DRAINAGE PRIVATE PROJECT PLANS FOR

LOT 1, BLK 1, WEBB ROAD ADD.

WICHITA, SEDGWICK COUNTY, KANSAS

0095 PPD (O.C.A. NO. 607861)

GARY JANZEN, P.E., CITY ENGINEER

APRIL 2013

GENERAL NOTES:

1. ALL ELEVATIONS SHOWN ARE BASED ON NAVD 88 DATUM.

2. 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 687-2470

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

COX COMMUNICATIONS	262-4270 OR 263-2061
AT&T	1-800-870-8390
KANSAS GAS SERVICE	1-888-482-4950
WESTAR	1-800-383-1183
BLACK HILLS ENERGY	1-800-303-0752
CITY OF WICHITA(WATER & SEWER)	268-4555

THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED ACROSS AND/OR ADJACENT TO PIPELINES.

3. COST OF EXCAVATION, HAULING AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO OTHER ITEMS OF WORK.

4. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR FOR THIS PROJECT 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT ON SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.

5. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO REESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS SUCH IRONS SHALL BE REESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

7. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.

8. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA SHALL BE CARRIED THROUGH CONSTRUCTION. LOCAL RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA SHALL BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.

9. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

10. 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 DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOODPLAIN 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 BUYOND OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

11. PROPERTIES WITHIN THE PROJECT LIMITS MAY HAVE UNDERGROUND SPRINKLER SYSTEMS IN THE PUBLIC RIGHT-OF-WAY WHICH CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH IMPROVEMENTS SHOULD THEY NOT BE REMOVED BY THEIR OWNER AT THE TIME OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SALVAGE ALL SPRINKLER HEADS AND/OR VALVES AND GIVE SUCH MATERIAL TO THEIR OWNER. PORTIONS OF UNDERGROUND SPRINKLER SYSTEMS NOT IN CONFLICT WITH NEW CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND SHALL REMAIN IN PLACE. ALL WORK IN CONNECTION WITH UNDERGROUND SPRINKLER SYSTEMS SHALL BE CONSIDERED AS SUBSIDIARY TO THE CONTRACT PAY ITEMS OF WORK.

12. ALL PROPOSED STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE.

13. PRIOR TO LAYING THE NEW SEWER LINES THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF THE EXISTING SANITARY SEWER AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES FROM THE PLAN.

14. THE CONTRACTOR MUST EXAMINE THE CONSTRUCTION SITE PRIOR TO BIDDING AND BE SATISFIED AS TO THE WORK SHOWN FOR COMPLETION. AFTER BIDS HAVE BEEN RECEIVED, THE CONTRACTOR SHALL NOT ASSERT THAT THERE WAS A MISUNDERSTANDING OF THE QUANTITIES OF WORK OR OF THE NATURE FOR THE WORK TO BE COMPLETED.

15. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION AVAILABLE 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 ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WHICH ARE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

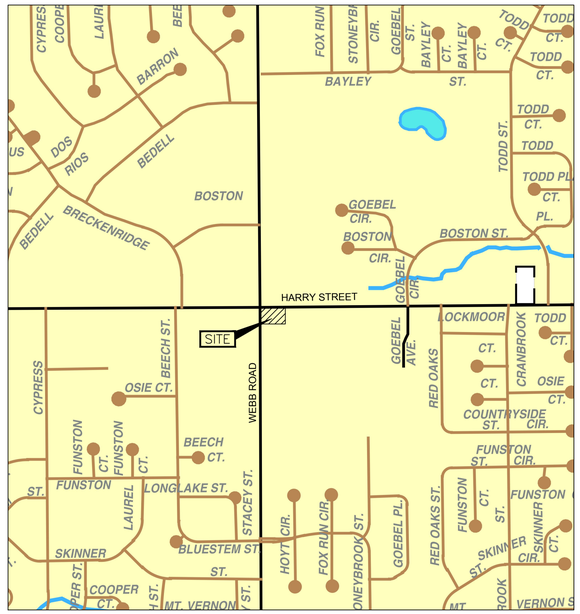
16. ALL PIPE JOINTS SHALL BE LAID AND PUSHED 'FULL HOME', WITH THE BEVELED END OF THE SPIGOT MAKING FULL CONTACT WITH THE CHAMFERED AREA AT THE THROAT OF THE BELL OR SOCKET, WITH NO SEPARATION BETWEEN THEM. IF SEPARATION IS DETERMINED, THE PIPE SHALL BE EXCAVATED AND RE-LAID ACCORDING TO SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

17. AT LEAST 24 HOURS BEFORE CONNECTING NEW SEWER PIPE TO THE EXISTING SEWAGE SYSTEM, THE CONTRACTOR SHALL CONTACT THE CITY OF WICHITA SEWER DEPARTMENT (268-4024). THE CONTRACTOR SHALL KEEP ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION. TO PREVENT WATER OR DEBRIS FROM ENTERING THE EXISTING SEWER, A MECHANICAL PLUG SHALL BE INSTALLED AND MAINTAINED TO ISOLATE THE EXISTING SEWER FROM THE NEW CONSTRUCTION UNTIL THE NEW CONSTRUCTION IS CLEANED, TELEVISED AND HAS BEEN ACCEPTED. THE WATER USED FOR CLEANING SHALL NOT BE ADDED TO THE FLOW OF THE EXISTING SEWER. THE CLEANING OR OTHERWISE ACCUMULATED WATER SHALL BE PUMPED OR OTHERWISE REMOVED PRIOR TO TELEVISING.

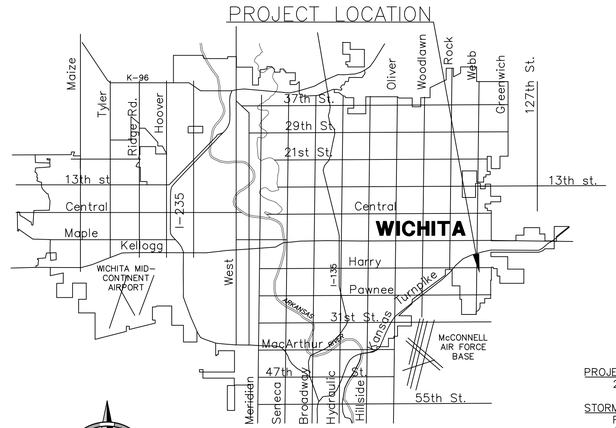
18. THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT EXISTING ROADWAYS AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES TO ENSURE SAFETY AS DIRECTED IN THE GENERAL CONDITIONS. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

19. ALL SODDING, SEEDING, AND EROSION CONTROL OF THE AREAS DISTURBED BY CONSTRUCTION OF THE SANITARY SEWER AS SHOWN ON THE PLANS (SEE SHEET NO.3), SHALL BE "SUBSIDIARY" TO "SITE CLEARING & RESTORATION".

20. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.



Vicinity Map
Not to Scale



LOCATION MAP

PROJECT LOCATED IN THE NW 1/4, NW 1/4, SEC 33, T27S, 2E, WICHITA, SEDGWICK COUNTY, KANSAS

BENCHMARKS:

BM CHISELED SQUARE CUT TOP OF CURB 55.5' WEST OF SECOND ENTRANCE ON SOUTH SIDE OF HARRY STREET EAST OF WEBB ROAD. ELEV.=1357.59 N.A.V.D. 88

SHEET INDEX

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.D.
PDF BY: A.G. 12-10-13

PROJECT DISTURBED AREA:
2.76 ACRES

STORMWATER QUALITY ACHIEVED BY:
FLOGARD DUAL-VORTEX HYDRODYNAMIC SEPARATOR - DVS-60S

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers _____

Storm Sewers
by City Engineer 2-11-13
by Storm Water Engineer 2-11-13

Driveway Approaches _____

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.

ONE CALL KANSAS
KS: 1-800-344-7233
WICHITA: 316-687-2470

JAMALAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R
1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
1	03/29/13	FINAL REVIEW COMMENTS

ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
COVER SHEET

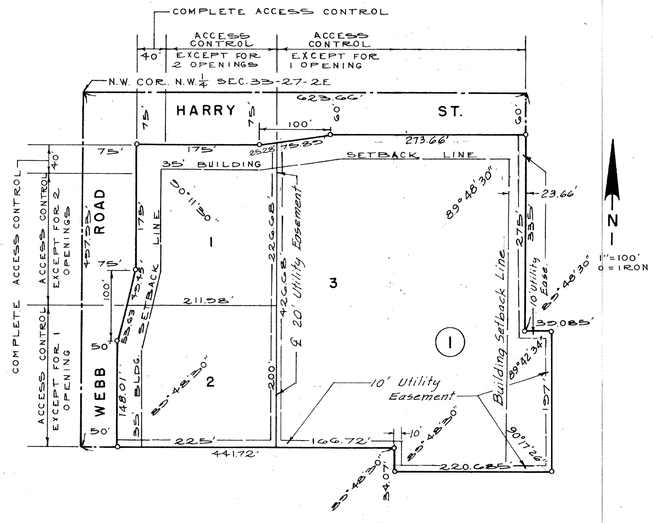
SHEET NUMBER:
1

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:PPD Cover USER:ccervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:29 AM

G-2 1-20

WEBB ROAD ADDITION

SEDGWICK COUNTY, KANSAS



This plat of "WEBB ROAD ADDITION", Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 24 day of JANUARY, 19 74.

Wichita-Sedgwick County Metropolitan Area Planning Commission

By Marjorie L. Taylor, Chairman

Robert A. Lakin, Secretary

This plat approved and all dedications shown hereon accepted by the Board of City Commissioners of the City of Wichita, Kansas, this 27th day of September, 19 74.

Garry L. Porter, Mayor

Ralph C. Eberly, City Clerk

This plat approved and all dedications shown hereon accepted by the Board of County Commissioners of Sedgwick County, Kansas, this 2nd day of October, 19 74.

Tom Scott, Chairman

Elmer S. Peters, Commissioner

Earl E. Rush, Commissioner

ATTEST:

Marie Warden, County Clerk

Entered on transfer record this 2 day of Oct, 19 74.

Marie Warden, County Clerk

State of Kansas, County of Sedgwick, SS. #209076

This is to certify that this instrument was filed for record in the Register of Deeds Office, at 11:11 o'clock a.m., on the 2nd day of October, 19 74.

John Hale, Register of Deeds

Pearl B. Gilbert, Deputy

State of Kansas, County of Sedgwick, SS.

I, Kenneth O. Taylor, Civil Engineer in said State and County, do hereby certify that I have surveyed and platted "WEBB ROAD ADDITION", Sedgwick County, Kansas, and that the accompanying plat is a true and correct exhibit of said survey described as follows: A tract in the north 30 acres of the NW 1/4 of the NW 1/4 of Section 33, T27S, R2E of the 6th P.M., Sedgwick County, Kansas, described as follows: Beginning at the NW corner of said Section 33; thence east 441.83 feet; thence south to a point on the south line of said north 30 acres 441.6 feet east of the SW corner of said north 30 acres; thence west 441.6 feet to the SW corner of said north 30 acres; thence north 995.85 feet, more or less, to the point of beginning, EXCEPTING THEREFROM THE FOLLOWING: A tract of land beginning at a point in the west line of said Section 33, 497.93 feet south of the NW corner of said Section 33; thence east 441.72 feet; thence south 498 feet, more or less, to a point on the south line of said north 30 acres, 441.6 feet east of the SW corner of said north 30 acres; thence west 441.6 feet to the SW corner of said north 30 acres; thence north 497.92 feet, more or less, to the point of beginning.

and

A tract in the NW 1/4 of Section 33, T27S, R2E of the 6th P.M., Sedgwick County, Kansas, described as follows: Beginning at a point 441.83 feet east of the NW corner of the NW 1/4 of said Section 33; thence east 181.83 feet; thence south 335 feet; thence east 39.085 feet; thence south 197 feet; thence west 220.685 feet; thence north on a line parallel with the west line of said NW 1/4, 532 feet to the place of beginning.

Kenneth O. Taylor, Civil Engineer
Kenneth O. Taylor

Know all men by these presents that we, Colby B. Sandlian and Genevieve B. Sandlian, husband and wife, have caused the land described in the Civil Engineer's certificate to be platted into lots, a block and streets to be known as "WEBB ROAD ADDITION", Sedgwick County, Kansas.

All abutter's rights of access to or from Webb Road, over and across the west line of Lots 1 and 2, Block 1, are hereby granted to the appropriate governing body, provided, however, that said Lot 1 shall have access to Webb Road at two locations, except over and across the north 40 feet of the west line of said Lot 1, and said Lot 2 shall have access to Webb Road at one location, said locations to be established by the County Engineer of Sedgwick County, Kansas.

All abutter's rights of access to or from Harry Street, over and across the north line of Lots 1 and 3, Block 1, are hereby granted to the appropriate governing body, provided, however, that said Lot 1 shall have access to Harry Street at two locations, except over and across the west 40 feet of the north line of said Lot 1, and said Lot 3 shall have access to Harry Street at one location, said locations to be established by the County Engineer of Sedgwick County, Kansas.

Utility easements as indicated on the plat are hereby granted for the construction and maintenance of all public utilities. The streets are hereby dedicated to and for the use of the public.

Colby B. Sandlian — Genevieve B. Sandlian

State of Kansas, County of Sedgwick, SS.

The foregoing instrument was acknowledged before me this 3rd day of July, 19 74, by Colby B. Sandlian and Genevieve B. Sandlian, husband and wife.

Velma Rader, Notary Public
My Commission Expires 5-15-74
VELMA RADER

~~Wichita~~ Savings Perpetual Building and Loan Association, by Lewis Dannar, President, and Robert R. Gaulding and Pansy R. Gaulding, mortgagees of the land described in the Civil Engineer's certificate, do hereby consent to the platting of "WEBB ROAD ADDITION", Sedgwick County, Kansas.

Wichita Perpetual Building and Loam Association

ATTEST: Lewis Dannar, President

G. B. Hollinger, Secretary

Robert R. Gaulding — Pansy R. Gaulding

State of Kansas, County of Sedgwick, SS.

The foregoing instrument was acknowledged before me this 21 day of June, 19 74, by Lewis Dannar, President of Wichita Perpetual Building and Loan Association, a Kansas corporation, on behalf of the corporation.

LaVern Whittle, Notary Public
LAVERN WHITTLE Comm. Expires 9-9-1977

State of Kansas, County of Sedgwick, SS.

The foregoing instrument was acknowledged before me this 3rd day of July, 19 74, by Robert R. Gaulding and Pansy R. Gaulding.

Velma Rader, Notary Public
My Commission Expires 5-15-74
VELMA RADER

DALE FORD LICENSED 10891 2-8-13 KANSAS PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

KENNETH O. TAYLOR LICENSED 1858 KANSAS PROFESSIONAL ENGINEER

QuikTrip No. 0366R
1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE: PLAT MAP

SHEET NUMBER: 2

AS BUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, CED.
PDF BY: AG. 12-10-13

FOUND IRON PIN
5/8" ARMSTRONG
N: 1678096.864
E: 1681526.223

S88°51'18"W 224.67'(M)
224.65'(C)

FOUND IRON PIN
5/8" BAUGHMAN
N: 1678092.375
E: 1681301.601

FOUND IRON PIN
5/8" BAUGHMAN
N: 1678147.660
E: 1681675.260

150'(D)
S88°54'31"W 150.00'(M)

FOUND IRON PIN
5/8" BAUGHMAN
N: 1678144.803
E: 1681525.290

S01°06'54"E 47.95'(M)
48.00'(C)

S00°56'08"E 240.00'(M)

SWS LINE NO. 1

SWS LINE NO. 2

SWS LINE NO. 3

WATER QUALITY DEVICE

N89°02'19"E 74.87'(M)

N80°13'12"E(M)
101.20'(M)

175'(P)
N88°52'37"E 175.00'(M)

N13°10'49"E 61.07'(M)

175'(P)
N00°56'18"W 175.00'(M)

FOUND IRON PIN
5/8" BAUGHMAN
N: 1678387.633
E: 1681671.341

QT VERTICAL MONUMENT SIGN, MV12-4PGQ,
17'-3" HT X 5'-10" W X 83.11 SF

(2)4" PVC CONDUITS

Ingress Egress Agreement & Easement

35' BLDG. STBK.

WEBB ROAD
CITY (80' R/W)

HARRY STREET
CITY (60' R/W)

SMH
Top Elevation=1363.01
Pipe dir N 4" PVC FL 1355.39
Pipe dir NNE 5" PVC FL 1355.93
Pipe dir NE 6" PVC FL 1355.11
Pipe dir S 8" PVC FL 1353.36

SMH
Top Elevation=1361.14
Pipe dir NW 15" RCP FL 1358.99

SMH
Top Elevation=1361.51
Pipe dir 15" RCP FL 1358.66
Pipe dir 15" RCP FL 1358.41

INLET
Top Elevation=1360.71
Pipe dir S 15" RCP FL 1357.81
Pipe dir W 15" RCP FL 1357.71

SMH
Top Elevation=1359.92
Pipe dir NE 15"X24" RCAP FL 1355.72

SMH
Top Elevation=1358.10
W 42" RCP FL 1352.50
E 36"X42" RCAP FL 1352.65

SMH
Top Elevation=1358.58
Pipe dir S 3" PVC FL 1356.18
Pipe dir W 42" RCP FL 1352.98
Pipe dir E 42" RCP FL 1352.83

Hawker Beechcraft Corp. PLM

20 10 0 20 40

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:Site Plan USER:ccervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:33 AM

KANSAS LICENSED PROFESSIONAL ENGINEER
JAMALAN DALE FORD
10891
2.6.13

PROJECT NO.: 20122022

CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R
1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
3

AS-BUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.D.
PDF BY: A.G. 12-10-13

EXISTING CURB INLET (i)
RIM ELEV. = 1359.92
15"x24" RCAP FL IN (NE) = 1355.72

EXISTING CURB INLET (g)
RIM ELEV. = 1358.10
42" RCP FL IN (W) = 1352.65
36"X42" RCAP OUT (E) = 1352.50

EXISTING CURB INLET (h)
RIM ELEV. = 1358.58
42" RCP FL IN (W) = 1352.98
3" PVC FL IN (S) = 1356.18
42" RCP FL OUT (E) = 1352.83

EXISTING CURB INLET (j)
RIM ELEV. = 1360.71
15" RCP FL IN (S) = 1357.81
15" RCP FL OUT (W) = 1357.71

EXISTING CURB INLET (k)
RIM ELEV. = 1361.51
15" RCP FL IN (SW) = 1358.66
15" RCP FL OUT (N) = 1358.41

EXISTING CURB INLET (l)
RIM ELEV. = 1361.14
15" RCP FL OUT (NW) = 1358.99

EXISTING IMPERVIOUS AREA LOCATED WITHIN PROPERTY LINES = 1.61 ACRES

A — 16,157 S.F.
B — 45,231 S.F.
C — 29,997 S.F.

HARRY STREET
CITY (60' R/W)

WEBB ROAD
CITY (80' R/W)

Drainage Summary Chart

Drainage Area Basin	Inlet Label	Drainage Area (Acres)	Percent Impervious (%)	100 Yr. Rational C	Tc (min.)	100 Yr. Discharge (cfs)
A	--	0.37	65	0.83	15	2.27
B	--	1.04	80	0.87	15	6.70
C	--	0.69	78	0.87	15	4.42

Storm Sewer Structure Table

Structure	Structure	Rim Elev.	Flowline Elev.
g	Existing SWS Curb Inlet	1358.10	Exist. 36"x42" FL out (E) = 1352.50
			Exist. 42" FL in (W) = 1352.65
h	Existing SWS Curb Inlet	1358.58	42" FL in (W) = 1352.98
			3" FL in (S) = 1356.18
			42" FL out (E) = 1352.83
i	Existing SWS Curb Inlet	1359.92	15"x24" FL out (NE) = 1355.72
j	Existing SWS Curb Inlet	1360.71	15" FL in (S) = 1357.81
			15" FL out (W) = 1357.71
k	Existing SWS Curb Inlet	1361.51	15" FL in (SW) = 1358.66
			15" FL out (N) = 1358.41
l	Existing SWS Curb Inlet	1361.14	15" FL out (NW) = 1358.99

STORM SEWER LEGEND
- STORM PIPE (> 12" EXISTING)
- XXX — MAJOR CONTOUR (EXISTING)
- XXX — MINOR CONTOUR (EXISTING)

DRAINAGE AREA MAP LEGEND
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA LABEL
- EXISTING DRAINAGE INLET LABEL
- EXISTING DRAINAGE STRUCTURE LABEL
- DRAINAGE PATH

20 10 0 20 40

DANIAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE: P-73 (11/01/12)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: MH
DRAWN BY: CKW
REVIEWED BY: MB

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
EXISTING DRAINAGE MAP

SHEET NUMBER:
4

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:Existing Drainage Map USER:ccervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:36 AM

AS-BUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.D.
PDF BY: A.G. 12-10-13

S88°51'18"W 224.67'(M)
224.65'(D)

S01°08'42"E 48.00'(M)

150'(D)
S88°54'31"W 150.00'(M)

S00°56'08"E 240.00'(M)

N15°10'48"E 101.07'(M)

175'(P)
N05°38'16"W 175.00'(M)

101.17'(P)
N80°13'12"E(M)
101.20'(M)

N89°02'19"E 74.87'(M)

175'(P)
N88°52'37"E 175.00'(M)

Storm Sewer Structure Table				
Structure Label	*Structure Type*	*Rim Elev.*	*Flowline Elev.*	*100 Yr. Ponding Elev.*
1	5'x5' Junction Box w/ Water Quality Devce	1360.00	18" FL in (S) = 1354.78	1356.79
			18" FL out (N) = 1354.68	
2	Std. Type 'A' SWS MH (4' DIA)	1362.30	15" FL in (SW) = 1356.27	1359.58
			15" FL out (NE) = 1356.16	
3	18" Nyloplast Drain Basin	1359.26	12" FL in (SE) = 1357.23	1358.71
			12" FL out (W) = 1357.13	
4	18" Nyloplast Drain Basin	1360.02	12" FL in (E) = 1356.99	1358.80
			12" FL out (S) = 1355.51	
a	QT Double Curb Inlet	1361.00	15" FL out (NE) = 1356.55	1359.94
b	QT Single Curb Inlet	1359.60	15" FL in (SW) = 1355.74	1359.12
			15" FL out (NW) = 1355.64	
c	Vane Drain	Varies	Varies	-
d	QT Single Curb Inlet	1360.00	15" FL in (E) = 1355.46	1358.70
			12" FL in (N) = 1356.93	
			15" FL out (W) = 1355.36	
e	QT Single Curb Inlet	1360.00	15" FL in (E) = 1354.90	1357.37
			12" FL in (W) = 1354.90	
			18" FL out (N) = 1354.80	
f	Vane Drain	Varies	Varies	-
g	QT Double Curb Inlet	1359.60	12" FL in (N) = 1355.43	1358.77
			12" FL out (E) = 1355.33	
h	Existing SWS Curb Inlet	1358.10	Prop. 18" FL in (SW) = 1354.50	1355.73
			Exist. 36"x42" FL out (E) = 1352.50	
			Exist. 42" FL in (W) = 1352.65	

Drainage Summary Chart						
Drainage Area Basin	*Inlet Label*	*Drainage Area (Acres)*	*Percent Impervious (%)*	*100 Yr. Rational C*	*Tc (min.)*	*100 Yr. Discharge (cfs)*	*Inlet Design*
A	a	0.50	72	0.85	15	3.14	QT Double Curb Inlet
B	b	0.15	93	0.91	15	1.01	QT Single Curb Inlet
C	c	0.11	100	0.93	15	0.75	Vane Drain
D	d	0.13	100	0.93	15	0.89	QT Single Curb Inlet
E	e	0.09	100	0.93	15	0.62	QT Single Curb Inlet
F	f	0.15	100	0.93	15	1.03	Vane Drain
G	g	0.41	100	0.93	15	2.81	QT Double Curb Inlet
H	g	0.08	13	0.69	15	0.40	QT Double Curb Inlet
I	--	0.07	0	0.65	15	0.34	
J	--	0.11	0	0.65	15	0.53	
K	--	0.15	100	0.93	15	1.03	
L	--	0.01	0	0.65	15	0.05	
R1	a	0.13	100	0.93	15	0.89	Building Roof Drain

Storm Sewer Summary Table				
Pipe Run		*Size*	*Slope*	*Length*
From	*To*	*(in.)*	*(%)*	*(ft)*
a	2	15	0.33	87.44
2	b	15	0.33	126.83
b	d	15	0.33	54.20
d	e	15	0.33	136.26
e	1	18	0.30	6.40
1	h	18	0.40	45.06
g	e	12	0.44	98.68
3	d	12	1.00	21.53
4	g	12	1.00	7.65

STORM SEWER LEGEND	
ST	STORM PIPE (< 10" NEW)
ST	STORM PIPE (> 12" NEW)
ST	STORM PIPE (> 12" EXISTING)
UCP	UNDER CURB OR PAVEMENT DRAIN
XXX	MAJOR CONTOUR (NEW)
XXX	MINOR CONTOUR (NEW)
XXX	MAJOR CONTOUR (EXISTING)
XXX	MINOR CONTOUR (EXISTING)
	STORM GRATE (NEW)
	4" CRUSHED STONE SUB-BASE IN LIEU OF STANDARD #57 STONE

DRAINAGE AREA MAP LEGEND	
	DRAINAGE AREA BOUNDARY
X	DRAINAGE AREA LABEL
a	DRAINAGE INLET LABEL
1	DRAINAGE JUNCTION LABEL
a	EXISTING DRAINAGE INLET LABEL
1	EXISTING DRAINAGE STRUCTURE LABEL
	DRAINAGE PATH

20 10 0 20 40

KAILAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

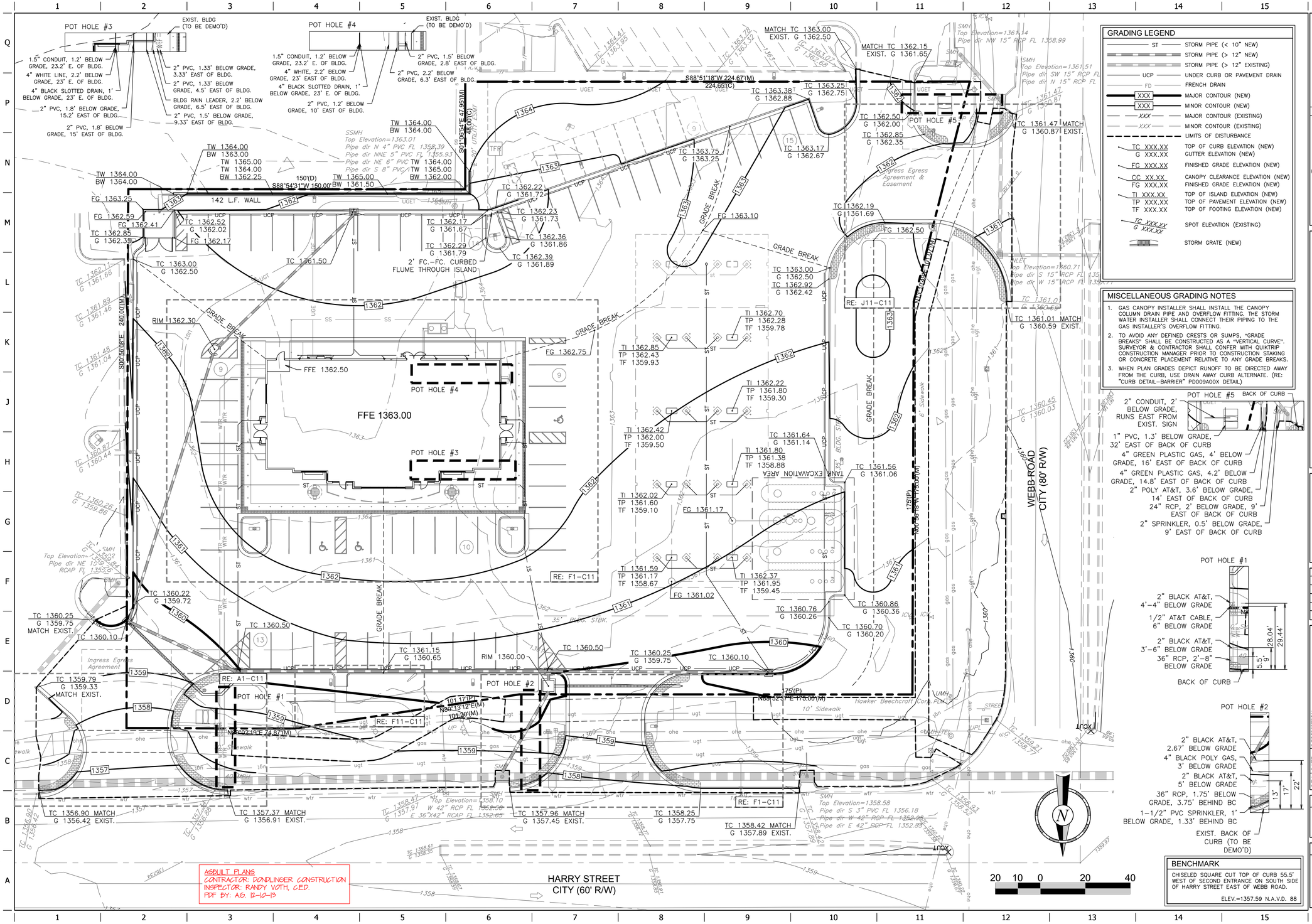
PROTOTYPE: P-73 (11/01/12)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: MH
DRAWN BY: CKW
REVIEWED BY: MB

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
DEVELOPED DRAINAGE MAP

SHEET NUMBER:
5

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:Developed Drainage Map USER:ccervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:37 AM



GRADING LEGEND

- ST — STORM PIPE (< 10" NEW)
- ST — STORM PIPE (> 12" NEW)
- ST — STORM PIPE (> 12" EXISTING)
- UCP — UNDER CURB OR PAVEMENT DRAIN
- FD — FRENCH DRAIN
- XXX — MAJOR CONTOUR (NEW)
- XXX — MINOR CONTOUR (NEW)
- XXX — MAJOR CONTOUR (EXISTING)
- XXX — MINOR CONTOUR (EXISTING)
- LIMITS OF DISTURBANCE
- TC XXX.XX / G XXX.XX — TOP OF CURB ELEVATION (NEW) / GUTTER ELEVATION (NEW)
- FG XXX.XX — FINISHED GRADE ELEVATION (NEW)
- CC XX.XX / FG XXX.XX — CANOPY CLEARANCE ELEVATION (NEW) / FINISHED GRADE ELEVATION (NEW)
- TI XXX.XX / TP XXX.XX / TF XXX.XX — TOP OF ISLAND ELEVATION (NEW) / TOP OF PAVEMENT ELEVATION (NEW) / TOP OF FOOTING ELEVATION (NEW)
- TC XXX.XX / G XXX.XX — SPOT ELEVATION (EXISTING)
- STORM GRATE (NEW)

MISCELLANEOUS GRADING NOTES

1. GAS CANOPY INSTALLER SHALL INSTALL THE CANOPY COLUMN DRAIN PIPE AND OVERFLOW FITTING. THE STORM WATER INSTALLER SHALL CONNECT THEIR PIPING TO THE GAS INSTALLER'S OVERFLOW FITTING.
2. TO AVOID ANY DEFINED CRESTS OR SUMPS, "GRADE BREAKS" SHALL BE CONSTRUCTED AS A "VERTICAL CURVE". SURVEYOR & CONTRACTOR SHALL CONFER WITH QUIKTRIP CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION STAKING OR CONCRETE PLACEMENT RELATIVE TO ANY GRADE BREAKS.
3. WHEN PLAN GRADES DEPICT RUNOFF TO BE DIRECTED AWAY FROM THE CURB, USE DRAIN AWAY CURB ALTERNATE. (RE: "CURB DETAIL-BARRIER" PD009A0XX DETAIL)

BENCHMARK

CHISELED SQUARE CUT TOP OF CURB 55.5' WEST OF SECOND ENTRANCE ON SOUTH SIDE OF HARRY STREET EAST OF WEBB ROAD.

ELEV.=1357.59 N.A.V.D. 88

KAMALAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: JAN. 17, 2013

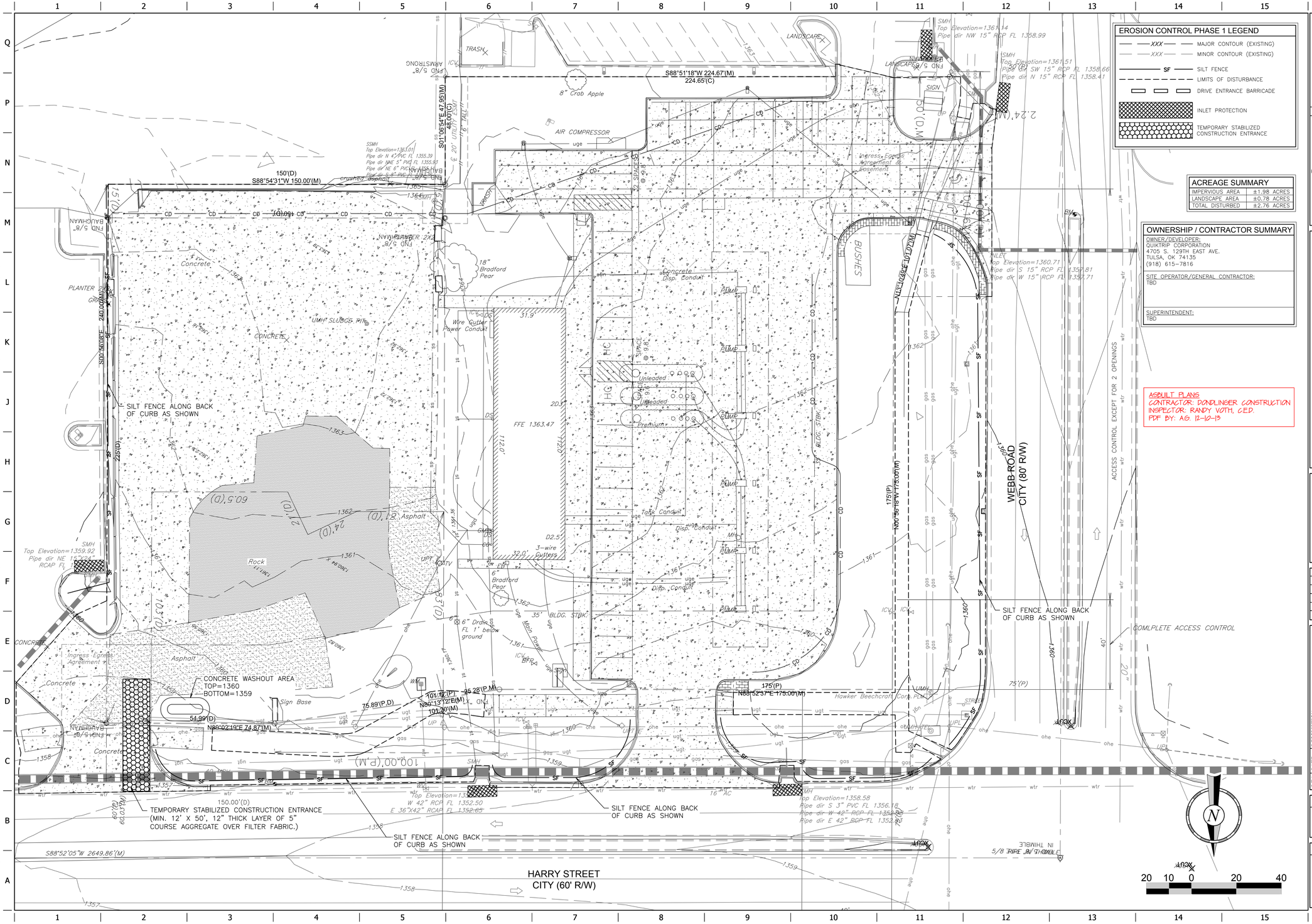
SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

6

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\QT0366R Base-P70(03.20.12).dwg TAB NAME:Grading USER:dannuschat SAVED:6/20/2013 9:41 AM PLOTTED:12/10/2013 9:41 AM



KAMALAN DALE FORD
LICENSED
10891
2.28.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
EROSION CONTROL PLAN
PH. 1

SHEET NUMBER:
7

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:Erosion Control Plan Ph. 1 USER:ccervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:38 AM

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, CED.
PDF BY: A.G. 12-10-13

S88°51'18"W 224.67'(M)
224.65'(C)

S01°06'54"E 47.95'(M)
48.00'(C)

20' UTILITY ESMT

150'(D)
S88°54'31"W 150.00'(M)

240.00'(M)
S00°58'01"E

SSMH
Top Elevation=1363.01
Pipe dir N 42" PVC FL 1355.39
Pipe dir WNE 8" PVC FL 1355.93
Pipe dir SE 6" PVC FL 1355.11
Pipe dir S 8" PVC FL 1353.36

SMH
Top Elevation=1359.92
Pipe dir NE RCAP FL

SMH
Top Elevation=1361.14
Pipe dir NW 15" RCP FL 1358.99

SMH
Top Elevation=1361.51
Pipe dir SW 15" RCP FL
Pipe dir N 15" RCP FL

INLET
Top Elevation=1360.71
Pipe dir S 15" RCP FL 1355.81
Pipe dir W 15" RCP FL 1355.71

SMH
Top Elevation=1358.58
Pipe dir S 3" PVC FL 1356.18
Pipe dir W 42" RCP FL 1352.98
Pipe dir E 42" RCP FL 1352.83

Ingress Egress Agreement & Easement

Ingress Egress Agreement

35' BLDG. STBK.

175'(P)
N00°58'18"W 175.00'(M)

175'(P)
N88°52'57"E 175.00'(M)

101.17'(P)
N89°13'12"E(M)
101.20'(M)

N89°02'19"E 74.87'(M)

N33°10'39"E 10.10'(M)

Hawker Beechcraft Corp. Plant

WEBB ROAD
CITY (80' R/W)

HARRY STREET
CITY (60' R/W)

40 MPH

EROSION CONTROL PHASE 2 LEGEND

- XXX — MAJOR CONTOUR (EXISTING)
- XXX — MINOR CONTOUR (EXISTING)
- XXX — MAJOR CONTOUR (NEW)
- XXX — MINOR CONTOUR (NEW)
- STORM GRATE (NEW)
- SF — SILT FENCE
- LIMITS OF DISTURBANCE
- DRIVE ENTRANCE BARRICADE
- INLET PROTECTION
- TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

ACREAGE SUMMARY

IMPERVIOUS AREA	±1.98 ACRES
LANDSCAPE AREA	±0.78 ACRES
TOTAL DISTURBED	±2.76 ACRES

OWNERSHIP / CONTRACTOR SUMMARY

OWNER/DEVELOPER:
QUIKTRIP CORPORATION
4705 S. 129TH EAST AVE.
TULSA, OK 74135
(918) 615-7816

SITE OPERATOR/GENERAL CONTRACTOR:
TBD

SUPERINTENDENT:
TBD

20 10 0 20 40

JAMALAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

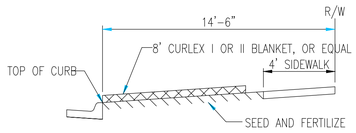
PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

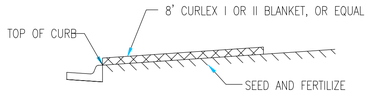
SHEET TITLE:
EROSION CONTROL PLAN
PH. 2

SHEET NUMBER:
8

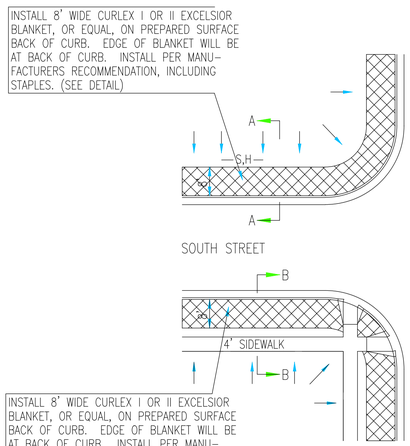
FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:Erosion Control Plan Ph. 2 USER:ccervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:42 AM



SECTION B-B



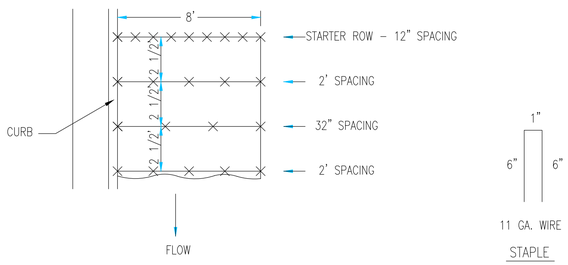
SECTION A-A



GENERAL NOTES

1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. 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

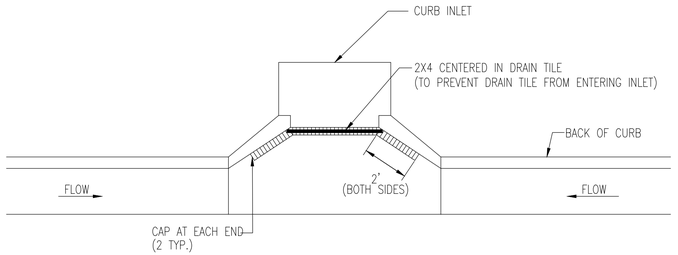


STAPLE PATTERN

STAPLE

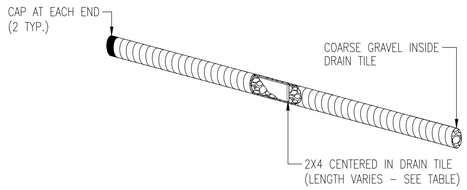
NOTES: USE 6" SEAM OVERLAP

DETAILS FOR CURLEX I OR II BLANKETS



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

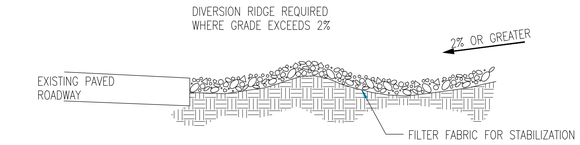
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



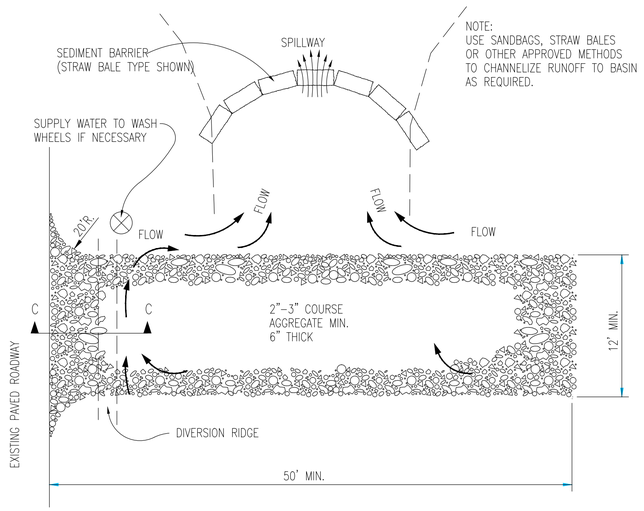
CURB INLET PROTECTION

4" PERFORATED PIPE W/ GRAVEL

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.P.
PDF BY: AG. 12-10-13



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL 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 STABILIZED 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
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
0095 PPD	(607861)	01/2013

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

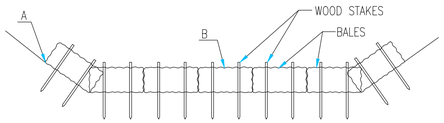
DESIGN	DRAWN

SHEET 9

SW-501

Saved 12-10-2013 9:06:06 AM by CCERVANTES
Plot Scale 1:1 12-10-2013 9:47:24 AM by CARLOS CERVANTES
S:\Drawing Files\Project CKW 12-7-06\07 #0368\dwg\Asbuilts PPD\Asbuilts QT0368R Base-Drainage

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".

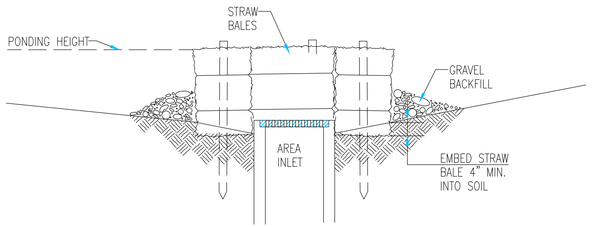
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

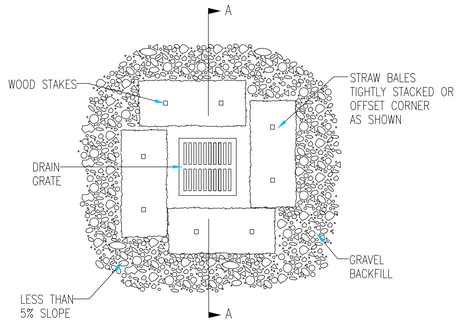
INSPECTION AND MAINTENANCE:

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.

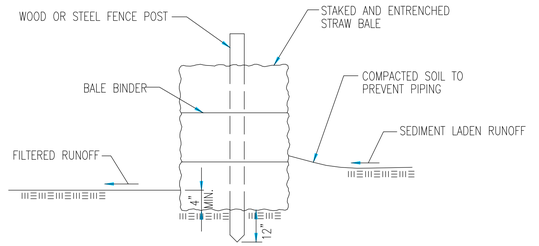
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

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 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?

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.D.
PDF BY: A.G. 12-10-13

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STRAW BALE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
0095 PPD	(607861)	01/2013

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

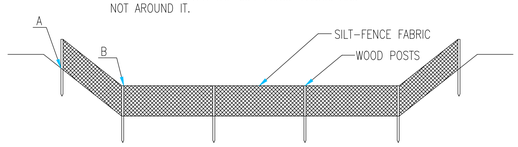
DESIGN	DRAWN

SHEET 10

Saved 12-10-2013 9:06:06 AM by CCERVANTES
Plot Scale 1:1 12-10-2013 9:48:08 AM by CARLOS CERVANTES
S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT03686R Base-Drainage

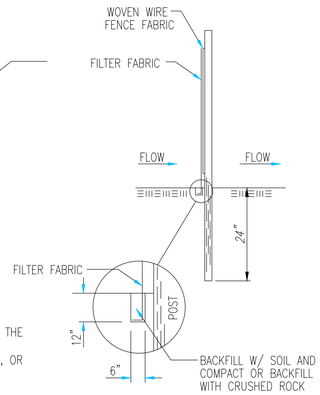
SW-303

NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE SILT FENCE FABRIC AND NOT AROUND IT.



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.
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 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.

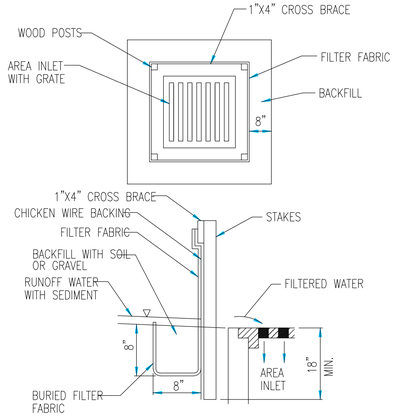
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

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?



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.

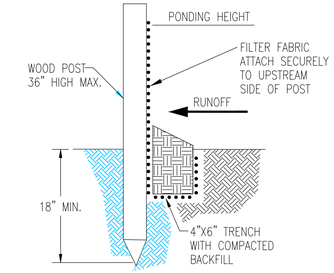
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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?

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.P.
PDF BY: A.G. 12-12-13

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
0095 PPD	(607861)	01/2013

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

DESIGN	DRAWN

SHEET 11

SIL-302

Saved 12-10-2013 9:06:06 AM by CCERVANTES
Plot Scale 1:1 12-10-2013 9:49:06 AM by CARLOS CERVANTES
S:\Drawing Files\Project CWK 12-7-09\DT #0368\Dwg\Asbuilts PPD\Asbuilts 0703681R Book-Drainage

STA. 0+08.26, CAUTION!!! EXISTING AT&T LINE DEPTH=5.0' CONTRACTOR SHALL COORDINATE WITH AT&T REP TO SAG LINE FOR NEW STORM SEWER.

STA. 0+14.76, CAUTION!!! EXISTING GAS LINE DEPTH=3.0'

STA. 0+19.38, CAUTION!!! EXISTING AT&T LINE DEPTH=2.7'

STA. 0+31.32, CAUTION!!! EXISTING AT&T LINE DEPTH UNKNOWN

STA: 0+00.00, BEGIN SWS NO. 1, TIE INTO EXISTING CURB INLET
EXIST TC ELEV=1358.10
PROP 18" FL IN(S)=1354.50
EXIST 42"FL IN(W)=1352.65
EXIST 36"X42" FL OUT(E)=1352.50

SWS NO. 1 STA: 0+44.11, INSTALL
1-5'X5' (DVS-60S)
WATER FILTRATION DEVICE
RIM=1360.00
18" FL IN(S)=1354.78
18" FL OUT(N)=1354.68
(RE. SHEET 16 FOR DETAILS)
N: 1678365.282 (N&E ARE MEASURED TO
E: 1681487.855 CENTER OF STRUCTURE)

SWS NO. 1 STA: 0+51.13,
SWS NO. 2 STA: 5+00.00, INSTALL
1-QT SINGLE CURB INLET
TC ELEV=1360.50
15" FL IN(E)=1354.90
12" FL IN(W)=1354.90
18" FL OUT(N)=1354.80
(RE. SHEET 14 FOR DETAILS)
N: 1678357.534 (N&E ARE MEASURED
E: 1681486.008 TO INSIDE FRONT WALL)

SWS NO. 1 STA: 1+87.40,
SWS NO. 3 STA: 9+68.51, INSTALL
1-QT SINGLE CURB INLET
TC ELEV=1360.50
12" FL IN(N) 1356.93
15" FL IN(E)=1355.46
15" FL OUT(W)=1355.36
(RE. SHEET 14 FOR DETAILS)
N: 1678360.226 (N&E ARE MEASURED
E: 1681622.247 TO INSIDE FRONT WALL)

SWS NO. 1 STA: 2+41.59,
SWS NO. 3 STA: 9+00.00, INSTALL
1-QT SINGLE CURB INLET
TC ELEV=1360.10
15" FL IN(SW)=1355.74
15" FL OUT(NW)=1355.64
(RE. SHEET 14 FOR DETAILS)
N: 1678340.471 (N&E ARE MEASURED
E: 1681670.813 TO INSIDE FRONT WALL)

STA: 3+68.43, INSTALL
1-STD. TYPE 'A' SWS MH (4' DIA)
RIM ELEV=1362.30
15" FL IN(SW)=1356.27
15" FL OUT(NE)=1356.16
(RE. SHEET 16 FOR DETAILS)
N: 1678218.250 (N&E ARE MEASURED TO
E: 1681635.457 CENTER OF STRUCTURE)

STA: 4+52.75, END SWS NO. 1,
INSTALL 1-QT DOUBLE CURB INLET
TC ELEV=1361.50
15" FL OUT(NE)=1356.55
(RE. SHEET 15 FOR DETAILS)
N: 1678162.063 (N&E ARE MEASURED
E: 1681574.538 TO INSIDE FRONT WALL)

S00°50'05"E 240.00'(M)

N89°20'19"E 24.87'(M)

150'(D) 150.00'(M)

STORM SEWER LEGEND

ST	STORM PIPE (< 10" NEW)
	STORM PIPE (> 12" NEW)
	STORM PIPE (> 12" EXISTING)
UCP	UNDER CURB/PAVEMENT DRAIN
XXX	MAJOR CONTOUR (NEW)
XXX	MINOR CONTOUR (NEW)
XXX	MAJOR CONTOUR (EXISTING)
XXX	MINOR CONTOUR (EXISTING)
	STORM GRATE (NEW)

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, CED.
PDF BY: AG. 12-10-13

20 10 0 20 40
VERTICAL SCALE: 1"=5'

SAND BACKFILL. FILL, FLUSH AND VIBRATE APPROVED SAND ALONG THE SIDES AND TO 2 FEET BELOW THE BOTTOM OF PROPOSED ROCK BASE FOR STORM SEWER PIPE, AS SHOWN IN THE STORM SEWER PROFILES. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE SUBSIDIARY TO BID ITEM, SAND FILL, FLUSH & VIBRATE.

PROPOSED GRADE

EXISTING GRADE

100 YR. HGL

INSTALL 44.11 L.F. OF 18" RCP @ 0.40% SLOPE

INSTALL 7.03 L.F. OF 18" HDPE @ 0.30% SLOPE

INSTALL 136.26 L.F. OF 15" HDPE @ 0.33% SLOPE

INSTALL 54.20 L.F. OF 15" HDPE @ 0.33% SLOPE

INSTALL 126.83 L.F. OF 15" HDPE @ 0.33% SLOPE

INSTALL 84.18 L.F. OF 15" HDPE @ 0.33% SLOPE

STA: 0+00.00, BEGIN SWS NO. 1, TIE INTO EXISTING CURB INLET
STA. 0+08.28, CAUTION!!! EXISTING AT&T LINE DEPTH=5.0'
STA. 0+14.76, CAUTION!!! EXISTING GAS LINE DEPTH=3.0'
STA. 0+19.38, CAUTION!!! EXISTING AT&T LINE DEPTH=2.7'
STA. 0+31.32, CAUTION!!! EXISTING AT&T LINE DEPTH UNKNOWN
STA. 0+44.11, INSTALL 1-5'X5' JUNCTION BOX W/ WATER FILTRATION DEVICE
STA: 0+51.13, INSTALL 1-QT SINGLE CURB INLET
STA: 1+87.40, INSTALL 1-QT SINGLE CURB INLET
STA: 2+41.59, INSTALL 1-QT SINGLE CURB INLET
STA: 3+68.43, INSTALL 1-STD. TYPE 'A' SWS MH (4' DIA.)
STA: 4+52.75, END SWS NO. 1, INSTALL 1-QT DOUBLE CURB INLET

EG=1358.1 18" FL IN=1354.50
EG=1360.2 FL=1354.58
EG=1360.4 FL=1354.67
EG=1360.4 FL=1354.68 18" FL OUT=1354.68
18" FL IN=1354.78 18" FL OUT=1354.80
15" FL IN=1354.90
EG=1360.7 FL=1354.93
EG=1360.5 FL=1355.00
EG=1360.3 FL=1355.07
EG=1360.3 FL=1355.13
EG=1360.4 FL=1355.20
EG=1360.4 FL=1355.27
EG=1360.3 FL=1355.34 15" FL OUT=1355.36
15" FL IN=1355.46
EG=1359.9 FL=1355.50
EG=1359.9 FL=1355.57
15" FL OUT=1355.64 15" FL IN=1355.74
EG=1360.0 FL=1355.80
EG=1360.8 FL=1355.86
EG=1361.3 FL=1355.93
EG=1361.8 FL=1356.00
EG=1362.0 FL=1356.06
EG=1362.2 FL=1356.13 15" FL OUT=1356.16
15" FL IN=1356.27
EG=1362.4 FL=1356.31
EG=1362.9 FL=1356.37
EG=1363.3 FL=1356.44
EG=1363.4 FL=1356.50
15" FL OUT=1356.55 EG=1363.5

-0+20 0+00 0+20 0+40 0+60 0+80 1+00 1+20 1+40 1+60 1+80 2+00 2+20 2+40 2+60 2+80 3+00 3+20 3+40 3+60 3+80 4+00 4+20 4+40 4+60 4+80 5+00 5+

1370 1365 1360 1355 1350 1345 1340 1335

JAMALAN DALE FORMELLA
LICENSED ENGINEER
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

PROJECT NO.: 20122022

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

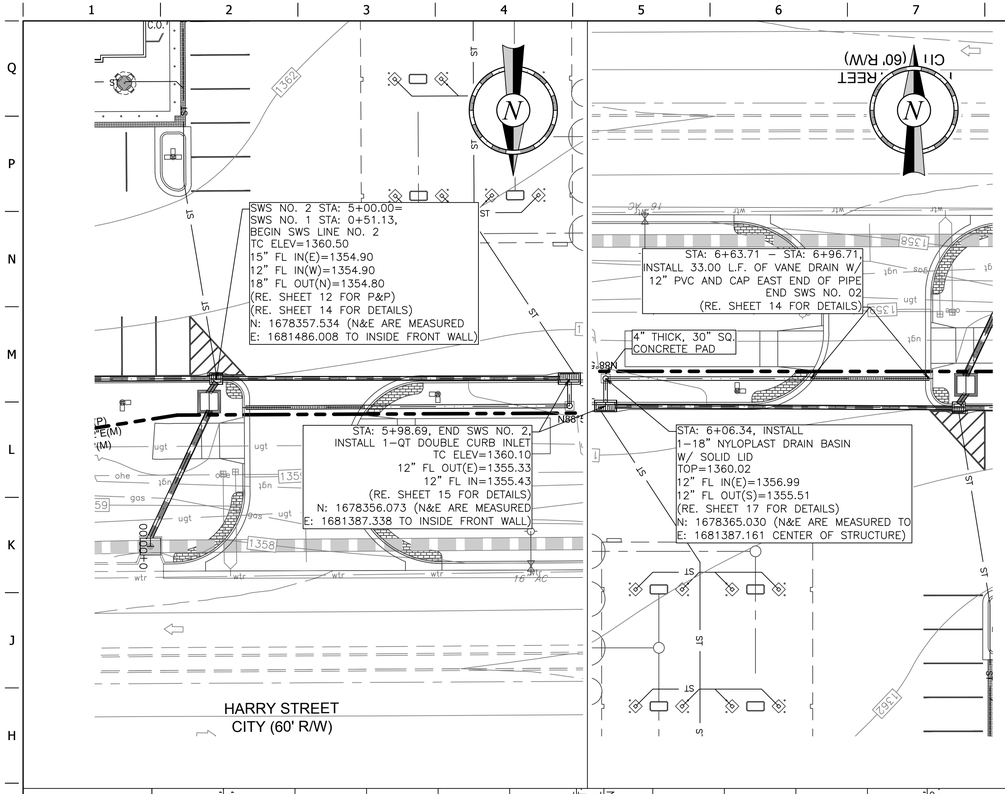
REV	DATE	DESCRIPTION
1	03/29/13	FINAL REVIEW COMMENTS

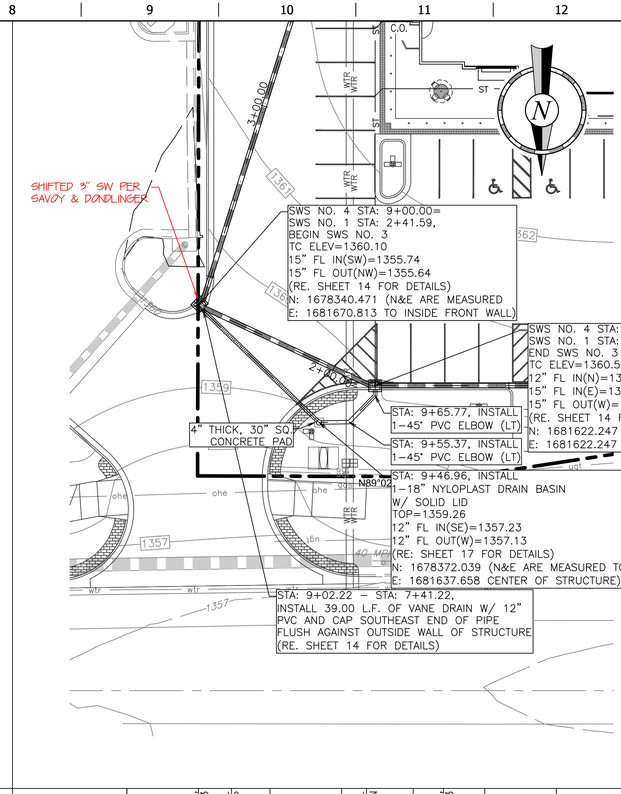
ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
SWS NO. 1
PLAN & PROFILE

SHEET NUMBER:
12

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:SWS No. 1 Plan & Profile SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:51 AM





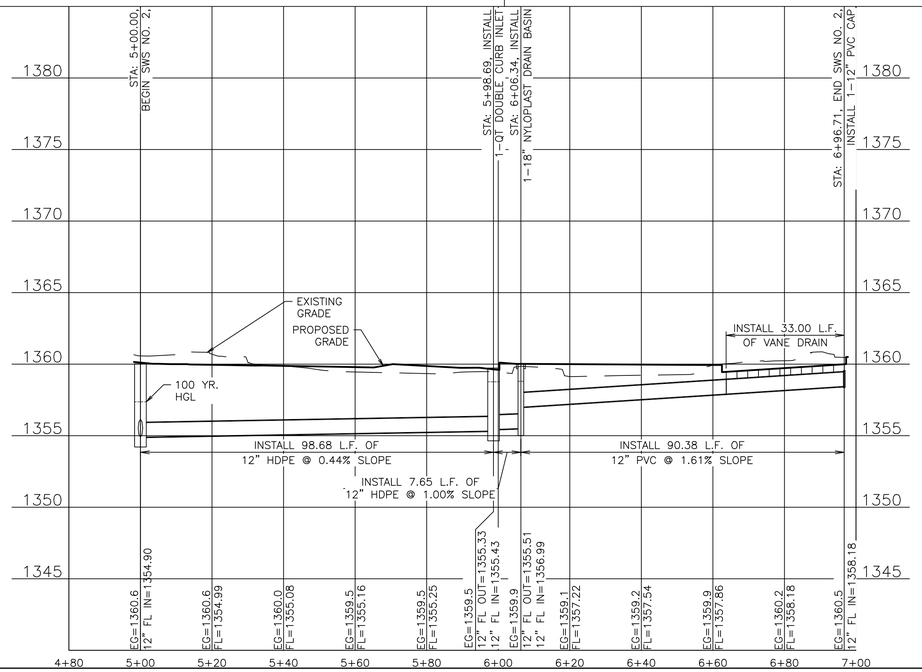
STORM SEWER LEGEND

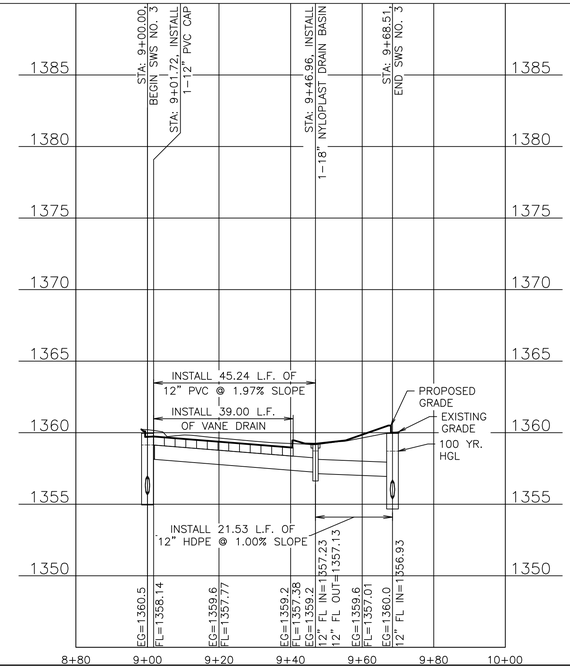
- ST — STORM PIPE (< 10" NEW)
- STORM PIPE (> 12" NEW)
- STORM PIPE (> 12" EXISTING)
- UCP — UNDER CURB/PAVEMENT DRAIN
- XXX — MAJOR CONTOUR (NEW)
- XXX — MINOR CONTOUR (NEW)
- XXX — MAJOR CONTOUR (EXISTING)
- XXX — MINOR CONTOUR (EXISTING)
- STORM GRATE (NEW)

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, CED.
PDF BY: AG. 12-12-13

20 10 0 20 40
VERTICAL SCALE: 1" = 5'

SAND BACKFILL. FILL, FLUSH AND VIBRATE APPROVED SAND ALONG THE SIDES AND TO 2 FEET BELOW THE BOTTOM OF PROPOSED ROCK BASE FOR STORM SEWER PIPE, AS SHOWN IN THE STORM SEWER PROFILES. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE SUBSIDIARY TO BID ITEM, SAND FILL, FLUSH & VIBRATE.





KANSAS PROFESSIONAL ENGINEER
10891
2.6.13
DALE FORD
LICENSED

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

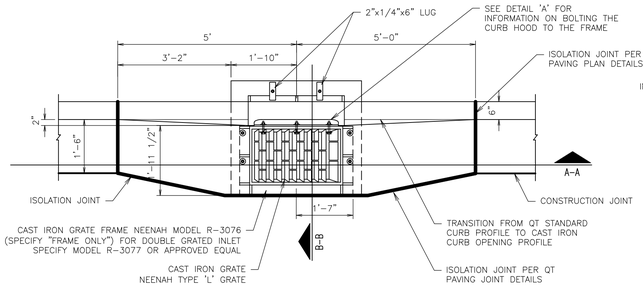
REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: JAN. 17, 2013

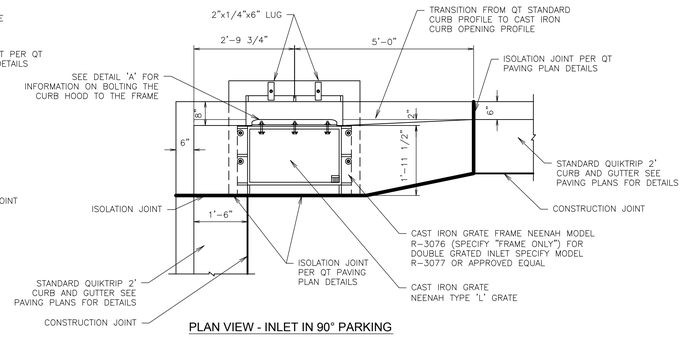
SHEET TITLE:
SWS NO. 2 & 3
PLAN & PROFILE

SHEET NUMBER:
13

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:SWS No. 2 & 3 Plan & Profile SAVED:12/10/2013 9:06 AM USER:ccervantes PLOTTED:12/10/2013 9:52 AM

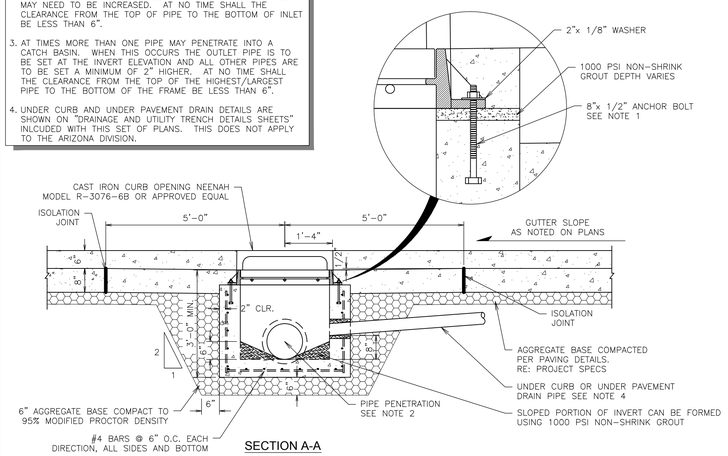


PLAN VIEW - INLET ON CONTINUOUS GRADE

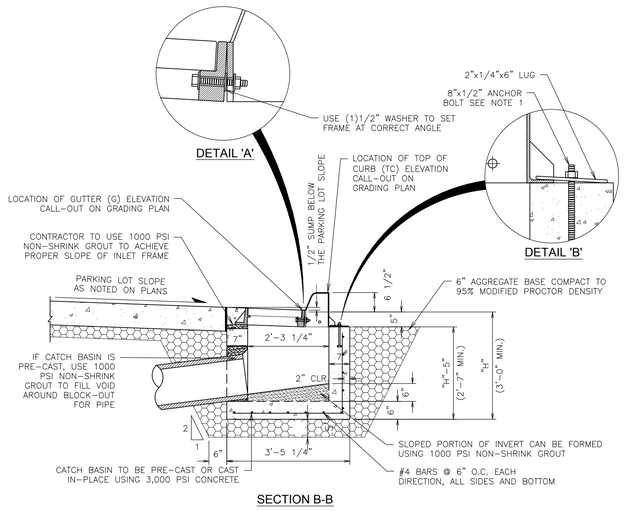


PLAN VIEW - INLET IN 90° PARKING

1. CONTRACTOR CAN SUBSTITUTE HILTI DRILLED BOLT SYSTEM FOR ANCHOR BOLT SET IN CONCRETE FOR EASE OF CONSTRUCTION
2. 12" PIPE IS THE MINIMUM PIPE SIZE ACCEPTED BY QUIKTRIP. PIPE TYPE MAY VARY BY REGION AND MUNICIPALITY. IF HYDRAULICS REQUIRES A LARGER PIPE, DEPTH OF THE INLET MAY NEED TO BE INCREASED. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF PIPE TO THE BOTTOM OF INLET BE LESS THAN 6".
3. AT TIMES MORE THAN ONE PIPE MAY PENETRATE INTO A CATCH BASIN. WHEN THIS OCCURS THE OUTLET PIPE IS TO BE SET AT THE INVERT ELEVATION AND ALL OTHER PIPES ARE TO BE SET A MINIMUM OF 2" HIGHER. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF THE HIGHEST/LARGEST PIPE TO THE BOTTOM OF THE FRAME BE LESS THAN 6".
4. UNDER CURB AND UNDER PAVEMENT DRAIN DETAILS ARE SHOWN ON "DRAINAGE AND UTILITY TRENCH DETAILS SHEETS" INLCUDED WITH THIS SET OF PLANS. THIS DOES NOT APPLY TO THE ARIZONA DIVISION.



SECTION A-A

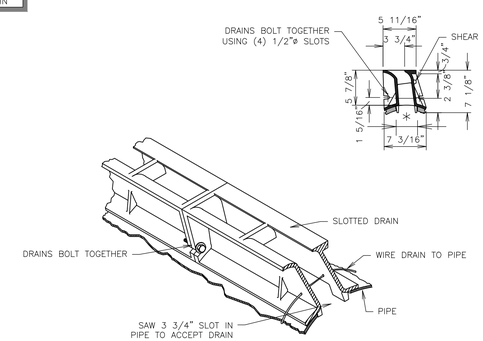


SECTION B-B

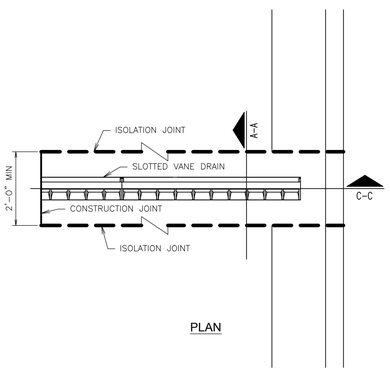
F1	CATCH BASIN INLET DETAIL (SINGLE)
NTS	SN: DD001A007

L11	NOT USED
NTS	SN:

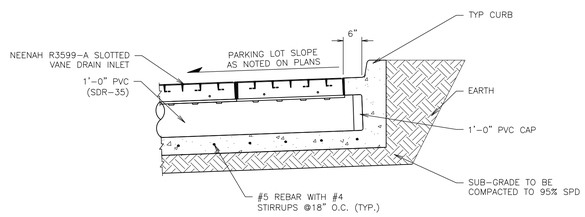
*CUT 3 3/4" SLOT IN PIPE TO ACCEPT DRAIN



F11	SLOTTED VANE DRAIN (ISOMETRIC VIEW)
NTS	SN: DD007A003

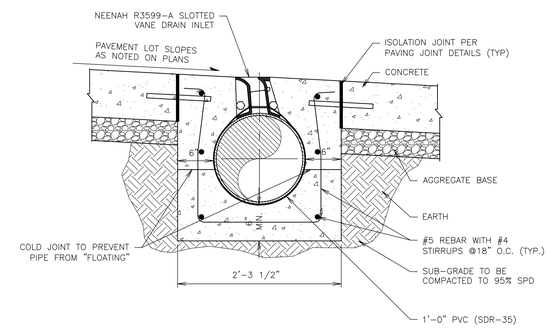


PLAN



SECTION C-C

A1	SLOTTED VANE DRAIN INSTALLATION DETAIL
NTS	SN: DD005A003



SECTION A-A

A11	SLOTTED VANE DRAIN INSTALLATION CROSS SECTION "A-A"
NTS	SN: DD006A004

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.D.
PDF BY: A.G. 12-16-13

JAMALAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

1620 S. WEBB ROAD
WICHITA, KANSAS

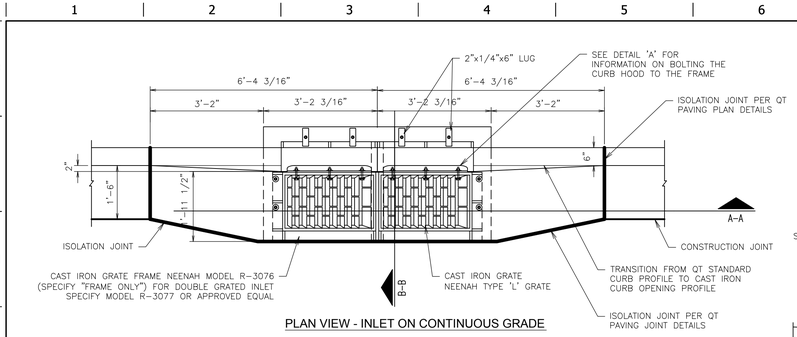
PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
QT DRAINAGE DETAILS

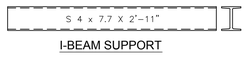
SHEET NUMBER:
14

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:QT Drainage Details USER:ccervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:54 AM

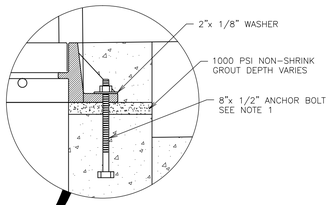


PLAN VIEW - INLET ON CONTINUOUS GRADE

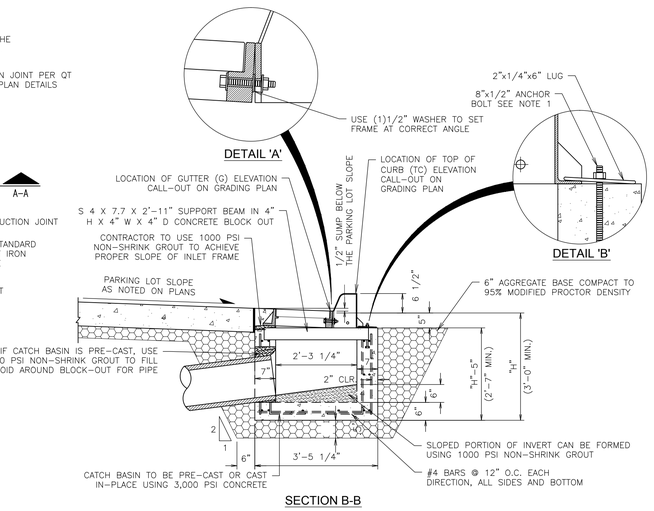
1. CONTRACTOR CAN SUBSTITUTE HILTI DRILLED BOLT SYSTEM FOR ANCHOR BOLT SET IN CONCRETE FOR EASE OF CONSTRUCTION
2. 12" PIPE IS THE MINIMUM PIPE SIZE ACCEPTED BY QUIKTRIP. PIPE TYPE MAY VARY BY REGION AND MUNICIPALITY. IF HYDRAULICS REQUIRES A LARGER PIPE, DEPTH OF THE INLET MAY NEED TO BE INCREASED. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF PIPE TO THE BOTTOM OF INLET BE LESS THAN 6".
3. AT TIMES MORE THAN ONE PIPE MAY PENETRATE INTO A CATCH BASIN. WHEN THIS OCCURS THE OUTLET PIPE IS TO BE SET AT THE INVERT ELEVATION AND ALL OTHER PIPES ARE TO BE SET A MINIMUM OF 2" HIGHER. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF THE HIGHEST/LARGEST PIPE TO THE BOTTOM OF THE FRAME BE LESS THAN 6".
4. UNDER CURB AND UNDER PAVEMENT DRAIN DETAILS ARE SHOWN ON "DRAINAGE AND UTILITY TRENCH DETAILS SHEETS" INLCUDED WITH THIS SET OF PLANS. THIS DOES NOT APPLY TO THE ARIZONA DIVISION.



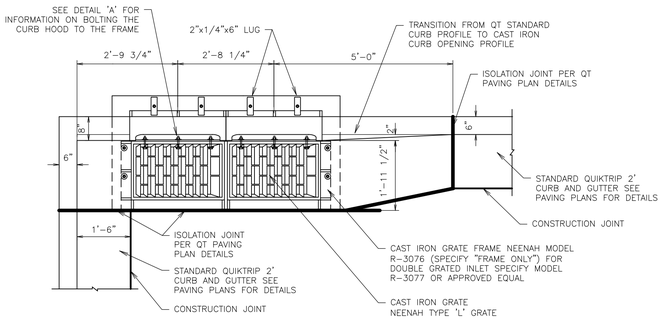
I-BEAM SUPPORT



SECTION A-A



SECTION B-B



PLAN VIEW - INLET IN 90° PARKING

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, CED.
PDF BY: A.G. 12-10-13

L11	NOT USED
NTS	SN:

F1	CATCH BASIN INLET DETAIL (DOUBLE)
NTS	SN: DD001B007

F11	NOT USED
NTS	SN:

A1	NOT USED
NTS	SN:

A6	NOT USED
NTS	SN:

A11	NOT USED
NTS	SN:

TAMALAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R

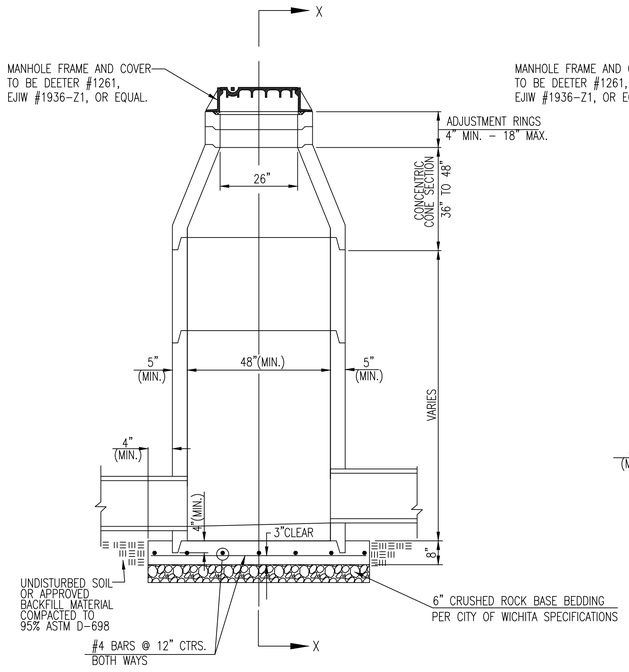
1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

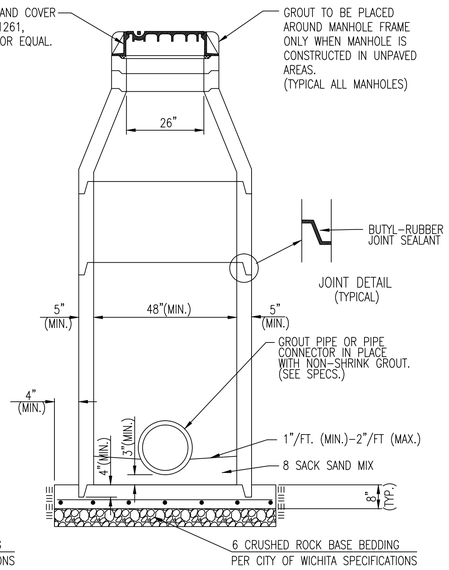
REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE:
QT DRAINAGE DETAILS

SHEET NUMBER:
15



PRECAST
STANDARD MANHOLE
TYPE "A"

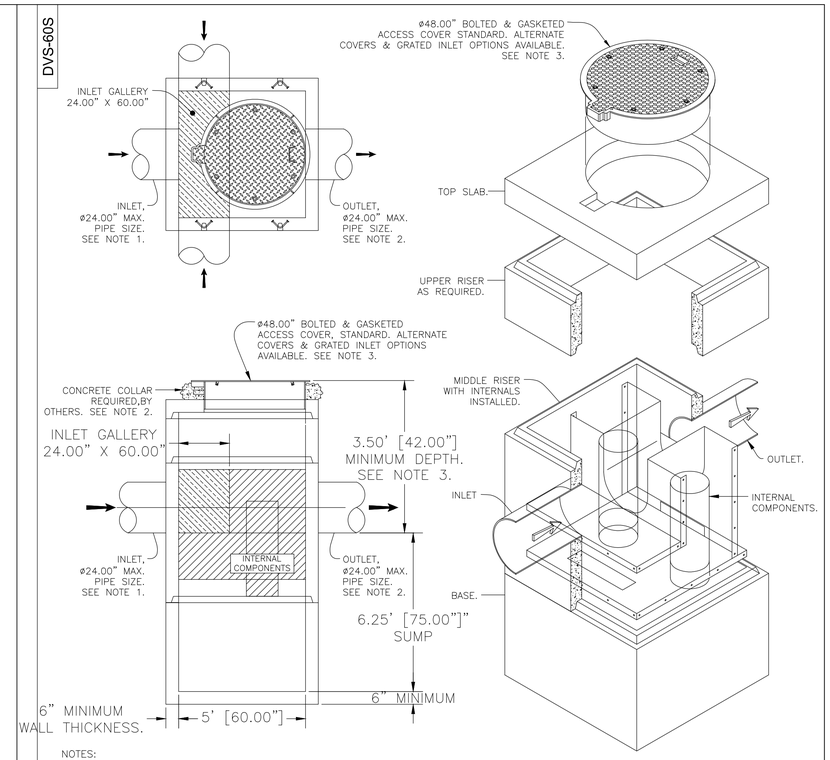


SECTION X-X
(TYPICAL)

GENERAL NOTES

1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
4. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
5. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478 AS MODIFIED BY THE SPECIFICATIONS.
6. CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
8. MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.)
9. MANHOLES WITH PRECAST BASES MAY BE USED AT THE CONTRACTORS OPTION. THESE MANHOLES SHALL HAVE AN 8" MINIMUM BASE THICKNESS AND SHALL BE PLACED ON AN 8" MIN. CRUSHED ROCK BASE. PIPES SHALL BE ENCASED WITH CRUSHED ROCK TO AT LEAST 3 FEET FROM THE MANHOLE WALL.
10. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
11. THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
12. MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE MANHOLE WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
13. MANHOLE FRAME AND COVER TO BE DEETER #1261, EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
14. FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
15. FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.

DVS-60S



NOTES:

1. ALL INLET PIPES MUST ENTER SEPARATOR AT INLET GALLERY, (OBLIQUE ANGLES ALLOWED).
2. STANDARD OUTLET PIPE CONFIGURATION TO EXIT SEPARATOR AT THE CENTER LINE, (OBLIQUE ANGLES ALLOWED). CUSTOM OUTLET CONFIGURATIONS AVAILABLE UPON REQUEST.
3. BOLTED & GASKETED MANHOLE ACCESS COVER ELEVATION MAY BE ADJUSTED TO GRADE. FIELD POURED CONCRETE COLLAR AS REQUIRED, BY OTHERS. INLET GRATES & ALTERNATE COVER OPTIONS AVAILABLE.
4. FOR DEPTHS LESS THAN THE MINIMUM SHOWN CONTACT KRISTAR ENTERPRISES FOR ENGINEERING ASSISTANCE.
5. CONCRETE COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM DESIGNATION C858.
6. REMOVABLE INTERNAL COMPONENTS MAY BE AVAILABLE TO FACILITATE MAINTENANCE. SEE DRAWING DVS-R-0001 OR CONTACT KRISTAR ENTERPRISES FOR DETAILS.

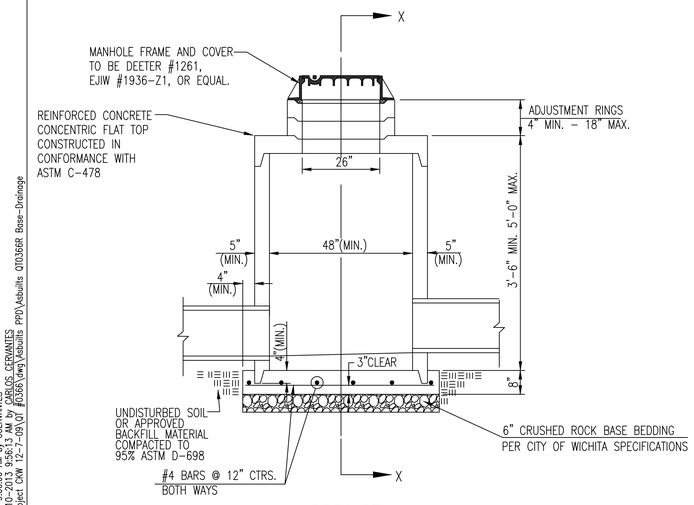
TITLE

FloGard DUAL-VORTEX
HYDRODYNAMIC SEPARATOR
SQUARE STRUCTURE
DVS-60S

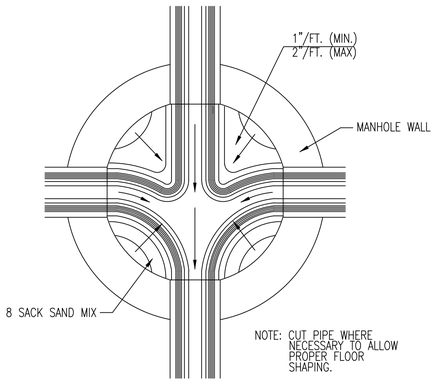
KriStar Enterprises, Inc.
360 Sutton Place, Santa Rosa, CA 95407
Ph: 800.579.8819, Fax: 707.524.8186, www.kristar.com

DRAWING NO.	REV	ECO	DATE	
DVS-60S	NR	0086 NEW 4/25/11	JPR 4/25/11	SHEET 1 OF 1

TB 48X
DST 25X



PRECAST
SHALLOW MANHOLE
TYPE "B"



TYPICAL MANHOLE
FLOOR SHAPING

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.P.
PDF BY: AG. 12-10-13

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

PRECAST CONCRETE MANHOLE (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
0095 PPD	(607861)	01/2013

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

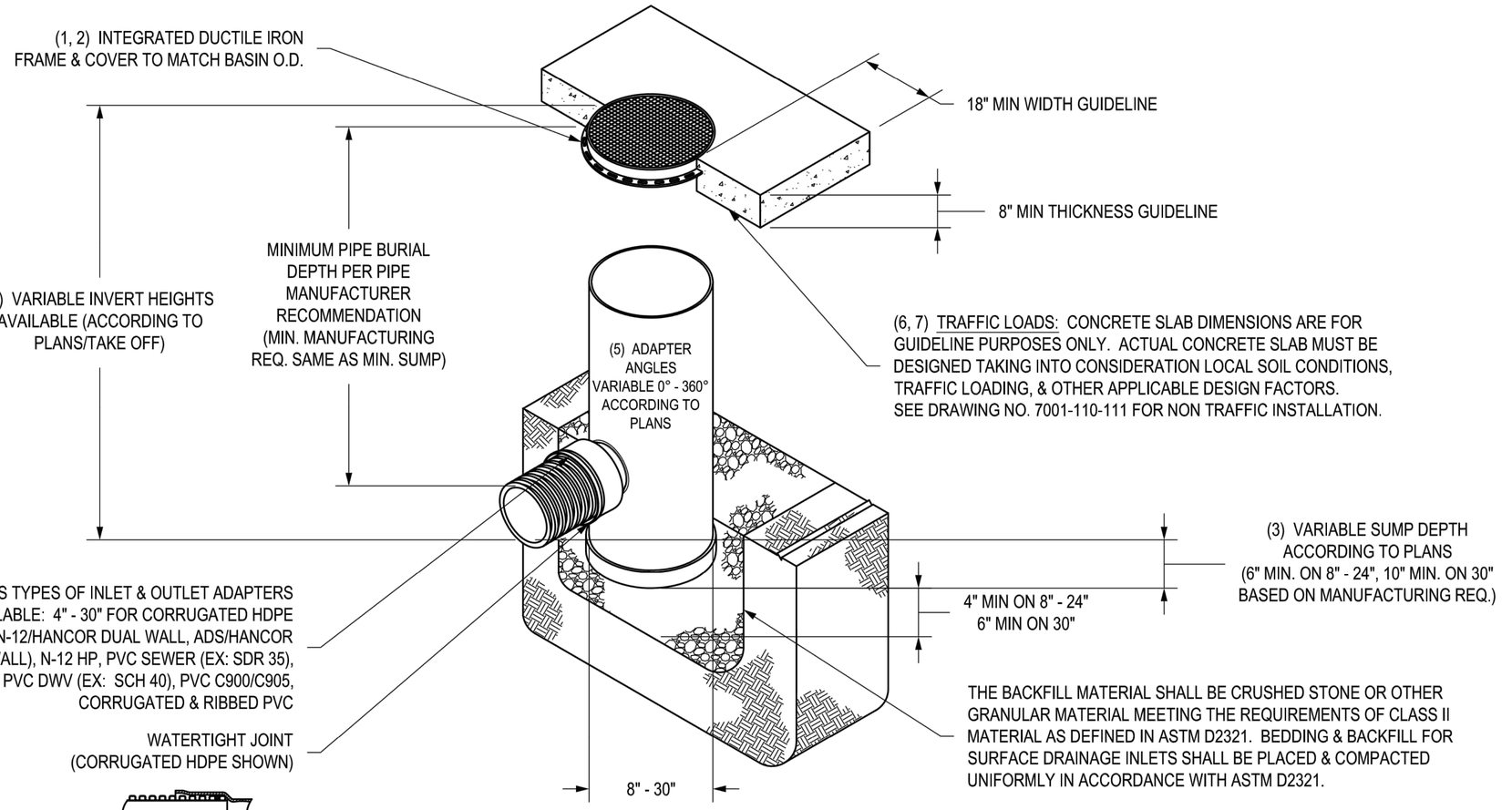
DESIGN	DRAWN

SHEET 16

SW-307

Saved 12-10-2013 9:06:06 AM by CCERVANTES
Plot Scale 1:1 12-10-2013 9:56:13 AM by CARLOS CERVANTES
S:\Drawing Files\Project CAD\ 12-7-09\07 #0366\Dwg\Asbuilts PPD\Asbuilts Q703668 Base-Drainage

NYLOPLAST DRAIN BASIN WITH SOLID COVER



1 - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

ASBUILT PLANS
CONTRACTOR: DONDLINGER CONSTRUCTION
INSPECTOR: RANDY VOTH, C.E.D.
PDF BY: AG, 12-10-13

DRAWN BY EBC	MATERIAL	Nyloplast®	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 9-14-07			
REVISED BY EBC	PROJECT NO./NAME	TITLE DRAIN BASIN WITH SOLID COVER QUICK SPEC INSTALLATION DETAIL	
DATE 3-14-10			
DWG SIZE A	SCALE NTS SHEET 17 OF 17	DWG NO. 7001-110-298	REV B

JAMALAN DALE FORD
LICENSED
10891
2.6.13
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 20122022

CED
CERTIFIED ENGINEERING DESIGN, P.A.
1935 W. MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808
FAX.(316)262-1669

QuikTrip No. 0366R
1620 S. WEBB ROAD
WICHITA, KANSAS

PROTOTYPE:	P-73 (11/01/12)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	MH
DRAWN BY:	CKW
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JAN. 17, 2013

SHEET TITLE: NYLOPLAST DRAINAGE DETAILS

SHEET NUMBER: 17

FILE LOCATION:S:\Drawing Files\Project CKW 12-7-09\QT #0366\dwg\Asbuilts PPD\Asbuilts QT0366R Base-Drainage.dwg TAB NAME:Nyloplast Drainage Details USER:cervantes SAVED:12/10/2013 9:06 AM PLOTTED:12/10/2013 9:57 AM