PRIVATE STORM WATER SEWER PLANS FOR
LOT 1, BLOCK 3, MEDITERRANEAN PLAZA
JULY 1998
PROJECT NO. 818PPS
INDEX CODE 607861

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, CITY ENGINEER

GENERAL NOTES

1. UNLESS SHOWN OR STATED OTHERWISE ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA CONCRETE PAVEMENT AND ASPHALTIC CONCRETE PAVEMENT SPECIFICATIONS

2. 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.

3. EXISTING UTILITIES AND THEIR LOCATIONS, 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 PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.

4. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

   KANSAS ONE-CALL 1-800-344-7233
   OR 687-2470 (LOCAL WICHITA)

   THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

SOUTHWESTERN BELL TELEPHONE COMPANY	1-800-734-7590
CABLEVISION	262-0681
KG&E (GAS)	832-0012
KG&E (ELECTRIC)	264-1141
CITY OF WICHITA WATER & SEWER DEPT.	268-4908

5. 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. ALL DIPOSAL 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.

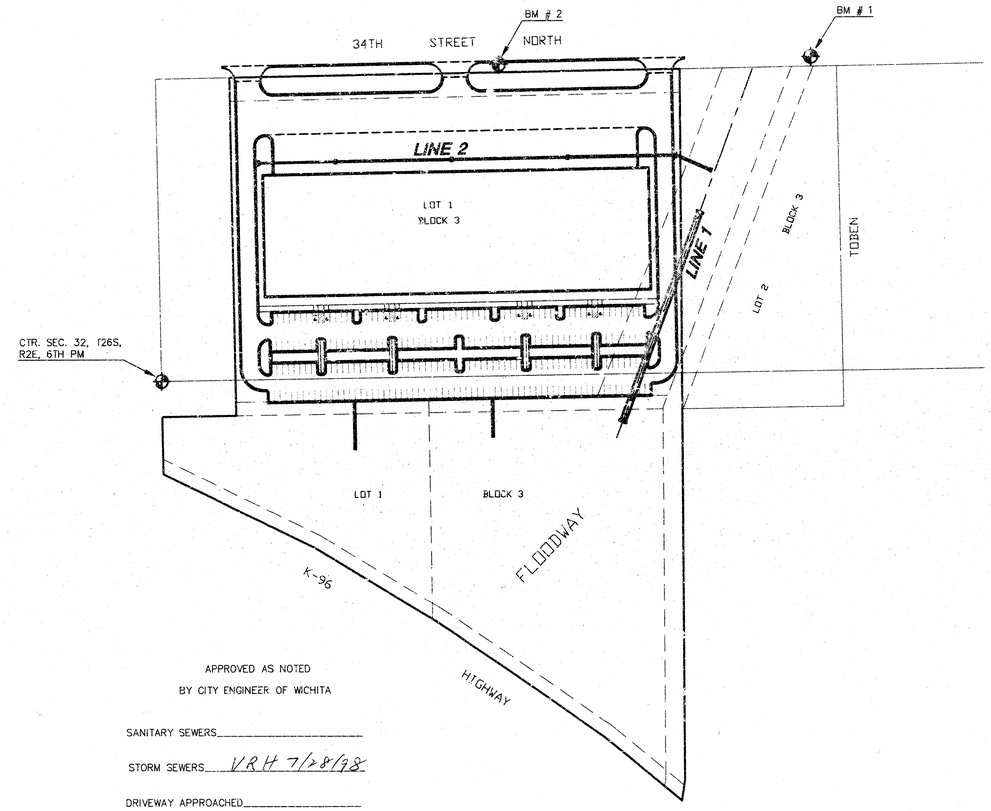
6. TREES TO BE REMOVED ARE MARKED ⊗. ALL TREES WHICH IN THE OPINION OF THE FIELD ENGINEER CAN BE SAVED, SHALL BE SAVED. REMOVAL OF TREES SHALL BE CONSIDERED AS SUBSIDIARY TO SITE PREPARATION & RESTORATION.

7. ALL TOPSOIL SHALL BE STRIPPED IN AREAS OF CUT/FILL AND STOCKPILED.

8. A LAYER OF TOPSOIL IS TO BE PLACED OVER ALL AREAS WHERE THE VIRGIN GRADE NO LONGER EXISTS, WITH THE EXCEPTION OF PAVED AREAS; THIS INCLUDES BERMS, SWALES AND SLOPES. NOTE: THE FINISHED GRADE INDICATES THE SURFACE ELEVATION AFTER THE PLACEMENT OF TOPSOIL.

9. ALL DISTURBED AREAS TO BE SEEDED WITH RYE GRASS AT A RATE OF 250LBS./ ACRE WITHIN 10 DAYS OF CONSTRUCTION. COST SHALL BE CONSIDERED AS SUBSIDIARY TO SITE PREPARATION & RESTOPATION.

10. CONTRACTOR SHALL COORDINATE THE WASTING OF EXCESS MATERIAL ON SITE, WITH THE OWNER (JOHNNY STEVENS, 316-636-2100) OR HIS REPRESENTATIVE (MKEC 684-9600).



APPROVED AS NOTED

BY CITY ENGINEER OF WICHITA

SANITARY SEWERS_____

STORM SEWERS VRH 7/28/98

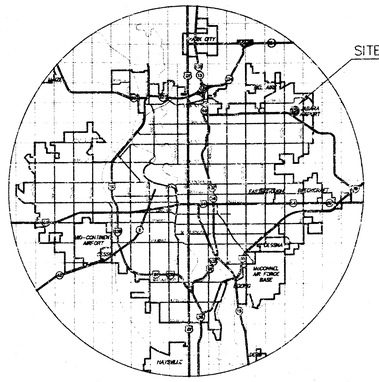
DRIVEWAY APPROACHED_____

WATER MAINS_____

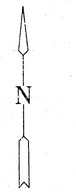
PAVING_____

NOTE TO CONTRACTOR

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 THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.



LOCATION MAP



SCALE: 1" = 100'

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GRADING PLAN
3-5	STORM SEWER PLANS & PROFILES
6	EROSION CONTROL DETAILS
7-9	STORM WATER SEWER DETAILS
10	FINAL PLAT

BENCHMARKS

BM #1 "□" CUT ON SW. COR. OF CENTER CURB INLET ON S. SIDE OF 34TH ST, 208' E. OF NE. COR. LOT 1, BLOCK 3. ELEV. = 229.36

BM #2 "□" CUT ON SE. COR. OF E. CURB INLET ON S. SIDE OF 34TH ST, 283' W. OF NE. COR. LOT 1, BLOCK 3. ELEV. = 232.685

AS-BUILT = 20 DEC 2002

JEFFREY T. CARTWRIGHT LICENSED 14370 PROFESSIONAL ENGINEER 7-28-98

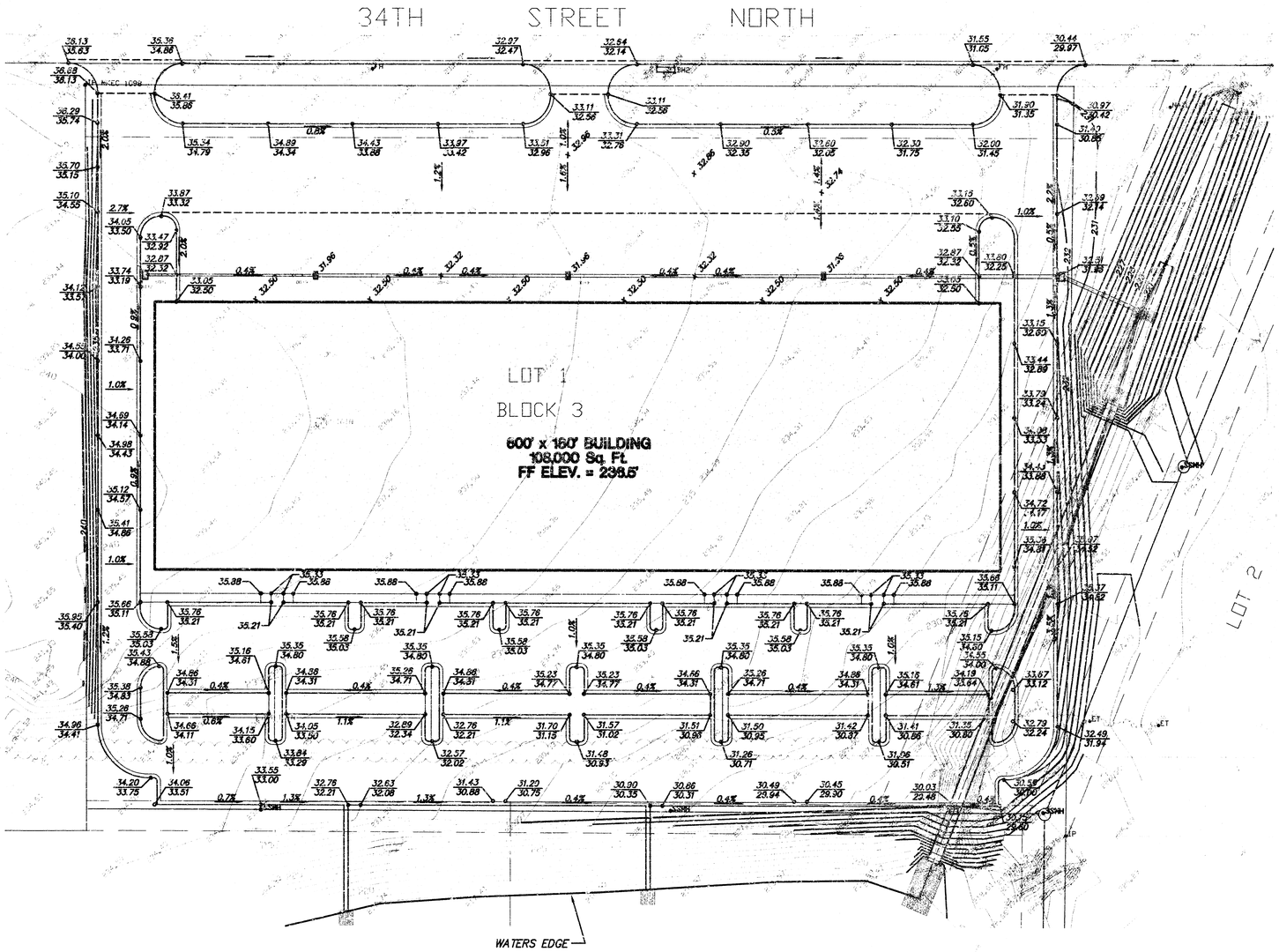
MID-KANSAS ENGINEERING CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

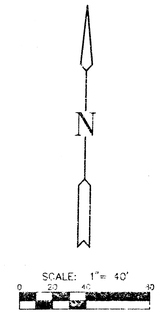
LOT 1, BLK. 3, MEDITERRANEAN PLAZA
PROJECT NAME

PAVING & STORM WATER SEWER TITLE SHEET
SHEET TITLE

JG	GJR	JG/KHB
DESIGN BY:	DRAWN BY:	CHECKED BY:
JULY 1998	98065_DT	1 / 10
DATE	JOB NO.	SHEET/OF

G:\CIVIL\98065\SMS\98065_DT.DWG Wed Jul 22 10:19:09 1998





MID-KANSAS ENGINEERING
CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

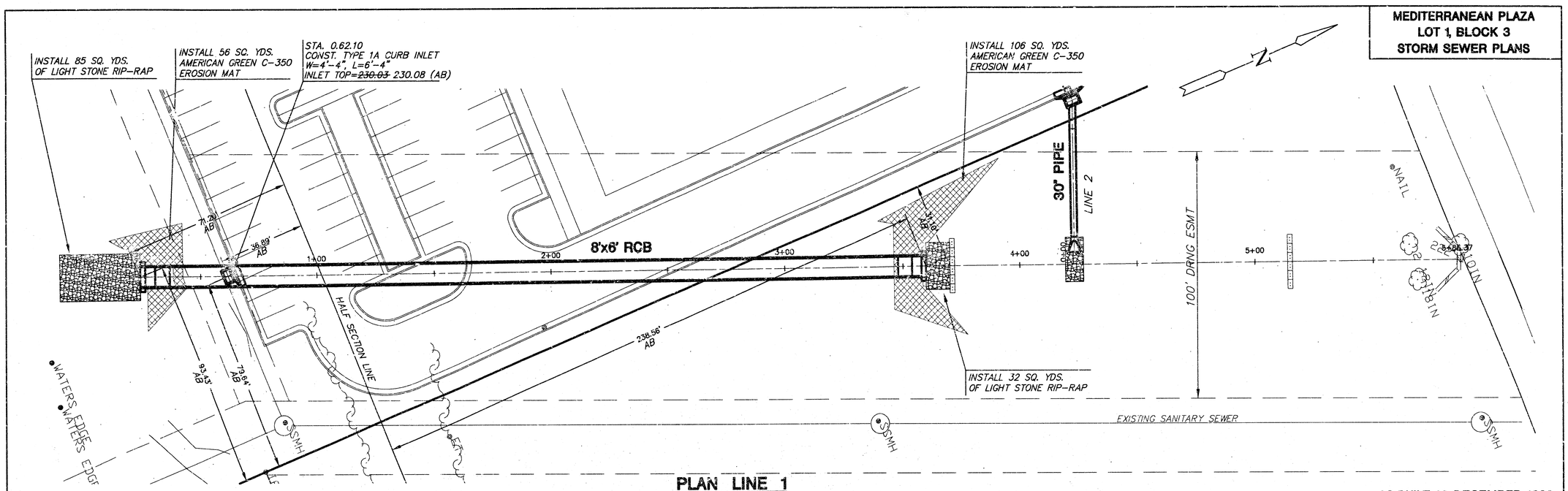
LOT 1, BLK. 3, MEDITERRANEAN PLAZA
PROJECT NAME

GRADING PLAN
SHEET TITLE

JAG	GJR	JAG/KHB
DESIGN BY:	DRAWN BY:	CHECKED BY:
JULY 1998	98065GR1.DWG	2 / 10
DATE	JOB NO.	SHEET/OF

G:\CIVIL\98065\GRAD\98065GR1.DWG Wed Jul 22 12:03:21 1998

MEDITERRANEAN PLAZA
LOT 1, BLOCK 3
STORM SEWER PLANS



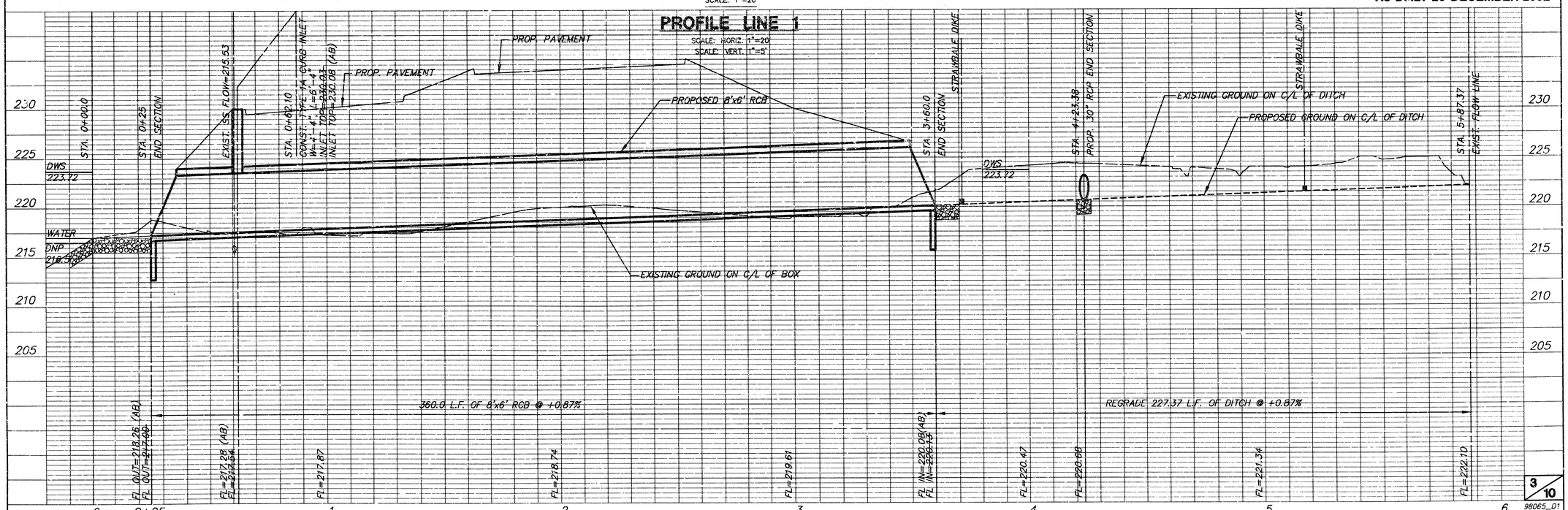
PLAN LINE 1

SCALE: 1"=20'

AS-BUILT 20 DECEMBER 2002

PROFILE LINE 1

SCALE: HORIZ. 1"=20'
SCALE: VERT. 1"=5'



98065_01

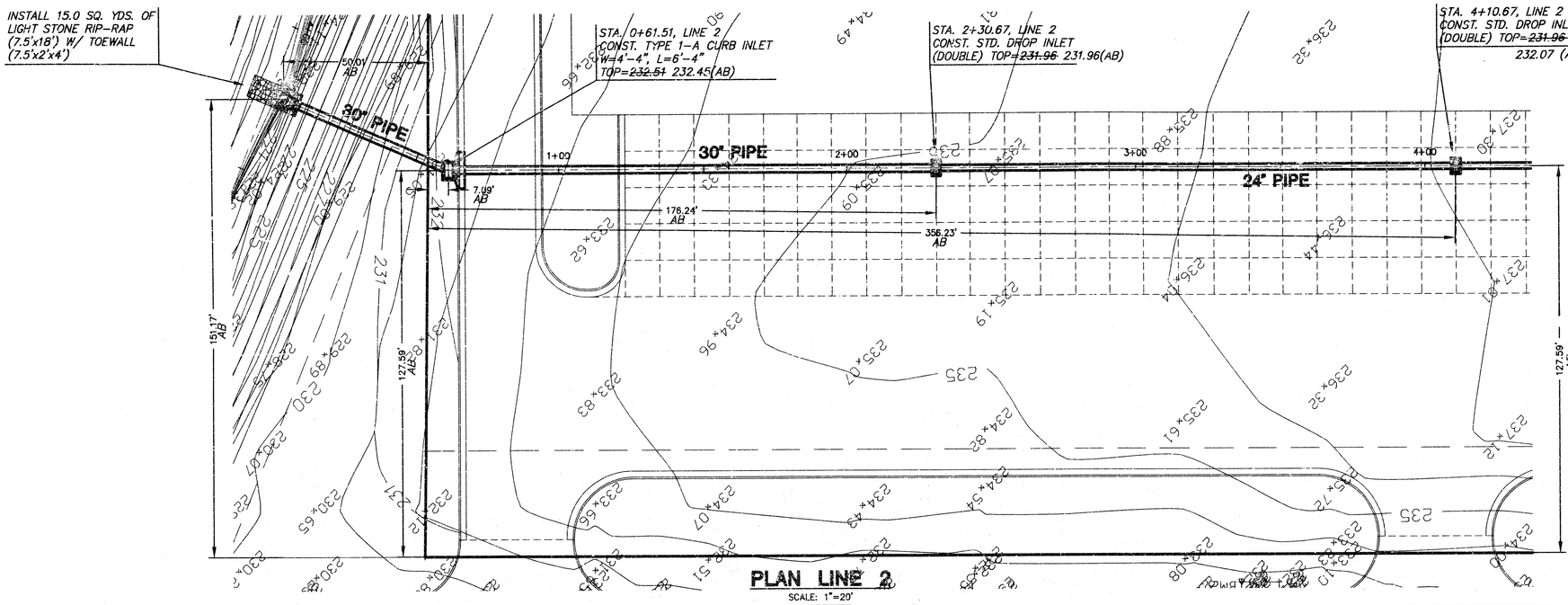
MEDITERRANEAN PLAZA
LOT 1, BLOCK 3
STORM SEWER PLANS

INSTALL 15.0 SQ. YDS. OF LIGHT STONE RIP-RAP (7.5'x18') W/ TOEWALL (7.5'x2'x4')

STA. 0+61.51, LINE 2
CONST. TYPE 1-A CURB INLET
W=4'-4", L=6'-4"
TOP=~~232.51~~ 232.45(AB)

STA. 2+30.67, LINE 2
CONST. STD. DROP INLET
(DOUBLE) TOP=~~231.96~~ 231.96(AB)

STA. 4+10.67, LINE 2
CONST. STD. DROP INLET
(DOUBLE) TOP=~~231.96~~
232.07 (AB)

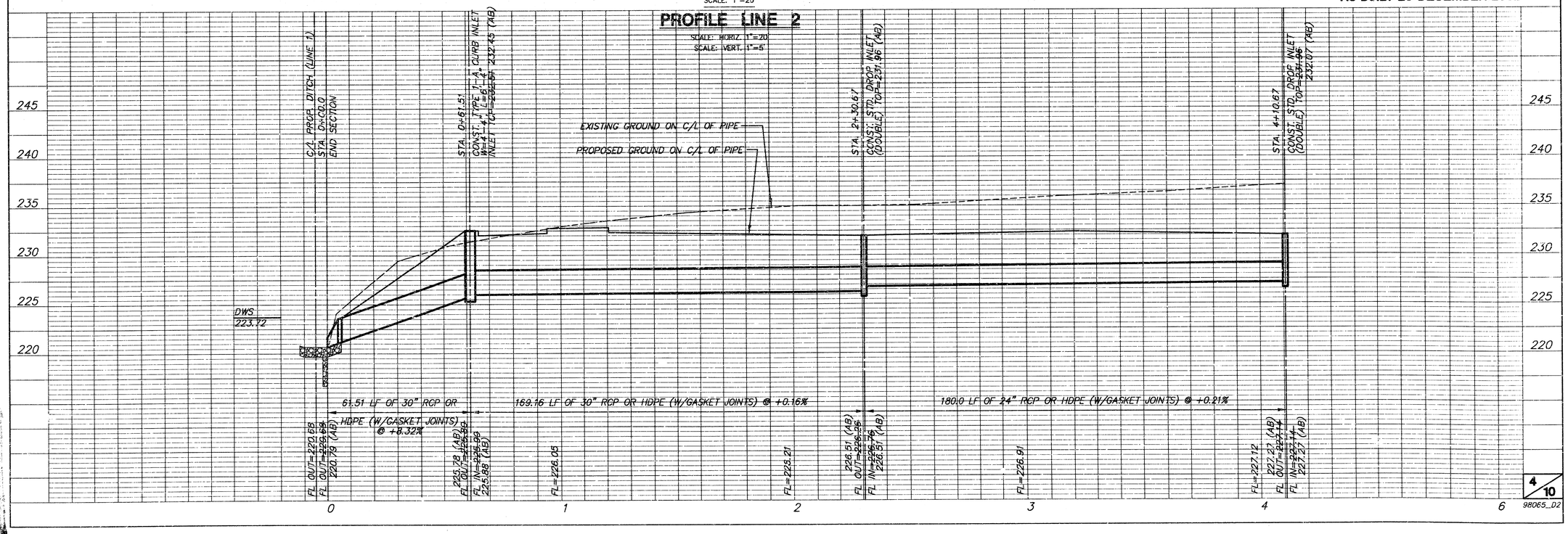


N

PLAN LINE 2
SCALE: 1"=20'

AS-BUILT 20 DECEMBER 2002

PROFILE LINE 2
SCALE: HORIZ. 1"=20'
SCALE: VERT. 1"=5'



98065_D2

MEDITERRANEAN PLAZA
LOT 1, BLOCK 3
STORM SEWER PLANS

STA. 4+10.67, LINE 2
STD. DROP INLET
(DOUBLE) TOP=~~231.96~~ 232.07 (AB)

STA. ~~5~~+90.67, LINE 2
CONST. STD. DROP INLET
(DOUBLE) ~~TOP=231.96~~ 231.99 (AB)

STA. 7+11.51, LINE 2
CONST. TYPE 1-A CURB INLET
W=4'-4", L=6'-4"
~~TOP=233.74~~ 233.72 (AB)

24" PIPE

15" PIPE

342.08' AB

32.08'

41.25' AB

127.53' AB

127.59' AB

N

SCALE: 1"=20'

AS-BUILT 20 DECEMBER 2002

PLAN LINE 2

PROFILE LINE 2

SCALE: HORIZ. 1"=20'
SCALE: VERT. 1"=5'

EXISTING GROUND ON C/L OF PIPE

PROPOSED GROUND ON C/L OF PIPE

STA. 4+10.67
DROP INLET
(DOUBLE) TOP= ~~231.96~~ 232.07 (AB)
FL OUT=227.14
FL IN=227.14
227.27 (AB)

STA. 5+90.57
CONST. STD. DROP INLET
(DOUBLE) TOP=~~231.96~~ 231.99 (AB)
FL OUT=226.92
FL IN=226.27
227.99 (AB)
FL=226.86
227.86 (AB)

STA. 7+11.51
CONST. TYPE 1-A CURB INLET
W=4'-4", L=6'-4"
INLET TOP=~~233.74~~ 233.72 (AB)
FL=228.70
228.47 (AB)
FL OUT=228.47

180.0 L.F. OF 24" RCP OR HDPE (W/GASKET JOINTS) @ +0.21%

FL=227.33

120.84 L.F. OF 15" RCP OR HDPE (W/GASKET JOINTS) @ +0.40%

245 240 235 230 225 220

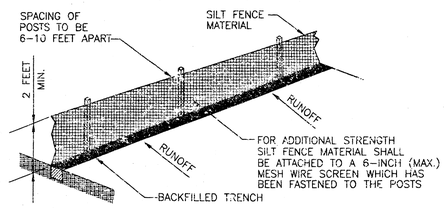
4 5 6 7

5/10

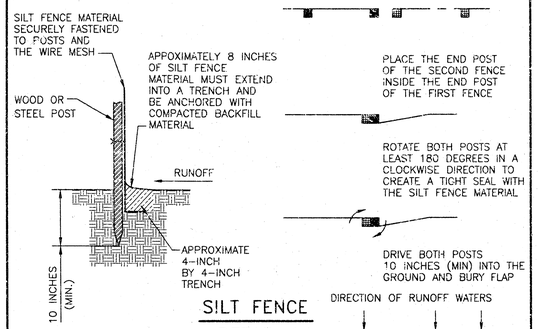
98065_D3

SILT FENCE MATERIAL SPECIFICATIONS

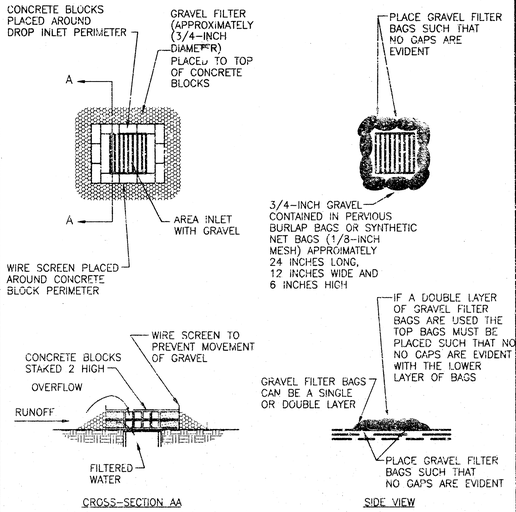
GRAB TENSILE STRENGTH	100 LBS MIN. (ASTM D4632)
MULLEN BURST STRENGTH	300 PSI MIN (ASTM D3786)
TRAPEZOID TEAR STRENGTH	60 LBS. MIN. (ASTM D4533)
WATER FLOW RATE	20 GAL/MIN/SQ.FT MIN. (ASTM D4491)
UV STABILITY	70% MIN. (ASTM D4355)



ATTACHING TWO SILT FENCES



SILT FENCE
DETAIL 1

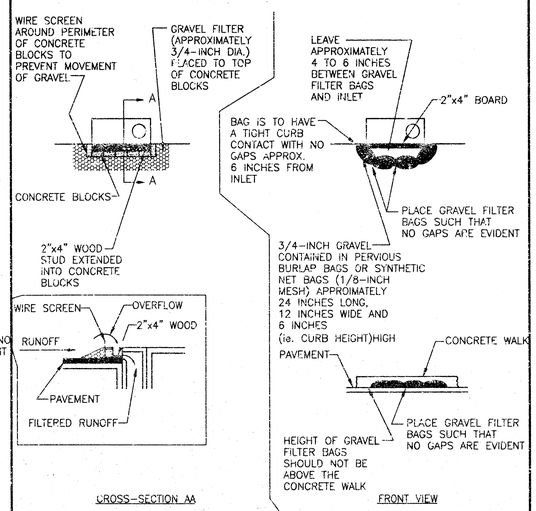


CONCRETE BLOCK FILTER GRAVEL FILTER BAGS

ALTERNATES FOR STRAW BALES

NOTE: GRAVEL FILTERS MAY BE USED ON PAVEMENT OR BARE GROUND

GRAVEL FILTER FOR AREA INLET
DETAIL 2

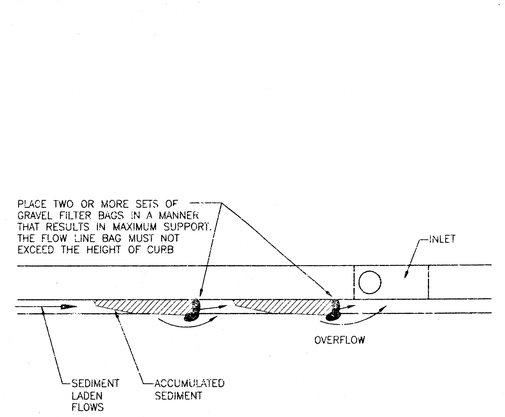


CONCRETE BLOCK FILTER GRAVEL FILTER BAGS

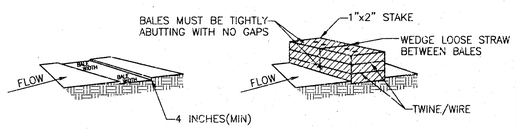
ALTERNATES FOR STRAW BALES

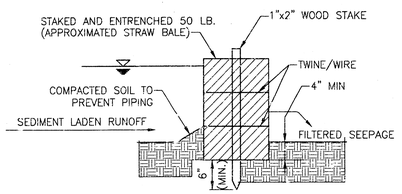
NOTE: GRAVEL FILTERS MAY BE USED ON PAVEMENT OR BARE GROUND

CURB INLET GRAVEL FILTER
DETAIL 3



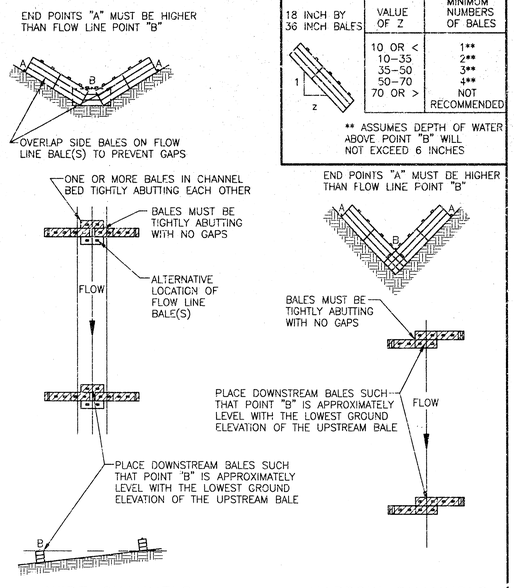
CURB SEDIMENT TRAP
DETAIL 4





CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE

STRAW BALE DIKES FOR DRAINAGE CHANNELS
DETAIL 5

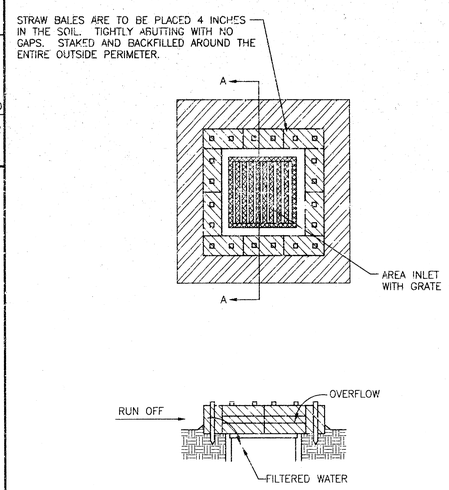


18 INCH BY 36 INCH BALES	VALUE OF Z	MINIMUM NUMBERS OF BALES
1 / Z	10 OR <	1**
	10-35	2**
	35-50	3**
	50-70	4**
	70 OR >	NOT RECOMMENDED

** ASSUMES DEPTH OF WATER ABOVE POINT "B" WILL NOT EXCEED 6 INCHES

WIDE CHANNELS NARROW CHANNELS

STRAW BALE DIKES FOR DRAINAGE CHANNELS
DETAIL 6



SECTION AA

NOTE: STRAW BALE FILTERS ARE NOT TO BE USED IF ADJACENT AREA TO INLET IS PAVED. SEE DETAIL 2 FOR FILTERS ON PAVED AREA

STRAW BALE FILTER FOR AREA INLET
DETAIL 7

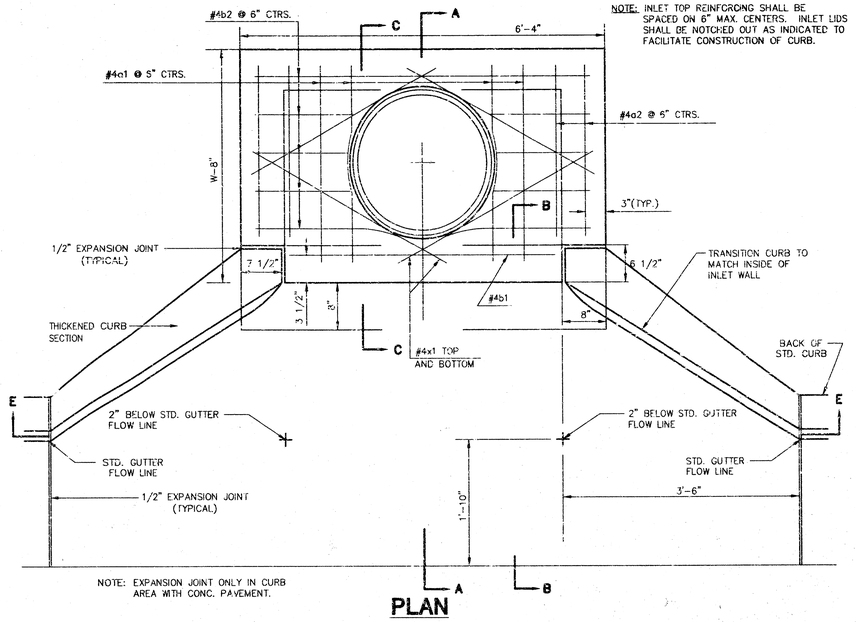
MID-KANSAS ENGINEERING CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

LOT 1, BLOCK 3, MEDITERRANEAN PLAZA
PROJECT NAME

EROSION CONTROL DETAILS
SHEET TITLE

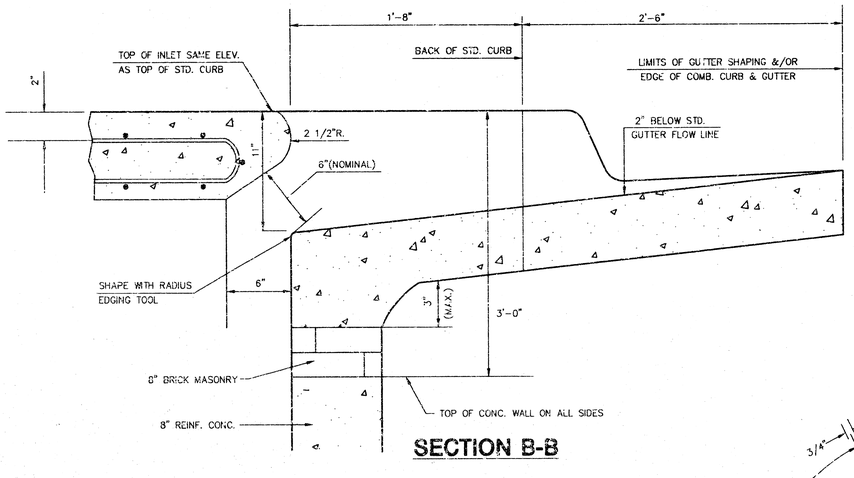
JG	GJR	JG/KHB
DESIGN BY:	DRAWN BY:	CHECKED BY:
JULY 1998	EROS_DTL.DWG	6 / 10
DATE	JOB NO.	SHEET/OF

G:\CIVIL\98055\PAVE\EROS_DTL.DWG Wed Jul 22 10:39:07 1998

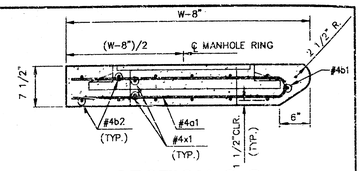


NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

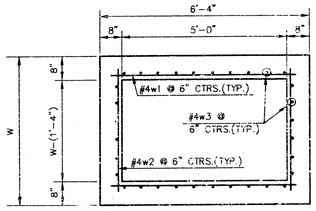
PLAN



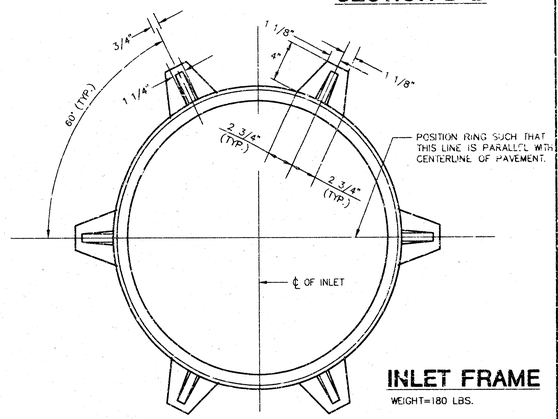
SECTION B-B



SECTION C-C



SECTION D-D



INLET FRAME

WEIGHT=180 LBS.

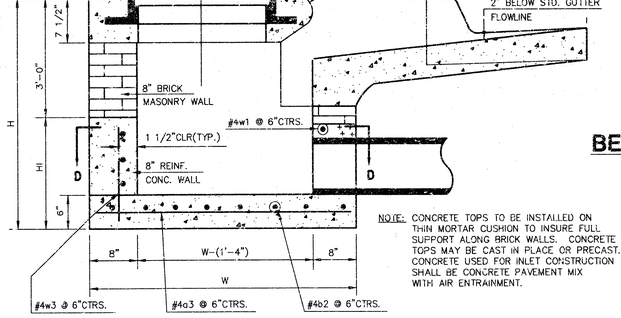
PRECAST SLAB AND FLOOR REINFORCING

		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
*a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
*b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

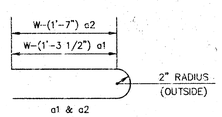
WALL REINFORCING

		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

* FIELD BEND OR CUT REINFORCING AS REQUIRED FOR CLEARANCE
① 4(HI-12"); (HI-12") ROUND DOWN TO NEAREST 0.5'
② HI-3"



SECTION A-A



BENDING DIAGRAM

NOTE: 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 WITH AIR ENTRAINMENT.

NOTE: 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.

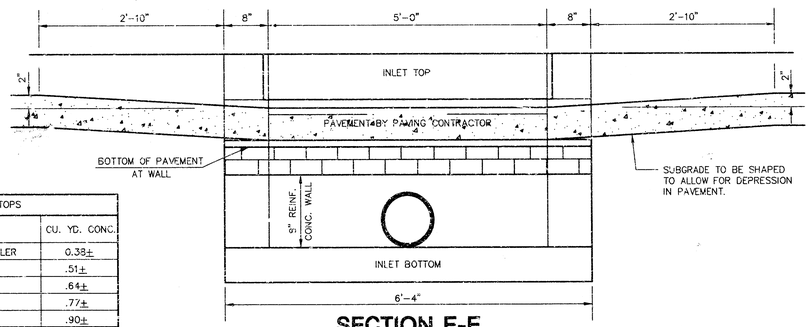
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

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.

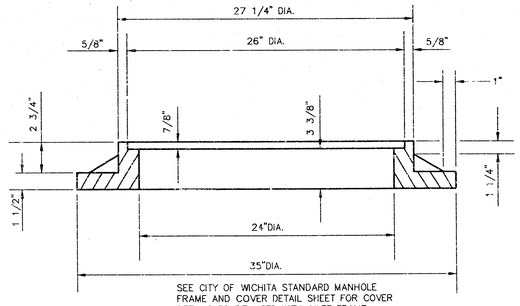
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

**NOTE: SLOPE OF INLET TOPS TO MATCH SIDEWALK OR PARKING SLOPES WITHIN LIMITS INDICATED.

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8"x6'-4"x7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8"x6'-4"x7 1/2"	24" & 30"	.51±
6'-4"	5'-8"x6'-4"x7 1/2"	36" & 42"	.64±
7'-4"	6'-8"x6'-4"x7 1/2"	48" & 54"	.77±
8'-4"	7'-8"x6'-4"x7 1/2"	60" & 66"	.90±



SECTION E-E



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

MID-KANSAS ENGINEERING CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

LOT 1, BLK 3, MEDITERRANEAN PLAZA
PROJECT NAME

STORM WATER SEWER DETAILS
SHEET TITLE

DESIGN BY:	DRAWN BY:	CHECKED BY:
JG	GJR	JG/KHB
DATE	JOB NO.	SHEET/OF
JUNE 1998	98065	7 / 10

SWS_DTL1.DWG

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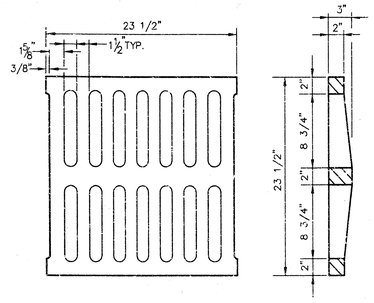
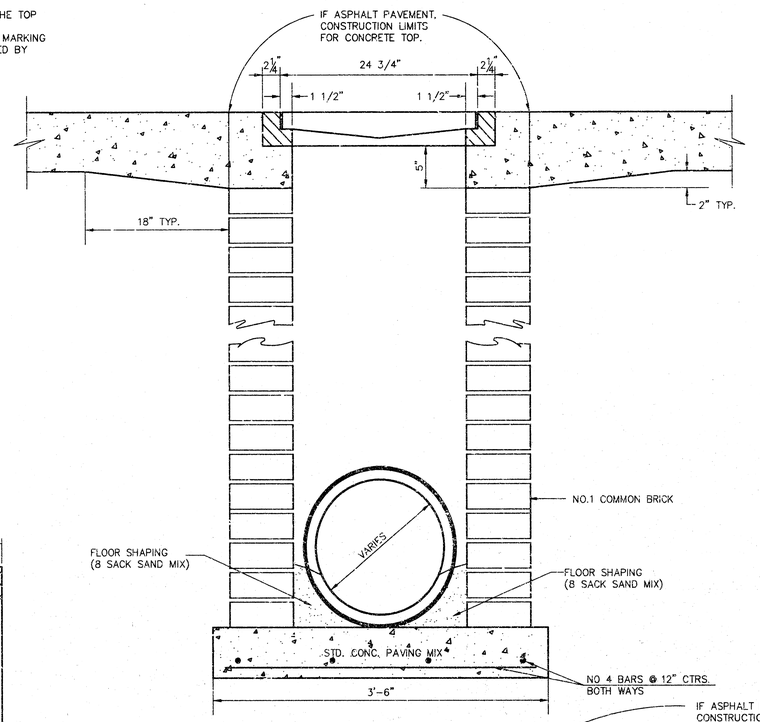
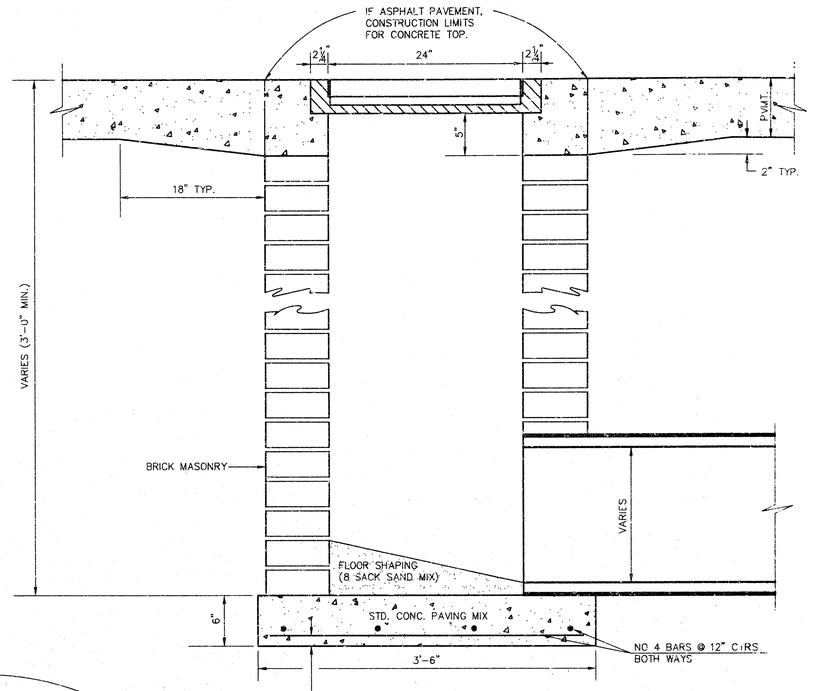
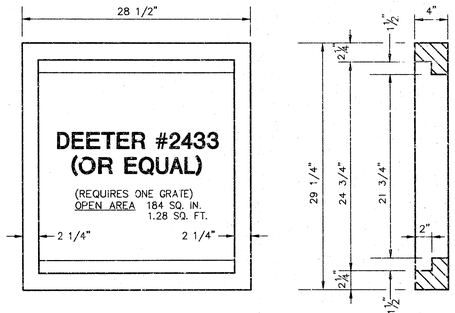
NOTE: GRATES SHALL BE IMPRINTED ON THE TOP SURFACE WITH "CITY OF WICHITA" USING LETTERS AT LEAST 1" IN HEIGHT. OTHER MARKING METHODS MAY BE USED ONLY IF APPROVED BY THE ENGINEER.



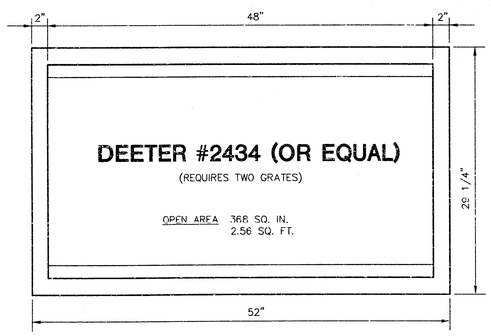
24"x24" GRATE DETAIL

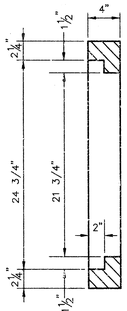




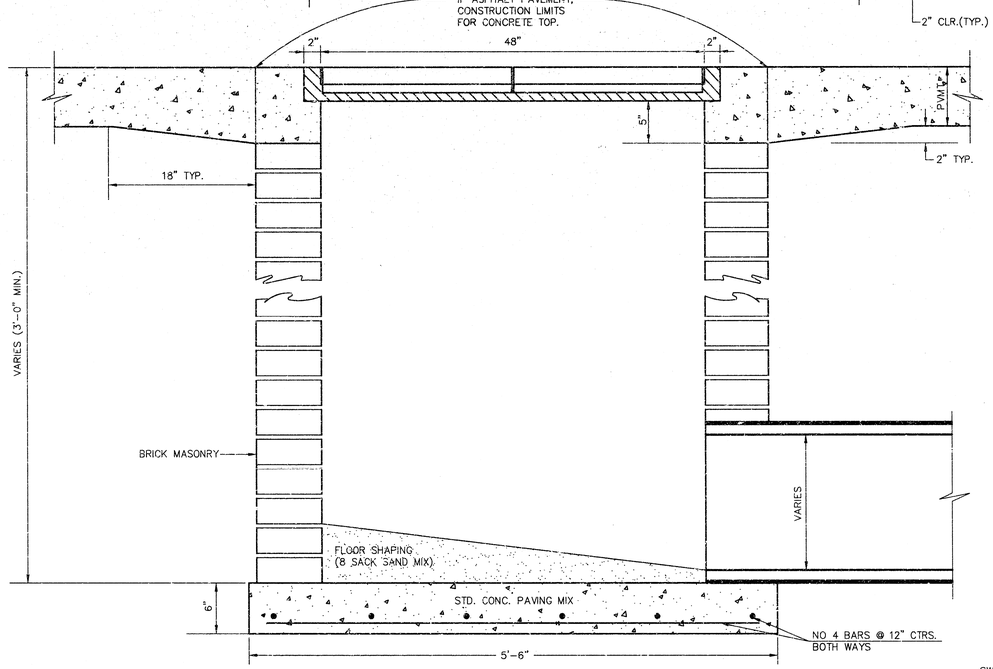


SINGLE 24"x24" FRAME DETAIL





DOUBLE 24"x24" FRAME DETAIL



ORIFICE EQUATION		
$Q=C*A*\sqrt{2gh}$ C=0.60		
h (DEPTH)	#2433 (SINGLE)	#2434 (DOUBLE)
0.1	1.95 cfs	3.89 cfs
0.2	2.75 cfs	5.50 cfs
0.3	3.37 cfs	6.74 cfs
0.4	3.89 cfs	7.78 cfs
0.5	4.35 cfs	8.70 cfs
0.6	4.77 cfs	9.53 cfs
0.7	5.15 cfs	10.30 cfs
0.8	5.50 cfs	11.01 cfs
0.9	5.84 cfs	11.67 cfs
1.0	6.15 cfs	12.30 cfs

REVISED: 5-8-90 JNJ

DROP INLET DETAILS

CITY OF WICHITA, KANSAS

Design C.O.W.	Checked by	Checked by	8/10
Drawn by	Date JULY 1998	Date	Job No. 98065

SWS_DTL2.DWG

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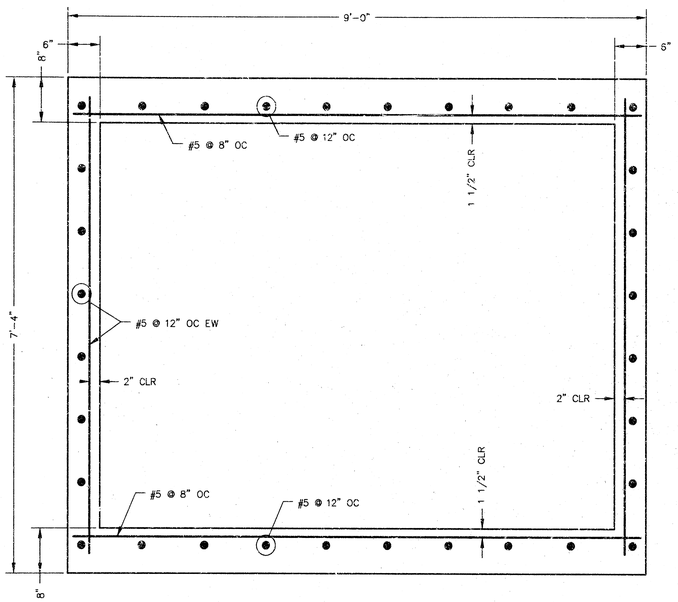
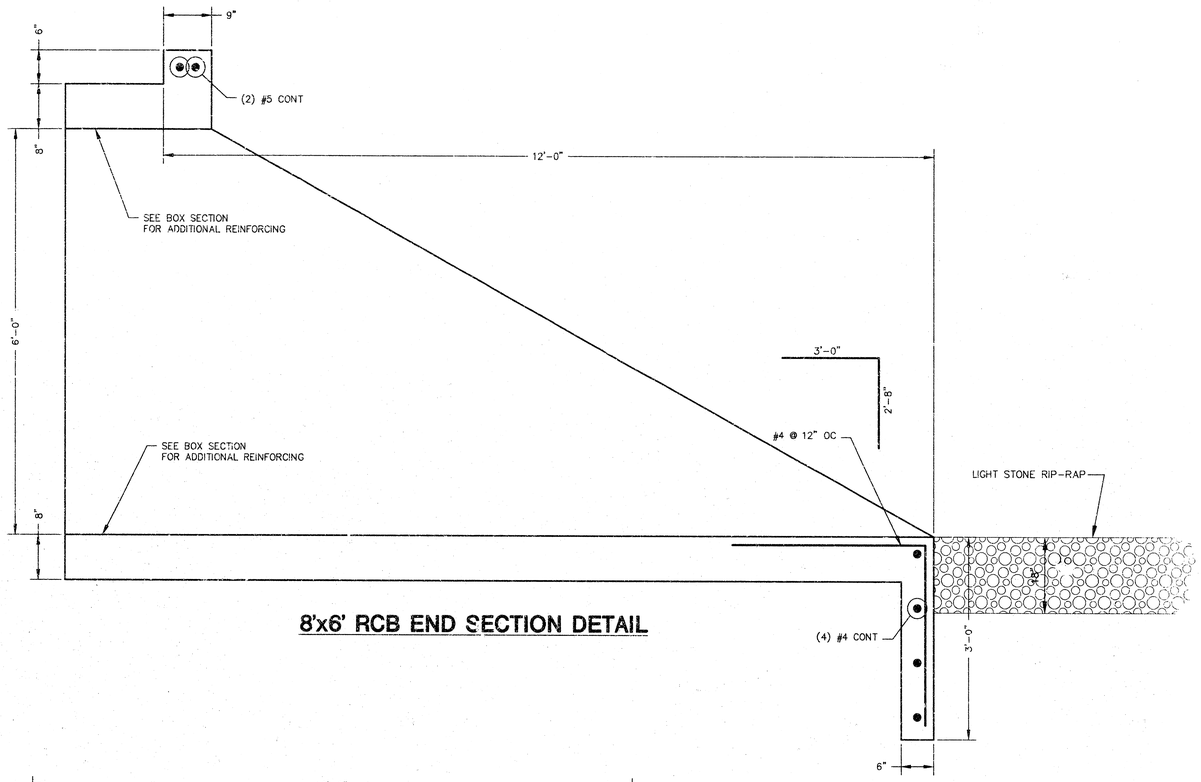
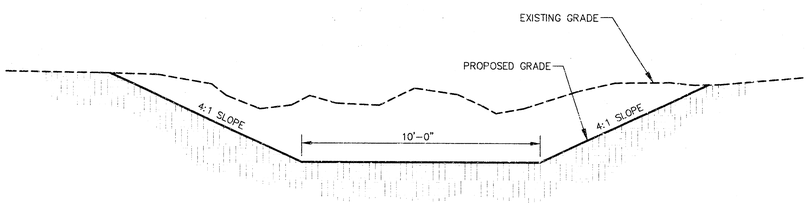


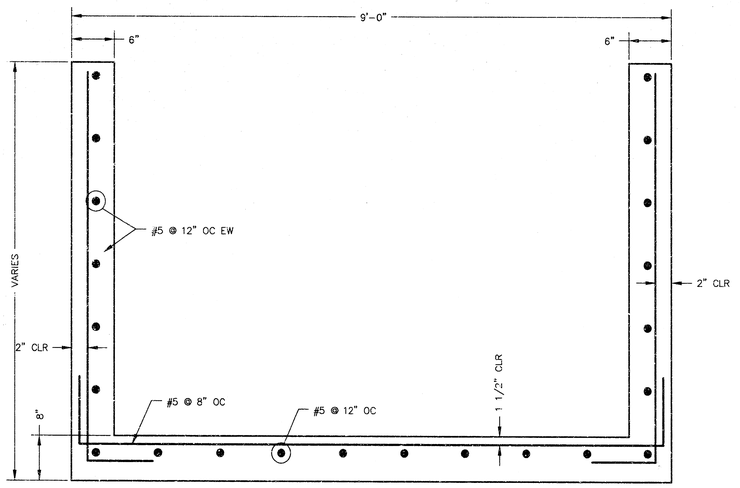
8'x6' RCB CROSS SECTION DETAIL



8'x6' RCB END SECTION DETAIL



CHANNEL CROSS SECTION



3'x6' RCB END SECTION CROSS SECTION DETAIL

SWS_DTL3.DWG

MID-KANSAS ENGINEERING
CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

LOT 1, BLK 3, MEDITERRANEAN PLAZA
PROJECT NAME

STORM WATER SEWER DETAILS
SHEET TITLE

JG	GJR	JG/KHB
DESIGN BY:	DRAWN BY:	CHECKED BY:
JULY 1998	98065	9 / 10
DATE	JOB NO.	SHEET/OF

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FINAL PLAT OF

MEDITERRANEAN PLAZA

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

P.O.B.

NW Cor. SW 1/4 Sec.32, T26S, R2E

30' K.G.& E. EASEMENT PAGE 145, FILM 918

N 89° 07' 10" E 1857.95'

N.89°07'10"E. 2651.15'

COMPLETE ACCESS CONTROL

RESERVE "A" (CONTINGENT DEDICATION) FILM 811, PAGE 792

S.E. Corner, Lot 11, Block 1 Comotara Industrial Park Second Addition

CONOTARA STREET

N 89°16'32"E 283.14'

S1°05'20"E 52.79'

N 39°16'32"E 116.50'

Ctr. Sec.32 T26S R2E

N.89°07'10"E. 445.00'

34TH STREET NORTH

N.89°07'10"E. 2651.47'

N.0°55'47"W. 501.01'

S.0°56'47"E. 500.64'

N.89°16'32"E. 1010.06'

N.1°04'55"W. 53.56'

N.W. Corner, Lot 18, Block 1, Comotara Industrial Park Fifth Addition.

N.W. Corner, Lot 1, Block 1, Comotara Airport Addition

50'x100' Sanitary Sewer Easmt. Film 355, Page 827

FLOODWAY

SEE DETAIL "B"

R=959.45'
Δ=19°05'00"
L=319.56'
Chd.=318.09'
Brg.=S66°39'12"W

N15°39'16"W 70.05'

R=695.00'
Δ=32°00'00"
L=388.16'
Chd.=383.14'
Brg.=S73°06'42"W

R=337.29'
Δ=24°17'12"
L=168.40'
Chd.=167.18'
Brg.=N26°07'52"W

R=419.25'
Δ=39°23'10"
L=288.20'
Chd.=282.56'
Brg.=N 20°34'53"W

DETAIL "B"

DETAIL "A"

SEE DETAIL "A"

PENSTEMON

S.E. Corner Mediterranean Plaza Commercial

S 89° 07' 40" W 966.95'

S 89°07'40"W 150.00'

N.85°08'42"W 100.50'

S 89°08'45"W 2304.09'

29TH STREET NORTH

SW Cor. Sec.32 T26S, R2E

SE Cor. SW 1/4 Sec.32, T26S, R2E

20'x86' Utility Easmt

S 89°08'45"W 220.00'

S 1°04'55"E. 1313.82'

S 1°04'55"E. 1311.42'

WEST ROCK ROAD

(CONTINGENT DEDICATION) FILM 811, PAGE 794

ACCESS CONTROL

SCALE: 1" = 200'

10 09 05 53