Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

July 1, 2025
5:44:23am

COUNTY : GREENE **BRIDGE :** A7024 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 3RD RTE THAT GOES 'UNDR' **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	GREENE
8	Federal ID No.	31505
27	Year Built	2006
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	3RD RTE THAT GOES 'UNDR'	Code : C
5B	Route Signing Prefix	IS	
5C	Designated Level of Service	MAINLINE	
5D	Route Number	00044	
5E	Directional Suffix	NOT APPLICABLE	
7	Facility Carried	RP US65N TO IS44W	
12	Base Hwy. Network		
13A	LRS Inventory Route No.		
13B	Subroute No.		
20	Toll Status	ON FREE ROAD	
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS	
28A	Lanes on Structure	02	
100	STRAHNET Designation	ON A DEFENSE HWY	
104	National Highway System	ON NHS	
105	Federal Lands Highway		
110	Designated Nat. Network	YES	

STRUCTURE LOCATION INFORMATION

4	Place	GREENE 90440
	Code	90440
9	Location	S 3 T 29 N R 21 W
11	Milepoint	82.92 miles
16	Latitude	37 D 15 M 1 S
17	Longitude	93 D 13 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	27931
30	AADT Year	2024
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	28%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	03
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	34 Ft. 7 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	58 Ft. 5 In.
48	Maximum Span Length	224 Ft. 1 In.
49	Structure Length	1,383 Ft. 10 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

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RECORD TYPE :	**3RD RTE THAT GOES 'UNDR'**			**RUN DATE :**	**6/27/2025**	**SUBMITTAL YEAR :**	**2025**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL CONTINUOUS
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

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RECORD TYPE : 6TH RTE THAT GOES 'UNDER' **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	GREENE
8	Federal ID No.	31505
27	Year Built	2006
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	6TH RTE THAT GOES 'UNDER' Code : F
5B	Route Signing Prefix	US
5C	Designated Level of Service	MAINLINE
5D	Route Number	00065
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RP US65N TO IS44W
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	12-UR PRNCPL ARTERIAL-OTH
28A	Lanes on Structure	02
100	STRAHNET Designation	OVER/UNDER A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	GREENE 90440
	Code	90440
9	Location	S 3 T 29 N R 21 W
11	Milepoint	260.52 miles
16	Latitude	37 D 15 M 1 S
17	Longitude	93 D 13 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	34047
30	AADT Year	2024
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	12%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	US 65
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	03
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 10 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	62 Ft. 0 In.
48	Maximum Span Length	224 Ft. 1 In.
49	Structure Length	1,383 Ft. 10 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

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RECORD TYPE :	**6TH RTE THAT GOES 'UNDER'**			**RUN DATE :**	**6/27/2025**	**SUBMITTAL YEAR :**	**2025**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL CONTINUOUS
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

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RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	GREENE
8	Federal ID No.	31505
27	Year Built	2006
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	1 RTE THAT GOES 'UNDER' S Code : A
5B	Route Signing Prefix	MO
5C	Designated Level of Service	RAMP, WYE, CONNECTOR, ETC
5D	Route Number	00000
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RP US65N TO IS44W
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	GREENE 90440
	Code	90440
9	Location	S 3 T 29 N R 21 W
11	Milepoint	0.17 miles
16	Latitude	37 D 15 M 1 S
17	Longitude	93 D 13 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	2473
30	AADT Year	2024
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	21%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	RP IS44E TO US65N
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	01
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 9 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	57 Ft. 1 In.
48	Maximum Span Length	224 Ft. 1 In.
49	Structure Length	1,383 Ft. 10 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

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RECORD TYPE :	**1 RTE THAT GOES 'UNDER' S**			**RUN DATE :**	**6/27/2025**	**SUBMITTAL YEAR :**	**2025**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL CONTINUOUS
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

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COUNTY : GREENE **BRIDGE :** A7024 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	GREENE
8	Federal ID No.	31505
27	Year Built	2006
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	2ND RTE THAT GOES 'UNDR'S Code : B
5B	Route Signing Prefix	IS
5C	Designated Level of Service	MAINLINE
5D	Route Number	00044
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RP US65N TO IS44W
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS
28A	Lanes on Structure	02
100	STRAHNET Designation	ON A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	GREENE 90440
	Code	90440
9	Location	S 3 T 29 N R 21 W
11	Milepoint	211.97 miles
16	Latitude	37 D 15 M 1 S
17	Longitude	93 D 13 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	27910
30	AADT Year	2024
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	27%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	03
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	29 Ft. 5 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	58 Ft. 5 In.
48	Maximum Span Length	224 Ft. 1 In.
49	Structure Length	1,383 Ft. 10 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

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LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
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MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL CONTINUOUS
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
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INSPECTION INFORMATION

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92A	Frac. Critical Inspection
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92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

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RECORD TYPE : 4TH RTE THAT GOES 'UNDR' **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

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1	State	MISSOURI
2	District	SW
3	County	GREENE
8	Federal ID No.	31505
27	Year Built	2006
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	4TH RTE THAT GOES 'UNDR' Code : D
5B	Route Signing Prefix	MO
5C	Designated Level of Service	RAMP, WYE, CONNECTOR, ETC
5D	Route Number	00000
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RP US65N TO IS44W
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	GREENE 90440
	Code	90440
9	Location	S 3 T 29 N R 21 W
11	Milepoint	0.04 miles
16	Latitude	37 D 15 M 1 S
17	Longitude	93 D 13 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	11663
30	AADT Year	2024
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	15%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	RP IS44W TO US65S
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	01
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 6 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	41 Ft. 12 In.
48	Maximum Span Length	224 Ft. 1 In.
49	Structure Length	1,383 Ft. 10 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

July 1, 2025
5:44:23am

COUNTY :	**GREENE**	**BRIDGE :**	**A7024**	**REVIEW STATUS :**	**APPROVED**	**NBI STATUS :**	**T**
RECORD TYPE :	**4TH RTE THAT GOES 'UNDR'**			**RUN DATE :**	**6/27/2025**	**SUBMITTAL YEAR :**	**2025**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL CONTINUOUS
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

July 1, 2025
5:44:23am

COUNTY : GREENE **BRIDGE :** A7024 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	GREENE
8	Federal ID No.	31505
27	Year Built	2006
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	HISTORICAL SIGNIF UNKNWN
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	RAMP, WYE, CONNECTOR, ETC
5D	Route Number	00000
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RP US65N TO IS44W
12	Base Hwy. Network	YES
13A	LRS Inventory Route No.	0000913944
13B	Subroute No.	00
20	Toll Status	ON FREE ROAD
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	GREENE 90440
	Code	90440
9	Location	S 3 T 29 N R 21 W
11	Milepoint	0.16 miles
16	Latitude	37 D 15 M 1 S
17	Longitude	93 D 13 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	12276
30	AADT Year	2024
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	10%
114	Future AADT	19028
115	Future AADT Year	2044

UNDERRECORD INFORMATION

6	Features Intersected	IS 44, RP IS44E TO US6
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	
54A	Vert. Clearance Ref.	HIGHWAY
54B	Vert. Clearance	16 Ft. 6 In.
55A	Rt. Lat Clear Ref.	N/A
55B	Rt. Lat Clearance	0 Ft. 0 In.
56	Left Lat Clearance	8 Ft. 6 In.
38	Navigation Control	N/A
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	1.88 miles
32	Approach Roadway Width	38 Ft. 1 In.
34	Skew	40.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	38 Ft. 1 In.
48	Maximum Span Length	224 Ft. 1 In.
49	Structure Length	1,383 Ft. 10 In.
50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
51	Curb to Curb Br. Width	38 Ft. 1 In.
52	Deck Width (Out-Out)	40 Ft. 8 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

July 1, 2025
5:44:23am

COUNTY : GREENE **BRIDGE :** A7024 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

LOAD RATING AND POSTING INFORMATION

31	Design Load	HS 25
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	LOAD FACTOR
64	Operating Rating	87 Tons.
65	Inventory Rating Meth	LOAD FACTOR
66	Inventory Rating	53 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	87.0 Percent
	Deficiency Rating	NOT DEFICIENT
	Funding Eligibility	
75A	Proposed Work	
75B	Work Done By	
76	New Struc Length	0 Ft. 0 In.
94	Struc Improve Cost	$ 0,000
95	Roadway Improve Cost	$ 0,000
96	Total Project Cost	$ 0,000
97	Year of Cost Estimates	0

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	MEETS ACCEPTBLE STND
36B	Transition Rail App. Rating	MEETS ACCEPTBLE STND
36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	MEETS ACCEPTBLE STND
67	Struc Eval App. Rating	5
68	Deck Geometry App. Rating	9
69	Underclearance App. Rating	N
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	N

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL CONTINUOUS
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	3
44A	Appr Struc. Mat type	STEEL CONTINUOUS
44B	Appr Struc. Cnstr. type	STRINGER/MULTIBEAM - GRD
46	# of Approach Span	4
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	1 MONO CONCRETE
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	1 EPOXY

CONDITION RATING INFORMATION

58	Deck Cond. Rating	6
59	Superstructure Cond. Rating	6
60	Substructure Cond. Rating	5
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	1 / 25	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

FIELD POSTING INFORMATION

Field Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

July 1, 2025
5:44:23am

COUNTY : GREENE **BRIDGE :** A7024 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 5TH RTE THAT GOES 'UNDR'S **RUN DATE :** 6/27/2025 **SUBMITTAL YEAR :** 2025

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	GREENE
8	Federal ID No.	31505
27	Year Built	2006
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	5TH RTE THAT GOES 'UNDR'S Code : E
5B	Route Signing Prefix	US
5C	Designated Level of Service	MAINLINE
5D	Route Number	00065
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RP US65N TO IS44W
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	12-UR PRNCPL ARTERIAL-OTH
28A	Lanes on Structure	02
100	STRAHNET Designation	OVER/UNDER A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	GREENE 90440
	Code	90440
9	Location	S 3 T 29 N R 21 W
11	Milepoint	54.36 miles
16	Latitude	37 D 15 M 1 S
17	Longitude	93 D 13 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	28979
30	AADT Year	2024
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	15%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	US 65
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	03
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	17 Ft. 3 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	60 Ft. 0 In.
48	Maximum Span Length	224 Ft. 1 In.
49	Structure Length	1,383 Ft. 10 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

July 1, 2025
5:44:23am

COUNTY :	**GREENE**	**BRIDGE :**	**A7024**	**REVIEW STATUS :**	**APPROVED**	**NBI STATUS :**	**T**
RECORD TYPE :	**5TH RTE THAT GOES 'UNDR'S**			**RUN DATE :**	**6/27/2025**	**SUBMITTAL YEAR :**	**2025**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL CONTINUOUS
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a7024 and Inventory_Appraisal_Submittal_Year = 2025

Missouri Department of Transportation
State Bridge Inspection Report

July 01, 2025
5:40:31AM

COUNTY: GREENE **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 31505** **BRIDGE: A7024**

GENERAL STRUCTURE INFORMATION

ROUTE: RPUS65N TO IS44WW
FEATURE: IS 44, RP IS44E TO US6
STATUS: A-OPEN
LOG MILE: 0.163
DETOUR: 2.00 MILES
NHS: YES
BUILT: 2006
REHAB:
LOCATION: S 3 T 29 R 21 W
LATITUDE: 37 15 .50 (DMS)
LONGITUDE: 93 13 29.61 (DMS)

 # SPANS: 7
LANES ON: 2
LANES UNDER: 14
COMPASS DIRECTION: SOUTH to NORTH
DIRECTION OF TRAFFIC: 1-WAY TRAF
FUNCTIONAL CLASS: UR-INTERSTATE
NBI OWNER: MODOT
NBI MAINTAINED: MODOT
MAINTENANCE DISTRICT: SW
MAINTENANCE COUNTY: GREENE
SUB AREA: 7G51

PLACE CODE: 90440 GREENE 90440
LENGTH: 1,384 FT 0 IN
MAXIMUM SPAN: 224 FT 0 IN
APPROACH ROADWAY: 38 FT 0 IN
CURB TO CURB: 38 FT 0 IN
OUT TO OUT: 40 FT 8 IN
AADT: 12276
AADT YEAR: 2024
AADT TRUCK:
FUTURE AADT: 19028
FUTURE AADT YEAR: 2044

BRIDGE INSPECTION INFORMATION

DATE: 01/29/2025 **RESPONSIBILITY:** BRIDGEDIV
FREQUENCY: 24 **CALCULATED INTERVAL**:** 20
TEAM LEADER: JAMES R PICKETT **ELEMENT:** YES
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

(RICKEC, 06/09/2021)--COULD NOT REACH ACROSS BRIDGE WITH THE B-32 NEEDS A-62

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: 06/26/2025 **RESPONSIBILITY:** DISTRICT **CATEGORY:** ELEVATED SUPERST
FREQUENCY: 6 **CALCULATED INTERVAL**:** 8 **NBI:** NO
TEAM LEADER: MATTHEW GEIGER **INSPECTOR 3:** **METHOD:** PLATFORMTK
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

(GEIGEM1, 10/11/2024)--INSPECT ELEVATED BEARINGS AND ANCHOR BOLTS

SPECIAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: GREENE **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 31505** **BRIDGE: A7024**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 08/14/2008)--(180'-200'-200'-224'-200'-200'-180') CONT PL GDR SPANS

[ITEM 58] DECK: 6-SATISFACTORY CONDITION
RATING : 08/03/2015
COMMENTS: (HAGEMD1, 08/03/2015)--RATING LOWERED FROM 8 TO 6 DUE TO EXCESSIVE TRANSVERSE CRACKS (3' TO 4' SPACING) WITH EFFLORESCENCE THRU OUT ALL SPANS OF THE BRIDGE

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION
RATING : 05/30/2023
COMMENTS: (RICKEC, 05/30/2023)--SPANS AT FINGER JOINTS WITH MEDIUM PACK RUST AND INTIAL TO MINOR SECTION LOSS

[ITEM 60] SUB: 5-FAIR CONDITION
RATING : 05/30/2023
COMMENTS: (NUNNT, 10/02/2020)--MODERATE SPALL BT. 7 AT GDR. 4 BEARING BAD
(RICKEC, 06/09/2021)--BENT 3 & 6 WITH MANY OPEN VERTICAL CRACKS ON CAP FACE & MEDIUM LEACHING
(GEIGEM1, 06/27/2025)--NEOPHRENE BEARINGS TO TILT TO THE MAX AND MASONARY PINS BREAKING OFF IN SEVERAL AREAS ON BENTS 2,6,7

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY
RATING : 05/02/2006
COMMENTS:

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW
RATING : 05/02/2006
EVALUATION TYPE :
COMMENTS:

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE
RATING : 05/02/2006
COMMENTS:

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD
RATING : 05/02/2006
COMMENTS:

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/02/2006* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	SAFETY BARRIER CURB	BOTH	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
TRANSVERSE CRACKS	THROUGHOUT		MANY	

[ITEM 36B] TRANSITION RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/02/2006* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	THRIE BEAM TO W-BEAM	SOUTHWEST	

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/02/2006* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	BOTH-SOUTH	

[ITEM 36D] RAIL END TREATMENT RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/02/2006* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	BREKAWAY SYSTEM	SOUTHWEST	
GALVANIZED STEEL	CRASH ATTENUATOR/CUSHION	SOUTHEAST	

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
REINFORCED CONCRETE	TIED SLAB	BOTH	GOOD	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
LONGITUDINAL CRACKS	THROUGHOUT		OPEN	

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
APPROACH SERIES-1	*WEARING SURFACE*	*PLAIN CONCRETE*	*MONOLITHIC*				*FAIR*
COMMENT:							
	DECK PROTECTION	*EPOXY POLYMER*	*COATED REBAR*				
COMMENT:							
	MEMBRANE	*NOTAPPLICABLE*	*NONE*				
COMMENT:							
	SECONDARY DECK PROTECTION	*LIQUID SEALANT*	*INTERNALLY SEALED*		*2014*	*STAR MACRO*	
COMMENT:	(GEIGEM1, 04/29/2020)--TRANSPO T-70/MX-30, HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) CRACK SEALER APPLIED IN FALL 2018						
MAIN SERIES-2	*WEARING SURFACE*	*PLAIN CONCRETE*	*MONOLITHIC*				
COMMENT:							
	DECK PROTECTION	*EPOXY POLYMER*	*COATED REBAR*				
COMMENT:							
	MEMBRANE	*NOTAPPLICABLE*	*NONE*				
COMMENT:							
	SECONDARY DECK PROTECTION	*LIQUID SEALANT*	*INTERNALLY SEALED*		*2014*	*STAR MACRO*	
COMMENT:							
APPROACH SERIES-3	*WEARING SURFACE*	*PLAIN CONCRETE*	*MONOLITHIC*				
COMMENT:							
	DECK PROTECTION	*EPOXY POLYMER*	*COATED REBAR*				
COMMENT:							
	MEMBRANE	*NOTAPPLICABLE*	*NONE*				
COMMENT:							

SECONDARY DECK PROTECTION	*LIQUID SEALANT*	*INTERNALLY SEALED*	*2014*	*STAR MACRO*

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
DRAINAGE	*GEOTEXTILE FABRIC*	*VERTICAL DRAIN-END BENT*		
DRAINAGE	*GALVANIZED STEEL*	*FLOOR DRAIN*		(FODGEC1, 10/22/2009)--SPAN 1,2,6,7
DRAINAGE	*PVC*	*PIPING SYSTEM*		(BRITTT1, 09/17/2014)--INSTALLED BY MODOT UNDER FINGER JTS (GEIGEM1, 10/11/2024)--DIAPER AT GIRDER 1 ONLY

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
BENT-3		*OPEN EXPANSION JOINT*	*GALVANIZED STEEL*	*FINGER PLATE*				*POOR*

COMMENT: (LISTED1, 01/29/2025)--CRACK TOP OF WEB 18" & 12"
(GEIGEM1, 06/27/2025)--CRACKED AT TOP OF WEB SOUTH SUPPORT BEAM BETWEEN G2 & G3 (9FT)
(GEIGEM1, 06/27/2025)--NO LONGER POUNDING AFTER BOLTED REPAIR OVER CRACKED SUPPORT BEAM IN LATE 2024

BENT-6		*OPEN EXPANSION JOINT*	*GALVANIZED STEEL*	*FINGER PLATE*				*POOR*

COMMENT: (GEIGEM1, 04/29/2020)--REPAIRED BY 7GBM - 5/2015 AND 3/2020
(GEIGEM1, 10/11/2024)--3/4" SHIMS PLACED BETWEEN GIRDER 2 AND FINGER JOINT SUPPORT BEAMS
(LISTED1, 01/29/2025)--FINGER PLATE, 6" CRACK IN WELD AT GIRDER 2 SOUTH SIDE
(GEIGEM1, 06/27/2025)--3' CRACK AT TOP OF WEB BETWEEN GIRDERS 1&2 NORTH SIDE
(GEIGEM1, 06/27/2025)--MINOR HORIZONTAL MISALIGNMENT

RUSTING	SUPPORT BEAM	MEDIUM

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
SLOPE PROTECTION	*PLAIN CONCRETE*	*PAVEDSLOPE*	*BOTH*	

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
APPROACH SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	THROUGHOUT		LIGHT		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
APPROACH SPANS-2	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	THROUGHOUT		LIGHT		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-3	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	THROUGHOUT		LIGHT		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

MAIN SPANS-4 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	THROUGHOUT		LIGHT		
TRANSVERSE CRACKS	THROUGHOUT		FEW		

MAIN SPANS-5 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	THROUGHOUT		LIGHT		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

APPROACH SPANS-6 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	THROUGHOUT		MEDIUM		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

APPROACH SPANS-7 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	THROUGHOUT		LIGHT		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
APPROACH SERIES-1	*CONTINUOUS SPAN*	*STEEL*	*PLATE GIRDERS*	*UNIT 1*	

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
APPROACH SPANS-1	COMPOSITE	180 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
APPROACH SPANS-2	COMPOSITE	200 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
RUST	GIRDER ENDS		MEDIUM		
RUSTING	DIAPHRAGMS		MEDIUM		(SHUNAT1, 04/25/2018)--@ BENT 3
SECTION LOSS	GIRDER ENDS		INITIAL		

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-2	*CONTINUOUS SPAN*	*STEEL*	*PLATE GIRDERS*	*UNIT 2*	*(OCONND, 07/12/2012)--GDR 1 TRIMMED @ BT 6*

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-3	COMPOSITE	200 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
PACK RUST	ENDS		MODERATE		(GEIGEM1, 06/27/2025)--AT BT 3
RUST	GIRDER ENDS		MEDIUM		
RUSTING	DIAPHRAGMS		MEDIUM		(SHUNAT1, 04/25/2018)--@ BENT 3
SECTION LOSS	GIRDER ENDS		MINOR		(GEIGEM1, 06/27/2025)--BOTTOM FLANGE AT BT 3

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-4	COMPOSITE	224 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-5	COMPOSITE	200 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

LATERAL BUCKLING	WEB		MINOR	(GEIGEM1, 06/27/2025)--GDR 3 AT BT 6 DUE TO THERMAL EXPANSION
RUSTING	AT JOINTS		MEDIUM	
SECTION LOSS	GIRDER ENDS		MINOR	(GEIGEM1, 06/27/2025)--IN BOTTOM FLANGE AND STIFFENER AT BT 6

APPROACH SERIES-3 CONTINUOUS SPAN STEEL PLATE GIRDERS UNIT 3 (OCONND, 07/12/2012)--GDR 1 TRIMMED AT BT 6

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
APPROACH SPANS-6	COMPOSITE	200 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
RUSTING	AT JOINTS		MEDIUM		
SECTION LOSS	GIRDER ENDS		MINOR		(GEIGEM1, 06/27/2025)--IN BOTTOM FLANGE / STIFFENER AT BT 6

APPROACH SPANS-7	COMPOSITE	180 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1			*REINFORCED CONCRETE*	*INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
FIXED BEARING	ELASTOMERIC	LAMINATED NEOPRENE			
PILING	REINFORCED CONCRETE	CAST-IN-PLACE			
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
DIAPHRAGM	REINFORCED CONCRETE	CAST-IN-PLACE			
VERTICAL CRACKS	THROUGHOUT		FINE		

BENT-2	*36 FT 8 IN*	*REINFORCED CONCRETE*	*HAMMERHEAD*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
VERTICAL CRACKS	THROUGHOUT		MANY		(GEIGEM1, 10/11/2024)--CRACKS IN SHEAR BLOCK (GEIGEM1, 06/27/2025)--MINOR WIDTH
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
FIXED BEARING	ELASTOMERIC	LAMINATED NEOPRENE			
BROKEN OFF	ANCHOR BOLTS		NOT APPLICABLE		(GEIGEM1, 06/27/2025)--2 AT ALL 4 BEARINGS
OTHER	THROUGHOUT		NOT APPLICABLE		(GEIGEM1, 10/11/2024)--BEARING 4 CURLED UP 1/4" DUE TO SHOVING
FOOTING	REINFORCED CONCRETE	SHAFT			

BENT-3	*36 FT 8 IN*	*REINFORCED CONCRETE*	*HAMMERHEAD*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION

BEAM CAP		REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
SEALED		THROUGHOUT		EPOXY		
VERTICAL CRACKS		THROUGHOUT		LARGE		
EXPANSION BEARING		ELASTOMERIC	LAMINATED NEOPRENE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
OTHER		RANDOM		NOT APPLICABLE		(GEIGEM1, 10/11/2024)--LEANING TO THE NORTH IN SPAN 2 AND MINOR CURLED UP
RUSTING		SOLE PLATE		MEDIUM		
FOOTING		REINFORCED CONCRETE	SHAFT			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

BENT-4	*RA-40 DEGREES*	*48 FT 0 IN*	*REINFORCED CONCRETE*	*HAMMERHEAD*			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT			***MATERIAL***	***CONSTRUCTION***			
BEAM CAP			REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
VERTICAL CRACKS			THROUGHOUT		FEW		
COLUMN			REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FIXED BEARING			ELASTOMERIC	LAMINATED NEOPRENE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING			REINFORCED CONCRETE	SHAFT			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

BENT-5		*36 FT 0 IN*	*REINFORCED CONCRETE*	*HAMMERHEAD*			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT			***MATERIAL***	***CONSTRUCTION***			
BEAM CAP			REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
VERTICAL CRACKS			THROUGHOUT		FEW		
COLUMN			REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FIXED BEARING			ELASTOMERIC	LAMINATED NEOPRENE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING			REINFORCED CONCRETE	SHAFT			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

BENT-6		*36 FT 8 IN*	*REINFORCED CONCRETE*	*HAMMERHEAD*			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
HAIR LINE CRACKING			EDGE		MEDIUM		
ASSOCIATED COMPONENT			***MATERIAL***	***CONSTRUCTION***			
BEAM CAP			REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
LEACHING			THROUGHOUT		MODERATE		
SEALED			THROUGHOUT		EPOXY		
VERTICAL CRACKS			THROUGHOUT		MEDIUM		
EXPANSION BEARING			ELASTOMERIC	LAMINATED NEOPRENE			
CONDITION			***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
BROKEN OFF			ANCHOR BOLTS		NOT APPLICABLE		(GEIGEM1, 10/11/2024)--1 BROKEN AT BOTH BEARING 3 AND 4
OTHER			RANDOM		NOT APPLICABLE		(GEIGEM1, 10/11/2024)--HEAVY LEANING OF ALL BEARINGS

	SPLITTING	THROUGHOUT		HEAVY		(RICKEC, 05/30/2023)--SPAN 7 BEARINGS AT BENT 6 TILTED TO MAX STARTING TO SPLIT AWAY FROM CAP AND SOLE PLATE
FOOTING		REINFORCED CONCRETE	SHAFT			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
COLUMN		REINFORCED CONCRETE	CAST-IN-PLACE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
	MAP CRACKS	THROUGHOUT		FINE		
BENT-7		*36 FT 8 IN* *REINFORCED CONCRETE*	*HAMMERHEAD*			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT		***MATERIAL***	***CONSTRUCTION***			
BEAM CAP		REINFORCED CONCRETE	CAST-IN-PLACE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
	SPALLS	TOP		LARGE		(GEIGEM1, 10/11/2024)--GIRDER 2 RUBBING INTO SHEAR BLOCK AND CRACKS IN SHEAR BLOCK (GEIGEM1, 10/11/2024)--MINOR BEARING INFLUENCE SPALL UNDER GIRDER 4
	VERTICAL CRACKS	THROUGHOUT		FINE		
COLUMN		REINFORCED CONCRETE	CAST-IN-PLACE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FIXED BEARING		ELASTOMERIC	LAMINATED NEOPRENE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
	BROKEN OFF	ANCHOR BOLTS		NOT APPLICABLE		(GEIGEM1, 10/11/2024)--2 BROKEN AT BOTH GIRDER 3 & 4
	OTHER	THROUGHOUT		NOT APPLICABLE		(GEIGEM1, 10/11/2024)--BEARINGS HEAVY SHOVING
FOOTING		REINFORCED CONCRETE	SHAFT			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ABUTMENT-8		*40 FT 8 IN* *REINFORCED CONCRETE*	*INTEGRAL*			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT		***MATERIAL***	***CONSTRUCTION***			
BEAM CAP		REINFORCED CONCRETE	CAST-IN-PLACE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FIXED BEARING		ELASTOMERIC	LAMINATED NEOPRENE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
PILING		REINFORCED CONCRETE	CAST-IN-PLACE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
TURNED BACK WINGS		REINFORCED CONCRETE	CAST-IN-PLACE			
	CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

COUNTY: GREENE **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 31505** **BRIDGE: A7024**

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
1	RP IS44E TO US65N N	1	1-WAY TRAF		15 FT 7 IN	98165

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	17 FT 3 IN		02/11/2008	
PLANNED	16 FT 9 IN	LEFT		

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
2	US 65 N	3	1-WAY TRAF		8 FT 5 IN	98167

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	17 FT 6 IN		12/23/2020	
PLANNED	17 FT 3 IN	RIGHT		

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
3	US 65 S	3	1-WAY TRAF		16 FT 6 IN	98168

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	17 FT 0 IN		12/23/2020	
PLANNED	16 FT 10 IN	RIGHT		

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
4	IS 44 W	3	1-WAY TRAF		12 FT 4 IN	98169

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	29 FT 5 IN		12/23/2020	

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
5	IS 44 E	3	1-WAY TRAF		12 FT 4 IN	98170

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	34 FT 8 IN		12/23/2020	

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
6	RP IS44W TO US65S S	1	1-WAY TRAF		12 FT 0 IN	98171

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	20 FT 2 IN		02/11/2008	

STRUCTURE PAINT INFORMATION

CONDITION: GOOD **RUST AMOUNT :** 9=.03% OF SURFACE RUSTED **STEEL TONS :** 1,383

ORIGINAL PAINT		CONTRACT REPAINT		DEPARTMENT REPAINT	
PAINT TYPE :	G SYSTEM	**PAINT TYPE :**		**PAINT TYPE :**	**MANUFACTURE :**
NAME :	ZINC/EPOXY/ACRYLIC	**NAME :**		**NAME :**	**SURFACE PREP :**
PAINT COLOR :	GRAY	**PAINT COLOR :**		**PAINT COLOR :**	
PAINT YEAR :	2007	**PAINT YEAR :**		**PAINT YEAR :**	
MILS :	7	**MILS :**		**MILS :**	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*
REGIONAL	SEE COMMENT	REPAIR BEAM CAP	SUBSTRUCTURE	3	06/20/2019	(SHUNAT1, 04/25/2018)--BENT 7 GIRDER 4
REGIONAL	BENT-CAPS	CLEAN AND SEAL	SUBSTRUCTURE	3	06/20/2019	(WEAVER1, 06/20/2019)--SEAL BEAMCAPS @ BENTS 3 & 6
REGIONAL	BENT	MISCELLANEOUS	EXPANSION DEVICE	2	06/09/2021	(RICKEC, 05/30/2023)--GIRDER ENDS WITH MEDIUM PACK RUST AND INTIAL SECTION LOSS NOW (GEIGEM1, 08/09/2024)--BENT 3 & 6 FINGER JOINT NEEDS FULL DIAPER PLACEMENT UNDER JOINTS
REGIONAL	SEE COMMENT	REPAIR BEAM CAP	SUBSTRUCTURE	3	06/09/2021	(RICKEC, 06/09/2021)--BENT 3 & 6 WITH MANY OPEN VERTICAL CRACKS NEEDS EPOXY INJECTED INTO CRACKS
REGIONAL	BENT-CAPS	RESET NEOPRENE BRG PADS	SUBSTRUCTURE	2	05/30/2023	(RICKEC, 05/30/2023)--BENT 7 GIRDERS 3 & 4 NEOPHRENE BEARINGS MISSING 4 MASONARY PINS
STIP		SHOTBLAST AND PAINT	PAINT		04/10/2024	(GEIGEM1, 04/11/2022)--2029 - MAJOR BRIDGE - SYSTEM G AT EXPANSION JOINTS
STIP			STRUCTURAL REPAIR		04/10/2024	(GEIGEM1, 06/27/2025)--2027 - MAJOR BRIDGE - REPLACE BEARINGS, REPAIR & MODIFY BENT CAPS, REPLACE EXP JTS & SUPPORT BEAMS

REGIONAL	BENT	REPAIR EXPANSION DEVICE	EXPANSION DEVICE	2	10/10/2024	(GEIGEM1, 10/11/2024)--REPAIR CRACKED WELD IN BT 3 FINGER SOUTH SUPPORT BEAM AND BENT 6 WEST SUPPORT BEAM

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*
ELECTRIC		ENCASED	DIAMETER	4 IN	1	

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS
2018	J8P3111	1	2018	

COMMENT
(GEIGEM1, 04/29/2020)--TRANSPO T-70/MX-30, HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) CRACK SEALER

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	5/31/2023
[Item 68] Deck Geometry Rating:	9-SUPR TO PRES DESIRABLE	5/3/2006
[Item 69] Underclearance:	N-NOT APPLICABLE	5/3/2006
Sufficiency Rating:	87.0%	3/6/2024
Deficiency:	NOT DEFICIENT	5/3/2006
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

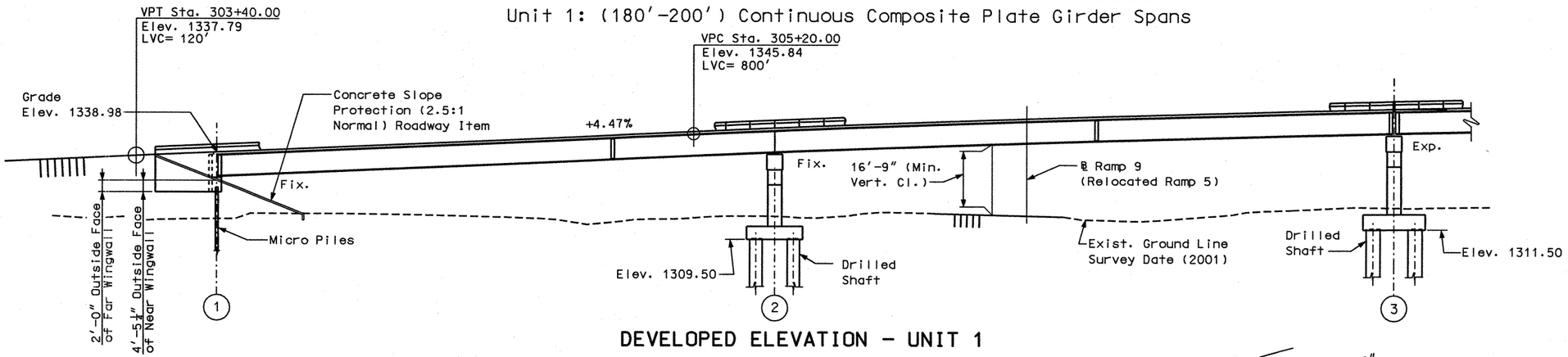
OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**
STATUS: **DATE:**
NOTES:

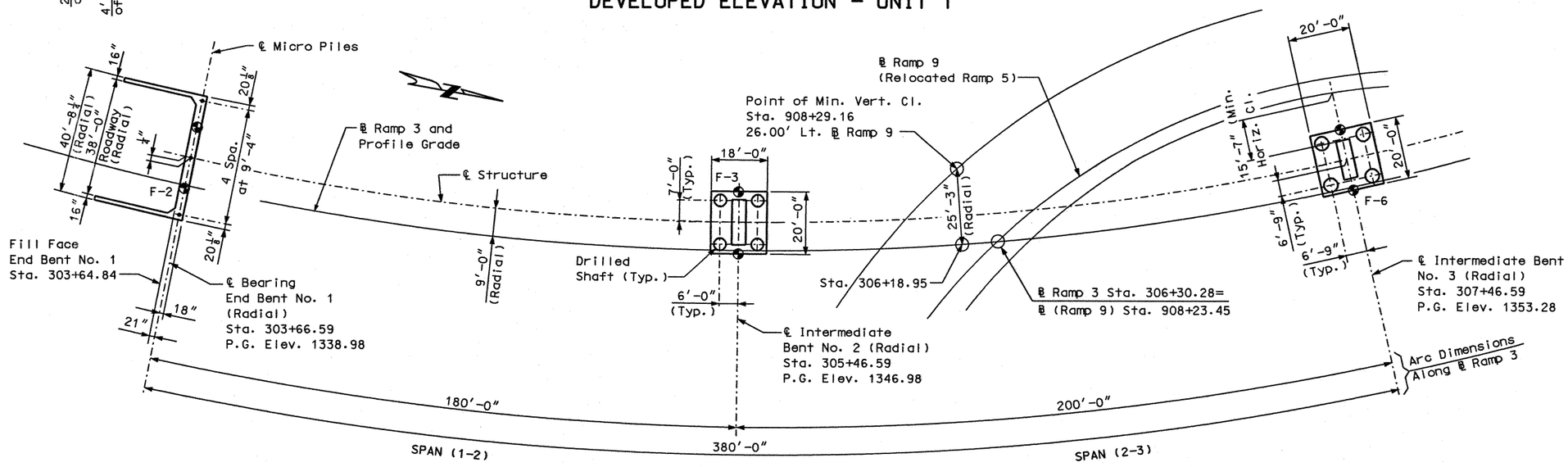
MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

Unit 1: (180'-200') Continuous Composite Plate Girder Spans

STATE	PROJ. NO.	SHEET NO.
MO		B1
SEC./SUR.3/4 TWP. 29N RGE. 21W		



DEVELOPED ELEVATION - UNIT 1



PLAN - UNIT 1

" ⊕ " indicates location of Borings.

Notice and Disclaimer Regarding Boring Log Data.

The locations of all subsurface borings for this structure are shown on the bridge plan sheet for this structure. Boring data for the numbered locations is shown on sheet Nos. 6 thru 8.
The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, is available from the Project Contact upon written request as outlined in the Project Special Provisions. No greater significance or weight should be given to the boring data depicted on the plan sheets than is subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A Contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the Contractor may obtain from the Commission.

DETAILED: GJD JULY 2005
CHECKED: JEF DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

For General Notes, Estimated Quantities, Estimated Quantities for Slab on Steel and Footing data, see Sheet No. 5.

Intermediate Bent No. 4 skewed 40°-00'-00" to a radial line at Sta. 309+46.59. All remaining Bents radial. For Location Sketch, see Sheet No. 2.

Roadway fill shall be completed to the final roadway section and up to the elevation of the bottom of the concrete approach beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.

CURVE DATA - ℄ RAMP 3

P.I. STA. = 313+93.26
P.C. STA.= 301+86.46
P.T. STA.= 318+32.80
Δ = 6°-35'-08.6" (LT.)
D = 6°-35'-08.6"
L = 1,646.34'
T = 1,206.80'
R = 870.00'
S.E. = 0.06 '/'

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/1/06

BENCH MARK - U.S.G.S. DATUM

BM #4 CHISELED SQUARE ON NORTH SIDE OF D.I. IN MEDIAN
I-44 STATION 1326+00 ELEV. 1303.46

BRIDGE OVER RAMP 9 ROUTE 65 AND I-44

STATE ROAD FROM RTE. 744 TO RTE. C

ABOUT 0.8 MILES NORTH OF RTE. 744

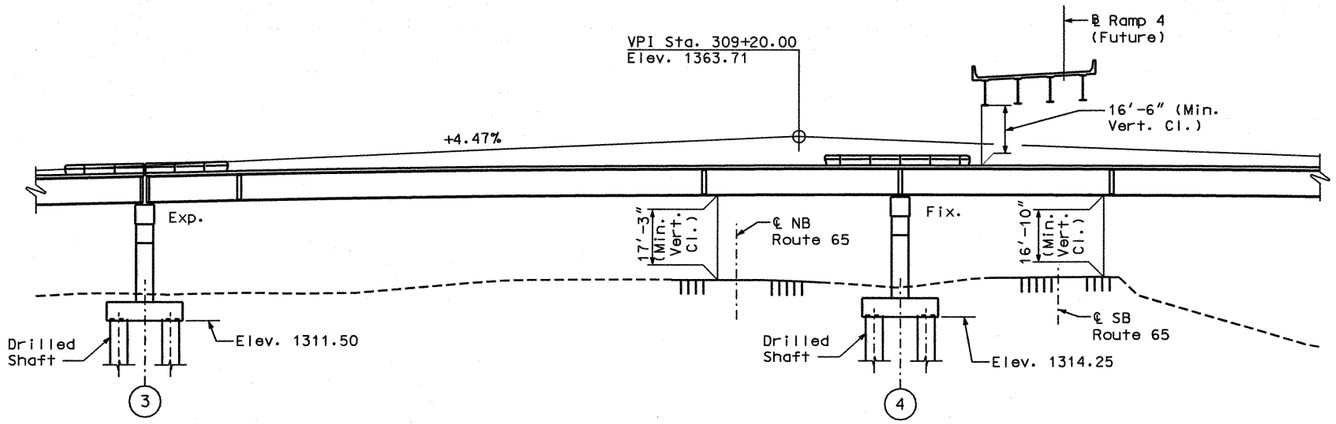
PROJECT NO. STA. 303+64.84 (RAMP 3)
JOB NO. J8U0548B RTE. 65

STD. 706.35
STD. 617.10
STD. 611.60
STD. 609.00
A7024

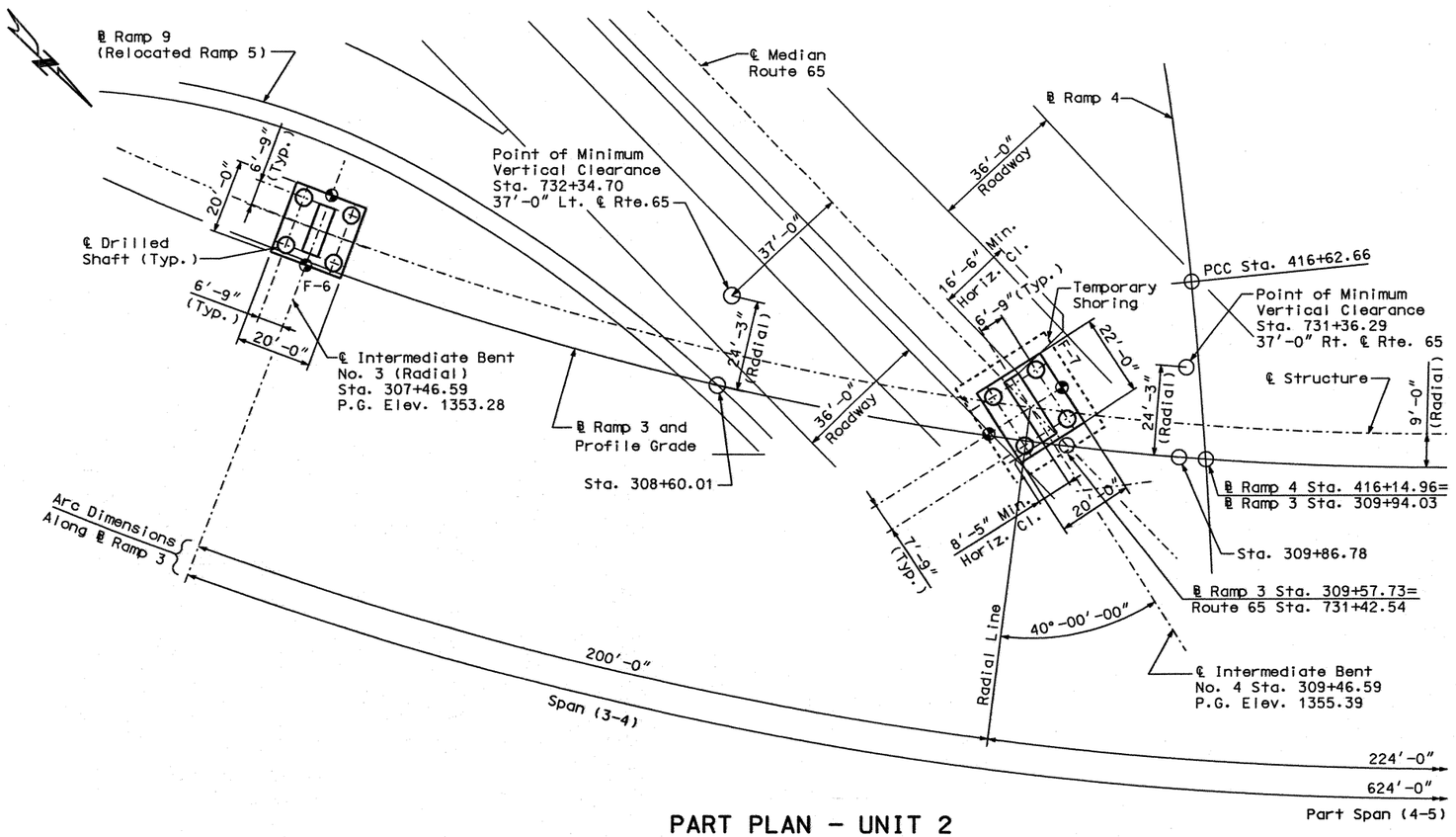
REV.

STATE	PROJ. NO.	SHEET NO.
MO		BZ

Unit 2: (200'-224'-200') Continuous Composite Plate Girder Spans



PART DEVELOPED ELEVATION - UNIT 2



PART PLAN - UNIT 2

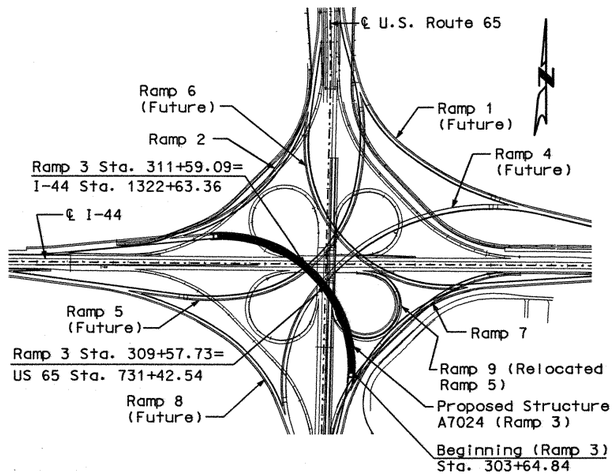
CURVE DATA - ℄ RAMP 3

P.I. STA. = 313+93.26
P.C. STA. = 301+86.46
P.T. STA. = 318+32.80
△ = 6°-35'-08.6" (LT.)
D = 6°-35'-08.6"
L = 1,646.34'
T = 1,206.80'
R = 870.00'
S.E. = 0.06 '/'

" ◒ " indicates location of Borings.

For General Notes, Estimated Quantities, Estimated Quantities for Slab on Steel and Footing data, see Sheet No. 5.

Intermediate Bent No. 4 skewed 40°-00'-00" to a radial line at Sta. 309+46.59. All remaining Bents radial.



LOCATION SKETCH

Notes:

For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 1.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/1/06

DETAILED: GJD JULY 2005
CHECKED: JEF DEC. 2005

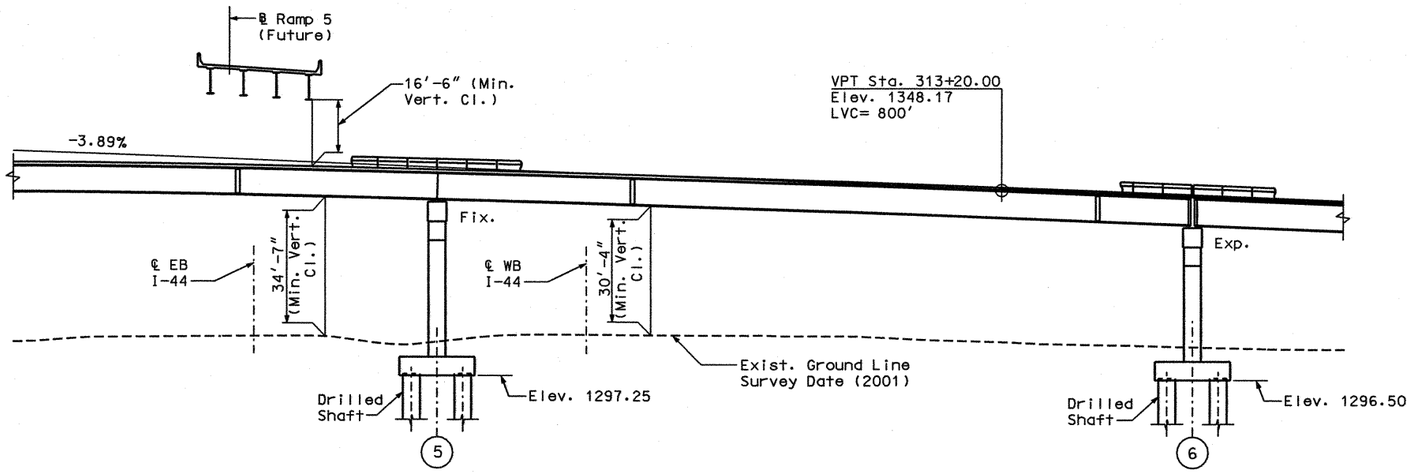
JACOBS CIVIL INC.
ST. LOUIS, MO.

P:\c1x21400\700cadd\709str\A7024 Ramp 3\A7024_GPE02_J8U0548B.dgn

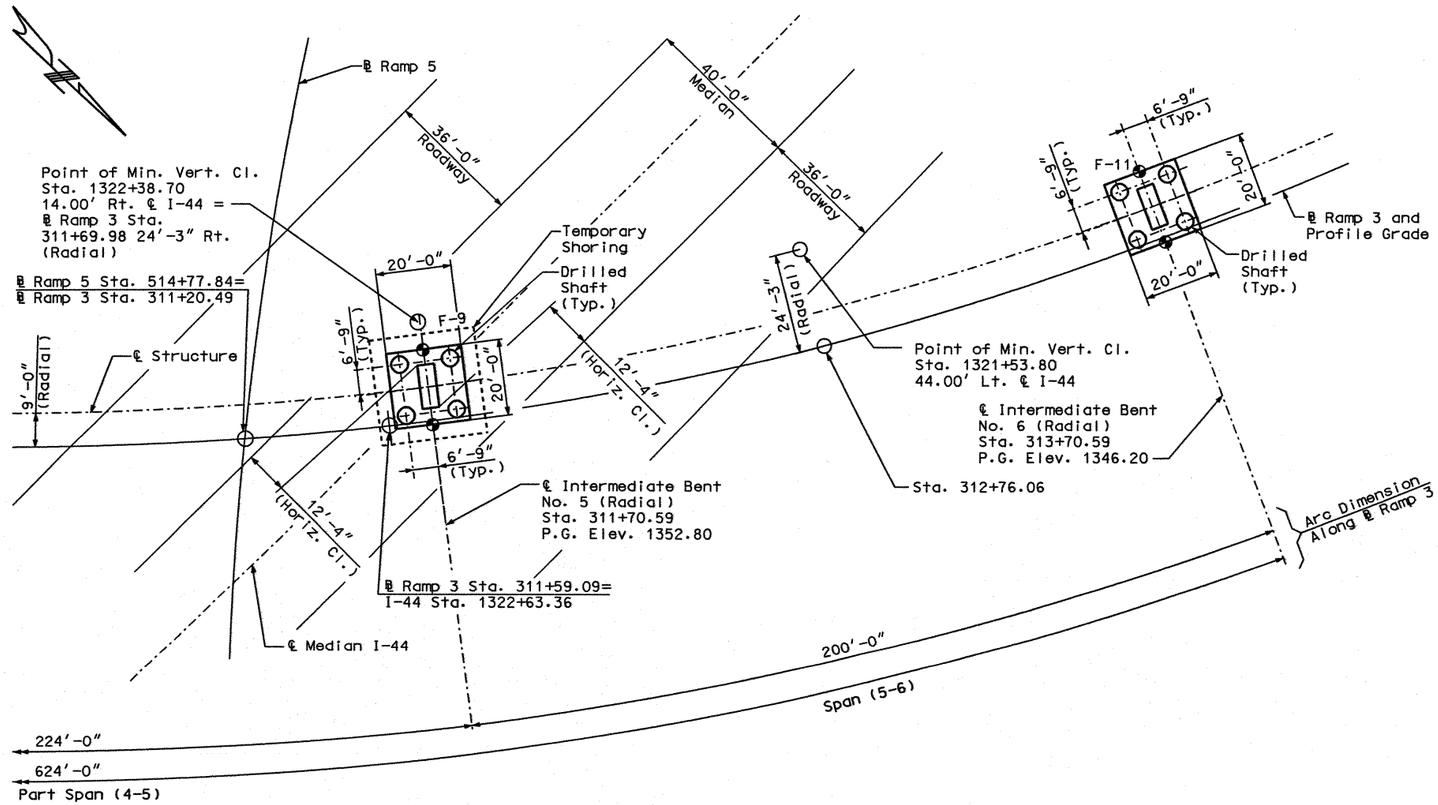
18:47 01-FEB-2006

Unit 2: (200'-224'-200') Continuous Composite Plate Girder Spans

STATE	PROJ. NO.	SHEET NO.
MO		B3



PART DEVELOPED ELEVATION - UNIT 2



PART PLAN - UNIT 2

CURVE DATA - ℄ RAMP 3

P.I. STA. = 313+93.26
P.C. STA. = 301+86.46
P.T. STA. = 318+32.80
△ = 6°-35'-08.6" (LT.)
D = 6°-35'-08.6"
L = 1,646.34'
T = 1,206.80'
R = 870.00'
S.E. = 0.06 '/'

" ◒ " indicates location of Borings.

For General Notes, Estimated Quantities, Estimated Quantities for Slab on Steel and Footing data, see Sheet No. 5.

Intermediate Bent No. 4 skewed 40°-00'-00" to a radial line at Sta. 309+46.59. All remaining Bents radial. For location sketch, see Sheet No. 2.

Notes:

For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 1.

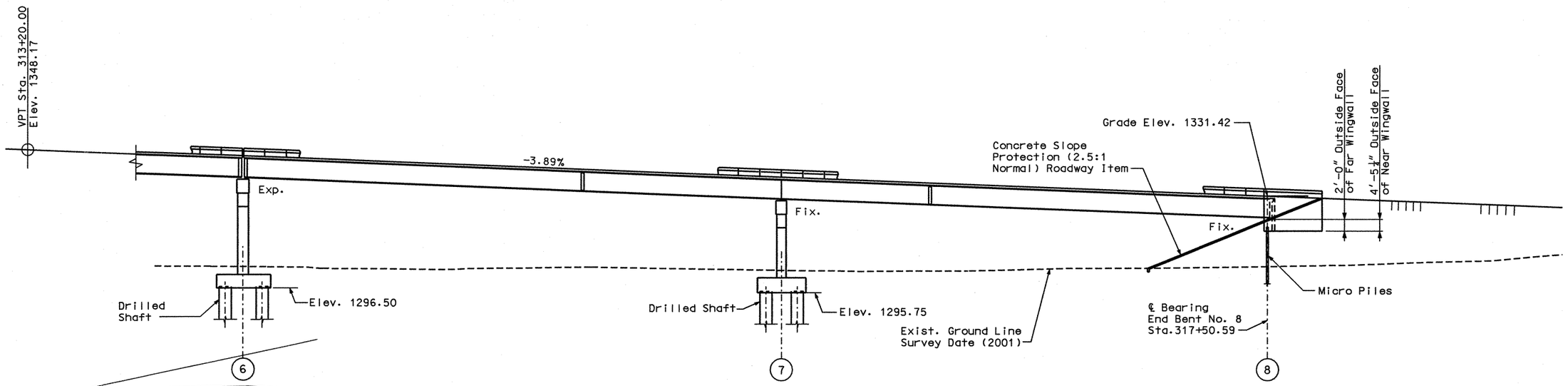
STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/1/06

DETAILED: GJD JULY 2005
CHECKED: JEF DEC. 2005

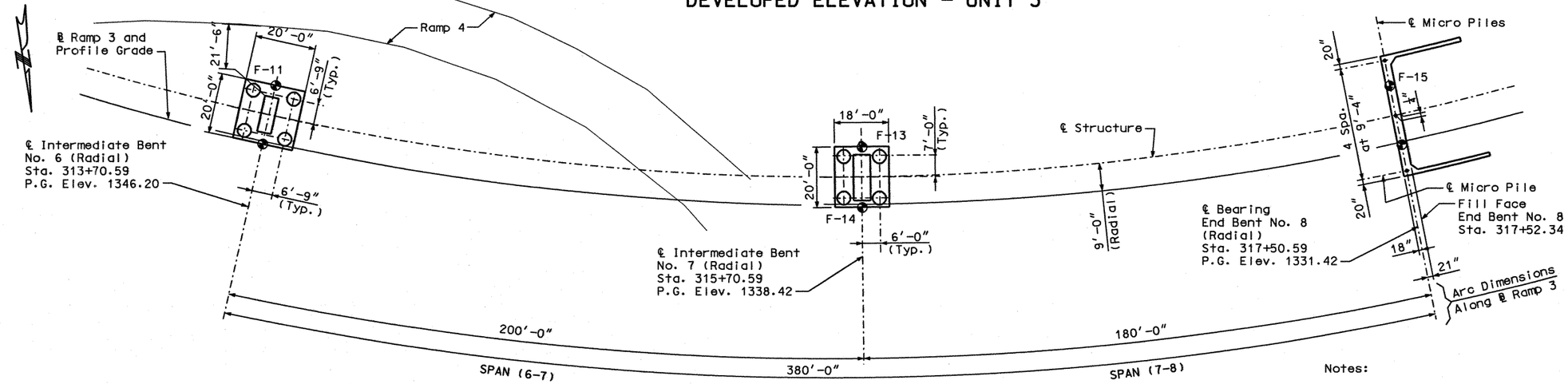
JACOBS CIVIL INC.
ST. LOUIS, MO.

STATE	PROJ. NO.	SHEET NO.
MO		B4

Unit 3: (200'-180') Continuous Composite Plate Girder Spans



DEVELOPED ELEVATION - UNIT 3



PLAN - UNIT 3

CURVE DATA - ℄ RAMP 3

P.I. STA. = 313+93.26
P.C. STA. = 301+86.46
P.T. STA. = 318+32.80
△ = 6°-35'-08.6" (LT.)
D = 6°-35'-08.6"
L = 1,646.34'
T = 1,206.80'
R = 870.00'
S.E. = 0.06 '/'

Notes:

For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 1.

For General Notes, Estinmated Quantities, Estimated Quantities for Slab on Steel and Footing data, see Sheet No. 5.

Intermediate Bent No. 4 skewed 40°-00'-00" to a radial line at Sta. 309+46.59. All remaining Bents radial. For Location Sketch, see Sheet No. 2.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/1/06

DETAILED: GJD JULY 2005
CHECKED: JEF DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

STATE	PROJ. NO.	SHEET NO.
MO		B5

Estimated Quantities

Item		Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	1,030	———	1,030
Temporary Shoring	lump sum	1	———	1
Bridge Approach Slab (Bridge)	square yard	———	226	226
Drilled Shafts (4 ft. 0 in. Dia.)	linear foot	195.4	———	195.4
Drilled Shafts (4 ft. 6 in. Dia.)	linear foot	431.6	———	431.6
Rock Sockets (3 ft. 6 in. Dia.)	linear foot	128	———	128
Rock Sockets (4 ft. 0 in. Dia.)	linear foot	268	———	268
Supplemental Television Camera Inspection	each	24	———	24
Foundation Inspection Holes	linear foot	636	———	636
Concrete Coring	linear foot	257.5	———	257.5
Sonic Logging Testing	Each	24	———	24
Micro Piles (9.625 in.)	each	10	———	10
Loading Tests	each	2	———	2
Class B Concrete (Substructure)	cu. yard	1,239.4	———	1,239.4
Slab on Steel	square yard	———	6254	6254
* Safety Barrier Curb	linear foot	———	2820	2820
Form Liners	square yard	224	———	224
Reinforcing Steel (Bridges)	pound	362,210	———	362,210
Conduit System on Structure	lump sum	———	1	1
Reinforcing Steel (Epoxy Coated)	pound	21,990	———	21,990
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1	———	1
Expansion Device (Finger Plate)	linear foot	———	76	76
Fabricated Structural Low Alloy Steel (Plate Girder) A709, Grade 50	pound	———	2,765,000	2,765,000
Slab Drain	each	———	38	38
Intermediate Field Coat (System G)	square foot	———	149,000	149,000
Finish Field Coat (System G)	square foot	———	22,900	22,900
Vertical Drain at End Bents	each	2	———	2
Laminated Neoprene Bearing Pad (Tapered)	each	———	8	8
Laminated Neoprene Bearing Pad Assembly	each	———	32	32

All concrete between the upper and lower construction joints in the end bents is included in the Estimated Quantities for Slab on Steel.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Steel.

* Safety barrier curb shall be cast-in-place option or slip-form option.

Estimated Quantities for Slab on Steel

Item		Total
Class B-2 Concrete	cu. yard	1,825.7
Reinforcing Steel (Epoxy Coated)	pound	481,860
Reinforcing Steel (Bridges)	pound	19,050

The table of Estimated Quantities for Slab on Steel represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard with the horizontal dimensions as shown on the plan of slab. Payment for conventional forms, all concrete and coated and uncoated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slabs shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II, or III.

Pile Data

Bent No.			1	8
Bearing Pile	Pile Type & Size		Micro Pile (9.625 in.)	Micro Pile (9.625 in.)
	Number		5	5
	Approximate Length	ft.	29	67
	Design Bearing	tons	138	138

For Micro Pile details, see Sheet No. 33.

For Details of Drilled, Shaft see Sheet No. 32.

General Notes:

Design Specifications:
2002 - AASHTO 17th Edition
Load Factor Design
Seismic Performance Category A
Acceleration Coefficient = 0.05

Design Loading:
HS20 Modified
35#/Sq. Ft. Future Wearing Surface
Military 24,000# Tandom Axle
Earth 120#/Cu. Ft., Equivalent Fluid Pressure 45#/Cu. Ft.
Fatigue Stress - Case I
Superstructure: Continuous composite for live-load.

Design Unit Stresses:
Class B Concrete (Substructure) f'c = 3,000 psi
Class B-2 Concrete (Superstructure, except Safety Barrier Curb) f'c = 4,000 psi
Class B-1 Concrete (Safety Barrier Curb) f'c = 4,000 psi
Grout Strength f'c = 5000 psi
Reinforcing Steel (Grade 60) fy = 60,000 psi
Structural Steel Low Alloy (ASTM A709 Grade 50) fy = 50,000 psi
Steel Pile (ASTM A709 Grade 36) fb = 9,000 psi
fy = 36,000 psi

Neoprene Pads:
Bearings shall be 60 durometer neoprene pads. Laminated Neoprene Bearing Pads (Tapered) shall be in accordance with Sec 716.

Fabricated Steel Connections:
Field connections shall be made with 7/8" diameter high strength bolts and 15/16" diameter holes, except as noted.

Joint Filler:
All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Structural Steel Protective Coatings:
Protective Coating: System G in accordance with Sec 1081.

Prime Coat: The cost of the prime coat will be considered completely covered by the contract unit price for the "Fabricated Structural Steel".
Tint of the prime coat for System G shall be similar to the color of the field coat to be used.

Field Coat: The color of the finish field coat shall be Gray (Federal Standard #26373). The cost of the intermediate field coat will be considered completely covered by the contract unit price per sq. foot for "Intermediate Field Coat (System G)". The cost of the finish field coat will be considered completely covered by the contract unit price per sq. foot for "Finish Field Coat (System G)".

At the option of the contractor, the intermediate and finish field coats may be applied in the shop. The contractor shall exercise extreme care during all phases of loading, hauling, handling, erection and pouring of the slab to minimize damage and shall be fully responsible for all repairs and cleaning of the coating systems as required by the engineer.

Traffic Handling:
See Roadway Plans. No staging on this structure.

Concrete Protective Coatings:
Protective coating for concrete bents (Epoxy) shall be applied as shown on the bridge plans and in accordance with Sec 711.

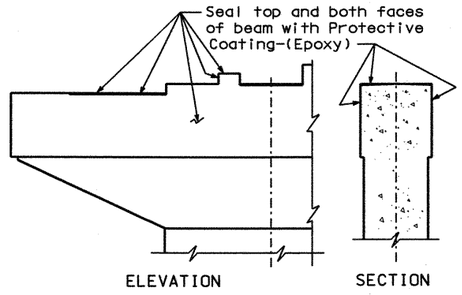
Miscellaneous:
A minimum vertical clearance of 14'-6" over Route 65 and a minimum horizontal clearance of 5'-3" from the edge of the traffic lanes of Route 65. Existing Ramps 4 and 9 and I-44 shall be maintained during construction.

High strength bolts, nuts and washers will be sampled for quality assurance as specified in Sec 106 and Field Section (FS-712) from Materials Manual.

"Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.

Erection:
During erection, the contractor shall temporarily support, anchor and brace primary members such as girders in a manner that will produce alignment and camber in the completed structure. The contractor shall install cross frames and diagonal bracing as necessary to provide stability and assure correct geometry. The contractor shall provide temporary bracing or stiffening devices if necessary during any stage of erection. Wind loads shall be included in the design of such bracing members.
The contractor shall support, anchor and brace all erected superstructure members as detailed in the Erection Plan before allowing traffic under the bridge.

Design temporary supports and falsework in accordance with the current edition of the AASHTO Bridge Construction Specifications, Section 3 "Temporary Works."



PROTECTIVE COATING
INTERMEDIATE BENT NOS. 3 AND 6
Note: Slope beam cap to drain between bearings.

DETAILED: GJD JUNE 2005
CHECKED: JEF JAN 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

GENERAL NOTES AND ESTIMATED QUANTITIES

SHEET NO. 5 OF 77

GREENE COUNTY

A7024

REV.

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STATE	PROJ. NO.	SHEET NO.
MO		B6

F-02

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0			1318.6	Elev. 1318.6 CLAY - Red, lean to fat, little to some silt, trace gravel to gravelly (cherty), with cobbles at depth, high plasticity, very stiff to stiff, moist, (RESIDUAL SOIL)
5	11	PP=3.25 tsf	1315	
	31	PP=1.25 tsf	1310	- gravelly
10				- cobbles at 12 ft. to 13 ft.
15	20		1305	- gravelly
	9	PP=0.25 tsf	1300	- clay and gravel
20				
25		REC=100 % RQD=68 %	1295	LIMESTONE - Gray, fine grained, thin to medium bedded, hard, fresh, sound, horizontal fractures, cherty with thin interbeds of chert - slightly weathered along horizontal fracture at 24.6 ft.
		REC=100 % RQD=56 %	1290	
30		REC=100 % RQD=93 %	1285	- chert beds at 22.5 to 22.9 ft., 27 to 27.5 ft., 29.5 to 29.8 ft., 30 to 30.5 ft., 31 to 31.5 ft., 32 to 32.2 ft., 38.1 to 38.2 ft., and 38.7 to 39 ft.
35		REC=99 % RQD=83 %	1280	
40				Elev. 1278.6 Bottom of boring

F-02
(CORE)
1' Rt.

F-03

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0			1319.2	Elev. 1319.2 TOPSOIL - 1-inch thick. SILT - Brown, powdery CLAY - Red, lean to fat, little to some silt, with trace gravel to gravelly (cherty) with scattered cobbles, medium to high plasticity, very stiff to stiff, moist, (RESIDUAL SOIL)
5	13	PP=3.5 tsf	1315	
	11	PP=2.5 tsf	1310	- cobbles at 10 ft.
10				- cobbles at 11.5 ft., 13 ft. to 13.5 ft.
15	24		1305	
	8		1300	
20				
25	19	PP=0.25 tsf	1295	- cobble or layer of limestone at 23.5 ft.
		REC=100 % RQD=40 %	1290	LIMESTONE - Gray to bluish gray, fine grained, with numerous thin (1.25" to 4") to medium (4" to 12") interbeds of chert, medium to thick bedded, hard, fresh, horizontal fractures - slightly weathered fracture (iron-stained) at 29.9 ft.
30		REC=100 % RQD=92 %	1285	- chert interbeds at 26.6 to 27.2 ft., 27.6 to 27.8 ft., 28.7 to 28.9 ft., 29.8 to 30.0 ft., 31.7 to 32.8 ft., 34.9 to 35.1 ft., 36.9 to 37.1 ft., 38.7 to 39.0 ft., 39.6 to 39.9 ft., 41.7 to 41.8 ft., 43.4 to 44.4 ft., 45.2 to 45.4 ft., 45.9 to 46.1 ft., 47.9 to 48.1 ft., 48.1 to 48.3 ft., 48.7 to 49.0 ft., and 50.9 to 51.1 ft.
35		REC=99 % RQD=77 %	1280	
40				
45		REC=100 % RQD=77 %	1275	
		REC=100 % RQD=78 %		
50		REC=100 % RQD=74 %	1270	Elev. 1267.7 Bottom of boring

F-03
(CORE)
19' Lt.

F-06

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0			1321.9	Elev. 1321.9 CLAY - Red, lean, some silt, with chert gravel and cobbles, (POSSIBLE FILL)
			1320	SILT - Brown, little to some clay, crumbly, moist CLAY - Red, fat, little silt, trace gravel to gravelly, with some cobbles, high plasticity, stiff to very stiff, moist, (RESIDUAL SOIL)
5	33	PP=1.5 tsf		
	13	PP=4.5 tsf	1315	
10			1310	- gravel/ cobbles at 12 ft. to 13 ft.
15	17	PP=3 tsf		
			1305	- cobbles at 15 ft. to 16 ft. and 17.5 ft. to 18.5 ft.
20	20			
			1300	
25	21	PP=0.5 tsf		
			1295	- cobbles, boulder or weathered rock from 28 ft. to 29 ft.
30		REC=100 % RQD=80 %		LIMESTONE - Gray with occasional tan beds, fine grained, medium bedded, hard, fresh to occasionally slightly weathered, sound, horizontal plane fractures, cherty with thin (1.25" to 4") to medium (4" to 12") interbeds of chert - chert beds at 29.1 to 29.5 ft.,- chert bed at 29.8 to 30 ft., 30.2 to 30.3 ft., 31 to 31.7 ft., 32.4 to 32.5 ft. 32.7 to 32.9 ft., 33.3 to 33.5 ft., 35.6 to 35.9 ft., 36.4 to 37.2 ft., 37.3 to 37.4 ft., 38.5 to 38.7 ft., 38.9 to 39.3 ft., and 39.7 to 40 ft. - void at 40 ft. to 40.2 ft.
		REC=100 % RQD=68 %	1290	
35		REC=98 % RQD=57 %	1285	
		REC=87 % RQD=57 %		
40			1280	
		REC=100 % RQD=76 %		- chert beds at 41 to 41.1 ft., 41.7 to 42.1 ft., 43.4 to 43.7 ft., 44.7 to 44.9 ft., 45.7 to 46 ft., 46.7 to 47.3 ft., 50 to 50.6 ft., and 51 to 51.4 ft.
45		REC=100 % RQD=83 %	1275	
50		REC=100 % RQD=97 %	1270	Elev. 1267.9 Bottom of boring

F-06
(CORE)
1' Rt.

Note:
For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 1.

For Location of Borings see, Sheet Nos. 1 thru 4.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

BORING DATA

DETAILED: GJD JULY 2005
CHECKED: BJE OCT. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 6 OF 77

GREENE COUNTY

A7024

REV.

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STATE	PROJ. NO.	SHEET NO.
MO		B7

F-07

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0			1323.9	Elev. 1323.9 TOPSOIL - 1/2- inch thick.
5	14	PP=2.5 tsf	1320	CLAY - Reddish brown grading to red, fat, little to some gravel (cherty) grading to gravelly clay with cobbles, medium to high plasticity, very stiff to stiff, moist, (RESIDUAL SOIL)
10	21		1315	- cobbles at 11 ft.
15			1310	- cobbles at 14 ft.
20	68		1305	- cobbles at 17 ft.
25	14		1300	
			1295	- clay and cobbles - cobbles or ledges of limestone
30		REC=91 % RQD=65 %		LIMESTONE - Gray to bluish gray, fine grained, medium to thick bedded, hard, fresh, sound, horizontal fractures, cherty with numerous thin (1.25" to 4") to medium (4" to 12") interbeds of chert - chert beds at 30 to 30.2 ft., 30.4 to 30.8 ft., 31.4 to 31.6 ft., 31.9 to 32.1 ft., 32.3 to 32.5 ft., 32.8 to 33.6 ft., 34.3 to 35.1 ft., 35.4 to 35.6 ft., 36.4 to 36.8 ft., 37.3 to 37.4 ft., 38.5 to 38.9 ft., 39.3 to 39.5 ft., 40.5 to 40.7 ft., 40.9 to 41.1 ft., 42.4 to 42.7 ft., 43.3 to 44 ft., 44.7 to 45 ft., 48.1 to 48.7 ft., 49.2 to 49.6 ft., and 50.9 to 51.4 ft.
35		REC=100 % RQD=61 %	1290	
40		REC=100 % RQD=68 %	1285	
45		REC=100 % RQD=65 %	1280	
50		REC=100 % RQD=90 %	1275	
55		REC=92 % RQD=83 %	1270	Elev. 1268.9 Bottom of Boring

F-07
(CORE)
19' Lt.

F-09

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0			1307.2	Elev. 1307.2 TOPSOIL - 3-inch thick.
5	19		1305	CLAY - Red, lean to fat, scattered gravel to gravelly, stiff to soft, moist to wet, (RESIDUAL SOIL)
10	48	PP=2.25 tsf	1300	
15	32	PP=1 tsf	1295	
20	11		1290	
25	8		1285	
30	27	PP=0 tsf	1280	- soft clay with scattered gravel
35	11	PP=0 tsf	1275	- red gravelly fat clay, soft, wet
40	55	PP=0.25 tsf REC=33 % RQD=0 %	1270	- red, fat clay, soft, wet at 38.5 ft. - Auger Refusal on boulders at 40.5 ft. CHERT BOULDER AND CLAY - 9-inch thick boulder
45		REC=43 % RQD=43 %	1265	LIMESTONE - Gray, fine to medium grained, crystalline, medium to thick bedded, hard to very hard, weathered to slightly weathered
50		REC=100 % RQD=90 %	1260	- argillacious clayey limestone seam at 49.8 to 50.6 ft.
55		REC=100 % RQD=98 %	1255	- chert seam at 52.3 to 52.8ft. Elev. 1250.7 Bottom of Boring

F-09
(CORE)
19' Lt.

F-11

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0			1306.1	Elev. 1306.1 TOPSOIL - 1.5-inch thick.
5	12	PP=1.5 tsf	1305	CLAY - Red, lean, some silt, little cherty gravel, medium plasticity, moist, (POSSIBLE FILL) SILT - Gray, little clay, gravelly at 5 to 7 ft., medium to slight plasticity, moist, (FILL)
10	26	PP=2.25 tsf	1300	CLAY - Red, lean to fat, gravelly, with abundant chert cobbles, medium to high plasticity, stiff, moist, (RESIDUAL SOIL)
15	29	PP=2 tsf	1295	
20	39	PP=1.5 tsf	1290	
25	41		1285	- deep red clay, little silt, high plastic.
30	28		1280	- cobble or small boulder at 29 to 30 ft.
35	14	PP=0.5 tsf	1275	- cobble layer at 33 ft.
40	0	PP=0 tsf	1270	- little silt, trace fine sand, trace gravel, highly plastic, wet.
45		REC=94 % RQD=63 %	1265	LIMESTONE - Gray to brownish gray, fine grained, thin to medium bedded, hard, slightly weathered, cherty, horizontal fractures - vuggy at 43.8 ft. - chert layer at 48.2 to 48.3 ft., and 49.5 to 49.6 ft.
50		REC=99 % RQD=63 %	1260	
55		REC=100 % RQD=93 %	1255	
60		REC=100 % RQD=83 %	1250	- chert layer at 54.4 to 54.7 ft.
65		REC=100 % RQD=91 %	1245	LIMESTONE - Bluish gray, fine grained, thin to medium bedded to occasionally thick bedded, hard, slightly weathered to fresh, cherty, horizontal fractures - chert layer at 59.9 to 60.2 ft.
		REC=100 % RQD=93 %	1240	- course nodules between 66 to 68 ft. Elev. 1237.7 Bottom of Boring

F-11
(CORE)
19' Lt.

Note:
For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 1.

For Location of Borings, see Sheet Nos. 1 thru 4.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

BORING DATA

DETAILED: GJD JULY 2005
CHECKED: BJE OCT. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

STATE	PROJ. NO.	SHEET NO.
MO		B8

F-14

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0				Elev. 1304.5
				CLAY - Red, lean to fat, gravelly (chert), little to some silt, medium to high plasticity, stiff, moist, (RESIDUAL SOIL)
5	36		1300	
	8		1295	- abundant cobbles, gravel at 10 ft. to 12 ft.
10		REC=83 % RQD=0 %		LIMESTONE - Gray, fine grained, thin to medium bedded, hard, weathered grading to slightly weathered below 16.7 ft., with thin interbeds of chert
15		REC=100 % RQD=25 %	1290	- chert bed at 13.1 ft. to 13.4 ft.
		REC=100 % RQD=84 %		- highly weathered (solutioned) reddish-brown, limestone layer at 15.8 ft. to 16.2 ft.
20		REC=93 % RQD=78 %	1285	- chert bed at 18 ft. to 18.3 ft. - chert bed at 18.9 ft. to 19.1 ft.
		REC=95 % RQD=36 %		- bluish gray cherty limestone below 22 ft.
25			1280	
		REC=78 % RQD=43 %		
30			1275	- void noted at 29 ft. to 31 ft. (recovered 10" of red clay)
		REC=26 % RQD=18 %		- hard limestone at 31 ft. to 32.3 ft. - void noted from 32.3 to 35.0 ft.
35			1270	- hard blue-gray limestone
		REC=20 % RQD=16 %		- void noted at 36 ft. to 40.8 ft.
40			1265	
		REC=86 % RQD=65 %		- gray hard limestone at 40.8 ft. to 42 ft.; brown and tan limestone beds from 42 ft. to 43.7 ft.
45			1260	- chert bed from 43.7 ft. to 44.1 ft. - limestone from 44.1 ft. to 50 ft.
		REC=100 % RQD=98 %		
50			1255	Elev. 1254.5
				Bottom of Boring

F-14
(CORE)
1' Rt.

F-15

Depth ft	Blows /ft	Shear Strength tsf	Elv ft	
0				Elev. 1306.3
			1305	TOPSOIL - 3-inch thick.
				CLAY - Red, lean, abundant limestone cobbles, with silt, stiff, moist, (RESIDUAL SOIL)
5	23			
		REC=94 % RQD=36 %	1300	LIMESTONE - Gray, fine crystalline, medium bedded, medium to moderately hard, slightly weathered, cherty
		REC=100 % RQD=0 %		- limestone seams at 6.5 ft., 7 ft. and 8 ft. - limestone seam at 9.5 ft.
10		REC=92 % RQD=50 %	1295	- limestone seam at 10.2 ft., with styolites
		REC=100 % RQD=47 %		
15				- argillacious clayey limestone seams at 14.5 ft., 15 ft. and 15.5 ft.
		REC=90 % RQD=60 %	1290	- chert seams at 17.5 ft. and 18 ft. and 18.5 ft. to 19.5 ft. - vertical fracture at 18.5 ft. to 19.5 ft.
20		REC=100 % RQD=0 %	1285	- 1.5" limestone and 4.5" chert
		REC=93 % RQD=33 %		- 4" of chert and 2" calcite at 23 ft.
25		REC=100 % RQD=80 %		- chert seams at 23.5 ft. and 25 ft.
			1280	
		REC=32 % RQD=27 %		- void between 27.5 and 30.75 ft.
30			1275	
		REC=40 % RQD=23 %		- recovered 1.6 ft of limestone between 31 and 35 ft., remainder is voids or seams.
35				Elev. 1270.8
				Bottom of Boring

F-15
(CORE)
19' Lt.

Note:
For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 1.

For Location of Borings, see Sheet Nos. 1 thru 4.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

BORING DATA

DETAILED: GJD JULY 2005
CHECKED: BJE OCT. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 8 OF 77

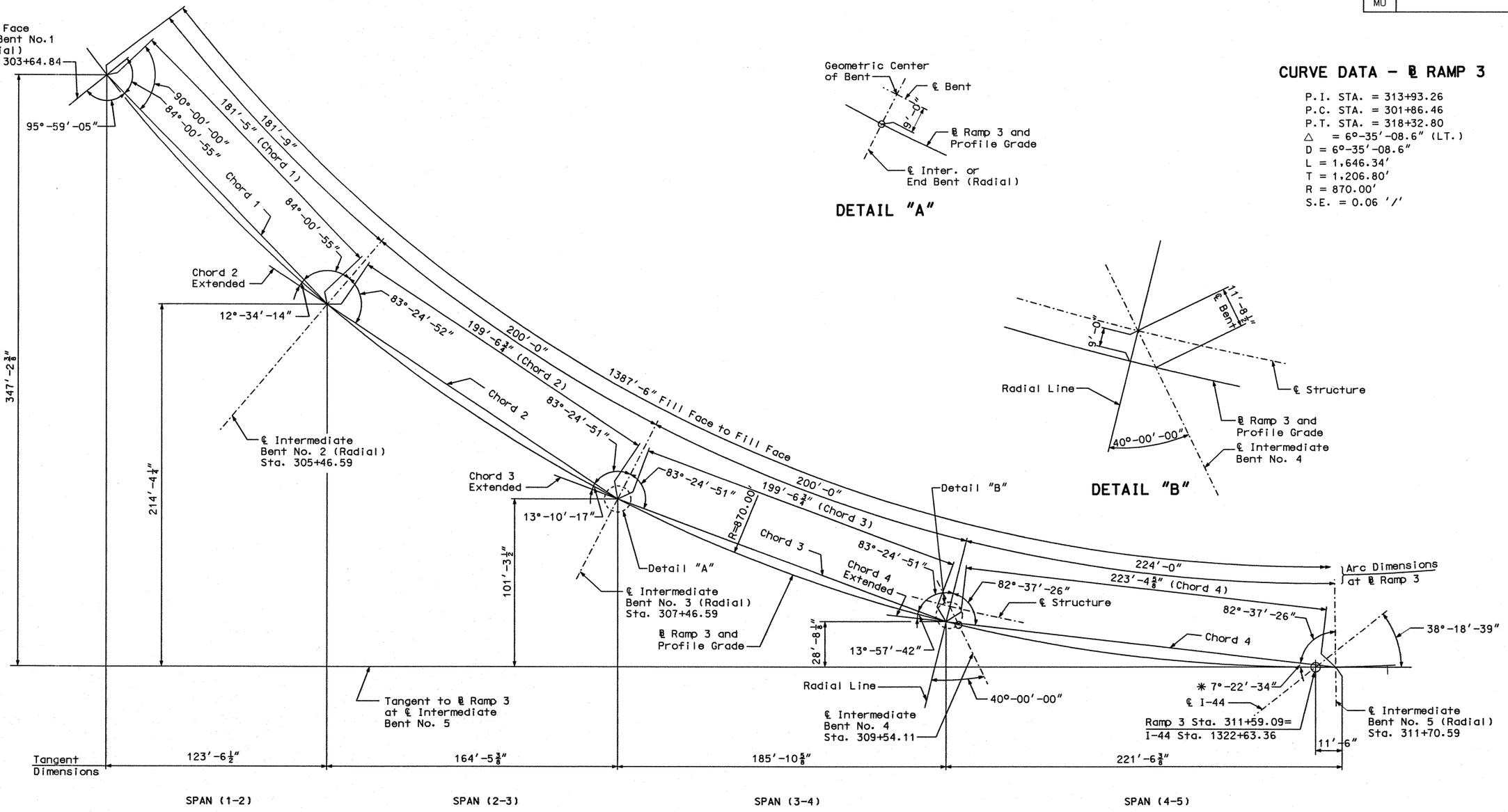
GREENE COUNTY

A7024

REV.

P:\c1x21400\700cadd\709str\A7024 Ramp 3\A7024_BOR03_J8U0548B.dgn 10:28 25-JAN-2006

STATE	PROJ. NO.	SHEET NO.
MO		89



DETAIL "A"

CURVE DATA - ℄ RAMP 3

P.I. STA. = 313+93.26
P.C. STA. = 301+86.46
P.T. STA. = 318+32.80
△ = 6°-35'-08.6" (LT.)
D = 6°-35'-08.6"
L = 1,646.34'
T = 1,206.80'
R = 870.00'
S.E. = 0.06 '/'

DETAIL "B"

SUBSTRUCTURE LAYOUT

Notes:

All dimensions are horizontal.

✳ Angle between tangent and chord.
Bent Nos. 1 thru 3, and 5 thru 8 are parallel.
Intermediate Bent No. 4 skewed 40°-00'-00" R.A.
to a radial line at Sta. 309+46.59 ℄ Ramp 3.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26558
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: GJD JUNE 2005
CHECKED: JEF NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 9 OF 77

GREENE COUNTY

A7024

REV.

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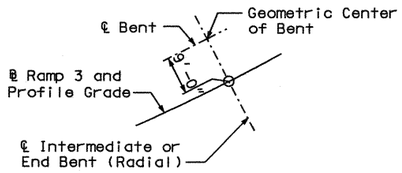
STATE	PROJ. NO.	SHEET NO.
MO		B10

CURVE DATA – ℄ RAMP 3

P.I. STA. = 313+93.26
P.C. STA. = 318+86.46
P.T. STA. = 318+32.80
△ = 6°-35′-08.6″ (LT.)
D = 6°-35′-08.6″
L = 1,646.34′
T = 1,206.80′
R = 870.00′
S.E. = 0.06 ′/′



DETAIL "A"

SUBSTRUCTURE LAYOUT

Notes:

All dimensions are horizontal.

✳ Angle between tangent and chord. Bent Nos. 1 thru 3 and 5 thru 8 are parallel.

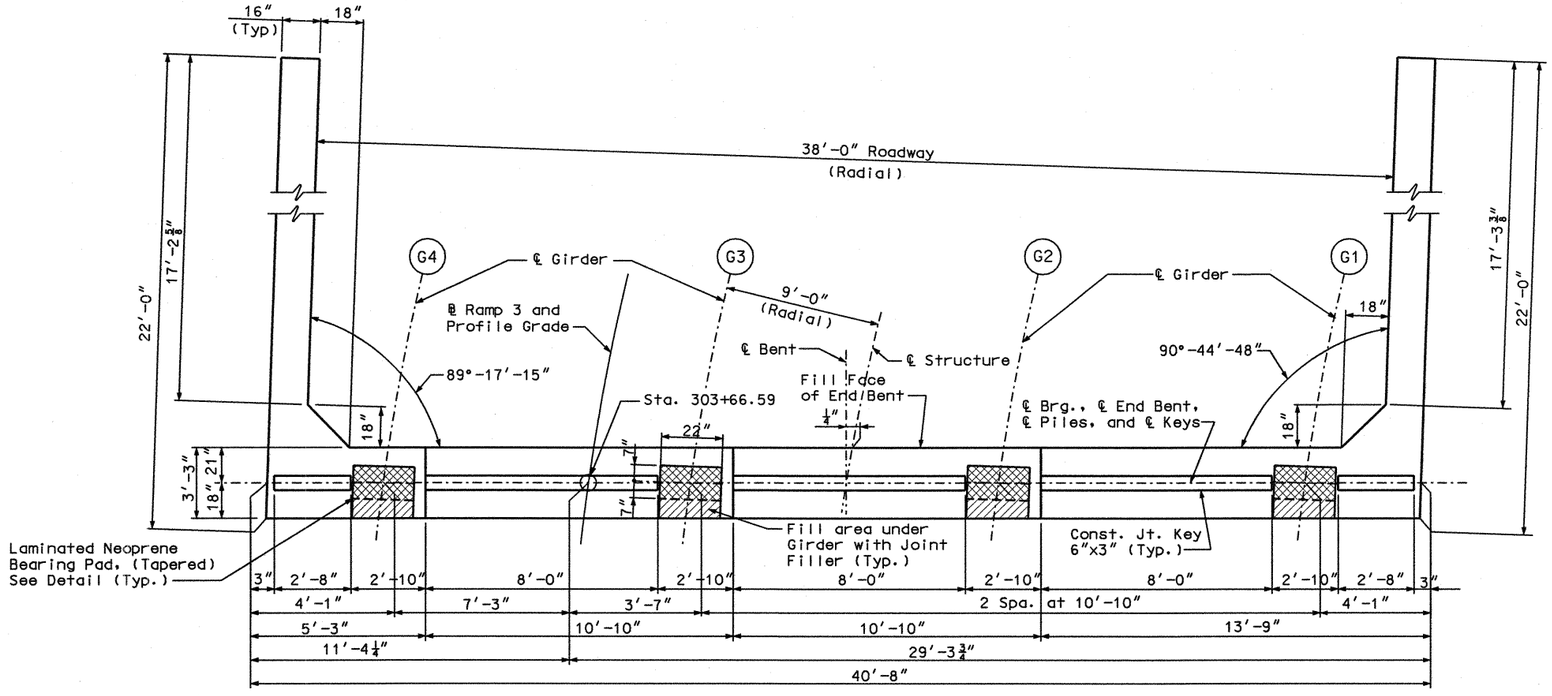
Intermediate Bent No. 4 skewed 40°-00′-00″ R.A. to a radial line at Sta. 309+46.59 ℄ Ramp 3.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER
1/26/06

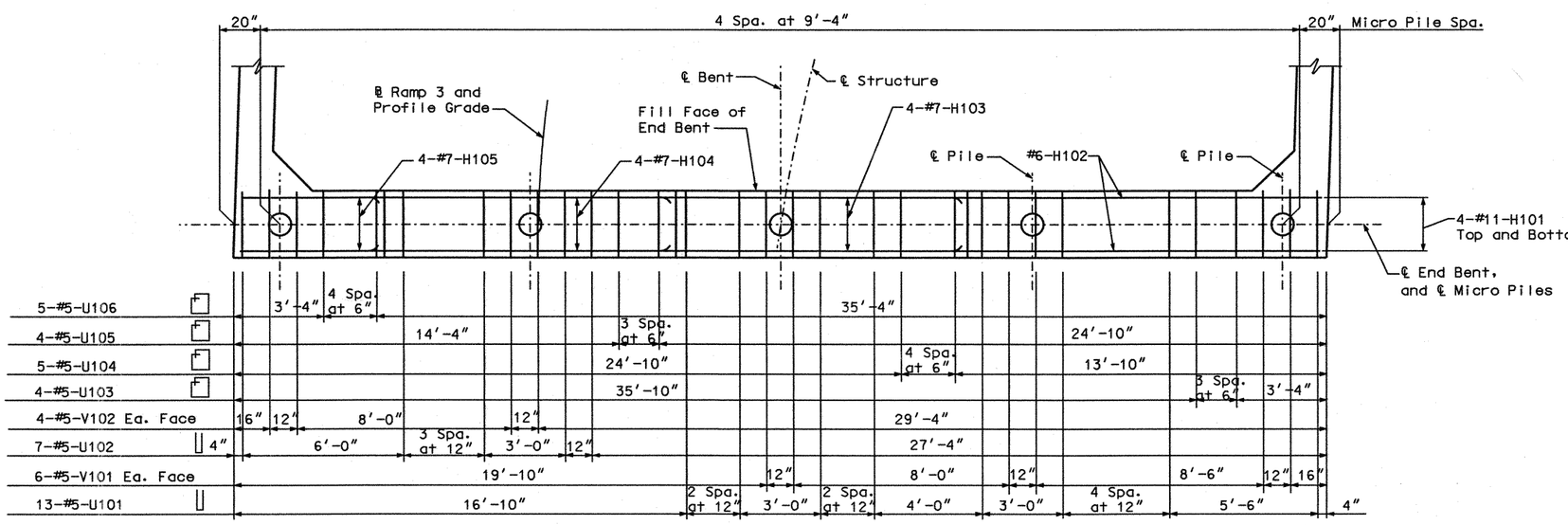
DETAILED: GJD JUNE 2005
CHECKED: JEF DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

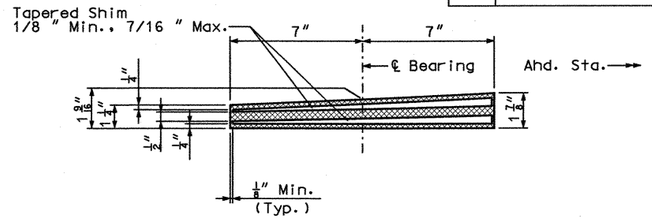
STATE	PROJ. NO.	SHEET NO.
MO		B11



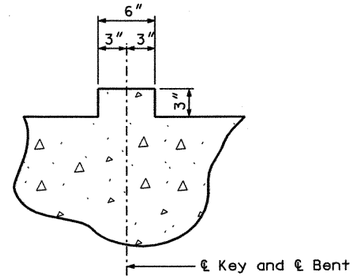
PLAN OF BEAM SHOWING DIMENSIONS



PLAN OF BEAM SHOWING REINFORCEMENT



DETAIL OF LAMINATED NEOPRENE BEARING AT END BENT NO. 1



TYPICAL SECTION THRU KEY AT END BENT

Substructure Quantity Table for End Bent No. 1

Item		Quantity
Micro Piles (9.625 in.)	each	5
Loading Tests	each	1
Class B Concrete (Substructure)	cu. yard	28.7

Note: These quantities are included in the Estimated Quantities Table on Sheet No. 5.

Notes:

For reinforcement of Safety Barrier Curb, see Sheet No. 67.

For details of End Bent No. 1 not shown, see Sheet Nos. 12 thru 14.

For details of Approach Slab, see Sheet No. 70.

For details of Vertical Drain at End Bent, see Sheet No. 34.

All Vertical reinforcement bars in the substructure beams or caps shall be field adjusted to clear piles by at least 1 1/2".

For Micro Pile Details, see Sheet No. 33.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF END BENT NO. 1

DETAILED: EAK SEP. 2005
CHECKED: SEM DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 11 OF 77

GREENE COUNTY

A7024

REV.

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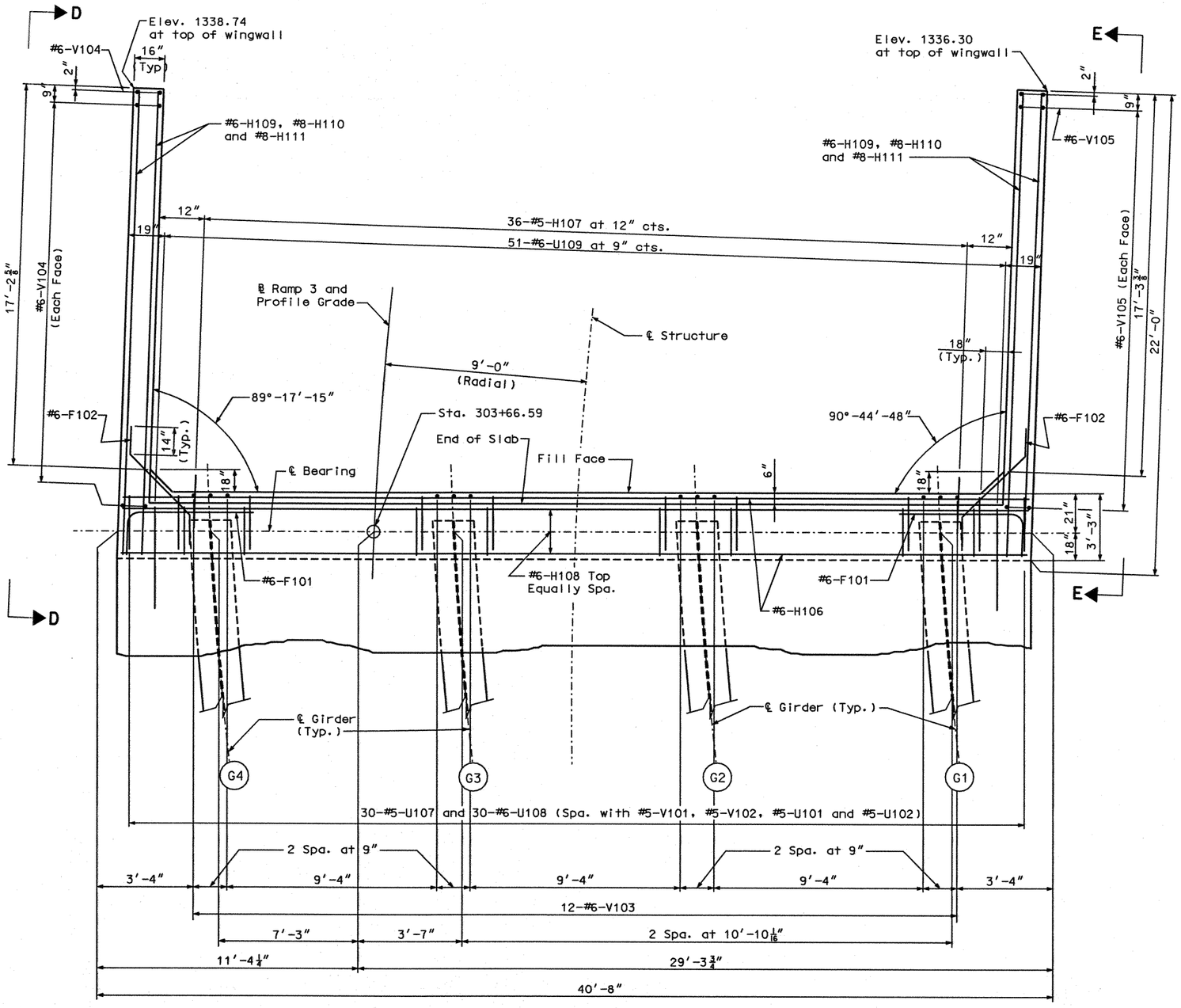
STATE	PROJ. NO.	SHEET NO.
MO		B1Z



PART PLAN

Notes:

For details of End Bent No. 1 not shown, see Sheet Nos. 11, 13 and 14.

For details of Approach Slab, see Sheet No. 70.

For details of Vertical Drain at End Bent, see Sheet No. 34.

Reinforcing in the end bent shall be placed parallel to ℄ Ramp 3.

For Elevations D-D and E-E, see Sheet No. 14.

Bend F102 Bars in field to clear Girder.

Concrete Diaphragms at the Intergral End Bents shall be poured a minimum of 12 hours before the Slab is poured.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/1/06

DETAILS OF END BENT NO. 1

DETAILED: EAK JULY 2005
CHECKED: SEM NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 12 OF 77

GREENE COUNTY

A7024

REV.

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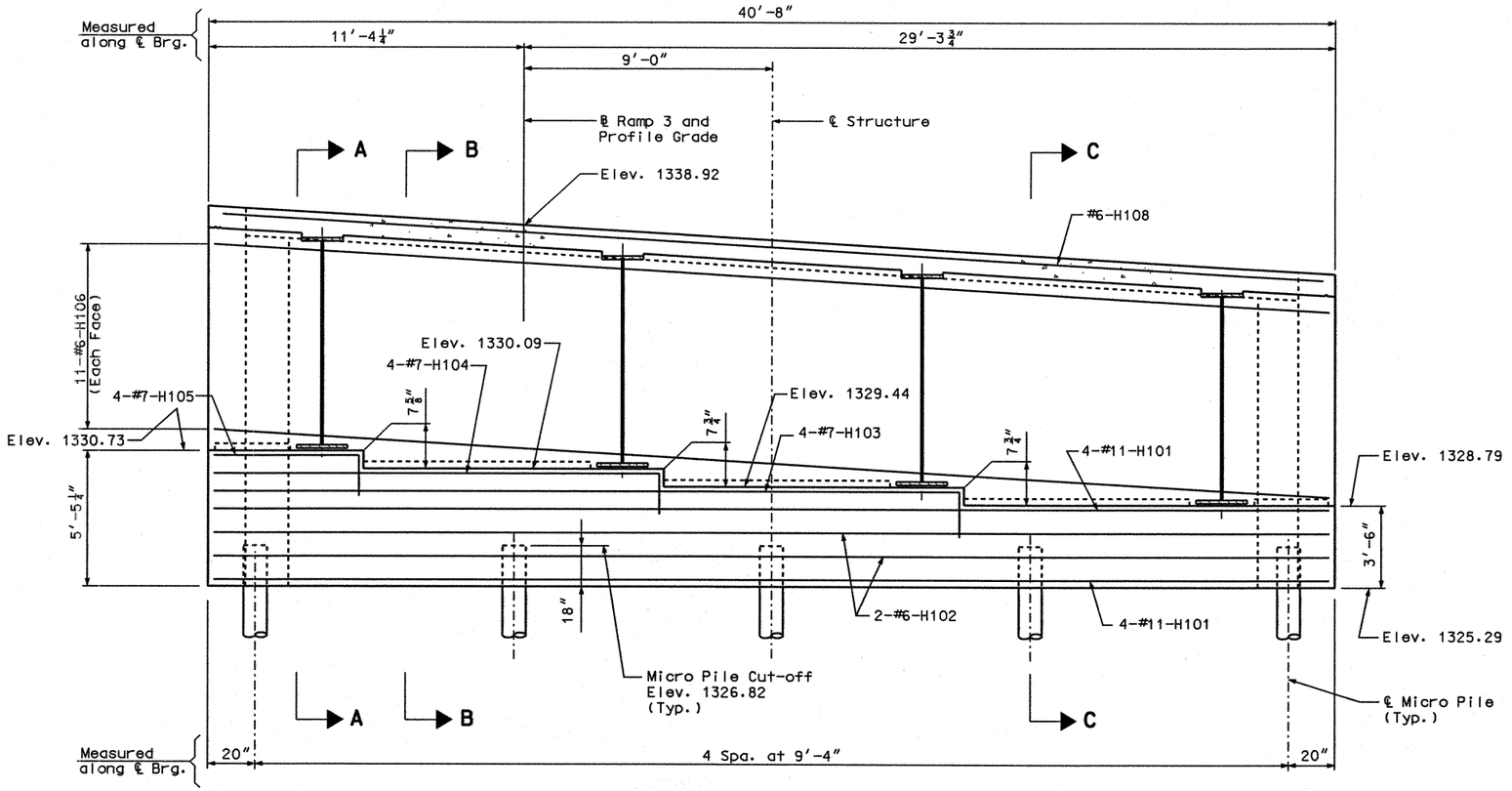
STATE	PROJ. NO.	SHEET NO.
MO		B13



SECTION NEAR END BENT

Elevations at top of slab are at end of Slab.

Notes:

For details of End Bent No. 1 not shown, see Sheet Nos. 11, 12 and 14.

For details of Approach Slab, see Sheet No. 70.

For details of Vertical Drain at End Bent, see Sheet No. 34.

All concrete in the End Bent above the top of Beam and below top of Slab shall be Class B-2.

Concrete Diaphragms at Integral End Bents shall be poured a minimum of 12 hours before the Slab is poured.

Reinforcing in the end bent shall be placed parallel to ℄ Ramp 3.

For Micro Pile Details, see Sheet No. 33.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26558
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF END BENT NO. 1

DETAILED: GJD/EAK JULY 2005
CHECKED: JEF DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 13 OF 77

GREENE COUNTY

A7024

REV.

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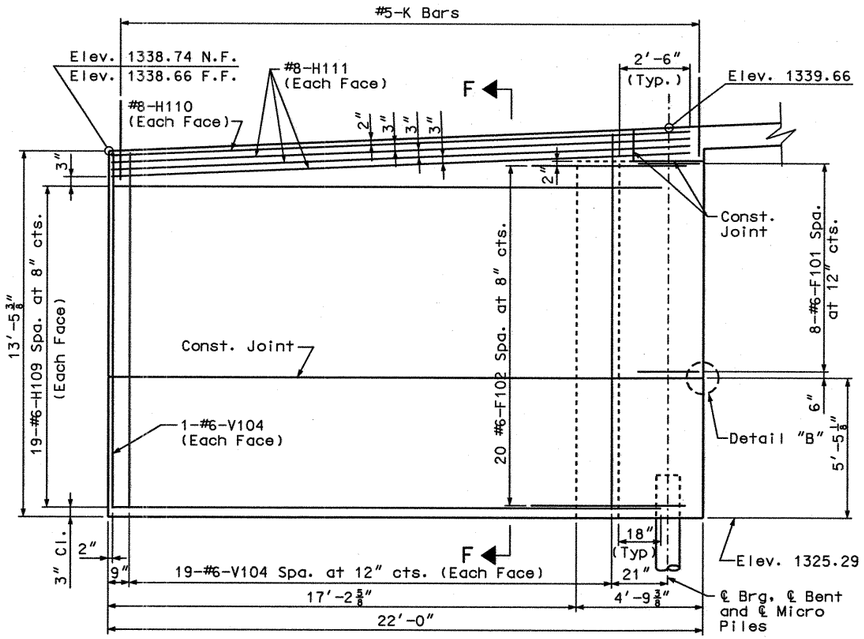
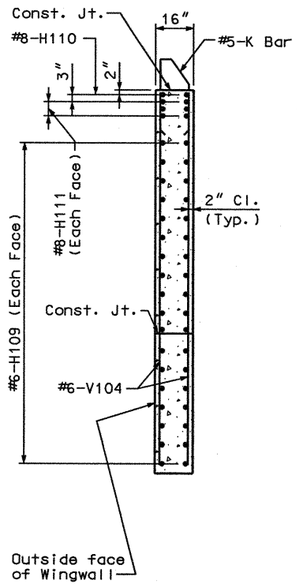
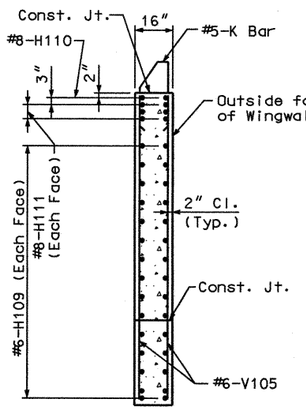
STATE	PROJ. NO.	SHEET NO.
MO		B14



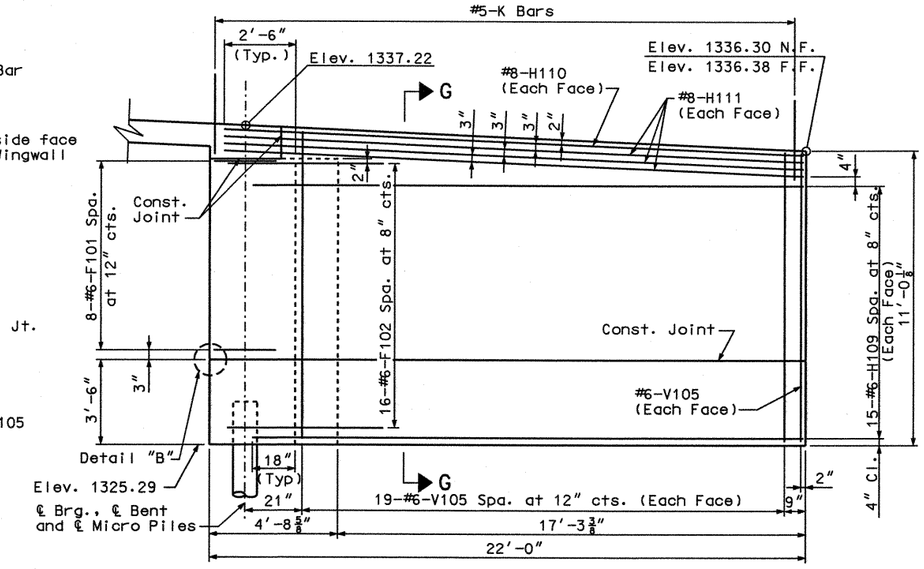
ELEVATION D-D



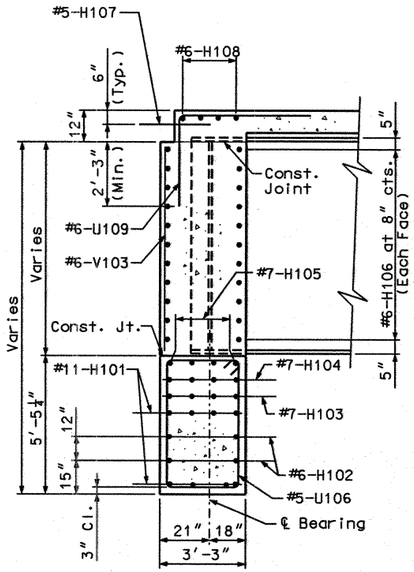
SECTION F-F



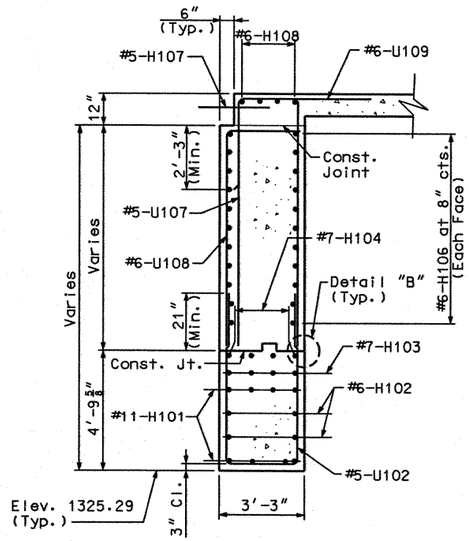
SECTION G-G



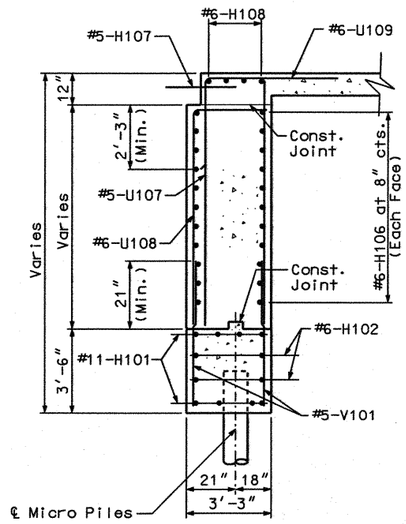
ELEVATION E-E



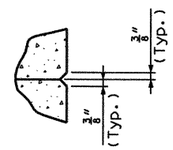
SECTION A-A



SECTION B-B



SECTION C-C



DETAIL "B"

Notes:

For location of Elevation D-D and E-E, see Sheet No. 12.

For reinforcement of safety barrier curb, see Sheet No. 67.

For locations of Sections A-A, B-B and C-C see Sheet No. 13.

For details of End Bent No. 1 not shown, see Sheet Nos. 11 thru 13.

For Micro Pile Details, see Sheet No. 33.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26558
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF END BENT NO. 1

DETAILED: EAK SEP. 2005
CHECKED: SEM NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 14 OF 77

GREENE COUNTY

A7024

REV.

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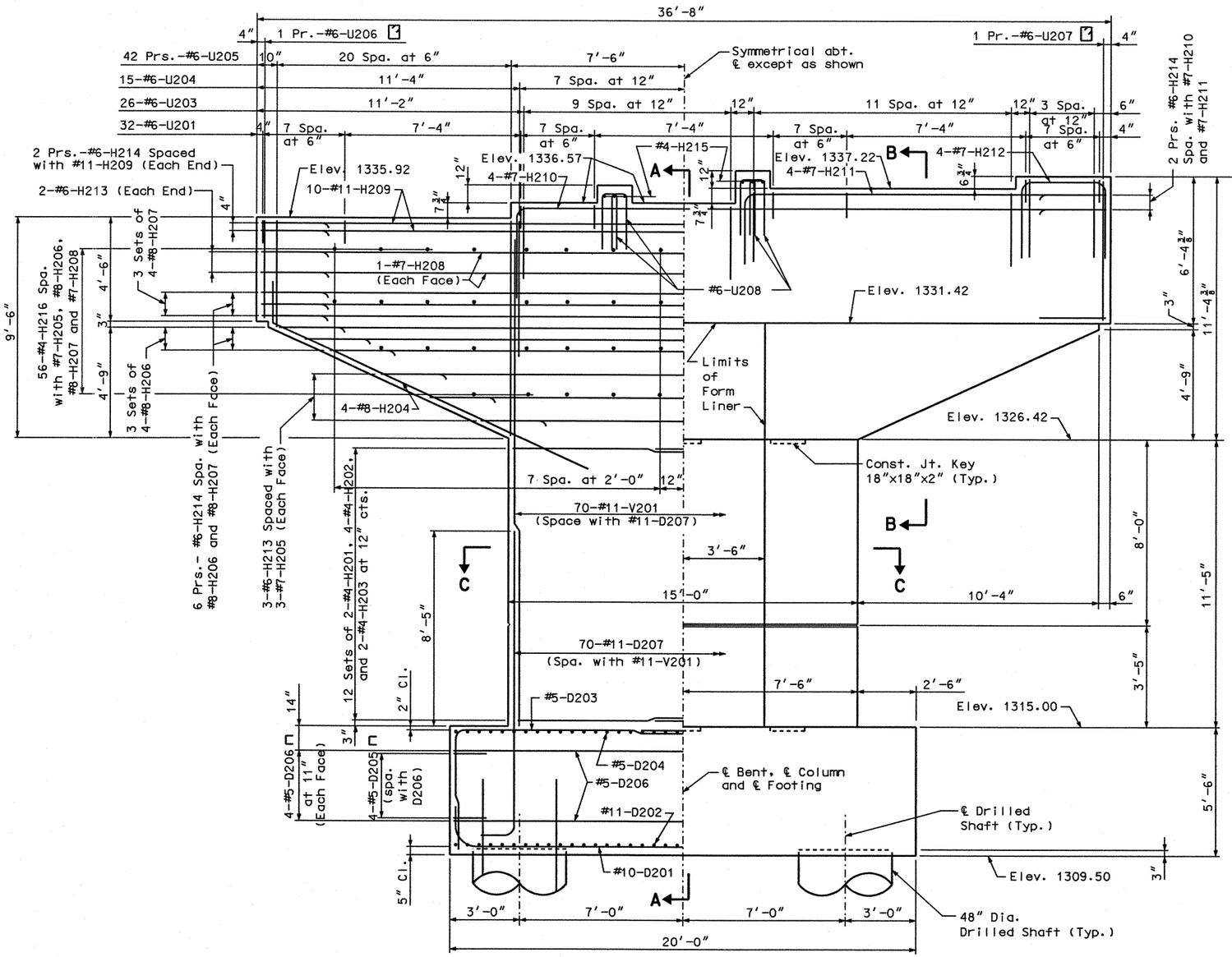
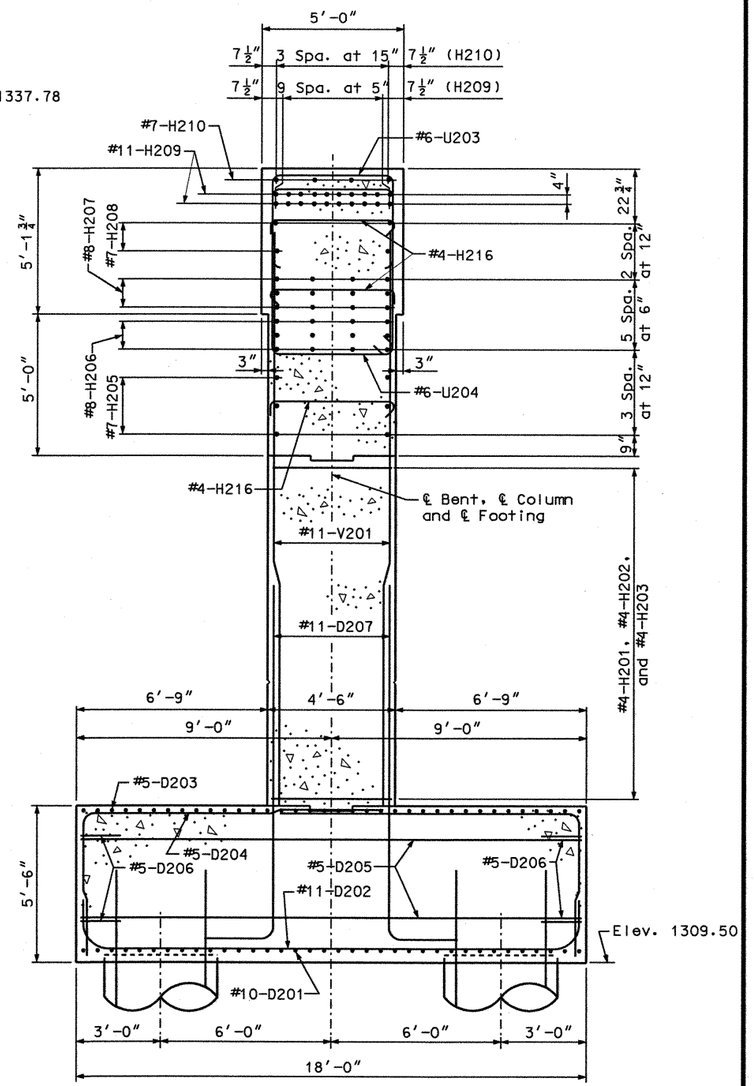
10:40 25-JAN-2006

STATE	PROJ. NO.	SHEET NO.
MO		B15



ELEVATION



SECTION A-A

Notes:

For Sections B-B and C-C, see Sheet No. 16.

For Form Liner Details, see Sheet No. 33.

For Footing Plan, see Sheet No. 16.

For Details of Laminated Neoprene Bearing Pad, see Sheet No. 35.

For Details of Drilled Shafts, see Sheet No. 32.

Substructure Quantity Table for Intermediate Bent No. 2

Item		Quantity
Class 1 Excavation	cu. yard	140
Drilled Shafts (4 ft. 0 in. Dia.)	linear foot	64.2
Rock Sockets (3 ft. 6 in. Dia.)	linear foot	64
Supplemental Television Camera Inspection	each	4
Foundation Inspection Holes	linear foot	104
Concrete Coring	linear foot	32
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	159.5
Form Liner	sq. yard	26
Reinforcing Steel (Bridges)	pound	49,680

Note:
These quantities are included in the Estimated Quantities Table on Sheet No. 5.

REGISTERED STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 PROFESSIONAL ENGINEER 1/26/06

DETAILED: SEM JULY 2005
CHECKED: BCK DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

DETAILS OF INTERMEDIATE BENT NO. 2

SHEET NO. 15 OF 77

GREENE COUNTY

A7024

REV.

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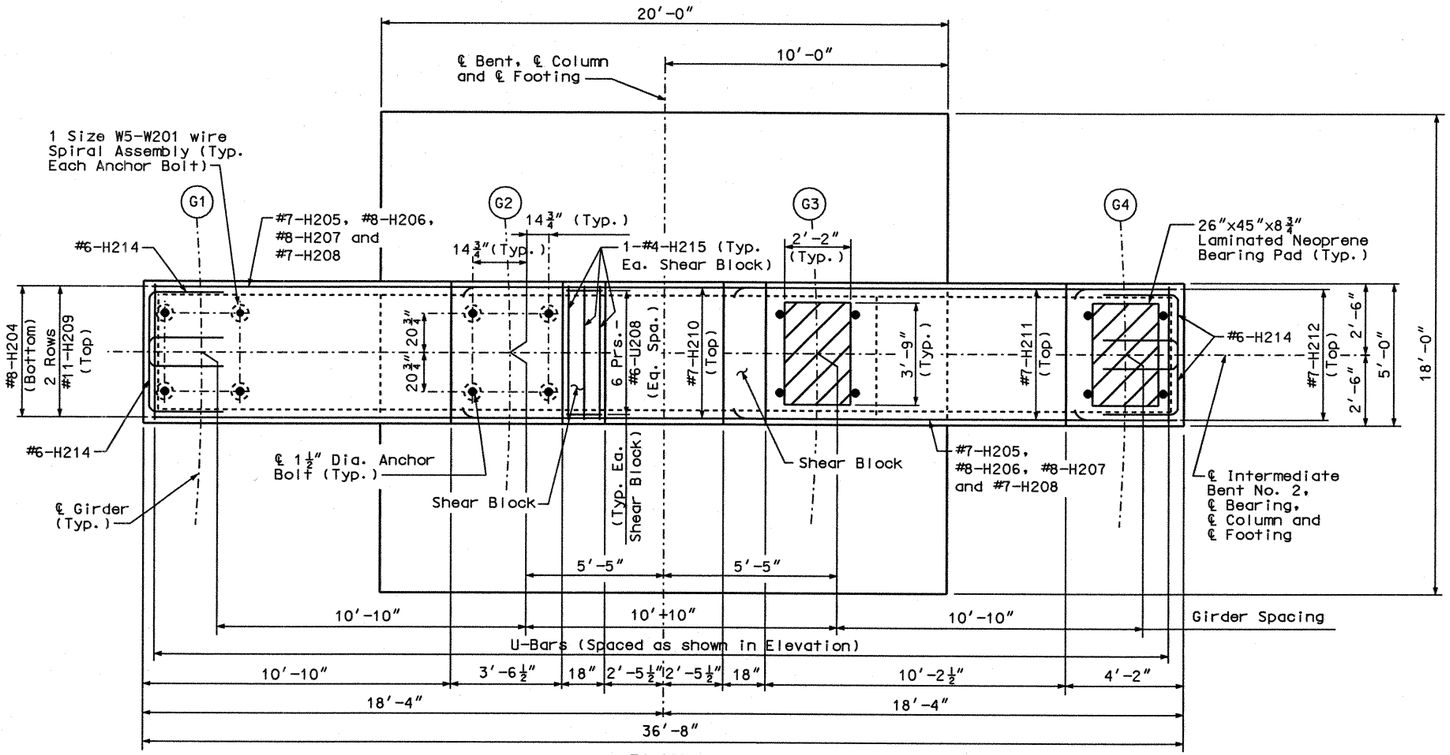
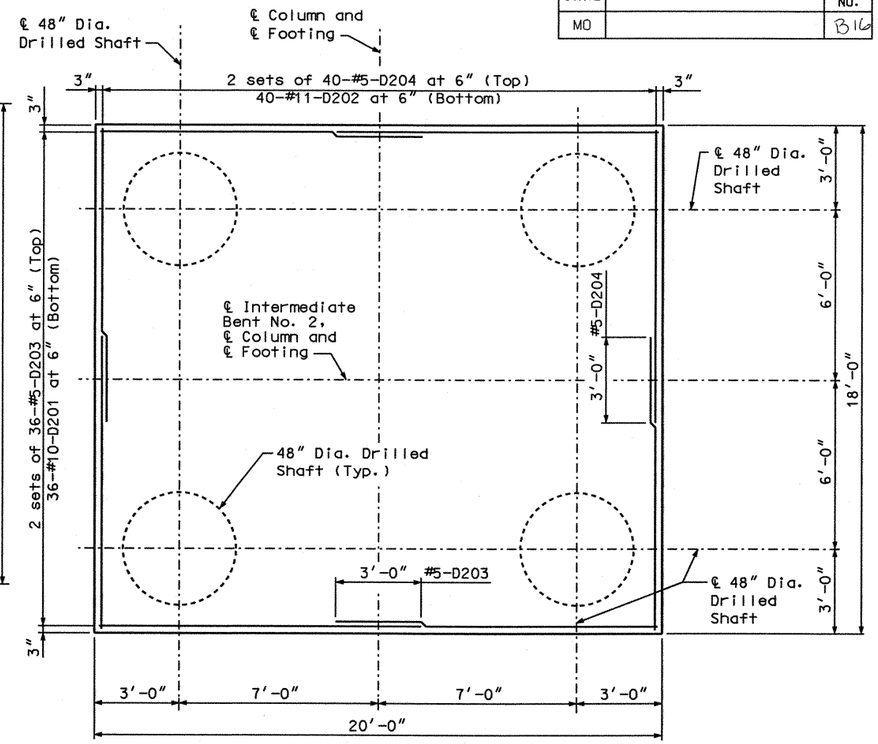
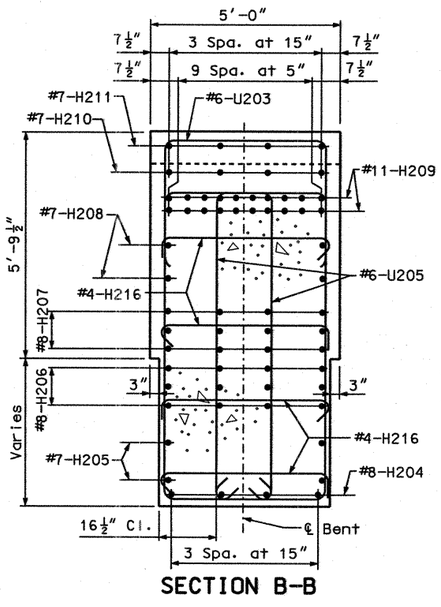
STATE	PROJ. NO.	SHEET NO.
MO		B16



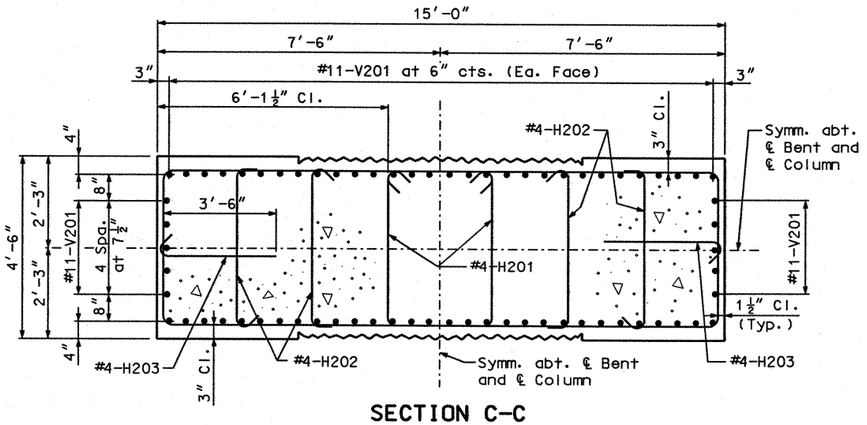
PLAN



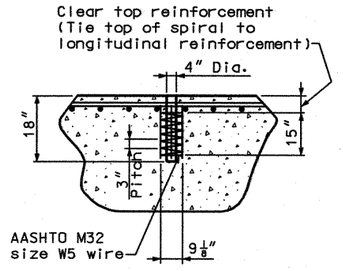
PLAN OF FOOTING
SHOWING DRILLED SHAFTS AND REINFORCEMENT



SECTION B-B



SECTION C-C



DETAIL OF
ANCHOR BOLT WELLS

Notes:

For location of Sections B-B and C-C, see Sheet No. 15.

For Details of Drilled Shafts, see Sheet No. 32.

All reinforcing bars in the tops of substructure beams or cap shall be spaced to clear anchor bolt wells for bearings by at least 1/2".

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26589
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF INTERMEDIATE BENT NO. 2

DETAILED: SEM JULY 2005
CHECKED: BCK DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 16 OF 77

GREENE COUNTY

A7024

REV.

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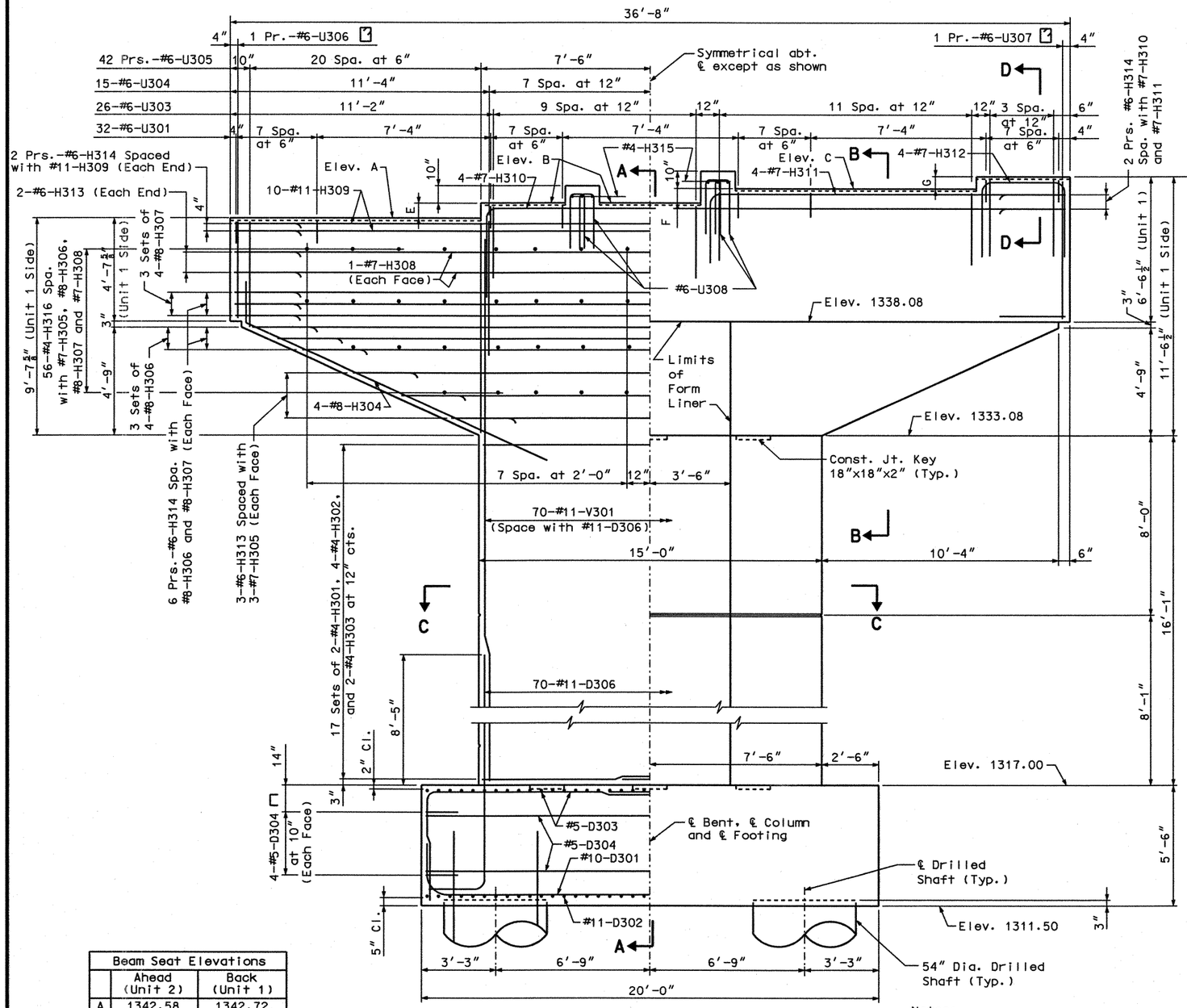
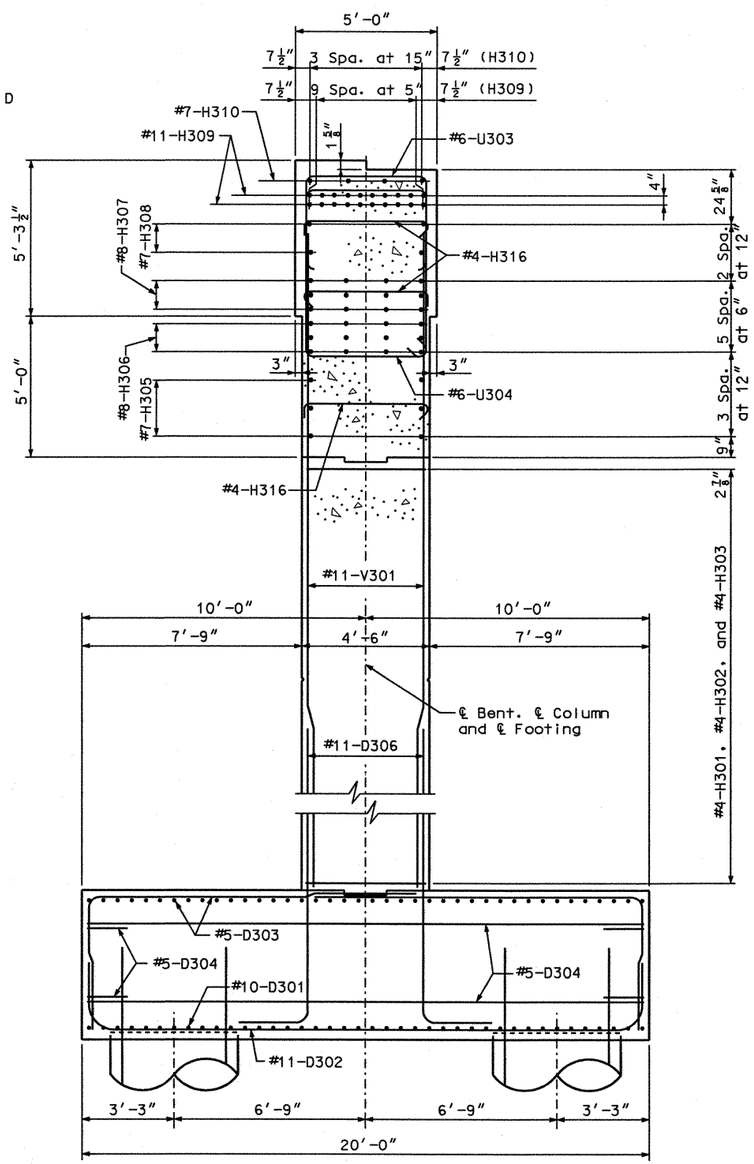
10:43 25-JAN-2006

STATE	PROJ. NO.	SHEET NO.
MO		B17





Beam Seat Elevations		
	Ahead (Unit 2)	Back (Unit 1)
A	1342.58	1342.72
B	1343.23	1343.37
C	1343.79	1344.02
D	1344.36	1344.62
Dimensions		
E	7¾″	7¾″
F	6¾″	7¾″
G	6⅞″	7¼″

ELEVATION

Note:

Slope beam cap to drain between bearings.
See Sheet No. 5 for limits of Protective Coating.

Notes:

For Sections B-B, C-C and D-D, see Sheet No. 18.

For Details of Laminated Neoprene Bearing Pad, see Sheet No. 36.

For Form Liner Details, see Sheet No. 33.

For Plan of Footing, see Sheet No. 18.

For Plan of Beam showing Bearings and reinforcing and details of Bearing pads, see sheet No. 18.

For Details of Drilled Shafts, see Sheet No. 32.

SECTION A-A

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-29588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: EAK SEP. 2005
CHECKED: BCK DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

DETAILS OF INTERMEDIATE BENT NO. 3

SHEET NO. 17 OF 77

GREENE COUNTY

A7024

REV.

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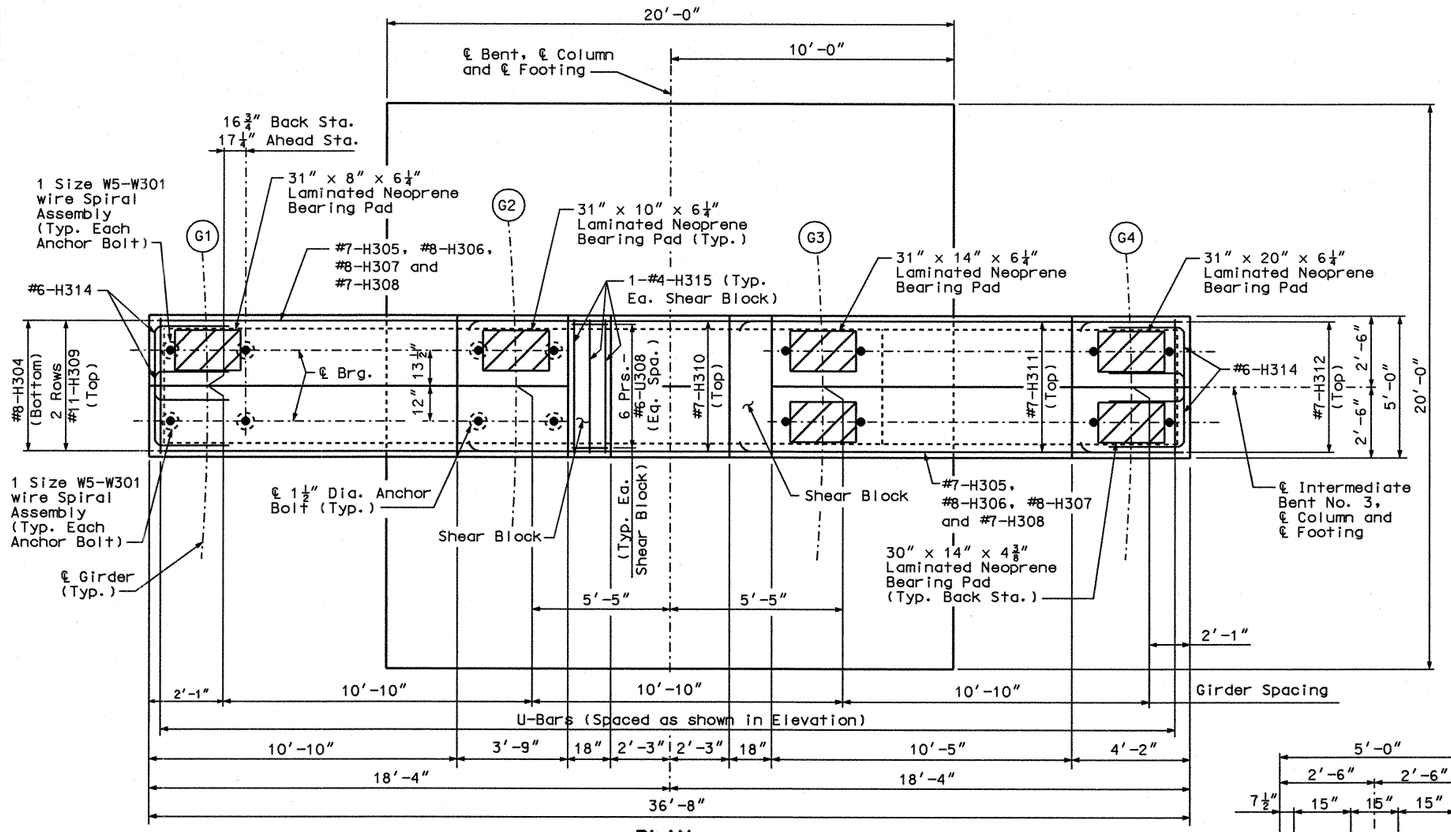
15:33 26-JAN-2006

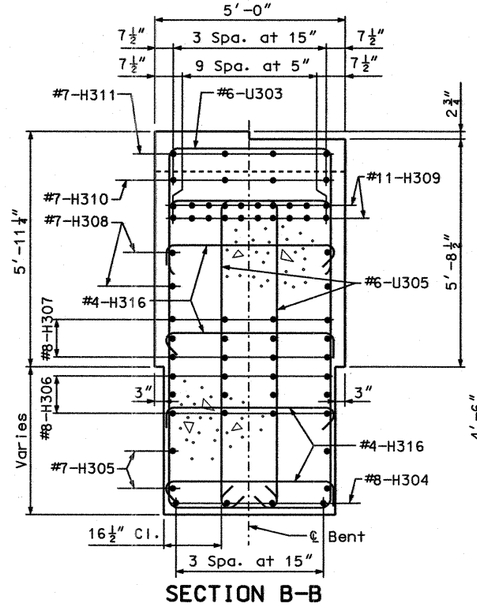
STATE	PROJ. NO.	SHEET NO.
MO		318



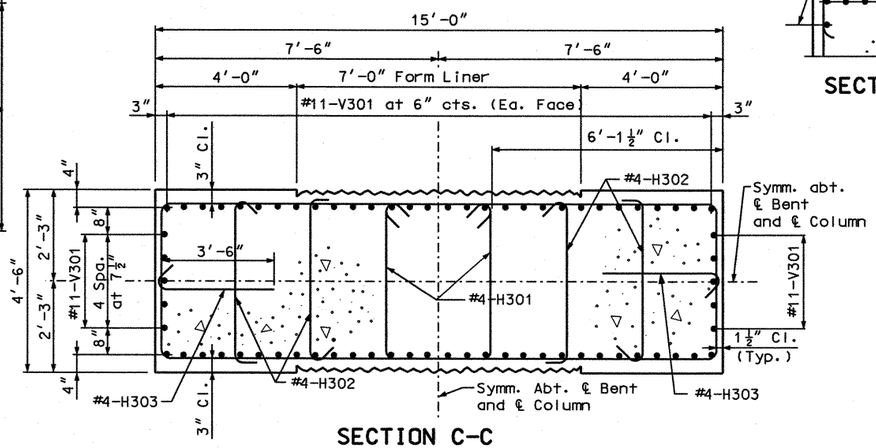
PLAN

Note:

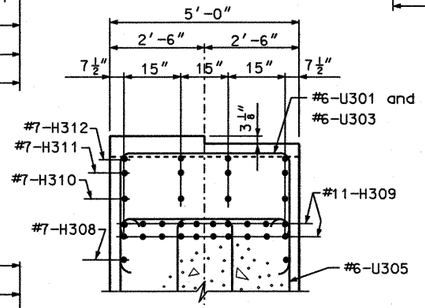
Slope beam cap to drain between bearings.
See Sheet No. 5 for limits of Protective Coating.



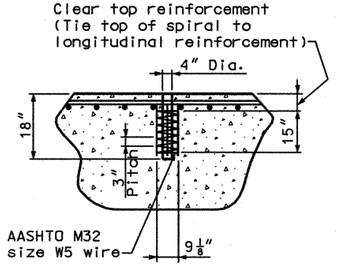
SECTION B-B



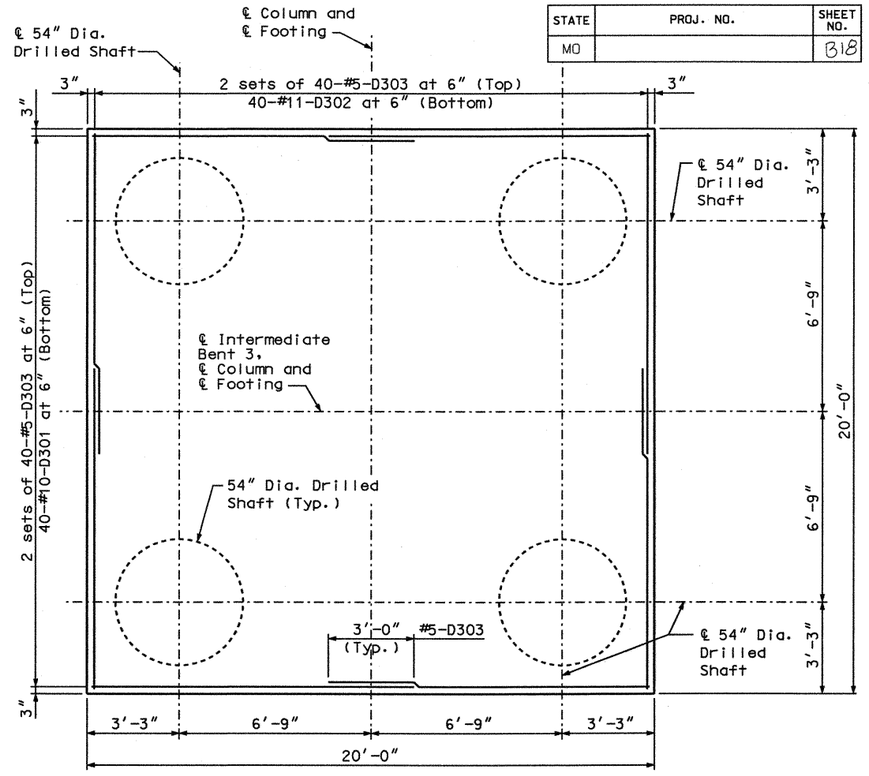
SECTION C-C



SECTION D-D



DETAIL OF ANCHOR BOLT WELLS



PLAN OF FOOTING
SHOWING DRILLED SHAFTS AND REINFORCEMENT

Substructure Quantity Table for Intermediate Bent No. 3

Item		Quantity
Class 1 Excavation	cu. yard	200
Drilled Shafts (4 ft. 6 in. Dia.)	linear foot	82
Rock Sockets (4 ft. 0 in. Dia.)	linear foot	60
Supplemental Television Camera Inspection	each	4
Foundation Inspection Holes	linear foot	100
Concrete Coring	linear foot	36
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	179.1
Form Liner	sq. yard	33
Reinforcing Steel (Bridges)	pound	48,590
Reinforcing Steel (Epoxy Coated)	pound	11,360

Note: These quantities are included in the Estimated Quantities Table on Sheet No. 5.

Notes:

For location of Section B-B, Section C-C, and D-D see Sheet No. 17.

For Details of Drilled Shafts, see Sheet No. 32.

All reinforcing bars in the tops of substructure beams or cap shall be spaced to clear anchor bolt wells for bearings by at least 1/2".

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26598
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF INTERMEDIATE BENT NO. 3

DETAILED: EAK SEP. 2005
CHECKED: BCK DEC, 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 18 OF 77

GREENE COUNTY

A7024

REV.

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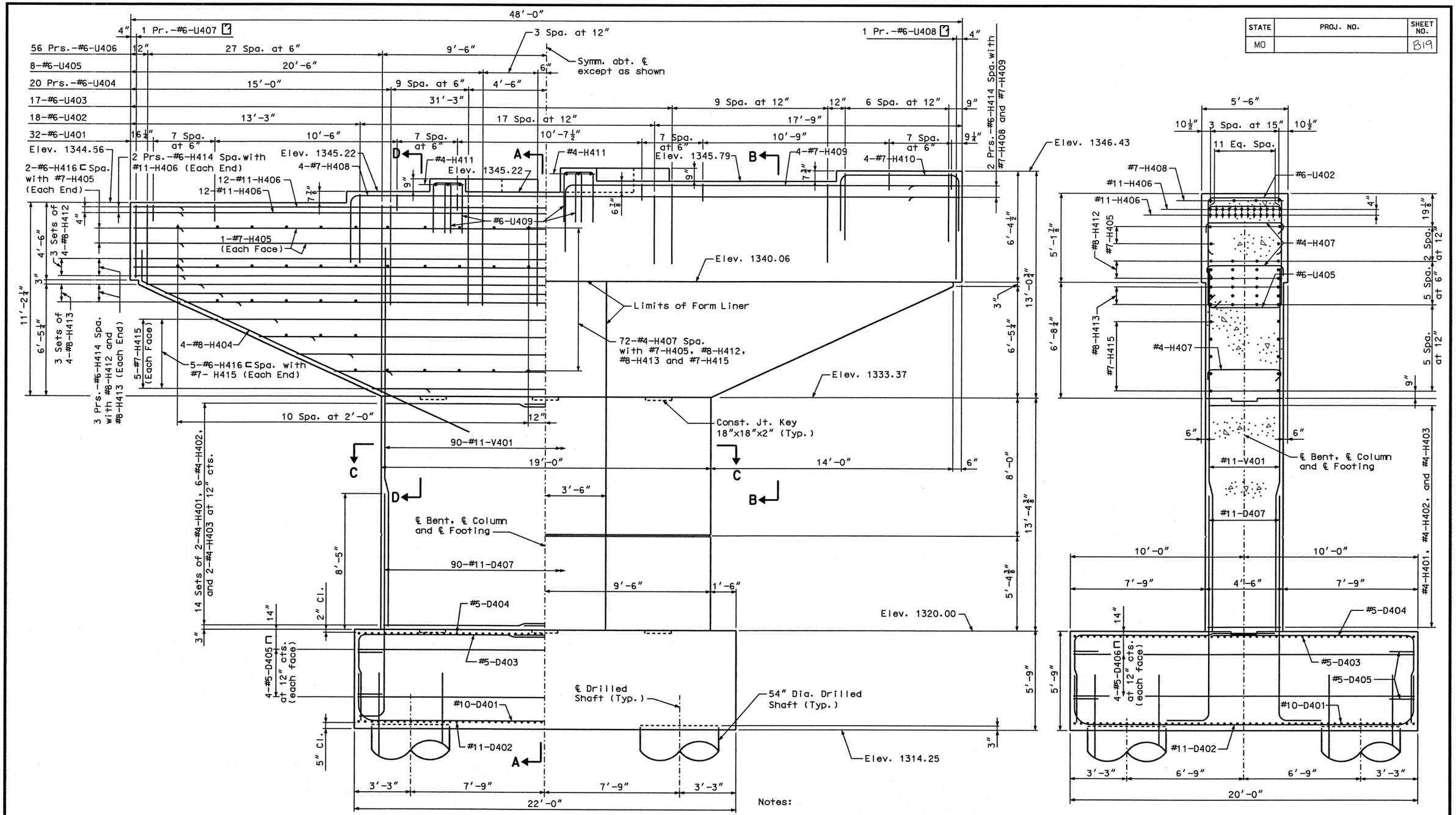
STATE	PROJ. NO.	SHEET NO.
MO		B19



ELEVATION

SECTION A-A

Notes:

For Sections B-B, C-C and D-D see Sheet No. 21.

For Form Liner Details, see Sheet No. 33.

For Plan of Footing, see Sheet No. 21.

For Details of Drilled Shafts, see Sheet No. 32.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 1/26/06

DETAILED: SEM NOV. 2005
CHECKED: GJD DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

DETAILS OF INTERMEDIATE BENT NO. 4

SHEET NO. 19 OF 77

GREENE COUNTY

A7024

REV.:

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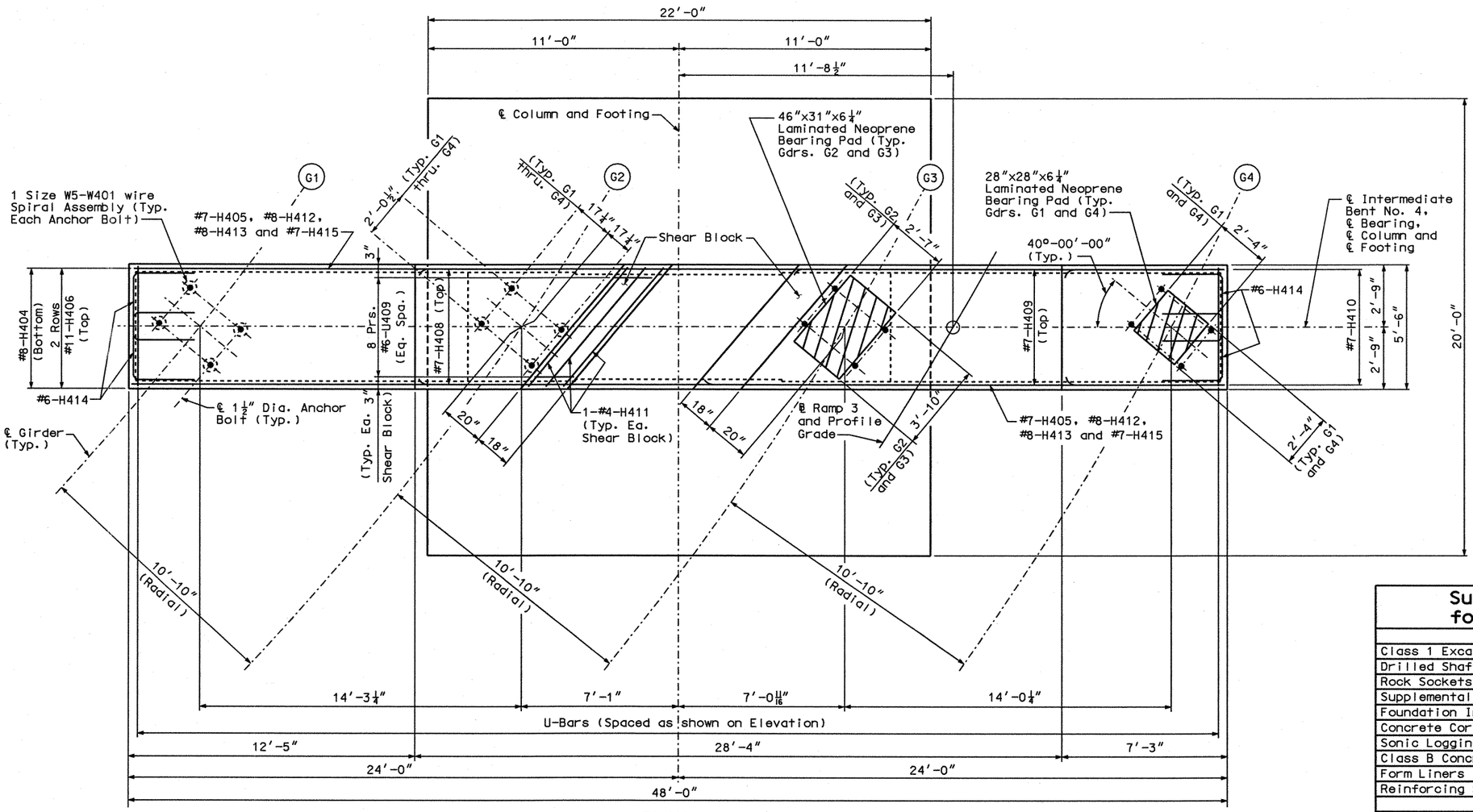
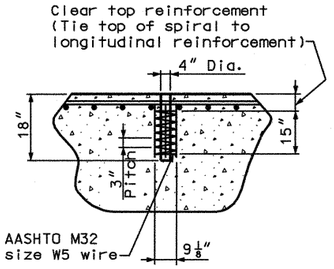
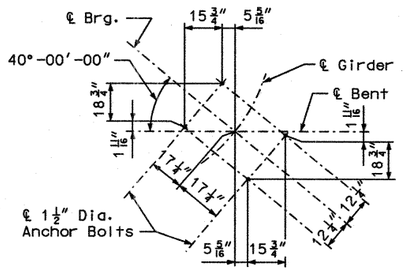
STATE	PROJ. NO.	SHEET NO.
MO		BZO



PLAN



DETAIL OF ANCHOR BOLT WELLS



ANCHOR BOLT LOCATION PLAN– GIRDERS G1 THRU G4

Substructure Quantity Table for Intermediate Bent No. 4

Item		Quantity
Class 1 Excavation	cu. yard	200
Drilled Shafts (4 ft. 6 in. Dia.)	linear foot	73
Rock Sockets (4 ft. 0 in. Dia.)	linear foot	72
Supplemental Television Camera Inspection	each	4
Foundation Inspection Holes	linear foot	112
Concrete Coring	linear foot	34.9
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	226
Form Liners	sq. yard	31
Reinforcing Steel (Bridges)	pound	72,930

Note: These quantities are included in the Estimated Quantities Table on Sheet No. 5.

Notes:

For details of Laminated Neoprene Bearing Pad, see Sheet No. 35.

For Form Liner Details, see Sheet No. 33.

All reinforcing in the top of substructure beam or caps shall be spaced to clear anchor bolt wells for bearings by at least 1/2".

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 1/26/06

DETAILED: SEM NOV. 2005
CHECKED: GJD DEC. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

DETAILS OF INTERMEDIATE BENT NO. 4

SHEET NO. 20 OF 77

GREENE COUNTY

A7024

REV.

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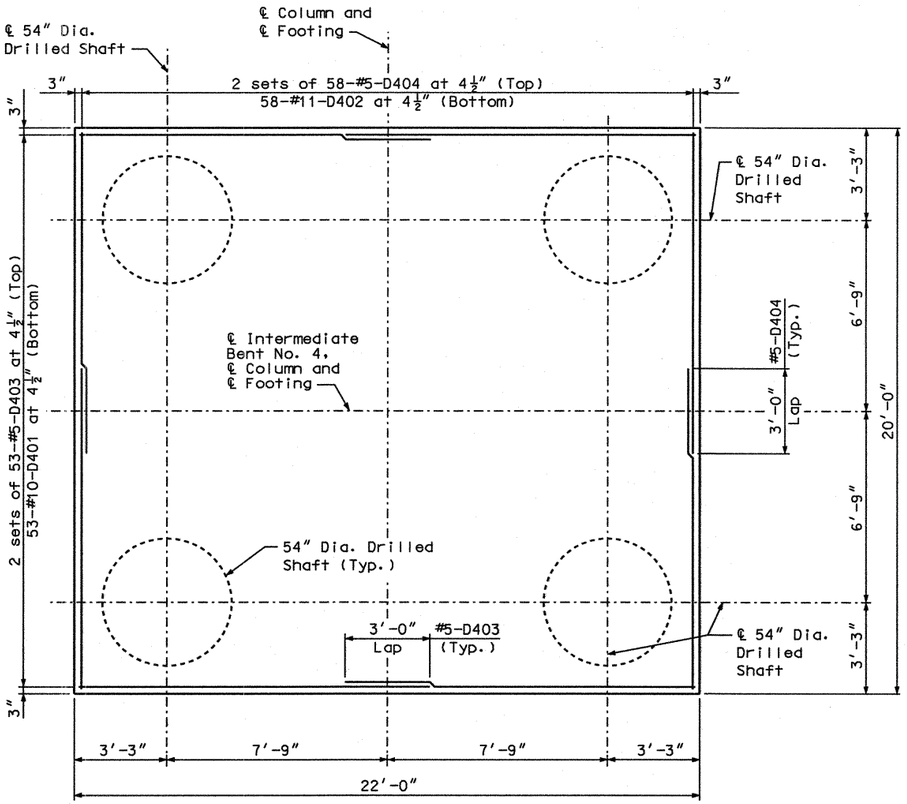
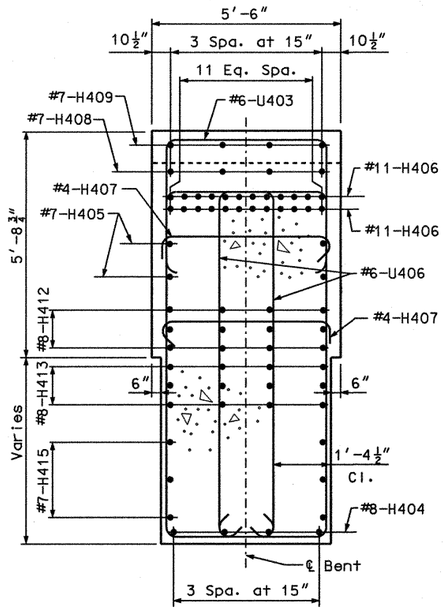
16:07 26-JAN-2006

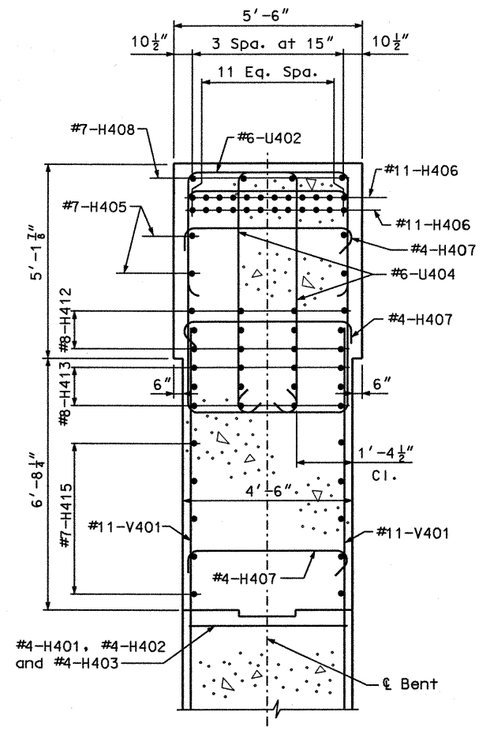
STATE	PROJ. NO.	SHEET NO.
MO		B21



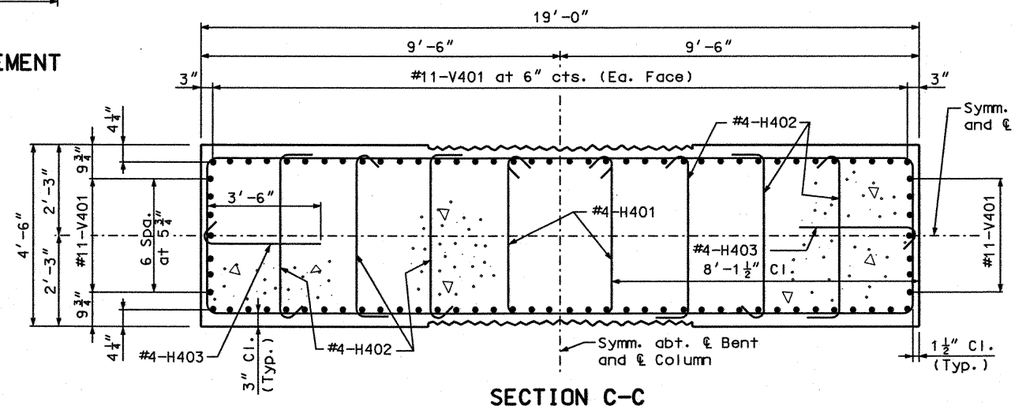
PLAN OF FOOTING
SHOWING DRILLED SHAFTS AND REINFORCEMENT



SECTION B-B



SECTION D-D



SECTION C-C

Notes:

For location of Sections B-B, C-C and D-D see Sheet No. 19.

For Details of Drilled Shafts, see Sheet No. 32.

STATE OF MISSOURI
NORM E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF INTERMEDIATE BENT NO. 4

DETAILED: SEM NOV. 2005
CHECKED: GJD DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 21 OF 77

GREENE COUNTY

A7024

REV.

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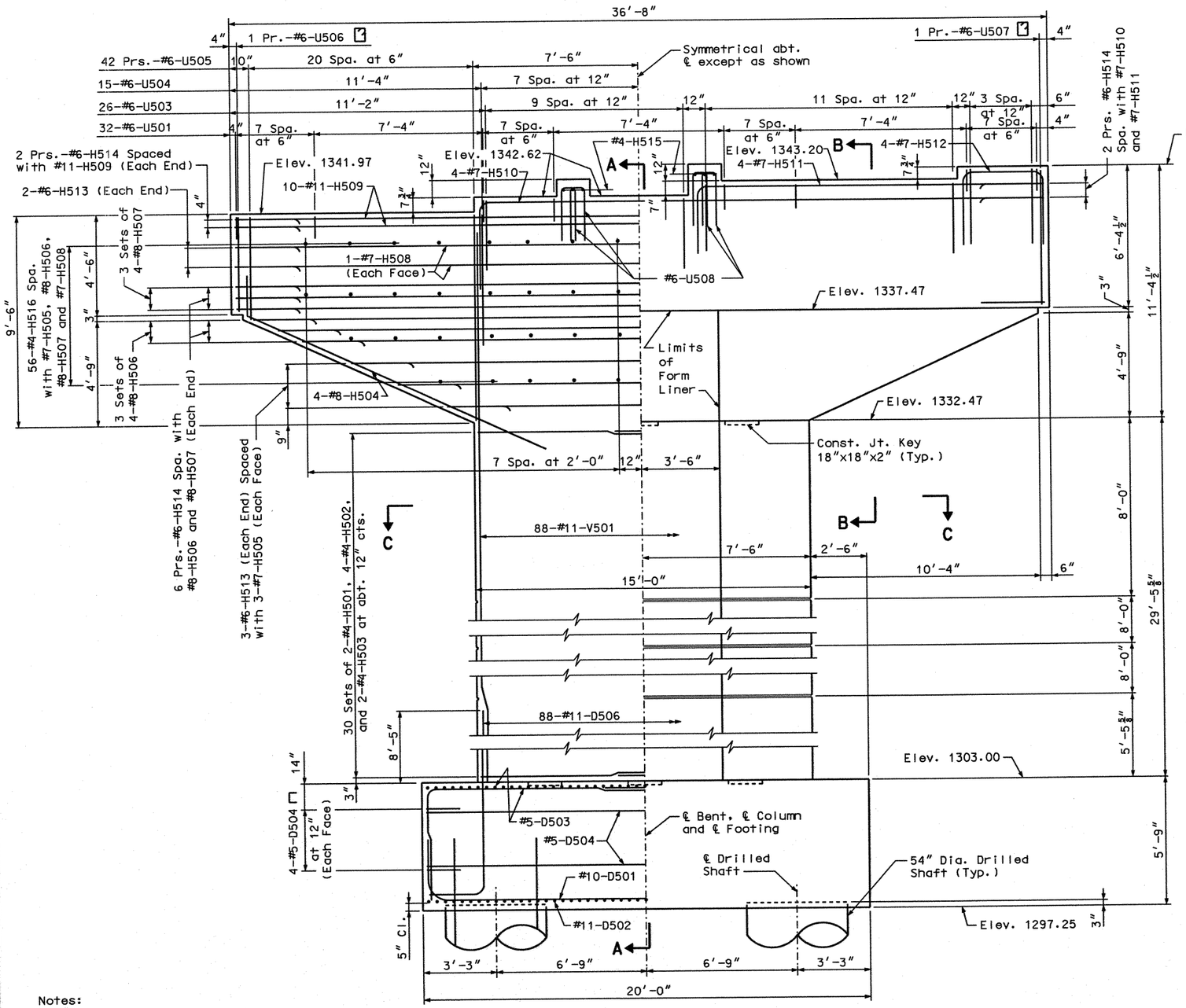
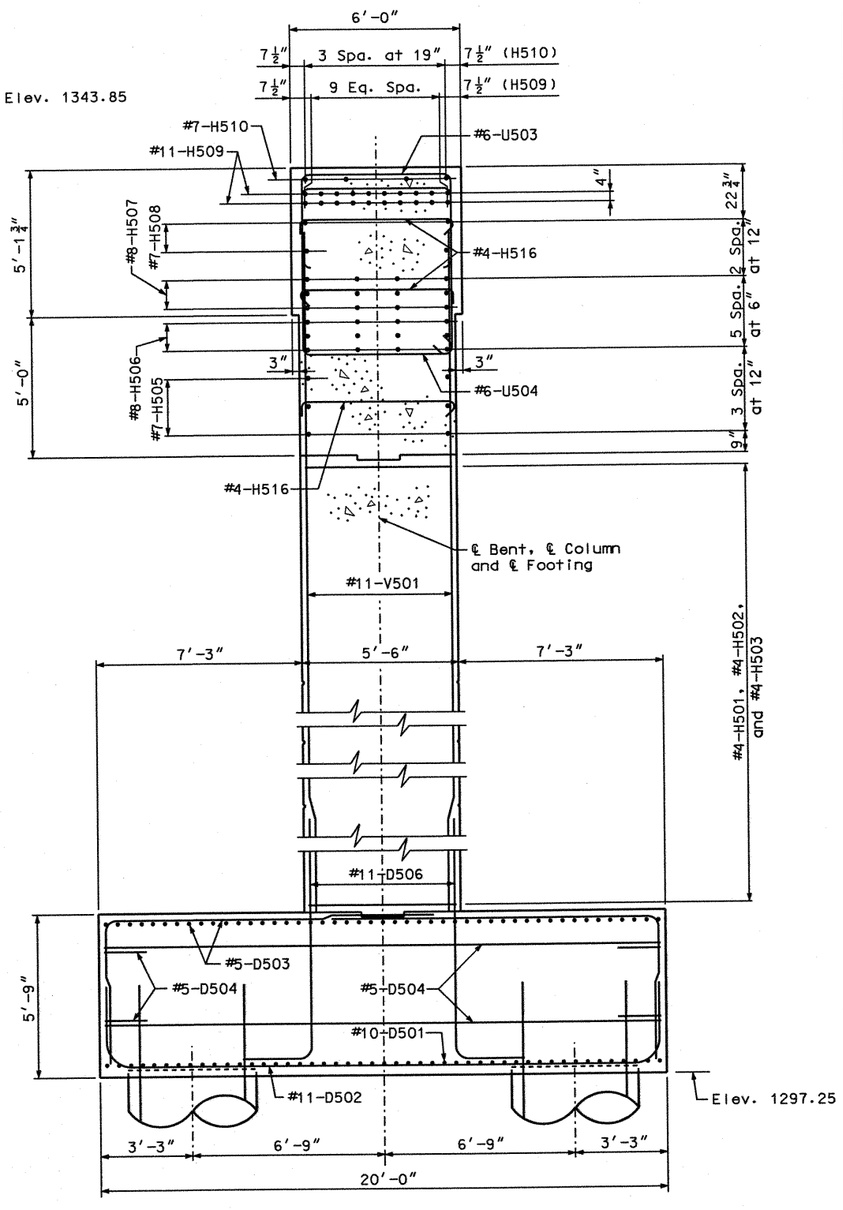
MO		B22



ELEVATION



SECTION A-A

Notes:

For Details of Laminated Neoprene Bearing Pad, see Sheet No. 35.

For Form Liner Details, see Sheet No. 33.

For Footing Plan, of see Sheet No. 23.

For Plan of Beam showing Bearings and Reinforcement, see Sheet 23.

For Details of Drilled Shafts, see Sheet No. 32.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 1/26/06

DETAILED: SEM JULY 2005
CHECKED: BCK DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

DETAILS OF INTERMEDIATE BENT NO. 5

SHEET NO. 22 OF 77

GREENE COUNTY

A7024

REV.

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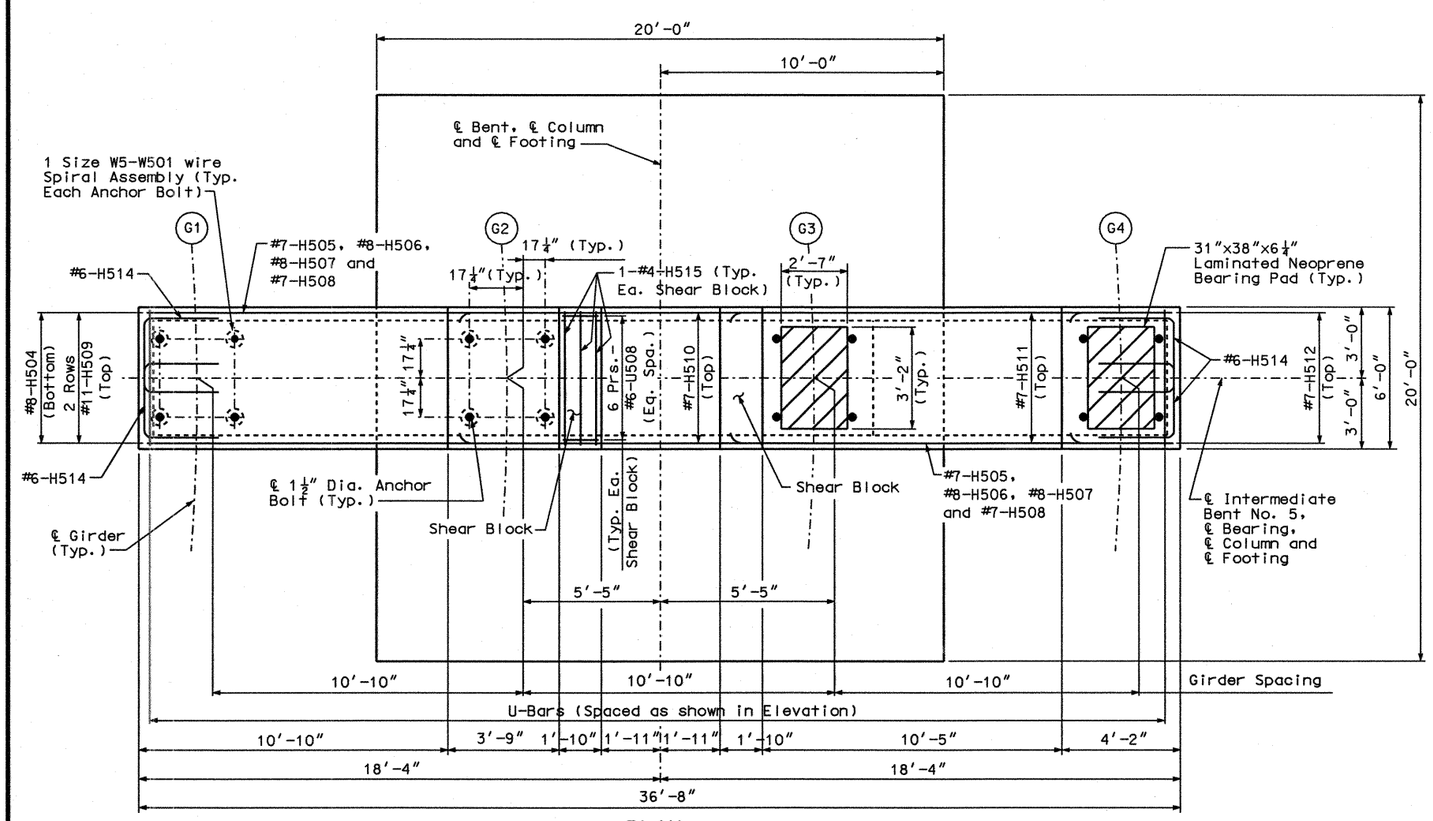
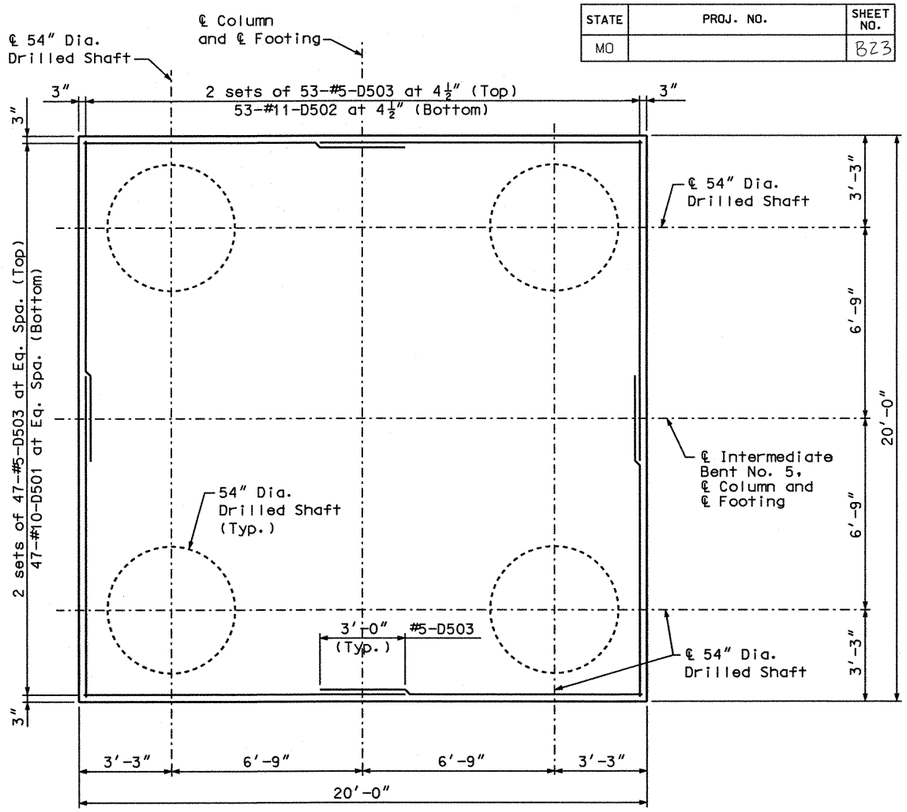
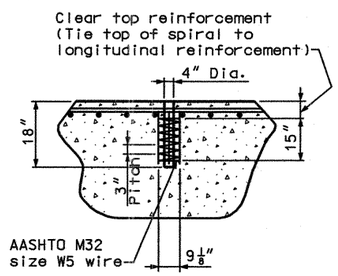
STATE	PROJ. NO.	SHEET NO.
MO		823



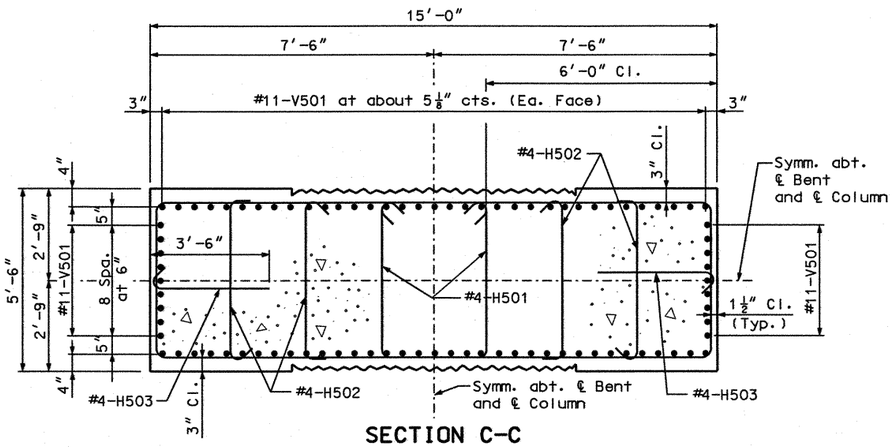
PLAN



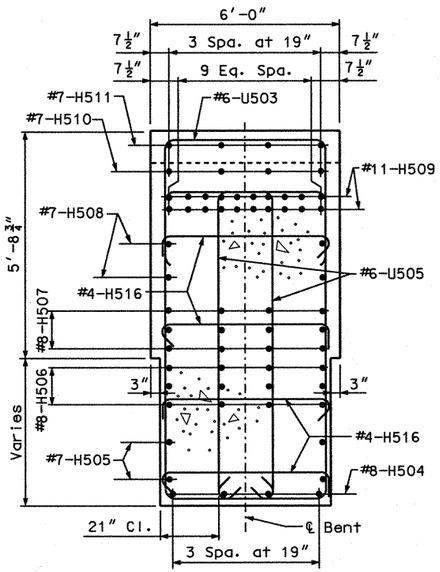
PLAN OF FOOTING
SHOWING DRILLED SHAFTS AND REINFORCEMENT



DETAIL OF
ANCHOR BOLT WELLS



SECTION C-C



SECTION B-B

Substructure Quantity Table for Intermediate Bent No. 5

Item		Quantity
Class 1 Excavation	cu. yard	185
Drilled Shafts (4 ft. 6 in. Dia.)	linear foot	140.4
Rock Sockets (4 ft. 0 in. Dia.)	linear foot	72
Supplemental Television Camera Inspection	each	4
Foundation Inspection Holes	linear foot	112
Concrete Coring	linear foot	53.8
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	244.7
Form Liner	sq. yard	54
Reinforcing Steel (Bridges)	pound	76,850

Note: These quantities are included in the Estimated Quantities Table on Sheet No. 5.

Notes:

For location of Sections B-B and C-C, see Sheet No. 22.

For Details of Drilled Shafts, see Sheet No. 32.

All reinforcing bars in the tops of substructure beams or caps shall be spaced to clear anchor bolt wells for bearings by at least 1/2".

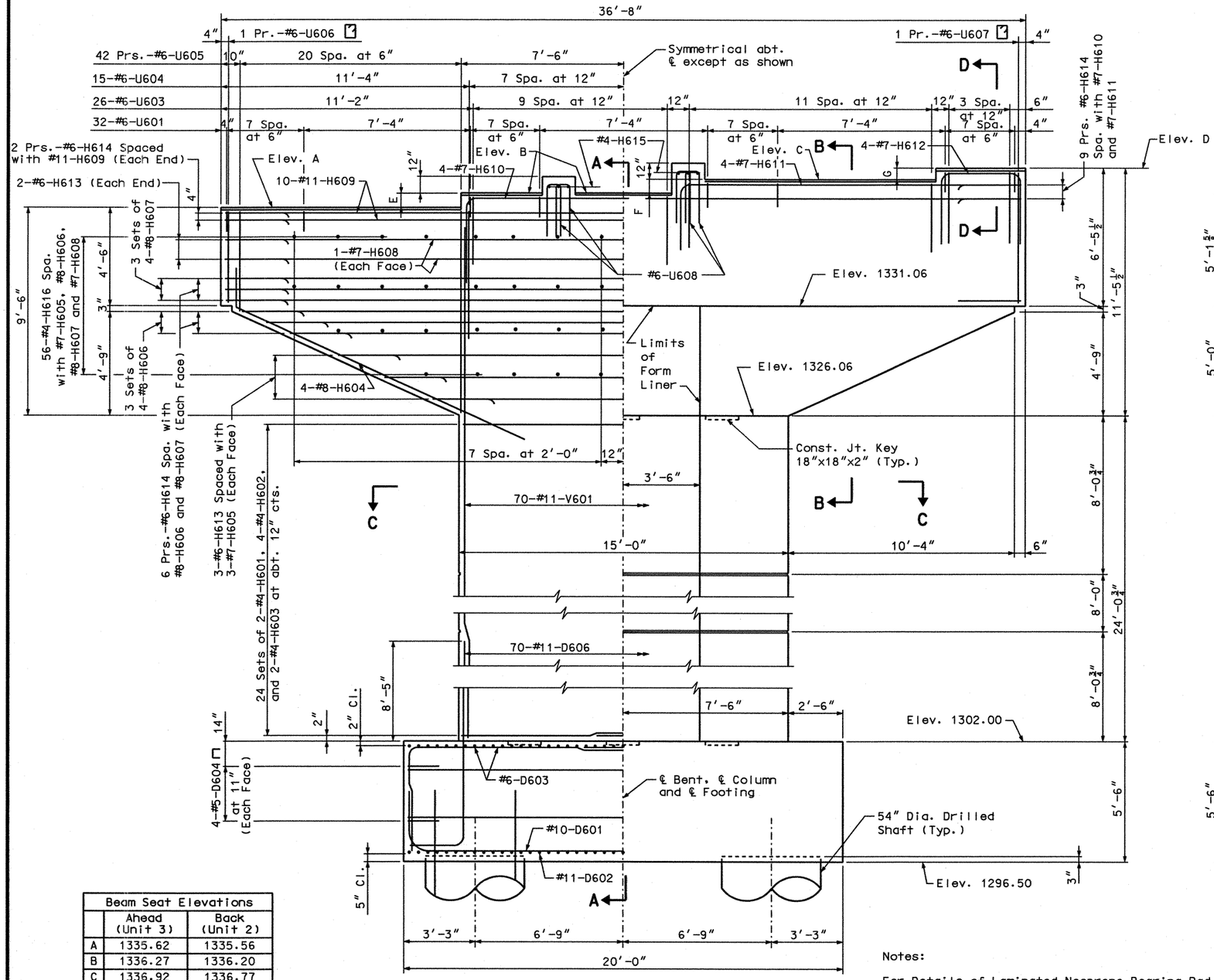
STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 1/26/06

DETAILS OF INTERMEDIATE BENT NO. 5

DETAILED: SEM JULY 2005
CHECKED: BCK DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

STATE	PROJ. NO.	SHEET NO.
MO		BZ4

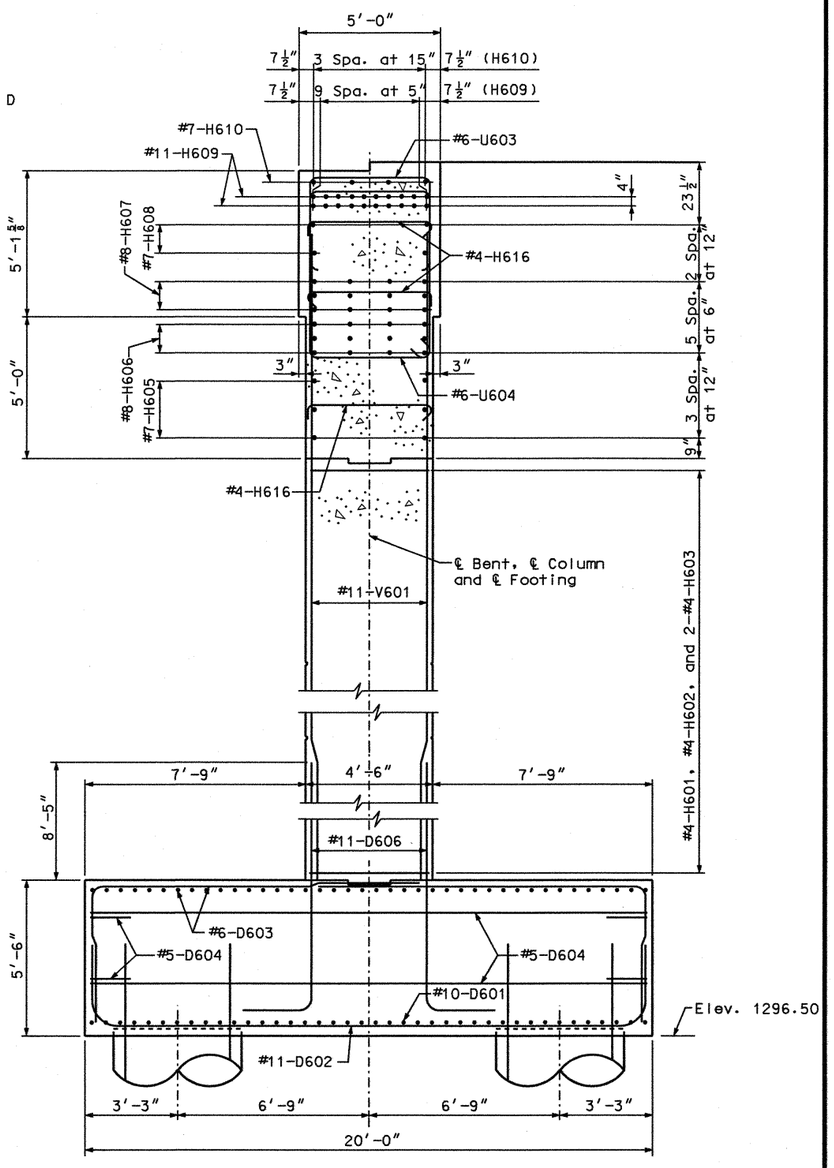


ELEVATION

Beam Seat Elevations		
	Ahead (Unit 3)	Back (Unit 2)
A	1335.62	1335.56
B	1336.27	1336.20
C	1336.92	1336.77
D	1337.52	1337.34
Dimensions		
E	7¾″	7⅝″
F	7¼″	6⅞″
G	7¼″	6⅞″

Note:

Slope beam cap to drain between bearings.
See Sheet No. 5 for limits of Protective Coating.



SECTION A-A

Notes:

For Details of Laminated Neoprene Bearing Pad, see Sheet No. 36.

For Form Liner Details, see Sheet No. 33.

For Plan of Footing, see Sheet No. 25.

For Plan of Beam showing Bearings and Reinforcing, and Sections B-B and C-C , see Sheet 25.

For Details of Drilled Shafts, see Sheet No. 32.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: EAK SEP. 2005
CHECKED: BCK DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

DETAILS OF INTERMEDIATE BENT NO. 6

SHEET NO. 24 OF 77

GREENE COUNTY

A7024

REV.

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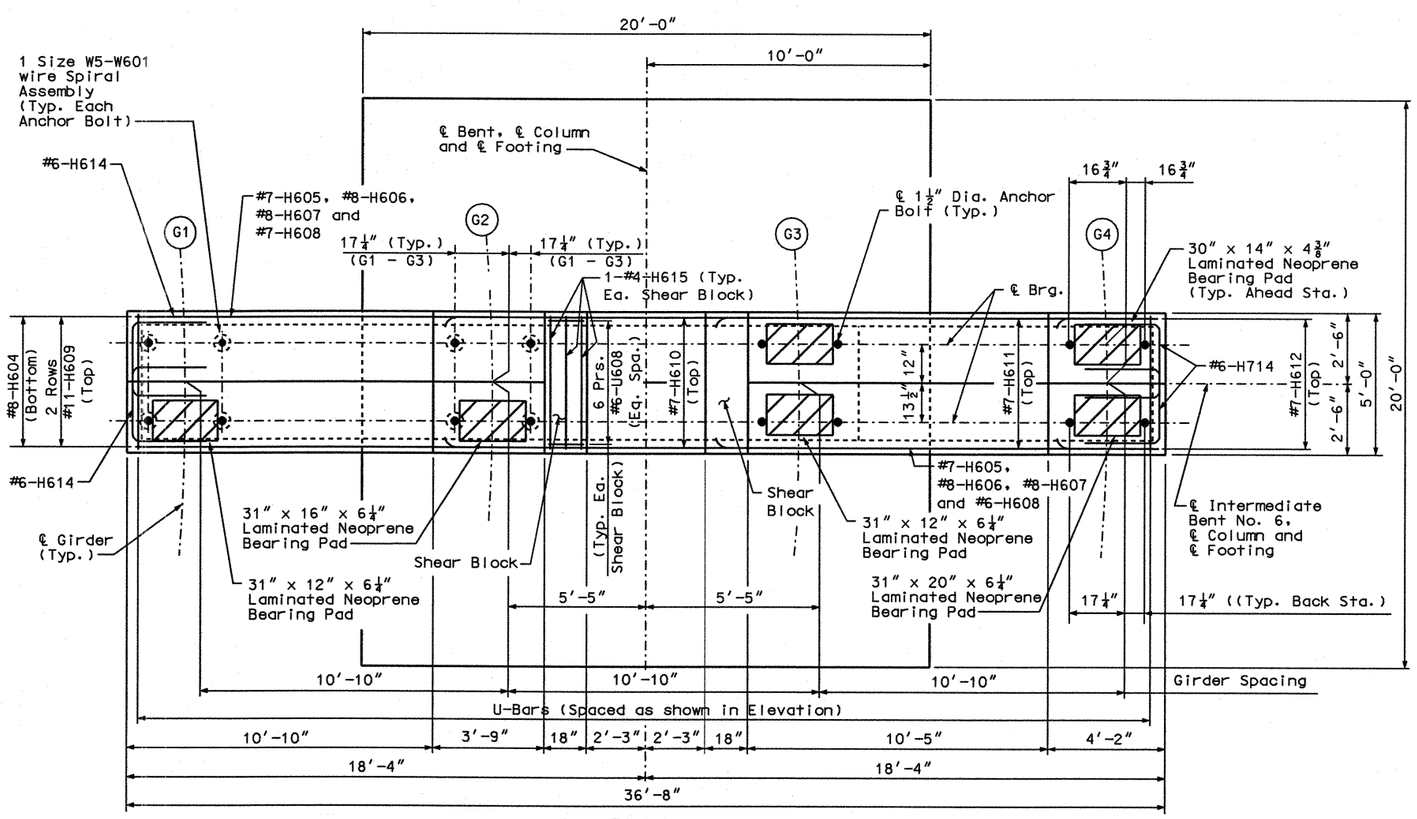
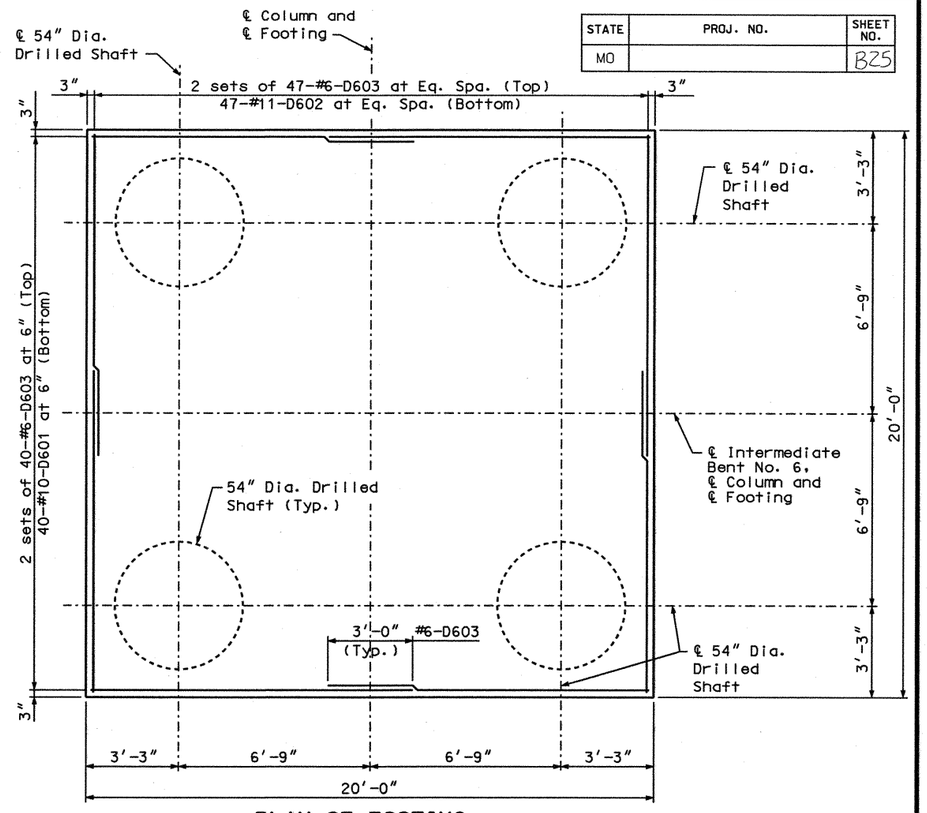
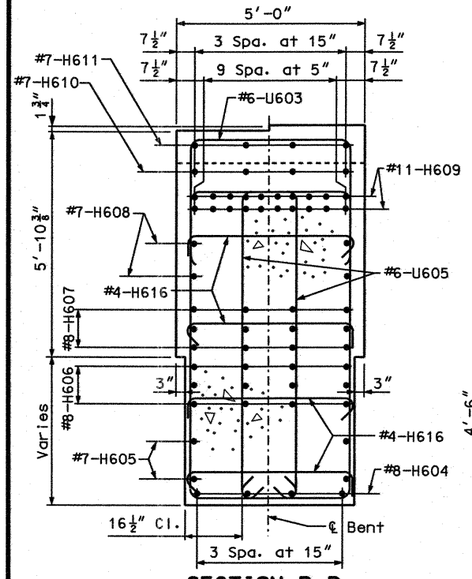
STATE	PROJ. NO.	SHEET NO.
MO		B25



PLAN



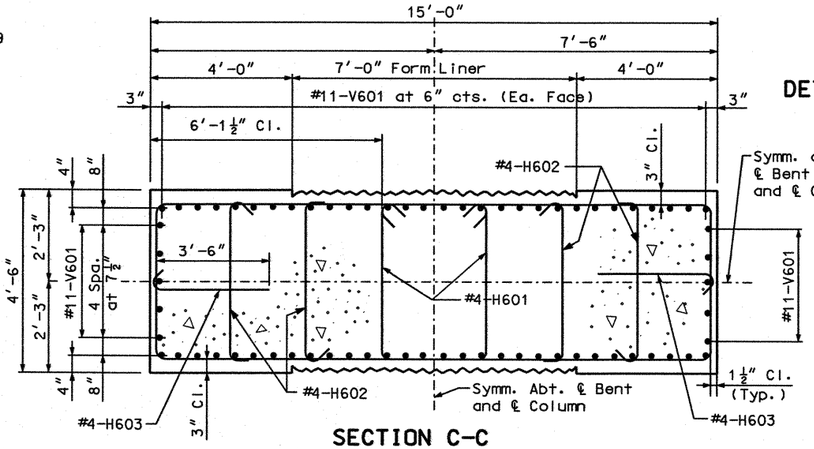
PLAN OF FOOTING
SHOWING DRILLED SHAFTS AND REINFORCEMENT



SECTION B-B

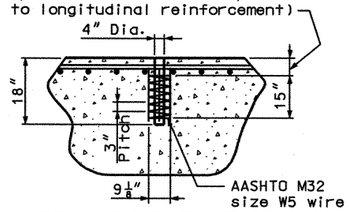
Note:

Slope beam cap to drain between bearings.
See Sheet No. 5 for limits of Protective Coating.

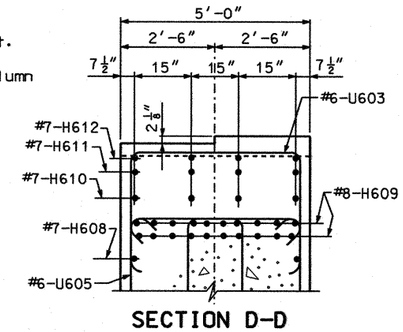


SECTION C-C

Clear top reinforcement (Tie top of spiral to longitudinal reinforcement)



DETAIL OF ANCHOR BOLT WELLS



SECTION D-D

Substructure Quantity Table for Intermediate Bent No. 6

Item		Quantity
Class 1 Excavation	cu. yard	160
Drilled Shafts (4 ft. 6 in. Dia.)	linear foot	136.2
Rock Sockets (4 ft. 0 in. Dia.)	linear foot	64
Supplemental Television Camera Inspection	each	4
Foundation Inspection Holes	linear foot	104
Concrete Coring	linear foot	51.0
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	199.9
Form Liners	sq. yard	46
Reinforcing Steel (Bridges)	pound	57,700
Reinforcing Steel (Epoxy Coated)	pound	10,630

Note: These quantities are included in the Estimated Quantities Table on Sheet No. 5.

Notes:

For location of Section B-B and Section C-C, see Sheet No. 24.

For Details of Drilled Shafts, see Sheet No. 32.

All reinforcing bars in the tops of substructure beams or cap shall be spaced to clear anchor bolt wells for bearings by at least 1/2".

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26558 REGISTERED PROFESSIONAL ENGINEER 2-1-06

DETAILS OF INTERMEDIATE BENT NO. 6

DETAILED: EAK SEP. 2005
CHECKED: BCK DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 25 OF 77

GREENE COUNTY

A7024

REV.

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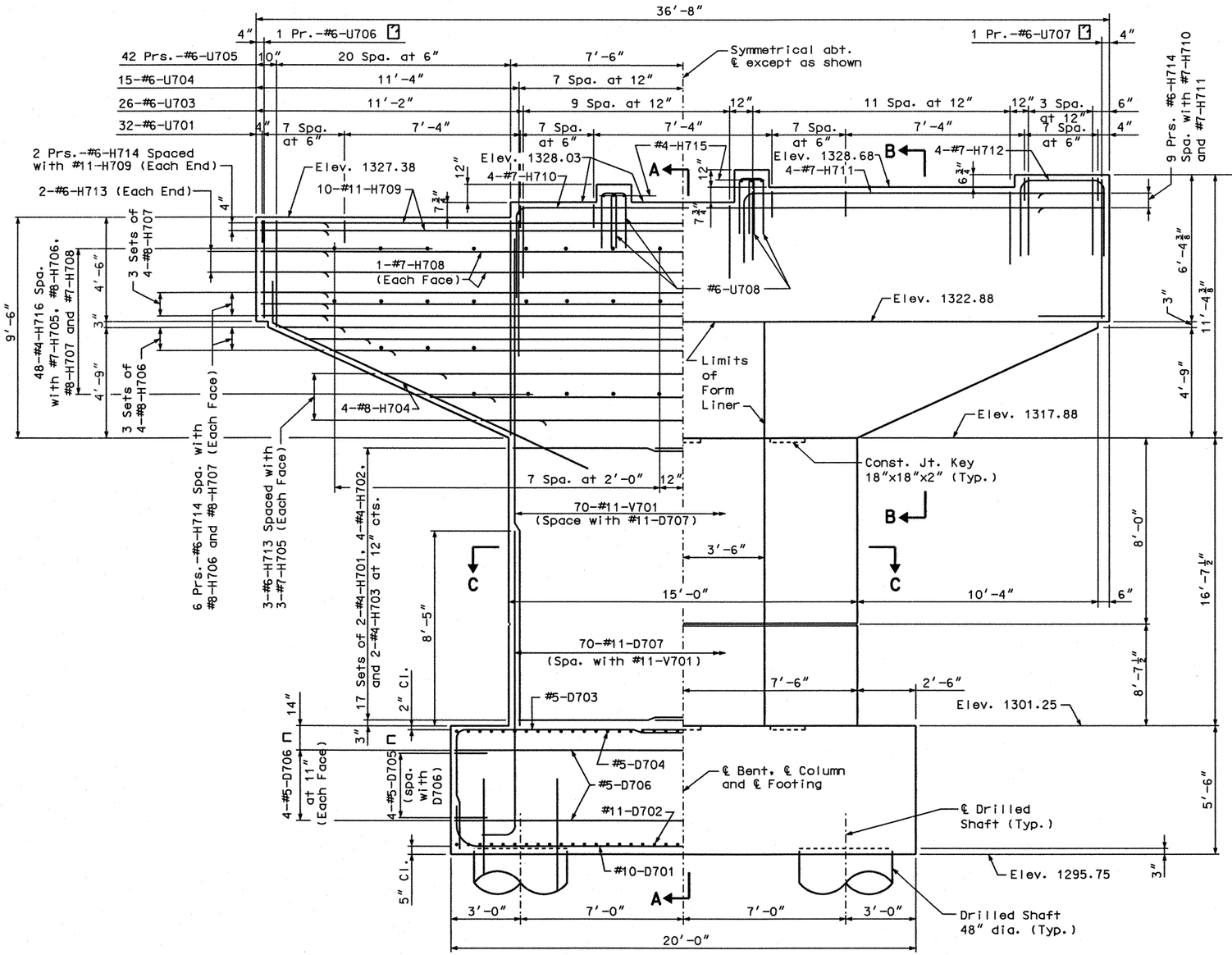
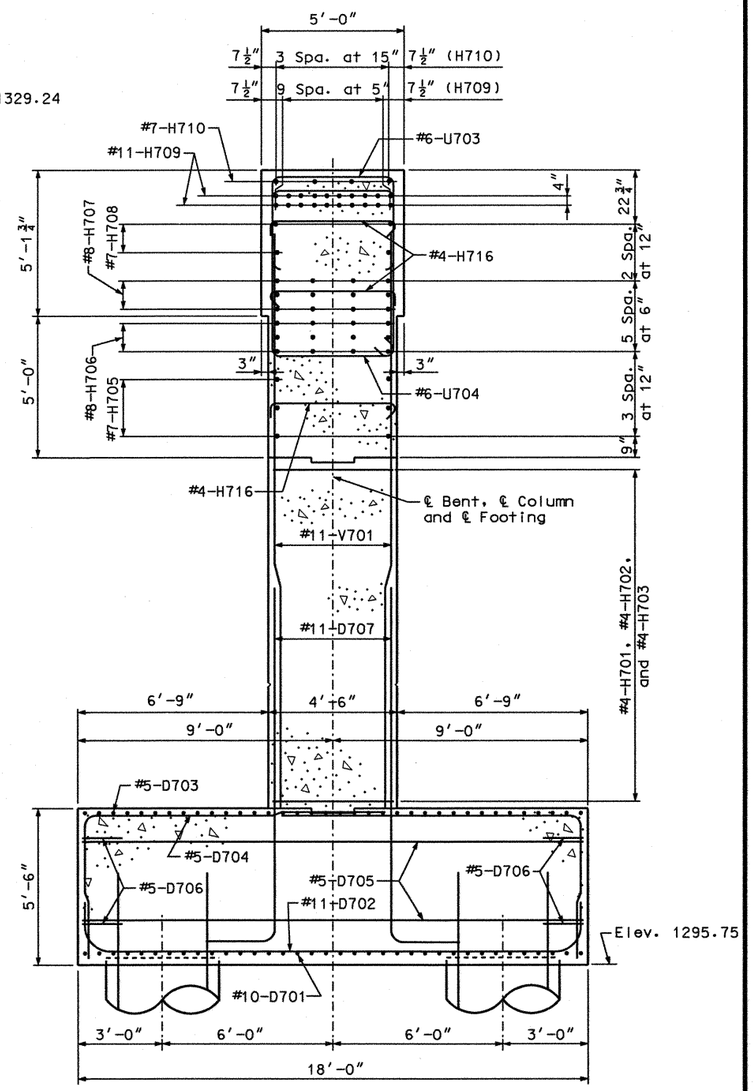
STATE	PROJ. NO.	SHEET NO.
MO		BZ6



ELEVATION



SECTION A-A

Notes:

For Sections B-B and C-C, see Sheet No. 27.

For Form Liner Details, see Sheet No. 33.

For Footing Plan, of see Sheet No. 27.

For Details of Laminated Neoprene Bearing Pad, see Sheet No. 35.

For Details of Drilled Shafts, see Sheet No. 32.

Substructure Quantity Table for Intermediate Bent No. 7

Item		Quantity
Class 1 Excavation	cu. yard	145
Drilled Shafts (4 ft. 0 in. Dia.)	linear foot	131.2
Rock Sockets (3 ft. 6 in. Dia.)	linear foot	64
Supplemental Television Camera Inspection	each	4
Foundation Inspection Holes	linear foot	104
Concrete Coring	linear foot	49.8
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	172.5
Form Liners	sq. yard	34
Reinforcing Steel (Bridges)	pound	56,460

Note:
These quantities are included in the Estimated Quantities Table on Sheet No. 5.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: SEM JULY 2005
CHECKED: RDR DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

DETAILS OF INTERMEDIATE BENT NO. 7

SHEET NO. 26 OF 77

GREENE COUNTY

A7024

REV.

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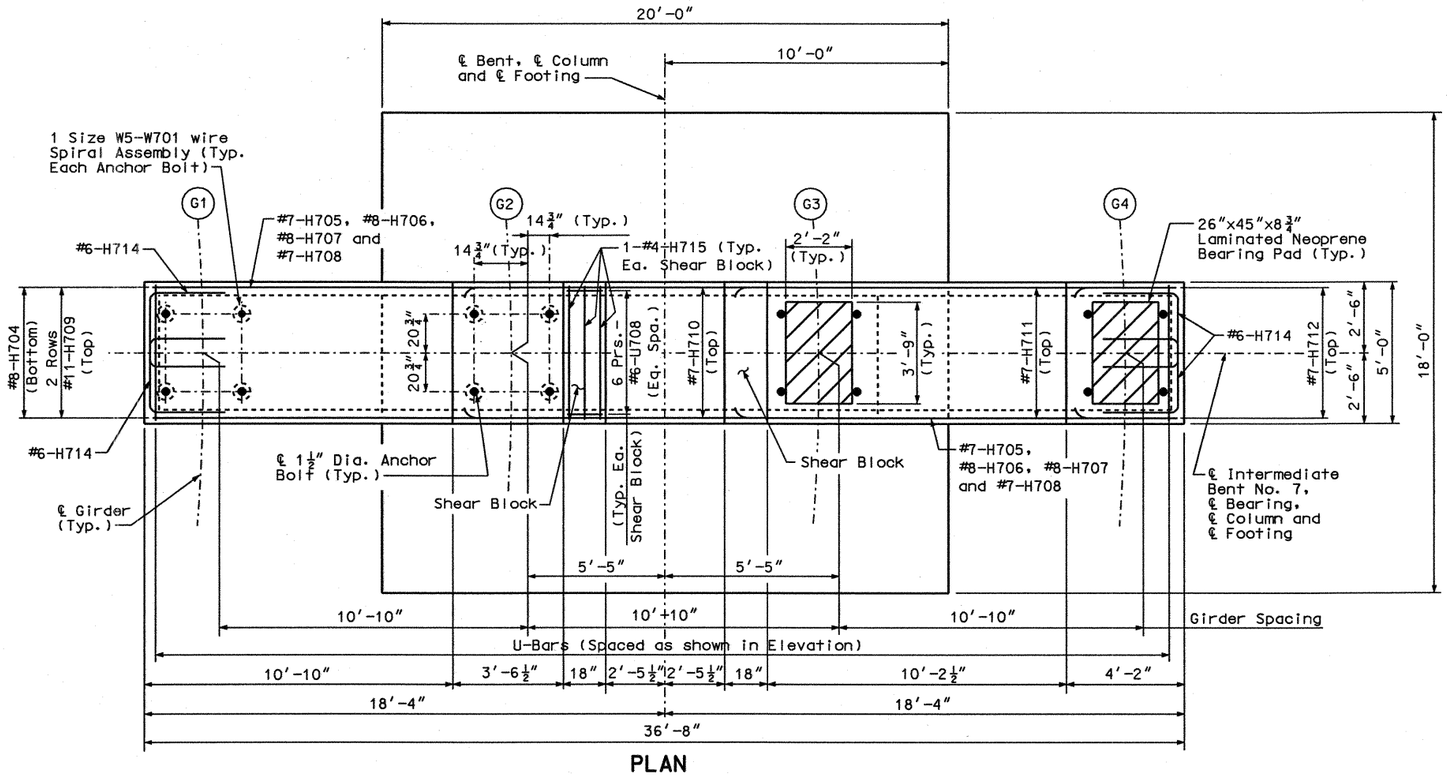
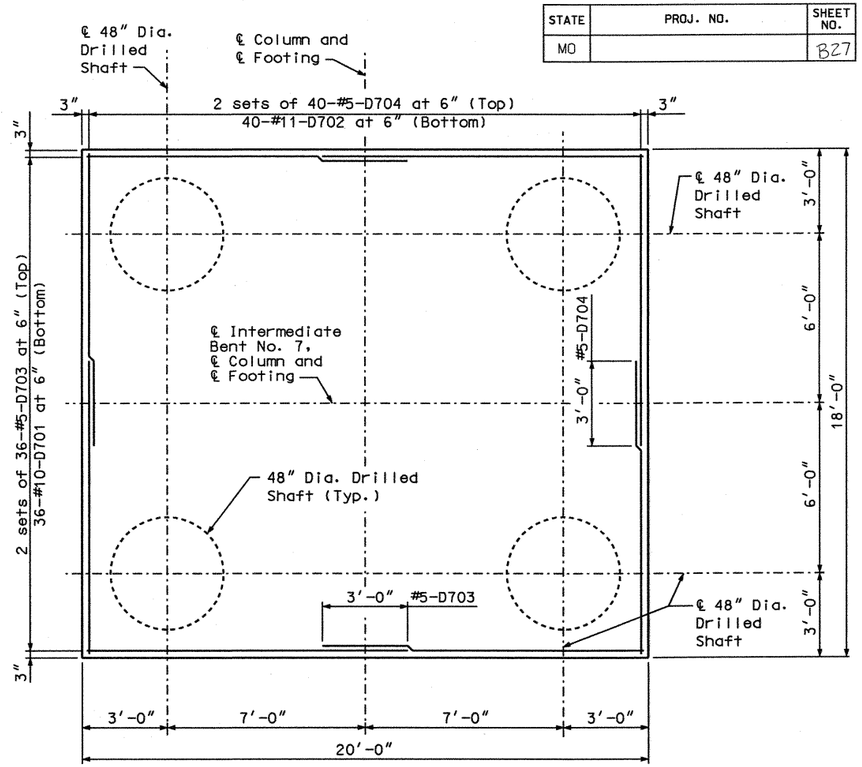
16:51 26-JAN-2006

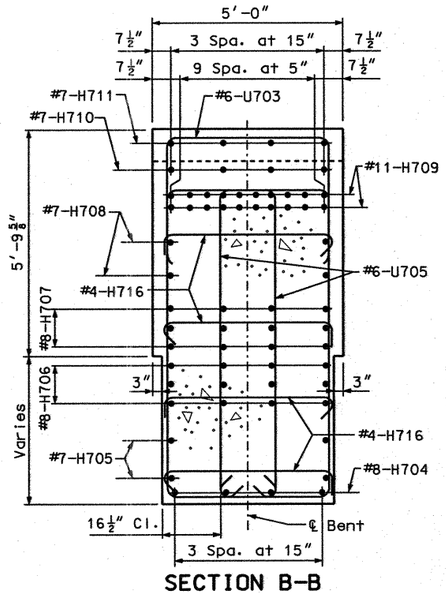
STATE	PROJ. NO.	SHEET NO.
MO		B27



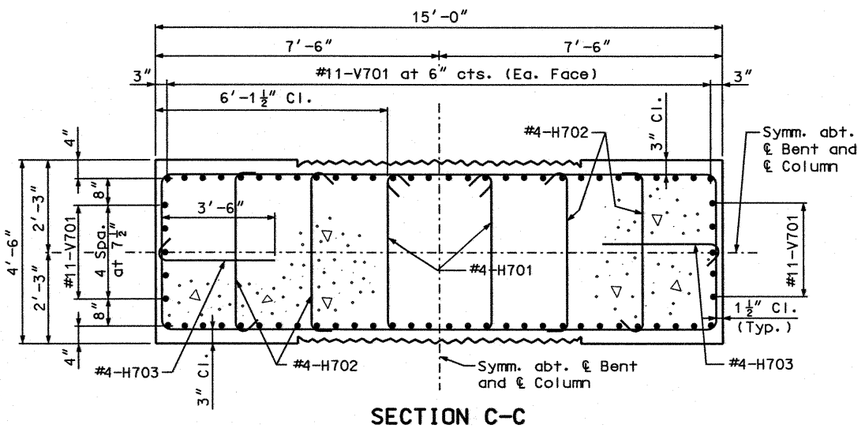
PLAN



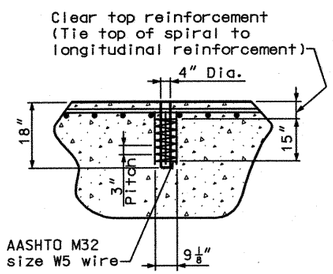
PLAN OF FOOTING
SHOWING DRILLED SHAFTS AND REINFORCEMENT



SECTION B-B



SECTION C-C



DETAIL OF
ANCHOR BOLT WELLS

Notes:

For location of Sections B-B and C-C, see Sheet No. 26.

For Details of Drilled Shafts, see Sheet No. 32.

All reinforcing bars in the tops of substructure beams or cap shall be spaced to clear anchor bolt wells for bearings by at least 1/2″.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF INTERMEDIATE BENT NO. 7

DETAILED: SEM JULY 2005
CHECKED: RDR DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 27 OF 77

GREENE COUNTY

A7024

REV.

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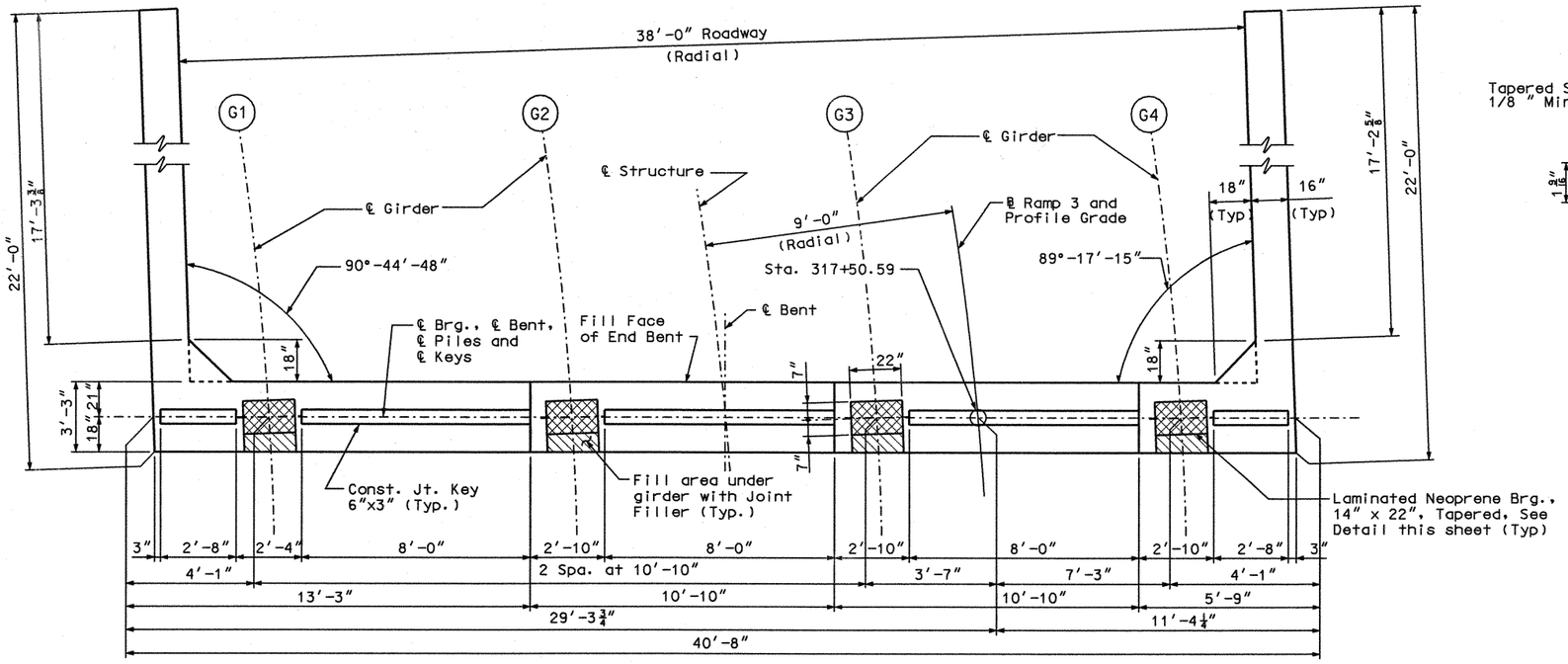
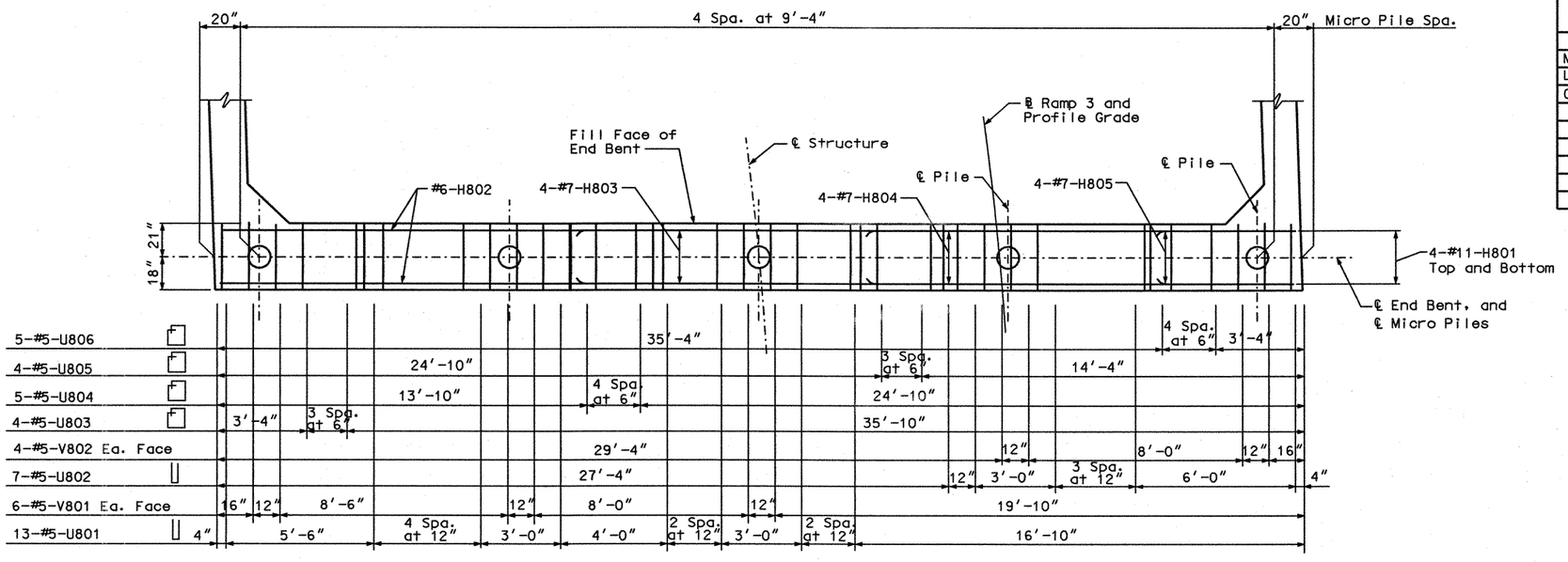
10:59 25-JAN-2006

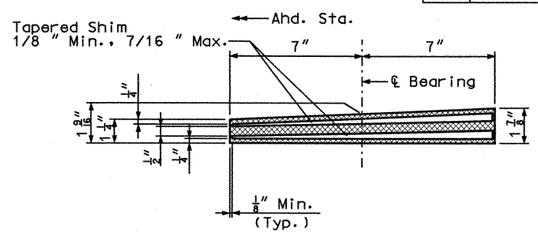
STATE	PROJ. NO.	SHEET NO.
MO		B28



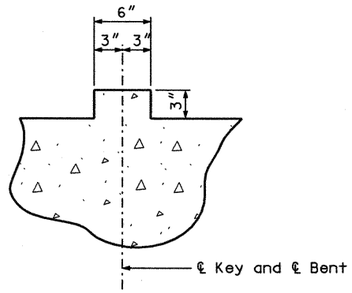
PLAN OF BEAM SHOWING DIMENSIONS



PLAN OF BEAM SHOWING REINFORCEMENT



DETAIL OF LAMINATED NEOPRENE BEARING AT END BENT NO. 8



TYPICAL SECTION THRU KEY AT END BENT

Substructure Quantity Table for End Bent No. 8

Item		Quantity
Micro Piles (9.625 in.)	each	5
Loading Tests	each	1
Class B Concrete (Substructure)	cu. yard	29

Note: These quantities are included in the Estimated Quantities Table on Sheet No. 5.

Notes:

For reinforcement of Safety Barrier Curb, see Sheet No. 67.

For details of End Bent No. 8 not shown, see Sheet Nos. 29 thru 31.

For details of Approach Slab, see Sheet No. 70.

For details of Vertical Drain at End Bent, see Sheet No. 34.

All Vertical reinforcement bars in the substructure beams or caps shall be field adjusted to clear piles by at least 1 1/2″.

For Micro Pile Details, see Sheet No. 33.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26568 REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF END BENT NO. 8

DETAILED: EAK SEP. 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 28 OF 77

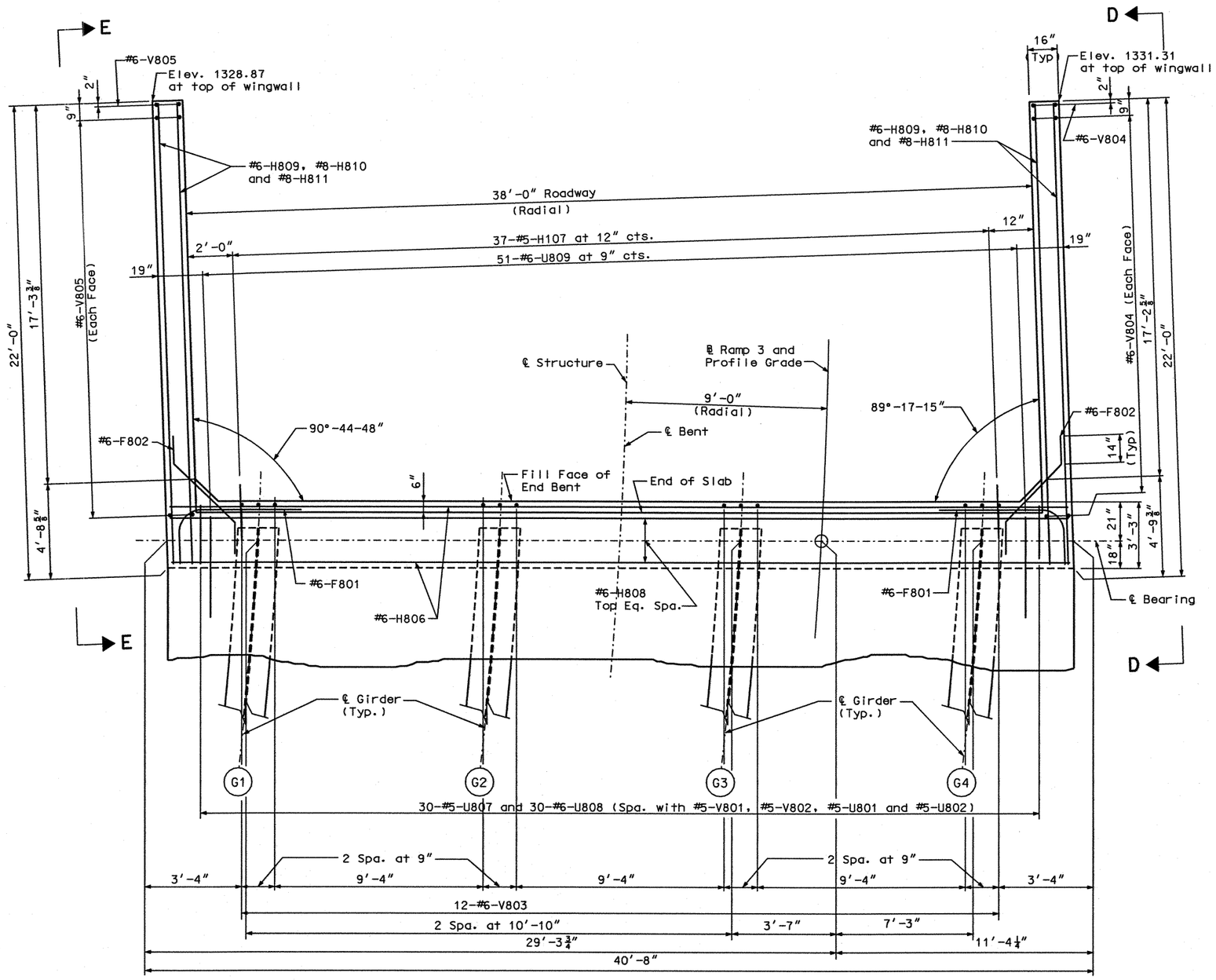
GREENE COUNTY

A7024

REV.

P:\C1X21400\700cadd\709str\A7024 Ramp 3\A7024_EBT04_J8U0548B.dgn 18:40 26-JAN-2006

STATE	PROJ. NO.	SHEET NO.
MO		B29



PART PLAN

Notes:

For details of End Bent No. 8 not shown, see Sheet Nos. 28, 30 and 31.

For Elevations D-D and E-E see Sheet No. 31.

Bend F-802 Bars in Field to clear Girder

For details of Approach Slab, see Sheet No. 70.

For details of Vertical Drain at End Bent, see Sheet No. 34.

Concrete diaphgrams at the integral end bents shall be poured a minimum of 12 hours before the slab is poured.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26558
REGISTERED PROFESSIONAL ENGINEER
2/1/06

DETAILS OF END BENT NO. 8

DETAILED: EAK SEP. 2005
CHECKED: SEM NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 29 OF 77

GREENE COUNTY

A7024

REV.

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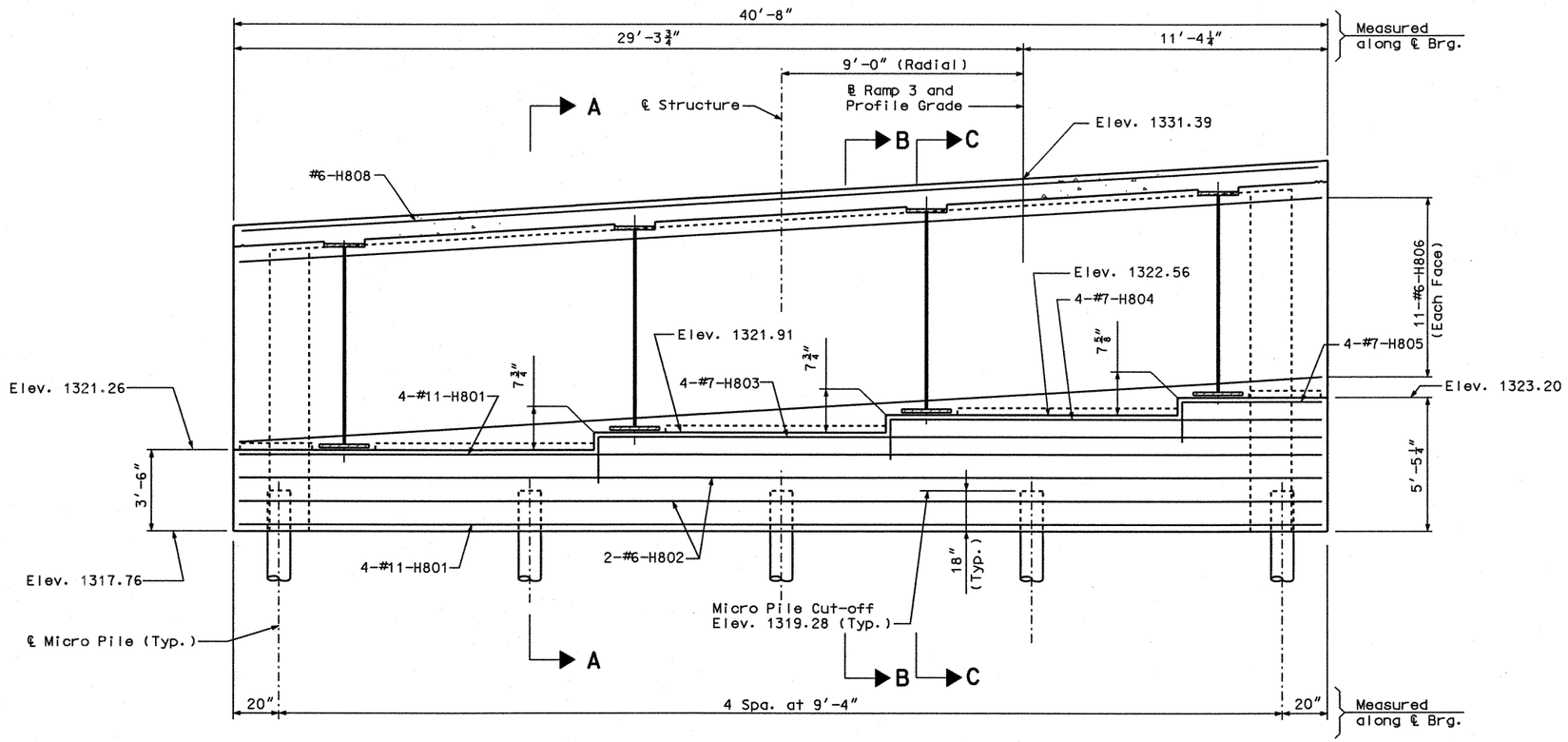
STATE	PROJ. NO.	SHEET NO.
MO		B30



SECTION NEAR END BENT

Elevations at top of slab are at Slab edge.

Notes:

For details of End Bent No. 8 not shown, see Sheet Nos. 28, 29 and 31.

For details of Approach Slab, see Sheet No. 70.

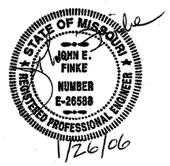
For details of Vertical Drain at End Bent, see Sheet No. 34.

All concrete in the End Bent above the top of Beam and below top of Slab shall be Class B-2.

Concrete Diaphragms at Integral End Bents shall be poured a minimum of 12 hours before the Slab is poured.

Reinforcing in the end bent shall be placed parallel to ℄ Ramp 3.

For Micro Pile Details, see Sheet No. 33.



DETAILS OF END BENT NO. 8

DETAILED: EAK SEP. 2005
CHECKED: JEF DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 30 OF 77

GREENE COUNTY

A7024 REV.

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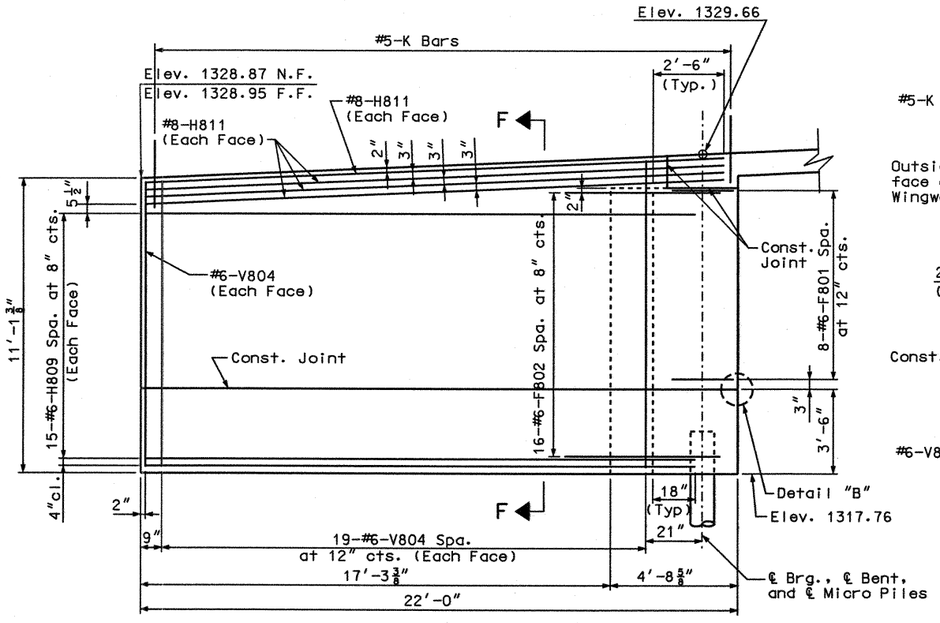
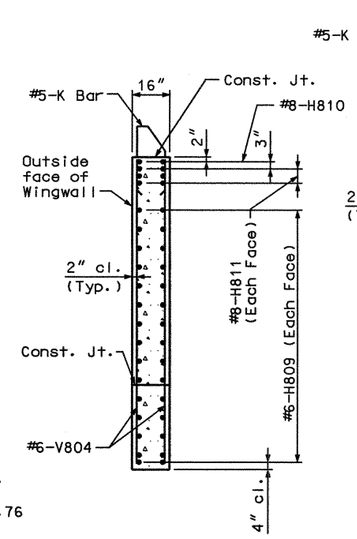
11:50 25-JAN-2006

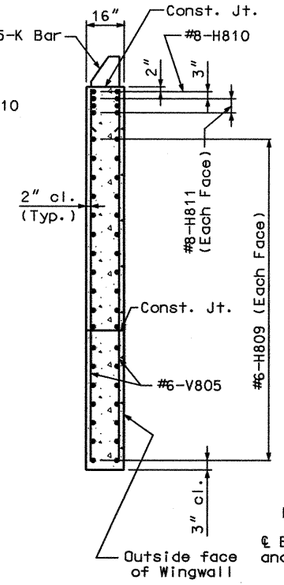
STATE	PROJ. NO.	SHEET NO.
MO		B31



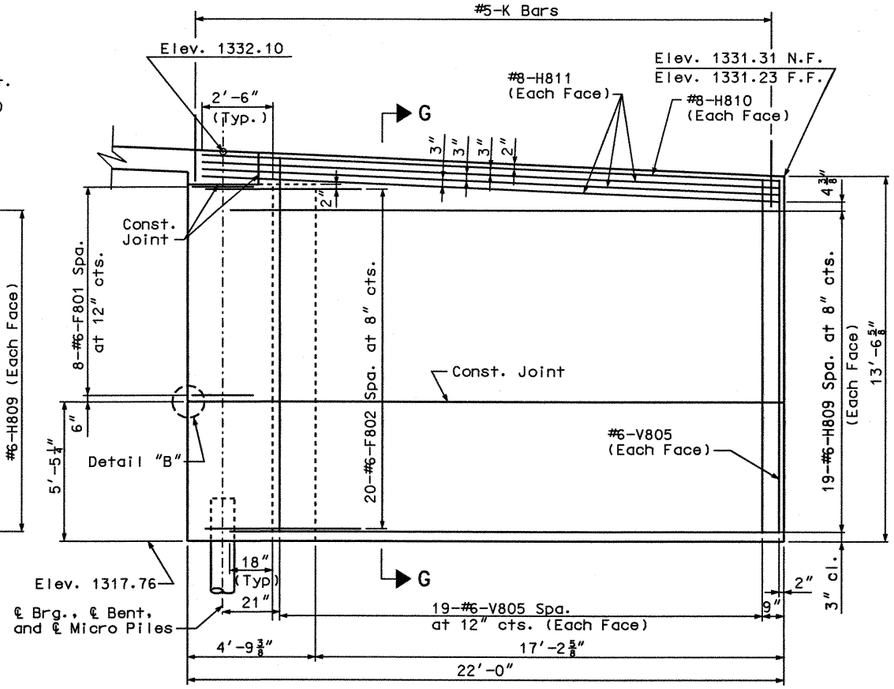
ELEVATION E-E



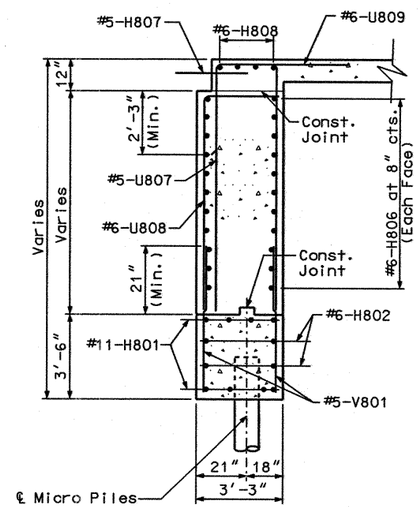
SECTION F-F



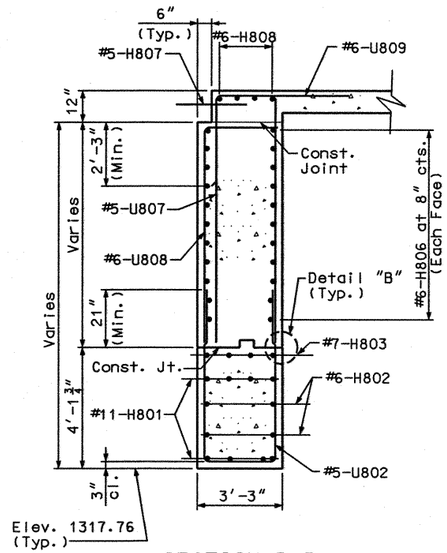
SECTION G-G



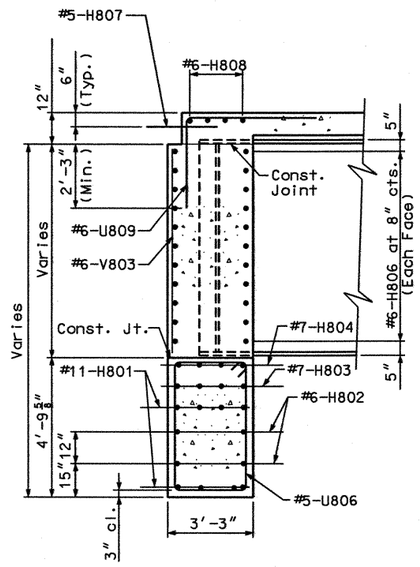
ELEVATION D-D



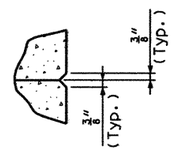
SECTION A-A



SECTION B-B



SECTION C-C



DETAIL "B"

Notes:

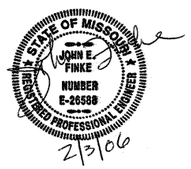
For location of Elevation D-D and E-E, see Sheet No. 29.

For reinforcement of Safety Barrier Curb, see Sheet No. 67.

For locations of Sections A-A, B-B and C-C see Sheet No. 30.

For details of End Bent No. 8 not shown, see Sheet Nos. 28 thru 30.

For Micro Pile Details, see Sheet No. 33.



DETAILS OF END BENT NO. 8

DETAILED: EAK SEP. 2005
CHECKED: SEM NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 31 OF 77

GREENE COUNTY

A7024

REV.

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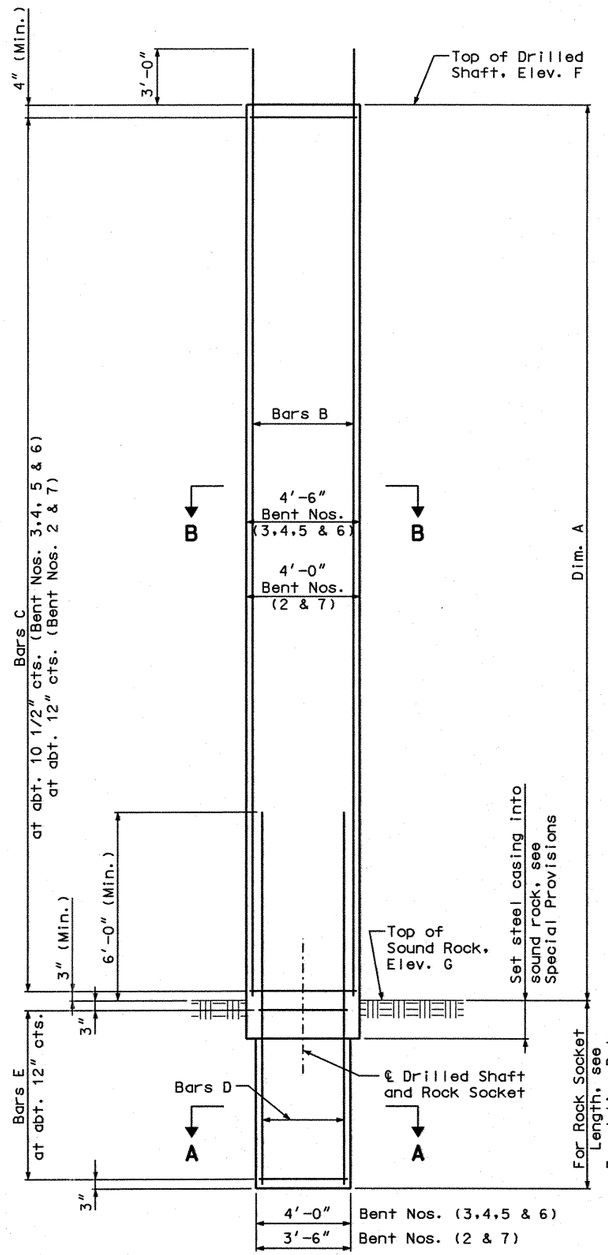
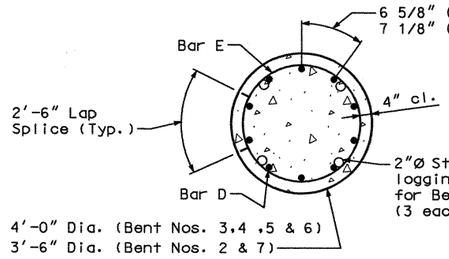
10:52 03-FEB-2006

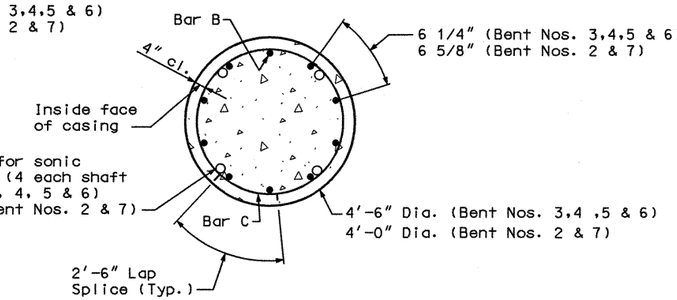
STATE	PROJ. NO.	SHEET NO.
MO		B3Z



ELEVATION OF DRILLED SHAFT AND ROCK SOCKET



SECTION A-A



SECTION B-B

Foundation Data

	Item Description		Inter. Bent No. 2		Inter. Bent No. 3		Inter. Bent No. 4		Inter. Bent No. 5		Inter. Bent No. 6		Inter. Bent No. 7	
			Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
Drilled Shaft	Approximate Length	foot	18	15	22	20	21	16	35	36	35	34	33	33
	Number		2	2	2	2	2	2	2	2	2	2	2	2
Rock Socket	Approximate Length		16.0	16.0	15.0	15.0	18.0	18.0	18.0	18.0	16.0	16.0	16.0	16.0
	Foundation Material	foot	Rock	Rock	Rock	Rock	Rock	Rock	Rock	Rock	Rock	Rock	Rock	Rock
	Number		2	2	2	2	2	2	2	2	2	2	2	2
	Design Side Friction	tsf	4.34	4.34	4.36	4.36	4.45	4.45	4.37	4.37	4.16	4.16	4.45	4.45

Drilled Shaft Table

		Shaft No.	Dim. A	Bars B	Bars C	Bars D	Bars E	Elev. F	Elev. G
Inter. Bent No. 2	(Lt.)	6 & 8	17.1	18 #9-V202	19 #5-P201	14 #9-V204	16 #5-P202	1309.75	1292.7
	(Rt.)	7 &9	15.0	18 #9-V203	15 #5-P201	14 #9-V204	16 #5-P202	1309.75	1294.8
Inter. Bent No. 3	(Lt.)	10 &12	21.3	22 #9-V302	24 #5-P301	18 #9-V304	15 #5-P302	1311.75	1290.5
	(Rt.)	11 & 13	19.8	22 #9-V303	22 #5-P301	18 #9-V304	15 #5-P302	1311.75	1291.9
Inter. Bent No. 4	(Lt.)	14 & 36	20.6	22 #9-V402	23 #5-P401	18 #9-V404	18 #5-P402	1314.50	1293.9
	(Rt.)	15 & 37	15.9	22 #9-V403	18 #5-P401	18 #9-V404	18 #5-P402	1314.50	1298.6
Inter. Bent No. 5	(Lt.)	18 & 20	34.8	22 #9-V502	40 #5-P501	18 #9-V504	18 #5-P502	1297.50	1262.7
	(Rt.)	19 & 21	35.4	22 #9-V503	40 #5-P501	18 #9-V504	18 #5-P502	1297.50	1262.1
Inter. Bent No. 6	(Lt.)	22 & 24	34.1	22 #9-V602	39 #5-P601	18 #9-V604	16 #5-P602	1296.75	1262.7
	(Rt.)	23 & 25	34.0	22 #9-V603	39 #5-P601	18 #9-V604	16 #5-P602	1296.75	1262.8
Inter. Bent No. 7	(Lt.)	26 & 28	33.0	18 #9-V702	34 #5-P701	14 #9-V704	16 #5-P702	1296.00	1263.0
	(Rt.)	27 & 29	33.0	18 #9-V703	33 #5-P701	14 #9-V704	16 #5-P702	1296.00	1263.0

Notes:

The top of sound rock elevation is an assumed elevation determined from the borings. The pay length shown is based on this assumed top of rock elevation.

Permanent steel casing may be required, see special provisions.

An additional 4 feet has been added to B and D-bar lengths for possible change in drilled shaft or rock socket depth. This excess length shall be cut-off or included in the reinforcement lap if not required.

Concrete coring shall be performed on one shaft per bent in accordance with Sec 701. Sonic logging testing shall be performed on all drilled shafts and rock sockets.

For Estimated Quantities, see Sheet No. 5.

For location of drilled shaft numbers, see Sheet Nos. 76 and 77.

The thickness of the steel casing shall meet all the requirements of Sec. 701 with the minimum thickness being 1/2 inch.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF DRILLED SHAFTS

DETAILED: JOS NOV. 2005
CHECKED: BCK JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 32 OF 77

GREENE COUNTY

A7024

REV.

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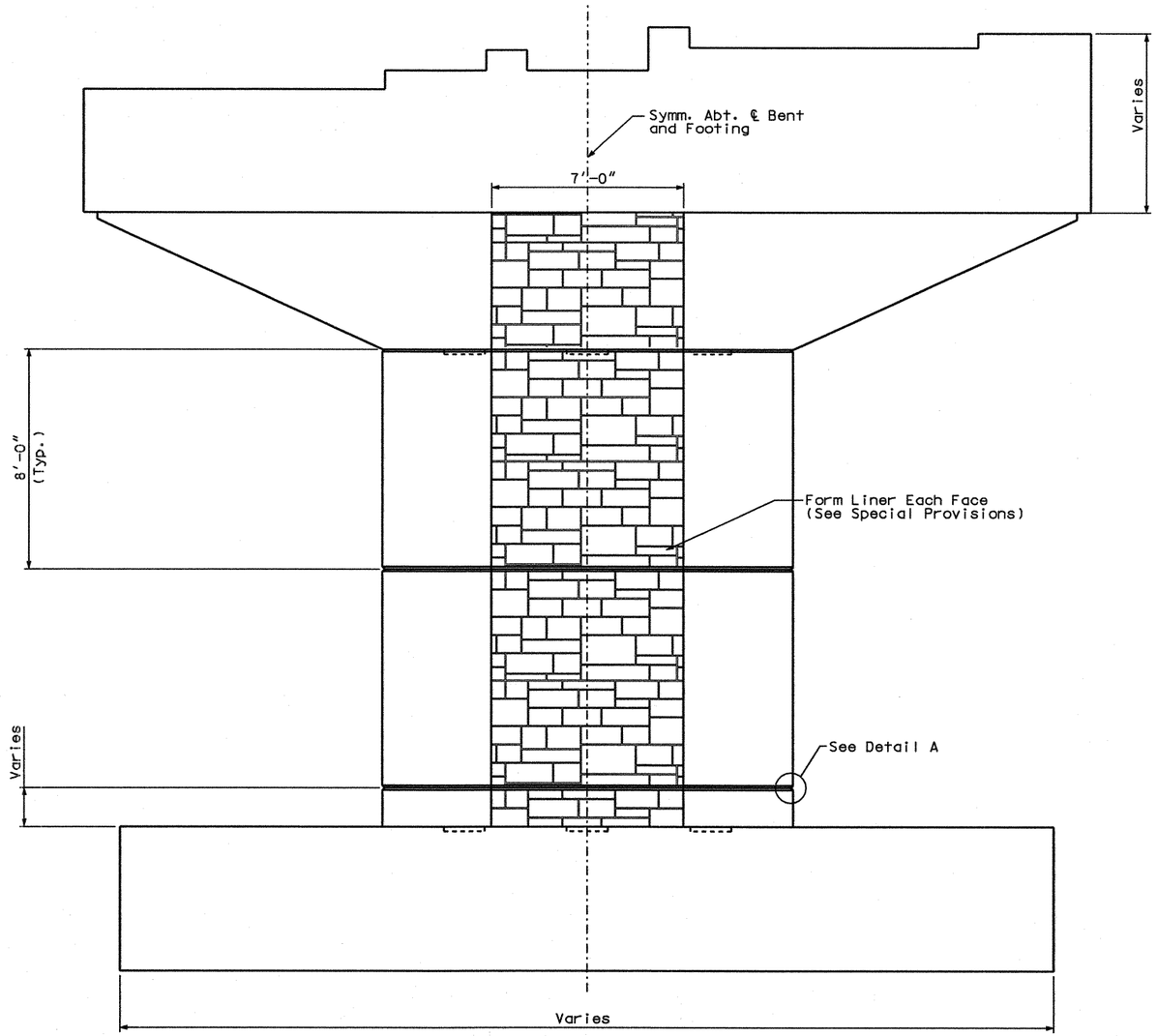
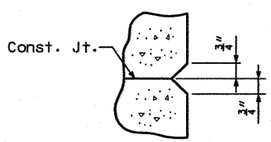
STATE	PROJ. NO.	SHEET NO.
MO		B33



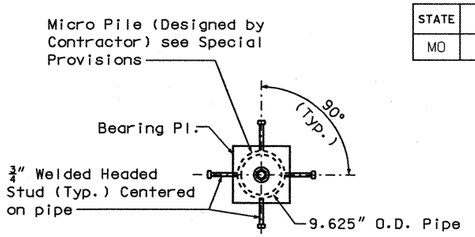
ELEVATION – INTERMEDIATE BENT NOS. 2 THRU 7



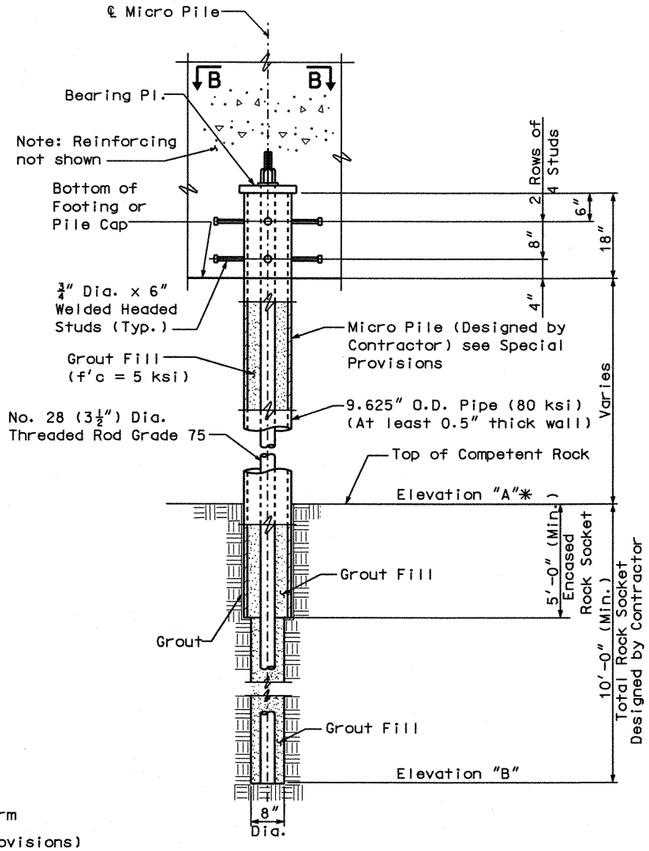
DETAIL "A"

ELEVATION CHART		
Bent No.	Elevation "A"	Elevation "B"
1	1,297 (1,290 to 1,303)	1287 (1,280 to 1,293)
8	1,263	1,253

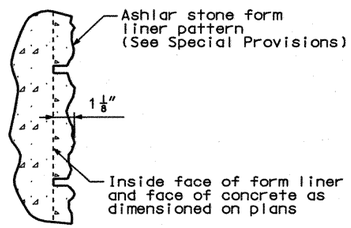
✱ Expect coring through limestone ledges and solutioned zones above top of competent rock.



PART SECTION B-B



MICRO PILE DETAIL



TYPICAL PART SECTION AT FORM LINER

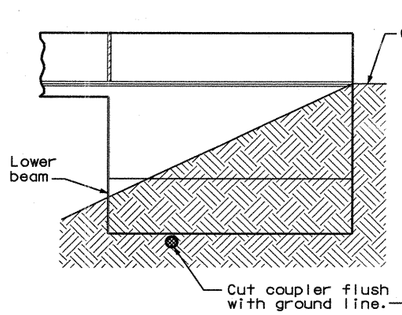
STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF FORM LINER – INTERMEDIATE BENTS

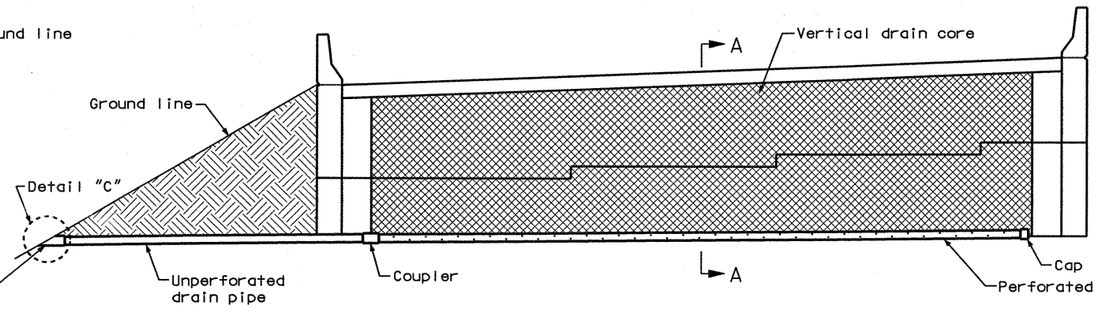
DETAILED: EAK NOV. 2005
CHECKED: JEF DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

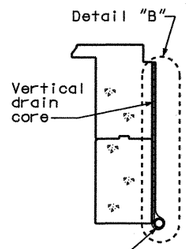
STATE	PROJ. NO.	SHEET NO.
MO		B34



ELEVATION OF WING



ELEVATION AT END BENT

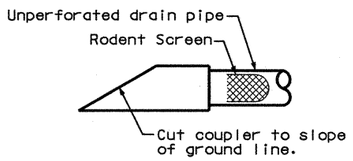


SECTION A-A

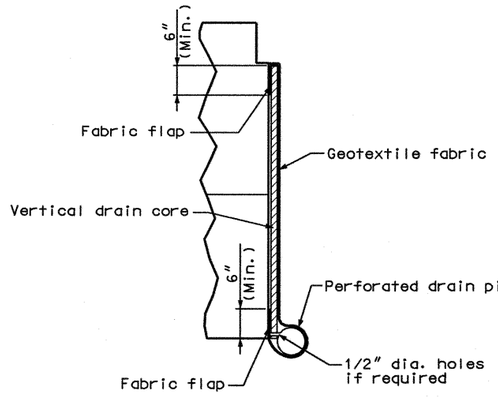
Note:
Drain pipe may be either 6" diameter corrugated metallic-coated steel pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

Place drain pipe at fill face of end bent and slope to lowest grade of ground line, also missing the lower beam of end bent by 1-1/2". (See elevation at end bent.)

Perforated pipe shall be placed at fill face side at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.



DETAIL "C"



DETAIL "B"

VERTICAL DRAINS AT END BENTS

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: JOS OCT. 2005
CHECKED: BCK JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 34 OF 77

GREENE COUNTY

A7024

REV.

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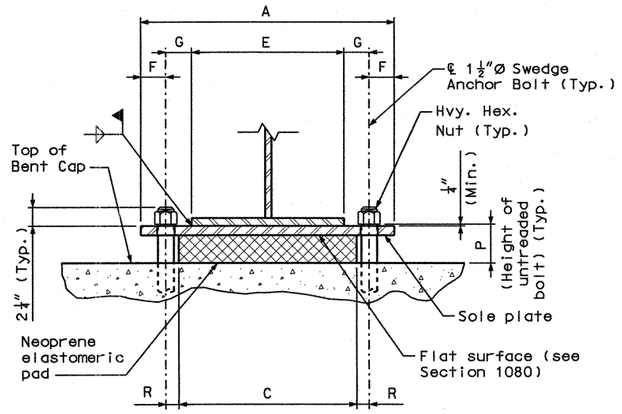
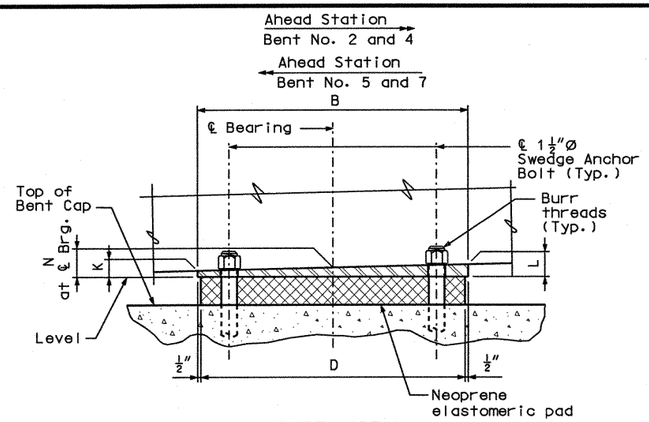
12:30 25-JAN-2006

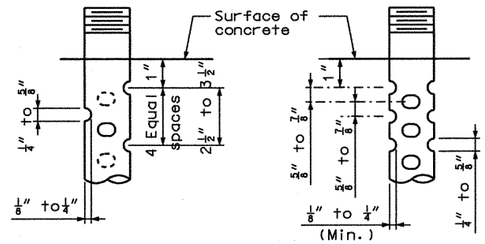
STATE	PROJ. NO.	SHEET NO.
MO		B35



END VIEW



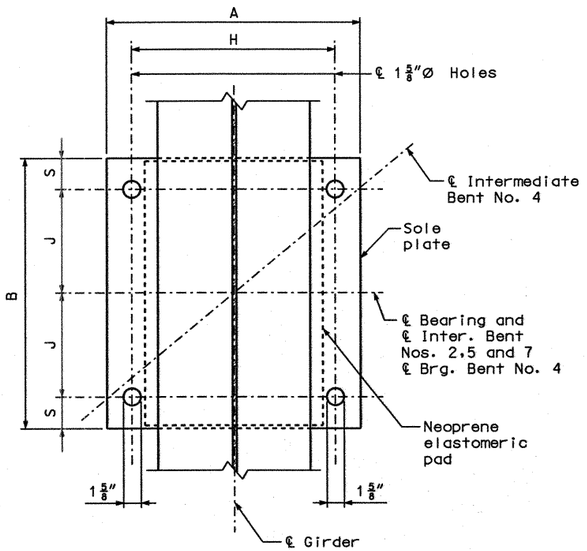
SIDE VIEW



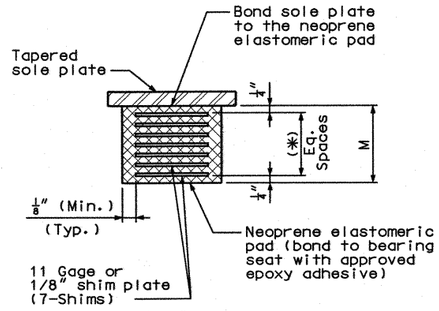
DETAIL OF 1½"Ø ANCHOR BOLTS

OPTIONAL DETAIL OF 1½"Ø ANCHOR BOLTS

SWEDGE ANCHOR BOLT DETAILS



PART PLAN



(*) Layers of 1/2" elastomer alternating with 11 gage or 1/8" steel shim plate

NEOPRENE ELASTOMERIC PAD

The required shim plate shall be placed between layers of elastomer and molded together to form an integral unit.

FIXED BEARINGS

	UNIT NO.	GDR. NO.	VARIABLE DIMENSION (IN.) A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	NO. OF SHIM PLATES	NO. REQD.
BENT No. 2	1	1	34	46	26	45	24	2¼	2¾	29½	20¾	1 1/16	2 15/16	8¾	2	11	1¾	2¼	14	1
	1	2	34	46	26	45	24	2¼	2¾	29½	20¾	1 1/16	2 15/16	8¾	2	11	1¾	2¼	14	1
	1	3	34	46	26	45	24	2¼	2¾	29½	20¾	1 1/16	2 15/16	8¾	2	11	1¾	2¼	14	1
	1	4	34	46	26	45	24	2¼	2¾	29½	20¾	1 1/16	2 15/16	8¾	2	11	1¾	2¼	14	1
BENT No. 4	2	1	39	29	28	28	24	2¼	5¼	34½	12¼	1½	1½	6¼	1½	8	3¼	2¼	10	1
	2	2	39	47	31	46	24	2¼	5¼	34½	12¼	1½	1½	6¼	1½	8	1¾	11¼	10	1
	2	3	39	47	31	46	24	2¼	5¼	34½	12¼	1½	1½	6¼	1½	8	1¾	11¼	10	1
	2	4	39	29	28	28	24	2¼	5¼	34½	12¼	1½	1½	6¼	1½	8	3¼	2¼	10	1
BENT No. 5	2	1	39	39	31	38	24	2¼	5¼	34½	17¼	1 1/16	1 15/16	6¼	1½	8	1¾	2¼	10	1
	2	2	39	39	31	38	24	2¼	5¼	34½	17¼	1 1/16	1 15/16	6¼	1½	8	1¾	2¼	10	1
	2	3	39	39	31	38	24	2¼	5¼	34½	17¼	1 1/16	1 15/16	6¼	1½	8	1¾	2¼	10	1
	2	4	39	39	31	38	24	2¼	5¼	34½	17¼	1 1/16	1 15/16	6¼	1½	8	1¾	2¼	10	1
BENT No. 7	3	1	34	46	26	45	24	2¼	2¾	29½	20¾	1	2¾	8¾	1⅞	10⅞	1¾	2¼	14	1
	3	2	34	46	26	45	24	2¼	2¾	29½	20¾	1	2¾	8¾	1⅞	10⅞	1¾	2¼	14	1
	3	3	34	46	26	45	24	2¼	2¾	29½	20¾	1	2¾	8¾	1⅞	10⅞	1¾	2¼	14	1
	3	4	34	46	26	45	24	2¼	2¾	29½	20¾	1	2¾	8¾	1⅞	10⅞	1¾	2¼	14	1

GENERAL NOTES:

Anchor bolts shall be 1½"Ø ASTM A709 Grade 50W steel swedged bolts and shall extend 15" into the concrete with ASTM A194 - 2, 2H or ASTM A563 - C, C3, D, DH, DH3 heavy hexagon nuts. Actual manufacturer's certified mill test reports (chemical and mechanical) shall be provided. Swedging shall be 1" less than extension into the concrete.

All structural steel for the anchor bolts and heavy hexagon nuts shall be coated with a minimum of two coats of inorganic zinc primer (5 mils minimum).

Neoprene Elastomeric Pads shall be 60 Durometer. The neoprene pad shall be bonded to the bearing seat with an epoxy adhesive as approved by the bearing manufacturer for bonding neoprene to concrete.

Structural steel for sole plate shall be ASTM A709 Grade 50 and shall be coated with a minimum of two coats of inorganic zinc primer (5 mils minimum).

Laminated Neoprene Bearing Pad Assembly shall be in accordance with Sec 716.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

FIXED BEARING DETAILS AT INTERMEDIATE BENT NOS. 2,4,5 AND 7

DETAILED: EAK SEP. 2005
CHECKED: BCK JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 35 OF 77

GREENE COUNTY

A7024

REV.

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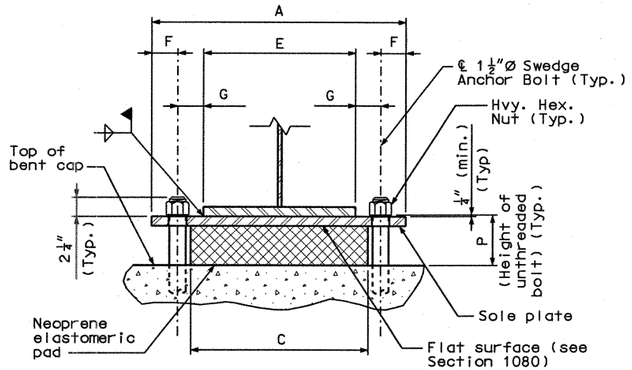
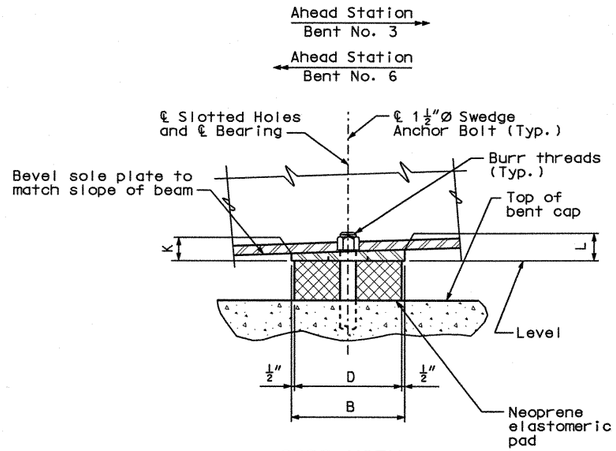
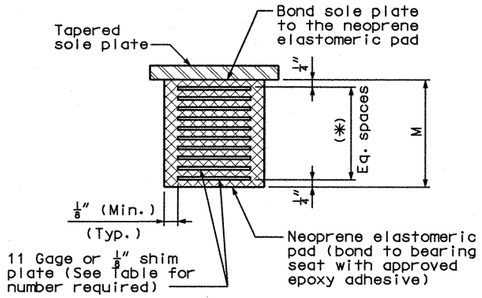
STATE	PROJ. NO.	SHEET NO.
MO		B36



END VIEW



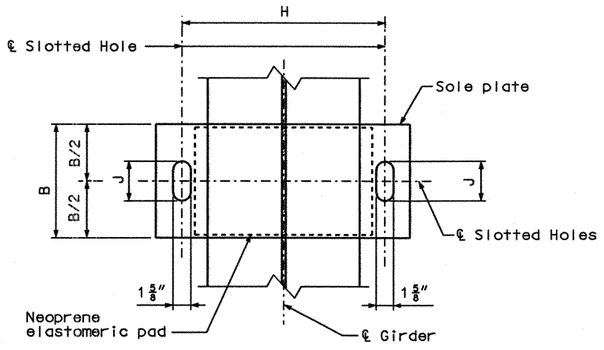
SIDE VIEW



(*) Layers of 1/2" elastomer alternating with 11 gage or 1/8" shim plate

NEOPRENE ELASTOMERIC PAD

The required shim plate shall be placed between layers of elastomer and molded together to form an integral unit.



PART PLAN

EXPANSION BEARINGS

UNIT NO.		GDR. NO.	VARIABLE DIMENSION (IN.) A	B	C	D	E	F	G	H	J	K	L	M	P	NO. OF SHIM PLATES	NO. REQD.
BENT No. 3	1	1	39	15	30	14	22	2¾	5¾	33½	5¾	1 5/16	1 11/16	4⅜	6⅛	7	1
	1	2	39	15	30	14	22	2¾	5¾	33½	5¾	1 5/16	1 11/16	4⅜	6⅛	7	1
	1	3	39	15	30	14	22	2¾	5¾	33½	5¾	1 5/16	1 11/16	4⅜	6⅛	7	1
	1	4	39	15	30	14	24	2¾	4¾	33½	5¾	1 5/16	1 11/16	4⅜	6⅛	7	1
	2	1	39	9	31	8	24	2¼	5¼	34½	7½	1 7/8	2⅛	6¼	8½	10	1
	2	2	39	11	31	10	24	2¼	5¼	34½	7½	1 7/8	2⅛	6¼	8½	10	1
	2	3	39	15	31	14	24	2¼	5¼	34½	7½	1 13/16	2 3/16	6¼	8½	10	1
	2	4	39	21	31	20	24	2¼	5¼	34½	7½	1¾	2¼	6¼	8½	10	1
BENT No. 6	2	1	39	13	31	12	24	2¼	5¼	34½	7½	1¼	1¾	6¼	8	10	1
	2	2	39	17	31	16	24	2¼	5¼	34½	7½	1 3/16	1 13/16	6¼	8	10	1
	2	3	39	13	31	12	24	2¼	5¼	34½	7½	1¼	1¾	6¼	8	10	1
	2	4	39	21	31	20	24	2¼	5¼	34½	7½	1 1/16	1 15/16	6¼	8	10	1
	3	1	39	15	30	14	22	2¼	6¼	34½	5¾	1 3/16	1 13/16	4⅜	6⅛	7	1
	3	2	39	15	30	14	22	2¼	6¼	34½	5¾	1 3/16	1 13/16	4⅜	6⅛	7	1
	3	3	39	15	30	14	22	2¼"	6¼	34½	5¾	1 3/16	1 13/16	4⅜	6⅛	7	1
	3	4	39	15	30	14	24	2¼	4¾	33½	5¾	1 3/16	1 13/16	4⅜	6⅛	7	1

Notes:

For Bearing Notes, see Sheet No. 35.

For Anchor Bolt Detail, see Sheet No. 35.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

EXPANSION BEARING DETAILS AT INTERMEDIATE BENT NOS. 3 AND 6

DETAILED: EAK SEP. 2005
CHECKED: FAC/BCK JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

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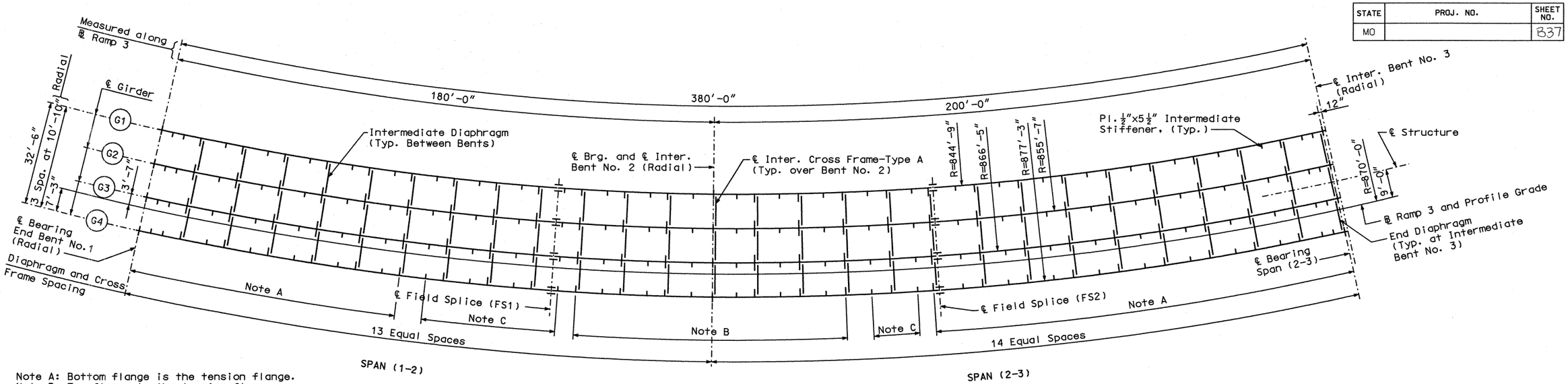
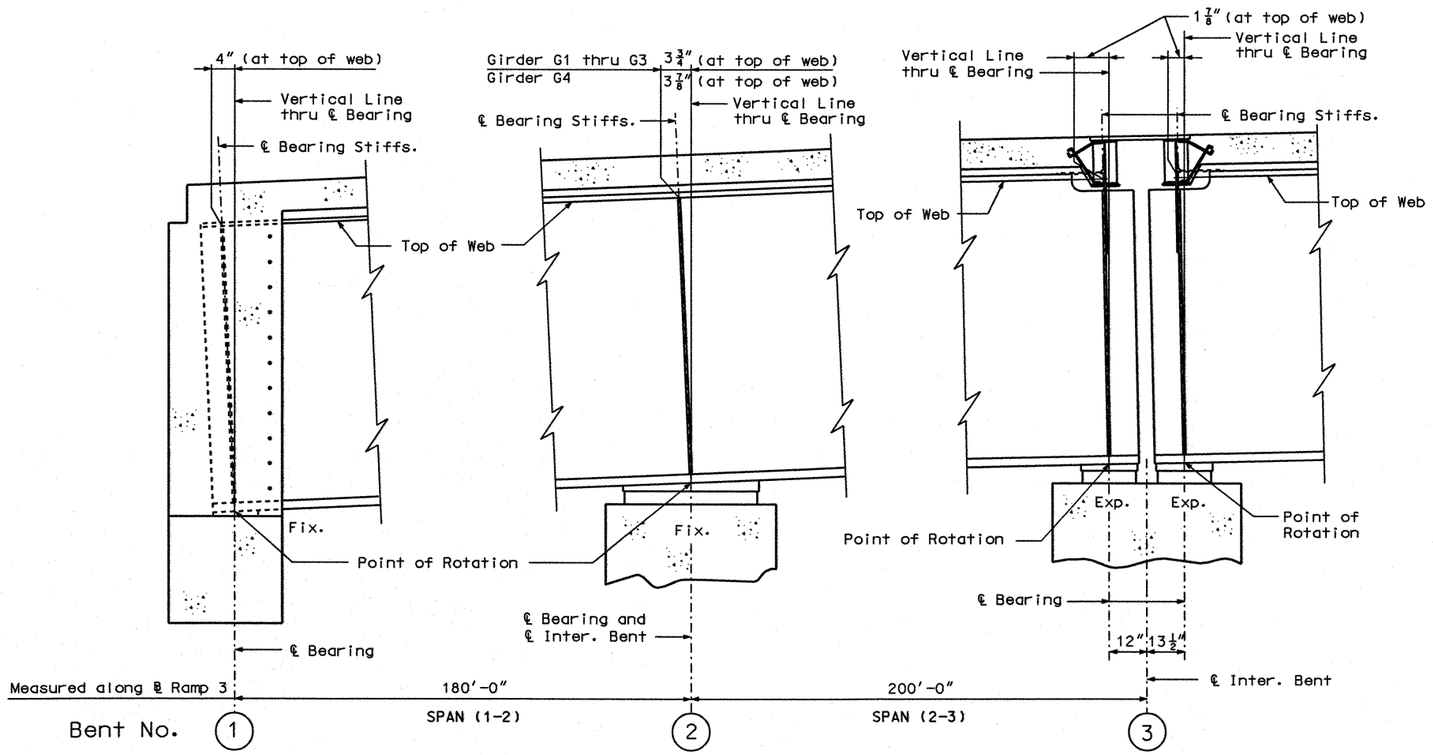
STATE	PROJ. NO.	SHEET NO.
MO		337



Note A: Bottom flange is the tension flange.
Note B: Top flange is the tension flange.
Note C: Both top and bottom flanges are tension flanges.

PLAN OF STRUCTURAL STEEL - UNIT 1



PART LONGITUDINAL SECTION

Notes:
All diaphragms and cross frames are radial.

Transverse intermediate stiffeners are located on each girder in each bay midway between the diaphragms and cross frames. One additional intermediate stiffener is located in the quarter point of the bays adjacent to End Bent No. 1 and Intermediate Bent No. 3.

Longitudinal dimensions are horizontal from ℄ bearing to ℄ bearing.

For details of Bolted Field Splices, see Sheet Nos. 45 and 46.

For details of End Diaphragms, Intermediate Diaphragms, and Cross Frames, see Sheet No. 47.

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

For Erection Notes, see General Notes Sheet No. 5.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

FRAMING PLAN AND LONGITUDINAL SECTION - UNIT 1

DETAILED: EAK JUNE 2005
CHECKED: GJD NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 37 OF 77

GREENE COUNTY

A7024

REV.

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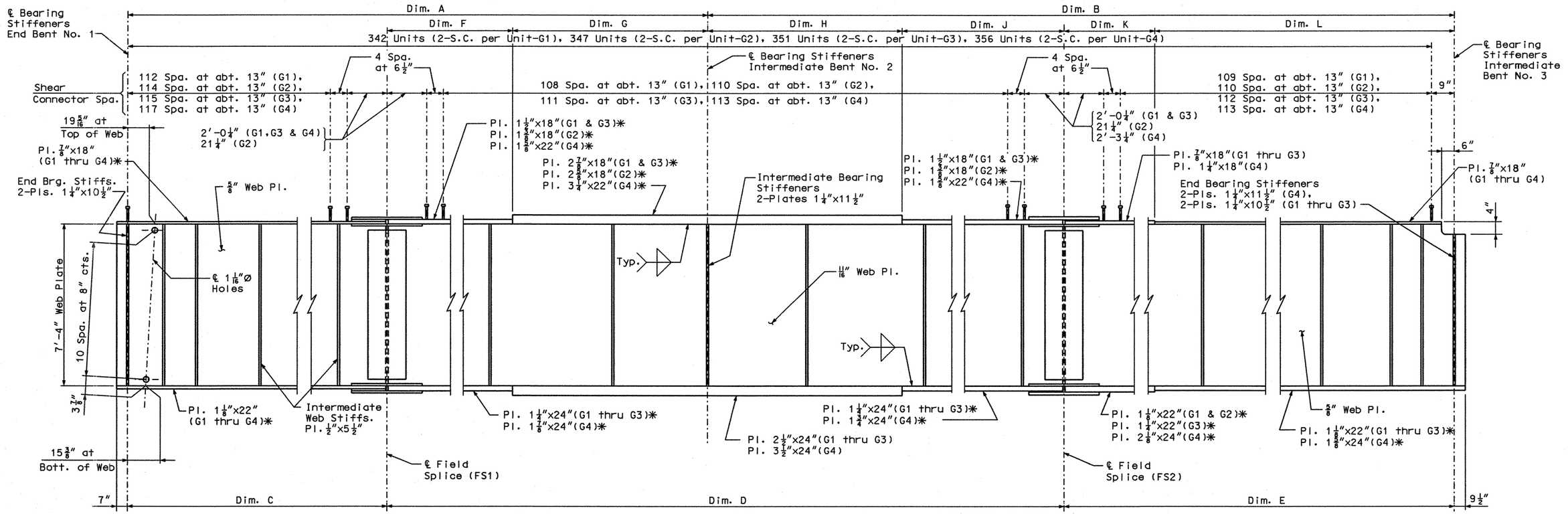
STATE	PROJ. NO.	SHEET NO.
MO		338



Span (1-2)

Span (2-3)

ELEVATION OF GIRDER

Note:
Shear connector spacings may be shifted slightly to clear shop flange splices.
For limits of top and bottom flanges in tension, see Plan of Structural Steel.

GIRDER VARIABLES

Girder No.	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Dim. F	Dim. G	Dim. H	Dim J	Dim. K	Dim. L
G1	174'-9 5/16"	193' 2 11/16"	124'-3 7/16"	122'-4 1/16"	121'-4½"	27'-2¼"	23'-3 5/8"	23'-3 5/8"	48'-6 9/16"	76'-8½"	44'-8"
G2	177'-0 5/16"	195'-8 7/16"	125'-10½"	123'-11"	122'-11⅛"	27'-6 7/16"	23'-7¼"	23'-7¼"	49'-2 1/16"	77'-8 5/16"	45'-2 13/16"
G3	179'-3⅛"	198'-2 3/16"	127'-5 11/16"	125'-5¾"	124'-5 7/8"	27'-10 5/8"	23'-10 13/16"	23'-10 13/16"	49'-9½"	78'-8 1/16"	45'-9 13/16"
G4	181'-6"	200'-7 7/8"	129'-0 13/16"	127'-0 9/16"	126'-0½"	28'-2 13/16"	24'-2⅜"	24'-2⅜"	50'-5"	79'-7 7/8"	46'-4⅝"

Notes:

Longitudinal dimensions are horizontal from ℄ bearing to ℄ bearing.

Plate girders shall be fabricated to be in accordance with the camber diagram shown on Sheet No. 55.

For location of slab drain attachment holes see slab drain details, Sheet No. 63.

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

* Indicates flange plates subject to notch toughness requirements.

Weight of 2,600 lbs. of shear connectors is included in the weight of Fabricated Structural Low Alloy Steel (Plate Girder) A709, Grade 50.

Shear connectors shall be in accordance with Sec 712, 1037 and 1080.

All web plates subject to notch toughness requirements.

The flange and web splice plates shall be subject to notch toughness requirements when notch toughness is required for flanges on both sides of splice.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER
1/26/06

ELEVATION OF GIRDER - UNIT 1

DETAILED: EAK SEP. 2005
CHECKED: GJD NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 38 OF 77

GREENE COUNTY

A7024

REV.

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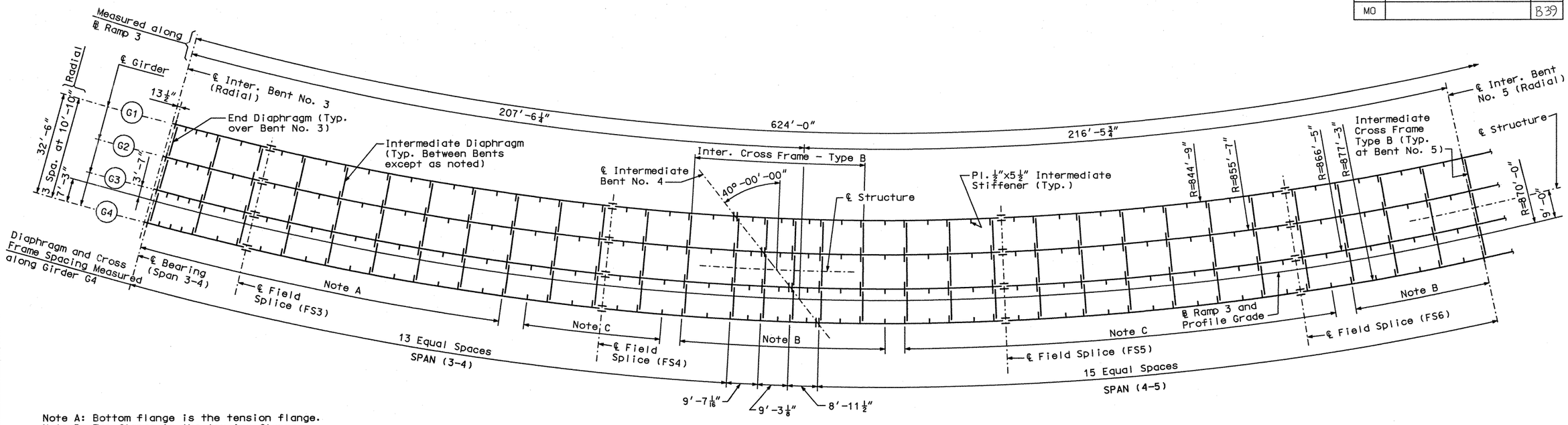
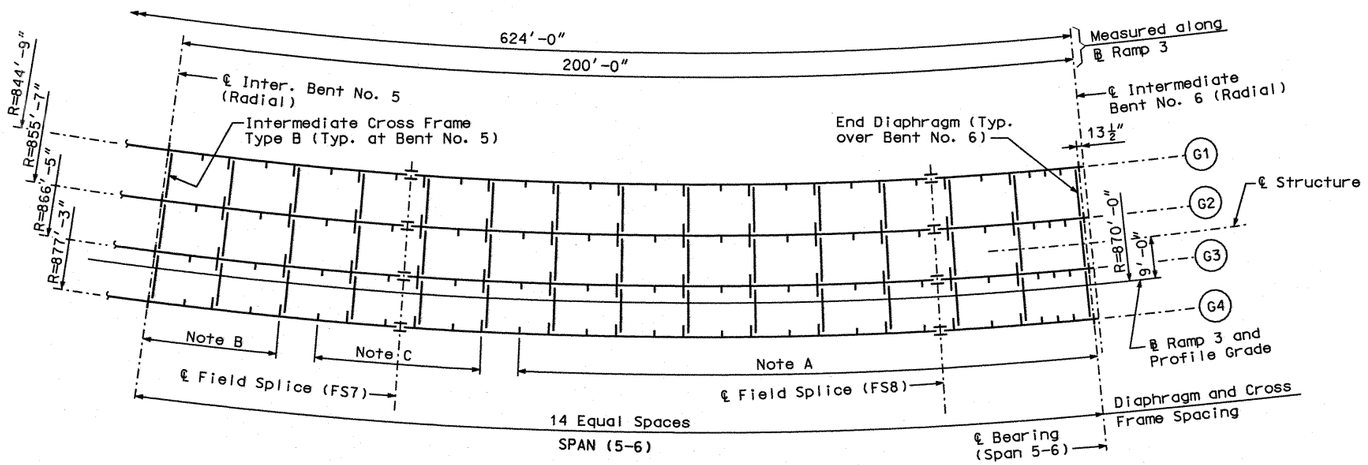
STATE	PROJ. NO.	SHEET NO.
MO		B39



Note A: Bottom flange is the tension flange.
Note B: Top flange is the tension flange.
Note C: Both top and bottom flanges are tension flanges.

PLAN OF STRUCTURAL STEEL - UNIT 2



PLAN OF STRUCTURAL STEEL - UNIT 2

Notes:

All diaphragms and cross frames are radial.

Transverse intermediate stiffeners are located on each girder in each bay midway between the diaphragms and cross frames. One additional intermediate stiffener is located in the quarter points of the bays adjacent to Intermediate Bent No. 3 and Intermediate Bent No. 6.

Longitudinal dimensions are horizontal from ℄ bearing to ℄ bearing.

For details of Bolted Field Splices, see Sheet Nos. 45 and 46.

For details of End Diaphragms, Intermediate Diaphragms, and Cross Frames, see Sheet Nos. 47 and 48.

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

For Erection Notes, See General Notes Sheet No. 5.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

FRAMING PLAN - UNIT 2

DETAILED: EAK JUNE 2005
CHECKED: GJD NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 39 OF 77 GREENE COUNTY A7024

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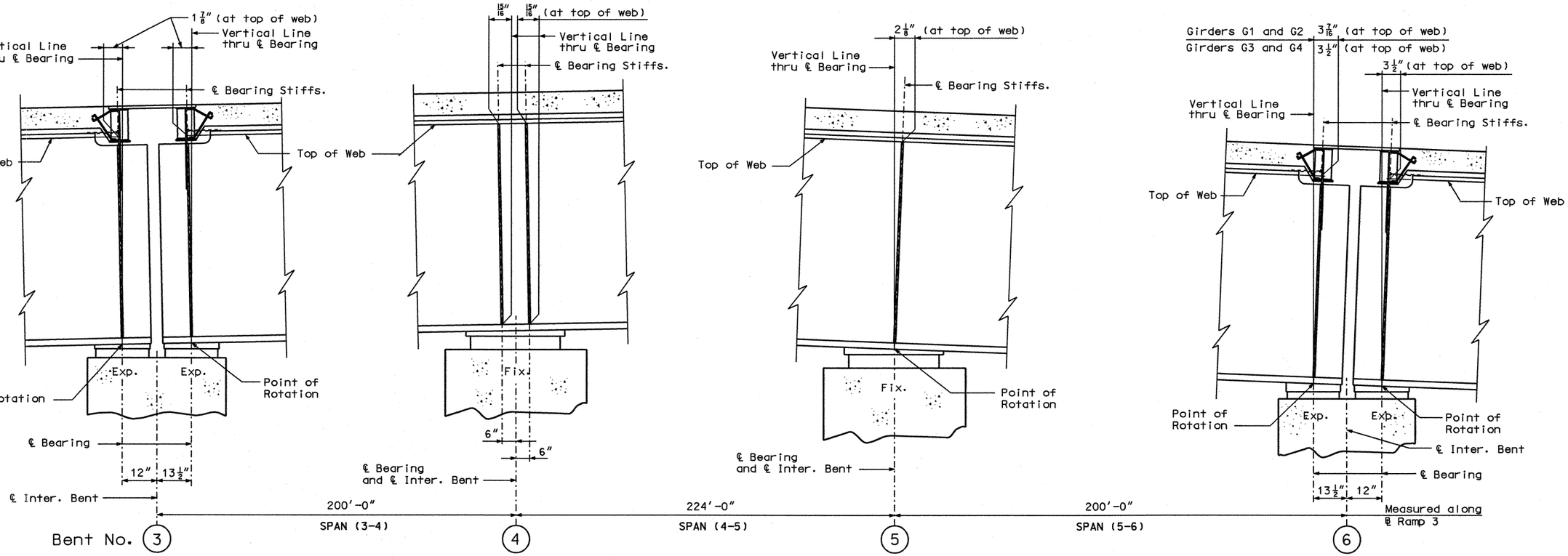
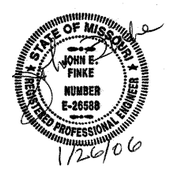
REV.

STATE	PROJ. NO.	SHEET NO.
MO		B40



PART LONGITUDINAL SECTION

LONGITUDINAL SECTION - UNIT 2



DETAILED: EAK JUNE 2005
CHECKED: GJD NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 40 OF 77

GREENE COUNTY

A7024

REV.

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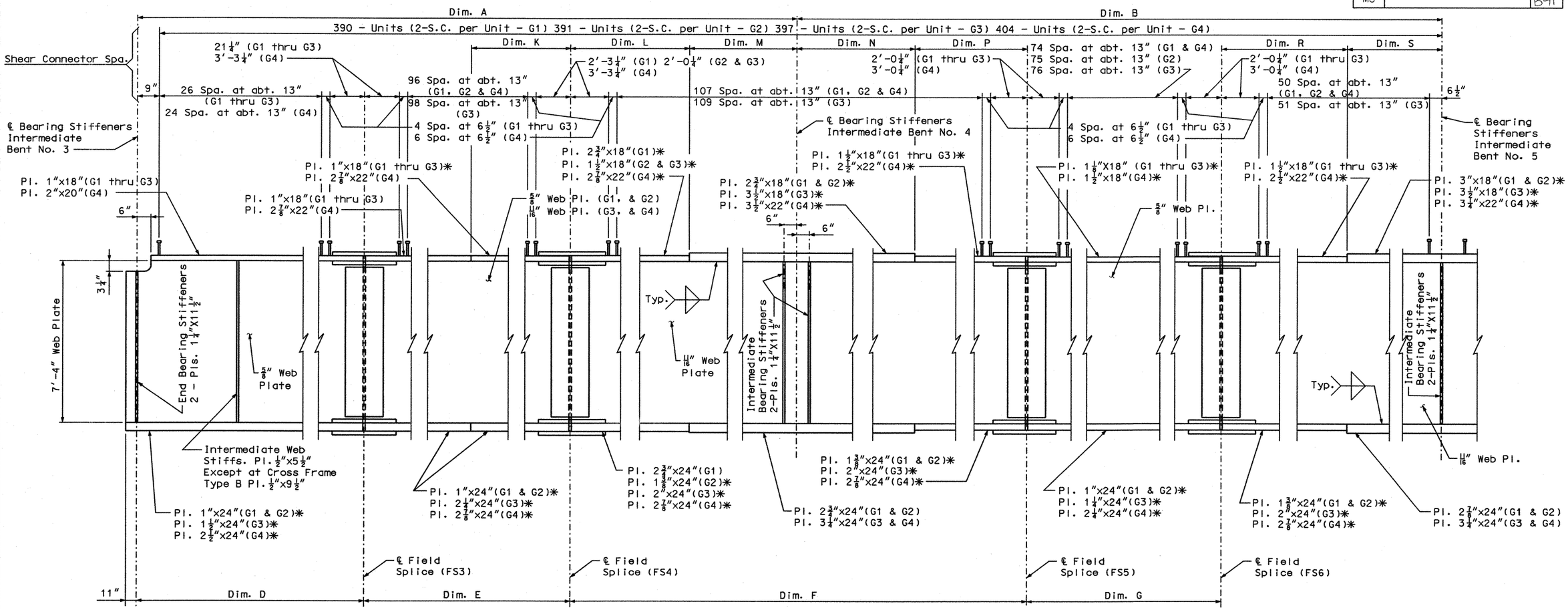
STATE	PROJ. NO.	SHEET NO.
MO		341



PARTIAL ELEVATION OF GIRDER

Note:
Shear Connector spacings may be shifted slightly to clear shop flange splices. For limits of top and bottom flanges in tension, see Plan of Structural Steel.

GIRDER VARIABLES

Girder No.	Dim. A	Dim. B	Dim. D	Dim. E	Dim. F	Dim. G	Dim. K	Dim. L	Dim. M	Dim. N	Dim. P	Dim. R	Dim. S
G1	179'-4 1/16"	231'-2 11/16"	31'-1 11/16"	110'-5"	122'-7 3/8"	88'-3 7/16"	43'-0 1/8"	12'-9 3/8"	25'-0"	29'-0"	55'-10"	34'-0 3/8"	24'-0 7/8"
G2	191'-0 1/16"	224'-10 1/8"	31'-6 11/16"	111'-10"	124'-2 1/4"	89'-5"	43'-6 3/4"	22'-7 3/8"	25'-0"	29'-0"	47'-6 7/8"	34'-5 5/8"	24'-4 5/8"
G3	202'-7 1/16"	218'-6 9/16"	31'-11 11/16"	113'-3"	125'-9 1/8"	90'-6 5/8"	44'-1 3/8"	32'-4 3/8"	25'-0"	29'-0"	39'-4 3/4"	34'-10 7/8"	24'-8 5/16"
G4	214'-1 1/16"	212'-3 7/8"	32'-4 5/8"	114'-8"	127'-4"	91'-8 13/16"	44'-8"	42'-0 7/16"	25'-0"	29'-0"	31'-3 9/16"	35'-4 1/8"	25'-0"

Notes:
Longitudinal dimensions are horizontal from ℄ bearing to ℄ bearing.

Plate girders shall be fabricated to be in accordance with the camber diagram shown on Sheet No. 56.

For location of slab drain attachment holes see slab drain details, Sheet No. 63.

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

* Indicates flange plates subject to notch toughness requirements.

Weight of 18,290 lbs. of shear connectors is included in the weight of Fabricated Structural Low Alloy Steel (Plate Girder) A709, Grade 50.

Shear connectors shall be in accordance with Sec 712, 1037 and 1080.

All web plates subject to notch toughness requirements.

The flange and web splice plates shall be subject to notch toughness requirements when notch toughness is required for flanges on both sides of splice.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

PARTIAL ELEVATION OF GIRDER - UNIT 2

DETAILED: EAK SEPT. 2005
CHECKED: JOS JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 41 OF 77

GREENE COUNTY

A7024

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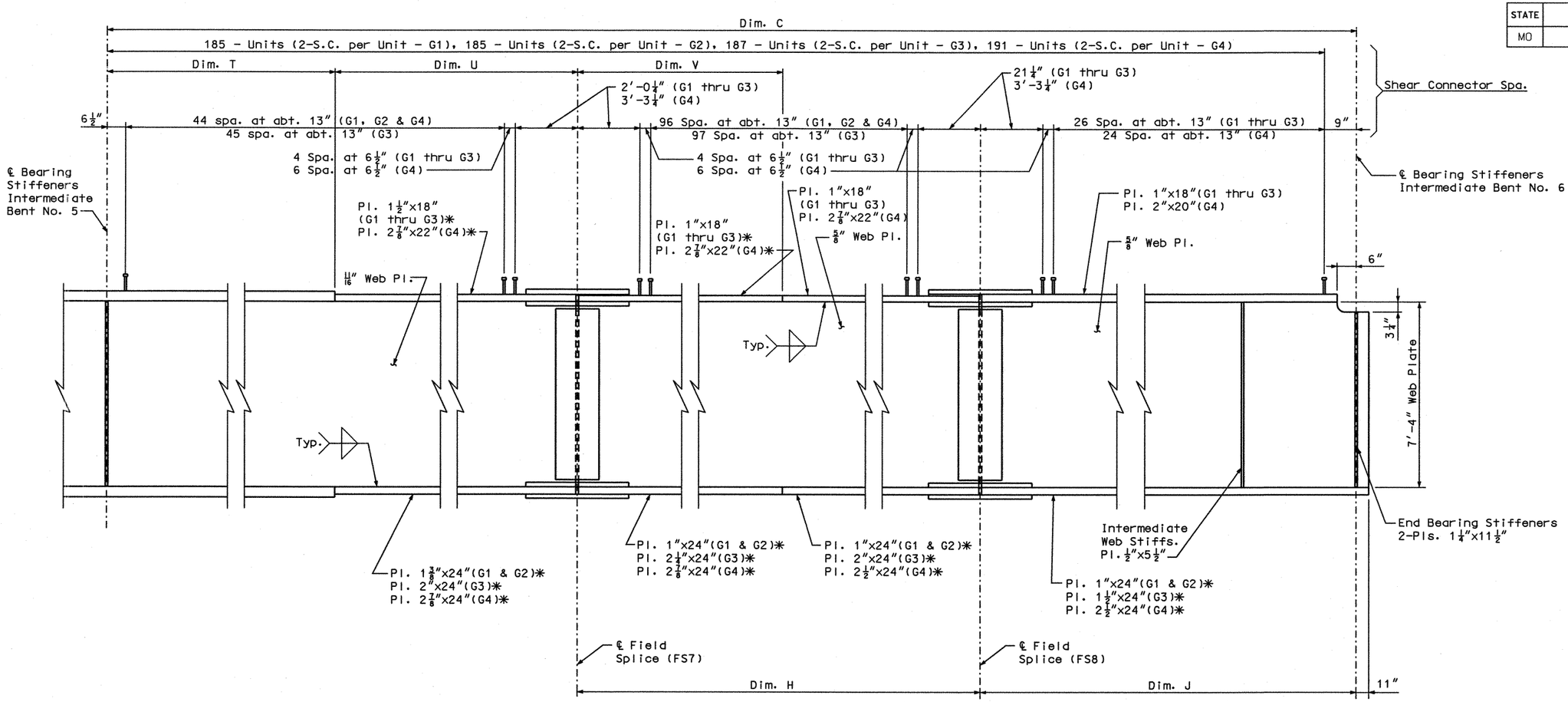
STATE	PROJ. NO.	SHEET NO.
MO		B42



Span (5-6)

PARTIAL ELEVATION OF GIRDER

Notes:
Shear connector spacing my be shifted to clear shop flange splices.
For limits of top and bottom flanges in tension, see Plan of Structural Steel.

GIRDER VARIABLES

Girder No.	Dim. C	Dim. H	Dim. J	Dim. T	Dim. U	Dim. V
G1	193'-0⅞"	110'-3⅛"	31'-1 11/16"	24'-0⅞"	27'-7 3/16"	48'-1¾"
G2	195'-6¾"	111'-8 1/16"	31'-6 11/16"	24'-4⅝"	27'-11⅜"	48'-9 3/16"
G3	198'-0⅝"	113'-1 1/16"	31'-11⅝"	24'-8 5/16"	28'-3⅝"	49'-4 9/16"
G4	200'-6½"	114'-6"	32'-4⅝"	25'-0"	28'-7⅞"	50'-0"

Notes:

Longitudinal dimensions are horizontal from ℄ bearing to ℄ bearing.

Plate girders shall be fabricated to be in accordance with the camber diagram shown on Sheet No. 56.

For location of slab drain attachment holes see slab drain details, Sheet No. 63.

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

* Indicates flange plates subject to notch toughness requirements.

Shear connectors shall be in accordance with Sec 712, 1037 and 1080.

All web plates subject to notch toughness requirements.

The flange and web splice plates shall be subject to notch toughness requirements when notch toughness is required for flanges on both sides of splice.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

PARTIAL ELEVATION OF GIRDER - UNIT 2

DETAILED: EAK SEPT. 2005
CHECKED: JOS JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 42 OF 77

GREENE COUNTY

A7024

REV.

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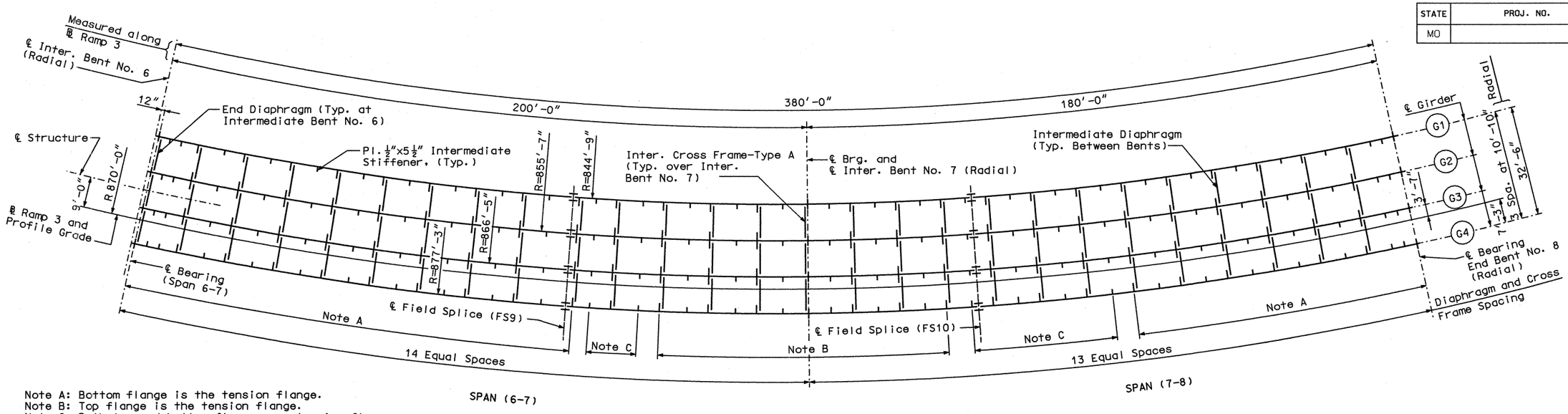
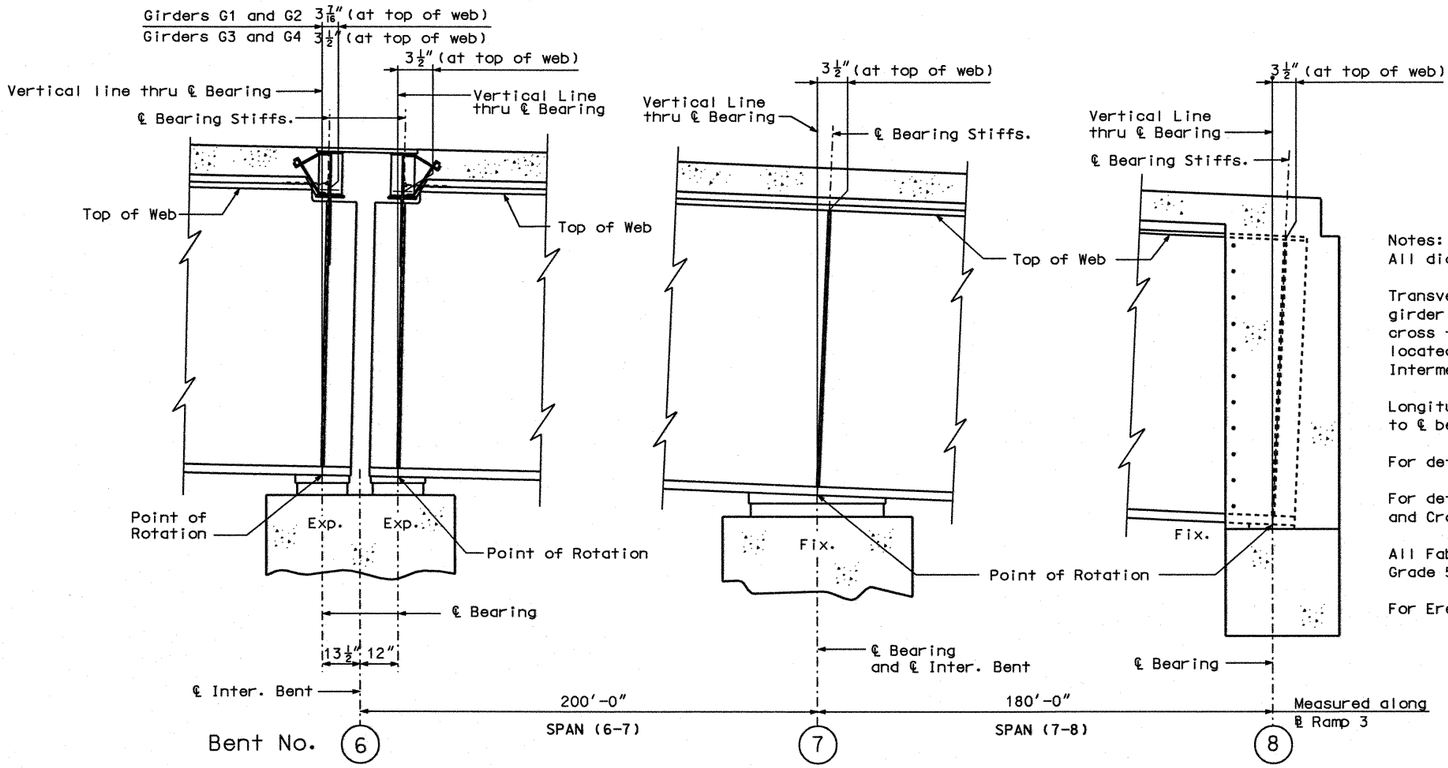
STATE	PROJ. NO.	SHEET NO.
MO		B43



Note A: Bottom flange is the tension flange.
Note B: Top flange is the tension flange.
Note C: Both top and bottom flanges are tension flanges.

PLAN OF STRUCTURAL STEEL - UNIT 3



PART LONGITUDINAL SECTION

Notes:
All diaphragms and cross frames are radial.

Transverse intermediate stiffeners are located on each girder in each bay midway between the diaphragms and cross frames. One additional intermediate stiffener is located in the quarter point of the bays adjacent to Intermediate Bent No. 6 and End Bent No. 8.

Longitudinal dimensions are horizontal from ℄ bearing to ℄ bearing.

For details of Bolted Field Splices, see Sheet Nos. 45 and 46.

For details of End Diaphragms, Intermediate Diaphragms, and Cross Frames, see Sheet No. 47.

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

For Erection Notes, see General Notes Sheet No. 5.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

FRAMING PLAN AND LONGITUDINAL SECTION - UNIT 3

DETAILED: EAK JUNE 2005
CHECKED: GJD NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 43 OF 77

GREENE COUNTY

A7024

REV.

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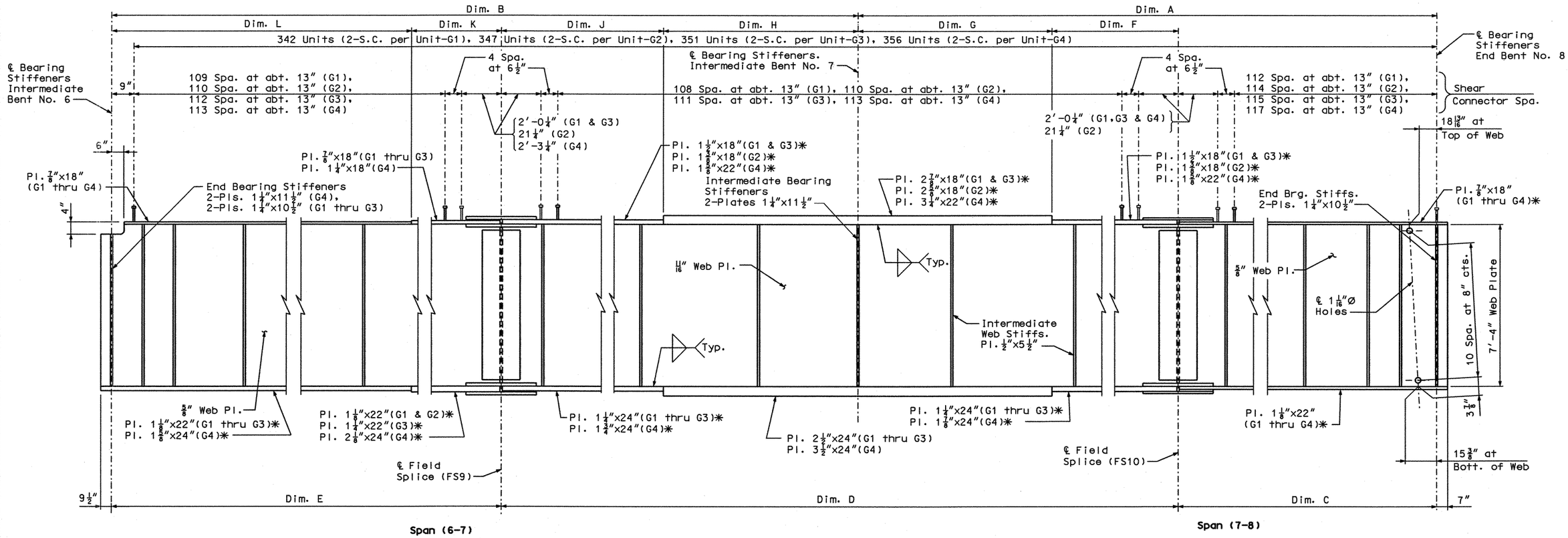
STATE	PROJ. NO.	SHEET NO.
MO		B44



ELEVATION OF GIRDER

Note:
Shear connector spacings may be shifted slightly to clear shop flange splices.
For limits of top and bottom flanges in tension, see Plan of Structural Steel.

GIRDER VARIABLES

Girder No.	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Dim. F	Dim. G	Dim. H	Dim J	Dim. K	Dim. L
G1	174'-9 5/16"	193' 2 11/16"	124'-3 7/16"	122'-4 1/16"	121'-4½"	27'-2¼"	23'-3 5/8"	23'-3 5/8"	48'-6 9/16"	76'-8½"	44'-8"
G2	177'-0 5/16"	195'-8 7/16"	125'-10½"	123'-11"	122'-11⅛"	27'-6 7/16"	23'-7¼"	23'-7¼"	49'-2 1/16"	77'-8 5/16"	45'-2 13/16"
G3	179'-3⅛"	198'-2 3/16"	127'-5 11/16"	125'-5¾"	124'-5 7/8"	27'-10 5/8"	23'-10 13/16"	23'-10 13/16"	49'-9½"	78'-8 1/16"	45'-9 13/16"
G4	181'-6"	200'-7⅞"	129'-0 13/16"	127'-0 9/16"	126'-0½"	28'-2 13/16"	24'-2⅜"	24'-2⅜"	50'-5"	79'-7⅞"	46'-4⅝"

Notes:

Longitudinal dimensions are horizontal from ℄ bearing to ℄ bearing.

Plate girders shall be fabricated to be in accordance with the camber diagram shown on Sheet No. 58.

For location of slab drain attachment holes see slab drain details, Sheet No. 63.

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

* Indicates flange plates subject to notch toughness requirements.

Weight of 2,600 lbs. of shear connectors is included in the weight of Fabricated Structural Low Alloy Steel (Plate Girder) A709, Grade 50.

Shear connectors shall be in accordance with Sec 712, 1037 and 1080.

All web plates subject to notch toughness requirements.

The flange and web splice plates shall be subject to notch toughness requirements when notch toughness is required for flanges on both sides of splice.

STATE OF MISSOURI
JOHN E. PINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

ELEVATION OF GIRDER - UNIT 3

DETAILED: EAK SEP. 2005
CHECKED: GJD NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 44 OF 77

GREENE COUNTY

A7024

REV.

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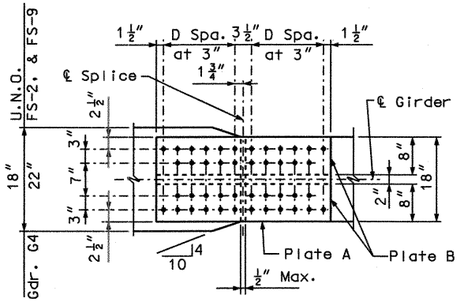
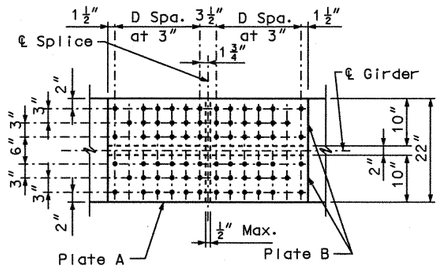
STATE	PROJ. NO.	SHEET NO.
MO		345



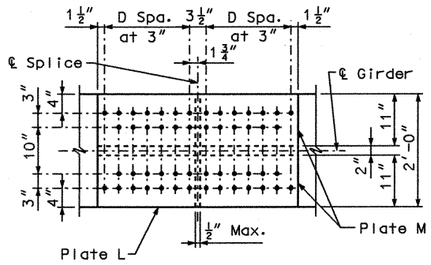
TOP FLANGE SPLICE – TYPE 1

Note: Fill plate C not shown.



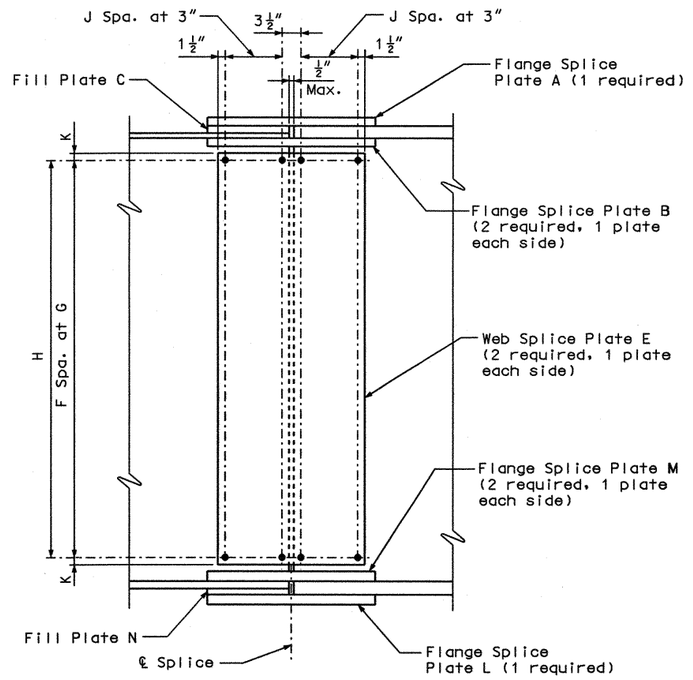
TOP FLANGE SPLICE – TYPE 4

Note: Fill plate C not shown.

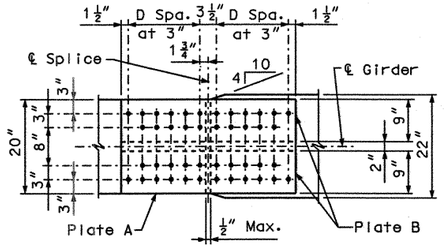


BOTTOM FLANGE SPLICE – TYPE 7

Note: Fill plate N not shown.

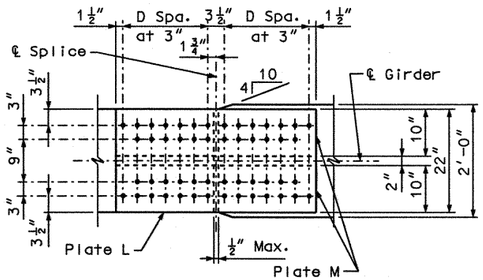


DETAIL OF BOLTED FIELD SPLICE



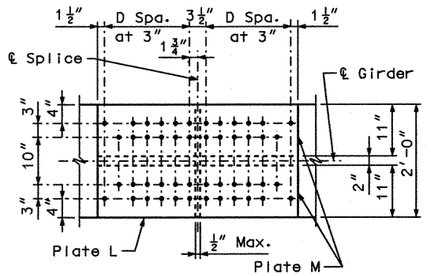
TOP FLANGE SPLICE – TYPE 2

Notes:
Fill plate C not shown.
Bolt threads shall be excluded from shear planes.



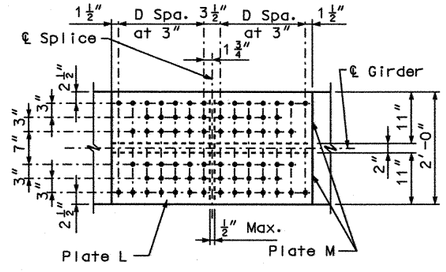
BOTTOM FLANGE SPLICE – TYPE 5

Note: Fill plate N not shown.



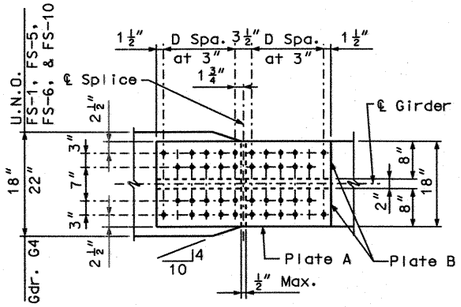
BOTTOM FLANGE SPLICE – TYPE 8

Note: Fill plate N not shown.



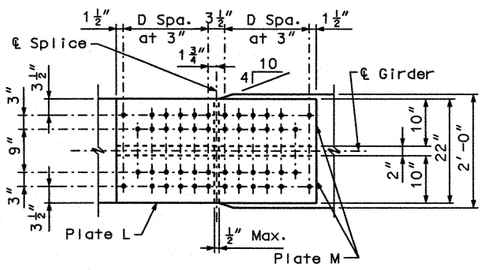
BOTTOM FLANGE SPLICE – TYPE 10

Note: Fill plate N not shown.



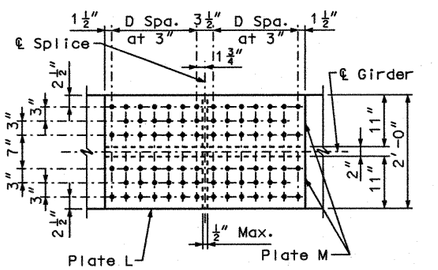
TOP FLANGE SPLICE – TYPE 3

Note: Fill plate C not shown.



BOTTOM FLANGE SPLICE – TYPE 6

Note: Fill plate N not shown.



BOTTOM FLANGE SPLICE – TYPE 9

Note: Fill plate N not shown.

Notes:

All Fabricated Structural Steel shall be ASTM A709, Grade 50.

All bolts are 7/8"Ø ASTM A325 high strength bolts in 15/16"Ø holes.

Contact surfaces shall be in accordance with Sec 1081 for surface preparation.

All splice plates shall be subject to notch toughness requirements.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

STEEL DETAILS

DETAILED: EAK OCT. 2005
CHECKED: MJS JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 45 OF 77

GREENE COUNTY

A7024

REV.

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STATE	PROJ. NO.	SHEET NO.
MO		B46

FIELD SPLICE VARIABLES

GIRDER NO.	SPLICE NO.	TOP FLANGE SPLICE					WEB SPLICE						BOTTOM FLANGE SPLICE				
		PLATE A	PLATE B	FILL PLATE C	D SPA.	TYPE	PLATE E	F	G	H	J	K	PLATE L	PLATE M	FILL PLATE N	D SPA.	TYPE
G1	FS1	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	7/16"x18½"x7'-1"	24	3¾"	6'-9"	2	2"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G1	FS2	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	⅜"x18½"x7'-1"	21	3½"	6'-9⅜"	2	1 13/16"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G1	FS3	½"x18"x3'-0½"	⅝"x8"x3'-0½"	---	5	3	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	½"x24"x4'-0½"	⅝"x11"x4'-0½"	---	7	8
G1	FS4	½"x18"x4'-0½"	⅝"x8"x4'-0½"	1¾"x18"x2'-0"	7	1	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	½"x24"x6'-0½"	⅝"x11"x6'-0½"	1¾"x24"x3-0"	11	8
G1	FS5	⅝"x18"x3'-6½"	⅝"x8"x3'-6½"	⅜"x18"x1'-9"	6	1	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	½"x24"x4'-6½"	⅝"x11"x4'-6½"	⅜"x24"x2'-3"	8	7
G1	FS6	⅝"x18"x3'-6½"	⅝"x8"x3'-6½"	⅜"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	½"x24"x4'-6½"	⅝"x11"x4'-6½"	⅜"x24"x2'-3"	8	7
G1	FS7	½"x18"x3'-6½"	⅝"x8"x3'-6½"	½"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	½"x24"x4'-6½"	⅝"x11"x4'-6½"	⅜"x24"x2'-3"	8	7
G1	FS8	½"x18"x3'-0½"	⅝"x8"x3'-0½"	---	5	3	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	½"x24"x4'-0½"	⅝"x11"x4'-0½"	---	7	8
G1	FS9	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	⅜"x18½"x7'-1"	21	3 7/16"	6'-9⅜"	2	1 13/16"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G1	FS10	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G2	FS1	½"x18"x3'-0½"	½"x8"x3'-0½"	½"x18"x1'-6"	5	1	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G2	FS2	½"x18"x3'-0½"	½"x8"x3'-0½"	½"x18"x1'-6"	5	1	⅜"x18½"x7'-1"	21	3 7/16"	6'-9⅜"	2	1 13/16"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G2	FS3	½"x18"x3'-0½"	⅝"x8"x3'-0½"	---	5	3	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	½"x24"x4'-0½"	⅝"x11"x4'-0½"	---	7	8
G2	FS4	½"x18"x3'-6½"	⅝"x8"x3'-6½"	½"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	½"x24"x4'-6½"	⅜"x11"x4'-6½"	⅜"x24"x2'-3"	8	7
G2	FS5	⅝"x18"x3'-6½"	⅝"x8"x3'-6½"	⅜"x18"x1'-9"	6	1	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	½"x24"x4'-6½"	⅝"x11"x4'-6½"	⅜"x24"x2'-3"	8	7
G2	FS6	⅝"x18"x3'-6½"	⅝"x8"x3'-6½"	⅜"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	½"x24"x4'-6½"	⅝"x11"x4'-6½"	⅜"x24"x2'-3"	8	7
G2	FS7	½"x18"x3'-6½"	⅝"x8"x3'-6½"	½"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	½"x24"x4'-6½"	⅝"x11"x4'-6½"	⅜"x24"x2'-3"	8	7
G2	FS8	½"x18"x3'-0½"	⅝"x8"x3'-0½"	---	5	3	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	½"x24"x4'-0½"	⅝"x11"x4'-0½"	---	7	8
G2	FS9	½"x18"x3'-0½"	½"x8"x3'-0½"	½"x18"x1'-6"	5	1	⅜"x18½"x7'-1"	21	3 7/16"	6'-9⅜"	2	1 13/16"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G2	FS10	½"x18"x3'-0½"	½"x8"x3'-0½"	½"x18"x1'-6"	5	1	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G3	FS1	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G3	FS2	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	11/16"x22"x4'-0½"	11/16"x10"x4'-0½"	---	7	5
G3	FS3	½"x18"x3'-0½"	⅝"x8"x3'-0½"	---	5	3	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	¾"x24"x4'-6½"	⅞"x11"x4'-6½"	¾"x24"x2'-3"	8	9
G3	FS4	½"x18"x3'-6½"	⅝"x8"x3'-6½"	½"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	23	3½"	6'-8½"	1	2¼"	1"x24"x5'-0½"	1⅛"x11"x5'-0½"	¼"x24"x2'-6"	9	9
G3	FS5	⅝"x18"x3'-6½"	⅝"x8"x3'-6½"	⅜"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	⅝"x24"x6'-0½"	¾"x11"x6'-0½"	¾"x24"x3'-0"	11	7
G3	FS6	⅝"x18"x3'-6½"	⅝"x8"x3'-6½"	⅜"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	24	3⅜"	6'-9"	1	2"	⅝"x24"x6'-0½"	¾"x11"x6'-0½"	¾"x24"x3'-0"	11	7
G3	FS7	½"x18"x3'-6½"	⅝"x8"x3'-6½"	½"x18"x1'-9"	6	1	⅜"x12½"x7'-1"	23	3½"	6'-8½"	1	2¼"	1"x24"x5'-0½"	1⅛"x11"x5'-0½"	¼"x24"x2'-6"	9	9
G3	FS8	½"x18"x3'-0½"	⅝"x8"x3'-0½"	---	5	3	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	¾"x24"x4'-0½"	⅞"x11"x4'-0½"	½"x24"x2'-0"	7	9
G3	FS9	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	⅜"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	11/16"x22"x4'-0½"	11/16"x10"x4'-0½"	---	7	5
G3	FS10	½"x18"x3'-6½"	½"x8"x3'-6½"	⅝"x18"x1'-9"	6	3	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	⅝"x22"x4'-0½"	⅝"x10"x4'-0½"	⅛"x22"x2'-0"	7	6
G4	FS1	½"x18"x3'-6½"	½"x8"x3'-6½"	¾"x18"x1'-9"	6	3	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	⅝"x22"x5'-0½"	⅝"x10"x5'-0½"	¾"x22"x2'-6"	9	5
G4	FS2	⅝"x18"x4'-0½"	¾"x8"x4'-0½"	⅜"x18"x2'-0"	7	1	7/16"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	⅞"x24"x5'-0½"	1"x11"x5'-0½"	⅜"x24"x2'-6"	9	10
G4	FS3	1⅛"x20"x6'-0½"	1⅛"x9"x6'-0½"	⅞"x20"x3'-0"	11	2	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	1⅜"x24"x6'-0½"	1⅜"x11"x6'-0½"	⅜"x24"x3'-0"	11	9
G4	FS4	1⅛"x22"x6'-0½"	1⅛"x10"x6'-0½"	---	11	4	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	1½"x24"x6'-0½"	1⅜"x11"x6'-0½"	---	11	9
G4	FS5	¾"x18"x5'-6½"	⅞"x8"x5'-6½"	1"x18"x2'-9"	10	3	⅜"x12½"x7'-1"	24	3⅜"	6'-9"	1	2"	1½"x24"x6'-0½"	1¼"x11"x6'-0½"	⅝"x24"x3'-0"	11	9
G4	FS6	¾"x18"x5'-6½"	⅞"x8"x5'-6½"	1"x18"x2'-9"	10	3	⅜"x12½"x7'-1"	24	3⅜"	6'-9"	1	2"	1½"x24"x6'-0½"	1¼"x11"x6'-0½"	⅝"x24"x3'-0"	11	9
G4	FS7	1½"x22"x6'-0½"	1⅝"x10"x6'-0½"	---	11	4	⅜"x12½"x7'-1"	26	3⅛"	6'-9¼"	1	1⅞"	1½"x24"x6'-0½"	1⅝"x11"x6'-0½"	---	11	9
G4	FS8	1⅛"x20"x6'-0½"	1⅛"x9"x6'-0½"	⅞"x20"x3'-0"	11	2	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	1⅜"x24"x5'-6½"	1⅜"x11"x5'-6½"	---	10	9
G4	FS9	⅝"x18"x4'-0½"	¾"x8"x4'-0½"	⅜"x18"x2'-0	7	1	7/16"x18½"x7'-1"	23	3½"	6'-8½"	2	2¼"	⅞"x24"x5'-0½"	1"x11"x5'-0½"	⅜"x24"x2'-6"	9	10
G4	FS10	½"x18"x3'-6½"	½"x8"x3'-6½"	¾"x18"x1'-9"	6	3	7/16"x18½"x7'-1"	24	3⅜"	6'-9"	2	2"	⅝"x22"x5'-0½"	⅝"x10"x5'-0½"	¾"x22"x2'-6"	9	5

Notes:
For Field Splice notes, see Sheet No. 45.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
11/28/06

STEEL DETAILS

DETAILED: EAK OCT. 2005
CHECKED: MJS JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 46 OF 77

GREENE COUNTY

A7024

REV.

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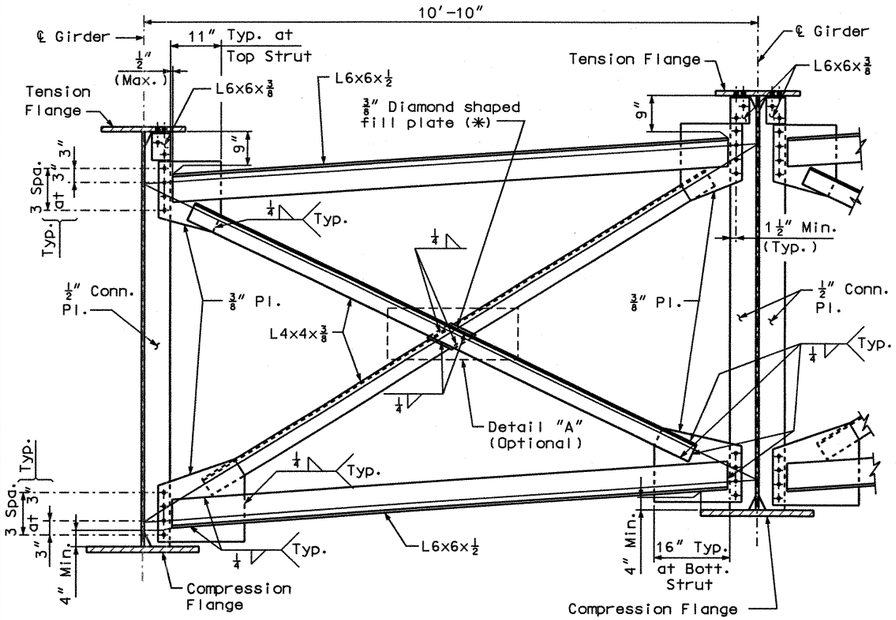
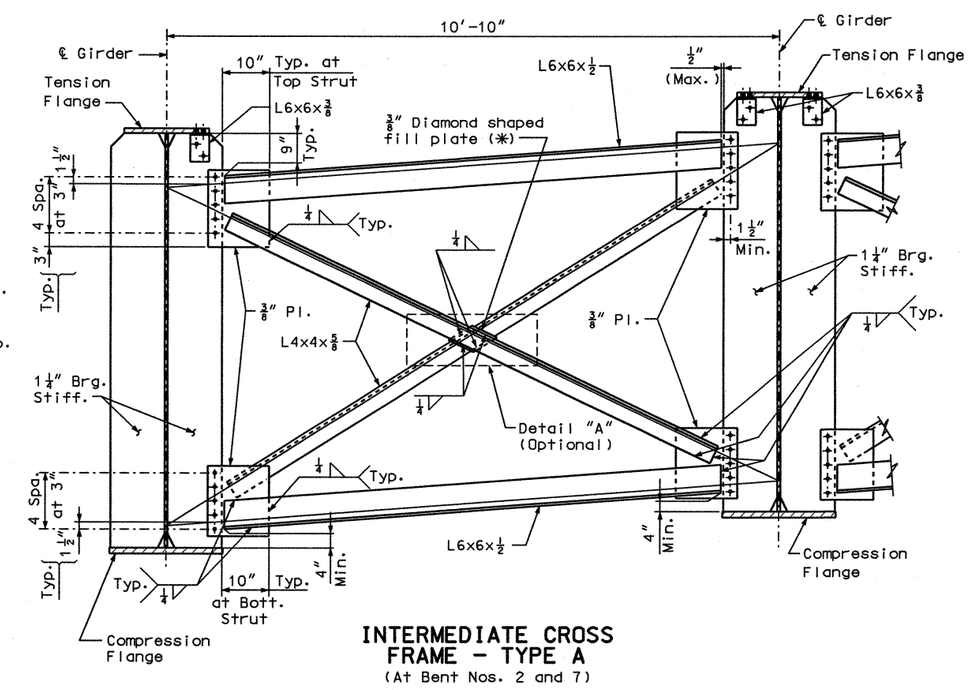
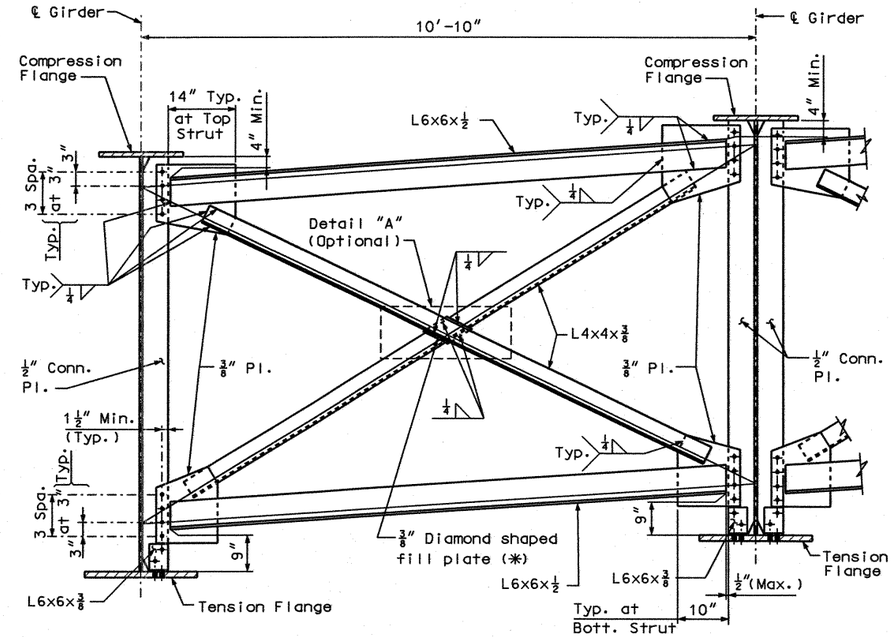
STATE	PROJ. NO.	SHEET NO.
MO		B47



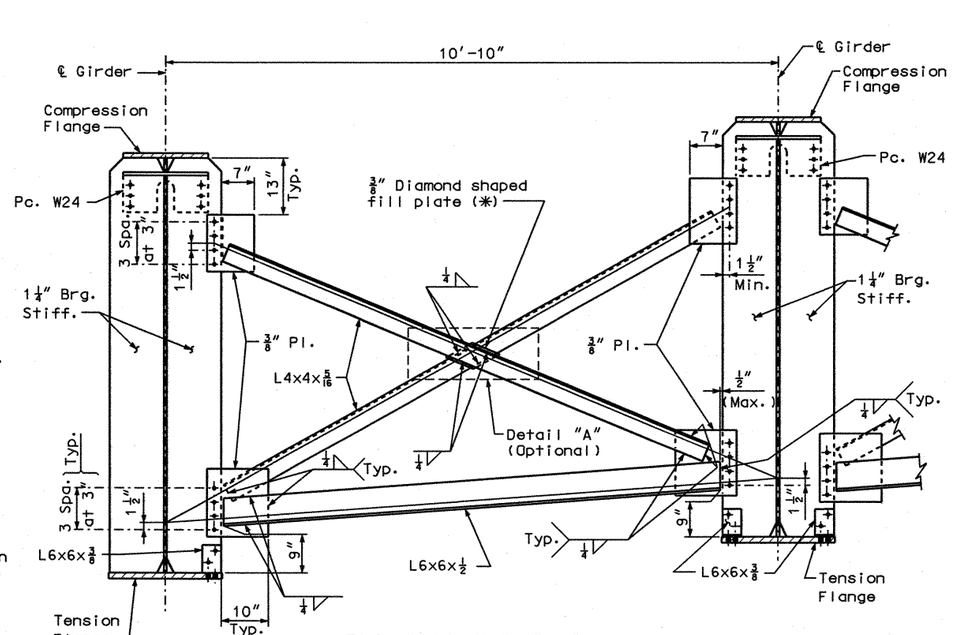
INTERMEDIATE DIAPHRAGMS TOP FLANGE IN TENSION UNITS 1 AND 3



INTERMEDIATE CROSS FRAME – TYPE A
(At Bent Nos. 2 and 7)



INTERMEDIATE DIAPHRAGMS BOTTOM FLANGE IN TENSION UNITS 1 AND 3



END DIAPHRAGMS AT INTERMEDIATE BENT NOS. 3 AND 6

Note: Connection for Pc. W24 to girder shall be made with 3/4" diameter high strength bolts.

Notes:
At the Contractor's option, holes in the diaphragm plate of non slab bearing diaphragms may be made 3/16" larger than the nominal diameter of the bolt. A hardened washer shall be used under the bolt head and nut when this option is used. Holes in the girder diaphragm connection plate or transverse web stiffener shall be standard size.

* At the Contractor's option, rectangular fill plates may be used in lieu of diamond fill plates as shown in Detail "A", Sheet No. 49.

STATE OF MISSOURI
JORGE E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: GJD/EAK NOV. 2005
CHECKED: RDR JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

STEEL DETAILS

SHEET NO. 47 OF 77

GREENE COUNTY

A7024

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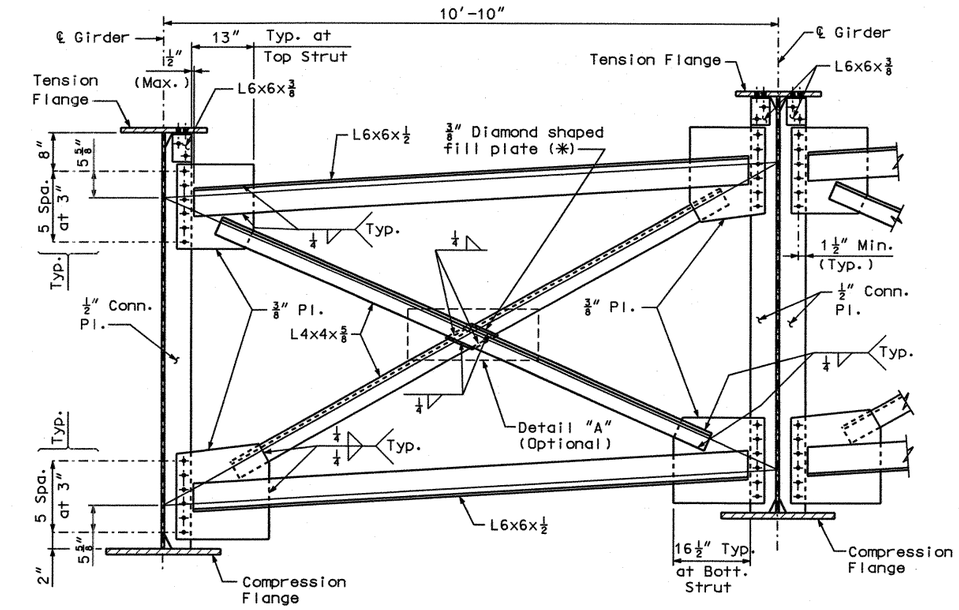
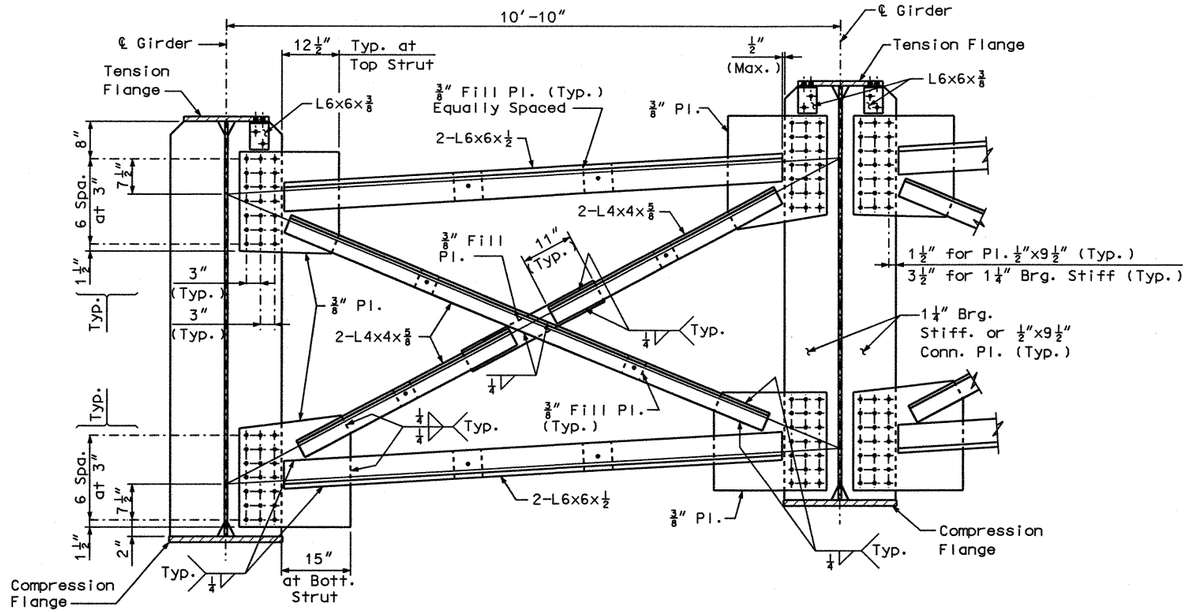
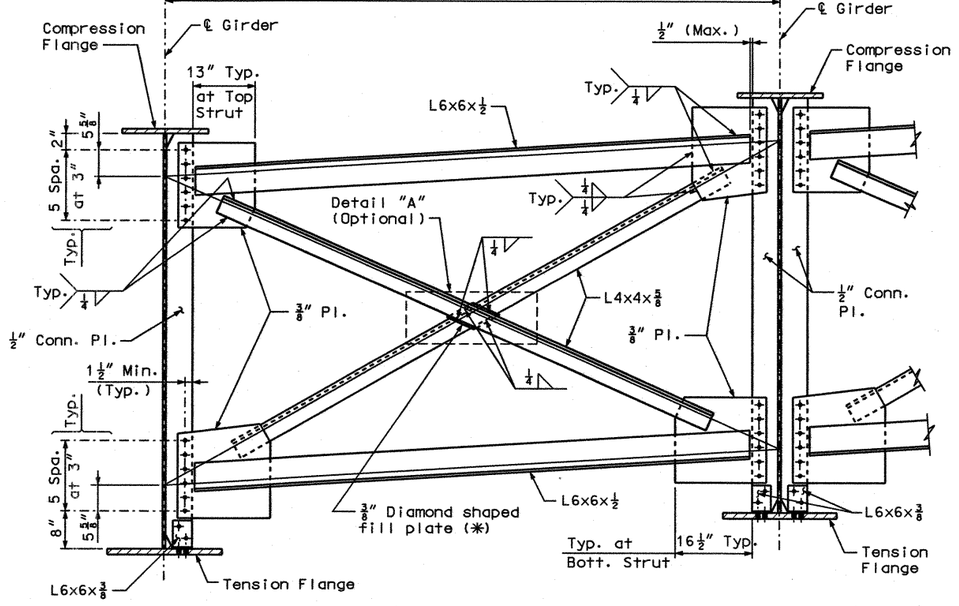
STATE	PROJ. NO.	SHEET NO.
MO		B48



INTERMEDIATE DIAPHRAGMS
TOP FLANGE IN TENSION
UNIT 2



INTERMEDIATE CROSS
FRAME TYPE - B
(At Bents Nos. 4 and 5)



INTERMEDIATE DIAPHRAGMS
BOTTOM FLANGE IN TENSION
UNIT 2

Notes:
At the Contractor's option, holes in the diaphragm plate of non slab bearing diaphragms may be made 3/16" larger than the nominal diameter of the bolt. A hardened washer shall be used under the bolt head and nut when this option is used. Holes in the girder diaphragm connection plate or transverse web stiffener shall be standard size.

* At the Contractor's option, rectangular fill plates may be used in lieu of diamond fill plates as shown in Detail "A", Sheet No. 49.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: EAK/GJD DEC. 2005
CHECKED: RDR JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

STEEL DETAILS

SHEET NO. 48 OF 77

GREENE COUNTY

A7024

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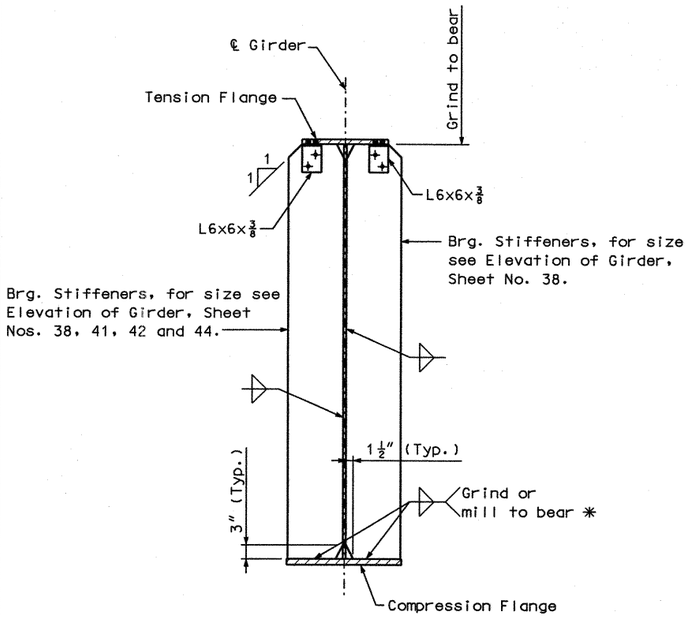
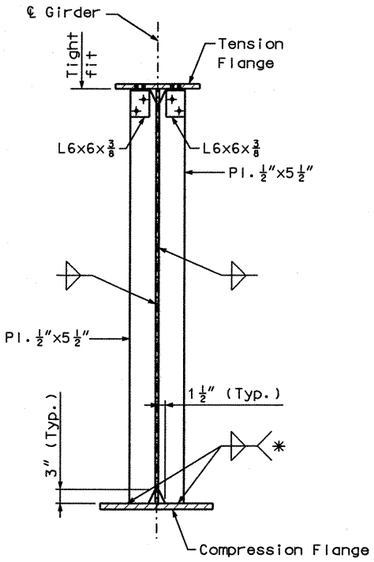
STATE	PROJ. NO.	SHEET NO.
MO		B49



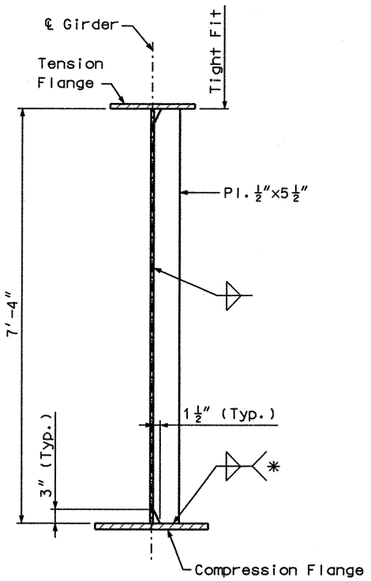
BEARING STIFFENERS

Note:
* Weld to compression flange as indicated on Plan of Structural Steel, Sheet Nos. 37, 39 and 43.



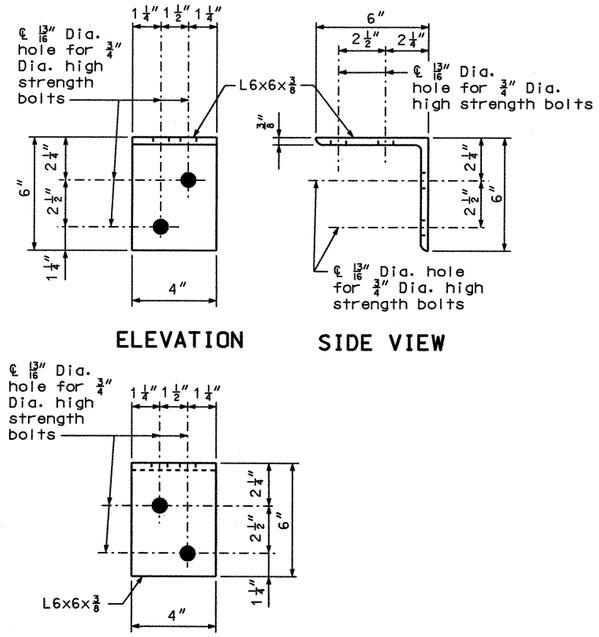
INTERMEDIATE DIAPHRAGM CONNECTION PLATE

Note:
If both flanges are in tension provide connection angles at both ends of the connection plate.
* Weld to compression flange as indicated on Plan of Structural Steel, sheet Nos. 37, 39 and 43.



INTERMEDIATE STIFFENERS BETWEEN INTERMEDIATE DIAPHRAGMS

Note:
* Weld to compression flange as indicated on Plan of Structural Steel, Sheet Nos. 37, 39 and 43.

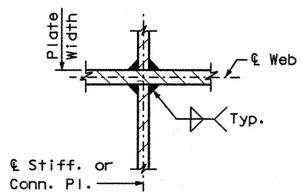


ELEVATION

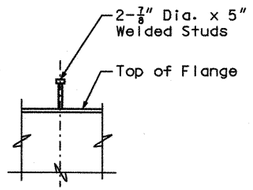
SIDE VIEW

PLAN

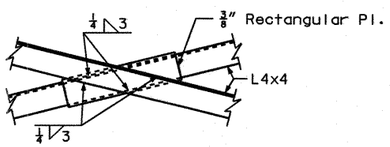
DETAIL OF FLANGE CONNECTION ANGLE



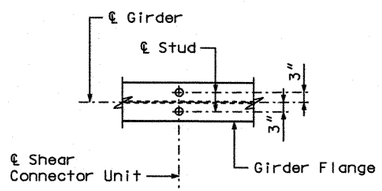
WELDING DETAILS



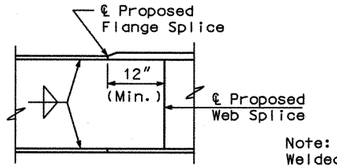
ELEVATION OF SHEAR CONNECTOR



DETAIL "A" (OPTIONAL)

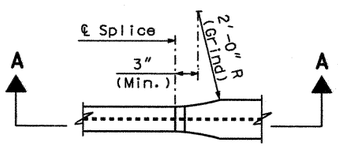


PLAN OF SHEAR CONNECTOR

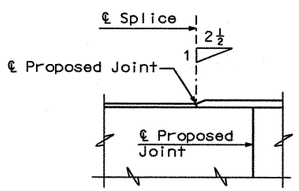


WELDED SHOP WEB SPLICE

Note:
Welded shop web and flange splices may be permitted when detailed on the shop drawings and approved by the engineer. No additional payment will be made for optional welded shop web and flange splices.



PLAN 2'-0" RADIUS TRANSITION



SECTION A-A WELDED SHOP FLANGE SPLICE

Notes:
All Fabricated Structural Steel shall be ASTM A709, Grade 50.

The two 3/4" diameter H.S. bolts that connect the 6x6x3/8 angles to the top flange shall be placed so the nut is on the inside of flange toward the web.

The 6x6x3/8 angle legs shall be adjusted to the variable angle between bearing stiffener and top flange created by girder tilt due to grade requirements.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: EAK OCT. 2005
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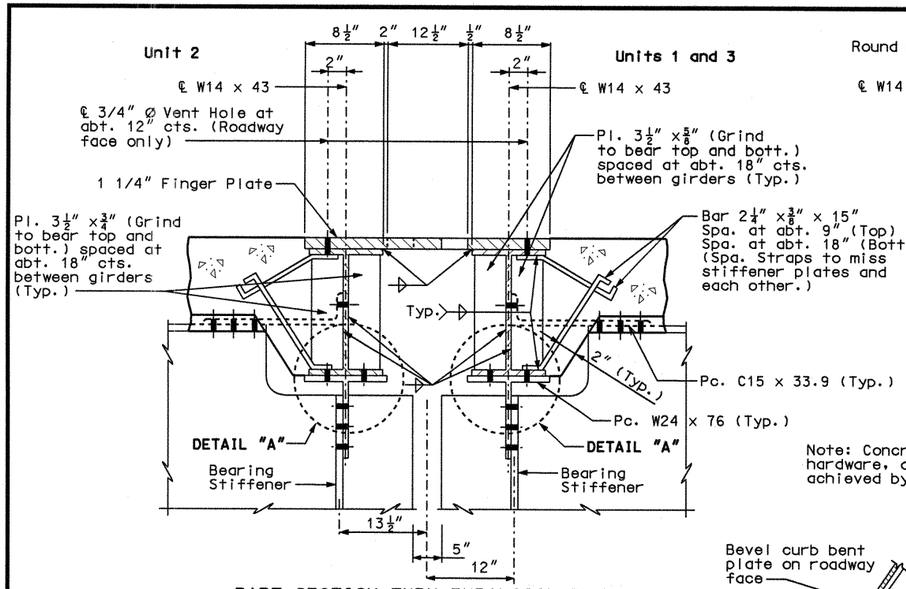
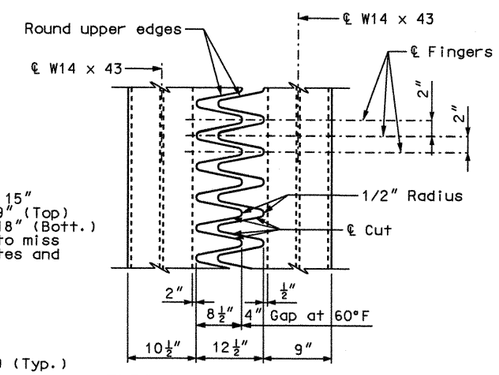
ST. LOUIS, MO.

STEEL DETAILS

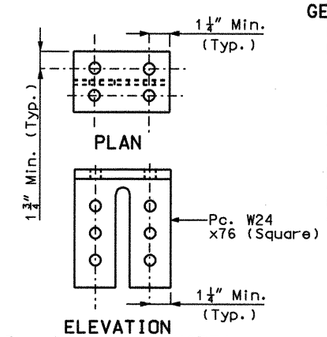
STATE	PROJ. NO.	SHEET NO.
MO		B50



PART SECTION THRU EXPANSION DEVICE



TYPICAL PLAN OF PLATE



ELEVATION
Pc. W24x76 (SQUARE)

Note: Concrete shall be forced under and around finger plate supporting hardware, anchors, angles and bars. Proper consolidation shall be achieved by localized internal vibration.

GENERAL NOTES:

Finger plate shall be cut with a machine guided gas torch from one plate. The plate from which fingers are cut may be spliced before fingers are cut. The surface of cut shall be perpendicular to the surface of the plate. The cut shall not exceed 1/8" in width. The centerline of cut shall not deviate more than 1/16" from the position of centerline of cut shown. No splicing of finger plate or finger plate assembly will be allowed after fingers are cut. The expansion device shall be fabricated and installed to the crown and grade of the roadway.

Plan dimensions are based on installation at 60°F. The expansion gap and other dimensions shall be increased or decreased 5/16" for Bent 3 and 1/2" for Bent 6 for each 10°F rise or fall in temperature at installation.

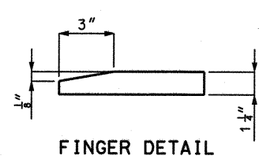
Material for the expansion device shall be ASTM A709 Grade 36 structural steel. Anchors for the expansion device shall be in accordance with Sec 1037.

Structural steel for the expansion device and curb plate shall be coated with a minimum of two coats of inorganic zinc primer (5 mils minimum) or galvanized in accordance with ASTM A123. Anchors need not be protected from overspray.

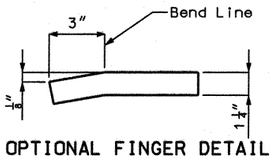
Payment for furnishing, coating or galvanizing and installing the structural steel for the expansion device will be considered completely covered by the contract unit price for Expansion Device (Finger Plate) per lin. ft.

All holes shown for connections to be subpunched 11/16" Ø (shop or field drill) and reamed to 13/16" Ø in field.

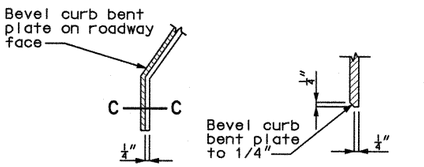
Longitudinal reinforcing steel shall be placed so that ends shall not be more than ±1" from the web of W14x43 at the expansion device.



FINGER DETAIL

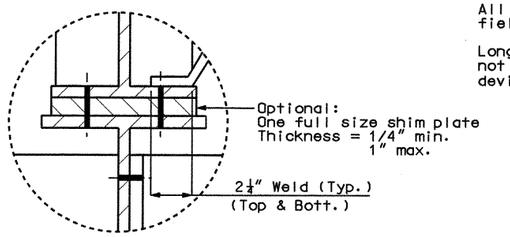


OPTIONAL FINGER DETAIL

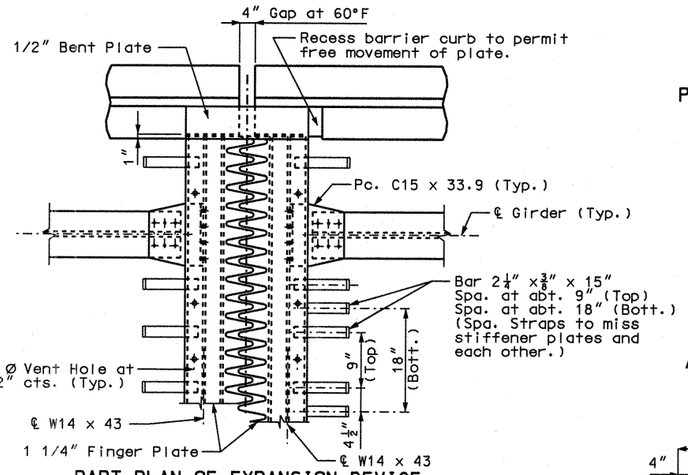


PART ELEVATION AT END OF BEVELED CURB BENT PLATE

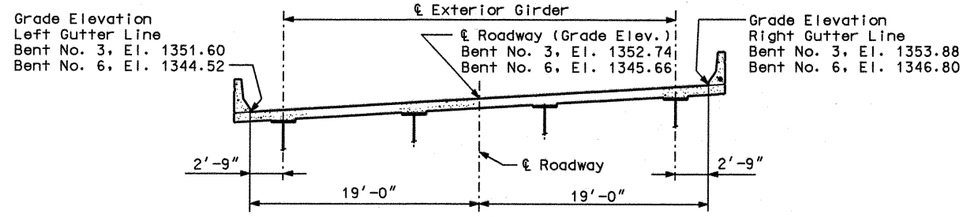
SECTION C-C



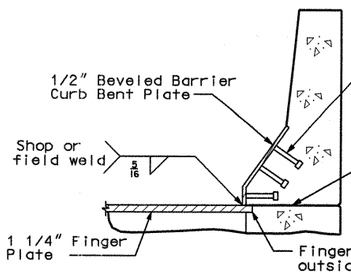
DETAIL "A"



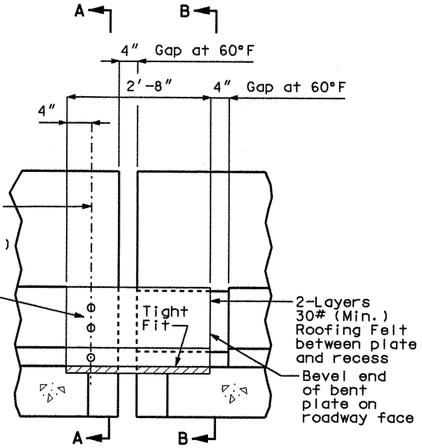
PART PLAN OF EXPANSION DEVICE



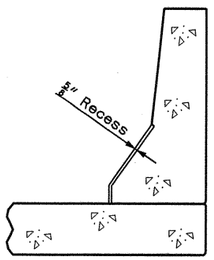
SECTION THRU EXPANSION GAP AT INTERMEDIATE BENT NOS. 3 AND 6



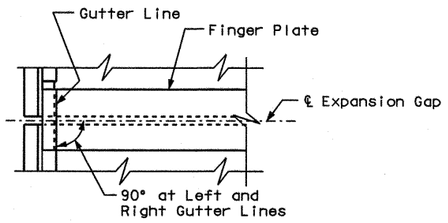
PART SECTION A-A



ELEVATION OF BARRIER CURB



PART SECTION B-B



PART PLAN

DETAILS OF FINGER PLATE EXPANSION DEVICE AT INT. BENT NOS. 3 AND 6

DETAILED: GJD OCT. 2005
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ST. LOUIS, MO.

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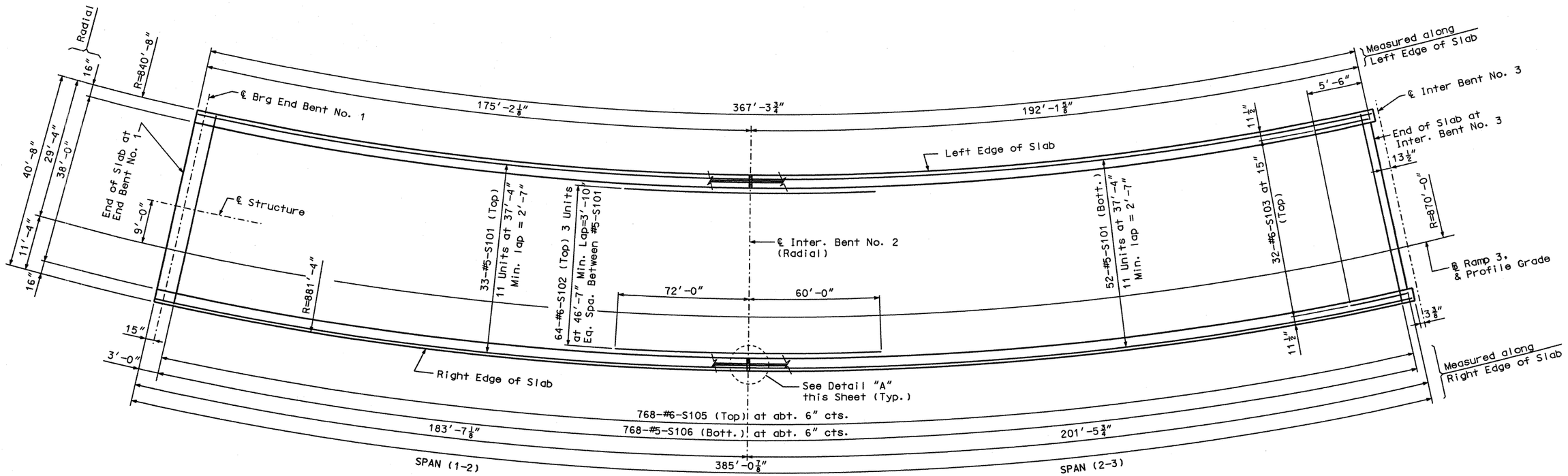
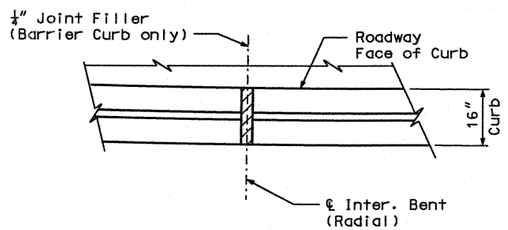
STATE	PROJ. NO.	SHEET NO.
MO		651



PLAN OF SLAB SHOWING REINFORCEMENT- UNIT 1

Note: All transverse reinforcing shall be spaced and placed radial along right edge of slab. Longitudinal reinforcing steel shall be placed so that ends shall not be more than 1"± from the web of the W14x43 at the expansion device.



DETAIL "A"

Notes:

Longitudinal slab dimensions are measured horizontally.

For Section thru Slab, see Sheet No. 54.

For Slab Pouring Sequence, see Sheet No. 62.

For details and Reinforcement of Safety Barrier Curb not shown, see Sheet No. 64.

For Theoretical Bottom of Slab Elevations, Theoretical Slab Haunching Diagram, Plate Girder Camber Diagram and Dead Load Deflections, see Sheet No. 55.

STATE OF MISSOURI
JOHN F. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/3/06

DETAILS OF SLAB REINFORCEMENT - UNIT 1

DETAILED: GJD JUNE 2005
CHECKED: FAC JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 51 OF 77

GREENE COUNTY

A7024

REV.

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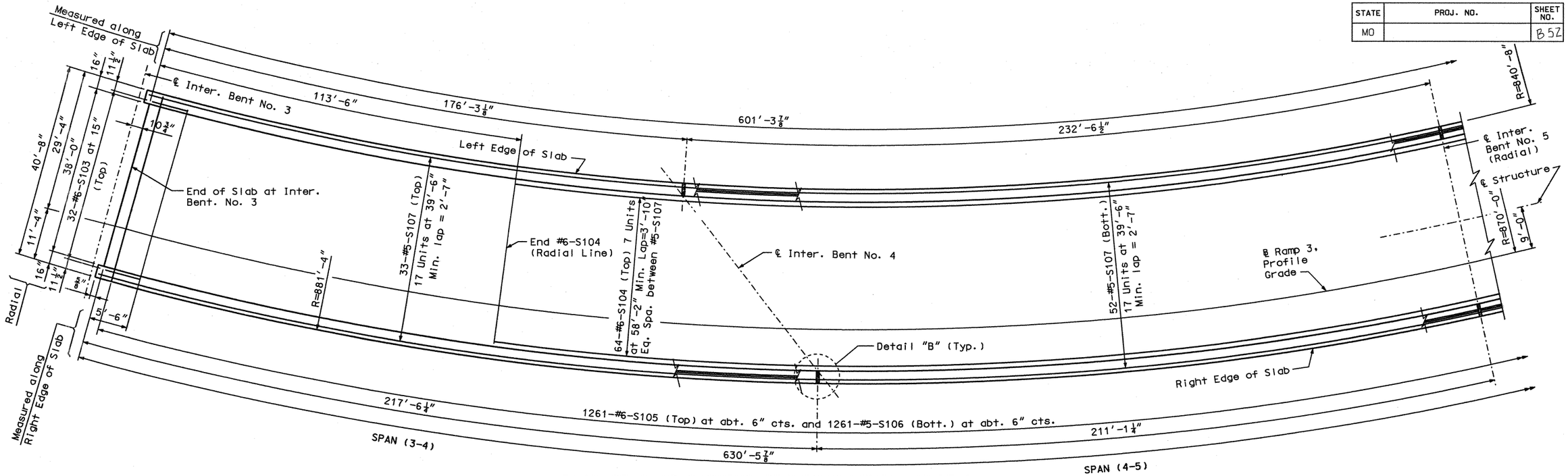
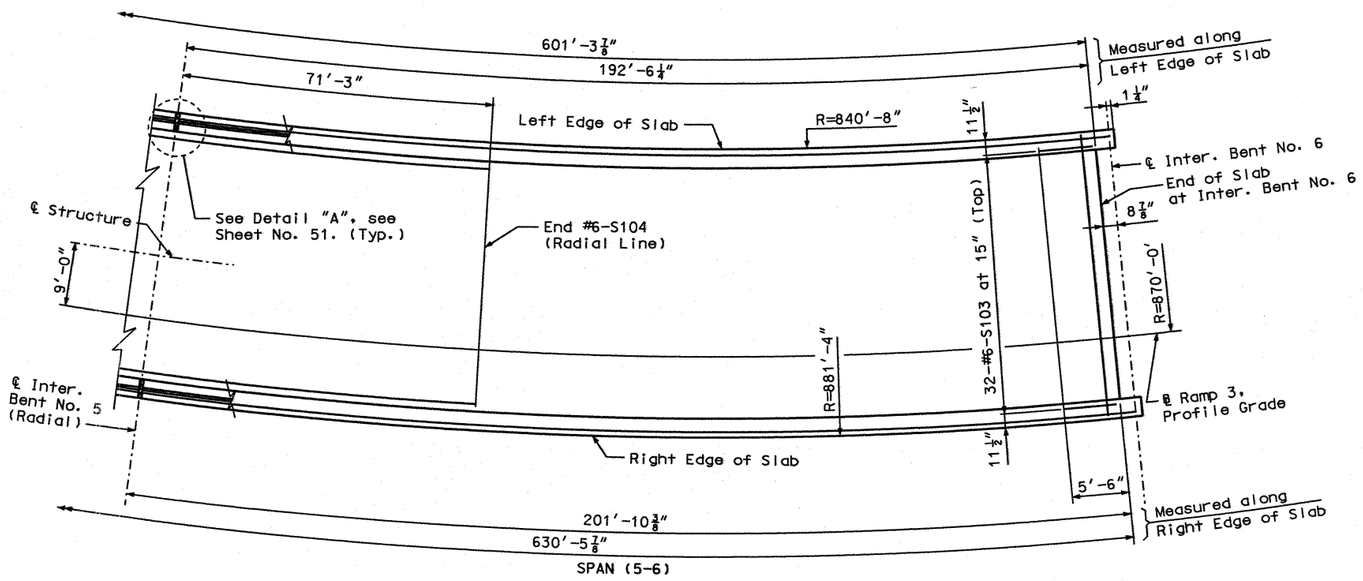
STATE	PROJ. NO.	SHEET NO.
MO		B52

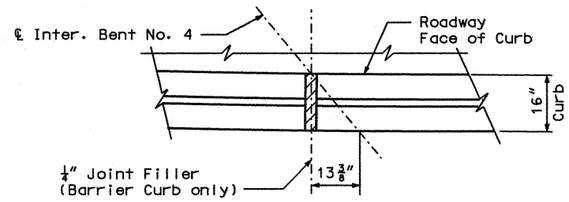


PLAN OF SLAB SHOWING REINFORCEMENT – UNIT 2

Note: All transverse reinforcing shall be spaced and placed radial along right edge of slab. Longitudinal reinforcing steel shall be placed so that ends shall not be more than 1″± from the web of the W14x43 at the expansion device.



PLAN OF SLAB SHOWING REINFORCEMENT – UNIT 2



DETAIL "B"

Notes:

Longitudinal slab dimensions are measured horizontally.

For Section thru Slab, see Sheet No. 54.

For Slab Pouring Sequence, see Sheet No. 62.

For details and Reinforcement of Safety Barrier Curb not shown, see Sheet No. 65.

For PLate Girder Camber Diagram and Dead Load Deflections, see Sheet No. 56.

For Theoretical Bottom of Slab Elevations and Theoretical Slab Haunching Diagram, see Sheet No. 57.

For Detail "A", see Sheet No. 51.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 2/3/06

DETAILS OF SLAB REINFORCEMENT – UNIT 2

DETAILED: GJD JUNE 2005
CHECKED: FAC JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 52 OF 77

GREENE COUNTY

A7024

REV.

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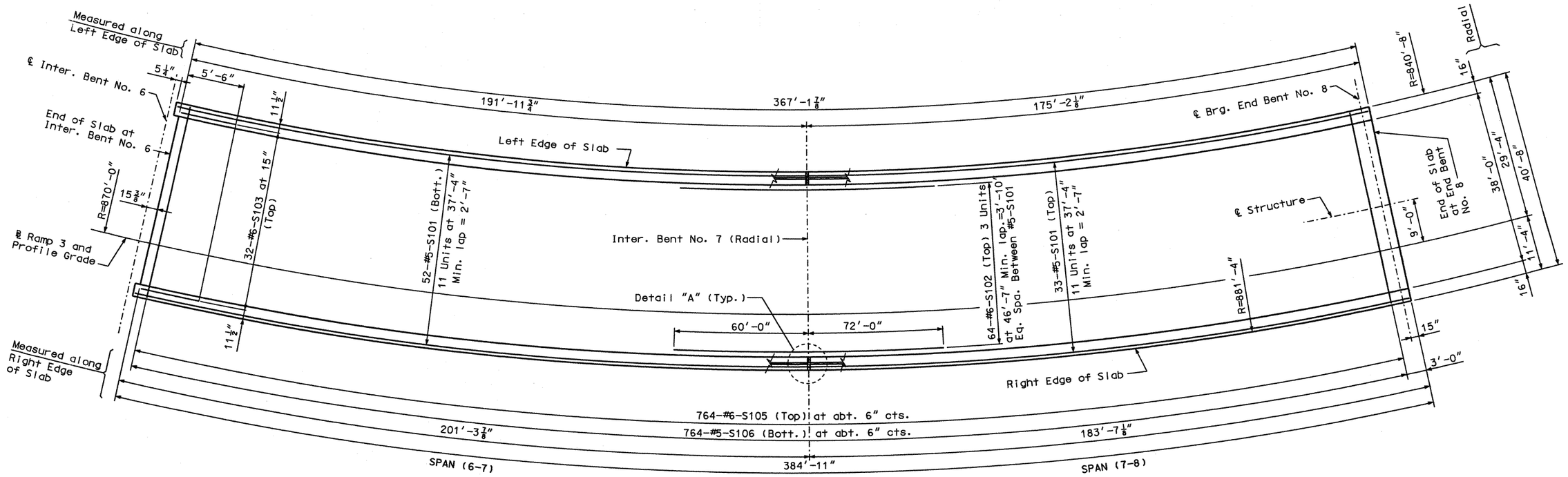
STATE	PROJ. NO.	SHEET NO.
MO		B53



PLAN OF SLAB SHOWING REINFORCEMENT- UNIT 3

Note: All transverse reinforcing shall be spaced and placed radial along right edge of slab. Longitudinal reinforcing steel shall be placed so that ends shall not be more than 1"± from the web of the W14x43 at the expansion device.

Notes:

Longitudinal slab dimensions are measured horizontally.

For Section thru Slab, see Sheet No. 54.

For Slab Pouring Sequence, see Sheet No. 62.

For details and Reinforcement of Safety Barrier Curb not shown, see Sheet No. 66.

For Theoretical Bottom of Slab Elevations, Theoretical Slab Haunching Diagram, Plate Girder Camber Diagram and Dead Load Deflections, see Sheet No. 58.

For Detail "A", see Sheet No. 51.

STATE OF MISSOURI
JOHN E. PINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/3/06

DETAILS OF SLAB REINFORCEMENT - UNIT 3

DETAILED: GJD JUNE 2005
CHECKED: FAC JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 53 OF 77

GREENE COUNTY

A7024

REV.

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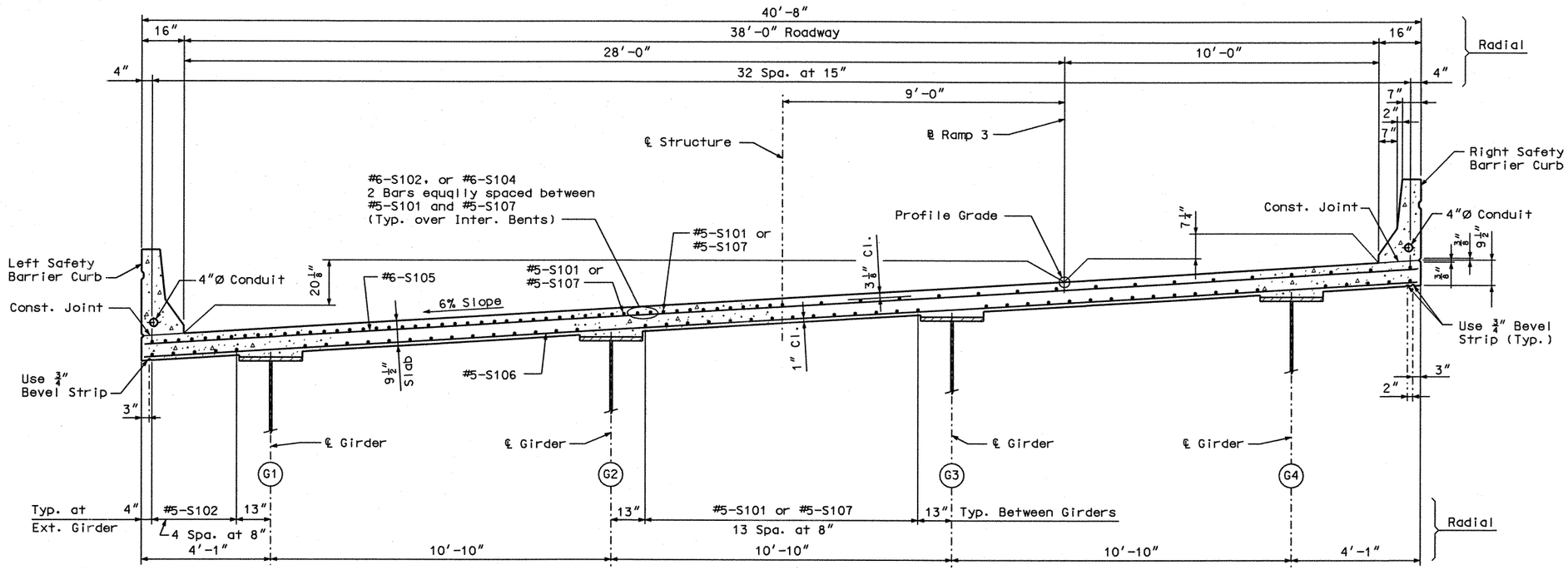
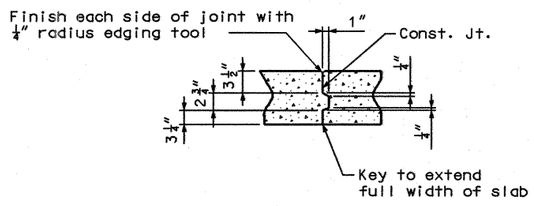


HALF SECTION NEAR INTERMEDIATE BENT AND HALF SECTION AT SPAN (4-5)

HALF SECTION NEAR ℄ SPAN

TYPICAL CROSS SECTION
(Looking ahead station)



TYPICAL SLAB CONSTRUCTION JOINT DETAIL

Notes:

For details of Slab Pouring Sequence, see Sheet No. 62.

For details of Safety Barrier Curbs, see Sheet Nos. 64 thru 66.

For Plan of Slab Showing Reinforcement, see Sheet Nos. 51 thru 53.

For details of Slab Drains, see Sheet No. 63.

STATE OF MISSOURI
NORM E. FINKE
NUMBER E-26598
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF SLAB REINFORCEMENT - UNITS 1 THRU 3

DETAILED: GJD JULY 2005
CHECKED: FAC DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 54 OF 77

GREENE COUNTY

A7024

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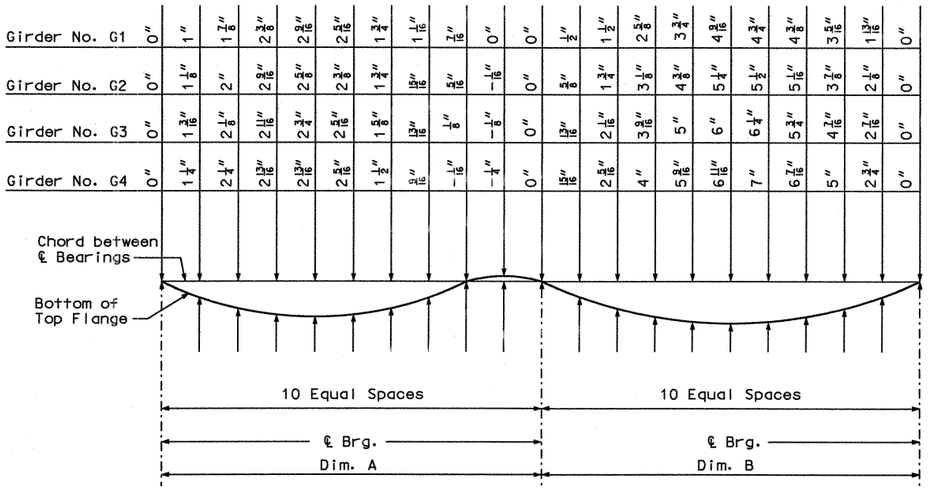
STATE	PROJ. NO.	SHEET NO.
MO		B55



DEAD LOAD DEFLECTION DIAGRAM

Notes:

Dead load deflection includes weight of structural steel, concrete slab, and barrier curb.

24% of dead load deflection is due to the weight of structural steel.

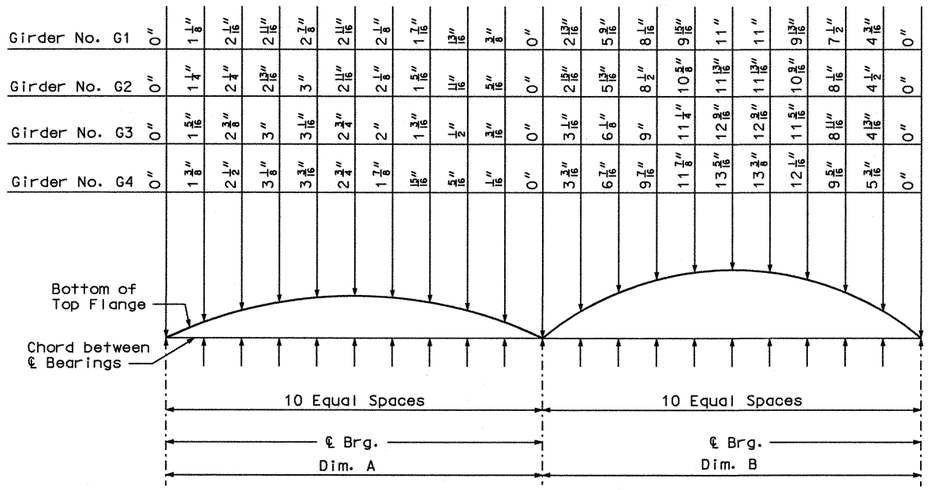


PLATE GIRDER CAMBER DIAGRAM

Note:

Camber includes allowance for vertical curve and dead load deflection due to concrete slab, curb and structural steel.

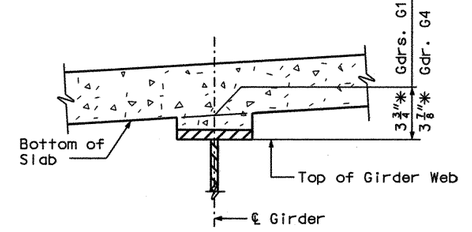
VARIABLE DIMENSIONS

Girder	Dim. A	Dim. B
G1	174′-9 5/16″	193′-2 11/16″
G2	177′-0 3/16″	195′-8 7/16″
G3	179′-3 1/8″	198′-2 3/16″
G4	181′-6″	200′-7 7/8″

THEORETICAL BOTTOM OF SLAB ELEVATIONS AT ℄ OF GIRDER (PRIOR TO FORMING FOR SLAB) **

Location	Span 1-2 (Dim. A ℄ Brg. - ℄ Brg.)											Span 2-3 (Dim. B ℄ Brg. - ℄ Brg.)										
	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.
Girder No. G1	1336.67	1337.55	1338.41	1339.25	1340.07	1340.85	1341.62	1342.38	1343.14	1343.91	1344.68	1345.53	1346.37	1347.18	1347.95	1348.65	1349.27	1349.81	1350.26	1350.64	1350.95
Girder No. G2	1337.32	1338.21	1339.07	1339.92	1340.73	1341.51	1342.27	1343.02	1343.78	1344.56	1345.33	1346.18	1347.03	1347.85	1348.63	1349.34	1349.96	1350.50	1350.94	1351.30	1351.60
Girder No. G3	1337.97	1338.86	1339.74	1340.58	1341.39	1342.17	1342.93	1343.67	1344.43	1345.20	1345.98	1346.84	1347.69	1348.53	1349.31	1350.02	1350.65	1351.18	1351.62	1351.97	1352.25
Girder No. G4	1338.62	1339.52	1340.40	1341.25	1342.06	1342.83	1343.57	1344.31	1345.07	1345.85	1346.63	1347.50	1348.36	1349.20	1349.99	1350.71	1351.34	1351.87	1352.30	1352.64	1352.90

** Elevations are based on a constant slab thickness of 9½″ and include allowance for theoretical dead load deflections due to weight of slab and barrier curb.



Girders G1 thru G4

THEORETICAL SLAB HAUNCH

Note:
* Dimensions may vary if the girder camber after erection differs from plan camber by more or less than the % of dead load deflection due to weight of structural steel. No payment will be made for any adjustment in forming or additional concrete required for variation in haunching.

DEAD LOAD DEFLECTIONS, CAMBER DIAGRAMS AND BOTTOM OF SLAB ELEVATIONS - UNIT 1

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 1/26/06

DETAILED: GJD JUNE 2005
CHECKED: BJE NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 55 OF 77

GREENE COUNTY

A7024

REV.

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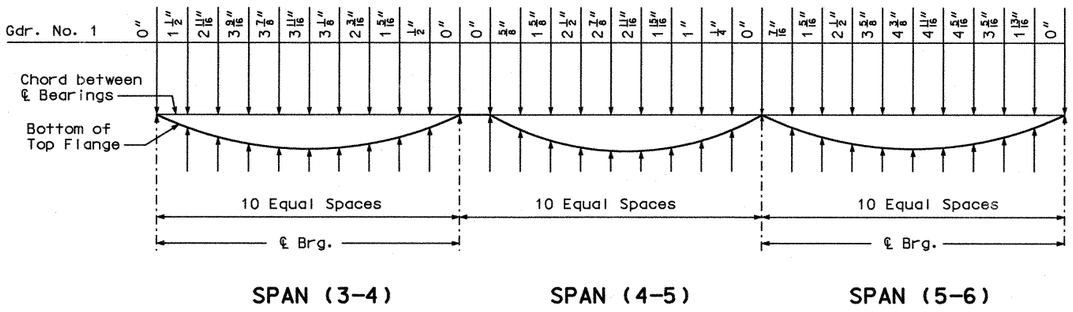
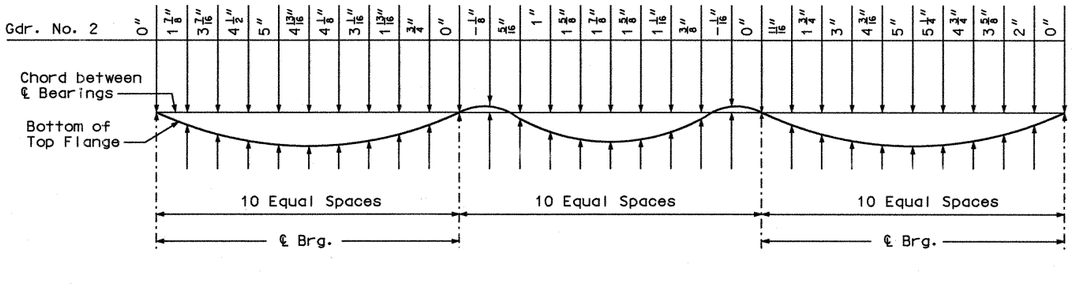
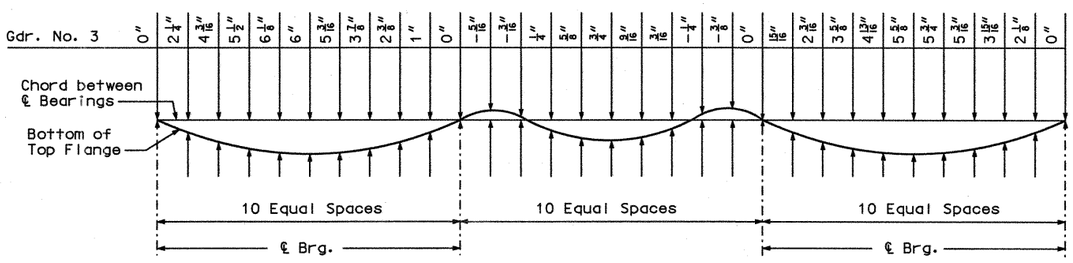
STATE	PROJ. NO.	SHEET NO.
MO		B56



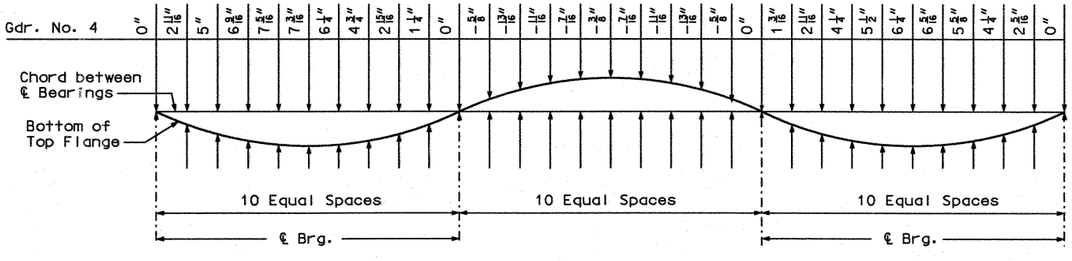
SPAN (3-4) SPAN (4-5) SPAN (5-6)



SPAN (3-4) SPAN (4-5) SPAN (5-6)



SPAN (3-4) SPAN (4-5) SPAN (5-6)



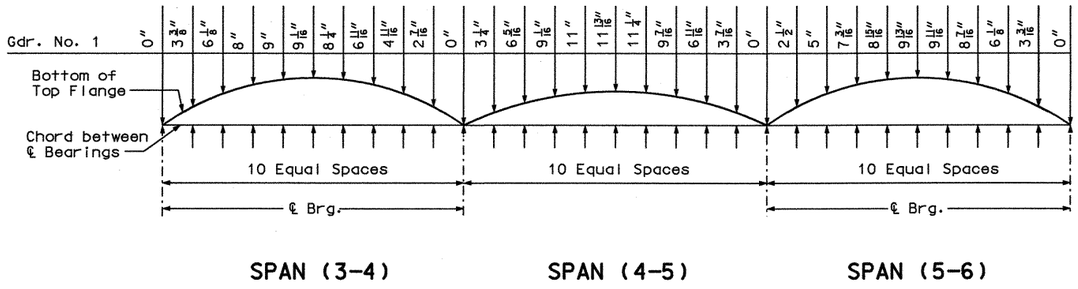
SPAN (3-4) SPAN (4-5) SPAN (5-6)

Notes:

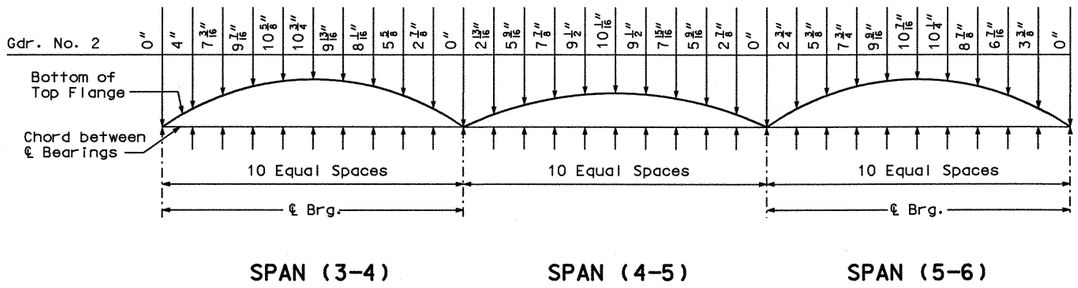
Dead load deflection includes weight of structural steel, concrete slab and barrier curb.

24% of dead load deflection is due to weight of structural steel.

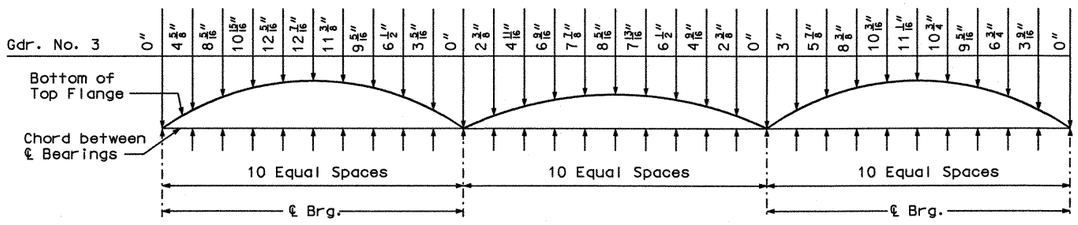
DEAD LOAD DEFLECTION DIAGRAM



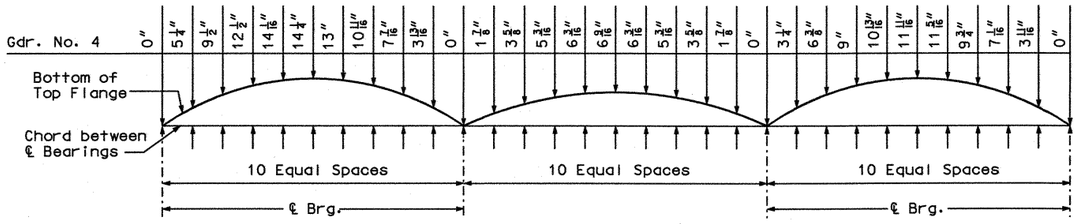
SPAN (3-4) SPAN (4-5) SPAN (5-6)



SPAN (3-4) SPAN (4-5) SPAN (5-6)



SPAN (3-4) SPAN (4-5) SPAN (5-6)



SPAN (3-4) SPAN (4-5) SPAN (5-6)

PLATE GIRDER CAMBER DIAGRAM

Note:
Camber includes allowance for vertical curve and dead load deflection due to concrete slab, curb and structural steel.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 1/26/06

DEAD LOAD DEFECTIONS AND CAMBER DIAGRAMS - UNIT 2

DETAILED: GJD JUNE 2005
CHECKED: JOS JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 56 OF 77

GREENE COUNTY

A7024

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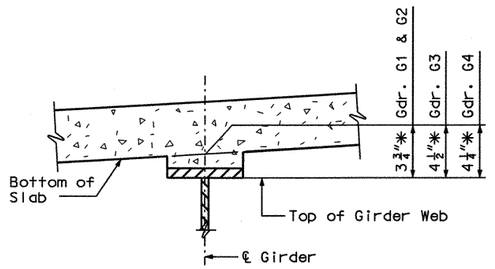
STATE	PROJ. NO.	SHEET NO.
MO		B57

THEORETICAL BOTTOM OF SLAB ELEVATIONS AT ℄ OF GIRDER (PRIOR TO FORMING FOR SLAB ✱✱)

Location	Span 3-4 (199'-10 1/2" ℄ Brg. - ℄ Brg.)											Span 4-5 (224'-0" ℄ Brg. - ℄ Brg.)										
	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.
Girder No. G1	1350.99	1351.46	1351.88	1352.23	1352.51	1352.73	1352.88	1352.97	1353.03	1353.06	1353.08	1353.09	1353.08	1353.03	1352.92	1352.71	1352.41	1352.02	1351.56	1351.04	1350.50
Girder No. G2	1351.64	1352.15	1352.59	1352.96	1353.25	1353.48	1353.53	1353.71	1353.74	1353.75	1353.74	1353.72	1353.68	1353.61	1353.47	1353.25	1352.95	1352.57	1352.13	1351.65	1351.15
Girder No. G3	1352.29	1352.83	1353.30	1353.70	1354.01	1354.23	1354.37	1354.44	1354.45	1354.43	1354.39	1354.34	1354.27	1354.17	1354.01	1353.79	1353.49	1353.13	1352.72	1352.27	1351.80
Girder No. G4	1352.94	1353.52	1354.02	1354.43	1354.75	1354.98	1355.11	1355.16	1355.15	1355.10	1355.03	1354.95	1354.85	1354.72	1354.55	1354.32	1354.04	1353.69	1353.31	1352.89	1352.45

Location	Span 5-6 (199'-10 1/2" ℄ Brg. - ℄ Brg.)										
	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.
Girder No. G1	1350.50	1350.05	1349.58	1349.10	1348.56	1347.97	1347.30	1346.54	1345.71	1344.83	1343.94
Girder No. G2	1351.15	1350.71	1350.25	1349.77	1349.23	1348.64	1347.96	1347.20	1346.36	1345.48	1344.59
Girder No. G3	1351.80	1351.37	1350.92	1350.44	1349.90	1349.30	1348.62	1347.86	1347.02	1346.14	1345.24
Girder No. G4	1352.45	1352.03	1351.59	1351.11	1350.57	1349.97	1349.28	1348.52	1347.57	1346.79	1345.89

✱✱ Elevations are based on a constant slab thickness of 9½" and include allowance for theoretical dead load deflections due to weight of slab and barrier curb.



Girders G1 thru G4

THEORETICAL SLAB HAUNCH

Note:
✱ Dimensions may vary if the girder camber after erection differs from plan camber by more or less than the % of dead load deflection due to weight of structural steel. No payment will be made for any adjustment in forming or additional concrete required for variation in haunching.

BOTTOM OF SLAB ELEVATIONS - UNIT 2

STATE OF MISSOURI · WORN F. PINKE · NUMBER E-26588 · REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: GJD JUNE 2005
CHECKED: BJE DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

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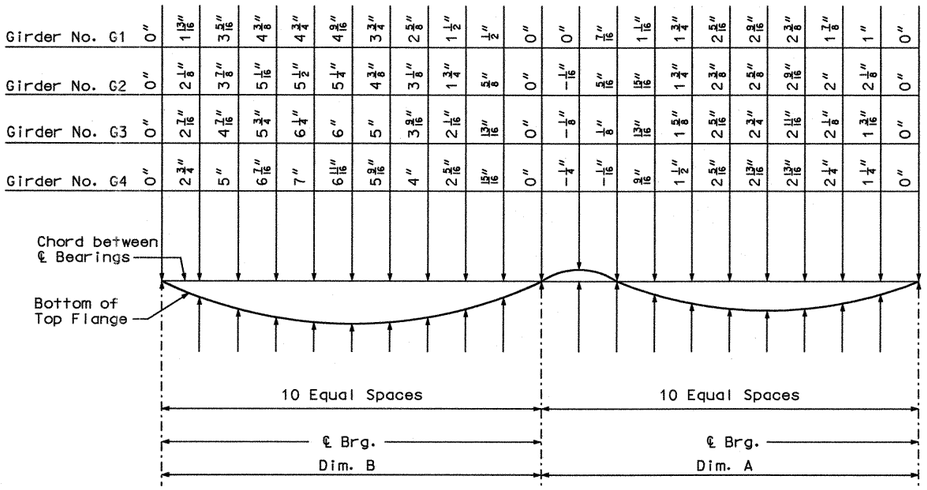
STATE	PROJ. NO.	SHEET NO.
MO		B58



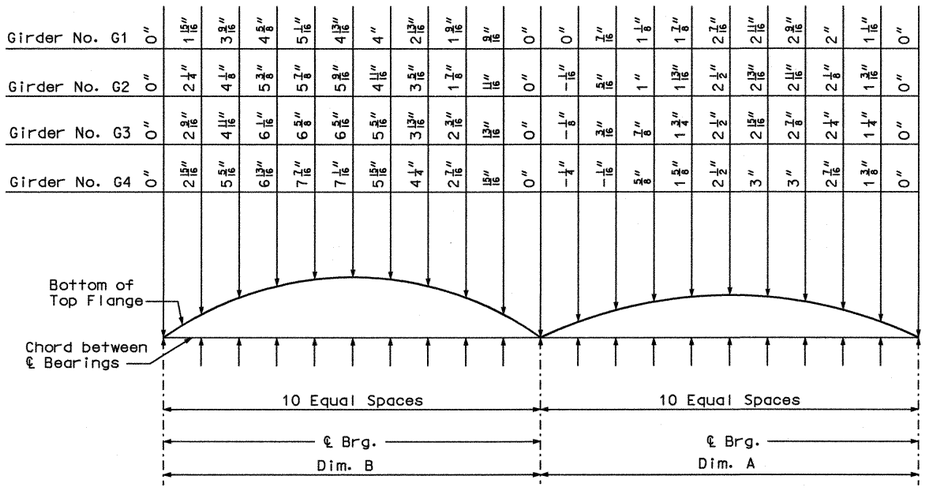
SPAN (6-7) SPAN (7-8)

DEAD LOAD DEFLECTION DIAGRAM

Notes:

Dead load deflection includes weight of structural steel, concrete slab, and barrier curb.

24% of dead load deflection is due to the weight of structural steel.



SPAN (6-7) SPAN (7-8)

PLATE GIRDER CAMBER DIAGRAM

Note:

Camber includes allowance for dead load deflection due to concrete slab, curb and structural steel.

VARIABLE DIMENSIONS

Girder	Dim. A	Dim. B
G1	174′-9 5/16″	193′-2 11/16″
G2	177′-0 3/16″	195′-8 7/16″
G3	179′-3 1/8″	198′-2 3/16″
G4	181′-6″	200′-7 7/8″

THEORETICAL BOTTOM OF SLAB ELEVATIONS AT ℄ OF GIRDER (PRIOR TO FORMING FOR SLAB) ✱✱

Location	Span 6-7 (Dim. B ℄ Brg. - ℄ Brg.)											Span 7-8 (Dim. A ℄ Brg. - ℄ Brg.)										
	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.
Girder No. G1	1343.86	1343.21	1342.55	1341.84	1341.10	1340.31	1339.48	1338.63	1337.78	1336.94	1336.13	1335.43	1334.76	1334.10	1333.45	1332.79	1332.11	1331.40	1330.66	1329.90	1329.13
Girder No. G2	1344.51	1343.88	1343.23	1342.53	1341.79	1341.00	1340.17	1339.31	1338.44	1337.59	1336.78	1336.08	1335.40	1334.75	1334.11	1333.45	1332.77	1332.06	1331.33	1330.56	1329.78
Girder No. G3	1345.16	1344.55	1343.91	1343.22	1342.48	1341.68	1340.85	1339.98	1339.10	1338.25	1337.43	1336.72	1336.05	1335.40	1334.76	1334.11	1333.43	1332.73	1331.99	1331.22	1330.43
Girder No. G4	1345.81	1345.21	1344.59	1343.91	1343.17	1342.37	1341.52	1340.65	1339.77	1338.90	1338.08	1337.37	1336.69	1336.04	1335.41	1334.76	1334.10	1333.39	1332.65	1331.88	1331.08

✱✱ Elevations are based on a constant slab thickness of 9½″ and include allowance for theoretical dead load deflections due to weight of slab and barrier curb.

Girders G1 thru G4

THEORETICAL SLAB HAUNCH

Note:
✱ Dimensions may vary if the girder camber after erection differs from plan camber by more or less than the % of dead load deflection due to weight of structural steel. No payment will be made for any adjustment in forming or additional concrete required for variation in haunching.

DEAD LOAD DEFLECTIONS, CAMBER DIAGRAMS AND BOTTOM OF SLAB ELEVATIONS - UNIT 3

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 1/26/06

DETAILED: GJD JUNE 2005
CHECKED: BJE NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

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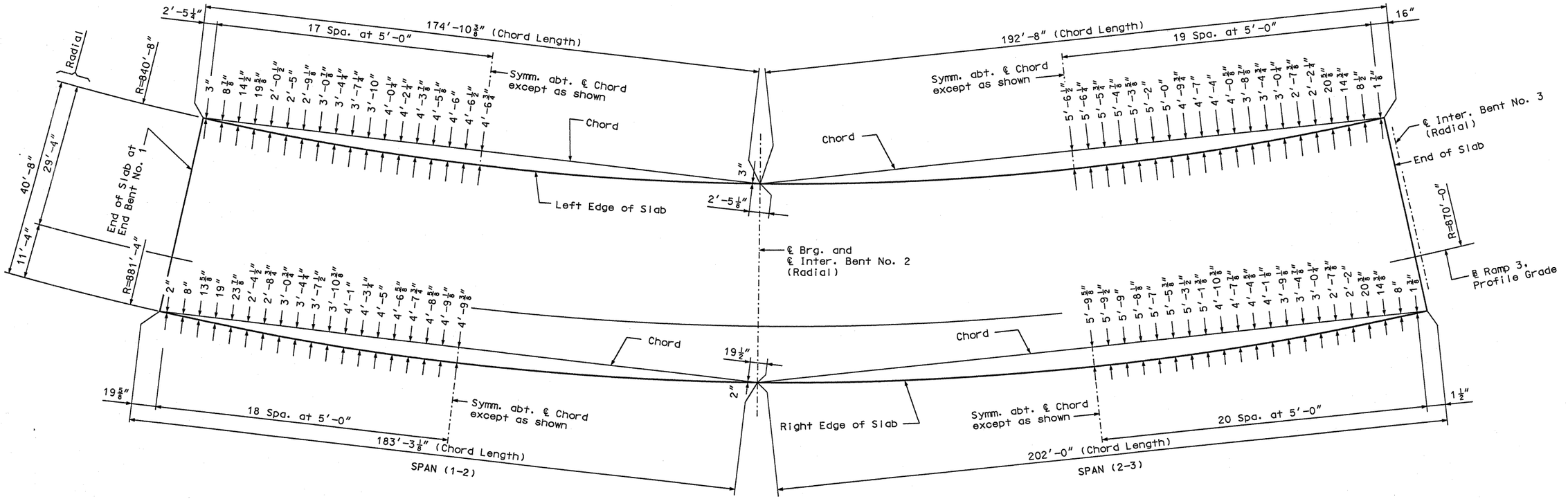
STATE	PROJ. NO.	SHEET NO.
MO		B59



PLAN - UNIT 1

EDGE OF SLAB ORDINATES - UNIT 1

DETAILED: GJD JUNE 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/3/06

SHEET NO. 59 OF 77

GREENE COUNTY

A7024

REV.

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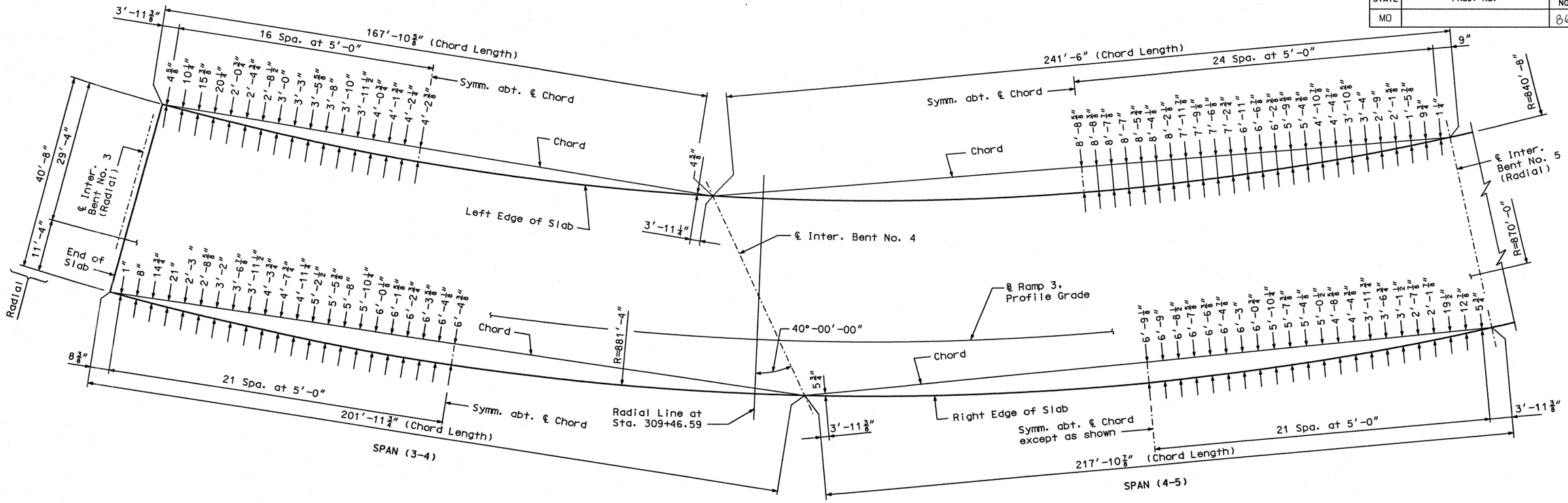
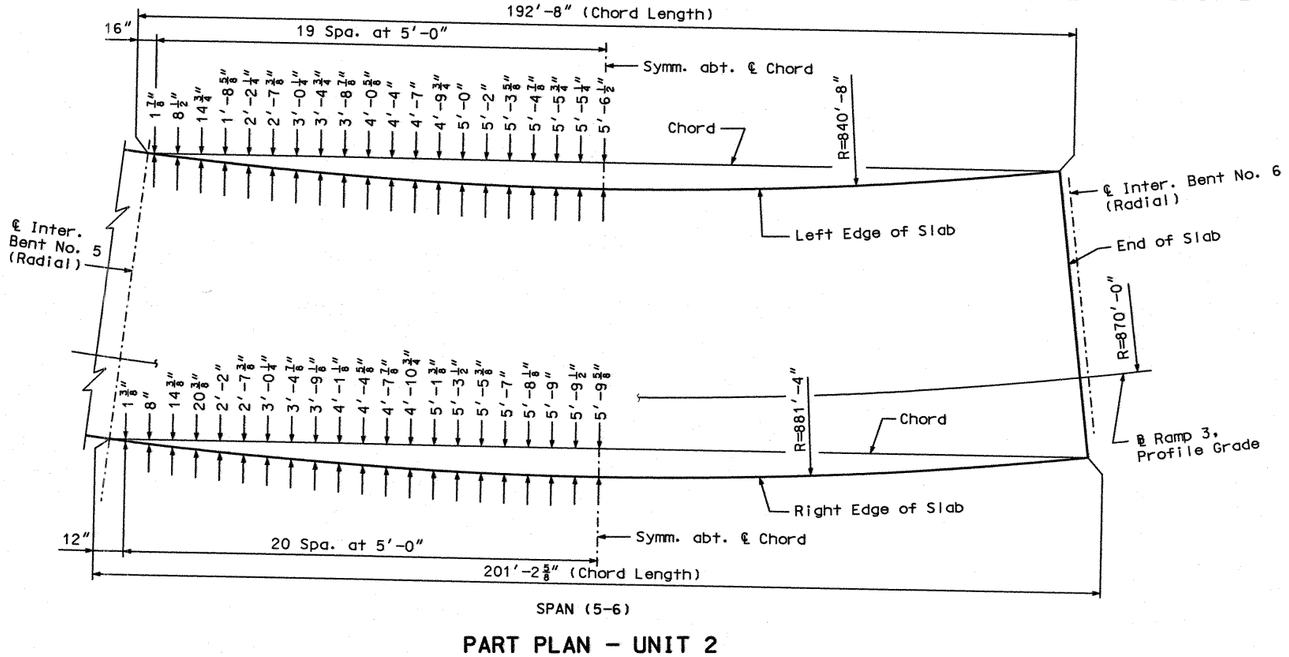
STATE	PROJ. NO.	SHEET NO.
MO		860



PART PLAN - UNIT 2



PART PLAN - UNIT 2

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/3/06

EDGE OF SLAB ORDINATES - UNIT 2

DETAILED: GJD JUNE 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 60 OF 77

GREENE COUNTY

A7024

REV.

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13:34 02-FEB-2006

STATE	PROJ. NO.	SHEET NO.
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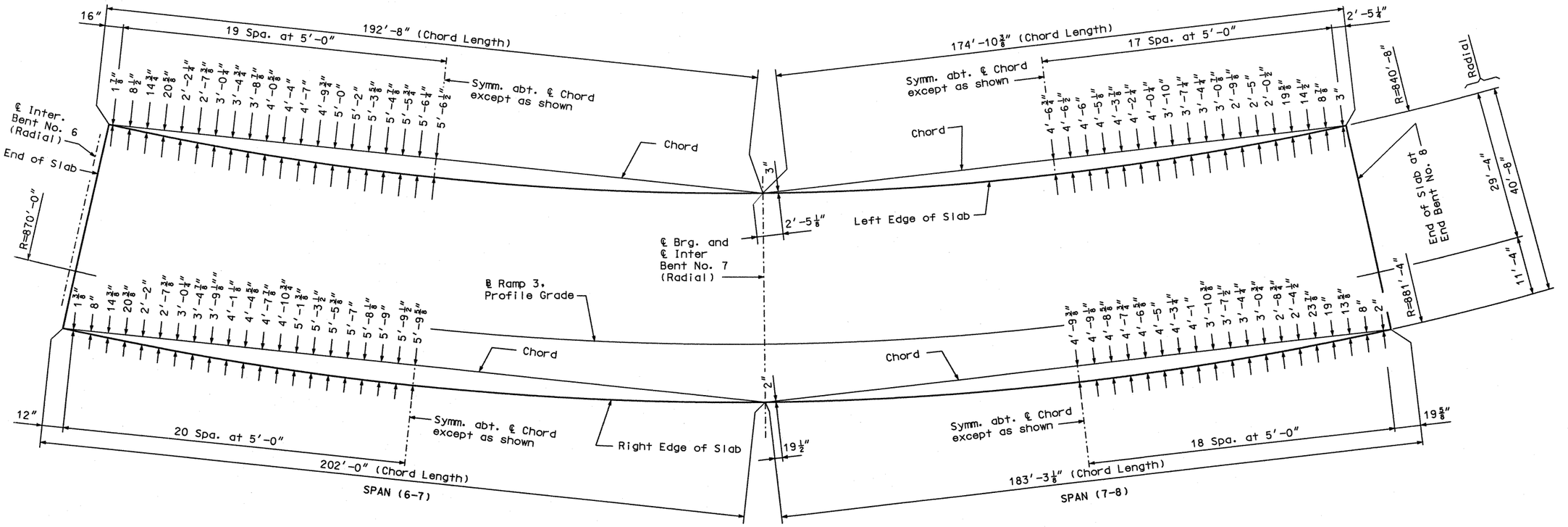

PLAN - UNIT 3

EDGE OF SLAB ORDINATES - UNIT 3

DETAILED: GJD JUNE 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 61 OF 77

GREENE COUNTY

A7024

REV.

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13:33 25-JAN-2006

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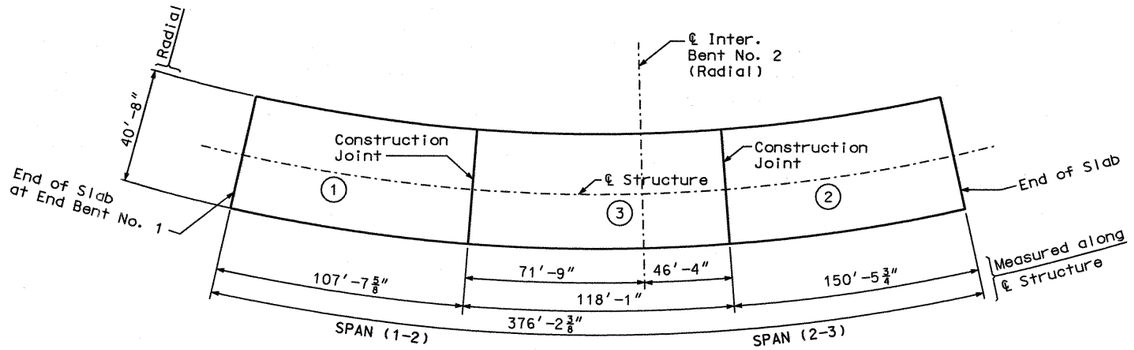
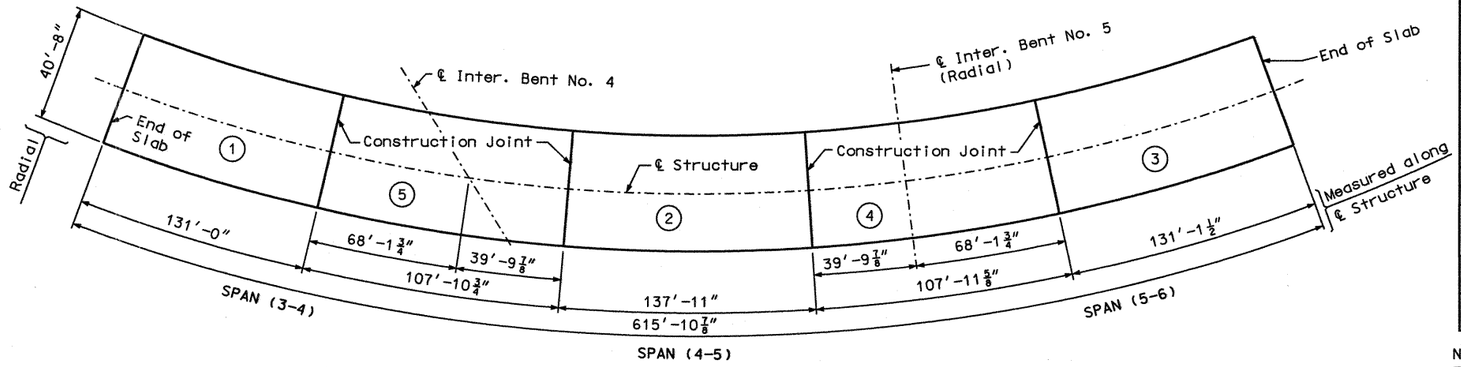
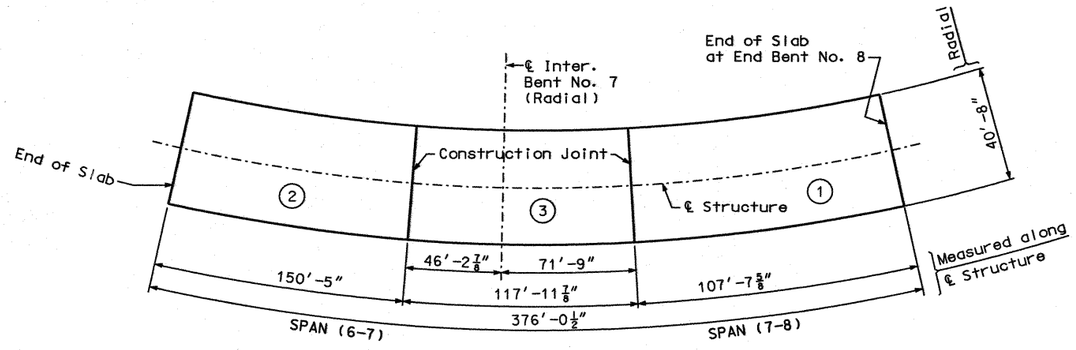


SLAB POURING SEQUENCE- UNIT 1



SLAB POURING SEQUENCE- UNIT 2



SLAB POURING SEQUENCE- UNIT 3

Unit 1	Sequence of Pours					Min. rate of pour cu. yds./hr.	
	Direction					With Retarder	No Retarder
Basic Sequence	1	2	3			25	25
	As Shown						
Alternate "A" pours	1	3 + 2				65	---
	End to 3	1 to End					
Alternate "B" pours	1 + 3 + 2					65	---
	End to End						

Unit 2	Sequence of Pours					Min. rate of pour cu. yds./hr.	
	Direction					With Retarder	No Retarder
Basic Sequence	1	2	3	4	5	25	25
	As Shown						
Alternate "A" pours	1	5 + 2	4 + 3			65	---
	End to 5	1 to 4	2 to End				
Alternate "B" pours	1 + 5 + 2		4 + 3			65	---
	End to 4		2 to End				
Alternate "C" pours	1 + 5 + 2 + 4 + 3					65	---
	End to End						

Unit 3	Sequence of Pours			Min. rate of pour cu. yds./hr.	
	Direction			With Retarder	No Retarder
Basic Sequence	1	2	3	25	25
	As Shown				
Alternate "A" pours	1	3 + 2		65	---
	End to 3	1 to End			
Alternate "B" pours	1 + 3 + 2			65	---
	End to End				

Alternate pours to the basic skip sequence are subject to the approval of the engineer in accordance with Sec 703 of Missouri Standard Specifications.

Note:
The Contractor shall pour and satisfactorily finish the slab pours at the rate given. Retarder, if used, shall be an approved type and retard the set of concrete to 2.5 hours.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/3/06

SLAB POURING SEQUENCE – UNITS 1 THRU 3

DETAILED: GJD JUNE 2005
CHECKED: JOS JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 62 OF 77

GREENE COUNTY

A7024

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STATE	PROJ. NO.	SHEET NO.
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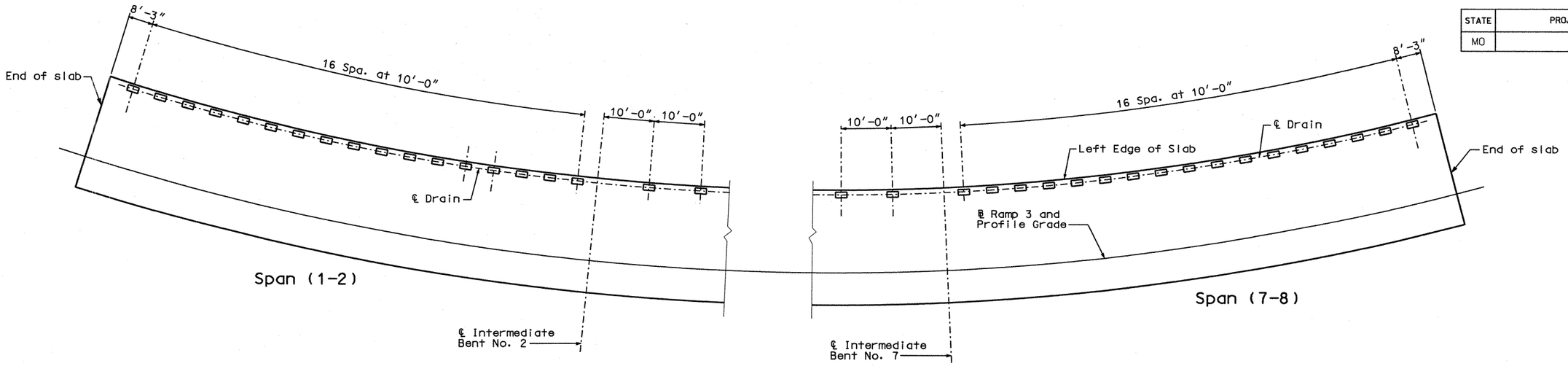
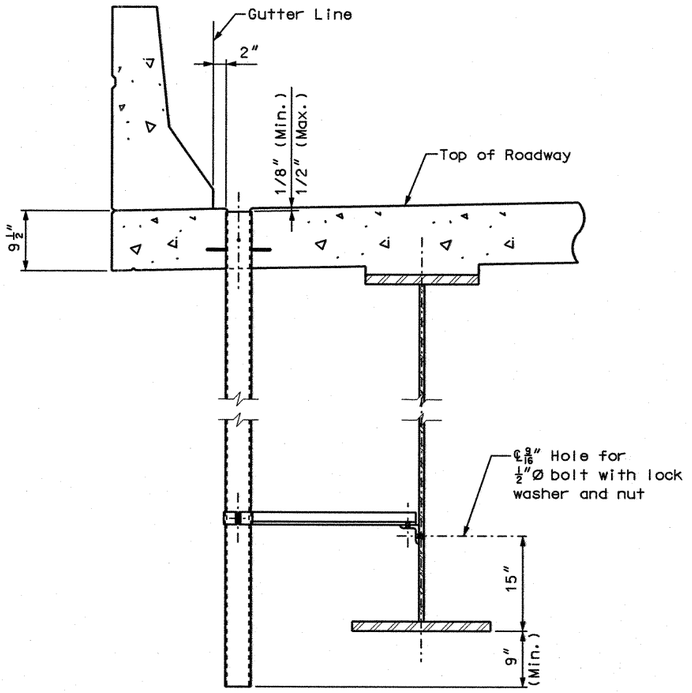
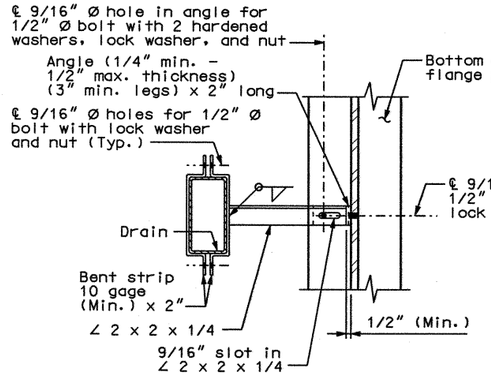


PART PLAN SHOWING LOCATIONS OF SLAB DRAINS

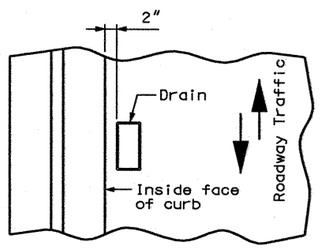
Note: Drain spacings are measured along inside face of curb.



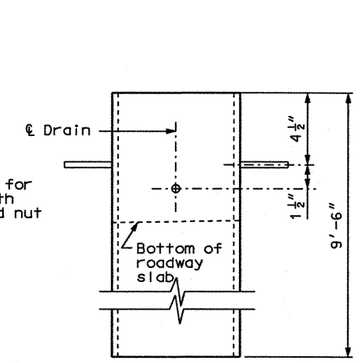
PART SECTION OF SLAB AT DRAIN



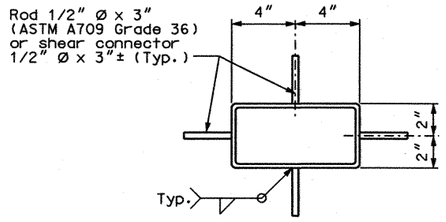
PART SECTION SHOWING BRACKET ASSEMBLY



PART PLAN OF SLAB AT DRAIN



ELEVATION OF DRAIN



PLAN OF DRAIN

Notes:

Slab drains may be fabricated of either 1/4 " welded sheets of ASTM A709 Grade 36 steel or from 1/4 " structural steel tubing ASTM A500 or A501.

Slab drain bracket assembly shall be ASTM A709 Grade 36 steel.

Outside dimensions of drains are 8" x 4".

Locate drains in slab by dimensions shown in Part Section of Slab at Drain.

Shift reinforcing steel in field where necessary to clear drains.

The drains and bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with ASTM A153.

Shop drawings will not be required for the slab drains and the bracket assembly.

The bolt hole for the bracket assembly attachment shall be located on the plate girder shop drawings.

DETAILS OF DRAINS PARALLEL TO ROADWAY

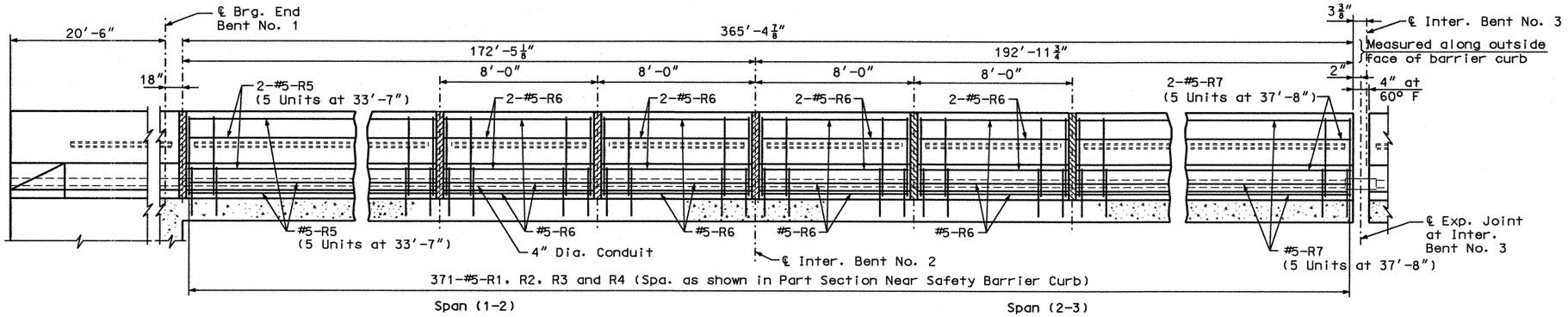
SLAB DRAIN DETAILS

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

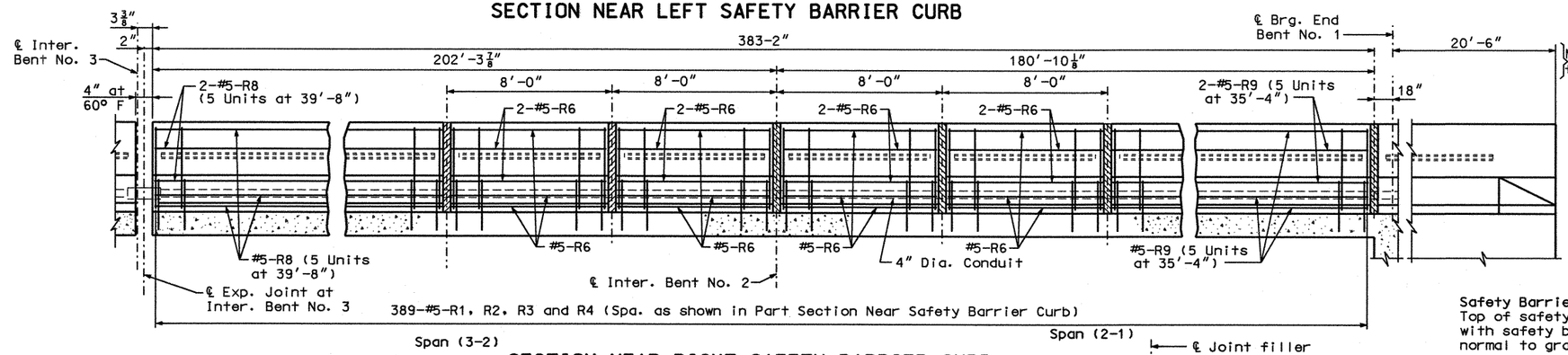
DETAILED: BJE OCT. 2005
CHECKED: GJD NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

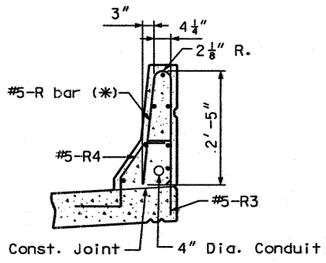
STATE	PROJ. NO.	SHEET NO.
MO		B64



SECTION NEAR LEFT SAFETY BARRIER CURB

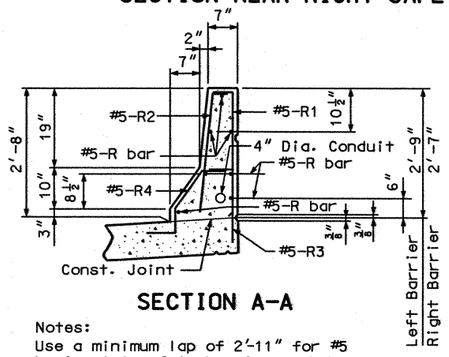


SECTION NEAR RIGHT SAFETY BARRIER CURB



R-BAR PERMISSIBLE ALTERNATE SHAPE

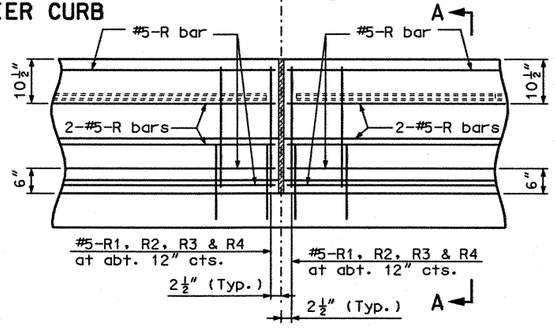
(*) The R1 and R2 bar combination may be furnished as one bar, as shown, at the contractor's option. (All dimensions are out to out.)



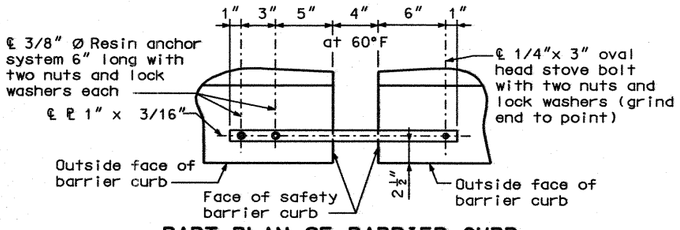
SECTION A-A

Notes:
Use a minimum lap of 2'-11" for #5 horizontal safety barrier curb bars.

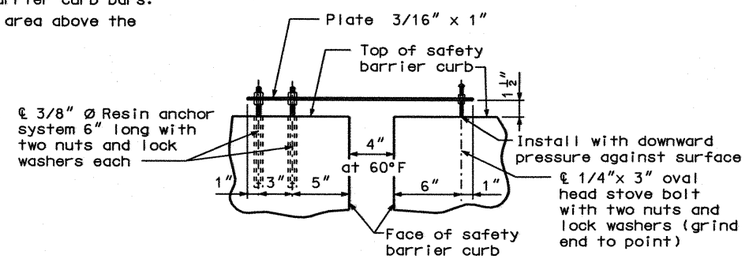
The cross-sectional area above the slab = 2.28 sq. ft.



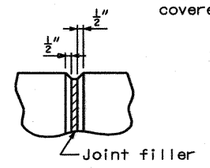
PART SECTION NEAR SAFETY BARRIER CURB (CAST-IN-PLACE CONVENTIONAL FORMING OPTION)



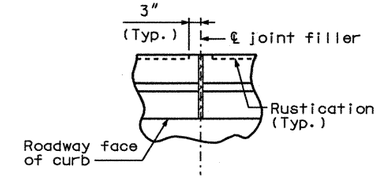
PART PLAN OF BARRIER CURB SHOWING MOVEMENT GAUGE



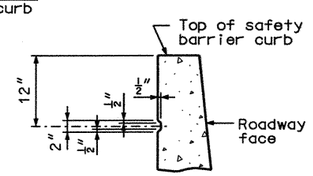
PART ELEVATION OF BARRIER CURB SHOWING MOVEMENT GAUGE



FILLED JOINT DETAIL



PART PLAN SHOWING SAFETY BARRIER CURB JOINT



PART SECTION SHOWING RUSTICATION DETAILS

Safety Barrier Notes:
Top of safety barrier curb shall be built parallel to grade with safety barrier curb joints (except at end bents) normal to grade.

All exposed edges of safety barrier curb shall have either a 1/2" radius or a 3/8" bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete-in-place, will be considered completely covered by the contract unit price for safety barrier curb per linear foot.

Concrete in the safety barrier curb shall be Class B-1.

Measurement of safety barrier curb is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Movement Gage Notes:
A movement gauge shall be provided on one side of bridge at all safety barrier curb expansion joints.

All steel shall be galvanized.

Cost of movement gauge complete-in-place will be considered completely covered by the contract unit price for Safety Barrier Curb.

Concrete traffic barrier delineators shall be placed on top of the safety barrier curb as shown on Missouri Standard Plans 617.10 and in accordance with Sec 617. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for "Safety Barrier Curb".

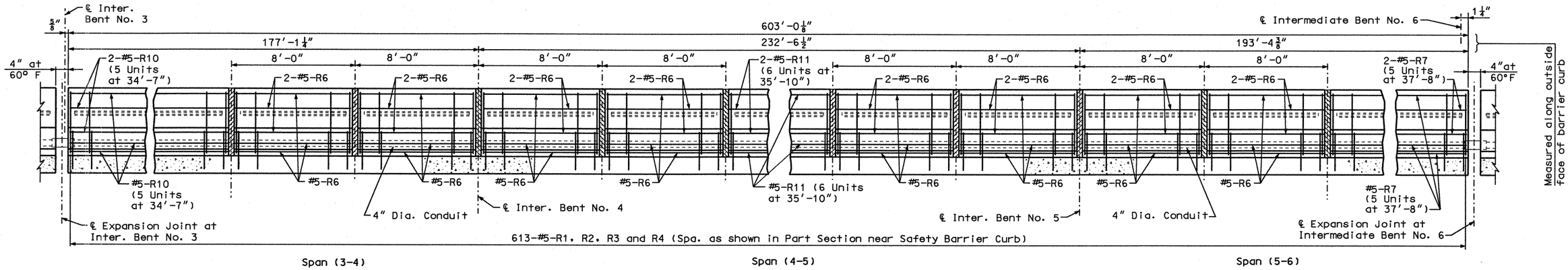
STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER
2/3/06

SAFETY BARRIER CURBS – UNIT 1

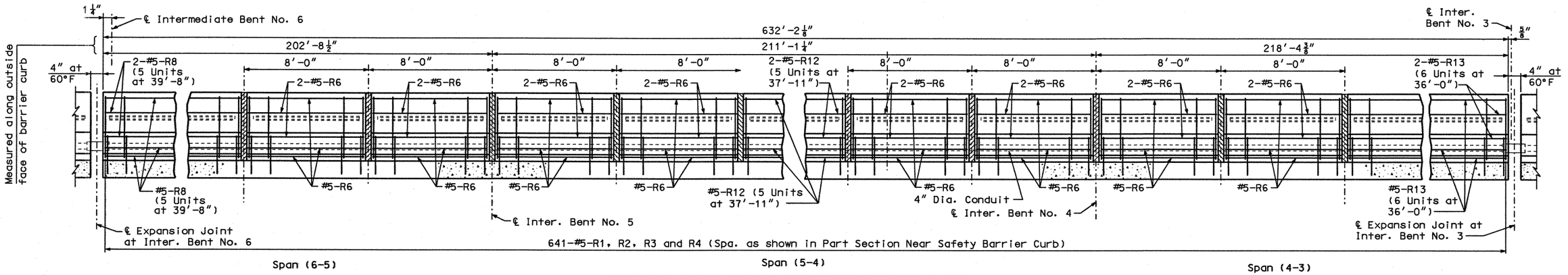
DETAILED: GJD JULY 2005
CHECKED: FAC JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

STATE	PROJ. NO.	SHEET NO.
MO		B65



SECTION NEAR LEFT SAFETY BARRIER CURB



SECTION NEAR RIGHT SAFETY BARRIER CURB

Notes:

For Safety Barrier Notes and Movement Gage Notes, see Sheet No. 64.

For Part Section Near Safety Barrier Curb, see Sheet No. 64.

For Filled Joint Detail, see Sheet No. 64.

For Rustication Detail, see Sheet No. 64.

For Movement Gage Detail, see Sheet No. 64.

For Safety Barrier Sections and Details, see Sheet No. 64.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26508
REGISTERED PROFESSIONAL ENGINEER
2/3/06

SAFETY BARRIER CURBS - UNIT 2

DETAILED: GJD JULY 2005
CHECKED: FAC JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 65 OF 77

GREENE COUNTY

A7024

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STATE	PROJ. NO.	SHEET NO.
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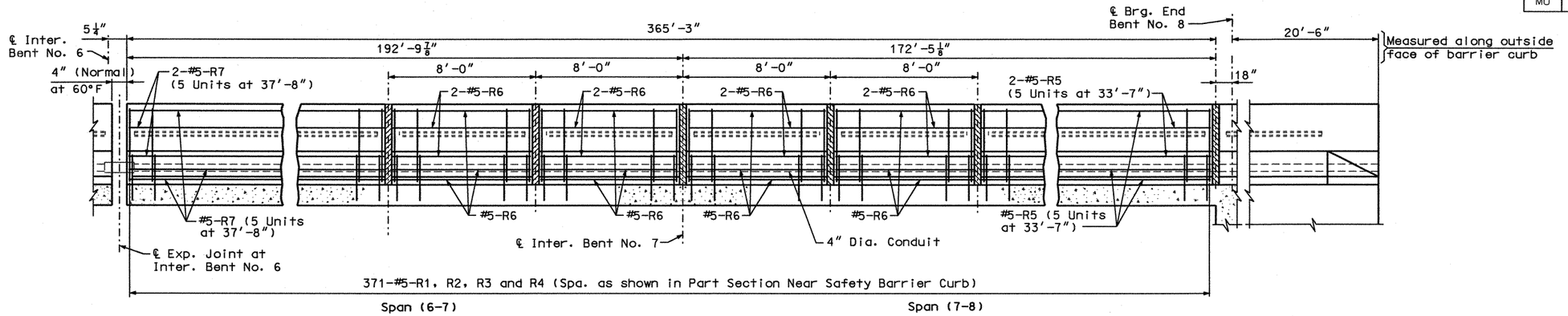
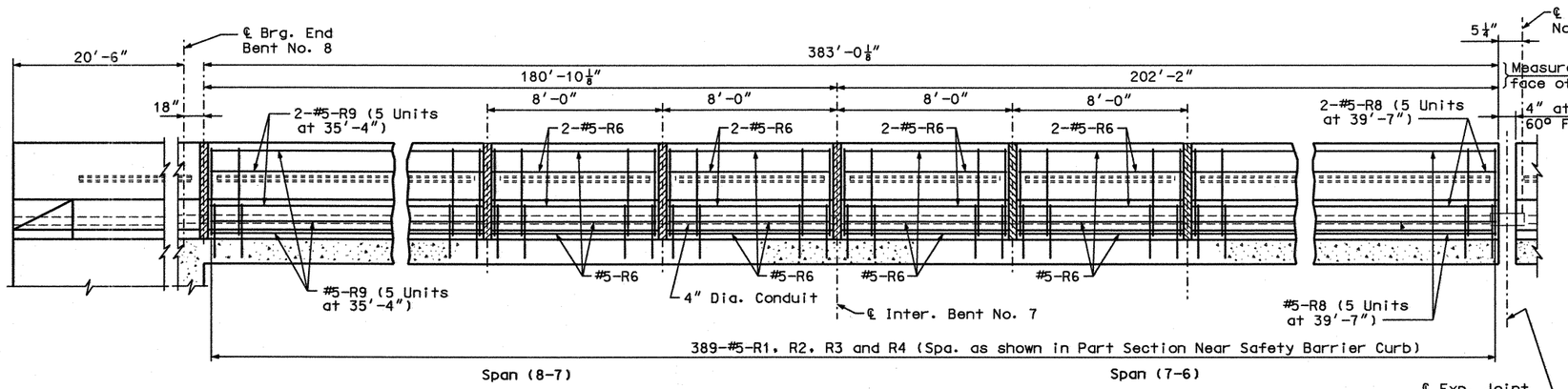


SECTION NEAR LEFT SAFETY BARRIER CURB



SECTION NEAR RIGHT SAFETY BARRIER CURB

Notes:

For Safety Barrier Notes and Movement Gage Notes, see Sheet No. 64.

For Part Section Near Safety Barrier Curb, see Sheet No. 64.

For Filled Joint Detail, see Sheet No. 64.

For Rustication Detail, see Sheet No. 64.

For Movement Gage Detail, see Sheet No. 64.

For Safety Barrier Sections and Details, see Sheet No. 64.

Safety Barrier Notes:
Top of safety barrier curb shall be built parallel to grade with safety barrier curb joints (except at end bents) normal to grade.

All exposed edges of safety barrier curb shall have either a 1/2" radius or a 3/8" bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete-in-place, will be considered completely covered by the contract unit price for safety barrier curb per linear foot.

Concrete in the safety barrier curb shall be Class B-1.

Measurement of safety barrier curb is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Movement Gage Notes:
A movement gauge shall be provided on one side of bridge at all safety barrier curb expansion joints.

All steel shall be galvanized.

Cost of movement gauge complete-in-place will be considered completely covered by the contract unit price for Safety Barrier Curb.

Concrete traffic barrier delineators shall be placed on top of the safety barrier curb as shown on Missouri Standard Plans 617.10 and in accordance with Sec 617. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for "Safety Barrier Curb".

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26558
REGISTERED PROFESSIONAL ENGINEER
2/3/06

DETAILED: GJD JULY 2005
CHECKED: FAC JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SAFETY BARRIER CURBS - UNIT 3

SHEET NO. 66 OF 77

GREENE COUNTY

A7024

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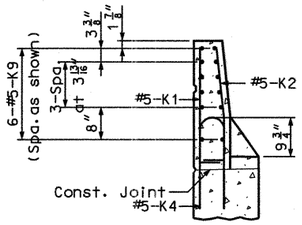
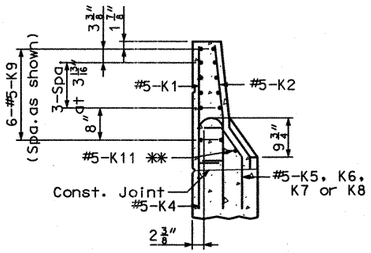
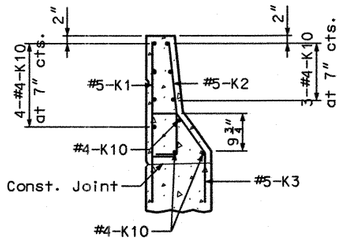


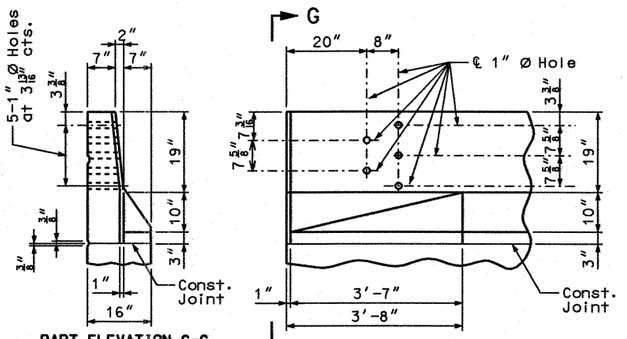
SECTION A-A

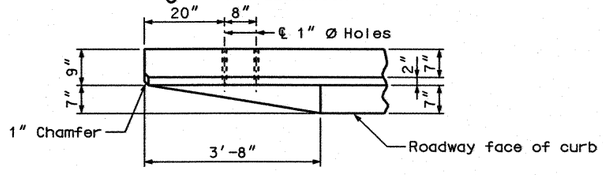


SECTION B-B

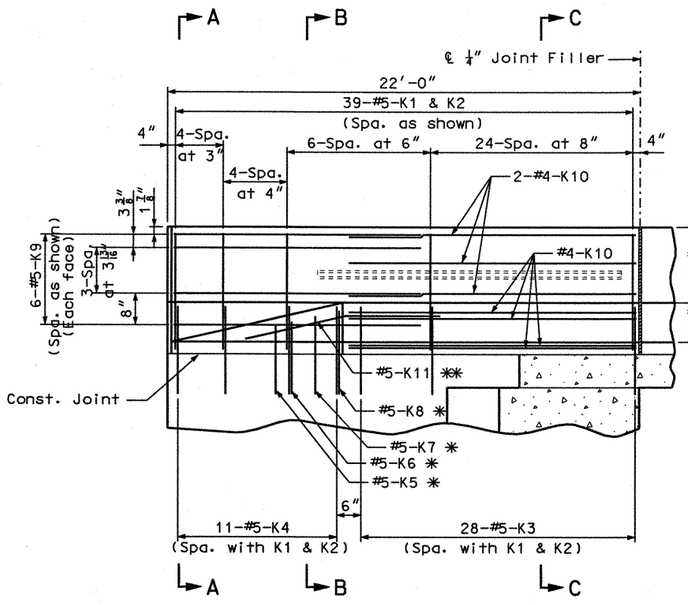


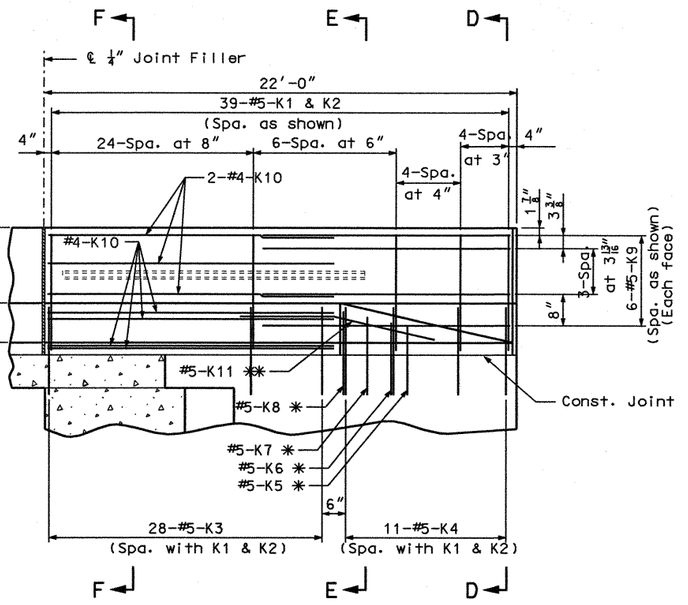
SECTION C-C





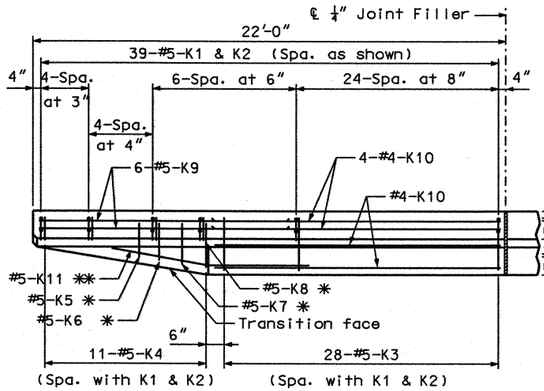
DETAILS OF GUARD RAIL ATTACHMENT

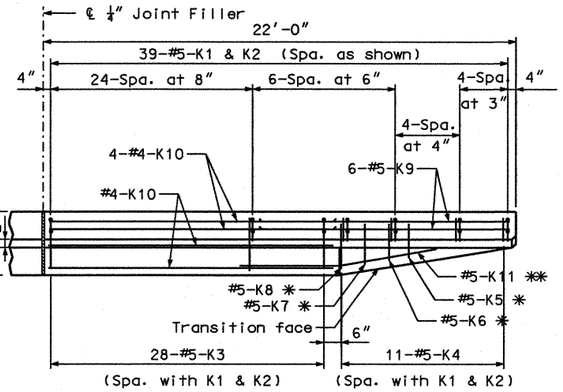


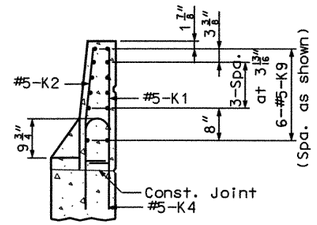


* Spaced with #5-K4 bars.

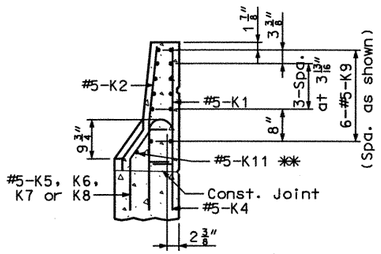
** Fit bar to follow transition face of curb.



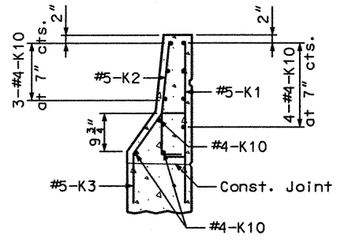




SECTION D-D



SECTION E-E



SECTION F-F

Notes:

Work this Sheet with Sheet Nos. 64, 66 and 68.

(**)At the contractors option, #5 R bars shall be field or shop bent to permit placement near curved portion of safety barrier curb

NOTE: Use a minimum lap of 2'-0" between K9 and K10 bars.

DETAILS OF SAFETY BARRIER CURB AT END BENTS

(Left barrier curb shown, right barrier curb similar)

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: GJD JULY 2005
CHECKED: FAC NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 67 OF 77

GREENE COUNTY

A7024

REV.

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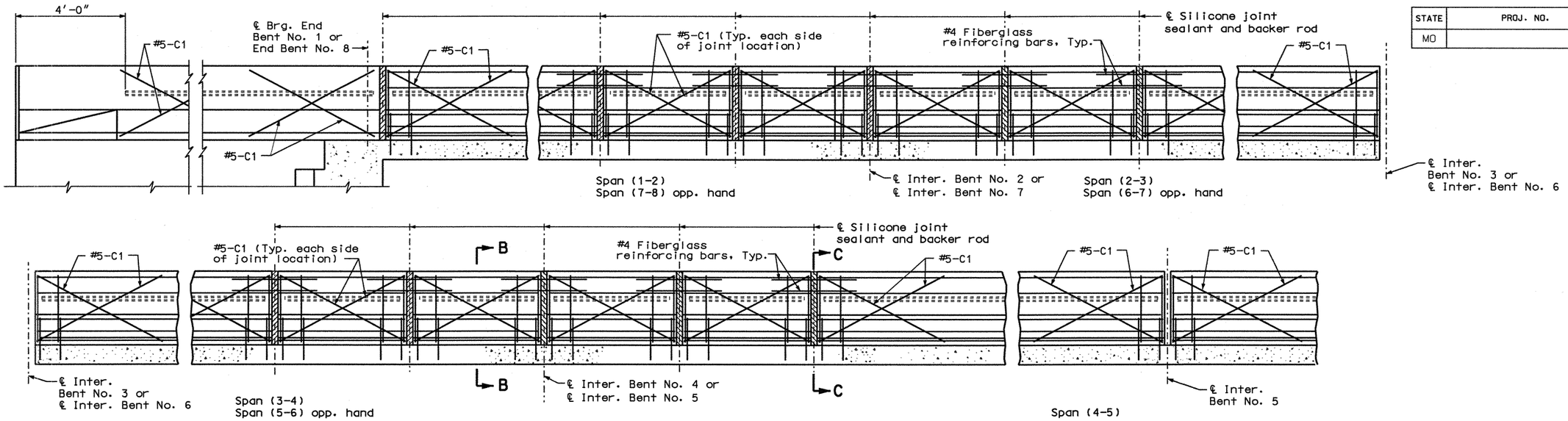
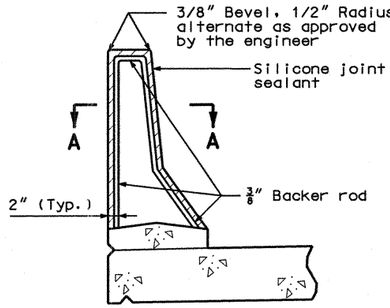
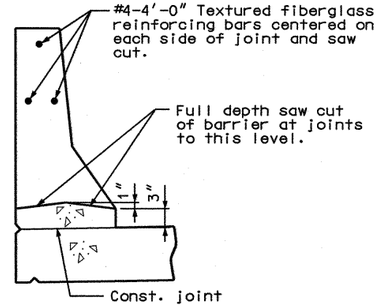
STATE	PROJ. NO.	SHEET NO.
MO		B68



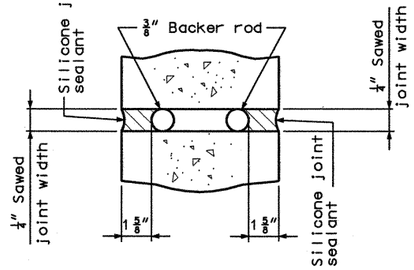
TYPICAL SECTION NEAR LEFT SAFETY BARRIER CURB AT SUPPORT LOCATIONS (OPTIONAL SLIP-FORM BRIDGE SAFETY BARRIER CURB)



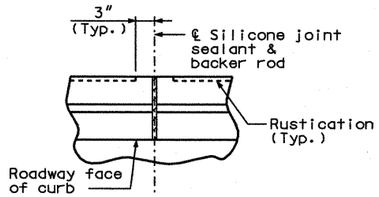
SECTION THRU JOINT



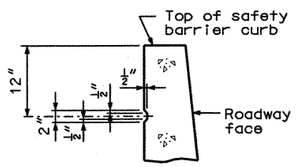
PART SECTION C-C



SECTION A-A

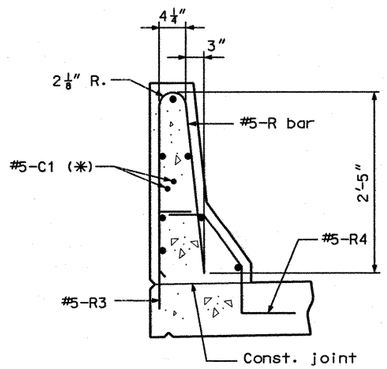


PART PLAN SHOWING SAFETY BARRIER CURB JOINT



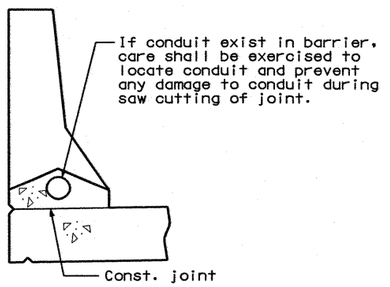
PART SECTION SHOWING RUSTICATION DETAILS

RUSTICATION DETAIL



PART SECTION B-B

Note:
(*) Each side of joint location.



PART SECTION C-C
(Use when conduit required)

Notes:

Joint sealant and backer rods shall be used on all slip-form barrier curbs instead of joint filler and shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

Plastic waterstop shall not be used with slip-form option.

C Bars (Slip-form option only) shall be used in addition to cast-in-place conventional forming reinforcement for bridge safety barrier curb.

For Slip-Form option, all sides of the safety barrier curb shall have a vertically broomed finish and the curb top shall have a tranversely broomed finish.

Cost of silicone joint sealant and backer rod complete-in-place will be considered completely covered by the contract unit price for safety barrier curb.

Notes:

Top of safety barrier curb shall be built parallel to grade with barrier curb joints (except at end bents) normal to grade.

Payment for all concrete and reinforcement, complete-in-place, will be considered completely covered by the contract unit price for safety barrier curb per linear foot.

Concrete in the safety barrier curb shall be Class B-1.

Measurement of safety barrier curb is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

The curb shall be cured by application of Type 1-D or Type 2 Liquid Membrane-Forming Compound in accordance with Sec 1055. Scale prevention treatment will not be permitted.

Concrete traffic barrier delineators shall be placed on top of safety barrier curb as shown on Missouri Standard Plans 617.10 and in accordance with Sec 617. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for "Safety Barrier Curb".

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26538
REGISTERED PROFESSIONAL ENGINEER
1/26/06

OPTIONAL SLIP-FORM BRIDGE SAFETY BARRIER CURB

(Left barrier curb shown, right barrier curb similar.)

DETAILED: GJD JULY 2005
CHECKED: FAC NOV. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

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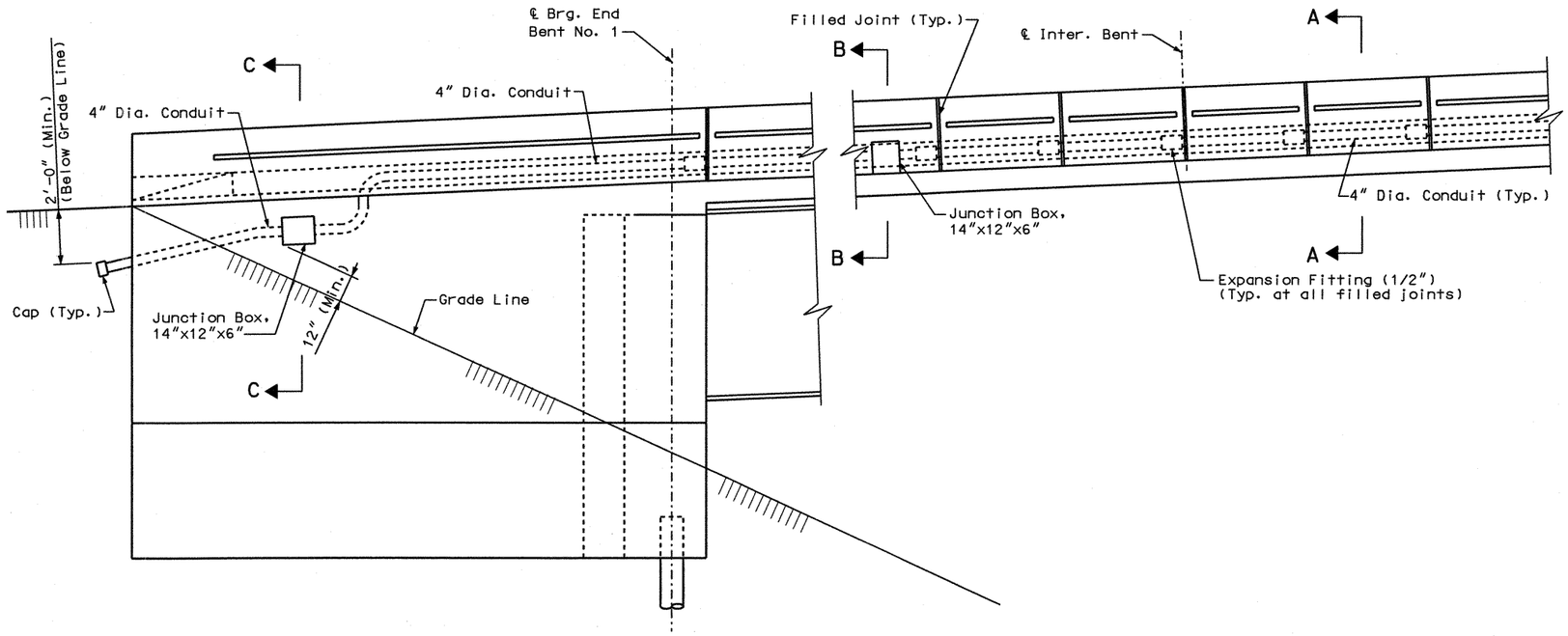
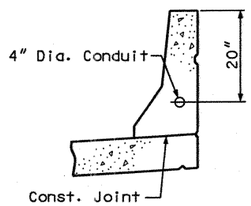
STATE	PROJ. NO.	SHEET NO.
MO		B69

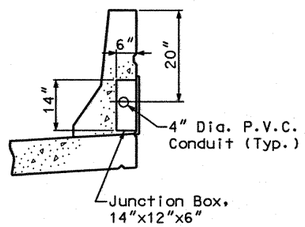


PART ELEVATION OF RIGHT BARRIER CURB SHOWING LOCATION OF CONDUIT

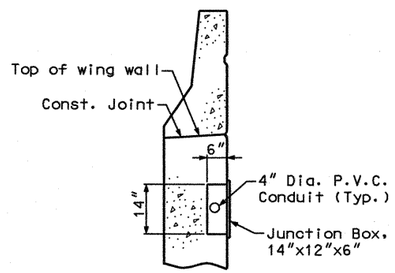
(End Bent No. 1 shown. End Bent No. 8 similar)
(Right Barrier Curb shown, Left Barrier Curb similar)



PART SECTION A-A



PART SECTION B-B



PART SECTION C-C

Conduit System Notes:
All conduit shall be rigid non-metallic schedule 40 heavy wall PVC (polyvinyl chloride plastic) with 3" minimum cover in concrete (except when conduit is in the slab). Each section of conduit shall bear the Underwriters Laboratories, Inc., (UL) label.

Shift reinforcing steel in field where necessary to clear conduit and junction boxes.

Expansion fittings shall provide a minimum movement in either direction of 1¾" at open joints. Expansion Fittings shall be equal to Carlon Electrical Construction Products or Contex, Inc.

All Safety Barrier Curb junction boxes shall be PVC molded flush surface mounted and equal to Carlon Electrical Construction Products or Contex, Inc. The conduit terminations shall be permanent or separable. The terminations and covers shall be of watertight construction and shall meet requirements for NEMA 4 enclosure.

Weepholes shall be provided at approapriate locations to drain any moisture in conduit system.

Payment for furnishing and installing Conduit System, complete-in-place, will be paid for at the contract unit price for Conduit System on Structure, lump sum.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILS OF CONDUIT SYSTEM

DETAILED: SEM NOV. 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 69 OF 77

GREENE COUNTY

A7024

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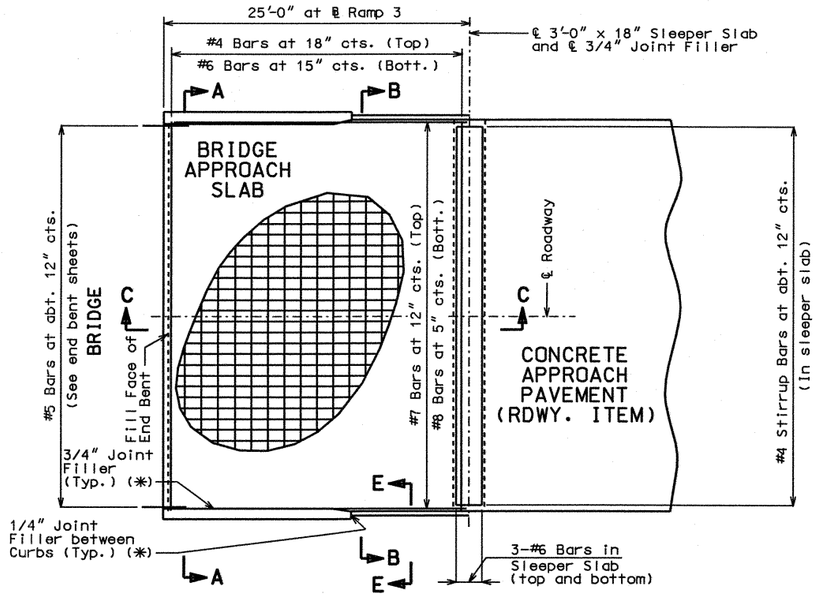
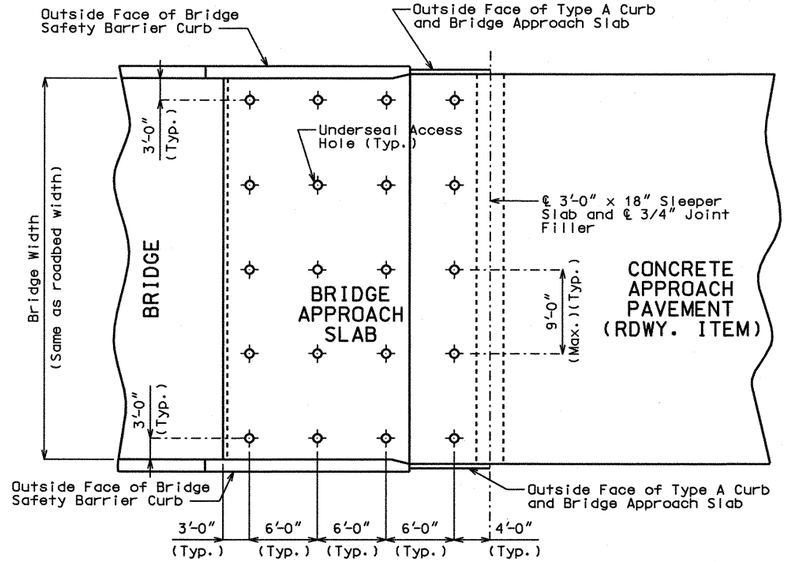
STATE	PROJ. NO.	SHEET NO.
MO		370



PART PLAN SHOWING REINFORCEMENT



PART PLAN
(SHOWING TYPICAL UNDERSEAL ACCESS HOLE LOCATIONS)

GENERAL NOTES:

All concrete for the bridge approach slab and sleeper slab shall be in accordance with Sec 503 (f'c = 4,000 psi).

All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler, except as noted.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be epoxy coated Grade 60 with Fy = 60,000 psi.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be continuous. The transverse reinforcing steel may be made continuous by lap splicing the #4 & #6 bars 18" and 2'-2" respectively.

Mechanical bar splices will be in accordance with Sec 706

(*) Seal joint between vertical face of approach slab and wing with Silicone Joint Sealant for Saw Cut and Formed Joints in accordance with Sec 717.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

The contractor shall pour and satisfactorily finish the bridge or semi-deep slab before pouring the bridge approach slabs.

Longitudinal construction joints in approach slab and sleeper slab shall be aligned with longitudinal construction joints in bridge or semi-deep slab.

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, underdrain, Type 5 aggregate base, joint filler and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Bridge), per square yard.

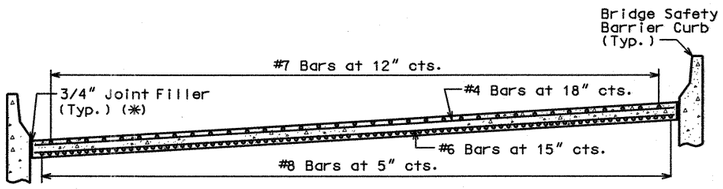
For Concrete Approach Pavement details, see roadway plans.

See Missouri Standard Plans Drawing 609.00 for details of Type A Curb.

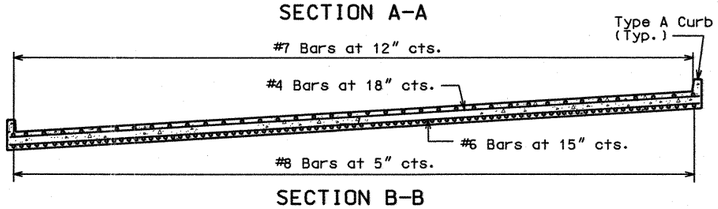
At the contractor's option, Grade 40 reinforcement may be substituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge end bent. No additional payment will be made for this substitution.

When Grade 40 reinforcement is substituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge end bent, the reinforcement may be bent up to 90 degrees with a 2" minimum radius near the end bent to allow compaction of the backfill material near the end bent. Damage to epoxy coating shall be repaired in accordance with Sec 710.

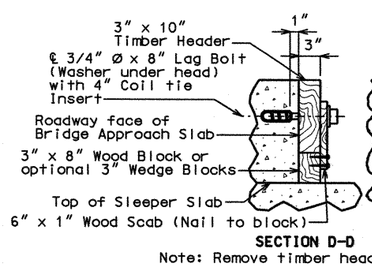
Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.



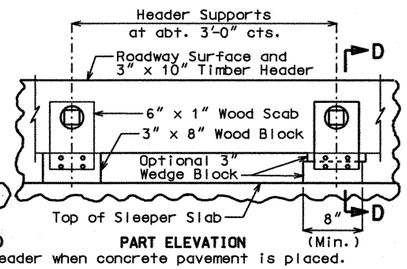
SECTION A-A



SECTION B-B



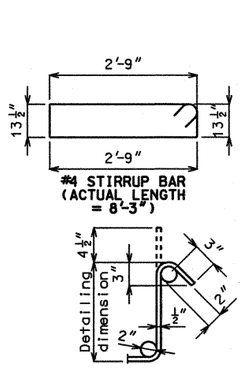
SECTION D-D



PART ELEVATION

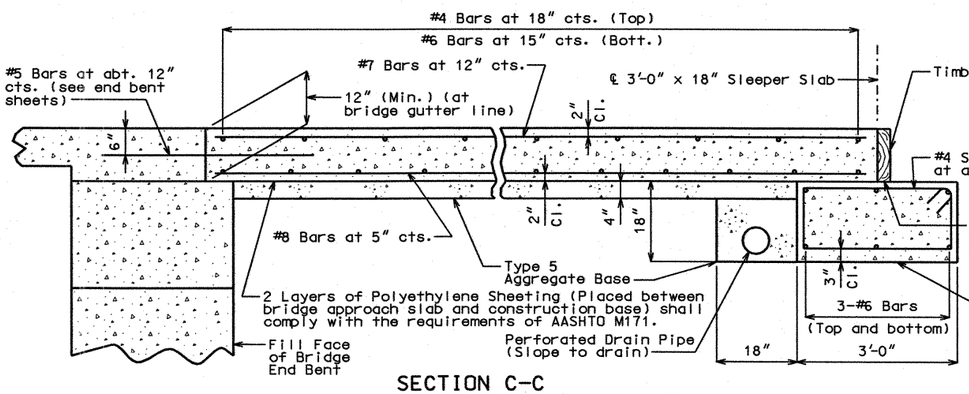
Note: Remove timber header when concrete pavement is placed.

DETAILS OF TIMBER HEADER

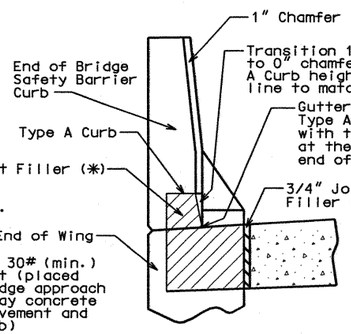


TYPICAL 135° STIRRUP HOOK DIMENSIONS BENDING DIAGRAM

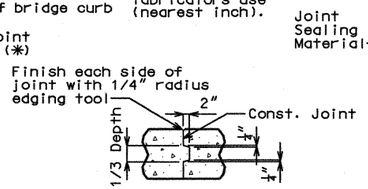
Note:
Nominal lengths are based on out to out dimensions shown in bending diagram and are listed for fabricators use (nearest inch).



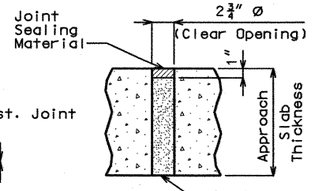
SECTION C-C



SECTION E-E
(BETWEEN CURBS)



CONST. JOINT DETAIL
(IF REQUIRED)



TYPICAL UNDERSEAL ACCESS HOLE DETAIL

STATE OF MISSOURI
JOHN E. PINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

BRIDGE APPROACH SLAB

DETAILED: GJD JULY 2005
CHECKED: DDB JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 70 OF 77

GREENE COUNTY

A7024

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BILL OF REINFORCING STEEL

SUBSTRUCTURE

END BENT NO. 1

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
16	6	F101	DIAPHRAGM		19	S				5-	5.500	3-	0.000											8-	6	8-	4	200
36	6	F102	WING BRACE		23					1-	2.000	4-	3.000	1-	2.000	0-	9.875	0-	9.875	0-	9.875	0-	9.875	6-	7	6-	6	351
8	11	H101	BEAM		20					40-	5.000													40-	5	40-	5	1718
4	6	H102	BEAM		20					40-	5.000													40-	5	40-	5	243
4	7	H103	BEAM		19					1-	2.000	26-	8.000											27-	10	27-	8	226
4	7	H104	BEAM		19					1-	2.000	15-	10.000											17-	0	16-	10	138
4	7	H105	BEAM		19					1-	2.000	5-	0.000											6-	2	6-	0	49
22	6	H106	DIAPHRAGM		20					40-	6.000													40-	6	40-	6	1338
36	5	H107	DIAPHRAGM	E	20					2-	6.000													2-	6	2-	6	94
4	6	H108	DIAPHRAGM	E	20					40-	6.000													40-	6	40-	6	243
68	6	H109	WINGWALL		20					20-	1.500													20-	2	20-	2	2060
4	8	H110	WINGWALL	E	20					21-	3.000													21-	3	21-	3	227
12	8	H111	WINGWALL		20					21-	3.000													21-	3	21-	3	681
13	5	U101	BEAM		10	S						5-	7.750	3-	0.000									14-	4	14-	1	191
7	5	U102	BEAM		10	S						6-	11.125	3-	0.000									16-	10	16-	8	122
4	5	U103	BEAM		13	S				3-	0.000	3-	3.000	3-	0.000	3-	3.000							13-	5	13-	1	55
5	5	U104	BEAM		13	S				3-	0.000	3-	10.750	3-	0.000	3-	10.750							14-	9	14-	5	75
4	5	U105	BEAM		13	S				3-	0.000	4-	6.500	3-	0.000	4-	6.500							16-	0	15-	8	65
5	5	U106	BEAM		13	S				3-	0.000	5-	2.125	3-	0.000	5-	2.125							17-	3	16-	11	88
30	5	U107	DIAPHRAGM	E	10	S						8-	5.125	4-	4.500									21-	3	21-	0	657
30	5	U108	DIAPHRAGM		19	S				7-	4.000	3-	0.000											10-	4	10-	3	321
51	6	U109	DIAPHRAGM	E	19	S				3-	3.000	4-	10.500											8-	2	8-	0	613
12	5	V101	DIAPHRAGM		20					5-	10.750													5-	11	5-	11	74
8	5	V102	DIAPHRAGM		20					7-	2.125													7-	2	7-	2	60
14	6	V103	DIAPHRAGM	E	20					7-	4.000													7-	4	7-	4	154
40	6	V104	WINGWALL		20		V	2		13-	10.000													13-	10	13-	10	809
			INCR.=							13-	1.000													13-	1	13-	1	
			.5 in																									
40	6	V105	WINGWALL		20		V	2		11-	4.000													11-	4	11-	4	658
			INCR.=							10-	7.000													10-	7	10-	7	
			.5 in																									

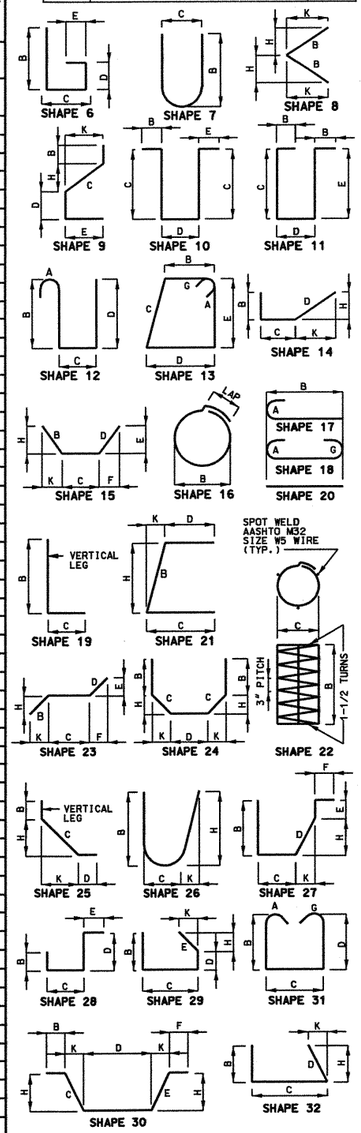
INTERMEDIATE BENT NO. 2

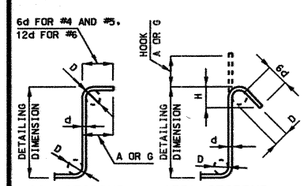
NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
36	10	D201	FOOTING		10		X					2-	0.000	19-	5.000									23-	5	22-	9	3524
40	11	D202	FOOTING		10		X					2-	0.000	17-	5.000									21-	5	20-	8	4392
72	5	D203	FOOTING		19		X			4-	10.000	11-	3.000											16-	1	15-	11	1195
80	5	D204	FOOTING		19		X			4-	10.000	10-	3.000											15-	1	14-	11	1245
8	5	D205	FOOTING		10		X					2-	6.000	17-	6.000									22-	6	22-	3	186
8	5	D206	FOOTING		10		X					2-	6.000	19-	6.000									24-	6	24-	3	202
70	11	D207	FOOTING		19		X			13-	5.000	2-	0.000											15-	5	15-	1	5610
24	4	H201	COLUMN		13		X			8-	9.000	4-	0.000	8-	9.000	4-	0.000							26-	3	25-	11	415
48	4	H202	COLUMN		31		X			4-	0.000	0-	4.000											4-	9	4-	7	147
24	4	H203	COLUMN		31		X			3-	6.000													3-	11	3-	11	63
8	8	H204	BENT CAP		15		X			2-	0.000	14-	3.000							1-	9.875	0-	10.000	16-	3	16-	2	345
6	7	H205	BENT CAP		20		X	V	2	17-	8.000													17-	8	17-	8	270
			INCR.=							26-	4.000													26-	4	26-	4	
			52. in																									
12	8	H206	BENT CAP		20		X	V	3	30-	8.000													30-	8	30-	8	1052
			INCR.=							35-	0.000													35-	0	35-	0	
			17.375 in																									
12	8	H207	BENT CAP		20		X			36-	5.000													36-	5	36-	5	1167
4	7	H208	BENT CAP		20		X			36-	5.000													36-	5	36-	5	298
20	11	H209	BENT CAP		20		X			36-	5.000													36-	5	36-	5	3870
4	7	H210	BENT CAP		19		X			2-	10.000	25-	6.000											28-	4	28-	2	230
4	7	H211	BENT CAP		19		X			3-	6.000	15-	6.000											19-	0	18-	10	154
4	7	H212	BENT CAP		10		X					3-	10.000	4-	1.000									11-	9	11-	5	93
10	6	H213	BENT CAP		10		X					2-	5.000	3-	9.000									8-	7	8-	3	124
36	6	H214	BENT CAP		10		X					2-	5.000	2-	7.000									7-	5	7-	1	383
6	4	H215	BENT CAP		20		X			4-	9.000													4-	9	4-	9	19
56	4	H216	BENT CAP		31		X			4-	0.000	0-	4.000											4-	9	4-	7	171
68	5	P201	SHAFT		16		X			3-	4.000													12-	11	12-	10	910
64	5	P202	SHAFT		16		X			2-	10.000													11-	3	11-	3	751
32	6	U201	BENT CAP		10	S	X					1-	0.000	4-	0.000									6-	0	5-	8	272
	0	U202	NOT USED		0																							
26	6	U203	BENT CAP		10	S	X					3-	5.000	4-	0.000									10-	10	10-	6	410
15	6	U204	BENT CAP		13	S	X			4-	0.000	6-	5.000	4-	0.000	6-	5.000							22-	2	21-	8	488
84	6	U205	BENT CAP		13	S	X	V	4	2-	11.000	4-	7.500	2-	11.000	4-	7.500							16-	5	15-	11	2534
			INCR.=							2-	11.000	8-	9.500	2-	11.000	8-	9.500							24-	9	24-	3	
			5. in																									
2	6	U206	BENT CAP		13	S	X			2-	11.000	4-	3.000	2-	11.000	4-	3.000							15-	8	15-	2	46
2	6	U207	BENT CAP		13	S	X			2-	11.000	6-	1.000	2-	11.000	6-	1.000							19-	4	18-	10	57
24	6	U208	BENT CAP		10	S	X					3-	2.000	0-	10.000									7-	2	6-	10	246
70	11	V201	COLUMN		20		X			20-	0.000													20-	0	20-	0	7438
36	9	V202	SHAFT		20		X			24-	1.250													24-	1	24-	1	2948
36	9	V203	SHAFT		20		X			22-	0.000													22-	0	22-	0	2693
64	9	V204	SHAFT		20		X			26-	0.000													26-	0	26-	0	5658
16	W5	W201	BENT CAP		22		X			1-	6.000	0-	9.125											26-	1	26-	1	71

TWO ADDITIONAL #6-V103 ARE INCLUDED IN THE BAR BILL FOR TESTING.

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATOR'S USE (NEAREST INCH).
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

STATE	PROJ. NO.	SHEET NO.
MO		B71

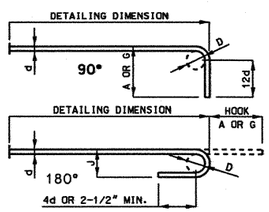




STIRRUP HOOK DIMENSIONS
GRADES 40 - 50 - 60 KSI

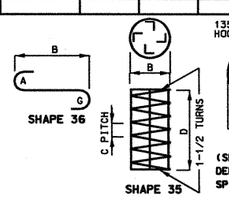
BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

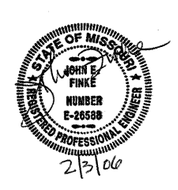
NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS

BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"





DETAILED: SJ DEC. 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 71 OF 77

GREENE COUNTY

A7024

REV.

P:\C1X21400\700cadd\709str\A7024 Ramp 3\A7024_BARL1_J8U0548B.dgn

11:19 03-FEB-2006

BILL OF REINFORCING STEEL

SUBSTRUCTURE (CONT.)

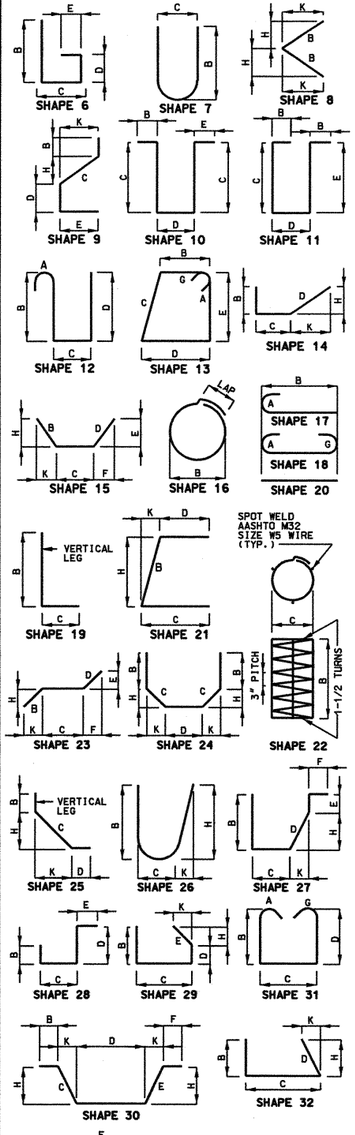
INTERMEDIATE BENT NO. 3

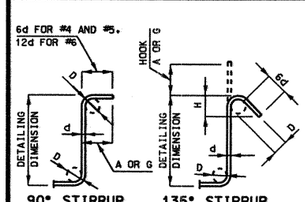
NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
47	10	D301	FOOTING		10		X					2	0.000	19	6.000									23	6	22	10	4618
53	11	D302	FOOTING		10		X					2	0.000	19	6.000									23	6	22	9	6406
200	5	D303	FOOTING		19		X			4	10.000	11	3.000											16	1	15	11	3320
16	5	D304	FOOTING		10		X					1	9.000	19	6.000									23	0	22	9	380
	0	D305	NOT USED		0																							
70	11	D306	FOOTING		19		X			13	5.000	2	0.000											15	5	15	1	5610
34	4	H301	COLUMN		13		X			8	9.000	4	0.000	8	9.000	4	0.000							26	3	25	11	589
68	4	H302	COLUMN		31		X			4	0.000	0	4.000											4	9	4	7	208
34	4	H303	COLUMN		31		X			3	6.000													3	11	3	11	89
8	8	H304	BENT CAP		15		X			2	0.000	14	3.000							1	9.875	0	10.000	16	3	16	2	345
6	7	H305	BENT CAP		20		X	V	2	17	8.000													17	8	17	8	270
			INCR.=							26	4.000													26	4	26	4	
			52. in																									
12	8	H306	BENT CAP		20		X	V	3	30	8.000													30	8	30	8	1052
			INCR.=							35	0.000													35	0	35	0	
			17.375 in																									
14	8	H307	BENT CAP	E	20		X			36	5.000													36	5	36	5	1361
6	7	H308	BENT CAP	E	20		X			36	5.000													36	5	36	5	447
22	11	H309	BENT CAP	E	20		X			36	5.000													36	5	36	5	4257
4	7	H310	BENT CAP	E	19		X			2	10.000	25	6.000											28	4	28	2	230
4	7	H311	BENT CAP	E	19		X			3	6.000	15	6.000											19	0	18	10	154
4	7	H312	BENT CAP	E	10		X					3	10.000	4	1.000									11	9	11	5	93
10	6	H313	BENT CAP	E	10		X					2	5.000	3	9.000									8	7	8	3	124
36	6	H314	BENT CAP	E	10		X					2	5.000	2	7.000									7	5	7	1	383
6	4	H315	BENT CAP	E	20		X			4	9.000													4	9	4	9	19
56	4	H316	BENT CAP	E	31		X			4	0.000	0	4.000											4	9	4	7	171
92	5	P301	SHAFT		16		X			3	10.000													14	7	14	5	1383
60	5	P302	SHAFT		16		X			3	4.000													12	11	12	10	803
32	6	U301	BENT CAP	E	10	S	X					1	0.000	4	0.000									6	0	5	8	272
	0	U302	NOT USED		0																							
26	6	U303	BENT CAP	E	10	S	X					3	5.000	4	0.000									10	10	10	6	410
15	6	U304	BENT CAP	E	13	S	X			4	0.000	6	5.000	4	0.000	6	5.000							22	2	21	8	488
84	6	U305	BENT CAP	E	13	S	X	V	4	2	11.000	4	7.500	2	11.000	4	7.500							16	5	15	11	2534
			INCR.=							2	11.000	8	9.500	2	11.000	8	9.500							24	9	24	3	
			5. in																									
2	6	U306	BENT CAP	E	13	S	X			2	11.000	4	3.000	2	11.000	4	3.000							15	8	15	2	46
2	6	U307	BENT CAP	E	13	S	X			2	11.000	6	1.000	2	11.000	6	1.000							19	4	18	10	57
24	6	U308	BENT CAP	E	10	S	X					3	2.000	0	10.000									7	2	6	10	246
70	11	V301	COLUMN		20		X			24	7.000													24	7	24	7	9143
44	9	V302	SHAFT		20		X			28	3.625													28	4	28	4	4239
44	9	V303	SHAFT		20		X			26	9.625													26	10	26	10	4014
72	9	V304	SHAFT		20		X			25	0.000													25	0	25	0	6120
16	W5	W301	BENT CAP	E	22		X			1	6.000	0	9.125											26	1	26	1	71

INTERMEDIATE BENT NO. 4

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
53	10	D401	FOOTING		10		X					2	0.000	21	6.000									25	6	24	10	5663
58	11	D402	FOOTING		10		X					2	0.000	19	6.000									23	6	22	9	7011
106	5	D403	FOOTING		19		X			5	2.000	12	3.000											17	5	17	3	1907
116	5	D404	FOOTING		19		X			5	2.000	11	3.000											16	5	16	3	1966
8	5	D405	FOOTING		10		X					1	9.000	21	9.000									25	3	25	0	209
8	5	D406	FOOTING		10		X					1	9.000	19	9.000									23	3	23	0	192
90	11	D407	FOOTING		19		X			13	9.000	2	0.000											15	9	15	5	7372
28	4	H401	COLUMN		13	S	X			10	9.000	4	0.000	10	9.000	4	0.000							30	3	30	0	561
56	4	H402	COLUMN		31	S	X			4	0.000	0	4.000											4	9	4	8	175
28	4	H403	COLUMN		31	S	X			3	6.000													3	11	3	11	73
8	8	H404	BENT CAP		15		X			2	0.000	18	2.625							1	9.875	0	10.000	20	3	20	2	431
4	7	H405	BENT CAP		20		X			47	9.000													47	9	47	9	390
24	11	H406	BENT CAP		20		X			47	9.000													47	9	47	9	6089
92	8	H407	BENT CAP		31	S	X			4	0.000													4	10	4	10	1187
4	7	H408	BENT CAP		19		X			2	10.000	35	5.500											38	4	38	1	311
4	7	H409	BENT CAP		19		X	V	1	3	6.000	23	0.000											26	6	26	4	201
			INCR.=							3	6.000	19	5.625											23	0	22	9	
			14.125 in																									
4	7	H410	BENT CAP		10		X					3	10.000	7	0.000									14	8	14	4	117
6	4	H411	BENT CAP		20		X			6	11.125													6	11	6	11	28
12	8	H412	BENT CAP		20		X			47	9.000													47	9	47	9	1530
12	8	H413	BENT CAP		20		X	V	3	47	9.000													47	9	47	9	1466
			INCR.=							43	9.125													43	9	43	9	
			16. in																									
7	6	H414	BENT CAP		10	S	X					2	5.000	2	7.000									7	5	7	1	74
36	7	H415	BENT CAP		20		X	V	5	39	4.875													39	5	39	5	2260
			INCR.=							22	0.125													22	0	22	0	
			33.625 in																									
14	6	H416	BENT CAP		10	S	X					2	5.000	3	9.000									8	7	8	3	173
82	5	P401	SHAFT		16		X			3	10.000													14	7	14	5	1233
72	5	P402	SHAFT		16		X			3	4.000													12	11	12	10	964
32	6	U401	BENT CAP		10	S	X					1	0.000	4	0.000									6	0	5	8	272
18	6	U402	BENT CAP		10	S	X					3	7.500	4	0.000									11	3	10	11	295
17	6	U403	BENT CAP		10	S	X					6	1.500	4	0.000									16	3	15	11	406
40	6	U404	BENT CAP		13	S	X			2	7.750	6	1.625	2	7.750	6	1.625							18	11	18	5	1106
8	6	U405	BENT CAP		13	S	X			4	0.000	6	1.625	4	0.000	6	1.625							21	7	21	2	254
112	6	U406	BENT CAP		13	S	X	V	4	2	7.750	4	6.000	2	7.750	4	6.000							15	8	15	2	3631
			INCR.=							2	7.750	10	11.250	2	7.750	10	11.250							28	6	28	0	
			5.75 in																									
2	6	U407	BENT CAP		13	S	X			2	7.750	4	3.000	2	7.750	4	3.000							15	2	14	8	44
2	6	U408	BENT CAP		10	S	X			2	7.750			2	7.750	6	1.500							11	5	10	10	33
30	6	U409	BENT CAP		10	S	X					3	2.000	0	10.000									7	2	6	10	308
90	11	V401	COLUMN		20		X			21	11.500													22	0	22	0	10520
44	9	V402	SHAFT		20		X			27	7.250													27	7	27	7	4126
44	9	V403	SHAFT		20		X			22	10.750													22	11	22	11	3428
72	9	V404	SHAFT		20		X			28	0.000													28	0	28	0	6854
16	W5	W401	BENT CAP		22		X			1	6.000	0	9.125											26	1	26	1	71

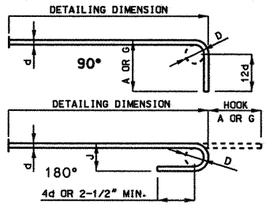
STATE	PROJ. NO.	SHEET NO.
MO		B72





STIRRUP HOOK DIMENSIONS				
GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK	135° HOOK	
		HOOK A OR G	HOOK A OR G	APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

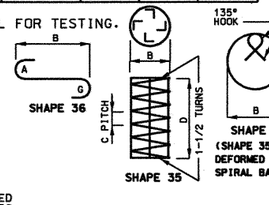
NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS				
		ALL GRADES		
BAR SIZE	D (IN.)	180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	9"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

TWO ADDITIONAL #7-H308 #8-H307 AND #11-H309 ARE INCLUDED IN THE BAR BILL FOR TESTING.

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATOR'S USE (NEAREST INCH).
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.



BENDING DIAGRAMS

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/11/06

DETAILED: SJ DEC. 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 72 OF 77

GREENE COUNTY

A7024

REV.

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BILL OF REINFORCING STEEL

SUBSTRUCTURE (CONT.)

INTERMEDIATE BENT NO. 5

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
47	10	D501	FOOTING		10		X					2-	0.000	19-	6.000									23-	6	22-10		4618
53	11	D502	FOOTING		10		X					2-	0.000	19-	6.000									23-	6	22-	9	6406
200	5	D503	FOOTING		19		X			4-	10.000	11-	3.000											16-	1	15-11		3320
16	5	D504	FOOTING		10		X					1-	9.000	19-	6.000									23-	0	22-	9	380
	0	D505	NOT USED		0																							
88	11	D506	FOOTING		19		X			13-	6.000	2-	0.000											15-	6	15-	2	7091
60	4	H501	COLUMN		13		X			8-	9.000	5-	0.000	8-	9.000	5-	0.000							28-	3	27-11		1119
120	4	H502	COLUMN		31		X			5-	0.000	0-	4.000											5-	9	5-	7	448
60	4	H503	COLUMN		31		X			3-	6.000													3-11		3-11		157
8	8	H504	BENT CAP		15		X			2-	0.000	14-	3.000							1-	9.875	0-	10.000	16-	3	16-	2	345
6	7	H505	BENT CAP		20		X	V	2	17-	8.000													17-	8	17-	8	270
			INCR.=							26-	4.000													26-	4	26-	4	
			52. in																									
12	8	H506	BENT CAP		20		X	V	3	30-	8.000													30-	8	30-	8	1052
			INCR.=							35-	0.000													35-	0	35-	0	
			17.375 in																									
12	8	H507	BENT CAP		20		X			36-	5.000													36-	5	36-	5	1167
4	7	H508	BENT CAP		20		X			36-	5.000													36-	5	36-	5	298
20	11	H509	BENT CAP		20		X			36-	5.000													36-	5	36-	5	3870
4	7	H510	BENT CAP		19		X			2-10	.000	25-	6.000											28-	4	28-	2	230
4	7	H511	BENT CAP		19		X			3-	6.000	15-	6.000											19-	0	18-10		154
4	7	H512	BENT CAP		10		X					3-10	.000	4-	1.000									11-	9	11-	5	93
10	6	H513	BENT CAP		10		X					2-	5.000	5-	0.000									9-10		9-	6	143
36	6	H514	BENT CAP		10		X					2-	5.000	3-	2.000									8-	0	7-	8	415
6	4	H515	BENT CAP		20		X			5-	9.000													5-	9	5-	9	23
56	4	H516	BENT CAP		31		X			5-	0.000	0-	4.000											5-	9	5-	7	209
160	5	P501	SHAFT		16		X			3-10	.000													14-	7	14-	5	2406
72	5	P502	SHAFT		16		X			3-	4.000													12-11		12-10		964
32	6	U501	BENT CAP		10	S	X					1-	0.000	5-	0.000									7-	0	6-	8	320
	0	U502	NOT USED		0																							
26	6	U503	BENT CAP		10	S	X					3-	5.000	5-	0.000									11-10		11-	6	449
15	6	U504	BENT CAP		13	S	X			5-	0.000	6-	5.000	5-	0.000	6-	5.000							24-	2	23-	8	533
84	6	U505	BENT CAP		13	S	X	V	4	3-11	.000	4-	7.500	3-11	.000	4-	7.500							18-	5	17-11		2786
			INCR.=							3-11	.000	8-	9.500	3-11	.000	8-	9.500							26-	9	26-	3	
			5. in																									
2	6	U506	BENT CAP		13	S	X			3-11	.000	4-	3.000	3-11	.000	4-	3.000							17-	8	17-	2	52
2	6	U507	BENT CAP		13	S	X			3-11	.000	6-	1.000	3-11	.000	6-	1.000							21-	4	20-10		63
24	6	U508	BENT CAP		10	S	X					3-	2.000	0-10	.000									7-	2	6-10		246
88	11	V501	COLUMN		20		X			37-10	.000													37-10		37-10		17689
44	9	V502	SHAFT		20		X			41-	9.625													41-10		41-10		6258
44	9	V503	SHAFT		20		X			42-	4.750													42-	5	42-	5	6346
72	9	V504	SHAFT		20		X			28-	0.000													28-	0	28-	0	6854
16	W5	W501	BENT CAP		22		X			1-	6.000	0-	9.125											26-	1	26-	1	71

INTERMEDIATE BENT NO. 6

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
40	10	D601	FOOTING		10		X					2-	0.000	19-	6.000									23-	6	22-10		3930
47	11	D602	FOOTING		10		X					2-	0.000	19-	6.000									23-	6	22-	9	5681
174	5	D603	FOOTING		19		X			4-10	.000	11-	3.000											16-	1	15-11		2889
16	5	D604	FOOTING		10		X					1-	9.000	19-	6.000									23-	0	22-	9	380
	0	D605	NOT USED		0																							
70	11	D606	FOOTING		19		X			13-	5.000	2-	0.000											15-	5	15-	1	5610
48	4	H601	COLUMN		13		X			8-	9.000	4-	0.000	8-	9.000	4-	0.000							26-	3	25-11		831
96	4	H602	COLUMN		31		X			4-	0.000	0-	4.000											4-	9	4-	7	294
48	4	H603	COLUMN		31		X			3-	6.000													3-11		3-11		126
8	8	H604	BENT CAP		15		X			2-	0.000	14-	3.000							1-	9.875	0-	10.000	16-	3	16-	2	345
6	7	H605	BENT CAP		20		X	V	2	17-	8.000													17-	8	17-	8	270
			INCR.=							26-	4.000													26-	4	26-	4	
			52. in																									
12	8	H606	BENT CAP		20		X	V	3	30-	8.000													30-	8	30-	8	1052
			INCR.=							35-	0.000													35-	0	35-	0	
			17.375 in																									
12	8	H607	BENT CAP	E	20		X			36-	5.000													36-	5	36-	5	1167
4	7	H608	BENT CAP	E	20		X			36-	5.000													36-	5	36-	5	298
20	11	H609	BENT CAP	E	20		X			36-	5.000													36-	5	36-	5	3870
4	7	H610	BENT CAP	E	19		X			2-10	.000	25-	6.000											28-	4	28-	2	230
4	7	H611	BENT CAP	E	19		X			3-	6.000	15-	6.000											19-	0	18-10		154
4	7	H612	BENT CAP	E	10		X					3-10	.000	4-	1.000									11-	9	11-	5	93
10	6	H613	BENT CAP	E	10		X					2-	5.000	3-	9.000									8-	7	8-	3	124
36	6	H614	BENT CAP	E	10		X					2-	5.000	2-	7.000									7-	5	7-	1	383
6	4	H615	BENT CAP	E	20		X			4-	9.000													4-	9	4-	9	19
56	4	H616	BENT CAP	E	31		X			4-	0.000	0-	4.000											4-	9	4-	7	171
156	5	P601	SHAFT		16		X			3-10	.000													14-	7	14-	5	2346
64	5	P602	SHAFT		16		X			3-	4.000													12-11		12-10		857
32	6	U601	BENT CAP	E	10	S	X					1-	0.000	4-	0.000									6-	0	5-	8	272
	0	U602	NOT USED		0																							
26	6	U603	BENT CAP	E	10	S	X					3-	5.000	4-	0.000									10-10		10-	6	410
15	6	U604	BENT CAP	E	13	S	X			4-	0.000	6-	5.000	4-	0.000	6-	5.000							22-	2	21-	8	488
84	6	U605	BENT CAP	E	13	S	X	V	4	2-11	.000	4-	7.500	2-11	.000	4-	7.500							16-	5	15-11		2534
			INCR.=							2-11	.000	8-	9.500	2-11	.000	8-	9.500							24-	9	24-	3	
			5. in																									
2	6	U606	BENT CAP	E	13	S	X			2-11	.000	4-	3.000	2-11	.000	4-	3.000							15-	8	15-	2	46
2	6	U607	BENT CAP	E	13	S	X			2-11	.000	6-	1.000	2-11	.000	6-	1.000							19-	4	18-10		57
24	6	U608	BENT CAP	E	10	S	X					3-	2.000	0-10	.000									7-	2	6-10		246
70	11	V601	COLUMN		20		X			38-10	.000													38-10		38-10		14443
44	9	V602	SHAFT		20		X			41-	1.250													41-	1	41-	1	6146
44	9	V603	SHAFT		20		X			41-	0.000													41-	0	41-	0	6134
72	9	V604	SHAFT		20		X			26-	0.000													26-	0	26-	0	6365
16	W5	W601	BENT CAP	E	22		X			1-	6.000	0-	9.125											26-	1	26-	1	71

STATE	PROJ. NO.	SHEET NO.
MO		B73

SHAPE 6

SHAPE 7

SHAPE 8

SHAPE 9

SHAPE 10

SHAPE 11

SHAPE 12

SHAPE 13

SHAPE 14

SHAPE 15

SHAPE 16

SHAPE 17

SHAPE 18

SHAPE 20

SHAPE 19

SHAPE 21

SPOT WELD AASHTO M32 SIZE W5 WIRE (TYP.)

SHAPE 23

SHAPE 24

SHAPE 22

SHAPE 25

SHAPE 26

SHAPE 27

SHAPE 28

SHAPE 29

SHAPE 31

SHAPE 30

SHAPE 32

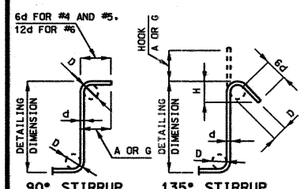
SHAPE 33

SHAPE 36

SHAPE 35

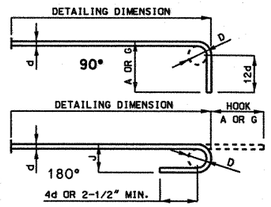
SHAPE 34 (SHAPE 35 SHALL BE A DEFORMED OR PLAIN SPIRAL BAR OR WIRE.)

BENDING DIAGRAMS



STIRRUP HOOK DIMENSIONS				
GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK	135° HOOK	
		HOOK A OR G	HOOK A OR G	APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS				
ALL GRADES				
BAR SIZE	D (IN.)	180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATOR'S USE (NEAREST INCH).
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
2/11/06

DETAILED: SJ DEC. 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

BILL OF REINFORCING STEEL

SUBSTRUCTURE (CONT.)

INTERMEDIATE BENT NO. 7

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
36	10	D701	FOOTING		10		X					2	0.000	19	5.000									23	5	22	9	3524
40	11	D702	FOOTING		10		X					2	0.000	17	5.000									21	5	20	8	4392
72	5	D703	FOOTING		19		X			4	10.000	11	3.000											16	1	15	11	1195
80	5	D704	FOOTING		19		X			4	10.000	10	3.000											15	1	14	11	1245
8	5	D705	FOOTING		10		X					2	6.000	17	6.000									22	6	22	3	186
8	5	D706	FOOTING		10		X					2	6.000	19	6.000									24	6	24	3	202
70	11	D707	FOOTING		19		X			13	5.000	2	0.000											15	5	15	1	5610
24	4	H701	COLUMN		13		X			8	9.000	4	0.000	8	9.000	4	0.000							26	3	25	11	415
48	4	H702	COLUMN		31		X			4	0.000	0	4.000											4	9	4	7	147
24	4	H703	COLUMN		17		X			3	6.000													4	0	4	0	64
8	8	H704	BENT CAP		15		X			2	0.000	14	3.000							1	9.875	0	10.000	16	3	16	2	345
6	7	H705	BENT CAP		20		X	V	2	17	8.000													17	8	17	8	270
			INCR.=							26	4.000													26	4	26	4	
			52. in																									
12	8	H706	BENT CAP		20		X	V	4	30	8.000													30	8	30	8	1052
			INCR.=							35	0.000													35	0	35	0	
			26. in																									
12	8	H707	BENT CAP		20		X			36	5.000													36	5	36	5	1167
4	7	H708	BENT CAP		20		X			36	5.000													36	5	36	5	298
20	11	H709	BENT CAP		20		X			36	5.000													36	5	36	5	3870
4	7	H710	BENT CAP		19		X			2	10.000	25	6.000											28	4	28	2	230
4	7	H711	BENT CAP		19		X			3	6.000	15	6.000											19	0	18	10	154
4	7	H712	BENT CAP		10		X					3	10.000	4	1.000									11	9	11	5	93
10	6	H713	BENT CAP		10		X					2	5.000	3	9.000									8	7	8	3	124
36	6	H714	BENT CAP		10		X					2	5.000	2	7.000									7	5	7	1	383
6	4	H715	BENT CAP		20		X			4	9.000													4	9	4	9	19
56	4	H716	BENT CAP		31		X			4	0.000	0	4.000											4	9	4	7	171
134	5	P701	SHAFT		16		X			3	4.000													12	11	12	10	1794
64	5	P702	SHAFT		16		X			2	10.000													11	3	11	3	751
32	6	U701	BENT CAP		10		X					1	0.000	4	0.000									6	0	5	8	272
	0	U702	NOT USED		0																							
26	6	U703	BENT CAP		10		X					3	5.000	4	0.000									10	10	10	6	410
15	6	U704	BENT CAP		13		X			4	0.000	6	5.000	4	0.000	6	5.000							22	2	21	8	488
84	6	U705	BENT CAP		13		X	V	4	2	11.000	4	7.500	2	11.000	4	7.500							16	5	15	11	2534
			INCR.=							2	11.000	8	9.500	2	11.000	8	9.500							24	9	24	3	
			5. in																									
2	6	U706	BENT CAP		13		X			2	11.000	4	3.000	2	11.000	4	3.000							15	8	15	2	46
2	6	U707	BENT CAP		13		X			2	11.000	6	1.000	2	11.000	6	1.000							19	4	18	10	57
4	6	U708	BENT CAP		10		X					3	2.000	0	10.000									7	2	6	10	41
70	11	V701	COLUMN		20		X			25	2.500													25	3	25	3	9391
36	9	V702	SHAFT		20		X			40	0.000													40	0	40	0	4896
36	9	V703	SHAFT		20		X			40	0.000													40	0	40	0	4896
64	9	V704	SHAFT		20		X			26	0.000													26	0	26	0	5658
16	W5	W701	BENT CAP		22		X			1	6.000	0	9.125											26	1	26	1	71

BILL OF REINFORCING STEEL

END BENT NO. 8

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
16	6	F801	DIAPHRAGM		19	S				5	5.500	3	0.000											8	6	8	4	200
36	6	F802	WING BRACE		23					1	2.000	4	3.000	1	2.000	0	9.875	0	9.875	0	9.875	0	9.875	6	7	6	6	351
8	11	H801	BEAM		20					40	5.000													40	5	40	5	1718
4	6	H802	BEAM		20					40	5.000													40	5	40	5	243
4	7	H803	BEAM		19					1	2.000	26	8.000											27	10	27	8	226
4	7	H804	BEAM		19					1	2.000	15	10.000											17	0	16	10	138
4	7	H805	BEAM		19					1	2.000	5	0.000											6	2	6	0	49
22	6	H806	DIAPHRAGM		20					40	6.000													40	6	40	6	1338
37	5	H807	DIAPHRAGM	E	20					2	6.000													2	6	2	6	96
4	6	H808	DIAPHRAGM	E	20					40	6.000													40	6	40	6	243
68	6	H809	WINGWALL		20					20	1.500													20	2	20	2	2060
4	8	H810	WINGWALL	E	20					21	3.000													21	3	21	3	227
12	8	H811	WINGWALL		20					21	3.000													21	3	21	3	681
13	5	U801	BEAM		10	S						5	7.750	3	0.000									14	4	14	1	191
7	5	U802	BEAM		10	S						6	11.125	3	0.000									16	10	16	8	122
4	5	U803	BEAM		13	S				3	0.000	3	3.000	3	0.000	3	3.000							13	5	13	1	55
5	5	U804	BEAM		13	S				3	0.000	3	10.750	3	0.000	3	10.750							14	9	14	5	75
4	5	U805	BEAM		13	S				3	0.000	4	6.500	3	0.000	4	6.500							16	0	15	8	65
5	5	U806	BEAM		13	S				3	0.000	5	2.125	3	0.000	5	2.125							17	3	16	11	88
30	5	U807	DIAPHRAGM	E	10	S						8	5.125	4	4.500									21	3	21	0	657
30	5	U808	DIAPHRAGM		19	S				7	4.000	3	0.000											10	4	10	3	321
51	6	U809	DIAPHRAGM	E	19	S				4	10.500	3	3.000											8	2	8	0	613
12	5	V801	DIAPHRAGM		20					5	10.750													5	11	5	11	74
8	5	V802	DIAPHRAGM		20					7	2.125													7	2	7	2	60
12	6	V803	DIAPHRAGM	E	20					7	4.000													7	4	7	4	132
40	6	V804	WINGWALL		20			V	2	13	10.000													13	10	13	10	809
			INCR.=							13	1.000													13	1	13	1	
			.5 in																									
40	6	V805	WINGWALL		20			V	2	11	4.000													11	4	11	4	658
			INCR.=							10	7.000													10	7	10	7	
			.5 in																									

STATE	PROJ. NO.	SHEET NO.
MO		B74

SHAPE 6 · SHAPE 7 · SHAPE 8 · SHAPE 9 · SHAPE 10 · SHAPE 11 · SHAPE 12 · SHAPE 13 · SHAPE 14 · SHAPE 15 · SHAPE 16 · SHAPE 17 · SHAPE 18 · SHAPE 19 · SHAPE 20 · SHAPE 21 · SHAPE 22 · SHAPE 23 · SHAPE 24 · SHAPE 25 · SHAPE 26 · SHAPE 27 · SHAPE 28 · SHAPE 29 · SHAPE 30 · SHAPE 31 · SHAPE 32 · SHAPE 33 · SHAPE 34 · SHAPE 35 · SHAPE 36

SPOT WELD AASHTO M32 SIZE W5 WIRE (TYP.)

BENDING DIAGRAMS

6d FOR #4 AND #5.
12d FOR #6

90° STIRRUP · 135° STIRRUP

STIRRUP HOOK DIMENSIONS

GRADES 40 - 50 - 60 KSI

BAR SIZE	D (IN.)	90° HOOK A OR G	135° HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

DETAILING DIMENSION · 90° · 180° · 12d · 4d OR 2-1/2" MIN.

END HOOK DIMENSIONS

BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	ALL GRADES 180° HOOKS J	ALL GRADES 90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATOR'S USE (NEAREST INCH).
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

STATE OF MISSOURI · JOHN E. FINKE · NUMBER E-26588 · REGISTERED PROFESSIONAL ENGINEER · 2/3/06

DETAILED: SJ DEC. 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 74 OF 77

GREENE COUNTY

A7024

REV.

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BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
SUPERSTRUCTURE																												
SLAB																												
1870	5	S101	SLAB	E	20					37-	4.000													37-	4	37-	4	72815
384	5	S102	SLAB	E	20					46-	7.000													46-	7	46-	7	18657
128	6	S103	SLAB	E	20					5-	6.000													5-	6	5-	6	1057
448	6	S104	SLAB	E	20					58-	2.000													58-	2	58-	2	39140
2793	6	S105	SLAB	E	20					40-	4.000													40-	4	40-	4	169202
2793	5	S106	SLAB	E	20					40-	4.000													40-	4	40-	4	117495
1445	5	S107	SLAB	E	20					39-	6.000													39-	6	39-	6	59532
SAFETY BARRIER CURB																												
64	5	C1	SLIP FORM	E	20					7-11.875														8-	0	8-	0	534
152	5	K1	BAR. CURB	E	19	S				2-	5.000	0-	5.125											2-	10	2-	9	436
152	5	K2	BAR. CURB	E	14	S				0-	5.125	0-	11.125	1-	6.000					0-	2.000	1-	5.875	2-	10	2-	9	436
108	5	K3	BAR. CURB	E	27	S				3-	0.000	0-	5.125	1-	0.000	2-	2.125			0-	9.875	0-	6.875	6-	7	6-	5	723
44	5	K4	BAR. CURB	E	7					3-	0.000	0-	6.000											6-	3	6-	3	287
4	5	K5	BAR. CURB	E	25	S				2-	6.500	0-	6.750	0-	4.375					0-	5.500	0-	4.000	3-	6	3-	5	14
4	5	K6	BAR. CURB	E	25	S				2-	5.500	0-	7.875	0-	4.375					0-	6.500	0-	4.500	3-	6	3-	5	14
4	5	K7	BAR. CURB	E	25	S				2-	4.125	0-	9.625	0-	4.375					0-	7.875	0-	5.500	3-	6	3-	6	15
4	5	K8	BAR. CURB	E	25	S				2-	2.750	0-	11.250	0-	4.375					0-	9.250	0-	6.500	3-	6	3-	6	15
48	5	K9	BAR. CURB	E	20					5-	7.000													5-	7	5-	7	280
42	4	K10	BAR. CURB	E	20					18-	1.125													18-	1	18-	1	507
4	5	K11	BAR. CURB	E	8					2-	2.125											2-	2.000	0-	2.375	4-	4	4-	4	18
2769	5	R1	BAR. CURB	E	19	S				2-	6.000	0-	3.500											2-	10	2-	8	7702
2769	5	R2	BAR. CURB	E	15	S				2-	6.125	0-	3.500									2-	6.000	0-	3.000	2-	10	2-	9	7942
2769	5	R3	BAR. CURB	E	19	S				1-	5.000	0-	6.000											1-	11	1-	10	5295
2769	5	R4	BAR. CURB	E	27	S						0-	6.000	0-	11.250	0-	7.000	1-	0.000	0-	9.250	0-	6.375	3-	0	2-	10	8183
70	5	R5	BAR. CURB	E	20					33-	7.000													33-	7	33-	7	2452
226	5	R6	BAR. CURB	E	20					7-	7.000													7-	7	7-	7	1788
140	5	R7	BAR. CURB	E	20					37-	8.000													37-	8	37-	8	5500
140	5	R8	BAR. CURB	E	20					39-	8.000													39-	8	39-	8	5792
70	5	R9	BAR. CURB	E	20					35-	4.000													35-	4	35-	4	2580
35	5	R10	BAR. CURB	E	20					39-	2.000													39-	2	39-	2	1430
42	5	R11	BAR. CURB	E	20					34-10	.000													34-	10	34-	10	1526

BILL OF REINFORCING STEEL

SUMMARY

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
SLAB ON GIRDER													
	4												0
	4		E										0
	5												2102
	5		E										270003
	6												11318
	6		E										211397
	7												826
	7		E										0
	8												1362
	8		E										454
	11												3436
REINFORCING STEEL (BRIDGES)													
	4												6561
	4		E										380
	5												35761
	5		E										0
	6												20518
	6		E										9120
	7												6954
	7		E										1699
	8												15100
	8		E										2528
	9												93633
	10												25877
	11												157514
	11		E										8127
	W5												284
	W5		E										142
BARRIER CURB													
	4		E										507
	5		E										52428
SLIP FORM OPTION													
	5		E										534

TOTALS

	4												6561
	4		E										380
	5												37863
	5		E										270003
	6												31836
	6		E										220517
	7												7780
	7		E										1699
	8												16462
	8		E										2982
	9												93633
	10												25877
	11												160950
	11		E										8127
	W5												284
	W5		E										142

STATE	PROJ. NO.	SHEET NO.
MO		B75

SHAPE 6 SHAPE 7 SHAPE 8

SHAPE 9 SHAPE 10 SHAPE 11

SHAPE 12 SHAPE 13 SHAPE 14

SHAPE 15 SHAPE 16 SHAPE 17 SHAPE 18 SHAPE 20

SHAPE 19 SHAPE 21

SPOT WELD AASHTO M32 SIZE W5 WIRE (TYP.)

SHAPE 23 SHAPE 24 SHAPE 22

SHAPE 25 SHAPE 26 SHAPE 27

SHAPE 28 SHAPE 29 SHAPE 31

SHAPE 30 SHAPE 32

SHAPE 36 SHAPE 35 SHAPE 34 SHAPE 33

(SHAPE 35 SHALL BE A DEFORMED OR PLAIN SPIRAL BAR OR WIRE.)

BENDING DIAGRAMS

6d FOR #4 AND #5. 12d FOR #6

90° STIRRUP 135° STIRRUP

STIRRUP HOOK DIMENSIONS GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK A OR G	135° HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

DETAILING DIMENSION 90° A OR G 12d

DETAILING DIMENSION HOOK A OR G 180° 4d OR 2-1/2" MIN.

END HOOK DIMENSIONS				
BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

TWO ADDITIONAL #4-K10 AND #5-R6 ARE INCLUDED IN THE BAR BILL FOR TESTING.

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATOR'S USE (NEAREST INCH).
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
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REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

STATE OF MISSOURI JOHN E. FINKE NUMBER E-26588 REGISTERED PROFESSIONAL ENGINEER 2/3/06

DETAILED: SJ DEC. 2005
CHECKED: JEF JAN. 2006

JACOBS CIVIL INC.
ST. LOUIS, MO.

SHEET NO. 75 OF 77

GREENE COUNTY

A7024

REV.

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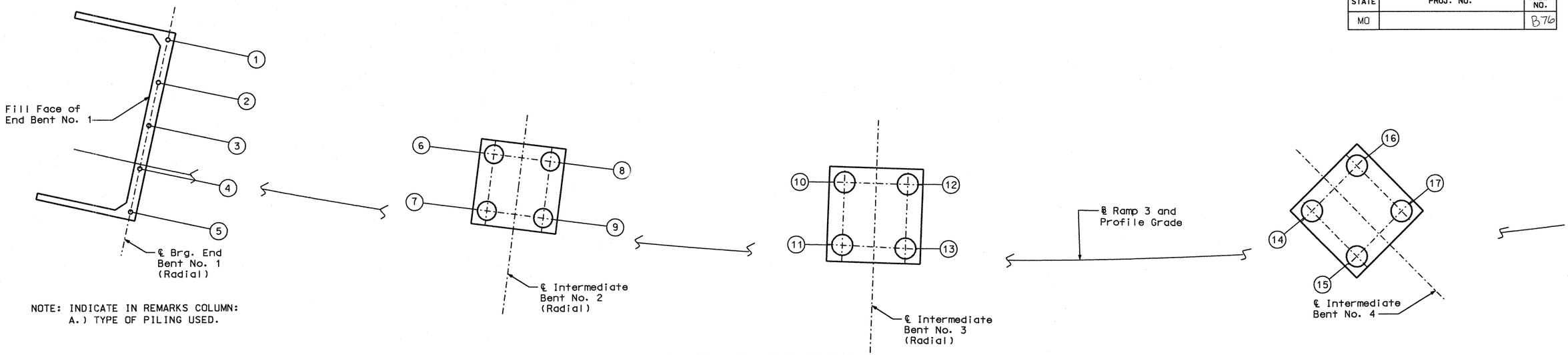
STATE	PROJ. NO.	SHEET NO.
MO		B76



NOTE: INDICATE IN REMARKS COLUMN:
A.) TYPE OF PILING USED.

PARTIAL PLAN SHOWING NUMBERING FOR RECORDING "AS BUILT MICRO PILE AND DRILLED SHAFT" DATA

"AS BUILT MICRO PILE" DATA

MICRO PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			END BENT NO. 1
1			
2			
3			
4			
5			

"AS BUILT DRILLED SHAFT" DATA

SHAFT NO.	BOTTOM OF DRILLED SHAFT (ELEV.)	BOTTOM OF ROCK SOCKET (ELEV.)	REMARKS
			INTERMEDIATE BENT NO. 2
6			
7			
8			
9			
			INTERMEDIATE BENT NO. 3
10			
11			
12			
13			
			INTERMEDIATE BENT NO. 4
14			
15			
16			
17			

NOTE: THIS SHEET TO BE COMPLETED BY MoDOT CONSTRUCTION PERSONNEL.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: EEB JULY 2005
CHECKED: GJD DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

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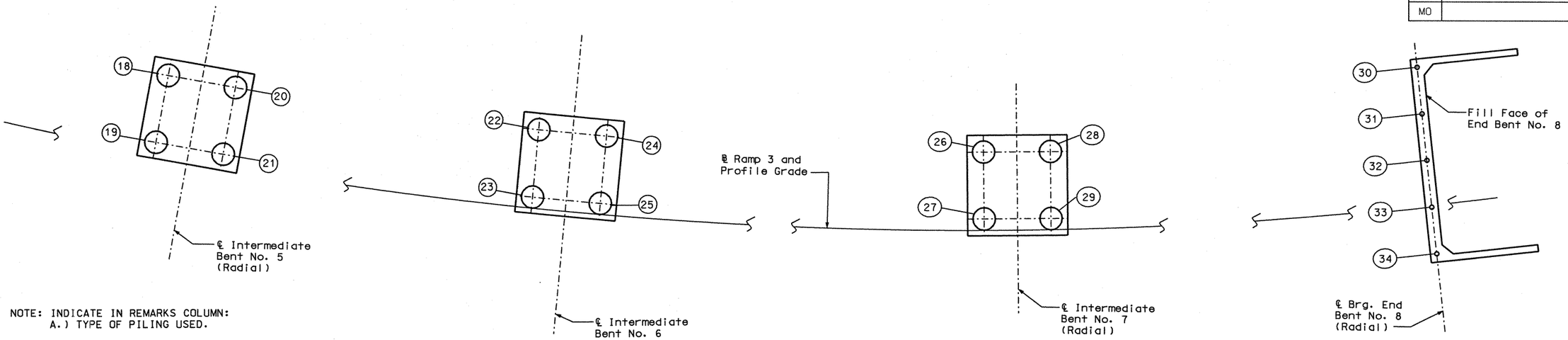
STATE	PROJ. NO.	SHEET NO.
MO		B77



NOTE: INDICATE IN REMARKS COLUMN:
A.) TYPE OF PILING USED.

PARTIAL PLAN SHOWING PILE NUMBERING FOR RECORDING "AS BUILT MICRO PILE AND DRILLED SHAFT" DATA

"AS BUILT DRILLED SHAFT" DATA

SHAFT NO.	BOTTOM OF DRILLED SHAFT (ELEV.)	BOTTOM OF ROCK SOCKET (ELEV.)	REMARKS
			INTERMEDIATE BENT NO. 5
18			
19			
20			
21			
			INTERMEDIATE BENT NO. 6
22			
23			
24			
25			
			INTERMEDIATE BENT NO. 7
26			
27			
28			
29			

"AS BUILT MICRO PILE" DATA

MICRO PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			END BENT NO. 8
30			
31			
32			
33			
34			

NOTE: THIS SHEET TO BE COMPLETED BY MoDOT CONSTRUCTION PERSONNEL.

STATE OF MISSOURI
JOHN E. FINKE
NUMBER E-26588
REGISTERED PROFESSIONAL ENGINEER
1/26/06

DETAILED: EEB JULY 2005
CHECKED: GJD DEC. 2005

JACOBS CIVIL INC.
ST. LOUIS, MO.

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