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INDEX OF ROLLED STEEL STANDARDS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEELBRIDGES.DGN - IOORS - THIS SHEET ISSUED 06-10.

DESIGN TEAM	40' ROLLED STEEL BRIDGE STANDARDS	STANDARD SHEET IOORS	COUNTY	PROJECT NUMBER	SHEET NUMBER
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REVISED 10-14 - CHANGED SHEET TITLE DESCRIPTION. ADDED NOTICES FOR FLANGE DEFLECTOR AND DRAIN LAYOUTS FOR RS40-14 STANDARDS. ENGLISHROLLEDSTEETBRIDGES.SCN - 5251 - THIS SHEET ISSUED 06-10.

FLANGE DEFLECTOR LAYOUT

DRAIN LOCATION LAYOUT

GENERAL NOTES:

THIS BRIDGE IS DESIGNED FOR HL-93 LOADING, PLUS 20 LBS. PER SQUARE FOOT OF ROADWAY FOR FUTURE WEARING SURFACE.

UTILITY COMPANIES WHOSE FACILITIES ARE KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE.

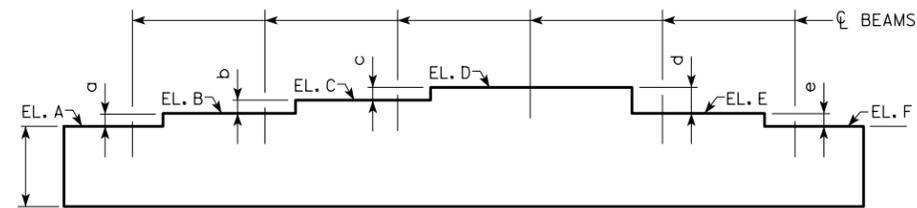
THE APPROACH FILLS AS SHOWN ARE TO BE IN PLACE BEFORE ABUTMENT PILES ARE DRIVEN, THE BRIDGE CONTRACTOR IS TO LEVEL OFF AND SHAPE THE BERMS TO THE ELEVATION AND DIMENSIONS SHOWN. DRESSING OF SLOPES OUTSIDE THE BRIDGE AREA NOT DISTURBED BY THE BRIDGE CONTRACTOR SHALL BE PAID FOR AS EXTRA WORK.

APPROACH GUARDRAIL IS TO BE FURNISHED AND PLACED BY CONTRACTOR.

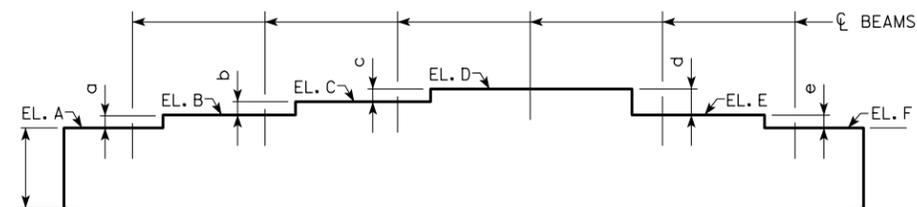
IT SHALL BE THE BRIDGE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SITES FOR EXCESS EXCAVATED MATERIAL. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES.

THE BRIDGE CONTRACTOR SHALL PREBORE HOLES FOR ABUTMENT PILES. HOLES SHALL BE BORED TO ELEVATION ---- AT THE ---- ABUTMENT AND TO ELEVATION ---- AT THE ---- ABUTMENT. PILES SHALL BE DRIVEN THROUGH THE HOLES TO AT LEAST THE SPECIFIED DESIGN BEARING.

ALL WORKING DRAWINGS INCLUDING SHOP DRAWINGS AND FALSE WORK DRAWINGS WILL BE CHECKED BY:



ABUTMENT STEP DIAGRAM
(REAR ELEVATION)



PIER STEP DIAGRAM
(LOOKING UP STATION)

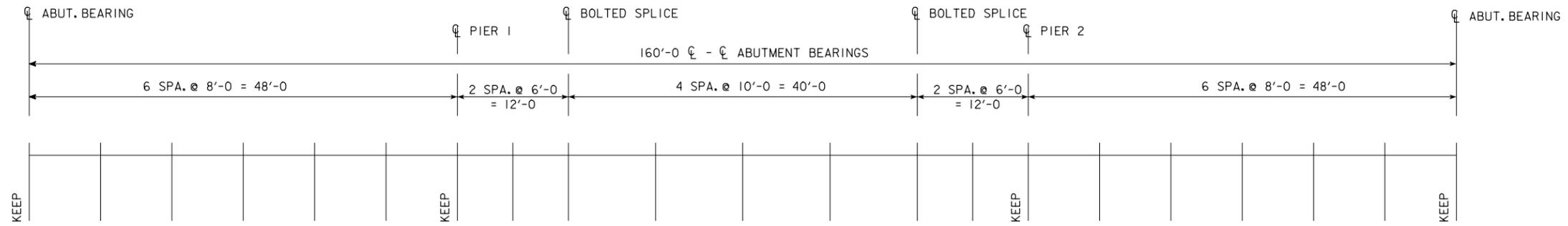
TABLE OF ELEVATIONS AND STEPS				
	ABUT	ABUT	PIER 1	PIER 2
EL. A				
EL. B				
EL. C				
EL. D				
EL. E				
EL. F				
STEP a				
STEP b				
STEP c				
STEP d				
STEP e				

DURING CONSTRUCTION OF THIS PROJECT THE BRIDGE CONTRACTOR WILL BE REQUIRED TO COORDINATE HIS OPERATIONS WITH THOSE OF OTHER CONTRACTORS WORKING WITHIN THE SAME AREA. OTHER WORK IN PROGRESS DURING THE SAME PERIOD OF TIME WILL INCLUDE, BUT IS NOT LIMITED TO, CONSTRUCTION OF THE FOLLOWING PROJECTS.

GENERAL INFORMATION

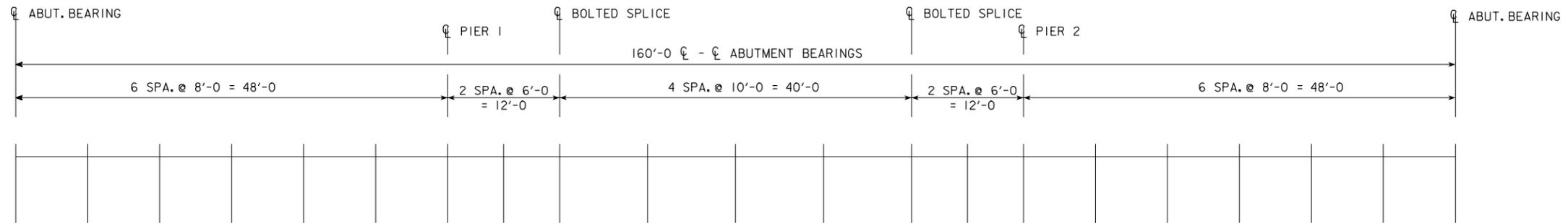
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. ____ DESIGN NO. ____

REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5252 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

(FOR ESTIMATING PURPOSES ONLY)

THIS NOTE APPLIES TO THE RS40-14 STANDARDS. NO SUMMARY QUANTITIES SHEET IS REQUIRED FOR THE RS40-10 STANDARDS.

STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS IS TO BE INCLUDED ON THE SUMMARY QUANTITY SHEET IN THE BRIDGE PLANS.

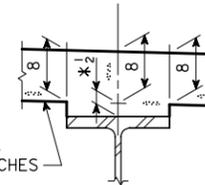
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-071.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

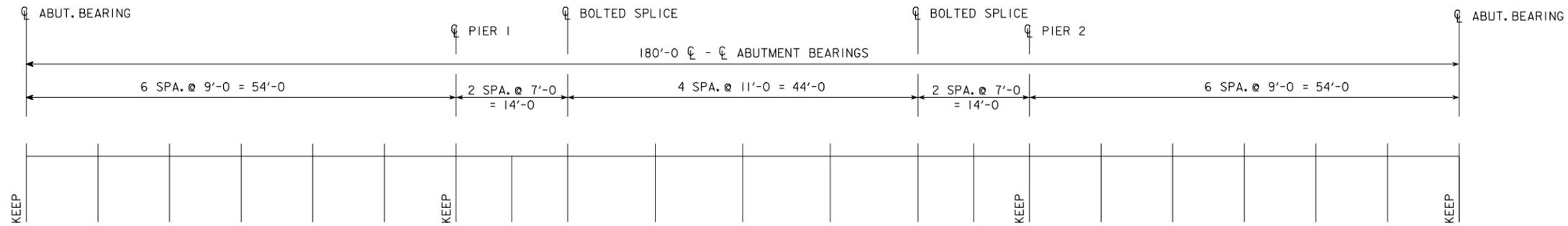
TYP. SLAB & HAUNCH DETAIL

* THE HAUNCH DIMENSION SHOWN IS THE NOMINAL HAUNCH DIMENSION NEAR THE ABUTMENT BEARINGS, AND IS USED AS A BASIS ALONG WITH THE DEAD LOAD DEFLECTION AND GIRDER PARAMETERS TO DETERMINE THE THEORETICAL CONCRETE HAUNCH DIAGRAM. THIS HAUNCH DIAGRAM IS USED BY THE DESIGNER TO SET BRIDGE SEAT ELEVATIONS AND ESTIMATE CONCRETE QUANTITIES. REFER TO THE BEAM LINE HAUNCH DATA DETAIL SHEET FOR ADDITIONAL INFORMATION TO AID THE CONTRACTOR IN SETTING THE FIELD HAUNCHES REQUIRED FOR CONSTRUCTION.

MISC. DETAILS - 160'-0 BRIDGE

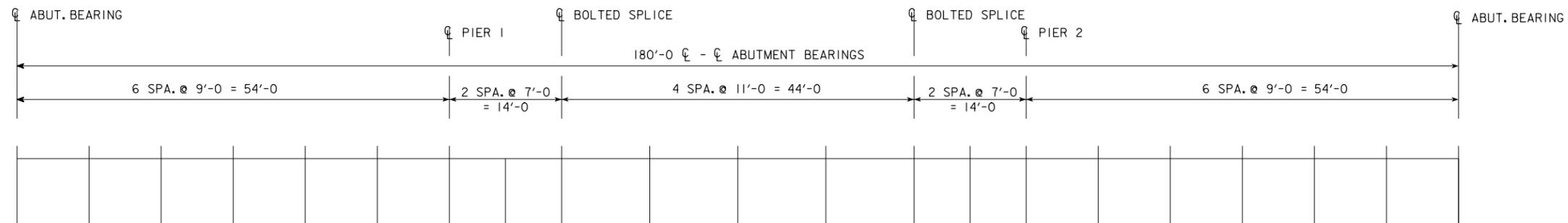
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
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REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5253 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

(FOR ESTIMATING PURPOSES ONLY)

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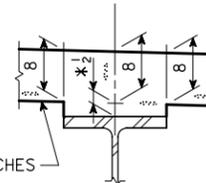
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-072.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

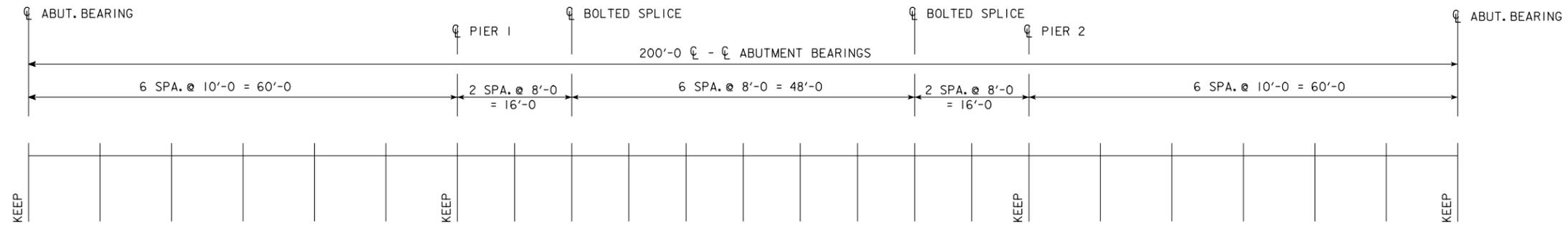
TYP. SLAB & HAUNCH DETAIL

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MISC. DETAILS - 180'-0 BRIDGE

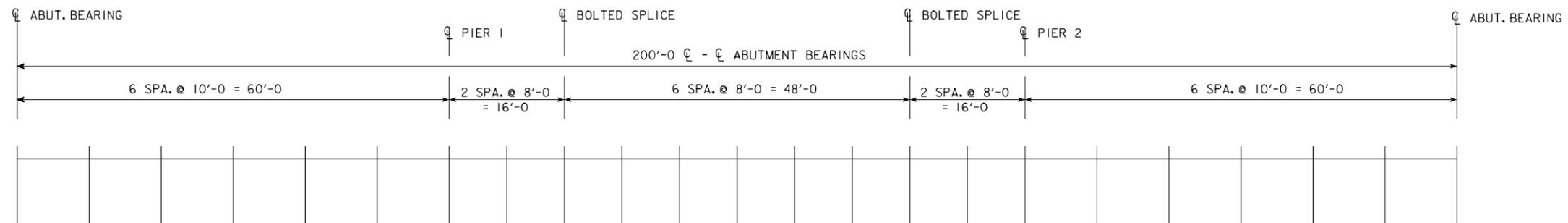
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
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REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5254 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

(FOR ESTIMATING PURPOSES ONLY)

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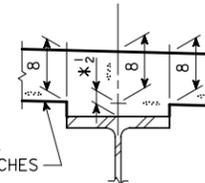
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-073.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

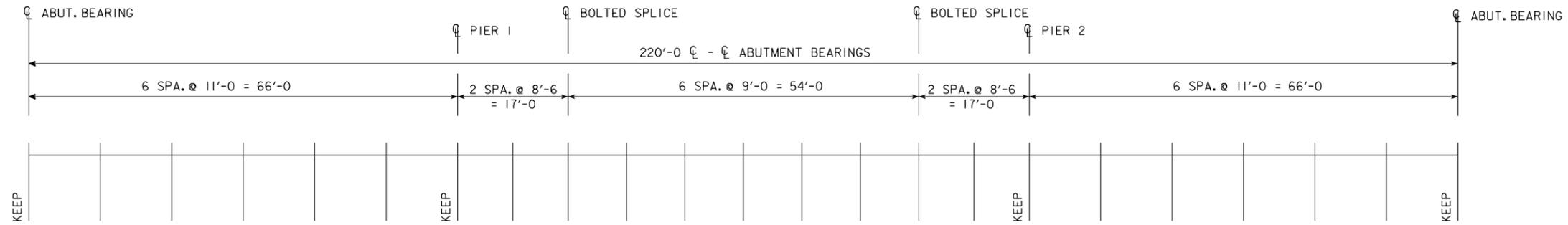
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MISC. DETAILS - 200'-0 BRIDGE

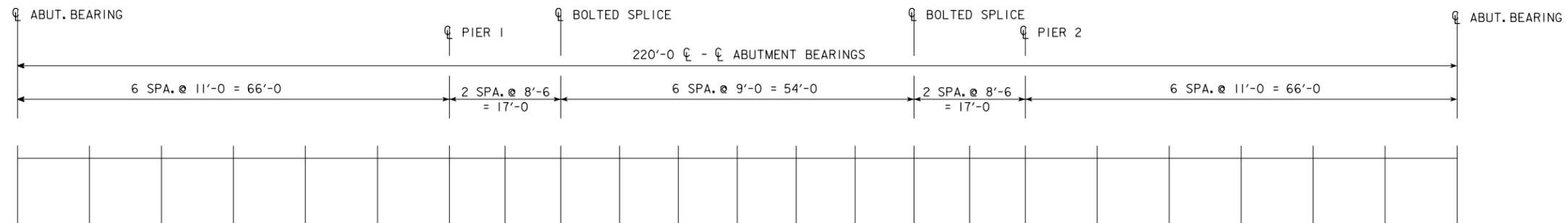
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REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5255 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

(FOR ESTIMATING PURPOSES ONLY)

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STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS IS TO BE INCLUDED ON THE SUMMARY QUANTITY SHEET IN THE BRIDGE PLANS.

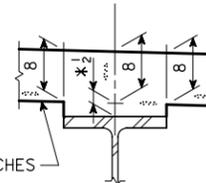
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-074.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

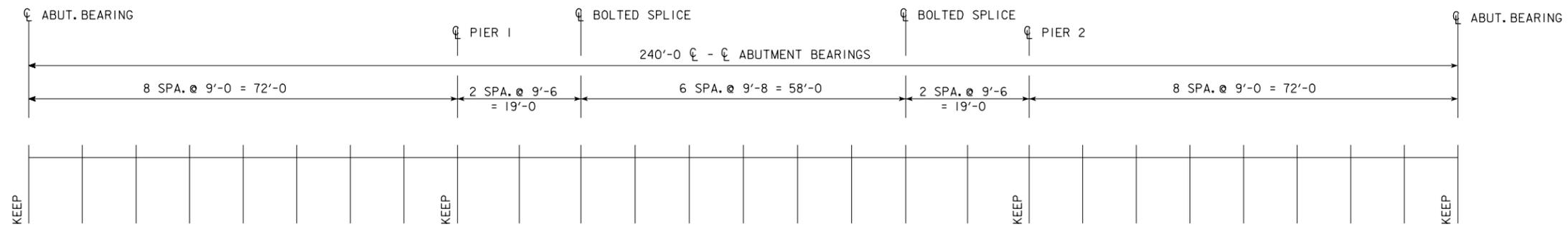
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MISC. DETAILS - 220'-0 BRIDGE

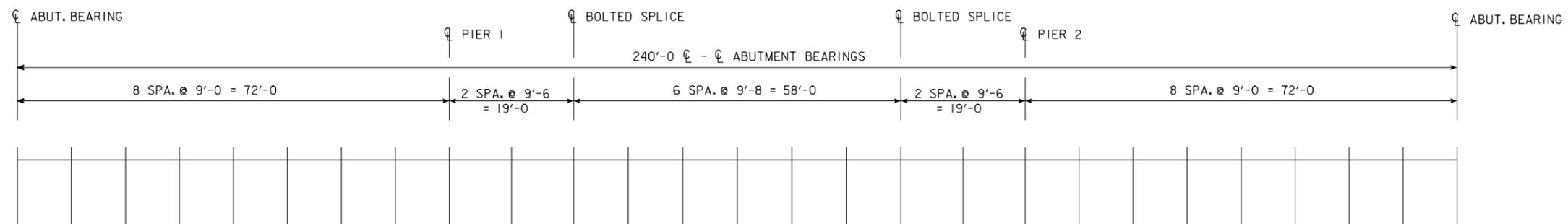
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REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5256 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

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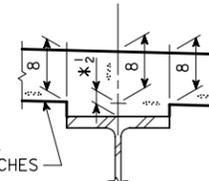
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-075.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

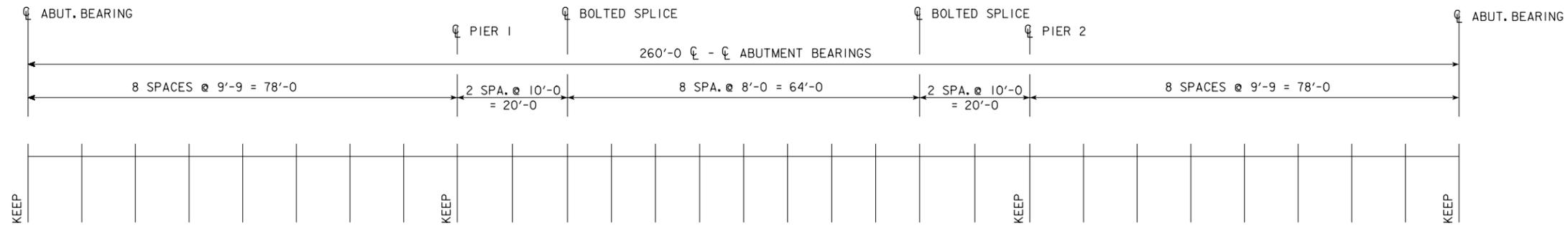
TYP. SLAB & HAUNCH DETAIL

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MISC. DETAILS - 240'-0 BRIDGE

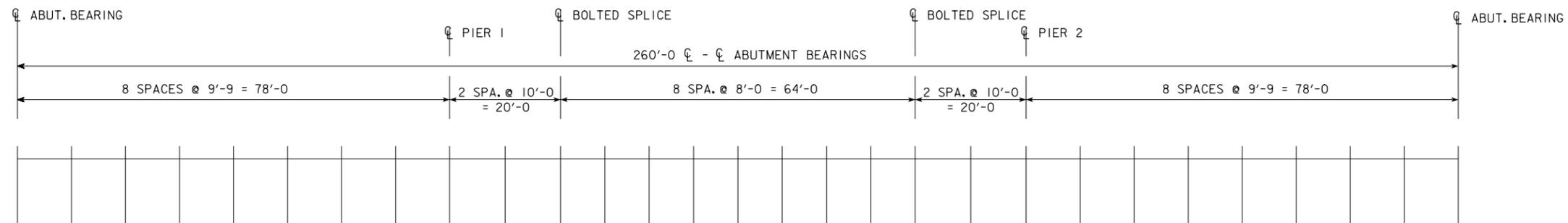
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BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

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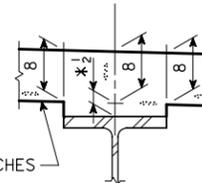
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-076.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

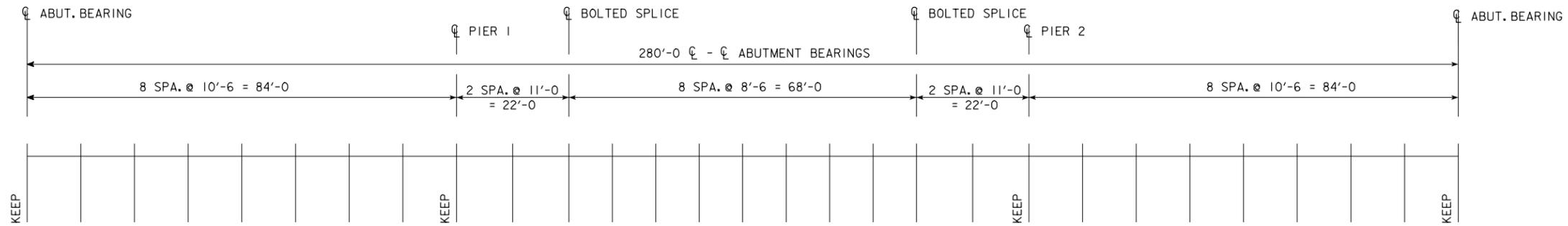
TYP. SLAB & HAUNCH DETAIL

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MISC. DETAILS - 260'-0 BRIDGE

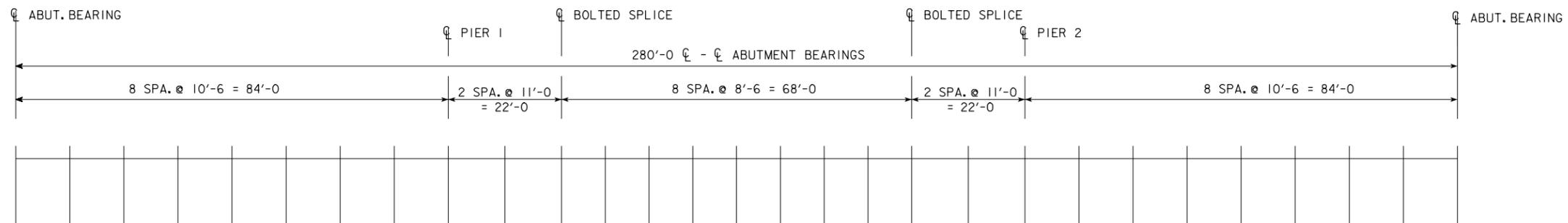
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REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5258 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM (FOR ESTIMATING PURPOSES ONLY)

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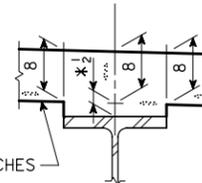
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-077.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

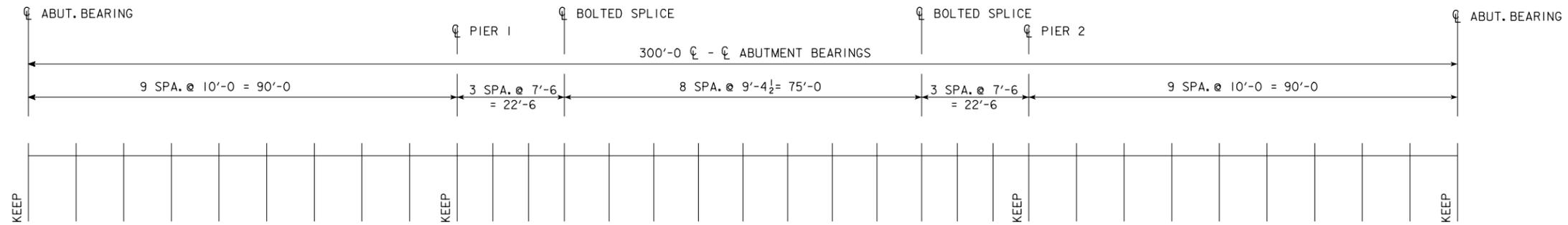
TYP. SLAB & HAUNCH DETAIL

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MISC. DETAILS - 280'-0 BRIDGE

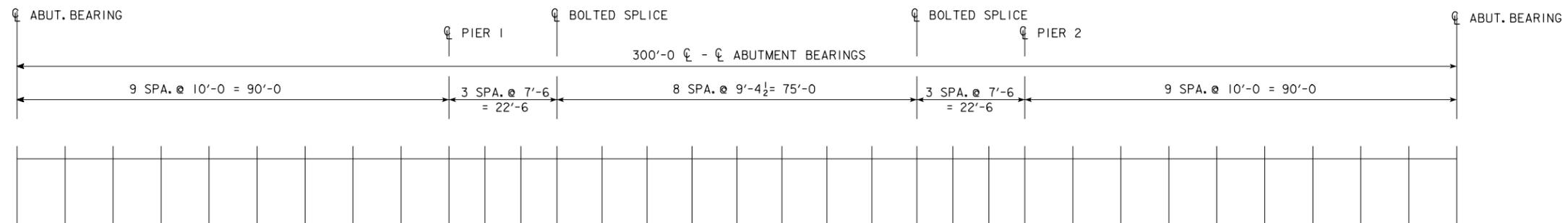
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
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REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5259 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

(FOR ESTIMATING PURPOSES ONLY)

THIS NOTE APPLIES TO THE RS40-14 STANDARDS. NO SUMMARY QUANTITIES SHEET IS REQUIRED FOR THE RS40-10 STANDARDS.

STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS IS TO BE INCLUDED ON THE SUMMARY QUANTITY SHEET IN THE BRIDGE PLANS.

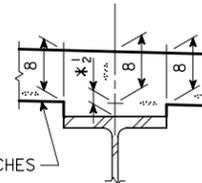
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-078.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

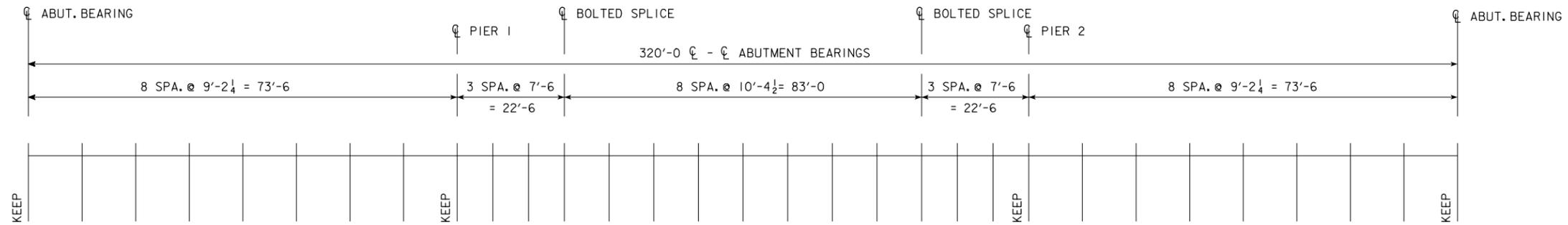
TYP. SLAB & HAUNCH DETAIL

* THE HAUNCH DIMENSION SHOWN IS THE NOMINAL HAUNCH DIMENSION NEAR THE ABUTMENT BEARINGS, AND IS USED AS A BASIS ALONG WITH THE DEAD LOAD DEFLECTION AND GIRDER PARAMETERS TO DETERMINE THE THEORETICAL CONCRETE HAUNCH DIAGRAM. THIS HAUNCH DIAGRAM IS USED BY THE DESIGNER TO SET BRIDGE SEAT ELEVATIONS AND ESTIMATE CONCRETE QUANTITIES. REFER TO THE BEAM LINE HAUNCH DATA DETAIL SHEET FOR ADDITIONAL INFORMATION TO AID THE CONTRACTOR IN SETTING THE FIELD HAUNCHES REQUIRED FOR CONSTRUCTION.

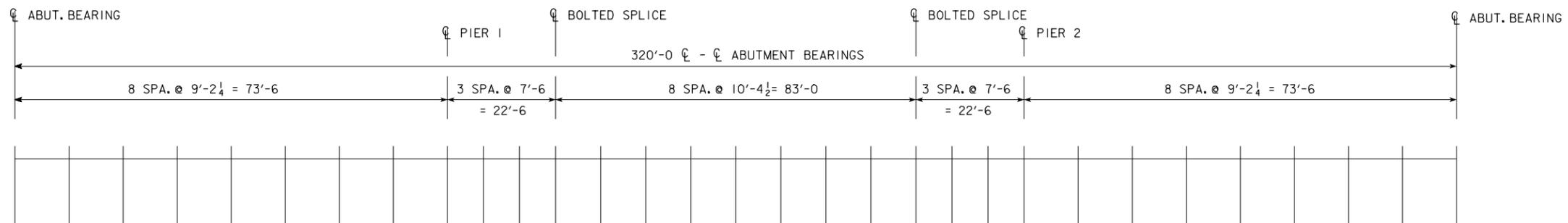
MISC. DETAILS - 300'-0 BRIDGE

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5260 - THIS SHEET ISSUED 06-10.



BEAM CAMBER
 (NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM
 (FOR ESTIMATING PURPOSES ONLY)

THIS NOTE APPLIES TO THE RS40-14 STANDARDS. NO SUMMARY QUANTITIES SHEET IS REQUIRED FOR THE RS40-10 STANDARDS.

STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS IS TO BE INCLUDED ON THE SUMMARY QUANTITY SHEET IN THE BRIDGE PLANS.

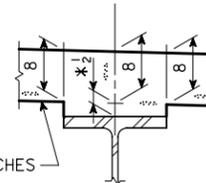
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-079.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

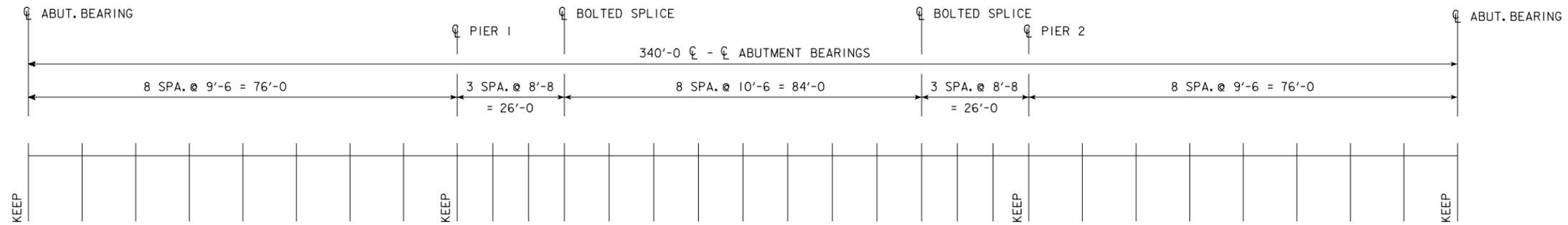
TYP. SLAB & HAUNCH DETAIL

* THE HAUNCH DIMENSION SHOWN IS THE NOMINAL HAUNCH DIMENSION NEAR THE ABUTMENT BEARINGS, AND IS USED AS A BASIS ALONG WITH THE DEAD LOAD DEFLECTION AND GIRDER PARAMETERS TO DETERMINE THE THEORETICAL CONCRETE HAUNCH DIAGRAM. THIS HAUNCH DIAGRAM IS USED BY THE DESIGNER TO SET BRIDGE SEAT ELEVATIONS AND ESTIMATE CONCRETE QUANTITIES. REFER TO THE BEAM LINE HAUNCH DATA DETAIL SHEET FOR ADDITIONAL INFORMATION TO AID THE CONTRACTOR IN SETTING THE FIELD HAUNCHES REQUIRED FOR CONSTRUCTION.

MISC. DETAILS - 320'-0 BRIDGE

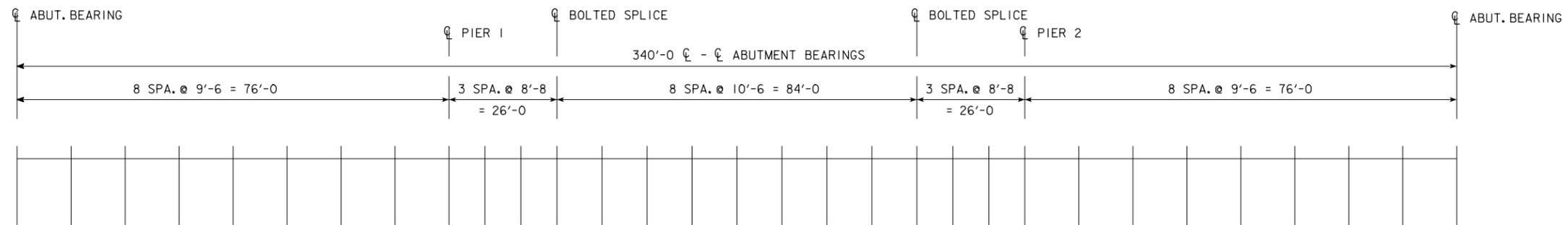
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

REVISED 10-14 - ADDED THE STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS. DELETED THE YEAR IN THE REFERENCE NOTES TO THE RS40-10 SERIES. ENGLISHROLLEDSTEELBRIDGES.SGN - 5261 - THIS SHEET ISSUED 06-10.



BEAM CAMBER

(NOTE: DOES NOT INCLUDE THE DEFLECTION DUE TO WEIGHT OF STEEL OR CONCRETE)



THEORETICAL CONCRETE HAUNCH DIAGRAM

(FOR ESTIMATING PURPOSES ONLY)

THIS NOTE APPLIES TO THE RS40-14 STANDARDS. NO SUMMARY QUANTITIES SHEET IS REQUIRED FOR THE RS40-10 STANDARDS.

STRUCTURAL STEEL WEIGHT FOR THE SHEAR STUDS IS TO BE INCLUDED ON THE SUMMARY QUANTITY SHEET IN THE BRIDGE PLANS.

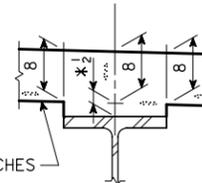
ZONE	STUD HEIGHT (inches)	WEIGHT (LBS.)
A		
B		
C		
D		
TOTAL WEIGHT (LBS.)		

SHEAR STUD HEIGHT ZONE ABOVE CORRESPONDS TO THOSE IDENTIFIED ON RS40-080.

TABLE OF WING ELEVATIONS				
LOCATION	DIM "C" (FT-IN)	ELEV. A	ELEV. B	ELEV. C Δ

SEE LONGITUDINAL SECTION RS40-019 THRU RS40-028 SHEETS FOR LOCATION.

Δ IF APPLICABLE



STRAIGHT LINE BETWEEN HAUNCHES

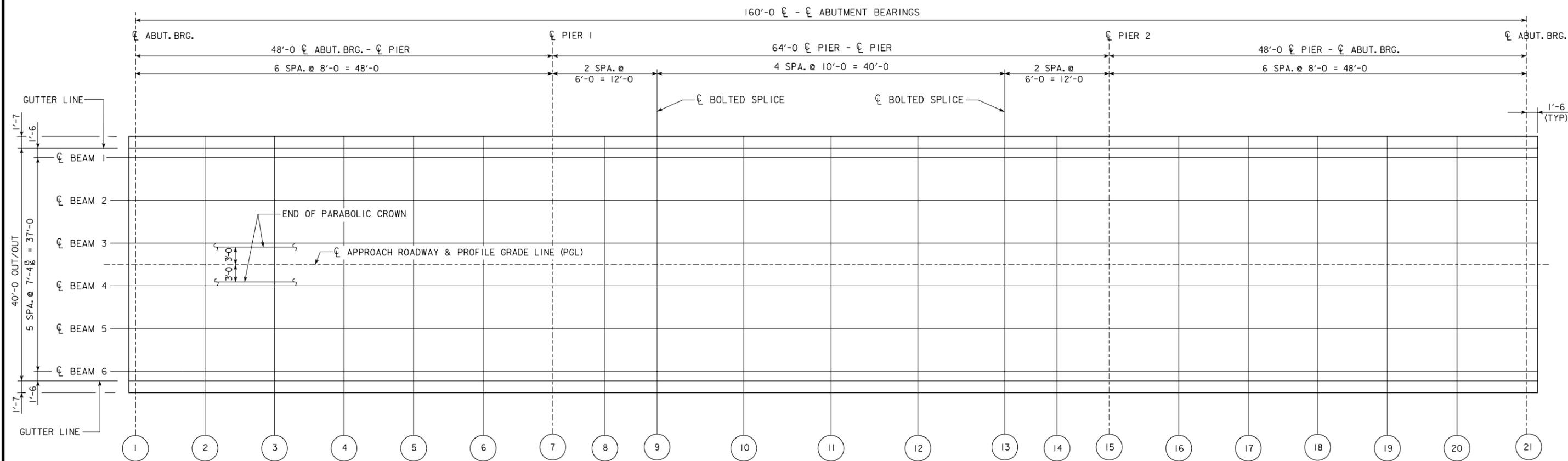
TYP. SLAB & HAUNCH DETAIL

* THE HAUNCH DIMENSION SHOWN IS THE NOMINAL HAUNCH DIMENSION NEAR THE ABUTMENT BEARINGS, AND IS USED AS A BASIS ALONG WITH THE DEAD LOAD DEFLECTION AND GIRDER PARAMETERS TO DETERMINE THE THEORETICAL CONCRETE HAUNCH DIAGRAM. THIS HAUNCH DIAGRAM IS USED BY THE DESIGNER TO SET BRIDGE SEAT ELEVATIONS AND ESTIMATE CONCRETE QUANTITIES. REFER TO THE BEAM LINE HAUNCH DATA DETAIL SHEET FOR ADDITIONAL INFORMATION TO AID THE CONTRACTOR IN SETTING THE FIELD HAUNCHES REQUIRED FOR CONSTRUCTION.

MISC. DETAILS - 340'-0 BRIDGE

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

TOP OF SLAB ELEVATIONS																					
	CL ABUT BRG						CL PIER 1		CL BOLTED SPLICE				CL BOLTED SPLICE				CL PIER 2		CL ABUT BRG		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
GUTTER LINE																					
BEAM 1																					
BEAM 2																					
BEAM 3																					
PGL																					
BEAM 4																					
BEAM 5																					
BEAM 6																					
GUTTER LINE																					



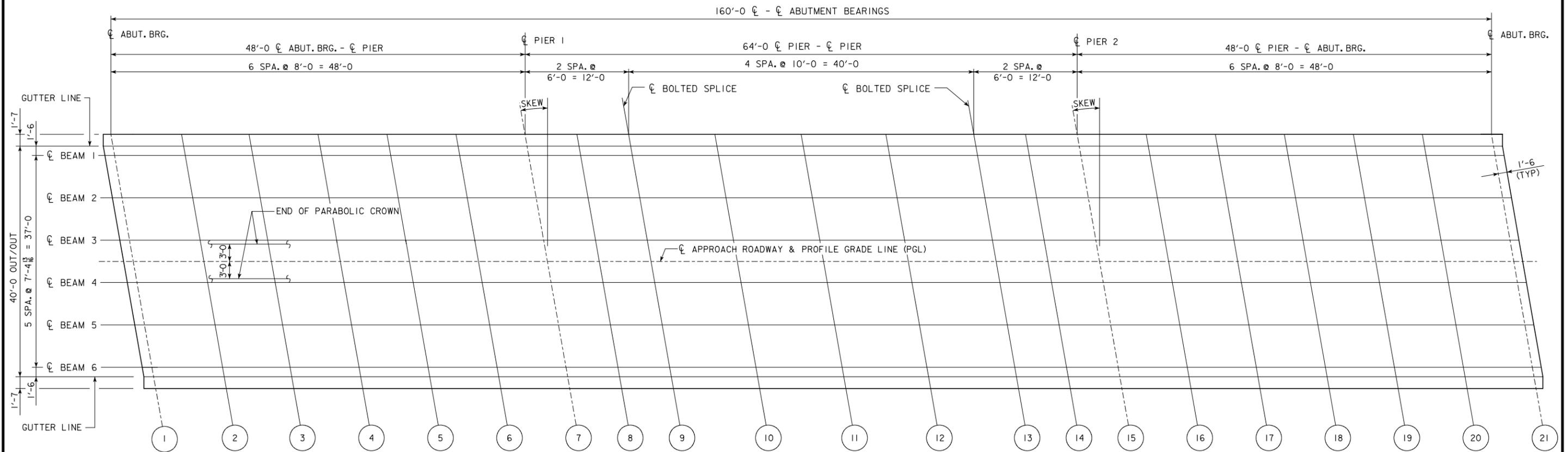
LOCATION OF TOP OF SLAB ELEVATIONS

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5262 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS																					
	CL ABUT BRG						CL PIER 1		CL BOLTED SPLICE				CL PIER 2				CL ABUT BRG				
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
GUTTER LINE																					
BEAM 1																					
BEAM 2																					
BEAM 3																					
PGL																					
BEAM 4																					
BEAM 5																					
BEAM 6																					
GUTTER LINE																					



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

SLAB ELEVATIONS

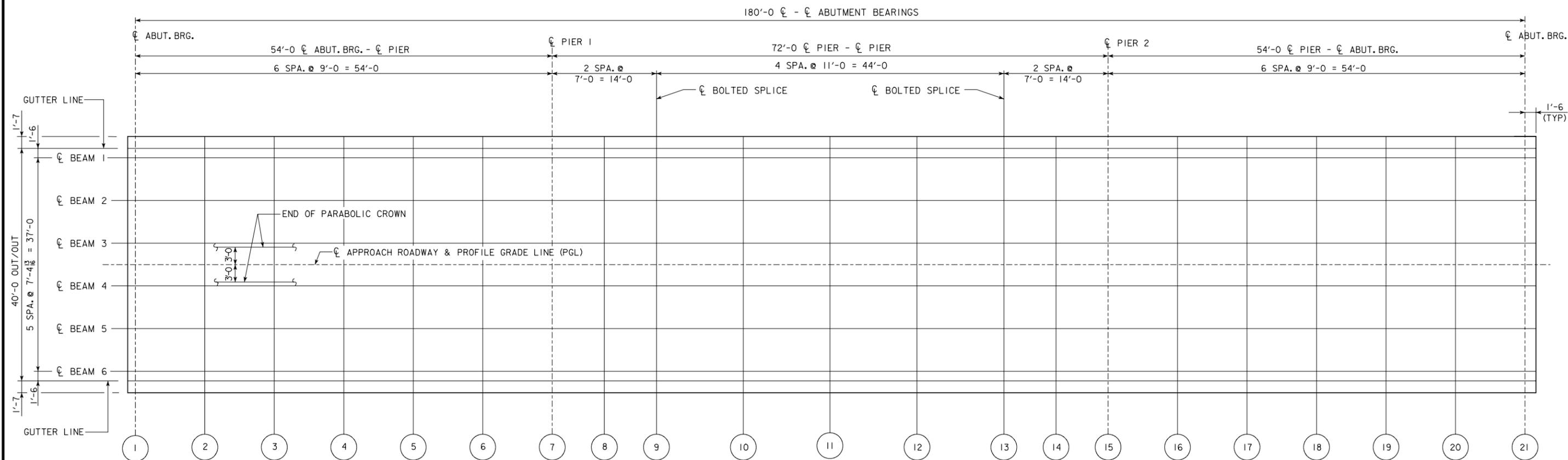
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEELBRIDGES.SGN - 5263 - THIS SHEET ISSUED 06-10.

TABLE OF BEAM LINE HAUNCH ELEVATIONS (SEE NOTE 1)

LOCATION	CL ABUT. BRG.						CL PIER 1 BRG.						CL BOLTED SPLICE						CL BOLTED SPLICE						CL PIER 2 BRG.						CL ABUT. BRG.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1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TOP OF SLAB ELEVATIONS																					
	CL ABUT BRG						CL PIER 1		CL BOLTED SPLICE				CL BOLTED SPLICE				CL PIER 2		CL ABUT BRG		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
GUTTER LINE																					
BEAM 1																					
BEAM 2																					
BEAM 3																					
PGL																					
BEAM 4																					
BEAM 5																					
BEAM 6																					
GUTTER LINE																					



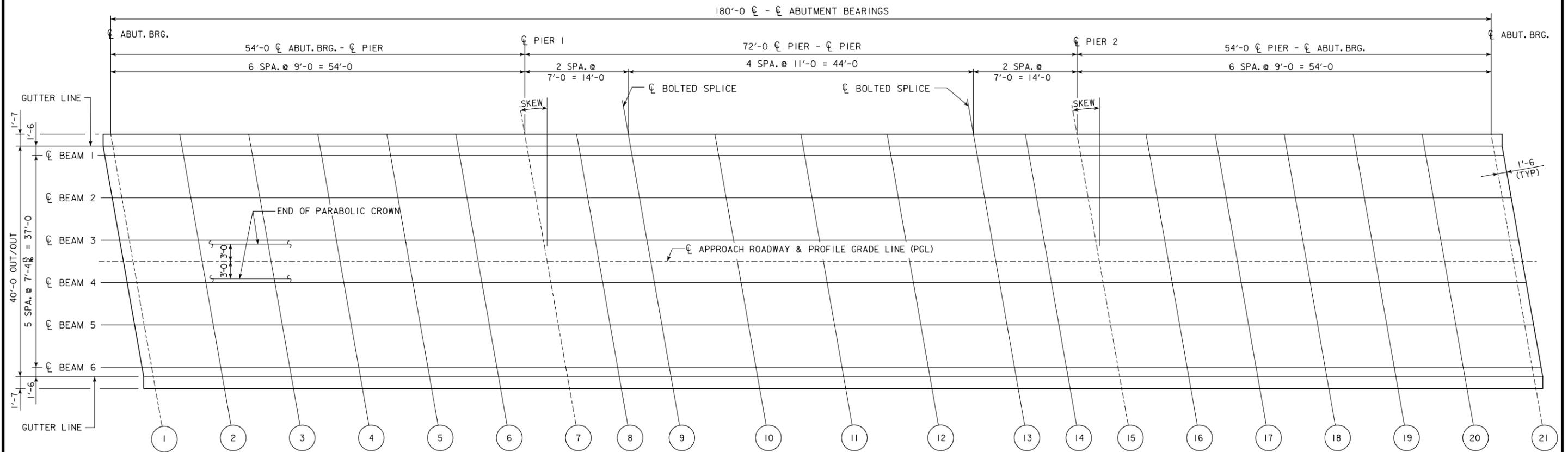
LOCATION OF TOP OF SLAB ELEVATIONS

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5265 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS																					
	CL ABUT BRG						CL PIER 1		CL BOLTED SPLICE				CL BOLTED SPLICE		CL PIER 2					CL ABUT BRG	
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
GUTTER LINE																					
BEAM 1																					
BEAM 2																					
BEAM 3																					
PGL																					
BEAM 4																					
BEAM 5																					
BEAM 6																					
GUTTER LINE																					



LOCATION OF TOP OF SLAB ELEVATIONS

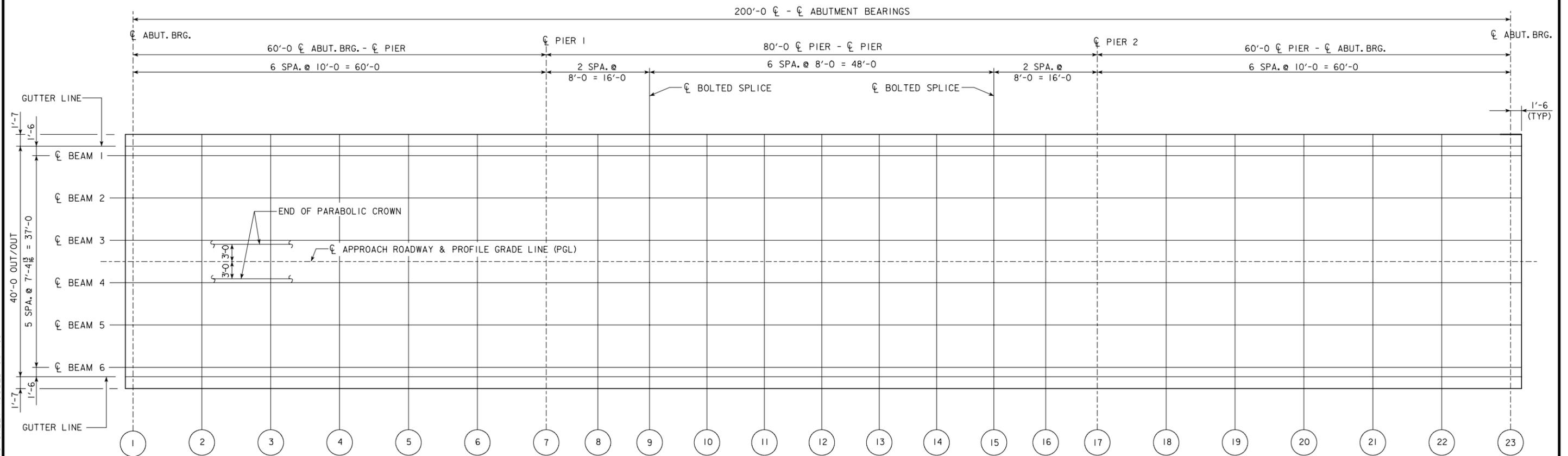
(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5266 - THIS SHEET ISSUED 06-10-

TOP OF SLAB ELEVATIONS																									
	CL ABUT BRG						CL PIER 1						CL BOLTED SPLICE						CL PIER 2						CL ABUT BRG
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
GUTTER LINE																									
BEAM 1																									
BEAM 2																									
BEAM 3																									
PGL																									
BEAM 4																									
BEAM 5																									
BEAM 6																									
GUTTER LINE																									



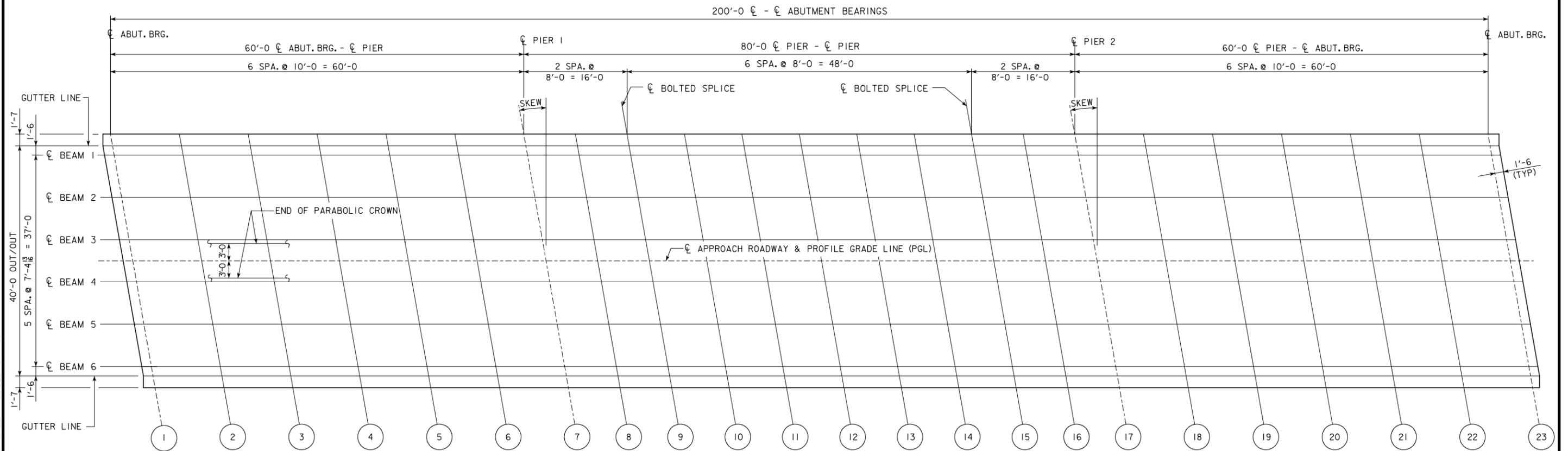
LOCATION OF TOP OF SLAB ELEVATIONS

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5268 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS																							
	CL ABUT BRG						CL PIER 1		CL BOLTED SPLICE					CL BOLTED SPLICE		CL PIER 2					CL ABUT BRG		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
GUTTER LINE																							
BEAM 1																							
BEAM 2																							
BEAM 3																							
PGL																							
BEAM 4																							
BEAM 5																							
BEAM 6																							
GUTTER LINE																							



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. ____ OF ____ FILE NO. ____ DESIGN NO. ____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5269 - THIS SHEET ISSUED 06-10.

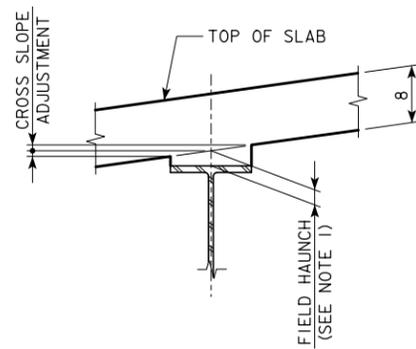
TABLE OF BEAM LINE HAUNCH ELEVATIONS (SEE NOTE 1)

LOCATION	☉ ABUT. BRG.						☉ PIER 1 BRG.		☉ BOLTED SPLICE						☉ PIER 2 BRG.						☉ ABUT. BRG.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
BEAM 1																							
BEAM 2																							
BEAM 3																							
BEAM 4																							
BEAM 5																							
BEAM 6																							

MISCELLANEOUS DATA TABLE

	BEAM LINE	☉ ABUT. BRG.						☉ PIER 1 BRG.		☉ BOLTED SPLICE						☉ PIER 2 BRG.						☉ ABUT. BRG.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
ANTICIPATED DEFLECTION DUE TO SLAB (IN.)	ALL	0	$\frac{3}{16}$	$\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{16}$	$\frac{1}{16}$	0	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{11}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	$\frac{7}{8}$	$\frac{11}{16}$	$\frac{3}{8}$	$\frac{1}{8}$	0	$\frac{1}{16}$	$\frac{3}{16}$	$\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{16}$	0
CROSS SLOPE ADJUSTMENTS (IN.)	ALL																							$\pm \frac{1}{8}$ "
ALLOWABLE FIELD HAUNCH (IN. & FT.)	MAX.																							2" (0.167)
	MIN.																							0" (0.000)

NOTE:
HAUNCH LOCATIONS ARE AT THE SAME LOCATION AS THE ENCIRCLED LETTERS AND NUMBERS SHOWN ON SLAB ELEVATIONS SHEET.



HAUNCH DETAIL

NOTE:
BRIDGE SEAT ELEVATIONS ARE SET BASED ON THEORETICAL CAMBER AND BEAM DEFLECTIONS. THESE BRIDGE SEATS WILL PROVIDE A THEORETICAL BEAM HAUNCH WITHIN DESIGN PARAMETERS. ACTUAL HAUNCHES ARE DETERMINED USING SURVEYED TOP OF BEAM ELEVATIONS AND "BEAM LINE HAUNCH ELEVATIONS" DATA. ALLOWABLE MAXIMUM AND MINIMUM "FIELD HAUNCH" VALUES SHOWN IN INCHES AND DECIMALS FEET ARE GIVEN IN THE "MISCELLANEOUS DATA" TABLE. "CROSS SLOPE ADJUSTMENT" VALUES WILL AID THE CONTRACTOR IN DETERMINING ACTUAL FORMED HAUNCH DIMENSIONS AT THE EDGES OF THE TOP FLANGE.

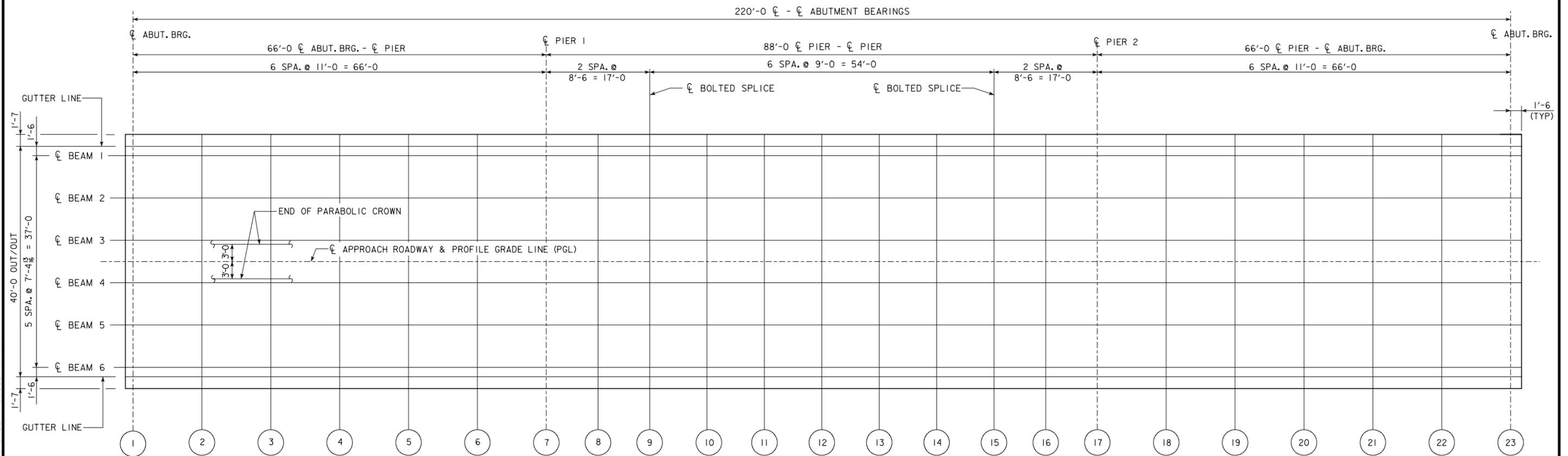
NOTE 1:
TO CALCULATE FIELD HAUNCH REQUIRED AT EACH LOCATION, SURVEY THE BEAM TOPS CONSISTENT WITH THE SPACINGS SHOWN ON THE "TOP OF SLAB ELEVATIONS LAYOUT" ON SLAB ELEVATIONS SHEET. SUBTRACT THE SURVEYED BEAM SHOT FROM THE "BEAM LINE HAUNCH ELEVATION". THIS VALUE WILL BE THE HAUNCH NEEDED (SEE "FIELD HAUNCH" IN HAUNCH DETAIL). THE "BEAM LINE HAUNCH ELEVATION" INCLUDES ADJUSTMENTS FOR SLAB THICKNESSES AND ANTICIPATED DEFLECTIONS. NO ADDITIONAL CALCULATIONS ARE REQUIRED. IF THE FIELD HAUNCH EXCEEDS THE MAXIMUMS AND MINIMUMS, SHOWN IN INCHES AND DECIMALS FEET IN THE MISCELLANEOUS DATA TABLE, ADJUSTMENTS TO THE GRADE OR ADDITIONAL HAUNCH REINFORCEMENT WILL BE REQUIRED.

BEAM LINE HAUNCH DATA

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

REVISED 06-12 - CHANGED THE ALLOWABLE FIELD HAUNCH MAX. & MIN. TO SHOW INCHES AND DECIMALS OF FEET. NOTE AND NOTE 1 CHANGED TO REFLECT THIS CHANGE. ENGLISHROLLEDSTEELBRIDGES.SGN - 5270 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS																							
	CL ABUT BRG	2	3	4	5	6	CL PIER 1	8	CL BOLTED SPLICE	10	11	12	13	14	CL BOLTED SPLICE	16	CL PIER 2	18	19	20	21	22	CL ABUT BRG
LOCATION	1						7		9						15		17						23
GUTTER LINE																							
BEAM 1																							
BEAM 2																							
BEAM 3																							
PGL																							
BEAM 4																							
BEAM 5																							
BEAM 6																							
GUTTER LINE																							



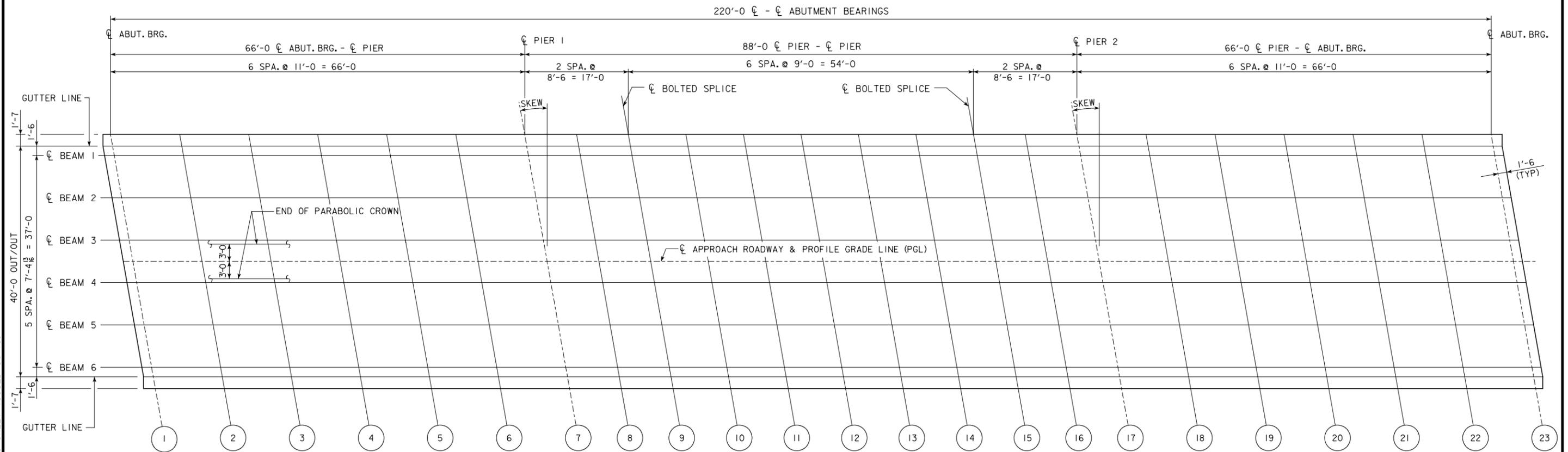
LOCATION OF TOP OF SLAB ELEVATIONS

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5271 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS																							
	CL ABUT BRG						CL PIER 1	CL BOLTED SPLICE						CL BOLTED SPLICE	CL PIER 2						CL ABUT BRG		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
GUTTER LINE																							
BEAM 1																							
BEAM 2																							
BEAM 3																							
PGL																							
BEAM 4																							
BEAM 5																							
BEAM 6																							
GUTTER LINE																							



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. ____ OF ____ FILE NO. ____ DESIGN NO. ____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5272 - THIS SHEET ISSUED 06-10.

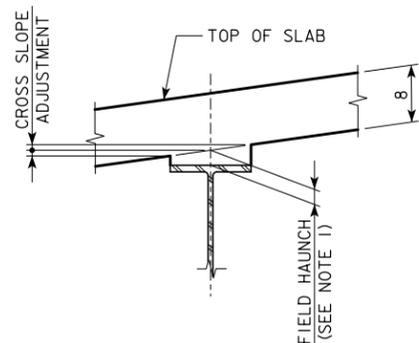
TABLE OF BEAM LINE HAUNCH ELEVATIONS (SEE NOTE 1)

LOCATION	CL ABUT. BRG.						CL PIER 1 BRG.						CL BOLTED SPLICE						CL BOLTED SPLICE						CL PIER 2 BRG.						CL ABUT. BRG.						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
BEAM 1																																					
BEAM 2																																					
BEAM 3																																					
BEAM 4																																					
BEAM 5																																					
BEAM 6																																					

MISCELLANEOUS DATA TABLE

	BEAM LINE	CL ABUT. BRG.						CL PIER 1 BRG.						CL BOLTED SPLICE						CL BOLTED SPLICE						CL PIER 2 BRG.						CL ABUT. BRG.						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
ANTICIPATED DEFLECTION DUE TO SLAB (IN.)	ALL	0	1/4	3/8	3/8	3/16	1/16	0	3/16	7/16	1/4	15/16	1"	15/16	1/4	7/16	3/16	0	1/16	3/16	3/8	3/8	1/4	0														
CROSS SLOPE ADJUSTMENTS (IN.)	ALL																																					± 1/8"
ALLOWABLE FIELD HAUNCH (IN. & FT.)	MAX.																																				2" (0.167)	
	MIN.																																				0" (0.000)	

NOTE:
 HAUNCH LOCATIONS ARE AT THE SAME LOCATION AS THE ENCIRCLED LETTERS AND NUMBERS SHOWN ON SLAB ELEVATIONS SHEET.



HAUNCH DETAIL

NOTE:
 BRIDGE SEAT ELEVATIONS ARE SET BASED ON THEORETICAL CAMBER AND BEAM DEFLECTIONS. THESE BRIDGE SEATS WILL PROVIDE A THEORETICAL BEAM HAUNCH WITHIN DESIGN PARAMETERS. ACTUAL HAUNCHES ARE DETERMINED USING SURVEYED TOP OF BEAM ELEVATIONS AND "BEAM LINE HAUNCH ELEVATIONS" DATA. ALLOWABLE MAXIMUM AND MINIMUM "FIELD HAUNCH" VALUES SHOWN IN INCHES AND DECIMALS FEET ARE GIVEN IN THE "MISCELLANEOUS DATA" TABLE. "CROSS SLOPE ADJUSTMENT" VALUES WILL AID THE CONTRACTOR IN DETERMINING ACTUAL FORMED HAUNCH DIMENSIONS AT THE EDGES OF THE TOP FLANGE.

NOTE 1:
 TO CALCULATE FIELD HAUNCH REQUIRED AT EACH LOCATION, SURVEY THE BEAM TOPS CONSISTENT WITH THE SPACINGS SHOWN ON THE "TOP OF SLAB ELEVATIONS LAYOUT" ON SLAB ELEVATIONS SHEET. SUBTRACT THE SURVEYED BEAM SHOT FROM THE "BEAM LINE HAUNCH ELEVATION". THIS VALUE WILL BE THE HAUNCH NEEDED (SEE "FIELD HAUNCH" IN HAUNCH DETAIL). THE "BEAM LINE HAUNCH ELEVATION" INCLUDES ADJUSTMENTS FOR SLAB THICKNESSES AND ANTICIPATED DEFLECTIONS. NO ADDITIONAL CALCULATIONS ARE REQUIRED. IF THE FIELD HAUNCH EXCEEDS THE MAXIMUMS AND MINIMUMS, SHOWN IN INCHES AND DECIMALS FEET IN THE MISCELLANEOUS DATA TABLE, ADJUSTMENTS TO THE GRADE OR ADDITIONAL HAUNCH REINFORCEMENT WILL BE REQUIRED.

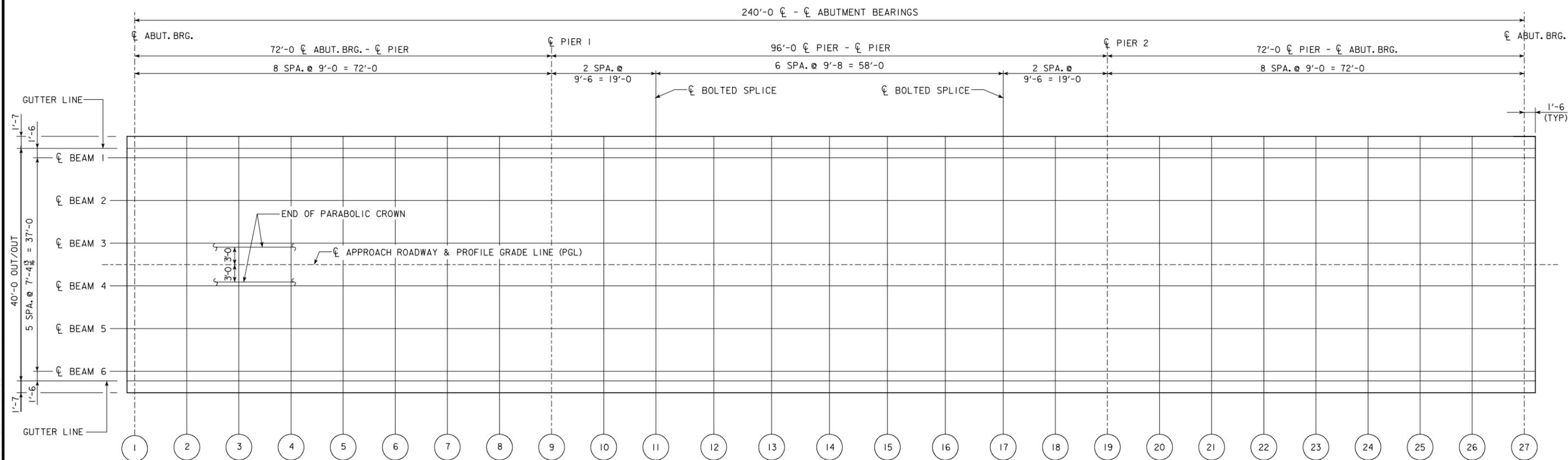
BEAM LINE HAUNCH DATA

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

REVISED 06-12 - CHANGED THE ALLOWABLE FIELD HAUNCH MAX. & MIN. TO SHOW INCHES AND DECIMALS OF FEET. NOTE AND NOTE 1 CHANGED TO REFLECT THIS CHANGE. ENGLISHROLLEDSTEELBRIDGES.SGN - 5273 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS

	CL ABUT BRG								CL PIER 1		CL BOLTED SPLICE						CL PIER 2		CL ABUT BRG								
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
GUTTER LINE																											
BEAM 1																											
BEAM 2																											
BEAM 3																											
PGL																											
BEAM 4																											
BEAM 5																											
BEAM 6																											
GUTTER LINE																											



LOCATION OF TOP OF SLAB ELEVATIONS

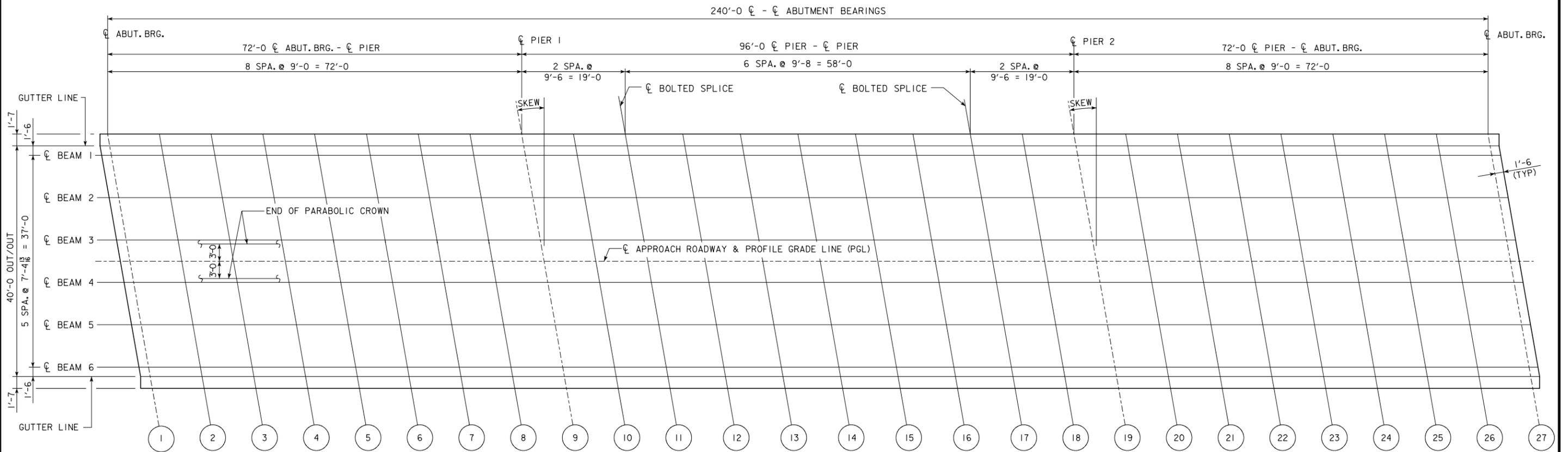
SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. ____ DESIGN NO. ____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5274 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS

	CL ABUT BRG								CL PIER 1		CL BOLTED SPLICE		CL BOLTED SPLICE		CL PIER 2								CL ABUT BRG				
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
GUTTER LINE																											
BEAM 1																											
BEAM 2																											
BEAM 3																											
PGL																											
BEAM 4																											
BEAM 5																											
BEAM 6																											
GUTTER LINE																											



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. ____ OF ____ FILE NO. ____ DESIGN NO. ____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5275 - THIS SHEET ISSUED 06-10.

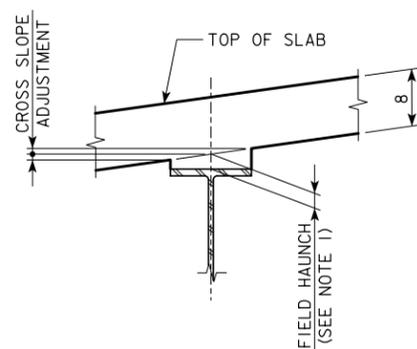
TABLE OF BEAM LINE HAUNCH ELEVATIONS (SEE NOTE 1)

LOCATION	☉ ABUT. BRG.								☉ PIER 1 BRG.		☉ BOLTED SPLICE						☉ PIER 2 BRG.						☉ ABUT. BRG.				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
BEAM 1																											
BEAM 2																											
BEAM 3																											
BEAM 4																											
BEAM 5																											
BEAM 6																											

MISCELLANEOUS DATA TABLE

	BEAM LINE	☉ ABUT. BRG.								☉ PIER 1 BRG.		☉ BOLTED SPLICE						☉ PIER 2 BRG.						☉ ABUT. BRG.				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ANTICIPATED DEFLECTION DUE TO SLAB (IN.)	ALL	0	1/4	3/8	1/2	7/16	5/16	3/16	0	0	3/16	1/2	13/16	1 1/16	1 1/8	1 1/16	13/16	1/2	3/16	0	0	3/16	5/16	7/16	1/2	3/8	1/4	0
CROSS SLOPE ADJUSTMENTS (IN.)	ALL																											± 1/8"
ALLOWABLE FIELD HAUNCH (IN. & FT.)	MAX.	ALL																										2" (0.167)
	MIN.	ALL																										0" (0.000)

NOTE:
 HAUNCH LOCATIONS ARE AT THE SAME LOCATION AS THE ENCIRCLED LETTERS AND NUMBERS SHOWN ON SLAB ELEVATIONS SHEET.



HAUNCH DETAIL

NOTE:
 BRIDGE SEAT ELEVATIONS ARE SET BASED ON THEORETICAL CAMBER AND BEAM DEFLECTIONS. THESE BRIDGE SEATS WILL PROVIDE A THEORETICAL BEAM HAUNCH WITHIN DESIGN PARAMETERS. ACTUAL HAUNCHES ARE DETERMINED USING SURVEYED TOP OF BEAM ELEVATIONS AND "BEAM LINE HAUNCH ELEVATIONS" DATA. ALLOWABLE MAXIMUM AND MINIMUM "FIELD HAUNCH" VALUES SHOWN IN INCHES AND DECIMALS FEET ARE GIVEN IN THE "MISCELLANEOUS DATA" TABLE. "CROSS SLOPE ADJUSTMENT" VALUES WILL AID THE CONTRACTOR IN DETERMINING ACTUAL FORMED HAUNCH DIMENSIONS AT THE EDGES OF THE TOP FLANGE.

NOTE 1:
 TO CALCULATE FIELD HAUNCH REQUIRED AT EACH LOCATION, SURVEY THE BEAM TOPS CONSISTENT WITH THE SPACINGS SHOWN ON THE "TOP OF SLAB ELEVATIONS LAYOUT" ON SLAB ELEVATIONS SHEET. SUBTRACT THE SURVEYED BEAM SHOT FROM THE "BEAM LINE HAUNCH ELEVATION". THIS VALUE WILL BE THE HAUNCH NEEDED (SEE "FIELD HAUNCH" IN HAUNCH DETAIL). THE "BEAM LINE HAUNCH ELEVATION" INCLUDES ADJUSTMENTS FOR SLAB THICKNESSES AND ANTICIPATED DEFLECTIONS. NO ADDITIONAL CALCULATIONS ARE REQUIRED. IF THE FIELD HAUNCH EXCEEDS THE MAXIMUMS AND MINIMUMS, SHOWN IN INCHES AND DECIMALS FEET IN THE MISCELLANEOUS DATA TABLE, ADJUSTMENTS TO THE GRADE OR ADDITIONAL HAUNCH REINFORCEMENT WILL BE REQUIRED.

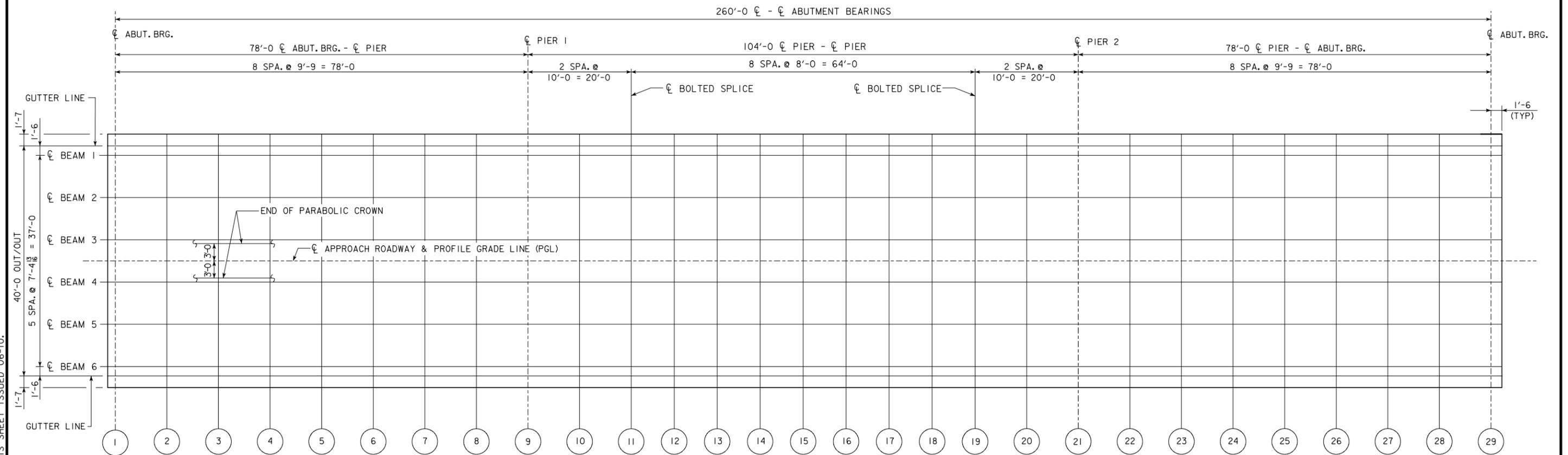
BEAM LINE HAUNCH DATA

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

REVISED 06-12 - CHANGED THE ALLOWABLE FIELD HAUNCH MAX. & MIN. TO SHOW INCHES AND DECIMALS OF FEET. NOTE AND NOTE 1 CHANGED TO REFLECT THIS CHANGE. ENGLISHROLLEDSTEELBRIDGES.SGN - 5276 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS

	CL ABUT BRG								CL PIER 1		CL BOLTED SPLICE								CL BOLTED SPLICE		CL PIER 2								CL ABUT BRG
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
GUTTER LINE																													
BEAM 1																													
BEAM 2																													
BEAM 3																													
PGL																													
BEAM 4																													
BEAM 5																													
BEAM 6																													
GUTTER LINE																													



LOCATION OF TOP OF SLAB ELEVATIONS

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5277 - THIS SHEET ISSUED 06-10.

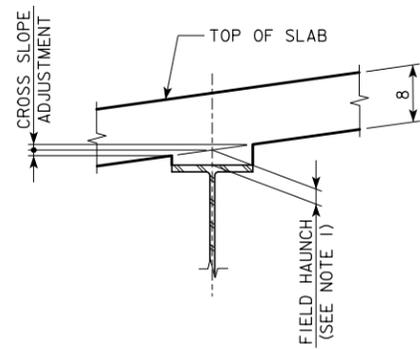
TABLE OF BEAM LINE HAUNCH ELEVATIONS (SEE NOTE 1)

LOCATION	☉ ABUT. BRG.								☉ PIER 1 BRG.	☉ BOLTED SPLICE								☉ PIER 2 BRG.	☉ ABUT. BRG.										
	1	2	3	4	5	6	7	8		9	10	11	12	13	14	15	16			17	18	19	20	21	22	23	24	25	26
BEAM 1																													
BEAM 2																													
BEAM 3																													
BEAM 4																													
BEAM 5																													
BEAM 6																													

MISCELLANEOUS DATA TABLE

	BEAM LINE	☉ ABUT. BRG.								☉ PIER 1 BRG.	☉ BOLTED SPLICE								☉ PIER 2 BRG.	☉ ABUT. BRG.										
		1	2	3	4	5	6	7	8		9	10	11	12	13	14	15	16			17	18	19	20	21	22	23	24	25	26
ANTICIPATED DEFLECTION DUE TO SLAB (IN.)	ALL	0	1/4	3/8	1/2	7/16	5/16	1/8	0	0	3/16	9/16	7/8	1 1/16	1 1/4	1 5/16	1 1/4	1 1/16	7/8	9/16	3/16	0	0	1/8	5/16	7/16	1/2	3/8	1/4	0
CROSS SLOPE ADJUSTMENTS (IN.)	ALL																													± 1/8"
ALLOWABLE FIELD HAUNCH (IN. & FT.)	MAX.																													2" (0.167)
	MIN.																													0" (0.000)

NOTE:
HAUNCH LOCATIONS ARE AT THE SAME LOCATION AS THE ENCIRCLED LETTERS AND NUMBERS SHOWN ON SLAB ELEVATIONS SHEET.



HAUNCH DETAIL

NOTE:
BRIDGE SEAT ELEVATIONS ARE SET BASED ON THEORETICAL CAMBER AND BEAM DEFLECTIONS. THESE BRIDGE SEATS WILL PROVIDE A THEORETICAL BEAM HAUNCH WITHIN DESIGN PARAMETERS. ACTUAL HAUNCHES ARE DETERMINED USING SURVEYED TOP OF BEAM ELEVATIONS AND "BEAM LINE HAUNCH ELEVATIONS" DATA. ALLOWABLE MAXIMUM AND MINIMUM "FIELD HAUNCH" VALUES SHOWN IN INCHES AND DECIMALS FEET ARE GIVEN IN THE "MISCELLANEOUS DATA" TABLE. "CROSS SLOPE ADJUSTMENT" VALUES WILL AID THE CONTRACTOR IN DETERMINING ACTUAL FORMED HAUNCH DIMENSIONS AT THE EDGES OF THE TOP FLANGE.

NOTE 1:
TO CALCULATE FIELD HAUNCH REQUIRED AT EACH LOCATION, SURVEY THE BEAM TOPS CONSISTENT WITH THE SPACINGS SHOWN ON THE "TOP OF SLAB ELEVATIONS LAYOUT" ON SLAB ELEVATIONS SHEET. SUBTRACT THE SURVEYED BEAM SHOT FROM THE "BEAM LINE HAUNCH ELEVATION". THIS VALUE WILL BE THE HAUNCH NEEDED (SEE "FIELD HAUNCH" IN HAUNCH DETAIL). THE "BEAM LINE HAUNCH ELEVATION" INCLUDES ADJUSTMENTS FOR SLAB THICKNESSES AND ANTICIPATED DEFLECTIONS. NO ADDITIONAL CALCULATIONS ARE REQUIRED. IF THE FIELD HAUNCH EXCEEDS THE MAXIMUMS AND MINIMUMS, SHOWN IN INCHES AND DECIMALS FEET IN THE MISCELLANEOUS DATA TABLE, ADJUSTMENTS TO THE GRADE OR ADDITIONAL HAUNCH REINFORCEMENT WILL BE REQUIRED.

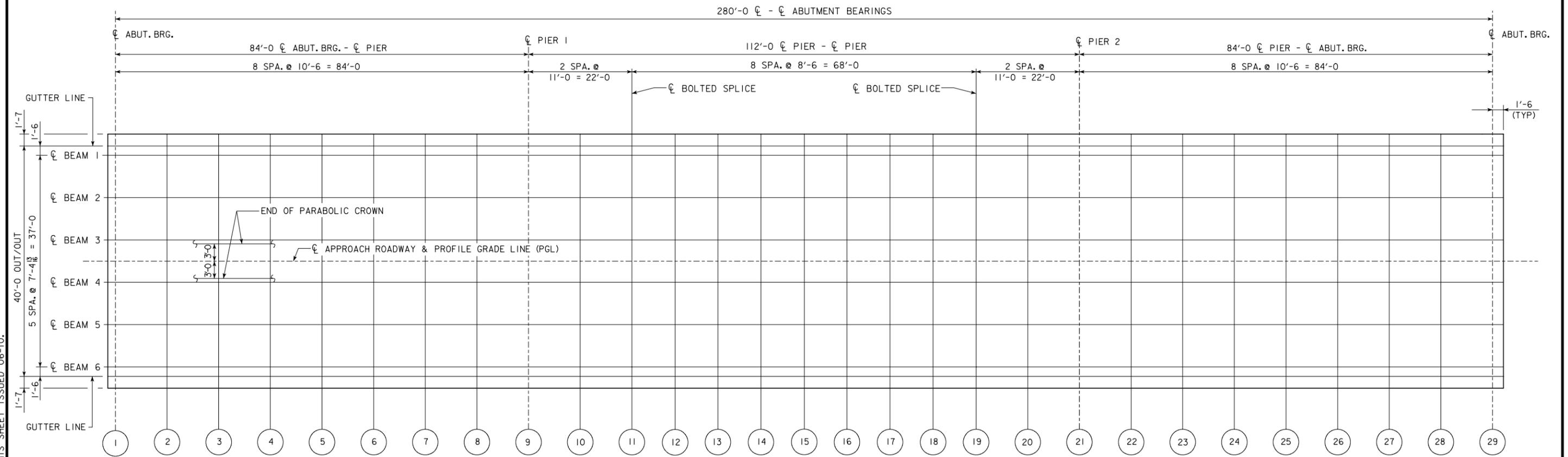
BEAM LINE HAUNCH DATA

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

REVISED 06-12 - CHANGED THE ALLOWABLE FIELD HAUNCH MAX. & MIN. TO SHOW INCHES AND DECIMALS OF FEET. NOTE AND NOTE 1 CHANGED TO REFLECT THIS CHANGE. ENGLISHROLLEDSTEELBRIDGES.SGN - 5279 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS

	CL ABUT BRG	2	3	4	5	6	7	8	CL PIER 1	10	CL BOLTED SPLICE	12	13	14	15	16	17	18	CL BOLTED SPLICE	20	CL PIER 2	22	23	24	25	26	27	28	CL ABUT BRG
LOCATION	1								9																				29
GUTTER LINE																													
BEAM 1																													
BEAM 2																													
BEAM 3																													
PGL																													
BEAM 4																													
BEAM 5																													
BEAM 6																													
GUTTER LINE																													



LOCATION OF TOP OF SLAB ELEVATIONS

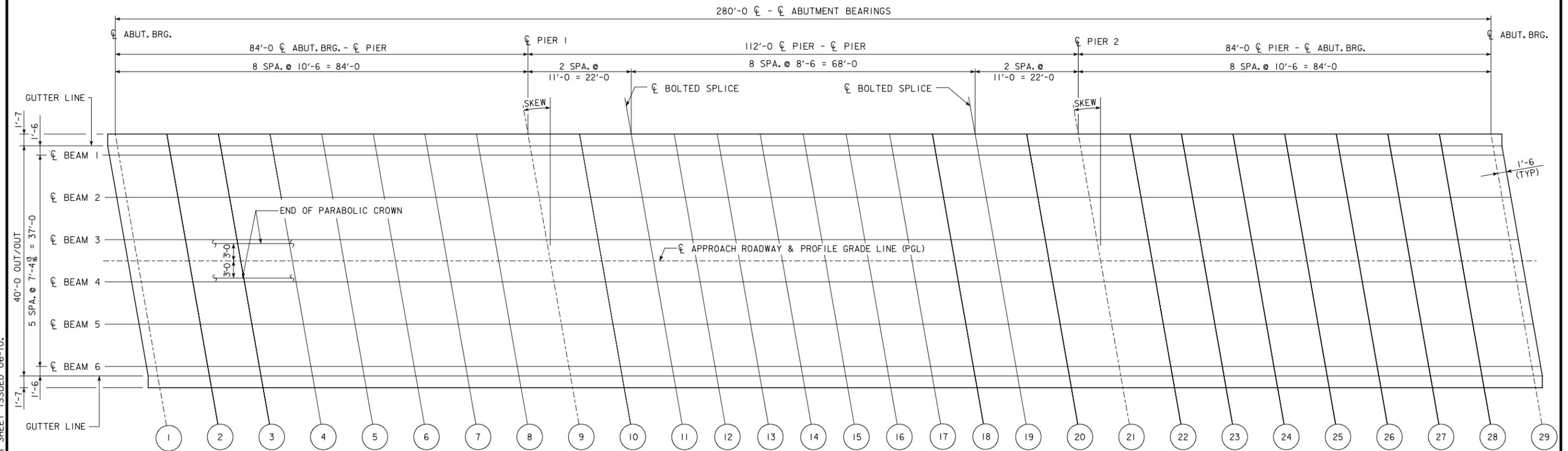
SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5280 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS

	CL ABUT BRG	2	3	4	5	6	7	8	CL PIER 1	10	CL BOLTED SPLICE	12	13	14	15	16	17	18	CL BOLTED SPLICE	20	CL PIER 2	22	23	24	25	26	27	28	CL ABUT BRG
LOCATION	1								9										19		21							29	
GUTTER LINE																													
BEAM 1																													
BEAM 2																													
BEAM 3																													
PGL																													
BEAM 4																													
BEAM 5																													
BEAM 6																													
GUTTER LINE																													



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

SLAB ELEVATIONS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. _____ OF _____ FILE NO. _____ DESIGN NO. _____

ENGLISHROLLEDSTEETBRIDGES.SGN - 5281 - THIS SHEET ISSUED 06-10.

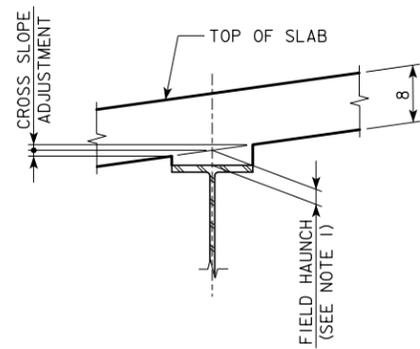
TABLE OF BEAM LINE HAUNCH ELEVATIONS (SEE NOTE 1)

LOCATION	CL ABUT. BRG.								CL PIER 1 BRG.	CL BOLTED SPLICE								CL BOLTED SPLICE	CL PIER 2 BRG.	CL ABUT. BRG.									
	1	2	3	4	5	6	7	8		9	10	11	12	13	14	15	16			17	18	19	20	21	22	23	24	25	26
BEAM 1																													
BEAM 2																													
BEAM 3																													
BEAM 4																													
BEAM 5																													
BEAM 6																													

MISCELLANEOUS DATA TABLE

	BEAM LINE	CL ABUT. BRG.								CL PIER 1 BRG.	CL BOLTED SPLICE								CL BOLTED SPLICE	CL PIER 2 BRG.	CL ABUT. BRG.									
		1	2	3	4	5	6	7	8		9	10	11	12	13	14	15	16			17	18	19	20	21	22	23	24	25	26
ANTICIPATED DEFLECTION DUE TO SLAB (IN.)	ALL	0	1/4	1/2	9/16	9/16	3/8	3/16	0	0	1/4	11/16	1"	1 5/16	1 1/2	1 9/16	1 1/2	1 5/16	1"	11/16	1/4	0	0	3/16	3/8	9/16	9/16	1/2	1/4	0
CROSS SLOPE ADJUSTMENTS (IN.)	ALL																													
ALLOWABLE FIELD HAUNCH (IN. & FT.)	MAX. ALL																													2" (0.167)
	MIN. ALL																													0" (0.000)

NOTE:
HAUNCH LOCATIONS ARE AT THE SAME LOCATION AS THE ENCIRCLED LETTERS AND NUMBERS SHOWN ON SLAB ELEVATIONS SHEET.



HAUNCH DETAIL

NOTE:
BRIDGE SEAT ELEVATIONS ARE SET BASED ON THEORETICAL CAMBER AND BEAM DEFLECTIONS. THESE BRIDGE SEATS WILL PROVIDE A THEORETICAL BEAM HAUNCH WITHIN DESIGN PARAMETERS. ACTUAL HAUNCHES ARE DETERMINED USING SURVEYED TOP OF BEAM ELEVATIONS AND "BEAM LINE HAUNCH ELEVATIONS" DATA. ALLOWABLE MAXIMUM AND MINIMUM "FIELD HAUNCH" VALUES SHOWN IN INCHES AND DECIMALS FEET ARE GIVEN IN THE "MISCELLANEOUS DATA" TABLE. "CROSS SLOPE ADJUSTMENT" VALUES WILL AID THE CONTRACTOR IN DETERMINING ACTUAL FORMED HAUNCH DIMENSIONS AT THE EDGES OF THE TOP FLANGE.

NOTE 1:
TO CALCULATE FIELD HAUNCH REQUIRED AT EACH LOCATION, SURVEY THE BEAM TOPS CONSISTENT WITH THE SPACINGS SHOWN ON THE "TOP OF SLAB ELEVATIONS LAYOUT" ON SLAB ELEVATIONS SHEET. SUBTRACT THE SURVEYED BEAM SHOT FROM THE "BEAM LINE HAUNCH ELEVATION". THIS VALUE WILL BE THE HAUNCH NEEDED (SEE "FIELD HAUNCH" IN HAUNCH DETAIL). THE "BEAM LINE HAUNCH ELEVATION" INCLUDES ADJUSTMENTS FOR SLAB THICKNESSES AND ANTICIPATED DEFLECTIONS. NO ADDITIONAL CALCULATIONS ARE REQUIRED. IF THE FIELD HAUNCH EXCEEDS THE MAXIMUMS AND MINIMUMS, SHOWN IN INCHES AND DECIMALS FEET IN THE MISCELLANEOUS DATA TABLE, ADJUSTMENTS TO THE GRADE OR ADDITIONAL HAUNCH REINFORCEMENT WILL BE REQUIRED.

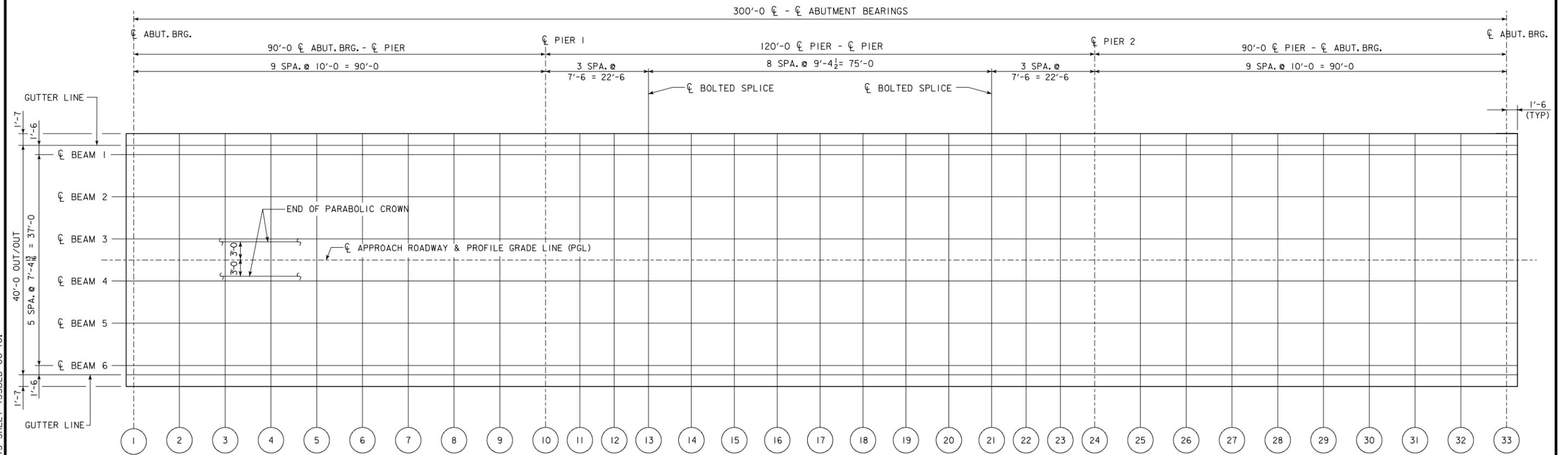
BEAM LINE HAUNCH DATA

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
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REVISED 06-12 - CHANGED THE ALLOWABLE FIELD HAUNCH MAX. & MIN. TO SHOW INCHES AND DECIMALS OF FEET. NOTE AND NOTE 1 CHANGED TO REFLECT THIS CHANGE. ENGLISHROLLEDSTEELBRIDGES.SGN - 5282 - THIS SHEET ISSUED 06-10.

TOP OF SLAB ELEVATIONS

	CL ABUT BRG	2	3	4	5	6	7	8	9	CL PIER 1	11	12	CL BOLTED SPLICE	14	15	16	17	18	19	20	CL BOLTED SPLICE	22	23	CL PIER 2	25	26	27	28	29	30	31	32	CL ABUT BRG						
LOCATION	1									10																													
GUTTER LINE																																							
BEAM 1																																							
BEAM 2																																							
BEAM 3																																							
PGL																																							
BEAM 4																																							
BEAM 5																																							
BEAM 6																																							
GUTTER LINE																																							



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

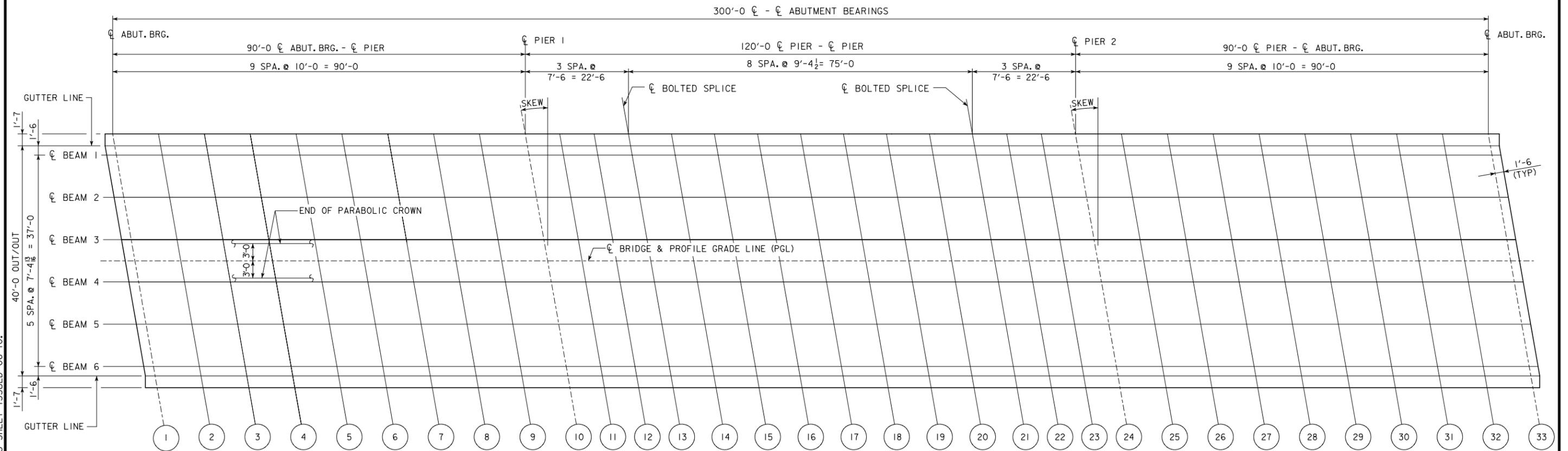
SLAB ELEVATIONS

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TOP OF SLAB ELEVATIONS

	CL ABUT BRG	2	3	4	5	6	7	8	9	CL PIER 1	11	12	CL BOLTED SPLICE	14	15	16	17	18	19	20	CL BOLTED SPLICE	22	23	CL PIER 2	25	26	27	28	29	30	31	32	CL ABUT BRG			
LOCATION	1									10																										
GUTTER LINE																																				
BEAM 1																																				
BEAM 2																																				
BEAM 3																																				
PGL																																				
BEAM 4																																				
BEAM 5																																				
BEAM 6																																				
GUTTER LINE																																				



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

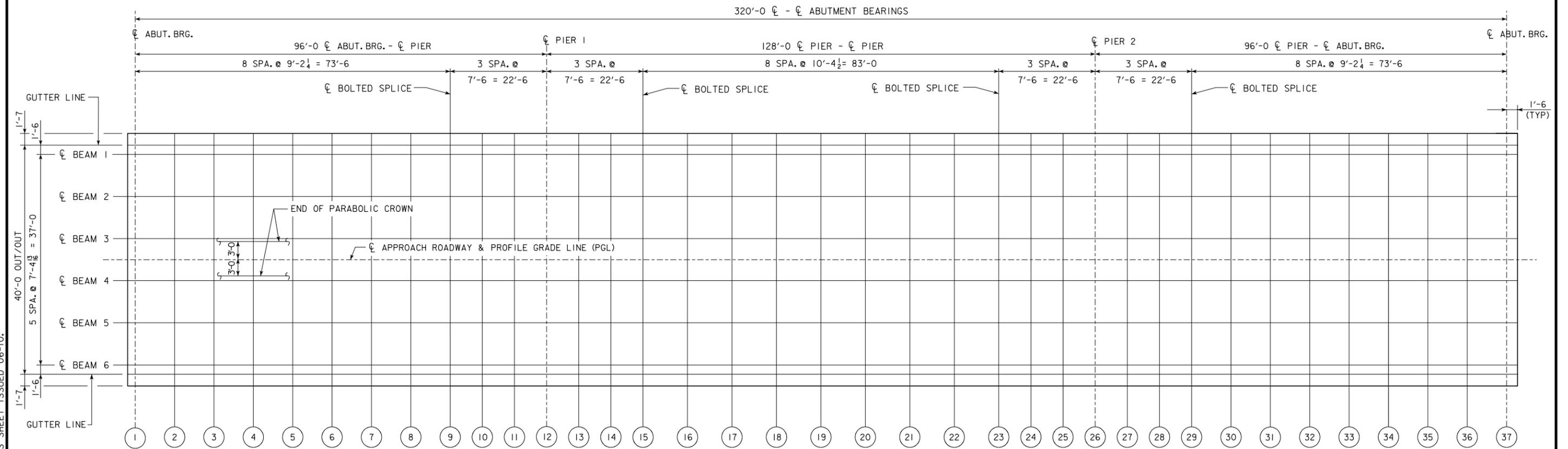
SLAB ELEVATIONS

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TOP OF SLAB ELEVATIONS

	CL ABUT BRG	2	3	4	5	6	7	8	CL BOLTED SPLICE	10	11	CL PIER 1	13	14	CL BOLTED SPLICE	16	17	18	19	20	21	CL BOLTED SPLICE	23	24	25	CL PIER 2	27	28	CL BOLTED SPLICE	30	31	32	33	34	35	36	CL ABUT BRG
LOCATION	1																																				
GUTTER LINE																																					
BEAM 1																																					
BEAM 2																																					
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PGL																																					
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BEAM 5																																					
BEAM 6																																					
GUTTER LINE																																					



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

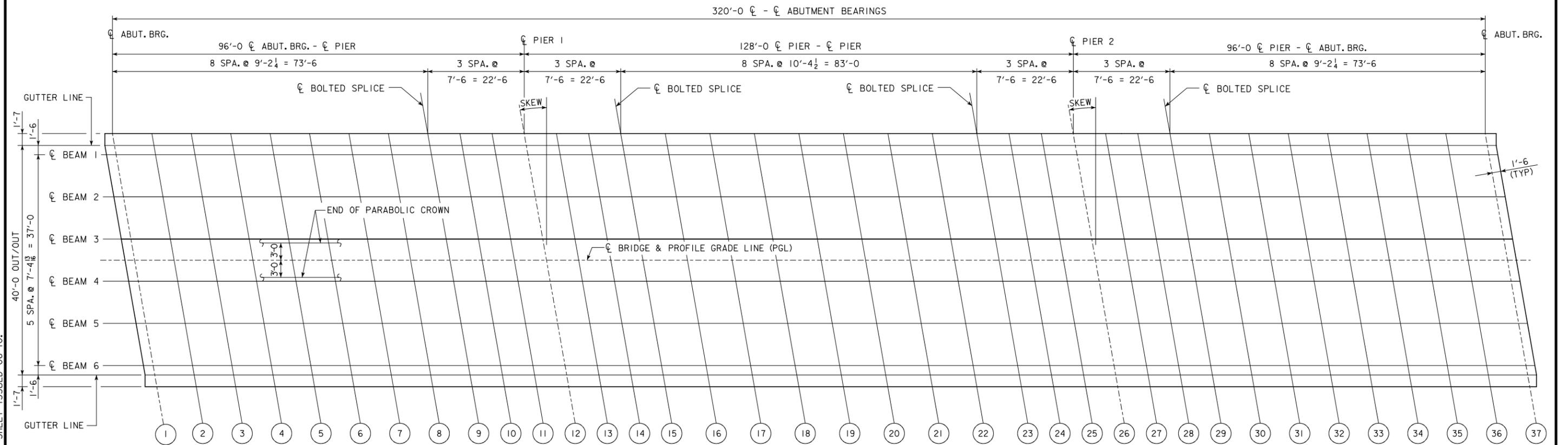
SLAB ELEVATIONS

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TOP OF SLAB ELEVATIONS

	CL ABUT BRG								CL BOLTED SPLICE			CL PIER 1									CL BOLTED SPLICE			CL PIER 2							CL BOLTED SPLICE				CL ABUT BRG		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
GUTTER LINE																																					
BEAM 1																																					
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BEAM 4																																					
BEAM 5																																					
BEAM 6																																					
GUTTER LINE																																					



LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

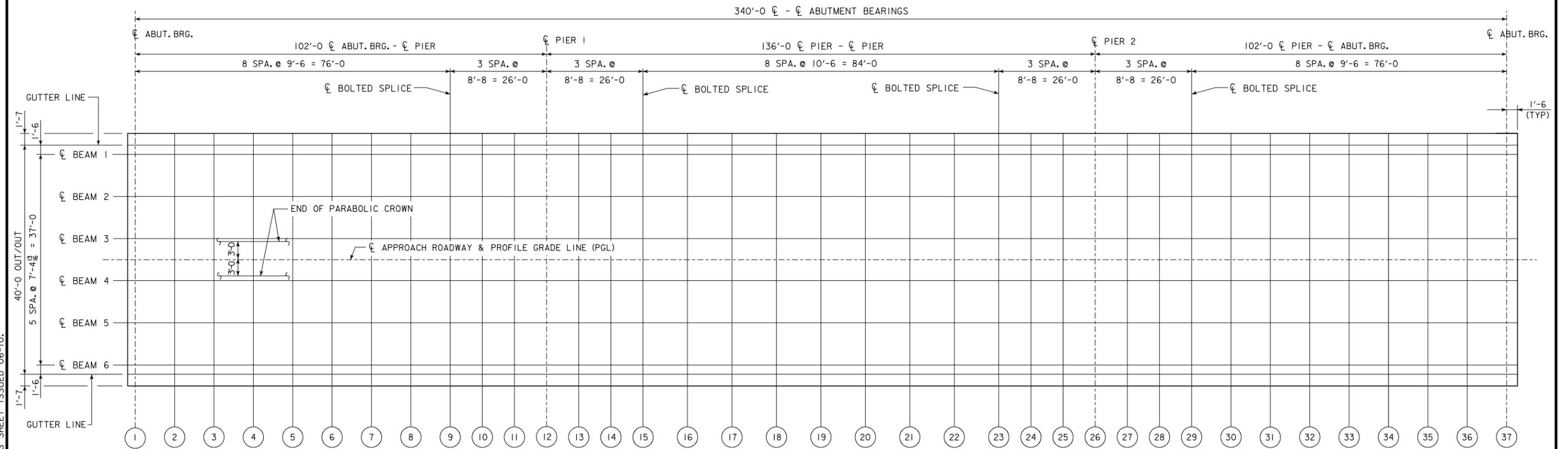
SLAB ELEVATIONS

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TOP OF SLAB ELEVATIONS

	CL ABUT BRG	2	3	4	5	6	7	8	CL BOLTED SPLICE	10	CL PIER 1	13	14	CL BOLTED SPLICE	16	17	18	19	20	21	CL BOLTED SPLICE	23	24	25	CL PIER 2	27	28	CL BOLTED SPLICE	30	31	32	33	34	35	36	CL ABUT BRG	
LOCATION	1																																				
GUTTER LINE																																					
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LOCATION OF TOP OF SLAB ELEVATIONS

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

SLAB ELEVATIONS

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