PAVING PHASE 2 TO SERVE

VERANDA SECOND ADDITION

THE CITY OF WICHITA, KANSAS
PAUL GUNZELMAN, P.E. - CITY ENGINEER

PROJECT NO. 472-2023-085910

ORG CODE 47483726

MUNIS NO. E6194

VERANDA CIR: LOTS 7 & 8, BLOCK 1

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:

   KANSAS ONE-CALL 687-2470
   THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

AT&T	800-246-8464
BLACK HILLS ENERGY (GAS)	800-694-8989
CITY OF WICHITA WATER & SEWER	316-219-8921
CITY OF WICHITA STORMWATER	316-268-4090
CITY OF WICHITA TRAFFIC	316-268-4034
COX COMMUNICATIONS (CABLE)	888-249-3530
EVERGY	800-544-4857
KANSAS GAS SERVICE (GAS)	888-482-4950

3. UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

4. 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, IN THE OPINION OF THE ENGINEER, THAT WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL 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 WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

5. 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 CITY ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

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

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

8. IF TRAFFIC WILL BE IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER AT traffic@wichita.gov BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

9. THE ENGINEERING DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES BY THE CONTRACTOR.

10. THE CONTRACTOR SHALL NOTIFY THE INSPECTING ENGINEER AND DAWNITA REINHARDT AT 650-0740 WITH THE CITY OF WICHITA WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF PROJECT COMPLETION. STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

11. ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE SEEDED AND MULCHED. COST SHALL BE CONSIDERED SUBSIDIARY TO PROJECT SEEDING.

12. CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

13. 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 COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.

14. ALL TRAFFIC CONTROL DEVICES IN THE WORK ZONE (INCLUDING MARKINGS AND SIGNS) AND THEIR INSTALLATION AND MAINTENANCE SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL DEVICES IN THE TRAVELED WAY OR CLEAR ZONE SHALL BE CRASHWORTHY (NCHRP REPORT 350 OR MASH COMPLIANT). https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/

15. ALL CONSTRUCTION EQUIPMENT, INCLUDING VEHICLES, MATERIALS, AND DEBRIS, SHALL BE STORED OUTSIDE OF THE CLEAR ZONE. WHERE THIS CANNOT BE ACHIEVED THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNS, OBJECT IDENTIFIERS, AND/OR BARRICADES IN COMPLIANCE WITH MUTCD.

16. EXCEPT WHEN REQUIRED FOR SAFETY, TRAFFIC CONTROL SHALL NOT BLOCK ANY LANES OR SIDEWALKS WHEN WORK IS NOT BEING PERFORMED.

17. THIS PROJECT INCLUDES A CERTAIN AMOUNT OF ROLL TYPE CURB CONSTRUCTION. ROLL CURBS SHALL BE DEPRESSED THROUGH ALL DRIVEWAY OPENINGS WHEN SUCH DRIVES ARE CONSTRUCTED AS A PART OF THE PROJECT. NO MORE THAN 2 DRIVES 20 FEET IN WIDTH OR EQUIVALENT COMBINATIONS THEREOF ARE TO BE CONSTRUCTED WITH THIS PROJECT.

18. TRANSITION CURB FROM FULL HEIGHT COMBINATION CURB AND GUTTER TO ROLL TYPE COMBINATION CURB AND GUTTER IS TO BE PAID AS BID FOR LINEAL FEET COMBINED CURB AND GUTTER (3 5/8" ROLL).

19. A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF THE EXISTING SURFACE COURSES OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE OR PAVEMENT FOR WHICH PARTIAL REMOVAL OF THAT SURFACE OR PAVEMENT IS REQUIRED. SAW JOINT TO FACILITATE REMOVAL WITHIN THREE (3) FEET OF EXISTING JOINTS WILL NOT BE PERMITTED AND FOR SUCH INSTANCES THE LIMITS OF REMOVAL SHALL EXTEND TO THE EXISTING JOINT. SUCH SAW CUTS WILL NOT BE PAID FOR

20. DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE REMOVAL OF SURFACE OR PAVEMENT.

21. FOLLOW THE LINK BELOW FOR CONSTRUCTION DETAILS ON SPECIFIC CITY OF WICHITA STANDARD DETAILS:
    https://www.wichita.gov/613/Project-Development-Construction-Resourc

22. TESTING SHALL BE PROVIDED BY THE CONTRACTOR. TESTING SHALL BE PERFORMED UNDER THE DIRECTION OF A CERTIFIED ENGINEERING TECHNICIAN OR PROFESSIONAL ENGINEER. ALL TESTING METHODS AND EQUIPMENT SHALL BE BASED ON CURRENT ASTM AND/OR AASHTO REQUIREMENTS.

    TESTING GUIDELINES:
    - GENERAL EARTHWORK OUTSIDE OF PAVEMENT
      - ONE NUCLEAR DENSITY TEST PER 8" LIFT PER 2,000 SY.

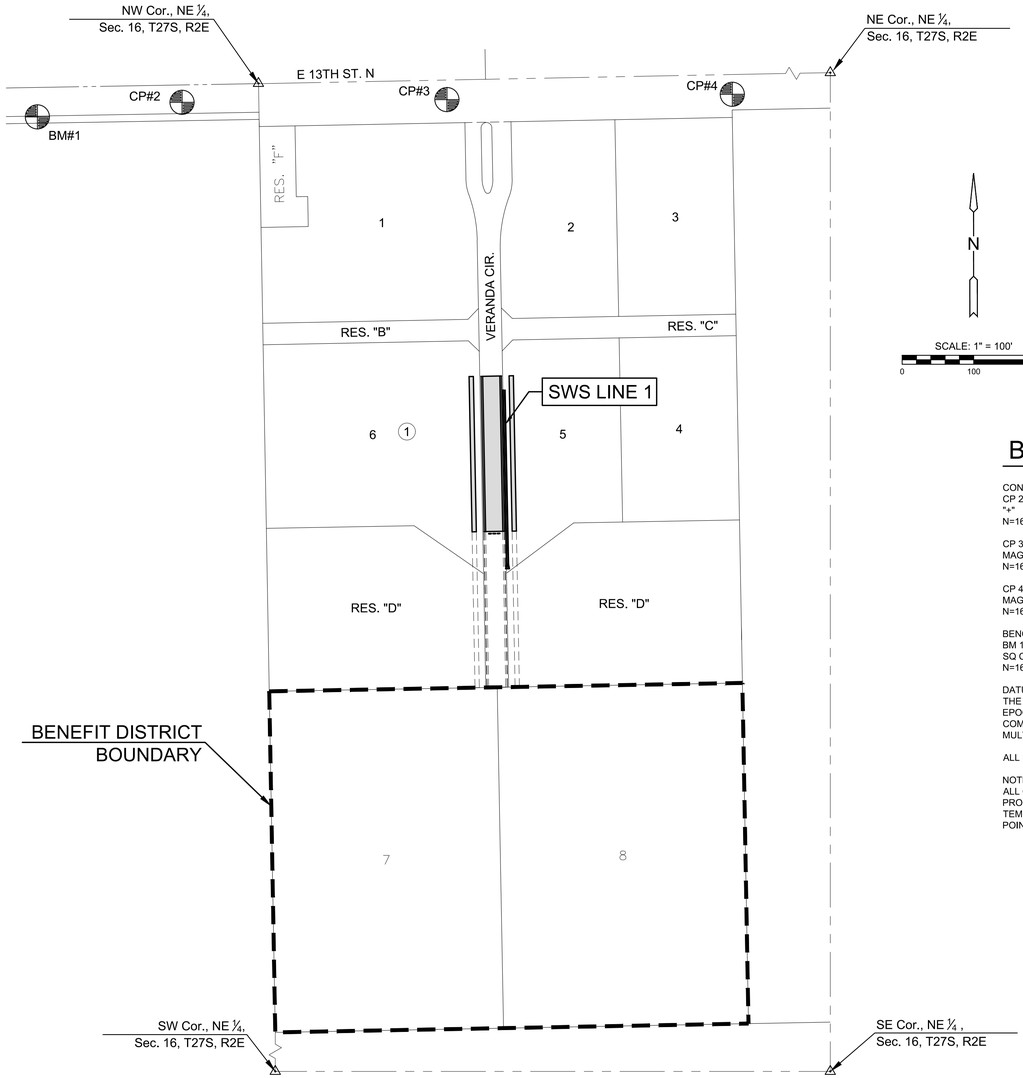
23. DEVELOPER FOR THIS PROJECT IS:
    LAHAM DEVELOPMENT COMPANY, LLC
    150 N. MARKET
    WICHITA, KS, 67202
    GEORGE LAHAM
    316-262-6400

EARTHWORK SUMMARY

EXCAVATION	35 C.Y.
EXCAVATION (CONTR. FURN.)	355 C.Y.
*COMPACTED FILL (95%)	325 C.Y.

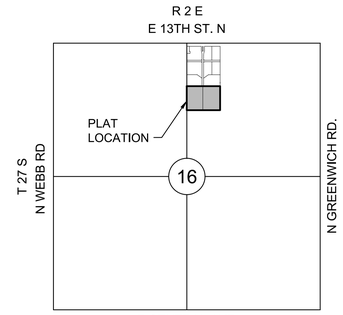
* 20% SHRINK/SWELL FACTOR ADDED

CONTRACTOR FURNISHED EXCAVATION MAY BE OBTAINED ON-SITE FROM THE EXISTING STOCKPILE LOCATED ON THE SOUTH SIDE OF LOTS 4 AND 5.



PROJECT LENGTH

VERANDA CIR. 217 L.F.



VICINITY MAP

SCALE: NTS

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
01	TITLE SHEET
02	SITE CLEARING PLAN
03	PAVING PLAN
04	GRADING PLAN
05	SWS LINE 1
06-09	PAVING DETAILS
10-12	SWS DETAILS
13	COORDINATE MAP
14	EROSION CONTROL PLAN
15-19	BMPS
20	CROSS SECTIONS
21	FINAL PLAT

BENCHMARKS/CONTROL POINTS

CONTROL POINTS:
CP 2
"+" CUT IN FRONT CENTER CURB INLET WITH MAGNAIL IN CENTER OF "+" CUT
N=1694401.257, E=1683542.233, ELEV:1378.30

CP 3
MAGNAIL & WASHER SE CORNER CURB INLET
N=1694405.429, E=1683912.609, ELEV:1383.39

CP 4
MAGNAIL & WASHER SE CORNER CURB INLET
N=1694412.863, E=1684311.498, ELEV:1390.30

BENCHMARKS:
BM 1
SQ CUT ON HDWL S. SIDE OF 13TH
N=1694381.300, E=1683340.242, ELEV:1377.82

DATUM:
THE HORIZONTAL DATUM IS BASED ON THE KANSAS COORDINATE SYSTEM OF 1983, NAD83(2011), EPOCH:2010.0000, SOUTH ZONE. COORDINATES SHOWN HAVE BEEN MODIFIED TO THE GROUND USING A COMBINED ADJUSTMENT FACTOR OF 1.0001200144. STATE PLANE COORDINATES CAN BE CALCULATED BY MULTIPLYING THE SHOWN VALUES BY 0.99988.

ALL ELEVATIONS SHOWN ARE BASED ON THE NAVD 88 VERTICAL DATUM, GEOID18.

NOTE:
ALL CONTROL POINTS SHOWN HAVE ELEVATIONS ESTABLISHED USING STANDARD SURVEYING PROCEDURES AND CAN BE USED AS TEMPORARY BENCHMARKS. WHEN USING A CONTROL POINT AS A TEMPORARY BENCHMARK, IT IS RECOMMENDED THAT CROSS-CHECKS BE MADE TO OTHER CONTROL POINTS OR BENCHMARKS TO CONFIRM ELEVATIONS PRIOR TO USE.

Stormwater Certification:
(New Development) or Redevelopment (Circle One)

Stormwater Permit # N/A - future individual lot permits

NOI Permit # KS # S-AR94-1770 FED # KSR120658

These construction plans were prepared in accordance with the current Stormwater management Regulations as set forth in the City of Wichita's Stormwater Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Stormwater Manual.

Site Area (Acres) = 19.4 AC

Disturbed Area (Acres) = 0.71 AC

Water Quality Treatment: N/A - future individual lot permits

Downstream Channel Protection: 5.71 AC-FT

Detention: 1.20 AC-FT

The BMP used for this development is N/A - future individual lot permits

MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON ENGINEERING LICENSED BY 24423 KANSAS PROFESSIONAL ENGINEER
8/6/26

PAVING PHASE 2
VERANDA SECOND ADDITION
WICHITA, KANSAS

TITLE SHEET

PROJECT NO. 472-2023-085910

SCALE 1" = 100'

DRAWN	DESIGNED	CHECKED
HHK	DFL	SPE

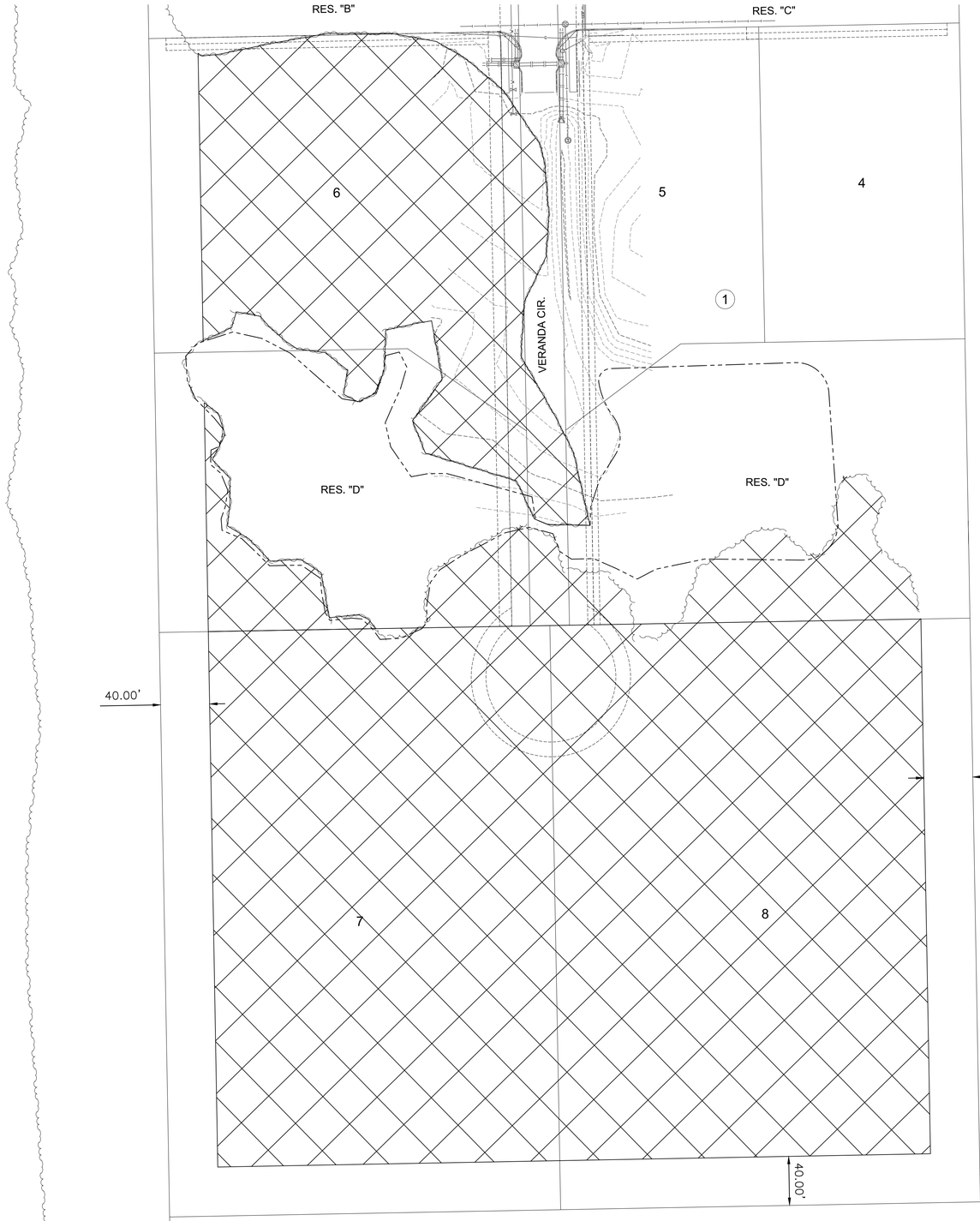
NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

SHEET NO.
C-001-P02
01 OF 21

©2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

PLOTTED: Thursday, August 13, 2026 @ 07:36AM
J:\PROJECTS\2017\17010\010370_VERANDA ADD_17370 CAD\SHTS\05 CIVIL\PAVPH2\17370_05_C-001-P02.DWG

PLOTTED: Wednesday, August 05, 2026 @ 11:57AM



LEGEND

- 1250 — EXISTING MAJOR CONTOUR
- 1249 — EXISTING MINOR CONTOUR
- W — EXISTING WATERLINE
- EXISTING SANITARY SEWER
- EXISTING STORMWATER SEWER
- UGT — EXISTING UNDERGROUND TELEPHONE
- UGE — EXISTING UNDERGROUND ELECTRICAL
- OHE — EXISTING OVERHEAD ELECTRICAL
- G — EXISTING GASLINE
- FOC — EXISTING FIBER OPTIC LINE
- EDGE OF EXISTING PONDS
- TREE REMOVAL (APPROX. 8.3 ACRES) COST SUBSIDIARY TO SITE CLEARING

N

SCALE: 1"=50'

0 50 100

NOTES

1. TREE AREAS DESIGNATED FOR REMOVAL SHALL HAVE THE TREE TRUNKS SAW CUT 6" MAX. ABOVE GRADE. NO GRUBBING OR ROOT REMOVAL IS REQUIRED. TREES SHALL BE REMOVED FROM THE SITE, UNLESS THE CONTRACTOR IS ABLE TO ACQUIRE A BURN PERMIT.
2. ON-SITE BURNING SHALL BE ALLOWED BY OWNER. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS THROUGH THE CITY OF WICHITA FIRE DEPT. & AIRPORT AUTHORITY. ON-SITE BURNING SHALL BE IN CONFORMANCE TO THE AMENDED CITY OF WICHITA BURN PERMIT REQUIREMENTS.

MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON ELLIS
LICENSED
24423
KANSAS
PROFESSIONAL ENGINEER
8/6/26

PAVING PHASE 2

VERANDA SECOND ADDITION

WICHITA, KANSAS

SITE CLEARING PLAN

PROJECT NO. 472-2023-085910

SCALE 1" = 50'

DRAWN	DESIGNED	CHECKED
BWS	DFL	SPE

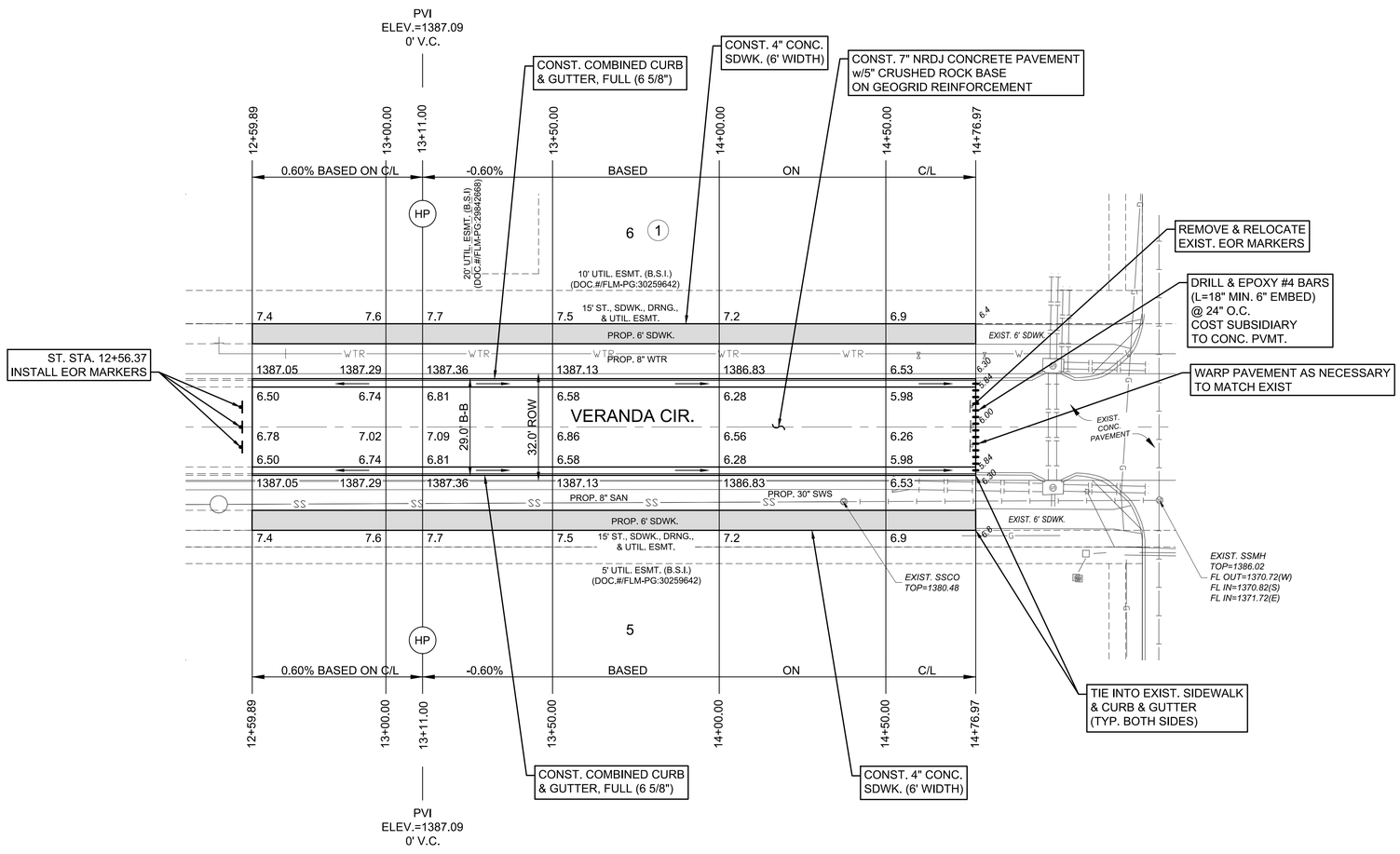
NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

SHEET NO. C-002-P02
02 OF 21

©2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM. THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS, & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

J:\PROJECTS\2017\17010\1370_VERANDA ADD_ 17370 CAD\SHTS\05 CIVIL\PAVPH2\17370_05_C-002-P02.DWG

PLOTTED: Wednesday, August 05, 2026 @ 10:57AM



LEGEND

- W — EXISTING WATERLINE
- EXISTING STORMWATER SEWER
- G — EXISTING GASLINE
- EXISTING SANITARY SEWER
- STREET SIGN & SIGN LOCATION (SEE SIGN ASSEMBLY TABLE FOR TYPE & STATION OF SIGN)

SCALE: 1"=20'

0 20 40

NOTE:
TOP OF CURB ELEVATIONS SHOWN ARE FOR FULL CURB. CONSTRUCT CURB AND GUTTER AS NOTED.

MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON ELLIS
LICENSED
24423
KANSAS
PROFESSIONAL ENGINEER
8/4/26

VERANDA SECOND ADDITION

PAVING PHASE 2

WICHITA, KANSAS

VERANDA CIR.

PROJECT NO. 472-2023-085910

SCALE 1" = 20'

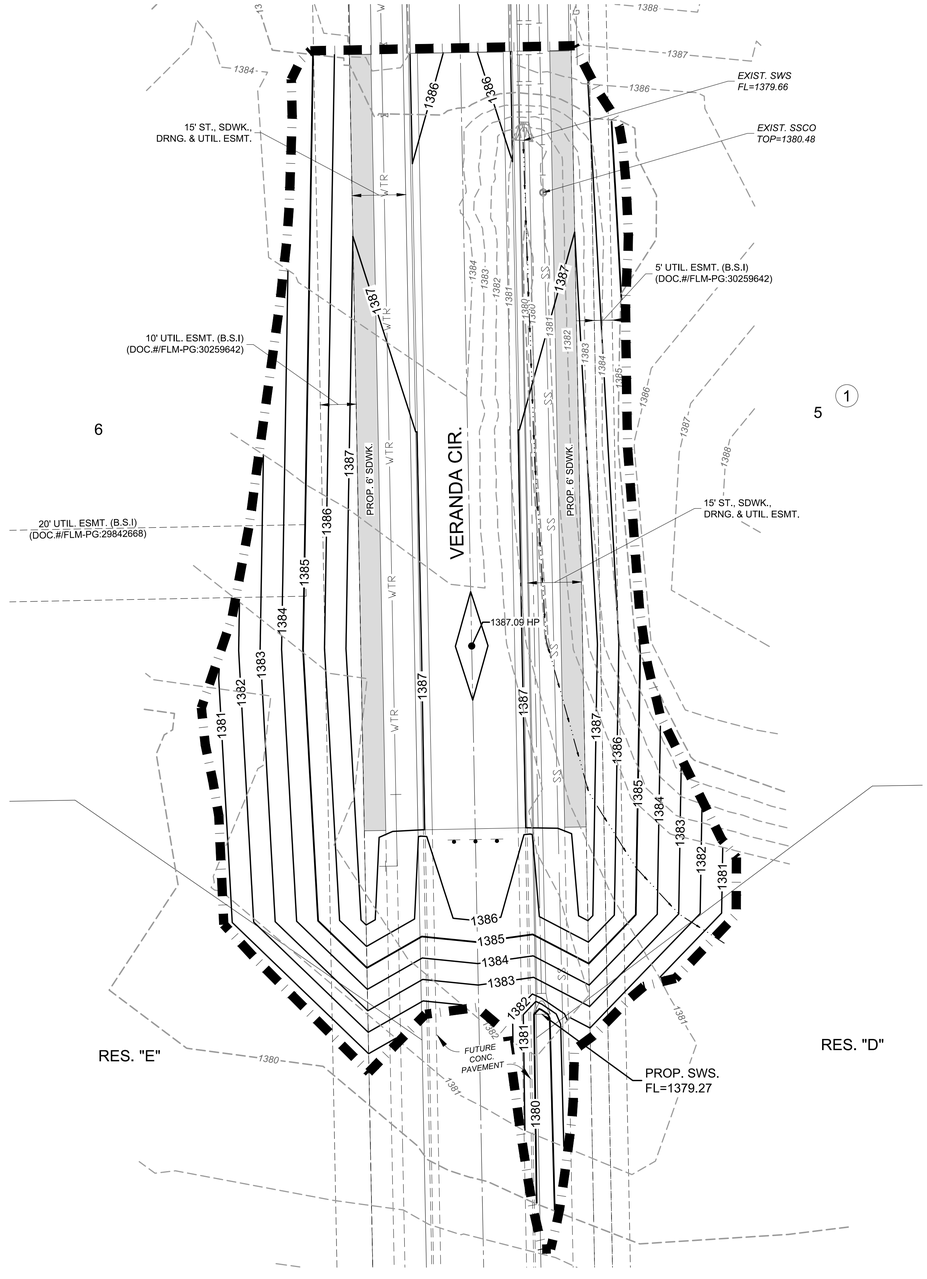
DRAWN	DESIGNED	CHECKED
HHK	DFL	SPE

NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

SHEET NO.
C-101-P02
03 OF 21

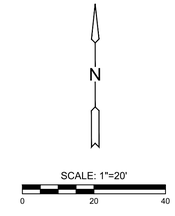
©2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS, & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

J:\PROJECTS\2017\17010\10370_VERANDA ADDL_17370 CAD\SHTS\05 CIVIL\PAVING\17370_05_C-101-P02.DWG



LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING WATERLINE
- EXISTING SANITARY SEWER
- EXISTING STORMWATER SEWER
- EXISTING UNDERGROUND TELEPHONE
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING GASLINE
- FUTURE STORMWATER SEWER
- PROPOSED WATERLINE
- PROPOSED SANITARY SEWER
- PROPOSED FORCED MAIN SANITARY SEWER
- LIMITS OF GRADING
- LIMITS OF FLOODPLAIN
- SWALE FLOWLINE
- PROPOSED SPOT ELEVATIONS
- EXISTING SPOT ELEVATIONS
- FLOW ARROW
- TEMPORARY DRAINAGE SWALE



MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON ELLIS
LICENSED
24423
KANSAS
PROFESSIONAL ENGINEER
8/6/26

PAVING PHASE 2

VERANDA SECOND ADDITION

WICHITA, KANSAS

GRADING PLAN

PROJECT NO, 472-2023-085910

SCALE 1" = 20'

DRAWN	DESIGNED	CHECKED
HHK	DFL	SPE

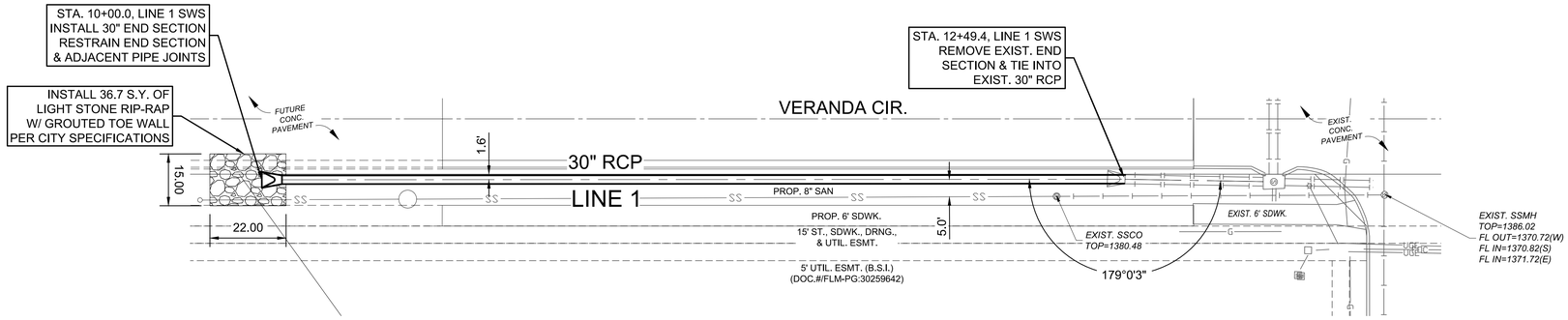
NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

SHEET NO.
C-102-P02
04 OF 21

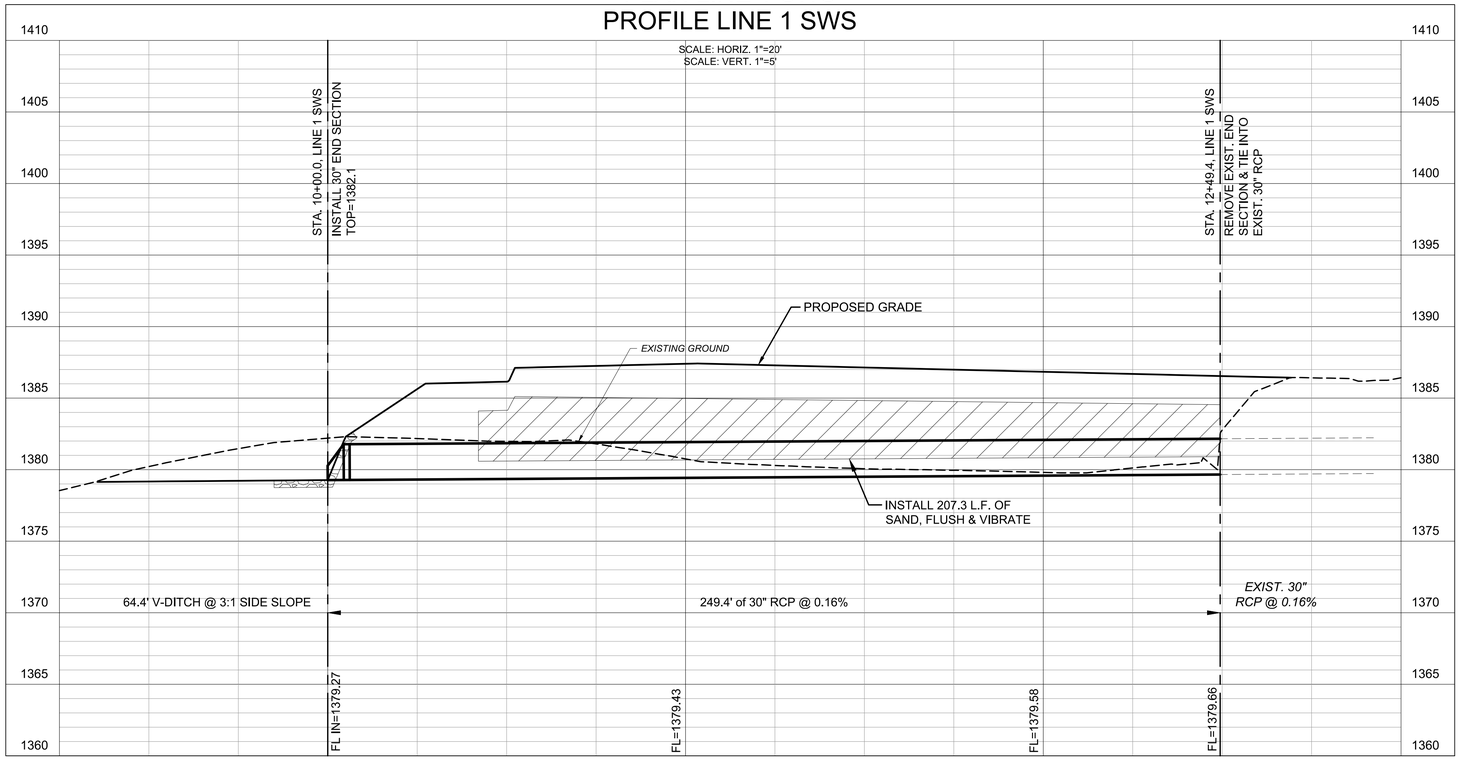
©2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS, & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

PLOTTED: Wednesday, August 05, 2026 @ 11:57AM
J:\PROJECTS\2021\171010370_VERANDA ADD_17370 CAD\SHTS\05 CIVIL\PAVPH2\17370_05_C-102-PH2.DWG

PLOTTED: Wednesday, August 05, 2026 @ 11:30AM



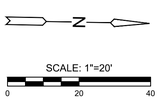
PLAN LINE 1 SWS
PROFILE LINE 1 SWS



LEGEND

- W — EXISTING WATERLINE
- EXISTING STORMWATER SEWER
- G — EXISTING GASLINE
- EXISTING SANITARY SEWER

NOTE:
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON EVANS
LICENSED
24423
KANSAS
PROFESSIONAL ENGINEER
8/6/26

PAVING PHASE 2

VERANDA SECOND ADDITION

WICHITA, KANSAS

SWS LINE 1

PROJECT NO,	472-2023-085910
SCALE	VERT: 1" = 5' HORIZ: 1" = 20'

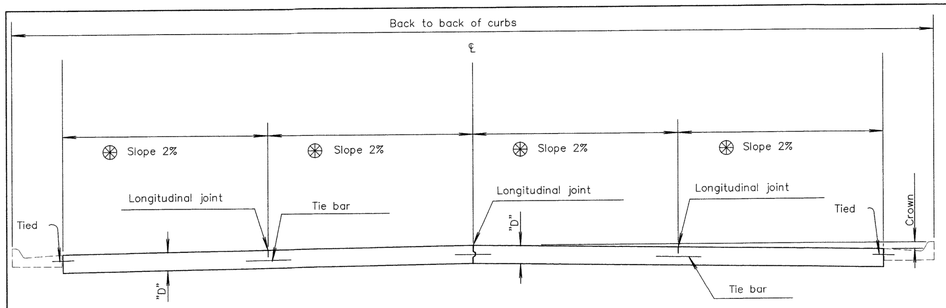
DRAWN	DESIGNED	CHECKED
HHK	DFL	SPE

NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

SHEET NO.
C-201-P02
05 OF 21

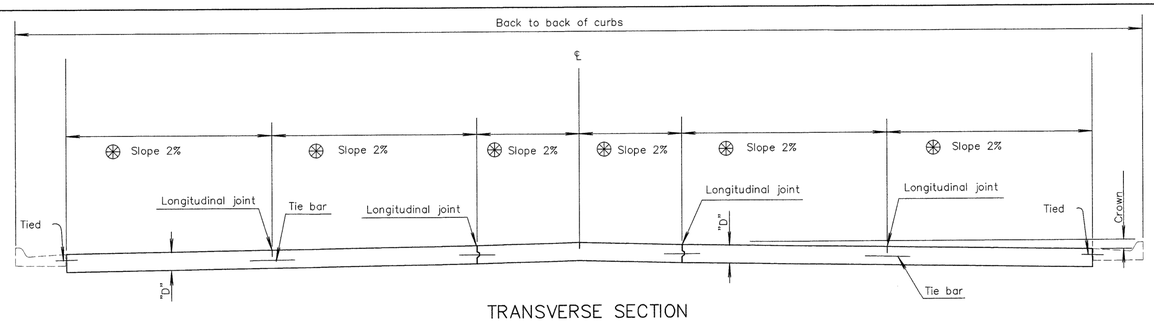
© 2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS, & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

J:\PROJECTS\2017\17010\10370_VERANDA ADD_17370 CAD\SHTS\05 CIVIL\PAV\PH2\17370_05_C-201-P02.DWG



For Curb & Gutter details
See Standard Drawing PV-101.

TRANSVERSE SECTION
(4 – LANE WITH CURB & GUTTER)



TRANSVERSE SECTION
(5 – LANE WITH CURB & GUTTER)

⊛ Normal cross slopes. See Typical Section or Cross Sections for variations.

GENERAL NOTE

Epoxy coat all deformed tie bars. Patch any damage to the epoxy coating in accordance with the Standard Specifications.

Use billet steel Grade 40 reinforcing for deformed tie bars THAT require bending, may or may not be epoxy coated.

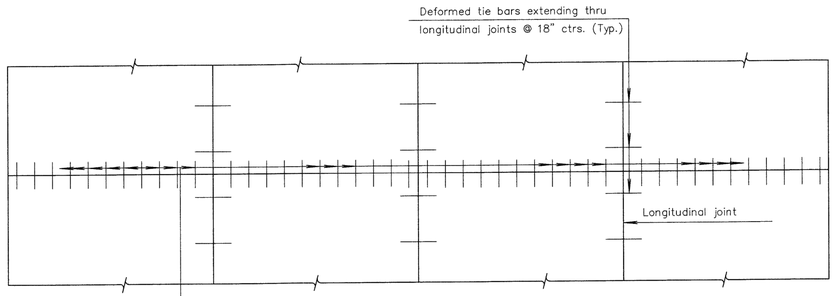
Place pressure relief joint at the end of the bridge approach pavement slab (no bars through joint). For details of pressure relief joint see KDOT Standard Drawing RD712.

Use load transfer devices as shown in details at all construction joints on mainline pavement unless otherwise noted.

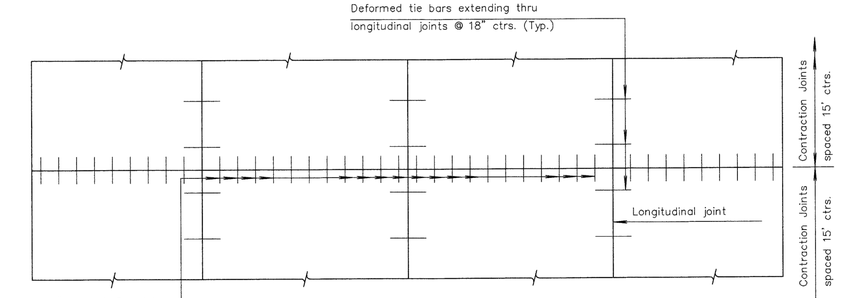
◆ Fill all sawed joints on the project in accordance with the Standard Specifications.

Shape all keyed joints similar to section of recessed form leg as shown on this sheet.

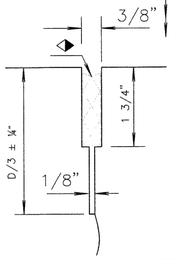
Evenly space tie bars along the length of slab with no tie bar within 12" of contraction joint. All longitudinal joints are tied.



PLAN
(4 – LANE WITH CURB & GUTTER)

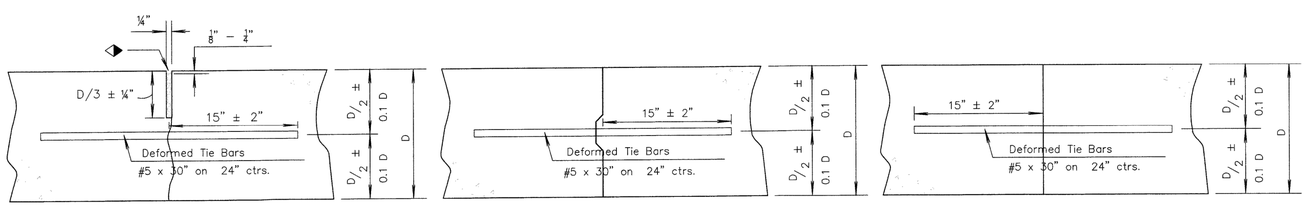


PLAN
(2 – LANE WITH SHOULDERS)



Ψ DETAIL OF SEALED CONTRACTION JOINT SAWCUT

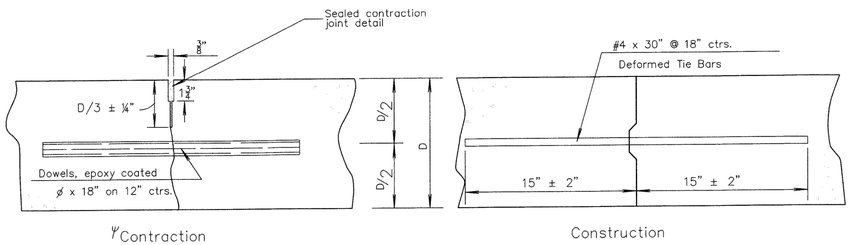
Make an initial ⅛" saw cut(D/3 ± ¼" depth); the second ⅜" saw cut is a separate operation done after concrete has gained sufficient strength to avoid spalling as determined by the Engineer.



Tied Non–Keyed | Tied Keyed Construction | Tied Butt Construction

Note: For longitudinal construction joints the contractor has the option of using either the keyed or butt type. Place deformed tie bars mid–depth of the shoulder.

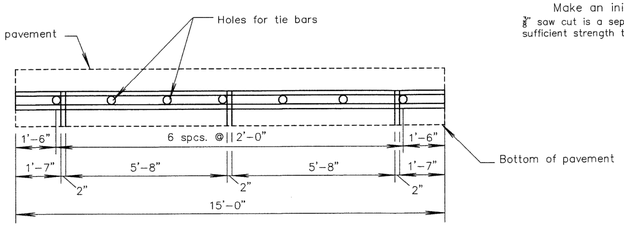
LONGITUDINAL JOINTS



Ψ Contraction | Construction

TRANSVERSE JOINTS

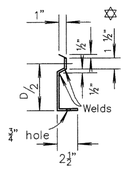
Note: Construct contraction joints at plan locations or at the Engineer's direction.
When necessary to interrupt continuous placement for a substantial length of time or at the end of a day's paving, the Contractor has the option of ending placement at a contraction joint or with a construction joint located a minimum of five (5) feet from a contraction joint. Construct either joint type by placing a header at the end of the pour or by paving past the joint location. After the concrete has hardened, saw joint and drill holes for tie bars or dowels.



METAL STRIP FOR
LONGITUDINAL CONSTRUCTION JOINT

To be used only against forms, do not extend through contraction joints. For automated placement tie bars are spaced at uniform 24" centers.

✡ Use snap–in leg or other approved design in lieu of welded leg.



SECTION OF
RECESSED
FORM LEG

DOWEL SIZE	
D (in.)	Diameter
6 < D < 9	1"
9 ≤ D < 11	1 1/4"
D ≥ 11	1 1/2"

PAVEMENT DEPTH
D=_

GARY L. JANZEN LICENSED PROFESSIONAL ENGINEER 18-21-11 KANSAS

REVISED: NOVEMBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

CONCRETE PAVEMENT DOWEL JOINTED NON-REINFORCED

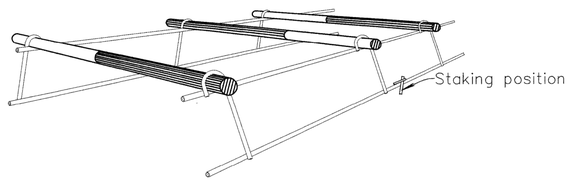
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910	####	FEB 2023

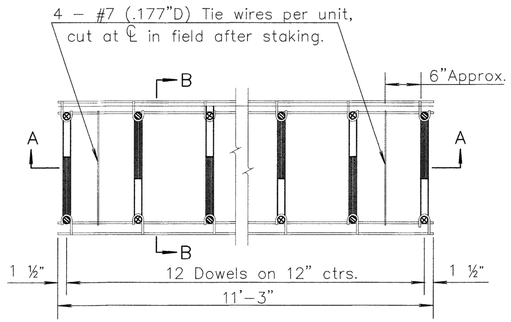
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
C-501-P02 OF 33

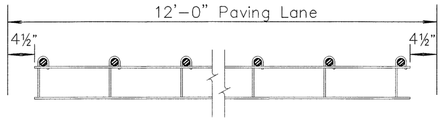
PV-141



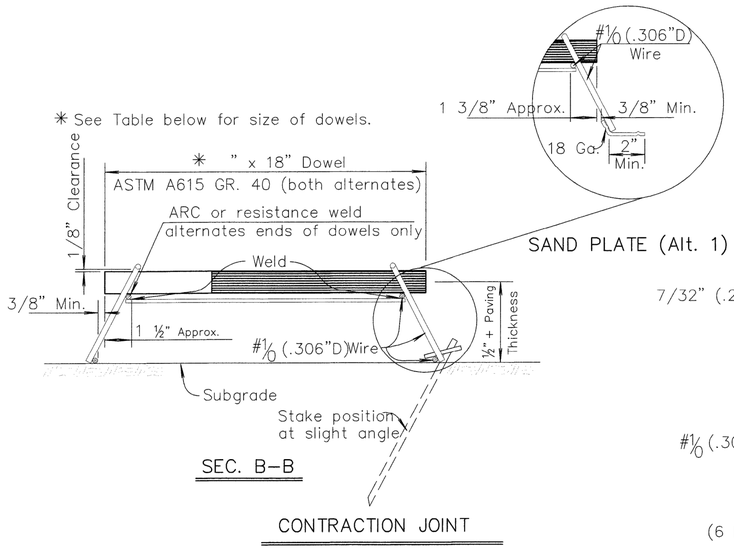
PERSPECTIVE VIEW



PLAN VIEW



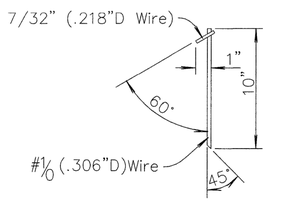
SEC. A–A



SEC. B–B

SAND PLATE (Alt. 1)

CONTRACTION JOINT



STAKE DETAIL

(6 Pieces minimum required)

DOWEL SIZE	
D (in.)	Diameter
6 < D < 9	1"
9 ≤ D < 11	1 1/4"
D ≥ 11	1 1/2"

PAVEMENT DEPTH

D=_

GENERAL NOTE

Dowel bar insertion may be by mechanical dowel placers regardless of the joint spacing.

Each dowel bar shall be coated with an epoxy coating that meets the standard specifications. The coating material shall be a powdered epoxy resin approved by the City of Wichita and shall be uniformly applied according to accepted practiced and the resin manufacturer's recommendations. For Alt. 1 the coating need not be applied to the end faces of the bars and will not be required within 2" of the end which will be fixed in the supporting basket by welding.

The cutting to length of the dowel bars shall be done in such a manner to result in no appreciable deformation of the ends.

Alt. 1 (Baskets)

Wire sizes shown are minimum required.

Basket to be staked to sub–grade, as shown. Ramset or similar type fastener with clip to be use when subgrade condition requires it.

A string line shall be stretched between the pavement forms along the center line of joint. The position of the joint shall be carefully marked so that the saw cut will coincide with the center line of the joint.

In order to identify the location to the bond breaker application, the working end of dowel and the supporting leg shall receive a light application of red paint at the place of fabrication. The bond breaker to be applied in the field prior to concrete placement shall consist of coating approximately three–fifths of the length of each dowel bar with hard grease at the working end identified by the red paint.

The entire joint assembly shall be carefully leveled so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any coating scraped off the dowels in assembling the joint shall be replaced.

After the complete contraction joint is assembled, it shall be checked to be certain that the vertical plane of joint will be perpendicular to the slab unless shown otherwise on the plans. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

Other approved designs may be used in lieu of the type shown.

Alt. 2 (Mechanical placement)

Joint spacing shall be normal to centerline.

The pavement shall be placed and consolidated to full depth prior to insertion of the dowel bars.

The dowel bars shall be coated with a bond breaking agent prior to insertion into the plastic concrete.

The dowel bars shall be inserted into the plastic concrete ahead of the finishing beam or screed.

The installing device shall consolidate the concrete around the dowel bars such that no voids exist, without the supplemental use of hand held vibrators.

The dowel bars shall be located within one inch of the planned trans–verse location and within the range of depth of $D/2 \pm 0.1$ D measured from mid depth and mid length of the bar where D represents the pavement thickness.

The dowel bars shall be located within two inches of the planned longitudinal location.

The dowel bars shall be parallel to the pavement surface and centerline within a tolerance of one half inch in 18 inches in both the vertical and horizontal direction.

The forward movement of the finishing beam or screed shall not be interrupted by the inserting of the dowel bars.

A positive method of marking the locations of the transverse joints shall be provided.

REVISED: NOVEMBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

CONTRACTION & EXPANSION JT. DOWEL ASSEMBLIES

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910	####	FEB 2023

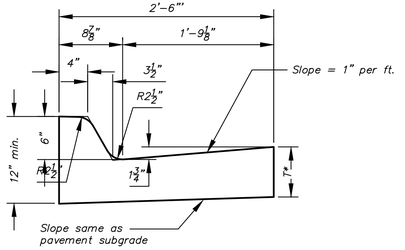
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
C-502-P02 OF 33

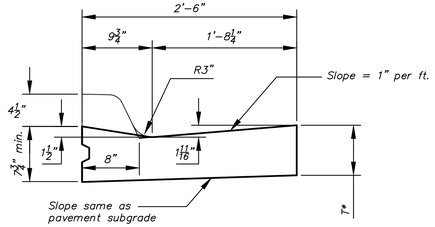
GARY L. JANZEN LICENSED PROFESSIONAL ENGINEER 16203 12-21-15 KANSAS

PV-142

TYPE 1
(Arterial curb)

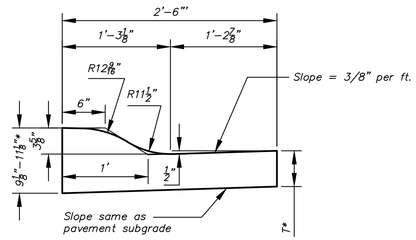


Combined Curb & Gutter (6")

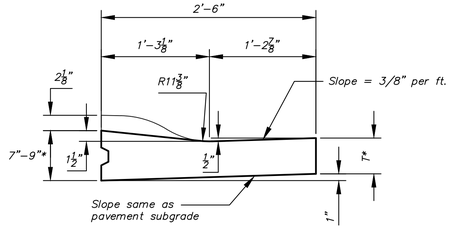


Combined Curb & Gutter (1 1/2")

TYPE 2
(Roll curb)

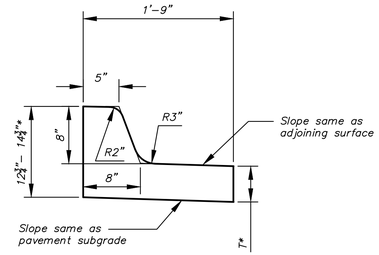


Combined Curb & Gutter (3 5/8")

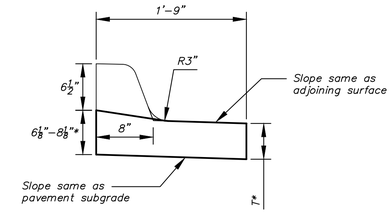


Combined Curb & Gutter (1 1/2")

TYPE 3
(Median curb)

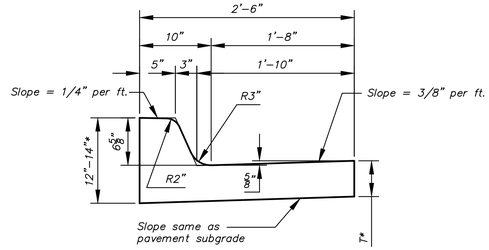


Combined Curb & Gutter (8")

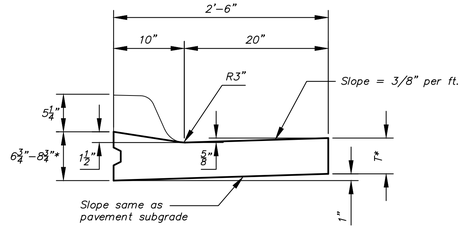


Combined Curb & Gutter (1 1/2")

TYPE 4
(Residential curb)

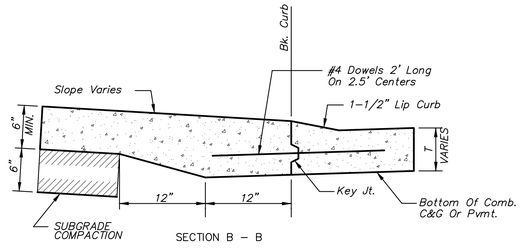


Combined Curb & Gutter (6 5/8")

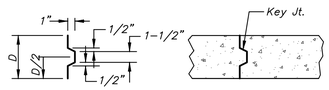


Combined Curb & Gutter (1 1/2")

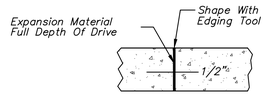
T* = Thickness of curb to adjust with pavement thickness



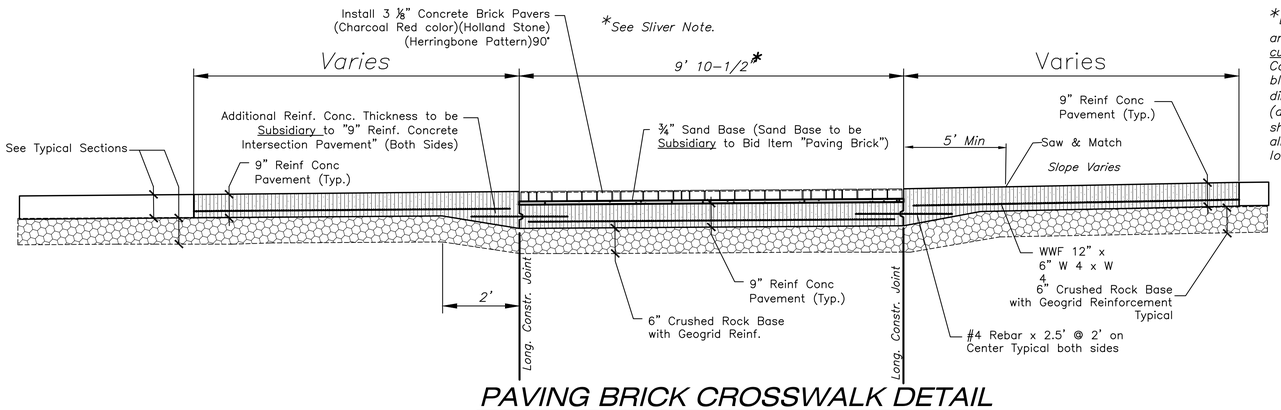
BACK OF CURB DETAIL



ALT. LONGITUDINAL CONSTRUCTION JOINT



EXPANSION JOINT (E.J.)



PAVING BRICK CROSSWALK DETAIL

*Brick Pavers to be installed in crosswalk and/or median locations shall be custom cut to match final concrete dimensions. Contractor shall construct crosswalk blockouts to match nominal paver width dimensions. Fill in with "brick slivers" (defined as pieces smaller than 1/2 of the shortest paver dimension) shall not be allowed, except at the end of crosswalk locations.

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.

REVISED: OCTOBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

CURB & GUTTER & PAVING BRICK CROSSWALK DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

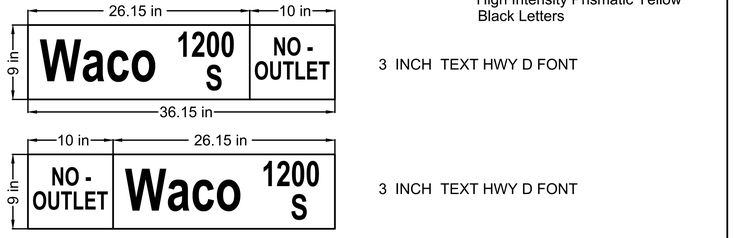
PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910		##-##-##

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

SHEET
C-503-P02
08 OF 21

PV-101

J:\Projects\2017\1701010370_Veranda Add_17370 CAD\SHTS\05 Civil\Pav\PH2\17370_05_C-503-P02.dwg



High Intensity Prismatic Yellow Black Letters

3 INCH TEXT HWY D FONT

3 INCH TEXT HWY D FONT

4.5 inch lower case text HWY D font

6 INCH UPPER CASE TEXT HWY D FONT

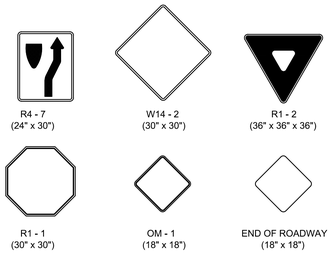
High Intensity Prismatic Yellow Black Letters

3 INCH TEXT HWY D FONT

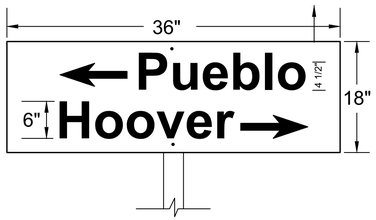
3 INCH TEXT HWY D FONT

4.5 inch lower case text HWY D font

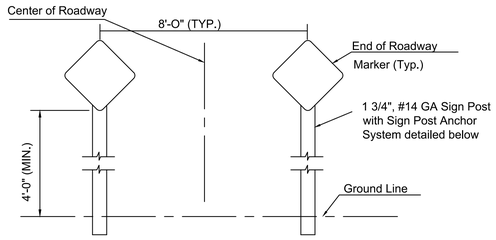
6 INCH UPPER CASE TEXT HWY D FONT



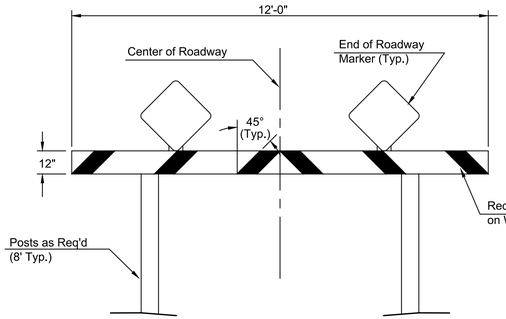
* IN NO CASE SHALL THE SPECIFICATIONS BE LESS THAN REQUIRED BY THE CURRENT MUTCD.



FLAT PLATE STREET NAME SIGN

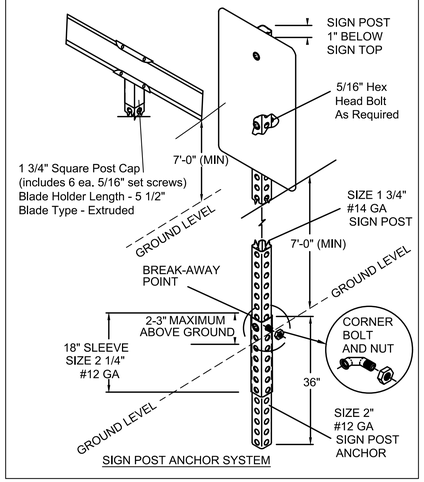


TYPICAL END OF ROADWAY SIGN MOUNTING INSTALLATION



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

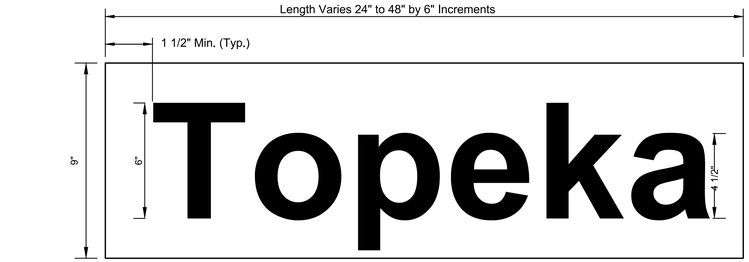
PERFORATED TUBE SIGN POST INSTALLATION



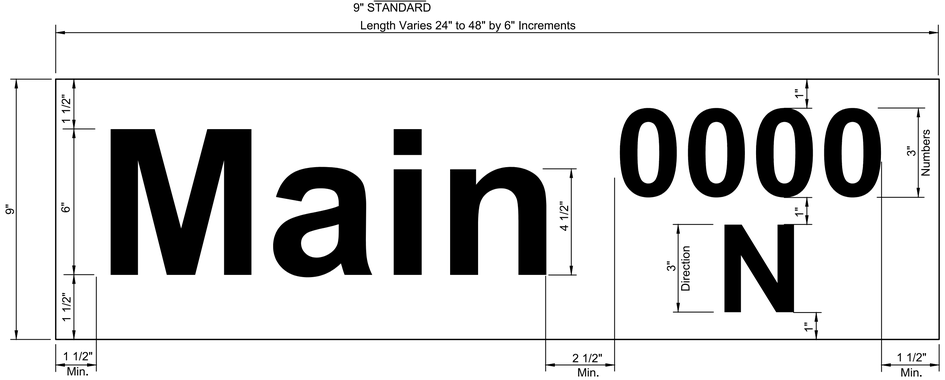
SIGN POST ANCHOR SYSTEM

SIGN ASSEMBLY TABLE

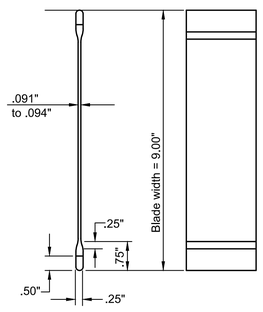
STATION	OFFSET	SIGN	QUANTITY*
12+56.37	NA	EOR	RELOCATED
TOTAL			0



DETAIL A
9" STANDARD



DETAIL B
9" METRO



STREET NAME SIGN
BLADE DETAILS

STREET NAME	NO. BLADES REQ'D	
	9" STD.	9" METRO
TOTAL		0

* CONTRACTOR TO CONTACT CITY TRAFFIC ENGINEER FOR BLOCK NUMBER INFORMATION

NOTE: REFERENCES BELOW TO "STANDARD SPECIFICATIONS" DENOTE "STANDARD SPECIFICATION FOR STATE ROAD AND BRIDGE CONSTRUCTION EDITION 2015" BY THE KANSAS DEPARTMENT OF TRANSPORTATION.

1. ***FABRICATION AND INSTALLATION OF ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD.***

1a. POST ANCHORS: POSTS SHALL BE ANCHORED WITH A YIELDING BASE POST SUPPORT AS DETAILED.

2. POSTS FOR TRAFFIC CONTROL SIGNS: POSTS SHALL BE GALVANIZED AND CONFORM TO THE REQUIREMENTS OF SUBSECTION 1620 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT ALL POSTS SHALL WEIGH 3 LBS./FT. MINIMUM.

3. POSTS FOR STREET NAME SIGNS (SNS): POSTS SHALL BE 9 FEET LONG, CONSTRUCTED FROM #14 GALVANIZED STEEL PIPE AND SHALL BE 1 3/4" SQUARE WEIGHING A MINIMUM OF 3 LBS/FT, POSTS SHALL BE POSITIONED SO THAT THE BOTTOM BLADE IS 7 FEET ABOVE GRADE.

4. POSTS FOR END OF ROADWAY SIGN TO BE 8' LONG AND INSTALLED A MINIMUM OF 4' FROM ROADWAY TO BOTTOM OF SIGN.

5. SIGN BLANKS FOR TRAFFIC CONTROL SIGNS: SIGN BLANKS SHALL BE FABRICATED FROM 0.080" ALUMINUM ALLOY 6063-T6 CONFORMING TO THE REQUIREMENTS OF SUBSECTION 1627 OF THE STANDARD SPECIFICATIONS.

6. SIGN BLADES FOR STREET NAME SIGNS: EXTRUDED ALUMINUM BLADES SHALL BE ALUMINUM ALLOY CONFORMING TO 6063-T6 OR 5052-H38 (ASTM SPECIFICATION B221, LATEST ISSUE). BLADES SHALL HAVE AN ALODINE OR PHOSPHATE ETCHED FINISH. BLADES SHALL HAVE SQUARE CORNERS AND NO HOLES.
MINIMUM BLADE LENGTH SHALL BE 24". MAXIMUM BLADE LENGTH SHALL BE 48". LENGTH VARIES BY INCREMENTS OF 6".
BLADES BEARING THE STREET NAMES SHALL BE FIRMLY ATTACHED TO THE MOUNTING BRACKETS USING ALLEN-TYPE CONICAL SET SCREWS. THE BLADES SHALL BE ORIENTED PARALLEL TO THE STREET.

7. MOUNTING BRACKETS FOR SIGNS: DIE-CAST ALUMINUM BRACKETS SHALL BE ALUMINUM ALLOY 360 HAVING A TENSILE STRENGTH OF 44,000 PSI. THE BRACKETS SHALL BE SMOOTHLY FINISHED FREE OF PITS, BURRS, AND FLAWS. EACH BRACKET SHALL BE TAPPED AND DRILLED FOR 5/16" ZINC-PLATED ALLEN-TYPE SET SCREWS HAVING SELF-LOCKING SAW-TOOTH ENDS.

8. FASTENERS: ALL STEEL FASTENERS FOR TRAFFIC CONTROL SIGNS SHALL BE GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 1614 OF THE STANDARD SPECIFICATIONS.

9. REFLECTIVE SHEETING: REFLECTIVE SHEETING SHALL BE A MINIMUM OF HIGH INTENSITY PRISMATIC.

10. PROCESS INK: ALL PROCESS INK SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 2202 OF THE STANDARD SPECIFICATIONS.

11. DETAILS - SNS: THE REFLECTIVE SHEETING FOR THE 9" STANDARD SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGOUND WITH SILVER-WHITE #2 COPY WITH 6" UPPER CASE AND 4 1/2" LOWER CASE PRIMARY COPY AND SUFFIX COPY, BOTH SERIES "C". FACES TO TRIM TO A 8 1/2". (SEE DETAIL A.)
THE REFLECTIVE SHEETING FOR THE 9" METRO SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND WITH SILVERWHITE #2 COPY WITH 6" UPPER CASE AND 4 1/2" LOWER CASE PRIMARY COPY AND SUFFIX COPY, BOTH SERIES "C". THE CARDINAL DIRECTION CENTERED DIRECTLY BELOW THE BLOCK NUMBER SHALL BE AN UPPER CASE, 3" SERIES "C" LETTER. FACES TO TRIM TO A 8 1/2" WIDTH. (SEE DETAIL B.)
FOR CUL-DE-SAC STREETS, A 9" METRO SIZE BLADE SHALL BE USED WITH THE BLOCK NUMBERS DISPLAYED BENEATH THE STREET NAME. IF BLOCK NUMBERS ARE NOT SHOWN ON THE PLANS THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEER AT 268-4501 PRIOR TO MANUFACTURING THE SIGN.
SHOP DRAWINGS OF LAYOUT FOR SNS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEERING DIVISION OF THE CITY OF WICHITA FOR APPROVAL PRIOR TO FABRICATION. THE FINISHED SIGNS AS SUPPLIED SHALL BE OF GOOD APPEARANCE, FREE FROM RAGGED EDGES, CRACKS SCALES OR BLISTERS AND SHALL BE CLEAN-CUT. SIGNS SHALL BE PACKED IN SUCH MANNER AS TO PREVENT DAMAGE OR DEFACEMENT DURING SHIPMENT OR STORAGE.

12. PERMANENT TRAFFIC CONTROL AND SNS: PERMANENT TRAFFIC CONTROL AND SNS SHALL BE MEASURED AND PAID FOR AT THE LUMP SUM PRICE FOR SIGNING. THE PAYMENT AS SET FORTH ABOVE SHALL BE CONSIDERED FULL COMPENSATION FOR ALL EXCAVATION, BACKFILLING. POSTS, ANCHORS, FASTENERS, MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

REVISED: December 2018	TM	Updated Edition year and Subsection Number in Notes

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SIGN DETAILS

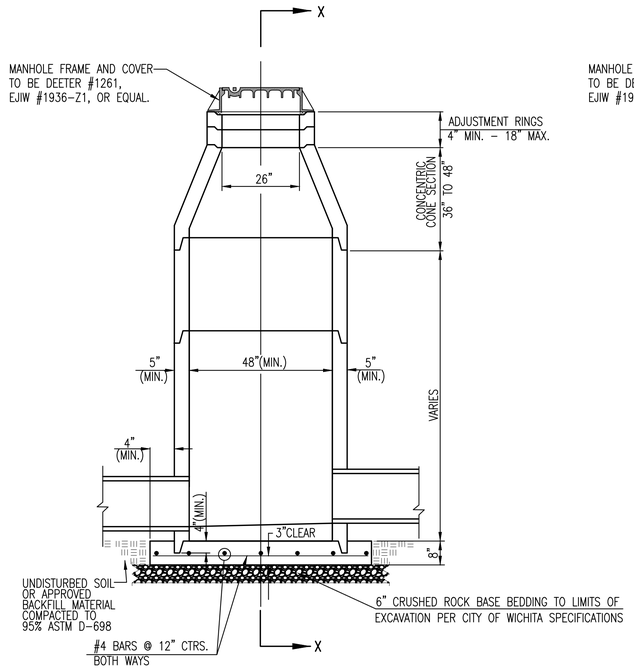
TRAFFIC ENGINEER

PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910	####	FEB 2023

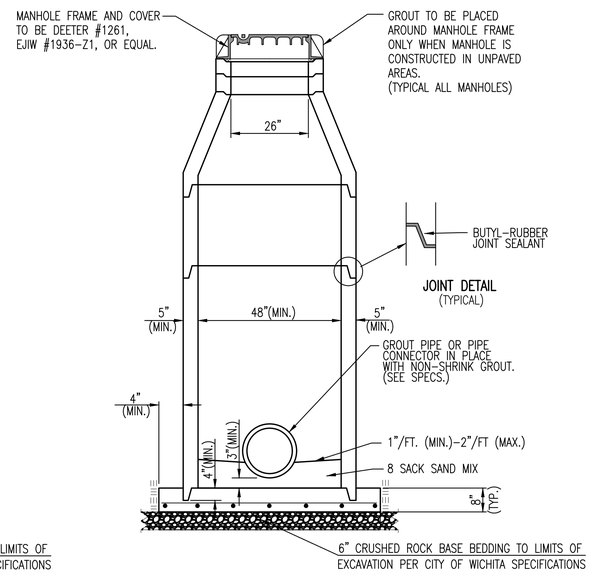
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
09 OF 21

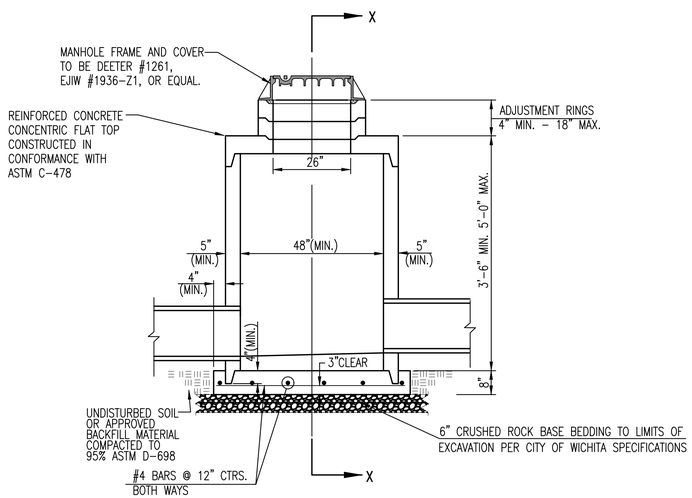
TR-106



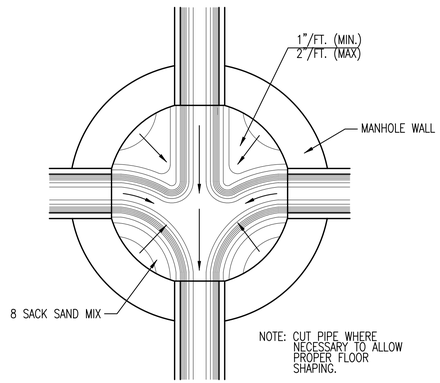
PRECAST
STANDARD MANHOLE
TYPE "A"



SECTION X-X
(TYPICAL)



PRECAST
SHALLOW MANHOLE
TYPE "B"



TYPICAL MANHOLE
FLOOR SHAPING

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.

REVISED: MARCH 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

PRECAST CONCRETE MANHOLE (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910	####	DATE

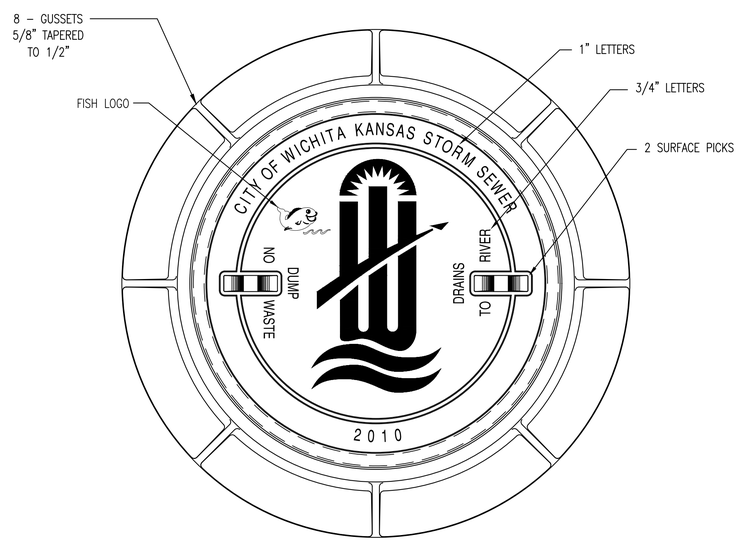
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
10 OF 21

SW-301

Saved 06-23-2026 4:28:33 PM by HKANITZ
Plot Scale 1:1 08-05-2026 10:58:45 AM by BRYCEN SCHEUBER
J:\Projects\2017\1701010370_Veranda Add_17370 CAD\SHTS\05 Civil\Pav\PH2\17370_05_C-551-P02

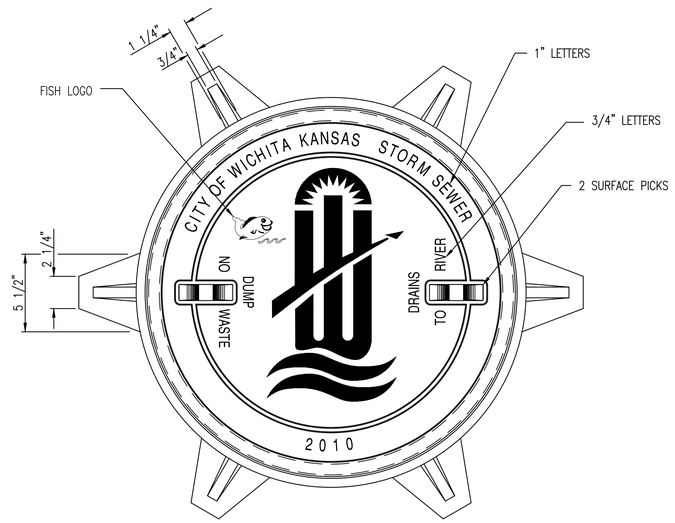
J:\Projects\2017\1701010370_Veranda Add_17370 CAD\SHTS\05 Civil\Pav\PH2\17370_05_C-551-P02.dwg



MANHOLE FRAME

DEETER #1261 OR EJIW #1936–Z1

NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
2. COVER TO BE DEETER #1261 OR EJIW #1936A.



INLET FRAME

DEETER #2014 OR EJIW #1936–Z4

NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.
2. NOT TO BE USED UNDER PAVEMENT.
3. COVER TO BE DEETER #1261 OR EJIW #1936A.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MANHOLE/INLET FRAME AND COVER (STORM SEWER)

CITY ENGINEER
GARY L. JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910	####	11/2010

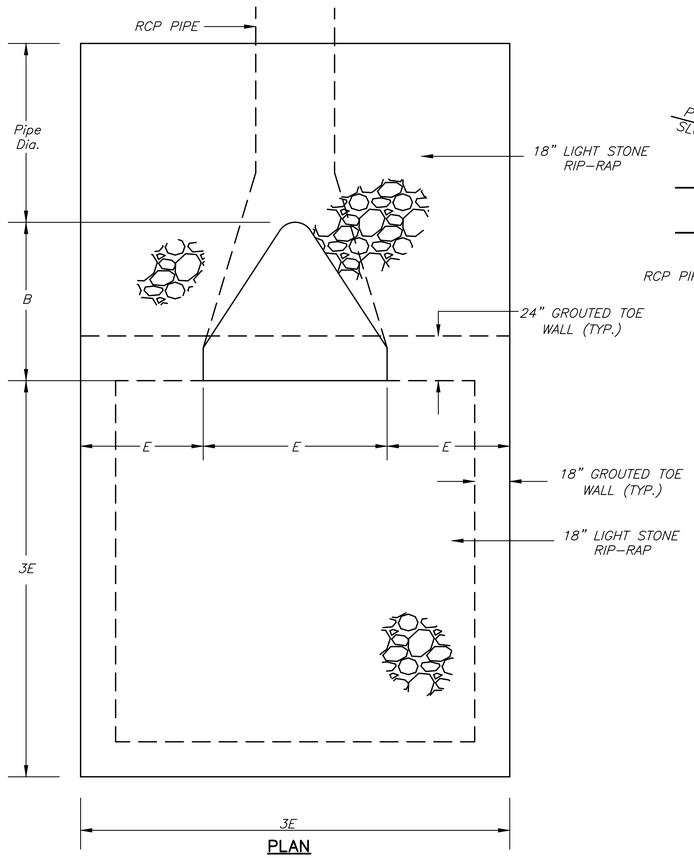
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
C-552-P02 OF

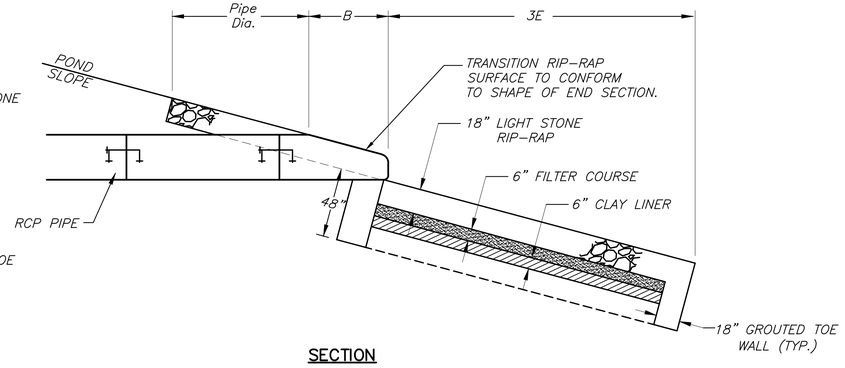
SW-303

Saved 06-23-2026 2:20:12 PM by BSCHEUBER
Plot Scale 1:1 08-05-2026 10:58:51 AM by BRYCEN.SCHEUBER
J:\Projects\2017\1701010370_Veranda Add_17370 CAD\SHTS\05 Civil\Pav\PH2\17370_05_C-552-P02

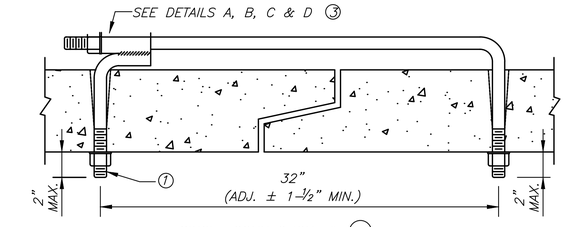
J:\Projects\2017\1701010370_Veranda Add_17370 CAD\SHTS\05 Civil\Pav\PH2\17370_05_C-552-P02.dwg

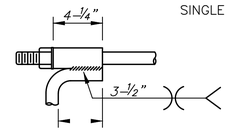


PLAN

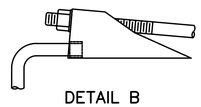


SECTION

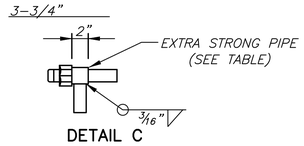




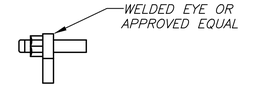
DETAIL A



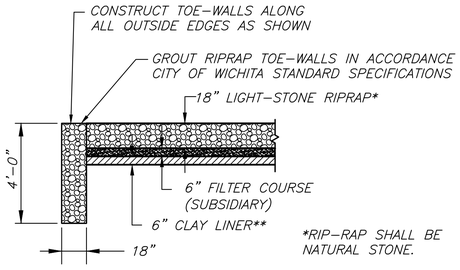
DETAIL B



DETAIL C



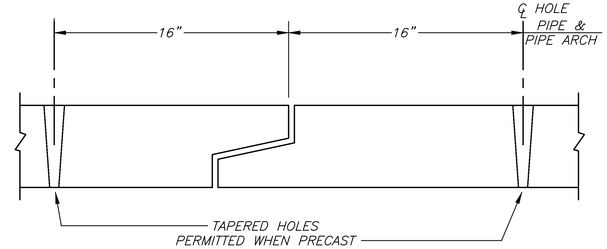
DETAIL D



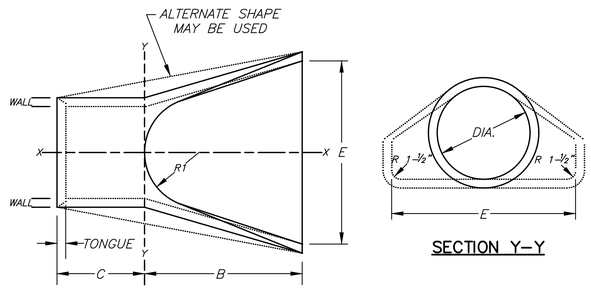
RIPRAP DETAIL

*RIP-RAP SHALL BE NATURAL STONE.

**CLAY LINER (PI=30), MOISTURE CONDITION & COMPACT TO 95% STD. DENSITY

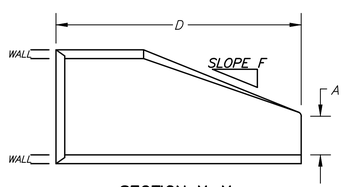


HOLES SHALL BE CAST OR DRILLED 16" FROM CENTERLINE OF JOINTS FOR BOX CULVERTS, AS SHOWN ABOVE, UNLESS FORMS ARE SET UP FOR 16" SPACING FROM OUTSIDE OF JOINT.



PIPE PLAN

SECTION Y-Y



SECTION X-X

NOTES:

FILTER COURSE, GROUTED TOE WALL AND CLAY LINER SUBSIDIARY TO "RIP RAP, LIGHT STONE".

TIES ARE SUBSIDIARY TO STORM SEWER PIPE.

TIE RODS SHALL BE GALVANIZED OR POWER WASHED AND DIPPED IN AN APPROVED ZINC RICH EPOXY PRIME PAINT AFTER FABRICATION.

RIP-RAP DIMENSIONS AT PIPE INLETS AND OUTLETS MAY BE ADJUSTED TO FIT ACTUAL FIELD CONDITIONS IF APPROVED BY THE ENGINEER.

TIES TO BE USED ONLY TO HOLD PIPE SECTIONS TOGETHER, NOT FOR PULLING SECTIONS TIGHT.

CONNECT END SECTION AND PIPE SECTIONS WITH PIPE TIES A MINIMUM OF 2 JOINTS FROM THE END SECTION.

(1) TIE ROD THREADS SHALL PROJECT TO THE INSIDE OF PIPE EXCEPT AS NOTED IN PLANS.

(2) TIE ROD THREADS SHALL BE RECESSED WHEN PIPE IS USED AS CATTLE PASS OR PEDESTRIAN TRAIL.

(3) TIES MAY BE COMPLETED WITH U-BOLT TIES, SINGLE CONNECTION TIES (AS SHOWN) OR DOUBLE CONNECTION TIES.

DIAM.	A	B	C	D	E	F	R1	TONGUE	WALL
12"	4"	2' 0"	4' 0-7/8"	6' 0-7/8"	2' 0"	3:1	9"	1-1/2"	2"
15"	6"	2' 3"	3' 10"	6' 1"	2' 6"	3:1	11"	2"	2 1/4"
18"	9"	2' 3"	3' 10"	6' 1"	3' 0"	3:1	12"	2-1/2"	2 1/2"
24"	9-1/2"	3' 7-1/2"	2' 6"	6' 1-1/2"	4' 0"	3:1	14"	2-1/2"	3"
30"	1' 0"	4' 6"	1' 7-3/4"	6' 1-3/4"	5' 0"	3:1	15"	3"	3-1/2"
36"	1' 3"	5' 3"	1' 10-3/4"	8' 1-3/4"	6' 0"	3:1	20"	3-1/2"	4"
42"	1' 9"	5' 3"	2'-11"	8' 2"	6' 6"	3:1	22"	3-3/4"	4-1/2"
48"	2' 0"	6' 0"	2' 2"	8' 2"	7' 0"	3:1	22"	4-1/4"	5"
54"	2' 3"	5' 5"	2' 11"	8' 4"	7' 6"	3:1	24"	4-3/4"	5-1/2"
60"	2' 6"	5' 0"	3' 3"	8' 3"	8' 0"	2.4:1	24"	5"	6"
66"	2' 0"	6' 6"	1' 9"	8' 3"	8' 6"	2:1	24"	5-1/2"	7"
72"	2' 0"	6' 6"	1' 9"	8' 3"	9' 0"	2:1	24"	6"	7-1/2"

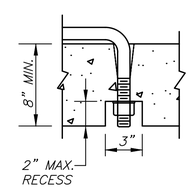
END AREA SQ.FT.	ROUND EQUIV.	SPAN	RISE	WALL	A	B	C	D	E	R1	R2	R3	R4
3.3	24"	30"	19"	3 1/4"	8-1/2"	3' 3"	2' 9"	6' 0"	4' 0"	8-1/4"	26-1/4"	3"	7"
4.1	27"	34"	22"	3 1/2"	9"	3' 10"	2' 2"	6' 0"	4' 6"	9-1/4"	29-17/32"	3"	8"
5.1	30"	38"	24"	3 3/4"	9-1/2"	4' 6"	1' 6"	6' 0"	5' 0"	10-1/4"	32-3/4"	3"	9"
6.3	33"	42"	27"	3 3/4"	10-3/8"	4' 9"	1' 3"	6' 0"	5' 6"	11-7/16"	36-3/16"	3"	10-1/2"
7.4	36"	45"	29"	4 1/2"	11 1/4"	5' 0"	3' 0"	8' 0"	6' 0"	12-1/4"	39-1/4"	3"	12"

TONGUE LENGTHS BASED ON QUINN STANDARD

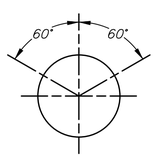
PIPE SIZE (INCHES)	ROD THREAD DIA.
12 - 27	5/8"
30 - 66	3/4"
72 - 108	1"

ROD THREAD DIA.	EXTRA STRONG PIPE INSIDE DIA.
5/8"	3/4"
3/4"	1"
1"	1-1/4"

PIPE SIZE LISTED IS INSIDE DIA. OF ROUND PIPE OR EQUIVALENT DIA. OF PIPE ARCH.



OPTIONAL RECESS DETAIL (2)



ROUND PIPE

MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON EVANS LICENSED 24423 KANSAS PROFESSIONAL ENGINEER 8/6/26

PAVING PHASE 2

VERANDA SECOND ADDITION

WICHITA, KANSAS

END SECTION DETAILS (CONT.)

PROJECT NO. 472-2023-085910

SCALE N/A

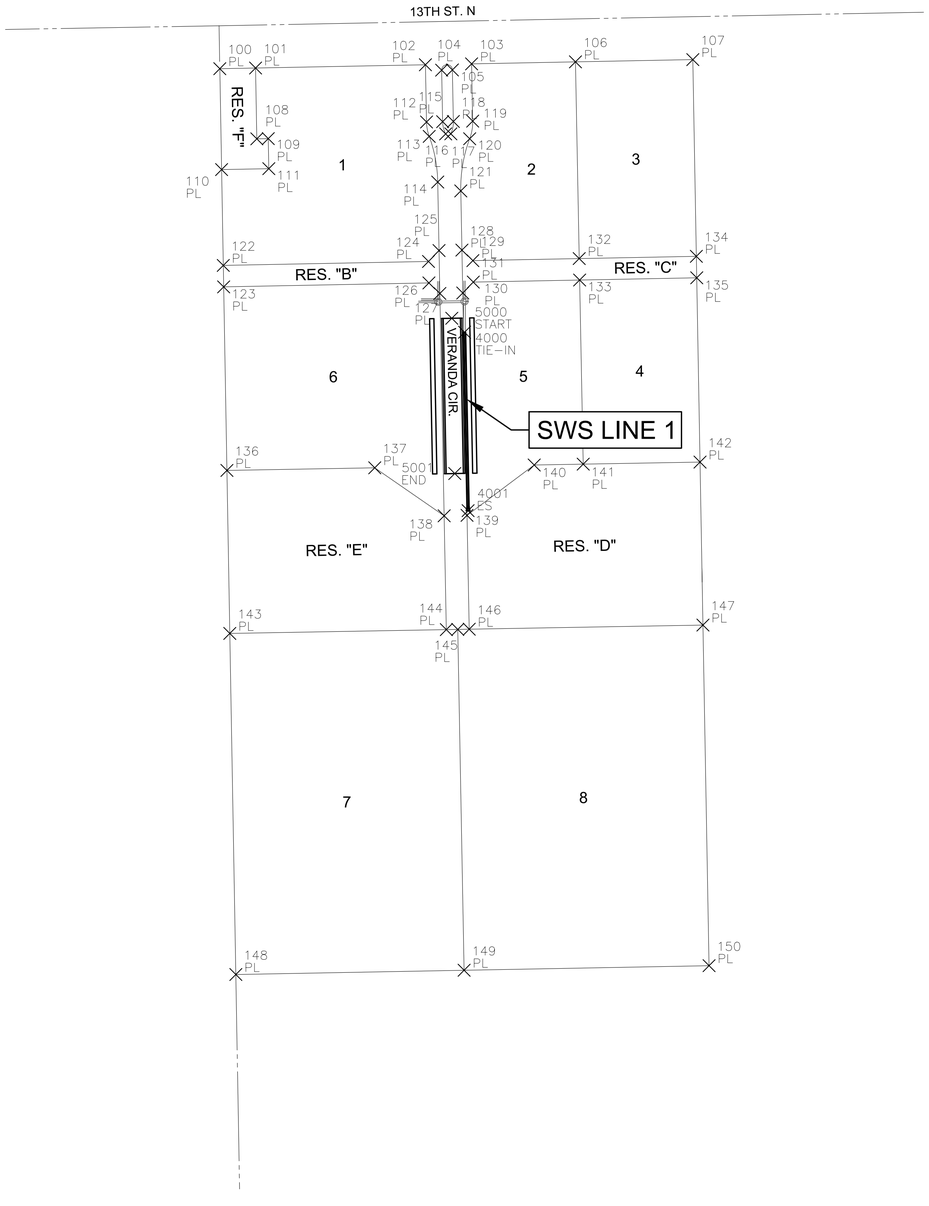
DRAWN	DESIGNED	CHECKED
HHK	DFL	SPE

NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

SHEET NO. C-554-P02
12 OF 21

PLOTTED: Wednesday, August 05, 2026 @ 11:50AM
J:\PROJECTS\2017\17010\1037D_VERANDA ADD_ 17370 CAD\SHTS\05 CIVIL\PAVP\2017370_05_C-554-P02.DWG
© 2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM. THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS, & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

PLOTTED: Wednesday, August 05, 2026 @ 11:59AM

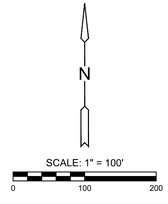


STORM WATER SEWER POINTS			
Point #	Northing	Easting	Desc.
4000	1693999.38	1683992.35	TIE–IN
4001	1693749.99	1683997.30	ES

PAVING POINTS			
Point #	Northing	Easting	Desc.
5000	1694018.88	1683974.51	START
5001	1693801.84	1683978.68	END

PLAT POINTS			
Point #	Northing	Easting	Desc.
100	1694367.70	1683650.31	PL
101	1694368.66	1683700.30	PL
102	1694373.23	1683937.68	PL
103	1694374.48	1684002.17	PL
104	1694365.67	1683960.33	PL
105	1694365.96	1683975.32	PL
106	1694377.27	1684147.32	PL
107	1694380.43	1684311.36	PL
108	1694269.68	1683702.06	PL
109	1694269.99	1683718.05	PL
110	1694226.72	1683652.81	PL
111	1694227.99	1683718.80	PL
112	1694293.23	1683939.22	PL
113	1694273.09	1683942.97	PL
114	1694209.27	1683954.84	PL
115	1694293.66	1683961.71	PL
116	1694276.54	1683965.93	PL
117	1694276.68	1683973.15	PL
118	1694293.95	1683976.71	PL
119	1694294.47	1684003.71	PL
120	1694269.79	1683999.50	PL
121	1694196.86	1683987.08	PL
122	1694092.74	1683655.18	PL
123	1694062.75	1683655.71	PL
124	1694098.27	1683941.97	PL
125	1694113.55	1683956.68	PL

PLAT POINTS			
Point #	Northing	Easting	Desc.
126	1694068.27	1683942.55	PL
127	1694053.56	1683957.84	PL
128	1694114.17	1683988.67	PL
129	1694099.46	1684003.96	PL
130	1694054.18	1683989.83	PL
131	1694069.46	1684004.54	PL
132	1694102.32	1684152.61	PL
133	1694072.33	1684153.19	PL
134	1694105.47	1684316.29	PL
135	1694075.48	1684316.82	PL
136	1693806.18	1683660.25	PL
137	1693809.84	1683866.83	PL
138	1693742.79	1683963.82	PL
139	1693743.40	1683995.81	PL
140	1693813.78	1684089.67	PL
141	1693814.99	1684158.15	PL
142	1693817.88	1684321.44	PL
143	1693578.35	1683664.28	PL
144	1693583.70	1683966.88	PL
145	1693583.99	1683982.88	PL
146	1693584.27	1683998.88	PL
147	1693590.05	1684325.51	PL
148	1693101.62	1683672.71	PL
149	1693107.57	1683991.71	PL
150	1693113.96	1684334.04	PL



EVERY ATTEMPT HAS BEEN MADE TO ENSURE ALL COORDINATE VALUES SHOWN ARE AN ACCURATE AND TRUE REPRESENTATION OF THE CURRENT PLANS. ALL VALUES ARE TO BE CONFIRMED WITH THE FINAL SIGNED PLAN SET BEFORE USE.

MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON ELLIS
LICENSED
24423
KANSAS
PROFESSIONAL ENGINEER
8/6/26

PAVING PHASE 2

VERANDA SECOND ADDITION

WICHITA, KANSAS

COORDINATE MAP

PROJECT NO. 472-2023-085910

SCALE 1" = 100'

DRAWN	DESIGNED	CHECKED
BWS	DFL	SPE

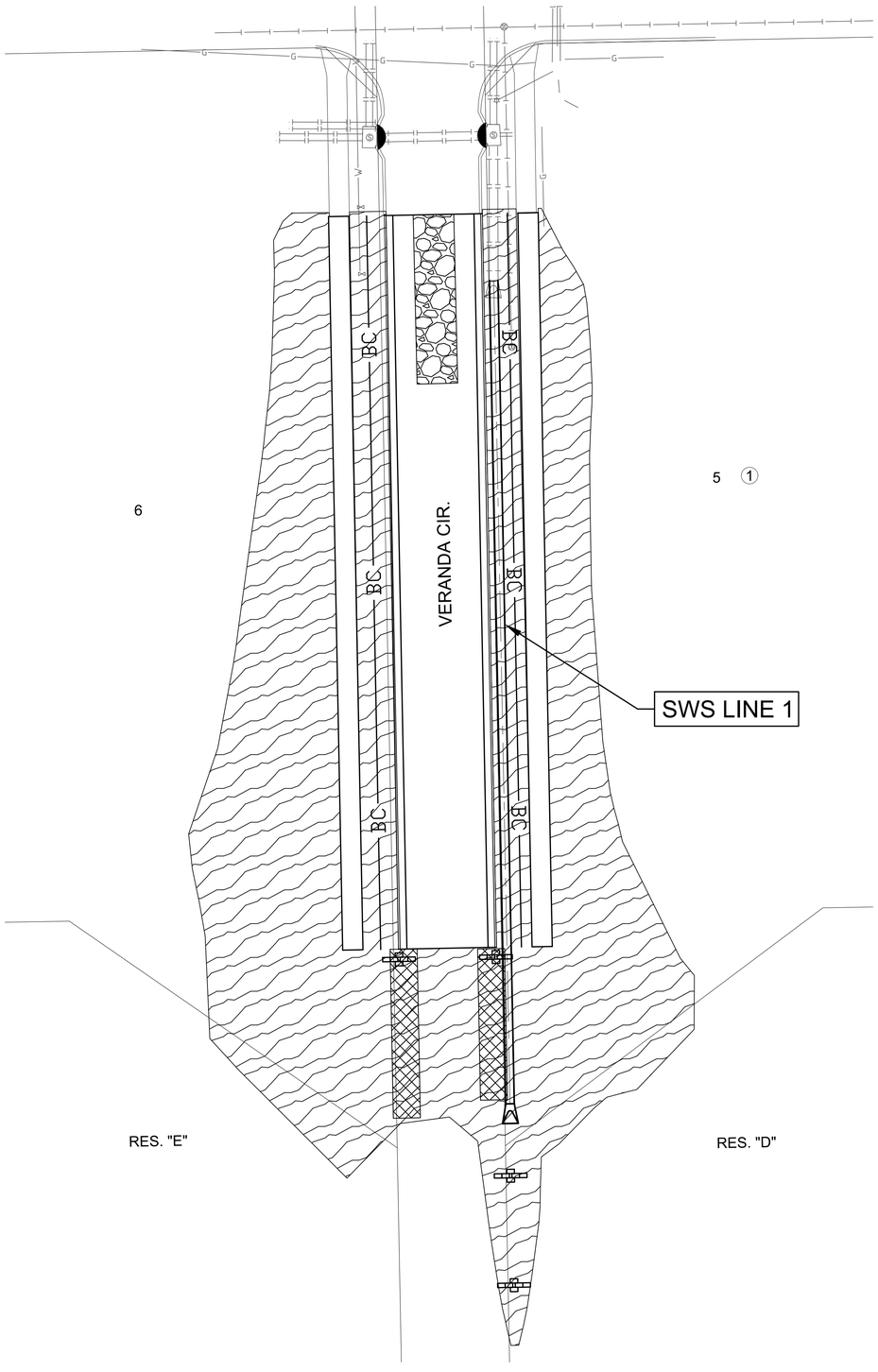
NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

SHEET NO. C-601-P02
13 OF 21

©2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS, & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

J:\PROJECTS\2011\1710\10370_VERANDA ADD_17370 CAD\SHTS\05 CIVIL\PAV\PH2\17370_05_C-601-P02.DWG

PLOTTED: Wednesday, August 05, 2026 @ 11:50AM



EROSION CONTROL/SEEDING NOTES

1. EROSION CONTROL IS TO MEET ALL FEDERAL, STATE, COUNTY AND LOCAL CODE STANDARDS.
2. TEMPORARY SEEDING: ALL AREAS DISTURBED WITH EXCEPTION OF PROPOSED STREET PAVEMENT AND AREAS PROPOSED AS NATIVE SEEDING (SEE SEEDING PLAN) SHALL BE SEEDED AND FERTILIZED AS FOLLOWS:
   - ANNUAL RYEGRASS @ 150 LBS./ACRE
   - SLOW RELEASE FERTILIZER @ 150 LBS./ACRE
3. IN THE EVENT THAT A PORTION OF THE SITE WILL REMAIN DISTURBED FOR MORE THAN 14 DAYS, PERMANENT SEEDING SHALL BE INSTALLED.
4. ALL AREAS SHALL BE FINE GRADED AND SURFACE SHALL BE FREE FROM STICKS, SMALL STONES, AND OTHER EXTRANEOUS MATERIALS.
5. CONTRACTOR SHALL PROVIDE EROSION PROTECTION THROUGHOUT PROJECT CONSTRUCTION. THE PLAN PROVIDED HERE IS FOR FINAL PROTECTION, VARIOUS PHASES OF THIS PLAN SHALL BE IMPLEMENTED OR MODIFIED TO CONTROL EROSION. MODIFICATIONS OF THE PLAN SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
6. SEEDING AREAS SHALL BE PREPARED FOR PLANTING WITH COMMON AGRICULTURAL TECHNIQUES. APPROVE WITH OWNER'S REPRESENTATIVE BEFORE PLANTING.
7. ALL SEED SHALL BE DISTRIBUTED WITH AN ACCEPTABLE DRILL INTENDED FOR SUCH OPERATIONS, OR OTHER EQUIPMENT APPROVED BY THE OWNER'S REPRESENTATIVE. SEEDING DEPTH SHALL BE 1/4 OF AN INCH.
8. ALL SEEDED AREAS SHALL BE IMMEDIATELY MULCHED WITH PRAIRIE HAY AT 2 TONS/ACRE. ANCHOR MULCH BY CRIMPING INTO TOPSOIL WITH SUITABLE MECHANICAL EQUIPMENT.
9. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND IMPLEMENTING ALL EROSION CONTROL.
10. TURF REINFORCEMENT MAT SHALL BE PLACED OVER PERMANENT SEEDING MIXES PER THE MANUFACTURER'S RECOMMENDATIONS WHERE INDICATED.
11. IN ORDER TO PREVENT SILT OR SEDIMENT FROM ENTERING ADJACENT PROPERTIES, APPROPRIATE BMP'S SHALL BE IMPLEMENTED WITHIN THE PROJECT.
12. ANY MUD TRACKED ONTO ADJACENT PAVED AREAS OR STREETS SHALL BE REMOVED AT THE END OF EACH WORK DAY.
13. PER THE REQUIREMENTS OF THE NOI/SWPPP, BMP INSPECTION REPORTS SHALL BE COMPLETED BY THE CONTRACTOR WEEKLY AND WITHIN 24 HOURS AFTER A 1/2" RAIN. REPORTS SHALL BE KEPT WITH THE SWPPP ON SITE.
14. CONTRACTOR SHALL PROVIDE A SIGN NEAR THE ENTRANCE WITH THE FOLLOWING INFORMATION:

    A. CONTACT NAME AND INFORMATION
    B. A COPY OF THE NOI
    C. LOCATION OF SWPPP

LEGEND

- W — EXISTING WATERLINE
- EXISTING SANITARY SEWER
- EXISTING STORMWATER SEWER
- UGT — EXISTING UNDERGROUND TELEPHONE
- UGE — EXISTING UNDERGROUND ELECTRICAL
- OHE — EXISTING OVERHEAD ELECTRICAL
- G — EXISTING GASLINE
- FOC — EXISTING FIBER OPTIC LINE
- BC — BACK OF CURB PROTECTION (440 L.F)
- STABILIZED CONSTRUCTION ENTRANCE
- CURLEX OR EXCELSIOR BLANKET (APPROX. 85 S.Y.)
- ANNUAL RYEGRASS (APPROX. 0.51 ACRES)
- DITCH CHECK (4)
- CURB INLET PROTECTION (2)

N

SCALE: 1"=20'

0 20 40

NOTES

CONTRACTOR TO MAINTAIN EXISTING BMPS FROM PREVIOUS PROJECTS.

MKEC
Wichita, KS • 316.684.9600

SCOTT PRESTON ELLIS
LICENSED
24423
KANSAS
PROFESSIONAL ENGINEER
8/6/26

PAVING PHASE 2

VERANDA SECOND ADDITION

WICHITA, KANSAS

EROSION CONTROL PLAN

PROJECT NO. 472-2023-085910

SCALE 1" = 20'

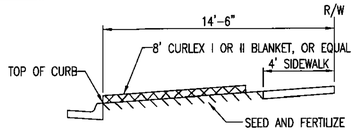
DRAWN	DESIGNED	CHECKED
BWS	DFL	SPE

NO.	REVISION	DATE
0	ISSUED FOR CONSTRUCTION	08/05/2026

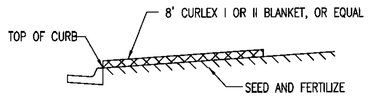
SHEET NO. C-701-P02
14 OF 21

©2026 MKEC ENGINEERING, INC. ALL RIGHTS RESERVED WWW.MKEC.COM THESE DRAWINGS AND THEIR CONTENTS, INCLUDING, BUT NOT LIMITED TO, ALL CONCEPTS, DESIGNS, & IDEAS ARE THE EXCLUSIVE PROPERTY OF MKEC ENGINEERING, INC. (MKEC), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY WITHOUT THE EXPRESS CONSENT OF MKEC.

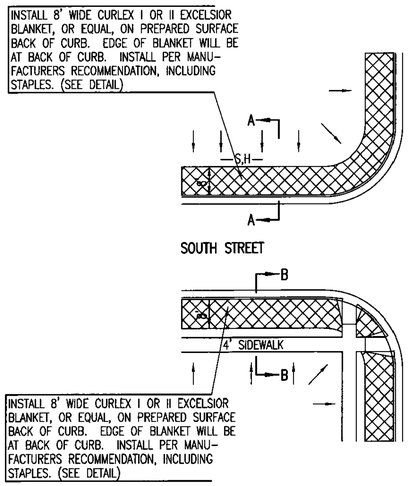
J:\PROJECTS\2017\17010\1370_VERANDA ADD_ 17370 CAD\SHTS\05 CIVIL\PAVPH2\17370_05_C-701-P02.DWG



SECTION B-B



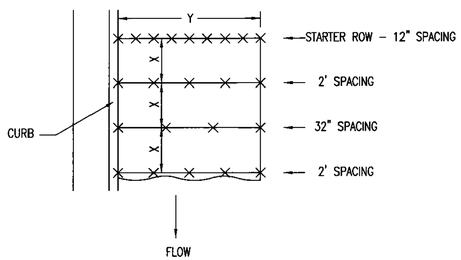
SECTION A-A

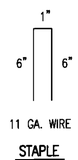


GENERAL NOTES

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



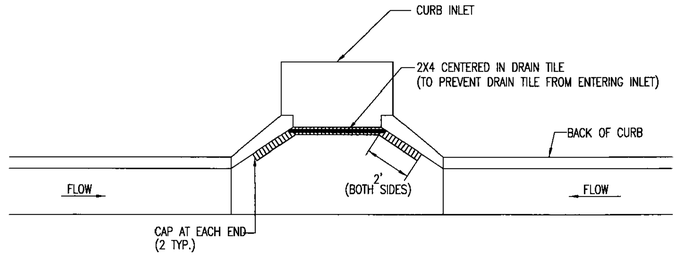


STAPLE

STAPLE PATTERN

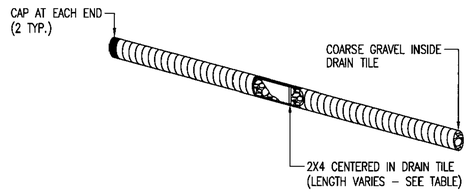
NOTES: USE 6" SEAM OVERLAP
(X & Y = RECOMMENDED BY MANUFACTURE)

DETAILS FOR APPROVED EROSION CONTROL MAT



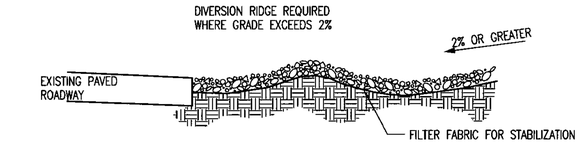
NOTE:
PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

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

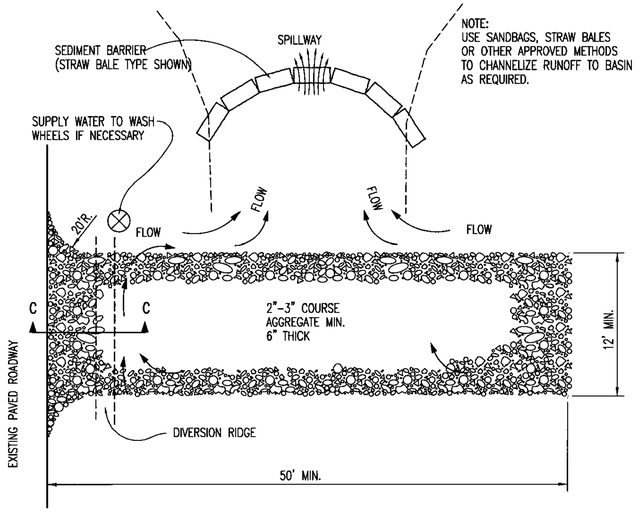


CURB INLET PROTECTION

4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

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.

REVISION DATE: MAY 2013



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

CITY ENGINEER
GARY JANZEN, P.E.

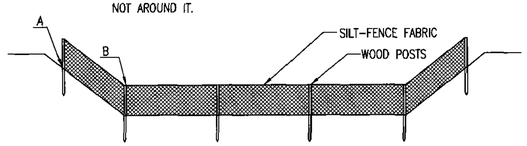
PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910		##-##-##

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

SHEET
C-751-P02
15 OF 21

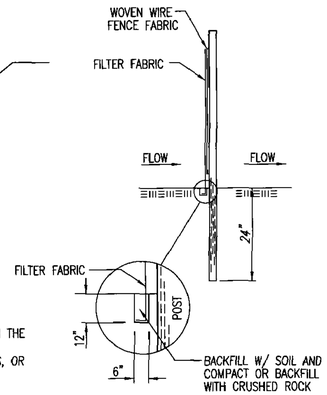
SW-501

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.

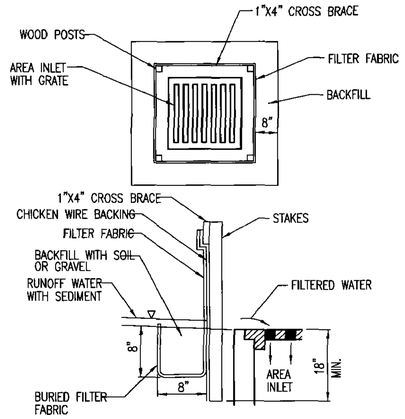
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

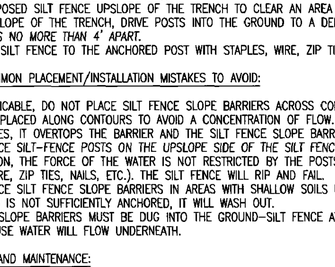
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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?

GARY L. JANZEN LICENSED KANSAS PROFESSIONAL ENGINEER
05/21/13

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

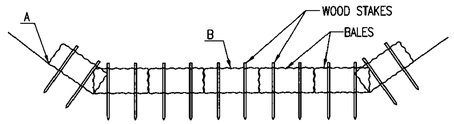
PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910		##-##-##

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

SHEET
C-752-P02
16 OF 21

SW-502

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 CHECK SPACING

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".

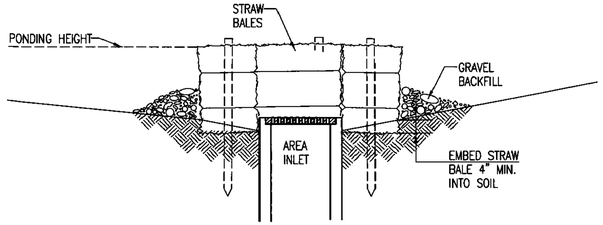
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

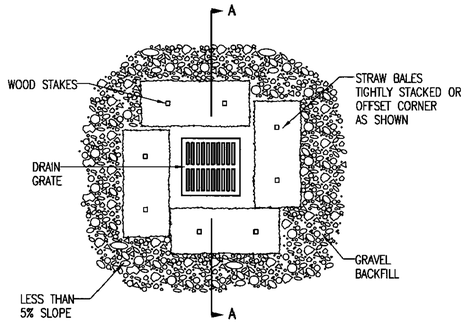
INSPECTION AND MAINTENANCE:

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.

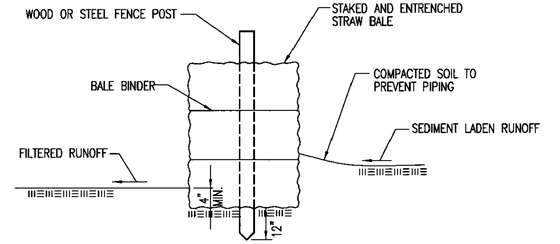
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

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?

REVISION DATE: MAY 2013

GARY L. JANZEN LICENSED 16294 KANSAS PROFESSIONAL ENGINEER
05/30/13

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
472-2023-085910		##-##-##

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

SHEET
C-753-P02
17 OF 21

SW-503

GENERAL NOTES

1. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.

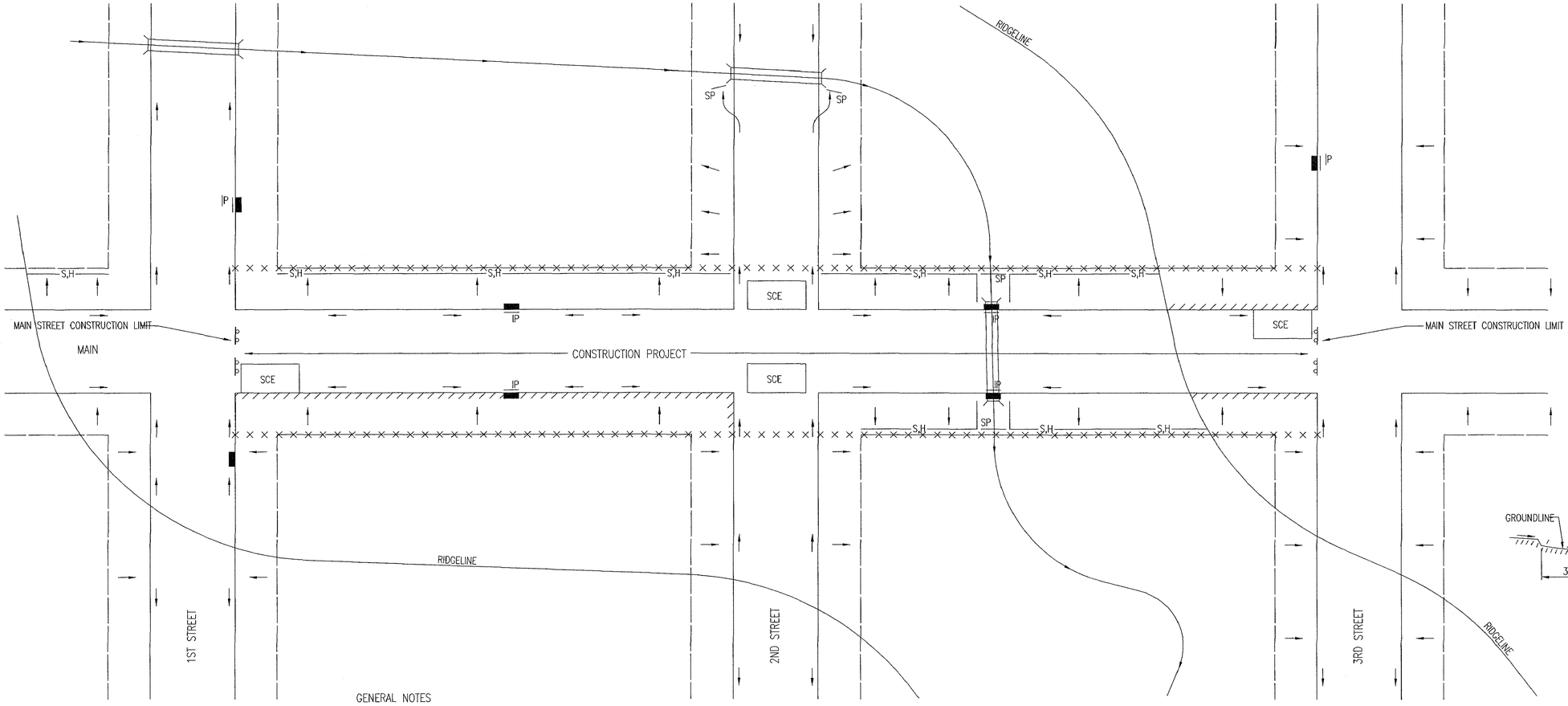
2. EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.

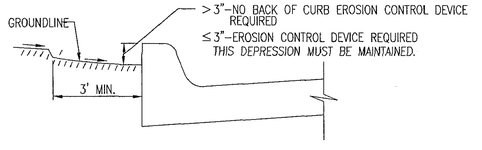
3. IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.

4. FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.

5. FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.

6. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.





CURB BACKFILL DETAIL

THIS IS A TEMPORARY MEASURE ONLY, WHEN APPROVED BY THE PROJECT ENGINEER. THE DIRT GRADE BEHIND THE CURB SHALL BE BROUGHT TO THE TOP OF CURB, WITH TEMPORARY EROSION CONTROL MAT OR PERMANENT VEGETATION PLACED, PRIOR TO THE COMPLETION OF ALL PROJECTS.

LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- × × × × × R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP — INLET PROTECTION
- S,H — SILT FENCE OR HAY BALE BARRIER
- SP — STREAM PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- BACK OF CURB PROTECTION

GENERAL NOTES

1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.

2. THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.

3. EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.

4. INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.

5. EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.

6. STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.

7. ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.

8. THE CONTACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
   A. THE DEVICE REQUIRED WILL BE APPROVED EROSION CONTROL MAT LISTED ON THE CITY'S APPROVED MATERIAL LIST. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs – BACK OF CURB SEDIMENT BARRIER DETAILS)
   B. THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
   C. ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
   D. SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)

GARY L. JANZEN — LICENSED PROFESSIONAL ENGINEER — 16294 — KANSAS — PROFESSIONAL ENGINEER
06/05/15

REVISION: JUNE 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

STREET IMPROVEMENT PROJECTS

CITY ENGINEER
GARY JANZEN, P.E.

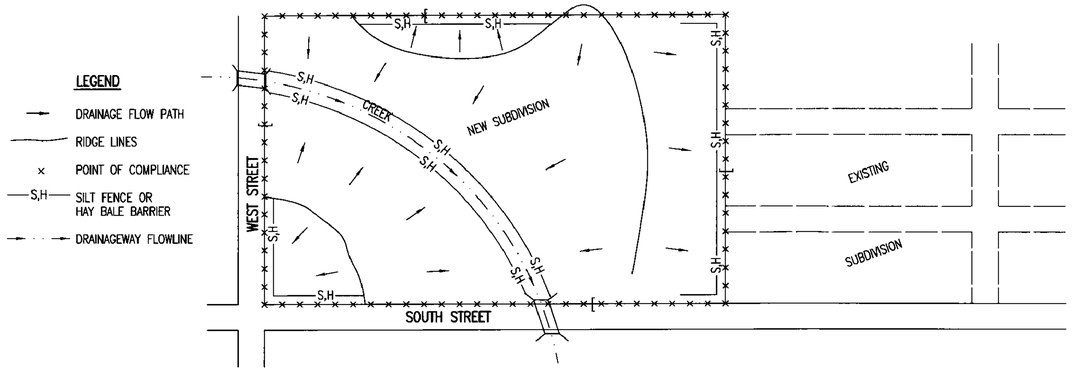
PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910		##-##-##

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

SHEET
C-754-P02
18 OF 21

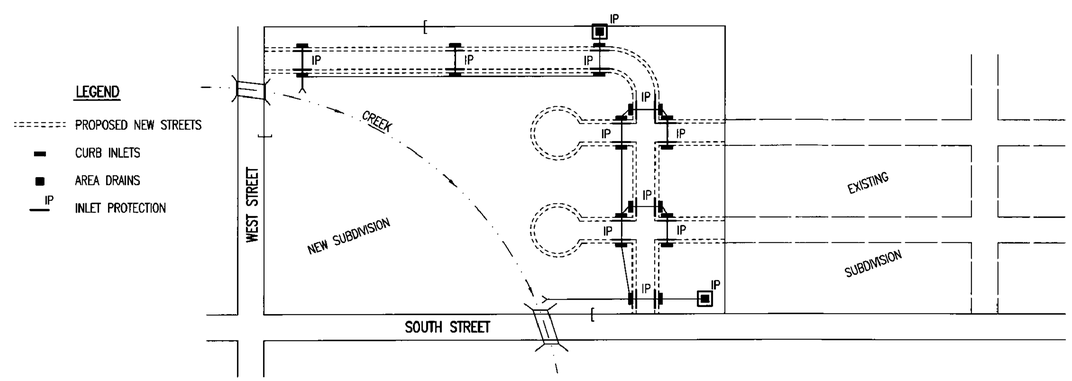
SW-504

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



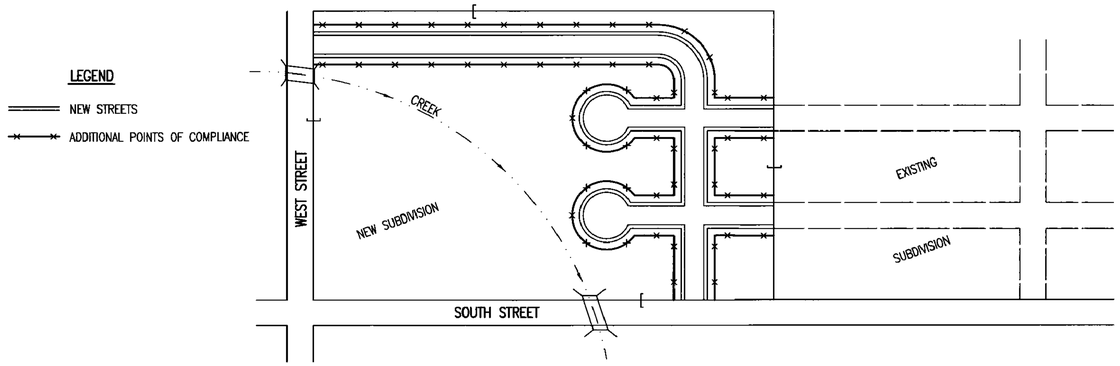
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
8. WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

PHASE 2 – INSTALLATION OF STORM SEWER



1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
7. ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
8. ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

PHASE 3 – STREET CONSTRUCTION

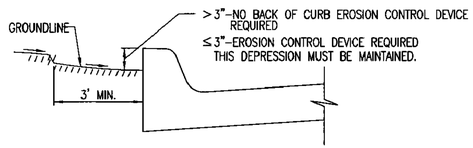


1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
   A. SUMP AREAS – INLET PROTECTION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

GENERAL NOTES

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

SEE DETAIL SHEET FOR BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL (STREET CONSTRUCTION ONLY)

THIS IS A TEMPORARY MEASURE ONLY, WHEN APPROVED BY THE PROJECT ENGINEER. THE DIRT GRADE BEHIND THE CURB SHALL BE BROUGHT TO THE TOP OF CURB, WITH TEMPORARY EROSION CONTROL MAT OR PERMANENT VEGETATION PLACED, PRIOR TO THE COMPLETION OF ALL PROJECTS.

REVISION DATE: MAY 2013

GARY L. JANZEN LICENSED 18294 KANSAS PROFESSIONAL ENGINEER
05/13/13

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SUBDIVISION DEVELOPMENT PROCESS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-2023-085910		##-##-##

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

SHEET
C-755-P02
19 OF 21

SW-505

VERANDA SECOND ADDITION
VERANDA CIR.
CROSS SECTIONS

VERANDA CIR.

14+76.97

1386.09 0

14+50.00

1386.26 0 1384.11

14+00.00

1386.56 0 1384.32

13+50.00

1386.86 0 1383.44

13+00.00

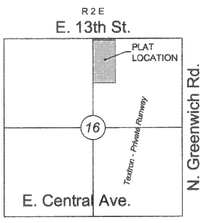
1387.02 0 1382.47

12+59.89

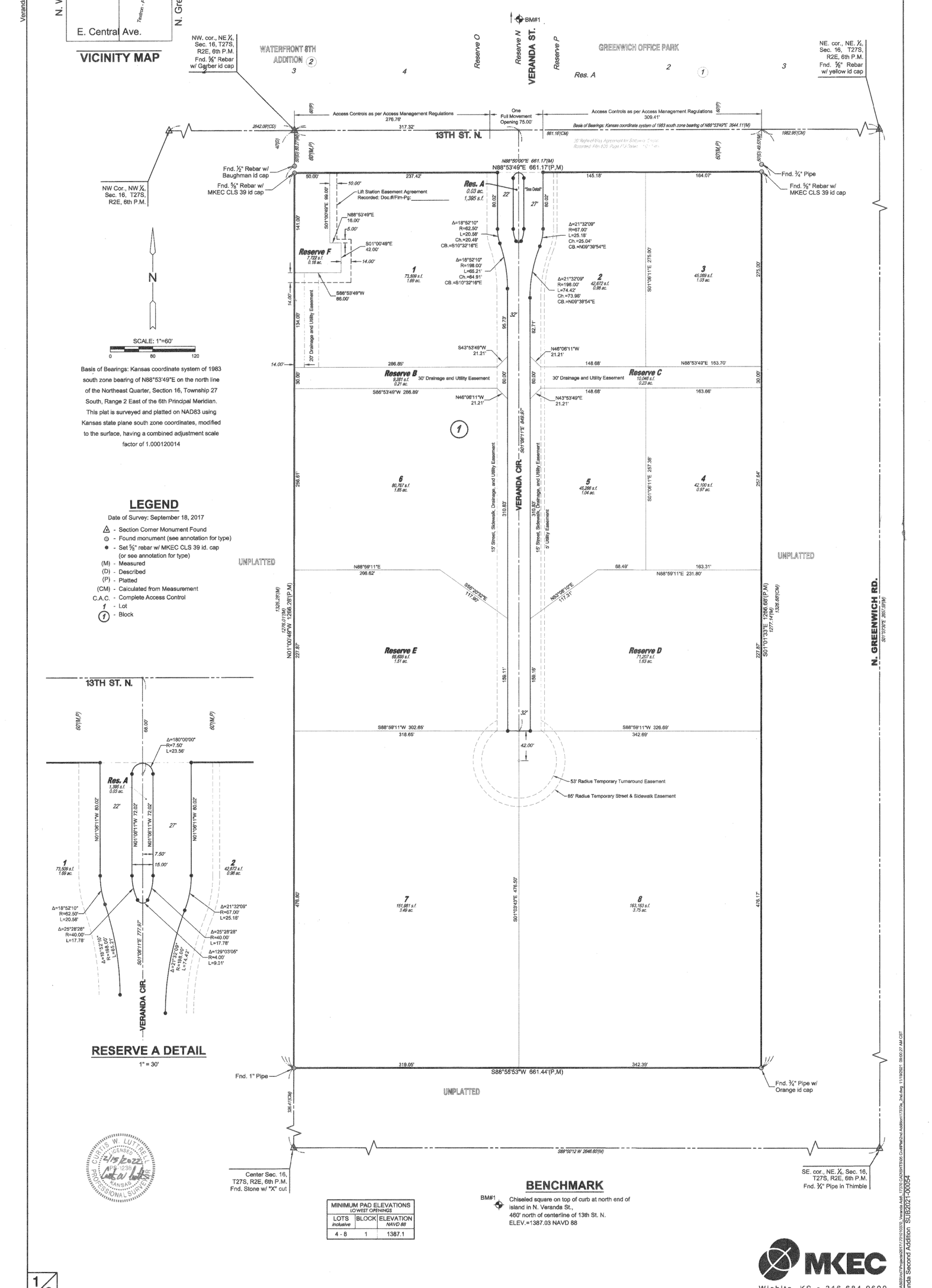
1386.76 0 1382.26

17370_05_C-801-P02

FINAL PLAT
VERANDA SECOND ADDITION
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS
a replat of Veranda Addition, an addition to Wichita, Sedgwick County, Kansas



VICINITY MAP



RESERVE A DETAIL
1" = 30'

LEGEND
Date of Survey: September 18, 2017

- △ - Section Corner Monument Found
- ◎ - Found monument (see annotation for type)
- ● - Set ⅝" rebar w/ MKEC CLS 39 id. cap (or see annotation for type)
- (M) - Measured
- (D) - Described
- (P) - Platted
- (CM) - Calculated from Measurement
- C.A.C. - Complete Access Control
- *1* - Lot
- (1) - Block

SCALE: 1"=60'
0 60 120

Basis of Bearings: Kansas coordinate system of 1983 south zone bearing of N88°53'49"E on the north line of the Northeast Quarter, Section 16, Township 27 South, Range 2 East of the 6th Principal Meridian. This plat is surveyed and platted on NAD83 using Kansas state plane south zone coordinates, modified to the surface, having a combined adjustment scale factor of 1.000120014

MINIMUM PAD ELEVATIONS LOWEST OPENINGS		
LOTS *Inclusive*	BLOCK	ELEVATION *NAVD 88*
4 - 8	1	1387.1

BENCHMARK
BM#1 Chiseled square on top of curb at north end of island in N. Veranda St., 460' north of centerline of 13th St. N. ELEV.=1387.03 NAVD 88

CURTIS W. LUTTRELL CENSED 2238 KANSAS PROFESSIONAL SURVEYOR 2/15/22

MKEC Wichita, KS • 316.684.9600