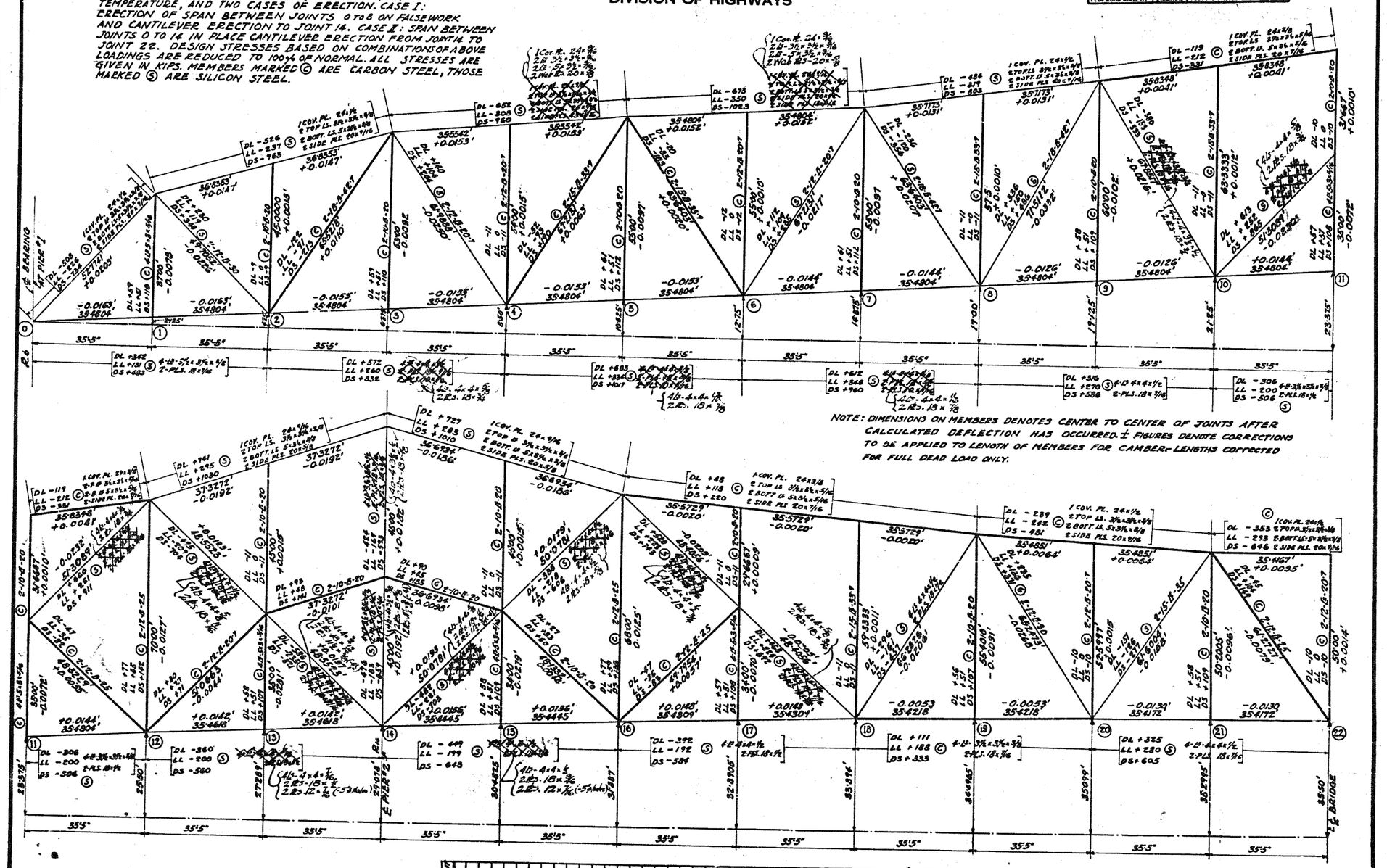
NOTE: LL DESIGNATES LIVE LOAD STRESSES INCLUDING IMPACT FOR UNIFORM AND CONCENTRATED LOADING.
DL DESIGNATES DEAD LOAD STRESSES
DS DESIGNATES DESIGN STRESSES, DUE TO DL, LL, WIND TEMPERATURE, AND TWO CASES OF ERECTION. CASE I: ERECTION OF SPAN BETWEEN JOINTS 0 TO 8 ON FALSEWORK AND CANTILEVER ERECTION TO JOINT 14. CASE II: SPAN BETWEEN JOINTS 0 TO 14 IN PLACE CANTILEVER ERECTION FROM JOINT 14 TO JOINT 22. DESIGN STRESSES BASED ON COMBINATIONS OF ABOVE LOADINGS ARE REDUCED TO 100% OF NORMAL. ALL STRESSES ARE GIVEN IN KIPS. MEMBERS MARKED Ⓒ ARE CARBON STEEL, THOSE MARKED Ⓢ ARE SILICON STEEL.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
104	123 E-F	Morgan Pike	39	10
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT	E.F.	

SHEET NO. 22
SHEETS 38



NOTE: DIMENSIONS ON MEMBERS DENOTES CENTER TO CENTER OF JOINTS AFTER CALCULATED DEFLECTION HAS OCCURRED. ± FIGURES DENOTE CORRECTIONS TO BE APPLIED TO LENGTH OF MEMBERS FOR CAMBER-LENGTHS CORRECTED FOR FULL DEAD LOAD ONLY.

STANDARD	COMPUTED	A. BENESCH C.E. Morgan
	CHECKED	A. BENESCH - C.E. Morgan
	DRAWN	A. BENESCH R.L.T. - C.E. M.
	CHECKED	C.E. Mor.
SPECIAL	ASSEMBLED	—
	CHECKED	—

EXAMINED 5-27-1935
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

POINT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
REAC.	+2.0000	+1.0459	+0.2118	+0.2121	+0.4150	+0.5110	+0.6031	+0.6571	+0.7135	+0.7650	+0.8198	+0.8711	+0.9191	+0.9615	+1.0000	+1.0328	+1.0603	+1.0821	+1.0976	+1.1058	+1.1066	+1.1000	+1.0860
	+2.0000	+1.0459	+0.2118	+0.2250	+0.3378	+0.4687	+0.5796	+0.6878	+0.7851	+0.8751	+0.9650	+1.0599	+1.0571	+1.0457	+1.0300	+1.0400	+1.0466	+1.0496	+1.0495	+1.0458	+1.0387	+1.0285	+1.0146
	+1.0000	+0.9722	+0.9250	+0.8378	+0.7687	+0.6796	+0.5878	+0.4851	+0.3751	+0.2650	+0.1599	+0.0571	+0.0457	+0.0300	+0.0000	+0.0466	+0.0966	+0.1495	+0.2058	+0.2651	+0.3271	+0.3915	+0.4580
	+0.0000	+0.0278	+0.0750	+0.1622	+0.2313	+0.3204	+0.4122	+0.5149	+0.6249	+0.7350	+0.8401	+0.9429	+0.9543	+0.9700	+1.0000	+0.9534	+0.9034	+0.8505	+0.7942	+0.7349	+0.6729	+0.6085	+0.5420
	+0.0000	+0.0541	+0.1378	+0.2687	+0.3796	+0.4878	+0.5851	+0.6751	+0.7650	+0.8599	+0.9571	+1.0457	+1.0300	+1.0000	+0.9534	+0.9034	+0.8505	+0.7942	+0.7349	+0.6729	+0.6085	+0.5420	+0.4734
	+0.0000	+0.0459	+0.1250	+0.2378	+0.3687	+0.4796	+0.5878	+0.6851	+0.7751	+0.8650	+0.9599	+1.0571	+1.0457	+1.0300	+1.0000	+0.9534	+0.9034	+0.8505	+0.7942	+0.7349	+0.6729	+0.6085	+0.5420
	+0.0000	+0.0278	+0.0750	+0.1622	+0.2313	+0.3204	+0.4122	+0.5149	+0.6249	+0.7350	+0.8401	+0.9429	+0.9543	+0.9700	+1.0000	+0.9534	+0.9034	+0.8505	+0.7942	+0.7349	+0.6729	+0.6085	+0.5420
	+0.0000	+0.0459	+0.1250	+0.2118	+0.3150	+0.4110	+0.5031	+0.5871	+0.6651	+0.7350	+0.8198	+0.8711	+0.9191	+0.9615	+1.0000	+1.0328	+1.0603	+1.0821	+1.0976	+1.1058	+1.1066	+1.1000	+1.0860
	+2.0000	+1.0459	+0.2118	+0.2121	+0.4150	+0.5110	+0.6031	+0.6571	+0.7135	+0.7650	+0.8198	+0.8711	+0.9191	+0.9615	+1.0000	+1.0328	+1.0603	+1.0821	+1.0976	+1.1058	+1.1066	+1.1000	+1.0860

ORDINATES OF INFLUENCELINE FOR REACTIONS.

STRESS SHEET
ILLINOIS RIVER BRIDGE
MEREDOSIA, ILLINOIS
-S.B.I. ROUTE 104 SEC. 123 E-F-
MORGAN-PIKE COUNTIES

Sections revised per A.B.Co. Shop Plans - Rein'f Rs (for wind) added to L2-L3 - M3-L4 - L4-M4 - L5-M5 - 9-23-36 A.B.C.
Revised Oct 15 - 1935 U.B.L.