PRIVATE STREET IMPROVEMENTS

to serve

FOSSIL RIM ESTATES

CITY OF WICHITA, KANSAS

Neil Cable, P.E. City Engineer

Private Project Number

143 PPP (607879)

GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

   Kansas One-Call 687-2470

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

Cox Communications	262-4270
Kansas Gas Service	1-888-482-4950
Westar Energy	383-8650
Aquila Energy	1-800-303-0357
Southwestern Bell	268-2245
City of Wichita Water Dept.	268-4563
City of Wichita Sewer Maint.	268-4024
City of Wichita Storm Sewer Maint.	268-4090
City of Wichita Traffic Maint.	268-4034
Conoco Pipeline Co.	1-800-231-2551
Williams Pipeline Co.	529-6600
Phillips Pipeline Co.	1-800-766-8230

2. Utility service lines, poles, valve boxes, meters, and etcetera 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. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

3. 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 on site location. Locations, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. 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. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.

4. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.

5. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

6. 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

7. All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and const. entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita. Maintenance and/or replacement of erosion control measures to be paid by L.S. bid item "Erosion Control BMP's."

8. The contractor shall adjust valve boxes as necessary to match proposed grade. Cost to be included in bid item, "Site Clearing & Restoration."

9. All excess excavation shall remain on-site and be stockpiled at a location determined by the engineer.

10. All areas disturbed during construction within Reserves and Street R/W's shall be seeded, mulched, and fertilized as follows unless otherwise noted (Permanent Seeding):

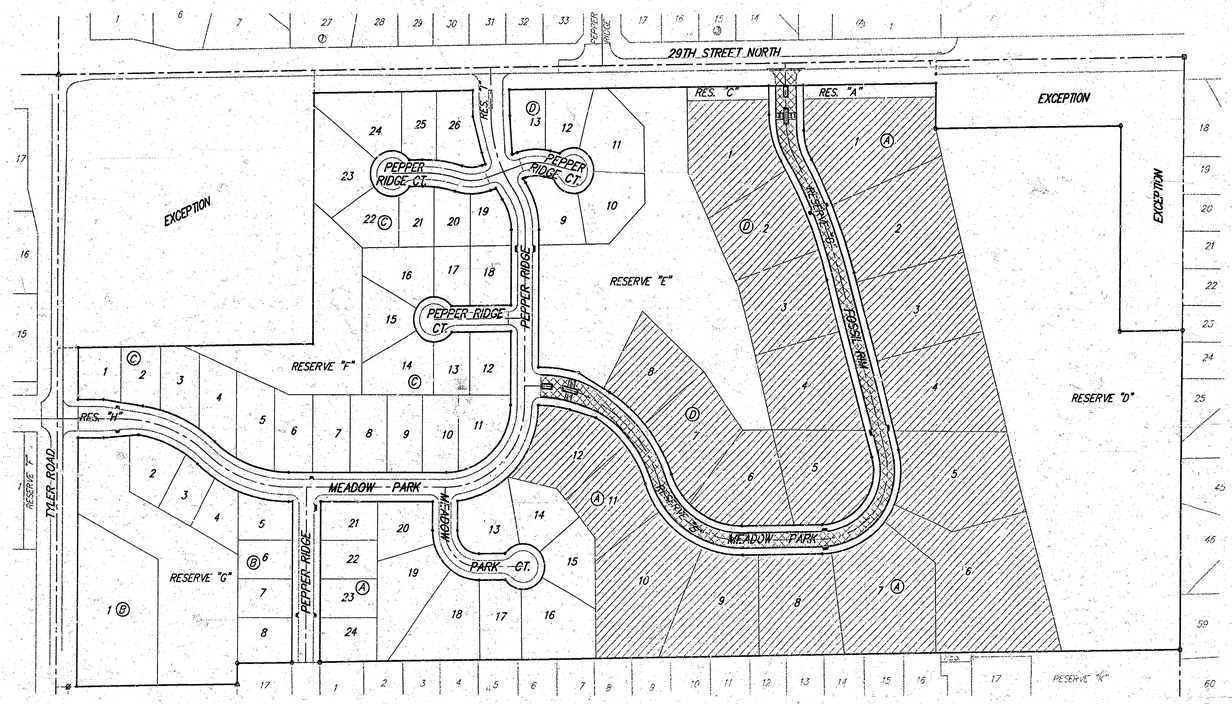
    Seed: Kansas Premium Fescue Blend: 8 lbs./1000 sq. ft.
    Mulch: Prairie Hay: 2 tons/acre
    Fertilizer: 12-24-12: 850 lbs./acre

    All other areas disturbed during construction shall be seeded and mulched as follows (Temporary Seeding):

    Seed: Rye Grass: 5 lbs./1000 Sq. Ft.
    Mulch: Prairie Hay: 2 tons/acre

    All costs associated with seeding, mulching, and fertilizing shall be included in bid item "Project Seeding." All seeding operations shall conform to City of Wichita Standard Specifications.

Scale: 1" = 150'



Benchmarks

City of Wichita Disc, SE corner of 29th & Tyler
32.30 ft South of centerline
30.00 ft East of centerline
9.20 ft Southeast of power pole
43.20 ft Southeast of section corner
Elev. = 178.04 (City Datum)

"□" Cut in top of curb on the West side of Pepper Ridge 65± south of Lot 8, Blk. B, Fossil Rim Estates.
Elev. = 174.92 (City Datum)

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

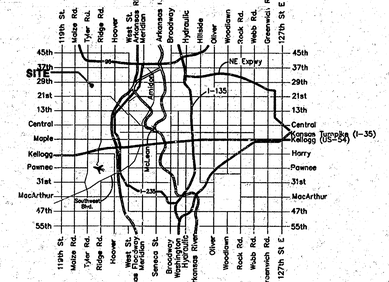
Paving URH 6/9/03

NOTE TO CONTRACTORS

Installation, Inspection, and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

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Vicinity Map

Project Earthwork Totals
Excavation = 1 L.S.

Total Project Length
2,017 L.F. = 0.38 Miles

Proposed Streets:

Benefit District:

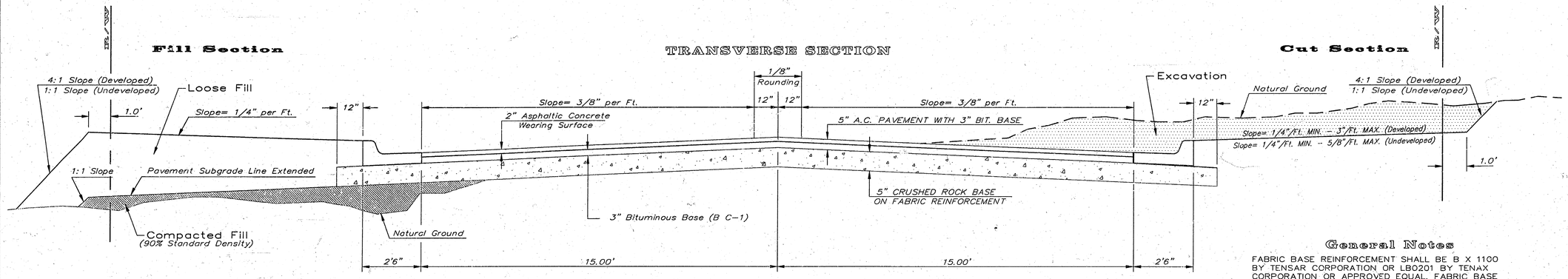
ROBERT M. FOOTE
LICENSED
PROFESSIONAL
ENGINEER
6/9/03
STATE OF KANSAS

As Built Per Plan 9/03 KK

June 2003

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

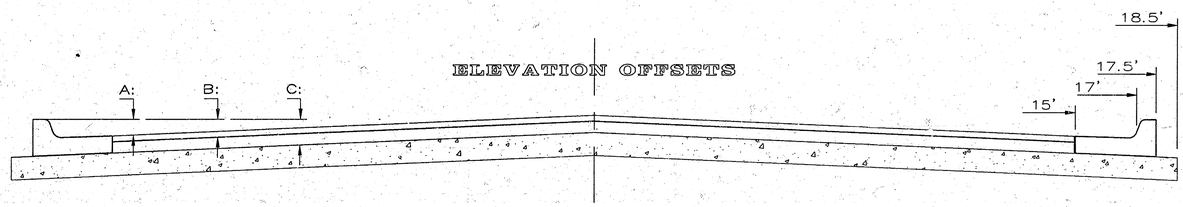
TYPICAL 35' B-B PAVEMENT DETAILS



CRUSHED ROCK GRADATION REQUIREMENTS
PERCENT OF AGGREGATE RETAINED

2-1/2"	0
3/4"	20 - 60
#4	50 - 80
#40	80 - 94
#200	90 - 98

ROCK QUALITY SHALL CONFORM TO THE REQUIREMENTS SPECIFIED BE THE KDOT 1990 EDITION STANDARD SPECIFICATION SUBSECTION 1102 FOR DURABILITY CLASS I.



DISTANCE FROM CENTERLINE (LT. & RT.)	0'	2'	4'	6'	8.5'	10'	12'	14'	15'	17'	17.5'	18.5'
A: Top of Curbs to Top of Surface Lift	0.04	0.08	0.14	0.21	0.29	0.33	0.39	0.46	0.49	–	–	–
B: Top of Curbs to Top of Upper Base Lift	0.21	0.25	0.31	0.37	0.45	0.50	0.56	0.62	0.65	–	–	–
C: Top of Curbs to Top of C. R Subgrade	0.46	0.50	0.56	0.63	0.71	0.75	0.81	0.88	0.91	0.97	0.98	1.01

General Notes

FABRIC BASE REINFORCEMENT SHALL BE B X 1100 BY TENSAR CORPORATION OR LBO201 BY TENAX CORPORATION OR APPROVED EQUAL. FABRIC BASE REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

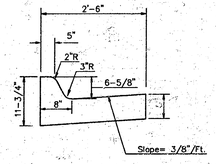
ROCK BASE IS TO BE COMPACTED AND SMOOTHED WITH A STEEL FACED ROLLER PRIOR TO PLACEMENT OF ASPHALT. TACK COAT WILL NOT BE APPLIED TO ROCK BASE.

A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

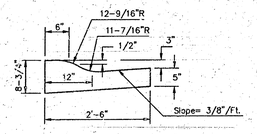
BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

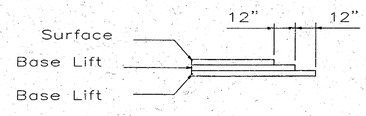
THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE.)



COMBINED CURB & GUTTER

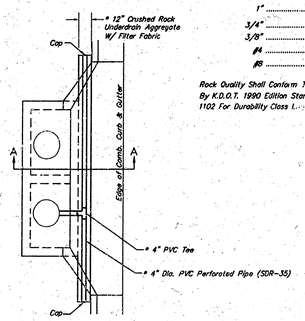


COMBINED ROLL TYPE CURB & GUTTER



TRANSVERSE CONSTRUCTION JOINTS

Transverse construction joints shall be constructed in flexible base pavements at locations where pavement joins existing flexible base pavement as shown by the detail. All costs associated with the construction of the transverse joint shall be included in the bid price for Square Yards 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE).



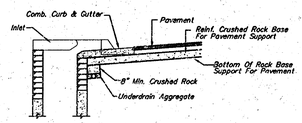
PLAN

* UNDERDRAIN AGGREGATE
Percent of Aggregate Retained

1"	0
3/4"	0 to 10
3/8"	45 to 80
#4	90 to 100
#8	95 to 100

Rock Quality Shall Conform To The Requirements Specified By K.D.O.T. 1990 Edition Standard Specification Subsection 1102 For Durability Class I.

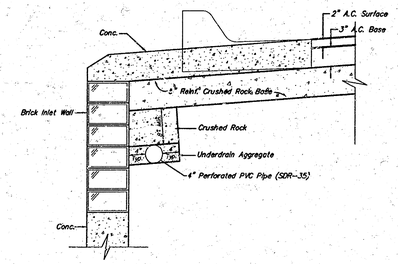
NOTE: Place 4" PVC Perforated Pipe at all drainage sump locations.
Cost of Underdrain System to be incidental to the Reinforced Crushed Rock Subgrade.
Inlet Type May Vary From That Shown.



(Min. 16 Perforations Per Lin. Ft. @ 1/4" Dia.)
Perforations To Be on Bottom Half

SECTION A-A

PAVEMENT UNDERDRAIN DETAIL
NOT TO SCALE



TRENCH DRAIN DETAIL FOR RES. STREETS
NOT TO SCALE

5 INCH Residential Asphaltic Concrete Pavement w/Crushed Rock Base on Fabric Reinforcement
City of Wichita, Kansas

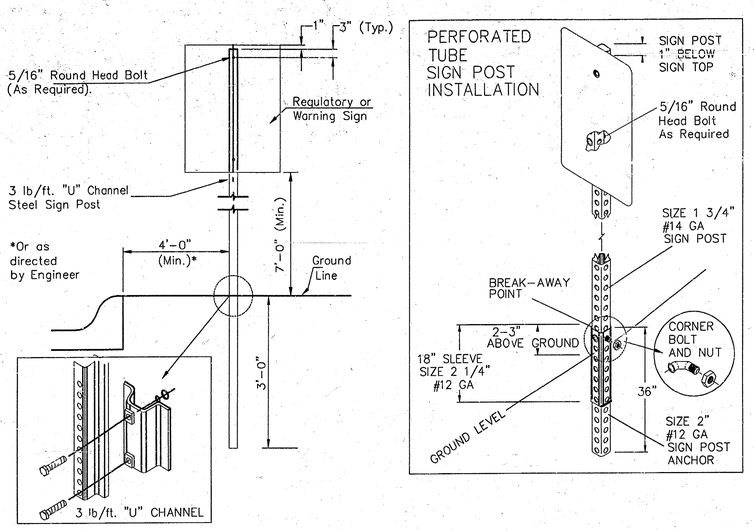
BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 * 315 ELLIS * WICHITA, KANSAS 67211

PROJECT NUMBER	SHEET
143 PPP (607979)	2 OF 16

DESIGN	DRAWN	APPROVED	DATE	SCALE
C.O.W.	Staff			NONE

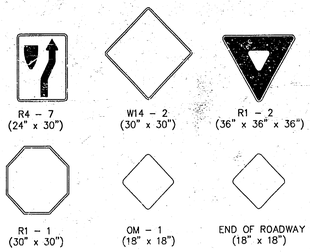
Drawing 1.5Sheet

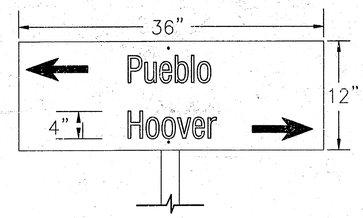
FHWA REG NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	SHEETS
7	KANSAS	143 PPP (607879)	2003	3	16



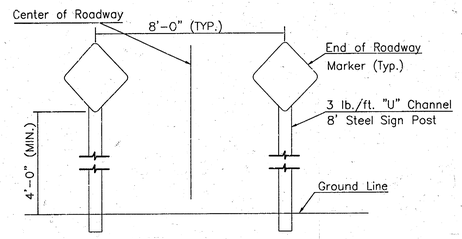
TYPICAL TRAFFIC CONTROL SIGN MOUNTING INSTALLATION

CURB AND GUTTER SECTION

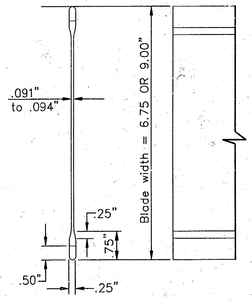




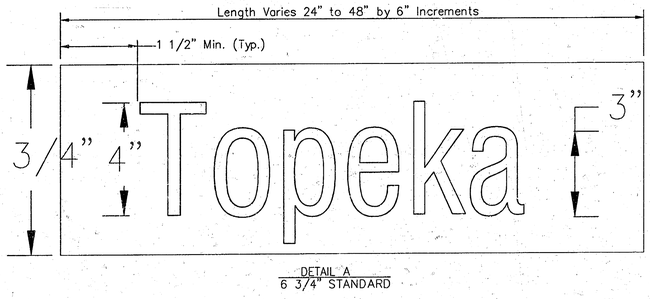
FLAT PLATE STREET NAME SIGN



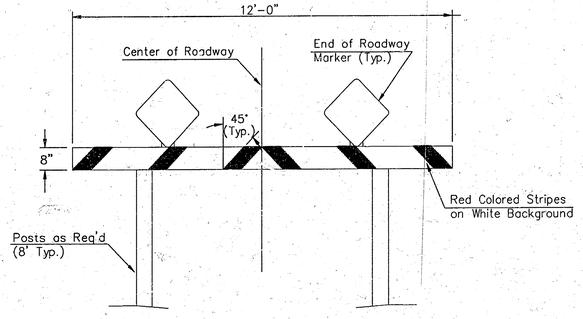
TYPICAL END OF ROADWAY SIGN MOUNTING INSTALLATION



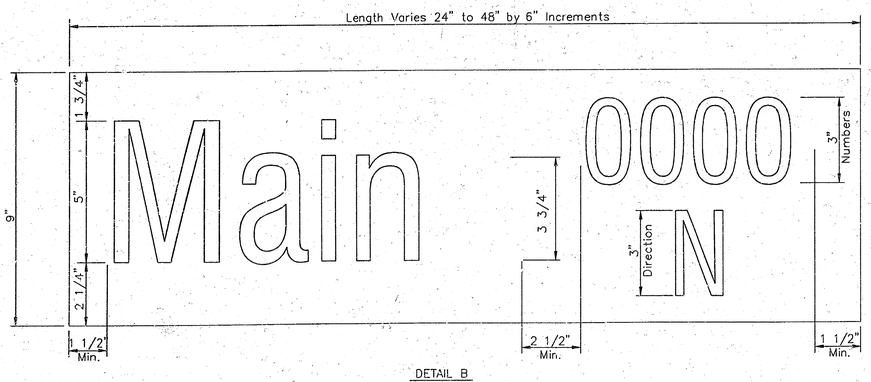
STREET NAME SIGN BLADE DETAILS



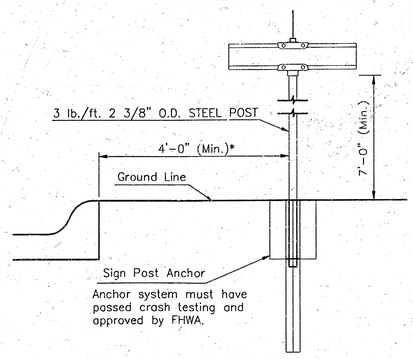
DETAIL A
6 3/4" STANDARD



TYPE I BARRICADE DETAIL W/ E.O.R. MARKERS



DETAIL B
9" METRO



TYPICAL STREET NAME SIGN MOUNTING INSTALLATION

CURB AND GUTTER SECTION

SIGN ASSEMBLY TABLE

STATION	OFFSET	SIGN	QUANTITY*
0+24.00	40' Lt.	SNS	1
0+37.87	33' Lt.	R1-1	1
0+44.09	–	OM-1 & R4-7	1
1+17.78	–	OM-1 & R4-7	1
10+19.59	25' Rt.	SNS	1
18+86.70	–	OM-1 & R4-7	1
19+60.46	–	OM-1 & R4-7	1
19+66.71	34' Rt.	R1-1	1
19+72.00	40' Lt.	SNS	1
TOTAL			6

* FOR INFORMATION ONLY

STREET NAME	NO. BLADES REQ'D	
	6 3/4" STD.	9" METRO
Pepper Ridge	1	
Meadow Park	2	
Fossil Rim	1	
Fossil Rim (2900 N)		1
29th Street North (8300 W)		1

NOTE: REFERENCES BELOW TO "STANDARD SPECIFICATIONS" DENOTE "STANDARD SPECIFICATION FOR STATE ROAD AND BRIDGE CONSTRUCTION EDITION 1990" BY THE KANSAS DEPARTMENT OF TRANSPORTATION.

1. POST ANCHORS: POSTS SHALL BE ANCHORED WITH A YIELDING BASE POST SUPPORT AS DETAILED.
2. POSTS FOR TRAFFIC CONTROL SIGNS: POSTS SHALL BE GALVANIZED AND CONFORM TO THE REQUIREMENTS OF SUBSECTION 1620 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT ALL POSTS SHALL WEIGH 3 LBS./FOOT MINIMUM.
3. POSTS FOR STREET NAME SIGNS (SNS): POSTS SHALL BE 9 FEET LONG, CONSTRUCTED FROM 2 3/8" O.D. GALVANIZED STEEL PIPE WEIGHING A MINIMUM OF 3 LBS./FOOT. POSTS SHALL BE POSITIONED SO THAT THE BOTTOM BLADE IS 7 FEET ABOVE GRADE.
4. POSTS FOR END OF ROADWAY SIGN TO BE 8' LONG AND INSTALLED A MINIMUM OF 4' FROM ROADWAY TO BOTTOM OF SIGN.
5. SIGN BLANKS FOR TRAFFIC CONTROL SIGNS: SIGN BLANKS SHALL BE FABRICATED FROM 0.080" ALUMINUM ALLOY 6063-T6 CONFORMING TO THE REQUIREMENTS OF SUBSECTION 1626 OF THE STANDARD SPECIFICATIONS.
6. SIGN BLADES FOR STREET NAME SIGNS: EXTRUDED ALUMINUM BLADES SHALL BE ALUMINUM ALLOY CONFORMING TO 6063-T6 OR 5052-H38 (ASTM SPECIFICATION B221, LATEST ISSUE). BLADES SHALL HAVE AN ALODINE OR PHOSPHATE ETCHED FINISH. BLADES SHALL HAVE SQUARE CORNERS AND NO HOLES.

   MINIMUM BLADE LENGTH SHALL BE 24". MAXIMUM BLADE LENGTH SHALL BE 48". LENGTH VARIES BY INCREMENTS OF 6".

   BLADES BEARING THE STREET NAMES SHALL BE FIRMLY ATTACHED TO THE MOUNTING BRACKETS USING ALLEN-TYPE SET SCREWS. THE BLADES SHALL BE ORIENTED PARALLEL TO THE STREET.
7. MOUNTING BRACKETS FOR SIGNS: DIE-CAST ALUMINUM BRACKETS SHALL BE ALUMINUM ALLOY 360 HAVING A TENSILE STRENGTH OF 44,000 PSI. THE BRACKETS SHALL BE SMOOTHLY FINISHED FREE OF PITS, BURRS, AND FLAWS. EACH BRACKET SHALL BE TAPPED AND DRILLED FOR 5/16" ZINC-PLATED ALLEN-TYPE SET SCREWS HAVING SELF-LOCKING SAW-TOOTH ENDS.
8. FASTENERS: ALL STEEL FASTENERS FOR TRAFFIC CONTROL SIGNS SHALL BE GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 1614 OF THE STANDARD SPECIFICATIONS.
9. REFLECTIVE SHEETING: REFLECTIVE SHEETING SHALL BE TYPE III, HIGH-INTENSITY TYPE.
10. PROCESS INK: ALL PROCESS INK SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 2202 OF THE STANDARD SPECIFICATIONS.
11. DETAILS: REGULATORY AND WARNING SIGNS SHALL CONFORM TO THE DETAILS IN "STANDARD HIGHWAY SIGNS", FHWA, 1979.
12. DETAILS - SNS: THE REFLECTIVE SHEETING FOR THE 6 3/4" STANDARD SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGOUND WITH SILVER-WHITE #2 COPY WITH 4" UPPER CASE AND LOWER CASE PRIMARY COPY AND SUFFIX COPY. BOTH SERIES "C". FACES TO TRIM TO A 6 1/4". (SEE DETAIL A.)

    THE REFLECTIVE SHEETING FOR THE 9" METRO SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND WITH SILVERWHITE #2 COPY WITH 5" UPPER CASE AND LOWER CASE PRIMARY COPY AND SUFFIX COPY, BOTH SERIES "C". THE CARDINAL DIRECTION CENTERED DIRECTLY BELOW THE BLOCK NUMBER SHALL BE AN UPPER CASE, 4" SERIES "C" LETTER. FACES TO TRIM TO A 8 1/2" WIDTH. (SEE DETAIL B.)

    FOR CUL-DE-SAC STREETS, A 9" METRO SIZE BLADE SHALL BE USED WITH THE HOUSE NUMBERS DISPLAYED BENEATH THE STREET NAME. LETTERING TO BE THE SAME AS FOR THE 6 3/4" SIZE BLADE, EXCEPT THAT THE HOUSE NUMBER INFORMATION SHALL BE 4" SERIES "C".

    SHOP DRAWINGS OF LAYOUT FOR SNS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEERING DIVISION OF THE CITY OF WICHITA FOR APPROVAL PRIOR TO FABRICATION. THE FINISHED SIGNS AS SUPPLIED SHALL BE OF GOOD APPEARANCE, FREE FROM RAGGED EDGES, CRACKS SCALES OR BLISTERS AND SHALL BE CLEAN-CUT. SIGNS SHALL BE PACKED IN SUCH MANNER AS TO PREVENT DAMAGE OR DEFACEMENT DURING SHIPMENT OR STORAGE.
13. PERMANENT TRAFFIC CONTROL AND SNS: PERMANENT TRAFFIC CONTROL AND SNS SHALL BE MEASURED AND PAID FOR AT THE LUMP SUM PRICE FOR SIGNING. THE PAYMENT AS SET FORTH ABOVE SHALL BE CONSIDERED FULL COMPENSATION FOR ALL EXCAVATION, BACKFILLING, POSTS, ANCHORS, FASTENERS, MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

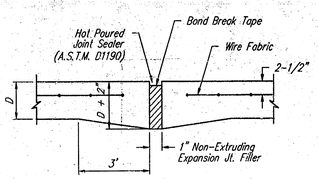
SIGNING DETAILS

SCALE: NONE	APPROVED BY	DATE: JUNE '93
DRAWN BY: TM		REVISED: OCT 2002

CITY OF WICHITA

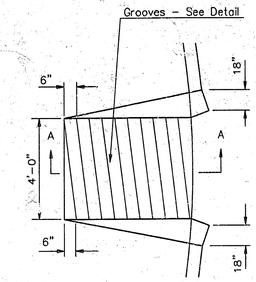
DEPARTMENT OF PUBLIC WORKS

SCOTT LOGAN, TRAFFIC ENGINEER, ENGINEERING DIVISION

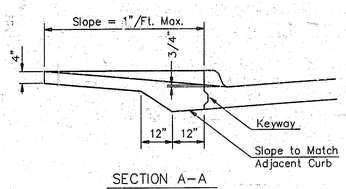


EXPANSION JOINT

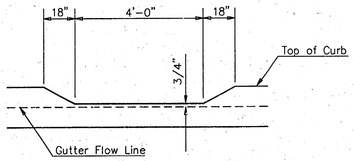
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



WHEELCHAIR RAMP PLAN VIEW

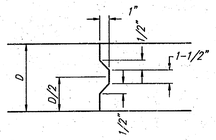


SECTION A–A

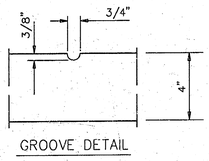


DEPRESSED CURB DETAIL

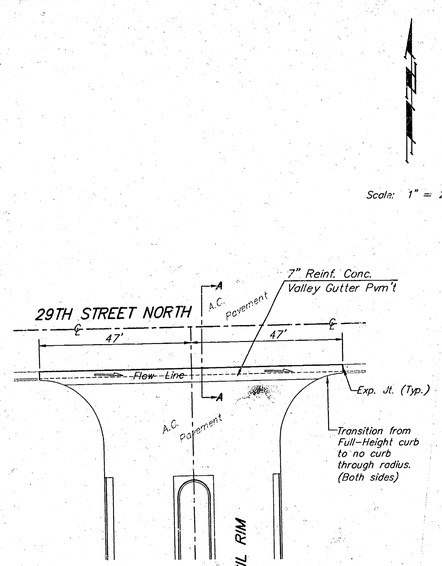
WHEELCHAIR RAMP DETAIL



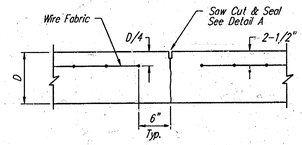
KEYWAY DETAIL



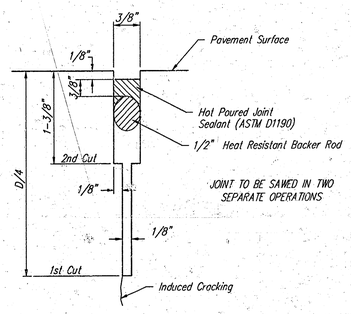
GROOVE DETAIL



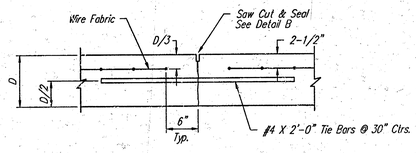
Scale: 1" = 20'



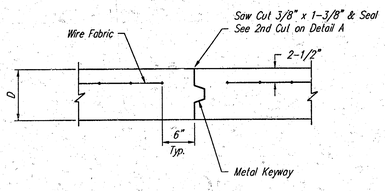
CONTRACTION JOINT DETAIL (C.J.)



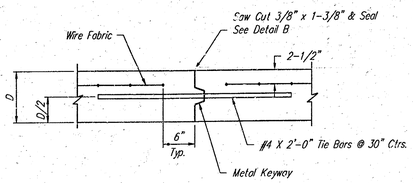
SAW JOINT DETAIL "A"



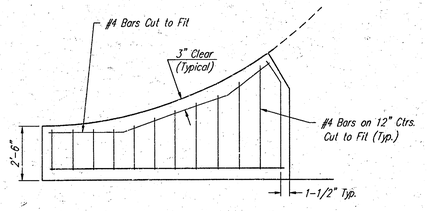
LONGITUDINAL JOINT DETAIL (L.J.)



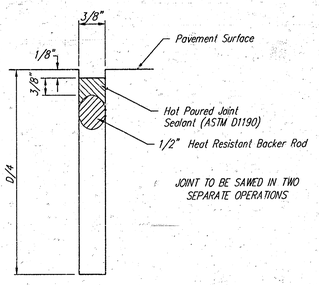
OPTIONAL CONTRACTION JOINT (CONSTRUCTION JOINT)



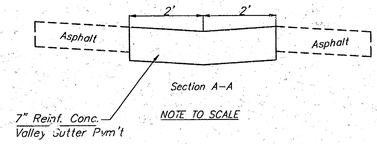
OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.) (CONSTRUCTION JOINT)



WING REINFORCING DETAIL



SAW JOINT DETAIL "B"



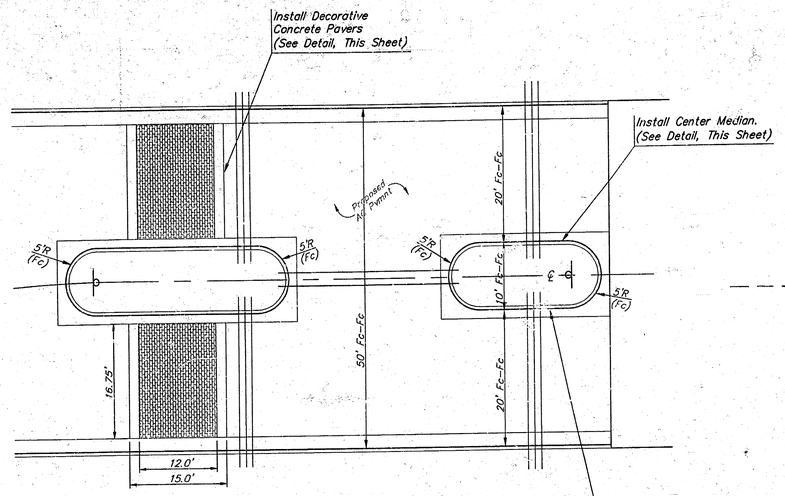
VALLEY GUTTER DETAILS

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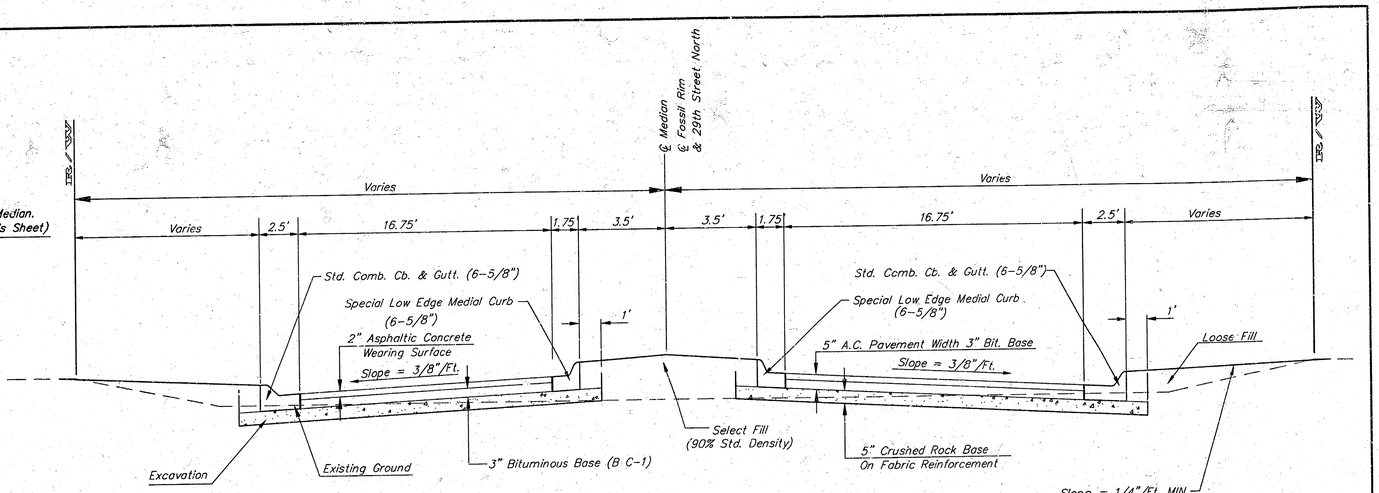
PROJECT NUMBER	SHEET
143 PPP (607879)	4 OF 16

DESIGN	DRAWN	APPROVED	DATE	SCALE
STAFF	STAFF		6/11/03	NONE

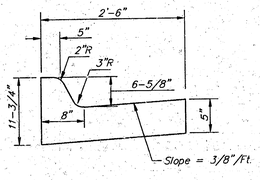
VGDETAIL



DECORATIVE CONCRETE PAVER PLAN DETAIL
Typical View Detail



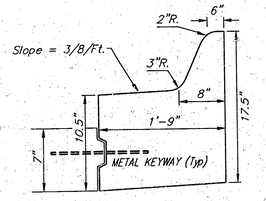
FOSSIL RIM



Standard Combined Curb Detail

Not to Scale

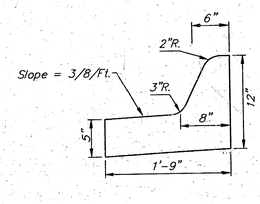
Note: To be paid as Standard Combined Curb & Gutter



Special Medial Curb Detail
(Low Edge)

Not to Scale

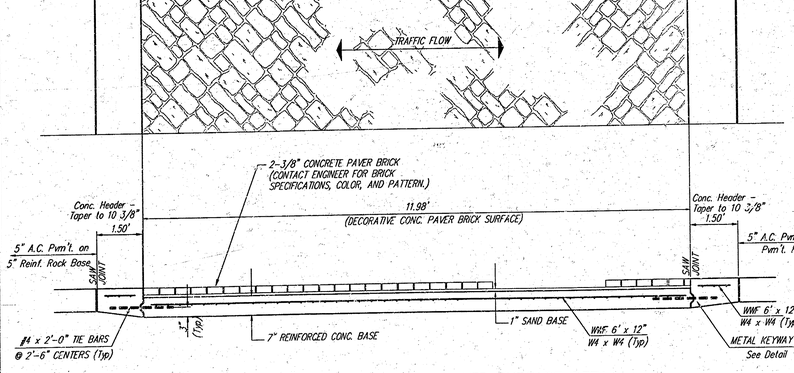
** MEDIAL CURB ADJACENT TO BRICK PAVER SURFACE
Note: To be paid as Medial Curb & Gutter (6 5/8")



Medial Curb Detail
(Low Edge)

Not to Scale

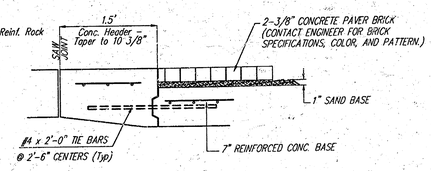
Note: To be paid as Medial Curb & Gutter (6 5/8")

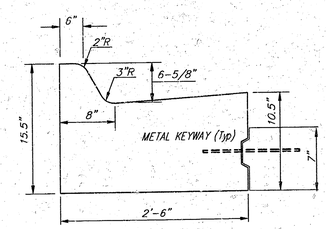


DECORATIVE CONCRETE PAVER SURFACE DETAIL

NOTE: Pavement transition from 10" to 10-3/8" Depth and Concrete Pavement under Concrete Paver Surface To Be Bid as S.Y. 9" Concrete Header

NOTE: 1" Sand Base under Concrete Paver Surface to be subsidiary to bid item for "Decorative Concrete Paver Surface". (2 3/8")





Special Comb. Curb & Gutter

Not to Scale

** CURB SECTIONS ADJACENT TO BRICK PAVER SURFACE
Note: To be paid as Full-Height Curb & Gutter (6 5/8")

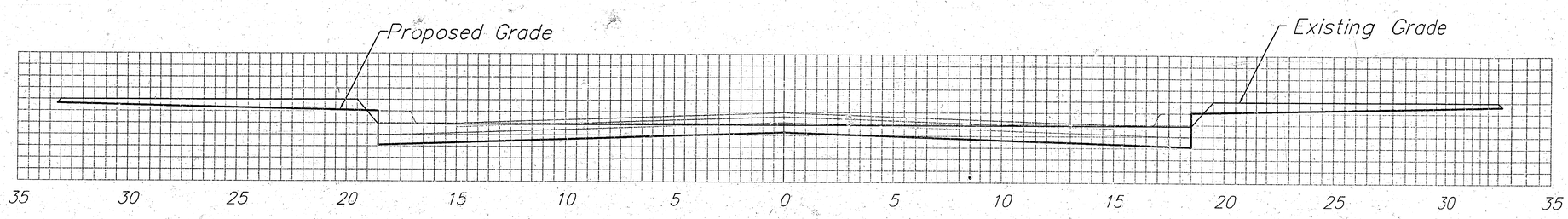
FOSSIL RIM ESTATES
ENTRANCE DETAILS

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER	SHEET
143 PPP (607879)	5 OF 16

DESIGN	DRAWN	APPROVED	DATE	SCALE
BLP	JAK		6/11/03	NONE

FOSSILRIM.DWG T-ENTRY



TYPICAL CROSS SECTION
MEADOW PARK
& PEPPER RIDGE

NOTE:

All Earthwork shall be bid as Lump Sum "Excavation."

Mass Grading was completed prior to this project. Existing grades are within ±0.5'.

FOSSIL RIM ESTATES
EARTHWORK DETAILS

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER					SHEET
143 PPP (607879)					6 OF 16
DESIGN	DRAWN	APPROVED	DATE	SCALE	
NBW	AEG		6/11/03	1" = 5'	

F:\ass\Improvate\Earthwork

BENCHMARKS:
City of Wichita Disc, SE corner of 29th & Tyler
32.30 ft South of centerline
30.00 ft East of centerline
9.20 ft Southeast of power pole
43.20 ft Southeast of section corner
Elev. = 178.04 (City Datum)

"□" Cut in top of curb on the West side of Pepper Ridge 65± south of Lot 8, Blk. B, Fossil Rim Estates.
Elev. = 174.92 (City Datum)

Curve #3
Curve Data Based on Face of Curb
Rad. = 200' Delta = 31° 28' 27" Tangent = 56.36'
Arc = 109.88' L.C. = 108.49' Def/Ft. = 8.59324 Min.

Station	Arc	FACE CHORD LENGTHS 8' Rt.	Defl.	T. Defl.
A	–	–	0°00'00"	0°00'00"
B	27.47'	26.35'	3°56'03"	0°00'00"
C	27.47'	26.35'	3°56'03"	7°52'07"
D	27.47'	26.35'	3°56'03"	11°48'10"
E	27.47'	26.35'	3°56'03"	15°44'13"

Curve #4
Curve Data Based on Face of Curb
Rad. = 228.18' Delta = 22° 15' 57" Tangent = 44.90'
Arc = 87.52' L.C. = 88.12' Def/Ft. = 7.63226 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	Defl.	T. Defl.
F	–	–	0°00'00"	0°00'00"
G	21.88'	23.00'	2°47'00"	2°47'00"
H	21.88'	23.00'	2°47'00"	5°33'59"
I	21.88'	23.00'	2°47'00"	8°20'59"
J	21.88'	23.00'	2°47'00"	11°07'59"

Scale: 1" = 20'
• = Iron

P.V.I. Elev. = 181.65 No V.C. Sta 1+17.78–PCC
P.V.I. Elev. = 178.80 No V.C. Sta 2+82.81
P.V.I. Elev. = 177.61 No V.C. Sta 4+04.55–PRC
P.V.I. Elev. = 178.80 No V.C.

–1.615%
–1.559%
–0.925%
–1.430%
–1.843%
–1.036%

Sta 0+37.87, 33' Lt. Install R1–1 (Stop) sign.
Sta 0+44.09 & 1+17.78, Install R4–7 (Keep Right) & OM–1 Sign.
Contractor to install 9" concrete Header & Brick Pavers. (See detail sheet 5)
CO Rim Elev. = 181.20
CO Rim Elev. = 179.30
Construct 5" A.C. Pavement W/ 5" Reinf. Rock Base.
Construct Std. Comb. Full Height Curb & Gutter (6–5/8")
Sta 0+24.00, 40' Lt. Install Std. D3 (SNS) Ass'y as per City specs. "Pepper Ridge" & "Meadow Park".
Sta 0+55.00, Begin construction of 5" A.C. Pvmt. W/5" Reinf. Rock Base.
Saw, cut, remove and replace existing pavement as shown. To be incidental to "Site Clearing & Restoration".
Install 14 – 4" PVC Pipes (26' Long) Under Pavement.
Manhole Rim Elev. = 180.80
Manhole Rim Elev. = 179.30
Const. Full–Height Low Edge Medial Curb & Gutter. (6–5/8") (See Detail, Sheet 5) Median Shall Be Filled With Friable Fill Material
Sta 0+57.00 Remove End of Road Markers.

Sta 0+00 = @ Pepper Ridge
Sta 0+37.84
Sta 0+00 = @ Meadow Park
Sta 0+32.00–PC
Sta 0+57.57–PC
Sta 1+08.84–PT
Sta 1+17.78–PT
Sta 1+35.74–PC
Sta 2+82.81
Sta 4+04.55–PRC
Iron @ BL Sta 1+82.44

8 FOSSIL RIM ESTATES
RESERVE "E"
RESERVE "B"
MEADOW PARK
PEPPER RIDGE
20' Util. Esmt.
Proposed Pvm't
A.C. Pvm't
Ex. 34' F-F/C
64' R/W

Curve #1 R=325'
Curve #2 R=273.82'
Curve #3 R=200.00'
Curve #4 R=225.18'
Curve #5 R=317.00'
Curve #6
R=337'
R=317'
R=300'
R=283'
R=265'

Curve #1&#2
Curve Data Based on Centerline
Rad. = 300' Delta = 16° 23' 00" Tangent = 43.19'
Arc = 79.94' L.C. = 85.49' Def/Ft. = 6.14836 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	8' Rt.	Defl.	T. Defl.
0+37.84	–	–	–	0°00'00"	0°00'00"
0+50.00	12.16'	14.48'	11.56'	1°14'46"	1°14'46"
0+75.00	25.00'	29.77'	23.76'	2°33'42"	3°48'28"
1+00.00	25.00'	29.77'	23.76'	2°33'43"	6°22'11"
1+17.78	17.78'	21.17'	16.90'	1°49'19"	8°11'30"

Curve #6
Curve Data Based on Centerline
Rad. = 300' Delta = 33° 15' 02" Tangent = 61.72'
Arc = 121.74' L.C. = 120.91' Def/Ft. = 5.72956 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	8' Rt.	Defl.	T. Defl.
2+82.81	–	–	–	0°00'00"	0°00'00"
3+00.00	17.19'	18.62'	15.76'	1°38'29"	1°38'29"
3+25.00	25.00'	27.08'	22.91'	2°23'15"	4°01'44"
3+50.00	25.00'	27.08'	22.91'	2°23'14"	6°24'58"
3+75.00	25.00'	27.08'	22.91'	2°23'14"	8°48'12"
4+00.00	25.00'	27.08'	22.91'	2°23'14"	11°11'26"
4+04.55	4.55'	4.93'	4.17'	0°26'05"	11°37'31"

Curve #5
Curve Data Based on Face of Curb
Rad. = 317' Delta = 8° 59' 17" Tangent = 24.92'
Arc = 49.74' L.C. = 49.68' Def/Ft. = 5.42102 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	Defl.	T. Defl.
K	–	–	0°00'00"	0°00'00"
L	16.58'	16.99'	1°29'53"	1°29'53"
M	16.58'	16.99'	1°29'53"	2°59'46"
N	16.58'	16.99'	1°29'53"	4°29'39"

As Built Per plan 9/03 K.R.

FOSSIL RIM ESTATES
MEADOW PARK
STA 0+00 TO STA 4+04.55

BAUGHMAN COMPANY P.A.
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316–262–7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER 143 PPP (607879) | SHEET 7 OF 16

DESIGN	DRAWN	APPROVED	DATE	SCALE
NBW	TMS		6/11/03	Noted

Fossil Park Sht1 02-08-F404

BENCHMARKS:
City of Wichita Disc, SE corner of 29th & Tyler.
32.30 ft South of centerline
30.00 ft East of centerline
9.20 ft Southeast of power pole
43.20 ft Southeast of section corner
Elev. = 178.04 (City Datum)

"□" Cut in top of curb on the West side of Pepper Ridge 65± south of Lot 8, Blk. B, Fossil Rim Estates.
Elev. = 174.92 (City Datum)

Scale: 1" = 20'
• = Iron

Curve #7
Curve Data Based on Centerline
Rad. = 200' Delta = 72°00'48" Tangent = 145.34'
Arc = 251.37' L.C. = 235.15' Def./Ft. = 8.59450 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	8' Rt.	Defl.	T. Defl.
4+04.55	–	–	–	0°00'00"	0°00'00"
4+25.00	20.45'	17.89'	23.00'	2°55'45"	2°55'45"
4+50.00	25.00'	21.86'	28.11'	3°34'52"	6°30'37"
4+75.00	25.00'	21.86'	28.11'	3°34'52"	10°05'29"
5+00.00	25.00'	21.86'	28.11'	3°34'52"	13°40'21"
5+25.00	25.00'	21.86'	28.11'	3°34'52"	17°15'12"
5+50.00	25.00'	21.86'	28.11'	3°34'52"	20°50'04"
5+75.00	25.00'	21.86'	28.11'	3°34'52"	24°24'56"
6+00.00	25.00'	21.86'	28.11'	3°34'52"	27°59'48"
6+25.00	25.00'	21.86'	28.11'	3°34'52"	31°34'39"
6+50.00	25.00'	21.86'	28.11'	3°34'52"	35°09'31"
6+55.92	5.92'	5.18'	6.66'	0°50'53"	36°00'24"

P.V.I.
Elev. = 177.61
No V.C.

Sta 4+04.55-PRC

-1.078%

-1.430%

Sta 6+55.92-PT

P.V.I.
Elev. = 174.32
No V.C.

-1.990%

Sta 8+47.84-PC

-3.845%

P.V.I.
Elev. = 170.50
35.46' V.C.

Volve Box
Elev. = 176.90

Sta 4+96.49, 17.25' Lt.
Install subdivision benchmark (Flat Survey Marker No. 8134-08 3" top diameter) in top of curb. Cost shall be incidental to L.F. Curb & Gutter.

CO Rim
Elev. = 175.60

Construct 5" A.C. Pavement W/ 5" Reinf. Rock Base.

20' Util. Esmt.

Trees

Manhole Rim
Elev. = 177.80

Curve #7

RESERVE "B"

Proposed Pvmt

MEADOW PARK

Construct Std. Comb. Full Height Curb & Gutter (6-5/8")

Manhole Rim
Elev. = 175.70

FOSSIL RIM ESTATES

20' Drng. Esmt.

Manhole Rim
Elev. = 170.60

-1.207%

-1.990%

-3.138%

Sta 6+55.92-PT

Sta 8+47.84-PC

P.V.I.
Elev. = 170.50
44.54' V.C.

As Built per plan 9/03 mk

Remove trees only as necessary for street construction. Cost of removal to be incidental to lump sum bid item "Site Clearing & Restoration".

FOSSIL RIM ESTATES
MEADOW PARK
STA 4+04.55 TO STA 8+47.84

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PROJECT NUMBER 143 PPP (607879) | SHEET 8 OF 16

DESIGN	DRAWN	APPROVED	DATE	SCALE
NBW	TMS		6/11/03	Noted

Excel/PrivSrv 10-14-04h

BENCHMARKS:
City of Wichita Disc, SE corner of
29th & Tyler
32.30 ft South of centerline
30.00 ft East of centerline
9.20 ft Southeast of power pole
43.20 ft Southeast of section corner
Elev. = 178.04 (City Datum)

"□" Cut in top of curb on the West side of Pepper Ridge 65± south of Lot 8, Blk. B, Fossil Rim Estates.
Elev. = 174.92 (City Datum)

Scale: 1" = 20'
• = Iron

Construct std. type 1A inlet hookups & inlet sediment barriers, both sides (See detail, sheet 11)

P.V.I.
Elev. = 170.50
35.46' V.C.

Sta 8+47.84–PC

Sta 11+19.75–PT

P.V.I.
Elev. = 164.50
34.76' V.C.

−1.990%

−3.940%

−1.914%

−1.521%

Sta 10+19.59

Curve #8
Curve Data Based on Centerline
Rad. = 150' Delta = 103° 51' 36" Tangent = 191.51'
Arc = 271.91' L.C. = 238.18' Def. ' =11.45894 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	8' Rt.	Defl.	T. Defl.
8+47.84	–	–	–	0°00'00"	0°00'00"
8+50.00	2.16'	1.80'	2.52'	0°24'45"	0°24'45"
8+70.55	20.55'	17.11'	23.96'	3°55'29"	4°20'14"
8+75.00	4.45'	3.71'	5.19'	0°50'59"	5°11'13"
9+00.00	25.00'	20.81'	29.13'	4°46'28"	9°57'42"
9+25.00	25.00'	20.81'	29.13'	4°46'28"	14°44'10"
9+50.00	25.00'	20.81'	29.13'	4°46'28"	19°30'38"
9+75.00	25.00'	20.81'	29.13'	4°46'28"	24°17'07"
10+00.00	25.00'	20.81'	29.13'	4°46'28"	29°03'35"
10+25.00	25.00'	20.81'	29.13'	4°46'28"	33°50'04"
10+50.00	25.00'	20.81'	29.13'	4°46'28"	38°36'32"
10+75.00	25.00'	20.81'	29.13'	4°46'28"	43°23'01"
11+00.00	25.00'	20.81'	29.13'	4°46'28"	48°09'29"
11+19.75	19.75'	16.45'	23.02'	3°46'19"	51°55'48"

MEADOW PARK

FOSSIL RIM

RESERVE "B"

FOSSIL RIM ESTATES

Curve #8

20' Util. Esmt.

15' Drng. Esmt. (8") Sch. 1 Inst.

20' Drng. Esmt.

Manhole Rim Elev. = 165.80

Manhole Rim Elev. = 170.60

Manhole Rim Elev. = 164.30

Manhole Rim Elev. = 164.80

Adjust inlet top to match proposed grade, both sides. To be bid as "Inlet Adjustment". (A)

Construct Std. Comb. Full Height Curb & Gutter (6-5/8")

Construct 5" A.C. Pavement W/ 5" Reinf. Rock Base.

Sta 10+19.59, 25' Rt. Install Std. D3 (SNS) Ass'y as per City specs. "Fossil Rim" & "Meadow Park".

Trees

Proposed Firm't

Ex. 18" RCP

Ex. 8" SWS

Ex. 6" W

Ex. 8" SS

Ex. 6" G

Ex. 6" FM

Ex. 6" P.W.

Ex. 6" G.P.

Ex. 6" G.L.

Ex. 6" G.T.

Ex. 6" G.C.

Ex. 6" G.S.

Ex. 6" G.V.

Ex. 6" G.W.

Ex. 6" G.X.

Ex. 6" G.Y.

Ex. 6" G.Z.

Ex. 6" G.A.

Ex. 6" G.B.

Ex. 6" G.C.

Ex. 6" G.D.

Ex. 6" G.E.

Ex. 6" G.F.

Ex. 6" G.G.

Ex. 6" G.H.

Ex. 6" G.I.

Ex. 6" G.J.

Ex. 6" G.K.

Ex. 6" G.L.

Ex. 6" G.M.

Ex. 6" G.N.

Ex. 6" G.O.

Ex. 6" G.P.

Ex. 6" G.Q.

Ex. 6" G.R.

Ex. 6" G.S.

Ex. 6" G.T.

Ex. 6" G.U.

Ex. 6" G.V.

Ex. 6" G.W.

Ex. 6" G.X.

Ex. 6" G.Y.

Ex. 6" G.Z.

P.V.I.
Elev. = 170.50
44.54' V.C.

P.V.I.
Elev. = 164.50
43.64' V.C.

Remove trees only as necessary for street construction. Cost of removal to be incidental to lump sum bid item "Site Clearing & Restoration".

Subdivision Bench Marks

Street & Station	Location Description	Elevation
Meadow Park 4+96.49, 17.25' Lt.	Adjacent to Fire Hydrant between Lots 6 & 7, Block D.	
Fossil Rim 13+60.29, 17.25' Lt.	Adjacent to Fire Hydrant between Lots 4 & 5, Block D.	
Fossil Rim 19+66.71, 23.25' Lt.	Adjacent to Fire Hydrant at S. End of W. Curb Return of Fossil Rim & 29th Street North.	

As Built Per Plan, 9/03 KVK

FOSSIL RIM ESTATES
MEADOW PARK/FOSSIL RIM
STA 8+47.84 TO STA 11+19.75

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PROJECT NUMBER	SHEET
143 PPP (607879)	9 OF 16

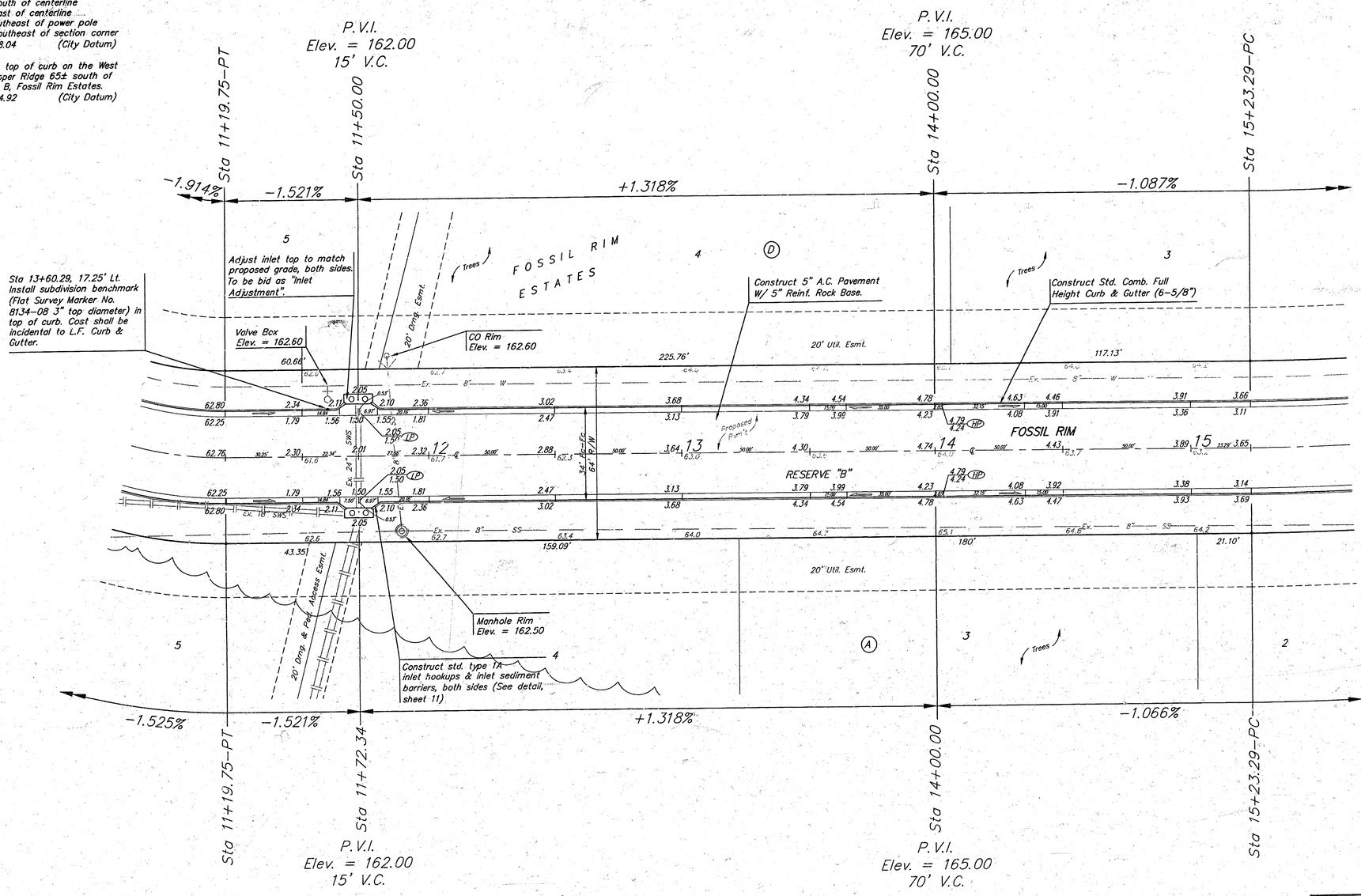
DESIGN	DRAWN	APPROVED	DATE	SCALE
NBW	TMS		6/11/03	Noted

Front Plan Sht 10-20-2003

BENCHMARKS:
City of Wichita Disc, SE corner of 29th & Tyler
32.30 ft South of centerline
30.00 ft East of centerline
9.20 ft Southeast of power pole
43.20 ft Southeast of section corner
Elev. = 178.04 (City Datum)

"□" Cut in top of curb on the West side of Pepper Ridge 65± south of Lot 8, Blk. B, Fossil Rim Estates.
Elev. = 174.92 (City Datum)

Scale: 1" = 20'
• = Iron



Remove trees only as necessary for street construction. Cost of removal to be incidental to lump sum bid item "Site Clearing & Restoration".

As Built Per Plan 9/03 MM

FOSSIL RIM ESTATES
FOSSIL RIM
STA 11+19.75 TO STA 15+23.29

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PROJECT NUMBER	SHEET
143 PPP (607879)	10 OF 14

DESIGN	DRAWN	APPROVED	DATE	SCALE
NBW	TMS		6/11/03	Noted

BENCHMARKS:

City of Wichita Disc, SE corner of 29th & Tyler
32.30 ft South of centerline
30.00 ft East of centerline
9.20 ft Southeast of power pole
43.20 ft Southeast of section corner
Elev. = 178.04 (City Datum)

"□" Cut in top of curb on the West side of Pepper Ridge 65± south of Lot 8, Blk. B, Fossil Rim Estates.
Elev. = 174.92 (City Datum)

Curve #9
Curve Data Based on Centerline
Rad. = 1000' Delta = 15° 44' 49" Tangent = 138.29'
Arc = 274.83' L.C. = 273.97' Def/Ft. = 1.71888 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	8' Rt.	Defl.	T. Defl.
15+23.29	--	--	--	0°00'00"	0°00'00"
15+25.00	1.71'	1.66'	1.76'	0°02'56"	0°02'56"
15+50.00	25.00'	24.38'	25.63'	0°42'59"	0°45'55"
15+75.00	25.00'	24.37'	25.62'	0°42'58"	1°28'53"
16+00.00	25.00'	24.37'	25.62'	0°42'58"	2°11'51"
16+25.00	25.00'	24.38'	25.63'	0°42'59"	2°54'50"
16+50.00	25.00'	24.37'	25.62'	0°42'58"	3°37'48"
16+75.00	25.00'	24.37'	25.62'	0°42'58"	4°20'46"
16+78.66	3.66'	3.57'	3.76'	0°06'18"	4°27'04"
17+00.00	21.34'	20.81'	21.87'	0°36'41"	5°03'45"
17+25.00	25.00'	24.37'	25.62'	0°42'58"	5°46'43"
17+50.00	25.00'	24.37'	25.62'	0°42'58"	6°29'41"
17+75.00	25.00'	24.38'	25.63'	0°42'59"	7°12'40"
17+98.12	23.12'	22.54'	23.69'	0°39'44"	7°52'24"

Curve #10
Curve Data Based on Face of Curb
Rad. = 150' Delta = 32° 39' 02" Tangent = 43.93'
Arc = 85.48' L.C. = 84.33' Def/Ft. =11.45902 Min.

Station	Arc	FACE CHORD LENGTHS 8' Lt.	Defl.	T. Defl.
A			0°00'00"	0°00'00"
B	21.37'	22.41'	4°04'53"	4°04'53"
C	21.37'	22.41'	4°04'53"	8°09'46"
D	21.37'	22.45'	4°04'53"	12°14'39"
E	21.37'	22.49'	4°04'52"	16°19'31"

Curve #11
Curve Data Based on Face of Curb
Rad. = 150' Delta = 28° 46' 01" Tangent = 38.47'
Arc = 75.30' L.C. = 74.52' Def/Ft. =11.46093 Min.

Station	Arc	FACE CHORD LENGTHS 8' Rt.	Defl.	T. Defl.
F	--	--	0°00'00"	0°00'00"
G	15.06'	14.25'	2°52'34"	2°52'34"
H	15.06'	14.25'	2°52'34"	5°45'09"
I	15.06'	14.25'	2°52'34"	8°37'43"
J	15.06'	14.25'	2°52'34"	11°30'17"
K	15.06'	14.25'	2°52'34"	14°23'01"

Sta 15+23.29-PC
P.V.I. Elev. = 162.00 56.34' V.C.
Sta 16+78.66-PRC
Sta 18+11.90-PRC
Sta 17+98.12-PRC
Sta 17+85.07-PRC
Sta 18+63.84-PT
Sta 18+86.47-PT
P.V.I. Elev. = 164.00 No V.C.
Sta 19+72.00, 40' Lt. Install Metro D3 (SNS) Ass'y as per City specs. "Fossil Rim (2900 N)" & "29th Street North (8300 W)".
Sta 19+66.71
Sta 20+16.71
Sta 19+66.71 = ℄ 29th Street North
Sta 20+16.71 = ℄ 29th Street North
Sta 17+75.00
P.V.I. Elev. = 162.87 No V.C.
P.V.I. Elev. = 164.00 No V.C.
Sta 15+23.29-PC
P.V.I. Elev. = 162.00 20' V.C.
Sta 16+78.66-PRC
Sta 17+98.12-PRC

-1.087%
+0.916%
+2.119%
+1.741%
+1.120%
+0.888%
-1.066%

FOSSIL RIM ESTATES 1
FOSSIL RIM RESERVE "B"
RES. "C"
RES. "A"
29TH STREET NORTH

CO Rim Elev. = 163.50
Manhole Rim Elev. = 163.25
Iron @ Sta 18+16.06-PRC
Iron @ Sta 17+81.50-PRC
Iron @ Sta 18+63.84-PT
Curve #9
Curve #10 R=150'
Curve #11 R=150'
R=968'
R=983'
R=1000'
R=1017'
R=1032'
R=40' (FCH)

Construct Std. Comb. Full Height Curb & Gutter (6-5/8")
Adjust inlet top to match proposed grade, both sides. To be bid as "Inlet Adjustment".
Construct std. type 1A inlet hookups & inlet sediment barriers, both sides (See detail, sheet 11)
Construct 5" A.C. Pavement W/ 5" Reinf. Rock Base.
Remove trees only as necessary for street construction. Cost of removal to be incidental to lump sum bid item "Site Clearing & Restoration".
Sta. 18+86.70 & 19+60.46 Install R4-7 (Keep Right) & OM-1 Sign.
Const. Full-Height Low Edge Medial Curb & Gutter. (6-5/8") (See Detail, Sheet 5) Median Shall Be Filled With Friable Fill Material
Sta 19+66.71, End construction of 5" A.C. Pvmt. W/5" Reinf. Rock Base.
Sta 19+66.71, 30' Rt. Install R1-1 (Stop) sign.
Contractor to install 9" concrete Header & Brick Pavers. (See detail sheet 5)
Sta 19+66.71, 25.25' Lt. Install subdivision benchmark (Flat Survey Marker No. 81.34-08 3" top diameter) in top of curb. Cost shall be incidental to L.F. Curb & Gutter.
Construct Full Ht. Asphalt Curb as Shown (Both Sides). Cost included in bid item "A.C. Pvmt."
Install 14 - 4" PVC Pipes (12-26' Long)(2-29' Long)Under Pavement.
Construct 5" A.C. Pavement Hookup on 5" Reinf. Rock Base.
Construct 7" Reinforced Concrete Valley Gutter Pavement with monolithic curb (6-5/8"). See Detail, Sheet 4.
Saw, cut, remove and replace 86 L.F. existing curb & gutter as shown. To be incidental to "Site Clearing & Restoration".
Regrade Area & Install 130 S.Y. Erosion Control Mat (Both Sides)(260 S.Y. Total) Over Disturbed Area.

Proposed Pvm't
Ex. 8" Sanitary Sewer
Ex. 15" Storm Sewer
20' Drng. Esmt.
20' Util. Esmt.
Trees
Fence

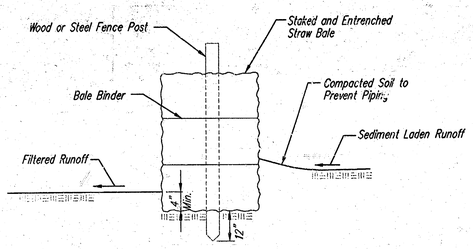
As Built Per Plan - 9/03 KK

FOSSIL RIM ESTATES
FOSSIL RIM
STA 15+23.29 TO STA 20+16.71

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PROJECT NUMBER	SHEET
143 PFP (607879)	11 of 16

DESIGN	DRAWN	APPROVED	DATE	SCALE
NBW	IMS		6/11/03	Noted



STRAW BALE BARRIERS

Material Specification:

Bale slope barriers may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment.
When practicable, bale slope barriers should be placed along contours to avoid a concentration of flow.
Bale slope barriers can also be placed along right-of-way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 4" deep and a bale's width wide. Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upslope side of the check and compact it. The compacted soil should be no more than 3" to 4" deep.

List of common placement/installation mistakes to avoid:

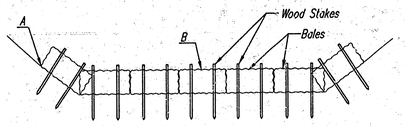
When practicable, do not place bale slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. Concentrated flow over a slope barrier creates a scour hole on the downslope side of the barrier. The scour hole eventually undermines the bales and the barrier fails.
Do not place bale slope barriers in areas with shallow soils underlain by rock. If the barrier is not anchored sufficiently, it will wash out.
Bale slope barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the slope barrier?

NOTE: Point A must be higher than Point B so that water flows over the bales and not around them.



STRAW BALE DITCH CHECKS

Material Specification:

Bale ditch checks may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Optional: The downstream scour apron should be constructed of a double-netted straw erosion-control blanket at least 6' wide.
Optional: The metal landscape staples used to anchor the erosion-control blanket should be at least 8" long.

Placement:

Bale ditch checks should be placed perpendicular to the flowline of the ditch.
The ditch check should extend far enough so that the ground level at the ends of the check is higher than the top of the lowest center bale. This prevents water from flowing around the check.
Checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Bales should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.
The following table provides check spacing for a given ditch grade:

Ditch grade (%)	Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is 4" deep and a bale's width wide. Extend the trench in a straight line along the entire length of the proposed ditch check. Place the soil on the upstream side of the trench-it will be used later.
Optional: On the downstream side of the trench, roll out a length of erosion-control blanket (scour apron) equal to the length of the trench. Place the upstream edge of the erosion-control blanket along the bottom upstream edge of the trench. The erosion control blanket should be anchored in the trench with one row of 8" landscape staples placed on 18" centers. The remainder of the erosion-control blanket (the portion that is not lying in the trench) will serve as the downstream scour apron. This section of the blanket should be anchored to the ground with 8" landscape staples placed around the perimeter of the blanket on 18" centers. The remainder of the blanket should be anchored using two evenly spaced rows of 8" landscape staples on 18" centers placed perpendicular to the flowline of the ditch.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upstream side of the check and compact it. The compacted soil should be no more than 3" to 4" deep and extend upstream no more than 24".

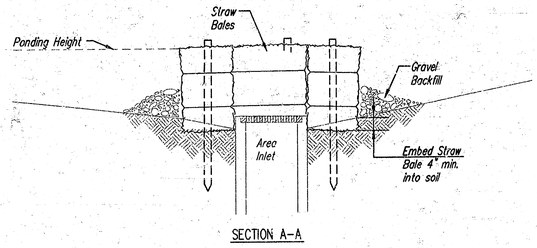
List of common placement/installation mistakes to avoid:

Do not place a bale ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place bale ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow.
Follow prescribed ditch-check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the check is higher than the top of the lowest center bale.
Do not place bale ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.
Bale ditch checks must be dug into the ground. Bales at ground level do not work because they allow water to flow under the check.

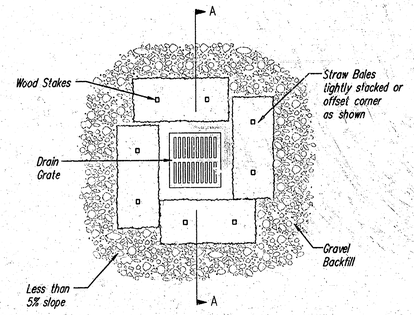
Inspection and Maintenance:

Bale ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow around the ditch check?
Does water flow under the ditch check?
Does water flow through spaces between abutting bales?
Are any bales and/or scour aprons (optional) dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the ditch check?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

Bale area inlet barriers should be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.

Placement:

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet.
When a bale area inlet barrier is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper Installation Method:

Excavate a trench around the perimeter of the area inlet that is at least 4" deep by a bale's width wide.
Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends.
Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep.
Note: When a bale area inlet barrier is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

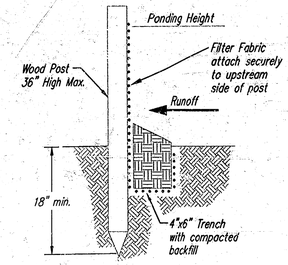
List of common placement installation mistakes to avoid:

Bales should be placed directly against the perimeter of the area inlet. This allows overtopping water to flow directly into the inlet instead of onto nearby soil causing scour.
Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale area inlet barriers should be inspected every 7 days and within 24 hours of a rainfall 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the area inlet barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the area inlet barrier?



SILT FENCE BARRIERS

SILT FENCE BARRIERS

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment.
When practicable, silt fence slope barriers should be placed along contours to avoid a concentration of flow.
Silt fence slope barriers can also be placed along right-of-way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 6" deep by 4" wide.
Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downslope side of the trench.
Place the edge of the fabric in the trench starting at the top upslope edge. Line all three sides of the trench with the fabric. Backfill over the fabric in trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt-fence fabric should remain exposed.
Lay the exposed silt fence upslope of the trench to clear an area for driving in the posts.
Just downslope of the trench, drive posts into the ground to a depth of at least 18".
Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

List of common placement/installation mistakes to avoid:

When practicable, do not place silt fence slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. When the flow concentrates, it overtops the barrier and the silt fence slope barrier quickly deteriorates.
Do not place silt-fence posts on the upslope side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, bails, etc.). The silt fence will rip and fail.
Do not place silt fence slope barriers in areas with shallow soils underlain by rock. If the barrier is not sufficiently anchored, it will wash out.
Silt fence slope barriers must be dug into the ground-silt fence at ground level does not work because water will flow underneath.

Inspection and Maintenance:

Silt fence slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

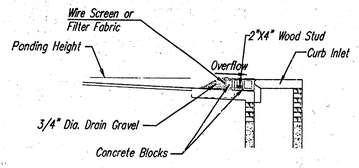
Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Do the silt fences sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the slope barrier?

CITY OF WICHITA

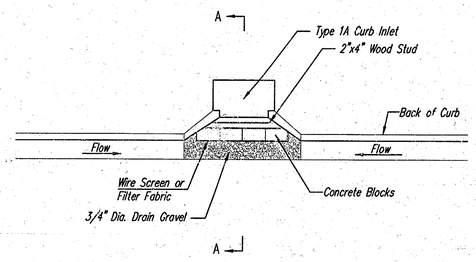
SOIL EROSION BMP DETAILS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER 143 PPP (607879)
OCA NO.
DATE JUNE 2003



SECTION A–A



CURB INLET GRAVEL FILTERS
(INLET PROTECTION–RESIDENTIAL STREETS ONLY)

NOTE: Other types of curb inlet protection may be approved by the city so long as equal protection is provided.

A gravel inlet filter shall be installed at sump locations on residential streets. This type of protection is not to be used on arterial or collector streets at any time that it would pose an undue traffic hazard.

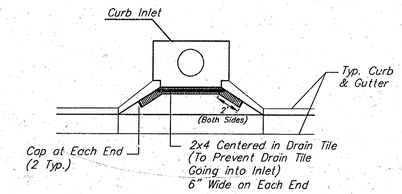
Instructions for Installing:

STEP 1: Place concrete blocks around the inlet as shown on drawing. Insert 2x4 board as shown.
STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.
STEP 3: Place 1" to 1–1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.
STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary. An alternative installation is the use of gravel bags supported by a 2"x4" board to prevent collapsing.

Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

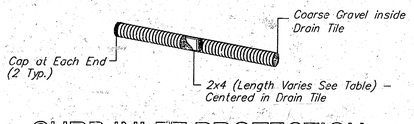
Maintenance:

All curb inlet gravel filters shall be inspected and repaired after each runoff event. Sediment deposits are to be removed once material is within 8 cm (3 inches) of the top of any block. Periodically, the gravel shall be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets.

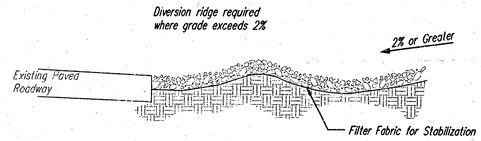


Note:
Place 4" perforated PVC pipe filled w/ 1/2"–1" Dia. gravel. Place pipe in front of Curb Inlet as Shown.

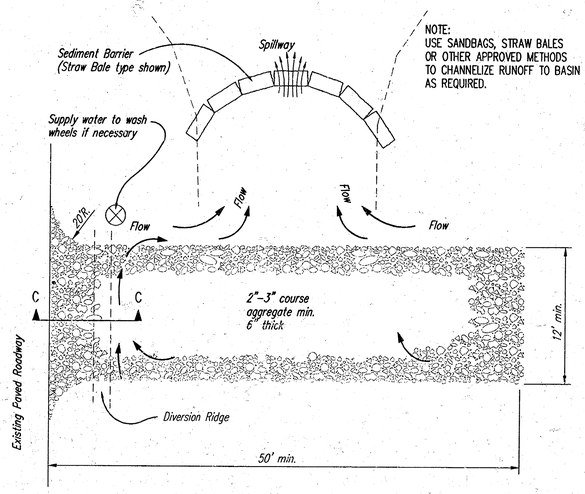
2x4 LENGTH	INLET TYPE	INLET OPENING
5'–6"	1–A	5'–0"
10'–6"	1–A	10'–0"
15'–6"	1–A	15'–0"



CURB INLET PROTECTION
4" Perforated Pipe w/ Gravel



SECTION C–C



STABILIZED CONSTRUCTION ENTRANCE

NOTES:

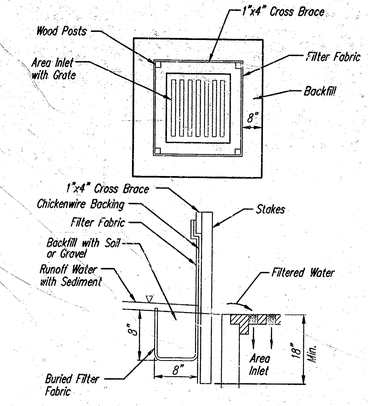
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

CITY OF WICHITA

SOIL EROSION BMP DETAILS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER	OCA NO.
143 PPP (607879)	
DATE	SHEET 13 OF 16
JUNE 2003	



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The wire or polymeric mesh backing used to help support the silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
The material used to frame the tops of the posts should be 1" by 4" boards.
Silt fence fabric and support backing should be attached to the wooden posts and frame with staples, wire, zip ties, or nails.

Placement:

Place a silt fence drop inlet barrier in a location where it is unlikely to be overtopped.
Water should flow through silt fence, not over it. Silt fence barriers for area inlets often fail when repeatedly overtopped.
When used as a barrierfor area inlets, silt fence fabric and posts must be supported at the top by a wooden frame.
When a silt fence barrier for area inlets is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper installation method:

Excavate a trench around the perimeter of the area inlet that is at least 8" deep by 8" wide.
Drive posts to a depth of at least 18" around the perimeter of the area inlet.
The distance between posts should be 4' or less. If the distance between two adjacent corner posts is more than 4', add another post(s) between them.
Connect the tops of all the posts with a wooden frame made of 1" by 4" boards. Use nails or screws for fastening.
Attach the wire or polymeric-mesh backing to the outside of the post/frame structure with staples, wire, zip ties, or nails.
Roll out a continuous length of silt fence fabric long enough to wrap around the perimeter of the area inlet. Add more length for overlapping the fabric joint. Place the edge of the fabric in the trench, starting at the outside edge of the trench. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Attach the silt fence to the outside of the post/frame structure with staples, wire, zip ties, or nails. The joint should be overlapped to the next post.

Note: When a silt fence barrier for area inlet is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

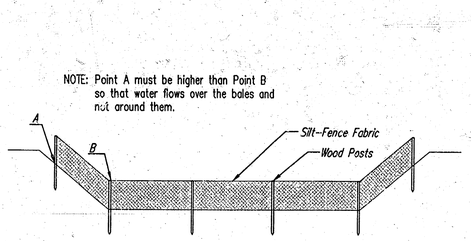
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence barrier for area inlet-not over it. Place a silt fence barrier for area inlet in a location where it is unlikely to be overtopped. Silt fence barrier for area inlets often fail when repeatedly overtopped.
Do not place posts on the outside of the silt fence barrier for area inlet. In this configuration, the force of the water is not resisted by the posts, but only by the staples (wire, zip-ties, nails, etc.). The silt fence will rip and fail.
Do not install silt fence barrier for area inlets without framing the top of the posts. The corner posts around area inlets are stressed in two directions whereas a normal silt fence is only stressed in one direction. This added stress requires more support.

Inspection and Maintenance:

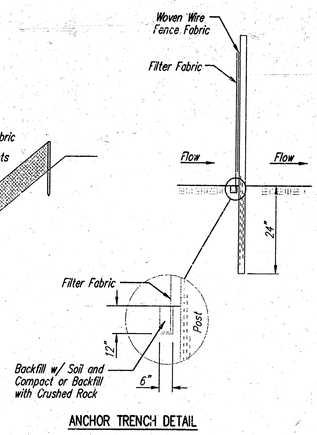
Silt fence barrier for area inlets should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the silt fence?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the area inlet barrier?



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)



ANCHOR TRENCH DETAIL

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

Place silt fence in ditches where it is unlikely that it will be overtopped.
Water should flow through a silt fence ditch check, not over it. Silt fence ditch checks often fail when overtopped.
Silt fence ditch checks should be placed perpendicular to the flowline of the ditch.
The silt fence should extend far enough so that the ground level at the ends of the fence is higher than the top of the low point of the fence. This prevents water from flowing around the check.
Checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Silt fence should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.

The following table provides check spacing for a given ditch grade:

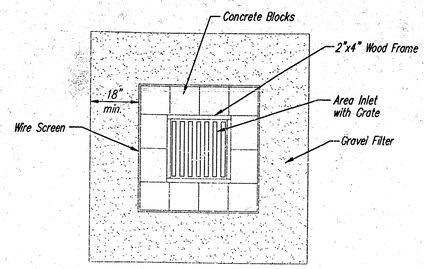
Ditch grade (%)	Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

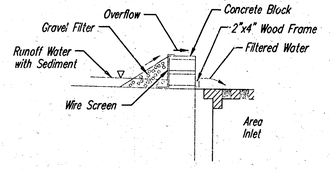
Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is at least 12" deep by 6" wide.
Extend the trench in a straight line along the entire length of the proposed ditch check.
Place the soil on the upstream side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downstream side of the trench.
Place the edge of the fabric in the trench starting at the top upstream edge of the trench.
Line two sides of the trench with the fabric as shown on detail. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Lay the exposed silt fence on the upstream side of the trench to clear an area for driving in the posts. Just downstream of the trench, drive posts into the ground to a depth of at least 24". Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

List of common placement/installation mistakes to avoid:

Water should flow through a silt fence ditch check-not over it. Place silt fence in ditches where it is unlikely that it will be overtopped. Silt fence installations quickly deteriorate when water overtops them.
Do not place silt fence posts on the upstream side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not place a silt fence ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place silt fence ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow.
Follow prescribed ditch check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the fence is higher than the low point on the top of the fence.
Do not place silt fence ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.





CONCRETE BLOCK FILTER FOR AREA DRAIN
(INLET PROTECTION)

Gravel barriers provide little filtering of large inflow waters. However, when installed correctly and maintained, they can effectively treat low runoff flows.

Placement of gravel filters around area drains must be completed in a manner that will not cause local flooding.

Gravel filters can be used if the immediate and adjacent area to the area drain consists of soil or pavement.

Only gravel filters are to be installed on top of the pavement.

Instructions for Installing:

STEP 1: Place concrete blocks around the grate. The blocks can be stacked one or two high and should be supported by a 2"x4" board.
STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.
STEP 3: Place 1" to 1-1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.
STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary.

An alternative method is use of gravel bags that are supported to prevent collapsing.

Use of rock having diameters smaller than 1" may result in clogging of pores and reduce the amount of water flowing into an inlet.

Maintenance:

All gravel filters installed around area drains should be inspected and repaired after each runoff event. Sediment should be removed when material is within 3" of the top of any block. Periodically, the gravel should be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets after every runoff event.

Inspection and Maintenance:

Silt fence ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow around the ditch check?
Does water flow under the ditch check?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the ditch check?

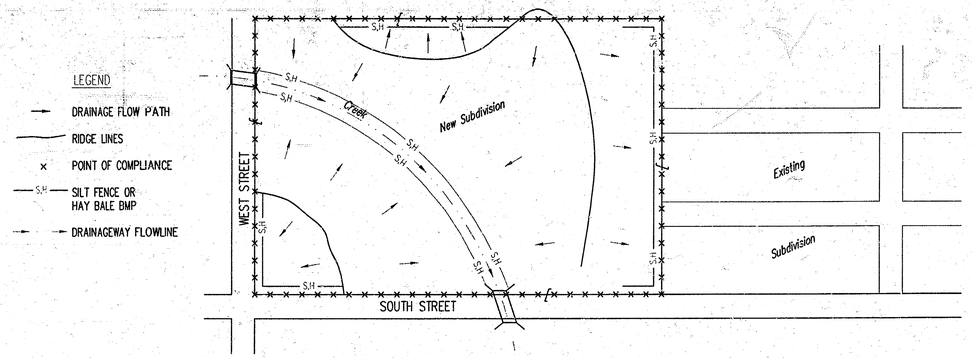
CITY OF WICHITA

SOIL EROSION BMP DETAILS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

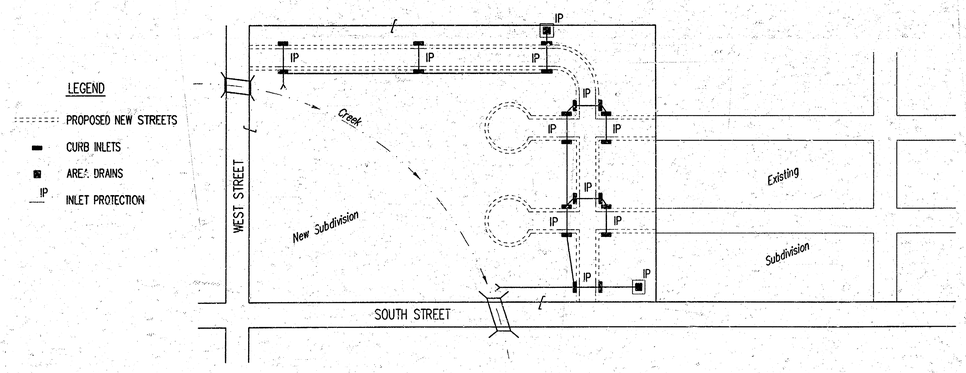
PROJECT NUMBER: 143 PPP (607879)
OCA NO.:
DATE: JUNE 2003

PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



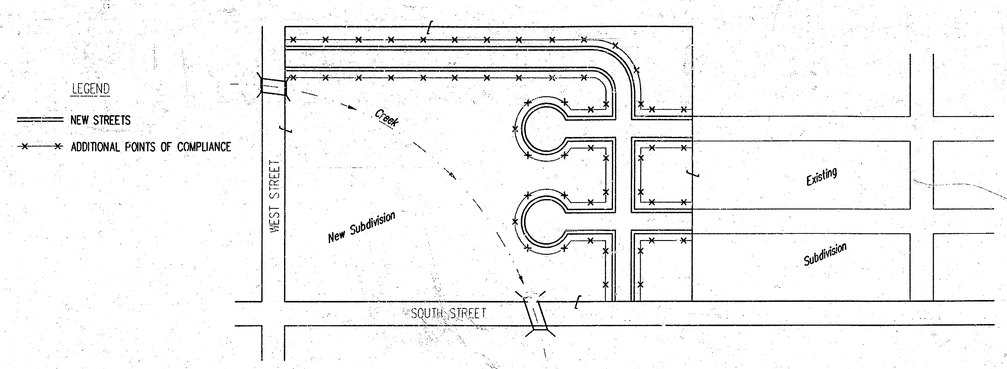
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. HAYBALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE BMP'S WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR GUTTERLINES ON THE ADJACENT BOUNDRY STREETS, APPROPRIATE BMP'S WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED AT THE END OF EACH WORK DAY.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL BMP'S AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDRY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE BMP'S AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXT ONTO ANY EXISTING PUBLIC STREETS.
7. THE SUBDIVISION DEVELOPER (OWNER) SHALL INSTALL AND MAINTAIN THE ON-SITE BMP'S.

PHASE 2 – INSTALLATION OF STORM SEWER

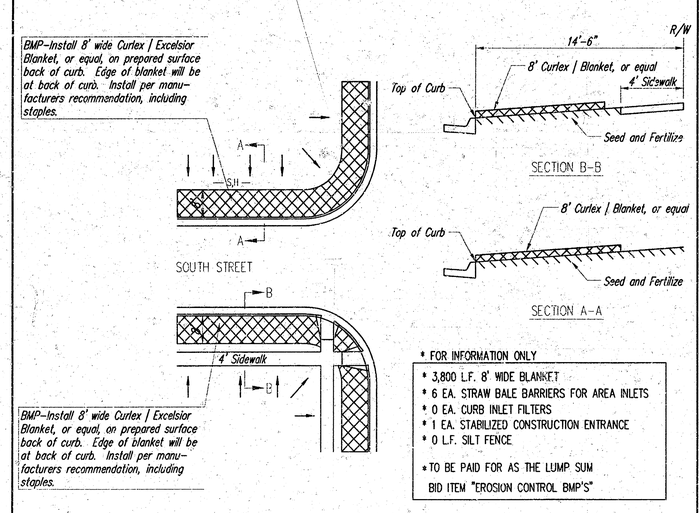


1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL BMP'S REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAYBALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION BMP'S MUST BE INSTALLED. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE BMP'S. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE BMP'S ONCE INSTALLED.
7. ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

PHASE 3 – STREET CONSTRUCTION



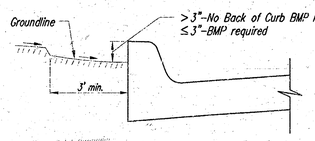
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL BMP'S INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
   A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
   B. NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
3. BMP'S WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), BMP'S WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
4. SEE DETAIL THIS SHEET ON BACK OF CURB PROTECTION.
5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLIMENTED WITH HAYBALE OR SILT FENCE BMP'S AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB BMP'S.
7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB BMP'S IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.



* FOR INFORMATION ONLY
- * 3,800 L.F. 8' WIDE BLANKET
- * 6 EA. STRAW BALE BARRIERS FOR AREA INLETS
- * 0 EA. CURB INLET FILTERS
- * 1 EA. STABILIZED CONSTRUCTION ENTRANCE
- * 0 L.F. SILT FENCE

*TO BE PAID FOR AS THE LUMP SUM BID ITEM "EROSION CONTROL BMP'S"

BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL

GENERAL NOTES:

1. THE INTENT OF ALL BEST MANAGEMENT PRACTICES (B.M.P.'S) IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, OR ANY OTHER DRAINAGE FEATURE.
2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF BMP'S WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
3. BMP'S SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON THE BMP DETAIL SHEETS.
4. PERSONS DESTROYING BMP'S SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT BMP'S.
5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 5 ACRES OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL BMP'S ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLAIN.
6. FOR SUBDIVISIONS SMALLER THAN 5 ACRES, SOIL EROSION BMP'S ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
7. FAILURE TO USE AND MAINTAIN BMP'S IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
8. THE APPLICATION OF BMP'S SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT BMP OTHER THAN THAT SHOWN. BMP'S, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
9. A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.

CITY OF WICHITA

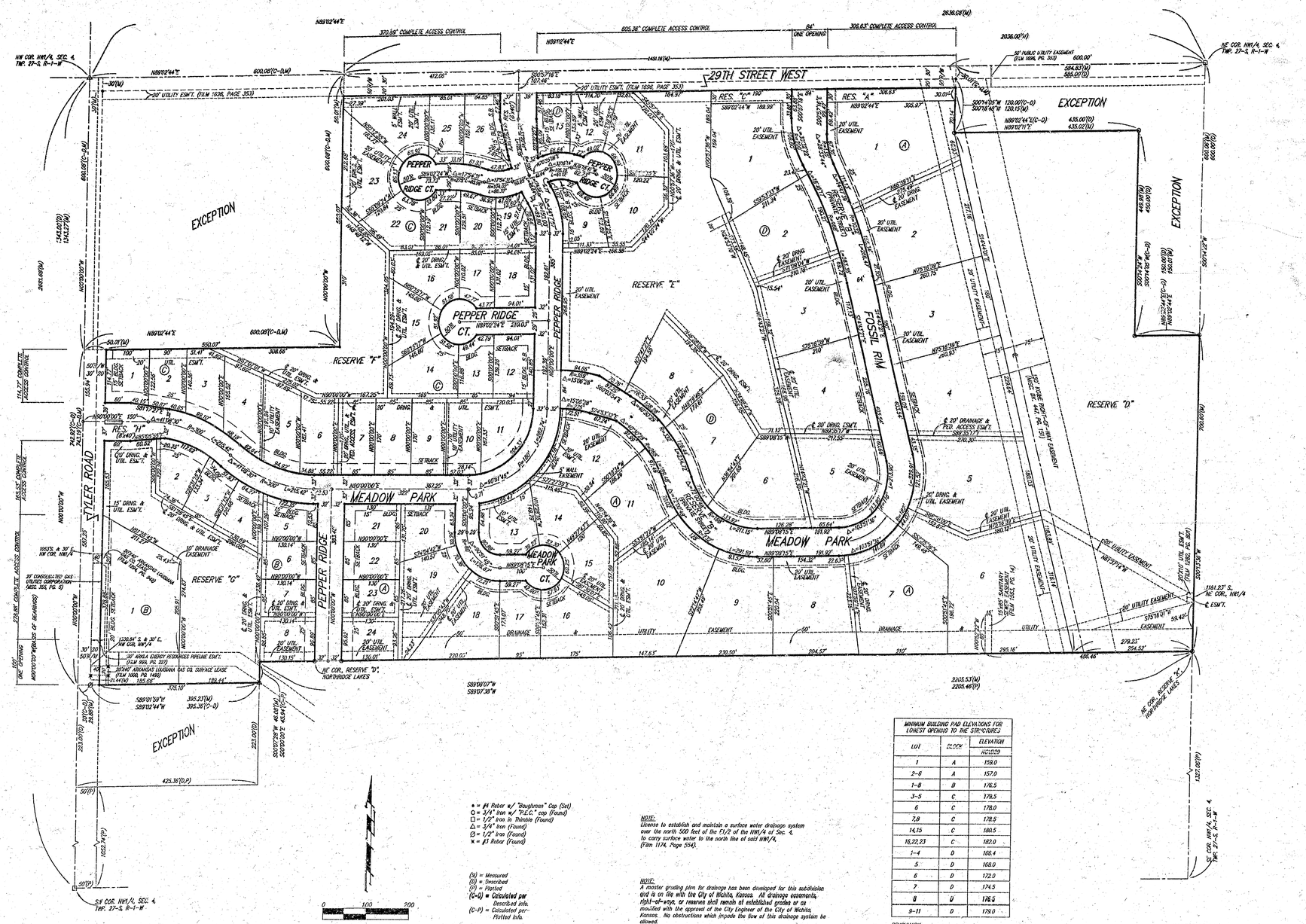
SOIL EROSION BMPS SUBDIVISION DEVELOPMENT PROCESS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER	O&S NO.
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JUNE 2003	

PC 136-5B

FOSSIL RIM ESTATES
WICHITA, SEDGWICK COUNTY, KANSAS



● = #1 Rebar w/ "Baughman" Cap (Set)
○ = 3/4" Iron w/ "P.E.C." cap (Found)
□ = 1/2" Iron in Thimble (Found)
△ = 3/4" Iron (Found)
Ø = 1/2" Iron (Found)
× = #3 Rebar (Found)

(M) = Measured
(D) = Described
(P) = Platted
(C-D) = Calculated per Described Info.
(C-P) = Calculated per Platted Info.

NOTE:
License to establish and maintain a surface water drainage system over the north 500 feet of the W1/2 of the NW1/4 of Sec. 4, to carry surface water to the north line of said NW1/4, (Film 1174, Page 554).

NOTE:
A master grading plan for drainage has been developed for this subdivision and is on file with the City of Wichita, Kansas. All drainage easements, right-of-ways, or reserves shall remain at established grades or as modified with the approval of the City Engineer of the City of Wichita, Kansas. No obstructions which impede the flow of this drainage system be allowed.

MINIMUM BUILDING PAD ELEVATIONS FOR LOWEST OPENING TO THE STRUCTURES

LOT	BLOCK	ELEVATION NGVD29
1	A	159.0
2-6	A	157.0
1-8	B	176.5
3-5	C	178.5
6	C	178.0
7,8	C	178.5
14,15	C	180.5
16,22,23	C	182.0
1-4	D	168.4
5	D	168.0
6	D	172.0
7	D	174.5
8	D	176.5
9-11	D	178.0

BENCHMARK:
City of Wichita disc northeast wingwall at Tee Time and 29th Street North.
Elev. = 142.20 City Datum

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7771 • 315 ELLIS • WICHITA, KANSAS 67211
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PC 136-5B