

GENERAL NOTES

1. A saw cut of at least one-half the depth of existing surface courses or one-half the depth of existing total pavement thickness shall be provided at locations where proposed construction abuts an existing surface course or pavement for which partial removal of that surface or pavement is required, except that such saw cuts are within three (3) feet of an existing joint the limits of removal shall be extended to the existing joint. Such saw cuts will not be paid for directly and this cost shall be considered as subsidiary to the removal of the surface or pavement.
2. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.
3. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps permitting regulations. Any material buried or stockpiled beyond approved of Engineers construction limits would require additional archeological investigations unless buried in a previously approved borrow location.
4. Compaction shall be subsidiary to the bid item for A.C. Pavement 7".
5. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
6. The Contractor shall give all property owners and/or tenants of developed property directly abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.
7. The Contractor shall adjust Water Valve Boxes as directed by the Engineer at the price bid for said adjustments. The Water Department shall field locate water valves one time during construction when requested by the Contractor. It shall be the Contractor's responsibility to preserve such field locations during the construction process. Water valves, water valve boxes or fire hydrants damaged during construction shall be repaired by the Contractor at his own expense.
8. Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. Location information has been obtained from the various utility companies and is either from company record drawings or company-provided field locations. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
9. The Contractor shall notify pipeline companies at least 24 hours in advance of any work being performed across and/or adjacent to pipelines.
10. Contractor shall protect all trees during construction of this project. Any trees damaged by construction activities shall be replaced at the contractor's expense. The Contractor shall replace with sod any turf areas disturbed by construction.
11. Properties within the project limits may have underground sprinkler systems which conflict with new construction. Contractor shall protect all sprinklers and will be required to repair any sprinkler systems damaged during construction. All work in connection with underground sprinkler systems shall be considered as subsidiary to the contract pay items for work.
12. Traffic control on this project shall be bid "lump sum" and shall be implemented in compliance with the latest version of the MUTCD and should provide for traffic flow and phasing as called out in the traffic control portion of these plans. Variations in phasing shall be approved by the City of Wichita Engineering Department.
13. Contractor will be required to provide a minimum advance notice of twenty-four (24) hours to utility companies prior to starting any excavation as follows:

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

Cox Communications	262-0661
Kansas Gas Service	383-8600
Westar Energy	383-8600
Aquila Energy (formerly Peoples)	1-800-303-0357
Southwestern Bell Telephone Company	1-800-286-8313
City of Wichita Water Department	262-6000
City of Wichita Sewer Maintenance	262-6000

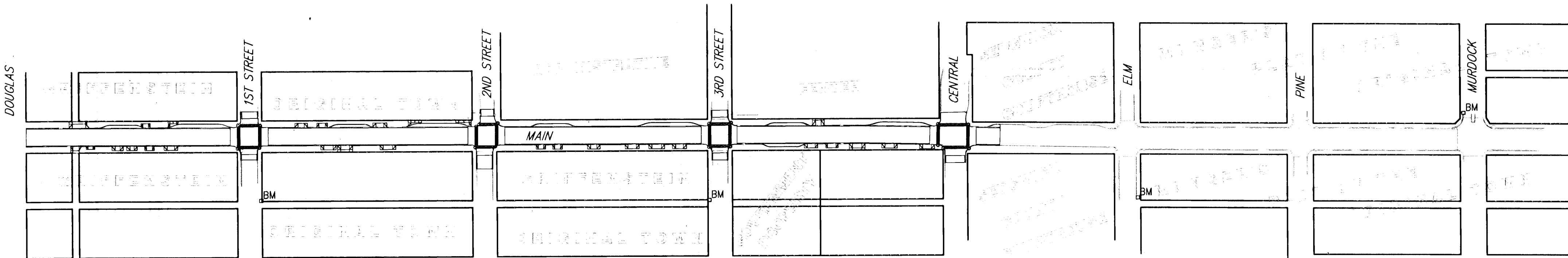
14. Light poles shall be replaced as necessary by Westar Energy. The City of Wichita shall coordinate with Westar Energy to schedule light pole replacement. Light Poles within 50' of proposed "Joint Use" Traffic Signal Poles shall not be replaced. Contractor shall protect poles, conduit and pole bases and shall replace any that are damaged during construction. Replacement of damaged poles, conduit and pole bases shall be incidental to the bid item for Site Clearing and Restoration. All traffic signs on existing poles shall be reinstalled on new light poles or new posts by the City of Wichita.
15. Manhole adjustments will be paid for as a measured quantity.
16. Hose connections in walk shall be abandoned. Subsidiary to the bid item for "Site Clearing and Restoration".
17. Sidewalk indicated to for removal and replacement shall be removed to the nearest joint as shown on the plans.
18. All wheelchair ramps within the project limits are to be replaced with ramps that meet applicable ADA standards including detectable warnings. Ramps will be added in areas as necessary to meet ADA requirements. Ramps will be paid for by measured quantity.

MAIN STREET IMPROVEMENTS
FROM NORTH LINE OF DOUGLAS TO SOUTH LINE OF MURDOCK
PROJECT NO. 472-83811
OCA NO. 706864

PROJECT NO: 448-89816
OCA NO. 634030



Scale: 1" = 200'



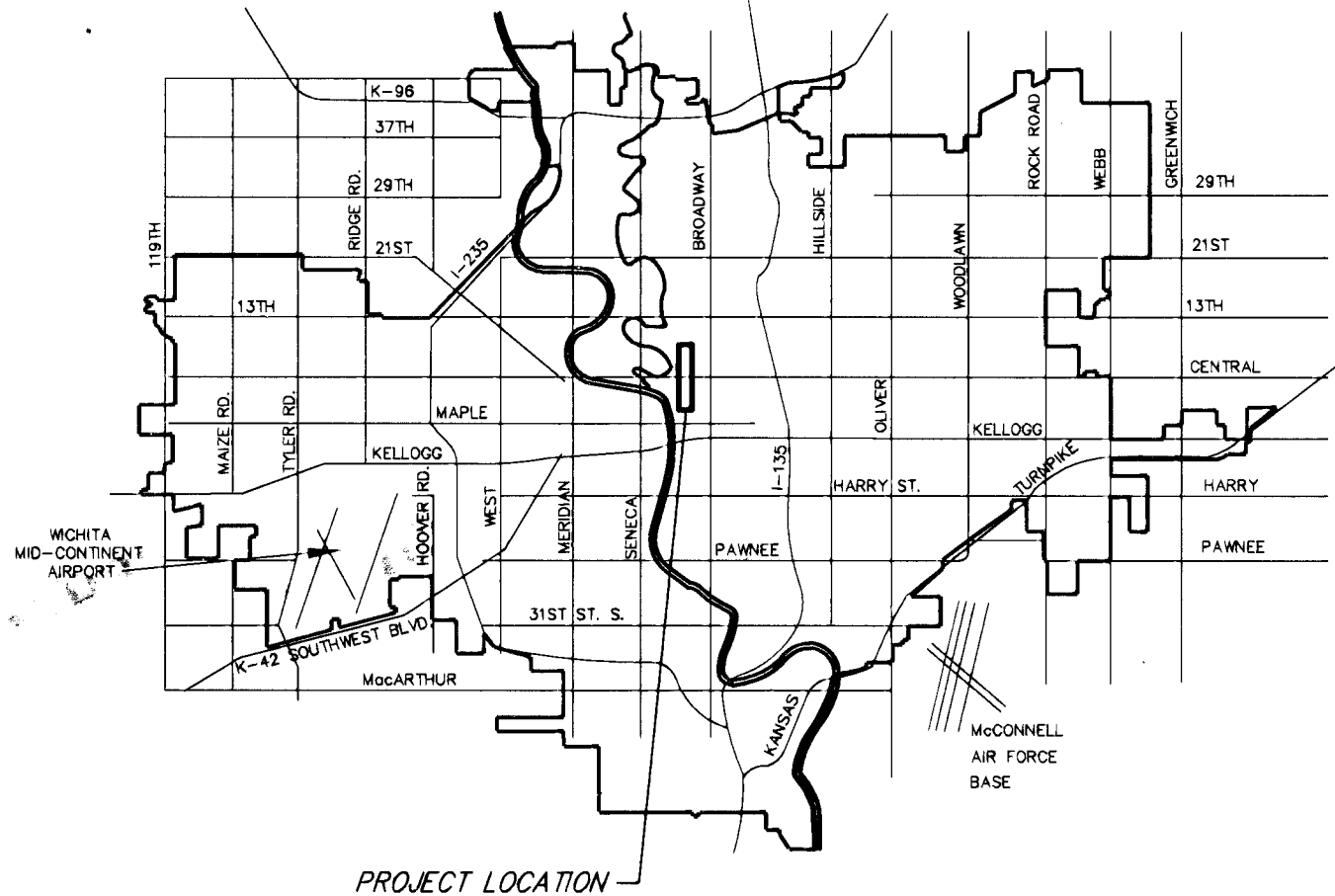
BENCH MARKS

SQUARE CUT, WEST RETURN ON S.W. CORNER OF MURDOCK AND MAIN.
ELEV. 1301.72 M.S.L.

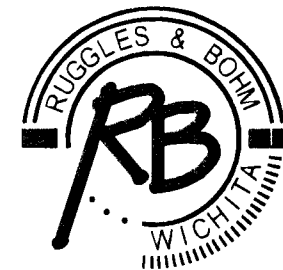
SQUARE CUT, EAST RETURN ON EAST SIDE OF ALLEY, NORTH SIDE OF ELM BETWEEN MAIN AND MARKET.
ELEV. 1300.24 M.S.L.

SQUARE CUT, WEST RETURN ON WEST SIDE OF ALLEY, SOUTH SIDE OF THIRD STREET BETWEEN MAIN AND MARKET.
ELEV. 1299.28 M.S.L.

SQUARE CUT, EAST RETURN ON EAST SIDE OF ALLEY, NORTH SIDE OF FIRST STREET BETWEEN MAIN AND MARKET.
ELEV. 1299.97 M.S.L.

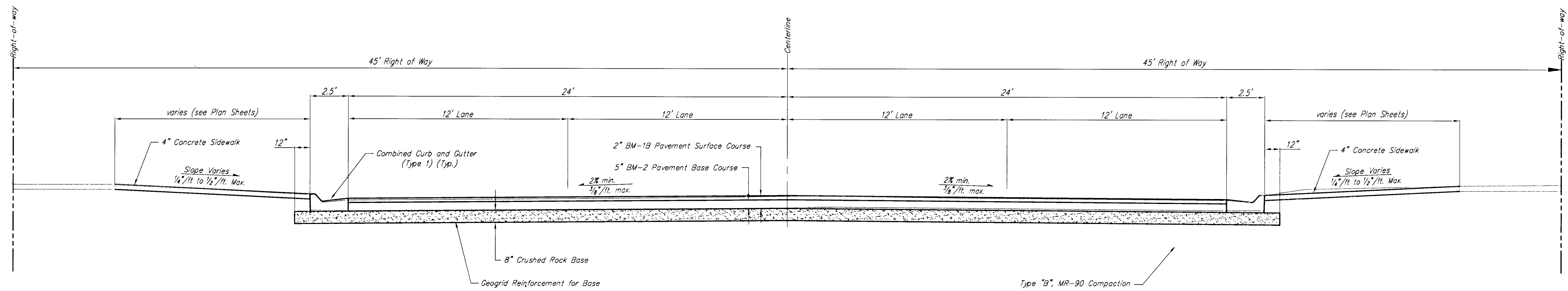


VICINITY MAP

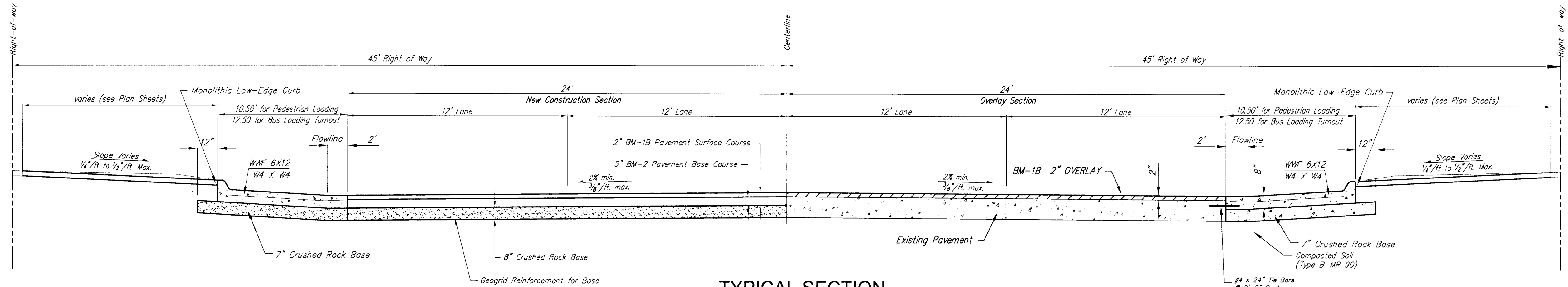


Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main (316) 264-8008
Wichita, Kansas 67203 (316) 264-4621 fax
www.rbkansans.com E-mail: info@rbkansans.com

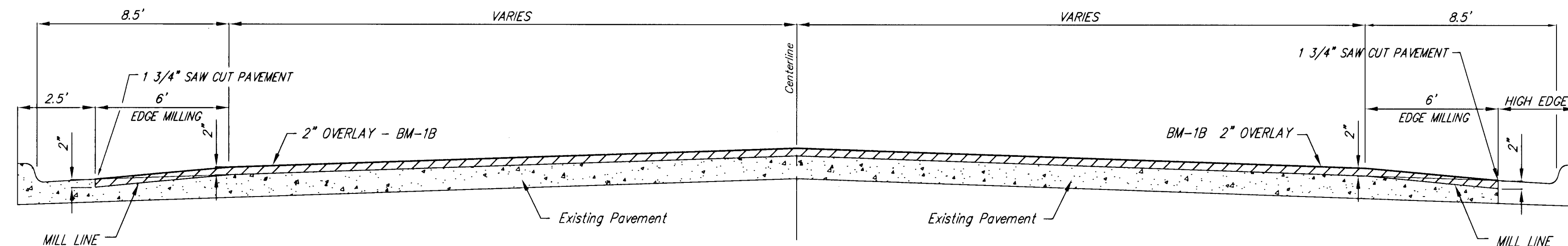
CITY OF WICHITA, KANSAS JAMES R. ARMOUR, P.E. - ACTING CITY ENGINEER



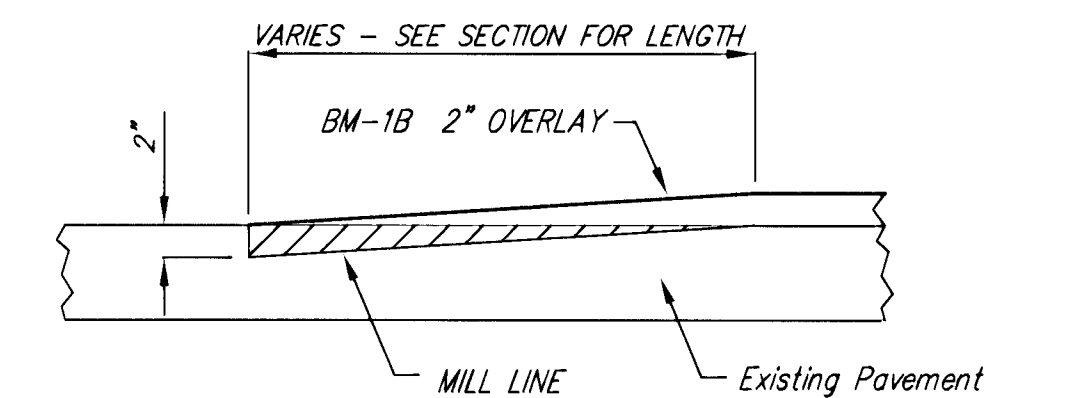
TYPICAL SECTION
STA. 30+31.78 TO STA. 37+83.20



TYPICAL SECTION
PEDESTRIAN AND BUS TURNOUTS



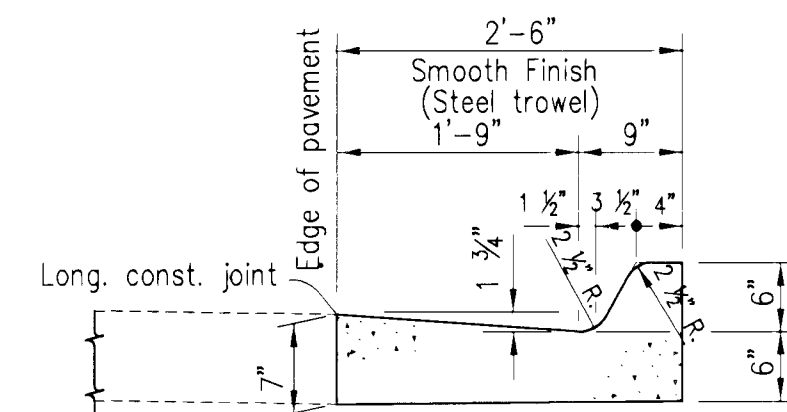
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MILL AND OVERLAY CONCRETE PAVEMENT



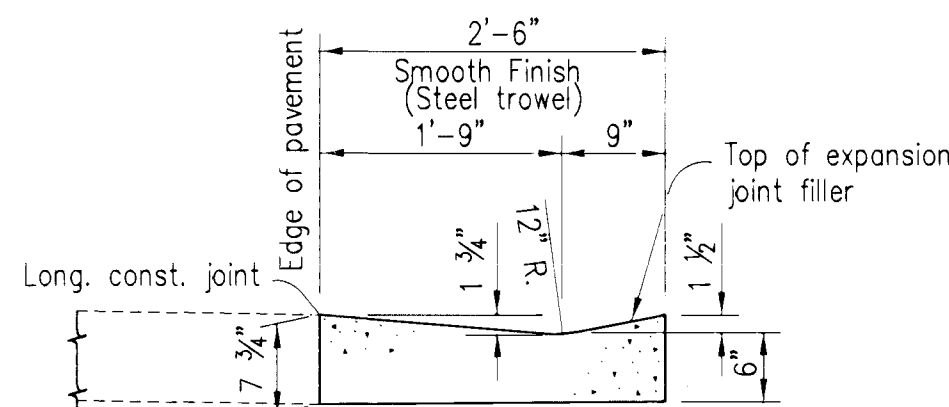
EDGE MILLING DETAIL

EDGE MILLING DETAIL
MONOLITHIC CURB AND GUTTER

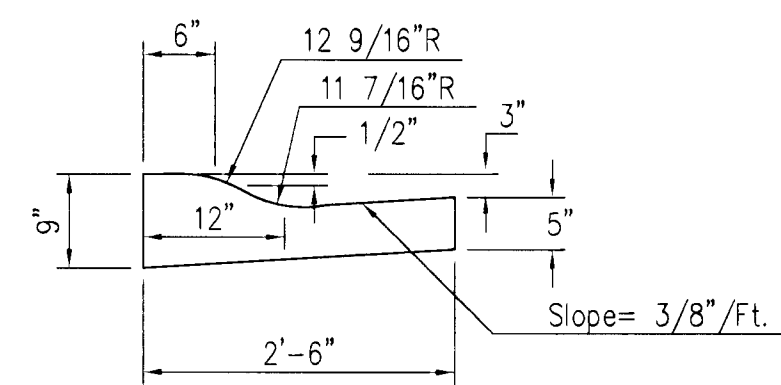
EDGE MILLING DETAIL
COMBINED CURB AND GUTTER



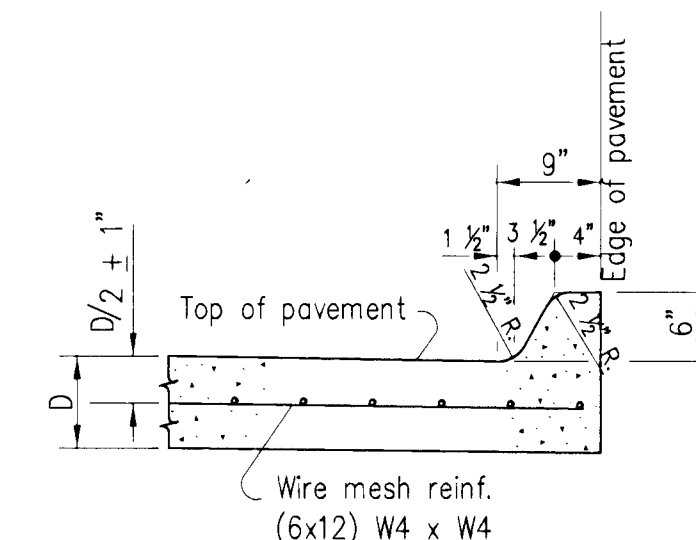
COMBINED CURB & GUTTER - TYPE I (6")
(2'-6" WIDTH)



COMBINED CURB & GUTTER - TYPE I (1 1/2")
(2'-6" WIDTH)

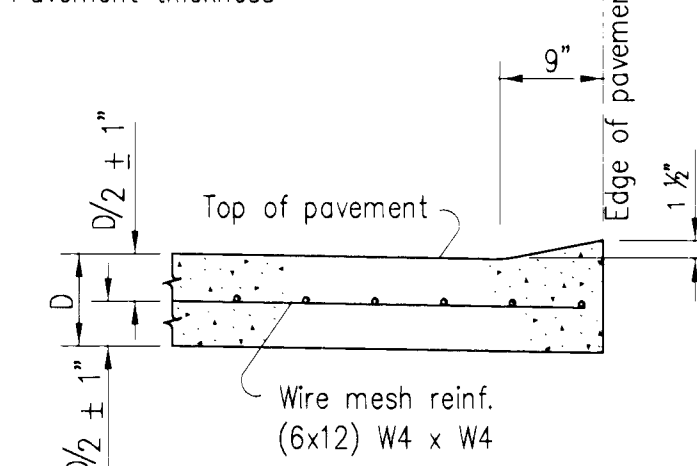


COMBINED ROLL TYPE CURB & GUTTER
(3 5/8")



6" EDGE CURB
(MONOLITHIC)

"D" = Pavement thickness

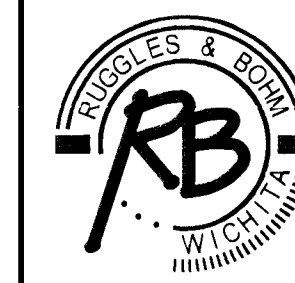


1 1/2" EDGE CURB
(MONOLITHIC)

EDGE CURB

Note: Planes of weakness are to be constructed over the contraction joints in the concrete pavement.

MAIN STREET IMPROVEMENTS TYPICAL SECTION AND DETAILS WICHITA, KANSAS

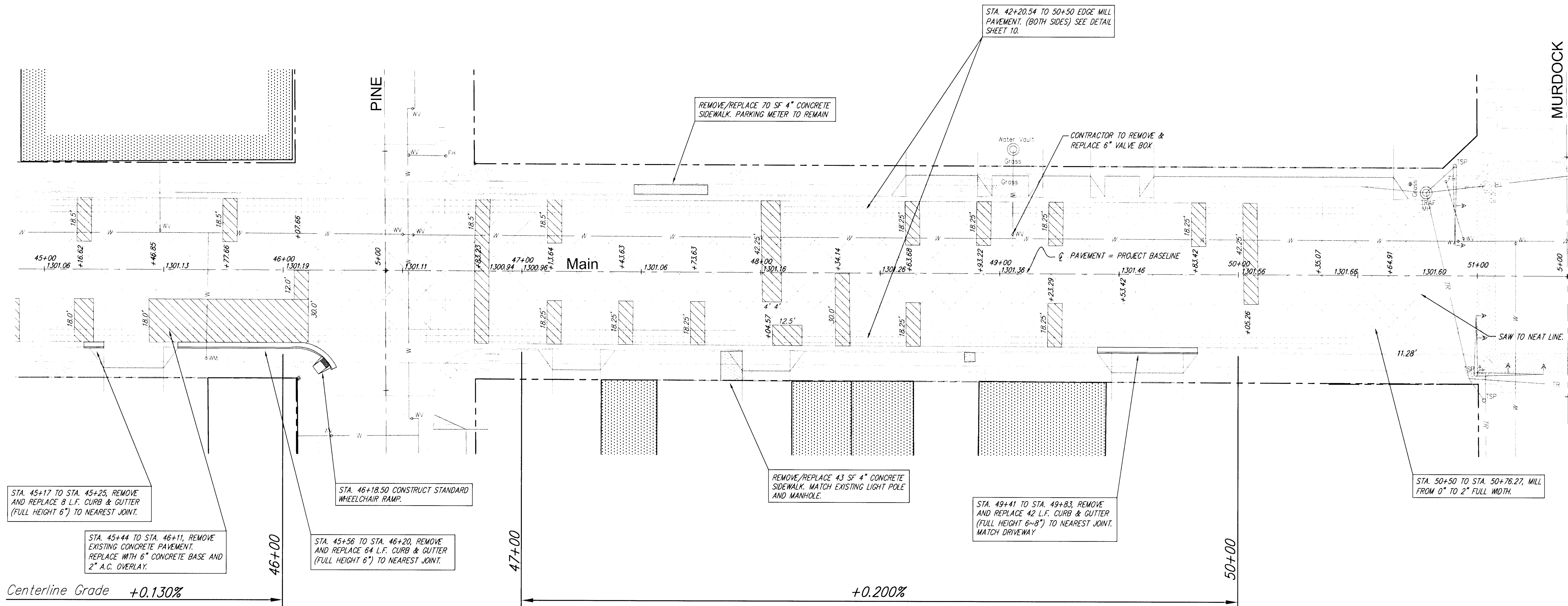
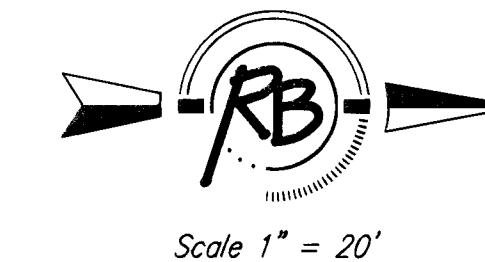


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Engineering, Surveying, Land Planning

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www.rbkansas.com
(316) 264-8008
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E-mail: info@rbkansas.com

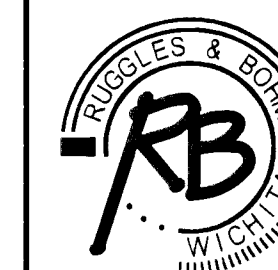
DRAWING FILE
Typical Sections
PROJECT NUMBER
472-83811
DATE
Apr. 22, 2004

DESIGN
KWL
DRAWN
RA
REVIEW
UTILITY
SHEET
2
OF
28



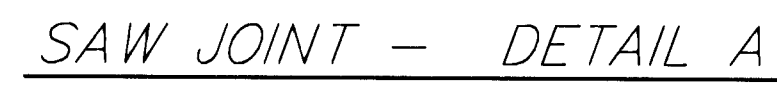
WATER VALVE BOX ADJUSTMENT			
STATION	OFFSET	EXIST. ELEV.	PROP. ELEV.
45+48	16' Lt.	1300.57	1300.73
46+50	15' Lt.	1300.65	1300.81
46+55	15' Lt.	1300.61	1300.77

MAIN STREET PAVING IMPROVEMENTS STA. 45+00 TO 51+00 WICHITA, KANSAS

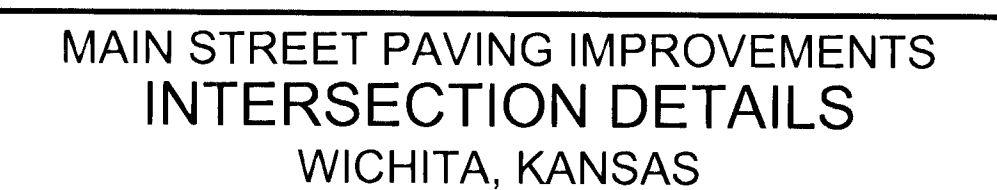


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www.rbkansas.com
(316) 264-8008
(316) 264-4621 fax
E-mail: info@rbkansas.com

DESIGN	KML	SHEET 11 OF 28
DRAWN	RA	
REVIEW		
UTILITY		
DRAWING FILE	PROJECT NUMBER	DATE
paving {paving sh 7}	472-83811	Apr. 22, 2004



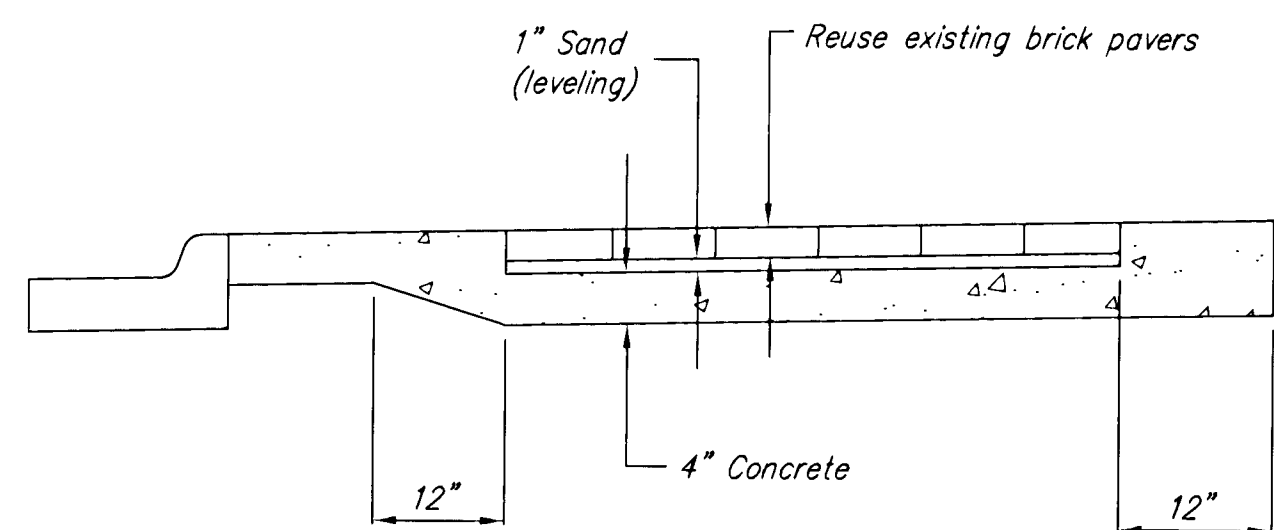
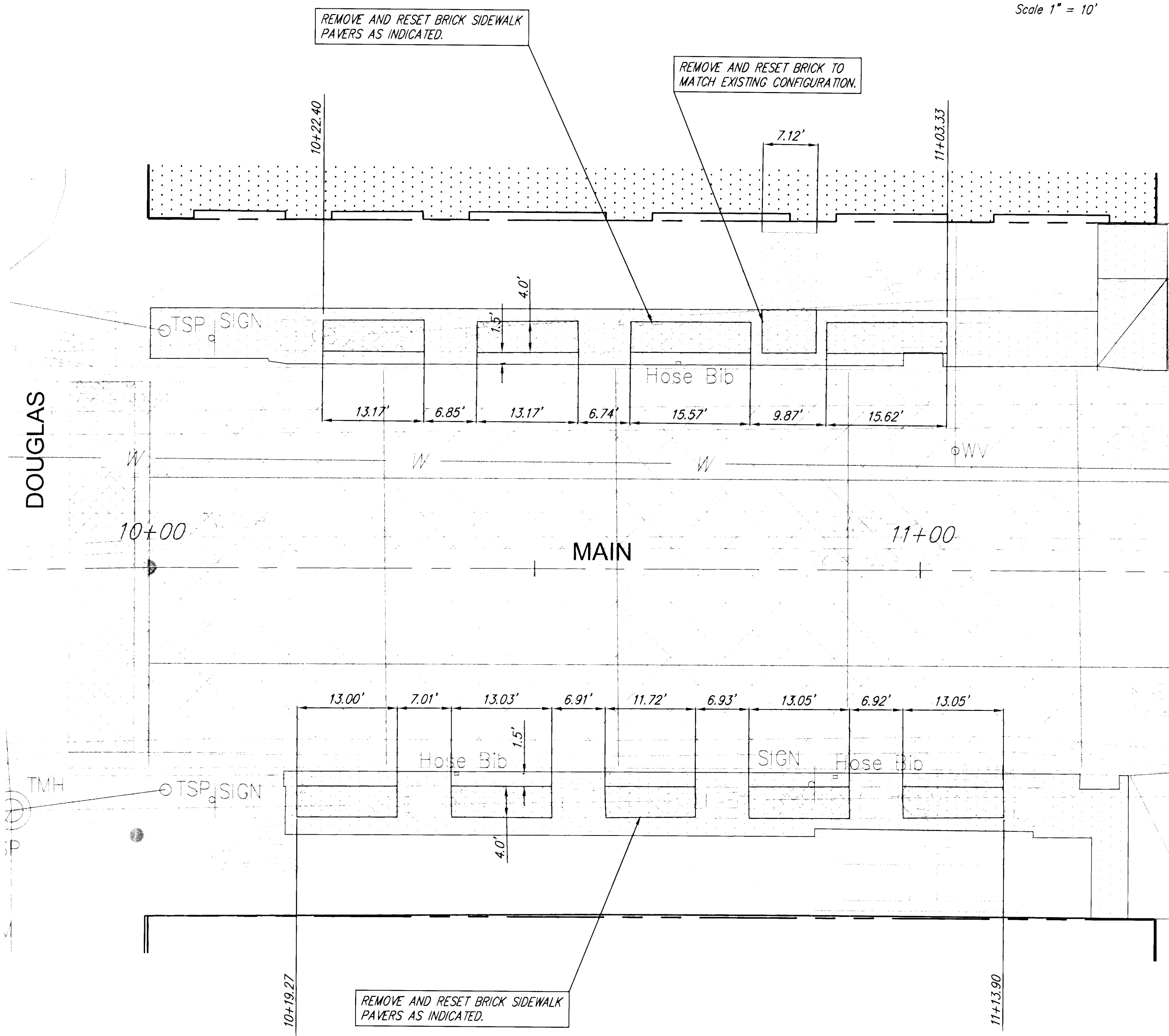
CONTRACTION JOINT DETAIL (C.J.)



DESIGN KWL DRAWN RA VIEW QUALITY DATE Mar. 22, 2004	<table border="1"> <tr> <td>RB JOB 2137T</td> </tr> <tr> <td> <table border="1"> <tr> <td>SHEET 12 OF 28</td> </tr> </table> </td> </tr> </table>	RB JOB 2137T	<table border="1"> <tr> <td>SHEET 12 OF 28</td> </tr> </table>	SHEET 12 OF 28
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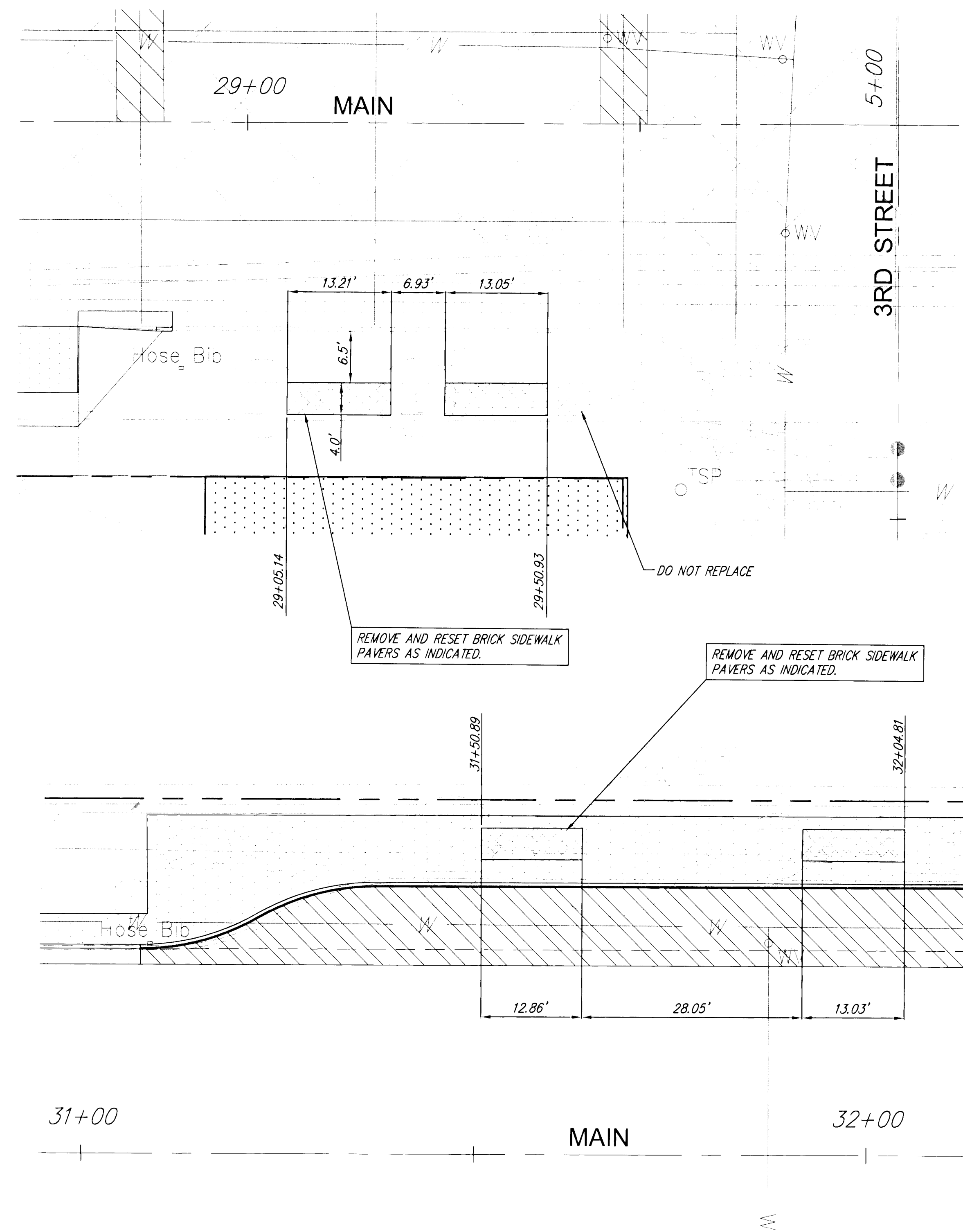


Scale 1" = 10'



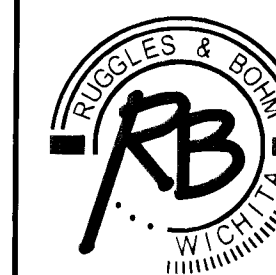
BRICK WALK DETAILS

NOTE: ALL BRICK PAVERS IN SIDEWALK SHALL BE INSTALLED IN A "RUNNER BOND" PATTERN.



MAIN

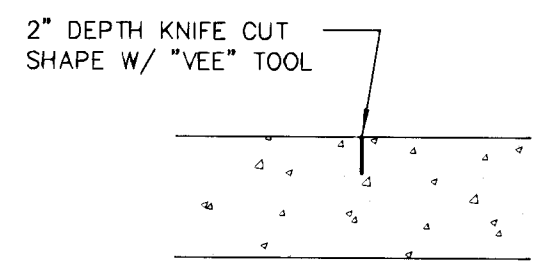
MAIN STREET PAVING IMPROVEMENTS
BRICK WALK DETAILS
WICHITA, KANSAS



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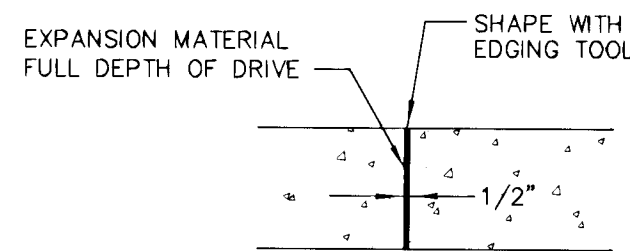
DRAWING FILE
{BRICK PAVING DETLS}
PROJECT NUMBER
472-83811

DESIGN	KWL	SHEET 13 OF 28
DRAWN	RA	
REVIEW		
UTILITY		
DATE	Apr. 22, 2004	

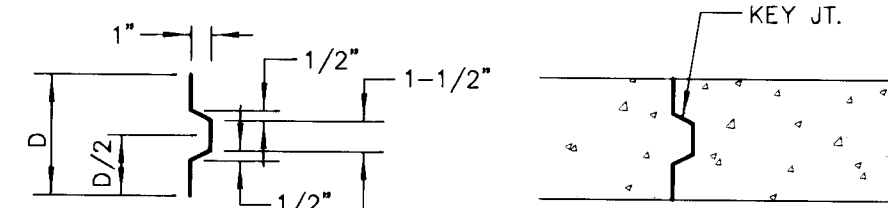


CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)

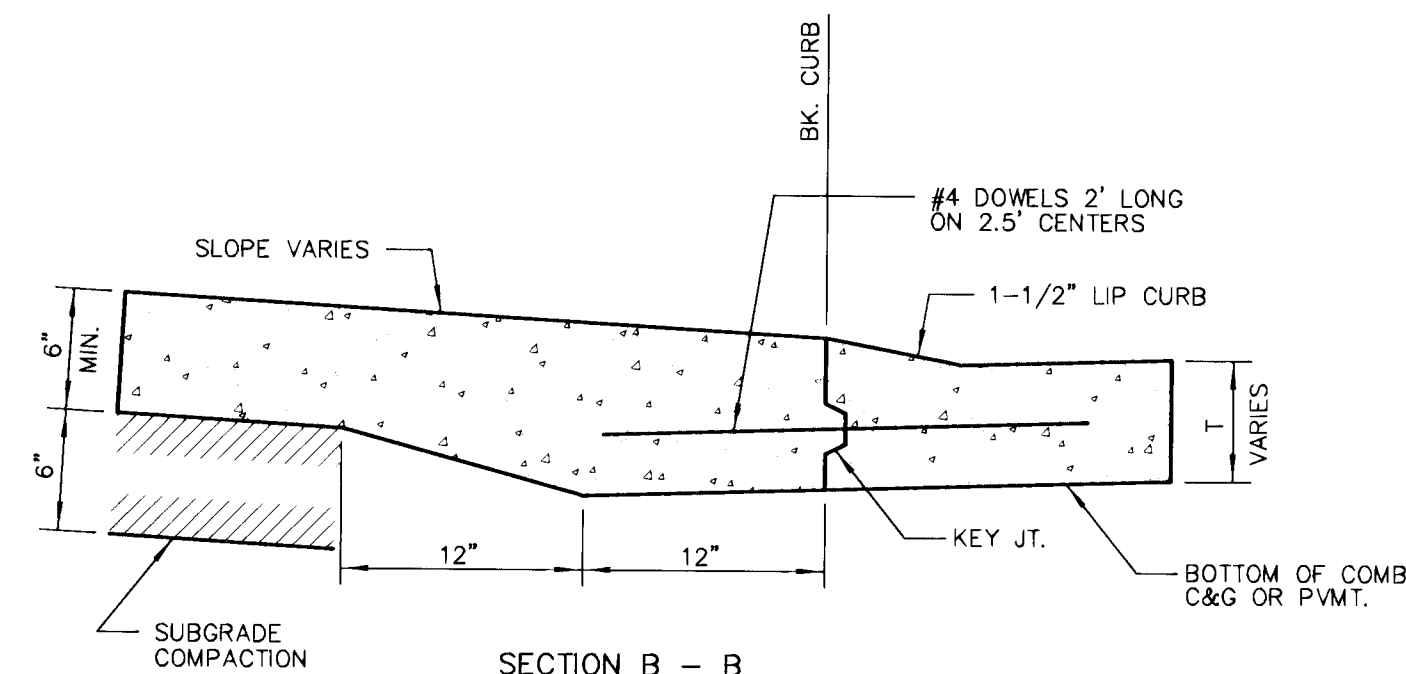
NO SAWN JOINTS
WILL BE ALLOWED



EXPANSION JOINT (E.J.)



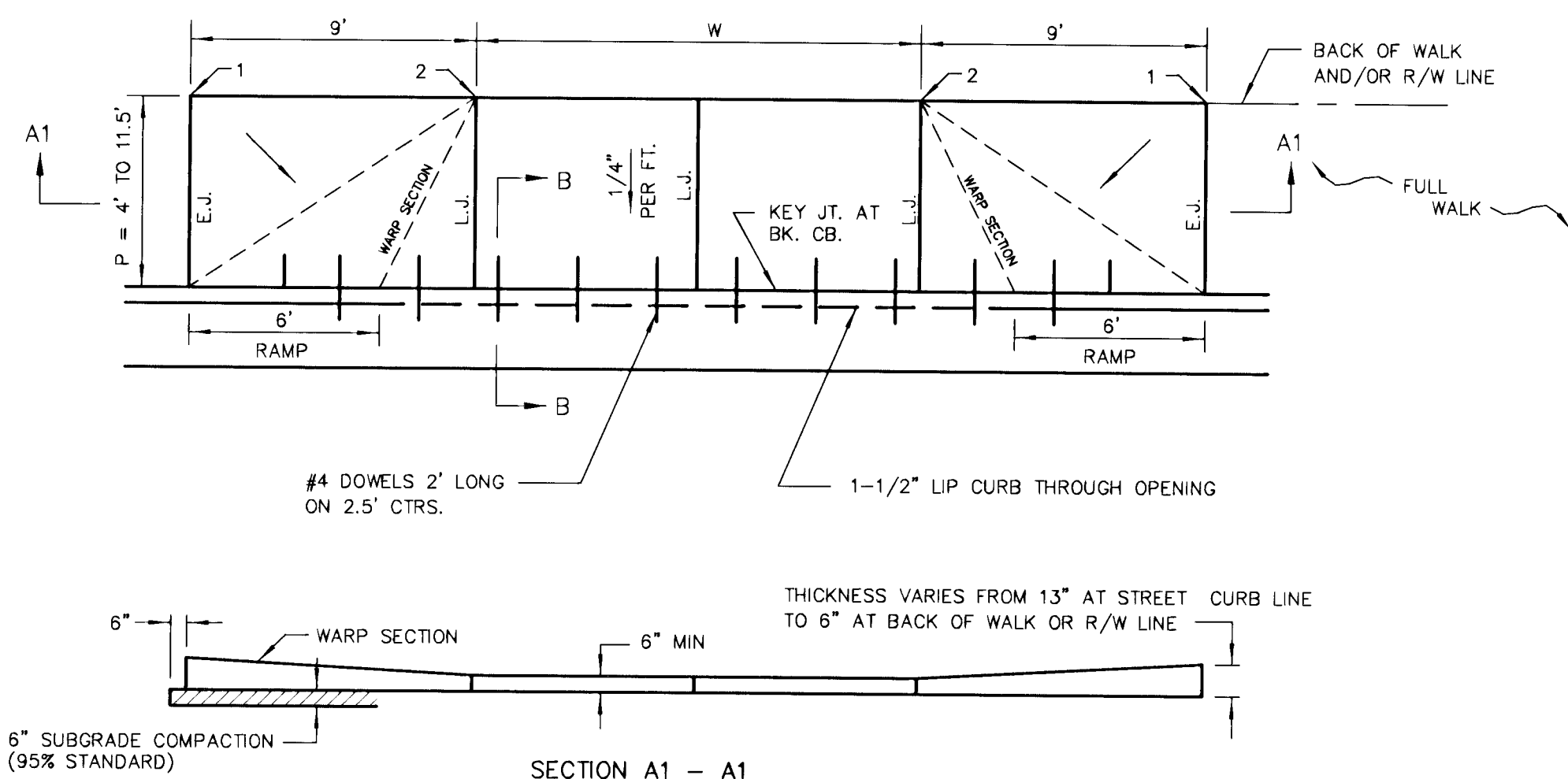
ALT. LONGITUDINAL CONSTRUCTION JOINT



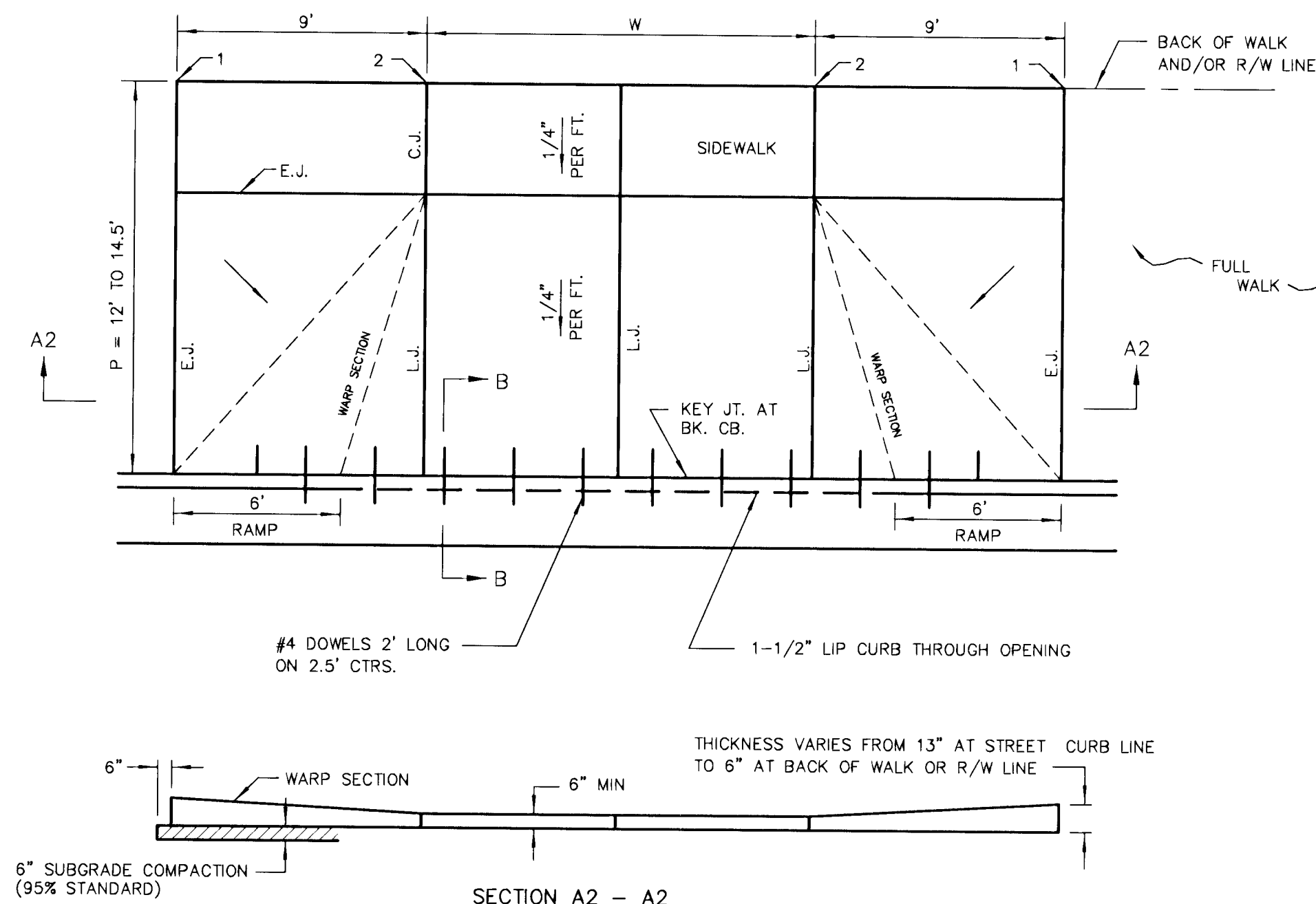
SECTION B - B

BACK OF CURB DETAIL

- GENERAL NOTES
1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITHOUT FULL WALK.
 2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "W" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A "W" DIMENSION GREATER THAN 24'.
 3. DRIVEWAY WIDTH DENOTED AS "W" ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 10' AND A MAXIMUM OF 30'.
 4. CONTRACTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 3' AND A MAXIMUM OF 6' AND ARE TO BE EQUALLY SPACED WITHIN THIS RANGE. WALK SECTION SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
 5. DOWEL BARS SHALL BE OMITTED FROM THE KEYED CONSTRUCTION JOINT ALONG THE BACK OF THE STREET CURB LINE WHEN DRIVEWAYS ARE CONSTRUCTED IN CONJUNCTION WITH NEW CONCRETE PAVEMENT CONSTRUCTION.
 6. ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE DRIVEWAY CONSTRUCTION.
 7. ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER DRIVE CONSTRUCTION ABUTS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL ALSO BE INSTALLED ALONG THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVE CONSTRUCTION ALONG THIS LINE ABUTS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSION.
 8. ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE WITHOUT REINFORCEMENT. DRIVEWAYS MAY BE CONSTRUCTED THICKER THAN 6" AND MAY BE REINFORCED WITH 6"x12" W4-W4 WELDED WIRE FABRIC WHEN PROPERLY AUTHORIZED BY THE PROPERTY OWNER WITH THE ENGINEER'S CONCURRENCE.
 9. OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED WHEREVER POSSIBLE. ABSOLUTE MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED ONLY WHEN THESE VALUES WILL PERMIT NEW CONSTRUCTION TO MATCH EXISTING DRIVES OR PARKING LOTS. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT ELEVATION OF 0.55' ABOVE THE GUTTER FLOW LINE AND MUST BE ADJUSTED ACCORDINGLY FOR OTHER CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGNS INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.



SECTION A1 - A1



SECTION A2 - A2

PARKING WIDTH "P"	4'	4.5'	5'	5.5'	6'	6.5'	7'	7.5'	8'	8.5'	9'	9.5'	10'	10.5'	11'	11.5'
DIST. OF PT. "1" ABOVE TOP OF FULL CURB	0.08'	0.09'	0.10'	0.12'	0.13'	0.14'	0.15'	0.16'	0.17'	0.18'	0.19'	0.20'	0.21'	0.22'	0.23'	0.24'
DIST. OF PT. "2" BELOW TOP OF FULL CURB	-.34'	-.32'	-.30'	-.28'	-.26'	-.24'	-.22'	-.20'	-.18'	-.16'	-.14'	-.12'	-.10'	-.18'	-.06'	-.04'

FULL RAMP DRIVE (P = 4.0' TO 11.5')

PARKING WIDTH "P"	12'	12.5'	13'	13.5'	14'	14.5'
ABSOLUTE MAX. DIST. OF PT. "1" ABOVE TOP OF FULL CURB	-.08'	0.02'	0.18'	0.22'	0.18'	0.22'
OPTIMUM MAX. DIST. OF PT. "1" ABOVE TOP OF FULL CURB	-.08'	0.02'	0.18'	0.22'	0.18'	0.22'
OPTIMUM MIN. DIST. OF PT. "2" ABOVE TOP OF FULL CURB	-.15'	-.16'	-.17'	-.17'	-.17'	-.17'
ABSOLUTE MIN. DIST. OF PT. "2" ABOVE OR BELOW TOP OF FULL CURB	-.25'	-.20'	-.20'	-.20'	-.20'	-.20'
ABSOLUTE MIN. DIST. OF PT. "2" BELOW TOP OF FULL CURB	-.25'	-.20'	-.20'	-.20'	-.20'	-.20'

FULL RAMP DRIVE (P = 12.0' TO 14.5')

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

STANDARD DRIVE
ENTRANCES
FULL HEIGHT CURB
AND FULL WALK

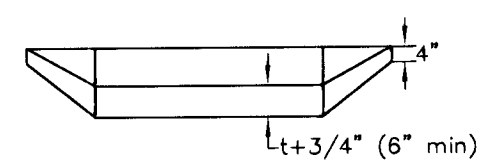
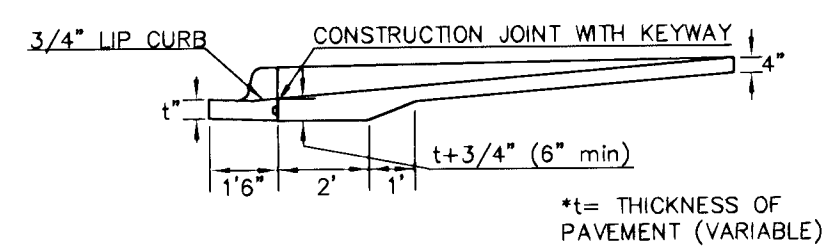
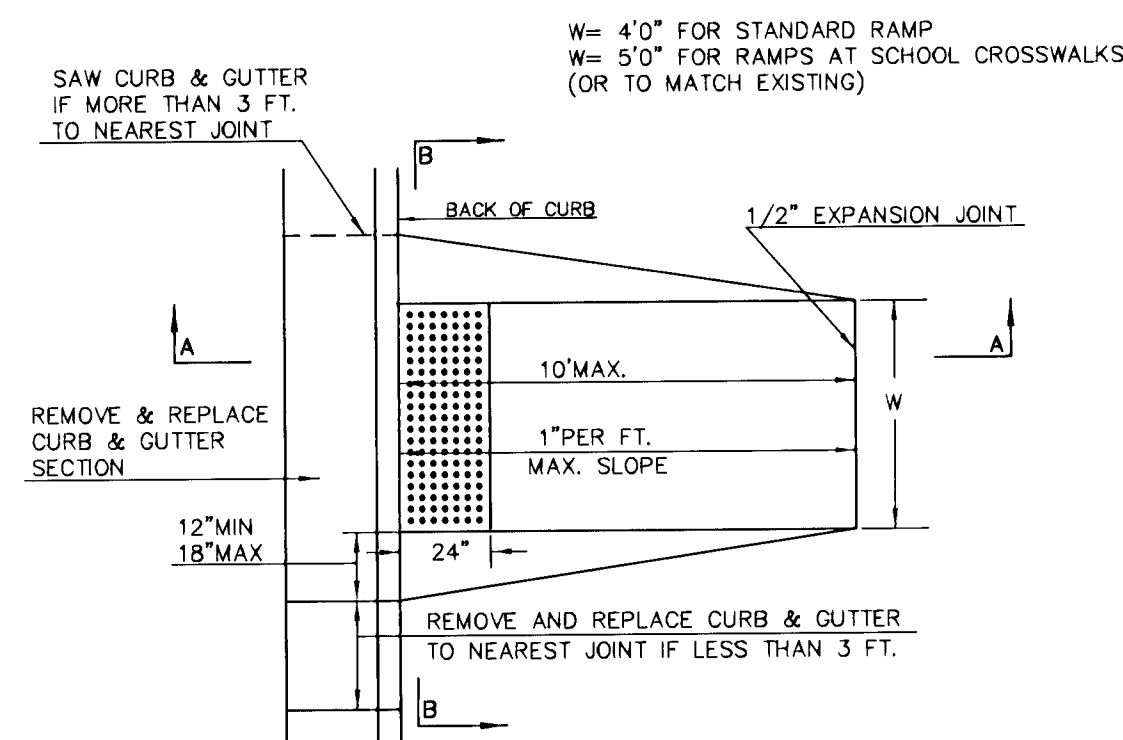
PROJECT NUMBER
472-83811

DATE
MAR 96

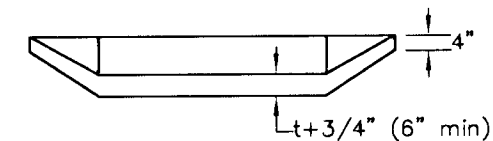
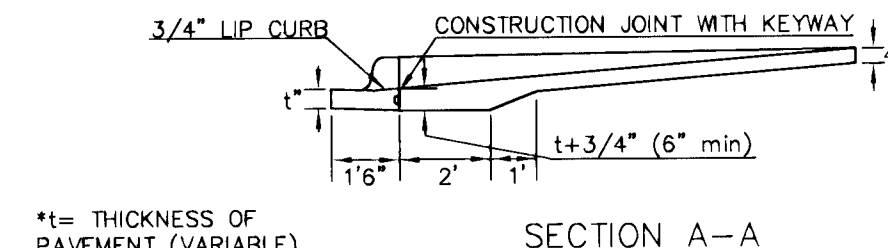
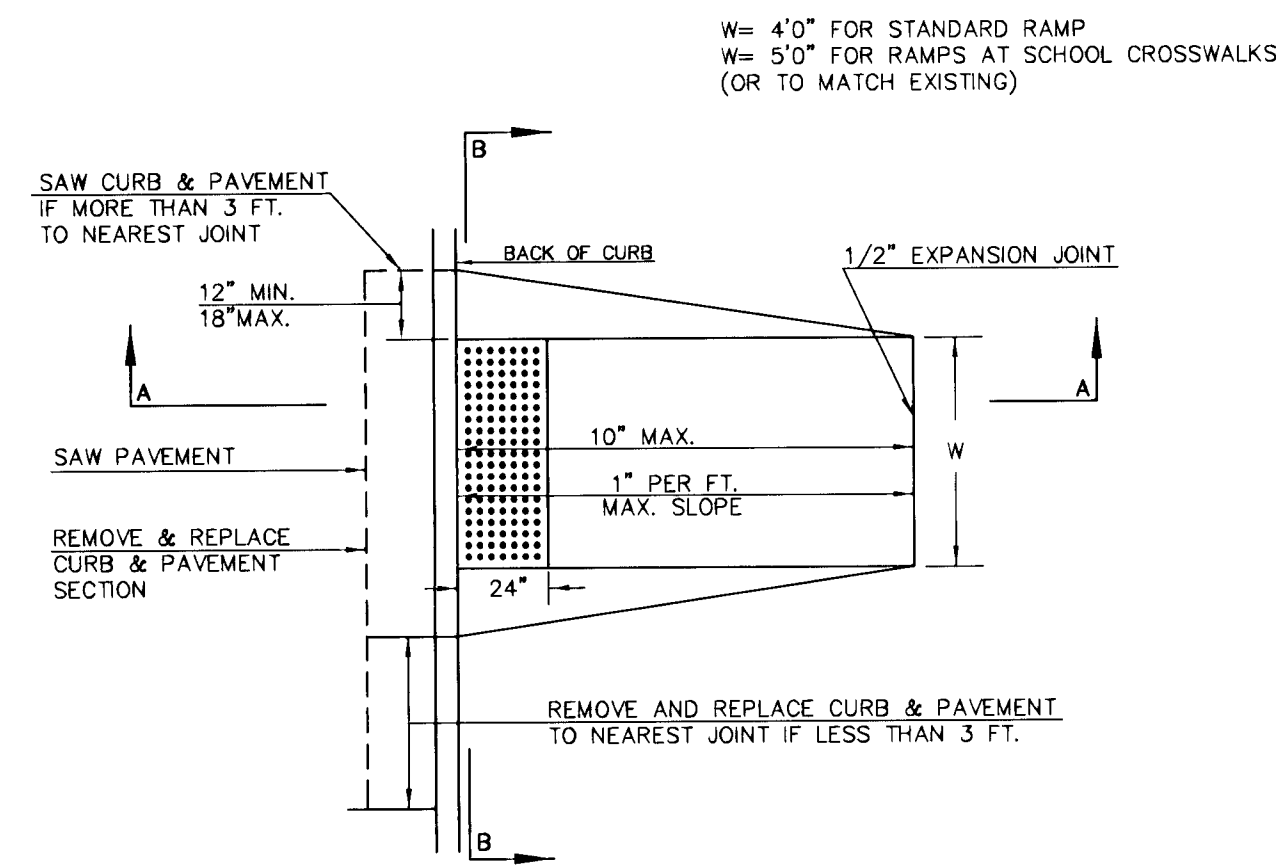
OCA #
706864

SHEET 14 OF 28

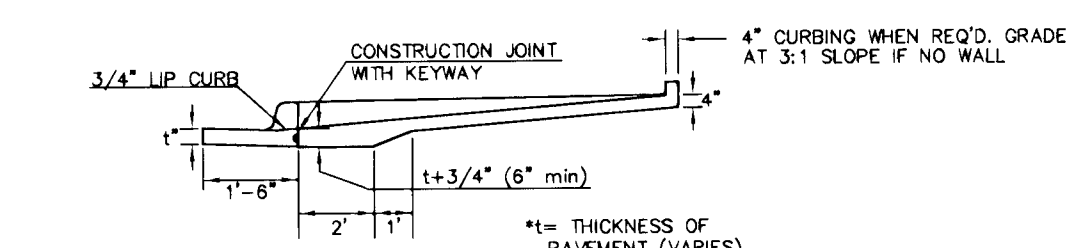
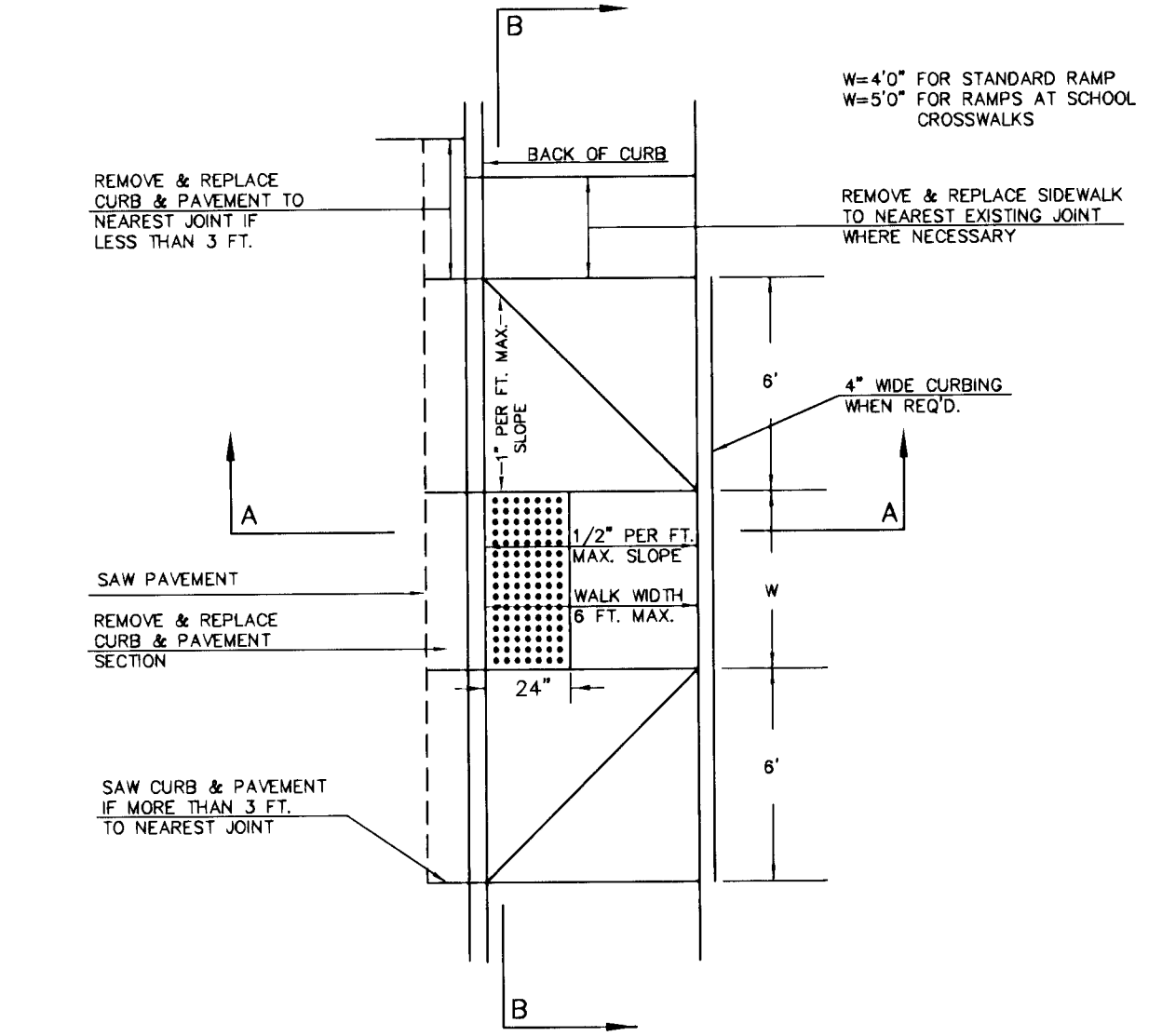
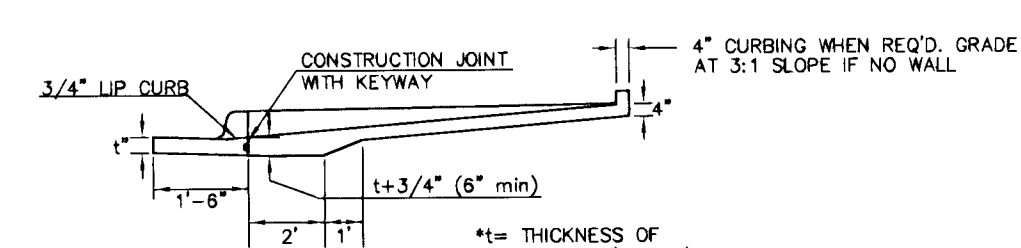
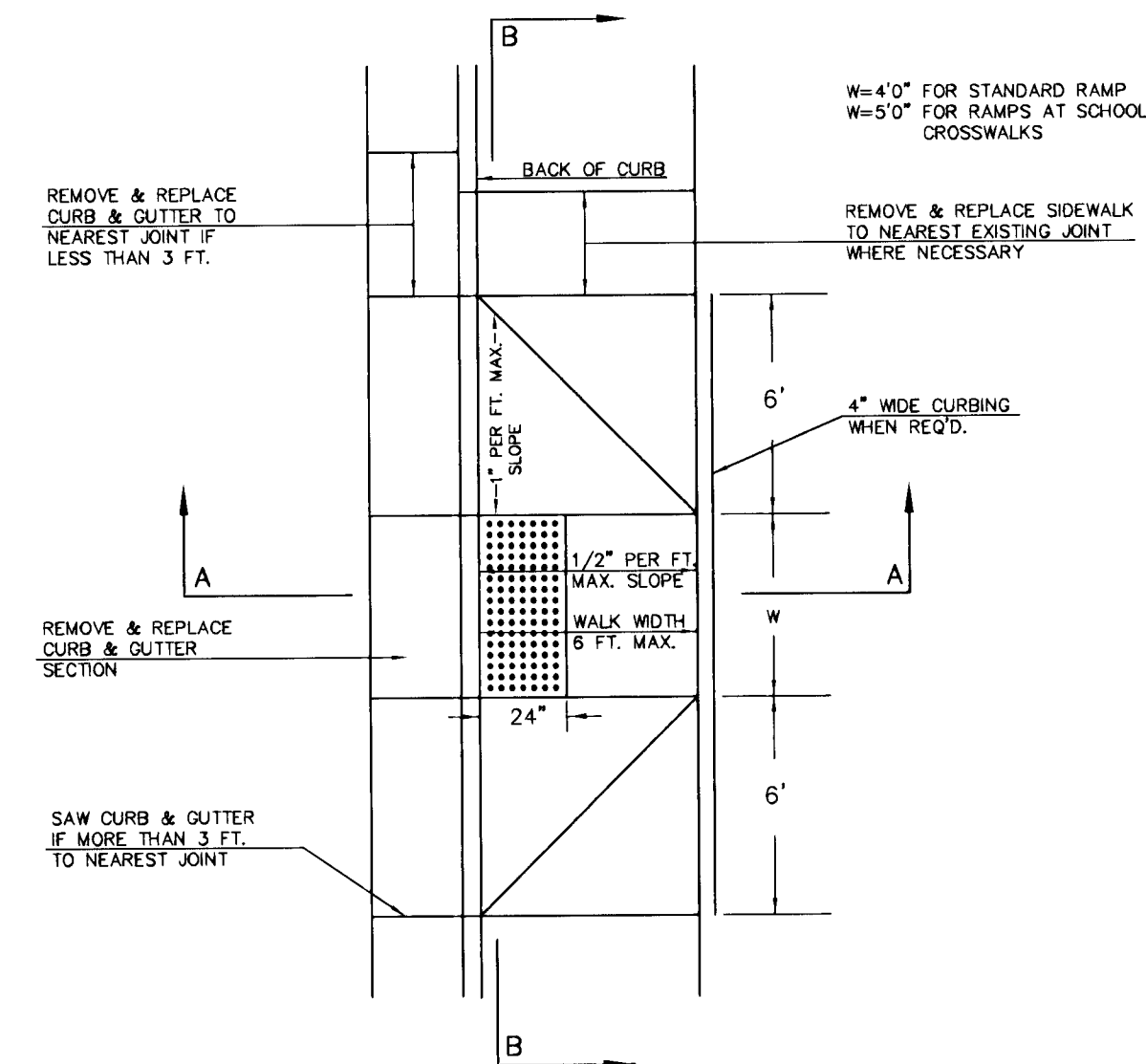
STANDARD WHEELCHAIR RAMP
CONSTRUCTION DETAIL FOR STREETS
WITH COMBINED CURB & GUTTER
(TYPE A)



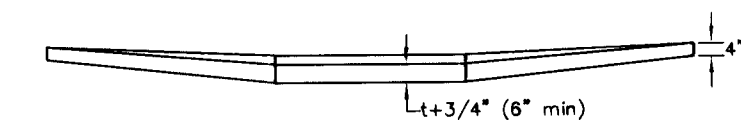
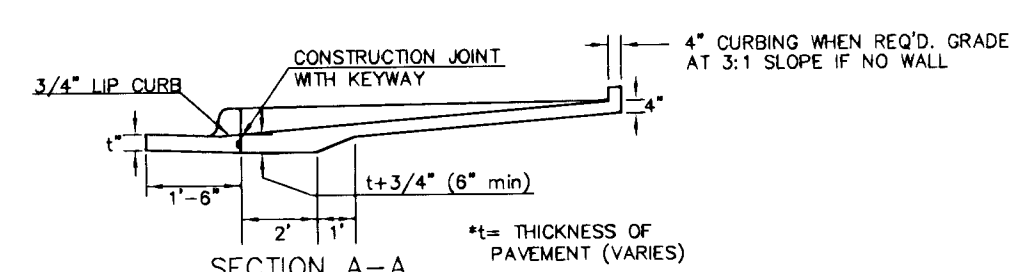
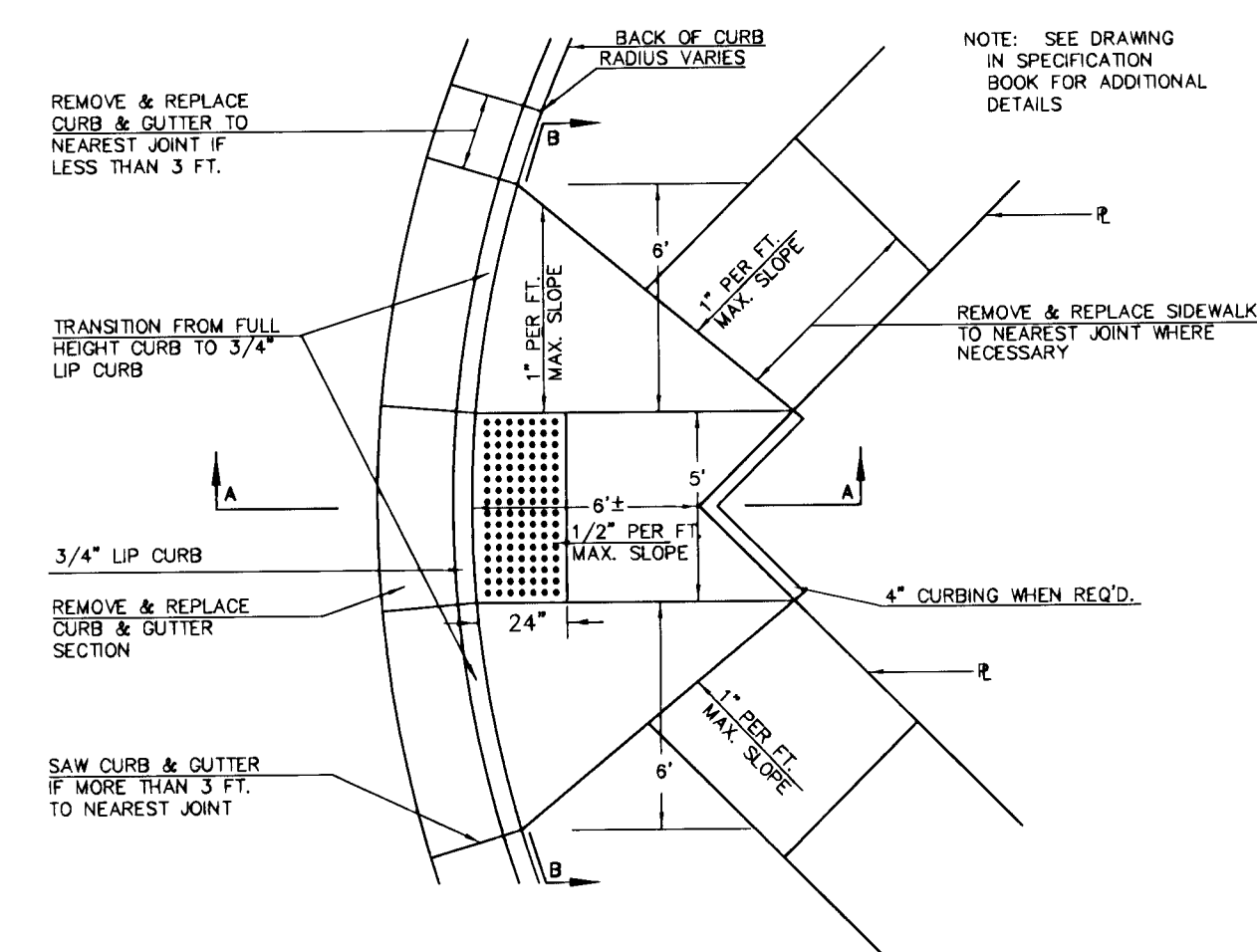
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR
CONCRETE STREETS WITH MONOLITHIC CURB
(TYPE A)



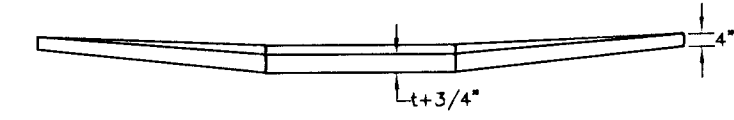
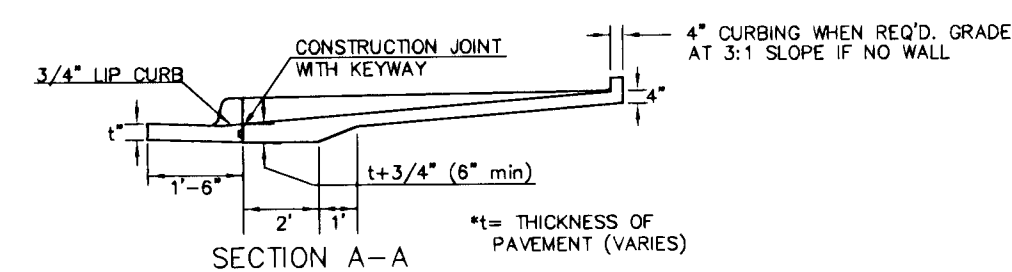
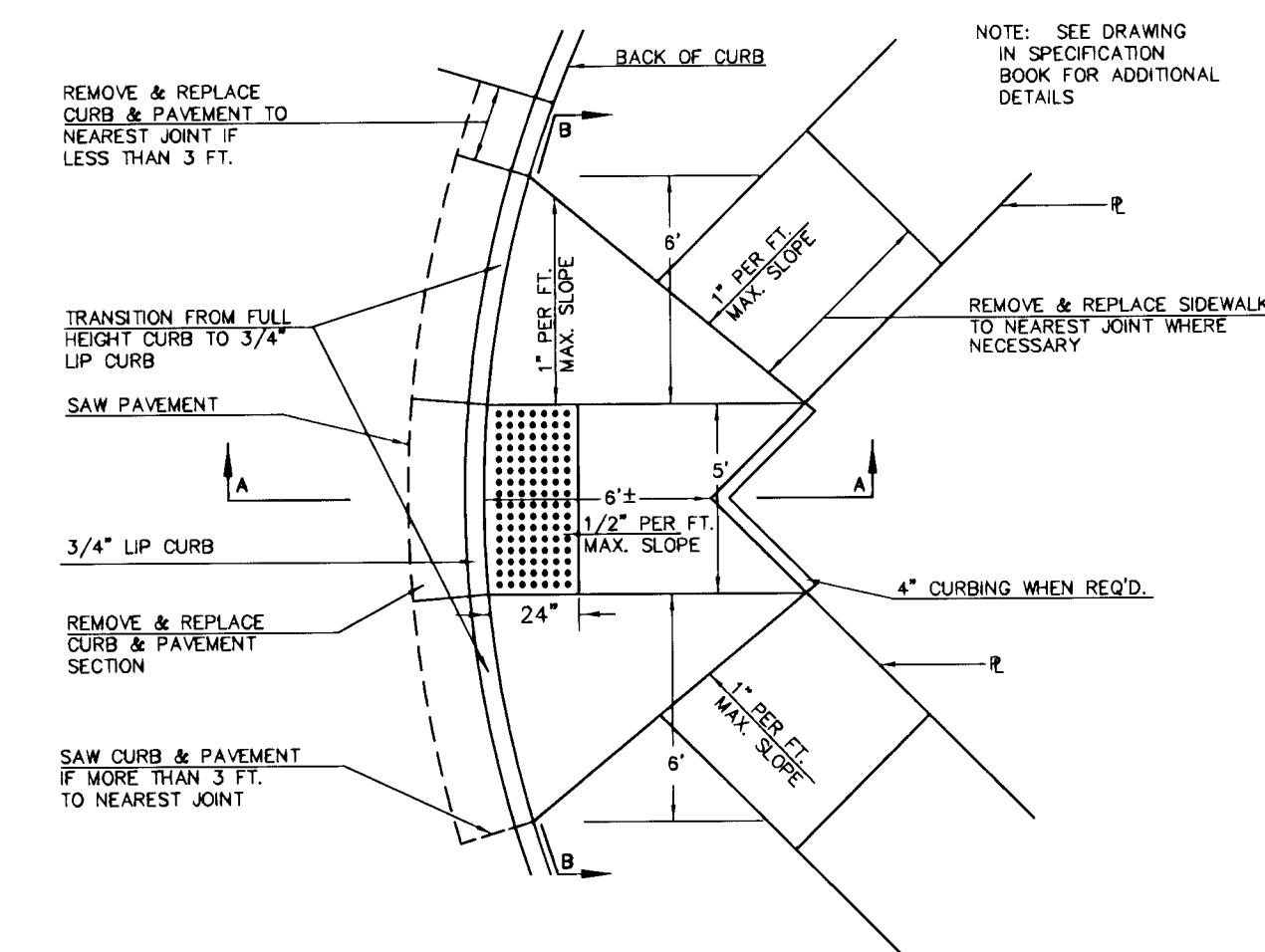
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR
STREETS WITH COMBINED CURB & GUTTER AND FULL WALK
(TYPE B)



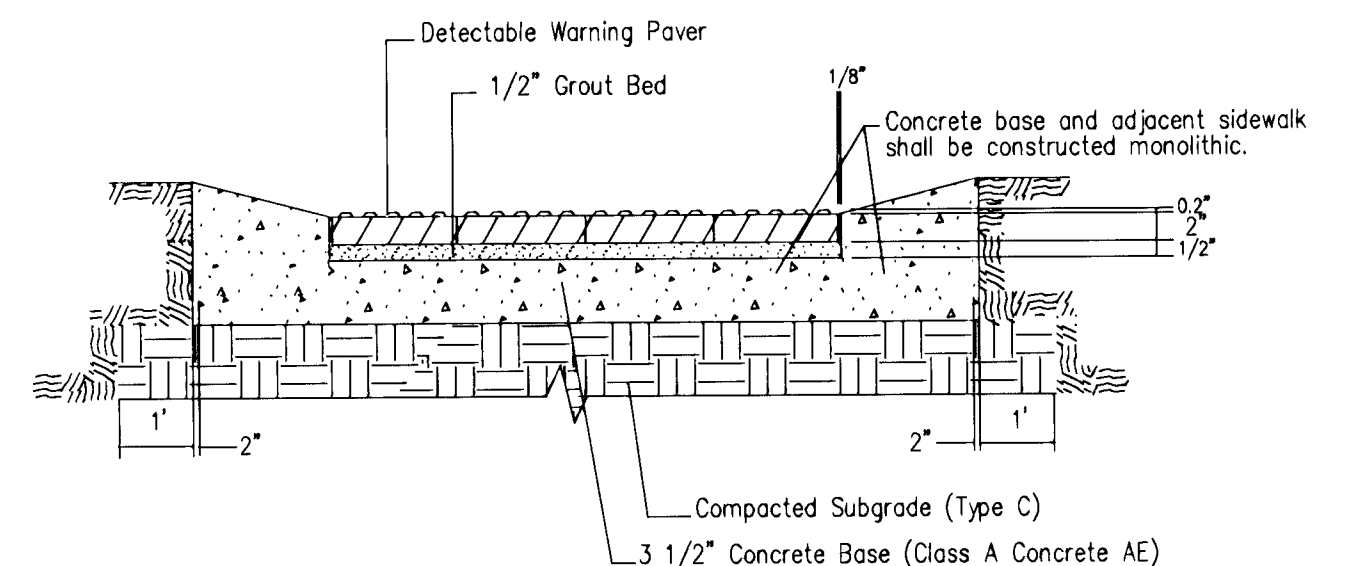
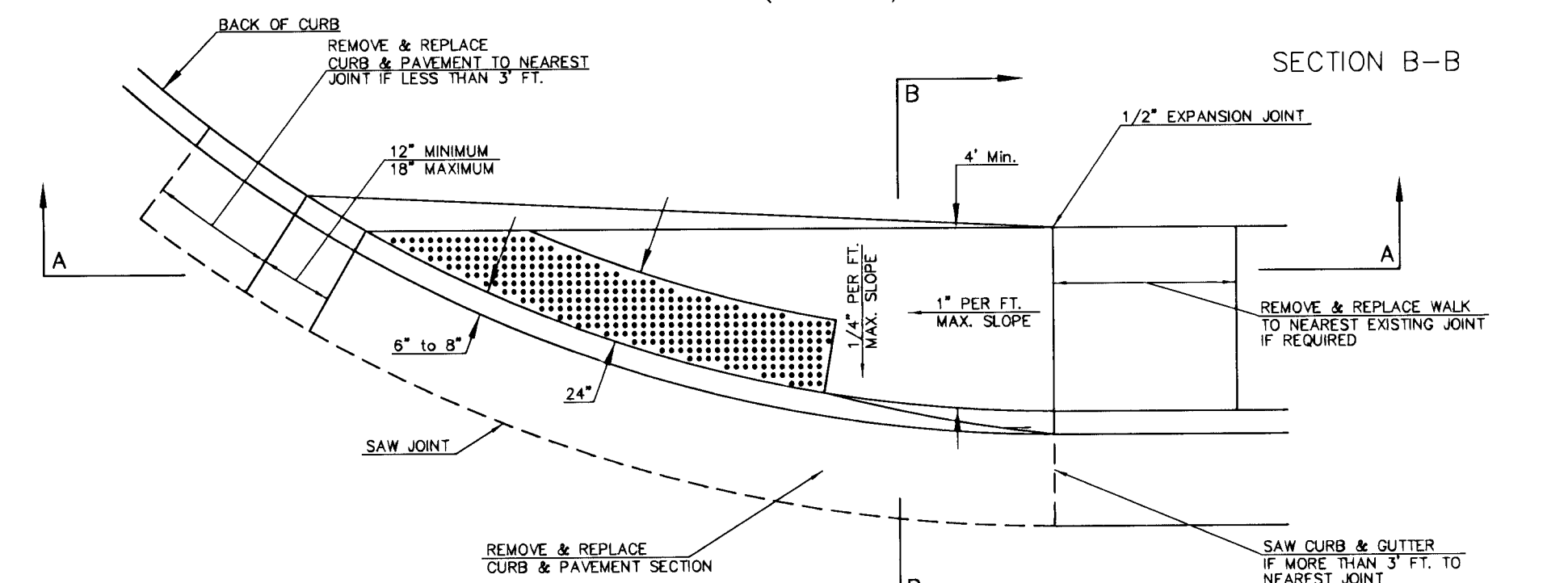
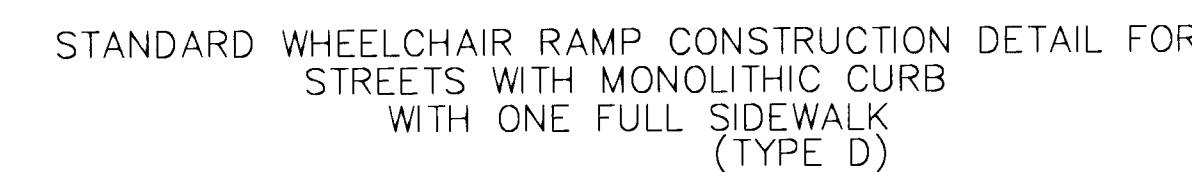
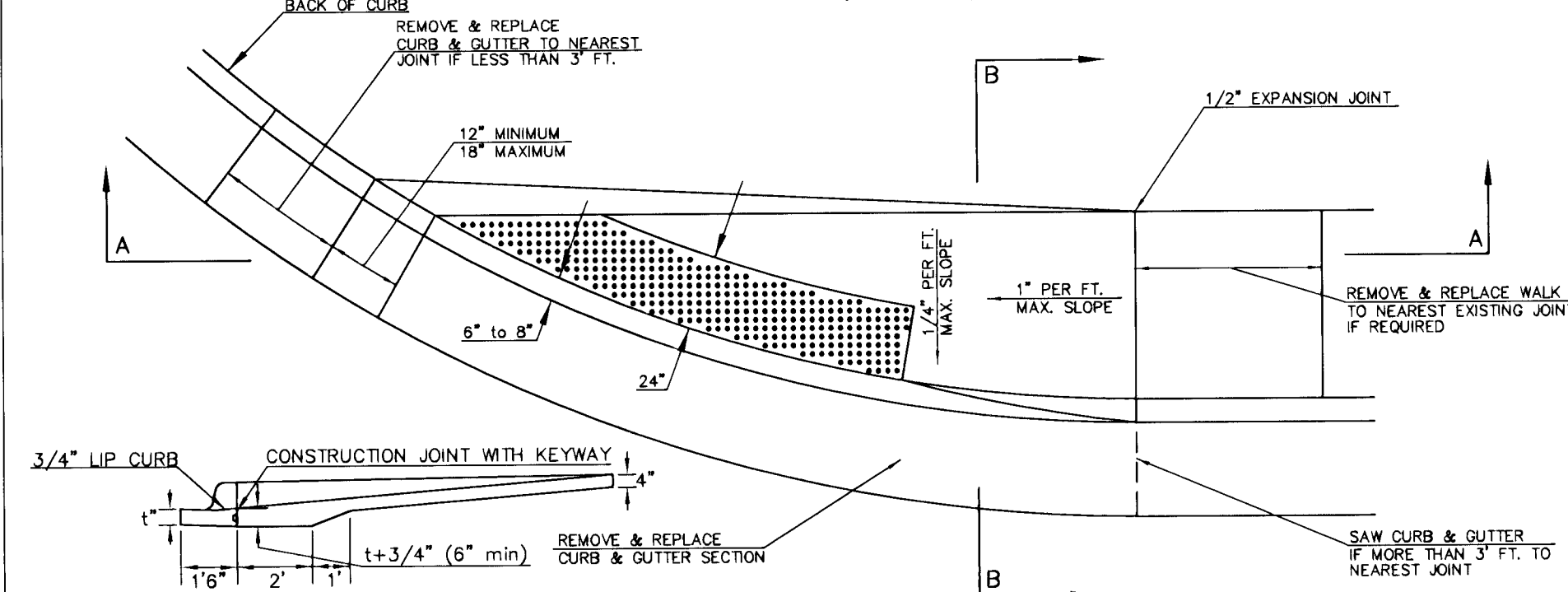
STANDARD WHEELCHAIR RAMP CONSTRUCTION DEAL FOR
STREET WITH COMBINED CURB AND GUTTER ON RADIUS
WITH 6'± FROM BACK OF CURB TO PROPERTY CORNER
(TYPE C)



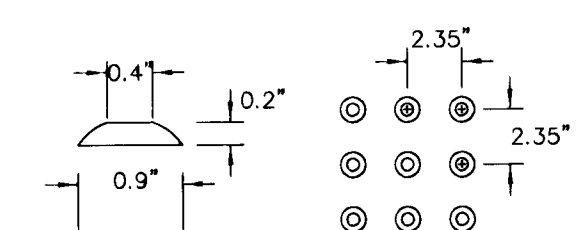
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR
STREET WITH MONOLITHIC CURB ON RADIUS
WITH 6'± FROM BACK OF CURB TO PROPERTY CORNER
(TYPE C)



STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR
STREETS WITH COMBINED CURB & GUTTER
WITH ONE FULL SIDEWALK
(TYPE D)



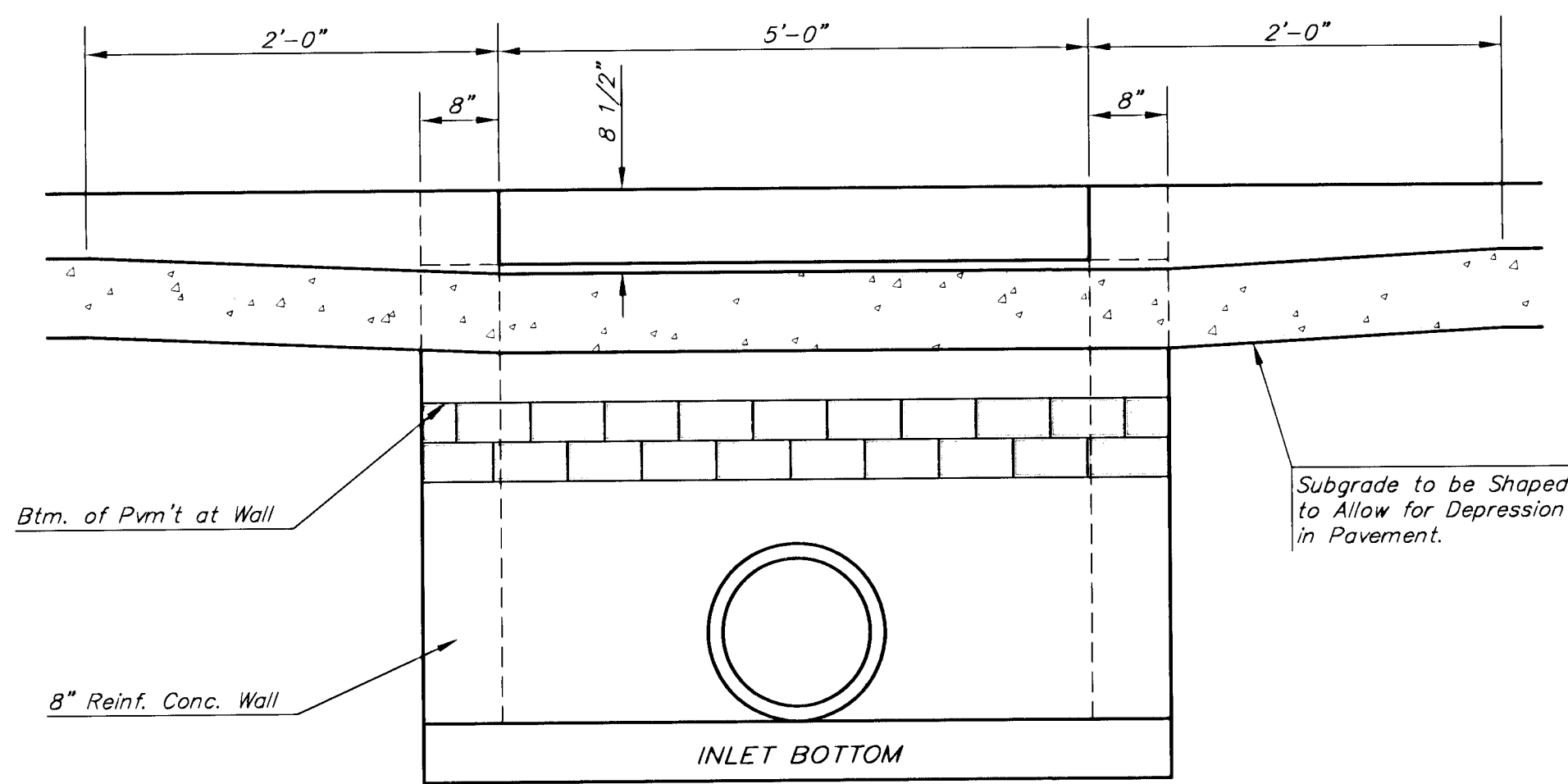
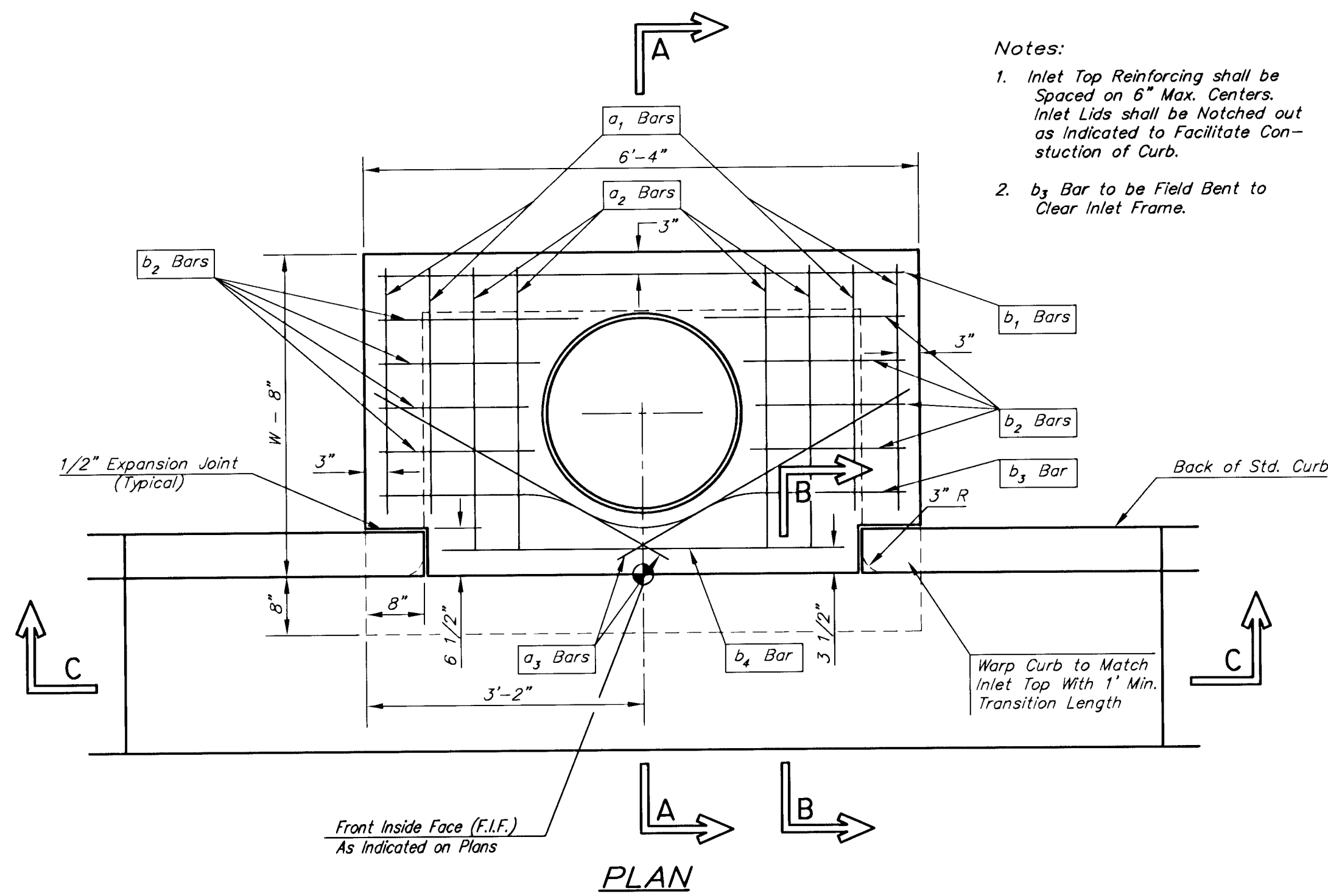
NOTE: HANOVER DETECTABLE WARNING PAVERS (OR AN APPROVED ALTERNATE) SHALL BE USED IN ALL WHEELCHAIR RAMPS. THE 11 3/4" RED 15" PAVES SHALL BE USED IN ALL APPLICATIONS.
HANOVER ARCHITECTURAL PRODUCTS
240 BENDER ROAD
HANOVER, PA 17331
1-717-637-0500
www.hanoverpavers.com



WHEELCHAIR RAMP DETAILS

CITY ENGINEER
NEIL CABLE, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-83811	706864	
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 (316) 268-4114 FAX	DESIGN	DRAWN
	SHEET 15 OF 28	

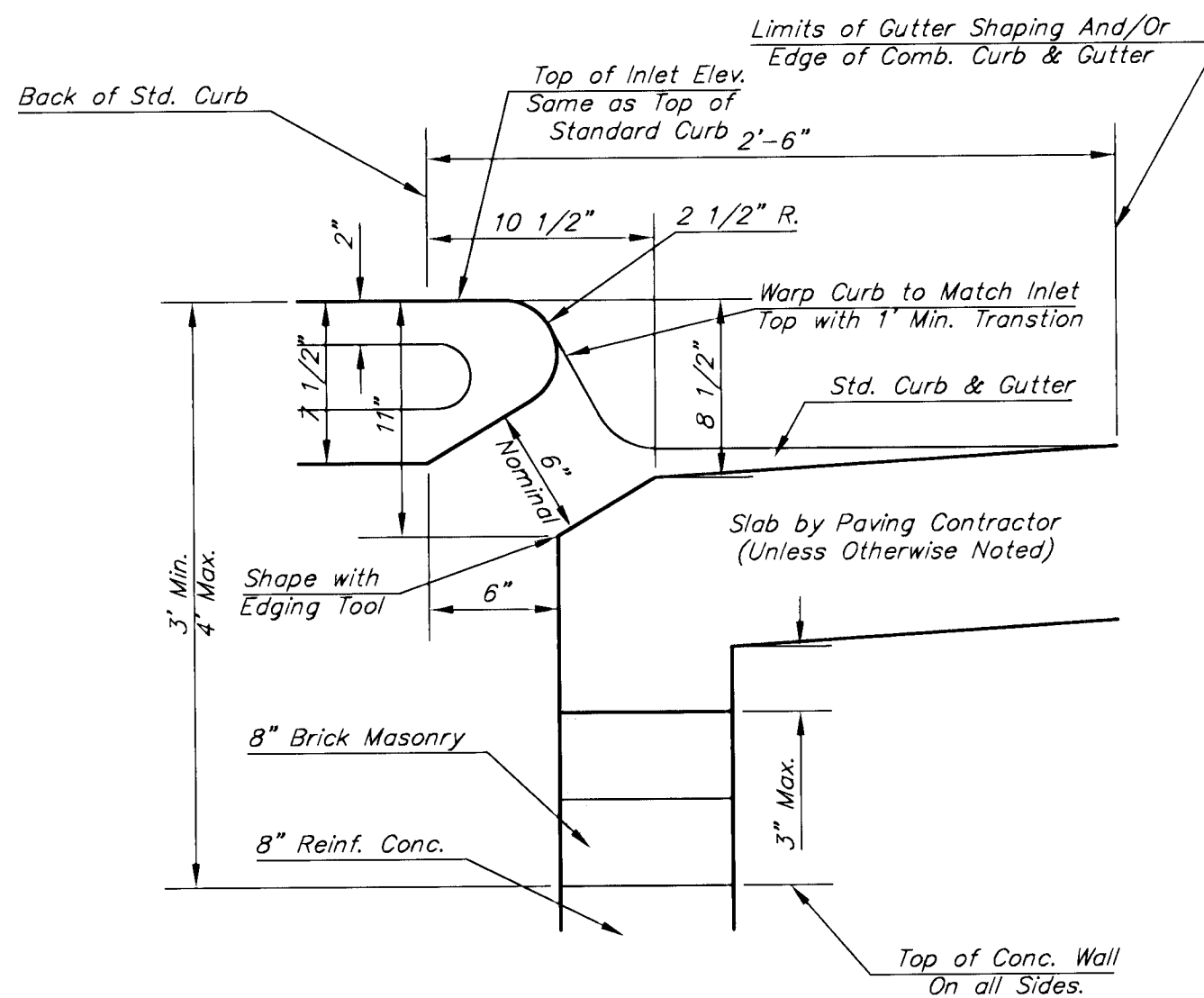
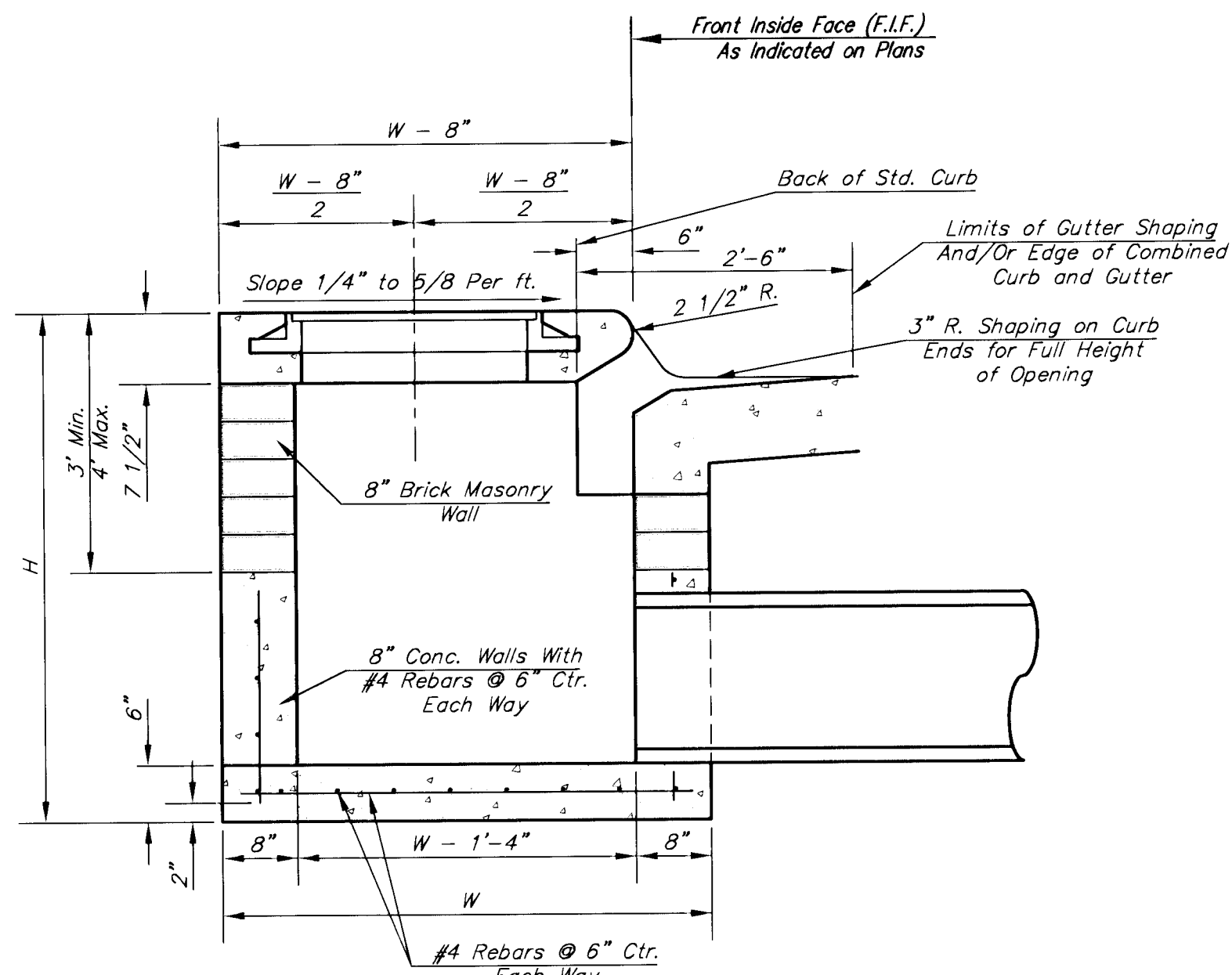


STEEL SCHEDULE

BAR		a_1	a_2	a_3	b_1								b_2	b_3	b_4	Wt. Lbs.
NUMBER		4	4	2	1	3	5	7	9	6	1	1				
SIZE		#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6				
LENGTH	W=4'-4"	5'-7"	6'-7"	4'-0"	6'-1"	-	-	-	-	1'-9"	6'-2"	4'-8"	60±			
	W=5'-4"	7'-7"	8'-7"	5'-0"	-	6'-1"	-	-	-	1'-9"	6'-2"	4'-8"	81±			
	W=6'-4"	9'-7"	10'-7"	6'-0"	-	-	6'-1"	-	-	1'-9"	6'-2"	4'-8"	101±			
	W=7'-4"	11'-7"	12'-7"	7'-0"	-	-	-	6'-1"	-	1'-9"	6'-2"	4'-8"	121±			
	W=8'-4"	13'-7"	14'-7"	8'-0"	-	-	-	-	6'-1"	1'-9"	6'-2"	4'-8"	141±			

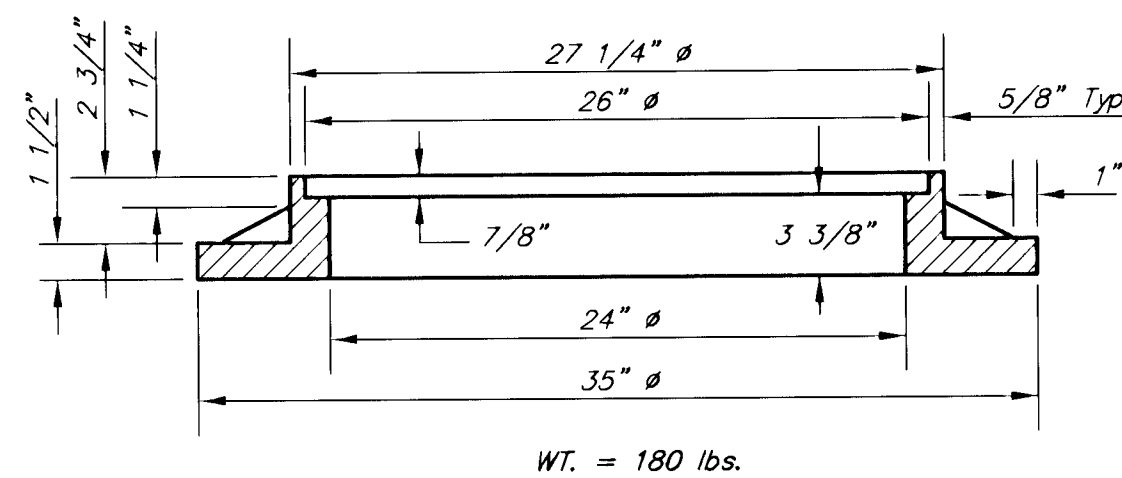
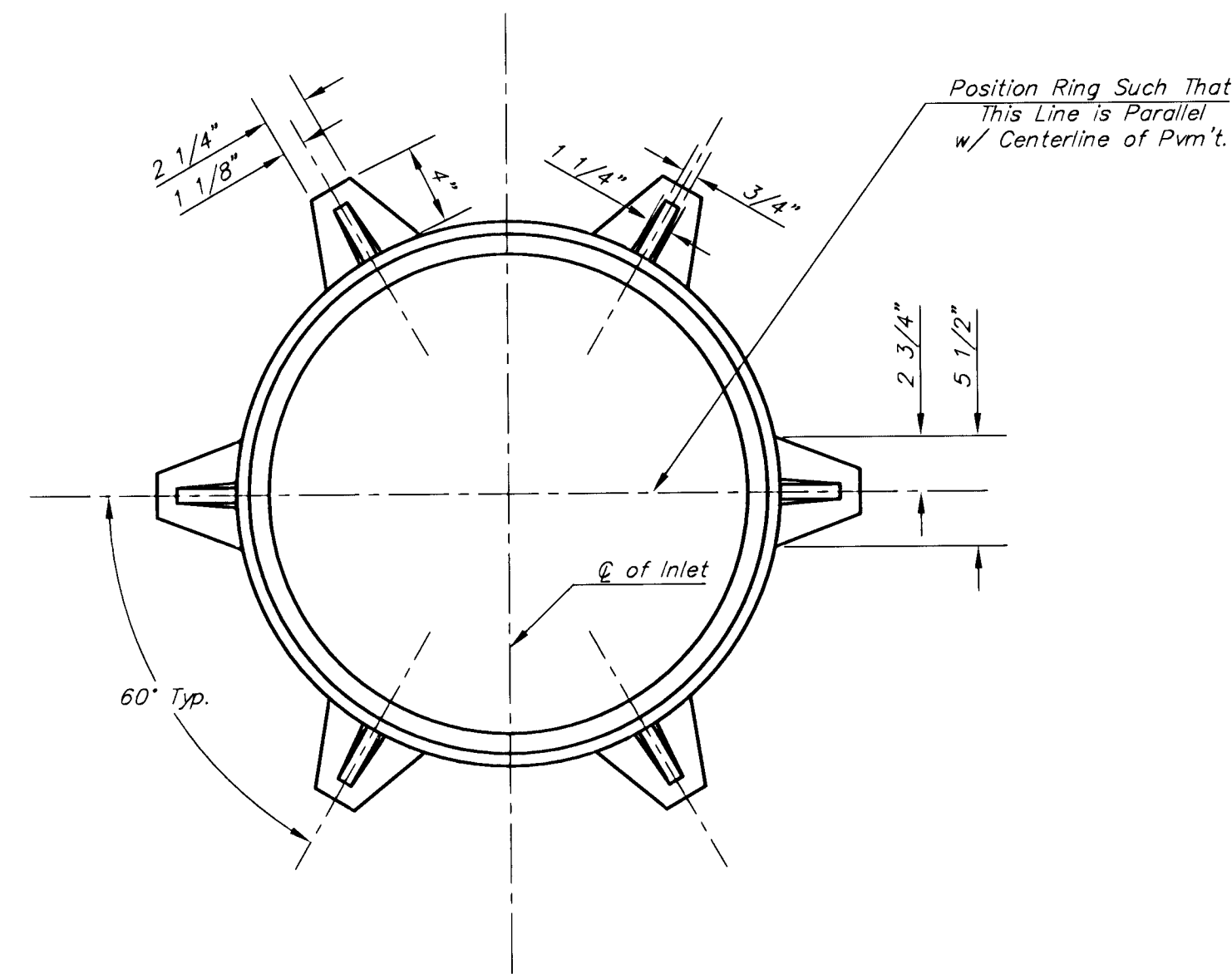
Note: a_3 Bars to be Placed Approx. 2" Below Top of Inlet Cover.

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" 6'-4" 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" 6'-4" 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" 6'-4" 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" 6'-4" 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" 6'-4" 7 1/2"	60" & 66"	0.90±



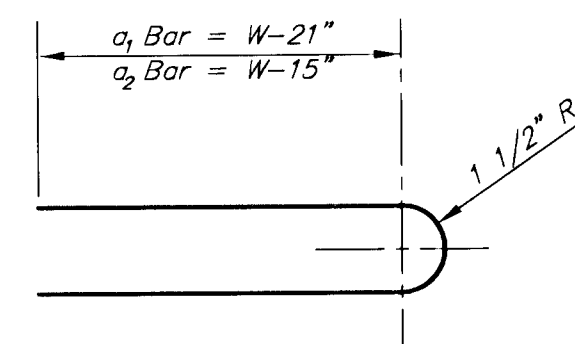
GENERAL NOTES

- Concrete tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix.
- Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.
- Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self cleaning between all inlet and/or outlet pipes.
- The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.

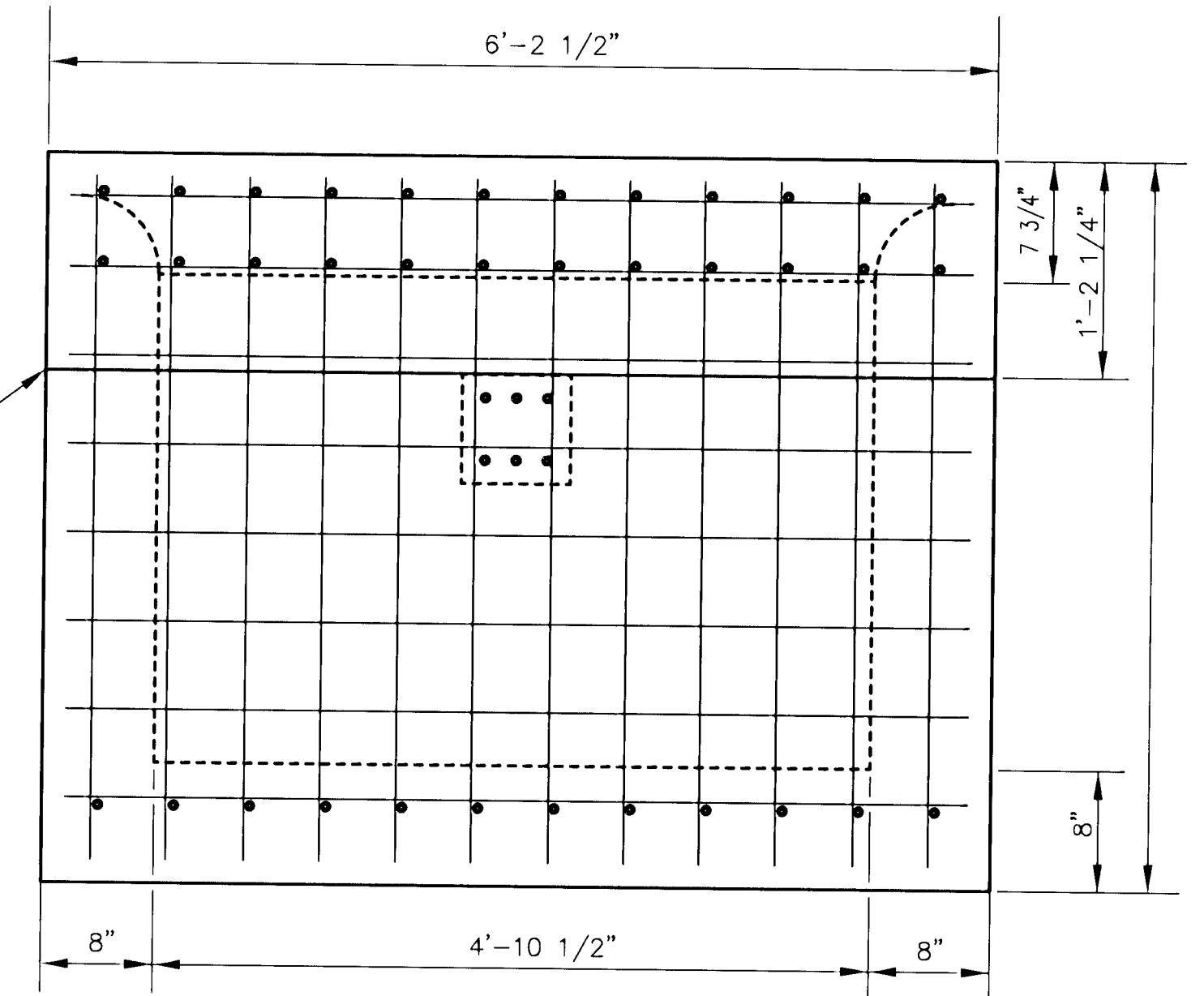
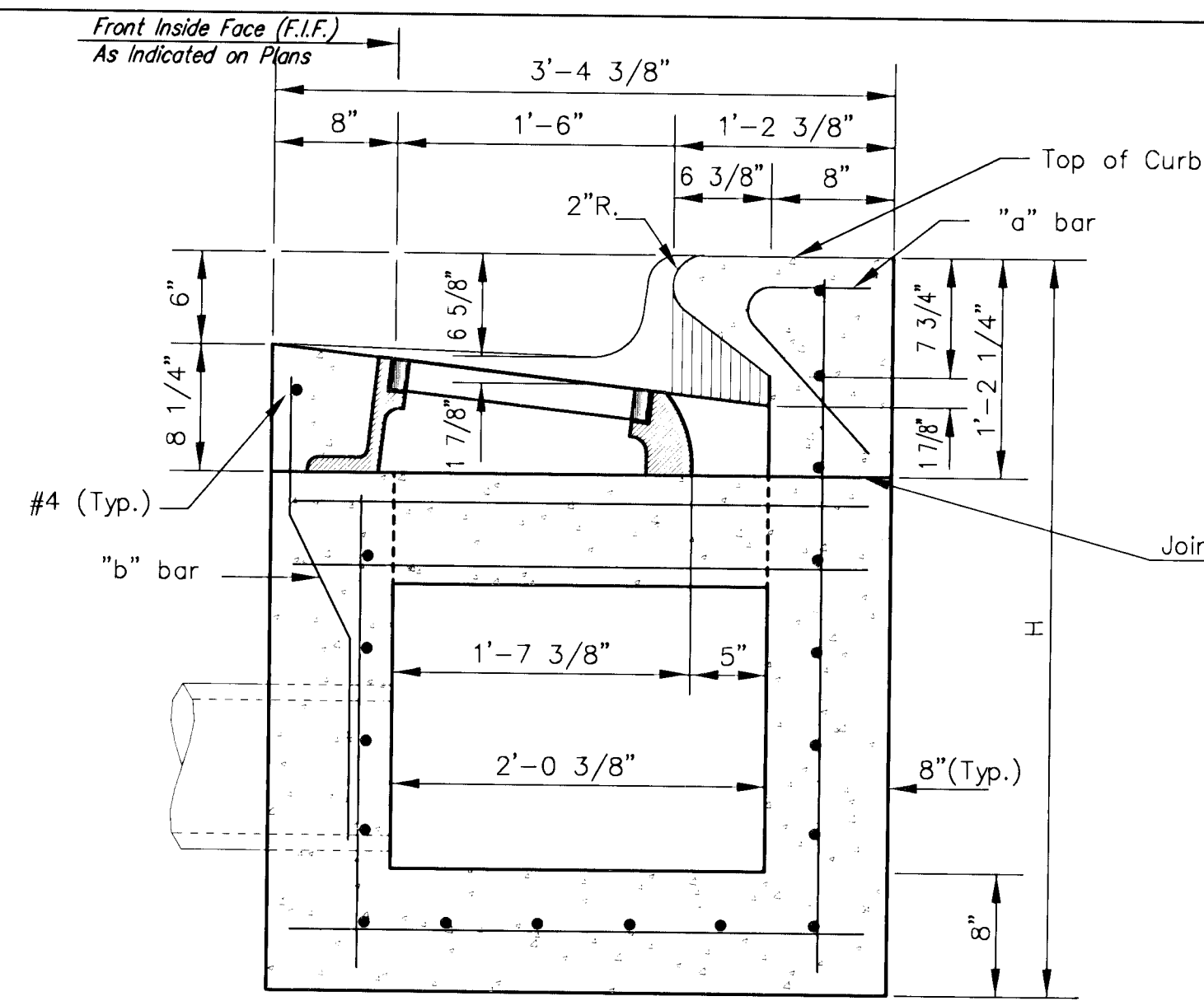
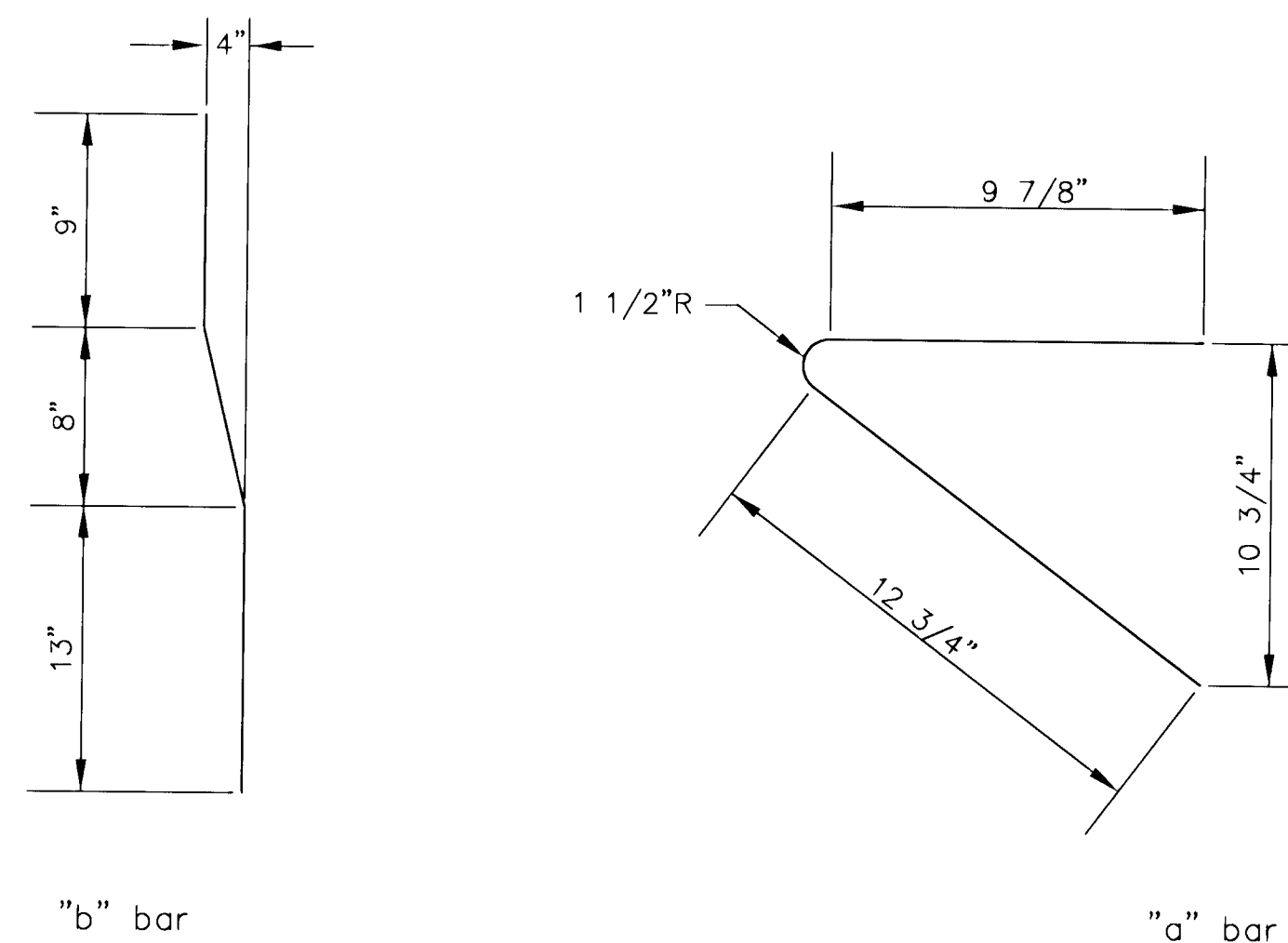
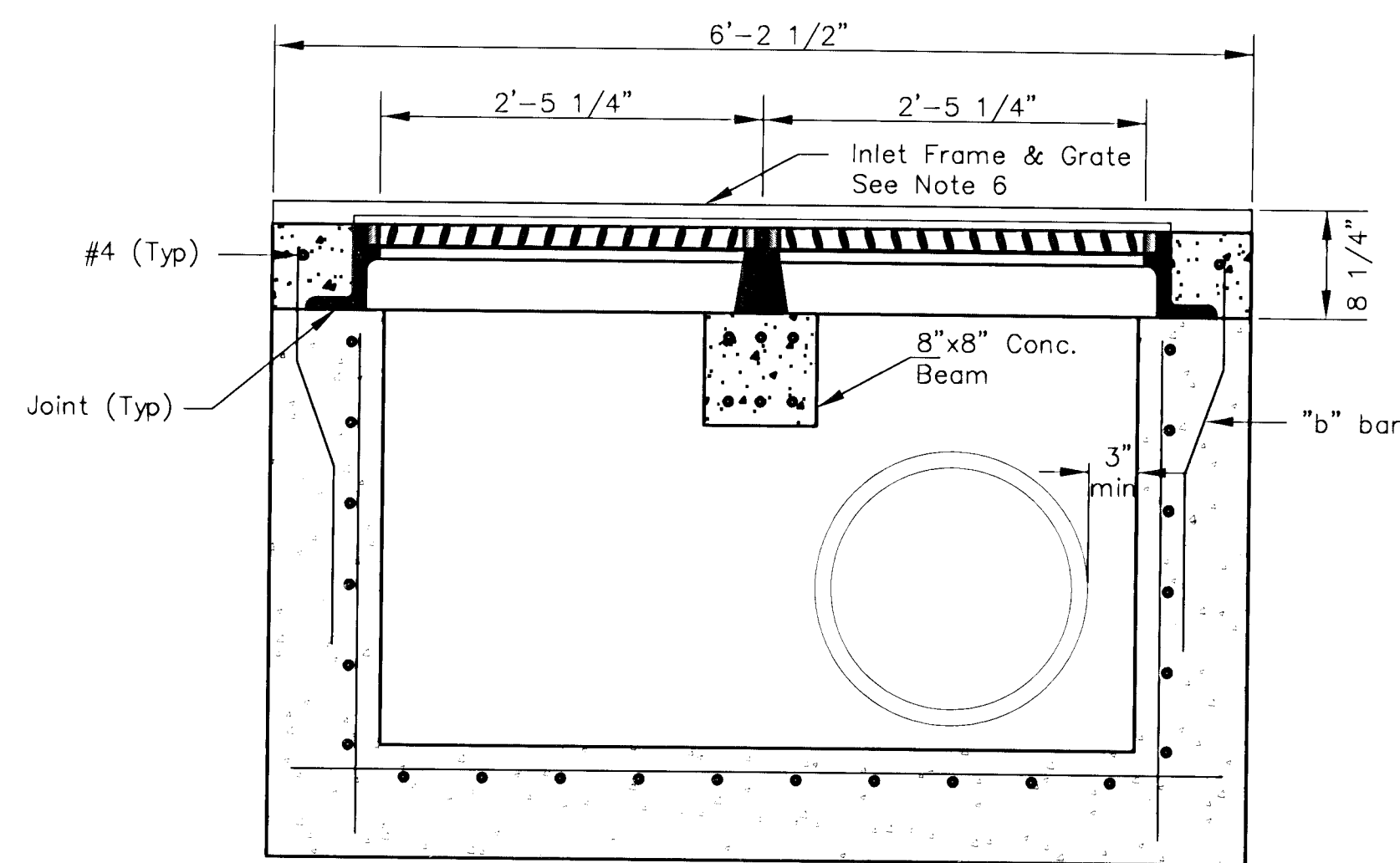
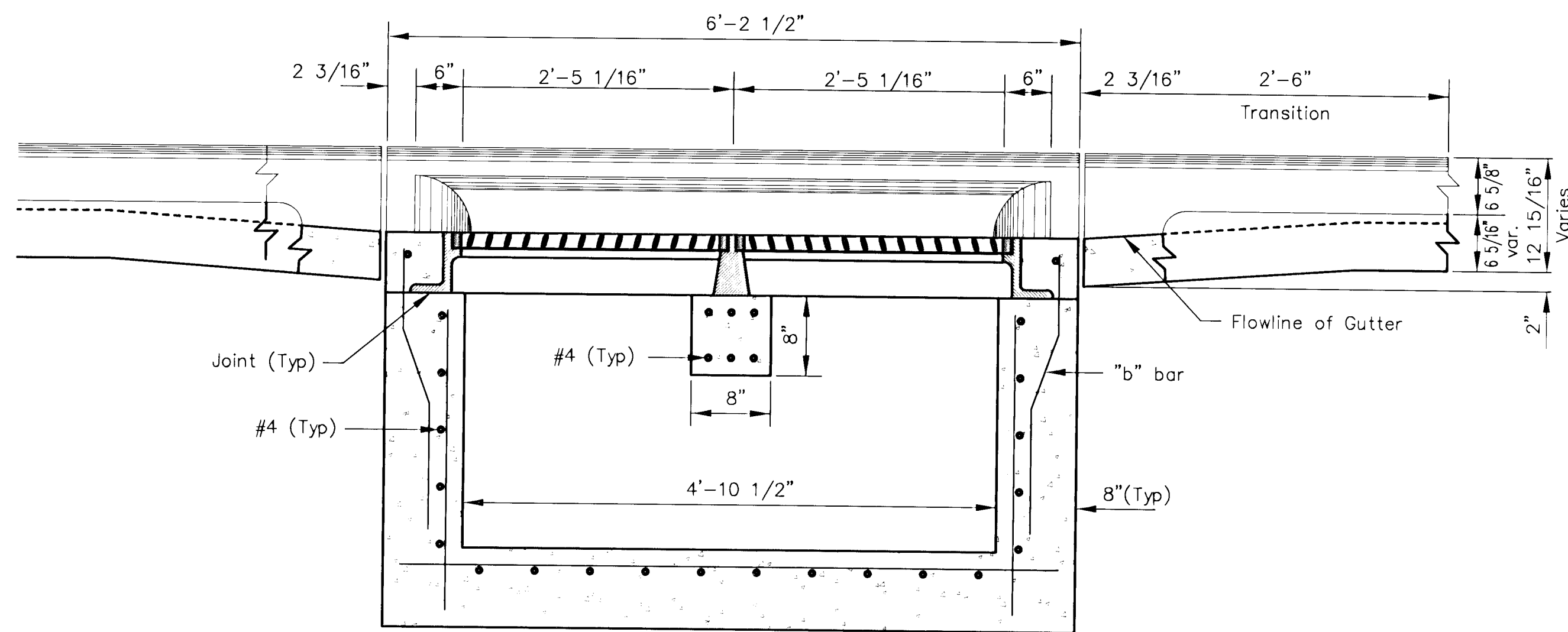


MANHOLE RING AND COVER

*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.

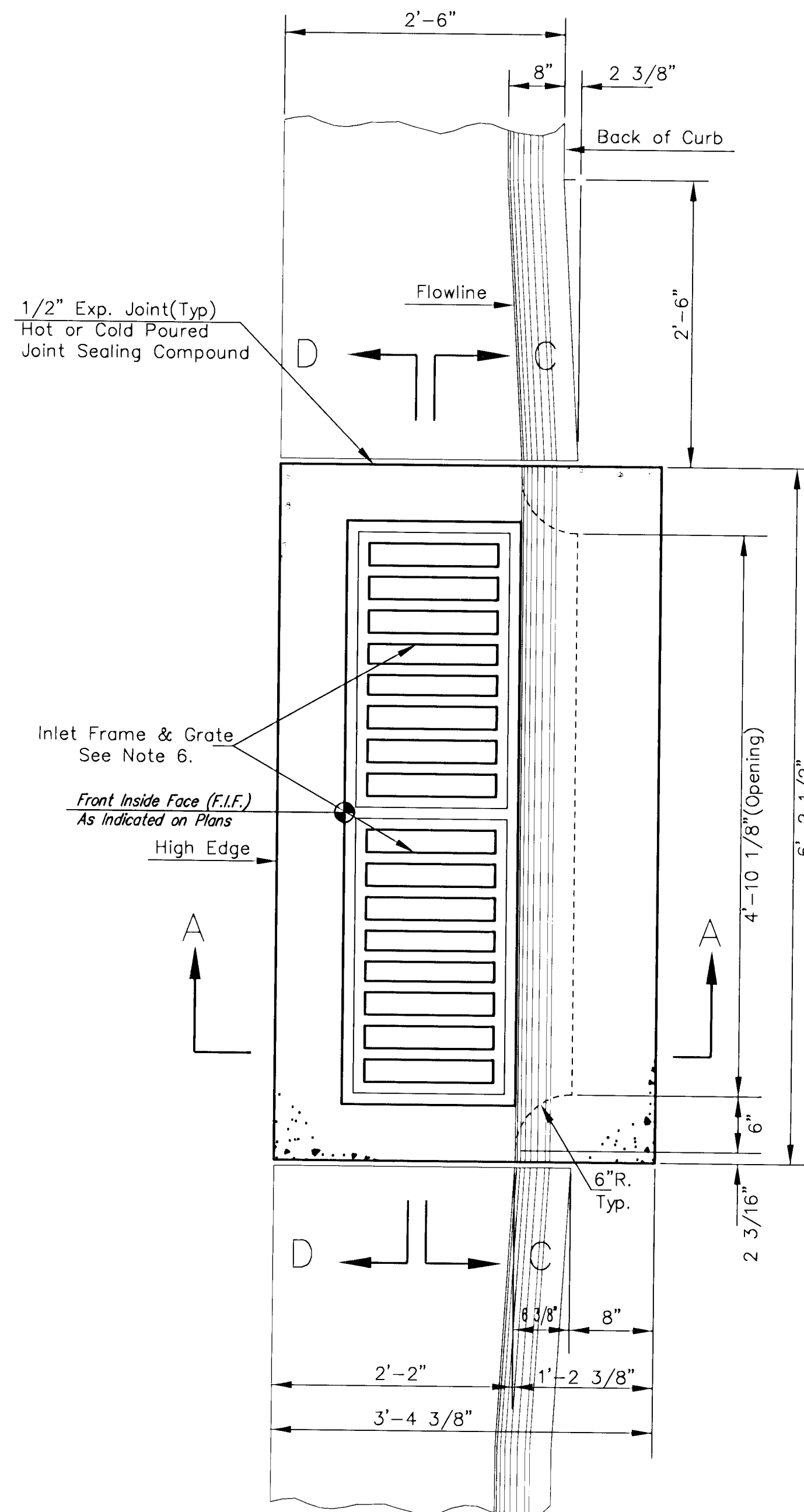


THE CITY OF WICHITA CITY ENGINEER'S OFFICE 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX	STANDARD TYPE 1 CURB INLET OPENING = 6"x5'-0"	
	PROJECT NUMBER	OCA #
	472-83507	706864
	DATE	SHEET 16 OF 28
MAR 96		

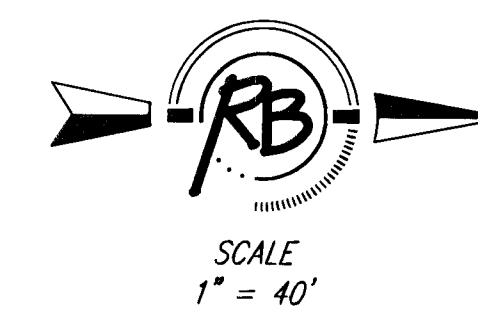
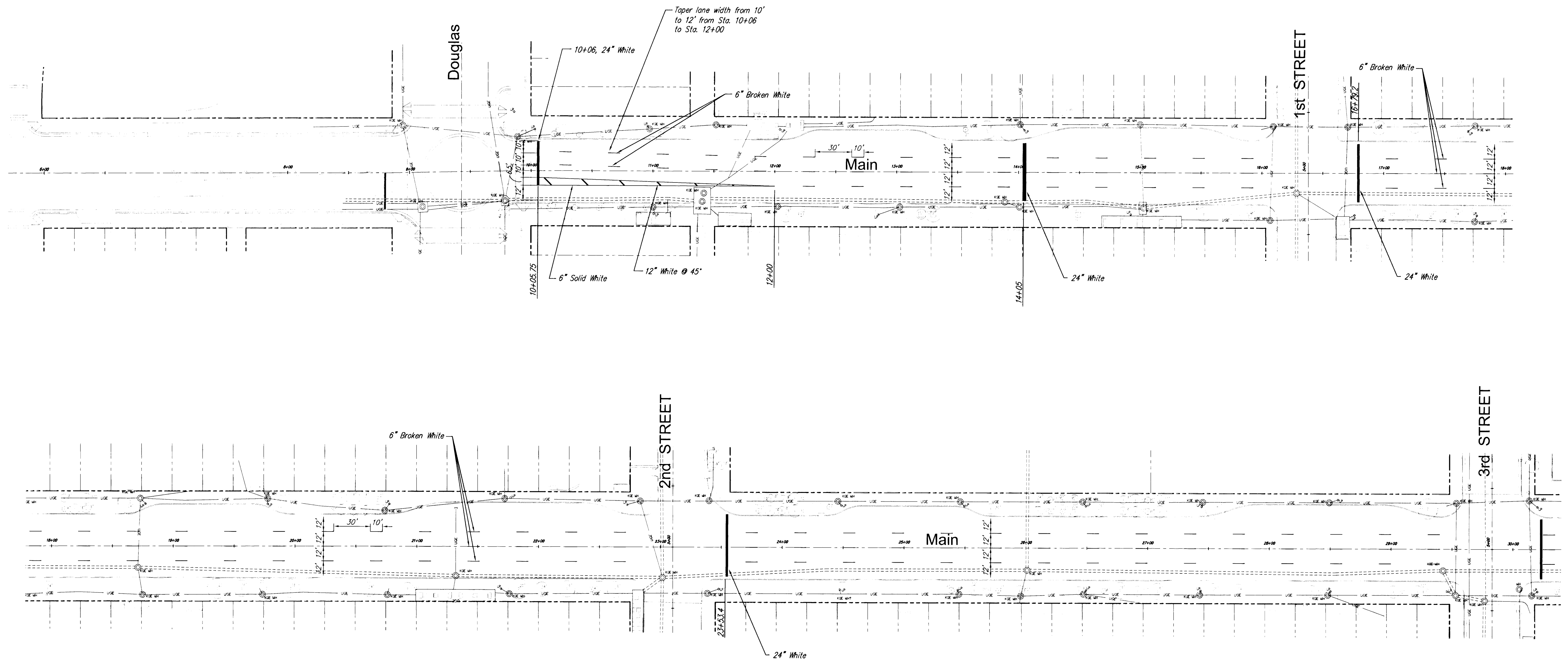


GENERAL NOTES

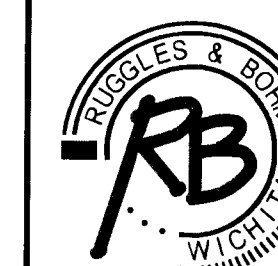
1. Use the concrete mix specified for the City of Wichita concrete pavement throughout. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be bent around pipe.
2. Inlet invert shall be shaped with 8 sack mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self cleaning between all inlet and/or outlet pipes.
3. All bars are #4 with 6" spacing and shall have a minimum clearance of 1 1/2 inches unless otherwise noted on the plans.
4. When directed by the Engineer, a small opening may be required in the back of the inlet in order to drain a low area. Reinforcing bars will extend through the openings. No deductions in concrete quantities will be made for these openings.
5. No deductions will be made in pay length of curb, gutter, or curb and gutter through the inlet area.
6. Use Neenah R-3288 HV Inlet Frame with Two Piece Grate or approved equal. Inlet frame to be proof load tested to 40,000 lbs. on unsupported side.
7. Reinforcing bars shall be cut or bent around pipes. No deduction in concrete quantities shall be made for pipe openings.
8. The vanes of the grate shall be oriented with respect to the flow arrows shown on the plans.
9. DEETER FOUNDARY, Inc. casting No. 2442/43 with style H grate is an approved equal to NEENAH castings specified. Inlet drawing is based on NEENAH castings and concrete walls and supports will require some field modification to accommodate DEETER castings.



THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX		STANDARD TYPE II INLET OPENING = 6"x4'-10 1/8"	
PROJECT NUMBER 472-83811		OCA # 706864	
DATE MAR 96		SHEET 17 OF 28	



PAVEMENT MARKING PLANS
STA. 6+00 to 30+00
WICHITA, KANSAS

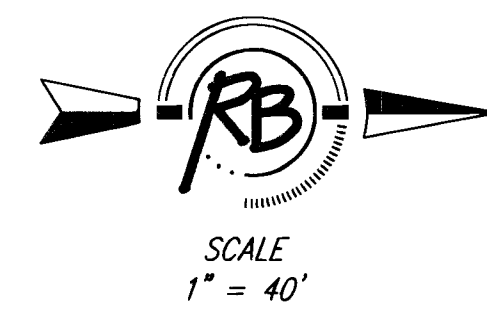
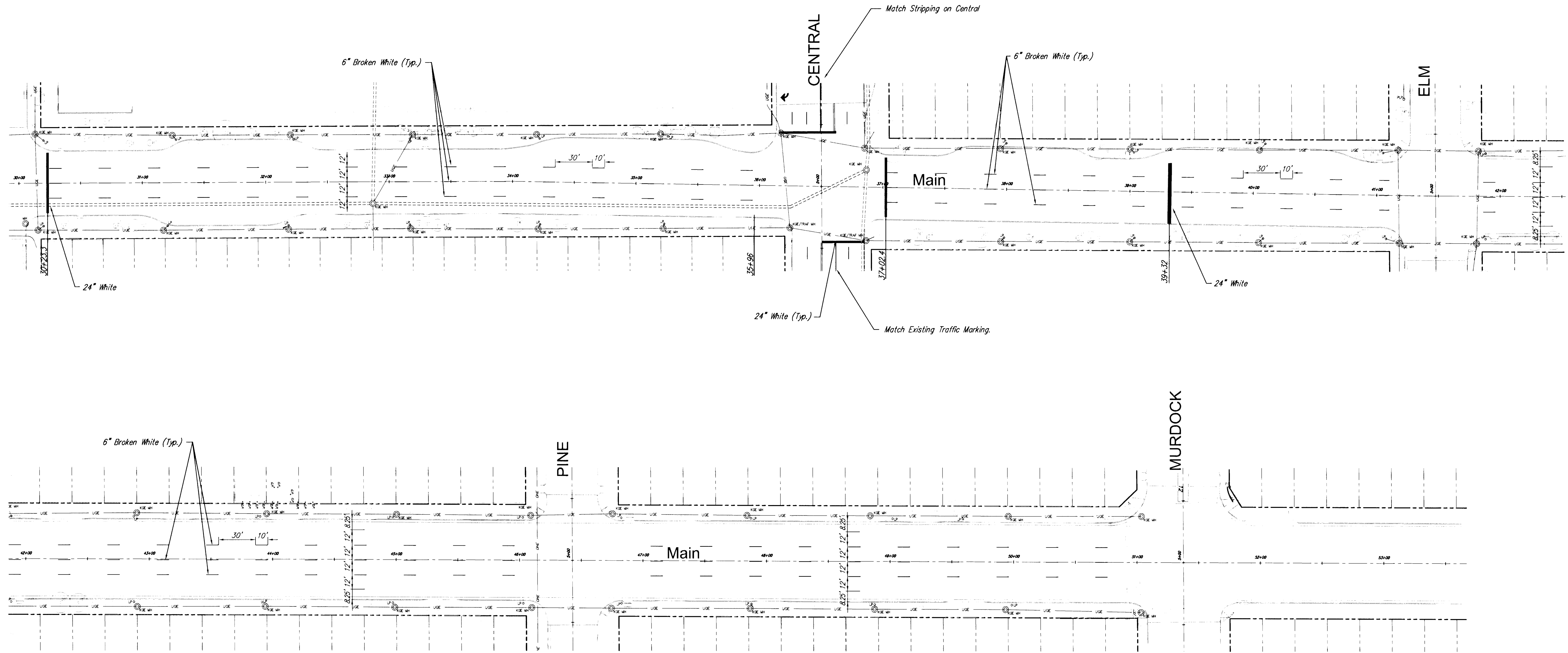


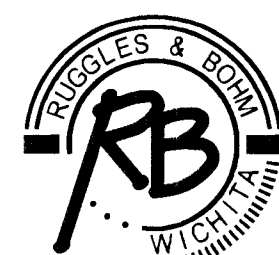
Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main (316) 264-8008
Wichita, Kansas 67203 (316) 264-4621 fax
www.rbkansas.com E-mail: info@rbkansas.com

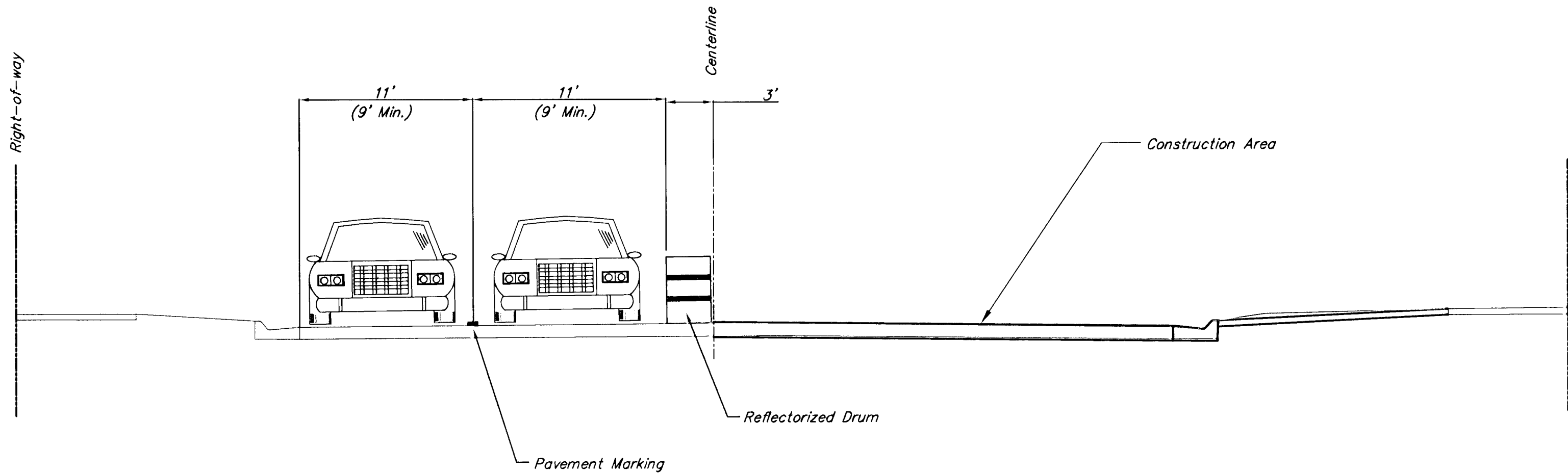
DRAWING FILE
STRIPPING {stripe sh 1}

PROJECT NUMBER
472-83811

DESIGN KWL	SHEET 18 OF 28
DRAWN RA	
REVIEW	
UTILITY	
DATE Apr. 22, 2004	



PAVEMENT MARKING PLANS STA. 30+00 to 53+00 WICHITA, KANSAS			
 Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning 924 North Main Wichita, Kansas 67203 www.rbkansas.com (316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com	DESIGN KWL	SHEET 19 OF 28	
	DRAWN RA		
	REVIEW		
	UTILITY		
DRAWING FILE STRIPPING {stripe sh 2}	PROJECT NUMBER 472-83811	DATE Apr. 22, 2004	



SECTION THRU CONSTRUCTION ZONE

PHASE	MAJOR CONSTRUCTION LIMITS	TRAFFIC CONTROL	CONFLICTING PHASES	CONFLICTS – COMMENTS
1A	WEST HALF IMPROVEMENTS, FROM N.L. OF DOUGLAS TO THE S.L. OF 3RD STREET EXCEPT THE SW 1/4 OF 2ND AND FROM STA. 37+83 TO THE S.L. OF MURDOCK.	TWO LANES SOUTHBOUND ON EAST HALF OF MAIN, TWO LANES EASTBOUND ON FIRST, TWO LANES WESTBOUND ON 2ND, ONE LANE EACH WAY ON 3RD.	1B, 1C, 2A, 2B, 2C	CLOSE DRIVES AT 17+86 AND 21+09 ONLY AS NECESSARY FOR PAVEMENT REPAIRS IN AREA. MAINTAIN ALL OTHER DRIVE AND ALLEY ACCESS DURING CONSTRUCTION. PARKING ON 1ST, 2ND, AND 3RD TO BE ELIMINATED DURING CONSTRUCTION AS NECESSARY. PROVIDE LANE TRANSITION AT DOUGLAS. REROUTE TRAFFIC TO NEW WEST SIDE PAVEMENT BETWEEN DOUGLAS AND FIRST AS SOON AS POSSIBLE.
1B	SW 1/4 OF 2ND AND WEST HALF IMPROVEMENTS FROM S.L. OF 3RD STREET TO C.L. OF CENTRAL.	TWO LANES SOUTHBOUND ON EAST HALF OF MAIN, ONE LANE WESTBOUND AND ONE LEFT TURN ONLY LANE ON 2ND, ONE LANE EACH WAY ON 3RD AND CENTRAL.	1A, 1C, 2A, 2B, 2C	PARKING ON SOUTH SIDE OF 2ND TO BE ELIMINATED DURING CONSTRUCTION AS NECESSARY.
1C	WEST HALF IMPROVEMENTS, C.L. OF CENTRAL TO STA. 37+83.	TWO LANES SOUTHBOUND ON EAST HALF OF MAIN, ONE LANE EACH WAY ON CENTRAL.	1A, 1B, 2A, 2B, 2C	MAINTAIN TWO LANES OF TRAFFIC ON MAIN AT ALL TIMES.
2A	EAST HALF IMPROVEMENTS, FROM N.L. OF DOUGLAS TO THE S.L. OF 3RD STREET AND FROM STA. 37+83 TO THE S.L. OF MURDOCK.	TWO LANES SOUTHBOUND ON WEST HALF OF MAIN, ONE LANE EASTBOUND AND ONE RIGHT TURN ONLY LANE ON FIRST, ONE LANE WESTBOUND AND ONE LEFT TURN ONLY LANE ON 2ND, ONE LANE EACH WAY ON 3RD.	1A, 1B, 1C, 2B, 2C	CLOSE DRIVES AT 11+80, 21+09. MAINTAIN ALL OTHER DRIVE AND ALLEY ACCESS DURING CONSTRUCTION. PARKING ON 1ST, 2ND, AND 3RD TO BE ELIMINATED DURING CONSTRUCTION ONLY AS NECESSARY.
2B	EAST HALF IMPROVEMENTS FROM S.L. OF 3RD STREET TO C.L. OF CENTRAL	TWO LANES SOUTHBOUND ON WEST HALF OF MAIN, ONE LANE EACH WAY ON 3RD AND CENTRAL.	1A, 1B, 1C, 2A, 2C	PARKING ON SOUTH SIDE OF 1ST, 2ND, AND 3RD TO BE ELIMINATED DURING CONSTRUCTION AS NECESSARY.
2C	EAST HALF IMPROVEMENTS FROM C.L. OF CENTRAL TO STA. 37+83.	TWO LANES SOUTHBOUND ON WEST HALF OF MAIN, ONE LANE EACH WAY ON 3RD AND CENTRAL.	1A, 1B, 1C, 2A, 2B	PARKING ON SOUTH SIDE OF 1ST, 2ND, AND 3RD TO BE ELIMINATED DURING CONSTRUCTION AS NECESSARY.

IN ADDITION TO UTILITY COMPANIES, THE CONTRACTOR SHALL CONTACT THE FOLLOWING PRIOR TO CONSTRUCTION TO COORDINATE TRAFFIC CONTROL AND ACCESS ISSUES:

SEDGWICK COUNTY COURTHOUSE
KRISTY ZUKOVICH, COMMUNICATIONS DIRECTOR
(316) 660-9370

UNITED STATES COURTHOUSE
ROGER HINSHAW, BUILDING SUPERINTENDENT
(316) 269-6582

CITY OF WICHITA
JAMES ARMOUR, PROJECT ENGINEER
(316) 268-4501

CITY OF WICHITA FIRE DEPARTMENT
CHIEF LARRY GARCIA
(316) 268-4652

AMPCO PARKING SYSTEM
MARSHA CAVENDER, CITY MANAGER, (316) 265-4209
WAYNE NOBLE, FACILITIES MANAGER, (316) 264-0585

COMMERCIAL FEDERAL BANK
CHRISTINA STOVALL, BRANCH MANAGER
(316) 264-4133 OR (316) 634-3800

INTRUST BANK
JOHN VANROEKEL, FACILITIES MANAGEMENT OFFICER, (316) 383-1156
DOUG WINKLEY, VICE PRESIDENT, PHYSICAL RESOURCES, (316) 383-1402

COMMERCE BANK
GEORGE MATTERN, MAINTENANCE SUPERVISOR
(316) 261-4833

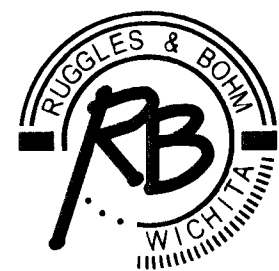
BETTER BOOK ROOM
TIM JOHNSON, OWNER
(316) 265-4281

SECURITY TITLE
CRAIG BURNS
(316) 267-8371

IN ADDITION TO THE CONTACTS LISTED ABOVE, THE CONTRACTOR SHALL CONTACT ALL OTHER PROPERTY OWNERS AND/OR TENANTS ADJACENT TO THIS PROJECT AT LEAST TEN DAYS PRIOR TO CONSTRUCTION.

REVISED June 3, 2003

CONSTRUCTION PHASING PLANS
SEQUENCE TABLE
WICHITA, KANSAS

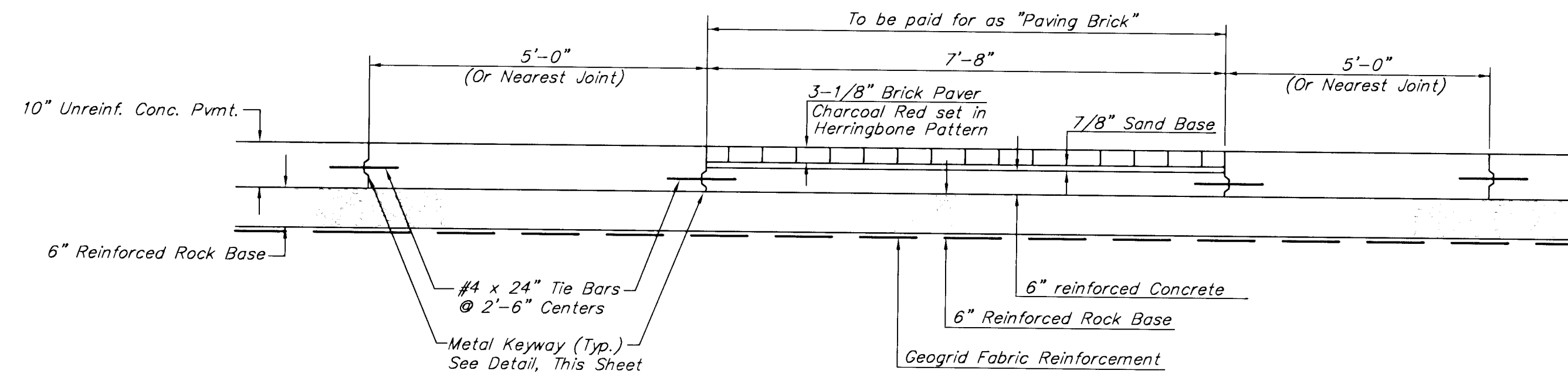


Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning

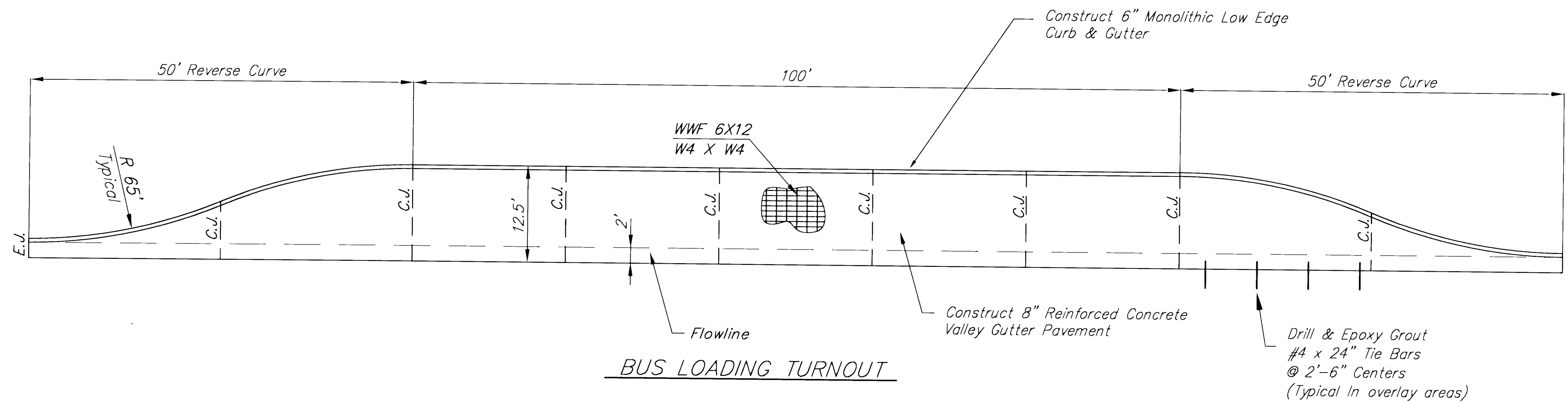
924 North Main (316) 264-8008
Wichita, Kansas 67203 (316) 264-4621 fax
www.rbkansas.com E-mail: info@rbkansas.com

DRAWING FILE PROJECT NUMBER
CONST PHASING {sh 3} 472-83811

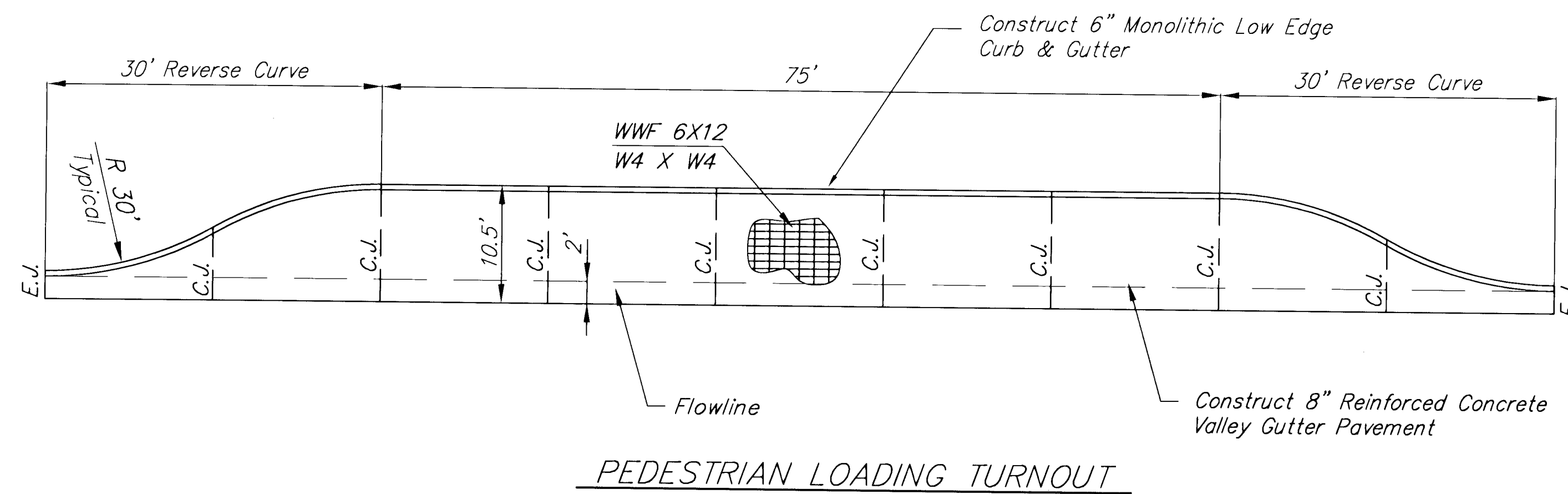
DESIGN KWL	RB JOB 2137
DRAWN RA	SHEET 20
REVIEW	OF 28
UTILITY	DATE Apr. 21, 2004



INTERSECTION BRICK PAVER DETAIL

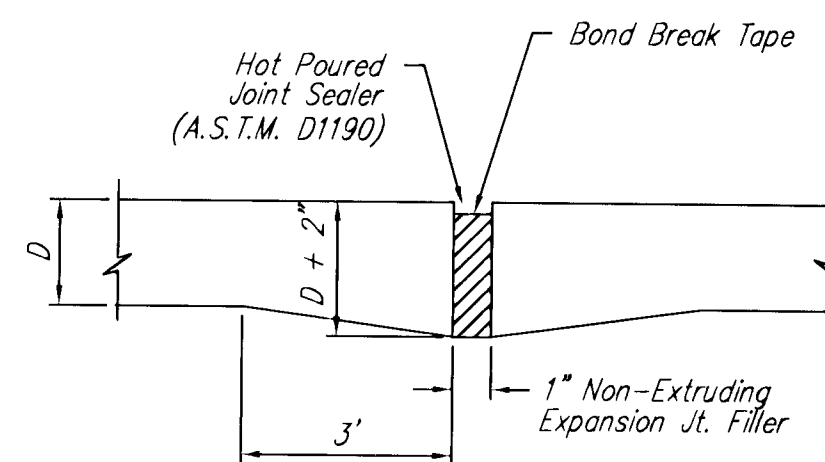


BUS LOADING TURNOUT



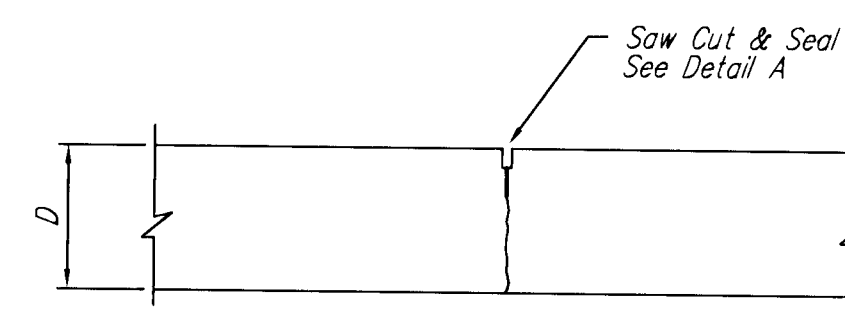
PEDESTRIAN LOADING TURNOUT

D = 10" for Concrete Intersection
D = 8" for Concrete Valley Gutter Pavement

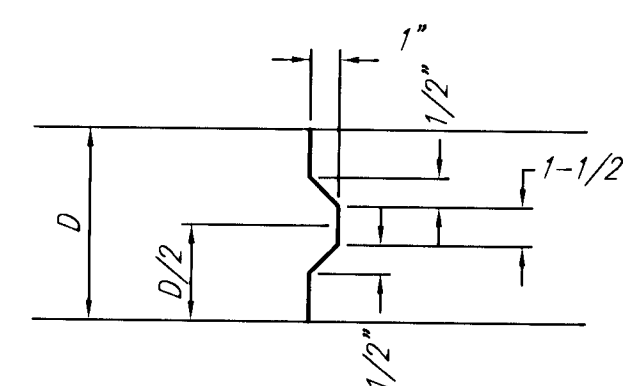


EXPANSION JOINT

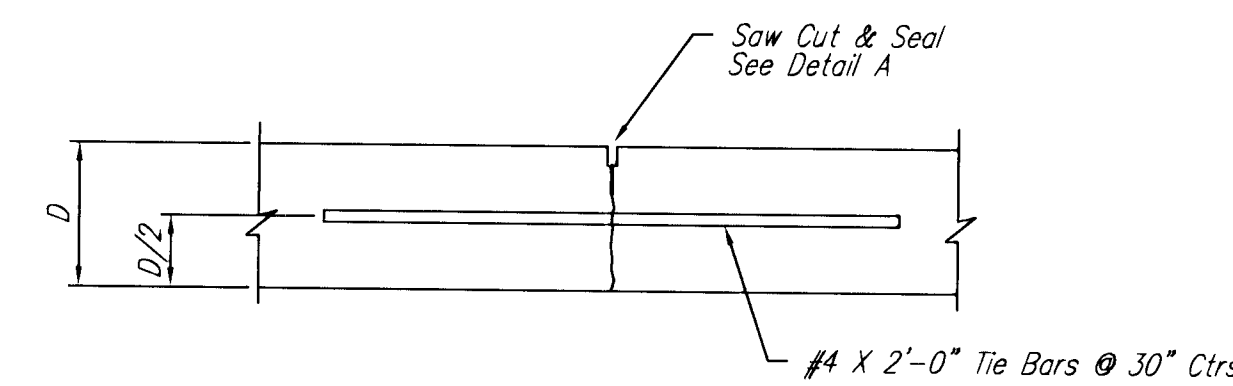
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



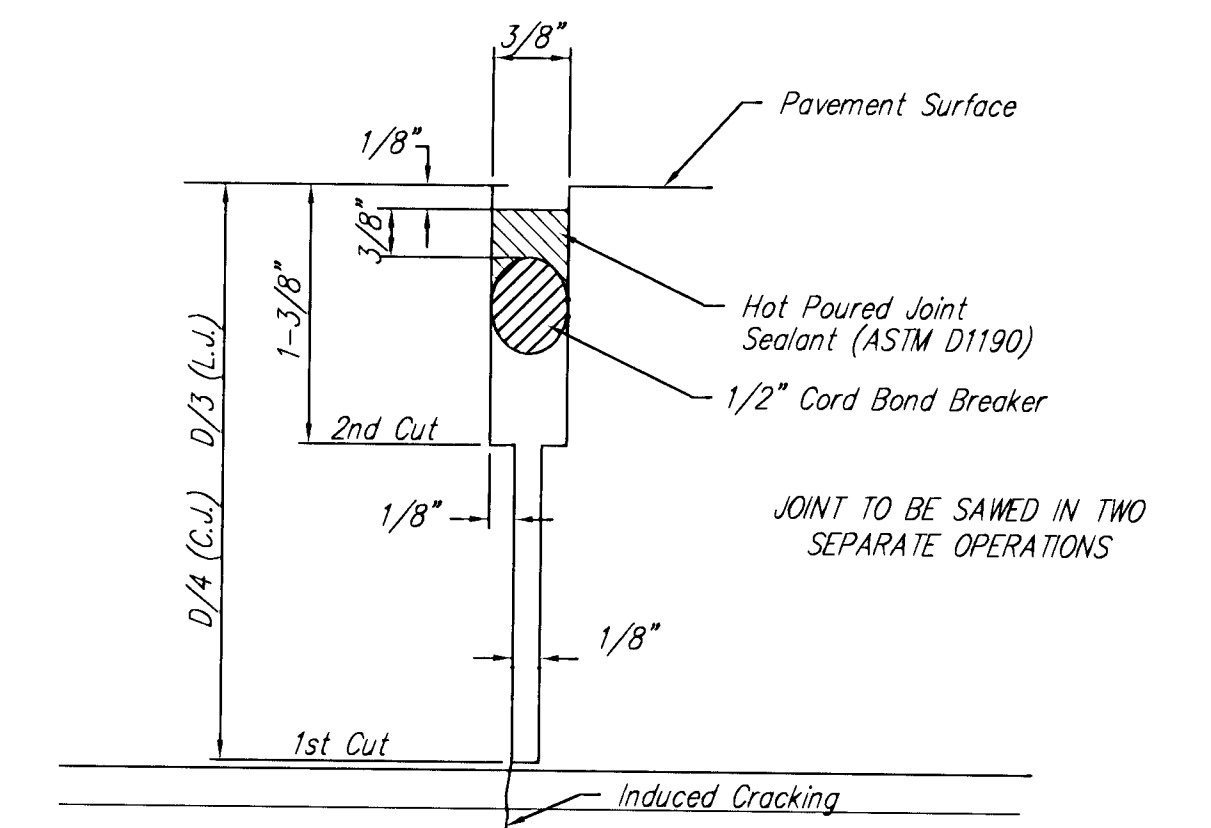
CONTRACTION JOINT DETAIL (C.J.)



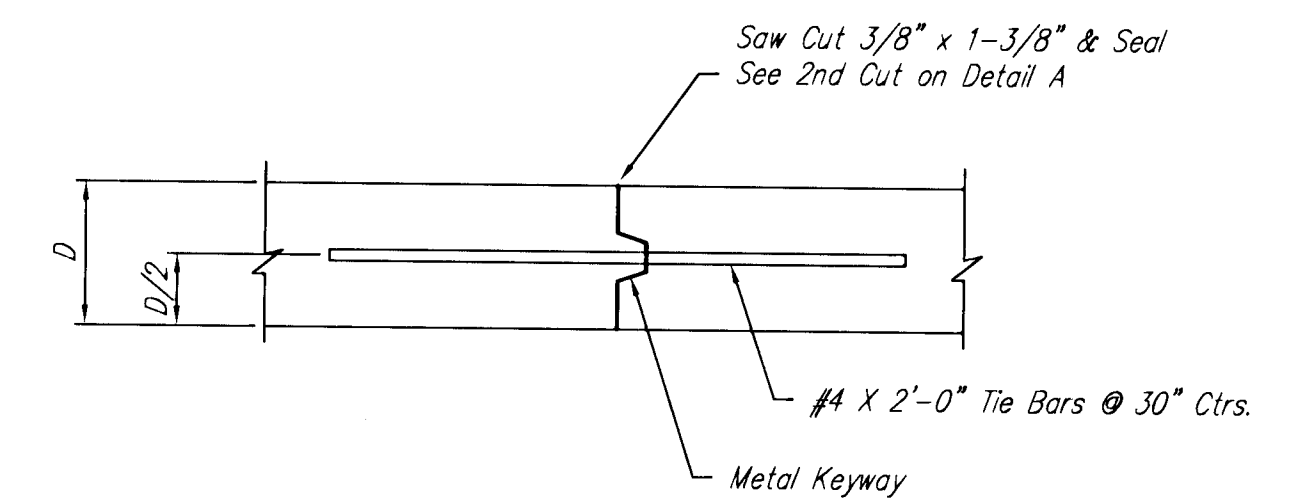
KEYWAY DETAIL



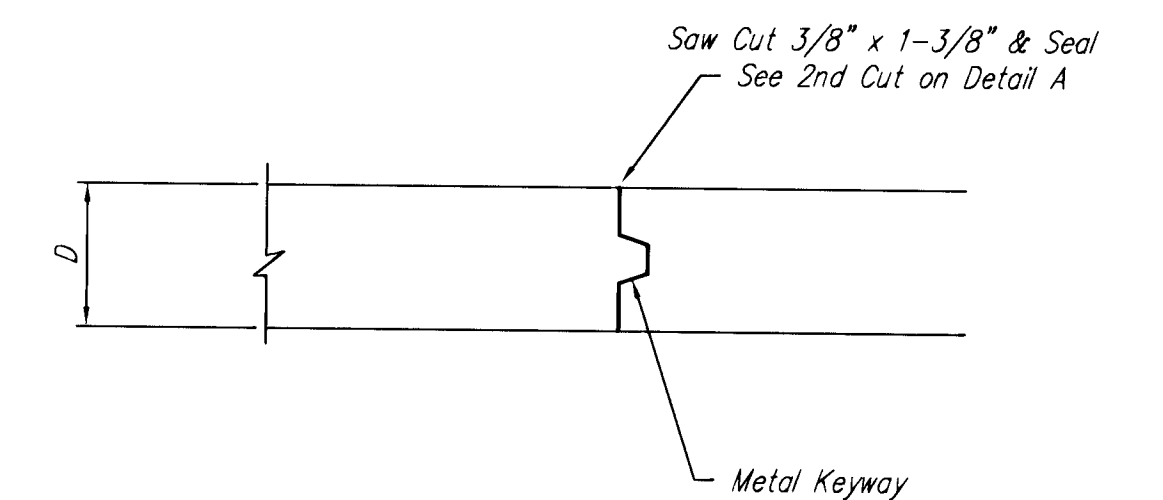
LONGITUDINAL JOINT DETAIL (L.J.)



SAW JOINT - DETAIL A

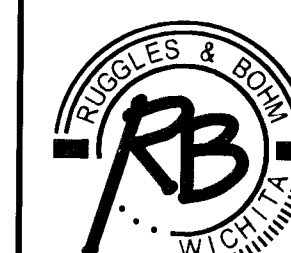


OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.)



OPTIONAL CONTRACTION JOINT

MAIN STREET PAVING IMPROVEMENTS
PAVING DETAILS
WICHITA, KANSAS



Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main
Wichita, Kansas 67203
www.rbkansas.com
(316) 264-8008
(316) 264-4621 fax
E-mail: info@rbkansas.com

DRAWING FILE
paving {intsec detls}

PROJECT NUMBER
472-83811

DESIGN KWL	SHEET 3 OF 28
DRAWN RA	
REVIEW	
UTILITY	
DATE Apr. 22, 2004	

GENERAL NOTES

1. CHANNELIZING DEVICES: "DEVICES" INCLUDES BUT IS NOT LIMITED TO BARRICADES, BARRIERS, CONES, DRUMS AND VERTICAL PANELS.

(A) THE MAXIMUM SPACING BETWEEN DEVICES IN THE TAPER SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO THE SPEED LIMIT (IN MPH) PRIOR TO WORK.

(B) THE SPACING BETWEEN DEVICES IN THE WORK ZONE SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO TWICE THE POSTED SPEED (MPH).

(C) WHERE EXISTING CONDITIONS WARRANT, THE ENGINEER MAY REQUIRE A DECREASE IN THE SPACING STIPULATED ABOVE.

(D) TRAFFIC CONES MAY BE UTILIZED AS CHANNELIZING DEVICES FOR DAY-TIME TRAFFIC CONTROL OPERATIONS. THE ENGINEER MAY REQUIRE THAT CONES BE SUPPLEMENTED BY OTHER TRAFFIC CONTROL DEVICES IN CERTAIN SITUATIONS SUCH AS OPEN TRENCHES.

2. COVERING OF SIGNS NOT IN USE:

WHEN NO WORK IS IN PROGRESS NOR IS ANY EXPECTED TO BE FOR AN EXTENDED PERIOD OF TIME, AND THE ROADWAY IS UNRESTRICTED TO THE TRAVELING PUBLIC, TRAFFIC CONTROL SIGNS SHALL BE REMOVED OR COMPLETELY COVERED WITH ADEQUATE OPAQUE WATERPROOF MATERIAL. TAPE SHALL NOT BE APPLIED TO THE FACE OF A SIGN.

3. CLEAR ZONE:

WHENEVER PRACTICAL, ALL CONSTRUCTION EQUIPMENT, MATERIALS, AND DEBRIS SHALL BE STORED OUT OF THE CLEAR ZONE. WHERE THIS CANNOT BE ACHIEVED, THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNS AND/OR BARRICADES AS DESIGNATED BY THE ENGINEER. TRAFFIC CONTROL DEVICES NEEDED FOR THIS CONDITION SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS.

4. MAINTENANCE:

THE CONTRACTOR SHALL MAINTAIN ALL SIGNS AND DEVICES IN THEIR PROPER POSITION AND CLEAN AND/OR REPLACE ANY DAMAGED OR ILLEGIBLE SIGN OR DEVICE AS DIRECTED BY THE ENGINEER.

5. TAPER FORMULAS:

L = WS FOR SPEEDS OF 45 MPH OR MORE

L = WS²/60 FOR SPEEDS OF 40 MPH OR LESS

WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
S = NUMERICAL VALUE OF POSTED SPEED PRIOR TO WORK IN MPH
W = WIDTH OF OFFSET IN FEET

6. PAVEMENT MARKINGS:

(A) TYPE I TAPE IS TO BE APPLIED TO A FINAL SURFACE AS A TEMPORARY MARKING WHEN THE PATTERN OF THE PERMANENT MARKINGS WILL BE DIFFERENT THAN THE TEMPORARY MARKING.

TYPE II TAPE IS TO BE APPLIED TO A TEMPORARY SURFACE THAT IS TO BE REMOVED OR COVERED BY FUTURE CONSTRUCTION. TYPE II TAPE IS ALSO TO BE APPLIED TO A FINAL SURFACE WHERE IT IS KNOWN THERE WILL BE PERMANENT MARKINGS PLACED IN THE SAME PATTERN AS THE TEMPORARY TYPE II TAPE.

(B) ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED AND ALL TRANSITION TAPERS, CROSSTOVERS, AND EDGE LINES ALONG CHANNELIZING DEVICES SHALL BE MARKED WITH SOLID 4" WIDE PAVEMENT MARKING TAPE WHEN THE WORK WILL OCCUPY A LOCATION MORE THAN THREE DAYS.

7. TEMPORARY AND POST MOUNTED SIGNS:

TRAFFIC CONTROL PLANS THAT ARE ANTICIPATED TO REMAIN IN PLACE DURING DAYLIGHT HOURS ONLY ARE CONSIDERED "TEMPORARY". TEMPORARY SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 1'. TRAFFIC CONTROL PLANS OF LONGER DURATION WILL REQUIRE THAT ALL SIGNS BE POST MOUNTED AT A MINIMUM HEIGHT OF 6.5'.

8. EXISTING SIGNS:

IF EXISTING SIGNS THAT ARE TO REMAIN (OR THAT ARE TO BE REMOVED AND RESET) INTERFERE WITH CONSTRUCTION WORK, THE CONTRACTOR SHALL REMOVE, STORE, AND RESET THE SIGNS. THIS SHALL BE SUBSIDIARY TO OTHER TRAFFIC CONTROL BID ITEMS.

9. CONFLICTING SIGNS:

ALL PERMANENT AND TEMPORARY SIGNING WHICH IS IN CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE REMOVED OR COVERED.

10. MINIMUM LANE WIDTHS:

LANE WIDTHS SHALL BE A MINIMUM OF 11' (MEASURED BETWEEN CENTERLINES OF PAVEMENT MARKINGS), OR AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. A LANE WIDTH LESS THAN 11' MAY REQUIRE RESTRICTED ROADWAY WIDTH SIGNING.

11. FLAGGER:

A MINIMUM OF ONE FLAGGER SHALL BE STATIONED WITHIN EACH INTERSTATE WORK AREA WHERE WORK IS ADJACENT TO TRAFFIC.

12. BARRICADES:

TYPE III BARRICADES PLACED ACROSS A ROADWAY SHALL BE SUITABLY DISTRIBUTED ACROSS THE ROADWAY TO EFFECTIVELY CLOSE THE ROADWAY. WHERE PROVISION IS MADE FOR ACCESS BY AUTHORIZED VEHICLES, THE BARRICADES SHALL CLOSE THE ROAD AT THE END OF THE WORK DAY. WHEN ACCESS MUST BE ALLOWED FOR LOCAL TRAFFIC, THE TYPE III BARRICADES SHOULD BE STAGGERED.

SIGN SPACING :

	A	B	C
URBAN (40 MPH OR LOWER)	200'	200'	200'
URBAN (45 MPH OR HIGHER)	375'	375'	375'
RURAL	500'	500'	500'
EXPRESSWAY/FREEWAY	1000'	1750'	2700'

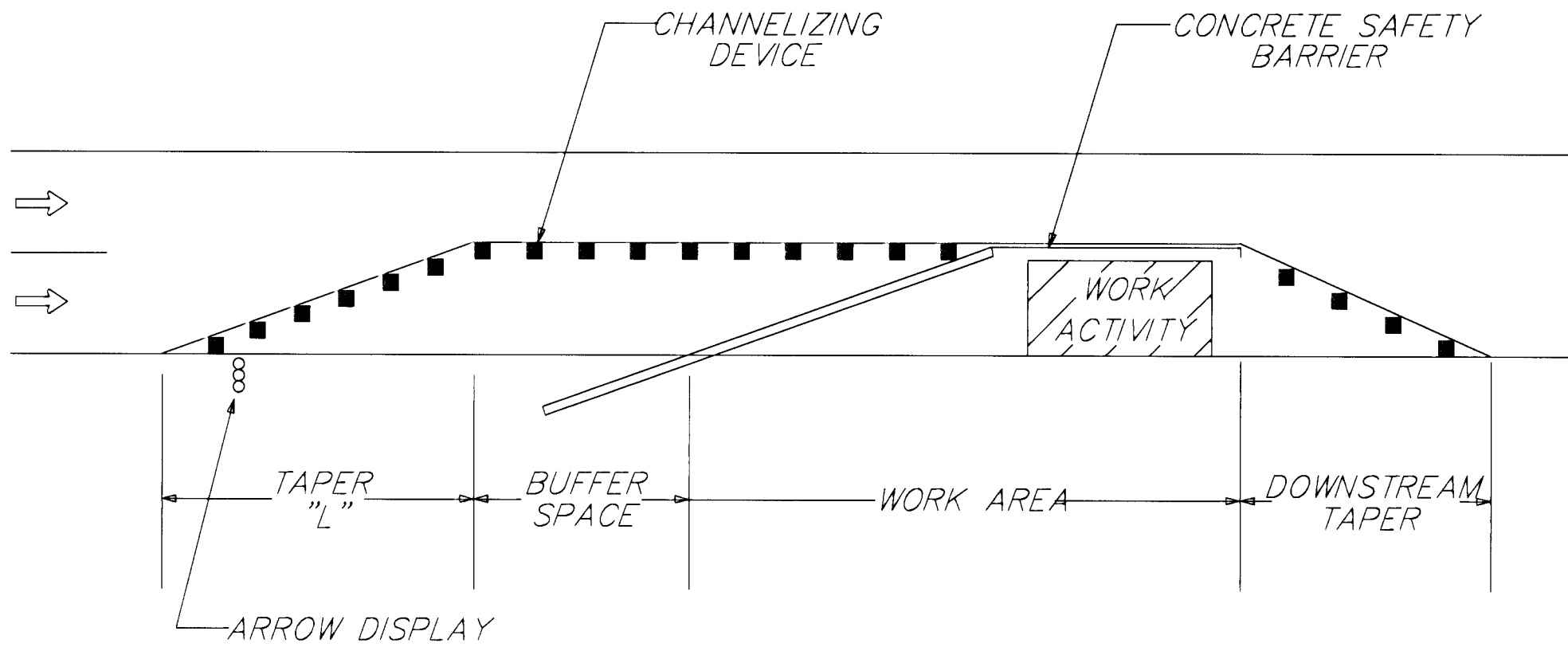
IN NO CASE SHALL THE SPACING BETWEEN SIGNS BE LESS THAN 100'.

BUFFER SPACE:

SPEED (MPH)	20	25	30	35	40	45	50	55	60	65	70
LENGTH (m)	30'	50'	80'	115'	165'	215'	275'	350'	125	500'	575'

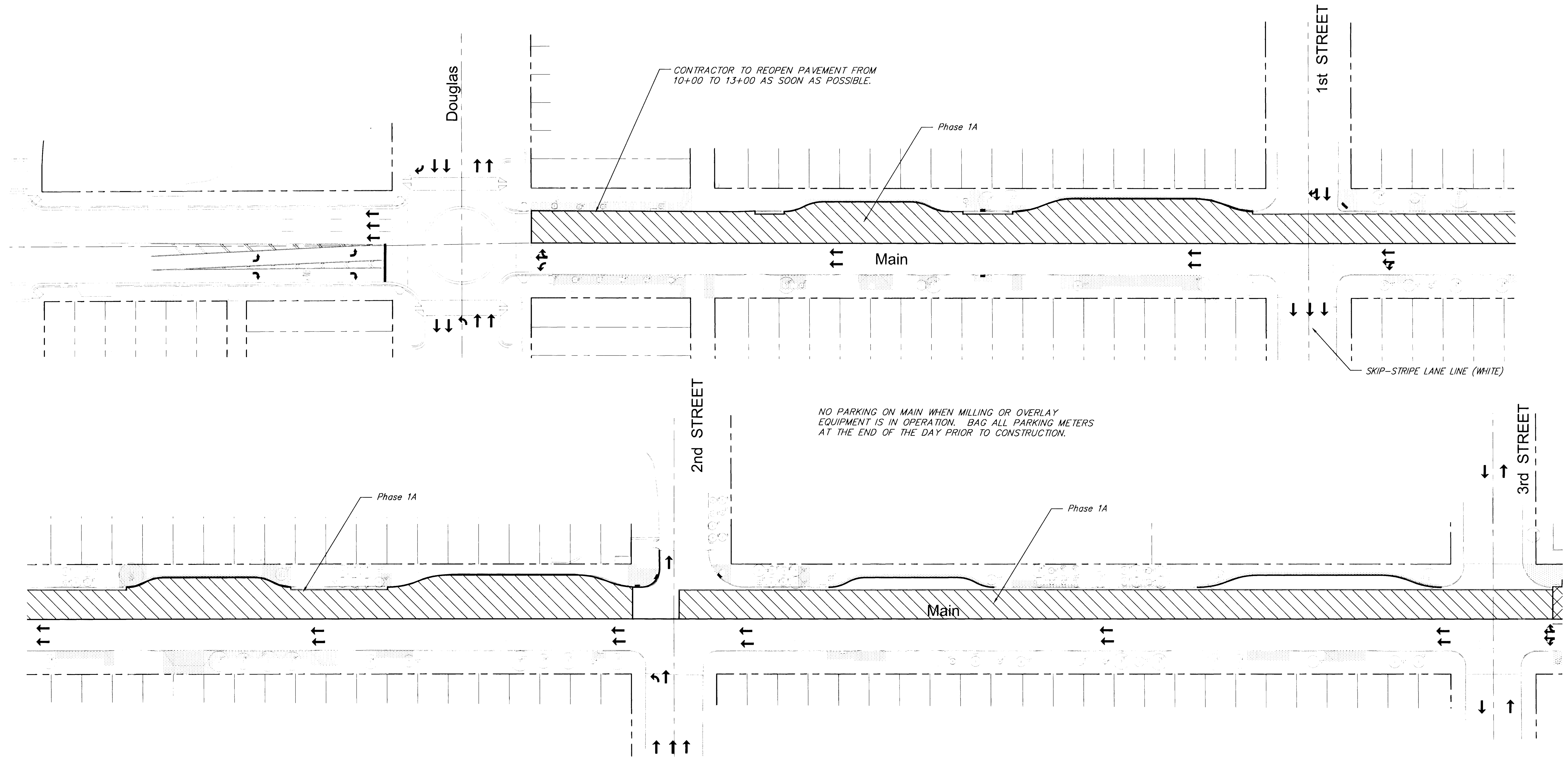
NEITHER WORK ACTIVITY NOR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR IN THE BUFFER SPACE. WHEN A PROTECTION VEHICLE IS PLACED IN ADVANCE OF THE WORK SPACE, ONLY THE SPACE UPSTREAM OF THE VEHICLE CONSTITUTES THE BUFFER SPACE.

IF TEMPORARY CONCRETE SAFETY BARRIER IS USED TO SEPARATE APPROACHING TRAFFIC FROM THE WORK ACTIVITY, THE BARRIER SHALL BE CONSIDERED PART OF THE WORK AREA. A FULL LANE WIDTH SHOULD BE AVAILABLE THROUGHOUT THE LENGTH OF THE BUFFER SPACE. FOR EXAMPLE:



REVISED June 3, 2003

TRAFFIC CONTROL GENERAL NOTES WICHITA, KANSAS			
	Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning		DESIGN KML
	924 North Main Wichita, Kansas 67203 www.rbkansas.com		DRAWN RA
	(316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com		REVIEW
DRAWING FILE CONST PHASING {sh 3}		PROJECT NUMBER 472-83811	DATE Apr. 21, 2004
			UTILITY
			DATE
			Apr. 21, 2004
			SHEET 21 OF 28

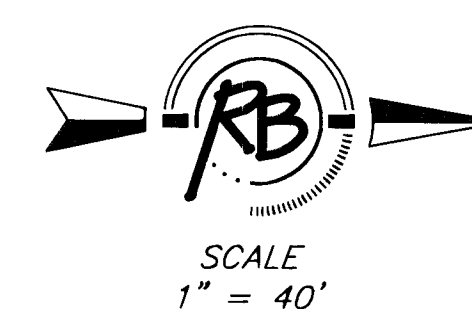


ARROWS INDICATED ON THIS SHEET ARE FOR LANE MOVEMENT ONLY. NO ARROWS ARE REQUIRED FOR TEMPORARY TRAFFIC CONTROL. LANE TRANSITIONS INDICATED ON THIS SHEET ARE SCHEMATIC. LANE TRANSITIONS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE DETAILS ON SHEET 37.

REFLECTORIZED VERTICAL PANELS CAN BE SUBSTITUTED FOR REFLECTORIZED DRUMS TO ALLOW ADEQUATE LANE WIDTHS.

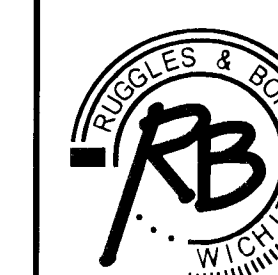
CONTRACTOR TO ADJUST TRAFFIC CONTROL AS NECESSARY TO PROVIDE AT LEAST ONE LANE OF ACCESS TO DRIVEWAYS AND ALLEYS UNLESS OTHERWISE INDICATED IN THE CONSTRUCTION PHASING TABLE.

TRAFFIC CONTROL FOR MILLING AND JOINT REPAIR AREAS WILL BE IMPLEMENTED ONLY IN AREAS WHERE ACTUAL JOINT REPAIR AND OTHER OPERATIONS ARE BEING PERFORMED. THE TRAFFIC CONTROL SHALL COMPLY WITH THE DETAIL ON THE TRAFFIC CONTROL GENERAL NOTES SHEET. TWO LANES OF SOUTHBOUND TRAFFIC SHALL BE MAINTAINED ON MAIN STREET AND ONE LANE TRAFFIC EACH WAY SHALL BE MAINTAINED ON ALL SIDE STREETS. THE CONTRACTOR SHALL COORDINATE THEIR OPERATIONS TO ENSURE THAT LOCAL TRAFFIC TO BUSINESSES IS NOT INTERRUPTED.



REVISED June 3, 2003

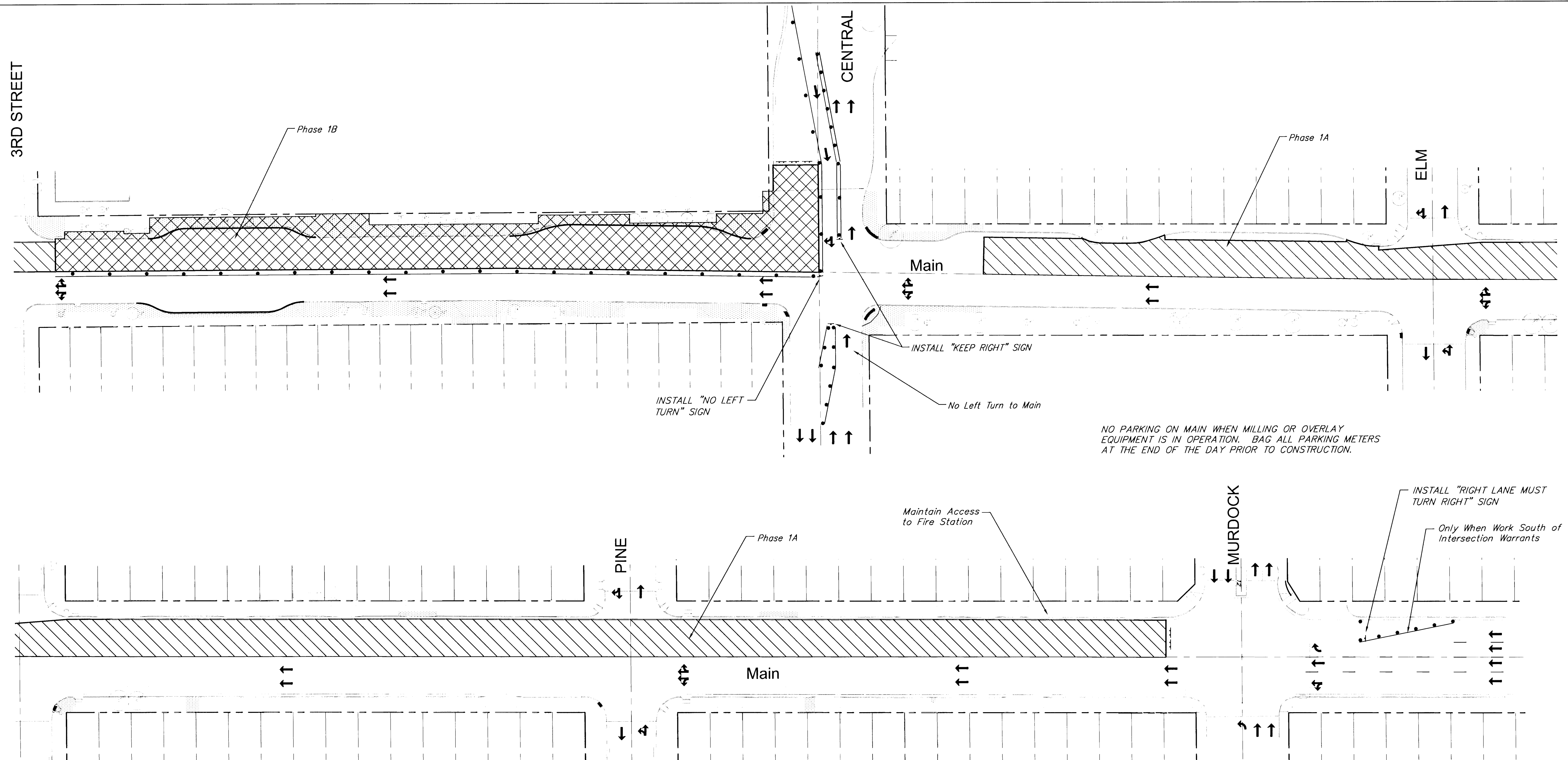
CONSTRUCTION PHASING PLANS
PHASE 1A - STA. 6+00 to 30+00
WICHITA, KANSAS



Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main
Wichita, Kansas 67203
www.rbkansas.com
(316) 264-8008
(316) 264-4621 fax
E-mail: info@rbkansas.com

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CONST PHASING {sh 1}
PROJECT NUMBER
472-83811
DATE
Apr. 21, 2004

DESIGN KWL	SHEET 22 OF 28
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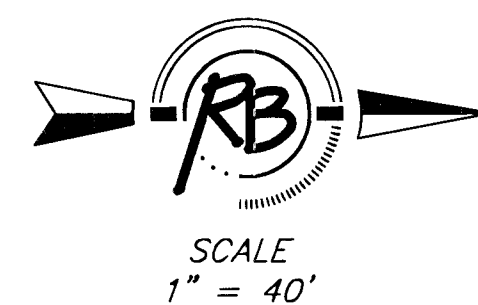


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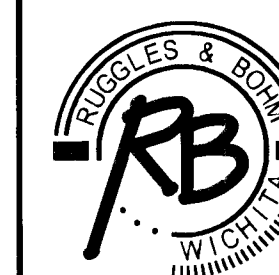
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REVISED June 3, 2003

**CONSTRUCTION PHASING PLANS
PHASE 1A - STA. 30+00 to 51+00
WICHITA, KANSAS**

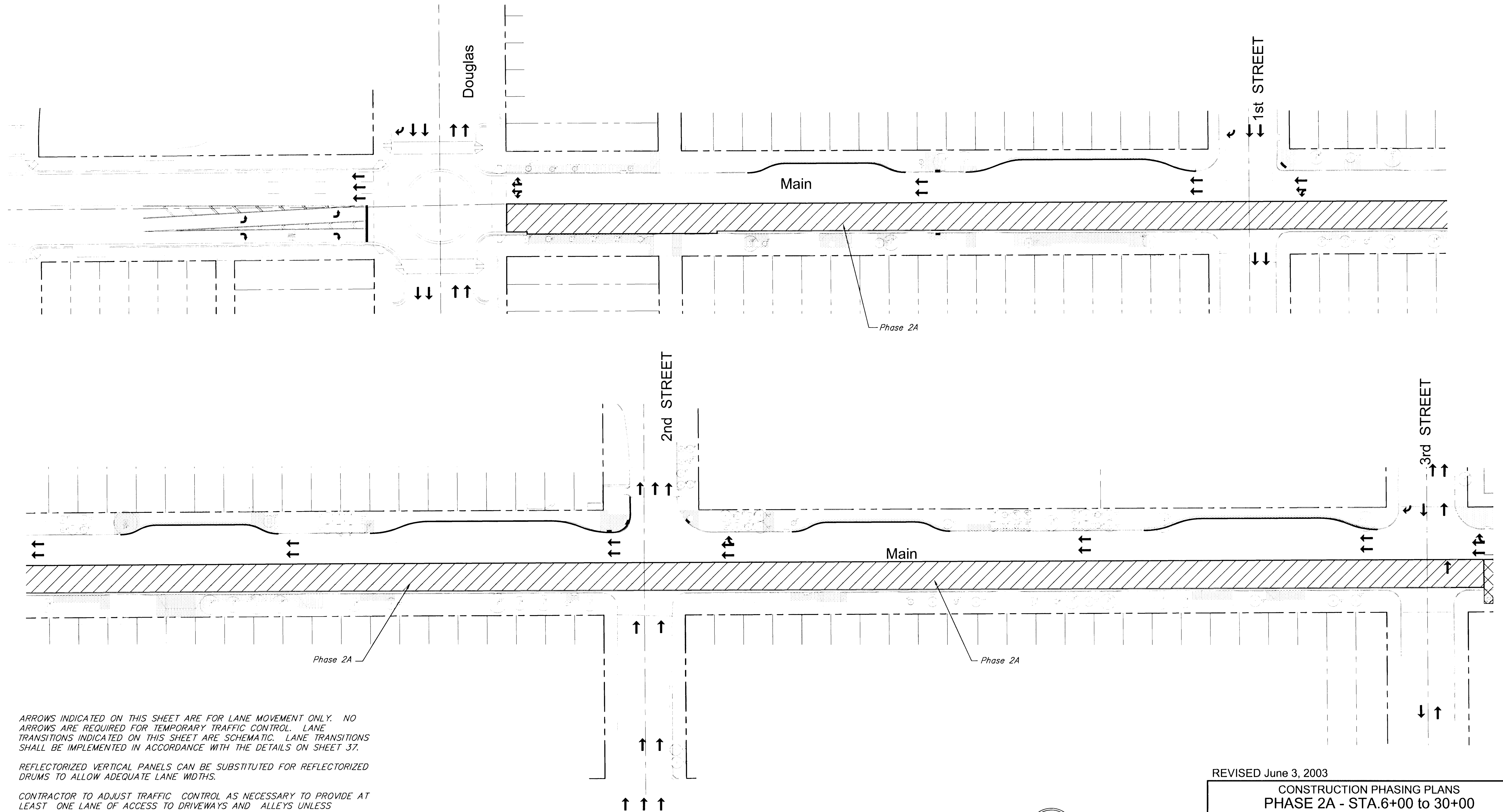


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Engineering, Surveying, Land Planning

924 North Main
Wichita, Kansas 67203
www.rbkansas.com
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(316) 264-4621 fax
E-mail: info@rbkansas.com

DRAWING FILE
CONST PHASING {sh 2}
PROJECT NUMBER
DATE
Mar. 17, 2004

DESIGN KWL	REVIEW RA	DATE Mar. 17, 2004
REVISION 2137	SHEET 23	OF 28

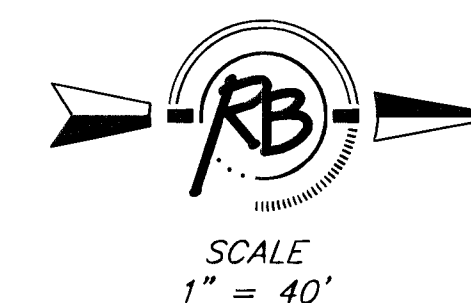


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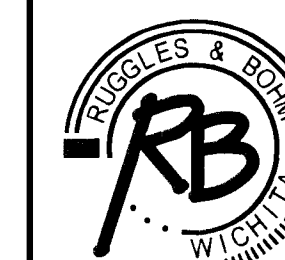
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REVISED June 3, 2003

CONSTRUCTION PHASING PLANS
PHASE 2A - STA.6+00 to 30+00
WICHITA, KANSAS



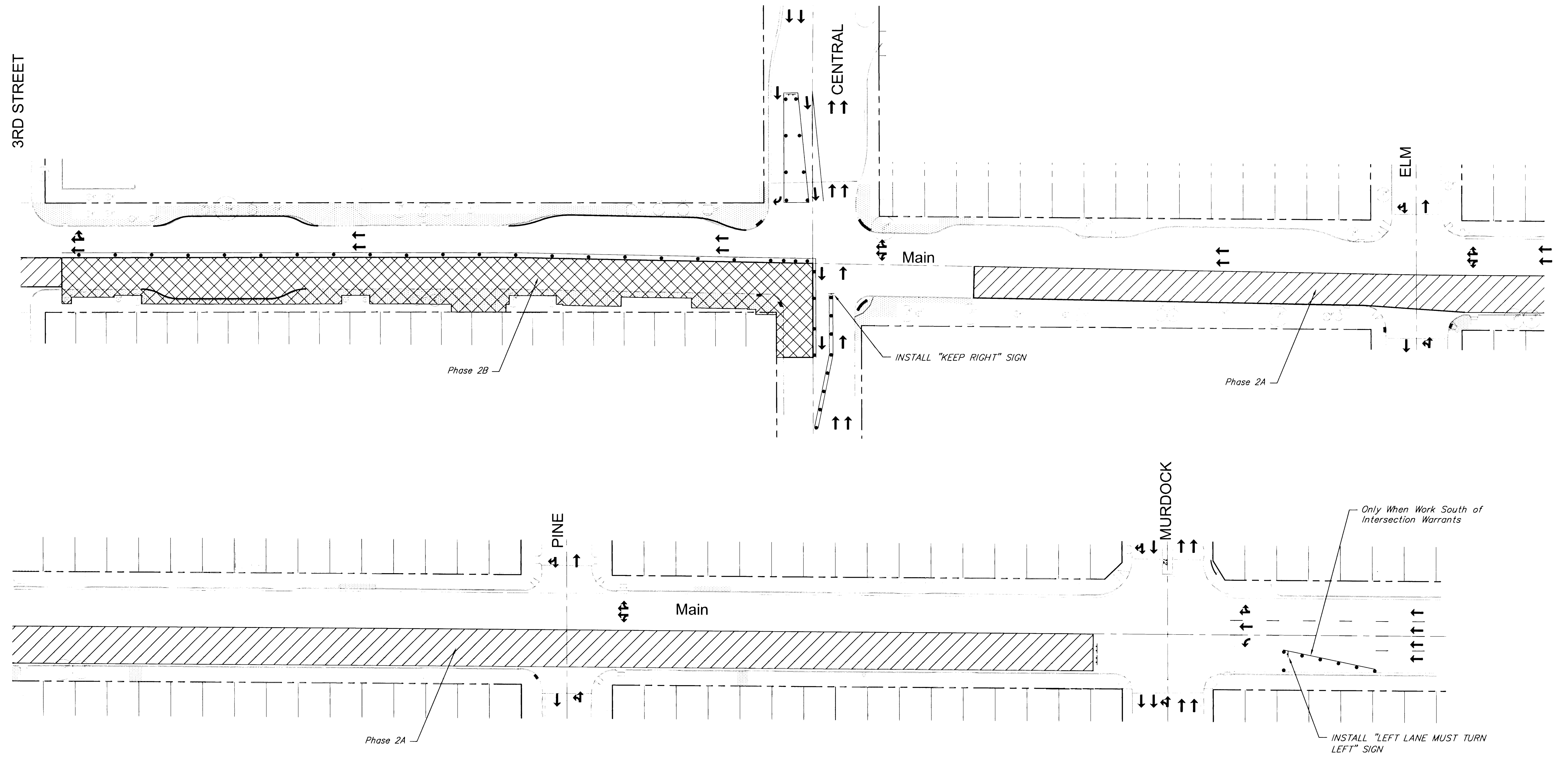
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CONST PHASING {sh 1}

PROJECT NUMBER
472-83811

DESIGN KWL	SHEET 24 OF 28
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REVIEW	
UTILITY	
DATE Apr. 21, 2004	

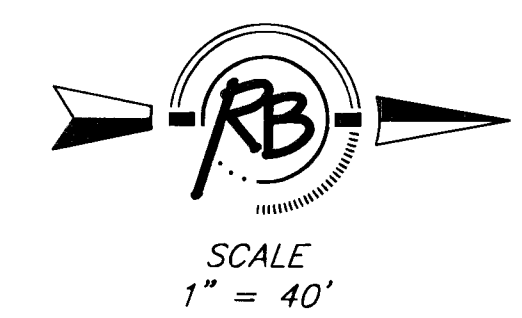


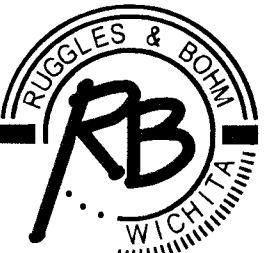
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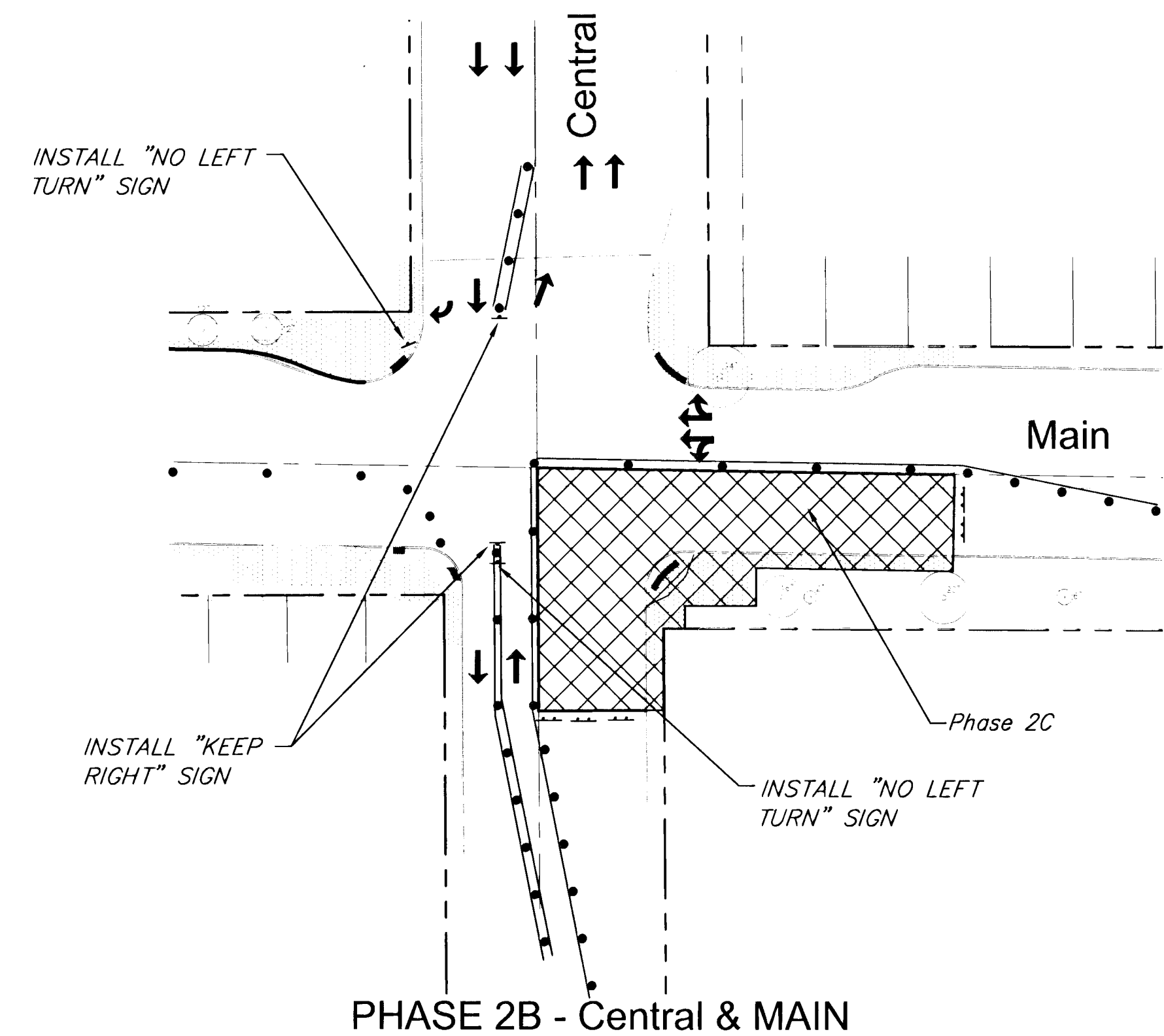
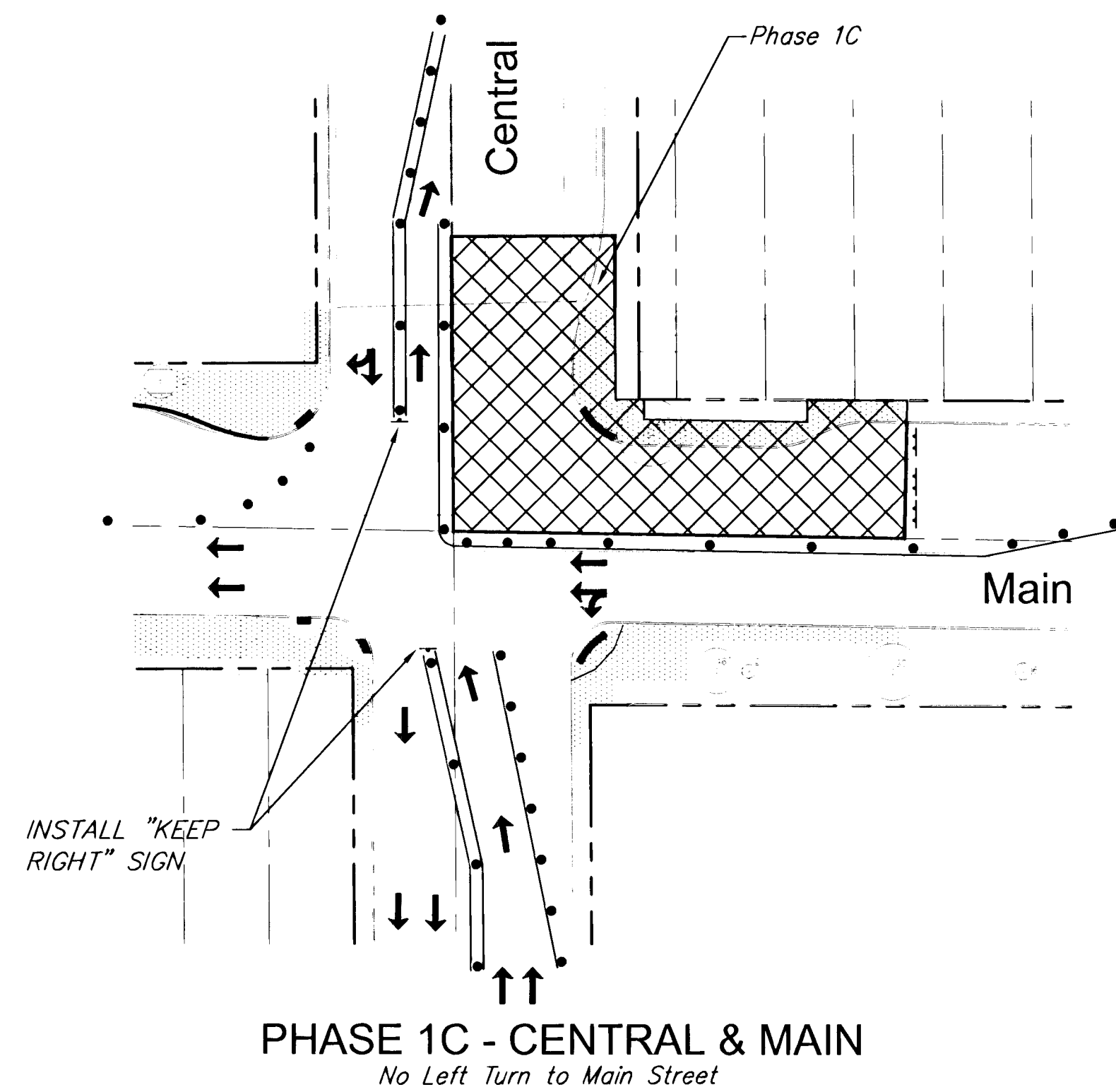
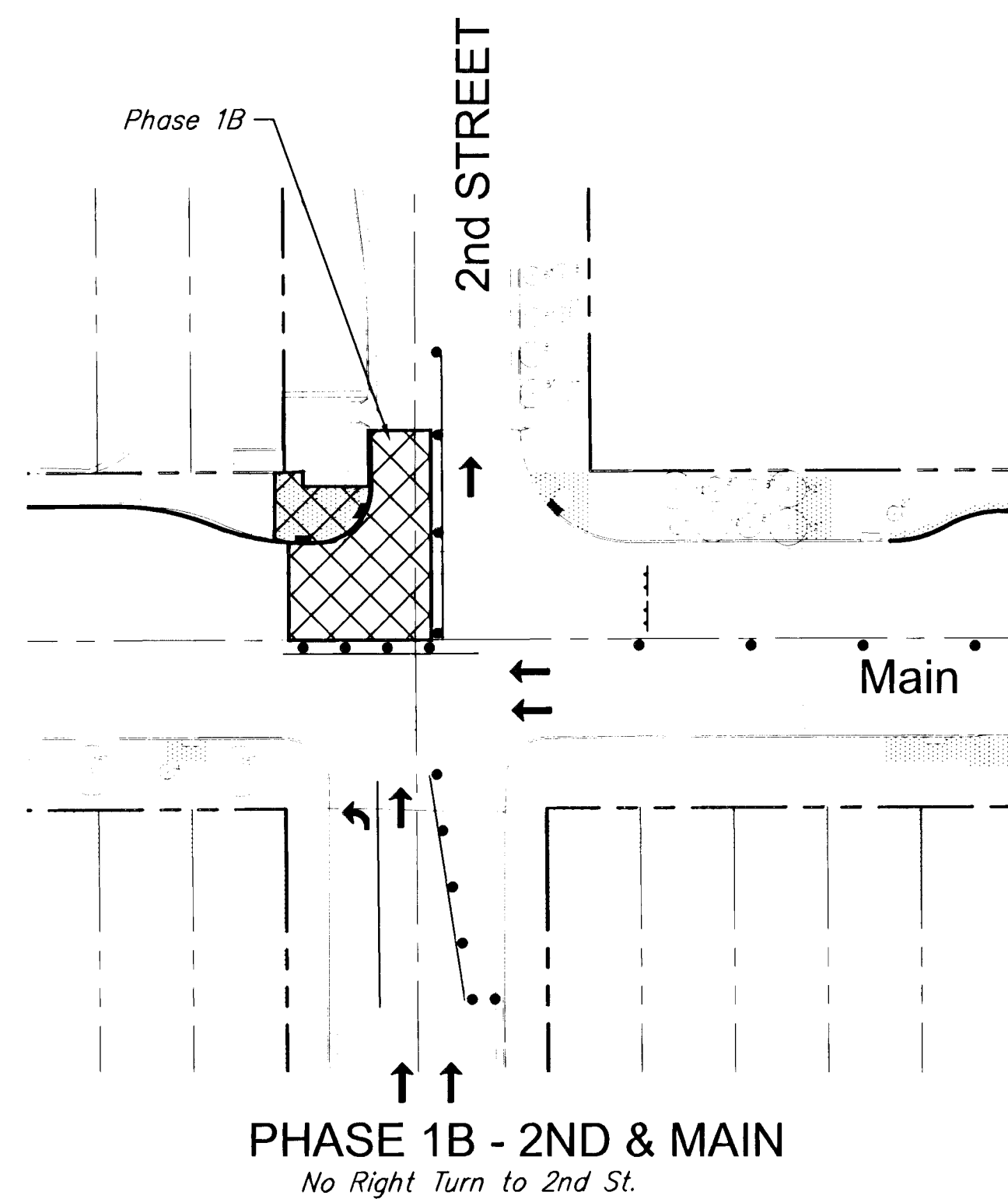
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CONSTRUCTION PHASING PLANS PHASE 2A - STA. 30+00 to 51+00 WICHITA, KANSAS			
 Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning 924 North Main Wichita, Kansas 67203 www.rbkansas.com (316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com	DESIGN KWL	RB JOB 2337T SHEET 25 OF 28	
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DRAWING FILE CONST PHASING [sh 2]	PROJECT NUMBER 472-83811	DATE Apr. 21, 2004	

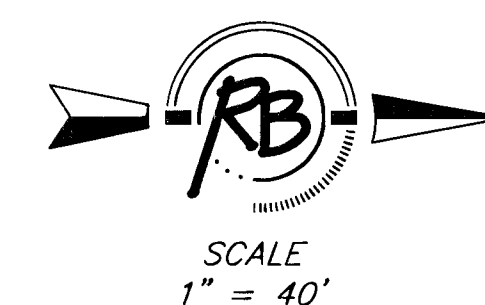


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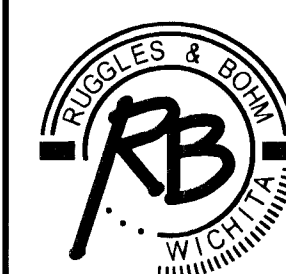
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REVISED June 3, 2003

CONSTRUCTION PHASING PLANS
PHASES 1B, 1C & 2C
WICHITA, KANSAS

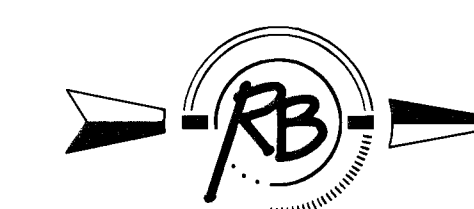


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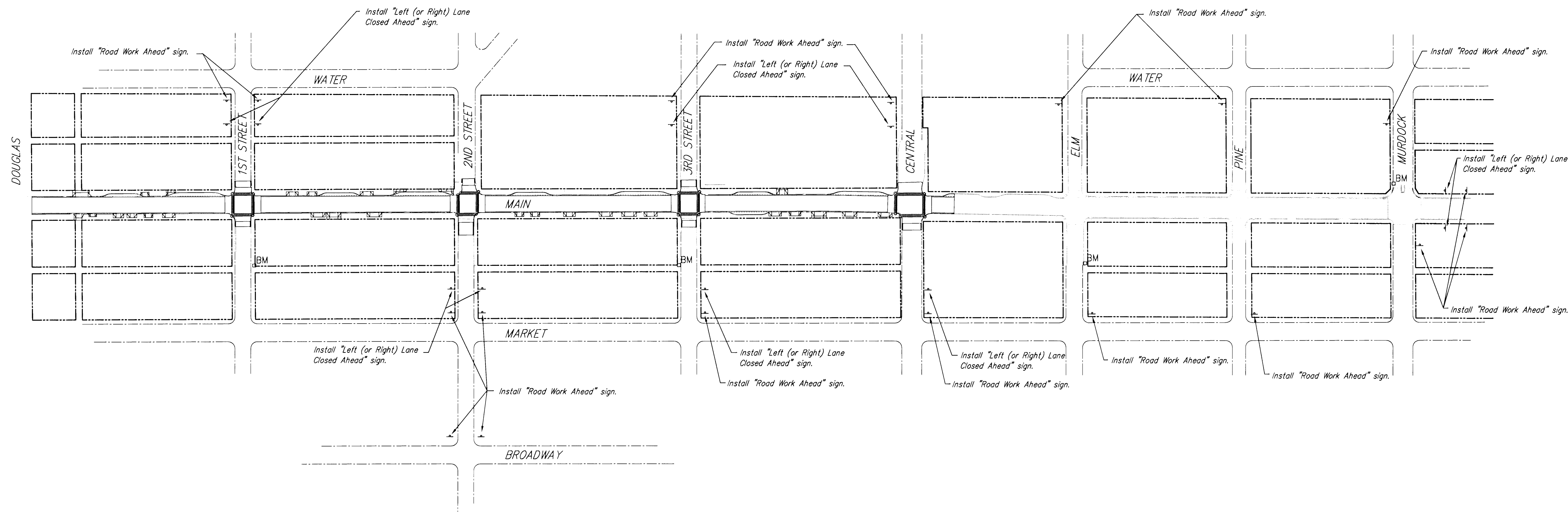
924 North Main (316) 264-8008
Wichita, Kansas 67203 (316) 264-4621 fax
www.rbkansas.com E-mail: info@rbkansas.com

DRAWING FILE PROJECT NUMBER
CONST PHASING {sh 1} 472-83811

DESIGN KWL	SHEET 26 OF 28
DRAWN RA	
REVIEW	DATE Apr. 21, 2004
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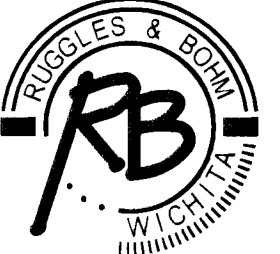


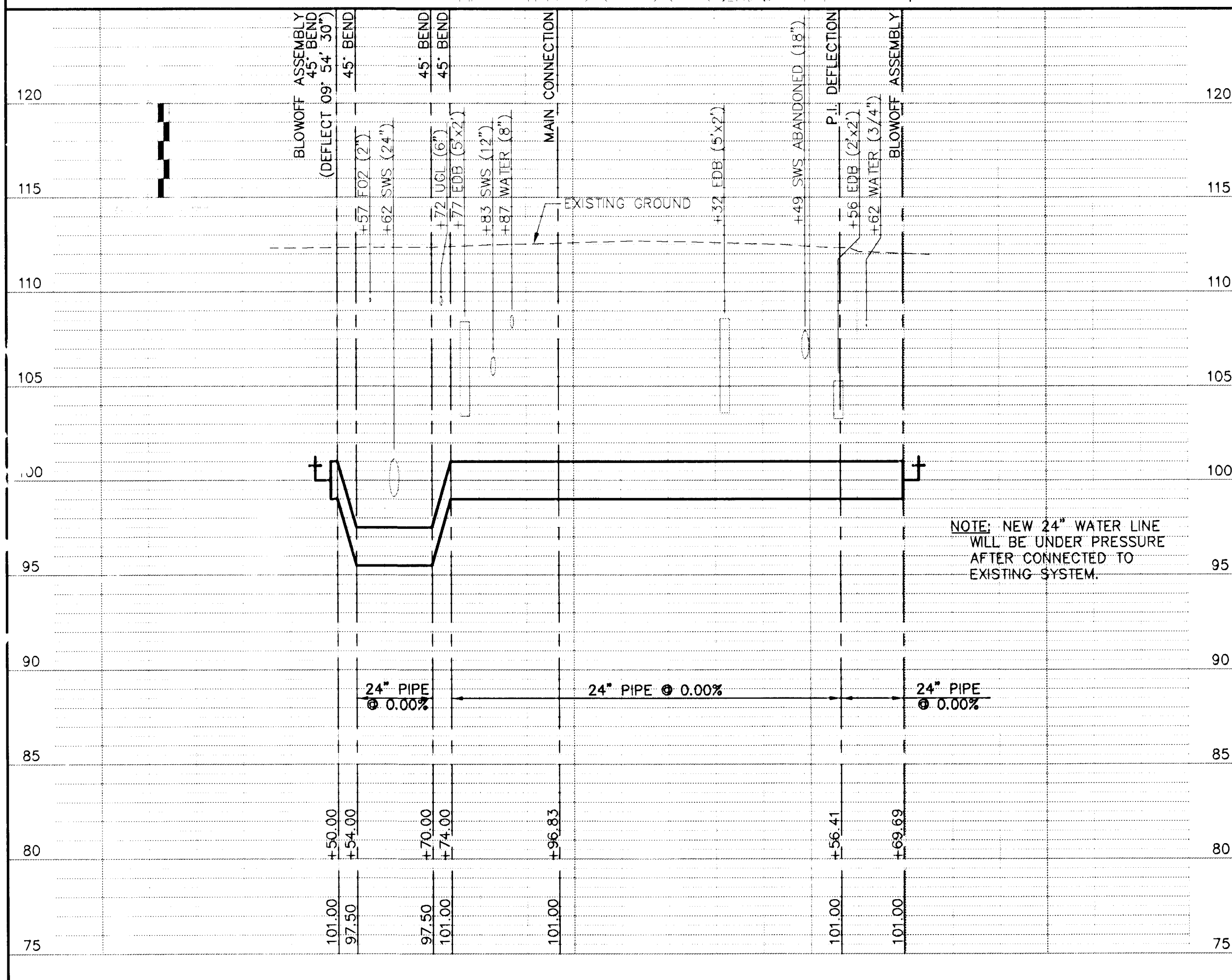
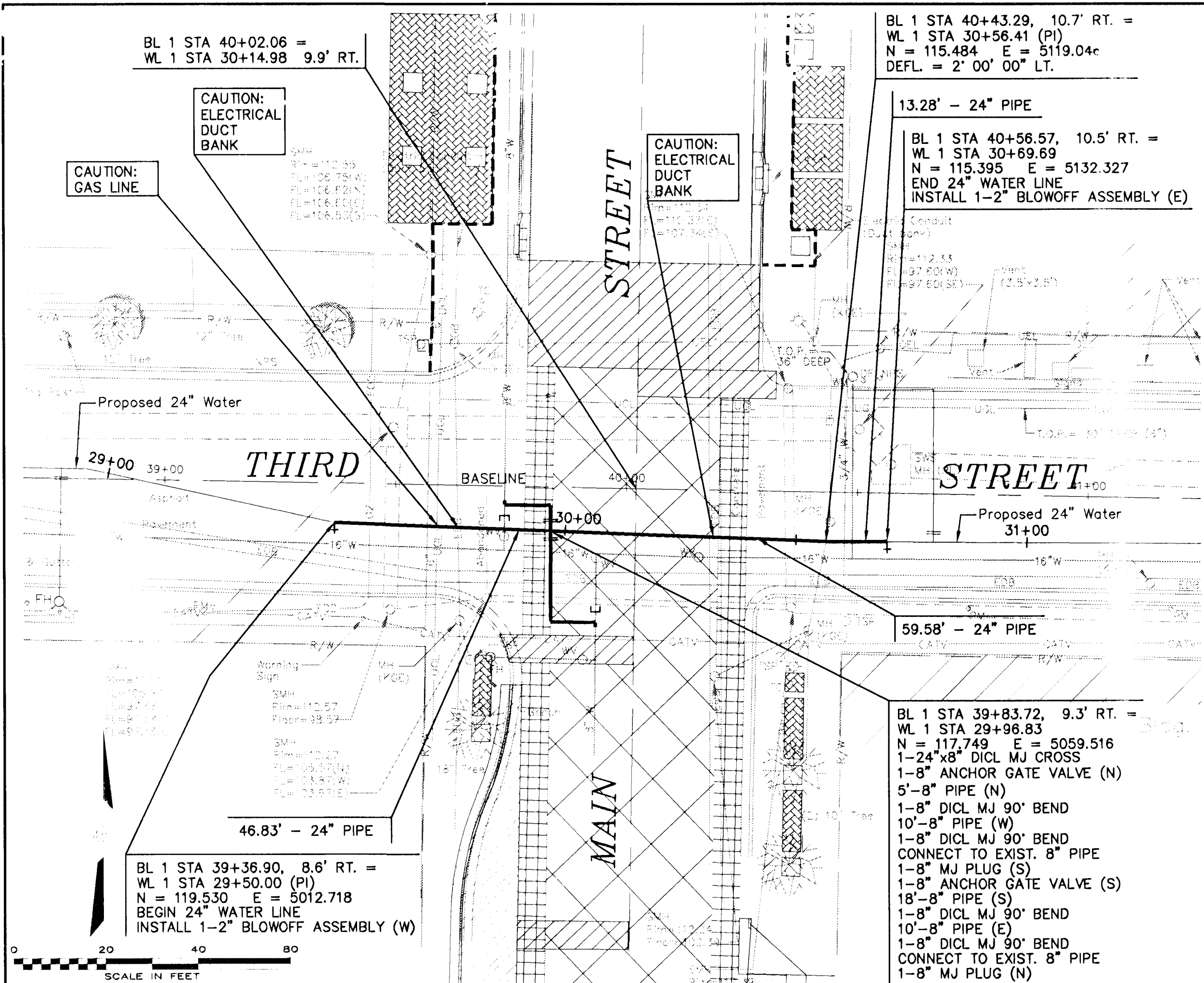
SCALE 1" = 150'



NOTE: LEFT OR RIGHT LANE CLOSED
AHEAD SIGNS SHALL BE INSTALLED TO
MATCH CURRENT CONSTRUCTION PHASE.

REVISED June 3, 2003

CONSTRUCTION TRAFFIC CONTROL ADVANCE WARNING SIGNAGE WICHITA, KANSAS				
 Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning 924 North Main (316) 264-8008 Wichita, Kansas 67203 (316) 264-4621 fax www.rbkansas.com E-mail: info@rbkansas.com	DESIGN KWL	DATE Apr. 21, 2004	SHEET 27 OF 28	
	DRAWN RA	REVIEW		UTILITY
	DRAWING FILE CONST PHASING			PROJECT NUMBER 472-83811



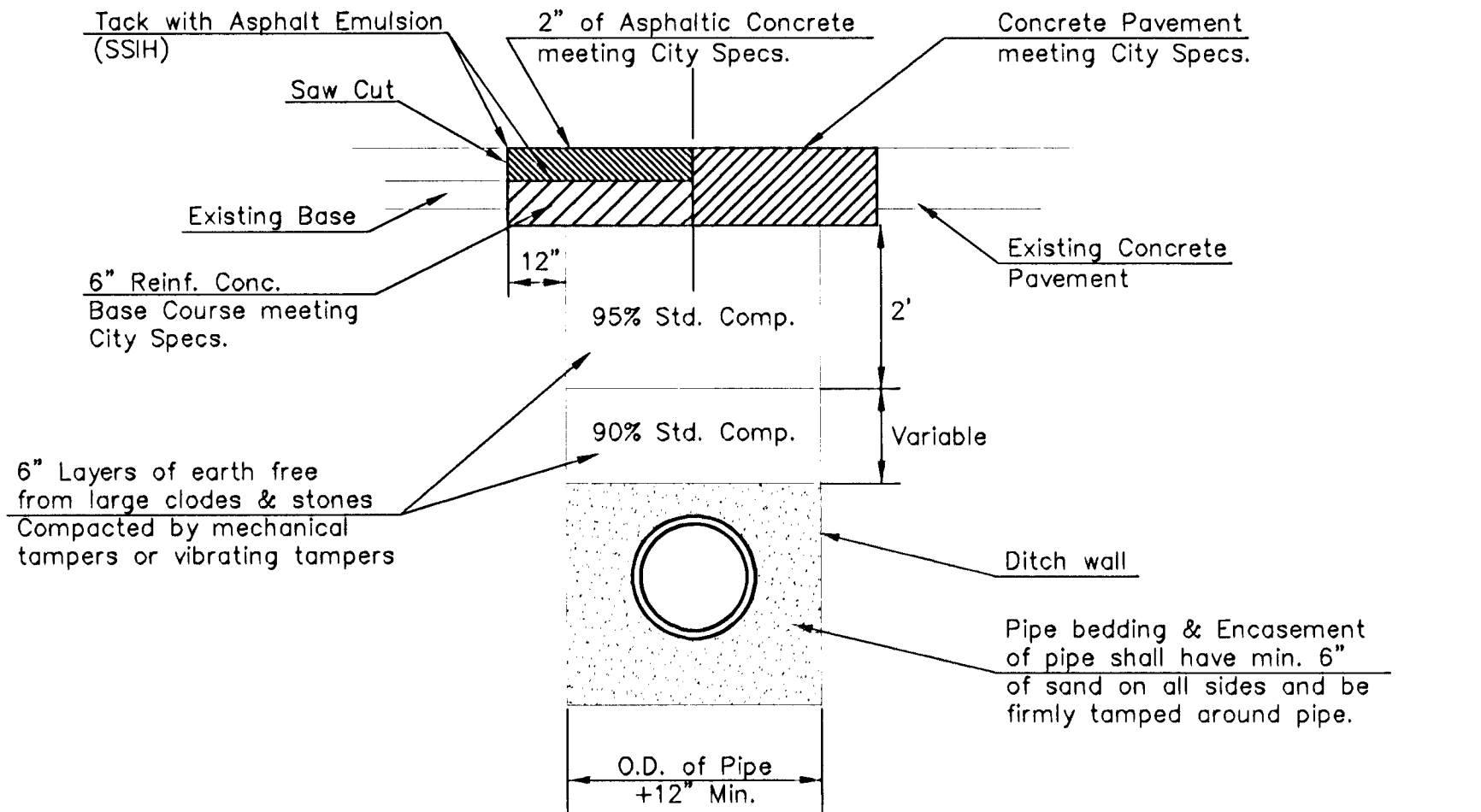
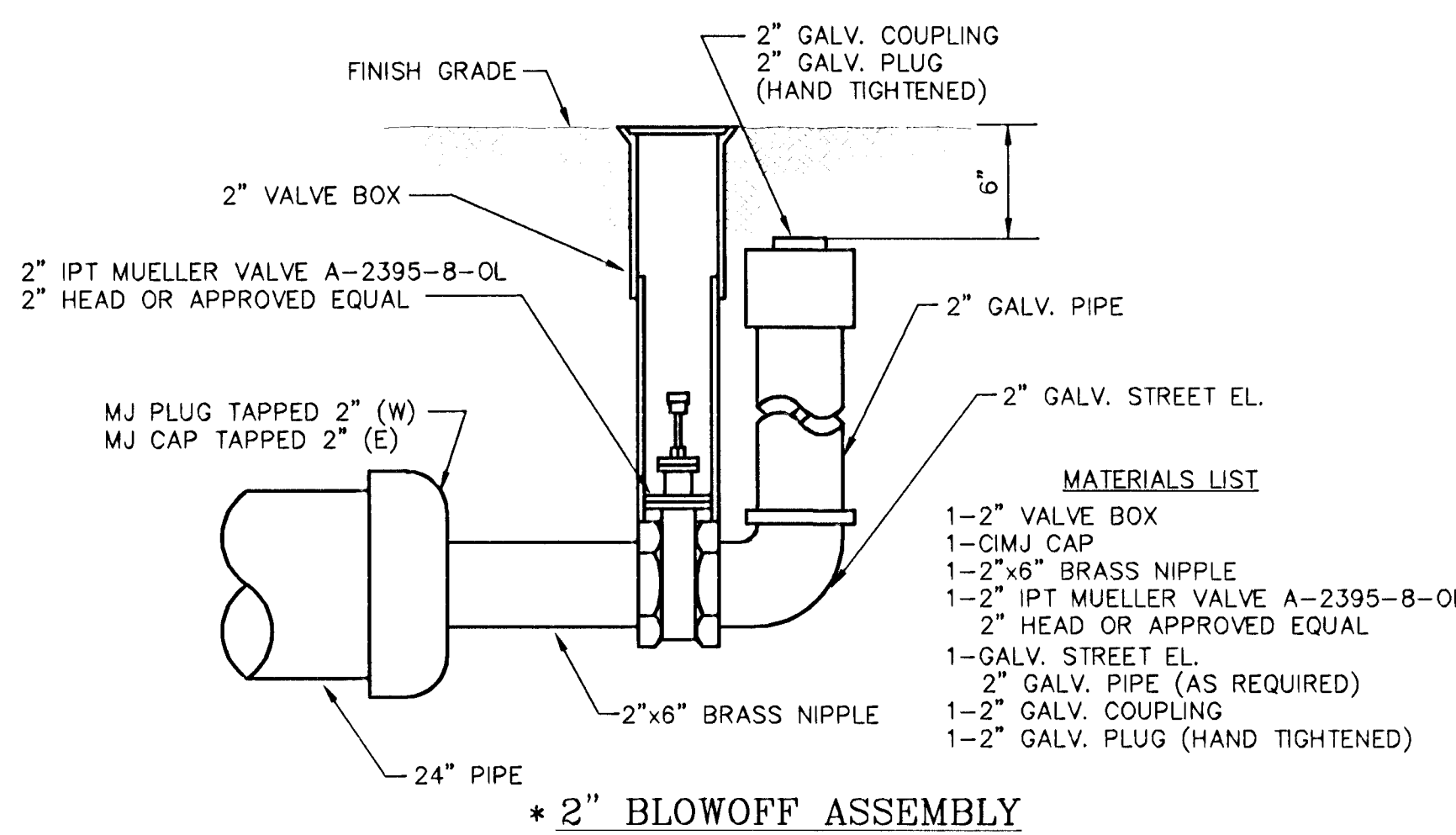
HORIZONTAL CONTROL POINTS

HCP-02 5/8" REBAR
TO WEST CAP BOLT OF FH/BM#14 47.5' ESE
TO BACK OF CURB 3.62' N
TO SW CORNER OF PARK BENCH 48.30' SE
TO NE CORNER OF PARKING LOT 29.80' WSW
N = 100.00, E = 5000.00

HCP-06 5/8" REBAR
TO APPARENT CL OF 3RD AND MARKET 44.50' NBM#14
TO NE CORNER OF TRAFFIC SIGNAL BASE 3.00' SW
TO CL OF TRAFFIC SIGNAL MH 12.40' WNW
TO BACK OF CURB 3.0' E
N = 84.068, E = 5432.783

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
[Symbol]	BUILDING / STRUCTURE	[Symbol]	SPEED LIMIT SIGN
[Symbol]	EDGE OF PAVEMENT	[Symbol]	GUARD POST
[Symbol]	CURB AND GUTTER	[Symbol]	SPRINKLER VALVE BOX
[Symbol]	GRAVEL SURFACING	[Symbol]	STOP SIGN
[Symbol]	WATER LINE (C.O.W.)	[Symbol]	ROAD SIGN
[Symbol]	STORM WATER SEWER LINE (C.O.W.)	[Symbol]	PARKING SIGN
[Symbol]	SANITARY SEWER LINE (C.O.W.)	[Symbol]	MAILBOX
[Symbol]	UNDERGROUND TELEPHONE (S.B.C.)	[Symbol]	WATER METER
[Symbol]	UNDERGROUND TELEPHONE (M.C.I.)	[Symbol]	WATER VALVE
[Symbol]	UNDERGROUND TELEPHONE (ALLTEL)	[Symbol]	FIRE HYDRANT
[Symbol]	ELECTRICAL DUCT BANK (WESTAR)	[Symbol]	GAS REGULATOR
[Symbol]	GAS LINE (K.G.S.)	[Symbol]	GAS VALVE
[Symbol]	GAS LINE (AQUILA)	[Symbol]	GAS METER
[Symbol]	FIBER OPTIC (S.B.C.)	[Symbol]	STORM WATER INLET
[Symbol]	FIBER OPTIC (COX)	[Symbol]	STORM SEWER MANHOLE
[Symbol]	FIBER OPTIC (C.O.W.)	[Symbol]	SANITARY SEWER MANHOLE
[Symbol]	FIBER OPTIC (W.P.S.)	[Symbol]	TELEPHONE PEDESTAL
[Symbol]	UNDERGROUND ELECTRIC LINE (WESTAR)	[Symbol]	ELECTRIC RISER
[Symbol]	UNDERGROUND ELECTRIC LINE (C.O.W.)	[Symbol]	ELECTRIC MANHOLE
[Symbol]	CABLE TELEVISION LINE (COX)	[Symbol]	TRAFFIC POLE
[Symbol]	BUSH	[Symbol]	TRAFFIC SIGNAL POLE
[Symbol]	TREE	[Symbol]	TRAFFIC SIGNAL MANHOLE
[Symbol]	RIGHT-OF-WAY LINE	[Symbol]	POWER/ LIGHT POLE
		[Symbol]	GUY ANCHOR
		[Symbol]	LIGHT POLE



Standard Density Test, as described in the latest addition of ASTM D698, shall be performed to verify the above requirements to the Satisfaction of the Sedgwick County Director of Public Works. All testing cost shall be included in the unit price bid for the pipe in place.

When laying under paving, parallel with the centerline of the street, a minimum of one (1) Standard Density Test shall be performed on each 300 lineal feet of ditch.

*** PAVEMENT REPLACEMENT & DITCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS**

BENCHMARK DATUM: CITY OF WICHITA

CITY OF WICHITA BENCHMARK ON WEST CAP BOLT ON FIRE HYDRANT
AT THE SOUTHWEST INTERSECTION OF MAIN STREET & 3RD STREET.
ELEVATION: 114.39

TRACER WIRE

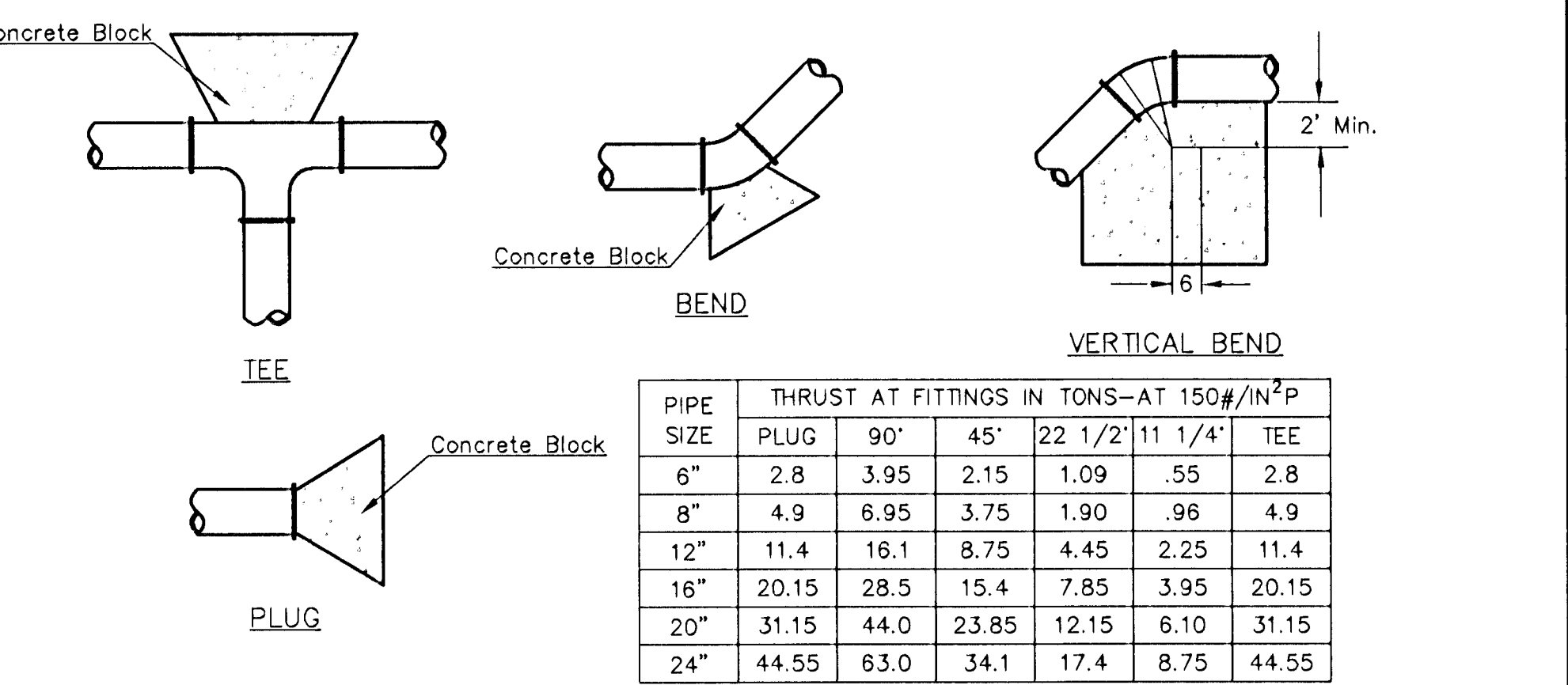
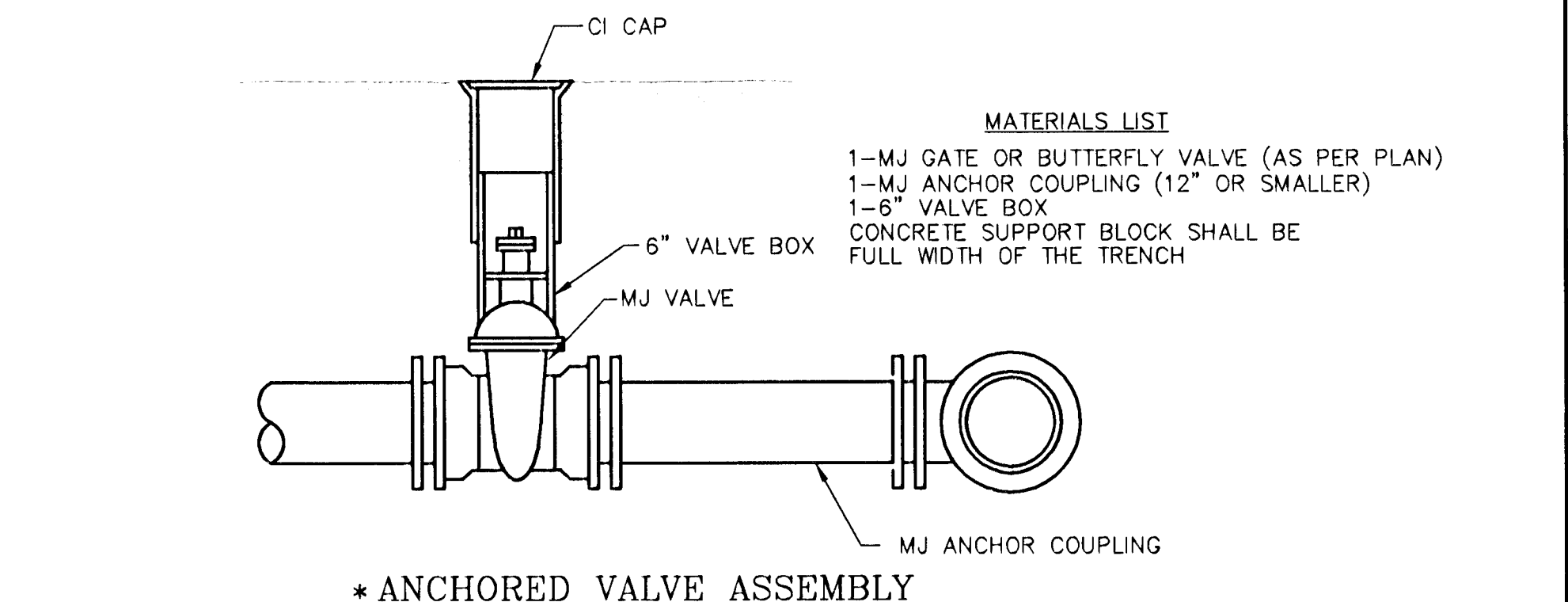
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed.

WIRE

The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. A minimum of 12" of excess wire shall be coiled at each end. The insulation sheathing shall be removed such that 1" bare copper wire is exposed at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

*** TRACER WIRE NOTES**

COST IS SUBSIDIARY TO PIPE INSTALLATION



- * TYPICAL THRUST BLOCKS**
- GENERAL NOTES:**
- Installation of 24" water line, as indicated on this sheet, to be completed prior to street paving improvements at this intersection.
 - Contractor will be required to provide a minimum advance notice of twenty-four (24) hours to utility companies prior to starting any excavation.
 - Contractor shall give property owners of developed property abutting the construction and all water costumers affected by the construction of this project a minimum of ten (10) days advance notice prior to the start of construction and again seventy two (72) hours prior to beginning any work that might affect the service of the following locations: 320, 322, 328, 330, 356, 434, and 456 N. Main Street.
 - The water main shall be Ductile Iron Cement Lined (DCL) pipe or DR-18 Polyvinyl Chloride (PVC) pipe and meet the City of Wichita Standard Specifications, Section 803.
 - All water main materials and appurtenances shall be purchased and installed in accordance with City of Wichita Standard Specifications, Part 800.
 - Pavement removal and/or replacement will be measured and paid for on the lineal foot basis as measured along the centerline of the water line regardless of width, pavement type and/or pavement thickness. Minimum limits of such pavement removal and replacement shall be one foot beyond the limits of the excavation made for the water line or the structure, except when such saw cuts are within three (3) feet of an existing joint the limits of removal shall be extended to the existing joint. Removal and replacement of existing pavement shall conform to the applicable sections of the City of Wichita Standard Specifications.

*** DETAILS BASED FROM CITY OF WICHITA STANDARDS**

**MAIN STREET PAVING IMPROVEMENTS
WATER LINE REPLACEMENT PLAN
WICHITA, KANSAS**

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning

924 North Main
Wichita, Kansas 67203
www.rbkansas.com

(316) 264-8008
(316) 264-4621 fax
E-mail: info@rbkansas.com

DRAWING FILE
R&B PLAN

PROJECT NUMBER
448-84816

DATE
Apr. 6, 2004

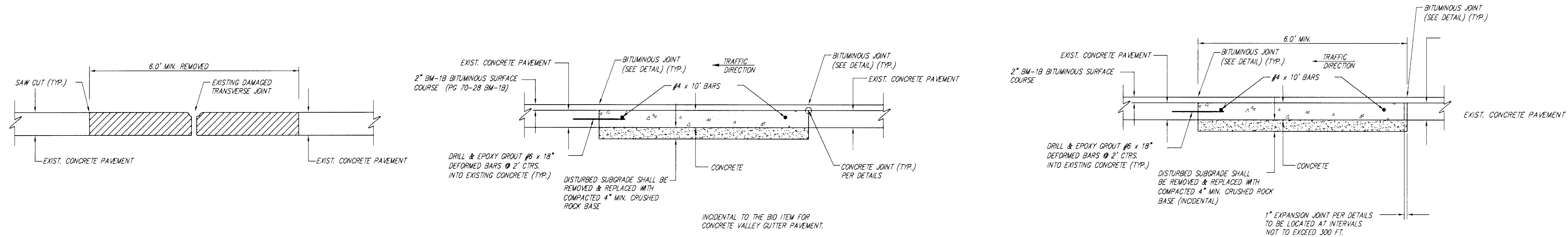
DRAWN
DAG

REVIEW
JMS

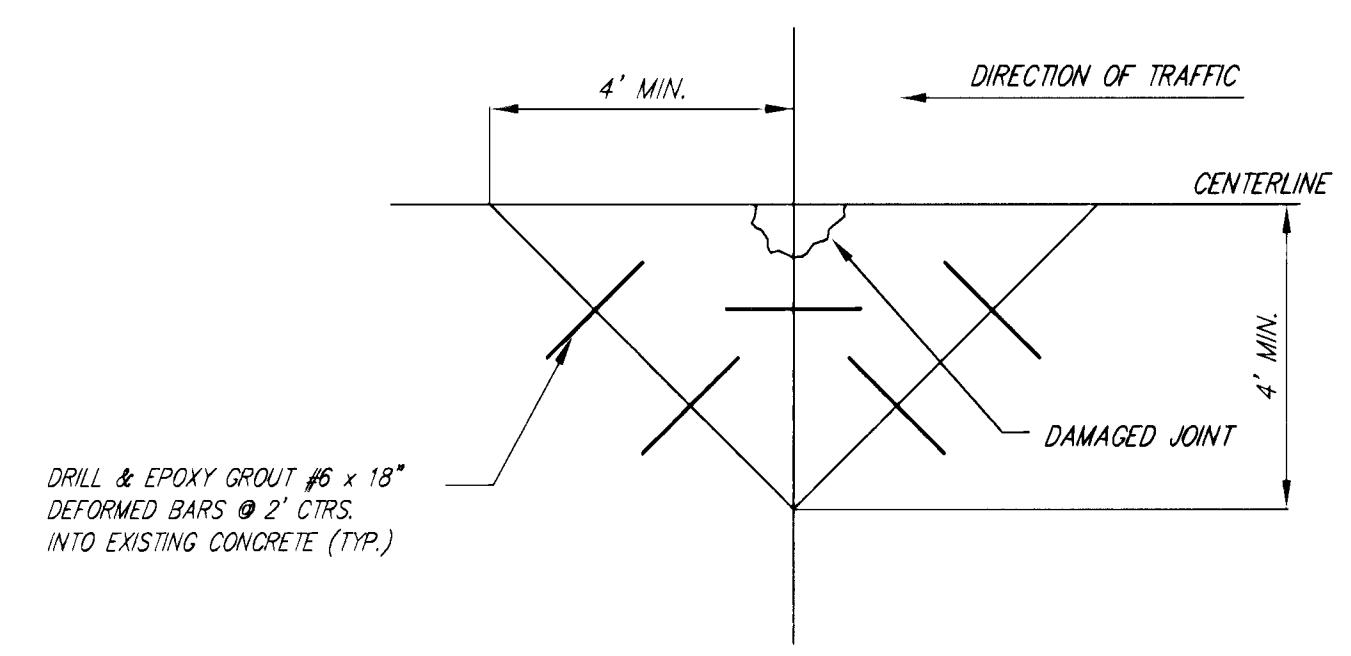
UTILITY

SHEET
28
OF
28

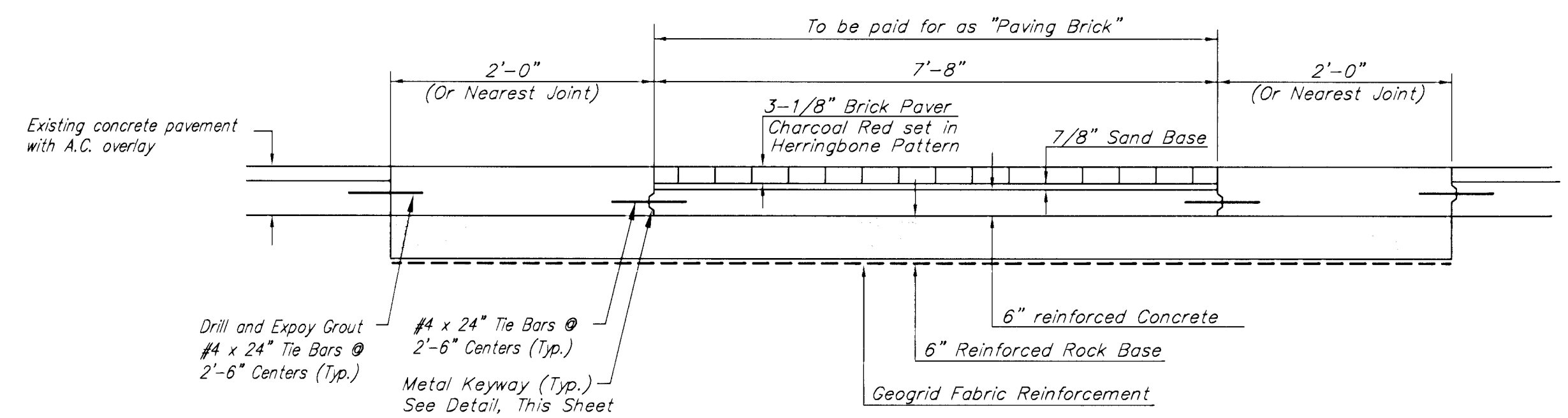
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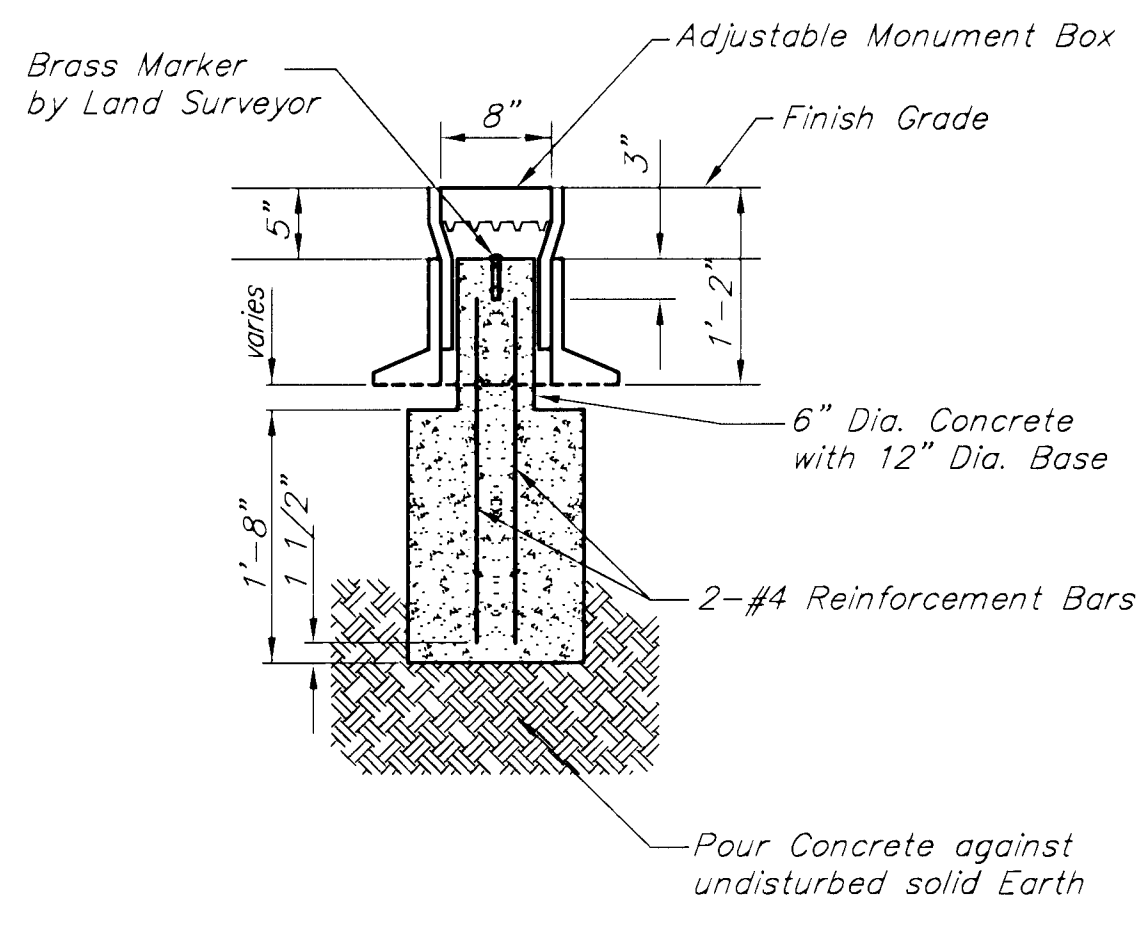
JOINT REPAIR DETAILS



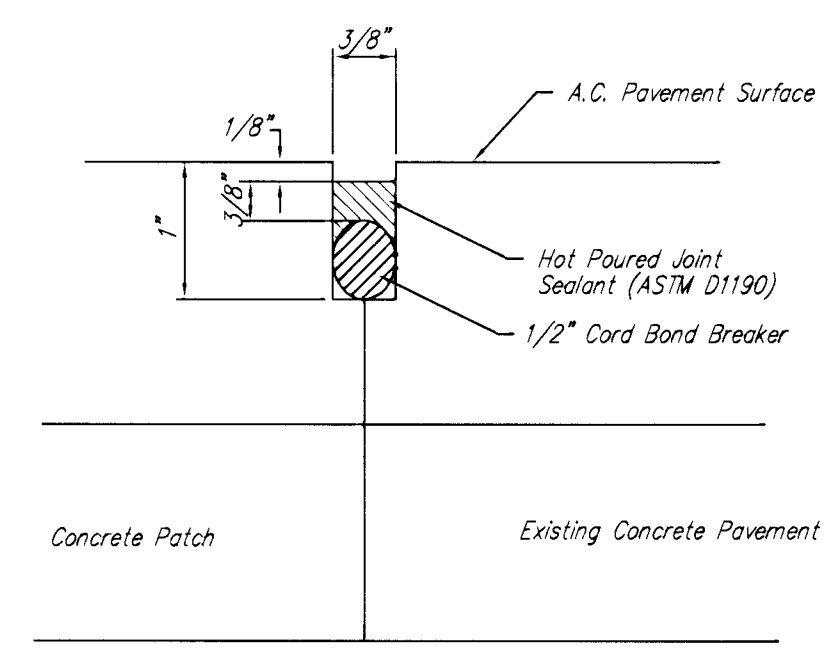
OPTIONAL JOINT CORNER REPAIR



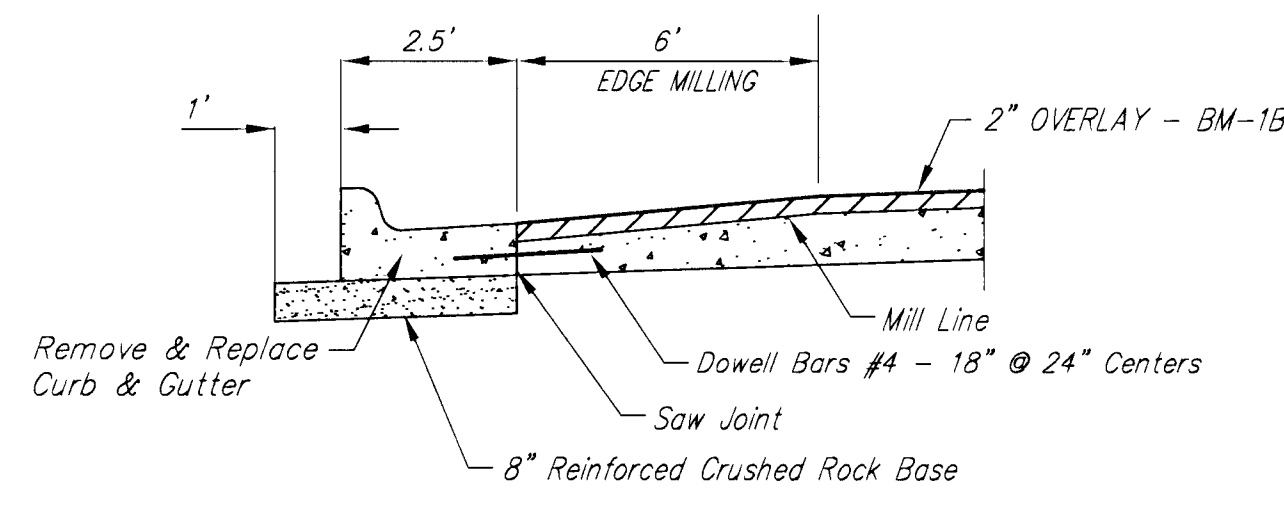
BRICK CROSSWALK DETAIL



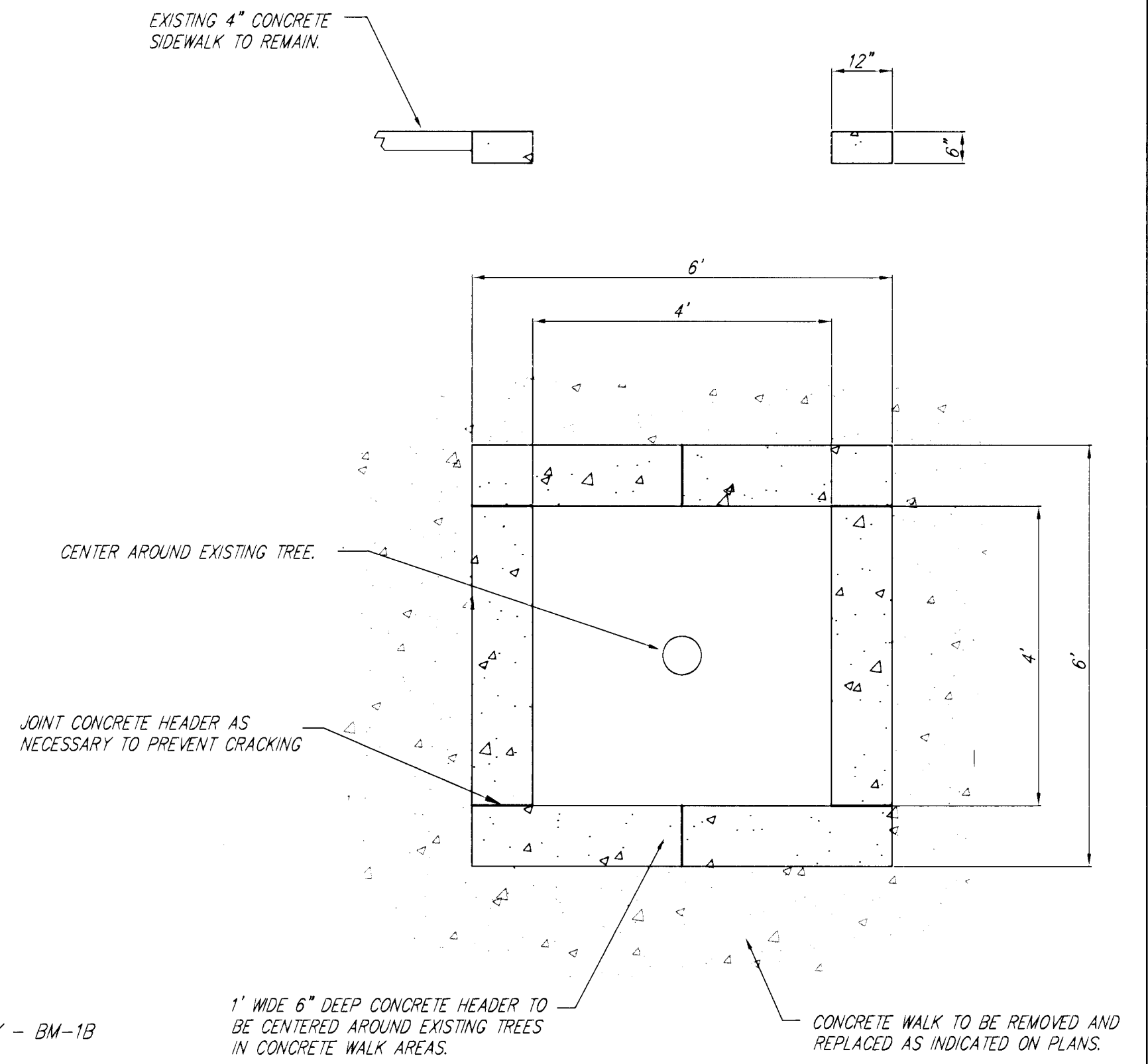
MONUMENT BOX DETAIL



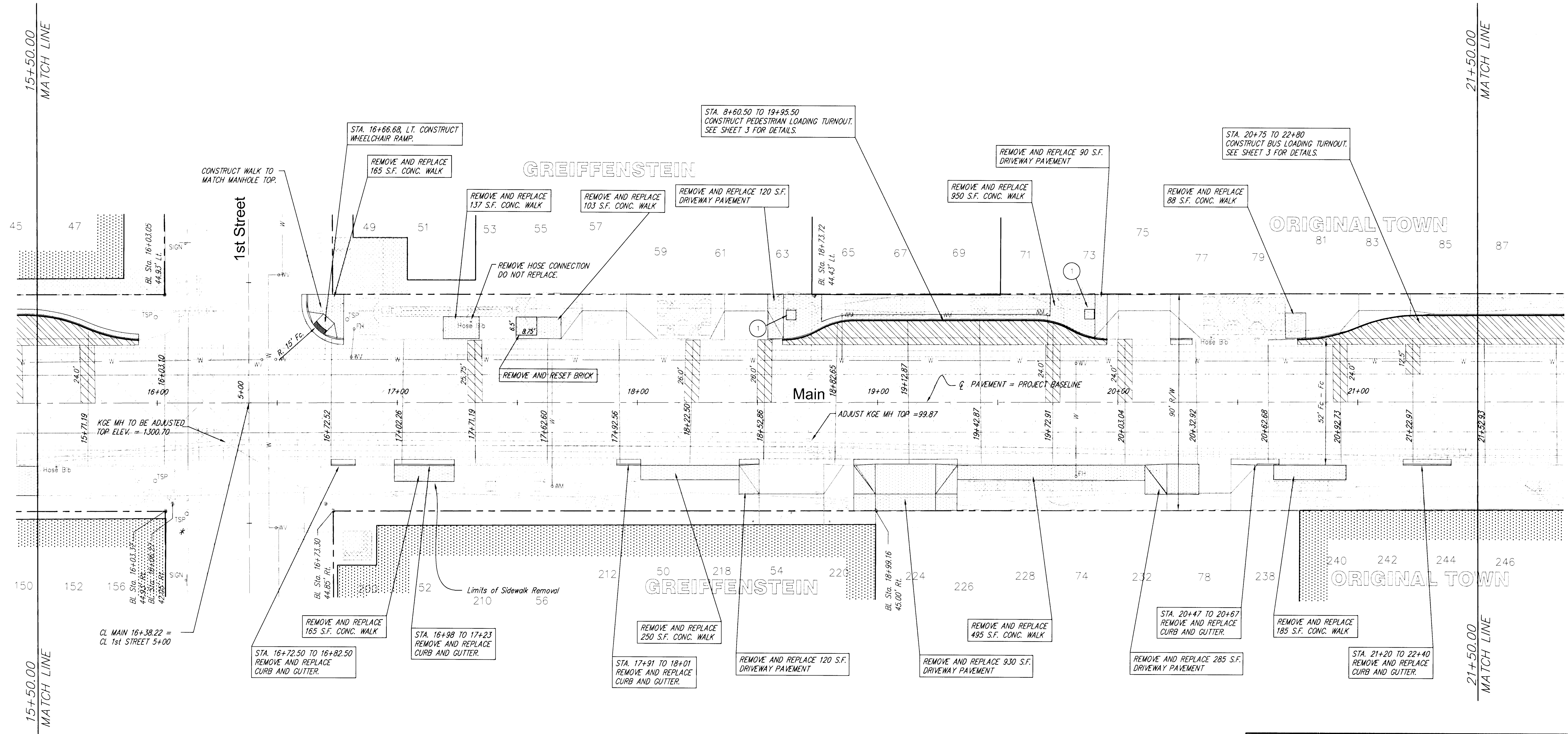
BITUMINOUS JOINT SAW AND SEAL



CURB REPLACEMENT DETAIL



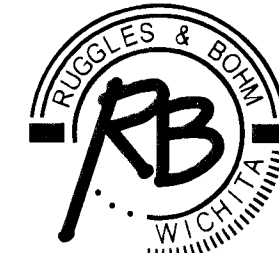
MAIN STREET IMPROVEMENTS PAVING DETAILS WICHITA, KANSAS			
	Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning		DESIGN KWL
	924 North Main Wichita, Kansas 67203 www.rbkansas.com		DRAWN RA
	(316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com		REVIEW
	PROJECT NUMBER 472-83811		UTILITY
DRAWING FILE Typical Sections		DATE Apr. 22, 2004	SHEET 4 OF 28



WATER VALVE BOX ADJUSTMENT			
STATION	OFFSET	EXIST. ELEV.	PROP. ELEV.
16+43.6	18.0' Lt.	1,301.30	1,301.46
16+49.4	18.0' Lt.	1,301.20	1,301.36
16+80.9	19.0' Lt.	1,300.29	1,300.45
19+82.6	16.2' Lt.	1,299.30	1,299.46

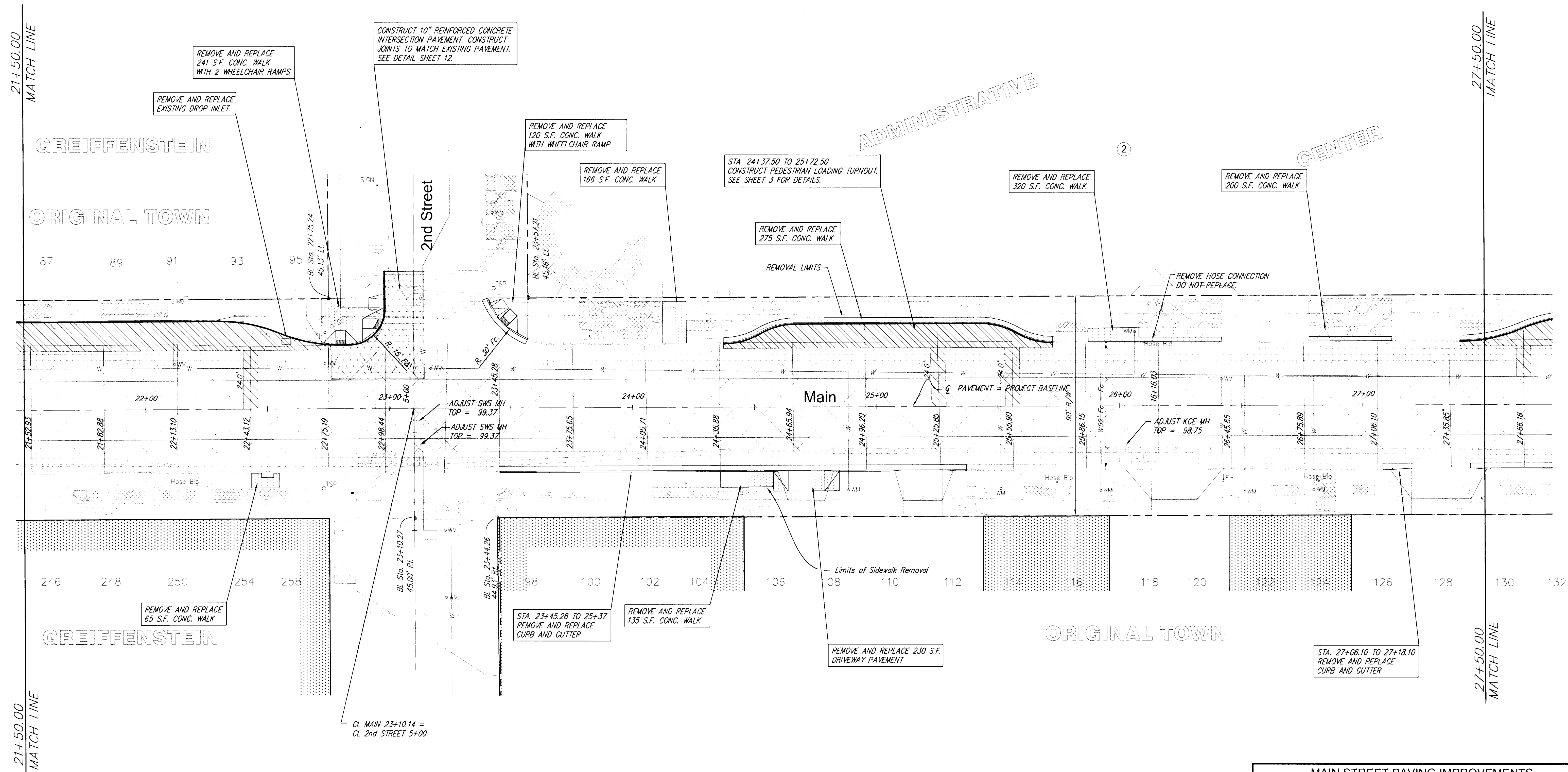
KEYED NOTES:
 ① CONSTRUCT CONCRETE BOX OUT FOR TREES. SEE SHEET 4 FOR DETAIL.

MAIN STREET PAVING IMPROVEMENTS
STA. 15+50 to 21+50
WICHITA, KANSAS



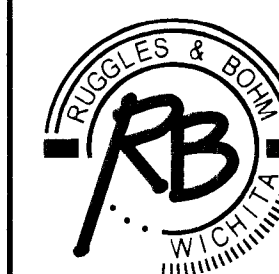
Ruggles & Bohm, P.A.
 Engineering, Surveying, Land Planning
 924 North Main
 Wichita, Kansas 67203
 www.rbkansas.com
 (316) 264-8008
 (316) 264-4821 fax
 E-mail: info@rbkansas.com

DESIGN KWL	DRAWN RA	SHEET 6
REVIEW	UTILITY	DATE Apr. 22, 2004
DRAWING FILE paving {paving sh 2}		PROJECT NUMBER 472-83811



WATER VALVE BOX ADJUSTMENT			
STATION	OFFSET	EXIST. ELEV.	PROP. ELEV.
22+11.4	18.2' Lt.	1298.61	1298.77
22+73.7	18.3' Lt.	1299.04	1299.20
23+10.4	16.5' Lt.	1299.12	1299.12
23+17.1	16.3' Lt.	1299.01	1299.01
26+41.9	10.9' Lt.	1298.91	1299.07

MAIN STREET PAVING IMPROVEMENTS
STA. 21+50 to 27+50
WICHITA, KANSAS



Ruggles & Bohm, P.A.
 Engineering, Surveying, Land Planning
 924 North Main
 Wichita, Kansas 67203
 www.rbkansas.com

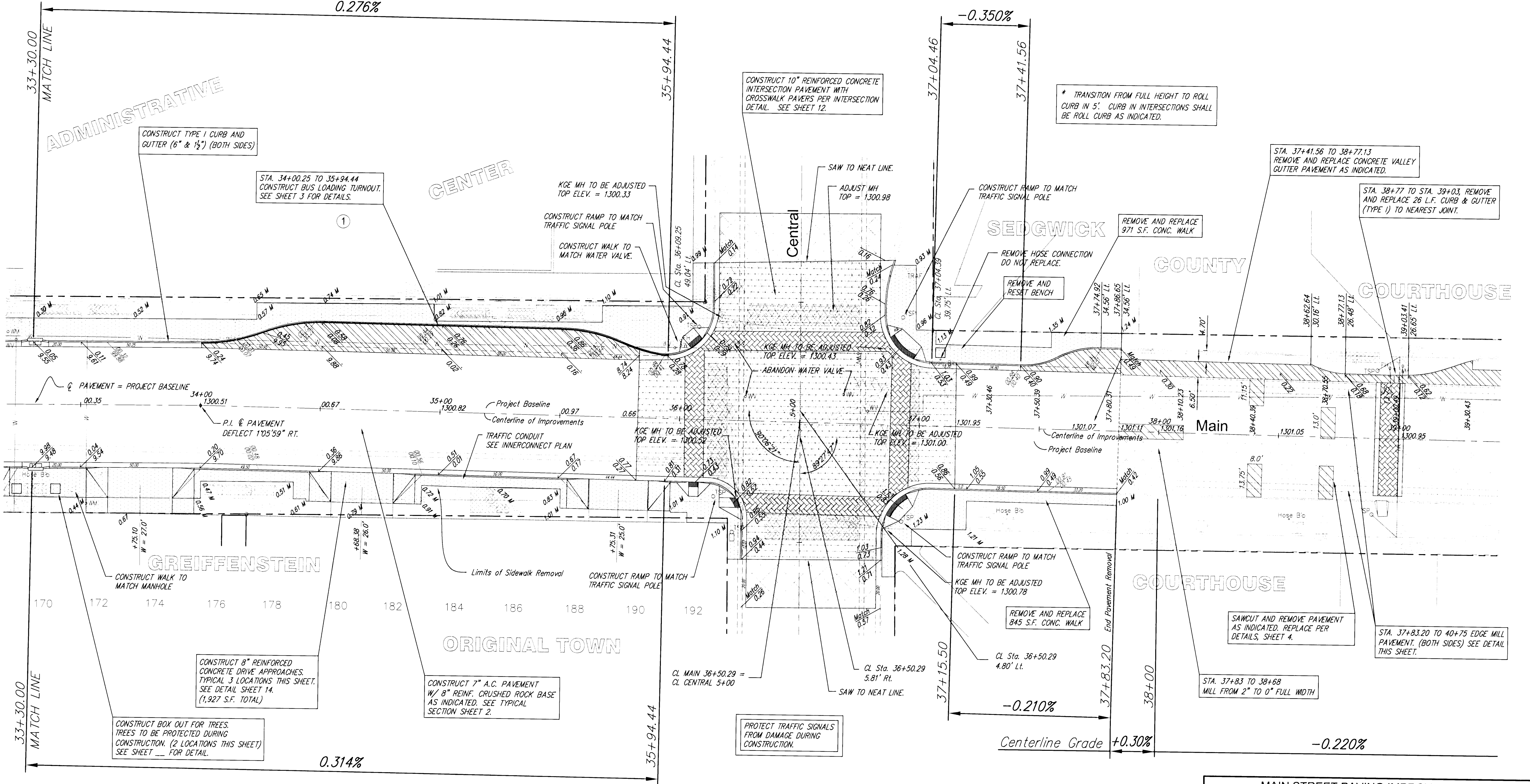
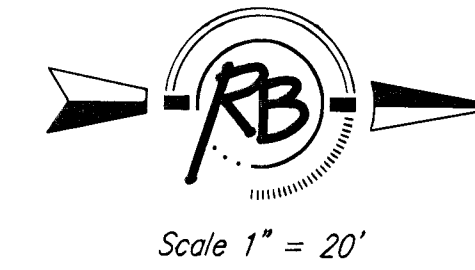
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 DRAWN: RA
 REVIEW: [blank]
 UTILITY: [blank]

PROJECT NUMBER: 472-83811
 DATE: Apr. 22, 2004

SHEET: 7 OF 28

Elev. 1300.05

P.V.I.
Elev. 1300.78
No V.C.

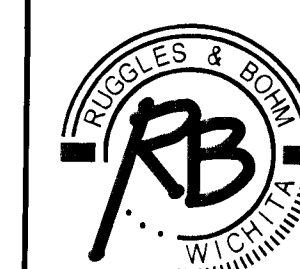


Elev. 1299.98

P.V.I.
Elev. 1300.81
No V.C.

WATER VALVE BOX ADJUSTMENT			
STATION	OFFSET	EXIST. ELEV.	PROP. ELEV.
36+73.1	29.2' Lt.	1300.92	1300.94
36+78.3	5.4' Lt.	1301.19	1301.42
38+97	19' Lt.	1300.28	1300.44

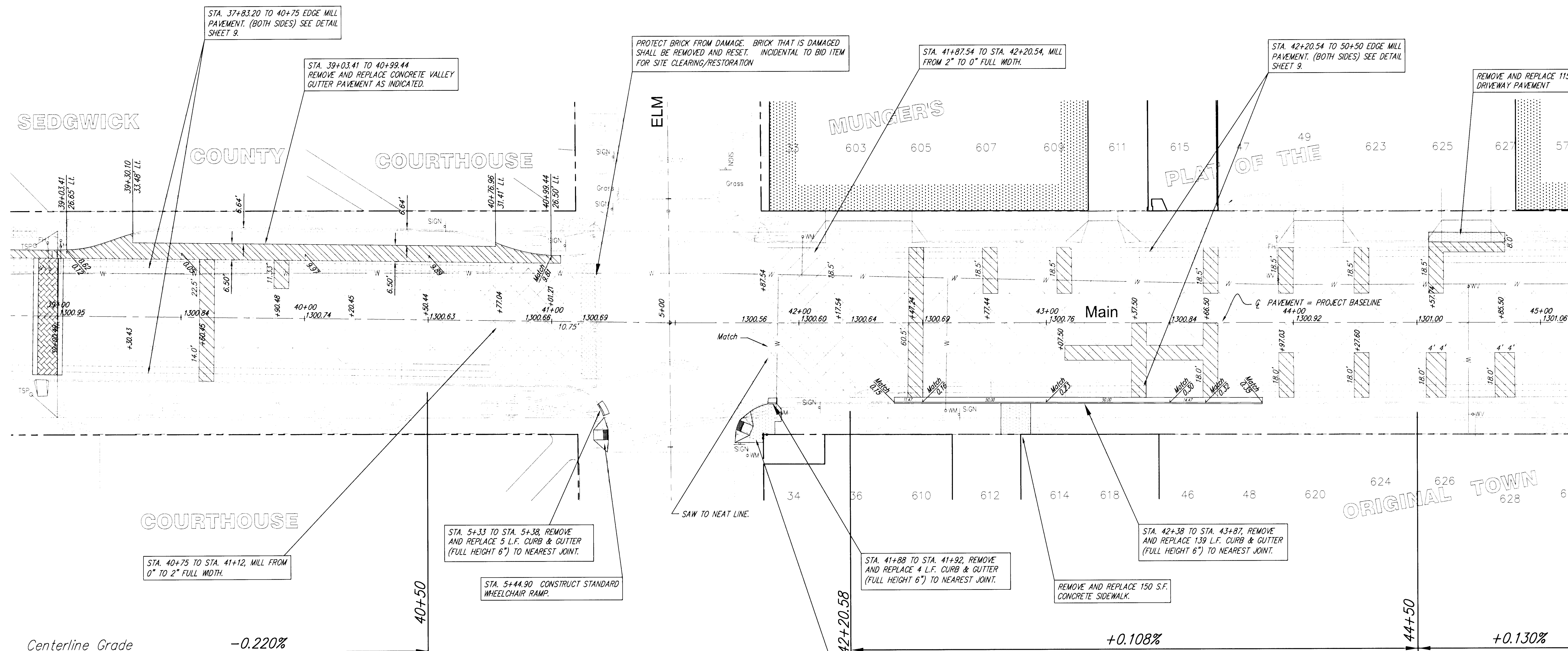
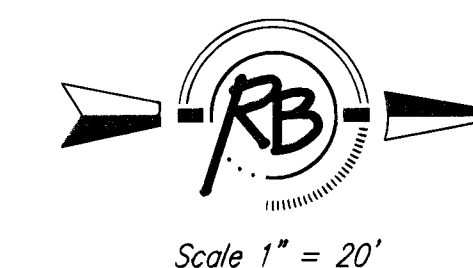
MAIN STREET PAVING IMPROVEMENTS
STA. 33+30 to 39+00
WICHITA, KANSAS



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Engineering, Surveying, Land Planning
924 North Main
Wichita, Kansas 67203
(316) 264-8008
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DRAWING FILE: paving {paving sh 5}
PROJECT NUMBER: 472-83811
DATE: Apr. 22, 2004

DESIGN: KWL
DRAWN: RA
REVIEW:
UTILITY:
SHEET: 9
OF: 28



WATER VALVE BOX ADJUSTMENT			
STATION	OFFSET	EXIST. ELEV.	PROP. ELEV.
43+95	17' Lt.	1300.36	1300.52
44+71	14.5' Lt.	1300.30	1300.46

MAIN STREET PAVING IMPROVEMENTS
STA. 39+00 to 45+00
WICHITA, KANSAS

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DESIGN KWL	10 OF 28	
DRAWN RA		
REVIEW		
UTILITY		
DRAWING FILE paving {paving sh 6}	PROJECT NUMBER 472-83811	DATE Apr. 22, 2004