

PRIVATE PAVING IMPROVEMENTS

TO SERVE

QUIVIRA NEW COUNCIL SERVICE CENTER

PRIVATE PROJECT NO. 0218 PPP [607879]

CITY OF WICHITA, KANSAS

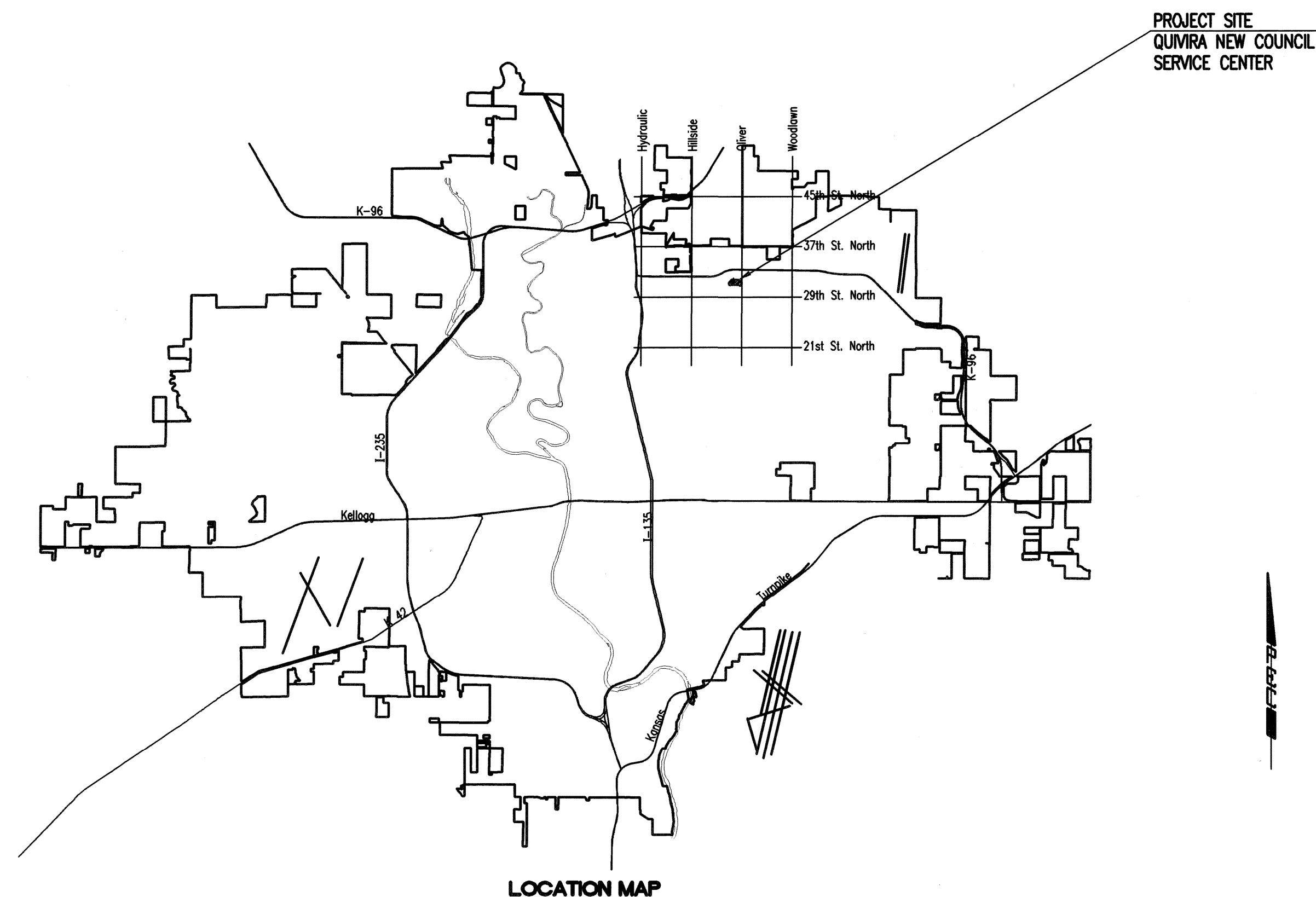
GARY JANZEN, P.E. - CITY ENGINEER

DEVELOPER CONTACT

MR. MIKE JOHNSON
QUIVIRA COUNCIL,
BOY SCOUTS OF AMERICA
1555 E. 2ND STREET
WICHITA, KANSAS 67214

INDEX OF SHEETS

C2.1	TITLE SHEET
C2.2	KEY MAP AND GENERAL NOTES
C2.3	PLAT
C2.4	TYPICAL PAVEMENT SECTION AND PAVING DETAILS
C2.5-C2.6	PRIVATE PAVING PLANS
C2.7	CURB AND GUTTER DETAILS
C1.4	EROSION CONTROL PLAN
C5.1-C5.3	EROSION CONTROL DETAILS



APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Engineering *[Signature]* 11-9-12

NOTE TO CONTRACTORS

Inspection and testing for this project are 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.

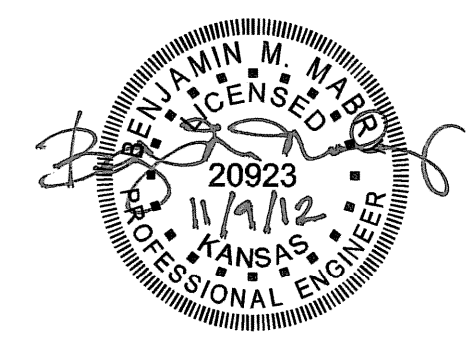
NOVEMBER 2012

PLANS PREPARED BY

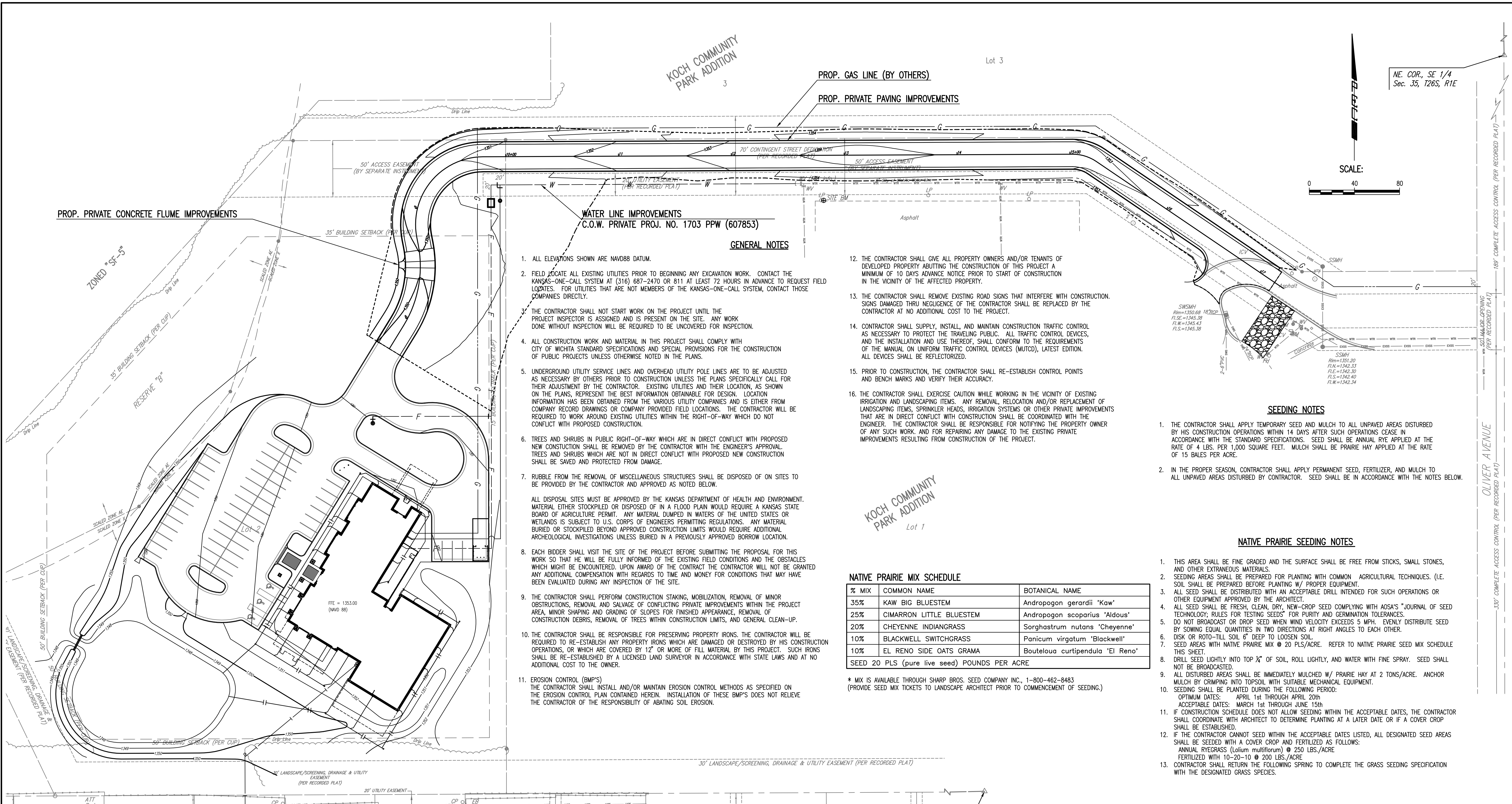
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS



Sowed 11-09-2012 1:47:35 PM by BJS
 Plot Scale 1:40 11-09-2012 2:29:36 PM by BJS
 G:\2012\12397 SITE CIVIL\PPV\12397-02C-Key Map Gen. Notes



WATER LINE IMPROVEMENTS
 C.O.W. PRIVATE PROJ. NO. 1703 PPW (607853)

GENERAL NOTES

- ALL ELEVATIONS SHOWN ARE NAVD88 DATUM.
- FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY EXCAVATION WORK. CONTACT THE KANSAS-ONE-CALL SYSTEM AT (316) 687-2470 OR 811 AT LEAST 72 HOURS IN ADVANCE TO REQUEST FIELD LOCATES. FOR UTILITIES THAT ARE NOT MEMBERS OF THE KANSAS-ONE-CALL SYSTEM, CONTACT THOSE COMPANIES DIRECTLY.
- THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.
- ALL CONSTRUCTION WORK AND MATERIAL IN THIS PROJECT SHALL COMPLY WITH CITY OF WICHITA STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS FOR THE CONSTRUCTION OF PUBLIC PROJECTS UNLESS OTHERWISE NOTED IN THE PLANS.
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- 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.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED BELOW.

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 ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT HE WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
- THE CONTRACTOR SHALL PERFORM CONSTRUCTION STAKING, MOBILIZATION, REMOVAL OF MINOR OBSTRUCTIONS, REMOVAL AND SALVAGE OF CONFLICTING PRIVATE IMPROVEMENTS WITHIN THE PROJECT AREA, MINOR SHAPING AND GRADING OF SLOPES FOR FINISHED APPEARANCE, REMOVAL OF CONSTRUCTION DEBRIS, REMOVAL OF TREES WITHIN CONSTRUCTION LIMITS, AND GENERAL CLEAN-UP.
- 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, OR WHICH ARE COVERED BY 12" OR MORE OF FILL MATERIAL BY THIS PROJECT. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS AND AT NO ADDITIONAL COST TO THE OWNER.
- EROSION CONTROL (BMP'S)
THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS SPECIFIED ON THE EROSION CONTROL PLAN CONTAINED HEREIN. INSTALLATION OF THESE BMP'S DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION.

NATIVE PRAIRIE MIX SCHEDULE

% MIX	COMMON NAME	BOTANICAL NAME
35%	KAW BIG BLUESTEM	Andropogon gerardii 'Kaw'
25%	CIMARRON LITTLE BLUESTEM	Andropogon scoparius 'Aldous'
20%	CHEYENNE INDIANGRASS	Sorghastrum nutans 'Cheyenne'
10%	BLACKWELL SWITCHGRASS	Panicum virgatum 'Blackwell'
10%	EL RENO SIDE OATS GRAMA	Bouteloua curtipendula 'El Reno'

SEED 20 PLS (pure live seed) POUNDS PER ACRE

* MIX IS AVAILABLE THROUGH SHARP BROS. SEED COMPANY INC., 1-800-462-8483 (PROVIDE SEED MIX TICKETS TO LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF SEEDING.)

SEEDING NOTES

- THE CONTRACTOR SHALL APPLY TEMPORARY SEED AND MULCH TO ALL UNPAVED AREAS DISTURBED BY HIS CONSTRUCTION OPERATIONS WITHIN 14 DAYS AFTER SUCH OPERATIONS CEASE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. SEED SHALL BE ANNUAL RYE APPLIED AT THE RATE OF 4 LBS. PER 1,000 SQUARE FEET. MULCH SHALL BE PRAIRIE HAY APPLIED AT THE RATE OF 15 BALES PER ACRE.
- IN THE PROPER SEASON, CONTRACTOR SHALL APPLY PERMANENT SEED, FERTILIZER, AND MULCH TO ALL UNPAVED AREAS DISTURBED BY CONTRACTOR. SEED SHALL BE IN ACCORDANCE WITH THE NOTES BELOW.


NATIVE PRAIRIE SEEDING NOTES

- THIS AREA SHALL BE FINE GRADED AND THE SURFACE SHALL BE FREE FROM STICKS, SMALL STONES, AND OTHER EXTRANEOUS MATERIALS.
- SEEDING AREAS SHALL BE PREPARED FOR PLANTING WITH COMMON AGRICULTURAL TECHNIQUES. (I.E. SOIL SHALL BE PREPARED BEFORE PLANTING W/ PROPER EQUIPMENT.
- ALL SEED SHALL BE DISTRIBUTED WITH AN ACCEPTABLE DRILL INTENDED FOR SUCH OPERATIONS OR OTHER EQUIPMENT APPROVED BY THE ARCHITECT.
- ALL SEED SHALL BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH AOSA'S "JOURNAL OF SEED TECHNOLOGY; RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.
- DO NOT BROADCAST OR DROP SEED WHEN WIND VELOCITY EXCEEDS 5 MPH. EVENLY DISTRIBUTE SEED BY SOWING EQUAL QUANTITIES IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER.
- DISK OR ROTO-TILL SOIL 6" DEEP TO LOOSEN SOIL.
- SEED AREAS WITH NATIVE PRAIRIE MIX @ 20 PLS/ACRE. REFER TO NATIVE PRAIRIE SEED MIX SCHEDULE THIS SHEET.
- DRILL SEED LIGHTLY INTO TOP 1/2" OF SOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY. SEED SHALL NOT BE BROADCASTED.
- ALL DISTURBED AREAS SHALL BE IMMEDIATELY MULCHED W/ PRAIRIE HAY AT 2 TONS/ACRE. ANCHOR MULCH BY CRIMPING INTO TOPSOIL WITH SUITABLE MECHANICAL EQUIPMENT.
- SEEDING SHALL BE PLANTED DURING THE FOLLOWING PERIOD:
OPTIMUM DATES: APRIL 1st THROUGH APRIL 20th
ACCEPTABLE DATES: MARCH 1st THROUGH JUNE 15th
- IF CONSTRUCTION SCHEDULE DOES NOT ALLOW SEEDING WITHIN THE ACCEPTABLE DATES, THE CONTRACTOR SHALL COORDINATE WITH ARCHITECT TO DETERMINE PLANTING AT A LATER DATE OR IF A COVER CROP SHALL BE ESTABLISHED.
- IF THE CONTRACTOR CANNOT SEED WITHIN THE ACCEPTABLE DATES LISTED, ALL DESIGNATED SEED AREAS SHALL BE SEED WITH A COVER CROP AND FERTILIZED AS FOLLOWS:
ANNUAL RYEGRASS (Lolium multiflorum) @ 250 LBS./ACRE
FERTILIZED WITH 10-20-10 @ 200 LBS./ACRE
- CONTRACTOR SHALL RETURN THE FOLLOWING SPRING TO COMPLETE THE GRASS SEEDING SPECIFICATION WITH THE DESIGNATED GRASS SPECIES.

SE COR., N. 1/2, SE 1/4
 Sec. 35, T26S, R1E

SITE BENCHMARK BM
 BM - CHISLED SQUARE ON TOP OF LIGHT POLE BASE.
 ELEV. = 1356.00 (NAVD 88)

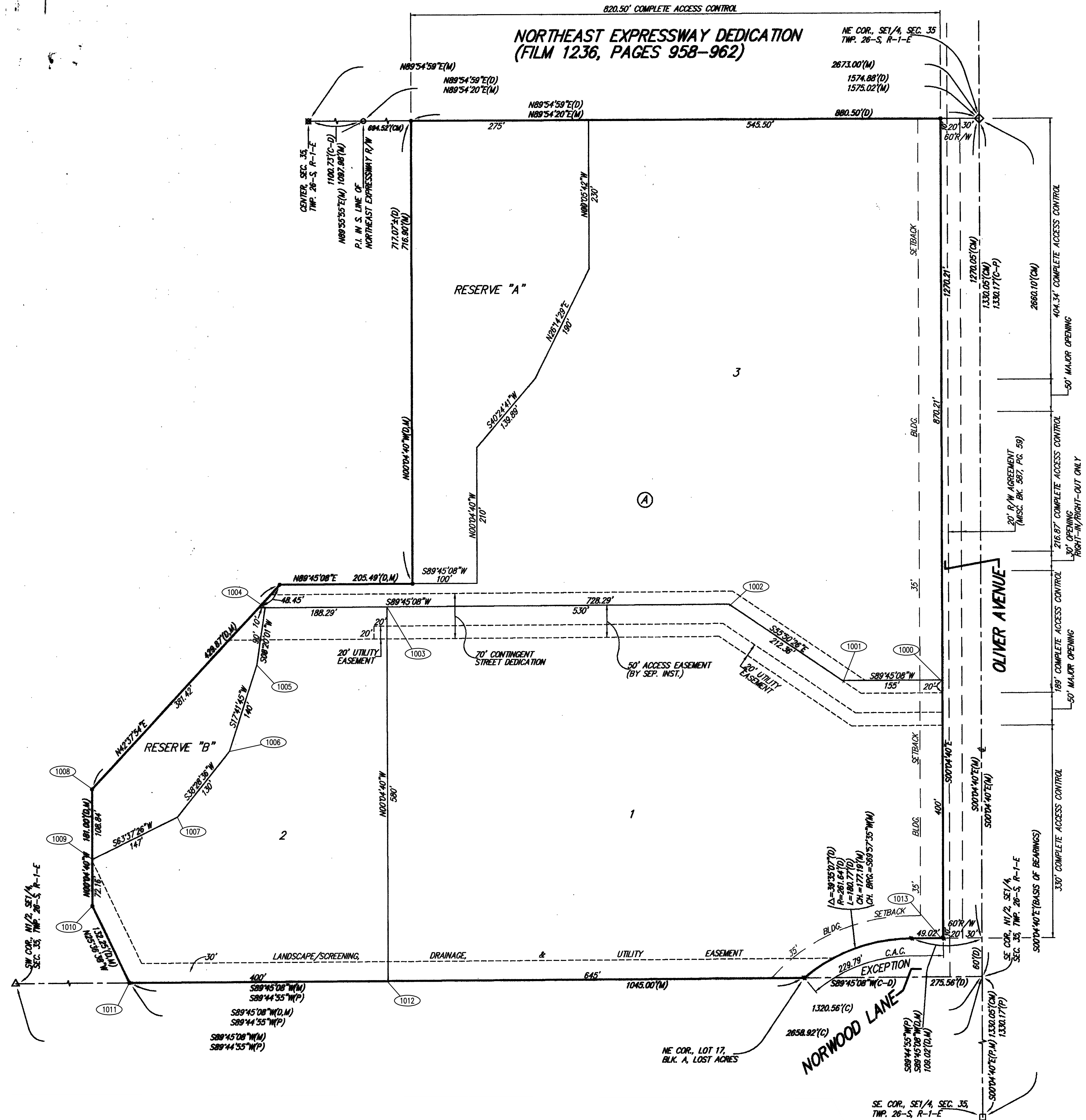
SURVEY PROVIDED BY: BAUGHMAN COMPANY P.A.
 315 S. ELLIS
 WICHITA, KS. 67211
 316-262-7271
 www.baughmanco.com
 JULY 2012

No.	Revision	By	Date
QUIVIRA NEW COUNCIL SERVICE CENTER PRIVATE PAVING IMPROVEMENTS KEY MAP AND GENERAL NOTES GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PRIVATE PROJECT NO. 0218 PPP (607879)  PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	BMM, JAG	Job No.	35-12387-0069
Drawn by	BJS	Date	AUGUST 2012

Sht. C2.2 of 11

KOCH COMMUNITY PARK ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



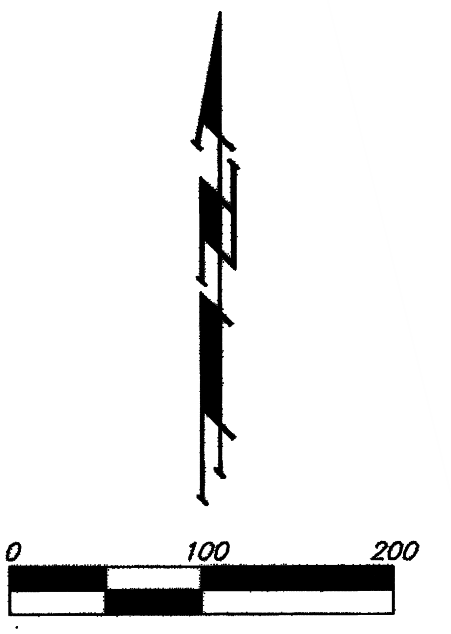
LOT	BLOCK	ELEVATION
1	A	1352.0
2	A	1352.0
3	A	1354.0

- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- = 3/4" IRON PIPE W/ "PEC" CAP (FOUND)
- ◇ = #5 REBAR W/ "MID-KANSAS" CAP (FOUND)
- △ = STONE WITH CROSS (FOUND)
- = 3/4" IRON PIPE (FOUND)
- = 1/2" IRON PIPE (FOUND)

NOTE:
A drainage plan has been developed for this subdivision and is on file with the City of Wichita, Kansas. Drainage intent shall remain as depicted 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 plan shall be allowed.

NOTE:
ADDITIONAL BUILDING SETBACK REQUIREMENTS PER KOCH COMMUNITY PARK COMMUNITY UNIT PLAN (CUP 2006-53, DP-304).

- (M) = MEASURED
- (P) = PLATTED
- (D) = DESCRIBED
- (CM) = CALCULATED PER MEASURED INFO.
- (C-P) = CALCULATED PER PLATTED INFO.
- (C-D) = CALCULATED PER DESCRIBED INFO.

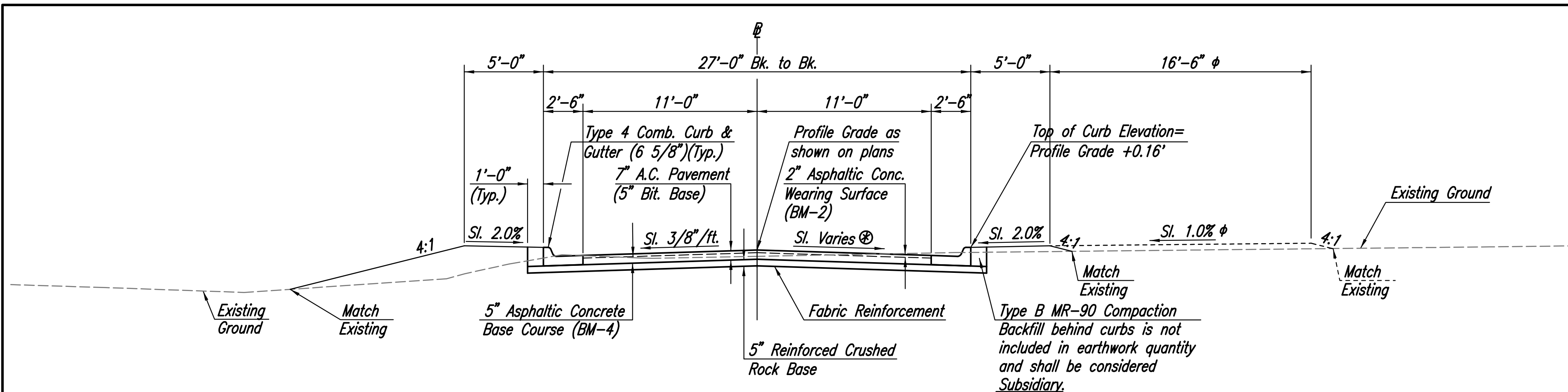


POINT	NORTH	EAST
1000	9,129.6914	9,941.1814
1001	9,129.0211	9,786.1828
1002	9,248.2608	9,610.4595
1003	9,245.9688	9,080.4645
1004	9,245.1545	8,892.1687
1005	9,156.1048	8,879.1244
1006	9,022.7291	8,836.5695
1007	8,920.9571	8,755.6840
1008	8,964.4952	8,623.8428
1009	8,855.6523	8,623.9905
1010	8,783.4954	8,624.0885
1011	8,664.2402	8,681.2530
1012	8,665.9700	9,081.2488
1013	8,729.6918	9,941.7244

1000 = COORDINATE POINT NO.

Served 11-08-2012 2:04:31 PM by BJS
 Plot Scale 1:100 11-09-2012 2:31:57 PM by BJS
 G:\2012\12387\SITE CIVL\PPP\12387-03C-Plat with Coordinates

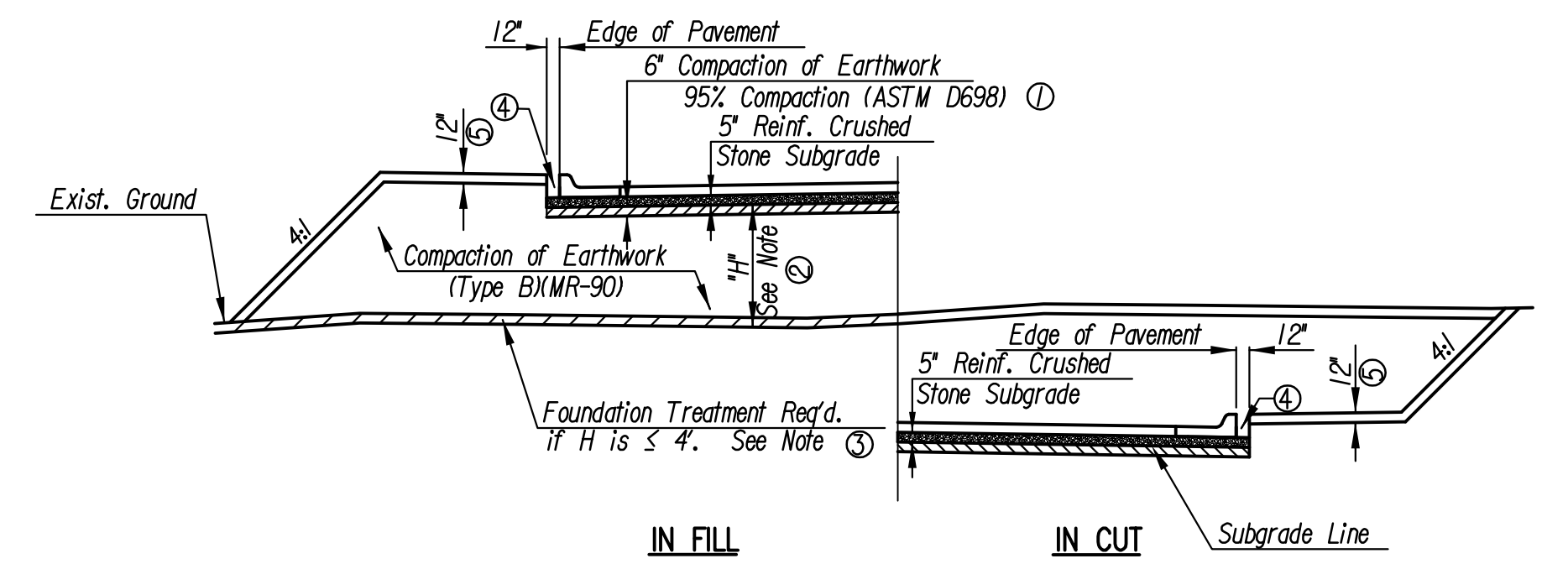
No.	Revision	By	Date
QUIVIRA NEW COUNCIL SERVICE CENTER PRIVATE PAVING IMPROVEMENTS <h3 style="margin: 0;">PLAT AND PLAT COORDINATES</h3> GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PRIVATE PROJECT NO. 0218 PPP (607879)			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	BMM, JAG	Job No.	35-12387-0069
Drawn by	BJS	Date	AUGUST 2012
			Sht. C2.3 of 11



TYPICAL PAVEMENT SECTION-ASPHALT

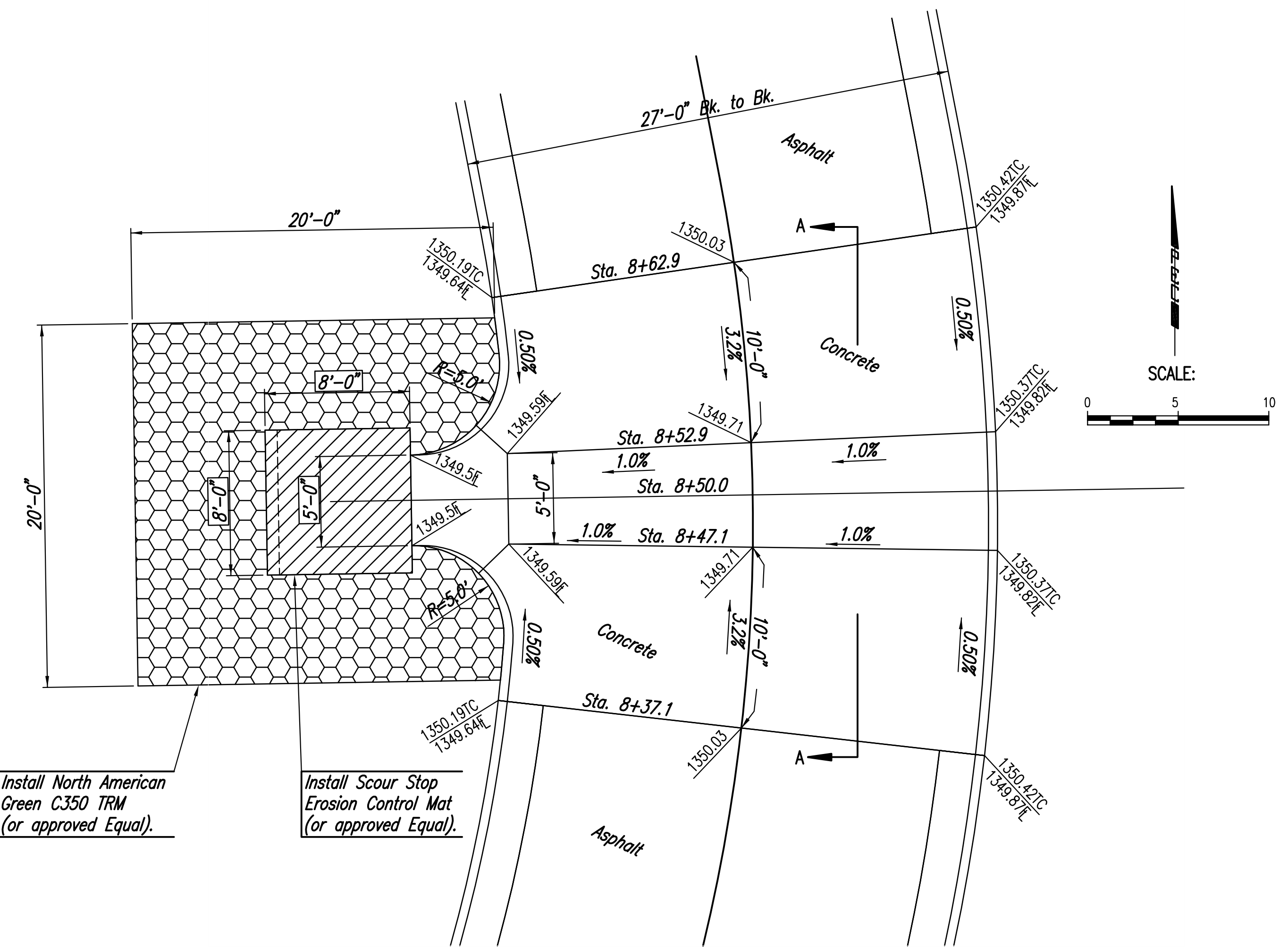
⊕ Cross Slope 1.0% from Sta. 7+69.11 to Sta. 8+37.1
 Transition Cross Slope from 1.0% to 3/8"/ft. from Sta. 8+62.9 to Sta. 9+00.0
 Cross Slope 3/8"/ft. from Sta. 9+00.0 to Sta. 16+42.94

φ Varies from Sta. 7+69.11 to Sta. 9+00.00. This area shall be graded at 1.0% such that there is positive drainage over the curb. See Prop. Contour Grading, Sheet No. C2.5.

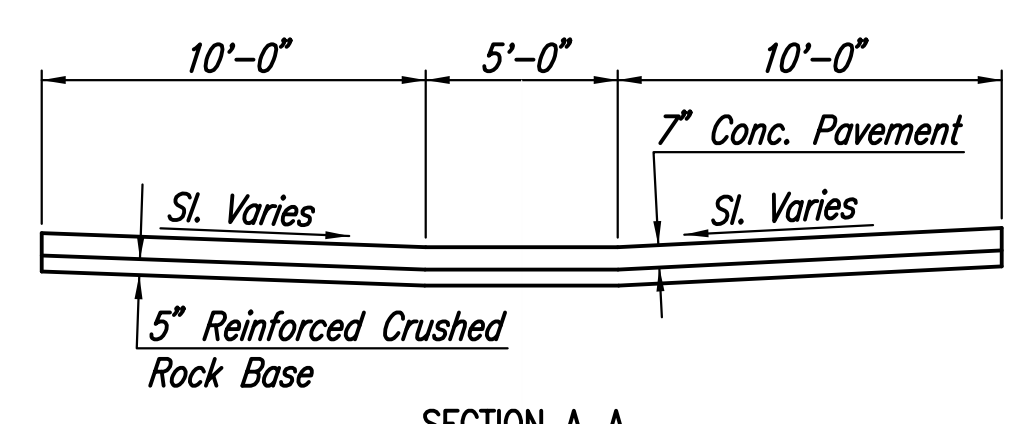


FOUNDATION TREATMENT & COMPACTION DIAGRAM

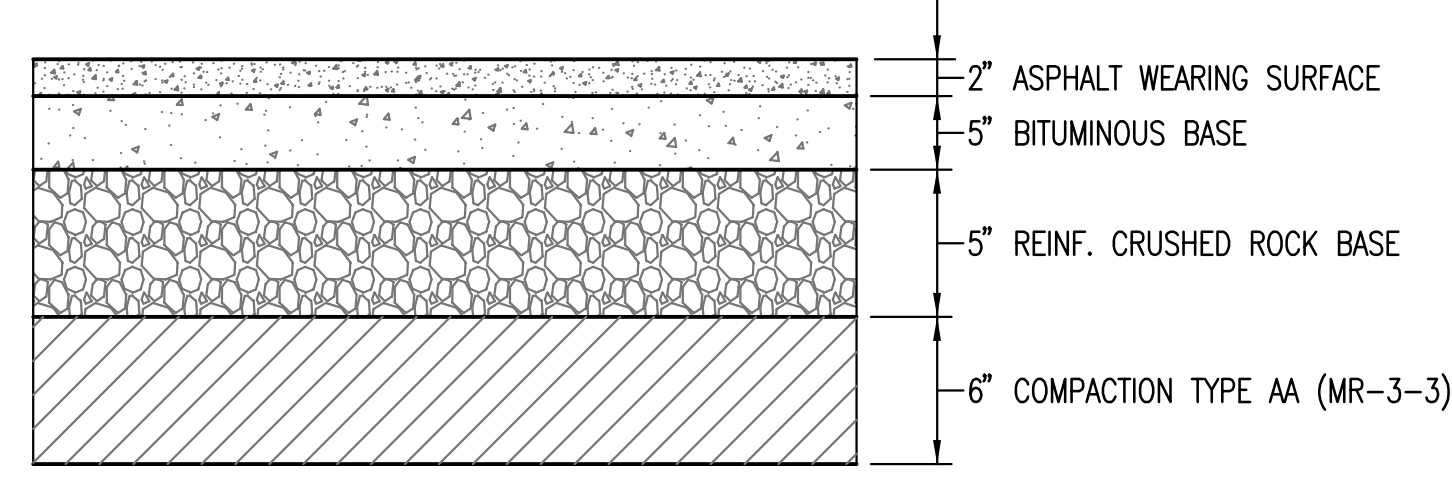
- ① ONLY PROJECT AREA SILTY CLAYS OR EQUAL PERMITTED (NO SHALE PERMITTED).
- ② "H", AS SHOWN, IS DEFINED AS THE FULL EMBANKMENT HEIGHT.
- ③ SCARIFY TO 6 INCHES DEPTH. COMPACT TO TYPE AA (MR-3-3)
- ④ BACKFILL WITH SUITABLE MATERIAL. COMPACT TO TYPE B (MR-90).
- ⑤ THE CONTRACTOR SHALL ARRANGE HIS CONSTRUCTION PROCEDURES SO THAT THE TOP FOOT OF THE SHOULDER SLOPES AND FILL SLOPES CONTAINS SUITABLE MATERIAL FOR THE GROWTH OF NORMAL VEGETATION.



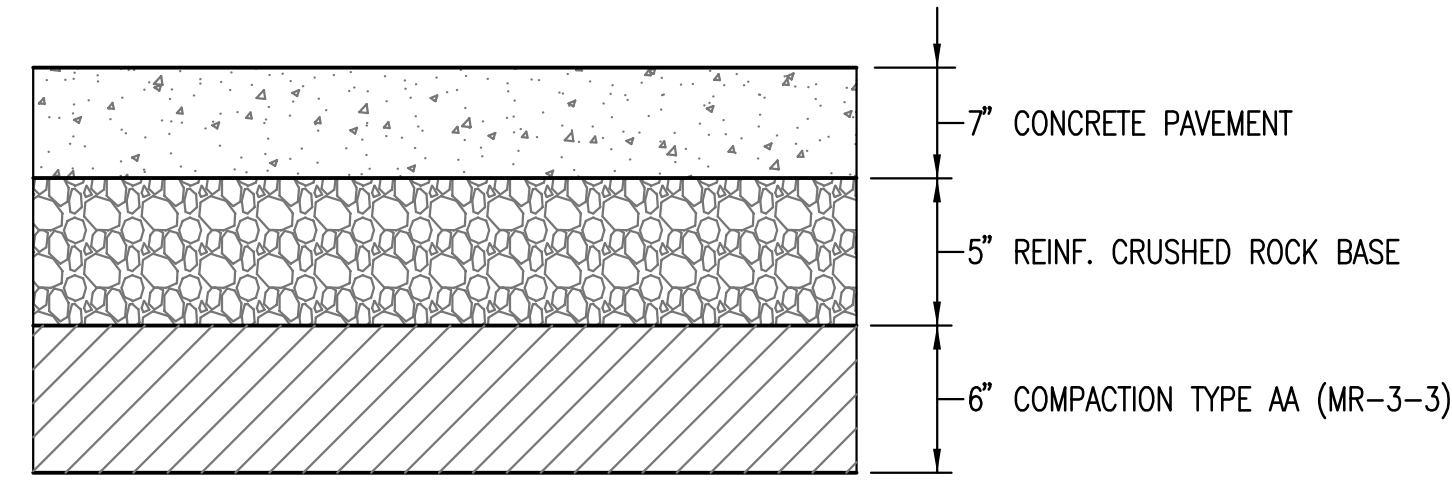
CONCRETE FLUME



SECTION A-A



TYPICAL PAVEMENT SECTION
7" A.C. Pavement



TYPICAL PAVEMENT SECTION
7" Concrete Pavement

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 BY THE KDOT 2007 EDITION STANDARD SPECIFICATION SUBSECTION 1102 FOR DURABILITY CLASS I.

SEE PROJECT SPECIFICATIONS FOR REINFORCED CRUSHED ROCK BASE REQUIREMENTS.

ROCK BASE IS TO BE COMPACTED AND SMOOTHED WITH A STEEL FACED ROLLER PRIOR TO PLACEMENT OF THE ASPHALT PAVEMENT.

TACK COAT WILL NOT BE APPLIED TO ROCK BASE.

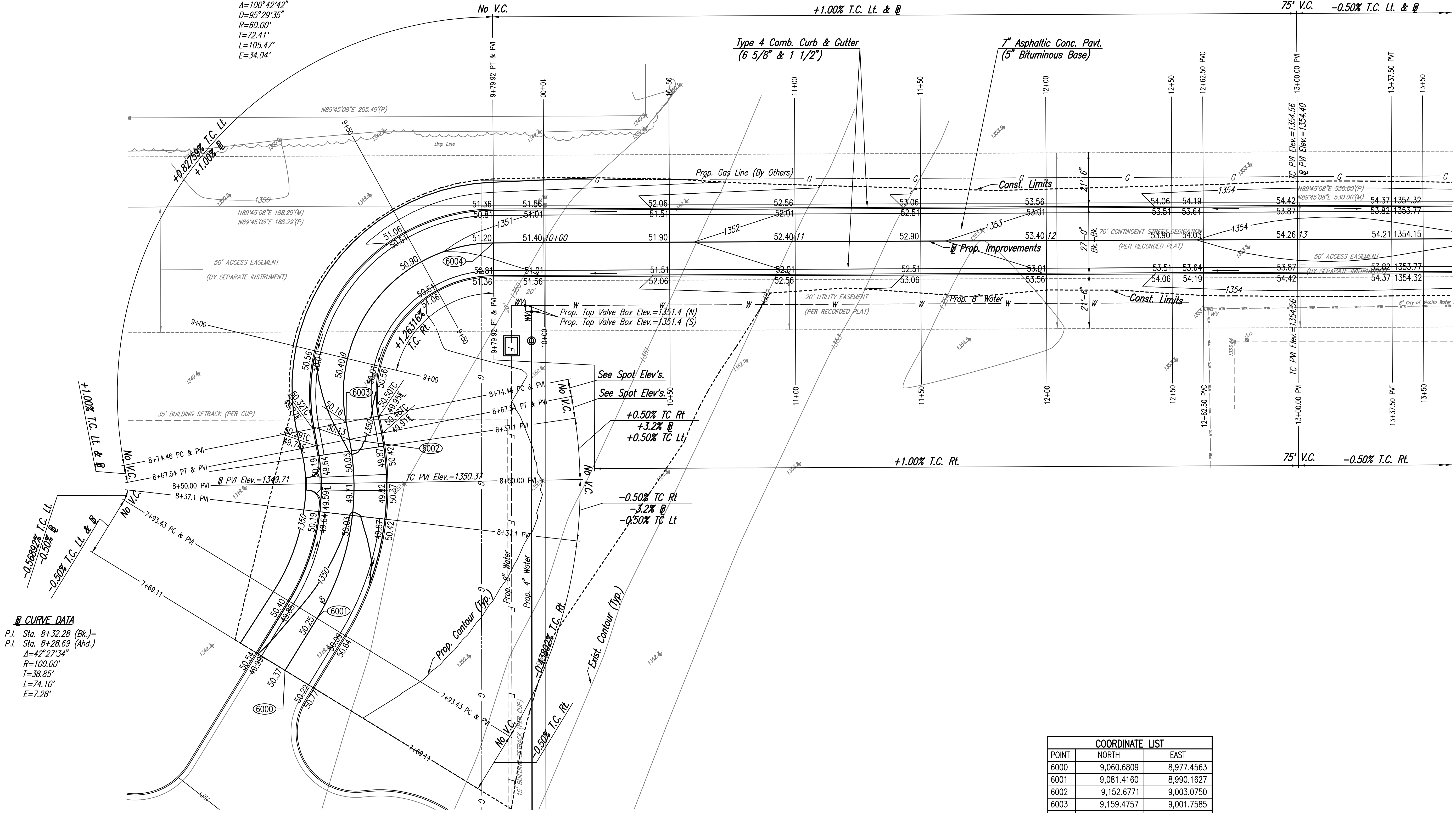
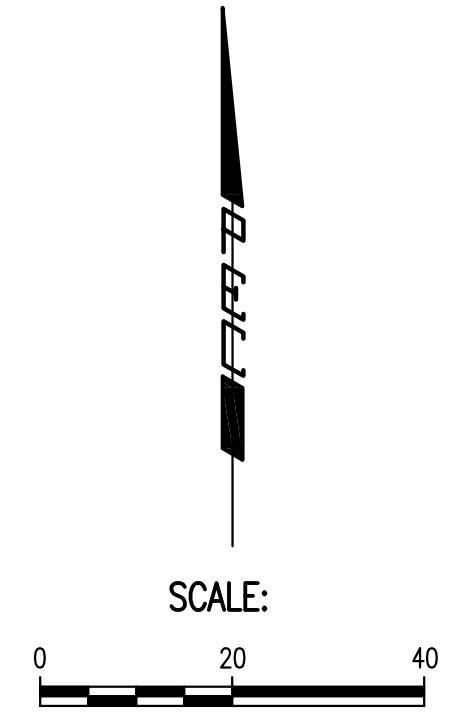
RECYCLED MATERIAL (RAP) SHALL BE ALLOWED FOR USE IN BITUMINOUS BASE AT A RATE NOT TO EXCEED 35% OF THE TOTAL AGGREGATE. RAP SHALL BE ALLOWED FOR USE IN BITUMINOUS SURFACE AT A RATE NOT TO EXCEED 15% OF THE TOTAL AGGREGATE. THE COMBINED AGGREGATE SAMPLE, INCLUDING RECYCLED MATERIAL, SHALL CONFORM TO THE CITY OF WICHITA STANDARD SPECIFICATIONS.

Sowed 11-09-2012 7:04:09 AM by BJS
 Plot Scale: 1/5 11-09-2012 2:33:42 PM by BILL J. SEWSON
 G:\2012\12387\SITE CIVIL\PPP\12387-04C-27 BK-BK TYPICAL PAVEMENT SECTION

- SCOUR STOP
- TURF REINFORCEMENT MAT (TRM)

No.	Revision	By	Date
QUIVIRA NEW COUNCIL SERVICE CENTER PRIVATE PAVING IMPROVEMENTS TYPICAL PAVING SECTIONS GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PRIVATE PROJECT NO. 0218 PPP (607879)			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	BMM, JAG	Job No.	35-12387-0069
Drawn by	BJS	Date	AUGUST 2012
			Sht. C2.4 of 11

B CURVE DATA
 P.I. Sta. 9+46.87 (Bk.)=
 P.I. Sta. 9+07.51 (Ahd.)=
 $\Delta=100^{\circ}42'42''$
 $D=95^{\circ}29'35''$
 $R=60.00'$
 $T=72.41'$
 $L=105.47'$
 $E=34.04'$



B CURVE DATA
 P.I. Sta. 8+32.28 (Bk.)=
 P.I. Sta. 8+28.69 (Ahd.)=
 $\Delta=42^{\circ}27'34''$
 $R=100.00'$
 $T=38.85'$
 $L=74.10'$
 $E=7.28'$



COORDINATE LIST		
POINT	NORTH	EAST
6000	9,060.6809	8,977.4563
6001	9,081.4160	8,990.1627
6002	9,152.6771	9,003.0750
6003	9,159.4757	9,001.7585
6004	9,230.8819	9,060.4047

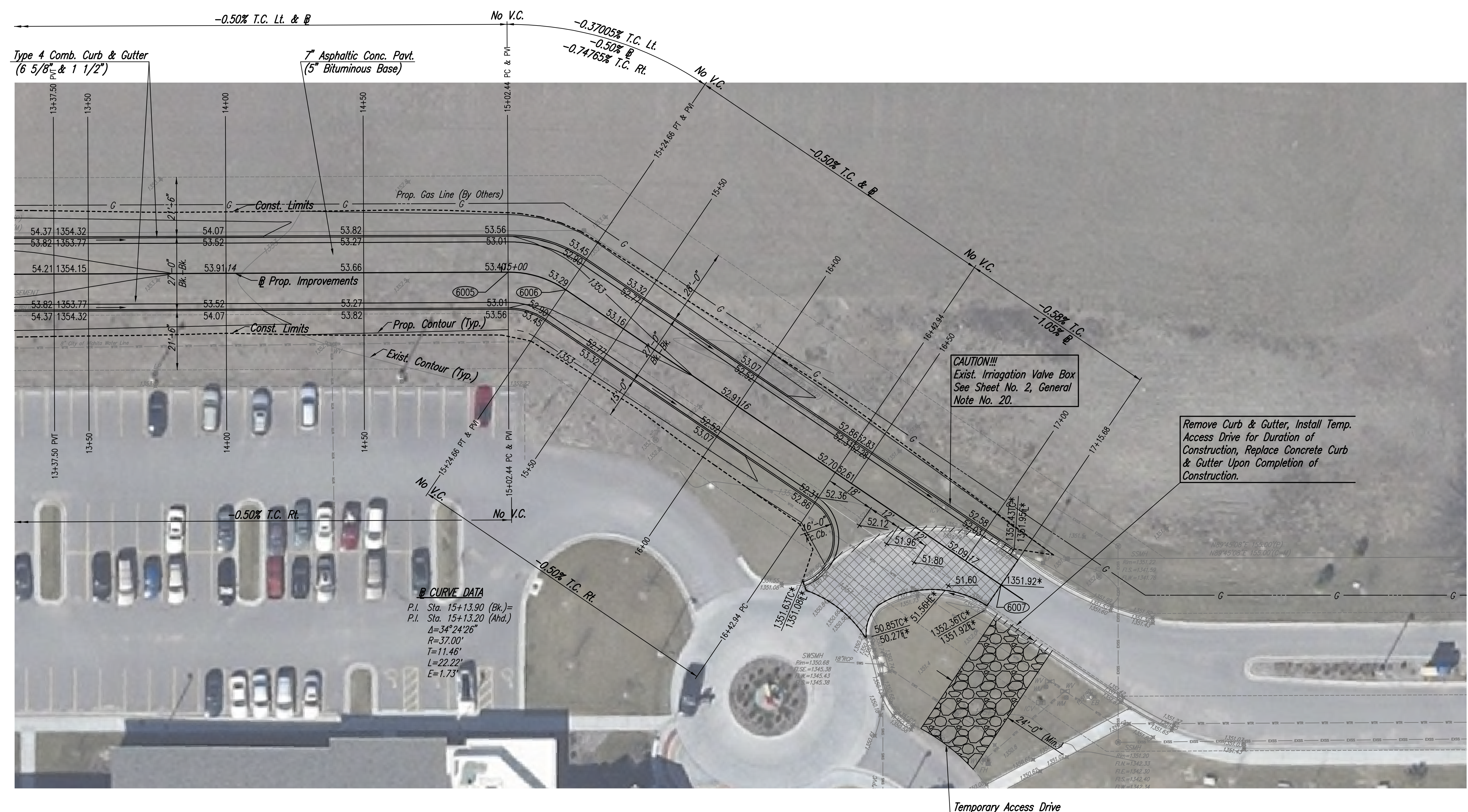
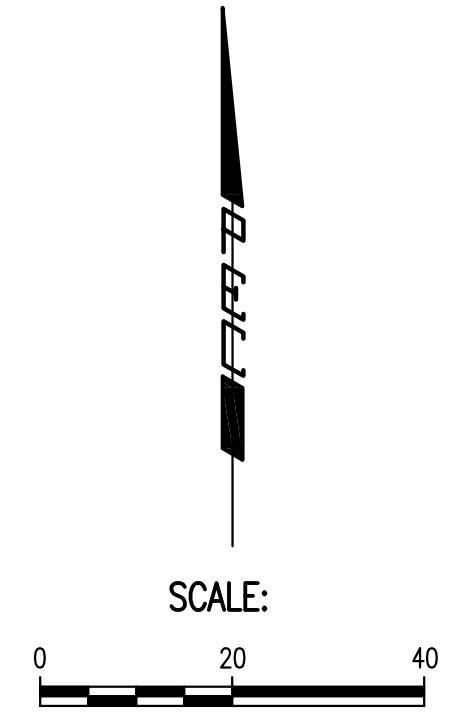
6000 = COORDINATE POINT NO.

SEE SHEET NO. C2.3
FOR PLAT COORDINATES

No.	Revision	By	Date
QUIVIRA NEW COUNCIL SERVICE CENTER PRIVATE PAVING IMPROVEMENTS PRIVATE PAVING PLAN GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PRIVATE PROJECT NO. 0218 PPP (607879)			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	BMM, JAG	Job No.	35-12387-0069
Drawn by	BJS	Date	AUGUST 2012
			Sht. C2.5 of 11

Served 11-08-2012 5:03:33 PM by BJS
 Plot Scale 1:20 11-09-2012 2:36:20 PM by BJS
 G:\2012\12387\SITE\CIVIL\PPP\12387-05C-PRIVATE PAVING PLAN

LEGEND
 ASPHALT PAVEMENT REMOVAL
 CONCRETE CURB AND GUTTER REMOVAL



COORDINATE LIST		
POINT	NORTH	EAST
6005	9,233.1415	9,582.9186
6006	9,226.7586	9,603.8541
6007	9,119.4983	9,761.9233

(6005) = COORDINATE POINT NO.

SEE SHEET NO. C2.3 FOR PLAT COORDINATES

CURVE DATA
 P.I. Sta. 15+13.90 (Bk.)=
 P.I. Sta. 15+13.20 (Ahd.)
 $\Delta=34^{\circ}24'26''$
 $R=37.00'$
 $T=11.46'$
 $L=22.22'$
 $E=1.73'$

CAUTION!!!
 Exist. Irrigation Valve Box
 See Sheet No. 2, General
 Note No. 20.


Remove Curb & Gutter, Install Temp.
 Access Drive for Duration of
 Construction, Replace Concrete Curb
 & Gutter Upon Completion of
 Construction.

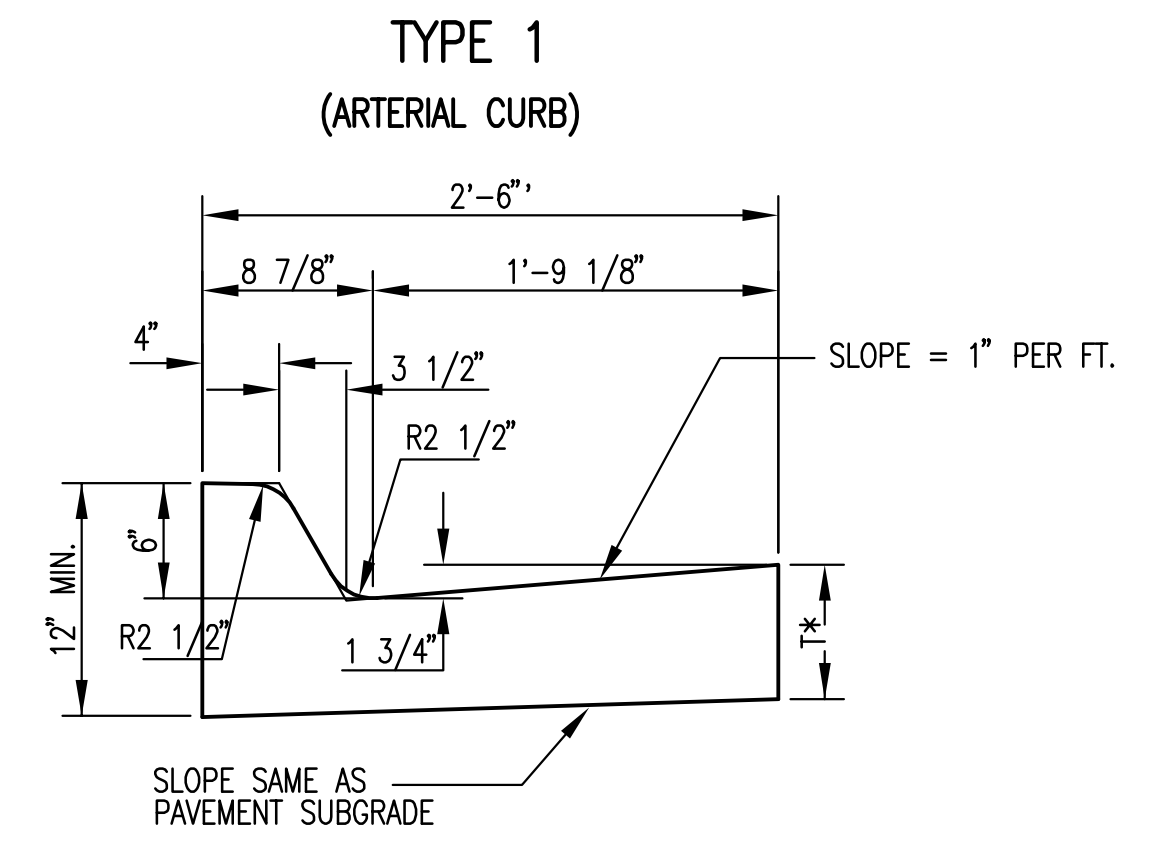
Temporary Access Drive

NOTE:
 CONTRACTOR SHALL STAGE CONSTRUCTION TO MAINTAIN ACCESS ON RAINBOWS UNITED ENTRANCE DRIVE AND SHALL LIMIT THE PERIOD OF TIME THE ACCESS IS RELOCATED TO THE MAXIMUM EXTENT REASONABLE FOR DEMOLITION AND CONSTRUCTION. ACCESS TO RAINBOW UNITED SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

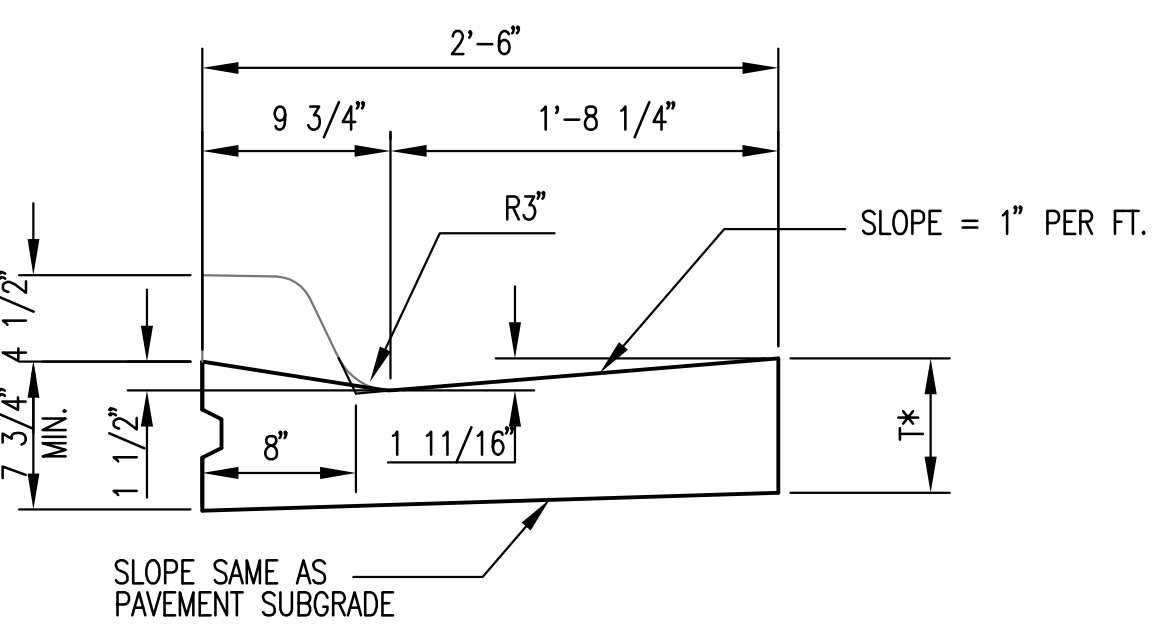
TEMPORARY ACCESS DRIVE SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF WICHITA STANDARDS FOR A STABILIZED CONSTRUCTION ENTRANCE, SEE SHEET C5.1. EXCEPT THE WIDTH SHALL BE A MINIMUM OF 24 FEET.

Served 11-09-2012 9:39:53 AM by BJS
 Plot Scale: 1:20 11-09-2012 2:38:07 PM by BJS
 G:\2012\12387\SITE\CIVIL\PPP\12387-06C-PRIVATE PAVING PLAN

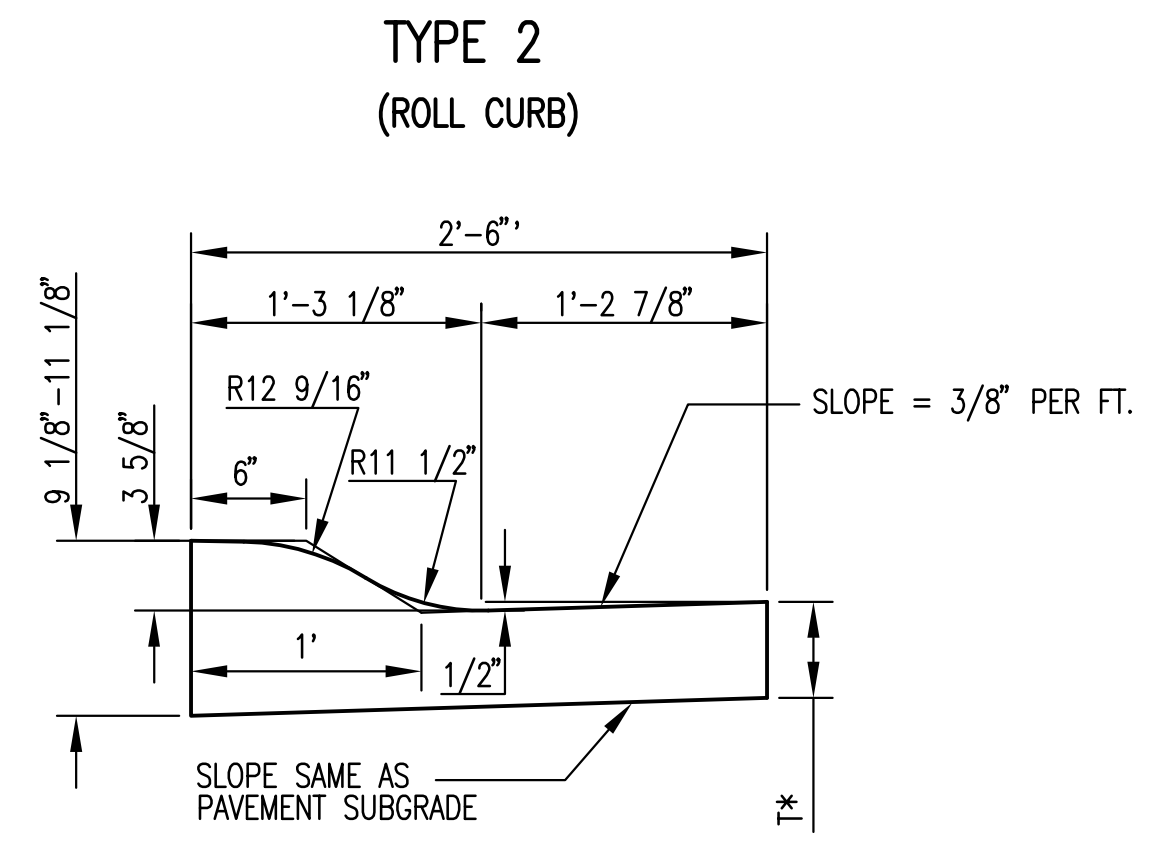
No.	Revision	By	Date
QUIVIRA NEW COUNCIL SERVICE CENTER PRIVATE PAVING IMPROVEMENTS PRIVATE PAVING PLAN GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PRIVATE PROJECT NO. 0218 PPP (607879)			
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	BMM, JAG	Job No.	35-12387-0069
Drawn by	BJS	Date	AUGUST 2012
			Sht. C2.6 of 11



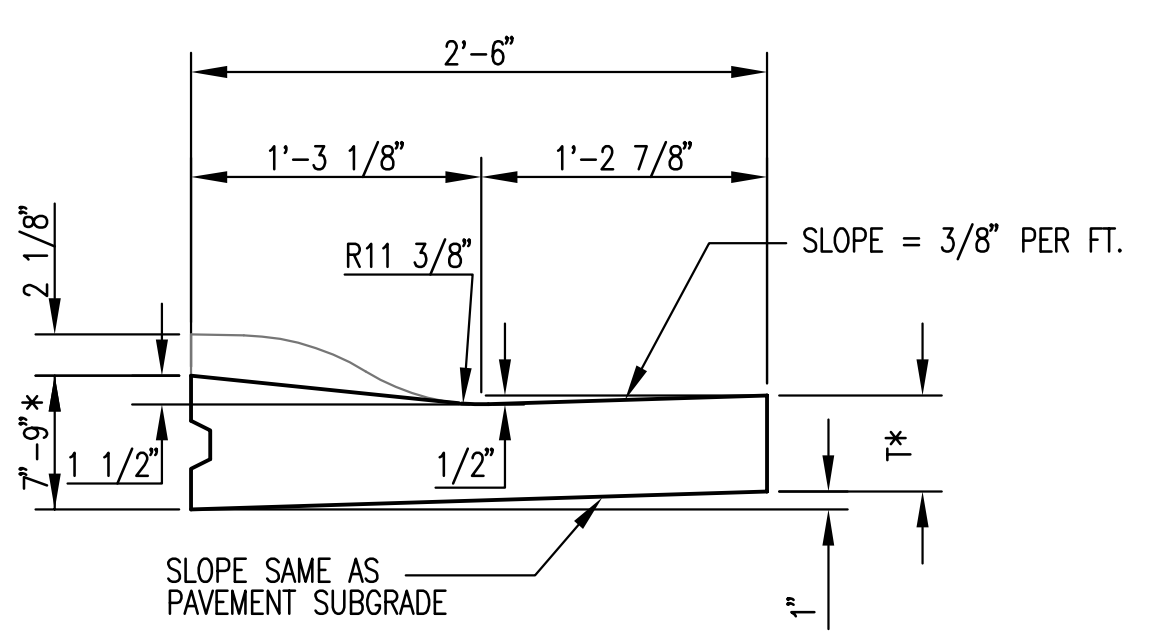
COMBINED CURB & GUTTER (6")



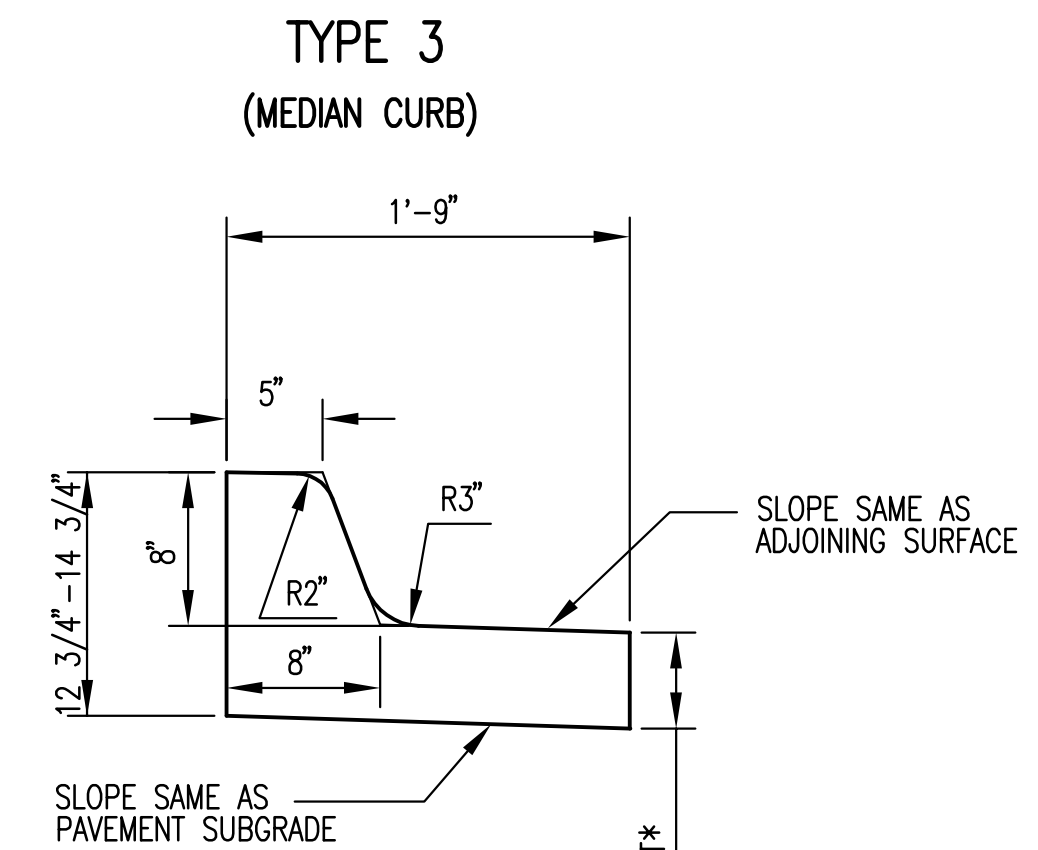
COMBINED CURB & GUTTER (1 1/2")



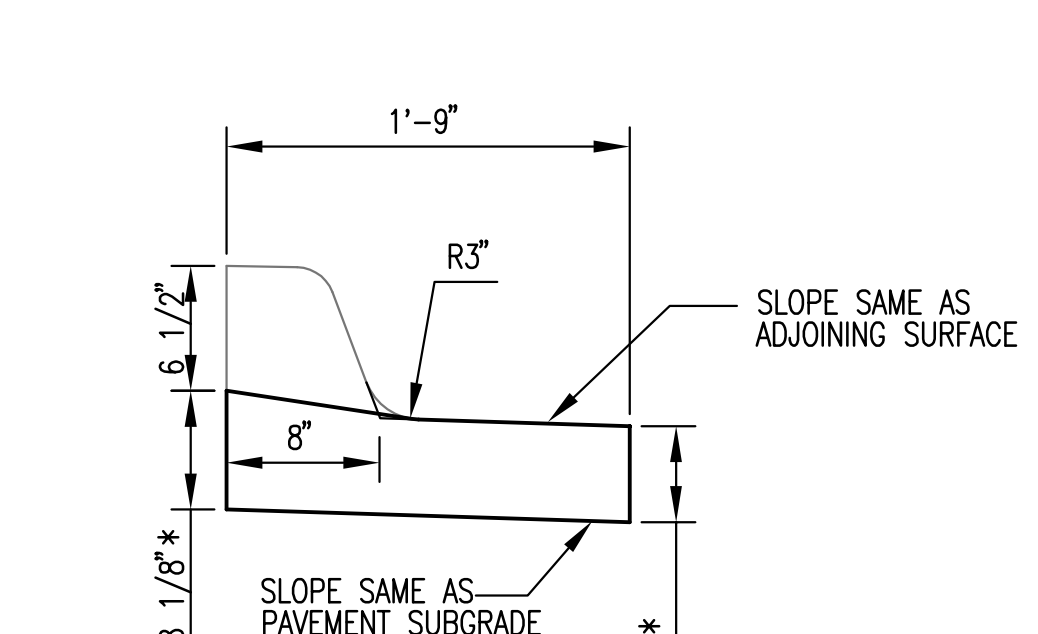
COMBINED CURB & GUTTER (3 5/8")



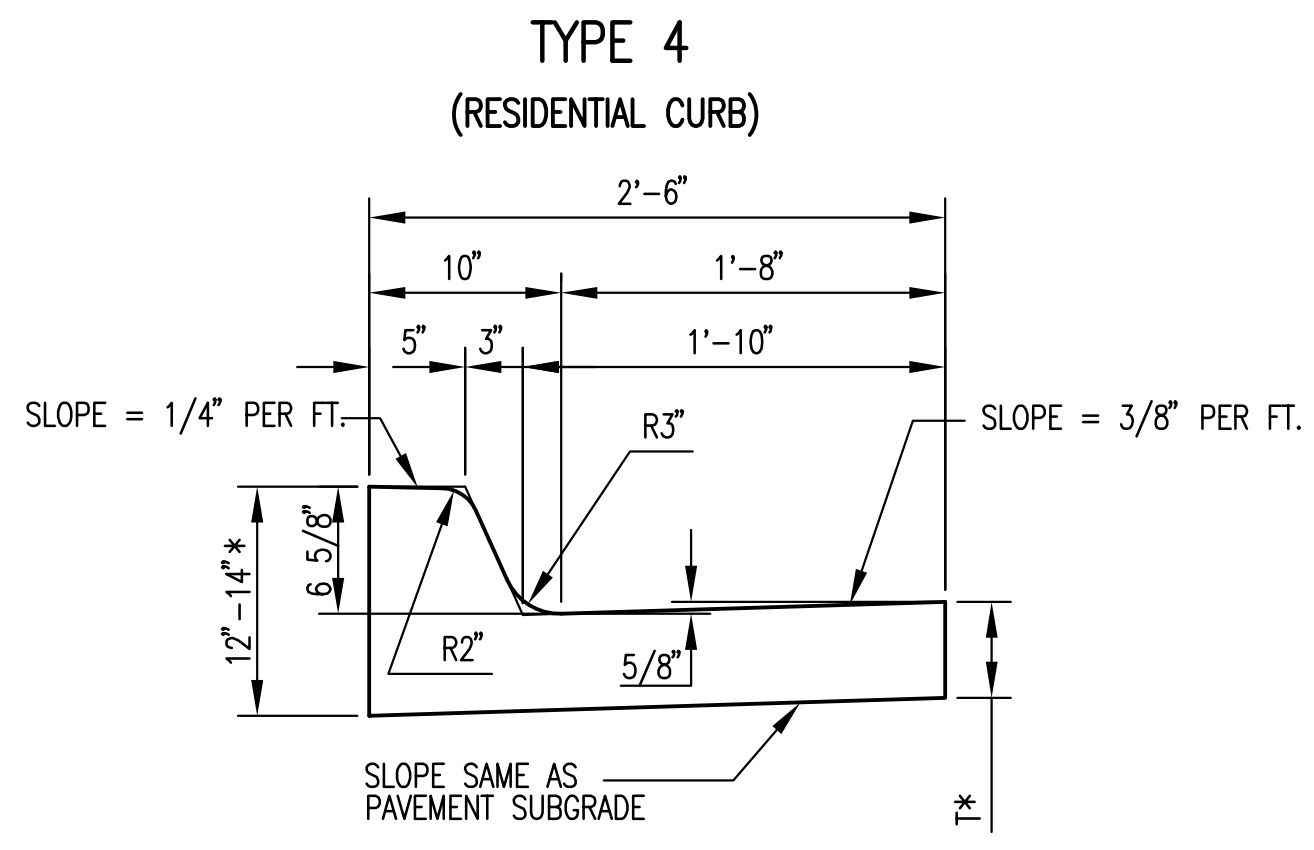
COMBINED CURB & GUTTER (1 1/2")



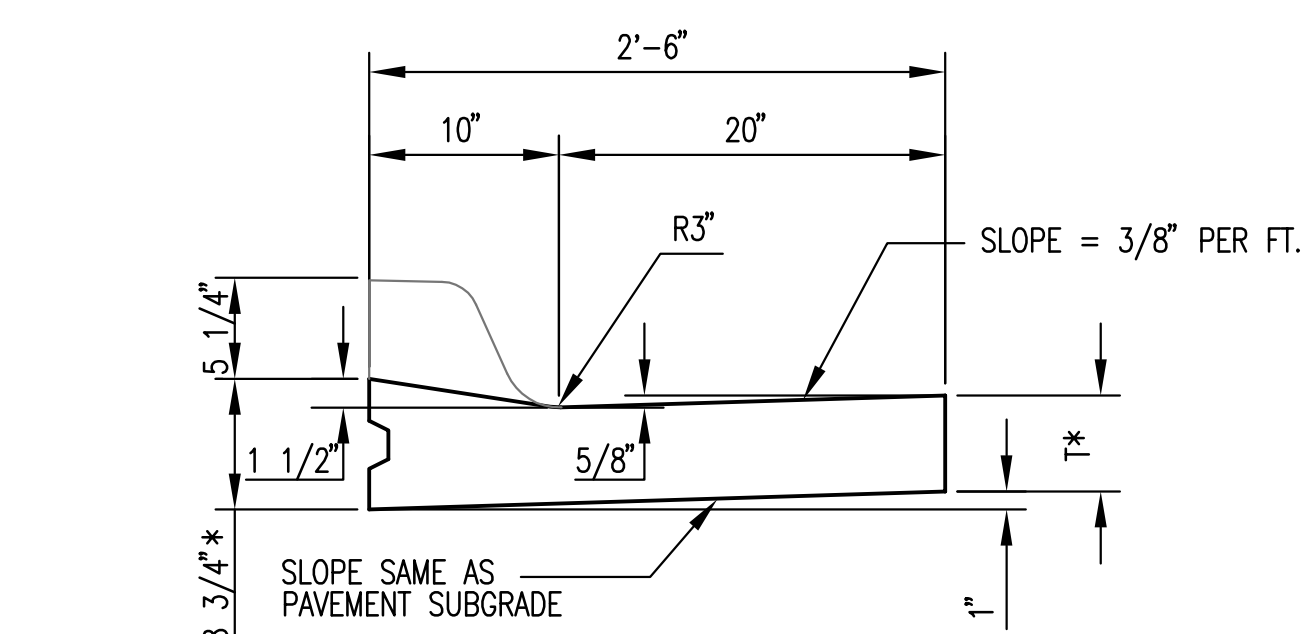
COMBINED CURB & GUTTER (8")



COMBINED CURB & GUTTER (1 1/2")



COMBINED CURB & GUTTER (6 5/8")

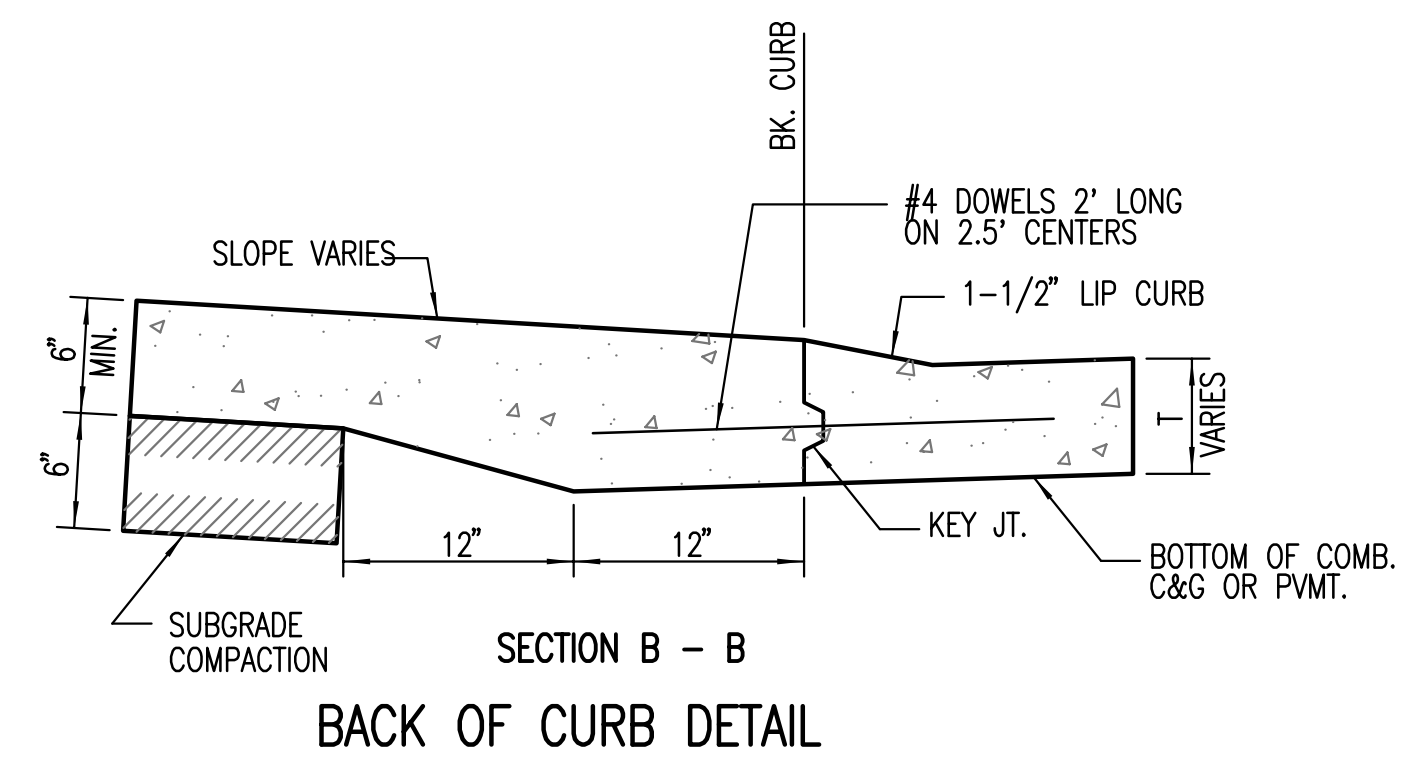


COMBINED CURB & GUTTER (1 1/2")

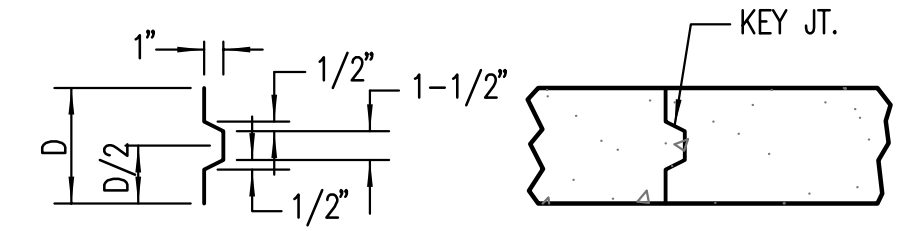
T* = THICKNESS OF CURB TO ADJUST WITH PAVEMENT THICKNESS

GENERAL NOTES

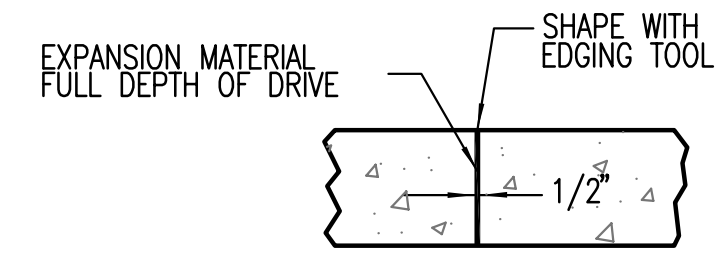
1. EXPANSION (ISOLATION) JOINTS SHALL BE CONSTRUCTED A MAXIMUM OF 300' APART AND AT ALL PIS, PCS, CUL-DE-SAC QUADRANTS, AND ENDS OF RETURNS.
2. CONTRACTION JOINTS SHALL BE CONSTRUCTED A MINIMUM OF 12' APART.
3. JOINT SEALER SHALL BE REQUIRED AT ALL JOINTS ON ARTERIAL AND INDUSTRIAL STREETS AND AT INTERSECTIONS ON RESIDENTIAL STREETS.



ALT. LONGITUDINAL CONSTRUCTION JOINT



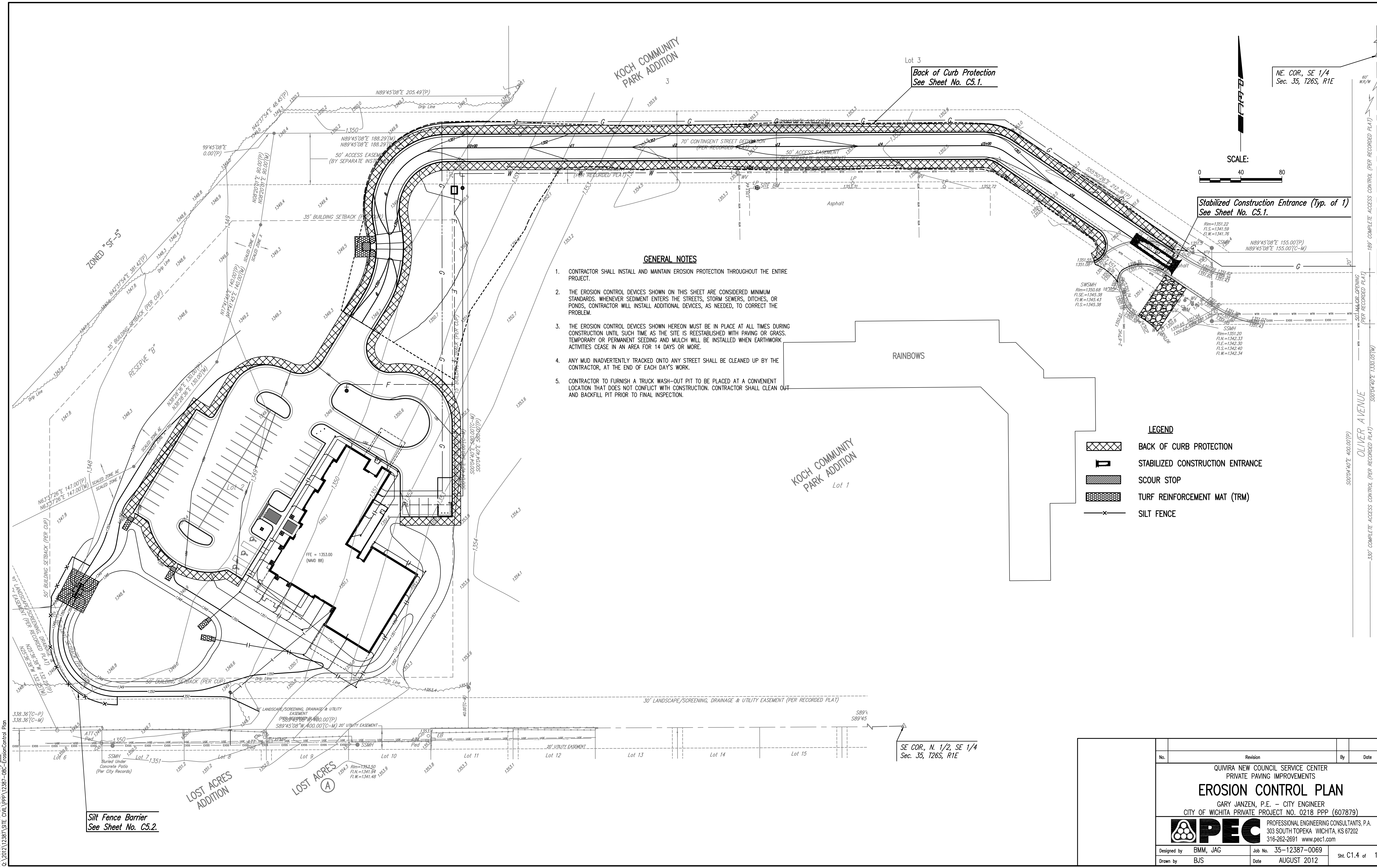
EXPANSION JOINT (E.J.)



Sheet 11-08-2012 2:05:45 PM by BJS
 Plot Scale 1:10 11-09-2012 2:48:17 PM by BJS
 Q:\2012\12387\SITE CIVIL\PPP\12387-07C-Curb & Gutter

				CURB & GUTTER DETAILS	
				CITY ENGINEER GARY JANZEN, P.E.	
PROJECT NUMBER	OCA NUMBER	DATE			
0218-PPP	(607879)	12/2010			
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501				DESIGN	DRAWN
				SHEET	

Saved 11-09-2012 1:26:47 PM by BJS
 Plot Scale 1:40 11-09-2012 2:40:40 PM by BJS
 G:\2012\12387\12387-06-ErosionControl Plan



GENERAL NOTES

1. CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION PROTECTION THROUGHOUT THE ENTIRE PROJECT.
2. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED MINIMUM STANDARDS. WHENEVER SEDIMENT ENTERS THE STREETS, STORM SEWERS, DITCHES, OR PONDS, CONTRACTOR WILL INSTALL ADDITIONAL DEVICES, AS NEEDED, TO CORRECT THE PROBLEM.
3. THE EROSION CONTROL DEVICES SHOWN HEREON MUST BE IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL SUCH TIME AS THE SITE IS REESTABLISHED WITH PAVING OR GRASS. TEMPORARY OR PERMANENT SEEDING AND MULCH WILL BE INSTALLED WHEN EARTHWORK ACTIVITIES CEASE IN AN AREA FOR 14 DAYS OR MORE.
4. ANY MUD INADVERTENTLY TRACKED ONTO ANY STREET SHALL BE CLEANED UP BY THE CONTRACTOR, AT THE END OF EACH DAY'S WORK.
5. CONTRACTOR TO FURNISH A TRUCK WASH-OUT PIT TO BE PLACED AT A CONVENIENT LOCATION THAT DOES NOT CONFLICT WITH CONSTRUCTION. CONTRACTOR SHALL CLEAN OUT AND BACKFILL PIT PRIOR TO FINAL INSPECTION.

LEGEND

- BACK OF CURB PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- SCOUR STOP
- TURF REINFORCEMENT MAT (TRM)
- SILT FENCE

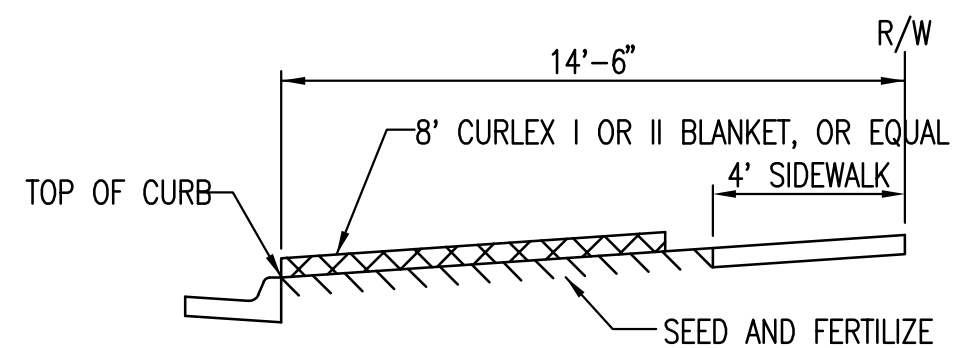
NE COR., SE 1/4
 Sec. 35, T26S, R1E

SE COR., N. 1/2, SE 1/4
 Sec. 35, T26S, R1E

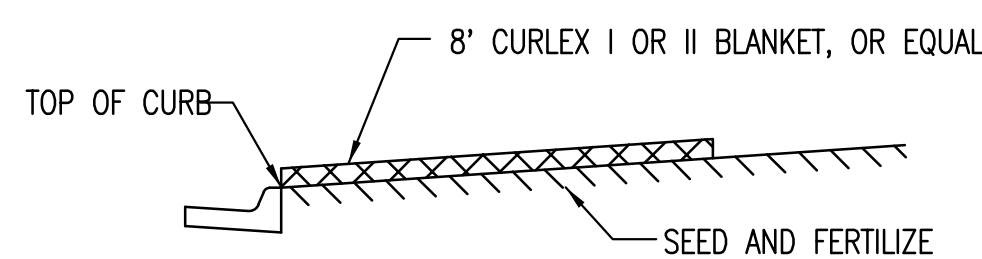
Silt Fence Barrier
 See Sheet No. C5.2.

Stabilized Construction Entrance (Typ. of 1)
 See Sheet No. C5.1.

No.	Revision	By	Date
QUIVIRA NEW COUNCIL SERVICE CENTER PRIVATE PAVING IMPROVEMENTS EROSION CONTROL PLAN GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PRIVATE PROJECT NO. 0218 PPP (607879)			
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	BMM, JAG	Job No.	35-12387-0069
Drawn by	BJS	Date	AUGUST 2012
			Sht. C1.4 of 11

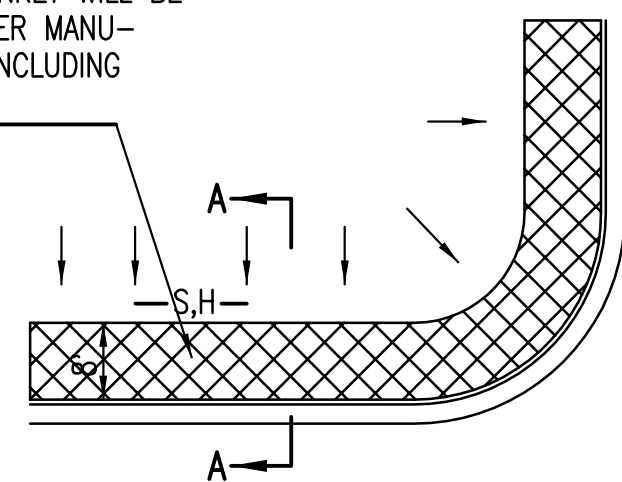


SECTION B-B

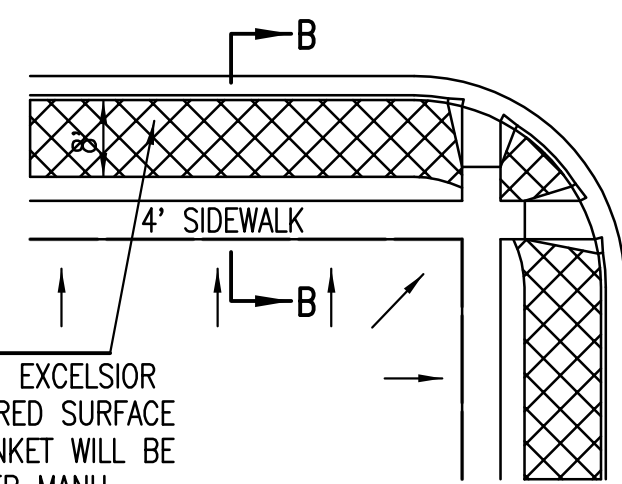


SECTION A-A

INSTALL 8" WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURERS RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)



SOUTH STREET

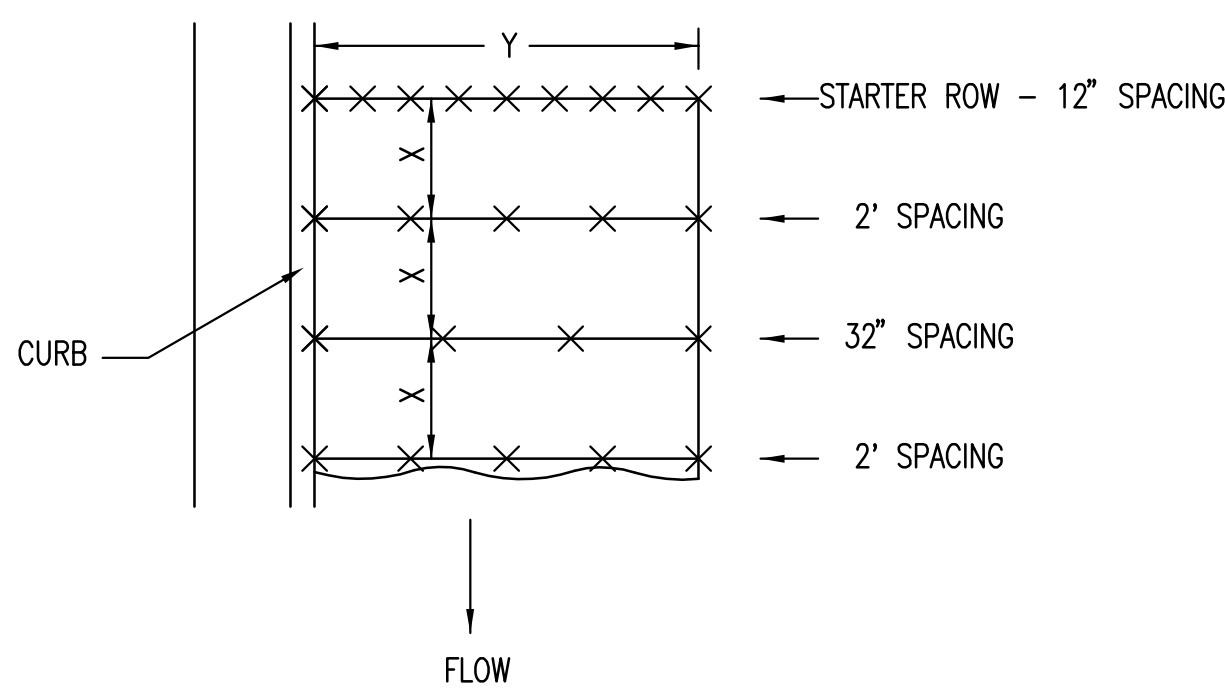


INSTALL 8" WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURERS RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)

GENERAL NOTES

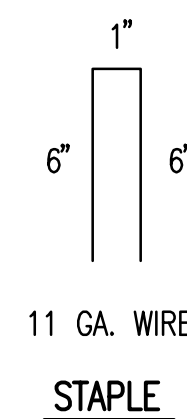
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
- EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

BACK OF CURB PROTECTION DETAIL



STAPLE PATTERN

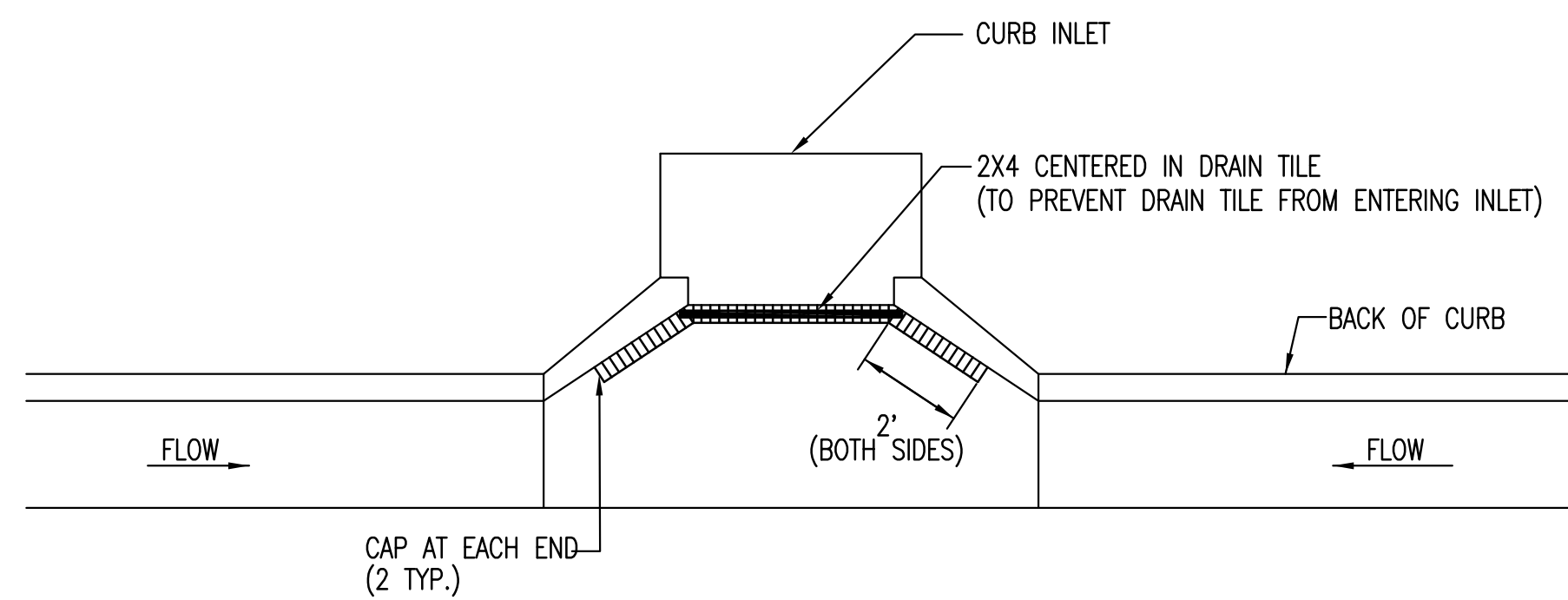
NOTES: USE 6" SEAM OVERLAP
(X & Y = RECOMMENDED BY MANUFACTURE)



11 GA. WIRE

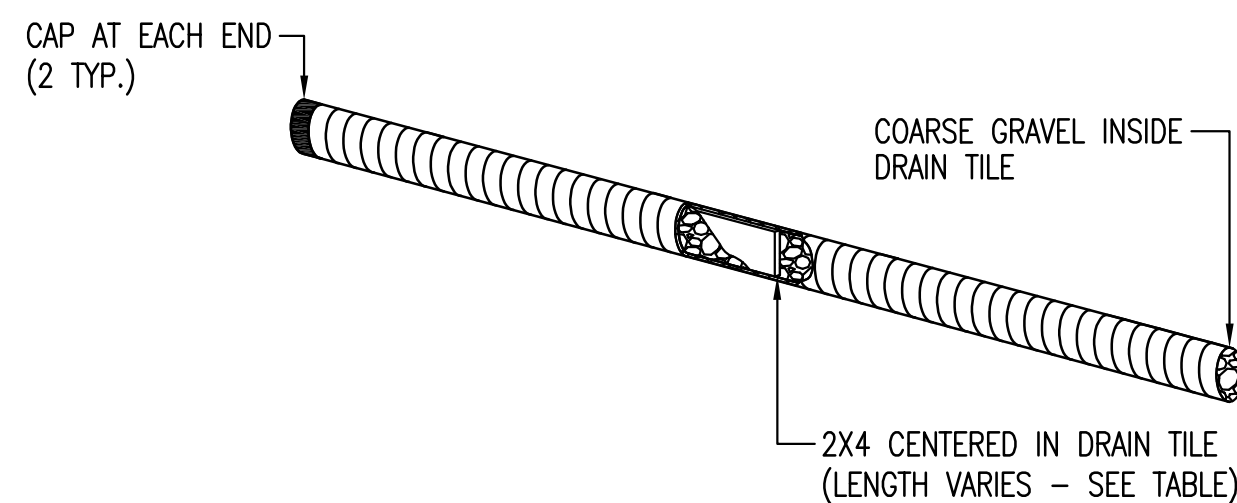
STAPLE

DETAILS FOR APPROVED EROSION CONTROL MAT

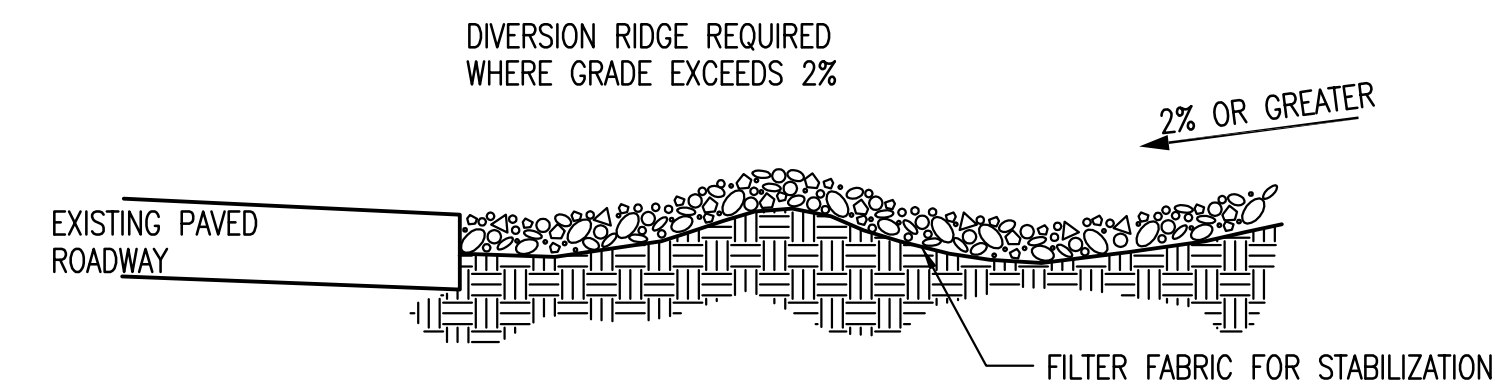


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2" - 1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

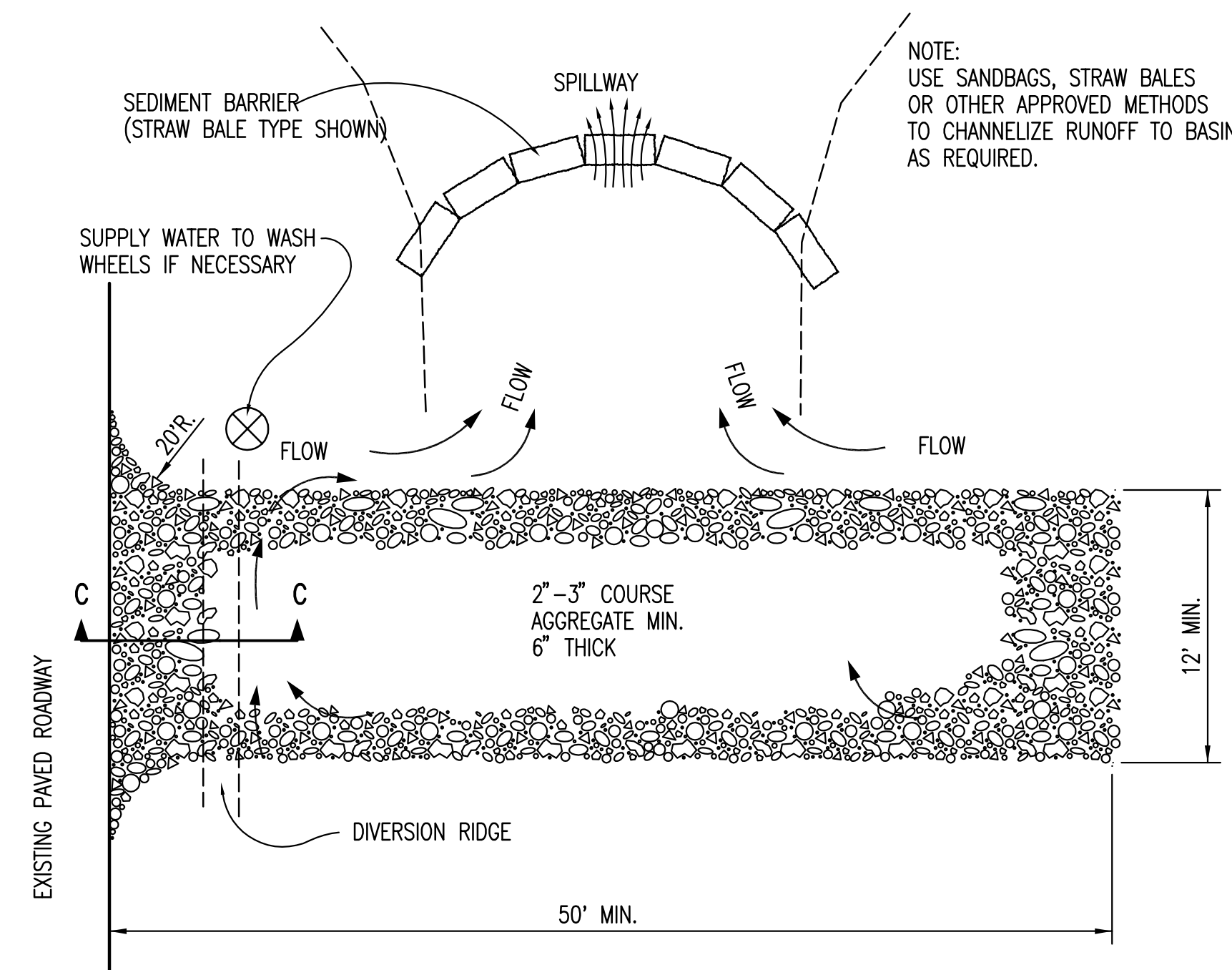
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

- 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.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
- 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.

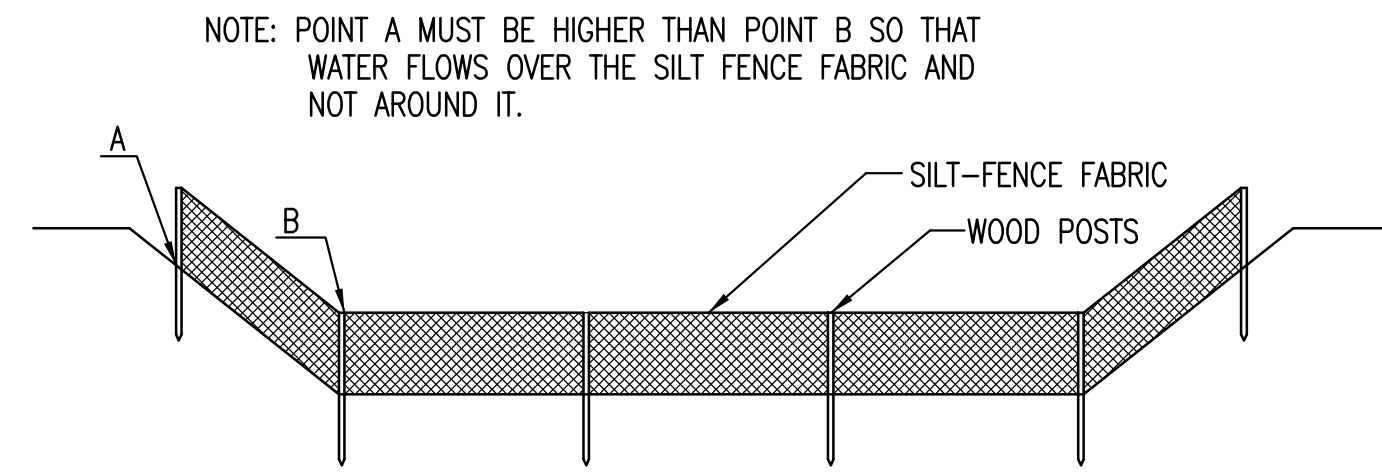
BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

CITY ENGINEER

GARY JANZEN, P.E.

PROJECT NUMBER: 0218-PPP
OCA NUMBER: (607879)
DATE: 08/2012

CITY ENGINEER'S OFFICE: 455 NORTH MAIN STREET, WICHITA, KANSAS 67202-1620, (316) 268-4501
DESIGN: [blank]
DRAWN: [blank]
SHEET: C5.1 of 11



ELEVATION
SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

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. SILT FENCE DITCH 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 CHECK DITCH GRADE (%)	SPACING 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.

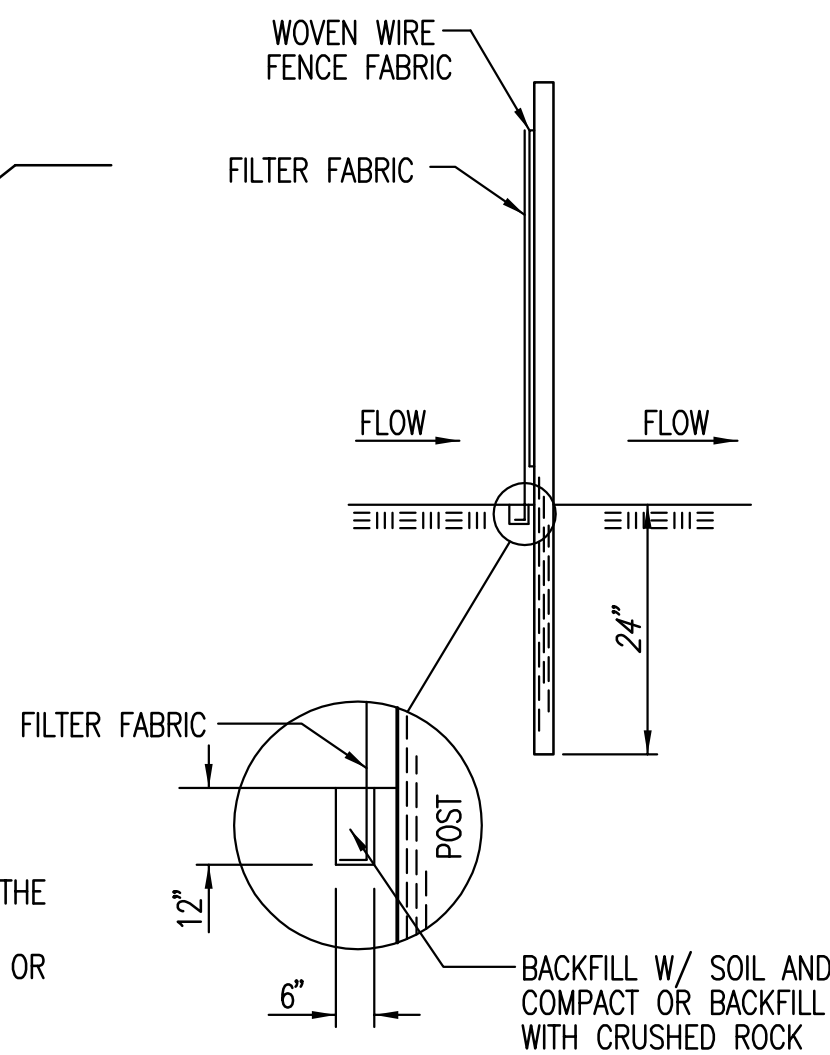
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

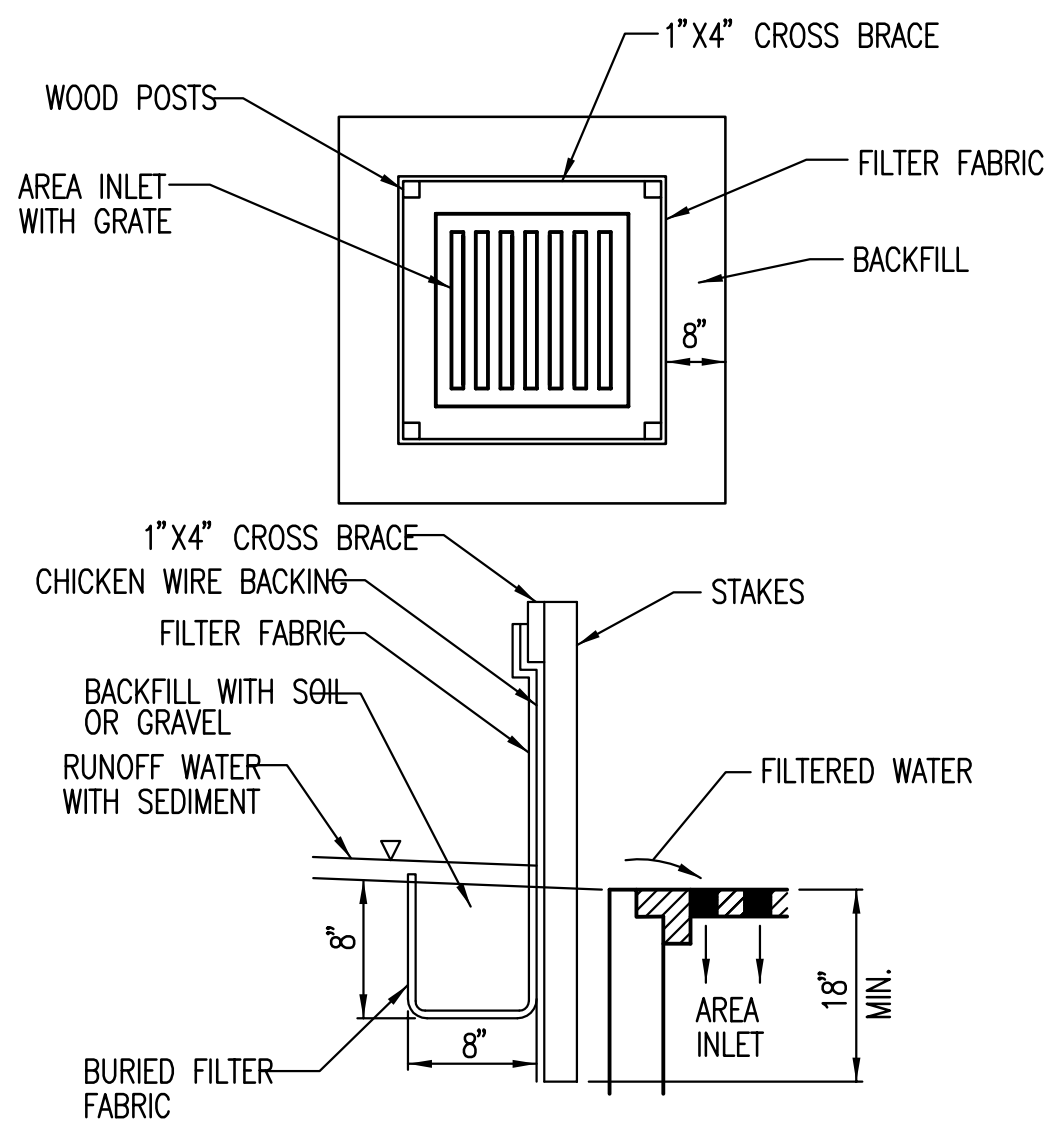
INSPECTION AND MAINTENANCE:

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?



ANCHOR TRENCH DETAIL



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 BARRIER FOR 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.

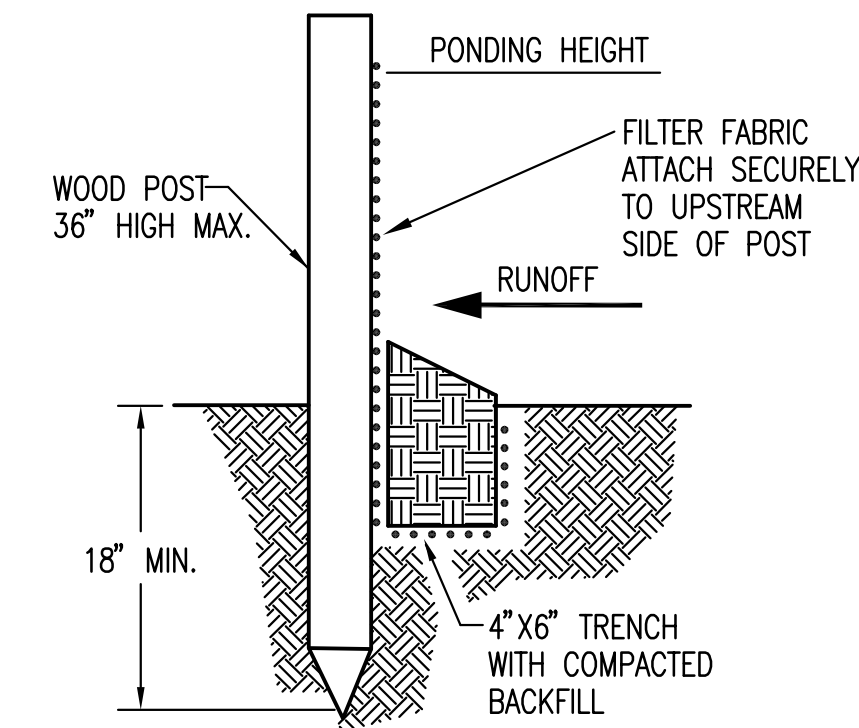
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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?



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 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 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, NAILS, 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.

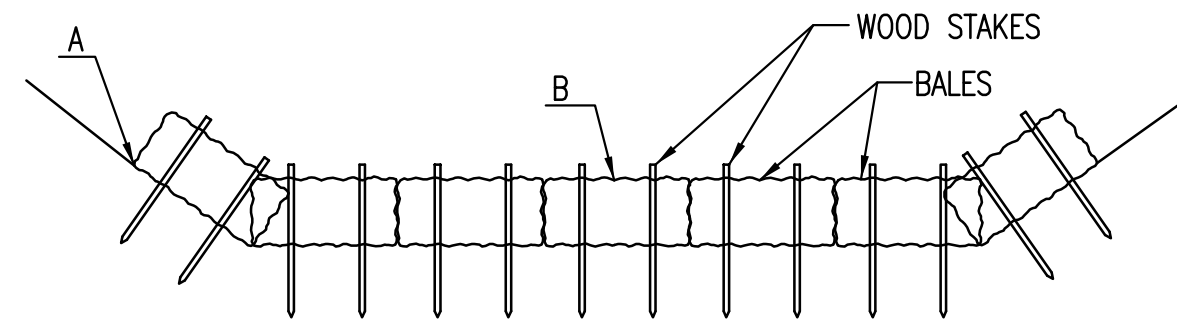
INSPECTION AND MAINTENANCE:

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?

<p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	SILT FENCE DITCH CHECK AND BARRIER DETAILS		
	CITY ENGINEER GARY JANZEN, P.E.		
	PROJECT NUMBER 0218-PPP	OCA NUMBER (607879)	DATE 11/2010
	CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		DESIGN DRAWN SHEET C5.2 of 11

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.

STRAW BALE DITCH 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".

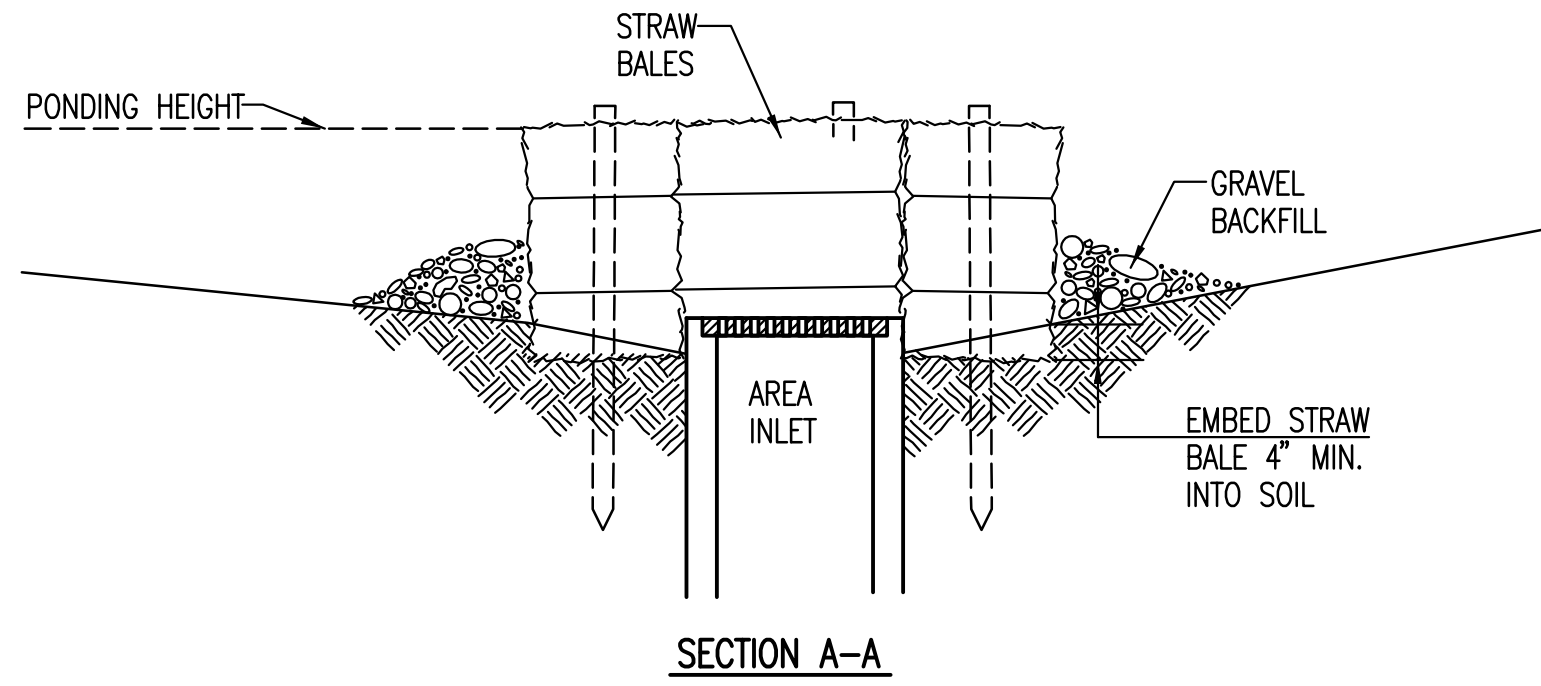
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

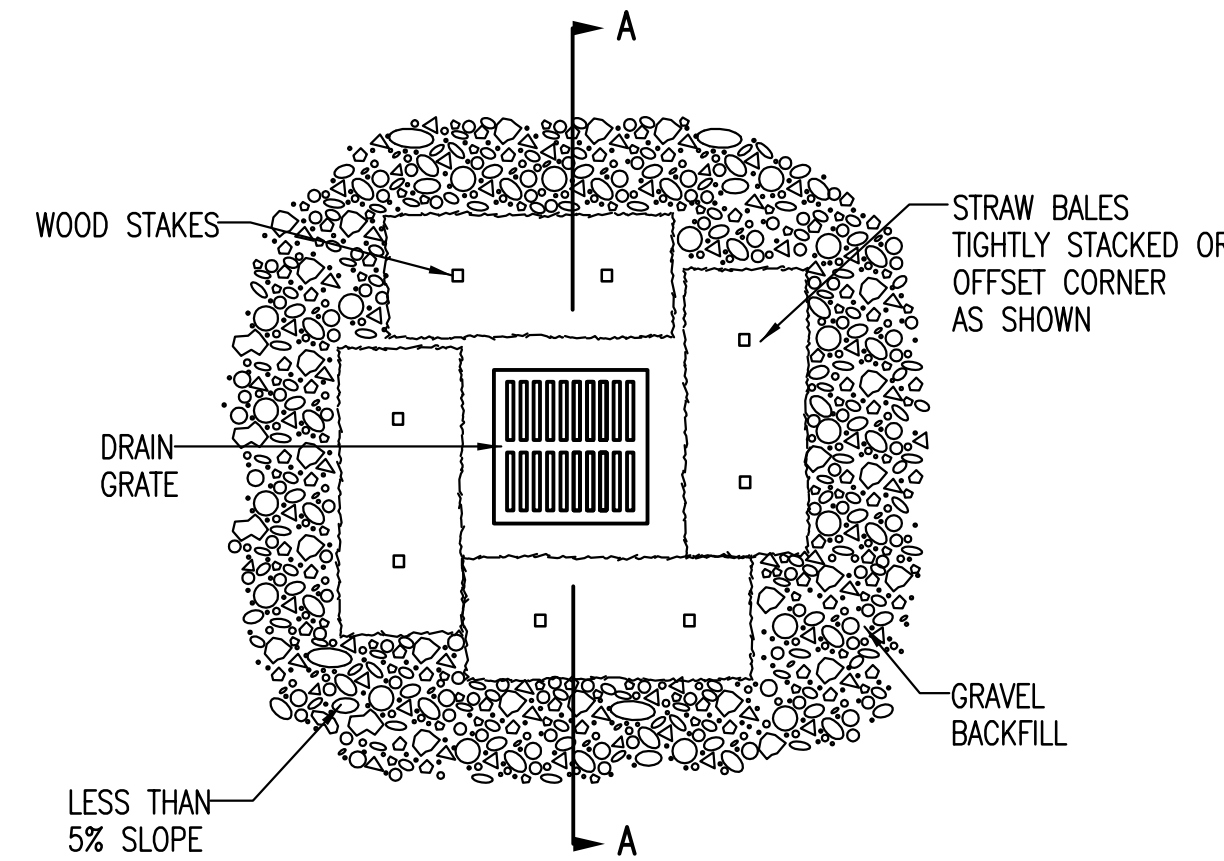
INSPECTION AND MAINTENANCE:

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. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

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.

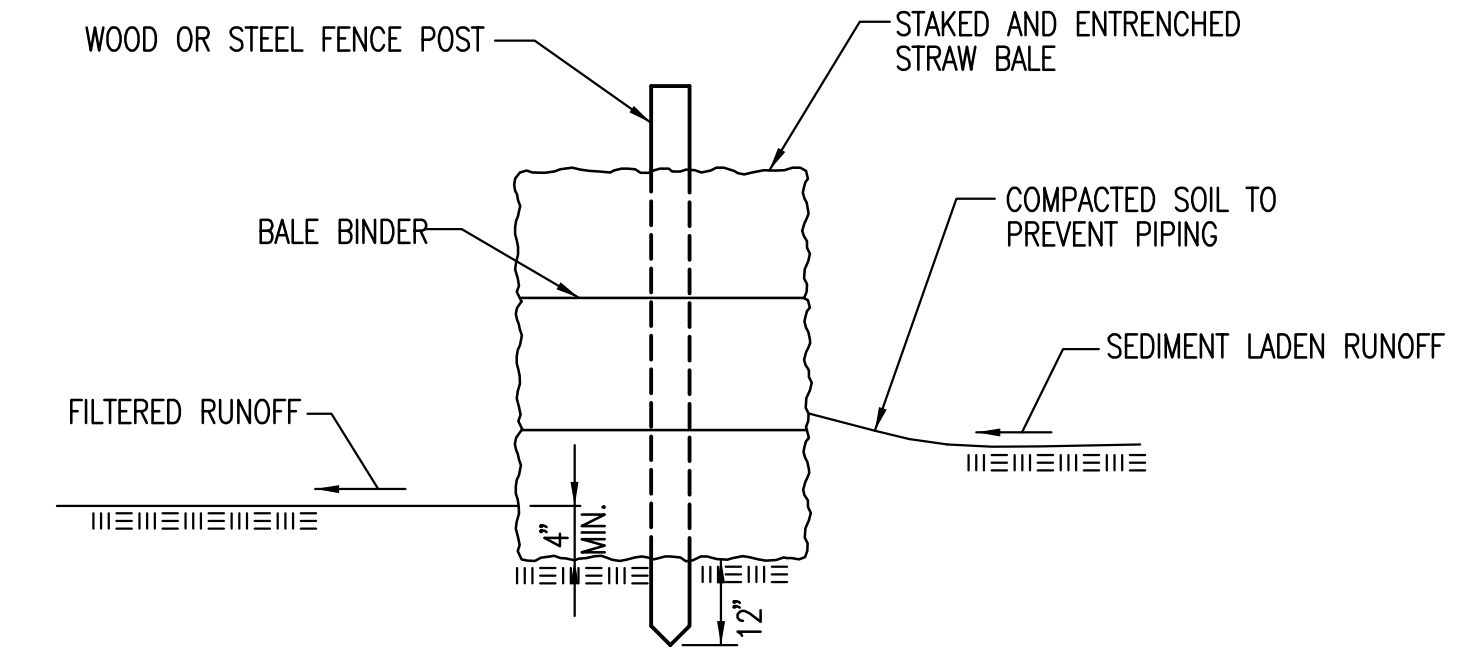
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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 OF 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?



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. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

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 PRACTICAL, 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?

				STRAW BALE DITCH CHECK AND BARRIER DETAILS	
				CITY ENGINEER GARY JANZEN, P.E.	
PROJECT NUMBER	OCA NUMBER	DATE			
0218-PPP	(607879)	11/2010			
CITY ENGINEER'S OFFICE				DESIGN	DRAWN
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501				SHEET	
				C5.3 of 11	