

County: Dallas FAU DUPLICATE

Bridge: 8050-026

Facility over: Belt Line Road

Feature Intersected: White Rock Creek

R-DELTA ENGINEERS, INC.

J. FRANK POLMA, P.E.
PRESIDENT

June 14, 1996

Texas Department of Transportation
P. O. Box 3671
Dallas, Texas 75221

ATTENTION: Mr. Ibrahim Musa, P.E.

SUBJECT: DALLAS COUNTY FAU BRINSAP INSPECTION
BRIDGE NO. 8050-026, BELT LINE ROAD OVER
WHITE ROCK CREEK, CITY OF DALLAS

Gentlemen:

The subject bridge has widespread fine cracks in prestressed beams at the bearing seat areas. We strongly recommend that these be carefully monitored in subsequent BRINSAP inspections.

Sincerely,

R-DELTA ENGINEERS, INC.

J. Frank Polma, P.E.
President

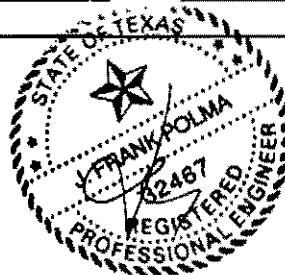
JFP:mfp

Bridge Inspection Record

District 18 County DSJ Cont-Sec B060-18 Structure 024 Route BELT LINE
Description 5 SPAN PRESTRESSED CONC BEAM

Inspector's Signature A.B. FREDERICK Date 6/6/96

- N - Not applicable
- 9 - Excellent condition
- 8 - Very good condition - no problems noted
- 7 - Good condition - some minor problems
- 6 - Satisfactory condition - minor deterioration of structural elements (limited)
- 5 - Fair condition - minor deterioration of structural elements (extensive)
- 4 - Poor condition - deterioration significantly affects structural capacity
- 3 - Serious condition - deterioration seriously affects structural capacity
- 2 - Critical condition - bridge should be closed until repaired
- 1 - Failing condition - bridge closed but repairable
- 0 - Failed condition - bridge closed and beyond repair



Enter a rating for each element of each component. The rating should equal or exceed the minimum rating listed to the left of each element. Component Ratings should equal the lowest rating of any element of the component. Fully supportive comments are to be made hereon or on attachments for all ratings of 7 or below.

Min.	Deck (Item 58)	Rating
1	Deck - Rating <u>(1)</u>	<u>7</u>
6	Wearing Surface <u>(3)</u>	<u>N</u>
6	Joints, Expansion, Open	<u>B</u>
6	Joints, Expansion, Sealed	<u>B</u>
6	Joints, Other	<u>N</u>
6	Drainage System	<u>B</u>
6	Curbs, Sidewalks & Parapets <u>(2)</u>	<u>7</u>
6	Median Barrier	<u>N</u>
6	Railings	<u>B</u>
7	Railing Protective Coating	<u>B</u>
7	Delineation (curve markers)	<u>B</u>
	Other	<u>N</u>

Min.	Superstructure (Item 59)	Rating
0	Main Members - Steel	<u>2</u>
0	Main Members - Concrete <u>(1)</u>	<u>4</u>
0	Main Members - Timber	<u>2</u>
0	Main Member Connections	<u>2</u>
1	Floor System Members	<u>2</u>
1	Floor System Connections	<u>2</u>
5	Secondary Members	<u>0</u>
5	Secondary Member Connections	<u>B</u>
6	Expansion Bearings	<u>B</u>
6	Fixed Bearings	<u>B</u>
6	Steel Protective Coating	<u>2</u>
	Other	<u>2</u>
	Component Rating	<u>6</u>

Comments: (1) MINOR CRACK @ BENT CAP
(2) MINOR CRACKS PARAPETS & SIDEWALK
(3) SPALLS & REBAR.
STAY IN PLACE FORM UNDERSIDE

Comments: (1) 1/2 TO 3/4 BHS @ EAST ABUT.
HAVE SHEAR CRACK AT BEARING AREA
WEST ABUTMENT 10% - 15% OF BEAMS
SAME PROBLEM.
10% - 15% OF BENTS AT BEAMS SAME
PROBLEM
EAST ABUT. 2ND BEAM FROM NORTH
SHEAR CRACKS BOTH SIDES. SOUTH SIDE
END SPALLED WITH EXPOSED BAR.
THE SHEAR CRACKS SHOULD
BE CAREFULLY MONITORED
AT FUTURE INSPECTIONS

Min.	Substructure (Item 60)	Rating
0	Abutment Caps	B
0	Above Ground	2
0	Below Ground or Foundation	2
5	Backwalls & Wingwalls	B
0	Intermediate Supports	
	Caps - Concrete	7
	Caps - Steel	2
	Caps - Timber	2
	Above Ground - Concrete	B
	Above Ground - Steel	2
	Above Ground - Timber	1
	Above Ground - Masonry	1
	Below Ground or Foundation	1
5	Collision Protection System	1
6	Steel Protective Coating	1
	Component Rating	7

Comments: DIAGONAL CRACKS IN THE
CANTILEVERED PORTION OF INTERIOR BENT.
1, 2, 3 (NORTH SIDE)

Min.	Channel (Item 61)	Rating
0	Channel Banks	7
0	Channel Bed	B
5	Rip Rap, Toe Walls & Aprons	B
5	Dikes	2
5	Jetties	2
	Other	2
	Component Rating	7

Comments: EAST BANK VERTICAL
NEAR EAST INTERIOR BENT

Min.	Culverts (Item 62)	Rating
0	Top Slabs	2
0	Bottom Slab or Footings	1
0	Abutments & Intermediate Supports	1
5	Headwalls & Wingwalls	1
	Other	1
	Component Rating	2

Comments:

Min.	Approaches (Item 65)	Rating
0	Embankments	B
4	Embankment Retaining Walls	2
5	Slope Protection	B
5	Roadway	7
6	Relief Joints	7
6	Drainage	B
6	Guardfence	B
7	Delineation	2
7	Sight Distance	B
	Other	2
	Component Rating	7

Comments: ① WEST APP. CRACKING
EAST APP. APPROACH LONGIT. CRACKS
② SPALED NEED CLEAN/RESEAL

Min.	Miscellaneous	Rating
7	Signs	2
7	Illumination	B
7	Warning Devices	2
7	Utility Lines	B
	Other	2

Comments: NOT POSTED
CONDUIT NORTH SIDE



Bridge Appraisal Worksheet

District 18 County OST Cont.-Sec 8062-18 Structure D26 Route BELL LINE

Traffic Safety Features (Item 36)

Standard MBGF Standard Traffic or Combination Rail
 None N/A Damaged Non-Std.
 Other _____

Bridge Railing (1st Digit) Rating — 1

MBGF Transition Standard Traffic or Combination Rail
 None N/A Damaged Non-Std.
 Other _____

Transitions (2nd Digit) Rating — 1

Standard MBGF Standard Traffic or Combination Rail
 None N/A Damaged Non-Std.
 Other _____

Approach Guardrail (3rd Digit) Rating — 1

MBGF Terminal Impact Attenuator
 None N/A Damaged Non-Std.
 Other _____

Guardrail Terminal (4th Digit) Rating — 1

Structural Evaluation (Item 67)

IR= HS20
 Other _____

Condition Ratings ADT 15310 Yr. 78
6 Superstructure (Item 59) From TXDOT Traffic Count
7 Substructure (Item 60) From Field Estimates
N Culvert (Item 62)

Structural Rating (Table 1) 6 Rating — 6

Deck Geometry (Item 68)

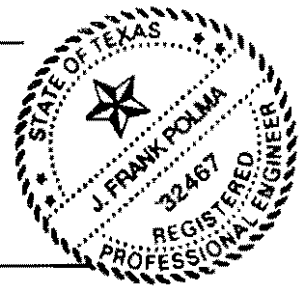
No. of Lanes (Each Way) 3
 2 Lanes, 2-Way Traffic (Table 2A)
 2 or More Lanes Each Way (Table 2C)
 Limited Access Freeway
 Multilane Facility
 1-Way ramp (Table 2D)

Overpassing Vertical Clearance
 Posted
 Measured
 Estimated
 Limited Access
 Arterial
 Collector or Local

Bridge Roadway Width 70/66
Bridge Roadway Width Rating 2

Vertical Clearance Rating (Table 2E) _____
Rating — 2

Date 6/10/96



Signature J. Frank Polma

Underclearances (Item 69)

Stream Crossing (Item N/A) Lateral Clear Right (Item 55)
Vertical Underclearance (Item 54) Lateral Clear Left (Item 56)
 Posted Meas. Est.
 1-Way Traffic
 2-Way Traffic
 Acceleration & Deceleration Lane or Ramp under 2-way Traffic
Route Description
 Limited Access, Rural
 Limited Access, Urban
 Principal & Minor Arterials
 Collector & Local Roads
 Railroad
Lateral Clearance Rating (Table 3B) _____
Vertical Underclearance Rating (Table 3A) _____ Rating — N

Bridge Posting (Item 70)

OR= HS27 Posted Load _____
Required Posting _____
 Other _____ Rating — 5

Waterway Adequacy (Item 71)

Grade Separation (Item N/A)
 No Evidence of Flooding Deck above Approaches
 Evidence of Flooding
Chance of Overtopping Deck Rdwy. **Traffic Delay if Flooded**
Remote (> 100 Yrs.) _____ Insignificant
Slight (11-100 Yrs.) Significant
Occasional (3-10 Yrs.) _____ Severe
Frequent (<3 Yrs.) _____
Rating — 6

Approach Roadway Alignment (Item 72)

Speed Reduction at Bridge Approaches
 Not Required (8)
 Slight Reduction (6)
 Substantial Reduction (<=3)
Speed Reduction Required due to
 Vertical Alignment
 Horizontal Alignment
 Other _____
Rating — 8

Rating Code Descriptions

Traffic Safety Features (Item 36)

The four Traffic Safety Features are assigned a one-digit rating based on the following scale.

- 1 - Feature meets currently acceptable standards.
- 0 - Feature does not meet currently acceptable standards or feature is required but not provided.
- N - Not applicable or feature is not required.

General Features (Items 67, 68, 69, 71, and 72)

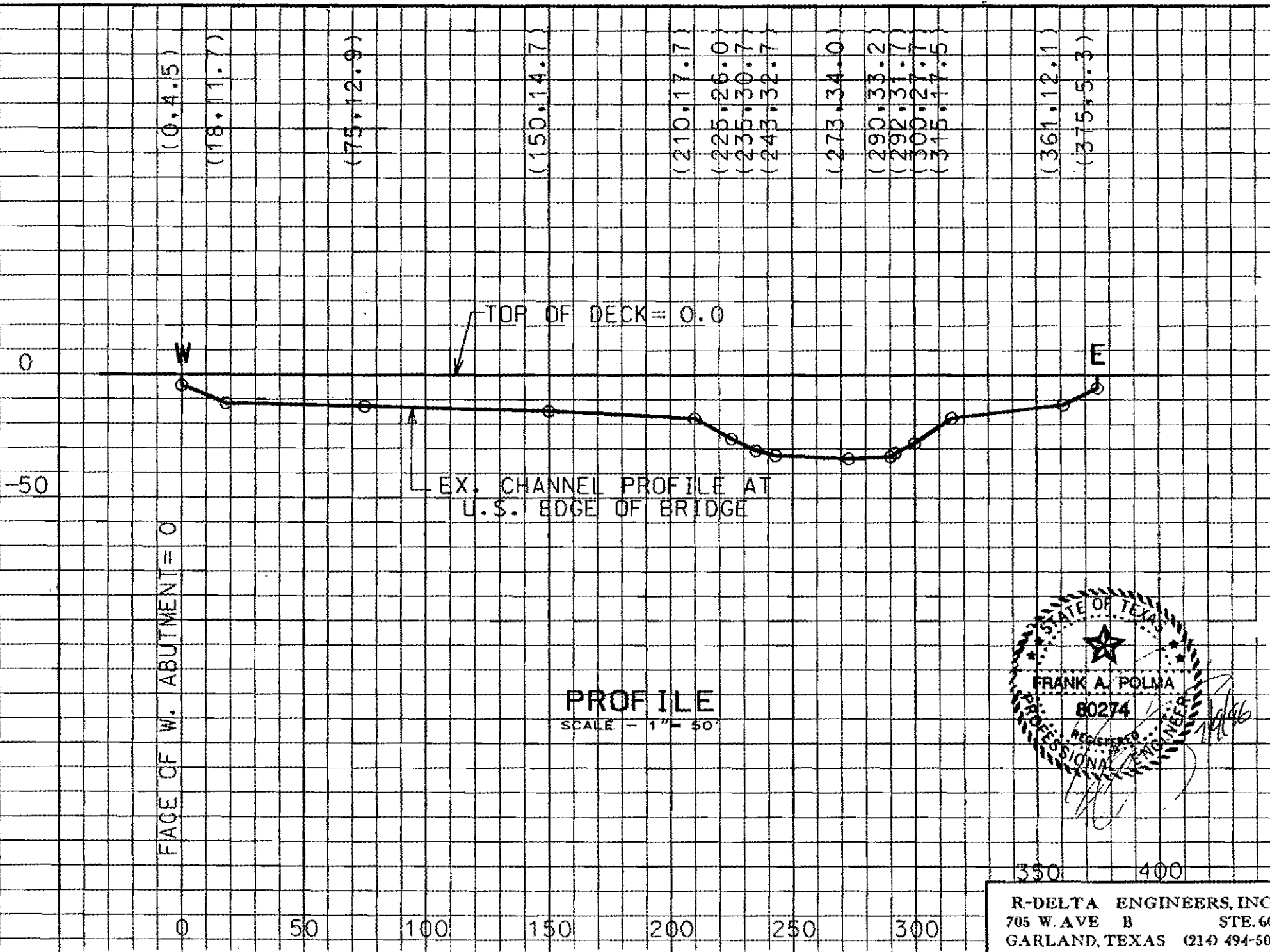
Items 67, 68, 69, 71, and 72 are assigned a one-digit rating based on the following scale.

- N - Not applicable.
- 9 - Superior to present desirable criteria.
- 8 - Equal to present desirable criteria.
- 7 - Better than present minimum criteria.
- 6 - Equal to present minimum criteria.
- 5 - Somewhat better than minimum adequacy to tolerate being left in place as is.
- 4 - Meets minimum tolerable limits to be left in place as is.
- 3 - Basically intolerable condition requiring high priority of corrective action.
- 2 - Basically intolerable condition requiring high priority of replacement.
- 1 - This value of rating code not used.
- 0 - Bridge closed.

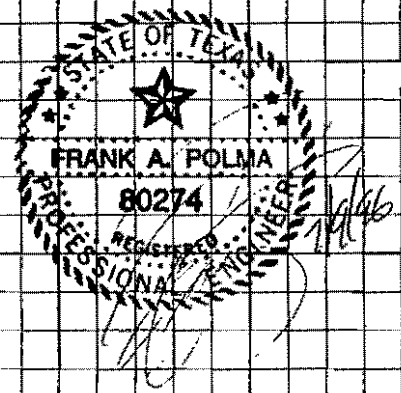
Bridge Posting (Item 70)

Item 70 is assigned a one-digit rating based on the following scale.

- 5 - Operating rating equal to or above legal loading.
- 4 - Operating rating 0.1 to 9.9% below legal loading.
- 3 - Operating rating 10.0 to 19.9% below legal loading.
- 2 - Operating rating 20.0 to 29.9% below legal loading.
- 1 - Operating rating 30.0 to 39.9% below legal loading.
- 0 - Operating rating 39.9% or more below legal loading.



PROFILE
SCALE - 1" = 50'



350 400

R-DELTA ENGINEERS, INC.
705 W. AVE B STE. 606
GARLAND, TEXAS (214) 494-5031

SCOUR VULNERABILITY EXAMINATION AND RANKING

DISTRICT / COUNTY / CSS: 18, 057, 8050-026
 ROUTE: Belt Line Road
 FEATURE CROSSED: White Rock Creek

SCOUR VULNERABILITY RANKING

VULNERABILITY RANKING	CATEGORY CODE	DESCRIPTION
B1	1	KNOWN SCOUR PROBLEM
B2	2	HIGH SUSCEPTIBILITY TO SCOUR
B3	3	MEDIUM SUSCEPTIBILITY TO SCOUR
A	A	LOW RISK

1 ANSWER ALL QUESTIONS BY CIRCLING YES OR NO
 2 THEN USE THE FLOW CHART TO RANK THE BRIDGE IN THE APPROPRIATE CATEGORY.
 3 CODE THE HIGHEST RANKING IN CARD 8 COLUMN 80 (BRINSAP CODING ITEM 113.1)

1 IS THE HIGHWAY EMBANKMENT IN THE FLOODPLAIN CURRENTLY DAMAGED BY SCOUR THAT MIGHT THREATEN TRAVELLED LANES DURING A FLOOD? YES NO

7 IS THE BRIDGE ON AN ALLUVIAL FAN OR IN AN ERODIBLE SAND BED CHANNEL? YES NO

2 HAS SCOUR OCCURRED BELOW THE ORIGINAL GROUND LINE AT A PIER OR ABUTMENT, EITHER DURING OR AFTER A FLOOD TO A DEPTH OF

8 IS THE BRIDGE CROSSING LOCATED ON OR NEAR A SHARP BEND IN THE STREAM? YES NO

2A ... 5 FEET OR MORE? YES NO

2B 2 FT TO 5 FT? YES NO

9 IS THE BRIDGE LOCATED IN A STREAM WITHIN ONE MILE OF A CONFLUENCE OF ANOTHER MAJOR STREAM? YES NO

3 IS OTHER ACTIVE EROSION OR SCOUR EVIDENT ON STREAMBANKS OR IN THE CHANNEL BED WITHIN SIGHT DISTANCE OF THE BRIDGE EITHER UPSTREAM OR DOWNSTREAM? YES NO

10 IS ANY COMMERCIAL MATERIALS MINING, IN-STREAM BORROW AREAS, OR OREGING FOR NAVIGATION OR FLOOD CONTROL LOCATED WITHIN ONE MILE OF BRIDGE EITHER UPSTREAM OR DOWNSTREAM? YES NO

4 DOES THE BRIDGE HAVE ANY SPREAD FOOTING FOUNDATIONS NOT SUPPORTED BY PILES AND NOT ON SOLID ROCK? YES NO

11 IS ANY BENT OR ABUTMENT SKEWED AGAINST THE PRIMARY DIRECTION OF FLOW AT FLOOD STAGE? YES NO

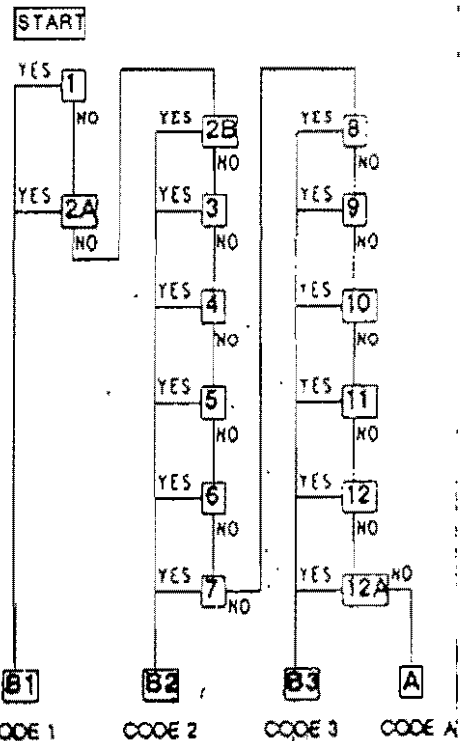
5 DOES THE BRIDGE TEND TO COLLECT LARGE AMOUNTS OF DRIFT OR DEBRIS DURING FLOODS? YES NO

12 IS SIGNIFICANT AGGRADATION (SILTING-UP) OCCURRING IN THE CHANNEL OR NEAR THE BRIDGE? YES NO

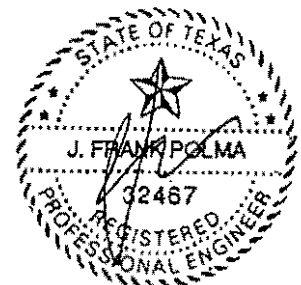
6 DOES THE BRIDGE OR APPROACH EMBANKMENT IN THE FLOOD PLAIN HAVE ANY HISTORY OF FLOOD DAMAGE? YES NO

12A IS ANY DAM LOCATED WITHIN ONE MILE OF BRIDGE EITHER UPSTREAM OR DOWNSTREAM? YES NO

NUMBERS IN DECISION BOXES REFER TO YES/NO QUESTIONS ON THE SCOUR VULNERABILITY EXAMINATION

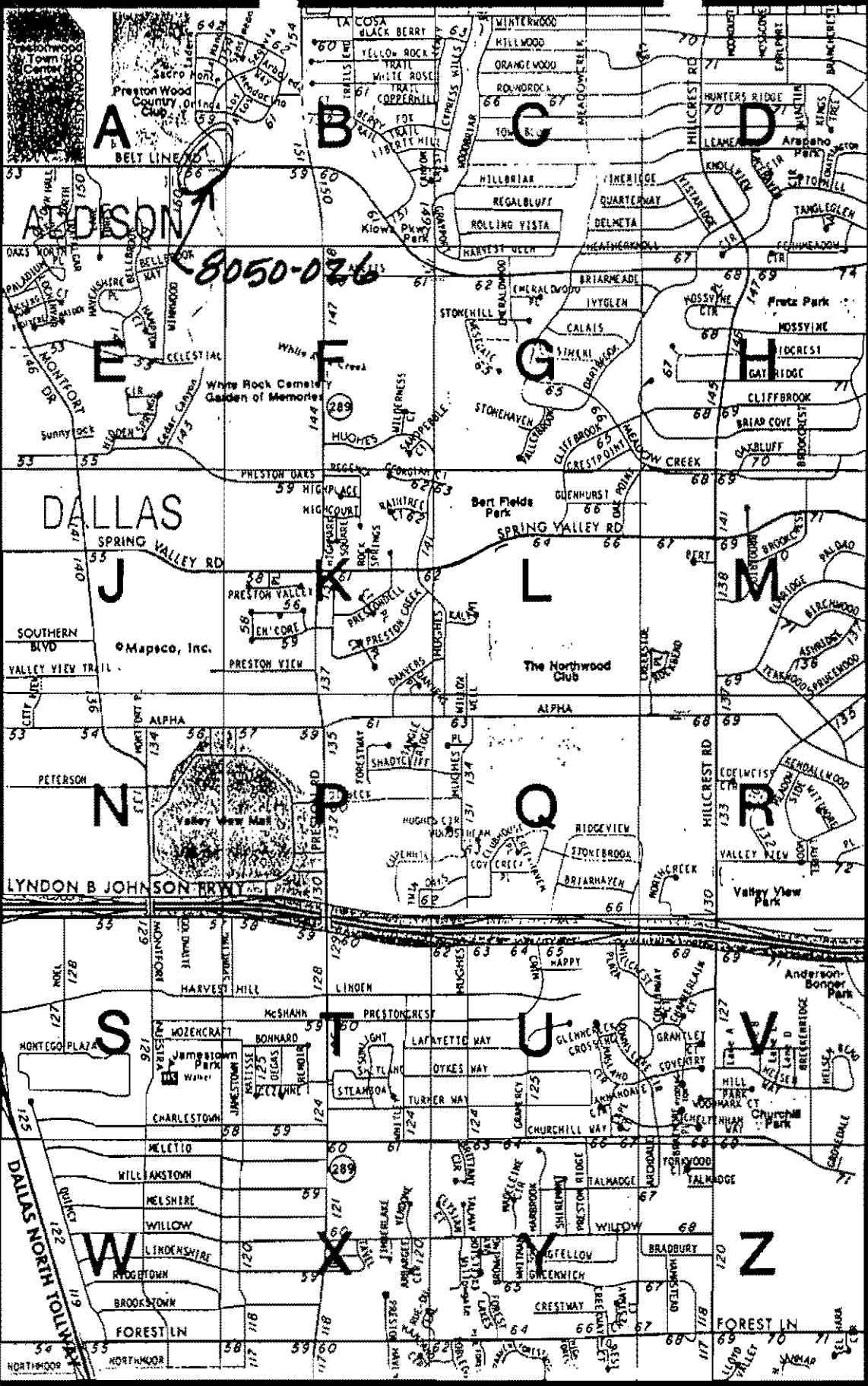


DATE OF EXAMINATION: 6/6/96
 NAME/PHONE OF EXAMINER:
 J. Frank Polma, P.E.,
 (214) 494-5031



TEXAS

DEPARTMENT OF TRANSPORTATION



CONTINUED ON MAP 14

CONTINUED ON MAP 16

SCALE IN MILES



CONTINUED ON MAP 25

SCALE IN FEET



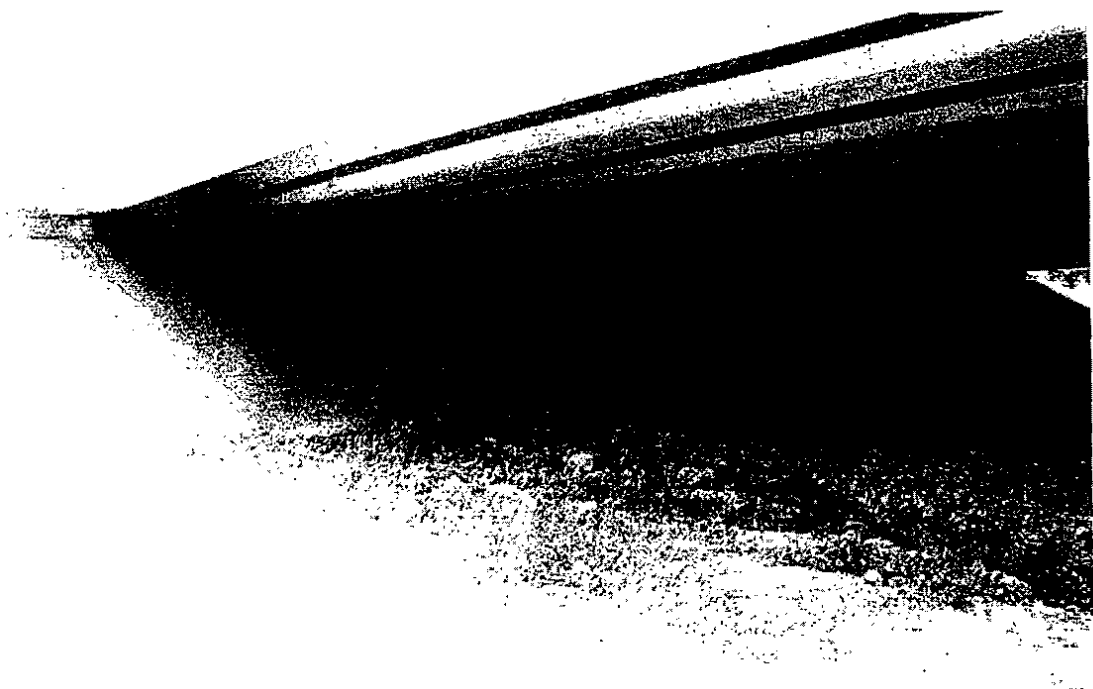
DETAIL MAP SECTION
STARTS ON INDEX PAGE 202

COUNTY: DALLAS FAU
BRIDGE NO: 8050-18 026
LOCATION: BELT LINE RD.
WHITE ROCK CREEK



COUNTY:
BRIDGE NO:
LOCATION:

DALLAS FAU
8050-18 026
BELT LINE RD.
WHITE ROCK CREEK

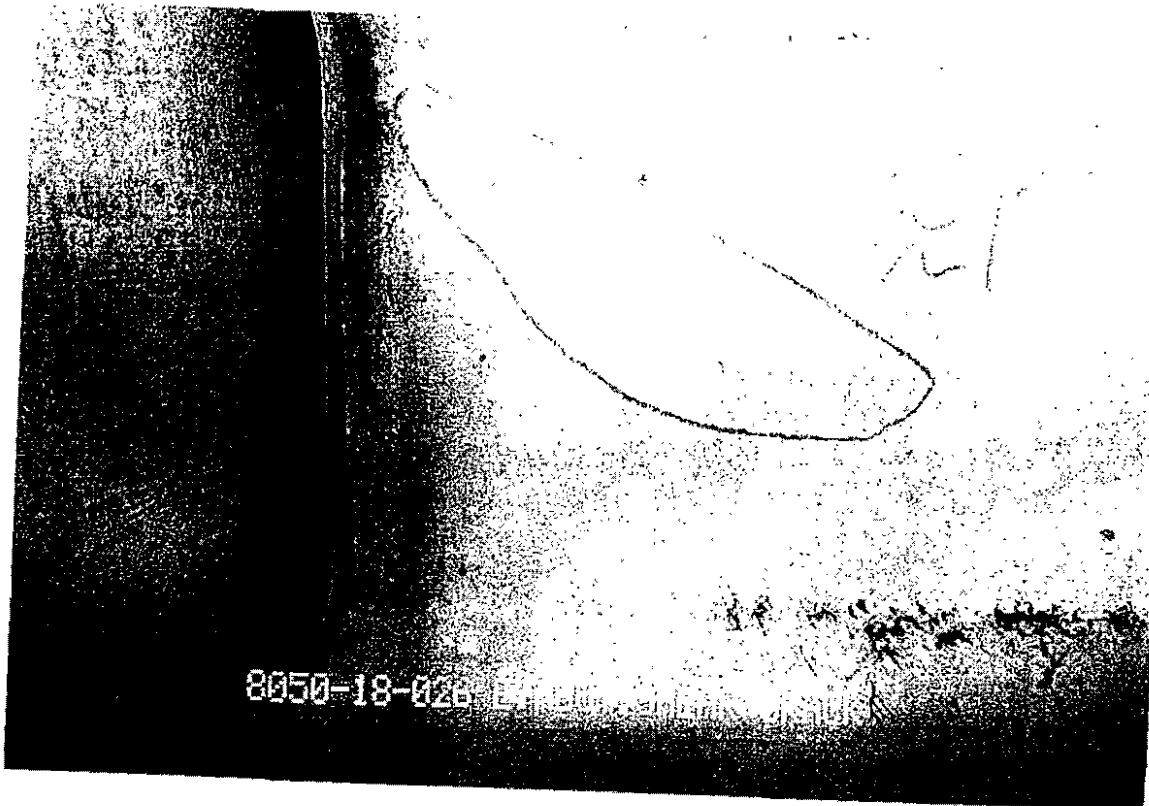


COUNTY: DALLAS FAU
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LOCATION: BELT LINE RD.
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COUNTY:
BRIDGE NO:
LOCATION:

DALLAS FAU
8050-18 026
BELT LINE RD.
WHITE ROCK CREEK



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