Y-98-D

7285
14

IPE-540

STATE OF TEXAS
STATE HIGHWAY DEPARTMENT

PLANS OF PROPOSED STATE HIGHWAY IMPROVEMENT

FEDERAL AID PROJECT
ACI 820-4(120)466

INTERSTATE HIGHWAY 820

TARRANT COUNTY
FROM: APPROX. 0.5 MI. S.W. OF S.H. 199
TO EAST OF LOOP 456

GRADING, DRAINAGE FACILITIES, STRUCTURES, ASPHALT STAB. BASE AND CONCRETE PAVEMENT

FINAL PLANS

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287	SCL-15 DEG.
288	SCL-30 DEG.
289	SCL-45 DEG.
290	FWA
291	FW-A
292	FW-15 DEG.
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294	MC-6-2
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299	MCW-P-30 DEG.
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301	MCW-P1-45 DEG.
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320	CIS-71

NO EQUATIONS
NO EXCEPTIONS
NO R.R. CROSSINGS

NOTE:
SPECIFICATIONS ADOPTED BY THE STATE HIGHWAY DEPARTMENT OF TEXAS, JANUARY 2, 1962, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT:
REQUIRED CONTRACT PROVISIONS ALL FEDERAL AID CONSTRUCTION CONTRACTS (FORM PR-1273, Rev. 11-1-71)

A-16
END PROJECT ACI 820-4(120)466 — Sta. 585 + 00
CONT.8 SEC.14 JOB 22
=PROJECT I-820-4(104)464 — Sta. 585 + 00
CONT.8 SEC.14 JOB 18

A-17
BEGIN PROJECT ACI 820-4(120)466 — Sta. 384 + 00
CONT.8 SEC.14 JOB 22

ROADWAY - 19,136.89 FT. = 3.624 MI.
BRIDGES - 996.11 FT. = 0.182 MI.
TOTALS - 20,100.00 FT. = 3.806 MI.

Date Work Began: Nov. 3, 1973
Date Work Completed: July 13, 1976
Contractor: Brown & Root, Inc.
Ashland Oil, Inc.

FIELD CHANGES

✓ 1. Horizontal and Vertical Re-Alignment of Jr. College Blvd. - Sheet 53-A & 54-A
✓ 2. Horizontal and Vertical Realignment of Ramps "S" and "T" - 33-A, 57-A
✓ 3. Revise breakback line to original curb line of existing culvert Sta. 7+65± S.H. 199 Sheet - 99-A
✓ 4. Remove the proposed Item 340 Hot Mix Asph. Conc. Overlay on S.H. No. 199 and overlay only the 4" Conc. pavement widening with Item 3002 (T) A (L, W) HMAC.
✓ 5. Extend phase I through lane paving from Sta. 366+00 to Jr. College Blvd. and include Ramps "G" and "K" in phase I Construction, and allow 28 additional working days for completion of phase I.

RETURN TO
RECORDS MANAGEMENT
DEPARTMENT OF
TRANSPORTATION

FOR BARRICADES & WARNING SIGNS SEE SHEET ___ THRU ___

THIS IS TO CERTIFY THAT THESE PLANS HAVE BEEN REVISED TO SHOW PROJECT AS ACTUALLY CONSTRUCTED

DISTRICT CONSTR. ENGINEER

STATE HIGHWAY DEPARTMENT

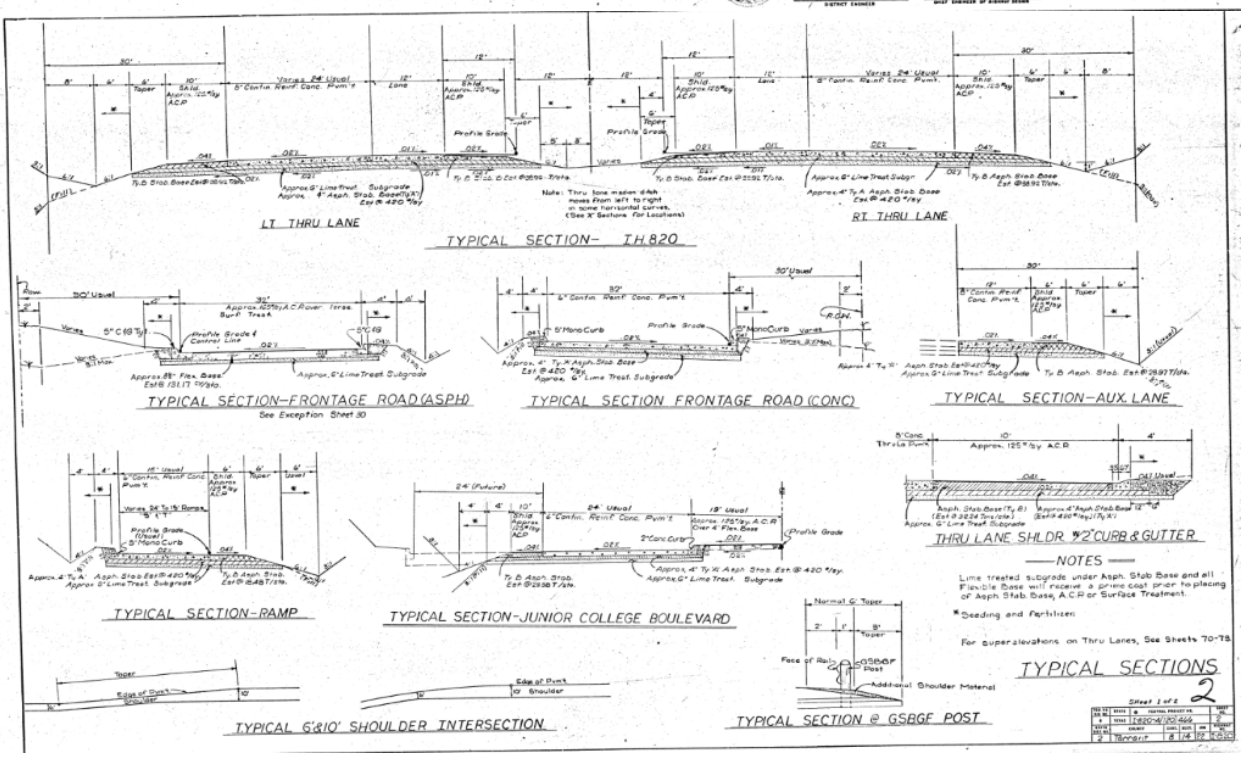
CHIEF ENGINEER OF HIGHWAY DESIGN

DISTRICT ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ENGINEER — DATE



NOTES

Lime treated subgrade under Asph. Stab. Base and all Flexible Base will receive a prime coat prior to placing of Asph. Stab. Base, A.C.R or Surface Treatment.

*Seeding and Fertilizer.

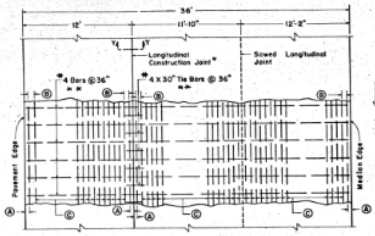
For superelevations on Thru Lanes, See Sheets 70-73

TYPICAL SECTIONS 2

Sheet 1 of 2

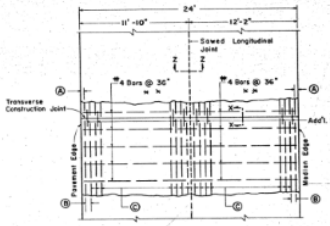
FED. RD. DIV.	STATE	ROUTE	FEDERAL PROJECT NO.	SHEET NO.
6	TEXAS	I-820	(AC) 820-4(120) 466	2

STATE	COUNTY	CONT.	SECT.	JOB	HIGHWAY NO.
2	Tarrant	8	14	22	I-820

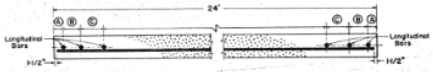


THREE LANE PAVEMENT PLAN
(12 ft. and 24 ft. Placement) *

* WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY PLACE THE PAVEMENT THE FULL ROADWAY WIDTH AT ONE PLACEMENT. IF SO PLACED, THE LONGITUDINAL CONSTRUCTION JOINT SHOWN THUS IS REPLACED BY THE SAWED LONGITUDINAL JOINT.

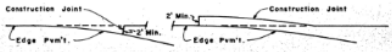


TWO LANE PAVEMENT PLAN
(24 ft. Placement) *

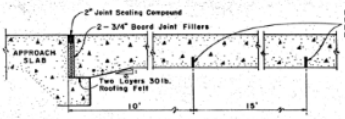


TYPICAL SECTION
(24 ft. Placement) *

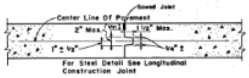
*LANE WIDTHS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND SHOULD NOT BE USED IF IN CONFLICT WITH TYPICAL CROSS SECTIONS SHOWN ELSEWHERE IN THE PLANS.



METHODS OF CONSTRUCTING TAPERED ENDS OF CONCRETE PAVEMENT

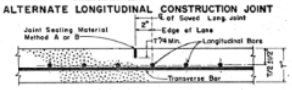


SPECIAL TRANSVERSE JOINTS NEAR BRIDGE ENDS

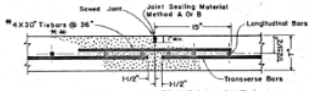


For Steel Detail See Longitudinal Construction Joint

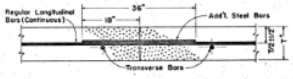
ALTERNATE LONGITUDINAL CONSTRUCTION JOINT



SAWED LONGITUDINAL JOINT
Section Z-Z



LONGITUDINAL CONSTRUCTION JOINT
Section Y-Y



TRANSVERSE CONSTRUCTION JOINT
Section X-X

MODIFICATIONS:
NOTE:
FOR LONG SLANT JOINT SPECIAL TRANSVERSE JOINTS TAPERED BAR DETAIL REQUIRE SAWED LONG. JOINTS
REVISE STEEL SCHEDULE

* SEE DESIGN DETAIL RECORDS FOR STEEL REQUIREMENTS FOR RAMP CONNECTIONS.

GENERAL NOTES

1. NO EXPANSION JOINTS WILL BE USED EXCEPT AT STRUCTURE ENDS OR FIXED OBJECTS, AS SHOWN ELSEWHERE IN THE PLANS.
2. FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCEMENT REFER TO THE "ENGINEERING SPECIFICATIONS FOR "CONCRETE PAVEMENT".
3. DETAILS AS TO PAVEMENT WIDTH, PAVEMENT THICKNESS AND THE CROWN CROSS-SLOPE SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
4. WITHIN ANY AREA BOUNDED BY TWO FEET OF PAVEMENT LENGTH MEASURED PARALLEL TO THE CENTERLINE AND TWELVE FEET OF PAVEMENT WIDTH MEASURED PERPENDICULAR TO THE PAVEMENT CENTERLINE, NOT OVERLAP OF THE REGULAR LONGITUDINAL STEEL SHALL BE SPLICED.
5. LONGITUDINAL AND TRANSVERSE BARS SHALL BE STEEL CONFORMING TO ASTM A-615 OR ASTM A-616 GRADE 60.0 AS NOTED IN THE SPECIFICATIONS.
6. SPLICES SHALL BE A MINIMUM OF 24 TIMES THE NOMINAL DIAMETER OF THE BAR.
7. BARS OF ASTM DESIGNATIONS: A-615 OR A-616, GRADE 60 STEEL SHALL NOT BE BENT. IF THE CONTRACTOR ELECTS TO BEND TIEBARS, THEY SHALL BE STEEL CONFORMING TO ASTM DESIGNATION: A-615, GRADE 40, AND SPACED AT 24" C.C.
8. AT TRANSVERSE CONSTRUCTION JOINTS THE REGULAR LONGIT. BARS SHALL EXTEND BEYOND THE JOINT TO THAT THE BAR SPLICES FOR THE REGULAR LONGITUDINAL BARS SHALL BE A MINIMUM OF FOUR FEET FROM THE CONSTRUCTION JOINT. AT LONGITUDINAL CONSTRUCTION JOINTS IF THE CONTRACTOR ELECTS TO CONTINUE THE REGULAR TRANSVERSE STEEL THROUGH THE JOINT, THE ¾ ⊕ TIEBARS SHOWN HEREON MAY BE DELETED. VIBRATION WITH HAND MANIPULATED MECHANICAL VIBRATORS WILL BE REQUIRED ADJACENT TO ALL TRANSVERSE CONSTRUCTION JOINTS.
9. WITH THE APPROVAL OF THE ENGINEER, MULTIPLE PIECE TIEBARS (THREADED COUPLING OR OTHER ADEQUATE DEVICE) MAY BE USED TO FACILITATE CONSTRUCTION PROVIDED THE SYSTEM DEVELOPS A FORCE EQUAL TO 1.25 TIMES THE MINIMUM YIELD FORCE OF THE TIEBAR SHOWN. THE SPACINGS FOR THE TY SYSTEM SHALL BE LESS THAN OR EQUAL TO THE SPACING ALLOWED FOR BARS OF SIMILAR YIELD STRENGTH.
10. THE CHAIRS USED TO SUPPORT THE BAR MAT SHALL BE OF SUFFICIENT STRUCTURAL QUALITY AND IN NUMBER TO ALLOW THE MAT WITHIN THE PLACEMENT HEIGHT TOLERANCES, AND SHALL BE OF A TYPE APPROVED BY THE ENGINEER.
11. IN THE NORMAL 24" PLACEMENT FOR THE TRANSVERSE BARS, CHAIRS SHALL BE PLACED UNDER EVERY TRANSVERSE BAR. THE TRANSVERSE SPACING SHALL BE 4'-48" MAXIMUM. PLACEMENT MAY BE STAGGERED SO THAT CHAIRS IN ALTERNATE BLOCKS ARE CENTERED BETWEEN THE CHAIRS IN ADJACENT BLOCKS.
12. JOINT GROOVE AND SEAL DETAILS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
13. LONGITUDINAL AND TRANSVERSE STEEL SPACING SHALL NOT VARY MORE THAN ONE-TWELFTH OF THE SPACING SHOWN HEREON.
14. WHEN MACHINE PLACING OF STEEL REINFORCEMENT IS USED, THE USE OF CHAIRS SHALL NOT BE REQUIRED, AND THE TRANSVERSE STEEL MAY BE PLACED EITHER ABOVE OR BELOW THE LONGITUDINAL STEEL.
15. PAVEMENT WIDTHS IN EXCESS OF 16' AND LESS THAN 24' SHALL BE SAWED AS DIRECTED BY THE ENGINEER.

For Cont. Long. Steel	Pavement Thickness "T" in.	24 ft. Placement Width					12 ft. Placement Width					Add'l Steel @ Trans. Const. Jt.		
		Bar Size	Spacing c.c. X in	Spacing c.c. Y in	No. of Bars	Steel F/Ft ①	Bar Size	Spacing c.c. X in	Spacing c.c. Y in	No. of Bars	Steel F/Ft ①	Size	② No. per 24' place. width	Weight F/ft. Steel per 12' place. width
0.5	10	No.6	3	3	8.5	35	21.72	3	3.25	8.5	18	22.28	5/8"X×36"	18	9	3.38
	9	No.5	3	4.5	6.5	45	19.60	3	4	6.5	23	20.00	5/8"X×36"	22	11	2.87
	8	No.5	3	4	7.5	39	17.36	3	3.25	7.5	20	17.45	5/8"X×36"	20	10	2.61
	7	No.5	3	5	6.5	35	15.04	4	4.5	6.5	17	15.30	5/8"X×36"	18	9	2.35
	6	No.4	3	4.5	7	42	12.32	3	4	7	21	12.55	1/2"X×36"	20	11	1.84

NOTE: THE SPACINGS ⊕ SHOWN IN THE ABOVE PLACEMENT TABLE ARE THE MAXIMUM ALLOWABLE SPACINGS. WHERE THE PROPOSED PLACEMENT WIDTH VARIES FROM THE RATE DESIGN WIDTH SHOWN, THE SPACINGS ⊕ AND THE ADJACENT SPACING ⊕ SHALL BE ADJUSTED TO ACCOMMODATE A REINFORCEMENT ARRANGEMENT EQUAL TO OR SLIGHTLY HEAVIER THAN THAT SHOWN OR DIRECTED BY THE ENGINEER.

① INCLUDES BOTH REGULAR LONGITUDINAL AND TRANSVERSE BARS SUITED UPON A FOOT PAVEMENT LENGTHS FOR THE WIDTH INDICATED. ALL TRANSVERSE STEEL IS ¾ BARS AT 36" CENTERS. * *

② THIS SHALL BE THE MINIMUM NUMBER OF ADDITIONAL STEEL BARS TO BE PLACED PER LANE. THE SPACING OF THE ADDITIONAL STEEL BARS SHALL BE VARIED AS DIRECTED IN ORDER TO PROVIDE A MINIMUM CLEARANCE OF 1½" FROM EACH REGULAR LONGITUDINAL REINFORCING BAR

TEXAS HIGHWAY DEPARTMENT

CONCRETE PAVEMENT DETAILS CONTINUOUSLY REINFORCED STEEL BARS

CPCR (B)- 71 (1) (MOD)

306

DN.	DRAWING	DATE	SHEET NO.	STATE	FEDERAL PROJECT NO.		SHEET NO.
CK. DN.	ORIGINAL	FEB. 1969		TEXAS	2-800-4(160)166		306
CK. DN.	REVISED	SEPT. 1969					
CK. DN.					DISTRICT	COUNTY	ROUTE
CK. DN.					18	VARIOUS	
					18	18	18