STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	1	37

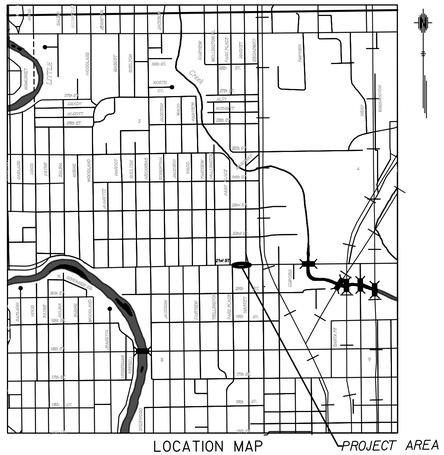
INDEX OF SHEETS

1	Cover Sheet
2	General notes
3	Coordinate Control & Geometric Data
4	Typical Sections
5	Plan Sheet
6	Plan Sheet Details
7	Site Details
8	Light Fixtures
9	Electrical Specifications
10	Water Service Details
11	Nyloplast 24" Drain Basin
12	Tree, Tree Grate, & Irrigation Details
13	Storm Sewer Plan & Profile
14	Curb & Gutter Details
15	Wheelchair Ram Details
16	Driveway Details
17 - 19	Erosion Control Details
20	Summary of Quantities
21	Construction Phasing
22 - 27	Traffic Control Standards
28	Pavement Marking Plans
29 - 30	Pavement Marking Details
31 - 37	21st Street Cross Sections

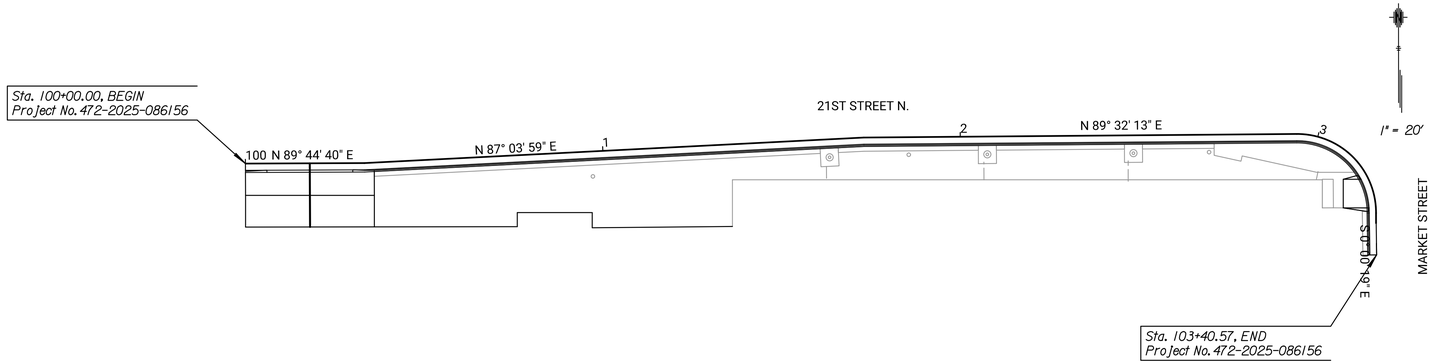
21ST AND MARKET IMPROVEMENTS FROM PARK PLACE TO MARKET CITY OF WICHITA, KANSAS

C.O.W. PROJ. NO. – 472–2025–086156
ORG CODE: – 47474325
MUNIS NO. – E5081

GRADING
SIDEWALK
PAVEMENT MARKING
STORM SEWER

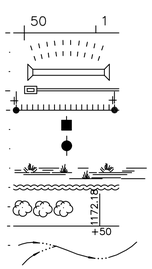


LOCATION MAP



CONVENTIONAL SIGNS

COUNTY LINE	CENTER LINE OF PROJECT
CITY LIMITS	TERRACE
STATE OR NATIONAL LINE	CULVERTS
TOWNSHIP, SECTION or GRANT LINE	DROP INLET & STORM SEWER
PROPERTY LINE	ACCESS CONTROL
HIGHWAY FENCE	POWER POLE
EXISTING FENCE	TELEPHONE POLE
GUARD FENCE	MARSH
CONSTRUCTION LIMITS	HEDGE
RIGHT OF WAY LINE	TREES
TRAVELED WAY	PROFILE ELEVATION
RAILROADS	STREAM or CREEK



GROSS LENGTH OF PROJECT	340.57	
EXCEPTIONS	0.00 FT.	
NET LENGTH OF PROJECT	340.57 FT.	0.065 MILES
NET LENGTH OF BRIDGES	0.00 FT.	0.00 MILES
NET LENGTH OF ROAD	340.57 FT.	0.065 MILES



PREPARED BY
TRANSYSTEMS
100 N. BROADWAY, SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000
FAX: 316-462-5629

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

dtmichae
6/8/2026 - 4:13:07 PM - c:\transystems\pw_local\transyscorp-pw1\w-e_dtmichael\d1524369\C-COV-A001-101.dgn

GENERAL NOTES

The Contractor shall erect and maintain traffic control devices in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) subject to the Engineer's approval.

Utility service lines, poles, valve boxes, gas meters and etcetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

The Contractor shall not start work on the project until the Project Inspector assigned to the project is present on the site. Any work done without inspection will be required to be uncovered for inspection.

The Contractor will be required to provide a minimum advance notice of forty-eight (48) hours to utility companies prior to excavation or working adjacent to utilities.

A full depth saw cut of the existing pavement thickness shall be provided at locations where proposed construction abuts an existing surface course of pavement where the existing pavement is to be removed. Sawed joints to facilitate removal within six (6) 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 directly and this cost shall be considered SUBSIDIARY to the removal of the surface or pavement.

All project waste, including any trees, milled asphalt, rubble from miscellaneous structures, abandoned pipes, excess excavation, etc. shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance, and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a floodplain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.

The Contractor shall be responsible for preserving shown property irons and quarter section corners. The Contractor will be required to re-establish any shown property irons or quarter section corners which are damaged or destroyed by the construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws. This work will not be paid for directly, but shall be considered SUBSIDIARY to other pay items of work in the contract.

All water mains and appurtenances shall be installed in accordance with City of Wichita, Kansas Standard Specifications for Water Main Installations NO. PW005240.

The Water Department 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, water boxes, or fire hydrants damaged during construction shall be repaired by the Contractor at his own expense.

Opening and closing of water valves shall be done slowly to prevent damage to the water distribution system from water hammer. All valves closed by the Contractor must be opened as new construction permits. Project Inspector must ascertain that any valve closed by the Contractor is reopened. Contractor will be permitted to operate water valves only when the Project Inspector assigned to the project is present.

Existing underground utilities are shown at estimated depths. The Contractor shall verify the exact depths of underground utilities that are critical to the construction before beginning work. The cost for this shall be SUBSIDIARY to the project.

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

The Contractor shall comply with all applicable safety regulations.

The Contractor is made aware that they will be working in close proximity of existing utilities. Any conflicts with such utilities shall be reported to the Engineer. The Contractor shall coordinate with the utility companies to locate any existing utilities that have not been previously located. The Contractor shall coordinate the construction of this project with the relocation of any existing utilities by the utility companies.

Areas over-excavated in pavement removal shall be filled to subgrade elevation and compacted to 95% Std. Density.

Prior to bidding the project, each bidder shall visit the site and satisfy themselves of surface and subsurface conditions. Each bidder shall also fully inform themselves as to the extent of "Site Clearing and Site Restoration" to be performed.

The lump sum bid item "Removal of Existing Structures" shall INCLUDE all costs for the removal of signs, foundations, light pole bases, abandoned water meters, manholes, pole bases, fences, traffic service boxes, planter boxes, stumps, traffic signal appurtenances, sprinkler heads, irrigation control devices, drain pipes (≤10"), aprons, flumes, valve boxes, pavement markings, guard posts, wheel chair ramps, concrete barriers, monitoring wells, abandoned pipes, parking blocks, and any other item(s) slated for removal for which a pay item is not provided for in the proposal.

The Contractor shall provide an on-site office trailer or building as specified in the Special Provisions during all phases of project construction or unless otherwise approved by the Engineer. The on-site office shall be equipped with a telephone and electrical service. This item shall be bid as "Construction Field Office and Lab (Type A)".

The Contractor shall be responsible for implementing and maintaining erosion control methods during construction to prevent unnecessary silt/sediment discharge through downstream properties and/or storm sewer systems. The Contractor shall install and maintain erosion controls as directed by the Engineer. These controls may include but not be limited to: silt fences, gravel sediment traps, temporary mulching or other controls necessary to inhibit sediment runoff during construction. Sidewalk grades shall match existing grades at the property line unless specified otherwise in the plans.

Existing SWS pipes that will be connected to new inlets shall be flushed and cleaned from the first existing junction with all debris removed prior to hook-up. This work, along with any connections to existing manholes and/or inlets, shall be SUBSIDIARY to the bid item, "Connect to Existing Structure".

Flowline Elevations shown on plans are to the flowline of gutter, unless specified otherwise. No allowance is made for drops at inlet.

All construction work and material in this project shall comply with City of Wichita Standard Specifications for the contruction of city projects unless otherwise noted in the plans or special provisions.

The Contractor is to provide all safety barriers, fencing, etc. around construction activities as required by local regulations as a minimum safety standard. All construction activity must be contained within the limits of the project, where no limits are shown, a minimum of two linear feet from paving.

The existing facilities shall remain open to the public during construction activity. The Contractor shall make every effort to minimize disruption impacts during construction and protect the project site, and the general public, during work.

The Contractor shall restore to the original condition, areas disturbed by construction operations, and shall be responsible for all damages and associated costs at no additional expense to the owner. This includes, but is not limited to, damage to existing pavements, landscaping and irrigation systems.

Where pavement is identified to be removed, the Contractor shall remove pavement to the extents indicated on the plans or to the nearest existing joint. Where pavement is to be removed without joints, saw cut existing pavements and remove carefully so as to not damage pavements to remain.

The Contractor shall remove existing road signs that interfere with construction. Signs damaged thru negligence of the Contractor shall be replaced by the Contractor at no cost to the city. The Contractor shall stockpile the signs along the R/W at a central location for removal by city forces.

UTILITY OWNERS

AT&T
c/o Jason Edwards
154 N. Broadway, Room 210
Wichita, KS 67202
Phone: 316-268-2008

Cox Communications
c/o Matt Bortz
901 George Washington Blvd.
Wichita, KS 67211
Phone: 316-272-2081

Evergy
c/o Sandi Pierce
1900 E. Central
Wichita, KS 67201
Phone: 316-261-6389

Kansas Gas Service
c/o Adam Knolla
1021 East 26th Street North
Wichita, KS 67219-4308
Phone: 316-832-3123

Black Hills Energy
c/o Chris Kelly
2330 N. Hoover
Wichita, KS 67205
Phone: 316-554-6300

KsFiberNet
c/o Cody Corbet
121 N. Mead Street, Ste. 200
Wichita, KS 67202
Phone: 316-712-6016

Ideatek
c/o Chad Duvall
111 Old Mill Lane
Buhler, KS 67522
Phone: 620-474-9928

Water
City Of Wichita Water Dept.
c/o Scott Macy
City Hall, 455 N. Main, 8th Floor
Wichita, KS 67202
Phone: 316-268-4555

Storm Water
City Of Wichita Storm Water
c/o Kelly Fleming
City Hall, 455 N. Main, 8th Floor
Wichita, KS 67202
Phone: 316-268-4545

Traffic Signals
City Of Wichita, Traffic Dept.
c/o Mike Armour, PE
City Hall, 455 N. Main, 7th Floor
Wichita, KS 67202
Phone: 316-268-4393

Sanitary Sewer
City Of Wichita, Sanitary Sewer
c/o Jeff Crosby
City Hall, 455 N. Main, 8th Floor
Wichita, KS 67202
Phone: 316-268-4329

Utility Notes:

Visual indications of utilities are as shown. Underground locations shown, as furnished by their lessors, are approximate and should be verified in the field at the time of construction. For actual field locations of underground utilities, call 1-800-344-7233. Verification of utilities is the Contractor's responsibility.

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-2025-086156
SCALE: -
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: GJR
CHECKED BY: MDB

SHEET TITLE:
GENERAL NOTES

SHEET NO.
2
SHEET 2 OF 37

dmmckee
6/8/2026 - 4:13:12 PM - c:\transystems\pw_local\transyscorp-pw1\la-e_dmmckee\d1524369\C-GEN-M01-101.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

PROJECT CONTROL AND COORDINATE DATA						
POINT NUMBER	STATION	OFFSET	SIDE	DESCRIPTION	NORTHING	EASTING
101	100+00.00	0.00	N/A	P.T. / Beginning of 21st. Alignment, 21st. Street	383971.32	17546868.04
102	100+33.28	0.00	N/A	P.I., 21st. Alignment, 21st. Street	383971.47	17546901.31
103	101+73.00	0.00	N/A	P.I., 21st. Alignment, 21st. Street	383978.64	17547040.83
104	102+94.05	0.00	N/A	P.C., 21st. Alignment, 21st. Street	383979.63	17547161.64
105	103+28.89	0.00	N/A	P.T., 21st. Alignment, 21st. Street	383957.49	17547184.07
106	103+31.71	0.00	N/A	P.T., 21st. Alignment, 21st. Street	383954.67	17547184.07
107	103+40.57	0.00	N/A	P.T., End of 21st. Alignment, 21st. Street	383945.81	17547184.24
201	102+94.05	22.00	Rt.	19.5' Radius (B.O.C.)	383957.60	17547162.07
301	100+00.00	4.11	Rt.	Connect to Exist. Inlet	383967.21	17546868.05
302	100+57.11	13.88	Rt.	Junction Box	383958.82	17546925.83
303	101+21.78	17.19	Rt.	Junction Box	383958.83	17546990.58
304	101+44.94	20.51	Rt.	Connect to Inlet	383956.69	17547013.88
401	100+33.28	2.50	Rt.	Begin Taper (Back of Curb)	383968.97	17546901.38
402	101+72.95	2.50	Rt.	End Taper (Back of Curb)	383976.12	17547040.93

PROJECT SURVEY CONTROL & DATUM BENCHMARK

Horizontal - Kansas Regional Coordinate System (KRCS)
USA COUNTY KS/KRCS 17 Wichita
NAD83 (2011) LCC (US Ft)

Vertical - BM #1 (Prev TranSystems Project) (MS #2)
Square Cut in Top of Curb
Elevation = 1311.90 (NAVD88 NCAT Conversion)
Prev. Elev. 1124.14 + 1187.4 = 1311.54 (NGVD29)
N: 383,940.46
E: 17,546,839.52
Datum: NAVD88

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

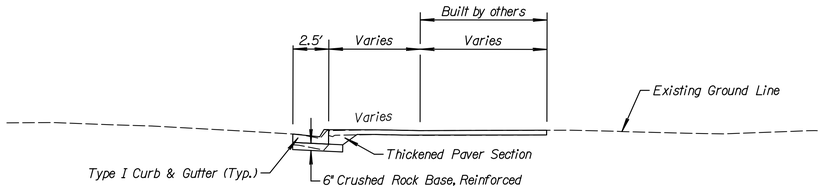
PROJ NO: 472-2025-086156
SCALE: -
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: GJR
CHECKED BY: MDB

SHEET TITLE:
COORDINATE CONTROL & GEOMETRIC DATA

SHEET NO.
3
SHEET 3 OF 37

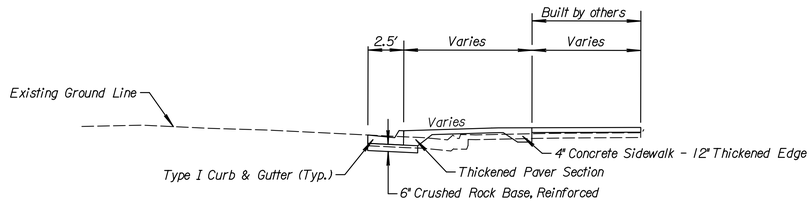
dmmckee
6/8/2026 - 4:13:27 PM - c:\transystems\ow_local\transyscorp-pw1a-e_dmmckee\d1524369\C-CDS-M01-101.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



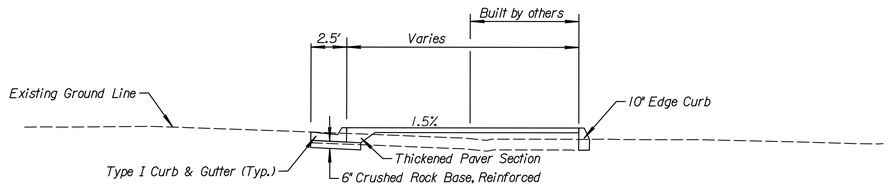
TYPICAL SECTION

Sta. 100+00.00 to Sta. 101+35.10
Sta. 102+47.85 to Sta. 103+40.57



TYPICAL SECTION

Sta. 101+60.52 to Sta. 102+47.85



TYPICAL SECTION

Sta. 101+35.10 to Sta. 101+60.52

Note:
The sections shown are typical. See Plans for variations.

Refer to Plans & Cross Sections for R/W dimensions.

Bottom 6" of Compaction is SUBSIDIARY. This includes but not limited to the compaction under the curb & gutter.

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/9/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:

TYPICAL SECTIONS
DODGE STREET
IMPROVEMENTS

SHEET NO.
4
SHEET 4 OF 37

dmmckee
6/9/2026 - 3:47:17 PM - c:\transystems\ow_local\transyscorp-pw1a-e_dmmckee\d152436\IC-TYP-M01-101.dgn

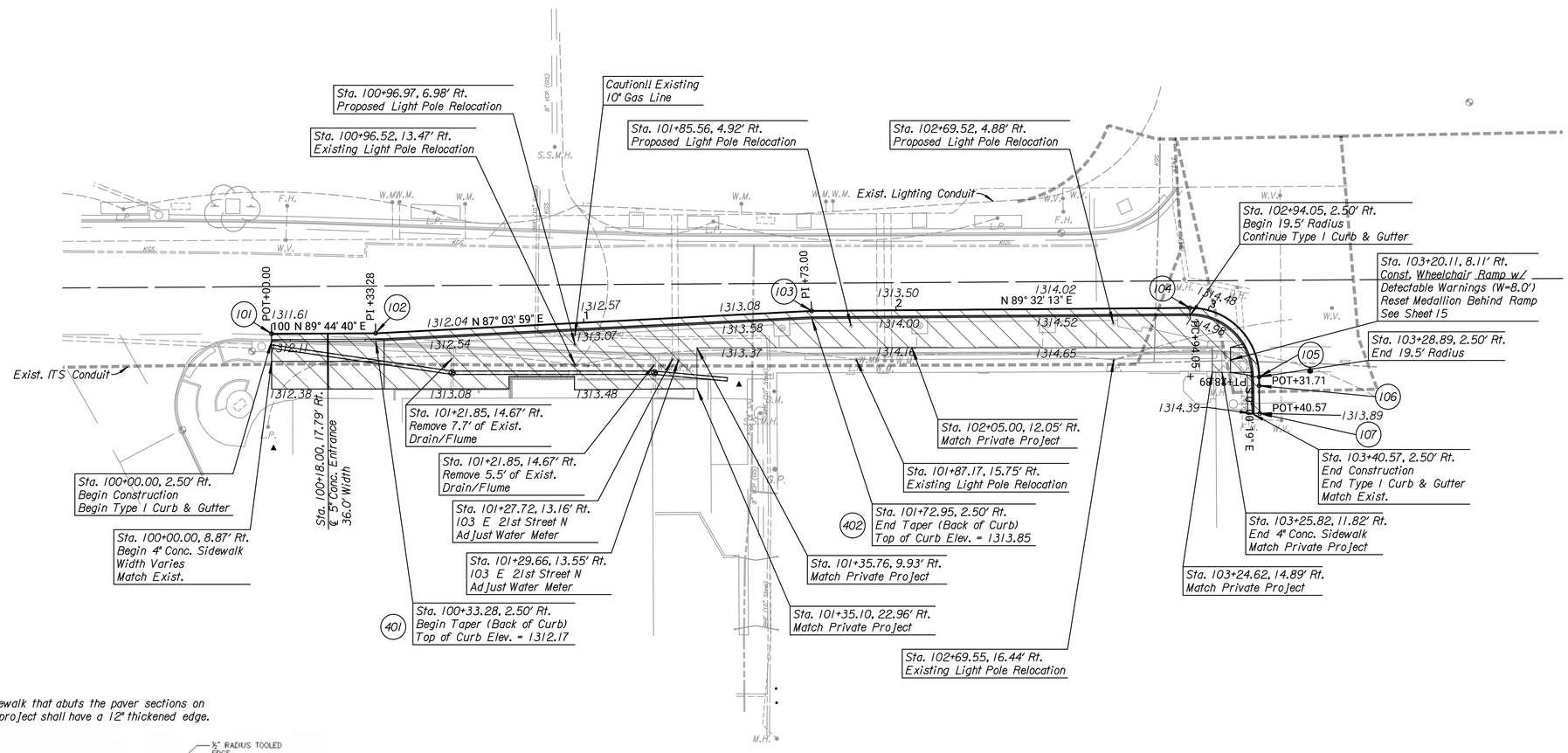
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

LEGEND

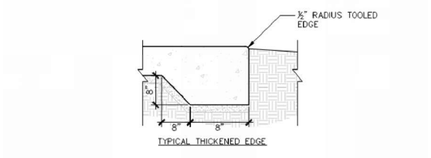
Pavement, Sidewalk & Curb Removal

SCALE: 1"=20'

20' 0 20' 40'



Note:
The sidewalk that abuts the paver sections on private project shall have a 12" thickened edge.



TYPICAL THICKENED EDGE

SIDEWALK THICKENED EDGE DETAILS

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/9/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:

21ST. & MARKET IMPROVEMENTS

SHEET NO.

5

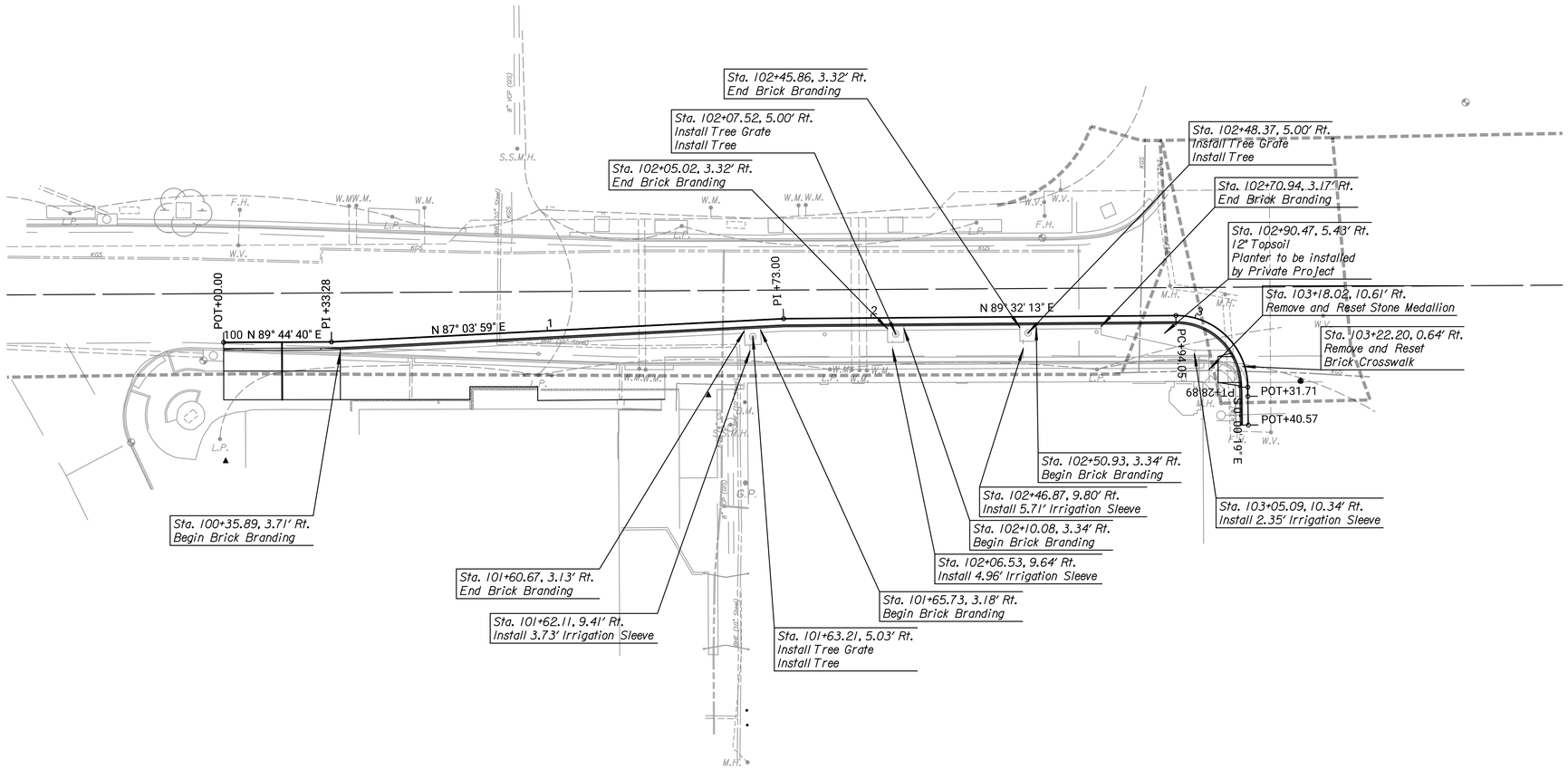
SHEET 5 OF 37

dmnohes
6/9/2026 - 3:54:59 PM - c:\transystems\ow_local\transyscorp-pw1\e_dmnickel\d1524369\C-RDW-M01-101.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

Note:
See Sheet 7 for Brick Banding Detail
See Sheet 7 for Stone Medallion Detail
See Sheet 7 for Brick Crosswalk Detail

SCALE: 1"=20'
20' 0 20' 40'



Note: Removing and Resetting of Stone Medallion is SUBSIDIARY to the Wheelchair Ramp

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET
WICHITA, KANSAS
CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

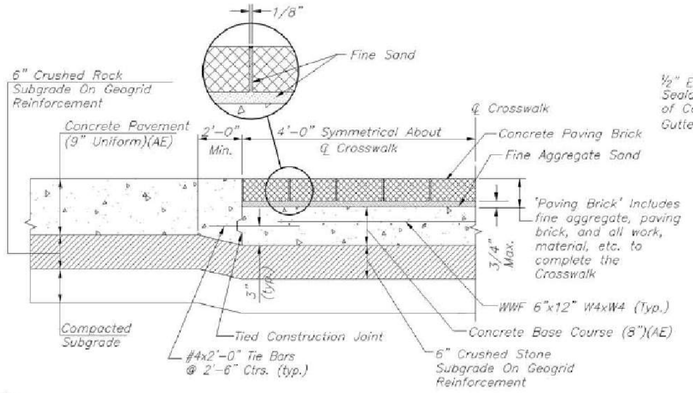
PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:
21ST. & MARKET
DETAIL SHEET

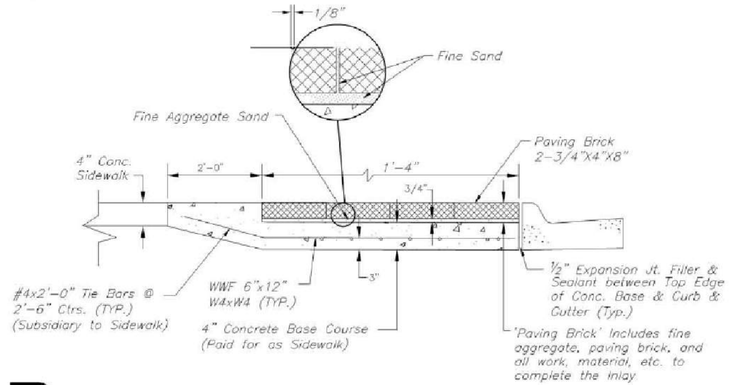
SHEET NO.
6
SHEET 6 OF 37

dmmckee
6/8/2026 - 4:13:48 PM - c:\transystems\ow_local\transyscorp-pw1\w-e_dmmckee\d1524360\C-RDWA001-102.dgn

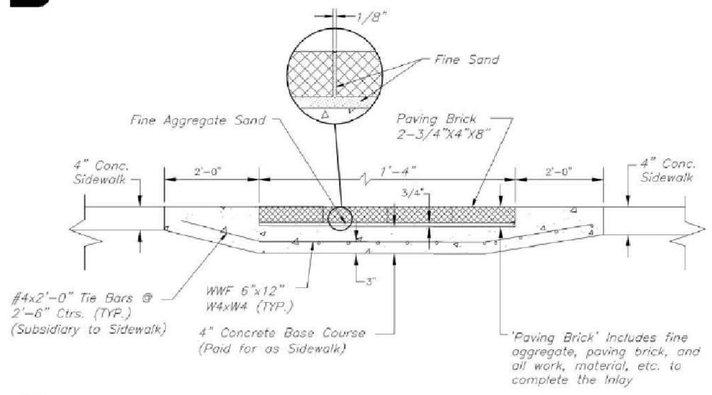
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



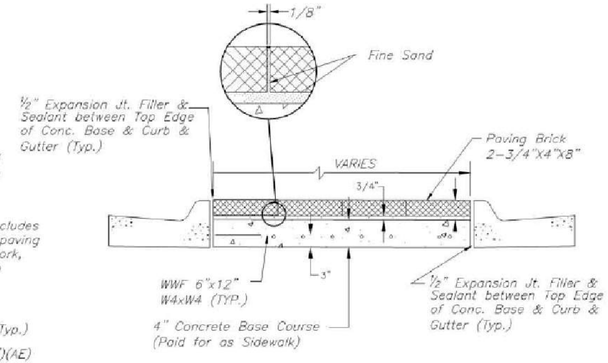
A CROSS WALK DETAIL



B LONGITUDINAL CONCRETE PAVER SECTION



C LONGITUDINAL CONCRETE PAVER SECTION



D CONCRETE PAVER SECTION AT ISLAND

NOTES:

1. CLAY BRICK PAVERS SHALL BE 2-3/4"x4"x8", AND MEET OR EXCEED ASTM C-902. COMPRESSIVE STRENGTH SHALL BE 8,000 PSI MINIMUM, AND HAVE MAXIMUM ABSORPTION OF 5%. PAYMENT SHALL BE AT THE CONTRACT BID PRICE PER SQUARE YARD FOR "PAVING BRICK".

2. CONCRETE BASE COURSE FOR CROSSWALKS SHALL BE BID AS "CONCRETE PAVEMENT (8") (AE)". ADDITIONAL CONCRETE THICKNESS IN TRANSITIONS SHALL BE SUBSIDIARY TO "CONCRETE BASE (8") (AE)".

3. CONCRETE BASE COURSE FOR SIDEWALK PAVERS SHALL BE BID AS "4" CONCRETE SIDEWALK". ADDITIONAL CONCRETE THICKNESS IN TRANSITIONS SHALL BE SUBSIDIARY TO "4" CONCRETE SIDEWALK".

4. SAND BEDDING SHALL MEET KDOT STANDARDS FOR FINE AGGREGATE. AN UNCOMPACTED SAND LAYING COURSE SHALL BE SPREAD EVENLY OVER THE AREA TO BE PAVED AND THEN SCREEDED TO A LEVEL OF APPROXIMATELY 3/4" THICKNESS. ONCE SCREEDED AND LEVELED TO THE DESIRED ELEVATION, THE SAND LAYING COURSE SHALL NOT BE DISTURBED IN ANY WAY.

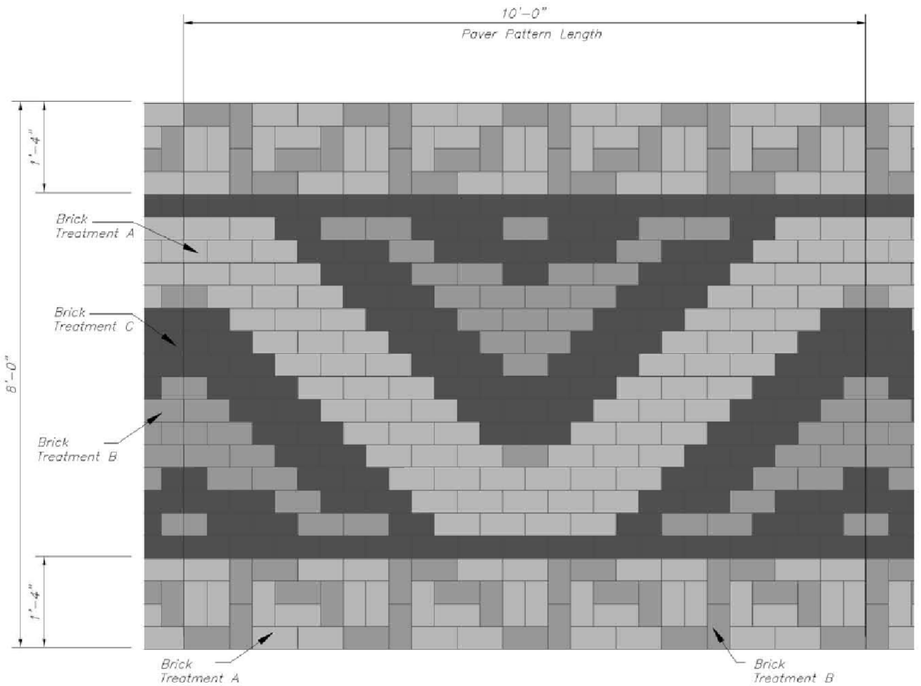
5. PAVER COLORS SHALL BE PLACED AS DELINEATED IN PLAN VIEW.

6. BLOCKS SHALL BE PLACED WITH THE CHAMFERED SIDE UP, AND JOINT SPACES KEPT UNIFORM APPROXIMATELY 1/8" THICK. THE GAPS AT THE EDGE OF THE PAVED SURFACE SHALL BE FILLED WITH PAVING BLOCKS CUT TO FIT. CUTTING SHALL BE ACCOMPLISHED TO LEAVE A CLEAN EDGE TOWARD THE TRAFFIC SURFACE, USING A MASONRY SAW. WHENEVER POSSIBLE, NO CUTS SHOULD RESULT WITH A PAVER LESS THAN ONE-THIRD OF ITS ORIGINAL DIMENSION. INDIVIDUAL PAVERS ARE TO BE PLACED IN THE PATTERN SHOWN (REFER TO PAVER LAYOUT PLAN SHEETS).

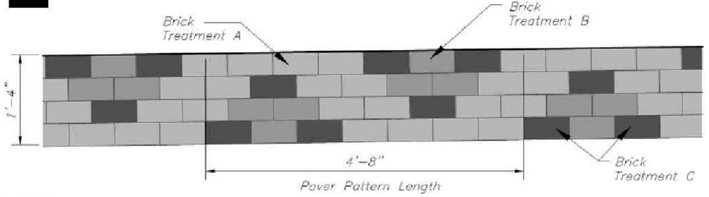
7. PAVING BRICK SHALL BE VIBRATED TO THEIR FINAL LEVEL IN THE SAND LAYING COURSE BY TWO OR THREE PASSES OF A VIBRATING COMPACTOR CAPABLE OF 3000 TO 5000 POUNDS COMPACTION FORCE WITH THE SURFACE CLEAN AND JOINTS OPEN.

8. AFTER VIBRATION, CLEAN CONCRETE SAND SHALL BE SPREAD OVER THE PAVING STONE SURFACE, ALLOWED TO DRY, AND VIBRATED INTO THE JOINTS WITH ADDITIONAL PASSES OF THE PLATE VIBRATOR SO AS TO COMPLETELY FILL THE JOINTS. A LIGHT COATING OF SAND SHALL BE SWEPT OVER THE COMPLETED SURFACE AND LEFT TO WEATHER IN.

9. CONTRACTOR SHALL SUBMIT BRICK MANUFACTURE, SYTLE, AND COLOR FOR CITY APPROVAL PRIOR TO CONSTRUCTION.



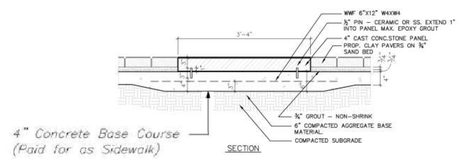
E STANDARD CROSSWALK PAVER PATTERN

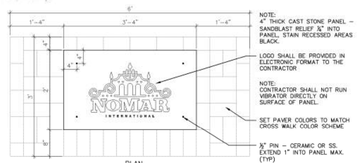


F STANDARD SIDEWALK PAVER PATTERN

BRICK PAVER SCHEDULE

BRICK TREATMENT	MANUFACTURER	STYLE	COLOR
A	BELDEN BRICK CO.	CHAMFERED EDGE W/LUGS	WHEATFIELD PAVER A
B	BELDEN BRICK CO.	CHAMFERED EDGE W/LUGS	REGIMENTAL RED PAVER A
C	BELDEN BRICK CO.	CHAMFERED EDGE W/LUGS	CLARET CLEAR PAVER A





4 PRIMARY CAST STONE PANEL

• SUBMIT SHOP DRAWINGS FOR REVIEW & APPROVAL

1" = 1'-0"

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:

SITE DETAILS

SHEET NO.
7
SHEET 7 OF 37

dmnolas
6/8/2026 - 4:13:52 PM - c:\transystems\ow_local\transyscorp-pw1\ia-e_dmnickel\d1524369\C-DET-101.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

LIGHTING FIXTURE SCHEDULE

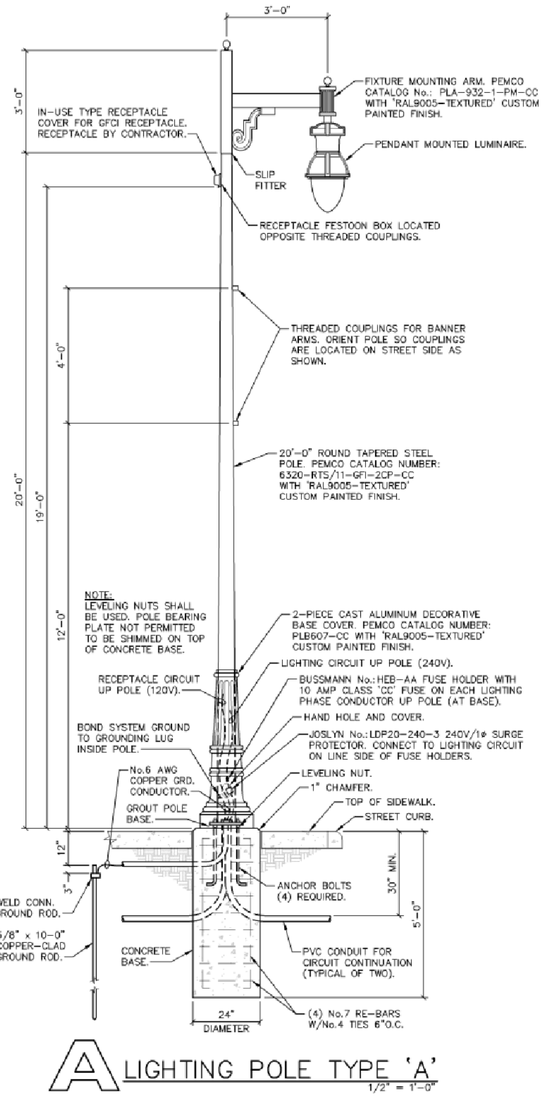
LETTER DESIG.	MANUFACTURER	CATALOG NUMBER	VOLTAGE	LAMPS NO.	LAMPS TYPE	MOUNTING	FINISH TRIM	TOTAL VA	REMARKS
A	PEMCO	CORO 2-GLD-R3-175MH-PS-MT-CC	240	1	MS175/PS/BU-ONLY	20' POLE	RAL9005-TEXTURED	225	SEE DETAIL 'A' THIS SHEET.

SYMBOL LIST

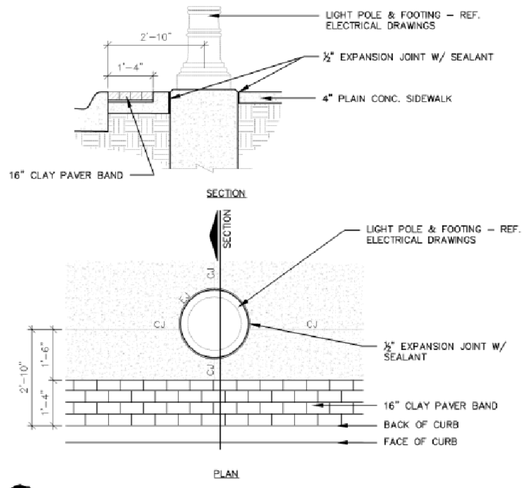
SYMB.	DESCRIPTION	MOUNTING OR AS INDICATED
A	POLE WITH (1) LIGHTING FIXTURE, (1) GFCI RECEPT. AND LETTER DESIGNATION. (1)	SEE DETAIL 'A' THIS SHEET.
e/t/#	CONDUIT RUN WITH (3) HOTS, (1) NEUTRAL AND (1) GROUND	EARTH
e/t/#	'HOME RUN' WITH (3) HOTS, (1) NEUTRAL AND (1) GROUND	EARTH
P	PULL BOX (2)	FLUSH WITH SIDEWALK
N1	POLE NUMBER - SEE GEN. NOTE #5 THIS SHEET	
AFG	ABOVE FINISHED GRADE	
C.	CONDUIT	
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	
GRD.	GROUND	

(1) GFCI RECEPTACLE TO BE BLACK, WEATHER RESISTANT, 20AMP, 125V, DUPLEX RECEPTACLE - HUBBELL CATALOG NUMBER: GFTR20BK OR APPROVED EQUAL.

(2) PULL BOX TO BE 36"Lx24"Wx30"D WITH SOLID BOTTOM AND BOLTED/GASKETED COVER LABELED 'LIGHTING'. QUAZITE MODEL NUMBER: PG2436BA30/PG2436HG0029 OR APPROVED EQUAL. ALL SPLICES WITHIN BOX SHALL BE MADE WITH BUCHANAN WATER-PROOF TYPE B4 STREETLIGHT CONNECTORS OR APPROVED EQUAL.



A LIGHTING POLE TYPE 'A'
1/2" = 1'-0"



2 LIGHT POLE DETAIL
1/2" = 1'-0"

GENERAL NOTES:

1. ALL RACEWAYS TO BE 1" TRADE SIZE MINIMUM.
2. ALL RACEWAYS TO BE SCHEDULE 40 PVC.
3. ALL CONDUCTORS TO BE COPPER, No.10 AWG MINIMUM WITH TYPE THWN INSULATION.
4. REPAIR OF ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR INCLUDING ALL MATERIALS, LABOR AND UTILITY COMPANY FEES. REPAIRS SHALL HAVE WRITTEN APPROVAL OF RESPECTIVE UTILITY COMPANY PRIOR TO BEING BACK-FILLED.
5. POLE NUMBER INDICATED ON ELECTRICAL PLANS SHALL BE PAINTED ON HAND-HOLE COVER OF EACH POLE. LETTERS AND NUMERALS SHALL BE WHITE IN COLOR, 1" TALL AND PAINTED USING STENCILS. DECALS ARE NOT PERMITTED.
6. CONTRACTOR SHALL PROVIDE ALL TRENCHING REQUIRED FOR INSTALLATION OF UNDERGROUND ELECTRICAL RACEWAYS.
7. REFERENCE CIVIL DRAWINGS AND SPECIFICATIONS FOR TRENCHING AND BACKFILL REQUIREMENTS.

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET
WICHITA, KANSAS
CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:
LIGHT FIXTURES

SHEET NO.
8
SHEET 8 OF 37

dmcisle
6/8/2026 - 4:14:00 P.M. - c:\transsystems\pw_local\transyscorp.pw1\e-e_dmcisle\d1524369\C-DET-104.dgn
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

SECTION 16010

GENERAL REQUIREMENTS - ELECTRICAL

PART 1 - GENERAL

1.01 PROVISIONS GOVERNING WORK UNDER THIS DIVISION

A. SEE Division 1.

1. This Section 16010 governs and is applicable to all Sections concerning Electrical.

1.02 SUBMITTALS

A. SUBMIT Shop Drawings per Part 2 of this Section.

B. SUBMIT project record Drawings upon completion of project.

1.03 WARRANTY

A. WARRANTY ALL MATERIALS AND WORK for a period of one year after acceptance of project by Owner.

1.04 DESCRIPTION

A. EXCEPT AS SPECIFICALLY INDICATED OTHERWISE, these specifications require finished work, tested out and made ready for normal operation.

B. COORDINATION WITH OTHERS: Work under this Division shall be fully coordinated with work, Drawings and Specifications for: general construction, electric operated doors, finish hardware devices, incinerators, site utilities, sprinklers, mechanical, telephone, alarms, and others as included in project.

1.05 REQUIREMENTS OF REGULATORY AGENCIES

A. CODES, INSPECTIONS AND STANDARDS:

1. INSTALLATION SHALL CONFORM WITH THE LATEST PUBLISHED AND CURRENT EDITION OF THE FOLLOWING:
   National Electrical Code (NEC) (NFPA 70)
   City and State Electrical Code and Regulations
   National Electrical Safety Code
   Americans with Disabilities Act (ADA)
   Life Safety Code (NFPA 101) as well as with all Interim Amendments and all other applicable Regulations and Requirements of City, County, State and Federal Governments having jurisdiction over the conduct of this work or any part thereof.
2. INSTALLATION shall be done in accordance with the latest Rules and Regulations of the Occupational Safety and Health Act (OSHA).
3. INSTALLATION SHALL CONFORM WITH THE LATEST PUBLISHED STANDARDS OF:
   Institute of Electrical and Electronic Engineers (IEEE).
   Illuminating Engineering Society (IES).
   National Electrical Manufacturers Association (NEMA).
4. MAKE CORRECTIONS TO INSTALLATIONS, requested by official Electrical Inspectors representing City and State Inspection Departments, so long as such corrections are necessary for compliance with official and published requirements prior to date of the Contract.
5. REQUESTED CHANGES: See that Architect is advised and given a copy of work so requested by City, State, or Federal Inspectors, and that the work does not conflict with intended design.
6. SERVICE STANDARDS: Service entrance, metering arrangements, and motor loading, shall be in conformity with applicable Service Standards published by the serving Utility Company.
7. INTERIM AND FINAL INSPECTIONS: Call for and pay for inspections required by City's Inspection Department and other Governing Bodies. Keep record of such calls and submit to Architect, if requested.

1.06 QUALITY ASSURANCE

A. LABELS:

1. MATERIALS AND EQUIPMENT furnished under this Section shall either have a UL (Underwriters' Laboratories) label affixed, or shall be listed as being approved for the application being made, by UL, where such approvals are applicable.
2. FURNISH ETL (Electrical Testing Laboratories), CBM (Certified Ballast Manufacturers), RLM (Registered Luminaire Manufacturers) labels on items advertised as having such labels, when such items are specified, or upon items proposed as substitutions for such specified items.

B. MATERIALS AND WORKMANSHIP:

1. MATERIALS shall be those shown on Drawings and specified herein.
2. MATERIALS shall match and fit together in a complete and working installation.
3. UNSIGHTLY INSTALLATIONS shall be removed and replaced, or otherwise satisfactorily reworked until acceptable, when so ordered by Architect, even though having no circuitry or operating faults.

1.07 TESTS

A. MAKE TESTS necessary to insure against concealment of defective materials and workmanship, before inspection, and again if requested in the presence of the Architect, Engineer, or official Inspector.

1.08 INSTRUCTIONS AND OPERATIONAL DATA

A. PROVIDE at least one set of instructions and maintenance data for wiring items or equipment items. Furnish complete and reasonable instructions for the operation of switches, circuits, systems, and equipment.

1.09 SITE VISIT

A. Visit the site and become familiar with all aspects of the site and existing conditions before submitting Contract price.

B. No allowance will be made for lack of knowledge of existing conditions.

1.10 DEVIATIONS

A. No deviations from the Contract Documents shall be made without the full knowledge and written consent of the Architect.

B. If the existing conditions make it desirable to modify the Contract Documents in regard to any item, provide a written request to the Architect.

PART 2 - PRODUCTS

2.01 MATERIALS AND PRODUCTS

A. REFER to the various Sections under Division 16.

2.02 STANDARDS FOR MATERIALS AND WORKMANSHIP

A. All materials shall be new and shall be stamped with the label of Underwriters Laboratories, Inc. (UL).

B. All materials shall meet the standards of the following associations and institutes where applicable.

1. National Fire Protection Association (NFPA)
2. American Society of Testing Materials (ASTM)
3. American National Standards Institute (ANSI)
4. National Electrical Manufacturer's Association (NEMA)
5. Institute of Electrical and Electronic Engineers (IEEE)

C. Manufacturer's names and catalog numbers specified herein are intended to describe the material and set the standard of quality. All bids shall be based on material specified.

2.03 SHOP DRAWING SUBMITTAL

A. The Engineer's review of shop drawings or submittals is a cursory review to check for general compliances of submittals with the design intent of the Contract Documents. The Engineer's review does not relieve the Contractor of his responsibility of complying with the contract documents. All coordination of the work in the strict compliance with the Contract Documents is the sole responsibility of the Contractor.

B. The following items shall be submitted for review:

1. Conduit and wire
2. Grounding system
3. Overcurrent devices
4. Lighting Fixtures
5. Service Entrance Equipment

C. All shop drawings and submittals shall be submitted in compliance with the requirements of the general and supplementary conditions. No more than six (6) copies of submittal data will be reviewed. Any additional copies will be returned unmarked. The responsibility of copying review comments on any additional copies will rest solely with the Contractor.

D. All submittals shall bear the name of the manufacturer to be used.

E. All shop drawings and submittals shall include a stamped indication signifying that the submittal has been reviewed for compliance with the Contract Documents by the Contractor. This stamped indication also represents the fact that the Contractor has checked his submittal for its interaction with all other Divisions and certifies by his signature or initials that all coordination has taken place. The stamp shall include the date, name of the Contracting Firm, the signature of the contractor, certification and approval. This stamp will be on the submittal before the Engineer will review it.

F. The Engineer will review an individual submittal not more than twice. If the submittal is rejected again on the second review, the contractor will bare all responsibility for paying the Engineer's time for additional reviews. Such payment to the Engineer shall be withheld from the next monthly pay application.

PART 3 - EXECUTION

3.01 INSTALLATION

A. REFER to the various Sections under Division 16.

END OF SECTION

SECTION 16050

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.01 CONTENTS

A. Supporting Devices for Electrical Components.

B. Concrete Equipment Bases.

C. Touchup Painting.

1.02 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories:
   1. Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. NFPA Compliance:
   1. Comply with NFPA 70.

C. Code Compliance:
   1. All work to be in accordance with latest requirements of the N.E.C. and all other applicable codes and regulations of authorities having jurisdiction over the work.

1.03 SUPPORTING DEVICES

A. Performance Criteria.
   1. Material: Cold-formed steel, with corrosion-resistant coating acceptable to authorities having jurisdiction.
   2. Metal items for use Outdoors or in Damp Locations: Hot-dip galvanized steel.
   3. Pipe Sleeves: ASTM A 53, Type E, Grade A, Schedule 40, galvanized steel, plain ends.
   4. Expansion Anchors: Carbon-steel wedge or sleeve type.
   5. Toggle Bolts: All-steel springhead type.

1.04 CONCRETE BASES

A. Performance Criteria.
   1. Concrete Forms and Reinforcement Materials: As specified in Special Provisions Section: "Cast-in-Place Concrete."

PART 2 - PRODUCTS

2.01 TOUCHUP PAINT

A. Performance Criteria.
   1. For Equipment: Equipment manufacturer's paint selected to match installed equipment finish.
   2. Galvanized Surfaces: Zinc-rich paint recommended by item manufacturer.

END OF SECTION

SECTION 16111

CONDUIT

PART 1 - GENERAL

1.01 WORK INCLUDED

A. CONDUIT AND COUPLINGS.

B. NON-METALLIC DUCTS.

PART 2 - PRODUCTS

2.01 RIGID METAL CONDUIT (HEAVY WALL)

A. RIGID METAL CONDUIT shall be used in areas so indicated on Drawings and as listed below.

B. RIGID METAL CONDUIT shall be steel, hot-dip galvanized after threading.

C. RIGID METAL CONDUIT COUPLINGS CONNECTORS shall be threaded. Connections shall be made up tight.

D. RIGID METAL shall be used in wet locations.

2.02 DUCT-RIGID POLYVINYL CHLORIDE

A. PVC CONDUIT shall be used in all areas below grade. Unless noted otherwise, minimum size PVC conduit shall be 1" trade size.

B. FITTINGS for PVC conduit shall be suitable for the conduit and type of installation.

C. GROUNDING CONDUCTOR: Whenever PVC conduit is used; a separate grounding conductor shall be installed in entire length of conduit.

2.03 GENERAL

A. INTERCONNECTIONS BETWEEN DIFFERENT TYPES OF RACEWAYS shall in all cases be made with manufactured fittings approved by UL.

2.04 LOCKNUTS, BUSHINGS, CONNECTORS, AND COUPLINGS

A. "DOUBLE-LOCKNUT" system (2 locknuts) shall be used throughout, each being tightened wrench-tight as to effectively bond outlet box or cabinet to conduit.

B. BUSHINGS shall be malleable, except that plastic bushings may be used in lieu of phenolic-lined malleable bushings where "insulating bushings" are required per NEC.

C. INSULATED-THROAT TYPE GROUND BUSHINGS shall be malleable type and fully equal to T & B #3802 series.

D. CONNECTORS AND/OR COUPLINGS shall be proper for conduit they are used with. They shall be watertight when required.

E. FINISH on such fittings shall be cadmium or galvanized.

F. THREADS on fittings shall be die-cut unless approved otherwise.

PART 3 - EXECUTION

3.01 INSTALLATION

A. SIZE RACEWAYS in accordance with NEC Tables, except that size shall not be reduced from any sizes indicated on Drawings or called out herein.

B. DO NOT exceed number of bends allowed in conduit by the NEC and reduce such to that indicated or specified when so done.

C. JOINTS shall be wrench-tight or otherwise with minimum resistance to the flow of fault currents.

D. PROTECT CONDUITS from damage, entrance of water or foreign objects and jog as necessary to prevent weakening walls or construction.

E. REMOVE flattened or otherwise damaged conduits from site.

F. ALL BENDS shall be pre-manufactured.

G. TEST any conduit with hacksaw or with approved pipe cutting tool and ream ends before connecting.

H. RACEWAYS shall be securely fastened in place. Conduit shall be firmly fastened within 3 ft of each outlet, junction box, cabinet or fitting. Metallic conduit, rigid (heavy wall) shall be supported at least every 10 ft. Raceway fasteners shall be only those designed for the purpose.

I. FOR EXPOSED RUNS, attach surface-mounted conduit with clamps.

J. CLEAN out conduit before installation of conductor.

K. KEEP A RECORD of deviations from routes and locations shown on Drawings. Indicate all deviations on Project Record Drawings and submit drawings to Architect.

END OF SECTION

SECTION 16120

WIRES AND CABLES

PART 1 - GENERAL

1.01 WORK INCLUDED

A. WIRES AND CABLES.

1.02 SUBMITTALS

A. SUBMIT product information.

1.03 WIRING METHODS

A. Use PVC conduit in earth.

PART 2 - PRODUCTS

2.01 WIRE AND CABLE MANUFACTURERS

A. Okonite
B. Southwire
C. Coleman
D. Or equal, approved by the Architect.

2.02 GENERAL

A. BRANCH CIRCUITS: Flame retardant, moisture resistant, thermoplastic, Type Letter THWN, 60 degrees C maximum operating temperature, rated 600v, unless noted otherwise on Drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

A. PULLING FRICTION: Keep to a minimum using no more than the NEC allowed number of bends, as well as not to exceed maximum allowable pulling tensions derived from tables or formula provided by the several Wire Manufacturers.

B. USED APPROVED WIRE LUBRICANT of a type suitable for wire and/or raceway involved, such as Burndy "Silkon", "Albentonite", "Protectant 626", Ideal "Yellow-77", or Polywater "J".

C. FURNISH necessary reels, reel jacks and other pulling aids required to prevent damage to wires and cable.

D. DO NOT PULL WIRE until construction work in vicinity is complete enough to avoid damage to wires and cables in any manner.

E. IDENTIFY conductors with pressure sensitive tags as manufactured by Brady, when so indicated on Drawings.

F. WIRES AND CABLES REQUIRED shall be installed continuous without splice from source of supply to lighting outlet. In no case shall pull boxes be used for making splices; neither shall splices be installed in conduits.

G. PROVIDE copper grounding conductors and straps.

H. INSTALL wire and cable in conduit.

I. INSTALL wire in conduit runs after concrete and masonry work is complete and after moisture is swabbed from conduits.

J. SPLICE only in accessible junction or outlet boxes.

K. CONDUCTOR CONNECTIONS:

1. USE approved pressure type solderless connectors and lugs for all connections.
2. CONNECTORS shall be equal to Burndy, T & B, O-Z, or Penn Union, and shall be of a type compatible to conductors, location and load.
3. NEUTRAL CONNECTIONS AND TAPS shall be made individually, in order to prevent the possibility of an "open-neutral."
4. BRANCH CIRCUIT CONNECTIONS shall be made with UL approved solderless connectors equal to Buchanan, Scotch or T & B. Fixture connections shall be equal to those made by same Manufacturers. Any type used shall not depend solely upon a single insulating material to secure connection as well as to insulate it.
5. SOLDER JOINTS using Kester 50-50 solder and approved soldering paste equal to Nokorode, will be acceptable in lieu of mechanical pressure or solderless types for branch circuit and fixture connections.
6. BUS BAR CONNECTIONS shall be bolted with adequate nonferrous bolts, washers, and lockwashers, after first either silverplating the bars or applying suitable nonoxidizing agents equal to No-Oxide.
7. JOINTS AND TAPS shall be insulated with patented or molded plastic or insulators, or shall be taped suitably with Okonite or Scotch tapes. Tapes shall be compatible with conductor jackets, temperature, and other conditions.

L. ALL WIRE shall be color coded to indicate the various phases and neutral. Where color coding is impractical, approved 3/4 in. wide tape bands, corresponding to Color Code, NEC Section 210.5, and as specified below shall be provided.
   1. COLOR CODING for the various systems shall be as follows:

For 120/240 Volt System
Phase A - Black
Phase B - Red
Neutral - White
Ground - Green

END OF SECTION

SECTION 16160

PANELBOARDS

PART 1 - GENERAL

1.01 WORK INCLUDED

A. BRANCH CIRCUIT PANELBOARDS.

1.02 SUBMITTALS

A. SUBMIT Shop Drawings.

PART 2 - PRODUCTS

2.01 PANELBOARDS

A. ACCEPTABLE PRODUCTS:
   1. Square D, "Type NQ".
   2. General Electric, "Type AQ".
   3. Siemens, "Type P1".

2.02 GENERAL

A. VOLTAGE: 120/240V, 1-Phase, 3-Wire, S/N, service entrance rated, equipped with automatic circuit breakers.

B. PANELBOARDS shall be of the same make, and shall be keyed alike with a masterkey arrangement.

C. PANELBOARDS shall be of dead-front type. Cabinets shall be one-piece construction from galvanized code gauge steel. Cabinets shall have knockouts and minimum gutter space of 4 inches on all sides.

D. BRANCHES shall be automatic circuit breakers, thermo-magnetic type, with inverse time characteristics. Circuit breaker shall be quick make, quick break on manual and automatic operation. Circuit breaker shall have positive trip indication, as well as clear "OFF" and "ON" indication. Circuit breakers shall have a minimum interrupting capacity of 10,000 AMPS at 120V. Branch breakers shall be 1 or 2-pole types, having "common-trip" arrangement.

E. FACTORY ASSEMBLE panelboards with ampere rated units as indicated on Drawings. Provide spare units and blank spaces as indicated on Drawings. Main circuit breaker or lugs only as shown on Drawings. Branch connections shall be PLUG-IN.

F. NUMBERING OF BREAKERS: Large permanent individual number shall be affixed to each breaker in a uniform position. Numbering shall be such that starting at the top, odd numbers shall be used in sequence down left hand side, and even number shall be used in sequence down right hand side.

G. CONSTRUCTION: Fronts shall be galvanized code gauge steel, finished with rust-inhibiting primer and baked-enamel finish, Manufacturer's standard color. Doors shall have flush tumbler-type locks. A circuit directory frame and card with a clear plastic covering shall be provided inside of the door. Directory shall be typed to identify load fed by each circuit.

H. LOCKING CLIPS for "ON" position only, with "OFF" trip free travel, shall be furnished and installed in all circuits so indicated on Drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

A. PROVIDE mounting brackets, bus bar drillings, and filler pieces for unused spaces.

B. PREPARE AND AFFIX typewritten directory with plastic cover to inside cover of panelboard indicating loads controlled by each circuit.

C. LABEL each panel with name and voltage on the outside with plastic engraved nameplates.

END OF SECTION

SECTION 16450

GROUNDING

PART 1 - GENERAL

1.01 WORK INCLUDED

A. POWER SYSTEM GROUNDING.

1.02 TESTS

A. MEASURE ground grid resistance with earth test meter and install additional ground rods and conductors as required until resistance to ground complies with Code requirements.

PART 2 - PRODUCTS

2.01 POWER SYSTEM GROUNDING

A. PROVIDE APPROVED GROUNDING of secondary alternating current system per NEC.

B. GROUND AND BOND service entrance raceways, cabinets and equipment.

C. GROUNDING ELECTRODES shall be as required by NEC and as indicated on the Drawings.

D. GROUNDING/BONDING CONDUCTORS shall be sized as indicated but in no case less than minimum NEC requirements. They shall be of soft annealed copper and shall be stranded when larger than No. 10, unless noted otherwise. They may be bare except where dangerously close to live parts, but where insulated they shall have a green color jacket or finish. When metallic conduit is used as conductor, connections shall be made tight.

E. WHEN PLASTIC CONDUIT IS USED, an extra ground wire shall be provided on each run.

F. LUGS AND FITTINGS: Grounding shall be UL approved solderless.

END OF SECTION

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

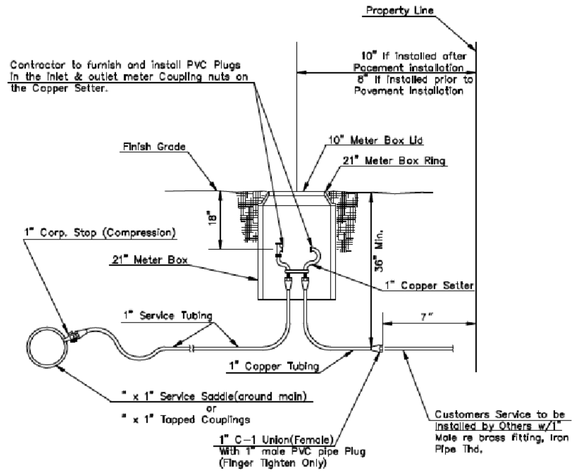
SHEET TITLE:
ELECTRICAL SPECIFICATIONS

SHEET NO.
9

SHEET 9 OF 37

dmnolan 6/8/2026 - 4:14:14 PM - c:\transystems\pw_local\transystcorp-pw1\e-e_dmnolan\d1524366\C-DET-105.dgn

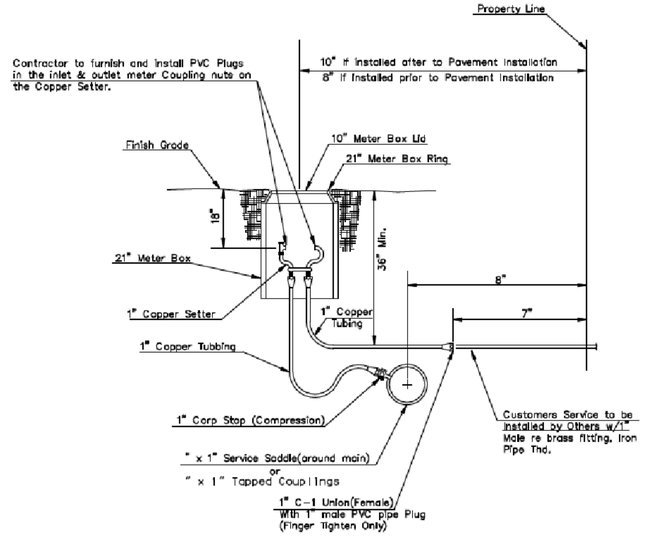
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



Bore hole under paving shall be a maximum of 2" in Diameter and a minimum of 36" below top of paving.

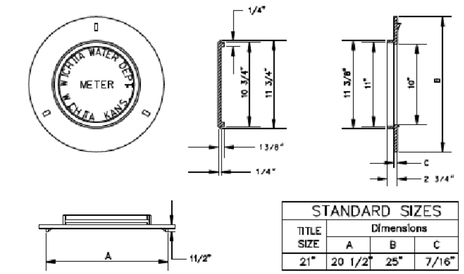
Note: Service Saddles are not required on top of 8" mains or larger Meter boxes will be located on each lot to be served, as indicated in the SPECIAL PROVISIONS

TYPICAL METER SETTING
LONG SERVICE 1"



Note: Service Saddles are not required on top of 8" mains or larger Meter boxes will be located on each lot to be served, as indicated in the SPECIAL PROVISIONS

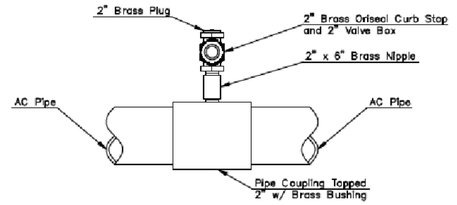
TYPICAL METER SETTING
SHORT SERVICE 1"



STANDARD SIZES			
TITLE SIZE	Dimensions		
	A	B	C
21"	20 1/2"	25"	7/16"

Other Approved Ring And Lids: Ford Meter Box Co. Inc. 21" Ring & Lid Catalog No. C-4

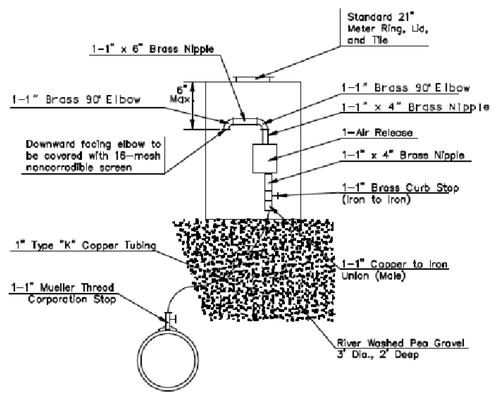
RING & LID FOR METER VAULTS



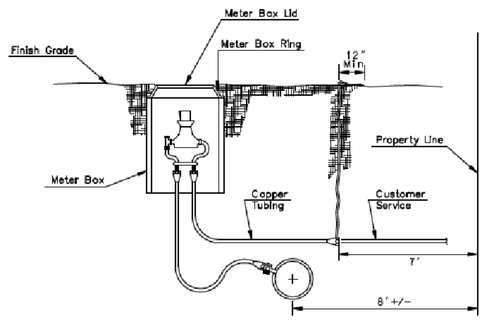
Note: Where the 2" service outlet assembley is to be used to connect a 2" main to another main, the 2" valve shall be a 2" IPT Gate Valve. 2" Ball or Globe valve shall not be approved for this use.

2" SERVICE OUTLET ASSEMBLY

1 – 1" Mueller Thread Corporation Stop
– 1" Type "K" Copper Tubing
1 – 1" Copper to Iron Union (Male)
1 – 1" Brass Curb Stop (Iron to Iron)
2 – 1"x4" Brass Nipple
Air Release
2 – 1" Brass Elbows (90°)
1 – 1"x6" Brass Nipple
1 – 21" Meter Tile
1 – 21" Meter Ring
1 – 10" Meter Lid

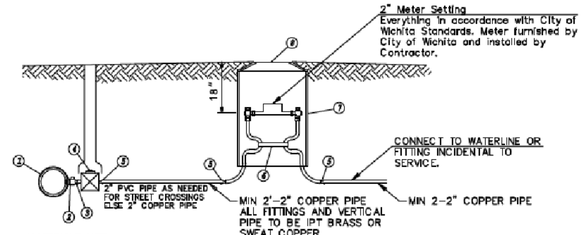


MATERIALS FOR AIR RELEASE ASSEMBLY



If customers service line is not installed at the time Meter Box and Setter are installed, Plastic Flagging is to be tied to the end of copper tubing & brought straight up to top of ground and be exposed a minimum of 12" on top of ground.
(Plastic Flagging to be Furnished by Contractor)

TYPICAL METER SETTING
PLASTIC FLAGGING



MATERIALS LIST:
1. WATER MAIN, PIPE DIAMETER="D"
2. "D" X 2" BRASS SADDLE
3. 2" X 3" BRASS NIPPLE
4. 2" CURBSTOP AY MCDONALD, FORD B11-777, MUELLER 300 B20283 (WITH STANDARD VALVE BOX)
5. 2" F COPPER TO MIPT ADAPTER FORD C84-77
6. 2" CUSTOM SETTER W/ BYPASS FORD VV7724B1177
7. 30" WHITE PVC METER BOX – 24" HIGH, SMOOTH INSIDE, RIBBED OUTSIDE, NO NOTCHES
8. 30" X 20" MONITOR COVER WITH 20" LID WITHOUT LOCK FORD MC30LL

2" CUSTOM SET AND SERVIVE DETAIL

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:

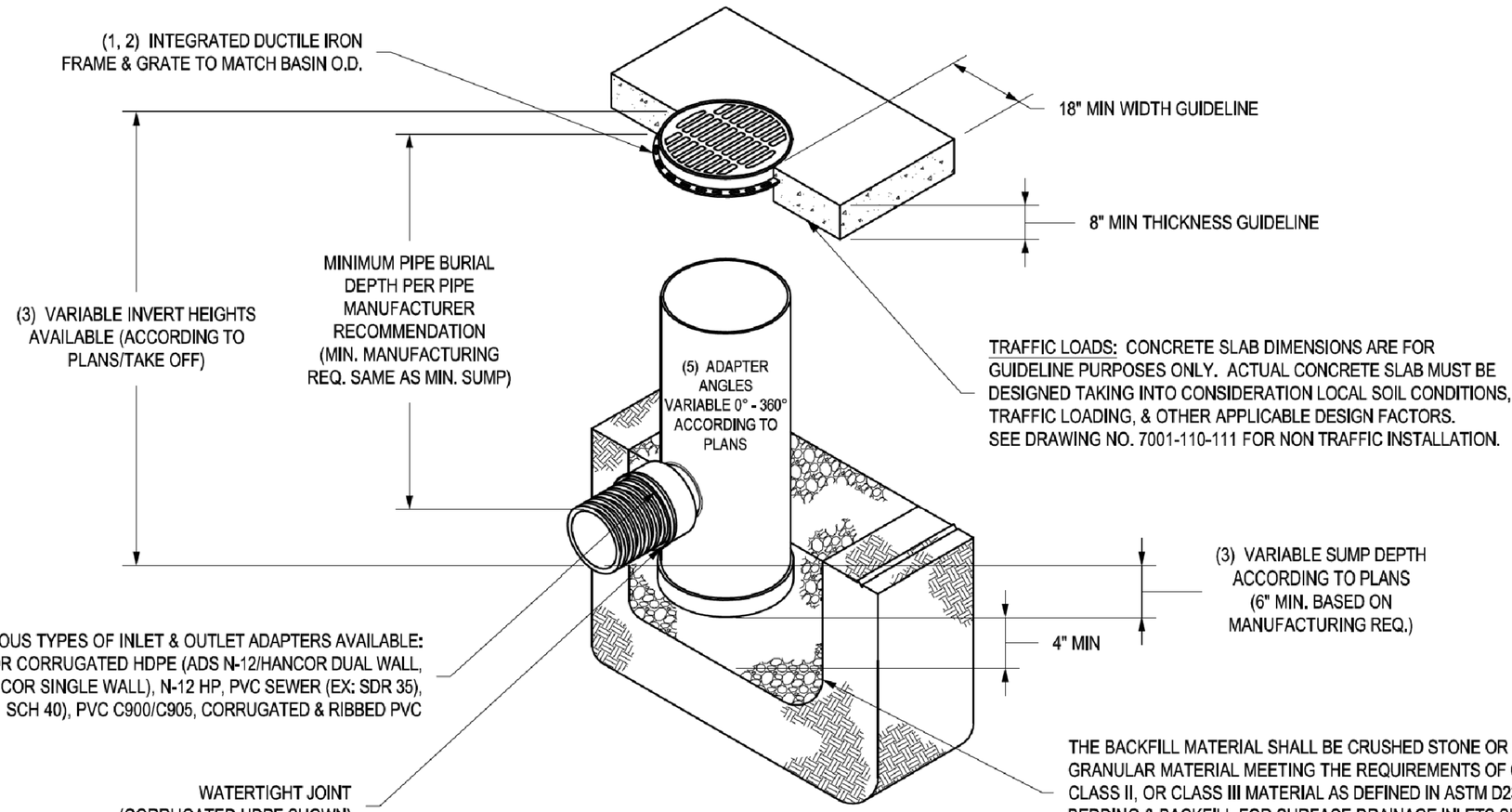
WATER SERVICE DETAILS

SHEET NO.
10
SHEET 10 OF 37

dmmckee
6/8/2026 - 4:14:24 PM - c:\transystems\ow_local\transystems\pw_pw1\e_dmmckee\d1524369\C-DET-106.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

NYLOPLAST 24" DRAIN BASIN: 2824AG _ _X



TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2499CGP	7001-110-216
STANDARD	MEETS H-20	2499CGS	7001-110-217
SOLID COVER	MEETS H-20	2499CGC	7001-110-218
DOME	N/A	2499CGD	7001-110-219
DROP IN GRATE	LIGHT DUTY	2401DI	7001-110-075

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET
WICHITA, KANSAS
CITY OF WICHITA

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:
24" DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

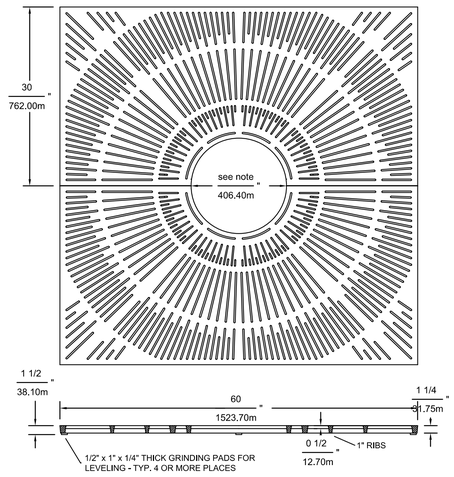
SHEET NO.
11
SHEET 11 OF 37

dmricke
6/8/2026 - 4:14:31 PM - c:\transystems\pw_local\transyscorp-pw11a-a_dmricke\d1924369\C-DET-107.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

TREE GRATE #M6018-1
STYLE: STARBURST
SERIES 1

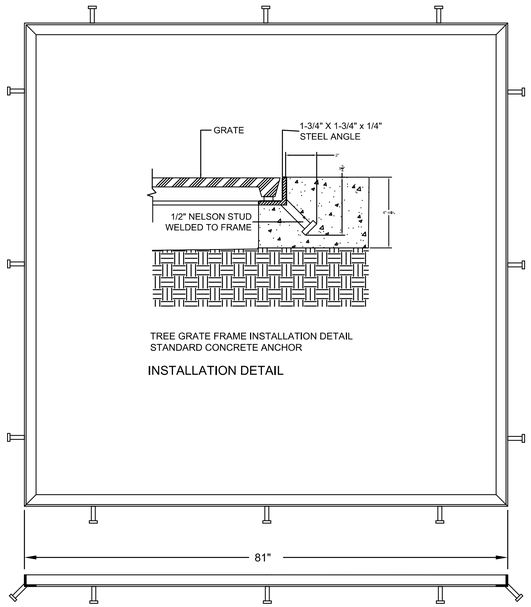
IRONSMITH
41-701 CORPORATE WAY, #3
PALM DESERT, CA 92260
(800) 338-4766
© COPYRIGHT



SLOT WIDTH IS 1/4" MAXIMUM, MEETS ADA COMPLIANCE.
GRATE CAST FROM GRAY IRON OR ALUMINUM
TREE OPENING SIZE. 16", 18" OR 28"
STEEL ANGLE FRAME REQUIRED
FOR INSTALLATION USE MODEL M6000F
OUTER FRAME DIM. IS 3/4" ± 1/8"
GREATER THAN GRATE. .

This drawing embodies a confidential proprietary design of IRONSMITH Palm Desert, CA. All design, manufacturing, reproduction, use, sale, and other rights regarding the same are expressly reserved. This drawing is submitted under confidential relationship for a specific purpose and the recipient agrees by accepting this drawing not to supply or disclose any information regarding it to any unauthorized person or to incorporate any special feature peculiar to this design in other projects. The information disclosed in this drawing may be covered completely or in part by patents pending. Designers may incorporate this drawing in their plans for the purpose of showing design intent. This drawing is not to be used for the purpose of product production.

PLAN



SECTION

TREE GRATE FRAME INSTALLATION DETAIL
STANDARD CONCRETE ANCHOR

INSTALLATION DETAIL

SQUARE TREEGRATE
FRAME
M6000F
FOR USE IN NEW CONCRETE

FRAME JIG WELDED
FROM 1-3/4" x 1-3/4" x 1/4"
STEEL ANGLE PER
ASTM A36

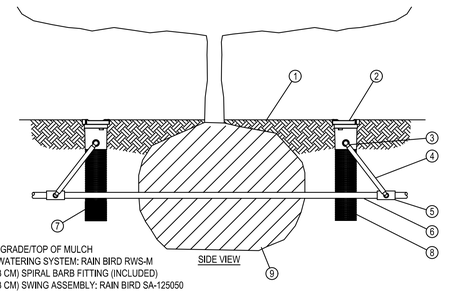
½" x2" nelson
anchors shop welded
to frame

FRAMES CAN BE HOT
DIPPED GALVANIZED
AND/OR PAINTED TO
MATCH GRATES

OTHER INSTALLATION
CONFIGURATIONS
AVAILABLE

This drawing embodies a confidential proprietary design of IRONSMITH Palm Desert, CA. All design, manufacturing, reproduction, use, sale, and other rights regarding the same are expressly reserved. This drawing is submitted under confidential relationship for a specific purpose and the recipient agrees by accepting this drawing not to supply or disclose any information regarding it to any unauthorized person or to incorporate any special feature peculiar to this design in other projects. The information disclosed in this drawing may be covered completely or in part by patents pending.

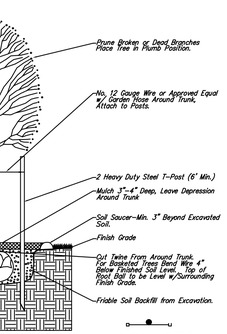
IRONSMITH
41-701 Corporate Way #3
Palm Desert, CA 92260
(800) 338-4766
(760) 776-5080 Fax



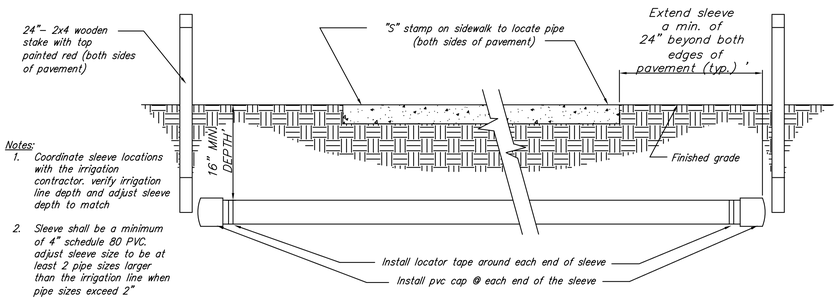
1. FINISH GRADE/TOP OF MULCH
2. ROOT WATERING SYSTEM: RAIN BIRD RWS-M
3. 1/2" (1.3 CM) SPIRAL BARB FITTING (INCLUDED)
4. 1/2" (1.3 CM) SWING ASSEMBLY: RAIN BIRD SA-125050
   OR
   1/2" (1.3 CM) SWING PIPE: RAIN BIRD SP SERIES WITH 1/2" (1.3 CM) MALE NPT X 0.490" BARB ELBOW: RAIN BIRD SBE-050
5. PVC SCH 40 TEE OR EL
6. PVC OR POLYETHYLENE LATERAL PIPE
7. OPTIONAL SOCK (RWS-SOCK) FOR SANDY SOILS
8. 4" (10.2 CM) WIDE X 18" (45.7 CM) LONG RIGID BASKET WEAVE CANISTER (INCLUDED)
9. PLANT ROOT BALL

NOTES:
1. POSITION 2-3 UNITS (OR MORE) EVENLY SPACED AROUND PLANT. FOR NEW TREES PLACE NEAR ROOT BALL. FOR EXISTING TREES PLACE HALF THE DISTANCE BETWEEN CANOPY EDGE AND TREE TRUNK.
2. INSTALL PRODUCT WITH TOP EVEN WITH FINISH GRADE OR THE TOP OF MULCH.
3. RWS-M SERIES AVAILABLE IN THE FOLLOWING MODELS: RWS-M-B-C-140: 0.25 GPM (0.95 L/M) CHECK VALVE, RWS-M-B-1401: 0.25 GPM (0.95 L/M), RWS-M-B-C-1402: 0.5 GPM (1.9 L/M) CHECK VALVE, RWS-M-B-1402: 0.5 GPM (1.9 L/M)
4. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" (1.9 CM) GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
5. ONCE RWS-M HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.
6. OPTIONAL RWS-SOCK FOR USE IN SANDY SOILS.
7. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
8. DO NOT SCALE DRAWINGS.
9. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 045-633.

1 ROOT BALL IRRIGATION AT TREES IN ARTIFICIAL TURF
NOT TO SCALE

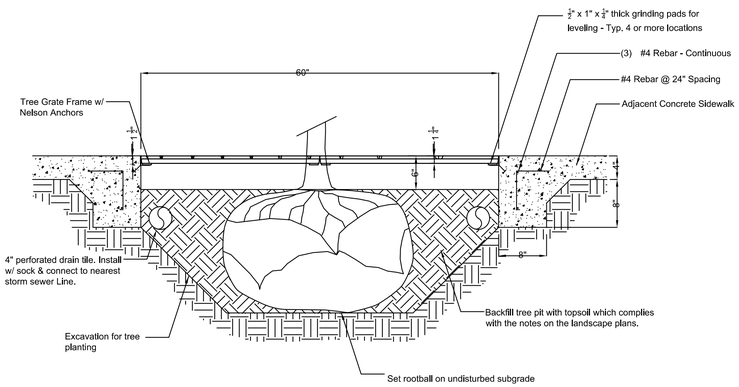


1 TREE PLANTING & STAKING DETAIL
Deciduous Trees Larger than 2" Cal.
Evergreen Trees Larger than 6' Height
No Scale



Notes:
1. *Coordinate sleeve locations with the irrigation contractor. verify irrigation line depth and adjust sleeve depth to match*
2. *Sleeve shall be a minimum of 4" schedule 80 PVC. adjust sleeve size to be at least 2 pipe sizes larger than the irrigation line when pipe sizes exceed 2"*

17 IRRIGATION SLEEVE
NOT TO SCALE



D1 TREE WELL
NOT TO SCALE

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:
TREE, TREE GRATE, & IRRIGATION DETAILS

SHEET NO.
12
SHEET 12 OF 37

CADconform Certify This File

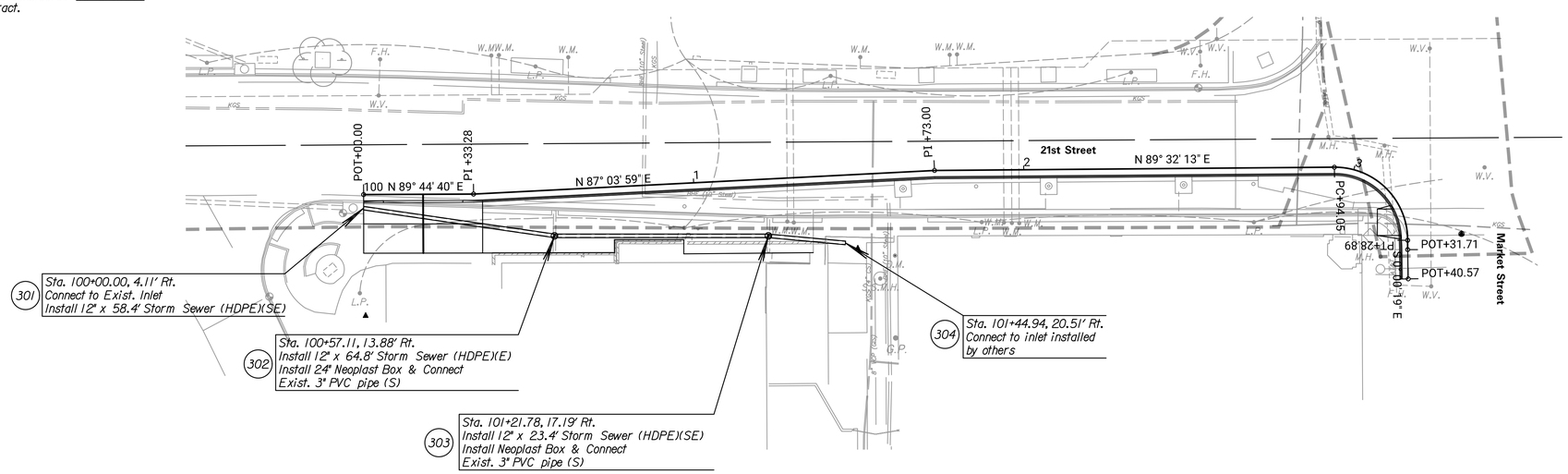
dmmckee
6/8/2026 - 4:14:38 PM - c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1520436\IC-DET-108.dgn

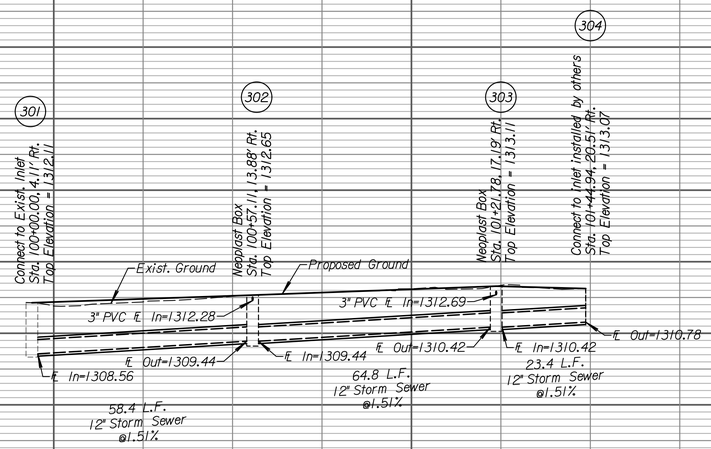
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

CADconform Certify This File

Note:
Any materials, labor, and incidental work required for installation of drainage inlets, including the drain basin, frame and grate, adapters, watertight connections, excavation, bedding, backfill, compaction, and concrete support, necessary to complete the work shown in the plans, shall be considered SUBSIDIARY to other items of the contract.

SCALE: 1"=20'
20' 0 20' 40'





TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET
WICHITA, KANSAS
CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

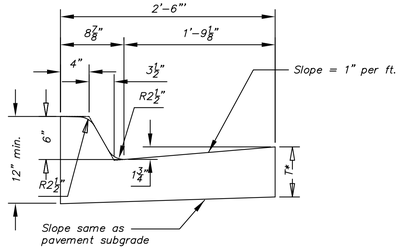
SHEET TITLE:
21ST STREET STORM SEWER IMPROVEMENTS

SHEET NO.
13
SHEET 13 OF 37

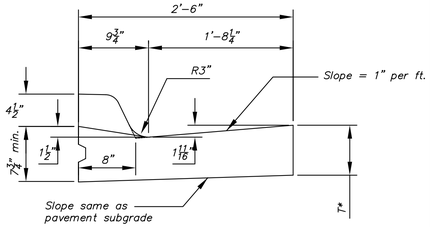
dmnoteas
6/8/2026 - 4:14:45 PM - c:\transystems\ow_local\transyscorp-pw1\ea_dmnoteas\d1524369\C-SDR-M01-101.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

TYPE 1
(Arterial curb)

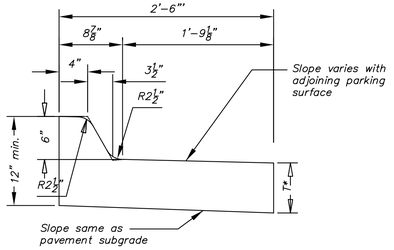


Combined Curb & Gutter (6")



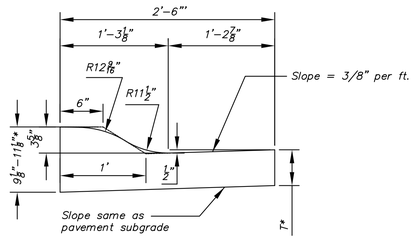
Combined Curb & Gutter (1 1/2")

TYPE 1
(Special curb)

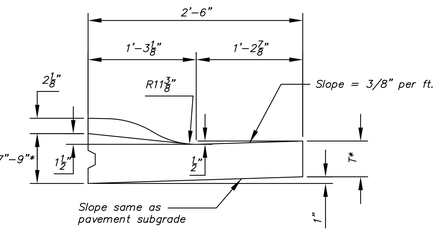


Combined Curb & Gutter (6")

TYPE 2
(Roll curb)

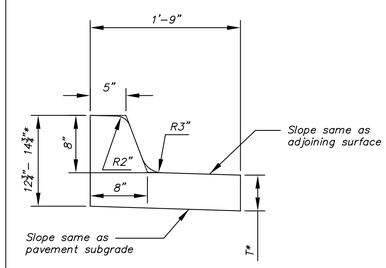


Combined Curb & Gutter (3 5/8")

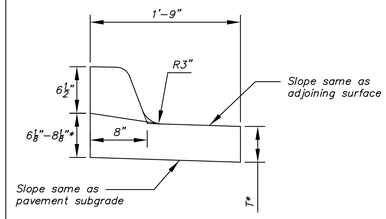


Combined Curb & Gutter (1 1/2")

TYPE 3
(Median curb)

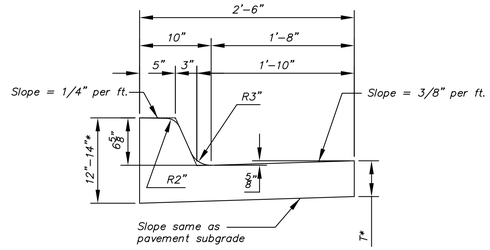


Combined Curb & Gutter (8")

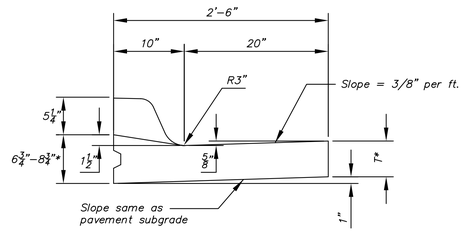


Combined Curb & Gutter (1 1/2")

TYPE 4
(Residential curb)

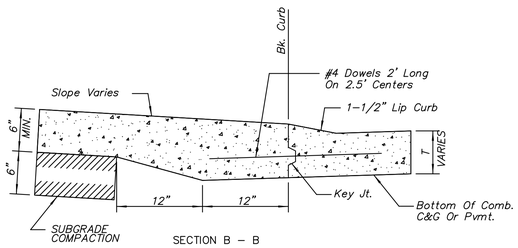


Combined Curb & Gutter (6 5/8")

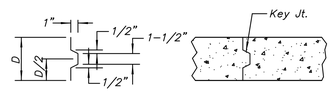


Combined Curb & Gutter (1 1/2")

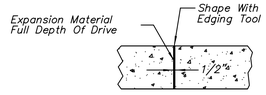
T* = Thickness of curb to adjust with pavement thickness



BACK OF CURB DETAIL



ALT. LONGITUDINAL CONSTRUCTION JOINT



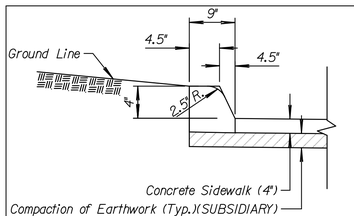
EXPANSION JOINT (E.J.)

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.



4" Edge Curb shall be paid for by the bid item "Concrete Edge Curb (4")" and shall include all work, materials, labor and equipment necessary to complete this work. The edge curb may be placed monolithically with sidewalk. Joints from sidewalk shall be continued through edge curb and no other planes of weakness will be required. All exposed edges shall be finished with an edging tool. Edge curb shall have a 2.5' transition from sidewalk to full curb height at each end.

4" Edge Curb Detail

REVISED: OCTOBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

CURB & GUTTER & PAVING BRICK CROSSWALK DETAILS

CITY ENGINEER
PAUL GUNZELMAN, P.E.

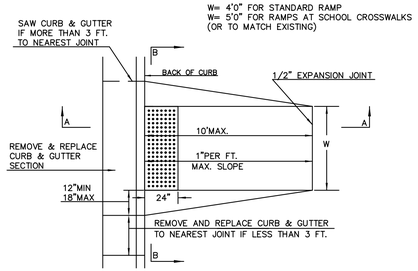
PROJECT NUMBER	OCA NUMBER	DATE
472-2025-086156		6/8/2026

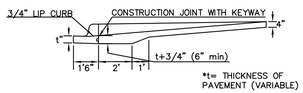
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
14 of 37

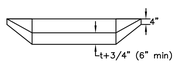
PV-101

STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER (TYPE A)



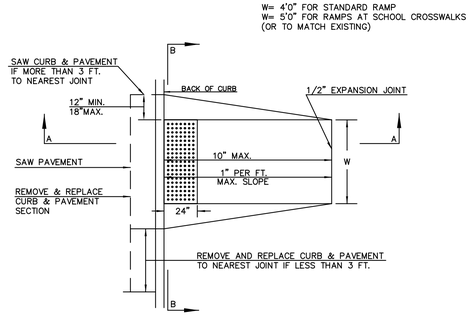


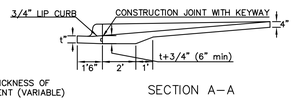
SECTION A–A



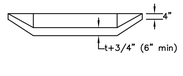
SECTION B–B

STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR CONCRETE STREETS WITH MONOLITHIC CURB (TYPE A)



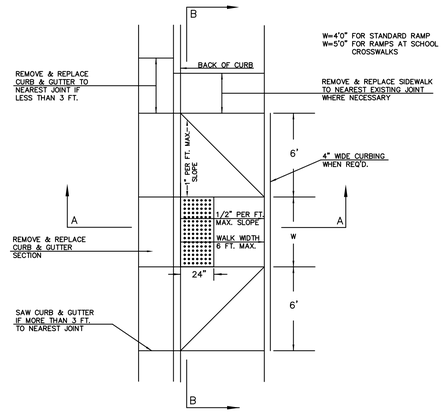


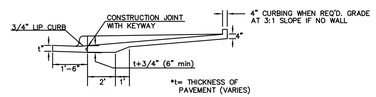
SECTION A–A



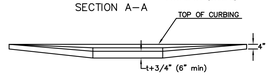
SECTION B–B

STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER AND FULL WALK (TYPE B)



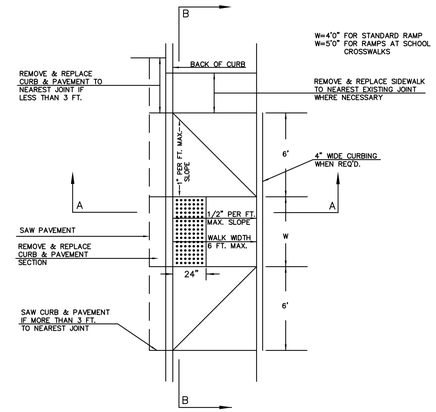


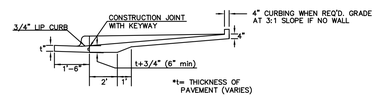
SECTION A–A



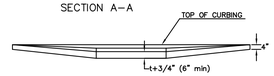
SECTION B–B

STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH MONOLITHIC CURB AND FULL WALK (TYPE B)



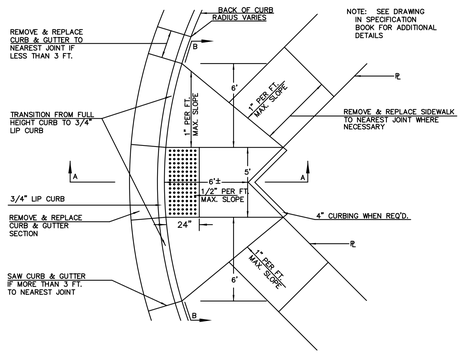


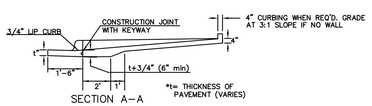
SECTION A–A



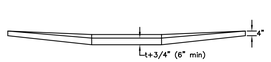
SECTION B–B

STANDARD WHEELCHAIR RAMP CONSTRUCTION DEAIL FOR STREET WITH COMBINED CURB AND GUTTER ON RADIUS WITH 6'± FROM BACK OF CURB TO PROPERTY CORNER (TYPE C)



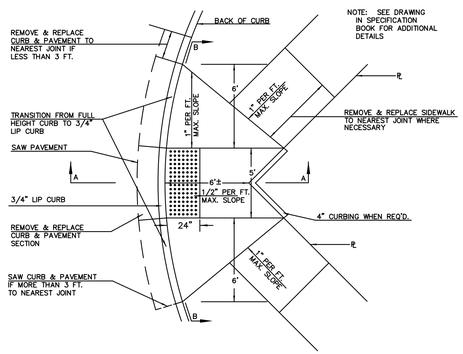


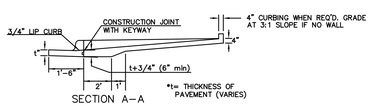
SECTION A–A



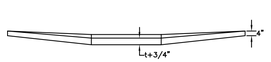
SECTION B–B

STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREET WITH MONOLITHIC CURB ON RADIUS WITH 6'± FROM BACK OF CURB TO PROPERTY CORNER (TYPE C)



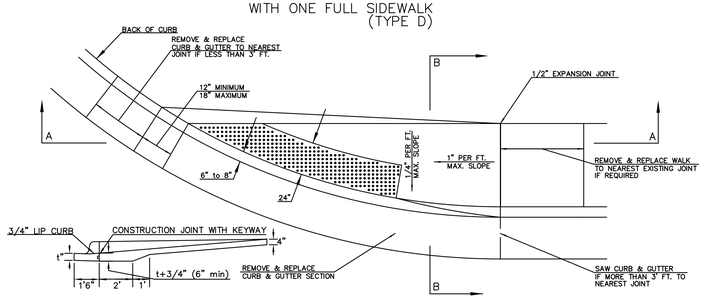


SECTION A–A

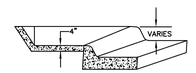


SECTION B–B

STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER WITH ONE FULL SIDEWALK (TYPE D)

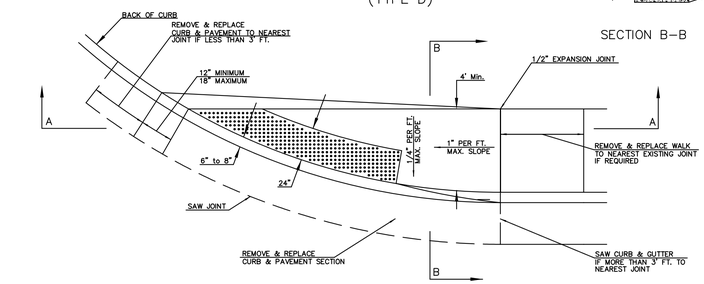


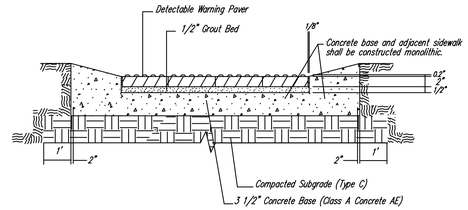
SECTION A–A



SECTION B–B

STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH MONOLITHIC CURB WITH ONE FULL SIDEWALK (TYPE D)

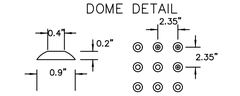




TYPICAL SECTION DETECTABLE WARNING PAVER SECTION A–A

NOTE: HANOVER DETECTABLE WARNING PAVERS (OR AN APPROVED ALTERNATE) SHALL BE USED IN ALL WHEELCHAIR RAMPS. THE 11 3/4" "RED 15" PAVER SHALL BE USED IN ALL APPLICATIONS.
HANOVER ARCHITECTURAL PRODUCTS
240 BENDER ROAD
HANOVER, PA 17331
1–717–637–0500
www.hanoverpavers.com

DOME DETAIL



CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

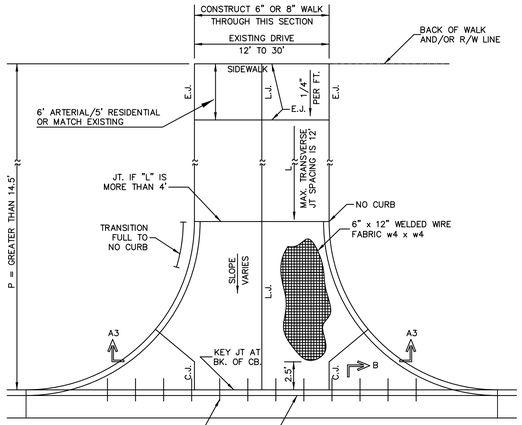
WHEELCHAIR RAMP DETAILS WITH DETECTABLE WARNING

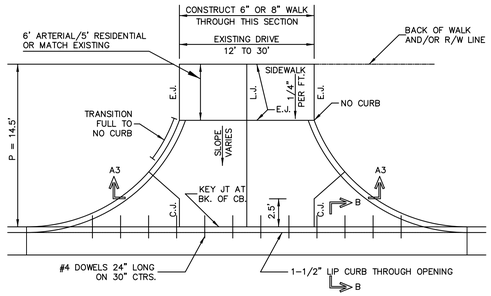
CITY ENGINEER
PAUL GUNZELMAN, P.E.

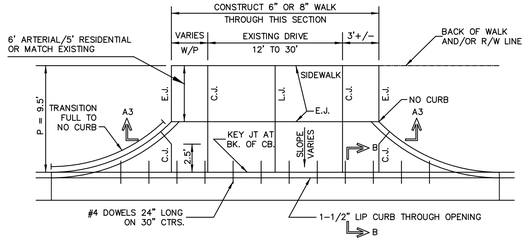
PROJECT NUMBER	OCA NUMBER	DATE
472-2025-086156		6/8/2026

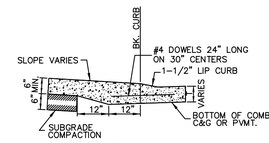
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
15 of 37



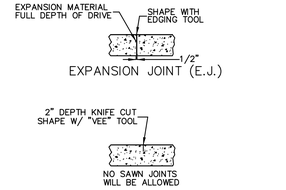






SECTION B – B

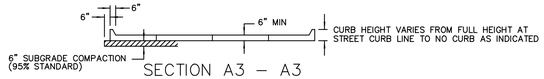
ALT. LONGITUDINAL CONSTRUCTION JOINT



EXPANSION JOINT (E.J.)

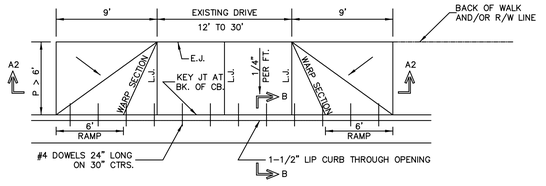
CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)

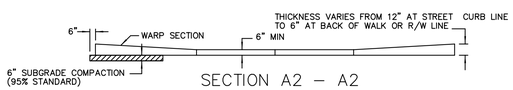
BACK OF CURB DETAIL



SECTION A3 – A3

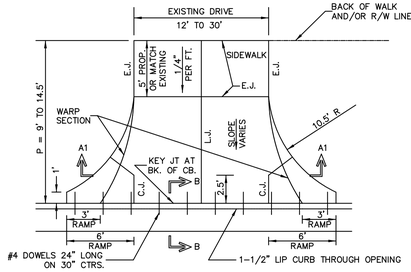
FULL RADIUS DRIVES (ARTERIAL/COLLECTOR DRIVEWAY)

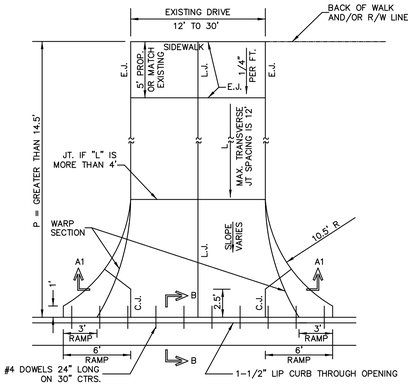


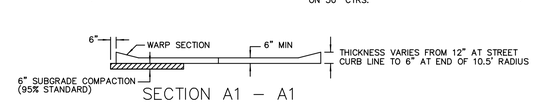


SECTION A2 – A2

FULL RAMP DRIVES (P = 4.0' & 6.5')







SECTION A1 – A1

RADIUS RAMP DRIVES (RESIDENTIAL DRIVEWAY)

GENERAL NOTES

1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH ROLL CURB AND/OR FULL WALK.
2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A WIDTH DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A WIDTH DIMENSION GREATER THAN 24'.
3. DRIVEWAY WIDTH DENOTED AS WIDTH ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 12' AND A MAXIMUM OF 30'. THE MAXIMUM OPENING FOR RADIUS TYPE DRIVES WITH CURBS THROUGH THE RADIUS SHALL NOT EXCEED 52' AT THE STREET CURB LINE.
4. CONTRACTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 3' AND A MAXIMUM OF 6' AND ARE TO BE EQUALLY SPACED WITHIN THIS RANGE. WALK SECTION SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
5. ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE DRIVEWAY CONSTRUCTION.
6. ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER DRIVE CONSTRUCTION ABUTS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL ALSO BE INSTALLED ALONG THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVE CONSTRUCTION ALONG THIS LINE ABUTS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSION.
7. DRIVEWAYS ONLY ON RESIDENTIAL PROPERTIES ONLY CAN BE CONSTRUCTED WITH 6" IN THICKNESS AND CAN BE WITHOUT REINFORCEMENT.
8. ALL DRIVEWAYS TO NONRESIDENTIAL PROPERTY SHALL BE A MINIMUM OF 8" IN THICKNESS AND SHALL HAVE REINFORCEMENT WITH 6"x12", W4xW4.

REVISED: NOVEMBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD DRIVE ENTRANCES FULL HEIGHT CURB

CITY ENGINEER
PAUL GUNZELMAN, P.E.

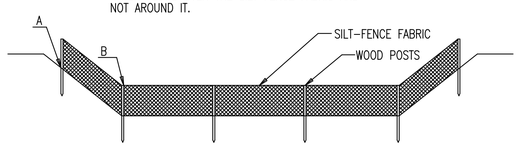
PROJECT NUMBER	OCA NUMBER	DATE
472-2025-086156		6/8/2026

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

SHEET
16 of 37

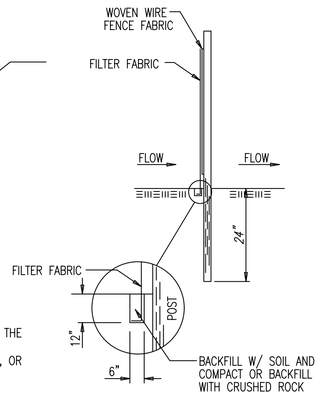
PV–126

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 6R LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH CHECK DITCH GRADE (%)	SPACING CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS AT LEAST 12" DEEP BY 6" WIDE.
EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK.
PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH FOR LATER USE.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSTREAM SIDE OF THE TRENCH.
PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSTREAM EDGE OF THE TRENCH.
LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED.
LAY THE EXPOSED SILT FENCE ON THE UPSTREAM SIDE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSTREAM OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 24". PLACE POSTS NO MORE THAN 4' APART.
ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

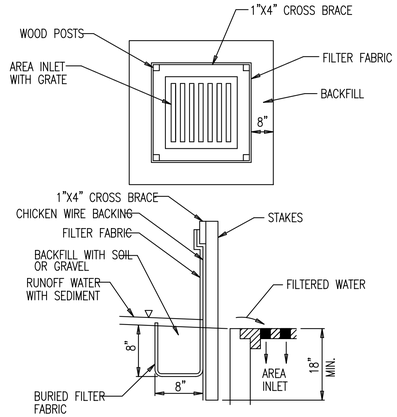
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK–NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM.
DO NOT PLACE SILT FENCE POSTS ON THE UPSTREAM SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT PLACE A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW.
DO NOT PLACE SILT FENCE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW.
FOLLOW PRESCRIBED DITCH CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS.
DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE.
DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

INSPECTION AND MAINTENANCE:

SILT FENCE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

DOES WATER FLOW AROUND THE DITCH CHECK?
DOES WATER FLOW UNDER THE DITCH CHECK?
DOES THE SILT FENCE SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



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.

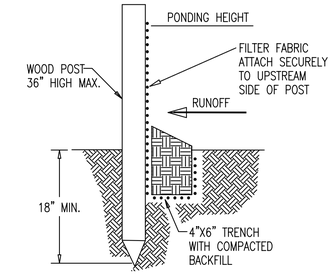
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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?

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
PAUL GUNZELMAN, P.E.

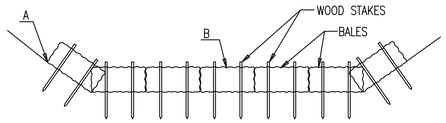
PROJECT NUMBER	OCA NUMBER	DATE
472-2025-086156		6/8/2026

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

SHEET
17 of 37

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 6R LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.
THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH GRADE (%)	CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH-IT WILL BE USED LATER.
OPTIONAL: ON THE DOWNSTREAM SIDE OF THE TRENCH, ROLL OUT A LENGTH OF EROSION-CONTROL BLANKET (SCOUR APRON) EQUAL TO THE LENGTH OF THE TRENCH. PLACE THE UPSTREAM EDGE OF THE EROSION-CONTROL BLANKET ALONG THE BOTTOM UPSTREAM EDGE OF THE TRENCH. THE EROSION CONTROL BLANKET SHOULD BE ANCHORED IN THE TRENCH WITH ONE ROW OF 8" LANDSCAPE STAPLES PLACED ON 18" CENTERS. THE REMAINDER OF THE EROSION-CONTROL BLANKET (THE PORTION THAT IS NOT LYING IN THE TRENCH) WILL SERVE AS THE DOWNSTREAM SCOUR APRON. THIS SECTION OF THE BLANKET SHOULD BE ANCHORED TO THE GROUND WITH 8" LANDSCAPE STAPLES PLACED AROUND THE PERIMETER OF THE BLANKET ON 18" CENTERS. THE REMAINDER OF THE BLANKET SHOULD BE ANCHORED USING TWO EVENLY SPACED ROWS OF 8" LANDSCAPE STAPLES ON 18" CENTERS PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH.
PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND.
ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSTREAM SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP AND EXTEND UPSTREAM NO MORE THAN 24".

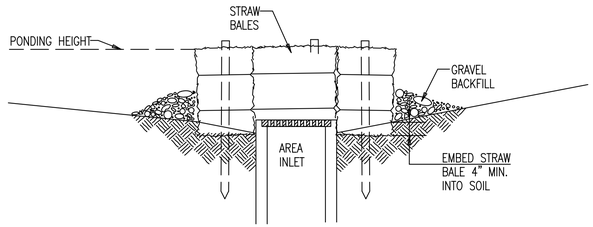
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

DO NOT PLACE A BALE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW.
DO NOT PLACE BALE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW.
FOLLOW PRESCRIBED DITCH-CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS.
DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE.
DO NOT PLACE BALE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.
BALE DITCH CHECKS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE CHECK.

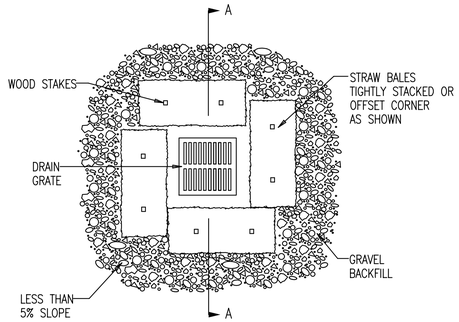
INSPECTION AND MAINTENANCE:

BALE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

DOES WATER FLOW AROUND THE DITCH CHECK?
DOES WATER FLOW UNDER THE DITCH CHECK?
DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
ARE ANY BALES AND/OR SCOUR APRONS (OPTIONAL) DISLODGED?
ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

BALE AREA INLET BARRIERS SHOULD BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE.
THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

BALE AREA INLET BARRIERS SHOULD BE PLACED DIRECTLY AROUND THE PERIMETER OF A DROP INLET.
WHEN A BALE AREA INLET BARRIER IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 4" DEEP BY A BALE'S WIDTH WIDE.
PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. SOME BALES MAY NEED TO BE SHORTENED TO FIT INTO THE TRENCH AROUND THE AREA INLET. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS.
STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND.
ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE RECEIVING SIDE OF THE BARRIER AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.
NOTE: WHEN A BALE AREA INLET BARRIER IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

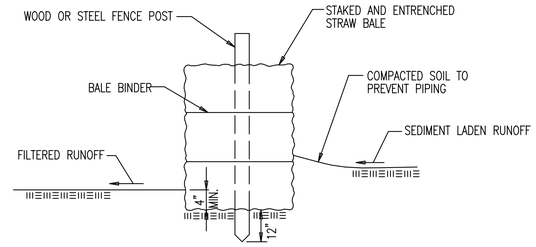
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

BALES SHOULD BE PLACED DIRECTLY AGAINST THE PERIMETER OF THE AREA INLET. THIS ALLOWS OVERTOPPING WATER TO FLOW DIRECTLY INTO THE INLET INSTEAD OF ONTO NEARBY SOIL CAUSING SCOUR.
BALE AREA INLET BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

BALE AREA INLET BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

DOES WATER FLOW UNDER THE AREA INLET BARRIER?
DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
ARE ANY BALES DISLODGED?
ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



STRAW BALE BARRIERS

MATERIAL SPECIFICATION:

BALE SLOPE BARRIERS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE.
THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT.
WHEN PRACTICABLE, BALE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW.
BALE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE.
PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND.
ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICAL, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER FAILS.
DO NOT PLACE BALE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.
BALE SLOPE BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

BALE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
DOES WATER FLOW UNDER THE SLOPE BARRIER?
DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
ARE ANY BALES DISLODGED?
ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STRAW BALE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-2025-086156		6/8/2026

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

SHEET
18 of 37

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.

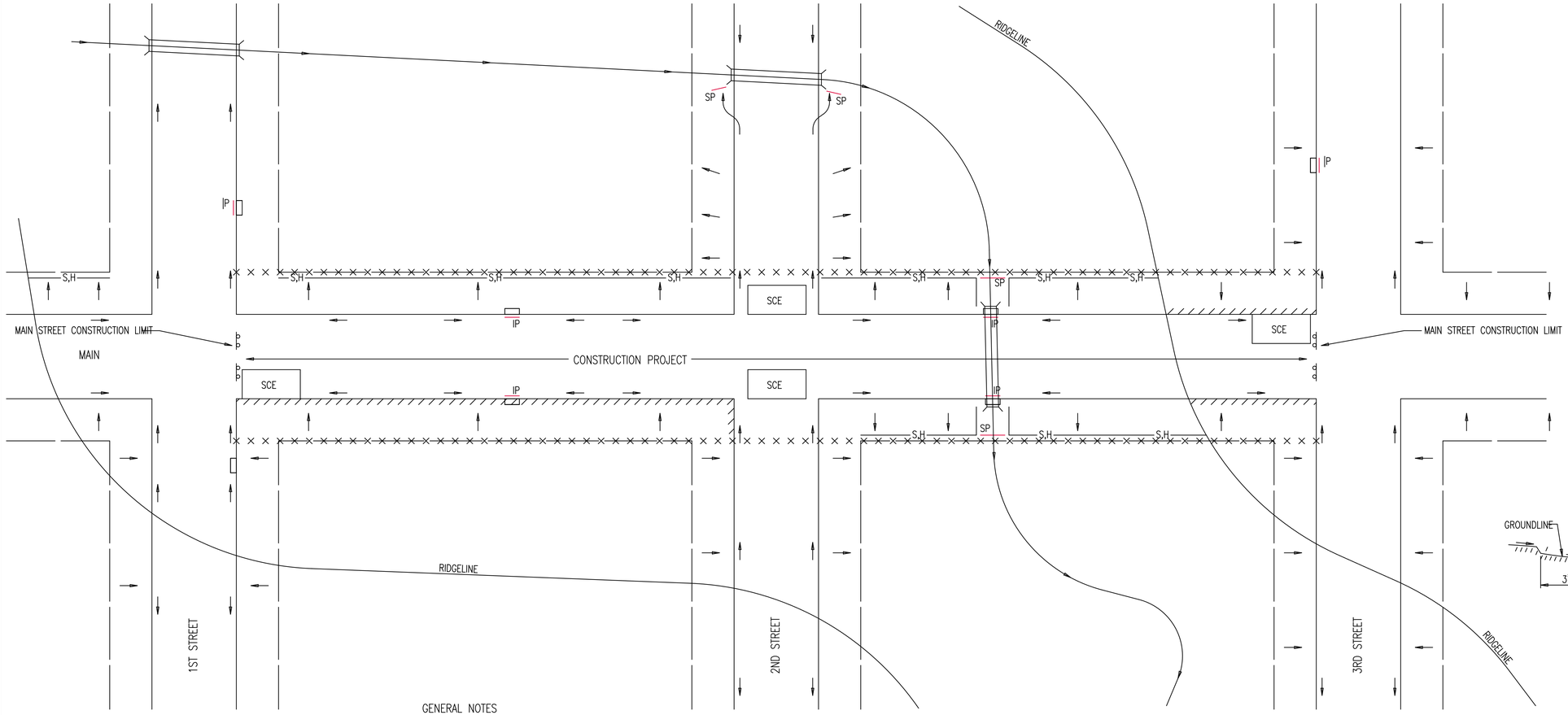
2. EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.

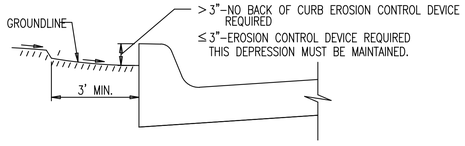
3. IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.

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)

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

STREET IMPROVEMENT PROJECTS

CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-2025-086156		6/8/2026

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

SHEET
19 of 37

SW-504

CONCRETE PAVEMENT 8"			
STATION to STATION		WIDTH (FT)	S.Y.
100+00.00	100+35.47	Varies	61.2
TOTALS			61.2

SIDEWALK CONSTRUCTION (4")			
STATION to STATION		WIDTH (FT)	S.F.
100+35.43	103+40.55	Varies	3270.0
TOTALS			3270.0

SALVAGED BRICK PAVERS			
STATION to STATION		SIDE	S.F.
100+35.84	100+56.67	Rt.	29.2
100+58.64	101+20.78	Rt.	86.7
101+23.39	101+38.28	Rt.	20.1
101+70.21	103+13.20	Rt.	192.0
103+13.40	103+27.42	Rt.	20.7
103+21.76	103+29.43	Rt.	18.2
103+31.66	103+40.57	Rt.	20.3
TOTALS			387.1

CONCRETE CURB, MONO EDGE (6" & 1-1/2")			
STATION to STATION		SIDE	LENGTH (FT)
100+00.00	103+40.57	Rt.	336.7
TOTALS			336.7

WHEELCHAIR RAMPS W/ DETECTABLE WARNINGS			
STATION	OFFSET	SIDE	EA
103+20.11	8.11	Rt.	1
TOTALS			1

CONCRETE SIDEWALK 4" THICKENED EDGE			
STATION to STATION		SIDE	L.F.
101+35.10	101+35.61	Rt.	10.1
101+60.52	102+47.85	Rt.	87.3
TOTALS			97.4

REMOVAL OF EXIST. STRUCTURES (FOR INFORMATION ONLY)		
STATION	LOCATION	DESCRIPTION
100+92.20	13.26' Rt.	Removal of Bike Rack
100+96.61	13.51' Rt.	Removal of light pole
101+00.61	14.02' Rt.	Removal of Bike Rack
101+87.17	15.57' Rt.	Removal of light pole
102+69.55	16.44' Rt.	Removal of light pole

SUMMARY OF REMOVAL			
STATION to STATION		PAVEMENT REMOVED (S.Y.)	CONCRETE C&G (L.F.)
100+00.00	103+40.57	499.4	329.2
TOTALS		499.4	329.2

EARTHWORK							
STATION to STATION	EXCAVATION					COMPACTION	
	COMMON		ROCK		CONTRA. FURN. CU. YDS.	FILL, 95% DENSITY C.Y.	
	CU. YDS.	VMF	CU. YDS.	VMF			
100+00.00 to 103+40.57	23	0.85	115	1.0	92	98	
TOTALS	23	0.85	115	1.0	92	98	

RECAPITULATION OF ROAD QUANTITIES		
ITEM	QUANTITY	UNIT
Mobilization	Lump Sum	LSUM
Site Restoration	Lump Sum	LSUM
Excavation, Common	23	C.Y.
Fill, Compacted (95% Density)	98	C.Y.
Pavement Removed	299	S.Y.
Concrete Sidewalk Removed	184	S.Y.
Concrete C & G Removed	330	L.F.
Concrete Pavement, 8"	62	S.Y.
Concrete C & G, Type I (6" & 1-1/2")	337	L.F.
Clay Brick Pavers on Conc. - Salvaged	387	S.F.
Clay Brick Pavers on Conc. - Remove/Reset of Brick Banding & Crosswalk	318	S.F.
Concrete Sidewalk, 4"	3270	S.F.
Concrete Sidewalk 4" - Thickened Edge	97	L.F.
Wheelchair Ramp w/ Detectable Warnings	1	EA
Pipe, SWS 12" (HDEPE)	147	L.F.
Nyloplast 24" Drain Basin	2	EA
Fill, Sand (Flushed & Vibrated)(SWS)	147	L.F.
Connection to Existing Inlet	1	EA
Bike Rack Remove and Reset	2	EA
Traffic Control	Lump Sum	LSUM
Pavement Marking	Lump Sum	LSUM
Light Pole Adjustments	Lump Sum	LSUM
BMP, Back of Curb Protection	337	L.F.
1" Service Line, Short Adjustments	2	EA
Irrigation Sleeve	17	L.F.
Topsoil	90	C.Y.
Tree Grate	3	EA
Tree - 3" Cal	3	EA

TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-2025-086156
SCALE: N/A
DATE: 6/9/2026
DESIGNED BY: DJK
DRAWN BY: DJK
CHECKED BY: MDB

SHEET TITLE:

SUMMARY OF QUANTITIES

SHEET NO.
20
SHEET 20 OF 37

dmmckee
6/9/2026 - 3:48:19 PM - c:\transystems\ow_local\transyscorp-pw1a-e_dmmckee\d1524441\vd050.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

LEGEND

PHASE I

PHASE I

Phase I construction shall construct all improvements along 21st Street between the project limits shown. Construction shall be completed in a single phase with traffic control adjusted as necessary to maintain local access to adjacent properties and side streets. Major items of work shall include pavement removal and replacement, storm sewer construction, curb & gutter, and driveway construction. Temporary closures and lane shifts shall be implemented as required to safely accommodate construction operations.

GENERAL NOTES

1. The construction phasing indicates major items of work and a general sequence of construction. It does not include all items of work. Certain situations may arise which preclude adhering to the original Construction Phasing. Should this occur, the Contractor may submit to the Engineer an alternate plan for approval.
2. All traffic control shall conform to the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD).
3. Speed limit in the work zones shall remain the same prior to construction unless otherwise noted on the plans or at the discretion of the Engineer.
4. All existing signs in conflict with the traffic control or the final lane configuration shall be covered or removed and either reset or stored on site for retrieval by the Owner as directed by the Engineer. Existing signs necessary for traffic during construction shall be adjusted (and later reset), as necessary, as directed by the Engineer.
5. Pavement markings conflicting with the traffic control shall be either removed or covered with an approved removable tape during construction. Temporary pavement markings shall be Type I Temporary Pavement Marking Tape. The Contractor shall maintain all temporary pavement markings throughout their intended service life.
6. As work is complete, the Contractor shall install permanent signing and pavement markings as in the pavement marking and signing plans or as directed by the Engineer.
7. The Contractor is to build a temporary 3:1 slope along the centerline through the construction area at the end of each work day.
8. The Contractor shall close sideroads as needed to complete the work necessary through the intersection. All sideroad closures shall be approved by the Engineer prior to the closure. No two consecutive sideroads shall be closed at the same time.
9. The Contractor will be required to provide access to property owners or occupants during construction. The Contractor shall provide seven (7) days notice to property owners and occupants before beginning improvements in the vicinity of their property.
10. The Contractor shall only close drives/entrances to businesses and residences during the time improvements are being made in the vicinity of the property.
11. The Contractor shall work with adjacent businesses and residents to maintain access as long as possible in advance of the work area and restore access as soon as possible after the construction is completed in the area.
12. The Contractor shall notify all property owners or business owners of any significant traffic changes during construction a minimum of seven (7) days in advance of traffic changing.



TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000

21ST AND MARKET IMPROVEMENTS
FROM PARK PLACE TO MARKET

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-2025-086156
SCALE: 1"=20'
DATE: 6/8/2026
DESIGNED BY: DJK
DRAWN BY: GJR
CHECKED BY: MDB

SHEET TITLE:

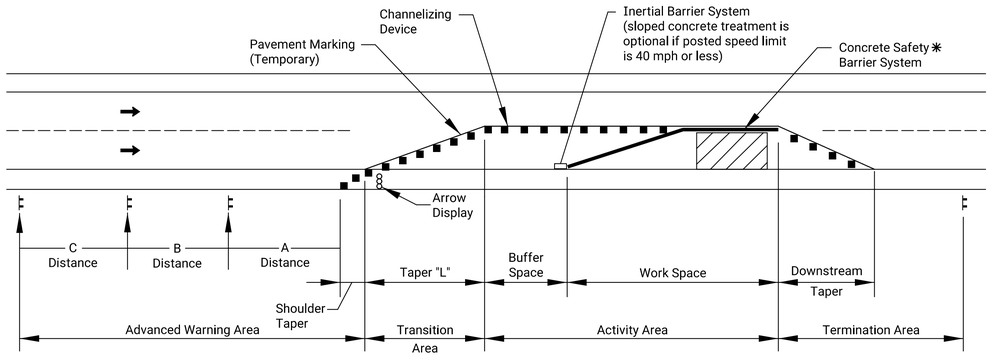
CONSTRUCTION PHASING OVERVIEW

SHEET NO.
21
SHEET 21 OF 37

dmmckee
6/8/2026 - 4:15:15 PM - c:\transystems\ow_local\transystemspw_bca\transystemspw1a-e_dmmckee\d1524369\C-CPP-M01-101.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	22	37



TYPICAL WORK ZONE COMPONENTS

Taper Length (L)

✱✱ Posted speed prior to work starting

Speed✱✱ (MPH)	Width of Offset (ft)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
20	7	13	20	27	33	40	47	53	60	67	73	80	87
25	10	21	31	42	52	63	73	83	94	104	115	125	135
30	15	30	45	60	75	90	105	120	135	150	165	180	195
35	20	41	61	82	102	123	143	163	184	204	225	245	265
40	27	53	80	107	133	160	187	213	240	267	293	320	347
45	45	90	135	180	225	270	315	360	405	450	495	540	585
50	50	100	150	200	250	300	350	400	450	500	550	600	650
55	55	110	165	220	275	330	385	440	495	550	605	660	715
60	60	120	180	240	300	360	420	480	540	600	660	720	780
65	65	130	195	260	325	390	455	520	585	650	715	780	845
70	70	140	210	280	350	420	490	560	630	700	770	840	910
75	75	150	225	300	375	450	525	600	675	750	825	900	975

✱When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

Taper Formulas:

L = WS for speeds of 45 MPH or more

$L = WS^2/60$ for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet
S = Numerical value of posted speed prior to work starting in MPH
W = Width in offset feet

Shifting Taper=1/2 L
Shoulder Taper=1/3 L

A distance of at least 2L should separate merging and shifting tapers

Advance Warning Sign Spacing

✱✱ Posted speed prior to work starting

SPEED (MPH)✱✱	A	B	C
URBAN (40MPH OR LOWER)	100	100	100
URBAN (45 MPH OR HIGHER)	350	350	350
RURAL (55 MPH OR LOWER)	500	500	500
RURAL (60 MPH OR HIGHER)	750	750	750
EXPRESSWAY/FREEWAY	1000	1500	2640

Minimum advance warning sign spacing (in feet)

The minimum spacing between signs shall be no less than 100', unless directed by the engineer.

The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

Channelizer Placement:

(1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.

(2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.

(3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.

(4) Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.

(5) Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

Buffer Spacing

✱✱ Posted speed prior to work starting

SPEED (MPH) ✱✱	*20*	*25*	*30*	*35*	*40*	*45*	*50*	*55*	*60*	*65*	*70*	*75*
LENGTH (ft)	*115*	*155*	*200*	*250*	*305*	*360*	*425*	*495*	*570*	*645*	*730*	*820*

Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.

2) Minimum Lane Width: Lane widths shall be a minimum of 11', measured between centerlines of pavement markings (centerline, edge line and lane line) or as directed by the engineer. A lane width less than 10' should be closed according to the currently adopted MUTCD. Lane widths that fall between 11' and 10' should include restricted roadway signing (W5-1, W5-2, W5-4)

3) TTC plans should include bicyclists and pedestrians, including those with disabilities, and should be provided with accesses and passage through the TTC
zone.

3a) Adequate warning, delineation, and channelization should be provided to assist in guiding road users in advance of and through the TTC zone with information in a usable format for pedestrians with vision disabilities. Provisions for effective continuity of accessible circulation paths for pedestrians should be incorporated into the TTC plan.

3b) When existing pedestrian facilities including transit are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. A pedestrian channelizing device that is detectable by a person with a vision disability traveling with the aid of a long cane shall be placed across the full width of the closed pedestrian facility. Pedestrian and bicycles are not allowed on Interstate.

3c) SIDEWALK CLOSED CROSS HERE signs shall include audible information devices to provide adequate communication to pedestrians with vision disabilities.

4) When the driving surface open to traffic is milled, or is a temporary surface made of loose material, or when directed by the engineer, a W8-15 (Grooved Pavement) or W8-7 (Loose Gravel) sign shall be used on mainline approaches. This sign should be placed a "C" distance after the W20-1 (Road Work Ahead) sign. A W8-15p motorcycle plaque shall be used to supplement the W8-15 or W8-7 signs. All signs shall be displayed as long as the condition is present.

5) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-3618

6) When detour routes impact railroad grade crossings, verify that there is no potential to cause queuing, if so, install "DO NOT STOP ON TRACKS" (R8-8).

7) When Temporary Traffic Control plans impact a railroad grade crossing, a temporary traffic signal will need to be approved by KDOT Traffic engineering and the affected railroad company.

8) Temporary traffic control signs shall not restrict the motorist visibility to railroad devices.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

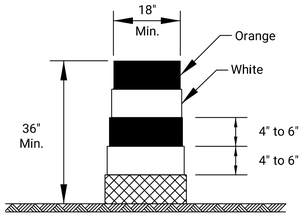
TRAFFIC CONTROL GENERAL NOTES

TE700

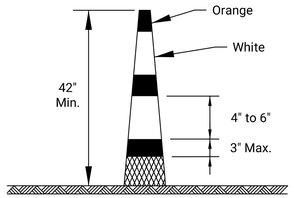
FHWA APPROVAL		12-05-25	APP'D.	Nick Rogers	
DESIGNED	B.A.H.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1524441\te700.dgn
Plotted : 6/8/2026

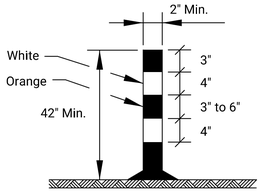
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	23	37



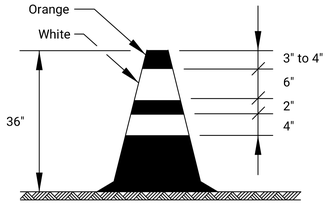
DRUM



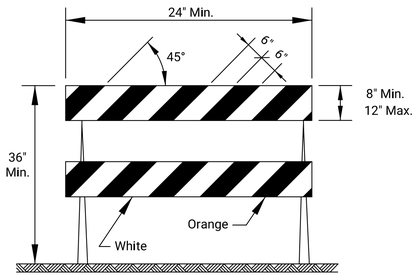
CONICAL DELINEATOR



TUBULAR MARKER

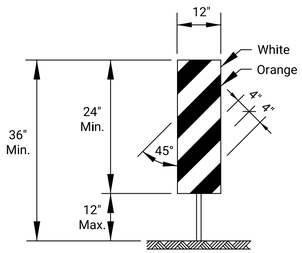


TRAFFIC CONE



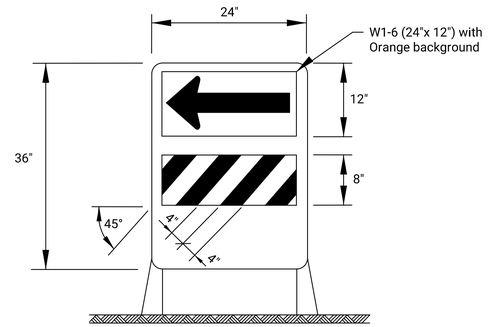
TYPE 2 BARRICADE

For rails less than 36" long, 4" wide stripes may be used. All stripes shall slope downward to the traffic side for channelization.



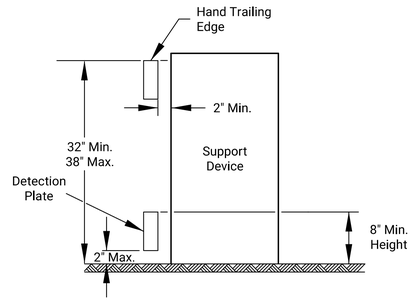
VERTICAL PANEL

The stripes shall slope downward to the traffic side for channelization.



DIRECTION INDICATOR BARRICADE

The stripes shall slope downward in the direction traffic is to pass. The direction indicator barricade shall be used in series to direct the motorist into the intended lane of travel.



PEDESTRIAN CHANNELIZER

1. Support device shall not project beyond the detection plate into the pathway.
2. Hand trailing edges and detection plates are optional for continuous walls.
3. Interconnect pedestrian channelizers to prevent displacement and to provide continuous guidance through or around work.
4. Alternate pathways shall be firm, stable, and slip resistant.
5. Treat height differentials > 1/2" in the surfaces of alternate paths with a firm, stable, and slip resistant temporary ramp having a slope of 12:1 or flatter and having a width equal to the alternate path.
6. Use alternating orange/white on interconnected devices.

Item	Location	Cross-overs	Shoofly Diversions	Tangents	Tapers	Ramps	Head to Head	Object Identifier	Lead-in Devices	Gores
Portable										
	Drums	Yes	Yes	Yes	Yes	Yes	(1)	Yes	Yes	Yes
	Conical Delineators	Yes	Yes	Yes	Yes	Yes	(1)	Yes	Yes	Yes
	Vertical Panels	Yes	Yes	Yes	Yes	Yes	(1)	Yes	Yes	Yes
	Direction Indicator Barricade	No	No	No	Yes	No	No	No	No	No
	Type 2 Barricade	Yes	Yes	Yes	Yes	No	No	Yes	No	No
	Traffic Cones	No	No	(3)	(3)	(3)	No	(3)	(3)	(3)
Fixed										
	Tubular Markers	(2)	(2)	(2)	No	(2)	Yes	No	Yes	Yes
	Vertical Panels	(2)	(2)	(2)	(2)	(2)	(2)	Yes	(2)	Yes

(1) Not allowed on centerline delineation along freeways or expressways.
(2) May be used upon the approval of the engineer.
(3) Daytime operations only.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL CHANNELIZING DEVICES

TE702

FHWA APPROVAL		12-05-25	APP'D.	Nick Rogers	
DESIGNED	L.E.R.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Drawn By : dmmckee Plotted : 6/8/2026
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1524441\te702.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	24	37

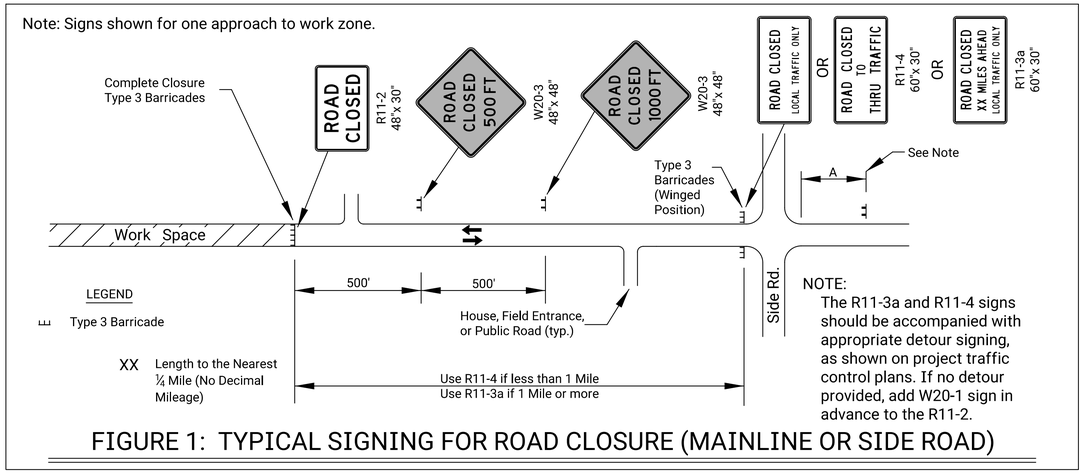


FIGURE 1: TYPICAL SIGNING FOR ROAD CLOSURE (MAINLINE OR SIDE ROAD)

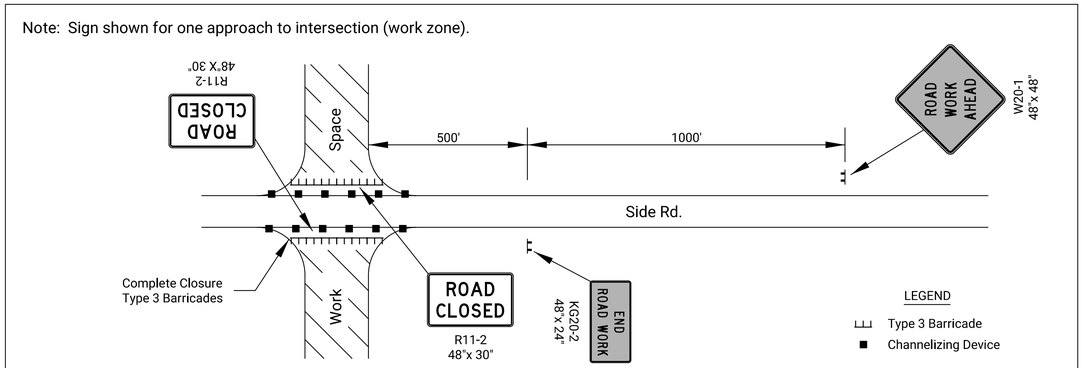


FIGURE 2: TYPICAL SIGNING FOR SIDE ROAD OPEN

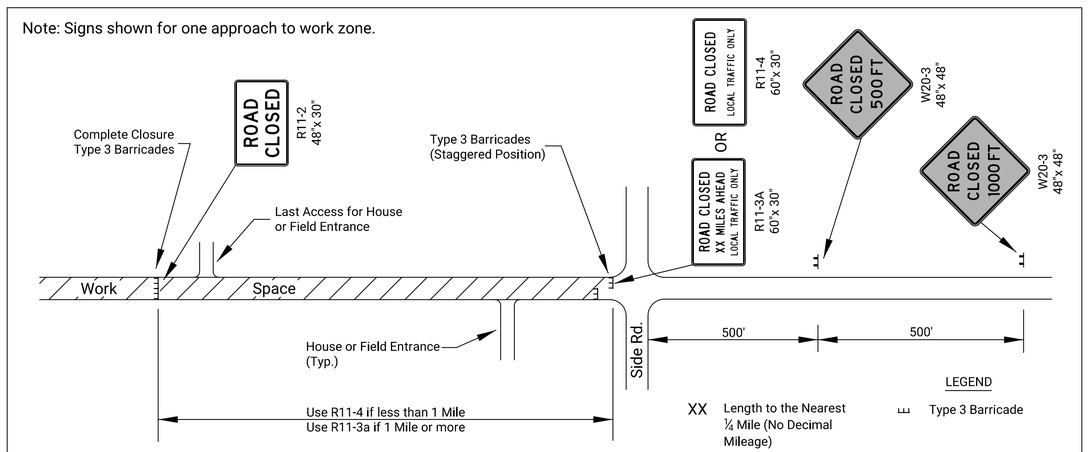


FIGURE 3: TYPICAL SIGNING FOR ROAD CLOSURE - LOCAL TRAFFIC ACCESS

ROAD CLOSED GENERAL NOTES

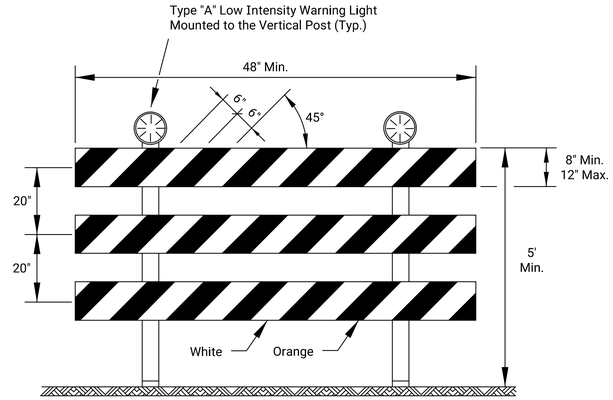
As shown in Figure 1, at the point where thru traffic must detour and local traffic can proceed to the location where the roadway is completely closed, the R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) or R11-4 (ROAD CLOSED LOCAL TRAFFIC ONLY or ROAD CLOSED TO THRU TRAFFIC) sign shall be used with Type 3 barricades (winged position), placed on the shoulders of roadway.

As shown in Figure 3, when local traffic must be allowed access into the work zone, Type 3 barricades shall be longitudinally staggered to maintain the appearance of a closed roadway. A second line of end-to-end Type 3 barricades shall be placed just beyond the last access point in the work zone, to completely close the roadway.

The R11-4 (ROAD CLOSED TO THRU TRAFFIC or ROAD CLOSED LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is less than 1 mile.

The R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is 1 mile or greater.

The words "BRIDGE OUT" (or BRIDGE CLOSED) may be substituted for the words "ROAD CLOSED" on the R11-3a or R11-4 sign where applicable.



TYPE 3 BARRICADE WITH LIGHTS

Approved signs mounted on Type 3 barricades should not cover more than 50% of the top two rails or 33% of the total area of the three rails.

When barricades are placed end-to-end or staggered, a Type "A" low intensity warning light shall be mounted to the vertical post near each outside corner of the end barricades.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL CLOSURES

TE704

FHWA APPROVAL		12-05-25	APP'D.	Nick Rogers	
DESIGNED	B.A.H.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1524441\te704.dgn
Plotted : 6/8/2026

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	25	37

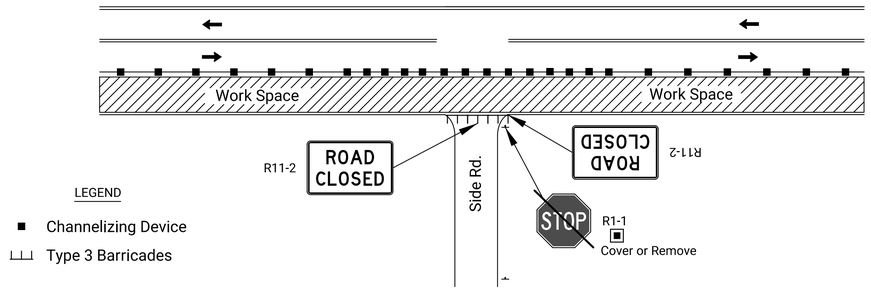


FIGURE 1: SIDE ROAD OR ENTRANCE CLOSED THROUGH WORK AREA

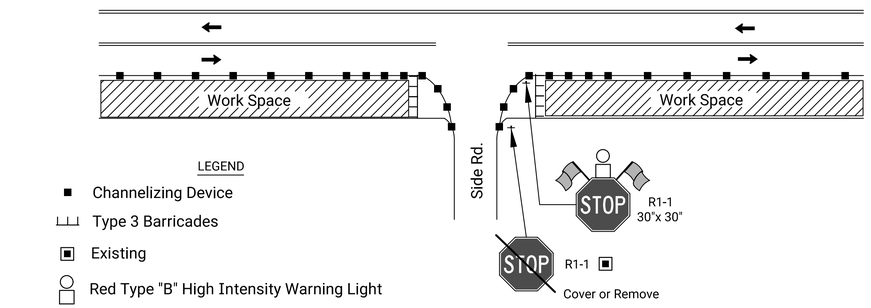


FIGURE 2: SIDE ROAD OR ENTRANCE OPEN THROUGH WORK AREA

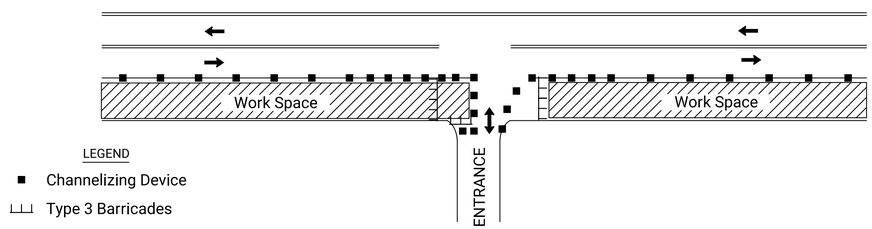


FIGURE 3: LOW VOLUME ENTRANCE CONTRUCTED HALF AT A TIME

Note: Consider large vehicles making right turns into and out of entrance
and use figure 4 as needed

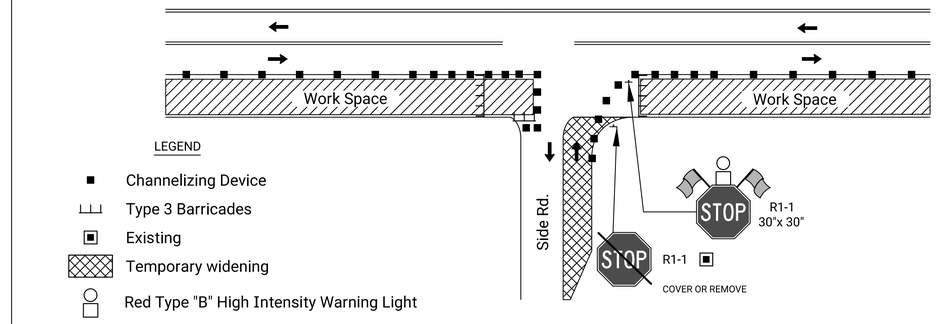


FIGURE 4: SIDE ROAD OR ENTRANCE CONSTRUCTED HALF AT A TIME:
TWO WAY TRAFFIC REQUIRED

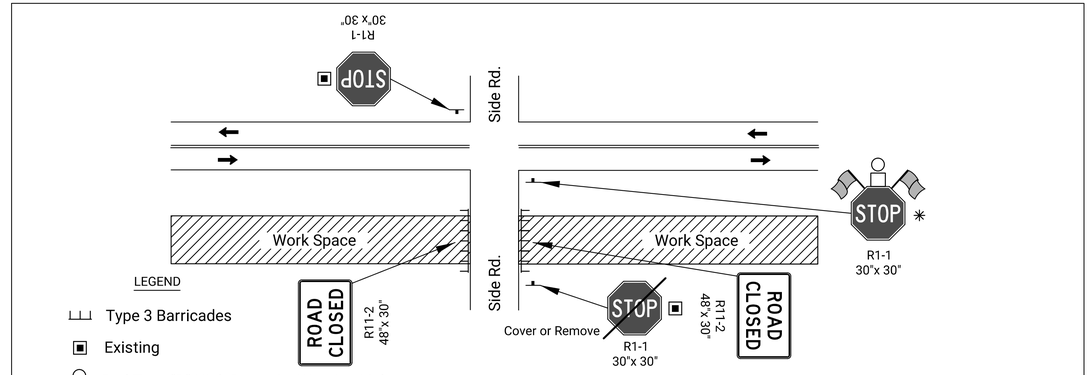


FIGURE 5: SIDE ROAD OPEN THROUGH WORK AREA ON DIVIDED ROADWAY

Note: Yield signs shall be treated as
Stop signs shown in the figures above

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
ACCESS THROUGH THE WORK AREA

TE705

FHWA APPROVAL		12-05-25	APP'D.	Nick Rogers	
DESIGNED	R.W.B.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Drawn By : dmmckee Plotted : 6/8/2026
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1524441\te705.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	26	37

SIGN LAYOUT INFORMATION



KG20-2

Std. Size Expwy/Freeway
6" C
48"x 24"



KG20-5

Std. Size Expwy/Freeway
6" C
48"x 24"



KM4-2OP

Std. Size
3" C
24"x 6"

Expwy/Freeway
6" C
48"x 12"



KW21-25

Std. Size Expwy/Freeway
7" C
48"x 48"



KW21-26

Std. Size Expwy/Freeway
6" C
48"x 48"



KR2-6

Std. Size Expwy/Freeway
8" D
48"x 36"



KR2-11

Std. Size Expwy/Freeway
6" C
24"x 48"

KR2-11 sign shall be used whenever KR2-6 sign is used in a Work Zone.



KE5-25P

Std. Size Expwy/Freeway
12" D
96" x 30"



SP-01
(Special Sign)

Std. Size
6" C
18" Shield

Expwy/Freeway
10" D
36" Shield



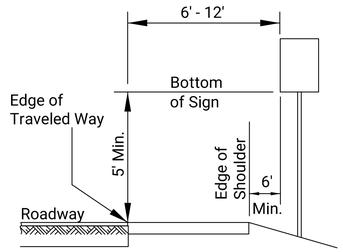
SP-02
(Special Sign)

Std. Size
Uppercase: 6" C
Lowercase: 4.5" C
18" Shield

Expwy/Freeway
Uppercase: 10" D
Lowercase: 8" D
36" Shield

All city names and street names on special signs and destination signs must have upper and lower case letters.

Routes need to be shown using the correct Shield on all Special signs.

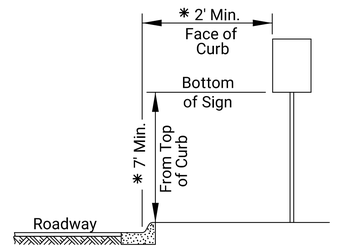


RURAL

1) Ground-mounted signs shall be mounted at a minimum height of 5' measured from the bottom of sign to the near edge of the pavement.

2) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

3) The height of the secondary sign mounted below another sign may be 4' measured from the bottom of the sign to the near edge of the pavement. Signs shall not overlap each other.



URBAN

1) Signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the near edge of the pavement.

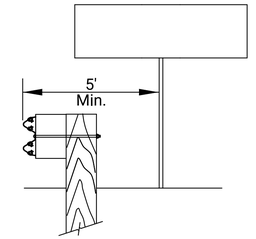
2) Neither portable nor permanent sign supports shall be located on sidewalks or areas designated for pedestrian or bicycle traffic.

3) Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.

4) The height of the secondary sign mounted below another sign may be 6' measured from the bottom of sign to the near edge of the pavement. Signs shall not overlap each other.

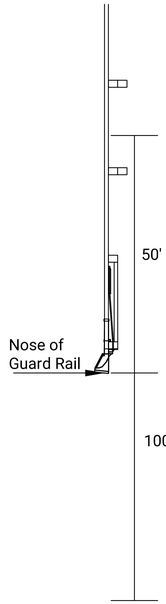
5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

* 6) Pedestrian detour signing shall be a minimum of 2' measured from the top of the pedestrian pathway to the bottom of the sign and shall not protrude into the walkway nor shall it project beyond the back of curb.

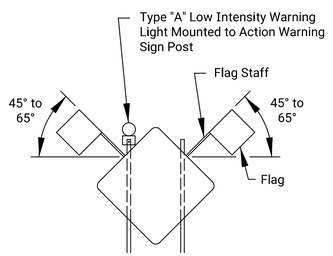


1) The edge of the sign is not to extend beyond the back side of the guard rail. The sign post shall not be located within 5' of the guard rail.

2) The mounting height for signs behind the guard rail shall be the same as the mounting height for shoulder mounted signs.



NO SIGN PLACEMENT AREA



In the case of hitting rock when driving posts
1. Shift the sign location. Do not violate minimum sign spacing.
2. With the engineer's approval, use acceptable alternative sign stands.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGN INFORMATION

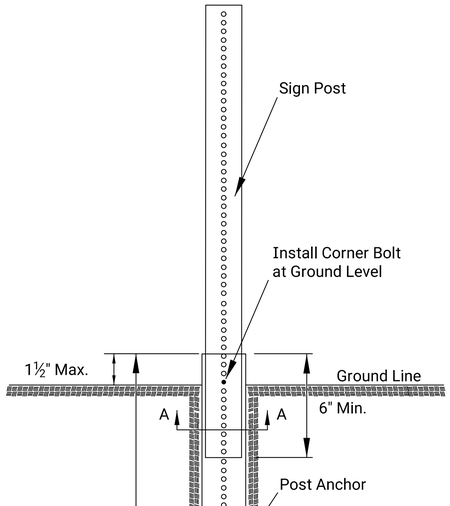
TE710

FHWA APPROVAL	12-05-25	APP'D.	Nick Rogers
DESIGNED R.W.B.	DETAILED R.W.B.	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK.

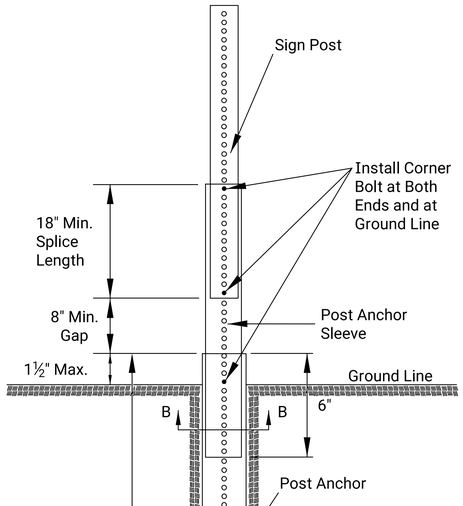
Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1524441\te710.dgn
Plotted : 6/8/2026

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	27	37

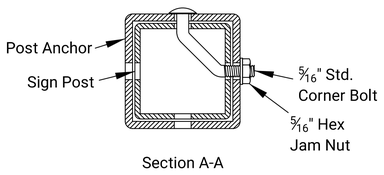
PERFORATED SQUARE STEEL TUBE (P.S.S.T.) POST SETUP



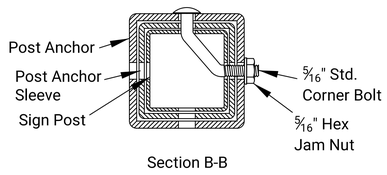
P.S.S.T. Detail



Telescoping P.S.S.T. Detail



Section A-A

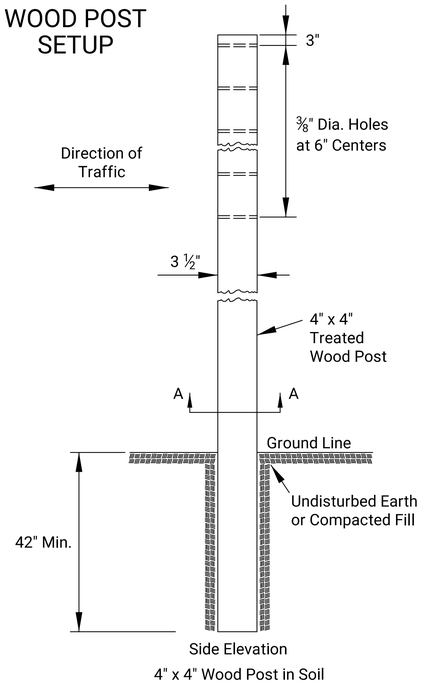


Section B-B

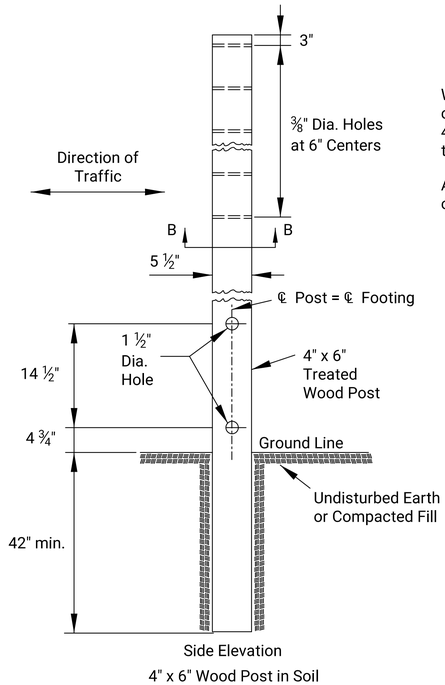
Details for 2", 2 ¼", or 2 ½" sign posts

Place bolts in the same corner along each sign post.

WOOD POST SETUP



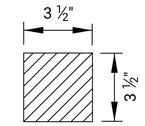
Side Elevation
4" x 4" Wood Post in Soil



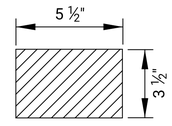
Side Elevation
4" x 6" Wood Post in Soil

When the sign width is equal to or greater than 9', three or more wood posts should be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

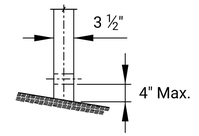
All Special signs larger than 16 sq. ft. shall be installed on wood posts.



Section A-A



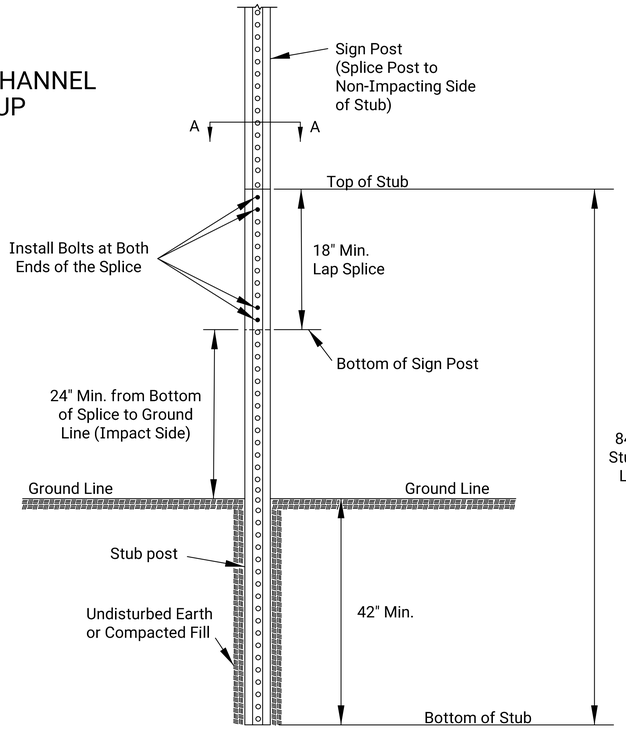
Section B-B



Front Elevation

See TE710 for Additional Details and Requirements

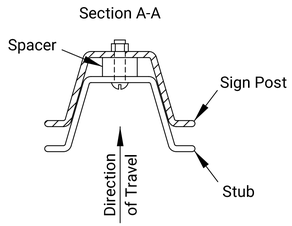
3 LB/F U-CHANNEL SETUP



Notes:

Place two bolts at both ends of the splice through the holes nearest the ends of the splice.

Use manufacturer recommended spacers over the bolts between the spliced pieces of U-Channel.



NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGN POSTS

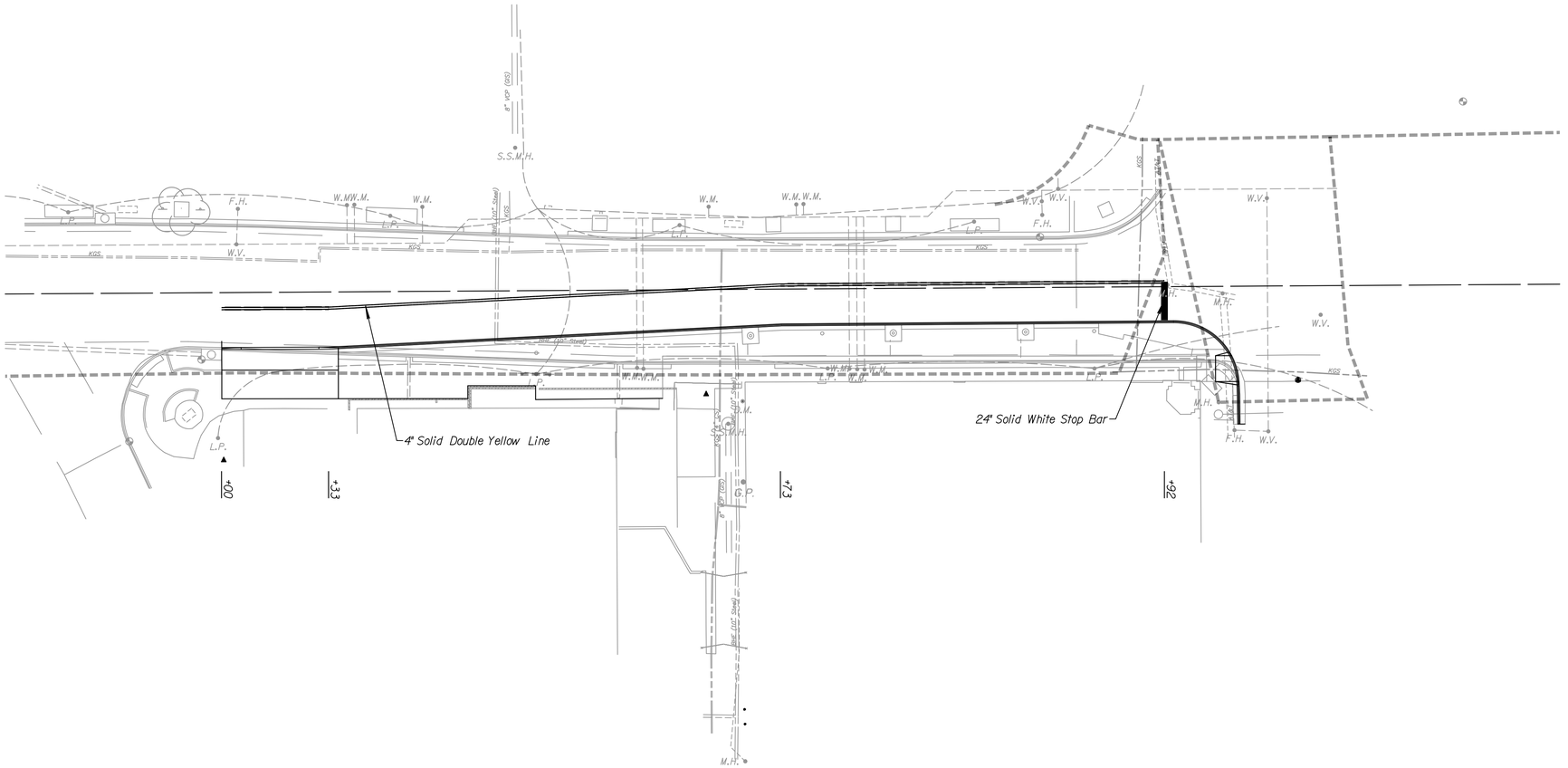
TE712

FHWA APPROVAL			12-05-25	APP'D.		Nick Rogers	
DESIGNED	B.A.H.	DETAILED	R.W.B.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN.CK.		TRACE CK.	

Drawn By : dmmckee Plotted : 6/8/2026
File : c:\transystems\pw_local\transysCorp-pw1\a-e_dmmckee\d1524441\te712.dgn

SCALE: 1"=20'

20' 0 20' 40'



TRANSYSTEMS
100 N. BROADWAY
SUITE 245
WICHITA, KANSAS 67202
MAIN: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

COMMERCE STREET & ST. FRANCIS
AVENUE IMPROVEMENTS
FROM WATERMAN TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-2025-086156
SCALE:	1"=20'
DATE:	6/8/2026
DESIGNED BY:	DJK
DRAWN BY:	DJK
CHECKED BY:	MDB

SHEET TITLE:

PAVEMENT MARKING

SHEET NO.

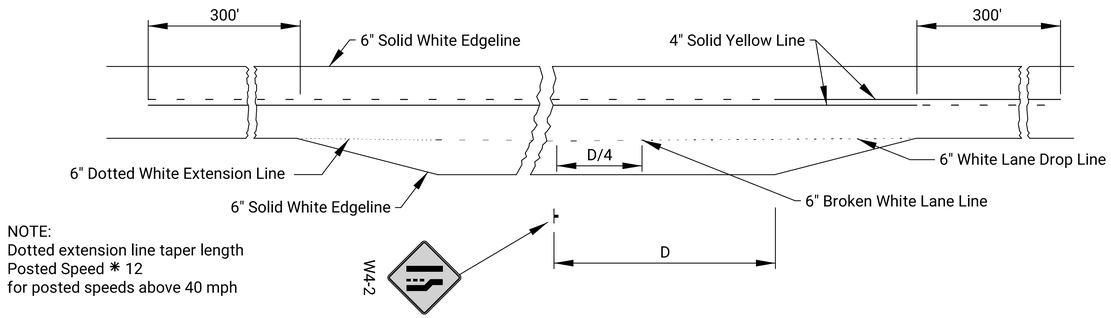
28

SHEET 28 OF 37

dmmckee
6/8/2026 - 4:15:46 PM - c:\transystems\cpw_local\transyscorp-pw1\a-e_dmmckee\d1524369\C-PMK-M01-101.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	29	37

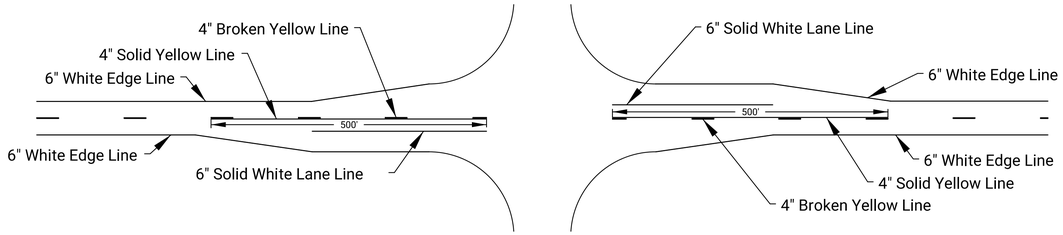


NOTE:
Dotted extension line taper length
Posted Speed ✳ 12
for posted speeds above 40 mph

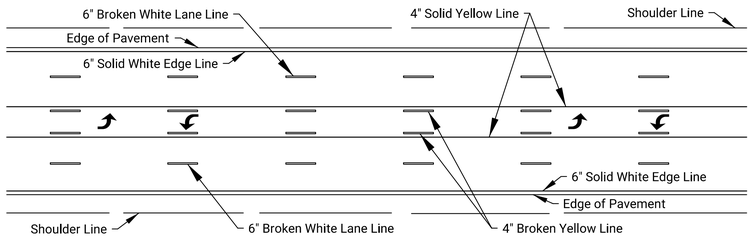
TYPICAL MARKING FOR AUXILIARY PASSING LANE

NOTE:
All pavement markings shall be broken at cross roads.

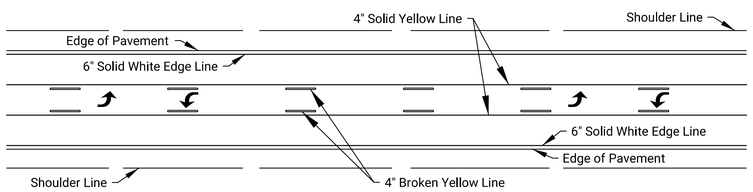
For highway junctions the no passing zone will extend 1000' from intersection.



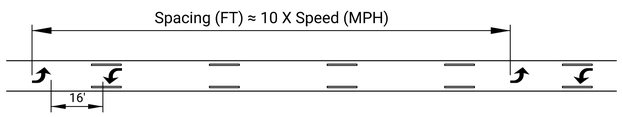
TYPICAL ROAD JUNCTION MARKINGS WITH BYPASS LANES



TWO-WAY LEFT TURN DETAIL FOR FIVE LANE ROADWAY

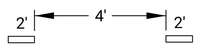


TWO-WAY LEFT TURN DETAIL FOR THREE LANE ROADWAY

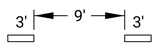


TWO-WAY LEFT TURN ARROW SPACING DETAIL

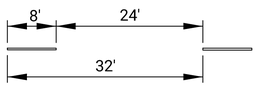
NOTE:
If arrows are used space the arrows as shown in the spacing detail.



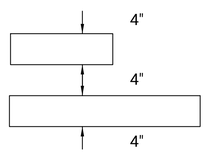
TYPICAL SPACING FOR DOTTED EXTENSION LINES, UNLESS OTHERWISE NOTED ON PLANS.



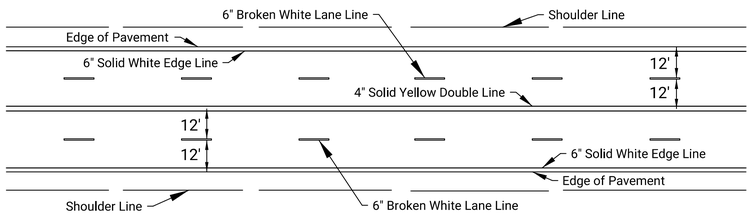
TYPICAL SPACING FOR LANE DROP, UNLESS OTHERWISE NOTED ON PLANS.



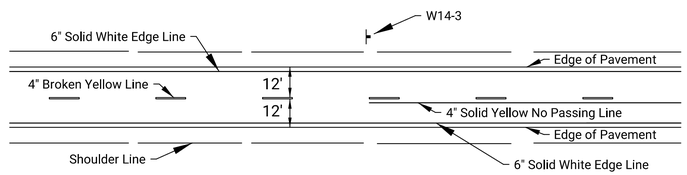
TYPICAL SPACING FOR BROKEN LINES, UNLESS OTHERWISE NOTED ON PLANS



TYPICAL SPACING FOR NO PASSING LINES, UNLESS OTHERWISE NOTED ON PLANS



TYPICAL MARKINGS FOR FOUR LANE ROADWAY



TYPICAL TWO LANE MARKINGS

NOTE:
Longitudinal pavement marking lines shall be offset a minimum of 2" from longitudinal pavement joints.

On non I, US, and K routes, 4" edge lines may be installed.
6" edge lines are not required on non I, US, and K routes.

NO.	DATE	REVISIONS	BY	APP'D
03	05-25-12	Added Dotted Extension and Lane Drop Lines	B.A.H.	B.D.G.
02	09-20-05	Removed Aux. Passing Lane Dotted Ext. Line	J.F.F.	B.D.G.
01	07-26-05	New FHWA Approval Date	J.F.F.	B.D.G.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL PAVEMENT MARKING DETAILS FOR UNDIVIDED ROADWAYS

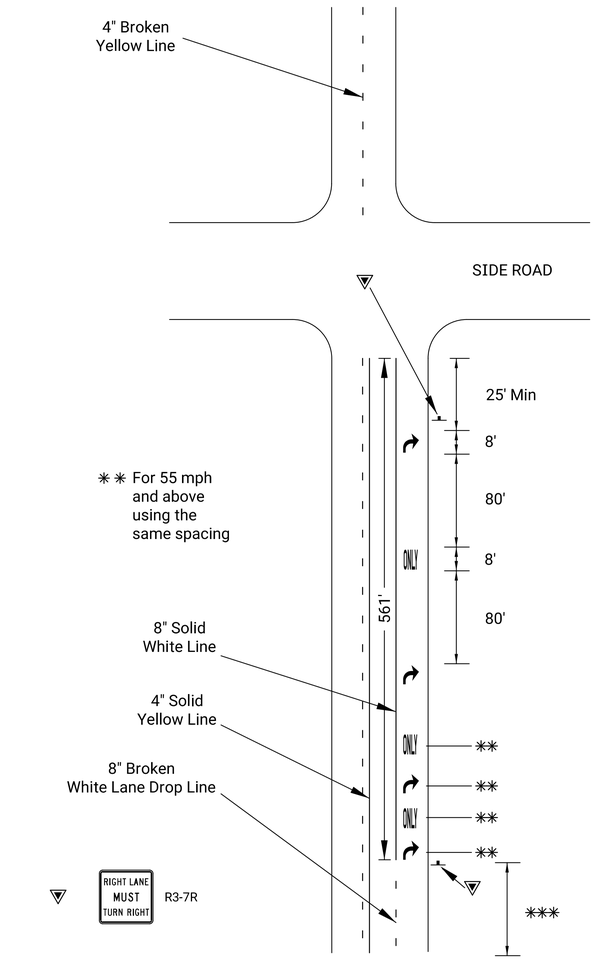
TE308

FHWA APPROVAL		05-25-12	APP'D.	Brian D. Gower	
DESIGNED	J.F.F.	DETAILED	J.F.F.	QUANTITIES	TRACED
DESIGN CK.	B.D.G.	DETAIL CK.	B.D.G.	QUAN.CK.	TRACE CK.

Drawn By : dmmckee
Plotted : 6/8/2026
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1524441\te308.dgn

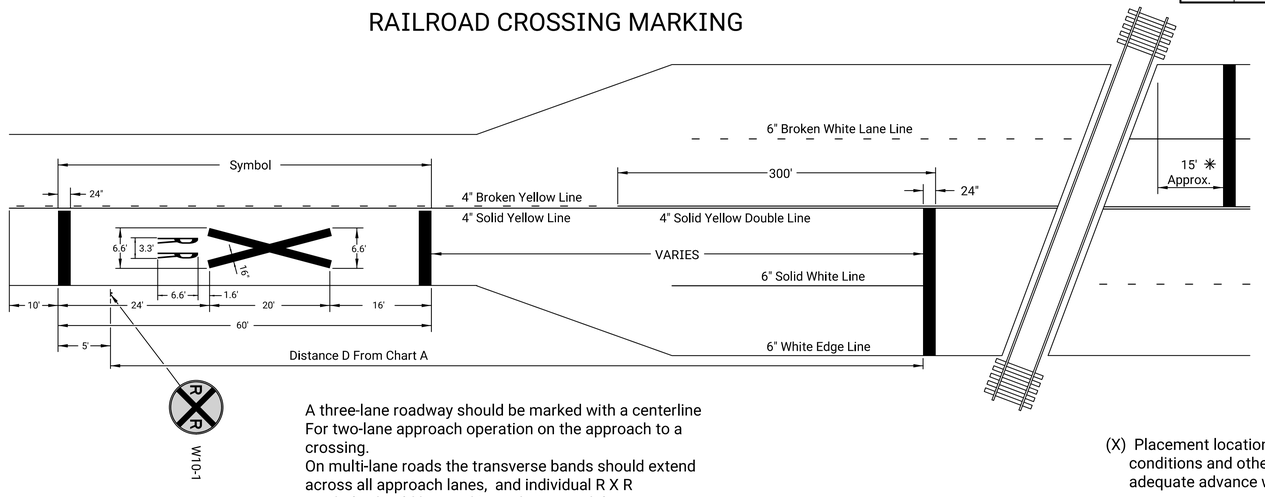
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	30	37

TYPICAL SIGNING AND MARKING FOR RIGHT LANE MUST TURN RIGHT



✳✳✳ The lane drop markings length is a minimum of 100' and a maximum of 250' prior to the 8"solid white line

RAILROAD CROSSING MARKING



A three-lane roadway should be marked with a centerline For two-lane approach operation on the approach to a crossing.
On multi-lane roads the transverse bands should extend across all approach lanes, and individual R X R symbols should be used in each approach lane.
Refer to standard alphabet for highway signs and markings for R X R symbols details.

✳Stop line 8' from near edge of gate or cantilever, if present.

NOTE:
On non I, US, and K routes, 4" edge lines may be installed.
6" edge lines are not required on non I, US, and K routes.

CHART "A"

SPEED MPH	DISTANCE D (feet)
75	850
70	750
65	650
60	550
55	450
50	375
45	300
40	225
35	150
30	(X)
25	(X)
20	(X)

All distances are minimum.

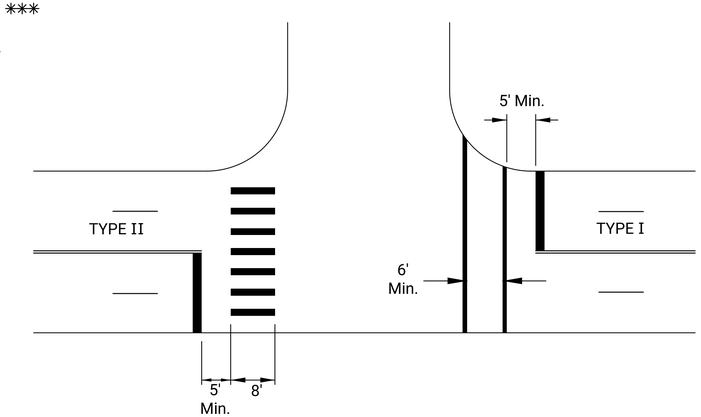
(X) Placement location is dependent on site conditions and other signing to provide adequate advance warning to the driver

TYPICAL CROSSWALKS

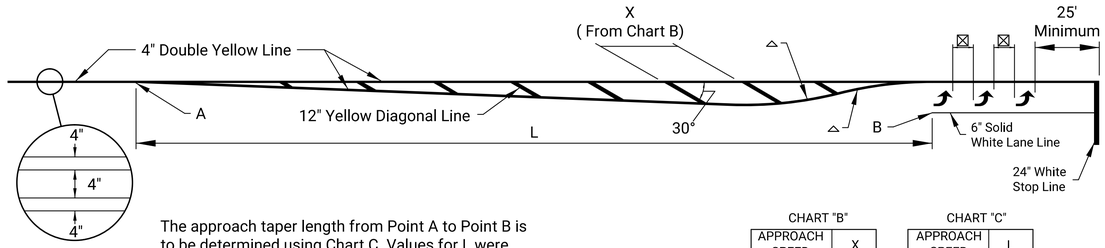
TYPE I: Crosswalk lines shall be 12" solid white lines. They shall be spaced a minimum of 6' apart from inside edge to inside edge.

TYPE II: These lines should be solid white 24" wide placed parallel to the direction of traffic flow. The line placement is determined by lane line, center line, and wheel path in such a manner as to minimize traffic wear. The crosswalk width should be not less than 8'. The transverse crosswalk lines may be added.

When required, stop lines shall be installed a minimum of 5' from crosswalks.



TYPICAL APPROACH TAPER DETAIL



The approach taper length from Point A to Point B is to be determined using Chart C. Values for L were calculated using the equations below and increased to the next higher 5 mph increment.

- SPEEDS < 45 MPH $L = \frac{W \times S^2}{60}$
- SPEEDS = 45 MPH $L = W \times S$

If arrows are used and unless otherwise specified the space between lines should be at least four times the height of the characters for low speed roads but not more than ten times the height of the characters, under any conditions.

For speeds less than or equal to 40 mph, R=150'.
for speeds greater than or equal to 45 mph, R=300'.

CHART "B"

APPROACH SPEED	X
20 MPH	20'
25 MPH	25'
30 MPH	30'
35 MPH	35'
40 MPH	40'
45 MPH	45'
50 MPH	50'
55 MPH	55'
60 MPH	60'
65 MPH	65'
70 MPH	70'

CHART "C"

APPROACH SPEED	L
20 MPH	80'
25 MPH	125'
30 MPH	180'
35 MPH	245'
40 MPH	320'
45 MPH	540'
50 MPH	600'
55 MPH	660'
60 MPH	720'
65 MPH	780'
70 MPH	840'

NO.	DATE	REVISIONS	BY	APP'D
03	05-25-12	Updated Chart B and Lane Drop Lines	B.A.H.	B.D.G.
02	10-20-06	RR Xing Symbol Changed from 18" to 16"	T.L.H.	B.D.G.
01	09-20-05	Added 4" Solid Yellow Double Line to RRxing	J.F.F.	B.D.G.

KANSAS DEPARTMENT OF TRANSPORTATION

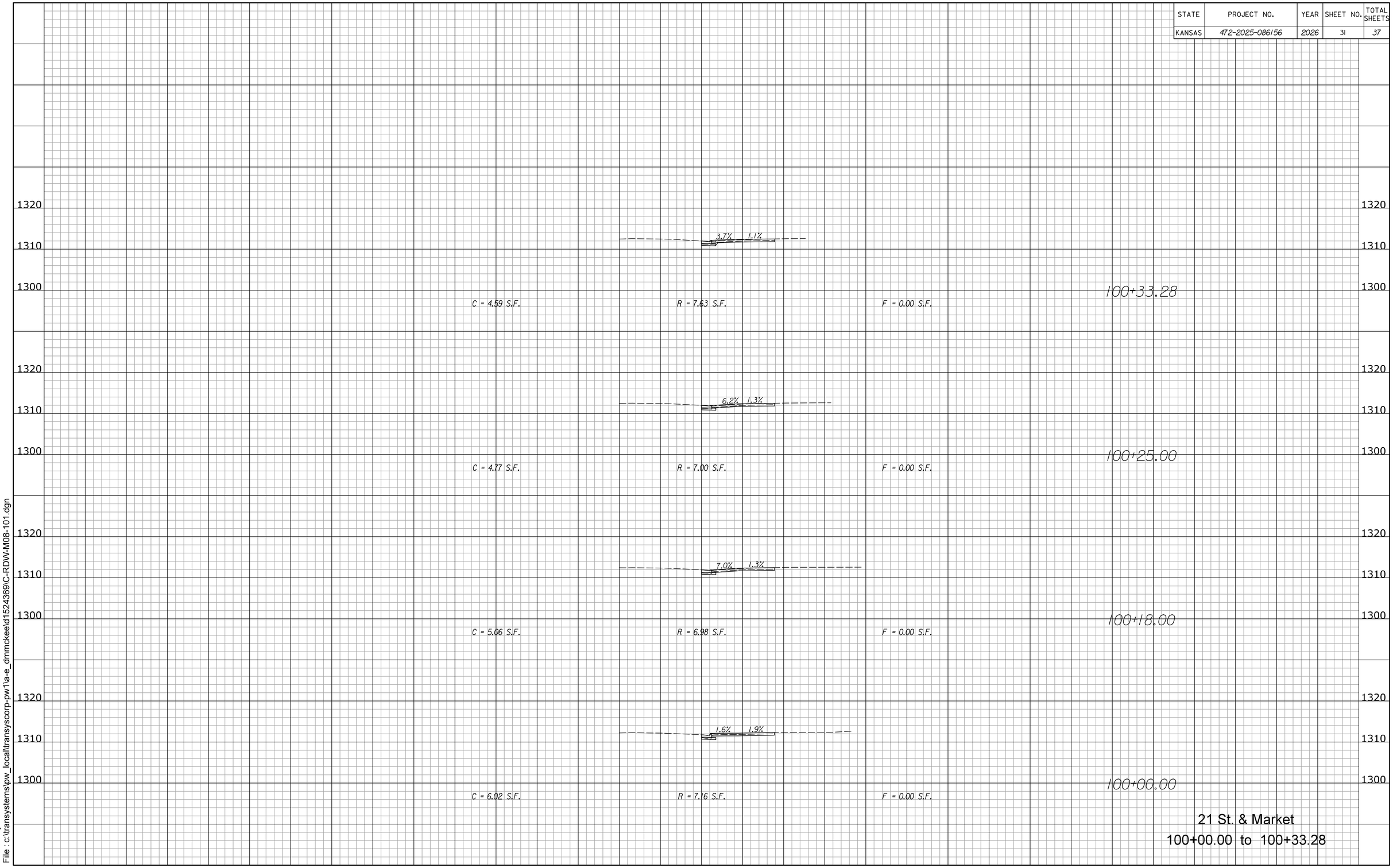
TYPICAL MISCELLANEOUS PAVEMENT MARKING DETAIL SHEET

TE309

FHWA APPROVAL		07-26-05	APP'D.	Brian D. Gower	
DESIGNED	J.F.F.	DETAILED	J.F.F.	QUANTITIES	TRACED
DESIGN CK.	B.D.G.	DETAIL CK.	B.D.G.	QUAN.CK.	TRACE CK.

Drawn By: dmmckee Plotted: 6/8/2026
File: c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d1524441\te309.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	31	37



21 St. & Market
100+00.00 to 100+33.28

Plotted :6/8/2026
Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d15243691\C-RDW-M08-101.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	32	37

1320
1310
1300

5.4% 2.0%

C = 7.70 S.F. R = 10.00 S.F. F = 10.85 S.F.

100+75.00

4.7% 1.9%

C = 1.16 S.F. R = 9.53 S.F. F = 9.30 S.F.

100+60.00

2.2% 1.5%

C = 1.03 S.F. R = 8.55 S.F. F = 6.53 S.F.

100+50.00

1.1% 1.5%

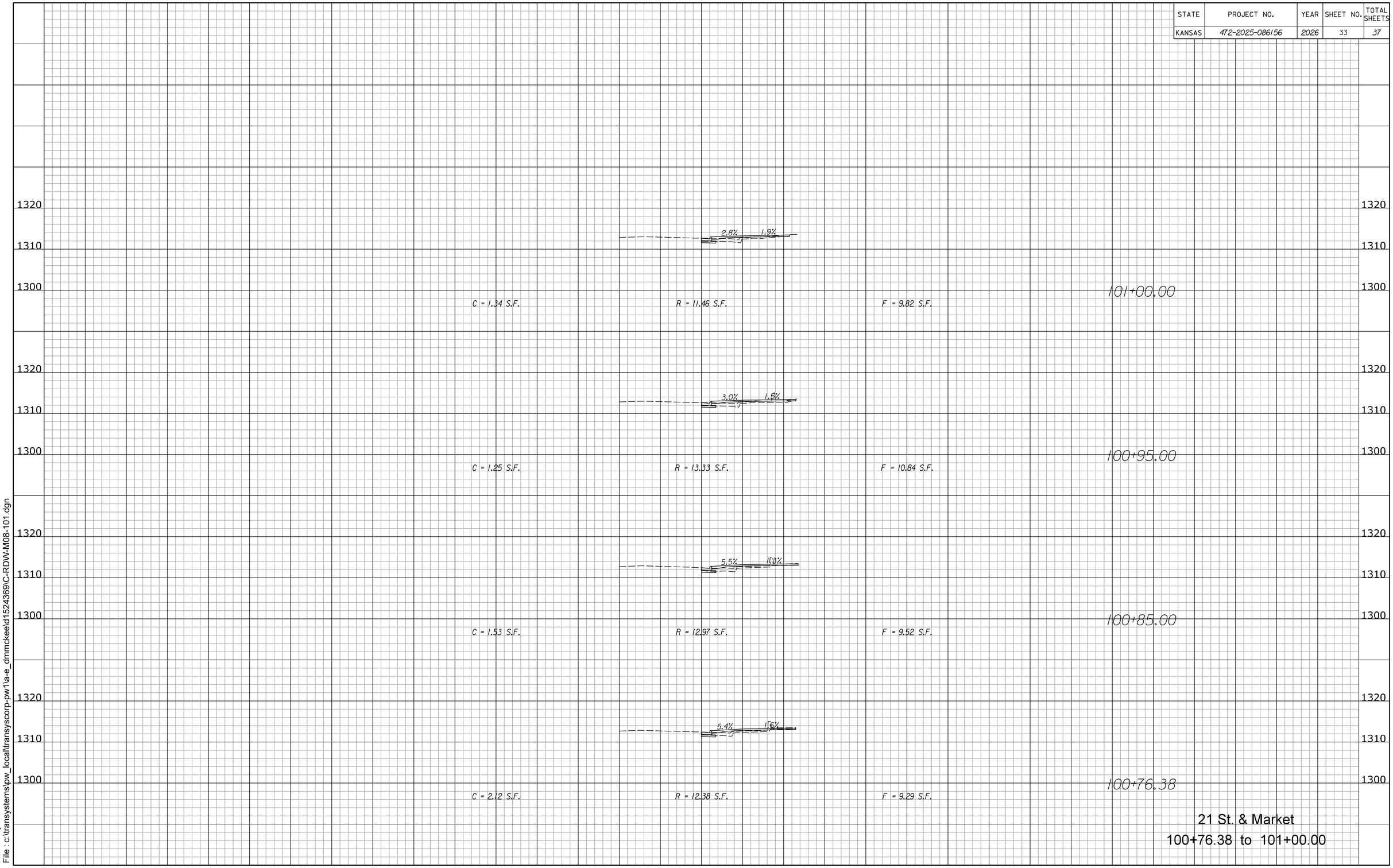
C = 0.96 S.F. R = 8.04 S.F. F = 4.06 S.F.

100+40.00

21 St. & Market
100+40.00 to 100+75.00

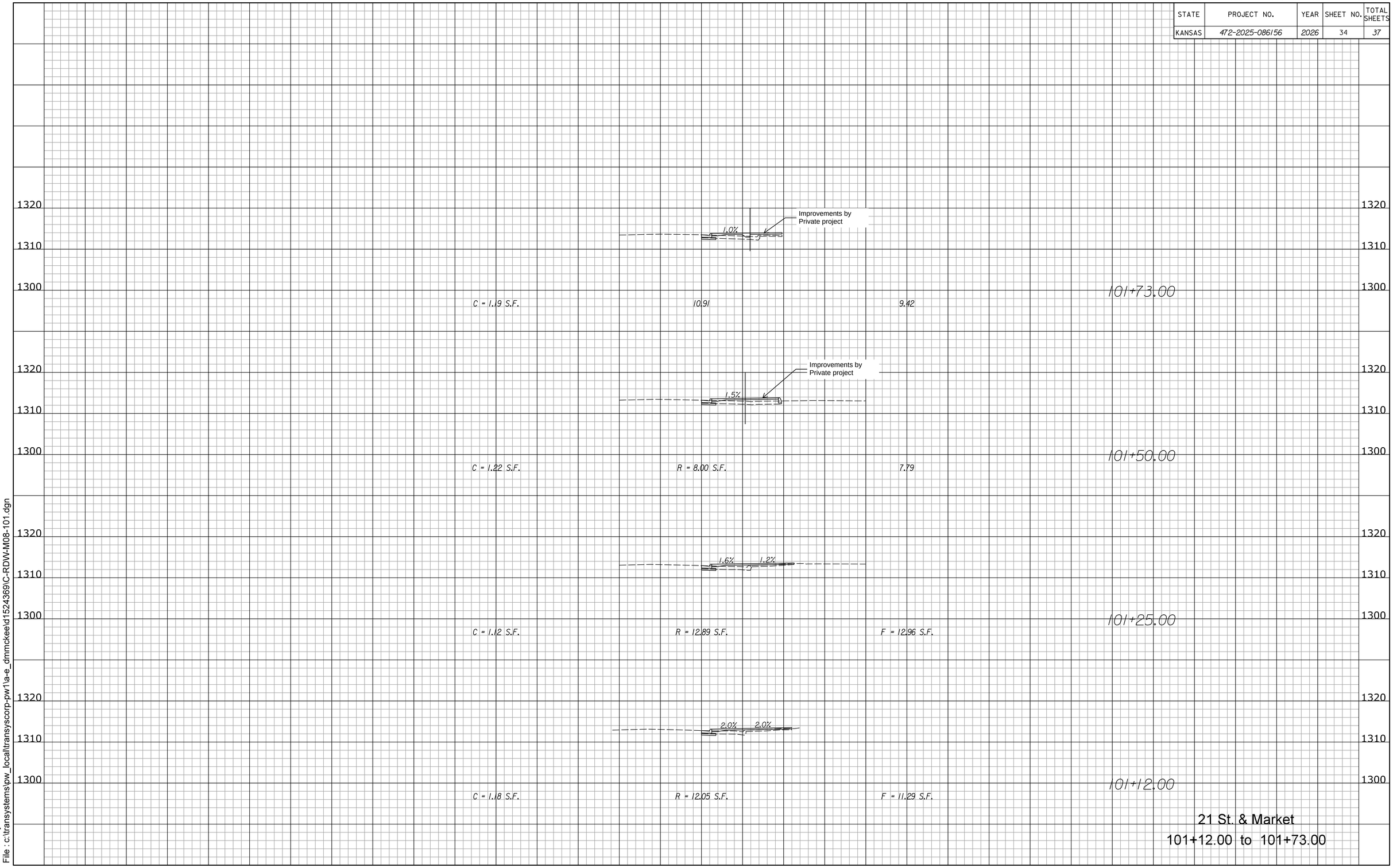
Plotted :6/8/2026
Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d15243691\C-RDW-M08-101.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	33	37



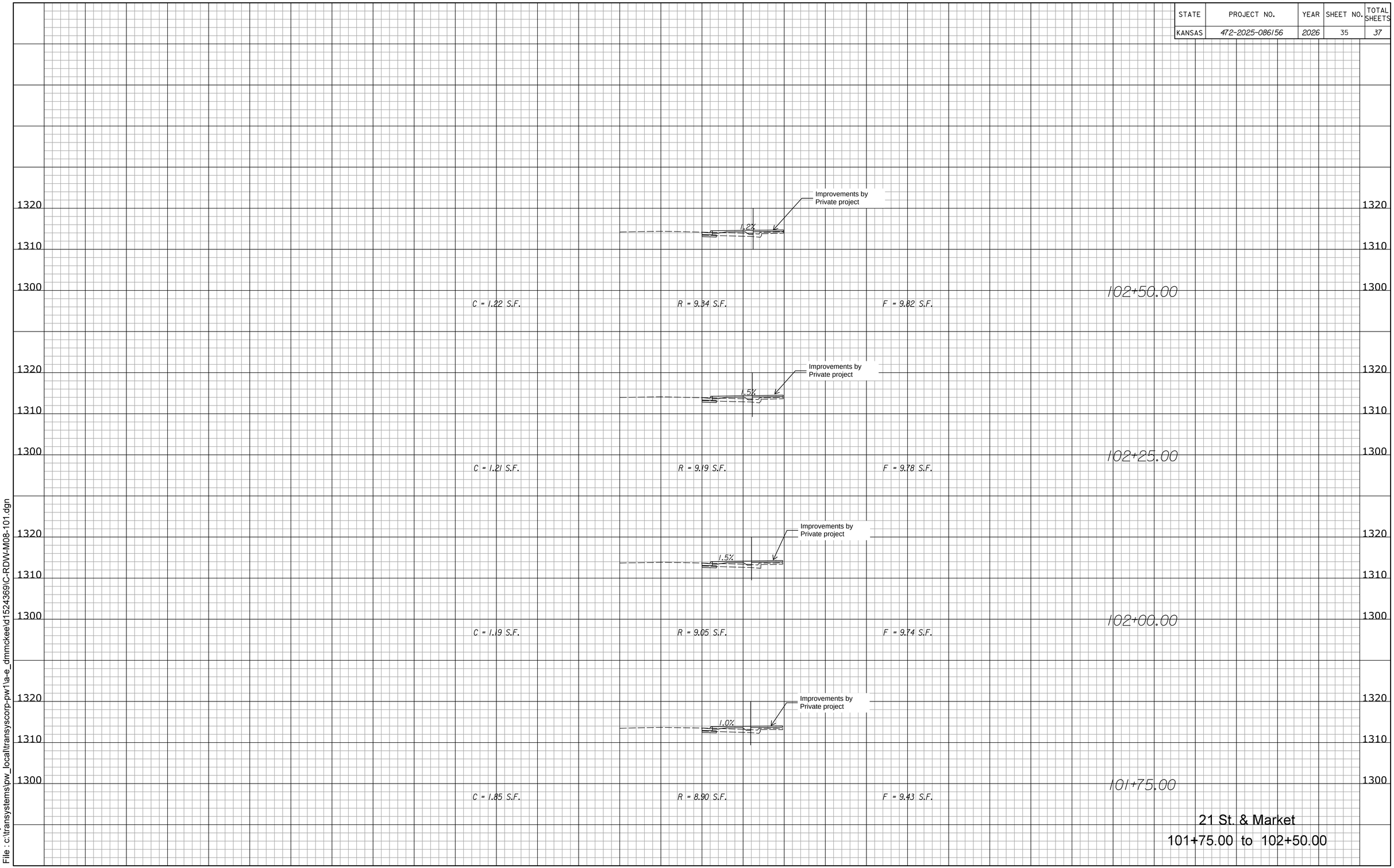
Plotted :6/8/2026
Drawn By : dmmckee
File : c:\transystems\pw_localtransyscorp-pw1\a-e_dmmckee\d15243691\C-RDW-M08-101.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	34	37



Plotted :6/8/2026
Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d15243691\C-RDW-M08-101.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	35	37



21 St. & Market
101+75.00 to 102+50.00

Plotted :6/8/2026
Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d15243691\C-RDW-M08-101.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	36	37

1320
1310
1300

7.8%

C = 1.22 S.F.
R = 5.88 S.F.
F = 0.62 S.F.

103+25.00

Improvements by Private project

0.8%

C = 1.21 S.F.
R = 9.35 S.F.
F = 9.42 S.F.

103+00.00

Improvements by Private project

1.0%

C = 1.25 S.F.
R = 9.61 S.F.
F = 9.65 S.F.

102+94.05

Improvements by Private project

0.9%

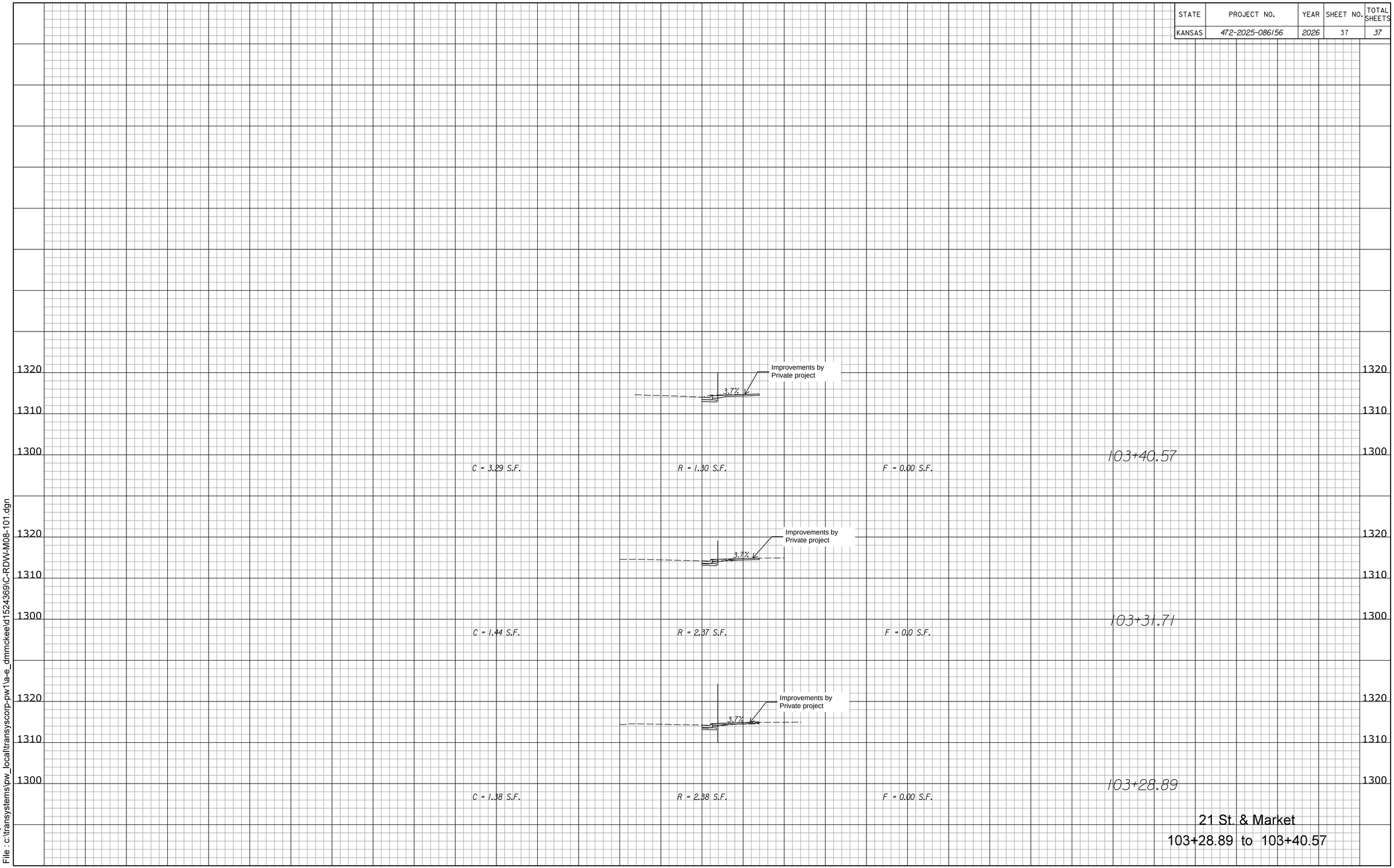
C = 1.27 S.F.
R = 9.49 S.F.
F = 9.58 S.F.

102+75.00

21 St. & Market
102+75.00 to 103+25.00

Plotted :6/8/2026
Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d15243691\C-RDW-M08-101.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-2025-086156	2026	37	37



Plotted :6/8/2026
Drawn By : dmmckee
File : c:\transystems\pw_local\transyscorp-pw1\a-e_dmmckee\d15243691\C-RDW-M08-101.dgn