STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	1	180

STP - N076(201)

STATE OF KANSAS

DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS FOR PROPOSED

DOUGLAS AVENUE
MERIDIAN to SENECA

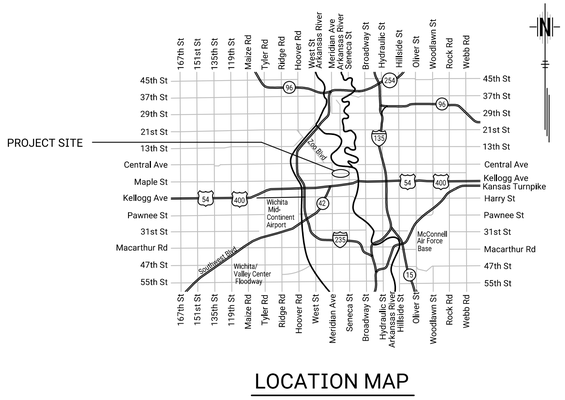
FEDERAL AID PROJECT

FOR

THE CITY OF WICHITA,
SEDGWICK COUNTY, KANSAS

CITY PROJECT NO. 472-2021-085757
MUNIS NO. E2029
ORG CODE: 40107022

GRADING
SURFACING
STORM SEWER
SEEDING
TRAFFIC SIGNALS
SIGNING & PAVEMENT MARKING



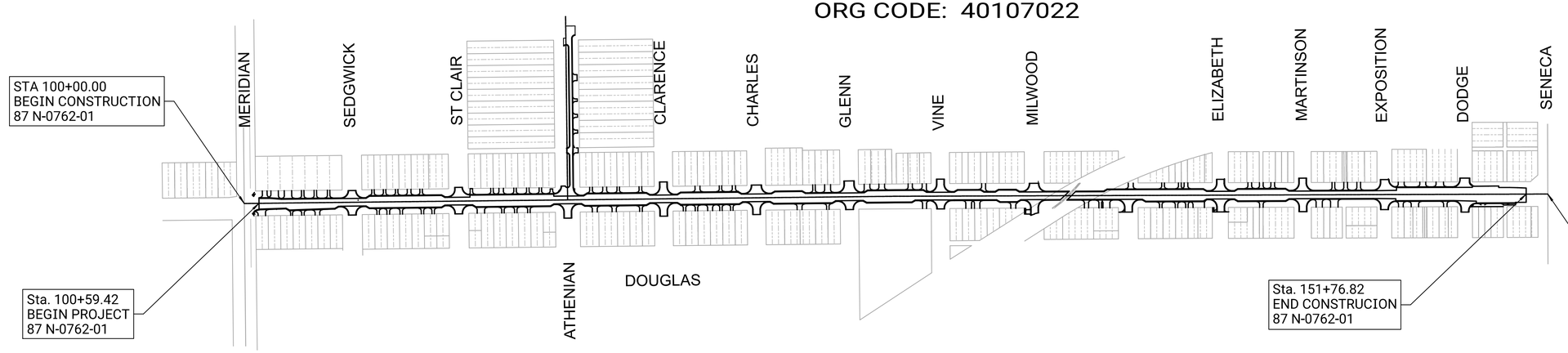
LOCATION MAP



Scale: 1" = 250'

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FINAL PLANS
AUGUST 2025

DESIGN DATA

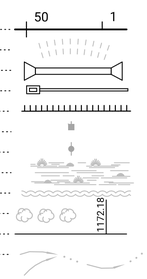
ADT (2025)	8884
ADT (2045)	9816
DHV	888
T	3%
V	35 MPH
C of A	Partial
Lateral Offset	6'

Gross Length of Project	5,117.40 ft.
Exceptions	27.00ft.
Additions	0.00 ft.
Net Length of Project	5,090.40 ft.
Net Length of Bridges	0.00 ft.
Net Length of Road	5,090.40 ft.

CONVENTIONAL SIGNS

COUNTY LINE
CITY LIMITS
STATE OR NATIONAL LINE
TOWNSHIP, SECTION or GRANT LINE
PROPERTY LINE
HIGHWAY FENCE
EXISTING FENCE
GUARDRAIL
CONSTRUCTION LIMITS
RIGHT OF WAY LINE
TRAVELED WAY
RAILROADS

CENTER LINE OF PROJECT
TERRACE
CULVERTS
DROP INLET & STORM SEWER
ACCESS CONTROL
POWER POLE
TELEPHONE POLE
MARSH
HEDGE
TREES
PROFILE ELEVATION
STREAM or CREEK





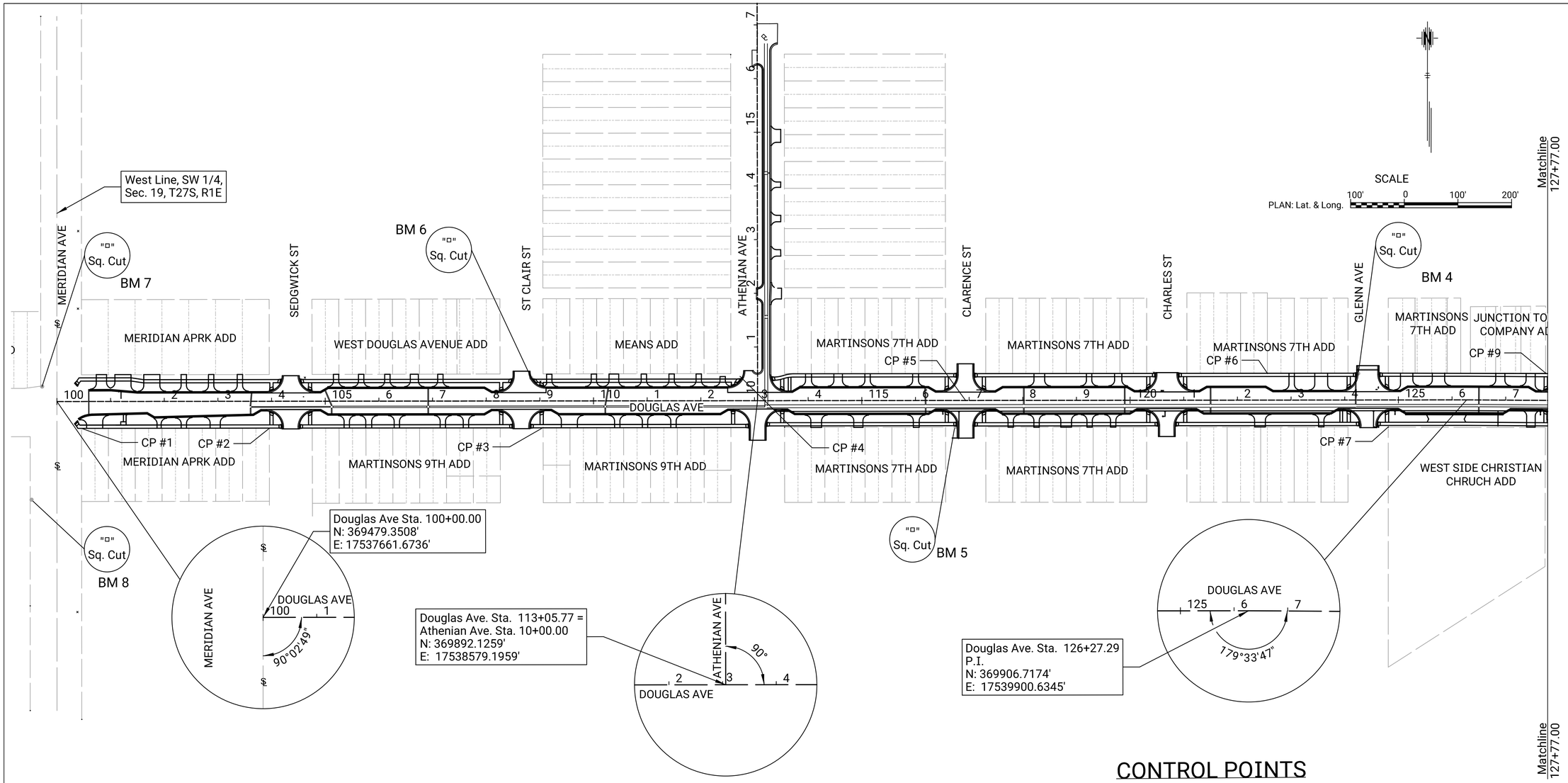
PLANS PREPARED BY :
WSP
Wichita, Kansas

APPROVED :

PAUL GUNZELMAN, CITY ENGINEER
CITY OF WICHITA, KANSAS
DATE: August 6, 2025

DATE
BY
SURVEY
CADD TECHNICIAN
DESIGNERS
SQUAD

Plotted by : usmh708425 6-AUG-2025 20:17
File : 30902042A_TSHT.dgn



BENCHMARKS

BM #4 - Chiseled Square in the Northwest Corner of Glenn & Douglas, at Top of Curb North of a Wheelchair Ramp.
ELEV. 1298.84 (NAVD 88)

BM #5 - Chiseled Square at the Southwest Corner of the Intersection of Clarence & Douglas. At the Point where the Sidewalk & Wheel Chair Ramp Meet.
ELEV. 1300.17 (NAVD 88)

BM #6 - Chiseled Square at the Northeast Corner of the Intersection of St Clair & Douglas on the North End of Curb Return.
ELEV. 1301.89 (NAVD 88)

BM #7 - Chiseled Square at the Northwest Corner of Meridian & Douglas at the 90° of a Parking Lot Curb.
ELEV. 1303.67 (NAVD 88)

BM #8 - Chiseled Square in the Top of Curb In South Return of the First entrance South of Douglas & Meridian West of Sidewalk.
ELEV. 1303.13 (NAVD 88)

CONTROL POINTS

CP #1 1/2" Rebar w/ Yellow Savoy Cap
1. Traffic Signal Pole 8.7' NNW
2. ℄ of Meridian 37.8' W
3. ℄ of Douglas 50.0' N

N. 369827.5465 E. 17537319.6797

CP#2 1/2" Rebar w/ Yellow Savoy Cap
1. Center of a Water Value 14.2' NE
2. ℄ of Sedgwick 40.0' W
3. ℄ of Douglas 50.0' N

N. 369831.3476 E. 17537669.6154

CP#3 1/2"Pipe
1. Top Center of a Fire Hydrant 18.0' NW
2. ℄ of St. Clair 40.0' W
3. ℄ of Douglas 50.0' N

N. 369837.4505 E. 17538179.8584

CP#4 1/2"Pipe
1. Top Center of a Fire Hydrant 21.6' W
2. ℄ of Athenian 50.0' W
3. ℄ of Douglas 50.0' N

N. 369842.3168 E. 17538629.7380

CP#5 1/2"Pipe
1. Top Center of a Fire Hydrant 44.5' NW
2. Light Pole 41.4' SE
3. At Center of Intersection of Douglas & Clarence

N. 369895.7086 E. 17538966.7392

CP#6 ½"Rebar with a Yellow Plastic Cap, LS 950
1. Top Center Fire hydrant. 150.6' ESE
2. ℄ of Charles. 186.8'W
3. ℄ of Douglas. 50.0' S

N. 369951.5125 E. 17539528.6685

CP#7 1/2"Pipe
1. Center of a Manhole. 61.5' NNW
2. ℄ of Douglas. 50.0'N
3. ℄ of Gleen. 37.0' W

N. 369853.8651 E. 17539754.8012

CP#9 1/2"Pipe
1. Top Center of a Fire hydrant. 22.7' SSW
2. ℄ of Douglas. 50.00' S
3. ℄ of Vine. 38.0' E

N. 369957.2398 E. 17540046.9637

CITY OF WICHITA

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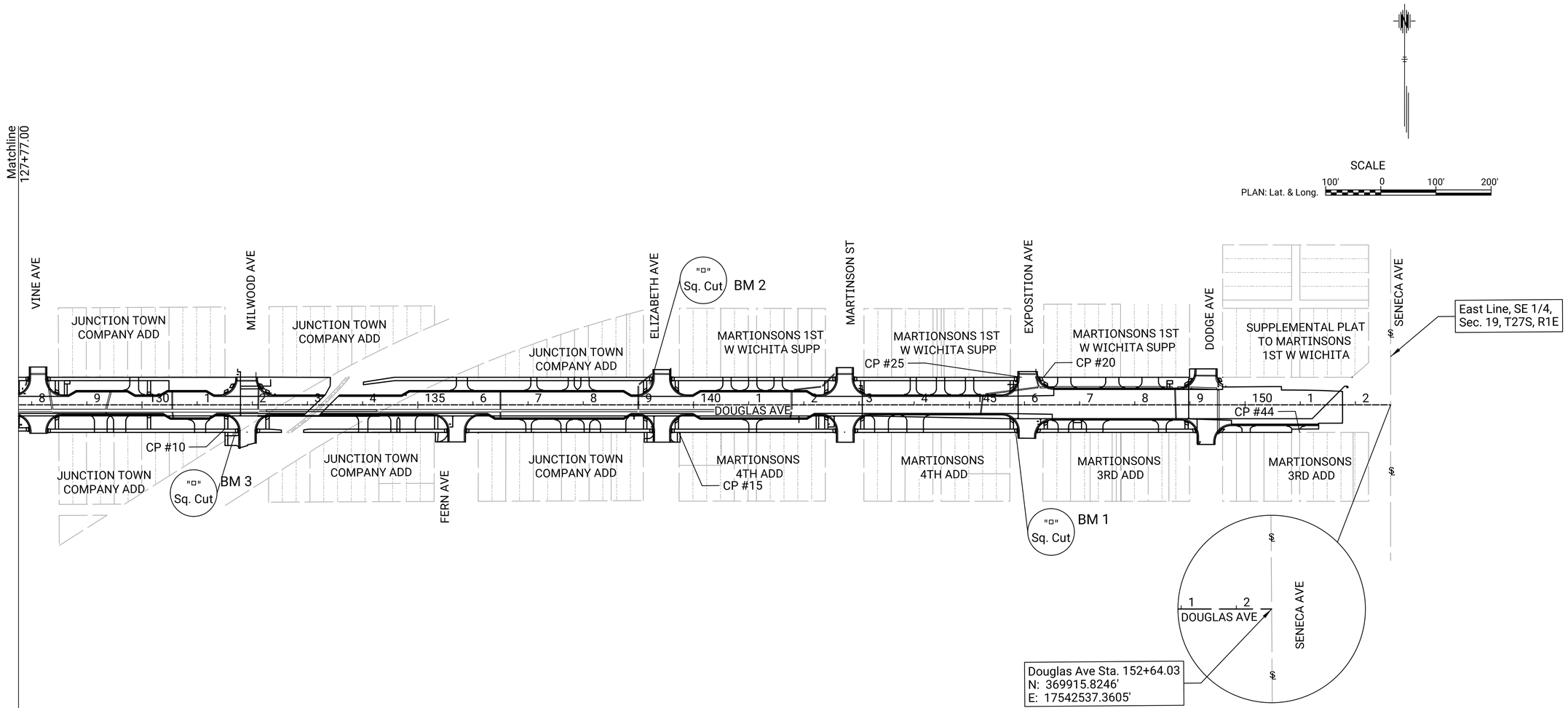
DOUGLAS AVENUE - MERIDIAN TO SENECA

PROJECT KEY SHEET

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
2
SHEET 2 OF 180



BENCHMARKS

Datum Benchmark - COW Disc at the Southwest Intersection of Seneca & Douglas in Sidewalk Adjacent to Traffic Signal Pole Base.
ELEV. 1300.95 (NAVD 88)

BM #1 - Chiseled Square in the Southwest Corner of Exposition & Douglas, South of a Wheelchair Ramp and at the Beginning of a Curb Return.
ELEV. 1300.42 (NAVD 88)

BM #2 - Chiseled Square in the Northwest Corner of Elizabeth & Douglas. In the Southwest Corner of an Area Inlet.
ELEV. 1299.48 (NAVD 88)

BM #3 - Chiseled Square at the Southwest Corner of Millwood & Douglas. In Top of Curb of the North Return of the First Driveway on the West side of Millwood.
ELEV. 1299.25 (NAVD 88)

BM #4 - Chiseled Square in the Northwest Corner of Glenn & Douglas, at Top of Curb North of a Wheelchair Ramp.
ELEV. 1298.84 (NAVD 88)

CONTROL POINTS

CP#10 R.R. Spike
1. The Center of a Traffic Manhole. 13.0'NNW
2. ℄ of Millwood. 40.0' E
3. ℄ of Douglas. 50.0' N

N. 369858.4631 E. 17540423.7536

CP#15 Chiseled Plus
1. Northwest Corner of a Signpost 6.3' SE
2. ℄ of Elizabeth 28.0' W
3. ℄ of Douglas 50.0' N

N. 369861.3162 E. 17541247.2837

CP#20 Crows Foot
1. Center of SWS Manhole 22.4' SW
2. ℄ of Exposition 30.0' W
3. ℄ of Douglas 50.0' S

N. 369963.6918 E. 17541907.4295

CP#25 60D Nail
1. Center of a Water Meter 48.1' SW
2. ℄ of Exposition 164.7' E
3. ℄ of Douglas 50.0' S

N. 369962.1291 E. 17541712.5958

CP#44 Chiseled Plus
1. Traffic Signal Manhole 23.0' NW
2. ℄ of Exposition 170.0' W
3. ℄ of Douglas 50.0' N

N. 369865.4713 E. 17542372.7622

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

PROJECT KEY SHEET

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DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
3
SHEET 3 OF 180

GENERAL NOTES

1. Traffic shall be carried throughout construction, as described in the proposed construction sequencing.

2. Utility service lines, poles, valve boxes, meters et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the contractor. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

3. A saw cut of at least one-half the depth of existing surface courses or one-fourth the depth of the existing total pavement thickness shall be provided at locations where proposed construction abuts an existing surface course or pavement for which partial removal of that surface or pavement is required. A full depth saw cut shall be provided where required to prevent damage to existing pavement to remain. Sawed joint to facilitate removal within three (3) feet of existing joints will not be permitted and for such instances the limits shall extend to the existing joint. Such saw cuts will not be paid for directly and this cost shall be considered SUBSIDIARY to other pay items of work in the contract.

4. All project waste including any trees, 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 flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or Wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.

5. The plans show ties to all section corners. The Contractor shall set a City survey monument in the required location where such section corners fall within the limits of pavement construction. Survey monuments will be furnished by the Contractor. The Contractor will have a licensed Land Surveyor accurately locate and install the monument at the section corner.

6. 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. Kansas One-Call 687-2470 or 811.

7. Mailboxes within the limits of the project shall be removed and replaced by the Contractor as approved by the Engineer. Contractor will be required to make satisfactory provisions for mail delivery to properties affected by this project during its construction.

8. All labor, materials and incidentals required for connections to existing structures shall not be paid for directly but shall be considered SUBSIDIARY to the Lump Sum Bid Item "Pipe, Connect to Existing".

9. The Contractor shall be responsible for preserving shown property monuments. The Contractor will be required to re-establish any shown property monuments which are damaged or destroyed by his construction operations. Such monuments shall be re-established at the Contractor's expense, by a licensed Land Surveyor or a licensed professional engineer 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.

10. The Contractor shall adjust Water Valve Boxes and Fire Hydrants as directed by the Engineer at the price bid for such adjustments. The City of Wichita 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 valve boxes, or fire hydrants damaged during construction shall be repaired by the Contractor at his own expense. Paving Contractor will be responsible to operate all water valves on the project, in the presence of the Inspector, to ensure accessibility to the valves.

11. The Contractor shall give all property owners, tenants, and Home Owners' Associations of developed property adjacent to the project limits a minimum of ten (10) days advance notice prior to start of construction. Ten (10) days advance notice should also be provided prior to construction of individual entrances per location.

12. Prior to bidding the project, each bidder shall visit the site and satisfy himself of surface & subsurface conditions. Each bidder shall also fully inform himself as to the extent of the scope of work to be performed. The Contractor will not be granted additional compensation with regard to time or money for conditions which he may have been informed of during an inspection of the site.

13. Contractor shall be aware that some gas & telephone lines within the project corridor may have been abandoned in place as new lines were installed. The Contractor shall be responsible for contacting the appropriate owners to determine the status of said lines.

14. The Contractor shall be aware that he will be working in close proximity of existing utilities. Any conflicts with such utilities shall be reported to the Engineer. The Contractor shall coordinate the construction of this project with relocation of any existing utilities by the utility company. No additional payment shall be made to Contractor for coordination of utility relocation.

15. Contractor shall deliver all existing traffic signal equipment to the City of Wichita. Contact Mike Armour at (316) 268-4598 to arrange delivery. All associated costs to transport the traffic signal equipment will be paid for as "Transporting Salvageable Material" Lump Sum (Non-Participating).

16. Any tree that must have branches removed shall be trimmed by approved methods consistent with standard tree trimming methods and with a sharp instrument/tool that is intended for such operations. See the Landscaping Plans for addidtional notes on tree trimming and root trimming. All trimming work shall be included in the bid item "Site Clearing."

17. The Contractor shall not start work on the Project until the Project Inspector is assigned and is present on site. Any work done without inspection will be required to be uncovered for inspection. Staking and inspection for this project will be the responsibility of the City of Wichita.

18. The Contractor shall comply with all applicable safety regulations and the City of Wichita Specifications and Standards.

19. General construction sequencing shall take into account positive drainage at all times.

20. When beginning or ending full height curb, the height of the curb shall transition in a minimum of 10.00' unless otherwise shown in the plans or as directed by the Engineer.

21. Minimum Clearance is provided over existing and proposed storm sewer pipes. Contractor should take care not to damage pipes during grading and paving operations. Any damage shall be repaired or replaced at the Contractor's expense.

22. Any damage to existing facilities within temporary easements but outside of the construction limits shall be repaired or replaced in kind at the Contractor's expense.

23. The Contractor shall carefully remove the existing Bus Stop Structure, benches and Delano bike racks, protect them during construction, and then reinstall them after construction. All cost for this work shall be considered SUBSIDIARY to the Lump Sum Bid Item "Site Restoration".

24. In areas where the proposed sidewalk will abut an existing building face or entryway, the Contractor shall install ½" expansion joint material between the proposed sidewalk and the existing building or concrete. All costs associated with this work shall be considered SUBSIDIARY to the sidewalk construction.

25. Throughout the corridor, there will be areas where existing gas meters, sewer cleanouts, and other utility items will fall within the limits of the proposed sidewalk. At these locations, the Contractor shall install expansion material suitable to isolate these items from the concrete sidewalk construction and protect them as necessary. All costs for this work shall be considered SUBSIDIARY to the sidewalk construction.

26. Douglas Avenue paving plans from 1961 indicate that there is abandoned streetcar tracks between Millwood and Seneca, running down the center of Douglas. A note on those plans inidcate that the old street car ties were to be only removed where necessary. As a result, the Contractor may encounter existing ties when excavating for this project. Any ties encountered will need to be fully removed and all costs associated with this work, including any additional pavement removal, temporary pavement, etc. shall be considered SUBSIDIARY to the Measured Quantity Bid Item "Street Car Tie Removal".

27. Two public art installations will be installed near the completion of this Project. The first installation will be include 2 sculptures on 5'X5' masonry bases located at Douglas and Meridian as shown on the paving plans. The second installation will include 6-10 steel poles set between the curb and the sidewalk between Glenn and Millwood. The Contractor may be required to coordinate with the artists during the installation. Contact Kent Williams with kwED, the project Art Consultant, at (323) 251-5784 for more information.

28. Traffic Control:
Douglas Avenue may be shut down to build the full width proposed pavement and install the SWS and water line at the Railroad Track crossing . Outside of that, a minimum of one lane of traffic in each direction shall be maintained on Douglas Avenue throughout the rest of the construction. Side streets abuting Douglas may also be closed at Douglas, provided that no two successive side streets are closed at the same time. Contractor shall provide, erect, and maintain traffic control devices in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) as shown on the Traffic Control plans and subject to the Engineer's approval. Access to residences and businesses shall be maintained at all times.

UTILITIES

Cable TV
Cox Communications
901 George Washington Blvd.
Wichita, KS. 67211
Attn: Matt Bortz
Ph: 620-272-2081

Communications$_1$
AT&T
154 N. Broadway, Rm. 210
Wichita, KS. 67202-3505
Attn: Jason Edwards
Ph: 316-268-2008

Communications$_2$
SDT Solutions, LLC
2749 NW Hunter Dr. STE E
Blue Springs, MO 64015
Attn: Justin Rahm
Ph: 678-231-5933

Electric
Evergy (Distribution)
1900 E. Central
Wichita, KS. 67214
Attn: Shane Price
Ph: 316-261-6315

Gas$_1$
Kansas Gas Service
1021 E. 26th St. N.
Wichita, KS. 67219
Attn: Jordan Robl
Ph: 316-831-5696

Gas$_2$
Black Hills Energy
2300 N. Hoover Rd.
Wichita, KS. 67205
Attn: Chris Kelley
Ph: 316-941-1633

Sanitary Sewer
City of Wichita
455 N Main St.
Wichita, KS. 67202
Attn: Jeff Crosby
Ph: 316-268-4326

Storm Water Sewer
City of Wichita
455 N Main St.
Wichita, KS. 67202
Attn: Kelly Fleming
Ph: 316-268-4326

Traffic Signal
City of Wichita
455 N Main St.
Wichita, KS. 67202
Attn: Mike Armour
Ph: 316-268-4598

Water
City of Wichita
455 N Main St.
Wichita, KS. 67202
Attn: Greg Lolley
Ph: 316-268-4334

CITY OF WICHITA

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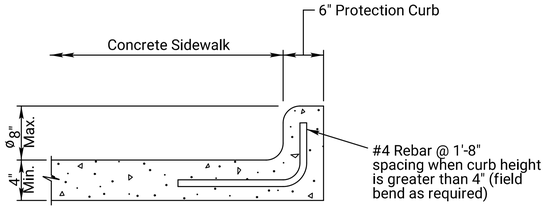
DOUGLAS AVENUE - MERIDIAN TO SENECA

GENERAL NOTES

REVISIONS	DATE	NO.
DESCRIPTION		

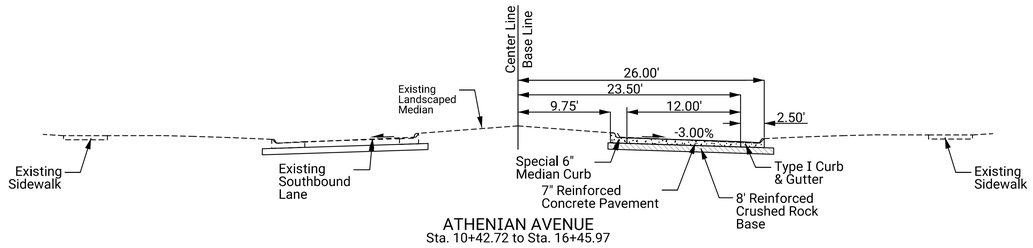
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SHEET NO
4
SHEET 4 OF 180

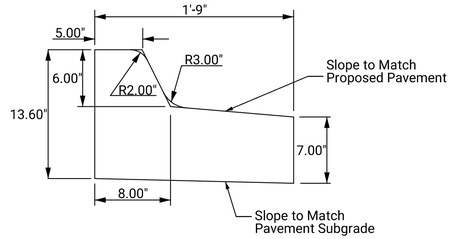


Protection Curb Detail

ø Vary curb height to meet slope requirements



ATHENIAN AVENUE
Sta. 10+42.72 to Sta. 16+45.97

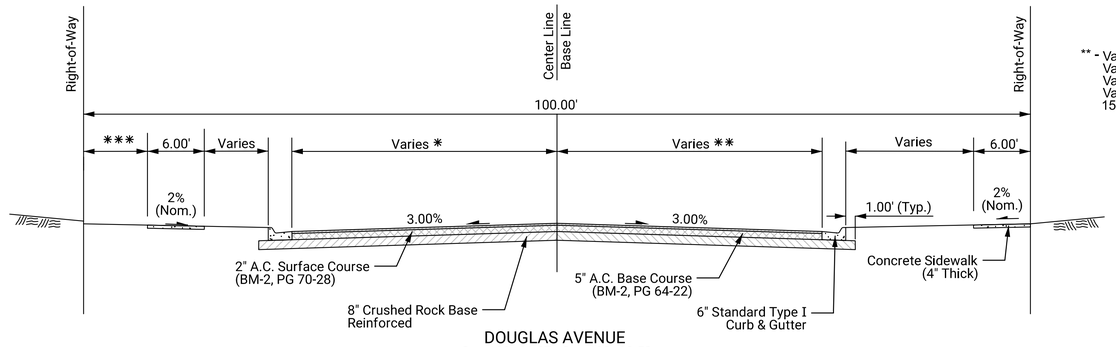


SPECIAL 6" MEDIAN CURB SECTION
(1.75' WIDTH)
Concrete Pavement Section

The Fabric Reinforcement for the Crushed Rock Base shall be from the City of Wichita's Approved Materials List.

* - 21.00' from Sta. 100+67.12 to Sta. 101+00.11
Varies from 21.00' to 15.50' from Sta. 101+00.11 to Sta. 101+50.11
15.50' from 101+50.11 to Sta. 103+90.52

*** - Install Sidewalk to Match Existing Back of Walk



DOUGLAS AVENUE
Sta. 100+66.07 - Sta. 103+90.52

** - Varies from 23.38' to 20.83' from Sta. 100+66.07 to Sta. 101+67.99
Varies from 20.83' to 28.50' from Sta. 101+67.99 to Sta. 101+81.28
Varies from 28.50' to 23.92' from Sta. 101+81.28 to Sta. 103+65.88
Varies from 23.92' to 15.50' from Sta. 103+65.88 to Sta. 103+80.48
15.50' from Sta. 103+80.48 to 103+90.48

CITY OF WICHITA

wsp

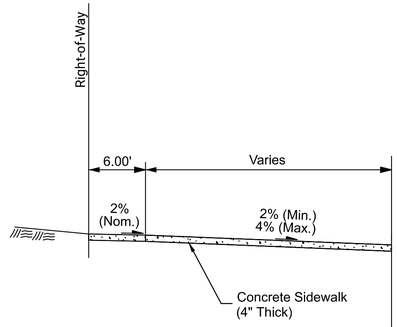
DOUGLAS AVENUE - MERIDIAN TO SENECA

TYPICAL SECTIONS

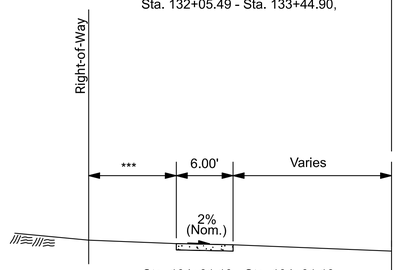
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DRAWN BY:	Staff
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SHEET NO
5
SHEET 5 OF 180

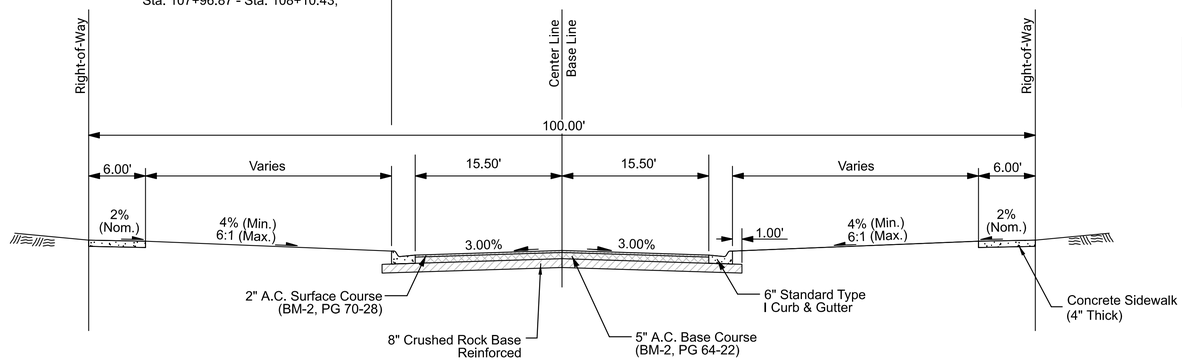


Sta. 132+05.49 - Sta. 133+44.90,



Sta. 104+81.19 - Sta. 104+91.13,
Sta. 107+96.87 - Sta. 108+10.43,

*** - Install Sidewalk to Match Existing Back of Walk



The Fabric Reinforcement for the Crushed Rock Base shall be from the City of Wichita's Approved Materials List.

DOUGLAS AVENUE

Sta. 104+81.19 - Sta. 104+91.13
Sta. 107+96.87 - Sta. 108+10.43
Sta. 113+66.77 - Sta. 113+83.99
Sta. 116+38.31 - Sta. 116+48.08
Sta. 117+38.57 - Sta. 117+48.53
Sta. 120+13.21 - Sta. 120+18.43
Sta. 121+19.04 - Sta. 121+23.42
Sta. 123+88.51 - Sta. 123+92.91
Sta. 124+93.47 - Sta. 124+98.93
Sta. 127+09.79 - Sta. 127+66.30
Sta. 128+56.81 - Sta. 128+66.81
Sta. 129+50.00 - Sta. 130+32.19
Sta. 131+36.99 - Sta. 131+40.72
Sta. 132+38.72 - Sta. 134+70.65
Sta. 138+87.83 - Sta. 138+96.93
Sta. 139+88.32 - Sta. 138+98.44
Sta. 142+19.98 - Sta. 142+29.19
Sta. 143+20.80 - Sta. 145+58.59

CITY OF WICHITA

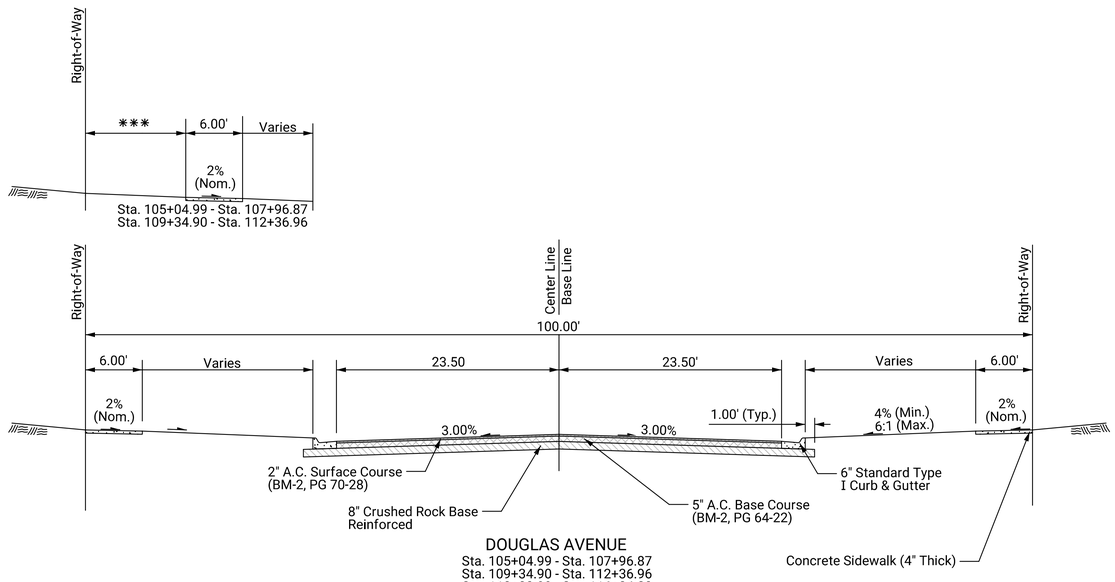
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DOUGLAS AVENUE - MERIDIAN TO SENECA
TYPICAL SECTIONS

NO.	DATE	DESCRIPTION
		REVISIONS

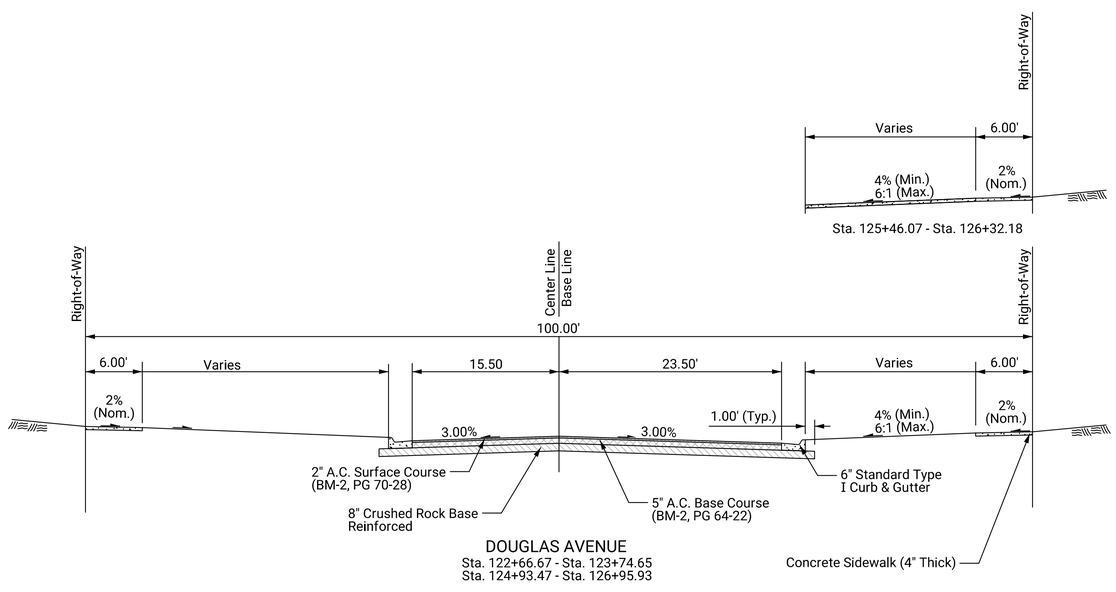
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
6
SHEET 6 OF 180



DOUGLAS AVENUE
Sta. 105+04.99 - Sta. 107+96.87
Sta. 109+34.90 - Sta. 112+36.96
Sta. 113+83.99 - Sta. 116+24.23
Sta. 117+62.38 - Sta. 119+99.35
Sta. 121+42.80 - Sta. 123+88.51
Sta. 125+12.79 - Sta. 126+95.93
Sta. 128+80.67 - Sta. 129+50.00
Sta. 130+51.78 - Sta. 131+23.14
Sta. 134+84.51 - Sta. 138+87.83
Sta. 140+12.30 - Sta. 142+10.00
Sta. 146+49.84 - Sta. 149+84.48

The Fabric Reinforcement for the Crushed Rock Base shall be from the City of Wichita's Approved Materials List.



Sta. 125+46.07 - Sta. 126+32.18

DOUGLAS AVENUE
Sta. 122+66.67 - Sta. 123+74.65
Sta. 124+93.47 - Sta. 126+95.93

CITY OF WICHITA

wsp

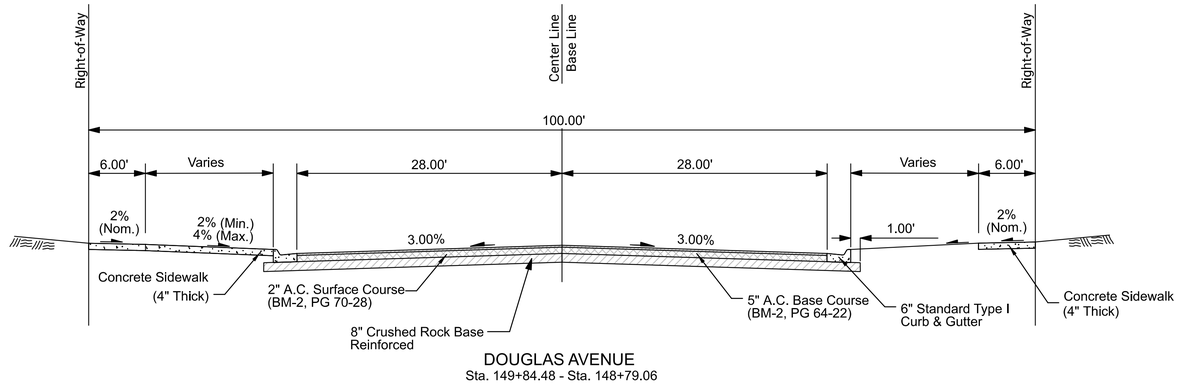
DOUGLAS AVENUE - MERIDIAN TO SENECA

TYPICAL SECTIONS

NO.	DATE	DESCRIPTION
		REVISIONS

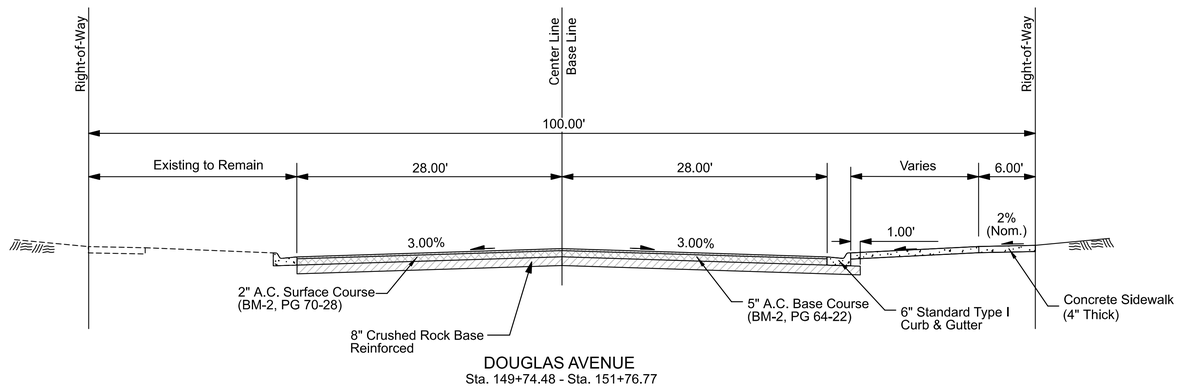
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
7
SHEET 7 OF 180



DOUGLAS AVENUE
Sta. 149+84.48 - Sta. 148+79.06

The Fabric Reinforcement for the Crushed Rock Base shall be from the City of Wichita's Approved Materials List.



DOUGLAS AVENUE
Sta. 149+74.48 - Sta. 151+76.77

CITY OF WICHITA

wsp

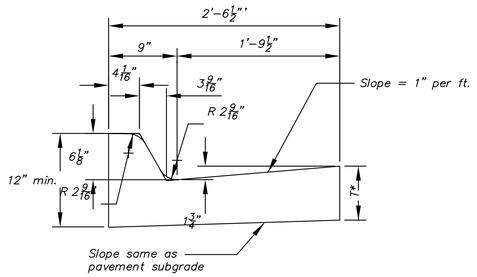
DOUGLAS AVENUE - MERIDIAN TO SENECA
TYPICAL SECTIONS

NO.	DATE	DESCRIPTION
		REVISIONS

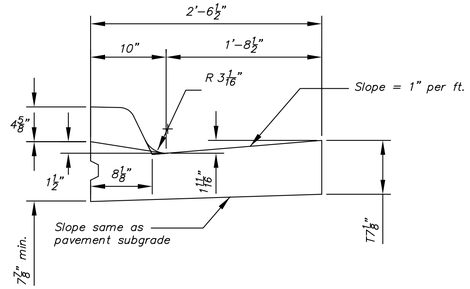
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
8
SHEET 8 OF 180

TYPE 1
(Arterial curb)

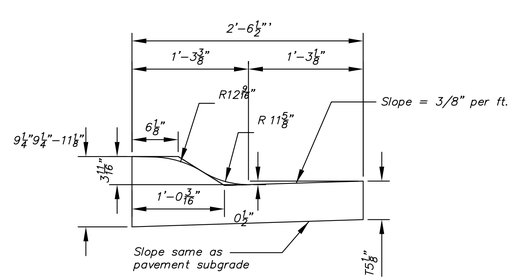


Combined Curb & Gutter (6")

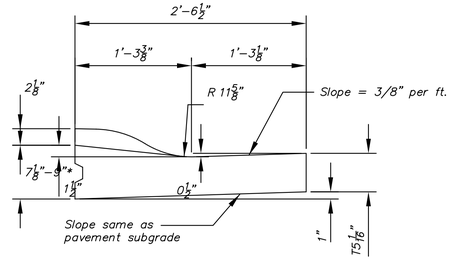


Combined Curb & Gutter (1 1/2")

TYPE 2
(Roll curb)

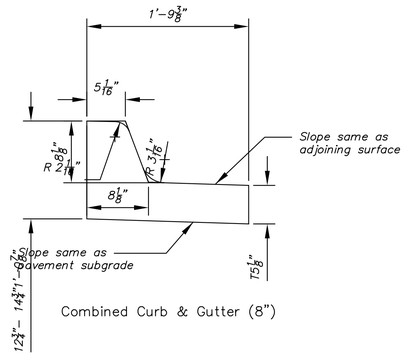


Combined Curb & Gutter (3 5/8")

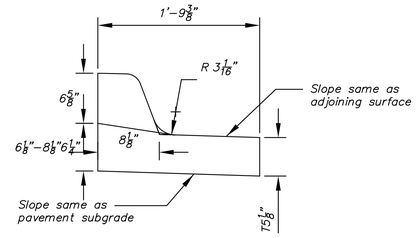


Combined Curb & Gutter (1 1/2")

TYPE 3
(Median curb)

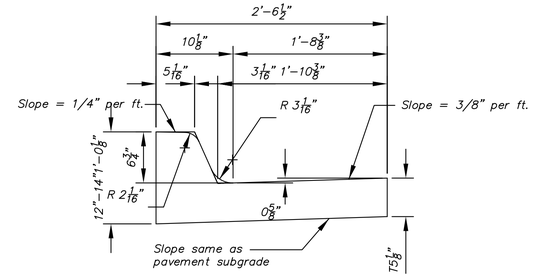


Combined Curb & Gutter (8")

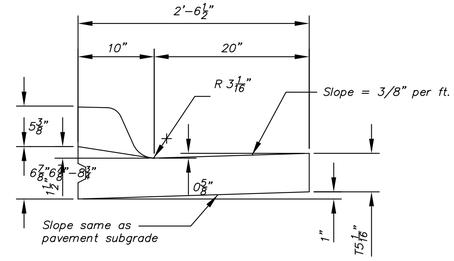


Combined Curb & Gutter (1 1/2")

TYPE 4
(Residential curb)

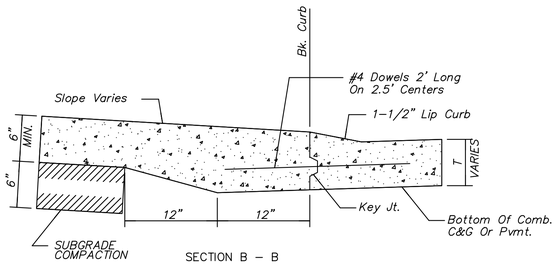


Combined Curb & Gutter (6 5/8")

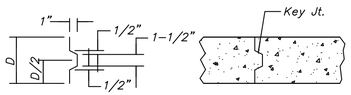


Combined Curb & Gutter (1 1/2")

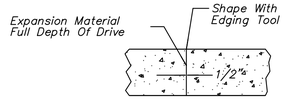
T* = Thickness of curb to adjust with pavement thickness



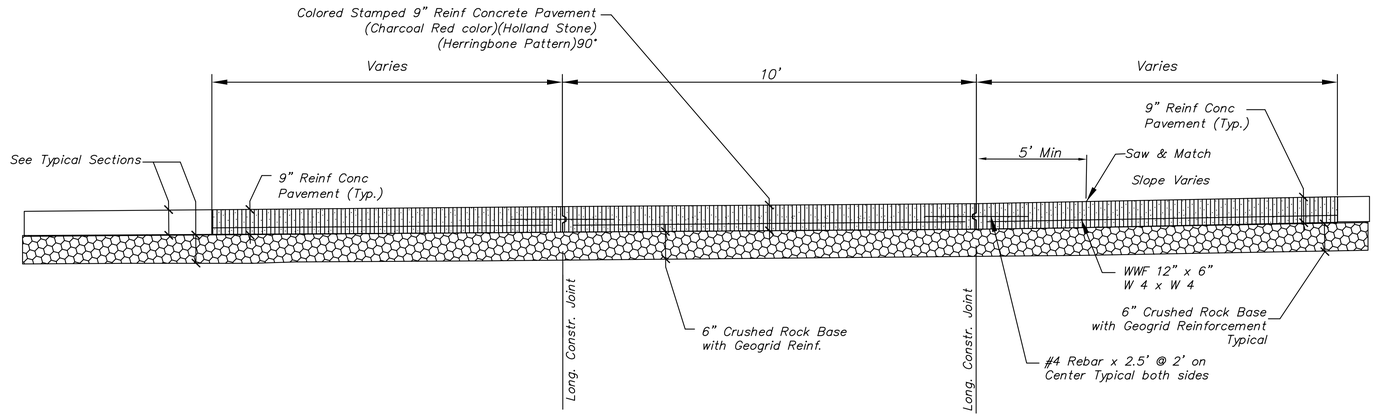
BACK OF CURB DETAIL



ALT. LONGITUDINAL CONSTRUCTION JOINT



EXPANSION JOINT (E.J.)



STAMPED CONCRETE CROSSWALK DETAIL

GENERAL NOTES

1. Expansion (isolation) joints shall be constructed a maximum of 300' apart and at all PIs, PCs, cul-de-sac quadrants, and ends of returns.

2. Contraction joints shall be constructed a minimum of 12' apart.

3. Joint sealer shall be required at all joints on arterial and industrial streets and at intersections on residential streets.

REVISED: OCTOBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

CURB & GUTTER & PAVING BRICK CROSSWALK DETAILS

CITY ENGINEER
PAUL GUNZELMAN, P.E.

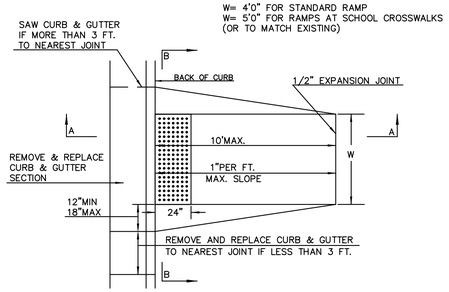
PROJECT NUMBER	OCA NUMBER	DATE

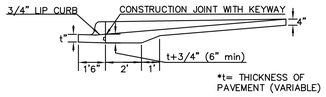
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
9 of 180

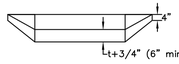
PV-101

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



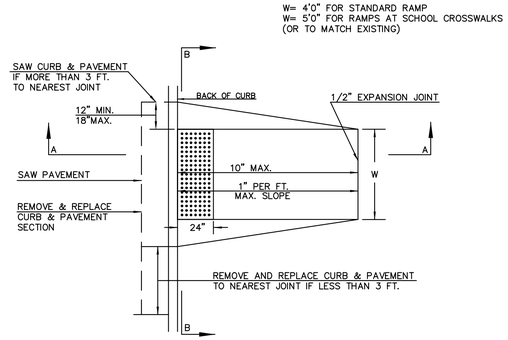


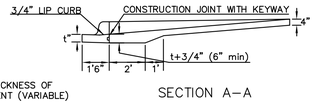
SECTION A–A



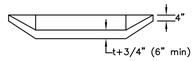
SECTION B–B

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



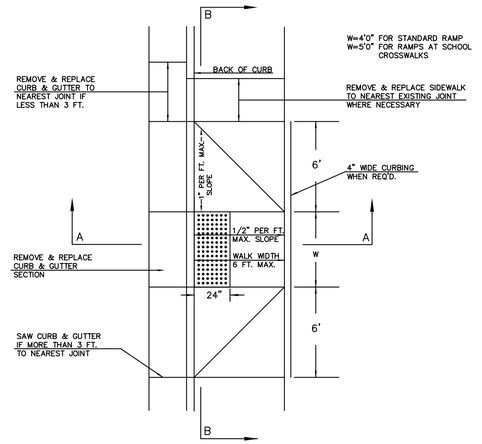


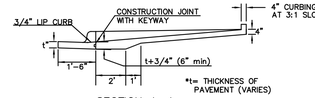
SECTION A–A



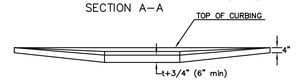
SECTION B–B

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



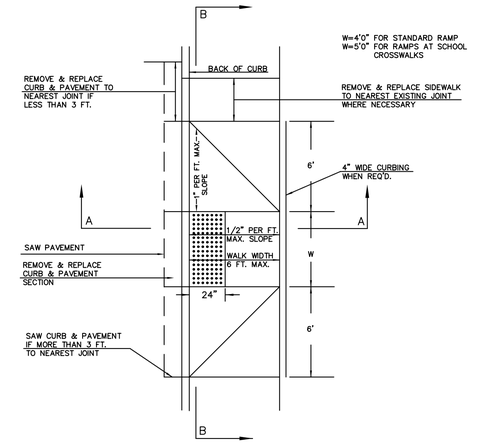


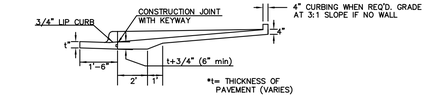
SECTION A–A



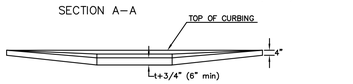
SECTION B–B

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



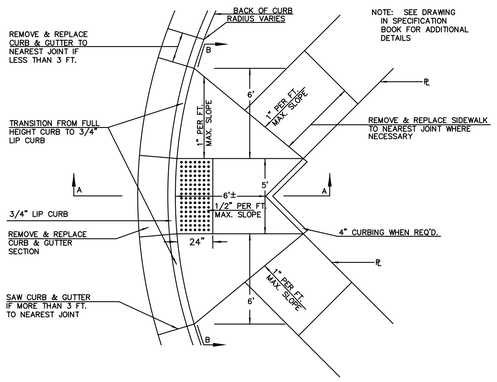


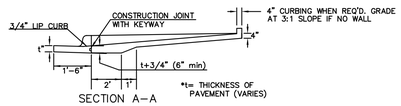
SECTION A–A



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)



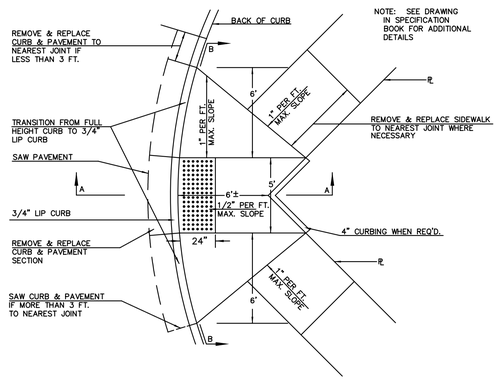


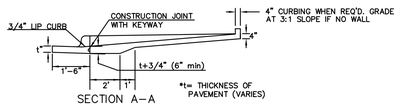
SECTION A–A



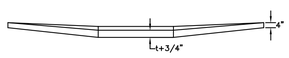
SECTION B–B

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



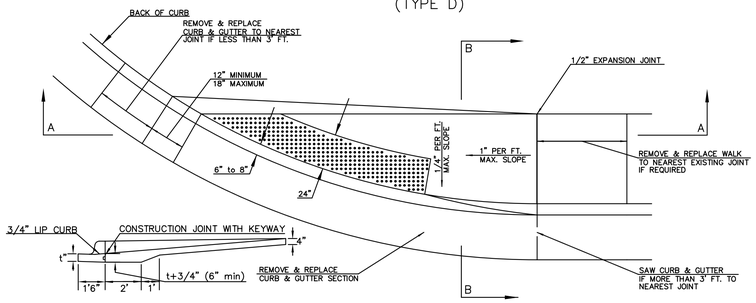


SECTION A–A



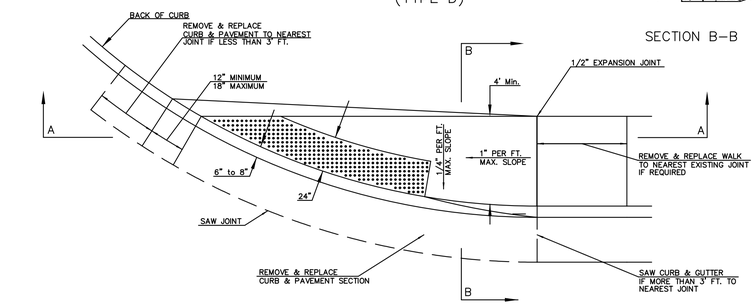
SECTION B–B

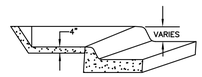
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER WITH ONE FULL SIDEWALK (TYPE D)



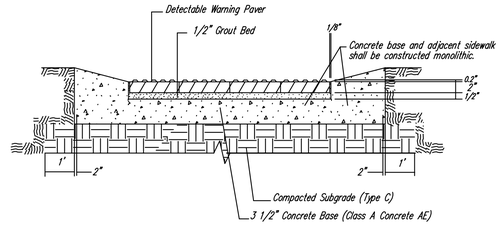
SECTION A–A

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





SECTION B–B

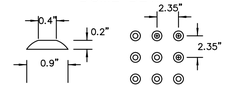


TYPICAL SECTION DETECTABLE WARNING PAVER SECTION A–A

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

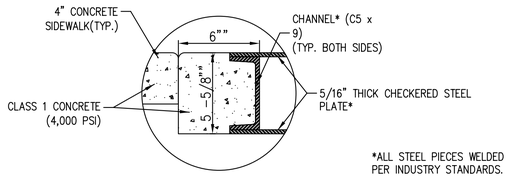
WHEELCHAIR RAMP DETAILS WITH DETECTABLE WARNING

CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
		08/2013

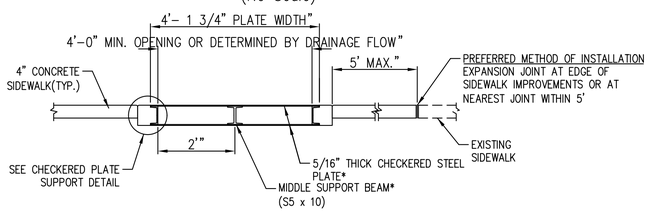
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
10 of 180



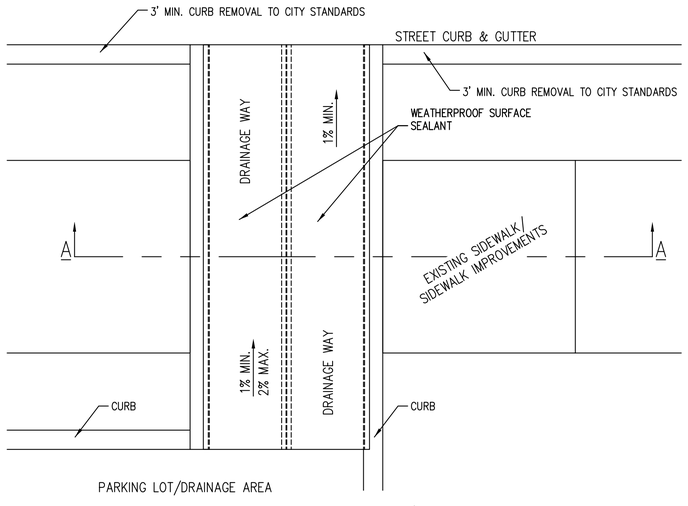
CHECKERED PLATE SUPPORT DETAIL

(No Scale)



SECTION A-A

(No Scale)

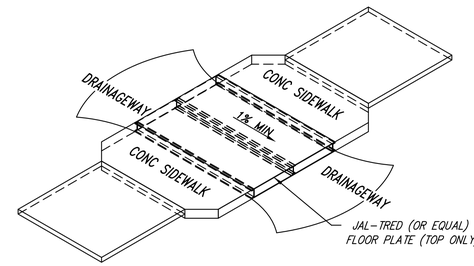


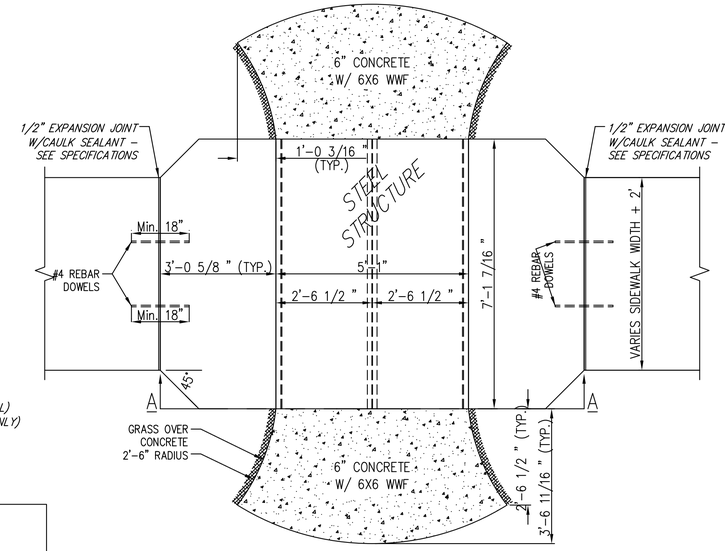
PLAN VIEW *

(No Scale)

CHECKERED PLATE

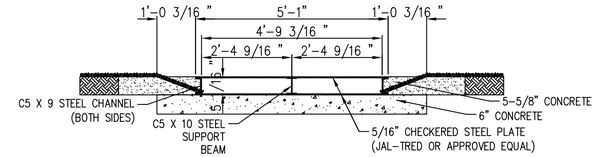
(PREFERRED OPTION)





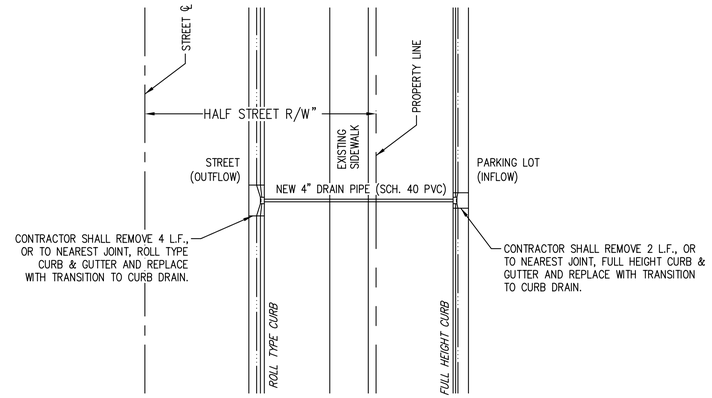
PLAN *

(No Scale)



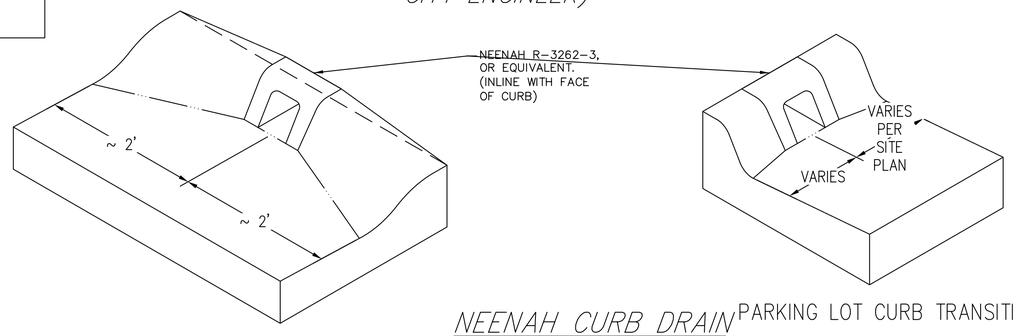
SECTION A-A

(NO SCALE)



(ALTERNATIVE INSTALLATION WITH PRIOR APPROVAL FROM CITY ENGINEER)

* NOTE: OWNER'S ENGINEER SHALL CONTACT PUBLIC WORKS AND ENGINEERING DEPARTMENT AT 268-4501 TO OBTAIN UTILITY PAVEMENT CUT PERMIT PRIOR TO CONSTRUCTION IF PART OF A PRIVATE PROJECT.



NEENAH CURB DRAIN

STREET CURB TRANSITION (USE ONLY WITH PRIOR APPROVAL FROM CITY ENGINEER.)

PARKING LOT CURB TRANSITION

REVISED MARCH 2017

CITY OF WICHITA

PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

COVERED CONCRETE FLUME THROUGH SIDEWALK & NEENAH CURB DRAIN

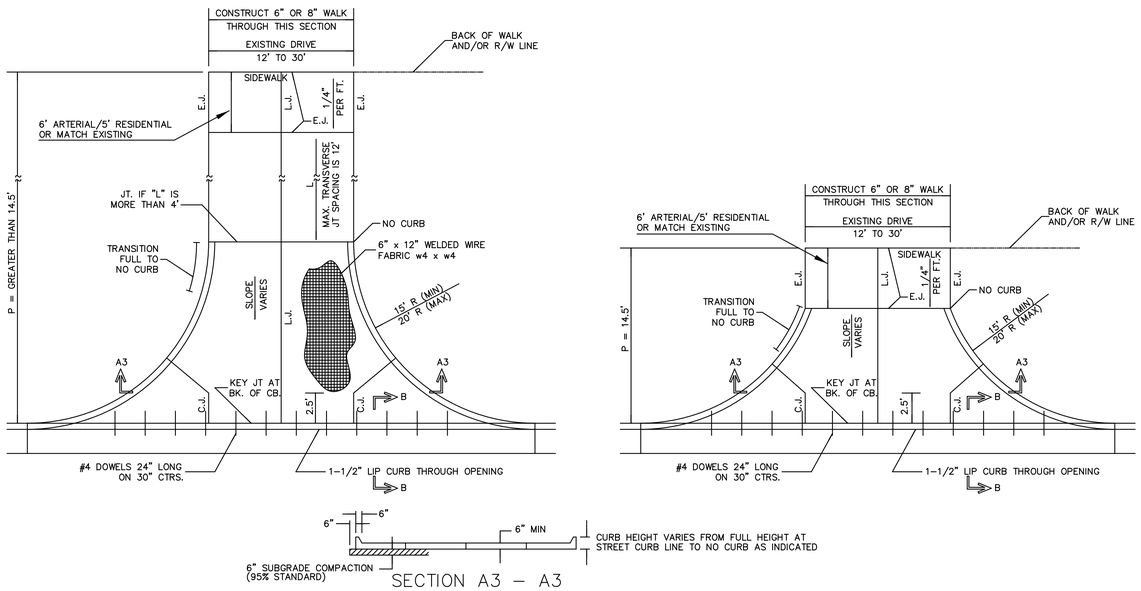
CITY ENGINEER

PAUL GUNZELMAN, P.E

PROJECT NUMBER	OCA NUMBER	DATE

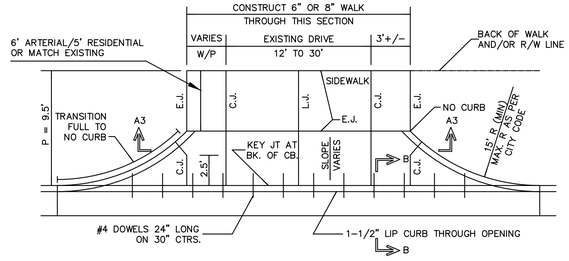
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

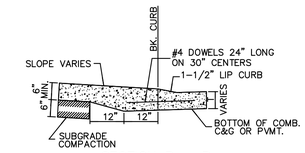
SW-406



SECTION A3 – A3

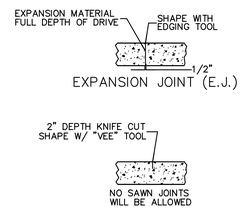
FULL RADIUS DRIVES (ARTERIAL/COLLECTOR DRIVEWAY)



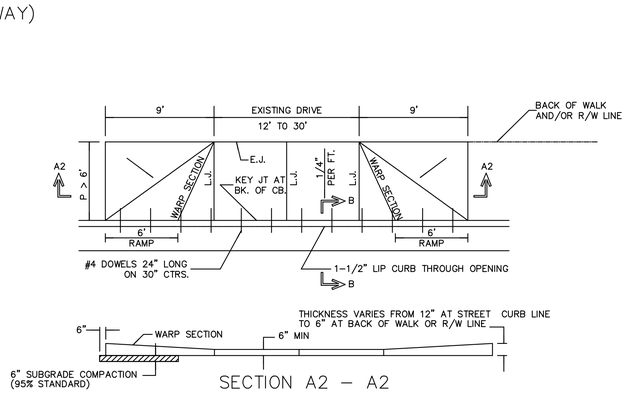


SECTION B – B

ALT. LONGITUDINAL CONSTRUCTION JOINT

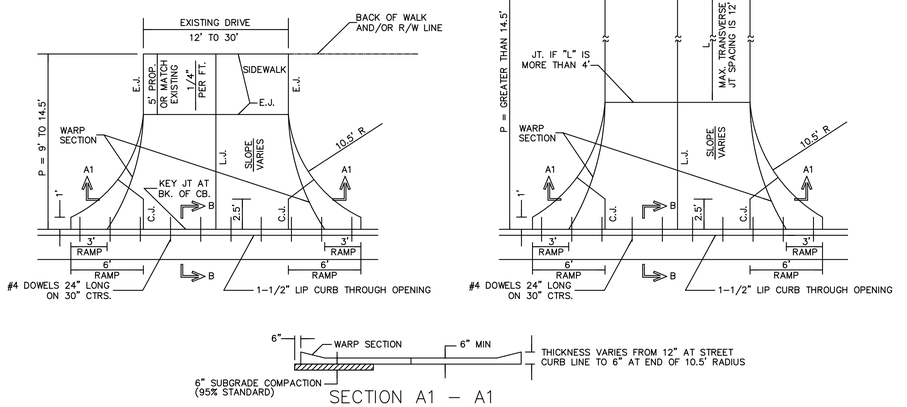


BACK OF CURB DETAIL



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.

UNLESS OTHERWISE SPECIFIED. ALL DRIVES CONSTRUCTED SHALL BE RADIUS RAMP DRIVES.

REVISED: NOVEMBER 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD DRIVE ENTRANCES FULL HEIGHT CURB

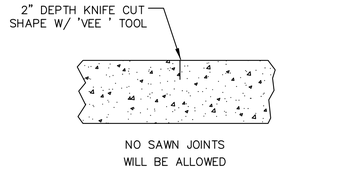
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

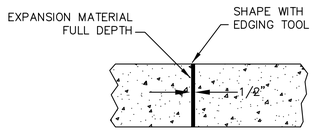
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
12 of 180

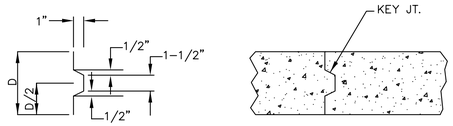
PV-126



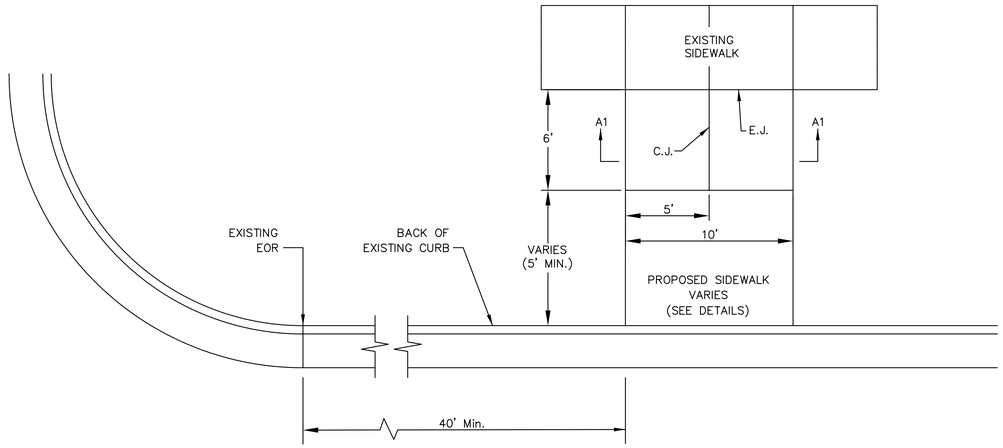
CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)



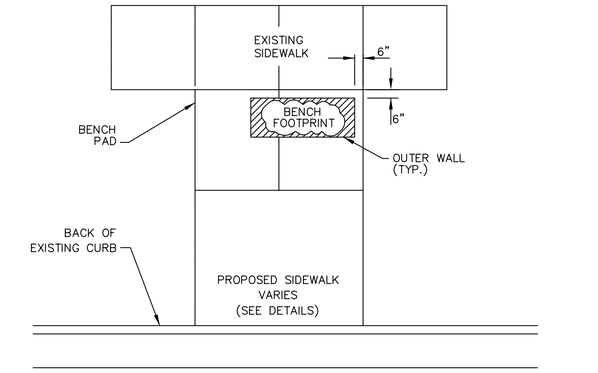
EXPANSION JOINT (E.J.)



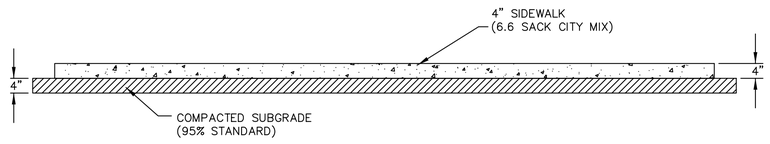
ALT. LONGITUDINAL CONSTRUCTION JOINT



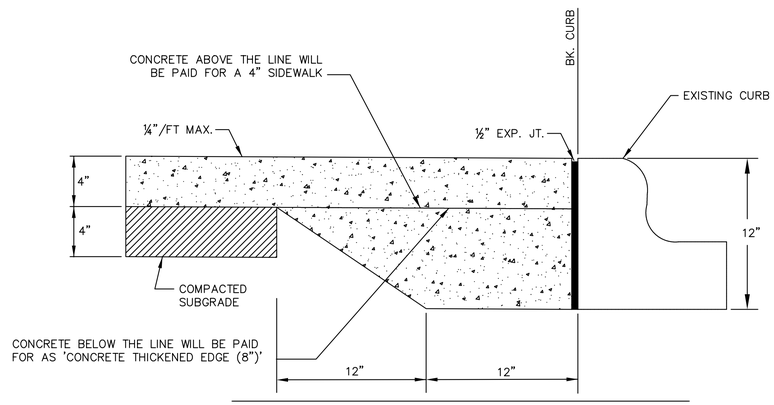
FREESTANDING BENCH PAD



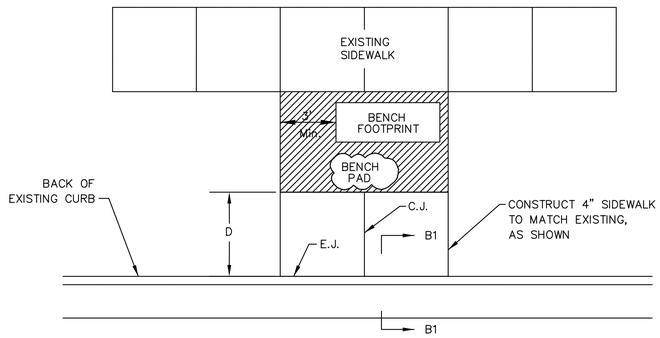
BENCH LAYOUT



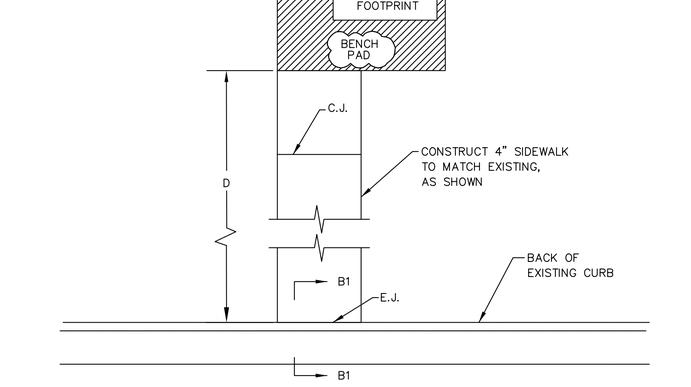
SECTION A1 – A1



SECTION B1 – B1



SIDEWALK CONSTRUCTION, D≤5'



SIDEWALK CONSTRUCTION, D>5'

GENERAL NOTES

1. IN THE ABSENCE OF EXISTING SIDEWALK, THE MINIMUM 5' SET BACK DISTANCE SHALL BE MAINTAINED.
2. EXCEPT AS OTHERWISE NOTED, SIDEWALK SLOPE MUST NOT EXCEED 5%, IN THE DIRECTION OF TRAVEL, OR 2% PERPENDICULAR TO THE DIRECTION OF TRAVEL.
3. ALL SIDEWALK WITHIN 5'OF BACK–OF–CURB MUST BE CONSTRUCTED AS A LANDING AREA, WITH SLOPES NOT IN EXCESS OF 2% IN ANY DIRECTION.
4. ALL CONCRETE MUST MEET THE REQUIREMENTS OF THE 6.6 SACK CITY MIX.

AUGUST 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

FREESTANDING BENCH STANDARD DETAILS

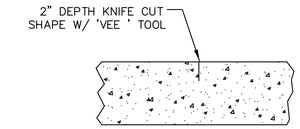
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

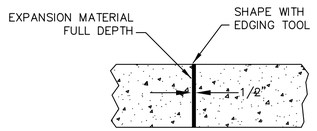
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

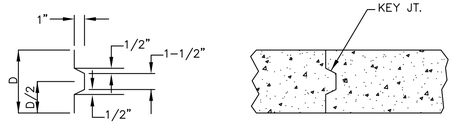
PV–143



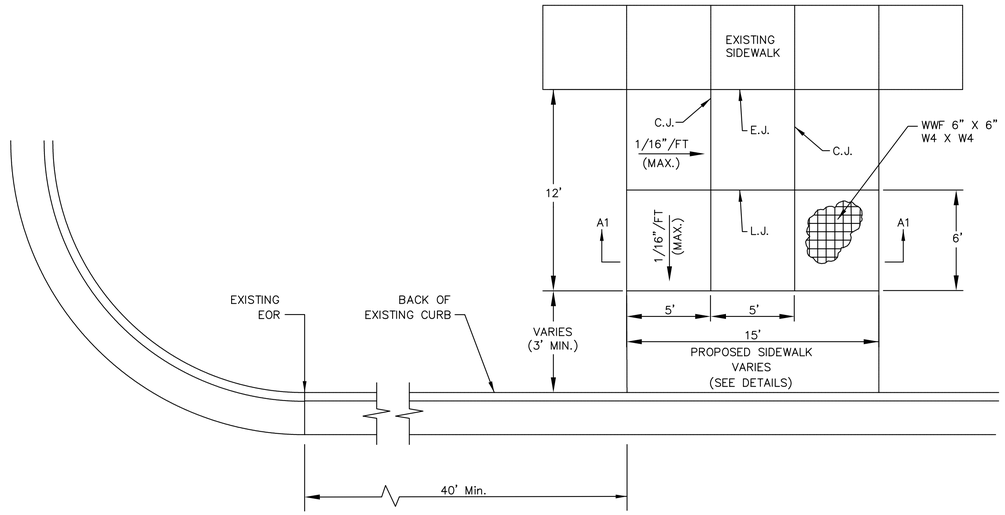
CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)



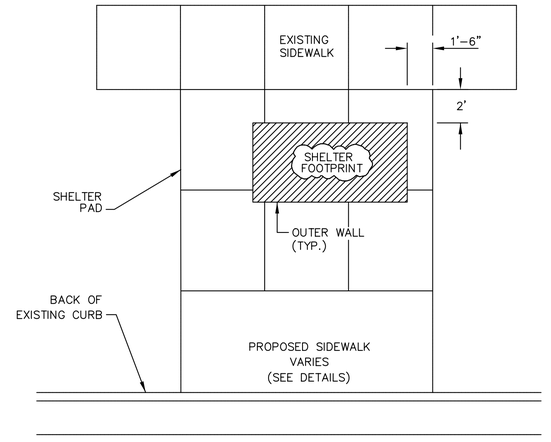
EXPANSION JOINT (E.J.)



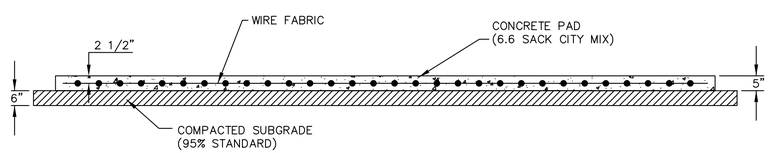
ALT. LONGITUDINAL CONSTRUCTION JOINT



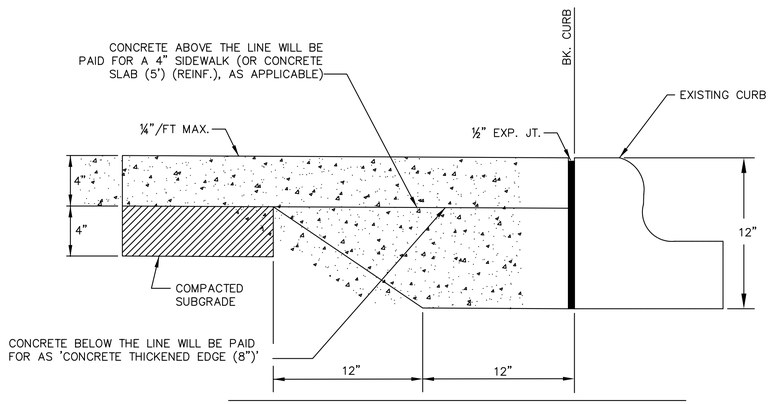
5' X 10' BUS SHELTER PAD



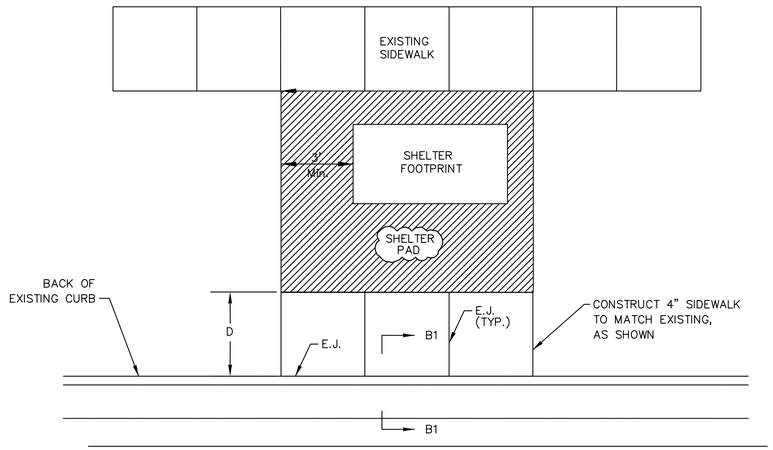
5' X 10' SHELTER LAYOUT



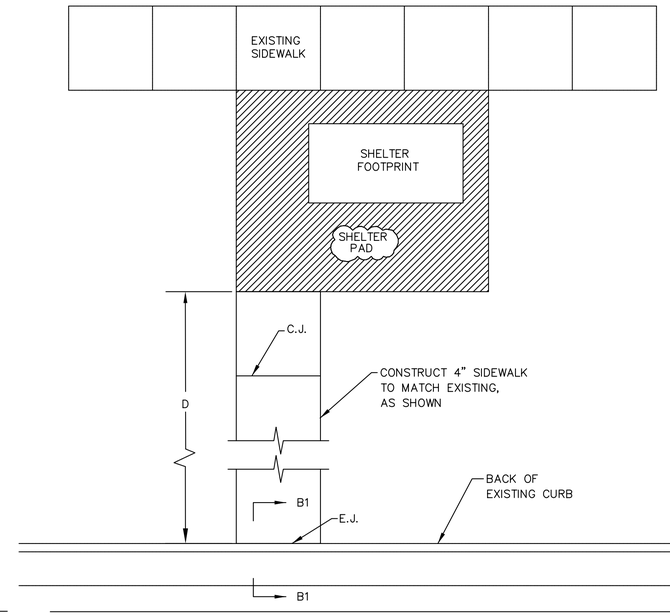
SECTION A1 – A1



SECTION B1 – B1



SIDEWALK CONSTRUCTION, D≤5'



SIDEWALK CONSTRUCTION, D>5'

GENERAL NOTES

1. IN THE ABSENCE OF EXISTING SIDEWALK, THE MINIMUM 5' SET BACK DISTANCE SHALL BE MAINTAINED.
2. EXCEPT AS OTHERWISE NOTED, SIDEWALK SLOPE MUST NOT EXCEED 5%, IN THE DIRECTION OF TRAVEL, OR 2% PERPENDICULAR TO THE DIRECTION OF TRAVEL.
3. ALL SIDEWALK WITHIN 5'OF BACK–OF–CURB MUST BE CONSTRUCTED AS A LANDING AREA, WITH SLOPES NOT IN EXCESS OF 2% IN ANY DIRECTION.
4. ALL CONCRETE MUST MEET THE REQUIREMENTS OF THE 6.6 SACK CITY MIX.

AUGUST 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

5' X 10' SHELTER STANDARD DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

SHEET

PV-144

BENCHMARK

BM #7 - Chiseled Square at the Northwest Corner of Meridian & Douglas at the 90 of a Parking Lot Curb.
B.L. Sta. 99+69.65, Off. 27.67' Lt.
ELEV. 1303.67 (NAVD 88)

The Proposed Sidewalk on the North Side of Douglas Shall be Constructed with Back of Walk at 44' North of the Douglas Baseline Between Sta. 100+45 to 101+38 to Allow Room for the Proposed Public Art Piece that will be Installed at Sta. 101+00.

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 100+00 TO STA. 105+00

P.V.I. No V.C. T.C. = 1302.60
P.V.I. No V.C. T.C. = 1302.51
P.V.I. No V.C. T.C. = 1301.07
-0.125% -0.180% -0.261% -0.528% -1.082%

Sta. 100+59.41 | Sta. 101+00.11 | Sta. 101+50.11 | Sta. 103+90.52 | Sta. 104+81.13 | Sta. 104+91.13 | Sta. 105+00.00 Match Line

Property LLC 2436 W Douglas Ave
Henke James D 2432 W Douglas Ave
DOA Companies LLC 2422 Douglas Ave
Krehbiel Catherine E 2412 Douglas Ave
Harvest Investments LLC 2410 W Douglas Ave
Whisman Gerald O & Marilyn K 2406 W Douglas Ave
Whisman Gerald O & Marilyn K 2402 W Douglas Ave
Ficarra John E 2332 W Douglas Ave

Construct 19.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Proposed Location of Future Art Installation
Construct 30.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 30.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Sidewalk 4", 6' Wide
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Prop. Temp Esmt.

Meridian Ave
Douglas Avenue
Sedgwick St.
B.M.#7
Match 1302.14
Exist. R/W
AT&T Duct
AT&T MH
AT&T FO Cable
36" Water (ac)
Tele Vault
TMH
TS
WM
WV
Sign
Bench
Bike Racks
Ex. Oak
Ex. Elm
Ex. Pine
Ex. Locust
Ex. Walnut
Ex. Ash
Ex. Maple
Ex. Hackberry
Ex. Cedar
Ex. Mulberry
Ex. Sycamore
Ex. Redbud
Ex. Honeylocust
Ex. Catalpa
Ex. Boxelder
Ex. Cottonwood
Ex. Willow
Ex. Pecan
Ex. Walnut
Ex. Chestnut
Ex. Hickory
Ex. Beech
Ex. Birch
Ex. Poplar
Ex. Aspen
Ex. Basswood
Ex. Linden
Ex. Tupelo
Ex. Blackgum
Ex. Sourwood
Ex. Persimmon
Ex. Paw Paw
Ex. Osage Orange
Ex. Mulberry
Ex. Sycamore
Ex. Redbud
Ex. Honeylocust
Ex. Catalpa
Ex. Boxelder
Ex. Cottonwood
Ex. Willow
Ex. Pecan
Ex. Walnut
Ex. Chestnut
Ex. Hickory
Ex. Beech
Ex. Birch
Ex. Poplar
Ex. Aspen
Ex. Basswood
Ex. Linden
Ex. Tupelo
Ex. Blackgum
Ex. Sourwood
Ex. Persimmon
Ex. Paw Paw
Ex. Osage Orange

SWS Line 2a
SWS Line 2
R 30'

Construct 31.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Proposed Location of Future Art Installation
Construct Transit Bench Pad and Reinstall Ex. Bench and Bike Racks See Detail, Sheet 13
Remove Exist. Drive Do Not Replace
Construct 8.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Construct 19.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Prop. Temp Esmt.
Construct Concrete Sidewalk 4", 6' Wide

Johansen Mark A & Darlene M 2433 W Douglas Ave
Mccarty Gary L 2423 W Douglas Ave
Penix Desiree N 2417 W Douglas
Avila Roman Salas & Juanita Salas Amparan 2409 W Douglas Ave
Ward Thomas J & Mary J 2405 W Douglas
Foster Joseph A 2403 W Douglas
Enns Charles E 144 S Sedgwick

Sta. 100+42.38 | Sta. 100+66.07 | Sta. 101+00.00 | Sta. 101+67.99 | Sta. 101+81.28 | Sta. 100+66.07 | Sta. 103+65.88 | Sta. 103+80.48 | Sta. 103+90.48 | Sta. 104+81.19 | Sta. 104+91.19 | Sta. 105+00.00 Match Line

-0.825% -0.350% -0.350% -0.350% -0.350% -0.423% +1.036% -0.528% -2.165%

P.V.I. No V.C. T.C. = 1302.63
P.V.I. No V.C. T.C. = 1302.52
P.V.I. No V.C. T.C. = 1302.28
P.V.I. No V.C. T.C. = 1302.00
-2.107%
P.V.I. No V.C. T.C. = 1301.35
P.V.I. No V.C. T.C. = 1301.54
P.V.I. No V.C. T.C. = 1301.07

BENCHMARK

BM #8 - Chiseled Square in the Top of Curb In South Return of the First entrance South of Douglas & Meridian West of Sidewalk.
B.L. Sta. 100+31.15, Off: 185.86' Rt.
ELEV. 1303.13 (NAVD 88)

Areas of Full Pavement Removal & Replacement are indicated by:

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO 15
SHEET 15 OF 180

BENCHMARK

BM #6 - Chiseled Square at the Northeast Corner of the Intersection of St Clair & Douglas on the North End of Curb Return.
B.L. Sta. 108+81.38. Off. 42.46' Lt.
ELEV. 1301.89 (NAVD 88)

SCALE
PLAN: Lat. & Long.
20' 0 20' 40'

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 105+00 TO STA. 110+30

-2.165% P.V.I. No V.C. T.C. = 1300.77 +0.250% P.V.I. No V.C. T.C. = 1301.66 P.V.I. No V.C. T.C. = 1301.45 +1.515% -0.400% -0.400% P.V.I. No V.C. T.C. = 1300.55 +0.200%

Sta. 105+00.00 Match Line Sta. 105+04.99 Sta. 107+96.87 Sta. 108+10.72 Sta. 108+20.72 Sta. 109+11.12 Sta. 110+25.00 Sta. 110+30.00 Match Line

Ficarra John E 2332 W Douglas Ave
Wilkey Nathan 2320 Douglas Ave
Loesch Cliffton R & Lavonna B 2328 W Douglas Ave
MCT LLC 2316 W Douglas Ave
Christiansen Vicki L 2312 W Douglas
Holloway Alan R 2304 W Douglas Ave
Villa Alma R 2230 W Douglas Ave
ESP Realty LLC 2226 W Douglas Ave
Medlin John S & Sandra 2218 W Douglas Ave

Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 15.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Construct Concrete Sidewalk 4", 6' Wide
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Prop. Temp Esmt.
St Clair St
Exist. R/W
SWS Line 2b
Douglas Avenue
SWS Line 2c
SWS Line 2
SWS Line 2d
R 30'

Enns Charles E 144 S Sedgwick
Moreno David S 2327 W Douglas
Red Group LLC 2323 W Douglas Ave
Lies Alan 2313 W Douglas Ave
Gruver Emily K 2311 W Douglas Ave
MCG Inc 2303 W Douglas Ave
Kraus Sydney D & Alek G Roland 2301 W Douglas Ave
KGV Investments 2233 W Douglas Ave
Gelinas Sarah M 2229 W Douglas Ave
EMPB Enterprises LLC 2225 W Douglas Ave

Construct 11.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 30.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced

Sta. 105+00.00 Match Line Sta. 105+05.03 Sta. 107+96.57 Sta. 108+10.43 Sta. 108+20.43 Sta. 109+11.05 Sta. 109+21.05 Sta. 109+34.90 Sta. 110+25.00 Sta. 110+30.00 Match Line

-2.165% P.V.I. No V.C. T.C. = 1300.77 +0.250% P.V.I. No V.C. T.C. = 1301.44 -0.400% +1.590% P.V.I. No V.C. T.C. = 1301.66 -0.400% P.V.I. No V.C. T.C. = 1301.21 -2.165% P.V.I. No V.C. T.C. = 1300.91 -0.400% +0.200%

Areas of Full Pavement Removal & Replacement are indicated by:

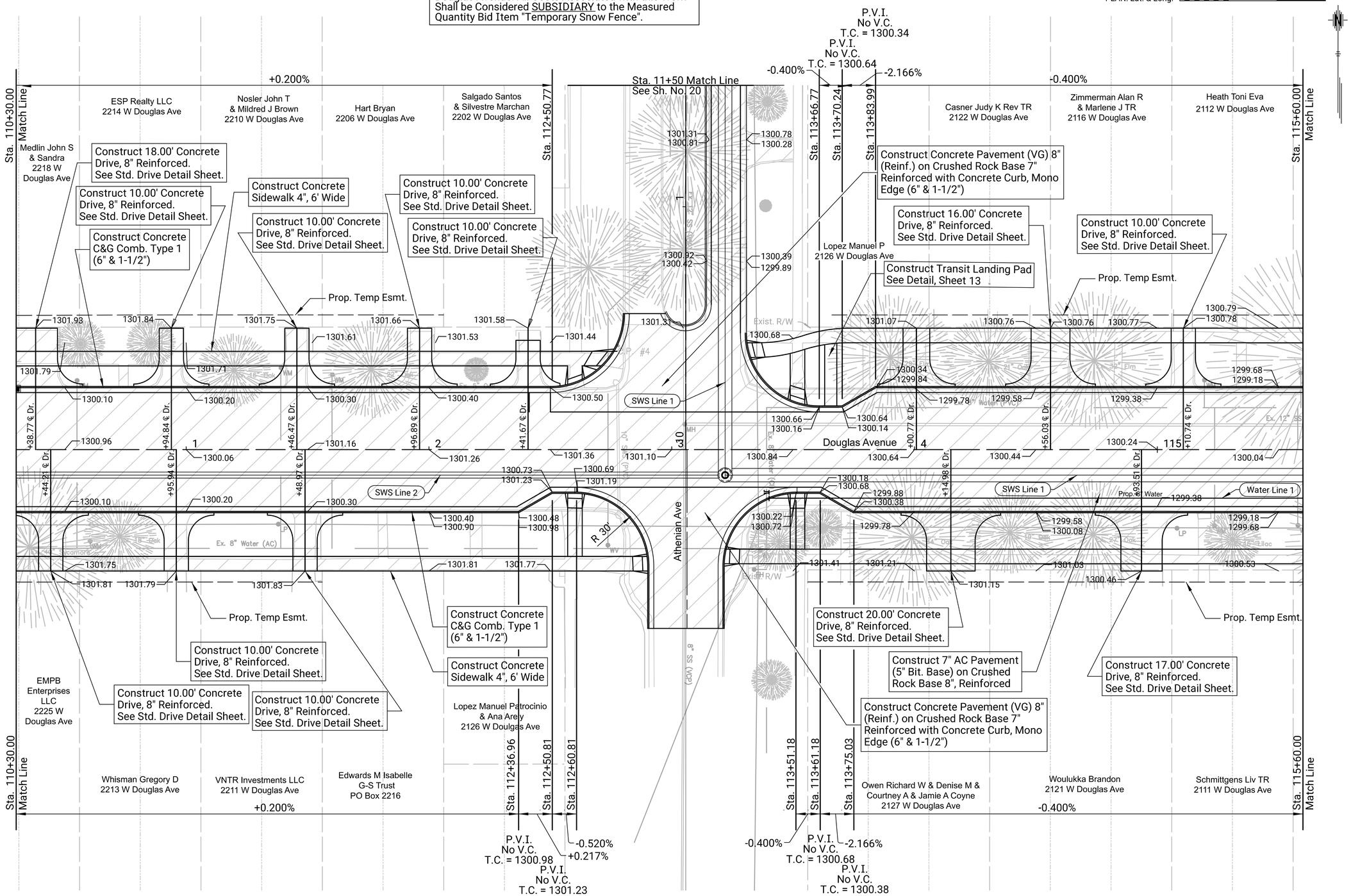
REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
16
SHEET 16 OF 180

The Contractor Shall Install a Temporary Snow Fence Barrier on the Existing 50' R/W Line in Front of 2202 W. Douglas Avenue. All Costs Associated with this Work Shall be Considered SUBSIDIARY to the Measured Quantity Bid Item "Temporary Snow Fence".

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'



Adjust the following SS Manhole to Match Final Grade and Install New Ring and Cover			
℄ Sta.	Offset	Exist. Elevation	Prop. Elevation
113+05.40	10.47' Lt.	1301.51	1300.70

Areas of Full Pavement Removal & Replacement are indicated by:

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS PAVING PLAN STA. 110+30 TO STA. 115+60

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
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DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
17
SHEET 17 OF 180

BENCHMARK

BM #5 - Chiseled Square at the Southwest Corner of the Intersection of Clarence & Douglas. At the Point where the Sidewalk & Wheel Chair Ramp Meet.
B.L. Sta. Sta. 116+72.13, Off. 49.10' Rt.
ELEV. 1300.17 (NAVD 88)

SCALE
20' 0 20' 40'
PLAN: Lat. & Long.

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 115+60 TO STA. 120+90

Sta. 115+60.00 Match Line

Shannon Dana K
2108 W Douglas Ave

Bay Abby
2100 W Douglas Ave

Stephens Daniel J
2028 W Douglas

English Devin B & Jennifer K
2024 W Douglas

Creed Ashley C
2022 W Douglas Ave

L & N LLC
2642 N Keith St

Limes Caleb R
2006 W Douglas Ave

Monaghan Ronald E & Vicki L
2000 W Douglas

Sta. 120+90.00 Match Line

Sta. 116+24.23
Sta. 116+38.08
Sta. 116+48.08
Sta. 117+38.57
Sta. 117+48.57
Sta. 117+62.43
Sta. 119+94.57
Sta. 120+08.43
Sta. 120+18.43

P.V.I. No V.C. T.C. = 1299.38
+1.300%
P.V.I. No V.C. T.C. = 1299.57
-0.400%
-0.400%
P.V.I. No V.C. T.C. = 1298.86
P.V.I. No V.C. T.C. = 1299.14
-0.400%
-2.000%
-0.250%
P.V.I. No V.C. T.C. = 1298.46
P.V.I. No V.C. T.C. = 1298.26
+1.450%
-0.400%

Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Construct 11.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Construct Concrete Sidewalk 4", 6' Wide
Construct 20.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 14.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Prop. Temp Esmt.
Clarence St
Charles St
Douglas Avenue
SWS Line 1a
SWS Line 1b
SWS Line 1
SWS Line 1c
Water Line 1a
Water Line 1
Prop. 8" Water
Water Line 1b
Ex. 8" Water (CI)
Ex. 12" SS (VCP)
Ex. 6" KGS Gas
Ex. 3" Gas
Ex. 2" Gas
Ex. 40" Mulberry
Ex. 36" Maple
Ex. 48" Elm
Ex. 34" Elm
Ex. 22" Elm
Ex. 24" Elm
Ex. 30" Elm
Ex. 36" Elm
Ex. 40" Elm
Ex. 48" Elm
Ex. 36" Mulberry
Ex. 40" Mulberry
Ex. 36" Maple
Ex. 35" Maple
Ex. 30" Maple
Ex. 24" Maple
Ex. 18" Maple
Ex. 12" Maple
Ex. 10" Maple
Ex. 8" Maple
R 30'
+00.26 ℄ Dr.
+01.45 ℄ Dr.
+77.52 ℄ Dr.
+25.73 ℄ Dr.
+30.87 ℄ Dr.
+80.87 ℄ Dr.
+23.66 ℄ Dr.
+24.58 ℄ Dr.
+78.12 ℄ Dr.
+68.48 ℄ Dr.

Stegman Nicholas J
2101 W Douglas Ave

Cleereman Arno F & Christine
2107 W Douglas Ave

Wattman Teckla J
2027 W Douglas Ave

Monarez John & Amy & Gabriel
2021 W Douglas Ave

Nolen Hillary Anne & Jared Thomas
2019 W Douglas Ave

Champlin Vincent E & Michelle I
2009 W Douglas Ave

Westerman Marc & Zoe D Burgess
2007 W Douglas Ave

Xayvongsa Tony & Jessica
2001 W Douglas Ave

Sta. 115+60.00 Match Line
Sta. 116+24.45
Sta. 116+38.31
Sta. 116+48.31
Sta. 117+38.53
Sta. 117+48.53
Sta. 117+62.38
Sta. 119+99.35
Sta. 120+13.21
Sta. 120+23.21
Sta. 120+90.00 Match Line

-0.400%
P.V.I. No V.C. T.C. = 1299.38
+1.300%
P.V.I. No V.C. T.C. = 1299.56
-0.400%
-0.250%
-0.400%
P.V.I. No V.C. T.C. = 1299.13
-2.000%
P.V.I. No V.C. T.C. = 1298.85
-0.400%
P.V.I. No V.C. T.C. = 1298.25
+1.450%
P.V.I. No V.C. T.C. = 1298.44

Adjust the following SS Manhole to Match Final Grade and Install New Ring and Cover			
℄ Sta.	Offset	Exist. Elevation	Prop. Elevation
117+34.52	9.83' Lt.	1300.36	1299.01

Areas of Full Pavement Removal & Replacement are indicated by:

REVISIONS			DESCRIPTION
			DATE
			NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
18
SHEET 18 OF 180

BENCHMARK

BM #4 - Chiseled Square in the Northwest Corner of Gleen & Douglas, at Top of Curb North of a Handicap Ramp. B.L. Sta. Sta. 124+22.71, Off. 49.67' Lt. ELEV. 1298.84 (NAVD 88)

SCALE

PLAN: Lat. & Long. 20' 0 20' 40'

Sta. 120+90.00 Match Line

P.V.I. No V.C. T.C. = 1297.98 -0.400%

P.V.I. No V.C. T.C. = 1297.65 -2.400% -0.400%

P.V.I. No V.C. T.C. = 1298.19 +2.000%

P.V.I. No V.C. T.C. = 1297.91

P.V.I. No V.C. T.C. = 1298.64

P.V.I. No V.C. T.C. = 1298.92 +0.400% -2.000%

Sta. 121+19.04 Sta. 121+29.04 Sta. 121+42.80 Sta. 121+50.00 Sta. 122+52.81 Sta. 122+66.67 Sta. 123+92.91 Sta. 124+93.47 Sta. 125+03.97 Sta. 125+17.82 Sta. 126+20.00 Match Line

+0.250% +0.250% -0.200%

West Douglas Church of Christ Inc 1924 W Douglas

West Douglas Ch of Christ INC 1918 W Douglas Ave

West Douglas Church of Christ 1910 W Douglas Ave

Balderas Properties LLC 1902 W Douglas Ave

Balderas Properties LLC 355 N Waco

New Life Covenant Church Inc 1819 W Douglas Ave

New Life Covenant Church Inc 1814 W Douglas Ave

Glenn Ave

Douglas Avenue

Construct Concrete Sidewalk 4", 6' Wide

Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")

Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Install 1-6" Neenah Curb Outlet on the Existing Drain Pipes

Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")

Construct 24.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 23.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 23.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Prop. Temp Esmt.

SWS Line 1d

SWS Line 1

SWS Line 1e

Water Line 1

Water Line 1c

Prop. 8" Water

Exist. R/W

+01.18 ℄ Dr.

+42.05 ℄ Dr.

+56.20 ℄ Dr.

+16.24 ℄ Dr.

+75.34 ℄ Dr.

R 30'

Construct Concrete Sidewalk 4", 6' Wide

Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")

Construct 20.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced

Construct Transit Landing Pad See Detail, Sheet 13

Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")

Prop. Temp Esmt.

Snyder David N & Donna G 1919 W Douglas Ave

Schafer Judith M Liv TR 1915 W Douglas Ave

Schafer Steven J Liv TR 1911 W Douglas Ave

Boyd, Conner, and Grace 1905 W Douglas Ave

Stickney Scott A 1901 W Douglas

New Life Covenant Church Inc 1819 W Douglas Ave

Sta. 120+90.00 Match Line

Sta. 121+13.42 Sta. 121+23.42 Sta. 121+37.28 Sta. 121+50.00 Sta. 123+74.65 Sta. 123+88.51 Sta. 123+98.51 Sta. 124+88.93 Sta. 124+98.93 Sta. 125+12.79 Sta. 126+20.00 Match Line

-0.400% P.V.I. No V.C. T.C. = 1298.03 -2.400% P.V.I. No V.C. T.C. = 1297.80 -0.400%

P.V.I. No V.C. T.C. = 1297.99

+0.250% P.V.I. No V.C. T.C. = 1298.22 +2.000%

P.V.I. No V.C. T.C. = 1298.50

-0.200%

+0.400% P.V.I. No V.C. T.C. = 1298.95 -2.000%

P.V.I. No V.C. T.C. = 1298.66

Adjust the following SS Manhole to Match Final Grade and Install New Ring and Cover			
℄ Sta.	Offset	Exist. Elevation	Prop. Elevation
121+31.37	10.35' Lt.	1299.10	1297.78
124+74.01	10.00' Lt.	1298.90	1298.04

Areas of Full Pavement Removal & Replacement are indicated by:

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 120+90 TO STA. 126+20

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO 19

SHEET 19 OF 180

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'

P.V.I. No V.C. T.C. = 1298.84
P.V.I. No V.C. T.C. = 1298.57
P.V.I. No V.C. T.C. = 1298.39
P.V.I. No V.C. T.C. = 1298.92
P.V.I. No V.C. T.C. = 1298.25
P.V.I. No V.C. T.C. = 1297.53
P.V.I. No V.C. T.C. = 1297.46
P.V.I. No V.C. T.C. = 1297.81
P.V.I. No V.C. T.C. = 1297.74
P.V.I. No V.C. T.C. = 1297.94
P.V.I. No V.C. T.C. = 1298.04
P.V.I. No V.C. T.C. = 1297.90
P.V.I. No V.C. T.C. = 1298.28

-0.200% +0.200% +1.950% +0.200% -0.250% -1.083% -0.675% +0.300% +2.020% +0.300% -1.450% +0.300% +0.762% +2.500% +0.762%

Sta. 126+20.00 Match Line
Sta. 126+50.00
Sta. 127+41.95
Sta. 127+55.81
Sta. 127+65.81
Sta. 128+57.51
Sta. 128+67.51
Sta. 128+81.43
Sta. 129+50.00
Sta. 129+73.31
Sta. 129+87.17
Sta. 130+32.19
Sta. 130+46.04
Sta. 131+00.00
Sta. 131+16.87
Sta. 130+30.72
Sta. 131+40.72
Sta. 131+50.00 Match Line

New Life Covenant Church inc 1812 W Douglas Ave
New Life Covenant Church inc 1812 W Douglas Ave
New Life Covenant Church Inc 1812 W Douglas Ave
Bbahr Holdings LLC 1730 W Douglas Ave
Bbahr Holdings LLC 1724 W Douglas
New Covenant United Methodist Church 1718 W Douglas Ave
New Covenant United Methodist Church 1710 W Douglas Ave
New Covenant United Methodist Church 1710 W Douglas Ave
Manufacturers Supply Co Inc 1704 W Douglas Ave

Construct 17.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 17.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Construct Transit Bench Pad and Reinstall Ex. Bench, Bike Racks, and Delano Post. See Detail, Sheet 13
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Construct 16.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Sidewalk 4", 6' Wide
Construct Concrete Sidewalk 4", Full Width
Prop. Temp Esmt.
Vine Ave
Douglas Avenue
Delano Bench
Delano Post
Delano Bike Racks
Exist. R/W
Ex. 8" Water (CI)
Ex. 12" SS (VCP)
Ex. 6" KGS Gas
Ex. 3" KGS Gas
Ex. 3" Gas
Ex. Cable
Ex. Comm
Ex. Fiber Optic
Prop. 8" Water
Water Line 1
Water Line 1d
SWS Line 1
SWS Line 1f
SWS Line 1g
SWS Line 1h
SWS Line 1i
+90.82 ℄ Dr.
+46.67 ℄ Dr.
+47.25 ℄ Dr.
+25.75 ℄ Dr.
+60.32 ℄ Dr.
+86.63 ℄ Dr.
+05.48 ℄ Dr.
30"
Water Vault
Electric Vault
Controller
LP
TS
MH
WM
WV
Oak
Cox
Brown Ronald D & Carol J 1725 W Douglas Ave
New Life Covenant Church Inc 1819 W Douglas Ave
Brand Properties LLC 1709 W Douglas Ave
Brand Properties LLC 1713 W Douglas Ave
Brown Ronald D & Carol J 1725 W Douglas Ave
Manufacturers Supply Co Inc 1704 W Douglas Ave
Brand Properties LLC 1709 W Douglas Ave

Construct 16.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Construct 23.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Prop. Temp Esmt.
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Construct Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced
Install Crosswalk Signal System. See Details 72 - 84 .
Construct Concrete Sidewalk 4", 6' Wide
Construct 20.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Sta. 126+20.00 Match Line
Sta. 126+50.00
Sta. 126+95.93
Sta. 127+09.79
Sta. 127+67.08
Sta. 128+57.41
Sta. 129+50.00
Sta. 130+37.92
Sta. 130+51.78
Sta. 131+00.00
Sta. 131+23.14
Sta. 131+36.99
Sta. 131+46.46
Sta. 131+50.00 Match Line

-0.200% +0.200% +0.200% -0.675% +0.300% +0.300% +0.762% +2.500% +0.700%
+1.950% -1.450%

P.V.I. No V.C. T.C. = 1298.39
P.V.I. No V.C. T.C. = 1298.47
P.V.I. No V.C. T.C. = 1298.74
P.V.I. No V.C. T.C. = 1297.69
P.V.I. No V.C. T.C. = 1297.96
P.V.I. No V.C. T.C. = 1297.76
P.V.I. No V.C. T.C. = 1297.90
P.V.I. No V.C. T.C. = 1298.43
P.V.I. No V.C. T.C. = 1298.08

Adjust the following SS Manhole to Match Final Grade and Install New Ring and Cover			
℄ Sta.	Offset	Exist. Elevation	Prop. Elevation
127+29.51	9.67' Lt.	1299.03	1297.89
128+53.81	10.15' Lt.	1298.93	1297.75

Areas of Full Pavement Removal & Replacement are indicated by:

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 126+20 TO STA. 131+50

NO.	DESCRIPTION	DATE
	REVISIONS	

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
20
SHEET 20 OF 180

BENCHMARK

BM #3 - Chiseled Square at the Southwest Corner of Millwood & Douglas.In Top of Curb of the North Return of the First Driveway on the West side of Millwood.
B.L. Sta. Sta. 131+64.88, Off. 52.80' Rt.
ELEV. 1299.25 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 131+50 TO STA. 136+80

Sta. 131+50.00 Match Line
Millwood Ave
Sta. 132+38.72
Sta. 132+50.00
Sta. 132+31.56
Sta. 133+57.78
Sta. 134+00.00
Sta. 134+70.65
Sta. 134+84.51
Sta. 136+50.00
Sta. 136+80.00 Match Line

P.V.I. No V.C. T.C. = 1299.29
P.V.I. No V.C. T.C. = 1300.89
P.V.I. No V.C. T.C. = 1299.50
P.V.I. No V.C. T.C. = 1299.19
P.V.I. No V.C. T.C. = 1298.28

+0.762% +1.471% -2.155% -0.548% -2.250% -0.548% +0.300%

Visco property Management LLC
1642 W Douglas Ave

Gould Rentals LLC
1600 W Douglas Ave

F & T Properties LLC
1520 W Douglas Ave

Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")

Construct Concrete Sidewalk 4", Full Width

Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")

Construct 20.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced

Prop. Temp Esmt.

SWS Line 1j

Prop. FH

Exist. R/W

Douglas Avenue

SWS Line 1

SWS Line 1k

Water Line 1e

Water Line 1

Water Line 1f

Prop. 8" Water

Ex. 2" KGS Gas

Ex. 8" Water (CI)

Ex. 12" SS (VCP)

AT&T FO Cable

Cable

RR Signal

Exist. RR R/W

C.P. #3

Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")

Construct Concrete Sidewalk 4", 6' Wide

Construct 17.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 11.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 28.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct Transit Landing Pad See Detail, Sheet 13

Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")

AF&H LLC
1601 W Douglas Ave

Gould Rentals LLC
108 S Millwood Ave

Gould Rentals LLC
1609 W Douglas Ave

Pawelek Derek Michael & Whitney Joslin
1529 W Douglas Ave

Reibenspies Norma J
1525 W Douglas Ave

Sta. 132+36.46 Sta. 132+50.00 Sta. 132+94.71 +2.840%
Sta. 133+22.72 Sta. 134+00.00 Sta. 135+26.12 -1.048% -0.548%
Sta. 136+16.12 Sta. 136+26.12 Sta. 136+39.98 Sta. 136+50.00 Sta. 136+80.00 -2.250% +0.300% -0.548%

+0.762% P.V.I. No V.C. T.C. = 1299.29
P.V.I. No V.C. T.C. = 1299.89
-0.548% P.V.I. No V.C. T.C. = 1298.65
P.V.I. No V.C. T.C. = 1298.28
P.V.I. No V.C. T.C. = 1298.34

Adjust the following SS Manhole to Match Final Grade and Install New Ring and Cover			
℄ Sta.	Offset	Exist. Elevation	Prop. Elevation
133+15.42	9.79' Lt.	1299.87	1299.88

Areas of Full Pavement Removal & Replacement are indicated by:

REVISIONS								DESCRIPTION
NO.								DATE

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
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DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
21
SHEET 21 OF 180

BENCHMARK

BM #2 - Chiseled Square in the Northwest Corner of Elizabeth & Douglas.In the Southwest Corner of an Area Inlet.
B.L. Sta. Sta. 139+16.64, Off. 38.93' Lt.
ELEV. 1299.48 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 136+80 TO STA. 142+10

Sta. 136+80.00 Match Line
+0.300%
Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced
Construct 11.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
F & T Properties LLC 1520 W Douglas Ave
AF&H LLC 1516 W Douglas Ave
Construct 15.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
AF&H LLC 1518 W Douglas Ave
135 North Elizabeth LLC 1506 W Douglas Ave
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Construct Concrete Sidewalk 4", 6' Wide
P.V.I. No V.C. T.C. = 1298.95
+2.020%
P.V.I. No V.C. T.C. = 1299.24
+0.400%
Sta. 138+73.07
Sta. 138+86.93
Sta. 138+96.93
135 North Elizabeth LLC 1506 W Douglas Ave
Keith Woods LLC 1500 W Douglas Ave
Elizabeth Ave
Exist. R/W
21" SS (VCP)
Ex. 4" KGS Gas
SWS Line II
Ex. 8" Water
Ex. FO Cable
Ex. U/G Cable
Ex. 6" KGS Gas
Prop. 8" Water
Water Line 1g
R 30
Dien Sieng & Yen H 1501 W Douglas Ave
Reibenspies Norma J 1525 W Douglas Ave
Reibenspies Norma J 1519 W Douglas Ave
Wagner Richard L & Andrea G 1509 W Douglas Ave
Dien Sieng & Yen H 1501 W Douglas Ave
Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 46.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Sidewalk 4", 6' Wide
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
Sta. 138+73.98
Sta. 138+87.83
Sta. 138+97.83
+0.300%
P.V.I. No V.C. T.C. = 1298.96
+2.020%
P.V.I. No V.C. T.C. = 1299.24
+0.400%
Sta. 139+88.95
Sta. 139+98.95
Sta. 140+12.80
+0.400%
P.V.I. No V.C. T.C. = 1299.67
-1.949%
P.V.I. No V.C. T.C. = 1299.40
Stong Neal TR 1416 W Douglas Ave
1400 Douglas Group LLC 1440 W Douglas Ave
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Construct 15.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 15.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Prop. Temp Esmt.
Prop. Temp Esmt.
West Douglas LLC 1429 W Douglas Ave
Construct 14.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Sta. 139+88.44
Sta. 139+98.44
Sta. 140+12.30
Central Plains Development LLC 1427 W Douglas Ave
Central Plains Development LLC 1425 W Douglas Ave
-0.250%
+0.400%
P.V.I. No V.C. T.C. = 1299.56
-1.154%
P.V.I. No V.C. T.C. = 1299.40
Sta. 141+75.00
Sta. 142+06.12
Sta. 142+10.00
Match Line
+1.082%
P.V.I. No V.C. T.C. = 1298.99
P.V.I. No V.C. T.C. = 1299.12
Central Plains Development LLC 1401 W Douglas Ave
Prop. Temp Esmt.
Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced
Sta. 141+75.00
+0.400%
1551 LLC 1402 W Douglas Ave
Sta. 142+05.34
Sta. 142+10.00
Match Line
+1.083%
P.V.I. No V.C. T.C. = 1298.99
P.V.I. No V.C. T.C. = 1299.11
Construct Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
SWS Line 1n
SWS Line 1
SWS Line 1m
Douglas Avenue
Water Line 1
Prop. 8" Water
Ex. 6" KGS Gas
Ex. 12" Gas
Ex. 8" Water
Ex. 12" Water
Ex. 6" Water
Ex. 8" Water Vault
Ex. 12" Water Vault
Ex. 6" Water Vault
Ex. Gas Valve
Ex. Gas Vault
Ex. Gas Meter
Ex. Gas Marker
Ex. Gas Riser
Ex. Telephone Pedestal
Ex. Telephone Vault
Ex. Telephone Riser
Ex. Telephone Marker
Ex. Electric Vault
Ex. Electric Riser
Ex. Electric Marker
Ex. Electric Meter
Ex. Electric Pedestal
Ex. Light Pole
Ex. Guy Wire
Ex. Sign
Ex. Mailbox
Ex. Fire Hydrant
Ex. Water Valve
Ex. Water Meter
Ex. Water Marker
Ex. Water Riser
Ex. Water Vault
Ex. Water Pedestal
Ex. Water Manhole
Ex. Water Inlet
Ex. Water Outlet
Ex. Water Tank
Ex. Water Tower
Ex. Water Well
Ex. Water Pump
Ex. Water Heater
Ex. Water Softener
Ex. Water Filter
Ex. Water Treatment
Ex. Water Plant
Ex. Water Station
Ex. Water Reservoir
Ex. Water Tank
Ex. Water Tower
Ex. Water Well
Ex. Water Pump
Ex. Water Heater
Ex. Water Softener
Ex. Water Filter
Ex. Water Treatment
Ex. Water Plant
Ex. Water Station
Ex. Water Reservoir

Adjust the following SS Manhole to Match Final Grade and Install New Ring and Cover			
℄ Sta.	Offset	Exist. Elevation	Prop. Elevation
139+40.64	10.03' Lt.	1300.01	1299.25

Areas of Full Pavement Removal & Replacement are indicated by:

REVISIONS			DESCRIPTION
		DATE	
		NO.	

PROJ NO:	87 N-0762-01
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YEAR:	2025

SHEET NO
22
SHEET 22 OF 180

BENCHMARK

BM #1 - Chiseled Square in the Southwest Corner of Exposition & Douglas South of a Handicap Ramp and at the Beginning of a Curb Return.
B.L. Sta. Sta. 145+83.52, Off. 50.46 Rt.
ELEV. 1300.42 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'

P.V.I. No V.C. T.C. = 1299.41 | +1.083% | +0.400% | Sta. 142+10.00 Match Line | Sta. 142+19.19 | Sta. 142+29.19
1551 LLC 1400 W Douglas Ave
Martinson St
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")
SWS Line 1h
1300.75
Prop. Temp Esmt.
Exist. R/W
1300.7
1301.32
1299.43
1298.97
1299.45
1298.95
1299.65
1299.85
Water Line 1i
1300.05
Prop. 8" Water
Water Line 1h
1298.96
1299.46
Bench & Water
1301.02
1301.04
Install Crosswalk Signal System. See Details 72 - 84 .
Construct Transit Landing Pad See Detail, Sheet 13

P.V.I. No V.C. T.C. = 1300.13 | +0.400% | Sta. 143+19.35 | Sta. 144+00.00
Bonev Bogdon T 1322 W Douglas Ave
Fukuda Yasunari & Yuriko 1320 W Douglas Ave
Construct Concrete Sidewalk 4", 6' Wide
Construct 11.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
1301.09
1301.32
1299.81
1299.31
1299.93
1299.43
1299.63
+98.46 ℄ Dr.
+48.02 ℄ Dr.
4
Douglas Avenue
1300.13
1300.25
+91.86 ℄ Dr.
+40.88 ℄ Dr.
Prop. 8" Water
1299.63
1299.32
1299.82
1299.43
Water Line 1
Construct 25.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct Concrete Sidewalk 4", 6' Wide
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
1301.03
1300.92
1300.86
Prop. Temp Esmt.

P.V.I. No V.C. T.C. = 1299.82 | +0.400% | -0.250% | +0.400% | Sta. 145+25.00 | Sta. 145+58.59
Stay Real LLC 1316 1/2 W Douglas Ave
Le Citron LLC 1310 W Douglas Ave
Nikoula Nabil & Faiza Gerges 1302 W Douglas Ave
Construct 15.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 7" AC Pavement (5" Bit. Base) on Crushed Rock Base 8", Reinforced
Construct 15.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Prop. Temp Esmt.
1300.86
1300.68
1300.71
1299.51
1299.38
+00.65 ℄ Dr.
145
1299.82
1299.32
1299.92
1299.42
1299.94
1300.04
1300.00
SWS Line 3a
1299.46
1299.96
1299.32
1299.82
1299.42
1299.92
1299.38
1299.88
Water Line 1j
Construct Concrete Pavement (VG) 8" (Reinf.) on Crushed Rock Base 7" Reinforced with Concrete Curb, Mono Edge (6" & 1-1/2")
Construct 30.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Delano2 LLC 1301 W Douglas Ave
1300.79
Exist. R/W
1300.82
1300.73
Prop. Temp Esmt.

Exposition Ave
SWS Line 3b
Prop. FH
1299.94
1299.44
SWS Line 3
1299.92
1299.42
1300.24
6
Prop. 8" Water
Ex. 48" Water (CI)
1300.44
+72.23 ℄ Dr.
+70.69 ℄ Dr.
Water Line 1k
Prop. 8" Water
1299.78
1300.28
1300.63
Construct Transit Shelter Pad and Reinstall Ex. Shelter, Bench and Bike Racks. See Detail, Sheet 14
Construct 30.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Construct 19.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.
Prop. Temp Esmt.
1300.61
1300.56
1300.59

P.V.I. No V.C. T.C. = 1299.41 | +1.082% | +0.400% | Sta. 142+10.00 Match Line | Sta. 142+19.98 | Sta. 142+29.98
P.V.I. No V.C. T.C. = 1299.42

Mark Bell Salon Inc 1323 W Douglas Ave
Sta. 143+20.80
+0.400%
Mark Bell Salon Inc 1323 W Douglas Ave
P.V.I. No V.C. T.C. = 1300.13
Sta. 144+00.00
Delano2 LLC 1321 W Douglas Ave
-0.250%
P.V.I. No V.C. T.C. = 1299.82
Sta. 145+25.00
Sta. 145+59.18
Delano2 LLC 1301 W Douglas Ave

Sta. 146+50.42
-0.250%
CBGC LLC 1205 W Douglas Ave
Hernandez Gustavo & Dalia 1225 W Douglas Ave
CBGC LLC 1205 W Douglas Ave
Sta. 147+40.00 Match Line

Areas of Full Pavement Removal & Replacement are indicated by:

CITY OF WICHITA
WSP

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN STA. 142+10 TO STA. 147+40

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
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DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

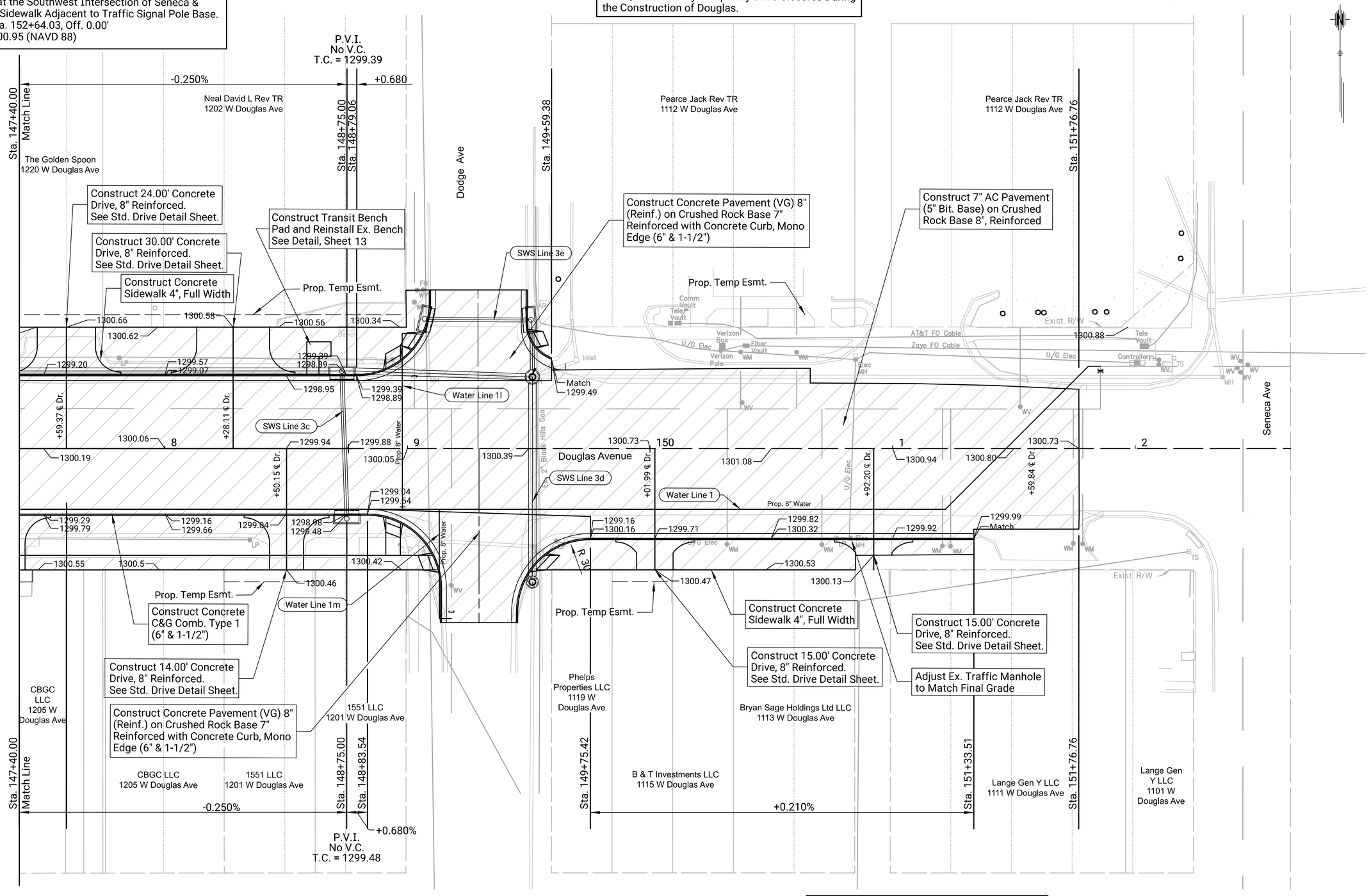
SHEET NO
23
SHEET 23 OF 180

DATUM BENCHMARK

COW Disc at the Southwest Intersection of Seneca & Douglas in Sidewalk Adjacent to Traffic Signal Pole Base.
B.L. Sta. Sta. 152+64.03, Off. 0.00'
ELEV. 1300.95 (NAVD 88)

The Contractor Shall be Responsible for Coordinating with QT Prior to any Temporary Drive Closures During the Construction of Douglas.

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'



The Contractor Shall Maintain a Minimum of 5' Clearance from any Construction Work Adjacent to the Property Line of 1111 W. Douglas

Areas of Full Pavement Removal & Replacement are indicated by:

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS PAVING PLAN
STA. 147+40 TO STA. 152+64

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
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DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
24
SHEET 24 OF 180

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
ATHENIAN PAVING PLAN STA. 1+50 TO STA. 7+40

Athenian Ave

Construct Concrete Pavement 7" (Reinf.) on Crushed Rock Base 8" Reinforced

Construct Special Concrete C&G Comb. Type 3 (6")

Depress the Special Median Curb for 10' to Allow for Drainage out of the Median

Match 1301.75 — Match

2 — 3 — 4 — 15 — 6 — 7

1301.11 / 1300.61 — 1301.48 / 1300.98 — 1301.31 / 1300.81 — 1301.57 / 1301.07 — 1301.21 / 1300.71 — 1301.11 / 1300.61 — 1301.01 / 1300.51 — 1300.96 / 1300.46 — 1300.91 / 1300.41 — 1300.81 / 1300.31 — SWS Line 1 — 1300.91 / 1300.41 — 1301.01 / 1300.51 — 1301.04 / 1300.54

+99.51 ℄ Dr. — +75.21 ℄ Dr. — +39.07 ℄ Dr. — +02.30 ℄ Dr. — -93.22 ℄ Dr.

1300.08 / 1300.58 — 1300.28 / 1300.78 — 1300.18 / 1300.68 — 1300.08 / 1300.58 — 1299.98 / 1300.48 — 1299.93 / 1300.43 — 1299.88 / 1300.38 — 1299.78 / 1300.28 — 1299.88 / 1300.38 — 1299.98 / 1300.48 — 1300.08 / 1300.58

1300.87 — 1301.20 — 1300.83 — 1300.90 — 1300.89 — Match

1st Street North

Construct 20.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 24.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 12.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 10.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct 24.00' Concrete Drive, 8" Reinforced. See Std. Drive Detail Sheet.

Construct Concrete C&G Comb. Type 1 (6" & 1-1/2")

The Existing Inlet is to Remain in Place. Form Proposed Curb to Inlet as Necessary.

Velasquez Raul I
120 N Athenian Ave

Lanham James Vaughn & Camala Ann
122 N Athenian Ave

Cushenbery Chad B & Danyelle M
124 N Athenian Ave

Bing Dale
130 N Athenian Ave

Davis Paul M Jr. Rev Inter Vivos Tr
140 N. Athenian

Sta. 11+50.00 Match Line — +0.200% — Sta. 12+50.00 — -0.200% — Sta. 14+25.00 — +0.200% — Sta. 15+00.00 — -0.200% — Sta. 16+51.25

P.V.I. No V.C. T.C. = 1300.58

P.V.I. No V.C. T.C. = 1300.78

P.V.I. No V.C. T.C. = 1300.43

P.V.I. No V.C. T.C. = 1300.58

P.V.I. No V.C. T.C. = 1300.58

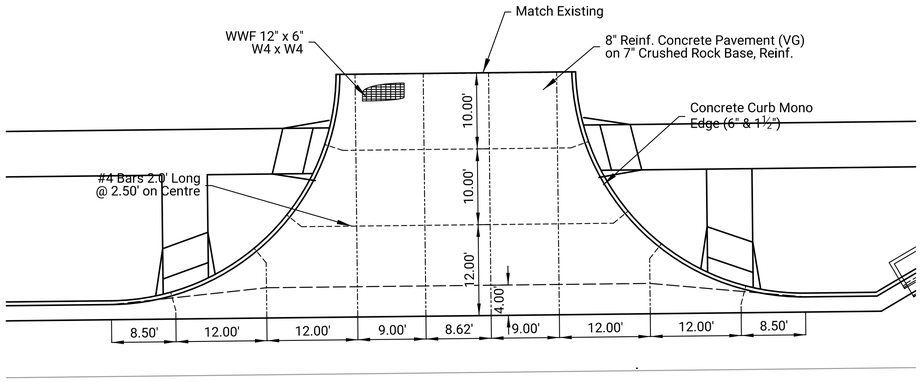
Areas of Full Pavement Removal & Replacement are indicated by:

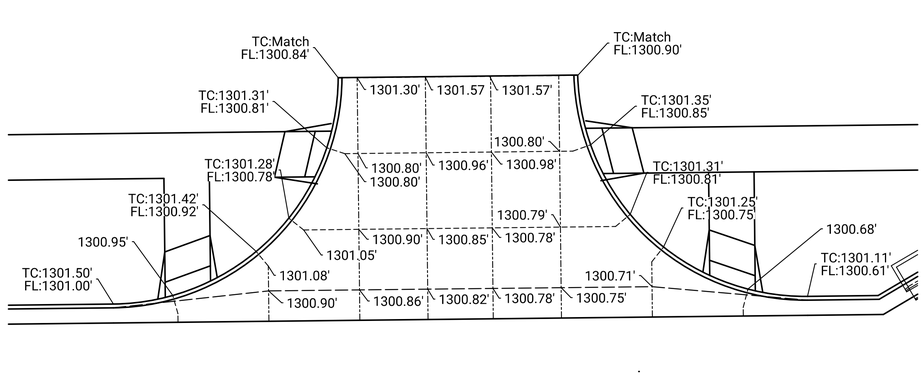
REVISIONS	DESCRIPTION	DATE	NO.

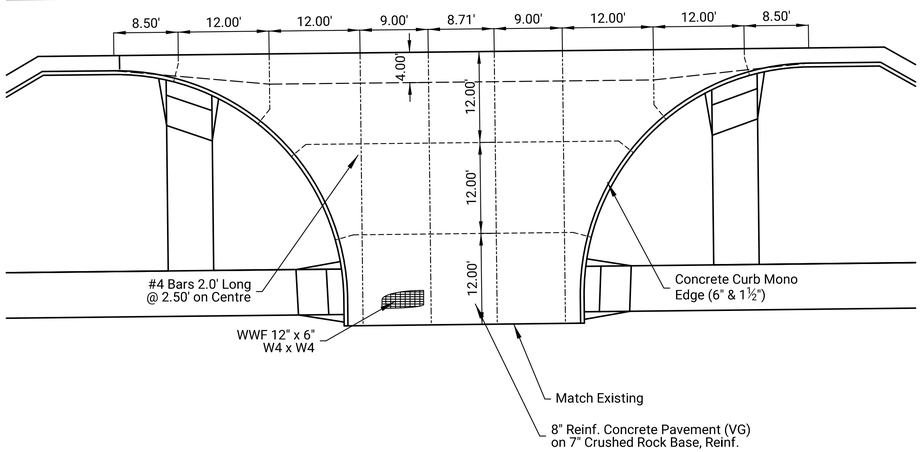
PROJ NO:	87 N-0762-01
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DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

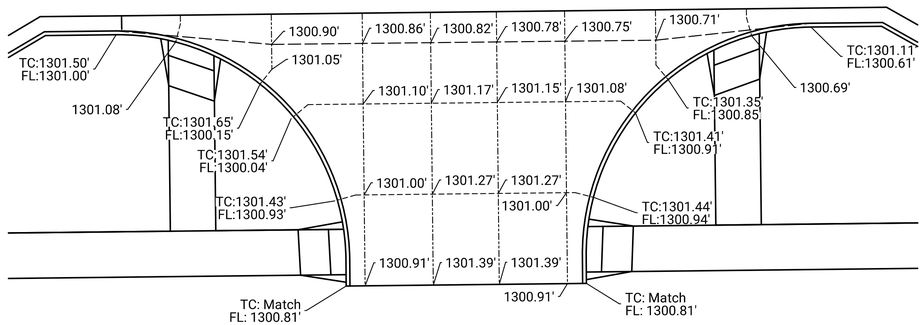
SHEET NO
25
SHEET 25 OF 180

SCALE
10' 0 10' 20'
PLAN: Lat. & Long.









CITY OF WICHITA
wsp

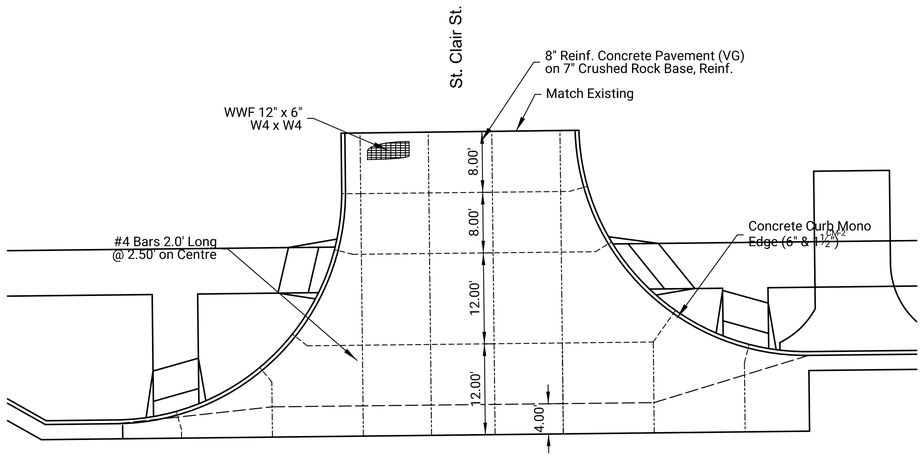
DOUGLAS AVENUE - MERIDIAN TO SENECA
SEDGWICK STREET GRADING & JOINT PLAN

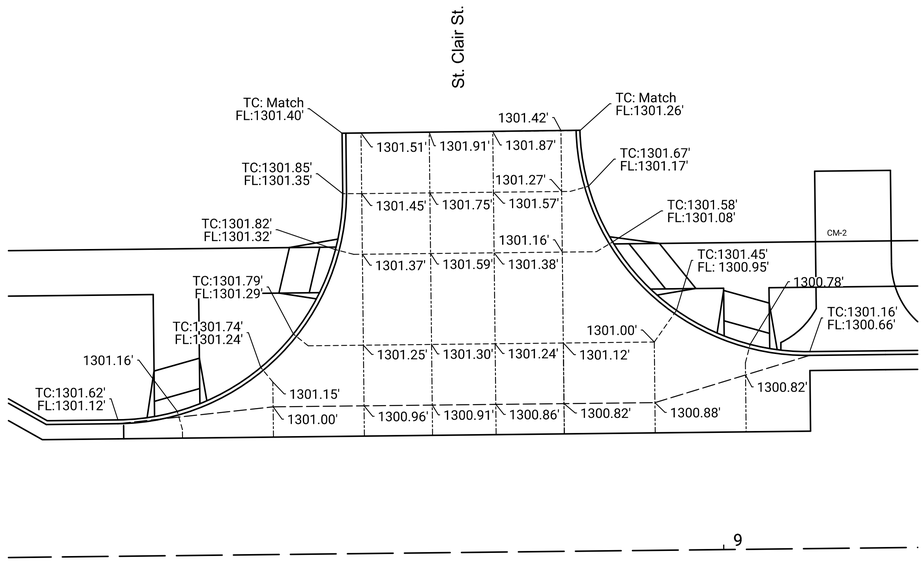
NO.	DATE	DESCRIPTION
		REVISIONS

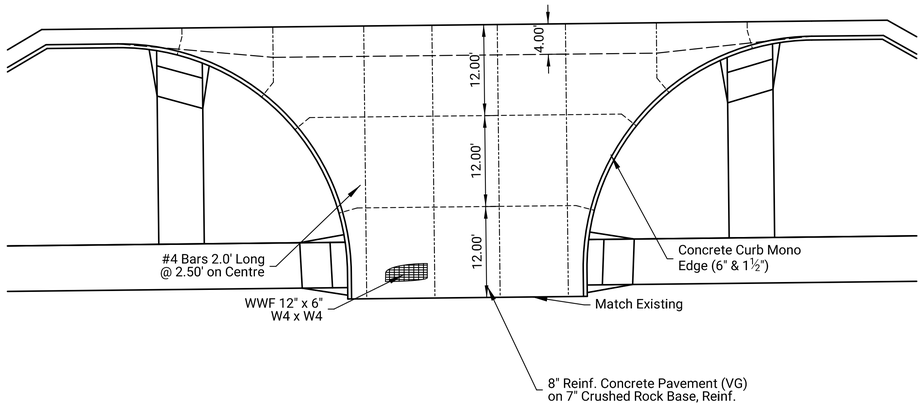
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YEAR:	2025

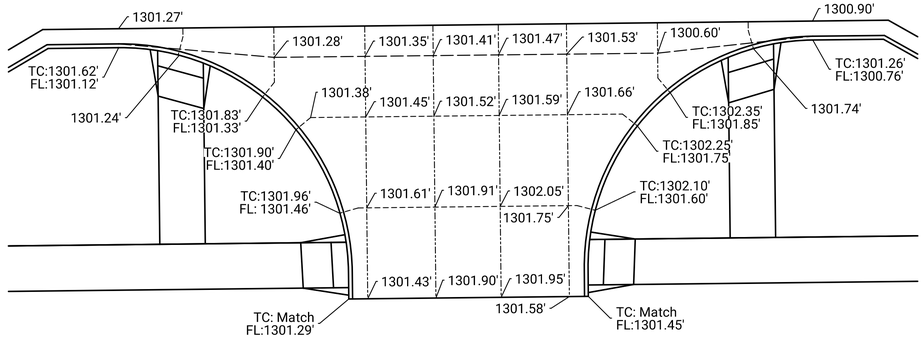
SHEET NO
26
SHEET 26 OF 180

SCALE
10' 0 10' 20'
PLAN: Lat. & Long.









CITY OF WICHITA
wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

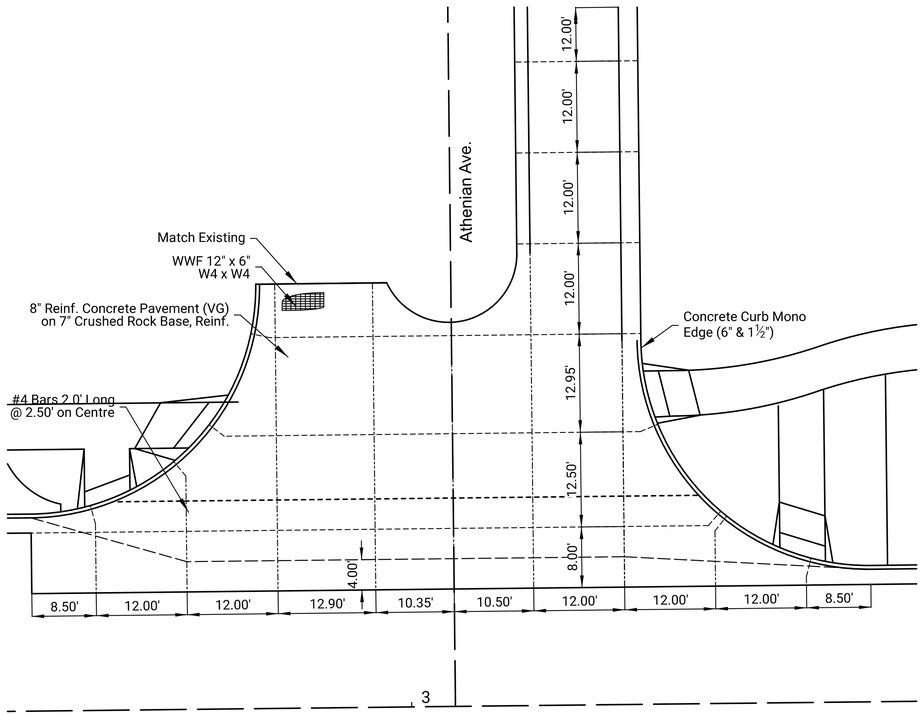
ST. CLAIR STREET GRADING & JOINT PLAN

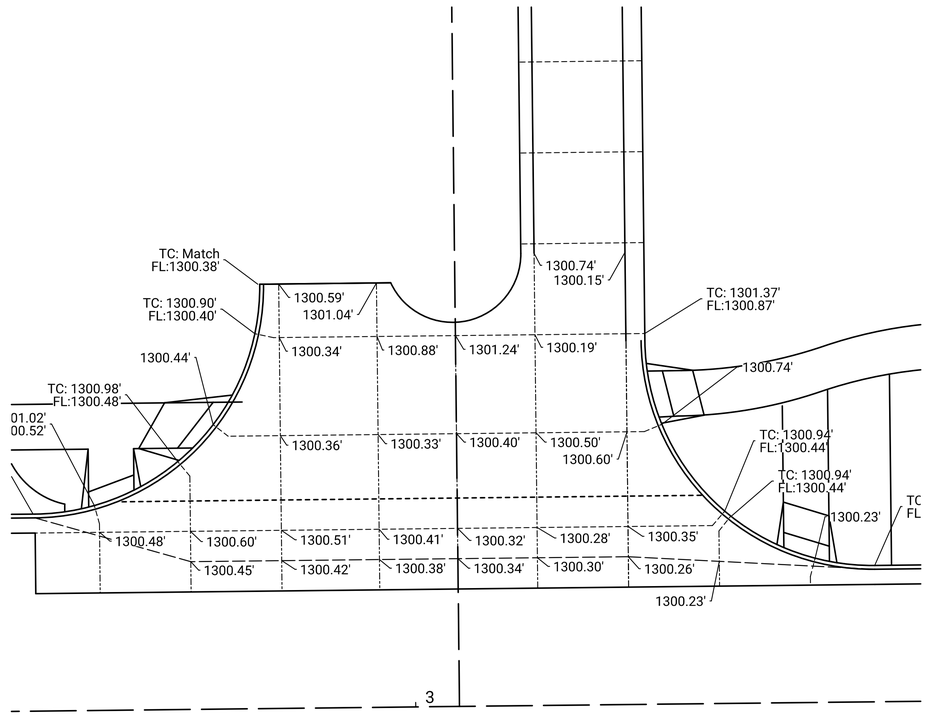
NO.	DATE	DESCRIPTION
		REVISIONS

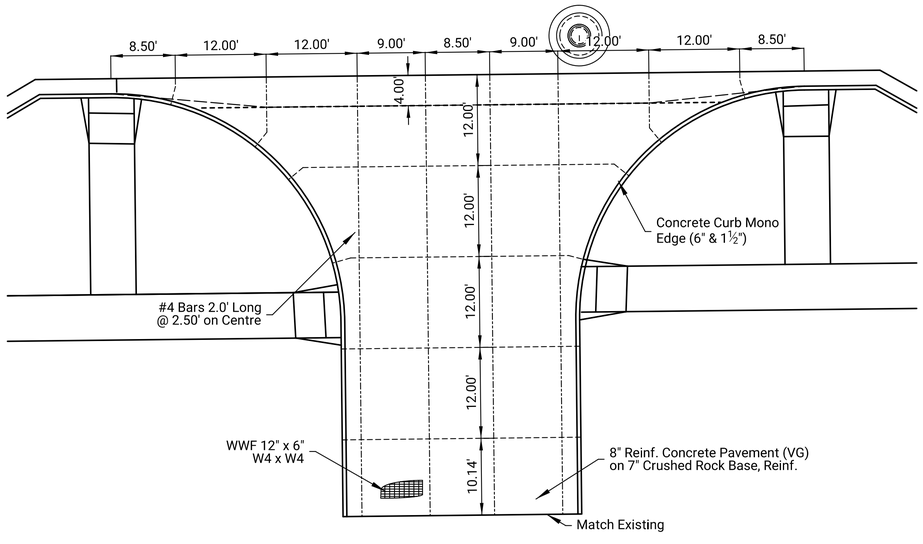
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YEAR:	2025

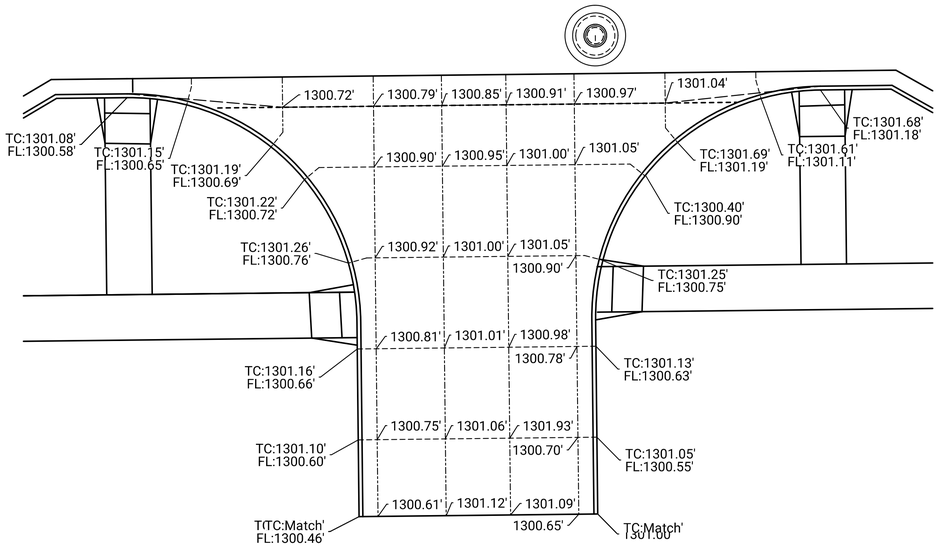
SHEET NO
27
SHEET 27 OF 180

SCALE
PLAN: Lat. & Long. 10' 0 10' 20'









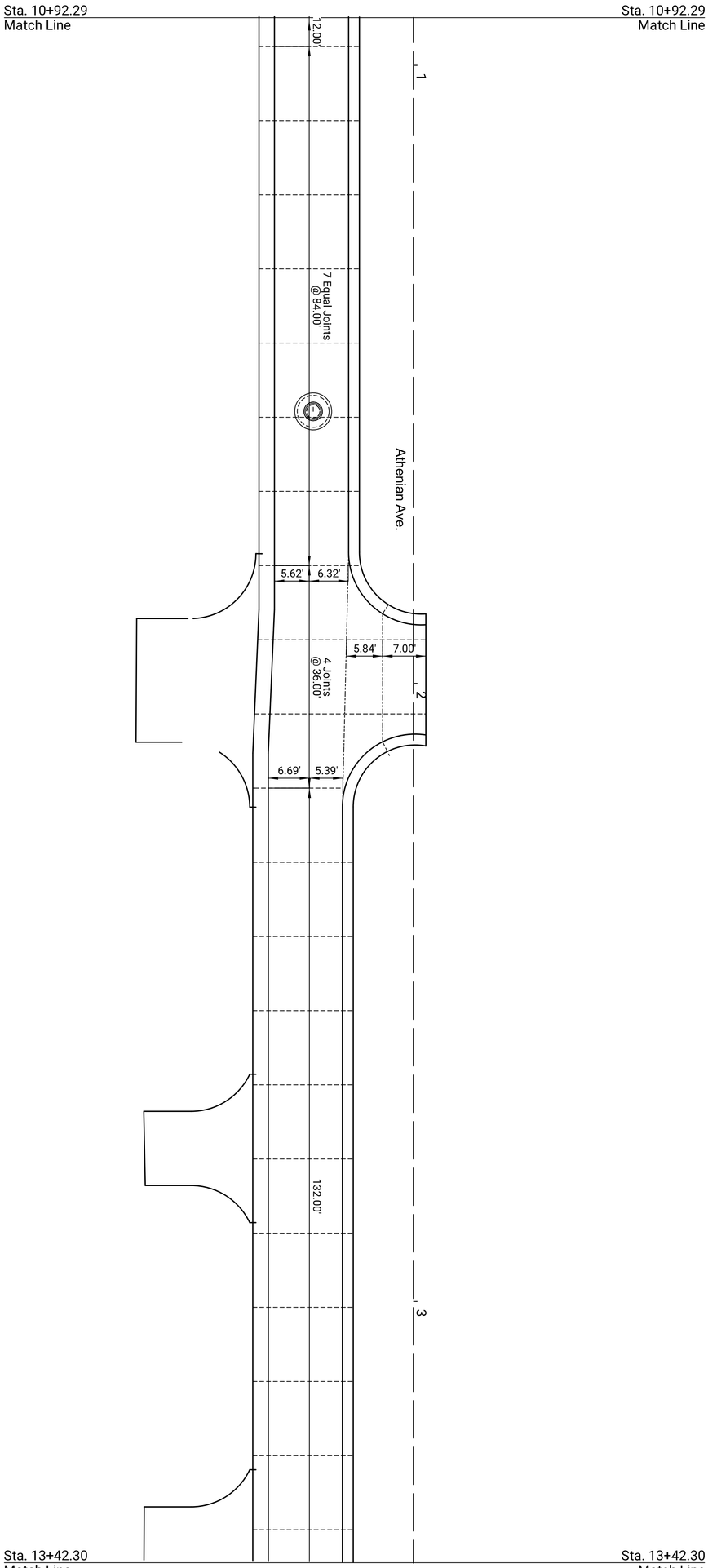
DOUGLAS AVENUE - MERIDIAN TO SENECA

ATHENIAN AVENUE GRADING AND JOINT PLAN - 1

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
28
SHEET 28 OF 180



PLAN: Lat. & Long.

SCALE
10' 0 10' 20'

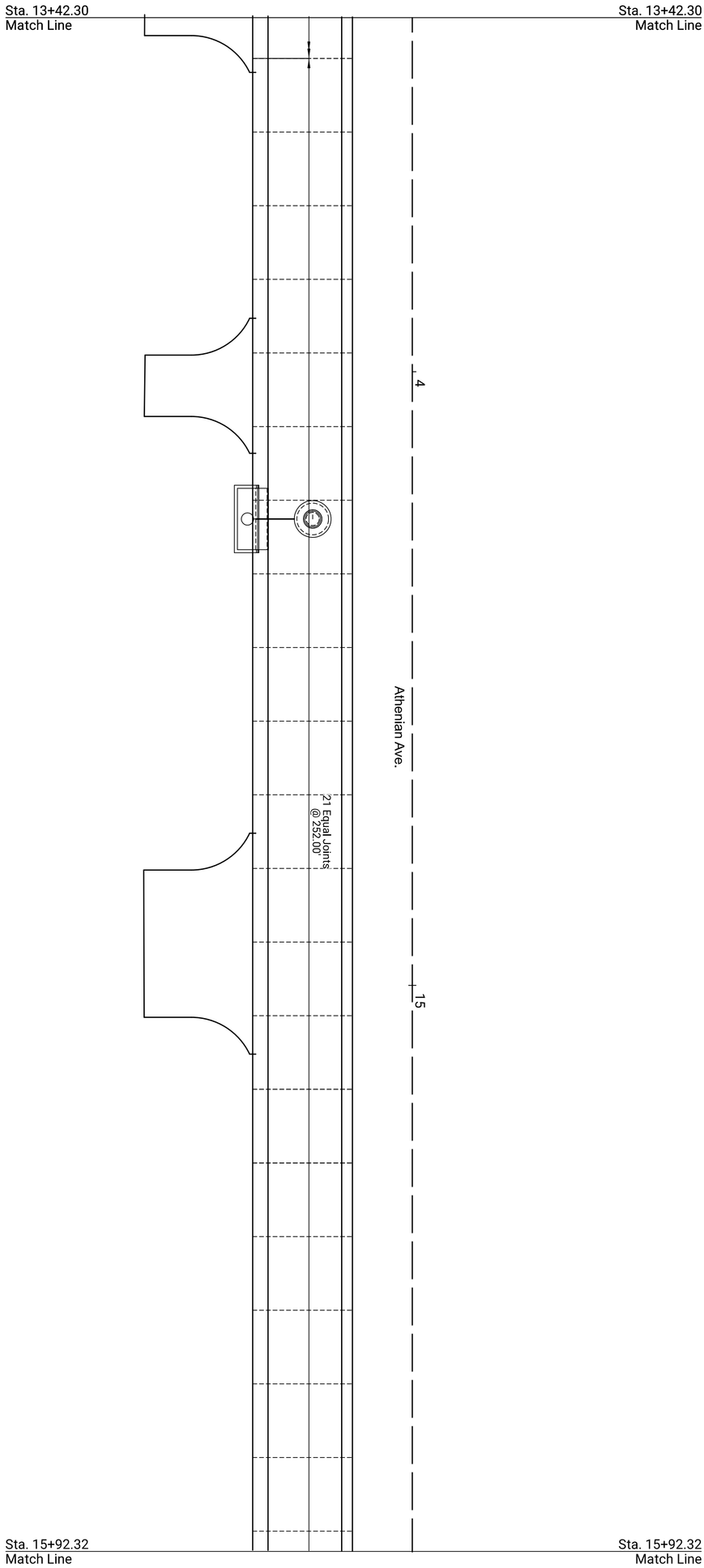
DOUGLAS AVENUE - MERIDIAN TO SENECA

ATHENIAN AVE. JOINT PLAN - 2
STA. 10+92.29 TO STA. 13+42.30

NO.	DATE	REVISIONS

PROJ NO: 87 N-0762-01
SCALE: AS NOTED
DATE: Aug 2025
DESIGNED BY: TPV
DRAWN BY: Staff
CHECKED BY: TPV
YEAR: 2025
SHEET NO: 29
SHEET 29 OF 180

CITY OF WICHITA



PLAN: Lat. & Long.

SCALE
10' 0 10' 20'

N

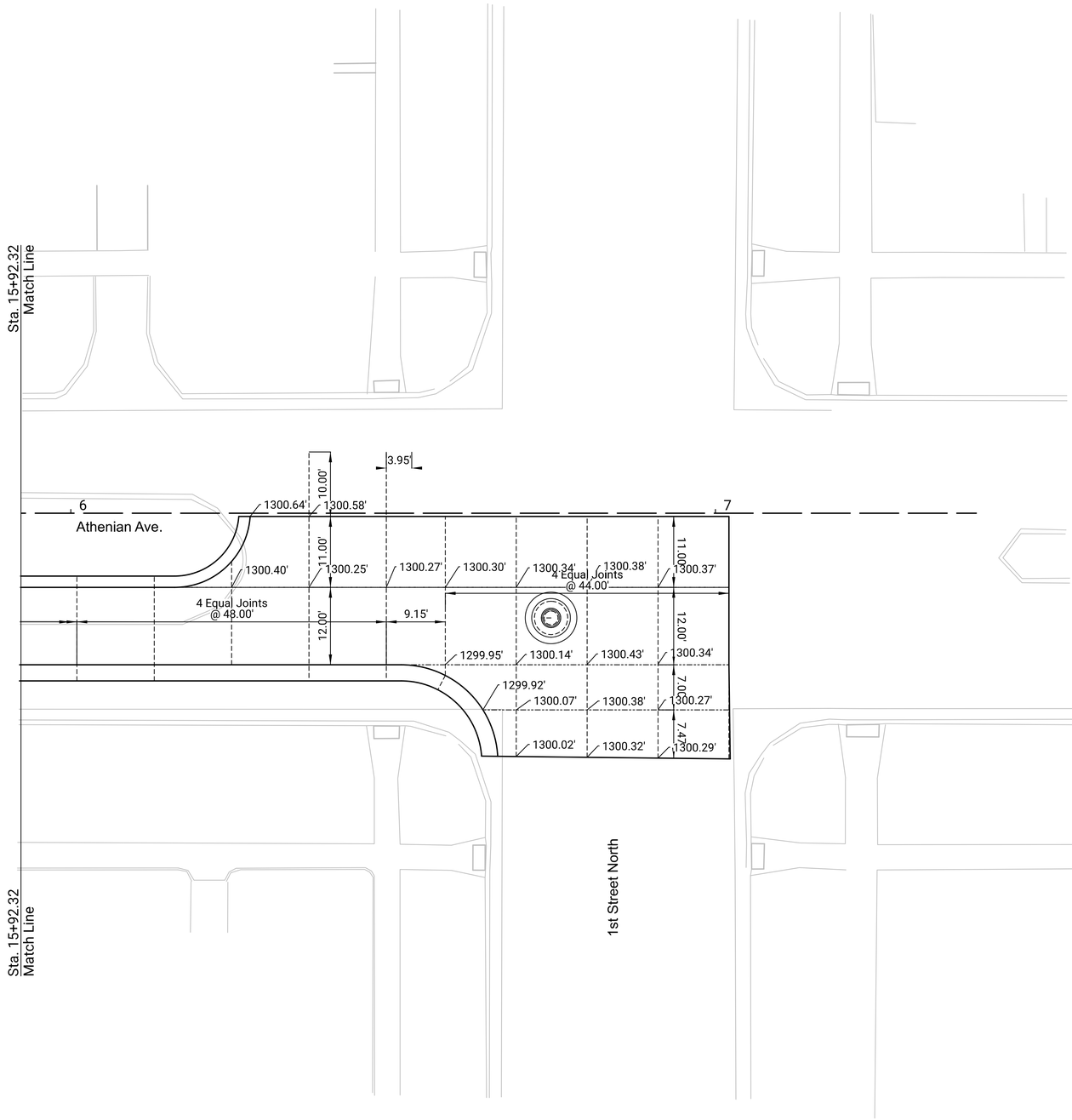
NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO: 87 N-0762-01
SCALE: AS NOTED
DATE: Aug 2025
DESIGNED BY: TPV
DRAWN BY: Staff
CHECKED BY: TPV
YEAR: 2025
SHEET NO: 30
SHEET 30 OF 180

DOUGLAS AVENUE - MERIDIAN TO SENECA

ATHENIAN AVE. JOINT PLAN - 3
STA. 13+42.30 TO STA. 15+92.32

CITY OF WICHITA



SCALE
PLAN: Lat. & Long. 10' 0 10' 20'

CITY OF WICHITA

wsp

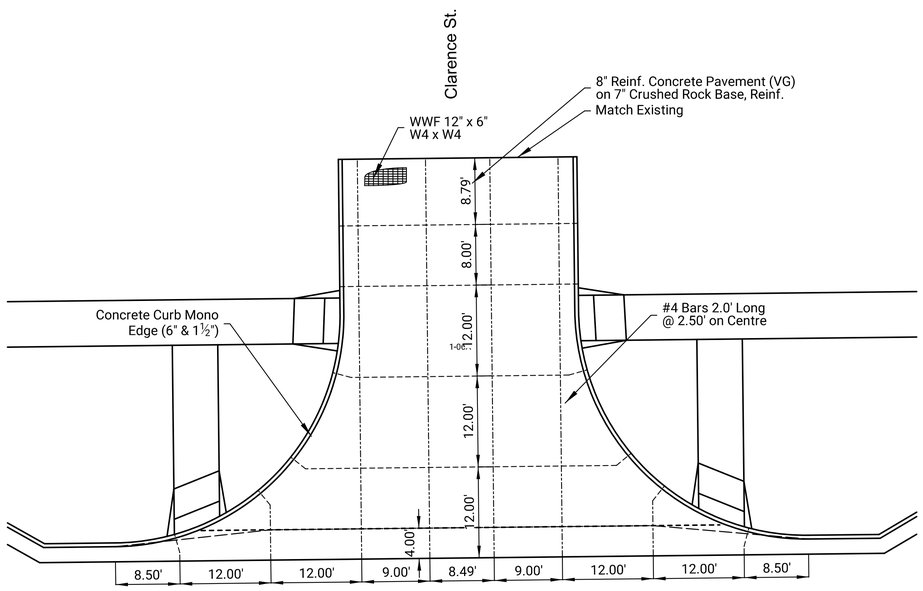
DOUGLAS AVENUE - MERIDIAN TO SENECA

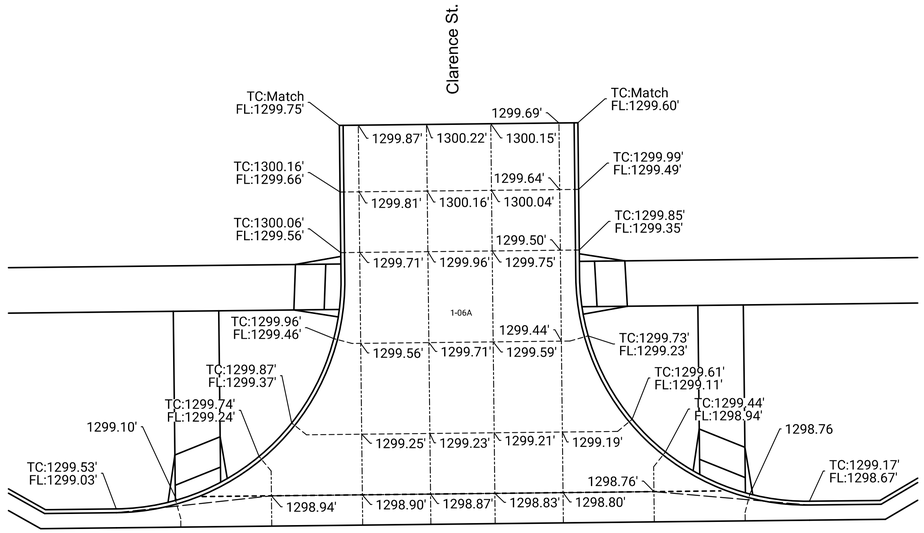
ATHENIAN AVE. JOINT PLAN - 4
STA. 15+92.32 TO STA. 17+02.09

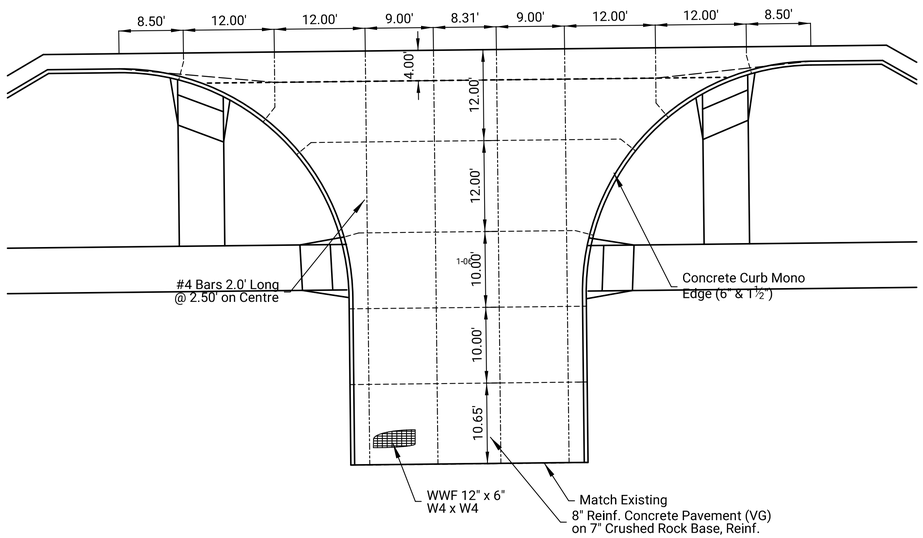
REVISIONS	DATE	NO.
DESCRIPTION		

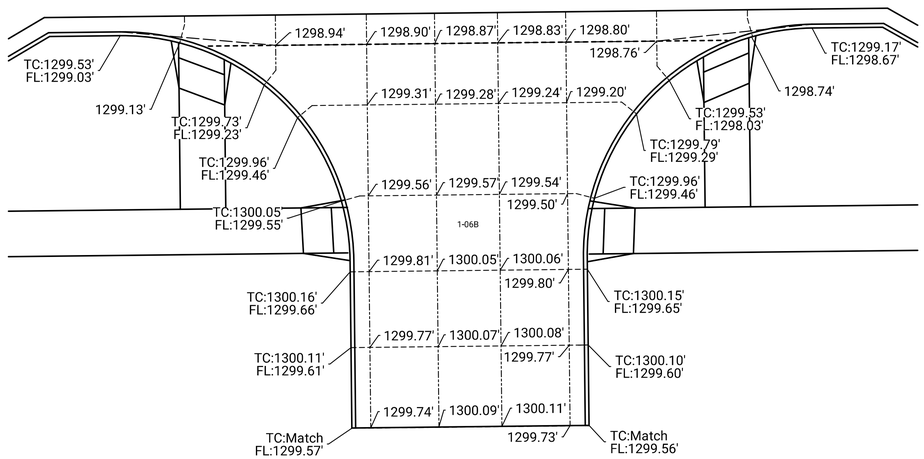
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
31
SHEET 31 OF 180









CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

CLARENCE STREET GRADING & JOINT PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

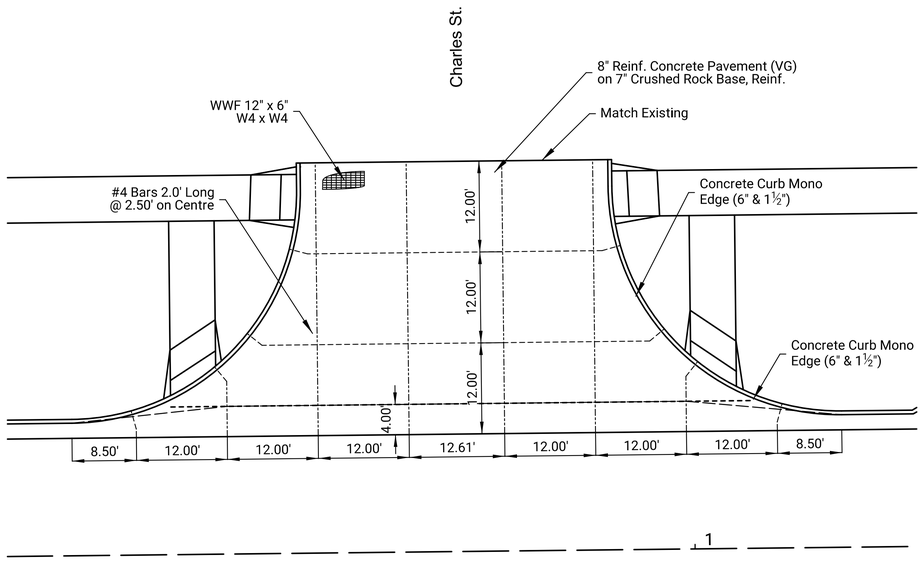
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

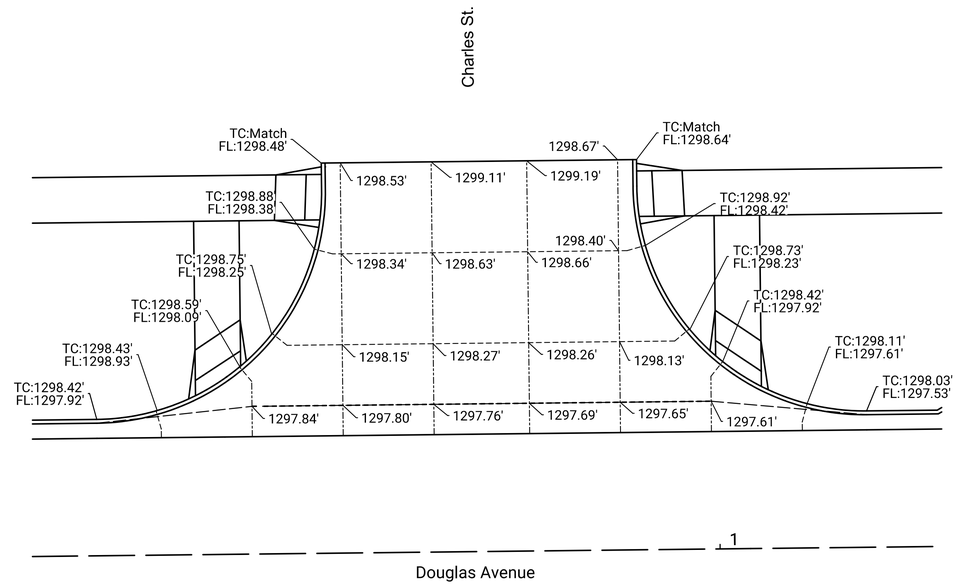
SHEET NO

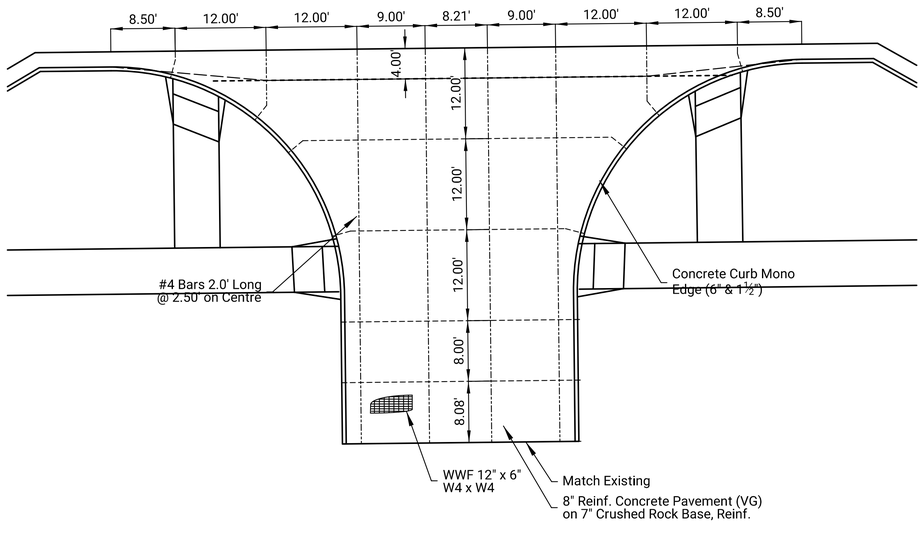
32

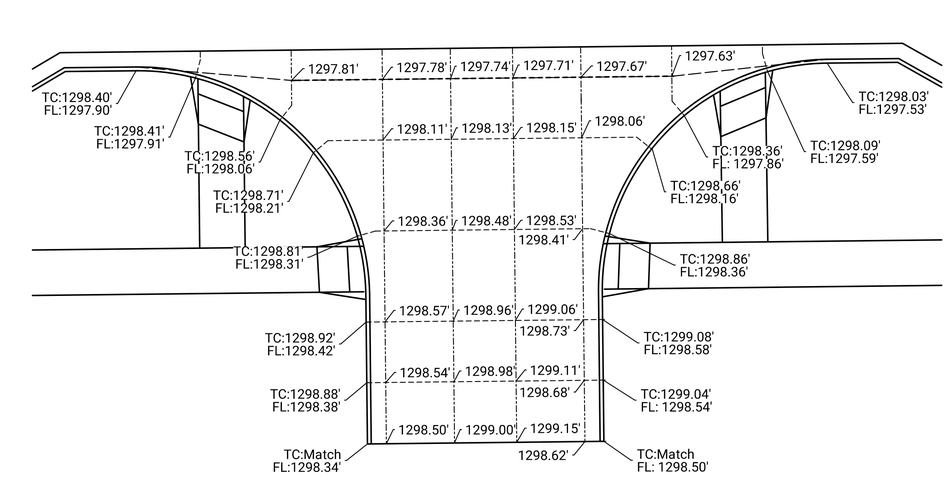
SHEET 32 OF 180

SCALE
10' 0 10' 20'
PLAN: Lat. & Long.









CITY OF WICHITA

wsp

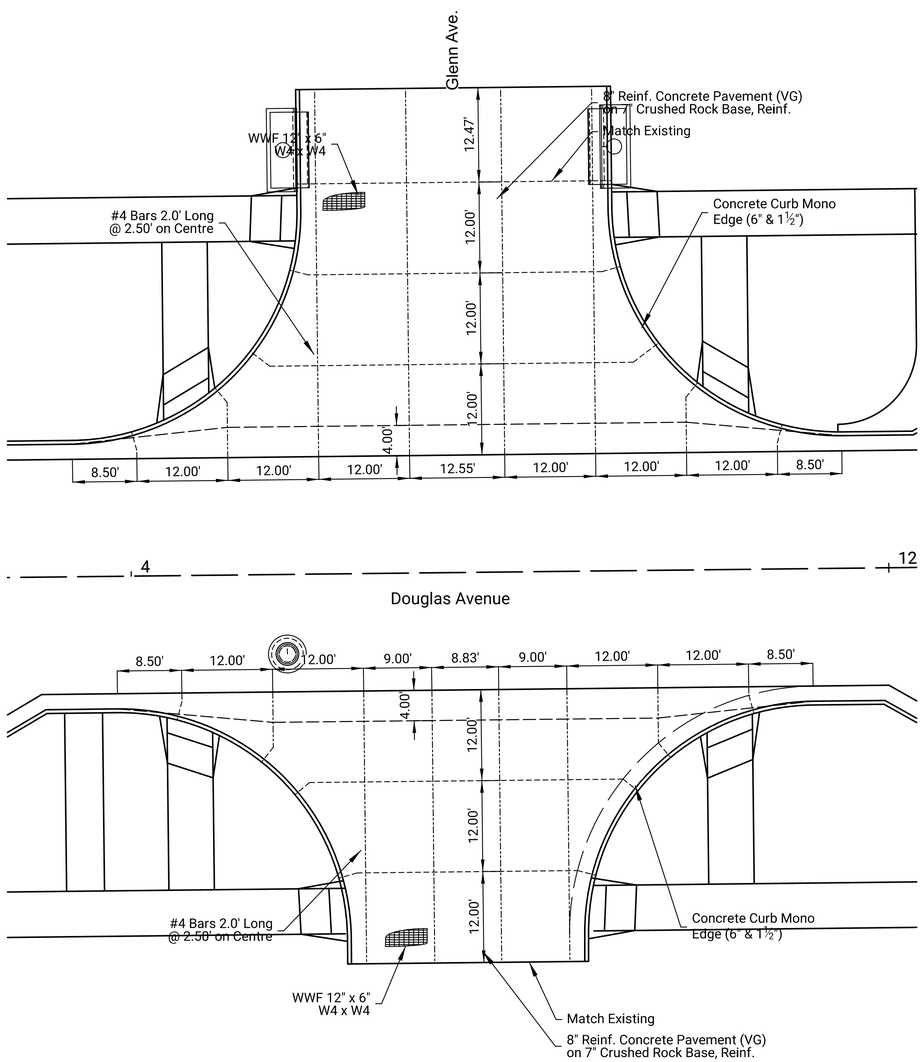
DOUGLAS AVENUE - MERIDIAN TO SENECA

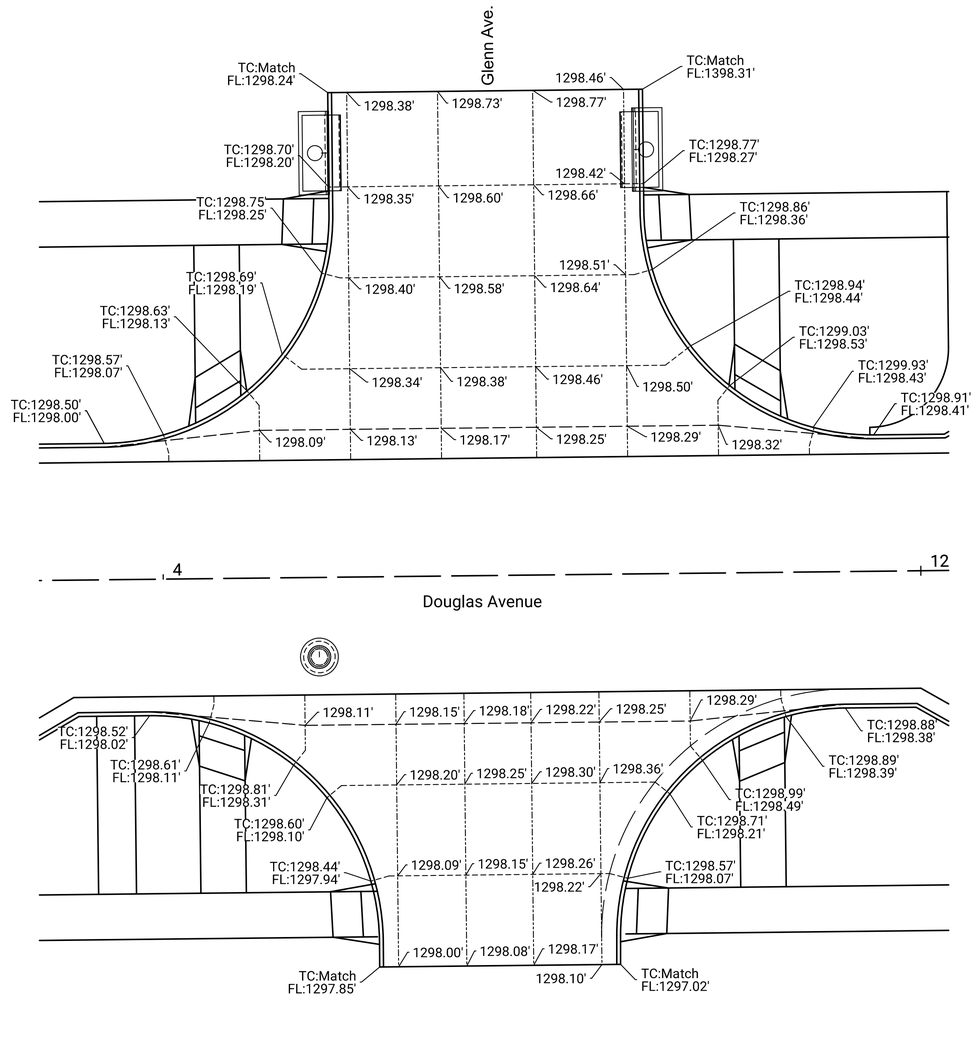
CHARLES STREET GRADING & JOINT PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
33
SHEET 33 OF 180





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

GLENN AVENUE GRADING & JOINT PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

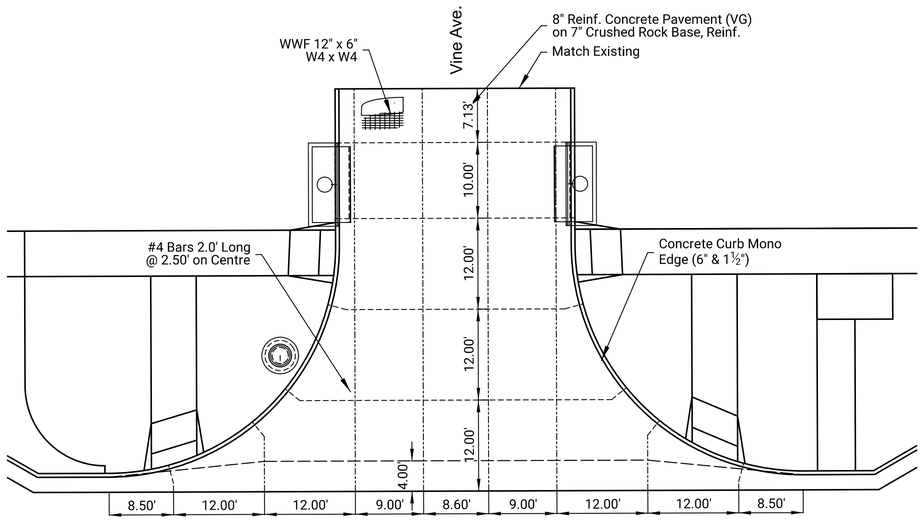
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

34

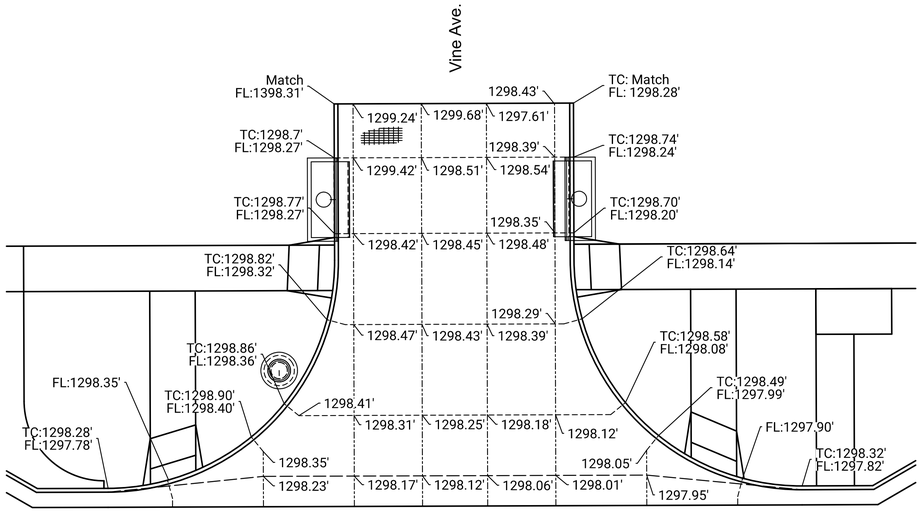
SHEET 34 OF 180

SCALE
10' 0 10' 20'
PLAN: Lat. & Long.

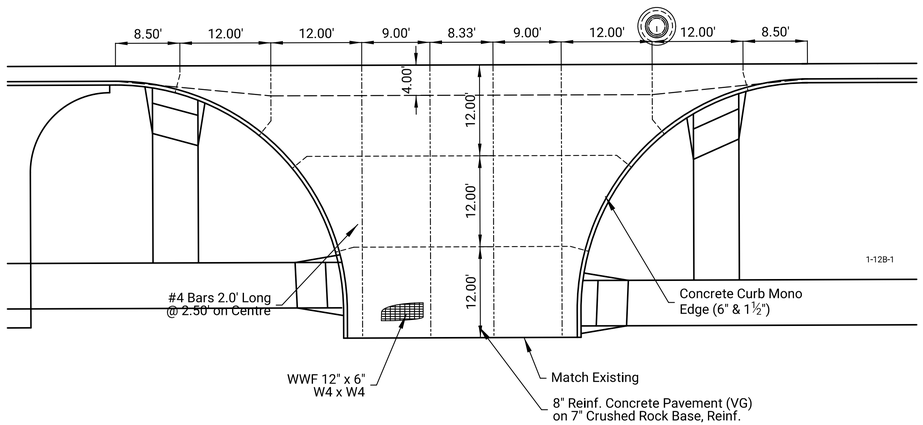


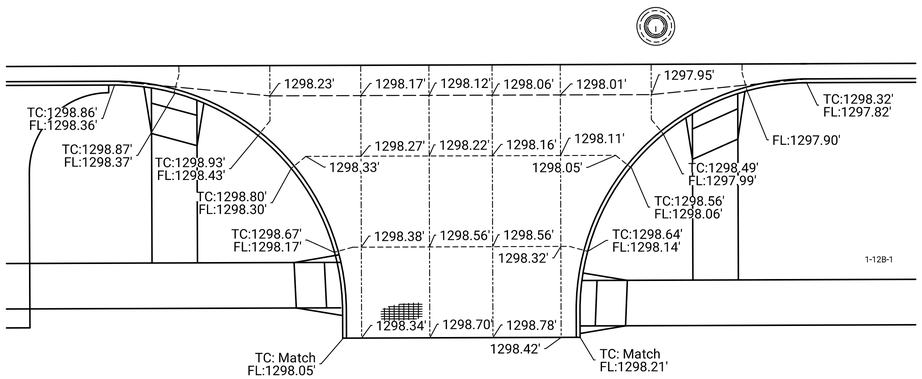
8

Douglas Avenue



8





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

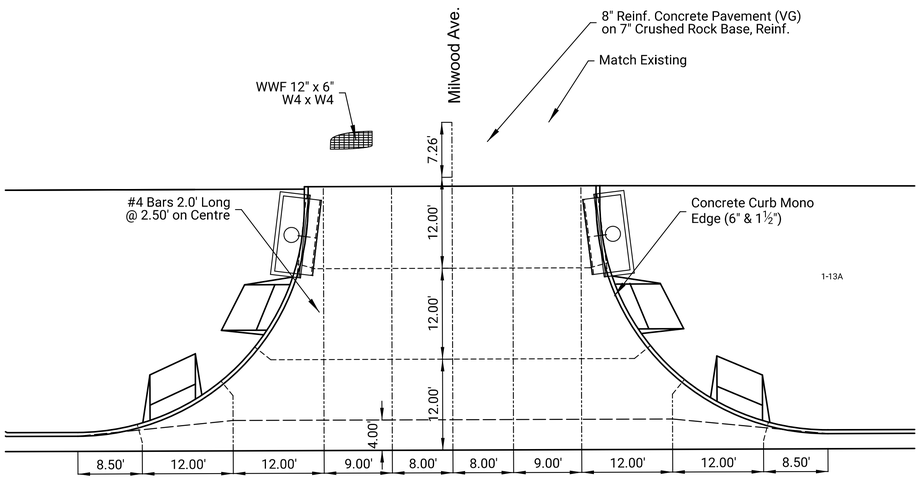
VINE AVENUE GRADING & JOINTING PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

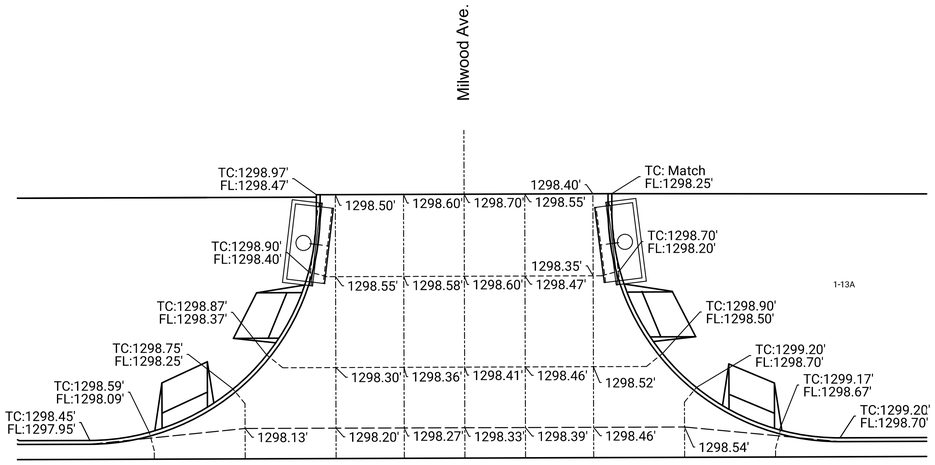
SHEET NO
35
SHEET 35 OF 180

SCALE
10' 0 10' 20'
PLAN: Lat. & Long.

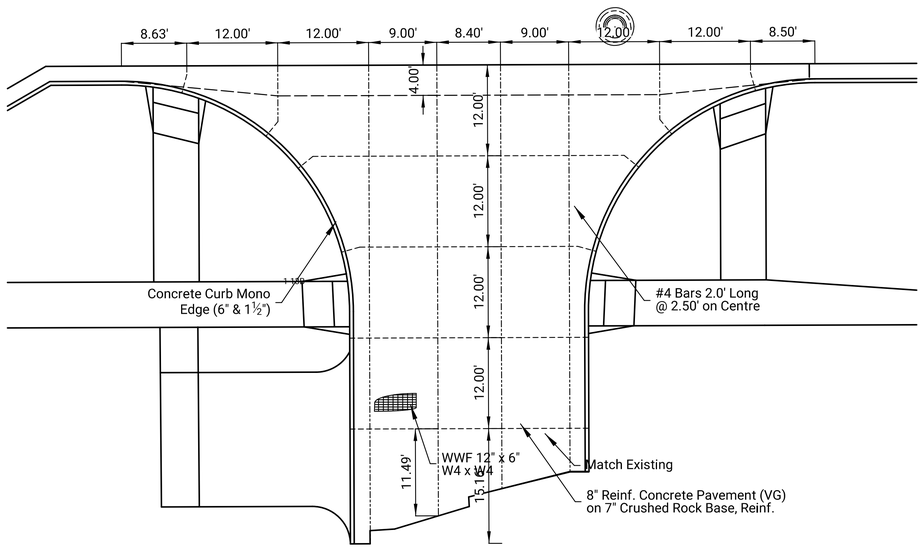


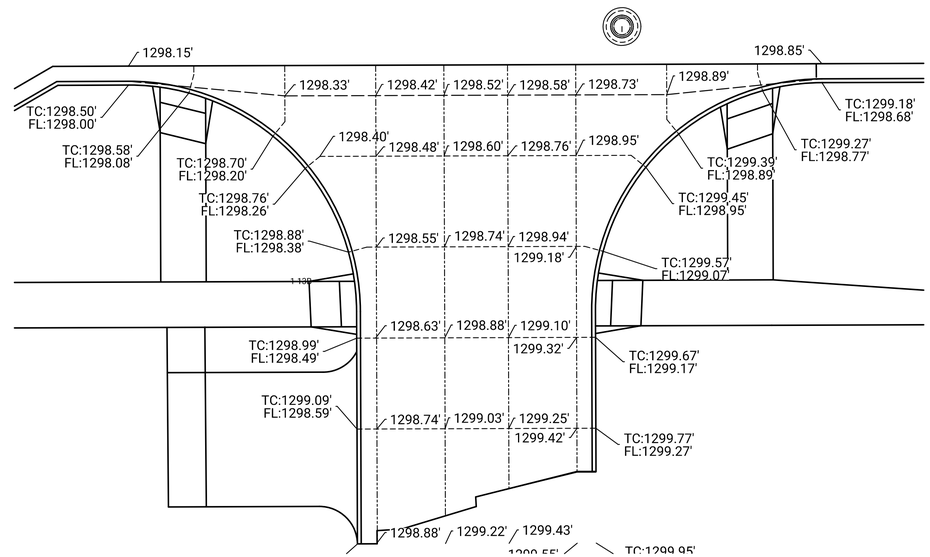
2

Douglas Avenue



2





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

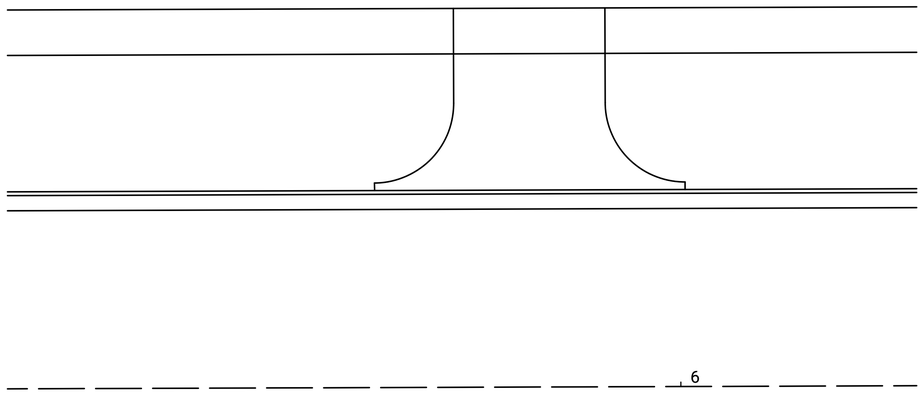
MILWOOD AVENUE GRADING & JOINT PLAN

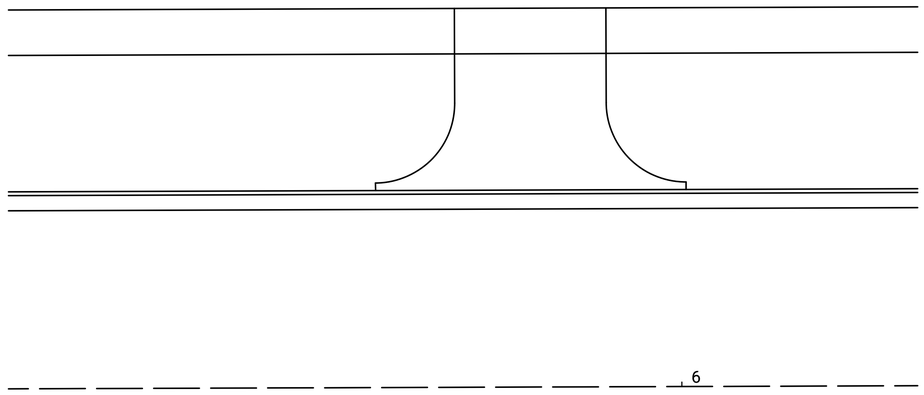
NO.	DATE	DESCRIPTION
		REVISIONS

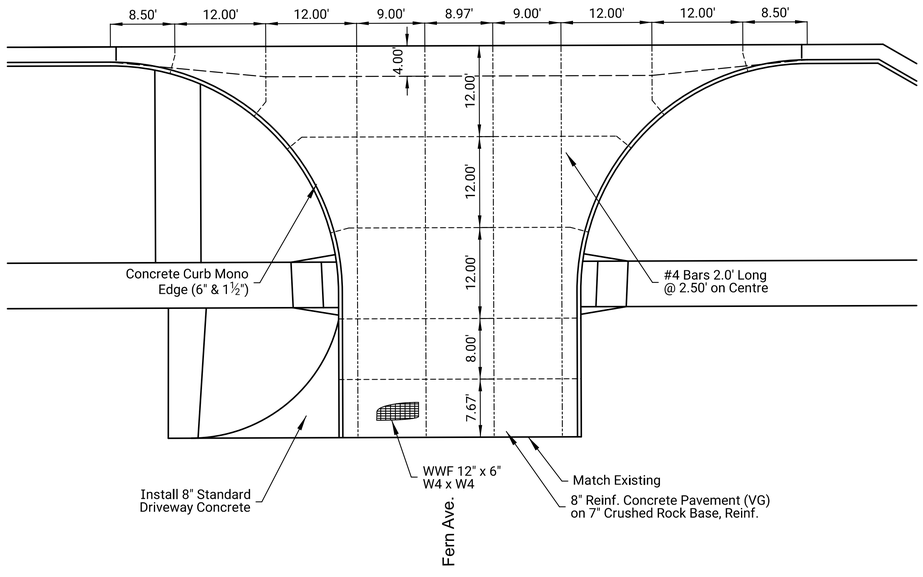
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

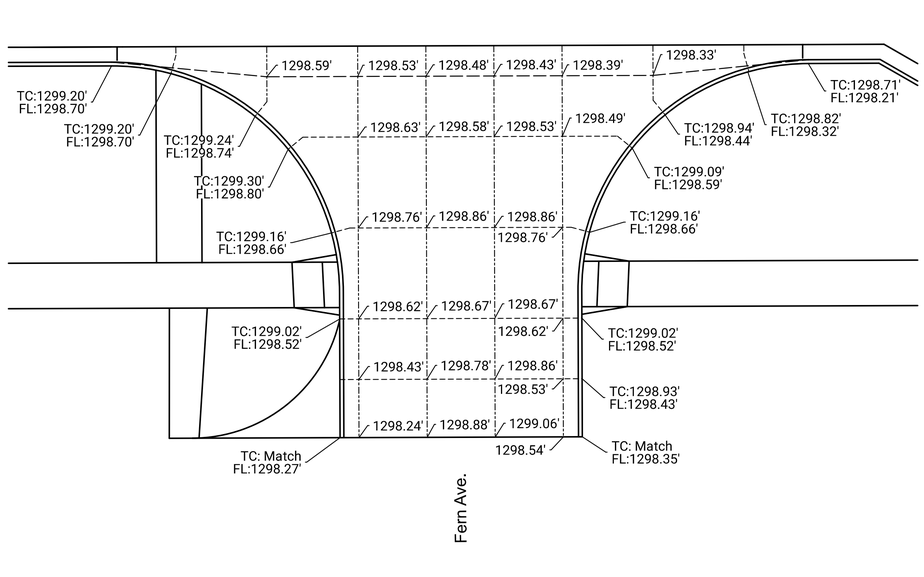
SHEET NO
36

SCALE
10' 0 10' 20'
PLAN: Lat. & Long.









CITY OF WICHITA

wsp

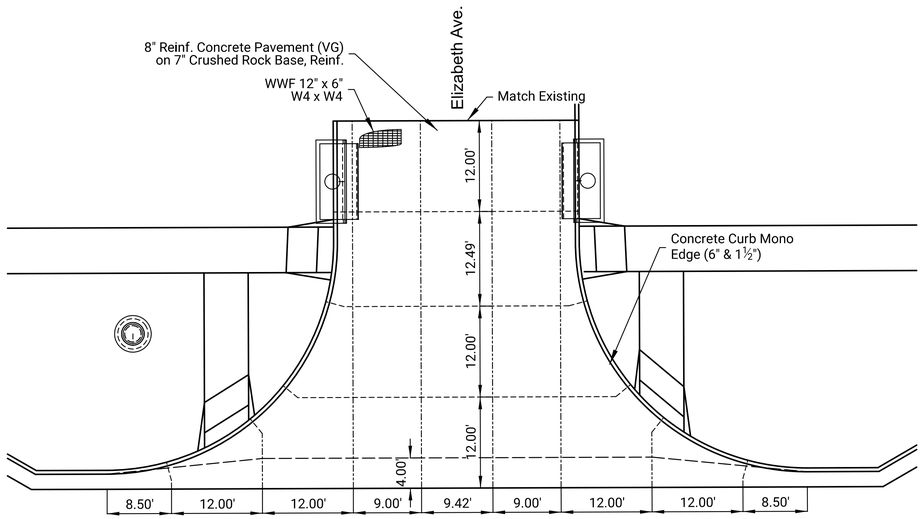
DOUGLAS AVENUE - MERIDIAN TO SENECA

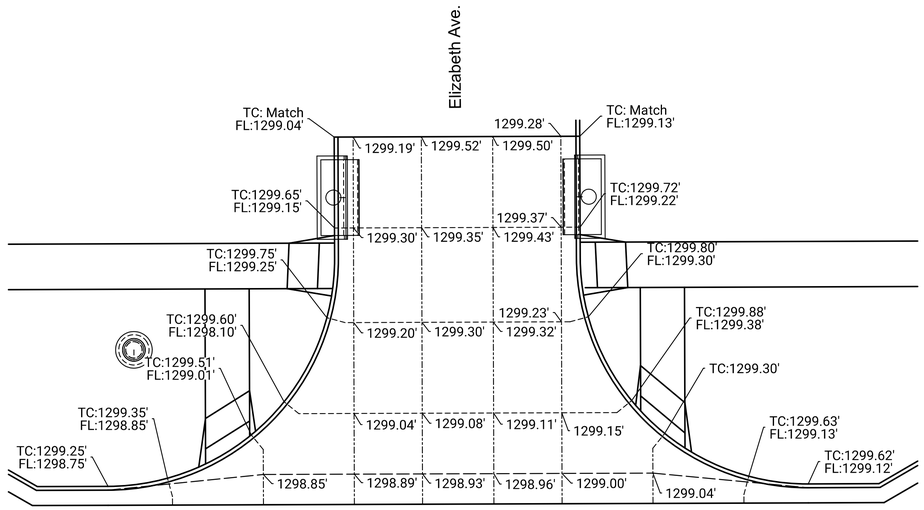
FERN AVENUE GRADING & JOINT PLAN

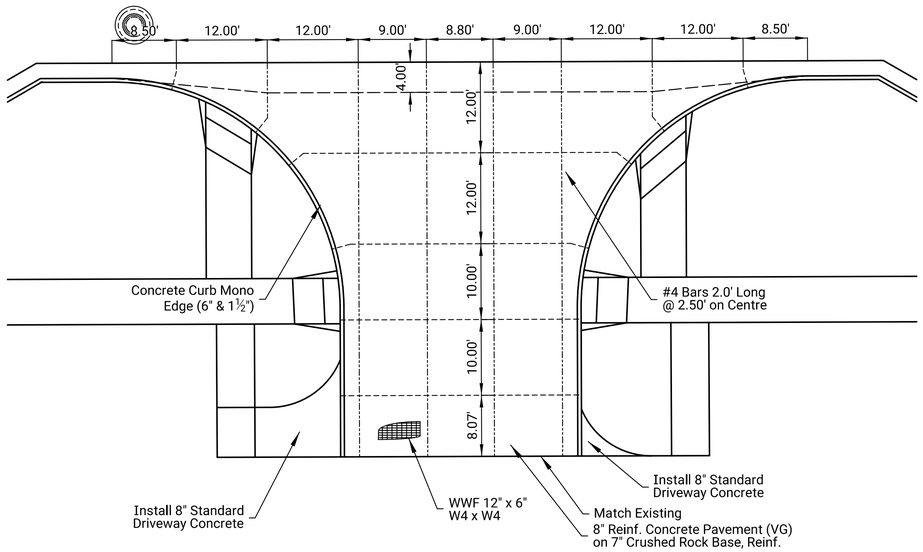
NO.	DATE	DESCRIPTION
		REVISIONS

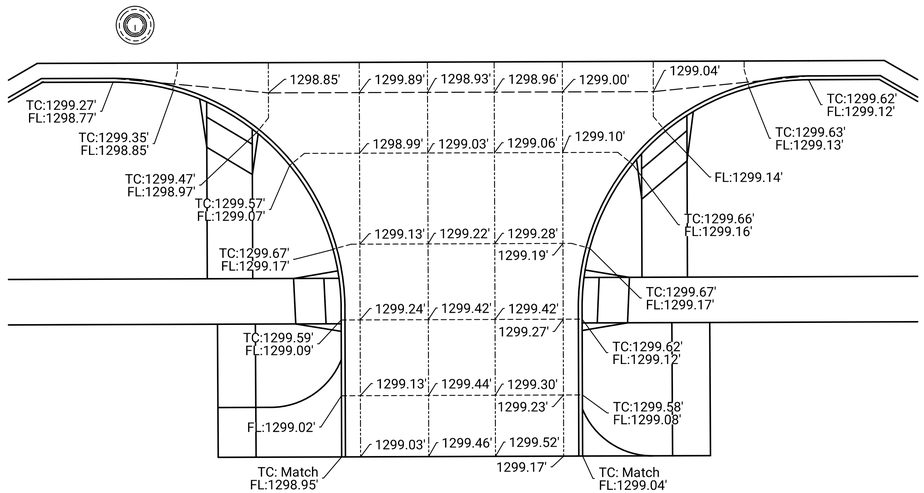
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
37
SHEET 37 OF 180









SCALE
10' 0 10' 20'
PLAN: Lat. & Long.

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

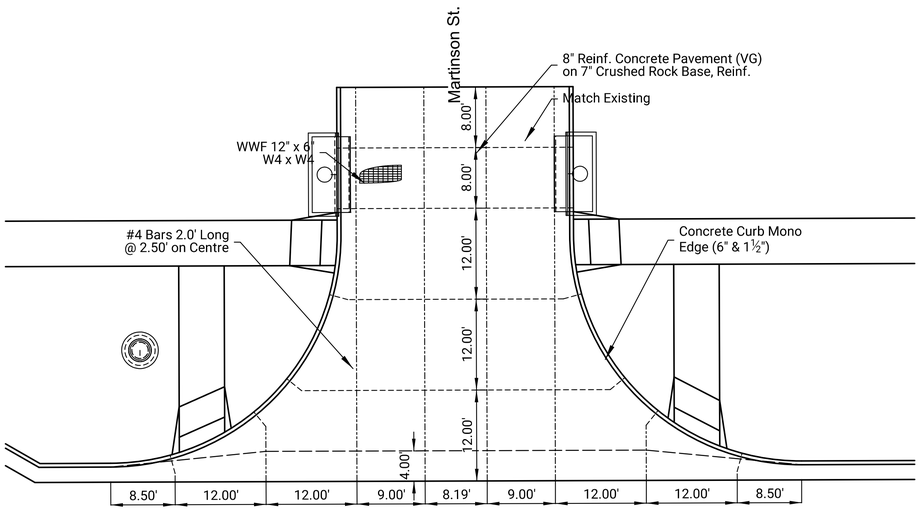
ELIZABETH AVENUE GRADING & JOINT PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

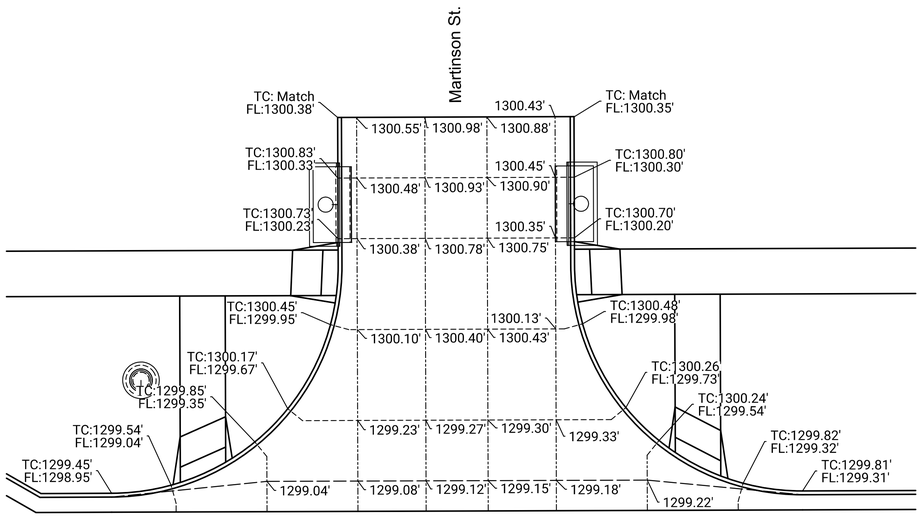
SHEET NO
38
SHEET 38 OF 180

SCALE
10' 0 10' 20'
PLAN: Lat. & Long.

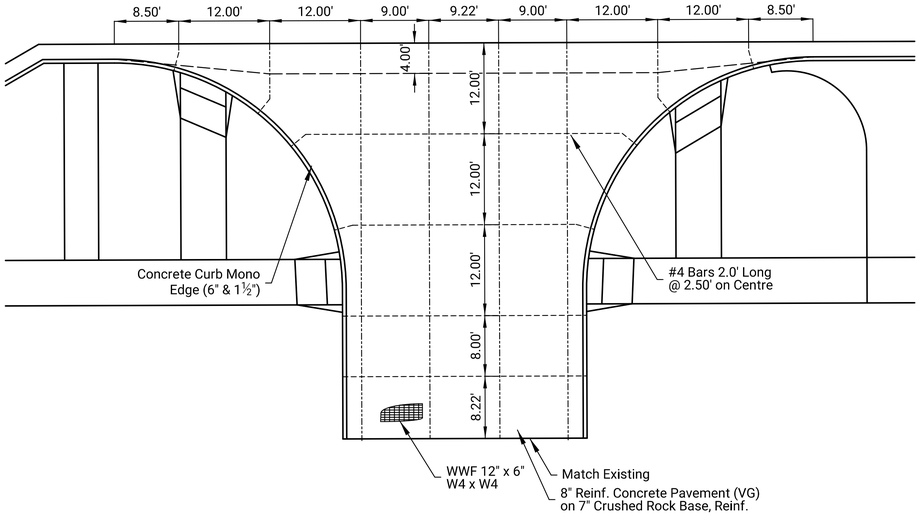


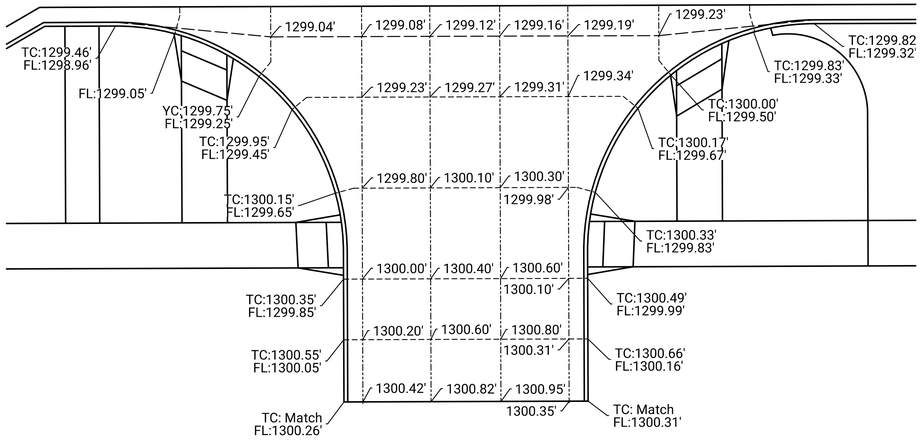
3

Douglas Avenue



3





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

MARTINSON STREET GRADING & JOINT PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

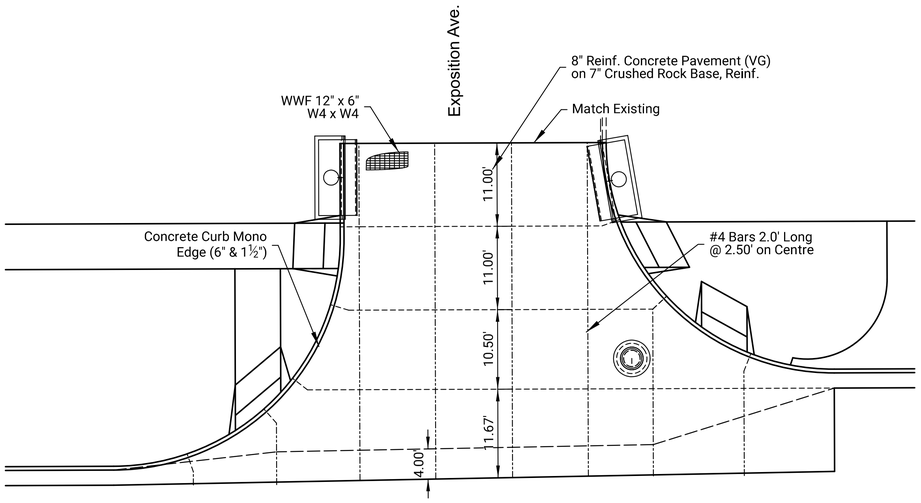
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
39
SHEET 39 OF 180

SCALE

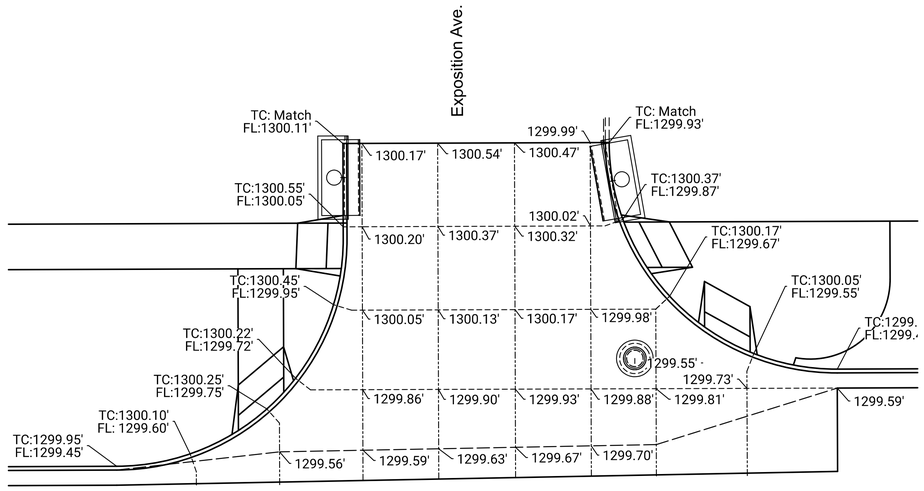
10' 0 10' 20'

PLAN: Lat. & Long.

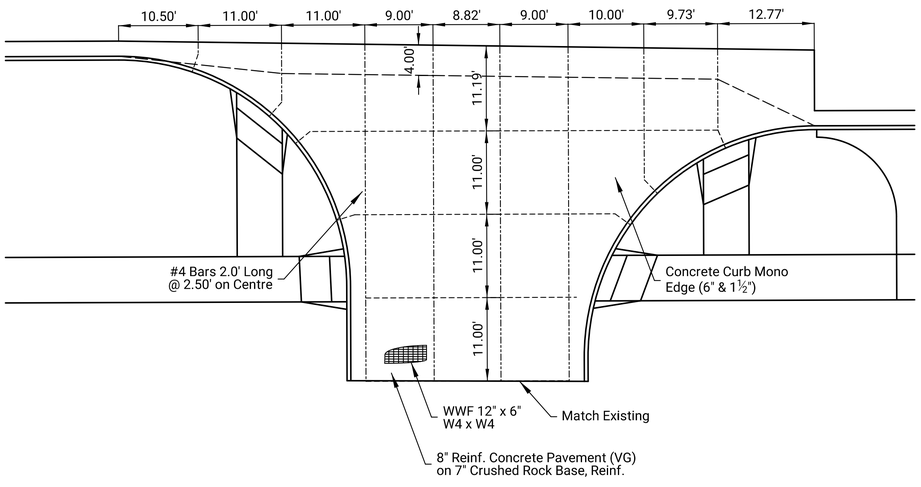


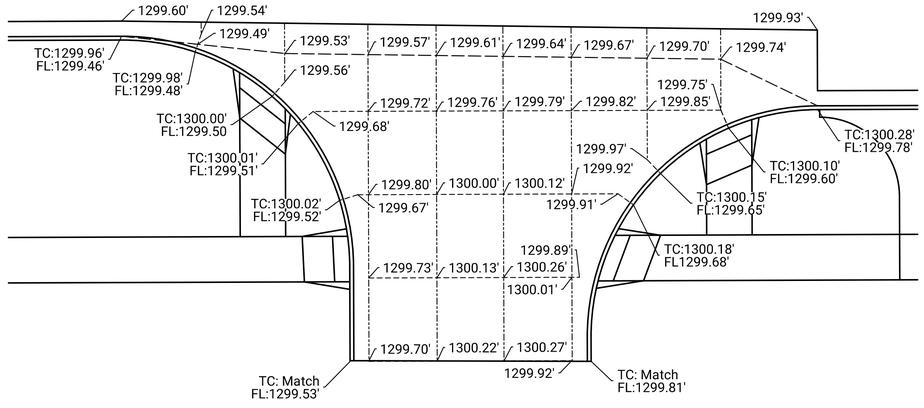
6

Douglas Avenue



6





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

EXPOSITION AVENUE GRADING & JOINT PLAN

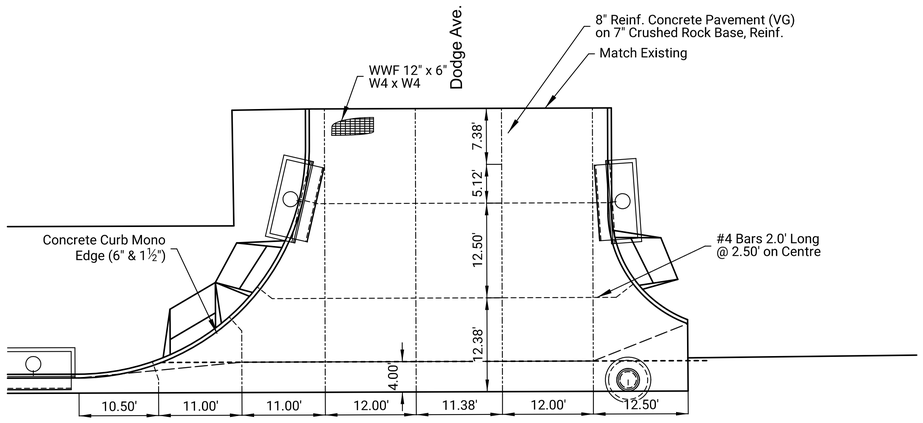
NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

40

SHEET 40 OF 180



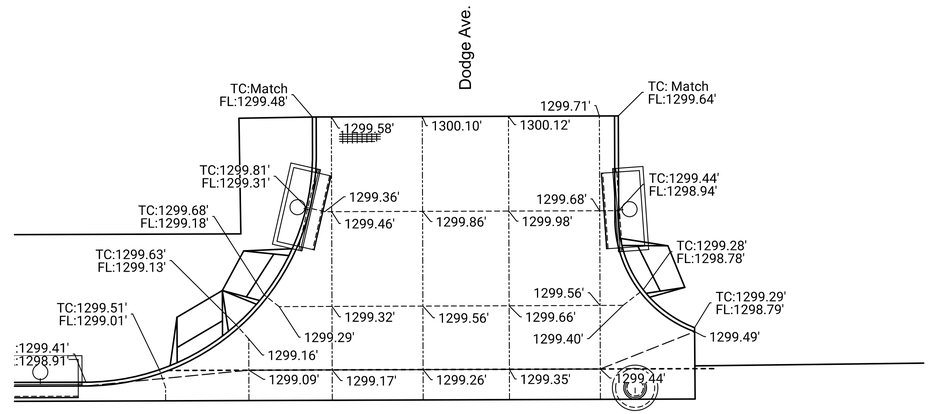
9

Douglas Avenue

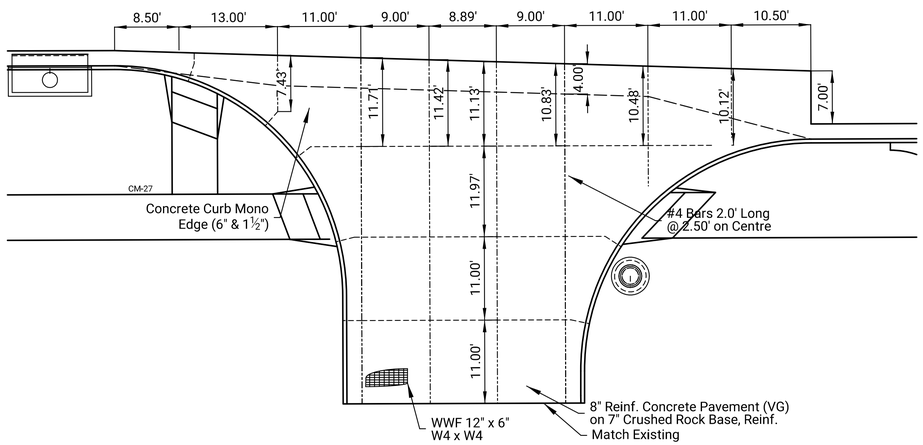
SCALE

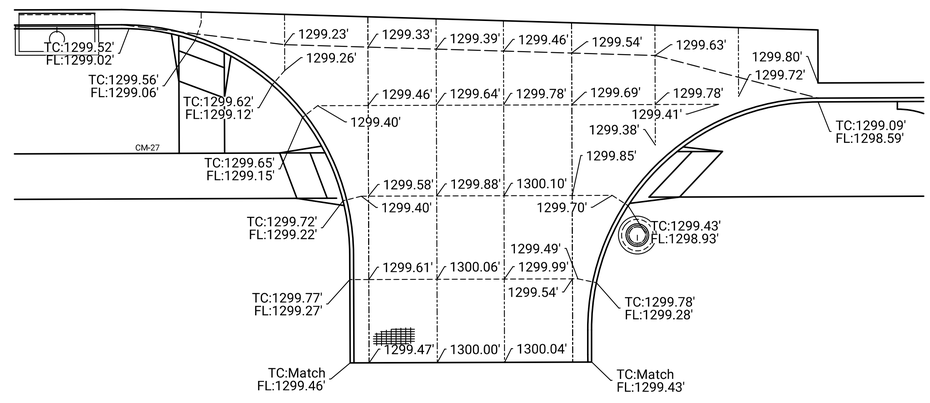
10' 0 10' 20'

PLAN: Lat. & Long.



9





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DODGE AVENUE GRADING & JOINTING PLAN

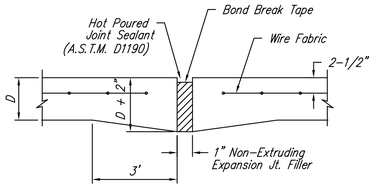
REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

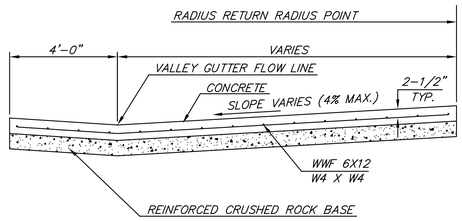
41

SHEET 41 OF 180

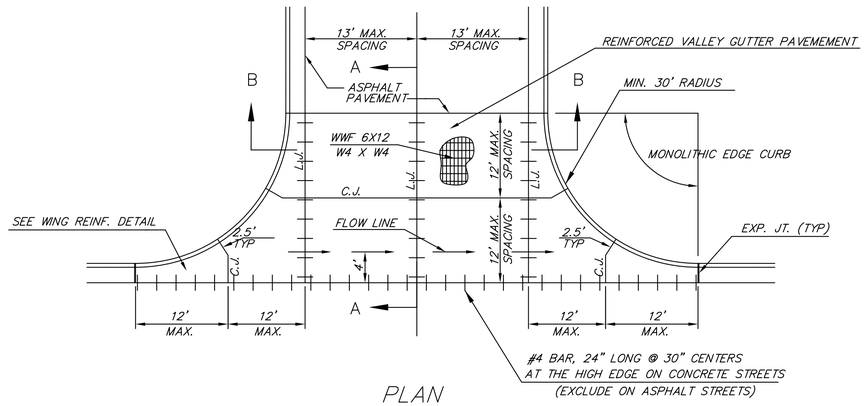


EXPANSION JOINT

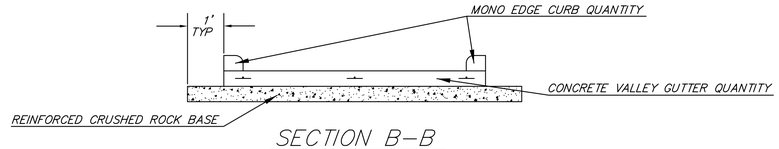
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



SECTION A-A

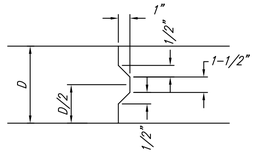


PLAN

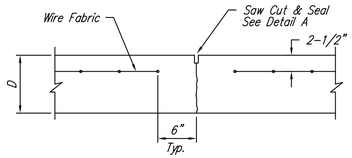


SECTION B-B

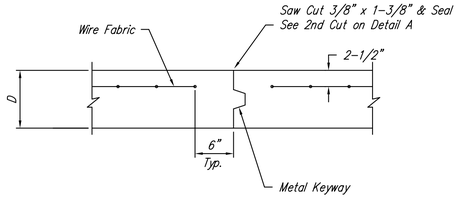
REINFORCED VALLEY GUTTER DETAIL



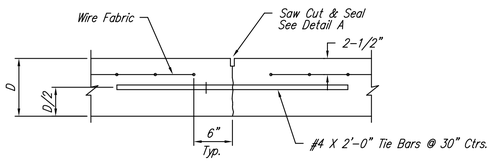
KEYWAY DETAIL



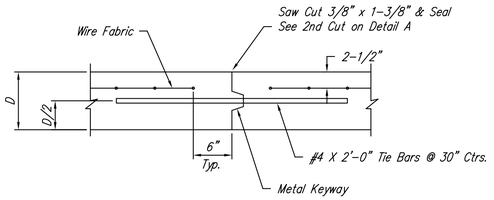
CONTRACTION JOINT DETAIL (C.J.)



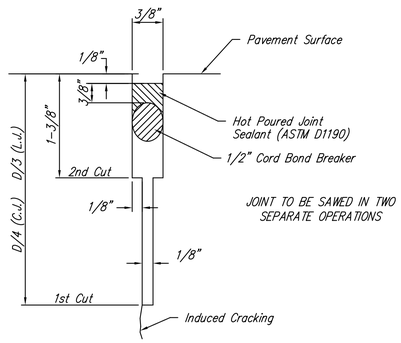
OPTIONAL CONTRACTION JOINT



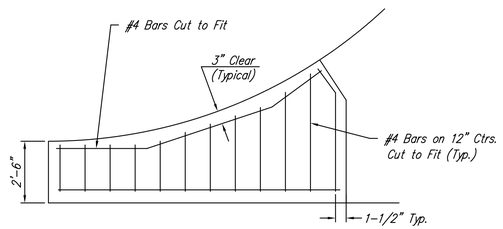
LONGITUDINAL JOINT DETAIL (L.J.)



OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.)



SAW JOINT DETAIL
(DETAIL A)



WING REINFORCING DETAIL

REVISION MAY 2017	SECTION B-B, ROCK EXTENDED ONE FOOT BEYOND PAVEMENT

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

VALLEY GUTTER DETAILS

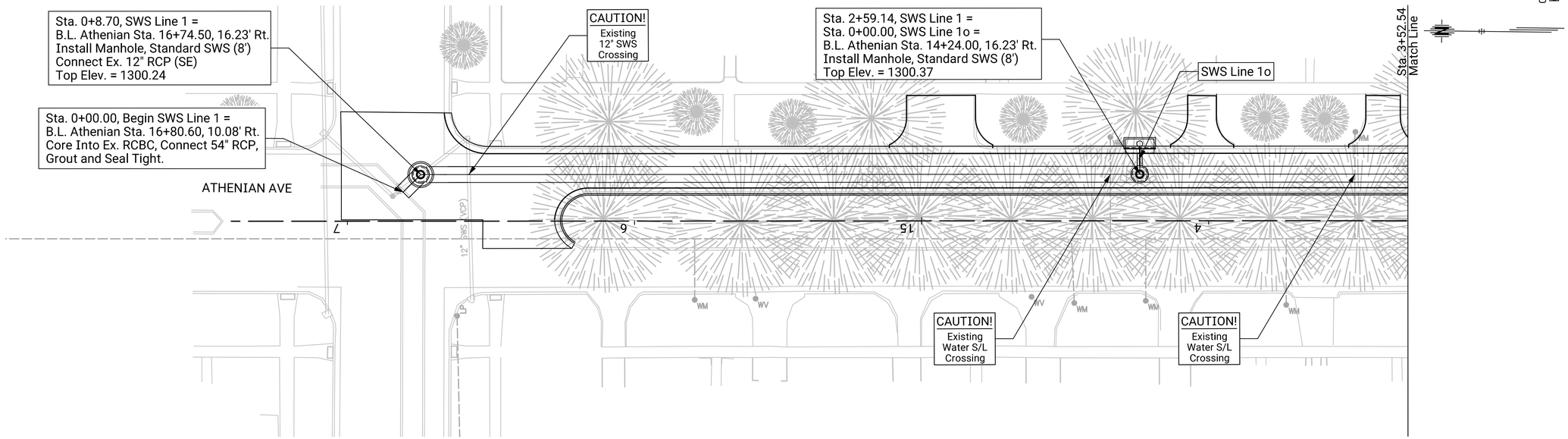
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

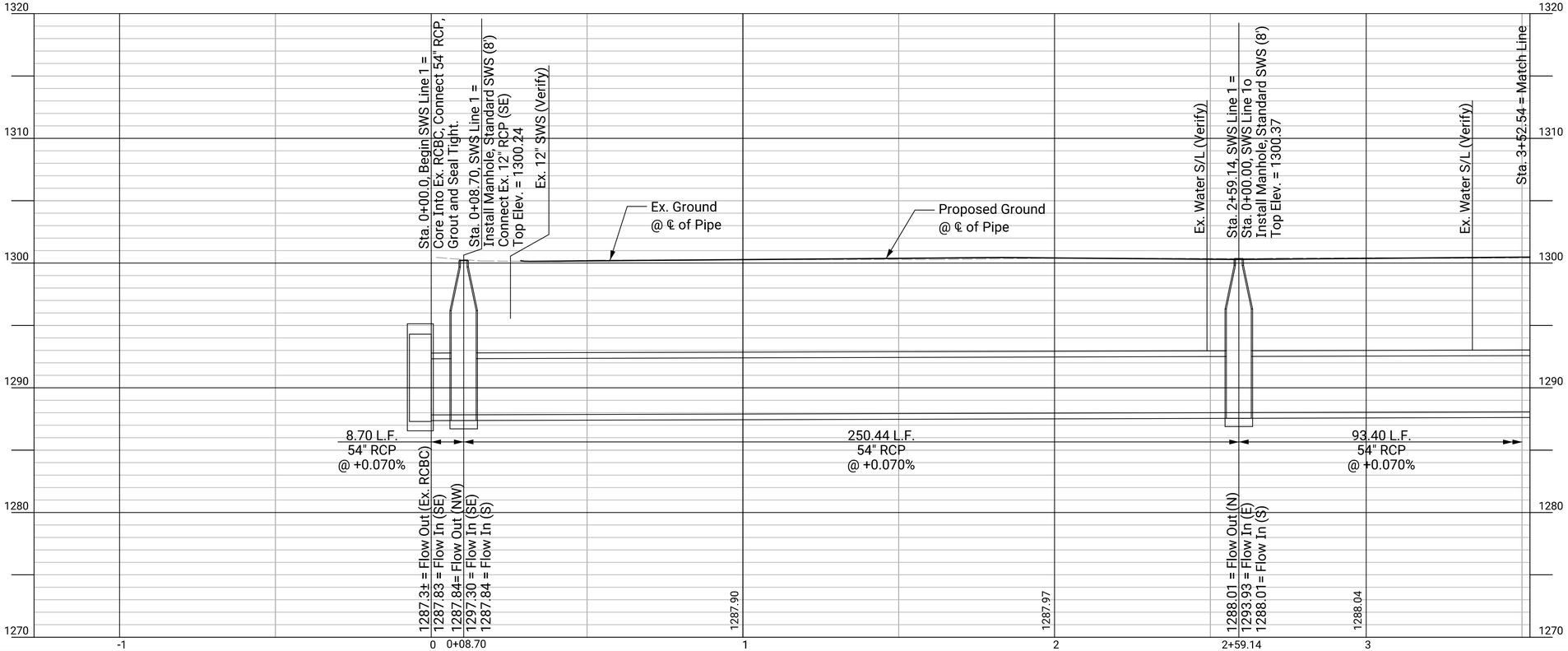
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

SCALE
20' 0 20' 40'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.
5
0



SWS Line 1



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

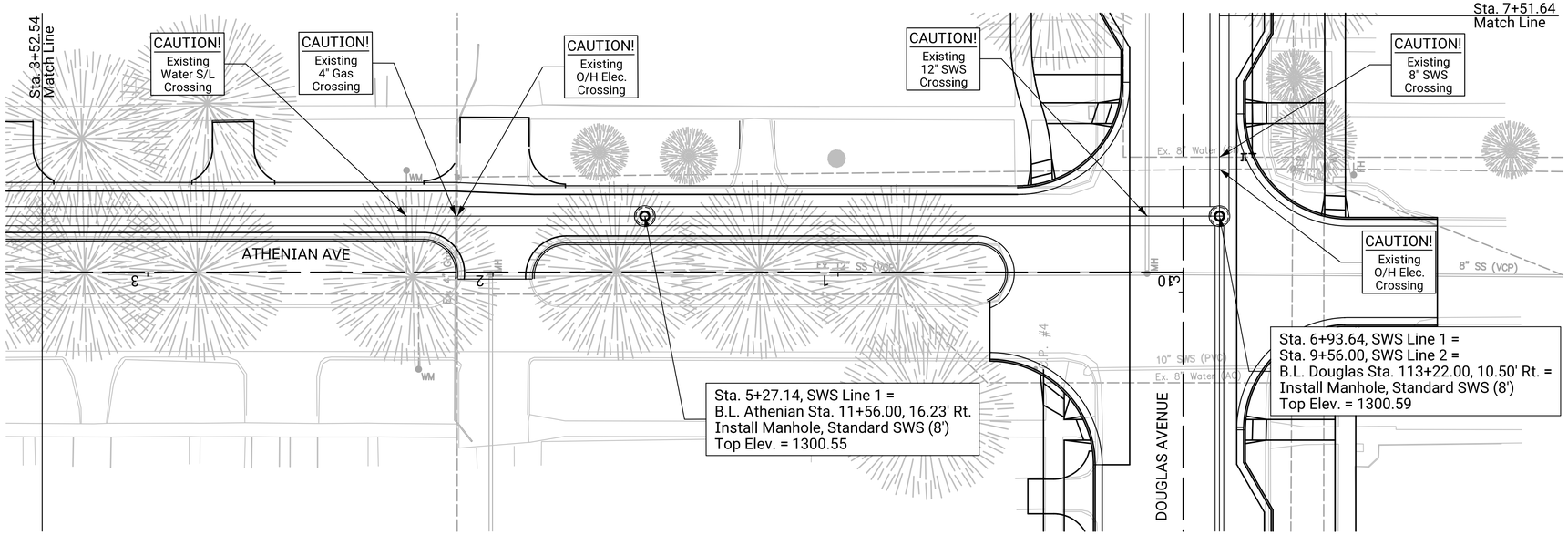
SWS PLAN & PROFILE
SWS LINE 1

REVISIONS			DESCRIPTION
		DATE	
		NO.	

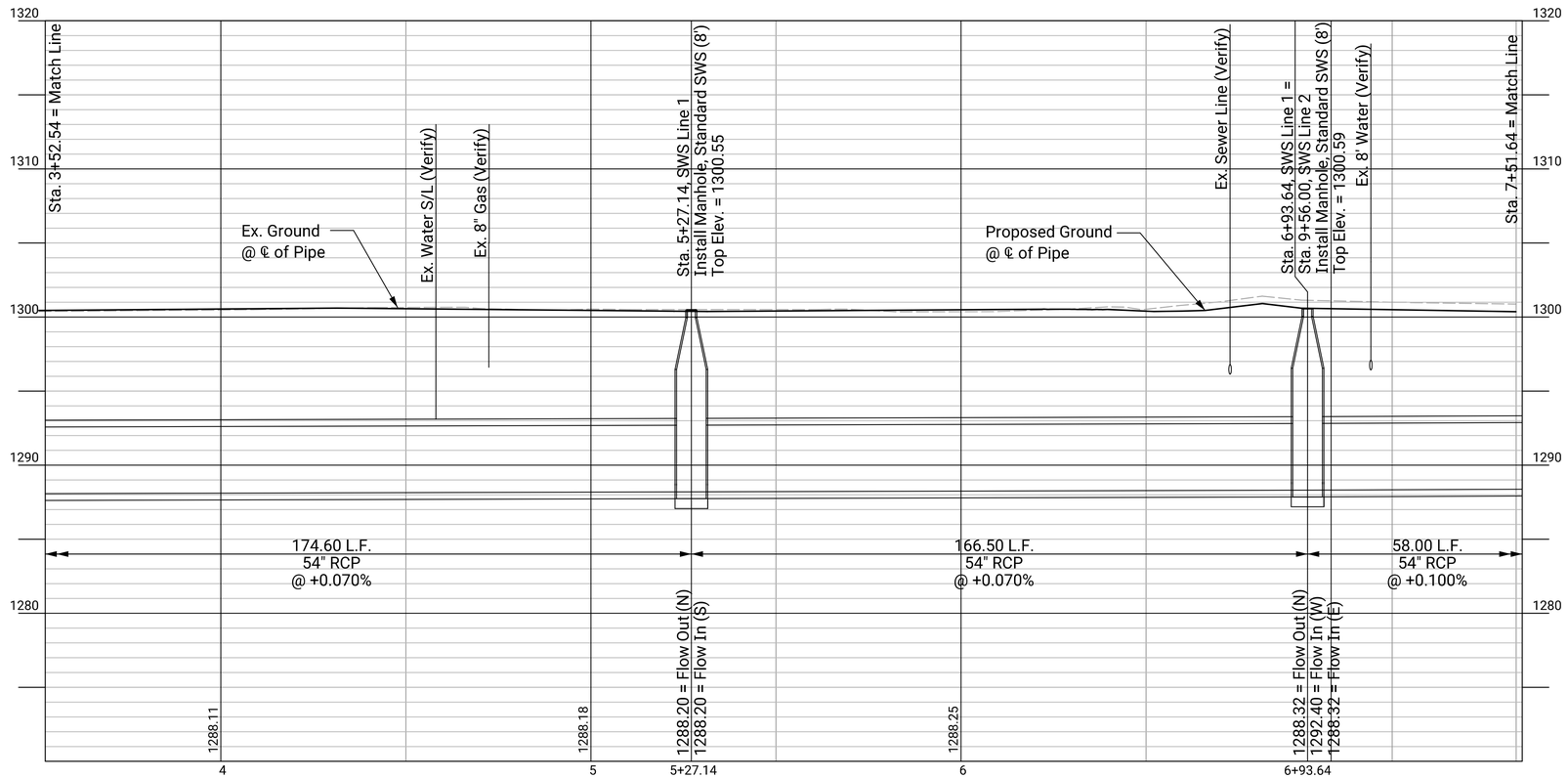
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
43
SHEET 43 OF 180

SCALE
20' 0 20' 40'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.
5'
0



SWS Line 1



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
SWS PLAN & PROFILE
SWS LINE 1

REVISIONS	DESCRIPTION	DATE	NO.

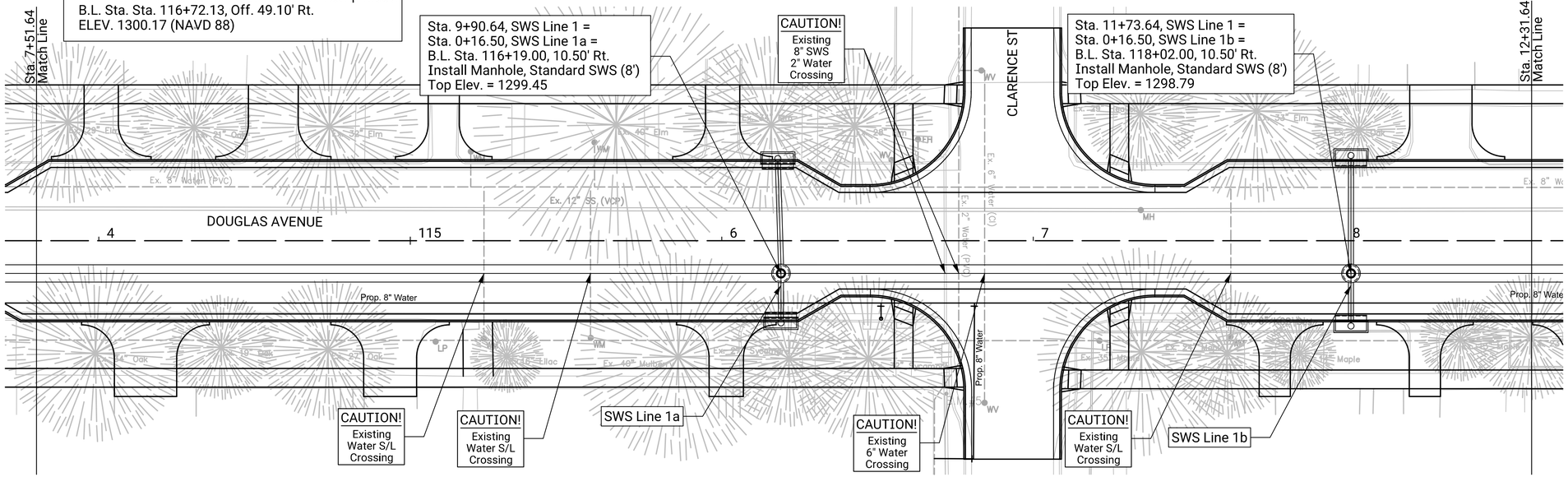
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
44
SHEET 44 OF 180

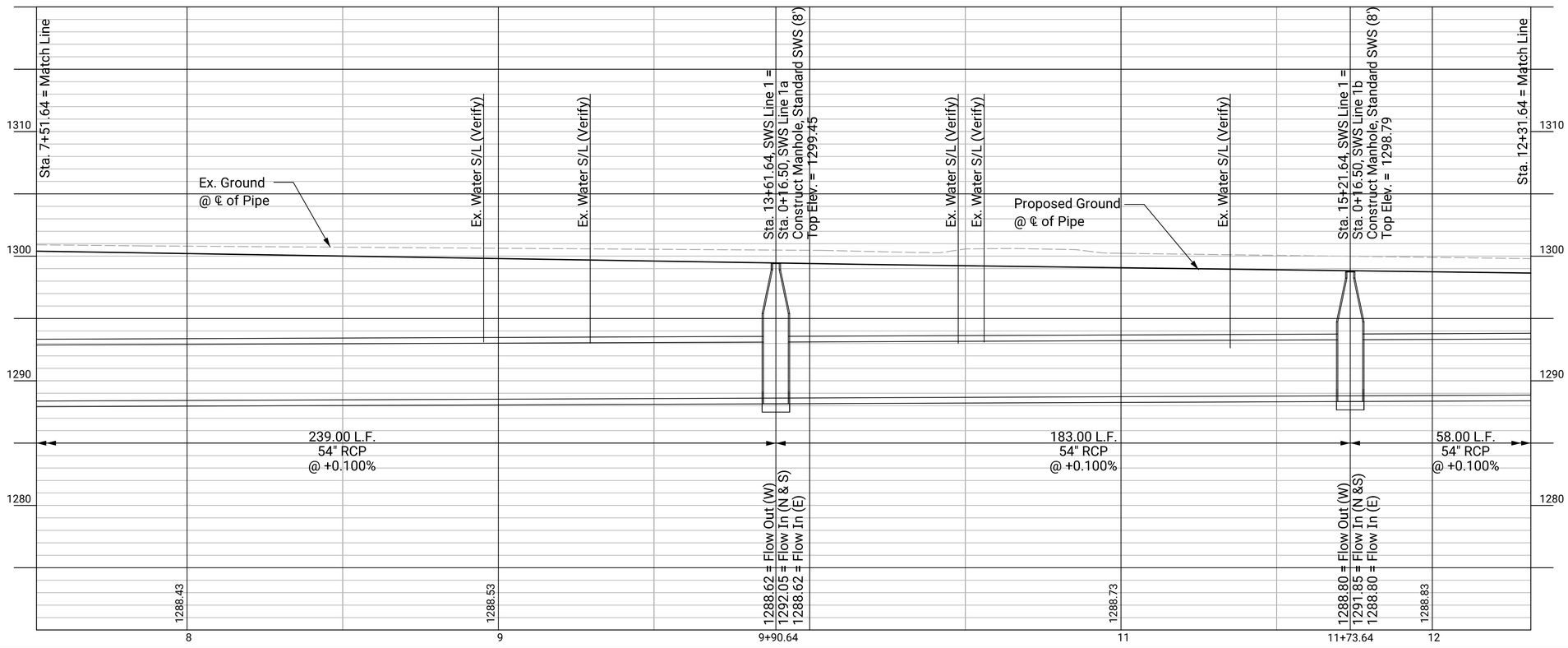
BENCHMARK

BM #5 - Chiseled Square at the Southwest Corner of the Intersection of Clarence & Douglas. At the Point where the Sidewalk & Wheel Chair Ramp Meet.
B.L. Sta. Sta. 116+72.13, Off. 49.10' Rt.
ELEV. 1300.17 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 0 5



SWS Line 1



CITY OF WICHITA

wsp

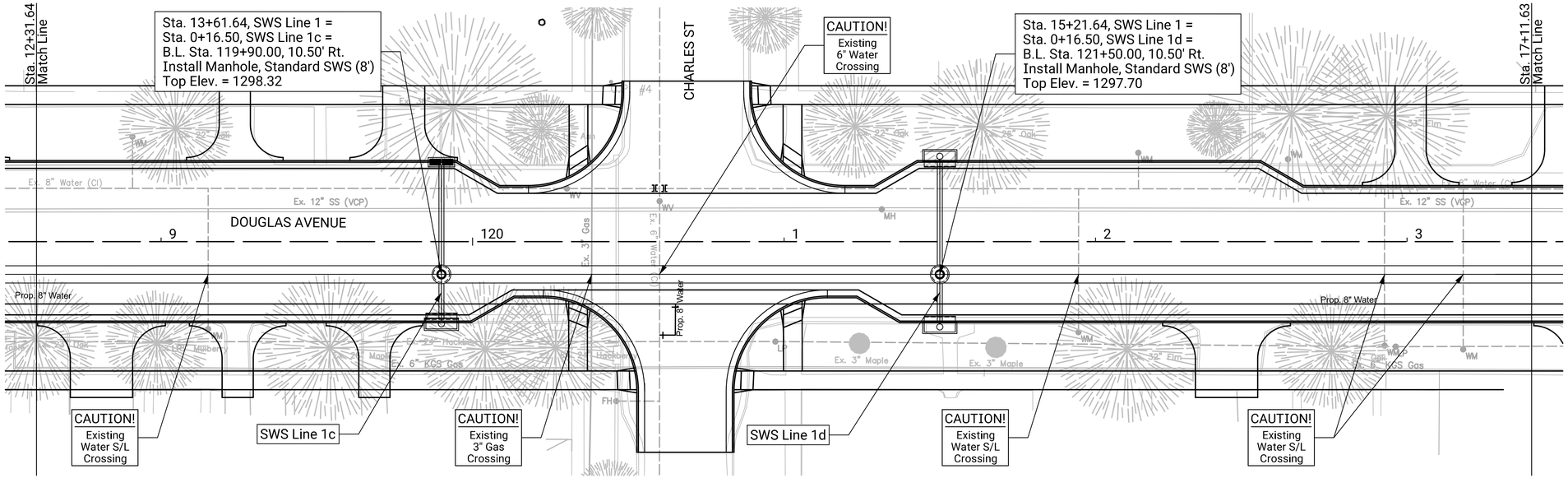
DOUGLAS AVENUE - MERIDIAN TO SENECA
SWS PLAN & PROFILE
SWS LINE 1

NO.	DATE	DESCRIPTION
		REVISIONS

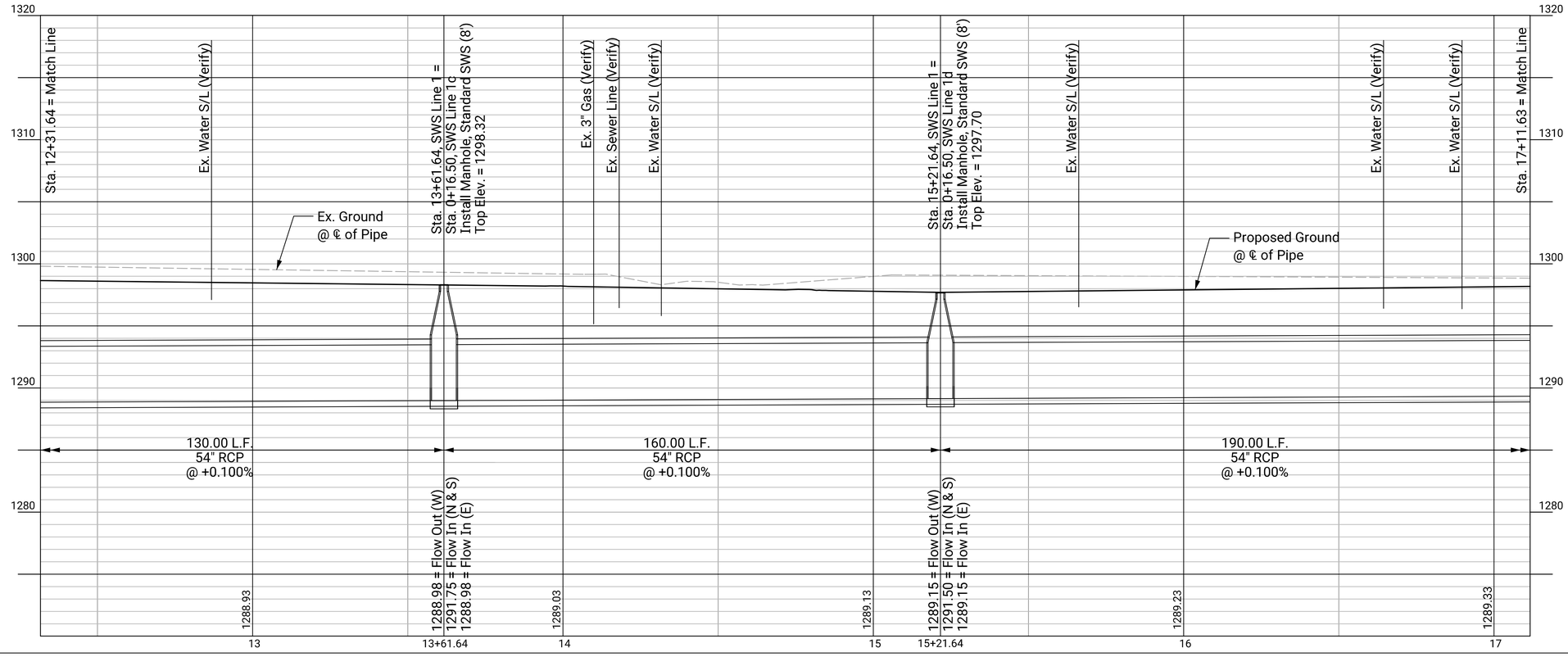
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
45
SHEET 45 OF 180

SCALE
20' 0 20' 40'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.
5 0



SWS Line 1



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1

REVISIONS		
NO.	DATE	DESCRIPTION

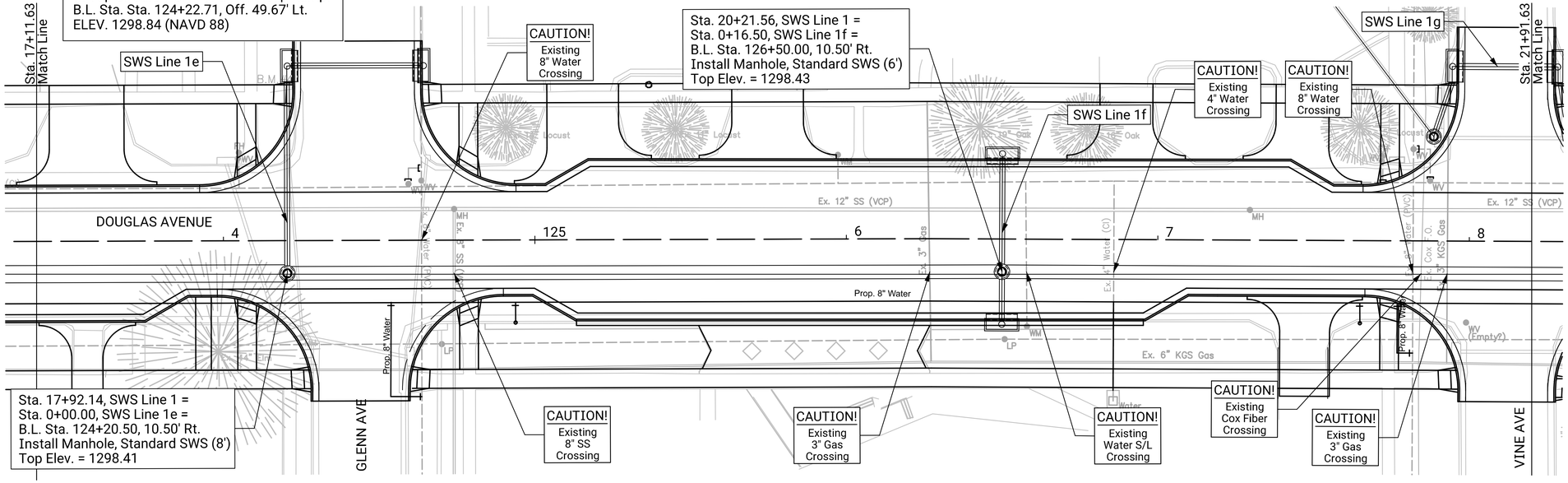
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
46
SHEET 46 OF 180

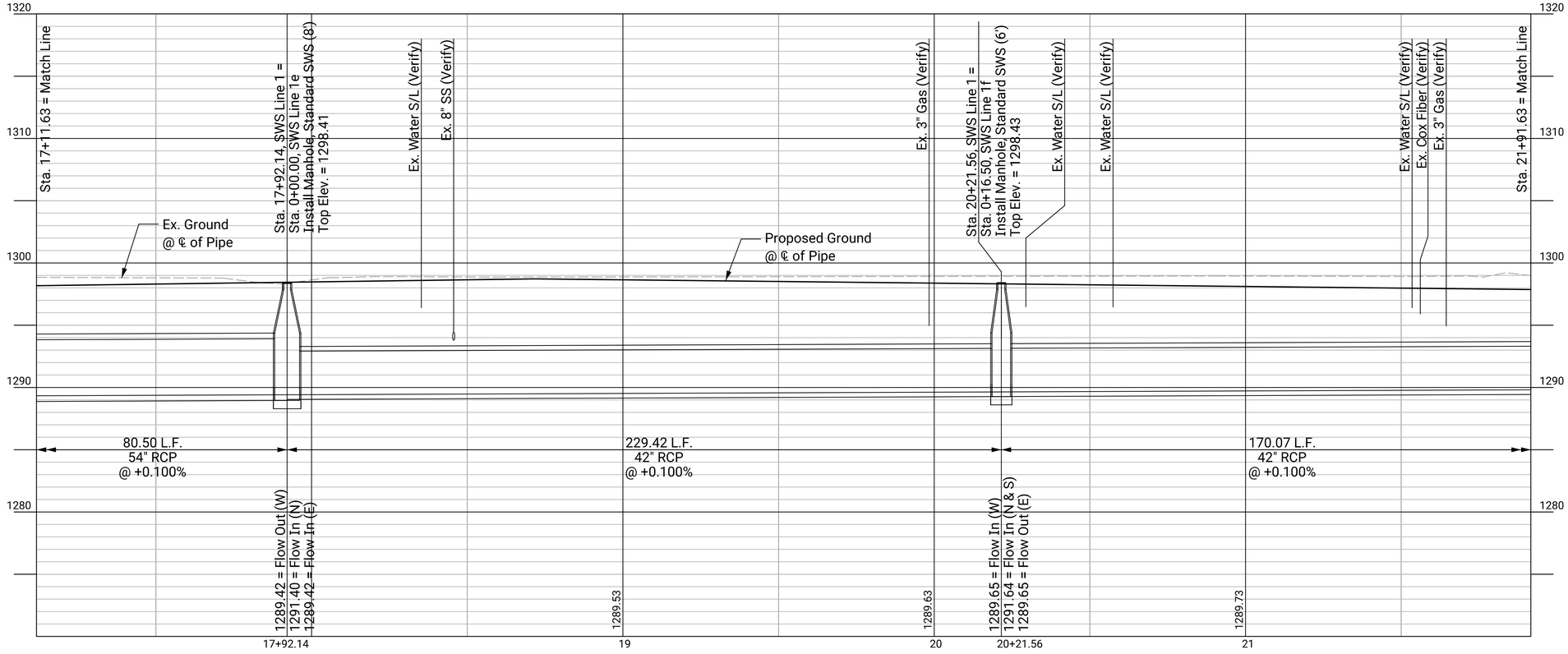
BENCHMARK

BM #4 - Chiseled Square in the Northwest Corner of Gleen & Douglas, at Top of Curb North of a Handicap Ramp. B.L. Sta. Sta. 124+22.71, Off. 49.67' Lt. ELEV. 1298.84 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5' 0



SWS Line 1



DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1

REVISIONS	DESCRIPTION	DATE	NO.

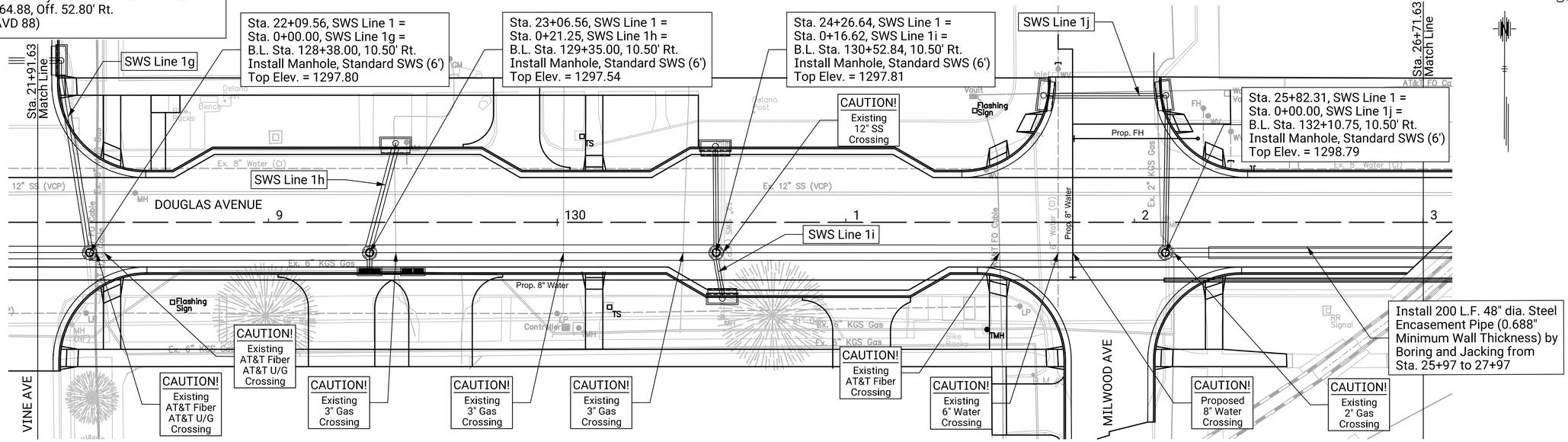
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
47
SHEET 47 OF 180

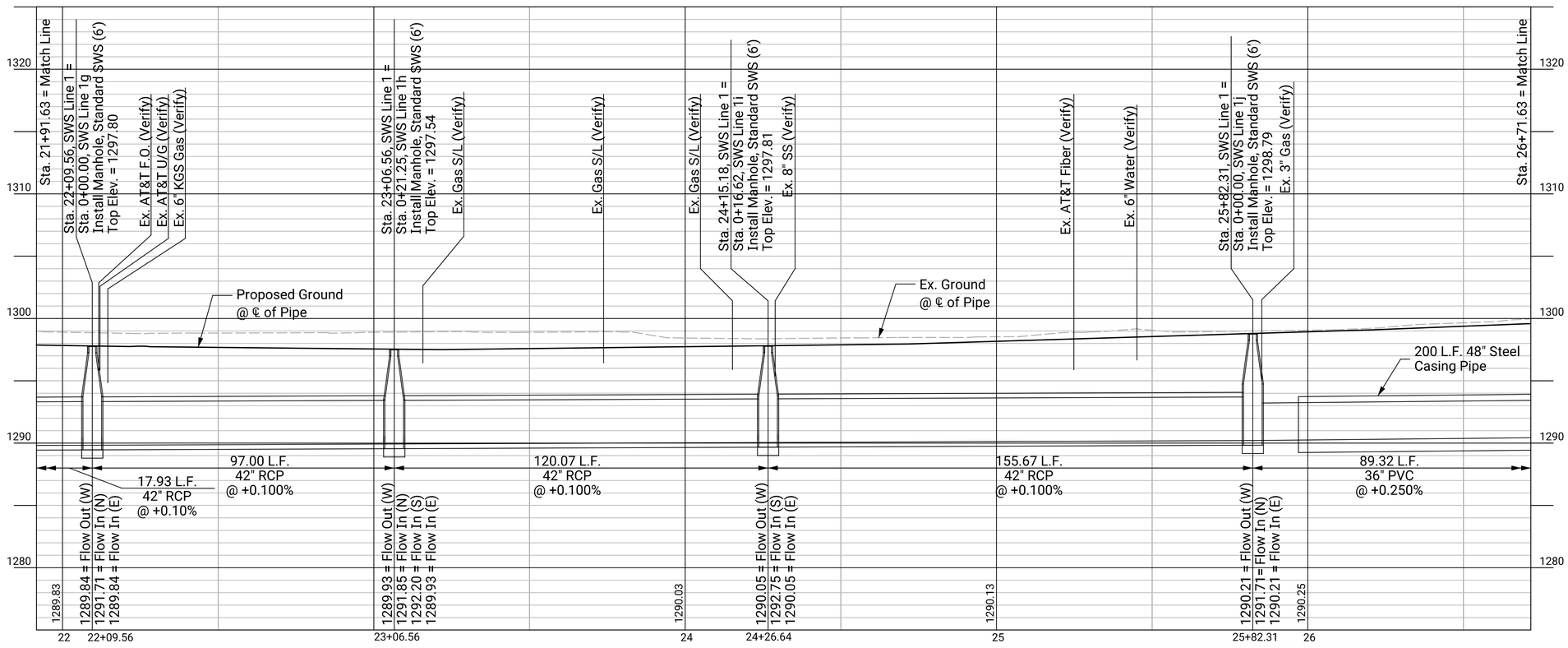
BENCHMARK

BM #3 - Chiseled Square at the Southwest Corner of Millwood & Douglas.In Top of Curb of the North Return of the First Driveway on the West side of Millwood.
B.L. Sta. Sta. 131+64.88, Off. 52.80' Rt.
ELEV. 1299.25 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5' 0



SWS Line 1



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1

NO.	DATE	DESCRIPTION
REVISIONS		

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

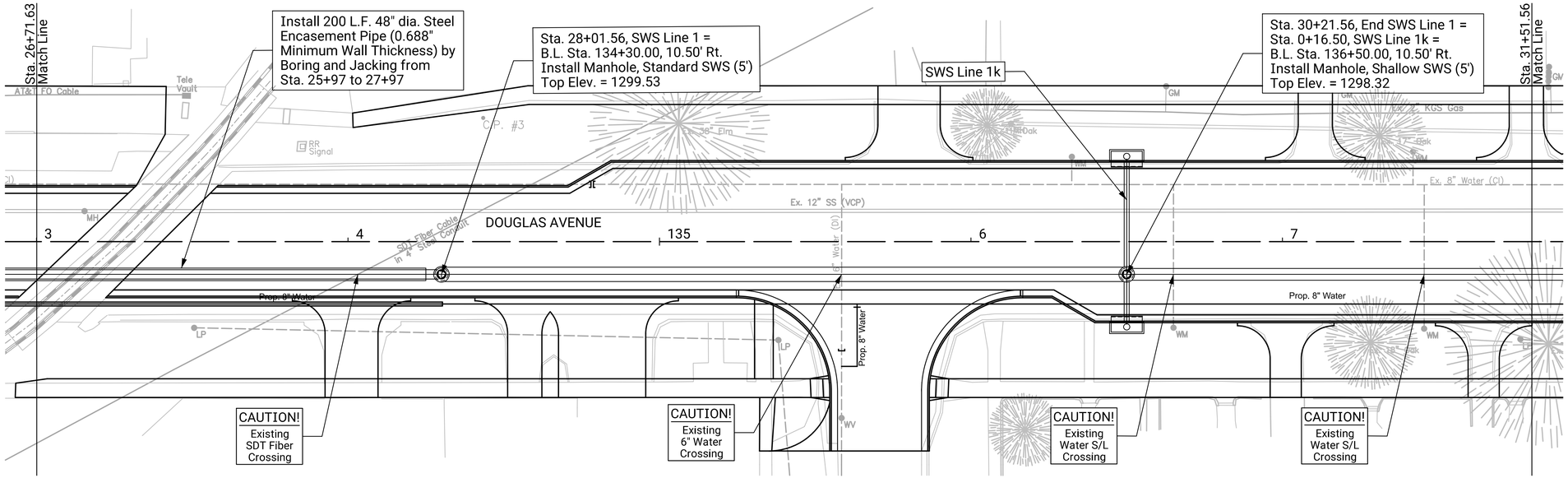
SHEET NO
48
SHEET 48 OF 180

SCALE

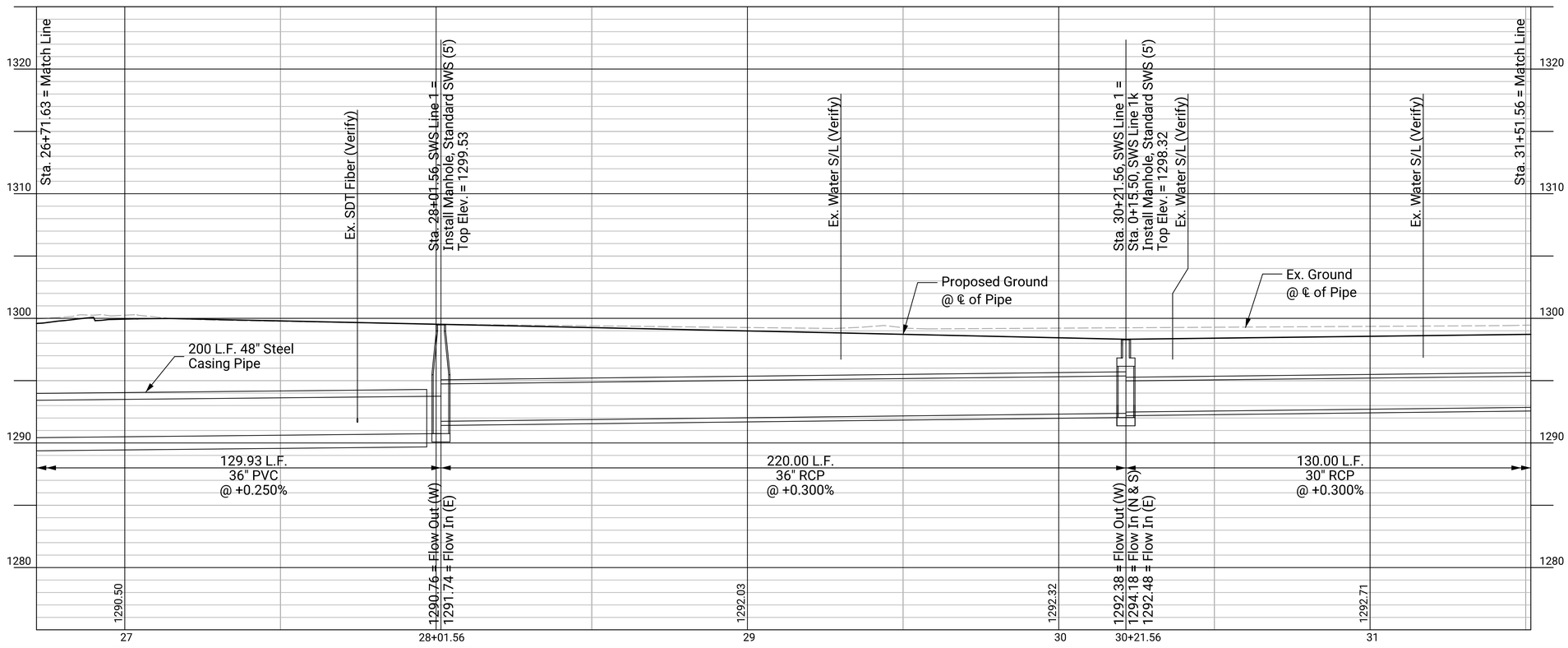
PLAN: Lat. & Long. 20' 0 20' 40'

PROFILE: Horiz. same as above

Vert. 0 5



SWS Line 1



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
SWS PLAN & PROFILE
SWS LINE 1

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

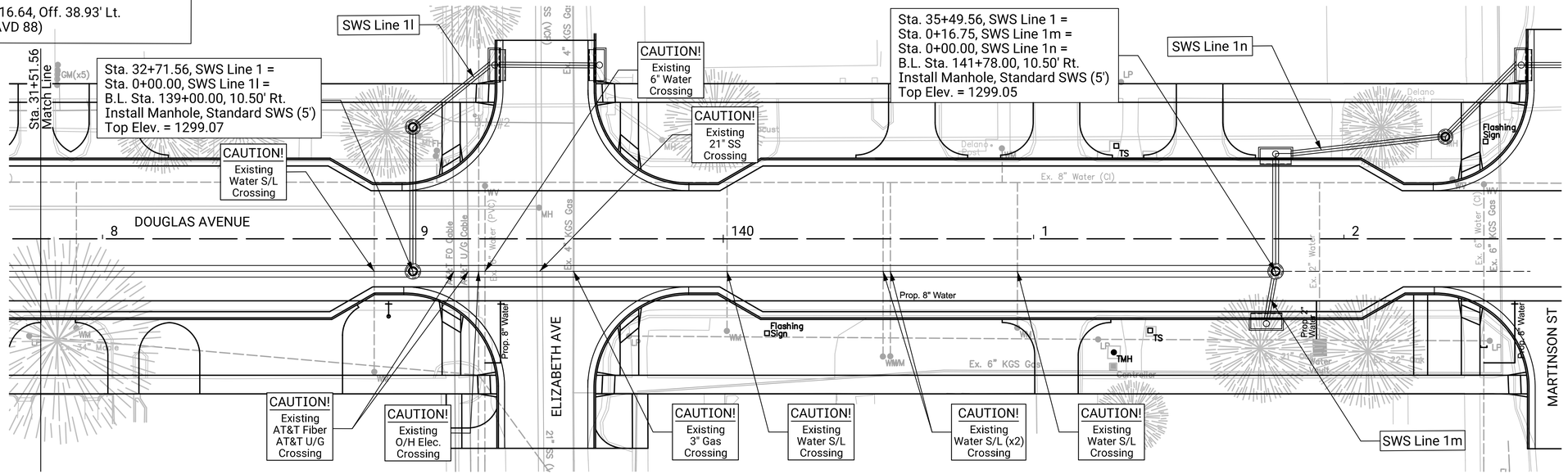
49

SHEET 49 OF 180

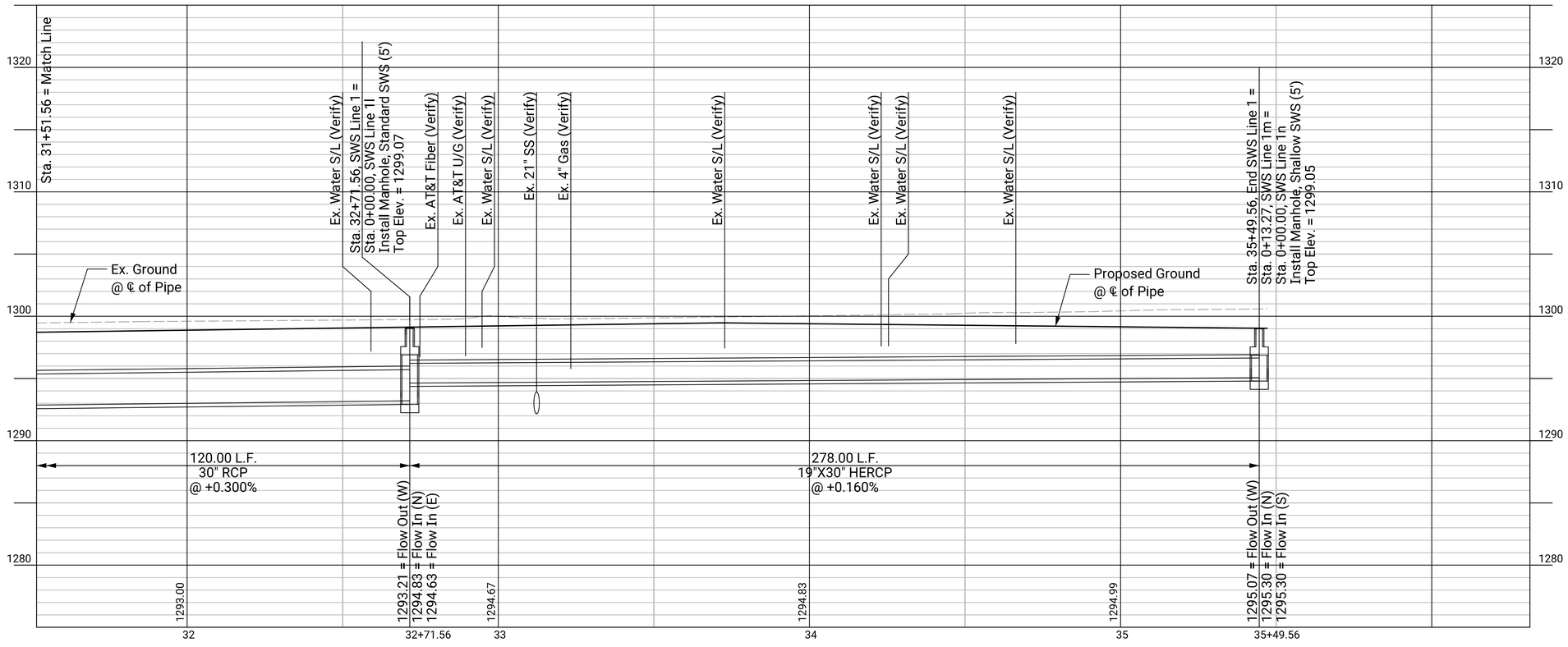
BENCHMARK

BM #2 - Chiseled Square in the Northwest Corner of Elizabeth & Douglas.In the Southwest Corner of an Area Inlet.
B.L. Sta. Sta. 139+16.64, Off. 38.93' Lt.
ELEV. 1299.48 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5' 0



SWS Line 1



DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1

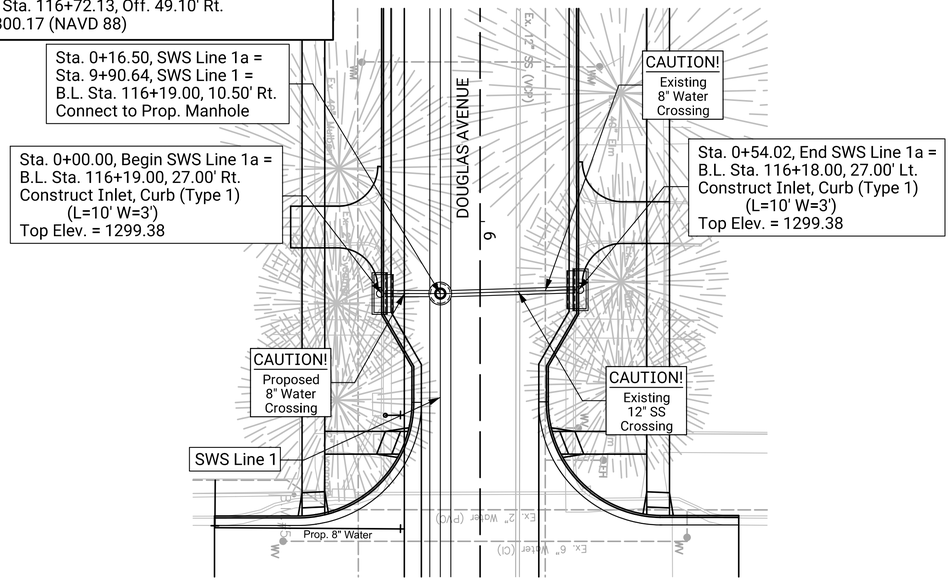
REVISIONS	DESCRIPTION	DATE	NO.

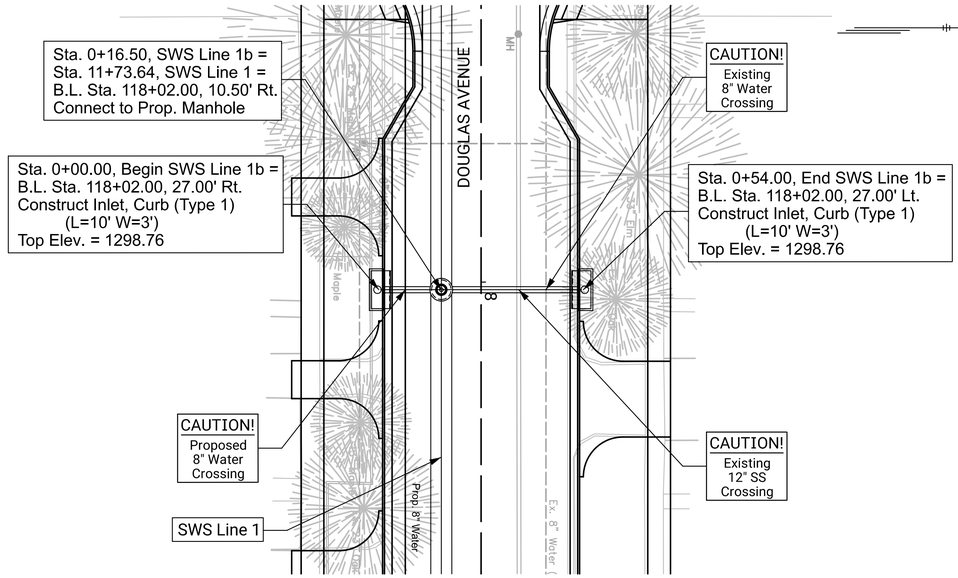
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
50
SHEET 50 OF 180

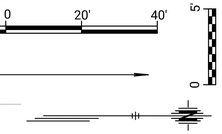
BENCHMARK

BM #5 - Chiseled Square at the Southwest Corner of the Intersection of Clarence & Douglas. At the Point where the Sidewalk & Wheel Chair Ramp Meet.
B.L. Sta. Sta. 116+72.13, Off. 49.10' Rt.
ELEV. 1300.17 (NAVD 88)

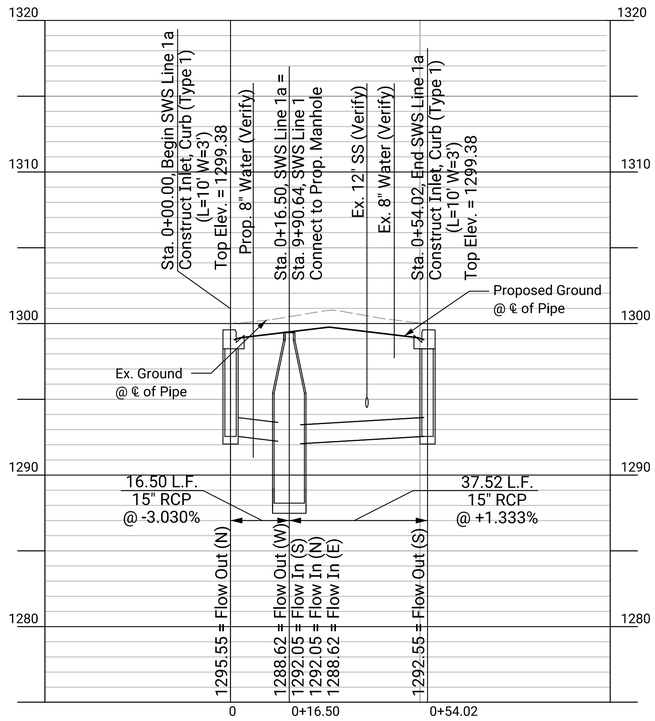




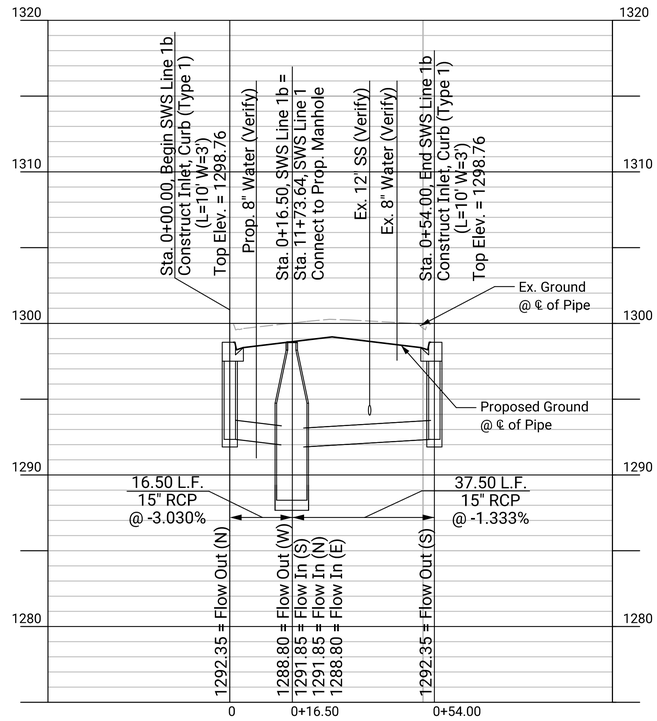
SCALE



SWS Line 1a



SWS Line 1b



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1a & SWS Line 1b

NO.	DATE	DESCRIPTION
REVISIONS		

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

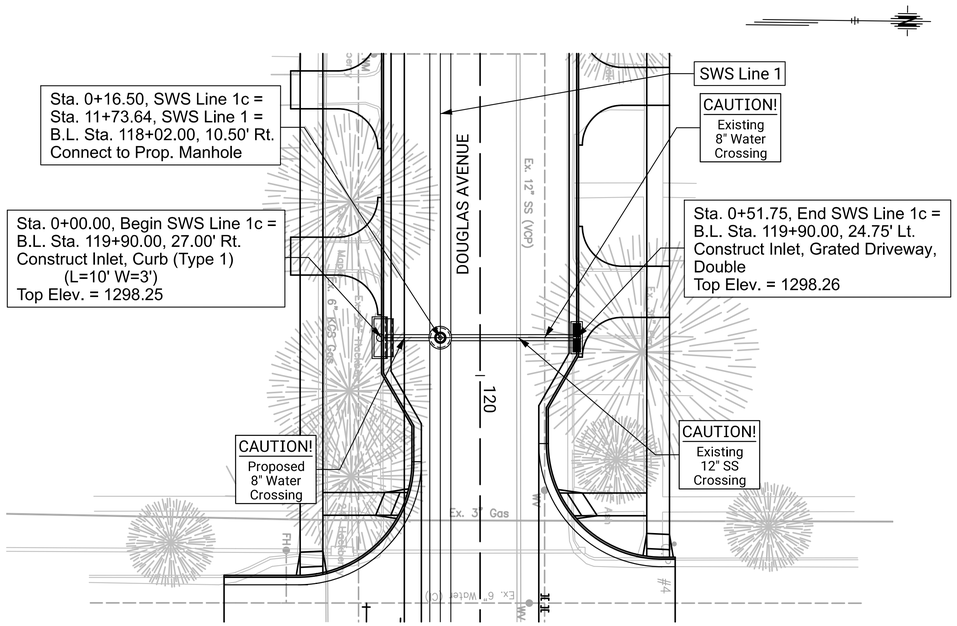
SHEET NO
51
SHEET 51 OF 180

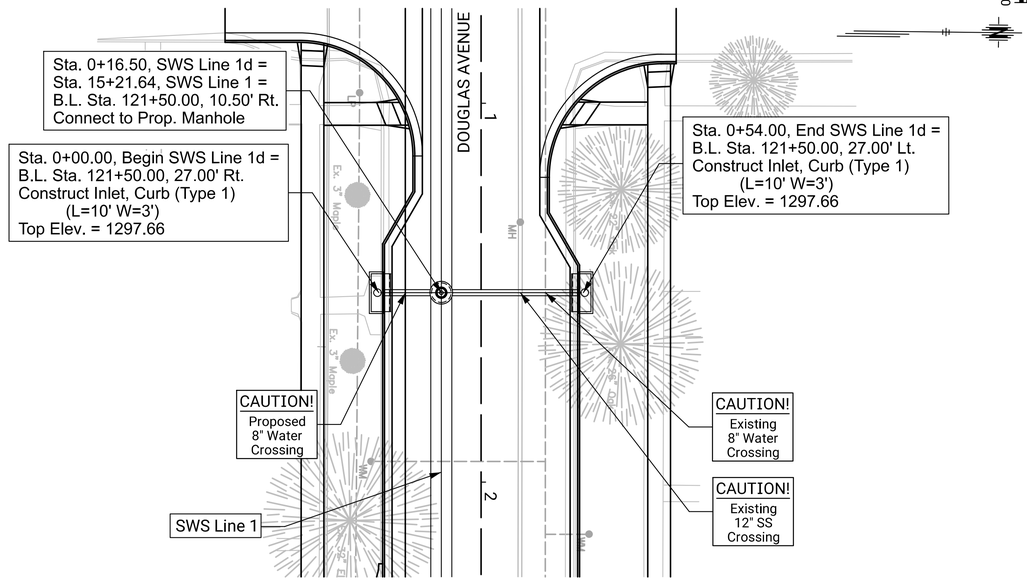
SCALE

PLAN: Lat. & Long. 20' 0 20' 40'

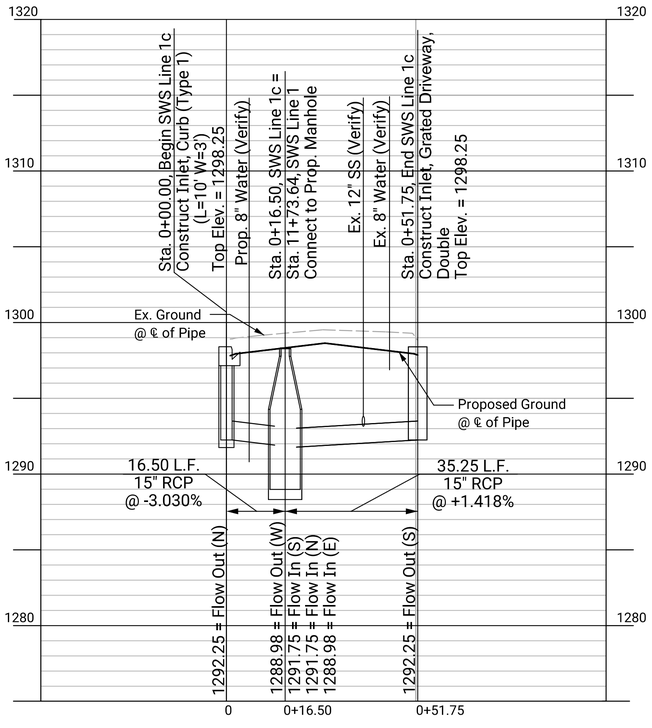
PROFILE: Horiz. same as above

Vert. 5 0

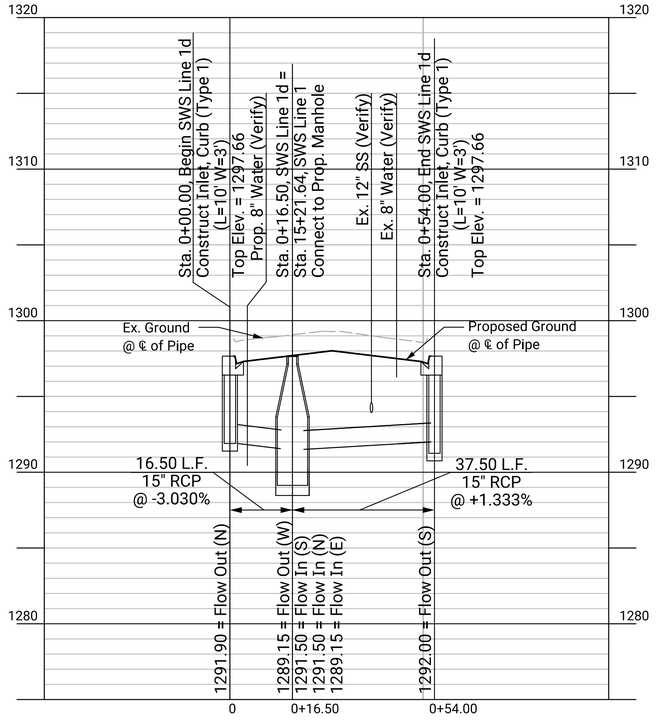




SWS Line 1c



SWS Line 1d



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1c & SWS LINE 1d

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

52

BENCHMARK

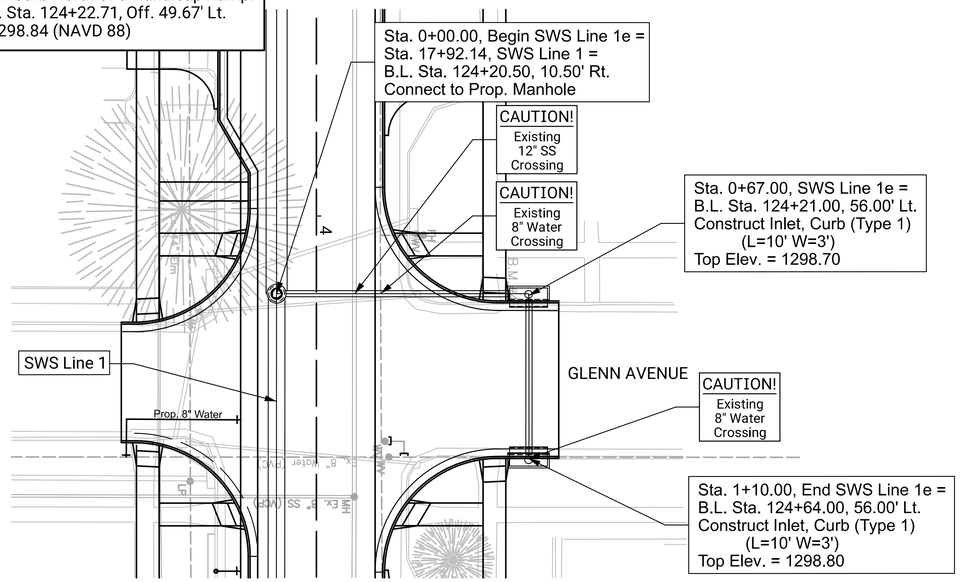
BM #4 - Chiseled Square in the Northwest Corner of Gleen & Douglas, at Top of Curb North of a Handicap Ramp. B.L. Sta. Sta. 124+22.71, Off. 49.67' Lt. ELEV. 1298.84 (NAVD 88)

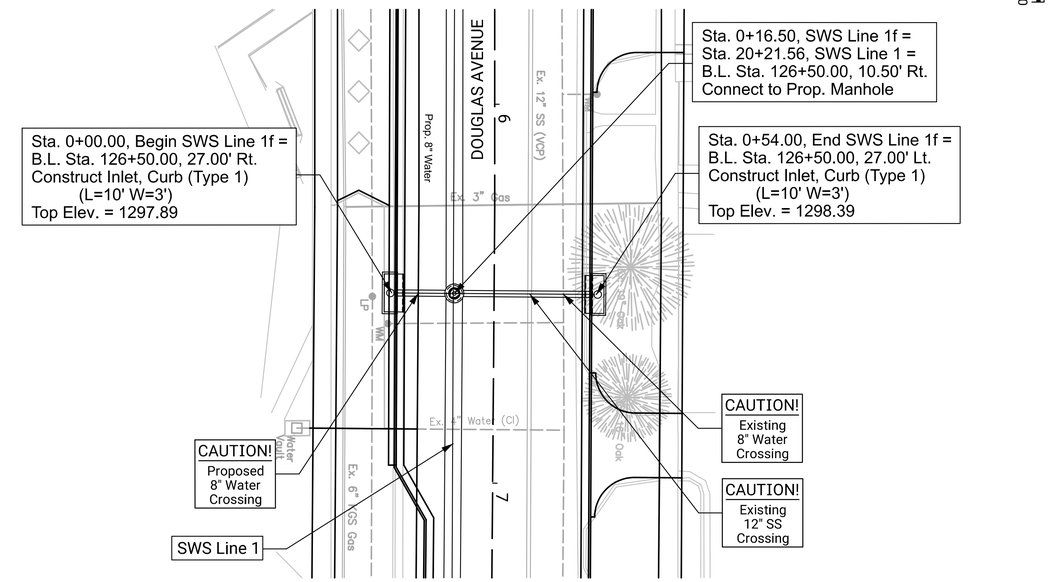
SCALE

PLAN: Lat. & Long. 20' 0 20' 40'

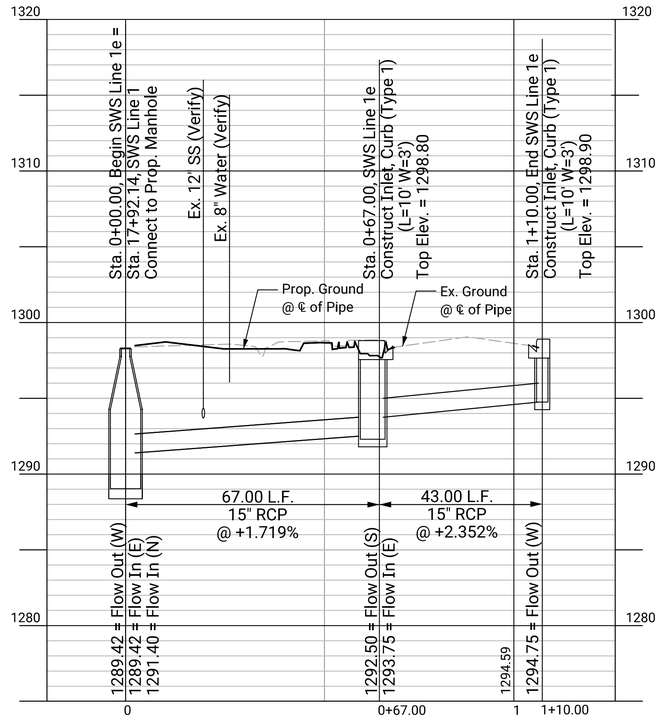
PROFILE: Horiz. same as above

Vert. 0 5'

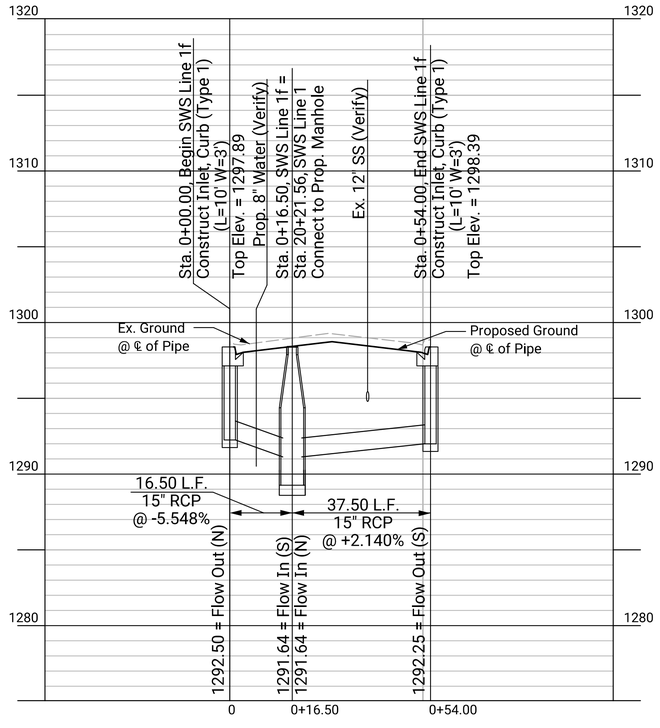




SWS Line 1e



SWS Line 1f



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1e & SWS LINE 1f

NO.	DATE	REVISIONS	DESCRIPTION

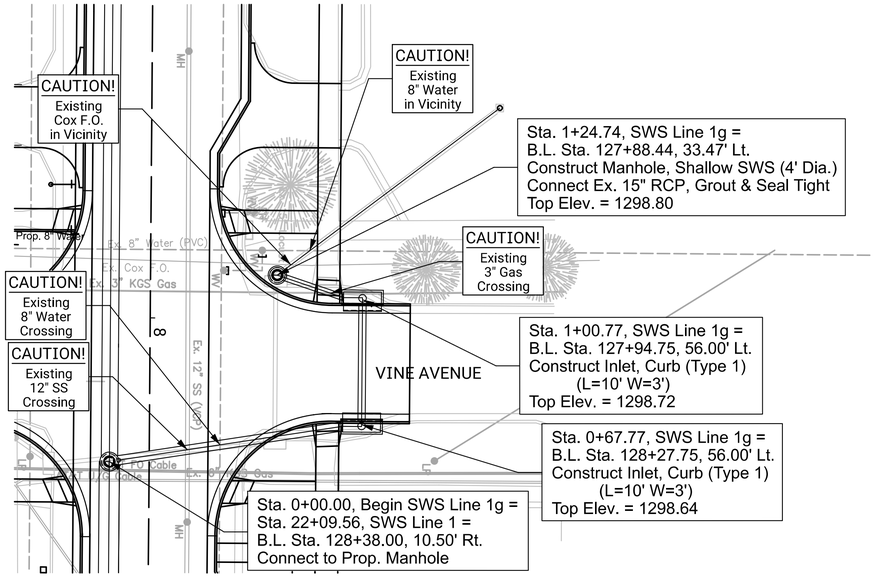
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

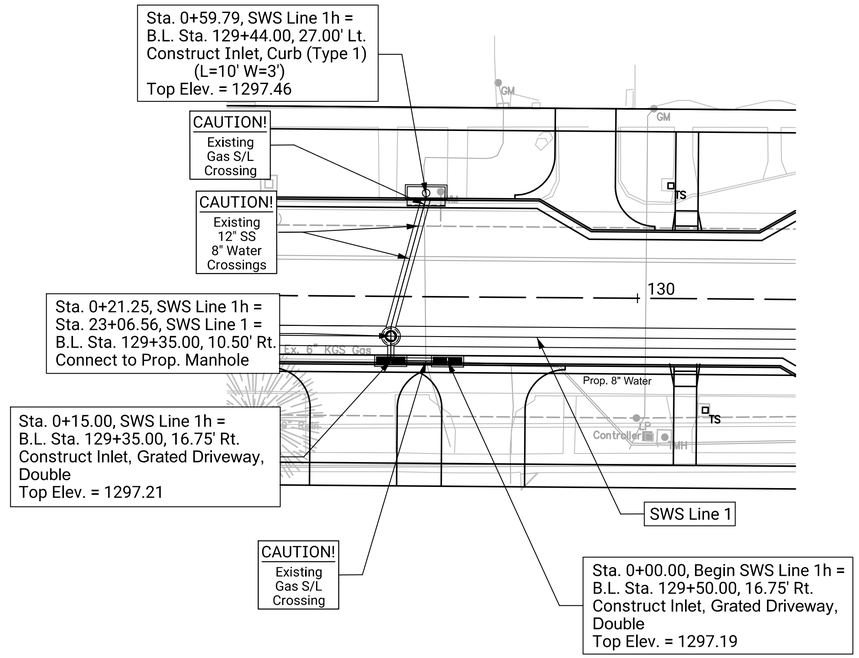
53

SHEET 53 OF 180

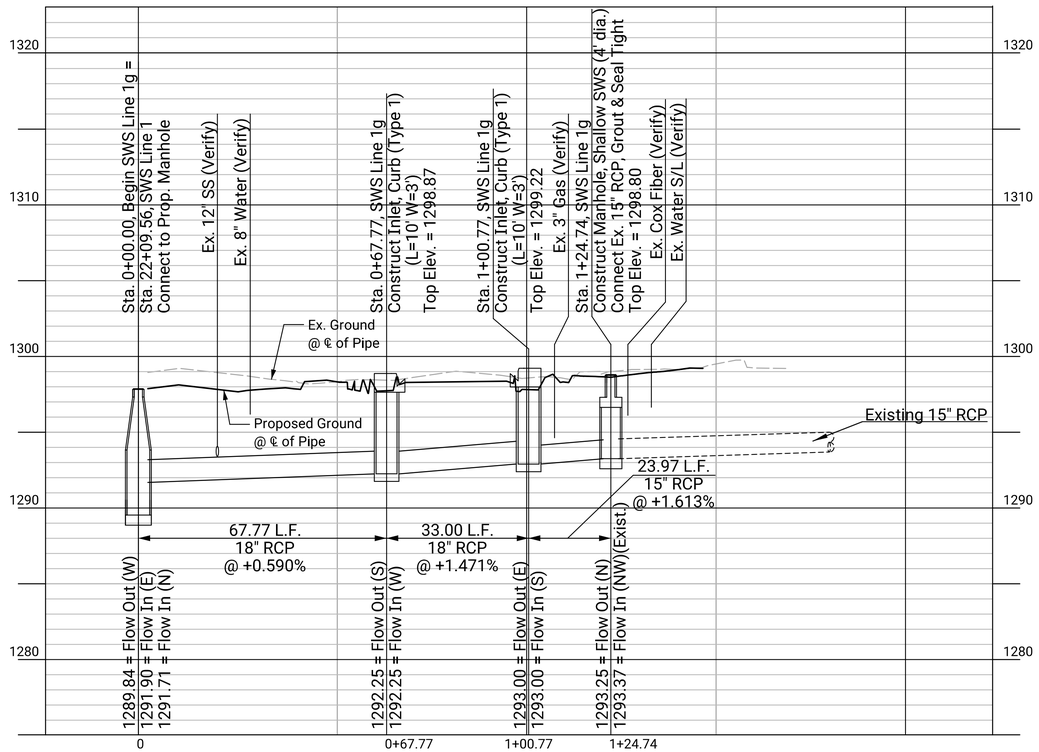
SCALE
20' 0 20' 40'
PLAN: Lat. & Long.

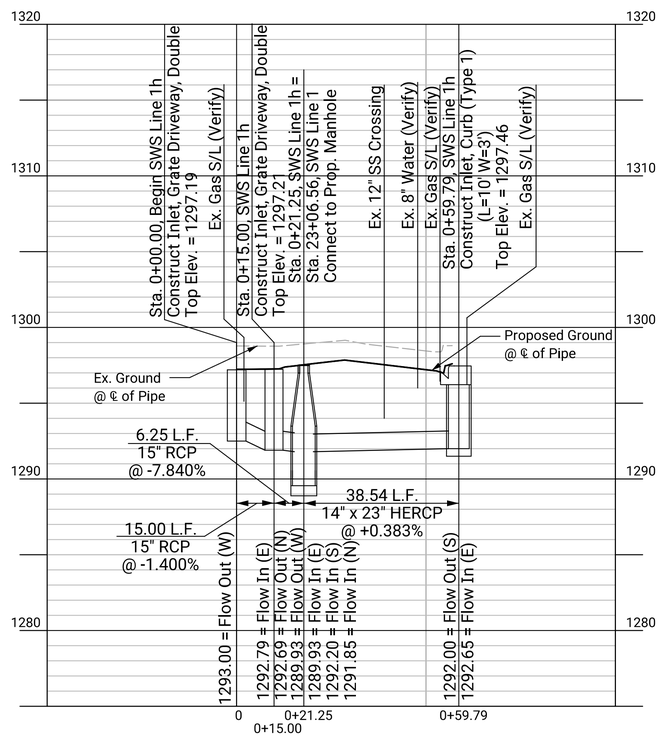


SWS Line 1g



SWS Line 1h





SWS Line 1h

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1g & SWS Line 1h

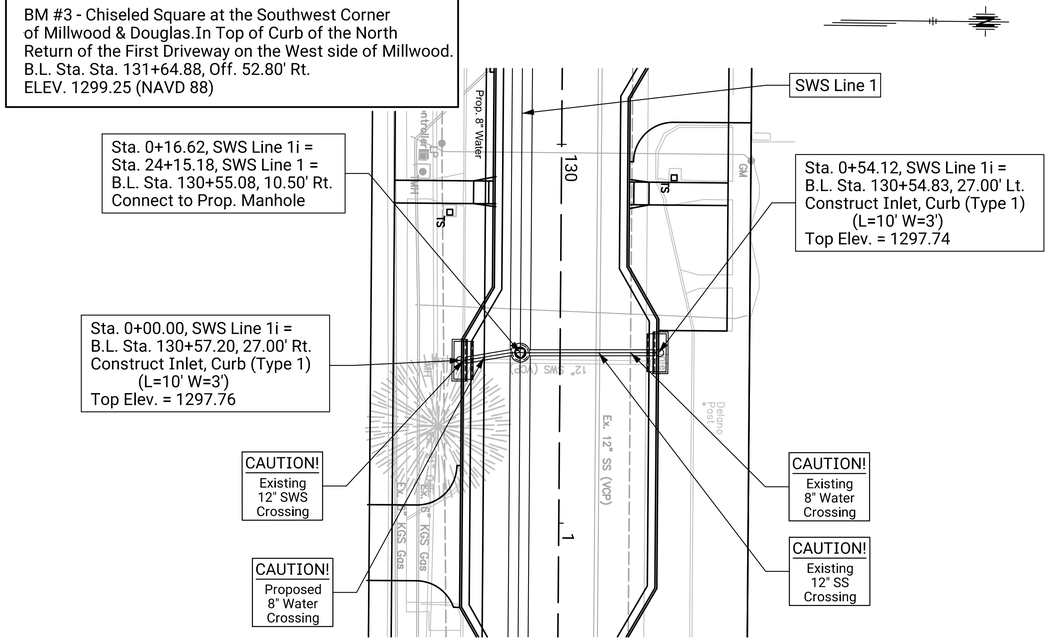
NO.	DATE	REVISIONS	DESCRIPTION

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

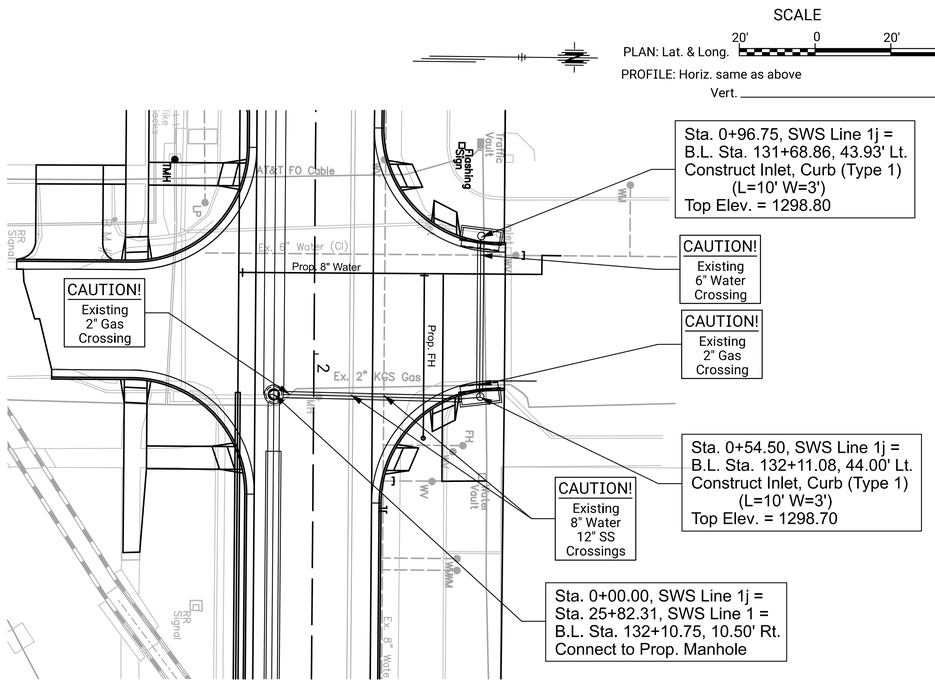
SHEET NO
54
SHEET 54 OF 180

BENCHMARK

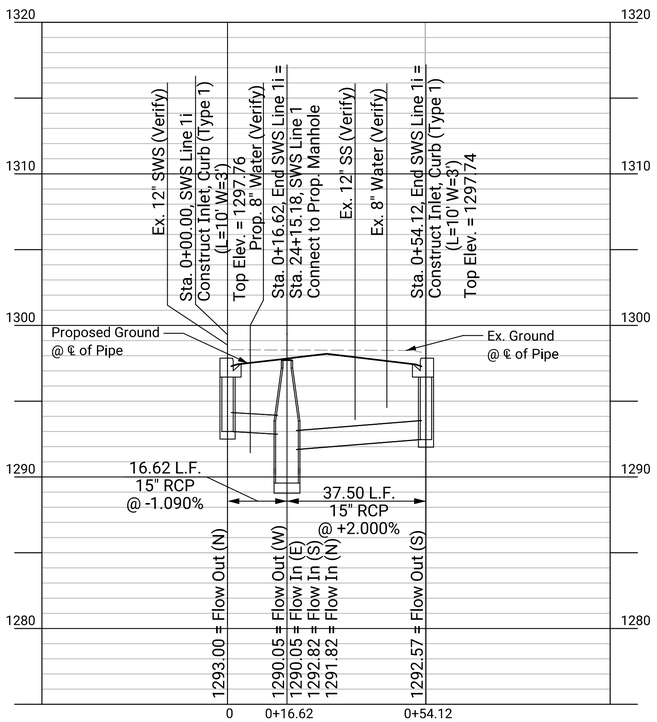
BM #3 - Chiseled Square at the Southwest Corner of Millwood & Douglas.In Top of Curb of the North Return of the First Driveway on the West side of Millwood.
B.L. Sta. Sta. 131+64.88, Off. 52.80' Rt.
ELEV. 1299.25 (NAVD 88)



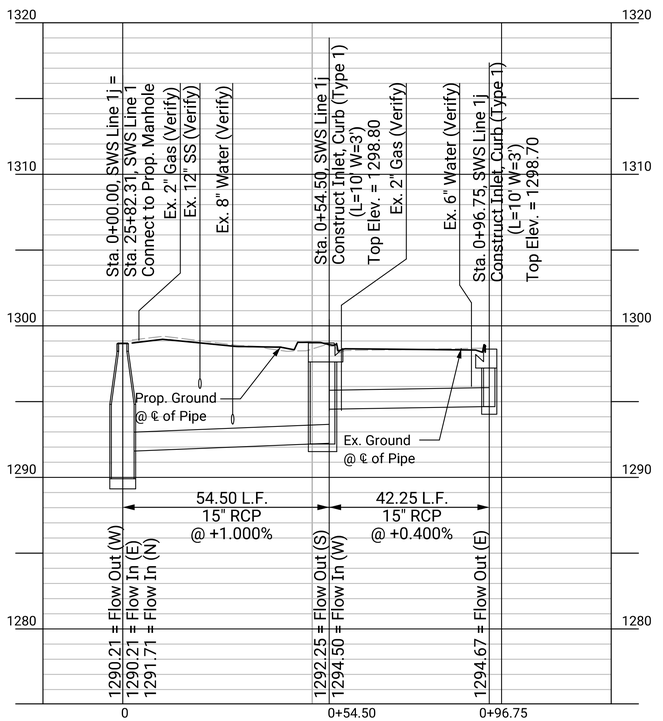
SWS Line 1i



SWS Line 1j



SWS Line 1i



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE SWS LINE 1i & SWS LINE 1j

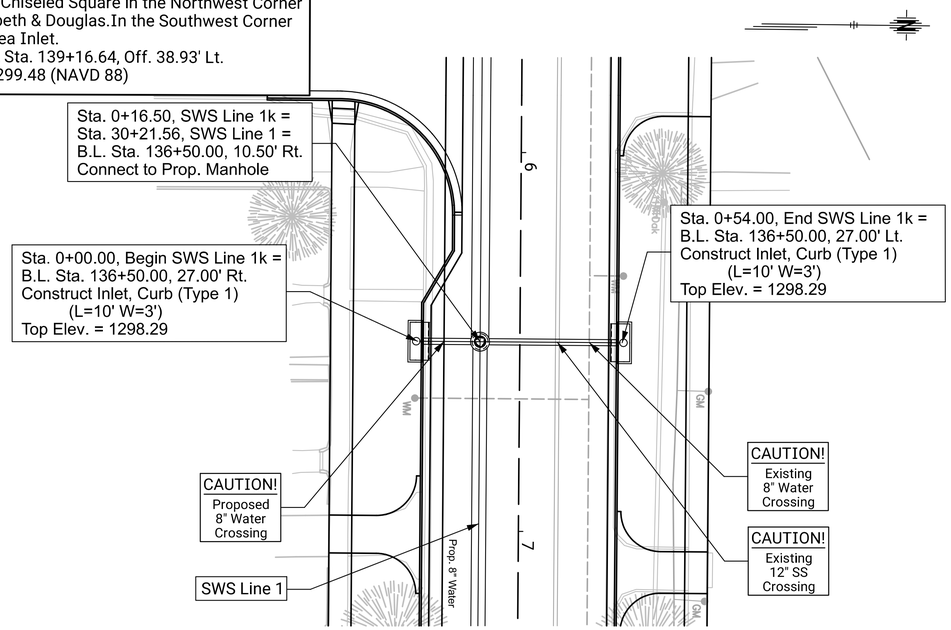
REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
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SHEET 55 OF 180

BENCHMARK

BM #2 - Chiseled Square in the Northwest Corner of Elizabeth & Douglas.In the Southwest Corner of an Area Inlet.
B.L. Sta. Sta. 139+16.64, Off. 38.93' Lt.
ELEV. 1299.48 (NAVD 88)

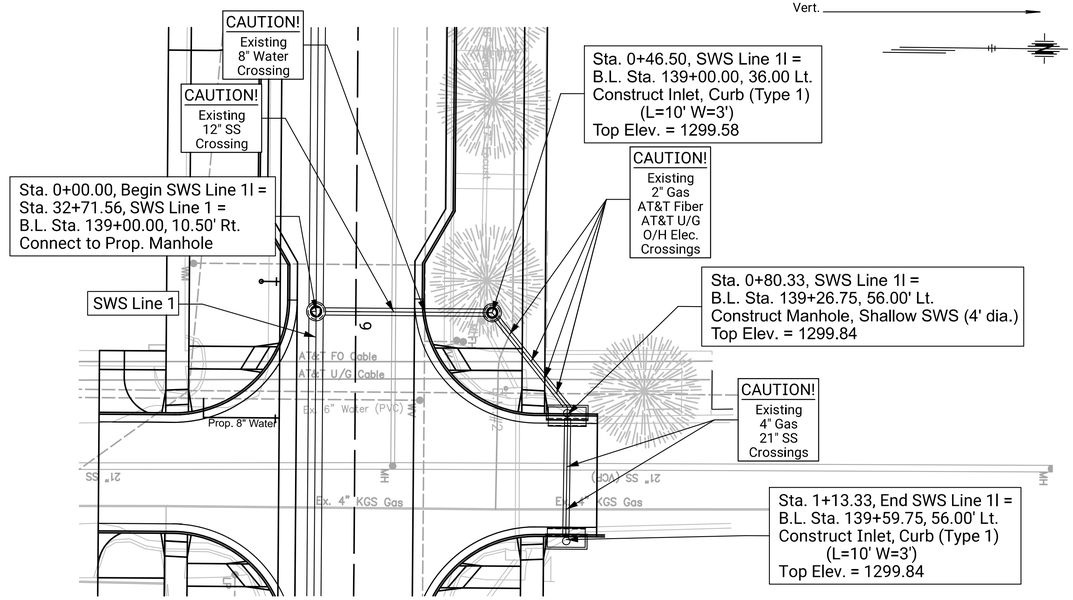


SCALE

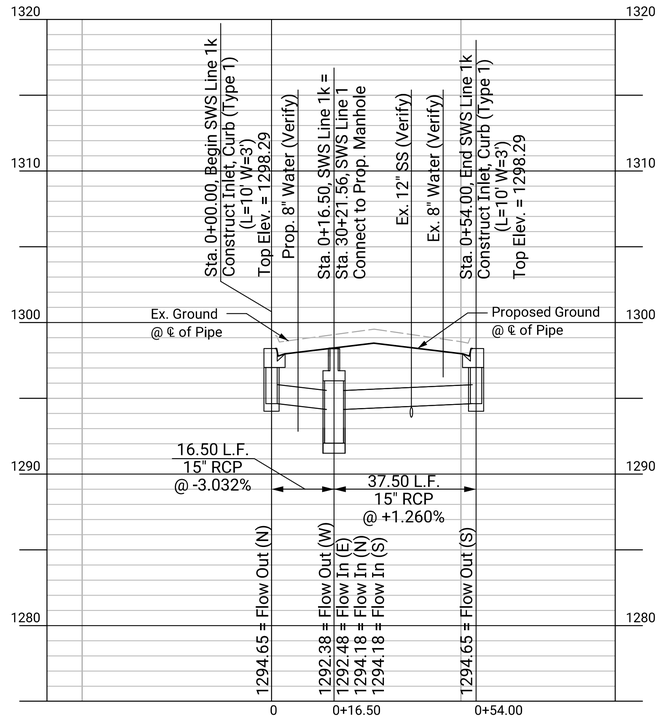
PLAN: Lat. & Long. 20' 0 20' 40'

PROFILE: Horiz. same as above

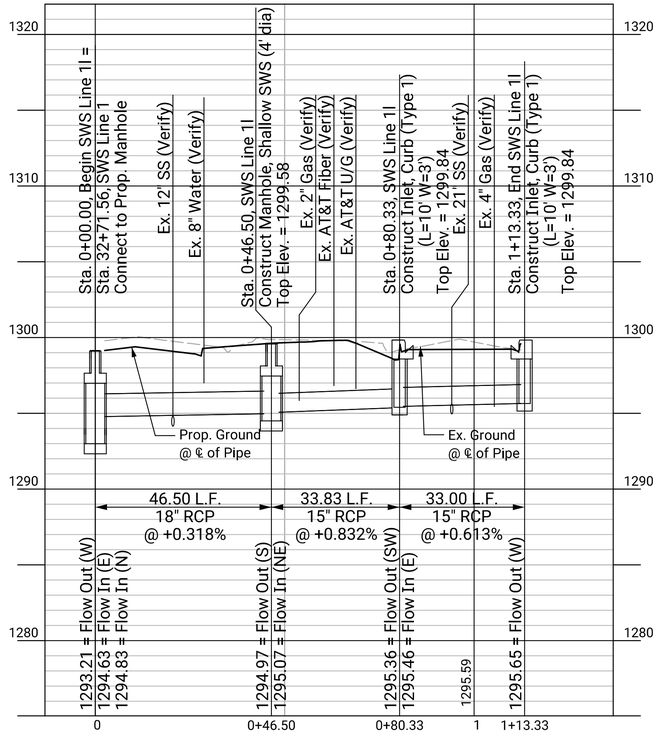
Vert. 5 0



SWS Line 1k



SWS Line 1l



CITY OF WICHITA

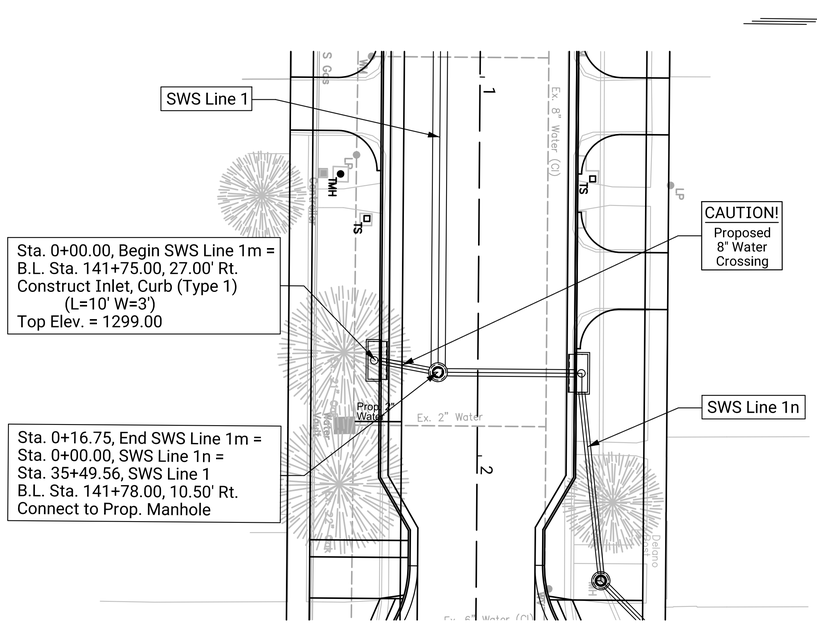
wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
SWS PLAN & PROFILE
SWS LINE 1k & SWS LINE 1l

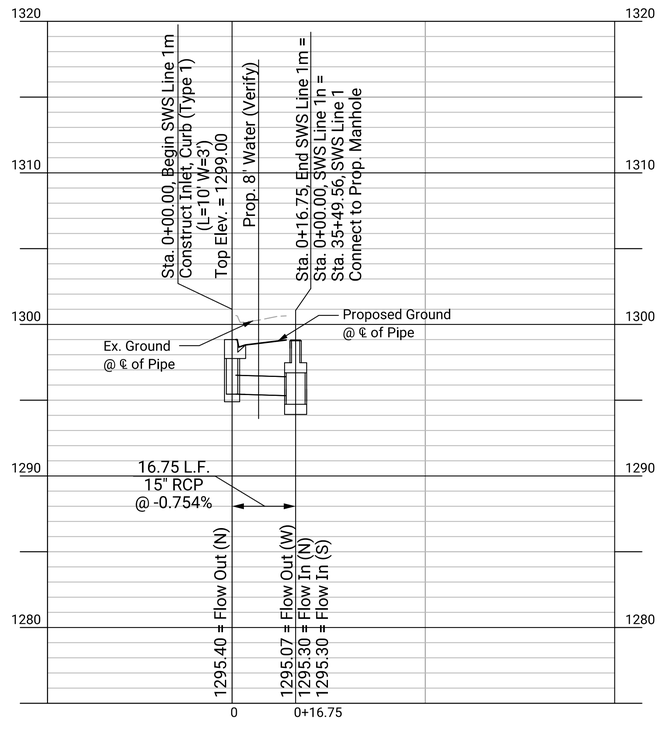
REVISIONS	DESCRIPTION	DATE	NO.

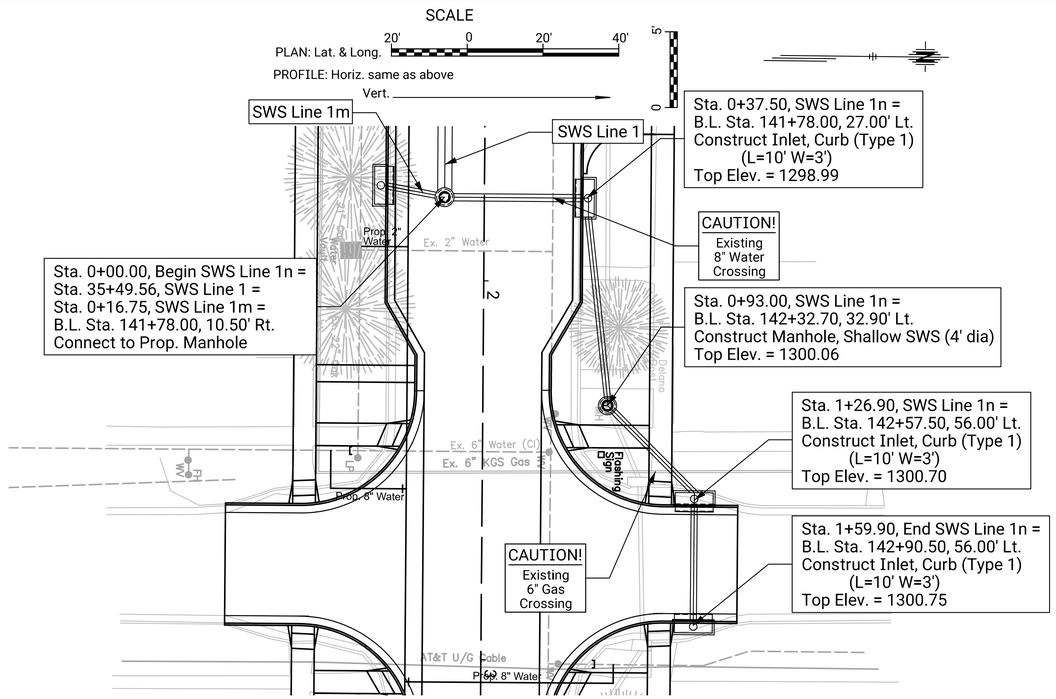
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
56
SHEET 56 OF 180

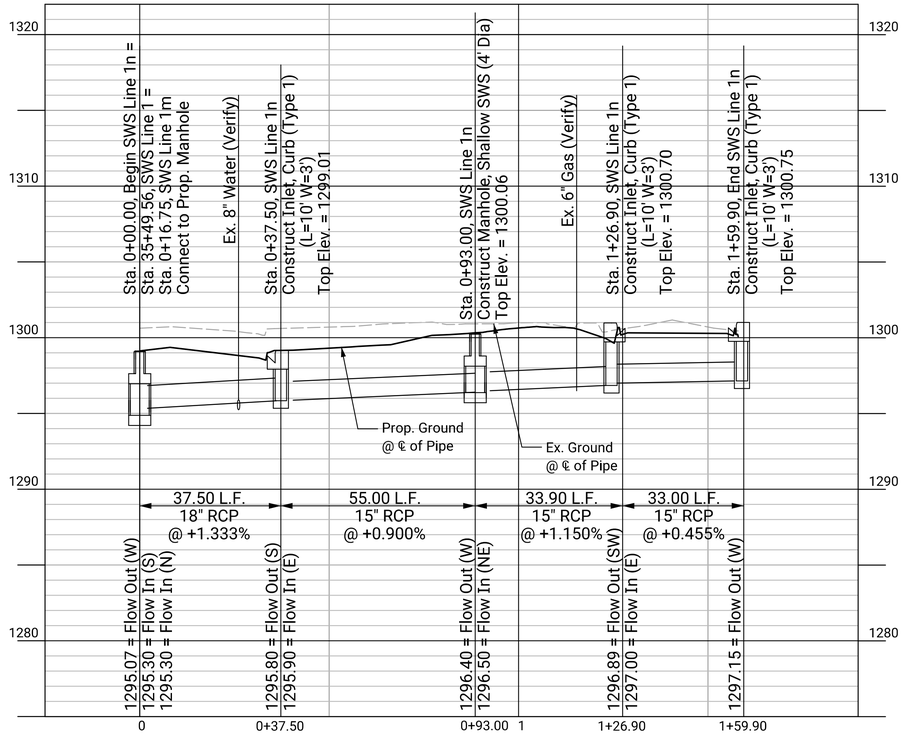


SWS Line 1m





SWS Line 1n



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1m & SWS LINE 1n

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
57
SHEET 57 OF 180

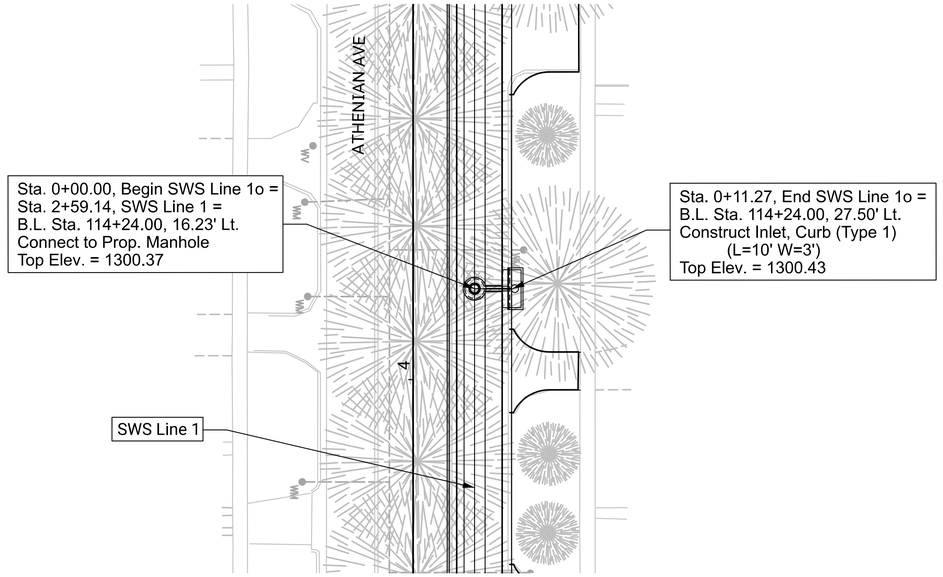
SCALE

20' 0 20' 40'

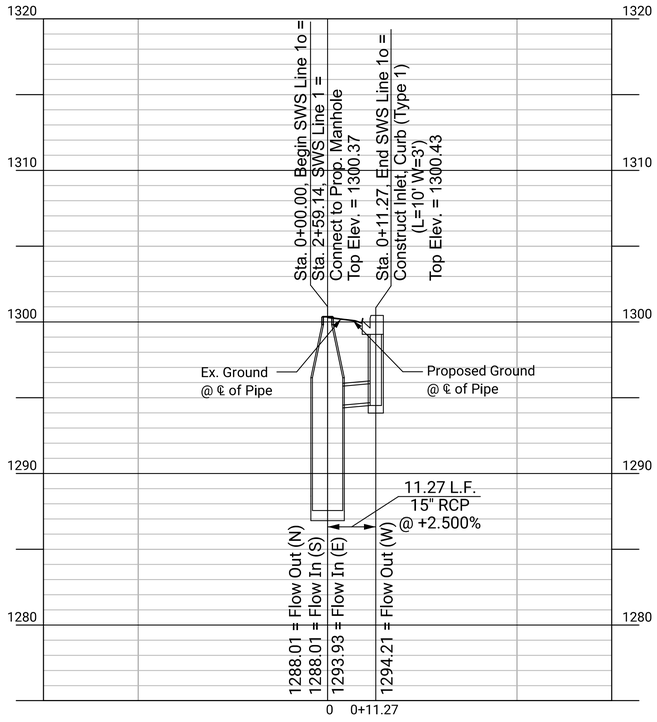
PLAN: Lat. & Long.

PROFILE: Horiz. same as above

Vert. 5' 0



SWS Line 1o



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 1o

NO.	DATE	REVISIONS	DESCRIPTION

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

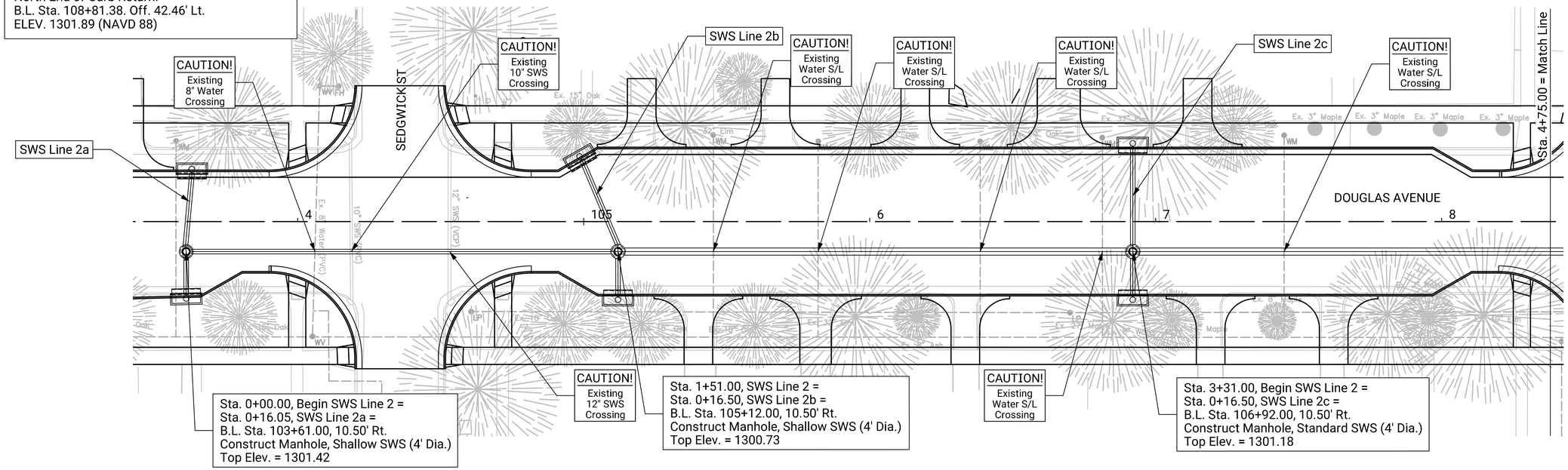
58

SHEET 58 OF 180

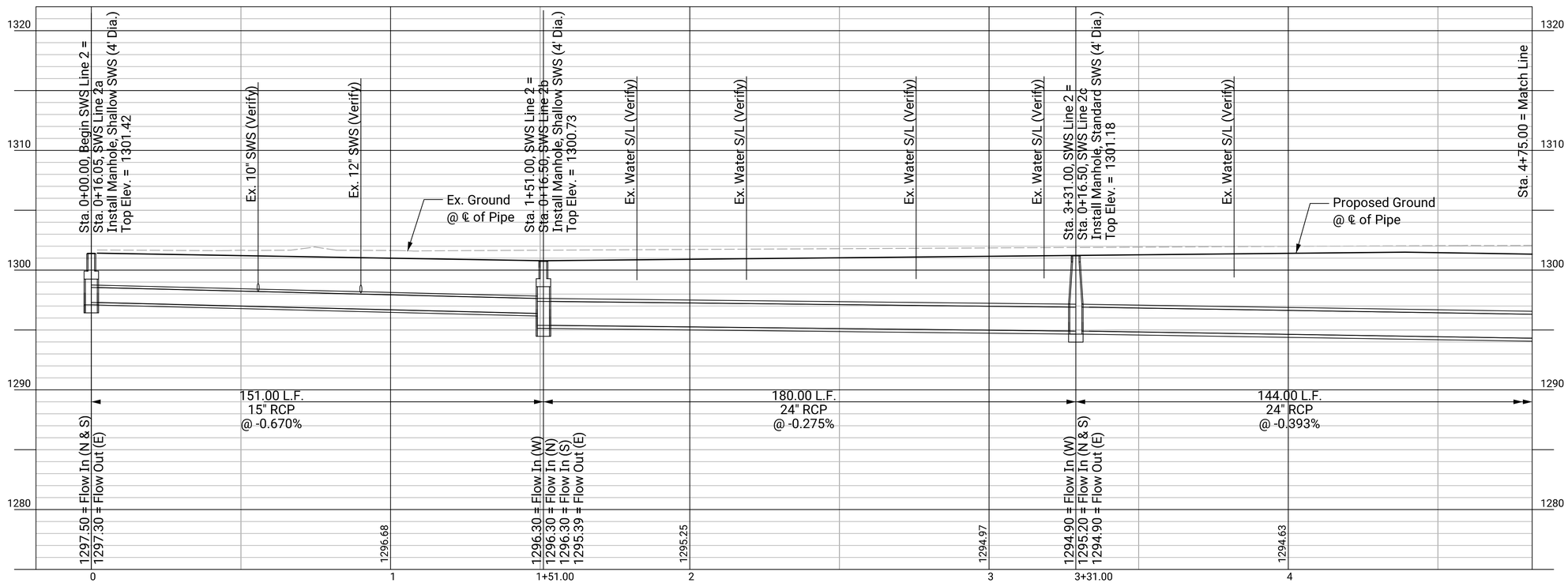
BENCHMARK

BM #6 - Chiseled Square at the Northeast Corner of the Intersection of St Clair & Douglas on the North End of Curb Return.
B.L. Sta. 108+81.38. Off. 42.46' Lt.
ELEV. 1301.89 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0



SWS Line 2



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 2

REVISIONS	DESCRIPTION	DATE	NO.

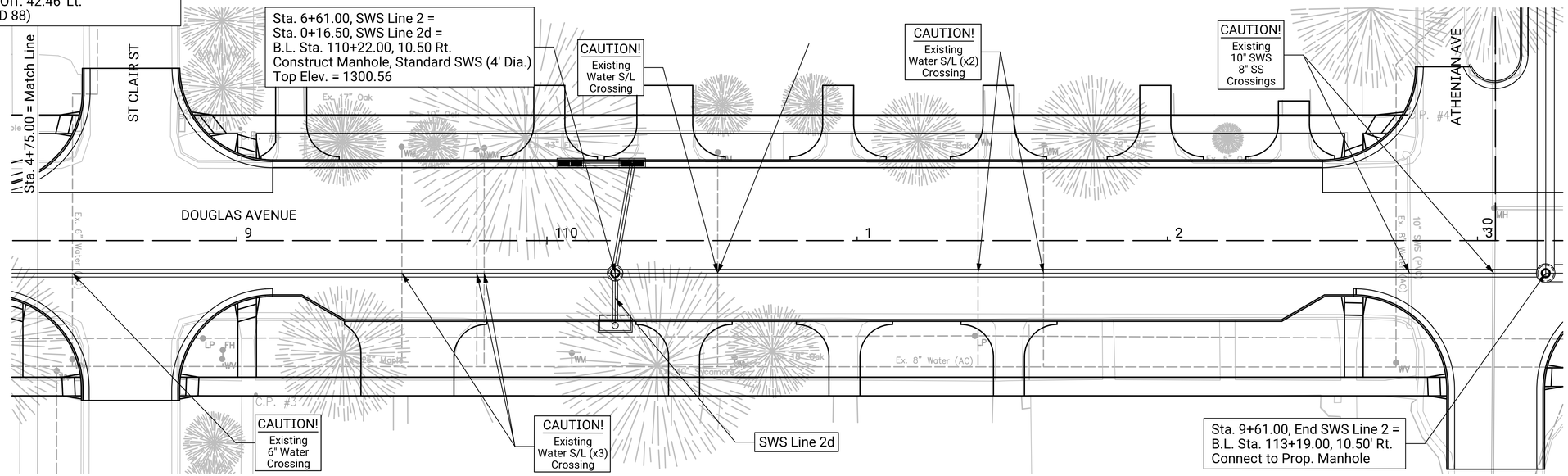
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
59
SHEET 59 OF 180

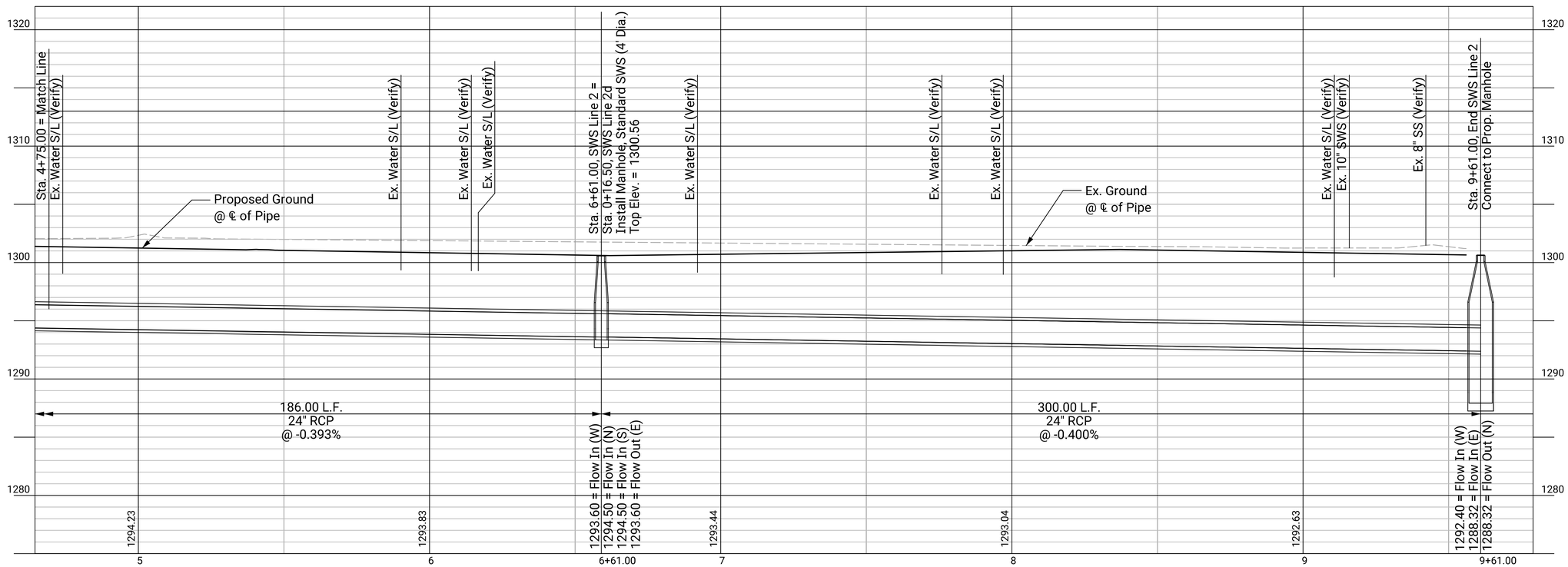
BENCHMARK

BM #6 - Chiseled Square at the Northwest Corner of the Intersection of St Clair & Douglas on the North End of Curb Return.
B.L. Sta. 108+81.38, Off. 42.46' Lt.
ELEV. 1300.89 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 0 5



SWS Line 2



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 2

NO.	DATE	REVISIONS	DESCRIPTION

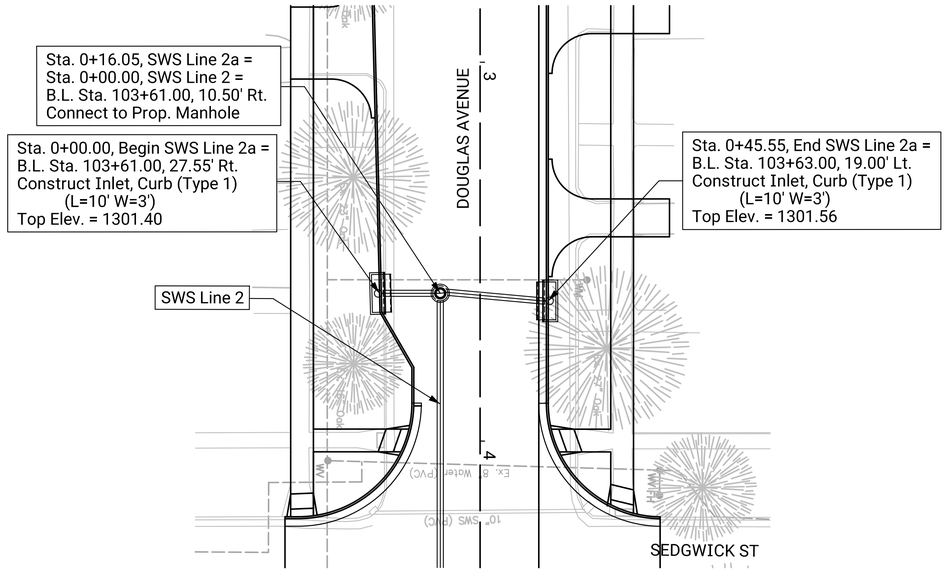
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

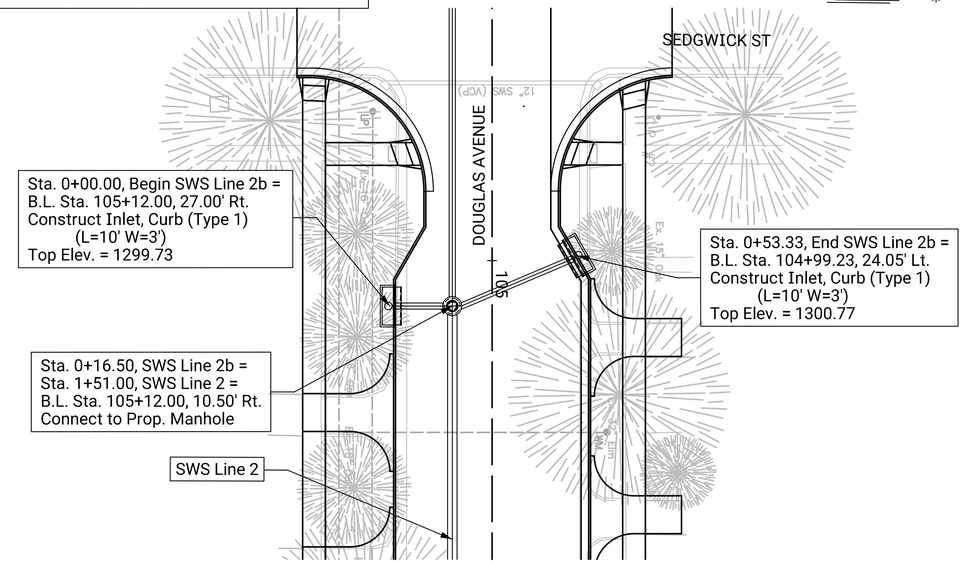
SHEET NO
60
SHEET 60 OF 180

BENCHMARK

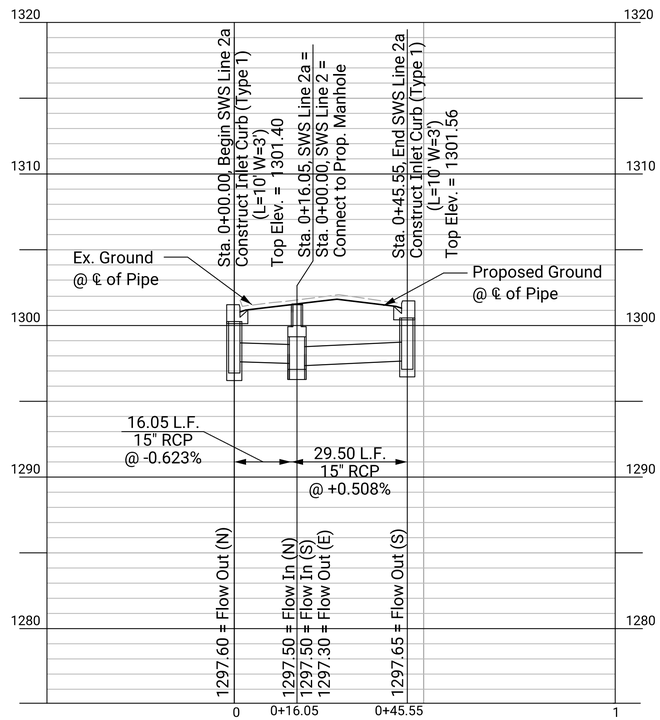
BM #7 - Chiseled Square at the Northwest Corner of Meridian & Douglas at the 90 of a Parking Lot Curb.
B.L. Sta. 99+69.65, Off. 27.67' Lt.
ELEV. 1303.67 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0

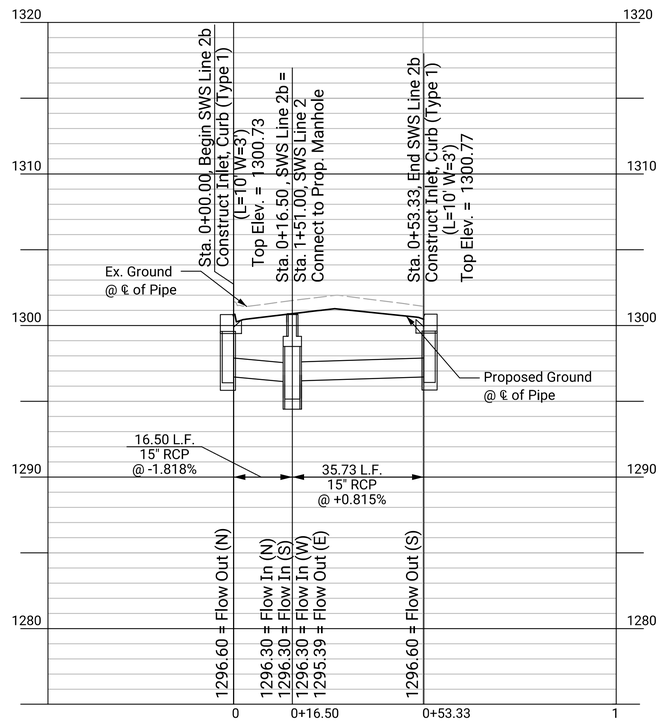




SWS Line 2a



SWS Line 2b



CITY OF WICHITA

wsp

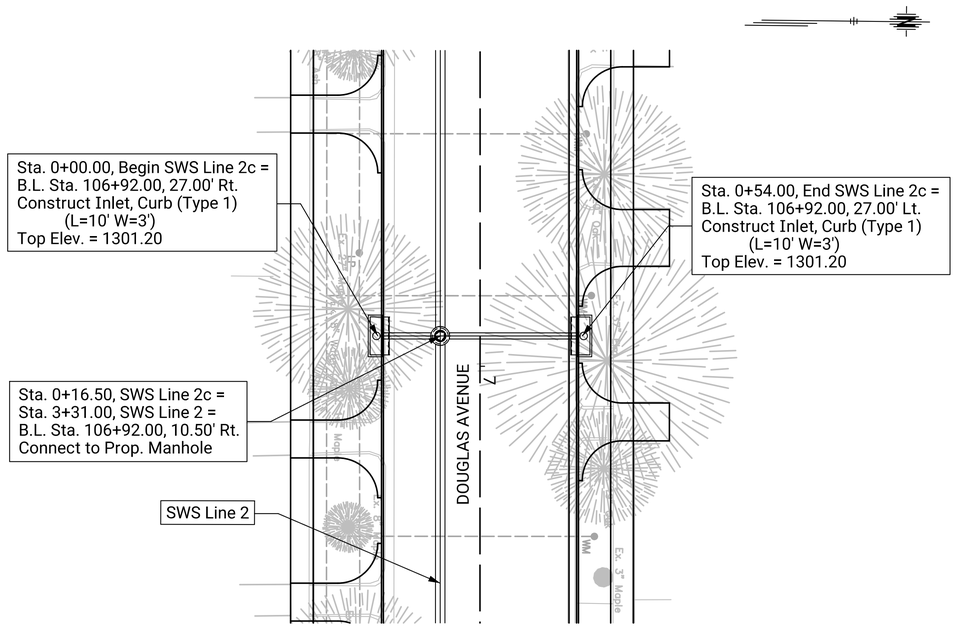
DOUGLAS AVENUE - MERIDIAN TO SENECA

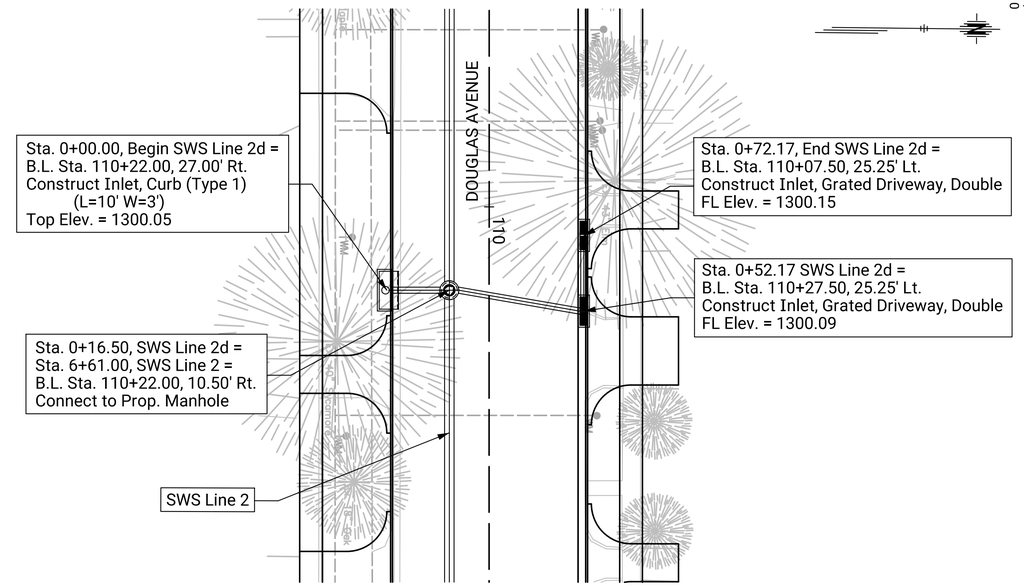
SWS PLAN & PROFILE
SWS LINE 2a & SWS LINE 2b

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
61
SHEET 61 OF 180





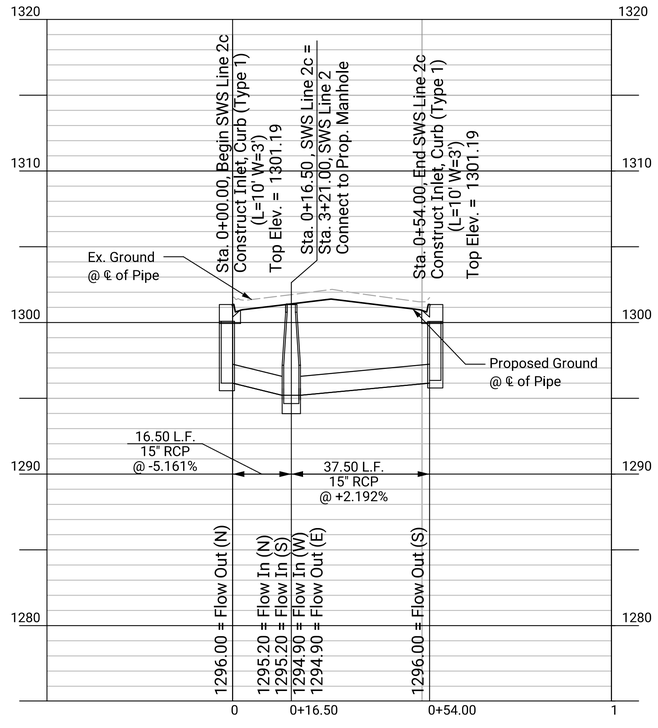
SCALE

PLAN: Lat. & Long. 20' 0 20' 40'

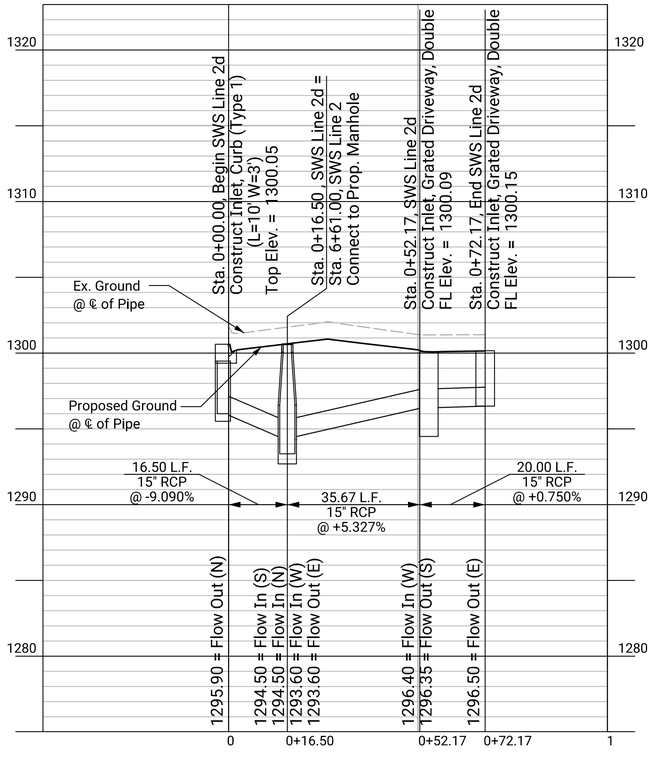
PROFILE: Horiz. same as above

Vert. 5' 0

SWS Line 2c



SWS Line 2d



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 2c & SWS LINE 2d

NO.	DATE	REVISIONS	DESCRIPTION

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
62
SHEET 62 OF 180

BENCHMARK

BM #1 - Chiseled Square in the Southwest Corner of Exposition & Douglas South of a Handicap Ramp and at the Beginning of a Curb Return.
B.L. Sta. Sta. 145+83.52, Off. 50.46 Rt.
ELEV. 1300.42 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0

Sta. 0+00.00, Begin SWS Line 3 =
Sta. 0+39.13, SWS Line Line 3a =
B.L. Sta. 145+25.00, 19.50' Lt.
Connect to Proposed Inlet

SWS Line 3b

CAUTION! Existing 6" Water 8" Water 48" Water Crossings

EXPOSITION AVE

Sta. 1+02.31, SWS Line 3 =
Sta. 0+00.00, SWS Line 3b =
B.L. Sta. 146+26.50, 32.00' Lt.
Construct Manhole, Shallow SWS (4' Dia.)
Top Elev. = 1299.88

Sta. 3+48.81, SWS Line 3 =
Sta. 0+52.74, SWS Line 3c =
B.L. Sta. 148+73.00, 31.85' Lt.
Construct Inlet, Curb (Type 1)
(L=10' W=3')
Top Elev. = 1299.40

CAUTION! Existing 6" Water O/H Elec. Crossings

DODGE AVE

SWS Line 3e

Sta. 4+27.35, End SWS Line 3 =
Sta. 0+84.50, SWS Line 3d =
Sta. 0+00.00, SWS Line 3e =
B.L. Sta. 149+51.50, 29.50' Lt.
Construct Manhole, Shallow SWS (4' Dia.)
Top Elev. = 1299.37

SWS Line 3d

CAUTION! Existing O/H Elec. Crossing

CAUTION! Proposed 8" Water Crossing

CAUTION! Proposed 8" Water Crossing

DOUGLAS AVENUE

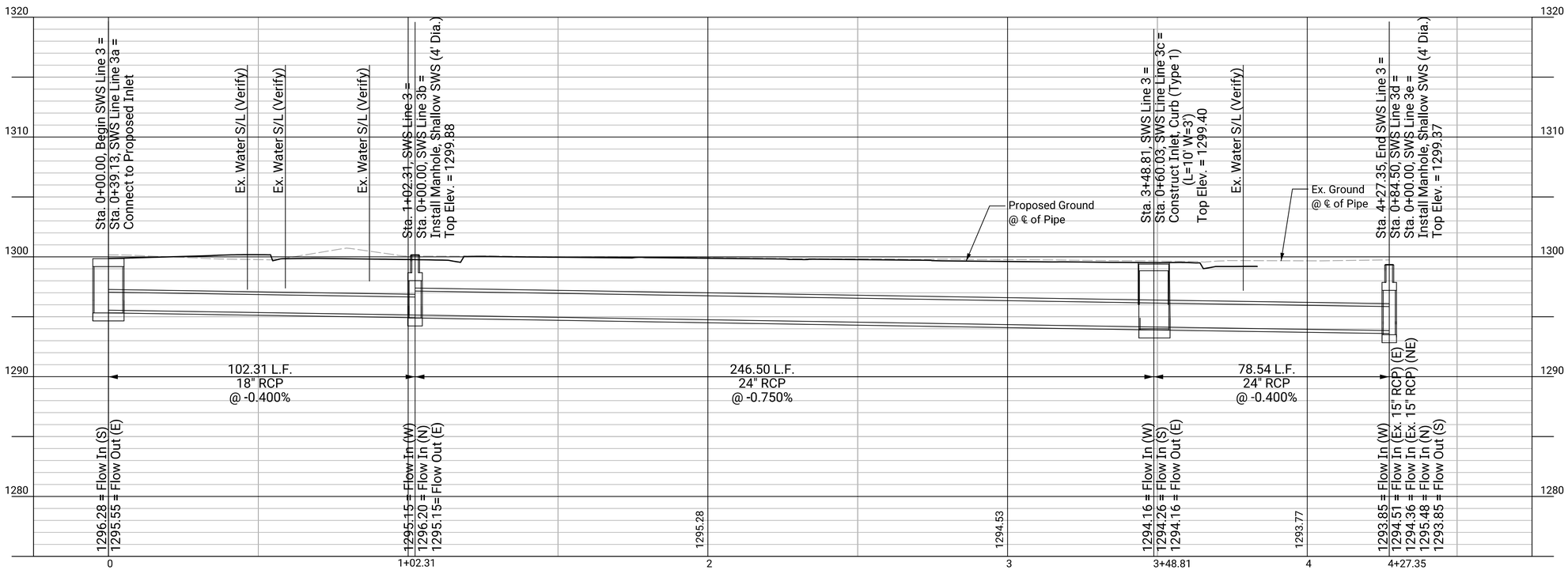
145 6 7 8 9

Prop. FH
Prop. 8" Water
Ex. 48" Water (PCCS)
Ex. 8" Water (PVC)
Ex. 6" Water (CI)
Prop.8" Water
Ex. 2" Water (CI)
Ex. 2" Block Hills Gas
Prop. 8" Water
Prop. 8" Water
Prop. 8" Water
WV (NE)
WV (NF)
Bench
Inlet
Rocks
B.M. #1

SWS Line 3a

SWS Line 3c

SWS Line 3



DOUGLAS AVENUE - MERIDIAN TO SENECA
SWS PLAN & PROFILE
SWS LINE 3

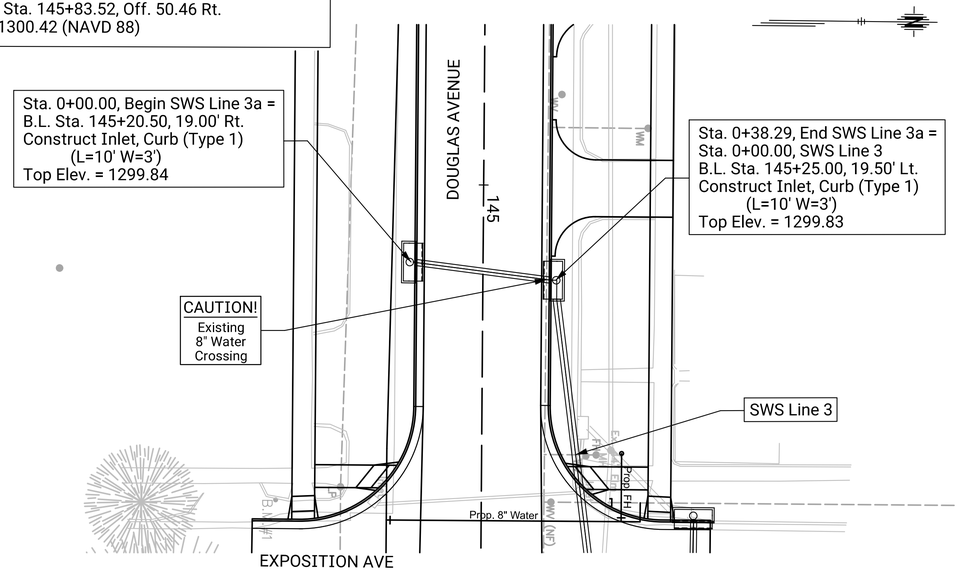
REVISIONS	NO.	DATE
DESCRIPTION		

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

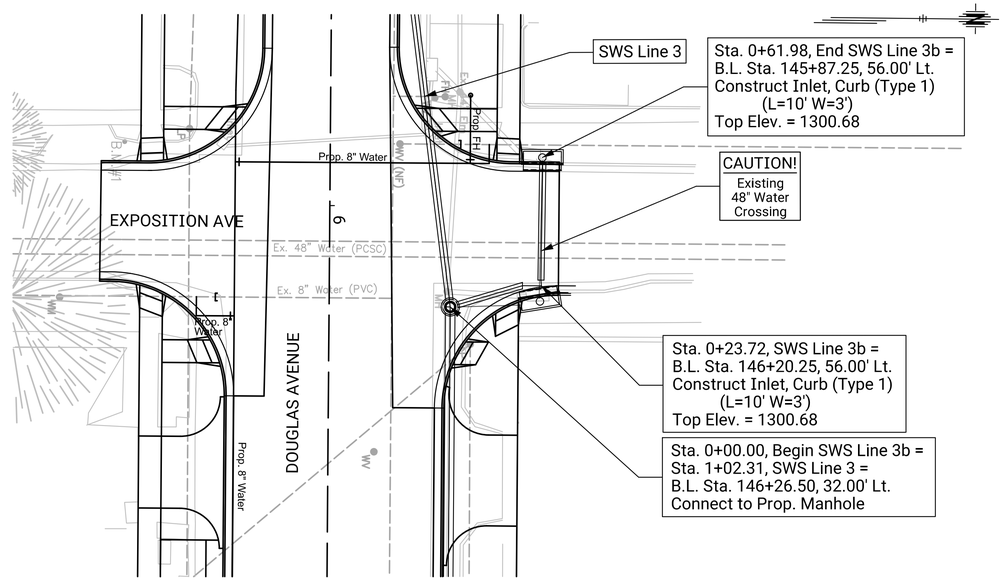
SHEET NO
63
SHEET 63 OF 180

BENCHMARK

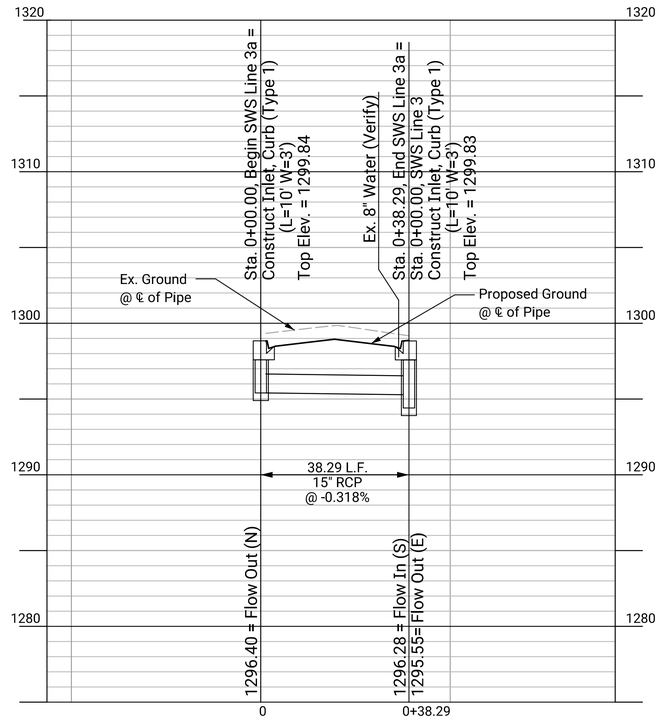
BM #1 - Chiseled Square in the Southwest Corner of Exposition & Douglas South of a Handicap Ramp and at the Beginning of a Curb Return.
B.L. Sta. Sta. 145+83.52, Off. 50.46 Rt.
ELEV. 1300.42 (NAVD 88)



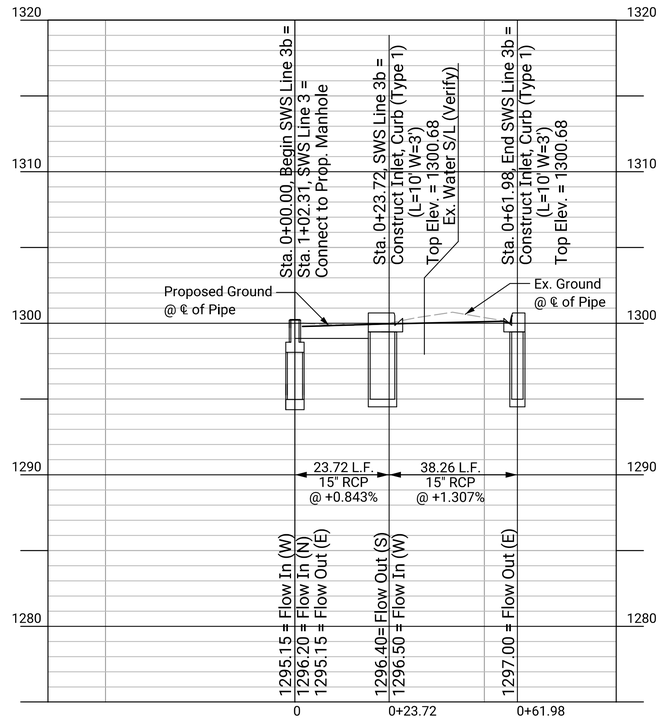
SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0



SWS Line 3a



SWS Line 3b



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 3a & SWS LINE 3b

NO.	DATE	REVISIONS	DESCRIPTION

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

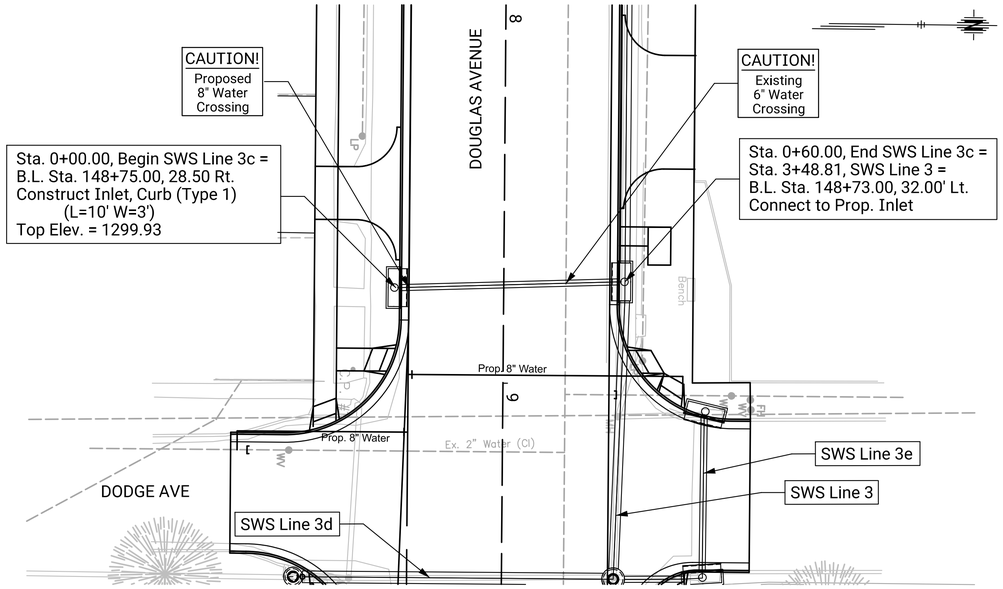
SHEET NO
64
SHEET 64 OF 180

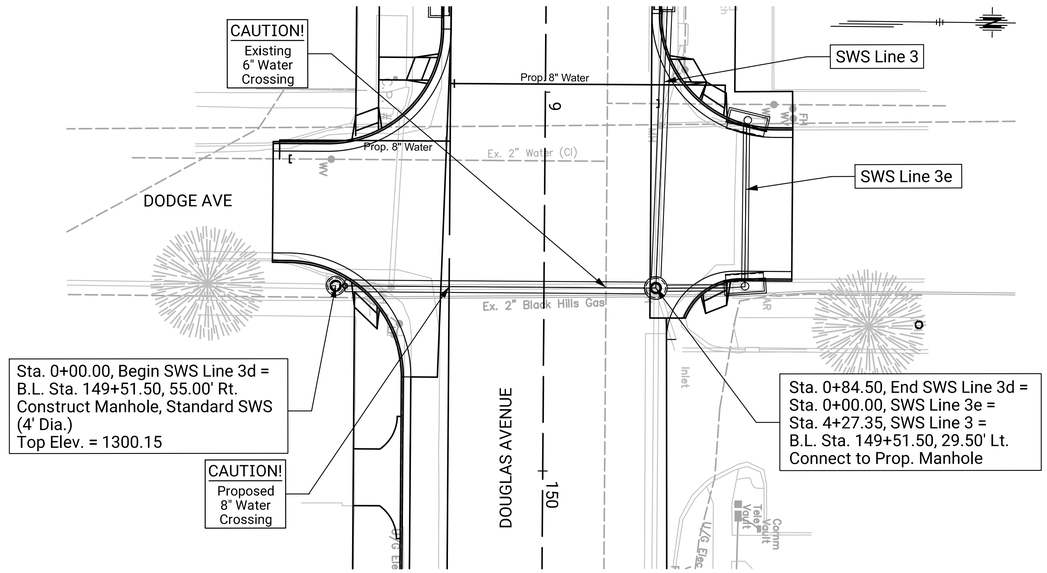
SCALE

PLAN: Lat. & Long. 20' 0 20' 40'

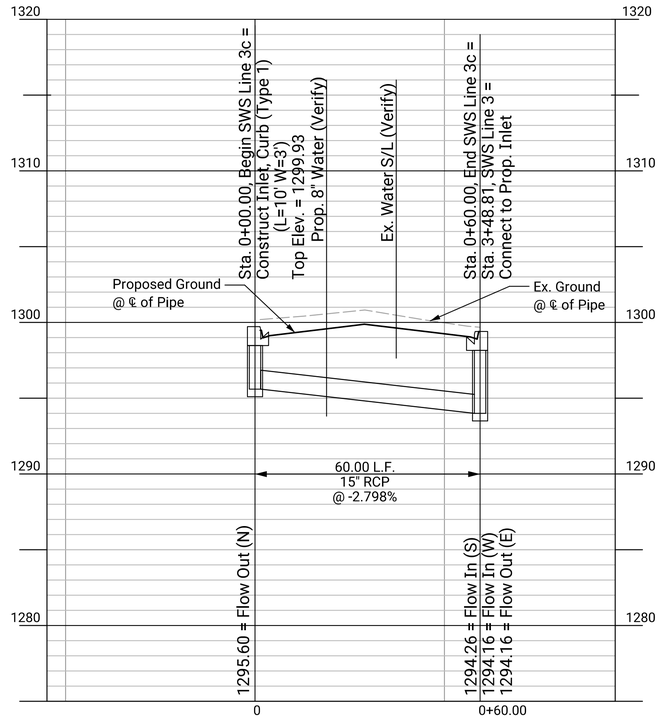
PROFILE: Horiz. same as above

Vert. 5 0

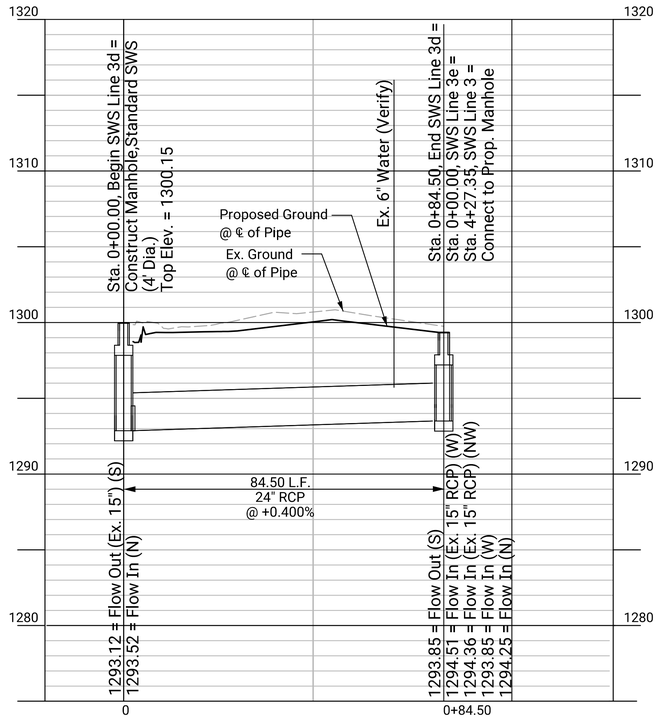




SWS Line 3c



SWS Line 3d



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

SWS PLAN & PROFILE
SWS LINE 3c & SWS LINE 3d

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

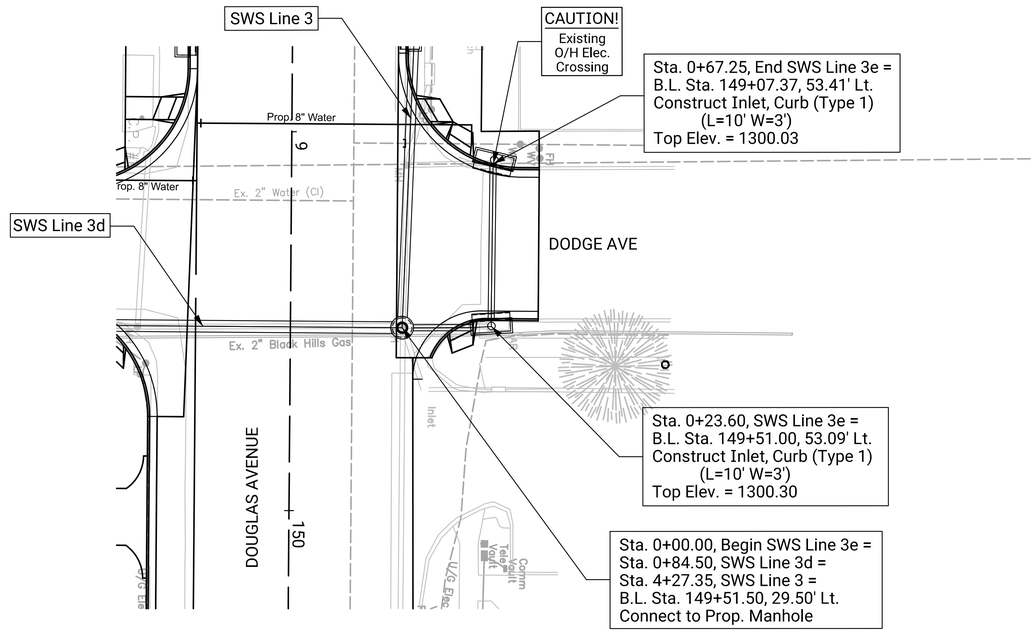
65

SCALE

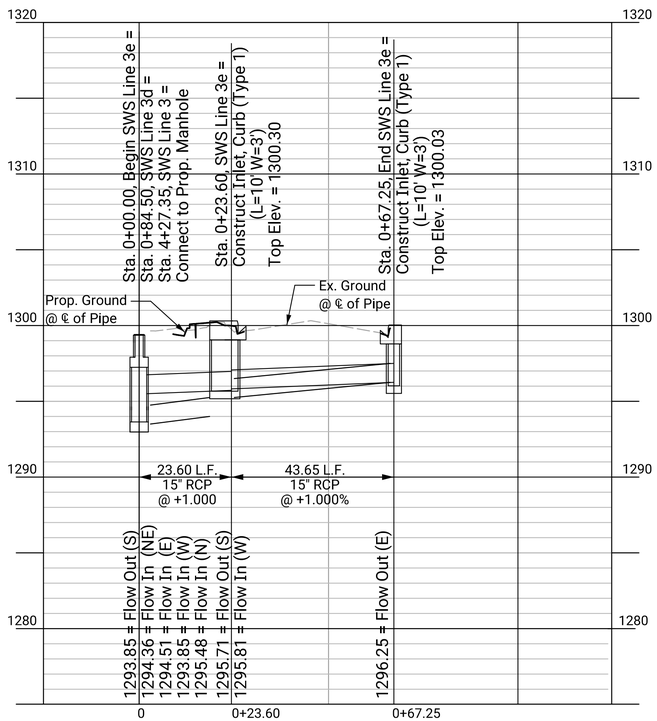
PLAN: Lat. & Long. 20' 0 20' 40'

PROFILE: Horiz. same as above

Vert. 5 0



SWS Line 3e



DOUGLAS AVENUE - MERIDIAN TO SENECA
SWS PLAN & PROFILE
SWS LINE 3e

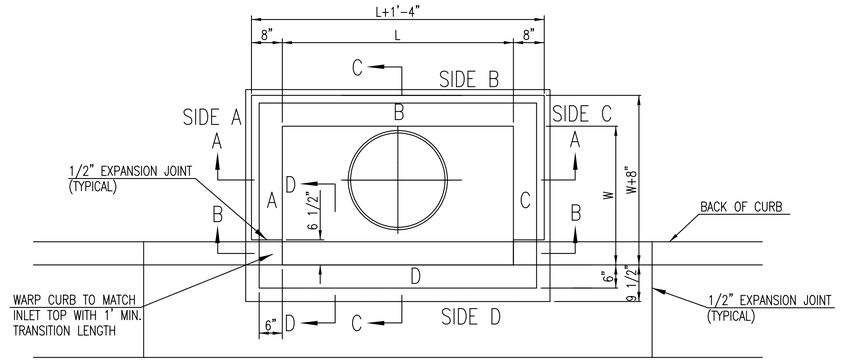
NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

66

SHEET 66 OF 180



TOP VIEW

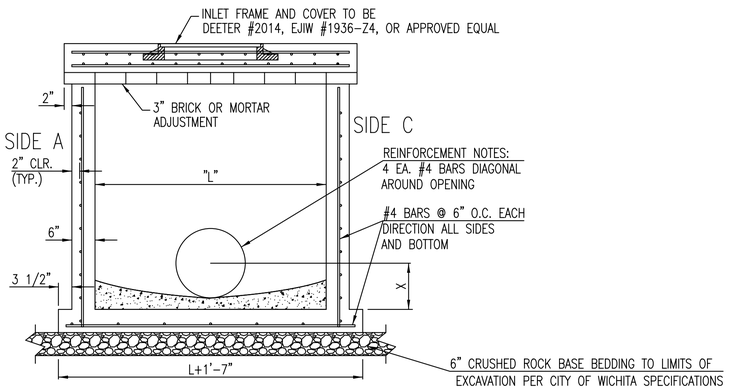
BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

PRECAST CURB INLET WIDTHS				
W	PRE-CAST TOP SIZE			PIPE DIA.**
	WIDTH	LENGTH	TOP	
3'-0"	W+8"	L+1'-4"	7 1/2"	21" & SMALLER
4'-0"	W+8"	L+1'-4"	7 1/2"	24" & 30"
5'-0"	W+8"	L+1'-4"	7 1/2"	36" & 42"
6'-0"	W+8"	L+1'-4"	7 1/2"	48" & 54"
7'-0"	W+8"	L+1'-4"	7 1/2"	60" & 66"

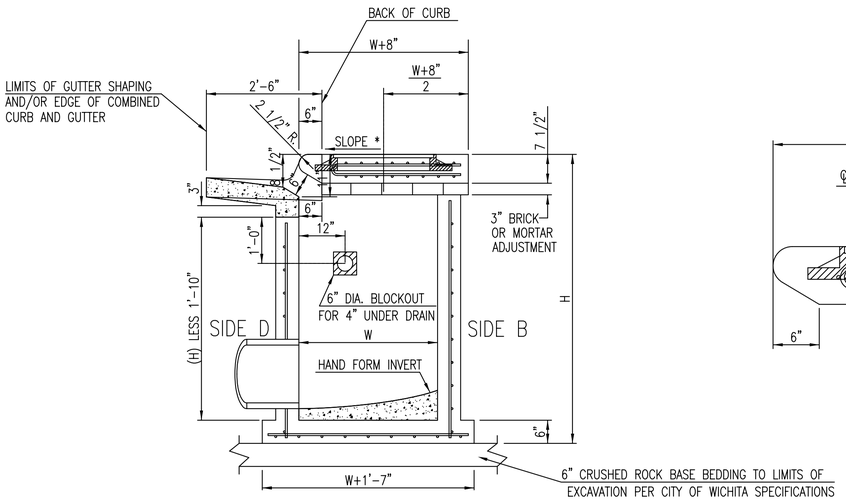
** FOR PIPES PERPENDICULAR TO INLET WALL

GENERAL NOTES

1. CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN W=5'-0" AND H=7'-0" OR LESS.
3. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
4. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
5. INLET FRAME AND COVER TO BE DEETER #2014, EJIW #1936 Z4, OR APPROVED EQUAL, SEE SW-303.
6. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

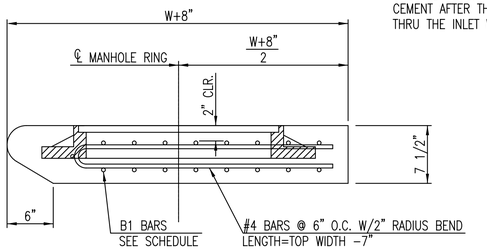


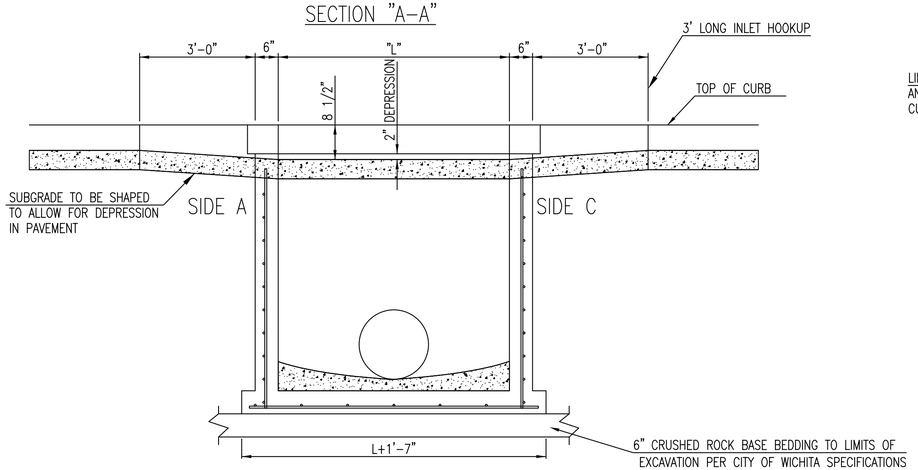
SECTION "A-A"



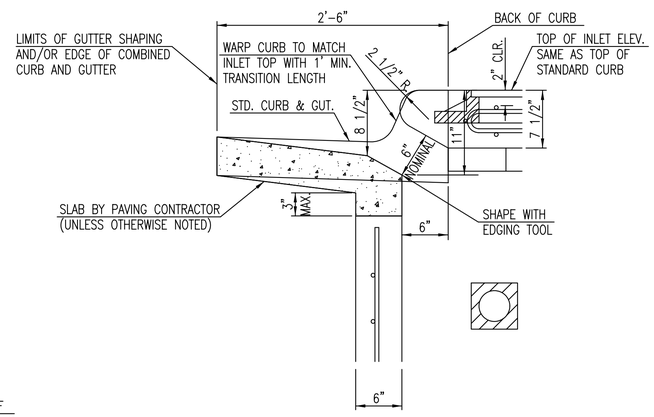
SECTION "C-C"

NOTES:
* SLOPE OF INLET TOP TO MATCH SIDEWALK OR PARKING SLOPES WITHIN LIMITS INDICATED.





SECTION "B-B"



SECTION "D-D"

REVISED: MARCH 2015

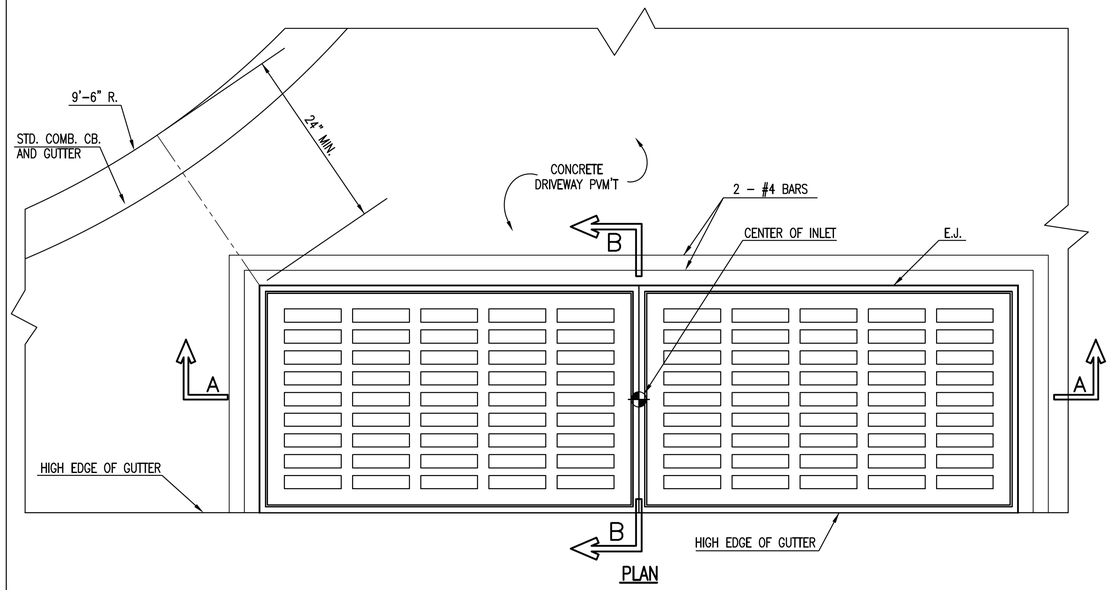
CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD TYPE 1 CURB INLET 5'-0" OR 10'-0" OPENING

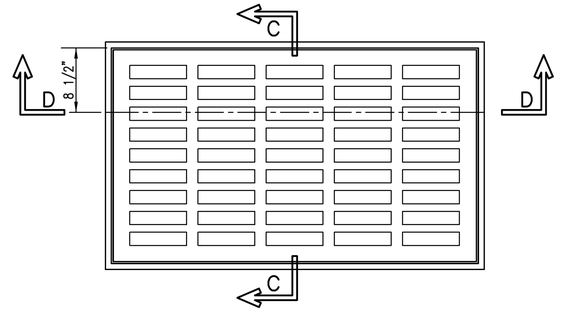
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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



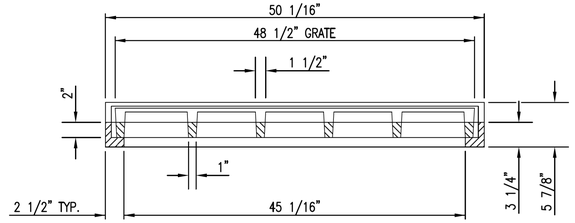
PLAN



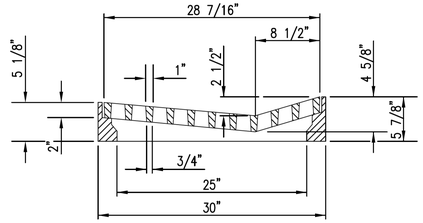
PLAN
DEETER #2095 FRAME & GRATE
TOTAL WEIGHT: 705 LBS.
(2 EACH REQUIRED)
OR EJIW #7392

GENERAL NOTES

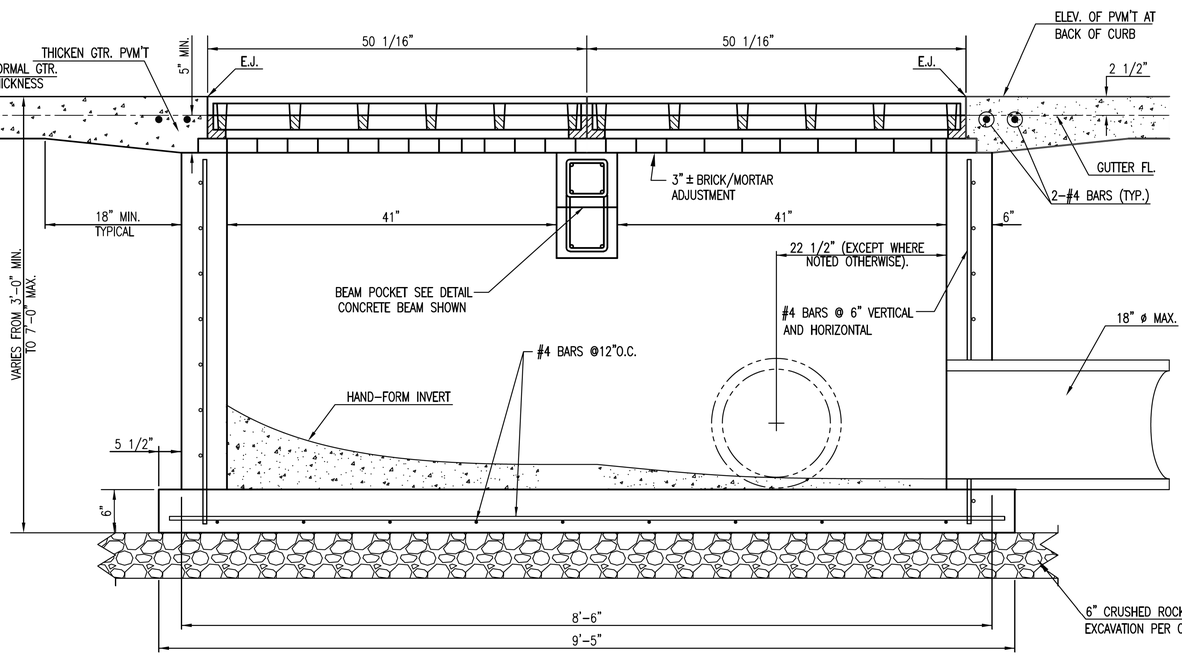
1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALL BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN H=7'-0" OR LESS.
3. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
4. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
5. INLET FRAME AND GRATE TO BE DEETER #2095, EJIW #7392, OR APPROVED EQUAL.
6. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.



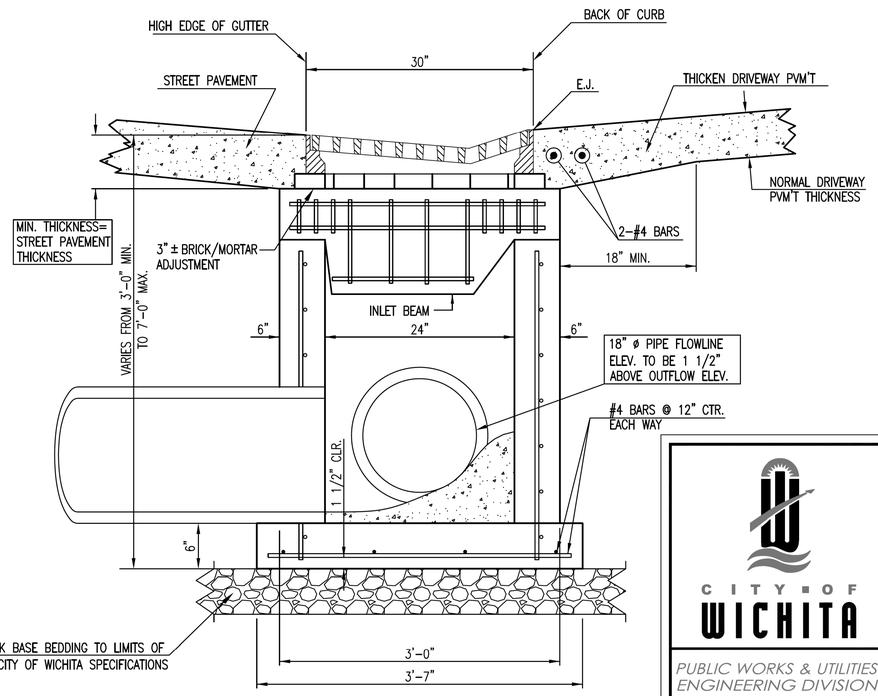
SECTION D-D



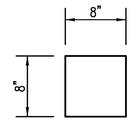
SECTION C-C



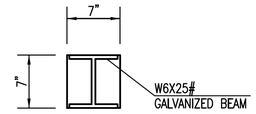
SECTION A-A



SECTION B-B



CONCRETE BEAM POCKET



GALV. STEEL BEAM POCKET

REVISED: MARCH 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

GRATED DRIVEWAY INLET (DOUBLE)

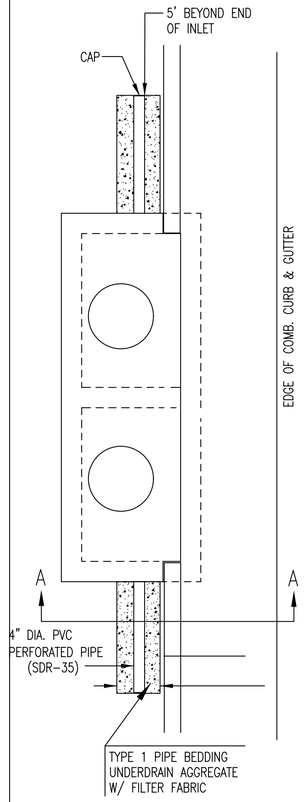
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

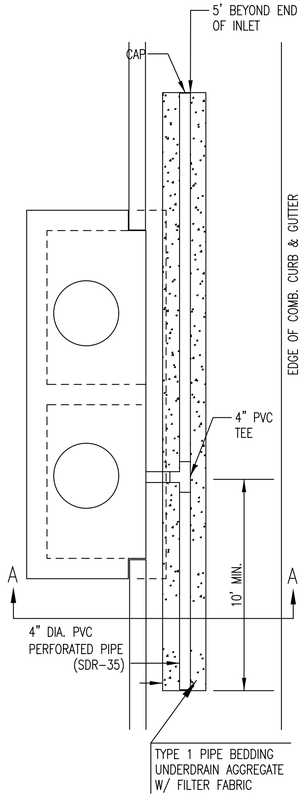
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
68 of 180

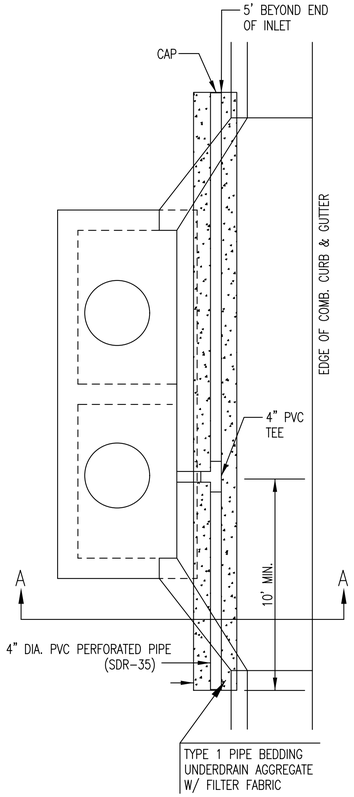
SW-109



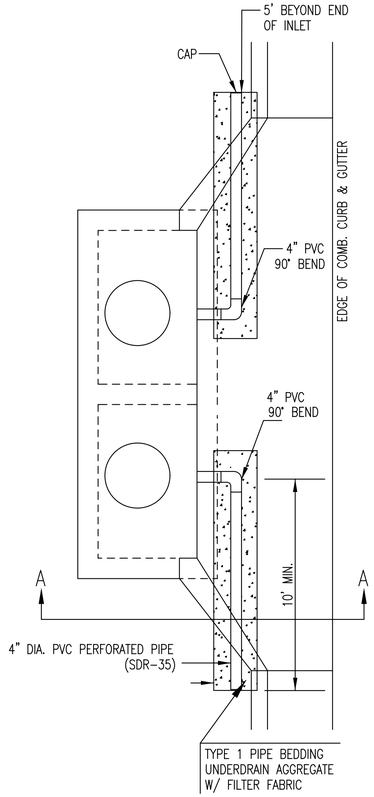
TYPE 1
OPTION 1



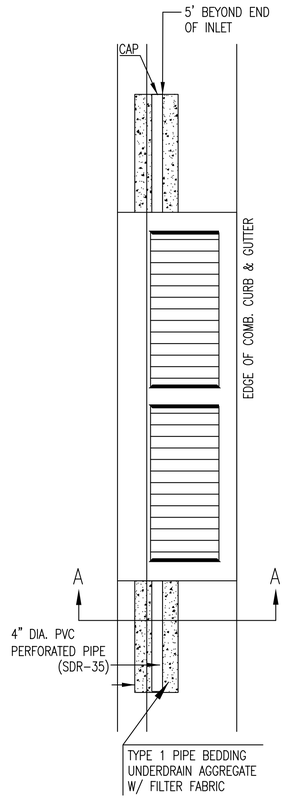
TYPE 1
OPTION 2



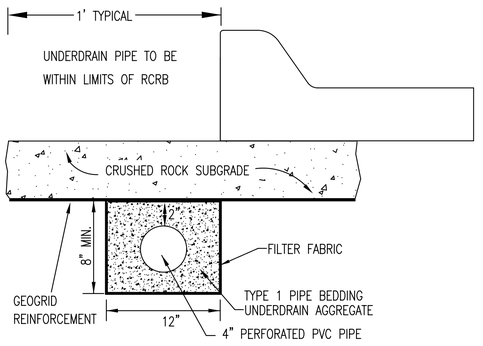
TYPE 1-A INLET
OPTION 1



TYPE 1-A INLET
OPTION 2



TYPE 2



SECTION A-A (TYPICAL)

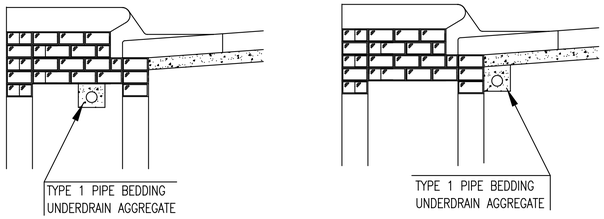
GENERAL NOTES

1. PAVEMENT CONTRACTOR WILL BE REQUIRED TO INSTALL SDR 35, 4" PERFORATED DRAIN PIPE AND TEE AS INDICATED IN THE DETAILS.

2. WHEN SWS CONSTRUCTED BY SEPARATE PROJECT, SWS CONTRACTOR SHALL INSTALL SDR 35, 4" DRAIN PIPE STUB ONLY THROUGH WALLS OF CURB INLETS AND CAP TO ALLOW FUTURE CONNECTION OF TEE AND ADDITIONAL DRAIN PIPE BY OTHERS.

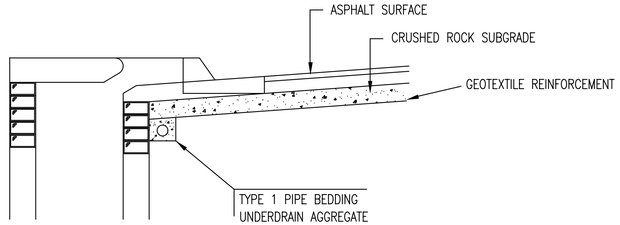
2. UNDERDRAIN PIPE SHALL BE PAID AS A MEASURED QUANTITY BY THE LINEAL FOOT.

PAVEMENT UNDERDRAIN SHALL BE INSTALLED ON ALL CURB INLETS.



(MIN. 16 PERFORATIONS PER LIN. FT. @ 1/4" DIA.)
PERFORATIONS TO BE ON BOTTOM HALF

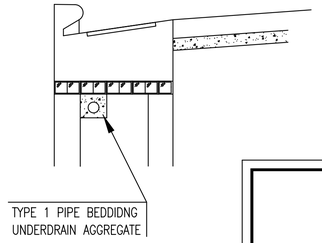
SECTION A-A



SECTION A-A

PAVEMENT UNDERDRAIN DETAIL

BID ITEM TO BE PROVIDED PER 4" PERFORATED UNDERDRAIN PIPE.



SECTION A-A

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

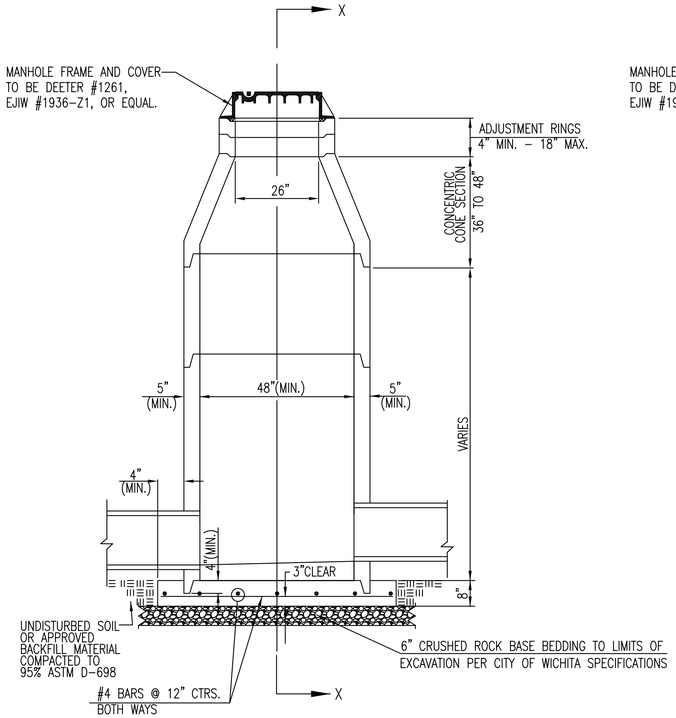
CURB INLET
PAVEMENT UNDERDRAIN
DETAIL

CITY ENGINEER
PAUL GUNZELMAN, P.E.

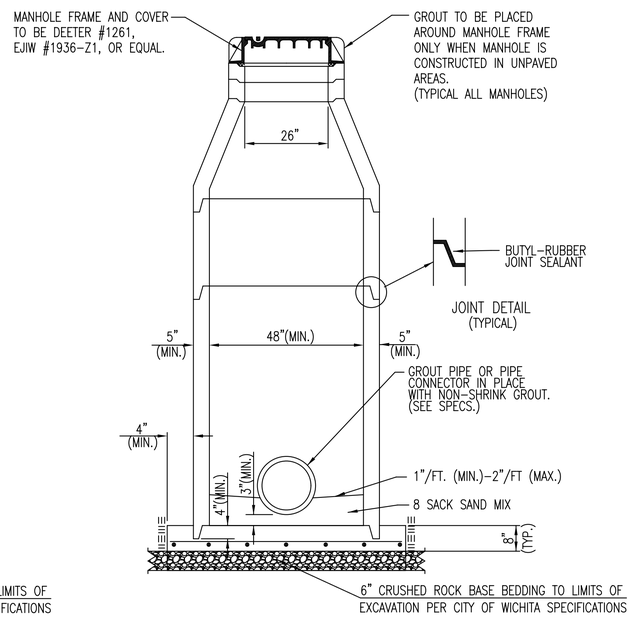
PROJECT NUMBER	OCA NUMBER	DATE

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

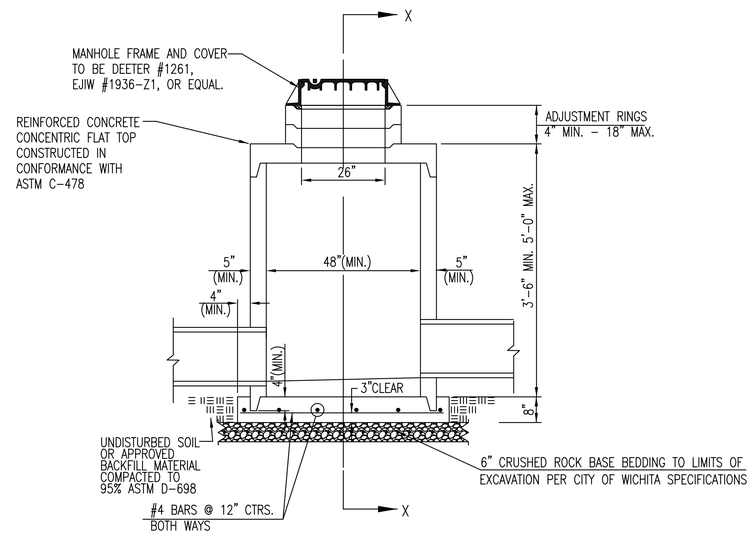
SW-111



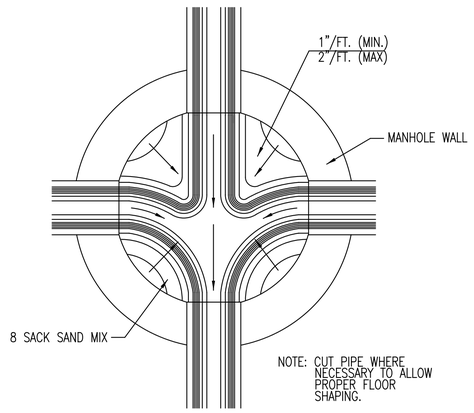
PRECAST
STANDARD MANHOLE
TYPE "A"



SECTION X-X
(TYPICAL)



PRECAST
SHALLOW MANHOLE
TYPE "B"



TYPICAL MANHOLE
FLOOR SHAPING

GENERAL NOTES

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

REVISED: MARCH 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

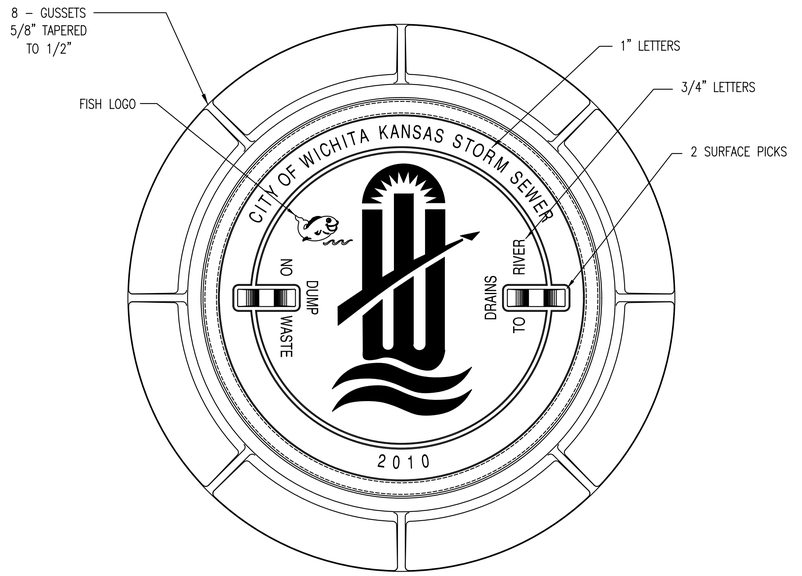
PRECAST CONCRETE MANHOLE (STORM SEWER)

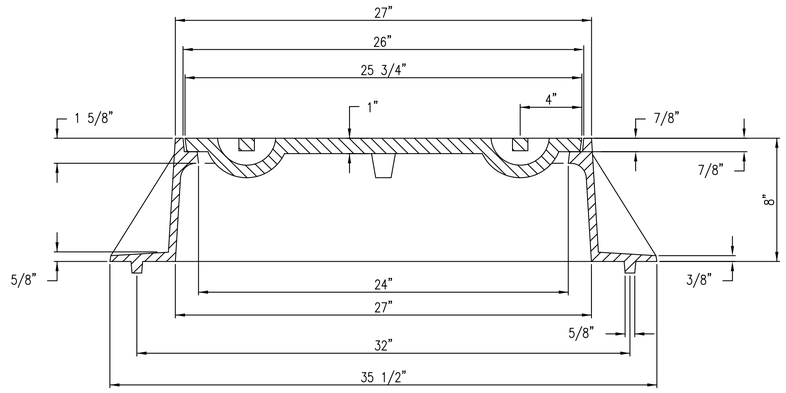
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

SW-301

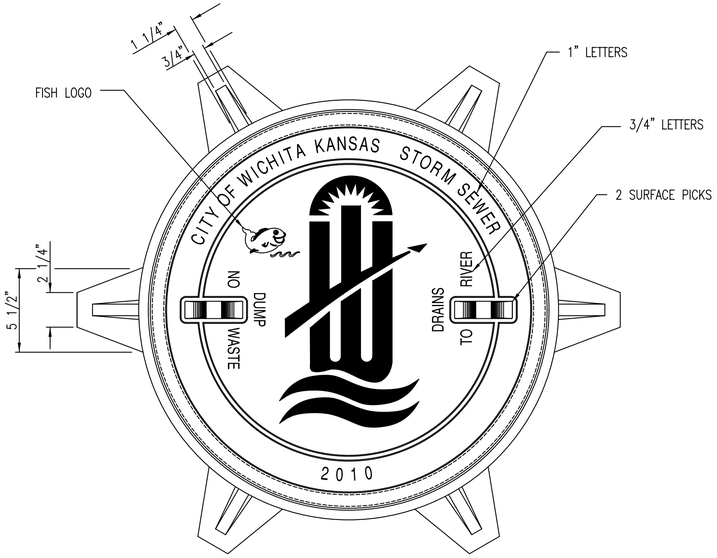


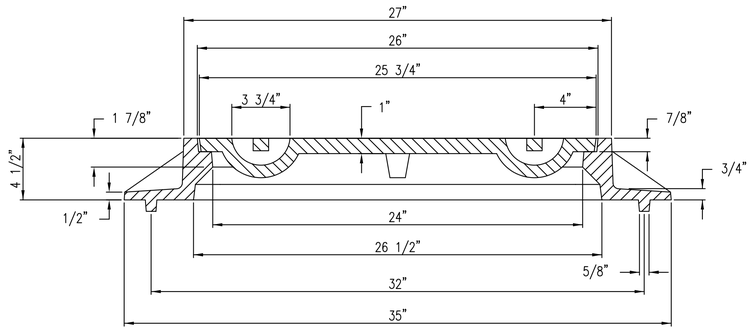


MANHOLE FRAME

DEETER #1261 OR EJIW #1936–Z1

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





INLET FRAME

DEETER #2014 OR EJIW #1936–Z4

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

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MANHOLE/INLET FRAME AND COVER (STORM SEWER)

CITY ENGINEER

PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

NOTE TO DESIGNER: Designer shall identify any project specific changes to the standard sheets or specifications. All changes shall be approved by City of Wichita and identified on 'MODIFICATIONS TO SIGNAL STANDARDS OR SPECS'. Design shall update peak hour volumes for the design intersection(s).

GENERAL NOTES

1. TRAFFIC SIGNAL SPECIFICATIONS (PART 700), STANDARD DRAWINGS, CHECKLISTS, AND OTHER INFORMATION MAY BE FOUND ONLINE AT: HTTPS://WICHITA.GOV/PWU/PAGES/REGULATIONS.ASPX
   IF THERE IS A DISCREPANCY BETWEEN OR AMONG THE FOLLOWING CONTRACT DOCUMENTS, THE GOVERNING RANKING OR ORDER OF PRECEDENCE IS:
   A. INFORMATION RECEIVED AT PREBID / ADDENDUM(S)
   B. PLANS
   C. PROJECT SPECIAL PROVISIONS
   D. SPECIAL PROVISIONS
   E. STANDARD SPECIFICATIONS

   THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY RELATED TO THE WORK BEING PERFORMED.

2. ALL WORK WILL BE CONFINED WITHIN THE EXISTING ROADWAY RIGHT-OF-WAY OR RIGHT-OF-WAY SHOWN PER PLAN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY AND KEEP INSTALLATION OF ALL EQUIPMENT AND DEVICES WITHIN THE APPROVED RIGHT-OF-WAY.

3. CONTRACTOR SHALL MAINTAIN 2 FT CONDUIT CLEARANCE FROM ALL LANDSCAPED FEATURES AND IRRIGATION SYSTEMS EXISTING WITHIN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED TO ANY EXISTING UNDERGROUND SPRINKLER SYSTEM DURING CONSTRUCTION. ANY LANDSCAPING OR IRRIGATION SYSTEMS DISTURBED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL CONDITION OR AS ACCEPTABLE BY THE ENGINEER AND OWNER THEREOF. NO ADDITIONAL PAYMENT WILL BE MADE.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL DISTURBED WORK AREAS. RESTORATION INCLUDES SEEDING, FERTILIZING, MULCHING, AND THE REMOVAL OF ALL UNUSED MATERIAL AND DEBRIS FROM THE WORK AREA ACCORDING TO THE STANDARD SPECIFICATIONS AND AS REQUIRED BY THE ENGINEER. ALL GRADING WORK SHALL SLOPE AWAY FROM FOUNDATIONS TO PREVENT PONDING. ADEQUATE TEMPORARY PROTECTION AGAINST EROSION SHALL BE PROVIDED ACCORDING TO CITY OF WICHITA SPECIFICATIONS.

5. THE CONTRACTOR SHALL DETERMINE ANY CONFLICTS WITH EXISTING UTILITIES PRIOR TO INITIATION OF CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE ENGINEER UPON DETERMINATION OF ANY UTILITY CONFLICTS.

6. LOCATING, TRACING, AND POTHOLING FOR EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. DISTURBED AREAS SHALL BE RESTORED WITH SIMILAR MATERIAL AND CONSTRUCTION METHODS. NO ADDITIONAL PAYMENT WILL BE MADE FOR LOCATING OR POTHOLING EXISTING UTILITIES, INCLUDING PAVEMENT RESTORATION. ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY FOR LOCATING EXISTING UTILITIES SHALL NOT BE PAID FOR DIRECTLY BUT IS SUBSIDIARY TO OTHER ITEMS OF THE CONTRACT.

7. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CALL DIG SAFE AT 811 OR 1-800-344-7233 (1-800-DIG SAFE) TO REQUEST THE UTILITIES BE MARKED IN THAT AREA. THE CONTRACTOR SHALL ALSO CONTACT ANY AND ALL UTILITIES AND LOCAL GOVERNMENT AGENCIES NOT PARTICIPATING IN LOCATION SERVICES.

8. THE CITY WILL SURVEY AND STAKE LOCATIONS WHERE POLES, FOUNDATIONS, CABINETS, POWER SERVICES, AND SERVICE BOXES ARE TO BE INSTALLED. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE STAKING WITH THE CITY WITH ADVANCED NOTICE. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY EXCAVATION.

9. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. ALL TRAFFIC CONTROL PLANS AND LANE CLOSURES SHALL BE PRE-APPROVED BY THE ENGINEER IF NOT SPECIFICALLY PROVIDED IN THE CONTRACT DOCUMENTS.

10. THE PUBLIC PASSAGE ON THE EXISTING SIDEWALK OR PEDESTRIAN PATHWAY SHOULD BE SAFE, PROTECTED, AND ADA ACCESSIBLE. IF PUBLIC PASSAGE IS NOT POSSIBLE, A REROUTE AROUND THE WORK AREA IS REQUIRED. REROUTE MUST BE CLEARLY IDENTIFIED, ADA ACCESSIBLE, AND MEET ALL APPLICABLE REGULATIONS.

11. POWER COMPANY SHALL BE NOTIFIED AT LEAST TWO (2) WEEKS AND AGAIN AT 72 HOURS PRIOR TO THE ANTICIPATED SIGNAL TURN ON. THE CONTRACTOR SHALL NOTIFY THEM TO COORDINATE POWER HOOK-UP, INSTALLATION OF LUMINAIRES (IF APPLICABLE), AND ANY OTHER ITEMS REQUIRED FOR COMPLETION OF THE TRAFFIC SIGNAL. IF AVAILABLE, PROVIDE ENGINEER WITH ANY WORK ORDER/CASE NUMBERS.

12. HIGH VOLTAGE POWER LINES MAY BE WITHIN THE PROJECT LIMITS. ALL WORK IS TO BE PERFORMED IN CONFORMANCE WITH ALL STATE, LOCAL, FEDERAL, UTILITY, AND CONTRACT REQUIREMENTS. THE CITY HAS NO CONTROL OVER THE MEANS, METHODS, CHOICE OF EQUIPMENT, SEQUENCING OF WORK, AND SAFETY PRACTICES USED WHEN WORKING IN, ON, OR AROUND HIGH VOLTAGE LINES OR OTHER UTILITY STRUCTURES AS THESE ITEMS ARE THE RESPONSIBILITY OF THE PARTIES CONTROLLING THE PHYSICAL PERFORMANCE OF THE WORK.

13. ALL GROUNDING SYSTEMS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND MANUFACTURER SPECIFICATIONS. FOLLOW APPLICABLE NEC REQUIREMENTS FOR INSTALLATION OF ALL PROJECT MATERIALS. THE CONTRACTOR SHALL PROPERLY GROUND ALL EQUIPMENT, CABINET, AND GROUND RODS PER APPLICABLE STANDARDS OR AS DIRECTED BY ENGINEER.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE ELECTRICAL SERVICE CONNECTION IN THE CITY'S NAME AT THE LOCATIONS SHOWN ON THE PLANS. DIRECT COSTS FOR PERMANENT ELECTRICAL SERVICES TO BE PAID BY CITY. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SERVICE (IF REQUIRED).

15. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT CATALOG CUTS OR SHOP DRAWINGS FOR ALL EQUIPMENT TO BE INSTALLED. IT IS THE PRIME CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL SHOP DRAWINGS, TESTING RESULTS, AND ALL OTHER REQUIRED SUBMITTALS PRIOR TO SUBMITTING FOR ENGINEER'S APPROVAL. THE ENGINEER WILL NOT REVIEW ANY SUBMITTED DOCUMENTATION OR BEGIN ANY TESTING PERIODS UNTIL THIS WORK IS COMPLETE.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND SALVAGING EXISTING EQUIPMENT AS NOTED. DAMAGE TO ANY EXISTING TRAFFIC SIGNAL EQUIPMENT DUE TO THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL REPORT ANY OPERATIONAL PROBLEMS TO THE TRAFFIC MAINTENANCE DEPARTMENT (316) 268-4013. THE EQUIPMENT SHALL BE REPLACED OR REPAIRED (AS DIRECTED BY THE CITY) WITH APPROVED MATERIALS IN CONFORMANCE WITH THE CURRENT STANDARD DETAILS, SPECIFICATIONS, PRACTICES AND POLICIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY STORED EXISTING MATERIALS (REMOVED FOR CONSTRUCTION) TO BE RE-INSTALLED.

17. WHEN SALVAGED EQUIPMENT IS NOT TO BE REINSTALLED, IT SHALL BE DELIVERED UNDAMAGED TO THE CITY OF WICHITA OR RESPECTIVE OWNER. IF NOT OTHERWISE IDENTIFIED ON THE PLANS, EQUIPMENT SHOULD BE DELIVERED TO CENTRAL MAINTENANCE FACILITY (CMF) AT 1801 S MCLEAN BLVD, WICHITA, KS 67213. THE CONTRACTOR SHALL SCHEDULE THE DELIVERY WITH TRAFFIC SIGNAL MAINTENANCE A MINIMUM OF 24 HOURS IN ADVANCE. THE STORED EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL REMOVED BY OWNER FROM THE WORK SITE OR DELIVERED TO THE OWNER.

18. THE TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE EXACT CONSTRUCTION SCHEDULE SO THAT INSPECTION OF THE TRAFFIC SIGNAL INSTALLATION CAN BE MADE OF ALL PHASES, INCLUDING CONDUIT INSTALLATIONS.

19. THE CONTRACTOR SHALL PROVIDE THE CITY AN ELECTRONIC LIST OF GPS READINGS (EXCEL FORMAT) FOR ALL INSTALLED DEVICES, PULL BOXES, SERVICE BOXES, CABINETS, POWER METERS, AND TRANSFORMERS. THE GPS READINGS SHALL MATCH THE CITY OF WICHITA'S CURRENT GEOGRAPHIC INFORMATION SYSTEM (GIS) WITH 'SUB-METER' ACCURACY. THE PROJECT SURVEY SHALL BE BASED ON NAD83, KANSAS STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, U.S. SURVEY FEET DEFINITION. THE VERTICAL DATUM SHALL BE NAVD88. GPS AND THREE TIE-POINT MEASUREMENTS SHALL BE OBTAINED FOR EACH BURIED ELECTRICAL PULL BOX PRIOR TO PLACING BACKFILL MATERIAL. CONDUITS WHICH ARE NOT PLACED IN A STRAIGHT LINE, SHALL BE LOCATED AS NEEDED IN ORDER TO ESTABLISH ITS EXACT LOCATION AND DEPTH.

TRAFFIC SIGNAL TURN-ON AND ACCEPTANCE PROCEDURE

1. AT LEAST TWO (2) WORKING DAYS PRIOR TO SCHEDULED SIGNAL ACTIVATION, ALL TESTING SHOULD BE COMPLETED AND SUCCESSFUL, ALL DEFECTS AND DEFICIENCIES CORRECTED, ALL INDICATIONS OPERATIONAL AND PROPERLY AIMED, CABLES TAGGED, CABINETS AND SURROUNDING AREAS CLEANED OF DEBRIS, CONTROLLER FULLY OPERATIONAL PERFORMING ALL TIMING FUNCTIONS REQUIRED, ALL OTHER ITEMS OF WORK ASSOCIATED WITH THE SIGNAL COMPLETED, AND ALL SIGNS AND PAVEMENT MARKINGS PROPERLY INSTALLED UNLESS OTHERWISE APPROVED BY THE ENGINEER.

2. THE CONTRACTOR SHALL REVIEW AND SUBMIT TO THE ENGINEER A COMPLETED "CITY OF WICHITA TRAFFIC SIGNAL INSPECTION CHECKLIST" AVAILABLE ONLINE AT WWW.WICHITA.GOV. THE CHECKLIST MUST BE COMPLETED PRIOR TO CITY, TRAFFIC SIGNAL MAINTENANCE, OR ENGINEERING FULL INSPECTION.

3. THE ENGINEER AND CITY WILL CONDUCT A FULL INSPECTION OF THE SIGNAL SYSTEM. UPON SATISFACTORY CONDITIONS OF THE SIGNAL SYSTEM, THE TURN-ON SCHEDULE WILL BE CONFIRMED. THE CITY SHALL BE NOTIFIED AT LEAST ONE (1) WEEK IN ADVANCE OF THE ANTICIPATED SIGNAL TURN-ON DATE. ANY DEFICIENCIES FOUND DURING THE FINAL INSPECTION SHALL RESULT IN THE RESCHEDULING OF THE ACTIVATION.

4. ACTUAL ACTIVATION SHALL CONSIST OF THE FOLLOWING STEPS:
   A. INSTALLATION OF ALL REQUIRED EQUIPMENT IN THE CONTROLLER CABINET
   B. TESTING OF INSTALLED EQUIPMENT
   C. UNBAGGING OF ALL SIGNAL HEADS AND SIGNS (IF APPLICABLE)
   D. ACTIVATION OF THE SIGNAL WITH THE CONTRACTOR'S FLAGGER STOPPING ALL TRAFFIC MOMENTARILY AS THE SIGNAL IS TURNED ON.
   E. MINOR RE-AIMING OF SIGNAL HEADS, IF NECESSARY

5. ACTIVATION OF THE TRAFFIC SIGNAL SHALL NOT BE SCHEDULED FOR WEEKENDS, FRIDAYS OR DAYS RIGHT BEFORE PUBLIC HOLIDAYS. ENERGIZING OF SIGNAL (TURN-ON) TO OCCUR MONDAY - THURSDAY, 9:00 AM - 3:00 PM UNLESS SPECIFICALLY APPROVED OTHERWISE BY THE ENGINEER.

6. TEST PERIOD - FOLLOWING COMPLETION OF ALL ELECTRICAL APPARATUS HOOKUPS AND THE SYSTEM TURN-ON, THE SIGNALS SHALL OPERATE SATISFACTORILY FOR 30 DAYS UNDER NORMAL OPERATION PRIOR TO ACCEPTANCE BY THE CITY. DURING THE TEST PERIOD, THE SIGNALS SHALL OPERATE TROUBLE-FREE WITH NO MAJOR OR MINOR FAILURES OF THE CONTROLLER OR ITS COMPONENTS AS DETERMINED BY THE TRAFFIC ENGINEER. SHOULD ANY DEFECT DEVELOP UNDER NORMAL AND PROPER OPERATING CONDITIONS DURING THE TESTING PERIOD AND PRIOR TO ACCEPTANCE BY THE CITY, THIS MALFUNCTION SHALL BE CORRECTED BY AND AT THE EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, MATERIALS AND ASSOCIATED COSTS. MINOR FAILURES SUCH AS LAMP FAILURES OR LOOP DETECTOR RE-TUNING WILL NOT BE THE BASIS FOR STARTING A NEW TEST PERIOD, PROVIDED THE FAILURES ARE REPAIRED IMMEDIATELY AND THE SAME FAILURES DO NOT RECUR DURING THE REMAINDER OF THE TEST PERIOD. A MAJOR MALFUNCTION OR FAILURE OF THE CONTROLLER AND ITS COMPONENTS WILL RESULT IN A NEW 30 DAY TEST PERIOD BEING IMPLEMENTED AFTER THE REPAIRS HAVE BEEN MADE. COMPLETION OF THE TEST PERIOD DOES NOT ABSOLVE THE CONTRACTOR OF ANY WARRANTY.

7. IF A TRAFFIC SIGNAL MALFUNCTION OCCURS BETWEEN SUCCESSFUL TURN-ON AND FINAL ACCEPTANCE AND THE SIGNAL MALFUNCTION IS DUE TO FAULTY WORK BY THE CONTRACTOR, THE CITY MAINTENANCE DIVISION MAY TAKE CORRECTIVE ACTION AND HAS THE DISCRETION TO BILL THE CONTRACTOR FOR ALL RELATED EXPENSE, INCLUDING OVERHEAD.

8. FINAL ACCEPTANCE BY THE CITY IS CONDITIONAL UNTIL THE CONTRACTOR HAS CORRECTED ALL DEFECTS AND PUNCH LIST ITEMS. FINAL ACCEPTANCE WILL BE BY WRITTEN NOTICE OF ENGINEER.

9. WARRANTY - THE WARRANTY PERIOD BEGINS ONCE THE FINAL ACCEPTANCE BY THE CITY HAS OCCURRED. CONFIRMATION OF THE ACCEPTANCE SHOULD BE PROVIDED IN WRITTEN DOCUMENTATION.

LEGEND

	LUMINAIRE		DETECTION ZONE
	TRAFFIC SIGNAL POLE		3" CONDUIT
	TRAFFIC SIGNAL PEDESTAL		2" CONDUIT
	APS PUSHBUTTON STATION		1 1/2" CONDUIT
	TRAFFIC SIGNAL HEAD W/TYPE DESIGNATION		SIGN ON 1 BRACKET
	TRAFFIC SIGNAL HEAD W/TYPE DESIGNATION & BACKPLATE		SIGN ON 2 BRACKETS
	PEDESTRIAN SIGNAL & PUSHBUTTON	SB / ADV	RADAR DETECTION (ADVANCE OR STOP BAR)
	PAD MOUNTED CONTROLLER		VIDEO DETECTOR
	SERVICE BOX		PTZ CCTV
	SECONDARY SERVICE POINT	23	DETECTOR NUMBER
P.B.	PEDESTRIAN PUSH BUTTON	6	POLE/PEDESTAL NUMBER
		2	SERVICE BOX NUMBER

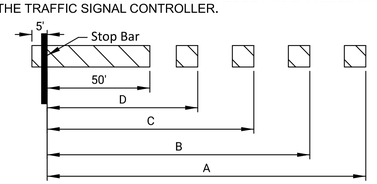
EXISTING EQUIPMENT REMOVAL SUMMARY

LOCATION	DESCRIPTION OF ITEM	QUANTITY
STA 128+66.71 RT	EXISTING SPEED ZONE FLASHER POLE	1
STA 130+02.86 RT	EXISTING TRAFFIC SIGNAL CONTROLLER	1
STA 130+07.49 RT	EXISTING SERVICE BOX	1
STA 130+18.10 RT	EXISTING EB SIGNAL POLE & MAST ARM	1
STA 130+08.58 LT	EXISTING WB SIGNAL POLE & MAST ARM	1
STA 131+44.14 LT	EXISTING SERVICE BOX	1
STA 131+44.69 LT	EXISTING SPEED ZONE FLASHER POLE	1
STA 140+14.12 RT	EXISTING SPEED ZONE FLASHER POLE	1
STA 141+25.67 RT	EXISTING TRAFFIC SIGNAL CONTROLLER	1
STA 141+25.86 RT	EXISTING SERVICE BOX	1
STA 141+26.63 LT	EXISTING WB SIGNAL POLE & MAST ARM	1
STA 141+37.55 RT	EXISTING EB SIGNAL POLE & MAST ARM	1
STA 142+45.65 LT	EXISTING SPEED ZONE FLASHER POLE	1

ADVANCE DETECTION DISTANCE & TIMING CALCULATION

SPEED (MPH)	MIN. ADVANCE DETECTION ZONE DISTANCES (FEET) A	B	C	D	*TOTAL EXT. (SEC.)
60	610	420	260	92	2.0
55	490	320	210	92	2.0
50	420	260	92	-	2.0
45	320	210	92	-	2.0
40	260	92	-	-	2.0
35	210	92	-	-	2.0
<35 MPH NO ADVANCE DETECTION. STOP BAR ZONE ONLY (55' TYP.)					

* DETECTOR EXTENSION TIMINGS SHALL BE PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLER.



MODIFICATIONS TO SIGNAL STANDARDS / SPECS

NO.	DESCRIPTION OF ITEM	SPEC. NO.	SHEET NO.
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

TRAFFIC SIGNAL GENERAL NOTES

TRAFFIC ENGINEER — APP'D 01/27/22
MIKE ARMOUR, P.E.

PROJECT NUMBER	ORG NUMBER	DATE

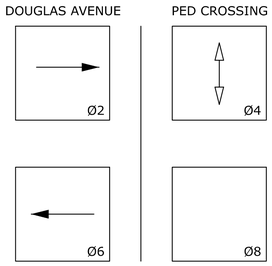
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

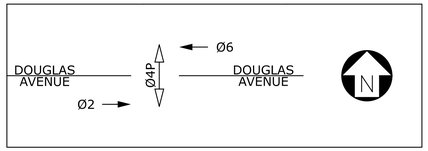
TR-101

NOTE TO DESIGNER: Designer to update signal faces and applicable phases. Associated phase to cardinal direction shall not change. Northing and easting should be to the 0.XX. Other than signal phasing, changes to this sheet do not need to be listed as "Modifications" on the general notes.

PHASE DIAGRAM

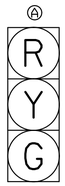


SIGNAL PHASES



SIGNAL FACES

NOTE: ALL LENSES SHALL BE 12" L.E.D. PEDESTRIAN LENSES SHALL BE 16" AND BE COUNTDOWN SIGNALS.







BLANK OUT SIGN(S)





SCHOOL ZONE SPEED LIMIT FLASHERS

SERVICE BOX LOCATIONS

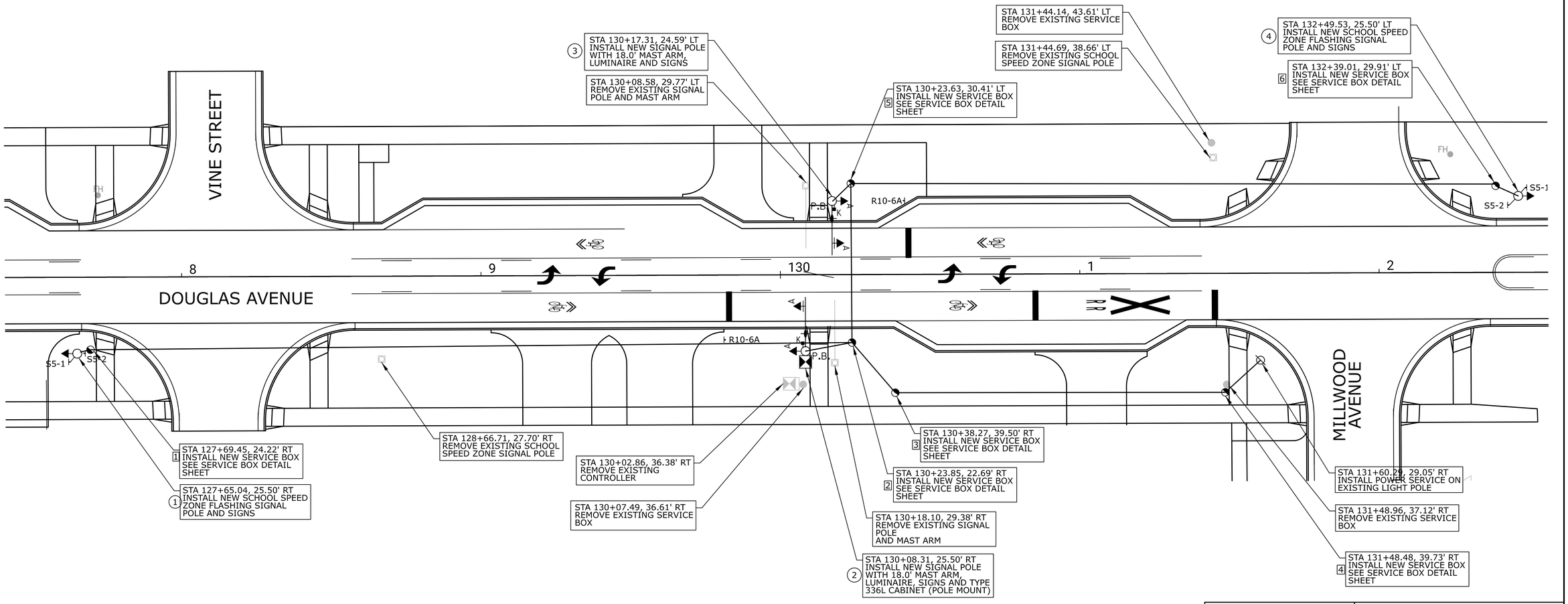
BOX NO.	STATION	OFFSET	NORTHING	EASTING	**ELEV.
1	127+69.45	24.22' RT	N/A	N/A	N/A
2	130+23.85	22.69' RT	N/A	N/A	N/A
3	130+38.27	39.50' RT	N/A	N/A	N/A
4	131+48.48	39.73' RT	N/A	N/A	N/A
5	130+23.63	30.41' LT	N/A	N/A	N/A
6	132+39.01	29.91' LT	N/A	N/A	N/A

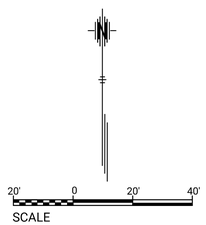
STRUCTURE LOCATIONS

POLE NO.	*TYPE	STATION	OFFSET	NORTHING	EASTING	**ELEV.
1	SCHOOL	127+65.04	25.50' RT	N/A	N/A	N/A
2	POLE	130+08.31	25.50' RT	N/A	N/A	N/A
3	POLE	130+17.31	24.59' LT	N/A	N/A	N/A
4	SCHOOL	132+49.53	25.50' LT	N/A	N/A	N/A
Meter	-	131+60.29	29.05' RT	N/A	N/A	N/A
Cont.	-	N/A	N/A	N/A	N/A	N/A

*STRUCTURE TYPES: POLE - TRAFFIC SIGNAL POLE; PED - TRAFFIC SIGNAL PEDESTAL; PB STA - APS PUSHBUTTON STATION; SCHOOL - SCHOOL SPEED LIMIT FLASHERS

**APPROXIMATE TOP OF FOUNDATION. SEE STANDARDS AND SPECS FOR ADDITIONAL INFORMATION. FOUNDATIONS SHALL NOT CREATE A "LOW AREA".





GENERAL NOTES:

1. CONDUIT RUNS ARE APPROXIMATE & MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS & FACILITATE WIRING, AS APPROVED BY THE ENGINEER. ALL CONDUIT RUNS SHALL BE STRAIGHT BETWEEN BOXES AND/OR FOUNDATIONS.
2. EXISTING FEATURES & UTILITIES ARE SHOWN FROM AVAILABLE INFORMATION & SHOULD BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY UTILITIES & THEIR EXACT LOCATION PRIOR TO CONSTRUCTION.
3. SEE "TRAFFIC SIGNAL INSTALLATION DETAIL SHEET" (TR-105) FOR SIGN SPACING AND ADDITIONAL DETAILS.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

VINE/MILLWOOD CROSSWALK TRAFFIC SIGNAL PLAN SHEET

TRAFFIC ENGINEER — APP'D 01/27/22
MIKE ARMOUR, P.E.

PROJECT NUMBER	ORG NUMBER	DATE

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

NOTE TO DESIGNER: Calculate signal clearance times per recommendations from NCHRP Report 731. Yellow and All-Red times shall be rounded up to the nearest 0.5 second. Designer shall provide pole wiring diagrams. Pole wiring uses a separate 7C for each 3,4,or 5 section head per specification 702.21.6. Cable call-out shall be in consistant order on diagram.

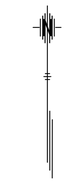
SUGGESTED TIMINGS (SEC.)

PHASE	MINIMUM INITIAL	*MAXIMUM GREEN SPLIT	PEDESTRIAN			**CLEARANCE	
			WALK	FDW	SDW	YELLOW	ALL RED
2	8.0	N/A	N/A	N/A	N/A	4.0	2.0
6	8.0	N/A	N/A	N/A	N/A	4.0	2.0
4	7.0	20.0	7.0	12.0	1.0	N/A	1.0

CLEARANCE DESIGN SPEEDS:
DOUGLAS AVENUE = 35 MPH

*INTERSECTION WILL DWELL IN PHASE 2/6 WITHOUT PED CALL. TIMING INCORPORATES YELLOW & ALL RED CLEARANCE TIMES.

**SIGNAL CLEARANCE TIMINGS ARE CALCULATED BASED ON KDOT BUREAU OF TRAFFIC ENGINEERING'S TRAFFIC ENGINEERING GUIDELINES.



NOT TO SCALE

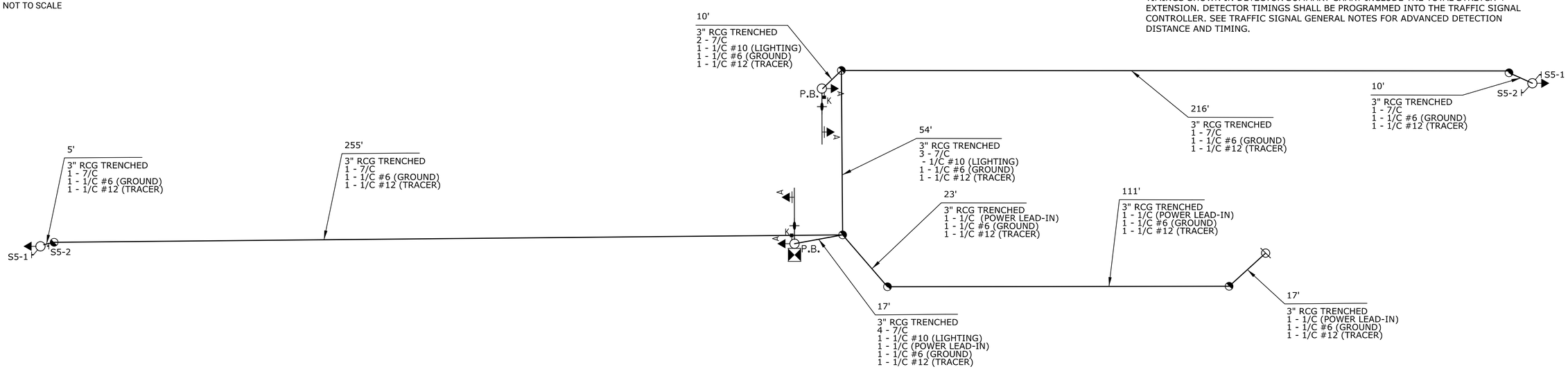
LEGEND

COND.	CONDUIT
SIG.	SIGNAL CABLE
PED.	PEDESTRIAN SIGNAL CABLE
DET.	DETECTOR LEAD-IN CABLE
ST. LT.	STREET LIGHTING CABLE
GRND.	WIRE FOR POLE GROUND
COAX.	COAXIAL CABLE
FUT.	FUTURE CABLE
B.O.	BLANK OUT SIGN CABLE
PREEMPT	PREEMPTION CABLE
RADAR	RADAR DETECTION CABLE

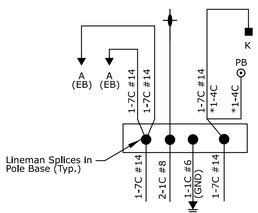
DETECTOR SUMMARY

DETECTOR NUMBER	DETECTION ZONE SIZE	STOP BAR DETECTION	ADVANCED DETECTION	* TIMINGS (SEC)		MODE		PHASE CALLED	DISTANCE FROM STOP BAR
				TOTAL STRETCH + EXTENSION	DELAY	PRESENCE	PULSE		

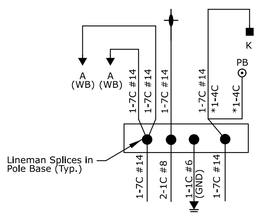
* TIMINGS SHOWN IN DETECTOR SUMMARY CHART INCLUDE THE TOTAL STRETCH + EXTENSION. DETECTOR TIMINGS SHALL BE PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLER. SEE TRAFFIC SIGNAL GENERAL NOTES FOR ADVANCED DETECTION DISTANCE AND TIMING.



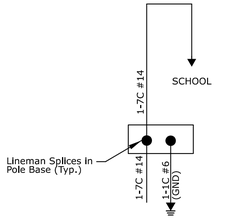
POLE WIRING DIAGRAM



POLE 2



POLE 3



POLE 1 & 4

*4-C FROM PEDESTRIAN SIGNAL HEAD (K) TO ADA PUSHBUTTON PROVIDED BY SUPPLIER

NOTES:

1. ALL MULTI-CONDUCTOR WIRE SHALL BE AWG #14 SOLID UNLESS SPECIFIED OTHERWISE. LABEL EACH WIRE AS SHOWN IN PART 700 SPECIFICATIONS.
2. ALL GROUND WIRE SHALL BE #6 AWG COPPER WIRE IN ACCORDANCE WITH ATM B-3. SOLID BARE COPPER WIRE SHALL BE USED FOR ALL EXTERIOR INSTALLATIONS INCLUDING SERVICE AND GROUND ROD BONDING. OTHERWISE, GREEN INSULATED STRANDED WIRE TYPE "THHN/THWN" SHALL BE USED.
3. GROUND WIRE SHALL BE BONDED TO EACH GROUND ROD AT EVERY POLE, PEDESTAL, SERVICE BOX, AND CONTROLLER TO FORM ONE CONTINUOUS GROUND CIRCUIT.
4. DETECTOR CABLES SHOULD RUN CONTINUOUS. SPLICES, IF REQUIRED, SHALL ONLY OCCUR IN THE POLE BASE AND MUST BE APPROVED BY THE CITY OF WICHITA TRAFFIC ENGINEER.
5. IN NO CASE SHALL MORE THAN 60% OF ANY CONDUIT BE FILLED BY AREA.
6. STREET LIGHTING CABLE SHALL BE SPLICED IN SERVICE BOXES. THE SPLICE SHALL BE MADE WATERPROOF.
7. SPLICES AT POLE BASE SHALL BE LINEMAN SPLICES PER SECTION 702.21.11. TERMINAL BLOCKS WILL NOT BE USED.
8. ALL CONDUIT SHALL BE HOT DIPPED GALVANIZED RIGID STEEL CONDUIT (GRC) AS SHOWN IN THE PROJECT SPECIFICATIONS.
9. DURING EMERGENCY FLASH OPERATIONS, ALL SIGNAL PHASES SHALL BE RED INDICATIONS. PEDESTRIAN PHASE SHALL BE DARK.

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

LEGEND: SIGNAL HEAD (X) | VIDEO DETECTOR | RADAR DETECTOR | PTZ CCTV | LUMINAIRE | PED. HEAD (K) | PUSHBUTTON | GROUND | ST.LT. CONNECTOR KIT | SPLICE CONNECTION

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

VINE/MILLWOOD CROSSWALK TRAFFIC SIGNAL WIRING & TIMING DETAILS

TRAFFIC ENGINEER: MIKE ARMOUR, P.E.
APP'D 01/27/22

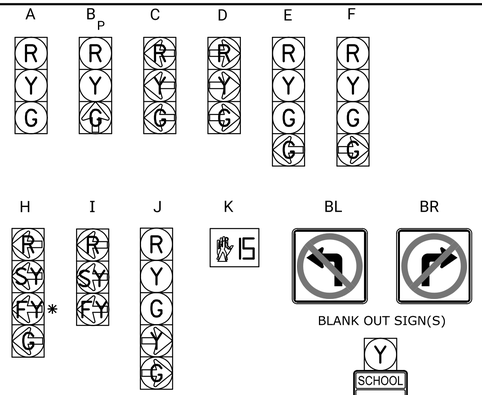
PROJECT NUMBER	ORG NUMBER	DATE

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

NOTE TO DESIGNER: Mast arm lengths shall be in 6' increments (18' to 60'). If a longer mast arm is required, signal pole foundation design calculations must be submitted to the City of Wichita for review. The pad mounted 332L cabinet is typically used unless approved otherwise by City of Wichita Traffic Engineer. 5-Sections heads for left turn phase must be approved by the City of Wichita Traffic Engineer.

CHART A SIGNAL SUMMARY

Signal Face Arrangement	No. Sections (Per Face)	Signal Mounting Type	Quantity
A	3	Mast Arm w/ Backplate	2
A	3	Side-of-Pole	2
K	2	Side-of-Pole	2



BLANK OUT SIGN(S)



SCHOOL ZONE SPEED LIMIT FLASHERS

NOTES:
1. *SHALL NOT BE DISPLAYED WHEN OPERATING IN THE PROTECTED ONLY MODE.
2. ALL LENSES ARE L.E.D. UNLESS OTHERWISE NOTED.
3. SUBSCRIPT "P" INDICATED PROGRAMMED SIGNALS.
4. ALL LENSES SHALL BE 12" DIA. UNLESS OTHERWISE NOTED. PESDESTRIAN DISPLAY (K) SHALL BE RECTANGULAR WITH A WIDTH OF 18" AND HEIGHT OF 16".
5. BLANK OUT SIGN SIZE SHALL MEET MUTCD REQUIREMENTS FOR APPLICABLE STATIC VERSION OF THE SIGN.

CHART B TRAFFIC SIGNAL POLES

Pole Height	Signal Arm Length	Signal Arm Mounting Height	No. of Signals on Arm	Signal Spacing	Luminaire Arm Length	Luminaire Mounting Height	Quantity
20' 6"	18'	19'	1	N/A	N/A	N/A	2

CHART C OVERHEAD STREET NAME SIGNS

Sign	Legend	Length	Quantity



S1-1 AND W16-7P (FLUORESCENT YELLOW-GREEN)



S5-1



R10-6A



S5-2



R10-3e

BILL OF MATERIALS
-Quantities for Information Only-

Item	Quantity	Unit	Spec. No.	Note
CONTROLLER UNIT	1	EACH	703.2.1	
CONFLICT MONITOR	1	EACH	703.2.2	
LOAD SWITCH	1	EACH	703.2.3	
FLASHER	1	EACH	703.2.4	
FLASH TRANSFER RELAY	1	EACH	703.2.5	
SURGE PROTECTOR	1	EACH	703.2.6	
DC ISOLATOR	1	EACH	703.2.7	
AC ISOLATOR		EACH	703.2.8	
GPS CLOCK	1	EACH	703.2.9	
POWER STRIP	1	EACH	703.2.11	
LOOP DETECTOR (2 or 4 CHANNEL)		EACH	703.2.10	
POLE MOUNTED CABINET (336L)	1	EACH	703.2.11	
PAD MOUNTED CABINET (332L)		EACH	703.2.11	
PAD MOUNTED CABINET (342) (DOUBLE)		EACH	703.2.11	
BATTERY BACKUP (BBS/UPS)	1	EACH	703.2.14	
VIDEO DETECTION DEVICE & HARDWARE		EACH	703.3.1	
RADAR DETECTION DEVICE & HARDWARE		EACH	703.3.2	
TRAFFIC SIGNAL HEAD	CHART A	EACH	703.4.1	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	703.4.2	
RETROREFLECTIVE BACKPLATE	CHART A	EACH	703.4.3	
VEHICLE TRAFFIC SIGNAL LED MODULES	4	EACH	703.4.4	
PEDESTRIAN TRAFFIC SIGNAL LED MODULES	2	EACH	703.4.5	
APS PUSHBUTTON SYSTEM & SIGN (R10-3E, 9"x15")	2	EACH	703.4.6	
TRAFFIC SIGNAL POLE	CHART B	EACH	703.5.1	
TRAFFIC SIGNAL PEDESTAL (ALUMINUM)		EACH	703.5.2	
APS PUSHBUTTON STATION (ALUMINUM)		EACH	703.5.3	
SERVICE BOX	6	EACH	703.6	
LUMINAIRE ARM	2	EACH	703.7.1	POWER COMPANY PROVIDED & INSTALLED
LED LUMINAIRE	2	EACH	703.7.2	POWER COMPANY PROVIDED & INSTALLED
PHOTOCELL	2	EACH	703.7.3	POWER COMPANY PROVIDED & INSTALLED
UNFUSED STREET LIGHT CONNECTOR KIT		EACH	703.7.4	
FUSED STREET LIGHT CONNECTOR KIT	2	EACH	703.7.5	
OVERHEAD STREET NAME SIGN		EACH	703.8.1	
R10-10 SIGN (30" X 36")		EACH	703.8.2	
R10-FYA SIGN (30" X 36")		EACH	703.8.2	
BLANK OUT SIGN (36" X 36")		EACH	703.8.3	
ENTRANCE HEAD	1	EACH	703.9.2	
SERVICE ENCLOSURE, AMP.	1	EACH	703.9.3	
CIRCUIT BREAKER, TRAFFIC SIGNAL, AMP.	1	EACH	703.9.4	
CIRCUIT BREAKER, LUMINAIRE, AMP.		EACH	703.9.4	
SURGE ARRESTER CA 302R	1	EACH	703.9.5	
POWER SERVICE CONTROLLER CABINET	1	EACH	703.9.6	
GROUND ROD & CLAMP	4	EACH	703.10	
SERVICE WIRE NO. 6 AWG 1/C	210	LIN FT	703.11.1	
LIGHTING DISTRIBUTION WIRE NO. 10 AWG 1/C	230	LIN FT	703.11.2	
POLE & BRACKET WIRE NO. 10 AWG 1/C	260	LIN FT	703.11.3	
GROUND WIRE NO. 6 AWG 1/C BARE SOLID	960	LIN FT	703.11.4	
TRACER WIRE NO. 12 AWG (BLUE)	960	LIN FT	703.11.5	
TRACER WIRE CONNECTOR	4	EACH	703.11.6	
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	1120	LIN FT	703.11.7	
MULTI-CONDUCTOR CABLE NO. 14 AWG /C		LIN FT	703.11.7	
DETECTION CABLE		LIN FT	703.11.9	
PRE-FORMED LOOP		EACH	703.11.10	
ETHERNET CABLE (CAT6)		LIN FT	703.11.11	
CONDUIT, 2" & FITTINGS		LIN FT	703.12	
CONDUIT, 3" & FITTINGS	720	LIN FT	703.12	
CONDUIT, __" & FITTINGS		LIN FT	703.12	

NOTES:

1. QUANTITIES SHOWN ARE FOR THE PEDESTRIAN SIGNAL ON DOUGLAS BETWEEN VINE AND MILLWOOD.

2. REFER TO CITY OF WICHITA PART 700 TRAFFIC SIGNALIZATION SPECIFICATIONS.

3. ALL TRAFFIC SIGNAL POLES SHALL BE PAINTED BLACK PER LATEST EDITION OF PART 700 SPECIFICATIONS. SIGNAL CABINET SHALL BE NATURAL ALUMINUM.

4. CONFLICT MONITOR SHALL BE A 2010 ECL-IP UNIT WITH ETHERNET PORT.

5. A SEPARATE DETECTION CARD SHALL BE USED FOR EACH INTERSECTION LEG. THE DETECTION SYSTEM INCLUDES DETECTOR UNIT, PROCESSOR, CARD, AND INCIDENTAL ITEMS NECESSARY FOR THE SUCCESSFUL OPERATION OF THE DETECTION SYSTEM.

BID ITEM

Item	Quantity	Unit
Traffic Signal	LSUM	LSUM
~~Temporary Traffic Signal~~	~~LSUM~~	~~LSUM~~
Traffic Signal Controller		EACH
~~Detection System~~	~~LSUM~~	~~LSUM~~

1. TRAFFIC SIGNAL CONTROLLER ITEM INCLUDES THE UNIT COST FOR PERMANENT CONTROLLER ONLY. COST FOR INSTALLATION, PROGRAMMING, ETC. SHALL BE INCLUDED IN THE "TRAFFIC SIGNAL" QUANTITY.

~~2. CONTROLLERS FOR TEMPORARY SIGNAL(S) IS SUBSIDIARY TO THE BID ITEM "TEMPORARY TRAFFIC SIGNAL".~~

3. FOR MULTIPLE PROJECT INTERSECTIONS, QUANTITIES SHOULD BID SEPARATELY FOR EACH SIGNALIZED INTERSECTION (EXCLUDING CONTROLLERS).

4. THE TRAFFIC SIGNAL SYSTEM SHALL BE COMPLETE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF ELECTRICAL APPARATUS AND FOR COMPLETE OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

VINE/MILLWOOD CROSSWALK
TRAFFIC SIGNAL
QUANTITY SHEET

TRAFFIC ENGINEER — APP'D 01/27/22
MIKE ARMOUR, P.E.

PROJECT NUMBER	ORG NUMBER	DATE

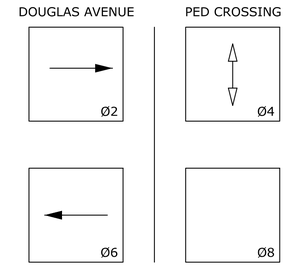
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
75 of 180
TR-102

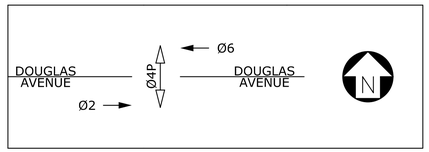
NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

NOTE TO DESIGNER: Designer to update signal faces and applicable phases. Associated phase to cardinal direction shall not change. Northing and easting should be to the 0.XX. Other than signal phasing, changes to this sheet do not need to be listed as "Modifications" on the general notes.

PHASE DIAGRAM

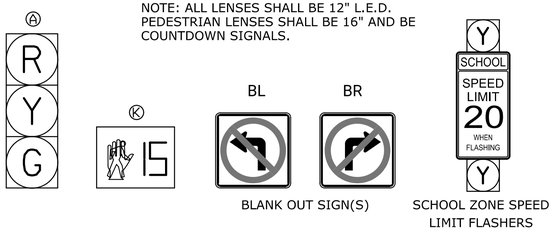


SIGNAL PHASES



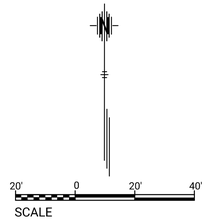
SIGNAL FACES

NOTE: ALL LENSES SHALL BE 12" L.E.D. PEDESTRIAN LENSES SHALL BE 16" AND BE COUNTDOWN SIGNALS.



GENERAL NOTES:

1. CONDUIT RUNS ARE APPROXIMATE & MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS & FACILITATE WIRING, AS APPROVED BY THE ENGINEER. ALL CONDUIT RUNS SHALL BE STRAIGHT BETWEEN BOXES AND/OR FOUNDATIONS.
2. EXISTING FEATURES & UTILITIES ARE SHOWN FROM AVAILABLE INFORMATION & SHOULD BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY UTILITIES & THEIR EXACT LOCATION PRIOR TO CONSTRUCTION.
3. SEE "TRAFFIC SIGNAL INSTALLATION DETAIL SHEET" (TR-105) FOR SIGN SPACING AND ADDITIONAL DETAILS.



STRUCTURE LOCATIONS

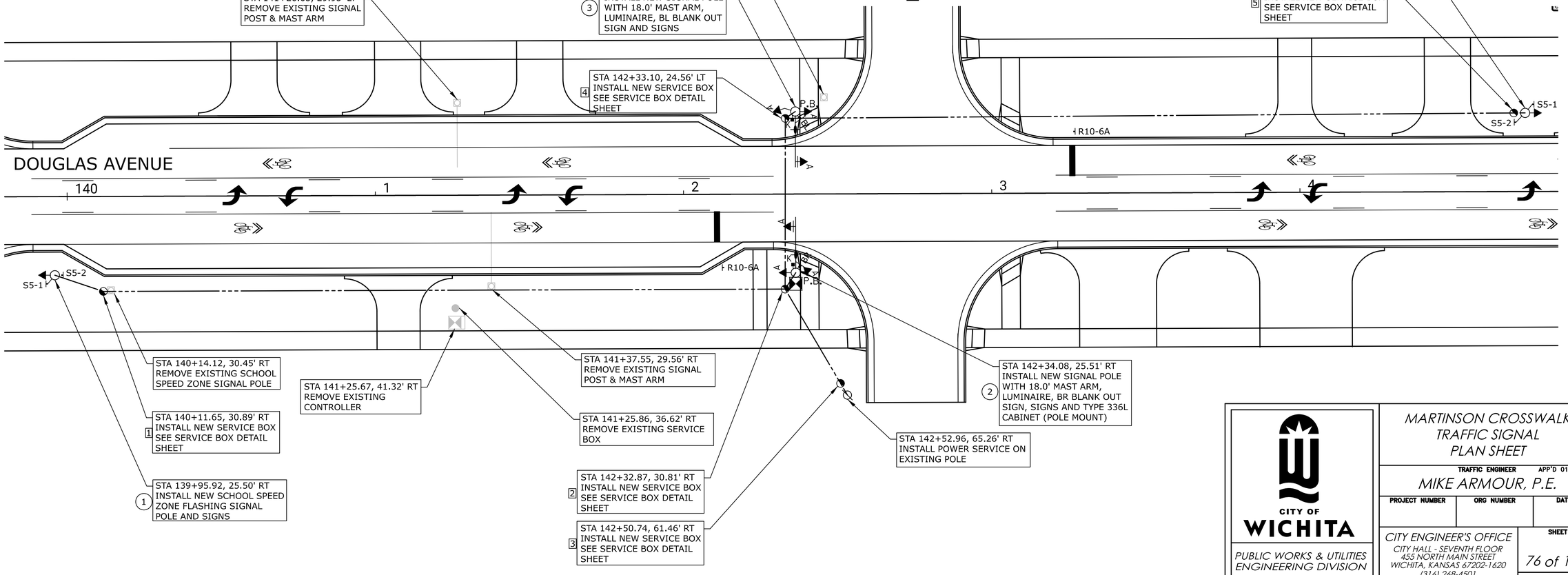
POLE NO.	*TYPE	STATION	OFFSET	NORTHING	EASTING	**ELEV.
1	SCHOOL	139+95.92	25.50' RT	N/A	N/A	N/A
2	POLE	142+34.08	25.51' RT	N/A	N/A	N/A
3	POLE	142+36.34	26.76' LT	N/A	N/A	N/A
4	SCHOOL	144+73.17	25.50' LT	N/A	N/A	N/A
Meter	-	142+52.96	65.26' RT	N/A	N/A	N/A
Cont.	-	N/A	N/A	N/A	N/A	N/A

SERVICE BOX LOCATIONS

BOX NO.	STATION	OFFSET	NORTHING	EASTING	**ELEV.
1	140+11.65	30.89' RT	N/A	N/A	N/A
2	142+32.87	30.81' RT	N/A	N/A	N/A
3	142+50.74	61.46' RT	N/A	N/A	N/A
4	142+33.10	24.56' LT	N/A	N/A	N/A
5	144+69.48	25.50' LT	N/A	N/A	N/A

*STRUCTURE TYPES: POLE - TRAFFIC SIGNAL POLE; PED - TRAFFIC SIGNAL PEDESTAL; PB STA - APS PUSHBUTTON STATION; SCHOOL - SCHOOL SPEED LIMIT FLASHERS.

**APPROXIMATE TOP OF FOUNDATION. SEE STANDARDS AND SPECS FOR ADDITIONAL INFORMATION. FOUNDATIONS SHALL NOT CREATE A "LOW AREA".



NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MARTINSON CROSSWALK TRAFFIC SIGNAL PLAN SHEET

TRAFFIC ENGINEER — APP'D 01/27/22
MIKE ARMOUR, P.E.

PROJECT NUMBER	ORG NUMBER	DATE

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

SHEET
76 of 180
TR-103

NOTE TO DESIGNER: Calculate signal clearance times per recommendations from NCHRP Report 731. Yellow and All-Red times shall be rounded up to the nearest 0.5 second. Designer shall provide pole wiring diagrams. Pole wiring uses a separate 7C for each 3,4,or 5 section head per specification 702.21.6. Cable call-out shall be in consistant order on diagram.

SUGGESTED TIMINGS (SEC.)

PHASE	MINIMUM INITIAL	*MAXIMUM GREEN SPLIT	PEDESTRIAN			**CLEARANCE	
			WALK	FDW	SDW	YELLOW	ALL RED
2	8.0	N/A	N/A	N/A	N/A	4.0	2.0
6	8.0	N/A	N/A	N/A	N/A	4.0	2.0
4	7.0	20.0	7.0	12.0	1.0	N/A	1.0

CLEARANCE DESIGN SPEEDS:
DOUGLAS AVENUE = 35 MPH

*INTERSECTION WILL DWELL IN PHASE 2/6 WITHOUT PED CALL. TIMING INCORPORATES YELLOW & ALL RED CLEARANCE TIMES.

**SIGNAL CLEARANCE TIMINGS ARE CALCULATED BASED ON KDOT BUREAU OF TRAFFIC ENGINEERING'S TRAFFIC ENGINEERING GUIDELINES.



NOT TO SCALE

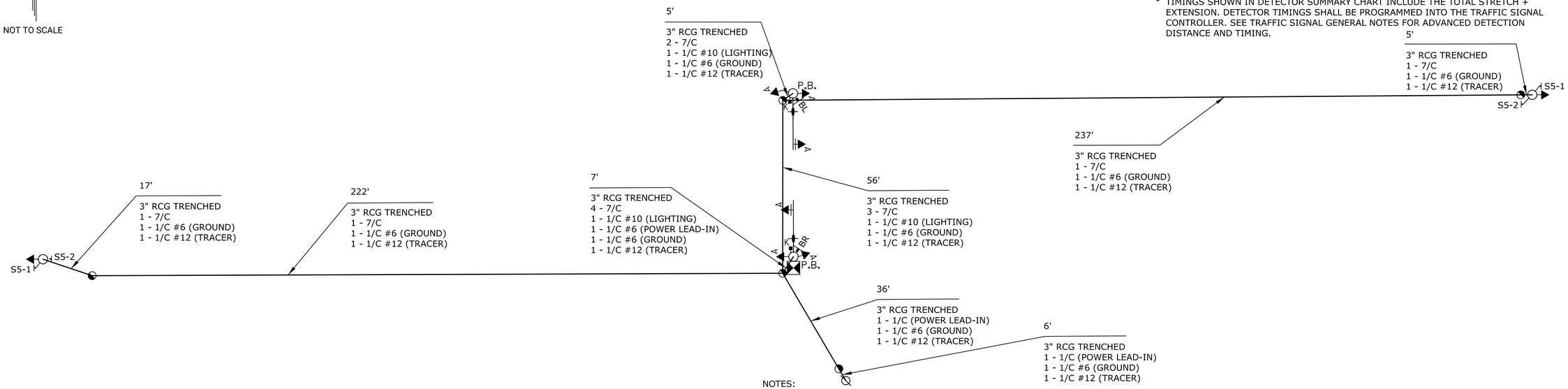
LEGEND

COND.	CONDUIT
SIG.	SIGNAL CABLE
PED.	PEDESTRIAN SIGNAL CABLE
DET.	DETECTOR LEAD-IN CABLE
ST. LT.	STREET LIGHTING CABLE
GRND.	WIRE FOR POLE GROUND
COAX.	COAXIAL CABLE
FUT.	FUTURE CABLE
B.O.	BLANK OUT SIGN CABLE
PREEMPT	PREEMPTION CABLE
RADAR	RADAR DETECTION CABLE

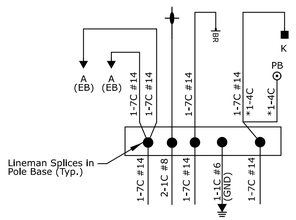
DETECTOR SUMMARY

DETECTOR NUMBER	DETECTION ZONE SIZE	STOP BAR DETECTION	ADVANCED DETECTION	* TIMINGS (SEC)		MODE		PHASE CALLED	DISTANCE FROM STOP BAR
				TOTAL STRETCH + EXTENSION	DELAY	PRESENCE	PULSE		

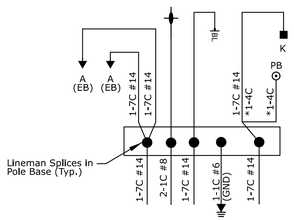
* TIMINGS SHOWN IN DETECTOR SUMMARY CHART INCLUDE THE TOTAL STRETCH + EXTENSION. DETECTOR TIMINGS SHALL BE PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLER. SEE TRAFFIC SIGNAL GENERAL NOTES FOR ADVANCED DETECTION DISTANCE AND TIMING.



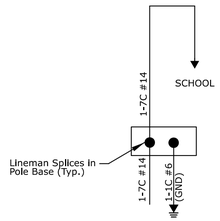
POLE WIRING DIAGRAM



POLE 2



POLE 3



POLE 1 & 4

*4-C FROM PEDESTRIAN SIGNAL HEAD (K) TO ADA PUSHBUTTON PROVIDED BY SUPPLIER

NOTES:

1. ALL MULTI-CONDUCTOR WIRE SHALL BE AWG #14 SOLID UNLESS SPECIFIED OTHERWISE. LABEL EACH WIRE AS SHOWN IN PART 700 SPECIFICATIONS.
2. ALL GROUND WIRE SHALL BE #6 AWG COPPER WIRE IN ACCORDANCE WITH ATM B-3. SOLID BARE COPPER WIRE SHALL BE USED FOR ALL EXTERIOR INSTALLATIONS INCLUDING SERVICE AND GROUND ROD BONDING. OTHERWISE, GREEN INSULATED STRANDED WIRE TYPE "THHN/THWN" SHALL BE USED.
3. GROUND WIRE SHALL BE BONDED TO EACH GROUND ROD AT EVERY POLE, PEDESTAL, SERVICE BOX, AND CONTROLLER TO FORM ONE CONTINUOUS GROUND CIRCUIT.
4. DETECTOR CABLES SHOULD RUN CONTINUOUS. SPLICES, IF REQUIRED, SHALL ONLY OCCUR IN THE POLE BASE AND MUST BE APPROVED BY THE CITY OF WICHITA TRAFFIC ENGINEER.
5. IN NO CASE SHALL MORE THAN 60% OF ANY CONDUIT BE FILLED BY AREA.
6. STREET LIGHTING CABLE SHALL BE SPLICED IN SERVICE BOXES. THE SPLICE SHALL BE MADE WATERPROOF.
7. SPLICES AT POLE BASE SHALL BE LINEMAN SPLICES PER SECTION 702.21.11. TERMINAL BLOCKS WILL NOT BE USED.
8. ALL CONDUIT SHALL BE HOT DIPPED GALVANIZED RIGID STEEL CONDUIT (GRC) AS SHOWN IN THE PROJECT SPECIFICATIONS.
9. DURING EMERGENCY FLASH OPERATIONS, ALL SIGNAL PHASES SHALL BE RED INDICATIONS. PEDESTRIAN PHASE SHALL BE DARK.

LEGEND: SIGNAL HEAD (X) | VIDEO DETECTOR | RADAR DETECTOR | PTZ CCTV | LUMINAIRE | PED. HEAD (K) | PUSHBUTTON | GROUND | ST.LT. CONNECTOR KIT | SPLICE CONNECTION

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

MARTINSON CROSSWALK TRAFFIC SIGNAL WIRING & TIMING DETAILS

TRAFFIC ENGINEER: MIKE ARMOUR, P.E.
APP'D 01/27/22

PROJECT NUMBER	ORG NUMBER	DATE

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

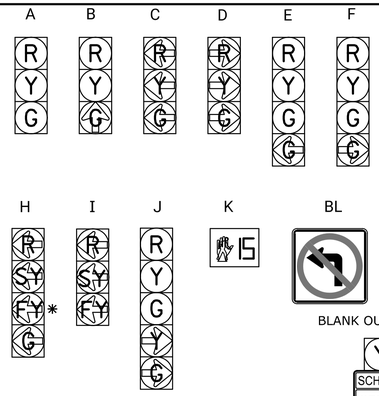
SHEET: 77 of 180

TR-104

NOTE TO DESIGNER: Mast arm lengths shall be in 6' increments (18' to 60'). If a longer mast arm is required, signal pole foundation design calculations must be submitted to the City of Wichita for review. The pad mounted 332L cabinet is typically used unless approved otherwise by City of Wichita Traffic Engineer. 5-Sections heads for left turn phase must be approved by the City of Wichita Traffic Engineer.

CHART A SIGNAL SUMMARY

Signal Face Arrangement	No. Sections (Per Face)	Signal Mounting Type	Quantity
A	3	Mast Arm w/ Backplate	2
A	3	Side-of-Pole	2
K	2	Side-of-Pole	2
BL	1	Side-of-Pole	1
BR	1	Side-of-Pole	1





SCHOOL ZONE SPEED LIMIT FLASHERS

NOTES:
1. *SHALL NOT BE DISPLAYED WHEN OPERATING IN THE PROTECTED ONLY MODE.
2. ALL LENSES ARE L.E.D. UNLESS OTHERWISE NOTED.
3. SUBSCRIPT "P" INDICATED PROGRAMMED SIGNALS.
4. ALL LENSES SHALL BE 12" DIA. UNLESS OTHERWISE NOTED. PESDESTRIAN DISPLAY (K) SHALL BE RECTANGULAR WITH A WIDTH OF 18" AND HEIGHT OF 16".
5. BLANK OUT SIGN SIZE SHALL MEET MUTCD REQUIREMENTS FOR APPLICABLE STATIC VERSION OF THE SIGN.

CHART B TRAFFIC SIGNAL POLES

Pole Height	Signal Arm Length	Signal Arm Mounting Height	No. of Signals on Arm	Signal Spacing	Luminaire Arm Length	Luminaire Mounting Height	Quantity
20' 6"	18'	19'	1	N/A	N/A	N/A	2
10'	N/A	N/A	0	N/A	N/A	N/A	2

CHART C OVERHEAD STREET NAME SIGNS

Sign	Legend	Length	Quantity



S1-1 AND W16-7P (FLUORESCENT YELLOW-GREEN)



S5-1



R10-6A



S5-2



R10-3e

BILL OF MATERIALS
-Quantities for Information Only-

Item	Quantity	Unit	Spec. No.	Note
CONTROLLER UNIT	1	EACH	703.2.1	
CONFLICT MONITOR	1	EACH	703.2.2	
LOAD SWITCH	1	EACH	703.2.3	
FLASHER	1	EACH	703.2.4	
FLASH TRANSFER RELAY	1	EACH	703.2.5	
SURGE PROTECTOR	1	EACH	703.2.6	
DC ISOLATOR	1	EACH	703.2.7	
AC ISOLATOR		EACH	703.2.8	
GPS CLOCK	1	EACH	703.2.9	
POWER STRIP	1	EACH	703.2.11	
LOOP DETECTOR (2 or 4 CHANNEL)		EACH	703.2.10	
POLE MOUNTED CABINET (336L)	1	EACH	703.2.11	
PAD MOUNTED CABINET (332L)		EACH	703.2.11	
PAD MOUNTED CABINET (342) (DOUBLE)		EACH	703.2.11	
BATTERY BACKUP (BBS/UPS)	1	EACH	703.2.14	
VIDEO DETECTION DEVICE & HARDWARE		EACH	703.3.1	
RADAR DETECTION DEVICE & HARDWARE		EACH	703.3.2	
TRAFFIC SIGNAL HEAD	CHART A	EACH	703.4.1	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	703.4.2	
RETROREFLECTIVE BACKPLATE	CHART A	EACH	703.4.3	
VEHICLE TRAFFIC SIGNAL LED MODULES	4	EACH	703.4.4	
PEDESTRIAN TRAFFIC SIGNAL LED MODULES	2	EACH	703.4.5	
APS PUSHBUTTON SYSTEM & SIGN (R10-3E, 9"x15")	2	EACH	703.4.6	
TRAFFIC SIGNAL POLE	CHART B	EACH	703.5.1	
TRAFFIC SIGNAL PEDESTAL (ALUMINUM)		EACH	703.5.2	
APS PUSHBUTTON STATION (ALUMINUM)		EACH	703.5.3	
SERVICE BOX	5	EACH	703.6	
LUMINAIRE ARM	2	EACH	703.7.1	POWER COMPANY PROVIDED & INSTALLED
LED LUMINAIRE	2	EACH	703.7.2	POWER COMPANY PROVIDED & INSTALLED
PHOTOCELL	2	EACH	703.7.3	POWER COMPANY PROVIDED & INSTALLED
UNFUSED STREET LIGHT CONNECTOR KIT		EACH	703.7.4	
FUSED STREET LIGHT CONNECTOR KIT	2	EACH	703.7.5	
OVERHEAD STREET NAME SIGN		EACH	703.8.1	
R10-10 SIGN (30" X 36")		EACH	703.8.2	
R10-FYA SIGN (30" X 36")		EACH	703.8.2	
BLANK OUT SIGN (36" X 36")	2	EACH	703.8.3	
ENTRANCE HEAD	1	EACH	703.9.2	
SERVICE ENCLOSURE, AMP.	1	EACH	703.9.3	
CIRCUIT BREAKER, TRAFFIC SIGNAL, AMP.	1	EACH	703.9.4	
CIRCUIT BREAKER, LUMINAIRE, AMP.		EACH	703.9.4	
SURGE ARRESTER CA 302R	1	EACH	703.9.5	
POWER SERVICE CONTROLLER CABINET	1	EACH	703.9.6	
GROUND ROD & CLAMP	4	EACH	703.10	
SERVICE WIRE NO. 6 AWG 1/C	90	LIN FT	703.11.1	
LIGHTING DISTRIBUTION WIRE NO. 10 AWG 1/C	200	LIN FT	703.11.2	
POLE & BRACKET WIRE NO. 10 AWG 1/C	260	LIN FT	703.11.3	
GROUND WIRE NO. 6 AWG 1/C BARE SOLID	810	LIN FT	703.11.4	
TRACER WIRE NO. 12 AWG (BLUE)	810	LIN FT	703.11.5	
TRACER WIRE CONNECTOR	4	EACH	703.11.6	
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	1060	LIN FT	703.11.7	
MULTI-CONDUCTOR CABLE NO. 14 AWG /C		LIN FT	703.11.7	
DETECTION CABLE		LIN FT	703.11.9	
PRE-FORMED LOOP		EACH	703.11.10	
ETHERNET CABLE (CAT6)		LIN FT	703.11.11	
CONDUIT, 2" & FITTINGS		LIN FT	703.12	
CONDUIT, 3" & FITTINGS	600	LIN FT	703.12	
CONDUIT, __" & FITTINGS		LIN FT	703.12	

NOTES:

1. QUANTITIES SHOWN ARE FOR THE PEDESTRIAN SIGNAL AT DOUGLAS AND MARTINSON.

2. REFER TO CITY OF WICHITA PART 700 TRAFFIC SIGNALIZATION SPECIFICATIONS.

3. ALL TRAFFIC SIGNAL POLES SHALL BE PAINTED BLACK PER LATEST EDITION OF PART 700 SPECIFICATIONS. SIGNAL CABINET SHALL BE NATURAL ALUMINUM.

4. CONFLICT MONITOR SHALL BE A 2010 ECL-IP UNIT WITH ETHERNET PORT.

5. A SEPARATE DETECTION CARD SHALL BE USED FOR EACH INTERSECTION LEG. THE DETECTION SYSTEM INCLUDES DETECTOR UNIT, PROCESSOR, CARD, AND INCIDENTAL ITEMS NECESSARY FOR THE SUCCESSFUL OPERATION OF THE DETECTION SYSTEM.

BID ITEM

Item	Quantity	Unit
Traffic Signal	LSUM	LSUM
~~Temporary Traffic Signal~~	~~LSUM~~	~~LSUM~~
Traffic Signal Controller		EACH
~~Detection System~~	~~LSUM~~	~~LSUM~~

1. TRAFFIC SIGNAL CONTROLLER ITEM INCLUDES THE UNIT COST FOR PERMANENT CONTROLLER ONLY. COST FOR INSTALLATION, PROGRAMMING, ETC. SHALL BE INCLUDED IN THE "TRAFFIC SIGNAL" QUANTITY.

~~2. CONTROLLERS FOR TEMPORARY SIGNAL(S) IS SUBSIDIARY TO THE BID ITEM "TEMPORARY TRAFFIC SIGNAL".~~

3. FOR MULTIPLE PROJECT INTERSECTIONS, QUANTITIES SHOULD BID SEPARATELY FOR EACH SIGNALIZED INTERSECTION (EXCLUDING CONTROLLERS).

4. THE TRAFFIC SIGNAL SYSTEM SHALL BE COMPLETE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF ELECTRICAL APPARATUS AND FOR COMPLETE OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MARTINSON CROSSWALK
TRAFFIC SIGNAL
QUANTITY SHEET

TRAFFIC ENGINEER APP'D 01/27/22
MIKE ARMOUR, P.E.

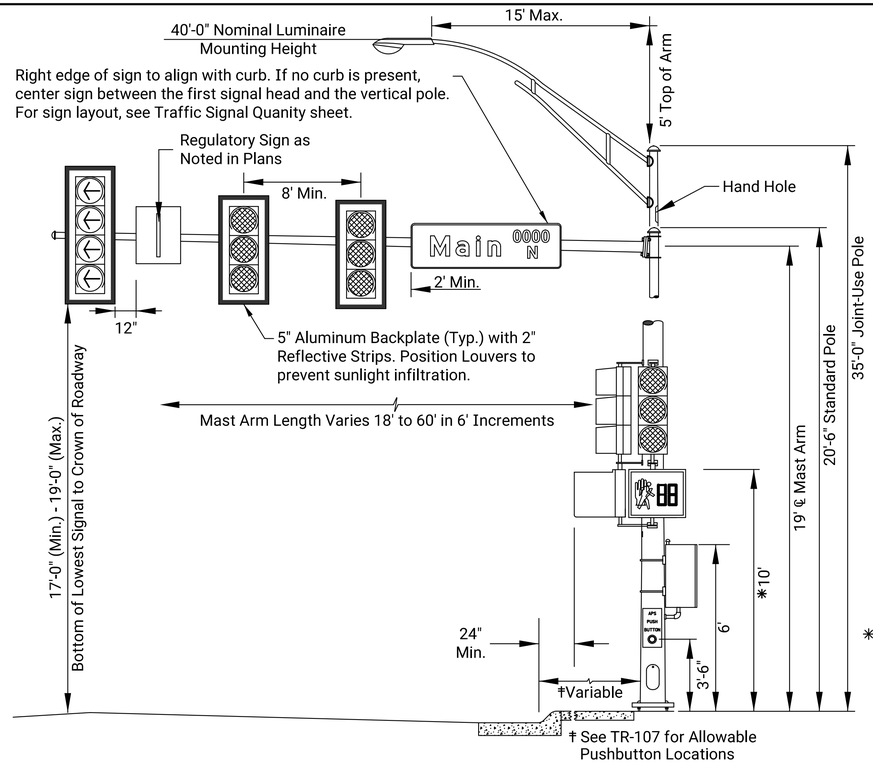
PROJECT NUMBER	ORG NUMBER	DATE

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

SHEET

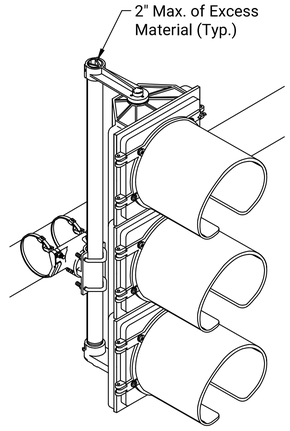
TR-102

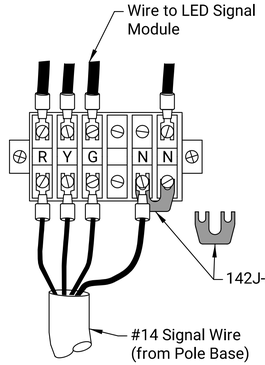
NOTE TO DESIGNER: Mast arm length shall be a minimum of 2 feet longer than last signal head. See "Signal Pole Data and Specification" for standard mast arm lengths and luminaire heights.



✳ NOTE:
Pedestrian signal heads shall be mounted so the top of signal head is at 10' above sidewalk level. Bottom of pedestrian head shall be 7' minimum from sidewalk level.

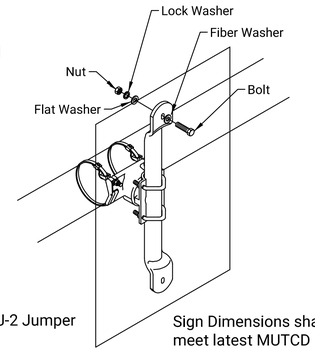
RIGID SIGNAL MOUNTING DETAIL





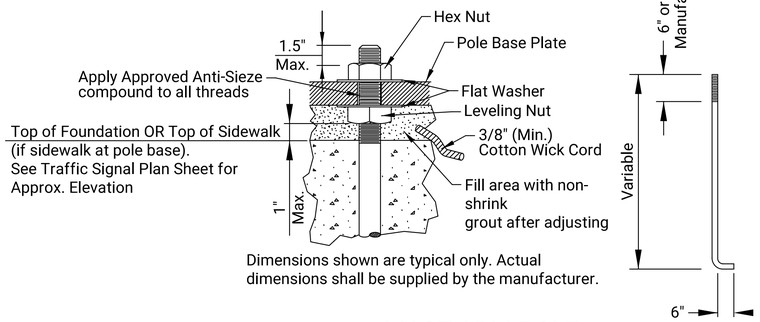
SIGNAL HEAD JUMPER DETAIL

Example for 3-Section Head Shown



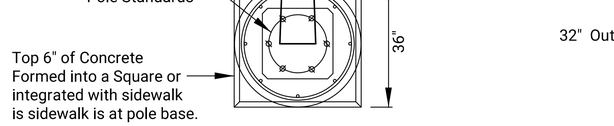
Sign Dimensions shall meet latest MUTCD Requirements

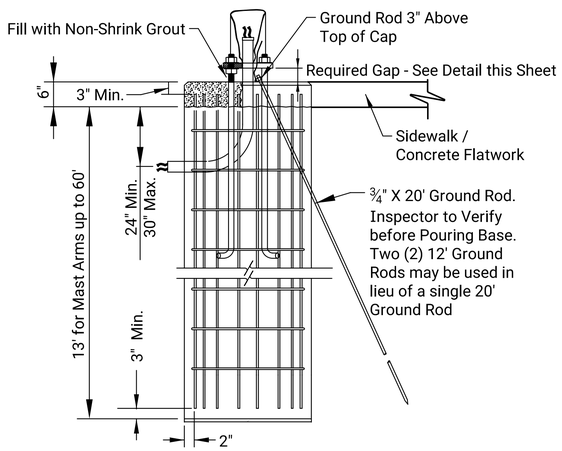
SIGN MOUNTING BRACKET DETAIL SIGNS OVER 18" TALL (R10 SERIES)



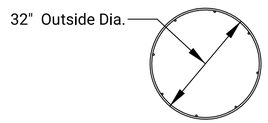
MAST ARM POLE ANCHOR BOLT DETAIL

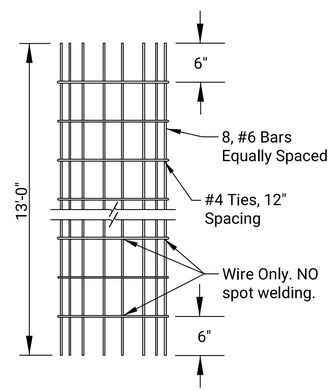
1. Under no circumstance shall the bolt-flange of the pole be recessed in concrete.
2. The space between Pole Base Plate and Top of Foundation shall not exceed the diameter of the anchor bolt.
3. The anchor bolt threads shall be protected from concrete fouling during concrete placement.





MAST ARM POLE & BASE DETAIL





MAST ARM POLE REBAR CAGE DETAIL

(FOR MAST ARMS UP TO 60')

NOTE:
1. THE CITY STANDARD TRAFFIC SIGNAL POLE FOUNDATION DESIGN IS ACCEPTABLE FOR A MAXIMUM MAST ARM SPAN OF UP TO 60 FEET WITH A 13'-0" DEEP FOOTING SHAFT. IF A LONGER MAST ARM IS REQUIRED, SIGNAL POLE FOUNDATION DESIGN CALCULATIONS MUST BE SUBMITTED TO THE CITY FOR REVIEW.
2. MINIMUM SOIL PROPERTIES FOR THESE LENGTHS ARE EITHER "PHI" OF 5° OR GREATER OR A MINIMUM "C" VALUE OF 500 PSF OR GREATER. SOILS HAVING PROPERTIES LESS THAN EITHER OF THESE MUST HAVE CALCULATIONS SUBMITTED TO THE CITY FOR REVIEW.
3. THE ANCHOR BOLTS FOR THE SIGNAL POLE MAY BE TACK WELDED TOGETHER IN BOLT PATTERN (ON CENTERS AS SHOWN) TO MAINTAIN REQUIRED BOLT CONFIGURATION PATTERN AND TO AID IN VERTICAL POSITIONING WHILE CONCRETE BASE IS POURED.
4. USE ANTI-SEIZE COMPOUND ON ALL THREADS.
5. GROUND RODS TO BE POSITIONED AND SHOWN TO INSPECTOR BEFORE POURING BASE.
6. GROUND RODS FOR TRAFFIC SIGNAL MAST ARM POLES AND 342 CABINETS SHOULD BE 3/4" X 20'. TWO (2) 3/4" X 12' GROUND RODS MAY BE USED IN LIEU OF A SINGLE 20' GROUND ROD. ALL OTHER GROUND RODS SHALL BE 3/4" X 12'.
7. CONCRETE SHALL MEET THE REQUIREMENTS OF GRADE 4.0 PER SPECIFICATIONS.
8. CONSTRUCT SQUARE CONCRETE CAP AFTER POLE HAS BEEN ERECTED & PLUMBED. CHAMFER EDGE 1". MUST BE APPROVED BY ENGINEER BEFORE POURED.
9. CONDUIT SHALL HAVE PLASTIC (OR METAL) BUSHING (ABOVE BASE) TO PREVENT CABLE CHAFING.
10. RUBBER GROMMETS SHALL BE INSTALLED FOR WIRE ENTRANCE HOLES AT EACH PENETRATION LOCATION. HOLES MAY BE FIELD DRILLED AS PER MANUFACTURE SIZE AND PROCEDURES.
11. HOLE(S) FOR WIRING SHOULD BE 7/8" MINIMUM DIAMETER AND MUST BE DEBURRED TO PREVENT DAMAGE. SPARE/EMPTY HOLES SHALL BE FILLED WITH TRADE-SIZE SMOOTH-FACE CONDUIT CLOSURE(S) OR AS DIRECTED BY CITY TRAFFIC SIGNAL MAINTENANCE.
12. USE #6 BARE COPPER GROUND CONDUCTOR FROM CLAMP TO GROUND BOLT IN ACCESS HOLE.
13. IN THE EVENT SOUND BEDROCK IS ENCOUNTERED AT A DEPTH LESS THAN STANDARD, CONTRACTOR SHALL NOT PROCEED WITHOUT ENGINEER APPROVAL OF SOCKET DEPTH.
14. IT MAY BE NECESSARY TO USE A CONCRETE FORM/SONOTUBE FOR THE SIGNAL AND PEDESTRIAN POLE BASES WHERE PREVIOUS EXCAVATION MAY HAVE OCCURRED OR SANDY SOILS. IT IS EXPECTED THAT THE SIGNAL AND PEDESTRIAN POLES' LOCATIONS WILL NOT BE CHANGED AND IT IS UP TO THE CONTRACTOR TO ACCOUNT FOR CONCRETE FORMS WITHIN THEIR BID IF THEY ARE NEEDED FOR POSSIBLE UNSTABLE SOIL CONDITIONS.

NO	DATE	REVISIONS	BY	APP'D
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1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

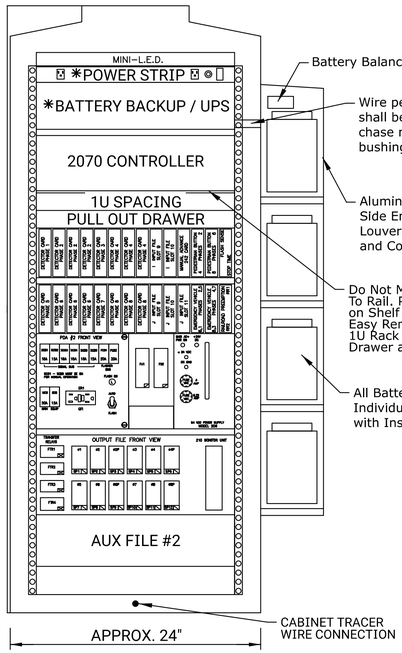
TRAFFIC SIGNAL INSTALLATION DETAIL SHEET

TRAFFIC ENGINEER: MIKE ARMOUR, P.E. — APP'D 01/27/22

PROJECT NUMBER	ORG NUMBER	DATE

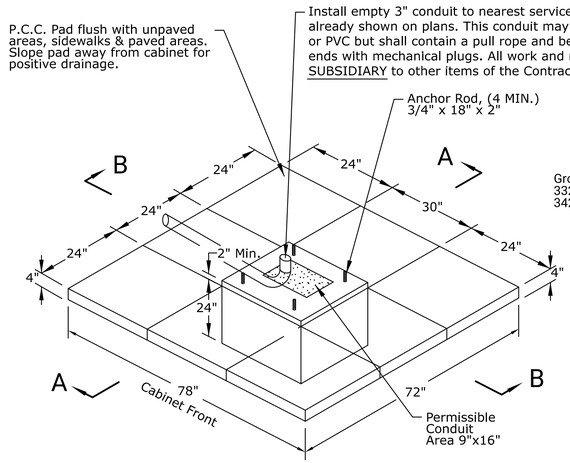
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

NOTE TO DESIGNER: Design shall identify cabinet type on Traffic Signal Quantity Sheet. Typically, the Type 332L Cabinet shall be used unless intersection includes (or future) fiber connections or integration with transportation system.

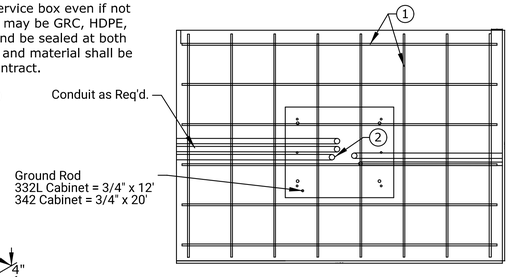


TYPICAL TYPE 332L CABINET (PAD MOUNT)

Approximate 67" H x 24" W x 30" D
*Locate Power Strip & BBS on Backside of Cabinet



TYPE 332L PAD



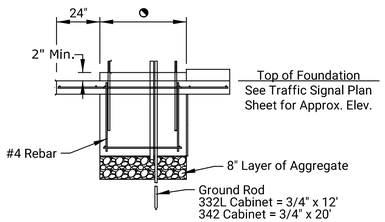
CABINET FOUNDATION NOTES:

1. ALL REINFORCING BAR USED IN THE CONSTRUCTION OF THE CABINET FOUNDATION SHALL BE NO. 4 BARS, EVENLY SPACED AT 12 IN SPACING, +/- 1.5 IN.

   6"x6"-W4xW4 WELDED WIRE FABRIC (WWF) MAY BE USED IN LIEU OF REINFORCING BAR.

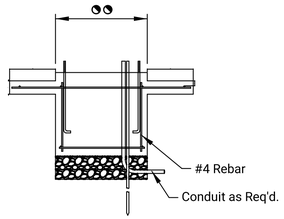
2. REINFORCEMENT SHALL BE ADJUSTED TO ACCOMMODATE CONDUIT.

3. MINIMUM NO. 4 COPPER GROUNDING CONDUCTOR FROM CABINET EQUIPMENT GROUND BUS TO GROUND ROD.



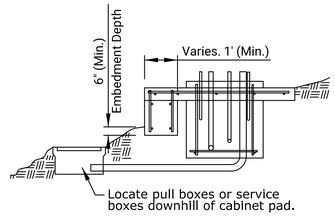
SECTION "A-A"

◔ Type 332L Cabinet = 24"
Type 342 Cabiner = 26"



SECTION "B-B"

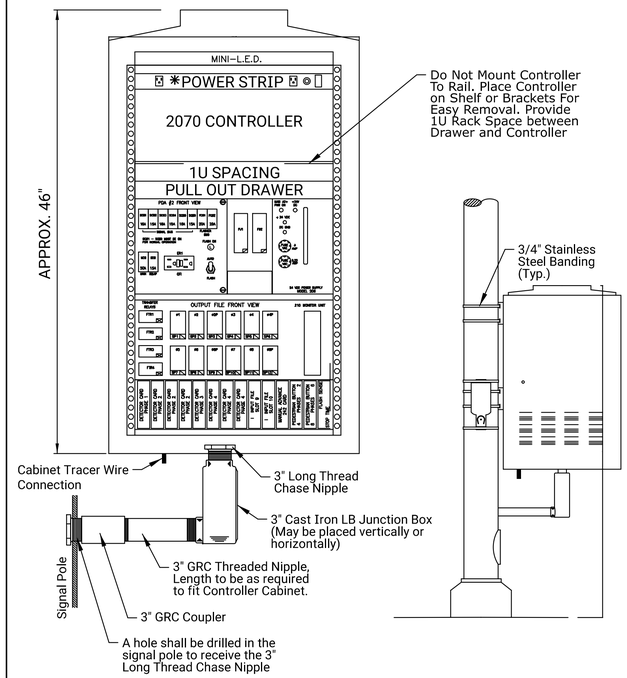
◔◔ Type 332L Cabinet = 30"
Type 342 Cabiner = 45"



FOUNDATION ON SLOPE DETAIL

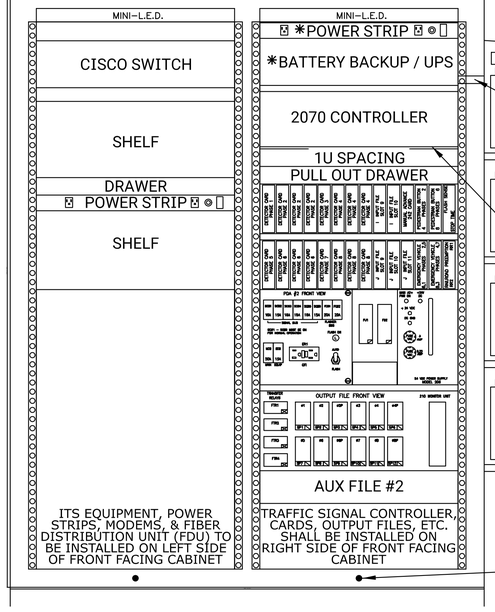
1. All reinforcing bar shall be No. 4 bars, evenly spaced at 12" spacing, +/- 1.5".

2. Additional concrete, material, and labor required for cabinet foundation on slope shall be SUBSIDIARY to other items of the contract.



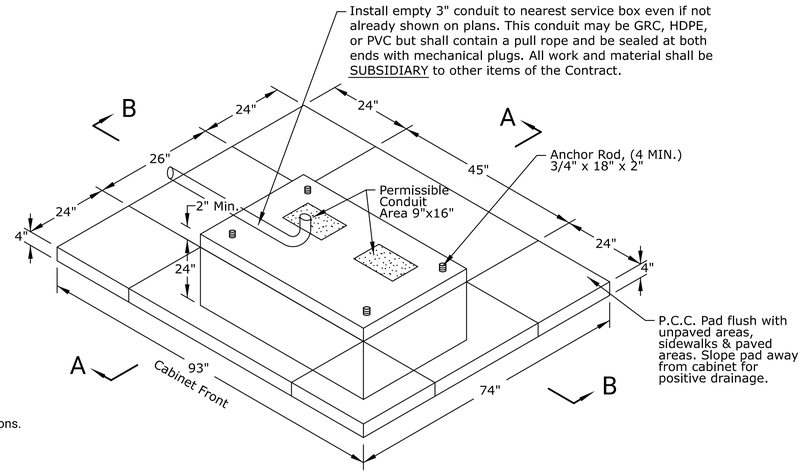
TYPICAL TYPE 336L CABINET (POLE MOUNT)

Approximate 46" H x 24" W x 22" D
*Locate Power Strip on Backside of Cabinet



TYPICAL TYPE 342 CABINET (PAD MOUNT)

Approximate 67" H x 45" W x 26" D
*Locate Power Strip & BBS on Backside of Cabinet



TYPE 342 PAD

NOTE:
1. CABINET BASE DIMENSIONS MAY VARY DEPENDING ON MANUFACTURER. CONTRACTOR SHALL VERIFY DIMENSIONS AND ANCHOR BOLT LOCATIONS FROM MANUFACTURER PRIOR TO CONSTRUCTING BASE.
2. All CABINETS SHALL BE A MINIMUM OF 0.125" NATURAL ALUMINUM AND INCLUDE A 19" EIA RACK.
3. ALL CABINETS SHALL INCLUDE A TRACER WIRE CONNECTION AND ANODES. SEE SIGNAL STANDARDS FOR DETAILS.
4. SIGNAL CONTROLLER SHALL NOT BE MOUNTED DIRECTLY TO 19" EIA RACK BUT SHALL SIT ON SHELF/BRACKETS TO ALLOW EASY REMOVAL.
5. ALL CONDUITS SHALL BE SEALED WITH APPROVED MATERIAL. EMPTY CONDUITS SHALL CONTAIN PULL ROPE AND SEALED WITH MECHANICAL PLUG.
6. ANTENNA(S) IF USED, SHALL BE PLACED WITHIN THE CABINET IF SIGNAL QUALITY IS ADEQUATE AS DETERMINED BY THE ENGINEER THROUGH SIGNAL STRENGTH TESTING BY THE CONTRACTOR.
7. GROUND RODS TO BE POSITIONED AND SHOWN TO INSPECTOR BEFORE POURING BASE.
8. GROUND RODS FOR 342 CABINETS SHOULD BE 3/4" X 20'. TWO (2) 3/4" X 12' GROUND RODS MAY BE USED IN LIEU OF A SINGLE 20' GROUND ROD. ALL OTHER CABINET GROUND RODS SHALL BE 3/4" X 12'.

NO	DATE	REVISIONS	BY	APP'D
3				
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CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

2070 SIGNAL CABINET & PAD DETAILS

TRAFFIC ENGINEER: MIKE ARMOUR, P.E.
APP'D 01/27/22

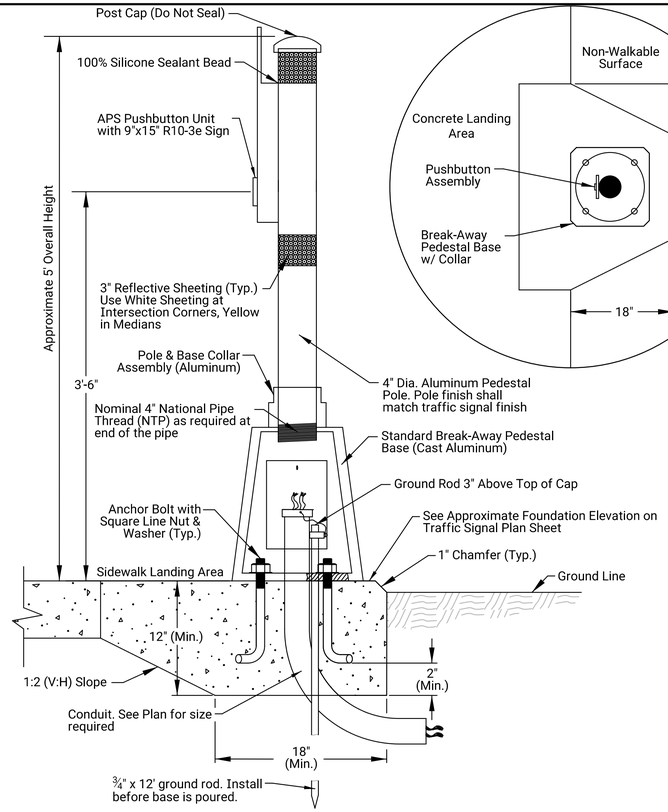
PROJECT NUMBER	ORG NUMBER	DATE

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

SHEET: 80 of 180

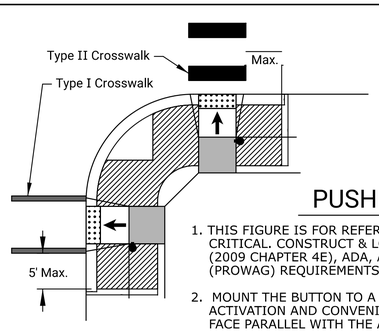
TR-106

NOTE TO DESIGNER: Designer shall verify that pedestrian features and locations meet MUTCD requirements (latest edition)



APS PUSHBUTTON STATION

1. PLUMB THE PUSHBUTTON STATION WITH GALVANIZED STEEL LEVELING SHIMS AS REQUIRED.
2. USE #6 BARE COPPER GROUND CONDUCTOR FROM CLAMP TO GROUND BOLT IN ACCESS HOLE.
3. THE PUSHBUTTON STATION FOUNDATION HAS TWO (2) OPTIONS. BOTH OPTIONS ARE SUBSIDIARY TO THE APS PUSHBUTTON STATION AND NO ADDITIONAL PAYMENT WILL BE MADE REGARDLESS OF FOUNDATION TYPE.
   A. POURED MONOLITHIC WITH THE SIDEWALK (SHOWN ABOVE) - PROVIDE A 1:2 (V:H:) SLOPE GRADE WHERE THE SIDEWALK DEPTH TRANSITIONS TO THE 12" FOUNDATION DEPTH.
   B. ALTERNATIVE FOUNDATION DESIGN - PLACE FOUNDATION AS SHOWN ON STANDARD SHEET "TRAFFIC SIGNAL INSTALLATION DETAIL SHEET". THIS 24" FOUNDATION WILL MATCH THE TRAFFIC SIGNAL PEDESTAL BASE. PROVIDE A BOND BREAKER OR EXPANSION JOINT TO SEPARATE FOUNDATION FROM SIDEWALK.

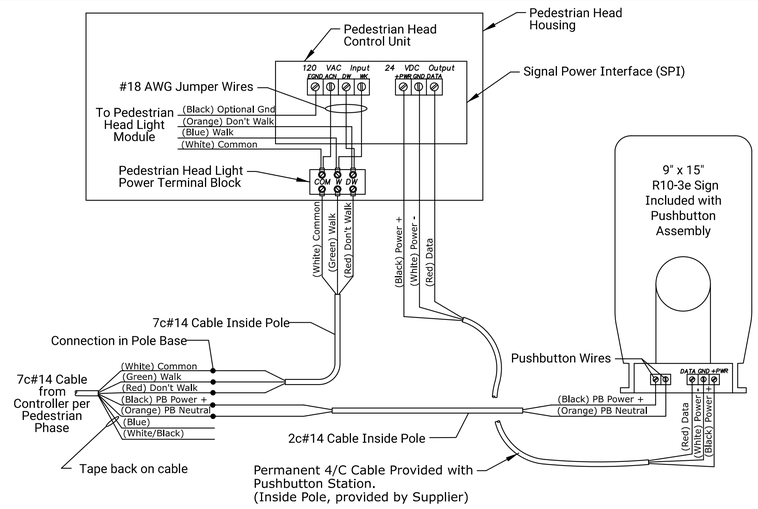


LEGEND

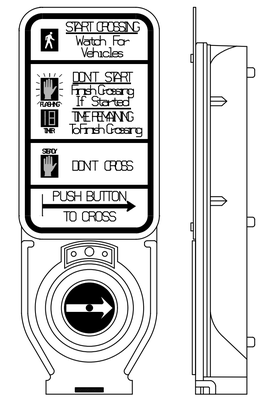
- Allowed Pushbutton Location (1.5'-10' Max)
- Landing Area (5' Min. & 2% Max Slope per ADA)
- Preferred Pushbutton Location (At back of Ramp)
- Detectable Warning (per ADA)
- Downward Slope (5% Max.)

PUSHBUTTON LOCATION AREA

1. THIS FIGURE IS FOR REFERENCE ONLY AND PLACEMENT OF THE PUSHBUTTON STATION IS CRITICAL. CONSTRUCT & LOCATE PUSHBUTTONS IN ACCORDANCE WITH CURRENT MUTCD (2009 CHAPTER 4E), ADA, AND PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) REQUIREMENTS.
2. MOUNT THE BUTTON TO A LEVEL, ALL-WEATHER SURFACE THAT IS CAPABLE OF EASY ACTIVATION AND CONVENIENTLY LOCATED NEAR EACH END OF THE CROSSWALK WITH THE FACE PARALLEL WITH THE ASSOCIATED CROSSWALK.
3. PUSHBUTTONS SHOULD BE SEPARATED BY A DISTANCE OF AT LEAST 10 FEET WITH A MOUNTING HEIGHT OF 3.5 FEET (42 INCHES), ABOVE THE SIDEWALK.
4. PROVIDE A 6 FOOT MINIMUM CLEAR DISTANCE WHEREVER POSSIBLE BETWEEN A PUSHBUTTON STATION & ANY VERTICAL OBSTRUCTIONS FOR MAINTENANCE & SNOW REMOVAL PURPOSES.



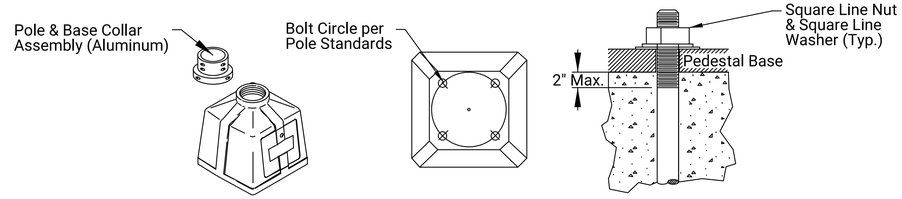
PEDESTRIAN PUSHBUTTON WIRING DIAGRAM



APS PUSHBUTTON SYSTEM & SIGN (R10-3E, 9"x15")

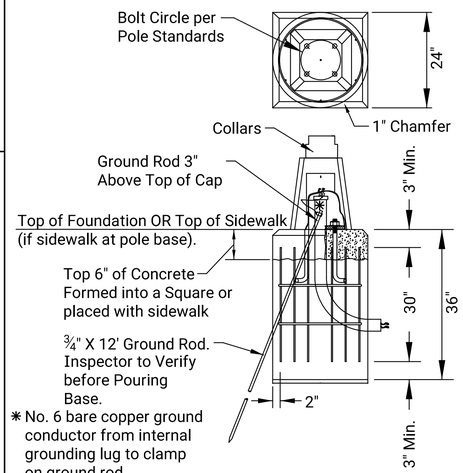
NOTE:

1. THE PUSHBUTTON SYSTEM AND SIGN SHALL MEET OR EXCEED CURRENT MUTCD AND ADA REQUIREMENTS.
2. PUSHBUTTON SYSTEM SHOULD INCLUDE INSTALLATION AND MOUNTING HARDWARE.
3. THE PUSHBUTTON SYSTEM SHOULD INCLUDE A FOUR CONDUCTOR (4/C) CABLE CONNECTING THE SIGNAL POWER INTERFACE (SPI) IN THE PEDESTRIAN SIGNAL HEAD TO THE PUSHBUTTON ASSEMBLY. THE CABLE IS NOT SPECIFICALLY QUANTIFIED OR INCLUDED IN THE TRAFFIC SIGNAL BILL OF MATERIALS. CABLE AND INSTALLATION IS SUBSIDIARY TO THE PUSHBUTTON SYSTEM.
4. SEE "TRAFFIC SIGNAL WIRING & TIMING DETAILS" FOR PEDESTRIAN TIMING AND EXTENSIONS.
5. THE PUSHBUTTON SYSTEM SHALL PROVIDE THE FOLLOWING MINIMUM STANDARD FEATURES:
   A. VANDAL RESISTANT HOUSING
   B. BOTH AUDIBLE AND VIBROTACTILE WALK INDICATIONS.
   C. THE AUDIBLE WALK INDICATION SHALL BE CAPABLE OF BOTH A PERCUSSIVE TONE & SPEECH WALK MESSAGE AS REQUIRED BY MUTCD
   D. LOCATOR TONE AND HIGH CONTRAST TACTILE ARROW(S) ALIGNED PARALLEL TO THE ASSOCIATED CROSSWALK DIRECTION OF TRAVEL.
   E. AUTOMATIC SOUND ADJUSTMENT IN RESPONSE TO AMBIENT SOUND LEVEL

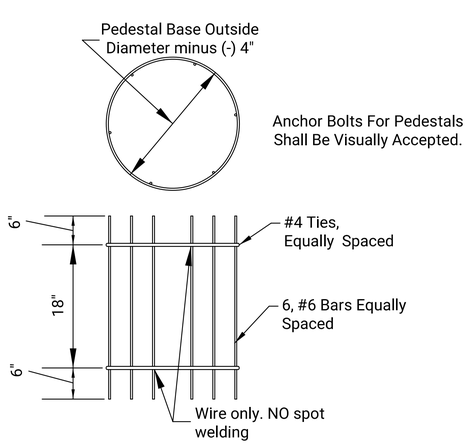


STANDARD BREAK-AWAY PEDESTAL BASE & ANCHOR BOLT DETAIL

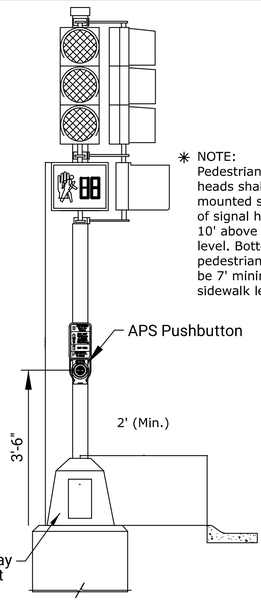
1. STANDARD BREAK-AWAY PEDESTAL BASE SHALL BE USED ON BOTH THE TRAFFIC SIGNAL PEDESTAL AND APS PUSHBUTTON STATION.
2. USE SQUARE LINE NUTS AND WASHERS ON PEDESTAL BASE.
3. ANCHOR BOLTS FOR PEDESTALS SHALL BE VISUALLY ACCEPTED.



PEDESTAL & APS PUSHBUTTON FOUNDATION DETAIL



PEDESTAL & APS PUSHBUTTON REBAR CAGE DETAIL



TRAFFIC SIGNAL PEDESTAL

SEE STANDARD SHEET "TRAFFIC SIGNAL INSTALLATION DETAIL SHEET" FOR PEDESTRIAN FOUNDATION DETAILS.

NO	DATE	REVISIONS	BY	APP'D
3				
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1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SIGNAL PEDESTAL, PUSHBUTTON STATION, & APS PUSHBUTTON DETAILS

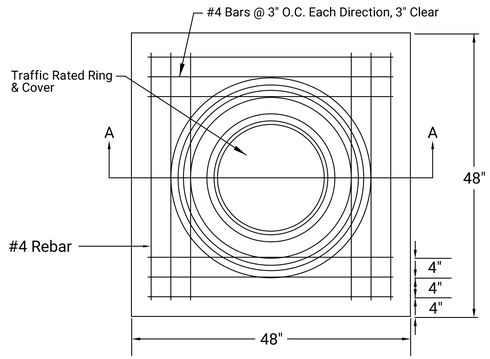
TRAFFIC ENGINEER — APP'D 01/27/22
MIKE ARMOUR, P.E.

PROJECT NUMBER	ORG NUMBER	DATE

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

SHEET
81 of 180
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SERVICE BOX CONSTRUCTION/INSTALLATION DETAILS

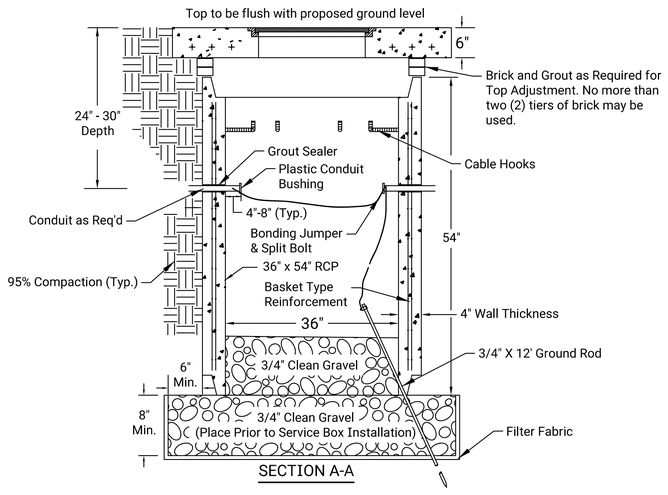


SERVICE BOX:
1. CONDUIT CONNECTION TO BE 4"-8" INSIDE FACE OF SIDE WALL, CONDUIT TO DRAIN INTO SERVICE BOX.
2. CONDUIT CONNECTIONS TO SERVICE BOX SHALL BE TERMINATED WITH PLASTIC CONDUIT BUSHING.
3. CONDUIT SHALL BE SEALED WITH APPROVED SEALER AT INSIDE WALL FACE.
4. ALL SERVICE BOXES TO HAVE 8" OF 3/4" CLEAN GRAVEL WITH FILTER FABRIC PLACED PRIOR TO SERVICE BOX INSTALLATION.
5. NO MORE THAN TWO (2) TEIRS OF BRICKS SHALL BE USED FOR TOP ADJUSTMENTS. BRICKS SHALL BE GROUTED.
6. SERVICE BOX AND LID SHALL BE TRAFFIC RATED.

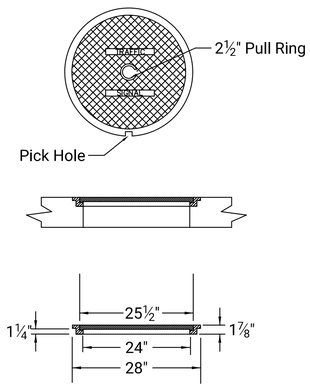
CONDUIT:
1. SLOPE CONDUIT TO DRAIN AS DIRECTED BY THE ENGINEER.
2. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL CONDUIT (GRC) UNLESS APPROVED OTHERWISE BY ENGINEER.

NO 90 DEGREE ELBOWS UNLESS APPROVED BY TRAFFIC MAINTENANCE

PRECAST CONCRETE SERVICE BOX
(36" I.D. X 54" RCP) with 6" cap



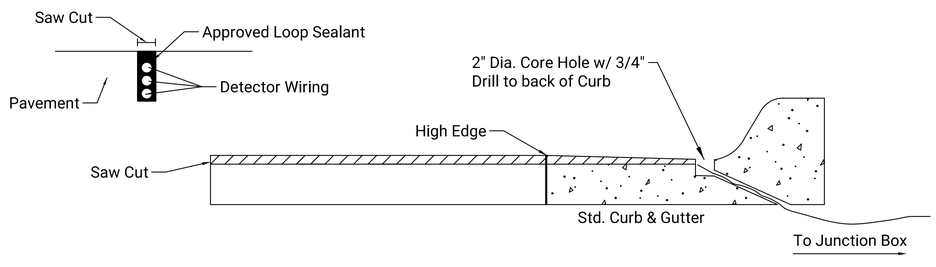
SECTION A-A



RING & COVER DETAIL

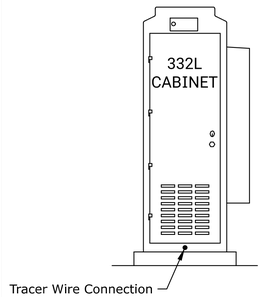
COVER SHALL INCLUDE "TRAFFIC SIGNAL"

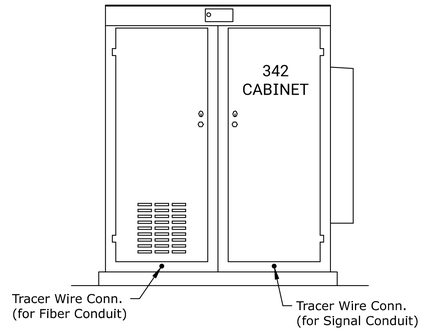
CONDUIT/DETECTOR WIRE INSTALLATION DETAILS

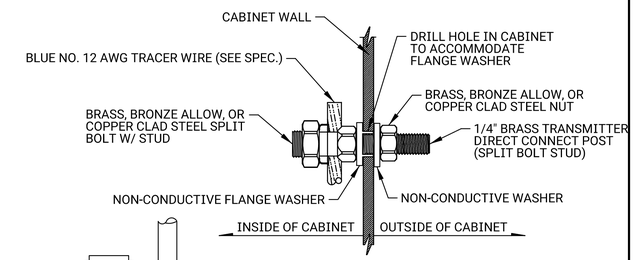


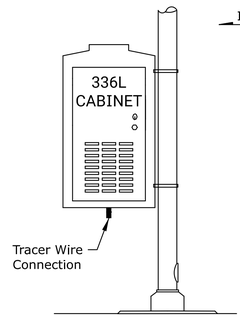
CABINET TRACER WIRE CONNECTION DETAIL

1. TRACER WIRE TERMINAL SHALL BE SOLID BRASS, BRONZE ALLOY, OR COPPER CLAD STEEL & ACCESSIBLE FROM THE OUTSIDE OF THE CABINET.
2. TERMINAL SHALL BE COMPLETELY ISOLATED FROM CABINET & GROUNDING. RUBBER ISOLATORS ARE NOT ALLOWED.
3. HOLE IN CABINET SHALL BE MADE WATER TIGHT.
4. MAINTAIN 1.5" MINIMUM CLEARANCE FOR TERMINAL.
5. APPLY THREAD LOCK SEALANT TO REDUCE TAMPERING.
6. CRIMP STYLE WIRE TERMINALS CONNECTING TRACER WIRE TO TRANSMITTER DIRECT CONNECT POST ARE NOT PERMITTED.
7. TERMINAL LOCATION - TERMINALS SHALL BE MOUNTED IN ORDER TO PREVENT ACCIDENTAL "SNAGGING". LOCATIONS SHOULD BE A MINIMUM OF 1.5" FROM CABINET EDGES.
   A. PAD MOUNTED CABINET (332L) - TERMINAL SHALL BE LOCATED IN THE BOTTOM LIP OF THE CABINET UNDER THE BACK CABINET DOOR, CENTERED.
   B. POLE MOUNTED CABINET (336L) - TERMINAL SHALL BE MOUNTED ON THE BOTTOM SIDE OF THE CABINET, NEAREST THE POLE.

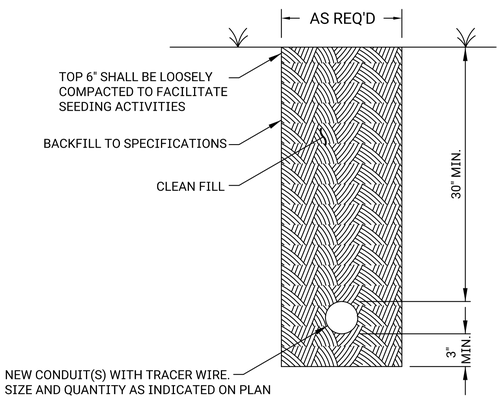








CONDUIT BORING & TRENCH DETAILS



GENERAL:
1. ALL CROSSINGS UNDER ROADWAY SHOULD HAVE A MINIMUM OF 5 FT OF COVER BELOW CROWN GRADE OR 3 FT COVER BELOW DITCH GRADE.

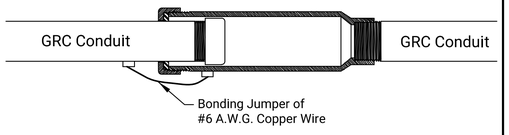
2. NO 90° ELBOWS UNLESS APPROVED BY TRAFFIC MAINTENANCE

3. INSTALL TRACER WIRE FOR LOCATING PURPOSES IN ALL CONDUIT RUNS. WHEN MULTIPLE CONDUITS SHARE THE SAME TRENCH OR BORE, TRACER WIRE TO BE LOCATED IN TOP CONDUIT ONLY.

4. BORING:
   A. INSTALL BORED CONDUIT WITHOUT DISTURBING THE EXISTING SURFACE. PLACE BORED CONDUIT BY BORING OR OTHER APPROVED MEANS. LOCATE ALL BORE PITS AND SPOIL PILES A MINIMUM OF 4 FEET FROM THE EDGE OF THE PAVED ROADWAY OR SHOULDER SURFACE AND BARRICADE, FENCE, OR PROTECT THE PITS BY SOME OTHER ACCEPTABLE METHOD FROM ERRANT VEHICLES OR PEDESTRIANS.

5. TRENCHING:
   A. DEPTH TO BE 30" MINIMUM WITH ROCK & RUBBLE FREE BACKFILL TO SERVE AS BEDDING MATERIAL. MAINTAIN MINIMUM CONDUIT DEPTH IN TRENCH.
   B. BACKFILL TO BE COMPACTED IN 6" LOOSE LIFTS BY HAND OR MECHANICAL TAMPING TO PREVENT SETTLEMENT.
   C. EXCAVATE TRENCHES TO THE WIDTH AND DEPTH NECESSARY FOR CONDUIT INSTALLATION AS SHOWN IN THE PLANS. DO NOT USE MATERIAL WHICH MIGHT CAUSE MECHANICAL DAMAGE TO THE CONDUIT FOR BACKFILLING BELOW AN ELEVATION 6 INCHES ABOVE THE CONDUIT. CLEAN THE BOTTOM OF THE TRENCH OF SUCH MATERIAL BEFORE THE CONDUIT IS PLACED. OBTAIN APPROVAL BY THE ENGINEER OF THE TRENCH PRIOR TO CONDUIT PLACEMENT. BACKFILL AND COMPACT ALL TRENCHES.

EXPANSION FITTING



THE CONTRACTOR SHALL INSTALL THE CONDUIT AND CONNECTOR ASSEMBLY TO PERMIT A 1" MINIMUM LONGITUDINAL TRAVEL IN EITHER DIRECTION.

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SERVICE BOX, CONDUIT, & TRACER WIRE CONNECTION CONSTRUCTION/INSTALLATION

TRAFFIC ENGINEER — APP'D 01/27/22
MIKE ARMOUR, P.E.

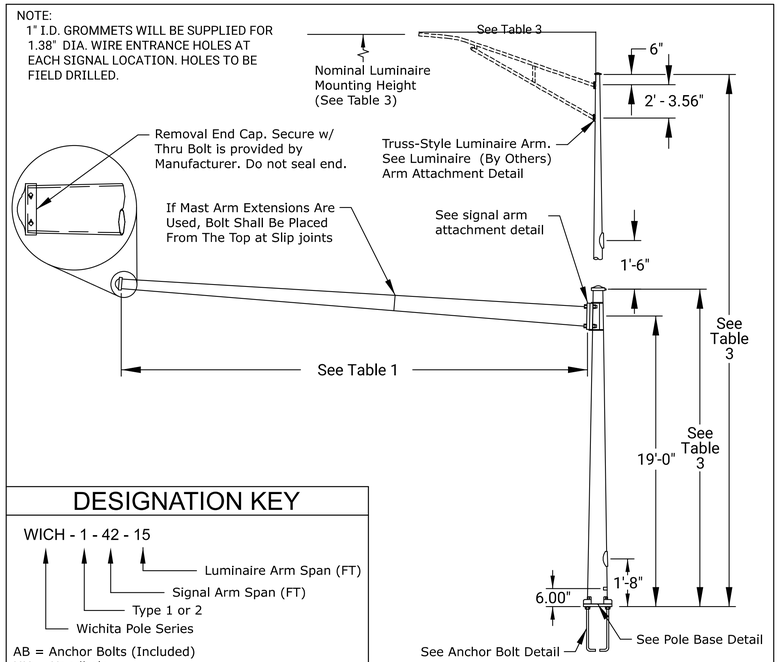
PROJECT NUMBER	ORG NUMBER	DATE

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

SHEET

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NOTE:
1" I.D. GROMMETS WILL BE SUPPLIED FOR 1.38" DIA. WIRE ENTRANCE HOLES AT EACH SIGNAL LOCATION. HOLES TO BE FIELD DRILLED.



DESIGNATION KEY

AB = Anchor Bolts (Included)
HH = Handhole
FPGV = Finish Paint over Galvanizing
TYPE 1 = No Luminaire Height (See Table 3)
TYPE 2 = Combo Pole (includes Height for Luminaire)

DESIGN CRITERIA

THE MAST ARM TRAFFIC STRUCTURES SHOWN ON THIS DRAWING SHALL BE DESIGNED IN ACCORDANCE WITH THE 2013 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", LATEST EDITION.

ASSEMBLY NOTE(S)

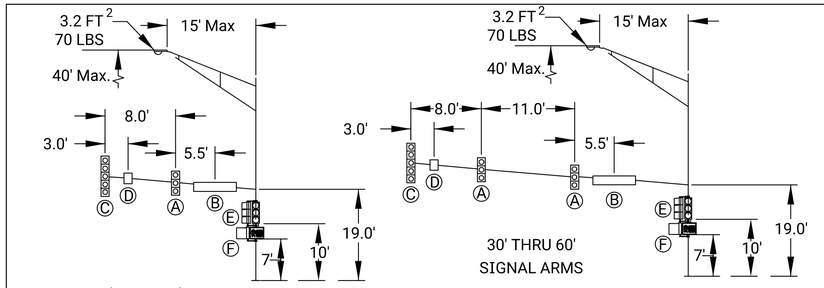
UPON INITIAL FIELD ASSEMBLY OF THE MAST-ARM'S FIRST SECTION'S BUTT PLATE TO THE MAST-ARM VERTICAL POLE'S BUTT PLATE, IF THE END USER DETERMINES THAT THERE IS A SUFFICIENT GAP AT A BOLT HOLE SUCH THAT THERE WILL NOT BE FACE-TO-FACE CONTACT BETWEEN THE TWO BUTT PLATES, THEN A WASHER SHALL BE INSERTED TO PROVIDE FACE-TO-FACE CONTACT BETWEEN THE TWO BUTT PLATES IN ACCORDANCE WITH SECTION 5.16 "BOLTED CONNECTIONS" OF THE 2013 EDITION OF AASHTO.

THE POLE SHOP DRAWING SUBMITTAL SHALL INCLUDE A FOUNDATION DIAGRAM INDICATING THE ORIENTATION OF BOLT PATTERNS FOR EACH POLE FOUNDATION. THE DRAWING SHALL INCLUDE A NORTH ARROW TO INSURE PROPER ORIENTATION OF POLE AND MAST ARM ON EACH FOUNDATION.

MANUFACTURER SHALL SHOP FIT COMPONENTS AND VERIFY CONNECTIONS PRIOR TO SHIPPING. FAILURE OF PROPER ALIGNMENT DURING ERECTION IN THE FIELD DUE TO MANUFACTURING SHALL BE THE RESPONSIBILITY OF THE MANUFACTURE AND MAY BE REPLACED AT NO COST IF DEEMED NECESSARY BY THE CITY TRAFFIC ENGINEER.

LUMINAIRE DIMENSIONS SHOWN ARE NOMINAL. CONTRACTOR AND SUPPLIER SHALL COORDINATE WITH LUMINAIRE ARM SUPPLIER TO INSURE PROPER MOUNTING PRIOR TO MANUFACTURING.

AASHTO 2013 SPECIFICATIONS



DEVICE	DESCRIPTION	PROJ. AREA (FT)	WEIGHT (LBS)
Ⓐ	12"- 3 SEC. SIGNAL WITH BACK PLATES	8.67	30
Ⓑ	36" X 96" STREET NAME SIGN	24.00	75
Ⓒ	12"- 5 SEC. SIGNAL WITH BACK PLATES	13.33	50
Ⓓ	30" X 36" SIGNAL ARM MOUNTED SIGN	7.50	25
Ⓔ	12"-3 SEC. SIGNAL WITH NO BACK PLATES	13.47	80
Ⓕ	SINGLE SECTION PEDESTRIAN SIGNAL	8.00	80

DESIGN LOADING INFORMATION

- For Design Information Only. Dimensions NOT for Construction -

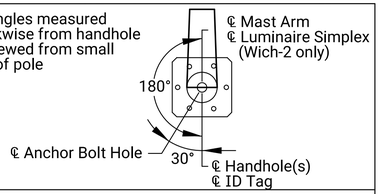
TABLE 2: MATERIAL DATA

COMPONENT	ASTM DESIGNATION
ALL TAPERED TUBES	A595 GR.A OR A572
BASE PLATE	A36
SIMPLEX PLATE	A36
ANCHOR BOLTS	F1554 GR.55
ARM CONNECTING BOLTS	A325
GALVANIZING-HARDWARE	HOT DIP ZINC

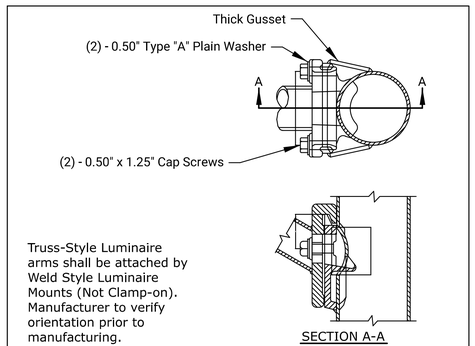
TABLE 3: LUMINAIRE MOUNTING HEIGHT

POLE TYPE	WICH-1	WICH-2
LUM. MOUNTING HEIGHT	------	40' - 0"
POLE LENGTH	20' - 6"	35' - 0"

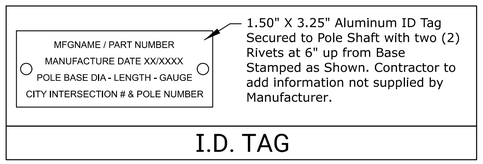
All angles measured clockwise from handhole as viewed from small end of pole



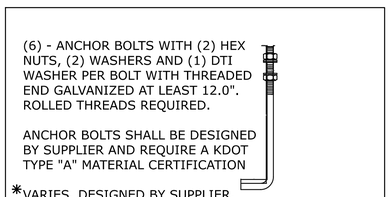
RADIAL INDEX



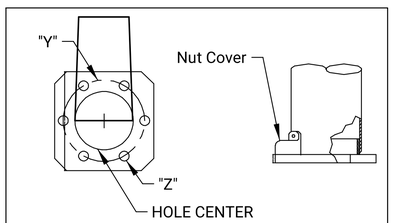
LUMINAIRE ARM ATTACHMENT



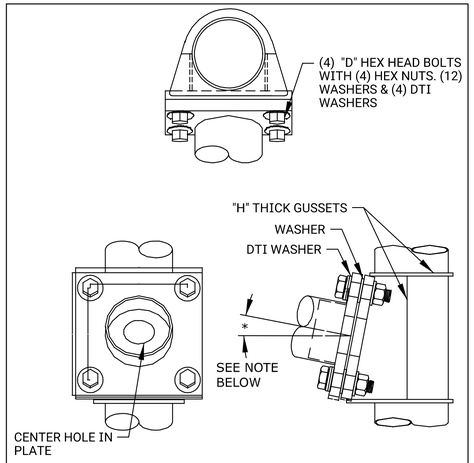
I.D. TAG



ANCHOR BOLT DETAIL



POLE BASE DETAIL



*RISE IN SIMPLEX PLATES VARIES PER POLE BASE DIA. & MAST ARM LOAD. SECURE PLATES TO STRUCTURE TO PREVENT FALLING.

SIGNAL POLE BASE BOLT CIRCLE "Y" (IN)	*"A" (IN)	"B" (IN)		"D" (IN)
18.00	17.75	14.50		1.25 X 6.75
21.50	22.25	18.50		1.50 X 7.25

SIGNAL ARM ATTACHEMENT DETAIL

*PREFERRED DIMENSION(S). DIMENSION MAY VARY SLIGHTLY BY MANUFACTURER

BASE COAT:	HOT-DIP GALVANIZED TO ASTM A123
PRIME COAT:	POLYAMIDOAMINE OR POLAMIDE EPOXY
FINISH COAT:	ALIPHATIC ACRYLIC POLYURETHANE W/ UV PACKAGE
COLOR:	BLACK
SPEC:	F-604A

STANDARD POLE FINISH

IN THE EVENT THE POLE OR MASTARM FINISH IS DAMAGED, THE CONTRACTOR SHALL USE THE BASE PRIMER AND FINISH COAT MATERIALS FURNISHED BY THE MANUFACTURER AND INCLUDED WITH THE STRUCTURE. NO OTHER PRODUCTS WILL BE APPROVED UNLESS APPROVED BY THE ENGINEER.

IN THE EVENT SIGNAL STRUCTURE MODIFICATIONS ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN PROCEDURES AND APPROVED MEANS AND METHODS FROM THE MANUFACTURE. MODIFICATIONS SHALL NOT AFFECT THE STRUCTURAL INTEGRITY OR WARRANTY OF THE STRUCTURE. ANY CHANGE SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO ACCEPTANCE. THE CITY HAS THE RIGHT TO REJECT MODIFICATIONS AND REQUIRE REPLACEMENT AT NO ADDITIONAL COST, INCLUDING LABOR AND MATERIAL.

THE CONTRACTOR SHALL INSTALL ALL REQUIRED COMPONENTS PROVIDED BY THE MANUFACTURE.

REPAIR & MODIFICATIONS

TABLE 1: POLE AND MAST ARM DATA

DESIGNATION KEY			POLE BASE			ANCHOR BOLT		
POLE SERIES	POLE TYPE	SIGNAL ARM SPAN (FT)	*SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	HOLE "Z" (IN)	DIAMETER (IN) "K"	QTY.	
WICH	1 OR 2	18.0	23.00	18.00	2.00	1.50	6	TRAFFIC SIGNAL POLES SHALL INCLUDE TWO (2) POLE BASE PLATE AND CORRESPONDING MAST ARM ATTACHMENT SIZES. POLE BASE SIZE AND MAST ARM ATTACHMENTS SHALL BE INTERCHANGEABLE, REGARDLESS OF MANUFACTURE. DIMENSIONS SHOWN ON TABLE(S) SHALL REMAIN CONSTANT, REGARDLESS OF POLE MANUFACTURE TO INSURE INTERCHANGEABILITY. DIMENSIONS AND THICKNESSES SHOWN ON DETAILS BUT NOT SHOWN IN TABLE(S) MAY VARY BY MANUFACTURE.
		24.0						
		30.0						
		36.0						
		42.0	26.50	21.50				
		48.0						
		54.0						
		60.0						

*PREFERRED DIMENSION(S). DIMENSION MAY VARY SLIGHTLY BY MANUFACTURER

NO.	DATE	BY	APP'D
3			
2			
1			

REVISIONS

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SIGNAL POLE DATA & SPECIFICATIONS

TRAFFIC ENGINEER: MIKE ARMOUR, P.E.
APP'D 01/27/22

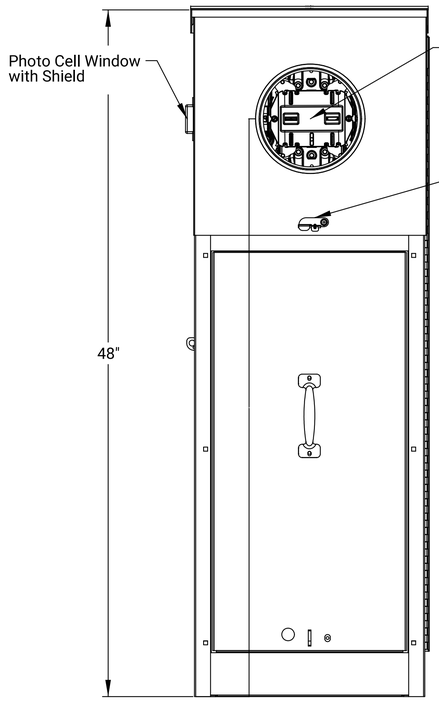
PROJECT NUMBER	ORG NUMBER	DATE

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

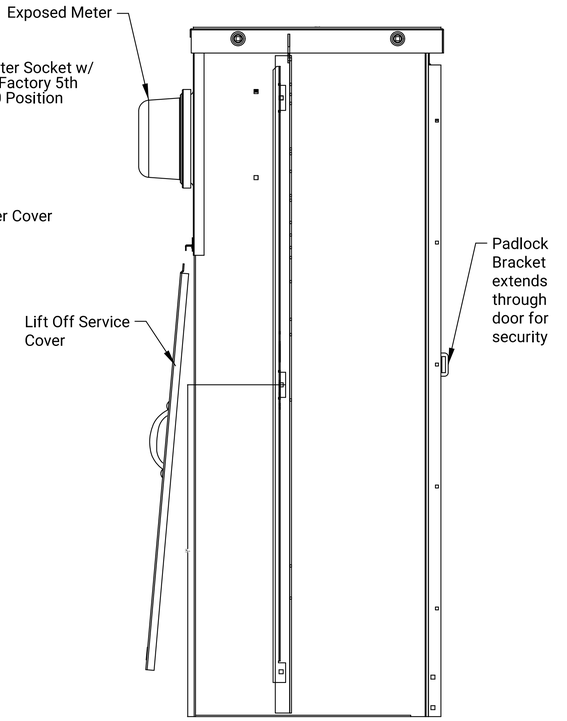
SHEET: 83 of 180

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NOTE TO DESIGNER: Designer shall specifiy the 16" (single meter) or 24" (double meter) size in quanties.



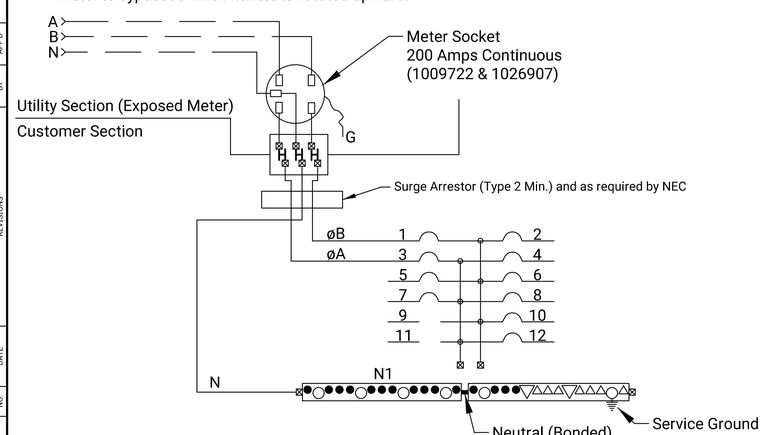
FRONT VIEW



SIDE VIEW

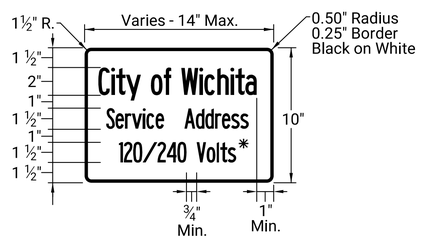
POWER SERVICE ENCLOSURE

CAUTION:
Lever By-pass. Circuit may be live with meter removed.
Meter is bypassed when handle is rotated upward.



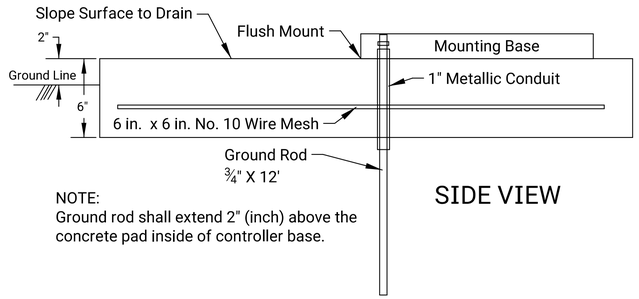
WIRING DIAGRAM

Lighting circuit not shown. See Manufacturer's Drawing for Additional Details.



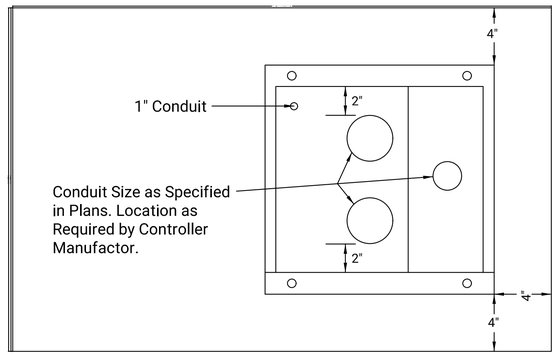
NAMEPLATE DETAIL

1. Apply on "street side" of enclosure facing the street referenced in the address
2. * Voltage as Provided by Electric Service
3. Nameplate shall match enclosure material type & be mechanically fastened (rivets) to enclosure



NOTE:
Ground rod shall extend 2" (inch) above the concrete pad inside of controller base.

SIDE VIEW

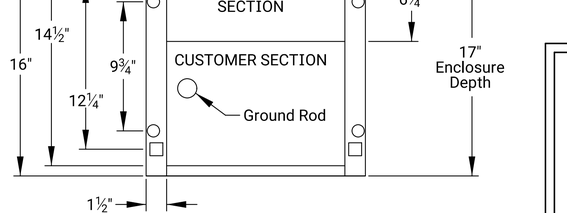


TOP VIEW

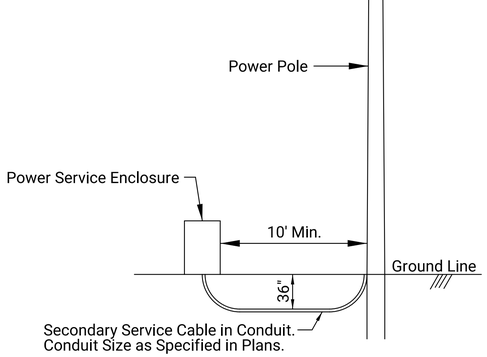
CONCRETE FOUNDATION PAD DETAIL

NOTES:

1. THE POWER ENCLOSURE SHALL BE CONSTRUCTED OF BARE 5052 ALLOY ALUMINUM 0.125" (INCH) THICK. THE ENCLOSURE SHALL BE OF CLEAN CUT DESIGN HAVING NO SHARP EDGES, CORNERS OR PROJECTIONS AND NEMA TYPE 3R CONSTRUCTION
2. THE ENCLOSURE SHALL INCREASE IN SIZE WITH THE NUMBER OF CIRCUITS.
3. ENCLOSURE SHALL BE MEET THE CURRENT ENERGY COMPANY REQUIREMENTS. THIS INCLUDES A EXPOSED METER ENCLOSURE, 200A, JAW-CLAMPING LEVER-BYPASS METER SOCKET WITH FACTORY INSTALLED FIFTH TERMINAL AT 9:00 POSITION.
4. SPLIT BUS LOAD CENTER. THE BUS LOAD CENTER SHOULD INCLUDE THE FOLLOWING UNLESS SHOWN OTHERWISE IN THE PLAN DOCUMENTS.
   A. UNSWITCHED (CONSTANT) LOAD CENTER WITH 50A 2P; 30A 1P AND 30A 2P BREAKERS
   B. SWITCHED LOAD CENTER WITH ELECTRICALLY-HELD CONTACTOR CONTROLLED BY PHOTO CELL RECEPTACLE AND HAND-OFF-AUTO SWITCH, 30A 1P AND 30A 2P BREAKERS.
5. THE SECONDARY BREAKER FOR THE PHOTO-CELL CIRCUIT SHALL BE 277 VOLT, 15 AMP SINGLE POLE.
6. THE WIRING FROM PB1 AND PB2 TO T1 THROUGH T4 SHALL BE NO. 6 AWG THW.
7 THE WIRING FOR THE LOAD AND LINE SIDE OF THE MAIN BREAKER SHALL BE THE SAME SIZE WITH THE WIRE.
8. THE WIRING FOR THE PHOTO ELECTRIC CONTROL CIRCUIT SHALL BE NO. 12 AWG THW.
9. ALL WIRING AND WIRING METHODS SHALL COMPLY WITH THE MOST CURRENT NATIONAL ELECTRIC CODE (NEC) STANDARDS. ANY CHANGES TO THESE STANDARDS SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
10. NO STEP DOWN TRANSFORMER SHALL BE LOCATED ON METER
11. USE MILBANK POWER SERVICE ENCLOSURES BELOW (OR APPROVED EQUAL):
    16" ENCLOSURE CATALOG #CP3B51C14PAOSL1
    24" ENCLOSURE CATALOG #CP3B51C14RAOSL1



MOUNTING BASE DETAIL



POWER ARRANGEMENT

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

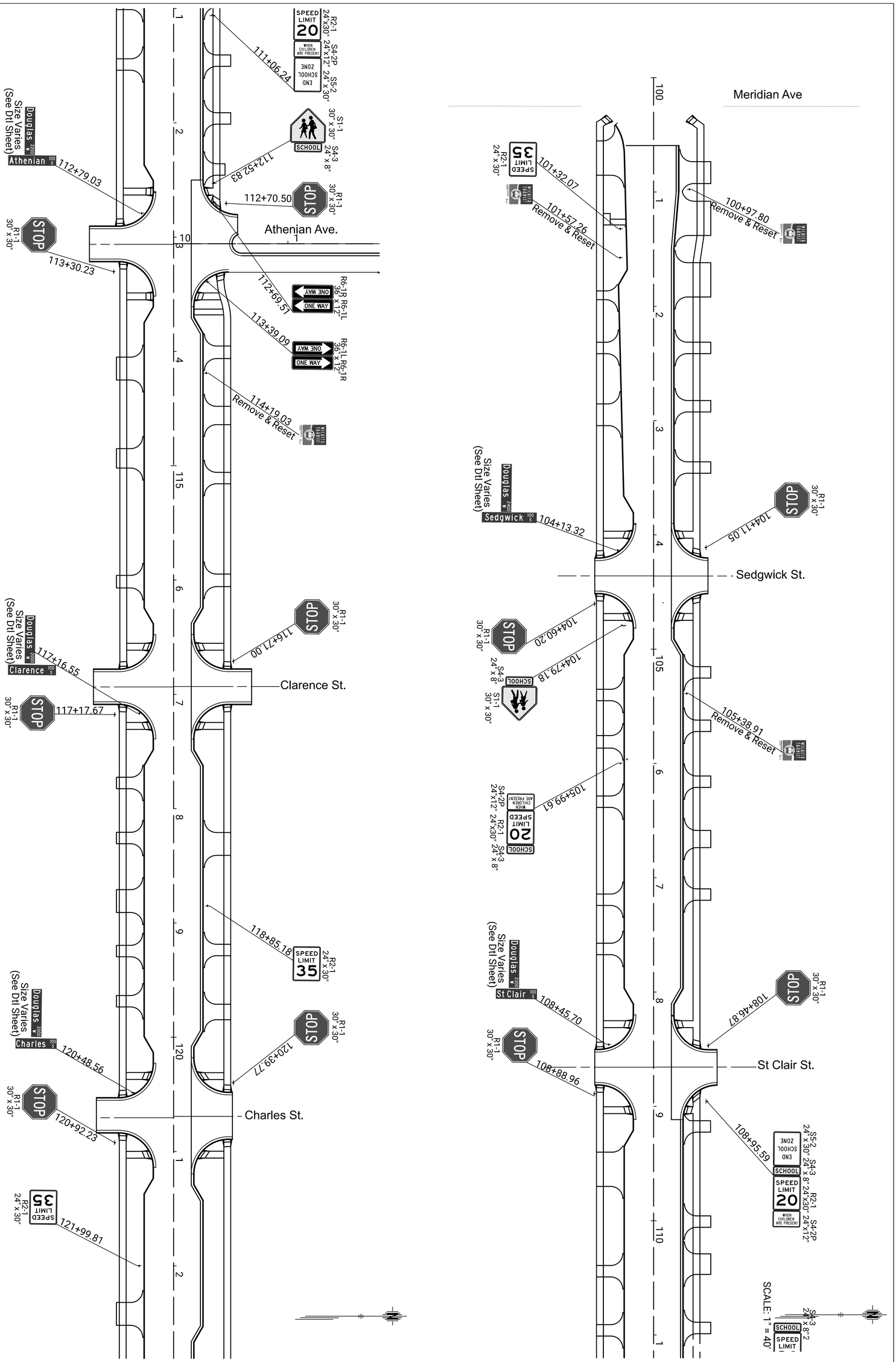
POWER SERVICE ENCLOSURE (SINGLE METER)

TRAFFIC ENGINEER APP'D 01/27/22
MIKE ARMOUR, P.E.

PROJECT NUMBER	ORG NUMBER	DATE

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

SHEET
84 of 180
TR-110



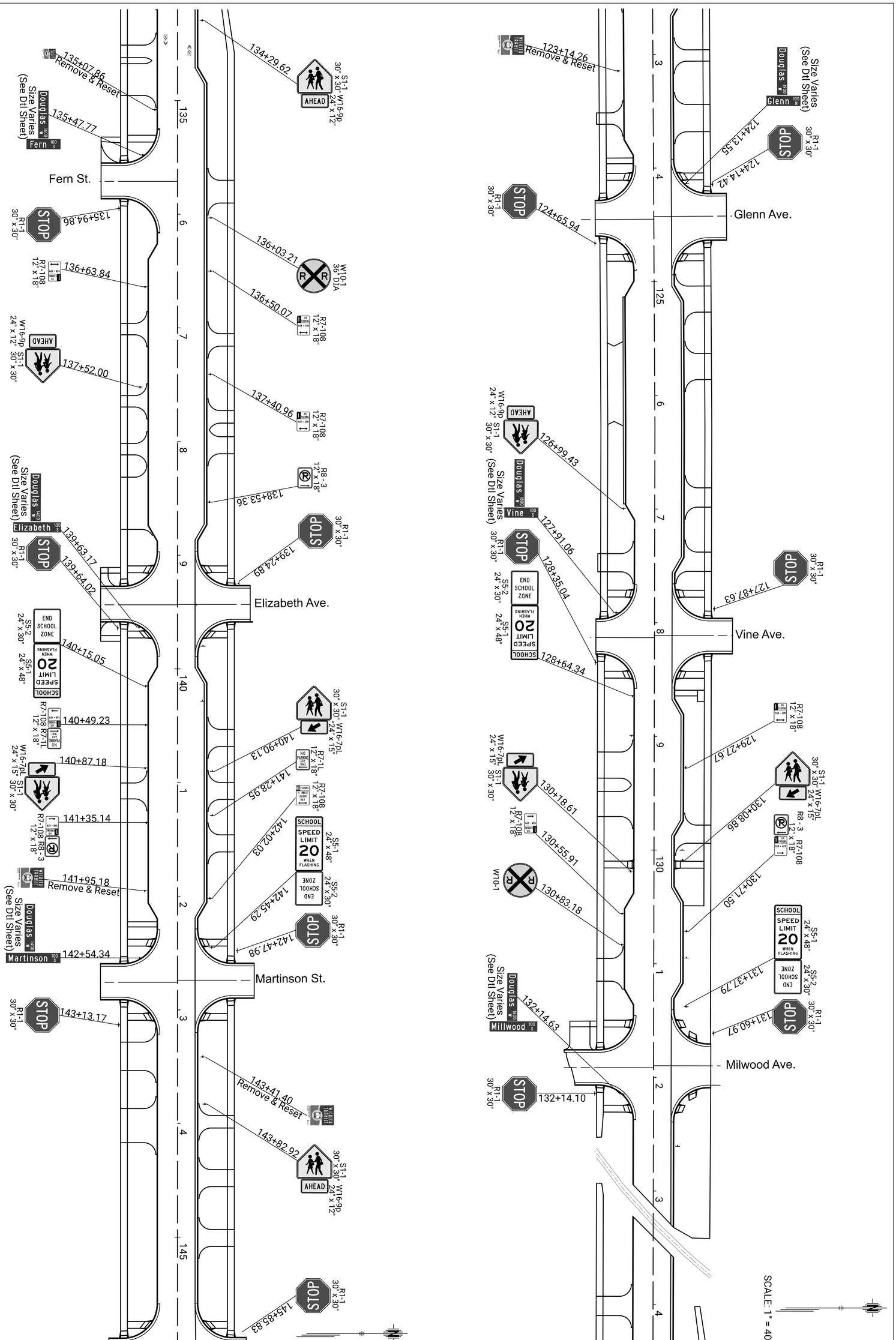
DOUGLAS AVENUE - MERIDIAN TO SENECA

SIGNING PLAN
STA. 100+00 TO STA. 122+50

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO: 87 N-0762-01
SCALE: AS NOTED
DATE: Aug 2025
DESIGNED BY: TPV
DRAWN BY: Staff
CHECKED BY: TPV
YEAR: 2025
SHEET NO: 85
SHEET 85 OF 180

CITY OF WICHITA

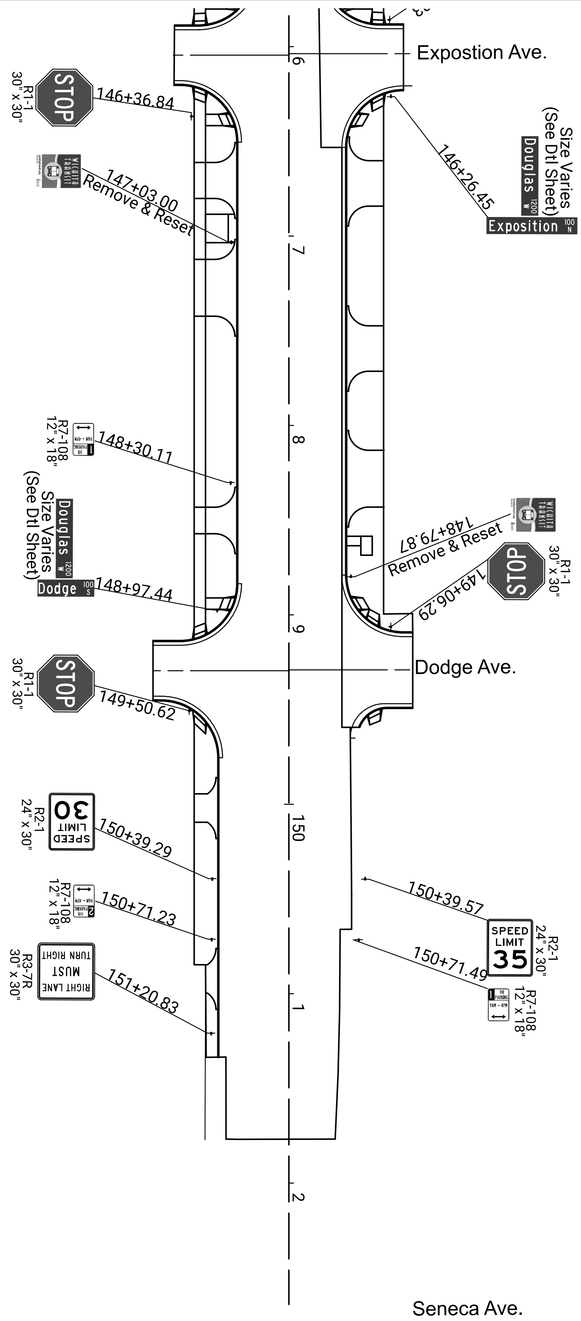


DOUGLAS AVENUE - MERIDIAN TO SENECA

SIGNING PLAN
STA. 122+50 TO STA. 146+00

NO.	DATE	REVISIONS

PROJ NO: 87 N4076-01
SCALE: AS NOTED
DATE: Aug 2025
DESIGNED BY: TPV
DRAWN BY: Staff
CHECKED BY: TPV
YEAR: 2025
SHEET NO: 86
SHEET 86 OF 180



SCALE: 1" = 40'

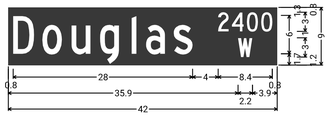
NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO: 87 N-0762-01
SCALE: AS NOTED
DATE: Aug 2025
DESIGNED BY: TPV
DRAWN BY: Staff
CHECKED BY: TPV
YEAR: 2025
SHEET NO: 87
SHEET 87 OF 180

DOUGLAS AVENUE - MERIDIAN TO SENECA

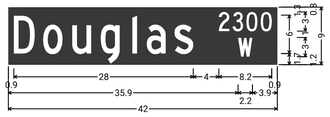
SIGNING PLAN
STA. 146+00 TO STA. 152+64

CITY OF WICHITA



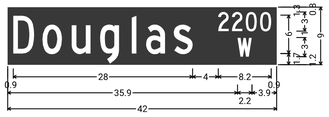
No border, Black on Green;
"Douglas" White, C; "2400" White, C; "W" White, C;
Table of distances between letter and object lefts

0.8	4.5	4.6	4.4	4.9	2.3	4.3	7.0	2.1	2.4	2.2	1.7	0.8
35.9	2.2	3.9										



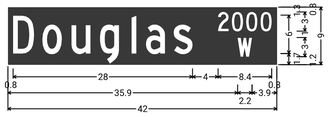
No border, Black on Green;
"Douglas" White, C; "2300" White, C; "W" White, C;
Table of distances between letter and object lefts

0.9	4.5	4.6	4.4	4.9	2.3	4.3	7.0	2.1	2.2	2.2	1.7	0.9
35.9	2.2	3.9										



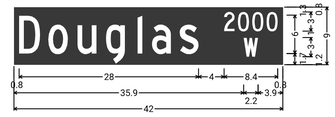
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"Douglas" White, C; "2200" White, C; "W" White, C;
Table of distances between letter and object lefts

0.9	4.5	4.6	4.4	4.9	2.3	4.3	7.0	2.1	2.2	2.2	1.7	0.9
35.9	2.2	3.9										



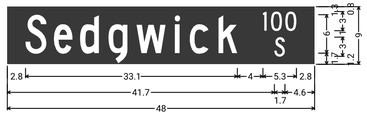
No border, Black on Green;
"Douglas" White, C; "2000" White, C; "W" White, C;
Table of distances between letter and object lefts

0.8	4.6	4.5	4.5	4.8	2.4	4.3	6.9	2.2	2.2	2.3	1.7	0.8
35.9	2.2	3.9										



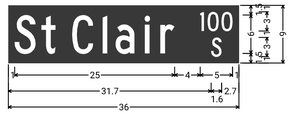
No border, Black on Green;
"Douglas" White, C; "2000" White, C; "W" White, C;
Table of distances between letter and object lefts

0.8	4.6	4.5	4.5	4.8	2.4	4.3	6.9	2.2	2.2	2.3	1.7	0.8
35.9	2.2	3.9										



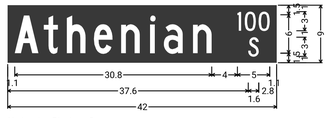
No border, White on Green;
"Sedgwick", C; "100", C; "S", C;
Table of distances between letter and object lefts

2.8	4.5	4.1	4.4	4.4	6.0	2.3	4.5	6.9	1.3	2.2	1.8	2.8
41.7	1.7	4.6										



No border, Black on Green;
"StClair" White, C 85% spacing;
"100" White, C 85% spacing;
"S" White, C 85% spacing;
Table of distances between letter and object lefts

1.0	4.1	4.9	4.6	2.1	4.6	2.4	6.3	1.1	2.2	1.7	1.0
31.7	1.6	2.7									



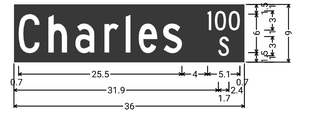
No border, Black on Green;
"Athenian" White, C 85% spacing;
"100" White, C 85% spacing; "S" White, C 85% spacing;
Table of distances between letter and object lefts

1.1	4.5	3.6	4.3	4.2	4.6	2.1	4.5	7.0	1.1	2.2	1.7	1.1
37.6	1.6	2.8										



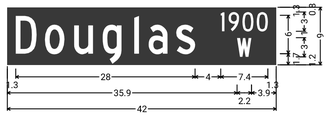
No border, Black on Green;
"Clarence" White, C 85% spacing;
"100" White, C 85% spacing; "S" White, C 85% spacing;
Table of distances between letter and object lefts

1.7	4.7	2.1	4.6	2.8	4.3	4.2	3.9	6.9	1.2	2.1	1.8	1.7
36.9	1.7	3.4										



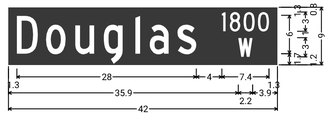
No border, Black on Green;
"Charles" White, C 85% spacing;
"100" White, C 85% spacing;
"S" White, C 85% spacing;
Table of distances between letter and object lefts

0.7	4.7	4.2	4.5	3.3	2.1	3.8	6.9	1.2	2.1	1.8	0.7
31.9	1.7	2.4									



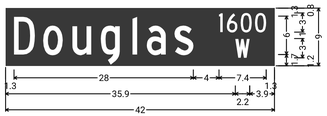
No border, Black on Green;
"Douglas" White, C; "1900" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.6	4.5	4.5	4.8	2.4	4.3	6.9	1.3	2.1	2.3	1.7	1.3
35.9	2.2	3.9										



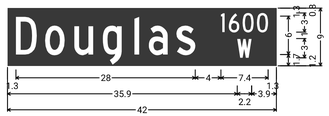
No border, Black on Green;
"Douglas" White, C; "1800" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.6	4.5	4.5	4.8	2.4	4.3	6.9	1.3	2.1	2.3	1.7	1.3
35.9	2.2	3.9										



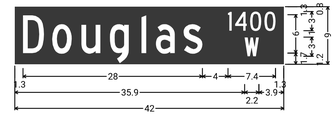
No border, Black on Green;
"Douglas" White, C; "1600" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.6	4.5	4.5	4.8	2.4	4.3	6.9	1.3	2.1	2.3	1.7	1.3
35.9	2.2	3.9										



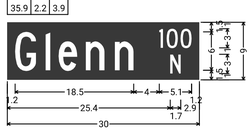
No border, Black on Green;
"Douglas" White, C; "1600" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.6	4.5	4.5	4.8	2.4	4.3	6.9	1.3	2.1	2.3	1.7	1.3
35.9	2.2	3.9										



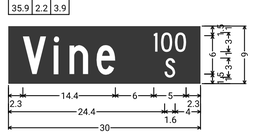
No border, Black on Green;
"Douglas" White, C; "1400" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.6	4.5	4.5	4.8	2.3	4.4	6.9	1.1	2.3	2.3	1.7	1.3
35.9	2.2	3.9										



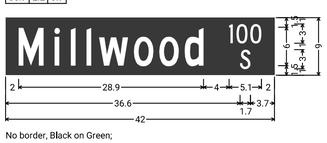
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"Glenn" White, C 85% spacing;
"100" White, C 85% spacing;
"N" White, C 85% spacing;
Table of distances between letter and object lefts

1.2	4.7	2.1	4.3	4.5	6.9	1.2	2.1	1.8	1.2		
25.4	1.7	2.9									



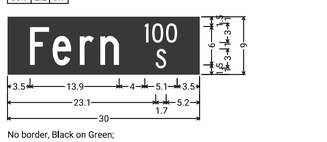
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"Vine" White, C 85% spacing;
"100" White, C 85% spacing;
"S" White, C 85% spacing;
Table of distances between letter and object lefts

2.3	4.8	2.4	4.3	8.9	1.1	2.2	1.7	2.3			
24.4	1.6	4.0									



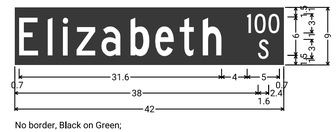
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"Millwood" White, C 85% spacing;
"100" White, C 85% spacing; "S" White, C 85% spacing;
Table of distances between letter and object lefts

2.0	5.6	2.5	2.4	2.1	5.4	4.0	4.0	6.9	1.2	2.1	1.8	2.0
36.6	1.7	3.7										



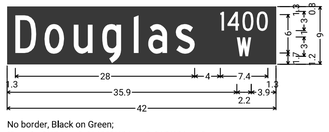
No border, Black on Green;
"Fern" White, C 85% spacing;
"100" White, C 85% spacing;
"S" White, C 85% spacing;
Table of distances between letter and object lefts

3.5	3.5	4.3	3.2	6.9	1.2	2.2	1.7	3.5			
23.1	1.7	5.2									



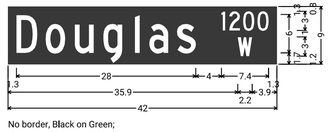
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"Elizabeth" White, C 85% spacing;
"100" White, C 85% spacing; "S" White, C 85% spacing;
Table of distances between letter and object lefts

0.7	4.3	2.5	2.1	3.9	4.6	3.8	3.8	3.7	6.9	1.1	2.2	1.7	0.7
38.0	1.6	2.4											



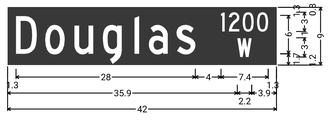
No border, Black on Green;
"Douglas" White, C; "1400" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.5	4.6	4.5	4.8	2.3	4.4	6.9	1.1	2.3	2.3	1.7	1.3
35.9	2.2	3.9										



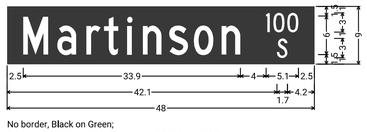
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"Douglas" White, C; "1200" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.6	4.5	4.5	4.8	2.4	4.3	6.9	1.3	2.1	2.3	1.7	1.3
35.9	2.2	3.9										



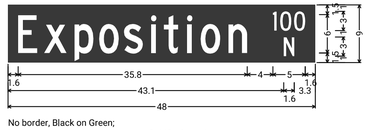
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"Douglas" White, C; "1200" White, C; "W" White, C;
Table of distances between letter and object lefts

1.3	4.6	4.5	4.5	4.8	2.4	4.3	6.9	1.3	2.1	2.3	1.7	1.3
35.9	2.2	3.9										



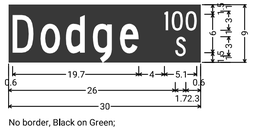
No border, Black on Green;
"Martinson" White, C 85% spacing; "100" White, C 85% spacing;
"S" White, C 85% spacing;
Table of distances between letter and object lefts

2.5	5.3	4.6	2.7	3.7	2.4	4.1	3.9	4.3	6.9	1.2	2.2	1.7	2.5
42.1	1.7	4.2											



No border, Black on Green;
"Exposition" White, C 85% spacing; "100" White, C 85% spacing;
"N" White, C 85% spacing;
Table of distances between letter and object lefts

1.6	4.0	4.8	3.8	3.9	4.2	2.1	3.6	2.1	4.3	7.0	1.1	2.2	1.7	1.6
43.1	1.6	3.3												



No border, Black on Green;
"Dodge" White, C 85% spacing;
"100" White, C 85% spacing;
"S" White, C 85% spacing;
Table of distances between letter and object lefts

0.6	4.4	4.0	4.2	4.2	6.9	1.2	2.1	1.8	0.6
26.0	1.7	2.3							

CITY OF WICHITA

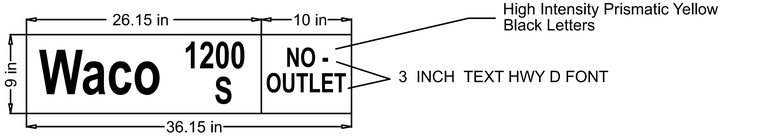
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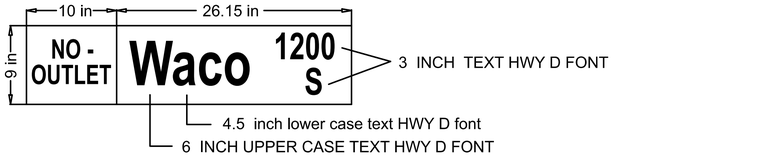
DOUGLAS AVENUE - MERIDIAN TO SENECA
SIGN LAYOUT PLAN

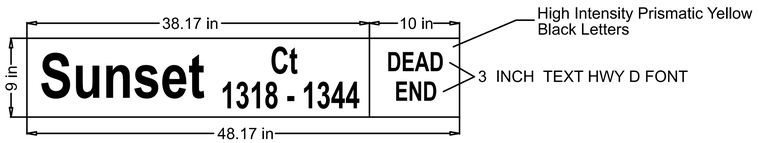
NO.	DATE	DESCRIPTION
		REVISIONS

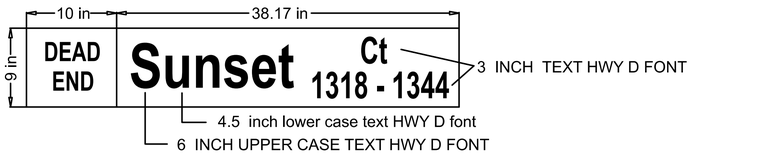
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
88
SHEET 88 OF 180



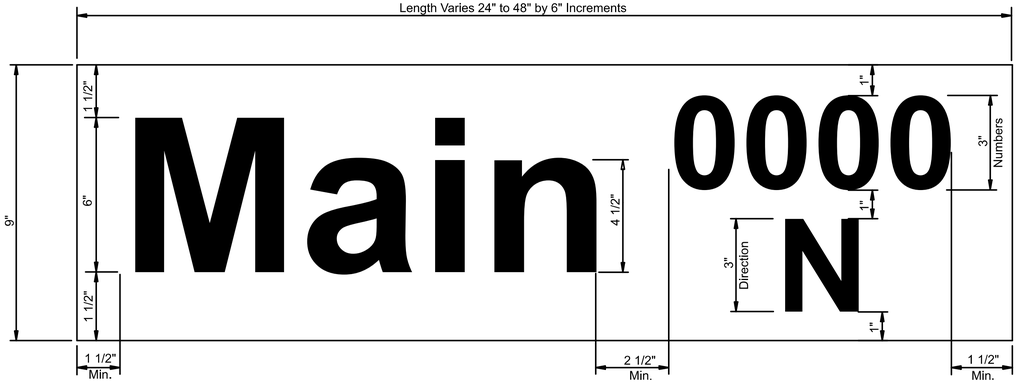




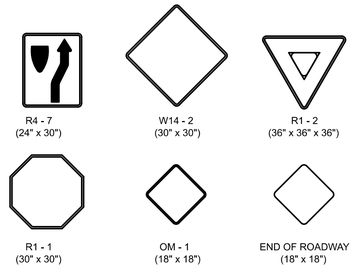




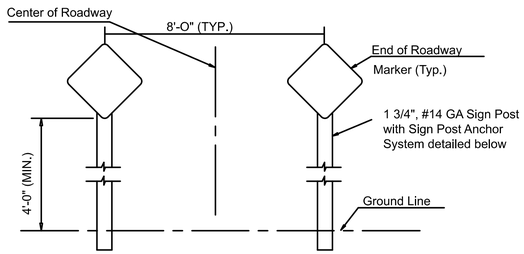
DETAIL A
9" STANDARD



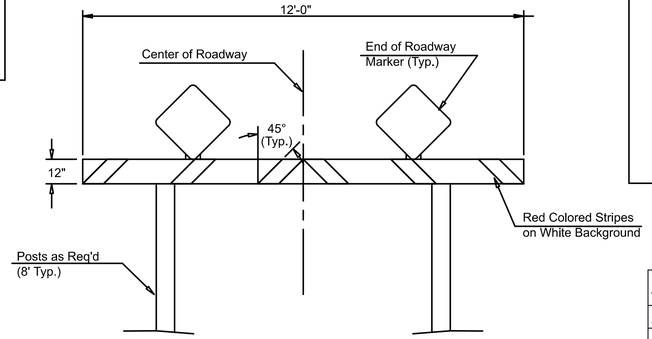
DETAIL B
9" METRO



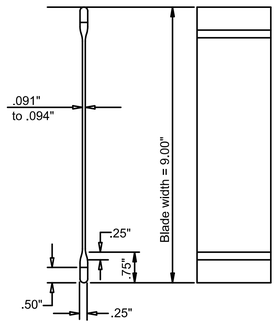
* IN NO CASE SHALL THE SPECIFICATIONS BE LESS THAN REQUIRED BY THE CURRENT MUTCD.



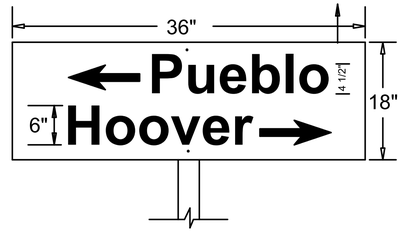
TYPICAL END OF ROADWAY SIGN MOUNTING INSTALLATION



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

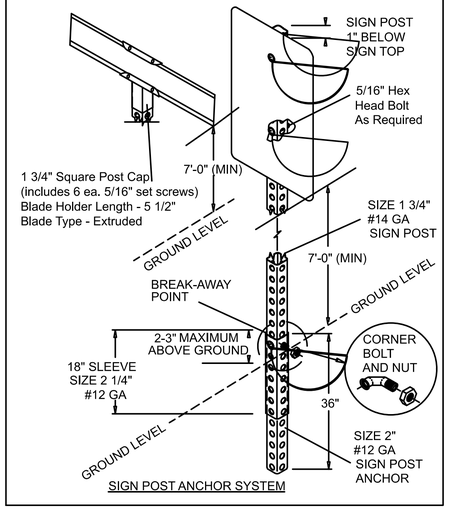


STREET NAME SIGN
BLADE DETAILS



FLAT PLATE STREET NAME SIGN

PERFORATED TUBE SIGN POST INSTALLATION



SIGN POST ANCHOR SYSTEM

STREET NAME	NO BLADES REQ'D	
	9" STD.	9" METRO
Douglas		2
Douglas 2400 W		1
Douglas 2300 W		1
Douglas 2200 W		1
Douglas 2000 W		2
Douglas 1900 W		1
Douglas 1800 W		1
Douglas 1600 W		2
Douglas 1400 W		2
Douglas 1200 W		2
Sedgwick 100 S		1
St. Clair 100 S		1
Athenian 100 S		1
Clarence 100 S		1
Charles 100 S		1
Glenn 100 N		1
Vine 100 S		1
Millwood 100 S		1
Fern 100 S		1
Elizabeth 100 S		1
Martinson 100 S		1
Exposition 100 N		1
Dodge 100 S		1
Seneca		1

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SEE SHEET NUMBER 113 FOR SIGN ASSEMBLY TABLE

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SIGN DETAILS

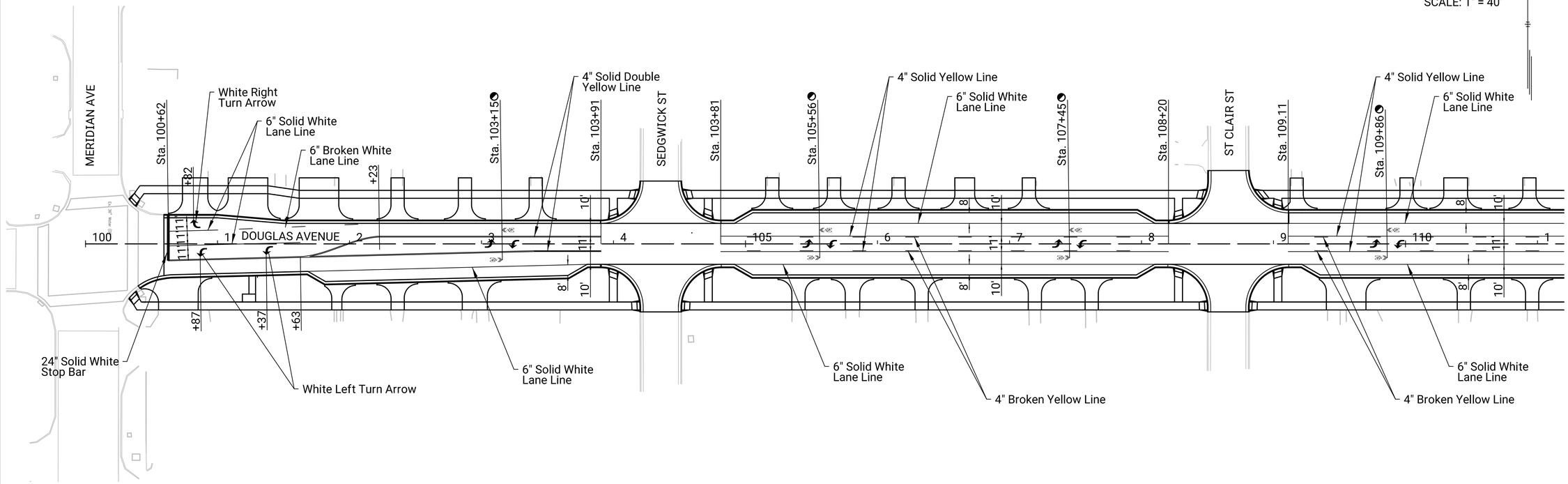
TRAFFIC ENGINEER APP'D 01/27/22
MIKE ARMOUR, P.E.

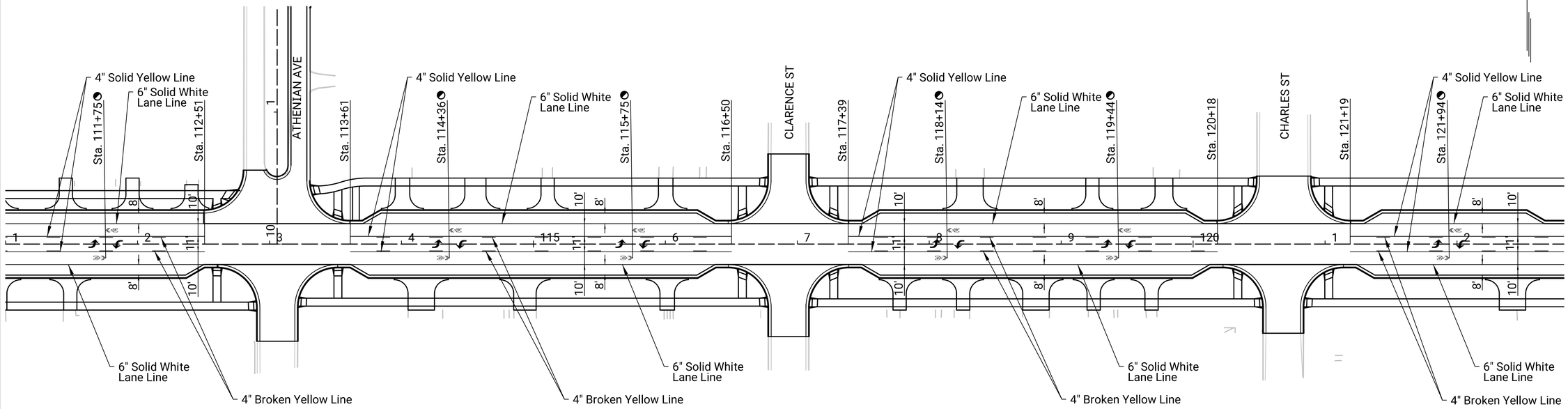
PROJECT NUMBER	OCA NUMBER	DATE

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

SHEET
89 of 180
TR-112

SCALE: 1" = 40'





◐ For marking symbols details, See Sh. No. 92

CITY OF WICHITA

wsp

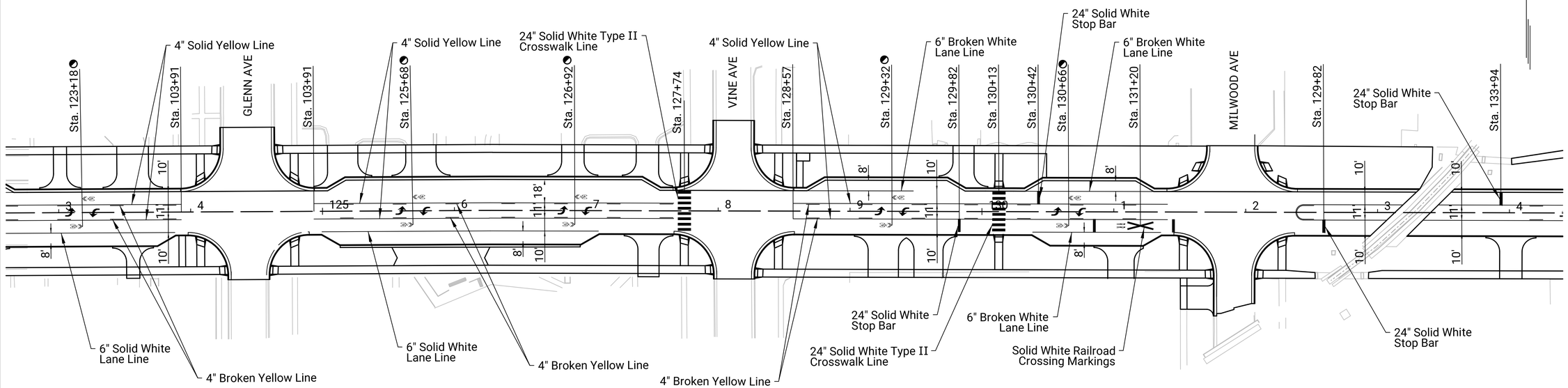
DOUGLAS AVENUE - MERIDIAN TO SENECA
PAVEMENT MARKING PLAN STA. 100+00 TO STA. 122+50

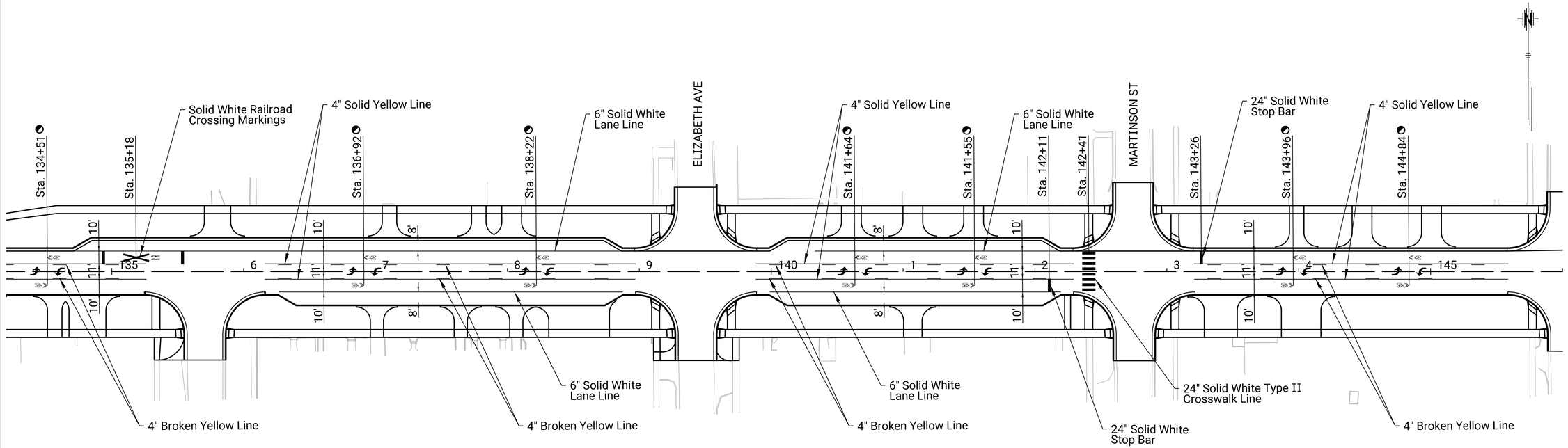
NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
90
SHEET 90 OF 180

SCALE: 1" = 40'





For marking symbols details, See Sh. No. 92

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

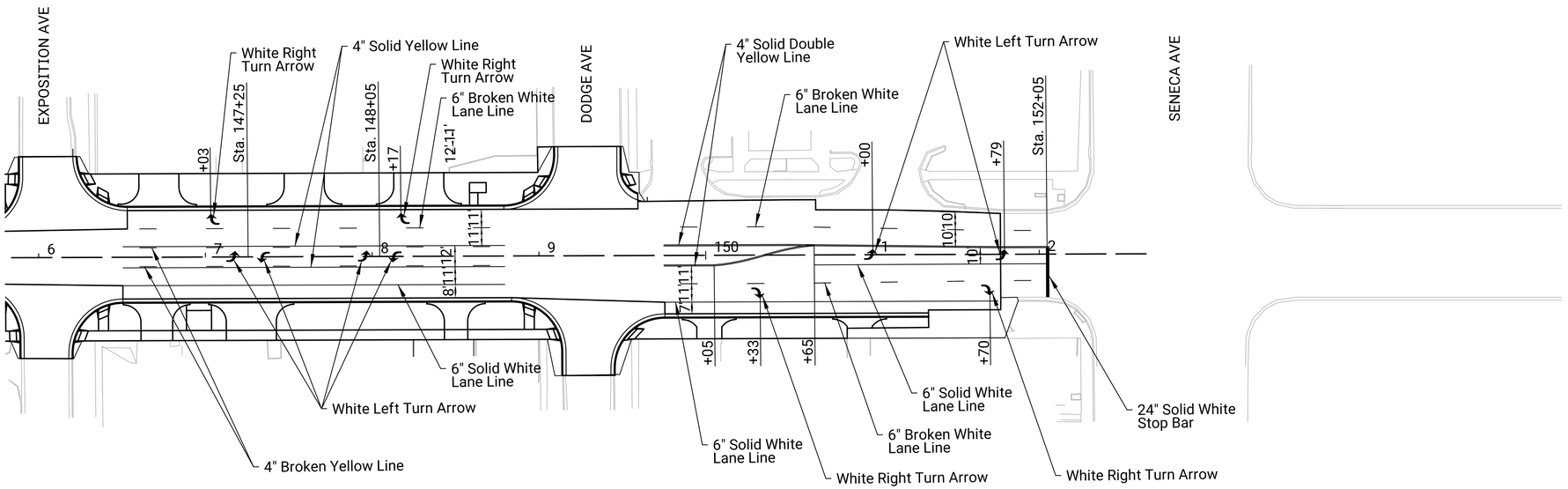
PAVEMENT MARKING PLAN STA. 122+50 TO STA. 146+00

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
91

SCALE: 1" = 40'



GENERAL PAVEMENT MARKING NOTES

1. All pavement markings shall be thermoplastic (cold plastic). Pavement markings shall be installed per manufacture's recommendation and shall meet KDOT's 90M-100-R10 specification (City Standard Specifications). Full traffic may not be restored (and substantial Project Completion achieved) until all pavement markings are in place. Should construction timing be such that restoration of traffic becomes necessary during temperatures prohibiting the instillation of thermoplastic markings, the Contractor shall install and maintain temporary markings until such time that thermoplastic markings may be properly installed. Except for material requirement, temporary pavement marking shall be place equivalent in every manner (ie. dimension, frequency, spacing, etc.), to the permanent marking layout. The cost for the temporary pavement markings will not be paid for directly, but shall be SUBSIDIARY to the bid item "Pavement Markings".

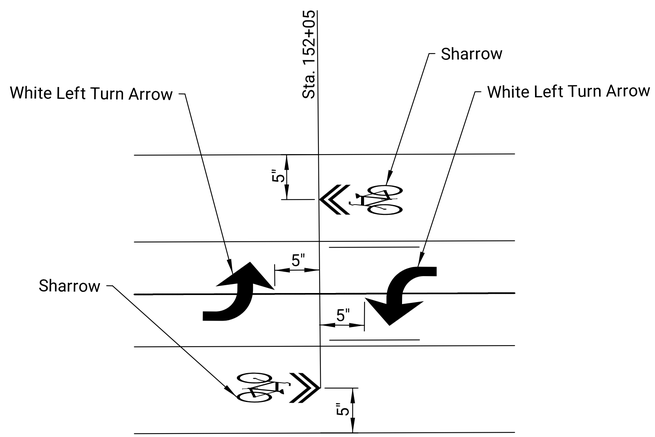
2. Remove any Traffic Control Signs and Markings that are nullified by this new construction.

3. All dimensions shown are to the centerline of marking unless otherwise noted.

TOTAL BILL OF MATERIALS*

ITEM	UNIT	TOTAL
PAVEMENT MARKING (6" White)	LF	5,516
PAVEMENT MARKING (24" White)	LF	340
PAVEMENT MARKING (4" Yellow)	LF	10,019
PAVEMENT MARKING, TURN ARROW (LT) (White)	EA	52
PAVEMENT MARKING, TURN ARROW (RT) (White)	EA	5
PAVEMENT MARKING, SHARROW (White)	EA	42
PAVEMENT MARKING, RR CROSSING SYMBOL (White)	EA	2

*FOR INFOMATION ONLY (Contractors to Bid as Needed)



MARKING SYMBOLS DETAIL

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

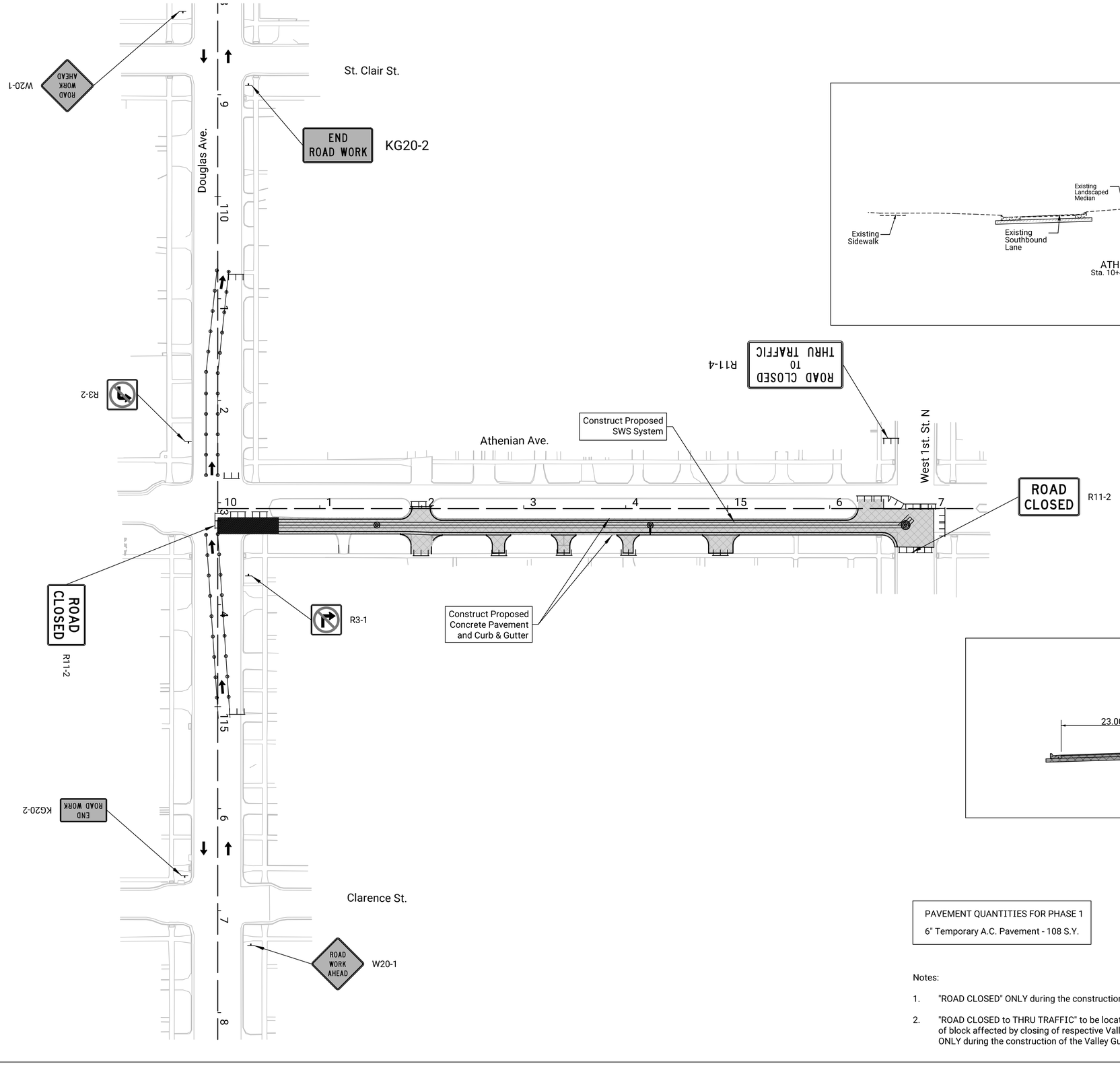
PAVEMENT MARKING PLAN STA. 146+00 TO STA. 152+64

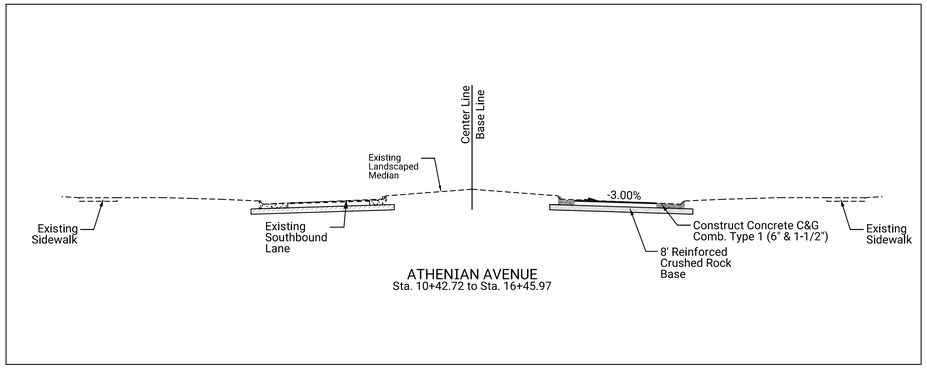
NO.	DATE	DESCRIPTION
		REVISIONS

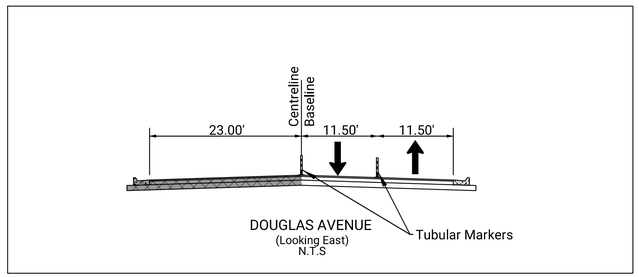
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
92
SHEET 92 OF 180

SCALE: 1" = 50'







PAVEMENT QUANTITIES FOR PHASE 1

6" Temporary A.C. Pavement - 108 S.Y.

Notes:

1. "ROAD CLOSED" ONLY during the construction of the Valley Gutter.
2. "ROAD CLOSED to THRU TRAFFIC" to be located at the beginning of block affected by closing of respective Valley Gutter. To be Closed ONLY during the construction of the Valley Gutter.

LEGEND

- Workspace
- Temporary pavement
- Channelizer
- Type III Barricades
- Traffic Flow Pattern

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

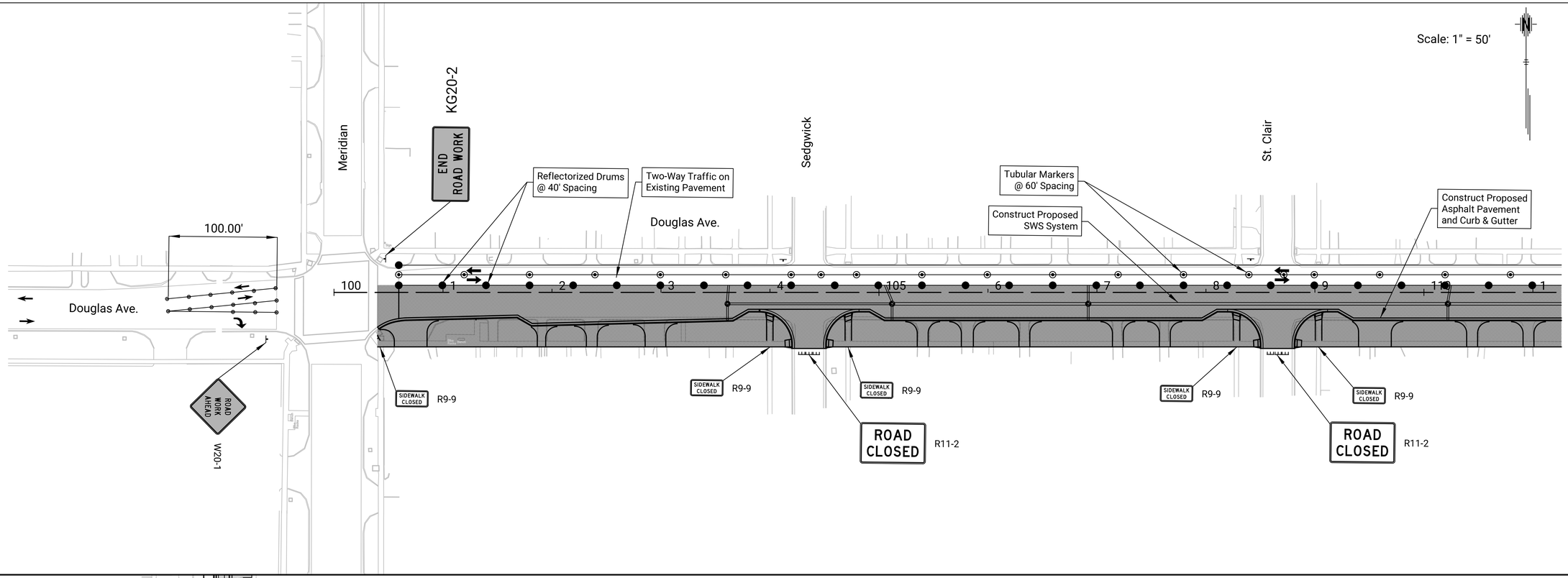
DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 1

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

93



1. "ROAD CLOSED" ONLY during the construction of the Valley Gutter.
2. "ROAD CLOSED to THRU TRAFFIC" to be located at the beginning of block affected by closing of respective Valley Gutter. To be Closed ONLY during the construction of the Valley Gutter.
3. Contractor may close every other Valley Gutter only to ensure access is maintained at alternating locations.

LEGEND

- Workspace
- Previously Constructed
- Reflectorized Drum
- Channelizer
- Type III Barricades
- Traffic Flow Pattern

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

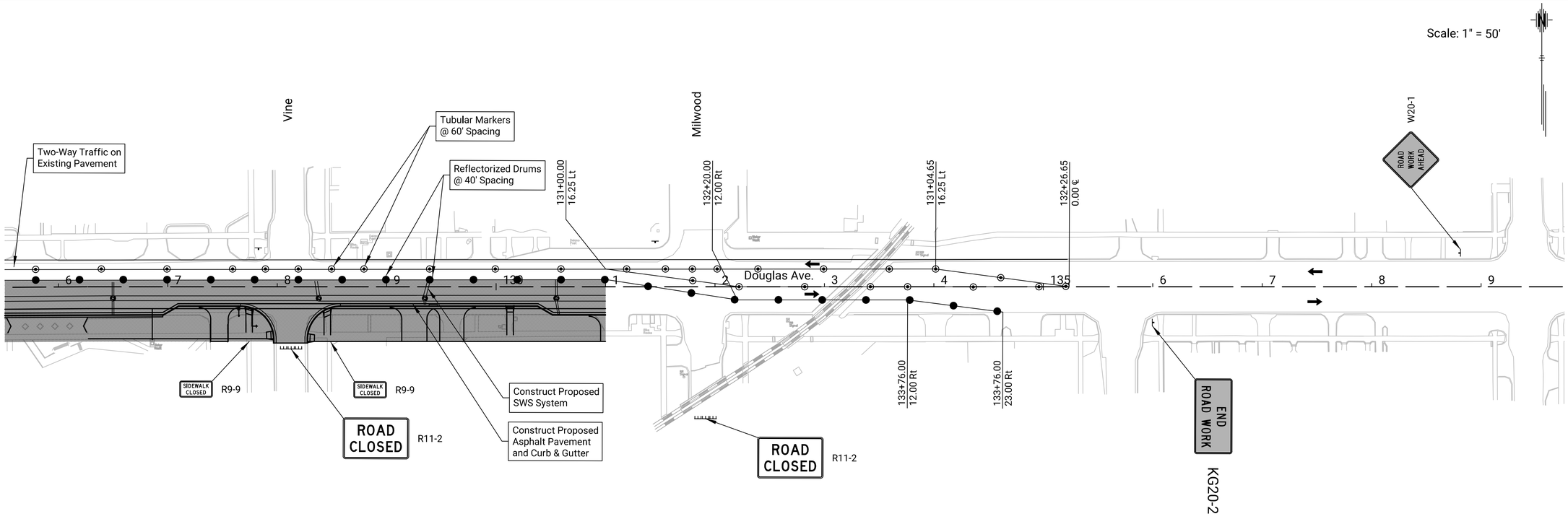
DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 2A

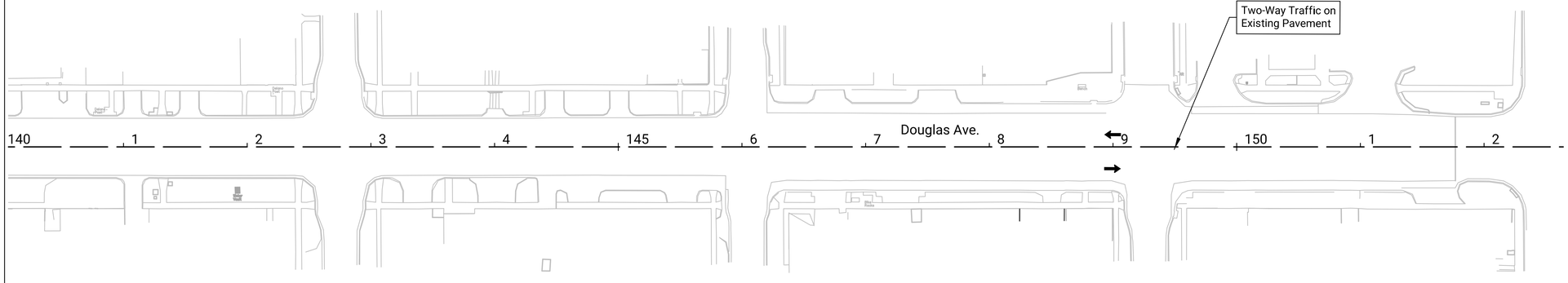
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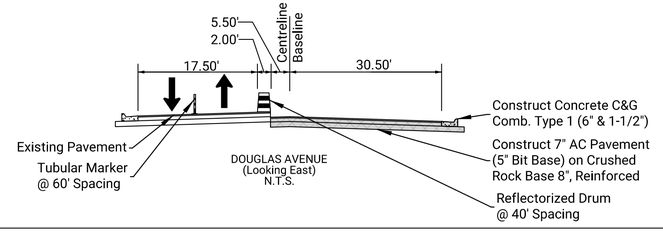
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
94
SHEET 94 OF 180

Scale: 1" = 50'







Notes:

1. "ROAD CLOSED" ONLY during the construction of the Valley Gutter.
2. "ROAD CLOSED to THRU TRAFFIC" to be located at the beginning of block affected by closing of respective Valley Gutter. To be Closed ONLY during the construction of the Valley Gutter.
3. Contractor may close every other Valley Gutter only to ensure access is maintained at alternating locations.

LEGEND

- Workspace
- Reflectorized Drum
- Channelizer
- Type III Barricades
- Traffic Flow Pattern

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 2A

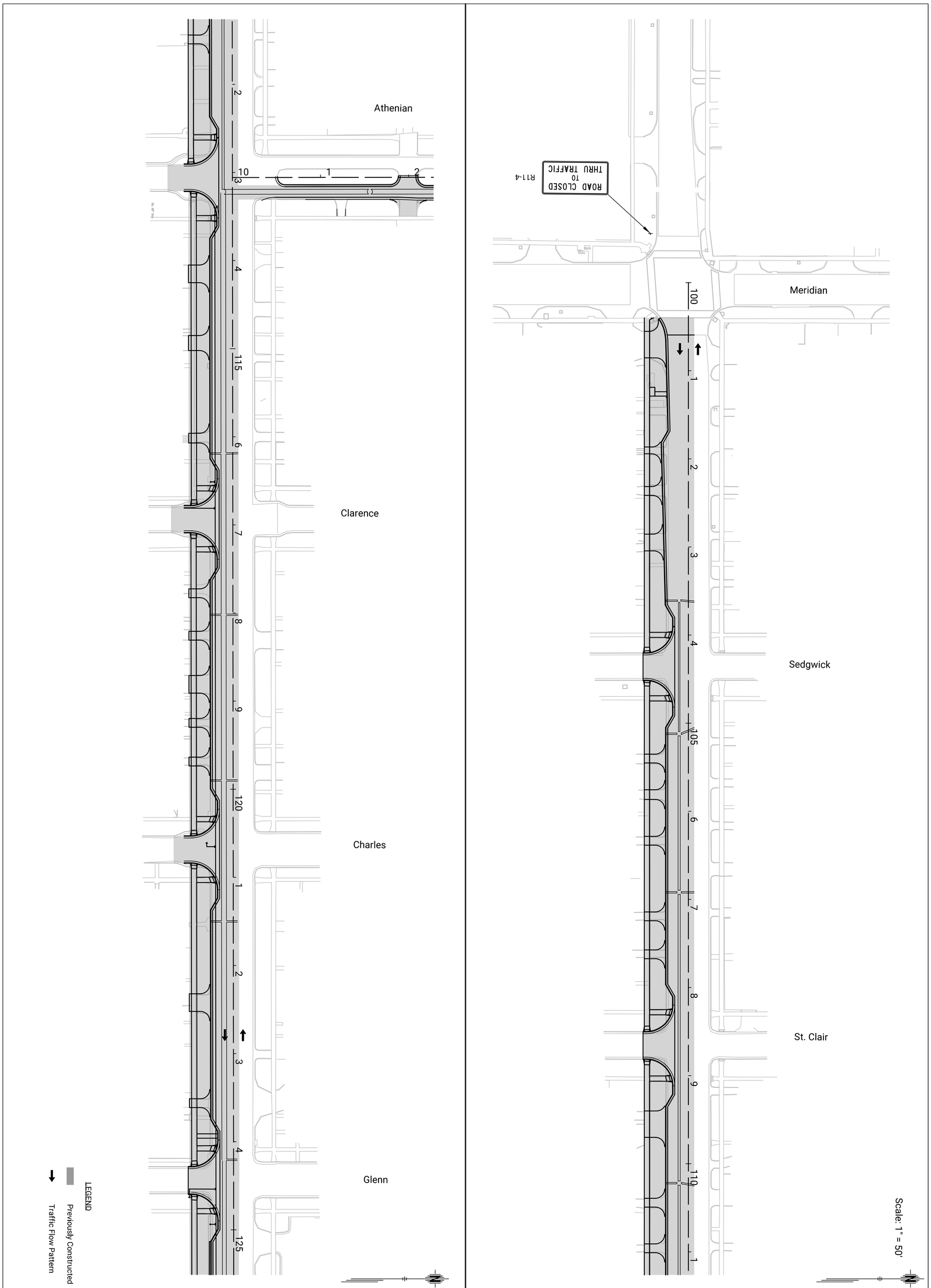
REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

95

SHEET 95 OF 180



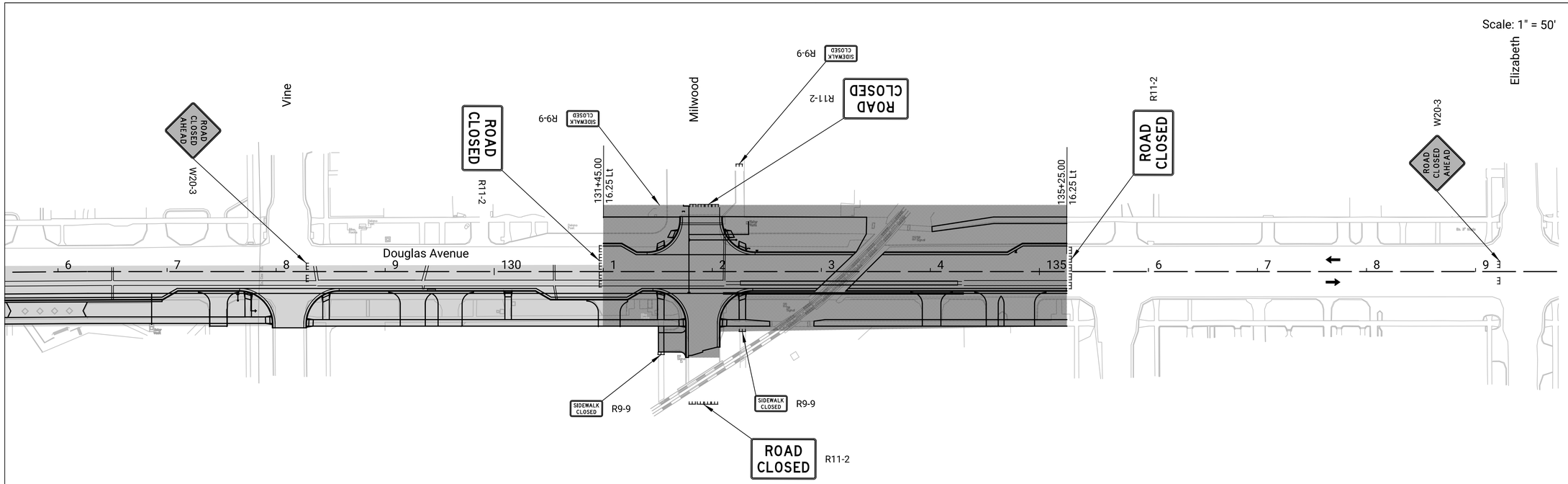
PROJ NO:	87 N-0762-01	
SCALE:	AS NOTED	
DATE:	Aug 2025	
DESIGNED BY:	TPV	
DRAWN BY:	Staff	
CHECKED BY:	TPV	
YEAR:	2025	
SHEET NO	96	
SHEET 97 OF 180		

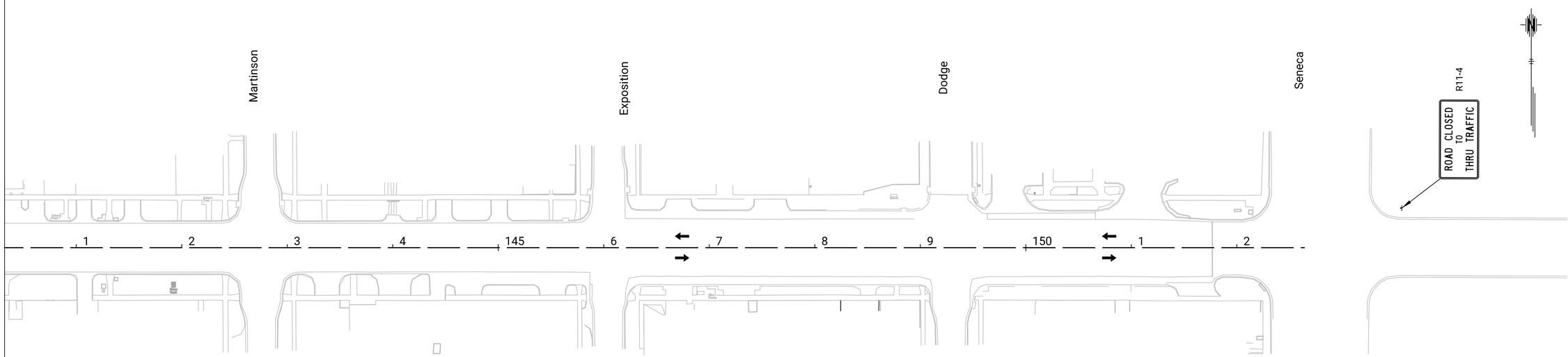
NO.	DATE	DESCRIPTION
		REVISIONS

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 2B

CITY OF WICHITA





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

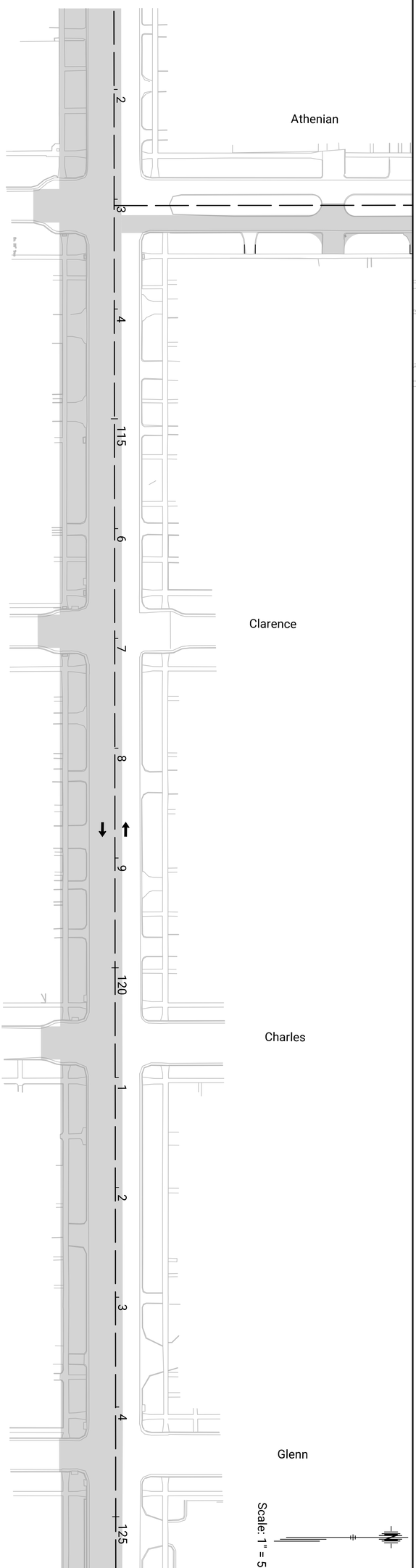
DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 2B

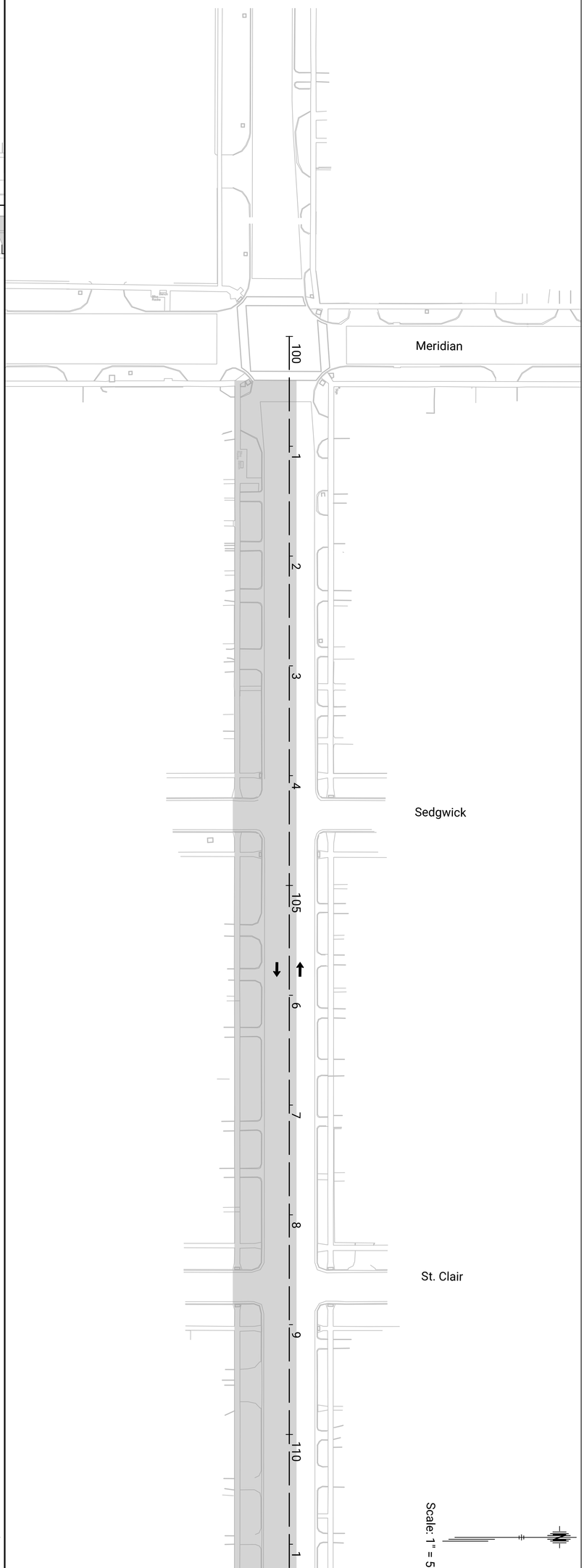
NO.	DATE	REVISIONS / DESCRIPTION

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

97





LEGEND

Previously Constructed

Traffic Flow Pattern

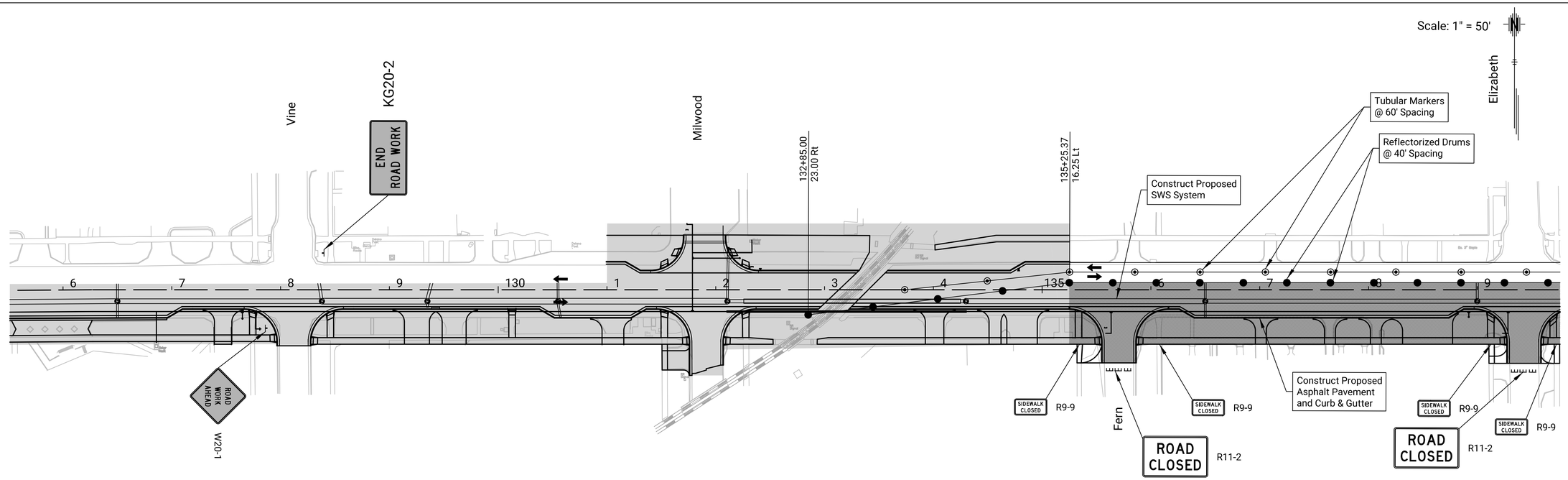
NO.	DATE	DESCRIPTION
		REVISIONS

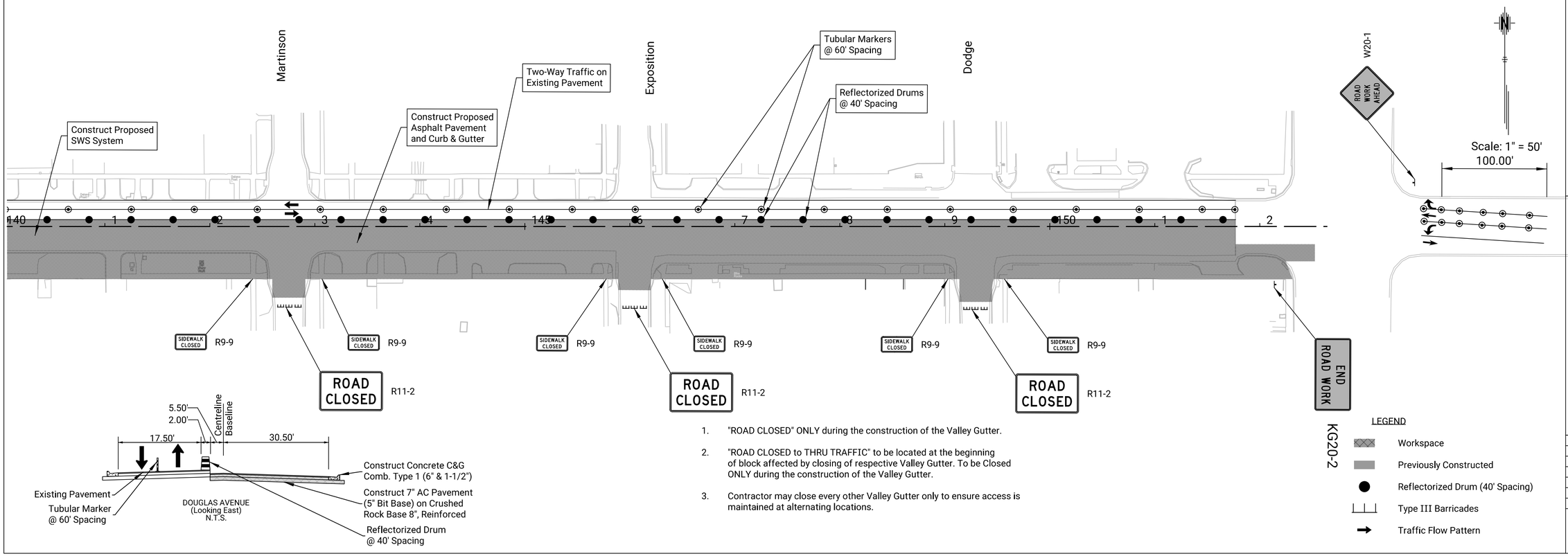
DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 2C

CITY OF WICHITA

PROJ NO: 87 N-0762-01
SCALE: AS NOTED
DATE: Aug 2025
DESIGNED BY: TPV
DRAWN BY: Staff
CHECKED BY: TPV
YEAR: 2025
SHEET NO: 98
SHEET 98 OF 180





1. "ROAD CLOSED" ONLY during the construction of the Valley Gutter.
2. "ROAD CLOSED to THRU TRAFFIC" to be located at the beginning of block affected by closing of respective Valley Gutter. To be Closed ONLY during the construction of the Valley Gutter.
3. Contractor may close every other Valley Gutter only to ensure access is maintained at alternating locations.

LEGEND

- Workspace
- Previously Constructed
- Reflectorized Drum (40' Spacing)
- Type III Barricades
- Traffic Flow Pattern

CITY OF WICHITA

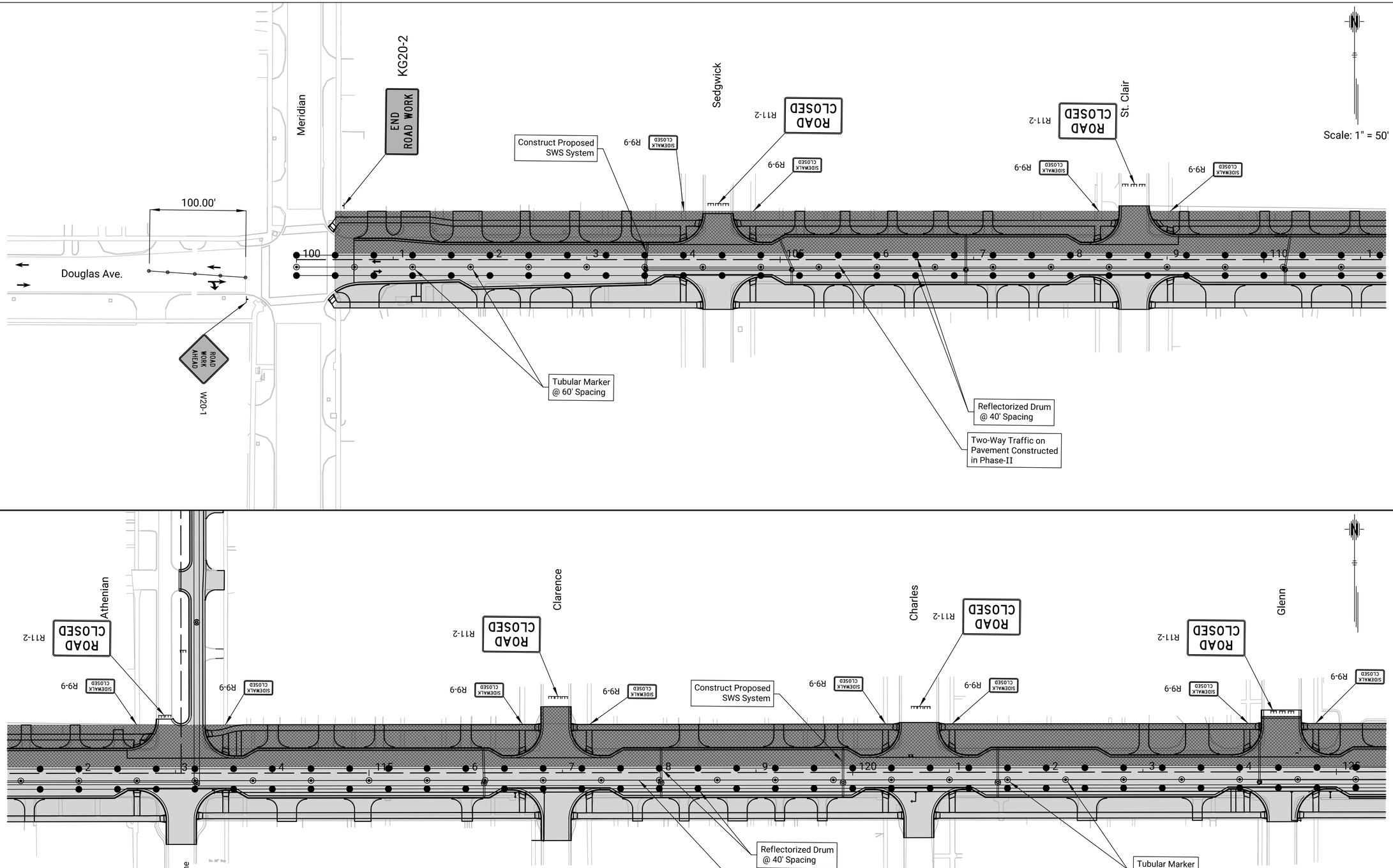
wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 2C

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
99
SHEET 99 OF 180



Notes:

1. "ROAD CLOSED" ONLY during the construction of the Valley Gutter.
2. "ROAD CLOSED to THRU TRAFFIC" to be located at the beginning of block affected by closing of respective Valley Gutter. To be Closed ONLY during the construction of the Valley Gutter.
3. Contractor may close every other Valley Gutter only to ensure access is maintained at alternating locations.
4. At the West side of Meridian and Douglas intersection, the right-turn-only lane shall serve both Eastbound and Souhbound movements, while the existing thrulane will function as part of the taper between the construction zone and the Westbound lane.

LEGEND

- Workspace
- Previously Constructed
- Reflectorized Drum (40' Spacing)
- Type III Barricades
- Traffic Flow Pattern

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 3

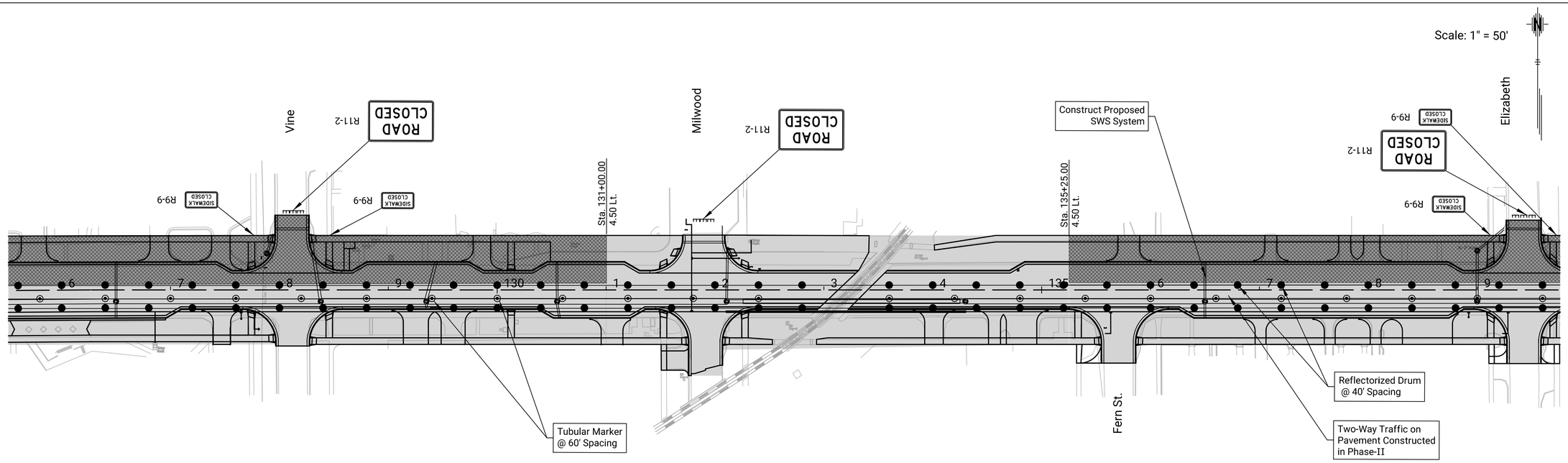
REVISIONS	DESCRIPTION	DATE	NO.

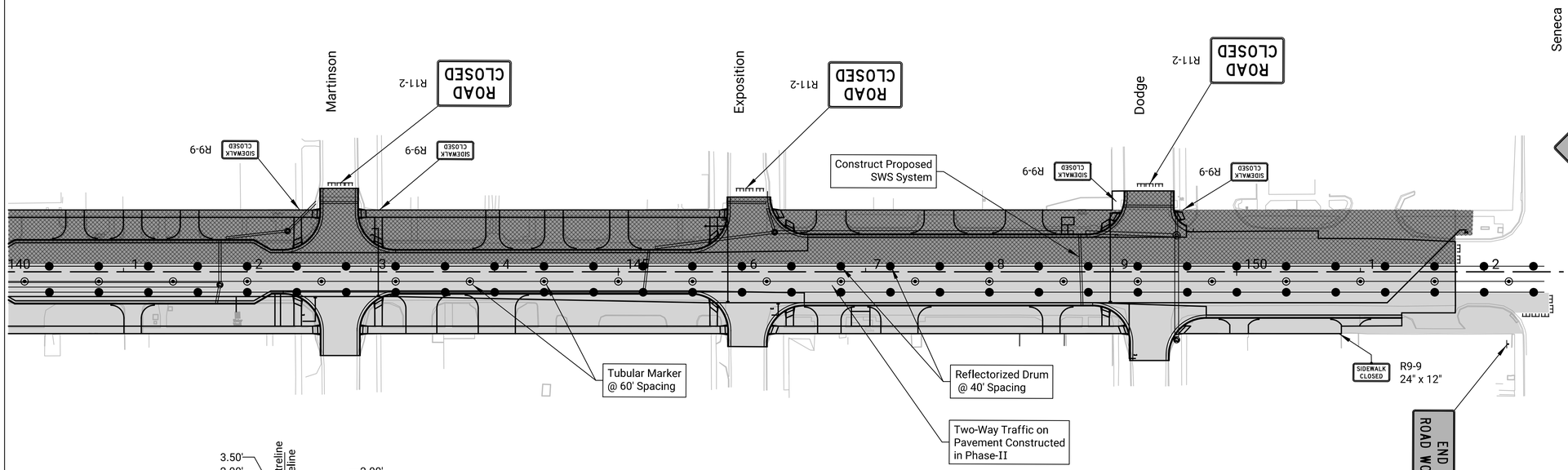
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

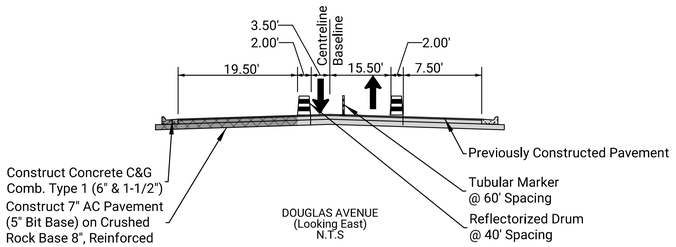
SHEET NO

100

SHEET 100 OF 180







Notes:

1. "ROAD CLOSED" ONLY during the construction of the Valley Gutter.
2. "ROAD CLOSED to THRU TRAFFIC" to be located at the beginning of block affected by closing of respective Valley Gutter. To be Closed ONLY during the construction of the Valley Gutter.
3. Contractor may close every other Valley Gutter only to ensure access is maintained at alternating locations.

LEGEND

- Workspace
- Previously Constructed
- Reflectorized Drum (40' Spacing)
- Type III Barricades
- Traffic Flow Pattern

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVE. CONSTRUCTION SEQUENCE PLAN - PHASE 3

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
101
SHEET 101 OF 180

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVENUE DETOUR PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

102

SHEET 102 OF 180

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	103	180

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.

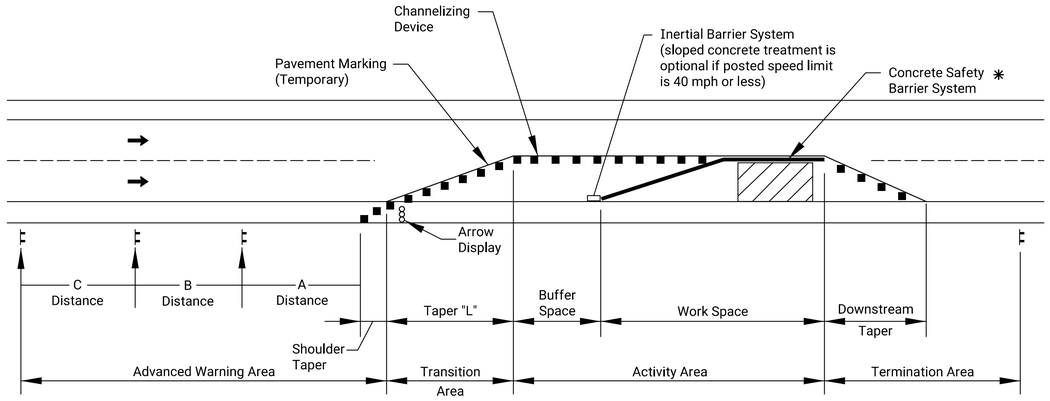
2) Minimum Lane Width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.

3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.

4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.

5) 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.

6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-1179 or 785-296-1183.



TYPICAL WORK ZONE COMPONENTS

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

Minimum advance warning sign spacing (in feet):

SPEED (MPH) ✳	*A*	*B*	*C*
URBAN (40 MPH 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*

✳ Posted speed prior to work starting

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.

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 = Numericial 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

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 Space

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*

✳ Posted speed prior to work starting

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.

NO.	DATE	REVISIONS	BY	APP'D
02	03-13-18	W8-15p usage changed to Shall	R.W.B.	E.K.G.
01	08-18-15	Channelizer spacing info	R.W.B.	K.E.

KANSAS DEPARTMENT OF TRANSPORTATION

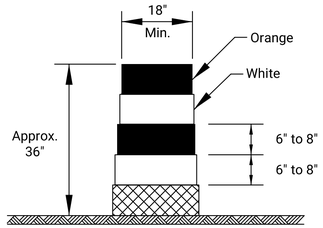
TRAFFIC CONTROL GENERAL NOTES

TE700

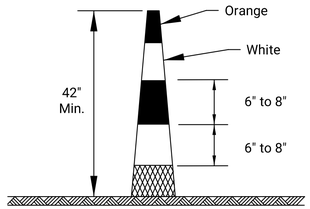
FHWA APPROVAL	03-13-18	APP'D.	Eric Kocher
DESIGNED B.A.H.	DETAILED R.W.B.	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK.

Plotted by : usmh708425 6-AUG-2025 20:39
File : 30902042_TE700.dgn

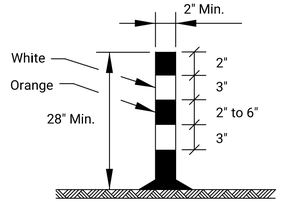
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	104	180



DRUM

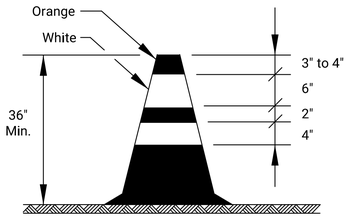


CONICAL DELINEATOR

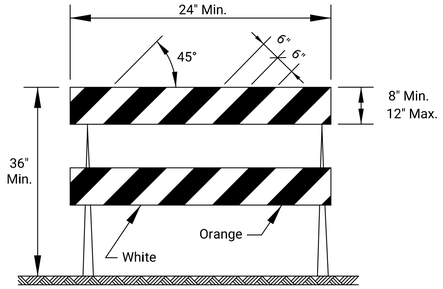


TUBULAR MARKER

Striping as shown for up to 42".

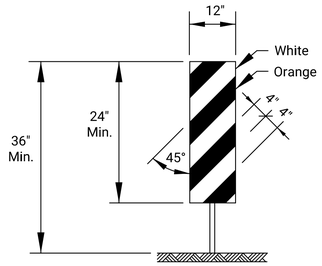


TRAFFIC CONE



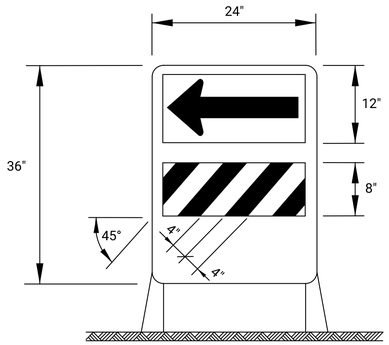
TYPE 2 BARRICADE

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



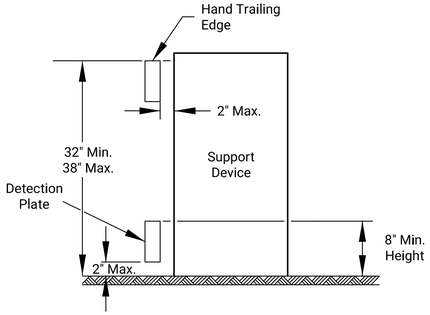
VERTICAL PANEL

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	(2)	(2)	(2)	(2)	(2)	(1,2)	Yes	(2)	(2)
	Direction Indicator Barricade	No	No	No	Yes	No	No	No	No	No
	Type 2 Barricade	(2)	(2)	(2)	(2)	No	No	Yes	No	No
	Traffic Cones	No	No	(4)	(4)	(4)	No	(4)	(4)	(4)
Fixed										
	Tubular Markers	(3)	(3)	(3)	No	(3)	Yes	No	Yes	Yes
	Vertical Panels	(3)	(3)	(3)	(3)	(3)	(3)	Yes	(2,3)	(2)

(1) Not allowed on centerline delineation along freeways or expressways.
(2) The stripes shall slope downward to the traffic side for channelization.
(3) May be used upon the approval of the engineer.
(4) Daytime operations only.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL CHANNELIZING DEVICES

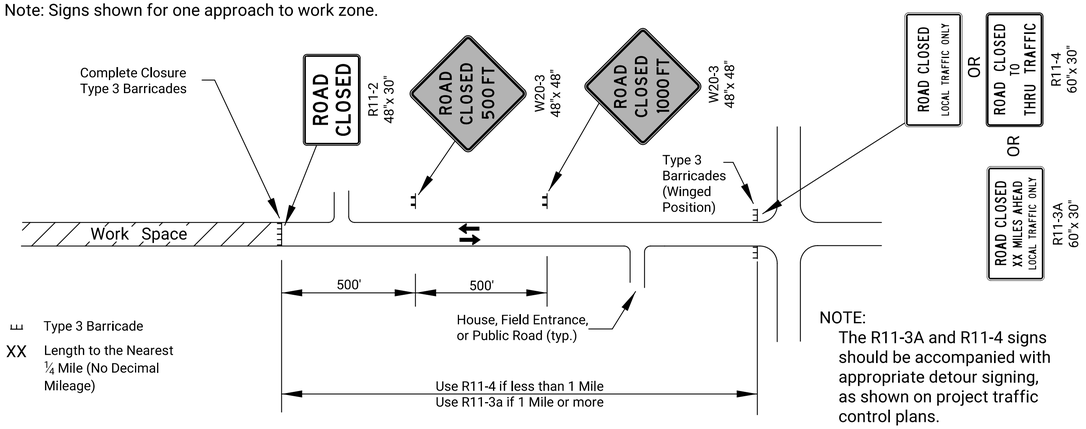
TE702

FHWA APPROVAL		06-01-15	APP'D.	Kristina Ericksen	
DESIGNED	L.E.R.	DETAILED	R.W.B.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN.CK.	TRACE CK.

Plotted by : usmh708425 6-AUG-2025 20:39
File : 30902042_TE702.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	105	180

Note: Signs shown for one approach to work zone.



NOTE:
The R11-3A and R11-4 signs should be accompanied with appropriate detour signing, as shown on project traffic control plans.

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

Note: Sign shown for one approach to intersection (work zone).

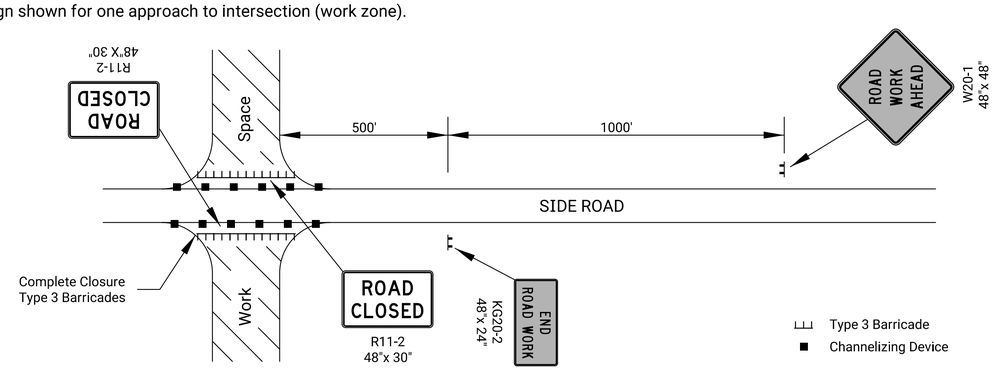


FIGURE 2: TYPICAL SIGNING FOR SIDE ROAD OPEN

Note: Signs shown for one approach to work zone.

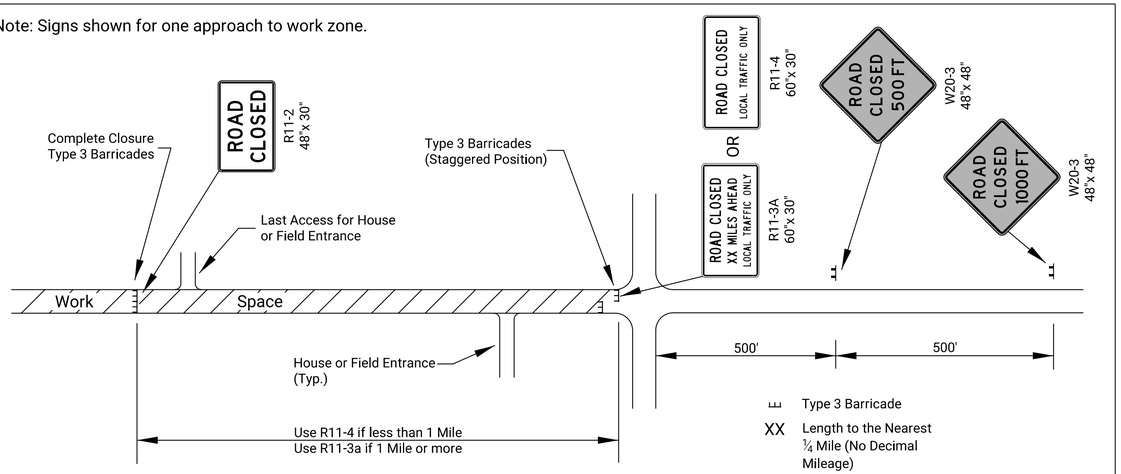


FIGURE 3: TYPICAL SIGNING FOR ROAD CLOSURE - LOCAL TRAFFIC ACCESS

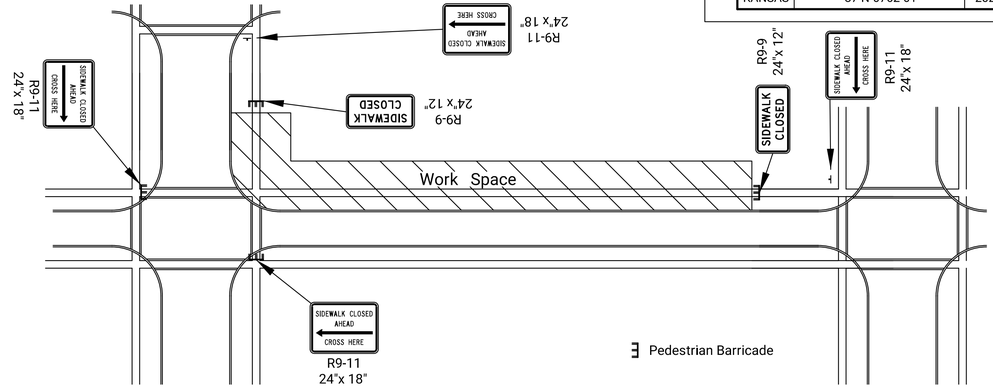
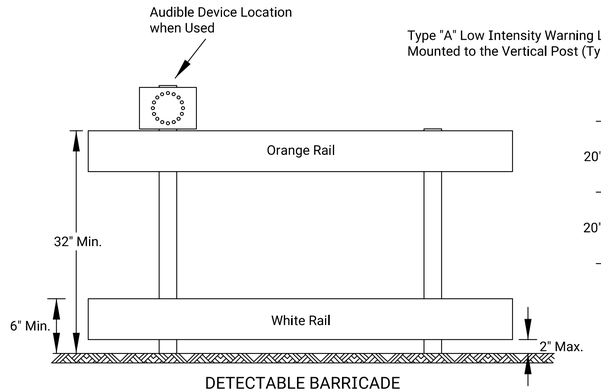
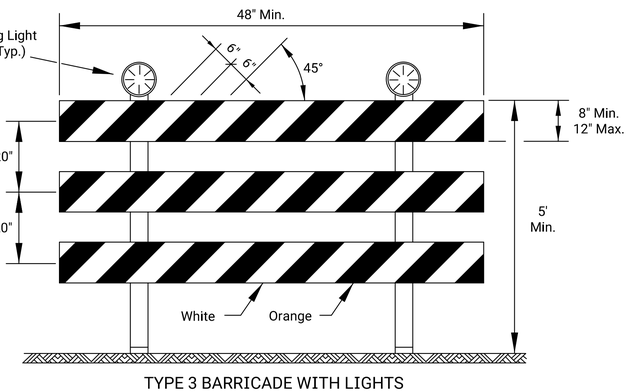


FIGURE 4: TYPICAL SIGNING FOR SIDEWALK CLOSED WITH OPPOSITE SIDEWALK AVAILABLE



DETECTABLE BARRICADE

1. Support device shall not project beyond the detection plate into the pathway.
2. Barricades shall be used to close the entire width of the pathway.
3. Do not use warning lights on pedestrian barricades.
4. Do not use warning lights on audible devices.



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.

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.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL CLOSURES

TE704

FHWA APPROVAL		06-01-15	APP'D.	Kristina Ericksen	
DESIGNED	B.A.H.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Plotted by : usmh708425 6-AUG-2025 20:39
File : 30902042_TE704.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	106	180

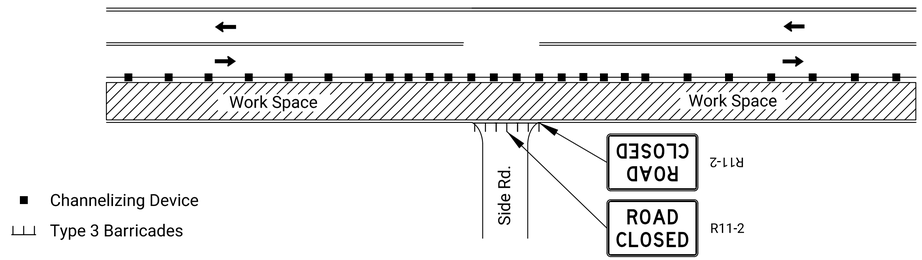


FIGURE 1: SIDE ROAD OR ENTRANCE CLOSED THROUGH WORK AREA

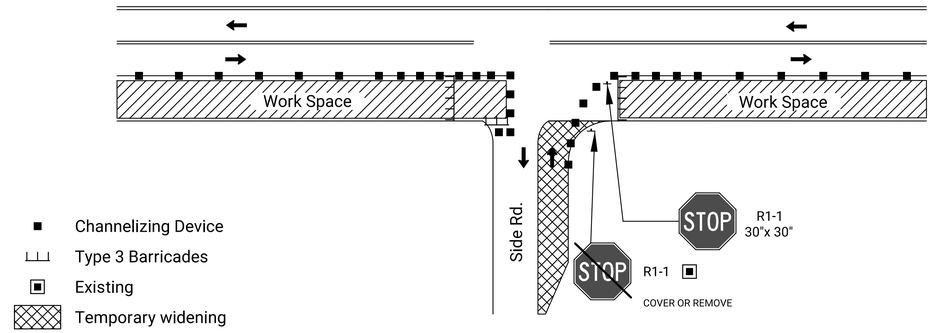


FIGURE 4: SIDE ROAD OR ENTRANCE CONSTRUCTED HALF AT A TIME: TWO WAY TRAFFIC REQUIRED

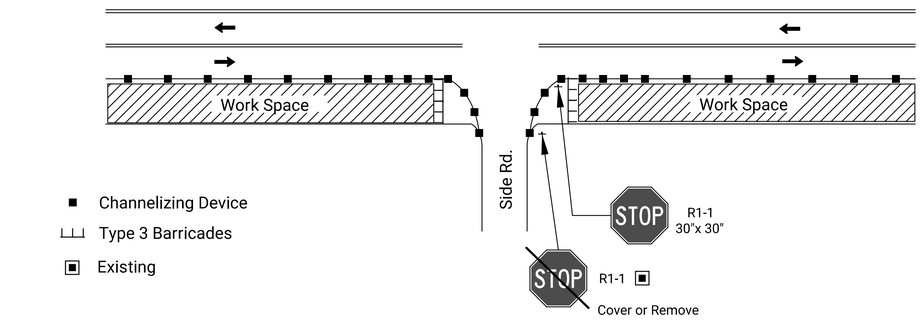


FIGURE 2: SIDE ROAD OR ENTRANCE OPEN THROUGH WORK AREA

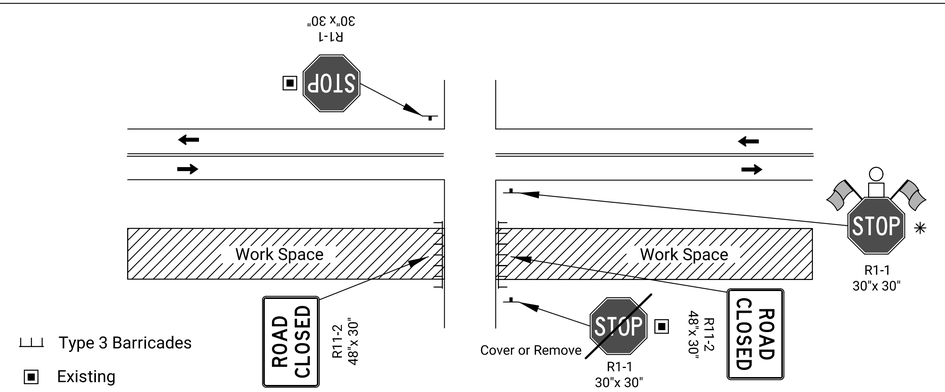


FIGURE 5: SIDE ROAD OPEN THROUGH WORK AREA ON DIVIDED ROADWAY

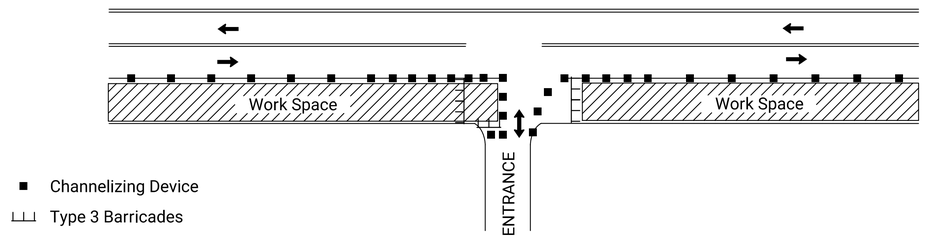


FIGURE 3: LOW VOLUME ENTRANCE CONTRUCTED HALF AT A TIME

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

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
ACCESS THROUGH THE WORK AREA

TE705

FHWA APPROVAL		06-01-15	APP'D.	Kristina Ericksen	
DESIGNED	R.W.B.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Sh. No. 106

Plotted by : usmh708425 6-AUG-2025 20:39
File : 30902042_TE705.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	107	180

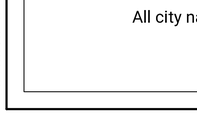
SIGN LAYOUT INFORMATION

END ROAD WORK
KG20-2
Std. Size Expwy/Freeway
6" C
48"x 24"

WAIT FOR PILOT CAR
KG20-5
Std. Size Expwy/Freeway
6" C
48"x 24"

WORK ZONE
KM4-2O
Std. Size
3" C
24"x 6"
Expwy/Freeway
6" C
48"x 12"

NEXT X MILES
W7-3a
Mileage to be Determined by the Engineer.


W8-17
Std. Size Expwy/Freeway
48"x 48"

SHOULDER DROP-OFF
W8-17P (Optional)
Std. Size Expwy/Freeway
30"x 24"

GROOVED PAVEMENT
W8-15
Std. Size Expwy/Freeway
8" D
48"x 48"

LOOSE GRAVEL
W8-7
Std. Size Expwy/Freeway
8" D
48"x 48"


W8-15p
Std. Size Expwy/Freeway
30"x 24"

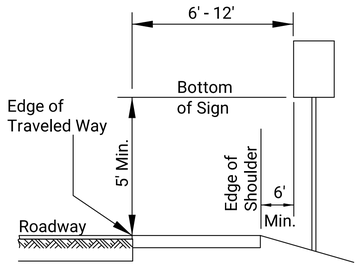

W8-11
Std. Size Expwy/Freeway
8" D
48"x 48"

NB US-75 CLOSED
FOLLOW DETOUR
SP-01 (Special Sign)
Std. Size
6" C
Expwy/Freeway
10" D

US-75 CLOSED
NORTH OF Topeka
FOLLOW DETOUR
SP-02 (Special Sign)

	Std. Size	Expwy/Freeway
Uppercase:	6" C	10" D
Lowercase:	4.5" C	8" D

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

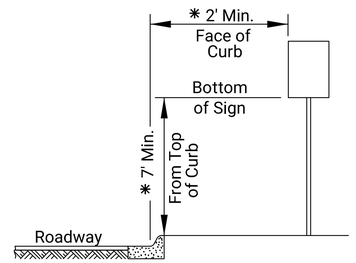


RURAL

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.

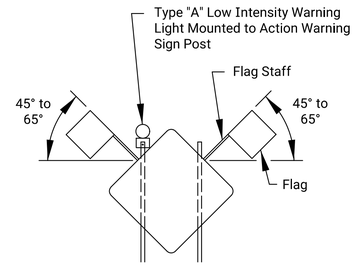
2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.

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

4) The height from 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.

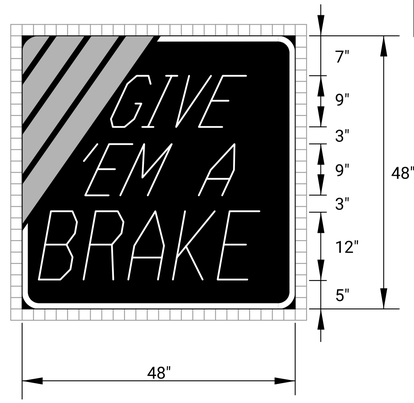
5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

* 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.



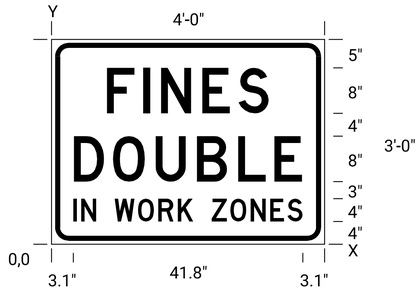
When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

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.



KI-104a

Sign Number	GIVE EM A BRAKE
Width x Height	4'-0" x 4'-0"
Border Width	1.0"
Corner Radius	4.0"
Stripe Width	3.0"
Mounting	Ground
Background	Type: Non-Reflective
	Color: Black
Legend/Border	Type: Reflective
	Color: White
Legend Font	Dutch 801 Roman SWC 25 Degree Slant
Stripes	Type: Reflective
	Color: Orange



KI-105a

Sign Number	FINES DOUBLE
Width x Height	4'-0" x 3'-0"
Border Width	0.9"
Corner Radius	3.0"
Mounting	Ground
Background	Type: Reflective
	Color: White
Legend/Border	Type: Non-Reflective
	Color: Black

Dimensions in inches — Spacings are to start of next letter

Y FONT	LETTER SPACINGS															HT LEN
23.0 D		F	I	N	E	S										8.0
	9.7	6.4	3.2	7.3	6.4	5.4	9.7									28.6
11.0 D		D	O	U	B	L	E									8.0
	3.9	6.9	7.5	7.3	7.3	6.4	4.9	3.9								40.3
4.0 D		I	N		W	O	R	K		Z	O	N	E	S		4.0
	3.1	1.6	2.7	3.2	4.3	3.8	3.6	2.8	3.2	3.4	3.8	3.6	3.2	2.7	3.1	41.8

Notes:

Typically, there are two sets of informational signs installed per project: one for each direction of traffic.

Install signs a minimum of 500' in advance of the road work ahead sign. The engineer may designate a more appropriate location if conditions dictate.

The informational signs are not to interfere with the traffic control signs for the project.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGN INFORMATION

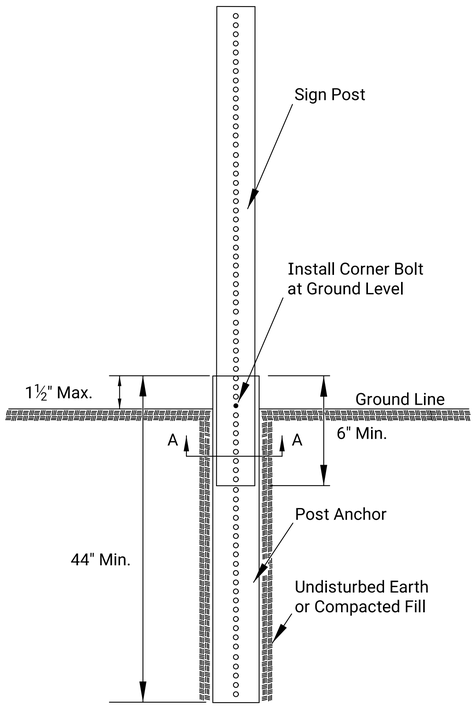
TE710

FHWA APPROVAL		06-01-15	APP'D.	Kristina Ericksen	
DESIGNED	R.W.B.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

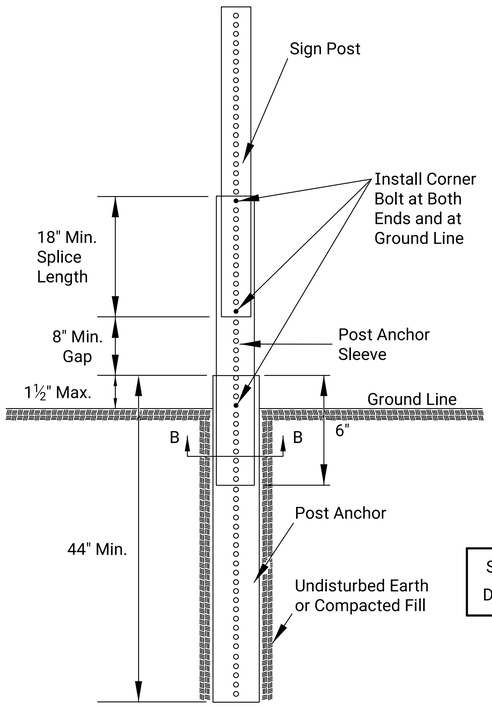
Plotted by : usmh708425 6-AUG-2025 20:40
File : 30902042_TE710.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	108	180

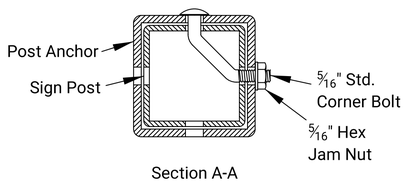
PERFORATED SQUARE STEEL TUBE (P.S.S.T.) POST SETUP



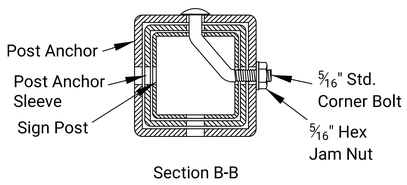
P.S.S.T. Detail



Telescoping P.S.S.T. Detail



Section A-A

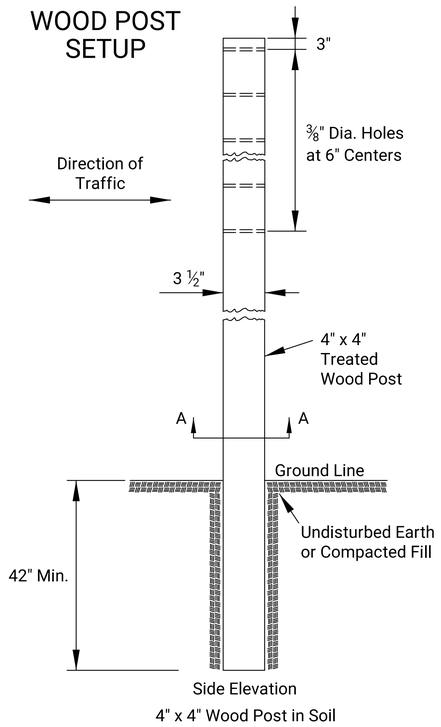


Section B-B

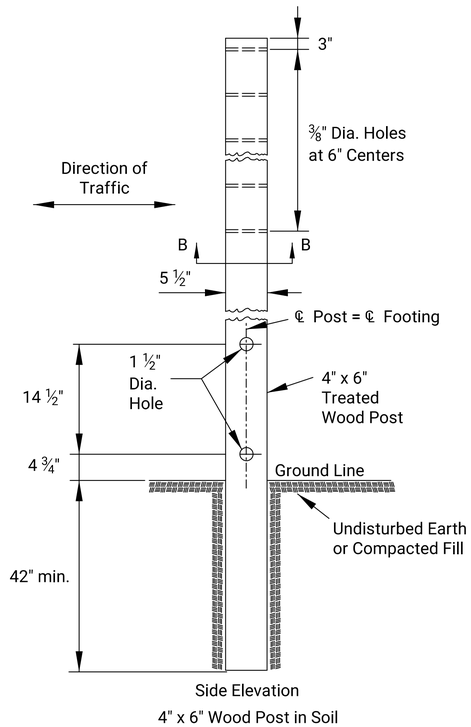
Details for 2", 2 ¼", or 2 ½" sign posts

Place bolts in the same corner along each sign post.

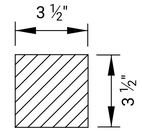
WOOD POST SETUP



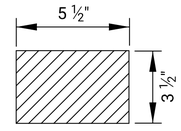
Side Elevation
4" x 4" Wood Post in Soil



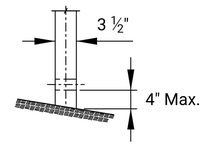
Side Elevation
4" x 6" Wood Post in Soil



Section A-A



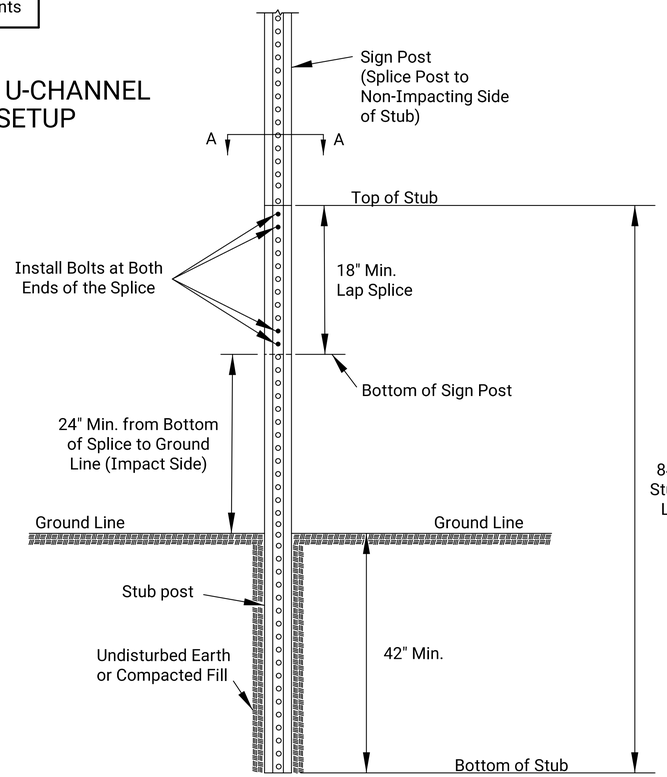
Section B-B



Front Elevation

See TE710 for Additional Details and Requirements

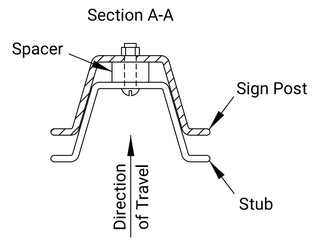
3 LB/F U-CHANNEL SETUP



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

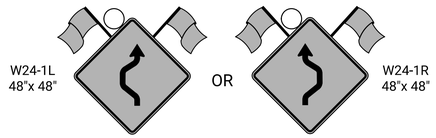
TRAFFIC CONTROL SIGN POSTS

TE712

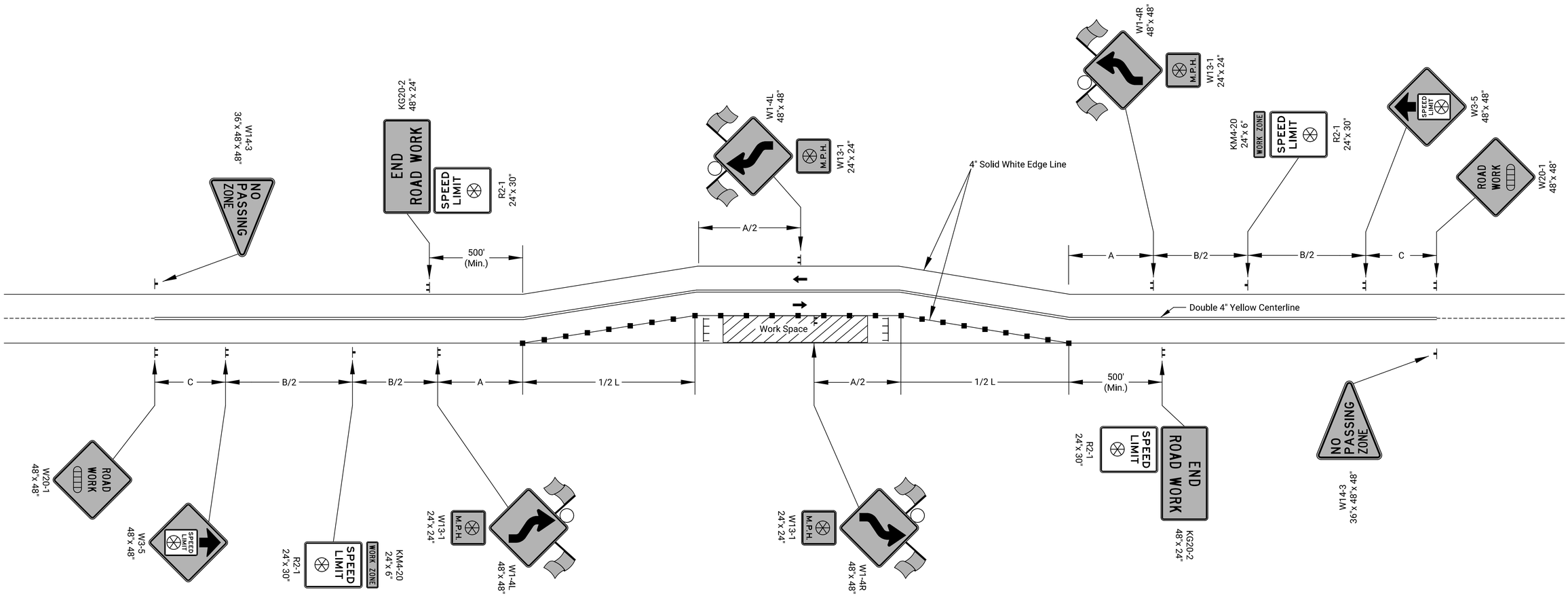
FHWA APPROVAL		06-01-15	APP'D.	Kristina Ericksen	
DESIGNED	B.A.H.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Plotted by : usmh708425 6-AUG-2025 20:40
File : 30902042_TE712.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0762-01	2025	109	180



One W24-1 should be used per approach where the tangent distance between two reverse curves is less than 600 ft. If used, use in place of the first W1-4 and eliminate the second.



- ■ Channelizing Device
- Type 3 Barricades
- Ahead, 1500 ft, or 1 Mile
- Speed to be Determined by the Engineer
- Type "A" Low Intensity Warning Light

NO.	DATE	REVISIONS	BY	APP'D
01	03-13-18	W24-1 usage changed to Should	R.W.B.	E.G.K.

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL LANE SHIFT

TE724

FHWA APPROVAL	03-13-18	APP'D.	Eric Kocher
DESIGNED R.W.B.	DETAILED R.W.B.	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK.

Plotted by : usmh708425 6-AUG-2025 20:40
File : 30902042_TE724.dgn

REINFORCED CONCRETE PAVEMENT (CLASS A) (AE)

STATION (BASELINE)	ROADWAY	SIDE	LOCATION	AREA (SQ.Yds)	THICKNESS (in.)	REMARKS
104+35.88	Douglas	Rt.	Valley Gutter	186.06	8"	Sedgwick
104+35.98	Douglas	Lt.	Valley Gutter	172.16	8"	Sedgwick
108+65.58	Douglas	Lt.	Valley Gutter	225.88	8"	St. Clair
108+65.71	Douglas	Rt.	Valley Gutter	186.06	8"	St. Clair
113+05.77	Douglas	Lt.	Valley Gutter	250.87	8"	Athenian
113+06.30	Douglas	Rt.	Valley Gutter	263.82	8"	Athenian
116+93.16	Douglas	Lt.	Valley Gutter	243.73	8"	Clarence
116+93.55	Douglas	Rt.	Valley Gutter	249.58	8"	Clarence
120+69.25	Douglas	Lt.	Valley Gutter	225.99	8"	Charles
120+70.45	Douglas	Rt.	Valley Gutter	240.20	8"	Charles
124+42.58	Douglas	Lt.	Valley Gutter	283.36	8"	Glenn
124+44.99	Douglas	Rt.	Valley Gutter	186.88	8"	Glenn
128+11.27	Douglas	Lt.	Valley Gutter	246.10	8"	Vine
128+13.13	Douglas	Rt.	Valley Gutter	184.90	8"	Vine
131+89.72	Douglas	Lt.	Valley Gutter	247.04	8"	Millwood
131+91.46	Douglas	Rt.	Valley Gutter	281.00	8"	Millwood
135+71.12	Douglas	Rt.	Valley Gutter	243.11	8"	Fern
139+43.32	Douglas	Lt.	Valley Gutter	234.27	8"	Elizabeth
139+43.64	Douglas	Rt.	Valley Gutter	243.61	8"	Elizabeth
142+73.92	Douglas	Lt.	Valley Gutter	239.79	8"	Martinson
142+75.80	Douglas	Rt.	Valley Gutter	246.51	8"	Martinson
146+03.72	Douglas	Lt.	Valley Gutter	277.01	8"	Exposition
146+04.50	Douglas	Rt.	Valley Gutter	250.42	8"	Exposition
149+29.06	Douglas	Lt.	Valley Gutter	215.30	8"	Dodge
149+29.48	Douglas	Rt.	Valley Gutter	258.43	8"	Dodge
Total				5,882.09	8"	Measured Quantity
STA. TO STA.						
10+50.00 to 17+40.47			Athenian	1121.75	7"	
				1,121.75		Measured Quantity

Concrete Sidewalk (4")

				4" Thick	
STA. TO STA.		SIDE	WIDTH	SQ.FT.	REMARKS
Meridian Ave	Sedgwick St.	Lt.	6	1804.01	
Meridian Ave	Sedgwick St.	Rt.	6	2224.60	
Sedgwick St.	St. Clair St.	Lt.	6	2296.70	
Sedgwick St.	St. Clair St.	Rt.	6	2401.52	
St.Clair St.	Athenian Ave.	Lt.	6	2020.61	
St.Clair St.	Athenian Ave.	Rt.	6	2419.02	
Athenian Ave.	Clarence St.	Lt.	6	2205.36	
Athenian Ave.	Clarence St.	Rt.	6	2171.00	
Clarence St.	Charles St.	Lt.	6	2061.09	
Clarence St.	Charles St.	Rt.	6	2009.91	
Charles St.	Glenn Ave	Lt.	6	2070.00	
Charles St.	Glenn Ave	Rt.	6	2324.62	
Glenn Ave	Vine Ave	Lt.	6	1813.74	
Glenn Ave	Vine Ave	Rt.	6	2258.64	
Vine Ave	Milwood Ave	Lt.	6	2653.85	
Vine Ave	Milwood Ave	Rt.	6	2292.50	
Milwood Ave	Elizabeth Ave	Lt.	6	3802.77	
Milwood Ave	Fern St.	Rt.	6	1868.54	
Fern St.	Elizabeth Ave.	Rt.	6	1821.07	
Elizabeth Ave	Martinson St.	Lt.	6	1801.20	
Elizabeth Ave	Martinson St.	Rt.	6	2082.31	
Martinson St.	Exposition Ave	Lt.	6	1814.93	
Martinson St.	Exposition Ave	Rt.	6	1716.95	
Exposition Ave	Dodge Ave	Lt.	6	1431.49	
Exposition Ave	Dodge Ave	Rt.	6	1793.99	
Dodge Ave	Seneca Ave	Rt.	6	700.45	
Total				53,860.87	Measured Quantity

Monolithic Edge Curb (6")

STATION (BASELINE)	ROADWAY	SIDE	LOCATION	LENGTH (ft.)	REMARKS
103+89.98	Douglas	Rt.	Sedgwick	50.62	
103+90.02	Douglas	Lt.	Sedgwick	46.66	
104+51.13	Douglas	Lt.	Sedgwick	46.66	
104+51.19	Douglas	Rt.	Sedgwick	50.62	
108+19.93	Douglas	Rt.	St Clair	50.62	
108+20.22	Douglas	Lt.	St Clair	54.63	
108+81.55	Douglas	Rt.	St Clair	34.53	
108+81.62	Douglas	Lt.	St Clair	48.79	
112+50.02	Douglas	Lt.	Athenian	47.12	
112+60.86	Douglas	Rt.	Athenian	72.76	
113+51.62	Douglas	Rt.	Athenian	72.76	
113+60.77	Douglas	Lt.	Athenian	47.12	
116+47.58	Douglas	Lt.	Clarence	67.41	
116+47.71	Douglas	Rt.	Clarence	69.24	
117+39.01	Douglas	Rt.	Clarence	69.24	
117+39.07	Douglas	Lt.	Clarence	67.41	
120+17.93	Douglas	Lt.	Charles	50.62	
120+22.71	Douglas	Rt.	Charles	66.7	
121+13.92	Douglas	Rt.	Charles	66.7	
121+19.54	Douglas	Lt.	Charles	50.62	
123+92.41	Douglas	Lt.	Glenn	63.09	
123+98.01	Douglas	Rt.	Glenn	50.62	
124+89.83	Douglas	Rt.	Glenn	50.62	
124+93.97	Douglas	Lt.	Glenn	63.09	
127+65.81	Douglas	Lt.	Vine	67.75	
127+66.54	Douglas	Rt.	Vine	50.62	
128+57.41	Douglas	Lt.	Vine	67.75	
128+57.87	Douglas	Rt.	Vine	50.62	
131+40.22	Douglas	Lt.	Milwood	87.88	
131+45.60	Douglas	Rt.	Milwood	78.57	
132+37.12	Douglas	Rt.	Milwood	78.57	
132+39.22	Douglas	Lt.	Milwood	87.88	
135+24.99	Douglas	Rt.	Fern	66.29	
136+86.62	Douglas	Rt.	Fern	66.29	
138+96.52	Douglas	Lt.	Elizabeth	63.12	
138+97.06	Douglas	Rt.	Elizabeth	66.69	
139+88.61	Douglas	Rt.	Elizabeth	66.69	
139+88.95	Douglas	Lt.	Elizabeth	63.12	
142+28.77	Douglas	Lt.	Martinson	66.62	
142+29.14	Douglas	Rt.	Martinson	66.84	
143+19.96	Douglas	Lt.	Martinson	66.84	
143+21.36	Douglas	Rt.	Martinson	66.62	
145+58.07	Douglas	Lt.	Exposition	59.62	
145+58.60	Douglas	Rt.	Exposition	59.54	
146+50.42	Douglas	Rt.	Exposition	50.24	
146+53.21	Douglas	Lt.	Exposition	47.12	
148+79.03	Douglas	Lt.	Dodge	52.01	
148+83.54	Douglas	Rt.	Dodge	61.36	
149+49.01	Douglas	Rt.	Dodge	47.12	
149+45.41	Douglas	Lt.	Dodge	39.45	
			TOTAL	3,017.44	Measured Quantity

EARTHWORK

STA. TO STA. (BASELINE)		SOURCE	EXCAVATION		FILL
			COMMON (cu. yd.)	NOTE	IN FILL 90% Std. Density (cu. yd.)
100+67.12	151+76.76	Douglas Ave.	23,535		362
NET TOTALS					
EX. PAVEMENT ADJUSTMENT			10,252		
BID TOTALS			13,283		362

Earthwork Quantities listed in this table reflect the existing ground (including pavement) at the time of the survey.

The Earthwork Quantities provided have not been adjusted by any factors.

Pavement cores provided by the City of Wichita indicate that there is between 2.5" and 3" of asphalt of a brick paver base throughout the corridor.

REINFORCED CRUSHED ROCK BASE

STA. TO STA. (BASELINE)		SIDE	ROADWAY	AREA (SQ. Yds)	THICKNESS	REMARKS
100+34.05	133+13.13	-	Douglas	17391.09	8"	
133+40.31	151+76.83	-	Douglas	10239.04	8"	
10+00.00	17+40.47	-	Athenian	1668.35	8"	
			TOTAL	29,298.48	8"	

STATION	ROADWAY	SIDE	LOCATION	AREA (SQ. Yds)	THICKNESS	REMARKS
103+90.52	Douglas	Lt.	Sedgwick	145.15	7"	
103+90.48	Douglas	Rt.	Sedgwick	160.45	7"	
108+20.72	Douglas	Lt.	St Clair	197.26	7"	
108+20.43	Douglas	Rt.	St Clair	160.12	7"	
112+50.77	Douglas	Lt.	Athenian	212.94	7"	
112+60.81	Douglas	Rt.	Athenian	242.83	7"	
116+48.08	Douglas	Lt.	Clarence	222.11	7"	
116+48.31	Douglas	Rt.	Clarence	227.89	7"	
120+18.43	Douglas	Lt.	Charles	196.21	7"	
120+23.21	Douglas	Rt.	Charles	217.99	7"	
123+92.91	Douglas	Lt.	Glenn	256.32	7"	
123+98.51	Douglas	Rt.	Glenn	160.66	7"	
127+66.3	Douglas	Lt.	Vine	223.98	7"	
127+67.08	Douglas	Rt.	Vine	159.07	7"	
131+40.72	Douglas	Lt.	Milwood	219.84	7"	
131+46.46	Douglas	Rt.	Milwood	260.92	7"	
135+26.12	Douglas	Rt.	Fern	220.52	7"	
138+96.98	Douglas	Lt.	Elizabeth	210.80	7"	
138+97.83	Douglas	Rt.	Elizabeth	221.15	7"	
142+29.19	Douglas	Lt.	Martinson	191.31	7"	
142+29.98	Douglas	Rt.	Martinson	223.91	7"	
145+58.59	Douglas	Lt.	Exposition	242.60	7"	
145+59.18	Douglas	Rt.	Exposition	222.95	7"	
148+79.06	Douglas	Lt.	Dodge	188.09	7"	
148+84.48	Douglas	Rt.	Dodge	234.09	7"	
Total				5,219.92		

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

RECAPITULATION OF QUANTITIES

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

110

SHEET 110 OF 180

CONCRETE CURB & GUTTER (COMBINED)

STA. TO STA. (BASELINE)		ROADWAY	SIDE	LENGTH (Ft.)	REMARKS
				TYPE I (6")	
100+41.31	103+89.98	Douglas	Rt.	354.65	
100+59.87	103+90.02	Douglas	Lt.	330.49	
104+81.69	108+19.93	Douglas	Rt.	342.5	
104+81.66	108+20.22	Douglas	Lt.	342.88	
109+11.65	112+60.13	Douglas	Rt.	352.87	
109+11.12	112+50.02	Douglas	Lt.	338.4	
113+51.62	116+47.71	Douglas	Rt.	300.37	
113+60.77	116+47.58	Douglas	Lt.	291.1	
117+39.01	120+22.71	Douglas	Rt.	287.99	
117+39.07	120+17.93	Douglas	Lt.	283.15	
121+13.92	123+98.01	Douglas	Rt.	288.37	
121+19.54	123+92.41	Douglas	Lt.	277.16	
124+89.83	127+66.54	Douglas	Rt.	280.79	
124+93.97	127+65.81	Douglas	Lt.	276.33	
128+57.87	131+45.60	Douglas	Rt.	292.02	
128+57.41	131+40.22	Douglas	Lt.	291.39	
132+37.12	132+94.19	Douglas	Rt.	57.06	
132+39.22	133+31.56	Douglas	Lt.	92.86	
133+22.22	135+24.66	Douglas	Rt.	202.43	
133+58.28	138+96.52	Douglas	Lt.	542.51	
136+16.62	138+97.06	Douglas	Rt.	284.72	
139+88.95	142+28.77	Douglas	Lt.	244.12	
139+88.86	142+29.14	Douglas	Rt.	244.57	
143+19.96	145+58.07	Douglas	Lt.	238.1	
143+21.36	145+58.60	Douglas	Rt.	237.24	
146+53.21	148+79.03	Douglas	Lt.	225.81	
146+50.42	148+83.54	Douglas	Rt.	233.12	
149+75.42	151+76.97	Douglas	Rt.	202.33	
10+44.78	10+56	Athenian	Lt.	11.49	
10+44.99	16+63.72	Athenian	Rt.	625.06	
TOTAL				8,371.88	
STA. TO STA. (BASELINE)		ROADWAY	SIDE	LENGTH (Ft.)	REMARKS
				TYPE III SPECIAL (6")	
10+51.45	11+87.96	Athenian	-	157.23	
12+10.72	16+25.81	Athenian	-	435.6	
TOTAL				592.83	

CONCRETE DRIVEWAY (8")

STATION	ROADWAY	SIDE	LOCATION	AREA (Sq. Ft.)	THICKNESS (in.)	REMARKS
100+70.41	Douglas	Rt.	Drive	835.30	8"	Measured Quantity
100+83.04	Douglas	Lt.	Drive	578.14	8"	Measured Quantity
101+23.11	Douglas	Lt.	Drive	936.48	8"	Measured Quantity
101+76.88	Douglas	Lt.	Drive	1028.32	8"	Measured Quantity
101+90.53	Douglas	Rt.	Drive	200.12	8"	Measured Quantity
102+36.42	Douglas	Lt.	Drive	388.32	8"	Measured Quantity
102+36.49	Douglas	Rt.	Drive	271.97	8"	Measured Quantity
102+87.45	Douglas	Lt.	Drive	388.32	8"	Measured Quantity
102+94.96	Douglas	Rt.	Drive	482.81	8"	Measured Quantity
103+41.09	Douglas	Lt.	Drive	388.32	8"	Measured Quantity
105+20.29	Douglas	Lt.	Drive	308.32	8"	Measured Quantity
105+40.11	Douglas	Rt.	Drive	308.31	8"	Measured Quantity
105+67.07	Douglas	Lt.	Drive	308.32	8"	Measured Quantity
105+81.07	Douglas	Rt.	Drive	332.25	8"	Measured Quantity
106+15.96	Douglas	Lt.	Drive	308.32	8"	Measured Quantity
106+33.45	Douglas	Rt.	Drive	308.26	8"	Measured Quantity
106+66.13	Douglas	Lt.	Drive	428.32	8"	Measured Quantity
107+14.68	Douglas	Lt.	Drive	308.32	8"	Measured Quantity
107+19.21	Douglas	Rt.	Drive	308.25	8"	Measured Quantity
107+62.26	Douglas	Rt.	Drive	308.25	8"	Measured Quantity
109+27.13	Douglas	Lt.	Drive	306.34	8"	Measured Quantity
109+55.03	Douglas	Rt.	Drive	773.48	8"	Measured Quantity
110+00.78	Douglas	Lt.	Drive	306.80	8"	Measured Quantity
110+38.00	Douglas	Lt.	Drive	498.00	8"	Measured Quantity
110+44.21	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
110+93.91	Douglas	Lt.	Drive	307.38	8"	Measured Quantity
110+95.94	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
111+45.60	Douglas	Lt.	Drive	307.70	8"	Measured Quantity
111+48.97	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
111+96.41	Douglas	Lt.	Drive	308.01	8"	Measured Quantity
112+40.83	Douglas	Lt.	Drive	305.37	8"	Measured Quantity
114+00.77	Douglas	Lt.	Drive	332.32	8"	Measured Quantity
114+14.98	Douglas	Rt.	Drive	248.32	8"	Measured Quantity
114+56.03	Douglas	Lt.	Drive	452.32	8"	Measured Quantity
114+93.51	Douglas	Rt.	Drive	476.32	8"	Measured Quantity
115+10.74	Douglas	Lt.	Drive	308.32	8"	Measured Quantity
116+00.26	Douglas	Lt.	Drive	332.32	8"	Measured Quantity
116+01.45	Douglas	Rt.	Drive	384.67	8"	Measured Quantity
117+77.52	Douglas	Rt.	Drive	308.33	8"	Measured Quantity
118+25.73	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
118+30.87	Douglas	Lt.	Drive	548.32	8"	Measured Quantity
118+80.87	Douglas	Rt.	Drive	548.32	8"	Measured Quantity
119+23.66	Douglas	Lt.	Drive	308.32	8"	Measured Quantity
119+24.58	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
119+68.48	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
119+78.12	Douglas	Lt.	Drive	392.36	8"	Measured Quantity
122+42.05	Douglas	Rt.	Drive	548.32	8"	Measured Quantity
123+01.15	Douglas	Lt.	Drive	388.32	8"	Measured Quantity
123+56.20	Douglas	Lt.	Drive	836.32	8"	Measured Quantity
123+56.20	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
125+15.48	Douglas	Lt.	Drive	670.27	8"	Measured Quantity
125+74.83	Douglas	Lt.	Drive	620.32	8"	Measured Quantity
126+89.72	Douglas	Lt.	Drive	476.32	8"	Measured Quantity
127+46.26	Douglas	Lt.	Drive	518.01	8"	Measured Quantity
127+47.25	Douglas	Rt.	Drive	580.32	8"	Measured Quantity
129+25.3	Douglas	Rt.	Drive	798.12	8"	Measured Quantity
129+59.57	Douglas	Rt.	Drive	766.07	8"	Measured Quantity
129+85.95	Douglas	Lt.	Drive	580.32	8"	Measured Quantity
131+05.48	Douglas	Rt.	Drive	544.02	8"	Measured Quantity
134+01.14	Douglas	Rt.	Drive	612.32	8"	Measured Quantity
134+56.74	Douglas	Rt.	Drive	404	8"	Measured Quantity
134+81.57	Douglas	Rt.	Drive	948.08	8"	Measured Quantity

CONCRETE DRIVEWAY (8") (Cont.)

STATION	ROADWAY	SIDE	LOCATION	AREA (Sq. Ft.)	THICKNESS (in.)	REMARKS
135+80.14	Douglas	Lt.	Drive	548.30	8"	Measured Quantity
137+01.05	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
137+10.54	Douglas	Lt.	Drive	332.32	8"	Measured Quantity
137+64.61	Douglas	Rt.	Drive	308.32	8"	Measured Quantity
137+78.30	Douglas	Lt.	Drive	326.29	8"	Measured Quantity
138+03.20	Douglas	Lt.	Drive	422.16	8"	Measured Quantity
140+60.77	Douglas	Lt.	Drive	415.96	8"	Measured Quantity
141+07.38	Douglas	Rt.	Drive	404.32	8"	Measured Quantity
141+0739	Douglas	Lt.	Drive	428.32	8"	Measured Quantity
141+53.51	Douglas	Lt.	Drive	428.32	8"	Measured Quantity
143+40.88	Douglas	Rt.	Drive	873.82	8"	Measured Quantity
143+98.46	Douglas	Lt.	Drive	420.47	8"	Measured Quantity
144+01.86	Douglas	Rt.	Drive	1028.32	8"	Measured Quantity
144+41.55	Douglas	Rt.	Drive	548.38	8"	Measured Quantity
144+48.02	Douglas	Lt.	Drive	548.38	8"	Measured Quantity
145+00.65	Douglas	Lt.	Drive	602.67	8"	Measured Quantity
145+48.66	Douglas	Rt.	Drive	772.57	8"	Measured Quantity
146+70.69	Douglas	Rt.	Drive	704.17	8"	Measured Quantity
146+72.23	Douglas	Lt.	Drive	595.17	8"	Measured Quantity
147+27.35	Douglas	Rt.	Drive	1045.17	8"	Measured Quantity
147+59.37	Douglas	Lt.	Drive	595.17	8"	Measured Quantity
148+28.11	Douglas	Lt.	Drive	715.17	8"	Measured Quantity
148+50.15	Douglas	Rt.	Drive	549.17	8"	Measured Quantity
149+82.96	Douglas	Lt.	Drive	644.88	8"	Measured Quantity
150+01.99	Douglas	Rt.	Drive	415.17	8"	Measured Quantity
150+92.20	Douglas	Rt.	Drive	415.17	8"	Measured Quantity
151+09.53	Douglas	Lt.	Drive	717.24	8"	Measured Quantity
151+59.84	Douglas	Rt.	Drive	895.17	8"	Measured Quantity
11+99.52	Athenian	Rt.	Drive	455.43	8"	Measured Quantity
12+75.24	Athenian	Rt.	Drive	260.57	8"	Measured Quantity
13+39.22	Athenian	Rt.	Drive	261.55	8"	Measured Quantity
14+2.3	Athenian	Rt.	Drive	225.35	8"	Measured Quantity
14+93.21	Athenian	Rt.	Drive	463.5	8"	Measured Quantity
Total				55,105.08	8"	

ADJUSTMENT OF SS MANHOLES

STATION (BASELINE)	SIDE	ROADWAY	REMARKS
113+05.40	10.47' Lt.	Douglas Ave.	
117+32.52	9.83' Lt.	Douglas Ave.	
121+32.37	10.35' Lt.	Douglas Ave.	
124+74.01	10.00' Lt.	Douglas Ave.	
127+29.51	9.67' Lt.	Douglas Ave.	
128+53.81	10.15' Lt.	Douglas Ave.	
133+15.42	9.79' Lt.	Douglas Ave.	
139+40.64	10.03' Lt.	Douglas Ave.	

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

RECAPITULATION OF QUANTITIES

NO.	DATE	REVISIONS
		DESCRIPTION

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

111

SHEET 111 OF 180

RECAPITULATION OF ROAD QUANTITIES

BID ITEM	QUANTITY	UNIT
Lump Sum Bid Items - Paving:		
Field Office and Laboratory (Type A)	1	ea
Mobilization	1	LS
Mobilization (DBE)	1	LS
Removal of Existing Structures	1	LS
Railroad Flagging Costs	1	LS
Site Clearing	1	LS
Site Restoration	1	LS
Fill, Loose	362	cy
Excavation	13,283	cy
Sodding	1	LS
Pipe, Connecting to Existing	1	LS
Measured Quantity Bid Items - Paving:		
Pavement Removed	30,700	sy
AC Pavement 7" (5" Bit Base)	23,403	sy
Concrete Pavement 7" (Reinf)	1,122	sy
Concrete Pavement (VG) 8" (Reinf)	5,827	sy
Crushed Rock Base 7", Reinforced	5,162	sy
Crushed Rock Base 8", Reinforced	29,299	sy
Concrete Curb, Mono Edge (6" & 1-1/2")	3,018	lf
Concrete C & G, Type 1 (6" & 1-1/2")	8,328	lf
Concrete C & G, Type 3 (Special)	593	lf
Wheelchair Ramp w/ Detectable Warnings	100	ea
Concrete Sidewalk 4"	60,078	sf
Concrete Driveway 8" (Reinforced)	55,106	sf
Street Car Tie Removal	10	ea
Temporary Snow Fence	100	lf
Measured Quantity Bid Items - Drainage:		
Pipe, SWS 15" (RCP)	1,934	lf
Pipe, SWS 18" (RCP)	287	lf
Pipe, SWS 24" (RCP)	734	lf
Pipe, SWS 30" (RCP)	250	lf
Pipe, SWS 36" (RCP)	220	lf
Pipe, SWS 36" (PVC)	219	lf
Pipe, SWS 42" (RCP)	790	lf
Pipe, SWS 54" (RCP)	1,792	lf
Pipe, SWS, HERCP (14" x 23")	39	lf
Pipe, SWS, HERCP (19" x 30")	278	lf
Steel Casing Bored and Jacked (48" Dia.)	200	lf
Fill, Sand (Flushed & Vibrated)	6,324	lf
Inlet Hookup	47	ea
Pipe, SWS, PVC 4" Perforated	470	lf
Inlet, Curb (Type1) (L=10' W=3')	42	ea
Inlet, Grated Driveway, Double	5	ea
MH, Shallow SWS (4')	7	ea
MH, Standard SWS (4')	3	ea
MH, Shallow SWS (5')	1	ea
MH, Standard SWS (5')	3	ea
MH, Standard SWS (6')	4	ea
MH, Standard SWS (8')	9	ea
Lump Sum Bid Items - Traffic:		
Pedestrian Crossing Signal System	2	ea
Pavement Marking	1	LS
Signing	1	LS
Traffic Control	1	LS

RECAPITULATION OF ROAD QUANTITIES (Cont.)

BID ITEM	QUANTITY	UNIT
Lump Sum Bid Items -Sanitary Sewer:		
MH Adjsuted (SS) w/ MH Frame and Cover, Replaced	8	ea
Measured Quantity Bid Items -Erosion Control:		
BMP, Back of Curb Protection	8,628	lf
BMP, Construction Entrace	2	ea
BMP, Curb Inlet Protection	41	ea
BMP, Drop Inlet Protection	4	ea
Lump Sum Bid Items - Paving (Non Participating):		
Transportation of Salvaged Material	1	LS
Lump Sum Bid Items - Traffic (Non Participating):		
Signing, Street Name Signs Only (D-3 Metro Street Name Signs)	1	LS
Measured Quantity Bid Items - Water (Non Participaing):		
Pipe, WL 2"	18	lf
Pipe, WL 4"	29	lf
Pipe, WL 8"	4,012	lf
Pipe, WL 8" (Restrained Joint)	324	lf
Pipe, WL 8" (DICL)	86	lf
Pipe, WL 8" (DICL) (Restrained Joint)	5	lf
Valve Assembly, 8"	1	ea
Valve Assembly, Anchored 8"	12	ea
Fire Hydrant Assembly	6	ea
Fire Hydrant Assembly, Removal	6	ea
Valve Box Adjusted	12	ea
Fill Sand (Flushed & Vibrated)	4,253	lf
Service Line, Long 1"	50	ea
Service Line, Short 1"	50	ea
Service Line, Long 2"	1	ea
Service Line, Short 2"	1	ea
Steel Casing Bored and Jacked (15" Dia.)	200	lf
Concrete Encasement 8" Reinforced	43	lf
Water Service Abandonment, 1" and Smaller	1	ea
Pipe, Abandoned in Place	240	lf

For Landscaping Bill of Materials, See Sheet 114

AC PAVEMENT

STA. TO STA. (BASELINE)		Side	Roadway	Area (Sq.Yds)	Thickness	Remarks
100+34.05	133+13.13	-	Douglas	14,791.98	7	
133+40.31	151+76.83	-	Douglas	8,846.17	7	
Total				23,638.15		Measured Quantity

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

RECAPITULATION OF QUANTITIES

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

112

SIGN ASSEMBLY TABLE

STATION	OFFSET	SIGN	QUANTITY
100+97.80	31.33 Lt.	Bus Stop	1
101+32.07	29.13 Rt.	R2-1	1
101+57.26	29.01 Rt.	Bus Stop	1
104+11.05	45.85 Lt.	R1-1	1
104+60.20	51.74 Rt.	R1-1	1
104+79.18	25.78 Rt.	S1-1 & S4-3	2
105+38.91	29.00 Lt.	Bus Stop	1
105+99.61	29.12 Rt.	S4-3, R2-1 & S4-2P	3
108+46.87	47.85 Lt.	R1-1	1
108+88.96	51.91 Rt.	R1-1	1
108+95.59	47.00 Lt.	S5-2, S4-3, R2-1 & S4-2p	4
111+06.24	35.60 Lt.	S4-3, R2-1, S4-2P & S5-2	4
112+52.83	35.48 Rt.	S1-1 & S4-3	2
112+69.51	35.28 Lt.	R6-1R & R6-1L	2
112+70.50	46.05 Lt.	R1-1	1
113+30.23	52.37 Rt.	R1-1	1
113+39.09	29.45 Lt.	R6-1L & R6-1R	2
114+19.03	28.57 Lt.	Bus Stop	1
116+71.00	52.44 Lt.	R1-1	1
117+17.67	51.61 Rt.	R1-1	1
118+85.18	29.73 Lt.	R2-1	1
120+39.77	52.36 Lt.	R1-1	1
120+92.23	51.64 Rt.	R1-1	1
121+99.81	30.11 Lt.	R2-1	1
123+14.26	30.79 Rt.	Bus Stop	1
124+14.42	51.81 Lt.	R1-1	1
124+65.94	51.85 Rt.	R1-1	1
126+99.43	27.48 Rt.	W19-9p & S1-1	2
127+87.63	52.58 Lt.	R1-1	1
128+35.04	51.65 Rt.	R1-1	1
128+64.34	19.31 Rt.	S5-2 & S5-1	2
128+99.00	19.78 Rt.	R7-108 & R7-1L	2
129+27.67	27.79 Lt.	R7-108	1
130+08.86	25.28 Lt.	S1-1 & W16-7pl	2
130+18.61	20.43 Rt.	W19-9p & S1-1	2
130+43.71	28.81 Lt.	R8-3 & R7-108	2
130+55.91	28.03 Rt.	R7-108	1
130+71.50	28.71 Lt.	R8-3 & R7-108	2
130+83.18	28.12 Rt.	W10-1	1
131+37.79	28.48 Lt.	S5-1 & S5-2	2

SIGN ASSEMBLY TABLE (CONT.)

STATION	OFFSET	SIGN	QUANTITY
131+60.97	52.62 Lt.	R1-1	1
132+14.10	51.66 Rt.	R1-1	1
134+29.62	21.73 Lt.	S1-1 & W16-7p	2
135+07.86	19.86 Rt.	Bus Stop & R7-108	2
135+94.86	51.53 Rt.	R1-1	1
136+03.21	29.44 Lt.	W10-1	1
136+50.07	29.28 Lt.	R7-108	1
136+63.84	28.49 Rt.	R7-108	1
137+40.96	28.96 Lt.	R7-108	1
137+52.00	32.98 Rt.	W16-9p & S1-1	2
138+53.36	28.09 Lt.	R8-3	1
139+24.89	24.89 Lt.	R1-1	1
139+64.02	52.59 Rt.	R1-1	1
140+15.05	27.89 Rt.	S5-2 & S5-1	2
140+49.23	28.01 Rt.	R7-108 & R7-1L	2
140+87.18	28.44 Rt.	W16-9pL & S1-1	2
140+90.13	30.71 Lt.	S1-1 & W-16-7pL	2
141+28.95	30.54 Lt.	R7-1L	1
141+35.14	27.4 Rt.	R7-108 & R8-3	2
141+95.18	28.81 Rt.	Bus Stop	1
142+02.03	28.53 Lt.	R7-108	1
142+45.29	30.14 Lt.	S5-1 & S5-2	2
142+47.98	52.64 Lt.	R1-1	1
143+13.17	51.80 Rt.	R1-1	1
143+41.40	22.22 Lt.	Bus Stop	1
143+82.92	24.15 Lt.	S1-1 & W16-9p	2
144+67.70	21.31 Lt.	R8-3 & R7-108	2
145+85.83	53.18 Lt.	R1-1	1
146+36.84	51.54 Rt.	R1-1	1
147+03.00	30.41 Rt.	Bus Stop	1
148+30.11	30.74 Rt.	R7-108	1
148+79.87	32.68 Lt.	Bus Stop	1
149+06.29	53.82 Lt.	R1-1	1
149+50.62	52.63 Rt.	R1-1	1
150+39.32	33.06 Rt.	R2-1	1
150+39.57	40.25 Lt.	R2-1	1
150+71.23	31.78 Rt.	R7-108	1
150+71.49	31.89 Lt.	R7-108	1
151+20.83	33.34 Rt.	R3-7R	1

CITY OF WICHITA

wsp

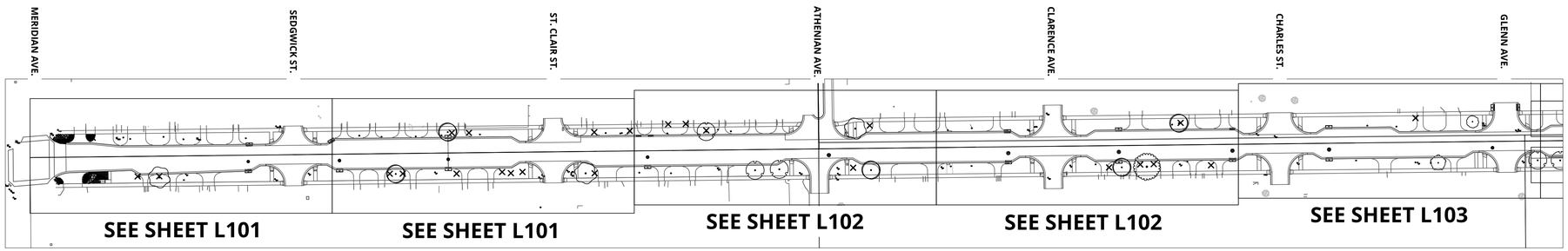
DOUGLAS AVENUE - MERIDIAN TO SENECA

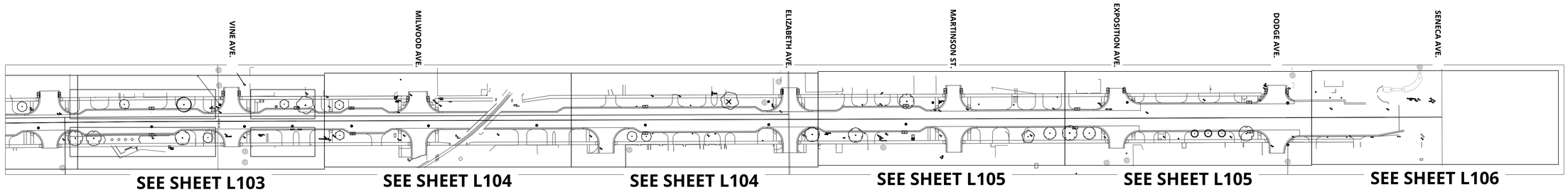
RECAPITULATION OF QUANTITIES

NO.	DATE	DESCRIPTION
REVISIONS		

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
113
SHEET 113 OF 180





LANDSCAPE NOTES

GENERAL:

1. REFER TO CITY OF WICHITA SPECIFICATIONS PART 900 LANDSCAPE AND IRRIGATION FOR ADDITIONAL INFORMATION.
2. PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL CONTACT THE OWNER AND THE LANDSCAPE ARCHITECT FOR ANY INSTRUCTIONS RELATED TO SEQUENCING.
3. CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE COMMENCING WORK. CONTACT KANSAS ONE CALL AT 8–1–1 TO FILE A LOCATE REQUEST PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO UTILITIES RESULTING FROM LANDSCAPE.
4. OPERATIONS. ANY UTILITIES SHOWN ON PLAN ARE FOR REFERENCE ONLY AND MAY OR MAY NOT DEPICT THE ACTUAL LOCATION OF SERVICES.
5. QUANTITIES OF MATERIALS SHOWN ON THE PLANTING PLAN TAKE PRECEDENCE OVER QUANTITIES SHOWN ON THE PLANT MATERIAL SCHEDULE. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES ON THE PLANTING PLAN PRIOR TO BIDDING.
6. NO MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE. ALTERNATE MATERIALS OF SIMILAR SIZE AND CHARACTER MAY BE CONSIDERED IF SPECIFIED PLANT MATERIALS CANNOT BE OBTAINED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REVISE PLANT LIST AS DEEMED NECESSARY.
7. REPORT ANY DISCREPANCIES IN THE PLANTING PLAN TO THE OWNER'S REPRESENTATIVE PRIOR TO PURCHASING MATERIALS OR STARTING CONSTRUCTION.

MAINTENANCE AND CLEAN–UP:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING PLANT MATERIALS INCLUDING, BUT LIMITED TO, WATERING, SPRAYING, MULCHING AND FERTILIZING UNTIL FINAL ACCEPTANCE.
2. REMOVE ALL RUBBISH, EQUIPMENT, AND MATERIAL AND LEAVE THE AREA IN A NEAT, CLEAN CONDITION EACH DAY. MAINTAIN PAVED AREAS UTILIZED FOR HAULING EQUIPMENT AND MATERIALS BY OTHER TRADES IN A CLEAN AND UNOBSTRUCTED CONDITION AT ALL TIMES. REMOVE SOIL OR DIRT THAT ACCUMULATES DUE TO PLANTING OPERATIONS EACH DAY.
3. OWNER RESERVES THE RIGHT TO REJECT AT ANY TIME OR PLACE PRIOR TO FINAL ACCEPTANCE OF WORK, ANY AND ALL PLANTS WHICH, IN THEIR OPINION, FAIL TO MEET THESE SPECIFICATION REQUIREMENTS.
4. AT THE COMPLETION OF PLANTING OPERATIONS, CONTRACTOR SHALL CONTACT OWNER AND LANDSCAPE ARCHITECT TO COORDINATE INSPECTION. CONTRACTOR SHALL REPLACE IMMEDIATELY ANY PLANTS NOT IN HEALTHY AND VIGOROUS CONDITION AT THAT TIME AT NO EXPENSE TO THE OWNER. ANY PLANT NOT IN HEALTHY CONDITION AFTER ONE FULL YEAR FROM THE DATE OF FINAL ACCEPTANCE SHALL BE REPLACED FREE OF CHARGE TO THE OWNER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER CARE OF ALL SEEDED AREAS, INCLUDING EROSION CONTROL, WEEDING AND MOWING UNTIL PROJECT FINAL ACCEPTANCE HAS BEEN GIVEN BY THE OWNER. SEEDED AREAS SHALL BE THOROUGHLY WATERED FOR A MINIMUM OF 30 DAYS AFTER THE SEED HAS BEEN PLANTED. SEE CITY OF WICHITA SPECIFICATION 902.9. AFTER PROVISIONAL ACCEPTANCE OF PLANT INSTALLATIONS, THE CONTRACTOR IS REQUIRED TO PROVIDE ESTABLISHMENT MAINTENANCE CARE FOR ALL PLANTS ON THE PROJECT UNTIL THE FOLLOWING OCTOBER, AT WHICH TIME THE OWNER WILL AGAIN INSPECT THE PLANTS. REFER TO THE COW SPECIFICATION 905.5 FOR FURTHER DETAILS.
6. CONTRACTOR TO REMOVE ALL TREE STAKES AND GUYS, DEAD WOOD AND BRANCHES FROM TREES AND SHRUBS ONE YEAR AFTER PROVISIONAL ACCEPTANCE.

PLANTING NOTES

PLANTING PREPARATION:

1. CONTRACTOR SHALL TEST TOPSOIL USING A CERTIFIED TESTING LABORATORY FOR RECOMMENDATIONS FOR SOIL AMENDMENT TYPE(S) AND QUANTITIES. A COPY OF THIS REPORT SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT FOR RECORD KEEPING. CONTRACTOR SHALL AMEND TOPSOIL PER LABORATORY RECOMMENDATIONS.
2. BACKFILL: TREE AND SHRUB AREAS TO BE CLEAN NATURAL TOPSOIL MIXED WITH AMENDMENTS AT THE RATIOS SPECIFIED BY CERTIFIED LABORATORY ANALYSIS RECOMMENDATIONS. ALL SHRUB AND NATIVE PLANTING AREAS SHALL BE EXCAVATED 12" AND REPLACED WITH APPROVED PLANTING BACKFILL.
3. AREAS TO BE SEEDED SHALL BE PREPARED PRIOR BY REMOVAL OF CLODS AND SURFACE STONES ONE INCH (1") IN DIAMETER OR LARGER. AREAS OF ANNUAL GRASSES AND WEEDS SHALL BE DESTROYED WITH AN APPROVED HERBICIDE A MIN. OF ONE WEEK PRIOR TO THOROUGH DISKING. SEE CITY OF WICHITA SPEC SECTION 903 FOR SEEDING OPERATIONS.
4. ALL AREAS WITHIN PUBLIC RIGHT–OF–WAY DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE RESTORED BY SODDING WITH BERMUDA. ALL SEEDING WORK SHALL BE IN ACCORDANCE WITH CITY OF WICHITA SPECIFICATION 903.

PLANTING MATERIALS:

1. ALL PLANT MATERIALS SHALL BE PROTECTED FROM THE DRYING ACTION OF THE SUN AND WIND AFTER BEING DUG, WHILE BEING TRANSPORTED, AND WHILE AWAITING PLANTING. BALLS OF PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY SHALL BE PROTECTED FROM DRYING ACTION BY COVERING THEM WITH MOIST MULCH. PERIODICALLY, APPLY WATER TO MULCH–COVERED BALLS TO KEEP MOIST. IF PLANTING SHOULD OCCUR DURING GROWING SEASON, APPLY ANTI–DESSICANT TO LEAVES BEFORE TRANSPORT TO REDUCE LIKELIHOOD OF WINDBURN. REAPPLY ANTI–DESSICANT AFTER PLANTING TO REDUCE TRANSPIRATION.
2. ALL PLANT MATERIAL SHALL BE WELL–FORMED AND DEVELOPED IN GOOD CONDITION, HEALTHY AND DISEASE–FREE, AND BE TYPICAL OF THE SPECIES. PLANTS SHALL COMPLY WITH ACCEPTABLE STANDARDS AS SET FORTH IN THE AMERICAN HORT "AMERICAN STANDARD OF NURSERY STOCK."
3. ALL SPECIFIED TREES SHALL HAVE SINGLE–STEM, STRAIGHT TRUNKS AND FULL CROWNS.
4. ALL PLANT LOCATIONS ARE APPROXIMATE, ADJUST AS NECESSARY TO AVOID CONFLICTS.
5. PROVIDE AND INSTALL A 4" LAYER OF SHREDDED HARDWOOD BARK MULCH AS USED BY THE CITY OF WICHITA PARK DEPARTMENT AROUND ALL TREES NOT OTHERWISE LOCATED WITHIN A SHRUB PLANTING BED.
6. PROVIDE AND INSTALL A 4" LAYER OF SHREDDED HARDWOOD BARK MULCH AS USED BY THE COW PARK DEPARTMENT IN PLANTING BEDS. MULCH SHALL CONSIST OF PURE WOOD, BROWN IN COLOR, AND BE FREE OF ALL FOREIGN SUBSTANCES. PROVIDE AND INSTALL PRE–EMERGENT HERBICIDE PRIOR TO MULCH INSTALLATION PER MANUFACTURERS INSTRUCTIONS.
7. ALL SHRUB PLANTING BEDS AND TURF AREAS MUST BE SEPARATED WITH A CONCRETE MOW STRIP AS SHOWN PER PLAN AND DETAIL.
8. CONTRACTOR SHALL STAKE AND GUY ALL TREES AS SHOWN IN THE DETAILS AND PER CITY OF WICHITA SPECIFICATION 905.
9. IF THE CITY OF WICHITA IS UNDER DROUGHT STAGE WATERING RESTRICTIONS AT THE TIME OF BIDDING, CONTRACTOR WILL NOT BE ALLOWED TO USE METERED POTABLE CITY WATER. CONTRACTOR WILL BE REQUIRED TO REUSE WATER FROM THE WICHITA WATER CENTER LOCATED AT 101 E. PAWNEE. THERE IS NO COST FOR THIS SUPPLY OF WATER. COSTS INCURRED BY TRANSPORTATION OF WATER IS A LUMP SUM BID ITEM "WATER SUPPLY REUSE". IF THE CITY IS NOT UNDER DROUGHT WATERING RESTRICTIONS, THE USE OF METERED WATER SHALL BE REQUIRED AND THE BID LINE ITEM SHALL BE UNDERRAN.

PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME
TREES			
	AB	2	TRIDENT MAPLE / ACER BUERGERIANUM
	AT	2	TATARIAN MAPLE / ACER TATARICUM
	AT3	3	SHANTUNG MAPLE / ACER TRUNCATUM
	CB	6	EUROPEAN HORNBEAM / CARPINUS BETULUS
	CF	3	FRANS FONTAINE HORNBEAM / CARPINUS BETULUS 'FRANS FONTAINE'
	CC	2	EASTERN REDBUD / CERCIS CANADENSIS
	CO	3	OKLAHOMA TEXAS REDBUD / CERCIS CANADENSIS TEXENSIS 'OKLAHOMA'
	PC	5	CHINESE PISTACHE / PISTACIA CHINENSIS
	QA2	1	SAWTOOTH OAK / QUERCUS ACUTISSIMA
	SR	5	JAPANESE TREE LILAC / SYRINGA RETICULATA
	ZS	6	JAPANESE ZELKOVA / ZELKOVA SERRATA
ORNAMENTAL GRASSES			
	BB	19	BLONDE AMBITION BLUE GRAMA / BOUTELOUA GRACILIS 'BLONDE AMBITION'
	ST	83	TARA PRAIRIE DROPSEED / SPOROBOLUS HETEROLEPIS 'TARA'
PERENNIALS			
	HX	43	AUTUMN JOY STONECROP / HYLOTELEPHIUM X 'HERBSTFREUDE'
	LB	50	BIG BLUE LILYTURF / LIRIOPE MUSCARI 'BIG BLUE'
	SG2	11	GOLDMOUND JAPANESE SPIREA / SPIRAEA JAPONICA 'GOLDMOUND'

LEGEND

- CENTERLINE
- SHEET MATCHLINE
- EXISTING TREE TO REMAIN; SEE EXISTING TREE CARE NOTES ON SHEET L107
- EXISTING TREE TO BE REMOVED; SEE DETAIL 7/L107 AND EXISTING TREE CARE NOTES ON SHEET L107

HARDSCAPE MATERIALS

BP	447 SF	REPURPOSED / BRICK PAVERS

STATE OF MISSOURI
CARISA McMULLEN
NUMBER LA-2009137811
LANDSCAPE ARCHITECT

0' 100' 200'
GRAPHIC SCALE 100'

NORTH

CITY OF WICHITA

wsp

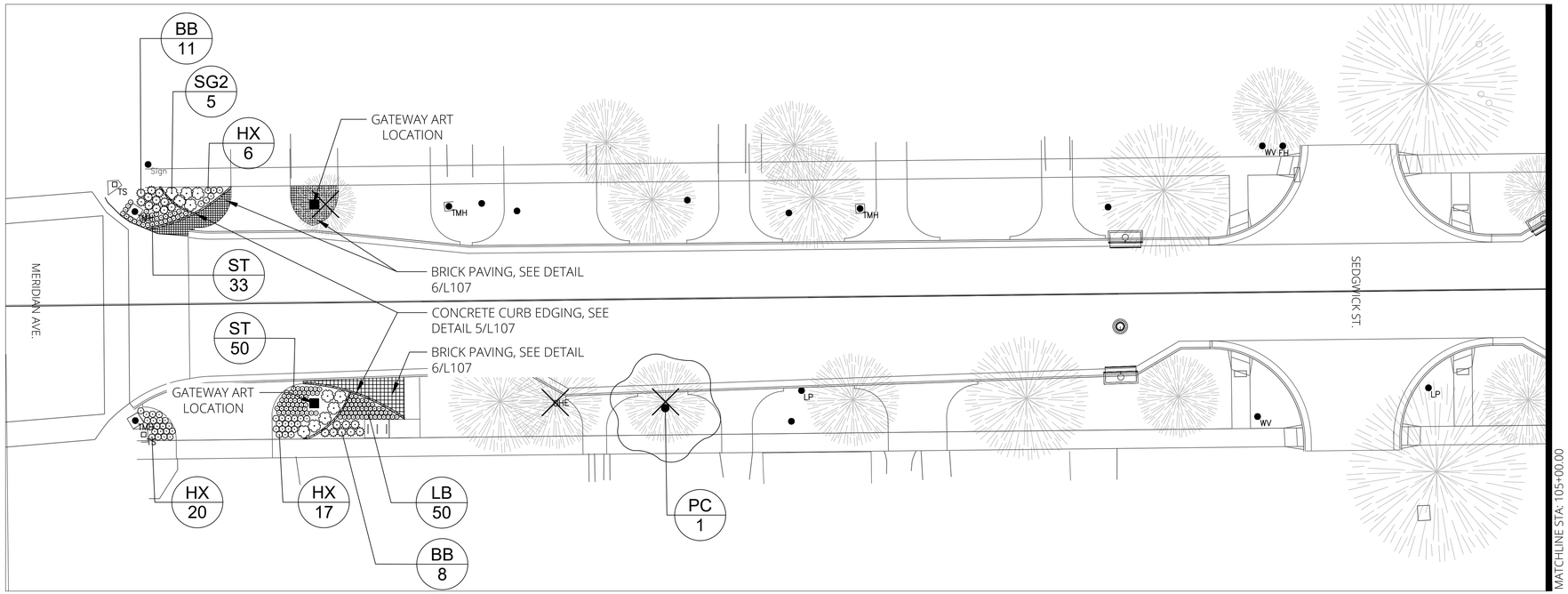
landworks STUDIO

DOUGLAS AVENUE SENECA TO MERIDIAN

NO.	DESCRIPTION	DATE
	REVISIONS	

PROJ NO:	30902042
SCALE:	AS NOTED
DATE:	08/06/2025
DESIGNED BY:	CM
DRAWN BY:	EM
CHECKED BY:	CM
YEAR:	2025

SHEET NO
L100
SHEET 114 OF180



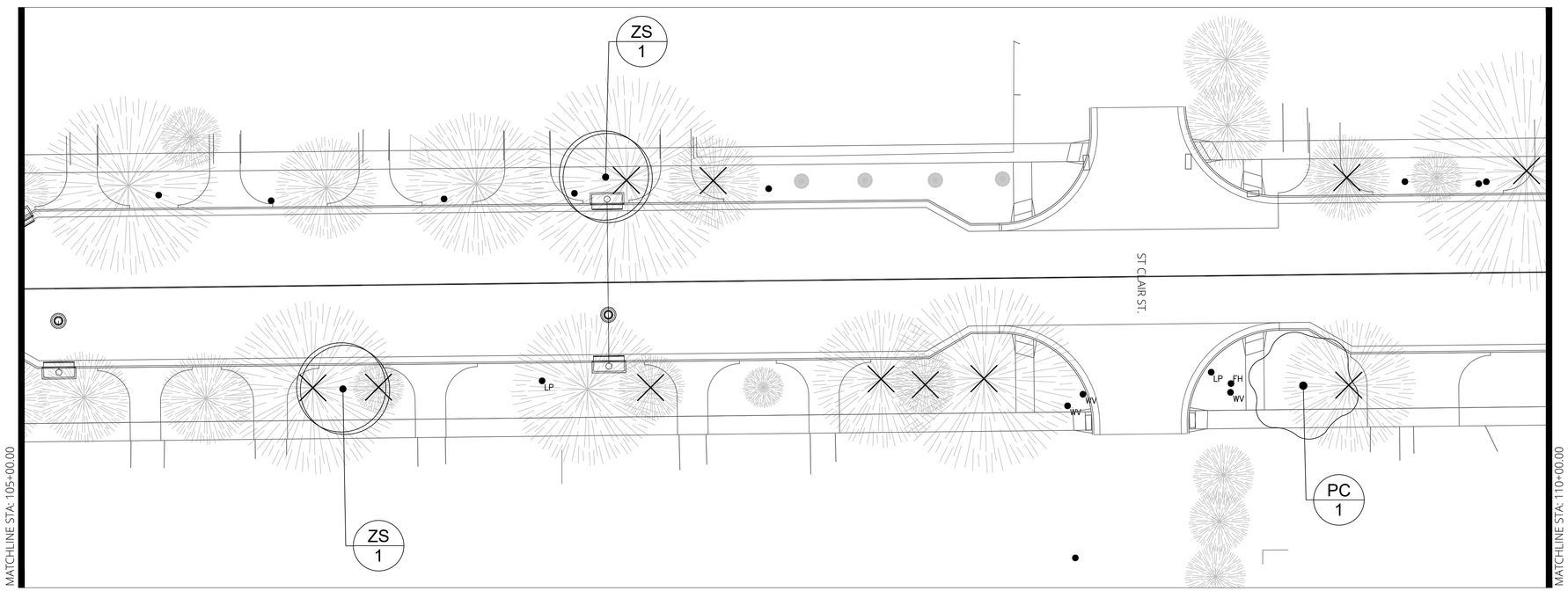
1 LANDSCAPE PLAN - STA. 100+00.00 - 105+00.00

SCALE = 1" = 20'-0"

0' 20' 40'

GRAPHIC SCALE 20'

NORTH



2 LANDSCAPE PLAN - STA. 105+00.00 - 110+00.00

SCALE = 1" = 20'-0"

0' 20' 40'

GRAPHIC SCALE 20'

NORTH

CITY OF WICHITA

wsp

landworks STUDIO

DOUGLAS AVENUE SENECA TO MERIDIAN

STATE OF MISSOURI
CARISA McMULLEN
NUMBER LA-1999137871
LANDSCAPE ARCHITECT

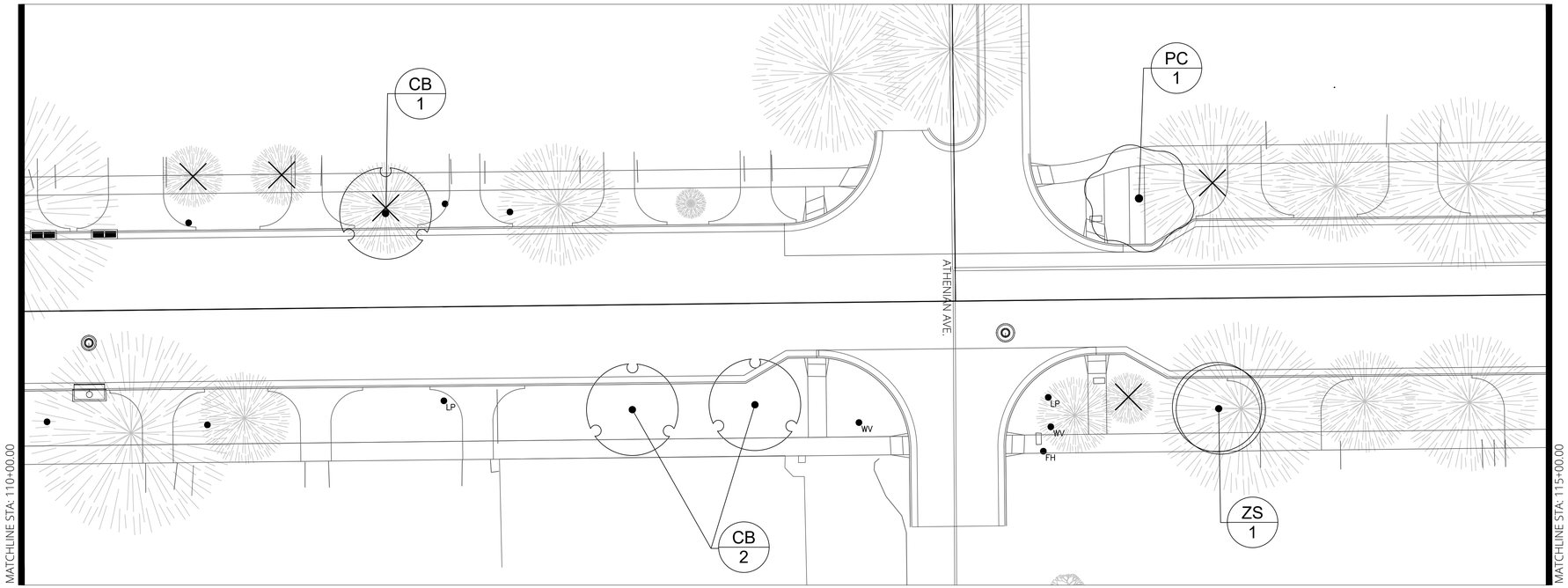
NO.	DESCRIPTION	DATE
	REVISIONS	

PROJ NO:	30902042
SCALE:	AS NOTED
DATE:	08/06/2025
DESIGNED BY:	CM
DRAWN BY:	EM
CHECKED BY:	CM
YEAR:	2025

SHEET NO

L101

SHEET 115 OF 180

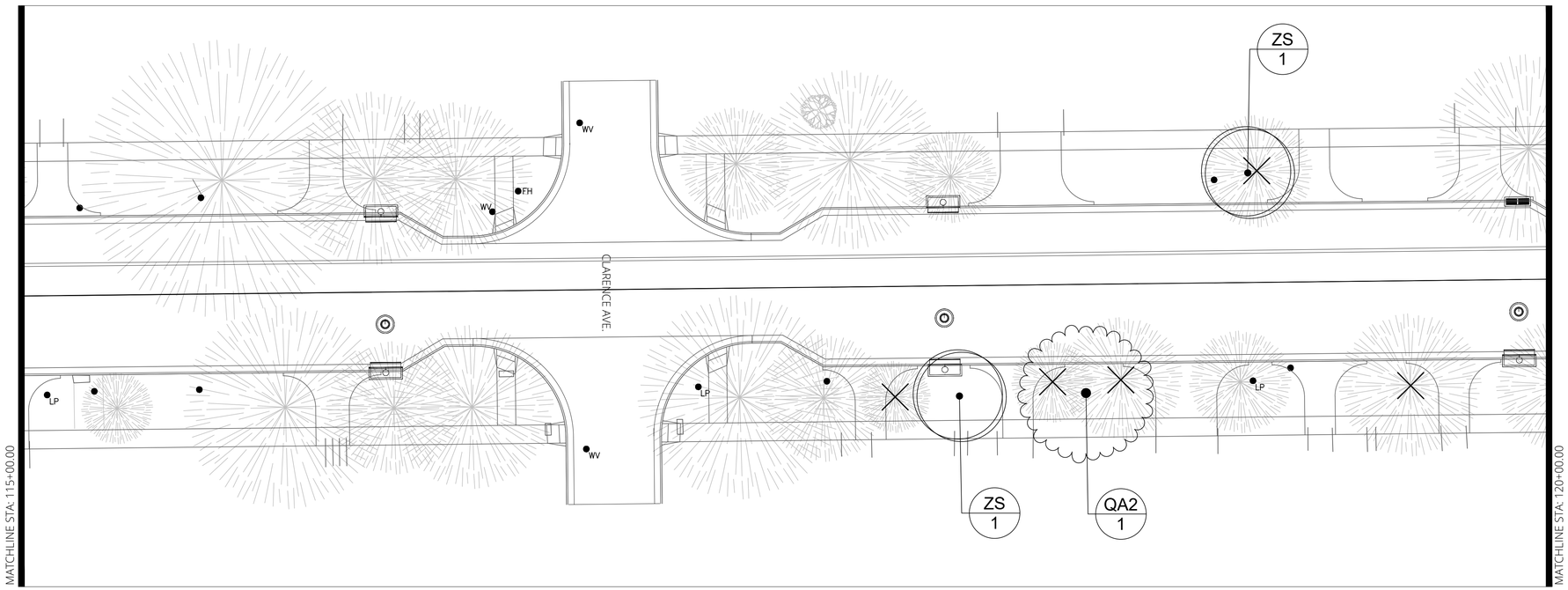


1 LANDSCAPE PLAN - STA. 110+00.00 - 115+00.00

SCALE = 1" = 20'-0"

0' 20' 40'
GRAPHIC SCALE 20'

NORTH



2 LANDSCAPE PLAN - STA. 115+00.00 - 120+00.00

SCALE = 1" = 20'-0"

0' 20' 40'
GRAPHIC SCALE 20'

NORTH

CITY OF WICHITA

wsp

landworks STUDIO

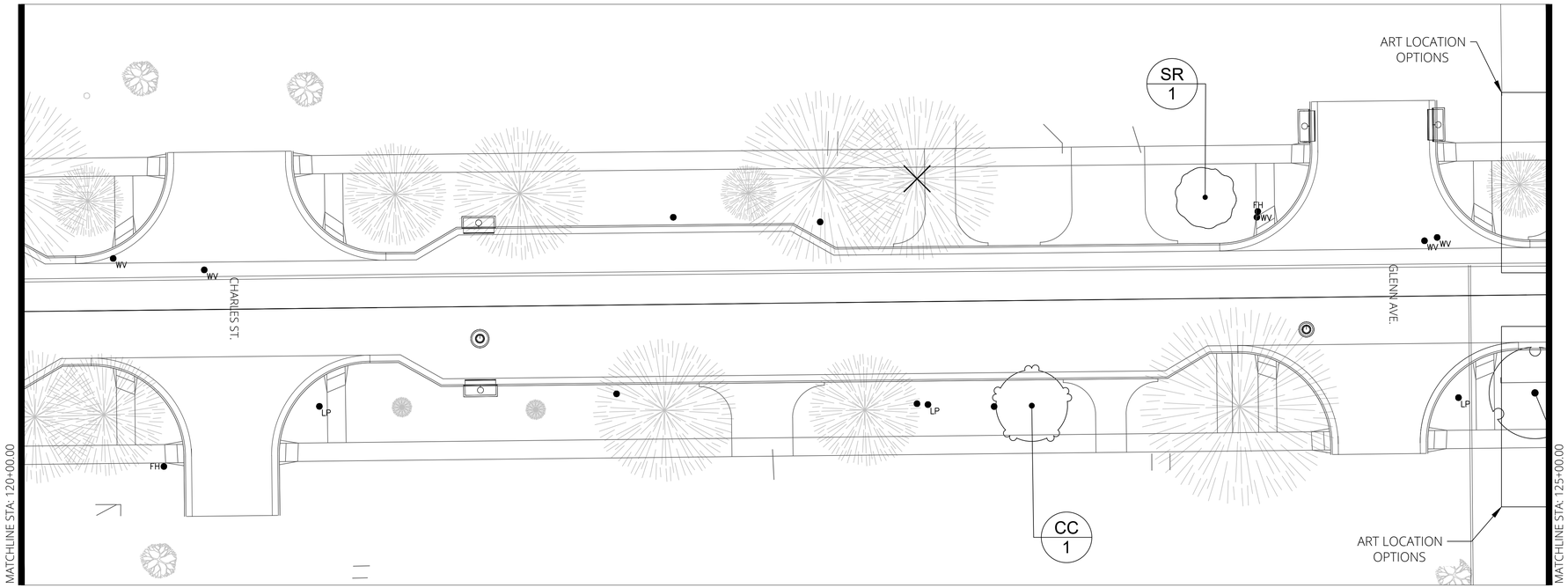
DOUGLAS AVENUE SENECA TO MERIDIAN

REVISIONS		
NO.	DATE	DESCRIPTION

STATE OF MISSOURI
CARISA McMULLEN
NUMBER LA-2009137871
LANDSCAPE ARCHITECT

PROJ NO:	30902042
SCALE:	AS NOTED
DATE:	08/06/2025
DESIGNED BY:	CM
DRAWN BY:	EM
CHECKED BY:	CM
YEAR:	2025

SHEET NO
L102
SHEET 116 OF180

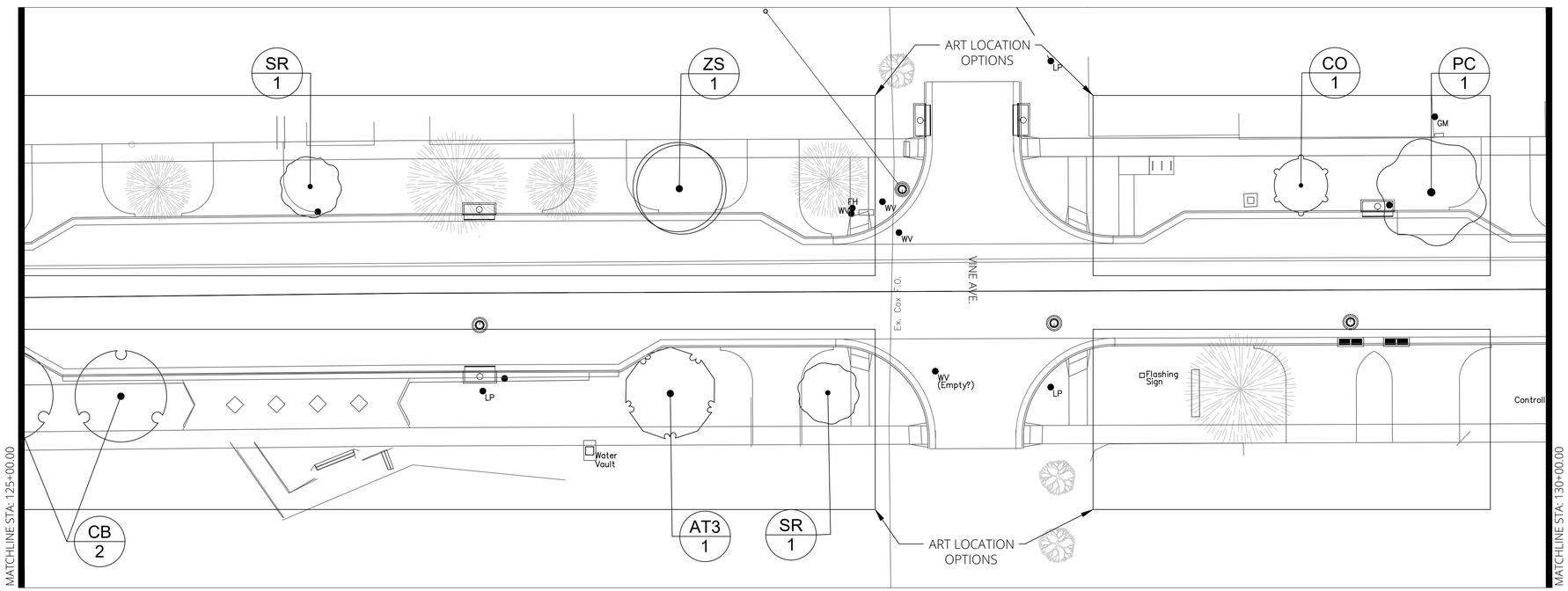


1 LANDSCAPE PLAN - STA. 120+00.00 - 125+00.00

SCALE = 1" = 20'-0"

0' 20' 40'
GRAPHIC SCALE 20'

NORTH



2 LANDSCAPE PLAN - STA. 125+00.00 - 130+00.00

SCALE = 1" = 20'-0"

0' 20' 40'
GRAPHIC SCALE 20'

NORTH

CITY OF WICHITA

wsp

landworks STUDIO

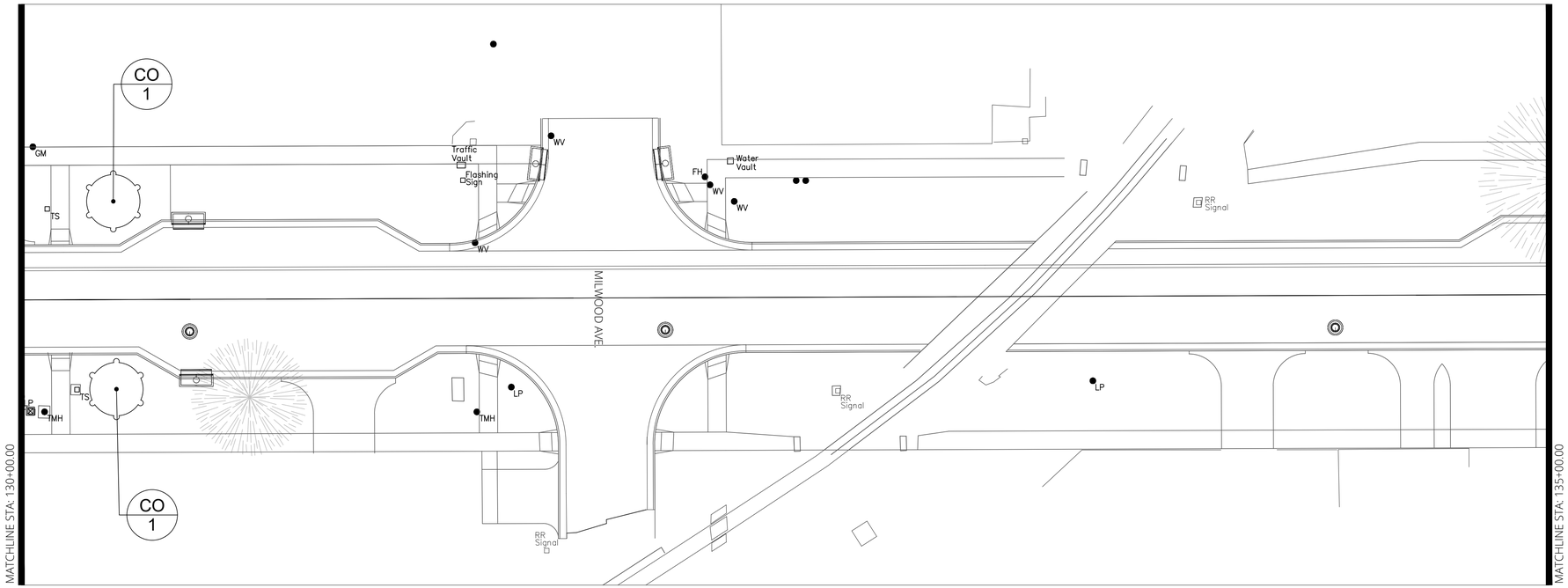
DOUGLAS AVENUE SENECA TO MERIDIAN

NO.	DESCRIPTION	DATE
	REVISIONS	

STATE OF MISSOURI
CARISA McMULLEN
NUMBER LA-1999137811
LANDSCAPE ARCHITECT

PROJ NO:	30902042
SCALE:	AS NOTED
DATE:	08/06/2025
DESIGNED BY:	CM
DRAWN BY:	EM
CHECKED BY:	CM
YEAR:	2025

SHEET NO
L103
SHEET 117 OF180



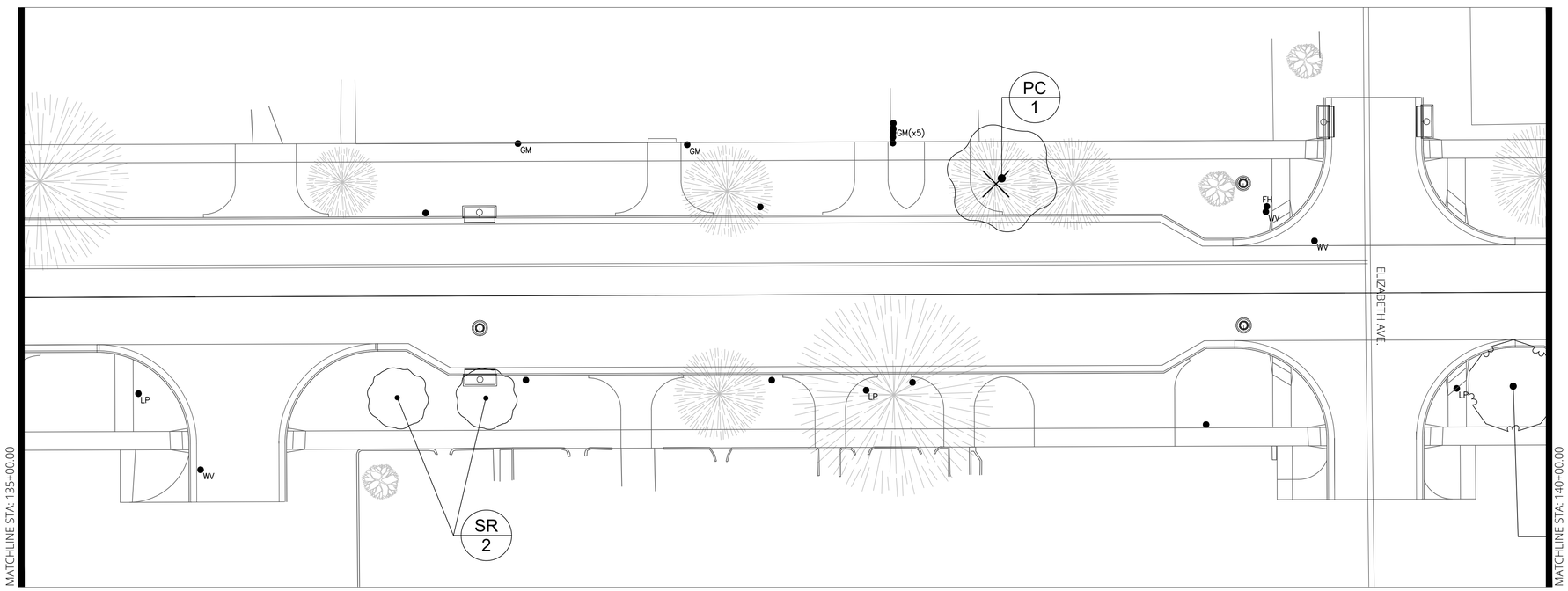
1 LANDSCAPE PLAN - STA. 130+00.00 - 135+00.00

SCALE = 1" = 20'-0"

0' 20' 40'

GRAPHIC SCALE 20'

NORTH



2 LANDSCAPE PLAN - STA. 135+00.00 - 140+00.00

SCALE = 1" = 20'-0"

0' 20' 40'

GRAPHIC SCALE 20'

NORTH

CITY OF WICHITA

wsp

landworks STUDIO

DOUGLAS AVENUE SENECA TO MERIDIAN

NO.	DESCRIPTION	DATE
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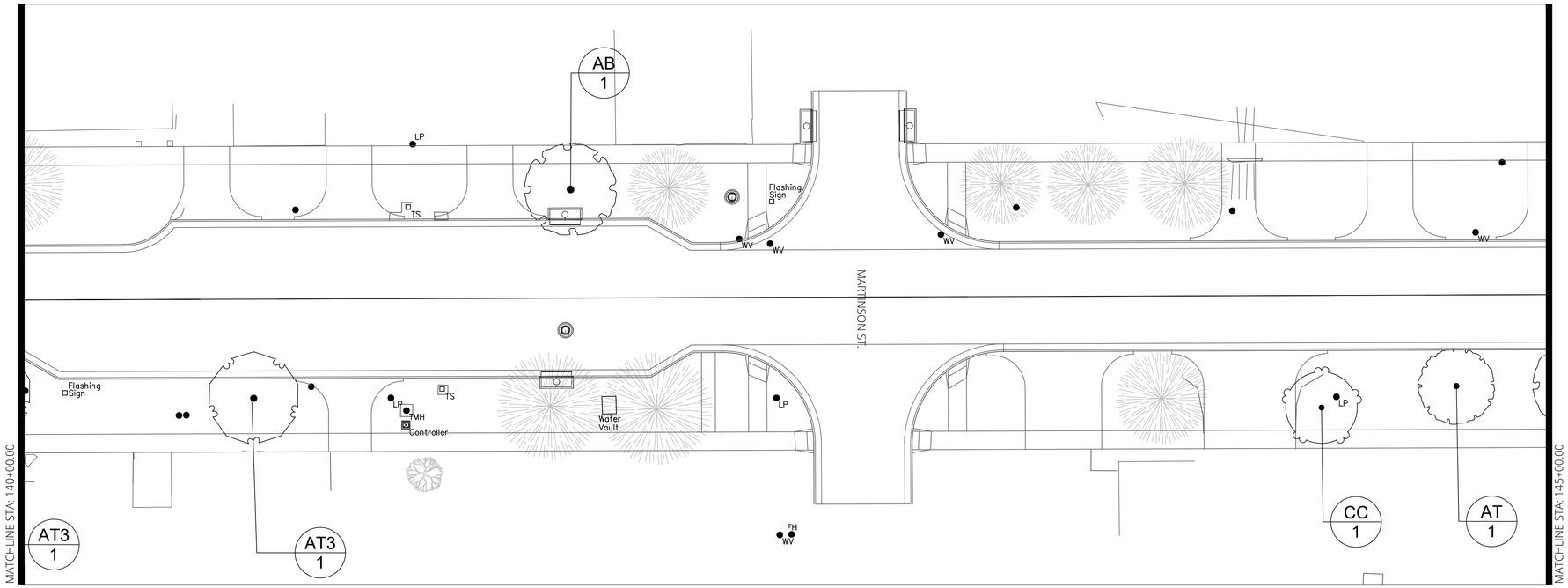
REVISIONS

STATE OF MISSOURI
CARISA McMULLEN
NUMBER LA-1999137781
LANDSCAPE ARCHITECT

PROJ NO:	30902042
SCALE:	AS NOTED
DATE:	08/06/2025
DESIGNED BY:	CM
DRAWN BY:	EM
CHECKED BY:	CM
YEAR:	2025

SHEET NO

L104



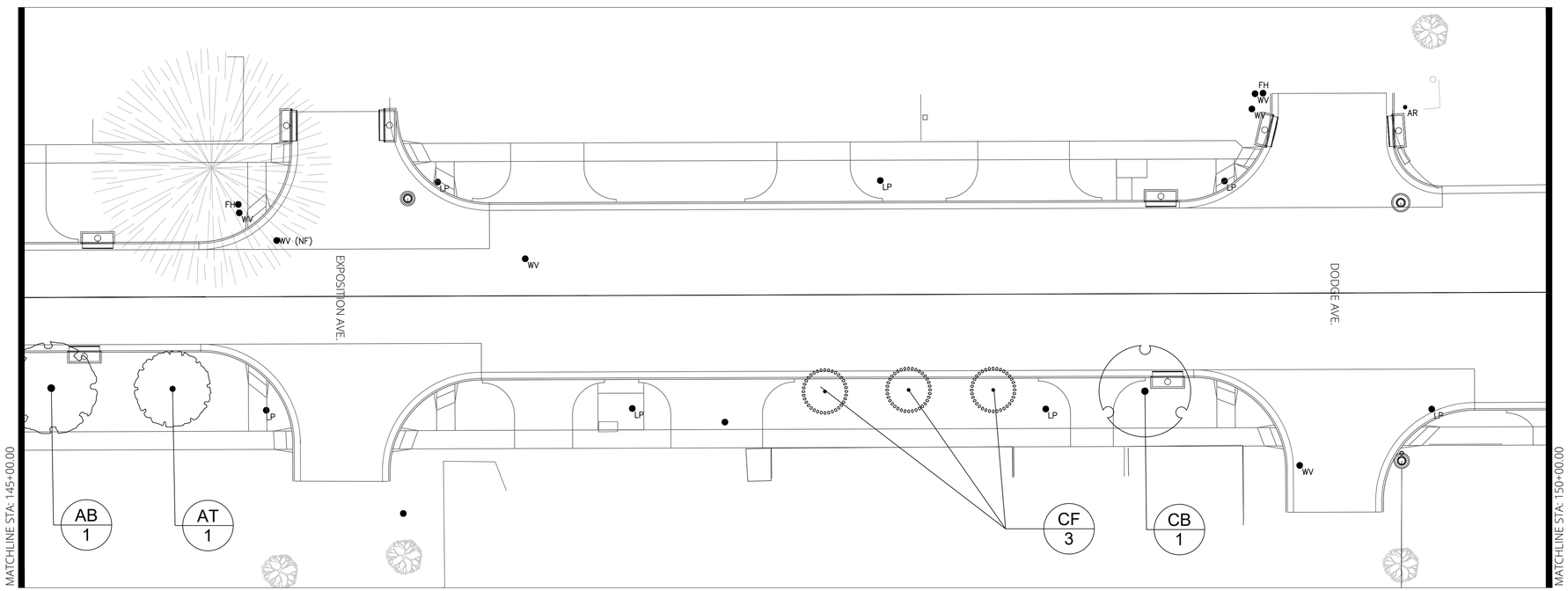
1 LANDSCAPE PLAN - STA. 140+00.00 - 145+00.00

SCALE = 1" = 20'-0"

0' 20' 40'

GRAPHIC SCALE 20'

NORTH



2 LANDSCAPE PLAN - STA. 145+00.00 - 150+00.00

SCALE = 1" = 20'-0"

0' 20' 40'

GRAPHIC SCALE 20'

NORTH

CITY OF WICHITA

wsp

landworks STUDIO

DOUGLAS AVENUE SENECA TO MERIDIAN

NO.	DESCRIPTION	DATE
	REVISIONS	

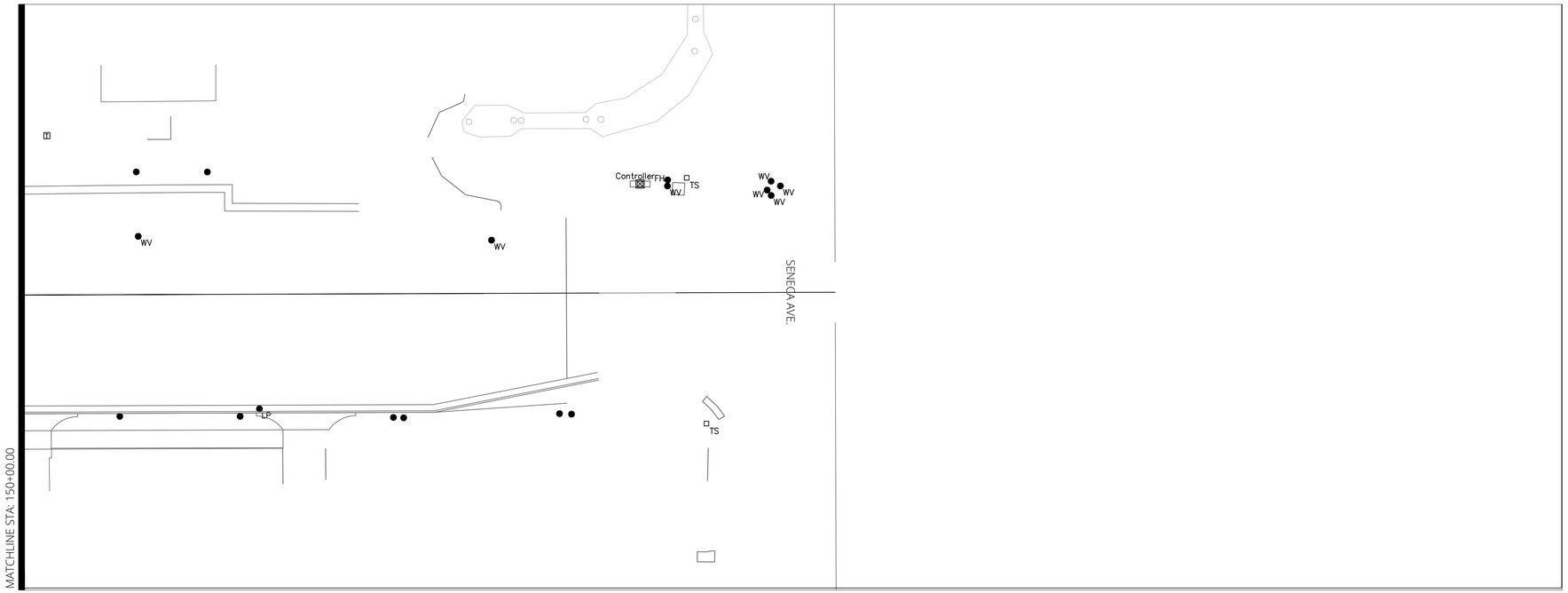
STATE OF MISSOURI
CARISA McMULLEN
NUMBER LA-1999137911
LANDSCAPE ARCHITECT

PROJ NO:	30902042
SCALE:	AS NOTED
DATE:	08/06/2025
DESIGNED BY:	CM
DRAWN BY:	EM
CHECKED BY:	CM
YEAR:	2025

SHEET NO

L105

SHEET 119 OF 180



1 LANDSCAPE PLAN - STA. 150+00.00 - 155+00.00

SCALE = 1" = 20'-0"

0' 20' 40'

GRAPHIC SCALE 20'

NORTH

STATE OF MISSOURI
CARISA McMULLEN
NUMBER
LA-1999137871
LANDSCAPE ARCHITECT

CITY OF WICHITA

wsp

landworks STUDIO

DOUGLAS AVENUE SENECA TO MERIDIAN

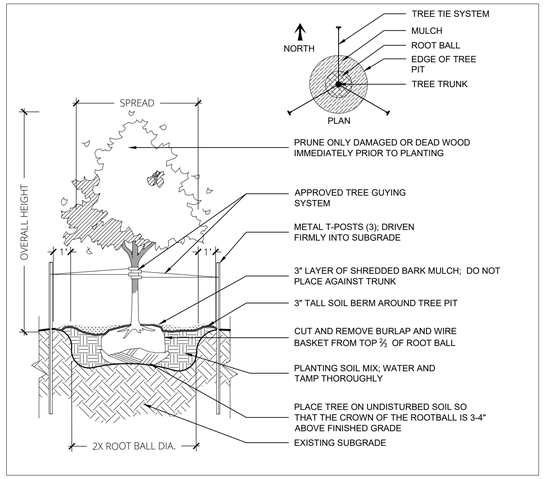
NO.	DESCRIPTION	DATE
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PROJ NO:	30902042
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DATE:	08/06/2025
DESIGNED BY:	CM
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YEAR:	2025

SHEET NO

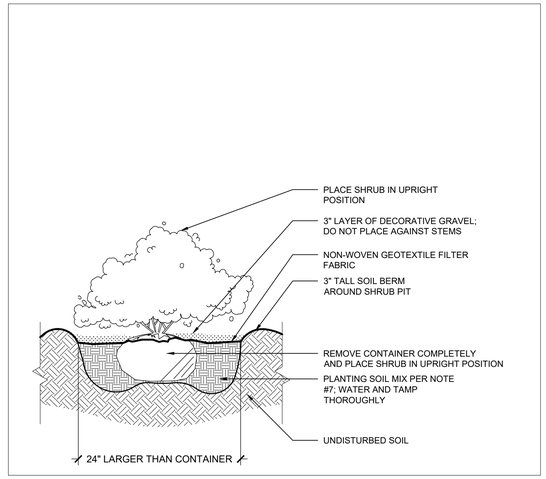
L106

SHEET 120 OF180



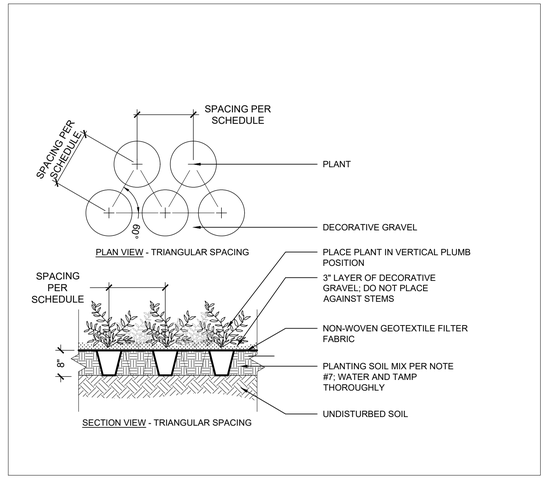
1 DECIDUOUS TREE PLANTING

SCALE = 1/4" = 1'-0"



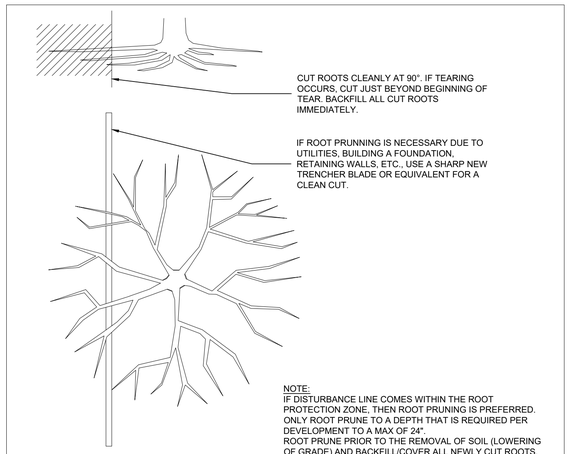
2 SHRUB PLANTING

SCALE = 1/2" = 1'-0"



3 PERENNIAL PLANTING

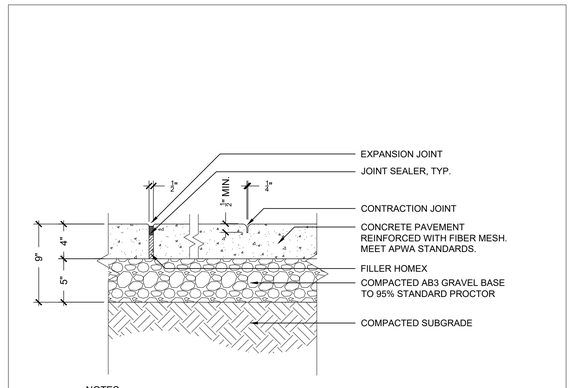
SCALE = 1/4" = 1'-0"



NOTE:
IF DISTURBANCE LINE COMES WITHIN THE ROOT PROTECTION ZONE, THEN ROOT PRUNING IS PREFERRED. ONLY ROOT PRUNE TO A DEPTH THAT IS REQUIRED PER DEVELOPMENT TO A MAX OF 24".
ROOT PRUNE PRIOR TO THE REMOVAL OF SOIL (LOWERING OF GRADE) AND BACKFILL/COVER ALL NEWLY CUT ROOTS.

4 TREE PRUNING

SCALE = 1/4" = 1'-0"

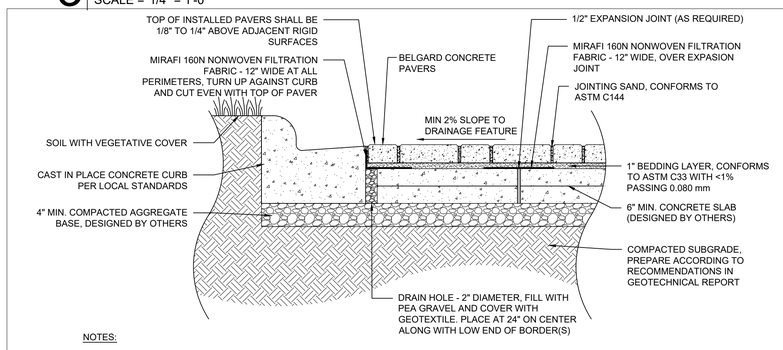


NOTES:

1. SLOPE IN ALL DIRECTIONS NOT TO EXCEED 2.0%.
2. CONTROL JOINTS TO OCCUR AT SPACING EQUAL TO WIDTH OF SLAB UNLESS INDICATED ON PLAN OR BY OWNER.

5 CONCRETE CURB EDGING

SCALE = 1 -1/2" = 1'-0"

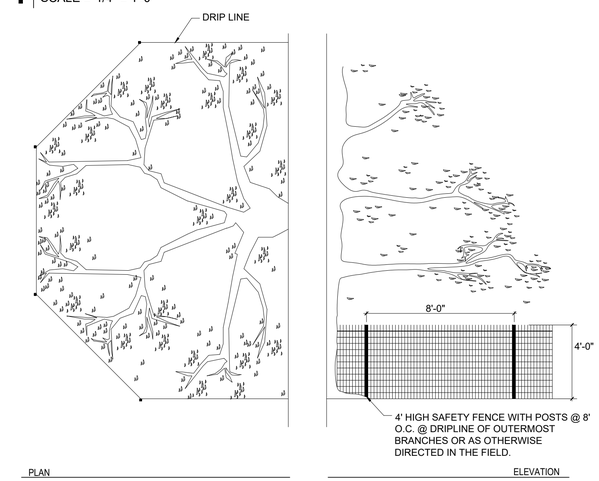


NOTES:

1. CROSS SECTION AS SHOWN IS SUITABLE FOR PEDESTRIAN AND VEHICULAR APPLICATIONS. PAVER DIMENSIONS SUBJECT TO ASPECT AND PLAN RATIO REQUIREMENTS. CONTACT BELGARD COMMERCIAL FOR PRODUCT SELECTIONS AND GUIDANCE BASED ON THE INTENDED TRAFFIC LOADING.
2. DEPTH OF AGGREGATE BASE SUBJECT TO SITE SPECIFIC CONDITIONS (TRAFFIC LOADING, SOIL CONDITIONS, GROUNDWATER LEVELS, CLIMATIC CONDITIONS). COMMERCIAL FOR DESIGN ASSISTANCE.
3. ADDITIONAL DRAIN HOLES MAY BE REWIRED DEPENDING ON THE SIZE OF THE PAVEMENT AREA. THE RULE OF THUMB IS TO HAVE AT LEAST ONE DRAIN HOLE PER 500 SF. OF SURFACE AREA. STORM DRAINS DRAINS SHOULD BE USED AT LOW SPOTS.
4. DRAIN PIPES MAY BE REQUIRED WITHIN CERTAIN AGGREGATE BASE DEPENDING ON THE PERMEABILITY OF THE SUBGRADE SOILS. VERIFY DRAINAGE NEEDS WITH THE GEOTECHNICAL ENGINEER. ENSURE DRAIN PIPES ARE ABLE TO DAYLIGHT VIA GRAVITY FLOW TO SURFACE, OR CONNECTED TO CATCH BASIN.
5. ENSURE THE GEOTEXTILE ABOVE THE DRAIN HOLES HAS GOOD DRAINAGE CHARACTERISTICS AND IS NOT PRONE TO CLOGGING.
6. TECHNISEAL HP NEXTGEL JOINTING SAND CONFORMING TO ASTM C144 MAY BE USED IN PEDESTRIAN AND LIGHT VEHICULAR APPLICATIONS. PLEASE CONTACT BELGARD COMMERCIAL FOR DESIGN ASSISTIANCE.

6 BRICK PAVER

SCALE = 1" = 1'-0"



7 TREE PROTECTION

SCALE = NTS

EXISTING TREE CARE:

ROOT PRUNING:

ROOT PRUNING SHALL BE DONE WHENEVER THERE WILL BE GRADING, CUTTINGOR COMPACTION DISTURBANCE UNDERNEATHTHE DRIP LINE OF AN EXISTING TREE. ROOT PRUNING SHALL ONLY BE AS DEEP AS NECESSARY TO ENSURE CUTTING OF ALL ROOTS WHICH WOULD BE IMPACTED BY THE DISTURBANCE. ROOT PRUNING CHALL BE DONE WITH A SHAP TOOL, IN SUCH A WAY THAT DOES NOT PULL ON THE ROOTS, BUT LEAVES A SMOOTH CUT. IT IS PREFERABLE TO EXPOSE THE ROOTS PRIOR TO ROOT PRUNING. AFTER PRUNING, FILL THE AREA WITH QUALITY TOPSOIL AND WATER UNTIL THOROUGHLY SOAKED. ONCE EXPOSED, ROOTS MUST BE COVERED WITHINN 8 HOURS. IF ROOTS WILL BE LEFT EXPOSED FOR LONGER THAN 8 HOURS, THEY MUST BE KEPT MOIST.

ROOT PRUNING SHALL BE DONE BY OR UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST, AND MEET OR EXCEED ANSI A300 OR APPROVED TREE CARE INDUSTRY STANDARDS.

FOR AN QUESTIONS RELATED TO PRUDENCE OF TREE RETENTION, MARK ON THE GROUND BETWEEN THE TRUNK AND THE DISTURBANCE WHERE THE ROOTS ARE PROVIDING CONFLICT AND CONTACT THE CITY OF WICHITA ARBORIST FOR DIRECTION AT #316-268-4003

TREE PRUNING:

FOR ALL EXISTING TREES NOTED ON THE PLANS TO REMAIN, PROPER PRUNING IS REQUIRED. ALL PRUNING MUST BE COMPLETED BY OR UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST AND MEET OR EXCEED ANSI A300 OR APPROVED TREE CARE INDUSTRY STANDARDS TO ENSURE THE HEALTH AND LONGEVITY OF THE TREES AND TO DELIVER A SUCCESSFUL PROJECT FOR THE CITY. ALL BRANCHED SHALL BE TRIMMED USING A SHARP INSTRUMENT/ TOOL INTENDED FOR THESE OPERATIONS. DAMAGING TREE BRANCHES WITH A BACKHOE OR ANY OTHER EQUIPMENT IS NOT ACCEPTABLE. FOR AN QUESTIONS OR CONCERNS RELATED TO TREES DESIGNATED TO PROTECT, CONTACT THE CITY OF WICHITA ARBORIST AT #316-268-4003

TREE REMOVAL

FOR ANY TREE THAT IS TO BE REMOVED, CONTRACTOR IS TO GRIND ANY STUMP AND ROOTS, INCLUDING ALL SURFACE ROOTS, TO A DEPTH OF 2'.



CITY OF WICHITA

wsp

landworks STUDIO

DOUGLAS AVENUE SENECA TO MERIDIAN

REVISIONS		
NO.	DATE	DESCRIPTION
---	---	---

PROJ NO:	30902042
SCALE:	AS NOTED
DATE:	08/06/2025
DESIGNED BY:	CM
DRAWN BY:	EM
CHECKED BY:	CM
YEAR:	2025

SHEET NO
L106
SHEET 121 OF180

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS RESTORATION PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

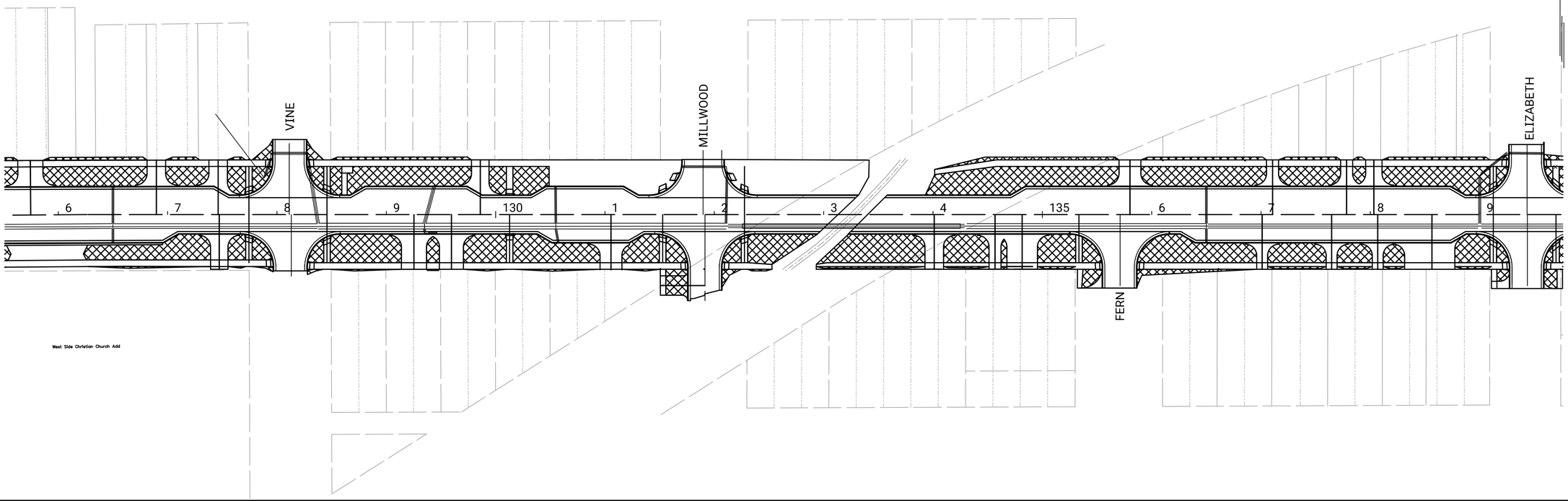
PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

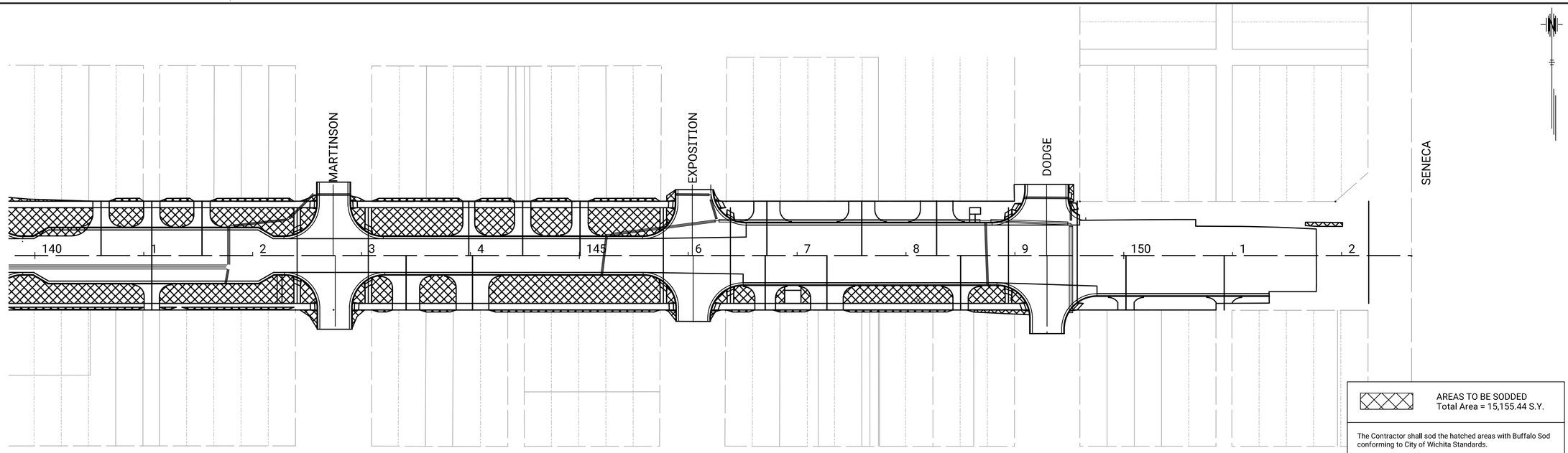
SHEET NO

122

SHEET 122 OF 180

Scale: 1" = 50'





AREAS TO BE SODDED
Total Area = 15,155.44 S.Y.

The Contractor shall sod the hatched areas with Buffalo Sod conforming to City of Wichita Standards.

The Quantities on This Sheet are FOR INFORMATION ONLY. All cost associated with the Sodding activities shall not be paid for directly, but shall be SUBSIDIARY to the Lump Sum Bid Item for each.

The Sodding Quantities shown in this table are for the hatched areas only. The Contractor Shall be responsible for sodding all areas disturbed by construction activities. All costs associated with any additional sodded areas that are not hatched on this plan shall be SUBSIDIARY to the Lump Sum Bid Item for the specific type of Sod.

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

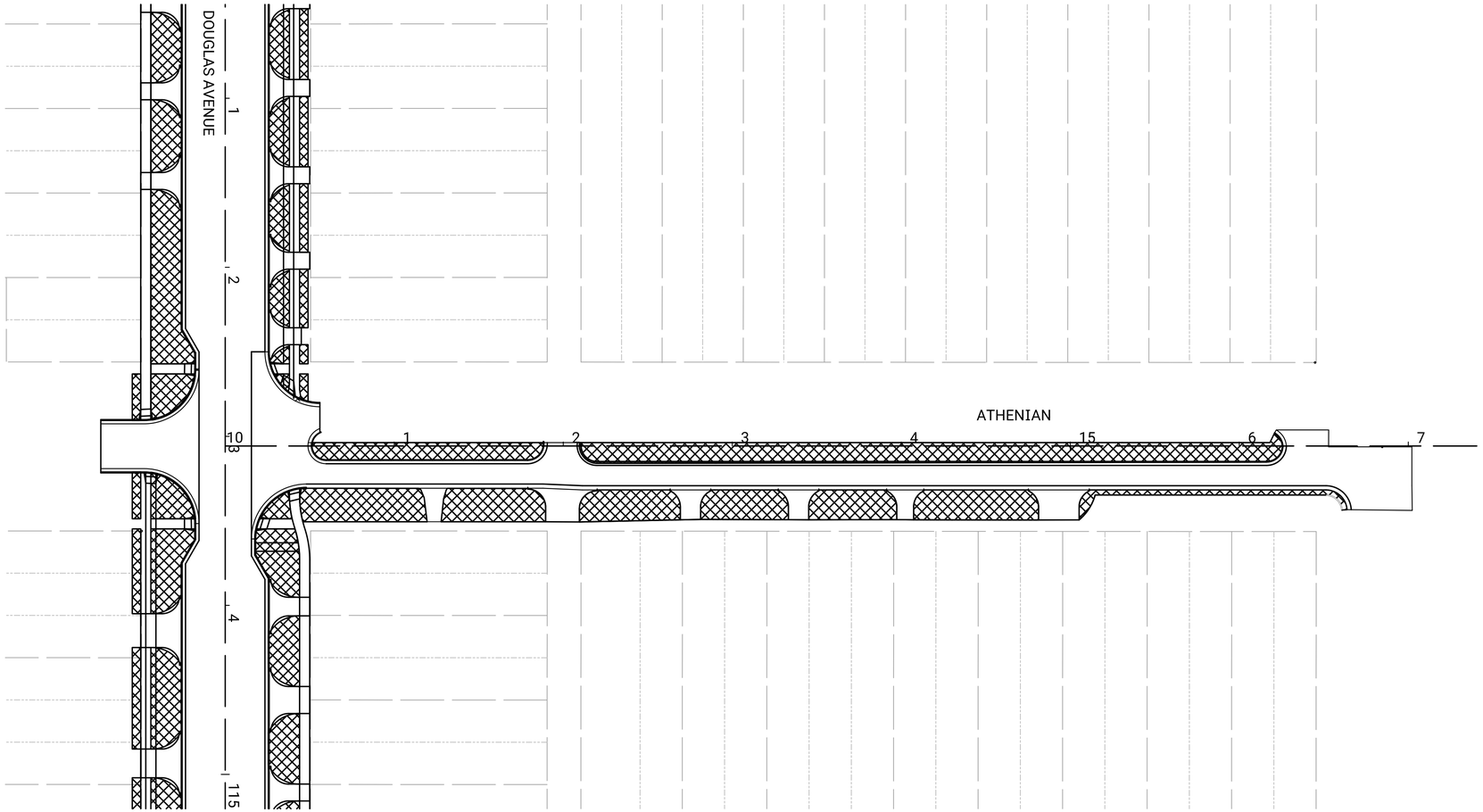
DOUGLAS RESTORATION PLAN

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
123
SHEET 123 OF 180

Scale: 1" = 50'



AREAS TO BE SODDED (ATHENIAN ONLY)
Total Area = 1507 S.Y.

The Contractor shall sod the hatched areas with Buffalo Sod conforming to City of Wichita Standards.

The Quantities on This Sheet are FOR INFORMATION ONLY. All cost associated with the Sodding activities shall not be paid for directly, but shall be SUBSIDIARY to the Lump Sum Bid Item for each.

The Sodding Quantities shown in this table are for the hatched areas only. The Contractor Shall be responsible for sodding all areas disturbed by construction activities. All costs associated with any additional sodded areas that are not hatched on this plan shall be SUBSIDIARY to the Lump Sum Bid Item for the specific type of Sod.

CITY OF WICHITA

wsp

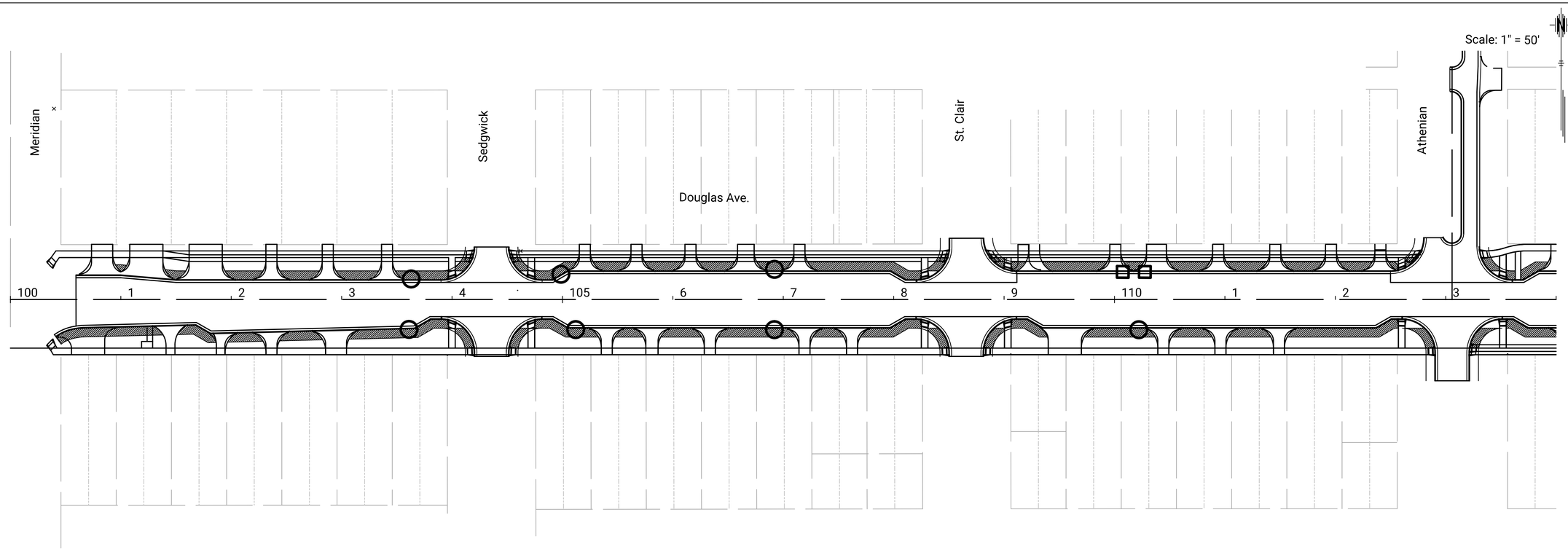
DOUGLAS AVENUE - MERIDIAN TO SENECA

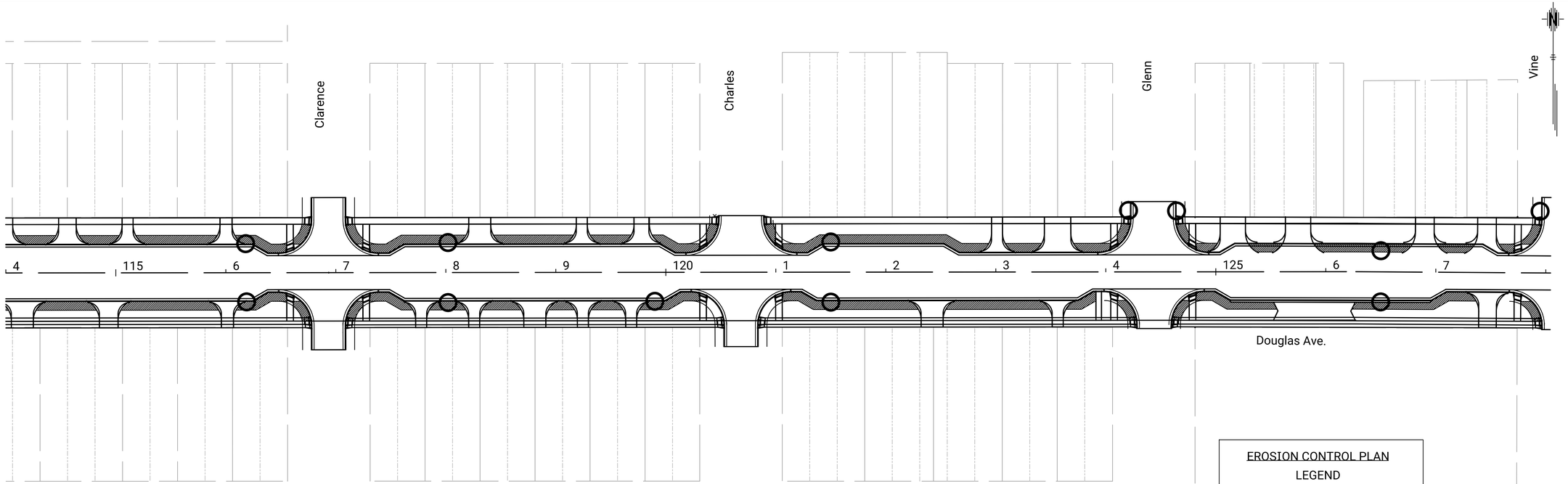
ATHENIAN RESTORATION PLAN

NO.	DESCRIPTION	DATE
	REVISIONS	

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
124
SHEET 124 OF 180





Erosion Control Measure	Units	Quantity
BMP, Curb Inlet Protection	Each	19
BMP, Drop Inlet Protection	Each	2
BMP, BACK OF CURB PROTECTION*	LIN.FT.	4,694
* 8' WIDE CURLEX I EXELSIOR BLANKET OR EQUAL INSTALL PER MANUFACTURER'S RECOMMENDATIONS INCLUDING STAPLES		

EROSION CONTROL PLAN

LEGEND

(Installation Details found in the BMP Sheets)

- BMP, Curb Inlet Protection
- BMP, Drip Inlet Protection

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

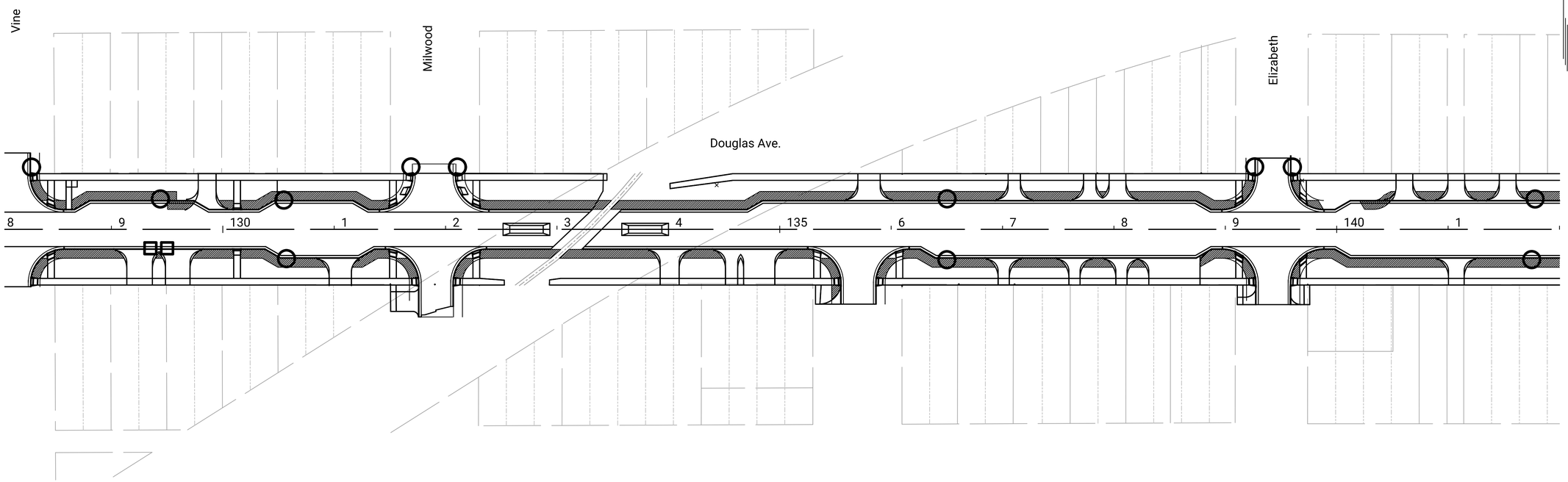
EROSION CONTROL PLAN STA. 100+00 TO STA. 128+00

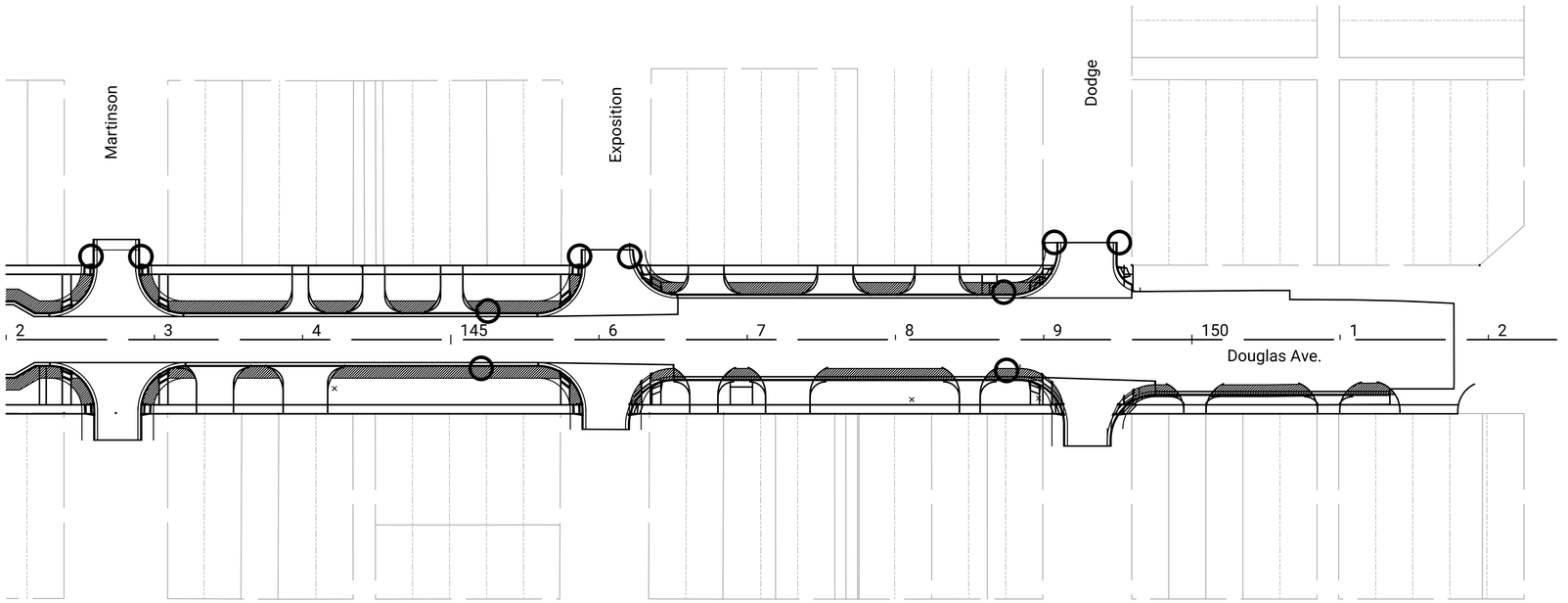
NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO

125





Erosion Control Measure	Units	Quantity
BMP, Curb Inlet Protection	Each	22
BMP, Drop Inlet Protection	Each	2
BMP, BACK OF CURB PROTECTION*	LIN.FT.	3,934
* 8' WIDE CURLEX I EXELSIOR BLANKET OR EQUAL INSTALL PER MANUFACTURER'S RECOMMENDATIONS INCLUDING STAPLES		

EROSION CONTROL PLAN

LEGEND

(Installation Details found in the BMP Sheets)

- BMP, Curb Inlet Protection
- BMP, Drip Inlet Protection

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

EROSION CONTROL PLAN STA. 128+00 TO STA. 152+64

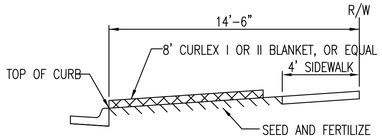
REVISIONS	DATE	NO.
DESCRIPTION		

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

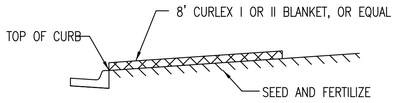
SHEET NO

126

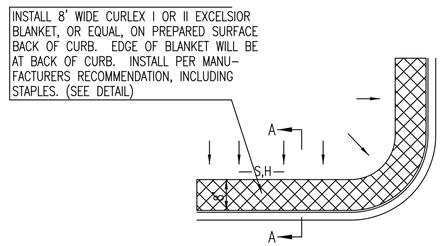
SHEET 125 OF 180



SECTION B–B



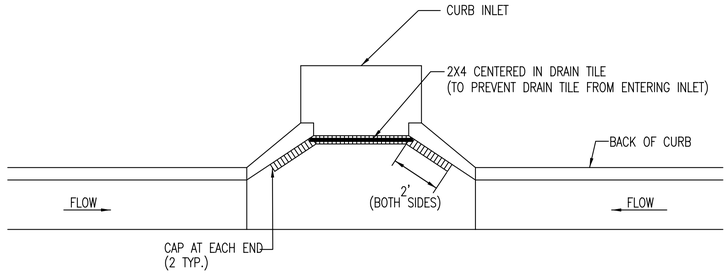
SECTION A–A



GENERAL NOTES

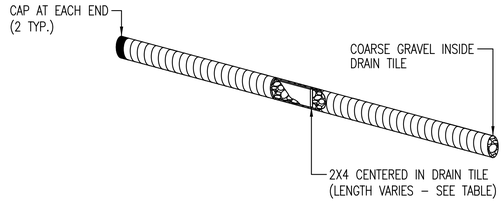
1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE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

BACK OF CURB PROTECTION DETAIL

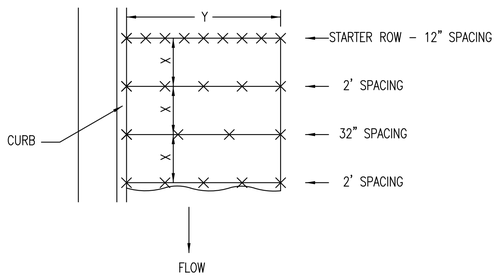


NOTE:
PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"–1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

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

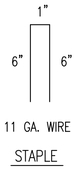


CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL

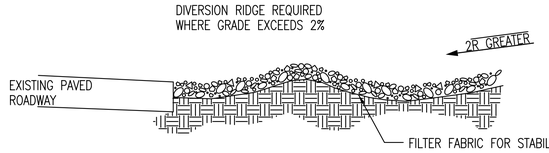


STAPLE PATTERN

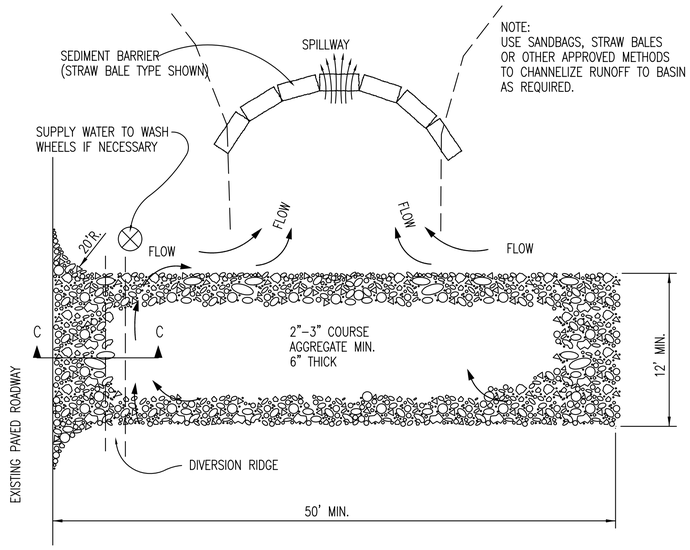
NOTES: USE 6" SEAM OVERLAP
(X & Y = RECOMMENDED BY MANUFACTURE)



DETAILS FOR APPROVED EROSION CONTROL MAT



SECTION C–C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

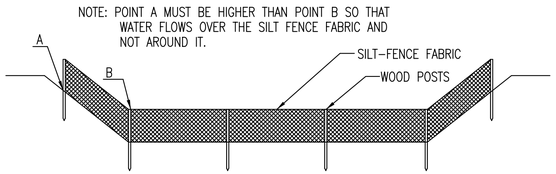
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

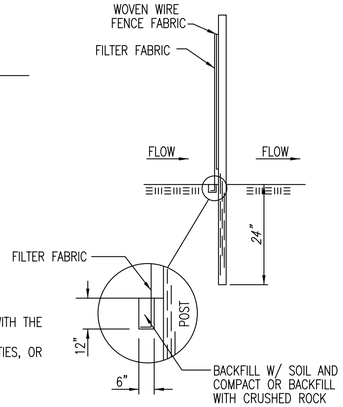
SHEET
127 of 180

SW–501



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)



ANCHOR TRENCH DETAIL

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED.
SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK.
SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD.
SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

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

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

PROPER INSTALLATION METHOD:

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

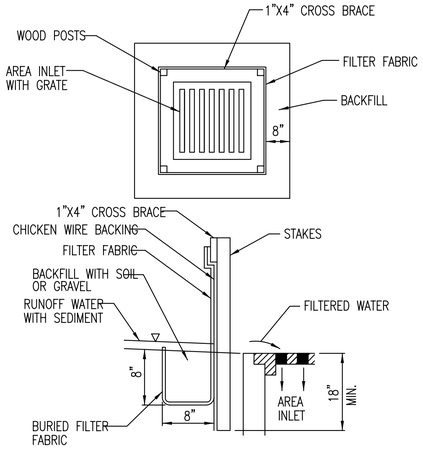
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

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

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



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS. SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME. WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 8" DEEP BY 8" WIDE. DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET. THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM. CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING. ATTACH THE WIRE OR POLYMERIC–MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST. NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

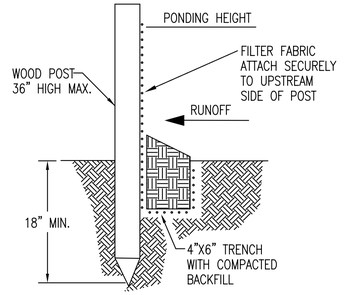
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET–NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESISTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

INSPECTION AND MAINTENANCE:

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

DOES WATER FLOW UNDER THE SILT FENCE?
DOES THE SILT FENCE SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

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

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT–FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT–FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT. SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND–SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

SILT FENCE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION: ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING? DOES WATER FLOW UNDER THE SLOPE BARRIER? DO THE SILT FENCES SAG EXCESSIVELY? HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS? DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
PAUL GUNZELMAN, P.E.

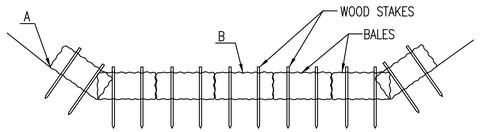
PROJECT NUMBER	OCA NUMBER	DATE

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

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NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE BALES AND NOT AROUND THEM.



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

BALE DITCH CHECKS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE.
THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
OPTIONAL: THE DOWNSTREAM SCOUR APRON SHOULD BE CONSTRUCTED OF A DOUBLE-NETTED STRAW EROSION-CONTROL BLANKET AT LEAST 6' WIDE.
OPTIONAL: THE METAL LANDSCAPE STAPLES USED TO ANCHOR THE EROSION-CONTROL BLANKET SHOULD BE AT LEAST 8" LONG.

PLACEMENT:

BALE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE DITCH CHECK SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. STRAW BALE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. BALES SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED. THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

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

PROPER INSTALLATION METHOD:

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

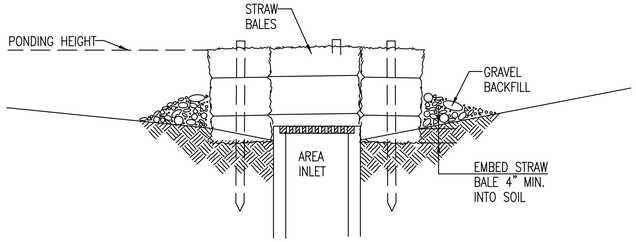
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

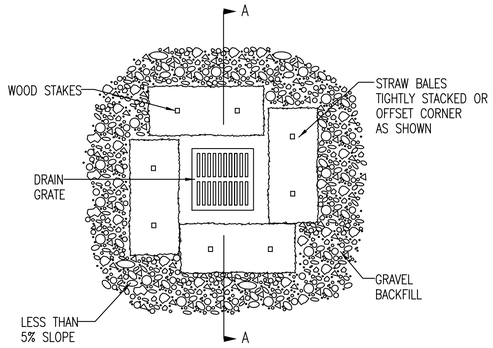
INSPECTION AND MAINTENANCE:

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

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



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS

(INLET PROTECTION)

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

PROPER INSTALLATION METHOD:

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

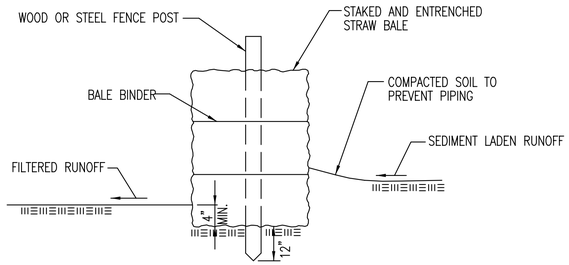
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

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

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



STRAW BALE BARRIERS

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

PROPER INSTALLATION METHOD:

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

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

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

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

REVISION DATE: MAY 2013

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

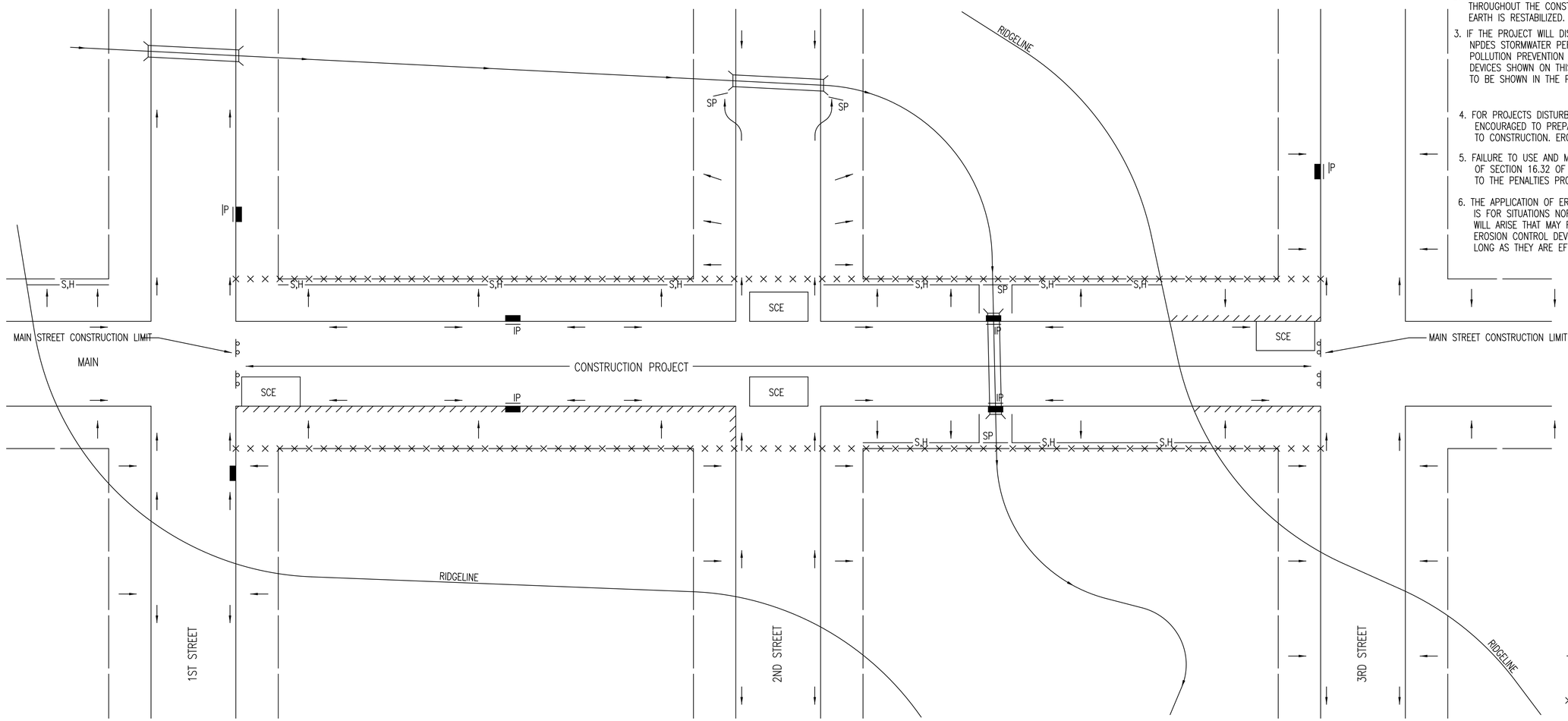
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SW-503

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.

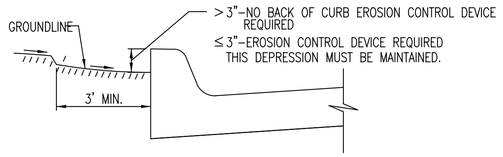


LEGEND

—— ——	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)



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.

REVISION: JUNE 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STREET IMPROVEMENT PROJECTS

CITY ENGINEER
PAUL GUNZELMAN, P.E.

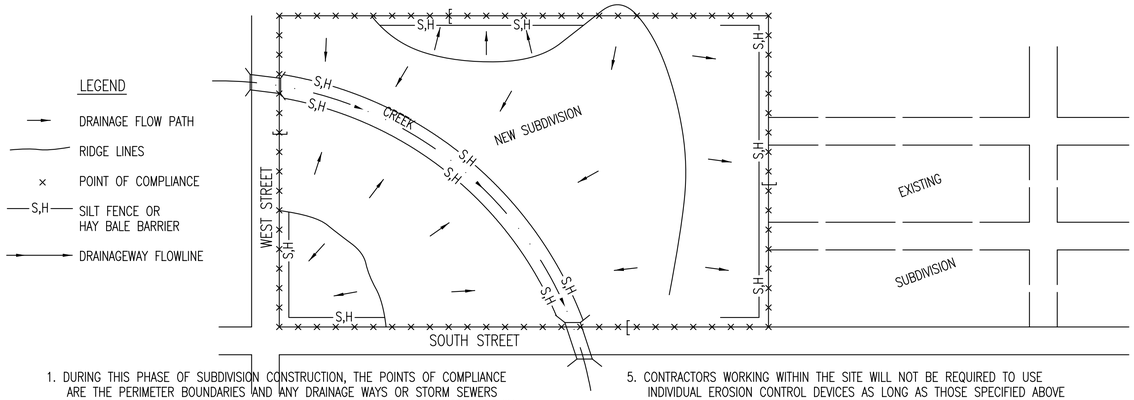
PROJECT NUMBER	OCA NUMBER	DATE

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

SHEET
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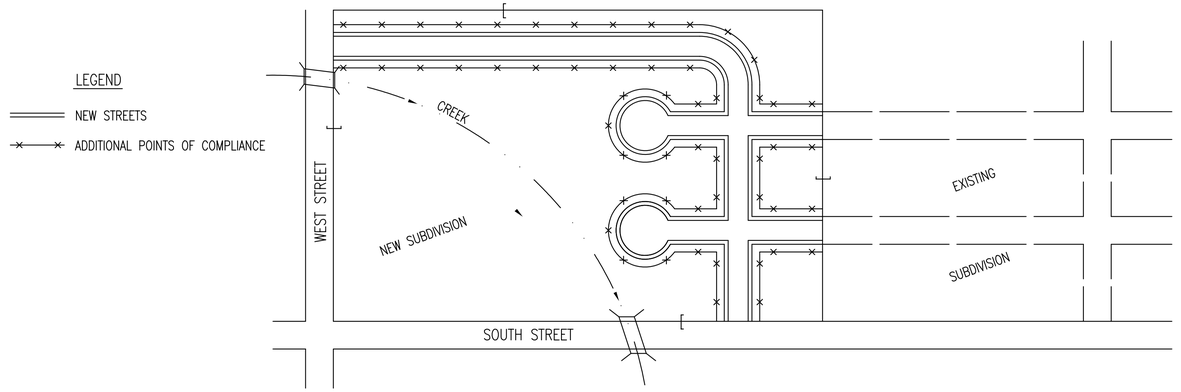
SW-504

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



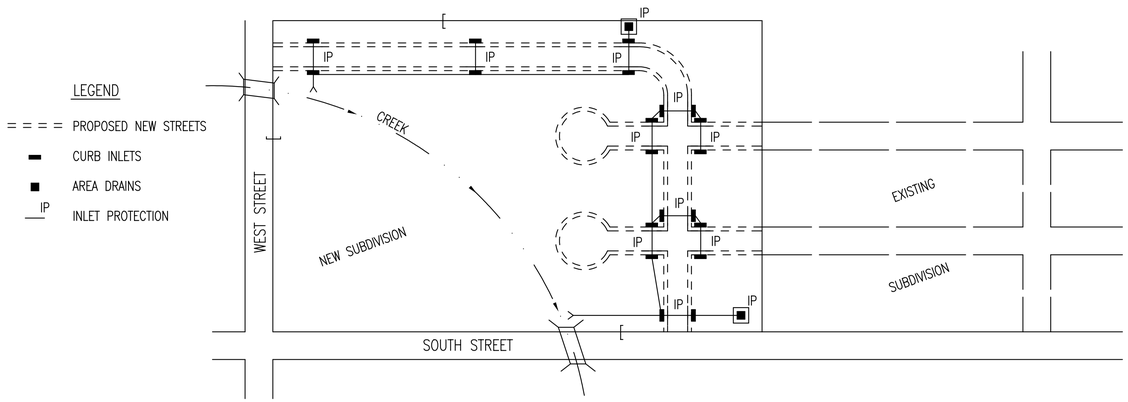
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2.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

PHASE 3 – STREET CONSTRUCTION



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

PHASE 2 – INSTALLATION OF STORM SEWER

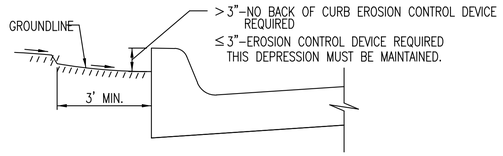


1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON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

GENERAL NOTES

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

SEE DETAIL SHEET FOR
BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL
(STREET CONSTRUCTION ONLY)

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

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SUBDIVISION DEVELOPMENT PROCESS

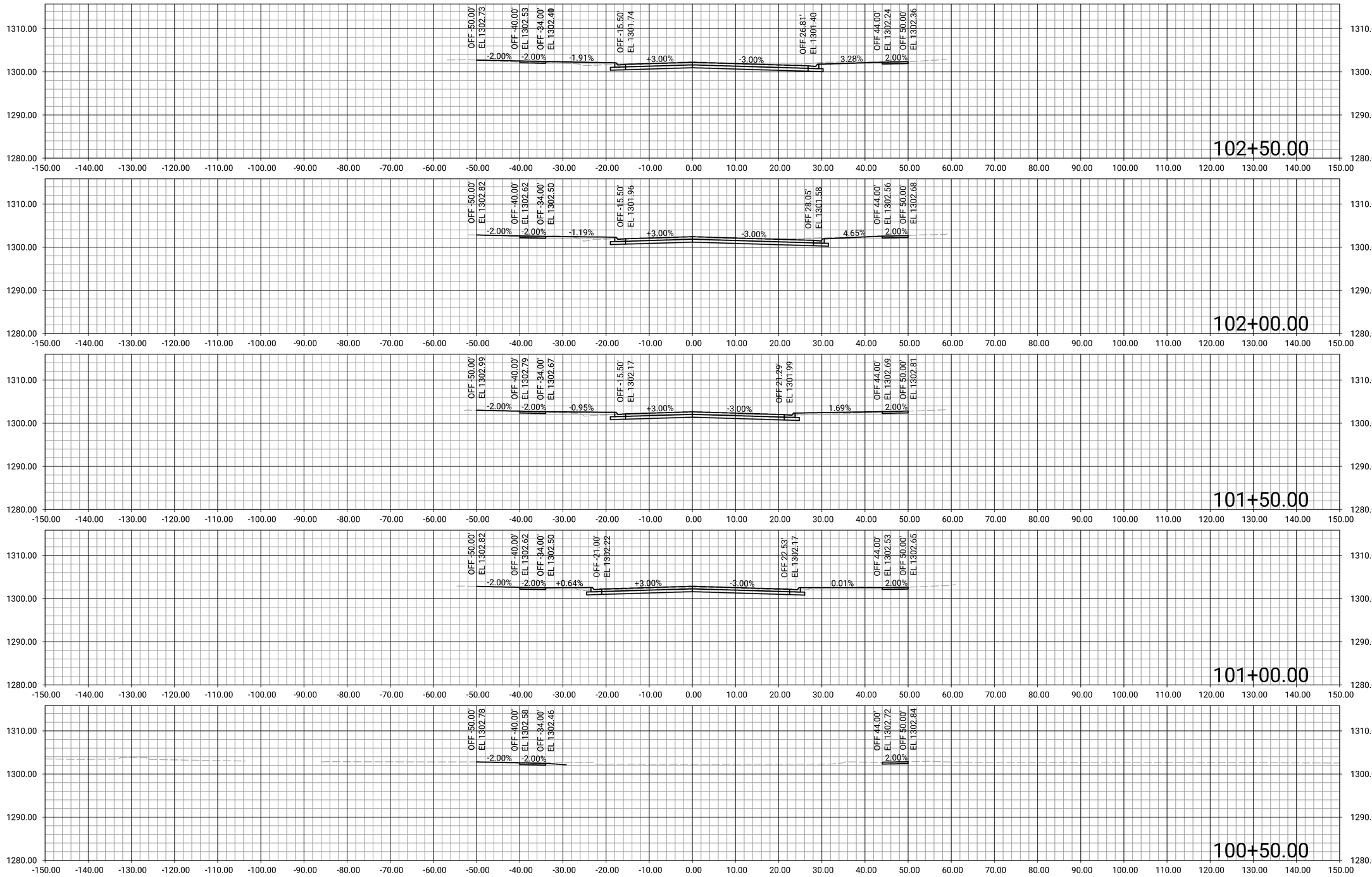
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

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CITY OF WICHITA

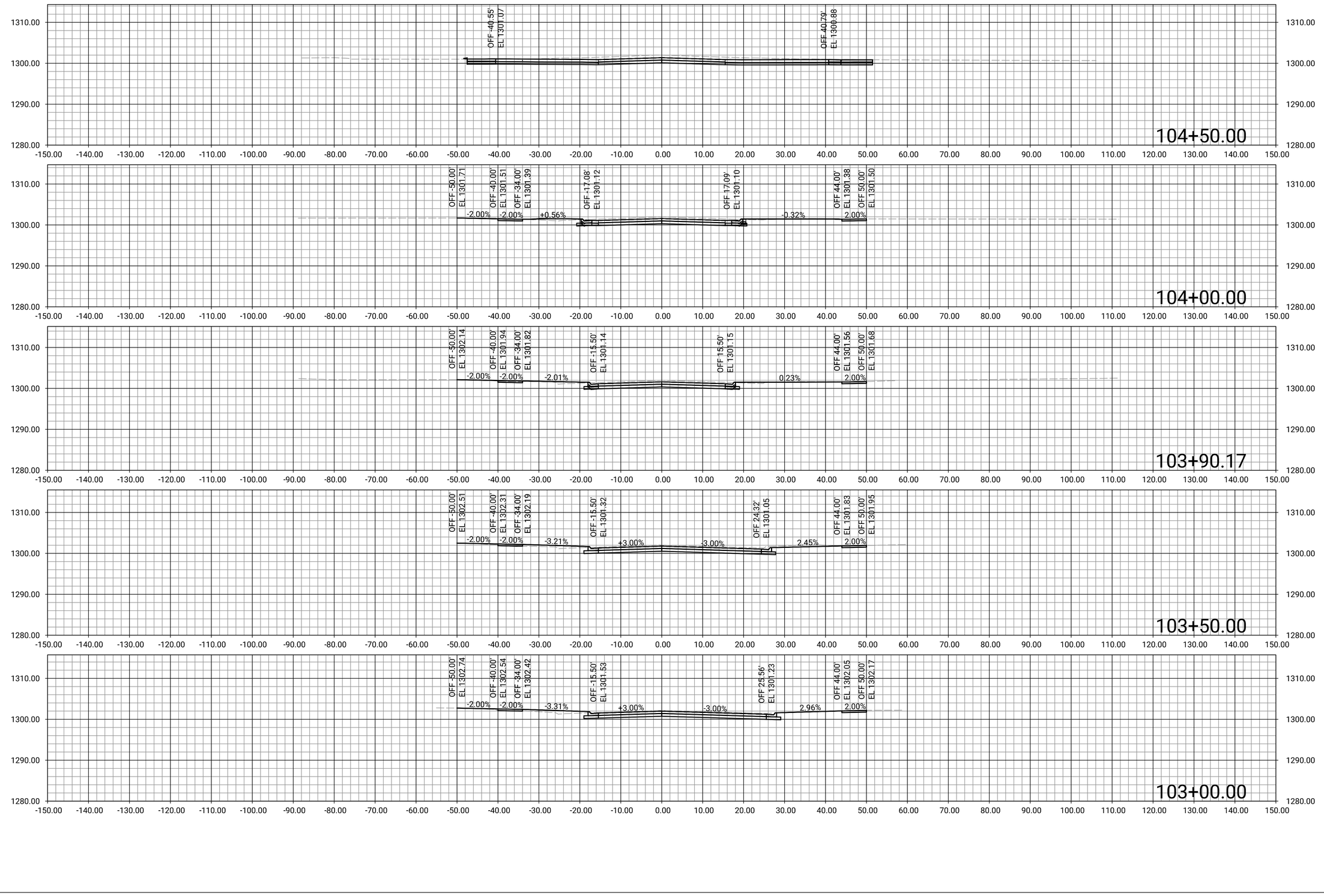
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DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS AVENUE CROSS SECTIONS

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

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CITY OF WICHITA

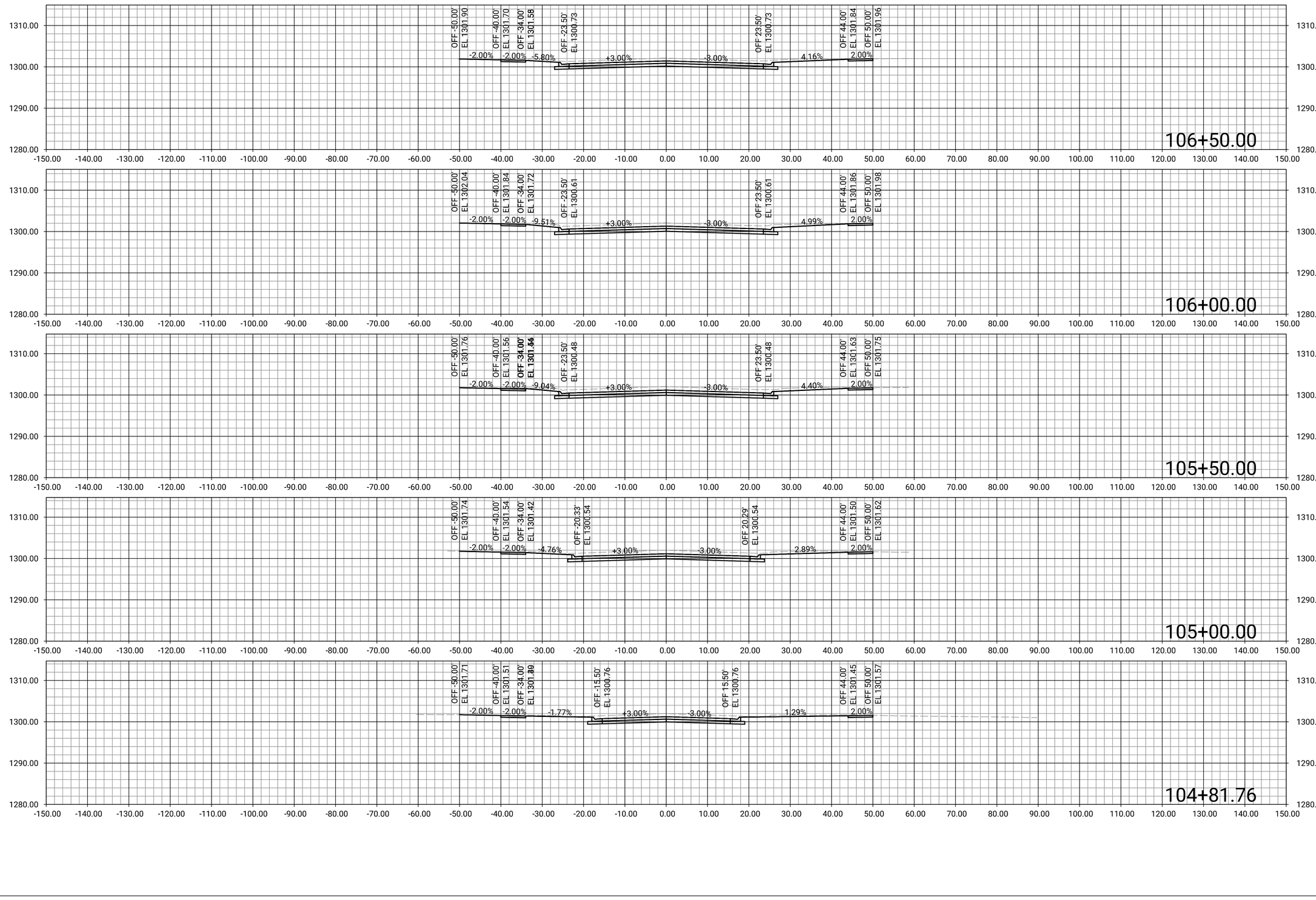
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CITY OF WICHITA

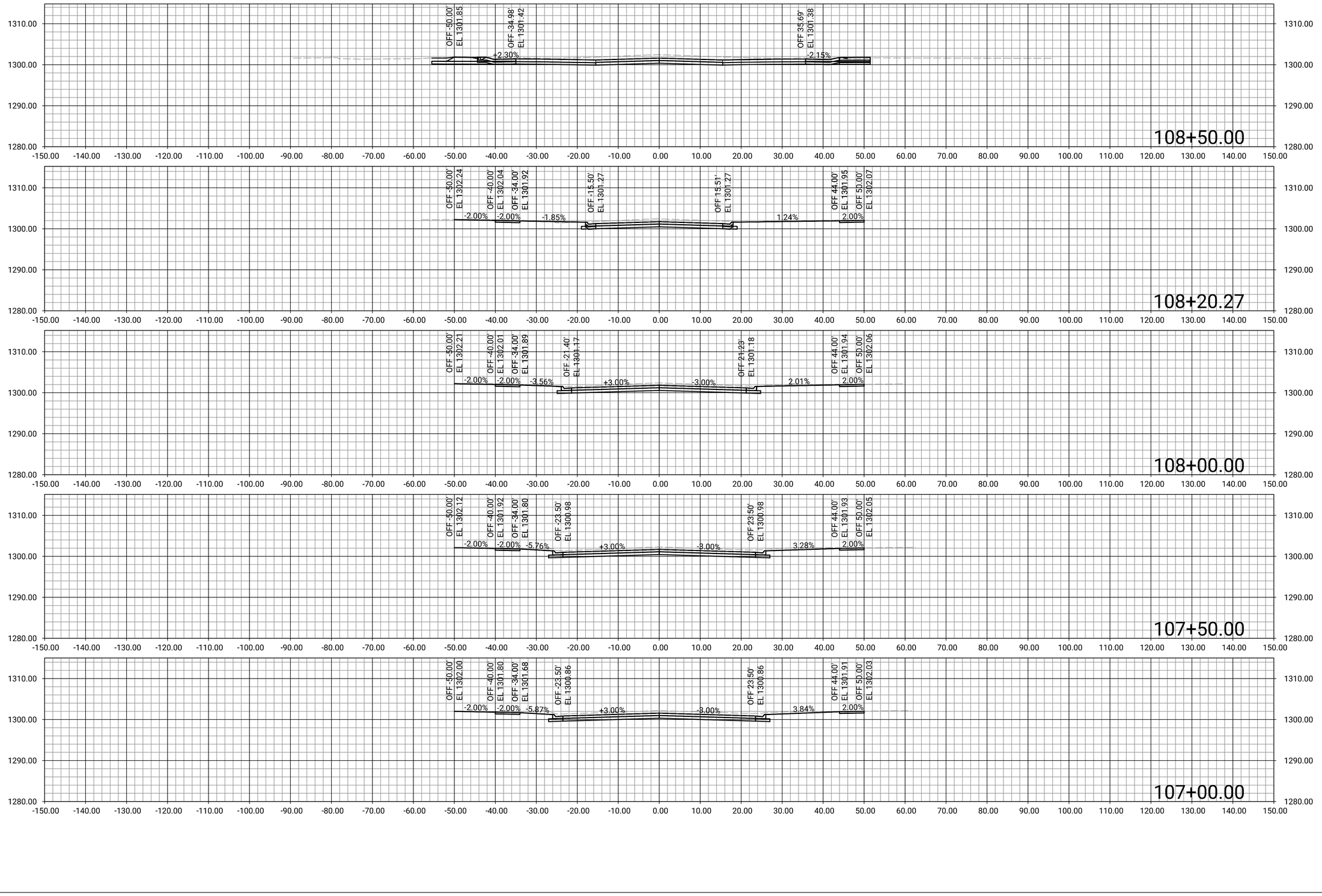
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CITY OF WICHITA

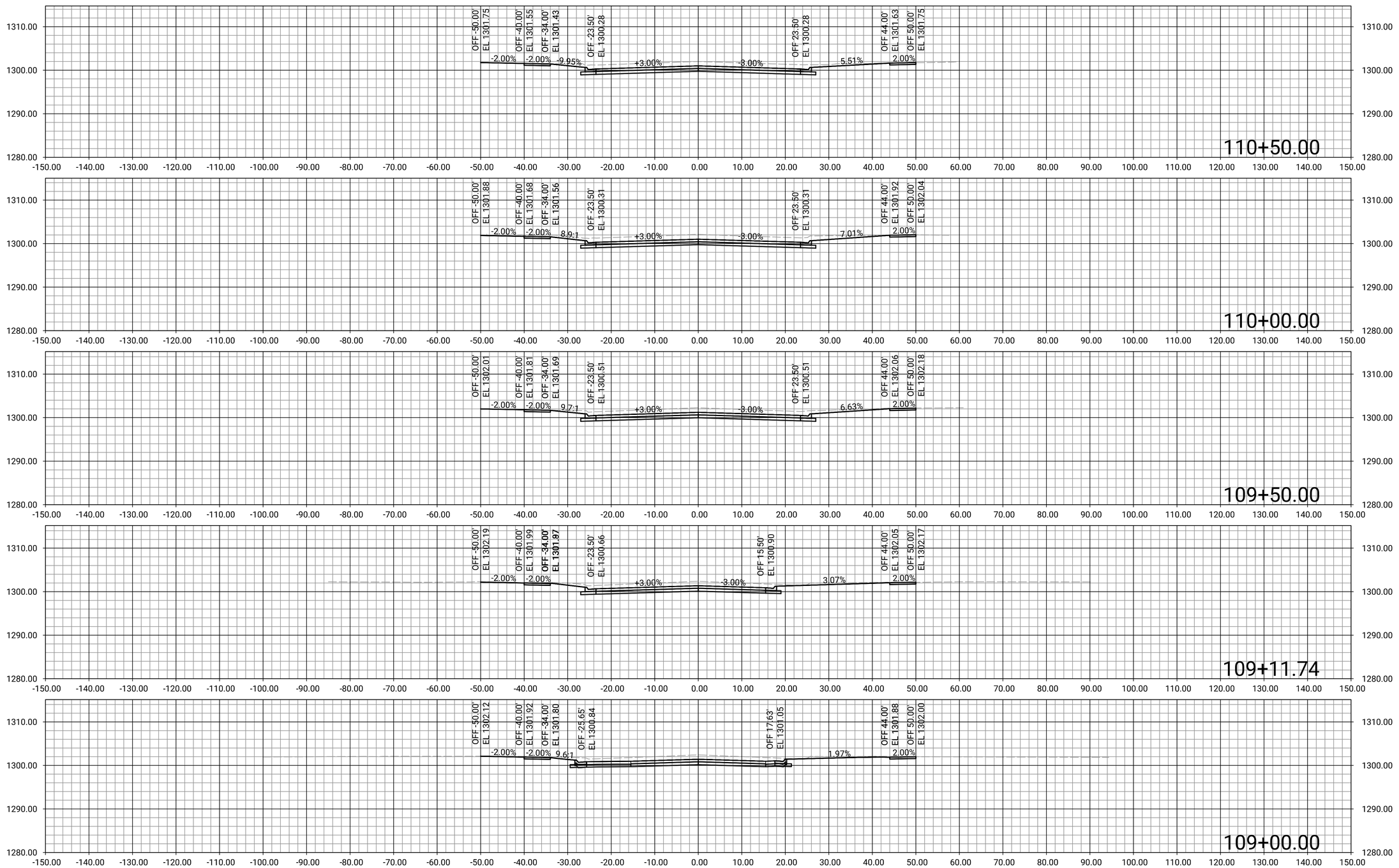
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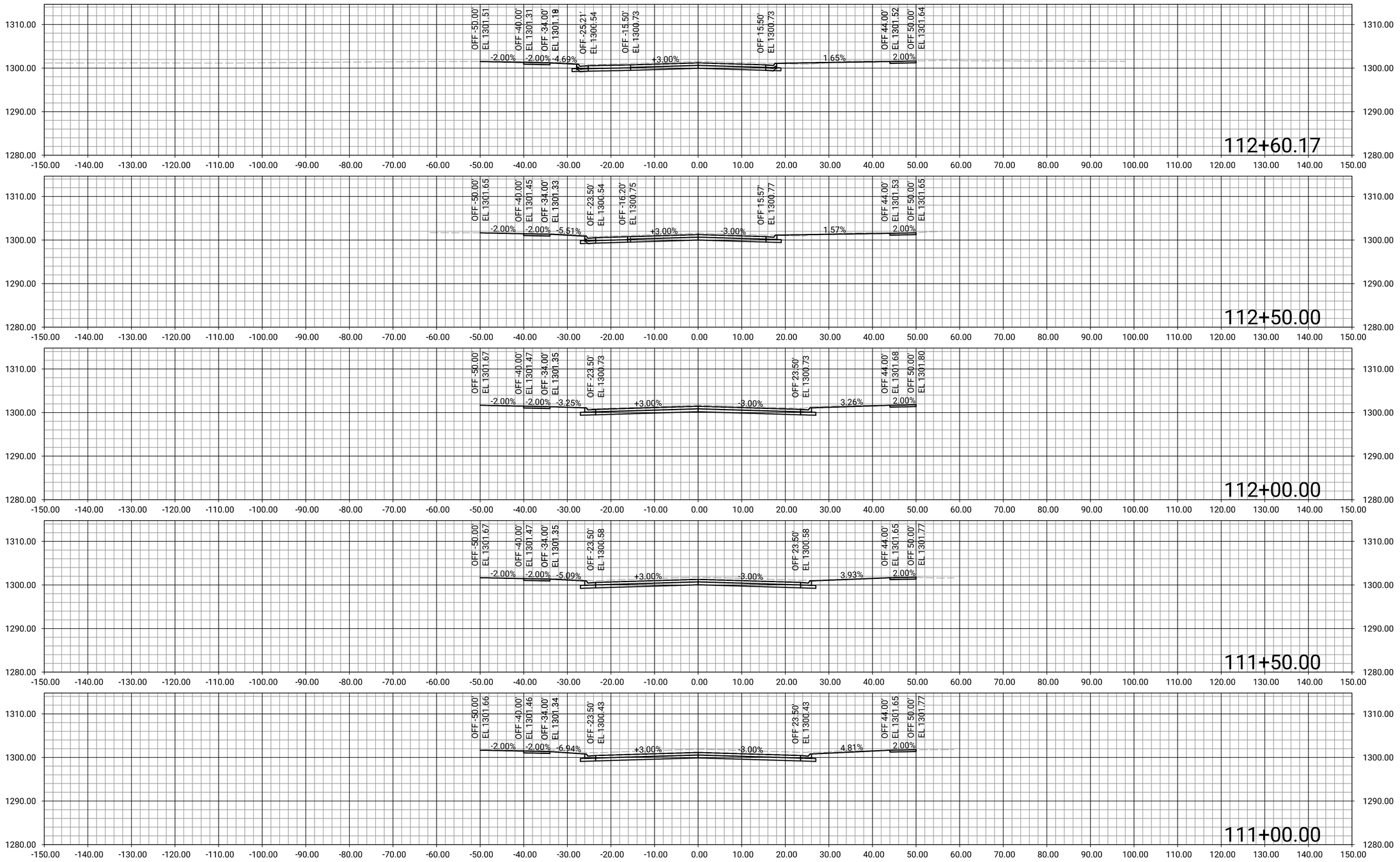
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CITY OF WICHITA

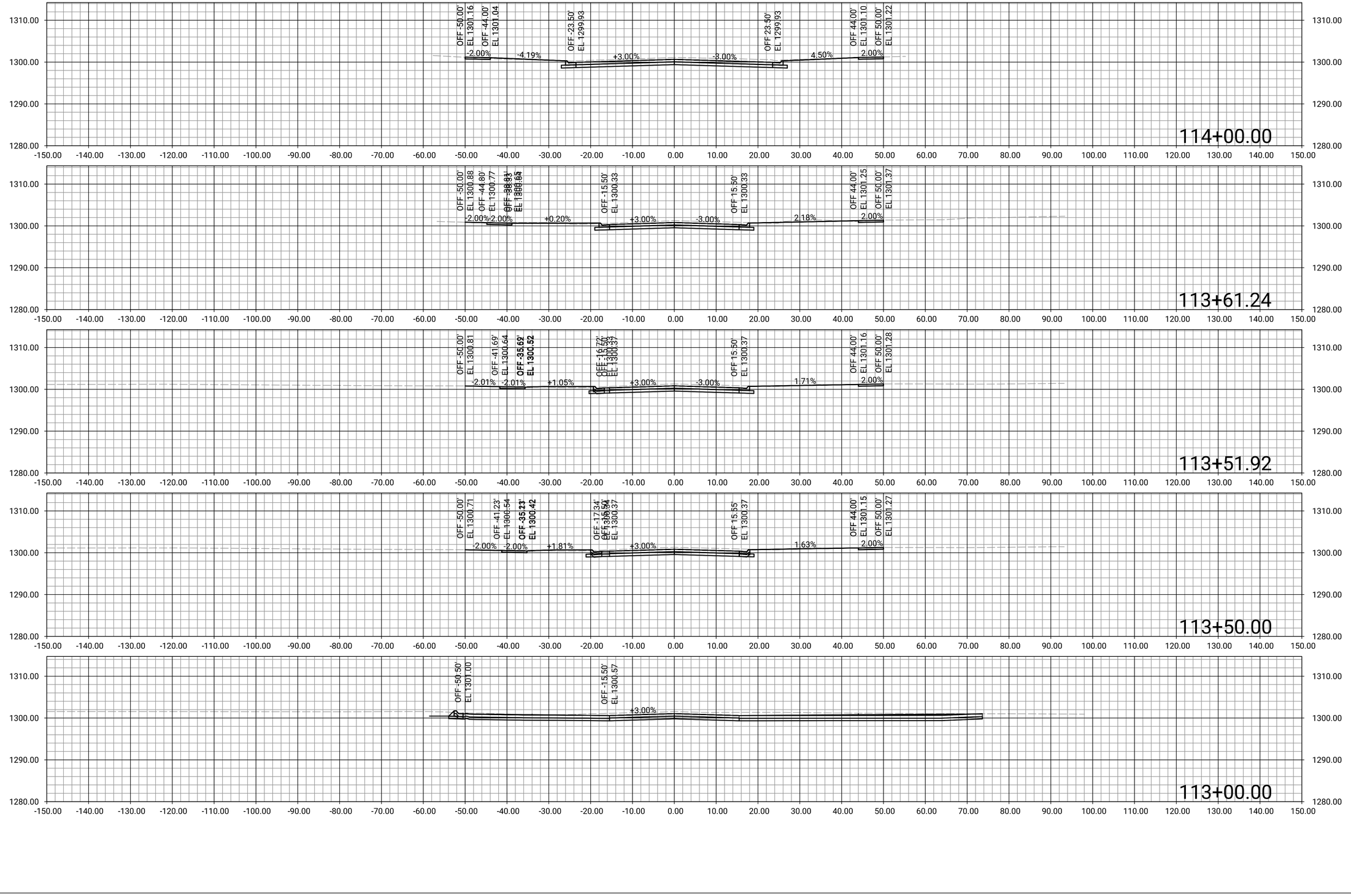
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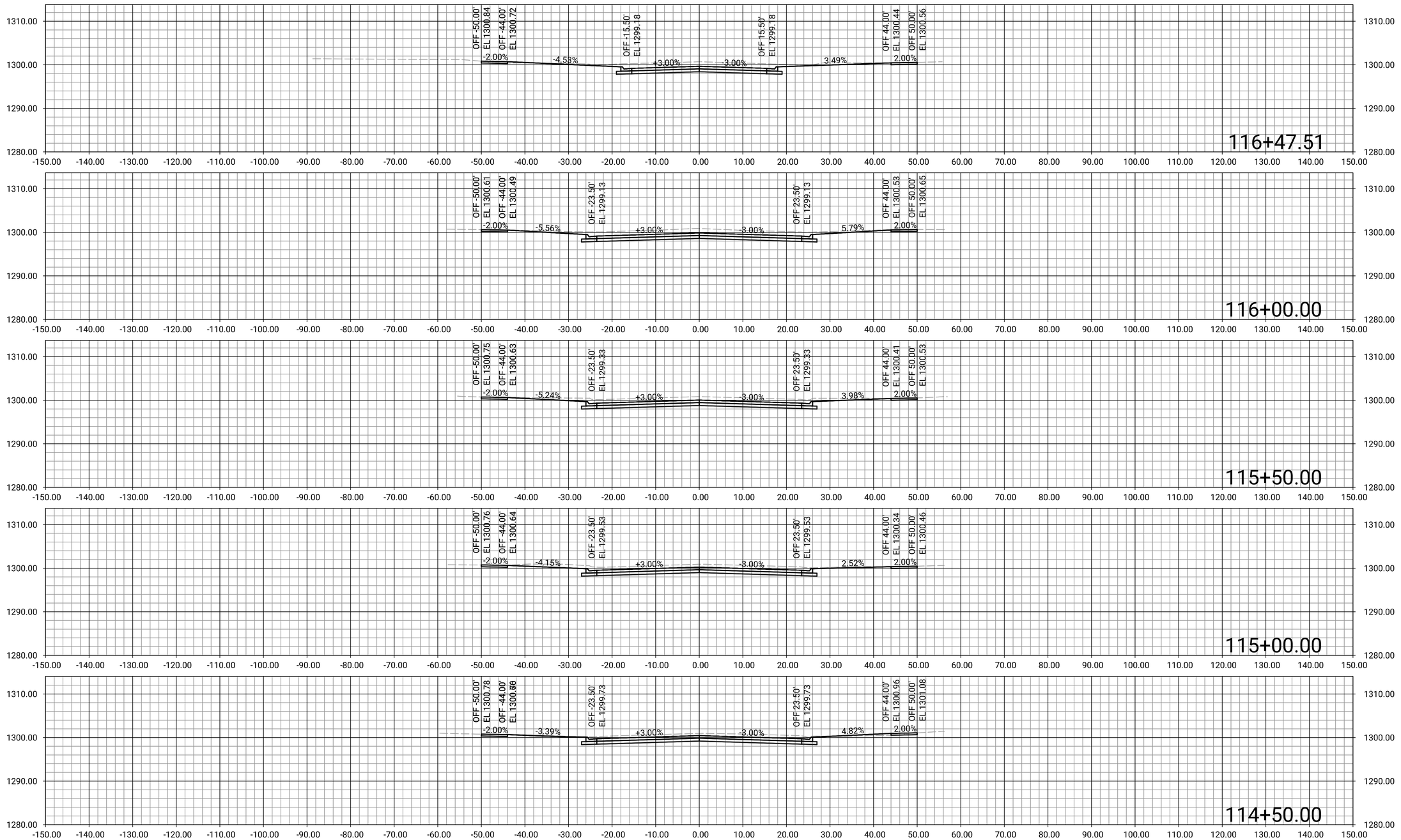


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CITY OF WICHITA

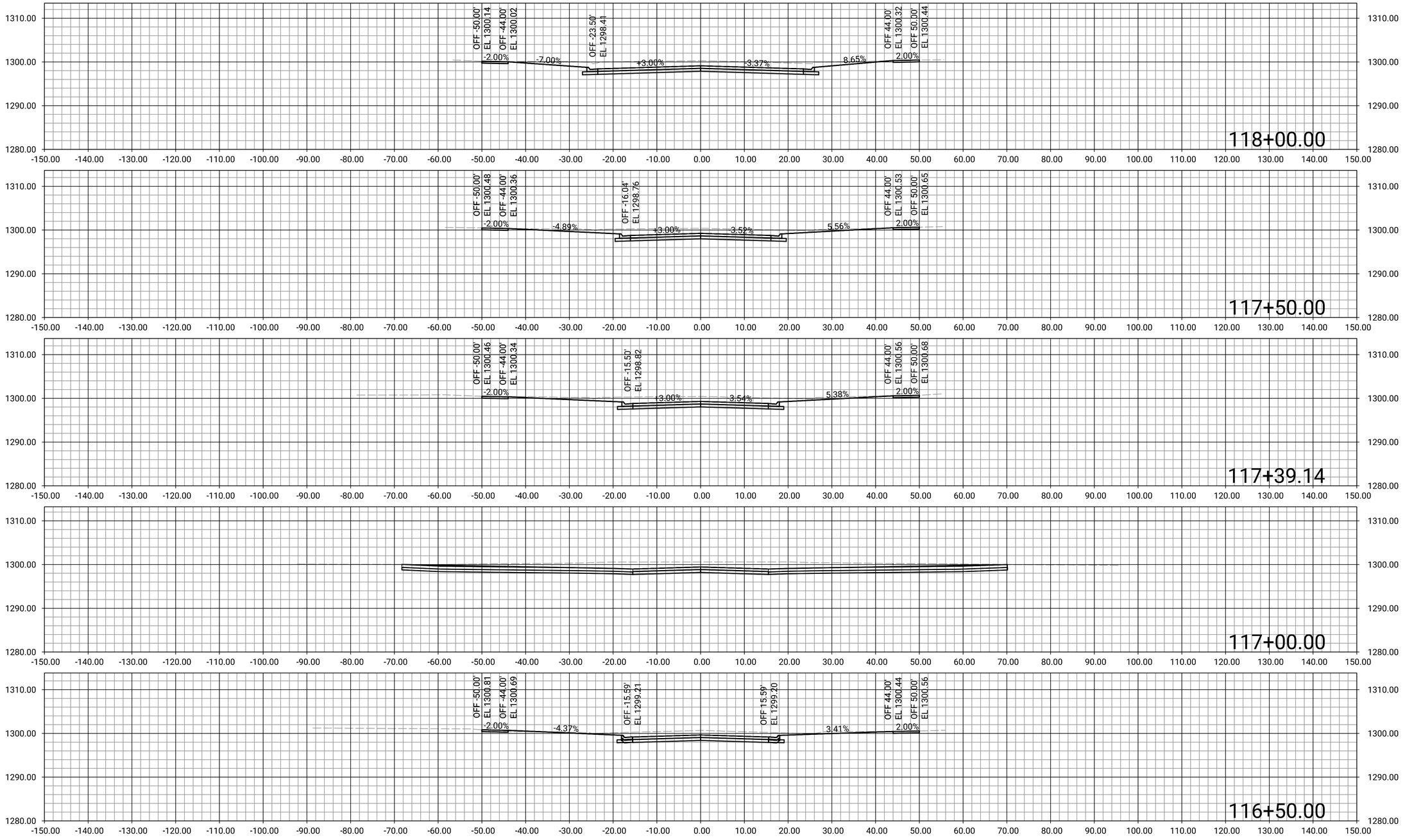
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CITY OF WICHITA

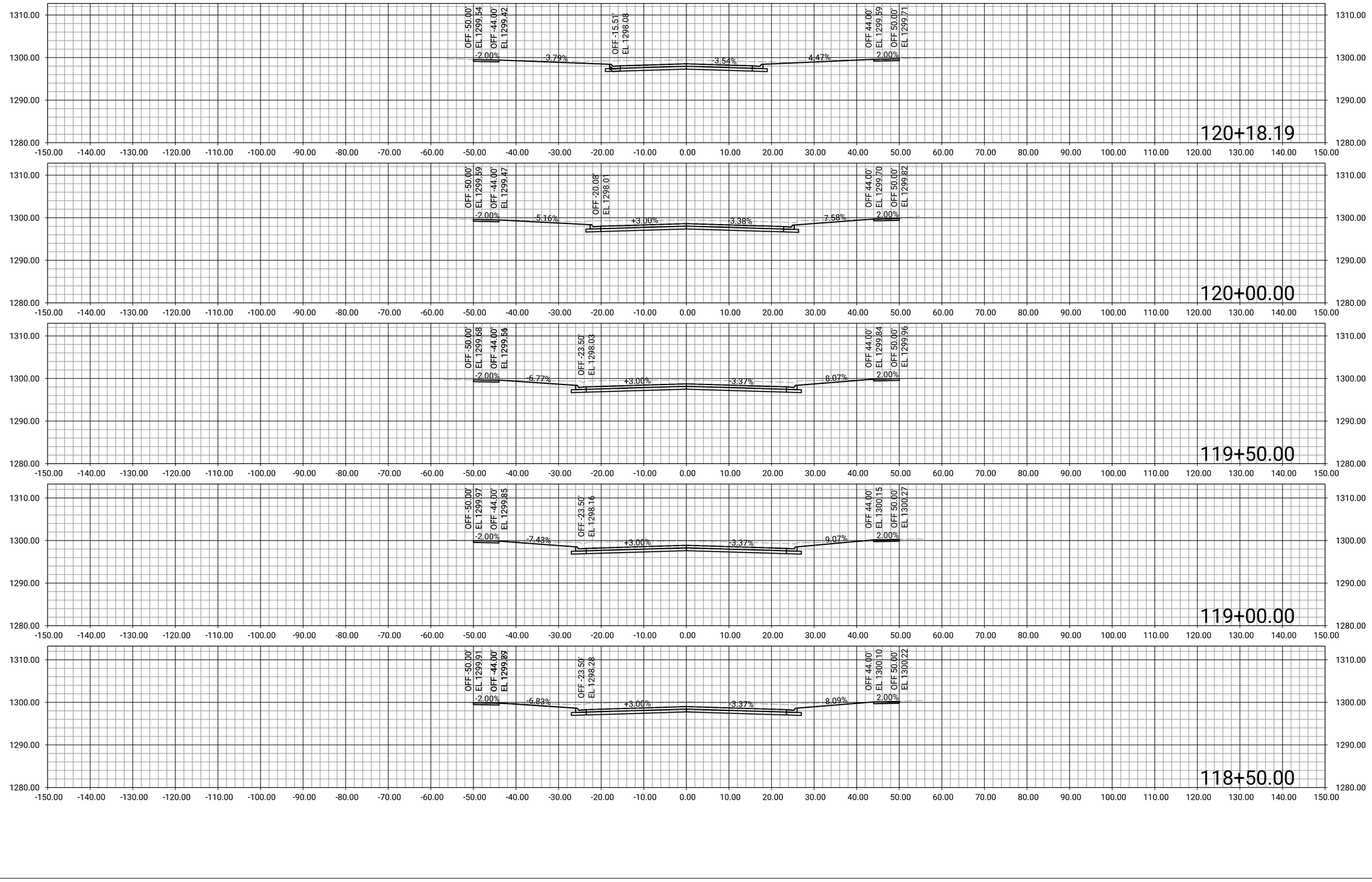
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CITY OF WICHITA

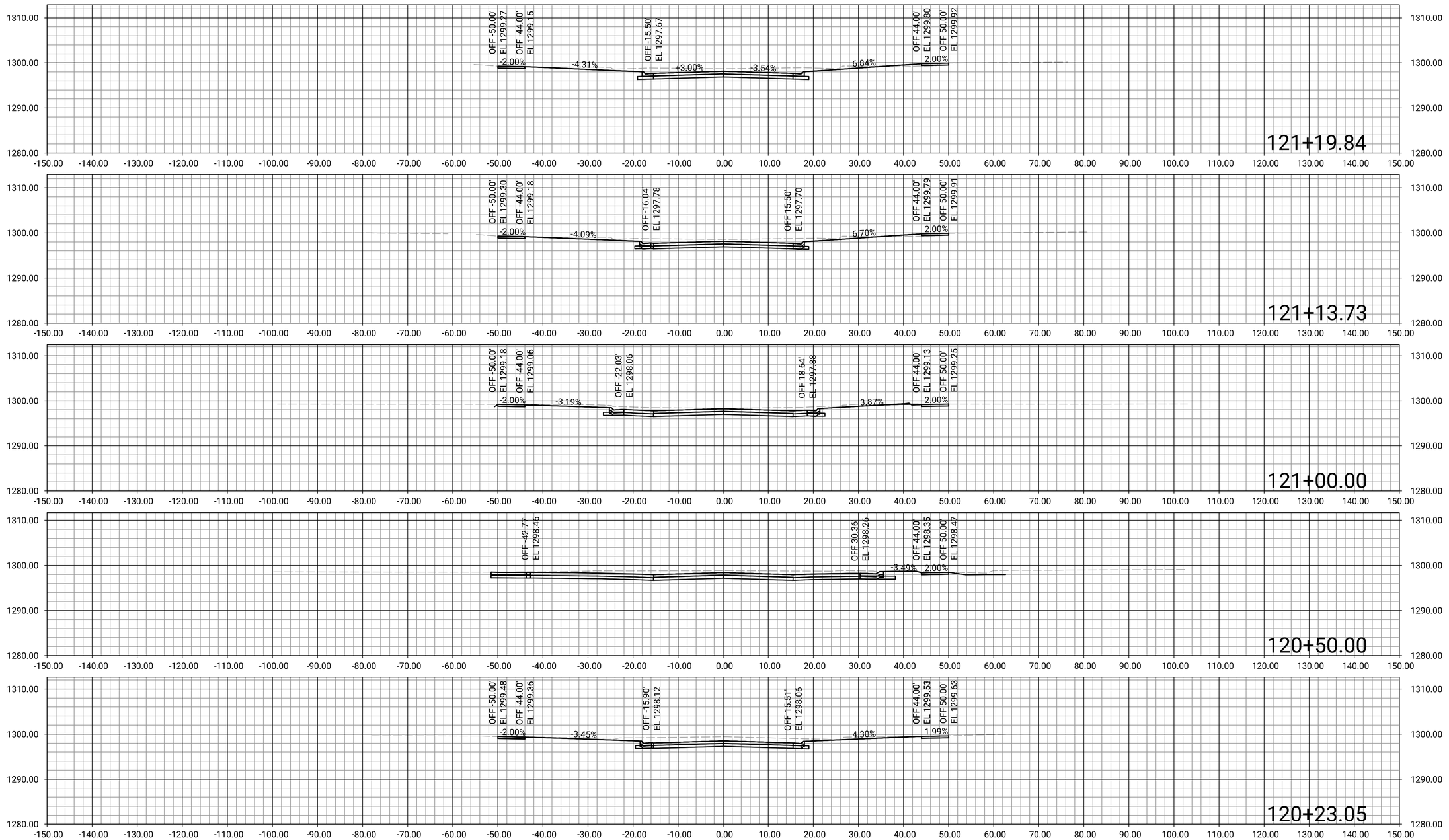
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DOUGLAS AVENUE - MERIDIAN TO SENECA
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CITY OF WICHITA

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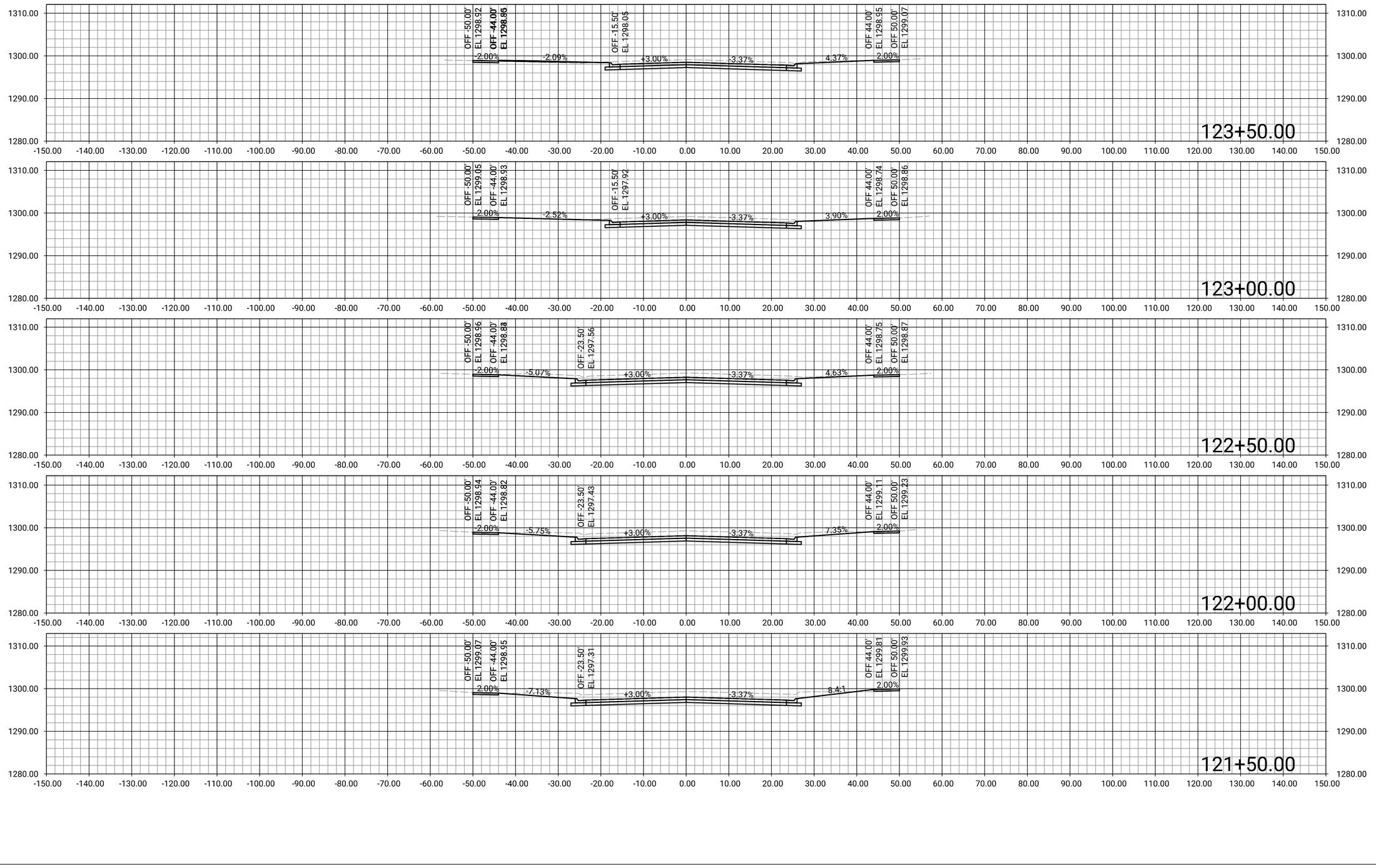
DOUGLAS AVENUE - MERIDIAN TO SENECA

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DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVENUE CROSS SECTIONS

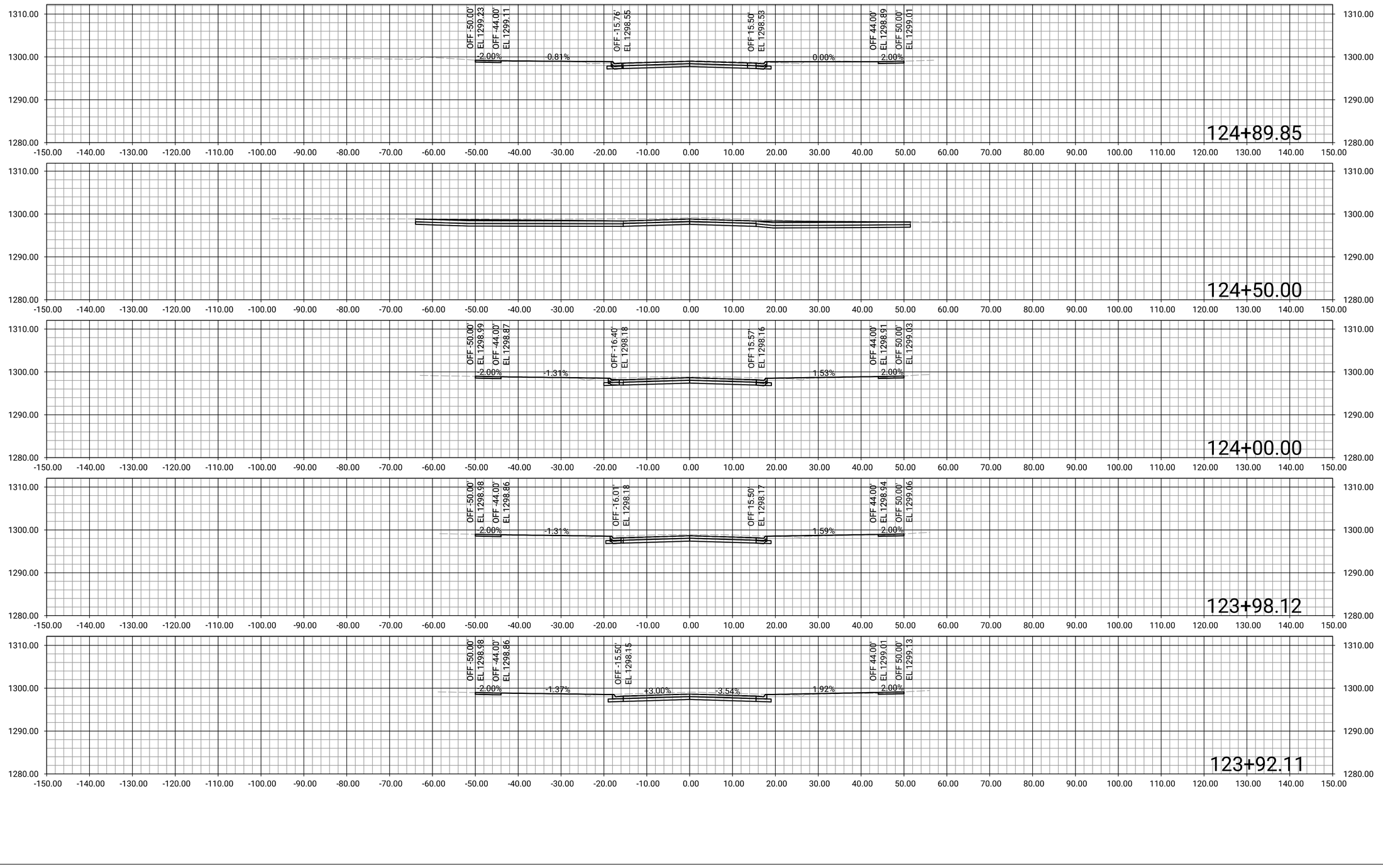
REVISIONS	DESCRIPTION	DATE	NO.

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SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

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CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

DOUGLAS AVENUE CROSS SECTIONS

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CITY OF WICHITA

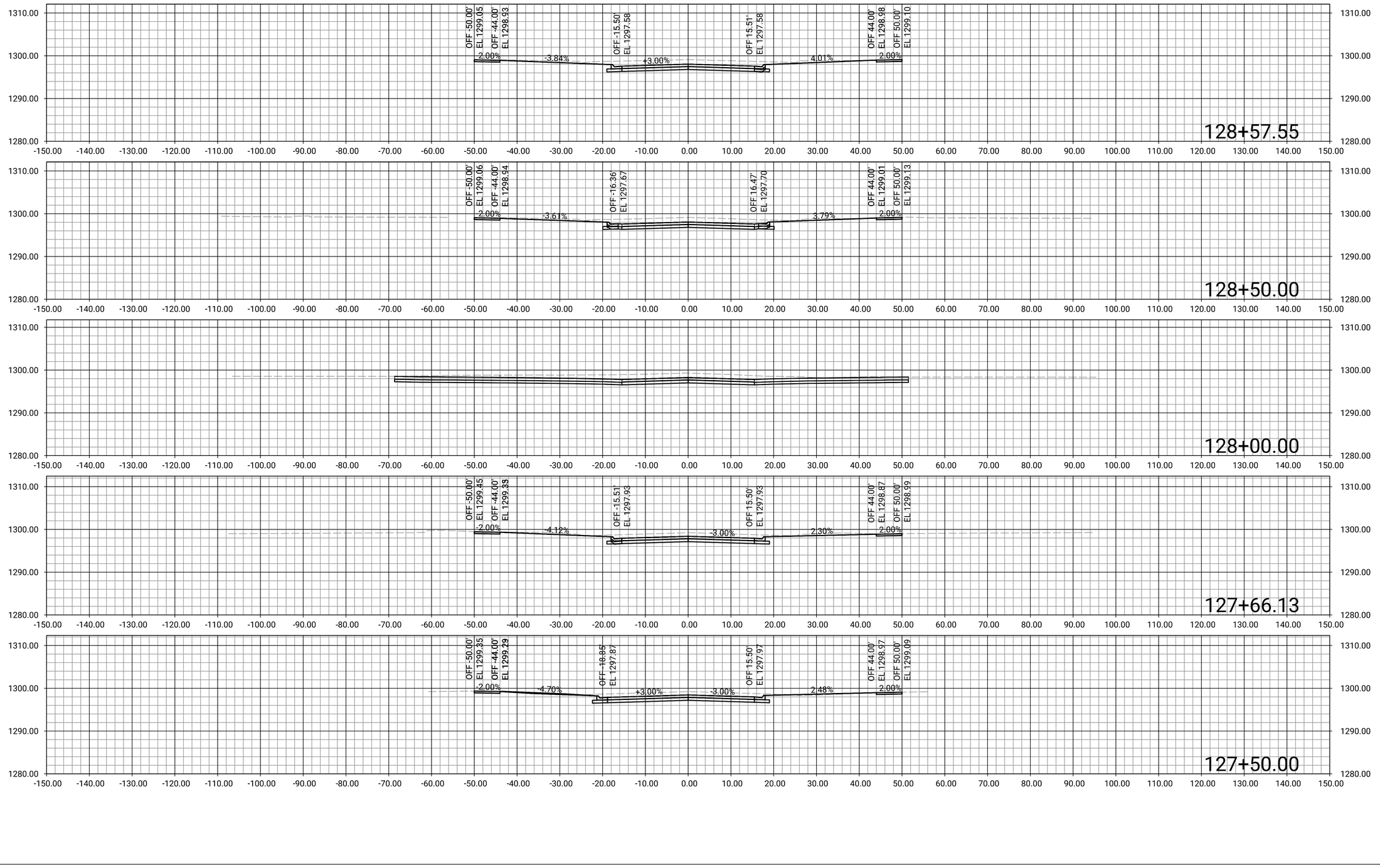
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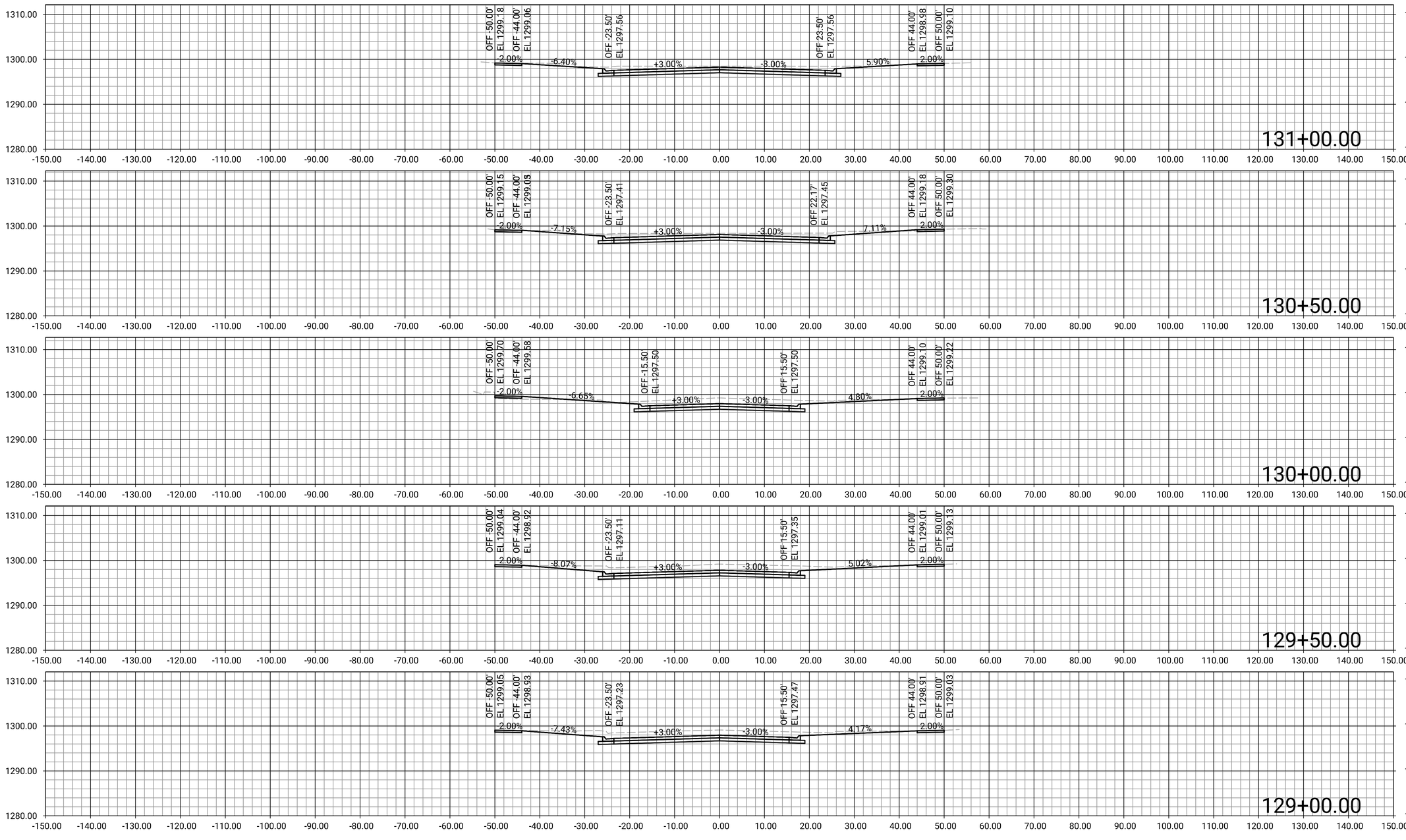
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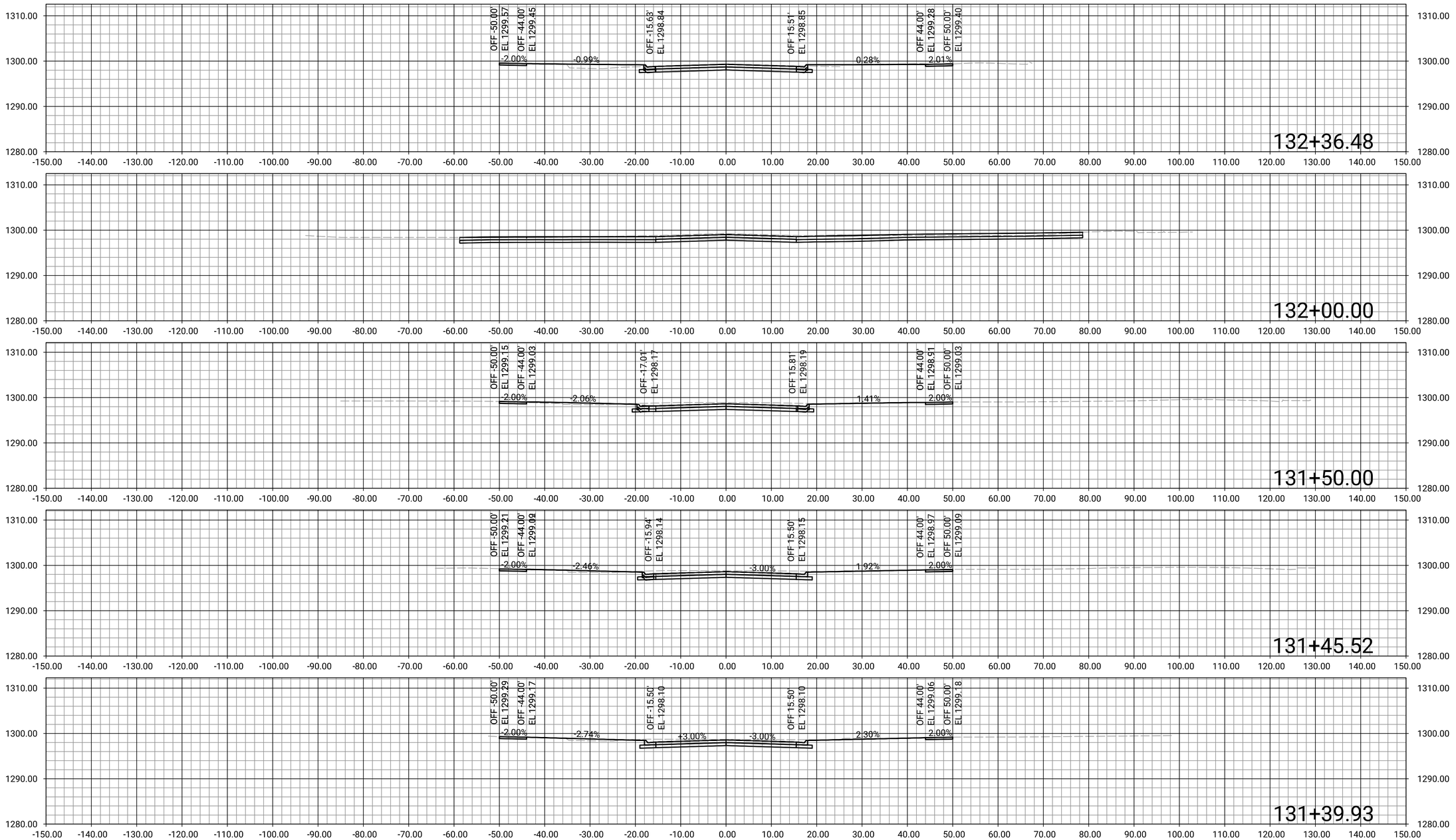
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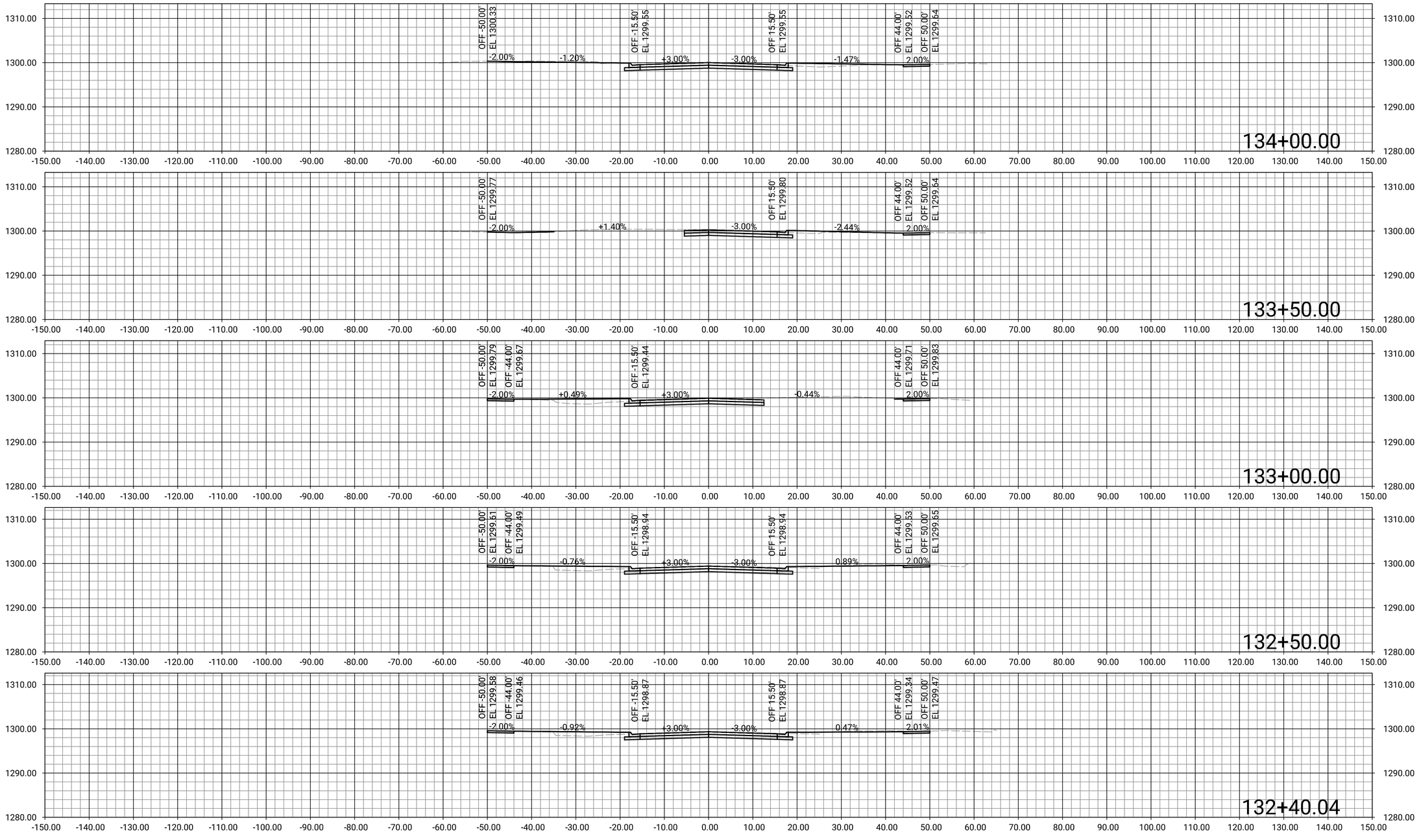
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CITY OF WICHITA

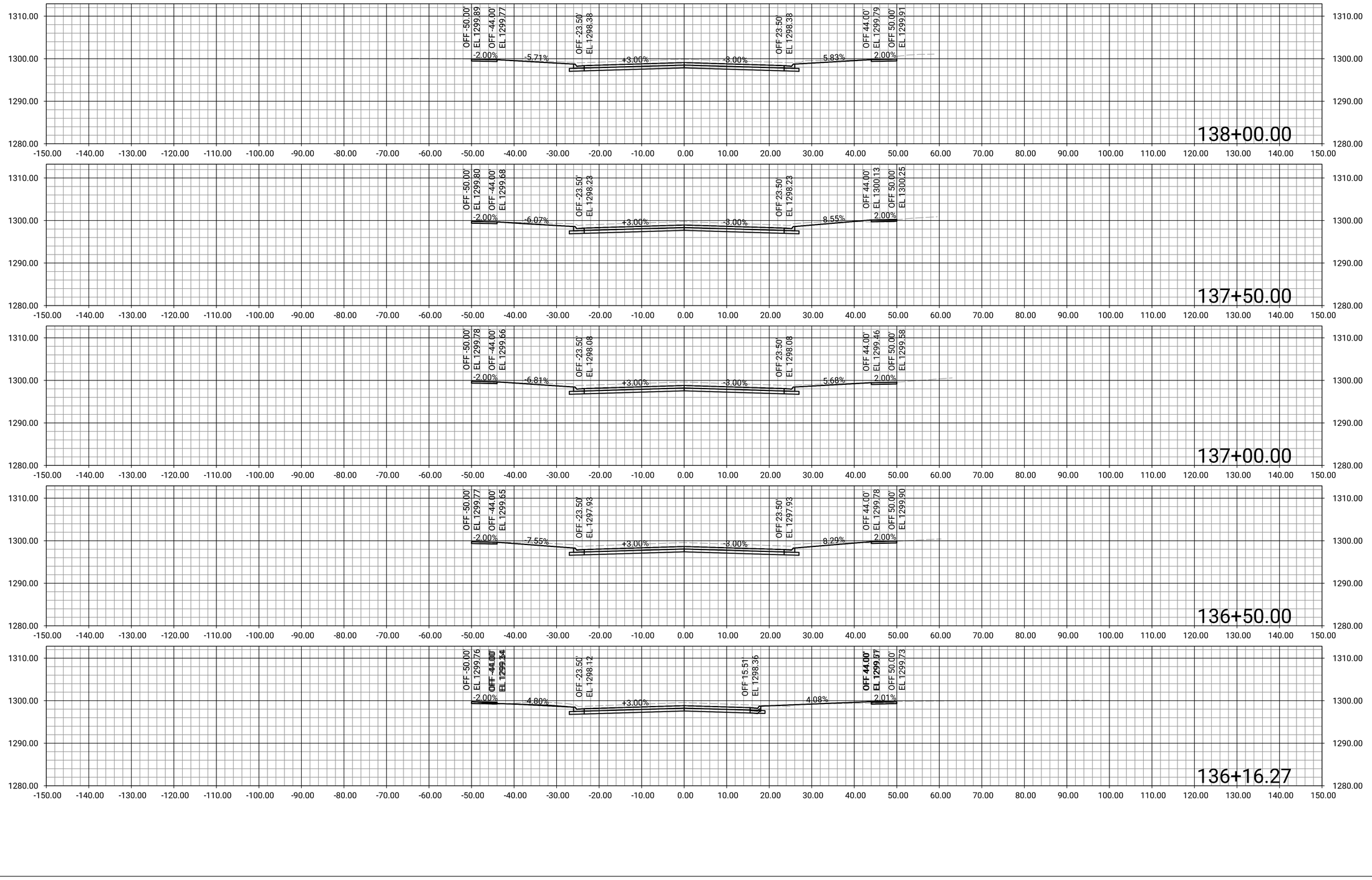
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DOUGLAS AVENUE CROSS SECTIONS

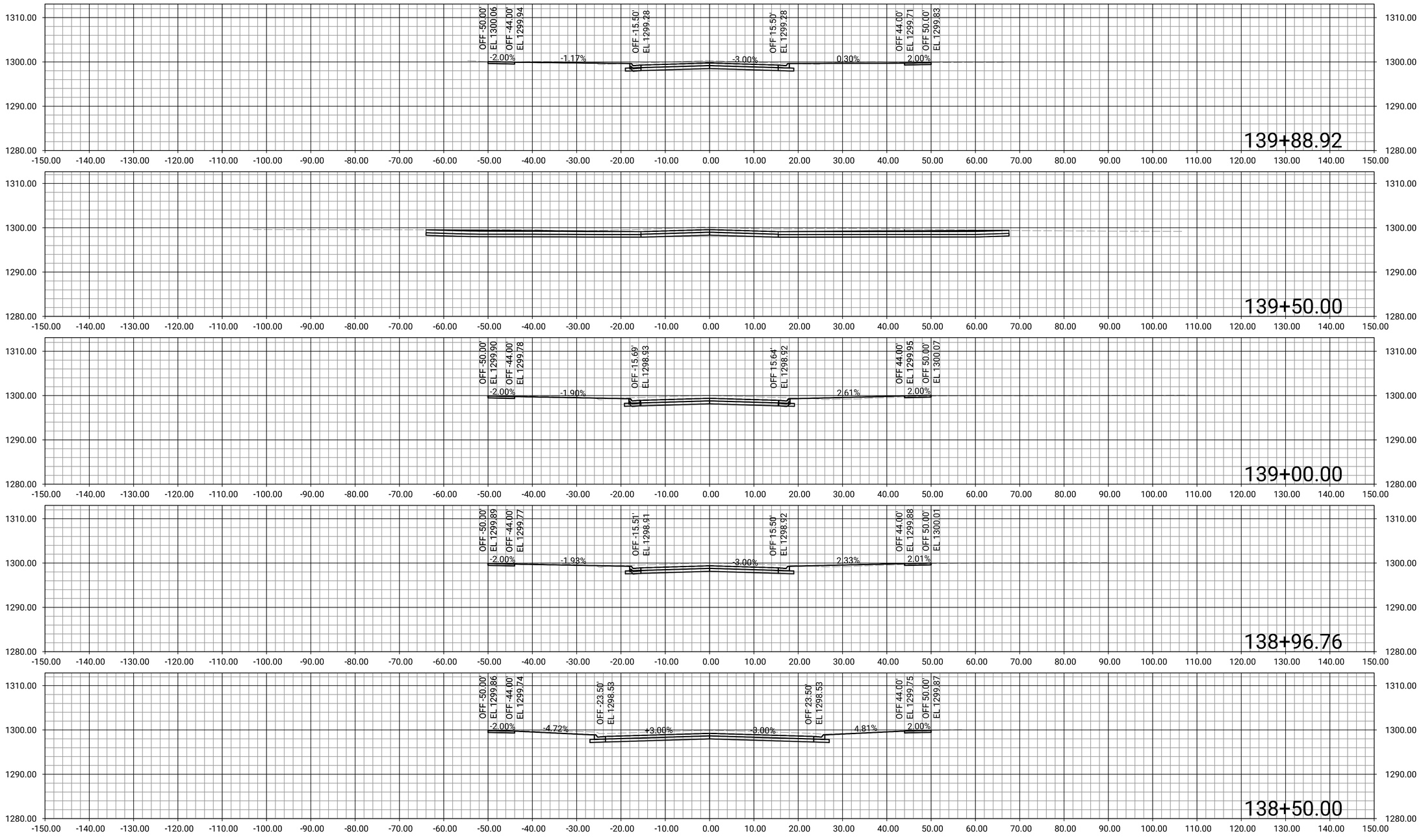
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DOUGLAS AVENUE - MERIDIAN TO SENECA
DOUGLAS AVENUE
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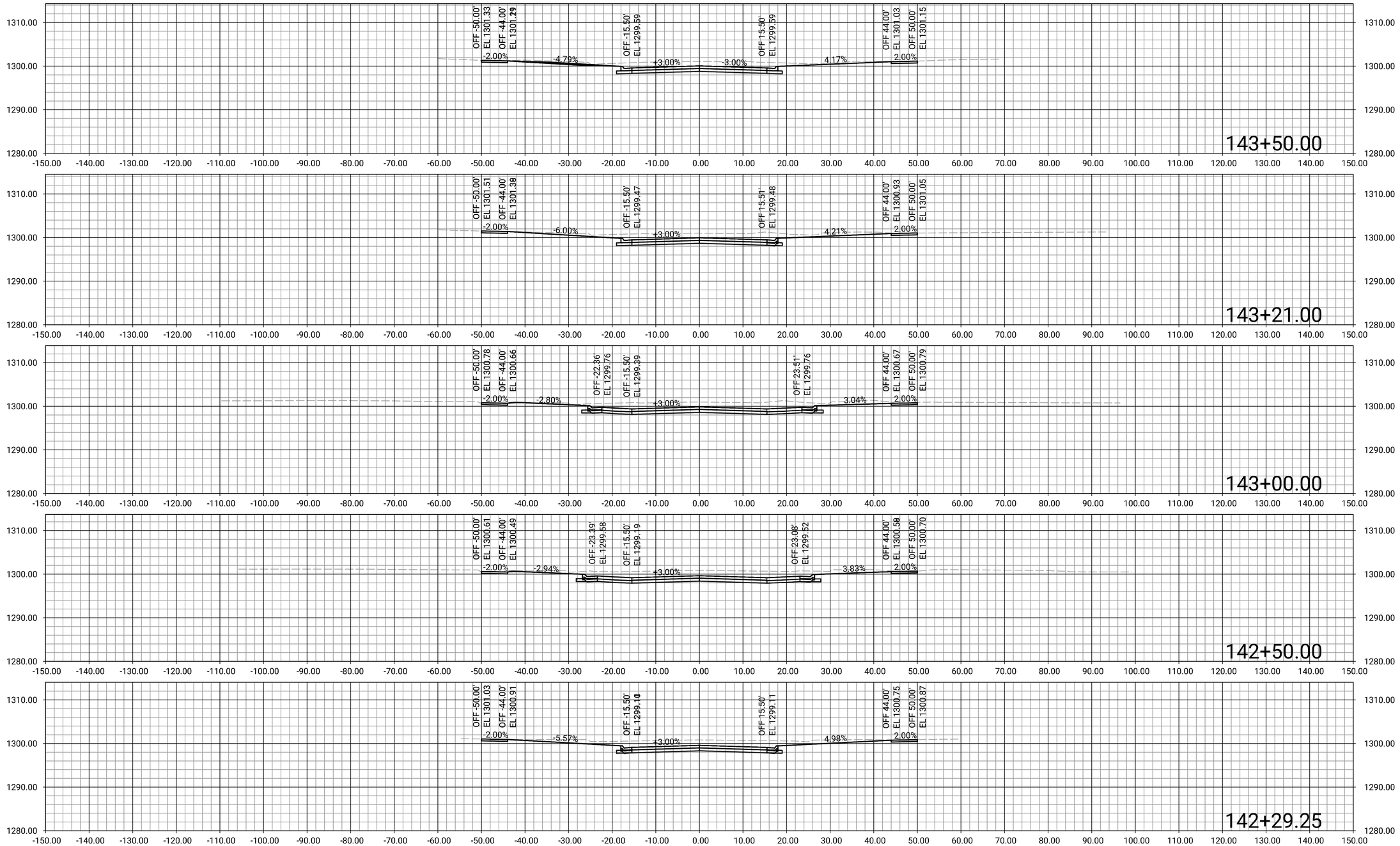
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CITY OF WICHITA

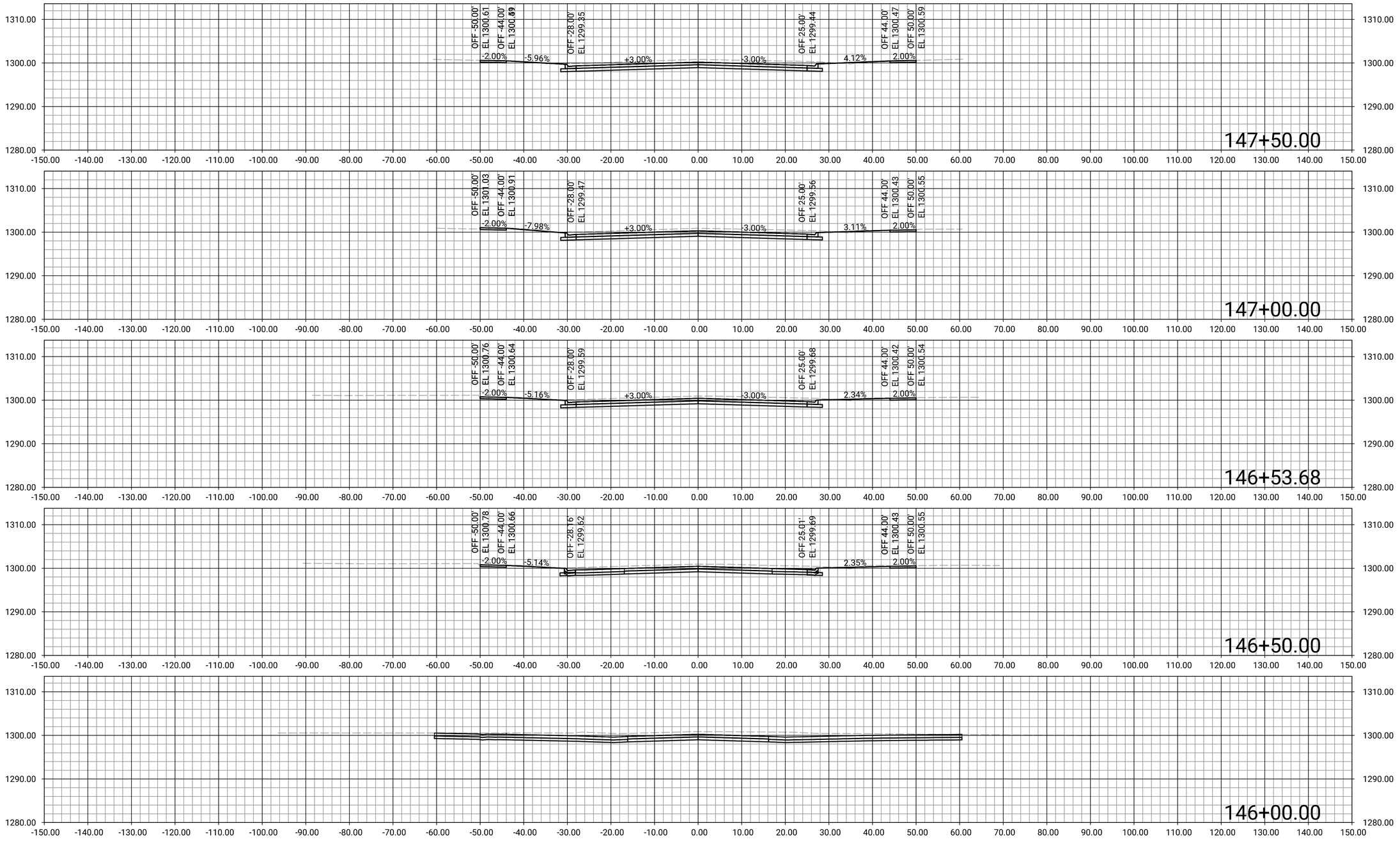
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CITY OF WICHITA

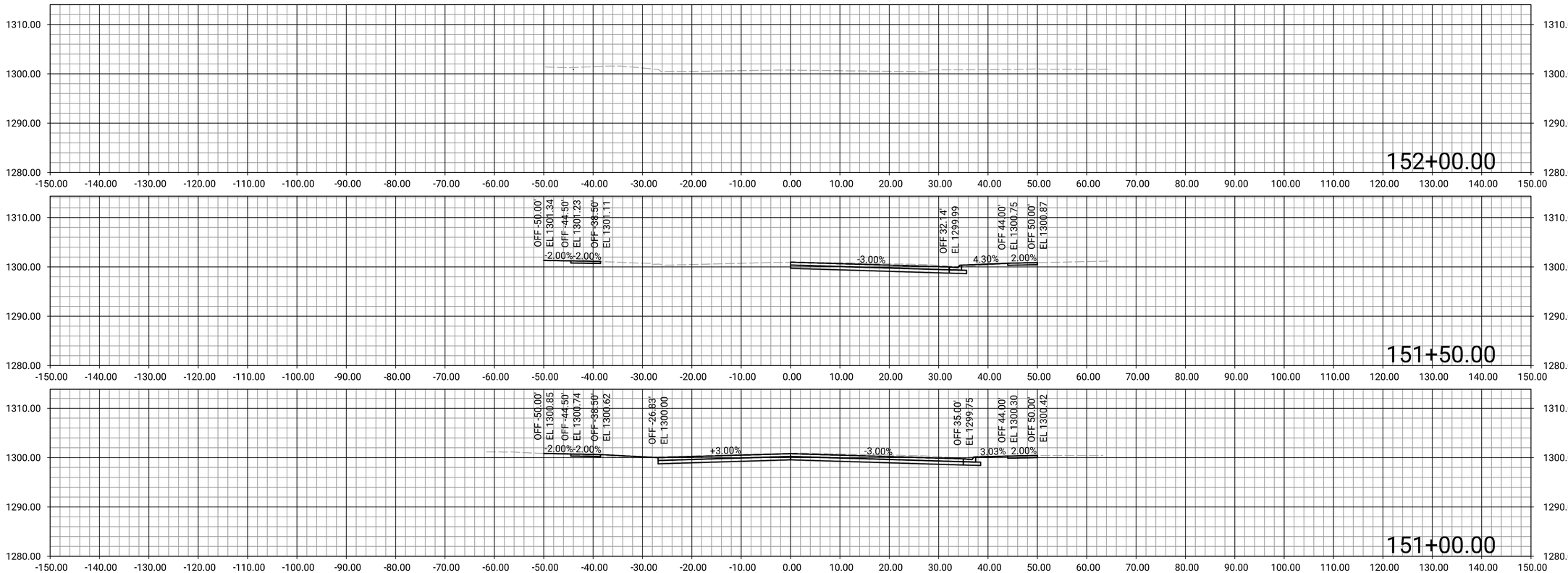
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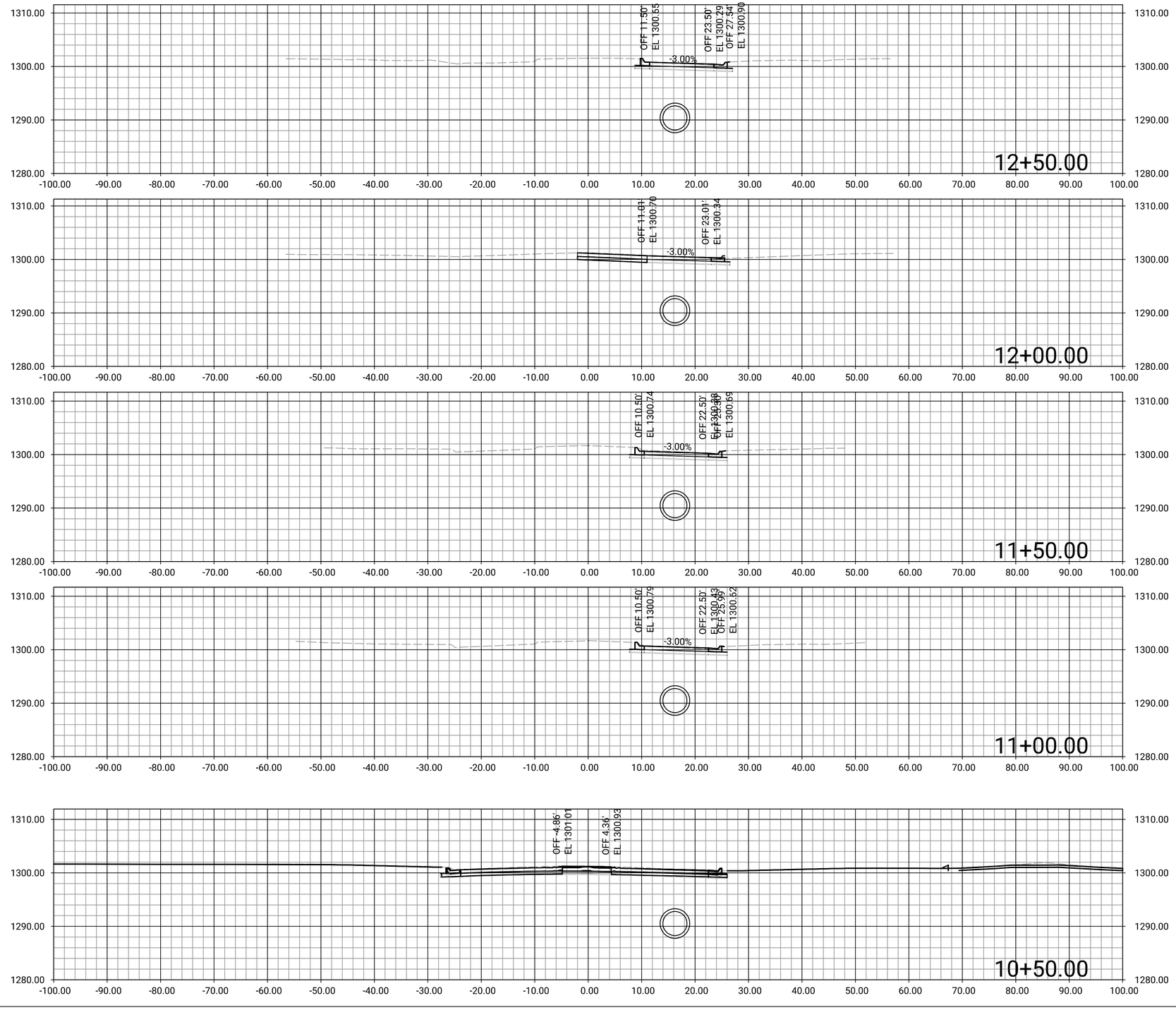
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CITY OF WICHITA

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DOUGLAS AVENUE - MERIDIAN TO SENECA

ATHENIAN CROSS SECTIONS

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
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-	-	-
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-	-	-

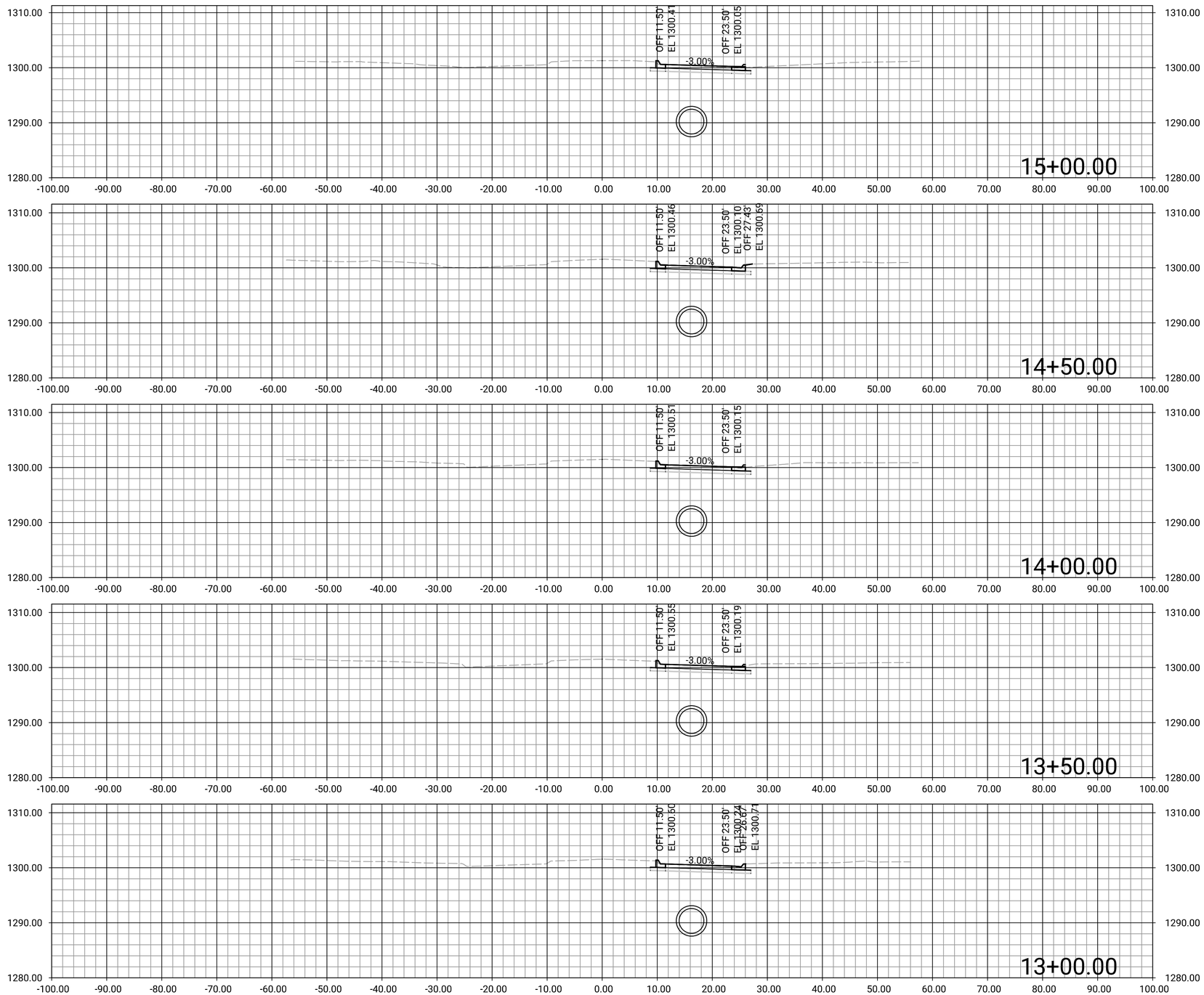
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CITY OF WICHITA

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DOUGLAS AVENUE - MERIDIAN TO SENECA

ATHENIAN CROSS SECTIONS

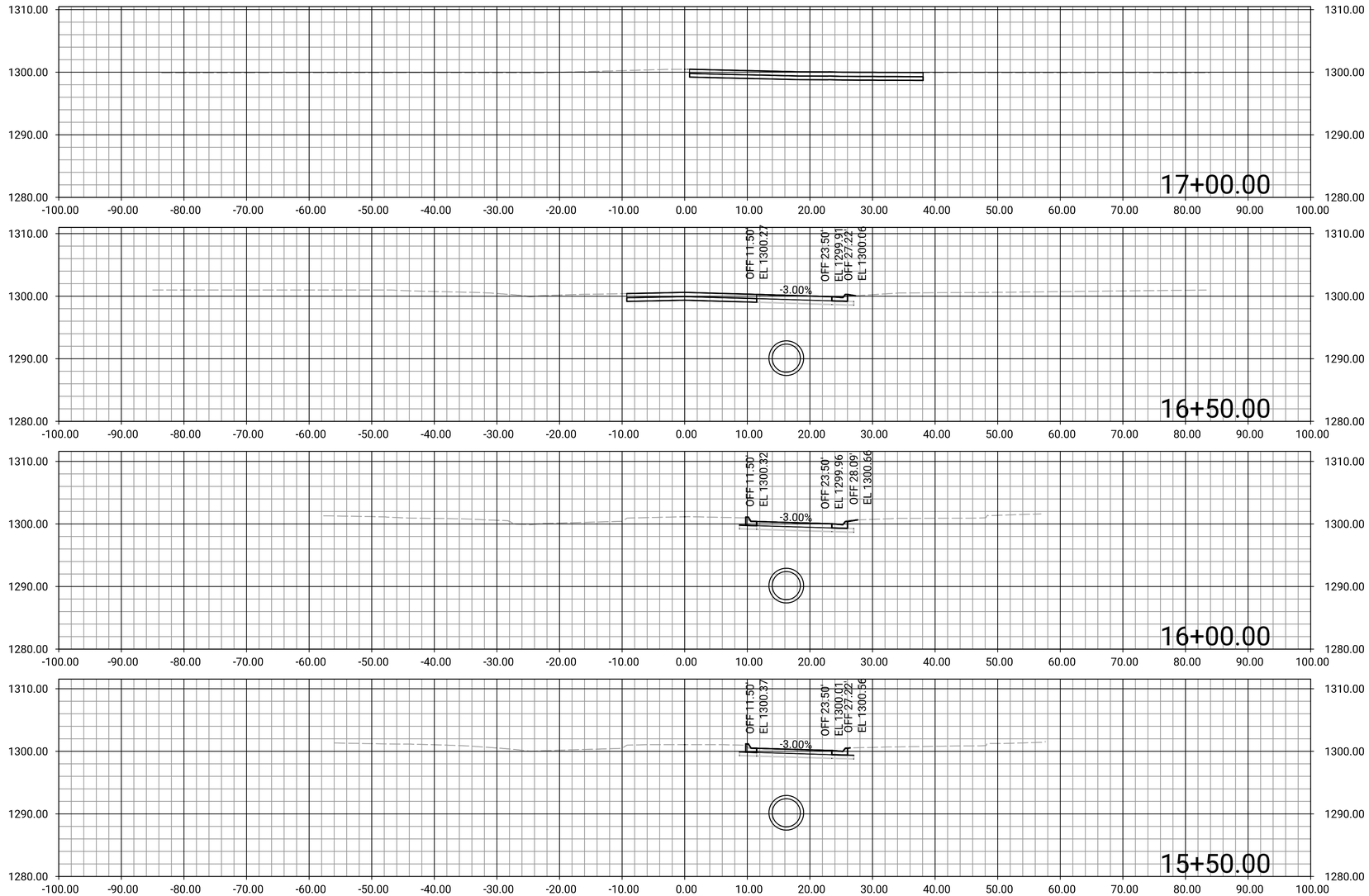
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CITY OF WICHITA

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DOUGLAS AVENUE - MERIDIAN TO SENECA

ATHENIAN CROSS SECTIONS

NO.	DATE	DESCRIPTION
REVISIONS		

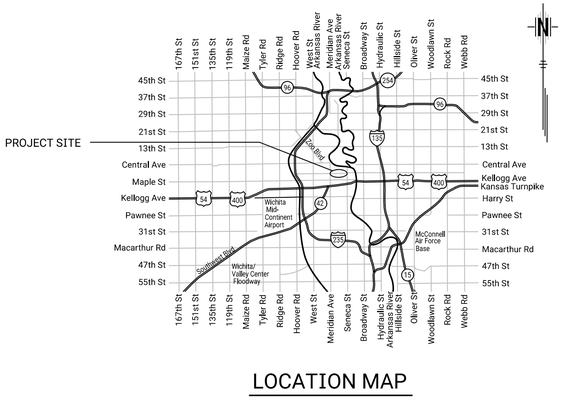
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	448-2025-018893	2025	163	180



LOCATION MAP

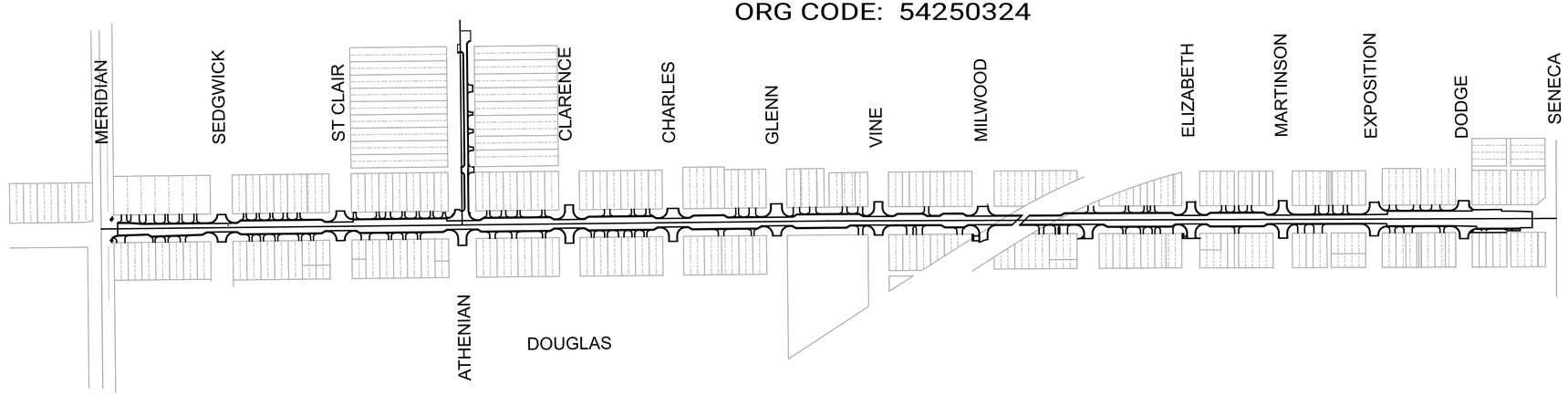
CONSTRUCTION PLANS FOR PROPOSED 8" WATERLINE

DOUGLAS AVENUE MERIDIAN to SENECA

FOR

THE CITY OF WICHITA,
SEDGWICK COUNTY, KANSAS

CITY PROJECT NO. 448-2025-018893
MUNIS NO. W4024
ORG CODE: 54250324





Scale: 1" = 250'

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163	Water Line Title Sheet
164	Water Meter Relocation Plans
165 - 177	Waterline Plan and Profiles
178 - 180	Standard Waterline Details

FINAL PLANS
AUGUST 2025

CONVENTIONAL SIGNS

COUNTY LINE		CENTER LINE OF PROJECT	50 1
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	
GUARDRAIL		MARSH	
CONSTRUCTION LIMITS		HEDGE	
RIGHT OF WAY LINE		TREES	
TRAVELED WAY		PROFILE ELEVATION	1172.19
RAILROADS		STREAM or CREEK	

TYLER PAUL YOUNT LICENSED 17974 8/6/25 KANSAS PROFESSIONAL ENGINEER

PLANS PREPARED BY :
wsp
Wichita, Kansas

APPROVED :

PAUL GUNZELMAN, CITY ENGINEER
CITY OF WICHITA, KANSAS
DATE: August 6, 2025

DATE	BY

SURVEY
CADD TECHNICIAN
DESIGNERS
SQUAD

Plotted by : usmh708425 6-AUG-2025 20:49
File : 30902042A_WATERLINE_TSHT.dgn

WATER SERVICE REPLACEMENT TABLE

Address	Station	Meter Offset	Service	Remarks
2127 W Douglas Ave.		Rt.	Short	
2126 W Douglas Ave.		Lt.	Long	
2122 W Douglas Ave.		Lt.	Long	
2121 W Douglas Ave.		Rt.	Short	
2116 W Douglas Ave.		Lt.	Long	
2112 W Douglas Ave.	115+19	Lt.	Long	
2111 W Douglas Ave.	115+24	Rt.	Short	
2107 W Douglas Ave.	115+58	Rt.	Short	
2108 W Douglas Ave.	115+59	Lt.	Long	
2101 W Douglas Ave.		Rt.	Short	
2100 W Douglas Ave.		Lt.	Long	
2027 W Douglas Ave.	117+63	Rt.	Short	
2028W Douglas Ave.		Lt.	Long	
2024 W Douglas Ave.		Lt.	Long	
2021 W Douglas Ave.		Rt.	Short	
2022 W Douglas Ave.		Lt.	Long	
2019 W Douglas Ave.		Rt.	Short	
2020 W. Douglas Ave.	118+91	Lt.	Long	
2009 W Douglas Ave.	119+15	Rt.	Short	
2007 W Douglas Ave.		Rt.	Short	
2006 W Douglas Ave.		Lt.	Long	
2001 W Douglas Ave.		Rt.	Short	
2000 W Douglas Ave.		Lt.	Long	
1919 W Douglas Ave.		Rt.	Short	
1915 W Douglas Ave.	121+95	Rt.	Short	
1918 W Douglas Ave.	122+14	Lt.	Long	
1910 W Douglas Ave.	122+62	Lt.	Long	
1911 W Douglas Ave.	122+93	Rt.	Short	
1905 W Douglas Ave.	123+18	Rt.	Short	
1902 W Douglas Ave.		Lt.	Long	
1901 W Douglas Ave.		Rt.	Short	
1819 W Douglas Ave.	126+58	Rt.	Short	
1814 W Douglas Ave.	125+97	Lt.	Long	
1725 W Douglas Ave.		Rt.	Short	
1724 W Douglas Ave.		Lt.	Long	
1718 W Douglas Ave.	129+48	Lt.	Long	Move 5' East
1713 W Douglas Ave.		Rt.	Short	
1642 W Douglas Ave.	132+54	Lt.	Long	
1642 W Douglas Ave.	132+57	Lt.	Long	
1520 W Douglas Ave.	136+32	Lt.	Long	
1529 W Douglas Ave.		Rt.	Short	
1525 W Douglas Ave.	136+65	Lt.	Long	
1516 W Douglas Ave.	137+42	Lt.	Long	
1519 W Douglas Ave.	137+45	Rt.	Short	
1509 W Douglas Ave.	137+92	Rt.	Short	
1501 W Douglas Ave.	138+88	Rt.	Short	
1429 W Douglas Ave.	140+01	Rt.	Short	
1440 W Douglas Ave.		Lt.	Long	
1416 W Douglas Ave.	140+90	Lt.	Long	
1427 W Douglas Ave.	140+51	Rt.	Short	
1427 W Douglas Ave.	140+54	Rt.	Short	
1425 W Douglas Ave.	140+95	Rt.	Short	
1400 W Douglas Ave.		Lt.	Long	
1322 W Douglas Ave.	143+26	Lt.	Long	
1320 W Douglas Ave.	143+96	Lt.	Long	
1316 W Douglas Ave.		Lt.	Long	
1310 W Douglas Ave.	144+85	Lt.	Long	
1302 W Douglas Ave.		Lt.	Long	
1225 W Douglas Ave.		Rt.	Short	
1220 W Douglas Ave.		Lt.	Long	
1205 W Douglas Ave.	147+30	Rt.	Short	
1202 W Douglas Ave.		Lt.	Long	
1201 W Douglas Ave.		Rt.	Short	
1119 W Douglas Ave.		Rt.	Short	
1115 W Douglas Ave.	150+32	Rt.	Short	
1113 W Douglas Ave.	150+71	Rt.	Short	
1112 W Douglas Ave.	150+37	Lt.	Long	
1112 W Douglas Ave.	150+60	Lt.	Long	
1111 W Douglas Ave.	151+21	Rt.	Short	
1111 W Douglas Ave.	151+24	Rt.	Short	
1111 W Douglas Ave.	151+74	Rt.	Short	
1111 W Douglas Ave.	151+78	Rt.	Short	

VALVE BOX ADJUSTMENT TABLE

STATION	ROADWAY	SIDE	VLV NO.
104+05	DOUGLAS AVENUE	40' Rt.	
108+42	DOUGLAS AVENUE	42' Rt.	
108+47	DOUGLAS AVENUE	38' Rt	
108+95	DOUGLAS AVENUE	38' Rt.	
112+74	DOUGLAS AVENUE	39' Rt.	
113+36	DOUGLAS AVENUE	41' Rt.	
116+55	DOUGLAS AVENUE	26' Lt.	
116+84	DOUGLAS AVENUE	52' Rt.	
120+30	DOUGLAS AVENUE	17' Lt.	
120+60	DOUGLAS AVEUNE	13' Lt.	
124+05	DOUGLAS AVENUE	26' Lt.	
124+59	DOUGLAS AVENUE	18' Lt.	
124+64	DOUGLAS AVENUE	19' Lt.	
127+72	DOUGLAS AVENUE	26' Lt.	
127+82	DOUGLAS AVENUE	30' Lt.	
127+87	DOUGLAS AVENUE	19' Lt.	
127+99	DOUGLAS AVENUE	26' Rt.	
131+49	DOUGLAS AVENUE	18' Lt.	
131+73	DOUGLAS AVENUE	53' Lt.	
132+26	DOUGLAS AVENUE	37' Lt.	
132+33	DOUGLAS AVENUE	31' Lt.	
135+58	DOUGLAS AVENUE	57' Rt.	
139+07	DOUGLAS AVENUE	27' Lt.	
139+23	DOUGLAS AVENUE	17' Lt.	
142+35	DOUGLAS AVENUE	19' Lt.	
142+45	DOUGLAS AVENUE	18' Lt.	
143+01	DOUGLAS AVENUE	20' Lt.	
144+76	DOUGLAS AVENUE	20' Lt.	
145+72	DOUGLAS AVENUE	27' Lt.	
145+84	DOUGLAS AVENUE	18' Lt.	
146+65	DOUGLAS AVENUE	12' Lt.	
149+03	DOUGLAS AVENUE	60' Lt.	
149+04	DOUGLAS AVENUE	65' Lt.	
149+18	DOUGLAS AVENUE	56' Rt.	
150+38	DOUGLAS AVENUE	19' Lt.	
151+53	DOUGLAS AVENUE	17' Lt.	
152+10	DOUGLAS AVENUE	35' Lt.	
152+43	DOUGLAS AVENUE	33' Lt.	
152+43	DOUGLAS AVENUE	31' Lt.	
152+43	DOUGLAS AVENUE	36' Lt.	
152+46	DOUGLAS AVENUE	35' Lt.	

WATER GENERAL NOTES

1. All water mains and appurtenances shall be installed in accordance with City of Wichita, Kansas Standard Specifications for Water Main Installations.

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

3. The Contractor shall return all salvageable valves, hydrant fittings, etc. to the City of Wichita water distribution Department yard located at 1825 S. McLean Boulevard. The Contractor shall be required to have all salvaged material checked in by the Storekeeper.

4. Existing water mains and service connections are to remain in service until proposed new mains have been completed and tested. Some services found to be abandoned may require a new main connection and meter setter to allow for future business activity. The Contractor shall verify with the Water Department those services which are to be reconnected. All services found with two meters in one meter box shall be replaced with individual meter boxes.

5. All Existing Utilities crossing the Water Line Trench not in conflict with the Water Line shall be relocated, replaced, or supported by the Contractor. Such work shall not be paid for directly.

6. All abandoned Water Services encountered by the Contractor shall be exposed at the corporation on the water main and shut off. Water service tubing will be separated from the corporation and the meter box, ring and lid will be removed from the meter setter. The Contractor will provide measurements for the corporation in relation to the center line of the nearest streets. Any service not shown on the plans that are discovered during construction will require verification from the City before abandonment. All costs associated with the work shall be SUBSIDIARY to the Measured Quantity "Water Service Abandonment, 1" and Smaller".

CITY OF WICHITA

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DOUGLAS AVENUE - MERIDIAN TO SENECA

WATER VALVE TABLES and GENERAL WATER LINE NOTES

NO.	DATE	REVISIONS
		DESCRIPTION

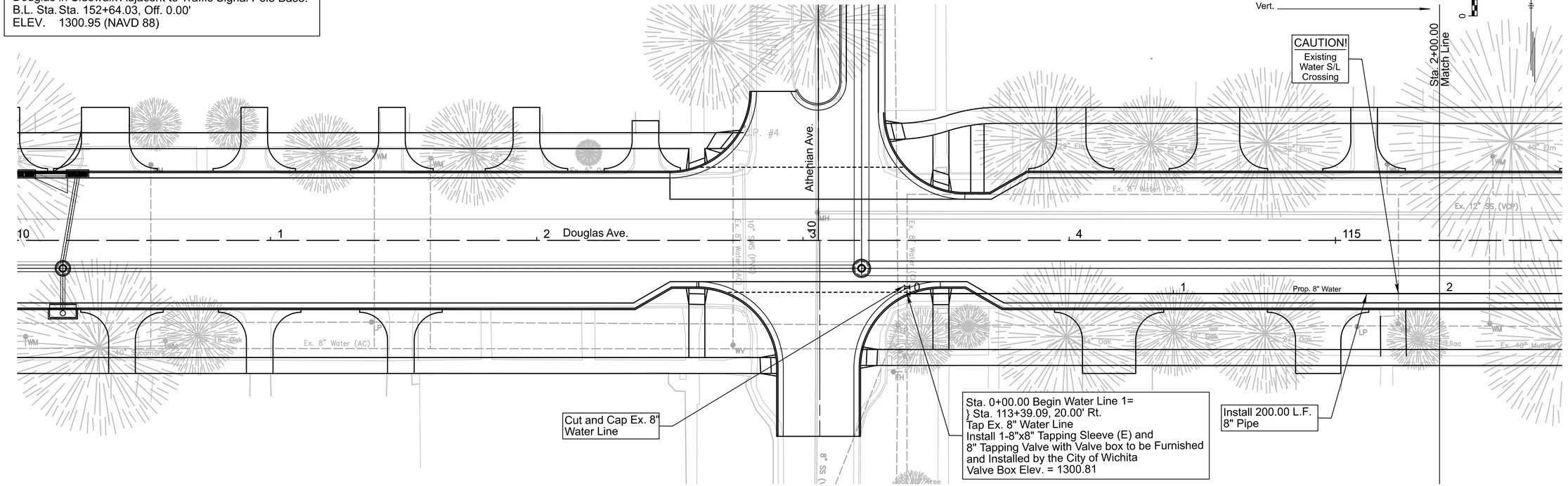
PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

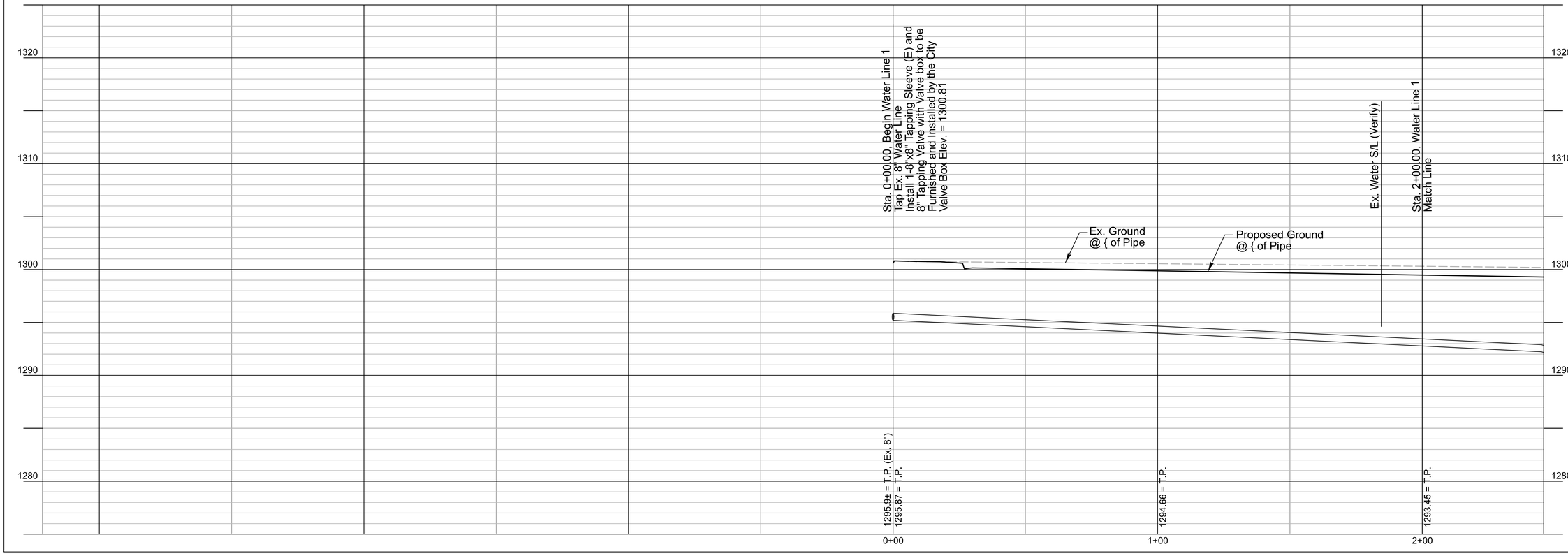
SHEET NO
164
SHEET 164 OF 180

DATUM BENCHMARK

COW Disc at the Southwest Intersection of Seneca & Douglas in Sidewalk Adjacent to Traffic Signal Pole Base.
B.L. Sta. Sta. 152+64.03, Off. 0.00'
ELEV. 1300.95 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

WATER LINE PLAN & PROFILE STA. 00+00 TO STA. 2+00

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
165
SHEET 165 OF 180

BENCHMARK

BM #5 - Chiseled Square at the Southwest Corner of the Intersection of Clarence & Douglas. At the Point where the Sidewalk & Wheel Chair Ramp Meet.
B.L. Sta. Sta. 116+72.13, Off. 49.10' Rt.
ELEV. 1300.17 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0

Sta. 2+00.00 Match Line

CAUTION! Existing Water S/L Crossing

CAUTION! Existing 10" SWS Crossing

Remove Ex. Fire Hydrant and Valve. Cap Ex. 6" Pipe

CAUTION! Existing 2" Water Crossing

CAUTION! Existing Water S/L Crossing

CAUTION! Proposed 15" SWS Crossing

CAUTION! Existing Water S/L Crossing

CAUTION! Proposed 15" SWS Crossing

CAUTION! Existing 3" Gas Crossing

CAUTION! Proposed 10" SWS Crossing

Sta. 7+50.00 Match Line

Clarence St.

Douglas Ave.

Charles St.

Ex. 12" SS (VCP)

Ex. 8" Water (CI)

Ex. 12" SS (VCP)

Ex. 6" Water (CI)

Ex. 3" Gas

Ex. 6" KGS Gas

Prop. 8" Water

Prop. 8" Water

Install 30.00 L.F. 8" Pipe

Cut and Cap Ex. 8" Pipe on Both Side of Tee

Install 112.04 L.F. 8" Pipe

CAUTION! Proposed 15" SWS Crossing

Sta. 3+12.04, Water Line 1 = } Sta. 116+51.28, 20.00' Rt.
Install 1-Fire Hydrant Assy. (S)
L = 5.00'
Bury Line Elev. = 1299.77
Valve Box Elev. = 1299.63

CAUTION! Existing 6" Water Crossing

Sta. 3+42.04 Water Line 1=
Sta. 0+50.00 Water Line 1a=
} Sta. 116+81.28, 20.00' Rt.
Install 1-8"x8" CIMJ Tee (Rt.)
Install 1-8" Anchored Valve Assy. (S)
Valve Box Elev. = 1298.92

Install 384.02 L.F. 8" Pipe

CAUTION! Existing 6" Water Crossing

Sta. 7+26.05 Water Line 1=
Sta. 00+00.00 Water Line 1b=
} Sta. 120+65.30, 20.00' Rt.
Install 1-8"x8" CIMJ Tee (Rt.)
Install 1-8" Anchored Valve Assy. (S)
Valve Box Elev. = 1297.92

Install 23.95 L.F. 8" Pipe

Ex. Ground @ { of Pipe

Proposed Ground @ { of Pipe

| | | |

BENCHMARK

BM #4 - Chiseled Square in the Northwest Corner of Gleen & Douglas, at Top of Curb North of a Handicap Ramp. B.L. Sta. Sta. 124+22.71, Off. 49.67' Lt. ELEV. 1298.84 (NAVD 88)

SCALE
20' 0 20' 40'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert. 5 0

Sta. 7+50.00 Match Line

Sta. 13+00.00 Match Line

Charles St.

Douglas Ave.

Glenn Ave.

CAUTION! Proposed 15" SWS Crossing

CAUTION! Existing Water S/L Crossing

CAUTION! Existing Water S/L Crossing

CAUTION! Existing 12" SWS Crossing

CAUTION! Existing 2-8" SWS 8" Water Crossings

CAUTION! Existing 8" SS Crossing

CAUTION! Existing 3" Gas Crossing

Remove Ex. Fire Hydrant and Valve. Cap Ex. 6" Pipe

Remove Ex. 8" Valve & Pipe and Plug Ex. 8" Tees

Encase Ex. 8" SS with Reinforced Concrete See Detail, Sheet 180

Ex. 12" SS (VCP)

Prop. 8" Water

Ex. 3" Gas

Ex. 3" Maple

Ex. 3" Maple

Ex. 24" Oak

Ex. 24" Elm

Ex. 24" Elm

Ex. 24" Oak

Ex. 24" Locust

Ex. 24" Locust

Ex. 8" SS (Verify)

Ex. 8" Water (Verify)

Ex. 8" SWS (Verify)

Ex. 12" SWS (Verify)

Ex. 8" SWS (Verify)

Ex. Water S/L (Verify)

Ex. Water S/L (Verify)

Ex. Water S/L (Verify)

Install 364.64 L.F. 8" Pipe

Sta. 11+14.64 Water Line 1= Sta. 00+00.00 Water Line 1c= } Sta. 124+48.73, 20.00' Rt. Install 1-8"x8" CIMJ Tee (Rt.) Install 1-8" Anchored Valve Assy. (S) Valve Box Elev. = 1298.30

Install 40.00 L.F. 8" Pipe

Sta. 11+54.64 Water Line 1 = } Sta. 124+93.73, 20.00' Rt. Install 1-Fire Hydrant Assy.(S) L=6.50' Bury Line Elev.= 1298.42 Valve Box. Elev.= 1298.25

Install 145.36 L.F. 8" Pipe

Proposed Ground @ { of Pipe

Ex. Ground @ { of Pipe

1320
1310
1300
1290
1280

Sta. 7+50.00, Water Line 1 Match Line — 1292.73 = T.P.
Sta. 7+70.00, Water Line 1 = P.V.I. — 1292.70 = T.P.
Sta. 8+00.00, Water Line 1 = P.V.I. — 1290.55 = T.P.
Prop. 15" SWS
Sta. 8+20.00, Water Line 1 = P.V.I. — 1290.52 = T.P.
Ex. Water S/L (Verify)
Sta. 8+60.00, Water Line 1 = P.V.I. — 1292.21 = T.P.
Ex. Water S/L (Verify)
1292.23 = T.P.
Ex. Water S/L (Verify)
1292.27 = T.P.
Ex. 12" SWS (Verify)
Ex. 8" SWS (Verify)
Sta. 11+14.64, Water Line 1 = Sta. 0+00.00 Water Line 1c Install 1-8"x8" CIMJ Tee (Rt.) Install 1-8" Anchored Valve Assy. (S) Valve Box Elev. = 1298.30
Ex. 8" SWS (Verify)
Ex. 8" Water (Verify)
Ex. 8" SS (Verify)
1292.31 = T.P.
1292.32 = T.P.
Sta. 11+54.64 Water Line 1 Install 1-Fire Hydrant Assy. (S) L=6.50' Bury Line Elev.= 1298.42 Valve Box. Elev.= 1298.25
1292.32 = T.P.
1292.35 = T.P.
Sta. 12+75.00, Water Line 1 = P.V.I. — 1292.38 = T.P.
Ex. 3" Gas (Verify)
Sta. 13+00.00, Water Line 1 = P.V.I. Match Line — 1290.60 = T.P.

7+50.00 7+70.00 8+00.00 8+20.00 8+60.00 9+00 10+00 11+00 11+14.64 11+54.64 12+00 12+75.00 13+00.00

DOUGLAS AVENUE - MERIDIAN TO SENECA

WATER LINE PLAN & PROFILE STA. 7+50 TO STA. 13+00

CITY OF WICHITA

wsp

REVISIONS			
NO.	DATE	DESCRIPTION	

PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
167
SHEET 167 OF 180

BENCHMARK

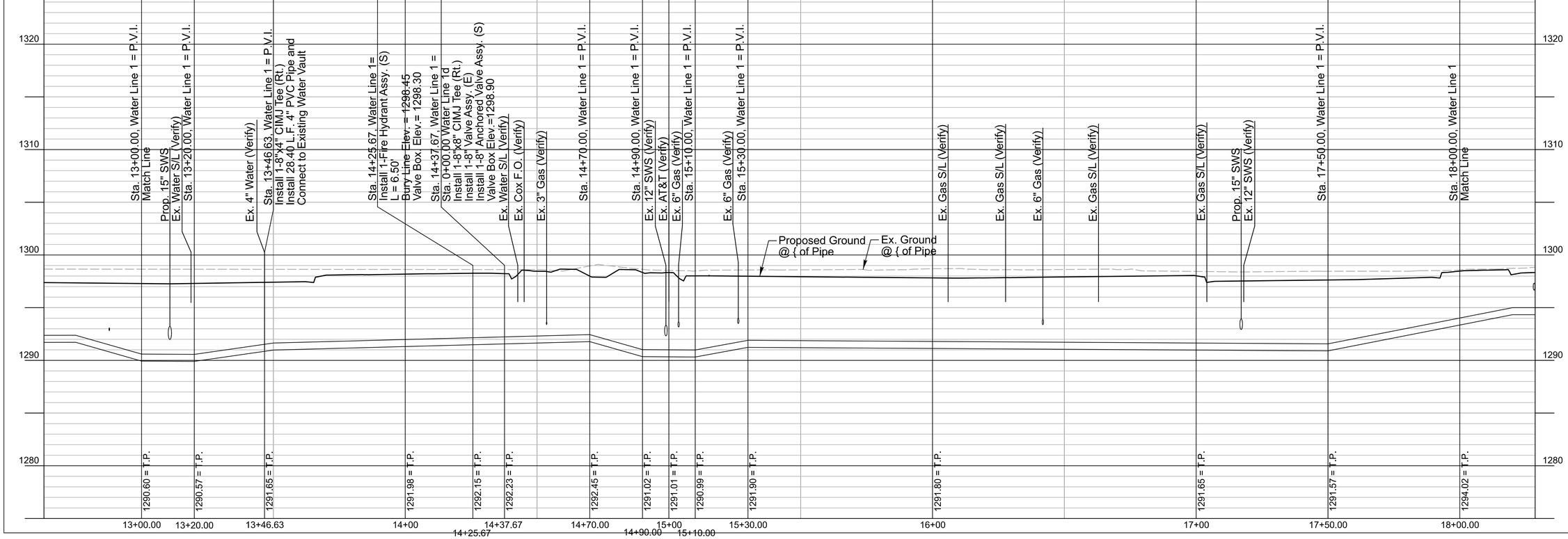
BM #3 - Chiseled Square at the Southwest Corner of Millwood & Douglas.In Top of Curb of the North Return of the First Driveway on the West side of Millwood.
B.L. Sta.Sta. 131+64.88, Off. 52.80' Rt.
ELEV. 1299.25 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0

CAUTION! Existing Cox F.O. 3" Gas Crossings
CAUTION! Proposed 15" SWS Crossing
CAUTION! Existing Water S/L 4" Water Crossings
Remove Ex. Fire Hydrant and Valve. Cap Ex. 6" Pipe
CAUTION! Existing 8" Water Crossing
Remove Ex. 8" Valve & Pipe and Plug Ex. 8" Tees
CAUTION! Existing 12" SWS Crossing
CAUTION! Existing AT&T Cable Crossing
CAUTION! Existing 6" Gas Crossing
CAUTION! Existing Gas S/L Crossing
CAUTION! Existing 6" Gas Crossing
CAUTION! Existing 12" SWS Crossing

Sta. 13+00.00 Match Line
Sta. 18+00.00 Match Line
Vine Ave.
9 Douglas Ave.
Millwood Ave.
Ex. 12" SS (VCP)
Ex. 8" Water (CI)
Ex. 6" KGS Gas
Ex. 3" Gas
Prop. 8" Water
Ex. 8" Water (CI)
Ex. 6" Water (CI)
Ex. AT&T FO Cable
Ex. Cox F.O.
Ex. KGS Gas
WV (Empty?)
Flashing Sign
Traffic Vault
Controller
Bike Racks
Delano Post
Oak
MH
WM
LP
TS
GM
TMH

Install 46.63 L.F. 8" Pipe
Sta. 13+46.63, Water Line 1 = } Sta. 126+85.88, 20.00' Rt. Install 1-8"x4" CIMJ Tee (Rt.) Install 28.40 L.F. 4" PVC Pipe and Connect to Existing Water Vault
Install 79.04 L.F. 8" Pipe
Sta. 14+25.67, Water Line 1= } Sta. 127+64.92, 20.00' Rt. Install 1-Fire Hydrant Assy. (S) L = 6.50' Bury Line Elev. = 1298.45 Valve Box. Elev.= 1298.30
Install 12.00 L.F. 8" Pipe
CAUTION! Existing 6" Gas Crossing
Sta. 14+37.67, Water Line 1= Sta. 0+00.00, Water Line 1d= } Sta. 127+76.92, 20.00' Rt. Install 1- 8"x8" CIMJ Tee (Rt.) Install 1-8" Valve Assy. (E) Install 1-8" Anchored Valve Assy. (S) Valve Box. Elev.= 1298.90
Install 362.33 L.F. 8" Pipe
CAUTION! Existing Gas Crossing
CAUTION! Proposed 15" SWS Crossing



DOUGLAS AVENUE - MERIDIAN TO SENECA
WATER LINE PLAN & PROFILE
STA. 13+00 TO STA. 18+00

CITY OF WICHITA
WSP

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
168
SHEET 168 OF 180

BENCHMARK

BM #3 - Chiseled Square at the Southwest Corner of Millwood & Douglas.In Top of Curb of the North Return of the First Driveway on the West side of Millwood.
B.L. Sta. Sta. 131+64.88, Off. 52.80' Rt.
ELEV. 1299.25 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0

Sta. 18+00.00 Match Line

CAUTION! Existing AT&T Cable Crossing

CAUTION! Existing 8" SWS 12" SWS Crossings

Remove Ex. Fire Hydrant and Valve. Cap Ex. 6" Pipe

Cut, Cap and Abandon 240 L.F. Ex. 8" Water Line in Place per City of Wichita Specifications from } 132+40 to } 134+80.

CAUTION! Existing 6" Water Crossing

CAUTION! Existing Water S/L Crossing

Sta. 23+50.00 Match Line

Traffic Vault · Flashing Sign · Inlet · Milwood Ave. · Prop. FH · Water Vault · FH · WV · TMWM · AT&T FO Cable · Tele Vault · C.P. #3 · 36" Elm · 24" Oak · GM · WM · RR Signal · Ex. 8" Water (CI) · Ex. 2" KPC Gas · Ex. 12" SS (VCP) · MH · SDT Fiber Cable in 4" Sleeve Conduit · Douglas Ave. · 135 · 6" Water (CI) · Prop. 8" Water · LP · Bike Rack · TMH · Fern St. · WV

Install 38.84 L.F. 8" Pipe

CAUTION! Existing 6" Water Crossing

Install 31.66 L.F. 8" Pipe

Sta. 18+38.84, Water Line 1= Sta. 0+00.00, Water Line 1e= } Sta. 131+73.55, 20.00' Rt. Install 1- 8"x8" CIMJ Tee (Lt.) Install 1-8" Anchored Valve Assy. Valve Box. Elev.= 1298.40

CAUTION! Existing 2" Gas Crossing

Install 220.00 L.F. 8" Restrained Joint Pipe

Install 220.00 L.F. 15" Steel Encasement (0.282" Min. Wall Thickness) from Sta. 18+70.50 to Sta. 20+90.50

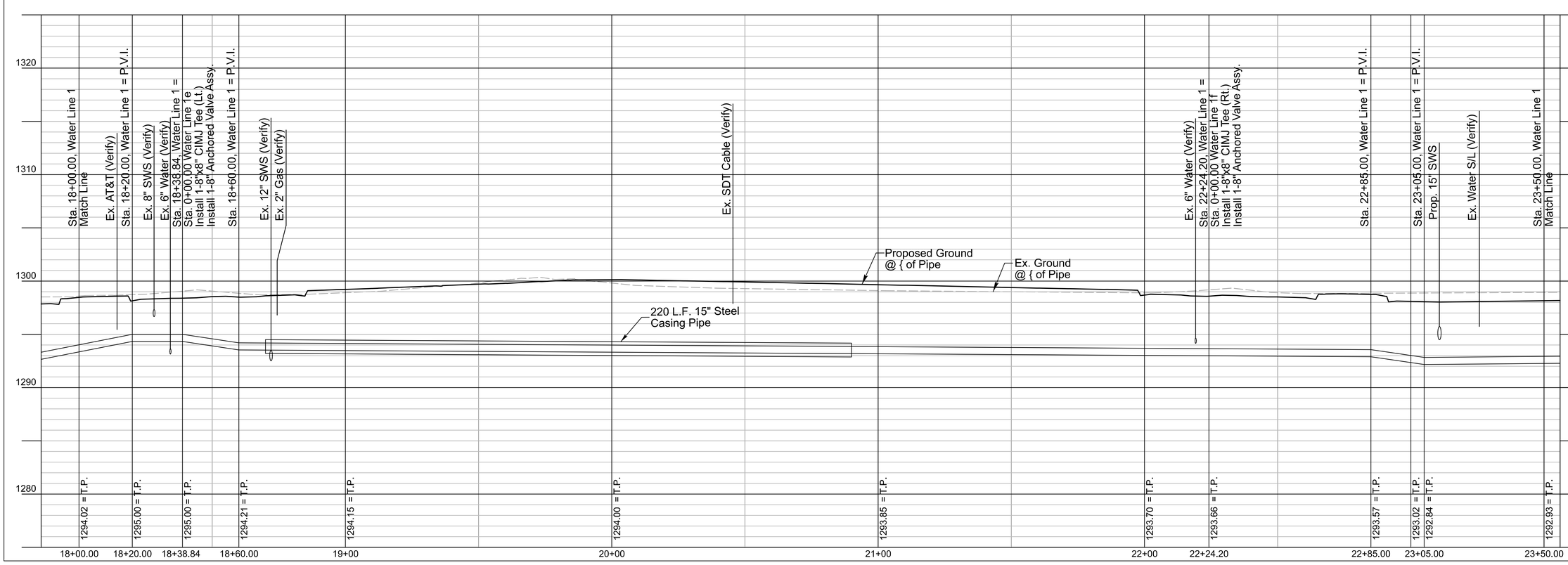
CAUTION! Existing SDT Cable Crossing

Install 133.70 L.F. 8" Pipe

Sta. 22+24.20, Water Line 1= Sta. 0+00.00, Water Line 1f= } Sta. 135+63.44, 20.00' Rt. Install 1- 8"x8" CIMJ Tee (Rt.) Install 1-8" Anchored Valve Assy. (S) Valve Box. Elev.= 1298.59

Install 125.80 L.F. 8" Pipe

CAUTION! Proposed 15" SWS Crossing



CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
WATER LINE PLAN & PROFILE STA. 18+00 TO STA. 23+50

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
169
SHEET 169 OF 180

BENCHMARK

BM #2 - Chiseled Square in the Northwest Corner of Elizabeth & Douglas.In the Southwest Corner of an Area Inlet.
B.L. Sta. Sta. 139+16.64, Off. 38.93' Lt.
ELEV. 1299.48 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0

Sta. 23+50.00 Match Line

CAUTION! Existing Water S/L Crossing

CAUTION! Existing Water S/L AT&T Cables O/H Elec 6" Water Crossings

Remove Ex. Fire Hydrant and Valve. Cap Ex. 6" Pipe

Install 3.05 L.F. 8" DICL Pipe

Install 20.00 L.F. 8" Pipe

CAUTION! Existing 21" SS Crossing

CAUTION! Existing 4" Gas Crossing

CAUTION! Existing Water S/L Crossing

CAUTION! Proposed 15" SWS Crossing

Elizabeth Ave.

Douglas Ave.

Ex. 8" Water (Cl)

Ex. 6" KGS Gas

Ex. 21" SS (VCP)

Ex. 4" Gas

Ex. 2" Water

Prop. 8" Water

Prop. 15" SWS

Ex. 6" Water (PVC)

Ex. 6" Cable TV/ Fiber Optic

Flashing Sign

TS

TMH

Centerline

Delano

Install 3.00 L.F. 8" DICL Pipe

Install 36.00 L.F. 8" Pipe

Install 202.95 L.F. 8" Pipe

Install 236.89 L.F. 8" Pipe

Sta. 25+52.95, Water Line 1 =
} Sta. 138+92.20, 20.00' Rt.
Install 1-Fire Hydrant Assy. (S)
L = 5.00'
Valve Box Elev. = 1299.41
Bury Line Elev. = 1299.16

Sta. 25+88.95 Water Line 1=
Sta. 00+00.00 Water Line 1g=
} Sta. 139+28.20, 20.00' Rt.
Install 1- 8"x8" CIMJ Tee (Rt.)
Install 1-8" Anchored Valve Assy. (S)
Valve Box. Elev.= 1299.25
Install 1-45° CIMJ Bend (Rolled)

Sta. 25+92.00 Water Line 1=
} Sta. 139+31.25, 20.00' Rt.
Install 1-45° CIMJ Bend (Rolled)

Sta. 26+12.00 Water Line 1=
} Sta. 139+51.25, 20.00' Rt.
Install 1-45° CIMJ Bend (Rolled)

Sta. 26+15.00 Water Line 1=
} Sta. 139+54.25 20.00' Rt.
Install 1-45° CIMJ Bend (Rolled)

Sta. 28+51.89, Water Line 1=
} Sta. 141+91.20, 20.00' Rt.
Match Point

11.9'

2.1'

Sta. 23+50.00, Water Line 1 Match Line
Ex. Water S/L (Verify)
Ex. Water S/L (Verify)
Ex. Water S/L (Verify)
Sta. 25+52.95, Water Line 1 Install 1-Fire Hydrant Assy. (S) L=5.00 L.F. Valve Box Elev.=1299.41 Bury Line Elev.=1239.16
Ex. AT&T (Verify)
Ex. AT&T (Verify)
Ex. 6" Water (Verify)
Sta. 25+88.95, Water Line 1= PVI Sta. 0+00.00 Water Line 1g Install 1- 8"x8" CIMJ Tee (Rt.) Install 1-8" Anchored Valve Assy. (S) Install 1-45° CIMJ Bend (Rolled)
Sta. 25+92.00, Water Line 1= PVI Install 1-45° CIMJ Bend (Rolled) Ex. 21" SS (Verify)
Sta. 26+12.00, Water Line 1= PVI Install 1-45° CIMJ Bend (Rolled) Ex. 4" Gas (Verify)
Sta. 26+13.00, Water Line 1= PVI Install 1-45° CIMJ Bend (Rolled)
Ex. Water S/L (Verify)
Ex. Water S/L (Verify)
Ex. Water S/L (Verify)
Ex. Water S/L (Verify)
Prop. 15" SWS
Sta. 28+50.00, Water Line 1 Match Line

Proposed Ground @ { of Pipe
Ex. Ground @ { of Pipe

1320 1310 1300 1290 1280

1292.93 = T.P.
1293.04 = T.P.
1293.25 = T.P.
1293.43 = T.P.
1296.47 = T.P.
1296.50 = T.P.
1296.55 = T.P.
1293.56 = T.P.
1293.67 = T.P.
1293.80 = T.P.
1293.87 = T.P.

23+50.00 24+00 25+00 25+88.95 26+92.00 26+15.00 26+12.00 27+00 28+00 28+51.89

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

WATER LINE PLAN & PROFILE STA. 23+50 TO STA. 28+50

REVISIONS	DESCRIPTION	DATE	NO.

PROJ NO:	87 N-0762-01
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
170
SHEET 170 OF 180

BENCHMARK

BM #1 - Chiseled Square in the Southwest Corner of Exposition & Douglas South of a Handicap Ramp and at the Beginning of a Curb Return.
B.L. Sta. Sta. 145+83.52, Off. 50.46 Rt.
ELEV. 1300.42 (NAVD 88)

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 5 0

CAUTION! Existing 2" Water Crossing

CAUTION! Existing 6" Gas Crossing

CAUTION! Existing AT&T Cable Crossing

CAUTION! Existing 8" SWS Crossing

CAUTION! Existing 48" Water Crossing

CAUTION! Existing 8" Water Water S/L Crossings

CAUTION! Existing 6" Water Crossing

CAUTION! Existing O/H Elec Crossing

Martinson St.

Exposition Ave.

Douglas Ave.

Sta. 34+00.00 Match Line

Flashing Sign

Remove Ex. Fire Hydrant and Valve. Cap Ex. 6" Pipe

Sta. 29+66.78, Water Line 1=
Sta. 0+00.00, Water Line 1f=
} Sta. 143+06.09, 20.00' Rt.
Install 1- 8"x8" CIMJ Tee (Lt.)
Install 1-8" Anchored Valve Assy. (N)
Valve Box. Elev.= 1299.45

Install 63.93 L.F. 8" Pipe

Sta. 28+51.89, Water Line 1=
} Sta. 141+91.20, 20.00' Rt.
Install Service Line, Short 2"
Install 18 L.F. 2" Pipe (S)
Through Exist. Water Vault
Match Point

Sta. 29+15.82, Water Line 1=
Sta. 0+00.00, Water Line 1h=
} Sta. 142+55.13, 20.00' Rt.
Install 1- 8"x8" CIMJ Tee (Rt.)
Install 1-8" Anchored Valve Assy. (S)
Valve Box. Elev.= 1299.33

Install 50.96 L.F. 8" Pipe

Sta. 29+77.07, Water Line 1=
} Sta. 143+16.31, 20.03' Rt.
Deflect Pipe 1^8" Rt.

Install 282.66 L.F. 8" Pipe

Sta. 32+23.00, Water Line 1=
} Sta. 145+62.28, 24.88' Rt.
Deflect Pipe 1^8" Lt.

Sta. 32+49.44, Water Line 1=
Sta. 0+00.00, Water Line 1i=
} Sta. 145+88.72, 25.00' Rt.
Install 1- 8"x8" CIMJ Tee (Lt.)
Install 1-8" Anchored Valve Assy. (N)
Valve Box. Elev.= 1299.72

Install 40.68 L.F. 8" Pipe

Sta. 32+90.12, Water Line 1=
Sta. 0+00.00, Water Line 1j=
} Sta. 145+88.72, 25.00' Rt.
Install 1- 8"x8" CIMJ Tee (Lt.)
Install 1-8" Anchored Valve Assy. (S)
Valve Box. Elev.= 1299.82

Install 109.88 L.F. 8" Pipe

Prop. 8" Water

Prop. FH

Ex. 6" Water (O)

Ex. 6" IGS Gas

Ex. AT&T U/G Cable

Ex. 8" Water (PCSC)

Ex. 8" Water (DIC)

Ex. 48" Water (PCSC)

Ex. 6" Wat

Prop. 8" Water (NF)

Ex. 2" Water

Prop. 2" Water

Ex. 8" Water

Delano

Oak

Bike Racks

Sta. 28+51.89 Water Line 1
Install Service Line, 2" Long
Install 18 L.F. 2" Pipe (S)
Through Exist. Water Vault
Ex. 2" Water (Verify)

Ex. 6" Water (Verify)
Ex. 6" Gas (Verify)
Sta. 29+15.82 Water Line 1=
Sta. 0+00.00 Water Line 1h
Install 1-8"x8" CIMJ Tee (Rt.)
Install 1-8" Anchored Valve Assy.

Ex. AT&T (Verify)
Sta. 29+66.78 Water Line 1=
Sta. 0+00.00 Water Line 1h
Install 1-8"x8" CIMJ Tee (Lt.)
Install 1-8" Anchored Valve Assy.

Sta. 31+90.00 Water Line 1= PVI

Ex. 8" SWS (Verify)
Sta. 32+49.44 Water Line 1=
Sta. 0+00.00 Water Line 1i
Install 1-8"x8" CIMJ Tee (Lt.)
Install 1-8" Anchored Valve Assy.

Ex. 48" Water (Verify)

Ex. 8" Water (Verify)
Sta. 32+80.00 Water Line 1=
Sta. 0+00.00 Water Line 1j
Install 1-8"x8" CIMJ Tee (Rt.)
Install 1-8" Anchored Valve Assy.

Sta. 33+00.00 Water Line 1= PVI

Sta. 33+60.00 Water Line 1= PVI

Ex. Water S/L (Verify)

Sta. 34+00.00 Water Line 1=
Match Line

Ex. Ground @ { of Pipe

Proposed Ground @ { of Pipe

1293.87 = T.P.
1293.93 = T.P.
1293.95 = T.P.
1294.02 = T.P.
1294.16 = T.P.
1294.68 = T.P.
1294.91 = T.P.
1294.92 = T.P.
1294.97 = T.P.
1295.01 = T.P.
1295.02 = T.P.
1294.74 = T.P.
1294.55 = T.P.

1320
1310
1300
1290
1280

28+51.89 29+00 29+15.82 29+66.78 30+00 31+00 31+90.00 32+00 32+49.44 32+90.12 33+00 33+60.00 34+00

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
WATER LINE PLAN & PROFILE
STA. 28+50 TO STA. 34+00

REVISIONS		
NO.	DATE	DESCRIPTION

PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

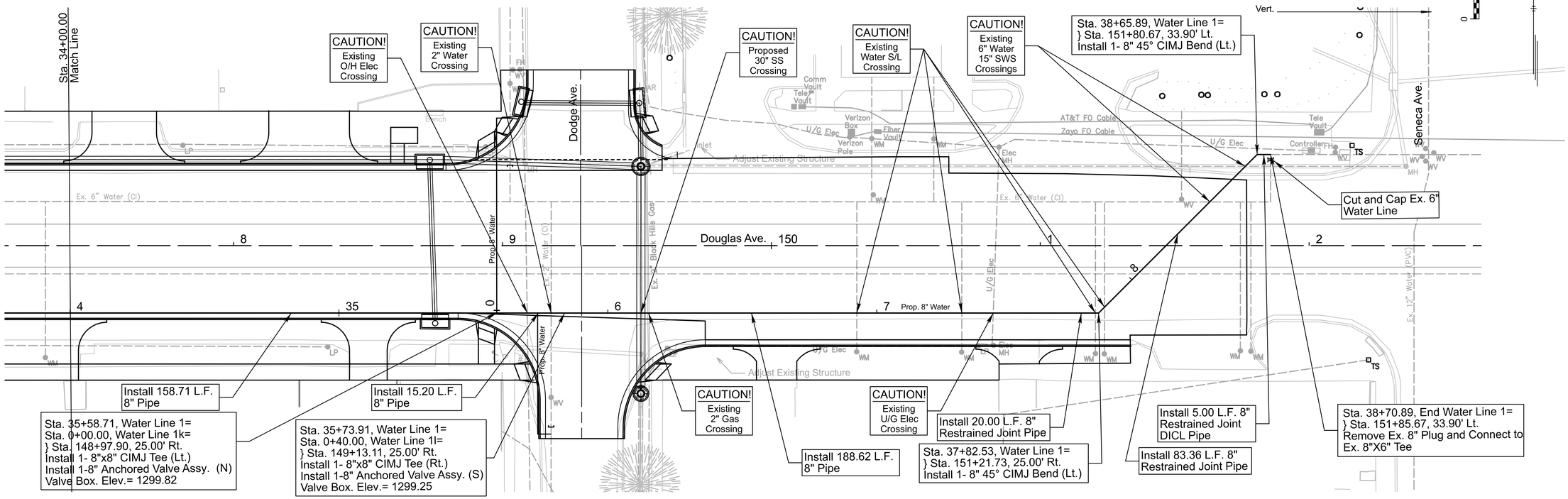
SHEET NO
171
SHEET 171 OF 180

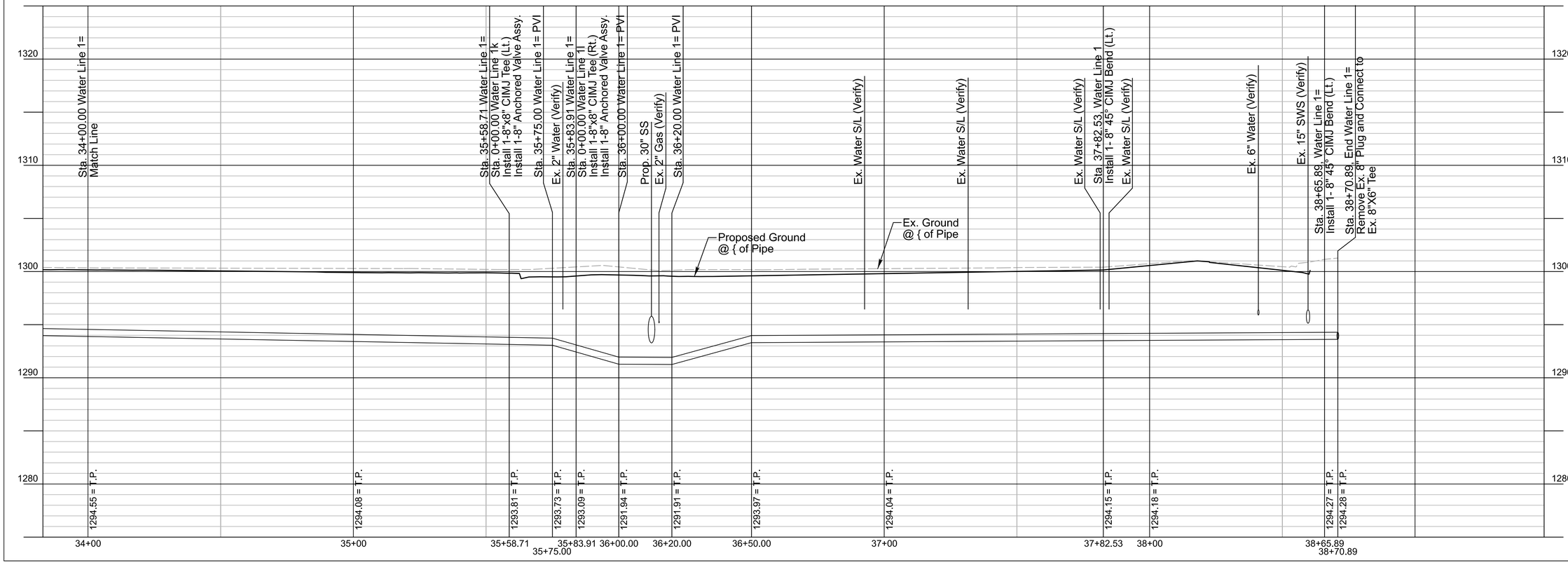
SCALE

PLAN: Lat. & Long. 20' 0 20' 40'

PROFILE: Horiz. same as above

Vert. 5 0





CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA
WATER LINE PLAN & PROFILE
STA. 34+00 TO STA. 38+70.89

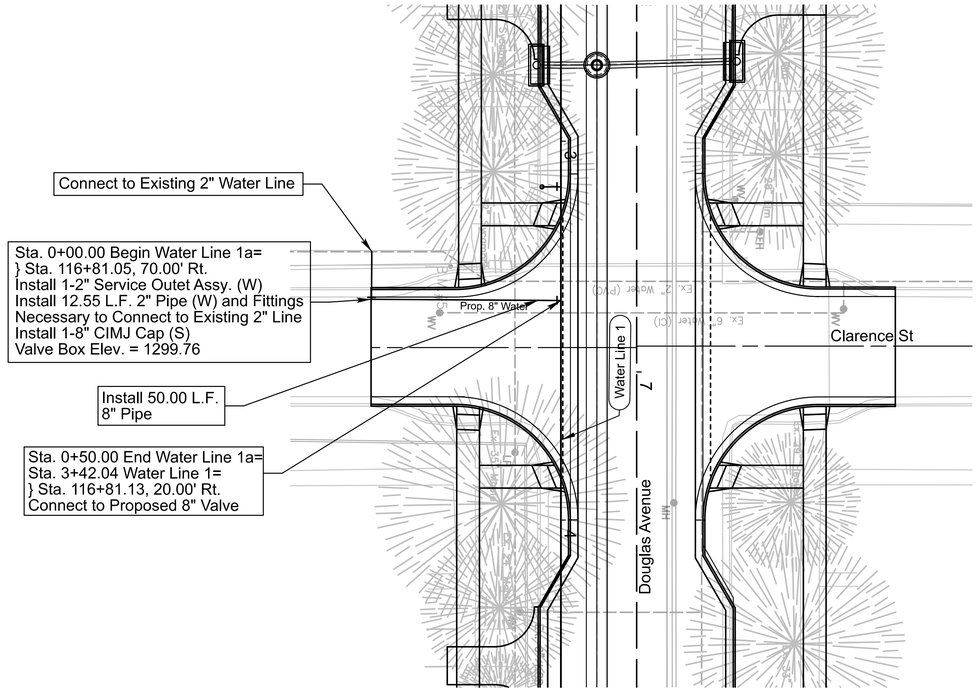
REVISIONS	DESCRIPTION	DATE	NO.

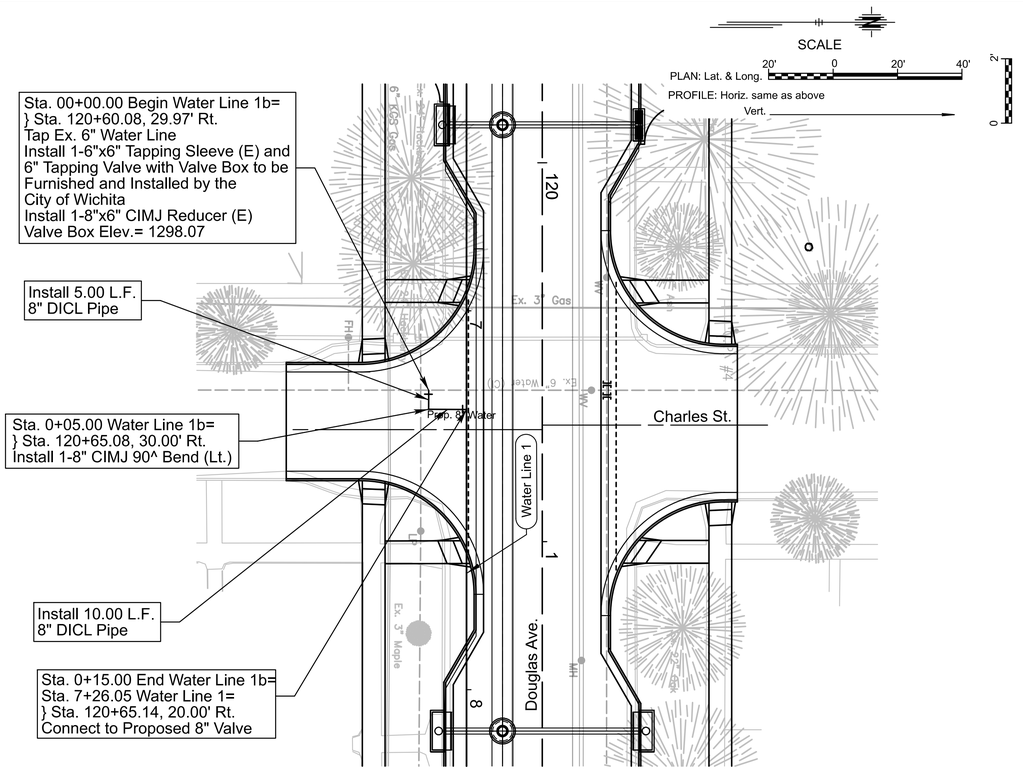
PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

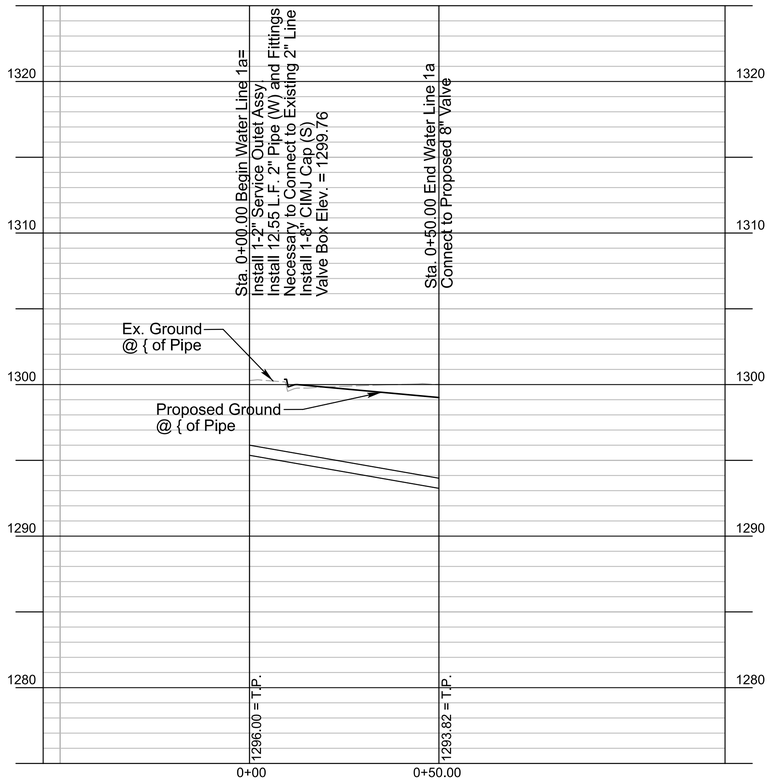
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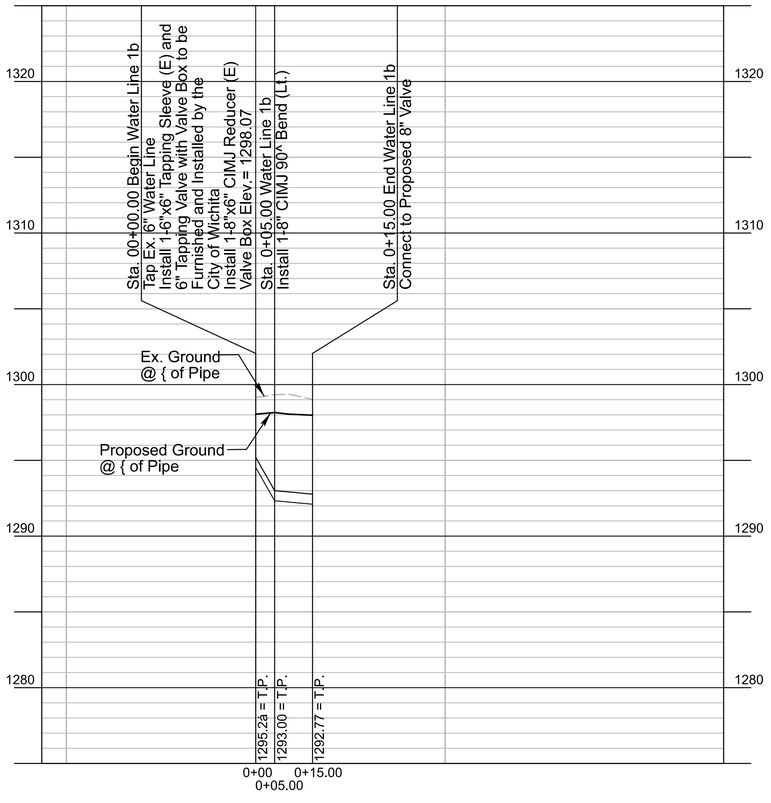
172

SHEET 172 OF 180









SCALE
20' 0 20' 40'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.
2
0

CITY OF WICHITA

wsp

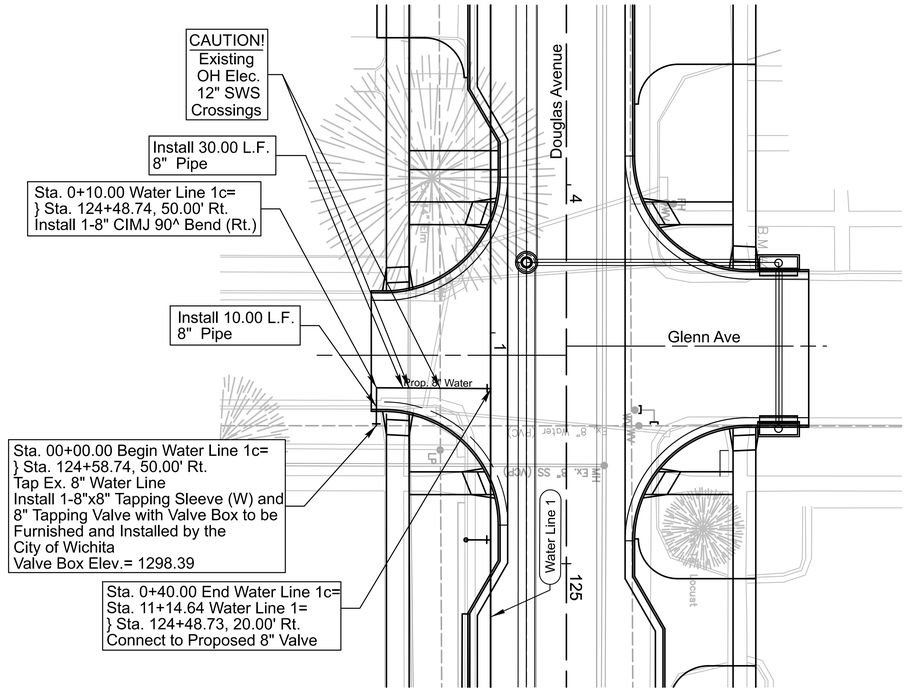
DOUGLAS AVENUE - MERIDIAN TO SENECA

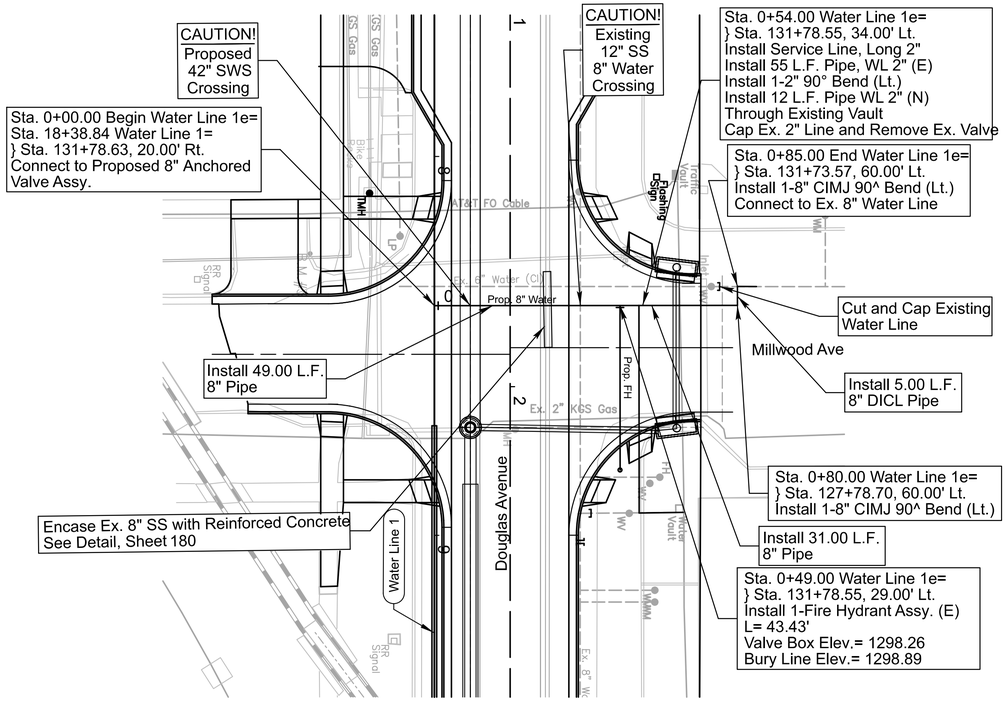
WATER LINE PLAN & PROFILE
CLARENCE ST & CHARLES ST

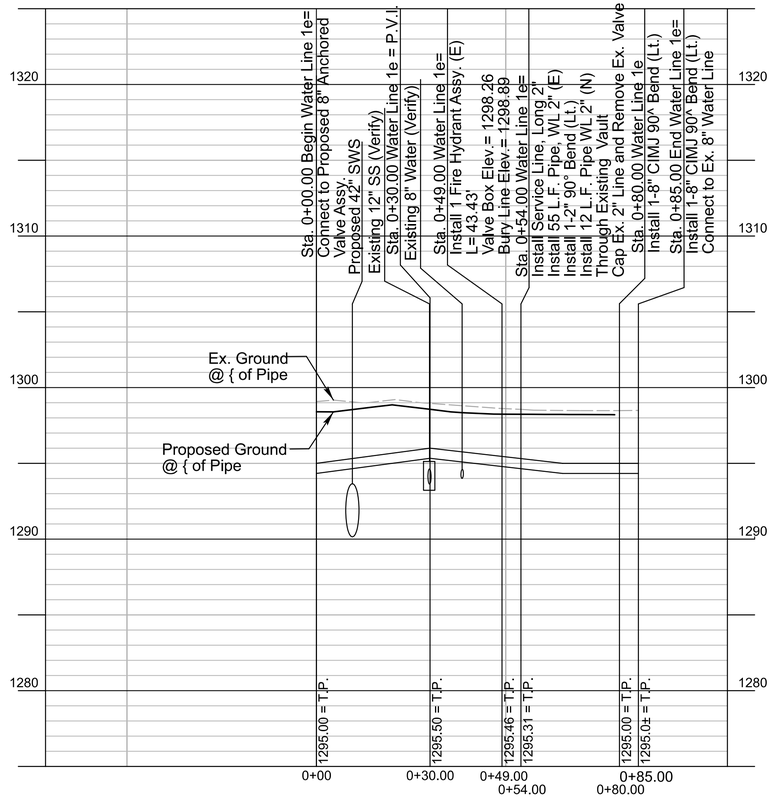
NO.	DATE	DESCRIPTION
		REVISIONS

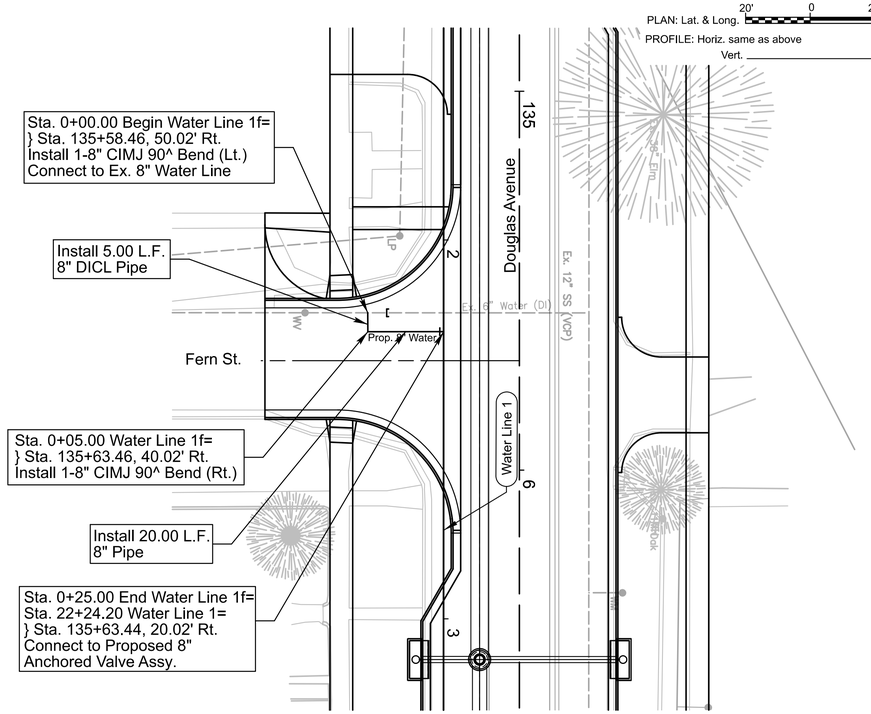
PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

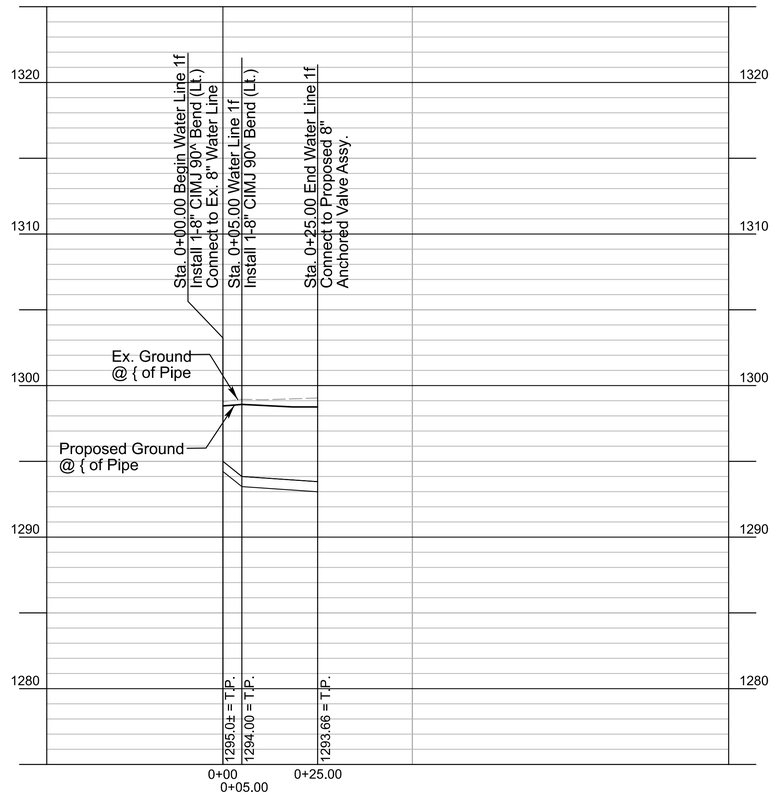
SHEET NO
173
SHEET173 OF 180


CAUTION!
Existing
OH Elec.
12" SWS
Crossings
Install 30.00 L.F.
8" Pipe
Sta. 0+10.00 Water Line 1c=
} Sta. 124+48.74, 50.00' Rt.
Install 1-8" CIMJ 90^ Bend (Rt.)
Install 10.00 L.F.
8" Pipe
Sta. 00+00.00 Begin Water Line 1c=
} Sta. 124+58.74, 50.00' Rt.
Tap Ex. 8" Water Line
Install 1-8"x8" Tapping Sleeve (W) and
8" Tapping Valve with Valve Box to be
Furnished and Installed by the
City of Wichita
Valve Box Elev.= 1298.39
Sta. 0+40.00 End Water Line 1c=
Sta. 11+14.64 Water Line 1=
} Sta. 124+48.73, 20.00' Rt.
Connect to Proposed 8" Valve
Douglas Avenue
Glenn Ave
Prop. 8" Water
Water Line 1
Ex. 8" SS
Ex. 8" Water
Ex. Cox F.O.
Ex. 4" KGS Gas
Ex. 2" SS (VCP)
Ex. 8" KGS Gas
Flashing Sign
Ex. Rocks
Ex. Branch
Ex. Debris
Ex. Boulder
Ex. Boulder
Ex. Boulder









SCALE
20' 0 20' 40'
PLAN: Lat. & Long.
PROFILE: Horiz. same as above
Vert.
2
0

CITY OF WICHITA

wsp

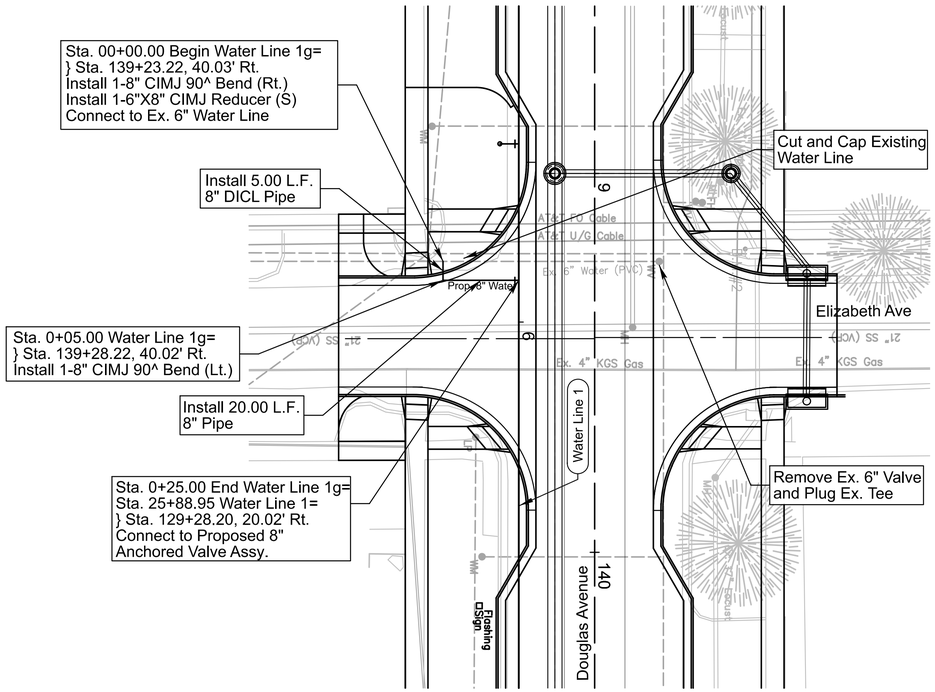
DOUGLAS AVENUE - MERIDIAN TO SENECA

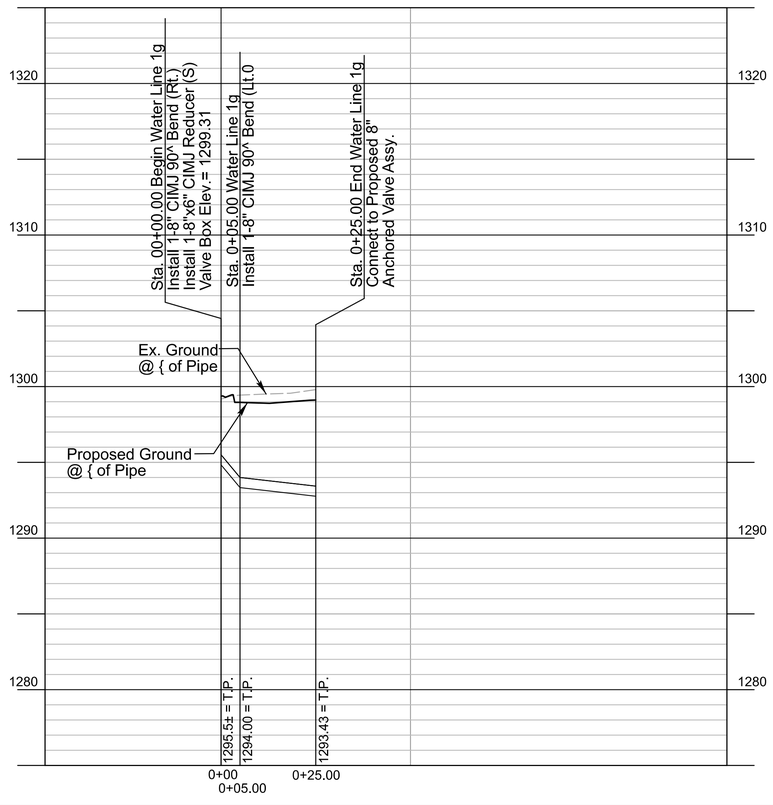
WATER LINE PLAN & PROFILE MILLWOOD AVE & FERN ST

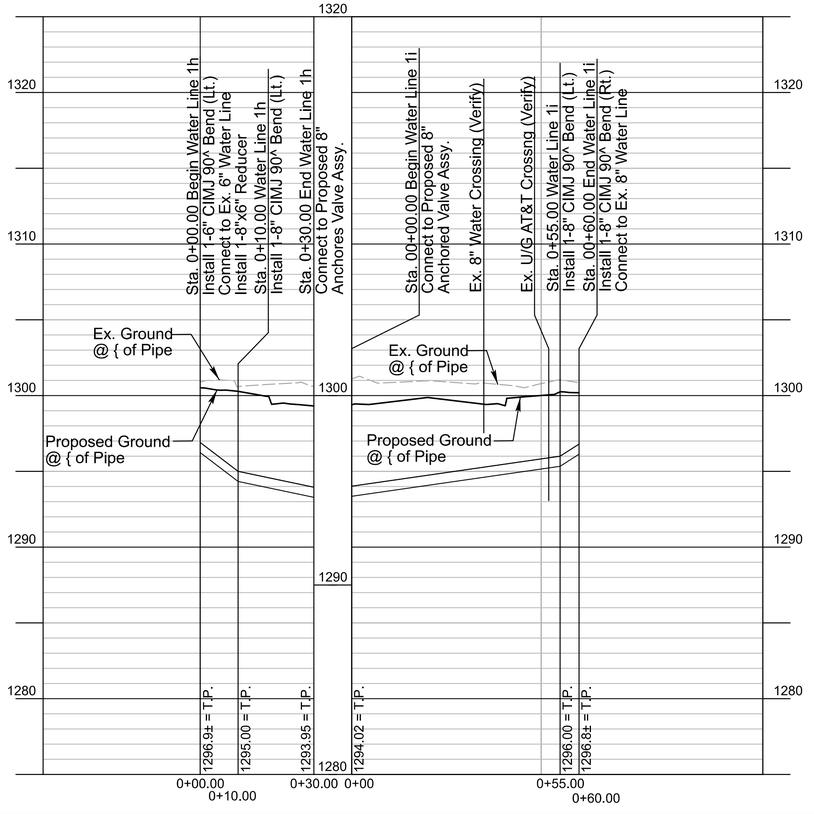
REVISIONS	DATE	NO.
DESCRIPTION		

PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
175
SHEET175 OF 180







SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert. 2 0

CITY OF WICHITA

wsp

DOUGLAS AVENUE - MERIDIAN TO SENECA

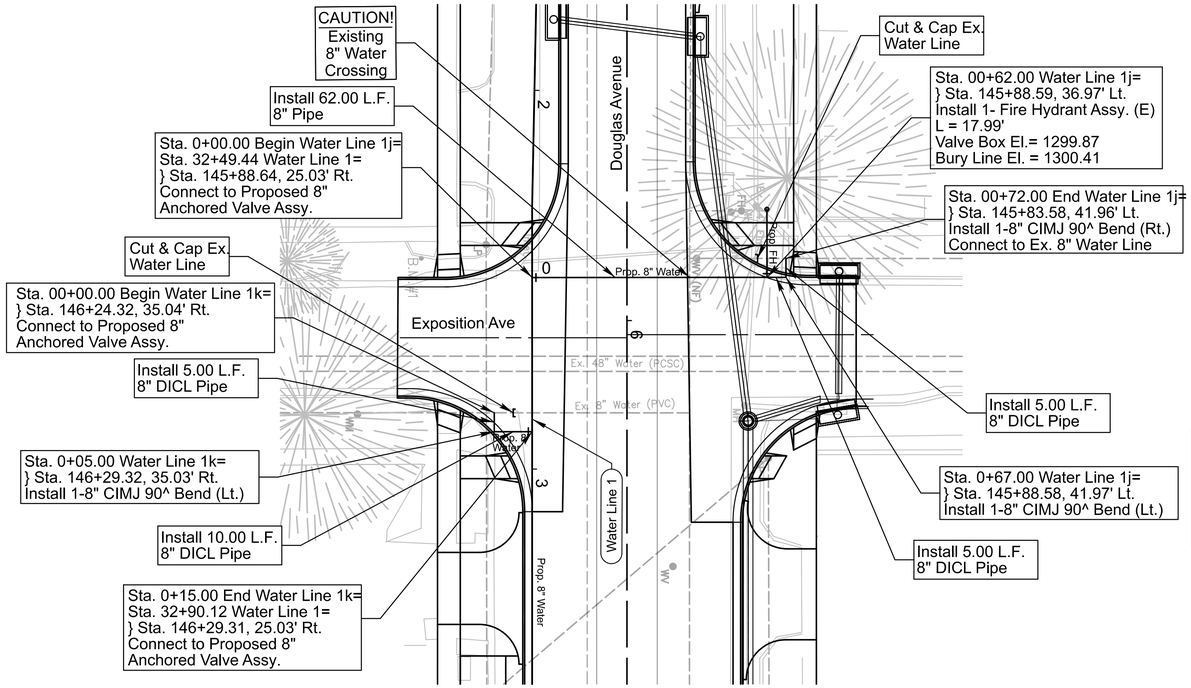
WATER LINE PLAN & PROFILE
ELIZABETH AVE & MARTINSON ST

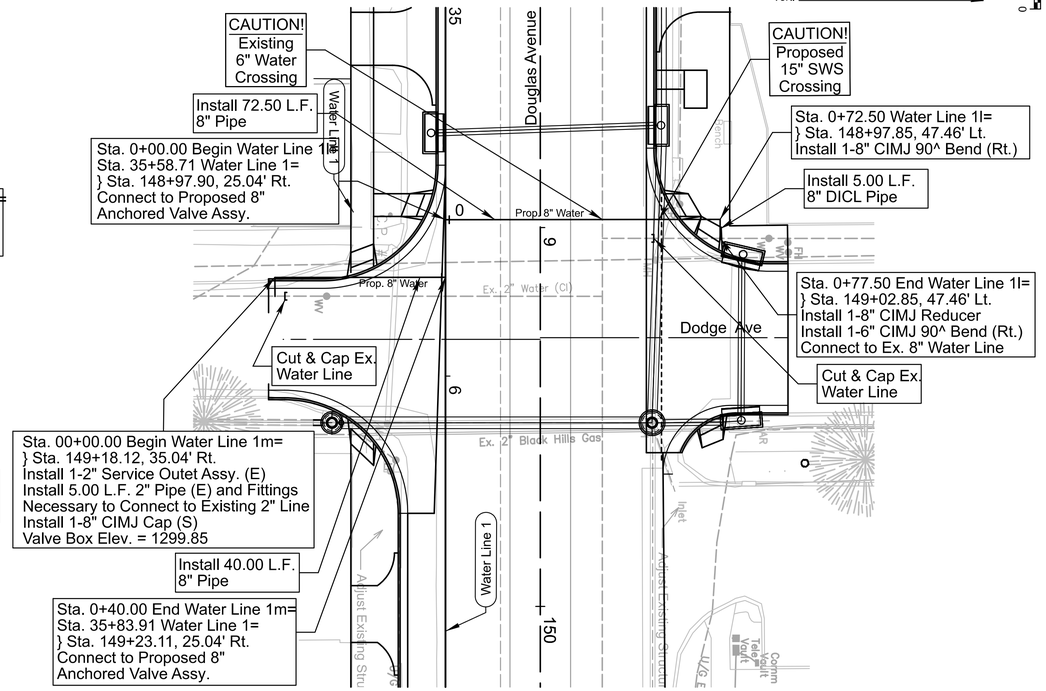
NO.	DATE	DESCRIPTION
		REVISIONS

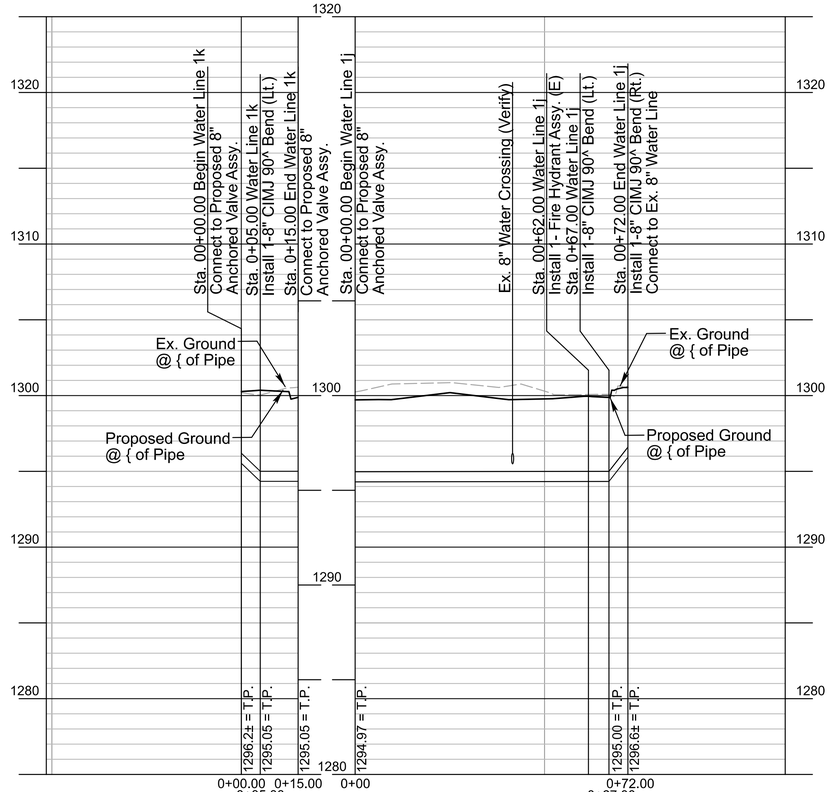
PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
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CHECKED BY:	TPV
YEAR:	2025

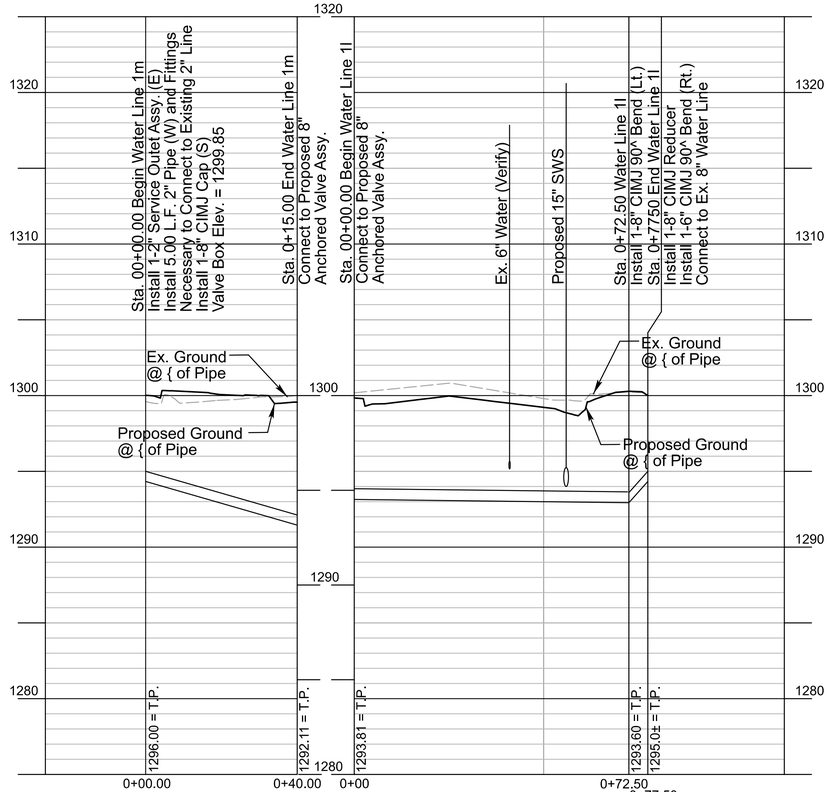
SHEET NO
176
SHEET176 OF 180

SCALE
PLAN: Lat. & Long. 20' 0 20' 40'
PROFILE: Horiz. same as above
Vert.









CITY OF WICHITA

wsp

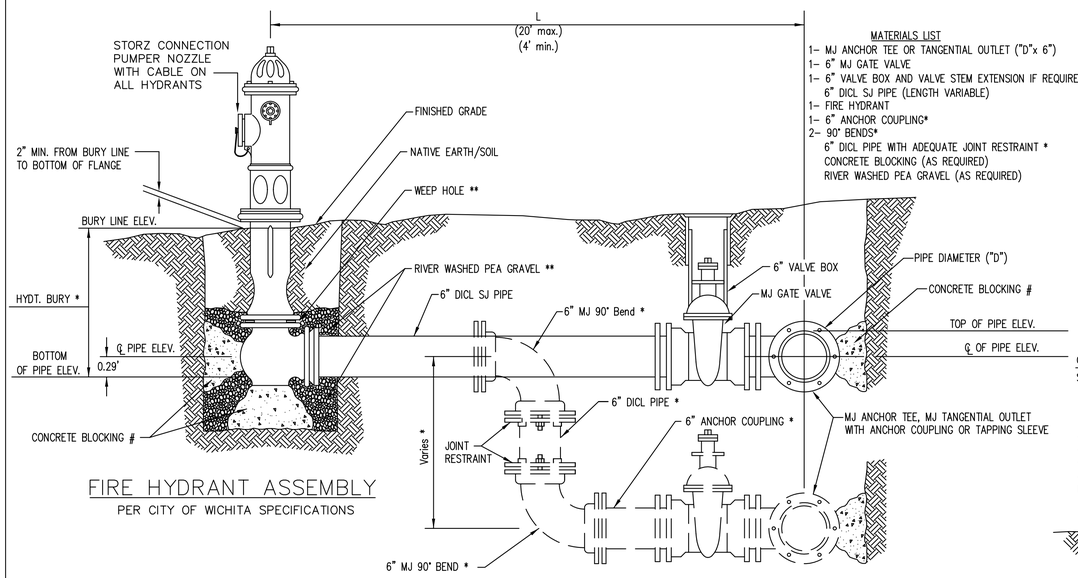
DOUGLAS AVENUE - MERIDIAN TO SENECA

WATER LINE PLAN & PROFILE EXPOSITION AVE & DODGE AVE

NO.	DATE	DESCRIPTION
		REVISIONS

PROJ NO:	448-2025-018893
SCALE:	AS NOTED
DATE:	Aug 2025
DESIGNED BY:	TPV
DRAWN BY:	Staff
CHECKED BY:	TPV
YEAR:	2025

SHEET NO
177
SHEET177 OF 180



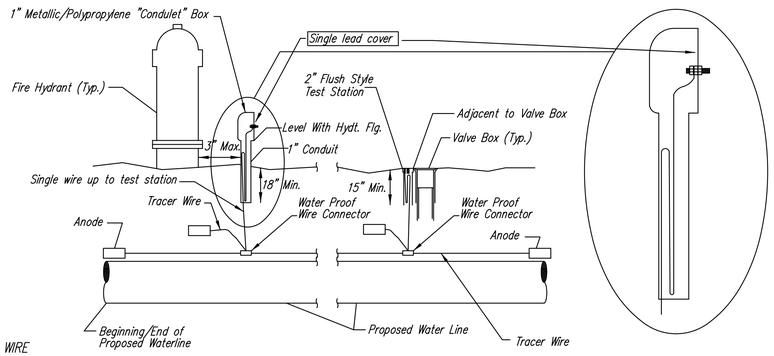
FIRE HYDRANT ASSEMBLY
PER CITY OF WICHITA SPECIFICATIONS

MATERIALS LIST
1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D"x 6")
1- 6" MJ GATE VALVE
1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
6" DICL SJ PIPE (LENGTH VARIABLE)
1- FIRE HYDRANT
1- 6" ANCHOR COUPLING*
2- 90° BENDS*
6" DICL PIPE WITH ADEQUATE JOINT RESTRAINT *
CONCRETE BLOCKING (AS REQUIRED)
RIVER WASHED PEA GRAVEL (AS REQUIRED)

* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90 ° BENDS, 6" ANCHOR COUPLING AND 6" DICL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, OR SIMILAR RESTRAINT BETWEEN 90° BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

** CAUTION: WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

\# CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.



TRACER WIRE

Conductive type pipe locator/tracer wire shall be install to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. A waterproof connector shall be used at splice locations. A complete list of approved tracer wire and waterproof connectors can be found on the City of Wichita's website at www.wichita.gov.

WIRE

The tracer wire shall be Blue No. 12 AWG CCS with 45 mil HDPE insulation. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. Wire connectors shall be installed per manufacturer recommendations. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS

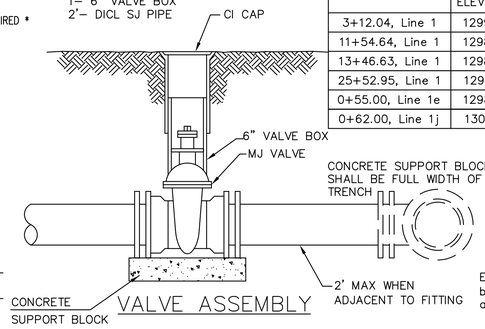
*The test station for fire hydrant application shall be a 1" "conduiet" style station as manufactured by AGRA Industries with a removable solid cover having a single lead extending from the face or approved equal. The "conduit" style test station shall be attached to a 1" rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. The test station for valve applications shall be a 2" flush style test station with wire connector on lid. Model # T2PH7B1LP Handley Industries or CD14*TP SnakePit as manufactured by Copperhead Industries or approved equal. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be install to allow 12" of wire within the test station. The location of all test stations shall be recorded, and shown in the as-built drawings. Flush style test stations shall not be installed in pavement or sidewalk unless approved by the Engineer. Contractor shall extend tracer wire & move flush mount test station to nearest location out of pavement or sidewalk.*

ANODES

The anodes shall be 3 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to 12 AWG CCS which shall be extended to the test station.

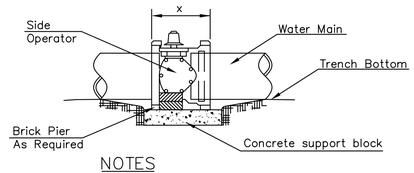
TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE



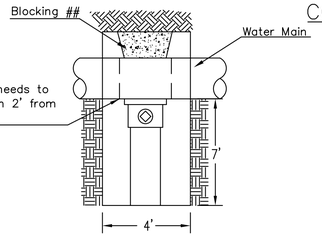
VALVE ASSEMBLY

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
3+12.04, Line 1	1299.77	1292.60	8.00 (RJ Hyd.)	--
11+54.64, Line 1	1298.42	1292.34	7.00	--
13+46.63, Line 1	1298.45	1291.63	7.50	--
25+52.95, Line 1	1299.16	1293.36	6.50	--
0+55.00, Line 1e	1298.89	1294.00	6.00	--
0+62.00, Line 1j	1300.41	1294.63	6.50	--



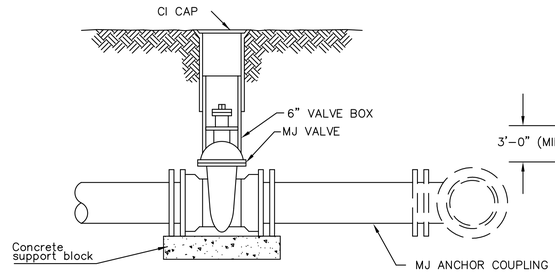
NOTES
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION

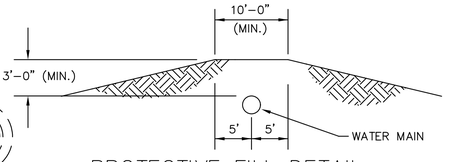


CITY TAP
When the City of Wichita makes tap, blocking is to be done by Contractor

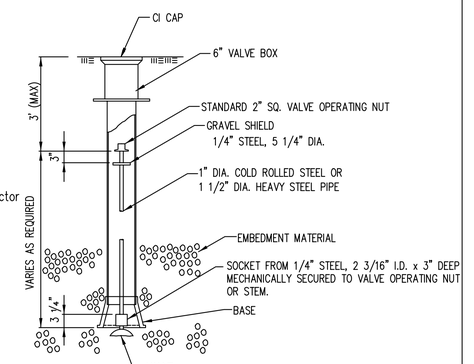
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-MJ ANCHOR COUPLING (12" OR SMALLER)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE
FULL WIDTH OF THE TRENCH



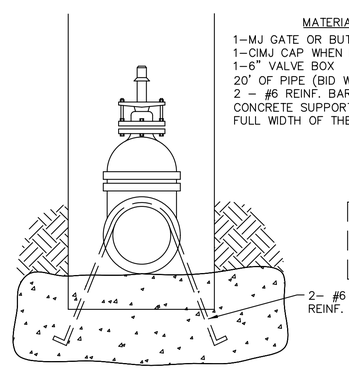
ANCHORED VALVE ASSEMBLY



PROTECTIVE FILL DETAIL
MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3'.
(COST SUBSIDIARY TO PIPE INSTALLATION)



VALVE STEM EXTENSION DETAIL
NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



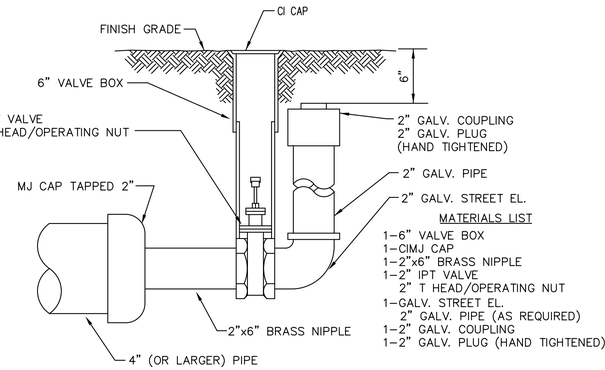
Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.

2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.

3. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

THRUST AT VALVES	
VALVE	THRUST AT 150 #/in.²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



MATERIALS LIST
1-6" VALVE BOX
1-CIMJ CAP
1-2"x6" BRASS NIPPLE
1-2" IPT VALVE
2" T HEAD/OPERATING NUT
1-GALV. STREET EL.
2" GALV. PIPE (AS REQUIRED)
1-2" GALV. COUPLING
1-2" GALV. PLUG (HAND TIGHTENED)

2" BLOWOFF ASSEMBLY

REVISED: OCTOBER 2016

CITY OF WICHITA
PUBLIC WORKS UTILITIES
ENGINEERING DIVISION

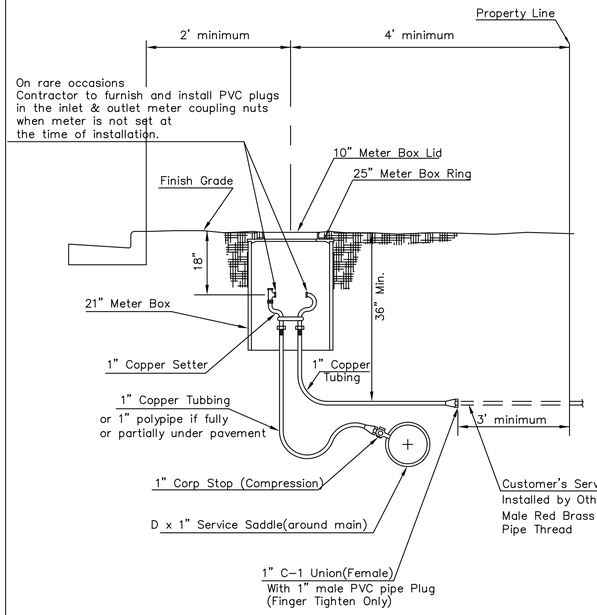
STANDARD WATER ASSEMBLY DETAIL

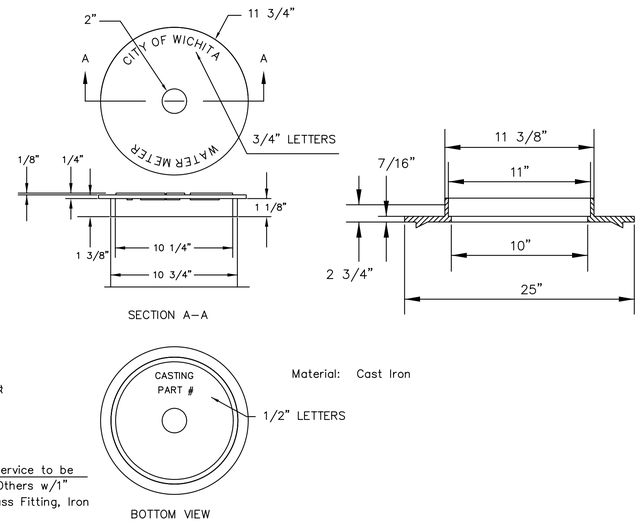
CITY ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

WL-101





Minimum length of pigtail on consumer side is 36" of copper tubing from meter set.

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

Service Saddles are required on all mains.

Meter boxes will be located on each lot to be served, as indicated in the SPECIAL PROVISIONS

TYPICAL 1" METER SETTING

NOT TRAFFIC RATED

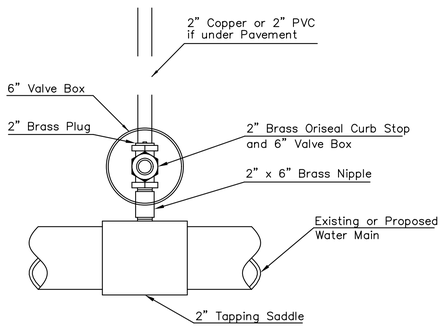
RING & LID FOR 1" METER BOX

1 – Ø Mueller Thread Corporation Stop
– Ø Type "K" Copper Tubing
1 – Ø Copper to Iron Union (Male)
1 – Ø Brass Curb Stop (Iron to Iron)
2 – Øx4" Brass Nipple

Air Release
2 – Ø Brass Elbows (90°)
1 – 1"x6" Brass Nipple
1 – 30" Monitor Cover
1 – 20" Meter Lid

NOTE:

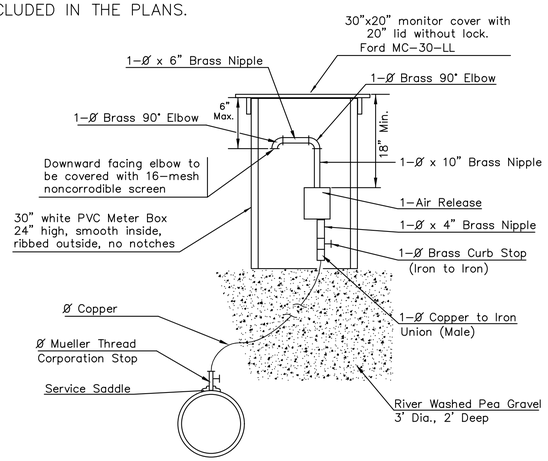
THE 1"/2" AIR RELEASE ASSEMBLY WILL TYPICALLY BE USED ON WATER MAINS 24" AND SMALLER, AS SPECIFICALLY DESIGNATED IN THE PLANS.
COMBINATION AIR RELAEASE ASSEMBLIES WILL BE SPECIFICALLY DESIGNED FOR PROJECTS WITH LARGER MAINS, AND WILL BE INCLUDED IN THE PLANS.



Note: Where the 2" Service Outlet Assembly 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 vavles shall not be approved for this use.

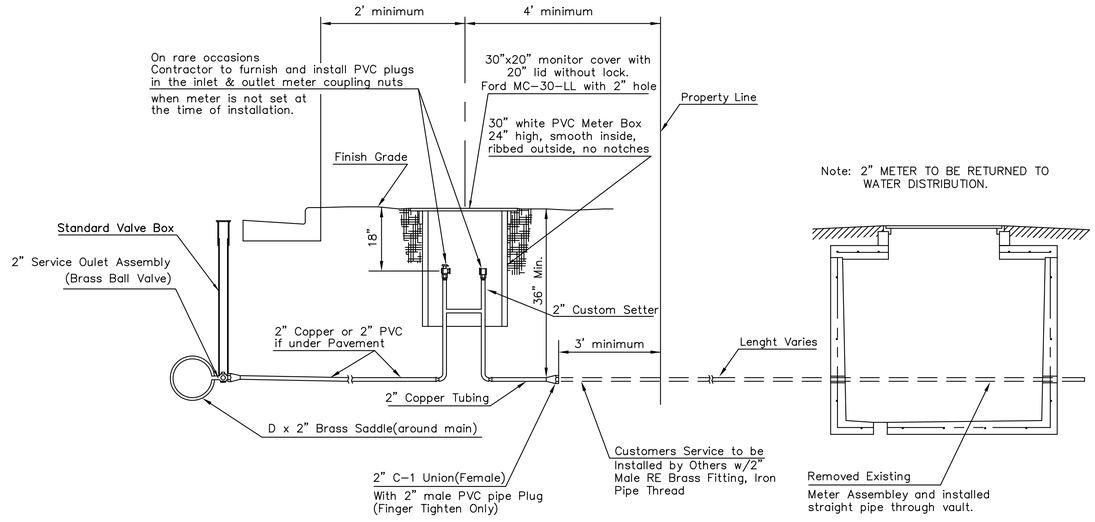
2" SERVICE OUTLET ASSEMBLY

TOP VIEW



MATERIALS FOR 1" or 2" AIR RELEASE ASSEMBLY

Ø = 1" or 2"



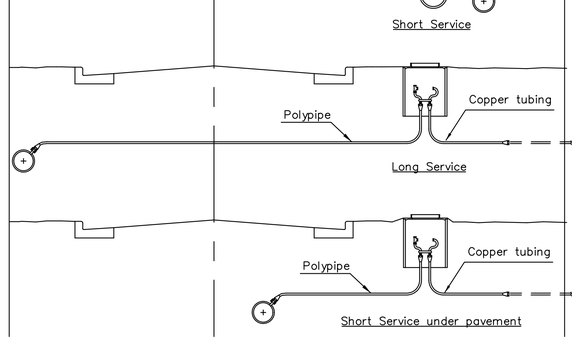
Note: 2" METER TO BE RETURNED TO WATER DISTRIBUTION.

TYPICAL 2" METER SETTING

Note: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.

TYPICAL 2" METER SETTING INVOLVING EXISTING 2" METER VAULT

Note: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



SERVICE TYPES

REVISED: DECEMBER 2018	TM	BRASS NIPPLE LENGTH TO 10" ON THE 1" OR 2" AIR RELEASE ASSEMBLY

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

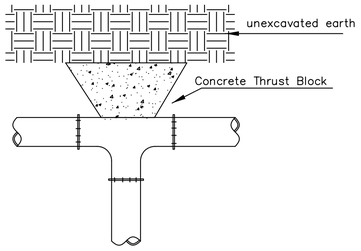
STANDARD
WATER SERVICE
DETAIL

CITY ENGINEER
PAUL GUNZELMAN, P.E.

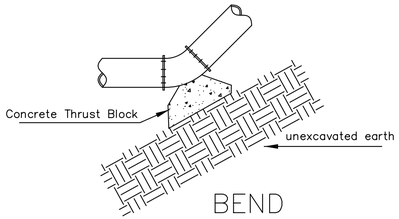
PROJECT NUMBER	OCA NUMBER	DATE

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

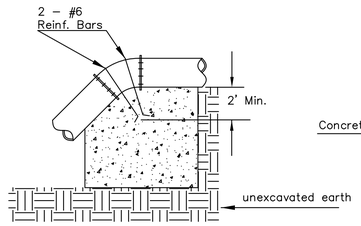
WL-102



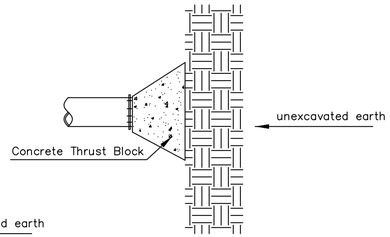
TEE



BEND



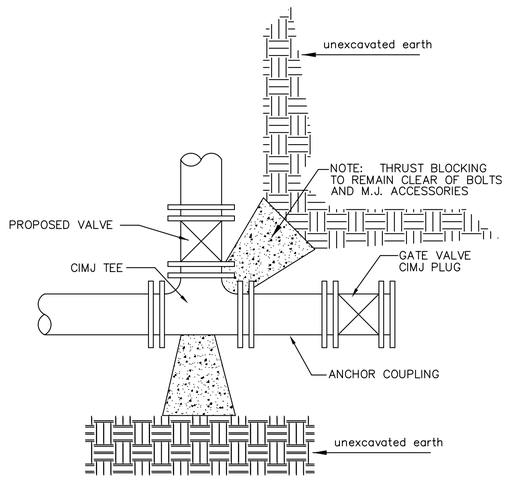
VERTICAL BEND



PLUG

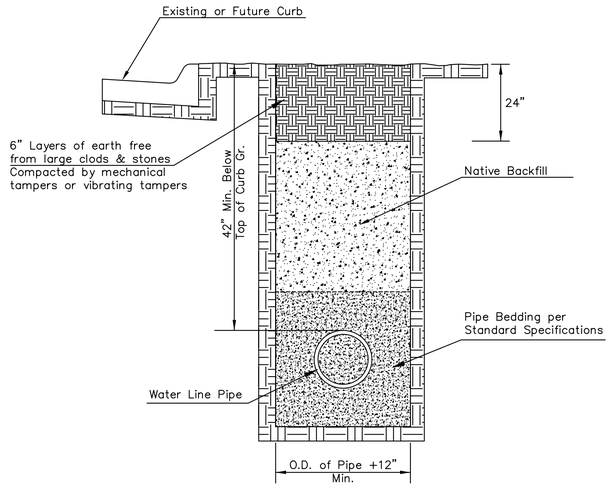
PIPE SIZE	THRUST AT FITTINGS IN TONS–AT 150#/IN^{2}P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

TYPICAL THRUST BLOCKS

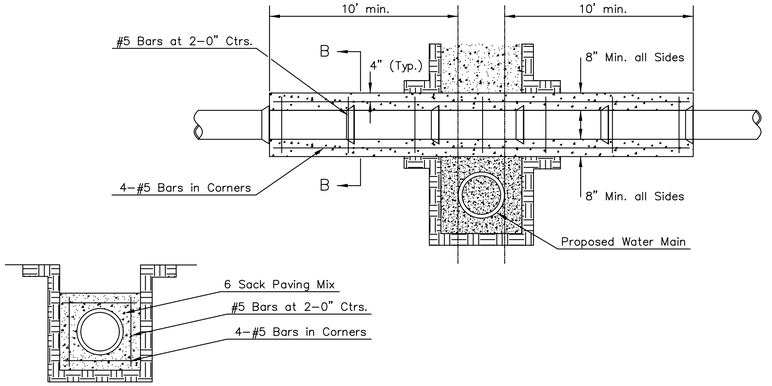


KEY BLOCK DETAIL

* PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS



TRENCH COMPACTION IN ROAD RIGHT–OF–WAY

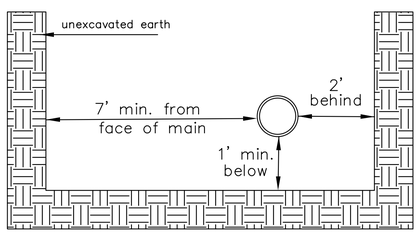


SECTION B–B

Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

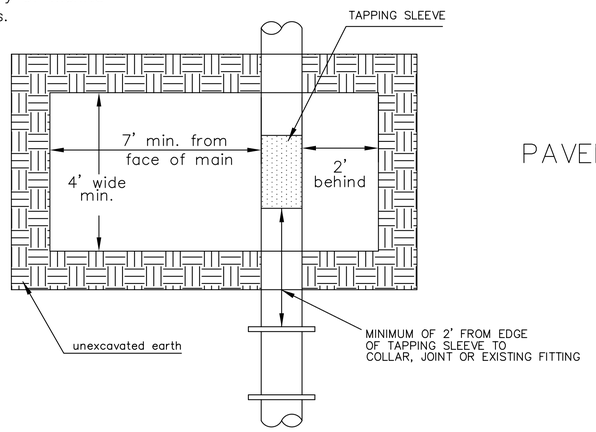
REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER

SIDE VIEW

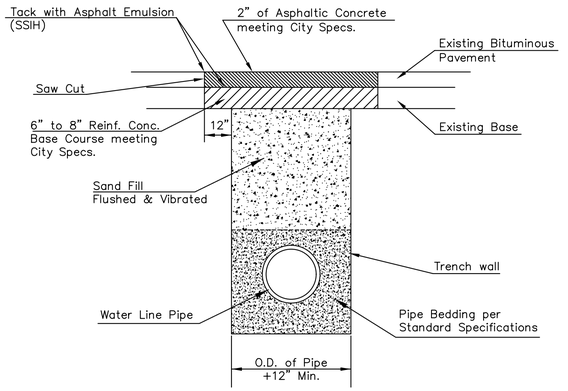


Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

TOP VIEW



EXCAVATION FOR WET TAP



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

REVISED: JULY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MISCELLANEOUS
WATER
DETAILS

CITY ENGINEER
PAUL GUNZELMAN, P.E..

PROJECT NUMBER	OCA NUMBER	DATE

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
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